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Date: JUN 26 2015
Refer To: ADESH-15-093
LAUR: 15-24400; 15-24404
Locates Action No.: U1500872

RECEIVED
JUN 26 2015
NMED
Hazardous Waste Bureau

John Kieling, Bureau Chief
Hazardous Waste Bureau
New Mexico Environment Department
2905 Rodeo Park Drive East, Building 1
Santa Fe, NM 87505-6303

Subject: Submittal of the Response to the Disapproval for the 2013 Excavation of the Los Alamos Canyon Low-Head Weir and Revision 1 of the Report

Dear Mr. Kieling:

Enclosed please find two hard copies with electronic files of the response to the disapproval for the 2013 Excavation of the Los Alamos Canyon Low-Head Weir and Revision 1 of the Report.

If you have any questions, please contact Steve Veenis at (505) 667-0013 (veenis@lanl.gov) or Cheryl Rodriguez at (505) 665-5330 (cheryl.rodriguez@em.doe.gov).

Sincerely,

Alison M. Dorries, Division Leader
Environmental Protection Division
Los Alamos National Laboratory

Sincerely,

Christine Gelles, Acting Manager
Environmental Management
Los Alamos Field Office

37146

AD/CG/SV/DK:sm

Enclosures: Two hard copies with electronic files:
(1) Response to the Notice of Disapproval for the 2013 Excavation of the Los Alamos Canyon Low-Head Weir (EP2015-0101)
(2) 2013 Excavation of the Los Alamos Canyon Low-Head Weir, Revision 1 (EP2015-0102)
(3) An electronic copy of the redline-strikeout version of the report that includes all changes and edits to the document

Cy: (w/enc.)
Cheryl Rodriguez, DOE-EM-LA, MS A316
Steve Veenis, ADEP ER Program, MS M997
Public Reading Room (EPRR)
ADESH Records

Cy: (Letter and CD and/or DVD)
Laurie King, EPA Region 6, Dallas, TX
Raymond Martinez, San Ildefonso Pueblo
Dino Chavarria, Santa Clara Pueblo
Steve Yanicak, NMED-DOE-OB, MS M894
Danny Katzman (w/ MS Word files on CD)
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Tony Grieggs, ADESH-ENV-CP
Alison Dorries, ADESH-ENV-DO
Michael Brandt, ADESH
Amy De Palma, PADOPS
Michael Lansing, PADOPS

Response to the Disapproval for the 2013 Excavation of the Los Alamos Canyon Low-Head Weir, Los Alamos National Laboratory, EPA ID No. NM0890010515, HWB-LANL-13-068, Dated March 3, 2015

INTRODUCTION

To facilitate review of this response, the New Mexico Environment Department's (NMED's) comments are included verbatim. Los Alamos National Laboratory's (LANL's or the Laboratory's) responses follow each NMED comment. This response contains data on radioactive materials, including source, special nuclear, and byproduct material. Information on radioactive materials and radionuclides, including the results of sampling and analysis of radioactive constituents, is voluntarily provided to NMED in accordance with U.S. Department of Energy policy.

COMMENTS

NMED Comment

1. *The Permittees did not provide sufficient information regarding the total number of samples collected, the locations within the excavation area where samples were collected, or the concentration ranges of detected constituents. It is also unclear if the maximum detections are from a single sample location or are uniform throughout the excavated area. Provide a map depicting the sampling locations and depths, as well as a table of all sampling locations and their respective analytical results. In addition, provide an electronic copy of the analytical laboratory report.*

LANL Response

1. A map showing sampling locations is included in the revised report. Text has also been added to the report to explain the sample-collection approach. Most of the maximum concentrations are from a single composite location. An explanation of the distribution of maximum detections for constituents is also provided in the revised report. Table 1 of the revised report presents the samples collected and the analyses requested for the Los Alamos weir excavation.

   An electronic copy of all of the analytical data and the analytical reports is included on a CD in the revised report.

NMED Comment

2. *In the Report, the Permittees state that hazard quotients (HQ) for barium, cyanide, lead and manganese all exceed the threshold value of 1. The information provided in the Report does not support the Permittees statement that there is no potential ecological risk from barium, cyanide, lead, or manganese when the list L-ESL HQ is greater than 1. Either remove the statements from the Report or provide an explanation to support the statements.*

LANL Response

2. The statement "Therefore, there are no potential ecological risks from…" has been removed from the revised report. However, concentrations of barium, cyanide, lead, and manganese are similar to background concentrations, as are the minimum ecological screening levels (ESLs) and the lowest-effect ecological screening levels (L-ESLs). In addition, both ESLs and L-ESLs are conservative in

nature and are designed to overestimate potential risk. Therefore, because the maximum hazard quotient (HQ) based on the L-ESL is near 1 for barium, cyanide, lead, and manganese, and the mean HQs based on the L-ESLs are equal to or less than 1, it is unlikely ecological risks exist from any of these constituents.

NMED Comment

3. *NMED is concerned with the final disposition of the excavated and stockpiled material since the soil stockpile was assumed to be temporary. The Permittees appear to have stockpiled the excavated material into an area both sloped and upstream of the sediment retention basin above the weir. Document in the Report the erosion controls that were implemented to prevent the sediment from being eroded and mobilized downstream and specify the type of flood event the erosion controls are designed to withstand. Describe practices that would be implemented in the event of a significant rainfall event. Provide information regarding whether or not the location of the stockpiled material is intended to be permanent. If the location is intended as a disposal site, provide the proposed plan to construct permanent storm water flow and erosion controls and prevent infiltration of rainwater and snowmelt into the soil stockpile.*

LANL Response

3. The report has been revised to include information to address NMED's comment. The Laboratory is currently inspecting the Los Alamos weir using EP-DIV-GUIDE-20211, R.0, Inspection Guidance for Environmental Programs Watershed, Retention, and No Exposure Controls, under the Watershed Controls section. An inspection is required biennially (in spring and fall) and following significant flow events (flow >50 cubic feet per second measured at the gage station nearest to the structure). The Laboratory will add the borrow pit to the weir inspection form because placement of the excavated sediment at this location is intended to be permanent. Existing controls to inspect will include the runoff control berm, vegetative cover over spoils, and run-on vegetative cover. In addition, the inspection will look for and note any rilling, erosion channels, and so forth that may impact the spoils within the borrow pit. The borrow pit should not be impacted by flooding events because it is located out of the flood plain. Preventive maintenance will be completed as needed.

   The Laboratory has been in communication with the NMED Hazardous Waste Bureau (HWB) since early 2008 with regards to the management and disposition of the Los Alamos Canyon low-head weir sediment. In January 2009, the Laboratory received approval from the NMED-HWB to excavate the accumulated sediment and spread it along the hillslope next to the low-head weir, as long as the sediment passes ecological screening levels (HWB-LANL-08-004). In February 2009, the Laboratory prepared and submitted an ecological risk screening report to the NMED-HWB for its review and approval before the excavation and permanent placement of the sediment (LANL 2009, 105294). In May 2009, NMED-HWB granted the Laboratory approval to excavate the sediment and spread it along the existing berm on the north side of the basin and upstream of the weir, provided the following conditions were met: (1) stabilize the sediments to ensure they do not return to the stream channel and (2) establish a vegetative cover on the sediments to reduce the potential for erosion and dust generation. On March 3, 2013, during a phone conversation between Laboratory personnel (Danny Katzman, ADEP-ER) and NMED staff (Dave Cobrain, NMED-HWB), David Cobrain agreed that NMED did not need to approve the excavation of the newly generated low-head weir sediment, and instead, an agreement was made to provide NMED with a post-excavation summary report that describes the field activities, volumes removed, a final grading configuration in the borrow pit, and information on the final condition left in the weir (e.g., layer of sediment on the floor of the basin, etc.). As a result of this communication, the sediment was excavated and placed in the nearby borrow pit,

the Laboratory submitted the report, 2013 Excavation of the Los Alamos Canyon Low-Head Weir Report (LANL 2013, 251741), to NMED in December 2013.

REFERENCES

LANL (Los Alamos National Laboratory), February 20, 2009. "Submittal of the Los Alamos Canyon Low-Head Weir Ecological Risk Screening," Los Alamos National Laboratory letter (EP2009-0107) to J.P. Bearzi (NMED-HWB) from M.J. Graham (LANL) and D.R. Gregory (DOE-LASO), Los Alamos, New Mexico. (LANL 2009, 105294)

LANL (Los Alamos National Laboratory), December 2013. "2013 Excavation of the Los Alamos Canyon Low-Head Weir," Los Alamos National Laboratory, Los Alamos, New Mexico. (LANL 2013, 251741)

LA-UR-15-24404
June 2015
EP2015-0102

2013 Excavation of the Los Alamos Canyon Low-Head Weir, Revision 1

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Prepared by the Environmental Programs Directorate

Los Alamos National Laboratory, operated by Los Alamos National Security, LLC, for the U.S. Department of Energy under Contract No. DE-AC52-06NA25396, has prepared this document pursuant to the Compliance Order on Consent, signed March 1, 2005. The Compliance Order on Consent contains requirements for the investigation and cleanup, including corrective action, of contamination at Los Alamos National Laboratory. The U.S. government has rights to use, reproduce, and distribute this document. The public may copy and use this document without charge, provided that this notice and any statement of authorship are reproduced on all copies.

EP2015-0102

2013 Excavation of the Los Alamos Canyon Low-Head Weir, Revision 1

June 2015

Responsible project manager:

Printed Name	Signature	Title	Organization	Date
Steve Veenis	Steve Veenis	Project Manager	Environmental Remediation Program	6·19·15

Responsible LANS representative:

Printed Name	Signature	Title	Organization	Date
Randall Erickson		Acting Associate Director	Environmental Programs	6/19/15

Responsible DOE representative:

Printed Name	Signature	Title	Organization	Date
Christine Gelles	for	Acting Manager	DOE-EM-LA	6/25/15

This revision to the 2013 excavation of the Los Alamos low-head weir report incorporates changes required by the New Mexico Environment Department's (NMED's) notice of disapproval, dated March 3, 2015 (NMED 2015, 600271). Excavation of the basins behind the Los Alamos Canyon low-head weir began on April 1, 2013, and was completed on May 6, 2013. The basins were excavated to maximize the sediment-retention capacity for the 2013 summer monsoon season. Much of the total available capacity had been lost as a result of sediment accumulation that followed the Las Conchas fire. An estimated 6000 yd^3 (including postexcavation expansion) of sediment was removed from the three basins, transported approximately 0.5 mi up Los Alamos Canyon, and stockpiled at a former borrow pit (Figures 1 and 2). The borrow pit provides an ideal location for the disposition of the excavated sediment because of its available capacity and its isolation from potential storm water runoff. A layer of sediment approximately 6 in. thick was retained in the bottom of each basin to mitigate against potential infiltration into underlying bedrock (Figures 3 through 5).

Excavated sediment was removed from the basins using a front-end loader and transported in tandem wheel dump trucks upcanyon approximately 0.5 mi to a former borrow-pit basin. The borrow pit is bounded on three sides by elevated slopes. The sediment was placed on a plastic liner, compacted and contoured to match existing grade on the north and east sides, and hydroseeded with wood-fiber mulch and Los Alamos National Laboratory– (LANL-) approved native plant seed mix. In addition, a 3-ft-high runoff containment berm was constructed at the base of the open slope, tying in with the existing slope walls. Figures 6 through 9 are photographs taken on June 18, 2015, that show the current grade, vegetation established in the area, and the containment berm located along the west side. Vegetation cover and diversity are exceptional, and a substantial amount of the original hydromulch remains on the soil surface. There is virtually no evidence of soil erosion at the site.

Before excavation, samples were collected to characterize the material planned for excavation (Figure 10). Samples were collected for polychlorinated biphenyls, pesticides, herbicides, dioxins/furans, general chemistry, inorganics, and radionuclides. Four depth-integrated subsamples were collected for analysis from each of six areas within the lower basin to represent the mixed condition of excavated sediment. This approach ensured that finer-grained deposits, with typically higher constituent concentrations and most prevalent in the lower basin, were included in the samples. Table 1 provides information on the samples collected to characterize the material in the basins. The data are provided on the CD included with this report (Appendix A).

A screening comparison was conducted to support decisions regarding disposition of the excavated sediment. The approach used for the analysis is consistent with the approach taken to evaluate the same type of sediment deposits behind the low-head weir structure in 2009 (LANL 2009, 105294).

The data were first compared with sediment background values (BVs) (LANL 1998, 059730) or detection limits (for organic chemicals), and those values that exceeded BVs and detected organic chemicals (chemicals of potential concern [COPCs]) were compared with the residential soil screening levels (SSLs)/screening action levels (SALs) (LANL 2012, 228852; NMED 2012, 219971) and minimum ecological screening levels (ESLs) (LANL 2012, 226667) (Table 2). The following is a summary of the assessment:

- 51 analytes were detected.
    - For the 13 detected dioxin and furan congeners, the 2,3,7,8-tetrachlorodibenzodioxin– (TCDD-) equivalent concentration for mammals was calculated from the toxic equivalency factors referenced in NMED guidance (2012, 219971).
- 22 detected analytes were identified as COPCs based on comparisons to background for inorganic compounds and radionuclides and detection status for organic compounds.

- Maximum COPC concentrations were not greater than residential SSLs/SALs, and therefore no potential unacceptable human health risks are present for the materials behind the low-head weir.
- Maximum concentrations of barium, copper, cyanide, lead, manganese, nickel, zinc, and TCDD were greater than the respective minimum ESLs.

COPCs with concentrations greater than the minimum ESLs were further evaluated to determine if they have the potential for causing ecological risk (chemicals of potential ecological concern [COPECs]). The approach taken in this assessment was to compare measured concentrations for a given COPEC with the lowest-effect level ESLs (L-ESLs).

Table 3 lists the maximum concentrations of barium, copper, cyanide, lead, manganese, nickel, zinc, and TCDD. For comparison, the sediment and soil BVs as well as the minimum ESLs and L-ESLs are provided. In addition, the maximum concentrations measured in 2009 from the weir are presented as well as the maximum concentrations measured in postfire ash (samples collected after the Cerro Grande fire) (LANL 2004, 087390) because of the high ash content in the weir sediment.

The hazard quotient (HQ) is calculated by dividing the maximum concentration of each COPEC measured in 2013 by the minimum ESL or L-ESL.

The HQs for the minimum ESLs are all greater than 1; the HQs for the minimum L-ESLs are less than 1 for copper, nickel, zinc, and TCDD; and the HQs for the minimum L-ESLs are slightly above 1 for barium, cyanide, lead, and manganese. The latter COPECs are discussed below. The maximum concentrations for barium, lead, and manganese came from sample CALA-13-28430 at location LA-27, and the maximum concentration for cyanide came from sample CALA-13-28425 at location LA-22 (Figure 10).

- **Barium**: All detected concentrations are above the sediment BV but below the soil BV. The minimum ESL is below the sediment and soil BVs, and the L-ESL is below the soil BV. The maximum HQ based on the L-ESL is 1.1, and the mean HQ is 0.9. Higher concentrations were measured in postfire ash after the Cerro Grande fire (LANL 2004, 087390), indicating the ash is a source of barium in the weir.
- **Cyanide**: Five of six detected concentrations are above the sediment BV, and all are above the soil BV. The minimum ESL is below the sediment and soil BVs, and the L-ESL is 0.18 mg/kg above the sediment BV. Elevated concentrations for cyanide are also probably related to ash from the Las Conchas fire. The maximum HQ based on the L-ESL is 1.4, and the mean HQ is 1.1.; both are equivalent to 1.
- **Lead**: All detected concentrations are above the sediment and soil BVs, but five of six concentrations are below the maximum soil background concentration. The minimum ESL is below the sediment and soil BVs, and the L-ESL is 8.3 mg/kg above the sediment BV and 5.7 mg/kg above the soil BV but the same as the maximum soil background concentration. The maximum HQ based on the L-ESL is 1.3, and the mean HQ is 1. Higher concentrations were measured in postfire ash after the Cerro Grande fire (LANL 2004, 087390), indicating the ash is a source of lead in the weir.
- **Manganese:** All detected concentrations are above the sediment and soil BVs, but three of six concentrations are below the maximum soil background concentration. The minimum ESL is below the sediment and soil BVs, and the L-ESL is above the sediment and soil BVs but the same as the maximum soil background concentration. The maximum HQ based on the L-ESL is 1.2, and the mean HQ is 1. Higher concentrations were measured in postfire ash after the Cerro Grande fire (LANL 2004, 087390), indicating the ash is a source of manganese in the weir.

REFERENCES

The following list includes all documents cited in this report. Parenthetical information following each reference provides the author(s), publication date, and ER ID or ESH ID. This information is also included in text citations. ER IDs were assigned by the Environmental Programs Directorate's Records Processing Facility (IDs through 599999), and ESH IDs are assigned by the Environment, Safety, and Health (ESH) Directorate (IDs 600000 and above). IDs are used to locate documents in the Laboratory's Electronic Document Management System and, where applicable, in the master reference set.

Copies of the master reference set are maintained at the NMED Hazardous Waste Bureau and the ESH Directorate. The set was developed to ensure that the administrative authority has all material needed to review this document, and it is updated with every document submitted to the administrative authority. Documents previously submitted to the administrative authority are not included

LANL (Los Alamos National Laboratory), September 22, 1998. "Inorganic and Radionuclide Background Data for Soils, Canyon Sediments, and Bandelier Tuff at Los Alamos National Laboratory," Los Alamos National Laboratory document LA-UR-98-4847, Los Alamos, New Mexico. (LANL 1998, 059730)

LANL (Los Alamos National Laboratory), April 2004. "Los Alamos and Pueblo Canyons Investigation Report," Los Alamos National Laboratory document LA-UR-04-2714, Los Alamos, New Mexico. (LANL 2004, 087390)

LANL (Los Alamos National Laboratory), February 20, 2009. "Submittal of the Los Alamos Canyon Low-Head Weir Ecological Risk Screening," Los Alamos National Laboratory letter (EP2009-0107) to J.P. Bearzi (NMED-HWB) from M.J. Graham (LANL) and D.R. Gregory (DOE-LASO), Los Alamos, New Mexico. (LANL 2009, 105294)

LANL (Los Alamos National Laboratory), October 2012. "Derivation and Use of Radionuclide Screening Action Levels, Revision 2," Los Alamos National Laboratory document LA-UR-12-23292, Los Alamos, New Mexico. (LANL 2012, 228852)

LANL (Los Alamos National Laboratory), October 2012. "ECORISK Database (Release 3.1)," on CD, LA-UR-12-24548, Los Alamos National Laboratory, Los Alamos, New Mexico. (LANL 2012, 226667)

NMED (New Mexico Environment Department), February 2012 (updated June 2012). "Risk Assessment Guidance for Site Investigations and Remediation," Hazardous Waste Bureau and Ground Water Quality Bureau Voluntary Remediation Program, Santa Fe, New Mexico. (NMED 2012, 219971)

NMED (New Mexico Environment Department), March 3, 2015. "Disapproval, 2013 Excavation of the Los Alamos Canyon Low-Head Weir," New Mexico Environment Department letter to P. Maggiore (DOE-NA-LA) and M. Brandt (LANL) from J.E. Kieling (NMED-HWB), Santa Fe, New Mexico. (NMED 2015, 600271)

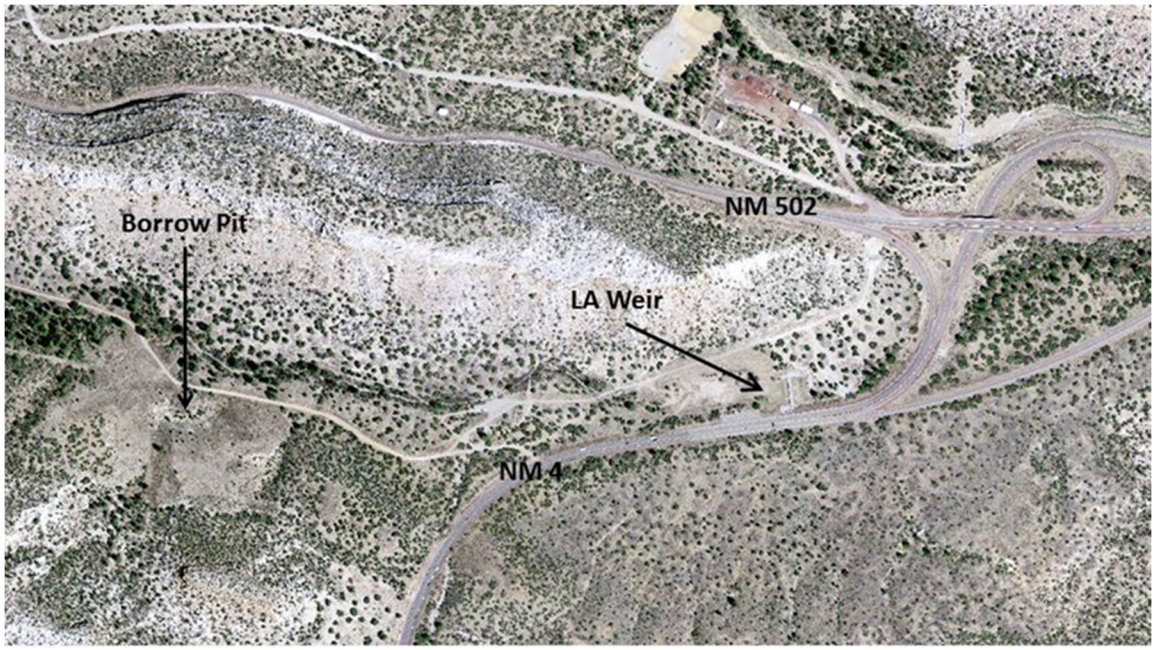

Figure 1 Orthophoto map showing locations of the Los Alamos Canyon weir and borrow pit near the intersection of NM 502 and NM 4

Figure 2 Excavated sediment being placed in former borrow pit in Los Alamos Canyon

Figure 3 Sediment removal activities in basin 3

Figure 4 Postexcavation view upcanyon from weir. Basin 3 is in the foreground.

Figure 5 Postexcavation view downcanyon into basin 3

Figure 6 Sediment placement in the borrow pit. Sediment was compacted and contoured to a gradual slope and then hydromulched. Berm is located in foreground of photo.

Figure 7 Looking NW at sediment placement within the former borrow pit. Stream channel is located in the ponderosas at the top of the photo.

Figure 8 Looking northeast at sediment placement within the former borrow pit. Run-off berm is located at base of slope, just right of vehicle.

Figure 9 Looking west at sediment placement within the former borrow pit

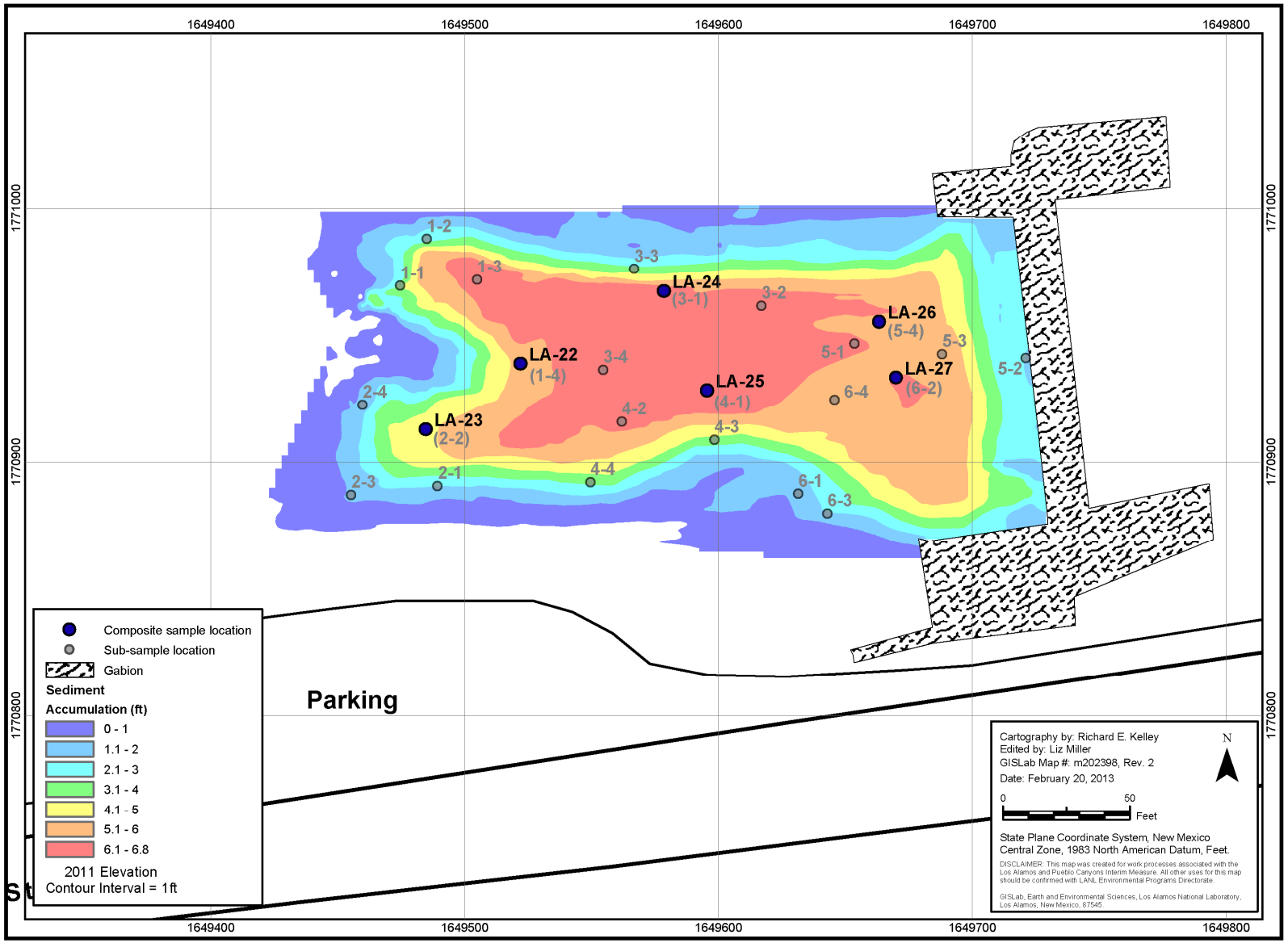

Figure 10 Sampling locations of material collected before excavation

Table 1
Samples Collected and Analyses Requested for the Los Alamos Weir Excavation

Sample ID	Location ID	Sample Depth (ft)	Media	Sample Date	Gamma Spec	Strontium-90	Tritium	Americium-241	Isotopic Plutonium	Metals	Pesticides/PCBs	Herbicides	Dioxan/Furans	Total Cyanide
CALA-13-28425	LA-22	0.0–5.6	SED	01/31/2013	2013-504	2013-504	2013-504	2013-504	2013-504	2013-504	2013-504	2013-504	2013-505	2013-504
CALA-13-28426	LA-23	0.0–4.85	SED	01/31/2013	2013-504	2013-504	2013-504	2013-504	2013-504	2013-504	2013-504	2013-504	2013-505	2013-504
CALA-13-28427	LA-24	0.0–6.5	SED	01/31/2013	2013-504	2013-504	2013-504	2013-504	2013-504	2013-504	2013-504	2013-504	2013-505	2013-504
CALA-13-28428	LA-25	0.0–6.7	SED	01/31/2013	2013-504	2013-504	2013-504	2013-504	2013-504	2013-504	2013-504	2013-504	2013-505	2013-504
CALA-13-28429	LA-26	0.0–6.25	SED	01/31/2013	2013-504	2013-504	2013-504	2013-504	2013-504	2013-504	2013-504	2013-504	2013-505	2013-504
CALA-13-28430	LA-27	0.0–6.1	SED	01/31/2013	2013-504	2013-504	2013-504	2013-504	2013-504	2013-504	2013-504	2013-504	2013-505	2013-504

Table 2
Comparison of Maximum Detected Concentrations in Depth-Integrated Samples to Sediment BVs, Residential SSLs/SALs, and Minimum ESLs

Analyte	Analyte Code	Units	Maximum Concentration	Canyon Sediment BVs[a]	Residential SSL[b] or SAL[c]	Minimum ESL[d]
Aluminum	Al	mg/kg	14,500	15,400	n/a[e]	n/a
Arsenic	As	mg/kg	2.8	3.98	n/a	n/a
Barium	Ba	mg/kg	275	127	15,600	110
Beryllium	Be	mg/kg	1.82	1.31	156	2.5
Cadmium	Cd	mg/kg	0.207	0.4	n/a	n/a
Chromium	Cr	mg/kg	9.81	10.5	n/a	n/a
Cobalt	Co	mg/kg	6.06	4.73	23[f]	13
Copper	Cu	mg/kg	17.3	11.2	3130	15
Cyanide (Total)	Cn(total)	mg/kg	1.35	0.82	46.9	0.1
Iron	Fe	mg/kg	14,700	13,800	54,800	n/a
Lead	Pb	mg/kg	35.2	19.7	400	14
Manganese	Mn	mg/kg	1270	543	1860	220
Mercury	Hg	mg/kg	0.0398	0.1	n/a	n/a
Nickel	Ni	mg/kg	12.3	9.38	1560	9.7
Silver	Ag	mg/kg	0.222	1	n/a	n/a
Thallium	Tl	mg/kg	0.438	0.73	n/a	n/a
Vanadium	V	mg/kg	19	19.7	n/a	n/a
Zinc	Zn	mg/kg	84.8	60.2	23,500	48
Americium-241	Am-241	pCi/g	0.0993	0.04	30	44
Cesium-137	Cs-137	pCi/g	1.48	0.9	5.6	680

Table 2 (continued)

Analyte	Analyte Code	Units	Maximum Concentration	Canyon Sediment BVs[a]	Residential SSL[b] or SAL[c]	Minimum ESL[d]
Plutonium-239/240	Pu-239/240	pCi/g	0.177	0.068	33	47
Dichlorodiphenyltrichloroethane [4,4'-]	50-29-3	mg/kg	0.000823	na[g]	17.2	0.044
Dichlorodiphenyldichloroethane [4,4'-]	72-55-9	mg/kg	0.00299	na	14.3	0.11
Methyl-4-chlorophenoxypropionic(2-) acid	93-65-2	mg/kg	1.32	na	61f	na
4-(2,4-Dichlorophenoxy)butyric acid	94-82-6	mg/kg	0.0234	na	490f	na
TCDD-equivalent concentration	1746-01-6	mg/kg	3.88E-07	na	4.50E-05	2.90E-07

[a] Sediment BVs from LANL (1998, 059730).

[b] Residential SSLs from NMED (2012, 219971), unless otherwise noted.

[c] Residential SALs from LANL (2012, 228852).

[d] Minimum ESLs from LANL (2012, 226667).

[e] n/a = Not applicable; maximum concentration less than the sediment BV.

[f] Residential SSLs from EPA regional screening table(http://www.epa.gov/region06/6pd/rcra_c/pd-n/screen.htm).

[g] na = Not available.

Table 3
Summary of COPECs with Maximum Detected Concentrations Greater than Minimum ESLs

COPECs	Maximum Concentration in 2013 (mg/kg)	Maximum Concentration in 2009[a] (mg/kg)	Canyon Sediment BV[b] (mg/kg)	Soil BV[b] (mg/kg)	Maximum Concentration in Ash (mg/kg)	Minimum ESL[c] (mg/kg)	HQ	Minimum L-ESL[c] (mg/kg)	HQ
Barium	275	57.6	127	295	1300	110	2.5	260	1.1
Copper	17.3	32.6	11.2	14.7	45	15	1.2	46	0.4
Cyanide (Total)	1.35	2.21	0.82	0.5	n/a	0.1	13.5	1	1.4
Lead	35.2	22	19.7	22.3	84	14	2.5	28	1.3
Manganese	1270	301	543	671	8200	220	5.8	1100	1.2
Nickel	12.3	3.24	9.38	15.4	15	9.7	1.3	19	0.6
Zinc	84.8	52.7	60.2	48.8	180	48	1.8	480	0.2
TCDD-equivalent concentration	3.88E-07	na[d]	n/a[e]	n/a	n/a	2.90E-07	1.3	1.90E-06	0.2

Note: Grey shading indicates an HQ >1.

[a] From LANL (2009, 105294).

[b] Sediment and soil BVs from LANL (1998, 059730).

[c] Minimum ESLs and L-ESLs from LANL (2012, 226667).

[d] na = Not available.

[e] n/a = Not applicable.

Appendix A

Analytical Suites and Results
(on CD included with this document)

FSR Record No.	Field Sample ID	Chain Of Custody No.	Excavated Flag	Sampling Method	Sample Usage Code	Field Prep Code	Sample Purpose	Location ID	Start Depth	End Depth	Depth Units	Sample Type	Media Code	Parameter Code	Parameter Name	Percent Moisture	Dilution Factor	Report Result	Report Units	Report Uncertainty	Report Detection Limit	Report MDA	Validation Qualifier	Best Value Flag	Method Category	Analytical Method	Lab ID	Analysis Date	Date Sampled
11119057	CALA-13-28425	2013-504	N	HA	INV	NA	REG	LA-22	0.0	5.6	ft	S	SED	1024-57-3	Heptachlor Epoxide	42.1	1	0.00114	mg/kg		0.00114		U	Y	PESTPCB	SW-846:8081A	GELC	02/20/2013	01/31/2013
11119064	CALA-13-28425	2013-504	N	HA	INV	NA	REG	LA-22	0.0	5.6	ft	S	SED	1031-07-8	Endosulfan Sulfate	42.1	1	0.00229	mg/kg		0.00229		U	Y	PESTPCB	SW-846:8081A	GELC	02/20/2013	01/31/2013
11119491	CALA-13-28425	2013-504	N	HA	INV	NA	REG	LA-22	0.0	5.6	ft	S	SED	11096-82-5	Aroclor-1260	42.1	1	0.00575	mg/kg		0.00575		U	Y	PESTPCB	SW-846:8082	GELC	02/08/2013	01/31/2013
11119490	CALA-13-28425	2013-504	N	HA	INV	NA	REG	LA-22	0.0	5.6	ft	S	SED	11097-69-1	Aroclor-1254	42.1	1	0.00575	mg/kg		0.00575		U	Y	PESTPCB	SW-846:8082	GELC	02/08/2013	01/31/2013
11119486	CALA-13-28425	2013-504	N	HA	INV	NA	REG	LA-22	0.0	5.6	ft	S	SED	11104-28-2	Aroclor-1221	42.1	1	0.00575	mg/kg		0.00575		U	Y	PESTPCB	SW-846:8082	GELC	02/08/2013	01/31/2013
11119487	CALA-13-28425	2013-504	N	HA	INV	NA	REG	LA-22	0.0	5.6	ft	S	SED	11141-16-5	Aroclor-1232	42.1	1	0.00575	mg/kg		0.00575		U	Y	PESTPCB	SW-846:8082	GELC	02/08/2013	01/31/2013
11119540	CALA-13-28425	2013-504	N	HA	INV	NA	REG	LA-22	0.0	5.6	ft	S	SED	120-36-5	Dichlorprop	42.1	1	0.00861	mg/kg		0.00861		U	Y	HERB	SW-846:8151A	GELC	02/16/2013	01/31/2013
11119489	CALA-13-28425	2013-504	N	HA	INV	NA	REG	LA-22	0.0	5.6	ft	S	SED	12672-29-6	Aroclor-1248	42.1	1	0.00575	mg/kg		0.00575		U	Y	PESTPCB	SW-846:8082	GELC	02/08/2013	01/31/2013
11119485	CALA-13-28425	2013-504	N	HA	INV	NA	REG	LA-22	0.0	5.6	ft	S	SED	12674-11-2	Aroclor-1016	42.1	1	0.00575	mg/kg		0.00575		U	Y	PESTPCB	SW-846:8082	GELC	02/08/2013	01/31/2013
11118374	CALA-13-28425	2013-505	N	HA	INV	NA	REG	LA-22	0.0	5.6	ft	S	SED	1746-01-6	Tetrachlorodibenzodioxin[2,3,7,8-]	40	1	0.000000206	mg/kg		0.0000017		U	Y	DIOXINS FURANS	SW-846:8290	CFA	02/08/2013	01/31/2013
11119542	CALA-13-28425	2013-504	N	HA	INV	NA	REG	LA-22	0.0	5.6	ft	S	SED	1918-00-9	Dicamba	42.1	1	0.00861	mg/kg		0.00861		U	Y	HERB	SW-846:8151A	GELC	02/16/2013	01/31/2013
11118378	CALA-13-28425	2013-505	N	HA	INV	NA	REG	LA-22	0.0	5.6	ft	S	SED	19408-74-3	Hexachlorodibenzodioxin[1,2,3,7,8,9-]	40	1	0.000000824	mg/kg		0.0000082		U	Y	DIOXINS FURANS	SW-846:8290	CFA	02/08/2013	01/31/2013
11118396	CALA-13-28425	2013-505	N	HA	INV	NA	REG	LA-22	0.0	5.6	ft	S	SED	30402-15-4	Pentachlorodibenzofurans (Totals)	40	1	0.00000124	mg/kg				J	Y	DIOXINS FURANS	SW-846:8290	CFA	02/08/2013	01/31/2013
11119056	CALA-13-28425	2013-504	N	HA	INV	NA	REG	LA-22	0.0	5.6	ft	S	SED	309-00-2	Aldrin	42.1	1	0.00114	mg/kg		0.00114		U	Y	PESTPCB	SW-846:8081A	GELC	02/20/2013	01/31/2013
11119051	CALA-13-28425	2013-504	N	HA	INV	NA	REG	LA-22	0.0	5.6	ft	S	SED	319-84-6	BHC[alpha-]	42.1	1	0.00114	mg/kg		0.00114		U	Y	PESTPCB	SW-846:8081A	GELC	02/20/2013	01/31/2013
11119052	CALA-13-28425	2013-504	N	HA	INV	NA	REG	LA-22	0.0	5.6	ft	S	SED	319-85-7	BHC[beta-]	42.1	1	0.00114	mg/kg		0.00114		U	Y	PESTPCB	SW-846:8081A	GELC	02/20/2013	01/31/2013
11119053	CALA-13-28425	2013-504	N	HA	INV	NA	REG	LA-22	0.0	5.6	ft	S	SED	319-86-8	BHC[delta-]	42.1	1	0.00114	mg/kg		0.00114		U	Y	PESTPCB	SW-846:8081A	GELC	02/20/2013	01/31/2013
11118380	CALA-13-28425	2013-505	N	HA	INV	NA	REG	LA-22	0.0	5.6	ft	S	SED	3268-87-9	Octachlorodibenzodioxin[1,2,3,4,6,7,8,9-]	40	1	0.00012	mg/kg		0.000017		NQ	Y	DIOXINS FURANS	SW-846:8290	CFA	02/08/2013	01/31/2013
11119062	CALA-13-28425	2013-504	N	HA	INV	NA	REG	LA-22	0.0	5.6	ft	S	SED	33213-65-9	Endosulfan II	42.1	1	0.00229	mg/kg		0.00229		U	Y	PESTPCB	SW-846:8081A	GELC	02/20/2013	01/31/2013
11118393	CALA-13-28425	2013-505	N	HA	INV	NA	REG	LA-22	0.0	5.6	ft	S	SED	34465-46-8	Hexachlorodibenzodioxins (Total)	40	1	0.00000156	mg/kg				J	Y	DIOXINS FURANS	SW-846:8290	CFA	02/08/2013	01/31/2013
11118379	CALA-13-28425	2013-505	N	HA	INV	NA	REG	LA-22	0.0	5.6	ft	S	SED	35822-46-9	Heptachlorodibenzodioxin[1,2,3,4,6,7,8-]	40	1	0.0000124	mg/kg		0.0000082		NQ	Y	DIOXINS FURANS	SW-846:8290	CFA	02/08/2013	01/31/2013
11118392	CALA-13-28425	2013-505	N	HA	INV	NA	REG	LA-22	0.0	5.6	ft	S	SED	36088-22-9	Pentachlorodibenzodioxins (Total)	40	1	0	mg/kg				U	Y	DIOXINS FURANS	SW-846:8290	CFA	02/08/2013	01/31/2013
11118394	CALA-13-28425	2013-505	N	HA	INV	NA	REG	LA-22	0.0	5.6	ft	S	SED	37871-00-4	Heptachlorodibenzodioxins (Total)	40	1	0.0000265	mg/kg				NQ	Y	DIOXINS FURANS	SW-846:8290	CFA	02/08/2013	01/31/2013
11118398	CALA-13-28425	2013-505	N	HA	INV	NA	REG	LA-22	0.0	5.6	ft	S	SED	38998-75-3	Heptachlorodibenzofurans (Total)	40	1	0.00000537	mg/kg				J	Y	DIOXINS FURANS	SW-846:8290	CFA	02/08/2013	01/31/2013
11118390	CALA-13-28425	2013-505	N	HA	INV	NA	REG	LA-22	0.0	5.6	ft	S	SED	39001-02-0	Octachlorodibenzofuran[1,2,3,4,6,7,8,9-]	40	1	0.00000658	mg/kg		0.000017		J	Y	DIOXINS FURANS	SW-846:8290	CFA	02/08/2013	01/31/2013
11118376	CALA-13-28425	2013-505	N	HA	INV	NA	REG	LA-22	0.0	5.6	ft	S	SED	39227-28-6	Hexachlorodibenzodioxin[1,2,3,4,7,8-]	40	1	0.000000824	mg/kg		0.0000082		U	Y	DIOXINS FURANS	SW-846:8290	CFA	02/08/2013	01/31/2013
11118375	CALA-13-28425	2013-505	N	HA	INV	NA	REG	LA-22	0.0	5.6	ft	S	SED	40321-76-4	Pentachlorodibenzodioxin[1,2,3,7,8-]	40	1	0.000000824	mg/kg		0.0000082		U	Y	DIOXINS FURANS	SW-846:8290	CFA	02/08/2013	01/31/2013
11118391	CALA-13-28425	2013-505	N	HA	INV	NA	REG	LA-22	0.0	5.6	ft	S	SED	41903-57-5	Tetrachlorodibenzodioxins (Total)	40	1	0.00000141	mg/kg				J	Y	DIOXINS FURANS	SW-846:8290	CFA	02/08/2013	01/31/2013
11119065	CALA-13-28425	2013-504	N	HA	INV	NA	REG	LA-22	0.0	5.6	ft	S	SED	50-29-3	DDT[4,4'-]	42.1	1	0.00229	mg/kg		0.00229		U	Y	PESTPCB	SW-846:8081A	GELC	02/20/2013	01/31/2013
11119071	CALA-13-28425	2013-504	N	HA	INV	NA	REG	LA-22	0.0	5.6	ft	S	SED	5103-71-9	Chlordane[alpha-]	42.1	1	0.00114	mg/kg		0.00114		U	Y	PESTPCB	SW-846:8081A	GELC	02/20/2013	01/31/2013
11119070	CALA-13-28425	2013-504	N	HA	INV	NA	REG	LA-22	0.0	5.6	ft	S	SED	5103-74-2	Chlordane[gamma-]	42.1	1	0.00114	mg/kg		0.00114		U	Y	PESTPCB	SW-846:8081A	GELC	02/20/2013	01/31/2013
11118381	CALA-13-28425	2013-505	N	HA	INV	NA	REG	LA-22	0.0	5.6	ft	S	SED	51207-31-9	Tetrachlorodibenzofuran[2,3,7,8-]	40	1	0.000000818	mg/kg		0.0000017		J	Y	DIOXINS FURANS	SW-846:8290	CFA	02/08/2013	01/31/2013
11119488	CALA-13-28425	2013-504	N	HA	INV	NA	REG	LA-22	0.0	5.6	ft	S	SED	53469-21-9	Aroclor-1242	42.1	1	0.00575	mg/kg		0.00575		U	Y	PESTPCB	SW-846:8082	GELC	02/08/2013	01/31/2013
11119067	CALA-13-28425	2013-504	N	HA	INV	NA	REG	LA-22	0.0	5.6	ft	S	SED	53494-70-5	Endrin Ketone	42.1	1	0.00229	mg/kg		0.00229		U	Y	PESTPCB	SW-846:8081A	GELC	02/20/2013	01/31/2013
11118389	CALA-13-28425	2013-505	N	HA	INV	NA	REG	LA-22	0.0	5.6	ft	S	SED	55673-89-7	Heptachlorodibenzofuran[1,2,3,4,7,8,9-]	40	1	0.000000824	mg/kg		0.0000082		U	Y	DIOXINS FURANS	SW-846:8290	CFA	02/08/2013	01/31/2013
11118397	CALA-13-28425	2013-505	N	HA	INV	NA	REG	LA-22	0.0	5.6	ft	S	SED	55684-94-1	Hexachlorodibenzofurans (Total)	40	1	0.00000306	mg/kg				J	Y	DIOXINS FURANS	SW-846:8290	CFA	02/08/2013	01/31/2013
11118395	CALA-13-28425	2013-505	N	HA	INV	NA	REG	LA-22	0.0	5.6	ft	S	SED	55722-27-5	Tetrachlorodibenzofurans (Totals)	40	1	0.00000163	mg/kg				J	Y	DIOXINS FURANS	SW-846:8290	CFA	02/08/2013	01/31/2013
11118383	CALA-13-28425	2013-505	N	HA	INV	NA	REG	LA-22	0.0	5.6	ft	S	SED	57117-31-4	Pentachlorodibenzofuran[2,3,4,7,8-]	40	1	0.000000824	mg/kg		0.0000082		U	Y	DIOXINS FURANS	SW-846:8290	CFA	02/08/2013	01/31/2013
11118382	CALA-13-28425	2013-505	N	HA	INV	NA	REG	LA-22	0.0	5.6	ft	S	SED	57117-41-6	Pentachlorodibenzofuran[1,2,3,7,8-]	40	1	0.000000824	mg/kg		0.0000082		U	Y	DIOXINS FURANS	SW-846:8290	CFA	02/08/2013	01/31/2013
11118385	CALA-13-28425	2013-505	N	HA	INV	NA	REG	LA-22	0.0	5.6	ft	S	SED	57117-44-9	Hexachlorodibenzofuran[1,2,3,6,7,8-]	40	1	0.000000824	mg/kg		0.0000082		U	Y	DIOXINS FURANS	SW-846:8290	CFA	02/08/2013	01/31/2013
11118377	CALA-13-28425	2013-505	N	HA	INV	NA	REG	LA-22	0.0	5.6	ft	S	SED	57653-85-7	Hexachlorodibenzodioxin[1,2,3,6,7,8-]	40	1	0.000000824	mg/kg		0.0000082		U	Y	DIOXINS FURANS	SW-846:8290	CFA	02/08/2013	01/31/2013
11119054	CALA-13-28425	2013-504	N	HA	INV	NA	REG	LA-22	0.0	5.6	ft	S	SED	58-89-9	BHC[gamma-]	42.1	1	0.00114	mg/kg		0.00114		U	Y	PESTPCB	SW-846:8081A	GELC	02/20/2013	01/31/2013
11119059	CALA-13-28425	2013-504	N	HA	INV	NA	REG	LA-22	0.0	5.6	ft	S	SED	60-57-1	Dieldrin	42.1	1	0.00229	mg/kg		0.00229		U	Y	PESTPCB	SW-846:8081A	GELC	02/20/2013	01/31/2013
11118386	CALA-13-28425	2013-505	N	HA	INV	NA	REG	LA-22	0.0	5.6	ft	S	SED	60851-34-5	Hexachlorodibenzofuran[2,3,4,6,7,8-]	40	1	0.000000824	mg/kg		0.0000082		U	Y	DIOXINS FURANS	SW-846:8290	CFA	02/08/2013	01/31/2013
11118388	CALA-13-28425	2013-505	N	HA	INV	NA	REG	LA-22	0.0	5.6	ft	S	SED	67562-39-4	Heptachlorodibenzofuran[1,2,3,4,6,7,8-]	40	1	0.00000313	mg/kg		0.0000082		J	Y	DIOXINS FURANS	SW-846:8290	CFA	02/08/2013	01/31/2013
11118384	CALA-13-28425	2013-505	N	HA	INV	NA	REG	LA-22	0.0	5.6	ft	S	SED	70648-26-9	Hexachlorodibenzofuran[1,2,3,4,7,8-]	40	1	0.000000824	mg/kg		0.0000082		U	Y	DIOXINS FURANS	SW-846:8290	CFA	02/08/2013	01/31/2013
11119061	CALA-13-28425	2013-504	N	HA	INV	NA	REG	LA-22	0.0	5.6	ft	S	SED	72-20-8	Endrin	42.1	1	0.00229	mg/kg		0.00229		U	Y	PESTPCB	SW-846:8081A	GELC	02/20/2013	01/31/2013
11119066	CALA-13-28425	2013-504	N	HA	INV	NA	REG	LA-22	0.0	5.6	ft	S	SED	72-43-5	Methoxychlor[4,4'-]	42.1	1	0.0114	mg/kg		0.0114		U	Y	PESTPCB	SW-846:8081A	GELC	02/20/2013	01/31/2013
11119063	CALA-13-28425	2013-504	N	HA	INV	NA	REG	LA-22	0.0	5.6	ft	S	SED	72-54-8	DDD[4,4'-]	42.1	1	0.00229	mg/kg		0.00229		U	Y	PESTPCB	SW-846:8081A	GELC	02/20/2013	01/31/2013
11119060	CALA-13-28425	2013-504	N	HA	INV	NA	REG	LA-22	0.0	5.6	ft	S	SED	72-55-9	DDE[4,4'-]	42.1	1	0.00244	mg/kg		0.00229		NQ	Y	PESTPCB	SW-846:8081A	GELC	02/20/2013	01/31/2013
11118387	CALA-13-28425	2013-505	N	HA	INV	NA	REG	LA-22	0.0	5.6	ft	S	SED	72918-21-9	Hexachlorodibenzofuran[1,2,3,7,8,9-]	40	1	0.000000824	mg/kg		0.0000082		U	Y	DIOXINS FURANS	SW-846:8290	CFA	02/08/2013	01/31/2013
11119068	CALA-13-28425	2013-504	N	HA	INV	NA	REG	LA-22	0.0	5.6	ft	S	SED	7421-93-4	Endrin Aldehyde	42.1	1	0.00229	mg/kg		0.00229		U	Y	PESTPCB	SW-846:8081A	GELC	02/20/2013	01/31/2013
11119534	CALA-13-28425	2013-504	N	HA	INV	NA	REG	LA-22	0.0	5.6	ft	S	SED	75-99-0	Dalapon	42.1	1	0.172	mg/kg		0.172		U	Y	HERB	SW-846:8151A	GELC	02/16/2013	01/31/2013
11119055	CALA-13-28425	2013-504	N	HA	INV	NA	REG	LA-22	0.0	5.6	ft	S	SED	76-44-8	Heptachlor	42.1	1	0.00114	mg/kg		0.00114		U	Y	PESTPCB	SW-846:8081A	GELC	02/20/2013	01/31/2013
11119069	CALA-13-28425	2013-504	N	HA	INV	NA	REG	LA-22	0.0	5.6	ft	S	SED	8001-35-2	Toxaphene (Technical Grade)	42.1	1	0.0286	mg/kg		0.0286		UJ	Y	PESTPCB	SW-846:8081A	GELC	02/20/2013	01/31/2013
11119538	CALA-13-28425	2013-504	N	HA	INV	NA	REG	LA-22	0.0	5.6	ft	S	SED	88-85-7	Dinoseb	42.1	1	0.00861	mg/kg		0.00861		U	Y	HERB	SW-846:8151A	GELC	02/16/2013	01/31/2013
11119539	CALA-13-28425	2013-504	N	HA	INV	NA	REG	LA-22	0.0	5.6	ft	S	SED	93-65-2	MCPP	42.1	1	1.72	mg/kg		1.72		U	Y	HERB	SW-846:8151A	GELC	02/16/2013	01/31/2013
11119541	CALA-13-28425	2013-504	N	HA	INV	NA	REG	LA-22	0.0	5.6	ft	S	SED	93-72-1	TP[2,4,5-]	42.1	1	0.00861	mg/kg		0.00861		U	Y	HERB	SW-846:8151A	GELC	02/16/2013	01/31/2013
11119537	CALA-13-28425	2013-504	N	HA	INV	NA	REG	LA-22	0.0	5.6	ft	S	SED	93-76-5	T[2,4,5-]	42.1	1	0.00861	mg/kg		0.00861		U	Y	HERB	SW-846:8151A	GELC	02/16/2013	01/31/2013
11119535	CALA-13-28425	2013-504	N	HA	INV	NA	REG	LA-22	0.0	5.6	ft	S	SED	94-74-6	MCPA	42.1	1	1.72	mg/kg		1.72		U	Y	HERB	SW-846:8151A	GELC	02/16/2013	01/31/2013
11119536	CALA-13-28425	2013-504	N	HA	INV	NA	REG	LA-22	0.0	5.6	ft	S	SED	94-75-7	D[2,4-]	42.1	1	0.00861	mg/kg		0.00861		U	Y	HERB	SW-846:8151A	GELC	02/16/2013	01/31/2013
11119543	CALA-13-28425	2013-504	N	HA	INV	NA	REG	LA-22	0.0	5.6	ft	S	SED	94-82-6	DB[2,4-]	42.1	1	0.00861	mg/kg		0.00861		U	Y	HERB	SW-846:8151A	GELC	02/16/2013	01/31/2013
11119058	CALA-13-28425	2013-504	N	HA	INV	NA	REG	LA-22	0.0	5.6	ft	S	SED	959-98-8	Endosulfan I	42.1	1	0.00114	mg/kg		0.00114		U	Y	PESTPCB	SW-846:8081A	GELC	02/20/2013	01/31/2013
11119172	CALA-13-28425	2013-504	N	HA	INV	NA	REG	LA-22	0.0	5.6	ft	S	SED	Ag	Silver	42.1	1	0.864	mg/kg		0.864		U	Y	INORGANIC	SW-846:6010B	GELC	02/07/2013	01/31/2013
11119154	CALA-13-28425	2013-504	N	HA	INV	NA	REG	LA-22	0.0	5.6	ft	S	SED	Al	Aluminum	42.1	1	9480	mg/kg		34.6		J+	Y	INORGANIC	SW-846:6010B	GELC	02/07/2013	01/31/2013
11119347	CALA-13-28425	2013-504	N	HA	INV	NA	REG	LA-22	0.0	5.6	ft	S	SED	Am-241	Americium-241	42.1	1	0.0993	pCi/g	0.0136		0.0459	J	Y	RAD	HASL-300:AM-241	GELC	02/13/2013	01/31/2013
11119156	CALA-13-28425	2013-504	N	HA	INV	NA	REG	LA-22	0.0	5.6	ft	S	SED	As	Arsenic	42.1	2	1.98	mg/kg		1.65		NQ	Y	INORGANIC	SW-846:6020	GELC	02/12/2013	01/31/2013
11119157	CALA-13-28425	2013-504	N	HA	INV	NA	REG	LA-22	0.0	5.6	ft	S	SED	Ba	Barium	42.1	1	209	mg/kg		0.864		J-	Y	INORGANIC	SW-846:6010B	GELC	02/07/2013	01/31/2013
11119158	CALA-13-28425	2013-504	N	HA	INV	NA	REG	LA-22	0.0	5.6	ft	S	SED	Be	Beryllium	42.1	2	1.32	mg/kg		0.165		NQ	Y	INORGANIC	SW-846:6020	GELC	02/12/2013	01/31/2013
11119160	CALA-13-28425	2013-504	N	HA	INV	NA	REG	LA-22	0.0	5.6	ft	S	SED	Ca	Calcium	42.1	1	7640	mg/kg		43.2		NQ	Y	INORGANIC	SW-846:6010B	GELC	02/07/2013	01/31/2013
11119159	CALA-13-28425	2013-504	N	HA	INV	NA	REG	LA-22	0.0	5.6	ft	S	SED	Cd	Cadmium	42.1	1	0.864	mg/kg		0.864		U	Y	INORGANIC	SW-846:6010B	GELC	02/07/2013	01/31/2013
11119338	CALA-13-28425	2013-504	N	HA	INV	NA	REG	LA-22	0.0	5.6	ft	S	SED	CN(TOTAL)	Cyanide (Total)	42.1	1	0.713	mg/kg		0.432		J	Y	GENERAL CHEMISTRY	SW-846:9012A	GELC	02/06/2013	01/31/2013
11119162	CALA-13-28425	2013-504	N	HA	INV	NA	REG	LA-22	0.0	5.6	ft	S	SED	Co	Cobalt	42.1	1	4.4	mg/kg		0.864		NQ	Y	INORGANIC	SW-846:6010B	GELC	02/07/2013	01/31/2013
11119352	CALA-13-28425	2013-504	N	HA	INV	NA	REG	LA-22	0.0	5.6	ft	S	SED	Co-60	Cobalt-60	42.1	1	-0.00794	pCi/g	0.0244		0.0869	U	Y	RAD	EPA:901.1	GELC	02/06/2013	01/31/2013
11119161	CALA-13-28425	2013-504	N	HA	INV	NA	REG	LA-22	0.0	5.6	ft	S	SED	Cr	Chromium	42.1	1	6.91	mg/kg		0.864		NQ	Y	INORGANIC	SW-846:6010B	GELC	02/07/2013	01/31/2013
11119350	CALA-13-28425	2013-504	N	HA	INV	NA	REG	LA-22	0.0	5.6	ft	S	SED	Cs-134	Cesium-134	42.1	1	0.105	pCi/g	0.0293		0.107	U	Y	RAD	EPA:901.1	GELC	02/06/2013	01/31/2013
11119351	CALA-13-28425	2013-504	N	HA	INV	NA	REG	LA-22	0.0	5.6	ft	S	SED	Cs-137	Cesium-137	42.1	1	1.15	pCi/g	0.0532		0.0885	NQ	Y	RAD	EPA:901.1	GELC	02/06/2013	01/31/2013
11119163	CALA-13-28425	2013-504	N	HA	INV	NA	REG	LA-22	0.0	5.6	ft	S	SED	Cu	Copper	42.1	1	13	mg/kg		1.73		NQ	Y	INORGANIC	SW-846:6010B	GELC	02/07/2013	01/31/2013
11119164	CALA-13-28425	2013-504	N	HA	INV	NA	REG	LA-22	0.0	5.6	ft	S	SED	Fe	Iron	42.1	1	10500	mg/kg		43.2		NQ	Y	INORGANIC	SW-846:6010B	GELC	02/07/2013	01/31/2013
11119363	CALA-13-28425	2013-504	N	HA	INV	NA	REG	LA-22	0.0	5.6	ft	S	SED	H-3	Tritium	42.1	1	-0.0389734	pCi/g	0.0380282		0.144696	U	Y	RAD	EPA:906.0	GELC	02/11/2013	01/31/2013
11119168	CALA-13-28425	2013-504	N	HA	INV	NA	REG	LA-22	0.0	5.6	ft	S	SED	Hg	Mercury	42.1	1	0.0324	mg/kg		0.0205		NQ	Y	INORGANIC	SW-846:7471A	GELC	02/07/2013	01/31/2013
11119170	CALA-13-28425	2013-504	N	HA	INV	NA	REG	LA-22	0.0	5.6	ft	S	SED	K	Potassium	42.1	1	1600	mg/kg		43.2		NQ	Y	INORGANIC	SW-846:6010B	GELC	02/07/2013	01/31/2013
11119166	CALA-13-28425	2013-504	N	HA	INV	NA	REG	LA-22	0.0	5.6	ft	S	SED	Mg	Magnesium	42.1	1	1710	mg/kg		51.8		NQ	Y	INORGANIC	SW-846:6010B	GELC	02/07/2013	01/31/2013
11119167	CALA-13-28425	2013-504	N	HA	INV	NA	REG	LA-22	0.0	5.6	ft	S	SED	Mn	Manganese	42.1	1	1030	mg/kg		1.73		NQ	Y	INORGANIC	SW-846:6010B	GELC	02/07/2013	01/31/2013
11119173	CALA-13-28425	2013-504	N	HA	INV	NA	REG	LA-22	0.0	5.6	ft	S	SED	Na	Sodium	42.1	1	144	mg/kg		43.2		NQ	Y	INORGANIC	SW-846:6010B	GELC	02/08/2013	01/31/2013
11119359	CALA-13-28425	2013-504	N	HA	INV	NA	REG	LA-22	0.0	5.6	ft	S	SED	Na-22	Sodium-22	42.1	1	-0.0178	pCi/g	0.0284		0.0941	U	Y	RAD	EPA:901.1	GELC	02/06/2013	01/31/2013
11119169	CALA-13-28425	2013-504	N	HA	INV	NA	REG	LA-22	0.0	5.6	ft	S	SED	Ni	Nickel	42.1	2	9.12	mg/kg		0.658		NQ	Y	INORGANIC	SW-846:6020	GELC	02/12/2013	01/31/2013
11119165	CALA-13-28425	2013-504	N	HA	INV	NA	REG	LA-22	0.0	5.6	ft	S	SED	Pb	Lead	42.1	1	24.4	mg/kg		1.73		NQ	Y	INORGANIC	SW-846:6010B	GELC	02/07/2013	01/31/2013
11119355	CALA-13-28425	2013-504	N	HA	INV	NA	REG	LA-22	0.0	5.6	ft	S	SED	Pu-238	Plutonium-238	42.1	1	0.0167	pCi/g	0.00628		0.0161	U	Y	RAD	HASL-300:ISOPU	GELC	02/07/2013	01/31/2013
11119356	CALA-13-28425	2013-504	N	HA	INV	NA	REG	LA-22	0.0	5.6	ft	S	SED	Pu-239/240	Plutonium-239/240	42.1	1	0.0913	pCi/g	0.0127		0.0145	J	Y	RAD	HASL-300:ISOPU	GELC	02/07/2013	01/31/2013
11119155	CALA-13-28425	2013-504	N	HA	INV	NA	REG	LA-22	0.0	5.6	ft	S	SED	Sb	Antimony	42.1	1	1.73	mg/kg		1.73		U	Y	INORGANIC	SW-846:6010B	GELC	02/07/2013	01/31/2013
11119171	CALA-13-28425	2013-504	N	HA	INV	NA	REG	LA-22	0.0	5.6	ft	S	SED	Se	Selenium	42.1	2	1.65	mg/kg		1.65		U	Y	INORGANIC	SW-846:6020	GELC	02/12/2013	01/31/2013
11119360	CALA-13-28425	2013-504	N	HA	INV	NA	REG	LA-22	0.0	5.6	ft	S	SED	Sr-90	Strontium-90	42.1	1	0.222	pCi/g	0.0982		0.303	U	Y	RAD	EPA:905.0	GELC	02/14/2013	01/31/2013
11119174	CALA-13-28425	2013-504	N	HA	INV	NA	REG	LA-22	0.0	5.6	ft	S	SED	Tl	Thallium	42.1	2	0.338	mg/kg		0.658		J	Y	INORGANIC	SW-846:6020	GELC	02/12/2013	01/31/2013
11119175	CALA-13-28425	2013-504	N	HA	INV	NA	REG	LA-22	0.0	5.6	ft	S	SED	V	Vanadium	42.1	1	14.8	mg/kg		0.864		NQ	Y	INORGANIC	SW-846:6010B	GELC	02/07/2013	01/31/2013
11119176	CALA-13-28425	2013-504	N	HA	INV	NA	REG	LA-22	0.0	5.6	ft	S	SED	Zn	Zinc	42.1	1	62.3	mg/kg		1.73		NQ	Y	INORGANIC	SW-846:6010B	GELC	02/07/2013	01/31/2013
11119078	CALA-13-28426	2013-504	N	HA	INV	NA	REG	LA-23	0	4.85	ft	S	SED	1024-57-3	Heptachlor Epoxide	43.5	1	0.00118	mg/kg		0.00118		U	Y	PESTPCB	SW-846:8081A	GELC	02/20/2013	01/31/2013
11119085	CALA-13-28426	2013-504	N	HA	INV	NA	REG	LA-23	0	4.85	ft	S	SED	1031-07-8	Endosulfan Sulfate	43.5	1	0.00235	mg/kg		0.00235		U	Y	PESTPCB	SW-846:8081A	GELC	02/20/2013	01/31/2013
11119498	CALA-13-28426	2013-504	N	HA	INV	NA	REG	LA-23	0	4.85	ft	S	SED	11096-82-5	Aroclor-1260	43.5	1	0.0059	mg/kg		0.0059		U	Y	PESTPCB	SW-846:8082	GELC	02/08/2013	01/31/2013
11119497	CALA-13-28426	2013-504	N	HA	INV	NA	REG	LA-23	0	4.85	ft	S	SED	11097-69-1	Aroclor-1254	43.5	1	0.0059	mg/kg		0.0059		U	Y	PESTPCB	SW-846:8082	GELC	02/08/2013	01/31/2013
11119493	CALA-13-28426	2013-504	N	HA	INV	NA	REG	LA-23	0	4.85	ft	S	SED	11104-28-2	Aroclor-1221	43.5	1	0.0059	mg/kg		0.0059		U	Y	PESTPCB	SW-846:8082	GELC	02/08/2013	01/31/2013
11119494	CALA-13-28426	2013-504	N	HA	INV	NA	REG	LA-23	0	4.85	ft	S	SED	11141-16-5	Aroclor-1232	43.5	1	0.0059	mg/kg		0.0059		U	Y	PESTPCB	SW-846:8082	GELC	02/08/2013	01/31/2013
11119550	CALA-13-28426	2013-504	N	HA	INV	NA	REG	LA-23	0	4.85	ft	S	SED	120-36-5	Dichlorprop	43.5	1	0.00883	mg/kg		0.00883		U	Y	HERB	SW-846:8151A	GELC	02/17/2013	01/31/2013
11119496	CALA-13-28426	2013-504	N	HA	INV	NA	REG	LA-23	0	4.85	ft	S	SED	12672-29-6	Aroclor-1248	43.5	1	0.0059	mg/kg		0.0059		U	Y	PESTPCB	SW-846:8082	GELC	02/08/2013	01/31/2013
11119492	CALA-13-28426	2013-504	N	HA	INV	NA	REG	LA-23	0	4.85	ft	S	SED	12674-11-2	Aroclor-1016	43.5	1	0.0059	mg/kg		0.0059		U	Y	PESTPCB	SW-846:8082	GELC	02/08/2013	01/31/2013
11118399	CALA-13-28426	2013-505	N	HA	INV	NA	REG	LA-23	0	4.85	ft	S	SED	1746-01-6	Tetrachlorodibenzodioxin[2,3,7,8-]	44	1	0.000000212	mg/kg		0.0000017		U	Y	DIOXINS FURANS	SW-846:8290	CFA	02/08/2013	01/31/2013
11119552	CALA-13-28426	2013-504	N	HA	INV	NA	REG	LA-23	0	4.85	ft	S	SED	1918-00-9	Dicamba	43.5	1	0.00883	mg/kg		0.00883		U	Y	HERB	SW-846:8151A	GELC	02/17/2013	01/31/2013
11118403	CALA-13-28426	2013-505	N	HA	INV	NA	REG	LA-23	0	4.85	ft	S	SED	19408-74-3	Hexachlorodibenzodioxin[1,2,3,7,8,9-]	44	1	0.000000858	mg/kg		0.0000086		U	Y	DIOXINS FURANS	SW-846:8290	CFA	02/08/2013	01/31/2013
11118421	CALA-13-28426	2013-505	N	HA	INV	NA	REG	LA-23	0	4.85	ft	S	SED	30402-15-4	Pentachlorodibenzofurans (Totals)	44	1	0	mg/kg				U	Y	DIOXINS FURANS	SW-846:8290	CFA	02/08/2013	01/31/2013
11119077	CALA-13-28426	2013-504	N	HA	INV	NA	REG	LA-23	0	4.85	ft	S	SED	309-00-2	Aldrin	43.5	1	0.00118	mg/kg		0.00118		U	Y	PESTPCB	SW-846:8081A	GELC	02/20/2013	01/31/2013
11119072	CALA-13-28426	2013-504	N	HA	INV	NA	REG	LA-23	0	4.85	ft	S	SED	319-84-6	BHC[alpha-]	43.5	1	0.00118	mg/kg		0.00118		U	Y	PESTPCB	SW-846:8081A	GELC	02/20/2013	01/31/2013
11119073	CALA-13-28426	2013-504	N	HA	INV	NA	REG	LA-23	0	4.85	ft	S	SED	319-85-7	BHC[beta-]	43.5	1	0.00118	mg/kg		0.00118		U	Y	PESTPCB	SW-846:8081A	GELC	02/20/2013	01/31/2013
11119074	CALA-13-28426	2013-504	N	HA	INV	NA	REG	LA-23	0	4.85	ft	S	SED	319-86-8	BHC[delta-]	43.5	1	0.00118	mg/kg		0.00118		U	Y	PESTPCB	SW-846:8081A	GELC	02/20/2013	01/31/2013
11118405	CALA-13-28426	2013-505	N	HA	INV	NA	REG	LA-23	0	4.85	ft	S	SED	3268-87-9	Octachlorodibenzodioxin[1,2,3,4,6,7,8,9-]	44	1	0.0000607	mg/kg		0.000017		NQ	Y	DIOXINS FURANS	SW-846:8290	CFA	02/08/2013	01/31/2013
11119083	CALA-13-28426	2013-504	N	HA	INV	NA	REG	LA-23	0	4.85	ft	S	SED	33213-65-9	Endosulfan II	43.5	1	0.00235	mg/kg		0.00235		U	Y	PESTPCB	SW-846:8081A	GELC	02/20/2013	01/31/2013
11118418	CALA-13-28426	2013-505	N	HA	INV	NA	REG	LA-23	0	4.85	ft	S	SED	34465-46-8	Hexachlorodibenzodioxins (Total)	44	1	0	mg/kg				U	Y	DIOXINS FURANS	SW-846:8290	CFA	02/08/2013	01/31/2013
11118404	CALA-13-28426	2013-505	N	HA	INV	NA	REG	LA-23	0	4.85	ft	S	SED	35822-46-9	Heptachlorodibenzodioxin[1,2,3,4,6,7,8-]	44	1	0.00000608	mg/kg		0.0000086		J	Y	DIOXINS FURANS	SW-846:8290	CFA	02/08/2013	01/31/2013
11118417	CALA-13-28426	2013-505	N	HA	INV	NA	REG	LA-23	0	4.85	ft	S	SED	36088-22-9	Pentachlorodibenzodioxins (Total)	44	1	0	mg/kg				U	Y	DIOXINS FURANS	SW-846:8290	CFA	02/08/2013	01/31/2013
11118419	CALA-13-28426	2013-505	N	HA	INV	NA	REG	LA-23	0	4.85	ft	S	SED	37871-00-4	Heptachlorodibenzodioxins (Total)	44	1	0.0000132	mg/kg				NQ	Y	DIOXINS FURANS	SW-846:8290	CFA	02/08/2013	01/31/2013
11118423	CALA-13-28426	2013-505	N	HA	INV	NA	REG	LA-23	0	4.85	ft	S	SED	38998-75-3	Heptachlorodibenzofurans (Total)	44	1	0.00000445	mg/kg				J	Y	DIOXINS FURANS	SW-846:8290	CFA	02/08/2013	01/31/2013
11118415	CALA-13-28426	2013-505	N	HA	INV	NA	REG	LA-23	0	4.85	ft	S	SED	39001-02-0	Octachlorodibenzofuran[1,2,3,4,6,7,8,9-]	44	1	0.00000367	mg/kg		0.000017		J	Y	DIOXINS FURANS	SW-846:8290	CFA	02/08/2013	01/31/2013
11118401	CALA-13-28426	2013-505	N	HA	INV	NA	REG	LA-23	0	4.85	ft	S	SED	39227-28-6	Hexachlorodibenzodioxin[1,2,3,4,7,8-]	44	1	0.000000858	mg/kg		0.0000086		U	Y	DIOXINS FURANS	SW-846:8290	CFA	02/08/2013	01/31/2013
11118400	CALA-13-28426	2013-505	N	HA	INV	NA	REG	LA-23	0	4.85	ft	S	SED	40321-76-4	Pentachlorodibenzodioxin[1,2,3,7,8-]	44	1	0.000000858	mg/kg		0.0000086		U	Y	DIOXINS FURANS	SW-846:8290	CFA	02/08/2013	01/31/2013
11118416	CALA-13-28426	2013-505	N	HA	INV	NA	REG	LA-23	0	4.85	ft	S	SED	41903-57-5	Tetrachlorodibenzodioxins (Total)	44	1	0.00000142	mg/kg				J	Y	DIOXINS FURANS	SW-846:8290	CFA	02/08/2013	01/31/2013
11119086	CALA-13-28426	2013-504	N	HA	INV	NA	REG	LA-23	0	4.85	ft	S	SED	50-29-3	DDT[4,4'-]	43.5	1	0.000823	mg/kg		0.00235		J	Y	PESTPCB	SW-846:8081A	GELC	02/20/2013	01/31/2013
11119092	CALA-13-28426	2013-504	N	HA	INV	NA	REG	LA-23	0	4.85	ft	S	SED	5103-71-9	Chlordane[alpha-]	43.5	1	0.00118	mg/kg		0.00118		U	Y	PESTPCB	SW-846:8081A	GELC	02/20/2013	01/31/2013
11119091	CALA-13-28426	2013-504	N	HA	INV	NA	REG	LA-23	0	4.85	ft	S	SED	5103-74-2	Chlordane[gamma-]	43.5	1	0.00118	mg/kg		0.00118		U	Y	PESTPCB	SW-846:8081A	GELC	02/20/2013	01/31/2013
11118406	CALA-13-28426	2013-505	N	HA	INV	NA	REG	LA-23	0	4.85	ft	S	SED	51207-31-9	Tetrachlorodibenzofuran[2,3,7,8-]	44	1	0.000000896	mg/kg		0.0000017		J	Y	DIOXINS FURANS	SW-846:8290	CFA	02/08/2013	01/31/2013
11119495	CALA-13-28426	2013-504	N	HA	INV	NA	REG	LA-23	0	4.85	ft	S	SED	53469-21-9	Aroclor-1242	43.5	1	0.0059	mg/kg		0.0059		U	Y	PESTPCB	SW-846:8082	GELC	02/08/2013	01/31/2013
11119088	CALA-13-28426	2013-504	N	HA	INV	NA	REG	LA-23	0	4.85	ft	S	SED	53494-70-5	Endrin Ketone	43.5	1	0.00235	mg/kg		0.00235		U	Y	PESTPCB	SW-846:8081A	GELC	02/20/2013	01/31/2013
11118414	CALA-13-28426	2013-505	N	HA	INV	NA	REG	LA-23	0	4.85	ft	S	SED	55673-89-7	Heptachlorodibenzofuran[1,2,3,4,7,8,9-]	44	1	0.000000858	mg/kg		0.0000086		U	Y	DIOXINS FURANS	SW-846:8290	CFA	02/08/2013	01/31/2013
11118422	CALA-13-28426	2013-505	N	HA	INV	NA	REG	LA-23	0	4.85	ft	S	SED	55684-94-1	Hexachlorodibenzofurans (Total)	44	1	0.00000203	mg/kg				J	Y	DIOXINS FURANS	SW-846:8290	CFA	02/08/2013	01/31/2013
11118420	CALA-13-28426	2013-505	N	HA	INV	NA	REG	LA-23	0	4.85	ft	S	SED	55722-27-5	Tetrachlorodibenzofurans (Totals)	44	1	0.00000209	mg/kg				NQ	Y	DIOXINS FURANS	SW-846:8290	CFA	02/08/2013	01/31/2013
11118408	CALA-13-28426	2013-505	N	HA	INV	NA	REG	LA-23	0	4.85	ft	S	SED	57117-31-4	Pentachlorodibenzofuran[2,3,4,7,8-]	44	1	0.000000858	mg/kg		0.0000086		U	Y	DIOXINS FURANS	SW-846:8290	CFA	02/08/2013	01/31/2013
11118407	CALA-13-28426	2013-505	N	HA	INV	NA	REG	LA-23	0	4.85	ft	S	SED	57117-41-6	Pentachlorodibenzofuran[1,2,3,7,8-]	44	1	0.000000858	mg/kg		0.0000086		U	Y	DIOXINS FURANS	SW-846:8290	CFA	02/08/2013	01/31/2013
11118410	CALA-13-28426	2013-505	N	HA	INV	NA	REG	LA-23	0	4.85	ft	S	SED	57117-44-9	Hexachlorodibenzofuran[1,2,3,6,7,8-]	44	1	0.000000858	mg/kg		0.0000086		U	Y	DIOXINS FURANS	SW-846:8290	CFA	02/08/2013	01/31/2013
11118402	CALA-13-28426	2013-505	N	HA	INV	NA	REG	LA-23	0	4.85	ft	S	SED	57653-85-7	Hexachlorodibenzodioxin[1,2,3,6,7,8-]	44	1	0.000000858	mg/kg		0.0000086		U	Y	DIOXINS FURANS	SW-846:8290	CFA	02/08/2013	01/31/2013
11119075	CALA-13-28426	2013-504	N	HA	INV	NA	REG	LA-23	0	4.85	ft	S	SED	58-89-9	BHC[gamma-]	43.5	1	0.00118	mg/kg		0.00118		U	Y	PESTPCB	SW-846:8081A	GELC	02/20/2013	01/31/2013
11119080	CALA-13-28426	2013-504	N	HA	INV	NA	REG	LA-23	0	4.85	ft	S	SED	60-57-1	Dieldrin	43.5	1	0.00235	mg/kg		0.00235		U	Y	PESTPCB	SW-846:8081A	GELC	02/20/2013	01/31/2013
11118411	CALA-13-28426	2013-505	N	HA	INV	NA	REG	LA-23	0	4.85	ft	S	SED	60851-34-5	Hexachlorodibenzofuran[2,3,4,6,7,8-]	44	1	0.000000858	mg/kg		0.0000086		U	Y	DIOXINS FURANS	SW-846:8290	CFA	02/08/2013	01/31/2013
11118413	CALA-13-28426	2013-505	N	HA	INV	NA	REG	LA-23	0	4.85	ft	S	SED	67562-39-4	Heptachlorodibenzofuran[1,2,3,4,6,7,8-]	44	1	0.00000192	mg/kg		0.0000086		J	Y	DIOXINS FURANS	SW-846:8290	CFA	02/08/2013	01/31/2013
11118409	CALA-13-28426	2013-505	N	HA	INV	NA	REG	LA-23	0	4.85	ft	S	SED	70648-26-9	Hexachlorodibenzofuran[1,2,3,4,7,8-]	44	1	0.000000858	mg/kg		0.0000086		U	Y	DIOXINS FURANS	SW-846:8290	CFA	02/08/2013	01/31/2013
11119082	CALA-13-28426	2013-504	N	HA	INV	NA	REG	LA-23	0	4.85	ft	S	SED	72-20-8	Endrin	43.5	1	0.00235	mg/kg		0.00235		U	Y	PESTPCB	SW-846:8081A	GELC	02/20/2013	01/31/2013
11119087	CALA-13-28426	2013-504	N	HA	INV	NA	REG	LA-23	0	4.85	ft	S	SED	72-43-5	Methoxychlor[4,4'-]	43.5	1	0.0118	mg/kg		0.0118		U	Y	PESTPCB	SW-846:8081A	GELC	02/20/2013	01/31/2013
11119084	CALA-13-28426	2013-504	N	HA	INV	NA	REG	LA-23	0	4.85	ft	S	SED	72-54-8	DDD[4,4'-]	43.5	1	0.00235	mg/kg		0.00235		U	Y	PESTPCB	SW-846:8081A	GELC	02/20/2013	01/31/2013
11119081	CALA-13-28426	2013-504	N	HA	INV	NA	REG	LA-23	0	4.85	ft	S	SED	72-55-9	DDE[4,4'-]	43.5	1	0.00138	mg/kg		0.00235		J	Y	PESTPCB	SW-846:8081A	GELC	02/20/2013	01/31/2013
11118412	CALA-13-28426	2013-505	N	HA	INV	NA	REG	LA-23	0	4.85	ft	S	SED	72918-21-9	Hexachlorodibenzofuran[1,2,3,7,8,9-]	44	1	0.000000858	mg/kg		0.0000086		U	Y	DIOXINS FURANS	SW-846:8290	CFA	02/08/2013	01/31/2013
11119089	CALA-13-28426	2013-504	N	HA	INV	NA	REG	LA-23	0	4.85	ft	S	SED	7421-93-4	Endrin Aldehyde	43.5	1	0.00235	mg/kg		0.00235		U	Y	PESTPCB	SW-846:8081A	GELC	02/20/2013	01/31/2013
11119544	CALA-13-28426	2013-504	N	HA	INV	NA	REG	LA-23	0	4.85	ft	S	SED	75-99-0	Dalapon	43.5	1	0.177	mg/kg		0.177		U	Y	HERB	SW-846:8151A	GELC	02/17/2013	01/31/2013
11119076	CALA-13-28426	2013-504	N	HA	INV	NA	REG	LA-23	0	4.85	ft	S	SED	76-44-8	Heptachlor	43.5	1	0.00118	mg/kg		0.00118		U	Y	PESTPCB	SW-846:8081A	GELC	02/20/2013	01/31/2013
11119090	CALA-13-28426	2013-504	N	HA	INV	NA	REG	LA-23	0	4.85	ft	S	SED	8001-35-2	Toxaphene (Technical Grade)	43.5	1	0.0294	mg/kg		0.0294		UJ	Y	PESTPCB	SW-846:8081A	GELC	02/20/2013	01/31/2013
11119548	CALA-13-28426	2013-504	N	HA	INV	NA	REG	LA-23	0	4.85	ft	S	SED	88-85-7	Dinoseb	43.5	1	0.00883	mg/kg		0.00883		U	Y	HERB	SW-846:8151A	GELC	02/17/2013	01/31/2013
11119549	CALA-13-28426	2013-504	N	HA	INV	NA	REG	LA-23	0	4.85	ft	S	SED	93-65-2	MCPP	43.5	1	1.77	mg/kg		1.77		U	Y	HERB	SW-846:8151A	GELC	02/17/2013	01/31/2013
11119551	CALA-13-28426	2013-504	N	HA	INV	NA	REG	LA-23	0	4.85	ft	S	SED	93-72-1	TP[2,4,5-]	43.5	1	0.00883	mg/kg		0.00883		U	Y	HERB	SW-846:8151A	GELC	02/17/2013	01/31/2013
11119547	CALA-13-28426	2013-504	N	HA	INV	NA	REG	LA-23	0	4.85	ft	S	SED	93-76-5	T[2,4,5-]	43.5	1	0.00883	mg/kg		0.00883		U	Y	HERB	SW-846:8151A	GELC	02/17/2013	01/31/2013
11119545	CALA-13-28426	2013-504	N	HA	INV	NA	REG	LA-23	0	4.85	ft	S	SED	94-74-6	MCPA	43.5	1	1.77	mg/kg		1.77		U	Y	HERB	SW-846:8151A	GELC	02/17/2013	01/31/2013
11119546	CALA-13-28426	2013-504	N	HA	INV	NA	REG	LA-23	0	4.85	ft	S	SED	94-75-7	D[2,4-]	43.5	1	0.00883	mg/kg		0.00883		U	Y	HERB	SW-846:8151A	GELC	02/17/2013	01/31/2013
11119553	CALA-13-28426	2013-504	N	HA	INV	NA	REG	LA-23	0	4.85	ft	S	SED	94-82-6	DB[2,4-]	43.5	1	0.00883	mg/kg		0.00883		U	Y	HERB	SW-846:8151A	GELC	02/17/2013	01/31/2013
11119079	CALA-13-28426	2013-504	N	HA	INV	NA	REG	LA-23	0	4.85	ft	S	SED	959-98-8	Endosulfan I	43.5	1	0.00118	mg/kg		0.00118		U	Y	PESTPCB	SW-846:8081A	GELC	02/20/2013	01/31/2013
11119195	CALA-13-28426	2013-504	N	HA	INV	NA	REG	LA-23	0	4.85	ft	S	SED	Ag	Silver	43.5	1	0.184	mg/kg		0.853		J	Y	INORGANIC	SW-846:6010B	GELC	02/07/2013	01/31/2013
11119177	CALA-13-28426	2013-504	N	HA	INV	NA	REG	LA-23	0	4.85	ft	S	SED	Al	Aluminum	43.5	1	10300	mg/kg		34.1		NQ	Y	INORGANIC	SW-846:6010B	GELC	02/07/2013	01/31/2013
11119366	CALA-13-28426	2013-504	N	HA	INV	NA	REG	LA-23	0	4.85	ft	S	SED	Am-241	Americium-241	43.5	1	0.045	pCi/g	0.00979		0.044	NQ	Y	RAD	HASL-300:AM-241	GELC	02/13/2013	01/31/2013
11119179	CALA-13-28426	2013-504	N	HA	INV	NA	REG	LA-23	0	4.85	ft	S	SED	As	Arsenic	43.5	2	2.14	mg/kg		1.68		NQ	Y	INORGANIC	SW-846:6020	GELC	02/12/2013	01/31/2013
11119180	CALA-13-28426	2013-504	N	HA	INV	NA	REG	LA-23	0	4.85	ft	S	SED	Ba	Barium	43.5	1	196	mg/kg		0.853		NQ	Y	INORGANIC	SW-846:6010B	GELC	02/07/2013	01/31/2013
11119181	CALA-13-28426	2013-504	N	HA	INV	NA	REG	LA-23	0	4.85	ft	S	SED	Be	Beryllium	43.5	2	1.43	mg/kg		0.168		NQ	Y	INORGANIC	SW-846:6020	GELC	02/12/2013	01/31/2013
11119183	CALA-13-28426	2013-504	N	HA	INV	NA	REG	LA-23	0	4.85	ft	S	SED	Ca	Calcium	43.5	1	6290	mg/kg		42.6		NQ	Y	INORGANIC	SW-846:6010B	GELC	02/07/2013	01/31/2013
11119182	CALA-13-28426	2013-504	N	HA	INV	NA	REG	LA-23	0	4.85	ft	S	SED	Cd	Cadmium	43.5	1	0.853	mg/kg		0.853		U	Y	INORGANIC	SW-846:6010B	GELC	02/07/2013	01/31/2013
11119339	CALA-13-28426	2013-504	N	HA	INV	NA	REG	LA-23	0	4.85	ft	S	SED	CN(TOTAL)	Cyanide (Total)	43.5	1	1.05	mg/kg		0.471		NQ	Y	GENERAL CHEMISTRY	SW-846:9012A	GELC	02/06/2013	01/31/2013
11119185	CALA-13-28426	2013-504	N	HA	INV	NA	REG	LA-23	0	4.85	ft	S	SED	Co	Cobalt	43.5	1	4.29	mg/kg		0.853		NQ	Y	INORGANIC	SW-846:6010B	GELC	02/07/2013	01/31/2013
11119372	CALA-13-28426	2013-504	N	HA	INV	NA	REG	LA-23	0	4.85	ft	S	SED	Co-60	Cobalt-60	43.5	1	0.0117	pCi/g	0.0243		0.0942	U	Y	RAD	EPA:901.1	GELC	02/06/2013	01/31/2013
11119184	CALA-13-28426	2013-504	N	HA	INV	NA	REG	LA-23	0	4.85	ft	S	SED	Cr	Chromium	43.5	1	6.89	mg/kg		0.853		NQ	Y	INORGANIC	SW-846:6010B	GELC	02/07/2013	01/31/2013
11119371	CALA-13-28426	2013-504	N	HA	INV	NA	REG	LA-23	0	4.85	ft	S	SED	Cs-137	Cesium-137	43.5	1	1.33	pCi/g	0.0687		0.093	NQ	Y	RAD	EPA:901.1	GELC	02/06/2013	01/31/2013
11119186	CALA-13-28426	2013-504	N	HA	INV	NA	REG	LA-23	0	4.85	ft	S	SED	Cu	Copper	43.5	1	12.1	mg/kg		1.71		NQ	Y	INORGANIC	SW-846:6010B	GELC	02/07/2013	01/31/2013
11119187	CALA-13-28426	2013-504	N	HA	INV	NA	REG	LA-23	0	4.85	ft	S	SED	Fe	Iron	43.5	1	10800	mg/kg		42.6		NQ	Y	INORGANIC	SW-846:6010B	GELC	02/07/2013	01/31/2013
11119383	CALA-13-28426	2013-504	N	HA	INV	NA	REG	LA-23	0	4.85	ft	S	SED	H-3	Tritium	43.5	1	-0.0749124	pCi/g	0.0393425		0.156292	U	Y	RAD	EPA:906.0	GELC	02/11/2013	01/31/2013
11119191	CALA-13-28426	2013-504	N	HA	INV	NA	REG	LA-23	0	4.85	ft	S	SED	Hg	Mercury	43.5	1	0.0398	mg/kg		0.0211		NQ	Y	INORGANIC	SW-846:7471A	GELC	02/07/2013	01/31/2013
11119193	CALA-13-28426	2013-504	N	HA	INV	NA	REG	LA-23	0	4.85	ft	S	SED	K	Potassium	43.5	1	1600	mg/kg		42.6		NQ	Y	INORGANIC	SW-846:6010B	GELC	02/07/2013	01/31/2013
11119189	CALA-13-28426	2013-504	N	HA	INV	NA	REG	LA-23	0	4.85	ft	S	SED	Mg	Magnesium	43.5	1	1640	mg/kg		51.2		NQ	Y	INORGANIC	SW-846:6010B	GELC	02/07/2013	01/31/2013
11119190	CALA-13-28426	2013-504	N	HA	INV	NA	REG	LA-23	0	4.85	ft	S	SED	Mn	Manganese	43.5	1	996	mg/kg		1.71		NQ	Y	INORGANIC	SW-846:6010B	GELC	02/07/2013	01/31/2013
11119196	CALA-13-28426	2013-504	N	HA	INV	NA	REG	LA-23	0	4.85	ft	S	SED	Na	Sodium	43.5	1	148	mg/kg		42.6		NQ	Y	INORGANIC	SW-846:6010B	GELC	02/08/2013	01/31/2013
11119379	CALA-13-28426	2013-504	N	HA	INV	NA	REG	LA-23	0	4.85	ft	S	SED	Na-22	Sodium-22	43.5	1	0.0615	pCi/g	0.022		0.1	U	Y	RAD	EPA:901.1	GELC	02/06/2013	01/31/2013
11119192	CALA-13-28426	2013-504	N	HA	INV	NA	REG	LA-23	0	4.85	ft	S	SED	Ni	Nickel	43.5	2	9.42	mg/kg		0.671		NQ	Y	INORGANIC	SW-846:6020	GELC	02/12/2013	01/31/2013
11119188	CALA-13-28426	2013-504	N	HA	INV	NA	REG	LA-23	0	4.85	ft	S	SED	Pb	Lead	43.5	1	26	mg/kg		1.71		NQ	Y	INORGANIC	SW-846:6010B	GELC	02/07/2013	01/31/2013
11119375	CALA-13-28426	2013-504	N	HA	INV	NA	REG	LA-23	0	4.85	ft	S	SED	Pu-238	Plutonium-238	43.5	1	0.00844	pCi/g	0.00654		0.0178	U	Y	RAD	HASL-300:ISOPU	GELC	02/07/2013	01/31/2013
11119376	CALA-13-28426	2013-504	N	HA	INV	NA	REG	LA-23	0	4.85	ft	S	SED	Pu-239/240	Plutonium-239/240	43.5	1	0.0557	pCi/g	0.0136		0.0161	NQ	Y	RAD	HASL-300:ISOPU	GELC	02/07/2013	01/31/2013
11119178	CALA-13-28426	2013-504	N	HA	INV	NA	REG	LA-23	0	4.85	ft	S	SED	Sb	Antimony	43.5	1	1.71	mg/kg		1.71		U	Y	INORGANIC	SW-846:6010B	GELC	02/07/2013	01/31/2013
11119194	CALA-13-28426	2013-504	N	HA	INV	NA	REG	LA-23	0	4.85	ft	S	SED	Se	Selenium	43.5	2	1.68	mg/kg		1.68		U	Y	INORGANIC	SW-846:6020	GELC	02/12/2013	01/31/2013
11119380	CALA-13-28426	2013-504	N	HA	INV	NA	REG	LA-23	0	4.85	ft	S	SED	Sr-90	Strontium-90	43.5	1	0.29	pCi/g	0.106		0.313	U	Y	RAD	EPA:905.0	GELC	02/14/2013	01/31/2013
11119197	CALA-13-28426	2013-504	N	HA	INV	NA	REG	LA-23	0	4.85	ft	S	SED	Tl	Thallium	43.5	2	0.346	mg/kg		0.671		J	Y	INORGANIC	SW-846:6020	GELC	02/12/2013	01/31/2013
11119198	CALA-13-28426	2013-504	N	HA	INV	NA	REG	LA-23	0	4.85	ft	S	SED	V	Vanadium	43.5	1	14.6	mg/kg		0.853		NQ	Y	INORGANIC	SW-846:6010B	GELC	02/07/2013	01/31/2013
11119199	CALA-13-28426	2013-504	N	HA	INV	NA	REG	LA-23	0	4.85	ft	S	SED	Zn	Zinc	43.5	1	62	mg/kg		1.71		NQ	Y	INORGANIC	SW-846:6010B	GELC	02/07/2013	01/31/2013
11119099	CALA-13-28427	2013-504	N	HA	INV	NA	REG	LA-24	0	6.5	ft	S	SED	1024-57-3	Heptachlor Epoxide	40.3	1	0.00111	mg/kg		0.00111		U	Y	PESTPCB	SW-846:8081A	GELC	02/20/2013	01/31/2013
11119106	CALA-13-28427	2013-504	N	HA	INV	NA	REG	LA-24	0	6.5	ft	S	SED	1031-07-8	Endosulfan Sulfate	40.3	1	0.00222	mg/kg		0.00222		U	Y	PESTPCB	SW-846:8081A	GELC	02/20/2013	01/31/2013
11119505	CALA-13-28427	2013-504	N	HA	INV	NA	REG	LA-24	0	6.5	ft	S	SED	11096-82-5	Aroclor-1260	40.3	1	0.00557	mg/kg		0.00557		U	Y	PESTPCB	SW-846:8082	GELC	02/08/2013	01/31/2013
11119504	CALA-13-28427	2013-504	N	HA	INV	NA	REG	LA-24	0	6.5	ft	S	SED	11097-69-1	Aroclor-1254	40.3	1	0.00557	mg/kg		0.00557		U	Y	PESTPCB	SW-846:8082	GELC	02/08/2013	01/31/2013
11119500	CALA-13-28427	2013-504	N	HA	INV	NA	REG	LA-24	0	6.5	ft	S	SED	11104-28-2	Aroclor-1221	40.3	1	0.00557	mg/kg		0.00557		U	Y	PESTPCB	SW-846:8082	GELC	02/08/2013	01/31/2013
11119501	CALA-13-28427	2013-504	N	HA	INV	NA	REG	LA-24	0	6.5	ft	S	SED	11141-16-5	Aroclor-1232	40.3	1	0.00557	mg/kg		0.00557		U	Y	PESTPCB	SW-846:8082	GELC	02/08/2013	01/31/2013
11119560	CALA-13-28427	2013-504	N	HA	INV	NA	REG	LA-24	0	6.5	ft	S	SED	120-36-5	Dichlorprop	40.3	1	0.00836	mg/kg		0.00836		U	Y	HERB	SW-846:8151A	GELC	02/17/2013	01/31/2013
11119503	CALA-13-28427	2013-504	N	HA	INV	NA	REG	LA-24	0	6.5	ft	S	SED	12672-29-6	Aroclor-1248	40.3	1	0.00557	mg/kg		0.00557		U	Y	PESTPCB	SW-846:8082	GELC	02/08/2013	01/31/2013
11119499	CALA-13-28427	2013-504	N	HA	INV	NA	REG	LA-24	0	6.5	ft	S	SED	12674-11-2	Aroclor-1016	40.3	1	0.00557	mg/kg		0.00557		U	Y	PESTPCB	SW-846:8082	GELC	02/08/2013	01/31/2013
11118424	CALA-13-28427	2013-505	N	HA	INV	NA	REG	LA-24	0	6.5	ft	S	SED	1746-01-6	Tetrachlorodibenzodioxin[2,3,7,8-]	40	1	0.000000213	mg/kg		0.0000016		U	Y	DIOXINS FURANS	SW-846:8290	CFA	02/08/2013	01/31/2013
11119562	CALA-13-28427	2013-504	N	HA	INV	NA	REG	LA-24	0	6.5	ft	S	SED	1918-00-9	Dicamba	40.3	1	0.00836	mg/kg		0.00836		U	Y	HERB	SW-846:8151A	GELC	02/17/2013	01/31/2013
11118428	CALA-13-28427	2013-505	N	HA	INV	NA	REG	LA-24	0	6.5	ft	S	SED	19408-74-3	Hexachlorodibenzodioxin[1,2,3,7,8,9-]	40	1	0.000000798	mg/kg		0.000008		U	Y	DIOXINS FURANS	SW-846:8290	CFA	02/08/2013	01/31/2013
11118446	CALA-13-28427	2013-505	N	HA	INV	NA	REG	LA-24	0	6.5	ft	S	SED	30402-15-4	Pentachlorodibenzofurans (Totals)	40	1	0	mg/kg				U	Y	DIOXINS FURANS	SW-846:8290	CFA	02/08/2013	01/31/2013
11119098	CALA-13-28427	2013-504	N	HA	INV	NA	REG	LA-24	0	6.5	ft	S	SED	309-00-2	Aldrin	40.3	1	0.00111	mg/kg		0.00111		U	Y	PESTPCB	SW-846:8081A	GELC	02/20/2013	01/31/2013
11119093	CALA-13-28427	2013-504	N	HA	INV	NA	REG	LA-24	0	6.5	ft	S	SED	319-84-6	BHC[alpha-]	40.3	1	0.00111	mg/kg		0.00111		U	Y	PESTPCB	SW-846:8081A	GELC	02/20/2013	01/31/2013
11119094	CALA-13-28427	2013-504	N	HA	INV	NA	REG	LA-24	0	6.5	ft	S	SED	319-85-7	BHC[beta-]	40.3	1	0.00111	mg/kg		0.00111		U	Y	PESTPCB	SW-846:8081A	GELC	02/20/2013	01/31/2013
11119095	CALA-13-28427	2013-504	N	HA	INV	NA	REG	LA-24	0	6.5	ft	S	SED	319-86-8	BHC[delta-]	40.3	1	0.00111	mg/kg		0.00111		U	Y	PESTPCB	SW-846:8081A	GELC	02/20/2013	01/31/2013
11118430	CALA-13-28427	2013-505	N	HA	INV	NA	REG	LA-24	0	6.5	ft	S	SED	3268-87-9	Octachlorodibenzodioxin[1,2,3,4,6,7,8,9-]	40	1	0.000107	mg/kg		0.000016		NQ	Y	DIOXINS FURANS	SW-846:8290	CFA	02/08/2013	01/31/2013
11119104	CALA-13-28427	2013-504	N	HA	INV	NA	REG	LA-24	0	6.5	ft	S	SED	33213-65-9	Endosulfan II	40.3	1	0.00222	mg/kg		0.00222		U	Y	PESTPCB	SW-846:8081A	GELC	02/20/2013	01/31/2013
11118443	CALA-13-28427	2013-505	N	HA	INV	NA	REG	LA-24	0	6.5	ft	S	SED	34465-46-8	Hexachlorodibenzodioxins (Total)	40	1	0.00000239	mg/kg				J	Y	DIOXINS FURANS	SW-846:8290	CFA	02/08/2013	01/31/2013
11118429	CALA-13-28427	2013-505	N	HA	INV	NA	REG	LA-24	0	6.5	ft	S	SED	35822-46-9	Heptachlorodibenzodioxin[1,2,3,4,6,7,8-]	40	1	0.00000972	mg/kg		0.000008		NQ	Y	DIOXINS FURANS	SW-846:8290	CFA	02/08/2013	01/31/2013
11118442	CALA-13-28427	2013-505	N	HA	INV	NA	REG	LA-24	0	6.5	ft	S	SED	36088-22-9	Pentachlorodibenzodioxins (Total)	40	1	0	mg/kg				U	Y	DIOXINS FURANS	SW-846:8290	CFA	02/08/2013	01/31/2013
11118444	CALA-13-28427	2013-505	N	HA	INV	NA	REG	LA-24	0	6.5	ft	S	SED	37871-00-4	Heptachlorodibenzodioxins (Total)	40	1	0.0000225	mg/kg				NQ	Y	DIOXINS FURANS	SW-846:8290	CFA	02/08/2013	01/31/2013
11118448	CALA-13-28427	2013-505	N	HA	INV	NA	REG	LA-24	0	6.5	ft	S	SED	38998-75-3	Heptachlorodibenzofurans (Total)	40	1	0.00000718	mg/kg				J	Y	DIOXINS FURANS	SW-846:8290	CFA	02/08/2013	01/31/2013
11118440	CALA-13-28427	2013-505	N	HA	INV	NA	REG	LA-24	0	6.5	ft	S	SED	39001-02-0	Octachlorodibenzofuran[1,2,3,4,6,7,8,9-]	40	1	0.00000532	mg/kg		0.000016		J	Y	DIOXINS FURANS	SW-846:8290	CFA	02/08/2013	01/31/2013
11118426	CALA-13-28427	2013-505	N	HA	INV	NA	REG	LA-24	0	6.5	ft	S	SED	39227-28-6	Hexachlorodibenzodioxin[1,2,3,4,7,8-]	40	1	0.000000798	mg/kg		0.000008		U	Y	DIOXINS FURANS	SW-846:8290	CFA	02/08/2013	01/31/2013
11118425	CALA-13-28427	2013-505	N	HA	INV	NA	REG	LA-24	0	6.5	ft	S	SED	40321-76-4	Pentachlorodibenzodioxin[1,2,3,7,8-]	40	1	0.000000798	mg/kg		0.000008		U	Y	DIOXINS FURANS	SW-846:8290	CFA	02/08/2013	01/31/2013
11118441	CALA-13-28427	2013-505	N	HA	INV	NA	REG	LA-24	0	6.5	ft	S	SED	41903-57-5	Tetrachlorodibenzodioxins (Total)	40	1	0.00000225	mg/kg				NQ	Y	DIOXINS FURANS	SW-846:8290	CFA	02/08/2013	01/31/2013
11119107	CALA-13-28427	2013-504	N	HA	INV	NA	REG	LA-24	0	6.5	ft	S	SED	50-29-3	DDT[4,4'-]	40.3	1	0.000794	mg/kg		0.00222		J	Y	PESTPCB	SW-846:8081A	GELC	02/20/2013	01/31/2013
11119113	CALA-13-28427	2013-504	N	HA	INV	NA	REG	LA-24	0	6.5	ft	S	SED	5103-71-9	Chlordane[alpha-]	40.3	1	0.00111	mg/kg		0.00111		U	Y	PESTPCB	SW-846:8081A	GELC	02/20/2013	01/31/2013
11119112	CALA-13-28427	2013-504	N	HA	INV	NA	REG	LA-24	0	6.5	ft	S	SED	5103-74-2	Chlordane[gamma-]	40.3	1	0.00111	mg/kg		0.00111		U	Y	PESTPCB	SW-846:8081A	GELC	02/20/2013	01/31/2013
11118431	CALA-13-28427	2013-505	N	HA	INV	NA	REG	LA-24	0	6.5	ft	S	SED	51207-31-9	Tetrachlorodibenzofuran[2,3,7,8-]	40	1	0.000000823	mg/kg		0.0000016		J	Y	DIOXINS FURANS	SW-846:8290	CFA	02/08/2013	01/31/2013
11119502	CALA-13-28427	2013-504	N	HA	INV	NA	REG	LA-24	0	6.5	ft	S	SED	53469-21-9	Aroclor-1242	40.3	1	0.00557	mg/kg		0.00557		U	Y	PESTPCB	SW-846:8082	GELC	02/08/2013	01/31/2013
11119109	CALA-13-28427	2013-504	N	HA	INV	NA	REG	LA-24	0	6.5	ft	S	SED	53494-70-5	Endrin Ketone	40.3	1	0.00222	mg/kg		0.00222		U	Y	PESTPCB	SW-846:8081A	GELC	02/20/2013	01/31/2013
11118439	CALA-13-28427	2013-505	N	HA	INV	NA	REG	LA-24	0	6.5	ft	S	SED	55673-89-7	Heptachlorodibenzofuran[1,2,3,4,7,8,9-]	40	1	0.000000798	mg/kg		0.000008		U	Y	DIOXINS FURANS	SW-846:8290	CFA	02/08/2013	01/31/2013
11118447	CALA-13-28427	2013-505	N	HA	INV	NA	REG	LA-24	0	6.5	ft	S	SED	55684-94-1	Hexachlorodibenzofurans (Total)	40	1	0.00000139	mg/kg				J	Y	DIOXINS FURANS	SW-846:8290	CFA	02/08/2013	01/31/2013
11118445	CALA-13-28427	2013-505	N	HA	INV	NA	REG	LA-24	0	6.5	ft	S	SED	55722-27-5	Tetrachlorodibenzofurans (Totals)	40	1	0.0000023	mg/kg				NQ	Y	DIOXINS FURANS	SW-846:8290	CFA	02/08/2013	01/31/2013
11118433	CALA-13-28427	2013-505	N	HA	INV	NA	REG	LA-24	0	6.5	ft	S	SED	57117-31-4	Pentachlorodibenzofuran[2,3,4,7,8-]	40	1	0.000000798	mg/kg		0.000008		U	Y	DIOXINS FURANS	SW-846:8290	CFA	02/08/2013	01/31/2013
11118432	CALA-13-28427	2013-505	N	HA	INV	NA	REG	LA-24	0	6.5	ft	S	SED	57117-41-6	Pentachlorodibenzofuran[1,2,3,7,8-]	40	1	0.000000798	mg/kg		0.000008		U	Y	DIOXINS FURANS	SW-846:8290	CFA	02/08/2013	01/31/2013
11118435	CALA-13-28427	2013-505	N	HA	INV	NA	REG	LA-24	0	6.5	ft	S	SED	57117-44-9	Hexachlorodibenzofuran[1,2,3,6,7,8-]	40	1	0.000000798	mg/kg		0.000008		U	Y	DIOXINS FURANS	SW-846:8290	CFA	02/08/2013	01/31/2013
11118427	CALA-13-28427	2013-505	N	HA	INV	NA	REG	LA-24	0	6.5	ft	S	SED	57653-85-7	Hexachlorodibenzodioxin[1,2,3,6,7,8-]	40	1	0.000000798	mg/kg		0.000008		U	Y	DIOXINS FURANS	SW-846:8290	CFA	02/08/2013	01/31/2013
11119096	CALA-13-28427	2013-504	N	HA	INV	NA	REG	LA-24	0	6.5	ft	S	SED	58-89-9	BHC[gamma-]	40.3	1	0.00111	mg/kg		0.00111		U	Y	PESTPCB	SW-846:8081A	GELC	02/20/2013	01/31/2013
11119101	CALA-13-28427	2013-504	N	HA	INV	NA	REG	LA-24	0	6.5	ft	S	SED	60-57-1	Dieldrin	40.3	1	0.00222	mg/kg		0.00222		U	Y	PESTPCB	SW-846:8081A	GELC	02/20/2013	01/31/2013
11118436	CALA-13-28427	2013-505	N	HA	INV	NA	REG	LA-24	0	6.5	ft	S	SED	60851-34-5	Hexachlorodibenzofuran[2,3,4,6,7,8-]	40	1	0.000000798	mg/kg		0.000008		U	Y	DIOXINS FURANS	SW-846:8290	CFA	02/08/2013	01/31/2013
11118438	CALA-13-28427	2013-505	N	HA	INV	NA	REG	LA-24	0	6.5	ft	S	SED	67562-39-4	Heptachlorodibenzofuran[1,2,3,4,6,7,8-]	40	1	0.000003	mg/kg		0.000008		J	Y	DIOXINS FURANS	SW-846:8290	CFA	02/08/2013	01/31/2013
11118434	CALA-13-28427	2013-505	N	HA	INV	NA	REG	LA-24	0	6.5	ft	S	SED	70648-26-9	Hexachlorodibenzofuran[1,2,3,4,7,8-]	40	1	0.000000798	mg/kg		0.000008		U	Y	DIOXINS FURANS	SW-846:8290	CFA	02/08/2013	01/31/2013
11119103	CALA-13-28427	2013-504	N	HA	INV	NA	REG	LA-24	0	6.5	ft	S	SED	72-20-8	Endrin	40.3	1	0.00222	mg/kg		0.00222		U	Y	PESTPCB	SW-846:8081A	GELC	02/20/2013	01/31/2013
11119108	CALA-13-28427	2013-504	N	HA	INV	NA	REG	LA-24	0	6.5	ft	S	SED	72-43-5	Methoxychlor[4,4'-]	40.3	1	0.0111	mg/kg		0.0111		U	Y	PESTPCB	SW-846:8081A	GELC	02/20/2013	01/31/2013
11119105	CALA-13-28427	2013-504	N	HA	INV	NA	REG	LA-24	0	6.5	ft	S	SED	72-54-8	DDD[4,4'-]	40.3	1	0.00222	mg/kg		0.00222		U	Y	PESTPCB	SW-846:8081A	GELC	02/20/2013	01/31/2013
11119102	CALA-13-28427	2013-504	N	HA	INV	NA	REG	LA-24	0	6.5	ft	S	SED	72-55-9	DDE[4,4'-]	40.3	1	0.00299	mg/kg		0.00222		NQ	Y	PESTPCB	SW-846:8081A	GELC	02/20/2013	01/31/2013
11118437	CALA-13-28427	2013-505	N	HA	INV	NA	REG	LA-24	0	6.5	ft	S	SED	72918-21-9	Hexachlorodibenzofuran[1,2,3,7,8,9-]	40	1	0.000000798	mg/kg		0.000008		U	Y	DIOXINS FURANS	SW-846:8290	CFA	02/08/2013	01/31/2013
11119110	CALA-13-28427	2013-504	N	HA	INV	NA	REG	LA-24	0	6.5	ft	S	SED	7421-93-4	Endrin Aldehyde	40.3	1	0.00222	mg/kg		0.00222		U	Y	PESTPCB	SW-846:8081A	GELC	02/20/2013	01/31/2013
11119554	CALA-13-28427	2013-504	N	HA	INV	NA	REG	LA-24	0	6.5	ft	S	SED	75-99-0	Dalapon	40.3	1	0.167	mg/kg		0.167		U	Y	HERB	SW-846:8151A	GELC	02/17/2013	01/31/2013
11119097	CALA-13-28427	2013-504	N	HA	INV	NA	REG	LA-24	0	6.5	ft	S	SED	76-44-8	Heptachlor	40.3	1	0.00111	mg/kg		0.00111		U	Y	PESTPCB	SW-846:8081A	GELC	02/20/2013	01/31/2013
11119111	CALA-13-28427	2013-504	N	HA	INV	NA	REG	LA-24	0	6.5	ft	S	SED	8001-35-2	Toxaphene (Technical Grade)	40.3	1	0.0278	mg/kg		0.0278		UJ	Y	PESTPCB	SW-846:8081A	GELC	02/20/2013	01/31/2013
11119558	CALA-13-28427	2013-504	N	HA	INV	NA	REG	LA-24	0	6.5	ft	S	SED	88-85-7	Dinoseb	40.3	1	0.00836	mg/kg		0.00836		U	Y	HERB	SW-846:8151A	GELC	02/17/2013	01/31/2013
11119559	CALA-13-28427	2013-504	N	HA	INV	NA	REG	LA-24	0	6.5	ft	S	SED	93-65-2	MCPP	40.3	1	1.67	mg/kg		1.67		U	Y	HERB	SW-846:8151A	GELC	02/17/2013	01/31/2013
11119561	CALA-13-28427	2013-504	N	HA	INV	NA	REG	LA-24	0	6.5	ft	S	SED	93-72-1	TP[2,4,5-]	40.3	1	0.00836	mg/kg		0.00836		U	Y	HERB	SW-846:8151A	GELC	02/17/2013	01/31/2013
11119557	CALA-13-28427	2013-504	N	HA	INV	NA	REG	LA-24	0	6.5	ft	S	SED	93-76-5	T[2,4,5-]	40.3	1	0.00836	mg/kg		0.00836		U	Y	HERB	SW-846:8151A	GELC	02/17/2013	01/31/2013
11119555	CALA-13-28427	2013-504	N	HA	INV	NA	REG	LA-24	0	6.5	ft	S	SED	94-74-6	MCPA	40.3	1	1.67	mg/kg		1.67		U	Y	HERB	SW-846:8151A	GELC	02/17/2013	01/31/2013
11119556	CALA-13-28427	2013-504	N	HA	INV	NA	REG	LA-24	0	6.5	ft	S	SED	94-75-7	D[2,4-]	40.3	1	0.00836	mg/kg		0.00836		U	Y	HERB	SW-846:8151A	GELC	02/17/2013	01/31/2013
11119563	CALA-13-28427	2013-504	N	HA	INV	NA	REG	LA-24	0	6.5	ft	S	SED	94-82-6	DB[2,4-]	40.3	1	0.00836	mg/kg		0.00836		U	Y	HERB	SW-846:8151A	GELC	02/17/2013	01/31/2013
11119100	CALA-13-28427	2013-504	N	HA	INV	NA	REG	LA-24	0	6.5	ft	S	SED	959-98-8	Endosulfan I	40.3	1	0.00111	mg/kg		0.00111		U	Y	PESTPCB	SW-846:8081A	GELC	02/20/2013	01/31/2013
11119218	CALA-13-28427	2013-504	N	HA	INV	NA	REG	LA-24	0	6.5	ft	S	SED	Ag	Silver	40.3	1	0.215	mg/kg		0.792		J	Y	INORGANIC	SW-846:6010B	GELC	02/07/2013	01/31/2013
11119200	CALA-13-28427	2013-504	N	HA	INV	NA	REG	LA-24	0	6.5	ft	S	SED	Al	Aluminum	40.3	1	10200	mg/kg		31.7		NQ	Y	INORGANIC	SW-846:6010B	GELC	02/07/2013	01/31/2013
11119387	CALA-13-28427	2013-504	N	HA	INV	NA	REG	LA-24	0	6.5	ft	S	SED	Am-241	Americium-241	40.3	1	0.0358	pCi/g	0.00809		0.0396	U	Y	RAD	HASL-300:AM-241	GELC	02/13/2013	01/31/2013
11119202	CALA-13-28427	2013-504	N	HA	INV	NA	REG	LA-24	0	6.5	ft	S	SED	As	Arsenic	40.3	2	1.88	mg/kg		1.66		NQ	Y	INORGANIC	SW-846:6020	GELC	02/12/2013	01/31/2013
11119203	CALA-13-28427	2013-504	N	HA	INV	NA	REG	LA-24	0	6.5	ft	S	SED	Ba	Barium	40.3	1	221	mg/kg		0.792		NQ	Y	INORGANIC	SW-846:6010B	GELC	02/07/2013	01/31/2013
11119204	CALA-13-28427	2013-504	N	HA	INV	NA	REG	LA-24	0	6.5	ft	S	SED	Be	Beryllium	40.3	2	1.31	mg/kg		0.166		NQ	Y	INORGANIC	SW-846:6020	GELC	02/12/2013	01/31/2013
11119206	CALA-13-28427	2013-504	N	HA	INV	NA	REG	LA-24	0	6.5	ft	S	SED	Ca	Calcium	40.3	1	8040	mg/kg		39.6		NQ	Y	INORGANIC	SW-846:6010B	GELC	02/07/2013	01/31/2013
11119205	CALA-13-28427	2013-504	N	HA	INV	NA	REG	LA-24	0	6.5	ft	S	SED	Cd	Cadmium	40.3	1	0.792	mg/kg		0.792		U	Y	INORGANIC	SW-846:6010B	GELC	02/07/2013	01/31/2013
11119340	CALA-13-28427	2013-504	N	HA	INV	NA	REG	LA-24	0	6.5	ft	S	SED	CN(TOTAL)	Cyanide (Total)	40.3	1	1.1	mg/kg		0.476		NQ	Y	GENERAL CHEMISTRY	SW-846:9012A	GELC	02/06/2013	01/31/2013
11119208	CALA-13-28427	2013-504	N	HA	INV	NA	REG	LA-24	0	6.5	ft	S	SED	Co	Cobalt	40.3	1	4.76	mg/kg		0.792		NQ	Y	INORGANIC	SW-846:6010B	GELC	02/07/2013	01/31/2013
11119392	CALA-13-28427	2013-504	N	HA	INV	NA	REG	LA-24	0	6.5	ft	S	SED	Co-60	Cobalt-60	40.3	1	-0.00118	pCi/g	0.0299		0.1	U	Y	RAD	EPA:901.1	GELC	02/06/2013	01/31/2013
11119207	CALA-13-28427	2013-504	N	HA	INV	NA	REG	LA-24	0	6.5	ft	S	SED	Cr	Chromium	40.3	1	7.53	mg/kg		0.792		NQ	Y	INORGANIC	SW-846:6010B	GELC	02/07/2013	01/31/2013
11119390	CALA-13-28427	2013-504	N	HA	INV	NA	REG	LA-24	0	6.5	ft	S	SED	Cs-134	Cesium-134	40.3	1	0.12	pCi/g	0.0314		0.121	U	Y	RAD	EPA:901.1	GELC	02/06/2013	01/31/2013
11119391	CALA-13-28427	2013-504	N	HA	INV	NA	REG	LA-24	0	6.5	ft	S	SED	Cs-137	Cesium-137	40.3	1	1.17	pCi/g	0.0549		0.0842	NQ	Y	RAD	EPA:901.1	GELC	02/06/2013	01/31/2013
11119209	CALA-13-28427	2013-504	N	HA	INV	NA	REG	LA-24	0	6.5	ft	S	SED	Cu	Copper	40.3	1	13.7	mg/kg		1.58		NQ	Y	INORGANIC	SW-846:6010B	GELC	02/07/2013	01/31/2013
11119210	CALA-13-28427	2013-504	N	HA	INV	NA	REG	LA-24	0	6.5	ft	S	SED	Fe	Iron	40.3	1	11300	mg/kg		39.6		NQ	Y	INORGANIC	SW-846:6010B	GELC	02/07/2013	01/31/2013
11119403	CALA-13-28427	2013-504	N	HA	INV	NA	REG	LA-24	0	6.5	ft	S	SED	H-3	Tritium	40.3	1	-0.0369923	pCi/g	0.0361147		0.137033	U	Y	RAD	EPA:906.0	GELC	02/11/2013	01/31/2013
11119214	CALA-13-28427	2013-504	N	HA	INV	NA	REG	LA-24	0	6.5	ft	S	SED	Hg	Mercury	40.3	1	0.0324	mg/kg		0.0192		NQ	Y	INORGANIC	SW-846:7471A	GELC	02/07/2013	01/31/2013
11119216	CALA-13-28427	2013-504	N	HA	INV	NA	REG	LA-24	0	6.5	ft	S	SED	K	Potassium	40.3	1	1690	mg/kg		39.6		NQ	Y	INORGANIC	SW-846:6010B	GELC	02/07/2013	01/31/2013
11119212	CALA-13-28427	2013-504	N	HA	INV	NA	REG	LA-24	0	6.5	ft	S	SED	Mg	Magnesium	40.3	1	1830	mg/kg		47.5		NQ	Y	INORGANIC	SW-846:6010B	GELC	02/07/2013	01/31/2013
11119213	CALA-13-28427	2013-504	N	HA	INV	NA	REG	LA-24	0	6.5	ft	S	SED	Mn	Manganese	40.3	1	1080	mg/kg		1.58		NQ	Y	INORGANIC	SW-846:6010B	GELC	02/07/2013	01/31/2013
11119219	CALA-13-28427	2013-504	N	HA	INV	NA	REG	LA-24	0	6.5	ft	S	SED	Na	Sodium	40.3	1	151	mg/kg		39.6		NQ	Y	INORGANIC	SW-846:6010B	GELC	02/08/2013	01/31/2013
11119399	CALA-13-28427	2013-504	N	HA	INV	NA	REG	LA-24	0	6.5	ft	S	SED	Na-22	Sodium-22	40.3	1	-0.0136	pCi/g	0.0312		0.107	U	Y	RAD	EPA:901.1	GELC	02/06/2013	01/31/2013
11119215	CALA-13-28427	2013-504	N	HA	INV	NA	REG	LA-24	0	6.5	ft	S	SED	Ni	Nickel	40.3	2	9.21	mg/kg		0.665		NQ	Y	INORGANIC	SW-846:6020	GELC	02/12/2013	01/31/2013
11119211	CALA-13-28427	2013-504	N	HA	INV	NA	REG	LA-24	0	6.5	ft	S	SED	Pb	Lead	40.3	1	25.8	mg/kg		1.58		NQ	Y	INORGANIC	SW-846:6010B	GELC	02/07/2013	01/31/2013
11119395	CALA-13-28427	2013-504	N	HA	INV	NA	REG	LA-24	0	6.5	ft	S	SED	Pu-238	Plutonium-238	40.3	1	0.011	pCi/g	0.00519		0.0165	U	Y	RAD	HASL-300:ISOPU	GELC	02/07/2013	01/31/2013
11119396	CALA-13-28427	2013-504	N	HA	INV	NA	REG	LA-24	0	6.5	ft	S	SED	Pu-239/240	Plutonium-239/240	40.3	1	0.1	pCi/g	0.0129		0.0149	NQ	Y	RAD	HASL-300:ISOPU	GELC	02/07/2013	01/31/2013
11119201	CALA-13-28427	2013-504	N	HA	INV	NA	REG	LA-24	0	6.5	ft	S	SED	Sb	Antimony	40.3	1	1.58	mg/kg		1.58		U	Y	INORGANIC	SW-846:6010B	GELC	02/07/2013	01/31/2013
11119217	CALA-13-28427	2013-504	N	HA	INV	NA	REG	LA-24	0	6.5	ft	S	SED	Se	Selenium	40.3	2	1.66	mg/kg		1.66		U	Y	INORGANIC	SW-846:6020	GELC	02/12/2013	01/31/2013
11119400	CALA-13-28427	2013-504	N	HA	INV	NA	REG	LA-24	0	6.5	ft	S	SED	Sr-90	Strontium-90	40.3	1	0.216	pCi/g	0.104		0.327	U	Y	RAD	EPA:905.0	GELC	02/14/2013	01/31/2013
11119220	CALA-13-28427	2013-504	N	HA	INV	NA	REG	LA-24	0	6.5	ft	S	SED	Tl	Thallium	40.3	2	0.327	mg/kg		0.665		J	Y	INORGANIC	SW-846:6020	GELC	02/12/2013	01/31/2013
11119221	CALA-13-28427	2013-504	N	HA	INV	NA	REG	LA-24	0	6.5	ft	S	SED	V	Vanadium	40.3	1	16	mg/kg		0.792		NQ	Y	INORGANIC	SW-846:6010B	GELC	02/07/2013	01/31/2013
11119222	CALA-13-28427	2013-504	N	HA	INV	NA	REG	LA-24	0	6.5	ft	S	SED	Zn	Zinc	40.3	1	66.4	mg/kg		1.58		NQ	Y	INORGANIC	SW-846:6010B	GELC	02/07/2013	01/31/2013
11119141	CALA-13-28428	2013-504	N	HA	INV	NA	REG	LA-25	0	6.7	ft	S	SED	1024-57-3	Heptachlor Epoxide	41.9	1	0.00114	mg/kg		0.00114		U	Y	PESTPCB	SW-846:8081A	GELC	02/14/2013	01/31/2013
11119148	CALA-13-28428	2013-504	N	HA	INV	NA	REG	LA-25	0	6.7	ft	S	SED	1031-07-8	Endosulfan Sulfate	41.9	1	0.00229	mg/kg		0.00229		U	Y	PESTPCB	SW-846:8081A	GELC	02/14/2013	01/31/2013
11119519	CALA-13-28428	2013-504	N	HA	INV	NA	REG	LA-25	0	6.7	ft	S	SED	11096-82-5	Aroclor-1260	41.9	1	0.00571	mg/kg		0.00571		U	Y	PESTPCB	SW-846:8082	GELC	02/08/2013	01/31/2013
11119518	CALA-13-28428	2013-504	N	HA	INV	NA	REG	LA-25	0	6.7	ft	S	SED	11097-69-1	Aroclor-1254	41.9	1	0.00571	mg/kg		0.00571		U	Y	PESTPCB	SW-846:8082	GELC	02/08/2013	01/31/2013
11119514	CALA-13-28428	2013-504	N	HA	INV	NA	REG	LA-25	0	6.7	ft	S	SED	11104-28-2	Aroclor-1221	41.9	1	0.00571	mg/kg		0.00571		U	Y	PESTPCB	SW-846:8082	GELC	02/08/2013	01/31/2013
11119515	CALA-13-28428	2013-504	N	HA	INV	NA	REG	LA-25	0	6.7	ft	S	SED	11141-16-5	Aroclor-1232	41.9	1	0.00571	mg/kg		0.00571		U	Y	PESTPCB	SW-846:8082	GELC	02/08/2013	01/31/2013
11119027	CALA-13-28428	2013-504	N	HA	INV	NA	REG	LA-25	0	6.7	ft	S	SED	120-36-5	Dichlorprop	41.9	1	0.00859	mg/kg		0.00859		U	Y	HERB	SW-846:8151A	GELC	02/17/2013	01/31/2013
11119517	CALA-13-28428	2013-504	N	HA	INV	NA	REG	LA-25	0	6.7	ft	S	SED	12672-29-6	Aroclor-1248	41.9	1	0.00571	mg/kg		0.00571		U	Y	PESTPCB	SW-846:8082	GELC	02/08/2013	01/31/2013
11119513	CALA-13-28428	2013-504	N	HA	INV	NA	REG	LA-25	0	6.7	ft	S	SED	12674-11-2	Aroclor-1016	41.9	1	0.00571	mg/kg		0.00571		U	Y	PESTPCB	SW-846:8082	GELC	02/08/2013	01/31/2013
11118474	CALA-13-28428	2013-505	N	HA	INV	NA	REG	LA-25	0	6.7	ft	S	SED	1746-01-6	Tetrachlorodibenzodioxin[2,3,7,8-]	41	1	0.00000022	mg/kg		0.0000016		U	Y	DIOXINS FURANS	SW-846:8290	CFA	02/08/2013	01/31/2013
11119029	CALA-13-28428	2013-504	N	HA	INV	NA	REG	LA-25	0	6.7	ft	S	SED	1918-00-9	Dicamba	41.9	1	0.00859	mg/kg		0.00859		U	Y	HERB	SW-846:8151A	GELC	02/17/2013	01/31/2013
11118478	CALA-13-28428	2013-505	N	HA	INV	NA	REG	LA-25	0	6.7	ft	S	SED	19408-74-3	Hexachlorodibenzodioxin[1,2,3,7,8,9-]	41	1	0.000000787	mg/kg		0.0000079		U	Y	DIOXINS FURANS	SW-846:8290	CFA	02/08/2013	01/31/2013
11118496	CALA-13-28428	2013-505	N	HA	INV	NA	REG	LA-25	0	6.7	ft	S	SED	30402-15-4	Pentachlorodibenzofurans (Totals)	41	1	0	mg/kg				U	Y	DIOXINS FURANS	SW-846:8290	CFA	02/08/2013	01/31/2013
11119140	CALA-13-28428	2013-504	N	HA	INV	NA	REG	LA-25	0	6.7	ft	S	SED	309-00-2	Aldrin	41.9	1	0.00114	mg/kg		0.00114		U	Y	PESTPCB	SW-846:8081A	GELC	02/14/2013	01/31/2013
11119135	CALA-13-28428	2013-504	N	HA	INV	NA	REG	LA-25	0	6.7	ft	S	SED	319-84-6	BHC[alpha-]	41.9	1	0.00114	mg/kg		0.00114		U	Y	PESTPCB	SW-846:8081A	GELC	02/14/2013	01/31/2013
11119136	CALA-13-28428	2013-504	N	HA	INV	NA	REG	LA-25	0	6.7	ft	S	SED	319-85-7	BHC[beta-]	41.9	1	0.00114	mg/kg		0.00114		U	Y	PESTPCB	SW-846:8081A	GELC	02/14/2013	01/31/2013
11119137	CALA-13-28428	2013-504	N	HA	INV	NA	REG	LA-25	0	6.7	ft	S	SED	319-86-8	BHC[delta-]	41.9	1	0.00114	mg/kg		0.00114		U	Y	PESTPCB	SW-846:8081A	GELC	02/14/2013	01/31/2013
11118480	CALA-13-28428	2013-505	N	HA	INV	NA	REG	LA-25	0	6.7	ft	S	SED	3268-87-9	Octachlorodibenzodioxin[1,2,3,4,6,7,8,9-]	41	1	0.0000902	mg/kg		0.000016		NQ	Y	DIOXINS FURANS	SW-846:8290	CFA	02/08/2013	01/31/2013
11119146	CALA-13-28428	2013-504	N	HA	INV	NA	REG	LA-25	0	6.7	ft	S	SED	33213-65-9	Endosulfan II	41.9	1	0.00229	mg/kg		0.00229		U	Y	PESTPCB	SW-846:8081A	GELC	02/14/2013	01/31/2013
11118493	CALA-13-28428	2013-505	N	HA	INV	NA	REG	LA-25	0	6.7	ft	S	SED	34465-46-8	Hexachlorodibenzodioxins (Total)	41	1	0.00000154	mg/kg				J	Y	DIOXINS FURANS	SW-846:8290	CFA	02/08/2013	01/31/2013
11118479	CALA-13-28428	2013-505	N	HA	INV	NA	REG	LA-25	0	6.7	ft	S	SED	35822-46-9	Heptachlorodibenzodioxin[1,2,3,4,6,7,8-]	41	1	0.00000899	mg/kg		0.0000079		NQ	Y	DIOXINS FURANS	SW-846:8290	CFA	02/08/2013	01/31/2013
11118492	CALA-13-28428	2013-505	N	HA	INV	NA	REG	LA-25	0	6.7	ft	S	SED	36088-22-9	Pentachlorodibenzodioxins (Total)	41	1	0	mg/kg				U	Y	DIOXINS FURANS	SW-846:8290	CFA	02/08/2013	01/31/2013
11118494	CALA-13-28428	2013-505	N	HA	INV	NA	REG	LA-25	0	6.7	ft	S	SED	37871-00-4	Heptachlorodibenzodioxins (Total)	41	1	0.0000195	mg/kg				NQ	Y	DIOXINS FURANS	SW-846:8290	CFA	02/08/2013	01/31/2013
11118498	CALA-13-28428	2013-505	N	HA	INV	NA	REG	LA-25	0	6.7	ft	S	SED	38998-75-3	Heptachlorodibenzofurans (Total)	41	1	0.00000702	mg/kg				J	Y	DIOXINS FURANS	SW-846:8290	CFA	02/08/2013	01/31/2013
11118490	CALA-13-28428	2013-505	N	HA	INV	NA	REG	LA-25	0	6.7	ft	S	SED	39001-02-0	Octachlorodibenzofuran[1,2,3,4,6,7,8,9-]	41	1	0.00000581	mg/kg		0.000016		J	Y	DIOXINS FURANS	SW-846:8290	CFA	02/08/2013	01/31/2013
11118476	CALA-13-28428	2013-505	N	HA	INV	NA	REG	LA-25	0	6.7	ft	S	SED	39227-28-6	Hexachlorodibenzodioxin[1,2,3,4,7,8-]	41	1	0.000000787	mg/kg		0.0000079		U	Y	DIOXINS FURANS	SW-846:8290	CFA	02/08/2013	01/31/2013
11118475	CALA-13-28428	2013-505	N	HA	INV	NA	REG	LA-25	0	6.7	ft	S	SED	40321-76-4	Pentachlorodibenzodioxin[1,2,3,7,8-]	41	1	0.000000787	mg/kg		0.0000079		U	Y	DIOXINS FURANS	SW-846:8290	CFA	02/08/2013	01/31/2013
11118491	CALA-13-28428	2013-505	N	HA	INV	NA	REG	LA-25	0	6.7	ft	S	SED	41903-57-5	Tetrachlorodibenzodioxins (Total)	41	1	0	mg/kg				U	Y	DIOXINS FURANS	SW-846:8290	CFA	02/08/2013	01/31/2013
11119149	CALA-13-28428	2013-504	N	HA	INV	NA	REG	LA-25	0	6.7	ft	S	SED	50-29-3	DDT[4,4'-]	41.9	1	0.00229	mg/kg		0.00229		U	Y	PESTPCB	SW-846:8081A	GELC	02/14/2013	01/31/2013
11119574	CALA-13-28428	2013-504	N	HA	INV	NA	REG	LA-25	0	6.7	ft	S	SED	5103-71-9	Chlordane[alpha-]	41.9	1	0.00114	mg/kg		0.00114		U	Y	PESTPCB	SW-846:8081A	GELC	02/14/2013	01/31/2013
11119573	CALA-13-28428	2013-504	N	HA	INV	NA	REG	LA-25	0	6.7	ft	S	SED	5103-74-2	Chlordane[gamma-]	41.9	1	0.00114	mg/kg		0.00114		U	Y	PESTPCB	SW-846:8081A	GELC	02/14/2013	01/31/2013
11118481	CALA-13-28428	2013-505	N	HA	INV	NA	REG	LA-25	0	6.7	ft	S	SED	51207-31-9	Tetrachlorodibenzofuran[2,3,7,8-]	41	1	0.00000111	mg/kg		0.0000016		J	Y	DIOXINS FURANS	SW-846:8290	CFA	02/08/2013	01/31/2013
11119516	CALA-13-28428	2013-504	N	HA	INV	NA	REG	LA-25	0	6.7	ft	S	SED	53469-21-9	Aroclor-1242	41.9	1	0.00571	mg/kg		0.00571		U	Y	PESTPCB	SW-846:8082	GELC	02/08/2013	01/31/2013
11119151	CALA-13-28428	2013-504	N	HA	INV	NA	REG	LA-25	0	6.7	ft	S	SED	53494-70-5	Endrin Ketone	41.9	1	0.00229	mg/kg		0.00229		U	Y	PESTPCB	SW-846:8081A	GELC	02/14/2013	01/31/2013
11118489	CALA-13-28428	2013-505	N	HA	INV	NA	REG	LA-25	0	6.7	ft	S	SED	55673-89-7	Heptachlorodibenzofuran[1,2,3,4,7,8,9-]	41	1	0.000000787	mg/kg		0.0000079		U	Y	DIOXINS FURANS	SW-846:8290	CFA	02/08/2013	01/31/2013
11118497	CALA-13-28428	2013-505	N	HA	INV	NA	REG	LA-25	0	6.7	ft	S	SED	55684-94-1	Hexachlorodibenzofurans (Total)	41	1	0.0000025	mg/kg				J	Y	DIOXINS FURANS	SW-846:8290	CFA	02/08/2013	01/31/2013
11118495	CALA-13-28428	2013-505	N	HA	INV	NA	REG	LA-25	0	6.7	ft	S	SED	55722-27-5	Tetrachlorodibenzofurans (Totals)	41	1	0.00000321	mg/kg				NQ	Y	DIOXINS FURANS	SW-846:8290	CFA	02/08/2013	01/31/2013
11118483	CALA-13-28428	2013-505	N	HA	INV	NA	REG	LA-25	0	6.7	ft	S	SED	57117-31-4	Pentachlorodibenzofuran[2,3,4,7,8-]	41	1	0.000000787	mg/kg		0.0000079		U	Y	DIOXINS FURANS	SW-846:8290	CFA	02/08/2013	01/31/2013
11118482	CALA-13-28428	2013-505	N	HA	INV	NA	REG	LA-25	0	6.7	ft	S	SED	57117-41-6	Pentachlorodibenzofuran[1,2,3,7,8-]	41	1	0.000000787	mg/kg		0.0000079		U	Y	DIOXINS FURANS	SW-846:8290	CFA	02/08/2013	01/31/2013
11118485	CALA-13-28428	2013-505	N	HA	INV	NA	REG	LA-25	0	6.7	ft	S	SED	57117-44-9	Hexachlorodibenzofuran[1,2,3,6,7,8-]	41	1	0.000000787	mg/kg		0.0000079		U	Y	DIOXINS FURANS	SW-846:8290	CFA	02/08/2013	01/31/2013
11118477	CALA-13-28428	2013-505	N	HA	INV	NA	REG	LA-25	0	6.7	ft	S	SED	57653-85-7	Hexachlorodibenzodioxin[1,2,3,6,7,8-]	41	1	0.000000787	mg/kg		0.0000079		U	Y	DIOXINS FURANS	SW-846:8290	CFA	02/08/2013	01/31/2013
11119138	CALA-13-28428	2013-504	N	HA	INV	NA	REG	LA-25	0	6.7	ft	S	SED	58-89-9	BHC[gamma-]	41.9	1	0.00114	mg/kg		0.00114		U	Y	PESTPCB	SW-846:8081A	GELC	02/14/2013	01/31/2013
11119143	CALA-13-28428	2013-504	N	HA	INV	NA	REG	LA-25	0	6.7	ft	S	SED	60-57-1	Dieldrin	41.9	1	0.00229	mg/kg		0.00229		U	Y	PESTPCB	SW-846:8081A	GELC	02/14/2013	01/31/2013

11118486	CALA-13-28428	2013-505	N	HA	INV	NA	REG	LA-25	0	6.7	ft	S	SED	60851-34-5	Hexachlorodibenzofuran[2,3,4,6,7,8-]	41	1	0.000000787	mg/kg		0.0000079		U	Y	DIOXINS FURANS	SW-846:8290	CFA	02/08/2013	01/31/2013
11118488	CALA-13-28428	2013-505	N	HA	INV	NA	REG	LA-25	0	6.7	ft	S	SED	67562-39-4	Heptachlorodibenzofuran[1,2,3,4,6,7,8-]	41	1	0.00000287	mg/kg		0.0000079		J	Y	DIOXINS FURANS	SW-846:8290	CFA	02/08/2013	01/31/2013
11118484	CALA-13-28428	2013-505	N	HA	INV	NA	REG	LA-25	0	6.7	ft	S	SED	70648-26-9	Hexachlorodibenzofuran[1,2,3,4,7,8-]	41	1	0.000000787	mg/kg		0.0000079		U	Y	DIOXINS FURANS	SW-846:8290	CFA	02/08/2013	01/31/2013
11119145	CALA-13-28428	2013-504	N	HA	INV	NA	REG	LA-25	0	6.7	ft	S	SED	72-20-8	Endrin	41.9	1	0.00229	mg/kg		0.00229		U	Y	PESTPCB	SW-846:8081A	GELC	02/14/2013	01/31/2013
11119150	CALA-13-28428	2013-504	N	HA	INV	NA	REG	LA-25	0	6.7	ft	S	SED	72-43-5	Methoxychlor[4,4'-]	41.9	1	0.0114	mg/kg		0.0114		U	Y	PESTPCB	SW-846:8081A	GELC	02/14/2013	01/31/2013
11119147	CALA-13-28428	2013-504	N	HA	INV	NA	REG	LA-25	0	6.7	ft	S	SED	72-54-8	DDD[4,4'-]	41.9	1	0.00229	mg/kg		0.00229		U	Y	PESTPCB	SW-846:8081A	GELC	02/14/2013	01/31/2013
11119144	CALA-13-28428	2013-504	N	HA	INV	NA	REG	LA-25	0	6.7	ft	S	SED	72-55-9	DDE[4,4'-]	41.9	1	0.00255	mg/kg		0.00229		NQ	Y	PESTPCB	SW-846:8081A	GELC	02/14/2013	01/31/2013
11118487	CALA-13-28428	2013-505	N	HA	INV	NA	REG	LA-25	0	6.7	ft	S	SED	72918-21-9	Hexachlorodibenzofuran[1,2,3,7,8,9-]	41	1	0.000000787	mg/kg		0.0000079		U	Y	DIOXINS FURANS	SW-846:8290	CFA	02/08/2013	01/31/2013
11119152	CALA-13-28428	2013-504	N	HA	INV	NA	REG	LA-25	0	6.7	ft	S	SED	7421-93-4	Endrin Aldehyde	41.9	1	0.00229	mg/kg		0.00229		U	Y	PESTPCB	SW-846:8081A	GELC	02/14/2013	01/31/2013
11119021	CALA-13-28428	2013-504	N	HA	INV	NA	REG	LA-25	0	6.7	ft	S	SED	75-99-0	Dalapon	41.9	1	0.172	mg/kg		0.172		U	Y	HERB	SW-846:8151A	GELC	02/17/2013	01/31/2013
11119139	CALA-13-28428	2013-504	N	HA	INV	NA	REG	LA-25	0	6.7	ft	S	SED	76-44-8	Heptachlor	41.9	1	0.00114	mg/kg		0.00114		U	Y	PESTPCB	SW-846:8081A	GELC	02/14/2013	01/31/2013
11119153	CALA-13-28428	2013-504	N	HA	INV	NA	REG	LA-25	0	6.7	ft	S	SED	8001-35-2	Toxaphene (Technical Grade)	41.9	1	0.0286	mg/kg		0.0286		UJ	Y	PESTPCB	SW-846:8081A	GELC	02/14/2013	01/31/2013
11119025	CALA-13-28428	2013-504	N	HA	INV	NA	REG	LA-25	0	6.7	ft	S	SED	88-85-7	Dinoseb	41.9	1	0.00859	mg/kg		0.00859		U	Y	HERB	SW-846:8151A	GELC	02/17/2013	01/31/2013
11119026	CALA-13-28428	2013-504	N	HA	INV	NA	REG	LA-25	0	6.7	ft	S	SED	93-65-2	MCPP	41.9	1	1.72	mg/kg		1.72		U	Y	HERB	SW-846:8151A	GELC	02/17/2013	01/31/2013
11119028	CALA-13-28428	2013-504	N	HA	INV	NA	REG	LA-25	0	6.7	ft	S	SED	93-72-1	TP[2,4,5-]	41.9	1	0.00859	mg/kg		0.00859		U	Y	HERB	SW-846:8151A	GELC	02/17/2013	01/31/2013
11119024	CALA-13-28428	2013-504	N	HA	INV	NA	REG	LA-25	0	6.7	ft	S	SED	93-76-5	T[2,4,5-]	41.9	1	0.00859	mg/kg		0.00859		U	Y	HERB	SW-846:8151A	GELC	02/17/2013	01/31/2013
11119022	CALA-13-28428	2013-504	N	HA	INV	NA	REG	LA-25	0	6.7	ft	S	SED	94-74-6	MCPA	41.9	1	1.72	mg/kg		1.72		U	Y	HERB	SW-846:8151A	GELC	02/17/2013	01/31/2013
11119023	CALA-13-28428	2013-504	N	HA	INV	NA	REG	LA-25	0	6.7	ft	S	SED	94-75-7	D[2,4-]	41.9	1	0.00859	mg/kg		0.00859		U	Y	HERB	SW-846:8151A	GELC	02/17/2013	01/31/2013
11119030	CALA-13-28428	2013-504	N	HA	INV	NA	REG	LA-25	0	6.7	ft	S	SED	94-82-6	DB[2,4-]	41.9	1	0.00859	mg/kg		0.00859		U	Y	HERB	SW-846:8151A	GELC	02/17/2013	01/31/2013
11119142	CALA-13-28428	2013-504	N	HA	INV	NA	REG	LA-25	0	6.7	ft	S	SED	959-98-8	Endosulfan I	41.9	1	0.00114	mg/kg		0.00114		U	Y	PESTPCB	SW-846:8081A	GELC	02/14/2013	01/31/2013
11119264	CALA-13-28428	2013-504	N	HA	INV	NA	REG	LA-25	0	6.7	ft	S	SED	Ag	Silver	41.9	1	0.85	mg/kg		0.85		U	Y	INORGANIC	SW-846:6010B	GELC	02/07/2013	01/31/2013
11119246	CALA-13-28428	2013-504	N	HA	INV	NA	REG	LA-25	0	6.7	ft	S	SED	Al	Aluminum	41.9	1	11500	mg/kg		34		NQ	Y	INORGANIC	SW-846:6010B	GELC	02/07/2013	01/31/2013
11119427	CALA-13-28428	2013-504	N	HA	INV	NA	REG	LA-25	0	6.7	ft	S	SED	Am-241	Americium-241	41.9	1	0.0556	pCi/g	0.0138		0.0784	U	Y	RAD	HASL-300:AM-241	GELC	02/13/2013	01/31/2013
11119248	CALA-13-28428	2013-504	N	HA	INV	NA	REG	LA-25	0	6.7	ft	S	SED	As	Arsenic	41.9	2	1.84	mg/kg		1.72		NQ	Y	INORGANIC	SW-846:6020	GELC	02/12/2013	01/31/2013
11119249	CALA-13-28428	2013-504	N	HA	INV	NA	REG	LA-25	0	6.7	ft	S	SED	Ba	Barium	41.9	1	226	mg/kg		0.85		NQ	Y	INORGANIC	SW-846:6010B	GELC	02/07/2013	01/31/2013
11119250	CALA-13-28428	2013-504	N	HA	INV	NA	REG	LA-25	0	6.7	ft	S	SED	Be	Beryllium	41.9	2	1.14	mg/kg		0.172		NQ	Y	INORGANIC	SW-846:6020	GELC	02/12/2013	01/31/2013
11119252	CALA-13-28428	2013-504	N	HA	INV	NA	REG	LA-25	0	6.7	ft	S	SED	Ca	Calcium	41.9	1	7620	mg/kg		42.5		NQ	Y	INORGANIC	SW-846:6010B	GELC	02/07/2013	01/31/2013
11119251	CALA-13-28428	2013-504	N	HA	INV	NA	REG	LA-25	0	6.7	ft	S	SED	Cd	Cadmium	41.9	1	0.85	mg/kg		0.85		U	Y	INORGANIC	SW-846:6010B	GELC	02/07/2013	01/31/2013
11119342	CALA-13-28428	2013-504	N	HA	INV	NA	REG	LA-25	0	6.7	ft	S	SED	CN(TOTAL)	Cyanide (Total)	41.9	1	1.23	mg/kg		0.448		NQ	Y	GENERAL CHEMISTRY	SW-846:9012A	GELC	02/06/2013	01/31/2013
11119254	CALA-13-28428	2013-504	N	HA	INV	NA	REG	LA-25	0	6.7	ft	S	SED	Co	Cobalt	41.9	1	5.03	mg/kg		0.85		NQ	Y	INORGANIC	SW-846:6010B	GELC	02/07/2013	01/31/2013
11119432	CALA-13-28428	2013-504	N	HA	INV	NA	REG	LA-25	0	6.7	ft	S	SED	Co-60	Cobalt-60	41.9	1	0.0244	pCi/g	0.0306		0.104	U	Y	RAD	EPA:901.1	GELC	02/06/2013	01/31/2013
11119253	CALA-13-28428	2013-504	N	HA	INV	NA	REG	LA-25	0	6.7	ft	S	SED	Cr	Chromium	41.9	1	8.02	mg/kg		0.85		NQ	Y	INORGANIC	SW-846:6010B	GELC	02/07/2013	01/31/2013
11119430	CALA-13-28428	2013-504	N	HA	INV	NA	REG	LA-25	0	6.7	ft	S	SED	Cs-134	Cesium-134	41.9	1	0.0871	pCi/g	0.0338		0.103	U	Y	RAD	EPA:901.1	GELC	02/06/2013	01/31/2013
11119431	CALA-13-28428	2013-504	N	HA	INV	NA	REG	LA-25	0	6.7	ft	S	SED	Cs-137	Cesium-137	41.9	1	1.32	pCi/g	0.0672		0.0969	NQ	Y	RAD	EPA:901.1	GELC	02/06/2013	01/31/2013
11119255	CALA-13-28428	2013-504	N	HA	INV	NA	REG	LA-25	0	6.7	ft	S	SED	Cu	Copper	41.9	1	14.4	mg/kg		1.7		NQ	Y	INORGANIC	SW-846:6010B	GELC	02/07/2013	01/31/2013
11119256	CALA-13-28428	2013-504	N	HA	INV	NA	REG	LA-25	0	6.7	ft	S	SED	Fe	Iron	41.9	1	12600	mg/kg		42.5		NQ	Y	INORGANIC	SW-846:6010B	GELC	02/07/2013	01/31/2013
11119443	CALA-13-28428	2013-504	N	HA	INV	NA	REG	LA-25	0	6.7	ft	S	SED	H-3	Tritium	41.9	1	-0.0843769	pCi/g	0.0348325		0.142071	U	Y	RAD	EPA:906.0	GELC	02/11/2013	01/31/2013
11119260	CALA-13-28428	2013-504	N	HA	INV	NA	REG	LA-25	0	6.7	ft	S	SED	Hg	Mercury	41.9	1	0.0351	mg/kg		0.0201		NQ	Y	INORGANIC	SW-846:7471A	GELC	02/07/2013	01/31/2013
11119262	CALA-13-28428	2013-504	N	HA	INV	NA	REG	LA-25	0	6.7	ft	S	SED	K	Potassium	41.9	1	1840	mg/kg		42.5		NQ	Y	INORGANIC	SW-846:6010B	GELC	02/07/2013	01/31/2013
11119258	CALA-13-28428	2013-504	N	HA	INV	NA	REG	LA-25	0	6.7	ft	S	SED	Mg	Magnesium	41.9	1	1950	mg/kg		51		NQ	Y	INORGANIC	SW-846:6010B	GELC	02/07/2013	01/31/2013
11119259	CALA-13-28428	2013-504	N	HA	INV	NA	REG	LA-25	0	6.7	ft	S	SED	Mn	Manganese	41.9	1	1110	mg/kg		1.7		NQ	Y	INORGANIC	SW-846:6010B	GELC	02/07/2013	01/31/2013
11119265	CALA-13-28428	2013-504	N	HA	INV	NA	REG	LA-25	0	6.7	ft	S	SED	Na	Sodium	41.9	1	165	mg/kg		42.5		NQ	Y	INORGANIC	SW-846:6010B	GELC	02/08/2013	01/31/2013
11119439	CALA-13-28428	2013-504	N	HA	INV	NA	REG	LA-25	0	6.7	ft	S	SED	Na-22	Sodium-22	41.9	1	0.00649	pCi/g	0.0266		0.0997	U	Y	RAD	EPA:901.1	GELC	02/06/2013	01/31/2013
11119261	CALA-13-28428	2013-504	N	HA	INV	NA	REG	LA-25	0	6.7	ft	S	SED	Ni	Nickel	41.9	2	8	mg/kg		0.687		NQ	Y	INORGANIC	SW-846:6020	GELC	02/12/2013	01/31/2013
11119257	CALA-13-28428	2013-504	N	HA	INV	NA	REG	LA-25	0	6.7	ft	S	SED	Pb	Lead	41.9	1	28.6	mg/kg		1.7		NQ	Y	INORGANIC	SW-846:6010B	GELC	02/07/2013	01/31/2013
11119435	CALA-13-28428	2013-504	N	HA	INV	NA	REG	LA-25	0	6.7	ft	S	SED	Pu-238	Plutonium-238	41.9	1	0.0149	pCi/g	0.00515		0.0157	U	Y	RAD	HASL-300:ISOPU	GELC	02/07/2013	01/31/2013
11119436	CALA-13-28428	2013-504	N	HA	INV	NA	REG	LA-25	0	6.7	ft	S	SED	Pu-239/240	Plutonium-239/240	41.9	1	0.119	pCi/g	0.0144		0.0142	NQ	Y	RAD	HASL-300:ISOPU	GELC	02/07/2013	01/31/2013
11119247	CALA-13-28428	2013-504	N	HA	INV	NA	REG	LA-25	0	6.7	ft	S	SED	Sb	Antimony	41.9	1	1.7	mg/kg		1.7		U	Y	INORGANIC	SW-846:6010B	GELC	02/07/2013	01/31/2013
11119263	CALA-13-28428	2013-504	N	HA	INV	NA	REG	LA-25	0	6.7	ft	S	SED	Se	Selenium	41.9	2	1.72	mg/kg		1.72		U	Y	INORGANIC	SW-846:6020	GELC	02/12/2013	01/31/2013
11119440	CALA-13-28428	2013-504	N	HA	INV	NA	REG	LA-25	0	6.7	ft	S	SED	Sr-90	Strontium-90	41.9	1	0.285	pCi/g	0.134		0.431	U	Y	RAD	EPA:905.0	GELC	02/15/2013	01/31/2013
11119266	CALA-13-28428	2013-504	N	HA	INV	NA	REG	LA-25	0	6.7	ft	S	SED	Tl	Thallium	41.9	2	0.289	mg/kg		0.687		J	Y	INORGANIC	SW-846:6020	GELC	02/12/2013	01/31/2013
11119267	CALA-13-28428	2013-504	N	HA	INV	NA	REG	LA-25	0	6.7	ft	S	SED	V	Vanadium	41.9	1	17.1	mg/kg		0.85		NQ	Y	INORGANIC	SW-846:6010B	GELC	02/07/2013	01/31/2013
11119268	CALA-13-28428	2013-504	N	HA	INV	NA	REG	LA-25	0	6.7	ft	S	SED	Zn	Zinc	41.9	1	73.6	mg/kg		1.7		NQ	Y	INORGANIC	SW-846:6010B	GELC	02/07/2013	01/31/2013
11119581	CALA-13-28429	2013-504	N	HA	INV	NA	REG	LA-26	0	6.25	ft	S	SED	1024-57-3	Heptachlor Epoxide	42.7	1	0.00116	mg/kg		0.00116		U	Y	PESTPCB	SW-846:8081A	GELC	02/14/2013	01/31/2013
11119588	CALA-13-28429	2013-504	N	HA	INV	NA	REG	LA-26	0	6.25	ft	S	SED	1031-07-8	Endosulfan Sulfate	42.7	1	0.00231	mg/kg		0.00231		U	Y	PESTPCB	SW-846:8081A	GELC	02/14/2013	01/31/2013
11119526	CALA-13-28429	2013-504	N	HA	INV	NA	REG	LA-26	0	6.25	ft	S	SED	11096-82-5	Aroclor-1260	42.7	1	0.00581	mg/kg		0.00581		U	Y	PESTPCB	SW-846:8082	GELC	02/08/2013	01/31/2013
11119525	CALA-13-28429	2013-504	N	HA	INV	NA	REG	LA-26	0	6.25	ft	S	SED	11097-69-1	Aroclor-1254	42.7	1	0.00581	mg/kg		0.00581		U	Y	PESTPCB	SW-846:8082	GELC	02/08/2013	01/31/2013
11119521	CALA-13-28429	2013-504	N	HA	INV	NA	REG	LA-26	0	6.25	ft	S	SED	11104-28-2	Aroclor-1221	42.7	1	0.00581	mg/kg		0.00581		U	Y	PESTPCB	SW-846:8082	GELC	02/08/2013	01/31/2013
11119522	CALA-13-28429	2013-504	N	HA	INV	NA	REG	LA-26	0	6.25	ft	S	SED	11141-16-5	Aroclor-1232	42.7	1	0.00581	mg/kg		0.00581		U	Y	PESTPCB	SW-846:8082	GELC	02/08/2013	01/31/2013
11119037	CALA-13-28429	2013-504	N	HA	INV	NA	REG	LA-26	0	6.25	ft	S	SED	120-36-5	Dichlorprop	42.7	1	0.00872	mg/kg		0.00872		U	Y	HERB	SW-846:8151A	GELC	02/17/2013	01/31/2013
11119524	CALA-13-28429	2013-504	N	HA	INV	NA	REG	LA-26	0	6.25	ft	S	SED	12672-29-6	Aroclor-1248	42.7	1	0.00581	mg/kg		0.00581		U	Y	PESTPCB	SW-846:8082	GELC	02/08/2013	01/31/2013
11119520	CALA-13-28429	2013-504	N	HA	INV	NA	REG	LA-26	0	6.25	ft	S	SED	12674-11-2	Aroclor-1016	42.7	1	0.00581	mg/kg		0.00581		U	Y	PESTPCB	SW-846:8082	GELC	02/08/2013	01/31/2013
11118499	CALA-13-28429	2013-505	N	HA	INV	NA	REG	LA-26	0	6.25	ft	S	SED	1746-01-6	Tetrachlorodibenzodioxin[2,3,7,8-]	41	1	0.000000145	mg/kg		0.0000015		U	Y	DIOXINS FURANS	SW-846:8290	CFA	02/08/2013	01/31/2013
11119039	CALA-13-28429	2013-504	N	HA	INV	NA	REG	LA-26	0	6.25	ft	S	SED	1918-00-9	Dicamba	42.7	1	0.00872	mg/kg		0.00872		U	Y	HERB	SW-846:8151A	GELC	02/17/2013	01/31/2013
11118503	CALA-13-28429	2013-505	N	HA	INV	NA	REG	LA-26	0	6.25	ft	S	SED	19408-74-3	Hexachlorodibenzodioxin[1,2,3,7,8,9-]	41	1	0.000000724	mg/kg		0.0000072		U	Y	DIOXINS FURANS	SW-846:8290	CFA	02/08/2013	01/31/2013
11118521	CALA-13-28429	2013-505	N	HA	INV	NA	REG	LA-26	0	6.25	ft	S	SED	30402-15-4	Pentachlorodibenzofurans (Totals)	41	1	0	mg/kg				U	Y	DIOXINS FURANS	SW-846:8290	CFA	02/08/2013	01/31/2013
11119580	CALA-13-28429	2013-504	N	HA	INV	NA	REG	LA-26	0	6.25	ft	S	SED	309-00-2	Aldrin	42.7	1	0.00116	mg/kg		0.00116		U	Y	PESTPCB	SW-846:8081A	GELC	02/14/2013	01/31/2013
11119575	CALA-13-28429	2013-504	N	HA	INV	NA	REG	LA-26	0	6.25	ft	S	SED	319-84-6	BHC[alpha-]	42.7	1	0.00116	mg/kg		0.00116		U	Y	PESTPCB	SW-846:8081A	GELC	02/14/2013	01/31/2013
11119576	CALA-13-28429	2013-504	N	HA	INV	NA	REG	LA-26	0	6.25	ft	S	SED	319-85-7	BHC[beta-]	42.7	1	0.00116	mg/kg		0.00116		U	Y	PESTPCB	SW-846:8081A	GELC	02/14/2013	01/31/2013
11119577	CALA-13-28429	2013-504	N	HA	INV	NA	REG	LA-26	0	6.25	ft	S	SED	319-86-8	BHC[delta-]	42.7	1	0.00116	mg/kg		0.00116		U	Y	PESTPCB	SW-846:8081A	GELC	02/14/2013	01/31/2013
11118505	CALA-13-28429	2013-505	N	HA	INV	NA	REG	LA-26	0	6.25	ft	S	SED	3268-87-9	Octachlorodibenzodioxin[1,2,3,4,6,7,8,9-]	41	1	0.0000558	mg/kg		0.000015		NQ	Y	DIOXINS FURANS	SW-846:8290	CFA	02/08/2013	01/31/2013
11119586	CALA-13-28429	2013-504	N	HA	INV	NA	REG	LA-26	0	6.25	ft	S	SED	33213-65-9	Endosulfan II	42.7	1	0.00231	mg/kg		0.00231		U	Y	PESTPCB	SW-846:8081A	GELC	02/14/2013	01/31/2013
11118518	CALA-13-28429	2013-505	N	HA	INV	NA	REG	LA-26	0	6.25	ft	S	SED	34465-46-8	Hexachlorodibenzodioxins (Total)	41	1	0.00000168	mg/kg				J	Y	DIOXINS FURANS	SW-846:8290	CFA	02/08/2013	01/31/2013
11118504	CALA-13-28429	2013-505	N	HA	INV	NA	REG	LA-26	0	6.25	ft	S	SED	35822-46-9	Heptachlorodibenzodioxin[1,2,3,4,6,7,8-]	41	1	0.00000615	mg/kg		0.0000072		J	Y	DIOXINS FURANS	SW-846:8290	CFA	02/08/2013	01/31/2013
11118517	CALA-13-28429	2013-505	N	HA	INV	NA	REG	LA-26	0	6.25	ft	S	SED	36088-22-9	Pentachlorodibenzodioxins (Total)	41	1	0	mg/kg				U	Y	DIOXINS FURANS	SW-846:8290	CFA	02/08/2013	01/31/2013
11118519	CALA-13-28429	2013-505	N	HA	INV	NA	REG	LA-26	0	6.25	ft	S	SED	37871-00-4	Heptachlorodibenzodioxins (Total)	41	1	0.0000124	mg/kg				NQ	Y	DIOXINS FURANS	SW-846:8290	CFA	02/08/2013	01/31/2013
11118523	CALA-13-28429	2013-505	N	HA	INV	NA	REG	LA-26	0	6.25	ft	S	SED	38998-75-3	Heptachlorodibenzofurans (Total)	41	1	0.00000457	mg/kg				J	Y	DIOXINS FURANS	SW-846:8290	CFA	02/08/2013	01/31/2013
11118515	CALA-13-28429	2013-505	N	HA	INV	NA	REG	LA-26	0	6.25	ft	S	SED	39001-02-0	Octachlorodibenzofuran[1,2,3,4,6,7,8,9-]	41	1	0.00000443	mg/kg		0.000015		J	Y	DIOXINS FURANS	SW-846:8290	CFA	02/08/2013	01/31/2013
11118501	CALA-13-28429	2013-505	N	HA	INV	NA	REG	LA-26	0	6.25	ft	S	SED	39227-28-6	Hexachlorodibenzodioxin[1,2,3,4,7,8-]	41	1	0.000000724	mg/kg		0.0000072		U	Y	DIOXINS FURANS	SW-846:8290	CFA	02/08/2013	01/31/2013
11118500	CALA-13-28429	2013-505	N	HA	INV	NA	REG	LA-26	0	6.25	ft	S	SED	40321-76-4	Pentachlorodibenzodioxin[1,2,3,7,8-]	41	1	0.000000724	mg/kg		0.0000072		U	Y	DIOXINS FURANS	SW-846:8290	CFA	02/08/2013	01/31/2013
11118516	CALA-13-28429	2013-505	N	HA	INV	NA	REG	LA-26	0	6.25	ft	S	SED	41903-57-5	Tetrachlorodibenzodioxins (Total)	41	1	0.00000211	mg/kg				NQ	Y	DIOXINS FURANS	SW-846:8290	CFA	02/08/2013	01/31/2013
11119589	CALA-13-28429	2013-504	N	HA	INV	NA	REG	LA-26	0	6.25	ft	S	SED	50-29-3	DDT[4,4'-]	42.7	1	0.00231	mg/kg		0.00231		U	Y	PESTPCB	SW-846:8081A	GELC	02/14/2013	01/31/2013
11119595	CALA-13-28429	2013-504	N	HA	INV	NA	REG	LA-26	0	6.25	ft	S	SED	5103-71-9	Chlordane[alpha-]	42.7	1	0.00116	mg/kg		0.00116		U	Y	PESTPCB	SW-846:8081A	GELC	02/14/2013	01/31/2013
11119594	CALA-13-28429	2013-504	N	HA	INV	NA	REG	LA-26	0	6.25	ft	S	SED	5103-74-2	Chlordane[gamma-]	42.7	1	0.00116	mg/kg		0.00116		U	Y	PESTPCB	SW-846:8081A	GELC	02/14/2013	01/31/2013
11118506	CALA-13-28429	2013-505	N	HA	INV	NA	REG	LA-26	0	6.25	ft	S	SED	51207-31-9	Tetrachlorodibenzofuran[2,3,7,8-]	41	1	0.000000877	mg/kg		0.0000015		J	Y	DIOXINS FURANS	SW-846:8290	CFA	02/08/2013	01/31/2013
11119523	CALA-13-28429	2013-504	N	HA	INV	NA	REG	LA-26	0	6.25	ft	S	SED	53469-21-9	Aroclor-1242	42.7	1	0.00581	mg/kg		0.00581		U	Y	PESTPCB	SW-846:8082	GELC	02/08/2013	01/31/2013
11119591	CALA-13-28429	2013-504	N	HA	INV	NA	REG	LA-26	0	6.25	ft	S	SED	53494-70-5	Endrin Ketone	42.7	1	0.00231	mg/kg		0.00231		U	Y	PESTPCB	SW-846:8081A	GELC	02/14/2013	01/31/2013
11118514	CALA-13-28429	2013-505	N	HA	INV	NA	REG	LA-26	0	6.25	ft	S	SED	55673-89-7	Heptachlorodibenzofuran[1,2,3,4,7,8,9-]	41	1	0.000000724	mg/kg		0.0000072		U	Y	DIOXINS FURANS	SW-846:8290	CFA	02/08/2013	01/31/2013
11118522	CALA-13-28429	2013-505	N	HA	INV	NA	REG	LA-26	0	6.25	ft	S	SED	55684-94-1	Hexachlorodibenzofurans (Total)	41	1	0.00000124	mg/kg				J	Y	DIOXINS FURANS	SW-846:8290	CFA	02/08/2013	01/31/2013
11118520	CALA-13-28429	2013-505	N	HA	INV	NA	REG	LA-26	0	6.25	ft	S	SED	55722-27-5	Tetrachlorodibenzofurans (Totals)	41	1	0.000000371	mg/kg				J	Y	DIOXINS FURANS	SW-846:8290	CFA	02/08/2013	01/31/2013
11118508	CALA-13-28429	2013-505	N	HA	INV	NA	REG	LA-26	0	6.25	ft	S	SED	57117-31-4	Pentachlorodibenzofuran[2,3,4,7,8-]	41	1	0.000000724	mg/kg		0.0000072		U	Y	DIOXINS FURANS	SW-846:8290	CFA	02/08/2013	01/31/2013
11118507	CALA-13-28429	2013-505	N	HA	INV	NA	REG	LA-26	0	6.25	ft	S	SED	57117-41-6	Pentachlorodibenzofuran[1,2,3,7,8-]	41	1	0.000000724	mg/kg		0.0000072		U	Y	DIOXINS FURANS	SW-846:8290	CFA	02/08/2013	01/31/2013
11118510	CALA-13-28429	2013-505	N	HA	INV	NA	REG	LA-26	0	6.25	ft	S	SED	57117-44-9	Hexachlorodibenzofuran[1,2,3,6,7,8-]	41	1	0.000000724	mg/kg		0.0000072		U	Y	DIOXINS FURANS	SW-846:8290	CFA	02/08/2013	01/31/2013
11118502	CALA-13-28429	2013-505	N	HA	INV	NA	REG	LA-26	0	6.25	ft	S	SED	57653-85-7	Hexachlorodibenzodioxin[1,2,3,6,7,8-]	41	1	0.000000724	mg/kg		0.0000072		U	Y	DIOXINS FURANS	SW-846:8290	CFA	02/08/2013	01/31/2013
11119578	CALA-13-28429	2013-504	N	HA	INV	NA	REG	LA-26	0	6.25	ft	S	SED	58-89-9	BHC[gamma-]	42.7	1	0.00116	mg/kg		0.00116		U	Y	PESTPCB	SW-846:8081A	GELC	02/14/2013	01/31/2013
11119583	CALA-13-28429	2013-504	N	HA	INV	NA	REG	LA-26	0	6.25	ft	S	SED	60-57-1	Dieldrin	42.7	1	0.00231	mg/kg		0.00231		U	Y	PESTPCB	SW-846:8081A	GELC	02/14/2013	01/31/2013
11118511	CALA-13-28429	2013-505	N	HA	INV	NA	REG	LA-26	0	6.25	ft	S	SED	60851-34-5	Hexachlorodibenzofuran[2,3,4,6,7,8-]	41	1	0.000000724	mg/kg		0.0000072		U	Y	DIOXINS FURANS	SW-846:8290	CFA	02/08/2013	01/31/2013
11118513	CALA-13-28429	2013-505	N	HA	INV	NA	REG	LA-26	0	6.25	ft	S	SED	67562-39-4	Heptachlorodibenzofuran[1,2,3,4,6,7,8-]	41	1	0.00000193	mg/kg		0.0000072		J	Y	DIOXINS FURANS	SW-846:8290	CFA	02/08/2013	01/31/2013
11118509	CALA-13-28429	2013-505	N	HA	INV	NA	REG	LA-26	0	6.25	ft	S	SED	70648-26-9	Hexachlorodibenzofuran[1,2,3,4,7,8-]	41	1	0.000000724	mg/kg		0.0000072		U	Y	DIOXINS FURANS	SW-846:8290	CFA	02/08/2013	01/31/2013
11119585	CALA-13-28429	2013-504	N	HA	INV	NA	REG	LA-26	0	6.25	ft	S	SED	72-20-8	Endrin	42.7	1	0.00231	mg/kg		0.00231		U	Y	PESTPCB	SW-846:8081A	GELC	02/14/2013	01/31/2013
11119590	CALA-13-28429	2013-504	N	HA	INV	NA	REG	LA-26	0	6.25	ft	S	SED	72-43-5	Methoxychlor[4,4'-]	42.7	1	0.0116	mg/kg		0.0116		U	Y	PESTPCB	SW-846:8081A	GELC	02/14/2013	01/31/2013
11119587	CALA-13-28429	2013-504	N	HA	INV	NA	REG	LA-26	0	6.25	ft	S	SED	72-54-8	DDD[4,4'-]	42.7	1	0.00231	mg/kg		0.00231		U	Y	PESTPCB	SW-846:8081A	GELC	02/14/2013	01/31/2013
11119584	CALA-13-28429	2013-504	N	HA	INV	NA	REG	LA-26	0	6.25	ft	S	SED	72-55-9	DDE[4,4'-]	42.7	1	0.00121	mg/kg		0.00231		J	Y	PESTPCB	SW-846:8081A	GELC	02/14/2013	01/31/2013
11118512	CALA-13-28429	2013-505	N	HA	INV	NA	REG	LA-26	0	6.25	ft	S	SED	72918-21-9	Hexachlorodibenzofuran[1,2,3,7,8,9-]	41	1	0.000000724	mg/kg		0.0000072		U	Y	DIOXINS FURANS	SW-846:8290	CFA	02/08/2013	01/31/2013
11119592	CALA-13-28429	2013-504	N	HA	INV	NA	REG	LA-26	0	6.25	ft	S	SED	7421-93-4	Endrin Aldehyde	42.7	1	0.00231	mg/kg		0.00231		U	Y	PESTPCB	SW-846:8081A	GELC	02/14/2013	01/31/2013
11119031	CALA-13-28429	2013-504	N	HA	INV	NA	REG	LA-26	0	6.25	ft	S	SED	75-99-0	Dalapon	42.7	1	0.174	mg/kg		0.174		U	Y	HERB	SW-846:8151A	GELC	02/17/2013	01/31/2013
11119579	CALA-13-28429	2013-504	N	HA	INV	NA	REG	LA-26	0	6.25	ft	S	SED	76-44-8	Heptachlor	42.7	1	0.00116	mg/kg		0.00116		U	Y	PESTPCB	SW-846:8081A	GELC	02/14/2013	01/31/2013
11119593	CALA-13-28429	2013-504	N	HA	INV	NA	REG	LA-26	0	6.25	ft	S	SED	8001-35-2	Toxaphene (Technical Grade)	42.7	1	0.0289	mg/kg		0.0289		UJ	Y	PESTPCB	SW-846:8081A	GELC	02/14/2013	01/31/2013
11119035	CALA-13-28429	2013-504	N	HA	INV	NA	REG	LA-26	0	6.25	ft	S	SED	88-85-7	Dinoseb	42.7	1	0.00872	mg/kg		0.00872		U	Y	HERB	SW-846:8151A	GELC	02/17/2013	01/31/2013
11119036	CALA-13-28429	2013-504	N	HA	INV	NA	REG	LA-26	0	6.25	ft	S	SED	93-65-2	MCPP	42.7	1	1.74	mg/kg		1.74		U	Y	HERB	SW-846:8151A	GELC	02/17/2013	01/31/2013
11119038	CALA-13-28429	2013-504	N	HA	INV	NA	REG	LA-26	0	6.25	ft	S	SED	93-72-1	TP[2,4,5-]	42.7	1	0.00872	mg/kg		0.00872		U	Y	HERB	SW-846:8151A	GELC	02/17/2013	01/31/2013
11119034	CALA-13-28429	2013-504	N	HA	INV	NA	REG	LA-26	0	6.25	ft	S	SED	93-76-5	T[2,4,5-]	42.7	1	0.00872	mg/kg		0.00872		U	Y	HERB	SW-846:8151A	GELC	02/17/2013	01/31/2013
11119032	CALA-13-28429	2013-504	N	HA	INV	NA	REG	LA-26	0	6.25	ft	S	SED	94-74-6	MCPA	42.7	1	1.74	mg/kg		1.74		U	Y	HERB	SW-846:8151A	GELC	02/17/2013	01/31/2013
11119033	CALA-13-28429	2013-504	N	HA	INV	NA	REG	LA-26	0	6.25	ft	S	SED	94-75-7	D[2,4-]	42.7	1	0.00872	mg/kg		0.00872		U	Y	HERB	SW-846:8151A	GELC	02/17/2013	01/31/2013
11119040	CALA-13-28429	2013-504	N	HA	INV	NA	REG	LA-26	0	6.25	ft	S	SED	94-82-6	DB[2,4-]	42.7	1	0.0217	mg/kg		0.00872		NQ	Y	HERB	SW-846:8151A	GELC	02/17/2013	01/31/2013
11119582	CALA-13-28429	2013-504	N	HA	INV	NA	REG	LA-26	0	6.25	ft	S	SED	959-98-8	Endosulfan I	42.7	1	0.00116	mg/kg		0.00116		U	Y	PESTPCB	SW-846:8081A	GELC	02/14/2013	01/31/2013
11119310	CALA-13-28429	2013-504	N	HA	INV	NA	REG	LA-26	0	6.25	ft	S	SED	Ag	Silver	42.7	1	0.222	mg/kg		0.869		J	Y	INORGANIC	SW-846:6010B	GELC	02/07/2013	01/31/2013
11119292	CALA-13-28429	2013-504	N	HA	INV	NA	REG	LA-26	0	6.25	ft	S	SED	Al	Aluminum	42.7	1	9980	mg/kg		34.8		NQ	Y	INORGANIC	SW-846:6010B	GELC	02/07/2013	01/31/2013
11119447	CALA-13-28429	2013-504	N	HA	INV	NA	REG	LA-26	0	6.25	ft	S	SED	Am-241	Americium-241	42.7	1	0.0768	pCi/g	0.0174		0.0766	NQ	Y	RAD	HASL-300:AM-241	GELC	02/12/2013	01/31/2013
11119294	CALA-13-28429	2013-504	N	HA	INV	NA	REG	LA-26	0	6.25	ft	S	SED	As	Arsenic	42.7	2	1.95	mg/kg		1.7		NQ	Y	INORGANIC	SW-846:6020	GELC	02/12/2013	01/31/2013
11119295	CALA-13-28429	2013-504	N	HA	INV	NA	REG	LA-26	0	6.25	ft	S	SED	Ba	Barium	42.7	1	218	mg/kg		0.869		NQ	Y	INORGANIC	SW-846:6010B	GELC	02/07/2013	01/31/2013
11119296	CALA-13-28429	2013-504	N	HA	INV	NA	REG	LA-26	0	6.25	ft	S	SED	Be	Beryllium	42.7	2	1.18	mg/kg		0.17		NQ	Y	INORGANIC	SW-846:6020	GELC	02/12/2013	01/31/2013
11119298	CALA-13-28429	2013-504	N	HA	INV	NA	REG	LA-26	0	6.25	ft	S	SED	Ca	Calcium	42.7	1	8600	mg/kg		43.4		NQ	Y	INORGANIC	SW-846:6010B	GELC	02/07/2013	01/31/2013
11119297	CALA-13-28429	2013-504	N	HA	INV	NA	REG	LA-26	0	6.25	ft	S	SED	Cd	Cadmium	42.7	1	0.869	mg/kg		0.869		U	Y	INORGANIC	SW-846:6010B	GELC	02/07/2013	01/31/2013
11119343	CALA-13-28429	2013-504	N	HA	INV	NA	REG	LA-26	0	6.25	ft	S	SED	CN(TOTAL)	Cyanide (Total)	42.7	1	1.35	mg/kg		0.454		NQ	Y	GENERAL CHEMISTRY	SW-846:9012A	GELC	02/06/2013	01/31/2013
11119300	CALA-13-28429	2013-504	N	HA	INV	NA	REG	LA-26	0	6.25	ft	S	SED	Co	Cobalt	42.7	1	4.76	mg/kg		0.869		NQ	Y	INORGANIC	SW-846:6010B	GELC	02/07/2013	01/31/2013
11119452	CALA-13-28429	2013-504	N	HA	INV	NA	REG	LA-26	0	6.25	ft	S	SED	Co-60	Cobalt-60	42.7	1	0.00373	pCi/g	0.0294		0.0918	U	Y	RAD	EPA:901.1	GELC	02/06/2013	01/31/2013
11119299	CALA-13-28429	2013-504	N	HA	INV	NA	REG	LA-26	0	6.25	ft	S	SED	Cr	Chromium	42.7	1	7.46	mg/kg		0.869		NQ	Y	INORGANIC	SW-846:6010B	GELC	02/07/2013	01/31/2013
11119450	CALA-13-28429	2013-504	N	HA	INV	NA	REG	LA-26	0	6.25	ft	S	SED	Cs-134	Cesium-134	42.7	1	0.0471	pCi/g	0.0373		0.105	U	Y	RAD	EPA:901.1	GELC	02/06/2013	01/31/2013
11119451	CALA-13-28429	2013-504	N	HA	INV	NA	REG	LA-26	0	6.25	ft	S	SED	Cs-137	Cesium-137	42.7	1	1.31	pCi/g	0.0637		0.072	NQ	Y	RAD	EPA:901.1	GELC	02/06/2013	01/31/2013
11119301	CALA-13-28429	2013-504	N	HA	INV	NA	REG	LA-26	0	6.25	ft	S	SED	Cu	Copper	42.7	1	13.1	mg/kg		1.74		NQ	Y	INORGANIC	SW-846:6010B	GELC	02/07/2013	01/31/2013
11119302	CALA-13-28429	2013-504	N	HA	INV	NA	REG	LA-26	0	6.25	ft	S	SED	Fe	Iron	42.7	1	11500	mg/kg		43.4		NQ	Y	INORGANIC	SW-846:6010B	GELC	02/07/2013	01/31/2013
11119463	CALA-13-28429	2013-504	N	HA	INV	NA	REG	LA-26	0	6.25	ft	S	SED	H-3	Tritium	42.7	1	-0.048289	pCi/g	0.0379307		0.146059	U	Y	RAD	EPA:906.0	GELC	02/11/2013	01/31/2013
11119306	CALA-13-28429	2013-504	N	HA	INV	NA	REG	LA-26	0	6.25	ft	S	SED	Hg	Mercury	42.7	1	0.0294	mg/kg		0.0209		NQ	Y	INORGANIC	SW-846:7471A	GELC	02/07/2013	01/31/2013
11119308	CALA-13-28429	2013-504	N	HA	INV	NA	REG	LA-26	0	6.25	ft	S	SED	K	Potassium	42.7	1	1700	mg/kg		43.4		NQ	Y	INORGANIC	SW-846:6010B	GELC	02/07/2013	01/31/2013
11119304	CALA-13-28429	2013-504	N	HA	INV	NA	REG	LA-26	0	6.25	ft	S	SED	Mg	Magnesium	42.7	1	1850	mg/kg		52.1		NQ	Y	INORGANIC	SW-846:6010B	GELC	02/07/2013	01/31/2013
11119305	CALA-13-28429	2013-504	N	HA	INV	NA	REG	LA-26	0	6.25	ft	S	SED	Mn	Manganese	42.7	1	1200	mg/kg		1.74		NQ	Y	INORGANIC	SW-846:6010B	GELC	02/07/2013	01/31/2013
11119311	CALA-13-28429	2013-504	N	HA	INV	NA	REG	LA-26	0	6.25	ft	S	SED	Na	Sodium	42.7	1	156	mg/kg		43.4		NQ	Y	INORGANIC	SW-846:6010B	GELC	02/08/2013	01/31/2013
11119459	CALA-13-28429	2013-504	N	HA	INV	NA	REG	LA-26	0	6.25	ft	S	SED	Na-22	Sodium-22	42.7	1	-0.00564	pCi/g	0.0307		0.0926	U	Y	RAD	EPA:901.1	GELC	02/06/2013	01/31/2013
11119307	CALA-13-28429	2013-504	N	HA	INV	NA	REG	LA-26	0	6.25	ft	S	SED	Ni	Nickel	42.7	2	8.64	mg/kg		0.682		NQ	Y	INORGANIC	SW-846:6020	GELC	02/12/2013	01/31/2013
11119303	CALA-13-28429	2013-504	N	HA	INV	NA	REG	LA-26	0	6.25	ft	S	SED	Pb	Lead	42.7	1	24.3	mg/kg		1.74		NQ	Y	INORGANIC	SW-846:6010B	GELC	02/07/2013	01/31/2013
11119455	CALA-13-28429	2013-504	N	HA	INV	NA	REG	LA-26	0	6.25	ft	S	SED	Pu-238	Plutonium-238	42.7	1	0.0151	pCi/g	0.00604		0.0159	U	Y	RAD	HASL-300:ISOPU	GELC	02/07/2013	01/31/2013
11119456	CALA-13-28429	2013-504	N	HA	INV	NA	REG	LA-26	0	6.25	ft	S	SED	Pu-239/240	Plutonium-239/240	42.7	1	0.177	pCi/g	0.0166		0.0144	NQ	Y	RAD	HASL-300:ISOPU	GELC	02/07/2013	01/31/2013
11119293	CALA-13-28429	2013-504	N	HA	INV	NA	REG	LA-26	0	6.25	ft	S	SED	Sb	Antimony	42.7	1	1.74	mg/kg		1.74		U	Y	INORGANIC	SW-846:6010B	GELC	02/07/2013	01/31/2013
11119309	CALA-13-28429	2013-504	N	HA	INV	NA	REG	LA-26	0	6.25	ft	S	SED	Se	Selenium	42.7	2	1.7	mg/kg		1.7		U	Y	INORGANIC	SW-846:6020	GELC	02/12/2013	01/31/2013
11119460	CALA-13-28429	2013-504	N	HA	INV	NA	REG	LA-26	0	6.25	ft	S	SED	Sr-90	Strontium-90	42.7	1	0.281	pCi/g	0.115		0.354	U	Y	RAD	EPA:905.0	GELC	02/14/2013	01/31/2013
11119312	CALA-13-28429	2013-504	N	HA	INV	NA	REG	LA-26	0	6.25	ft	S	SED	Tl	Thallium	42.7	2	0.32	mg/kg		0.682		J	Y	INORGANIC	SW-846:6020	GELC	02/12/2013	01/31/2013
11119313	CALA-13-28429	2013-504	N	HA	INV	NA	REG	LA-26	0	6.25	ft	S	SED	V	Vanadium	42.7	1	16.2	mg/kg		0.869		NQ	Y	INORGANIC	SW-846:6010B	GELC	02/07/2013	01/31/2013
11119314	CALA-13-28429	2013-504	N	HA	INV	NA	REG	LA-26	0	6.25	ft	S	SED	Zn	Zinc	42.7	1	64.6	mg/kg		1.74		NQ	Y	INORGANIC	SW-846:6010B	GELC	02/07/2013	01/31/2013
11119602	CALA-13-28430	2013-504	N	HA	INV	NA	REG	LA-27	0	6.1	ft	S	SED	1024-57-3	Heptachlor Epoxide	41.8	1	0.00113	mg/kg		0.00113		U	Y	PESTPCB	SW-846:8081A	GELC	02/14/2013	01/31/2013
11119609	CALA-13-28430	2013-504	N	HA	INV	NA	REG	LA-27	0	6.1	ft	S	SED	1031-07-8	Endosulfan Sulfate	41.8	1	0.00226	mg/kg		0.00226		U	Y	PESTPCB	SW-846:8081A	GELC	02/14/2013	01/31/2013
11119533	CALA-13-28430	2013-504	N	HA	INV	NA	REG	LA-27	0	6.1	ft	S	SED	11096-82-5	Aroclor-1260	41.8	1	0.0057	mg/kg		0.0057		U	Y	PESTPCB	SW-846:8082	GELC	02/08/2013	01/31/2013
11119532	CALA-13-28430	2013-504	N	HA	INV	NA	REG	LA-27	0	6.1	ft	S	SED	11097-69-1	Aroclor-1254	41.8	1	0.0057	mg/kg		0.0057		U	Y	PESTPCB	SW-846:8082	GELC	02/08/2013	01/31/2013
11119528	CALA-13-28430	2013-504	N	HA	INV	NA	REG	LA-27	0	6.1	ft	S	SED	11104-28-2	Aroclor-1221	41.8	1	0.0057	mg/kg		0.0057		U	Y	PESTPCB	SW-846:8082	GELC	02/08/2013	01/31/2013
11119529	CALA-13-28430	2013-504	N	HA	INV	NA	REG	LA-27	0	6.1	ft	S	SED	11141-16-5	Aroclor-1232	41.8	1	0.0057	mg/kg		0.0057		U	Y	PESTPCB	SW-846:8082	GELC	02/08/2013	01/31/2013
11119047	CALA-13-28430	2013-504	N	HA	INV	NA	REG	LA-27	0	6.1	ft	S	SED	120-36-5	Dichlorprop	41.8	1	0.00855	mg/kg		0.00855		U	Y	HERB	SW-846:8151A	GELC	02/17/2013	01/31/2013
11119531	CALA-13-28430	2013-504	N	HA	INV	NA	REG	LA-27	0	6.1	ft	S	SED	12672-29-6	Aroclor-1248	41.8	1	0.0057	mg/kg		0.0057		U	Y	PESTPCB	SW-846:8082	GELC	02/08/2013	01/31/2013
11119527	CALA-13-28430	2013-504	N	HA	INV	NA	REG	LA-27	0	6.1	ft	S	SED	12674-11-2	Aroclor-1016	41.8	1	0.0057	mg/kg		0.0057		U	Y	PESTPCB	SW-846:8082	GELC	02/08/2013	01/31/2013
11118524	CALA-13-28430	2013-505	N	HA	INV	NA	REG	LA-27	0	6.1	ft	S	SED	1746-01-6	Tetrachlorodibenzodioxin[2,3,7,8-]	42	1	0.000000292	mg/kg		0.0000017		U	Y	DIOXINS FURANS	SW-846:8290	CFA	02/08/2013	01/31/2013
11119049	CALA-13-28430	2013-504	N	HA	INV	NA	REG	LA-27	0	6.1	ft	S	SED	1918-00-9	Dicamba	41.8	1	0.00855	mg/kg		0.00855		U	Y	HERB	SW-846:8151A	GELC	02/17/2013	01/31/2013
11118528	CALA-13-28430	2013-505	N	HA	INV	NA	REG	LA-27	0	6.1	ft	S	SED	19408-74-3	Hexachlorodibenzodioxin[1,2,3,7,8,9-]	42	1	0.000000838	mg/kg		0.0000084		U	Y	DIOXINS FURANS	SW-846:8290	CFA	02/08/2013	01/31/2013
11118546	CALA-13-28430	2013-505	N	HA	INV	NA	REG	LA-27	0	6.1	ft	S	SED	30402-15-4	Pentachlorodibenzofurans (Totals)	42	1	0	mg/kg				U	Y	DIOXINS FURANS	SW-846:8290	CFA	02/08/2013	01/31/2013
11119601	CALA-13-28430	2013-504	N	HA	INV	NA	REG	LA-27	0	6.1	ft	S	SED	309-00-2	Aldrin	41.8	1	0.00113	mg/kg		0.00113		U	Y	PESTPCB	SW-846:8081A	GELC	02/14/2013	01/31/2013
11119596	CALA-13-28430	2013-504	N	HA	INV	NA	REG	LA-27	0	6.1	ft	S	SED	319-84-6	BHC[alpha-]	41.8	1	0.00113	mg/kg		0.00113		U	Y	PESTPCB	SW-846:8081A	GELC	02/14/2013	01/31/2013
11119597	CALA-13-28430	2013-504	N	HA	INV	NA	REG	LA-27	0	6.1	ft	S	SED	319-85-7	BHC[beta-]	41.8	1	0.00113	mg/kg		0.00113		U	Y	PESTPCB	SW-846:8081A	GELC	02/14/2013	01/31/2013
11119598	CALA-13-28430	2013-504	N	HA	INV	NA	REG	LA-27	0	6.1	ft	S	SED	319-86-8	BHC[delta-]	41.8	1	0.00113	mg/kg		0.00113		U	Y	PESTPCB	SW-846:8081A	GELC	02/14/2013	01/31/2013
11118530	CALA-13-28430	2013-505	N	HA	INV	NA	REG	LA-27	0	6.1	ft	S	SED	3268-87-9	Octachlorodibenzodioxin[1,2,3,4,6,7,8,9-]	42	1	0.0000455	mg/kg		0.000017		NQ	Y	DIOXINS FURANS	SW-846:8290	CFA	02/08/2013	01/31/2013
11119607	CALA-13-28430	2013-504	N	HA	INV	NA	REG	LA-27	0	6.1	ft	S	SED	33213-65-9	Endosulfan II	41.8	1	0.00226	mg/kg		0.00226		U	Y	PESTPCB	SW-846:8081A	GELC	02/14/2013	01/31/2013
11118543	CALA-13-28430	2013-505	N	HA	INV	NA	REG	LA-27	0	6.1	ft	S	SED	34465-46-8	Hexachlorodibenzodioxins (Total)	42	1	0.00000111	mg/kg				J	Y	DIOXINS FURANS	SW-846:8290	CFA	02/08/2013	01/31/2013
11118529	CALA-13-28430	2013-505	N	HA	INV	NA	REG	LA-27	0	6.1	ft	S	SED	35822-46-9	Heptachlorodibenzodioxin[1,2,3,4,6,7,8-]	42	1	0.00000482	mg/kg		0.0000084		J	Y	DIOXINS FURANS	SW-846:8290	CFA	02/08/2013	01/31/2013
11118542	CALA-13-28430	2013-505	N	HA	INV	NA	REG	LA-27	0	6.1	ft	S	SED	36088-22-9	Pentachlorodibenzodioxins (Total)	42	1	0	mg/kg				U	Y	DIOXINS FURANS	SW-846:8290	CFA	02/08/2013	01/31/2013
11118544	CALA-13-28430	2013-505	N	HA	INV	NA	REG	LA-27	0	6.1	ft	S	SED	37871-00-4	Heptachlorodibenzodioxins (Total)	42	1	0.0000096	mg/kg				NQ	Y	DIOXINS FURANS	SW-846:8290	CFA	02/08/2013	01/31/2013
11118548	CALA-13-28430	2013-505	N	HA	INV	NA	REG	LA-27	0	6.1	ft	S	SED	38998-75-3	Heptachlorodibenzofurans (Total)	42	1	0.00000448	mg/kg				J	Y	DIOXINS FURANS	SW-846:8290	CFA	02/08/2013	01/31/2013
11118540	CALA-13-28430	2013-505	N	HA	INV	NA	REG	LA-27	0	6.1	ft	S	SED	39001-02-0	Octachlorodibenzofuran[1,2,3,4,6,7,8,9-]	42	1	0.00000323	mg/kg		0.000017		J	Y	DIOXINS FURANS	SW-846:8290	CFA	02/08/2013	01/31/2013
11118526	CALA-13-28430	2013-505	N	HA	INV	NA	REG	LA-27	0	6.1	ft	S	SED	39227-28-6	Hexachlorodibenzodioxin[1,2,3,4,7,8-]	42	1	0.000000838	mg/kg		0.0000084		U	Y	DIOXINS FURANS	SW-846:8290	CFA	02/08/2013	01/31/2013
11118525	CALA-13-28430	2013-505	N	HA	INV	NA	REG	LA-27	0	6.1	ft	S	SED	40321-76-4	Pentachlorodibenzodioxin[1,2,3,7,8-]	42	1	0.000000838	mg/kg		0.0000084		U	Y	DIOXINS FURANS	SW-846:8290	CFA	02/08/2013	01/31/2013
11118541	CALA-13-28430	2013-505	N	HA	INV	NA	REG	LA-27	0	6.1	ft	S	SED	41903-57-5	Tetrachlorodibenzodioxins (Total)	42	1	0.00000235	mg/kg				NQ	Y	DIOXINS FURANS	SW-846:8290	CFA	02/08/2013	01/31/2013
11119610	CALA-13-28430	2013-504	N	HA	INV	NA	REG	LA-27	0	6.1	ft	S	SED	50-29-3	DDT[4,4'-]	41.8	1	0.00226	mg/kg		0.00226		U	Y	PESTPCB	SW-846:8081A	GELC	02/14/2013	01/31/2013
11119616	CALA-13-28430	2013-504	N	HA	INV	NA	REG	LA-27	0	6.1	ft	S	SED	5103-71-9	Chlordane[alpha-]	41.8	1	0.00113	mg/kg		0.00113		U	Y	PESTPCB	SW-846:8081A	GELC	02/14/2013	01/31/2013
11119615	CALA-13-28430	2013-504	N	HA	INV	NA	REG	LA-27	0	6.1	ft	S	SED	5103-74-2	Chlordane[gamma-]	41.8	1	0.00113	mg/kg		0.00113		U	Y	PESTPCB	SW-846:8081A	GELC	02/14/2013	01/31/2013
11118531	CALA-13-28430	2013-505	N	HA	INV	NA	REG	LA-27	0	6.1	ft	S	SED	51207-31-9	Tetrachlorodibenzofuran[2,3,7,8-]	42	1	0.000000952	mg/kg		0.0000017		J	Y	DIOXINS FURANS	SW-846:8290	CFA	02/08/2013	01/31/2013
11119530	CALA-13-28430	2013-504	N	HA	INV	NA	REG	LA-27	0	6.1	ft	S	SED	53469-21-9	Aroclor-1242	41.8	1	0.0057	mg/kg		0.0057		U	Y	PESTPCB	SW-846:8082	GELC	02/08/2013	01/31/2013
11119612	CALA-13-28430	2013-504	N	HA	INV	NA	REG	LA-27	0	6.1	ft	S	SED	53494-70-5	Endrin Ketone	41.8	1	0.00226	mg/kg		0.00226		U	Y	PESTPCB	SW-846:8081A	GELC	02/14/2013	01/31/2013
11118539	CALA-13-28430	2013-505	N	HA	INV	NA	REG	LA-27	0	6.1	ft	S	SED	55673-89-7	Heptachlorodibenzofuran[1,2,3,4,7,8,9-]	42	1	0.000000838	mg/kg		0.0000084		U	Y	DIOXINS FURANS	SW-846:8290	CFA	02/08/2013	01/31/2013
11118547	CALA-13-28430	2013-505	N	HA	INV	NA	REG	LA-27	0	6.1	ft	S	SED	55684-94-1	Hexachlorodibenzofurans (Total)	42	1	0.00000124	mg/kg				J	Y	DIOXINS FURANS	SW-846:8290	CFA	02/08/2013	01/31/2013
11118545	CALA-13-28430	2013-505	N	HA	INV	NA	REG	LA-27	0	6.1	ft	S	SED	55722-27-5	Tetrachlorodibenzofurans (Totals)	42	1	0.00000112	mg/kg				J	Y	DIOXINS FURANS	SW-846:8290	CFA	02/08/2013	01/31/2013
11118533	CALA-13-28430	2013-505	N	HA	INV	NA	REG	LA-27	0	6.1	ft	S	SED	57117-31-4	Pentachlorodibenzofuran[2,3,4,7,8-]	42	1	0.000000838	mg/kg		0.0000084		U	Y	DIOXINS FURANS	SW-846:8290	CFA	02/08/2013	01/31/2013
11118532	CALA-13-28430	2013-505	N	HA	INV	NA	REG	LA-27	0	6.1	ft	S	SED	57117-41-6	Pentachlorodibenzofuran[1,2,3,7,8-]	42	1	0.000000838	mg/kg		0.0000084		U	Y	DIOXINS FURANS	SW-846:8290	CFA	02/08/2013	01/31/2013
11118535	CALA-13-28430	2013-505	N	HA	INV	NA	REG	LA-27	0	6.1	ft	S	SED	57117-44-9	Hexachlorodibenzofuran[1,2,3,6,7,8-]	42	1	0.000000838	mg/kg		0.0000084		U	Y	DIOXINS FURANS	SW-846:8290	CFA	02/08/2013	01/31/2013
11118527	CALA-13-28430	2013-505	N	HA	INV	NA	REG	LA-27	0	6.1	ft	S	SED	57653-85-7	Hexachlorodibenzodioxin[1,2,3,6,7,8-]	42	1	0.000000838	mg/kg		0.0000084		U	Y	DIOXINS FURANS	SW-846:8290	CFA	02/08/2013	01/31/2013
11119599	CALA-13-28430	2013-504	N	HA	INV	NA	REG	LA-27	0	6.1	ft	S	SED	58-89-9	BHC[gamma-]	41.8	1	0.00113	mg/kg		0.00113		U	Y	PESTPCB	SW-846:8081A	GELC	02/14/2013	01/31/2013
11119604	CALA-13-28430	2013-504	N	HA	INV	NA	REG	LA-27	0	6.1	ft	S	SED	60-57-1	Dieldrin	41.8	1	0.00226	mg/kg		0.00226		U	Y	PESTPCB	SW-846:8081A	GELC	02/14/2013	01/31/2013
11118536	CALA-13-28430	2013-505	N	HA	INV	NA	REG	LA-27	0	6.1	ft	S	SED	60851-34-5	Hexachlorodibenzofuran[2,3,4,6,7,8-]	42	1	0.000000838	mg/kg		0.0000084		U	Y	DIOXINS FURANS	SW-846:8290	CFA	02/08/2013	01/31/2013
11118538	CALA-13-28430	2013-505	N	HA	INV	NA	REG	LA-27	0	6.1	ft	S	SED	67562-39-4	Heptachlorodibenzofuran[1,2,3,4,6,7,8-]	42	1	0.00000256	mg/kg		0.0000084		J	Y	DIOXINS FURANS	SW-846:8290	CFA	02/08/2013	01/31/2013
11118534	CALA-13-28430	2013-505	N	HA	INV	NA	REG	LA-27	0	6.1	ft	S	SED	70648-26-9	Hexachlorodibenzofuran[1,2,3,4,7,8-]	42	1	0.000000841	mg/kg		0.0000084		J	Y	DIOXINS FURANS	SW-846:8290	CFA	02/08/2013	01/31/2013
11119606	CALA-13-28430	2013-504	N	HA	INV	NA	REG	LA-27	0	6.1	ft	S	SED	72-20-8	Endrin	41.8	1	0.00226	mg/kg		0.00226		U	Y	PESTPCB	SW-846:8081A	GELC	02/14/2013	01/31/2013
11119611	CALA-13-28430	2013-504	N	HA	INV	NA	REG	LA-27	0	6.1	ft	S	SED	72-43-5	Methoxychlor[4,4'-]	41.8	1	0.0113	mg/kg		0.0113		U	Y	PESTPCB	SW-846:8081A	GELC	02/14/2013	01/31/2013
11119608	CALA-13-28430	2013-504	N	HA	INV	NA	REG	LA-27	0	6.1	ft	S	SED	72-54-8	DDD[4,4'-]	41.8	1	0.00226	mg/kg		0.00226		U	Y	PESTPCB	SW-846:8081A	GELC	02/14/2013	01/31/2013
11119605	CALA-13-28430	2013-504	N	HA	INV	NA	REG	LA-27	0	6.1	ft	S	SED	72-55-9	DDE[4,4'-]	41.8	1	0.00297	mg/kg		0.00226		NQ	Y	PESTPCB	SW-846:8081A	GELC	02/14/2013	01/31/2013
11118537	CALA-13-28430	2013-505	N	HA	INV	NA	REG	LA-27	0	6.1	ft	S	SED	72918-21-9	Hexachlorodibenzofuran[1,2,3,7,8,9-]	42	1	0.000000838	mg/kg		0.0000084		U	Y	DIOXINS FURANS	SW-846:8290	CFA	02/08/2013	01/31/2013
11119613	CALA-13-28430	2013-504	N	HA	INV	NA	REG	LA-27	0	6.1	ft	S	SED	7421-93-4	Endrin Aldehyde	41.8	1	0.00226	mg/kg		0.00226		U	Y	PESTPCB	SW-846:8081A	GELC	02/14/2013	01/31/2013
11119041	CALA-13-28430	2013-504	N	HA	INV	NA	REG	LA-27	0	6.1	ft	S	SED	75-99-0	Dalapon	41.8	1	0.171	mg/kg		0.171		U	Y	HERB	SW-846:8151A	GELC	02/17/2013	01/31/2013
11119600	CALA-13-28430	2013-504	N	HA	INV	NA	REG	LA-27	0	6.1	ft	S	SED	76-44-8	Heptachlor	41.8	1	0.00113	mg/kg		0.00113		U	Y	PESTPCB	SW-846:8081A	GELC	02/14/2013	01/31/2013
11119614	CALA-13-28430	2013-504	N	HA	INV	NA	REG	LA-27	0	6.1	ft	S	SED	8001-35-2	Toxaphene (Technical Grade)	41.8	1	0.0282	mg/kg		0.0282		UJ	Y	PESTPCB	SW-846:8081A	GELC	02/14/2013	01/31/2013
11119045	CALA-13-28430	2013-504	N	HA	INV	NA	REG	LA-27	0	6.1	ft	S	SED	88-85-7	Dinoseb	41.8	1	0.00855	mg/kg		0.00855		U	Y	HERB	SW-846:8151A	GELC	02/17/2013	01/31/2013
11119046	CALA-13-28430	2013-504	N	HA	INV	NA	REG	LA-27	0	6.1	ft	S	SED	93-65-2	MCPP	41.8	1	1.32	mg/kg		1.71		J	Y	HERB	SW-846:8151A	GELC	02/17/2013	01/31/2013
11119048	CALA-13-28430	2013-504	N	HA	INV	NA	REG	LA-27	0	6.1	ft	S	SED	93-72-1	TP[2,4,5-]	41.8	1	0.00855	mg/kg		0.00855		U	Y	HERB	SW-846:8151A	GELC	02/17/2013	01/31/2013
11119044	CALA-13-28430	2013-504	N	HA	INV	NA	REG	LA-27	0	6.1	ft	S	SED	93-76-5	T[2,4,5-]	41.8	1	0.00855	mg/kg		0.00855		U	Y	HERB	SW-846:8151A	GELC	02/17/2013	01/31/2013
11119042	CALA-13-28430	2013-504	N	HA	INV	NA	REG	LA-27	0	6.1	ft	S	SED	94-74-6	MCPA	41.8	1	1.71	mg/kg		1.71		U	Y	HERB	SW-846:8151A	GELC	02/17/2013	01/31/2013
11119043	CALA-13-28430	2013-504	N	HA	INV	NA	REG	LA-27	0	6.1	ft	S	SED	94-75-7	D[2,4-]	41.8	1	0.00855	mg/kg		0.00855		U	Y	HERB	SW-846:8151A	GELC	02/17/2013	01/31/2013
11119050	CALA-13-28430	2013-504	N	HA	INV	NA	REG	LA-27	0	6.1	ft	S	SED	94-82-6	DB[2,4-]	41.8	1	0.0234	mg/kg		0.00855		NQ	Y	HERB	SW-846:8151A	GELC	02/17/2013	01/31/2013
11119603	CALA-13-28430	2013-504	N	HA	INV	NA	REG	LA-27	0	6.1	ft	S	SED	959-98-8	Endosulfan I	41.8	1	0.00113	mg/kg		0.00113		U	Y	PESTPCB	SW-846:8081A	GELC	02/14/2013	01/31/2013
11119333	CALA-13-28430	2013-504	N	HA	INV	NA	REG	LA-27	0	6.1	ft	S	SED	Ag	Silver	41.8	1	0.171	mg/kg		0.842		J	Y	INORGANIC	SW-846:6010B	GELC	02/07/2013	01/31/2013
11119315	CALA-13-28430	2013-504	N	HA	INV	NA	REG	LA-27	0	6.1	ft	S	SED	Al	Aluminum	41.8	1	14500	mg/kg		33.7		NQ	Y	INORGANIC	SW-846:6010B	GELC	02/07/2013	01/31/2013
11119467	CALA-13-28430	2013-504	N	HA	INV	NA	REG	LA-27	0	6.1	ft	S	SED	Am-241	Americium-241	41.8	1	0.0386	pCi/g	0.00905		0.049	U	Y	RAD	HASL-300:AM-241	GELC	02/13/2013	01/31/2013
11119317	CALA-13-28430	2013-504	N	HA	INV	NA	REG	LA-27	0	6.1	ft	S	SED	As	Arsenic	41.8	2	2.8	mg/kg		1.7		NQ	Y	INORGANIC	SW-846:6020	GELC	02/12/2013	01/31/2013
11119318	CALA-13-28430	2013-504	N	HA	INV	NA	REG	LA-27	0	6.1	ft	S	SED	Ba	Barium	41.8	1	275	mg/kg		0.842		NQ	Y	INORGANIC	SW-846:6010B	GELC	02/07/2013	01/31/2013
11119319	CALA-13-28430	2013-504	N	HA	INV	NA	REG	LA-27	0	6.1	ft	S	SED	Be	Beryllium	41.8	2	1.82	mg/kg		0.17		NQ	Y	INORGANIC	SW-846:6020	GELC	02/12/2013	01/31/2013
11119321	CALA-13-28430	2013-504	N	HA	INV	NA	REG	LA-27	0	6.1	ft	S	SED	Ca	Calcium	41.8	1	8680	mg/kg		42.1		NQ	Y	INORGANIC	SW-846:6010B	GELC	02/07/2013	01/31/2013
11119320	CALA-13-28430	2013-504	N	HA	INV	NA	REG	LA-27	0	6.1	ft	S	SED	Cd	Cadmium	41.8	1	0.207	mg/kg		0.842		J	Y	INORGANIC	SW-846:6010B	GELC	02/07/2013	01/31/2013
11119344	CALA-13-28430	2013-504	N	HA	INV	NA	REG	LA-27	0	6.1	ft	S	SED	CN(TOTAL)	Cyanide (Total)	41.8	1	1.08	mg/kg		0.457		NQ	Y	GENERAL CHEMISTRY	SW-846:9012A	GELC	02/06/2013	01/31/2013
11119323	CALA-13-28430	2013-504	N	HA	INV	NA	REG	LA-27	0	6.1	ft	S	SED	Co	Cobalt	41.8	1	6.06	mg/kg		0.842		NQ	Y	INORGANIC	SW-846:6010B	GELC	02/07/2013	01/31/2013
11119472	CALA-13-28430	2013-504	N	HA	INV	NA	REG	LA-27	0	6.1	ft	S	SED	Co-60	Cobalt-60	41.8	1	-0.0328	pCi/g	0.0353		0.119	U	Y	RAD	EPA:901.1	GELC	02/06/2013	01/31/2013
11119322	CALA-13-28430	2013-504	N	HA	INV	NA	REG	LA-27	0	6.1	ft	S	SED	Cr	Chromium	41.8	1	9.81	mg/kg		0.842		NQ	Y	INORGANIC	SW-846:6010B	GELC	02/07/2013	01/31/2013
11119470	CALA-13-28430	2013-504	N	HA	INV	NA	REG	LA-27	0	6.1	ft	S	SED	Cs-134	Cesium-134	41.8	1	0.0624	pCi/g	0.0701		0.152	U	Y	RAD	EPA:901.1	GELC	02/06/2013	01/31/2013
11119471	CALA-13-28430	2013-504	N	HA	INV	NA	REG	LA-27	0	6.1	ft	S	SED	Cs-137	Cesium-137	41.8	1	1.48	pCi/g	0.0803		0.122	NQ	Y	RAD	EPA:901.1	GELC	02/06/2013	01/31/2013
11119324	CALA-13-28430	2013-504	N	HA	INV	NA	REG	LA-27	0	6.1	ft	S	SED	Cu	Copper	41.8	1	17.3	mg/kg		1.68		NQ	Y	INORGANIC	SW-846:6010B	GELC	02/07/2013	01/31/2013
11119325	CALA-13-28430	2013-504	N	HA	INV	NA	REG	LA-27	0	6.1	ft	S	SED	Fe	Iron	41.8	1	14700	mg/kg		42.1		NQ	Y	INORGANIC	SW-846:6010B	GELC	02/07/2013	01/31/2013
11119483	CALA-13-28430	2013-504	N	HA	INV	NA	REG	LA-27	0	6.1	ft	S	SED	H-3	Tritium	41.8	1	-0.0543687	pCi/g	0.0364852		0.142206	U	Y	RAD	EPA:906.0	GELC	02/11/2013	01/31/2013
11119329	CALA-13-28430	2013-504	N	HA	INV	NA	REG	LA-27	0	6.1	ft	S	SED	Hg	Mercury	41.8	1	0.0396	mg/kg		0.0189		NQ	Y	INORGANIC	SW-846:7471A	GELC	02/07/2013	01/31/2013
11119331	CALA-13-28430	2013-504	N	HA	INV	NA	REG	LA-27	0	6.1	ft	S	SED	K	Potassium	41.8	1	2210	mg/kg		42.1		NQ	Y	INORGANIC	SW-846:6010B	GELC	02/07/2013	01/31/2013
11119327	CALA-13-28430	2013-504	N	HA	INV	NA	REG	LA-27	0	6.1	ft	S	SED	Mg	Magnesium	41.8	1	2270	mg/kg		50.5		NQ	Y	INORGANIC	SW-846:6010B	GELC	02/07/2013	01/31/2013
11119328	CALA-13-28430	2013-504	N	HA	INV	NA	REG	LA-27	0	6.1	ft	S	SED	Mn	Manganese	41.8	1	1270	mg/kg		1.68		NQ	Y	INORGANIC	SW-846:6010B	GELC	02/07/2013	01/31/2013
11119334	CALA-13-28430	2013-504	N	HA	INV	NA	REG	LA-27	0	6.1	ft	S	SED	Na	Sodium	41.8	1	181	mg/kg		42.1		NQ	Y	INORGANIC	SW-846:6010B	GELC	02/08/2013	01/31/2013
11119479	CALA-13-28430	2013-504	N	HA	INV	NA	REG	LA-27	0	6.1	ft	S	SED	Na-22	Sodium-22	41.8	1	-0.013	pCi/g	0.0434		0.129	U	Y	RAD	EPA:901.1	GELC	02/06/2013	01/31/2013
11119330	CALA-13-28430	2013-504	N	HA	INV	NA	REG	LA-27	0	6.1	ft	S	SED	Ni	Nickel	41.8	2	12.3	mg/kg		0.682		NQ	Y	INORGANIC	SW-846:6020	GELC	02/12/2013	01/31/2013
11119326	CALA-13-28430	2013-504	N	HA	INV	NA	REG	LA-27	0	6.1	ft	S	SED	Pb	Lead	41.8	1	35.2	mg/kg		1.68		NQ	Y	INORGANIC	SW-846:6010B	GELC	02/07/2013	01/31/2013
11119475	CALA-13-28430	2013-504	N	HA	INV	NA	REG	LA-27	0	6.1	ft	S	SED	Pu-238	Plutonium-238	41.8	1	0.0111	pCi/g	0.00475		0.0167	U	Y	RAD	HASL-300:ISOPU	GELC	02/07/2013	01/31/2013
11119476	CALA-13-28430	2013-504	N	HA	INV	NA	REG	LA-27	0	6.1	ft	S	SED	Pu-239/240	Plutonium-239/240	41.8	1	0.108	pCi/g	0.0134		0.0151	NQ	Y	RAD	HASL-300:ISOPU	GELC	02/07/2013	01/31/2013
11119316	CALA-13-28430	2013-504	N	HA	INV	NA	REG	LA-27	0	6.1	ft	S	SED	Sb	Antimony	41.8	1	1.68	mg/kg		1.68		U	Y	INORGANIC	SW-846:6010B	GELC	02/07/2013	01/31/2013
11119332	CALA-13-28430	2013-504	N	HA	INV	NA	REG	LA-27	0	6.1	ft	S	SED	Se	Selenium	41.8	2	1.7	mg/kg		1.7		U	Y	INORGANIC	SW-846:6020	GELC	02/12/2013	01/31/2013
11119480	CALA-13-28430	2013-504	N	HA	INV	NA	REG	LA-27	0	6.1	ft	S	SED	Sr-90	Strontium-90	41.8	1	0.379	pCi/g	0.141		0.436	U	Y	RAD	EPA:905.0	GELC	02/14/2013	01/31/2013
11119335	CALA-13-28430	2013-504	N	HA	INV	NA	REG	LA-27	0	6.1	ft	S	SED	Tl	Thallium	41.8	2	0.438	mg/kg		0.682		J	Y	INORGANIC	SW-846:6020	GELC	02/12/2013	01/31/2013
11119336	CALA-13-28430	2013-504	N	HA	INV	NA	REG	LA-27	0	6.1	ft	S	SED	V	Vanadium	41.8	1	19	mg/kg		0.842		NQ	Y	INORGANIC	SW-846:6010B	GELC	02/07/2013	01/31/2013
11119337	CALA-13-28430	2013-504	N	HA	INV	NA	REG	LA-27	0	6.1	ft	S	SED	Zn	Zinc	41.8	1	84.8	mg/kg		1.68		NQ	Y	INORGANIC	SW-846:6010B	GELC	02/07/2013	01/31/2013

FSR Record No.	Field Sample ID	Chain Of Custody No.	Excavated Flag	Sampling Method	Sample Usage Code	Field Prep Code	Sample Purpose	Location ID	Start Depth	End Depth	Depth Units	Sample Type	Media Code	Parameter Code	Parameter Name	Percent Moisture	Dilution Factor	Report Result	Report Units	Report Uncertainty	Report Detection Limit	Report MDA	Validation Qualifier	Best Value Flag	Method Category	Analytical Method	Lab ID	Analysis Date	Date Sampled
11119120	CALA-13-28432	2013-504	N	HA	QC	NA	FD	LA-24	0	6.5	ft	S	SED	1024-57-3	Heptachlor Epoxide	42	1	0.00113	mg/kg		0.00113		U	Y	PESTPCB	SW-846:8081A	GELC	02/14/2013	01/31/2013
11119127	CALA-13-28432	2013-504	N	HA	QC	NA	FD	LA-24	0	6.5	ft	S	SED	1031-07-8	Endosulfan Sulfate	42	1	0.00226	mg/kg		0.00226		U	Y	PESTPCB	SW-846:8081A	GELC	02/14/2013	01/31/2013
11119512	CALA-13-28432	2013-504	N	HA	QC	NA	FD	LA-24	0	6.5	ft	S	SED	11096-82-5	Aroclor-1260	42	1	0.00573	mg/kg		0.00573		U	Y	PESTPCB	SW-846:8082	GELC	02/08/2013	01/31/2013
11119511	CALA-13-28432	2013-504	N	HA	QC	NA	FD	LA-24	0	6.5	ft	S	SED	11097-69-1	Aroclor-1254	42	1	0.00573	mg/kg		0.00573		U	Y	PESTPCB	SW-846:8082	GELC	02/08/2013	01/31/2013
11119507	CALA-13-28432	2013-504	N	HA	QC	NA	FD	LA-24	0	6.5	ft	S	SED	11104-28-2	Aroclor-1221	42	1	0.00573	mg/kg		0.00573		U	Y	PESTPCB	SW-846:8082	GELC	02/08/2013	01/31/2013
11119508	CALA-13-28432	2013-504	N	HA	QC	NA	FD	LA-24	0	6.5	ft	S	SED	11141-16-5	Aroclor-1232	42	1	0.00573	mg/kg		0.00573		U	Y	PESTPCB	SW-846:8082	GELC	02/08/2013	01/31/2013
11119570	CALA-13-28432	2013-504	N	HA	QC	NA	FD	LA-24	0	6.5	ft	S	SED	120-36-5	Dichlorprop	42	1	0.00859	mg/kg		0.00859		U	Y	HERB	SW-846:8151A	GELC	02/17/2013	01/31/2013
11119510	CALA-13-28432	2013-504	N	HA	QC	NA	FD	LA-24	0	6.5	ft	S	SED	12672-29-6	Aroclor-1248	42	1	0.00573	mg/kg		0.00573		U	Y	PESTPCB	SW-846:8082	GELC	02/08/2013	01/31/2013
11119506	CALA-13-28432	2013-504	N	HA	QC	NA	FD	LA-24	0	6.5	ft	S	SED	12674-11-2	Aroclor-1016	42	1	0.00573	mg/kg		0.00573		U	Y	PESTPCB	SW-846:8082	GELC	02/08/2013	01/31/2013
11118449	CALA-13-28432	2013-505	N	HA	QC	NA	FD	LA-24	0	6.5	ft	S	SED	1746-01-6	Tetrachlorodibenzodioxin[2,3,7,8-]	41	1	0.000000162	mg/kg		0.0000015		U	Y	DIOXINS FURANS	SW-846:8290	CFA	02/08/2013	01/31/2013
11119572	CALA-13-28432	2013-504	N	HA	QC	NA	FD	LA-24	0	6.5	ft	S	SED	1918-00-9	Dicamba	42	1	0.00859	mg/kg		0.00859		U	Y	HERB	SW-846:8151A	GELC	02/17/2013	01/31/2013
11118453	CALA-13-28432	2013-505	N	HA	QC	NA	FD	LA-24	0	6.5	ft	S	SED	19408-74-3	Hexachlorodibenzodioxin[1,2,3,7,8,9-]	41	1	0.000000763	mg/kg		0.0000076		U	Y	DIOXINS FURANS	SW-846:8290	CFA	02/08/2013	01/31/2013
11118471	CALA-13-28432	2013-505	N	HA	QC	NA	FD	LA-24	0	6.5	ft	S	SED	30402-15-4	Pentachlorodibenzofurans (Totals)	41	1	0.000000775	mg/kg				J	Y	DIOXINS FURANS	SW-846:8290	CFA	02/08/2013	01/31/2013
11119119	CALA-13-28432	2013-504	N	HA	QC	NA	FD	LA-24	0	6.5	ft	S	SED	309-00-2	Aldrin	42	1	0.00113	mg/kg		0.00113		U	Y	PESTPCB	SW-846:8081A	GELC	02/14/2013	01/31/2013
11119114	CALA-13-28432	2013-504	N	HA	QC	NA	FD	LA-24	0	6.5	ft	S	SED	319-84-6	BHC[alpha-]	42	1	0.00113	mg/kg		0.00113		U	Y	PESTPCB	SW-846:8081A	GELC	02/14/2013	01/31/2013
11119115	CALA-13-28432	2013-504	N	HA	QC	NA	FD	LA-24	0	6.5	ft	S	SED	319-85-7	BHC[beta-]	42	1	0.00113	mg/kg		0.00113		U	Y	PESTPCB	SW-846:8081A	GELC	02/14/2013	01/31/2013
11119116	CALA-13-28432	2013-504	N	HA	QC	NA	FD	LA-24	0	6.5	ft	S	SED	319-86-8	BHC[delta-]	42	1	0.00113	mg/kg		0.00113		U	Y	PESTPCB	SW-846:8081A	GELC	02/14/2013	01/31/2013
11118455	CALA-13-28432	2013-505	N	HA	QC	NA	FD	LA-24	0	6.5	ft	S	SED	3268-87-9	Octachlorodibenzodioxin[1,2,3,4,6,7,8,9-]	41	1	0.0000867	mg/kg		0.000015		NQ	Y	DIOXINS FURANS	SW-846:8290	CFA	02/08/2013	01/31/2013
11119125	CALA-13-28432	2013-504	N	HA	QC	NA	FD	LA-24	0	6.5	ft	S	SED	33213-65-9	Endosulfan II	42	1	0.00226	mg/kg		0.00226		U	Y	PESTPCB	SW-846:8081A	GELC	02/14/2013	01/31/2013
11118468	CALA-13-28432	2013-505	N	HA	QC	NA	FD	LA-24	0	6.5	ft	S	SED	34465-46-8	Hexachlorodibenzodioxins (Total)	41	1	0.00000132	mg/kg				J	Y	DIOXINS FURANS	SW-846:8290	CFA	02/08/2013	01/31/2013
11118454	CALA-13-28432	2013-505	N	HA	QC	NA	FD	LA-24	0	6.5	ft	S	SED	35822-46-9	Heptachlorodibenzodioxin[1,2,3,4,6,7,8-]	41	1	0.00000933	mg/kg		0.0000076		NQ	Y	DIOXINS FURANS	SW-846:8290	CFA	02/08/2013	01/31/2013
11118467	CALA-13-28432	2013-505	N	HA	QC	NA	FD	LA-24	0	6.5	ft	S	SED	36088-22-9	Pentachlorodibenzodioxins (Total)	41	1	0	mg/kg				U	Y	DIOXINS FURANS	SW-846:8290	CFA	02/08/2013	01/31/2013
11118469	CALA-13-28432	2013-505	N	HA	QC	NA	FD	LA-24	0	6.5	ft	S	SED	37871-00-4	Heptachlorodibenzodioxins (Total)	41	1	0.0000193	mg/kg				NQ	Y	DIOXINS FURANS	SW-846:8290	CFA	02/08/2013	01/31/2013
11118473	CALA-13-28432	2013-505	N	HA	QC	NA	FD	LA-24	0	6.5	ft	S	SED	38998-75-3	Heptachlorodibenzofurans (Total)	41	1	0.00000725	mg/kg				J	Y	DIOXINS FURANS	SW-846:8290	CFA	02/08/2013	01/31/2013
11118465	CALA-13-28432	2013-505	N	HA	QC	NA	FD	LA-24	0	6.5	ft	S	SED	39001-02-0	Octachlorodibenzofuran[1,2,3,4,6,7,8,9-]	41	1	0.00000529	mg/kg		0.000015		J	Y	DIOXINS FURANS	SW-846:8290	CFA	02/08/2013	01/31/2013
11118451	CALA-13-28432	2013-505	N	HA	QC	NA	FD	LA-24	0	6.5	ft	S	SED	39227-28-6	Hexachlorodibenzodioxin[1,2,3,4,7,8-]	41	1	0.000000763	mg/kg		0.0000076		U	Y	DIOXINS FURANS	SW-846:8290	CFA	02/08/2013	01/31/2013
11118450	CALA-13-28432	2013-505	N	HA	QC	NA	FD	LA-24	0	6.5	ft	S	SED	40321-76-4	Pentachlorodibenzodioxin[1,2,3,7,8-]	41	1	0.000000763	mg/kg		0.0000076		U	Y	DIOXINS FURANS	SW-846:8290	CFA	02/08/2013	01/31/2013
11118466	CALA-13-28432	2013-505	N	HA	QC	NA	FD	LA-24	0	6.5	ft	S	SED	41903-57-5	Tetrachlorodibenzodioxins (Total)	41	1	0.0000016	mg/kg				NQ	Y	DIOXINS FURANS	SW-846:8290	CFA	02/08/2013	01/31/2013
11119128	CALA-13-28432	2013-504	N	HA	QC	NA	FD	LA-24	0	6.5	ft	S	SED	50-29-3	DDT[4,4'-]	42	1	0.00226	mg/kg		0.00226		U	Y	PESTPCB	SW-846:8081A	GELC	02/14/2013	01/31/2013
11119134	CALA-13-28432	2013-504	N	HA	QC	NA	FD	LA-24	0	6.5	ft	S	SED	5103-71-9	Chlordane[alpha-]	42	1	0.00113	mg/kg		0.00113		U	Y	PESTPCB	SW-846:8081A	GELC	02/14/2013	01/31/2013
11119133	CALA-13-28432	2013-504	N	HA	QC	NA	FD	LA-24	0	6.5	ft	S	SED	5103-74-2	Chlordane[gamma-]	42	1	0.00113	mg/kg		0.00113		U	Y	PESTPCB	SW-846:8081A	GELC	02/14/2013	01/31/2013
11118456	CALA-13-28432	2013-505	N	HA	QC	NA	FD	LA-24	0	6.5	ft	S	SED	51207-31-9	Tetrachlorodibenzofuran[2,3,7,8-]	41	1	0.000000763	mg/kg		0.0000015		J	Y	DIOXINS FURANS	SW-846:8290	CFA	02/08/2013	01/31/2013
11119509	CALA-13-28432	2013-504	N	HA	QC	NA	FD	LA-24	0	6.5	ft	S	SED	53469-21-9	Aroclor-1242	42	1	0.00573	mg/kg		0.00573		U	Y	PESTPCB	SW-846:8082	GELC	02/08/2013	01/31/2013
11119130	CALA-13-28432	2013-504	N	HA	QC	NA	FD	LA-24	0	6.5	ft	S	SED	53494-70-5	Endrin Ketone	42	1	0.00226	mg/kg		0.00226		U	Y	PESTPCB	SW-846:8081A	GELC	02/14/2013	01/31/2013
11118464	CALA-13-28432	2013-505	N	HA	QC	NA	FD	LA-24	0	6.5	ft	S	SED	55673-89-7	Heptachlorodibenzofuran[1,2,3,4,7,8,9-]	41	1	0.000000763	mg/kg		0.0000076		U	Y	DIOXINS FURANS	SW-846:8290	CFA	02/08/2013	01/31/2013
11118472	CALA-13-28432	2013-505	N	HA	QC	NA	FD	LA-24	0	6.5	ft	S	SED	55684-94-1	Hexachlorodibenzofurans (Total)	41	1	0.00000223	mg/kg				J	Y	DIOXINS FURANS	SW-846:8290	CFA	02/08/2013	01/31/2013
11118470	CALA-13-28432	2013-505	N	HA	QC	NA	FD	LA-24	0	6.5	ft	S	SED	55722-27-5	Tetrachlorodibenzofurans (Totals)	41	1	0.00000161	mg/kg				NQ	Y	DIOXINS FURANS	SW-846:8290	CFA	02/08/2013	01/31/2013
11118458	CALA-13-28432	2013-505	N	HA	QC	NA	FD	LA-24	0	6.5	ft	S	SED	57117-31-4	Pentachlorodibenzofuran[2,3,4,7,8-]	41	1	0.000000763	mg/kg		0.0000076		U	Y	DIOXINS FURANS	SW-846:8290	CFA	02/08/2013	01/31/2013
11118457	CALA-13-28432	2013-505	N	HA	QC	NA	FD	LA-24	0	6.5	ft	S	SED	57117-41-6	Pentachlorodibenzofuran[1,2,3,7,8-]	41	1	0.000000763	mg/kg		0.0000076		U	Y	DIOXINS FURANS	SW-846:8290	CFA	02/08/2013	01/31/2013
11118460	CALA-13-28432	2013-505	N	HA	QC	NA	FD	LA-24	0	6.5	ft	S	SED	57117-44-9	Hexachlorodibenzofuran[1,2,3,6,7,8-]	41	1	0.000000763	mg/kg		0.0000076		U	Y	DIOXINS FURANS	SW-846:8290	CFA	02/08/2013	01/31/2013
11118452	CALA-13-28432	2013-505	N	HA	QC	NA	FD	LA-24	0	6.5	ft	S	SED	57653-85-7	Hexachlorodibenzodioxin[1,2,3,6,7,8-]	41	1	0.000000763	mg/kg		0.0000076		U	Y	DIOXINS FURANS	SW-846:8290	CFA	02/08/2013	01/31/2013
11119117	CALA-13-28432	2013-504	N	HA	QC	NA	FD	LA-24	0	6.5	ft	S	SED	58-89-9	BHC[gamma-]	42	1	0.00113	mg/kg		0.00113		U	Y	PESTPCB	SW-846:8081A	GELC	02/14/2013	01/31/2013
11119122	CALA-13-28432	2013-504	N	HA	QC	NA	FD	LA-24	0	6.5	ft	S	SED	60-57-1	Dieldrin	42	1	0.00226	mg/kg		0.00226		U	Y	PESTPCB	SW-846:8081A	GELC	02/14/2013	01/31/2013
11118461	CALA-13-28432	2013-505	N	HA	QC	NA	FD	LA-24	0	6.5	ft	S	SED	60851-34-5	Hexachlorodibenzofuran[2,3,4,6,7,8-]	41	1	0.000000763	mg/kg		0.0000076		U	Y	DIOXINS FURANS	SW-846:8290	CFA	02/08/2013	01/31/2013
11118463	CALA-13-28432	2013-505	N	HA	QC	NA	FD	LA-24	0	6.5	ft	S	SED	67562-39-4	Heptachlorodibenzofuran[1,2,3,4,6,7,8-]	41	1	0.00000263	mg/kg		0.0000076		J	Y	DIOXINS FURANS	SW-846:8290	CFA	02/08/2013	01/31/2013
11118459	CALA-13-28432	2013-505	N	HA	QC	NA	FD	LA-24	0	6.5	ft	S	SED	70648-26-9	Hexachlorodibenzofuran[1,2,3,4,7,8-]	41	1	0.000000763	mg/kg		0.0000076		U	Y	DIOXINS FURANS	SW-846:8290	CFA	02/08/2013	01/31/2013
11119124	CALA-13-28432	2013-504	N	HA	QC	NA	FD	LA-24	0	6.5	ft	S	SED	72-20-8	Endrin	42	1	0.00226	mg/kg		0.00226		U	Y	PESTPCB	SW-846:8081A	GELC	02/14/2013	01/31/2013
11119129	CALA-13-28432	2013-504	N	HA	QC	NA	FD	LA-24	0	6.5	ft	S	SED	72-43-5	Methoxychlor[4,4'-]	42	1	0.0113	mg/kg		0.0113		U	Y	PESTPCB	SW-846:8081A	GELC	02/14/2013	01/31/2013
11119126	CALA-13-28432	2013-504	N	HA	QC	NA	FD	LA-24	0	6.5	ft	S	SED	72-54-8	DDD[4,4'-]	42	1	0.00226	mg/kg		0.00226		U	Y	PESTPCB	SW-846:8081A	GELC	02/14/2013	01/31/2013
11119123	CALA-13-28432	2013-504	N	HA	QC	NA	FD	LA-24	0	6.5	ft	S	SED	72-55-9	DDE[4,4'-]	42	1	0.00221	mg/kg		0.00226		J	Y	PESTPCB	SW-846:8081A	GELC	02/14/2013	01/31/2013
11118462	CALA-13-28432	2013-505	N	HA	QC	NA	FD	LA-24	0	6.5	ft	S	SED	72918-21-9	Hexachlorodibenzofuran[1,2,3,7,8,9-]	41	1	0.000000763	mg/kg		0.0000076		U	Y	DIOXINS FURANS	SW-846:8290	CFA	02/08/2013	01/31/2013
11119131	CALA-13-28432	2013-504	N	HA	QC	NA	FD	LA-24	0	6.5	ft	S	SED	7421-93-4	Endrin Aldehyde	42	1	0.00226	mg/kg		0.00226		U	Y	PESTPCB	SW-846:8081A	GELC	02/14/2013	01/31/2013
11119564	CALA-13-28432	2013-504	N	HA	QC	NA	FD	LA-24	0	6.5	ft	S	SED	75-99-0	Dalapon	42	1	0.172	mg/kg		0.172		U	Y	HERB	SW-846:8151A	GELC	02/17/2013	01/31/2013
11119118	CALA-13-28432	2013-504	N	HA	QC	NA	FD	LA-24	0	6.5	ft	S	SED	76-44-8	Heptachlor	42	1	0.00113	mg/kg		0.00113		U	Y	PESTPCB	SW-846:8081A	GELC	02/14/2013	01/31/2013
11119132	CALA-13-28432	2013-504	N	HA	QC	NA	FD	LA-24	0	6.5	ft	S	SED	8001-35-2	Toxaphene (Technical Grade)	42	1	0.0283	mg/kg		0.0283		UJ	Y	PESTPCB	SW-846:8081A	GELC	02/14/2013	01/31/2013
11119568	CALA-13-28432	2013-504	N	HA	QC	NA	FD	LA-24	0	6.5	ft	S	SED	88-85-7	Dinoseb	42	1	0.00859	mg/kg		0.00859		U	Y	HERB	SW-846:8151A	GELC	02/17/2013	01/31/2013
11119569	CALA-13-28432	2013-504	N	HA	QC	NA	FD	LA-24	0	6.5	ft	S	SED	93-65-2	MCPP	42	1	1.72	mg/kg		1.72		U	Y	HERB	SW-846:8151A	GELC	02/17/2013	01/31/2013
11119571	CALA-13-28432	2013-504	N	HA	QC	NA	FD	LA-24	0	6.5	ft	S	SED	93-72-1	TP[2,4,5-]	42	1	0.00859	mg/kg		0.00859		U	Y	HERB	SW-846:8151A	GELC	02/17/2013	01/31/2013
11119567	CALA-13-28432	2013-504	N	HA	QC	NA	FD	LA-24	0	6.5	ft	S	SED	93-76-5	T[2,4,5-]	42	1	0.00859	mg/kg		0.00859		U	Y	HERB	SW-846:8151A	GELC	02/17/2013	01/31/2013
11119565	CALA-13-28432	2013-504	N	HA	QC	NA	FD	LA-24	0	6.5	ft	S	SED	94-74-6	MCPA	42	1	1.72	mg/kg		1.72		U	Y	HERB	SW-846:8151A	GELC	02/17/2013	01/31/2013
11119566	CALA-13-28432	2013-504	N	HA	QC	NA	FD	LA-24	0	6.5	ft	S	SED	94-75-7	D[2,4-]	42	1	0.00859	mg/kg		0.00859		U	Y	HERB	SW-846:8151A	GELC	02/17/2013	01/31/2013
11119020	CALA-13-28432	2013-504	N	HA	QC	NA	FD	LA-24	0	6.5	ft	S	SED	94-82-6	DB[2,4-]	42	1	0.00859	mg/kg		0.00859		U	Y	HERB	SW-846:8151A	GELC	02/17/2013	01/31/2013
11119121	CALA-13-28432	2013-504	N	HA	QC	NA	FD	LA-24	0	6.5	ft	S	SED	959-98-8	Endosulfan I	42	1	0.00113	mg/kg		0.00113		U	Y	PESTPCB	SW-846:8081A	GELC	02/14/2013	01/31/2013
11119405	CALA-13-28432	2013-504	N	HA	QC	NA	FD	LA-24	0	6.5	ft	S	SED	Ac-228	Actinium-228	42	1	2.1	pCi/g	0.181		0.351	NQ	Y	RAD	EPA:901.1	GELC	02/06/2013	01/31/2013
11119241	CALA-13-28432	2013-504	N	HA	QC	NA	FD	LA-24	0	6.5	ft	S	SED	Ag	Silver	42	1	0.851	mg/kg		0.851		U	Y	INORGANIC	SW-846:6010B	GELC	02/07/2013	01/31/2013
11119223	CALA-13-28432	2013-504	N	HA	QC	NA	FD	LA-24	0	6.5	ft	S	SED	Al	Aluminum	42	1	8070	mg/kg		34		NQ	Y	INORGANIC	SW-846:6010B	GELC	02/07/2013	01/31/2013
11119407	CALA-13-28432	2013-504	N	HA	QC	NA	FD	LA-24	0	6.5	ft	S	SED	Am-241	Americium-241	42	1	0.278	pCi/g	0.166		0.53	U	Y	RAD	EPA:901.1	GELC	02/06/2013	01/31/2013
11119406	CALA-13-28432	2013-504	N	HA	QC	NA	FD	LA-24	0	6.5	ft	S	SED	Am-241	Americium-241	42	1	0.0323	pCi/g	0.00853		0.041	U	Y	RAD	HASL-300:AM-241	GELC	02/13/2013	01/31/2013
11119225	CALA-13-28432	2013-504	N	HA	QC	NA	FD	LA-24	0	6.5	ft	S	SED	As	Arsenic	42	2	1.92	mg/kg		1.67		NQ	Y	INORGANIC	SW-846:6020	GELC	02/12/2013	01/31/2013
11119226	CALA-13-28432	2013-504	N	HA	QC	NA	FD	LA-24	0	6.5	ft	S	SED	Ba	Barium	42	1	169	mg/kg		0.851		NQ	Y	INORGANIC	SW-846:6010B	GELC	02/07/2013	01/31/2013
11119227	CALA-13-28432	2013-504	N	HA	QC	NA	FD	LA-24	0	6.5	ft	S	SED	Be	Beryllium	42	2	1.16	mg/kg		0.167		NQ	Y	INORGANIC	SW-846:6020	GELC	02/12/2013	01/31/2013
11119408	CALA-13-28432	2013-504	N	HA	QC	NA	FD	LA-24	0	6.5	ft	S	SED	Bi-212	Bismuth-212	42	1	3.02	pCi/g	0.555		1.05	NQ	Y	RAD	EPA:901.1	GELC	02/06/2013	01/31/2013
11119409	CALA-13-28432	2013-504	N	HA	QC	NA	FD	LA-24	0	6.5	ft	S	SED	Bi-214	Bismuth-214	42	1	1.24	pCi/g	0.0933		0.169	NQ	Y	RAD	EPA:901.1	GELC	02/06/2013	01/31/2013
11119229	CALA-13-28432	2013-504	N	HA	QC	NA	FD	LA-24	0	6.5	ft	S	SED	Ca	Calcium	42	1	5920	mg/kg		42.5		NQ	Y	INORGANIC	SW-846:6010B	GELC	02/07/2013	01/31/2013
11119228	CALA-13-28432	2013-504	N	HA	QC	NA	FD	LA-24	0	6.5	ft	S	SED	Cd	Cadmium	42	1	0.851	mg/kg		0.851		U	Y	INORGANIC	SW-846:6010B	GELC	02/07/2013	01/31/2013
11119341	CALA-13-28432	2013-504	N	HA	QC	NA	FD	LA-24	0	6.5	ft	S	SED	CN(TOTAL)	Cyanide (Total)	42	1	0.809	mg/kg		0.385		NQ	Y	GENERAL CHEMISTRY	SW-846:9012A	GELC	02/06/2013	01/31/2013
11119231	CALA-13-28432	2013-504	N	HA	QC	NA	FD	LA-24	0	6.5	ft	S	SED	Co	Cobalt	42	1	3.89	mg/kg		0.851		NQ	Y	INORGANIC	SW-846:6010B	GELC	02/07/2013	01/31/2013
11119412	CALA-13-28432	2013-504	N	HA	QC	NA	FD	LA-24	0	6.5	ft	S	SED	Co-60	Cobalt-60	42	1	0.0018	pCi/g	0.0254		0.0942	U	Y	RAD	EPA:901.1	GELC	02/06/2013	01/31/2013
11119230	CALA-13-28432	2013-504	N	HA	QC	NA	FD	LA-24	0	6.5	ft	S	SED	Cr	Chromium	42	1	6.52	mg/kg		0.851		NQ	Y	INORGANIC	SW-846:6010B	GELC	02/07/2013	01/31/2013
11119410	CALA-13-28432	2013-504	N	HA	QC	NA	FD	LA-24	0	6.5	ft	S	SED	Cs-134	Cesium-134	42	1	0.0676	pCi/g	0.0303		0.106	U	Y	RAD	EPA:901.1	GELC	02/06/2013	01/31/2013
11119411	CALA-13-28432	2013-504	N	HA	QC	NA	FD	LA-24	0	6.5	ft	S	SED	Cs-137	Cesium-137	42	1	1.18	pCi/g	0.0696		0.0833	NQ	Y	RAD	EPA:901.1	GELC	02/06/2013	01/31/2013
11119232	CALA-13-28432	2013-504	N	HA	QC	NA	FD	LA-24	0	6.5	ft	S	SED	Cu	Copper	42	1	10.7	mg/kg		1.7		NQ	Y	INORGANIC	SW-846:6010B	GELC	02/07/2013	01/31/2013
11119233	CALA-13-28432	2013-504	N	HA	QC	NA	FD	LA-24	0	6.5	ft	S	SED	Fe	Iron	42	1	9590	mg/kg		42.5		NQ	Y	INORGANIC	SW-846:6010B	GELC	02/07/2013	01/31/2013
11119423	CALA-13-28432	2013-504	N	HA	QC	NA	FD	LA-24	0	6.5	ft	S	SED	H-3	Tritium	42	1	-0.0745862	pCi/g	0.0353379		0.141931	U	Y	RAD	EPA:906.0	GELC	02/12/2013	01/31/2013
11119237	CALA-13-28432	2013-504	N	HA	QC	NA	FD	LA-24	0	6.5	ft	S	SED	Hg	Mercury	42	1	0.0335	mg/kg		0.0195		NQ	Y	INORGANIC	SW-846:7471A	GELC	02/07/2013	01/31/2013
11119239	CALA-13-28432	2013-504	N	HA	QC	NA	FD	LA-24	0	6.5	ft	S	SED	K	Potassium	42	1	1420	mg/kg		42.5		NQ	Y	INORGANIC	SW-846:6010B	GELC	02/07/2013	01/31/2013
11119417	CALA-13-28432	2013-504	N	HA	QC	NA	FD	LA-24	0	6.5	ft	S	SED	K-40	Potassium-40	42	1	24.8	pCi/g	0.907		0.601	NQ	Y	RAD	EPA:901.1	GELC	02/06/2013	01/31/2013
11119235	CALA-13-28432	2013-504	N	HA	QC	NA	FD	LA-24	0	6.5	ft	S	SED	Mg	Magnesium	42	1	1520	mg/kg		51		NQ	Y	INORGANIC	SW-846:6010B	GELC	02/07/2013	01/31/2013
11119236	CALA-13-28432	2013-504	N	HA	QC	NA	FD	LA-24	0	6.5	ft	S	SED	Mn	Manganese	42	1	821	mg/kg		1.7		NQ	Y	INORGANIC	SW-846:6010B	GELC	02/07/2013	01/31/2013
11119242	CALA-13-28432	2013-504	N	HA	QC	NA	FD	LA-24	0	6.5	ft	S	SED	Na	Sodium	42	1	136	mg/kg		42.5		NQ	Y	INORGANIC	SW-846:6010B	GELC	02/08/2013	01/31/2013
11119419	CALA-13-28432	2013-504	N	HA	QC	NA	FD	LA-24	0	6.5	ft	S	SED	Na-22	Sodium-22	42	1	-0.034	pCi/g	0.0264		0.086	U	Y	RAD	EPA:901.1	GELC	02/06/2013	01/31/2013
11119238	CALA-13-28432	2013-504	N	HA	QC	NA	FD	LA-24	0	6.5	ft	S	SED	Ni	Nickel	42	2	8.66	mg/kg		0.669		NQ	Y	INORGANIC	SW-846:6020	GELC	02/12/2013	01/31/2013
11119418	CALA-13-28432	2013-504	N	HA	QC	NA	FD	LA-24	0	6.5	ft	S	SED	Pa-234m	Protactinium-234m	42	1	1.37	pCi/g	3.22		11.6	U	Y	RAD	EPA:901.1	GELC	02/06/2013	01/31/2013
11119234	CALA-13-28432	2013-504	N	HA	QC	NA	FD	LA-24	0	6.5	ft	S	SED	Pb	Lead	42	1	20.4	mg/kg		1.7		NQ	Y	INORGANIC	SW-846:6010B	GELC	02/07/2013	01/31/2013
11119413	CALA-13-28432	2013-504	N	HA	QC	NA	FD	LA-24	0	6.5	ft	S	SED	Pb-212	Lead-212	42	1	2.24	pCi/g	0.0784		0.131	NQ	Y	RAD	EPA:901.1	GELC	02/06/2013	01/31/2013
11119414	CALA-13-28432	2013-504	N	HA	QC	NA	FD	LA-24	0	6.5	ft	S	SED	Pb-214	Lead-214	42	1	1.78	pCi/g	0.0964		0.172	NQ	Y	RAD	EPA:901.1	GELC	02/06/2013	01/31/2013
11119415	CALA-13-28432	2013-504	N	HA	QC	NA	FD	LA-24	0	6.5	ft	S	SED	Pu-238	Plutonium-238	42	1	0.00777	pCi/g	0.00516		0.0164	U	Y	RAD	HASL-300:ISOPU	GELC	02/07/2013	01/31/2013
11119416	CALA-13-28432	2013-504	N	HA	QC	NA	FD	LA-24	0	6.5	ft	S	SED	Pu-239/240	Plutonium-239/240	42	1	0.126	pCi/g	0.0148		0.0148	NQ	Y	RAD	HASL-300:ISOPU	GELC	02/07/2013	01/31/2013
11119224	CALA-13-28432	2013-504	N	HA	QC	NA	FD	LA-24	0	6.5	ft	S	SED	Sb	Antimony	42	1	1.7	mg/kg		1.7		U	Y	INORGANIC	SW-846:6010B	GELC	02/07/2013	01/31/2013
11119240	CALA-13-28432	2013-504	N	HA	QC	NA	FD	LA-24	0	6.5	ft	S	SED	Se	Selenium	42	2	1.67	mg/kg		1.67		U	Y	INORGANIC	SW-846:6020	GELC	02/12/2013	01/31/2013
11119420	CALA-13-28432	2013-504	N	HA	QC	NA	FD	LA-24	0	6.5	ft	S	SED	Sr-90	Strontium-90	42	1	0.502	pCi/g	0.17		0.52	U	Y	RAD	EPA:905.0	GELC	02/14/2013	01/31/2013
11119422	CALA-13-28432	2013-504	N	HA	QC	NA	FD	LA-24	0	6.5	ft	S	SED	Th-234	Thorium-234	42	1	2.57	pCi/g	1.52		4.04	U	Y	RAD	EPA:901.1	GELC	02/06/2013	01/31/2013
11119243	CALA-13-28432	2013-504	N	HA	QC	NA	FD	LA-24	0	6.5	ft	S	SED	Tl	Thallium	42	2	0.316	mg/kg		0.669		J	Y	INORGANIC	SW-846:6020	GELC	02/12/2013	01/31/2013
11119421	CALA-13-28432	2013-504	N	HA	QC	NA	FD	LA-24	0	6.5	ft	S	SED	Tl-208	Thallium-208	42	1	0.603	pCi/g	0.0459		0.0743	NQ	Y	RAD	EPA:901.1	GELC	02/06/2013	01/31/2013
11119424	CALA-13-28432	2013-504	N	HA	QC	NA	FD	LA-24	0	6.5	ft	S	SED	U-235	Uranium-235	42	1	0.205	pCi/g	0.196		0.457	U	Y	RAD	EPA:901.1	GELC	02/06/2013	01/31/2013
11119244	CALA-13-28432	2013-504	N	HA	QC	NA	FD	LA-24	0	6.5	ft	S	SED	V	Vanadium	42	1	13.5	mg/kg		0.851		NQ	Y	INORGANIC	SW-846:6010B	GELC	02/07/2013	01/31/2013
11119245	CALA-13-28432	2013-504	N	HA	QC	NA	FD	LA-24	0	6.5	ft	S	SED	Zn	Zinc	42	1	53.8	mg/kg		1.7		NQ	Y	INORGANIC	SW-846:6010B	GELC	02/07/2013	01/31/2013
11119287	CALA-13-28433	2013-504	N	DC	QC	UF	FR	LA-25				W		Ag	Silver	100	1	5.0	ug/L		5.0		U	Y	INORGANIC	SW-846:6010B	GELC	02/06/2013	01/31/2013
11119269	CALA-13-28433	2013-504	N	DC	QC	UF	FR	LA-25				W		Al	Aluminum	100	1	200	ug/L		200		U	Y	INORGANIC	SW-846:6010B	GELC	02/06/2013	01/31/2013
11119271	CALA-13-28433	2013-504	N	DC	QC	UF	FR	LA-25				W		As	Arsenic	100	1	30.0	ug/L		30.0		U	Y	INORGANIC	SW-846:6010B	GELC	02/06/2013	01/31/2013
11119272	CALA-13-28433	2013-504	N	DC	QC	UF	FR	LA-25				W		Ba	Barium	100	1	5.0	ug/L		5.0		U	Y	INORGANIC	SW-846:6010B	GELC	02/06/2013	01/31/2013
11119273	CALA-13-28433	2013-504	N	DC	QC	UF	FR	LA-25				W		Be	Beryllium	100	1	0.5	ug/L		0.5		U	Y	INORGANIC	SW-846:6020	GELC	02/14/2013	01/31/2013
11119275	CALA-13-28433	2013-504	N	DC	QC	UF	FR	LA-25				W		Ca	Calcium	100	1	0.0788	mg/L		0.2		J	Y	INORGANIC	SW-846:6010B	GELC	02/06/2013	01/31/2013
11119274	CALA-13-28433	2013-504	N	DC	QC	UF	FR	LA-25				W		Cd	Cadmium	100	1	1.0	ug/L		1.0		U	Y	INORGANIC	SW-846:6020	GELC	02/12/2013	01/31/2013
11119277	CALA-13-28433	2013-504	N	DC	QC	UF	FR	LA-25				W		Co	Cobalt	100	1	5.0	ug/L		5.0		U	Y	INORGANIC	SW-846:6010B	GELC	02/06/2013	01/31/2013
11119276	CALA-13-28433	2013-504	N	DC	QC	UF	FR	LA-25				W		Cr	Chromium	100	1	5.0	ug/L		5.0		U	Y	INORGANIC	SW-846:6010B	GELC	02/06/2013	01/31/2013
11119278	CALA-13-28433	2013-504	N	DC	QC	UF	FR	LA-25				W		Cu	Copper	100	1	10.0	ug/L		10.0		U	Y	INORGANIC	SW-846:6010B	GELC	02/06/2013	01/31/2013
11119279	CALA-13-28433	2013-504	N	DC	QC	UF	FR	LA-25				W		Fe	Iron	100	1	30.2	ug/L		100		J	Y	INORGANIC	SW-846:6010B	GELC	02/06/2013	01/31/2013
11119283	CALA-13-28433	2013-504	N	DC	QC	UF	FR	LA-25				W		Hg	Mercury	100	1	0.2	ug/L		0.2		U	Y	INORGANIC	SW-846:7470A	GELC	02/06/2013	01/31/2013
11119285	CALA-13-28433	2013-504	N	DC	QC	UF	FR	LA-25				W		K	Potassium	100	1	0.15	mg/L		0.15		U	Y	INORGANIC	SW-846:6010B	GELC	02/06/2013	01/31/2013
11119281	CALA-13-28433	2013-504	N	DC	QC	UF	FR	LA-25				W		Mg	Magnesium	100	1	0.3	mg/L		0.3		U	Y	INORGANIC	SW-846:6010B	GELC	02/06/2013	01/31/2013
11119282	CALA-13-28433	2013-504	N	DC	QC	UF	FR	LA-25				W		Mn	Manganese	100	1	3.82	ug/L		5.0		J	Y	INORGANIC	SW-846:6020	GELC	02/14/2013	01/31/2013
11119288	CALA-13-28433	2013-504	N	DC	QC	UF	FR	LA-25				W		Na	Sodium	100	1	0.238	mg/L		0.3		J	Y	INORGANIC	SW-846:6010B	GELC	02/06/2013	01/31/2013
11119284	CALA-13-28433	2013-504	N	DC	QC	UF	FR	LA-25				W		Ni	Nickel	100	1	5.0	ug/L		5.0		U	Y	INORGANIC	SW-846:6010B	GELC	02/06/2013	01/31/2013
11119280	CALA-13-28433	2013-504	N	DC	QC	UF	FR	LA-25				W		Pb	Lead	100	1	2.0	ug/L		2.0		U	Y	INORGANIC	SW-846:6020	GELC	02/12/2013	01/31/2013
11119270	CALA-13-28433	2013-504	N	DC	QC	UF	FR	LA-25				W		Sb	Antimony	100	1	3.0	ug/L		3.0		U	Y	INORGANIC	SW-846:6020	GELC	02/12/2013	01/31/2013
11119286	CALA-13-28433	2013-504	N	DC	QC	UF	FR	LA-25				W		Se	Selenium	100	1	30.0	ug/L		30.0		U	Y	INORGANIC	SW-846:6010B	GELC	02/06/2013	01/31/2013
11119289	CALA-13-28433	2013-504	N	DC	QC	UF	FR	LA-25				W		Tl	Thallium	100	1	2.0	ug/L		2.0		U	Y	INORGANIC	SW-846:6020	GELC	02/12/2013	01/31/2013
11119290	CALA-13-28433	2013-504	N	DC	QC	UF	FR	LA-25				W		V	Vanadium	100	1	5.0	ug/L		5.0		U	Y	INORGANIC	SW-846:6010B	GELC	02/06/2013	01/31/2013
11119291	CALA-13-28433	2013-504	N	DC	QC	UF	FR	LA-25				W		Zn	Zinc	100	1	10.0	ug/L		10.0		U	Y	INORGANIC	SW-846:6010B	GELC	02/06/2013	01/31/2013

FSR Record No.	Field Sample ID	Chain Of Custody No.	Excavated Flag	Sampling Method	Sample Usage Code	Field Prep Code	Sample Purpose	Location ID	Start Depth	End Depth	Depth Units	Sample Type	Media Code	Parameter Code	Parameter Name	Percent Moisture	Dilution Factor	Report Result	Report Units	Report Uncertainty	Report Detection Limit	Report MDA	Validation Qualifier	Best Value Flag	Method Category	Analytical Method	Lab ID	Analysis Date	Date Sampled
11119370	CALA-13-28426	2013-504	N	HA	INV	NA	REG	LA-23	0	4.85	ft	S	SED	Cs-134	Cesium-134	43.5	1	0.148	pCi/g	0.032		0.129	R	Y	RAD	EPA:901.1	GELC	02/06/2013	01/31/2013

Cape Fear Analytical

3306 Kitty Hawk Road, Suite 120
Wilmington NC 28405

Chain of Custody/Analysis Request

COC/Lab Request #: 2013-505

Client Contact:

Lab Agreement # : 63641-001-10
Project Number :
Analysis Turnaround Time:
24 Hour - ☐ Other - ☐
7 Day - ☐
14 Day - ☐
21 Day - ☐
28 Day - ☒

Site Name: Los Alamos National Laboratory

Rad Screening Info: Yes, Below Background

Field Sample ID	Sample Date	Sample Time	Sample Matrix	8290
CALA-13-28425	Jan 31 2013	12:15	SED	2
CALA-13-28426	Jan 31 2013	11:00	SED	2
CALA-13-28427	Jan 31 2013	14:00	SED	2
CALA-13-28432	Jan 31 2013	14:00	SED	2
CALA-13-28428	Jan 31 2013	15:30	SED	2
CALA-13-28429	Jan 31 2013	10:00	SED	2
CALA-13-28430	Jan 31 2013	11:00	SED	2

Special Instructions:

Special Instructions:

Relinquished by:		Date/Time:	Received by:	
Melissa Martyn		2/4/13 3:00		
Relinquished by:		Date/Time:	Received by:	
Relinquished by:		Date/Time:	Received by:	

SAMPLE COLLECTION LOG/FIELD CHAIN OF CUSTODY

EVENT ID: 4114 **EVENT NAME:** Los Alamos/Pueblo 2012 Surveillance Sampling

SAMPLE ID: CALA-13-28425 **WORK ORDER:**

	AS PLANNED	AS COLLECTED		AS PLANNED	AS COLLECTED
DATE COLLECTED (MM/DD/YYYY):		01/31/2013	FIELD MATRIX:	S	OK
TIME COLLECTED (HH:MM):		12:15	MEDIA:		SED
PRS ID:	Los Alamos-Canyon	OK	SAMPLE TECH CODE:	HA	OK
LOCATION ID:	LA-22	↓	FIELD PREP:	NA	↓
LOCATION TYPE:	GENERIC	↓	FIELD QC TYPE:	REG	↓
TOP DEPTH:		0.0 ft	SAMPLE USAGE:	INV	↓
BOTTOM DEPTH:		5.6 ft	EXCAVATED:	YES / NO / NA	

PRIORITY	ORDER	CONTAINER	#	PRESERVATIVE	COLLECTED Y/N	SPECIAL INSTRUCTIONS
	8081A+8151A	500 ML GLASS	1	ICE	Y	
	8082	250 ML GLASS	1	ICE	Y	
	8290	125 ML GLASS	2	ICE	Y	
	Am241+GS+PU+SR90	1 LITER POLY	1	NONE	Y	
	H3	500 ML POLY	1	ICE	Y	
	Tal Metals	125 ML POLY	1	ICE	Y	
	TCN	125 ML POLY	1	ICE	Y	

SAMPLE COMMENTS: Dominately muck, saturated, v. dark in color, Minor tan vfs and organics esp. toward base & v. top. muck=silt/ash w/minor vfs (ashy silt)

LOCATION COMMENTS: Area #1

FIELD PARAMETERS:

FIELD SCREENING/MEASUREMENT RESULTS:

Alpha NA dpm PID Ambient Reading = NA ppm

Beta/Gamma NA dpm

COLLECTED BY (PRINT) Scott Mugglesta

RELINQUISHED BY (Printed Name) (Signature)	Date/Time	RECEIVED BY (Printed Name) (Signature)	Date/Time
Stan Numrich	01/01/13 12:00	K. Greene	2/1/13 12:00
RELINQUISHED BY (Printed Name) (Signature)	Date/Time	RECEIVED BY (Printed Name) (Signature)	Date/Time

Report Date 01/15/2013

TCLP metals pending total metal results

SAMPLE COLLECTION LOG/FIELD CHAIN OF CUSTODY

EVENT ID: 4114 **EVENT NAME:** Los Alamos/Pueblo 2012 Surveillance Sampling

SAMPLE ID: CALA-13-28426 **WORK ORDER:**

	AS PLANNED	AS COLLECTED		AS PLANNED	AS COLLECTED
DATE COLLECTED (MM/DD/YYYY):		01/31/2013	FIELD MATRIX:	S	OK
TIME COLLECTED (HH:MM):		11:00	MEDIA:		SED
PRS ID:	Los Alamos-Canyon	OK	SAMPLE TECH CODE:	HA	OK
LOCATION ID:	LA-23	↓	FIELD PREP:	NA	↓
LOCATION TYPE:	GENERIC	↓	FIELD QC TYPE:	REG	↓
TOP DEPTH:		0 Ft	SAMPLE USAGE:	INV	↓
BOTTOM DEPTH:		4.85 Ft	EXCAVATED:	YES / NO / NA	

PRIORITY	ORDER	CONTAINER	#	PRESERVATIVE	COLLECTED Y/N	SPECIAL INSTRUCTIONS
	8081A+8151A	500 ML GLASS	1	ICE	Y	
	8082	250 ML GLASS	1	ICE	Y	
	8290	125 ML GLASS	2	ICE	Y	
	Am241+GS+PU+SR90	1 LITER POLY	1	NONE	Y	
	H3	500 ML POLY	1	ICE	Y	
	Tal Metals	125 ML POLY	1	ICE	Y	
	TCN	125 ML POLY	1	ICE	Y	

SAMPLE COMMENTS: mud/muck w/ minor sand (decomposing tuff) & minor organics, v. dark in color
→ material is saturated

LOCATION COMMENTS: Area #2

Muck = silt/ash & minor vfs (ashy silt)

FIELD PARAMETERS:

FIELD SCREENING/MEASUREMENT RESULTS:

Alpha NA dpm PID Ambient Reading = NA ppm

Beta/Gamma NA dpm

COLLECTED BY (PRINT) Scott Mugleton

RELINQUISHED BY (Printed Name) (Signature)	Date/Time	RECEIVED BY (Printed Name) (Signature)	Date/Time
Steven Aumen	02/01/2013 12:00	K. Green	2/1/13 12:00
RELINQUISHED BY (Printed Name) (Signature)	Date/Time	RECEIVED BY (Printed Name) (Signature)	Date/Time

Report Date 01/15/2013

TCLP metals pending total metal results

SAMPLE COLLECTION LOG/FIELD CHAIN OF CUSTODY

EVENT ID: 4114 **EVENT NAME:** Los Alamos/Pueblo 2012 Surveillance Sampling

SAMPLE ID: CALA-13-28427 **WORK ORDER:**

	AS PLANNED	AS COLLECTED		AS PLANNED	AS COLLECTED
DATE COLLECTED (MM/DD/YYYY):		01/31/2013	FIELD MATRIX:	S	OK
TIME COLLECTED (HH:MM):		1400	MEDIA:		SED
PRS ID:	Los Alamos-Canyon	OK	SAMPLE TECH CODE:	HA	OK
LOCATION ID:	LA-24	↓	FIELD PREP:	NA	↓
LOCATION TYPE:	GENERIC	↓	FIELD QC TYPE:	REG	↓
TOP DEPTH:		0.0 ft	SAMPLE USAGE:	INV	↓
BOTTOM DEPTH:		6.5 ft	EXCAVATED:	YES / (NO) / NA	

PRIORITY	ORDER	CONTAINER	#	PRESERVATIVE	COLLECTED Y/N	SPECIAL INSTRUCTIONS
	8081A+8151A	500 ML GLASS	1	ICE	Y	
	8082	250 ML GLASS	1	ICE	Y	
	8290	125 ML GLASS	2	ICE	Y	
	Am241+GS+PU+SR90	1 LITER POLY	1	NONE	Y	
	H3	500 ML POLY	1	ICE	Y	
	Tal Metals	125 ML POLY	1	ICE	Y	
	TCN	125 ML POLY	1	ICE	Y	

SAMPLE COMMENTS: Dominately muck (v. dark in color, ashy silt), saturated
Minor tan vfs + organics, esp. toward top & base

LOCATION COMMENTS: Area #3

FIELD PARAMETERS:
FIELD SCREENING/MEASUREMENT RESULTS:

Alpha NA dpm PID Ambient Reading = NA ppm

Beta/Gamma NA dpm

COLLECTED BY (PRINT) Scott Mugler

RELINQUISHED BY (Printed Name) (Signature)	Date/Time	RECEIVED BY (Printed Name) (Signature)	Date/Time
Steven Alvarez	12:00 02/01/2013	K. Vocent	2/1/13 12:00
RELINQUISHED BY (Printed Name) (Signature)	Date/Time	RECEIVED BY (Printed Name) (Signature)	Date/Time

Report Date 01/15/2013

TCLP metals pending total metal results

SAMPLE COLLECTION LOG/FIELD CHAIN OF CUSTODY

EVENT ID: 4114 **EVENT NAME:** Los Alamos/Pueblo 2012 Surveillance Sampling

SAMPLE ID: CALA-13-28428 **WORK ORDER:**

	AS PLANNED	AS COLLECTED		AS PLANNED	AS COLLECTED
DATE COLLECTED (MM/DD/YYYY):		01/31/2013	FIELD MATRIX:	S	OK
TIME COLLECTED (HH:MM):		1530	MEDIA:		SED
PRS ID:	Los Alamos-Canyon	OK	SAMPLE TECH CODE:	HA	OK
LOCATION ID:	LA-25		FIELD PREP:	NA	
LOCATION TYPE:	GENERIC		FIELD QC TYPE:	REG	
TOP DEPTH:		0 ft	SAMPLE USAGE:	INV	
BOTTOM DEPTH:		6.7 ft	EXCAVATED:	YES / NO / NA	

PRIORITY	ORDER	CONTAINER	#	PRESERVATIVE	COLLECTED Y/N	SPECIAL INSTRUCTIONS
	8081A+8151A	500 ML GLASS	1	ICE	Y	
	8082	250 ML GLASS	1	ICE	Y	
	8290	125 ML GLASS	2	ICE	Y	
	Am241+GS+PU+SR90	1 LITER POLY	1	NONE	Y	
	H3	500 ML POLY	1	ICE	Y	
	Tal Metals	125 ML POLY	1	ICE	Y	
	TCN	125 ML POLY	1	ICE	Y	

SAMPLE COMMENTS: Dominately muck (v. dark in color, ashy silt). saturated. minor tan vfs + organics, esp. toward top & base

LOCATION COMMENTS: Area #4

FIELD PARAMETERS:

FIELD SCREENING/MEASUREMENT RESULTS:

Alpha NA dpm PID Ambient Reading = NA ppm

Beta/Gamma NA dpm

COLLECTED BY (PRINT) Scott Muggleton

RELINQUISHED BY (Printed Name) (Signature) Shon Nunez	Date/Time 02/01/2013 12:00	RECEIVED BY (Printed Name) (Signature) K. Gurule	Date/Time 2/1/13 12:00
RELINQUISHED BY (Printed Name) (Signature)	Date/Time	RECEIVED BY (Printed Name) (Signature)	Date/Time

Report Date 01/15/2013

TCLP metals pending total metal results

SAMPLE COLLECTION LOG/FIELD CHAIN OF CUSTODY

EVENT ID: 4114 **EVENT NAME:** Los Alamos/Pueblo 2012 Surveillance Sampling

SAMPLE ID: CALA-13-28429 **WORK ORDER:**

	AS PLANNED	AS COLLECTED		AS PLANNED	AS COLLECTED
DATE COLLECTED (MM/DD/YYYY):		02/01/2013	FIELD MATRIX:	S	OK
TIME COLLECTED (HH:MM):		10:00	MEDIA:		SED
PRS ID:	Los Alamos-Canyon	OK	SAMPLE TECH CODE:	HA	OK
LOCATION ID:	LA-26	↓	FIELD PREP:	NA	↓
LOCATION TYPE:	GENERIC	↓	FIELD QC TYPE:	REG	↓
TOP DEPTH:		0.0 Ft	SAMPLE USAGE:	INV	↓
BOTTOM DEPTH:		6.25 Ft	EXCAVATED:		YES / NO / NA

PRIORITY	ORDER	CONTAINER	#	PRESERVATIVE	COLLECTED Y/N	SPECIAL INSTRUCTIONS
	8081A+8151A	500 ML GLASS	1	ICE	Y	
	8082	250 ML GLASS	1	ICE	Y	
	8290	125 ML GLASS	2	ICE	Y	
	Am241+GS+PU+SR90	1 LITER POLY	1	NONE	Y	
	H3	500 ML POLY	1	ICE	Y	
	Tal Metals	125 ML POLY	1	ICE	Y	
	TCN	125 ML POLY	1	ICE	Y	

SAMPLE COMMENTS: Dominately muck (v.v. dark in color) ashy, silt & saturated w/ variable clay content, minor tan vfs & organics at base

LOCATION COMMENTS: Area #5

FIELD PARAMETERS:

FIELD SCREENING/MEASUREMENT RESULTS:

Alpha NA dpm

Beta/Gamma NA dpm

PID Ambient Reading = NA ppm

COLLECTED BY (PRINT) Scott Muggleton

RELINQUISHED BY (Printed Name) (Signature)	Date/Time	RECEIVED BY (Printed Name) (Signature)	Date/Time
Steven Aumock	02/01/2013 1200	K. Greene	02/1/13 12:00
RELINQUISHED BY (Printed Name) (Signature)	Date/Time	RECEIVED BY (Printed Name) (Signature)	Date/Time

Report Date 01/15/2013

TCLP metals pending total metal results

SAMPLE COLLECTION LOG/FIELD CHAIN OF CUSTODY

EVENT ID: 4114 **EVENT NAME:** Los Alamos/Pueblo 2012 Surveillance Sampling

SAMPLE ID: CALA-13-28430 **WORK ORDER:**

	AS PLANNED	AS COLLECTED		AS PLANNED	AS COLLECTED
DATE COLLECTED (MM/DD/YYYY):		02/01/2013	FIELD MATRIX:	S	OK
TIME COLLECTED (HH:MM):		1100	MEDIA:		SED
PRS ID:	Los Alamos-Canyon	OK	SAMPLE TECH CODE:	HA	OK
LOCATION ID:	LA-27	↓	FIELD PREP:	NA	↓
LOCATION TYPE:	GENERIC	↓	FIELD QC TYPE:	REG	↓
TOP DEPTH:		0.0 ft	SAMPLE USAGE:	INV	↓
BOTTOM DEPTH:		6.1 ft	EXCAVATED:		YES / NO / NA

PRIORITY	ORDER	CONTAINER	#	PRESERVATIVE	COLLECTED Y/N	SPECIAL INSTRUCTIONS
	8081A+8151A	500 ML GLASS	1	ICE	Y	
	8082	250 ML GLASS	1	ICE	Y	
	8290	125 ML GLASS	2	ICE	Y	
	Am241+GS+PU+SR90	1 LITER POLY	1	NONE	Y	
	H3	500 ML POLY	1	ICE	Y	
	Tal Metals	125 ML POLY	1	ICE	Y	
	TCN	125 ML POLY	1	ICE	Y	

SAMPLE COMMENTS: Dominately muck (saturated, v. dark to v.v. dark); clay silt minor tan silt/vfs w/orgs at base

LOCATION COMMENTS: Area #6

FIELD PARAMETERS:

FIELD SCREENING/MEASUREMENT RESULTS:

Alpha NA dpm PID Ambient Reading = NA ppm

Beta/Gamma NA dpm

COLLECTED BY (PRINT) Scott Mugiletti

RELINQUISHED BY (Printed Name) (Signature)	Date/Time 02/01/2013 1200	RECEIVED BY (Printed Name) (Signature)	Date/Time 2/1/13 12:00
RELINQUISHED BY (Printed Name) (Signature)	Date/Time	RECEIVED BY (Printed Name) (Signature)	Date/Time

Report Date 01/15/2013

TCLP metals pending total metal results

SAMPLE COLLECTION LOG/FIELD CHAIN OF CUSTODY

EVENT ID: 4114 **EVENT NAME:** Los Alamos/Pueblo 2012 Surveillance Sampling

SAMPLE ID: CALA-13-28432 **WORK ORDER:**

	AS PLANNED	AS COLLECTED		AS PLANNED	AS COLLECTED
DATE COLLECTED (MM/DD/YYYY):		01/31/2013	FIELD MATRIX:	S	OK
TIME COLLECTED (HH:MM):		1400	MEDIA:		SED
PRS ID:	Los Alamos-Canyon	OK	SAMPLE TECH CODE:	HA	OK
LOCATION ID:	UNK	LA-24	FIELD PREP:	NA	
LOCATION TYPE:		General	FIELD QC TYPE:	FD	
TOP DEPTH:		0.0 ft	SAMPLE USAGE:	QC	✓
BOTTOM DEPTH:		6.5 ft	EXCAVATED:	YES / (NO) / NA	

PRIORITY	ORDER	CONTAINER	#	PRESERVATIVE	COLLECTED Y/N	SPECIAL INSTRUCTIONS
	8081A+8151A	500 ML GLASS	1	ICE	Y	
	8082	250 ML GLASS	1	ICE	Y	
	8290	125 ML GLASS	2	ICE	Y	
	Am241+GS+PU+SR90	1 LITER POLY	1	NONE	Y	
	H3	500 ML POLY	1	ICE	Y	
	Tal Metals	125 ML POLY	1	ICE	Y	
	TCN	125 ML POLY	1	ICE	Y	

SAMPLE COMMENTS: FD of CALA-13-28427

LOCATION COMMENTS: NA LA-24 (Area #3)

FIELD PARAMETERS:

FIELD SCREENING/MEASUREMENT RESULTS:

Alpha NA dpm PID Ambient Reading = NA ppm

Beta/Gamma NA dpm

COLLECTED BY (PRINT) Scott Muggleton

RELINQUISHED BY (Printed Name) (Signature)	Date/Time	RECEIVED BY (Printed Name) (Signature)	Date/Time
Scott Muggleton	02/01/2013 1200	K. Gieck	2/1/13 12:00
RELINQUISHED BY (Printed Name) (Signature)	**Date/Time**	**RECEIVED BY (Printed Name) (Signature)**	**Date/Time**

Data Validation Report

Chain Of Custody No. 2013-505

1. Distribution Of Samples In EDD.

	Analytical	Regular	Field	Trip	Field	Equipment
SDG	Method	Samples	Duplicates	Blanks	Blanks	Blanks
4486	SW-846:8290	6	1			

	Analytical	Analysis	Prep	Regular	Field	Trip	Field	Equipment	Method	Matrix	Matrix
SDG	Method	Lot ID	Lot ID	Samples	Duplicates	Blanks	Blanks	Blanks	Blanks	Spikes	Spike Dups
4486	SW-846:8290	22879	22876	6	1				1		

2. Distribution Of Analytes In EDD.

Analytical Method	Method Category	Field Sample ID	Lab Sample ID	Sample Purpose	Target Analytes	Surrogates	Spikes	TICS
SW-846:8290	DIOXINS FURANS	CALA-13-28425	4486001	REG	25	9	0	0
SW-846:8290	DIOXINS FURANS	CALA-13-28426	4486002	REG	25	9	0	0
SW-846:8290	DIOXINS FURANS	CALA-13-28427	4486003	REG	25	9	0	0
SW-846:8290	DIOXINS FURANS	CALA-13-28428	4486005	REG	25	9	0	0
SW-846:8290	DIOXINS FURANS	CALA-13-28429	4486006	REG	25	9	0	0
SW-846:8290	DIOXINS FURANS	CALA-13-28430	4486007	REG	25	9	0	0
SW-846:8290	DIOXINS FURANS	CALA-13-28432	4486004	FD	25	9	0	0
SW-846:8290	DIOXINS FURANS	LCS	12007607	LCS	0	9	17	0
SW-846:8290	DIOXINS FURANS	LCSD	12007608	LCSD	0	9	17	0
SW-846:8290	DIOXINS FURANS	MB	12007606	MB	25	9	0	0

3. Are any analytes missing?

No.

4. Were any holding times exceeded?

No.

5. Any contaminants in blanks?

No.

Any samples affected by the presence of contaminants in blanks?

No.

6. Any surrogate recoveries outside the control limits?

No.

7. Any MS/MSD recoveries or RPDs outside the control limits?

No.

8. Any LCS/LCSD or BS/BSD recoveries or RPDs outside the control limits?

No.

Data Validation Report for: Chain Of Custody No. 2013-505

Analytical Spikes	Post-Digestion Spikes	Lab Control Samples	Lab Control Sample Dups	Blank Spikes	Blank Spike Dups	Lab Duplicates	Storage Blanks	Preparation Blanks	Reagent Blanks
		1	1						

9. Any Field Duplicate RPDs outside the desired limits?

No.

10. Any Lab Duplicate RPDs outside the desired limits?

No.

11. Any required reporting limits exceeded?

No.

12. Additional Validator's Coments.

None.

13. Display Flagged Data.

No.

Reason Code	Description
J_LAB	The analytical laboratory qualified the detected result as estimated (J) because the result was less the PQL but greater than the MDL
NQ	The analytical laboratory did not qualifiy the analyte as not detected and/or any other standard qualifire. The analyte is detected in the sample.
U_LAB	The analytical laboratory qualified the analyte as not detected.

14. Useable Result Count.

Field Sample ID	Location ID	Sample Purpose	Analytical Method	No. Unuseable Records	Total No. Of Records
CALA-13-28425	LA-22	REG	SW-846:8290	0	25
CALA-13-28426	LA-23	REG	SW-846:8290	0	25
CALA-13-28427	LA-24	REG	SW-846:8290	0	25
CALA-13-28428	LA-25	REG	SW-846:8290	0	25
CALA-13-28429	LA-26	REG	SW-846:8290	0	25
CALA-13-28430	LA-27	REG	SW-846:8290	0	25
CALA-13-28432	LA-24	FD	SW-846:8290	0	25

CFA | Cape Fear Analytical LLC
an affiliate of The GEL Group INC

3306 Kitty Hawk Road, Suite 120 Wilmington, NC 28405
P 910.795.0421
www.capefearanalytical.com

February 15, 2013

Mr. Keith Greene
Los Alamos National Laboratory
PO Box 1663
TA-03, SM271, Drop Pt. 02U, Rm111
Los Alamos, New Mexico 87545

Re: 2012 WQH with LOCUS EDD
Work Order: 4486
SDG: 2013-505

Dear Mr. Greene:

Cape Fear Analytical LLC (CFA) appreciates the opportunity to provide the enclosed analytical results for the sample(s) we received on February 05, 2013. This original data report has been prepared and reviewed in accordance with CFAôs standard operating procedures.

Our policy is to provide high quality, personalized analytical services to enable you to meet your analytical needs on time every time. We trust that you will find everything in order and to your satisfaction. If you have any questions, please do not hesitate to call me at 910-795-0421.

Sincerely,

Cynthia Larkins
Project Manager

Chain of Custody: 2013-505
Enclosures

problem solved

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Los Alamos National Laboratory
2012 WQH with LOCUS EDD
Workorder #: 4486
SDG # : 2013-505

Case Narrative

Receipt Narrative
for
Los Alamos National Laboratory
SDG: 2013-505
Work Order: 4486

Laboratory Identification
Cape Fear Analytical, LLC
3306 Kitty Hawk Road, Suite 120
Wilmington, North Carolina 28405
(910) 795-0421

Summary
Sample receipt: The samples arrived at Cape Fear Analytical LLC (CFA), Wilmington, North Carolina on February 05, 2013 for analysis. The samples were delivered with proper chain of custody documentation and signatures. Shipping container temperatures were checked, documented, and within specifications. All sample containers arrived without any visible signs of tampering or breakage. Appropriate sample containers were received. Sample containers were checked for pH, where appropriate, and matched the preservative as documented on the accompanying chain of custody. Sufficient sample was received for analysis. There are no additional comments concerning sample receipt.

Sample Identification: The laboratory received the following samples:

Laboratory ID	Client ID
4486001	CALA-13-28425
4486002	CALA-13-28426
4486003	CALA-13-28427
4486004	CALA-13-28432
4486005	CALA-13-28428
4486006	CALA-13-28429
4486007	CALA-13-28430

Case Narrative
Sample analyses were conducted using methodology as outlined in Cape Fear Analyticalôs Standard Operating Procedures. Any technical or administrative problems during analysis, data review, and reduction are contained in the analytical case narratives in the enclosed data package.

Data Package
The enclosed data package contains the following sections: Case Narrative, Chain of Custody, Cooler Receipt Checklist and data from the following fractions: High Resolution Dioxins and Furans.

Sincerely,

Cynde Larkins

Cynthia Larkins
Project Manager

List of current CFA Certifications as of 07 February 2013

State	Certification
California (NELAC)	09270CA
New Jersey (NELAC)	NC013
North Carolina	NC01894
South Carolina	99063001
Utah (Primary NELAC)	CFAL

Chain of Custody and Supporting Documentation

Cape Fear Analytical

3306 Kitty Hawk Road, Suite 120
Wilmington NC 28405

Chain of Custody/Analysis Request

COC/Lab Request #: 2013-505

Page 1 of 1

Client Contact:

Lab Agreement # : 63641-001-10

Project Number :

Analysis Turnaround Time:

24 Hour - ☐ Other - ☐
7 Day - ☐
14 Day - ☐
21 Day - ☐
28 Day - ☒

15 DAY TAT per client email. 05Feb13 CAF

Site Name: Los Alamos National Laboratory

Rad Screening Info: Yes, Below Background

Field Sample ID	Sample Date	Sample Time	Sample Matrix	8290
CALA-13-28425	Jan 31 2013	12:15	SED	2
CALA-13-28426	Jan 31 2013	11:00	SED	2
CALA-13-28427	Jan 31 2013	14:00	SED	2
CALA-13-28432	Jan 31 2013	14:00	SED	2
CALA-13-28428	Jan 31 2013	15:30	SED	2
CALA-13-28429	Jan 31 2013	10:00	SED	2
CALA-13-28430	Jan 31 2013	11:00	SED	2

Special Instructions:

Special Instructions:

Relinquished by: Melissa Martyn		Date/Time: 2/4/13 3:00	Received by: Cynde Rankin	05Feb13 1014
Relinquished by:		Date/Time:	Received by:	
Relinquished by:		Date/Time:	Received by:	

temp: 3.6°

CFA WO# 4486

SAMPLE RECEIPT CHECKLIST

Cape Fear Analytical

Client:	LANL	Work Order:	4486
Received By:	Cynde Larkins	Date/Time Received:	05 Feb 13 1014

Suspected Hazard Information	Yes	NA	No
Shipped as DOT Hazardous?			
Samples identified as Foreign Soil?			

DOE Site Sample Packages	Yes	NA	No*
Screened <0.5 mR/hr?	CL		
Samples < 2x background?	CL		

* Notify RSO of any responses in this column immediately.

	Sample Receipt Criteria	Yes	NA	No	Comments/Qualifiers (required for Non-Conforming Items)
1	Shipping containers received intact and sealed?	✓			Circle Applicable: seals broken damaged container leaking container other(describe)
2	Chain of Custody documents included with shipment?	✓			
3	Samples requiring cold preservation within 0-6°C?	✓			Preservation Method: ice bags blue ice dry ice none other (describe) 3.6°
4	Samples requiring chemical preservation at proper pH?		✓		Sample IDs, containers affected and pH observed: If preservative added, Lot#:
5	Samples requiring preservation have no residual chlorine?		✓		Sample IDs, containers affected: If preservative added, Lot#:
6	Samples received within holding time?	✓			Sample IDs, tests affected:
7	Sample IDs on COC match IDs on containers?	✓			Sample IDs, containers affected:
8	Date & time of COC match date & time on containers?	✓			Sample IDs, containers affected:
9	Number of containers received match number indicated on COC?	✓			Sample IDs, containers affected:
10	COC form is properly signed in relinquished/received sections?	✓			

Comments:

Checklist performed by: Initials: CL Date: 05 Feb 13

ORIGIN ID: SAFA (505) 665-9966
KEITH GREENE
LOS ALAMOS NATL LAB.
TA00 BLDG 1237 DPU 03

LOS ALAMOS, NM 87545
UNITED STATES US

SHIP DATE: 04FEB13
ACTWGT: 29.0 LB MAN
CAD: 0014176/CAFE2511

BILL SENDER

TO CHRIS CORNWELL
CAPE FEAR ANALYTICAL
3306 KITTY HAWK ROAD, SUITE 120

WILMINGTON NC 28405
(910) 795-0421
REF: WE6113140300

FedEx Express

TUE - 05 FEB AA
PRIORITY OVERNIGHT

TRK# 0201 5462 9832 6947

28405
NC-US GSO

XH ILMA

WO #4486

Subject: FW: 15 day turn on LA Weir samples
From: "Greene, Keith R" <kgreene@lanl.gov>
Date: 2/5/2013 12:20 PM
To: Valerie Davis <vsd@gel.com>, Cynde Larkins <cynde.larkins@cfanalytical.com>

You will get these samples today, request 2013-504 and 2013-505 and this is calendar day, txs

From: Bohn, Roy Alan
Sent: Tuesday, February 05, 2013 9:24 AM
To: Greene, Keith R
Cc: SMuggleton@TerranearPMC.com; Reid, Kevin D; Veenis, Steve
Subject: 15 day turn on LA Weir samples

WO #4486

Keith,

Per our phone conversation, please expedite the LA Weir samples submitted by TPMC to a 15 day turn-around time.

Thanks!
Roy
699-1387

High Resolution Dioxins and Furans Analysis

Case Narrative

HDOX LANL Case Narrative
Los Alamos National Laboratory (LANL)
SDG 2013-505
Work Order 4486

Method/Analysis Information

Product:	**Dioxins/Furans by SW846 Method 8290A in Solids**
Analytical Method:	SW846 8290A
Extraction Method:	SW846 3540C
Analytical Batch Number:	22879
Clean Up Batch Number:	22877
Extraction Batch Number:	22876

Sample Analysis

The following samples were analyzed using the analytical protocol as established in SW846 8290A:

Sample ID	Client ID
4486001	CALA-13-28425
4486002	CALA-13-28426
4486003	CALA-13-28427
4486004	CALA-13-28432
4486005	CALA-13-28428
4486006	CALA-13-28429
4486007	CALA-13-28430
12007606	Method Blank (MB)
12007607	Laboratory Control Sample (LCS)
12007608	Laboratory Control Sample Duplicate (LCSD)
12007621	4484018(D7525) Sample Duplicate (DUP)

The samples in this SDG were analyzed on a "dry weight" basis.

Preparation/Analytical Method Verification

SOP Reference

Procedure for preparation, analysis and reporting of analytical data are controlled by Cape Fear Analytical LLC (CFA) as Standard Operating Procedure (SOP). The data discussed in this narrative has been analyzed in accordance with CF-OA-E-002 REV# 10.

Raw data reports are processed and reviewed by the analyst using the TargetLynx software package.

Calibration Information

Initial Calibration
All initial calibration requirements have been met for this sample delivery group (SDG).

Continuing Calibration Verification (CCV) Requirements
All associated calibration verification standard(s) (CCV) met the acceptance criteria.

Quality Control (QC) Information

Certification Statement
The test results presented in this document are certified to meet all requirements of the 2003 NELAC Standard.

Method Blank (MB) Statement
The MB(s) analyzed with this SDG met the acceptance criteria.

Surrogate Recoveries
All surrogate recoveries were within the established acceptance criteria for this SDG.

Laboratory Control Sample (LCS) Recovery
The LCS spike recoveries met the acceptance limits.

Laboratory Control Sample Duplicate (LCSD) Recovery
The LCSD spike recoveries met the acceptance limits.

LCS/LCSD Relative Percent Difference (RPD) Statement
The RPD(s) between the LCS and LCSD met the acceptance limits.

QC Sample Designation
A matrix spike and matrix spike duplicate analysis was not required for this SDG.

Technical Information

Holding Time Specifications
CFA assigns holding times based on the associated methodology, which assigns the date and time from sample collection. Those holding times expressed in hours are calculated in the AlphaLIMS system. Those holding times expressed as days expire at midnight on the day of expiration. All samples in this SDG met the specified holding time.

Preparation/Analytical Method Verification
All procedures were performed as stated in the SOP.

Sample Dilutions
The samples in this SDG did not require dilutions.

Sample Re-extraction/Re-analysis
Re-extractions or re-analyses were not required in this SDG.

Miscellaneous Information

Nonconformance (NCR) Documentation
A NCR was not required for this SDG.

Manual Integrations
Certain standards and QC samples required manual integrations to correctly position the baseline as set in the calibration standard injections. Where manual integrations were performed, copies of all manual integration peak profiles are included in the raw data section of this fraction. Manual integrations were required for data files in this SDG.

Sample preparation
No difficulties were encountered during sample preparation.

Electronic Packaging Comment

This data package was generated using an electronic data processing program referred to as virtual packaging. In an effort to increase quality and efficiency, the laboratory has developed systems to generate all data packages electronically. The following change from traditional packages should be noted: Analyst/peer reviewer initials and dates are not present on the electronic data files. Presently, all initials and dates are present on the original raw data. These hard copies are temporarily stored in the laboratory. An electronic signature page inserted after the case narrative will include the data validator's signature and title. The signature page also includes the data qualifiers used in the fractional package. Data that are not generated electronically, such as hand written pages, will be scanned and inserted into the electronic package.

Sample Data Summary

Cape Fear Analytical, LLC

3306 Kitty Hawk Road Suite 120, Wilmington, NC 28405 - (910) 795-0421 - www.capefearanalytical.com

Qualifier Definition Report
for

LANL001 Los Alamos National Laboratory

Client SDG: 2013-505 CFA Work Order: 4486

The Qualifiers in this report are defined as follows:

* A quality control analyte recovery is outside of specified acceptance criteria

** Analyte is a surrogate compound

J Value is estimated

K Estimated Maximum Possible Concentration

U Analyte was analyzed for , but not detected above the specified detection limit.

DL Indicates that sample is diluted.
RA Indicates that sample is re-analyzed without re-extraction.
RE Indicates that sample is re-extracted.

Review/Validation

Cape Fear Analytical requires all analytical data to be verified by a qualified data reviewer.

The following data validator verified the information presented in this case narrative:

Signature: Heather Patterson **Name: Heather Patterson**

Date: 15 FEB 2013 **Title: Analyst III**

Hi-Res Dioxins/Furans
Certificate of Analysis
Sample Summary

SDG Number:	**2013-505**	**Client:**	**LANL001**	**Project:**	**LANL00112**
Lab Sample ID:	**4486001**	**Date Collected:**	**01/31/2013 12:15**	**Matrix:**	**SOLID**
Client Sample:	**8290 Soil**	**Date Received:**	**02/05/2013 10:14**	**%Moisture:**	**40**
Client ID:	**CALA-13-28425**			**Prep Basis:**	**Dry Weight**
Batch ID:	**22879**	**Method:**	**SW846 8290A**		
Run Date:	**02/08/2013 17:59**	**Analyst:**	**JTF**	**Instrument:**	**HRP763**
Data File:	**b08feb13a_2-5**			**Dilution:**	**1**
Prep Batch:	**22876**	**Prep Method:**	**SW846 3540C**		
Prep Date:	**06-FEB-13**	**Aliquot:**	**10.11 g**		

CAS No.	Parmname	Qual	Result	EMPC	Units	EDL	PQL
1746-01-6	2,3,7,8-TCDD	U	.206		pg/g	0.206	1.65
40321-76-4	1,2,3,7,8-PeCDD	U	.824		pg/g	0.824	8.24
39227-28-6	1,2,3,4,7,8-HxCDD	U	.824		pg/g	0.824	8.24
57653-85-7	1,2,3,6,7,8-HxCDD	U	.824		pg/g	0.824	8.24
19408-74-3	1,2,3,7,8,9-HxCDD	U	.824		pg/g	0.824	8.24
35822-46-9	1,2,3,4,6,7,8-HpCDD		12.4		pg/g	0.824	8.24
3268-87-9	1,2,3,4,6,7,8,9-OCDD		120		pg/g	1.89	16.5
51207-31-9	2,3,7,8-TCDF	J	0.818		pg/g	0.468	1.65
57117-41-6	1,2,3,7,8-PeCDF	U	.824		pg/g	0.824	8.24
57117-31-4	2,3,4,7,8-PeCDF	U	.824		pg/g	0.824	8.24
70648-26-9	1,2,3,4,7,8-HxCDF	U	.824		pg/g	0.824	8.24
57117-44-9	1,2,3,6,7,8-HxCDF	U	.824		pg/g	0.824	8.24
60851-34-5	2,3,4,6,7,8-HxCDF	U	.824		pg/g	0.824	8.24
72918-21-9	1,2,3,7,8,9-HxCDF	U	.824		pg/g	0.824	8.24
67562-39-4	1,2,3,4,6,7,8-HpCDF	JK		3.13	pg/g	0.824	8.24
55673-89-7	1,2,3,4,7,8,9-HpCDF	U	.824		pg/g	0.824	8.24
39001-02-0	1,2,3,4,6,7,8,9-OCDF	J	6.58		pg/g	1.65	16.5
41903-57-5	Total TCDDs	J	1.41	2.37	pg/g	0.206	1.65
36088-22-9	Total PeCDDs	U	.824		pg/g	0.824	8.24
34465-46-8	Total HxCDDs	J	1.56	3.44	pg/g	0.824	8.24
37871-00-4	Total HpCDDs		26.5		pg/g	0.824	8.24
30402-14-3	Total TCDFs	J	1.63	2.18	pg/g	0.468	1.65
30402-15-4	Total PeCDFs	J	1.24		pg/g	0.824	8.24
55684-94-1	Total HxCDFs	J	3.06		pg/g	0.824	8.24
38998-75-3	Total HpCDFs	J	5.37	8.50	pg/g	0.824	8.24
3333-30-0	TEQ WHO2005 ND=0		0.243	0.275	pg/g		
3333-30-1	TEQ WHO2005 ND=0.5		1.19	1.22	pg/g		

Surrogate/Tracer recovery	Qual	Result	Nominal	Units	Recovery%	Acceptable Limits
13C-2,3,7,8-TCDD		281	330	pg/g	85.2	(40%-135%)
13C-1,2,3,7,8-PeCDD		285	330	pg/g	86.5	(40%-135%)
13C-1,2,3,6,7,8-HxCDD		246	330	pg/g	74.6	(40%-135%)
13C-1,2,3,4,6,7,8-HpCDD		310	330	pg/g	94.0	(40%-135%)
13C-OCDD		538	659	pg/g	81.6	(40%-135%)
13C-2,3,7,8-TCDF		258	330	pg/g	78.3	(40%-135%)
13C-1,2,3,7,8-PeCDF		300	330	pg/g	91.1	(40%-135%)
13C-1,2,3,6,7,8-HxCDF		298	330	pg/g	90.3	(40%-135%)
13C-1,2,3,4,6,7,8-HpCDF		318	330	pg/g	96.4	(40%-135%)

Comments:

J Value is estimated

K Estimated Maximum Possible Concentration

U Analyte was analyzed for , but not detected above the specified detection limit.

Hi-Res Dioxins/Furans
Certificate of Analysis
Sample Summary

SDG Number:	**2013-505**	**Client:**	**LANL001**	**Project:**	**LANL00112**
Lab Sample ID:	**4486002**	**Date Collected:**	**01/31/2013 11:00**	**Matrix:**	**SOLID**
Client Sample:	**8290 Soil**	**Date Received:**	**02/05/2013 10:14**	**%Moisture:**	**43.9**
Client ID:	**CALA-13-28426**			**Prep Basis:**	**Dry Weight**
Batch ID:	**22879**	**Method:**	**SW846 8290A**		
Run Date:	**02/08/2013 18:47**	**Analyst:**	**JTF**	**Instrument:**	**HRP763**
Data File:	**b08feb13a_2-6**			**Dilution:**	**1**
Prep Batch:	**22876**	**Prep Method:**	**SW846 3540C**		
Prep Date:	**06-FEB-13**	**Aliquot:**	**10.38 g**		

CAS No.	Parmname	Qual	Result	EMPC	Units	EDL	PQL
1746-01-6	2,3,7,8-TCDD	U	.212		pg/g	0.212	1.72
40321-76-4	1,2,3,7,8-PeCDD	U	.858		pg/g	0.858	8.58
39227-28-6	1,2,3,4,7,8-HxCDD	U	.858		pg/g	0.858	8.58
57653-85-7	1,2,3,6,7,8-HxCDD	U	.858		pg/g	0.858	8.58
19408-74-3	1,2,3,7,8,9-HxCDD	U	.858		pg/g	0.858	8.58
35822-46-9	1,2,3,4,6,7,8-HpCDD	J	6.08		pg/g	0.858	8.58
3268-87-9	1,2,3,4,6,7,8,9-OCDD		60.7		pg/g	1.72	17.2
51207-31-9	2,3,7,8-TCDF	J	0.896		pg/g	0.402	1.72
57117-41-6	1,2,3,7,8-PeCDF	U	.858		pg/g	0.858	8.58
57117-31-4	2,3,4,7,8-PeCDF	U	.858		pg/g	0.858	8.58
70648-26-9	1,2,3,4,7,8-HxCDF	U	.858		pg/g	0.858	8.58
57117-44-9	1,2,3,6,7,8-HxCDF	U	.858		pg/g	0.858	8.58
60851-34-5	2,3,4,6,7,8-HxCDF	U	.858		pg/g	0.858	8.58
72918-21-9	1,2,3,7,8,9-HxCDF	U	.858		pg/g	0.858	8.58
67562-39-4	1,2,3,4,6,7,8-HpCDF	J	1.92		pg/g	0.858	8.58
55673-89-7	1,2,3,4,7,8,9-HpCDF	U	.858		pg/g	0.858	8.58
39001-02-0	1,2,3,4,6,7,8,9-OCDF	J	3.67		pg/g	1.72	17.2
41903-57-5	Total TCDDs	J	1.42		pg/g	0.212	1.72
36088-22-9	Total PeCDDs	U	.858		pg/g	0.858	8.58
34465-46-8	Total HxCDDs	U	.858	1.87	pg/g	0.858	8.58
37871-00-4	Total HpCDDs		13.2		pg/g	0.858	8.58
30402-14-3	Total TCDFs		2.09	2.53	pg/g	0.402	1.72
30402-15-4	Total PeCDFs	U	.858		pg/g	0.858	8.58
55684-94-1	Total HxCDFs	J	2.03		pg/g	0.858	8.58
38998-75-3	Total HpCDFs	J	4.45		pg/g	0.858	8.58
3333-30-0	TEQ WHO2005 ND=0		0.189	0.189	pg/g		
3333-30-1	TEQ WHO2005 ND=0.5		1.17	1.17	pg/g		

Surrogate/Tracer recovery	Qual	Result	Nominal	Units	Recovery%	Acceptable Limits
13C-2,3,7,8-TCDD		282	343	pg/g	82.2	(40%-135%)
13C-1,2,3,7,8-PeCDD		290	343	pg/g	84.6	(40%-135%)
13C-1,2,3,6,7,8-HxCDD		243	343	pg/g	70.8	(40%-135%)
13C-1,2,3,4,6,7,8-HpCDD		316	343	pg/g	92.2	(40%-135%)
13C-OCDD		572	687	pg/g	83.4	(40%-135%)
13C-2,3,7,8-TCDF		264	343	pg/g	76.9	(40%-135%)
13C-1,2,3,7,8-PeCDF		307	343	pg/g	89.5	(40%-135%)
13C-1,2,3,6,7,8-HxCDF		299	343	pg/g	87.1	(40%-135%)
13C-1,2,3,4,6,7,8-HpCDF		324	343	pg/g	94.4	(40%-135%)

Comments:

J Value is estimated

K Estimated Maximum Possible Concentration

U Analyte was analyzed for , but not detected above the specified detection limit.

Hi-Res Dioxins/Furans
Certificate of Analysis
Sample Summary

SDG Number:	**2013-505**	**Client:**	**LANL001**	**Project:**	**LANL00112**
Lab Sample ID:	**4486003**	**Date Collected:**	**01/31/2013 14:00**	**Matrix:**	**SOLID**
Client Sample:	**8290 Soil**	**Date Received:**	**02/05/2013 10:14**	**%Moisture:**	**40.4**
Client ID:	**CALA-13-28427**			**Prep Basis:**	**Dry Weight**
Batch ID:	**22879**	**Method:**	**SW846 8290A**		
Run Date:	**02/08/2013 19:35**	**Analyst:**	**JTF**	**Instrument:**	**HRP763**
Data File:	**b08feb13a_2-7**			**Dilution:**	**1**
Prep Batch:	**22876**	**Prep Method:**	**SW846 3540C**		
Prep Date:	**06-FEB-13**	**Aliquot:**	**10.51 g**		

CAS No.	Parmname	Qual	Result	EMPC	Units	EDL	PQL
1746-01-6	2,3,7,8-TCDD	U	.213		pg/g	0.213	1.60
40321-76-4	1,2,3,7,8-PeCDD	U	.798		pg/g	0.798	7.98
39227-28-6	1,2,3,4,7,8-HxCDD	U	.798		pg/g	0.798	7.98
57653-85-7	1,2,3,6,7,8-HxCDD	U	.798		pg/g	0.798	7.98
19408-74-3	1,2,3,7,8,9-HxCDD	U	.798		pg/g	0.798	7.98
35822-46-9	1,2,3,4,6,7,8-HpCDD		9.72		pg/g	0.798	7.98
3268-87-9	1,2,3,4,6,7,8,9-OCDD		107		pg/g	1.62	16.0
51207-31-9	2,3,7,8-TCDF	J	0.823		pg/g	0.393	1.60
57117-41-6	1,2,3,7,8-PeCDF	U	.798		pg/g	0.798	7.98
57117-31-4	2,3,4,7,8-PeCDF	U	.798		pg/g	0.798	7.98
70648-26-9	1,2,3,4,7,8-HxCDF	U	.798		pg/g	0.798	7.98
57117-44-9	1,2,3,6,7,8-HxCDF	U	.798		pg/g	0.798	7.98
60851-34-5	2,3,4,6,7,8-HxCDF	U	.798		pg/g	0.798	7.98
72918-21-9	1,2,3,7,8,9-HxCDF	U	.798		pg/g	0.798	7.98
67562-39-4	1,2,3,4,6,7,8-HpCDF	J	3.00		pg/g	0.798	7.98
55673-89-7	1,2,3,4,7,8,9-HpCDF	U	.798		pg/g	0.798	7.98
39001-02-0	1,2,3,4,6,7,8,9-OCDF	J	5.32		pg/g	1.60	16.0
41903-57-5	Total TCDDs		2.25		pg/g	0.213	1.60
36088-22-9	Total PeCDDs	U	.798		pg/g	0.798	7.98
34465-46-8	Total HxCDDs	J	2.39		pg/g	0.798	7.98
37871-00-4	Total HpCDDs		22.5		pg/g	0.798	7.98
30402-14-3	Total TCDFs		2.30	3.34	pg/g	0.393	1.60
30402-15-4	Total PeCDFs	U	.798		pg/g	0.798	7.98
55684-94-1	Total HxCDFs	J	1.39	2.31	pg/g	0.798	7.98
38998-75-3	Total HpCDFs	J	7.18		pg/g	0.798	7.98
3333-30-0	TEQ WHO2005 ND=0		0.243	0.243	pg/g		
3333-30-1	TEQ WHO2005 ND=0.5		1.16	1.16	pg/g		

Surrogate/Tracer recovery	Qual	Result	Nominal	Units	Recovery%	Acceptable Limits
13C-2,3,7,8-TCDD		264	319	pg/g	82.6	(40%-135%)
13C-1,2,3,7,8-PeCDD		265	319	pg/g	83.0	(40%-135%)
13C-1,2,3,6,7,8-HxCDD		229	319	pg/g	71.7	(40%-135%)
13C-1,2,3,4,6,7,8-HpCDD		295	319	pg/g	92.3	(40%-135%)
13C-OCDD		497	638	pg/g	77.9	(40%-135%)
13C-2,3,7,8-TCDF		244	319	pg/g	76.5	(40%-135%)
13C-1,2,3,7,8-PeCDF		286	319	pg/g	89.5	(40%-135%)
13C-1,2,3,6,7,8-HxCDF		275	319	pg/g	86.2	(40%-135%)
13C-1,2,3,4,6,7,8-HpCDF		296	319	pg/g	92.8	(40%-135%)

Comments:

J Value is estimated

K Estimated Maximum Possible Concentration

U Analyte was analyzed for , but not detected above the specified detection limit.

Hi-Res Dioxins/Furans
Certificate of Analysis
Sample Summary

SDG Number:	**2013-505**	**Client:**	**LANL001**	**Project:**	**LANL00112**
Lab Sample ID:	**4486004**	**Date Collected:**	**01/31/2013 14:00**	**Matrix:**	**SOLID**
Client Sample:	**8290 Soil**	**Date Received:**	**02/05/2013 10:14**	**%Moisture:**	**41.4**
Client ID:	**CALA-13-28432**			**Prep Basis:**	**Dry Weight**
Batch ID:	**22879**	**Method:**	**SW846 8290A**		
Run Date:	**02/08/2013 20:23**	**Analyst:**	**JTF**	**Instrument:**	**HRP763**
Data File:	**b08feb13a_2-8**			**Dilution:**	**1**
Prep Batch:	**22876**	**Prep Method:**	**SW846 3540C**		
Prep Date:	**06-FEB-13**	**Aliquot:**	**11.18 g**		

CAS No.	Parmname	Qual	Result	EMPC	Units	EDL	PQL
1746-01-6	2,3,7,8-TCDD	U	.162		pg/g	0.162	1.53
40321-76-4	1,2,3,7,8-PeCDD	U	.763		pg/g	0.763	7.63
39227-28-6	1,2,3,4,7,8-HxCDD	U	.763		pg/g	0.763	7.63
57653-85-7	1,2,3,6,7,8-HxCDD	U	.763		pg/g	0.763	7.63
19408-74-3	1,2,3,7,8,9-HxCDD	U	.763		pg/g	0.763	7.63
35822-46-9	1,2,3,4,6,7,8-HpCDD		9.33		pg/g	1.13	7.63
3268-87-9	1,2,3,4,6,7,8,9-OCDD		86.7		pg/g	1.53	15.3
51207-31-9	2,3,7,8-TCDF	J	0.763		pg/g	0.406	1.53
57117-41-6	1,2,3,7,8-PeCDF	U	.763		pg/g	0.763	7.63
57117-31-4	2,3,4,7,8-PeCDF	U	.763		pg/g	0.763	7.63
70648-26-9	1,2,3,4,7,8-HxCDF	U	.763		pg/g	0.763	7.63
57117-44-9	1,2,3,6,7,8-HxCDF	U	.763		pg/g	0.763	7.63
60851-34-5	2,3,4,6,7,8-HxCDF	U	.763		pg/g	0.763	7.63
72918-21-9	1,2,3,7,8,9-HxCDF	U	.763		pg/g	0.763	7.63
67562-39-4	1,2,3,4,6,7,8-HpCDF	J	2.63		pg/g	0.763	7.63
55673-89-7	1,2,3,4,7,8,9-HpCDF	U	.763		pg/g	0.763	7.63
39001-02-0	1,2,3,4,6,7,8,9-OCDF	J	5.29		pg/g	1.53	15.3
41903-57-5	Total TCDDs		1.60		pg/g	0.162	1.53
36088-22-9	Total PeCDDs	U	.763		pg/g	0.763	7.63
34465-46-8	Total HxCDDs	J	1.32	2.27	pg/g	0.763	7.63
37871-00-4	Total HpCDDs		19.3		pg/g	1.13	7.63
30402-14-3	Total TCDFs		1.61		pg/g	0.406	1.53
30402-15-4	Total PeCDFs	J	0.775		pg/g	0.763	7.63
55684-94-1	Total HxCDFs	J	2.23		pg/g	0.763	7.63
38998-75-3	Total HpCDFs	J	7.25		pg/g	0.763	7.63
3333-30-0	TEQ WHO2005 ND=0		0.224	0.224	pg/g		
3333-30-1	TEQ WHO2005 ND=0.5		1.08	1.08	pg/g		

Surrogate/Tracer recovery	Qual	Result	Nominal	Units	Recovery%	Acceptable Limits
13C-2,3,7,8-TCDD		272	305	pg/g	89.0	(40%-135%)
13C-1,2,3,7,8-PeCDD		288	305	pg/g	94.4	(40%-135%)
13C-1,2,3,6,7,8-HxCDD		232	305	pg/g	76.0	(40%-135%)
13C-1,2,3,4,6,7,8-HpCDD		309	305	pg/g	101	(40%-135%)
13C-OCDD		538	611	pg/g	88.2	(40%-135%)
13C-2,3,7,8-TCDF		248	305	pg/g	81.2	(40%-135%)
13C-1,2,3,7,8-PeCDF		306	305	pg/g	100	(40%-135%)
13C-1,2,3,6,7,8-HxCDF		278	305	pg/g	91.0	(40%-135%)
13C-1,2,3,4,6,7,8-HpCDF		302	305	pg/g	98.9	(40%-135%)

Comments:

J Value is estimated

K Estimated Maximum Possible Concentration

U Analyte was analyzed for , but not detected above the specified detection limit.

Hi-Res Dioxins/Furans
Certificate of Analysis
Sample Summary

SDG Number:	**2013-505**	**Client:**	**LANL001**	**Project:**	**LANL00112**
Lab Sample ID:	**4486005**	**Date Collected:**	**01/31/2013 15:30**	**Matrix:**	**SOLID**
Client Sample:	**8290 Soil**	**Date Received:**	**02/05/2013 10:14**	**%Moisture:**	**41.1**
Client ID:	**CALA-13-28428**			**Prep Basis:**	**Dry Weight**
Batch ID:	**22879**	**Method:**	**SW846 8290A**		
Run Date:	**02/08/2013 21:11**	**Analyst:**	**JTF**	**Instrument:**	**HRP763**
Data File:	**b08feb13a_2-9**			**Dilution:**	**1**
Prep Batch:	**22876**	**Prep Method:**	**SW846 3540C**		
Prep Date:	**06-FEB-13**	**Aliquot:**	**10.79 g**		

CAS No.	Parmname	Qual	Result	EMPC	Units	EDL	PQL
1746-01-6	2,3,7,8-TCDD	U	.22		pg/g	0.220	1.57
40321-76-4	1,2,3,7,8-PeCDD	U	.787		pg/g	0.787	7.87
39227-28-6	1,2,3,4,7,8-HxCDD	U	.787		pg/g	0.787	7.87
57653-85-7	1,2,3,6,7,8-HxCDD	U	.787		pg/g	0.787	7.87
19408-74-3	1,2,3,7,8,9-HxCDD	U	.787		pg/g	0.787	7.87
35822-46-9	1,2,3,4,6,7,8-HpCDD		8.99		pg/g	0.787	7.87
3268-87-9	1,2,3,4,6,7,8,9-OCDD		90.2		pg/g	1.96	15.7
51207-31-9	2,3,7,8-TCDF	J	1.11		pg/g	0.409	1.57
57117-41-6	1,2,3,7,8-PeCDF	U	.787		pg/g	0.787	7.87
57117-31-4	2,3,4,7,8-PeCDF	U	.787		pg/g	0.787	7.87
70648-26-9	1,2,3,4,7,8-HxCDF	U	.787		pg/g	0.787	7.87
57117-44-9	1,2,3,6,7,8-HxCDF	U	.787		pg/g	0.787	7.87
60851-34-5	2,3,4,6,7,8-HxCDF	U	.787		pg/g	0.787	7.87
72918-21-9	1,2,3,7,8,9-HxCDF	U	.787		pg/g	0.787	7.87
67562-39-4	1,2,3,4,6,7,8-HpCDF	J	2.87		pg/g	0.787	7.87
55673-89-7	1,2,3,4,7,8,9-HpCDF	U	.787		pg/g	0.787	7.87
39001-02-0	1,2,3,4,6,7,8,9-OCDF	J	5.81		pg/g	1.89	15.7
41903-57-5	Total TCDDs	U	.22	2.11	pg/g	0.220	1.57
36088-22-9	Total PeCDDs	U	.787		pg/g	0.787	7.87
34465-46-8	Total HxCDDs	J	1.54	2.51	pg/g	0.787	7.87
37871-00-4	Total HpCDDs		19.5		pg/g	0.787	7.87
30402-14-3	Total TCDFs		3.21	3.67	pg/g	0.409	1.57
30402-15-4	Total PeCDFs	U	.787	0.929	pg/g	0.787	7.87
55684-94-1	Total HxCDFs	J	2.50		pg/g	0.787	7.87
38998-75-3	Total HpCDFs	J	7.02		pg/g	0.787	7.87
3333-30-0	TEQ WHO2005 ND=0		0.258	0.258	pg/g		
3333-30-1	TEQ WHO2005 ND=0.5		1.17	1.17	pg/g		

Surrogate/Tracer recovery	Qual	Result	Nominal	Units	Recovery%	Acceptable Limits
13C-2,3,7,8-TCDD		274	315	pg/g	87.0	(40%-135%)
13C-1,2,3,7,8-PeCDD		277	315	pg/g	87.9	(40%-135%)
13C-1,2,3,6,7,8-HxCDD		234	315	pg/g	74.2	(40%-135%)
13C-1,2,3,4,6,7,8-HpCDD		298	315	pg/g	94.8	(40%-135%)
13C-OCDD		511	630	pg/g	81.1	(40%-135%)
13C-2,3,7,8-TCDF		249	315	pg/g	79.0	(40%-135%)
13C-1,2,3,7,8-PeCDF		284	315	pg/g	90.2	(40%-135%)
13C-1,2,3,6,7,8-HxCDF		279	315	pg/g	88.6	(40%-135%)
13C-1,2,3,4,6,7,8-HpCDF		301	315	pg/g	95.5	(40%-135%)

Comments:

J Value is estimated

K Estimated Maximum Possible Concentration

U Analyte was analyzed for , but not detected above the specified detection limit.

Hi-Res Dioxins/Furans
Certificate of Analysis
Sample Summary

SDG Number:	**2013-505**	**Client:**	**LANL001**	**Project:**	**LANL00112**
Lab Sample ID:	**4486006**	**Date Collected:**	**01/31/2013 10:00**	**Matrix:**	**SOLID**
Client Sample:	**8290 Soil**	**Date Received:**	**02/05/2013 10:14**	**%Moisture:**	**40.9**
Client ID:	**CALA-13-28429**			**Prep Basis:**	**Dry Weight**
Batch ID:	**22879**	**Method:**	**SW846 8290A**		
Run Date:	**02/08/2013 21:59**	**Analyst:**	**JTF**	**Instrument:**	**HRP763**
Data File:	**b08feb13a_2-10**			**Dilution:**	**1**
Prep Batch:	**22876**	**Prep Method:**	**SW846 3540C**		
Prep Date:	**06-FEB-13**	**Aliquot:**	**11.69 g**		

CAS No.	Parmname	Qual	Result	EMPC	Units	EDL	PQL
1746-01-6	2,3,7,8-TCDD	U	.145		pg/g	0.145	1.45
40321-76-4	1,2,3,7,8-PeCDD	U	.724		pg/g	0.724	7.24
39227-28-6	1,2,3,4,7,8-HxCDD	U	.724		pg/g	0.724	7.24
57653-85-7	1,2,3,6,7,8-HxCDD	U	.724		pg/g	0.724	7.24
19408-74-3	1,2,3,7,8,9-HxCDD	U	.724		pg/g	0.724	7.24
35822-46-9	1,2,3,4,6,7,8-HpCDD	J	6.15		pg/g	0.727	7.24
3268-87-9	1,2,3,4,6,7,8,9-OCDD		55.8		pg/g	1.82	14.5
51207-31-9	2,3,7,8-TCDF	JK		0.877	pg/g	0.278	1.45
57117-41-6	1,2,3,7,8-PeCDF	U	.724		pg/g	0.724	7.24
57117-31-4	2,3,4,7,8-PeCDF	U	.724		pg/g	0.724	7.24
70648-26-9	1,2,3,4,7,8-HxCDF	U	.724		pg/g	0.724	7.24
57117-44-9	1,2,3,6,7,8-HxCDF	U	.724		pg/g	0.724	7.24
60851-34-5	2,3,4,6,7,8-HxCDF	U	.724		pg/g	0.724	7.24
72918-21-9	1,2,3,7,8,9-HxCDF	U	.724		pg/g	0.724	7.24
67562-39-4	1,2,3,4,6,7,8-HpCDF	J	1.93		pg/g	0.724	7.24
55673-89-7	1,2,3,4,7,8,9-HpCDF	U	.724		pg/g	0.724	7.24
39001-02-0	1,2,3,4,6,7,8,9-OCDF	J	4.43		pg/g	1.45	14.5
41903-57-5	Total TCDDs		2.11		pg/g	0.145	1.45
36088-22-9	Total PeCDDs	U	.724		pg/g	0.724	7.24
34465-46-8	Total HxCDDs	J	1.68		pg/g	0.724	7.24
37871-00-4	Total HpCDDs		12.4		pg/g	0.727	7.24
30402-14-3	Total TCDFs	J	0.371	3.05	pg/g	0.278	1.45
30402-15-4	Total PeCDFs	U	.724		pg/g	0.724	7.24
55684-94-1	Total HxCDFs	J	1.24		pg/g	0.724	7.24
38998-75-3	Total HpCDFs	J	4.57		pg/g	0.724	7.24
3333-30-0	TEQ WHO2005 ND=0		0.0989	0.187	pg/g		
3333-30-1	TEQ WHO2005 ND=0.5		0.923	0.997	pg/g		

Surrogate/Tracer recovery	Qual	Result	Nominal	Units	Recovery%	Acceptable Limits
13C-2,3,7,8-TCDD		233	289	pg/g	80.6	(40%-135%)
13C-1,2,3,7,8-PeCDD		236	289	pg/g	81.4	(40%-135%)
13C-1,2,3,6,7,8-HxCDD		212	289	pg/g	73.1	(40%-135%)
13C-1,2,3,4,6,7,8-HpCDD		267	289	pg/g	92.1	(40%-135%)
13C-OCDD		470	579	pg/g	81.2	(40%-135%)
13C-2,3,7,8-TCDF		216	289	pg/g	74.7	(40%-135%)
13C-1,2,3,7,8-PeCDF		251	289	pg/g	86.8	(40%-135%)
13C-1,2,3,6,7,8-HxCDF		248	289	pg/g	85.7	(40%-135%)
13C-1,2,3,4,6,7,8-HpCDF		268	289	pg/g	92.5	(40%-135%)

Comments:

J Value is estimated

K Estimated Maximum Possible Concentration

U Analyte was analyzed for , but not detected above the specified detection limit.

Hi-Res Dioxins/Furans
Certificate of Analysis
Sample Summary

SDG Number:	**2013-505**	**Client:**	**LANL001**	**Project:**	**LANL00112**
Lab Sample ID:	**4486007**	**Date Collected:**	**01/31/2013 11:00**	**Matrix:**	**SOLID**
Client Sample:	**8290 Soil**	**Date Received:**	**02/05/2013 10:14**	**%Moisture:**	**41.6**
Client ID:	**CALA-13-28430**			**Prep Basis:**	**Dry Weight**
Batch ID:	**22879**	**Method:**	**SW846 8290A**		
Run Date:	**02/08/2013 22:47**	**Analyst:**	**JTF**	**Instrument:**	**HRP763**
Data File:	**b08feb13a_2-11**			**Dilution:**	**1**
Prep Batch:	**22876**	**Prep Method:**	**SW846 3540C**		
Prep Date:	**06-FEB-13**	**Aliquot:**	**10.22 g**		

CAS No.	Parmname	Qual	Result	EMPC	Units	EDL	PQL
1746-01-6	2,3,7,8-TCDD	U	.292		pg/g	0.292	1.68
40321-76-4	1,2,3,7,8-PeCDD	U	.838		pg/g	0.838	8.38
39227-28-6	1,2,3,4,7,8-HxCDD	U	.838		pg/g	0.838	8.38
57653-85-7	1,2,3,6,7,8-HxCDD	U	.838		pg/g	0.838	8.38
19408-74-3	1,2,3,7,8,9-HxCDD	U	.838		pg/g	0.838	8.38
35822-46-9	1,2,3,4,6,7,8-HpCDD	J	4.82		pg/g	0.838	8.38
3268-87-9	1,2,3,4,6,7,8,9-OCDD		45.5		pg/g	1.68	16.8
51207-31-9	2,3,7,8-TCDF	JK		0.952	pg/g	0.372	1.68
57117-41-6	1,2,3,7,8-PeCDF	U	.838		pg/g	0.838	8.38
57117-31-4	2,3,4,7,8-PeCDF	U	.838		pg/g	0.838	8.38
70648-26-9	1,2,3,4,7,8-HxCDF	JK		0.841	pg/g	0.838	8.38
57117-44-9	1,2,3,6,7,8-HxCDF	U	.838		pg/g	0.838	8.38
60851-34-5	2,3,4,6,7,8-HxCDF	U	.838		pg/g	0.838	8.38
72918-21-9	1,2,3,7,8,9-HxCDF	U	.838		pg/g	0.838	8.38
67562-39-4	1,2,3,4,6,7,8-HpCDF	J	2.56		pg/g	0.838	8.38
55673-89-7	1,2,3,4,7,8,9-HpCDF	U	.838		pg/g	0.838	8.38
39001-02-0	1,2,3,4,6,7,8,9-OCDF	JK		3.23	pg/g	1.68	16.8
41903-57-5	Total TCDDs		2.35		pg/g	0.292	1.68
36088-22-9	Total PeCDDs	U	.838		pg/g	0.838	8.38
34465-46-8	Total HxCDDs	J	1.11		pg/g	0.838	8.38
37871-00-4	Total HpCDDs		9.60		pg/g	0.838	8.38
30402-14-3	Total TCDFs	J	1.12	3.63	pg/g	0.372	1.68
30402-15-4	Total PeCDFs	U	.838		pg/g	0.838	8.38
55684-94-1	Total HxCDFs	J	1.24	2.08	pg/g	0.838	8.38
38998-75-3	Total HpCDFs	J	4.48		pg/g	0.838	8.38
3333-30-0	TEQ WHO2005 ND=0		0.0875	0.268	pg/g		
3333-30-1	TEQ WHO2005 ND=0.5		1.11	1.23	pg/g		

Surrogate/Tracer recovery	Qual	Result	Nominal	Units	Recovery%	Acceptable Limits
13C-2,3,7,8-TCDD		281	335	pg/g	84.0	(40%-135%)
13C-1,2,3,7,8-PeCDD		286	335	pg/g	85.3	(40%-135%)
13C-1,2,3,6,7,8-HxCDD		239	335	pg/g	71.4	(40%-135%)
13C-1,2,3,4,6,7,8-HpCDD		312	335	pg/g	93.0	(40%-135%)
13C-OCDD		548	670	pg/g	81.8	(40%-135%)
13C-2,3,7,8-TCDF		256	335	pg/g	76.5	(40%-135%)
13C-1,2,3,7,8-PeCDF		298	335	pg/g	88.8	(40%-135%)
13C-1,2,3,6,7,8-HxCDF		280	335	pg/g	83.5	(40%-135%)
13C-1,2,3,4,6,7,8-HpCDF		323	335	pg/g	96.4	(40%-135%)

Comments:

J Value is estimated

K Estimated Maximum Possible Concentration

U Analyte was analyzed for , but not detected above the specified detection limit.

Quality Control Summary

Hi-Res Dioxins/Furans

Surrogate Recovery Report

SDG Number: 2013-505

Matrix Type: SOLID

Sample ID	Client ID	Surrogate	QUAL	Recovery (%)	Acceptance Limits
12007607	LCS for batch 22876	13C-2,3,7,8-TCDD		84.6	(40%-135%)
		13C-1,2,3,7,8-PeCDD		87.7	(40%-135%)
		13C-1,2,3,6,7,8-HxCDD		74.6	(40%-135%)
		13C-1,2,3,4,6,7,8-HpCDD		89.6	(40%-135%)
		13C-OCDD		79.9	(40%-135%)
		13C-2,3,7,8-TCDF		79.6	(40%-135%)
		13C-1,2,3,7,8-PeCDF		96.6	(40%-135%)
		13C-1,2,3,6,7,8-HxCDF		82.9	(40%-135%)
		13C-1,2,3,4,6,7,8-HpCDF		91.2	(40%-135%)
12007608	LCSD for batch 22876	13C-2,3,7,8-TCDD		80.0	(40%-135%)
		13C-1,2,3,7,8-PeCDD		81.5	(40%-135%)
		13C-1,2,3,6,7,8-HxCDD		72.7	(40%-135%)
		13C-1,2,3,4,6,7,8-HpCDD		89.9	(40%-135%)
		13C-OCDD		78.4	(40%-135%)
		13C-2,3,7,8-TCDF		74.1	(40%-135%)
		13C-1,2,3,7,8-PeCDF		86.5	(40%-135%)
		13C-1,2,3,6,7,8-HxCDF		84.2	(40%-135%)
		13C-1,2,3,4,6,7,8-HpCDF		87.7	(40%-135%)
12007606	MB for batch 22876	13C-2,3,7,8-TCDD		87.0	(40%-135%)
		13C-1,2,3,7,8-PeCDD		89.7	(40%-135%)
		13C-1,2,3,6,7,8-HxCDD		77.1	(40%-135%)
		13C-1,2,3,4,6,7,8-HpCDD		97.9	(40%-135%)
		13C-OCDD		86.0	(40%-135%)
		13C-2,3,7,8-TCDF		81.7	(40%-135%)
		13C-1,2,3,7,8-PeCDF		94.3	(40%-135%)
		13C-1,2,3,6,7,8-HxCDF		88.4	(40%-135%)
		13C-1,2,3,4,6,7,8-HpCDF		97.1	(40%-135%)
4486001	CALA-13-28425	13C-2,3,7,8-TCDD		85.2	(40%-135%)
		13C-1,2,3,7,8-PeCDD		86.5	(40%-135%)
		13C-1,2,3,6,7,8-HxCDD		74.6	(40%-135%)
		13C-1,2,3,4,6,7,8-HpCDD		94.0	(40%-135%)
		13C-OCDD		81.6	(40%-135%)
		13C-2,3,7,8-TCDF		78.3	(40%-135%)
		13C-1,2,3,7,8-PeCDF		91.1	(40%-135%)
		13C-1,2,3,6,7,8-HxCDF		90.3	(40%-135%)
		13C-1,2,3,4,6,7,8-HpCDF		96.4	(40%-135%)
4486002	CALA-13-28426	13C-2,3,7,8-TCDD		82.2	(40%-135%)
		13C-1,2,3,7,8-PeCDD		84.6	(40%-135%)
		13C-1,2,3,6,7,8-HxCDD		70.8	(40%-135%)
		13C-1,2,3,4,6,7,8-HpCDD		92.2	(40%-135%)
		13C-OCDD		83.4	(40%-135%)
		13C-2,3,7,8-TCDF		76.9	(40%-135%)
		13C-1,2,3,7,8-PeCDF		89.5	(40%-135%)
		13C-1,2,3,6,7,8-HxCDF		87.1	(40%-135%)
		13C-1,2,3,4,6,7,8-HpCDF		94.4	(40%-135%)
4486003	CALA-13-28427	13C-2,3,7,8-TCDD		82.6	(40%-135%)
		13C-1,2,3,7,8-PeCDD		83.0	(40%-135%)

Hi-Res Dioxins/Furans
Surrogate Recovery Report

SDG Number: 2013-505

Matrix Type: SOLID

Sample ID	Client ID	Surrogate	QUAL	Recovery (%)	Acceptance Limits
4486003	CALA-13-28427	13C-1,2,3,6,7,8-HxCDD		71.7	(40%-135%)
		13C-1,2,3,4,6,7,8-HpCDD		92.3	(40%-135%)
		13C-OCDD		77.9	(40%-135%)
		13C-2,3,7,8-TCDF		76.5	(40%-135%)
		13C-1,2,3,7,8-PeCDF		89.5	(40%-135%)
		13C-1,2,3,6,7,8-HxCDF		86.2	(40%-135%)
		13C-1,2,3,4,6,7,8-HpCDF		92.8	(40%-135%)
4486004	CALA-13-28432	13C-2,3,7,8-TCDD		89.0	(40%-135%)
		13C-1,2,3,7,8-PeCDD		94.4	(40%-135%)
		13C-1,2,3,6,7,8-HxCDD		76.0	(40%-135%)
		13C-1,2,3,4,6,7,8-HpCDD		101	(40%-135%)
		13C-OCDD		88.2	(40%-135%)
		13C-2,3,7,8-TCDF		81.2	(40%-135%)
		13C-1,2,3,7,8-PeCDF		100	(40%-135%)
		13C-1,2,3,6,7,8-HxCDF		91.0	(40%-135%)
		13C-1,2,3,4,6,7,8-HpCDF		98.9	(40%-135%)
4486005	CALA-13-28428	13C-2,3,7,8-TCDD		87.0	(40%-135%)
		13C-1,2,3,7,8-PeCDD		87.9	(40%-135%)
		13C-1,2,3,6,7,8-HxCDD		74.2	(40%-135%)
		13C-1,2,3,4,6,7,8-HpCDD		94.8	(40%-135%)
		13C-OCDD		81.1	(40%-135%)
		13C-2,3,7,8-TCDF		79.0	(40%-135%)
		13C-1,2,3,7,8-PeCDF		90.2	(40%-135%)
		13C-1,2,3,6,7,8-HxCDF		88.6	(40%-135%)
		13C-1,2,3,4,6,7,8-HpCDF		95.5	(40%-135%)
4486006	CALA-13-28429	13C-2,3,7,8-TCDD		80.6	(40%-135%)
		13C-1,2,3,7,8-PeCDD		81.4	(40%-135%)
		13C-1,2,3,6,7,8-HxCDD		73.1	(40%-135%)
		13C-1,2,3,4,6,7,8-HpCDD		92.1	(40%-135%)
		13C-OCDD		81.2	(40%-135%)
		13C-2,3,7,8-TCDF		74.7	(40%-135%)
		13C-1,2,3,7,8-PeCDF		86.8	(40%-135%)
		13C-1,2,3,6,7,8-HxCDF		85.7	(40%-135%)
		13C-1,2,3,4,6,7,8-HpCDF		92.5	(40%-135%)
4486007	CALA-13-28430	13C-2,3,7,8-TCDD		84.0	(40%-135%)
		13C-1,2,3,7,8-PeCDD		85.3	(40%-135%)
		13C-1,2,3,6,7,8-HxCDD		71.4	(40%-135%)
		13C-1,2,3,4,6,7,8-HpCDD		93.0	(40%-135%)
		13C-OCDD		81.8	(40%-135%)
		13C-2,3,7,8-TCDF		76.5	(40%-135%)
		13C-1,2,3,7,8-PeCDF		88.8	(40%-135%)
		13C-1,2,3,6,7,8-HxCDF		83.5	(40%-135%)
		13C-1,2,3,4,6,7,8-HpCDF		96.4	(40%-135%)

* Recovery outside Acceptance Limits
# Column to be used to flag recovery values
D Sample Diluted

Hi-Res Dioxins/Furans

Quality Control Summary
Spike Recovery Report

SDG Number: 2013-505
Client ID: LCS for batch 22876
Lab Sample ID: 12007607
Instrument: HRP763
Analyst: JTF

Sample Type: Laboratory Control Sample
Matrix: SOLID
Analysis Date: 02/08/2013 14:47
Dilution: 1
Prep Batch ID: 22876
Batch ID: 22879

CAS No.		Parmname	Amount Added pg/g	Spike Conc. pg/g	Recovery %	Acceptance Limits
1746-01-6	LCS	2,3,7,8-TCDD	20.0	17.9	89.4	70-130
40321-76-4	LCS	1,2,3,7,8-PeCDD	100	95.2	95.2	70-130
39227-28-6	LCS	1,2,3,4,7,8-HxCDD	100	113	113	70-130
57653-85-7	LCS	1,2,3,6,7,8-HxCDD	100	117	117	70-130
19408-74-3	LCS	1,2,3,7,8,9-HxCDD	100	119	119	70-130
35822-46-9	LCS	1,2,3,4,6,7,8-HpCDD	100	98.1	98.1	70-130
3268-87-9	LCS	1,2,3,4,6,7,8,9-OCDD	200	213	106	70-130
51207-31-9	LCS	2,3,7,8-TCDF	20.0	20.9	104	70-130
57117-41-6	LCS	1,2,3,7,8-PeCDF	100	98.3	98.3	70-130
57117-31-4	LCS	2,3,4,7,8-PeCDF	100	88.0	88	70-130
70648-26-9	LCS	1,2,3,4,7,8-HxCDF	100	104	104	70-130
57117-44-9	LCS	1,2,3,6,7,8-HxCDF	100	109	109	70-130
60851-34-5	LCS	2,3,4,6,7,8-HxCDF	100	109	109	70-130
72918-21-9	LCS	1,2,3,7,8,9-HxCDF	100	109	109	70-130
67562-39-4	LCS	1,2,3,4,6,7,8-HpCDF	100	103	103	70-130
55673-89-7	LCS	1,2,3,4,7,8,9-HpCDF	100	101	101	70-130
39001-02-0	LCS	1,2,3,4,6,7,8,9-OCDF	200	229	114	70-130

Hi-Res Dioxins/Furans

Quality Control Summary
Spike Recovery Report

SDG Number: 2013-505
Client ID: LCSD for batch 22876
Lab Sample ID: 12007608
Instrument: HRP763
Analyst: JTF

Sample Type: Laboratory Control Sample Duplicate
Matrix: SOLID
Analysis Date: 02/08/2013 15:34
Dilution: 1
Prep Batch ID: 22876
Batch ID: 22879

CAS No.		Parmname	Amount Added pg/g	Spike Conc. pg/g	Recovery %	Acceptance Limits	RPD %	Acceptance Limits
1746-01-6	LCSD	2,3,7,8-TCDD	20.0	17.3	86.3	70-130	3.52	0-20
40321-76-4	LCSD	1,2,3,7,8-PeCDD	100	98.8	98.8	70-130	3.78	0-20
39227-28-6	LCSD	1,2,3,4,7,8-HxCDD	100	120	120	70-130	6.33	0-20
57653-85-7	LCSD	1,2,3,6,7,8-HxCDD	100	122	122	70-130	4.22	0-20
19408-74-3	LCSD	1,2,3,7,8,9-HxCDD	100	126	126	70-130	5.74	0-20
35822-46-9	LCSD	1,2,3,4,6,7,8-HpCDD	100	95.8	95.8	70-130	2.46	0-20
3268-87-9	LCSD	1,2,3,4,6,7,8,9-OCDD	200	218	109	70-130	2.39	0-20
51207-31-9	LCSD	2,3,7,8-TCDF	20.0	21.7	108	70-130	3.86	0-20
57117-41-6	LCSD	1,2,3,7,8-PeCDF	100	100	100	70-130	1.83	0-20
57117-31-4	LCSD	2,3,4,7,8-PeCDF	100	96.5	96.5	70-130	9.29	0-20
70648-26-9	LCSD	1,2,3,4,7,8-HxCDF	100	107	107	70-130	2.81	0-20
57117-44-9	LCSD	1,2,3,6,7,8-HxCDF	100	108	108	70-130	0.229	0-20
60851-34-5	LCSD	2,3,4,6,7,8-HxCDF	100	110	110	70-130	0.967	0-20
72918-21-9	LCSD	1,2,3,7,8,9-HxCDF	100	107	107	70-130	1.92	0-20
67562-39-4	LCSD	1,2,3,4,6,7,8-HpCDF	100	104	104	70-130	0.821	0-20
55673-89-7	LCSD	1,2,3,4,7,8,9-HpCDF	100	101	101	70-130	0.0396	0-20
39001-02-0	LCSD	1,2,3,4,6,7,8,9-OCDF	200	233	116	70-130	1.76	0-20

Method Blank Summary

SDG Number:	**2013-505**	**Client:**	**LANL001**	**Matrix:**	**SOLID**
Client ID:	**MB for batch 22876**	**Instrument ID:**	**HRP763**	**Data File:**	**b08feb13a_2-3**
Lab Sample ID:	**12007606**	**Prep Date:**	**06-FEB-13**	**Analyzed:**	**02/08/13 16:22**
Column:					

This method blank applies to the following samples and quality control samples:

	Client Sample ID	Lab Sample ID	File ID	Date Analyzed	Time Analyzed
01	LCS for batch 22876	12007607	b08feb13a_2-1	02/08/13	1447
02	LCSD for batch 22876	12007608	b08feb13a_2-2	02/08/13	1534
03	CALA-13-28425	4486001	b08feb13a_2-5	02/08/13	1759
04	CALA-13-28426	4486002	b08feb13a_2-6	02/08/13	1847
05	CALA-13-28427	4486003	b08feb13a_2-7	02/08/13	1935
06	CALA-13-28432	4486004	b08feb13a_2-8	02/08/13	2023
07	CALA-13-28428	4486005	b08feb13a_2-9	02/08/13	2111
08	CALA-13-28429	4486006	b08feb13a_2-10	02/08/13	2159
09	CALA-13-28430	4486007	b08feb13a_2-11	02/08/13	2247

Sample Raw Data

Hi-Res Dioxins/Furans
Certificate of Analysis
Sample Summary

SDG Number:	**2013-505**	**Client:**	**LANL001**	**Project:**	**LANL00112**
Lab Sample ID:	**4486001**	**Date Collected:**	**01/31/2013 12:15**	**Matrix:**	**SOLID**
Client Sample:	**8290 Soil**	**Date Received:**	**02/05/2013 10:14**	**%Moisture:**	**40**
Client ID:	**CALA-13-28425**			**Prep Basis:**	**Dry Weight**
Batch ID:	**22879**	**Method:**	**SW846 8290A**		
Run Date:	**02/08/2013 17:59**	**Analyst:**	**JTF**	**Instrument:**	**HRP763**
Data File:	**b08feb13a_2-5**			**Dilution:**	**1**
Prep Batch:	**22876**	**Prep Method:**	**SW846 3540C**		
Prep Date:	**06-FEB-13**	**Aliquot:**	**10.11 g**		

CAS No.	Parmname	Qual	Result	EMPC	Units	EDL	PQL
1746-01-6	2,3,7,8-TCDD	U	.206		pg/g	0.206	1.65
40321-76-4	1,2,3,7,8-PeCDD	U	.824		pg/g	0.824	8.24
39227-28-6	1,2,3,4,7,8-HxCDD	U	.824		pg/g	0.824	8.24
57653-85-7	1,2,3,6,7,8-HxCDD	U	.824		pg/g	0.824	8.24
19408-74-3	1,2,3,7,8,9-HxCDD	U	.824		pg/g	0.824	8.24
35822-46-9	1,2,3,4,6,7,8-HpCDD		12.4		pg/g	0.824	8.24
3268-87-9	1,2,3,4,6,7,8,9-OCDD		120		pg/g	1.89	16.5
51207-31-9	2,3,7,8-TCDF	J	0.818		pg/g	0.468	1.65
57117-41-6	1,2,3,7,8-PeCDF	U	.824		pg/g	0.824	8.24
57117-31-4	2,3,4,7,8-PeCDF	U	.824		pg/g	0.824	8.24
70648-26-9	1,2,3,4,7,8-HxCDF	U	.824		pg/g	0.824	8.24
57117-44-9	1,2,3,6,7,8-HxCDF	U	.824		pg/g	0.824	8.24
60851-34-5	2,3,4,6,7,8-HxCDF	U	.824		pg/g	0.824	8.24
72918-21-9	1,2,3,7,8,9-HxCDF	U	.824		pg/g	0.824	8.24
67562-39-4	1,2,3,4,6,7,8-HpCDF	JK		3.13	pg/g	0.824	8.24
55673-89-7	1,2,3,4,7,8,9-HpCDF	U	.824		pg/g	0.824	8.24
39001-02-0	1,2,3,4,6,7,8,9-OCDF	J	6.58		pg/g	1.65	16.5
41903-57-5	Total TCDDs	J	1.41	2.37	pg/g	0.206	1.65
36088-22-9	Total PeCDDs	U	.824		pg/g	0.824	8.24
34465-46-8	Total HxCDDs	J	1.56	3.44	pg/g	0.824	8.24
37871-00-4	Total HpCDDs		26.5		pg/g	0.824	8.24
30402-14-3	Total TCDFs	J	1.63	2.18	pg/g	0.468	1.65
30402-15-4	Total PeCDFs	J	1.24		pg/g	0.824	8.24
55684-94-1	Total HxCDFs	J	3.06		pg/g	0.824	8.24
38998-75-3	Total HpCDFs	J	5.37	8.50	pg/g	0.824	8.24
3333-30-0	TEQ WHO2005 ND=0		0.243	0.275	pg/g		
3333-30-1	TEQ WHO2005 ND=0.5		1.19	1.22	pg/g		

Surrogate/Tracer recovery	Qual	Result	Nominal	Units	Recovery%	Acceptable Limits
13C-2,3,7,8-TCDD		281	330	pg/g	85.2	(40%-135%)
13C-1,2,3,7,8-PeCDD		285	330	pg/g	86.5	(40%-135%)
13C-1,2,3,6,7,8-HxCDD		246	330	pg/g	74.6	(40%-135%)
13C-1,2,3,4,6,7,8-HpCDD		310	330	pg/g	94.0	(40%-135%)
13C-OCDD		538	659	pg/g	81.6	(40%-135%)
13C-2,3,7,8-TCDF		258	330	pg/g	78.3	(40%-135%)
13C-1,2,3,7,8-PeCDF		300	330	pg/g	91.1	(40%-135%)
13C-1,2,3,6,7,8-HxCDF		298	330	pg/g	90.3	(40%-135%)
13C-1,2,3,4,6,7,8-HpCDF		318	330	pg/g	96.4	(40%-135%)

Comments:

J Value is estimated

K Estimated Maximum Possible Concentration

U Analyte was analyzed for , but not detected above the specified detection limit.

Quantify Sample Summary Report **MassLynx 4.1**
Method 8290 Quantification Report

Dataset: C:\MassLynx\Default.pro\Sample Results\8290-b08feb13a_2.qld

Last Altered: Tuesday, February 12, 2013 09:46:23 Eastern Standard Time
Printed: Tuesday, February 12, 2013 09:46:56 Eastern Standard Time

Method: Untitled 20 Dec 2012 07:43:23
Calibration: C:\MassLynx\DEFAULT.PRO\CurveDB\8290-b30nov12a.cdb 03 Dec 2012 09:49:08

Name: b08feb13a_2-5, Date: 08-Feb-2013, Time: 17:59:00, ID: 4486001-1, Description: 22879, Job: HMS8290_1S, Task: HRP763_1, User: JTF

	Name	Ion1Area	Ion2Area	Response	RT	RRT	RA	Fail?	pg/uL	EDL	Height1	Noise1	S/N1	Height2	Noise2	S/N2	M
1	2378-TCDD							NO		0.0624		686			652		
2	12378-PeCDD	4.61e1	5.27e1	9.88e1	34.21	1.001	0.87	YES	0.041	0.0595	1.28e3	572	2.2	1.50e3	691	2.2	MM
3	123478-HxCDD	8.13e1	2.93e1	1.11e2	36.81	0.998	2.78	YES	0.062	0.158	2.48e3	1161	2.1	9.57e2	945	1.0	bd
4	123678-HxCDD	2.28e2	1.61e2	3.89e2	36.88	1.000	1.41	NO	0.198	0.143	4.92e3	1161	4.2	5.14e3	945	5.4	db
5	123789-HxCDD	2.08e2	7.01e1	2.78e2	37.14	1.007	2.97	YES	0.155	0.156	5.64e3	1161	4.9	2.12e3	945	2.2	bb
6	1234678-HpCDD	3.90e3	3.44e3	7.34e3	40.19	1.000	1.13	NO	3.749	0.164	5.31e4	849	62.6	4.88e4	855	57.1	bd
7	OCDD	2.51e4	2.69e4	5.20e4	44.40	1.000	0.93	NO	36.272	0.573	2.61e5	1505	173.7	3.07e5	1825	168.2	bd
8	2378-TCDF	4.89e2	5.55e2	1.04e3	30.62	1.001	0.88	NO	0.248	0.142	1.01e4	1264	8.0	7.40e3	1738	4.3	MM
9	12378-PeCDF	2.92e2	2.27e2	5.20e2	33.35	0.999	1.29	YES	0.129	0.0859	5.93e3	1380	4.3	8.46e3	2004	4.2	bb
10	23478-PeCDF	2.04e2	7.29e1	2.77e2	34.00	1.019	2.80	YES	0.066	0.0828	4.42e3	1380	3.2	3.42e3	2004	1.7	db
11	123478-HxCDF	2.97e2	2.22e2	5.19e2	36.08	0.997	1.34	NO	0.175	0.103	7.68e3	1514	5.1	6.40e3	830	7.7	dd
12	123678-HxCDF	1.92e2	1.46e2	3.38e2	36.19	1.000	1.32	NO	0.100	0.0906	6.24e3	1514	4.1	3.69e3	830	4.5	db
13	234678-HxCDF	9.99e1	8.52e1	1.85e2	36.69	1.014	1.17	NO	0.059	0.0981	5.43e3	1514	3.6	2.58e3	830	3.1	db
14	123789-HxCDF							NO		0.116		1514			830		
15	1234678-HpCDF	1.29e3	1.49e3	2.77e3	38.93	1.001	0.86	YES	0.950	0.0773	2.26e4	776	29.2	2.59e4	679	38.1	MM
16	1234789-HpCDF							NO		0.101		776			679		
17	OCDF	1.44e3	1.88e3	3.32e3	44.70	1.007	0.77	NO	1.995	0.190	2.08e4	681	30.6	2.38e4	599	39.8	MM
18	13C-2378-TCDD	1.33e5	1.68e5	3.00e5	31.29	1.017	0.79	NO	85.211	0.196	2.48e6	2523	983.8	3.09e6	1640	1881.0	bb
19	13C-12378-PeCDD	1.54e5	9.75e4	2.51e5	34.19	1.111	1.58	NO	86.495	0.140	3.36e6	957	3514.6	2.19e6	1493	1464.6	bd
20	13C-123678-HxCDD	9.75e4	8.45e4	1.82e5	36.88	0.993	1.15	NO	74.558	0.392	1.83e6	2780	658.2	1.57e6	3716	422.5	bb
21	13C-1234678-HpCDD	9.18e4	8.07e4	1.72e5	40.17	1.082	1.14	NO	93.968	0.315	1.22e6	2112	577.5	1.10e6	1807	610.8	bd
22	13C-OCDD	1.14e5	1.31e5	2.45e5	44.40	1.196	0.87	NO	163.238	0.428	1.16e6	2329	496.4	1.33e6	2030	654.0	bd
23	13C-2378-TCDF	1.86e5	2.22e5	4.09e5	30.59	0.994	0.84	NO	78.266	0.133	2.34e6	1380	1695.2	2.75e6	2825	973.0	bb
24	13C-12378-PeCDF	2.63e5	1.65e5	4.28e5	33.37	1.084	1.60	NO	91.056	0.264	6.42e6	4034	1591.2	4.03e6	3464	1161.9	bd
25	13C-123678-HxCDF	1.10e5	2.16e5	3.25e5	36.18	0.975	0.51	NO	90.269	0.248	2.10e6	2937	714.3	4.10e6	3125	1311.4	bb
26	13C-1234678-HpCDF	7.22e4	1.66e5	2.38e5	38.91	1.048	0.43	NO	96.366	0.277	1.16e6	2479	468.8	2.61e6	2160	1207.0	bd
27	13C-1234-TCDD	1.57e5	1.99e5	3.56e5	30.78	0.000	0.79	NO	100.000	0.194	2.37e6	2523	937.4	2.95e6	1640	1798.6	bb
28	13C-123789-HxCDD	1.18e5	1.02e5	2.20e5	37.12	0.000	1.16	NO	100.000	0.436	2.00e6	2780	718.3	1.72e6	3716	463.6	bd
29	37Cl-2378-TCDD (SS)									0.0363		901					
30	13C-23478-PeCDF (SS)	3.23e2	1.26e2	4.49e2	34.00	1.019	2.56	YES	0.105	0.179	7.33e3	4034	1.8	5.31e3	3464	1.5	dd

Quantify Totals Report MassLynx 4.1
Method 8290 Quantification Report

Dataset: C:\MassLynx\Default.pro\Sample Results\8290-b08feb13a_2.qld

Last Altered: Tuesday, February 12, 2013 09:46:23 Eastern Standard Time
Printed: Tuesday, February 12, 2013 09:46:56 Eastern Standard Time

Method: Untitled 20 Dec 2012 07:43:23
Calibration: C:\MassLynx\DEFAULT.PRO\CurveDB\8290-b30nov12a.cdb 03 Dec 2012 09:49:08

Name: b08feb13a_2-5, Date: 08-Feb-2013, Time: 17:59:00, ID: 4486001-1, Description: 22879, Job: HMS8290_1S, Task: HRP763_1, User: JTF

TD

	Name	Ion1Area	Ion2Area	Response	RT	RA	Fail?	pg/uL	EDL	Height1	Noise1	S/N1	Height2	Noise2	S/N2	M
1	Total-tetradioxins	4.86e2	7.37e2	1.22e3	28.03	0.66	NO	0.428	0.0624	7.40e3	686	10.8	1.15e4	652	17.7	bb
2	Total-tetradioxins	4.26e2	4.05e2	8.31e2	28.31	1.05	YES	0.290	0.0624	7.68e3	686	11.2	5.63e3	652	8.6	bb
3	Total-tetradioxins	6.31e1	5.97e1	1.23e2	30.75	1.06	YES	0.043	0.0624	1.13e3	686	1.6	1.06e3	652	1.6	MM

PD

	Name	Ion1Area	Ion2Area	Response	RT	RA	Fail?	pg/uL	EDL	Height1	Noise1	S/N1	Height2	Noise2	S/N2	M
1	Total-pentadioxins	1.29e2	1.01e2	2.30e2	32.83	1.29	YES	0.095	0.0595	4.56e3	572	8.0	2.28e3	691	3.3	MM
2	Total-pentadioxins	5.23e1	6.30e1	1.15e2	33.10	0.83	YES	0.047	0.0595	2.26e3	572	3.9	2.24e3	691	3.2	bb
3	Total-pentadioxins	8.03e1	5.38e1	1.34e2	33.49	1.49	NO	0.055	0.0595	2.94e3	572	5.1	2.03e3	691	2.9	bb
4	12378-PeCDD	4.61e1	5.27e1	9.88e1	34.21	0.87	YES	0.041	0.0595	1.28e3	572	2.2	1.50e3	691	2.2	MM
5	Total-pentadioxins	3.75e1	7.48e1	1.12e2	33.70	0.50	YES	0.046	0.0595	1.07e3	572	1.9	1.20e3	691	1.7	MM

HD

	Name	Ion1Area	Ion2Area	Response	RT	RA	Fail?	pg/uL	EDL	Height1	Noise1	S/N1	Height2	Noise2	S/N2	M
1	Total-hexadioxins	4.85e2	3.89e2	8.74e2	35.56	1.25	NO	0.474	0.152	1.22e4	1161	10.5	9.17e3	945	9.7	bb
2	Total-hexadioxins	1.33e2	7.85e1	2.12e2	36.02	1.70	YES	0.115	0.152	7.20e3	1161	6.2	2.23e3	945	2.4	bb
3	Total-hexadioxins	6.43e2	4.05e2	1.05e3	36.24	1.59	YES	0.568	0.152	1.18e4	1161	10.2	8.55e3	945	9.0	MM
4	123478-HxCDD	8.13e1	2.93e1	1.11e2	36.81	2.78	YES	0.062	0.158	2.48e3	1161	2.1	9.57e2	945	1.0	bd
5	123678-HxCDD	2.28e2	1.61e2	3.89e2	36.88	1.41	NO	0.198	0.143	4.92e3	1161	4.2	5.14e3	945	5.4	db
6	123789-HxCDD	2.08e2	7.01e1	2.78e2	37.14	2.97	YES	0.155	0.156	5.64e3	1161	4.9	2.12e3	945	2.2	bb
7	Total-hexadioxins	4.10e3	1.21e4	1.62e4	37.58	0.34	YES	8.785	0.152	1.05e5	1161	90.5	2.61e5	945	276.7	bb

HPD

	Name	Ion1Area	Ion2Area	Response	RT	RA	Fail?	pg/uL	EDL	Height1	Noise1	S/N1	Height2	Noise2	S/N2	M
1	Total-heptadioxins	4.46e3	3.95e3	8.41e3	39.26	1.13	NO	4.296	0.164	7.63e4	849	89.9	6.18e4	855	72.4	bb
2	1234678-HpCDD	3.90e3	3.44e3	7.34e3	40.19	1.13	NO	3.749	0.164	5.31e4	849	62.6	4.88e4	855	57.1	bd

Quantify Totals Report MassLynx 4.1
Method 8290 Quantification Report

Dataset: C:\MassLynx\Default.pro\Sample Results\8290-b08feb13a_2.qld

Last Altered: Tuesday, February 12, 2013 09:46:23 Eastern Standard Time
Printed: Tuesday, February 12, 2013 09:46:56 Eastern Standard Time

Name: b08feb13a_2-5, Date: 08-Feb-2013, Time: 17:59:00, ID: 4486001-1, Description: 22879, Job: HMS8290_1S, Task: HRP763_1, User: JTF

TF

	Name	Ion1Area	Ion2Area	Response	RT	RA	Fail?	pg/uL	EDL	Height1	Noise1	S/N1	Height2	Noise2	S/N2	M
1	Total-tetrafurans	2.45e2	4.57e2	7.02e2	27.26	0.54	YES	0.167	0.142	5.51e3	1264	4.4	5.47e3	1738	3.1	MM
2	Total-tetrafurans	6.86e1	1.60e2	2.29e2	27.60	0.43	YES	0.054	0.142	3.62e3	1264	2.9	7.58e3	1738	4.4	bb
3	Total-tetrafurans	1.27e2	3.85e2	5.12e2	27.94	0.33	YES	0.122	0.142	2.93e3	1264	2.3	6.28e3	1738	3.6	bd
4	Total-tetrafurans	9.14e1	2.06e2	2.97e2	27.98	0.44	YES	0.071	0.142	3.21e3	1264	2.5	5.44e3	1738	3.1	db
5	Total-tetrafurans	6.51e1	1.85e2	2.50e2	28.30	0.35	YES	0.059	0.142	1.81e3	1264	1.4	4.51e3	1738	2.6	bb
6	Total-tetrafurans	5.61e1	1.09e2	1.65e2	29.16	0.51	YES	0.039	0.142	1.79e3	1264	1.4	3.32e3	1738	1.9	bd
7	Total-tetrafurans	4.49e2	5.87e2	1.04e3	29.70	0.76	NO	0.246	0.142	6.91e3	1264	5.5	1.04e4	1738	6.0	MM
8	Total-tetrafurans	1.51e2	6.88e1	2.20e2	30.25	2.19	YES	0.052	0.142	4.90e3	1264	3.9	2.69e3	1738	1.5	bb
9	2378-TCDF	4.89e2	5.55e2	1.04e3	30.62	0.88	NO	0.248	0.142	1.01e4	1264	8.0	7.40e3	1738	4.3	MM
10	Total-tetrafurans	2.73e2	1.85e2	4.58e2	30.91	1.47	YES	0.109	0.142	4.65e3	1264	3.7	4.45e3	1738	2.6	bb
11	Total-tetrafurans	6.12e1	6.11e1	1.22e2	31.58	1.00	YES	0.029	0.142	1.35e3	1264	1.1	1.61e3	1738	0.9	bb
12	Total-tetrafurans	2.24e2	2.33e2	4.57e2	31.98	0.96	YES	0.109	0.142	9.47e3	1264	7.5	7.70e3	1738	4.4	bb

PF1

	Name	Ion1Area	Ion2Area	Response	RT	RA	Fail?	pg/uL	EDL	Height1	Noise1	S/N1	Height2	Noise2	S/N2	M
1	Total-pentafurans (F1)	8.86e2	6.66e2	1.55e3	31.96	1.33	NO	0.377	0.0374	2.16e4	503	42.9	2.00e4	996	20.1	bb

PF

	Name	Ion1Area	Ion2Area	Response	RT	RA	Fail?	pg/uL	EDL	Height1	Noise1	S/N1	Height2	Noise2	S/N2	M
1	Total-pentafurans	1.23e2	1.11e2	2.34e2	32.72	1.10	YES	0.057	0.0843	3.63e3	1380	2.6	4.01e3	2004	2.0	bd
2	Total-pentafurans	1.43e2	8.15e1	2.25e2	32.76	1.76	NO	0.055	0.0843	6.08e3	1380	4.4	3.82e3	2004	1.9	dd
3	Total-pentafurans	4.21e2	3.41e2	7.62e2	32.82	1.23	YES	0.185	0.0843	1.23e4	1380	8.9	7.56e3	2004	3.8	db
4	Total-pentafurans	1.91e2	1.88e2	3.79e2	33.13	1.02	YES	0.092	0.0843	4.88e3	1380	3.5	5.44e3	2004	2.7	bb
5	12378-PeCDF	2.92e2	2.27e2	5.20e2	33.35	1.29	YES	0.129	0.0859	5.93e3	1380	4.3	8.46e3	2004	4.2	bb
6	Total-pentafurans	9.09e1	6.66e1	1.58e2	33.54	1.36	NO	0.038	0.0843	3.44e3	1380	2.5	2.49e3	2004	1.2	bb
7	Total-pentafurans	1.30e2	1.03e2	2.34e2	33.91	1.26	YES	0.057	0.0843	3.55e3	1380	2.6	2.67e3	2004	1.3	bd
8	23478-PeCDF	2.04e2	7.29e1	2.77e2	34.00	2.80	YES	0.066	0.0828	4.42e3	1380	3.2	3.42e3	2004	1.7	db
9	Total-pentafurans	1.89e2	1.15e2	3.04e2	34.16	1.64	NO	0.074	0.0843	3.94e3	1380	2.9	1.83e3	2004	0.9	bb

Quantify Totals Report MassLynx 4.1
Method 8290 Quantification Report

Dataset: C:\MassLynx\Default.pro\Sample Results\8290-b08feb13a_2.qld

Last Altered: Tuesday, February 12, 2013 09:46:23 Eastern Standard Time
Printed: Tuesday, February 12, 2013 09:46:56 Eastern Standard Time

Name: b08feb13a_2-5, Date: 08-Feb-2013, Time: 17:59:00, ID: 4486001-1, Description: 22879, Job: HMS8290_1S, Task: HRP763_1, User: JTF

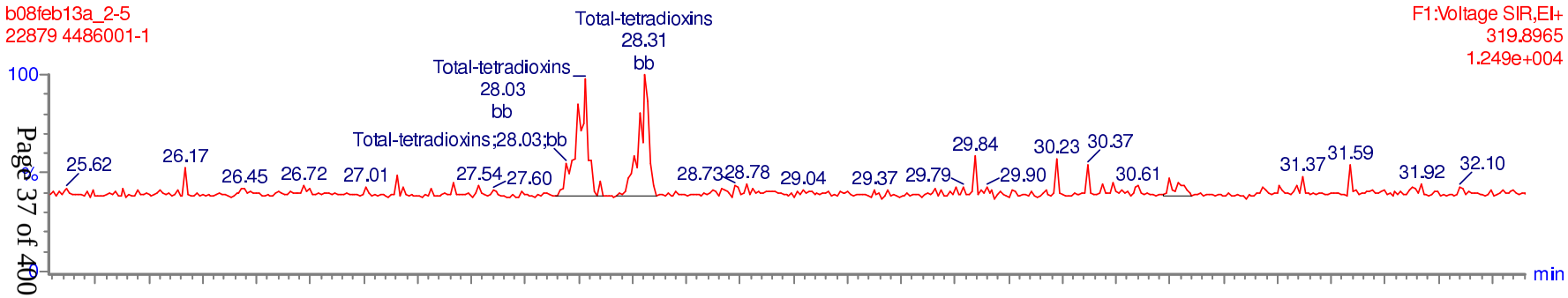
HF

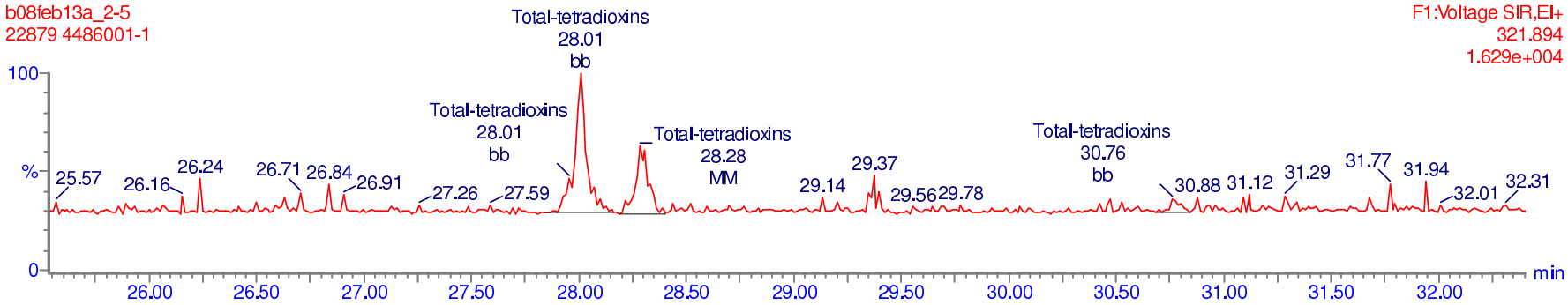
	Name	Ion1Area	Ion2Area	Response	RT	RA	Fail?	pg/uL	EDL	Height1	Noise1	S/N1	Height2	Noise2	S/N2	M
1	Total-hexafurans	2.51e2	2.69e2	5.20e2	35.13	0.93	YES	0.172	0.101	7.92e3	1514	5.2	8.32e3	830	10.0	bb
2	Total-hexafurans	9.07e2	6.93e2	1.60e3	35.26	1.31	NO	0.529	0.101	2.54e4	1514	16.7	2.10e4	830	25.3	bb
3	Total-hexafurans	6.69e2	5.37e2	1.21e3	35.72	1.25	NO	0.398	0.101	1.71e4	1514	11.3	1.34e4	830	16.2	bd
4	Total-hexafurans	9.62e1	5.83e1	1.54e2	36.02	1.65	YES	0.051	0.101	2.42e3	1514	1.6	4.12e3	830	5.0	bd
5	123478-HxCDF	2.97e2	2.22e2	5.19e2	36.08	1.34	NO	0.175	0.103	7.68e3	1514	5.1	6.40e3	830	7.7	dd
6	123678-HxCDF	1.92e2	1.46e2	3.38e2	36.19	1.32	NO	0.100	0.0906	6.24e3	1514	4.1	3.69e3	830	4.5	db
7	Total-hexafurans	6.81e1	5.16e1	1.20e2	36.65	1.32	NO	0.040	0.101	4.08e3	1514	2.7	3.05e3	830	3.7	bd
8	234678-HxCDF	9.99e1	8.52e1	1.85e2	36.69	1.17	NO	0.059	0.0981	5.43e3	1514	3.6	2.58e3	830	3.1	db

HPF

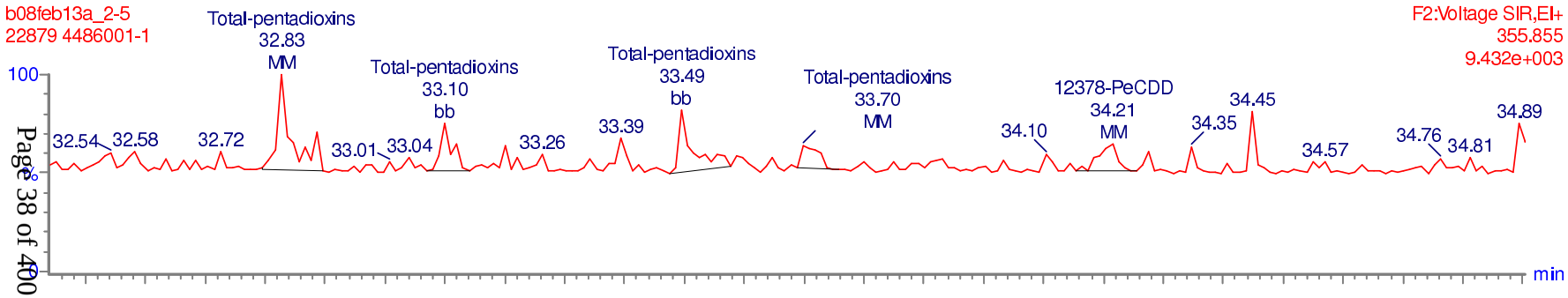
	Name	Ion1Area	Ion2Area	Response	RT	RA	Fail?	pg/uL	EDL	Height1	Noise1	S/N1	Height2	Noise2	S/N2	M
1	1234678-HpCDF	1.29e3	1.49e3	2.77e3	38.93	0.86	YES	0.950	0.0773	2.26e4	776	29.2	2.59e4	679	38.1	MM
2	Total-heptafurans	2.05e3	2.15e3	4.20e3	39.46	0.95	NO	1.628	0.0874	3.21e4	776	41.4	4.41e4	679	64.9	bb

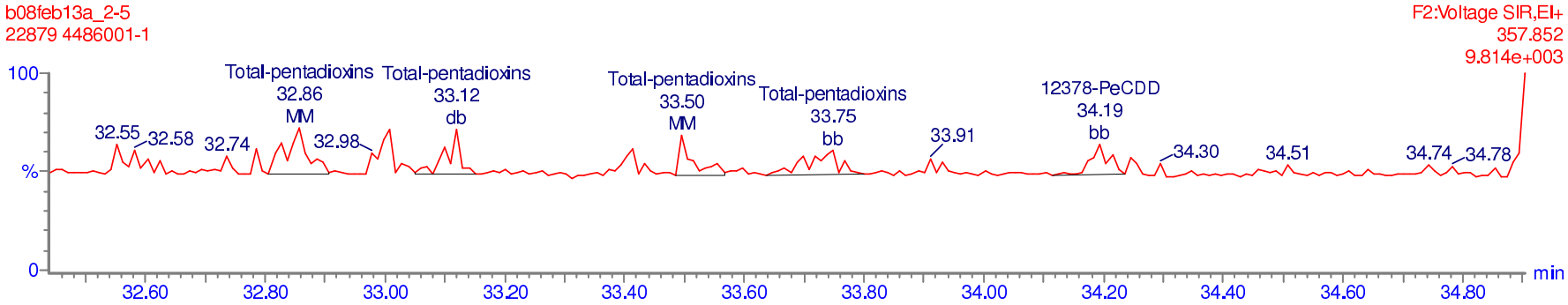
MANUAL INTEGRATION
METHOD 8290



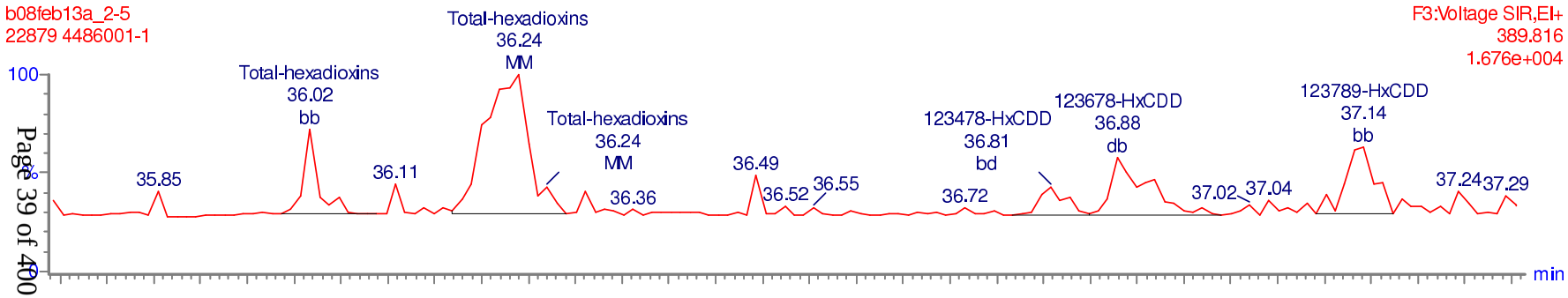


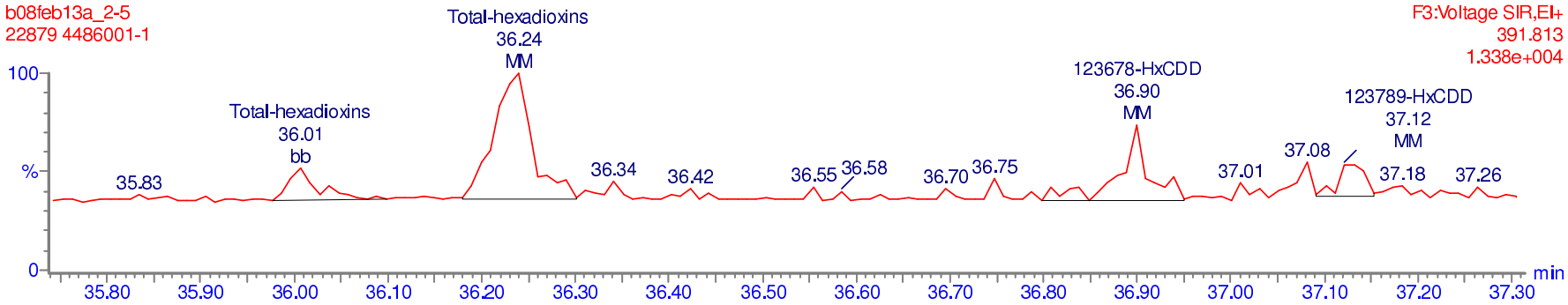
MANUAL INTEGRATION
METHOD 8290



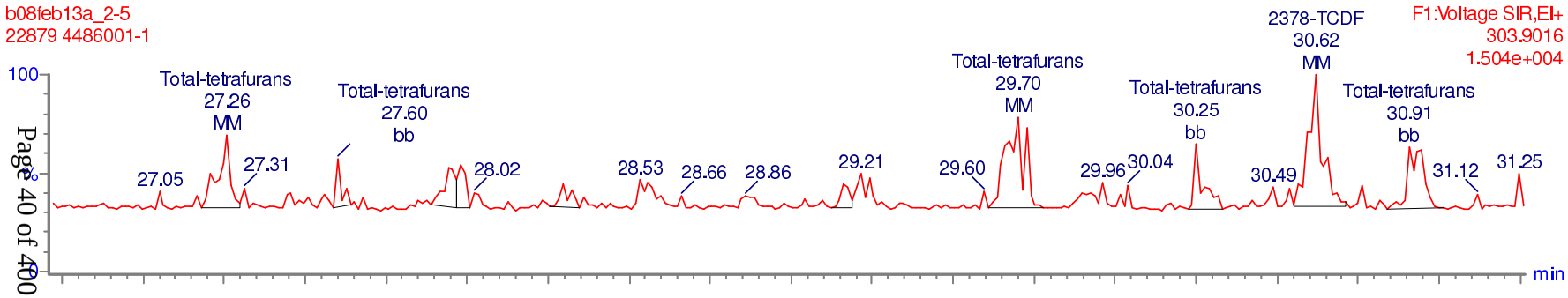


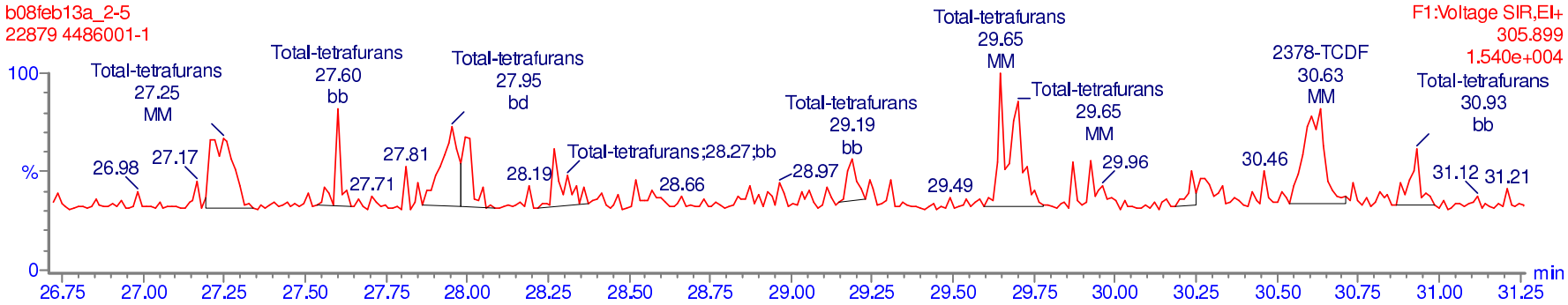
MANUAL INTEGRATION
METHOD 8290



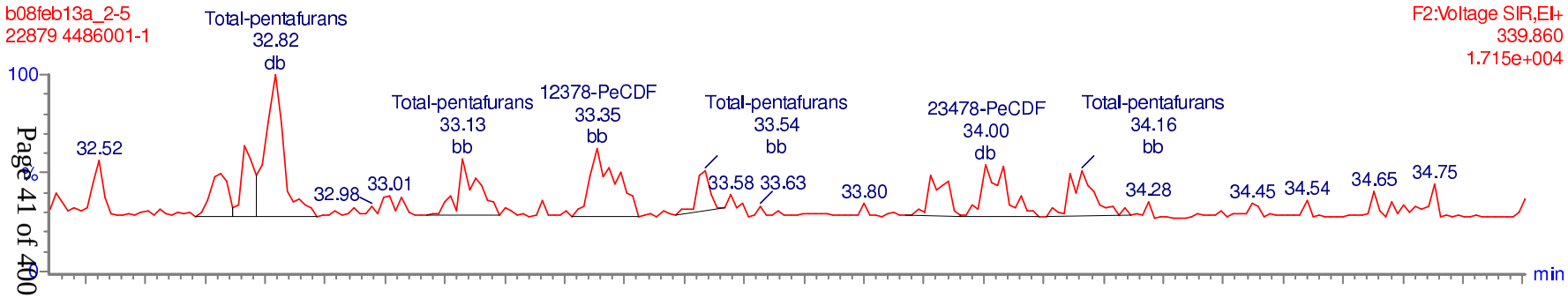


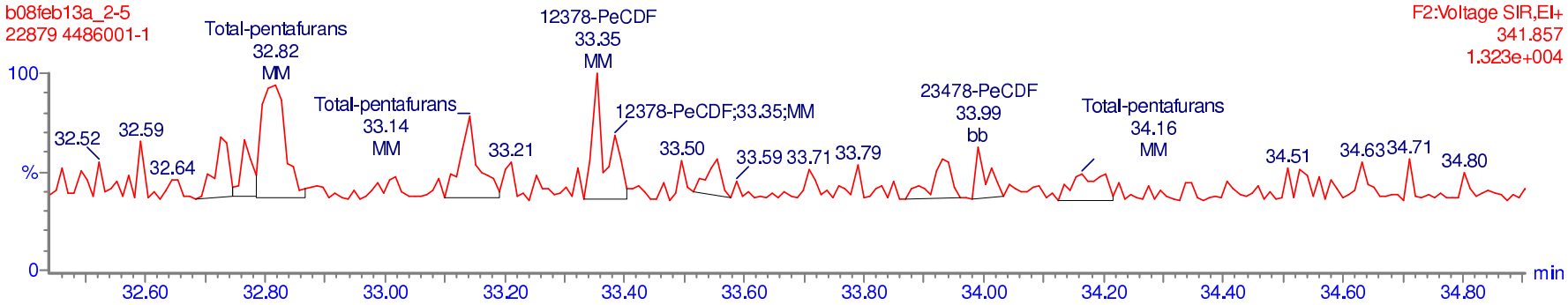
MANUAL INTEGRATION
METHOD 8290



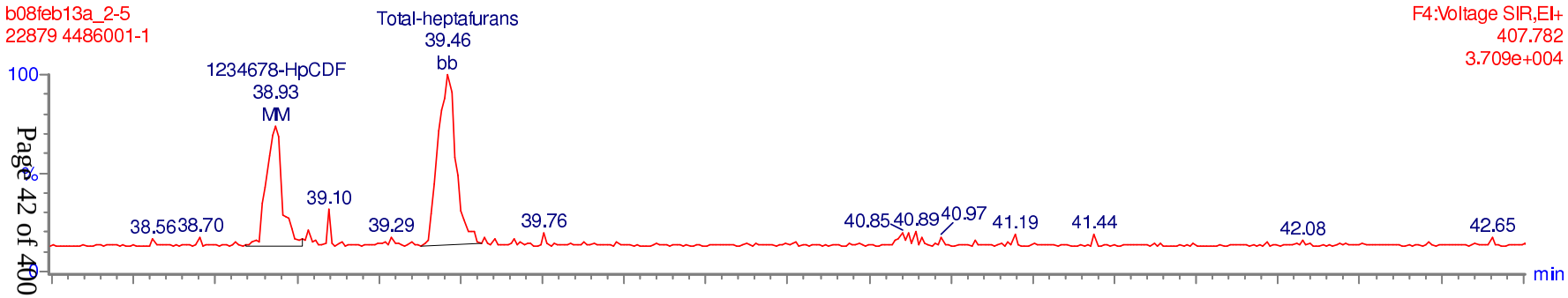


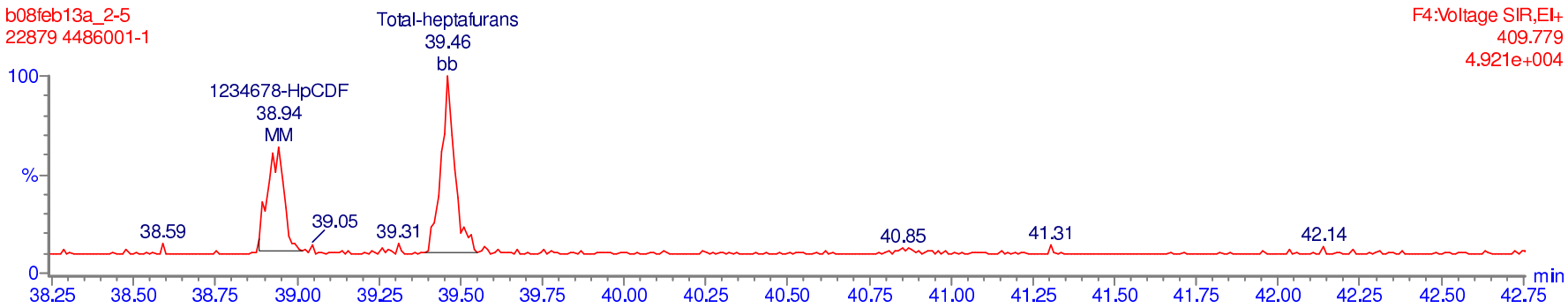
MANUAL INTEGRATION
METHOD 8290



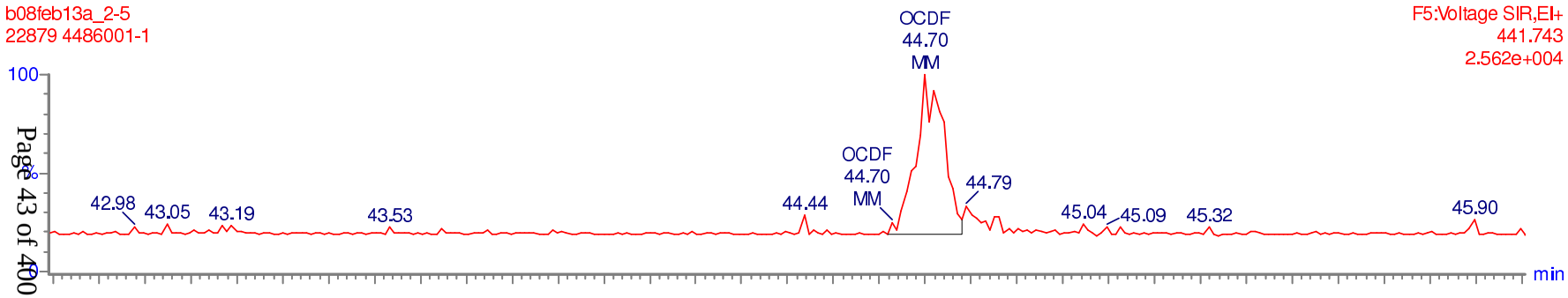


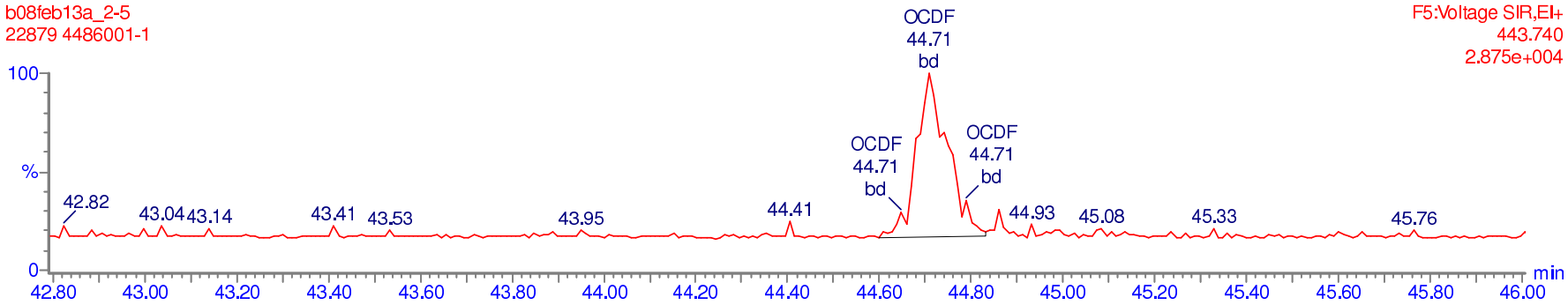
MANUAL INTEGRATION
METHOD 8290





MANUAL INTEGRATION
METHOD 8290





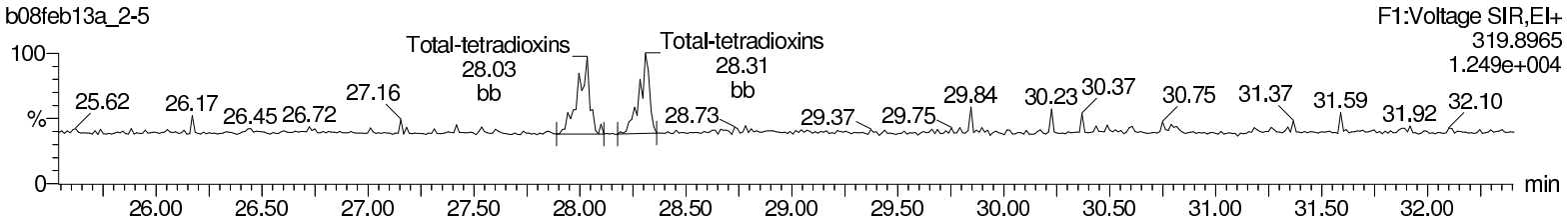
Quantify Sample Report **MassLynx 4.1**
Method 8290 Quantification Report

Dataset: C:\MassLynx\Default.pro\Sample Results\8290-b08feb13a_2.qld

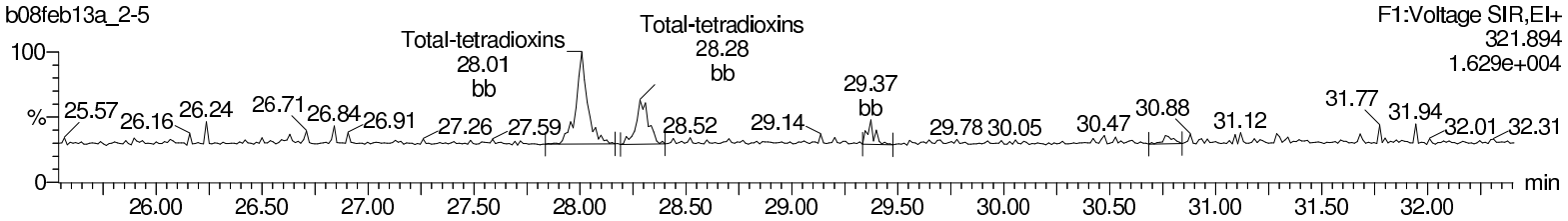
Last Altered: Monday, February 11, 2013 14:16:57 Eastern Standard Time
Printed: Monday, February 11, 2013 14:18:53 Eastern Standard Time

Name: b08feb13a_2-5, Date: 08-Feb-2013, Time: 17:59:00, ID: 4486001-1, Description: 22879, Job: HMS8290_1S, Task: HRP763_1, User: JTF

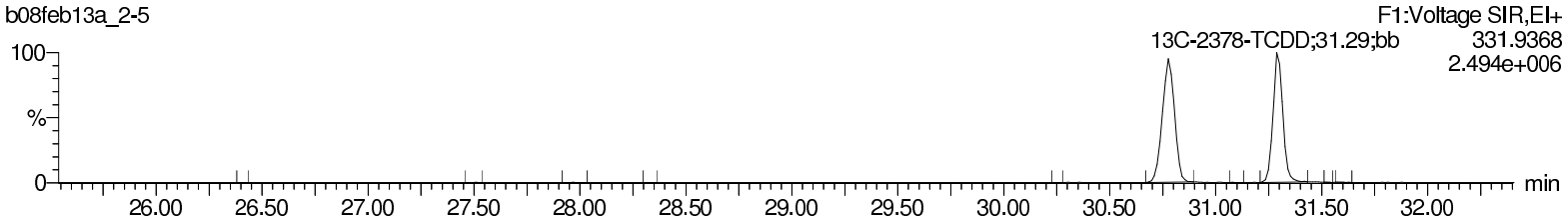
Total-tetradioxins



Total-tetradioxins



13C-2378-TCDD



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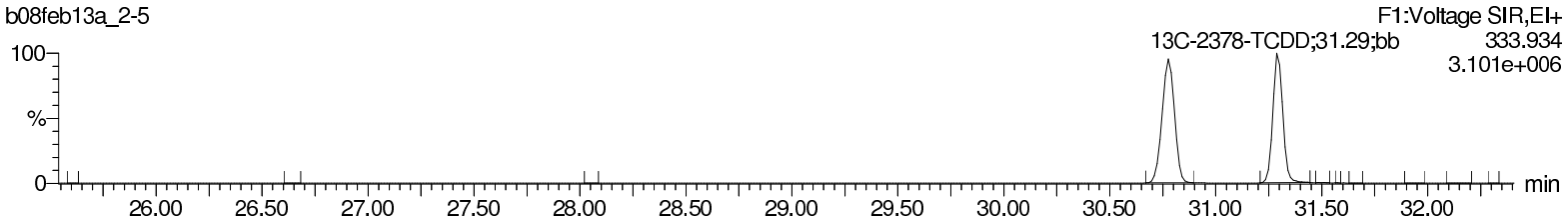
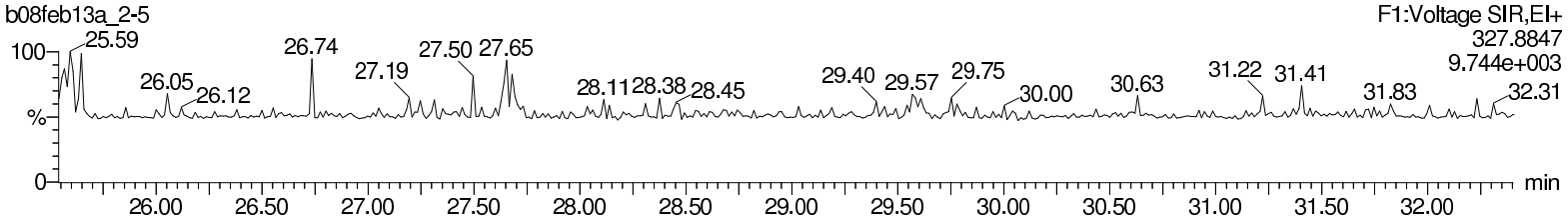
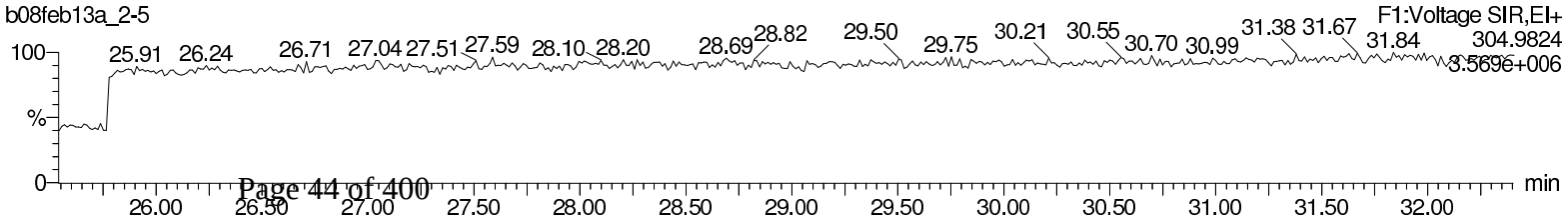


37Cl-2378-TCDD (SS)



Lock Mass F1



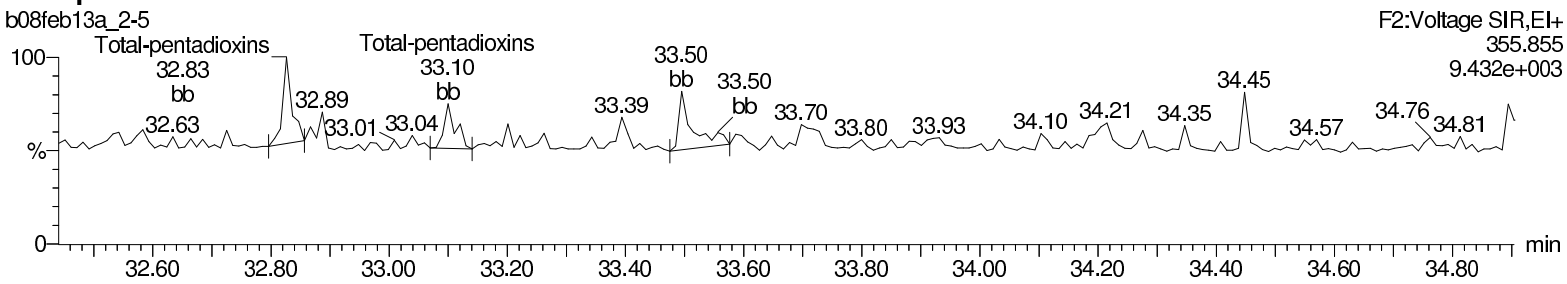
Quantify Sample Report **MassLynx 4.1**
Method 8290 Quantification Report

Dataset: C:\MassLynx\Default.pro\Sample Results\8290-b08feb13a_2.qld

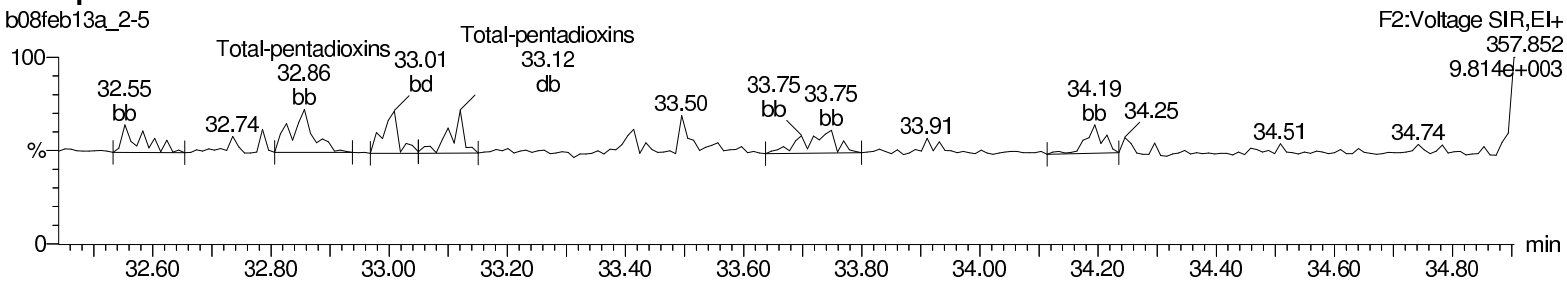
Last Altered: Monday, February 11, 2013 14:16:57 Eastern Standard Time
Printed: Monday, February 11, 2013 14:18:53 Eastern Standard Time

Name: b08feb13a_2-5, Date: 08-Feb-2013, Time: 17:59:00, ID: 4486001-1, Description: 22879, Job: HMS8290_1S, Task: HRP763_1, User: JTF

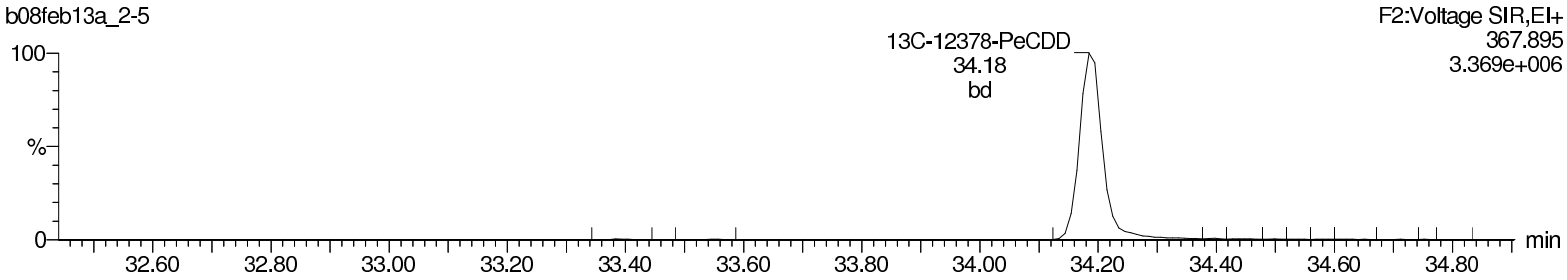
Total-pentadioxins



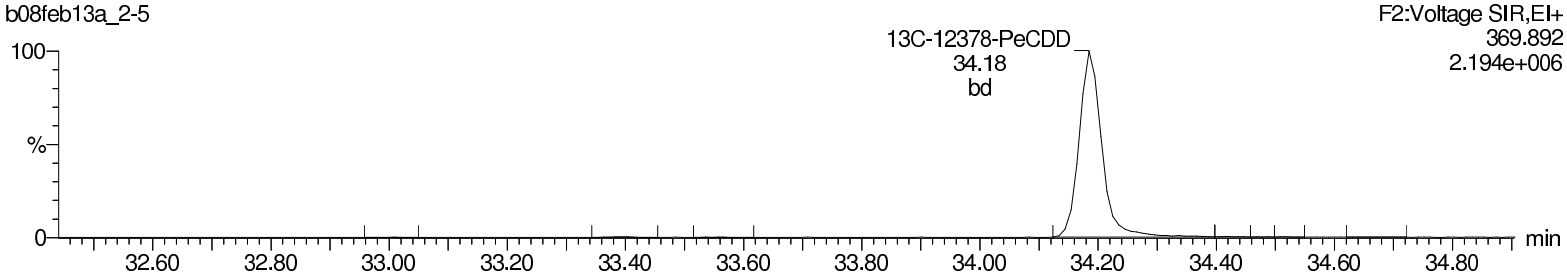
Total-pentadioxins



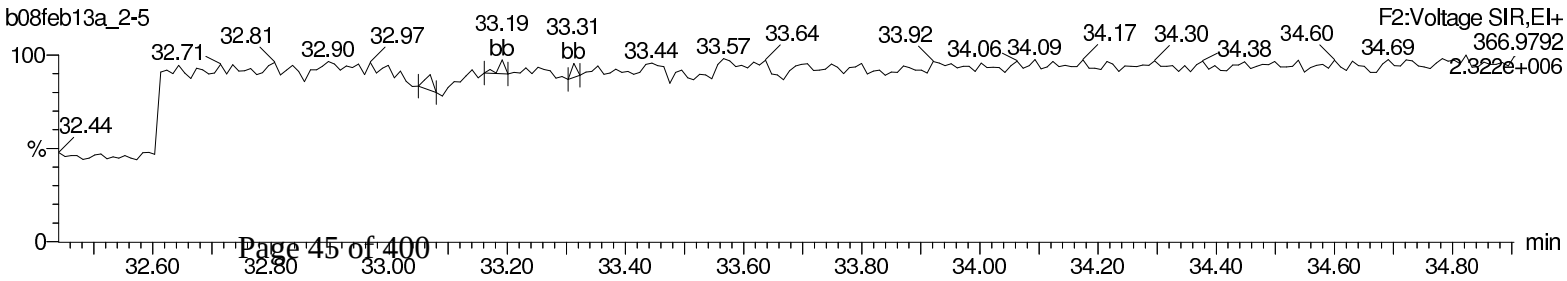
13C-12378-PeCDD



13C-12378-PeCDD



Lock Mass F2



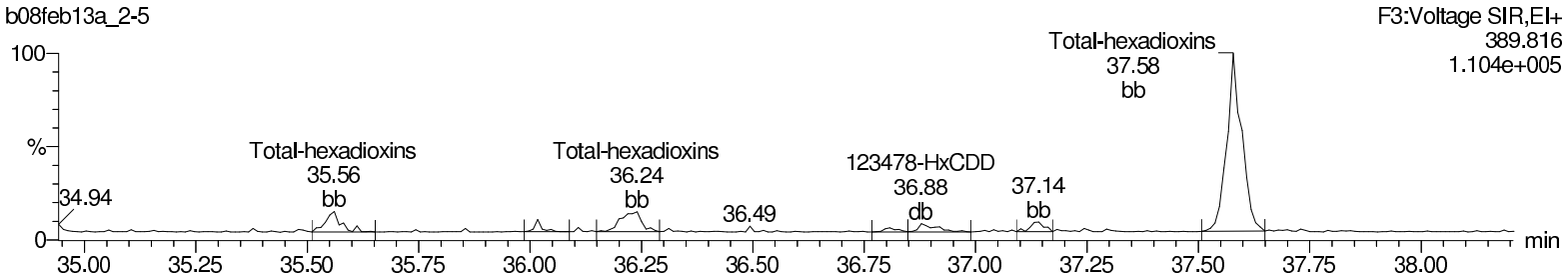
Quantify Sample Report **MassLynx 4.1**
Method 8290 Quantification Report

Dataset: C:\MassLynx\Default.pro\Sample Results\8290-b08feb13a_2.qld

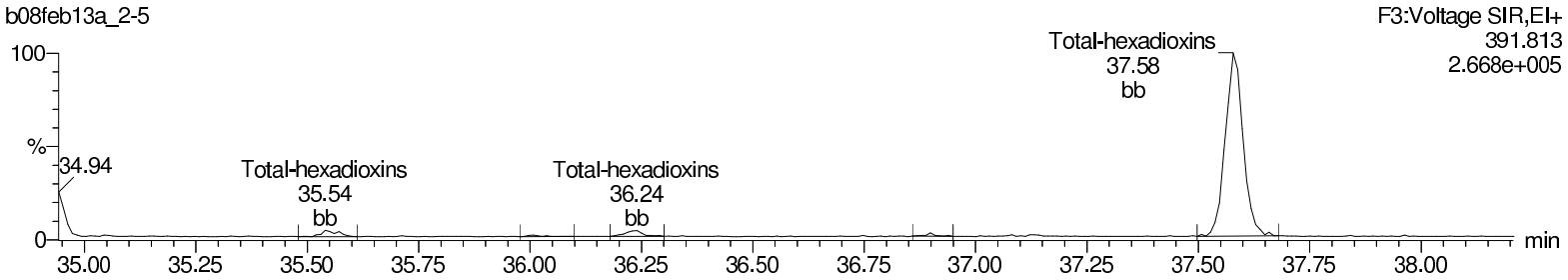
Last Altered: Monday, February 11, 2013 14:16:57 Eastern Standard Time
Printed: Monday, February 11, 2013 14:18:53 Eastern Standard Time

Name: b08feb13a_2-5, Date: 08-Feb-2013, Time: 17:59:00, ID: 4486001-1, Description: 22879, Job: HMS8290_1S, Task: HRP763_1, User: JTF

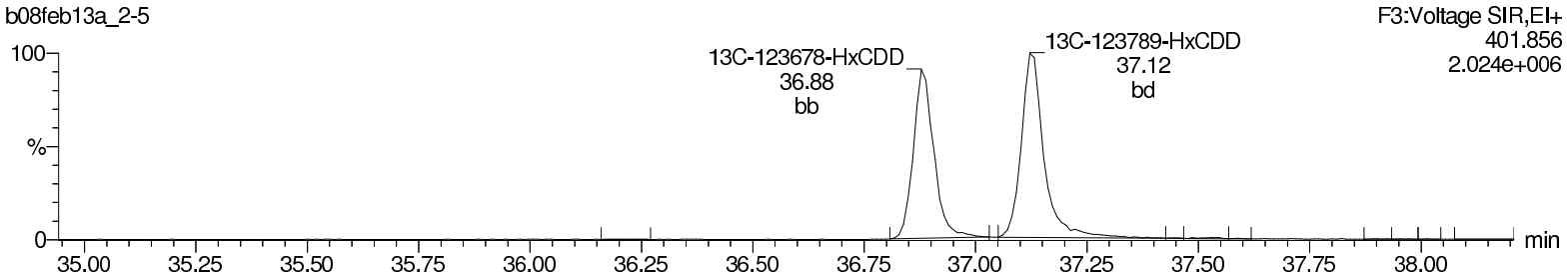
Total-hexadioxins



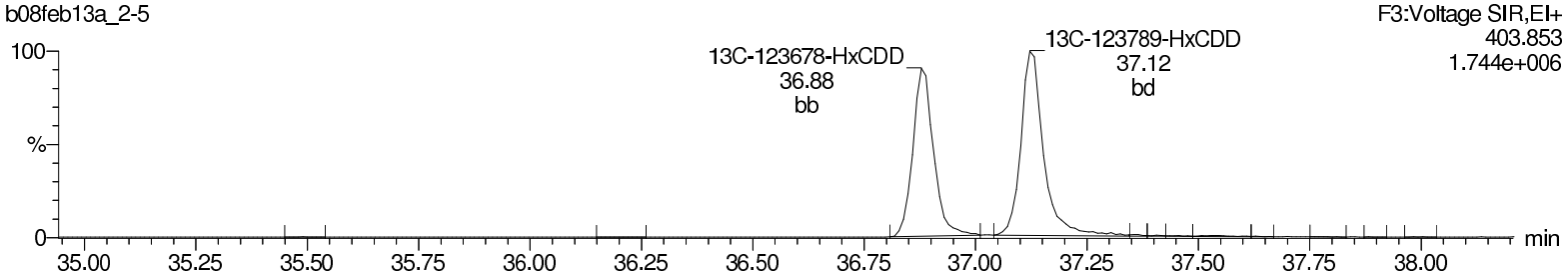
Total-hexadioxins



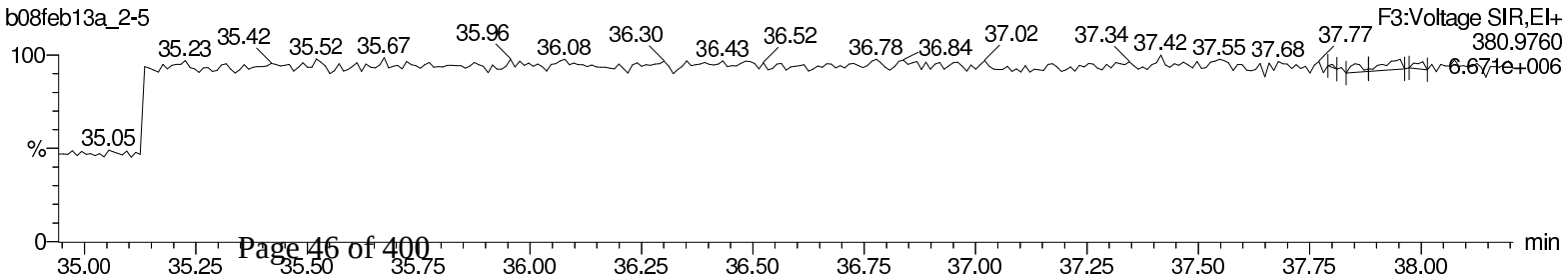
13C-123678-HxCDD



13C-123678-HxCDD



Lock Mass F3



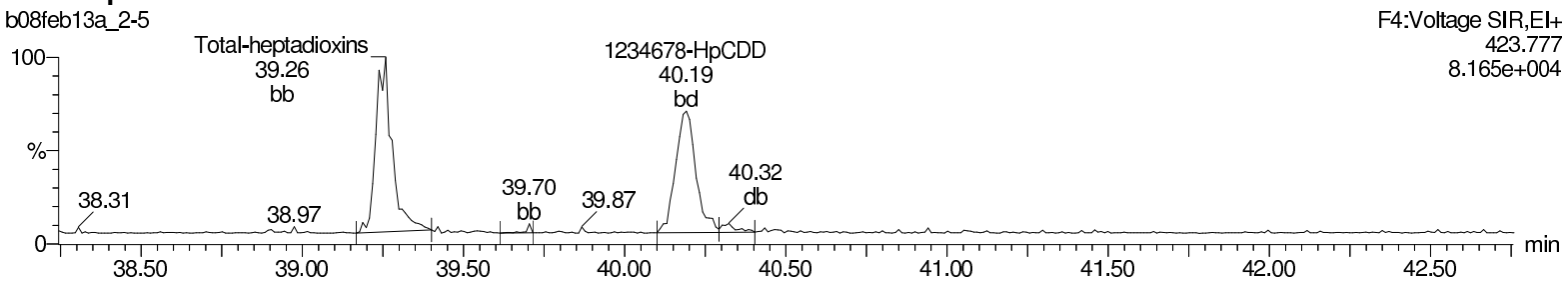
Quantify Sample Report **MassLynx 4.1**
Method 8290 Quantification Report

Dataset: C:\MassLynx\Default.pro\Sample Results\8290-b08feb13a_2.qld

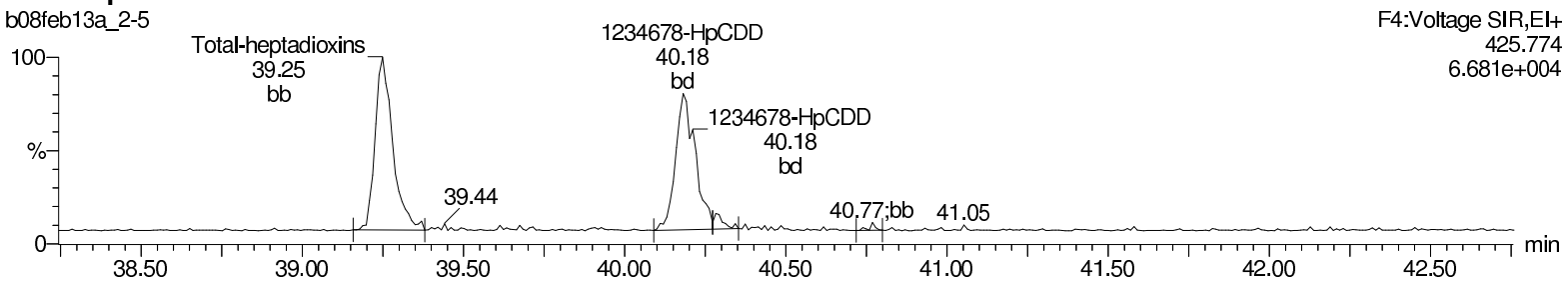
Last Altered: Monday, February 11, 2013 14:16:57 Eastern Standard Time
Printed: Monday, February 11, 2013 14:18:53 Eastern Standard Time

Name: b08feb13a_2-5, Date: 08-Feb-2013, Time: 17:59:00, ID: 4486001-1, Description: 22879, Job: HMS8290_1S, Task: HRP763_1, User: JTF

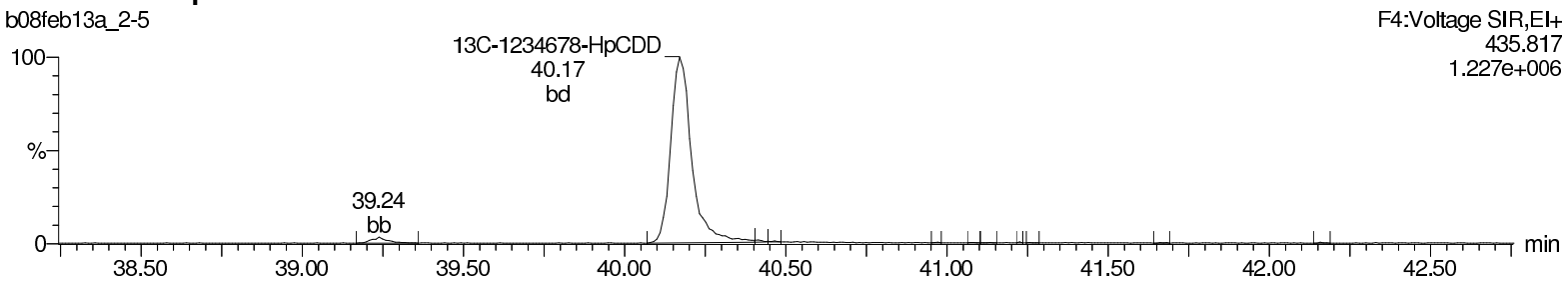
Total-heptadioxins



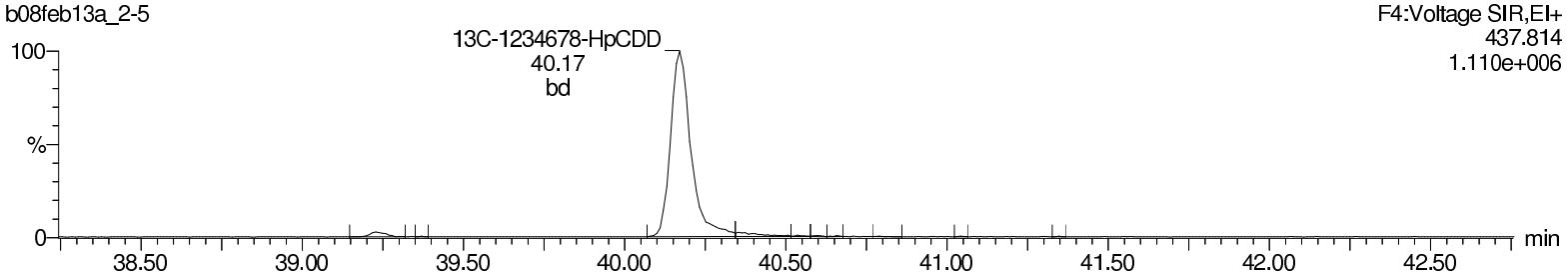
Total-heptadioxins



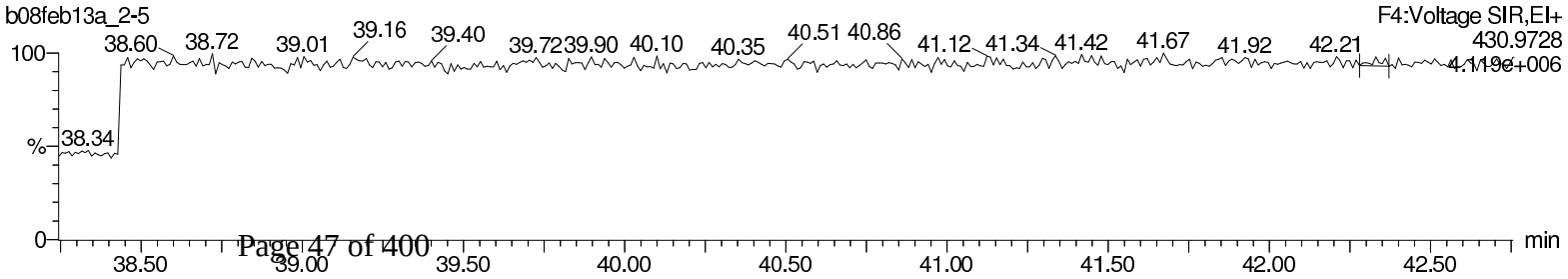
13C-1234678-HpCDD



13C-1234678-HpCDD



Lock Mass F4



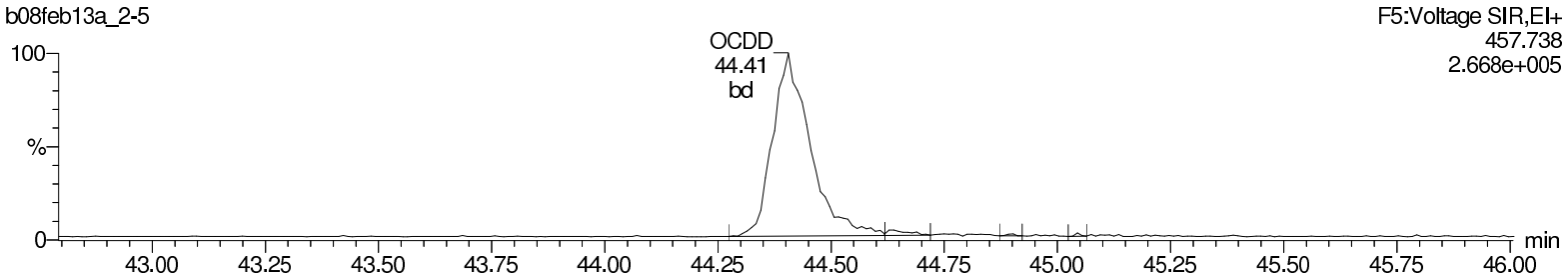
Quantify Sample Report **MassLynx 4.1**
Method 8290 Quantification Report

Dataset: C:\MassLynx\Default.pro\Sample Results\8290-b08feb13a_2.qld

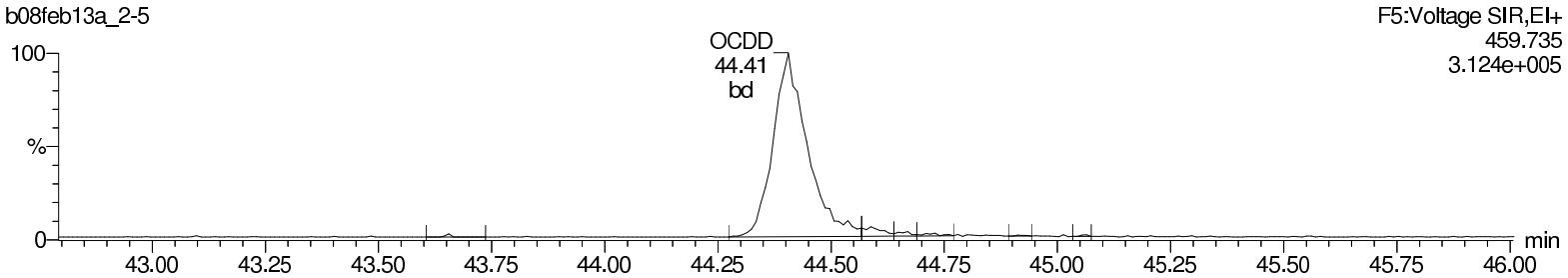
Last Altered: Monday, February 11, 2013 14:16:57 Eastern Standard Time
Printed: Monday, February 11, 2013 14:18:53 Eastern Standard Time

Name: b08feb13a_2-5, Date: 08-Feb-2013, Time: 17:59:00, ID: 4486001-1, Description: 22879, Job: HMS8290_1S, Task: HRP763_1, User: JTF

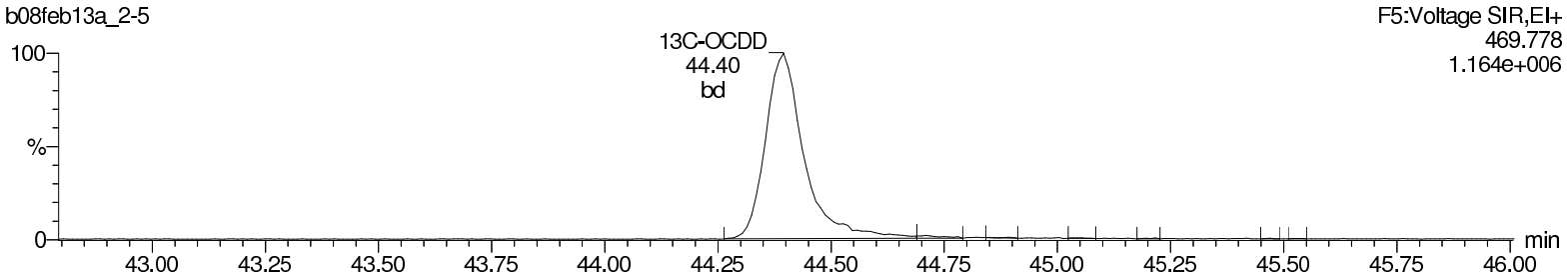
OCDD



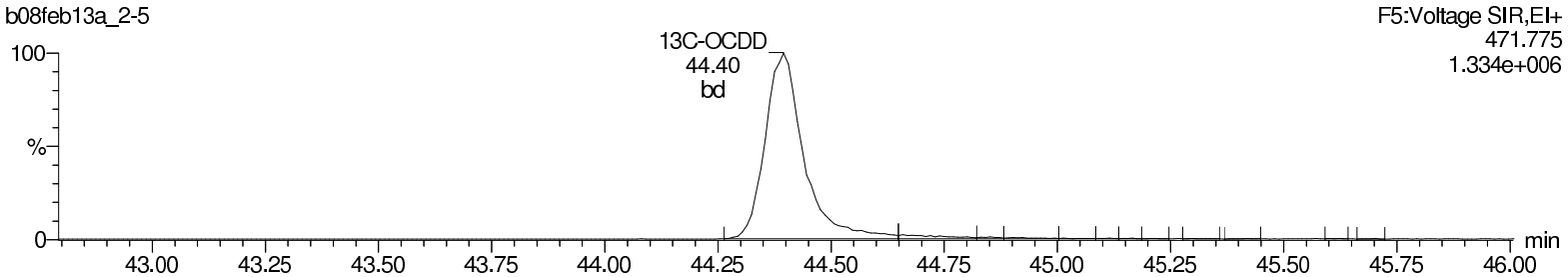
OCDD



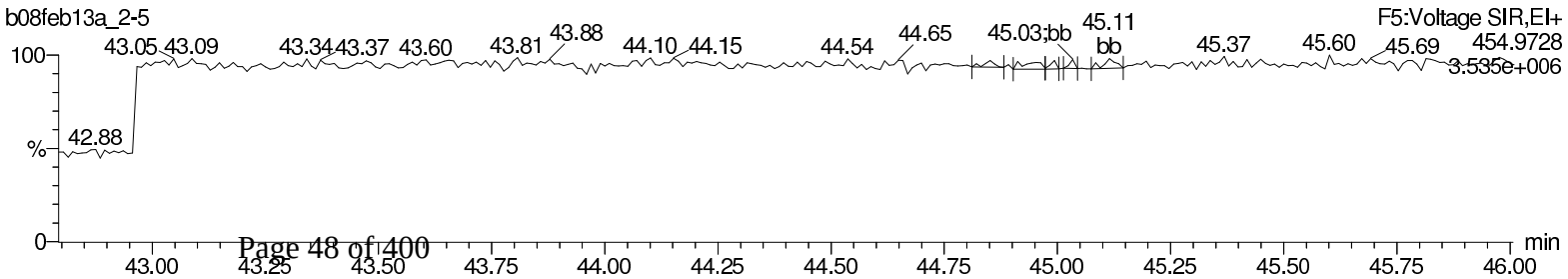
13C-OCDD



13C-OCDD



Lock Mass F5



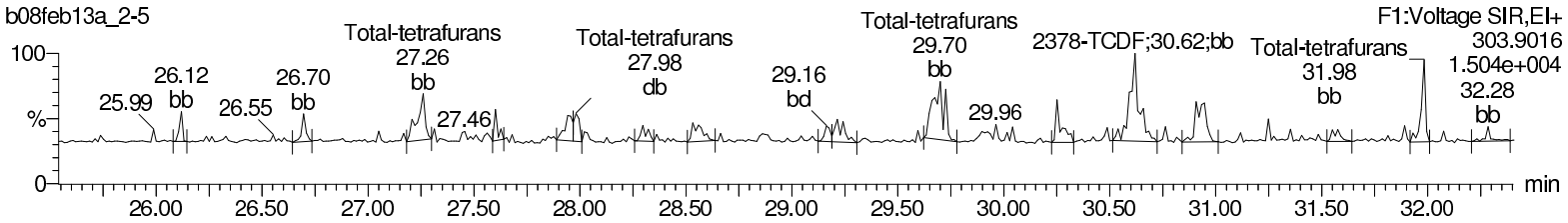
Quantify Sample Report **MassLynx 4.1**
Method 8290 Quantification Report

Dataset: C:\MassLynx\Default.pro\Sample Results\8290-b08feb13a_2.qld

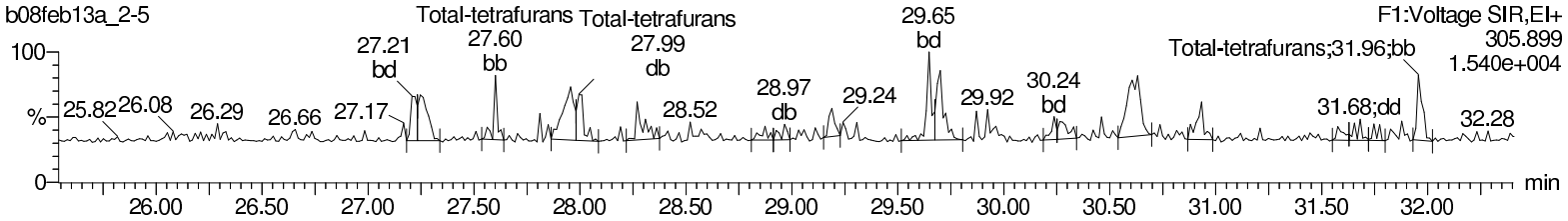
Last Altered: Monday, February 11, 2013 14:16:57 Eastern Standard Time
Printed: Monday, February 11, 2013 14:18:53 Eastern Standard Time

Name: b08feb13a_2-5, Date: 08-Feb-2013, Time: 17:59:00, ID: 4486001-1, Description: 22879, Job: HMS8290_1S, Task: HRP763_1, User: JTF

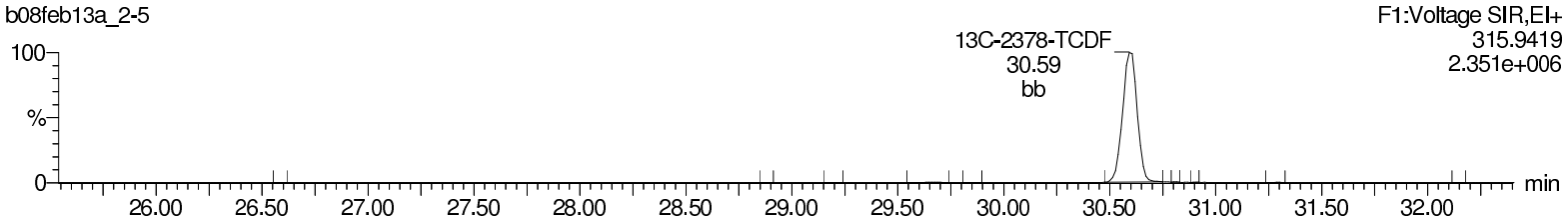
Total-tetrafurans



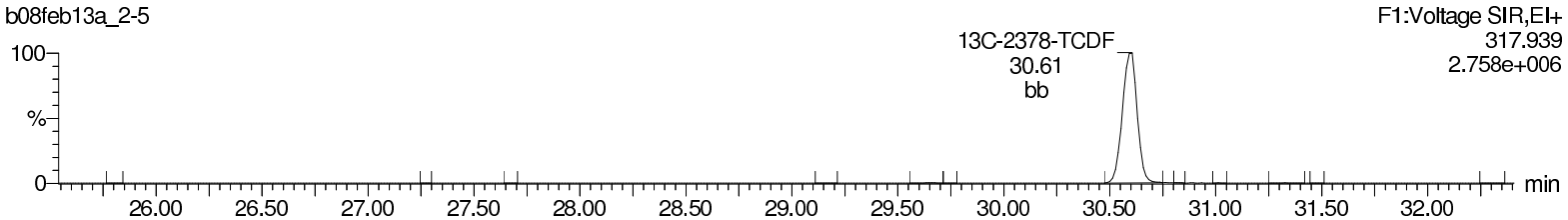
Total-tetrafurans



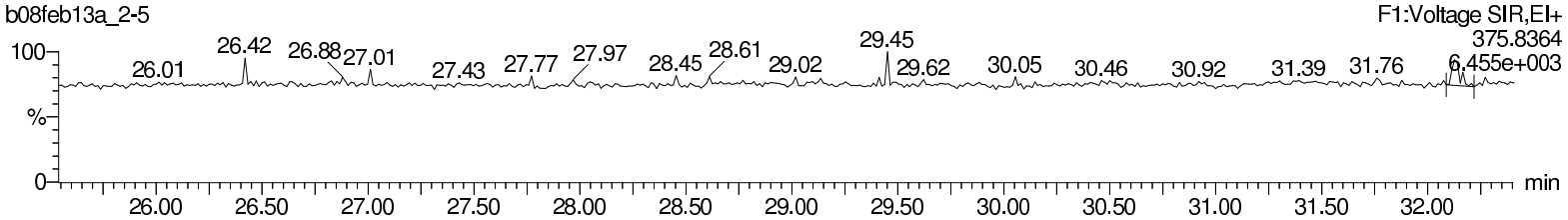
13C-2378-TCDF



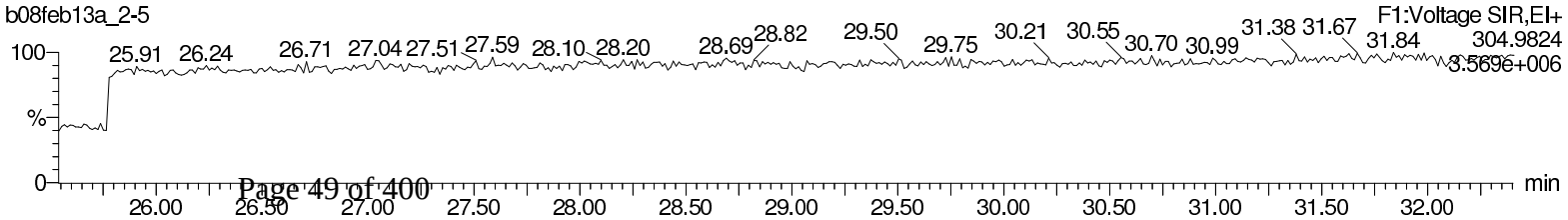
13C-2378-TCDF



HxDPE



Lock Mass F1



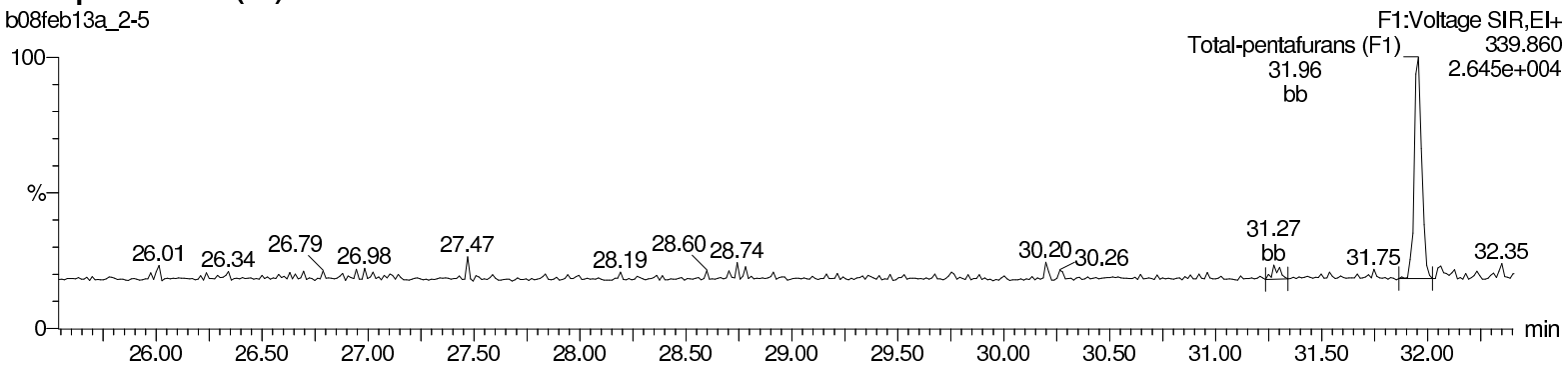
Quantify Sample Report **MassLynx 4.1**
Method 8290 Quantification Report

Dataset: C:\MassLynx\Default.pro\Sample Results\8290-b08feb13a_2.qld

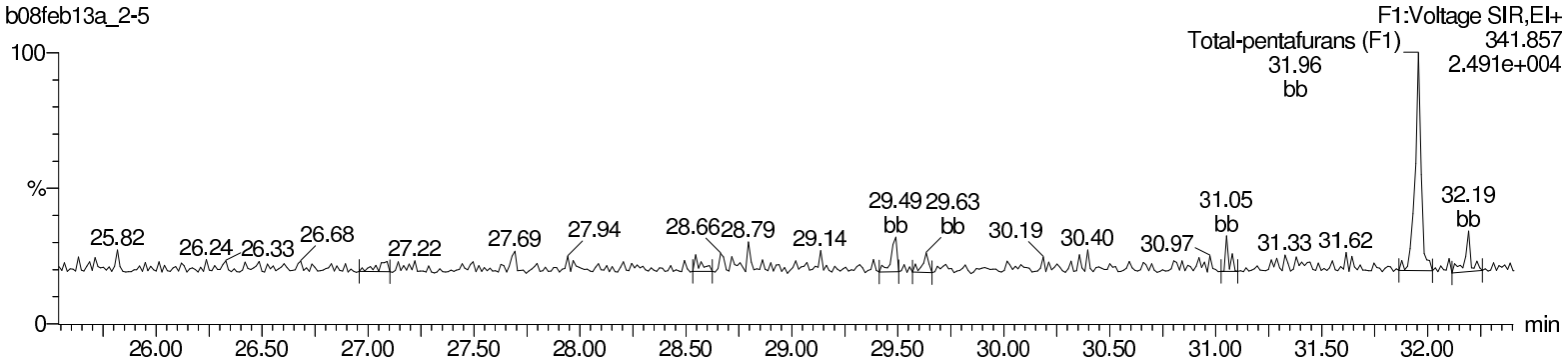
Last Altered: Monday, February 11, 2013 14:16:57 Eastern Standard Time
Printed: Monday, February 11, 2013 14:18:53 Eastern Standard Time

Name: b08feb13a_2-5, Date: 08-Feb-2013, Time: 17:59:00, ID: 4486001-1, Description: 22879, Job: HMS8290_1S, Task: HRP763_1, User: JTF

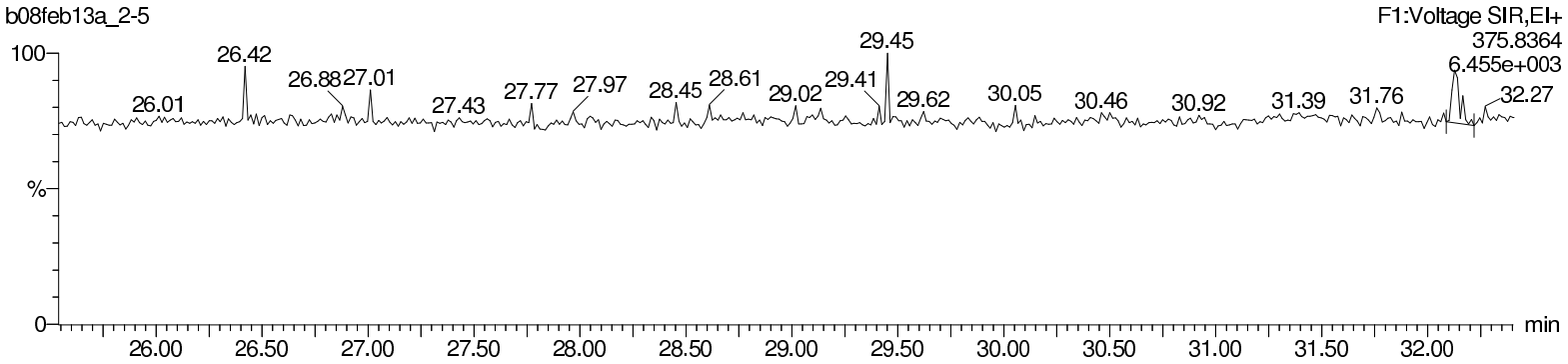
Total-pentafurans (F1)



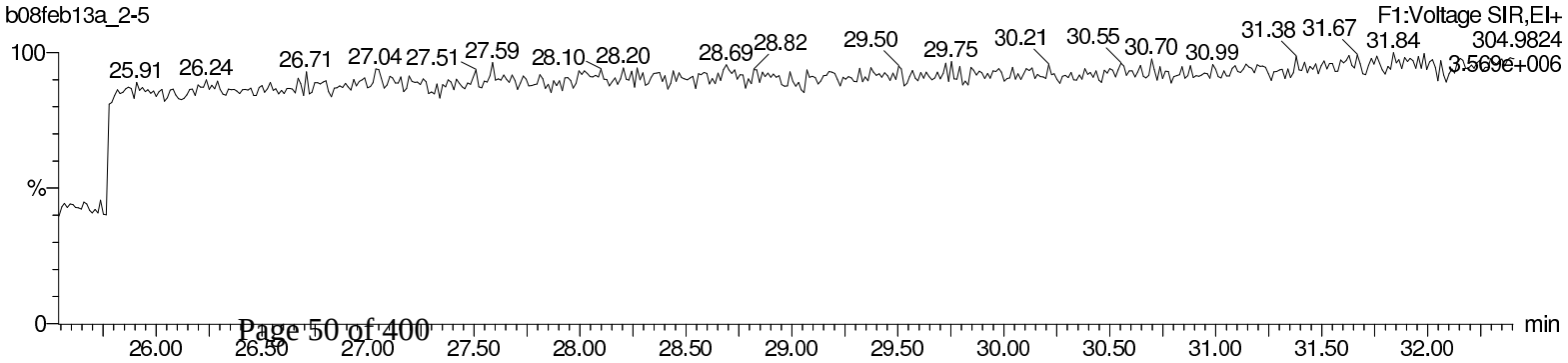
Total-pentafurans (F1)



HxDPE



Lock Mass F1



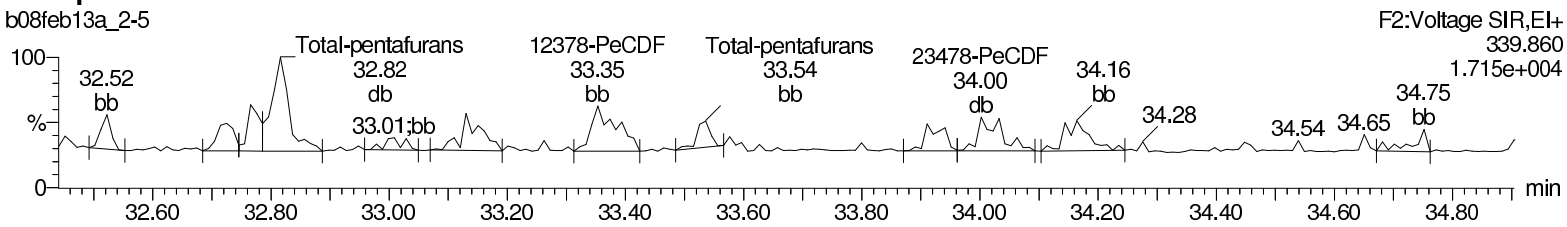
Quantify Sample Report **MassLynx 4.1**
Method 8290 Quantification Report

Dataset: C:\MassLynx\Default.pro\Sample Results\8290-b08feb13a_2.qld

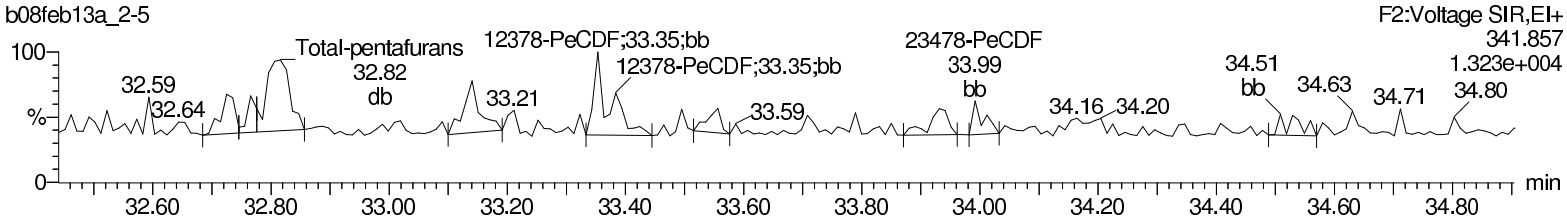
Last Altered: Monday, February 11, 2013 14:16:57 Eastern Standard Time
Printed: Monday, February 11, 2013 14:18:53 Eastern Standard Time

Name: b08feb13a_2-5, Date: 08-Feb-2013, Time: 17:59:00, ID: 4486001-1, Description: 22879, Job: HMS8290_1S, Task: HRP763_1, User: JTF

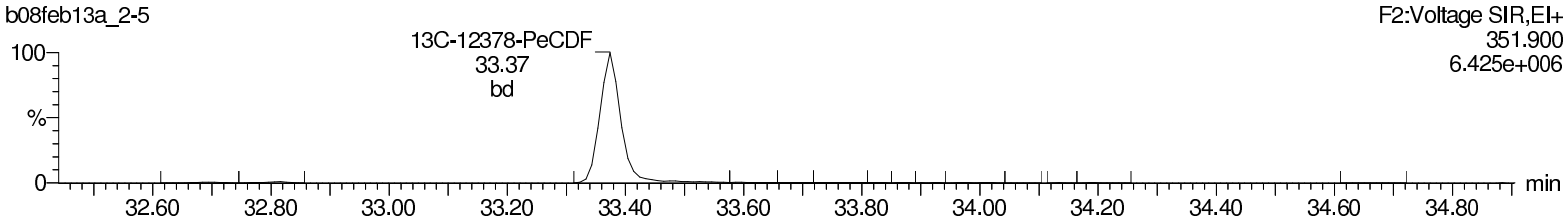
Total-pentafurans



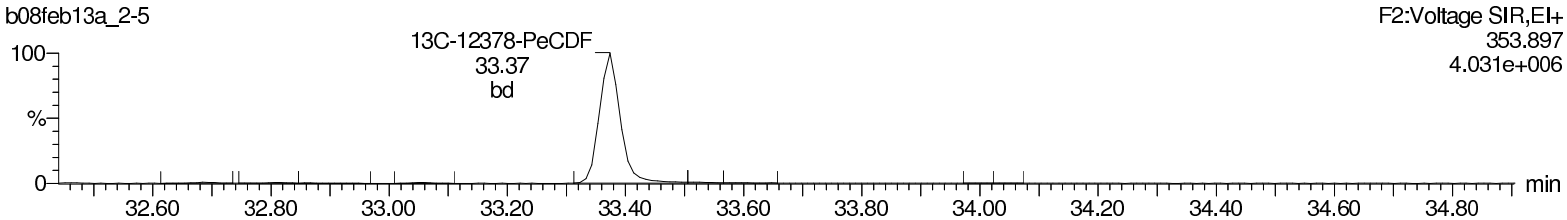
Total-pentafurans



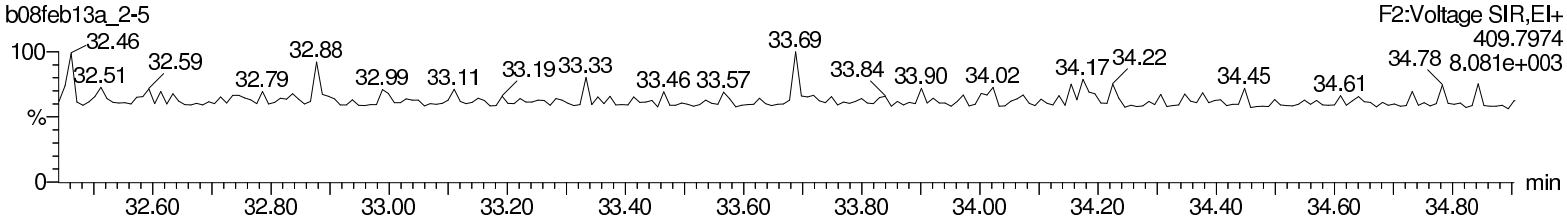
13C-12378-PeCDF



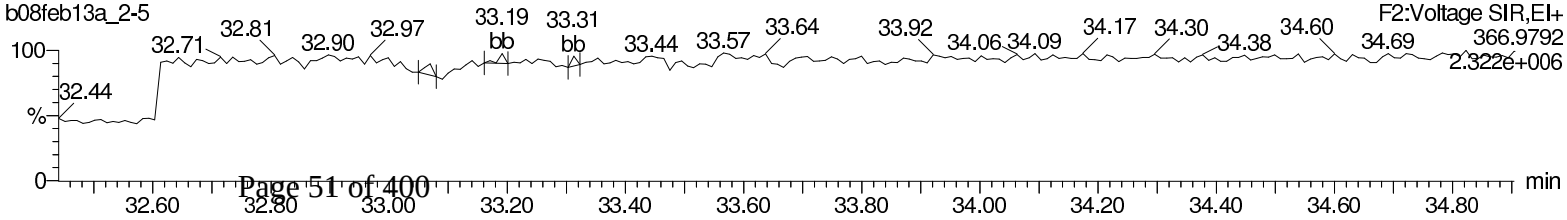
13C-12378-PeCDF



HpDPE



Lock Mass F2



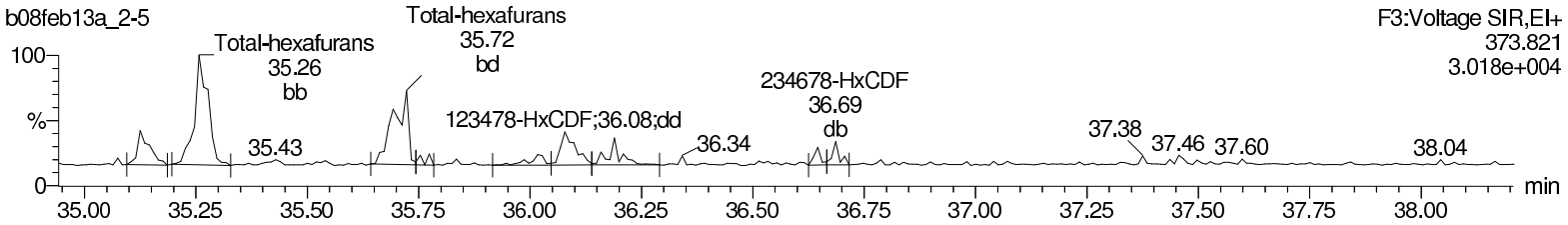
Quantify Sample Report **MassLynx 4.1**
Method 8290 Quantification Report

Dataset: C:\MassLynx\Default.pro\Sample Results\8290-b08feb13a_2.qld

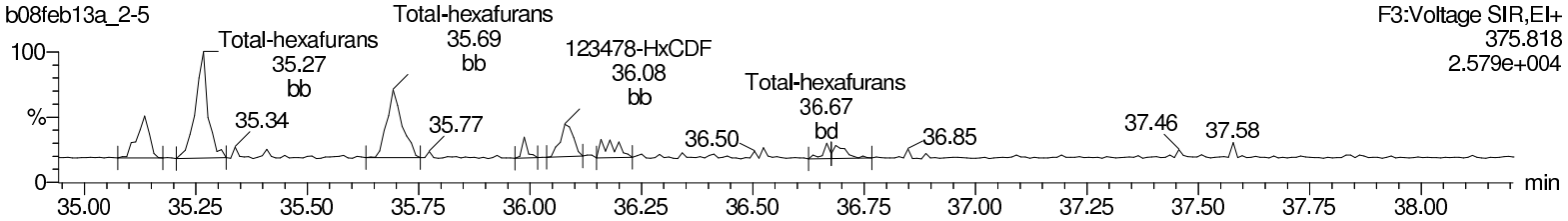
Last Altered: Monday, February 11, 2013 14:16:57 Eastern Standard Time
Printed: Monday, February 11, 2013 14:18:53 Eastern Standard Time

Name: b08feb13a_2-5, Date: 08-Feb-2013, Time: 17:59:00, ID: 4486001-1, Description: 22879, Job: HMS8290_1S, Task: HRP763_1, User: JTF

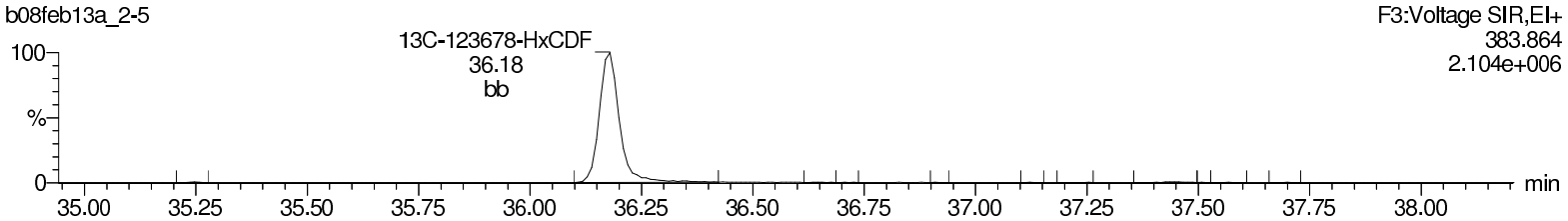
Total-hexafurans



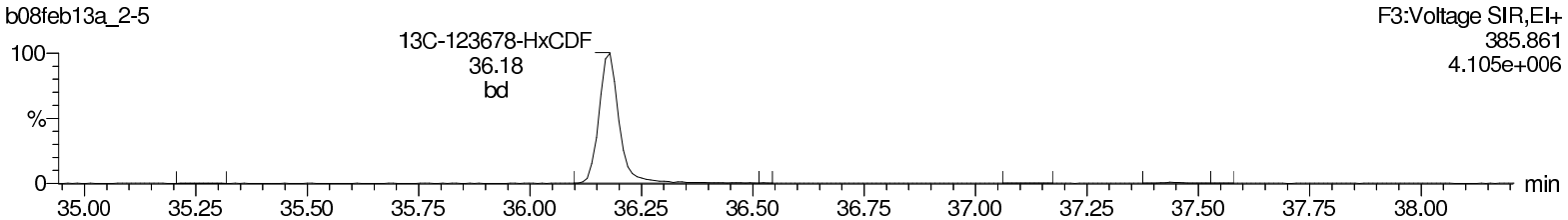
Total-hexafurans



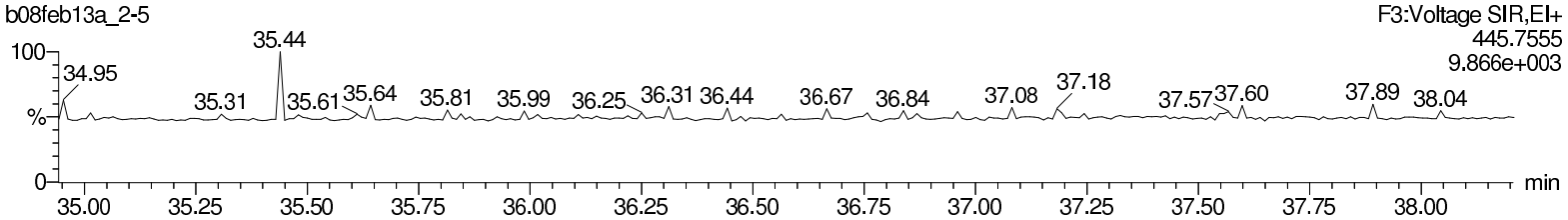
13C-123678-HxCDF



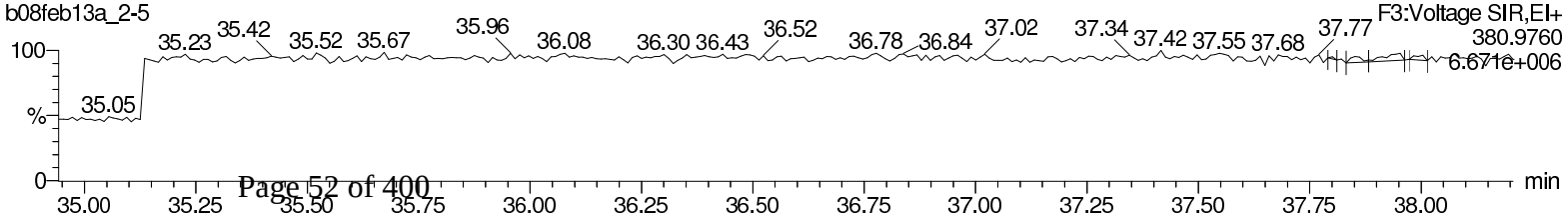
13C-123678-HxCDF



OcDPE



Lock Mass F3



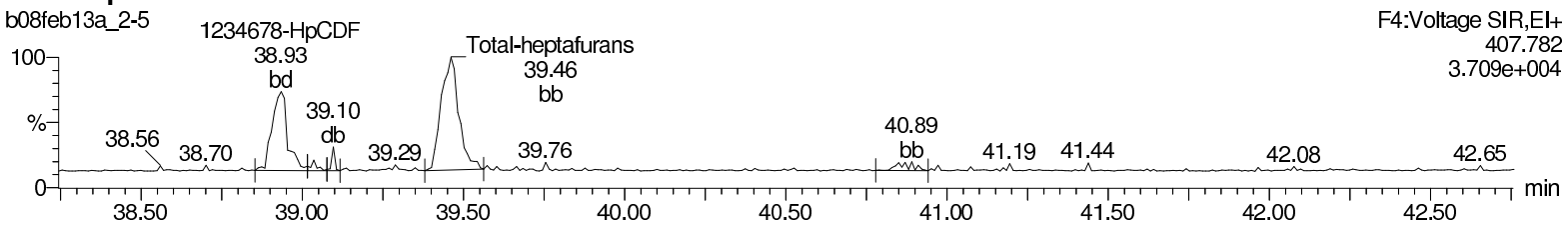
Quantify Sample Report **MassLynx 4.1**
Method 8290 Quantification Report

Dataset: C:\MassLynx\Default.pro\Sample Results\8290-b08feb13a_2.qld

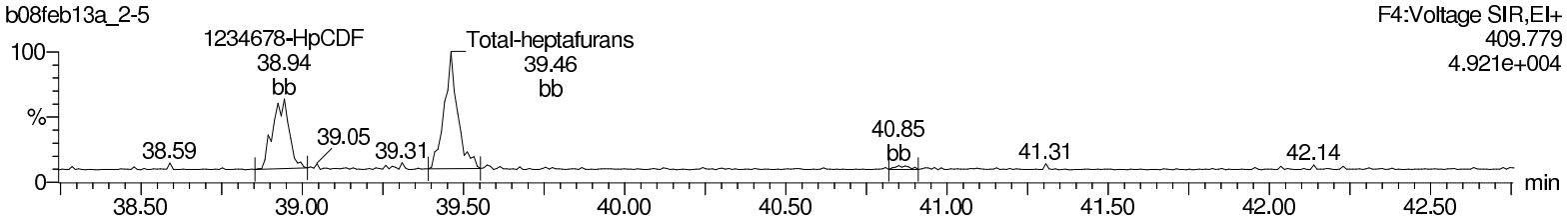
Last Altered: Monday, February 11, 2013 14:16:57 Eastern Standard Time
Printed: Monday, February 11, 2013 14:18:53 Eastern Standard Time

Name: b08feb13a_2-5, Date: 08-Feb-2013, Time: 17:59:00, ID: 4486001-1, Description: 22879, Job: HMS8290_1S, Task: HRP763_1, User: JTF

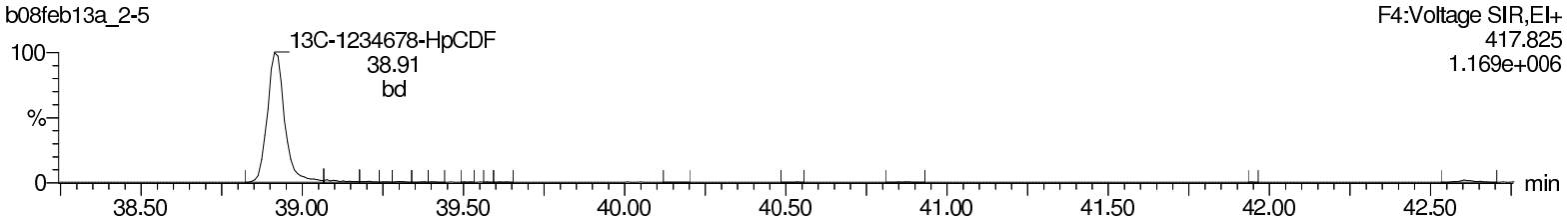
Total-heptafurans



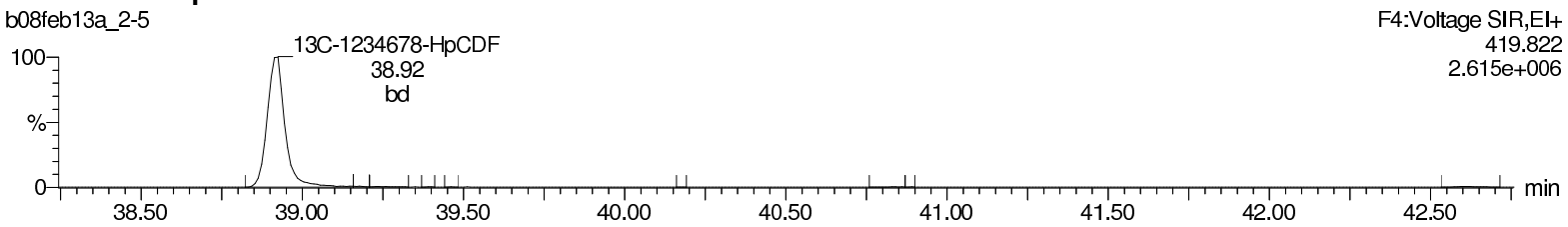
Total-heptafurans



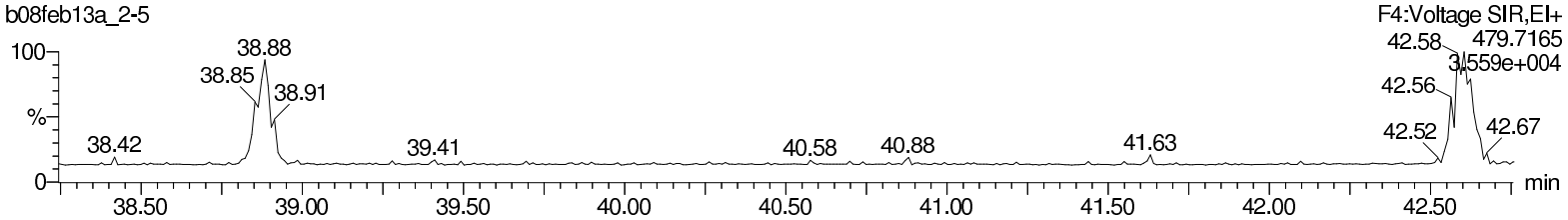
13C-1234678-HpCDF



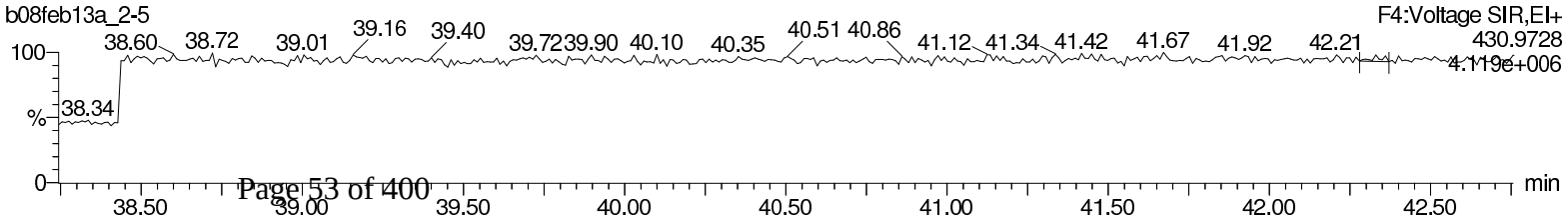
13C-1234678-HpCDF



NoDPE



Lock Mass F4



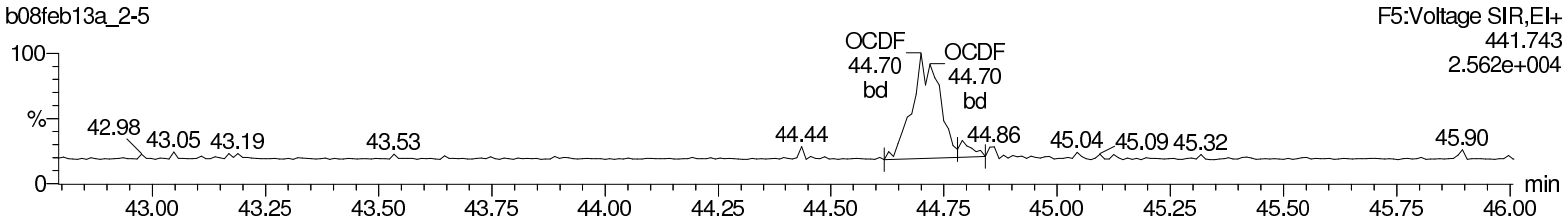
Quantify Sample Report **MassLynx 4.1**
Method 8290 Quantification Report

Dataset: C:\MassLynx\Default.pro\Sample Results\8290-b08feb13a_2.qld

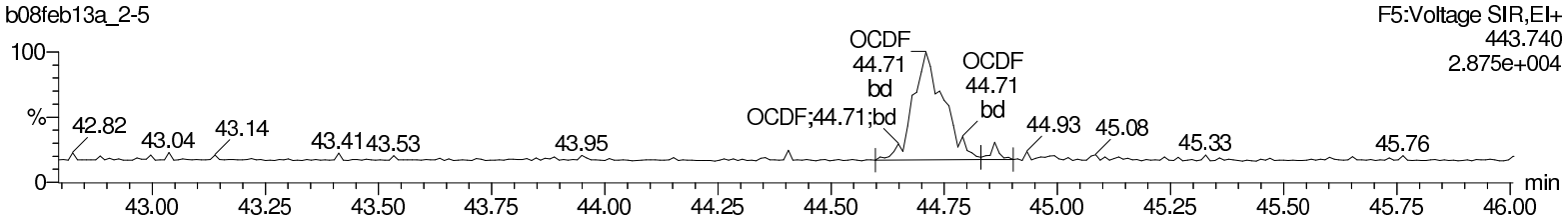
Last Altered: Monday, February 11, 2013 14:16:57 Eastern Standard Time
Printed: Monday, February 11, 2013 14:18:53 Eastern Standard Time

Name: b08feb13a_2-5, Date: 08-Feb-2013, Time: 17:59:00, ID: 4486001-1, Description: 22879, Job: HMS8290_1S, Task: HRP763_1, User: JTF

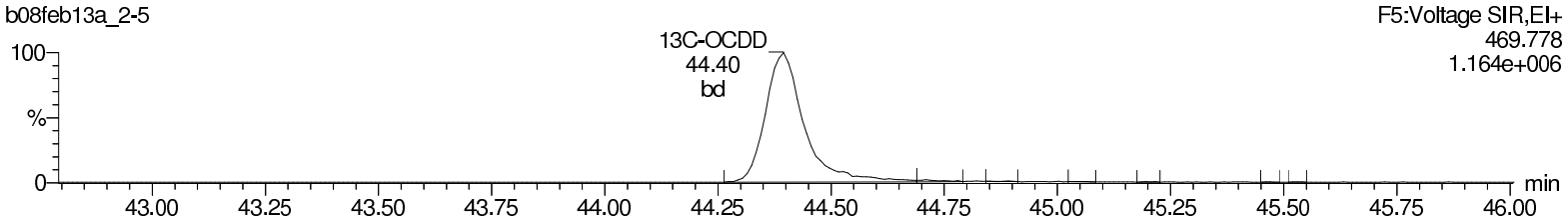
OCDF



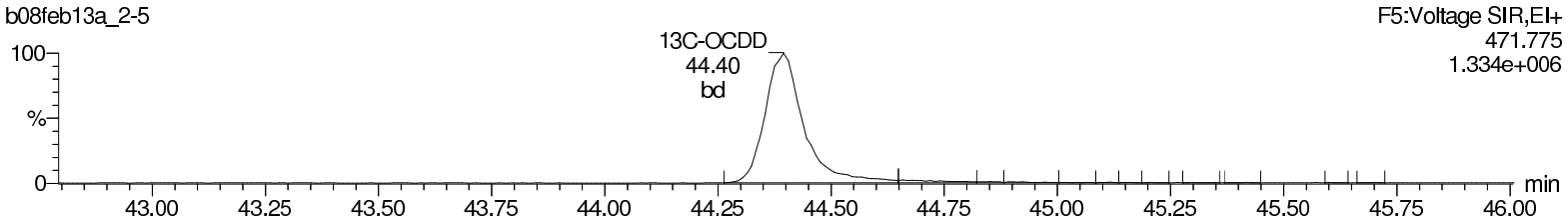
OCDF



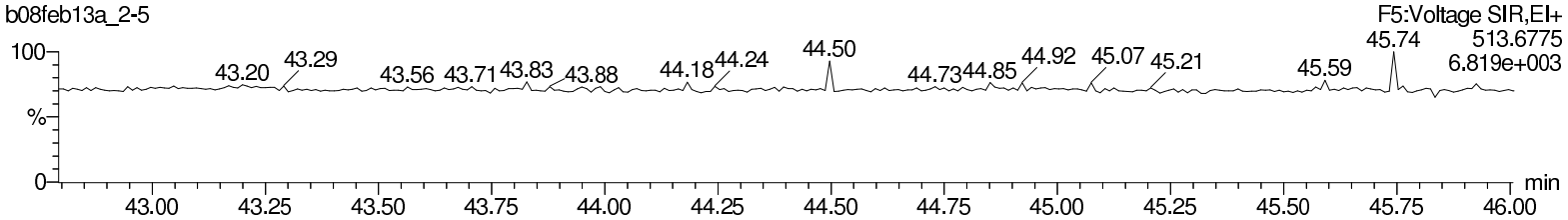
13C-OCDD



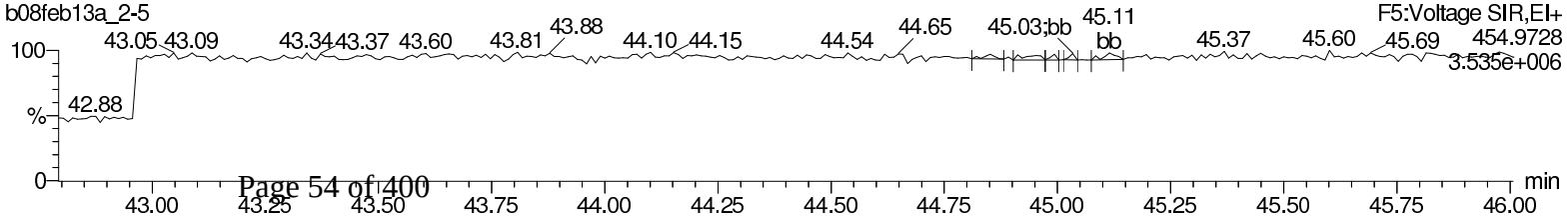
13C-OCDD



DeDPE



Lock Mass F5



Hi-Res Dioxins/Furans
Certificate of Analysis
Sample Summary

SDG Number:	**2013-505**	**Client:**	**LANL001**	**Project:**	**LANL00112**
Lab Sample ID:	**4486002**	**Date Collected:**	**01/31/2013 11:00**	**Matrix:**	**SOLID**
Client Sample:	**8290 Soil**	**Date Received:**	**02/05/2013 10:14**	**%Moisture:**	**43.9**
Client ID:	**CALA-13-28426**			**Prep Basis:**	**Dry Weight**
Batch ID:	**22879**	**Method:**	**SW846 8290A**		
Run Date:	**02/08/2013 18:47**	**Analyst:**	**JTF**	**Instrument:**	**HRP763**
Data File:	**b08feb13a_2-6**			**Dilution:**	**1**
Prep Batch:	**22876**	**Prep Method:**	**SW846 3540C**		
Prep Date:	**06-FEB-13**	**Aliquot:**	**10.38 g**		

CAS No.	Parmname	Qual	Result	EMPC	Units	EDL	PQL
1746-01-6	2,3,7,8-TCDD	U	.212		pg/g	0.212	1.72
40321-76-4	1,2,3,7,8-PeCDD	U	.858		pg/g	0.858	8.58
39227-28-6	1,2,3,4,7,8-HxCDD	U	.858		pg/g	0.858	8.58
57653-85-7	1,2,3,6,7,8-HxCDD	U	.858		pg/g	0.858	8.58
19408-74-3	1,2,3,7,8,9-HxCDD	U	.858		pg/g	0.858	8.58
35822-46-9	1,2,3,4,6,7,8-HpCDD	J	6.08		pg/g	0.858	8.58
3268-87-9	1,2,3,4,6,7,8,9-OCDD		60.7		pg/g	1.72	17.2
51207-31-9	2,3,7,8-TCDF	J	0.896		pg/g	0.402	1.72
57117-41-6	1,2,3,7,8-PeCDF	U	.858		pg/g	0.858	8.58
57117-31-4	2,3,4,7,8-PeCDF	U	.858		pg/g	0.858	8.58
70648-26-9	1,2,3,4,7,8-HxCDF	U	.858		pg/g	0.858	8.58
57117-44-9	1,2,3,6,7,8-HxCDF	U	.858		pg/g	0.858	8.58
60851-34-5	2,3,4,6,7,8-HxCDF	U	.858		pg/g	0.858	8.58
72918-21-9	1,2,3,7,8,9-HxCDF	U	.858		pg/g	0.858	8.58
67562-39-4	1,2,3,4,6,7,8-HpCDF	J	1.92		pg/g	0.858	8.58
55673-89-7	1,2,3,4,7,8,9-HpCDF	U	.858		pg/g	0.858	8.58
39001-02-0	1,2,3,4,6,7,8,9-OCDF	J	3.67		pg/g	1.72	17.2
41903-57-5	Total TCDDs	J	1.42		pg/g	0.212	1.72
36088-22-9	Total PeCDDs	U	.858		pg/g	0.858	8.58
34465-46-8	Total HxCDDs	U	.858	1.87	pg/g	0.858	8.58
37871-00-4	Total HpCDDs		13.2		pg/g	0.858	8.58
30402-14-3	Total TCDFs		2.09	2.53	pg/g	0.402	1.72
30402-15-4	Total PeCDFs	U	.858		pg/g	0.858	8.58
55684-94-1	Total HxCDFs	J	2.03		pg/g	0.858	8.58
38998-75-3	Total HpCDFs	J	4.45		pg/g	0.858	8.58
3333-30-0	TEQ WHO2005 ND=0		0.189	0.189	pg/g		
3333-30-1	TEQ WHO2005 ND=0.5		1.17	1.17	pg/g		

Surrogate/Tracer recovery	Qual	Result	Nominal	Units	Recovery%	Acceptable Limits
13C-2,3,7,8-TCDD		282	343	pg/g	82.2	(40%-135%)
13C-1,2,3,7,8-PeCDD		290	343	pg/g	84.6	(40%-135%)
13C-1,2,3,6,7,8-HxCDD		243	343	pg/g	70.8	(40%-135%)
13C-1,2,3,4,6,7,8-HpCDD		316	343	pg/g	92.2	(40%-135%)
13C-OCDD		572	687	pg/g	83.4	(40%-135%)
13C-2,3,7,8-TCDF		264	343	pg/g	76.9	(40%-135%)
13C-1,2,3,7,8-PeCDF		307	343	pg/g	89.5	(40%-135%)
13C-1,2,3,6,7,8-HxCDF		299	343	pg/g	87.1	(40%-135%)
13C-1,2,3,4,6,7,8-HpCDF		324	343	pg/g	94.4	(40%-135%)

Comments:

J Value is estimated

K Estimated Maximum Possible Concentration

U Analyte was analyzed for , but not detected above the specified detection limit.

Quantify Sample Summary Report **MassLynx 4.1**
Method 8290 Quantification Report

Dataset: C:\MassLynx\Default.pro\Sample Results\8290-b08feb13a_2.qld

Last Altered: Tuesday, February 12, 2013 09:55:37 Eastern Standard Time
Printed: Tuesday, February 12, 2013 09:57:53 Eastern Standard Time

Method: Untitled 20 Dec 2012 07:43:23
Calibration: C:\MassLynx\DEFAULT.PRO\CurveDB\8290-b30nov12a.cdb 03 Dec 2012 09:49:08

Name: b08feb13a_2-6, Date: 08-Feb-2013, Time: 18:47:01, ID: 4486002-1, Description: 22879, Job: HMS8290_1S, Task: HRP763_1, User: JTF

	Name	Ion1Area	Ion2Area	Response	RT	RRT	RA	Fail?	pg/uL	EDL	Height1	Noise1	S/N1	Height2	Noise2	S/N2	M
1	2378-TCDD							NO		0.0617		622			623		
2	12378-PeCDD	4.23e1	5.74e1	9.97e1	34.18	1.000	0.74	YES	0.042	0.0800	1.53e3	900	1.7	2.39e3	841	2.8	MM
3	123478-HxCDD							NO		0.187		1344			1087		
4	123678-HxCDD							NO		0.169		1344			1087		
5	123789-HxCDD							NO		0.184		1344			1087		
6	1234678-HpCDD	1.68e3	1.86e3	3.53e3	40.19	1.001	0.90	NO	1.772	0.238	2.84e4	533	53.3	2.70e4	2003	13.5	bd
7	OCDD	1.25e4	1.44e4	2.69e4	44.39	1.000	0.87	NO	17.678	0.387	1.20e5	1315	91.4	1.41e5	1004	140.0	bd
8	2378-TCDF	4.80e2	5.99e2	1.08e3	30.62	1.001	0.80	NO	0.261	0.117	6.11e3	1064	5.7	7.18e3	1354	5.3	MM
9	12378-PeCDF	2.13e2	6.32e1	2.76e2	33.36	1.000	3.36	YES	0.069	0.0812	4.76e3	1713	2.8	3.45e3	1472	2.3	bb
10	23478-PeCDF	1.38e2	7.56e1	2.13e2	33.99	1.019	1.82	YES	0.052	0.0782	4.97e3	1713	2.9	1.79e3	1472	1.2	bb
11	123478-HxCDF	1.93e2	1.49e2	3.42e2	36.07	0.997	1.29	NO	0.115	0.103	4.85e3	851	5.7	3.85e3	1522	2.5	bd
12	123678-HxCDF	1.44e2	7.09e1	2.15e2	36.19	1.001	2.03	YES	0.063	0.0904	3.94e3	851	4.6	2.13e3	1522	1.4	db
13	234678-HxCDF	1.17e2	8.30e1	2.00e2	36.67	1.014	1.40	NO	0.064	0.0979	3.79e3	851	4.4	3.15e3	1522	2.1	bb
14	123789-HxCDF							NO		0.116		851			1522		
15	1234678-HpCDF	8.32e2	8.29e2	1.66e3	38.90	1.000	1.00	NO	0.558	0.0978	1.64e4	1349	12.2	1.69e4	566	29.9	bd
16	1234789-HpCDF							NO		0.127		1349			566		
17	OCDF	9.40e2	9.47e2	1.89e3	44.73	1.008	0.99	NO	1.069	0.467	1.75e4	1765	9.9	1.57e4	1482	10.6	MM
18	13C-2378-TCDD	1.27e5	1.63e5	2.90e5	31.29	1.017	0.78	NO	82.177	0.212	2.31e6	2372	975.7	3.02e6	1760	1718.5	bb
19	13C-12378-PeCDD	1.50e5	9.63e4	2.46e5	34.17	1.110	1.56	NO	84.569	0.197	3.43e6	1785	1920.1	2.20e6	1381	1594.7	bd
20	13C-123678-HxCDD	9.67e4	8.30e4	1.80e5	36.87	0.993	1.17	NO	70.813	0.293	1.79e6	2513	713.7	1.54e6	2652	581.0	bb
21	13C-1234678-HpCDD	9.41e4	8.16e4	1.76e5	40.17	1.082	1.15	NO	92.162	0.268	1.26e6	1573	799.4	1.10e6	1984	554.7	bd
22	13C-OCDD	1.24e5	1.36e5	2.60e5	44.38	1.196	0.91	NO	166.708	0.369	1.22e6	1876	649.2	1.41e6	2133	660.1	bd
23	13C-2378-TCDF	1.83e5	2.19e5	4.02e5	30.58	0.994	0.84	NO	76.900	0.0968	2.29e6	1166	1964.4	2.66e6	1627	1636.0	bb
24	13C-12378-PeCDF	2.60e5	1.62e5	4.22e5	33.36	1.084	1.61	NO	89.527	0.174	6.41e6	2404	2665.5	4.00e6	2115	1889.5	bd
25	13C-123678-HxCDF	1.12e5	2.14e5	3.26e5	36.17	0.975	0.52	NO	87.107	0.176	2.17e6	1749	1241.1	4.09e6	2845	1438.5	bd
26	13C-1234678-HpCDF	7.18e4	1.71e5	2.43e5	38.90	1.048	0.42	NO	94.387	0.276	1.18e6	1865	634.0	2.70e6	3063	880.8	bb
27	13C-1234-TCDD	1.58e5	1.98e5	3.57e5	30.78	0.000	0.80	NO	100.000	0.210	2.19e6	2372	921.7	2.81e6	1760	1595.4	bb
28	13C-123789-HxCDD	1.23e5	1.05e5	2.28e5	37.11	0.000	1.17	NO	100.000	0.325	2.14e6	2513	849.9	1.86e6	2652	700.5	bd
29	37Cl-2378-TCDD (SS)									0.0345		806					
30	13C-23478-PeCDF (SS)	2.49e2	1.04e2	3.52e2	33.99	1.019	2.40	YES	0.083	0.108	5.17e3	2404	2.2	4.18e3	2115	2.0	bb

Quantify Totals Report MassLynx 4.1
Method 8290 Quantification Report

Dataset: C:\MassLynx\Default.pro\Sample Results\8290-b08feb13a_2.qld

Last Altered: Tuesday, February 12, 2013 09:55:37 Eastern Standard Time
Printed: Tuesday, February 12, 2013 09:57:53 Eastern Standard Time

Method: Untitled 20 Dec 2012 07:43:23
Calibration: C:\MassLynx\DEFAULT.PRO\CurveDB\8290-b30nov12a.cdb 03 Dec 2012 09:49:08

Name: b08feb13a_2-6, Date: 08-Feb-2013, Time: 18:47:01, ID: 4486002-1, Description: 22879, Job: HMS8290_1S, Task: HRP763_1, User: JTF

TD

	Name	Ion1Area	Ion2Area	Response	RT	RA	Fail?	pg/uL	EDL	Height1	Noise1	S/N1	Height2	Noise2	S/N2	M
1	Total-tetradioxins	2.76e2	4.20e2	6.96e2	28.01	0.66	NO	0.252	0.0617	3.45e3	622	5.5	7.32e3	623	11.8	MM
2	Total-tetradioxins	2.06e2	2.45e2	4.50e2	28.28	0.84	NO	0.163	0.0617	3.84e3	622	6.2	4.88e3	623	7.8	MM

PD

	Name	Ion1Area	Ion2Area	Response	RT	RA	Fail?	pg/uL	EDL	Height1	Noise1	S/N1	Height2	Noise2	S/N2	M
1	Total-pentadioxins	5.20e1	6.10e1	1.13e2	33.53	0.85	YES	0.048	0.0800	1.23e3	900	1.4	2.15e3	841	2.6	bb
2	12378-PeCDD	4.23e1	5.74e1	9.97e1	34.18	0.74	YES	0.042	0.0800	1.53e3	900	1.7	2.39e3	841	2.8	MM

HD

	Name	Ion1Area	Ion2Area	Response	RT	RA	Fail?	pg/uL	EDL	Height1	Noise1	S/N1	Height2	Noise2	S/N2	M
1	Total-hexadioxins	2.84e2	1.88e2	4.72e2	35.55	1.51	YES	0.259	0.180	7.27e3	1344	5.4	3.49e3	1087	3.2	MM
2	Total-hexadioxins	2.46e2	2.73e2	5.19e2	36.22	0.90	YES	0.285	0.180	4.67e3	1344	3.5	5.89e3	1087	5.4	MM
3	Total-hexadioxins	2.34e3	7.38e3	9.72e3	37.57	0.32	YES	5.334	0.180	4.92e4	1344	36.6	1.57e5	1087	144.1	bb

HPD

	Name	Ion1Area	Ion2Area	Response	RT	RA	Fail?	pg/uL	EDL	Height1	Noise1	S/N1	Height2	Noise2	S/N2	M
1	Total-heptadioxins	2.12e3	2.03e3	4.15e3	39.24	1.04	NO	2.081	0.238	3.53e4	533	66.2	3.32e4	2003	16.6	bb
2	1234678-HpCDD	1.68e3	1.86e3	3.53e3	40.19	0.90	NO	1.772	0.238	2.84e4	533	53.3	2.70e4	2003	13.5	bd
3	Total-heptadioxins	1.04e2	8.60e1	1.90e2	40.25	1.21	YES	0.095	0.238	5.55e3	533	10.4	2.54e3	2003	1.3	db
4	Total-heptadioxins	5.77e1	6.86e1	1.26e2	40.35	0.84	YES	0.063	0.238	3.40e3	533	6.4	2.26e3	2003	1.1	bb

Quantify Totals Report MassLynx 4.1
Method 8290 Quantification Report

Dataset: C:\MassLynx\Default.pro\Sample Results\8290-b08feb13a_2.qld

Last Altered: Tuesday, February 12, 2013 09:55:37 Eastern Standard Time
Printed: Tuesday, February 12, 2013 09:57:53 Eastern Standard Time

Name: b08feb13a_2-6, Date: 08-Feb-2013, Time: 18:47:01, ID: 4486002-1, Description: 22879, Job: HMS8290_1S, Task: HRP763_1, User: JTF

TF

	Name	Ion1Area	Ion2Area	Response	RT	RA	Fail?	pg/uL	EDL	Height1	Noise1	S/N1	Height2	Noise2	S/N2	M
1	Total-tetrafurans	1.61e2	2.41e2	4.03e2	27.26	0.67	NO	0.097	0.117	2.44e3	1064	2.3	3.64e3	1354	2.7	MM
2	Total-tetrafurans	2.86e2	3.94e2	6.80e2	27.94	0.73	NO	0.164	0.117	5.49e3	1064	5.2	8.74e3	1354	6.5	MM
3	Total-tetrafurans	1.49e2	2.12e2	3.61e2	29.20	0.70	NO	0.087	0.117	2.74e3	1064	2.6	2.81e3	1354	2.1	bb
4	Total-tetrafurans	3.41e2	4.22e2	7.63e2	29.66	0.81	NO	0.184	0.117	5.04e3	1064	4.7	5.51e3	1354	4.1	MM
5	Total-tetrafurans	5.52e1	1.41e2	1.96e2	29.94	0.39	YES	0.047	0.117	1.39e3	1064	1.3	2.06e3	1354	1.5	bb
6	2378-TCDF	4.80e2	5.99e2	1.08e3	30.62	0.80	NO	0.261	0.117	6.11e3	1064	5.7	7.18e3	1354	5.3	MM
7	Total-tetrafurans	8.57e1	2.10e2	2.95e2	30.92	0.41	YES	0.071	0.117	1.90e3	1064	1.8	3.97e3	1354	2.9	bb
8	Total-tetrafurans	2.06e2	3.21e2	5.27e2	31.96	0.64	YES	0.127	0.117	5.21e3	1064	4.9	6.97e3	1354	5.1	MM

PF1

	Name	Ion1Area	Ion2Area	Response	RT	RA	Fail?	pg/uL	EDL	Height1	Noise1	S/N1	Height2	Noise2	S/N2	M
1	Total-pentafurans (F1)	3.65e2	2.68e2	6.33e2	31.93	1.37	NO	0.156	0.0338	6.62e3	380	17.4	6.21e3	971	6.4	bb

PF

	Name	Ion1Area	Ion2Area	Response	RT	RA	Fail?	pg/uL	EDL	Height1	Noise1	S/N1	Height2	Noise2	S/N2	M
1	Total-pentafurans	1.10e2	6.69e1	1.77e2	32.70	1.64	NO	0.044	0.0797	2.59e3	1713	1.5	2.77e3	1472	1.9	bd
2	Total-pentafurans	3.31e2	2.14e2	5.45e2	32.81	1.55	NO	0.134	0.0797	7.59e3	1713	4.4	5.20e3	1472	3.5	db
3	12378-PeCDF	2.13e2	6.32e1	2.76e2	33.36	3.36	YES	0.069	0.0812	4.76e3	1713	2.8	3.45e3	1472	2.3	bb
4	Total-pentafurans	5.81e1	9.70e1	1.55e2	33.51	0.60	YES	0.038	0.0797	3.80e3	1713	2.2	3.26e3	1472	2.2	bd
5	23478-PeCDF	1.38e2	7.56e1	2.13e2	33.99	1.82	YES	0.052	0.0782	4.97e3	1713	2.9	1.79e3	1472	1.2	bb

HF

	Name	Ion1Area	Ion2Area	Response	RT	RA	Fail?	pg/uL	EDL	Height1	Noise1	S/N1	Height2	Noise2	S/N2	M
1	Total-hexafurans	1.64e2	8.68e1	2.50e2	35.13	1.89	YES	0.083	0.101	6.09e3	851	7.2	2.93e3	1522	1.9	bb
2	Total-hexafurans	5.43e2	4.89e2	1.03e3	35.25	1.11	NO	0.340	0.101	1.52e4	851	17.8	1.44e4	1522	9.5	MM
3	Total-hexafurans	4.22e2	3.41e2	7.63e2	35.69	1.24	NO	0.251	0.101	1.33e4	851	15.6	7.76e3	1522	5.1	bb
4	123478-HxCDF	1.93e2	1.49e2	3.42e2	36.07	1.29	NO	0.115	0.103	4.85e3	851	5.7	3.85e3	1522	2.5	bd
5	123678-HxCDF	1.44e2	7.09e1	2.15e2	36.19	2.03	YES	0.063	0.0904	3.94e3	851	4.6	2.13e3	1522	1.4	db
6	234678-HxCDF	1.17e2	8.30e1	2.00e2	36.67	1.40	NO	0.064	0.0979	3.79e3	851	4.4	3.15e3	1522	2.1	bb

Quantify Totals Report MassLynx 4.1
Method 8290 Quantification Report

Dataset: C:\MassLynx\Default.pro\Sample Results\8290-b08feb13a_2.qld

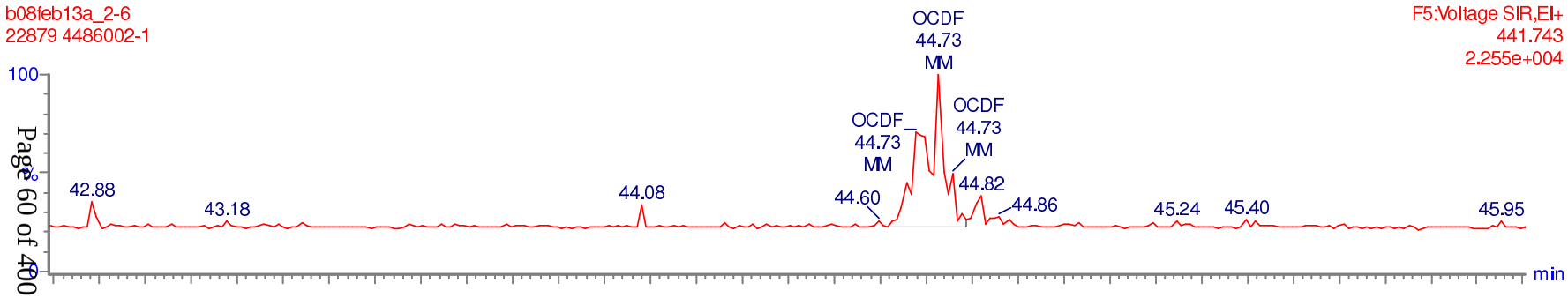
Last Altered: Tuesday, February 12, 2013 09:55:37 Eastern Standard Time
Printed: Tuesday, February 12, 2013 09:57:53 Eastern Standard Time

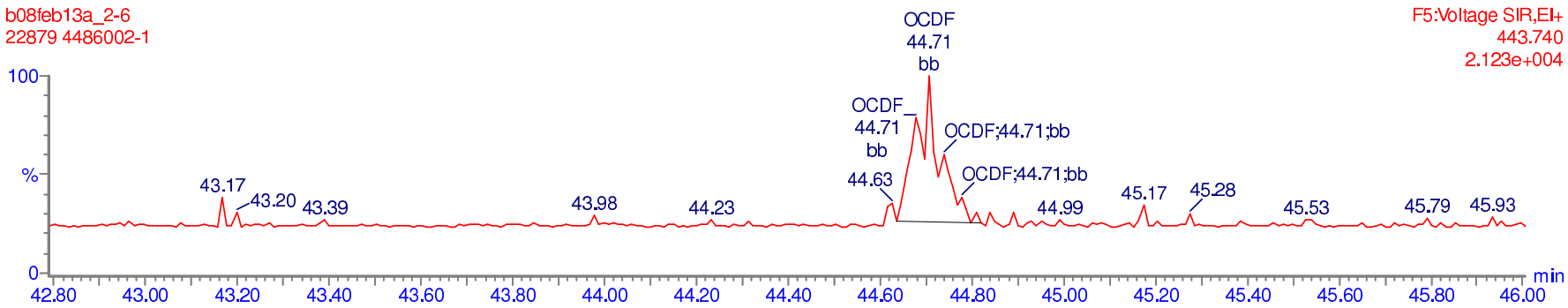
Name: b08feb13a_2-6, Date: 08-Feb-2013, Time: 18:47:01, ID: 4486002-1, Description: 22879, Job: HMS8290_1S, Task: HRP763_1, User: JTF

HPF

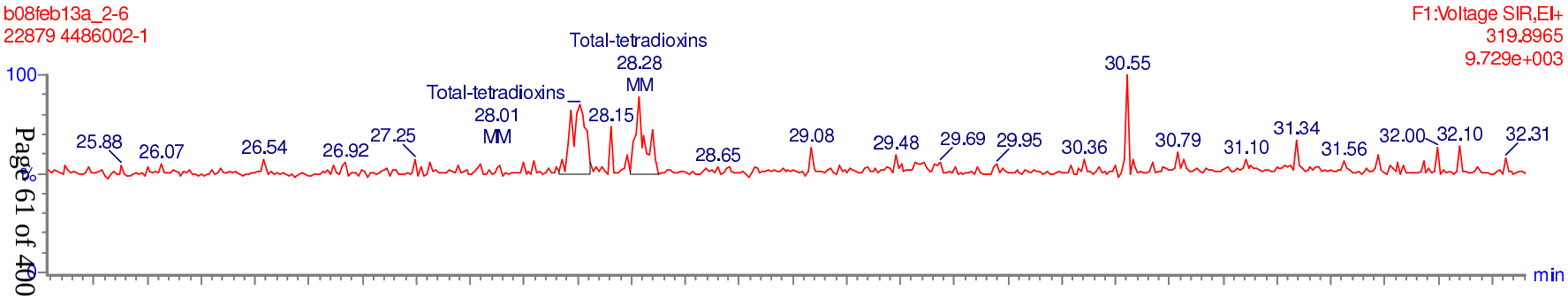
	Name	Ion1Area	Ion2Area	Response	RT	RA	Fail?	pg/uL	EDL	Height1	Noise1	S/N1	Height2	Noise2	S/N2	M
1	1234678-HpCDF	8.32e2	8.29e2	1.66e3	38.90	1.00	NO	0.558	0.0978	1.64e4	1349	12.2	1.69e4	566	29.9	bd
2	Total-heptafurans	1.26e2	6.94e1	1.96e2	38.97	1.82	YES	0.074	0.111	7.22e3	1349	5.4	2.40e3	566	4.2	db
3	Total-heptafurans	9.91e2	9.47e2	1.94e3	39.45	1.05	NO	0.737	0.111	2.01e4	1349	14.9	1.76e4	566	31.1	bb

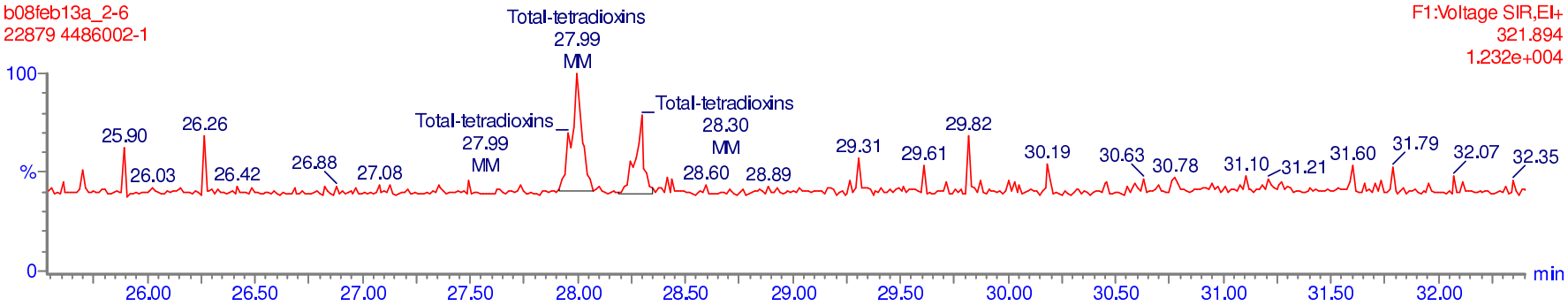
MANUAL INTEGRATION
METHOD 8290



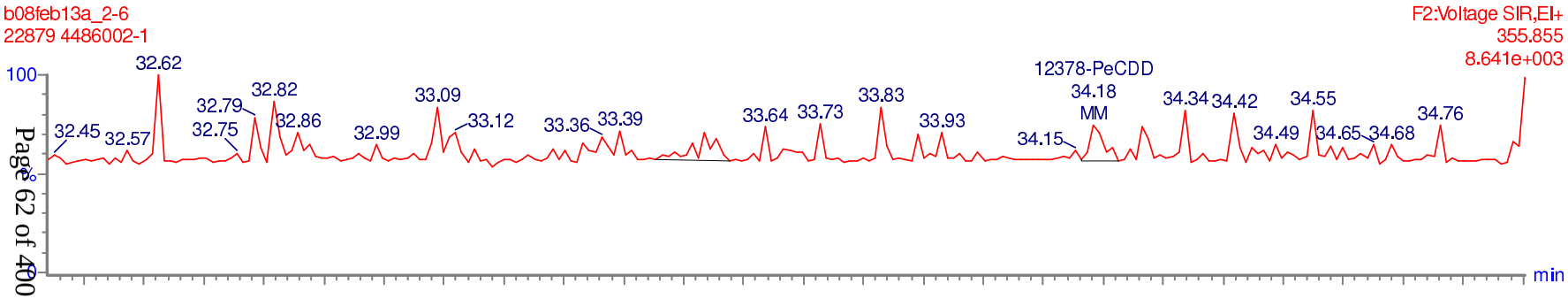


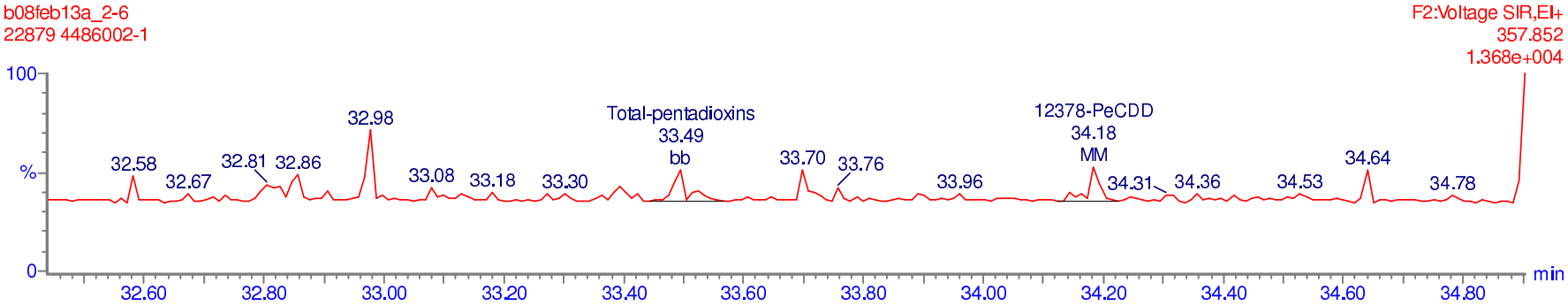
MANUAL INTEGRATION
METHOD 8290



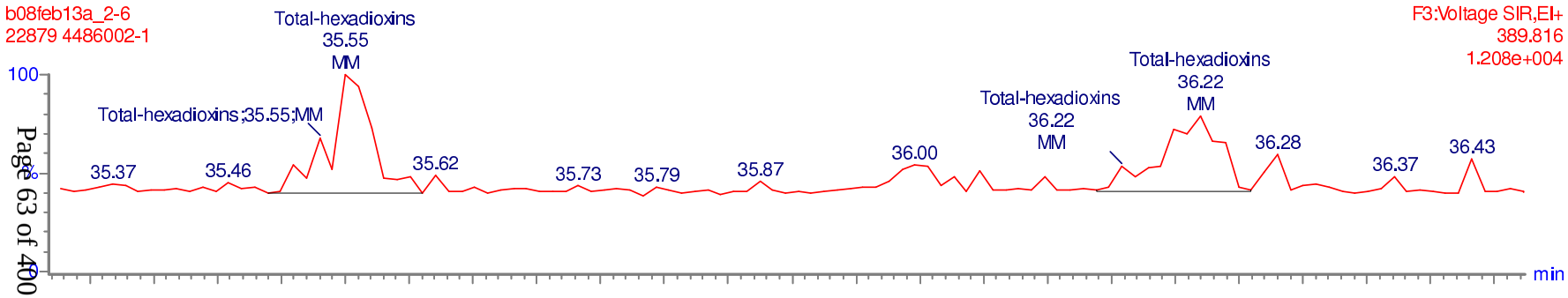


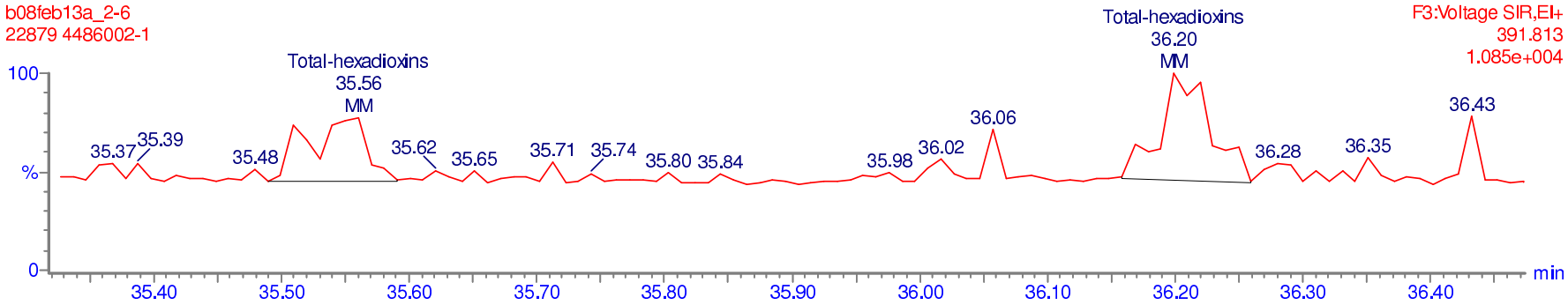
MANUAL INTEGRATION
METHOD 8290



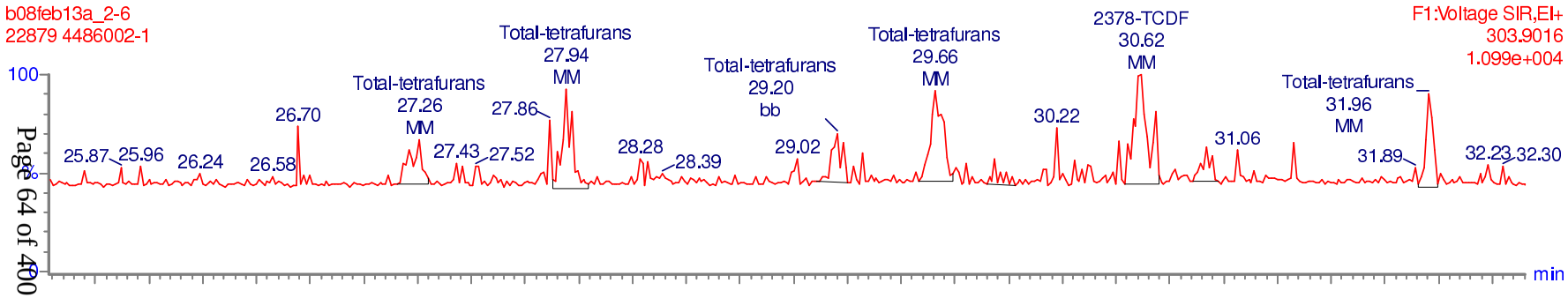


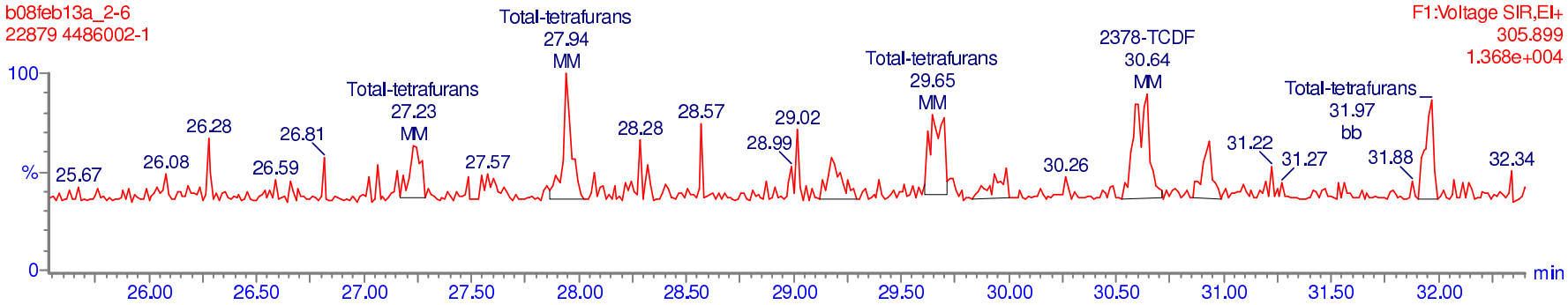
MANUAL INTEGRATION
METHOD 8290



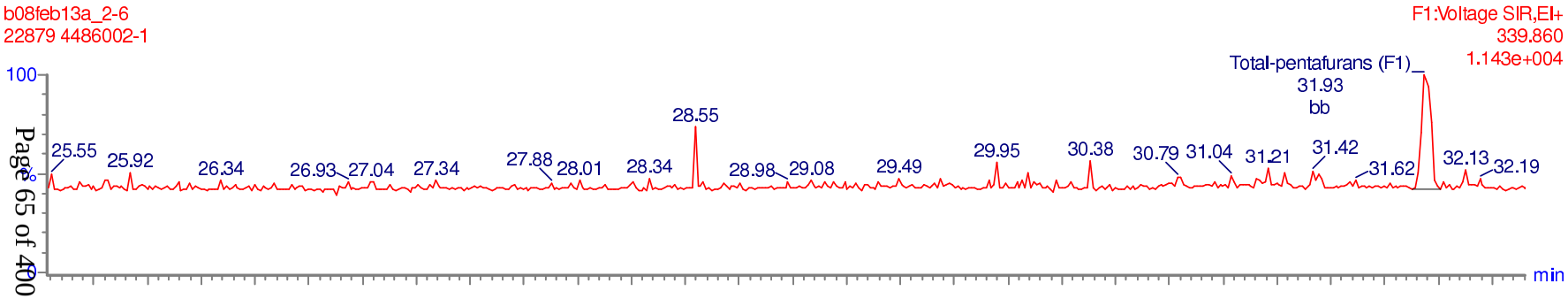


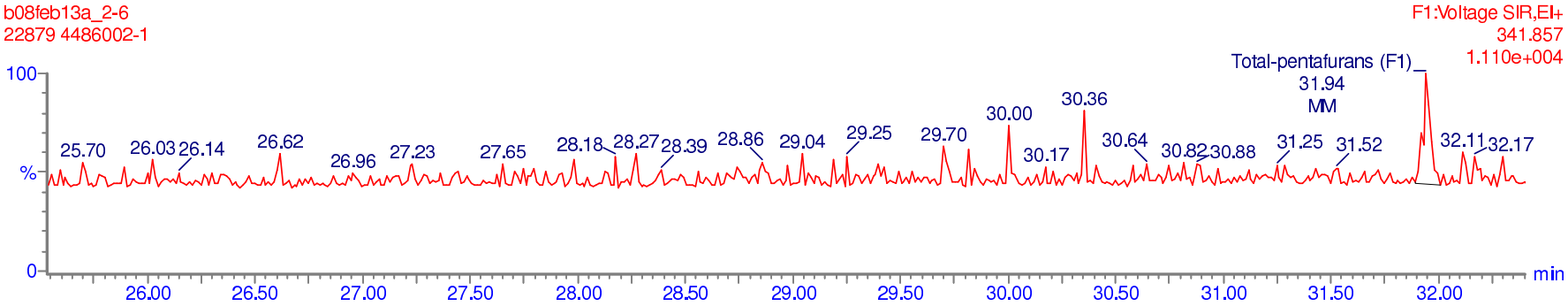
MANUAL INTEGRATION
METHOD 8290



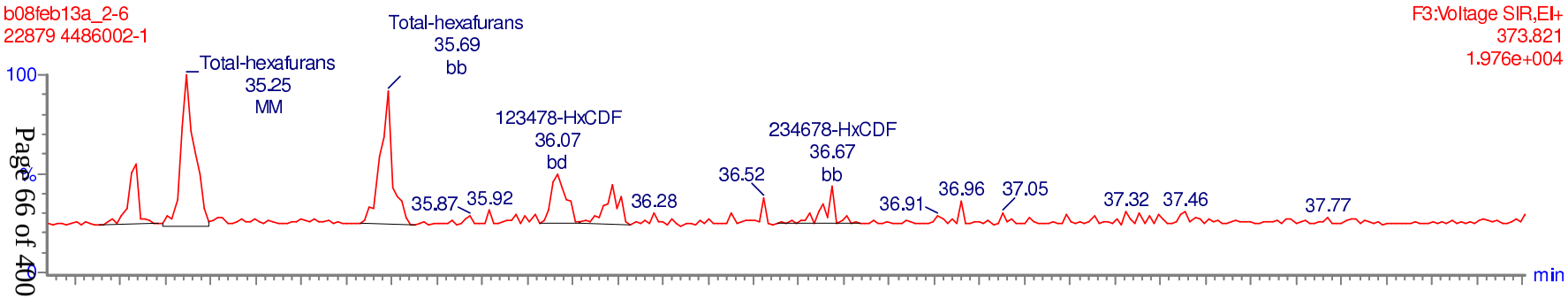


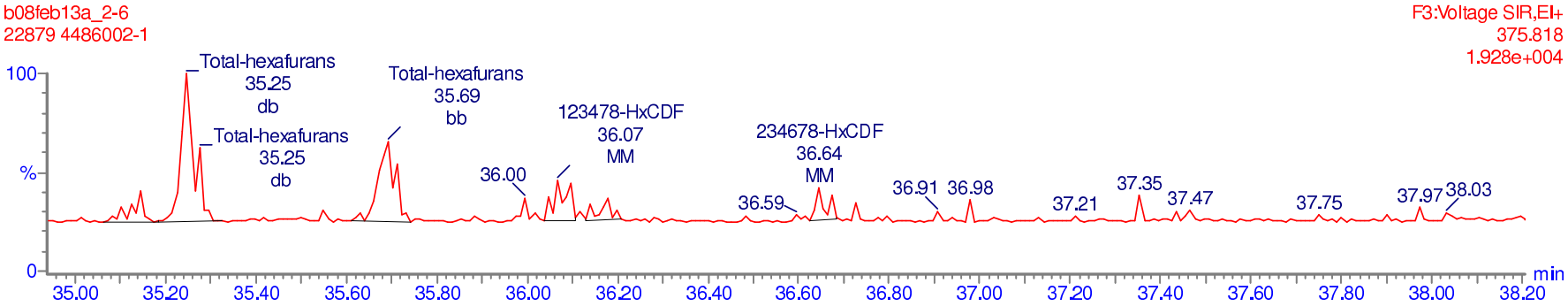
MANUAL INTEGRATION
METHOD 8290





MANUAL INTEGRATION
METHOD 8290





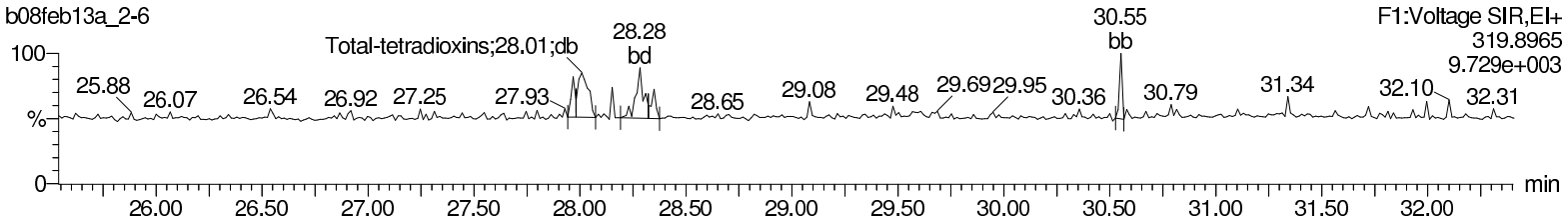
Quantify Sample Report **MassLynx 4.1**
Method 8290 Quantification Report

Dataset: C:\MassLynx\Default.pro\Sample Results\8290-b08feb13a_2.qld

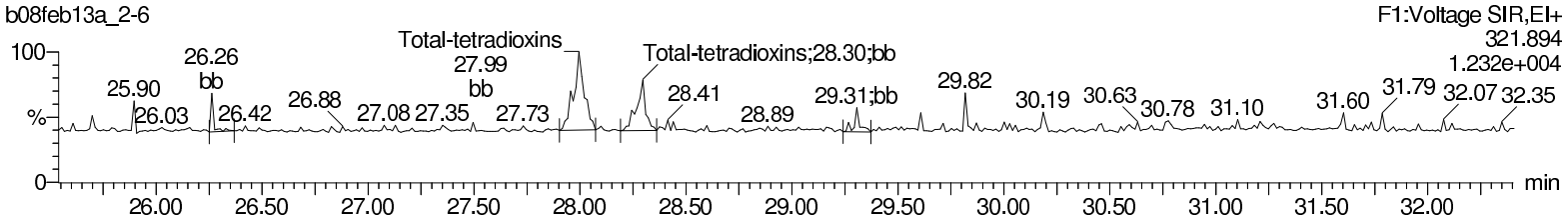
Last Altered: Monday, February 11, 2013 14:16:57 Eastern Standard Time
Printed: Monday, February 11, 2013 14:18:53 Eastern Standard Time

Name: b08feb13a_2-6, Date: 08-Feb-2013, Time: 18:47:01, ID: 4486002-1, Description: 22879, Job: HMS8290_1S, Task: HRP763_1, User: JTF

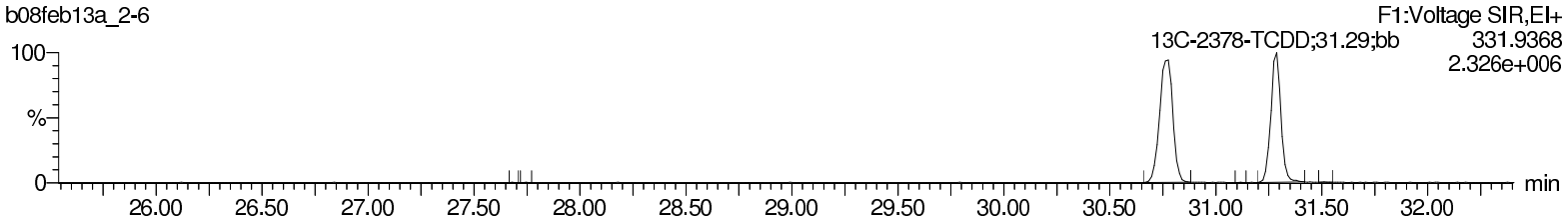
Total-tetradioxins



Total-tetradioxins



13C-2378-TCDD



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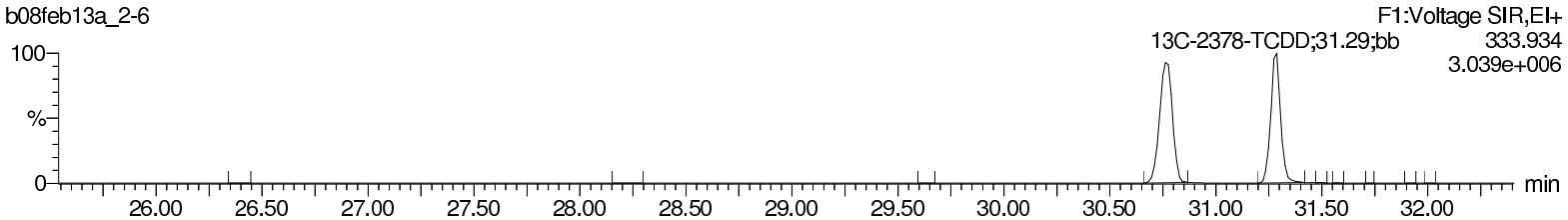
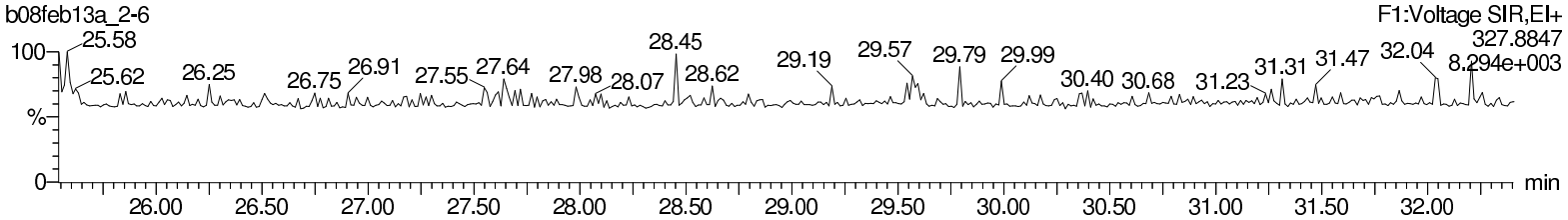
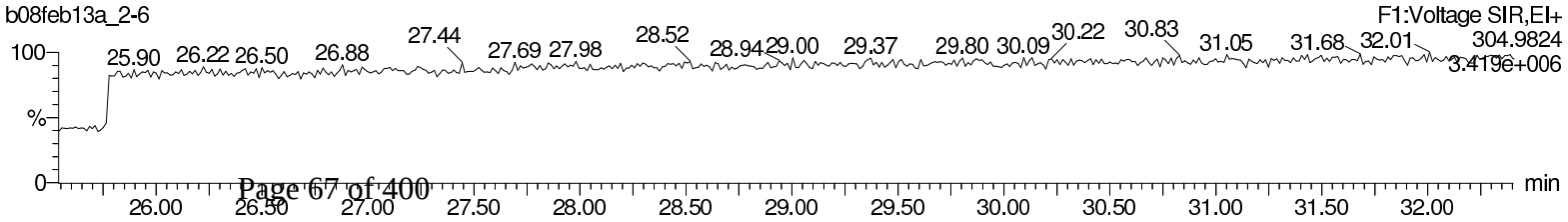


37Cl-2378-TCDD (SS)



Lock Mass F1



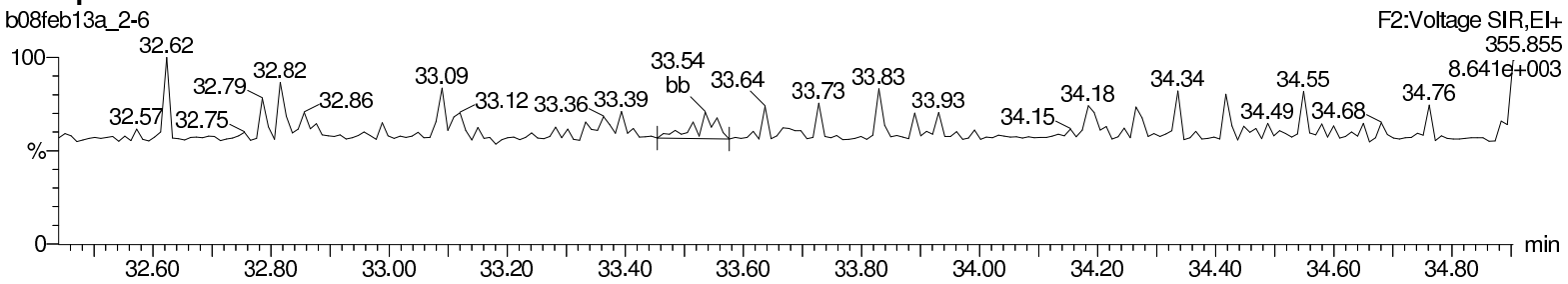
Quantify Sample Report **MassLynx 4.1**
Method 8290 Quantification Report

Dataset: C:\MassLynx\Default.pro\Sample Results\8290-b08feb13a_2.qld

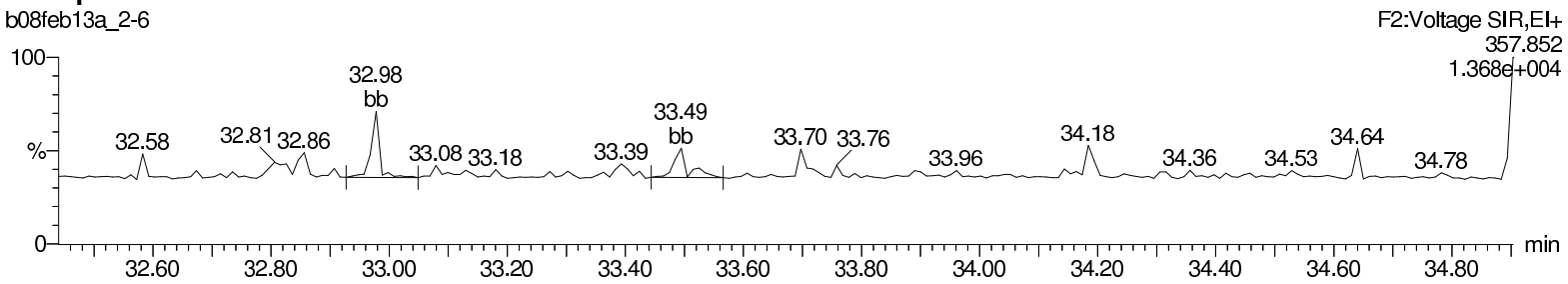
Last Altered: Monday, February 11, 2013 14:16:57 Eastern Standard Time
Printed: Monday, February 11, 2013 14:18:53 Eastern Standard Time

Name: b08feb13a_2-6, Date: 08-Feb-2013, Time: 18:47:01, ID: 4486002-1, Description: 22879, Job: HMS8290_1S, Task: HRP763_1, User: JTF

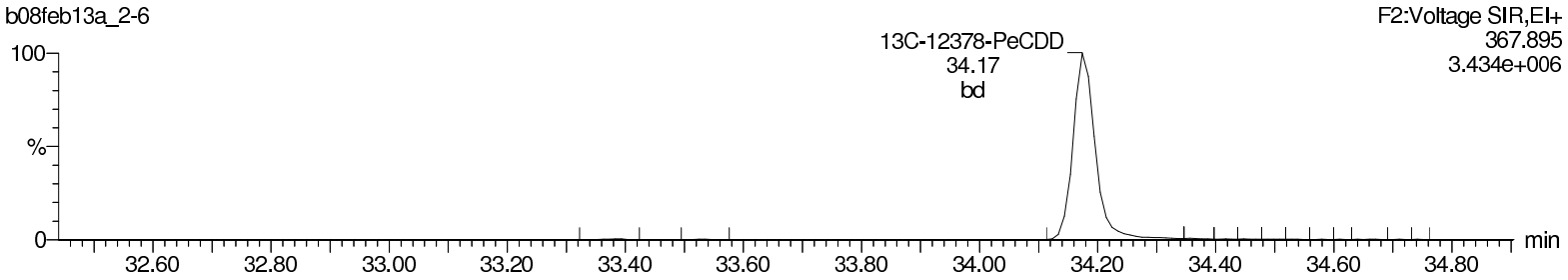
Total-pentadioxins



Total-pentadioxins



13C-12378-PeCDD



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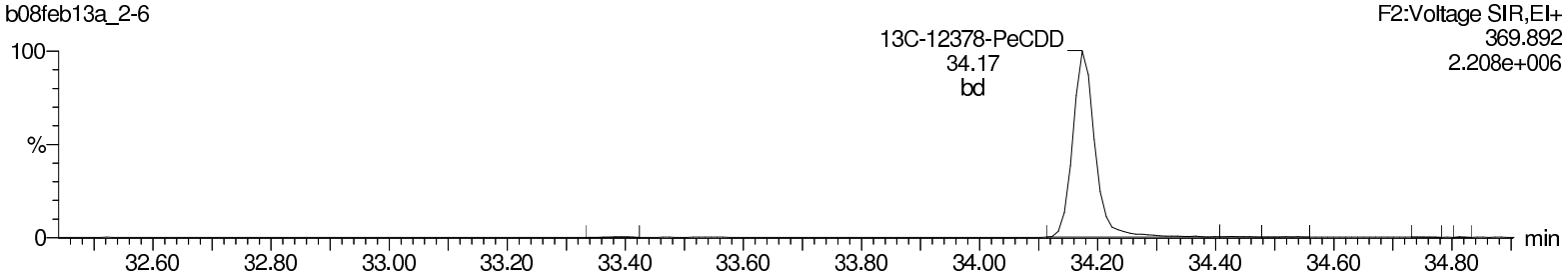

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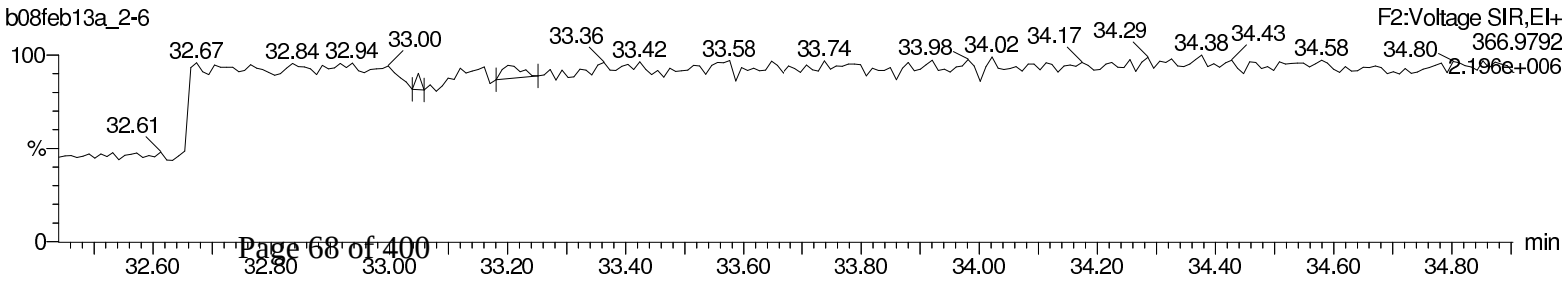


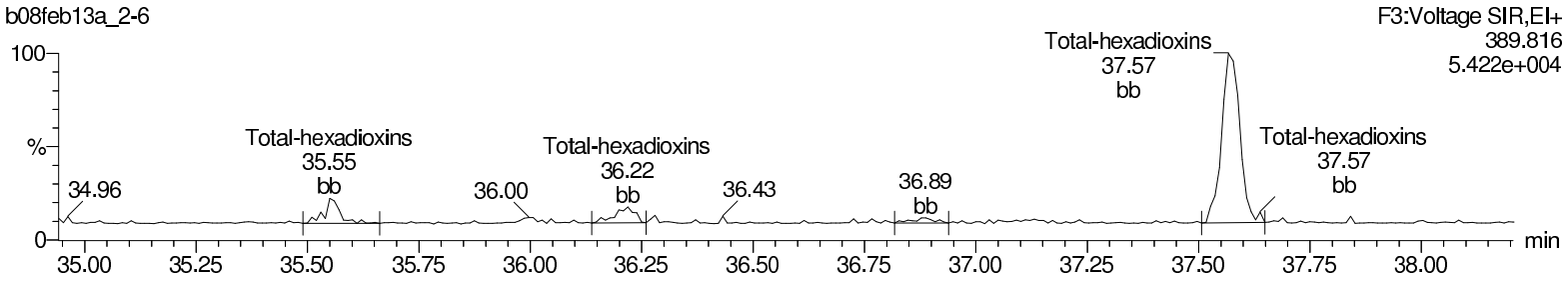
Quantify Sample Report **MassLynx 4.1**
Method 8290 Quantification Report

Dataset: C:\MassLynx\Default.pro\Sample Results\8290-b08feb13a_2.qld

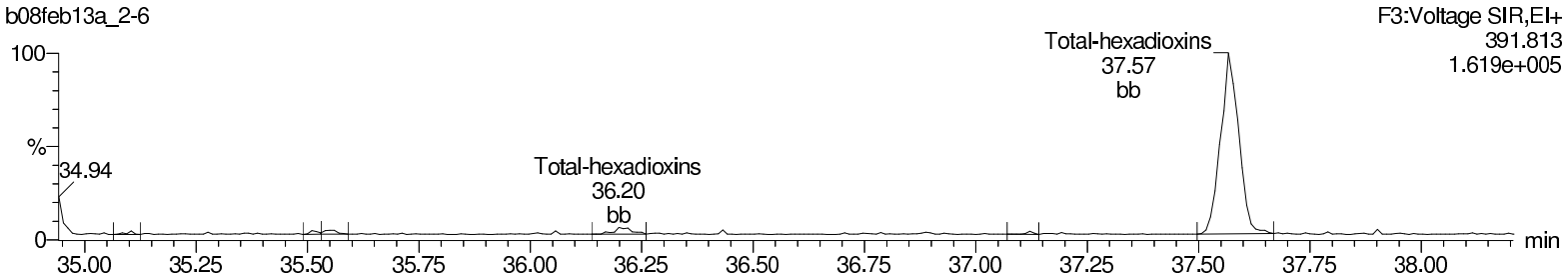
Last Altered: Monday, February 11, 2013 14:16:57 Eastern Standard Time
Printed: Monday, February 11, 2013 14:18:53 Eastern Standard Time

Name: b08feb13a_2-6, Date: 08-Feb-2013, Time: 18:47:01, ID: 4486002-1, Description: 22879, Job: HMS8290_1S, Task: HRP763_1, User: JTF

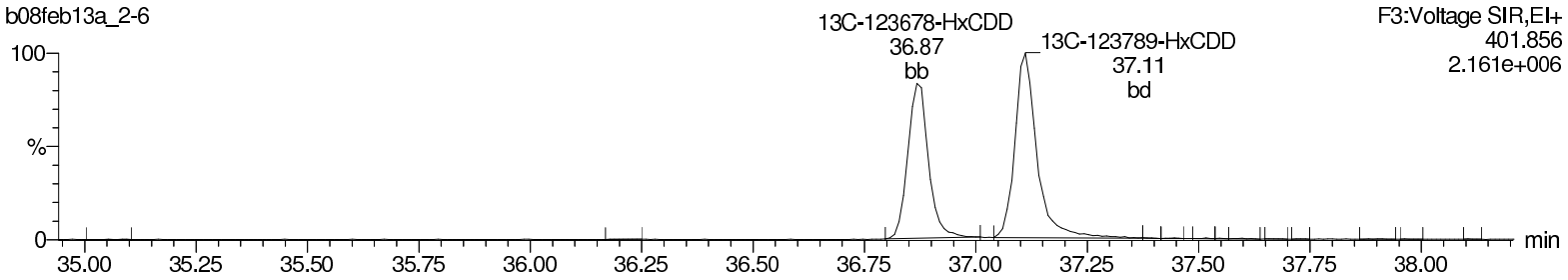
Total-hexadioxins



Total-hexadioxins



13C-123678-HxCDD



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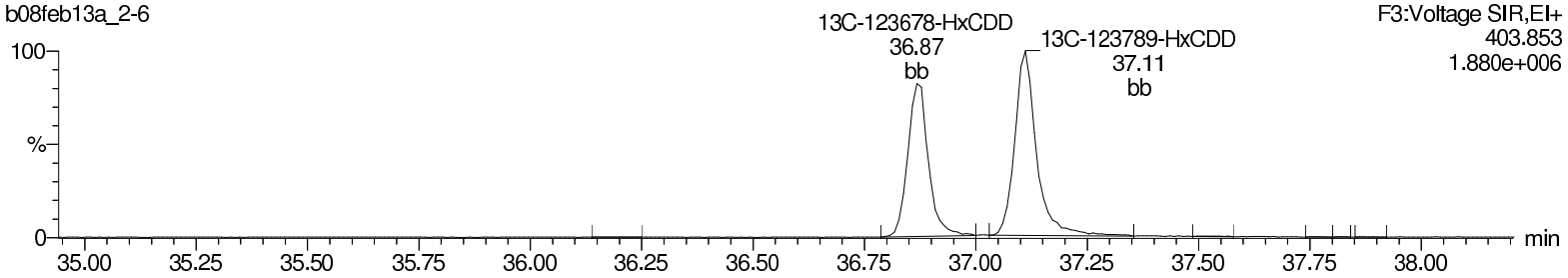
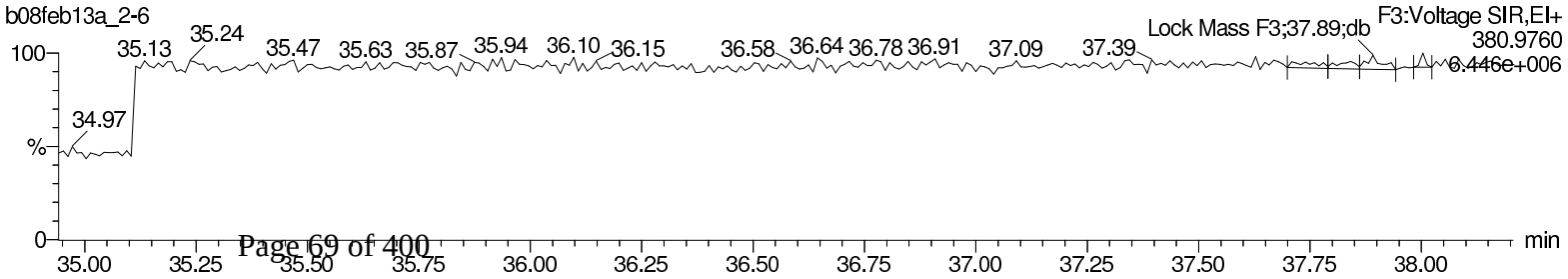


Lock Mass F3



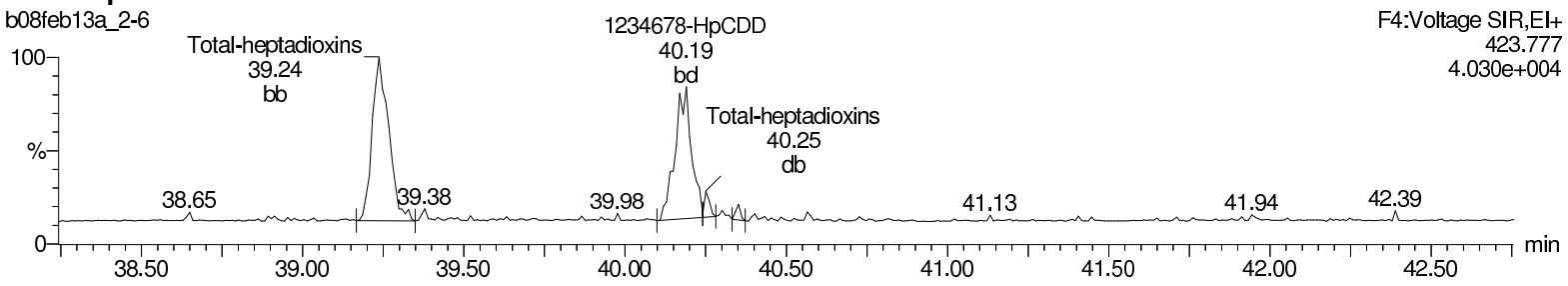
Quantify Sample Report **MassLynx 4.1**
Method 8290 Quantification Report

Dataset: C:\MassLynx\Default.pro\Sample Results\8290-b08feb13a_2.qld

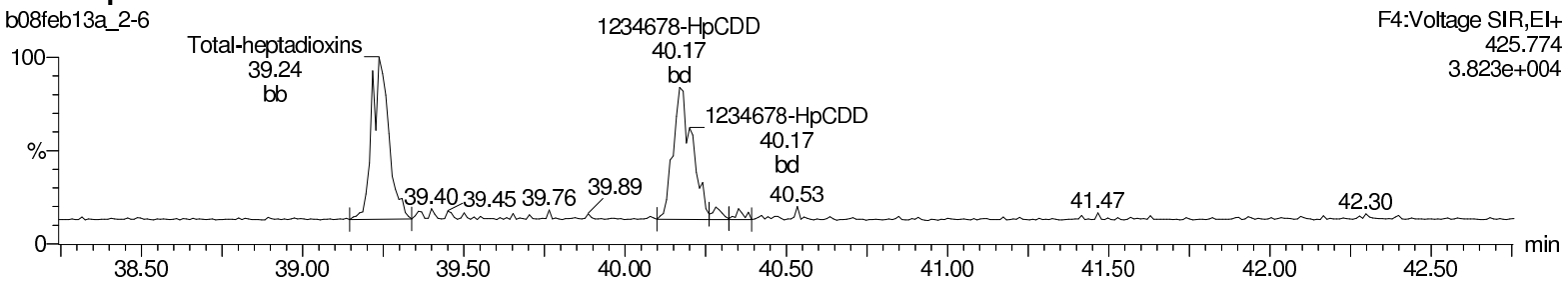
Last Altered: Monday, February 11, 2013 14:16:57 Eastern Standard Time
Printed: Monday, February 11, 2013 14:18:53 Eastern Standard Time

Name: b08feb13a_2-6, Date: 08-Feb-2013, Time: 18:47:01, ID: 4486002-1, Description: 22879, Job: HMS8290_1S, Task: HRP763_1, User: JTF

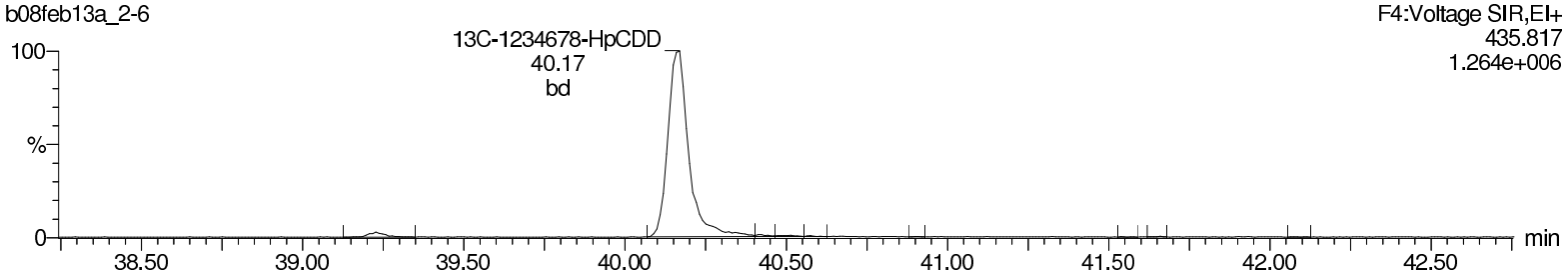
Total-heptadioxins



Total-heptadioxins



13C-1234678-HpCDD



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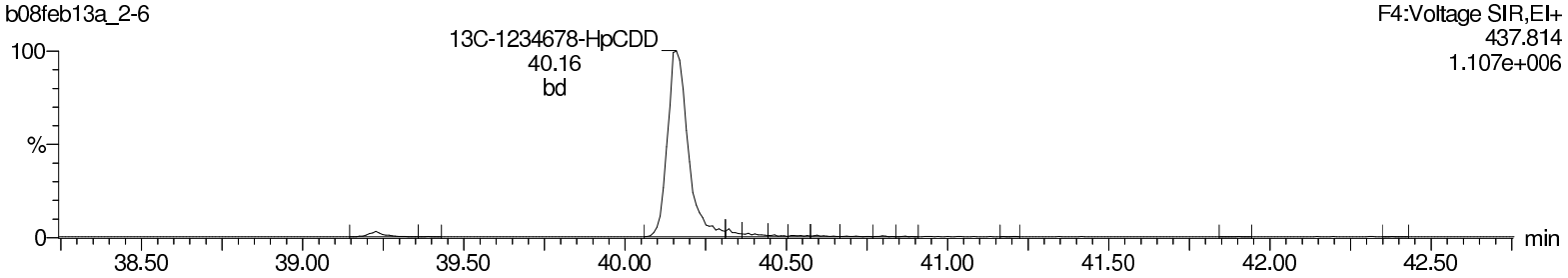
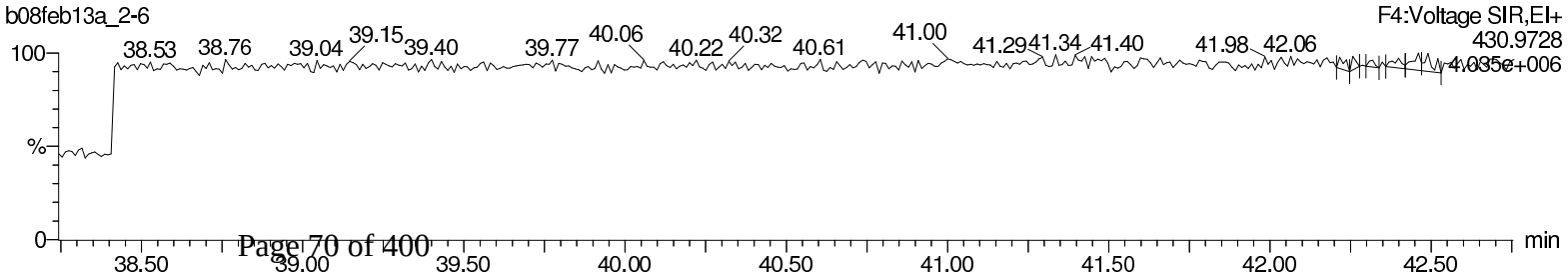


Lock Mass F4



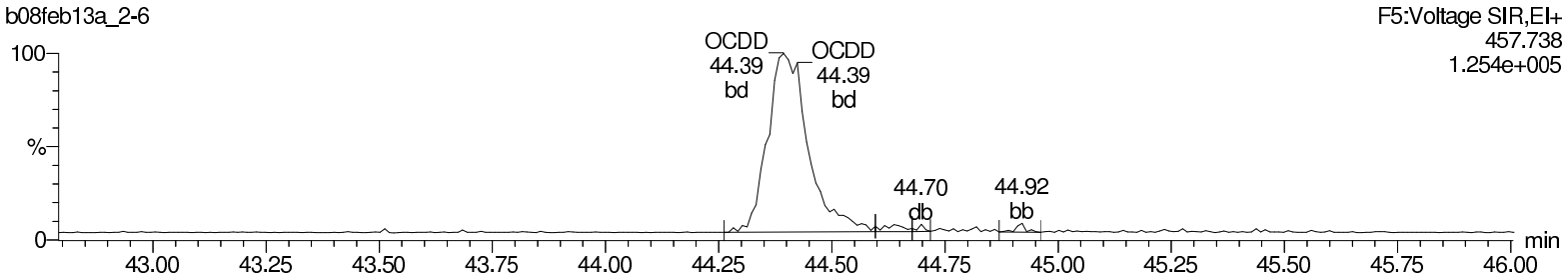
Quantify Sample Report **MassLynx 4.1**
Method 8290 Quantification Report

Dataset: C:\MassLynx\Default.pro\Sample Results\8290-b08feb13a_2.qld

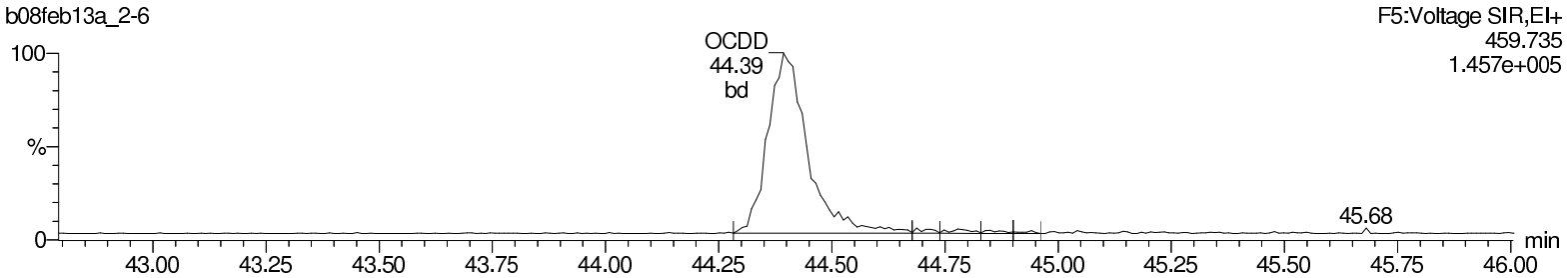
Last Altered: Monday, February 11, 2013 14:16:57 Eastern Standard Time
Printed: Monday, February 11, 2013 14:18:53 Eastern Standard Time

Name: b08feb13a_2-6, Date: 08-Feb-2013, Time: 18:47:01, ID: 4486002-1, Description: 22879, Job: HMS8290_1S, Task: HRP763_1, User: JTF

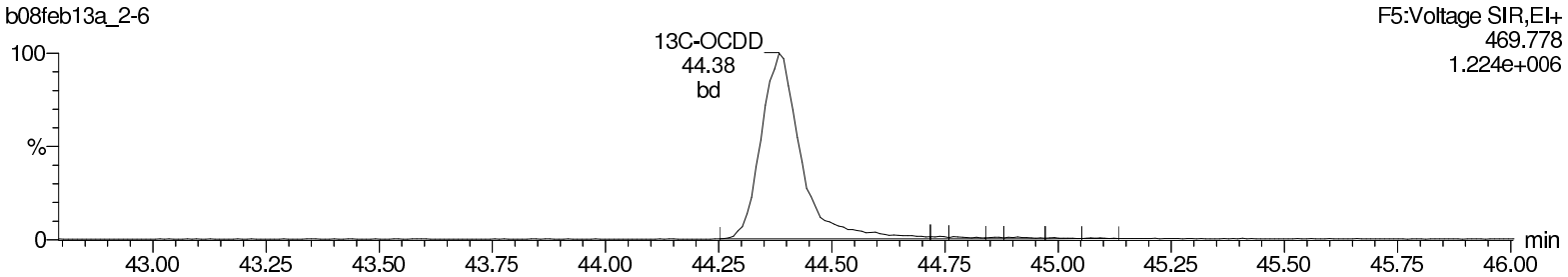
OCDD



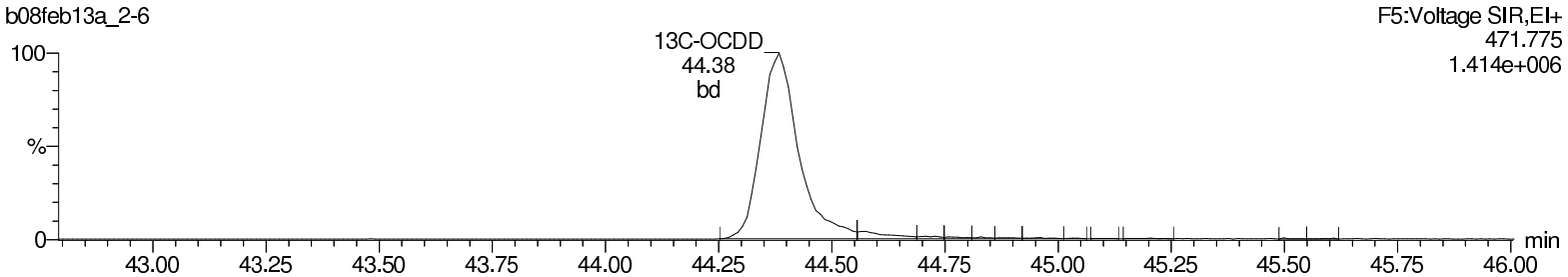
OCDD



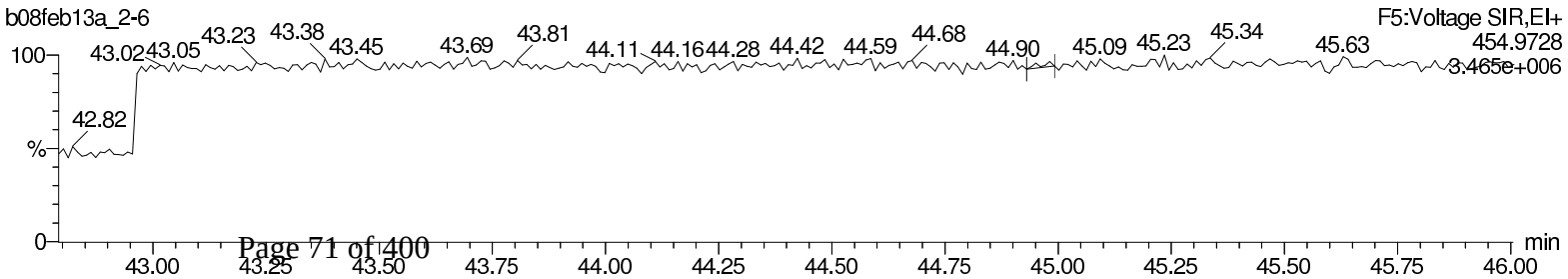
13C-OCDD



13C-OCDD



Lock Mass F5



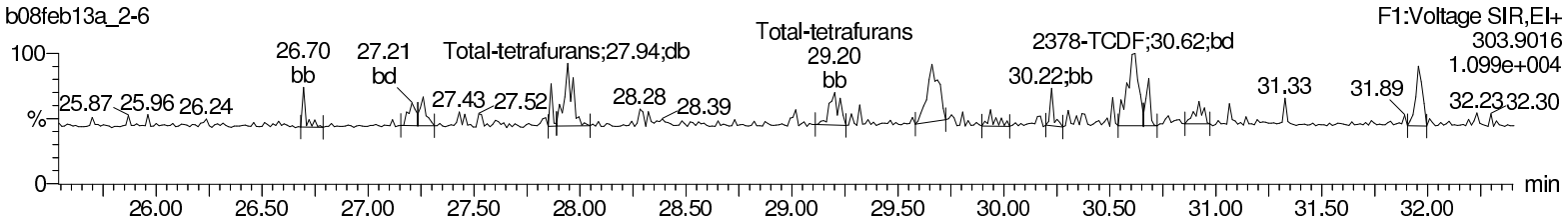
Quantify Sample Report **MassLynx 4.1**
Method 8290 Quantification Report

Dataset: C:\MassLynx\Default.pro\Sample Results\8290-b08feb13a_2.qld

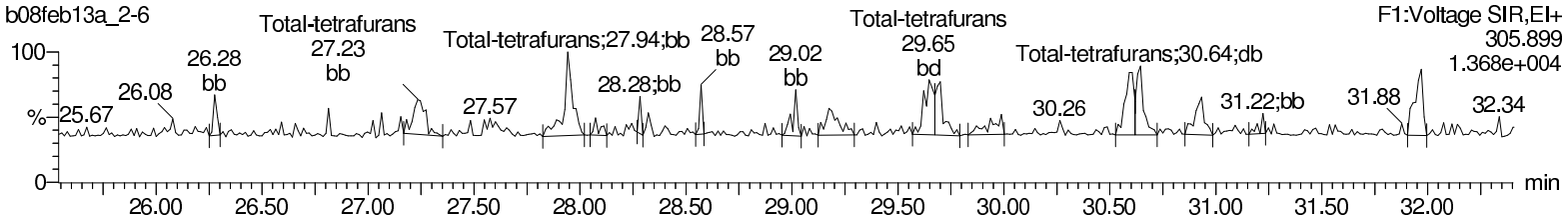
Last Altered: Monday, February 11, 2013 14:16:57 Eastern Standard Time
Printed: Monday, February 11, 2013 14:18:53 Eastern Standard Time

Name: b08feb13a_2-6, Date: 08-Feb-2013, Time: 18:47:01, ID: 4486002-1, Description: 22879, Job: HMS8290_1S, Task: HRP763_1, User: JTF

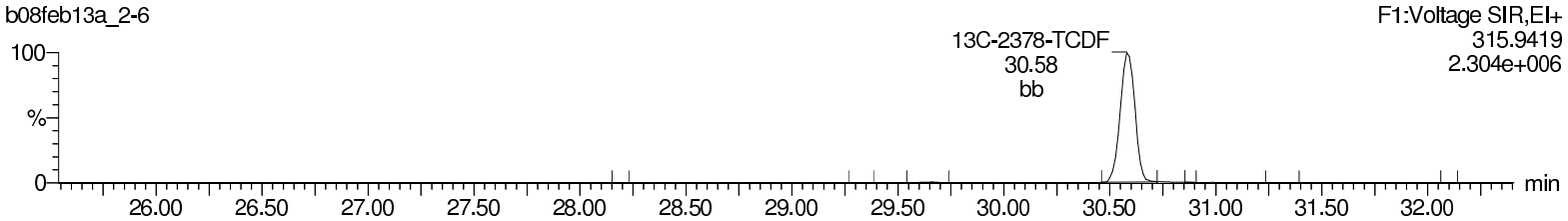
Total-tetrafurans



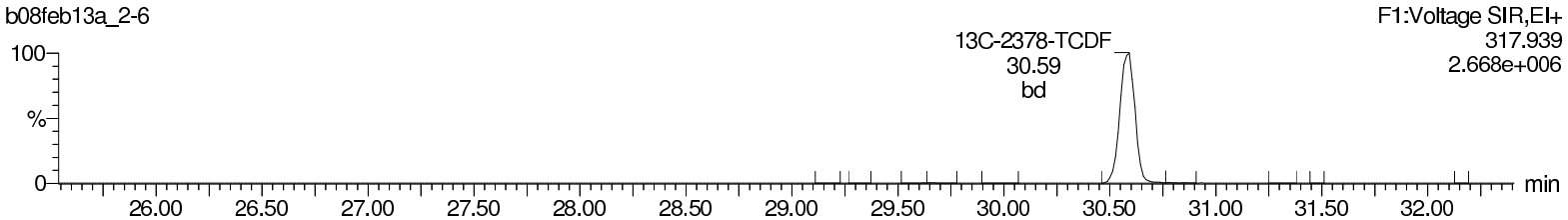
Total-tetrafurans



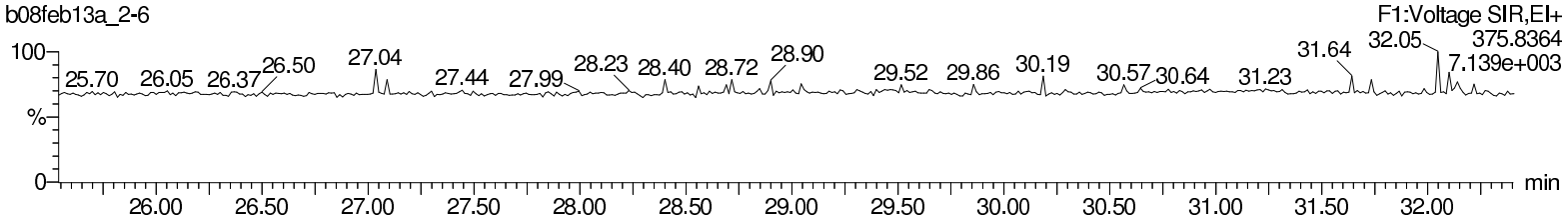
13C-2378-TCDF



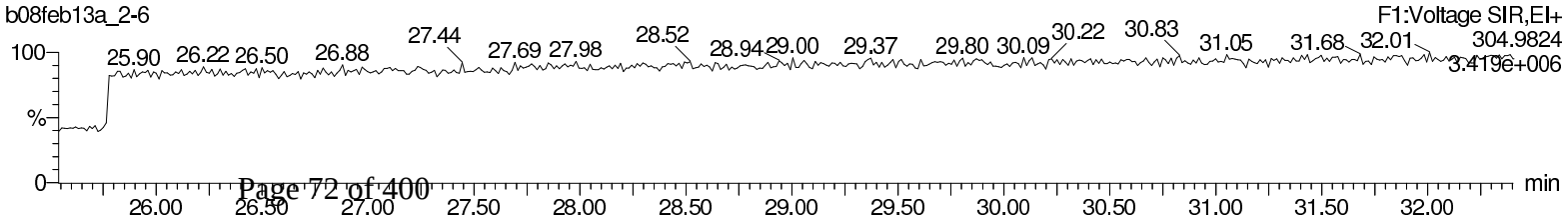
13C-2378-TCDF



HxDPE



Lock Mass F1



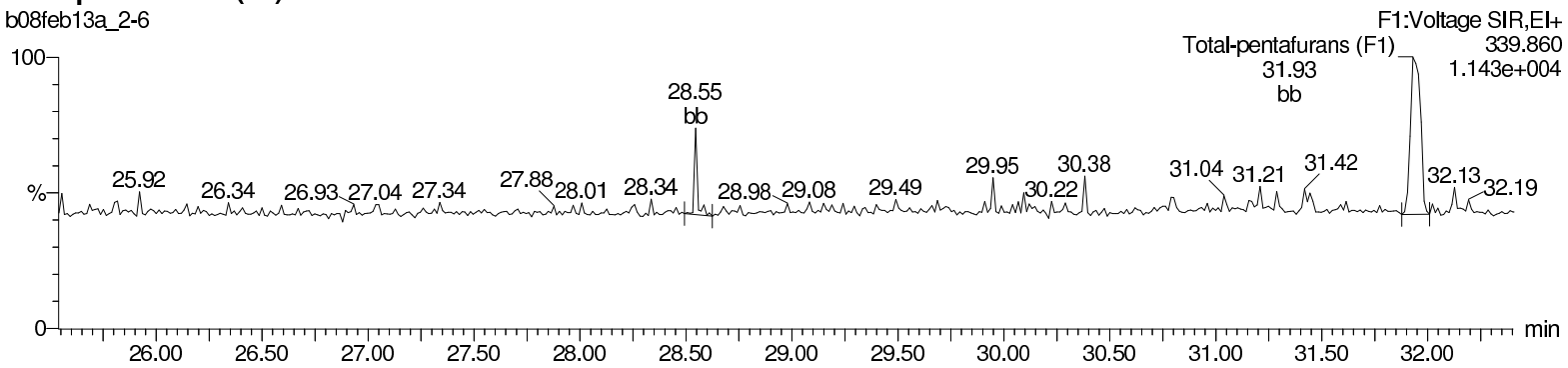
Quantify Sample Report **MassLynx 4.1**
Method 8290 Quantification Report

Dataset: C:\MassLynx\Default.pro\Sample Results\8290-b08feb13a_2.qld

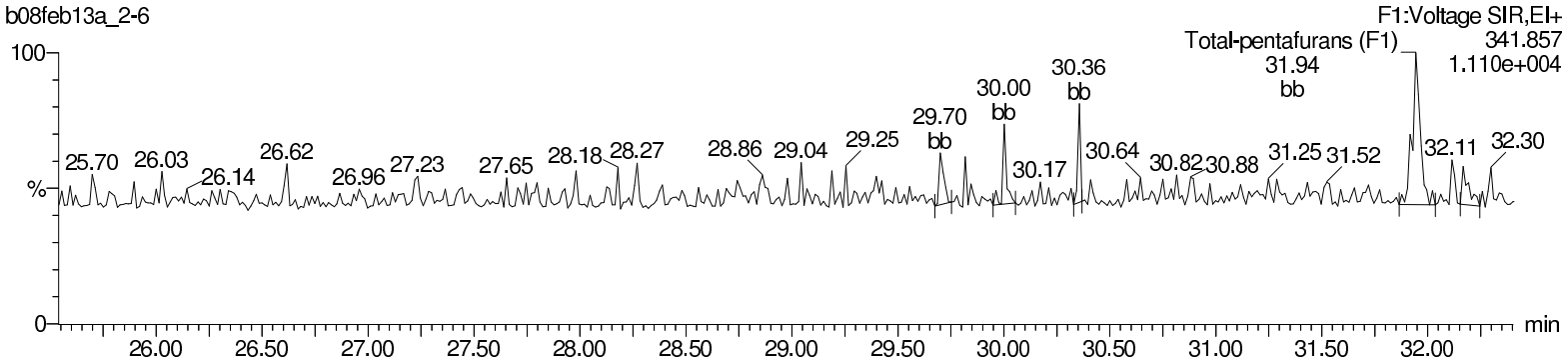
Last Altered: Monday, February 11, 2013 14:16:57 Eastern Standard Time
Printed: Monday, February 11, 2013 14:18:53 Eastern Standard Time

Name: b08feb13a_2-6, Date: 08-Feb-2013, Time: 18:47:01, ID: 4486002-1, Description: 22879, Job: HMS8290_1S, Task: HRP763_1, User: JTF

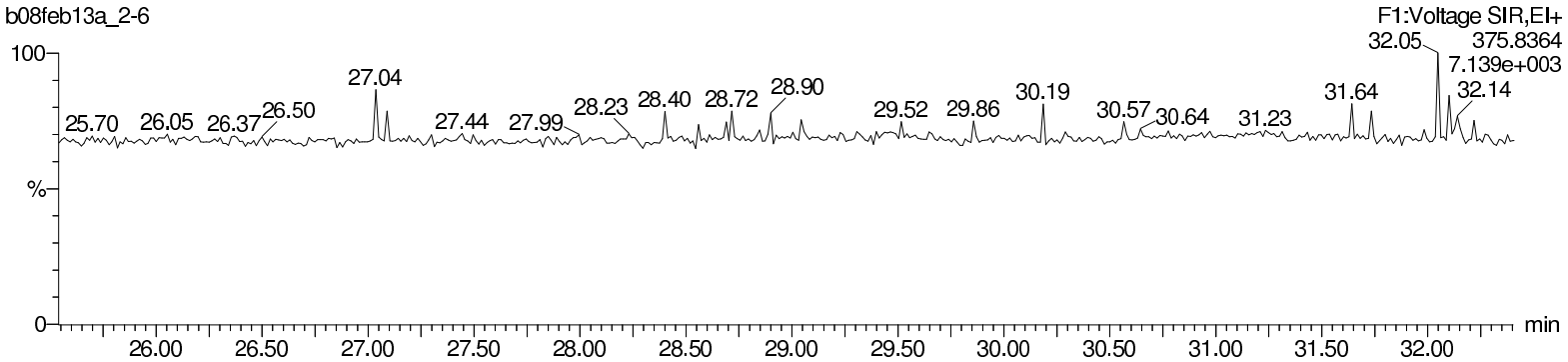
Total-pentafurans (F1)



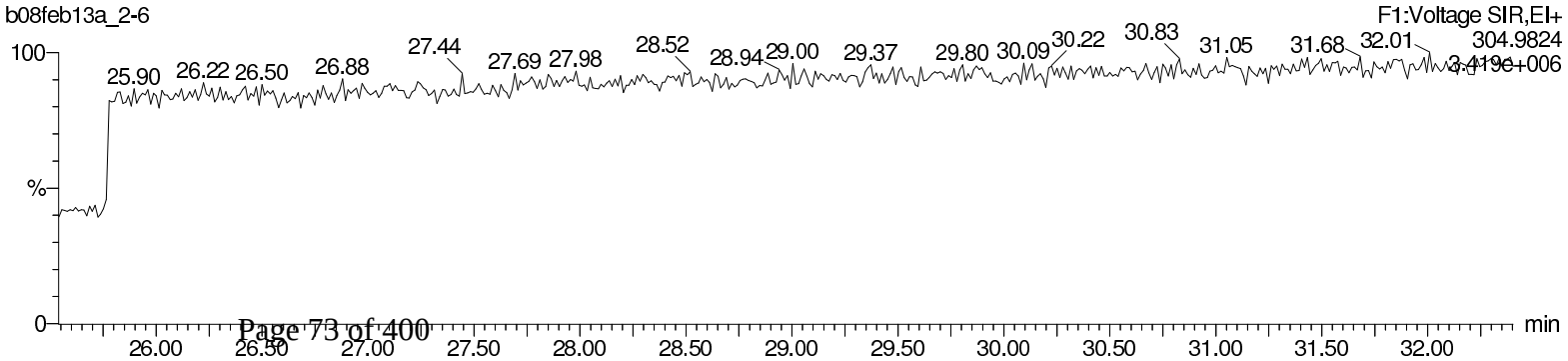
Total-pentafurans (F1)



HxDPE



Lock Mass F1



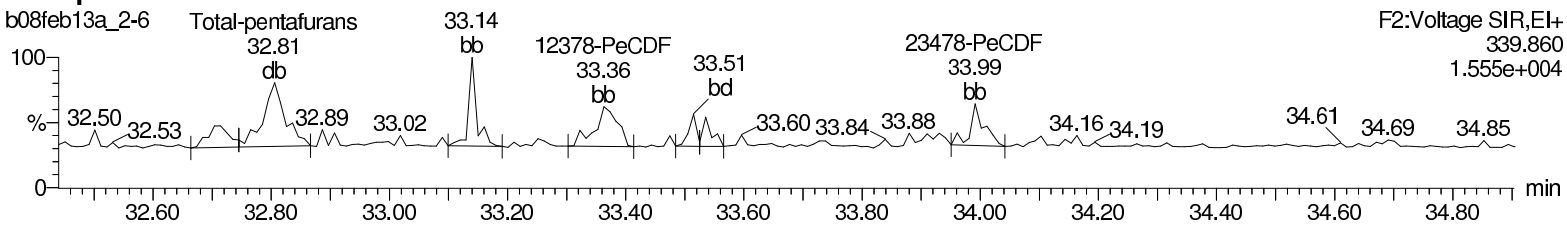
Quantify Sample Report **MassLynx 4.1**
Method 8290 Quantification Report

Dataset: C:\MassLynx\Default.pro\Sample Results\8290-b08feb13a_2.qld

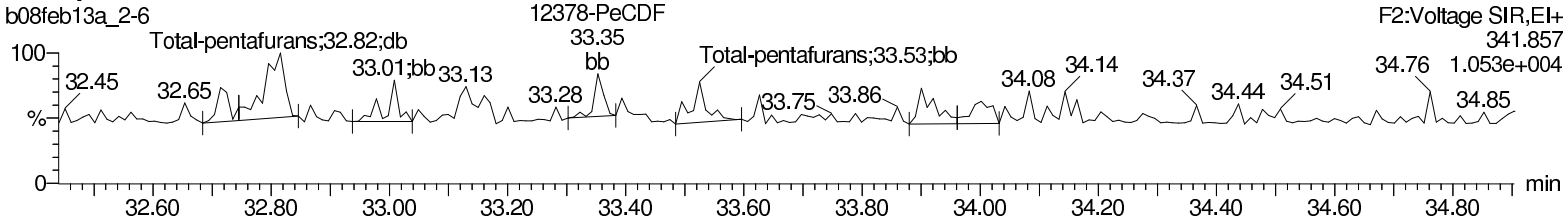
Last Altered: Monday, February 11, 2013 14:16:57 Eastern Standard Time
Printed: Monday, February 11, 2013 14:18:53 Eastern Standard Time

Name: b08feb13a_2-6, Date: 08-Feb-2013, Time: 18:47:01, ID: 4486002-1, Description: 22879, Job: HMS8290_1S, Task: HRP763_1, User: JTF

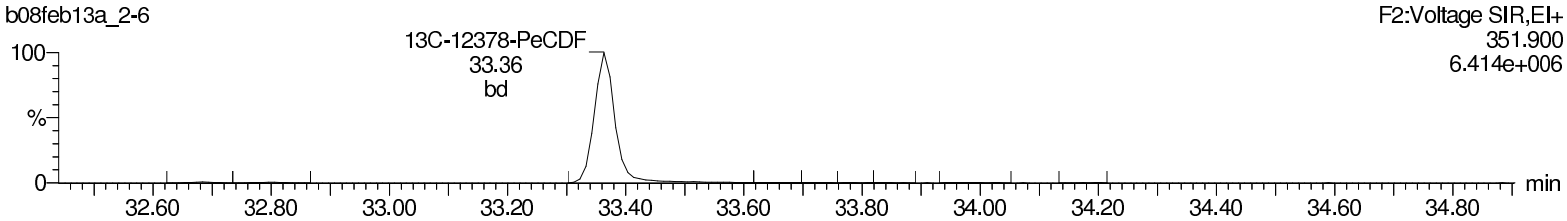
Total-pentafurans



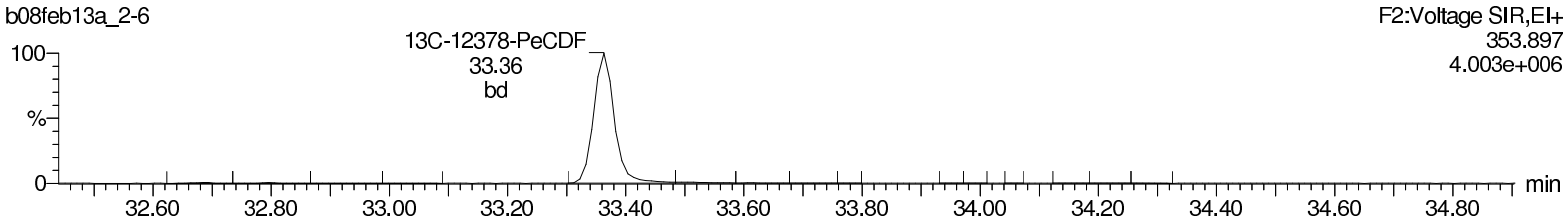
Total-pentafurans



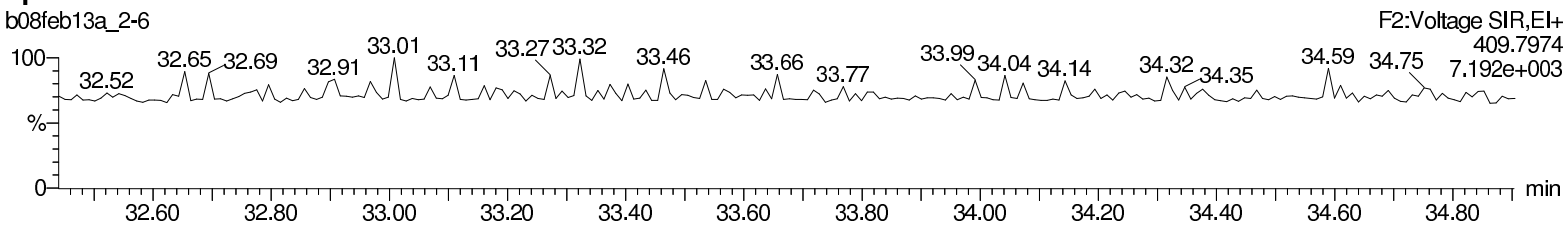
13C-12378-PeCDF



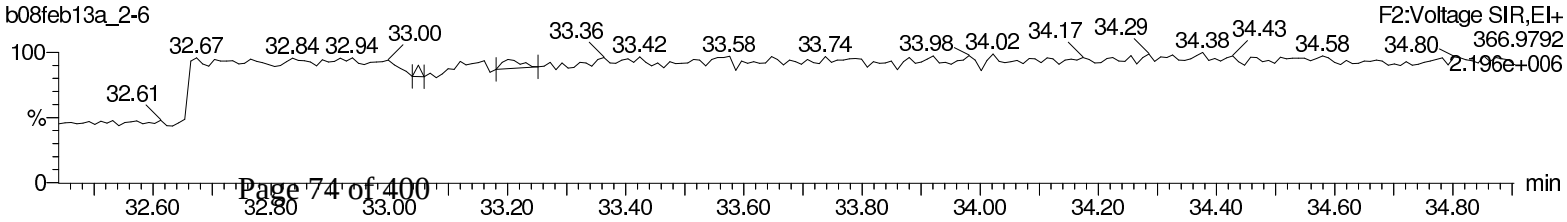
13C-12378-PeCDF



HpDPE



Lock Mass F2



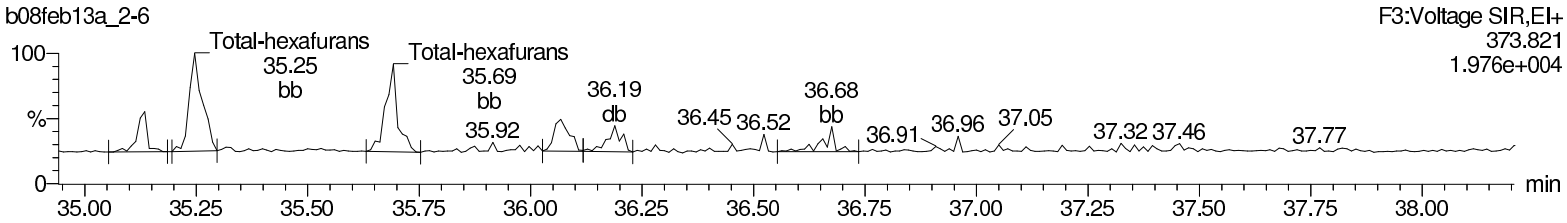
Quantify Sample Report **MassLynx 4.1**
Method 8290 Quantification Report

Dataset: C:\MassLynx\Default.pro\Sample Results\8290-b08feb13a_2.qld

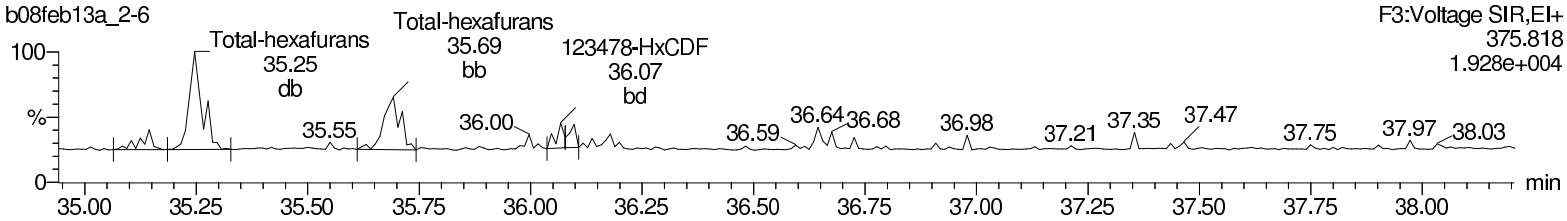
Last Altered: Monday, February 11, 2013 14:16:57 Eastern Standard Time
Printed: Monday, February 11, 2013 14:18:53 Eastern Standard Time

Name: b08feb13a_2-6, Date: 08-Feb-2013, Time: 18:47:01, ID: 4486002-1, Description: 22879, Job: HMS8290_1S, Task: HRP763_1, User: JTF

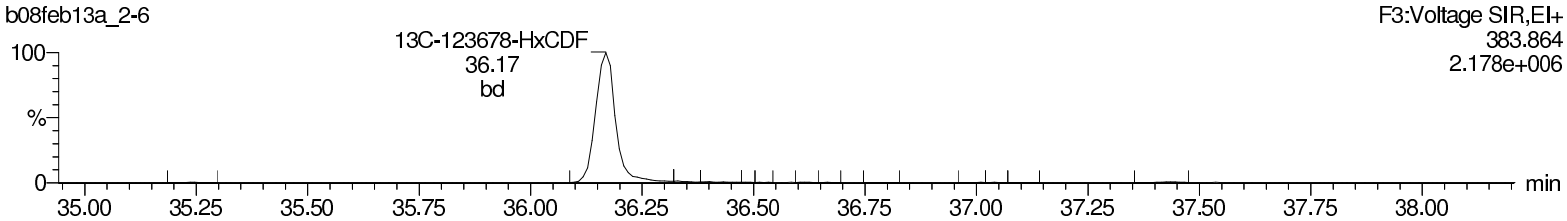
Total-hexafurans



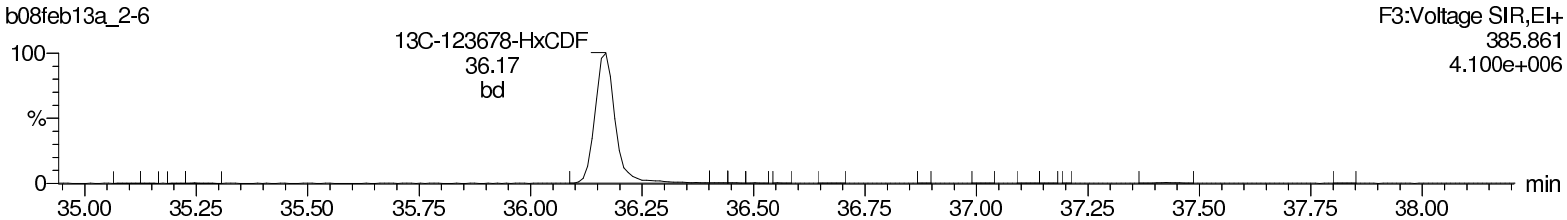
Total-hexafurans



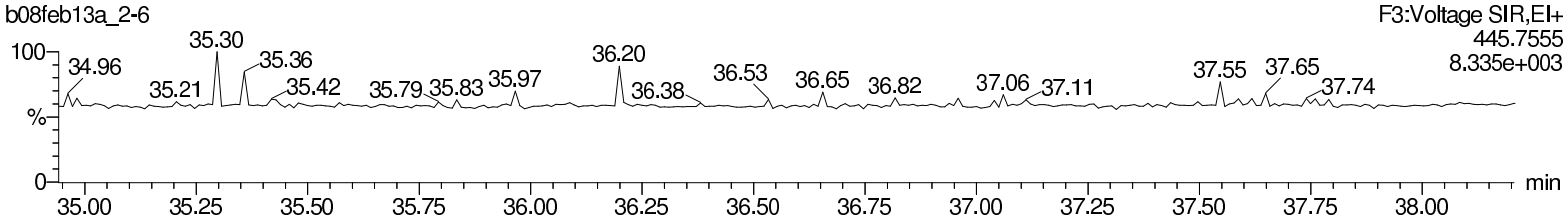
13C-123678-HxCDF



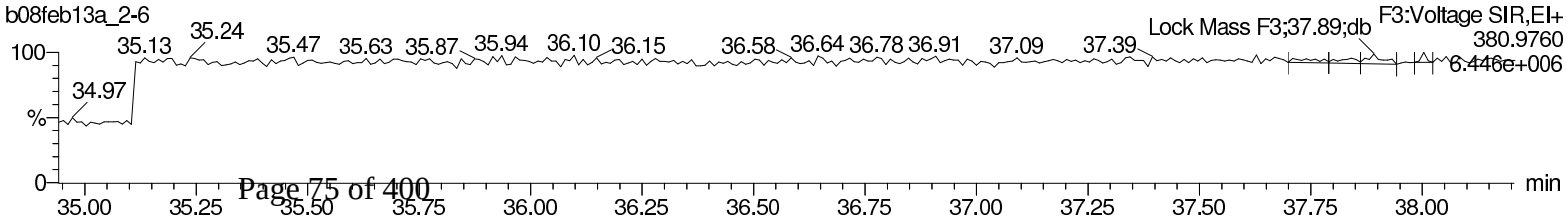
13C-123678-HxCDF



OcDPE



Lock Mass F3



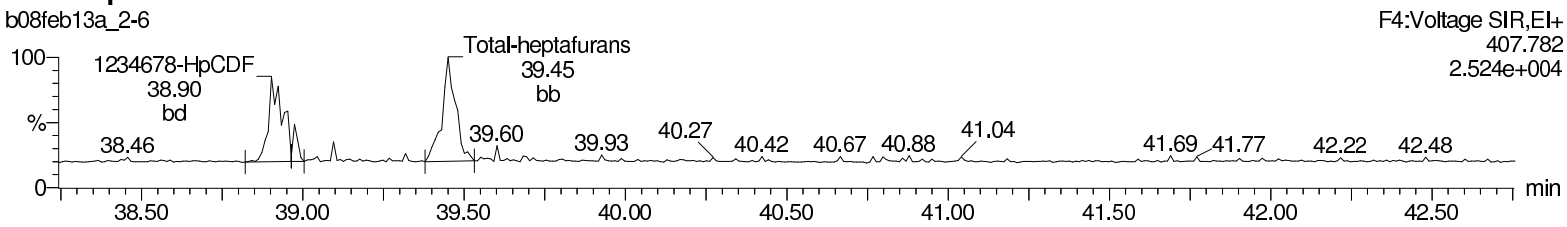
Quantify Sample Report **MassLynx 4.1**
Method 8290 Quantification Report

Dataset: C:\MassLynx\Default.pro\Sample Results\8290-b08feb13a_2.qld

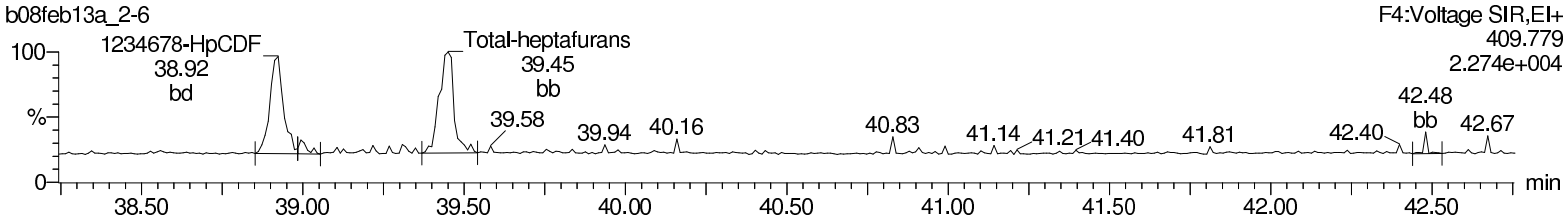
Last Altered: Monday, February 11, 2013 14:16:57 Eastern Standard Time
Printed: Monday, February 11, 2013 14:18:53 Eastern Standard Time

Name: b08feb13a_2-6, Date: 08-Feb-2013, Time: 18:47:01, ID: 4486002-1, Description: 22879, Job: HMS8290_1S, Task: HRP763_1, User: JTF

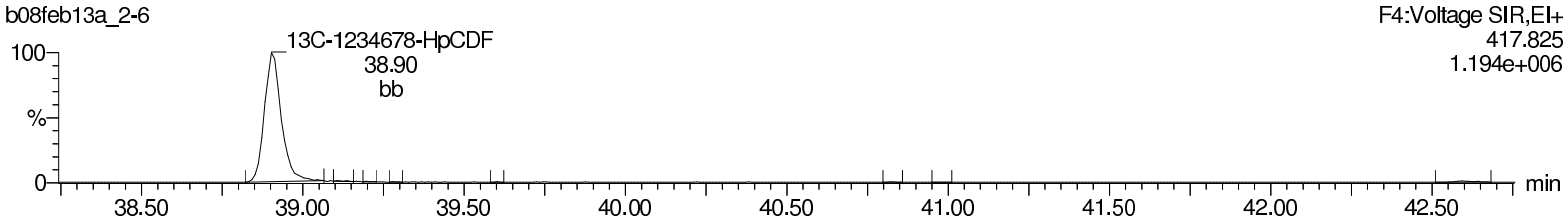
Total-heptafurans



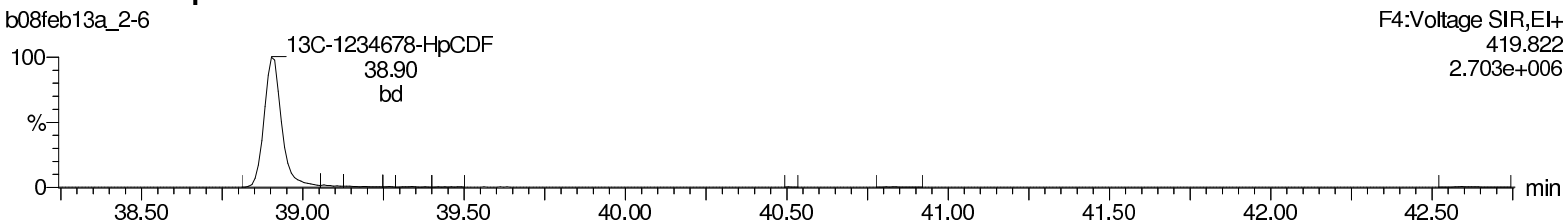
Total-heptafurans



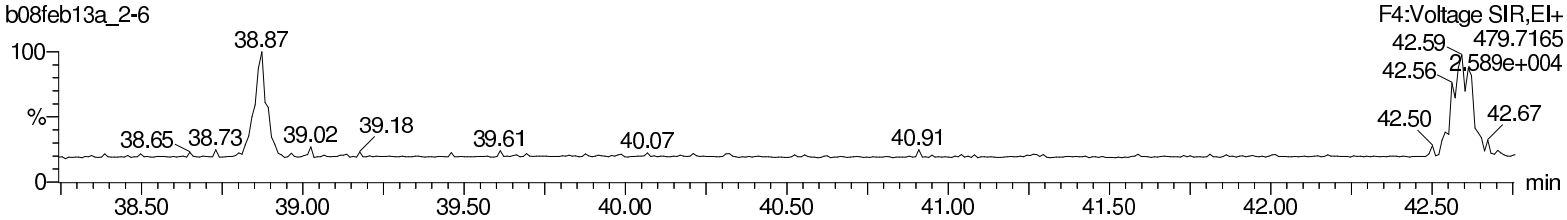
13C-1234678-HpCDF



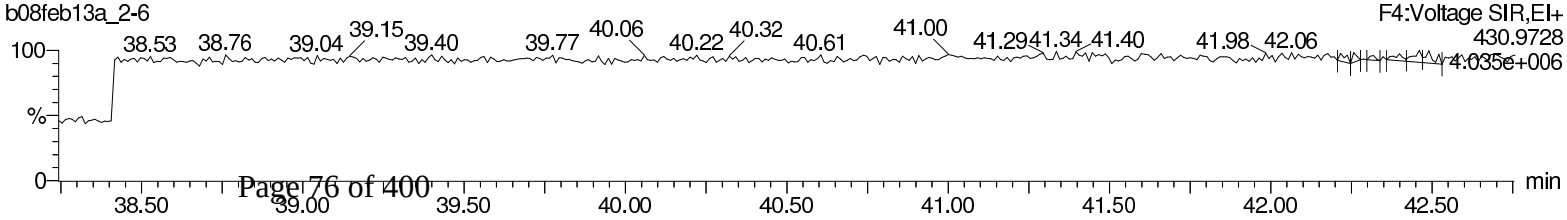
13C-1234678-HpCDF



NoDPE



Lock Mass F4



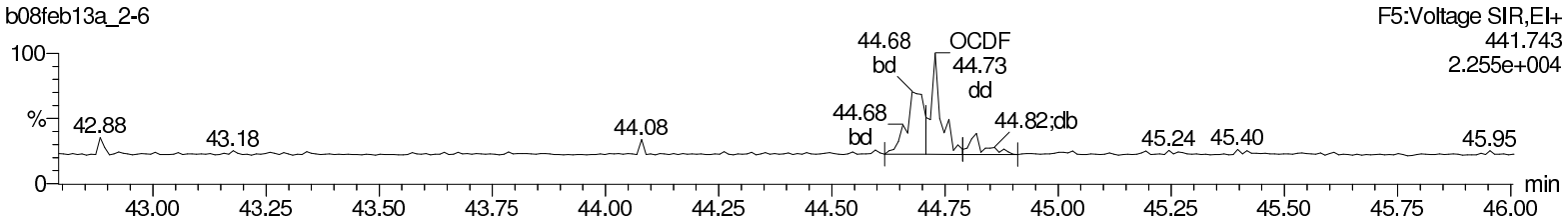
Quantify Sample Report **MassLynx 4.1**
Method 8290 Quantification Report

Dataset: C:\MassLynx\Default.pro\Sample Results\8290-b08feb13a_2.qld

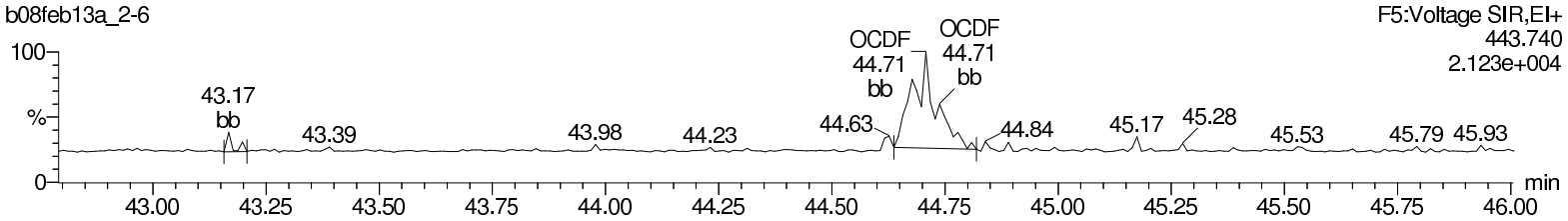
Last Altered: Monday, February 11, 2013 14:16:57 Eastern Standard Time
Printed: Monday, February 11, 2013 14:18:53 Eastern Standard Time

Name: b08feb13a_2-6, Date: 08-Feb-2013, Time: 18:47:01, ID: 4486002-1, Description: 22879, Job: HMS8290_1S, Task: HRP763_1, User: JTF

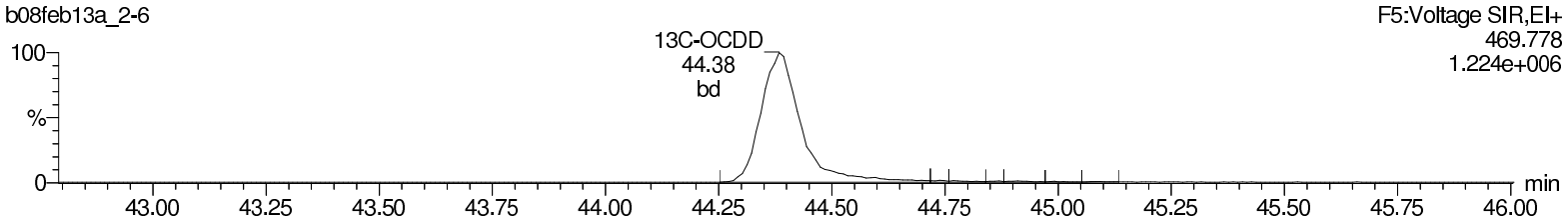
OCDF



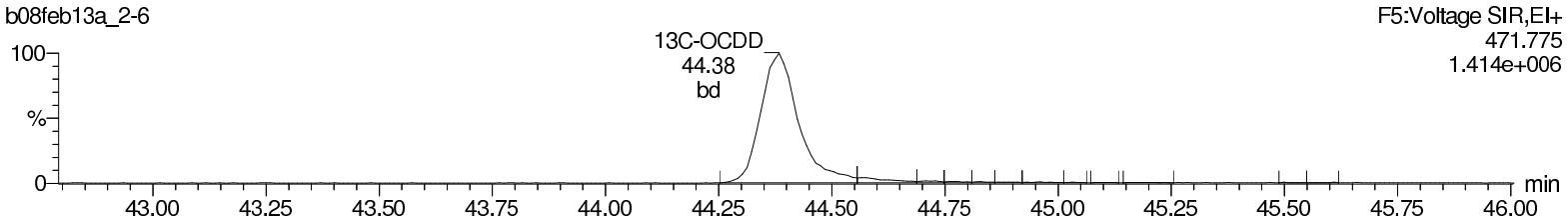
OCDF



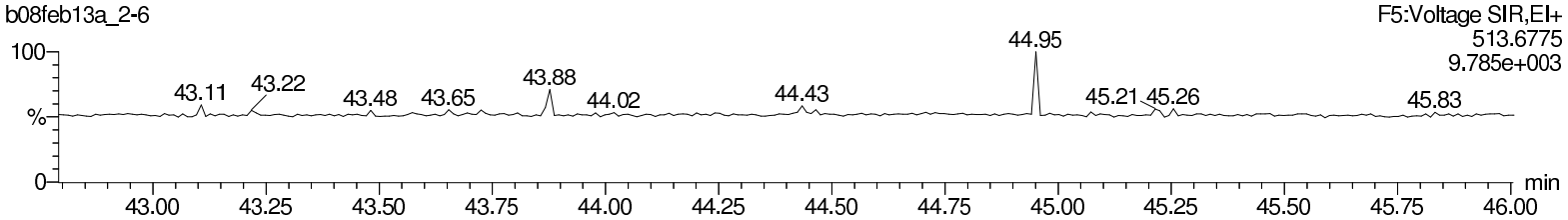
13C-OCDD



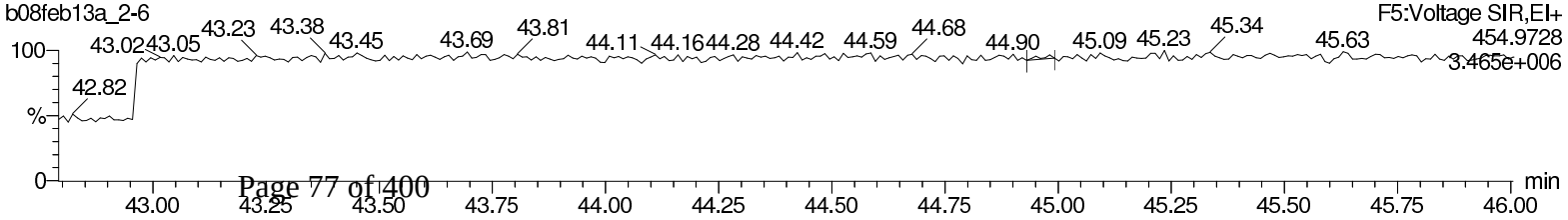
13C-OCDD



DeDPE



Lock Mass F5



Hi-Res Dioxins/Furans
Certificate of Analysis
Sample Summary

SDG Number:	**2013-505**	**Client:**	**LANL001**	**Project:**	**LANL00112**
Lab Sample ID:	**4486003**	**Date Collected:**	**01/31/2013 14:00**	**Matrix:**	**SOLID**
Client Sample:	**8290 Soil**	**Date Received:**	**02/05/2013 10:14**	**%Moisture:**	**40.4**
Client ID:	**CALA-13-28427**			**Prep Basis:**	**Dry Weight**
Batch ID:	**22879**	**Method:**	**SW846 8290A**		
Run Date:	**02/08/2013 19:35**	**Analyst:**	**JTF**	**Instrument:**	**HRP763**
Data File:	**b08feb13a_2-7**			**Dilution:**	**1**
Prep Batch:	**22876**	**Prep Method:**	**SW846 3540C**		
Prep Date:	**06-FEB-13**	**Aliquot:**	**10.51 g**		

CAS No.	Parmname	Qual	Result	EMPC	Units	EDL	PQL
1746-01-6	2,3,7,8-TCDD	U	.213		pg/g	0.213	1.60
40321-76-4	1,2,3,7,8-PeCDD	U	.798		pg/g	0.798	7.98
39227-28-6	1,2,3,4,7,8-HxCDD	U	.798		pg/g	0.798	7.98
57653-85-7	1,2,3,6,7,8-HxCDD	U	.798		pg/g	0.798	7.98
19408-74-3	1,2,3,7,8,9-HxCDD	U	.798		pg/g	0.798	7.98
35822-46-9	1,2,3,4,6,7,8-HpCDD		9.72		pg/g	0.798	7.98
3268-87-9	1,2,3,4,6,7,8,9-OCDD		107		pg/g	1.62	16.0
51207-31-9	2,3,7,8-TCDF	J	0.823		pg/g	0.393	1.60
57117-41-6	1,2,3,7,8-PeCDF	U	.798		pg/g	0.798	7.98
57117-31-4	2,3,4,7,8-PeCDF	U	.798		pg/g	0.798	7.98
70648-26-9	1,2,3,4,7,8-HxCDF	U	.798		pg/g	0.798	7.98
57117-44-9	1,2,3,6,7,8-HxCDF	U	.798		pg/g	0.798	7.98
60851-34-5	2,3,4,6,7,8-HxCDF	U	.798		pg/g	0.798	7.98
72918-21-9	1,2,3,7,8,9-HxCDF	U	.798		pg/g	0.798	7.98
67562-39-4	1,2,3,4,6,7,8-HpCDF	J	3.00		pg/g	0.798	7.98
55673-89-7	1,2,3,4,7,8,9-HpCDF	U	.798		pg/g	0.798	7.98
39001-02-0	1,2,3,4,6,7,8,9-OCDF	J	5.32		pg/g	1.60	16.0
41903-57-5	Total TCDDs		2.25		pg/g	0.213	1.60
36088-22-9	Total PeCDDs	U	.798		pg/g	0.798	7.98
34465-46-8	Total HxCDDs	J	2.39		pg/g	0.798	7.98
37871-00-4	Total HpCDDs		22.5		pg/g	0.798	7.98
30402-14-3	Total TCDFs		2.30	3.34	pg/g	0.393	1.60
30402-15-4	Total PeCDFs	U	.798		pg/g	0.798	7.98
55684-94-1	Total HxCDFs	J	1.39	2.31	pg/g	0.798	7.98
38998-75-3	Total HpCDFs	J	7.18		pg/g	0.798	7.98
3333-30-0	TEQ WHO2005 ND=0		0.243	0.243	pg/g		
3333-30-1	TEQ WHO2005 ND=0.5		1.16	1.16	pg/g		

Surrogate/Tracer recovery	Qual	Result	Nominal	Units	Recovery%	Acceptable Limits
13C-2,3,7,8-TCDD		264	319	pg/g	82.6	(40%-135%)
13C-1,2,3,7,8-PeCDD		265	319	pg/g	83.0	(40%-135%)
13C-1,2,3,6,7,8-HxCDD		229	319	pg/g	71.7	(40%-135%)
13C-1,2,3,4,6,7,8-HpCDD		295	319	pg/g	92.3	(40%-135%)
13C-OCDD		497	638	pg/g	77.9	(40%-135%)
13C-2,3,7,8-TCDF		244	319	pg/g	76.5	(40%-135%)
13C-1,2,3,7,8-PeCDF		286	319	pg/g	89.5	(40%-135%)
13C-1,2,3,6,7,8-HxCDF		275	319	pg/g	86.2	(40%-135%)
13C-1,2,3,4,6,7,8-HpCDF		296	319	pg/g	92.8	(40%-135%)

Comments:

J Value is estimated

K Estimated Maximum Possible Concentration

U Analyte was analyzed for , but not detected above the specified detection limit.

Quantify Sample Summary Report **MassLynx 4.1**
Method 8290 Quantification Report

Dataset: C:\MassLynx\Default.pro\Sample Results\8290-b08feb13a_2.qld

Last Altered: Tuesday, February 12, 2013 10:21:11 Eastern Standard Time
Printed: Tuesday, February 12, 2013 10:23:14 Eastern Standard Time

Method: Untitled 20 Dec 2012 07:43:23
Calibration: C:\MassLynx\DEFAULT.PRO\CurveDB\8290-b30nov12a.cdb 03 Dec 2012 09:49:08

Name: b08feb13a_2-7, Date: 08-Feb-2013, Time: 19:35:02, ID: 4486003-1, Description: 22879, Job: HMS8290_1S, Task: HRP763_1, User: JTF

	Name	Ion1Area	Ion2Area	Response	RT	RRT	RA	Fail?	pg/uL	EDL	Height1	Noise1	S/N1	Height2	Noise2	S/N2	M
1	2378-TCDD							NO		0.0666		806			775		
2	12378-PeCDD	4.36e1	3.63e1	7.99e1	34.20	1.001	1.20	YES	0.030	0.0558	1.93e3	831	2.3	1.58e3	572	2.8	MM
3	123478-HxCDD	7.13e1	4.77e1	1.19e2	36.79	0.998	1.49	YES	0.059	0.176	2.07e3	1407	1.5	1.77e3	1327	1.3	bd
4	123678-HxCDD	1.58e2	1.39e2	2.97e2	36.90	1.001	1.14	NO	0.133	0.159	4.93e3	1407	3.5	3.17e3	1327	2.4	db
5	123789-HxCDD	1.70e2	9.45e1	2.65e2	37.13	1.007	1.80	YES	0.129	0.173	2.96e3	1407	2.1	2.24e3	1327	1.7	bb
6	1234678-HpCDD	3.54e3	3.38e3	6.92e3	40.19	1.000	1.05	NO	3.045	0.164	5.60e4	1124	49.9	5.70e4	905	63.0	bb
7	OCDD	2.53e4	2.87e4	5.40e4	44.40	1.000	0.88	NO	33.405	0.508	2.83e5	1573	179.9	2.98e5	1705	174.8	bd
8	2378-TCDF	4.93e2	7.36e2	1.23e3	30.62	1.001	0.67	NO	0.258	0.123	7.83e3	1584	4.9	8.74e3	1361	6.4	MM
9	12378-PeCDF	1.78e2	1.41e2	3.19e2	33.37	1.000	1.27	YES	0.069	0.0877	6.39e3	1952	3.3	4.52e3	1842	2.5	MM
10	23478-PeCDF	1.08e2	1.37e2	2.45e2	34.01	1.019	0.79	YES	0.051	0.0845	2.27e3	1952	1.2	3.87e3	1842	2.1	MM
11	123478-HxCDF	3.38e2	2.40e2	5.77e2	36.07	0.997	1.41	NO	0.173	0.131	8.91e3	1443	6.2	6.47e3	1950	3.3	MM
12	123678-HxCDF	1.42e2	1.63e2	3.05e2	36.21	1.001	0.87	YES	0.080	0.115	2.90e3	1443	2.0	6.20e3	1950	3.2	MM
13	234678-HxCDF							NO		0.125		1443			1950		
14	123789-HxCDF							NO		0.148		1443			1950		
15	1234678-HpCDF	1.55e3	1.58e3	3.13e3	38.92	1.000	0.98	NO	0.941	0.0522	2.93e4	526	55.7	3.33e4	552	60.4	bd
16	1234789-HpCDF							NO		0.0681		526			552		
17	OCDF	1.45e3	1.68e3	3.12e3	44.70	1.007	0.86	NO	1.666	0.185	1.68e4	816	20.6	1.90e4	567	33.5	MM
18	13C-2378-TCDD	1.47e5	1.90e5	3.37e5	31.29	1.017	0.77	NO	82.614	0.196	2.72e6	2452	1108.0	3.44e6	2117	1623.5	bb
19	13C-12378-PeCDD	1.71e5	1.08e5	2.79e5	34.18	1.111	1.58	NO	83.039	0.140	3.98e6	1489	2674.6	2.49e6	1203	2072.4	bb
20	13C-123678-HxCDD	1.12e5	9.47e4	2.07e5	36.88	0.993	1.19	NO	71.730	0.280	2.16e6	2395	902.9	1.79e6	3268	546.6	bb
21	13C-1234678-HpCDD	1.06e5	9.44e4	2.00e5	40.17	1.082	1.12	NO	92.347	0.268	1.44e6	2392	603.8	1.31e6	1683	779.6	bd
22	13C-OCDD	1.29e5	1.48e5	2.76e5	44.38	1.196	0.87	NO	155.710	0.455	1.29e6	2696	477.0	1.44e6	2961	486.3	bd
23	13C-2378-TCDF	2.15e5	2.48e5	4.62e5	30.59	0.994	0.87	NO	76.504	0.0815	2.70e6	1682	1604.1	3.15e6	1139	2763.9	bb
24	13C-12378-PeCDF	3.02e5	1.85e5	4.87e5	33.37	1.084	1.63	NO	89.494	0.198	7.10e6	3743	1896.4	4.25e6	2415	1757.7	bd
25	13C-123678-HxCDF	1.26e5	2.41e5	3.67e5	36.17	0.974	0.52	NO	86.198	0.169	2.44e6	2545	957.0	4.62e6	2500	1846.5	bb
26	13C-1234678-HpCDF	8.40e4	1.87e5	2.71e5	38.91	1.048	0.45	NO	92.822	0.195	1.30e6	1896	686.9	3.09e6	2104	1468.5	bd
27	13C-1234-TCDD	1.83e5	2.29e5	4.12e5	30.78	0.000	0.80	NO	100.000	0.194	2.62e6	2452	1068.3	3.33e6	2117	1571.3	bb
28	13C-123789-HxCDD	1.41e5	1.19e5	2.60e5	37.12	0.000	1.19	NO	100.000	0.312	2.47e6	2395	1029.7	2.15e6	3268	657.9	bd
29	37Cl-2378-TCDD (SS)									0.0314		865					
30	13C-23478-PeCDF (SS)							NO		0.134		3743			2415		

Quantify Totals Report MassLynx 4.1
Method 8290 Quantification Report

Dataset: C:\MassLynx\Default.pro\Sample Results\8290-b08feb13a_2.qld

Last Altered: Tuesday, February 12, 2013 10:21:11 Eastern Standard Time
Printed: Tuesday, February 12, 2013 10:23:14 Eastern Standard Time

Method: Untitled 20 Dec 2012 07:43:23
Calibration: C:\MassLynx\DEFAULT.PRO\CurveDB\8290-b30nov12a.cdb 03 Dec 2012 09:49:08

Name: b08feb13a_2-7, Date: 08-Feb-2013, Time: 19:35:02, ID: 4486003-1, Description: 22879, Job: HMS8290_1S, Task: HRP763_1, User: JTF

TD

	Name	Ion1Area	Ion2Area	Response	RT	RA	Fail?	pg/uL	EDL	Height1	Noise1	S/N1	Height2	Noise2	S/N2	M
1	Total-tetradioxins	6.17e1	8.23e1	1.44e2	30.80	0.75	NO	0.045	0.0666	1.67e3	806	2.1	1.16e3	775	1.5	bb
2	Total-tetradioxins	3.51e2	4.15e2	7.66e2	28.30	0.85	NO	0.239	0.0666	5.90e3	806	7.3	6.47e3	775	8.3	bb
3	Total-tetradioxins	5.95e2	9.05e2	1.50e3	27.98	0.66	NO	0.467	0.0666	6.59e3	806	8.2	1.13e4	775	14.6	bb

PD

	Name	Ion1Area	Ion2Area	Response	RT	RA	Fail?	pg/uL	EDL	Height1	Noise1	S/N1	Height2	Noise2	S/N2	M
1	Total-pentadioxins	6.54e1	9.81e1	1.63e2	32.86	0.67	YES	0.061	0.0558	2.67e3	831	3.2	2.21e3	572	3.9	db
2	Total-pentadioxins	5.46e1	6.75e1	1.22e2	33.39	0.81	YES	0.045	0.0558	1.05e3	831	1.3	2.68e3	572	4.7	MM
3	12378-PeCDD	4.36e1	3.63e1	7.99e1	34.20	1.20	YES	0.030	0.0558	1.93e3	831	2.3	1.58e3	572	2.8	MM

HD

	Name	Ion1Area	Ion2Area	Response	RT	RA	Fail?	pg/uL	EDL	Height1	Noise1	S/N1	Height2	Noise2	S/N2	M
1	Total-hexadioxins	4.57e3	1.40e4	1.86e4	37.58	0.33	YES	8.837	0.169	1.01e5	1407	71.5	2.84e5	1327	213.9	bb
2	123789-HxCDD	1.70e2	9.45e1	2.65e2	37.13	1.80	YES	0.129	0.173	2.96e3	1407	2.1	2.24e3	1327	1.7	bb
3	123678-HxCDD	1.58e2	1.39e2	2.97e2	36.90	1.14	NO	0.133	0.159	4.93e3	1407	3.5	3.17e3	1327	2.4	db
4	123478-HxCDD	7.13e1	4.77e1	1.19e2	36.79	1.49	YES	0.059	0.176	2.07e3	1407	1.5	1.77e3	1327	1.3	bd
5	Total-hexadioxins	4.87e2	3.44e2	8.30e2	36.22	1.42	NO	0.396	0.169	1.03e4	1407	7.3	8.69e3	1327	6.6	bd
6	Total-hexadioxins	4.17e2	3.21e2	7.38e2	35.56	1.30	NO	0.352	0.169	7.98e3	1407	5.7	1.25e4	1327	9.4	bb

HPD

	Name	Ion1Area	Ion2Area	Response	RT	RA	Fail?	pg/uL	EDL	Height1	Noise1	S/N1	Height2	Noise2	S/N2	M
1	1234678-HpCDD	3.54e3	3.38e3	6.92e3	40.19	1.05	NO	3.045	0.164	5.60e4	1124	49.9	5.70e4	905	63.0	bb
2	Total-heptadioxins	4.60e3	4.53e3	9.13e3	39.25	1.01	NO	4.015	0.164	7.13e4	1124	63.4	7.31e4	905	80.8	bb

Quantify Totals Report MassLynx 4.1
Method 8290 Quantification Report

Dataset: C:\MassLynx\Default.pro\Sample Results\8290-b08feb13a_2.qld

Last Altered: Tuesday, February 12, 2013 10:21:11 Eastern Standard Time
Printed: Tuesday, February 12, 2013 10:23:14 Eastern Standard Time

Name: b08feb13a_2-7, Date: 08-Feb-2013, Time: 19:35:02, ID: 4486003-1, Description: 22879, Job: HMS8290_1S, Task: HRP763_1, User: JTF

TF

	Name	Ion1Area	Ion2Area	Response	RT	RA	Fail?	pg/uL	EDL	Height1	Noise1	S/N1	Height2	Noise2	S/N2	M
1	Total-tetrafurans	4.38e2	6.56e2	1.09e3	27.99	0.67	NO	0.230	0.123	6.32e3	1584	4.0	1.15e4	1361	8.5	MM
2	Total-tetrafurans	5.10e2	5.98e2	1.11e3	27.23	0.85	NO	0.233	0.123	8.26e3	1584	5.2	7.38e3	1361	5.4	MM
3	Total-tetrafurans	3.16e2	3.02e2	6.18e2	31.96	1.04	YES	0.130	0.123	8.44e3	1584	5.3	6.63e3	1361	4.9	MM
4	Total-tetrafurans	5.42e1	6.43e1	1.18e2	31.59	0.84	NO	0.025	0.123	1.37e3	1584	0.9	1.72e3	1361	1.3	bb
5	Total-tetrafurans	9.73e1	1.36e2	2.33e2	30.93	0.72	NO	0.049	0.123	2.52e3	1584	1.6	3.11e3	1361	2.3	bb
6	2378-TCDF	4.93e2	7.36e2	1.23e3	30.62	0.67	NO	0.258	0.123	7.83e3	1584	4.9	8.74e3	1361	6.4	MM
7	Total-tetrafurans	8.46e1	1.33e2	2.17e2	30.26	0.64	YES	0.046	0.123	1.27e3	1584	0.8	2.84e3	1361	2.1	bb
8	Total-tetrafurans	6.99e1	8.59e1	1.56e2	29.96	0.81	NO	0.033	0.123	3.74e3	1584	2.4	2.25e3	1361	1.7	bb
9	Total-tetrafurans	2.59e2	6.73e2	9.32e2	29.70	0.39	YES	0.196	0.123	4.34e3	1584	2.7	1.08e4	1361	7.9	db
10	Total-tetrafurans	1.67e2	1.53e2	3.21e2	29.19	1.09	YES	0.067	0.123	3.81e3	1584	2.4	3.49e3	1361	2.6	bb
11	Total-tetrafurans	7.66e1	5.84e1	1.35e2	28.57	1.31	YES	0.028	0.123	1.69e3	1584	1.1	1.17e3	1361	0.9	bb
12	Total-tetrafurans	6.39e1	6.44e1	1.28e2	28.32	0.99	YES	0.027	0.123	2.51e3	1584	1.6	1.41e3	1361	1.0	bb

PF1

	Name	Ion1Area	Ion2Area	Response	RT	RA	Fail?	pg/uL	EDL	Height1	Noise1	S/N1	Height2	Noise2	S/N2	M
1	Total-pentafurans (F1)	5.85e2	4.29e2	1.01e3	31.94	1.37	NO	0.216	0.0341	1.36e4	563	24.2	9.99e3	940	10.6	MM

PF

	Name	Ion1Area	Ion2Area	Response	RT	RA	Fail?	pg/uL	EDL	Height1	Noise1	S/N1	Height2	Noise2	S/N2	M
1	Total-pentafurans	8.62e1	5.03e1	1.36e2	33.92	1.71	NO	0.029	0.0861	2.66e3	1952	1.4	2.88e3	1842	1.6	bb
2	Total-pentafurans	9.13e1	5.24e1	1.44e2	33.55	1.74	NO	0.031	0.0861	3.05e3	1952	1.6	1.61e3	1842	0.9	bd
3	12378-PeCDF	1.78e2	1.41e2	3.19e2	33.37	1.27	YES	0.069	0.0877	6.39e3	1952	3.3	4.52e3	1842	2.5	MM
4	Total-pentafurans	1.39e2	9.84e1	2.37e2	33.15	1.41	NO	0.051	0.0861	4.64e3	1952	2.4	3.48e3	1842	1.9	MM
5	Total-pentafurans	4.81e2	2.95e2	7.76e2	32.81	1.63	NO	0.166	0.0861	7.96e3	1952	4.1	8.79e3	1842	4.8	db
6	Total-pentafurans	1.23e2	8.76e1	2.11e2	32.72	1.41	NO	0.045	0.0861	4.40e3	1952	2.3	4.09e3	1842	2.2	bd
7	Total-pentafurans	1.70e2	1.42e2	3.12e2	33.34	1.20	YES	0.067	0.0861	5.80e3	1952	3.0	7.45e3	1842	4.0	MM
8	23478-PeCDF	1.08e2	1.37e2	2.45e2	34.01	0.79	YES	0.051	0.0845	2.27e3	1952	1.2	3.87e3	1842	2.1	MM

Quantify Totals Report MassLynx 4.1
Method 8290 Quantification Report

Dataset: C:\MassLynx\Default.pro\Sample Results\8290-b08feb13a_2.qld

Last Altered: Tuesday, February 12, 2013 10:21:11 Eastern Standard Time
Printed: Tuesday, February 12, 2013 10:23:14 Eastern Standard Time

Name: b08feb13a_2-7, Date: 08-Feb-2013, Time: 19:35:02, ID: 4486003-1, Description: 22879, Job: HMS8290_1S, Task: HRP763_1, User: JTF

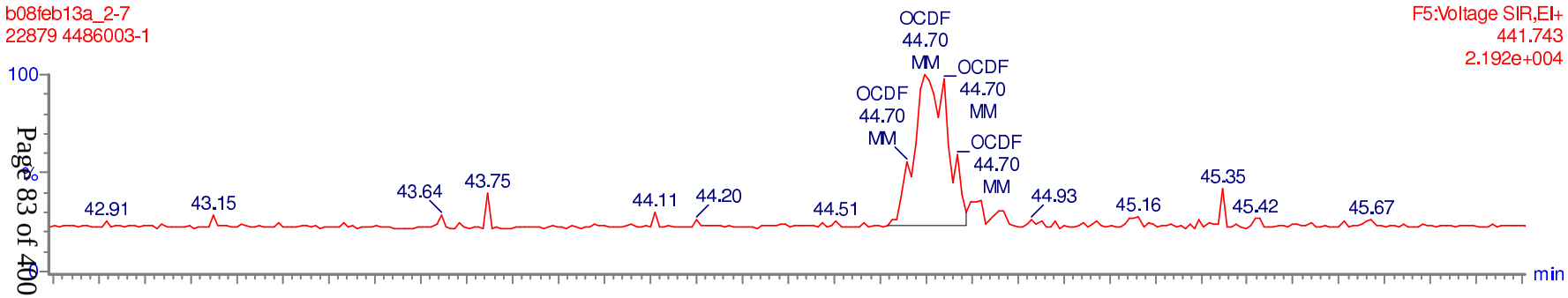
HF

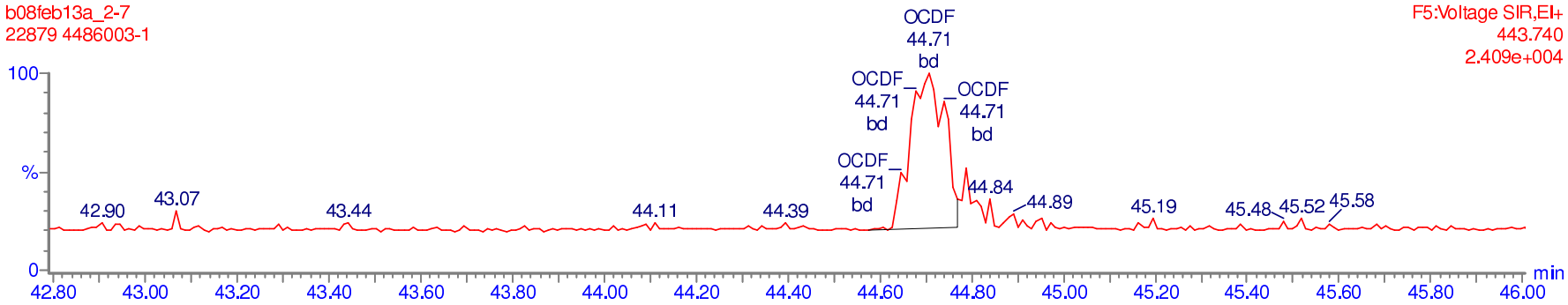
	Name	Ion1Area	Ion2Area	Response	RT	RA	Fail?	pg/uL	EDL	Height1	Noise1	S/N1	Height2	Noise2	S/N2	M
1	Total-hexafurans	4.90e2	4.94e2	9.84e2	35.70	0.99	YES	0.288	0.129	1.29e4	1443	8.9	1.33e4	1950	6.8	MM
2	Total-hexafurans	7.88e2	7.00e2	1.49e3	35.26	1.13	NO	0.435	0.129	2.03e4	1443	14.1	1.91e4	1950	9.8	MM
3	Total-hexafurans	2.10e2	1.49e2	3.59e2	35.13	1.40	NO	0.105	0.129	4.55e3	1443	3.2	5.07e3	1950	2.6	bb
4	Total-hexafurans	1.19e2	8.23e1	2.02e2	36.70	1.45	YES	0.059	0.129	2.17e3	1443	1.5	2.28e3	1950	1.2	bb
5	123678-HxCDF	1.42e2	1.63e2	3.05e2	36.21	0.87	YES	0.080	0.115	2.90e3	1443	2.0	6.20e3	1950	3.2	MM
6	123478-HxCDF	3.38e2	2.40e2	5.77e2	36.07	1.41	NO	0.173	0.131	8.91e3	1443	6.2	6.47e3	1950	3.3	MM

HPF

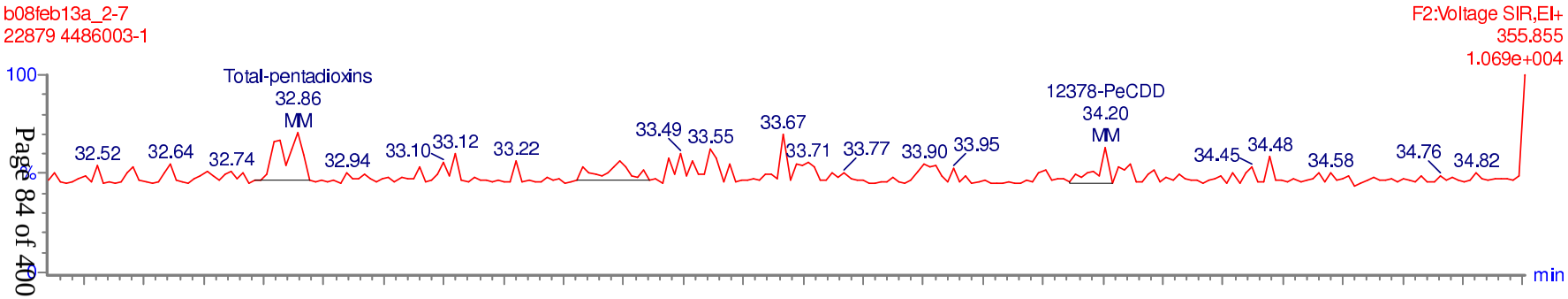
	Name	Ion1Area	Ion2Area	Response	RT	RA	Fail?	pg/uL	EDL	Height1	Noise1	S/N1	Height2	Noise2	S/N2	M
1	Total-heptafurans	2.02e3	1.84e3	3.85e3	39.46	1.10	NO	1.310	0.0591	4.05e4	526	76.9	3.46e4	552	62.6	bb
2	1234678-HpCDF	1.55e3	1.58e3	3.13e3	38.92	0.98	NO	0.941	0.0522	2.93e4	526	55.7	3.33e4	552	60.4	bd

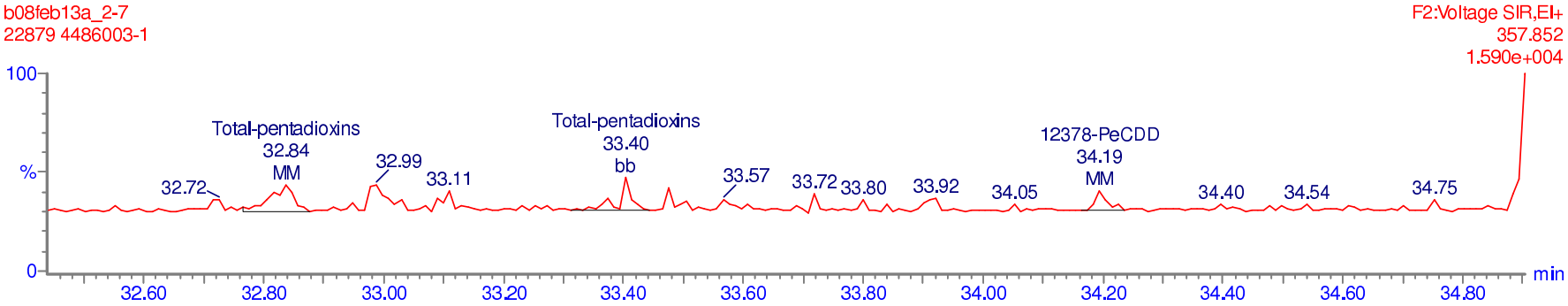
MANUAL INTEGRATION
METHOD 8290



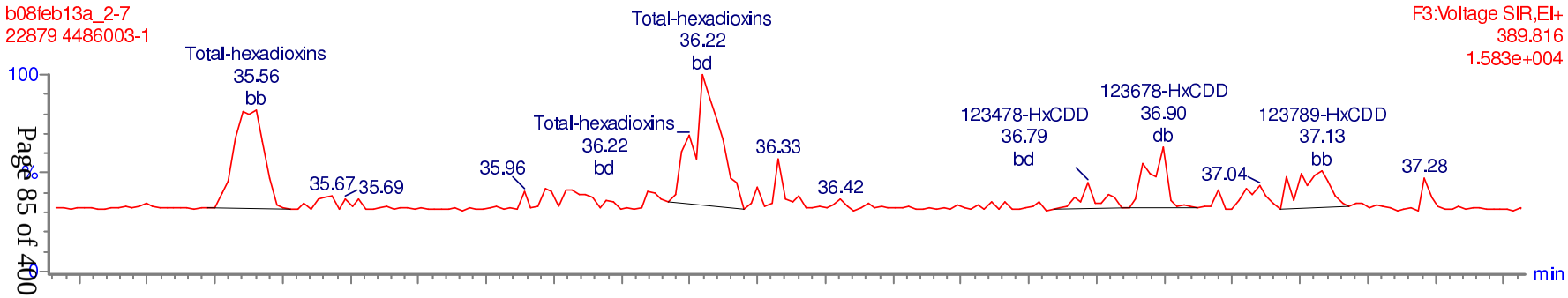


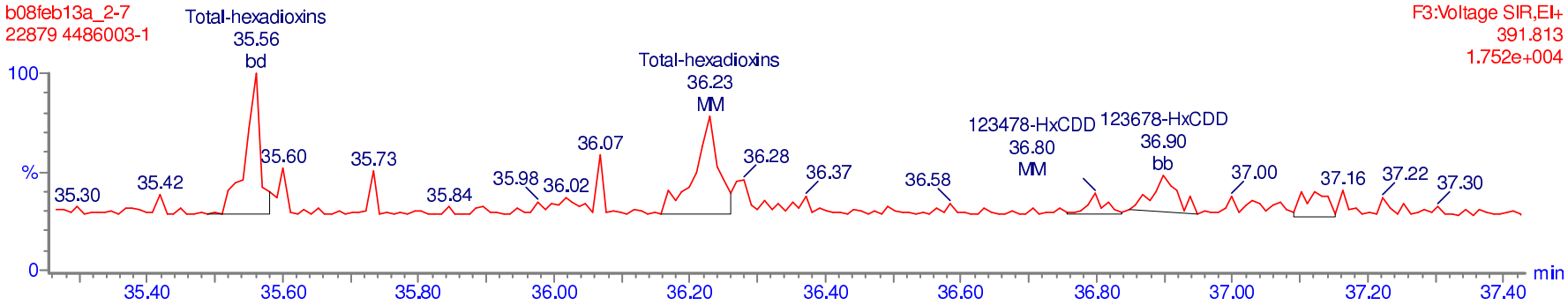
MANUAL INTEGRATION
METHOD 8290



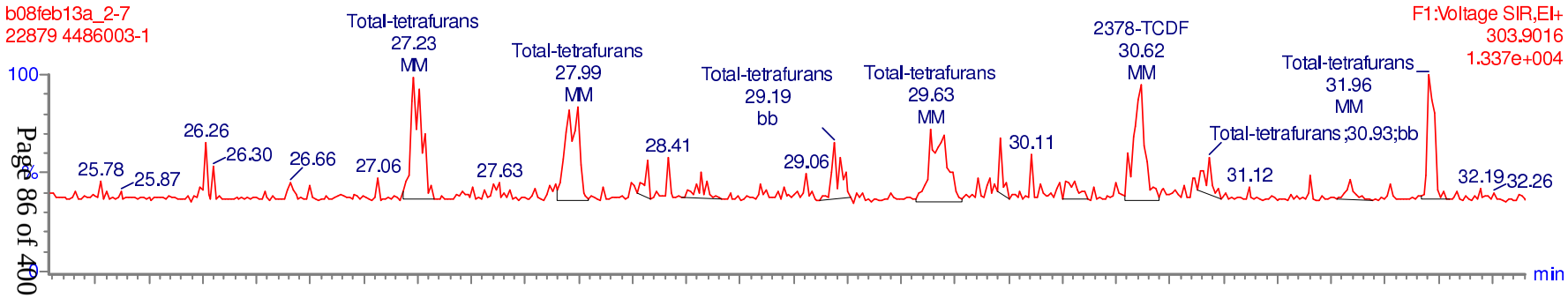


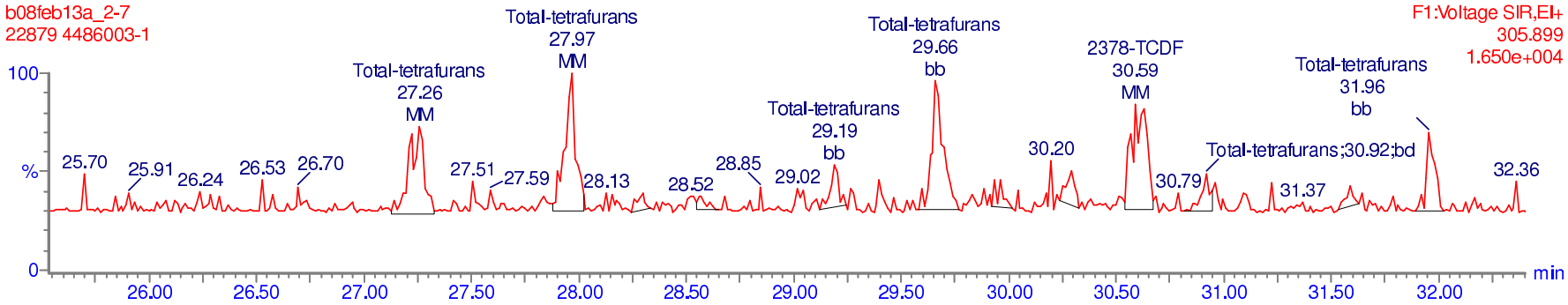
MANUAL INTEGRATION
METHOD 8290



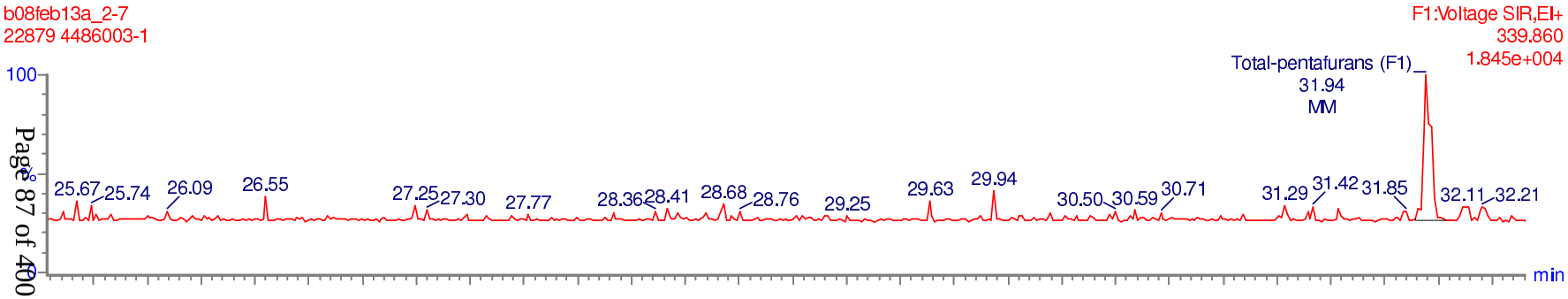


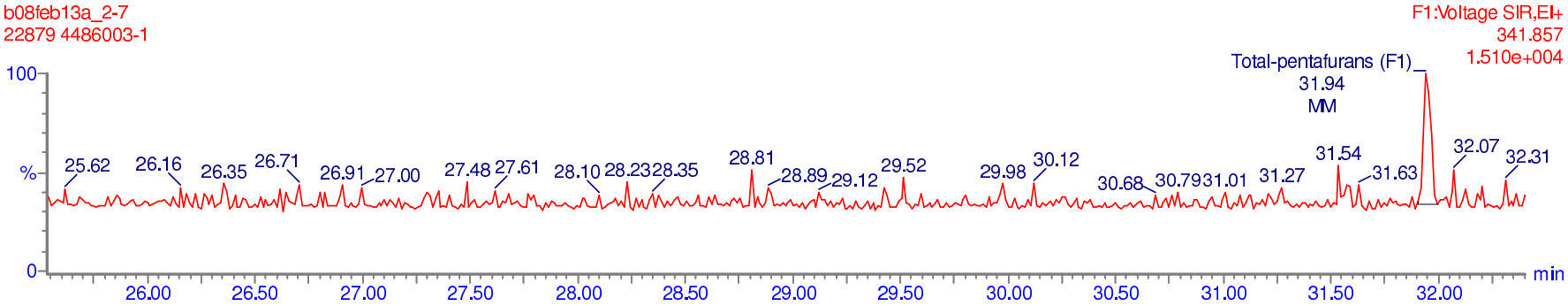
MANUAL INTEGRATION
METHOD 8290



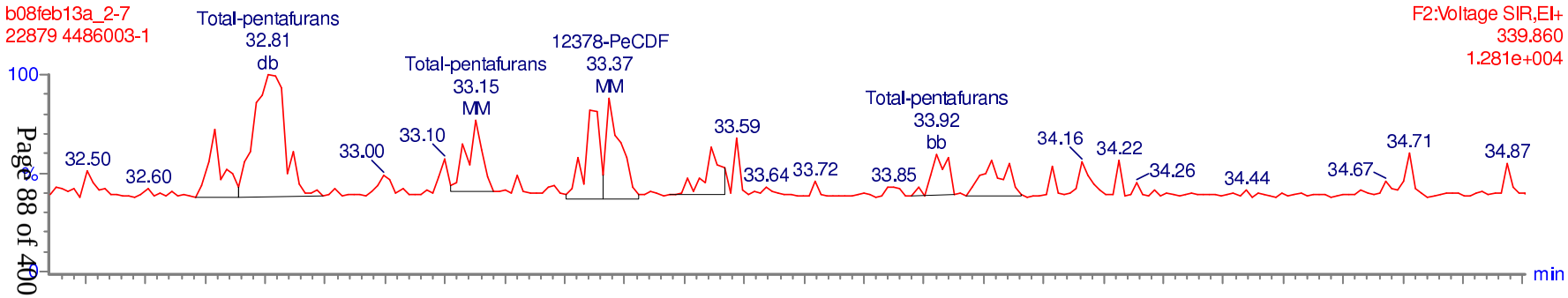


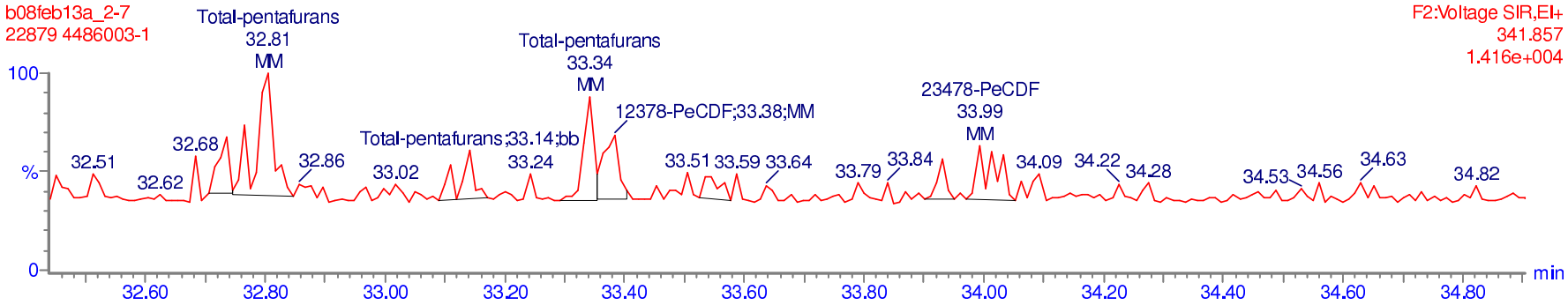
MANUAL INTEGRATION
METHOD 8290



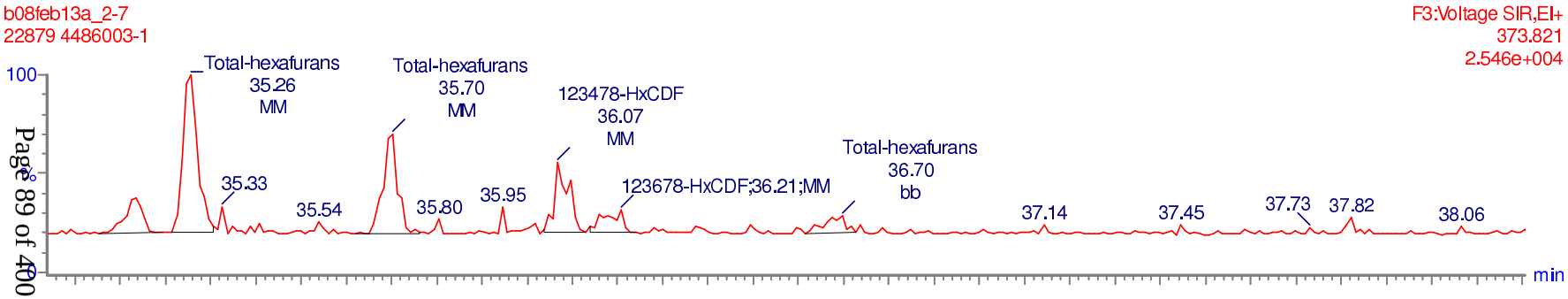


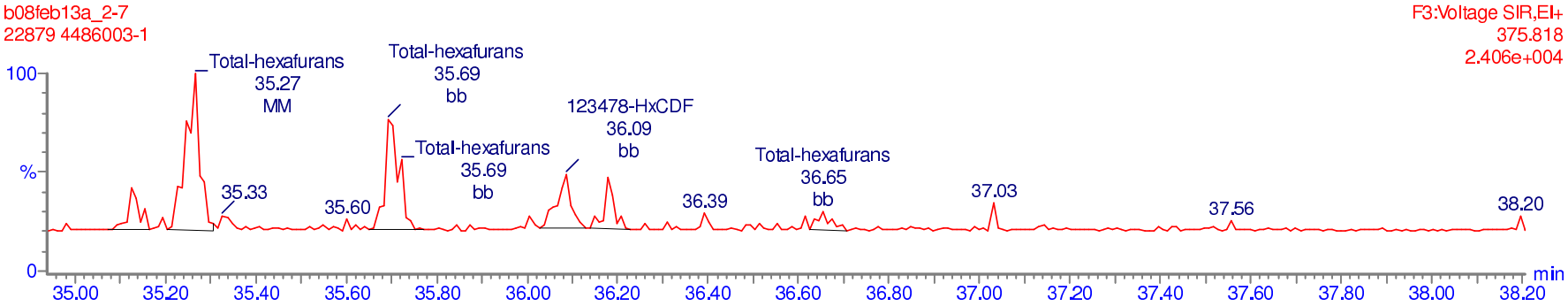
MANUAL INTEGRATION
METHOD 8290



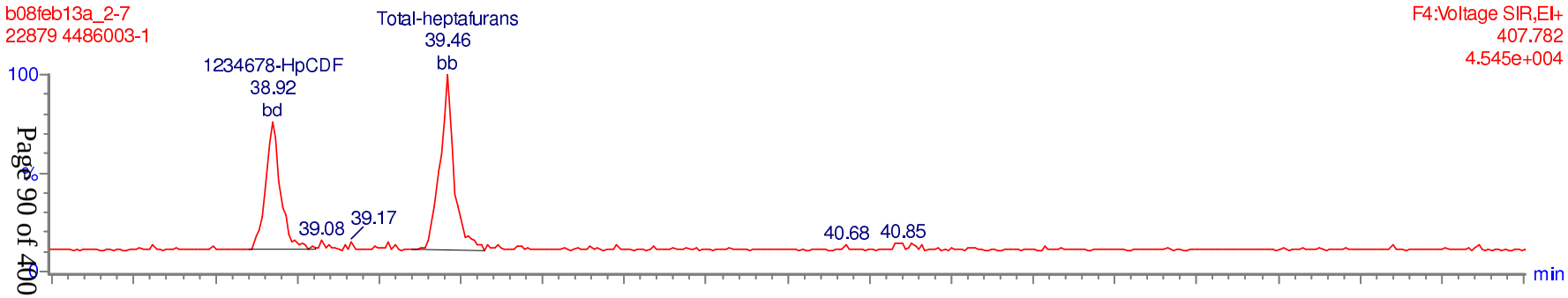


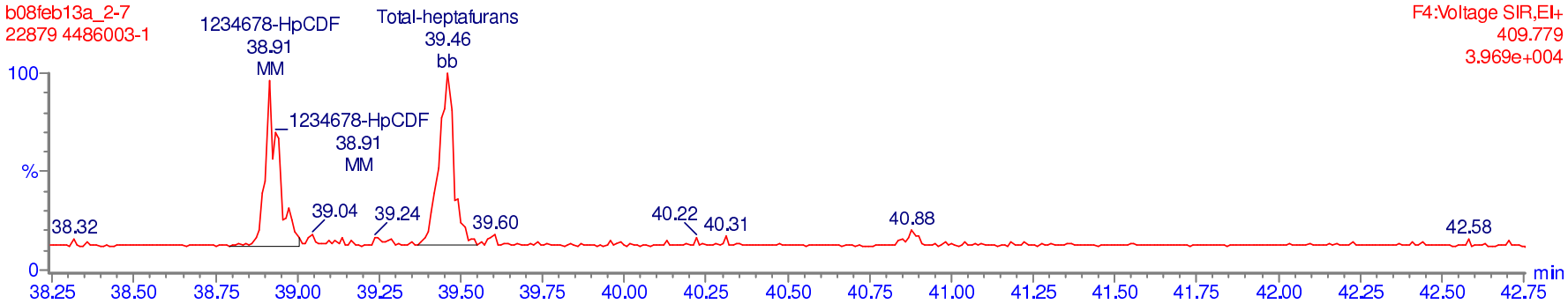
MANUAL INTEGRATION
METHOD 8290





MANUAL INTEGRATION
METHOD 8290





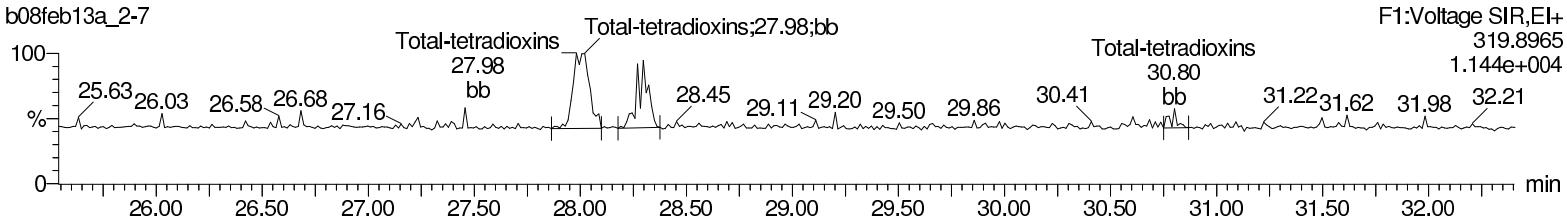
Quantify Sample Report **MassLynx 4.1**
Method 8290 Quantification Report

Dataset: C:\MassLynx\Default.pro\Sample Results\8290-b08feb13a_2.qld

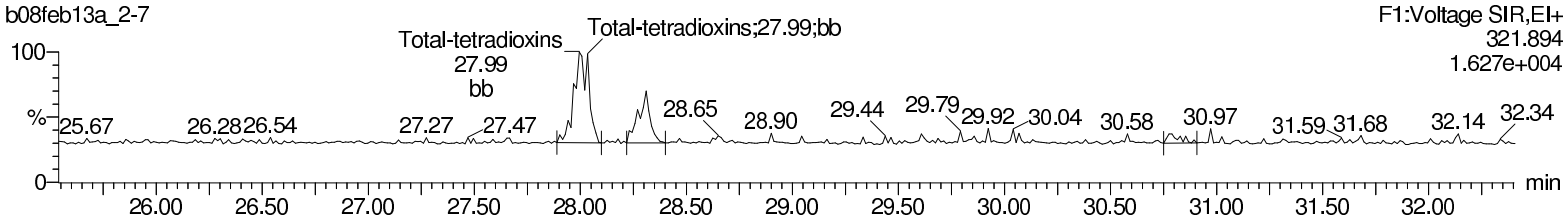
Last Altered: Monday, February 11, 2013 14:16:57 Eastern Standard Time
Printed: Monday, February 11, 2013 14:18:53 Eastern Standard Time

Name: b08feb13a_2-7, Date: 08-Feb-2013, Time: 19:35:02, ID: 4486003-1, Description: 22879, Job: HMS8290_1S, Task: HRP763_1, User: JTF

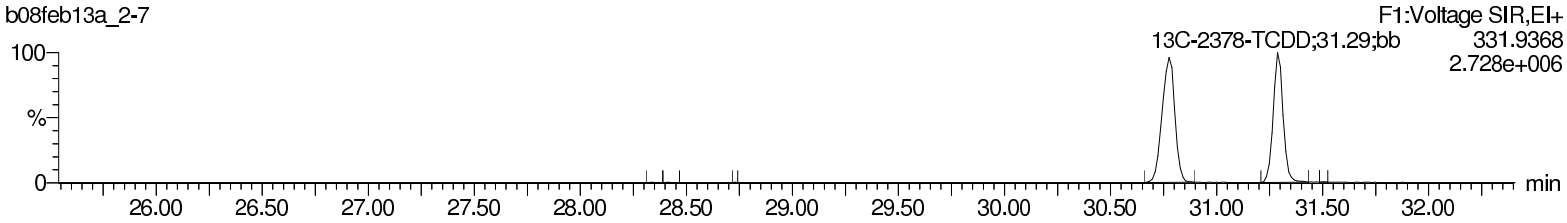
Total-tetradioxins



Total-tetradioxins



13C-2378-TCDD



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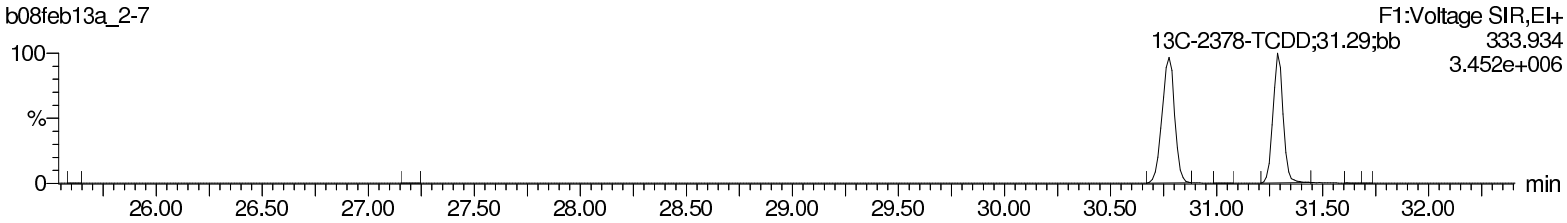
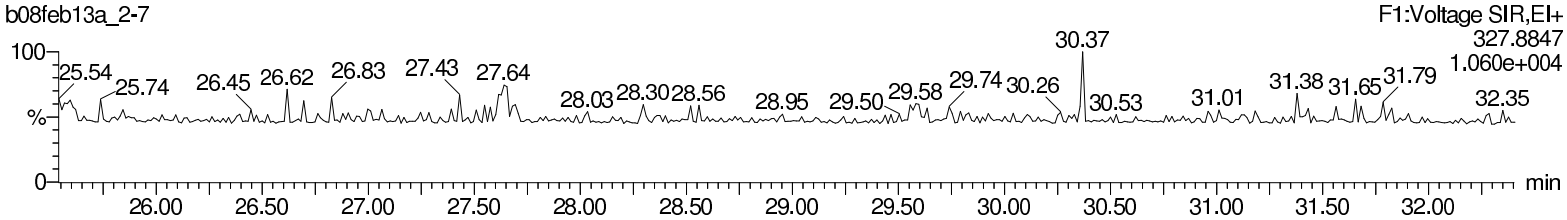
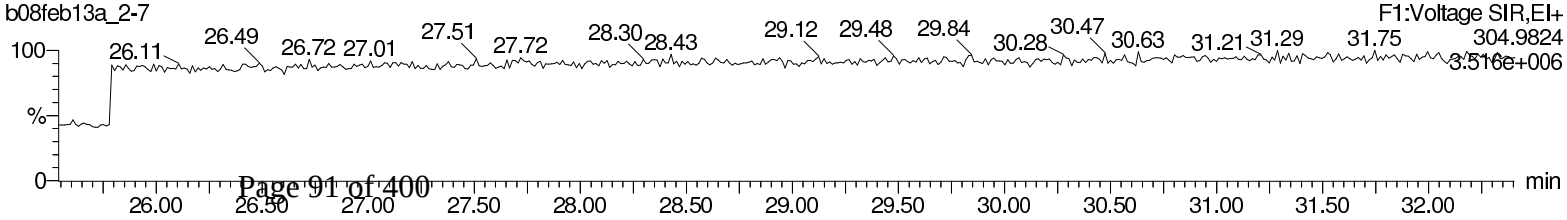


37Cl-2378-TCDD (SS)



Lock Mass F1



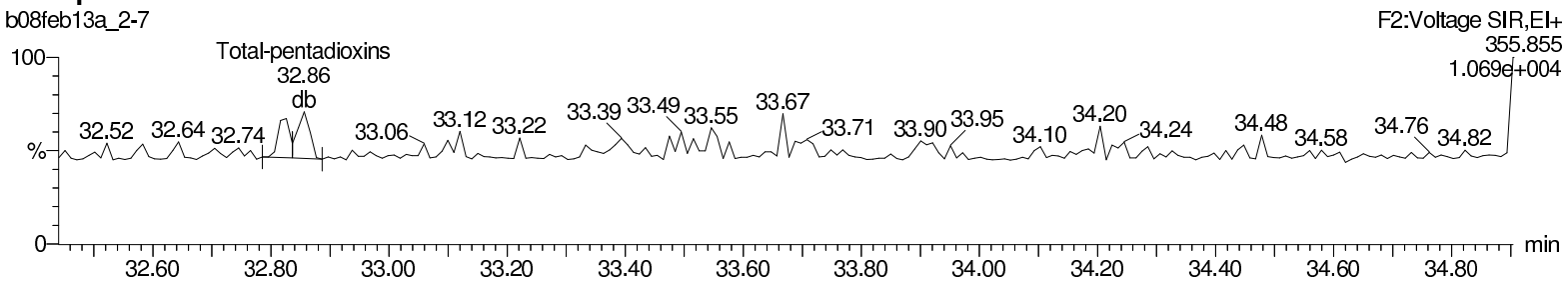
Quantify Sample Report **MassLynx 4.1**
Method 8290 Quantification Report

Dataset: C:\MassLynx\Default.pro\Sample Results\8290-b08feb13a_2.qld

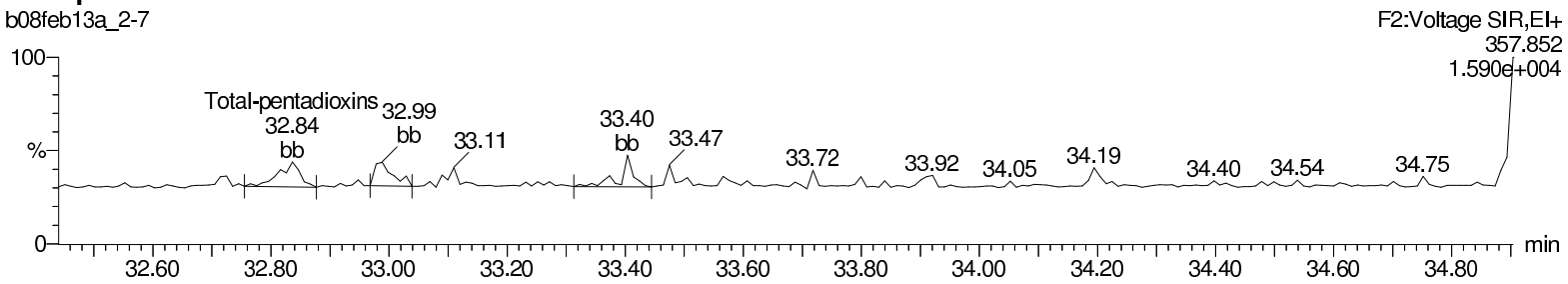
Last Altered: Monday, February 11, 2013 14:16:57 Eastern Standard Time
Printed: Monday, February 11, 2013 14:18:53 Eastern Standard Time

Name: b08feb13a_2-7, Date: 08-Feb-2013, Time: 19:35:02, ID: 4486003-1, Description: 22879, Job: HMS8290_1S, Task: HRP763_1, User: JTF

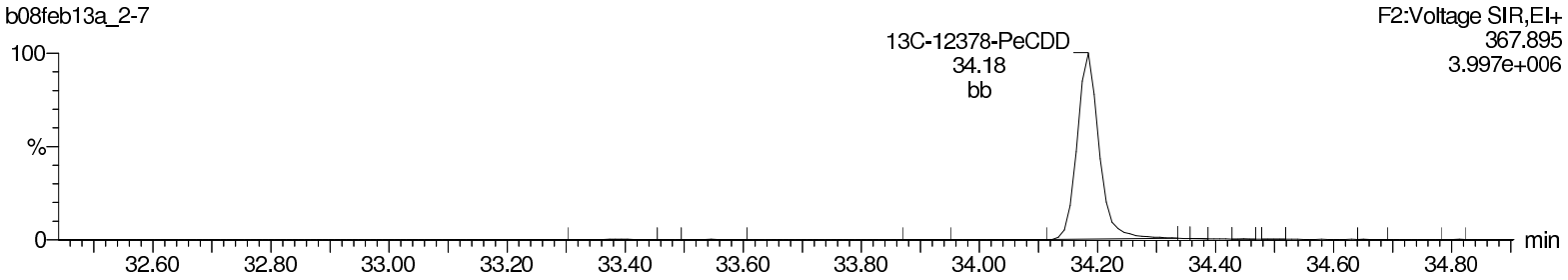
Total-pentadioxins



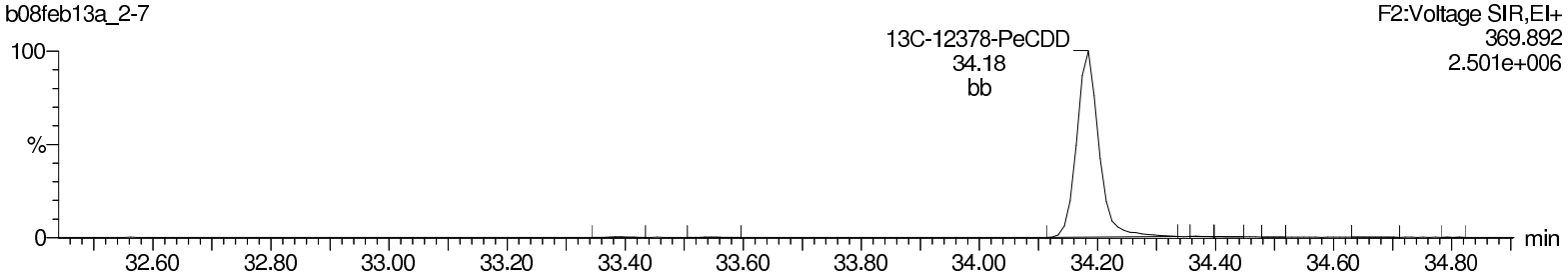
Total-pentadioxins



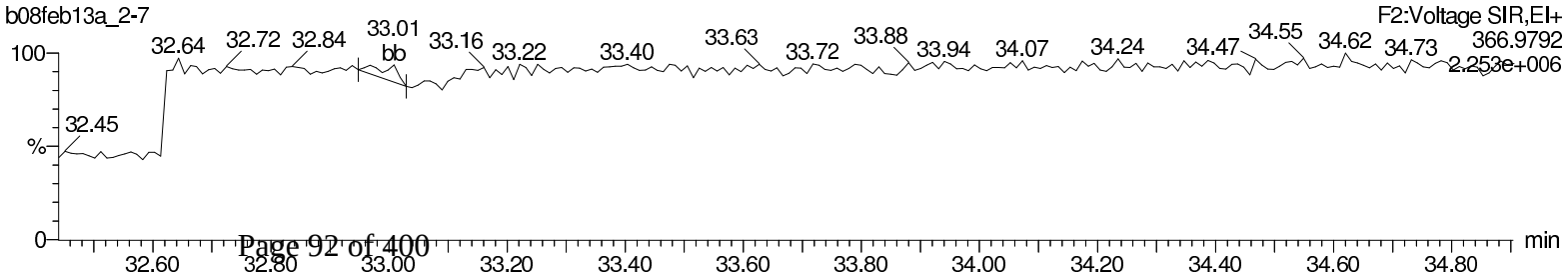
13C-12378-PeCDD



13C-12378-PeCDD



Lock Mass F2



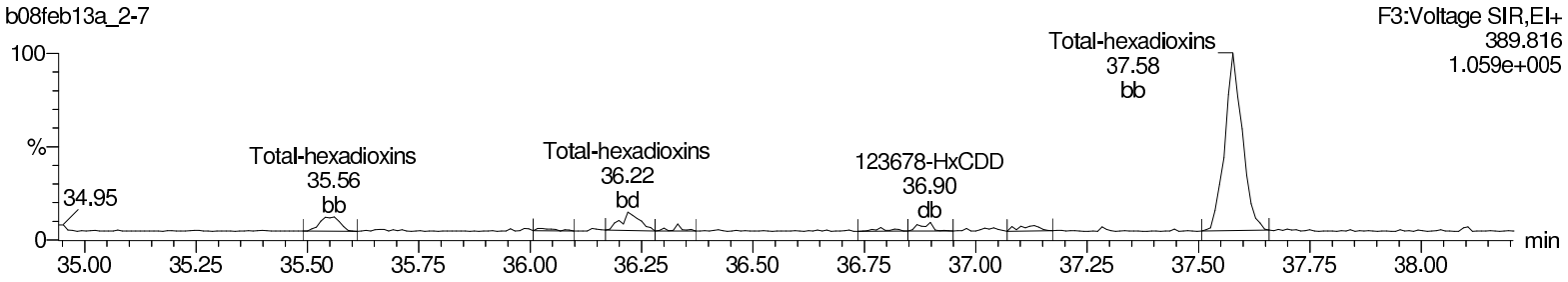
Quantify Sample Report **MassLynx 4.1**
Method 8290 Quantification Report

Dataset: C:\MassLynx\Default.pro\Sample Results\8290-b08feb13a_2.qld

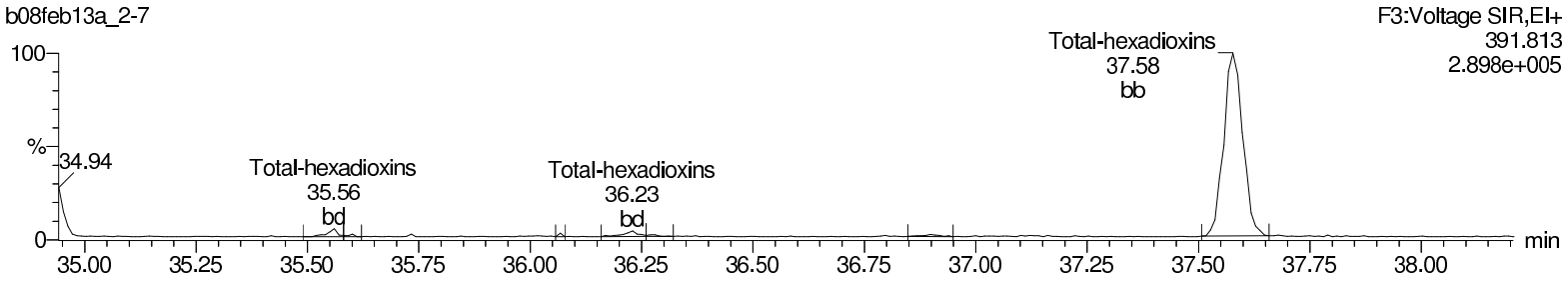
Last Altered: Monday, February 11, 2013 14:16:57 Eastern Standard Time
Printed: Monday, February 11, 2013 14:18:53 Eastern Standard Time

Name: b08feb13a_2-7, Date: 08-Feb-2013, Time: 19:35:02, ID: 4486003-1, Description: 22879, Job: HMS8290_1S, Task: HRP763_1, User: JTF

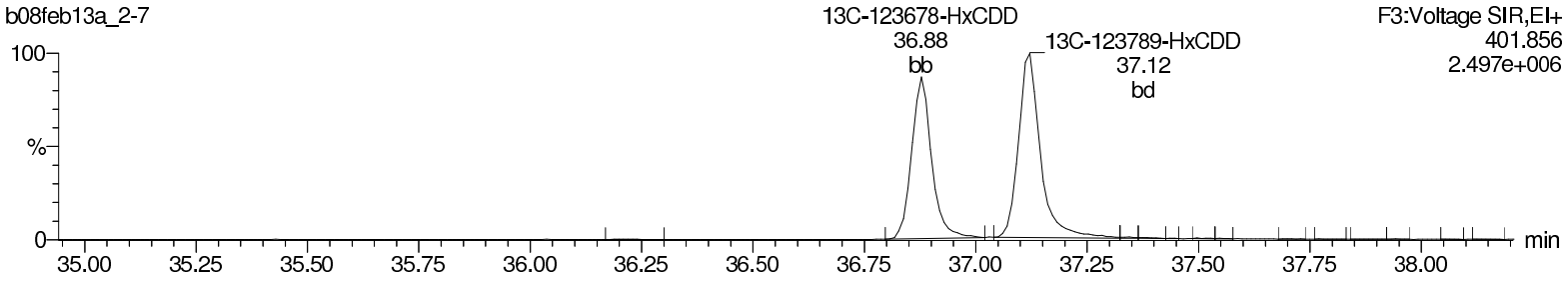
Total-hexadioxins



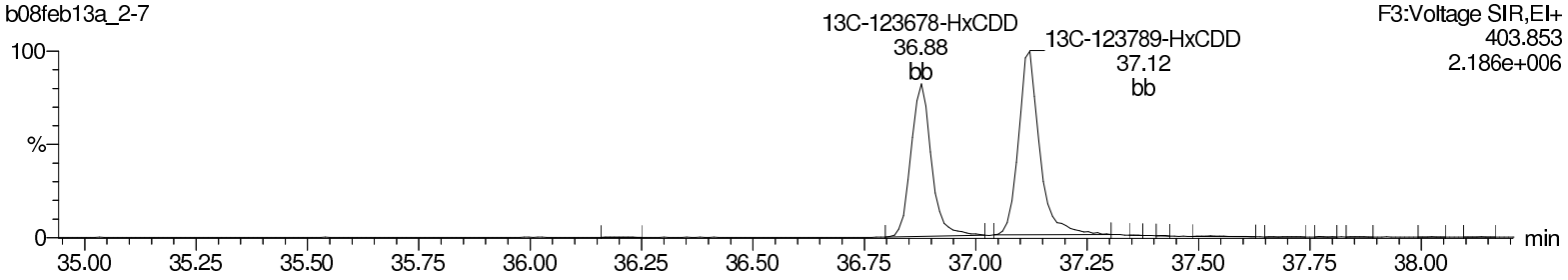
Total-hexadioxins



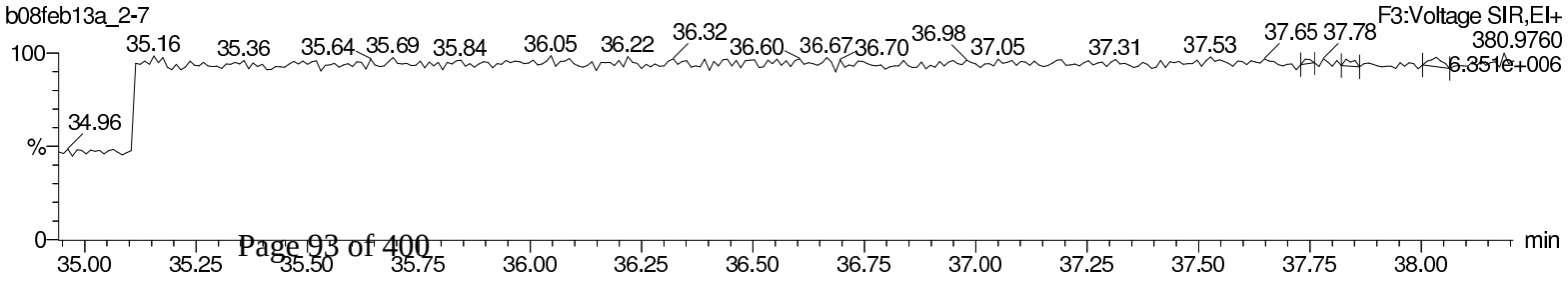
13C-123678-HxCDD



13C-123678-HxCDD



Lock Mass F3



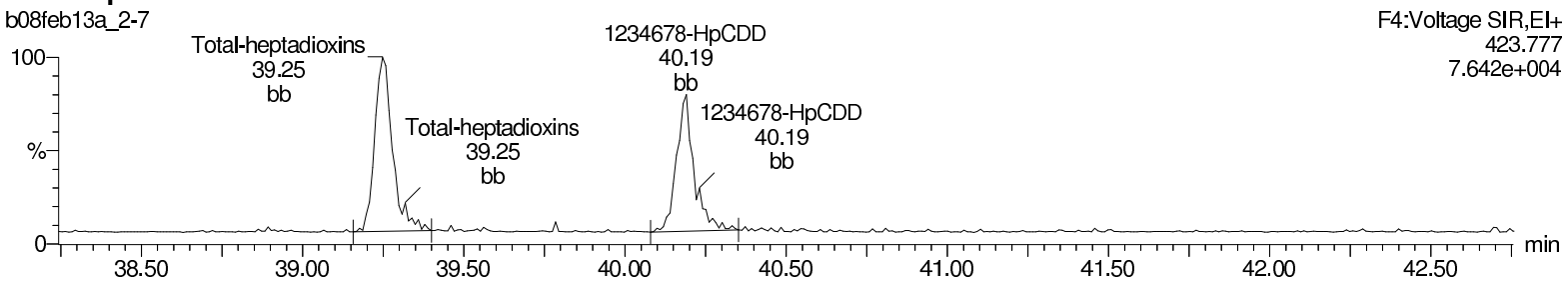
Quantify Sample Report **MassLynx 4.1**
Method 8290 Quantification Report

Dataset: C:\MassLynx\Default.pro\Sample Results\8290-b08feb13a_2.qld

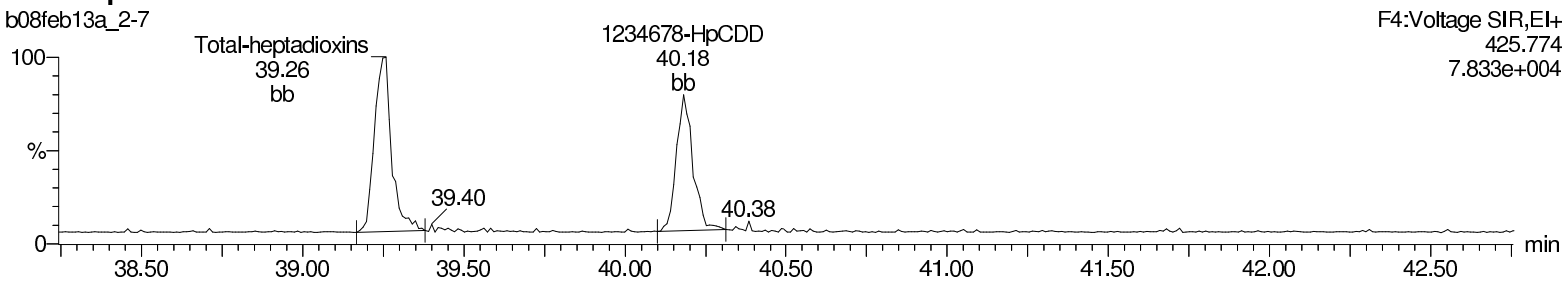
Last Altered: Monday, February 11, 2013 14:16:57 Eastern Standard Time
Printed: Monday, February 11, 2013 14:18:53 Eastern Standard Time

Name: b08feb13a_2-7, Date: 08-Feb-2013, Time: 19:35:02, ID: 4486003-1, Description: 22879, Job: HMS8290_1S, Task: HRP763_1, User: JTF

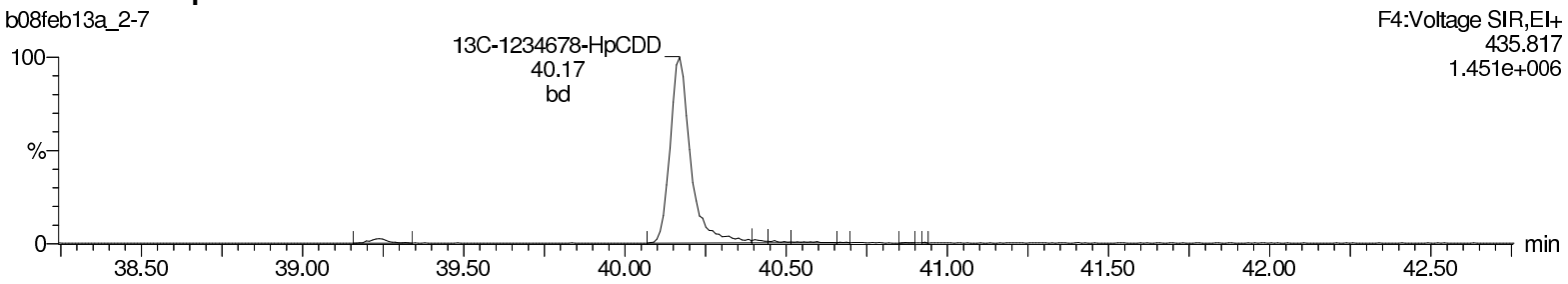
Total-heptadioxins



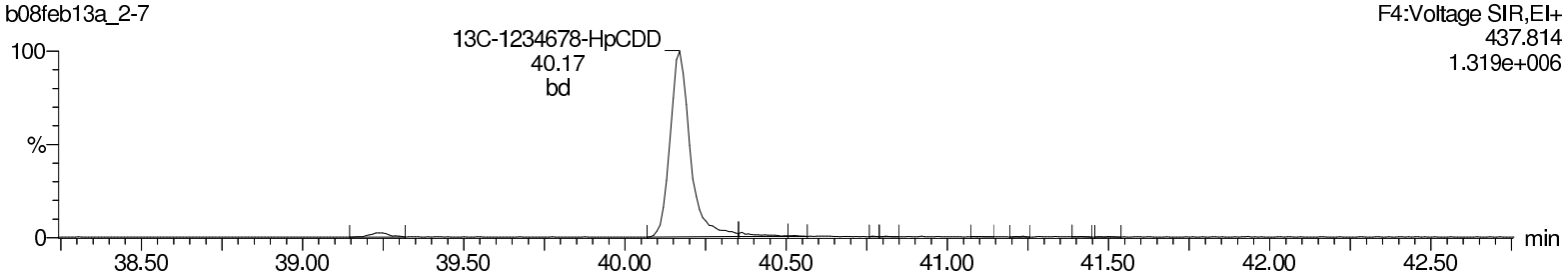
Total-heptadioxins



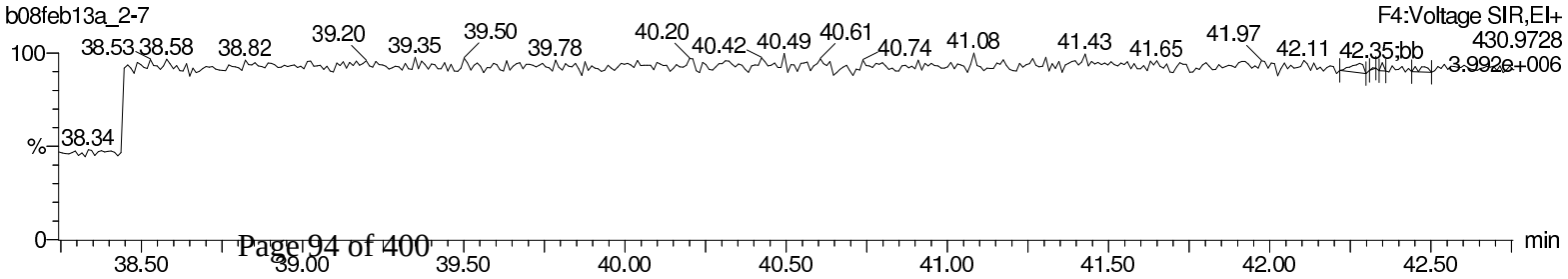
13C-1234678-HpCDD



13C-1234678-HpCDD



Lock Mass F4



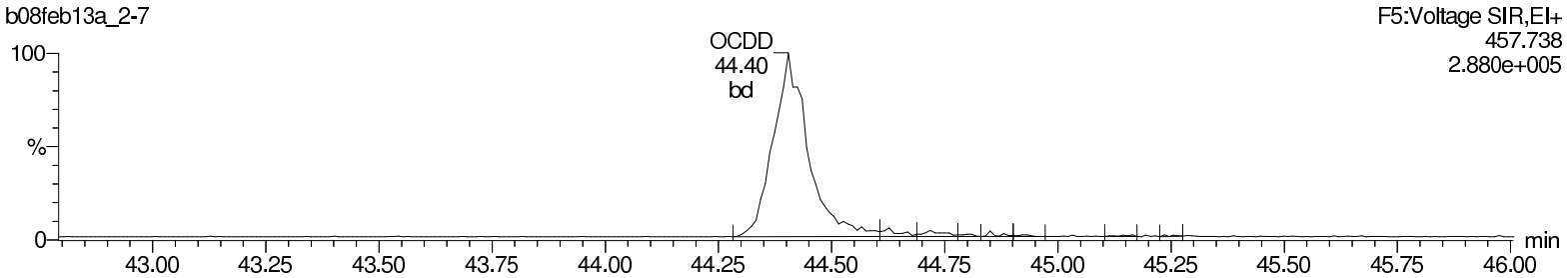
Quantify Sample Report **MassLynx 4.1**
Method 8290 Quantification Report

Dataset: C:\MassLynx\Default.pro\Sample Results\8290-b08feb13a_2.qld

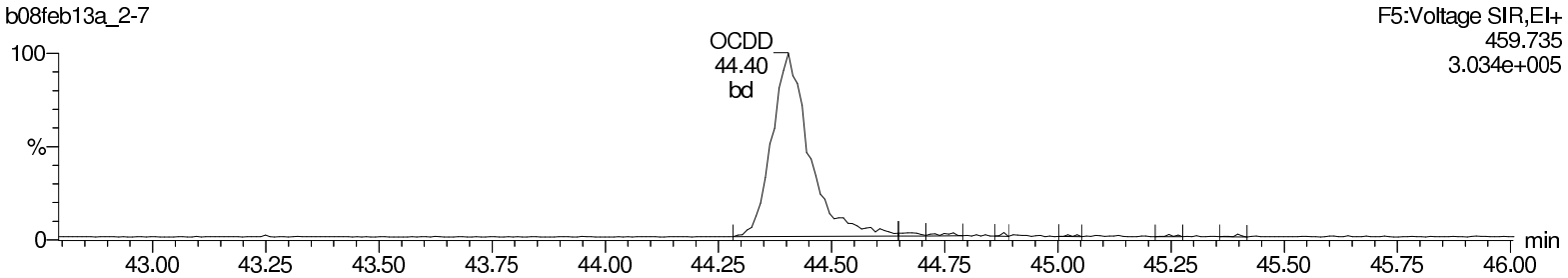
Last Altered: Monday, February 11, 2013 14:16:57 Eastern Standard Time
Printed: Monday, February 11, 2013 14:18:53 Eastern Standard Time

Name: b08feb13a_2-7, Date: 08-Feb-2013, Time: 19:35:02, ID: 4486003-1, Description: 22879, Job: HMS8290_1S, Task: HRP763_1, User: JTF

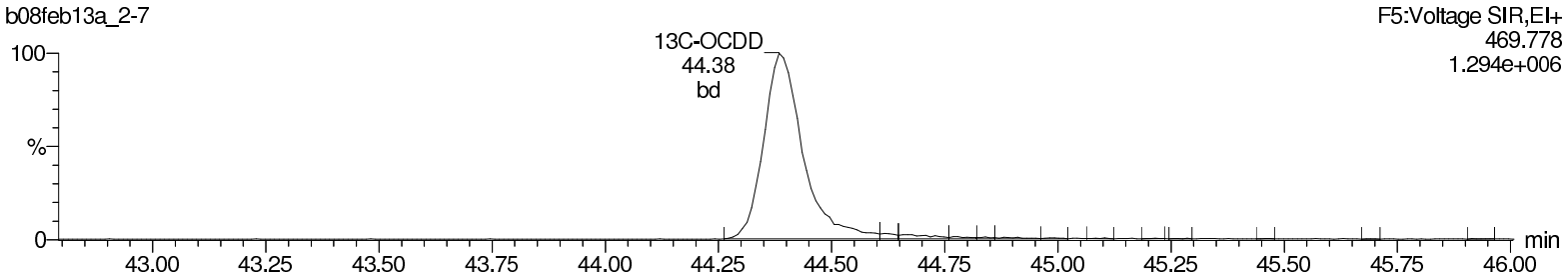
OCDD



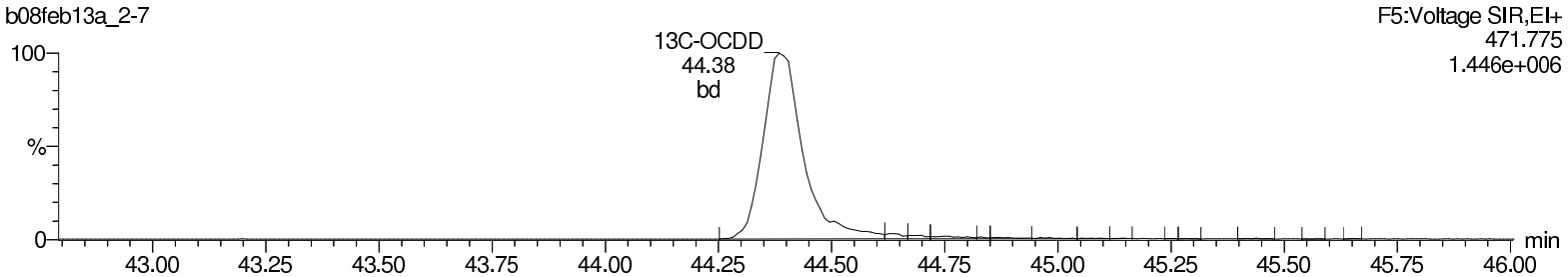
OCDD



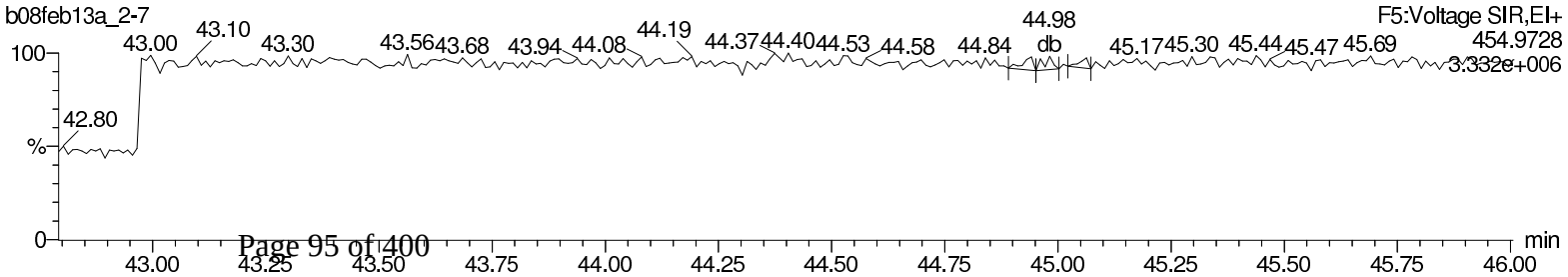
13C-OCDD



13C-OCDD



Lock Mass F5



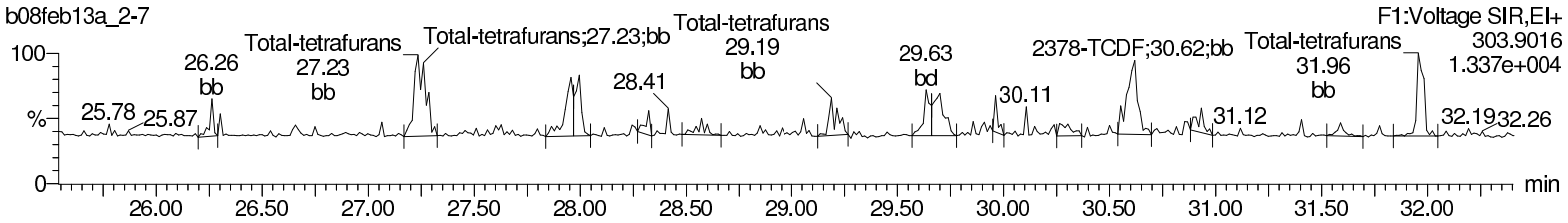
Quantify Sample Report **MassLynx 4.1**
Method 8290 Quantification Report

Dataset: C:\MassLynx\Default.pro\Sample Results\8290-b08feb13a_2.qld

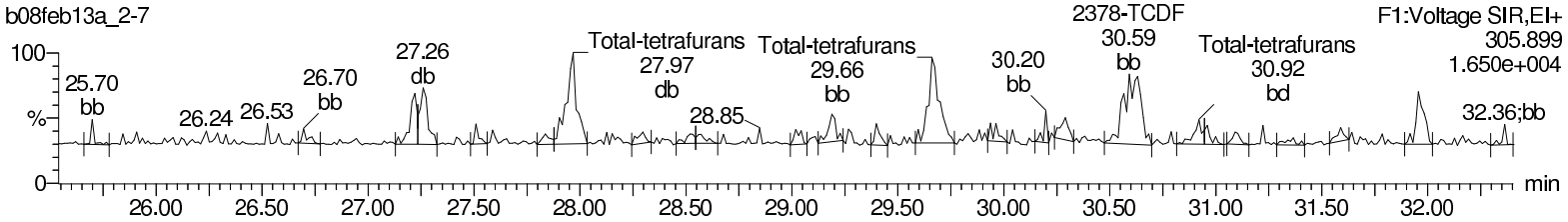
Last Altered: Monday, February 11, 2013 14:16:57 Eastern Standard Time
Printed: Monday, February 11, 2013 14:18:53 Eastern Standard Time

Name: b08feb13a_2-7, Date: 08-Feb-2013, Time: 19:35:02, ID: 4486003-1, Description: 22879, Job: HMS8290_1S, Task: HRP763_1, User: JTF

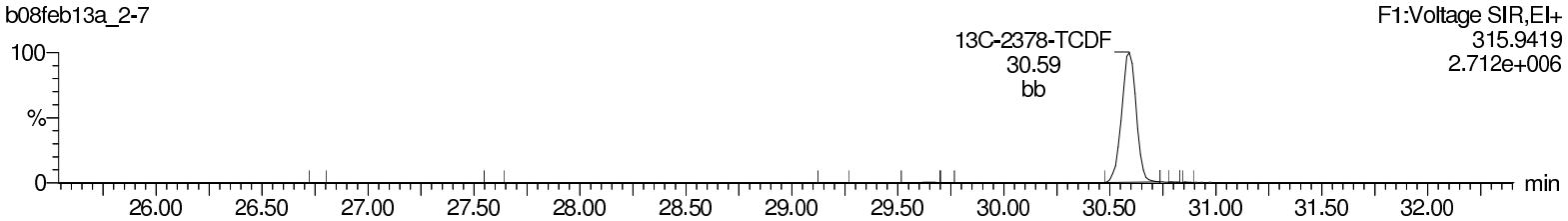
Total-tetrafurans



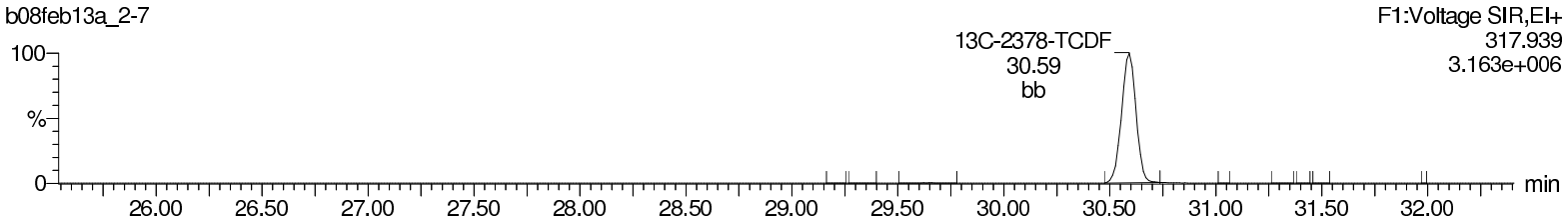
Total-tetrafurans



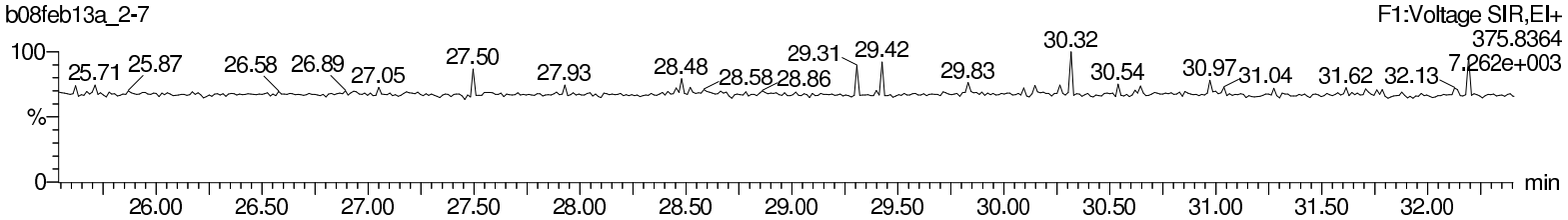
13C-2378-TCDF



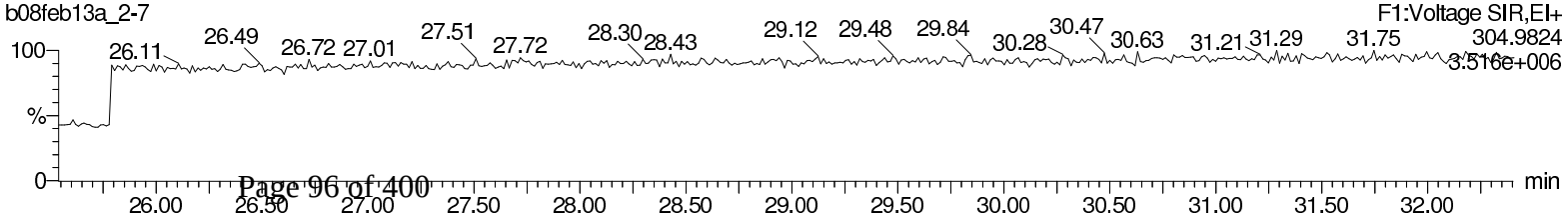
13C-2378-TCDF



HxDPE



Lock Mass F1



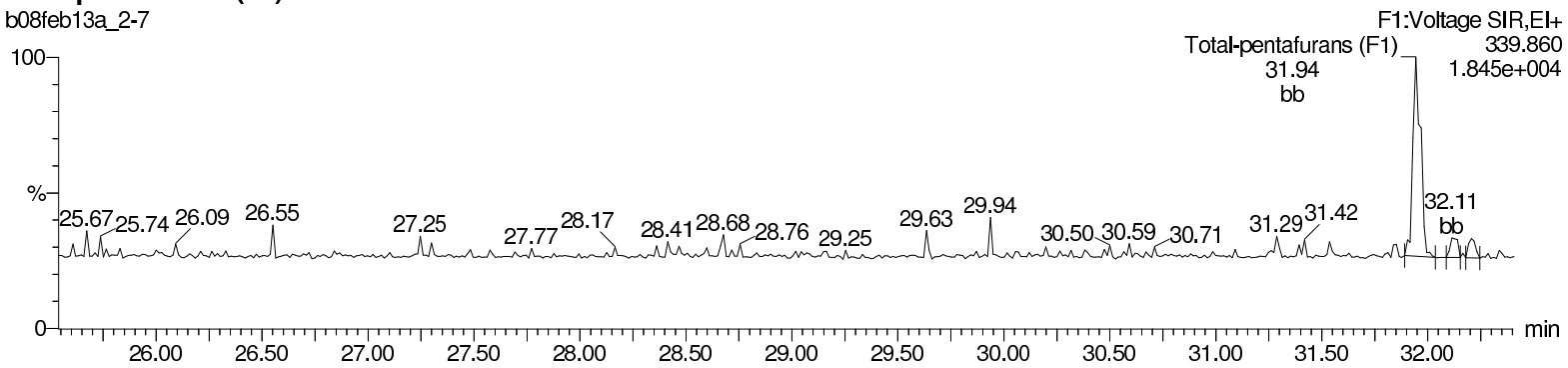
Quantify Sample Report **MassLynx 4.1**
Method 8290 Quantification Report

Dataset: C:\MassLynx\Default.pro\Sample Results\8290-b08feb13a_2.qld

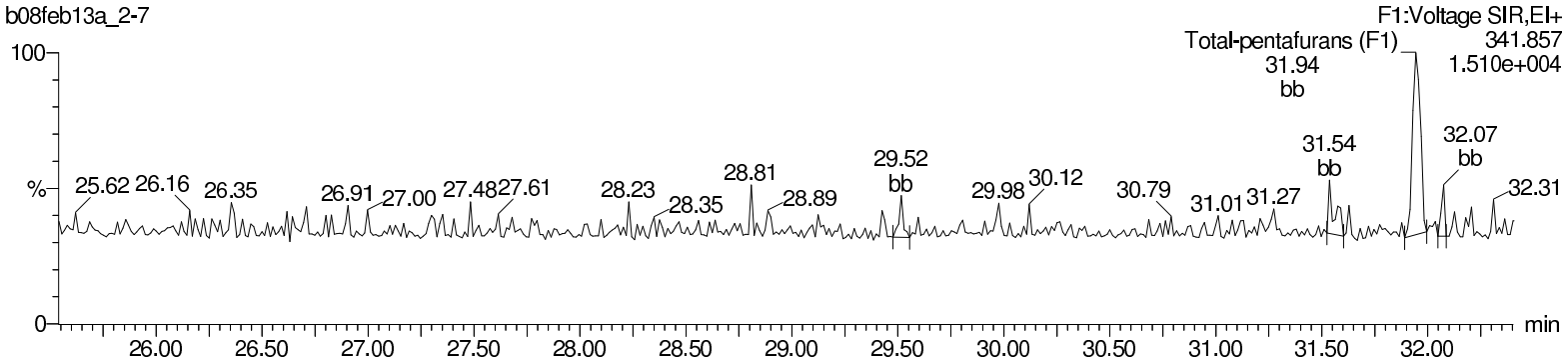
Last Altered: Monday, February 11, 2013 14:16:57 Eastern Standard Time
Printed: Monday, February 11, 2013 14:18:53 Eastern Standard Time

Name: b08feb13a_2-7, Date: 08-Feb-2013, Time: 19:35:02, ID: 4486003-1, Description: 22879, Job: HMS8290_1S, Task: HRP763_1, User: JTF

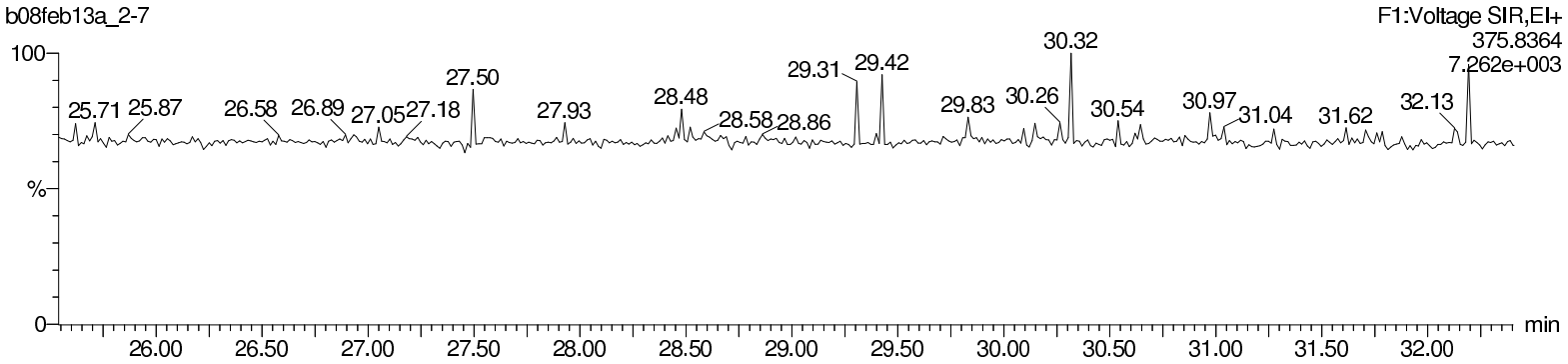
Total-pentafurans (F1)



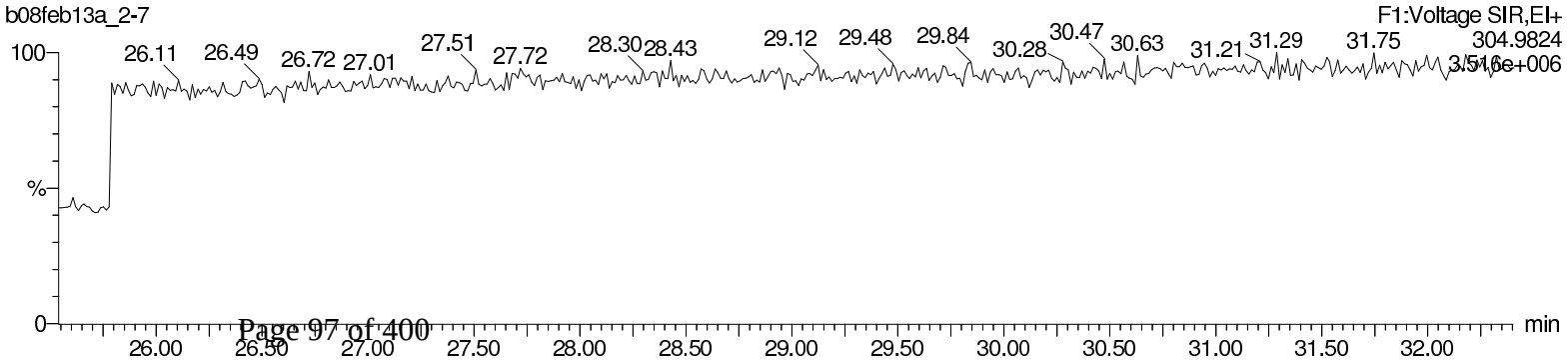
Total-pentafurans (F1)



HxDPE



Lock Mass F1



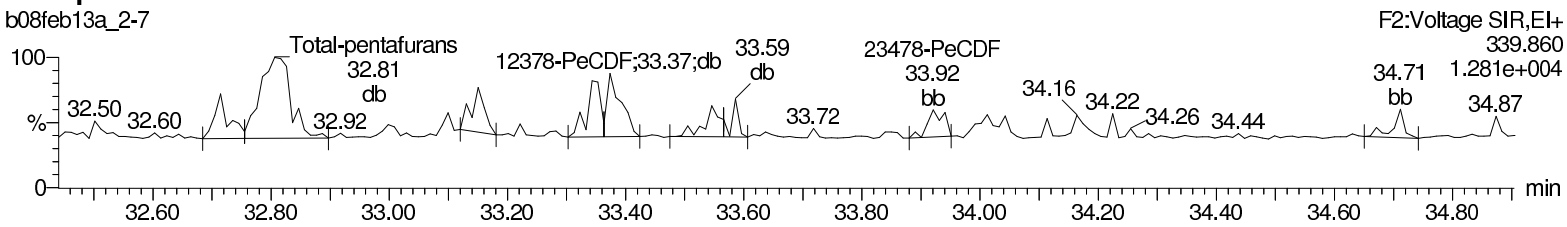
Quantify Sample Report **MassLynx 4.1**
Method 8290 Quantification Report

Dataset: C:\MassLynx\Default.pro\Sample Results\8290-b08feb13a_2.qld

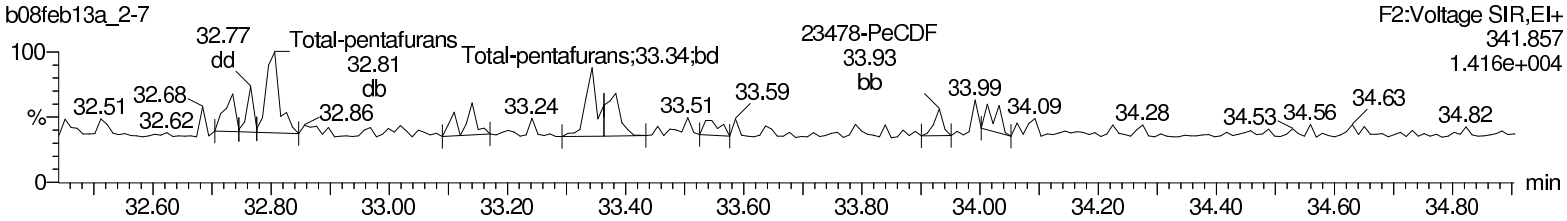
Last Altered: Monday, February 11, 2013 14:16:57 Eastern Standard Time
Printed: Monday, February 11, 2013 14:18:53 Eastern Standard Time

Name: b08feb13a_2-7, Date: 08-Feb-2013, Time: 19:35:02, ID: 4486003-1, Description: 22879, Job: HMS8290_1S, Task: HRP763_1, User: JTF

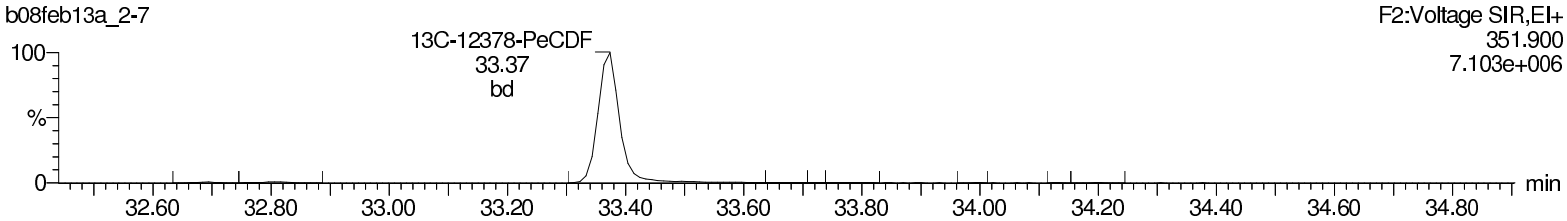
Total-pentafurans



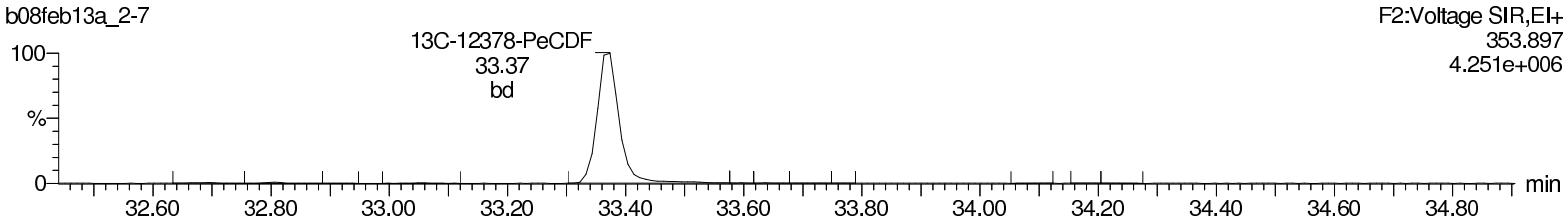
Total-pentafurans



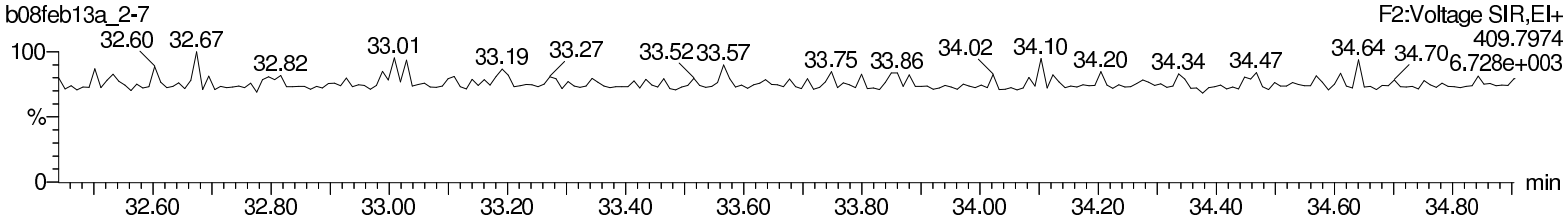
13C-12378-PeCDF



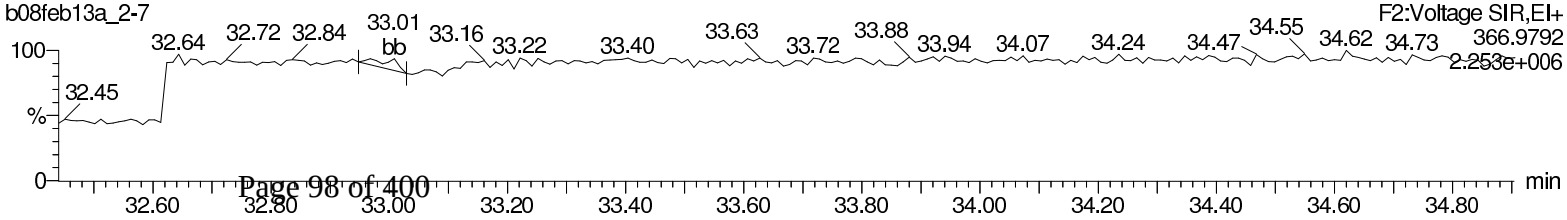
13C-12378-PeCDF



HpDPE



Lock Mass F2



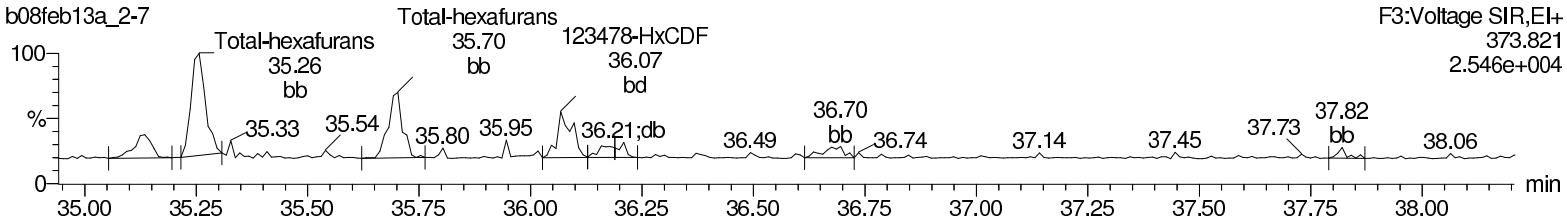
Quantify Sample Report **MassLynx 4.1**
Method 8290 Quantification Report

Dataset: C:\MassLynx\Default.pro\Sample Results\8290-b08feb13a_2.qld

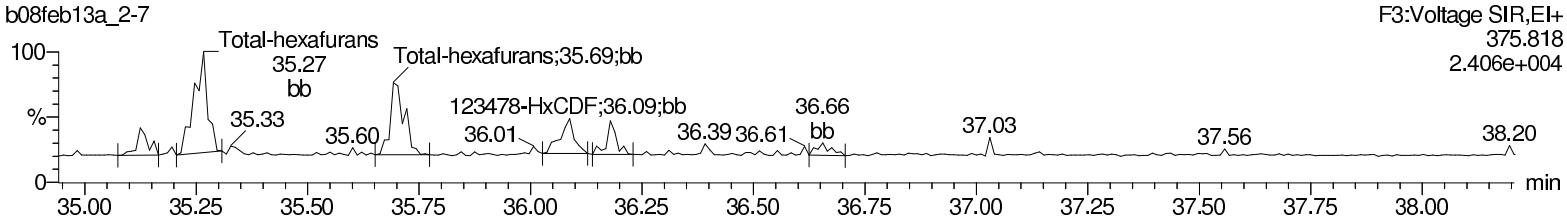
Last Altered: Monday, February 11, 2013 14:16:57 Eastern Standard Time
Printed: Monday, February 11, 2013 14:18:53 Eastern Standard Time

Name: b08feb13a_2-7, Date: 08-Feb-2013, Time: 19:35:02, ID: 4486003-1, Description: 22879, Job: HMS8290_1S, Task: HRP763_1, User: JTF

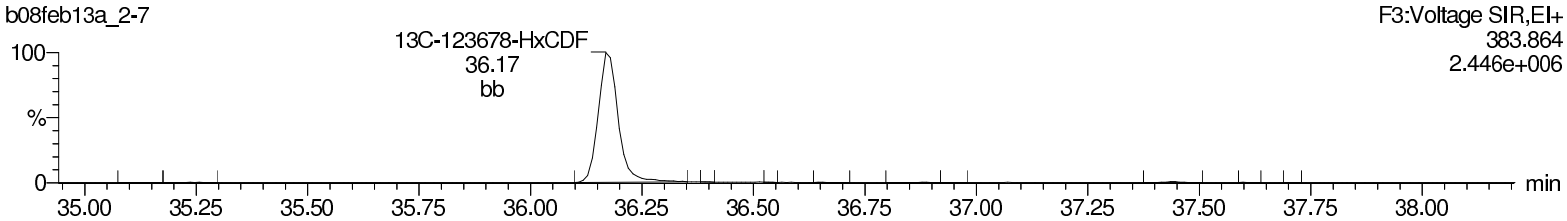
Total-hexafurans



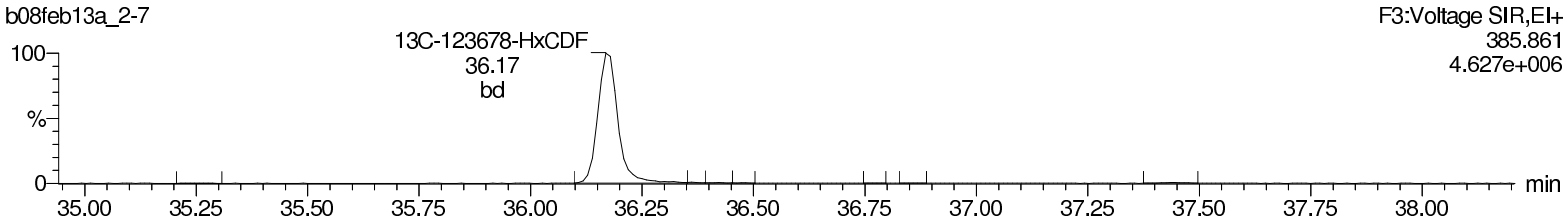
Total-hexafurans



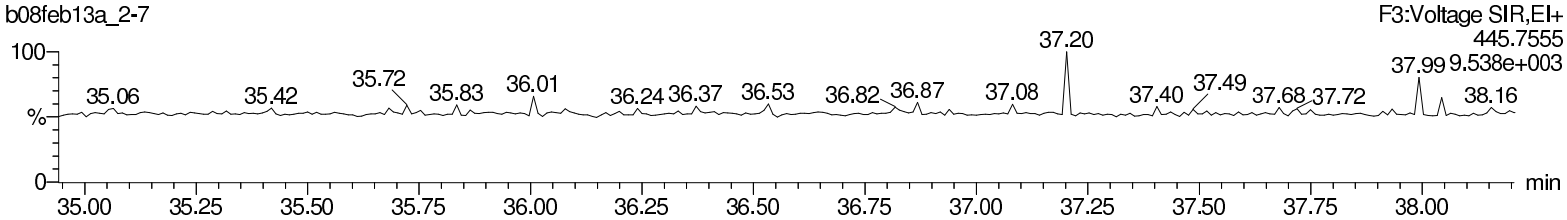
13C-123678-HxCDF



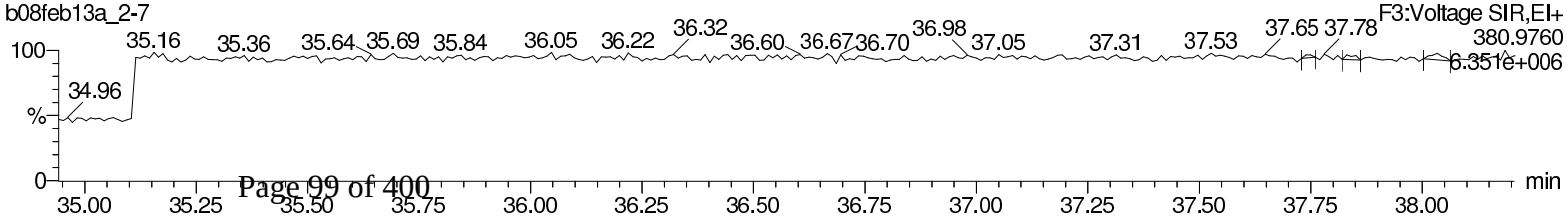
13C-123678-HxCDF



OcDPE



Lock Mass F3



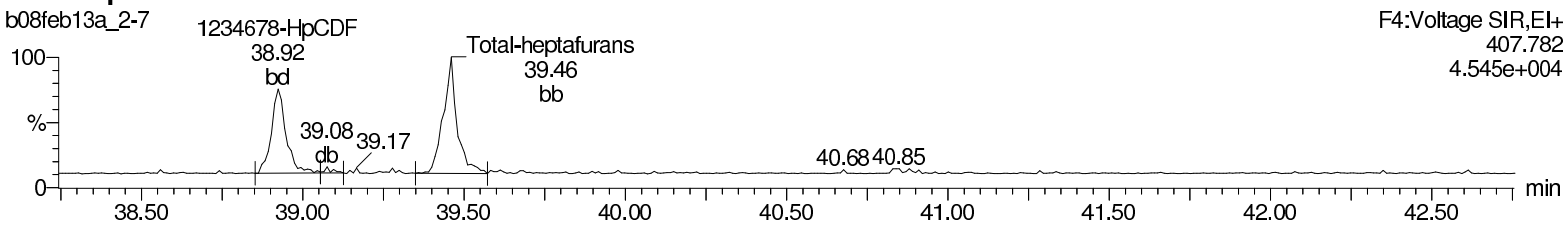
Quantify Sample Report **MassLynx 4.1**
Method 8290 Quantification Report

Dataset: C:\MassLynx\Default.pro\Sample Results\8290-b08feb13a_2.qld

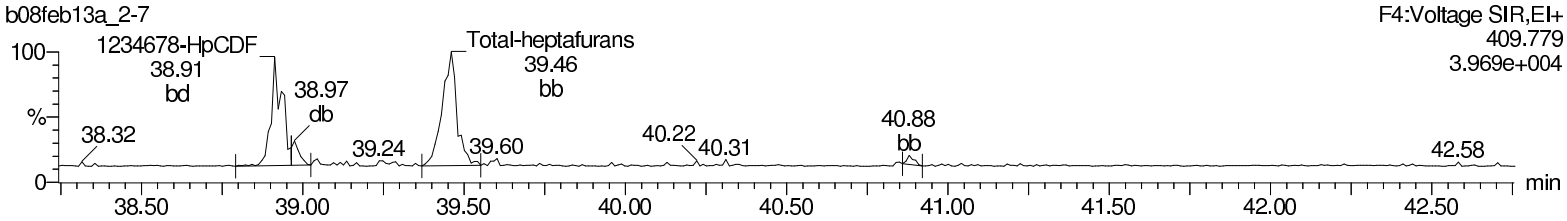
Last Altered: Monday, February 11, 2013 14:16:57 Eastern Standard Time
Printed: Monday, February 11, 2013 14:18:53 Eastern Standard Time

Name: b08feb13a_2-7, Date: 08-Feb-2013, Time: 19:35:02, ID: 4486003-1, Description: 22879, Job: HMS8290_1S, Task: HRP763_1, User: JTF

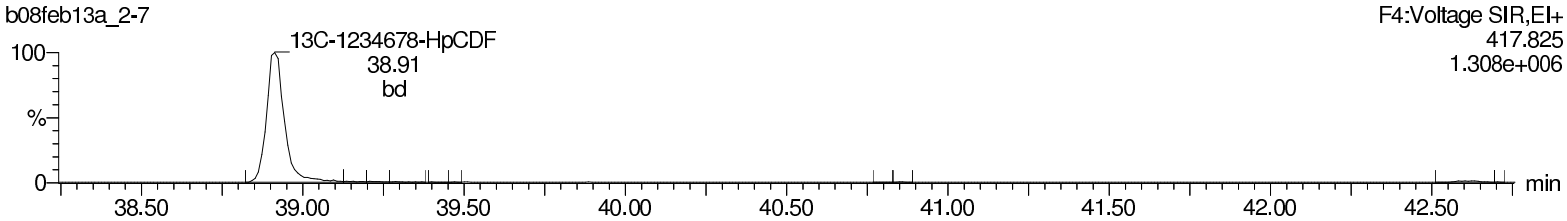
Total-heptafurans



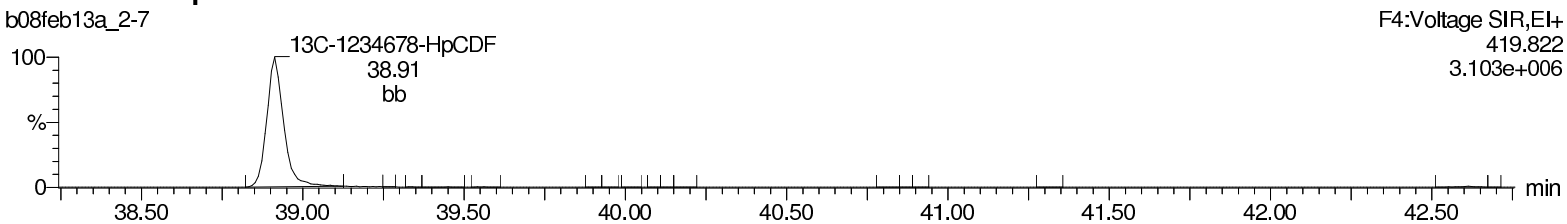
Total-heptafurans



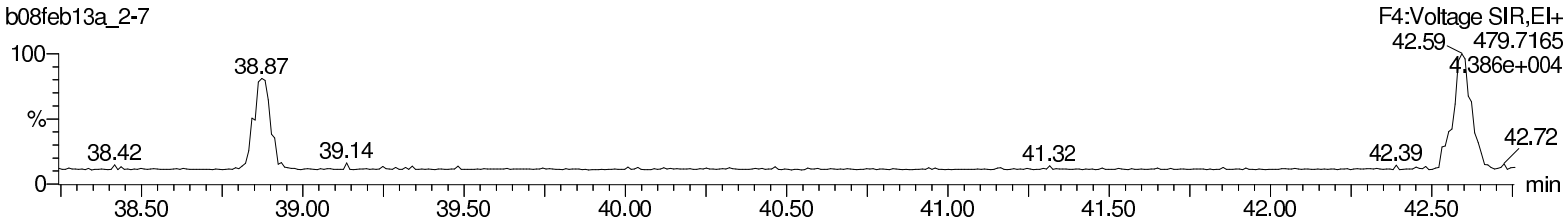
13C-1234678-HpCDF



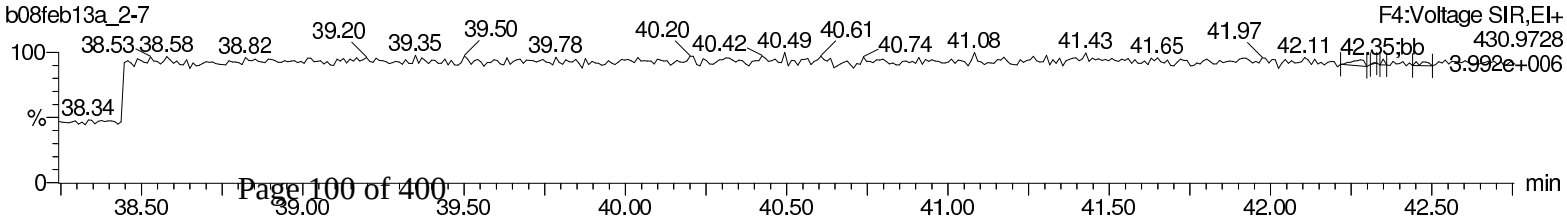
13C-1234678-HpCDF



NoDPE



Lock Mass F4



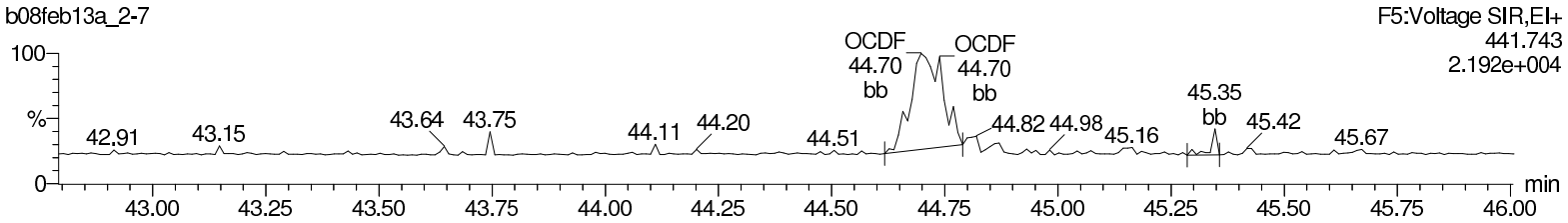
Quantify Sample Report **MassLynx 4.1**
Method 8290 Quantification Report

Dataset: C:\MassLynx\Default.pro\Sample Results\8290-b08feb13a_2.qld

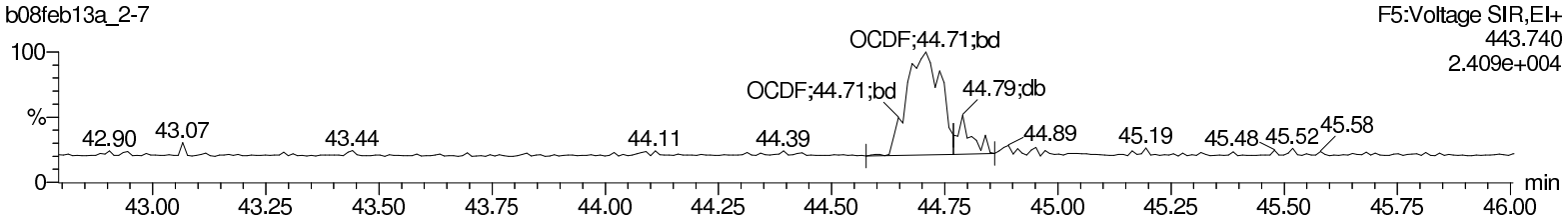
Last Altered: Monday, February 11, 2013 14:16:57 Eastern Standard Time
Printed: Monday, February 11, 2013 14:18:53 Eastern Standard Time

Name: b08feb13a_2-7, Date: 08-Feb-2013, Time: 19:35:02, ID: 4486003-1, Description: 22879, Job: HMS8290_1S, Task: HRP763_1, User: JTF

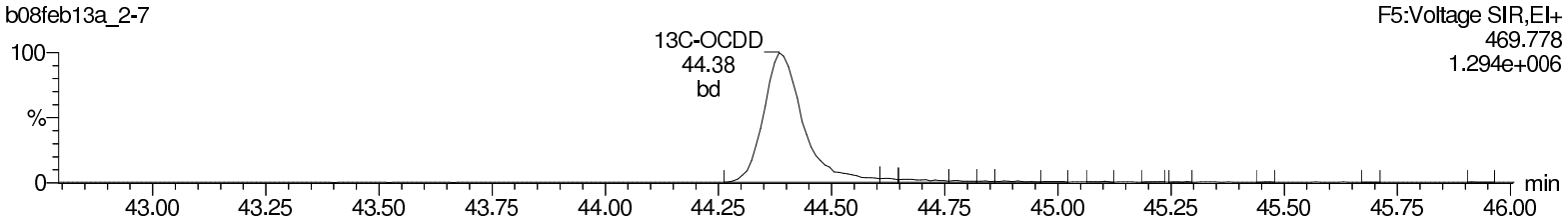
OCDF



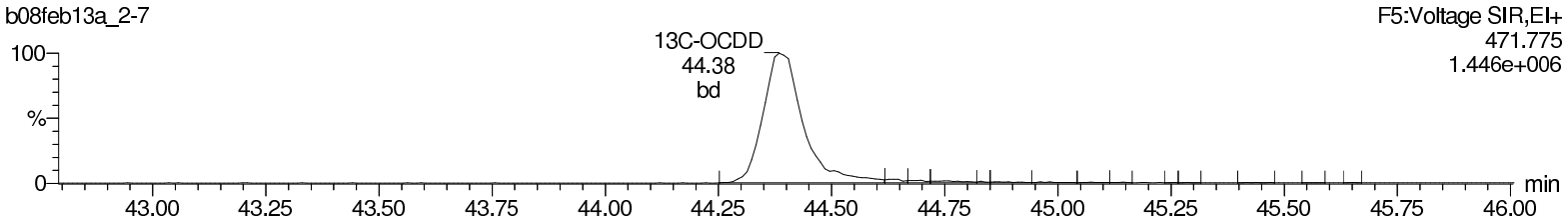
OCDF



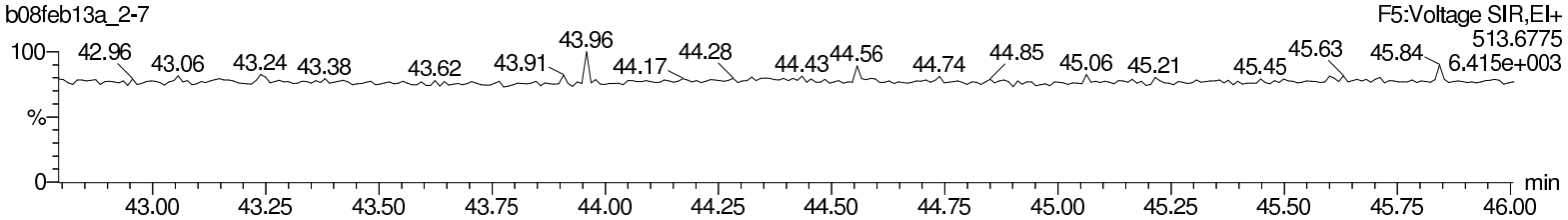
13C-OCDD



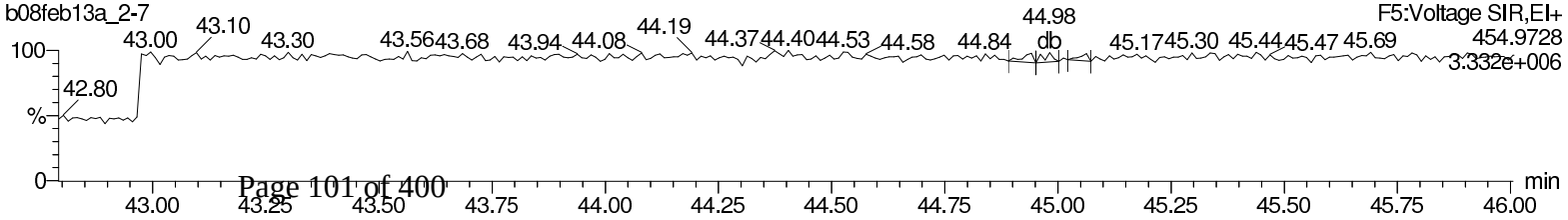
13C-OCDD



DeDPE



Lock Mass F5



Hi-Res Dioxins/Furans
Certificate of Analysis
Sample Summary

SDG Number:	**2013-505**	**Client:**	**LANL001**	**Project:**	**LANL00112**
Lab Sample ID:	**4486004**	**Date Collected:**	**01/31/2013 14:00**	**Matrix:**	**SOLID**
Client Sample:	**8290 Soil**	**Date Received:**	**02/05/2013 10:14**	**%Moisture:**	**41.4**
Client ID:	**CALA-13-28432**			**Prep Basis:**	**Dry Weight**
Batch ID:	**22879**	**Method:**	**SW846 8290A**		
Run Date:	**02/08/2013 20:23**	**Analyst:**	**JTF**	**Instrument:**	**HRP763**
Data File:	**b08feb13a_2-8**			**Dilution:**	**1**
Prep Batch:	**22876**	**Prep Method:**	**SW846 3540C**		
Prep Date:	**06-FEB-13**	**Aliquot:**	**11.18 g**		

CAS No.	Parmname	Qual	Result	EMPC	Units	EDL	PQL
1746-01-6	2,3,7,8-TCDD	U	.162		pg/g	0.162	1.53
40321-76-4	1,2,3,7,8-PeCDD	U	.763		pg/g	0.763	7.63
39227-28-6	1,2,3,4,7,8-HxCDD	U	.763		pg/g	0.763	7.63
57653-85-7	1,2,3,6,7,8-HxCDD	U	.763		pg/g	0.763	7.63
19408-74-3	1,2,3,7,8,9-HxCDD	U	.763		pg/g	0.763	7.63
35822-46-9	1,2,3,4,6,7,8-HpCDD		9.33		pg/g	1.13	7.63
3268-87-9	1,2,3,4,6,7,8,9-OCDD		86.7		pg/g	1.53	15.3
51207-31-9	2,3,7,8-TCDF	J	0.763		pg/g	0.406	1.53
57117-41-6	1,2,3,7,8-PeCDF	U	.763		pg/g	0.763	7.63
57117-31-4	2,3,4,7,8-PeCDF	U	.763		pg/g	0.763	7.63
70648-26-9	1,2,3,4,7,8-HxCDF	U	.763		pg/g	0.763	7.63
57117-44-9	1,2,3,6,7,8-HxCDF	U	.763		pg/g	0.763	7.63
60851-34-5	2,3,4,6,7,8-HxCDF	U	.763		pg/g	0.763	7.63
72918-21-9	1,2,3,7,8,9-HxCDF	U	.763		pg/g	0.763	7.63
67562-39-4	1,2,3,4,6,7,8-HpCDF	J	2.63		pg/g	0.763	7.63
55673-89-7	1,2,3,4,7,8,9-HpCDF	U	.763		pg/g	0.763	7.63
39001-02-0	1,2,3,4,6,7,8,9-OCDF	J	5.29		pg/g	1.53	15.3
41903-57-5	Total TCDDs		1.60		pg/g	0.162	1.53
36088-22-9	Total PeCDDs	U	.763		pg/g	0.763	7.63
34465-46-8	Total HxCDDs	J	1.32	2.27	pg/g	0.763	7.63
37871-00-4	Total HpCDDs		19.3		pg/g	1.13	7.63
30402-14-3	Total TCDFs		1.61		pg/g	0.406	1.53
30402-15-4	Total PeCDFs	J	0.775		pg/g	0.763	7.63
55684-94-1	Total HxCDFs	J	2.23		pg/g	0.763	7.63
38998-75-3	Total HpCDFs	J	7.25		pg/g	0.763	7.63
3333-30-0	TEQ WHO2005 ND=0		0.224	0.224	pg/g		
3333-30-1	TEQ WHO2005 ND=0.5		1.08	1.08	pg/g		

Surrogate/Tracer recovery	Qual	Result	Nominal	Units	Recovery%	Acceptable Limits
13C-2,3,7,8-TCDD		272	305	pg/g	89.0	(40%-135%)
13C-1,2,3,7,8-PeCDD		288	305	pg/g	94.4	(40%-135%)
13C-1,2,3,6,7,8-HxCDD		232	305	pg/g	76.0	(40%-135%)
13C-1,2,3,4,6,7,8-HpCDD		309	305	pg/g	101	(40%-135%)
13C-OCDD		538	611	pg/g	88.2	(40%-135%)
13C-2,3,7,8-TCDF		248	305	pg/g	81.2	(40%-135%)
13C-1,2,3,7,8-PeCDF		306	305	pg/g	100	(40%-135%)
13C-1,2,3,6,7,8-HxCDF		278	305	pg/g	91.0	(40%-135%)
13C-1,2,3,4,6,7,8-HpCDF		302	305	pg/g	98.9	(40%-135%)

Comments:

J Value is estimated

K Estimated Maximum Possible Concentration

U Analyte was analyzed for , but not detected above the specified detection limit.

Quantify Sample Summary Report **MassLynx 4.1**
Method 8290 Quantification Report

Dataset: C:\MassLynx\Default.pro\Sample Results\8290-b08feb13a_2.qld

Last Altered: Tuesday, February 12, 2013 10:40:12 Eastern Standard Time
Printed: Tuesday, February 12, 2013 10:41:19 Eastern Standard Time

Method: Untitled 20 Dec 2012 07:43:23
Calibration: C:\MassLynx\DEFAULT.PRO\CurveDB\8290-b30nov12a.cdb 03 Dec 2012 09:49:08

Name: b08feb13a_2-8, Date: 08-Feb-2013, Time: 20:23:03, ID: 4486004-1, Description: 22879, Job: HMS8290_1S, Task: HRP763_1, User: JTF

	Name	Ion1Area	Ion2Area	Response	RT	RRT	RA	Fail?	pg/uL	EDL	Height1	Noise1	S/N1	Height2	Noise2	S/N2	M
1	2378-TCDD							NO		0.0530		493			589		
2	12378-PeCDD							NO		0.0723		856			673		
3	123478-HxCDD	4.72e1	5.31e1	1.00e2	36.80	0.998	0.89	YES	0.055	0.232	1.33e3	1366	1.0	1.70e3	1700	1.0	MM
4	123678-HxCDD	2.06e2	1.75e2	3.81e2	36.88	1.000	1.17	NO	0.189	0.209	8.05e3	1366	5.9	5.02e3	1700	3.0	bb
5	123789-HxCDD							NO		0.228		1366			1700		
6	1234678-HpCDD	3.25e3	3.22e3	6.47e3	40.19	1.000	1.01	NO	3.057	0.369	4.54e4	2439	18.6	4.39e4	1692	26.0	bb
7	OCDD	2.09e4	2.33e4	4.43e4	44.40	1.000	0.90	NO	28.409	0.438	2.10e5	1008	208.1	2.38e5	1728	138.0	bd
8	2378-TCDF	4.69e2	5.40e2	1.01e3	30.63	1.001	0.87	NO	0.250	0.133	7.79e3	1112	7.0	7.77e3	1522	5.1	MM
9	12378-PeCDF	2.57e2	1.73e2	4.29e2	33.35	0.999	1.49	NO	0.105	0.0785	6.67e3	1687	4.0	4.61e3	1172	3.9	MM
10	23478-PeCDF	2.27e2	1.02e2	3.29e2	34.00	1.019	2.22	YES	0.077	0.0757	6.27e3	1687	3.7	3.90e3	1172	3.3	MM
11	123478-HxCDF	1.75e2	1.79e2	3.54e2	36.07	0.997	0.97	YES	0.118	0.127	4.86e3	1211	4.0	5.67e3	1655	3.4	MM
12	123678-HxCDF	1.14e2	1.32e2	2.46e2	36.18	1.000	0.87	YES	0.072	0.111	2.87e3	1211	2.4	3.87e3	1655	2.3	MM
13	234678-HxCDF	1.63e2	1.28e2	2.91e2	36.67	1.014	1.27	NO	0.092	0.120	4.25e3	1211	3.5	4.26e3	1655	2.6	bb
14	123789-HxCDF							NO		0.143		1211			1655		
15	1234678-HpCDF	1.29e3	1.31e3	2.60e3	38.93	1.001	0.99	NO	0.862	0.0894	2.37e4	1078	21.9	2.63e4	663	39.7	bb
16	1234789-HpCDF							NO		0.116		1078			663		
17	OCDF	1.52e3	1.61e3	3.13e3	44.72	1.007	0.94	NO	1.733	0.276	1.68e4	1153	14.6	1.91e4	849	22.5	bb
18	13C-2378-TCDD	1.25e5	1.64e5	2.90e5	31.29	1.017	0.76	NO	89.029	0.222	2.31e6	1838	1258.1	2.99e6	2256	1323.3	bb
19	13C-12378-PeCDD	1.55e5	9.80e4	2.53e5	34.19	1.111	1.58	NO	94.382	0.195	3.35e6	1698	1975.1	2.14e6	1269	1688.3	bd
20	13C-123678-HxCDD	1.00e5	8.61e4	1.87e5	36.87	0.993	1.17	NO	75.981	0.291	1.83e6	2588	708.0	1.53e6	2101	726.6	bb
21	13C-1234678-HpCDD	9.83e4	8.81e4	1.86e5	40.17	1.082	1.12	NO	101.050	0.250	1.30e6	1632	795.7	1.13e6	1404	806.6	bd
22	13C-OCDD	1.24e5	1.42e5	2.66e5	44.40	1.196	0.87	NO	176.380	0.429	1.24e6	1915	648.4	1.47e6	2343	626.1	bd
23	13C-2378-TCDF	1.80e5	2.11e5	3.92e5	30.59	0.994	0.85	NO	81.215	0.0827	2.22e6	1367	1624.9	2.64e6	898	2933.8	bb
24	13C-12378-PeCDF	2.69e5	1.65e5	4.35e5	33.37	1.084	1.63	NO	100.068	0.171	5.97e6	2274	2627.8	3.83e6	1937	1975.8	bd
25	13C-123678-HxCDF	1.14e5	2.16e5	3.30e5	36.17	0.975	0.53	NO	90.972	0.252	2.14e6	1971	1086.2	4.13e6	4024	1027.2	bd
26	13C-1234678-HpCDF	7.52e4	1.71e5	2.46e5	38.91	1.049	0.44	NO	98.897	0.284	1.22e6	1642	740.2	2.67e6	2994	891.5	bd
27	13C-1234-TCDD	1.44e5	1.85e5	3.29e5	30.78	0.000	0.78	NO	100.000	0.219	2.04e6	1838	1111.4	2.59e6	2256	1149.3	bb
28	13C-123789-HxCDD	1.19e5	1.02e5	2.21e5	37.11	0.000	1.17	NO	100.000	0.323	1.96e6	2588	755.5	1.70e6	2101	809.7	bd
29	37Cl-2378-TCDD (SS)									0.0309		731					
30	13C-23478-PeCDF (SS)							NO		0.109		2274			1937		

Quantify Totals Report MassLynx 4.1
Method 8290 Quantification Report

Dataset: C:\MassLynx\Default.pro\Sample Results\8290-b08feb13a_2.qld

Last Altered: Tuesday, February 12, 2013 10:40:12 Eastern Standard Time
Printed: Tuesday, February 12, 2013 10:41:19 Eastern Standard Time

Method: Untitled 20 Dec 2012 07:43:23
Calibration: C:\MassLynx\DEFAULT.PRO\CurveDB\8290-b30nov12a.cdb 03 Dec 2012 09:49:08

Name: b08feb13a_2-8, Date: 08-Feb-2013, Time: 20:23:03, ID: 4486004-1, Description: 22879, Job: HMS8290_1S, Task: HRP763_1, User: JTF

TD

	Name	Ion1Area	Ion2Area	Response	RT	RA	Fail?	pg/uL	EDL	Height1	Noise1	S/N1	Height2	Noise2	S/N2	M
1	Total-tetradioxins	2.47e2	3.44e2	5.90e2	28.24	0.72	NO	0.214	0.0530	2.31e3	493	4.7	4.41e3	589	7.5	MM
2	Total-tetradioxins	3.43e2	5.17e2	8.60e2	27.97	0.66	NO	0.311	0.0530	4.34e3	493	8.8	7.49e3	589	12.7	bb

PD

	Name	Ion1Area	Ion2Area	Response	RT	RA	Fail?	pg/uL	EDL	Height1	Noise1	S/N1	Height2	Noise2	S/N2	M
1	Total-pentadioxins	9.33e1	5.47e1	1.48e2	32.85	1.71	NO	0.060	0.0723	3.33e3	856	3.9	1.78e3	673	2.6	MM

HD

	Name	Ion1Area	Ion2Area	Response	RT	RA	Fail?	pg/uL	EDL	Height1	Noise1	S/N1	Height2	Noise2	S/N2	M
1	Total-hexadioxins	3.43e3	1.02e4	1.36e4	37.58	0.34	YES	7.200	0.222	7.80e4	1366	57.1	1.95e5	1700	114.7	bb
2	123678-HxCDD	2.06e2	1.75e2	3.81e2	36.88	1.17	NO	0.189	0.209	8.05e3	1366	5.9	5.02e3	1700	3.0	bb
3	Total-hexadioxins	4.28e2	3.86e2	8.15e2	36.22	1.11	NO	0.431	0.222	7.71e3	1366	5.6	1.03e4	1700	6.1	bd
4	Total-hexadioxins	5.85e1	5.97e1	1.18e2	36.02	0.98	YES	0.063	0.222	2.90e3	1366	2.1	1.34e3	1700	0.8	bb
5	Total-hexadioxins	3.52e2	2.36e2	5.88e2	35.56	1.49	YES	0.311	0.222	9.71e3	1366	7.1	5.93e3	1700	3.5	MM
6	123478-HxCDD	4.72e1	5.31e1	1.00e2	36.80	0.89	YES	0.055	0.232	1.33e3	1366	1.0	1.70e3	1700	1.0	MM

HPD

	Name	Ion1Area	Ion2Area	Response	RT	RA	Fail?	pg/uL	EDL	Height1	Noise1	S/N1	Height2	Noise2	S/N2	M
1	1234678-HpCDD	3.25e3	3.22e3	6.47e3	40.19	1.01	NO	3.057	0.369	4.54e4	2439	18.6	4.39e4	1692	26.0	bb
2	Total-heptadioxins	3.66e3	3.23e3	6.89e3	39.24	1.13	NO	3.256	0.369	5.18e4	2439	21.2	4.64e4	1692	27.4	bb

Quantify Totals Report MassLynx 4.1
Method 8290 Quantification Report

Dataset: C:\MassLynx\Default.pro\Sample Results\8290-b08feb13a_2.qld

Last Altered: Tuesday, February 12, 2013 10:40:12 Eastern Standard Time
Printed: Tuesday, February 12, 2013 10:41:19 Eastern Standard Time

Name: b08feb13a_2-8, Date: 08-Feb-2013, Time: 20:23:03, ID: 4486004-1, Description: 22879, Job: HMS8290_1S, Task: HRP763_1, User: JTF

TF

	Name	Ion1Area	Ion2Area	Response	RT	RA	Fail?	pg/uL	EDL	Height1	Noise1	S/N1	Height2	Noise2	S/N2	M
1	Total-tetrafurans	2.56e2	3.04e2	5.60e2	27.97	0.84	NO	0.139	0.133	3.58e3	1112	3.2	4.92e3	1522	3.2	bb
2	Total-tetrafurans	2.56e2	2.97e2	5.53e2	27.22	0.86	NO	0.137	0.133	4.18e3	1112	3.8	6.43e3	1522	4.2	bb
3	Total-tetrafurans	1.77e2	2.04e2	3.81e2	31.98	0.87	NO	0.095	0.133	3.87e3	1112	3.5	4.53e3	1522	3.0	bb
4	Total-tetrafurans	7.27e1	8.31e1	1.56e2	31.59	0.87	NO	0.039	0.133	1.91e3	1112	1.7	4.09e3	1522	2.7	bb
5	Total-tetrafurans	2.30e2	2.39e2	4.69e2	30.92	0.96	YES	0.116	0.133	7.48e3	1112	6.7	4.98e3	1522	3.3	bb
6	2378-TCDF	4.69e2	5.40e2	1.01e3	30.63	0.87	NO	0.250	0.133	7.79e3	1112	7.0	7.77e3	1522	5.1	MM
7	Total-tetrafurans	1.82e2	5.91e1	2.41e2	30.25	3.07	YES	0.060	0.133	2.11e3	1112	1.9	2.31e3	1522	1.5	bb
8	Total-tetrafurans	1.47e2	1.55e2	3.02e2	29.92	0.95	YES	0.075	0.133	5.41e3	1112	4.9	2.39e3	1522	1.6	bb
9	Total-tetrafurans	1.83e2	2.30e2	4.13e2	29.67	0.80	NO	0.102	0.133	4.86e3	1112	4.4	4.55e3	1522	3.0	db
10	Total-tetrafurans	6.70e1	1.40e2	2.07e2	29.62	0.48	YES	0.051	0.133	2.28e3	1112	2.1	3.91e3	1522	2.6	bd
11	Total-tetrafurans	6.87e1	8.65e1	1.55e2	28.55	0.79	NO	0.039	0.133	1.97e3	1112	1.8	4.08e3	1522	2.7	bb
12	Total-tetrafurans	1.02e2	7.38e1	1.76e2	29.18	1.38	YES	0.044	0.133	2.20e3	1112	2.0	3.49e3	1522	2.3	MM

PF1

	Name	Ion1Area	Ion2Area	Response	RT	RA	Fail?	pg/uL	EDL	Height1	Noise1	S/N1	Height2	Noise2	S/N2	M
1	Total-pentafurans (F1)	6.05e2	4.57e2	1.06e3	31.96	1.32	NO	0.254	0.0376	1.44e4	496	29.1	1.07e4	898	12.0	MM

PF

	Name	Ion1Area	Ion2Area	Response	RT	RA	Fail?	pg/uL	EDL	Height1	Noise1	S/N1	Height2	Noise2	S/N2	M
1	Total-pentafurans	1.83e2	1.48e2	3.30e2	34.14	1.23	YES	0.079	0.0771	4.49e3	1687	2.7	2.86e3	1172	2.4	bb
2	23478-PeCDF	2.27e2	1.02e2	3.29e2	34.00	2.22	YES	0.077	0.0757	6.27e3	1687	3.7	3.90e3	1172	3.3	MM
3	Total-pentafurans	1.26e2	8.83e1	2.15e2	33.92	1.43	NO	0.051	0.0771	3.66e3	1687	2.2	3.94e3	1172	3.4	bd
4	Total-pentafurans	8.81e1	9.59e1	1.84e2	33.57	0.92	YES	0.044	0.0771	4.25e3	1687	2.5	3.30e3	1172	2.8	MM
5	12378-PeCDF	2.57e2	1.73e2	4.29e2	33.35	1.49	NO	0.105	0.0785	6.67e3	1687	4.0	4.61e3	1172	3.9	MM
6	Total-pentafurans	4.64e2	3.19e2	7.82e2	32.80	1.45	NO	0.187	0.0771	7.89e3	1687	4.7	6.90e3	1172	5.9	db
7	Total-pentafurans	1.44e2	8.70e1	2.31e2	32.72	1.66	NO	0.055	0.0771	4.95e3	1687	2.9	3.03e3	1172	2.6	bd

Quantify Totals Report MassLynx 4.1
Method 8290 Quantification Report

Dataset: C:\MassLynx\Default.pro\Sample Results\8290-b08feb13a_2.qld

Last Altered: Tuesday, February 12, 2013 10:40:12 Eastern Standard Time
Printed: Tuesday, February 12, 2013 10:41:19 Eastern Standard Time

Name: b08feb13a_2-8, Date: 08-Feb-2013, Time: 20:23:03, ID: 4486004-1, Description: 22879, Job: HMS8290_1S, Task: HRP763_1, User: JTF

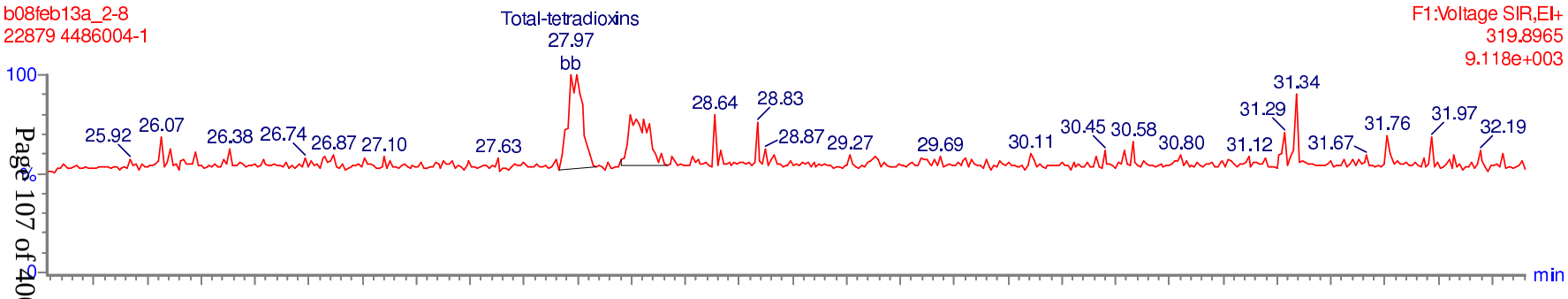
HF

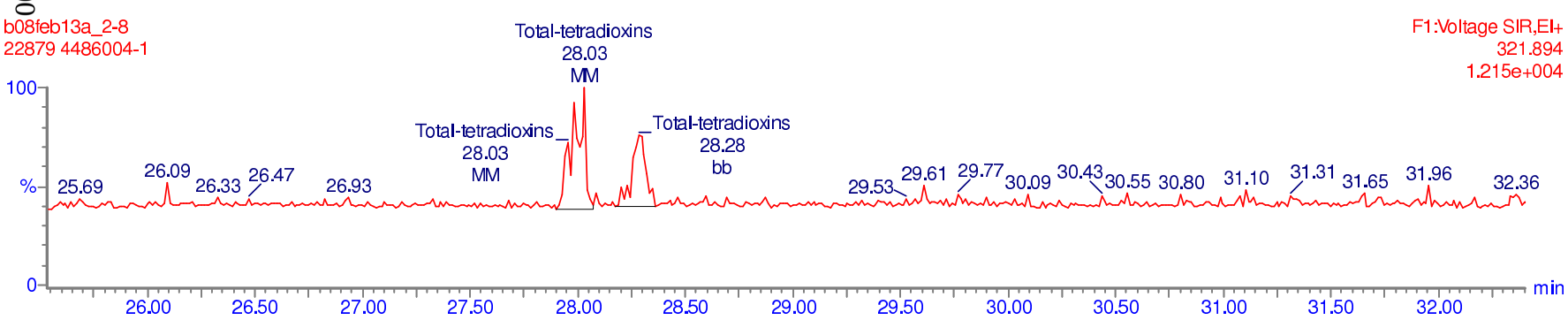
	Name	Ion1Area	Ion2Area	Response	RT	RA	Fail?	pg/uL	EDL	Height1	Noise1	S/N1	Height2	Noise2	S/N2	M
1	234678-HxCDF	1.63e2	1.28e2	2.91e2	36.67	1.27	NO	0.092	0.120	4.25e3	1211	3.5	4.26e3	1655	2.6	bb
2	123678-HxCDF	1.14e2	1.32e2	2.46e2	36.18	0.87	YES	0.072	0.111	2.87e3	1211	2.4	3.87e3	1655	2.3	MM
3	123478-HxCDF	1.75e2	1.79e2	3.54e2	36.07	0.97	YES	0.118	0.127	4.86e3	1211	4.0	5.67e3	1655	3.4	MM
4	Total-hexafurans	5.93e2	4.55e2	1.05e3	35.68	1.30	NO	0.342	0.124	1.48e4	1211	12.2	1.38e4	1655	8.3	bb
5	Total-hexafurans	6.18e2	5.78e2	1.20e3	35.26	1.07	NO	0.390	0.124	1.26e4	1211	10.4	1.20e4	1655	7.3	db
6	Total-hexafurans	1.46e2	1.99e2	3.45e2	35.12	0.74	YES	0.112	0.124	3.09e3	1211	2.5	5.38e3	1655	3.3	bd

HPF

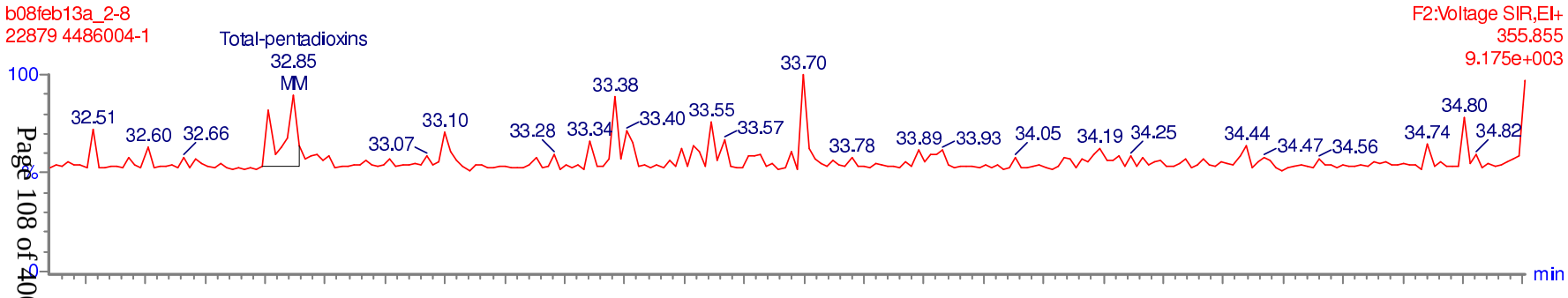
	Name	Ion1Area	Ion2Area	Response	RT	RA	Fail?	pg/uL	EDL	Height1	Noise1	S/N1	Height2	Noise2	S/N2	M
1	Total-heptafurans	2.15e3	1.88e3	4.03e3	39.46	1.14	NO	1.513	0.101	3.38e4	1078	31.4	2.91e4	663	43.9	bb
2	1234678-HpCDF	1.29e3	1.31e3	2.60e3	38.93	0.99	NO	0.862	0.0894	2.37e4	1078	21.9	2.63e4	663	39.7	bb

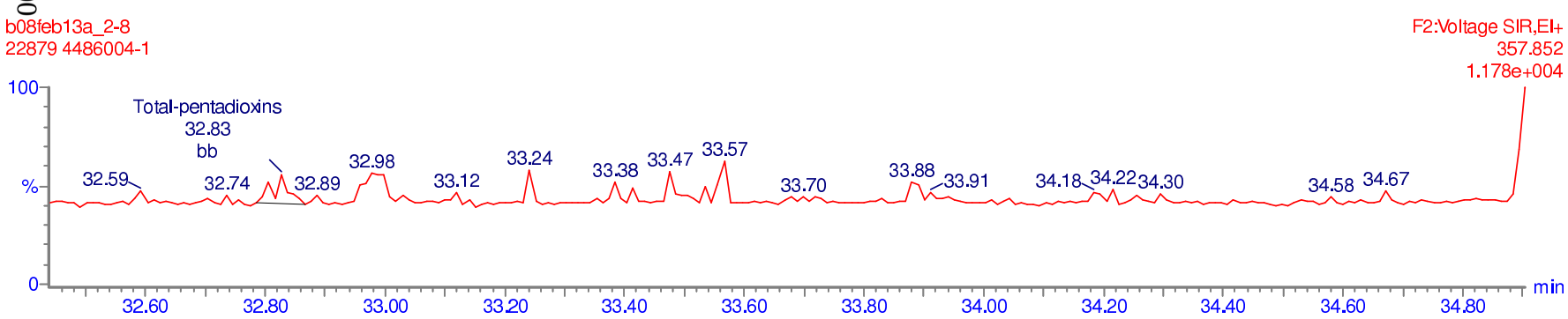
MANUAL INTEGRATION
METHOD 8290



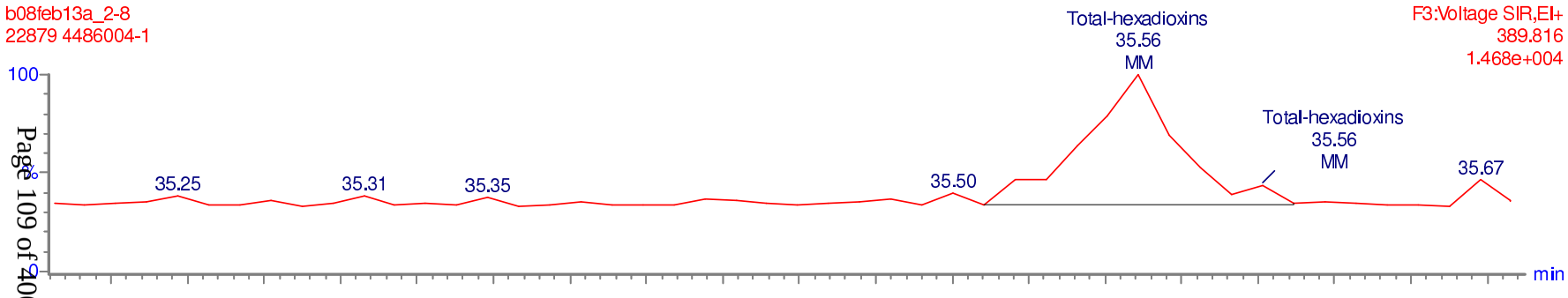


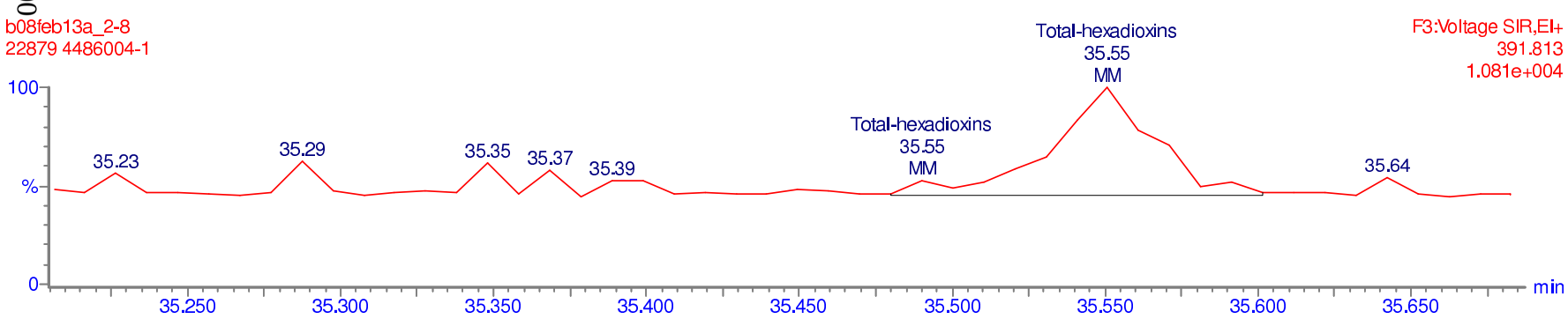
MANUAL INTEGRATION
METHOD 8290



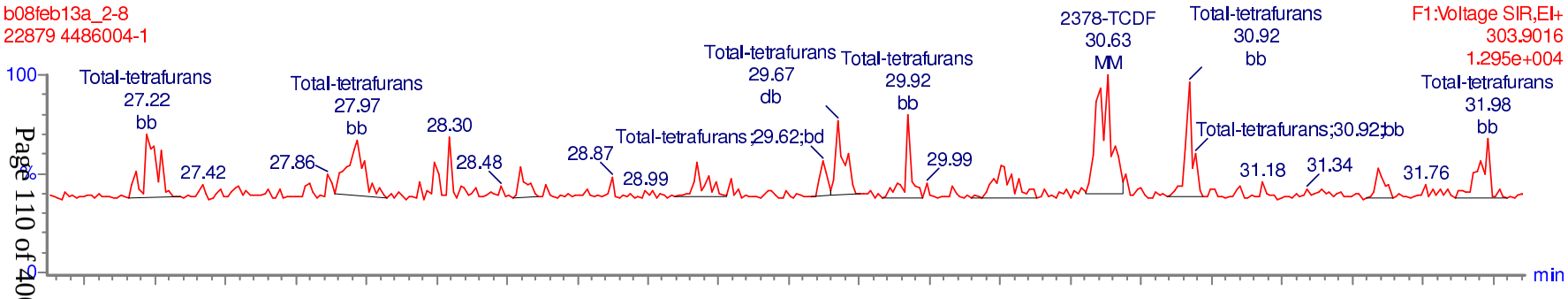


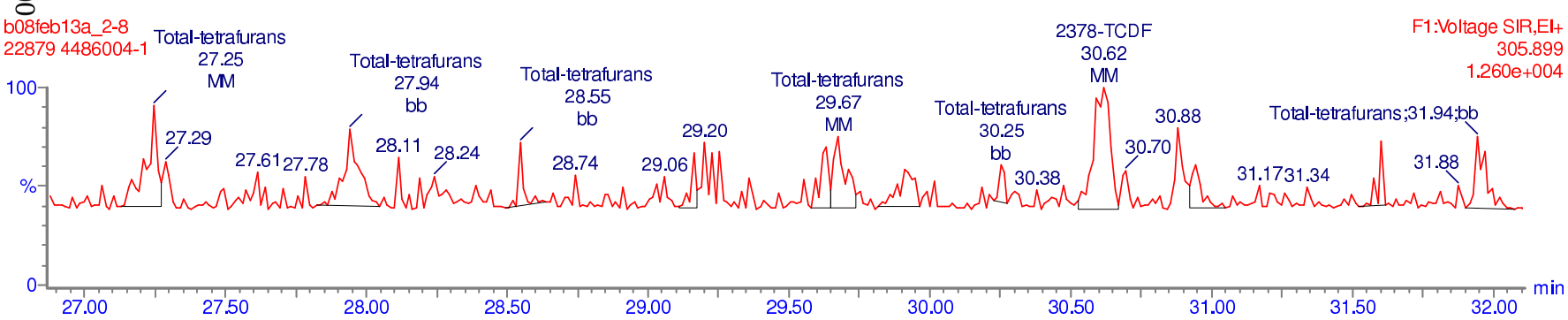
MANUAL INTEGRATION
METHOD 8290



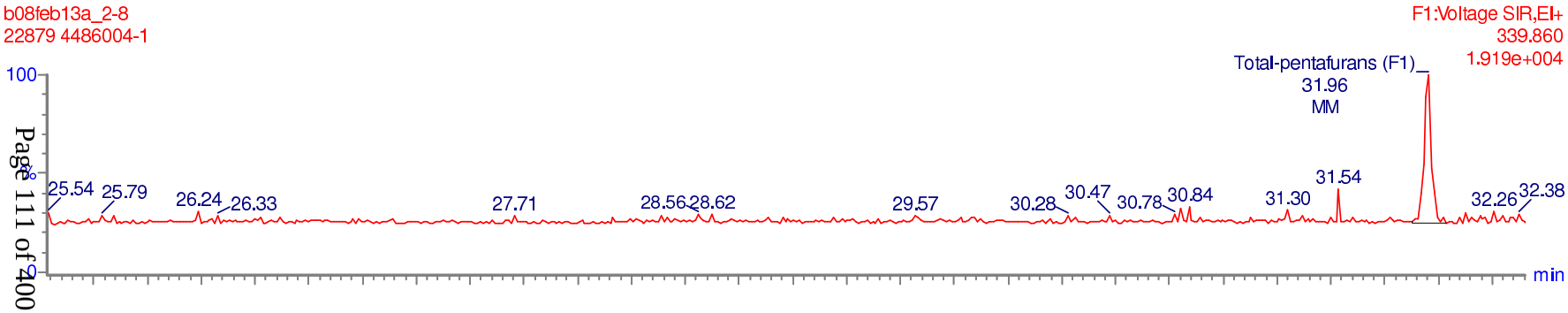


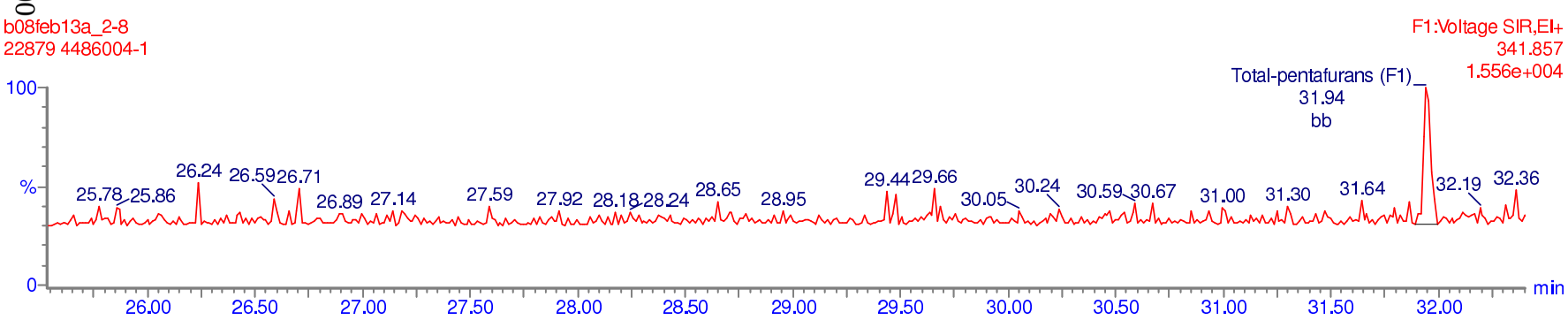
MANUAL INTEGRATION
METHOD 8290



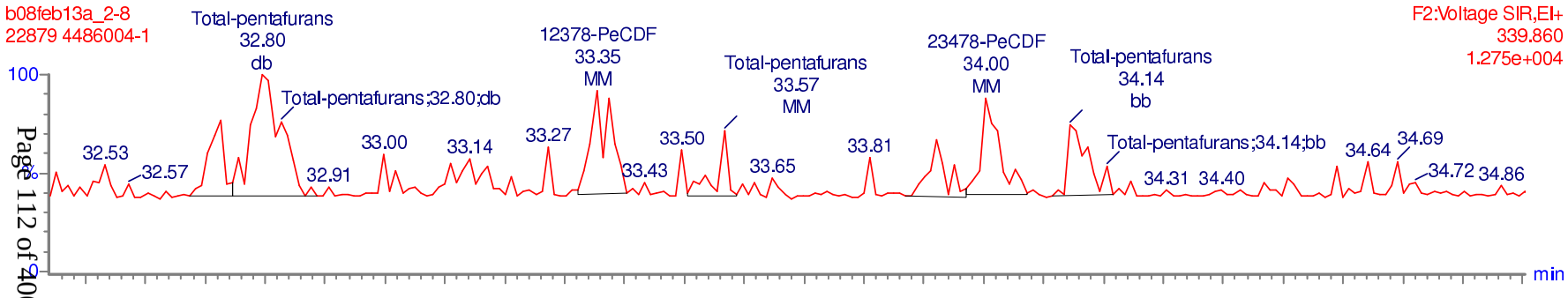


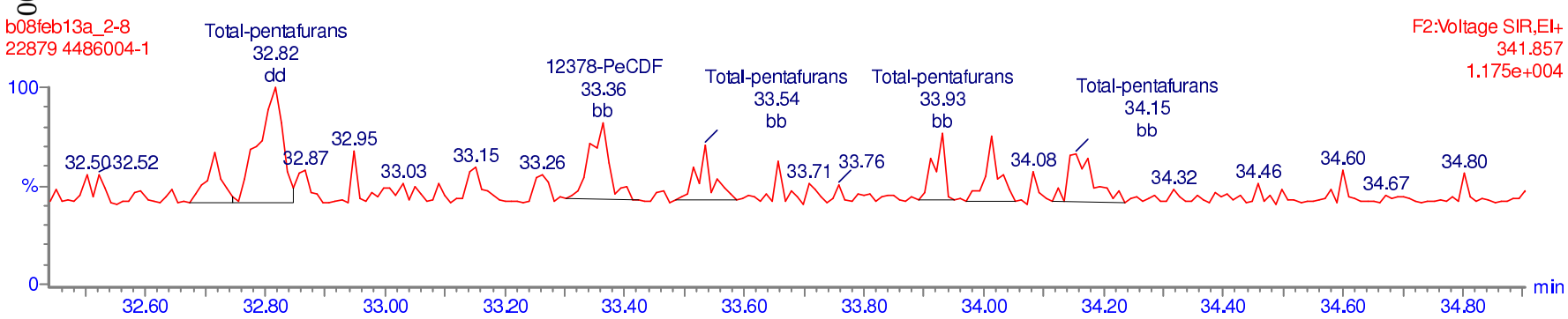
MANUAL INTEGRATION
METHOD 8290



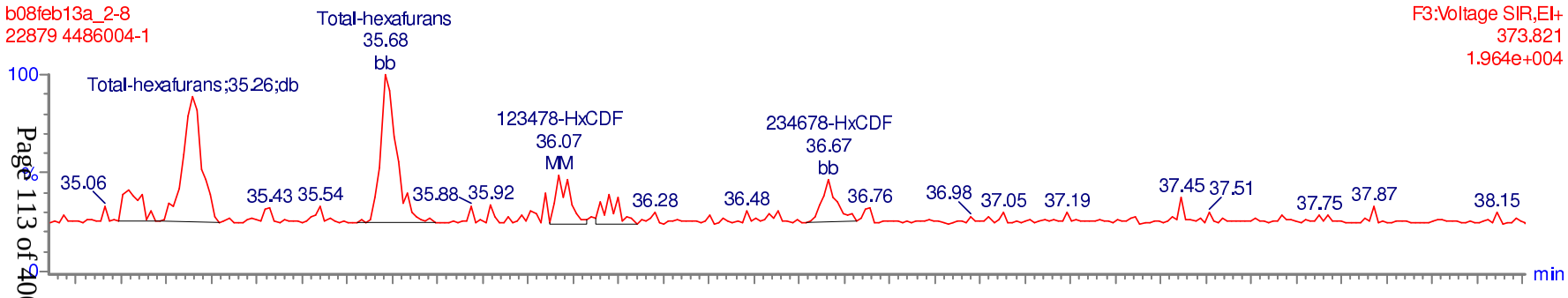


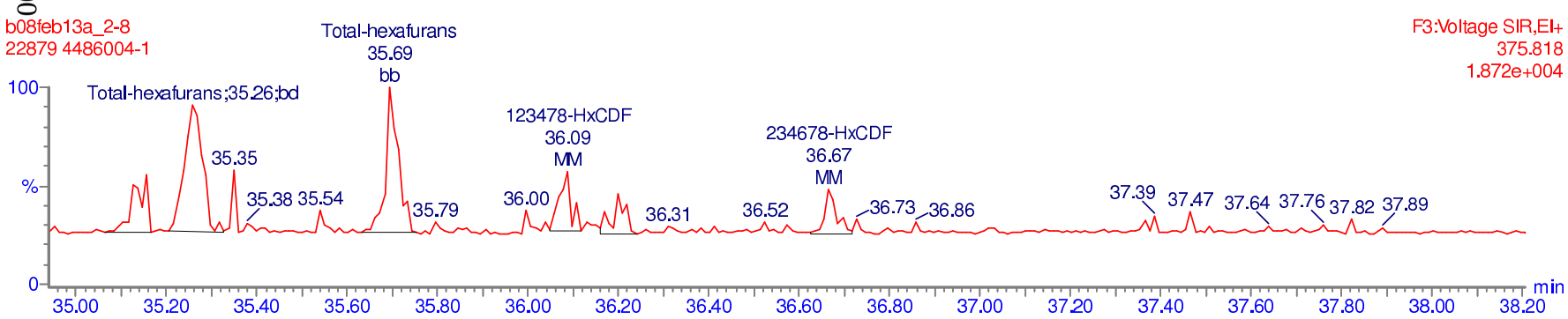
MANUAL INTEGRATION
METHOD 8290



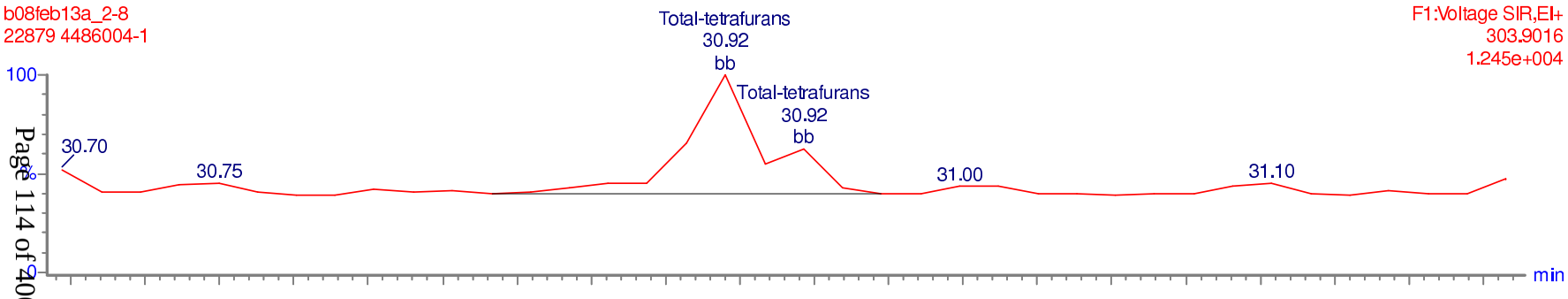


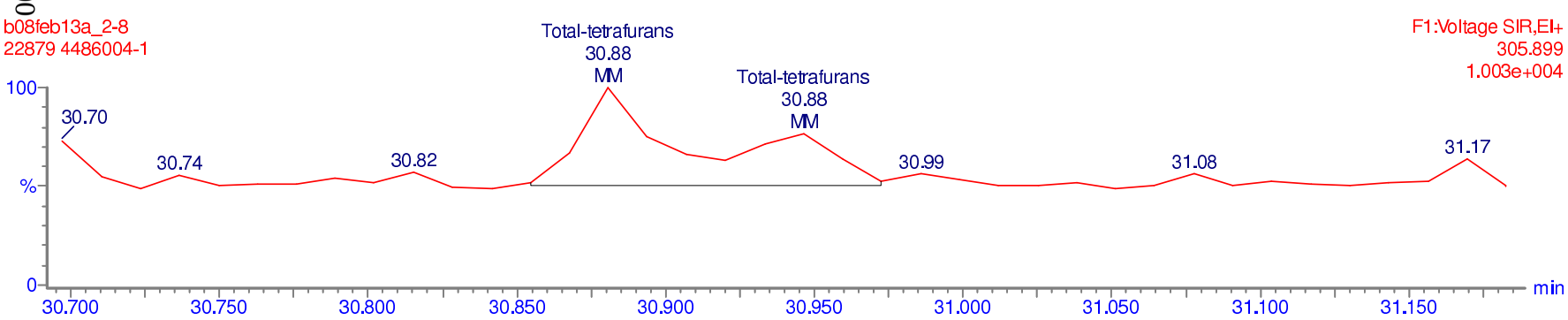
MANUAL INTEGRATION
METHOD 8290



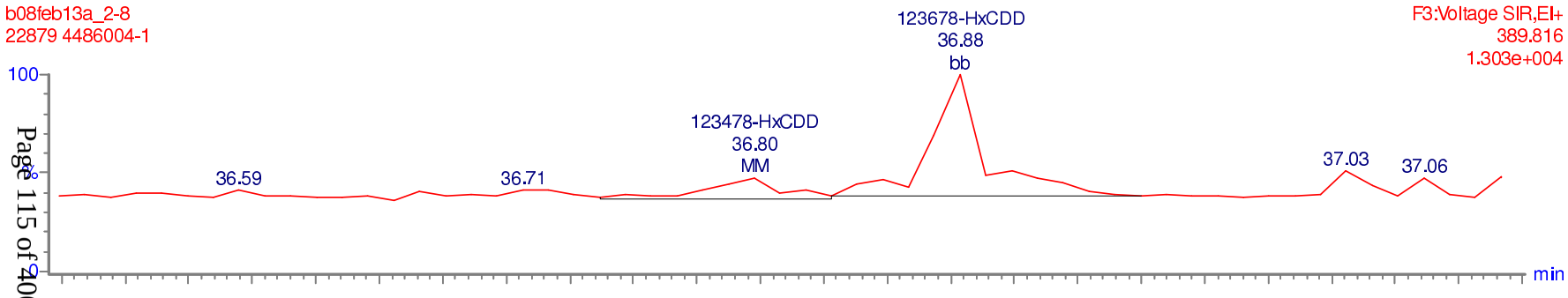


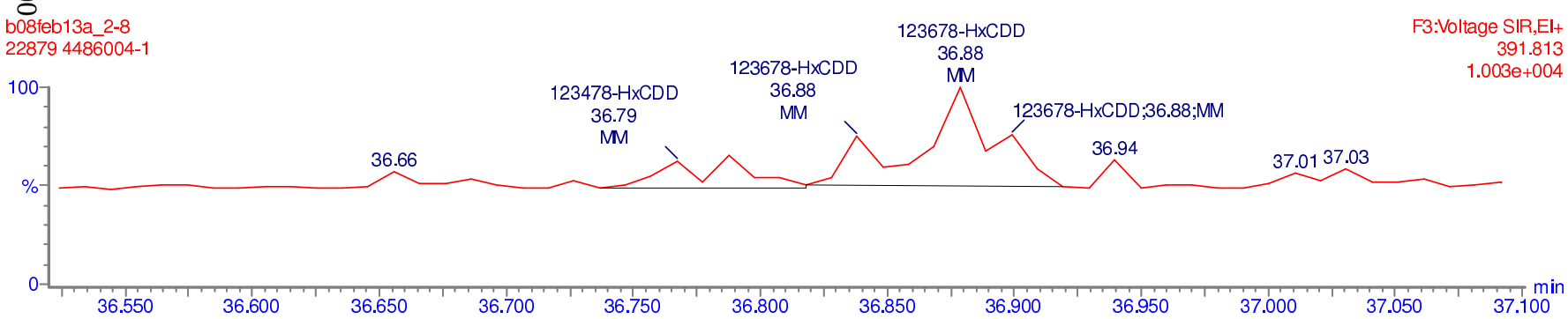
MANUAL INTEGRATION
METHOD 8290





MANUAL INTEGRATION
METHOD 8290





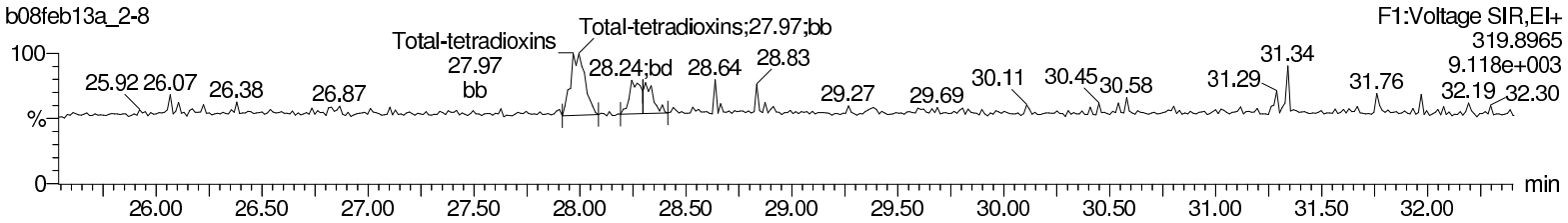
Quantify Sample Report **MassLynx 4.1**
Method 8290 Quantification Report

Dataset: C:\MassLynx\Default.pro\Sample Results\8290-b08feb13a_2.qld

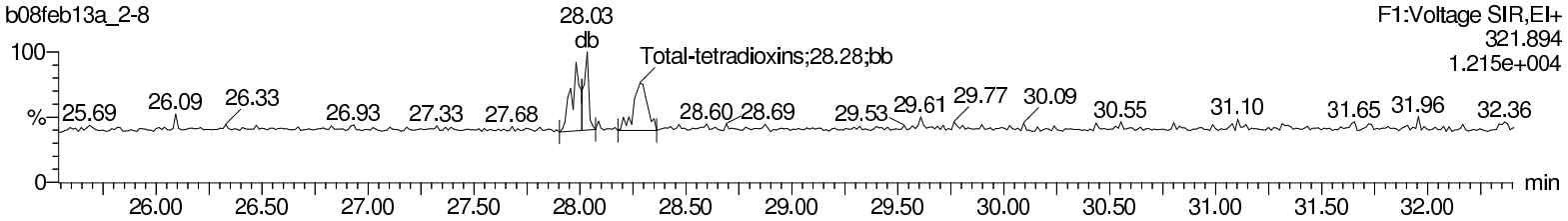
Last Altered: Monday, February 11, 2013 14:16:57 Eastern Standard Time
Printed: Monday, February 11, 2013 14:18:53 Eastern Standard Time

Name: b08feb13a_2-8, Date: 08-Feb-2013, Time: 20:23:03, ID: 4486004-1, Description: 22879, Job: HMS8290_1S, Task: HRP763_1, User: JTF

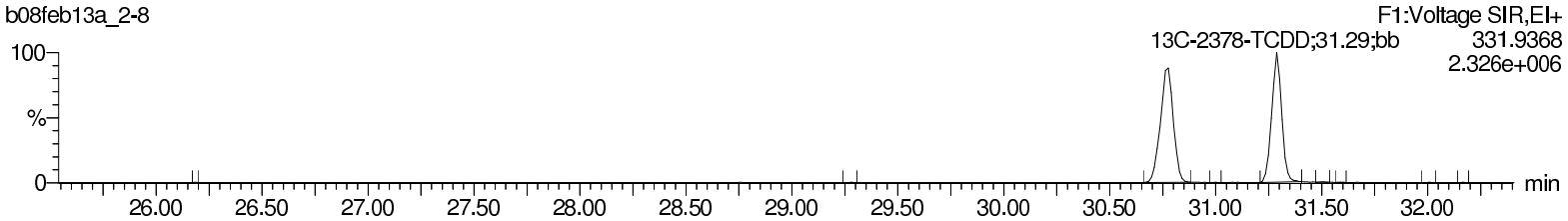
Total-tetradioxins



Total-tetradioxins



13C-2378-TCDD



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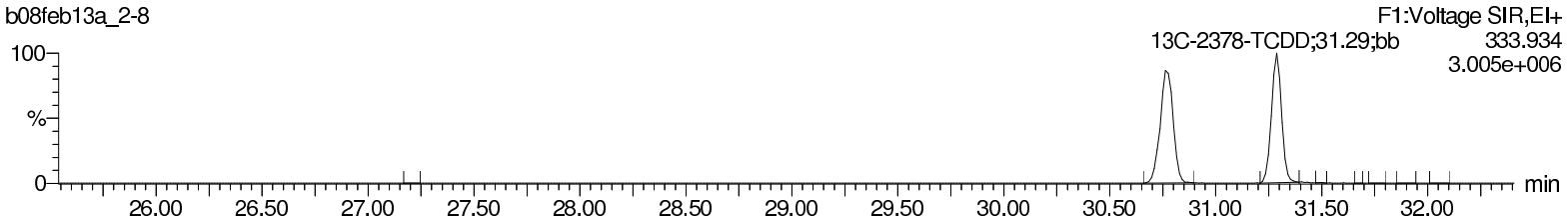
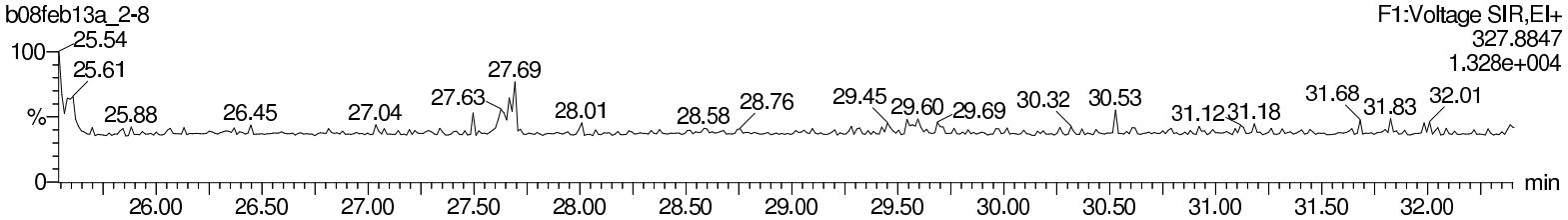
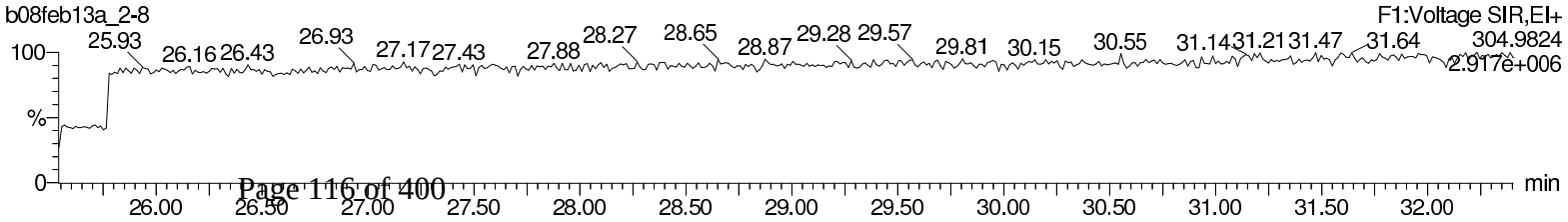


37Cl-2378-TCDD (SS)



Lock Mass F1



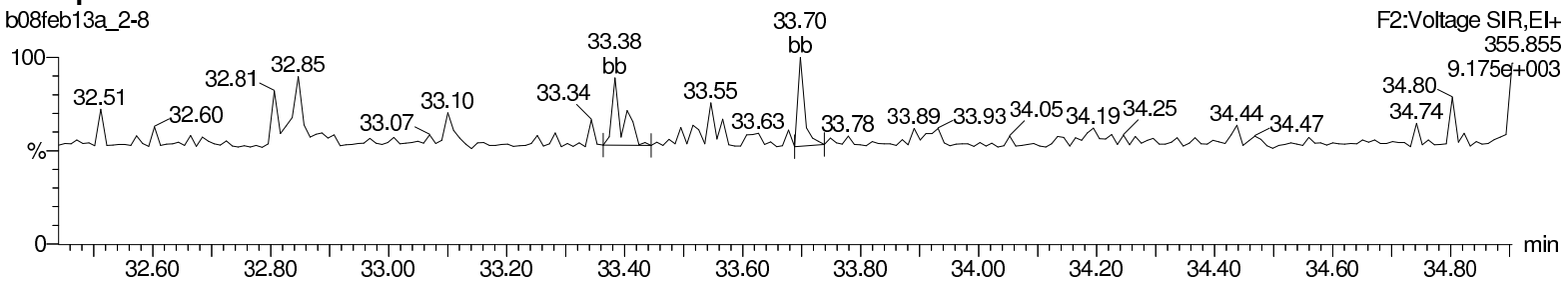
Quantify Sample Report **MassLynx 4.1**
Method 8290 Quantification Report

Dataset: C:\MassLynx\Default.pro\Sample Results\8290-b08feb13a_2.qld

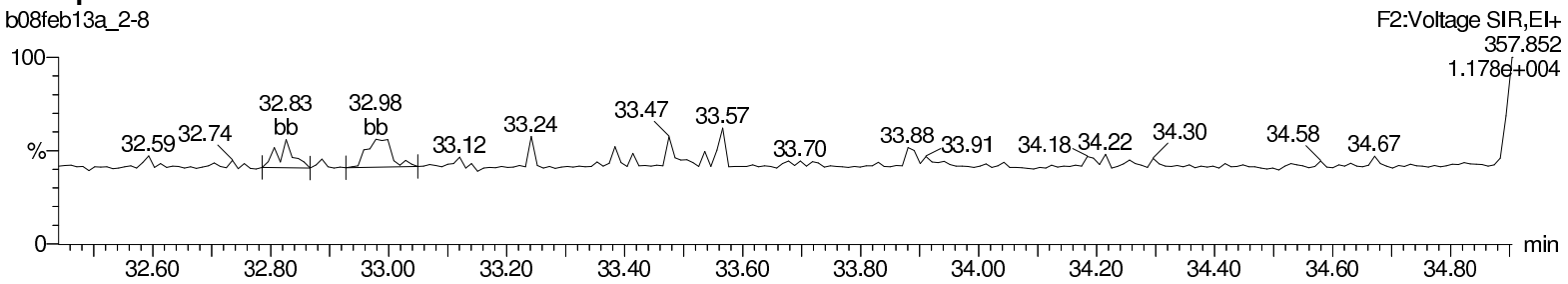
Last Altered: Monday, February 11, 2013 14:16:57 Eastern Standard Time
Printed: Monday, February 11, 2013 14:18:53 Eastern Standard Time

Name: b08feb13a_2-8, Date: 08-Feb-2013, Time: 20:23:03, ID: 4486004-1, Description: 22879, Job: HMS8290_1S, Task: HRP763_1, User: JTF

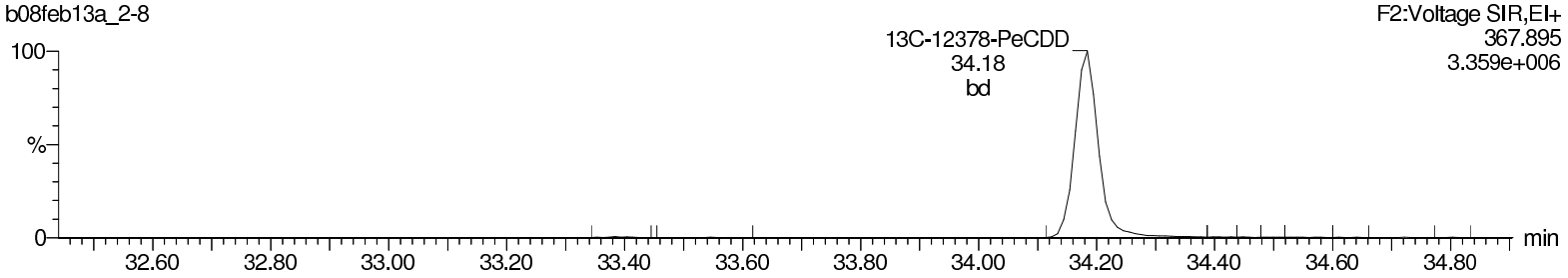
Total-pentadioxins



Total-pentadioxins



13C-12378-PeCDD



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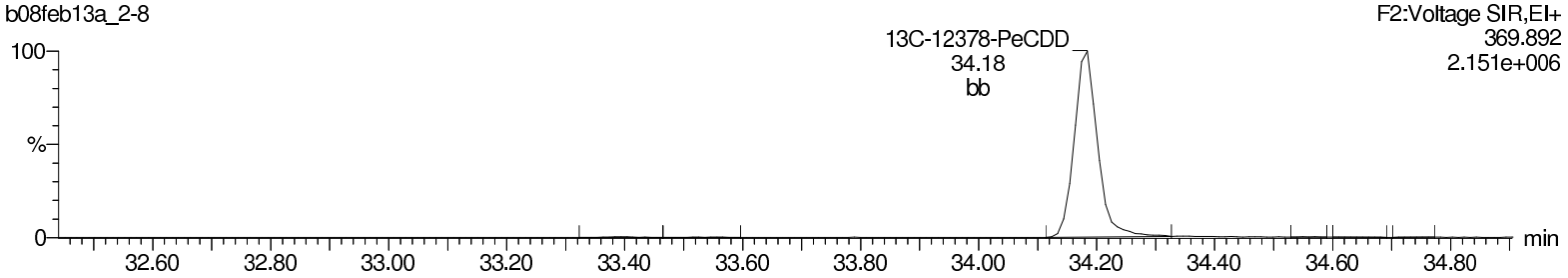
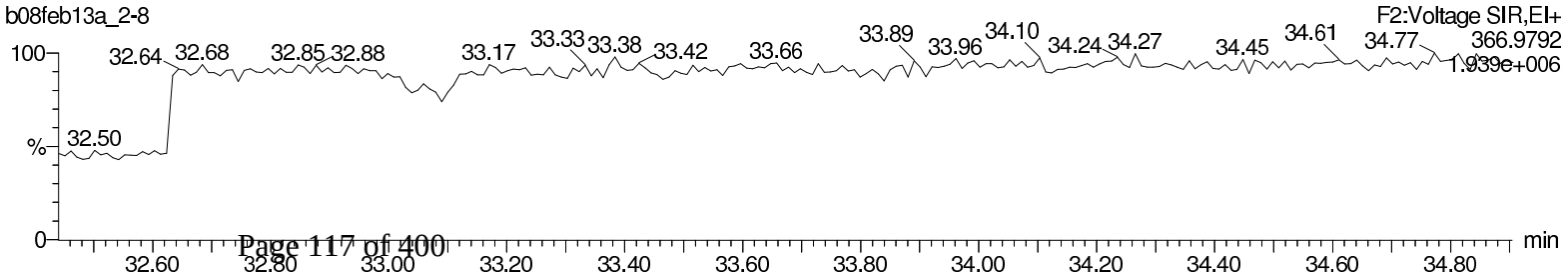


Lock Mass F2



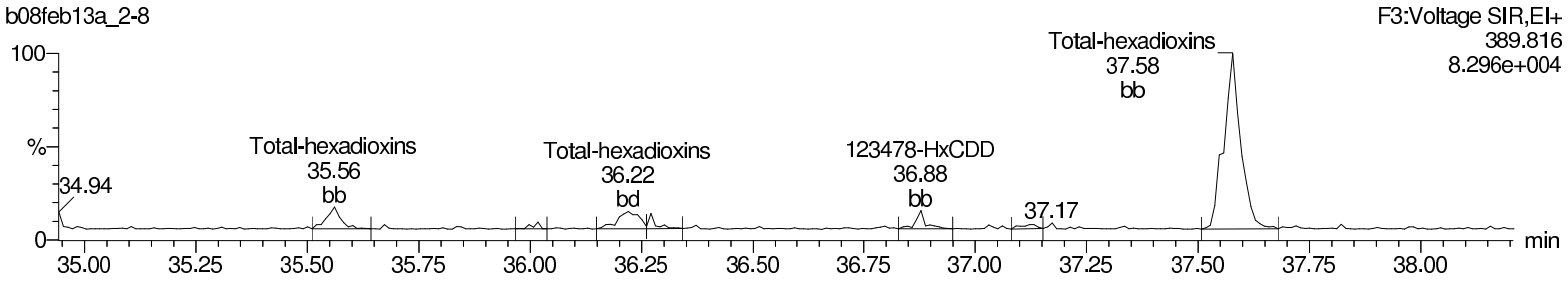
Quantify Sample Report **MassLynx 4.1**
Method 8290 Quantification Report

Dataset: C:\MassLynx\Default.pro\Sample Results\8290-b08feb13a_2.qld

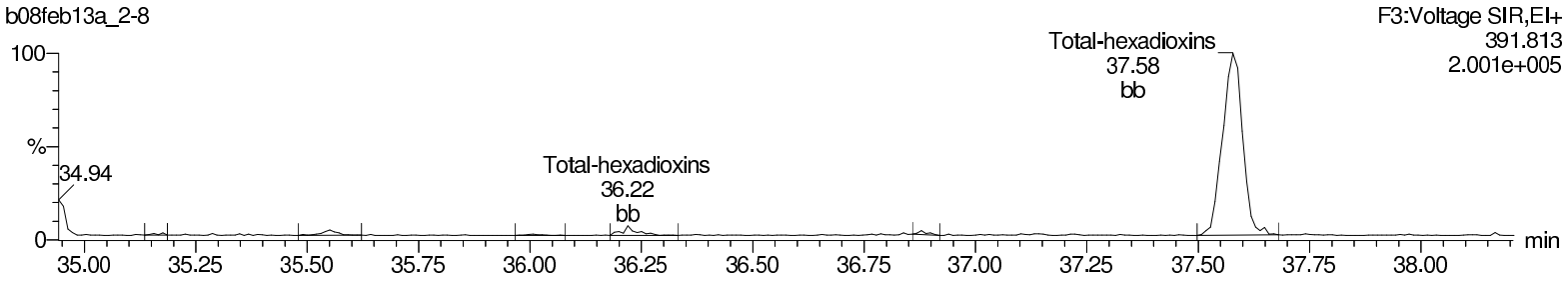
Last Altered: Monday, February 11, 2013 14:16:57 Eastern Standard Time
Printed: Monday, February 11, 2013 14:18:53 Eastern Standard Time

Name: b08feb13a_2-8, Date: 08-Feb-2013, Time: 20:23:03, ID: 4486004-1, Description: 22879, Job: HMS8290_1S, Task: HRP763_1, User: JTF

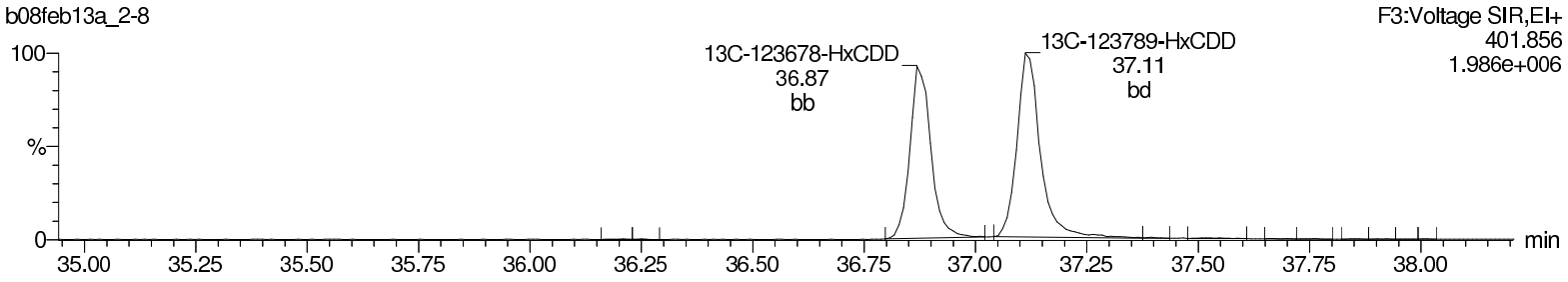
Total-hexadioxins



Total-hexadioxins



13C-123678-HxCDD



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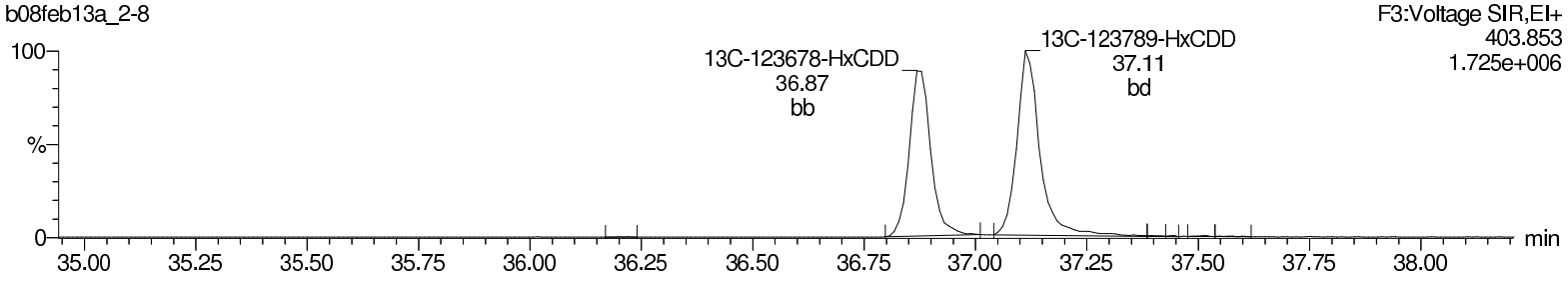
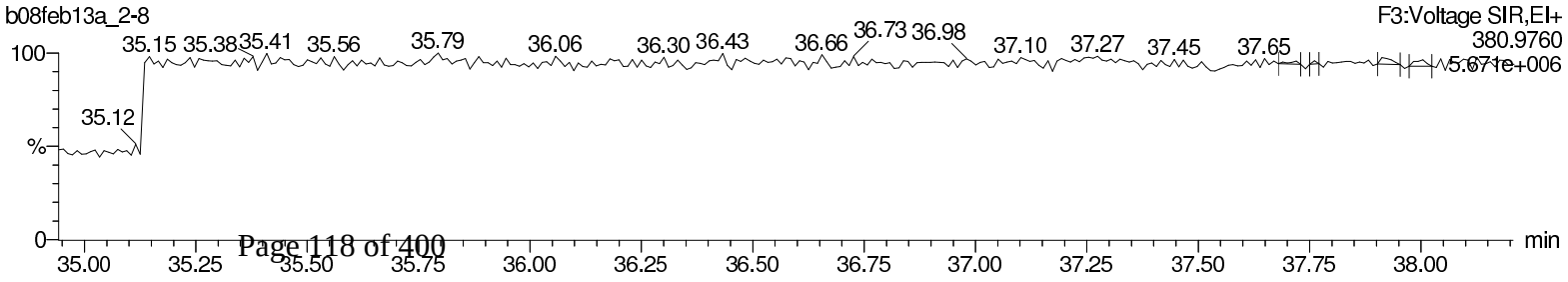


Lock Mass F3



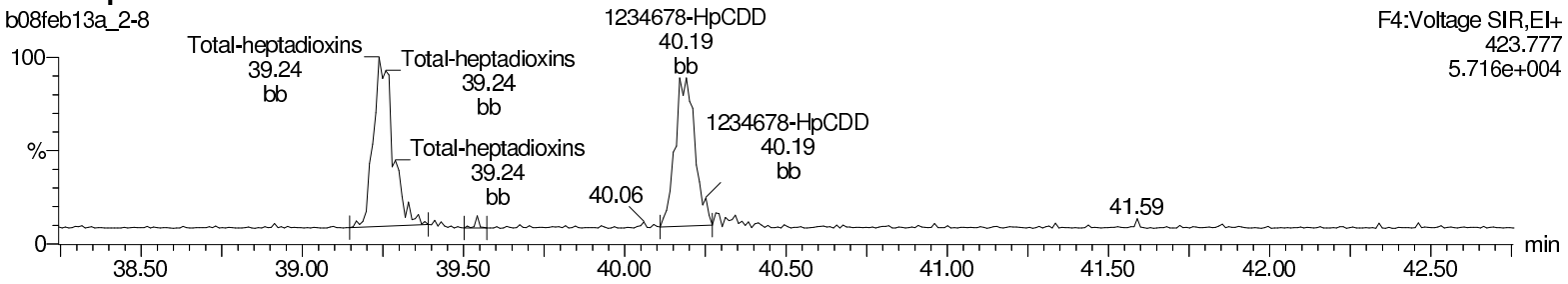
Quantify Sample Report **MassLynx 4.1**
Method 8290 Quantification Report

Dataset: C:\MassLynx\Default.pro\Sample Results\8290-b08feb13a_2.qld

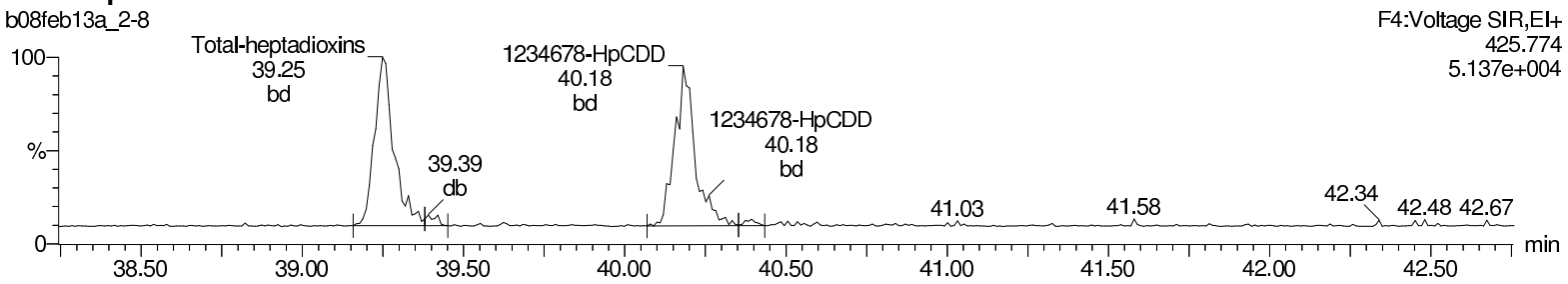
Last Altered: Monday, February 11, 2013 14:16:57 Eastern Standard Time
Printed: Monday, February 11, 2013 14:18:53 Eastern Standard Time

Name: b08feb13a_2-8, Date: 08-Feb-2013, Time: 20:23:03, ID: 4486004-1, Description: 22879, Job: HMS8290_1S, Task: HRP763_1, User: JTF

Total-heptadioxins



Total-heptadioxins



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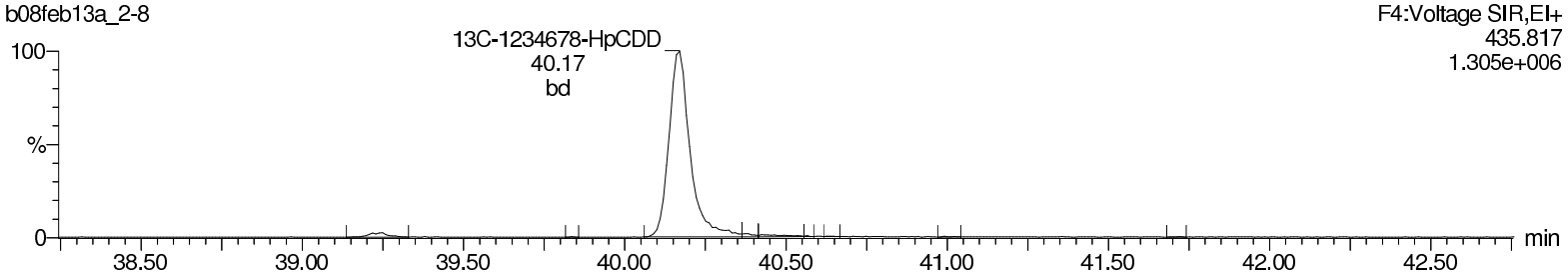

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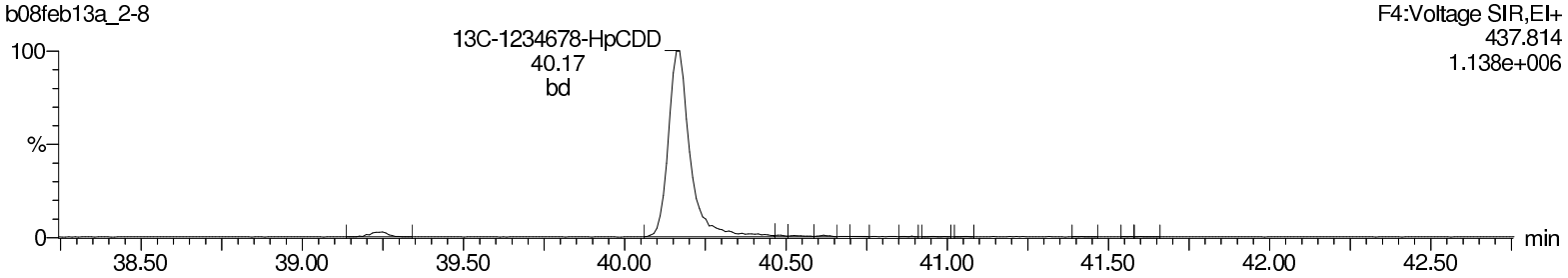
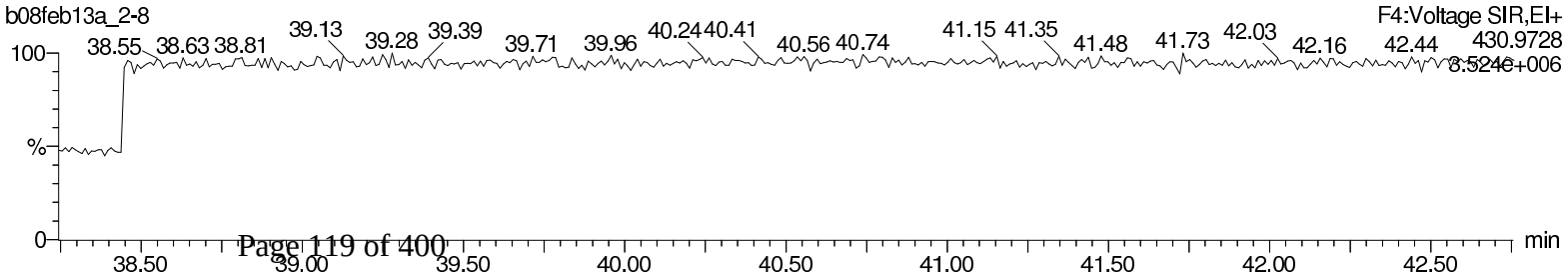


Lock Mass F4



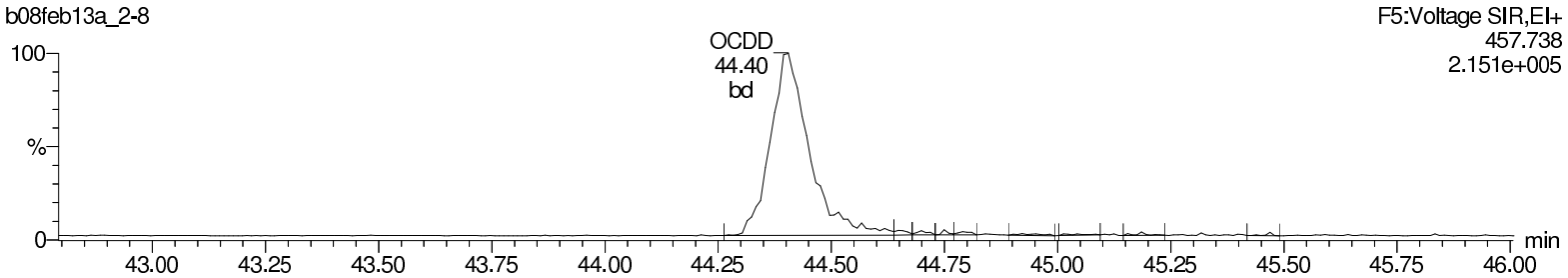
Quantify Sample Report **MassLynx 4.1**
Method 8290 Quantification Report

Dataset: C:\MassLynx\Default.pro\Sample Results\8290-b08feb13a_2.qld

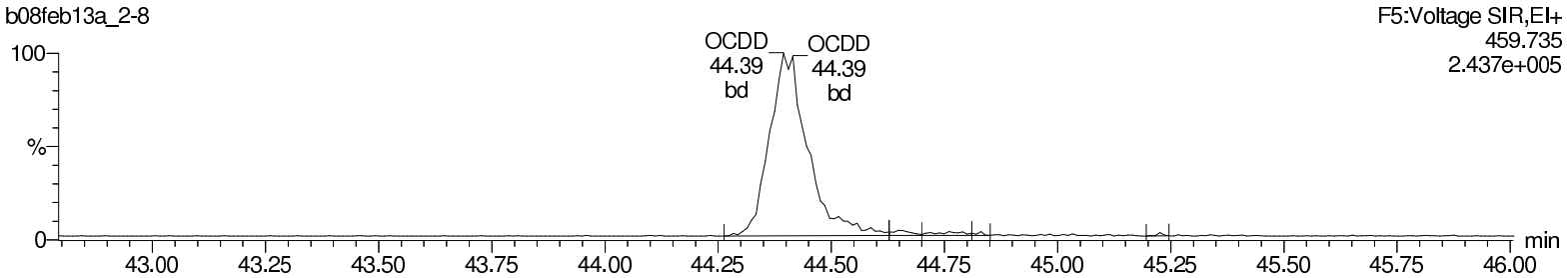
Last Altered: Monday, February 11, 2013 14:16:57 Eastern Standard Time
Printed: Monday, February 11, 2013 14:18:53 Eastern Standard Time

Name: b08feb13a_2-8, Date: 08-Feb-2013, Time: 20:23:03, ID: 4486004-1, Description: 22879, Job: HMS8290_1S, Task: HRP763_1, User: JTF

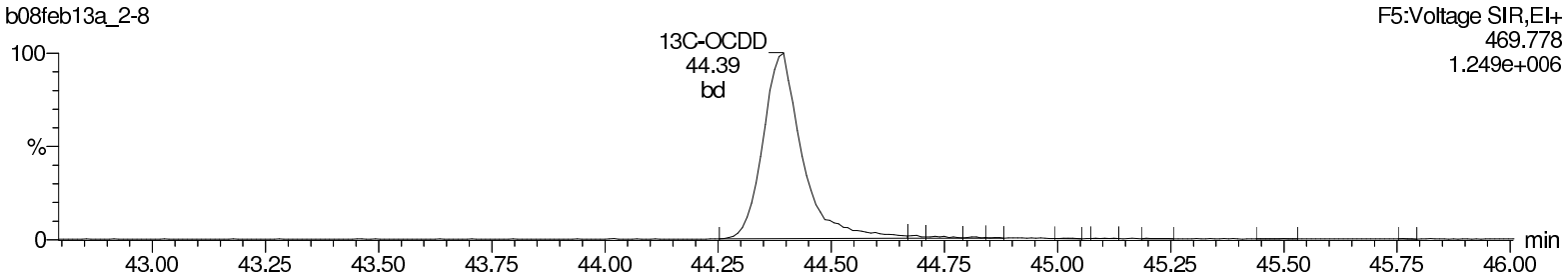
OCDD



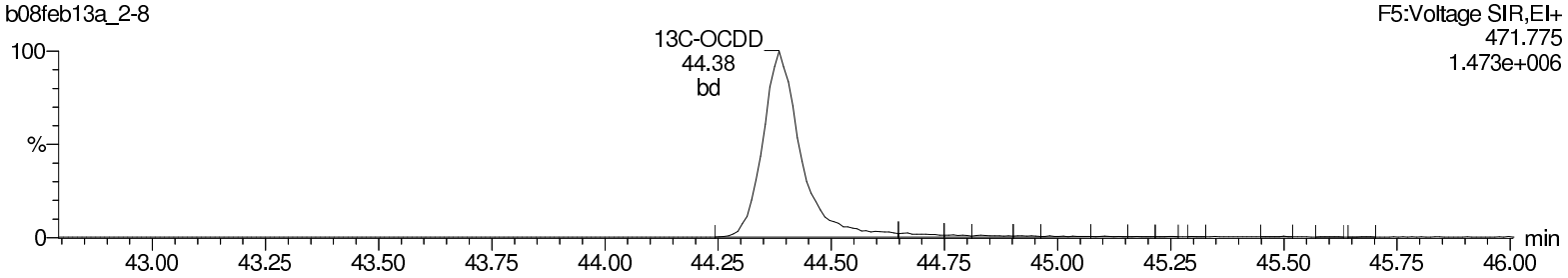
OCDD



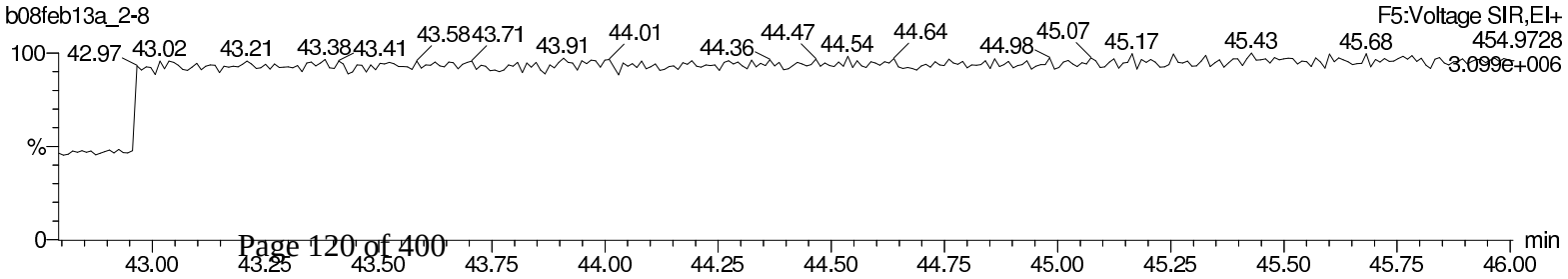
13C-OCDD



13C-OCDD



Lock Mass F5



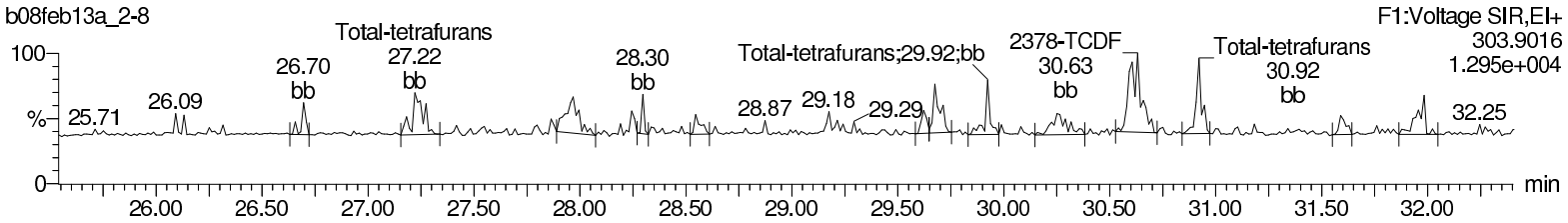
Quantify Sample Report **MassLynx 4.1**
Method 8290 Quantification Report

Dataset: C:\MassLynx\Default.pro\Sample Results\8290-b08feb13a_2.qld

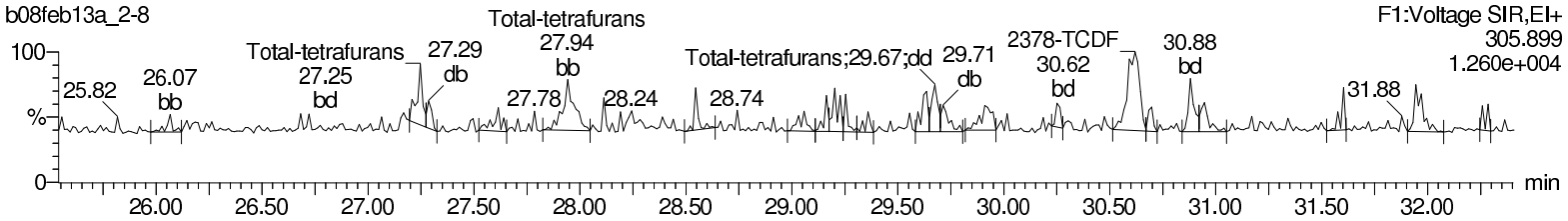
Last Altered: Monday, February 11, 2013 14:16:57 Eastern Standard Time
Printed: Monday, February 11, 2013 14:18:53 Eastern Standard Time

Name: b08feb13a_2-8, Date: 08-Feb-2013, Time: 20:23:03, ID: 4486004-1, Description: 22879, Job: HMS8290_1S, Task: HRP763_1, User: JTF

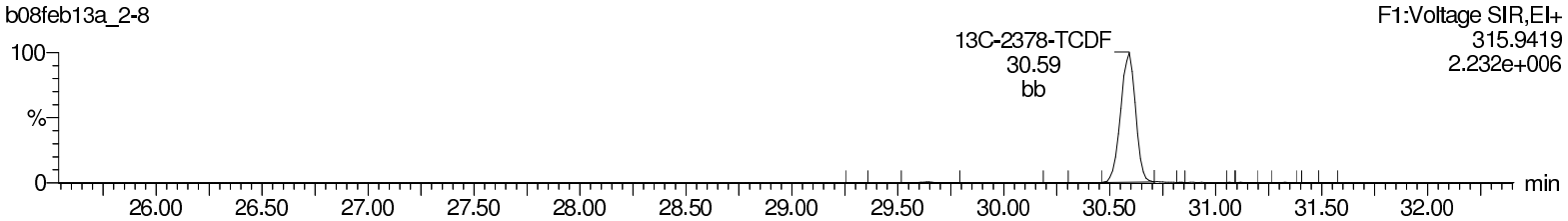
Total-tetrafurans



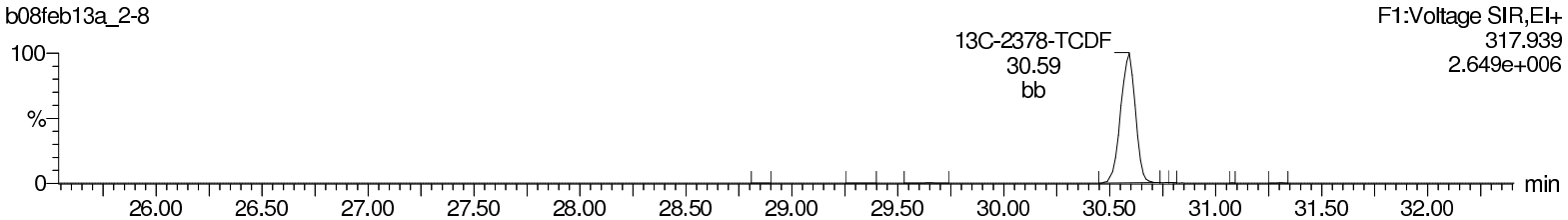
Total-tetrafurans



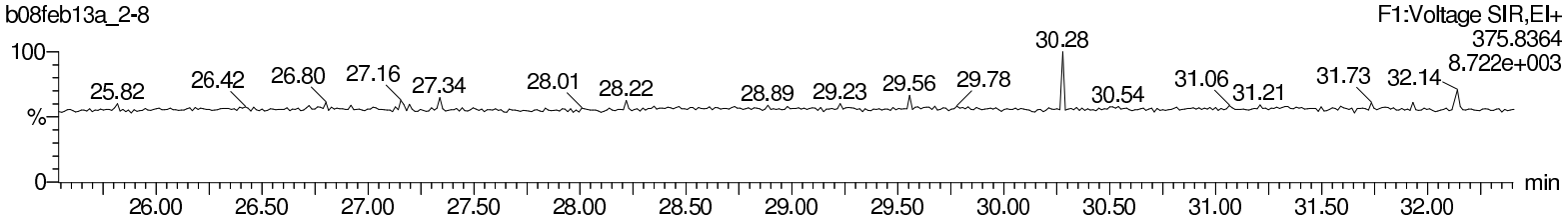
13C-2378-TCDF



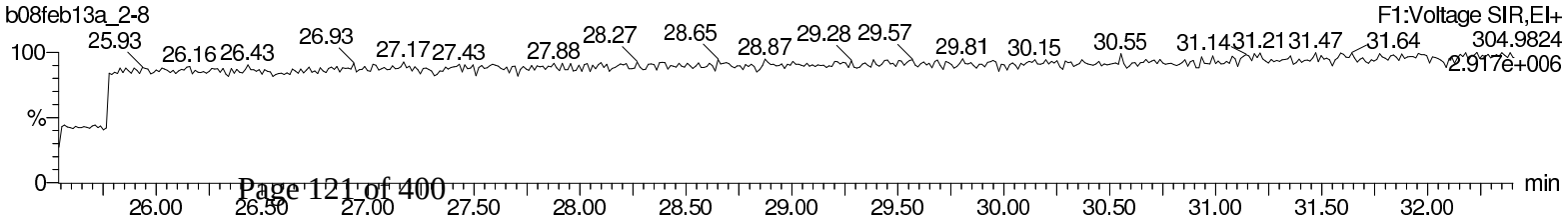
13C-2378-TCDF



HxDPE



Lock Mass F1



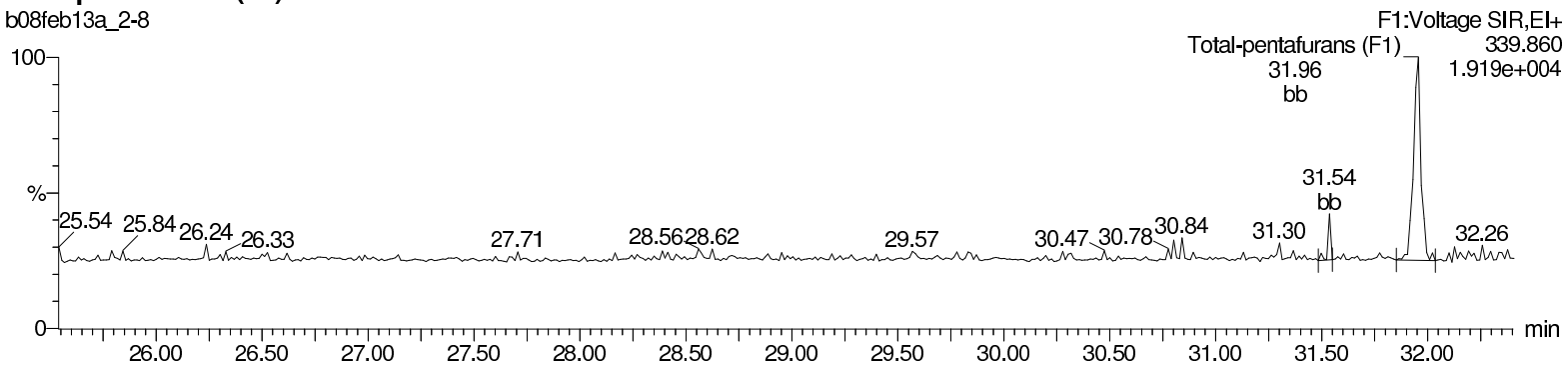
Quantify Sample Report **MassLynx 4.1**
Method 8290 Quantification Report

Dataset: C:\MassLynx\Default.pro\Sample Results\8290-b08feb13a_2.qld

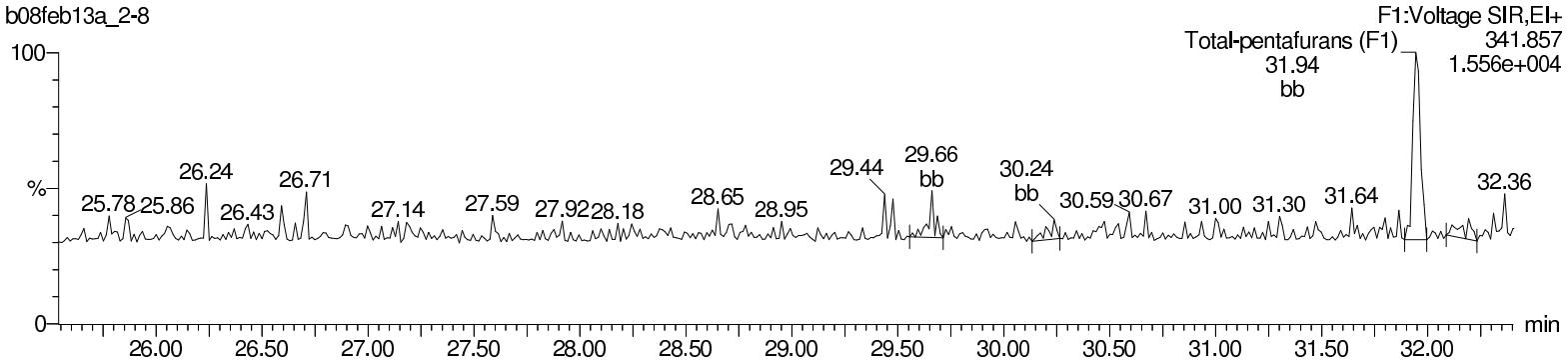
Last Altered: Monday, February 11, 2013 14:16:57 Eastern Standard Time
Printed: Monday, February 11, 2013 14:18:53 Eastern Standard Time

Name: b08feb13a_2-8, Date: 08-Feb-2013, Time: 20:23:03, ID: 4486004-1, Description: 22879, Job: HMS8290_1S, Task: HRP763_1, User: JTF

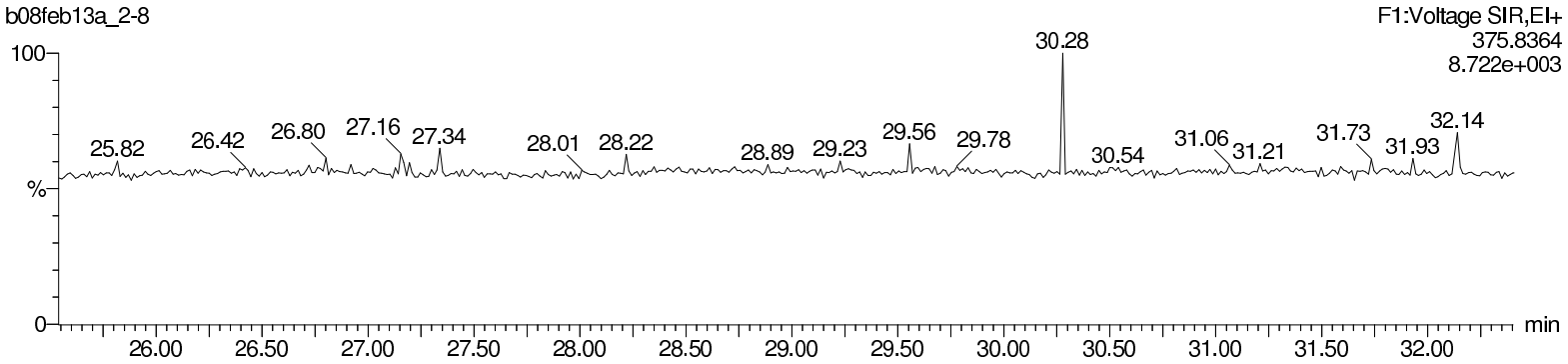
Total-pentafurans (F1)



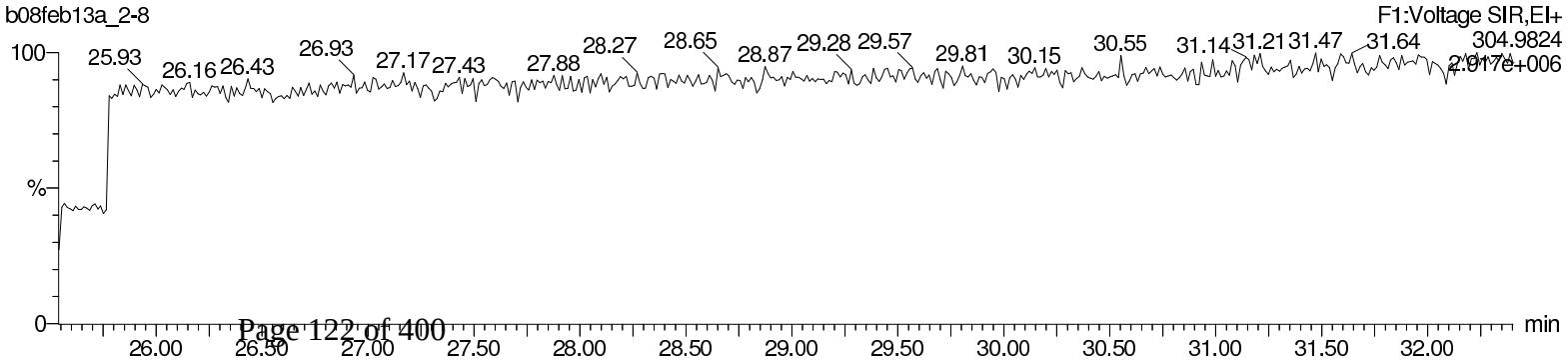
Total-pentafurans (F1)



HxDPE



Lock Mass F1



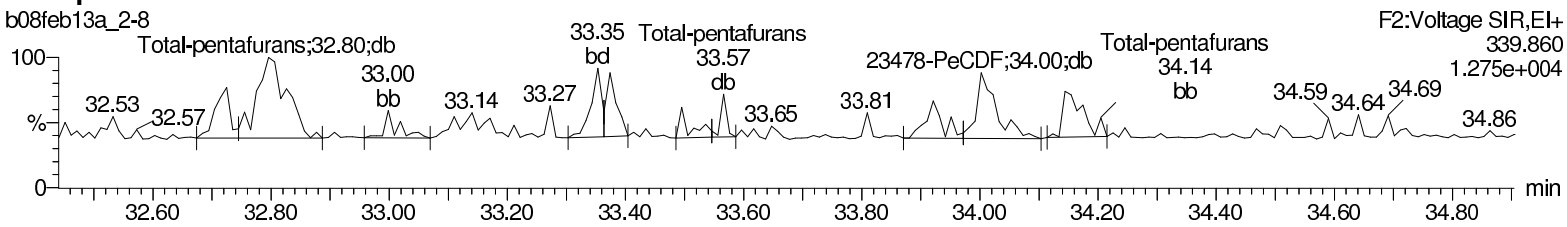
Quantify Sample Report **MassLynx 4.1**
Method 8290 Quantification Report

Dataset: C:\MassLynx\Default.pro\Sample Results\8290-b08feb13a_2.qld

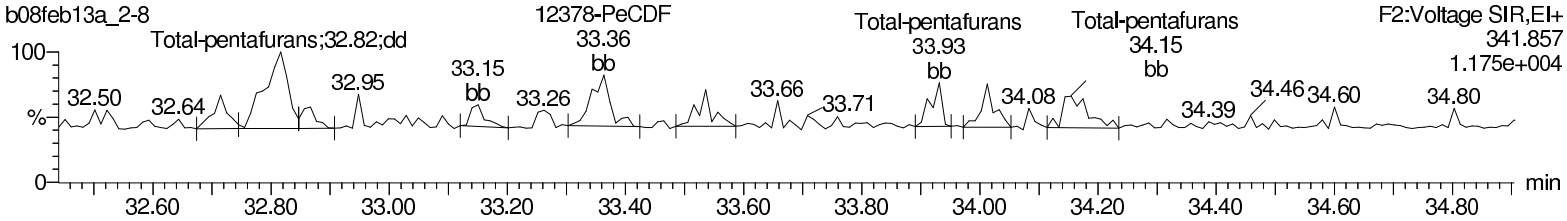
Last Altered: Monday, February 11, 2013 14:16:57 Eastern Standard Time
Printed: Monday, February 11, 2013 14:18:53 Eastern Standard Time

Name: b08feb13a_2-8, Date: 08-Feb-2013, Time: 20:23:03, ID: 4486004-1, Description: 22879, Job: HMS8290_1S, Task: HRP763_1, User: JTF

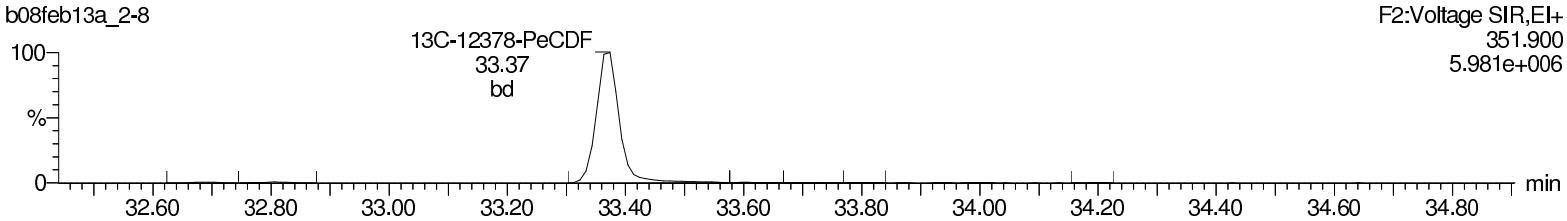
Total-pentafurans



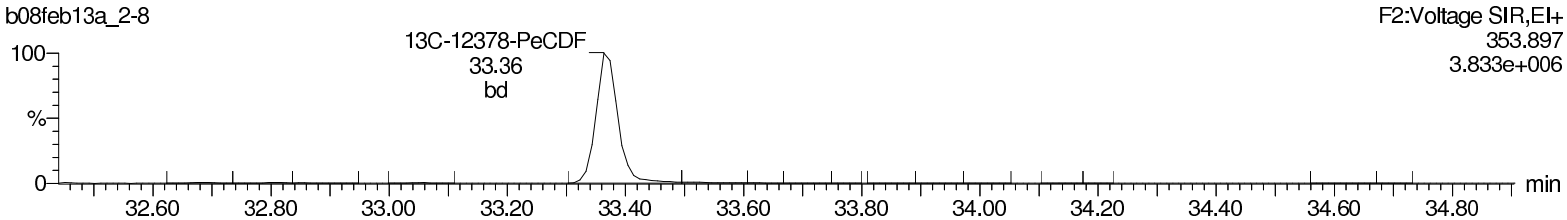
Total-pentafurans



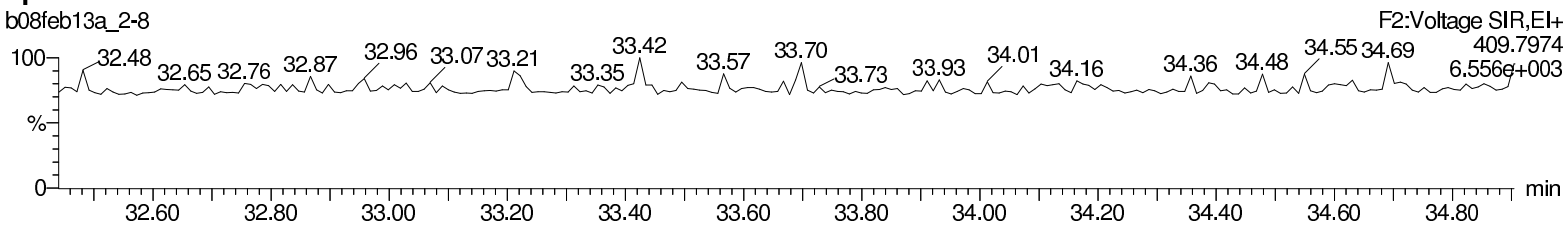
13C-12378-PeCDF



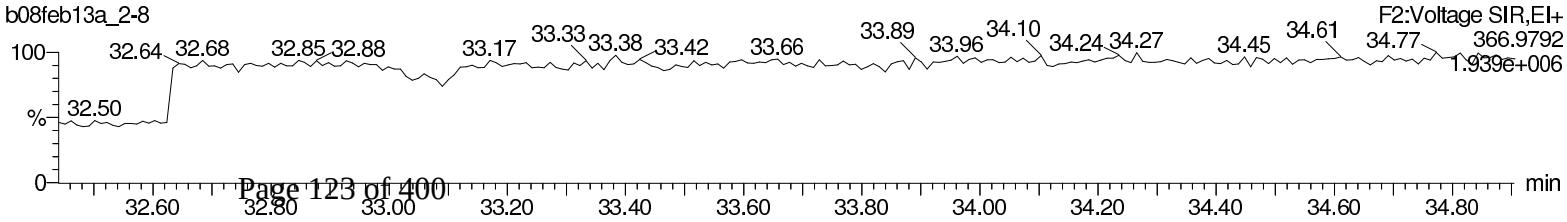
13C-12378-PeCDF



HpDPE



Lock Mass F2



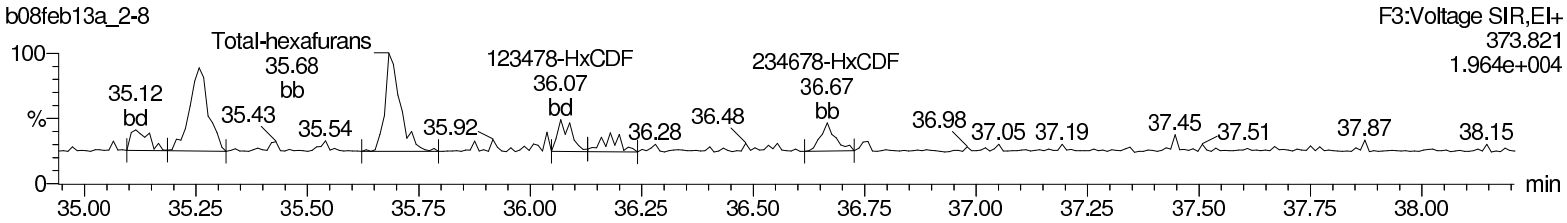
Quantify Sample Report **MassLynx 4.1**
Method 8290 Quantification Report

Dataset: C:\MassLynx\Default.pro\Sample Results\8290-b08feb13a_2.qld

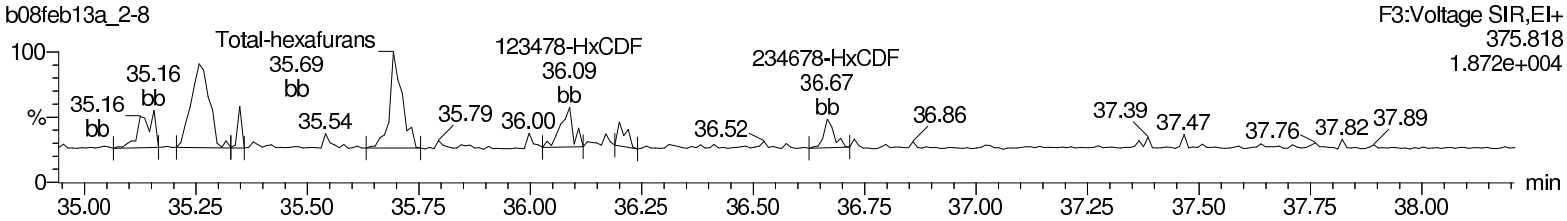
Last Altered: Monday, February 11, 2013 14:16:57 Eastern Standard Time
Printed: Monday, February 11, 2013 14:18:53 Eastern Standard Time

Name: b08feb13a_2-8, Date: 08-Feb-2013, Time: 20:23:03, ID: 4486004-1, Description: 22879, Job: HMS8290_1S, Task: HRP763_1, User: JTF

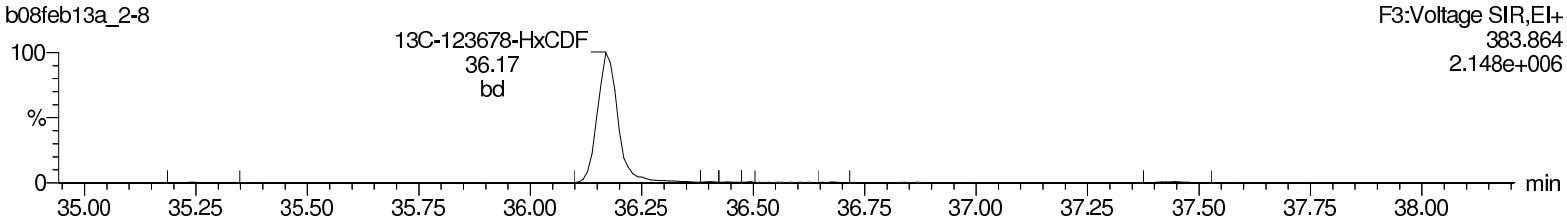
Total-hexafurans



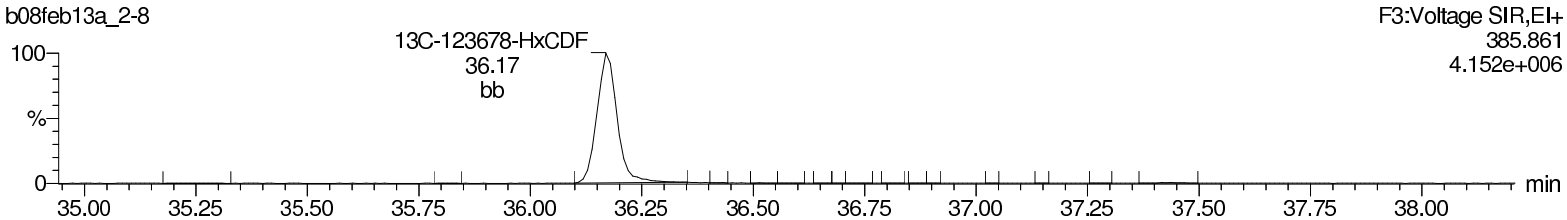
Total-hexafurans



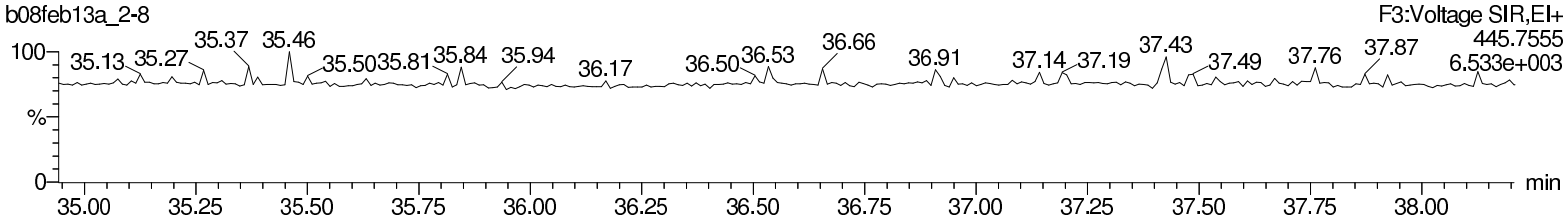
13C-123678-HxCDF



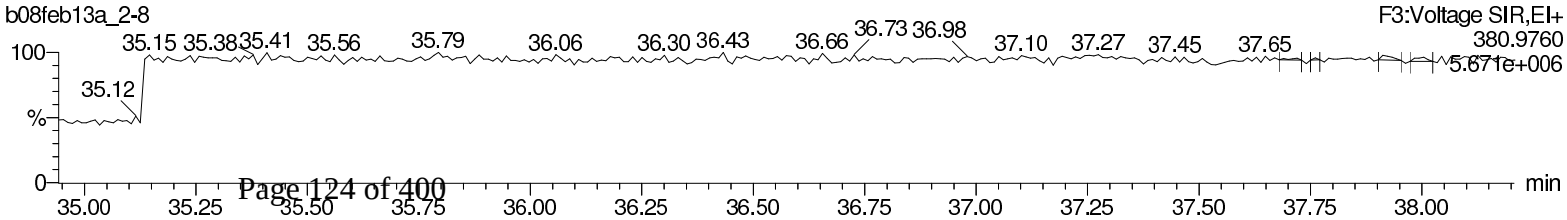
13C-123678-HxCDF



OcDPE



Lock Mass F3



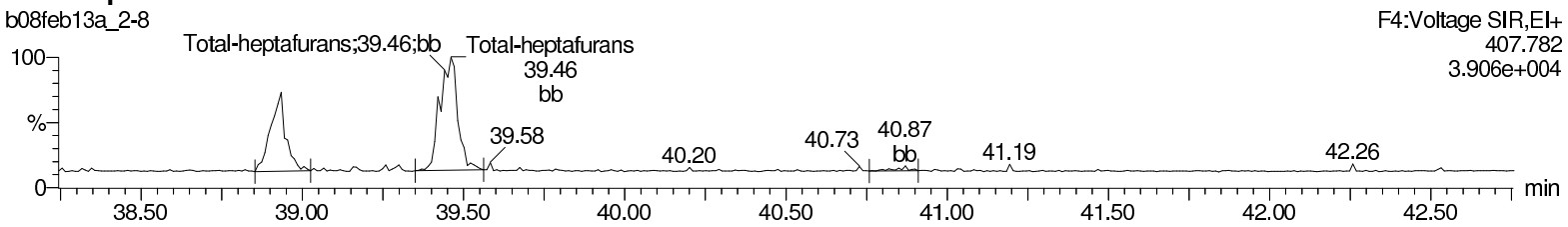
Quantify Sample Report **MassLynx 4.1**
Method 8290 Quantification Report

Dataset: C:\MassLynx\Default.pro\Sample Results\8290-b08feb13a_2.qld

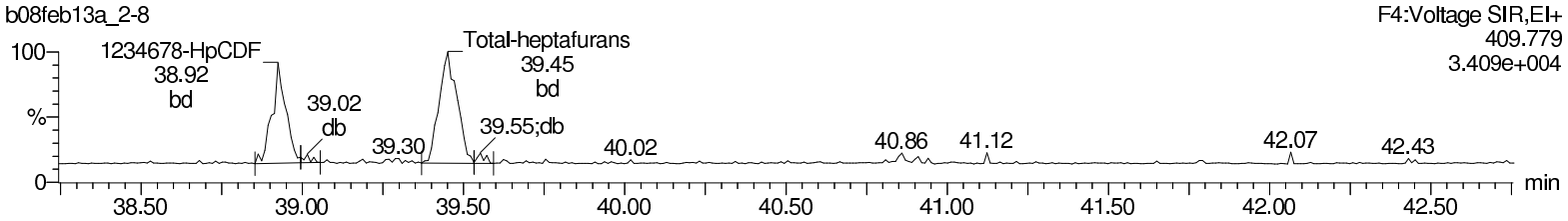
Last Altered: Monday, February 11, 2013 14:16:57 Eastern Standard Time
Printed: Monday, February 11, 2013 14:18:53 Eastern Standard Time

Name: b08feb13a_2-8, Date: 08-Feb-2013, Time: 20:23:03, ID: 4486004-1, Description: 22879, Job: HMS8290_1S, Task: HRP763_1, User: JTF

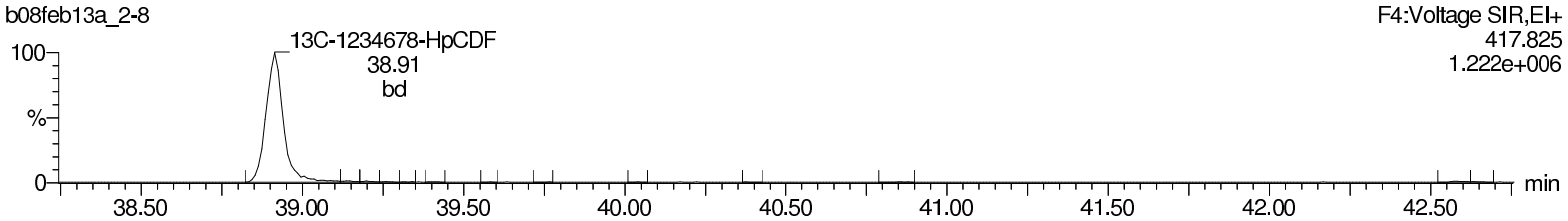
Total-heptafurans



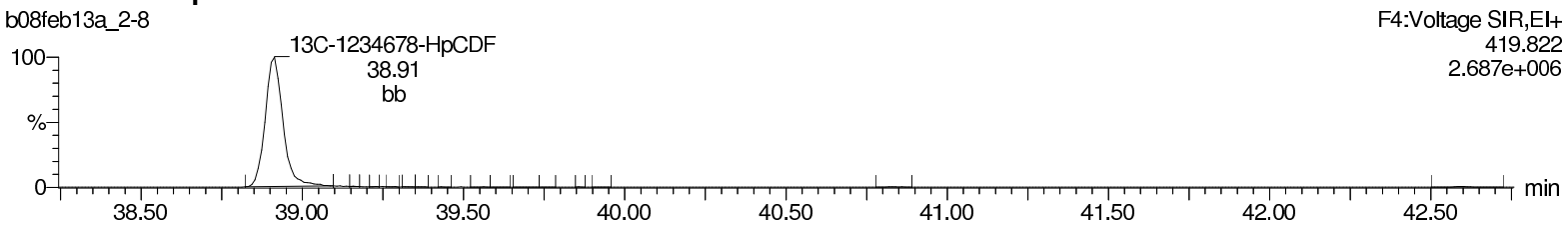
Total-heptafurans



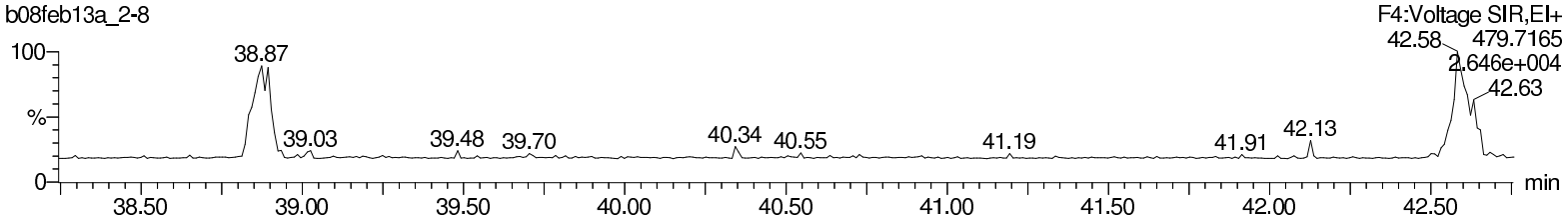
13C-1234678-HpCDF



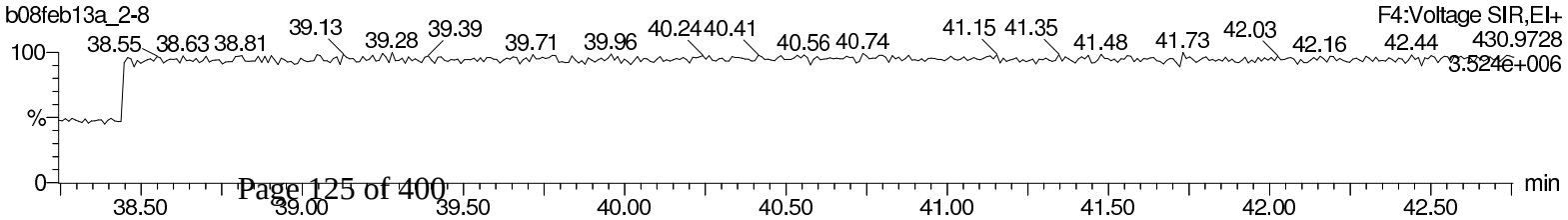
13C-1234678-HpCDF



NoDPE



Lock Mass F4



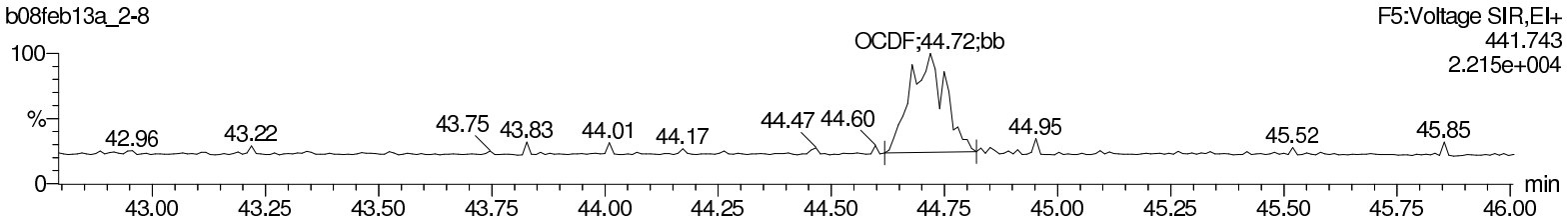
Quantify Sample Report **MassLynx 4.1**
Method 8290 Quantification Report

Dataset: C:\MassLynx\Default.pro\Sample Results\8290-b08feb13a_2.qld

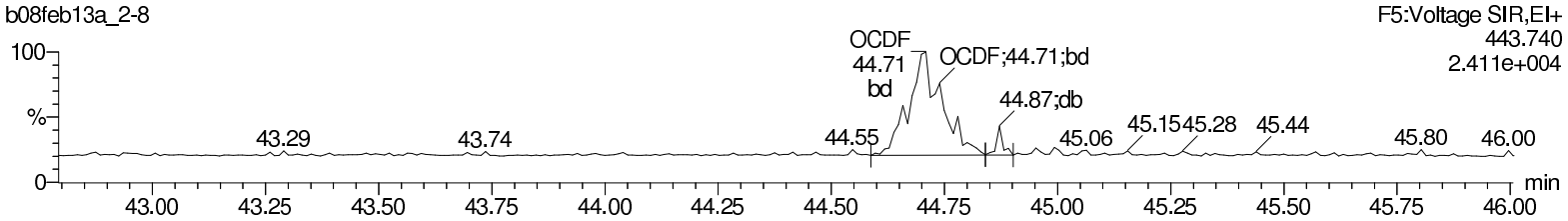
Last Altered: Monday, February 11, 2013 14:16:57 Eastern Standard Time
Printed: Monday, February 11, 2013 14:18:53 Eastern Standard Time

Name: b08feb13a_2-8, Date: 08-Feb-2013, Time: 20:23:03, ID: 4486004-1, Description: 22879, Job: HMS8290_1S, Task: HRP763_1, User: JTF

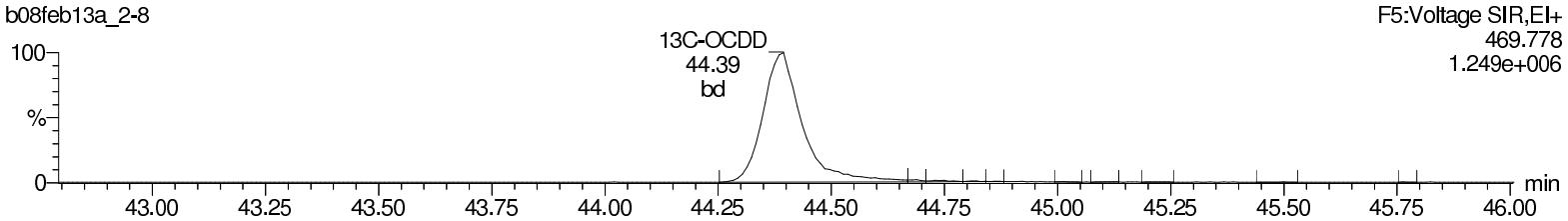
OCDF



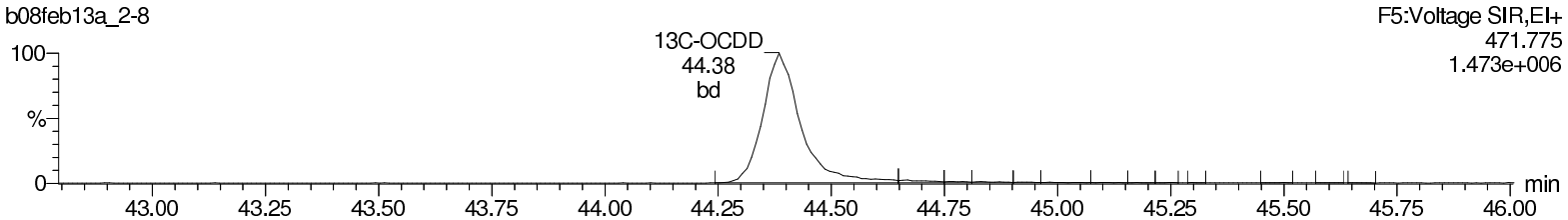
OCDF



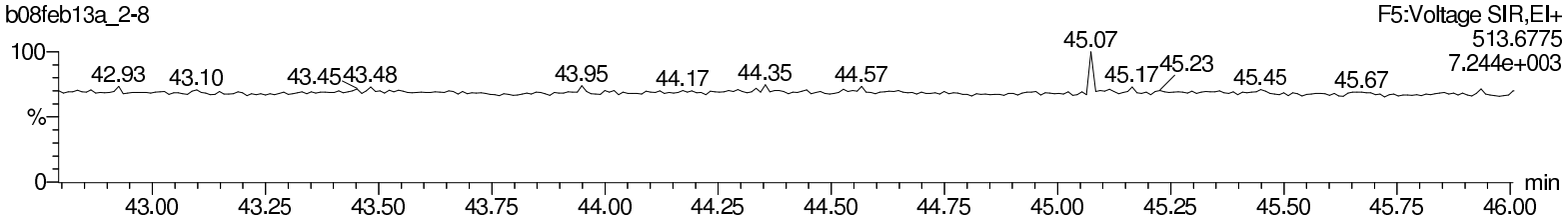
13C-OCDD



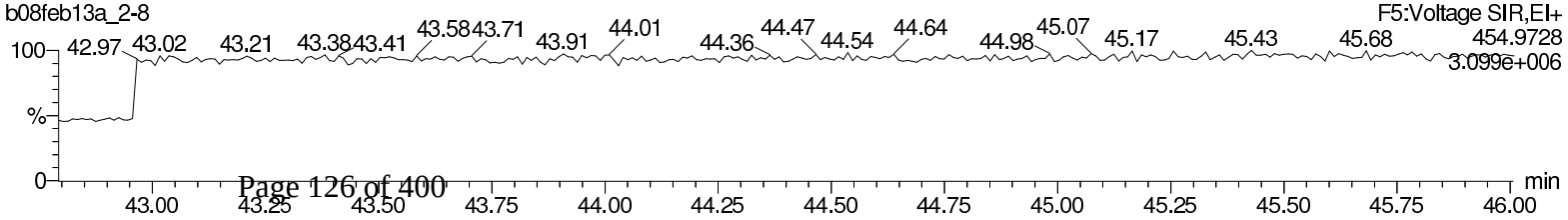
13C-OCDD



DeDPE



Lock Mass F5



Hi-Res Dioxins/Furans
Certificate of Analysis
Sample Summary

SDG Number:	**2013-505**	**Client:**	**LANL001**	**Project:**	**LANL00112**
Lab Sample ID:	**4486005**	**Date Collected:**	**01/31/2013 15:30**	**Matrix:**	**SOLID**
Client Sample:	**8290 Soil**	**Date Received:**	**02/05/2013 10:14**	**%Moisture:**	**41.1**
Client ID:	**CALA-13-28428**			**Prep Basis:**	**Dry Weight**
Batch ID:	**22879**	**Method:**	**SW846 8290A**		
Run Date:	**02/08/2013 21:11**	**Analyst:**	**JTF**	**Instrument:**	**HRP763**
Data File:	**b08feb13a_2-9**			**Dilution:**	**1**
Prep Batch:	**22876**	**Prep Method:**	**SW846 3540C**		
Prep Date:	**06-FEB-13**	**Aliquot:**	**10.79 g**		

CAS No.	Parmname	Qual	Result	EMPC	Units	EDL	PQL
1746-01-6	2,3,7,8-TCDD	U	.22		pg/g	0.220	1.57
40321-76-4	1,2,3,7,8-PeCDD	U	.787		pg/g	0.787	7.87
39227-28-6	1,2,3,4,7,8-HxCDD	U	.787		pg/g	0.787	7.87
57653-85-7	1,2,3,6,7,8-HxCDD	U	.787		pg/g	0.787	7.87
19408-74-3	1,2,3,7,8,9-HxCDD	U	.787		pg/g	0.787	7.87
35822-46-9	1,2,3,4,6,7,8-HpCDD		8.99		pg/g	0.787	7.87
3268-87-9	1,2,3,4,6,7,8,9-OCDD		90.2		pg/g	1.96	15.7
51207-31-9	2,3,7,8-TCDF	J	1.11		pg/g	0.409	1.57
57117-41-6	1,2,3,7,8-PeCDF	U	.787		pg/g	0.787	7.87
57117-31-4	2,3,4,7,8-PeCDF	U	.787		pg/g	0.787	7.87
70648-26-9	1,2,3,4,7,8-HxCDF	U	.787		pg/g	0.787	7.87
57117-44-9	1,2,3,6,7,8-HxCDF	U	.787		pg/g	0.787	7.87
60851-34-5	2,3,4,6,7,8-HxCDF	U	.787		pg/g	0.787	7.87
72918-21-9	1,2,3,7,8,9-HxCDF	U	.787		pg/g	0.787	7.87
67562-39-4	1,2,3,4,6,7,8-HpCDF	J	2.87		pg/g	0.787	7.87
55673-89-7	1,2,3,4,7,8,9-HpCDF	U	.787		pg/g	0.787	7.87
39001-02-0	1,2,3,4,6,7,8,9-OCDF	J	5.81		pg/g	1.89	15.7
41903-57-5	Total TCDDs	U	.22	2.11	pg/g	0.220	1.57
36088-22-9	Total PeCDDs	U	.787		pg/g	0.787	7.87
34465-46-8	Total HxCDDs	J	1.54	2.51	pg/g	0.787	7.87
37871-00-4	Total HpCDDs		19.5		pg/g	0.787	7.87
30402-14-3	Total TCDFs		3.21	3.67	pg/g	0.409	1.57
30402-15-4	Total PeCDFs	U	.787	0.929	pg/g	0.787	7.87
55684-94-1	Total HxCDFs	J	2.50		pg/g	0.787	7.87
38998-75-3	Total HpCDFs	J	7.02		pg/g	0.787	7.87
3333-30-0	TEQ WHO2005 ND=0		0.258	0.258	pg/g		
3333-30-1	TEQ WHO2005 ND=0.5		1.17	1.17	pg/g		

Surrogate/Tracer recovery	Qual	Result	Nominal	Units	Recovery%	Acceptable Limits
13C-2,3,7,8-TCDD		274	315	pg/g	87.0	(40%-135%)
13C-1,2,3,7,8-PeCDD		277	315	pg/g	87.9	(40%-135%)
13C-1,2,3,6,7,8-HxCDD		234	315	pg/g	74.2	(40%-135%)
13C-1,2,3,4,6,7,8-HpCDD		298	315	pg/g	94.8	(40%-135%)
13C-OCDD		511	630	pg/g	81.1	(40%-135%)
13C-2,3,7,8-TCDF		249	315	pg/g	79.0	(40%-135%)
13C-1,2,3,7,8-PeCDF		284	315	pg/g	90.2	(40%-135%)
13C-1,2,3,6,7,8-HxCDF		279	315	pg/g	88.6	(40%-135%)
13C-1,2,3,4,6,7,8-HpCDF		301	315	pg/g	95.5	(40%-135%)

Comments:

J Value is estimated

K Estimated Maximum Possible Concentration

U Analyte was analyzed for , but not detected above the specified detection limit.

Quantify Sample Summary Report **MassLynx 4.1**
Method 8290 Quantification Report

Dataset: C:\MassLynx\Default.pro\Sample Results\8290-b08feb13a_2.qld

Last Altered: Tuesday, February 12, 2013 10:51:08 Eastern Standard Time
Printed: Tuesday, February 12, 2013 10:53:00 Eastern Standard Time

Method: Untitled 20 Dec 2012 07:43:23
Calibration: C:\MassLynx\DEFAULT.PRO\CurveDB\8290-b30nov12a.cdb 03 Dec 2012 09:49:08

Name: b08feb13a_2-9, Date: 08-Feb-2013, Time: 21:11:05, ID: 4486005-1, Description: 22879, Job: HMS8290_1S, Task: HRP763_1, User: JTF

	Name	Ion1Area	Ion2Area	Response	RT	RRT	RA	Fail?	pg/uL	EDL	Height1	Noise1	S/N1	Height2	Noise2	S/N2	M
1	2378-TCDD							NO		0.0699		726			509		
2	12378-PeCDD	5.03e1	4.26e1	9.29e1	34.18	1.000	1.18	YES	0.044	0.0929	1.50e3	936	1.6	1.23e3	819	1.5	bb
3	123478-HxCDD	9.63e1	8.05e1	1.77e2	36.77	0.997	1.20	NO	0.116	0.171	4.39e3	1095	4.0	2.56e3	906	2.8	bd
4	123678-HxCDD	2.06e2	1.58e2	3.64e2	36.88	1.000	1.30	NO	0.216	0.154	4.48e3	1095	4.1	4.24e3	906	4.7	MM
5	123789-HxCDD	6.74e1	5.50e1	1.22e2	37.10	1.006	1.23	NO	0.079	0.168	2.18e3	1095	2.0	2.27e3	906	2.5	bb
6	1234678-HpCDD	2.52e3	2.34e3	4.86e3	40.17	1.000	1.08	NO	2.856	0.249	3.46e4	986	35.1	4.17e4	1323	31.5	bb
7	OCDD	1.66e4	1.86e4	3.52e4	44.40	1.001	0.89	NO	28.635	0.622	1.67e5	1666	100.0	2.09e5	1366	152.9	bd
8	2378-TCDF	5.09e2	7.61e2	1.27e3	30.59	1.000	0.67	NO	0.351	0.130	6.73e3	709	9.5	1.12e4	1664	6.7	MM
9	12378-PeCDF	2.49e2	1.80e2	4.29e2	33.37	1.000	1.38	NO	0.126	0.0848	6.45e3	1351	4.8	5.71e3	1483	3.8	MM
10	23478-PeCDF	1.76e2	1.15e2	2.91e2	34.01	1.019	1.52	NO	0.082	0.0816	4.80e3	1351	3.6	4.47e3	1483	3.0	db
11	123478-HxCDF	2.57e2	3.35e2	5.92e2	36.09	0.998	0.77	YES	0.236	0.121	8.32e3	1591	5.2	1.17e4	901	13.0	MM
12	123678-HxCDF	1.33e2	1.30e2	2.63e2	36.18	1.000	1.03	YES	0.092	0.106	3.82e3	1591	2.4	5.47e3	901	6.1	MM
13	234678-HxCDF	1.57e2	8.92e1	2.46e2	36.68	1.014	1.75	YES	0.093	0.114	5.99e3	1591	3.8	2.91e3	901	3.2	MM
14	123789-HxCDF							NO		0.136		1591			901		
15	1234678-HpCDF	1.21e3	1.07e3	2.28e3	38.90	1.000	1.14	NO	0.912	0.146	2.07e4	671	30.9	1.73e4	1688	10.3	bb
16	1234789-HpCDF							NO		0.190		671			1688		
17	OCDF	1.26e3	1.37e3	2.63e3	44.68	1.007	0.92	NO	1.845	0.600	1.57e4	1172	13.4	1.77e4	2222	8.0	bd
18	13C-2378-TCDD	1.15e5	1.46e5	2.61e5	31.29	1.017	0.79	NO	86.979	0.242	2.04e6	1969	1038.2	2.58e6	2032	1267.6	bd
19	13C-12378-PeCDD	1.34e5	8.40e4	2.18e5	34.17	1.110	1.59	NO	87.852	0.213	3.00e6	1690	1775.0	1.91e6	1221	1567.7	bd
20	13C-123678-HxCDD	8.32e4	7.30e4	1.56e5	36.87	0.993	1.14	NO	74.196	0.451	1.61e6	3066	523.5	1.31e6	3465	378.1	bb
21	13C-1234678-HpCDD	7.90e4	7.10e4	1.50e5	40.16	1.082	1.11	NO	94.783	0.329	1.08e6	1838	584.9	9.39e5	1746	537.8	bd
22	13C-OCDD	9.83e4	1.12e5	2.10e5	44.37	1.196	0.88	NO	162.209	0.449	9.75e5	2481	393.0	1.11e6	1515	733.2	bd
23	13C-2378-TCDF	1.61e5	1.90e5	3.51e5	30.58	0.994	0.85	NO	78.983	0.0958	2.04e6	1336	1524.9	2.41e6	1016	2371.0	bd
24	13C-12378-PeCDF	2.26e5	1.36e5	3.61e5	33.36	1.084	1.66	NO	90.178	0.251	5.53e6	2589	2135.4	3.41e6	2966	1149.4	bd
25	13C-123678-HxCDF	9.37e4	1.82e5	2.75e5	36.17	0.975	0.52	NO	88.632	0.218	1.93e6	1826	1056.4	3.56e6	2840	1253.0	bb
26	13C-1234678-HpCDF	6.10e4	1.43e5	2.04e5	38.90	1.048	0.43	NO	95.478	0.357	9.86e5	3192	308.9	2.21e6	2040	1081.9	bd
27	13C-1234-TCDD	1.33e5	1.70e5	3.03e5	30.78	0.000	0.78	NO	100.000	0.239	1.84e6	1969	932.7	2.56e6	2032	1260.3	bb
28	13C-123789-HxCDD	1.00e5	8.89e4	1.89e5	37.11	0.000	1.13	NO	100.000	0.502	1.73e6	3066	563.2	1.48e6	3465	425.8	bd
29	37Cl-2378-TCDD (SS)									0.0402		825					
30	13C-23478-PeCDF (SS)	1.58e2	9.29e1	2.51e2	33.98	1.019	1.70	NO	0.069	0.156	3.59e3	2589	1.4	5.88e3	2966	2.0	bb

Quantify Totals Report MassLynx 4.1
Method 8290 Quantification Report

Dataset: C:\MassLynx\Default.pro\Sample Results\8290-b08feb13a_2.qld

Last Altered: Tuesday, February 12, 2013 10:51:08 Eastern Standard Time
Printed: Tuesday, February 12, 2013 10:53:00 Eastern Standard Time

Method: Untitled 20 Dec 2012 07:43:23
Calibration: C:\MassLynx\DEFAULT.PRO\CurveDB\8290-b30nov12a.cdb 03 Dec 2012 09:49:08

Name: b08feb13a_2-9, Date: 08-Feb-2013, Time: 21:11:05, ID: 4486005-1, Description: 22879, Job: HMS8290_1S, Task: HRP763_1, User: JTF

TD

	Name	Ion1Area	Ion2Area	Response	RT	RA	Fail?	pg/uL	EDL	Height1	Noise1	S/N1	Height2	Noise2	S/N2	M
1	Total-tetradioxins	3.28e2	3.11e2	6.38e2	28.27	1.05	YES	0.256	0.0699	5.41e3	726	7.4	3.94e3	509	7.7	MM
2	Total-tetradioxins	3.91e2	6.40e2	1.03e3	27.98	0.61	YES	0.414	0.0699	5.63e3	726	7.8	7.65e3	509	15.0	MM

PD

	Name	Ion1Area	Ion2Area	Response	RT	RA	Fail?	pg/uL	EDL	Height1	Noise1	S/N1	Height2	Noise2	S/N2	M
1	12378-PeCDD	5.03e1	4.26e1	9.29e1	34.18	1.18	YES	0.044	0.0929	1.50e3	936	1.6	1.23e3	819	1.5	bb
2	Total-pentadioxins	5.56e1	3.36e1	8.92e1	33.09	1.66	NO	0.042	0.0496	2.31e3	936	2.5	1.07e3	0	0.0	bb
3	Total-pentadioxins	1.54e2	8.73e1	2.42e2	32.83	1.77	NO	0.115	0.0496	4.01e3	936	4.3	1.90e3	0	0.0	bb

HD

	Name	Ion1Area	Ion2Area	Response	RT	RA	Fail?	pg/uL	EDL	Height1	Noise1	S/N1	Height2	Noise2	S/N2	M
1	Total-hexadioxins	3.14e3	8.94e3	1.21e4	37.57	0.35	YES	7.630	0.164	5.75e4	1095	52.6	1.55e5	906	171.5	bb
2	123789-HxCDD	6.74e1	5.50e1	1.22e2	37.10	1.23	NO	0.079	0.168	2.18e3	1095	2.0	2.27e3	906	2.5	bb
3	123678-HxCDD	2.06e2	1.58e2	3.64e2	36.88	1.30	NO	0.216	0.154	4.48e3	1095	4.1	4.24e3	906	4.7	MM
4	123478-HxCDD	9.63e1	8.05e1	1.77e2	36.77	1.20	NO	0.116	0.171	4.39e3	1095	4.0	2.56e3	906	2.8	bd
5	Total-hexadioxins	4.34e2	3.41e2	7.75e2	36.22	1.27	NO	0.489	0.164	7.50e3	1095	6.8	8.24e3	906	9.1	bb
6	Total-hexadioxins	2.26e2	2.63e2	4.89e2	35.54	0.86	YES	0.309	0.164	6.51e3	1095	5.9	6.52e3	906	7.2	MM

HPD

	Name	Ion1Area	Ion2Area	Response	RT	RA	Fail?	pg/uL	EDL	Height1	Noise1	S/N1	Height2	Noise2	S/N2	M
1	Total-heptadioxins	7.55e1	5.41e1	1.30e2	40.44	1.40	YES	0.076	0.249	2.21e3	986	2.2	2.48e3	1323	1.9	bb
2	1234678-HpCDD	2.52e3	2.34e3	4.86e3	40.17	1.08	NO	2.856	0.249	3.46e4	986	35.1	4.17e4	1323	31.5	bb
3	Total-heptadioxins	7.25e1	1.05e2	1.77e2	39.36	0.69	YES	0.104	0.249	4.05e3	986	4.1	4.69e3	1323	3.5	db
4	Total-heptadioxins	2.70e3	2.96e3	5.66e3	39.25	0.91	NO	3.327	0.249	3.70e4	986	37.5	5.62e4	1323	42.5	bd

Quantify Totals Report MassLynx 4.1
Method 8290 Quantification Report

Dataset: C:\MassLynx\Default.pro\Sample Results\8290-b08feb13a_2.qld

Last Altered: Tuesday, February 12, 2013 10:51:08 Eastern Standard Time
Printed: Tuesday, February 12, 2013 10:53:00 Eastern Standard Time

Name: b08feb13a_2-9, Date: 08-Feb-2013, Time: 21:11:05, ID: 4486005-1, Description: 22879, Job: HMS8290_1S, Task: HRP763_1, User: JTF

TF

	Name	Ion1Area	Ion2Area	Response	RT	RA	Fail?	pg/uL	EDL	Height1	Noise1	S/N1	Height2	Noise2	S/N2	M
1	Total-tetrafurans	6.28e1	6.41e1	1.27e2	27.63	0.98	YES	0.035	0.130	3.30e3	709	4.7	2.26e3	1664	1.4	bb
2	Total-tetrafurans	3.51e2	4.28e2	7.79e2	27.23	0.82	NO	0.215	0.130	6.77e3	709	9.6	7.58e3	1664	4.6	bb
3	Total-tetrafurans	2.82e2	2.59e2	5.41e2	31.96	1.09	YES	0.149	0.130	9.51e3	709	13.4	7.26e3	1664	4.4	bb
4	Total-tetrafurans	1.61e2	5.84e1	2.19e2	30.93	2.76	YES	0.061	0.130	3.52e3	709	5.0	3.14e3	1664	1.9	bb
5	2378-TCDF	5.09e2	7.61e2	1.27e3	30.59	0.67	NO	0.351	0.130	6.73e3	709	9.5	1.12e4	1664	6.7	MM
6	Total-tetrafurans	9.08e1	1.19e2	2.09e2	29.92	0.77	NO	0.058	0.130	1.95e3	709	2.8	2.84e3	1664	1.7	bb
7	Total-tetrafurans	3.81e2	4.51e2	8.32e2	29.69	0.85	NO	0.230	0.130	5.35e3	709	7.6	6.73e3	1664	4.0	bb
8	Total-tetrafurans	1.38e2	1.22e2	2.60e2	29.17	1.13	YES	0.072	0.130	2.39e3	709	3.4	5.07e3	1664	3.0	MM
9	Total-tetrafurans	6.43e1	1.19e2	1.83e2	28.52	0.54	YES	0.051	0.130	2.64e3	709	3.7	3.39e3	1664	2.0	bb
10	Total-tetrafurans	3.62e2	4.41e2	8.04e2	27.95	0.82	NO	0.222	0.130	5.40e3	709	7.6	1.03e4	1664	6.2	bb

PF1

	Name	Ion1Area	Ion2Area	Response	RT	RA	Fail?	pg/uL	EDL	Height1	Noise1	S/N1	Height2	Noise2	S/N2	M
1	Total-pentafurans (F1)	7.15e2	3.11e2	1.03e3	31.94	2.30	YES	0.295	0.0457	1.80e4	645	27.9	5.74e3	911	6.3	MM

PF

	Name	Ion1Area	Ion2Area	Response	RT	RA	Fail?	pg/uL	EDL	Height1	Noise1	S/N1	Height2	Noise2	S/N2	M
1	23478-PeCDF	1.76e2	1.15e2	2.91e2	34.01	1.52	NO	0.082	0.0816	4.80e3	1351	3.6	4.47e3	1483	3.0	db
2	Total-pentafurans	8.78e1	7.61e1	1.64e2	33.93	1.15	YES	0.047	0.0832	1.76e3	1351	1.3	1.59e3	1483	1.1	bd
3	12378-PeCDF	2.49e2	1.80e2	4.29e2	33.37	1.38	NO	0.126	0.0848	6.45e3	1351	4.8	5.71e3	1483	3.8	MM
4	Total-pentafurans	1.08e2	5.13e1	1.60e2	33.14	2.11	YES	0.046	0.0832	5.24e3	1351	3.9	2.63e3	1483	1.8	bb
5	Total-pentafurans	6.25e1	7.66e1	1.39e2	33.00	0.82	YES	0.040	0.0832	2.89e3	1351	2.1	2.33e3	1483	1.6	bb
6	Total-pentafurans	4.55e2	1.73e2	6.27e2	32.80	2.63	YES	0.181	0.0832	8.72e3	1351	6.5	3.87e3	1483	2.6	MM
7	Total-pentafurans	8.46e1	8.40e1	1.69e2	32.72	1.01	YES	0.049	0.0832	3.04e3	1351	2.3	3.61e3	1483	2.4	bd

Quantify Totals Report MassLynx 4.1
Method 8290 Quantification Report

Dataset: C:\MassLynx\Default.pro\Sample Results\8290-b08feb13a_2.qld

Last Altered: Tuesday, February 12, 2013 10:51:08 Eastern Standard Time
Printed: Tuesday, February 12, 2013 10:53:00 Eastern Standard Time

Name: b08feb13a_2-9, Date: 08-Feb-2013, Time: 21:11:05, ID: 4486005-1, Description: 22879, Job: HMS8290_1S, Task: HRP763_1, User: JTF

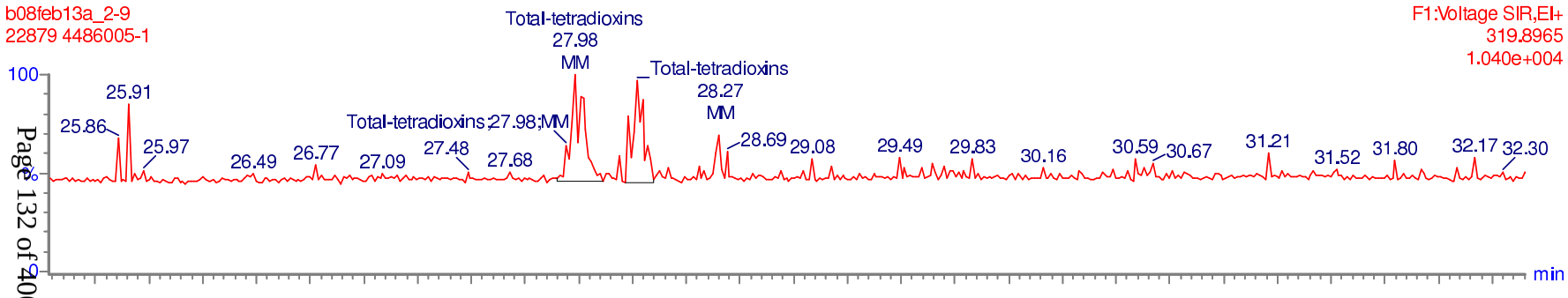
HF

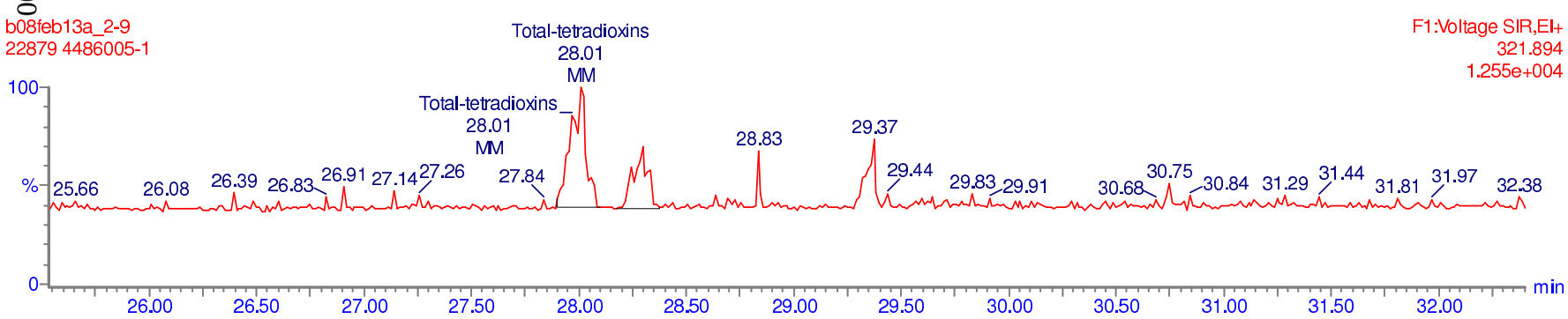
	Name	Ion1Area	Ion2Area	Response	RT	RA	Fail?	pg/uL	EDL	Height1	Noise1	S/N1	Height2	Noise2	S/N2	M
1	234678-HxCDF	1.57e2	8.92e1	2.46e2	36.68	1.75	YES	0.093	0.114	5.99e3	1591	3.8	2.91e3	901	3.2	MM
2	123678-HxCDF	1.33e2	1.30e2	2.63e2	36.18	1.03	YES	0.092	0.106	3.82e3	1591	2.4	5.47e3	901	6.1	MM
3	123478-HxCDF	2.57e2	3.35e2	5.92e2	36.09	0.77	YES	0.236	0.121	8.32e3	1591	5.2	1.17e4	901	13.0	MM
4	Total-hexafurans	4.56e2	4.31e2	8.87e2	35.70	1.06	NO	0.346	0.118	1.16e4	1591	7.3	9.43e3	901	10.5	bb
5	Total-hexafurans	6.26e2	5.23e2	1.15e3	35.26	1.20	NO	0.448	0.118	1.33e4	1591	8.3	1.66e4	901	18.4	bb
6	Total-hexafurans	2.11e2	1.30e2	3.41e2	35.11	1.62	YES	0.133	0.118	5.08e3	1591	3.2	3.69e3	901	4.1	bb

HPF

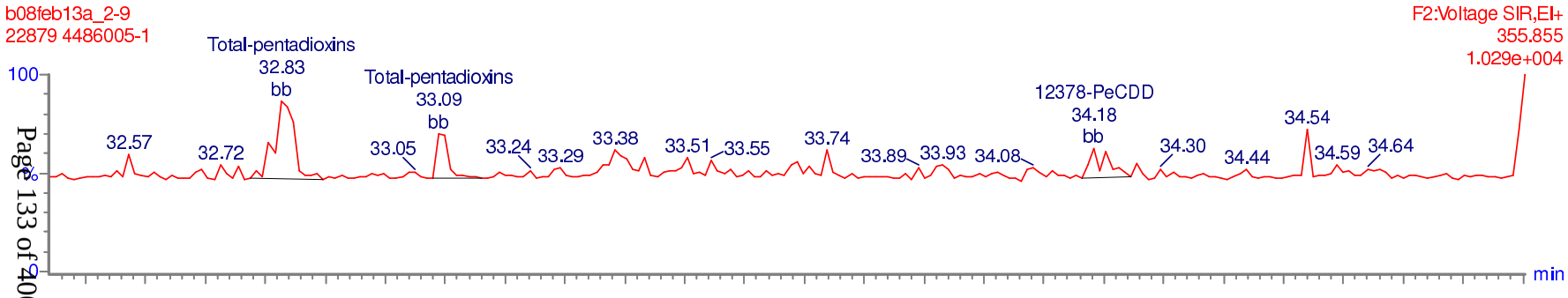
	Name	Ion1Area	Ion2Area	Response	RT	RA	Fail?	pg/uL	EDL	Height1	Noise1	S/N1	Height2	Noise2	S/N2	M
1	Total-heptafurans	1.49e3	1.42e3	2.91e3	39.44	1.05	NO	1.319	0.165	2.12e4	671	31.6	2.49e4	1688	14.7	bd
2	1234678-HpCDF	1.21e3	1.07e3	2.28e3	38.90	1.14	NO	0.912	0.146	2.07e4	671	30.9	1.73e4	1688	10.3	bb

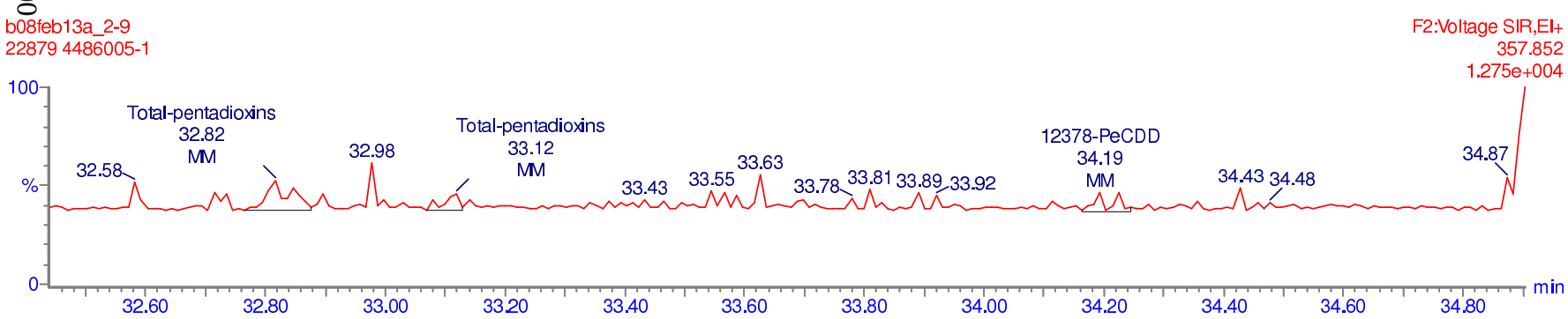
MANUAL INTEGRATION
METHOD 8290



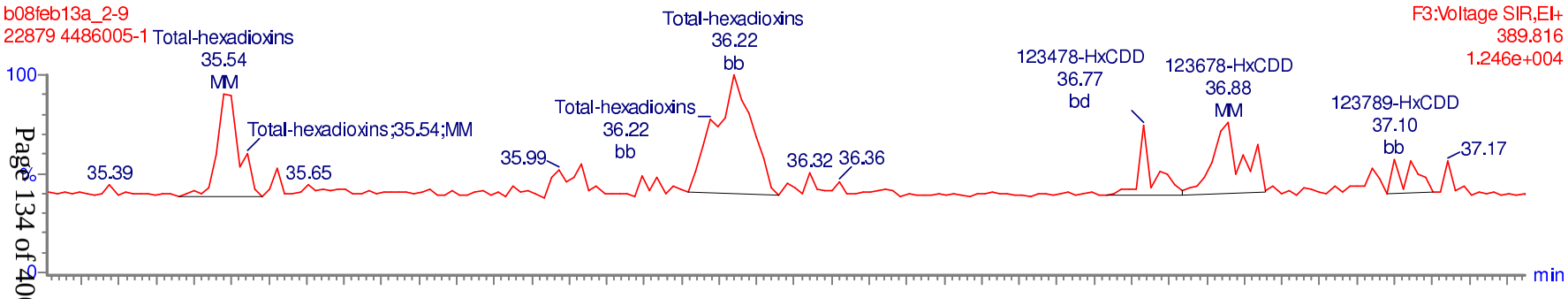


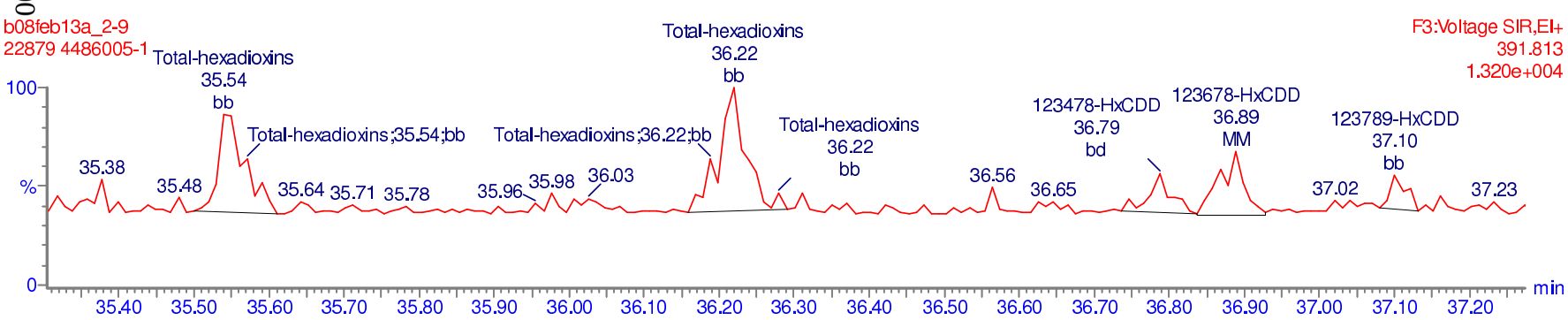
MANUAL INTEGRATION
METHOD 8290



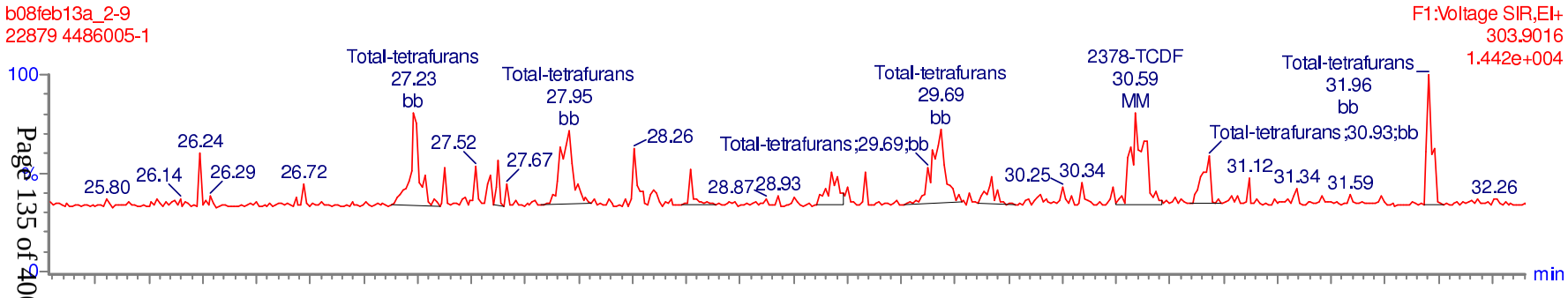


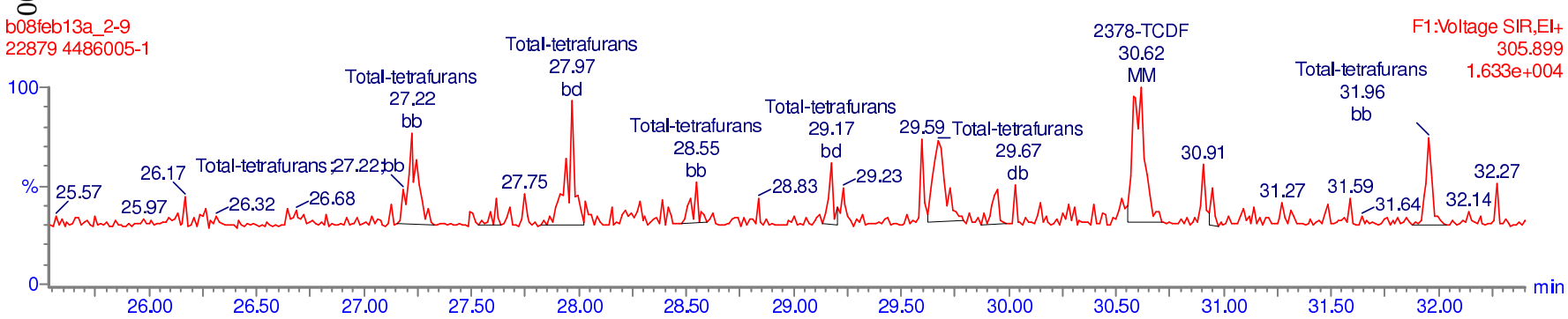
MANUAL INTEGRATION
METHOD 8290



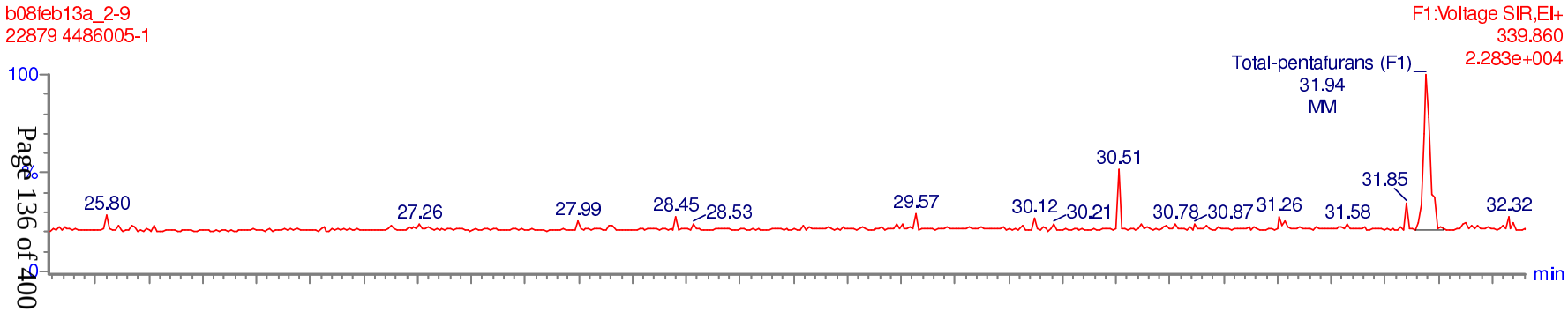


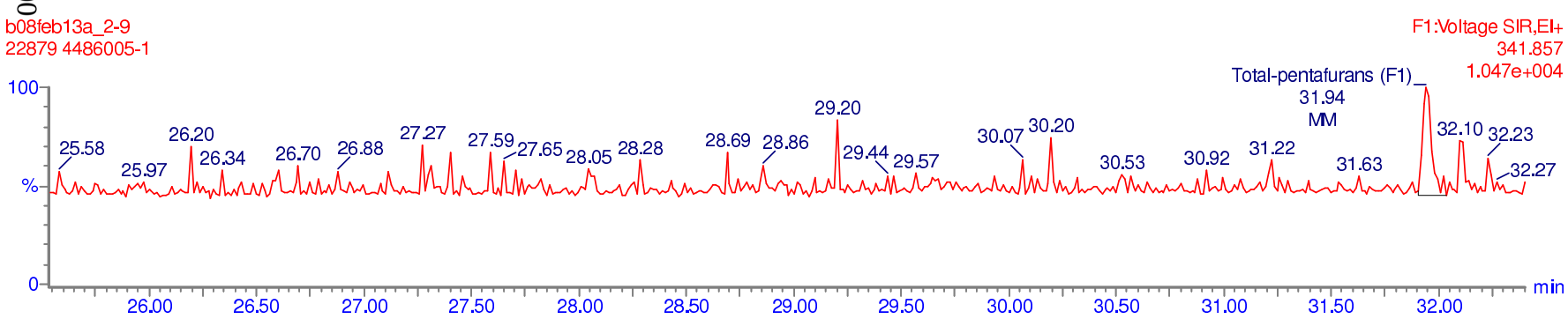
MANUAL INTEGRATION
METHOD 8290



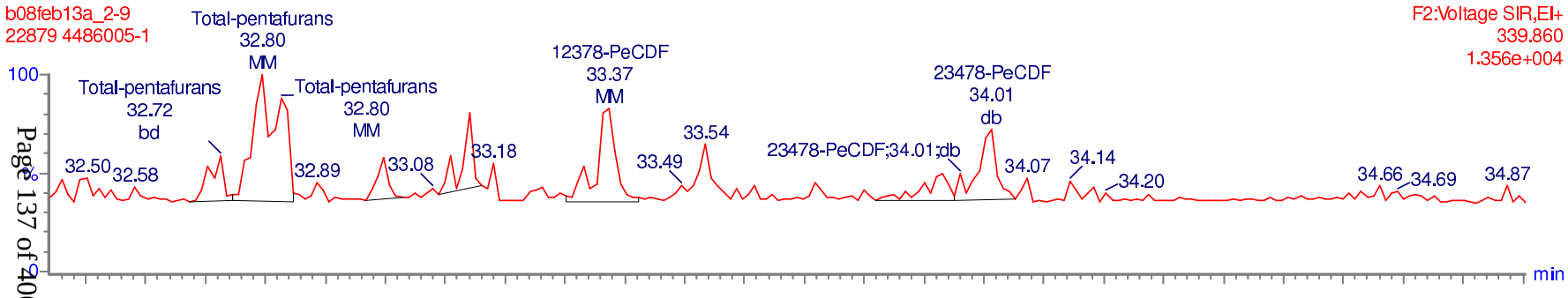


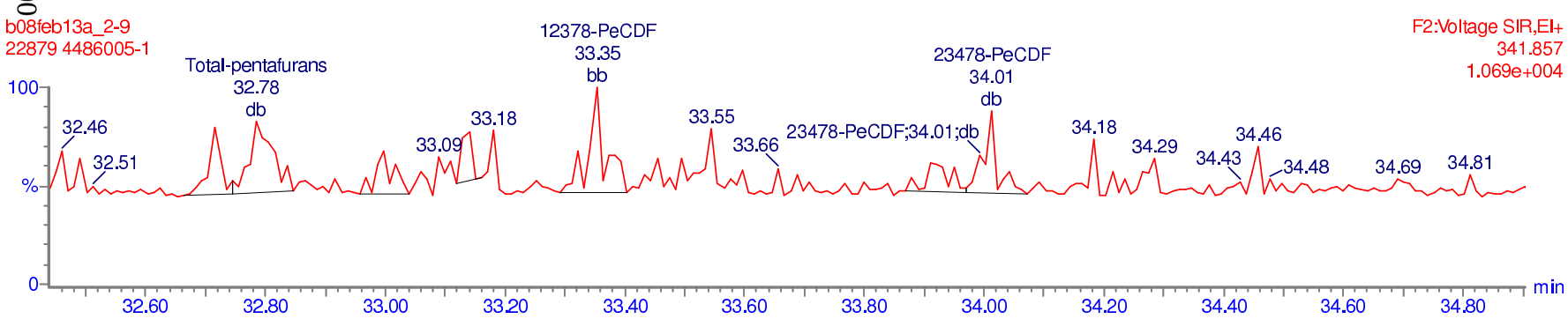
MANUAL INTEGRATION
METHOD 8290



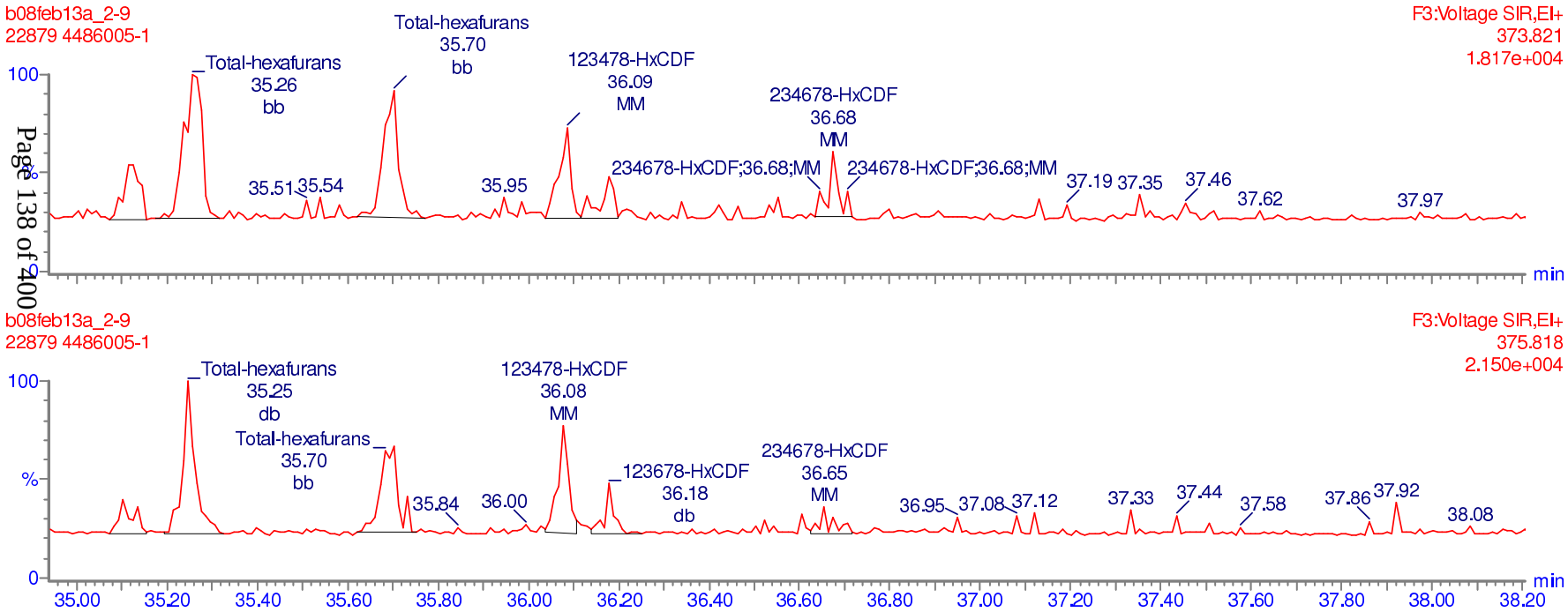


MANUAL INTEGRATION
METHOD 8290





MANUAL INTEGRATION
METHOD 8290



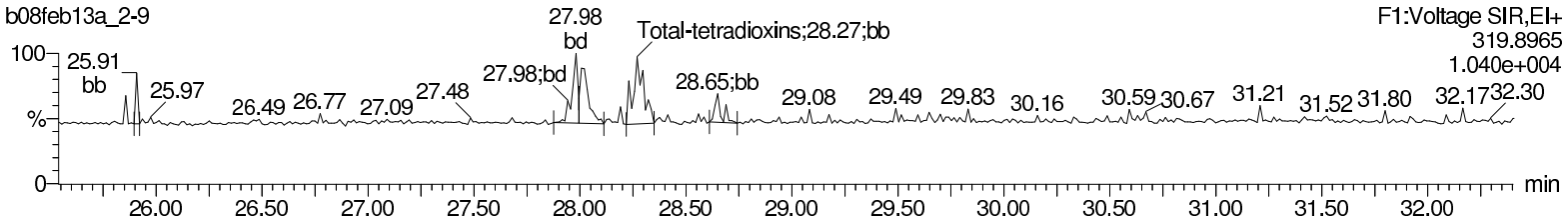
Quantify Sample Report **MassLynx 4.1**
Method 8290 Quantification Report

Dataset: C:\MassLynx\Default.pro\Sample Results\8290-b08feb13a_2.qld

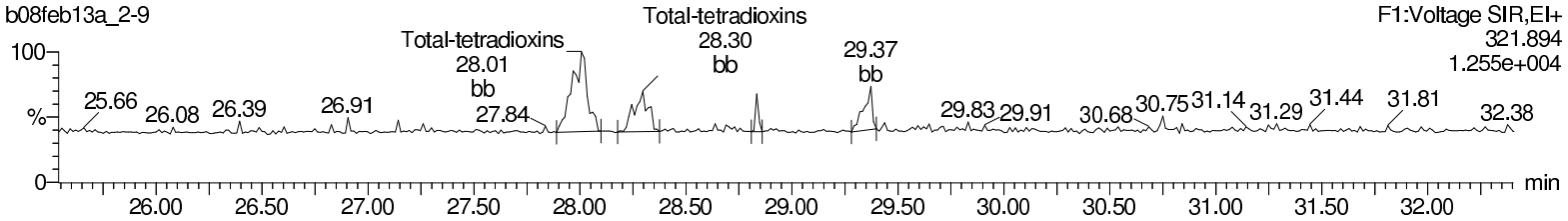
Last Altered: Monday, February 11, 2013 14:16:57 Eastern Standard Time
Printed: Monday, February 11, 2013 14:18:53 Eastern Standard Time

Name: b08feb13a_2-9, Date: 08-Feb-2013, Time: 21:11:05, ID: 4486005-1, Description: 22879, Job: HMS8290_1S, Task: HRP763_1, User: JTF

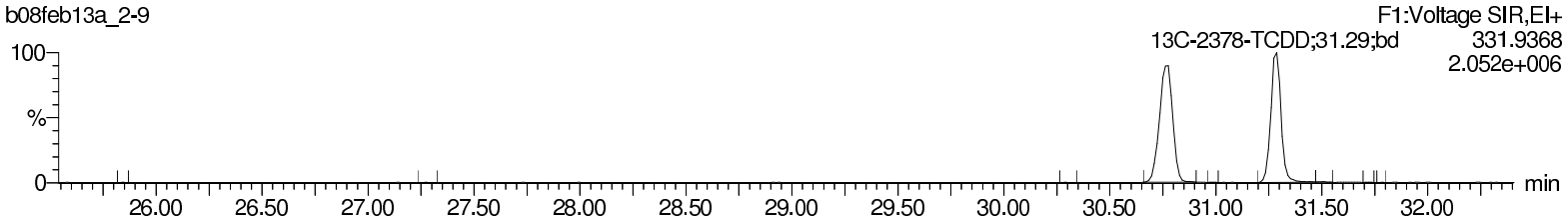
Total-tetradioxins



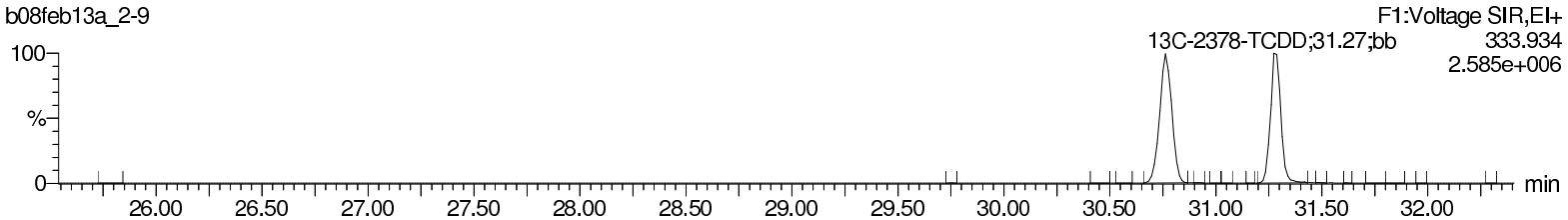
Total-tetradioxins



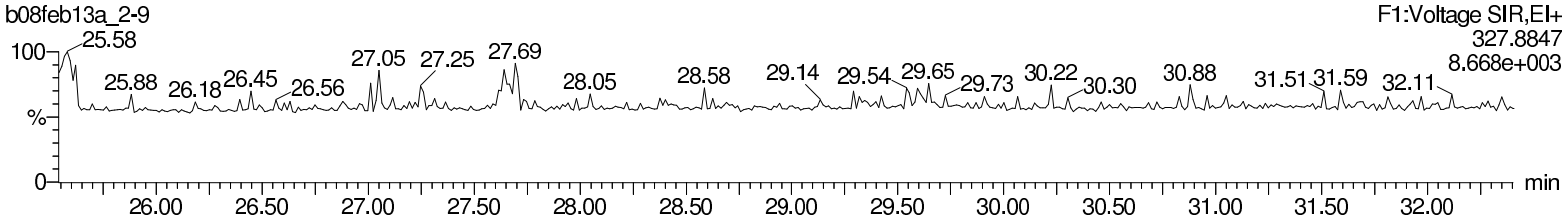
13C-2378-TCDD



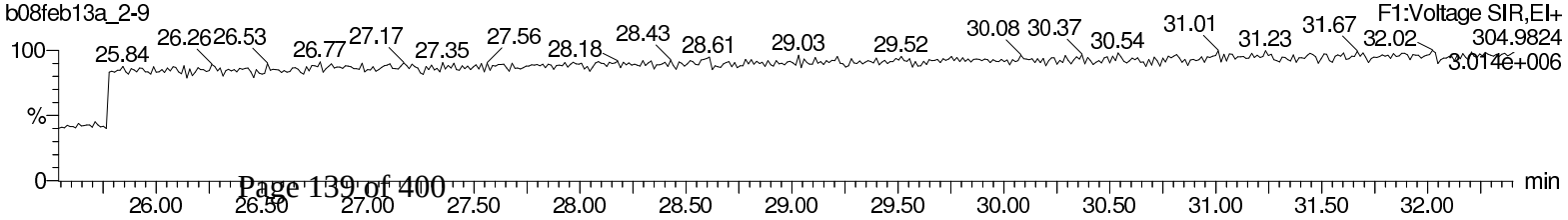
13C-2378-TCDD



37Cl-2378-TCDD (SS)



Lock Mass F1



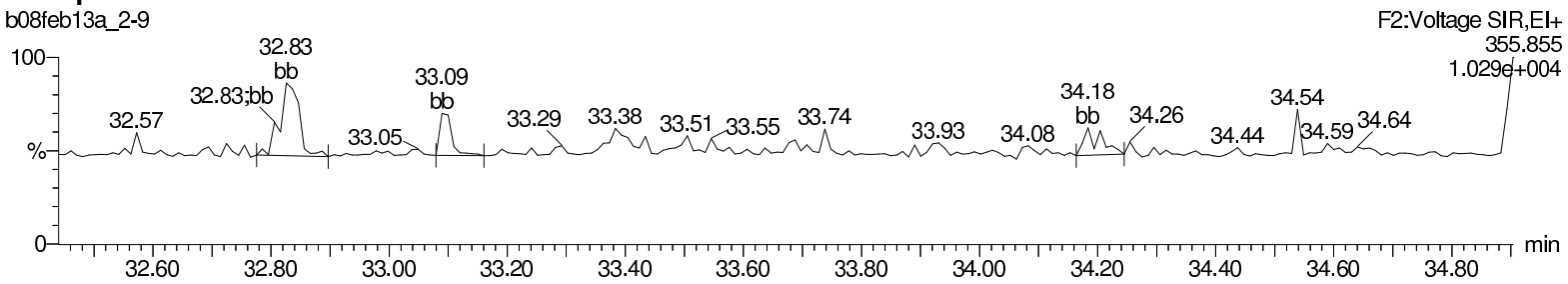
Quantify Sample Report **MassLynx 4.1**
Method 8290 Quantification Report

Dataset: C:\MassLynx\Default.pro\Sample Results\8290-b08feb13a_2.qld

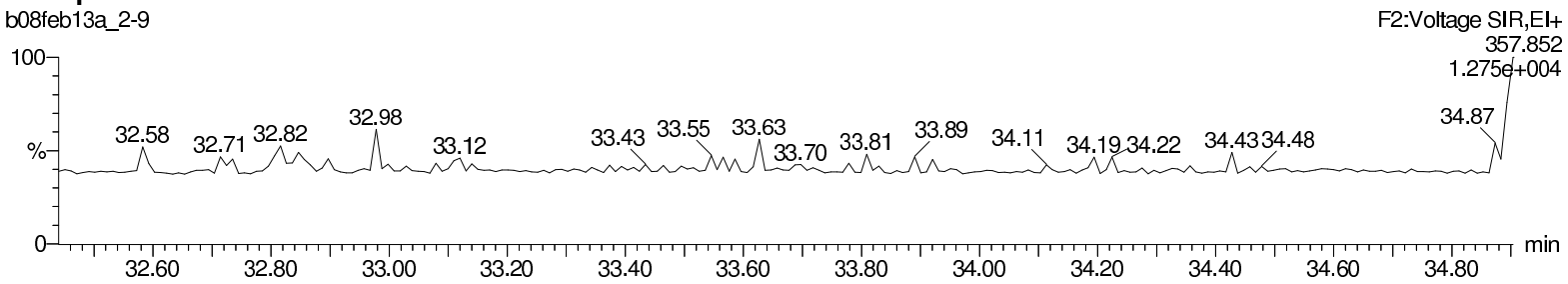
Last Altered: Monday, February 11, 2013 14:16:57 Eastern Standard Time
Printed: Monday, February 11, 2013 14:18:53 Eastern Standard Time

Name: b08feb13a_2-9, Date: 08-Feb-2013, Time: 21:11:05, ID: 4486005-1, Description: 22879, Job: HMS8290_1S, Task: HRP763_1, User: JTF

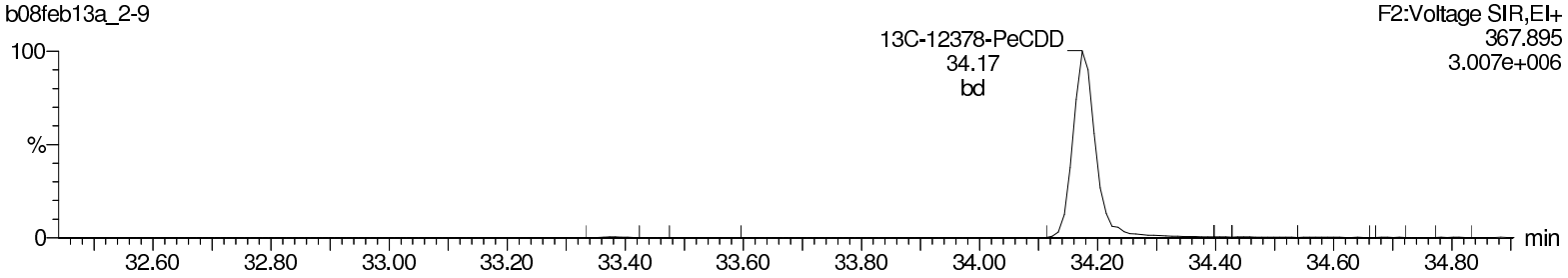
Total-pentadioxins



Total-pentadioxins



13C-12378-PeCDD



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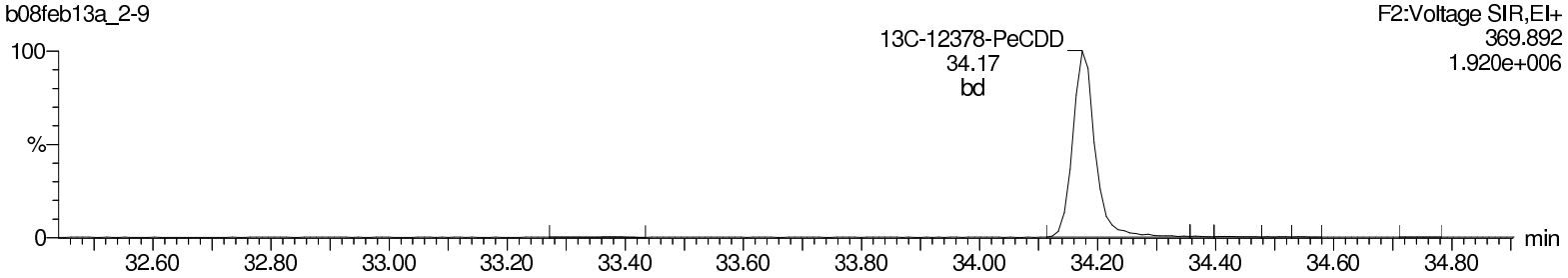
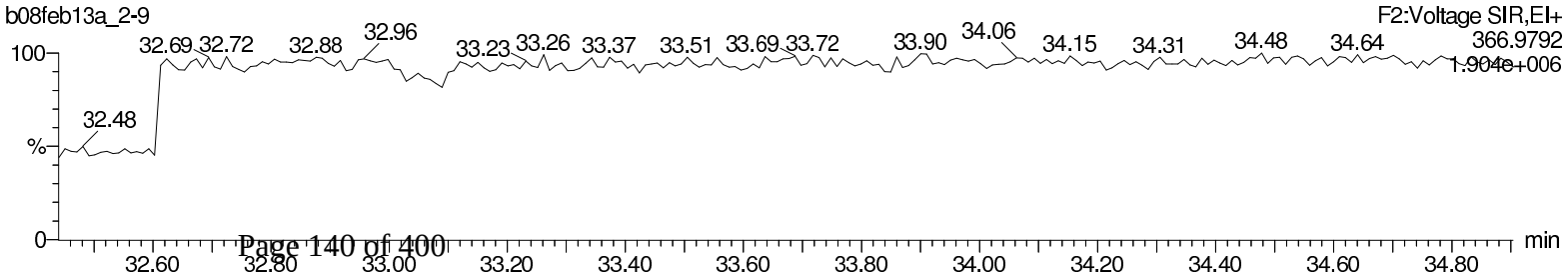


Lock Mass F2



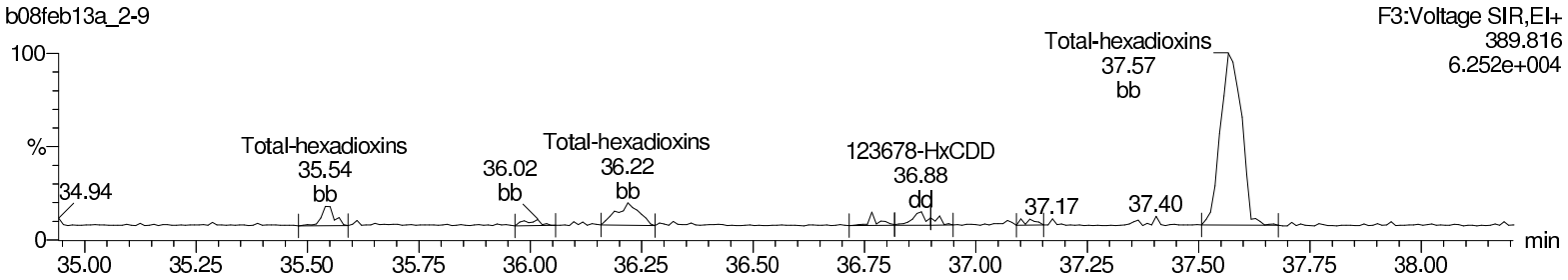
Quantify Sample Report **MassLynx 4.1**
Method 8290 Quantification Report

Dataset: C:\MassLynx\Default.pro\Sample Results\8290-b08feb13a_2.qld

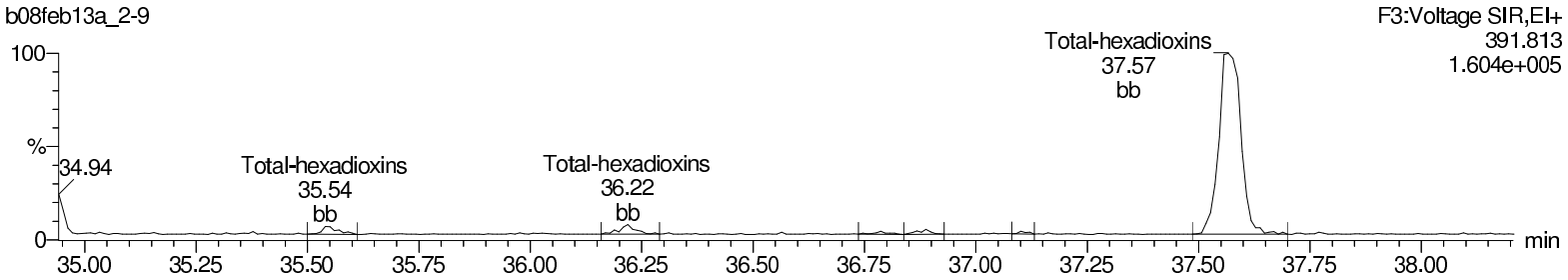
Last Altered: Monday, February 11, 2013 14:16:57 Eastern Standard Time
Printed: Monday, February 11, 2013 14:18:53 Eastern Standard Time

Name: b08feb13a_2-9, Date: 08-Feb-2013, Time: 21:11:05, ID: 4486005-1, Description: 22879, Job: HMS8290_1S, Task: HRP763_1, User: JTF

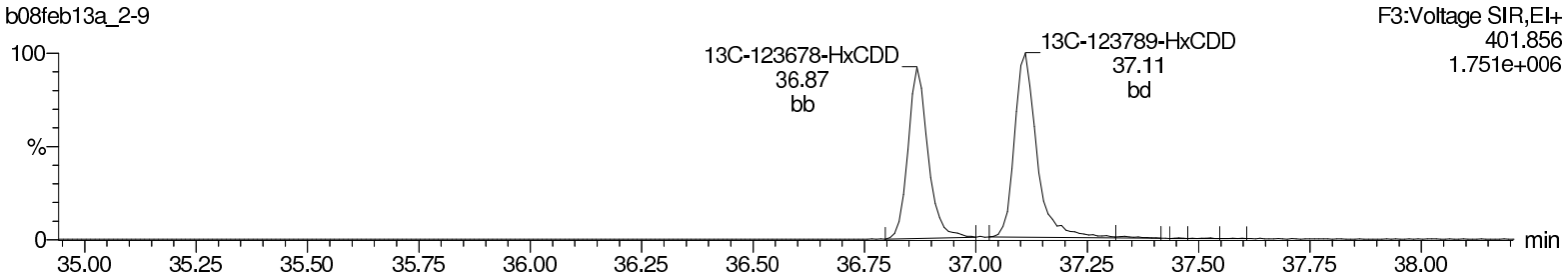
Total-hexadioxins



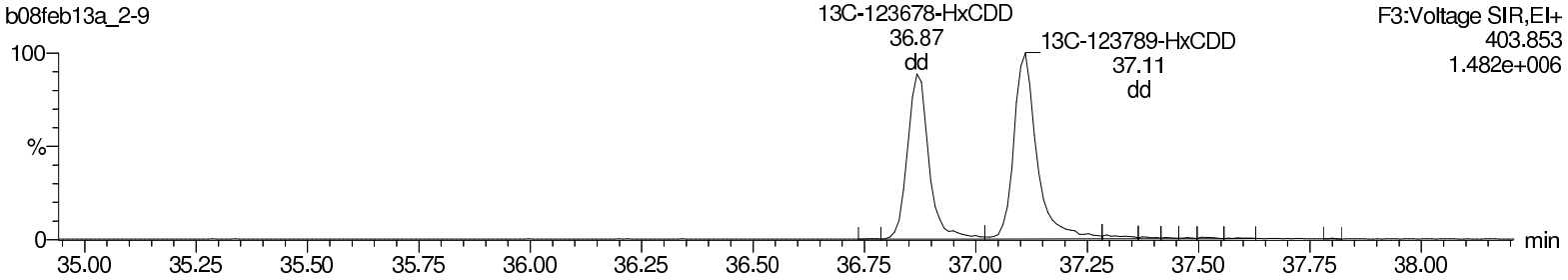
Total-hexadioxins



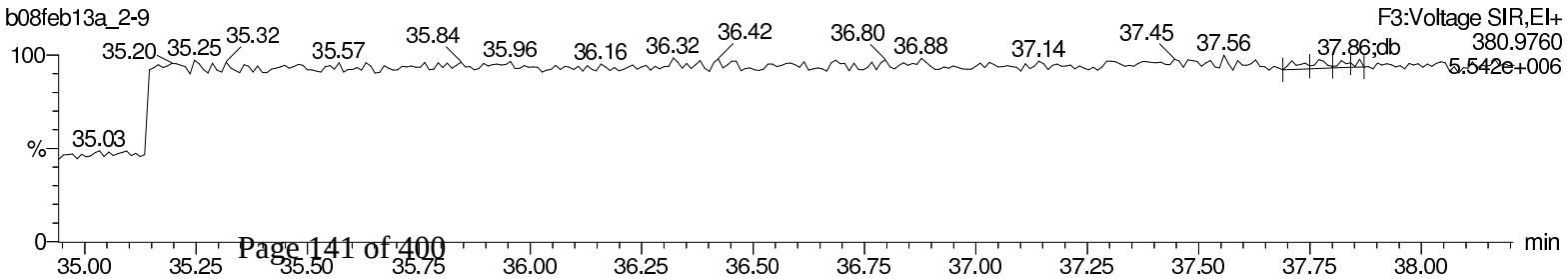
13C-123678-HxCDD



13C-123678-HxCDD



Lock Mass F3



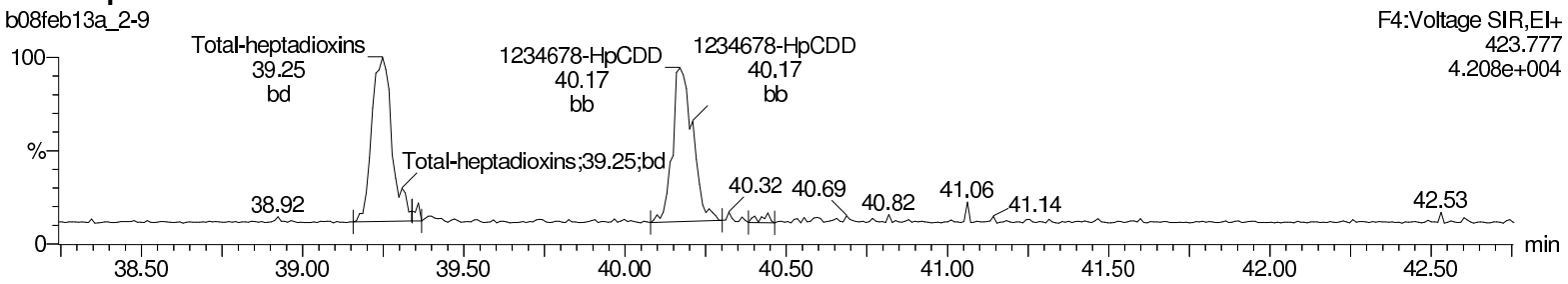
Quantify Sample Report **MassLynx 4.1**
Method 8290 Quantification Report

Dataset: C:\MassLynx\Default.pro\Sample Results\8290-b08feb13a_2.qld

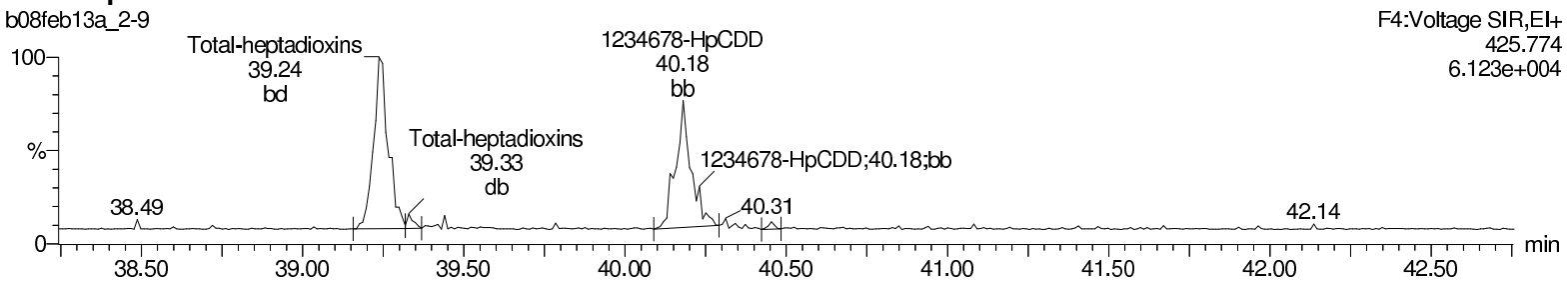
Last Altered: Monday, February 11, 2013 14:16:57 Eastern Standard Time
Printed: Monday, February 11, 2013 14:18:53 Eastern Standard Time

Name: b08feb13a_2-9, Date: 08-Feb-2013, Time: 21:11:05, ID: 4486005-1, Description: 22879, Job: HMS8290_1S, Task: HRP763_1, User: JTF

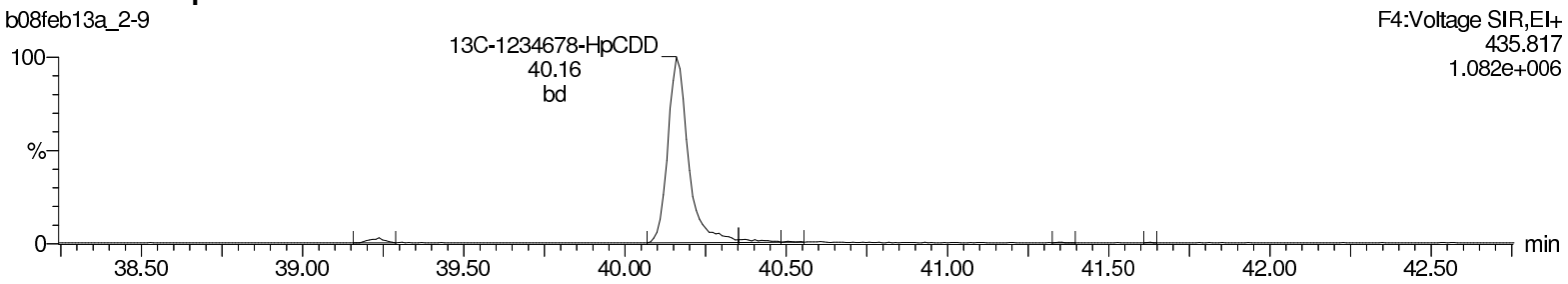
Total-heptadioxins



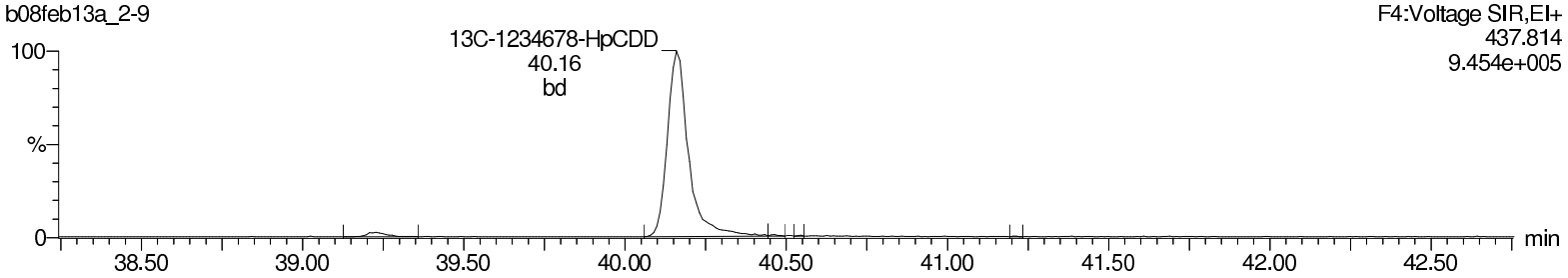
Total-heptadioxins



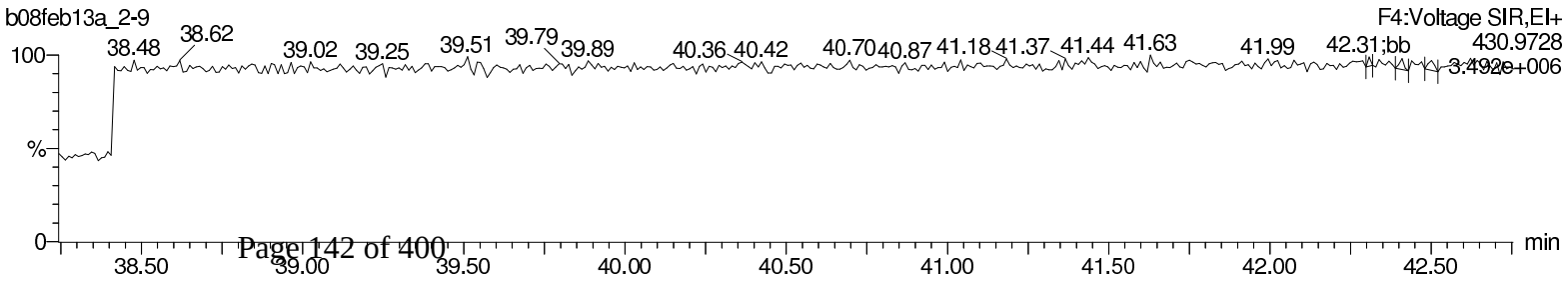
13C-1234678-HpCDD



13C-1234678-HpCDD



Lock Mass F4



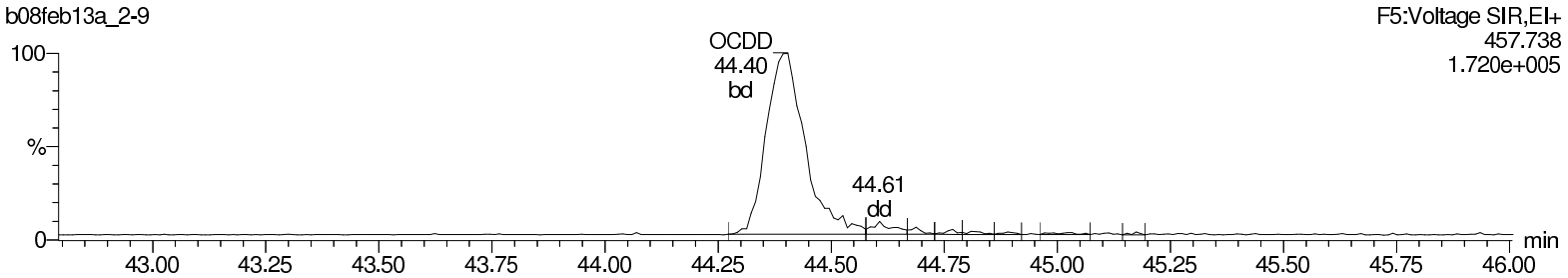
Quantify Sample Report **MassLynx 4.1**
Method 8290 Quantification Report

Dataset: C:\MassLynx\Default.pro\Sample Results\8290-b08feb13a_2.qld

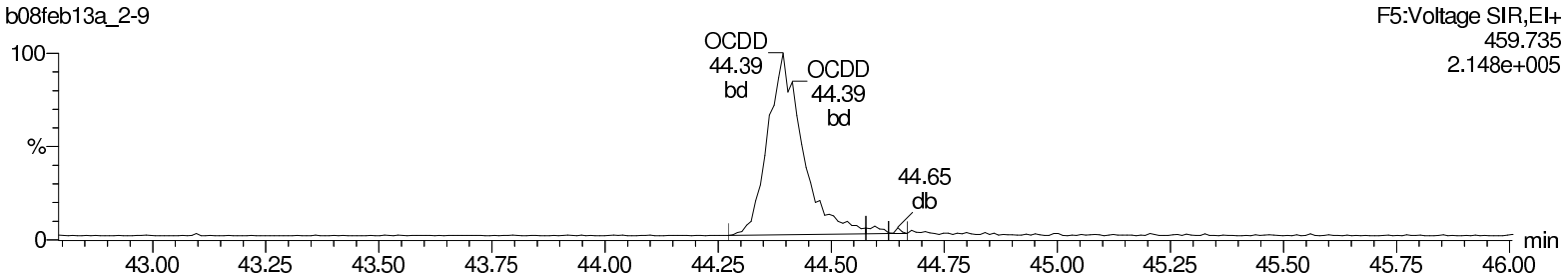
Last Altered: Monday, February 11, 2013 14:16:57 Eastern Standard Time
Printed: Monday, February 11, 2013 14:18:53 Eastern Standard Time

Name: b08feb13a_2-9, Date: 08-Feb-2013, Time: 21:11:05, ID: 4486005-1, Description: 22879, Job: HMS8290_1S, Task: HRP763_1, User: JTF

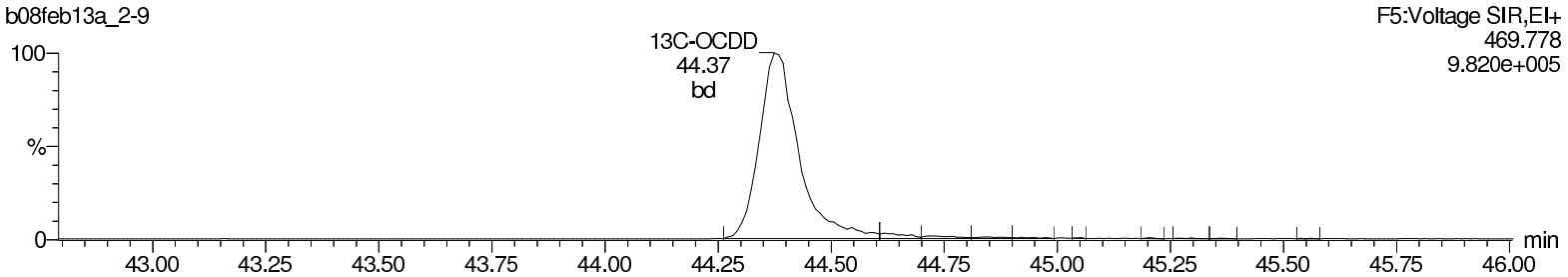
OCDD



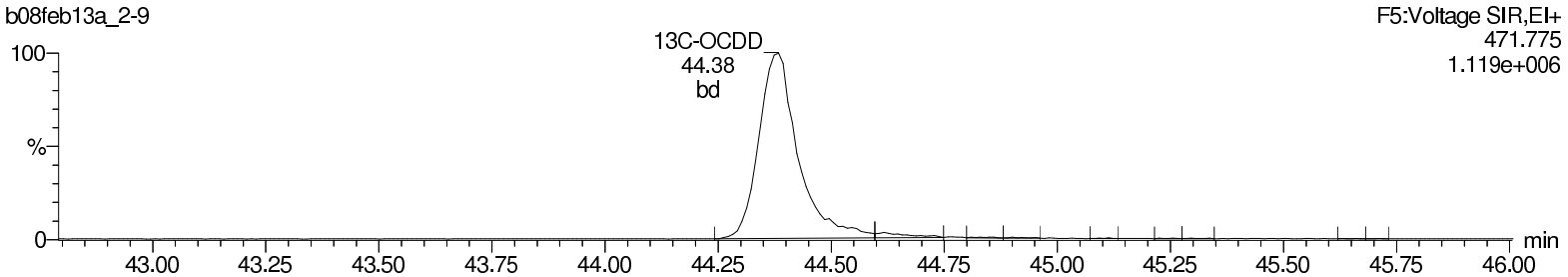
OCDD



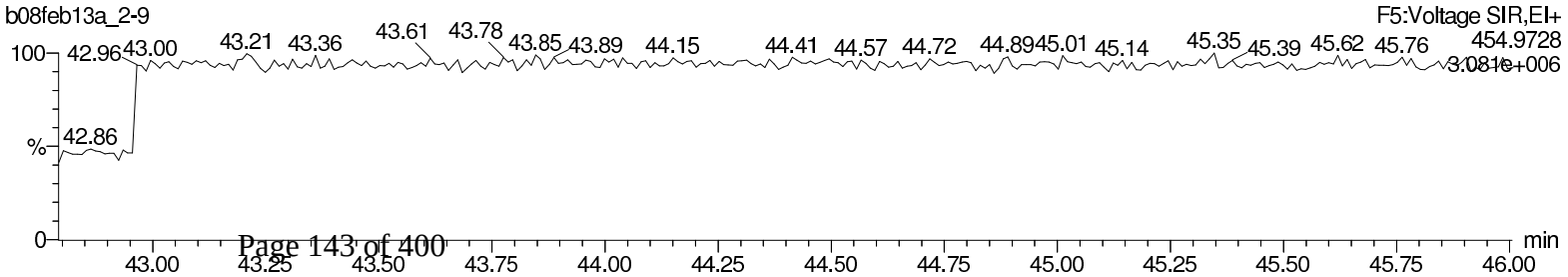
13C-OCDD



13C-OCDD



Lock Mass F5



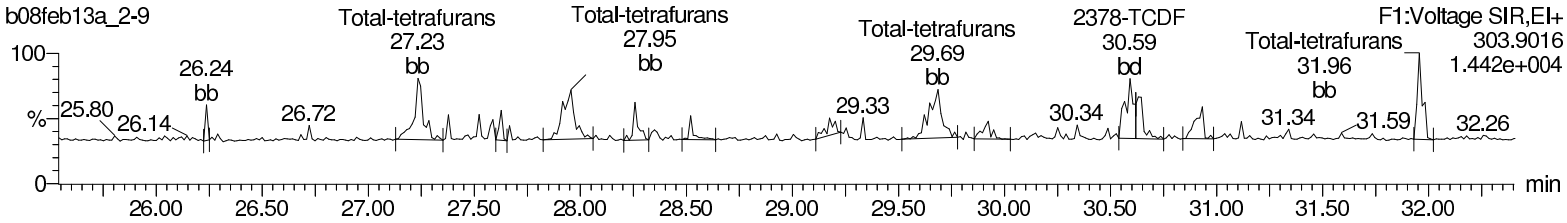
Quantify Sample Report **MassLynx 4.1**
Method 8290 Quantification Report

Dataset: C:\MassLynx\Default.pro\Sample Results\8290-b08feb13a_2.qld

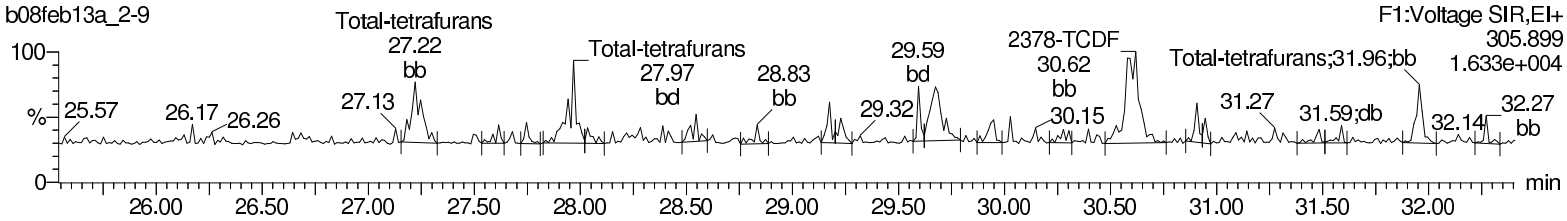
Last Altered: Monday, February 11, 2013 14:16:57 Eastern Standard Time
Printed: Monday, February 11, 2013 14:18:53 Eastern Standard Time

Name: b08feb13a_2-9, Date: 08-Feb-2013, Time: 21:11:05, ID: 4486005-1, Description: 22879, Job: HMS8290_1S, Task: HRP763_1, User: JTF

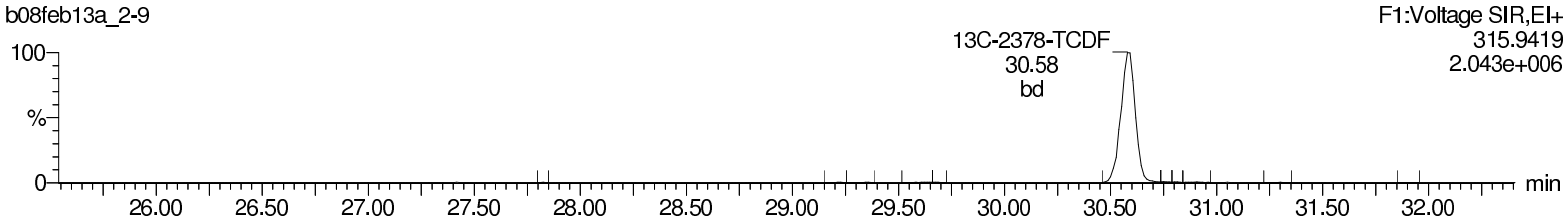
Total-tetrafurans



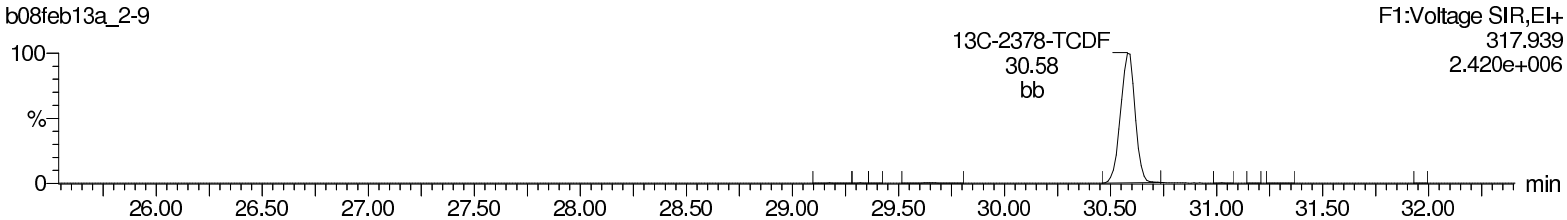
Total-tetrafurans



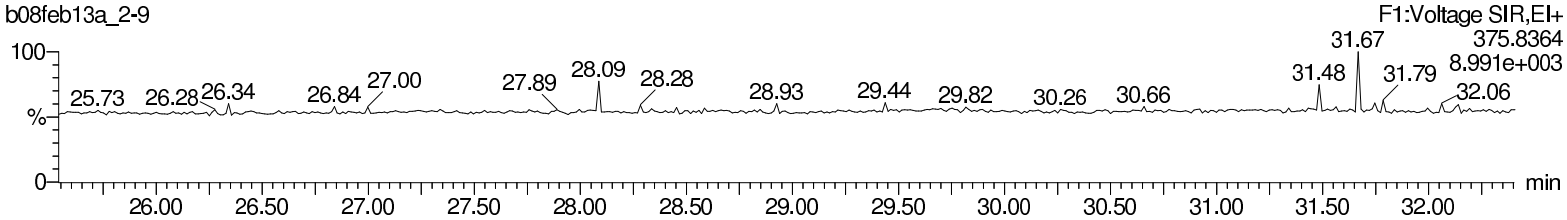
13C-2378-TCDF



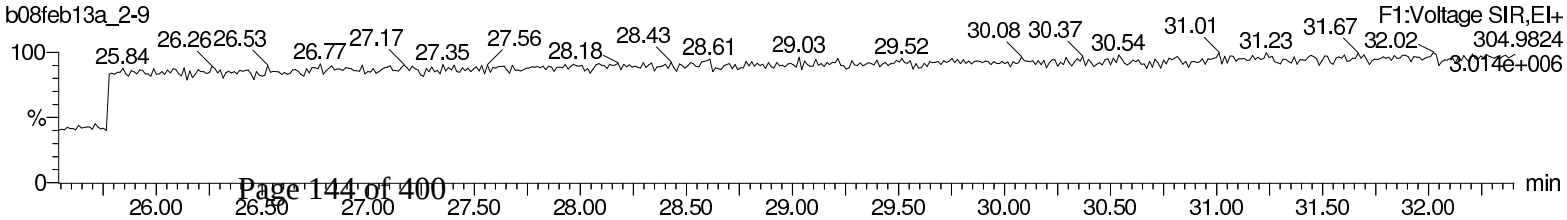
13C-2378-TCDF



HxDPE



Lock Mass F1



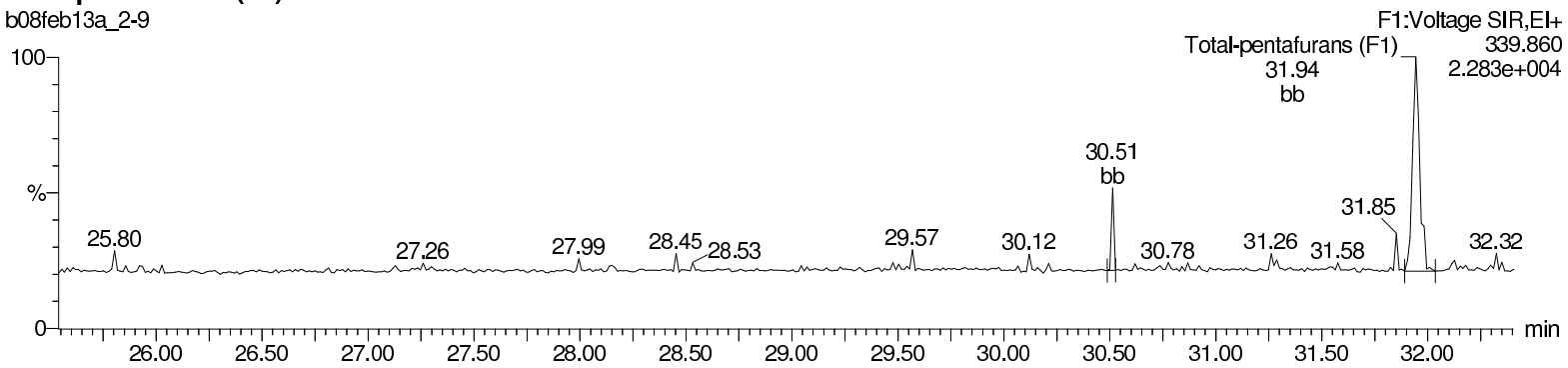
Quantify Sample Report **MassLynx 4.1**
Method 8290 Quantification Report

Dataset: C:\MassLynx\Default.pro\Sample Results\8290-b08feb13a_2.qld

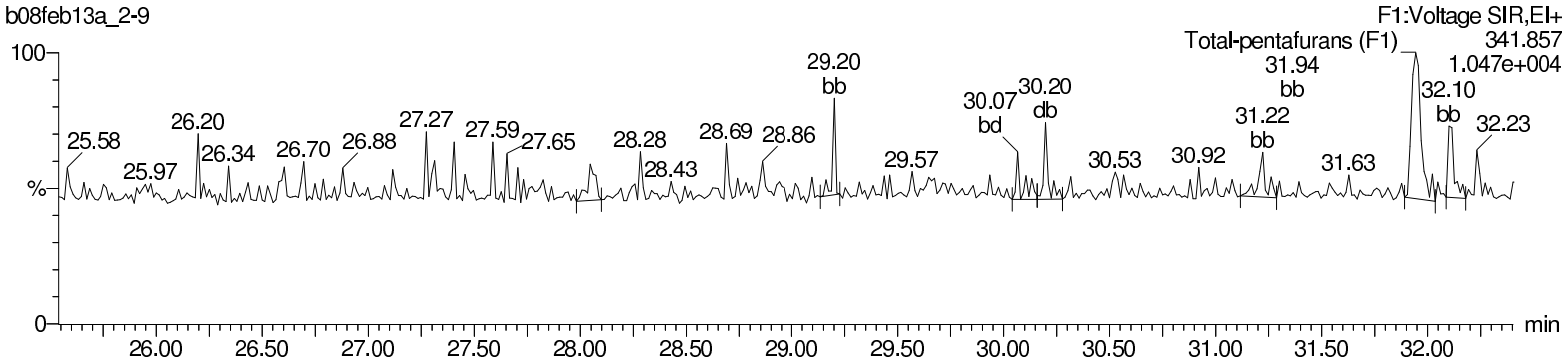
Last Altered: Monday, February 11, 2013 14:16:57 Eastern Standard Time
Printed: Monday, February 11, 2013 14:18:53 Eastern Standard Time

Name: b08feb13a_2-9, Date: 08-Feb-2013, Time: 21:11:05, ID: 4486005-1, Description: 22879, Job: HMS8290_1S, Task: HRP763_1, User: JTF

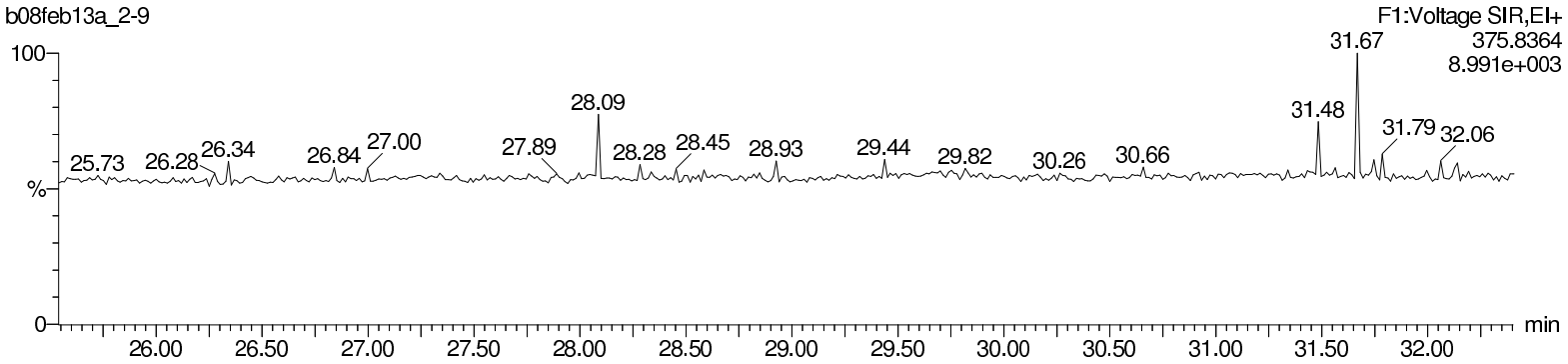
Total-pentafurans (F1)



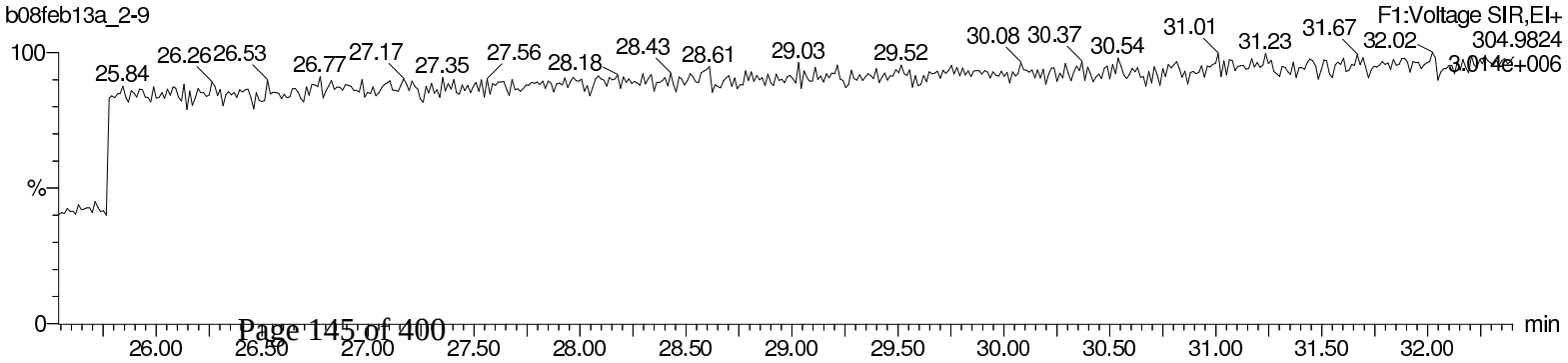
Total-pentafurans (F1)



HxDPE



Lock Mass F1



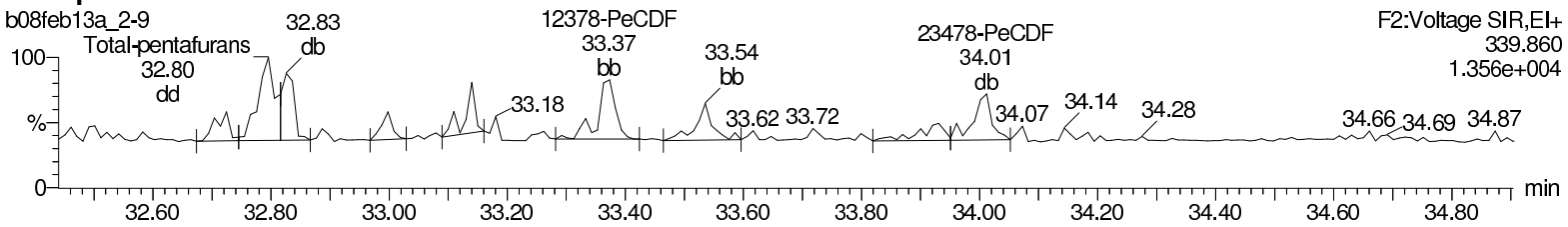
Quantify Sample Report **MassLynx 4.1**
Method 8290 Quantification Report

Dataset: C:\MassLynx\Default.pro\Sample Results\8290-b08feb13a_2.qld

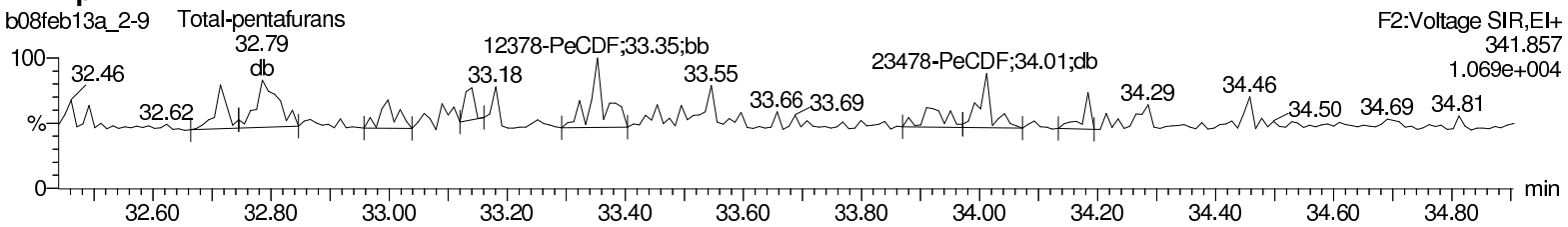
Last Altered: Monday, February 11, 2013 14:16:57 Eastern Standard Time
Printed: Monday, February 11, 2013 14:18:53 Eastern Standard Time

Name: b08feb13a_2-9, Date: 08-Feb-2013, Time: 21:11:05, ID: 4486005-1, Description: 22879, Job: HMS8290_1S, Task: HRP763_1, User: JTF

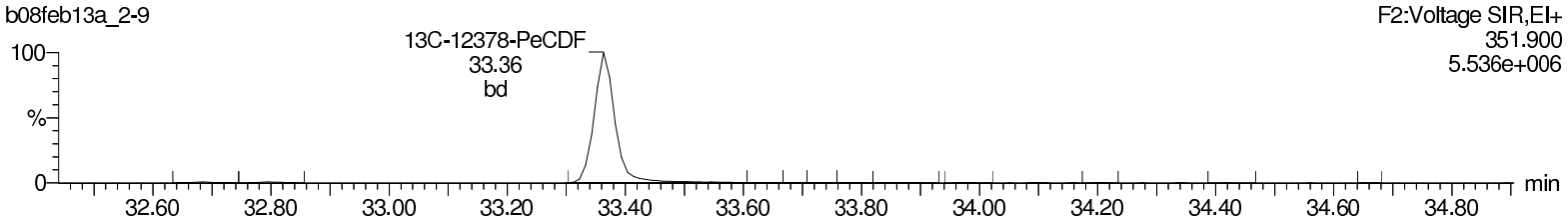
Total-pentafurans



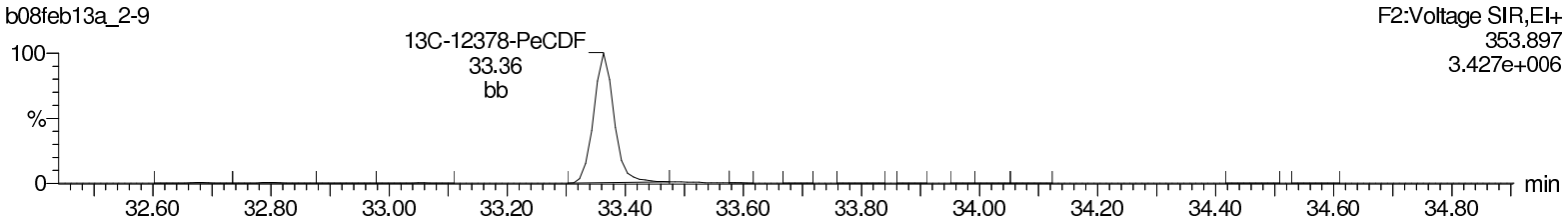
Total-pentafurans



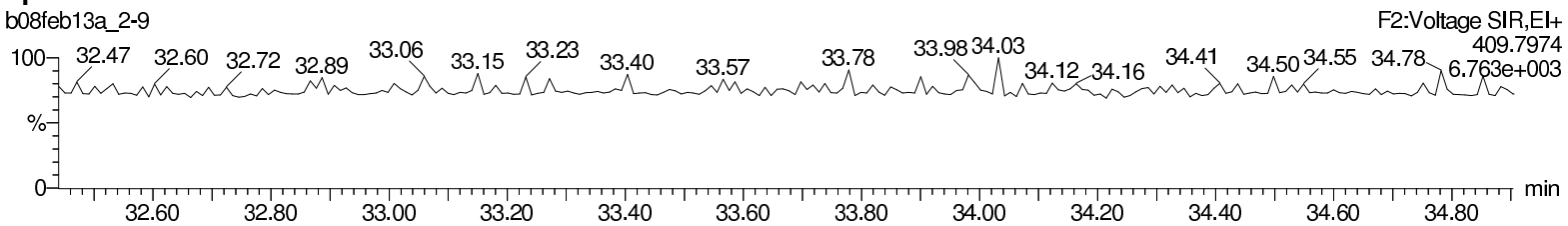
13C-12378-PeCDF



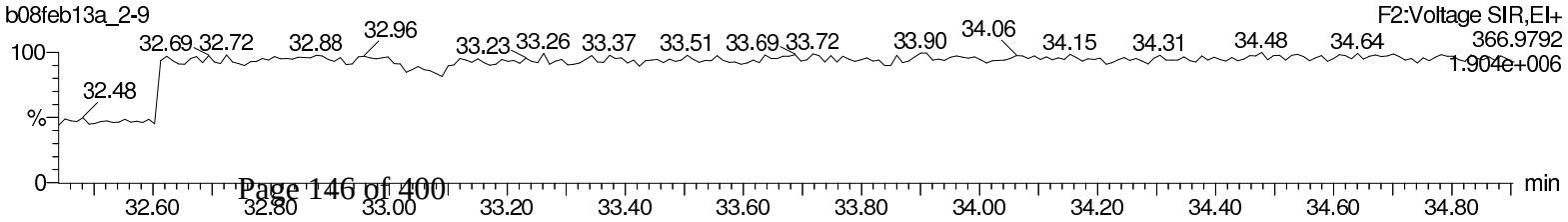
13C-12378-PeCDF



HpDPE



Lock Mass F2



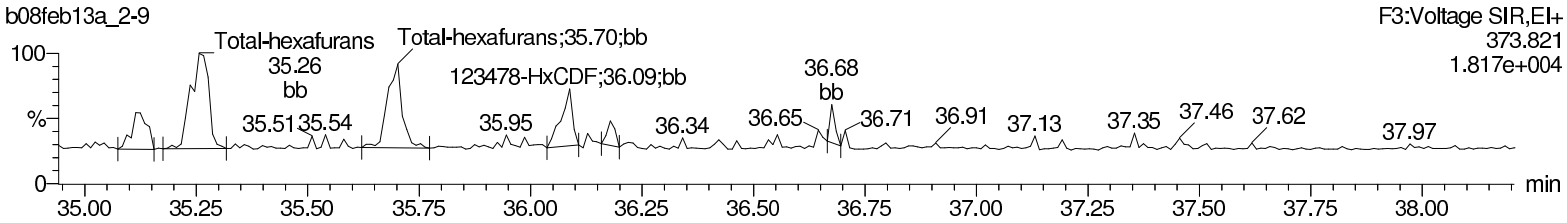
Quantify Sample Report **MassLynx 4.1**
Method 8290 Quantification Report

Dataset: C:\MassLynx\Default.pro\Sample Results\8290-b08feb13a_2.qld

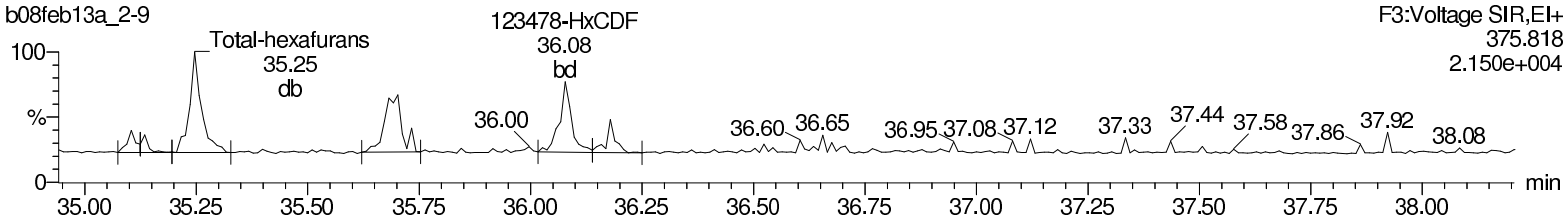
Last Altered: Monday, February 11, 2013 14:16:57 Eastern Standard Time
Printed: Monday, February 11, 2013 14:18:53 Eastern Standard Time

Name: b08feb13a_2-9, Date: 08-Feb-2013, Time: 21:11:05, ID: 4486005-1, Description: 22879, Job: HMS8290_1S, Task: HRP763_1, User: JTF

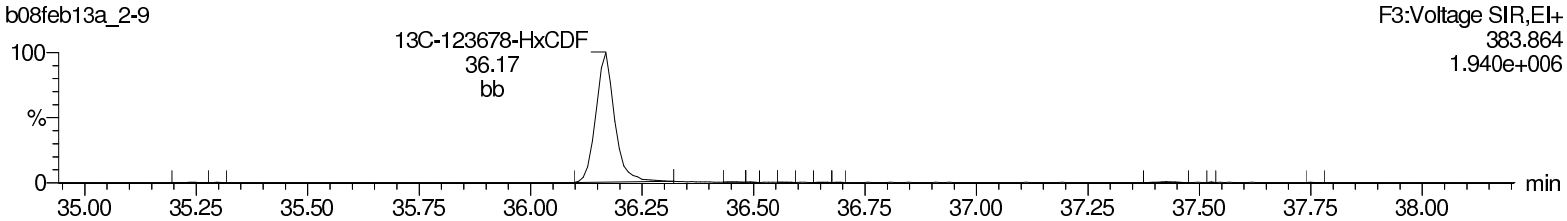
Total-hexafurans



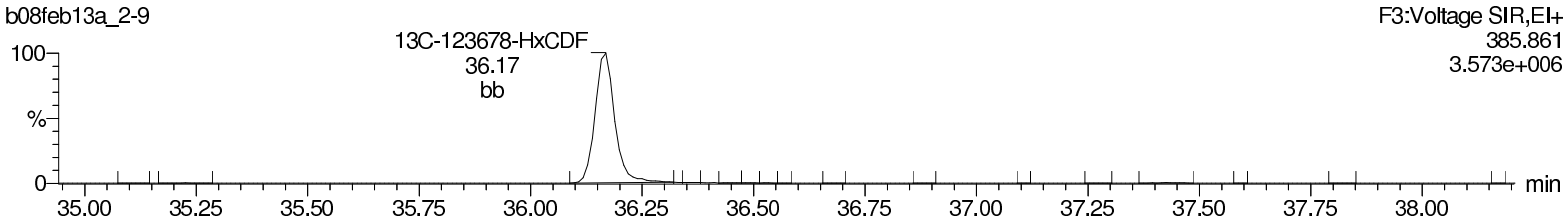
Total-hexafurans



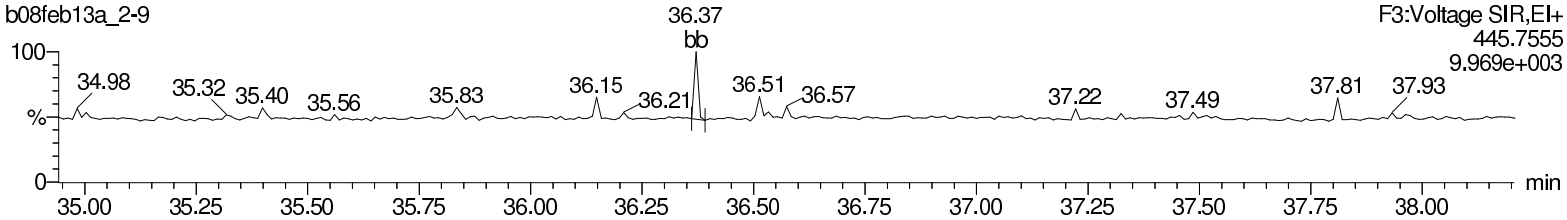
13C-123678-HxCDF



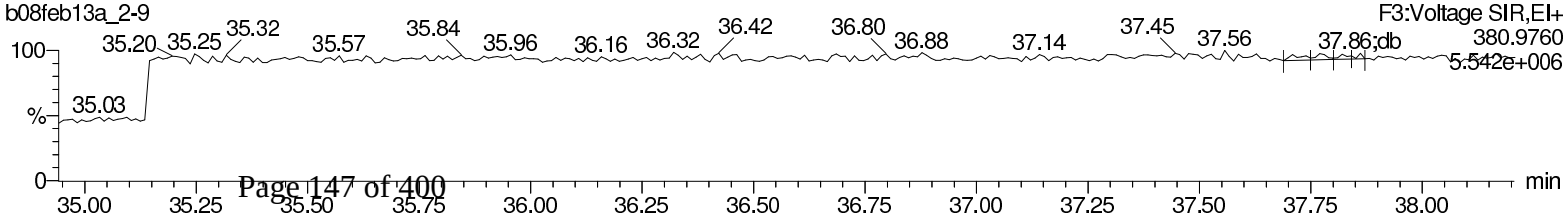
13C-123678-HxCDF



OcDPE



Lock Mass F3



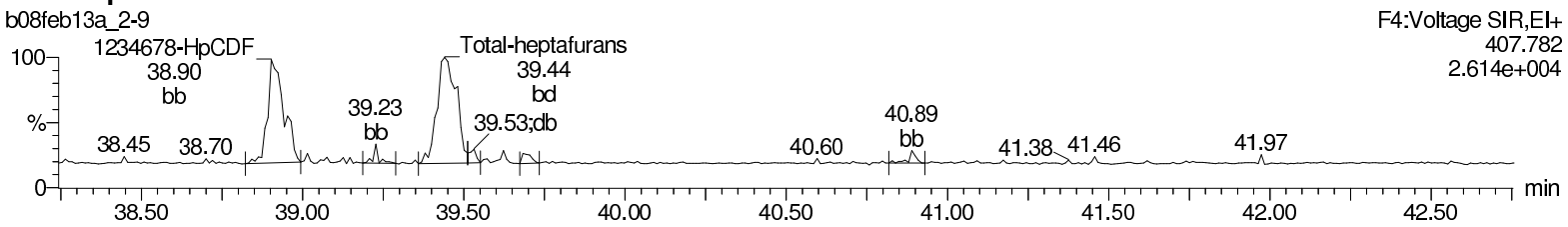
Quantify Sample Report **MassLynx 4.1**
Method 8290 Quantification Report

Dataset: C:\MassLynx\Default.pro\Sample Results\8290-b08feb13a_2.qld

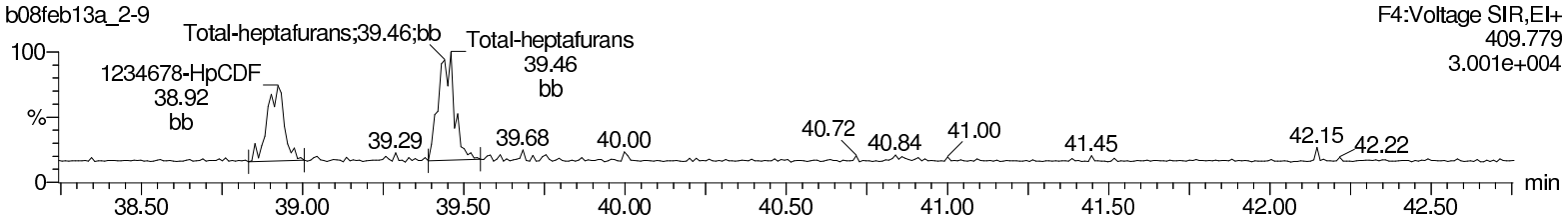
Last Altered: Monday, February 11, 2013 14:16:57 Eastern Standard Time
Printed: Monday, February 11, 2013 14:18:53 Eastern Standard Time

Name: b08feb13a_2-9, Date: 08-Feb-2013, Time: 21:11:05, ID: 4486005-1, Description: 22879, Job: HMS8290_1S, Task: HRP763_1, User: JTF

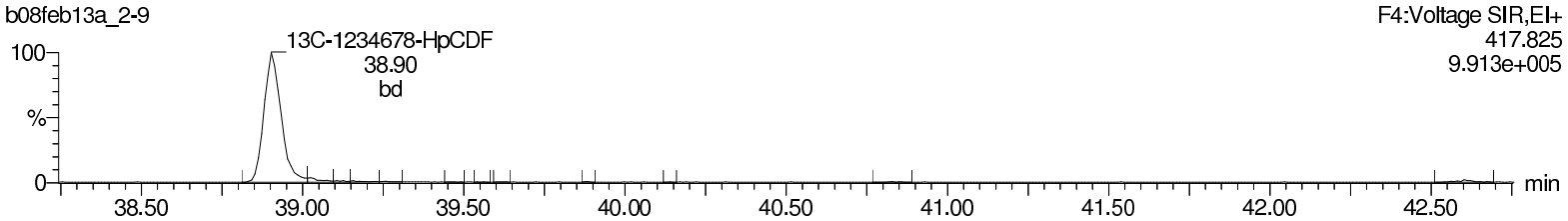
Total-heptafurans



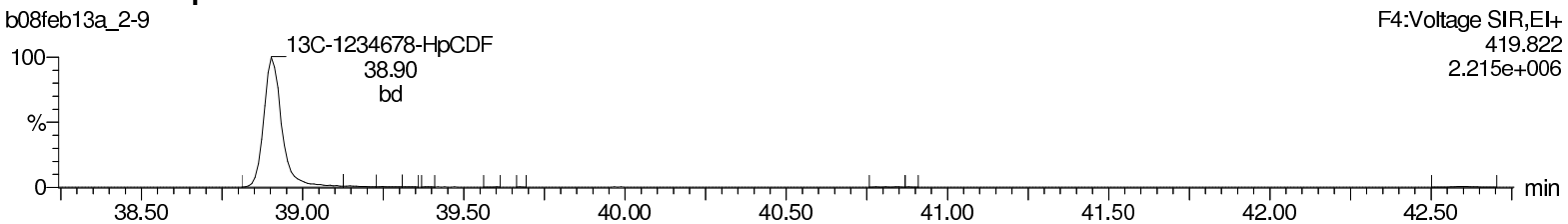
Total-heptafurans



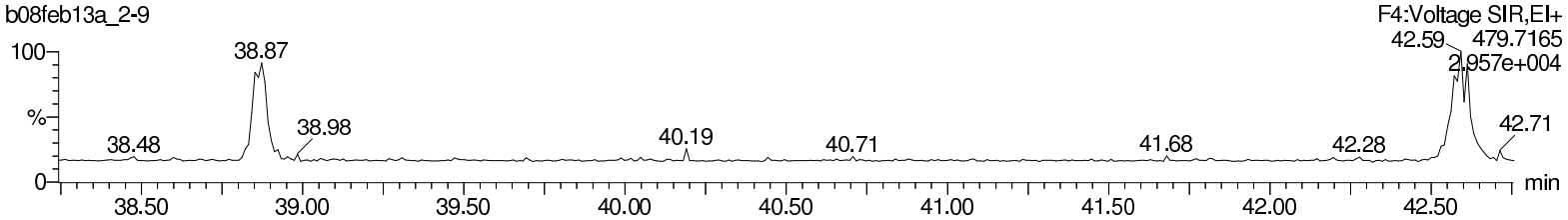
13C-1234678-HpCDF



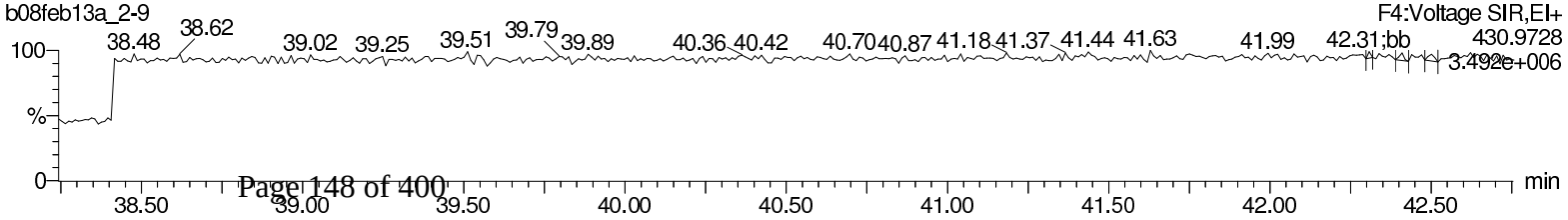
13C-1234678-HpCDF



NoDPE



Lock Mass F4



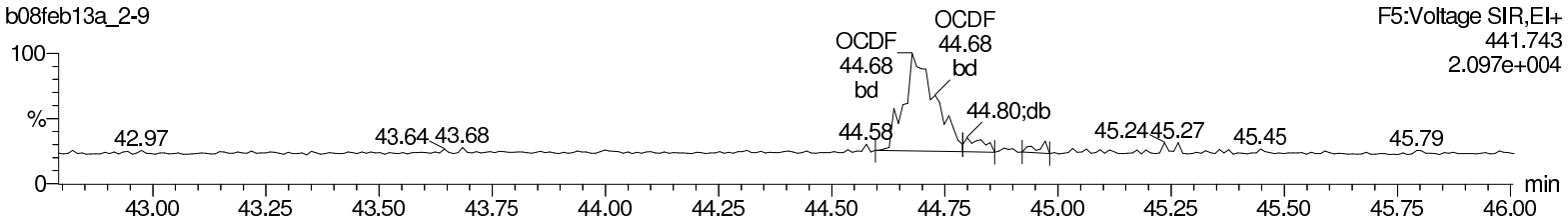
Quantify Sample Report **MassLynx 4.1**
Method 8290 Quantification Report

Dataset: C:\MassLynx\Default.pro\Sample Results\8290-b08feb13a_2.qld

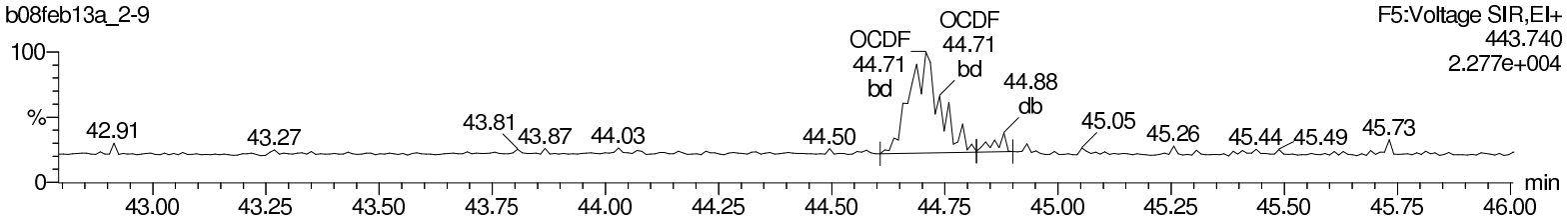
Last Altered: Monday, February 11, 2013 14:16:57 Eastern Standard Time
Printed: Monday, February 11, 2013 14:18:53 Eastern Standard Time

Name: b08feb13a_2-9, Date: 08-Feb-2013, Time: 21:11:05, ID: 4486005-1, Description: 22879, Job: HMS8290_1S, Task: HRP763_1, User: JTF

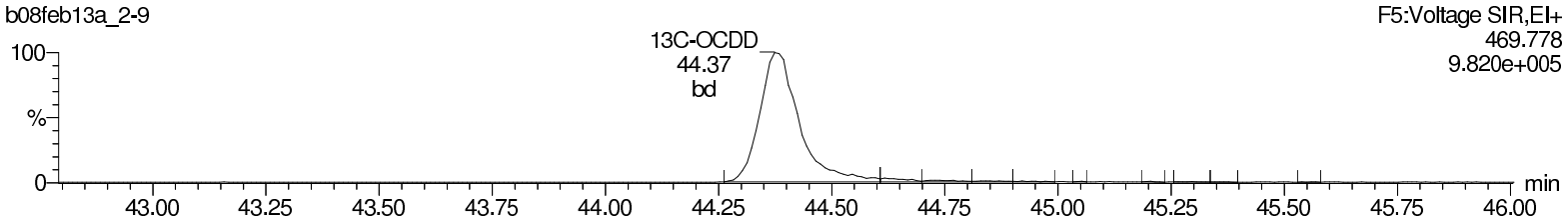
OCDF



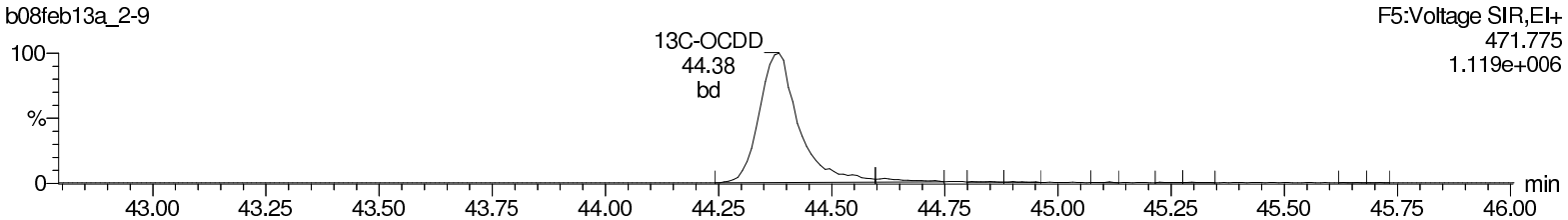
OCDF



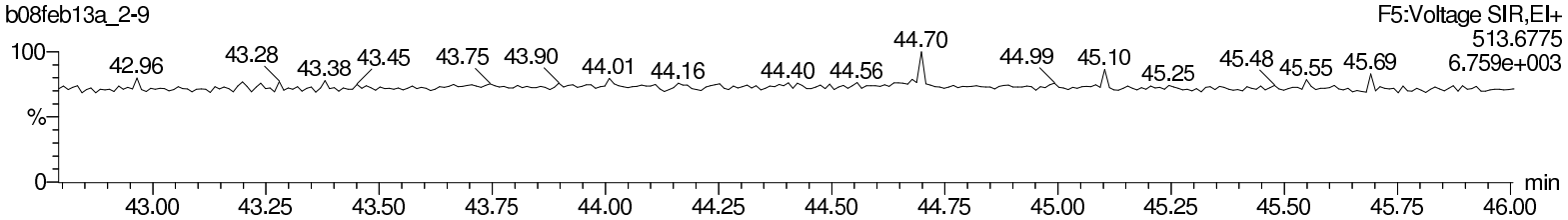
13C-OCDD



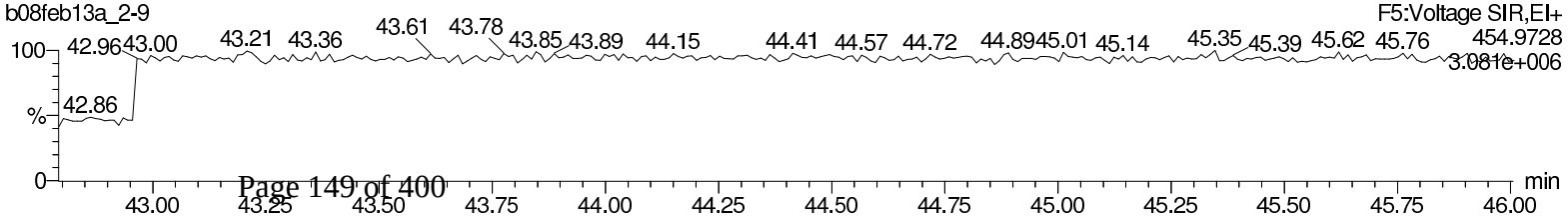
13C-OCDD



DeDPE



Lock Mass F5



Hi-Res Dioxins/Furans
Certificate of Analysis
Sample Summary

SDG Number:	**2013-505**	**Client:**	**LANL001**	**Project:**	**LANL00112**
Lab Sample ID:	**4486006**	**Date Collected:**	**01/31/2013 10:00**	**Matrix:**	**SOLID**
Client Sample:	**8290 Soil**	**Date Received:**	**02/05/2013 10:14**	**%Moisture:**	**40.9**
Client ID:	**CALA-13-28429**			**Prep Basis:**	**Dry Weight**
Batch ID:	**22879**	**Method:**	**SW846 8290A**		
Run Date:	**02/08/2013 21:59**	**Analyst:**	**JTF**	**Instrument:**	**HRP763**
Data File:	**b08feb13a_2-10**			**Dilution:**	**1**
Prep Batch:	**22876**	**Prep Method:**	**SW846 3540C**		
Prep Date:	**06-FEB-13**	**Aliquot:**	**11.69 g**		

CAS No.	Parmname	Qual	Result	EMPC	Units	EDL	PQL
1746-01-6	2,3,7,8-TCDD	U	.145		pg/g	0.145	1.45
40321-76-4	1,2,3,7,8-PeCDD	U	.724		pg/g	0.724	7.24
39227-28-6	1,2,3,4,7,8-HxCDD	U	.724		pg/g	0.724	7.24
57653-85-7	1,2,3,6,7,8-HxCDD	U	.724		pg/g	0.724	7.24
19408-74-3	1,2,3,7,8,9-HxCDD	U	.724		pg/g	0.724	7.24
35822-46-9	1,2,3,4,6,7,8-HpCDD	J	6.15		pg/g	0.727	7.24
3268-87-9	1,2,3,4,6,7,8,9-OCDD		55.8		pg/g	1.82	14.5
51207-31-9	2,3,7,8-TCDF	JK		0.877	pg/g	0.278	1.45
57117-41-6	1,2,3,7,8-PeCDF	U	.724		pg/g	0.724	7.24
57117-31-4	2,3,4,7,8-PeCDF	U	.724		pg/g	0.724	7.24
70648-26-9	1,2,3,4,7,8-HxCDF	U	.724		pg/g	0.724	7.24
57117-44-9	1,2,3,6,7,8-HxCDF	U	.724		pg/g	0.724	7.24
60851-34-5	2,3,4,6,7,8-HxCDF	U	.724		pg/g	0.724	7.24
72918-21-9	1,2,3,7,8,9-HxCDF	U	.724		pg/g	0.724	7.24
67562-39-4	1,2,3,4,6,7,8-HpCDF	J	1.93		pg/g	0.724	7.24
55673-89-7	1,2,3,4,7,8,9-HpCDF	U	.724		pg/g	0.724	7.24
39001-02-0	1,2,3,4,6,7,8,9-OCDF	J	4.43		pg/g	1.45	14.5
41903-57-5	Total TCDDs		2.11		pg/g	0.145	1.45
36088-22-9	Total PeCDDs	U	.724		pg/g	0.724	7.24
34465-46-8	Total HxCDDs	J	1.68		pg/g	0.724	7.24
37871-00-4	Total HpCDDs		12.4		pg/g	0.727	7.24
30402-14-3	Total TCDFs	J	0.371	3.05	pg/g	0.278	1.45
30402-15-4	Total PeCDFs	U	.724		pg/g	0.724	7.24
55684-94-1	Total HxCDFs	J	1.24		pg/g	0.724	7.24
38998-75-3	Total HpCDFs	J	4.57		pg/g	0.724	7.24
3333-30-0	TEQ WHO2005 ND=0		0.0989	0.187	pg/g		
3333-30-1	TEQ WHO2005 ND=0.5		0.923	0.997	pg/g		

Surrogate/Tracer recovery	Qual	Result	Nominal	Units	Recovery%	Acceptable Limits
13C-2,3,7,8-TCDD		233	289	pg/g	80.6	(40%-135%)
13C-1,2,3,7,8-PeCDD		236	289	pg/g	81.4	(40%-135%)
13C-1,2,3,6,7,8-HxCDD		212	289	pg/g	73.1	(40%-135%)
13C-1,2,3,4,6,7,8-HpCDD		267	289	pg/g	92.1	(40%-135%)
13C-OCDD		470	579	pg/g	81.2	(40%-135%)
13C-2,3,7,8-TCDF		216	289	pg/g	74.7	(40%-135%)
13C-1,2,3,7,8-PeCDF		251	289	pg/g	86.8	(40%-135%)
13C-1,2,3,6,7,8-HxCDF		248	289	pg/g	85.7	(40%-135%)
13C-1,2,3,4,6,7,8-HpCDF		268	289	pg/g	92.5	(40%-135%)

Comments:

J Value is estimated

K Estimated Maximum Possible Concentration

U Analyte was analyzed for , but not detected above the specified detection limit.

Quantify Sample Summary Report **MassLynx 4.1**
Method 8290 Quantification Report

Dataset: C:\MassLynx\Default.pro\Sample Results\8290-b08feb13a_2.qld

Last Altered: Tuesday, February 12, 2013 11:04:08 Eastern Standard Time
Printed: Tuesday, February 12, 2013 11:04:49 Eastern Standard Time

Method: Untitled 20 Dec 2012 07:43:23
Calibration: C:\MassLynx\DEFAULT.PRO\CurveDB\8290-b30nov12a.cdb 03 Dec 2012 09:49:08

Name: b08feb13a_2-10, Date: 08-Feb-2013, Time: 21:59:06, ID: 4486006-1, Description: 22879, Job: HMS8290_1S, Task: HRP763_1, User: JTF

	Name	Ion1Area	Ion2Area	Response	RT	RRT	RA	Fail?	pg/uL	EDL	Height1	Noise1	S/N1	Height2	Noise2	S/N2	M
1	2378-TCDD							NO		0.0500		512			453		
2	12378-PeCDD							NO		0.0804		1000			663		
3	123478-HxCDD	4.29e1	6.45e1	1.07e2	36.81	0.998	0.67	YES	0.064	0.165	1.42e3	919	1.5	3.12e3	1089	2.9	MM
4	123678-HxCDD	1.48e2	6.58e1	2.14e2	36.87	1.000	2.26	YES	0.115	0.149	3.66e3	919	4.0	2.48e3	1089	2.3	db
5	123789-HxCDD	4.53e1	1.61e1	6.14e1	37.10	1.006	2.82	YES	0.036	0.162	2.12e3	919	2.3	7.61e2	1089	0.7	MM
6	1234678-HpCDD	1.97e3	1.98e3	3.95e3	40.17	1.000	0.99	NO	2.125	0.251	2.87e4	1091	26.3	2.70e4	1505	17.9	bd
7	OCDD	1.19e4	1.48e4	2.67e4	44.38	1.000	0.81	NO	19.274	0.628	1.30e5	2098	62.0	1.54e5	1483	103.7	bd
8	2378-TCDF	4.30e2	7.42e2	1.17e3	30.62	1.001	0.58	YES	0.303	0.0959	5.70e3	859	6.6	1.12e4	1081	10.4	MM
9	12378-PeCDF	3.26e2	1.92e2	5.18e2	33.34	0.999	1.69	NO	0.140	0.104	8.45e3	1928	4.4	4.76e3	1693	2.8	MM
10	23478-PeCDF	1.03e2	1.25e2	2.28e2	34.01	1.019	0.82	YES	0.059	0.100	2.81e3	1928	1.5	4.55e3	1693	2.7	db
11	123478-HxCDF	2.62e2	2.13e2	4.75e2	36.07	0.997	1.23	NO	0.174	0.0977	8.54e3	1111	7.7	5.50e3	916	6.0	bb
12	123678-HxCDF	8.82e1	7.76e1	1.66e2	36.16	1.000	1.14	NO	0.053	0.0856	3.28e3	1111	2.9	3.26e3	916	3.6	bb
13	234678-HxCDF	9.59e1	7.85e1	1.74e2	36.69	1.014	1.22	NO	0.061	0.0927	2.07e3	1111	1.9	2.55e3	916	2.8	MM
14	123789-HxCDF							NO		0.110		1111			916		
15	1234678-HpCDF	8.86e2	9.24e2	1.81e3	38.91	1.001	0.96	NO	0.666	0.0809	1.46e4	702	20.7	1.89e4	677	27.9	bb
16	1234789-HpCDF							NO		0.105		702			677		
17	OCDF	1.11e3	1.35e3	2.46e3	44.68	1.007	0.82	NO	1.531	0.422	1.54e4	1169	13.1	1.42e4	1622	8.7	MM
18	13C-2378-TCDD	1.20e5	1.54e5	2.73e5	31.27	1.017	0.78	NO	80.643	0.189	2.22e6	2089	1062.0	2.72e6	1551	1755.8	bb
19	13C-12378-PeCDD	1.39e5	8.92e4	2.28e5	34.17	1.111	1.55	NO	81.431	0.311	3.25e6	3750	867.8	2.10e6	1194	1761.6	bd
20	13C-123678-HxCDD	9.38e4	7.91e4	1.73e5	36.87	0.994	1.19	NO	73.068	0.303	1.69e6	2891	585.7	1.43e6	1932	742.6	bd
21	13C-1234678-HpCDD	8.55e4	7.83e4	1.64e5	40.16	1.082	1.09	NO	92.073	0.338	1.19e6	1973	601.5	1.06e6	2066	511.7	bd
22	13C-OCDD	1.09e5	1.27e5	2.36e5	44.37	1.196	0.86	NO	162.404	0.354	1.13e6	2431	463.4	1.22e6	1031	1182.2	bd
23	13C-2378-TCDF	1.71e5	2.04e5	3.76e5	30.59	0.994	0.84	NO	74.731	0.0986	2.24e6	1484	1511.3	2.66e6	1331	1999.4	bb
24	13C-12378-PeCDF	2.41e5	1.52e5	3.93e5	33.36	1.085	1.58	NO	86.830	0.176	5.66e6	2679	2111.1	3.66e6	1853	1975.4	bd
25	13C-123678-HxCDF	1.02e5	1.98e5	3.00e5	36.17	0.975	0.51	NO	85.737	0.225	1.93e6	3041	634.7	3.81e6	2238	1700.6	bd
26	13C-1234678-HpCDF	6.72e4	1.55e5	2.22e5	38.89	1.048	0.43	NO	92.494	0.302	1.05e6	2389	440.6	2.39e6	2478	966.5	bb
27	13C-1234-TCDD	1.52e5	1.90e5	3.43e5	30.76	0.000	0.80	NO	100.000	0.187	2.16e6	2089	1035.1	2.79e6	1551	1799.4	bd
28	13C-123789-HxCDD	1.19e5	9.40e4	2.13e5	37.10	0.000	1.26	NO	100.000	0.338	1.99e6	2891	689.7	1.72e6	1932	890.2	dd
29	37Cl-2378-TCDD (SS)									0.0248		555					
30	13C-23478-PeCDF (SS)	8.07e1	6.84e1	1.49e2	33.92	1.017	1.18	YES	0.038	0.122	3.18e3	2679	1.2	5.19e3	1853	2.8	bb

Quantify Totals Report MassLynx 4.1
Method 8290 Quantification Report

Dataset: C:\MassLynx\Default.pro\Sample Results\8290-b08feb13a_2.qld

Last Altered: Tuesday, February 12, 2013 11:04:08 Eastern Standard Time
Printed: Tuesday, February 12, 2013 11:04:49 Eastern Standard Time

Method: Untitled 20 Dec 2012 07:43:23
Calibration: C:\MassLynx\DEFAULT.PRO\CurveDB\8290-b30nov12a.cdb 03 Dec 2012 09:49:08

Name: b08feb13a_2-10, Date: 08-Feb-2013, Time: 21:59:06, ID: 4486006-1, Description: 22879, Job: HMS8290_1S, Task: HRP763_1, User: JTF

TD

	Name	Ion1Area	Ion2Area	Response	RT	RA	Fail?	pg/uL	EDL	Height1	Noise1	S/N1	Height2	Noise2	S/N2	M
1	Total-tetradioxins	3.03e2	4.46e2	7.48e2	28.30	0.68	NO	0.287	0.0500	4.79e3	512	9.3	5.03e3	453	11.1	bb
2	Total-tetradioxins	4.67e2	6.85e2	1.15e3	27.99	0.68	NO	0.442	0.0500	6.11e3	512	11.9	9.95e3	453	22.0	bb

PD

	Name	Ion1Area	Ion2Area	Response	RT	RA	Fail?	pg/uL	EDL	Height1	Noise1	S/N1	Height2	Noise2	S/N2	M
1	Total-pentadioxins	1.01e2	1.24e2	2.25e2	32.82	0.82	YES	0.102	0.0804	3.12e3	1000	3.1	3.04e3	663	4.6	MM

HD

	Name	Ion1Area	Ion2Area	Response	RT	RA	Fail?	pg/uL	EDL	Height1	Noise1	S/N1	Height2	Noise2	S/N2	M
1	Total-hexadioxins	3.80e3	1.00e4	1.39e4	37.57	0.38	YES	7.899	0.159	9.72e4	919	105.8	2.00e5	1089	183.4	bb
2	123678-HxCDD	1.48e2	6.58e1	2.14e2	36.87	2.26	YES	0.115	0.149	3.66e3	919	4.0	2.48e3	1089	2.3	db
3	Total-hexadioxins	3.05e2	2.57e2	5.62e2	36.21	1.19	NO	0.321	0.159	8.68e3	919	9.4	5.05e3	1089	4.6	MM
4	Total-hexadioxins	7.29e1	1.13e2	1.86e2	36.01	0.64	YES	0.106	0.159	2.50e3	919	2.7	2.70e3	1089	2.5	bb
5	Total-hexadioxins	2.49e2	2.09e2	4.58e2	35.55	1.19	NO	0.261	0.159	5.01e3	919	5.5	4.37e3	1089	4.0	bb
6	123478-HxCDD	4.29e1	6.45e1	1.07e2	36.81	0.67	YES	0.064	0.165	1.42e3	919	1.5	3.12e3	1089	2.9	MM
7	123789-HxCDD	4.53e1	1.61e1	6.14e1	37.10	2.82	YES	0.036	0.162	2.12e3	919	2.3	7.61e2	1089	0.7	MM

HPD

	Name	Ion1Area	Ion2Area	Response	RT	RA	Fail?	pg/uL	EDL	Height1	Noise1	S/N1	Height2	Noise2	S/N2	M
1	Total-heptadioxins	1.41e2	1.28e2	2.69e2	40.29	1.10	NO	0.145	0.251	4.23e3	1091	3.9	3.28e3	1505	2.2	db
2	1234678-HpCDD	1.97e3	1.98e3	3.95e3	40.17	0.99	NO	2.125	0.251	2.87e4	1091	26.3	2.70e4	1505	17.9	bd
3	Total-heptadioxins	2.06e3	1.97e3	4.03e3	39.23	1.04	NO	2.168	0.251	2.99e4	1091	27.4	4.00e4	1505	26.6	bb

Quantify Totals Report MassLynx 4.1
Method 8290 Quantification Report

Dataset: C:\MassLynx\Default.pro\Sample Results\8290-b08feb13a_2.qld

Last Altered: Tuesday, February 12, 2013 11:04:08 Eastern Standard Time
Printed: Tuesday, February 12, 2013 11:04:49 Eastern Standard Time

Name: b08feb13a_2-10, Date: 08-Feb-2013, Time: 21:59:06, ID: 4486006-1, Description: 22879, Job: HMS8290_1S, Task: HRP763_1, User: JTF

TF

	Name	Ion1Area	Ion2Area	Response	RT	RA	Fail?	pg/uL	EDL	Height1	Noise1	S/N1	Height2	Noise2	S/N2	M
1	Total-tetrafurans	4.06e2	4.27e2	8.33e2	27.96	0.95	YES	0.215	0.0959	6.50e3	859	7.6	6.97e3	1081	6.4	MM
2	Total-tetrafurans	3.00e2	5.47e2	8.47e2	27.21	0.55	YES	0.219	0.0959	3.55e3	859	4.1	8.06e3	1081	7.4	MM
3	Total-tetrafurans	2.26e2	2.71e2	4.96e2	31.96	0.83	NO	0.128	0.0959	5.27e3	859	6.1	4.17e3	1081	3.9	bb
4	Total-tetrafurans	1.53e2	2.14e2	3.68e2	30.92	0.72	NO	0.095	0.0959	2.11e3	859	2.5	3.83e3	1081	3.5	bb
5	2378-TCDF	4.30e2	7.42e2	1.17e3	30.62	0.58	YES	0.303	0.0959	5.70e3	859	6.6	1.12e4	1081	10.4	MM
6	Total-tetrafurans	2.75e2	4.55e2	7.29e2	29.66	0.60	YES	0.189	0.0959	4.64e3	859	5.4	6.46e3	1081	6.0	MM
7	Total-tetrafurans	1.55e2	1.32e2	2.88e2	29.20	1.17	YES	0.074	0.0959	2.82e3	859	3.3	2.50e3	1081	2.3	bb
8	Total-tetrafurans	6.96e1	1.40e2	2.09e2	28.56	0.50	YES	0.054	0.0959	1.64e3	859	1.9	3.18e3	1081	2.9	bb

PF1

	Name	Ion1Area	Ion2Area	Response	RT	RA	Fail?	pg/uL	EDL	Height1	Noise1	S/N1	Height2	Noise2	S/N2	M
1	Total-pentafurans (F1)	4.34e2	2.93e2	7.27e2	31.94	1.48	NO	0.192	0.0338	9.63e3	440	21.9	1.13e4	760	14.8	bb
2	Total-pentafurans (F1)	5.50e1	5.45e1	1.10e2	31.29	1.01	YES	0.029	0.0338	9.37e2	440	2.1	1.39e3	760	1.8	bb

PF

	Name	Ion1Area	Ion2Area	Response	RT	RA	Fail?	pg/uL	EDL	Height1	Noise1	S/N1	Height2	Noise2	S/N2	M
1	23478-PeCDF	1.03e2	1.25e2	2.28e2	34.01	0.82	YES	0.059	0.100	2.81e3	1928	1.5	4.55e3	1693	2.7	db
2	Total-pentafurans	7.77e1	5.82e1	1.36e2	33.54	1.33	NO	0.036	0.102	3.06e3	1928	1.6	2.53e3	1693	1.5	bb
3	12378-PeCDF	3.26e2	1.92e2	5.18e2	33.34	1.69	NO	0.140	0.104	8.45e3	1928	4.4	4.76e3	1693	2.8	MM
4	Total-pentafurans	1.83e2	4.20e1	2.25e2	33.14	4.35	YES	0.059	0.102	5.47e3	1928	2.8	1.09e3	1693	0.6	bb
5	Total-pentafurans	6.03e1	3.34e2	3.95e2	32.84	0.18	YES	0.104	0.102	4.05e3	1928	2.1	5.62e3	1693	3.3	db

Quantify Totals Report MassLynx 4.1
Method 8290 Quantification Report

Dataset: C:\MassLynx\Default.pro\Sample Results\8290-b08feb13a_2.qld

Last Altered: Tuesday, February 12, 2013 11:04:08 Eastern Standard Time
Printed: Tuesday, February 12, 2013 11:04:49 Eastern Standard Time

Name: b08feb13a_2-10, Date: 08-Feb-2013, Time: 21:59:06, ID: 4486006-1, Description: 22879, Job: HMS8290_1S, Task: HRP763_1, User: JTF

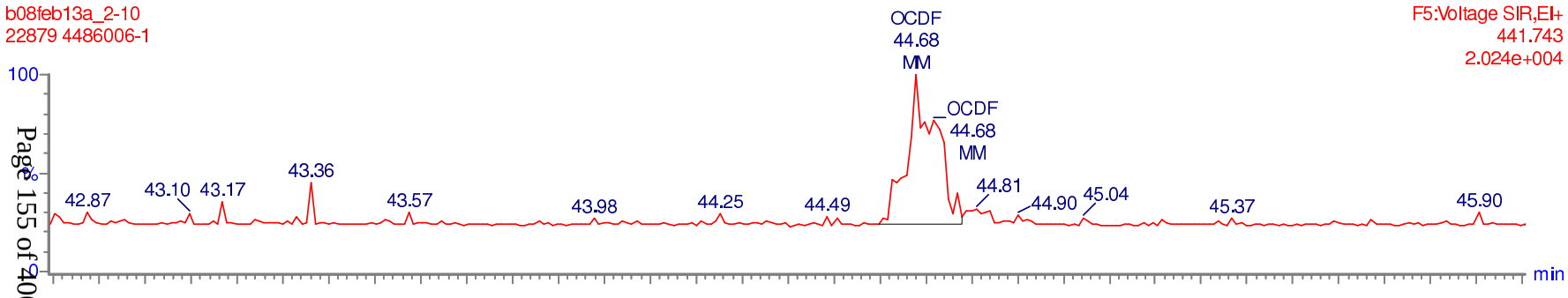
HF

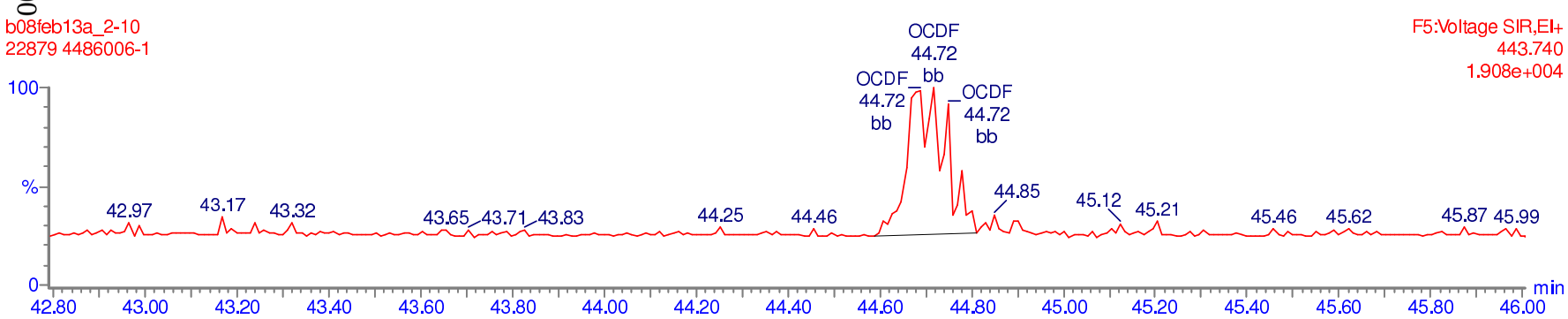
	Name	Ion1Area	Ion2Area	Response	RT	RA	Fail?	pg/uL	EDL	Height1	Noise1	S/N1	Height2	Noise2	S/N2	M
1	123678-HxCDF	8.82e1	7.76e1	1.66e2	36.16	1.14	NO	0.053	0.0856	3.28e3	1111	2.9	3.26e3	916	3.6	bb
2	123478-HxCDF	2.62e2	2.13e2	4.75e2	36.07	1.23	NO	0.174	0.0977	8.54e3	1111	7.7	5.50e3	916	6.0	bb
3	Total-hexafurans	3.67e2	3.22e2	6.90e2	35.68	1.14	NO	0.248	0.0957	1.07e4	1111	9.7	7.97e3	916	8.7	MM
4	Total-hexafurans	6.55e2	5.34e2	1.19e3	35.26	1.23	NO	0.427	0.0957	1.37e4	1111	12.3	1.42e4	916	15.5	db
5	Total-hexafurans	1.79e2	1.50e2	3.29e2	35.13	1.19	NO	0.118	0.0957	5.58e3	1111	5.0	6.32e3	916	6.9	bd
6	234678-HxCDF	9.59e1	7.85e1	1.74e2	36.69	1.22	NO	0.061	0.0927	2.07e3	1111	1.9	2.55e3	916	2.8	MM

HPF

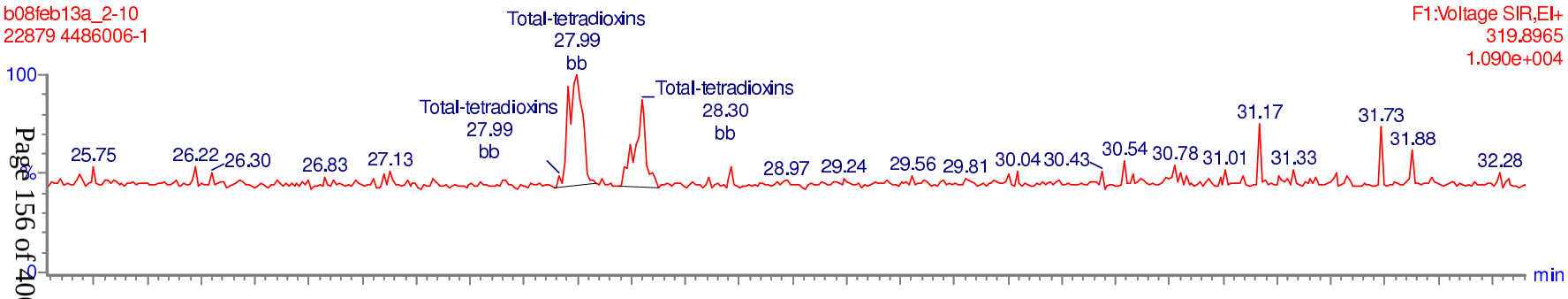
	Name	Ion1Area	Ion2Area	Response	RT	RA	Fail?	pg/uL	EDL	Height1	Noise1	S/N1	Height2	Noise2	S/N2	M
1	Total-heptafurans	1.11e3	1.07e3	2.19e3	39.42	1.04	NO	0.911	0.0915	1.94e4	702	27.7	1.63e4	677	24.1	bd
2	1234678-HpCDF	8.86e2	9.24e2	1.81e3	38.91	0.96	NO	0.666	0.0809	1.46e4	702	20.7	1.89e4	677	27.9	bb

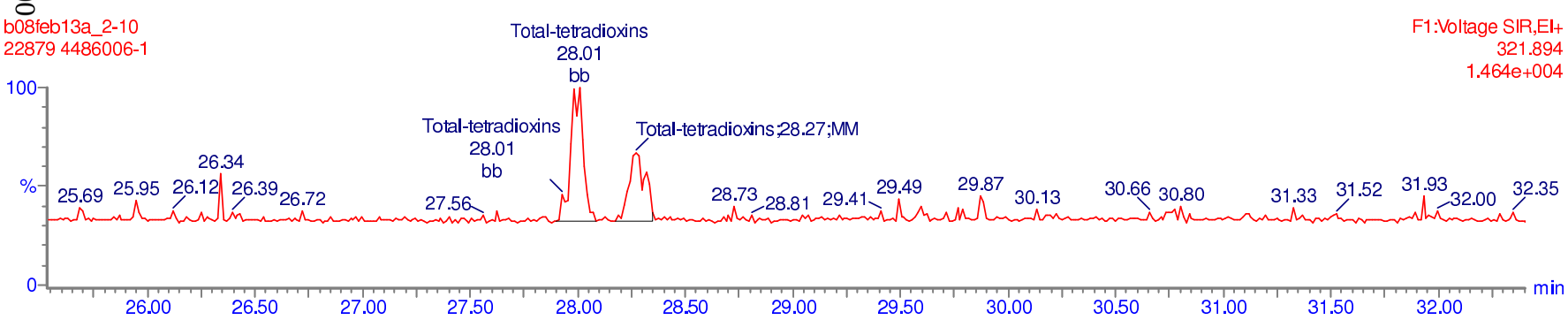
MANUAL INTEGRATION
METHOD 8290



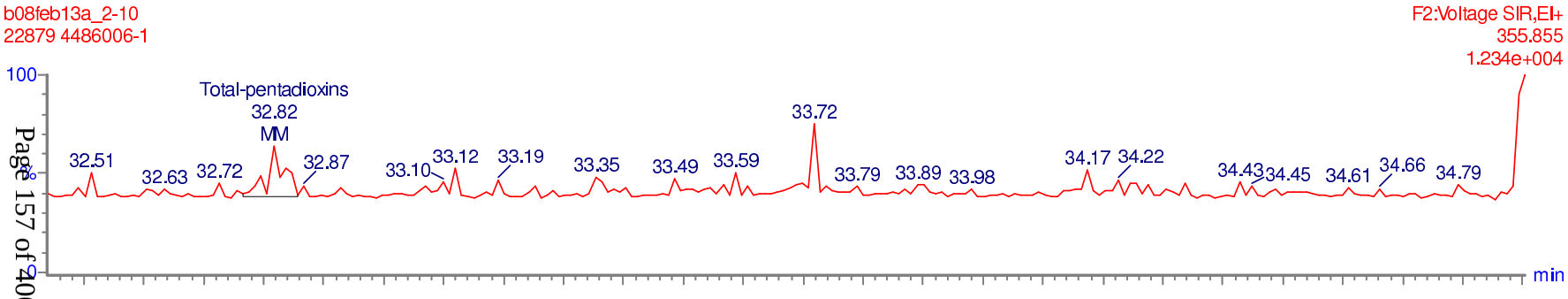


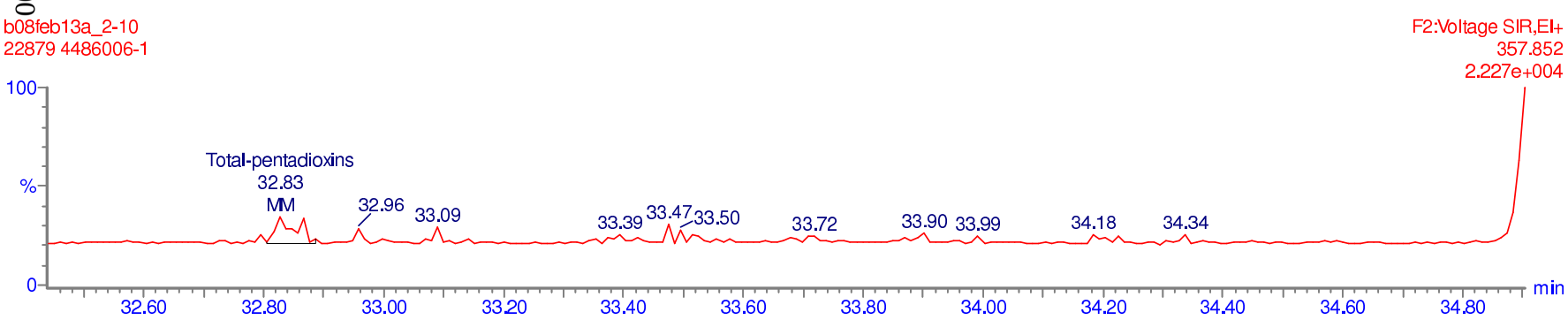
MANUAL INTEGRATION
METHOD 8290



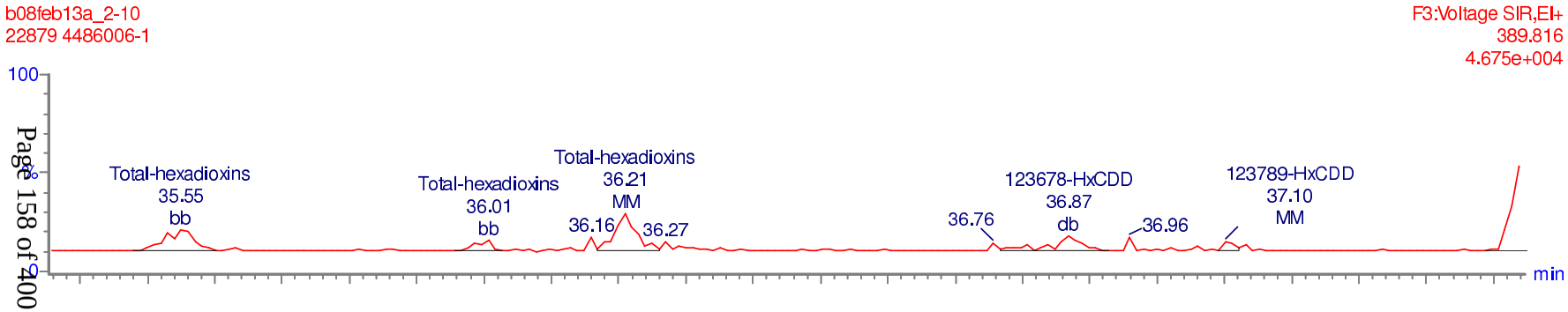


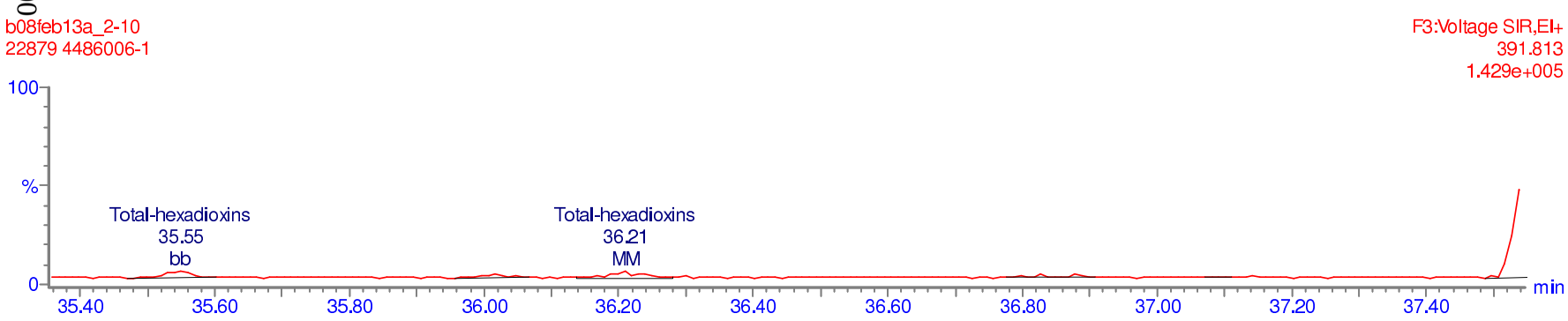
MANUAL INTEGRATION
METHOD 8290



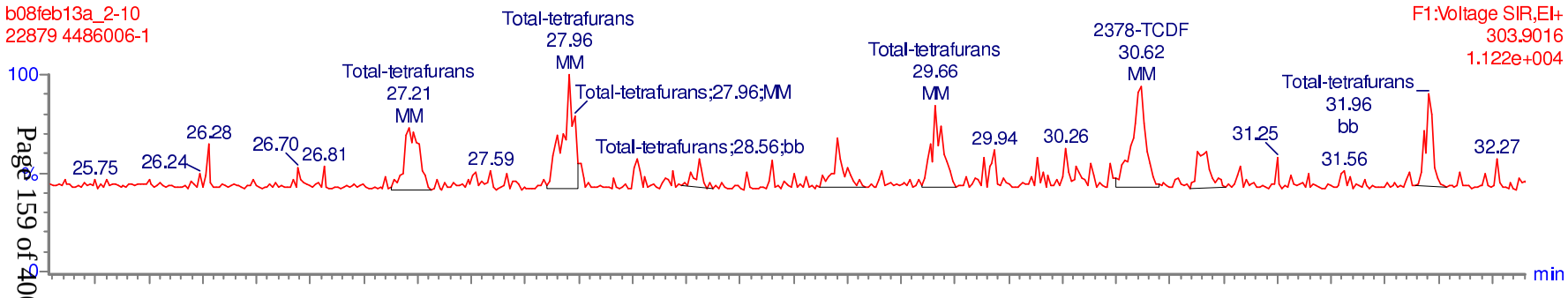


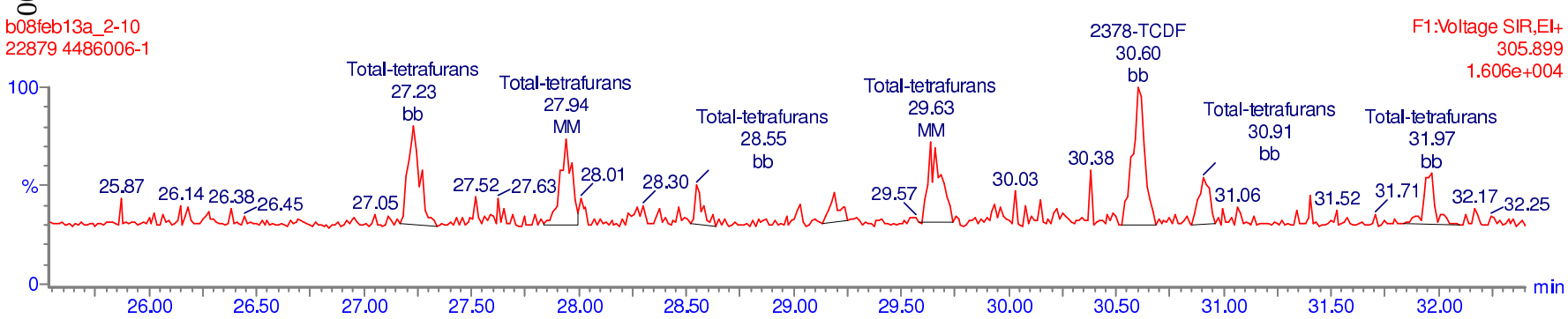
MANUAL INTEGRATION
METHOD 8290



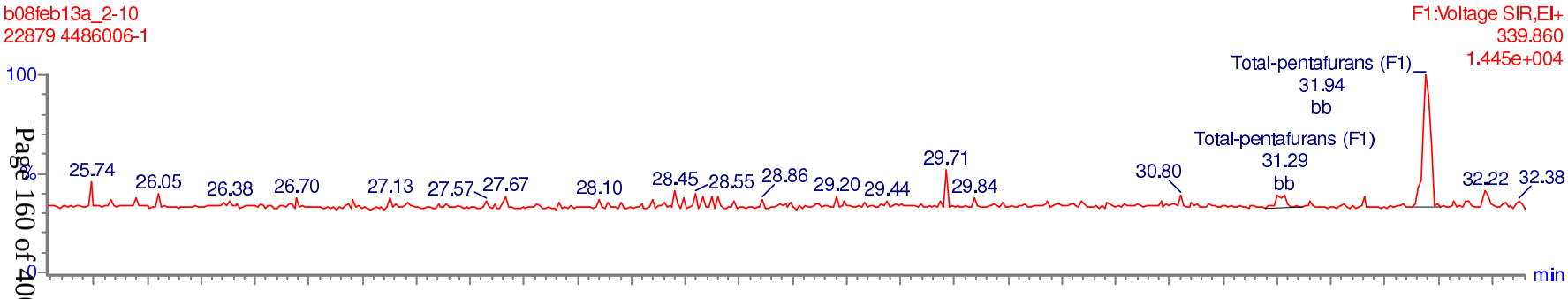


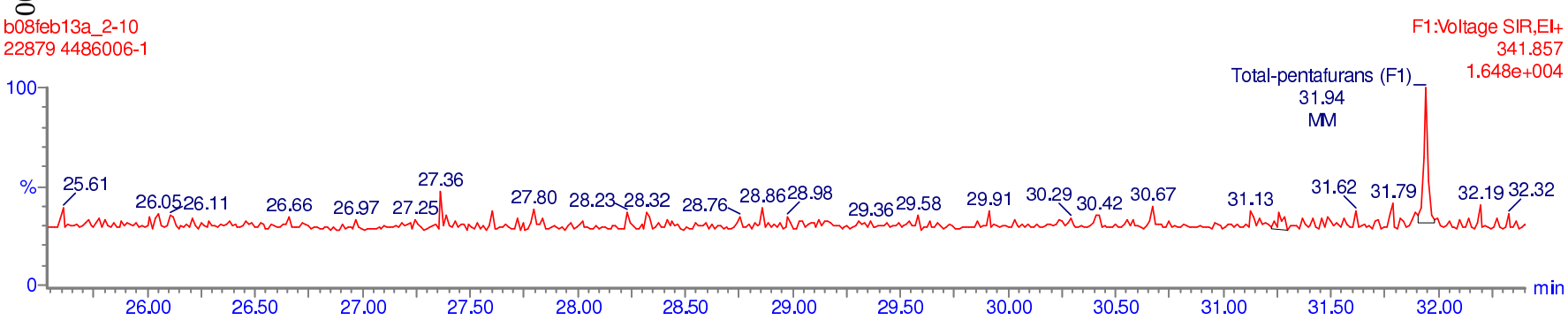
MANUAL INTEGRATION
METHOD 8290



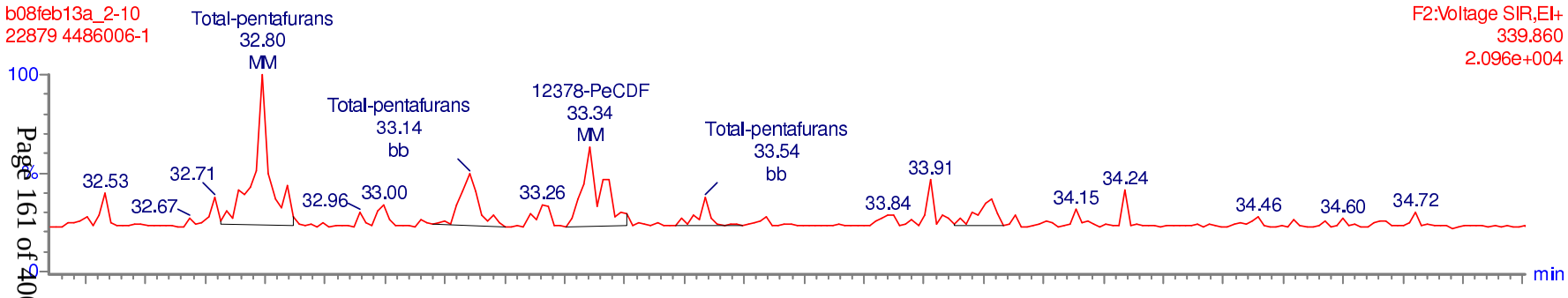


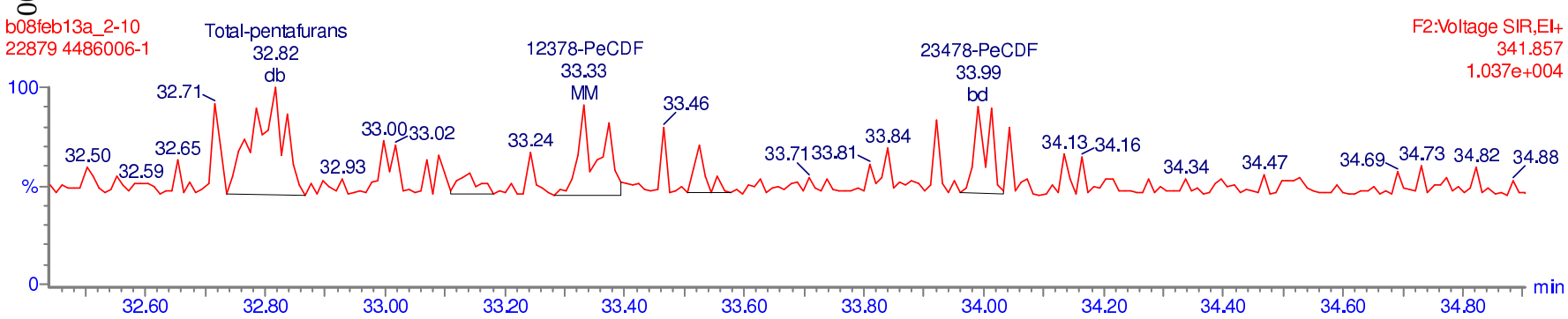
MANUAL INTEGRATION
METHOD 8290



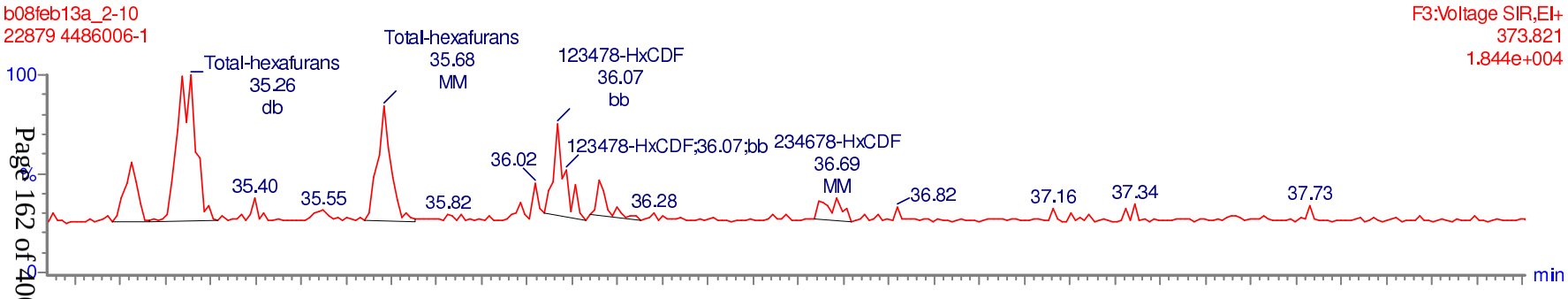


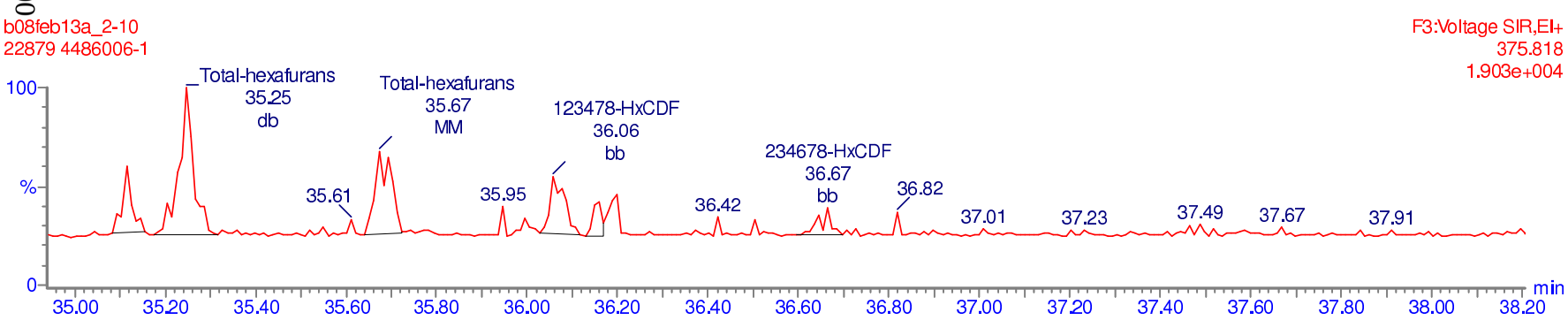
MANUAL INTEGRATION
METHOD 8290





MANUAL INTEGRATION
METHOD 8290





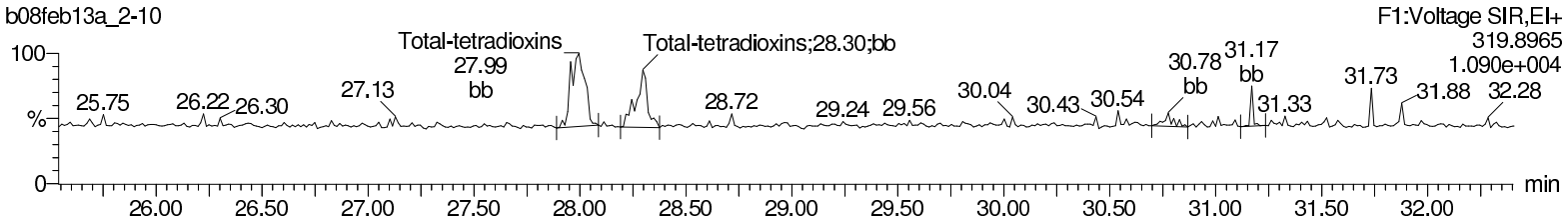
Quantify Sample Report **MassLynx 4.1**
Method 8290 Quantification Report

Dataset: C:\MassLynx\Default.pro\Sample Results\8290-b08feb13a_2.qld

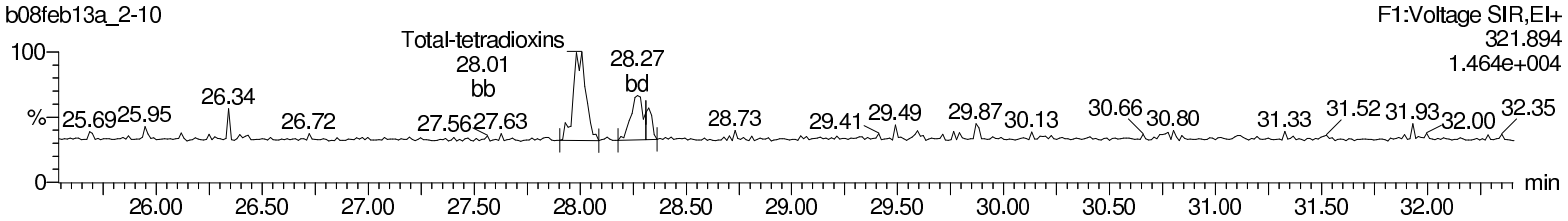
Last Altered: Monday, February 11, 2013 14:16:57 Eastern Standard Time
Printed: Monday, February 11, 2013 14:18:53 Eastern Standard Time

Name: b08feb13a_2-10, Date: 08-Feb-2013, Time: 21:59:06, ID: 4486006-1, Description: 22879, Job: HMS8290_1S, Task: HRP763_1, User: JTF

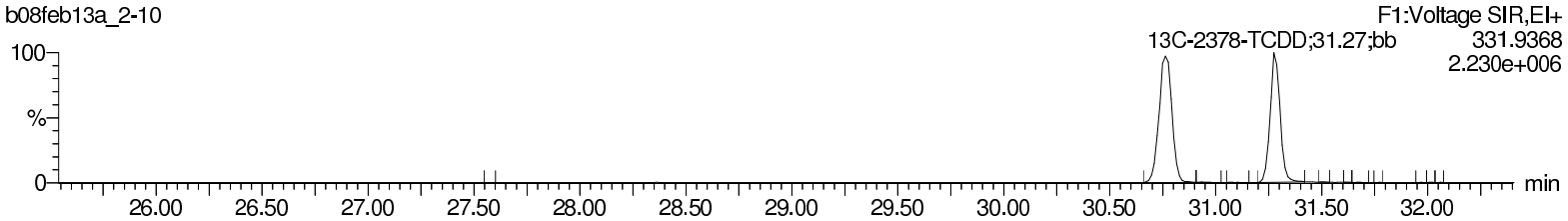
Total-tetradioxins



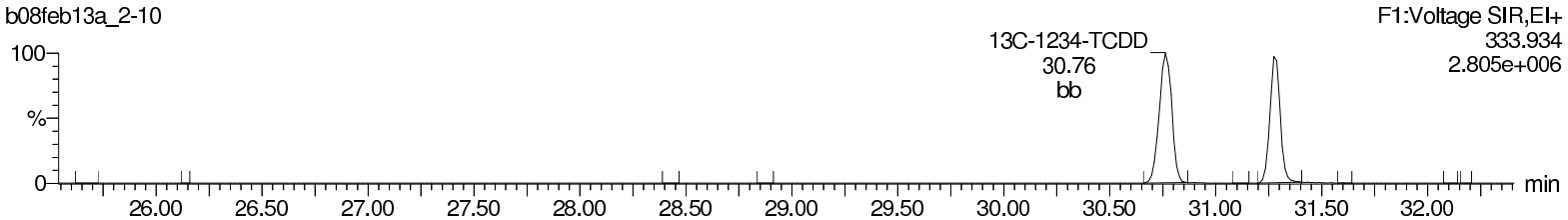
Total-tetradioxins



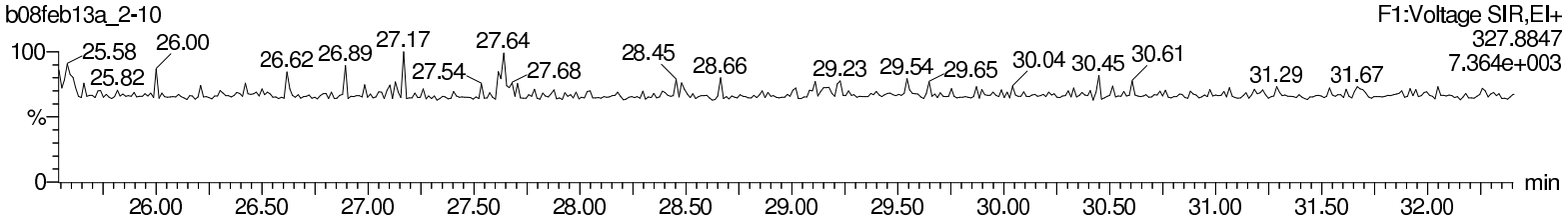
13C-2378-TCDD



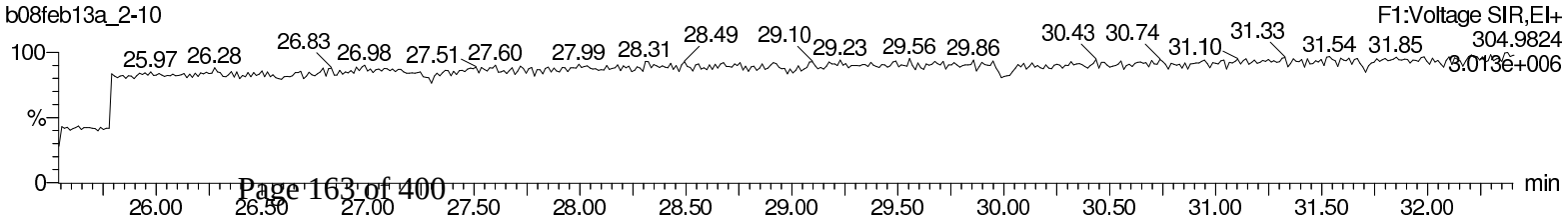
13C-2378-TCDD



37Cl-2378-TCDD (SS)



Lock Mass F1



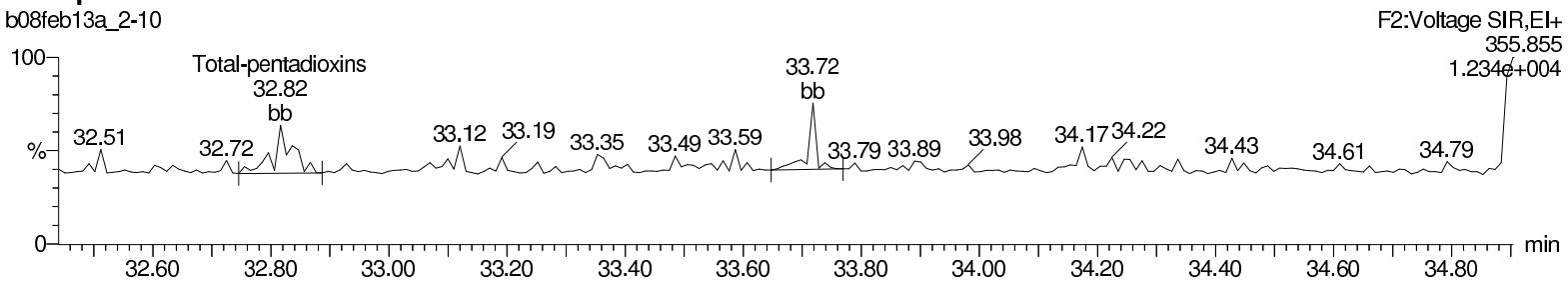
Quantify Sample Report **MassLynx 4.1**
Method 8290 Quantification Report

Dataset: C:\MassLynx\Default.pro\Sample Results\8290-b08feb13a_2.qld

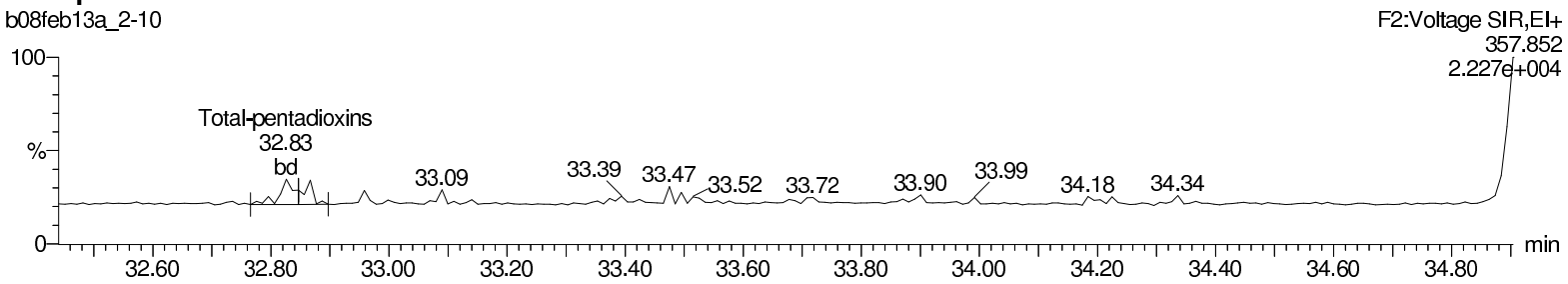
Last Altered: Monday, February 11, 2013 14:16:57 Eastern Standard Time
Printed: Monday, February 11, 2013 14:18:53 Eastern Standard Time

Name: b08feb13a_2-10, Date: 08-Feb-2013, Time: 21:59:06, ID: 4486006-1, Description: 22879, Job: HMS8290_1S, Task: HRP763_1, User: JTF

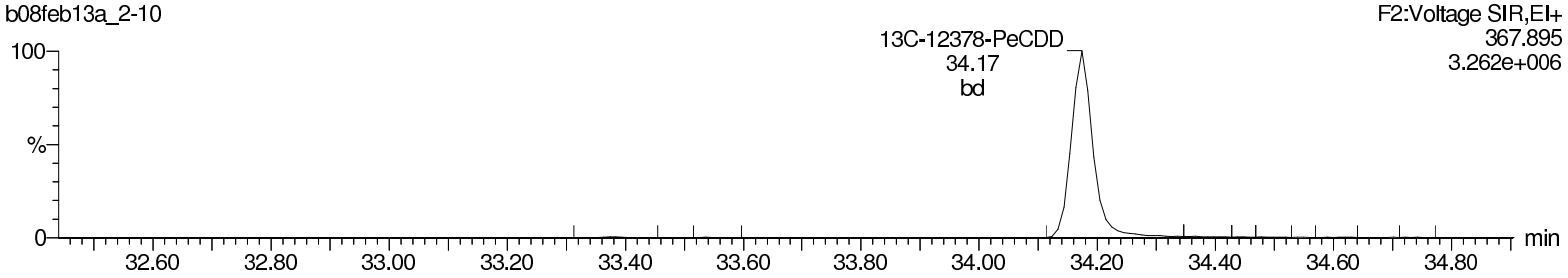
Total-pentadioxins



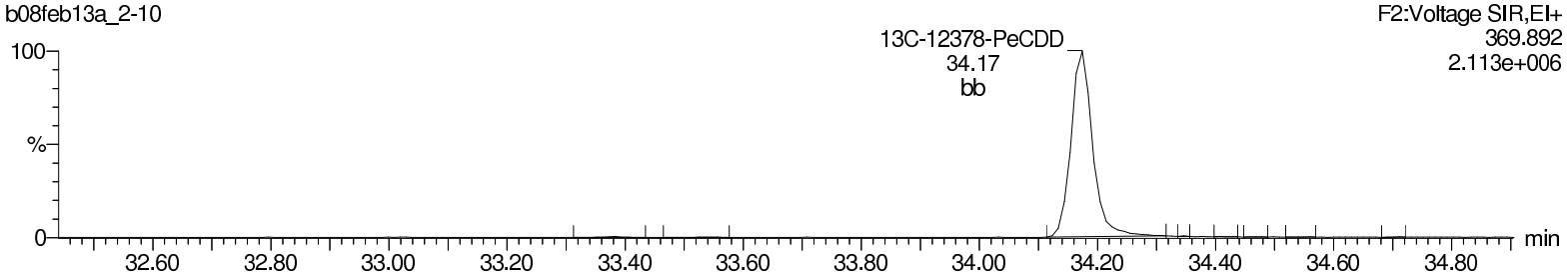
Total-pentadioxins



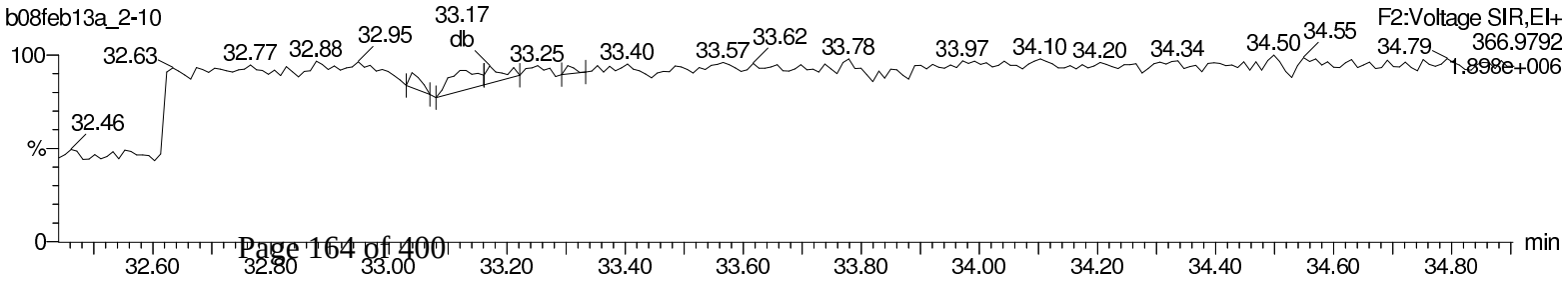
13C-12378-PeCDD



13C-12378-PeCDD



Lock Mass F2



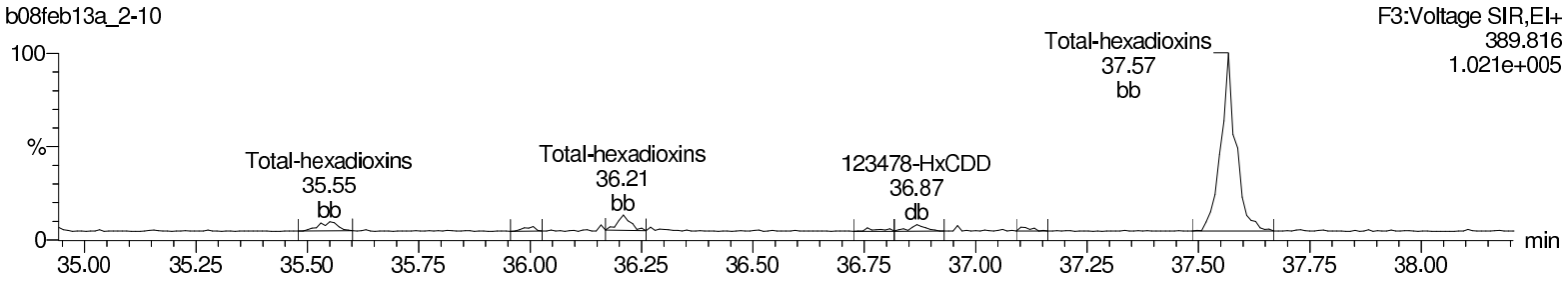
Quantify Sample Report **MassLynx 4.1**
Method 8290 Quantification Report

Dataset: C:\MassLynx\Default.pro\Sample Results\8290-b08feb13a_2.qld

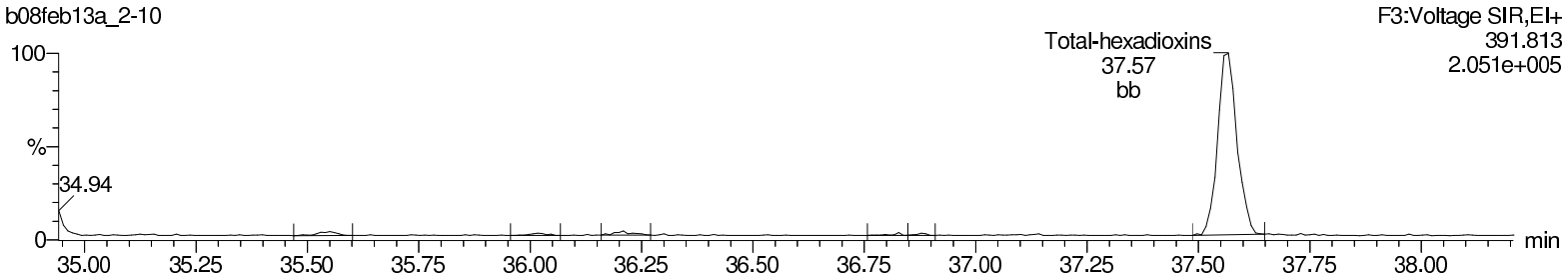
Last Altered: Monday, February 11, 2013 14:16:57 Eastern Standard Time
Printed: Monday, February 11, 2013 14:18:53 Eastern Standard Time

Name: b08feb13a_2-10, Date: 08-Feb-2013, Time: 21:59:06, ID: 4486006-1, Description: 22879, Job: HMS8290_1S, Task: HRP763_1, User: JTF

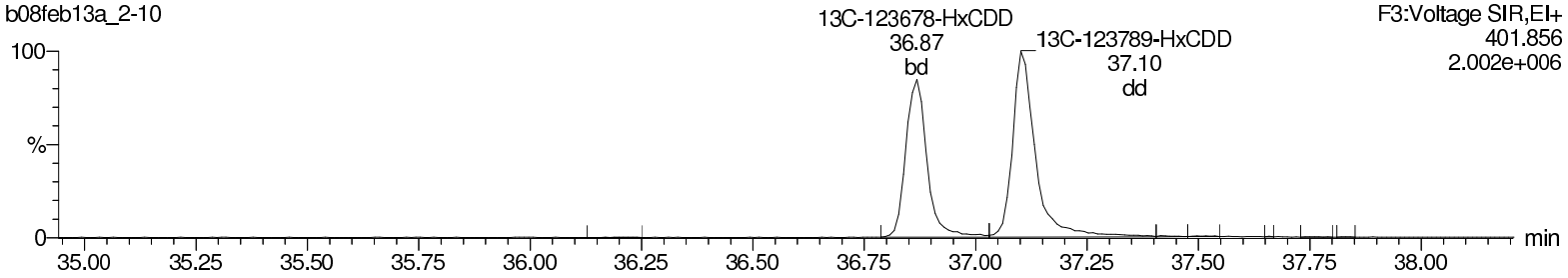
Total-hexadioxins



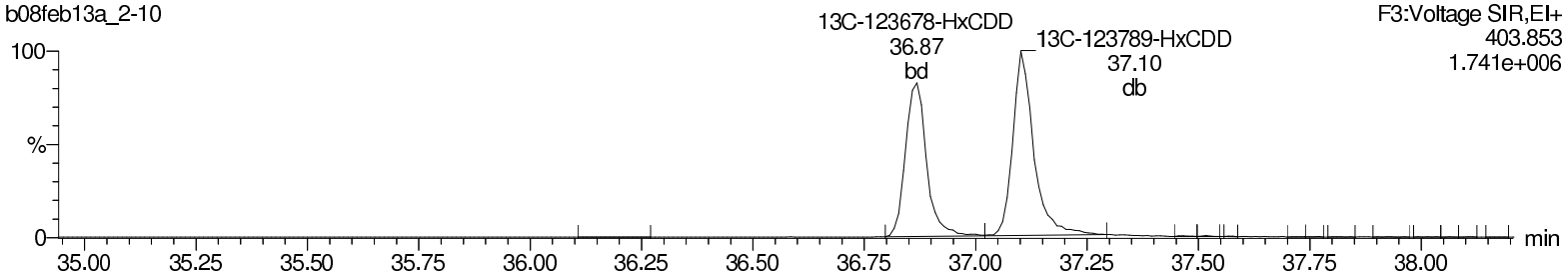
Total-hexadioxins



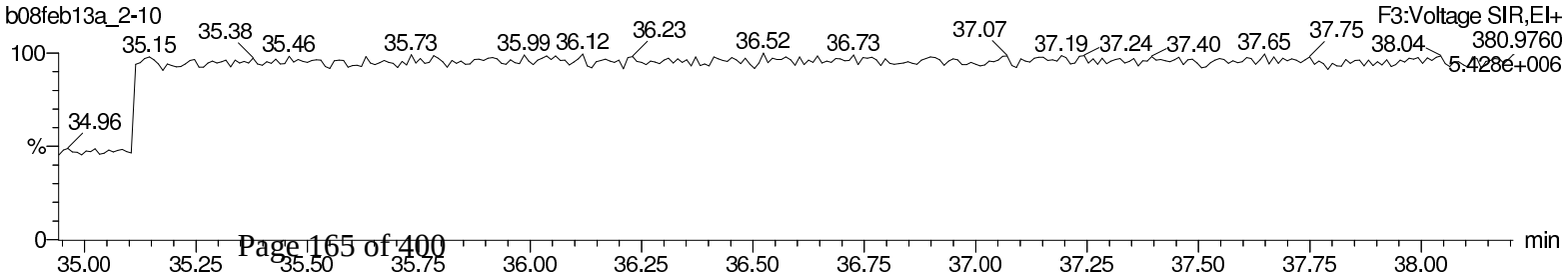
13C-123678-HxCDD



13C-123678-HxCDD



Lock Mass F3



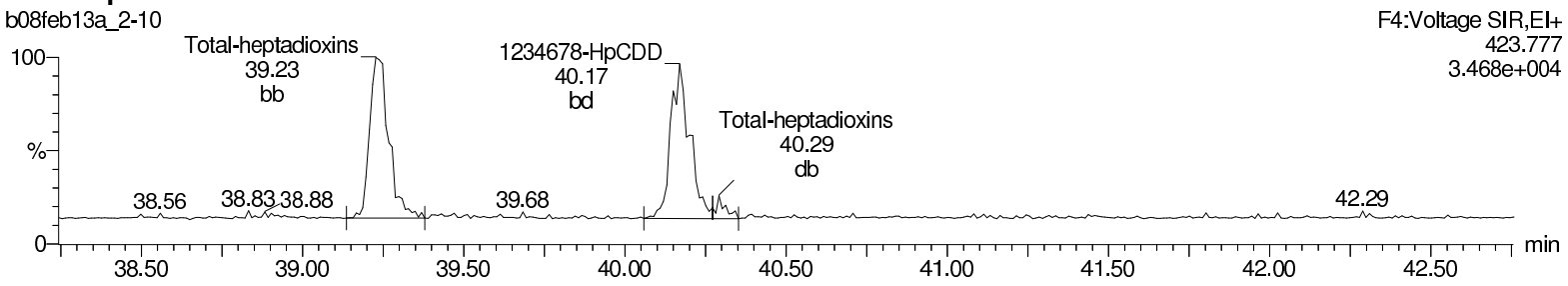
Quantify Sample Report **MassLynx 4.1**
Method 8290 Quantification Report

Dataset: C:\MassLynx\Default.pro\Sample Results\8290-b08feb13a_2.qld

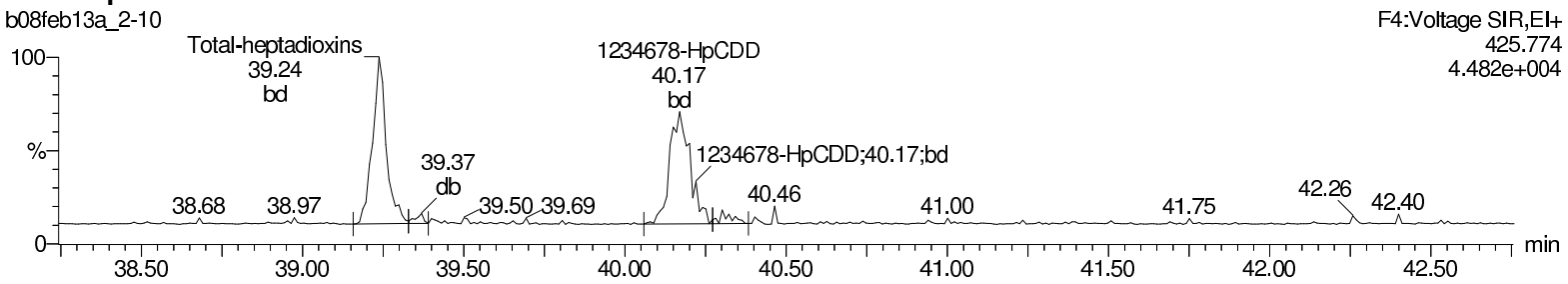
Last Altered: Monday, February 11, 2013 14:16:57 Eastern Standard Time
Printed: Monday, February 11, 2013 14:18:53 Eastern Standard Time

Name: b08feb13a_2-10, Date: 08-Feb-2013, Time: 21:59:06, ID: 4486006-1, Description: 22879, Job: HMS8290_1S, Task: HRP763_1, User: JTF

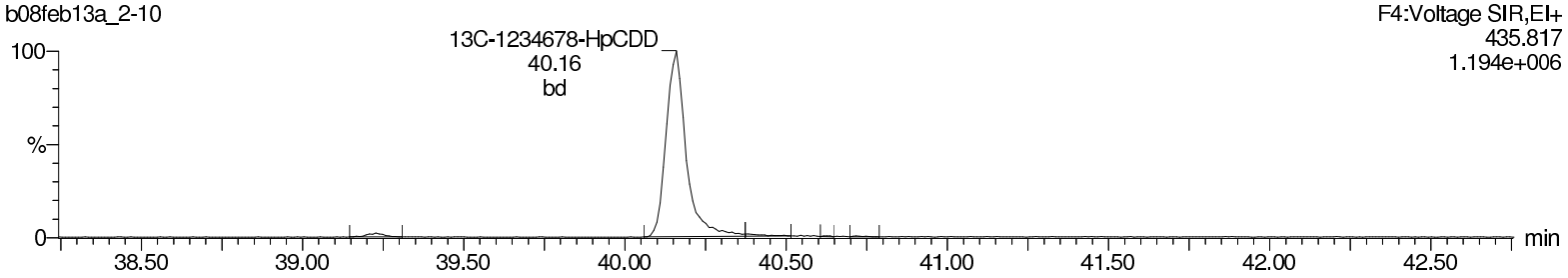
Total-heptadioxins



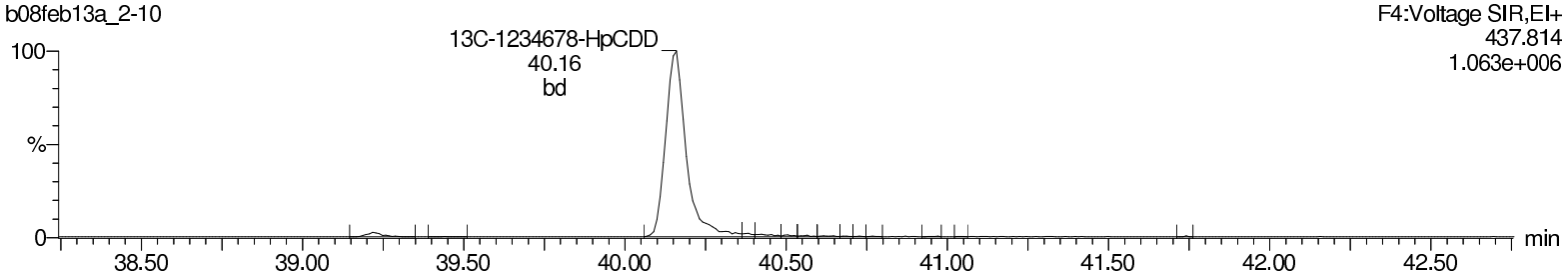
Total-heptadioxins



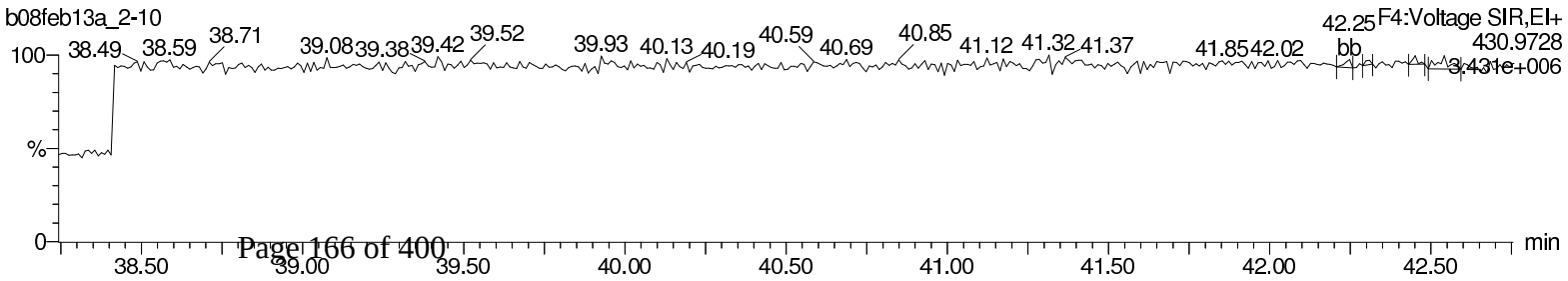
13C-1234678-HpCDD



13C-1234678-HpCDD



Lock Mass F4



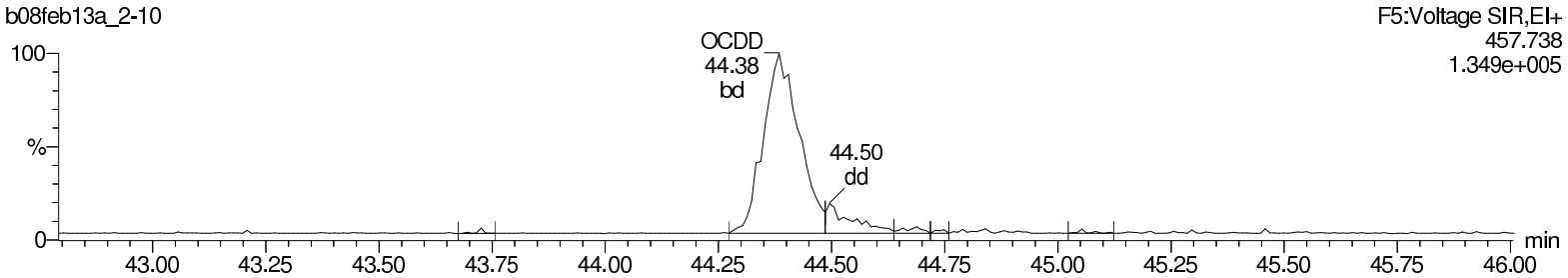
Quantify Sample Report **MassLynx 4.1**
Method 8290 Quantification Report

Dataset: C:\MassLynx\Default.pro\Sample Results\8290-b08feb13a_2.qld

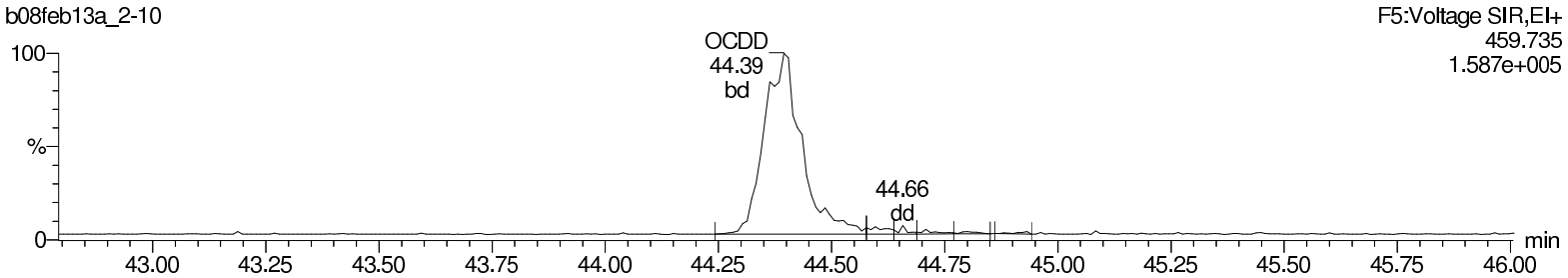
Last Altered: Monday, February 11, 2013 14:16:57 Eastern Standard Time
Printed: Monday, February 11, 2013 14:18:53 Eastern Standard Time

Name: b08feb13a_2-10, Date: 08-Feb-2013, Time: 21:59:06, ID: 4486006-1, Description: 22879, Job: HMS8290_1S, Task: HRP763_1, User: JTF

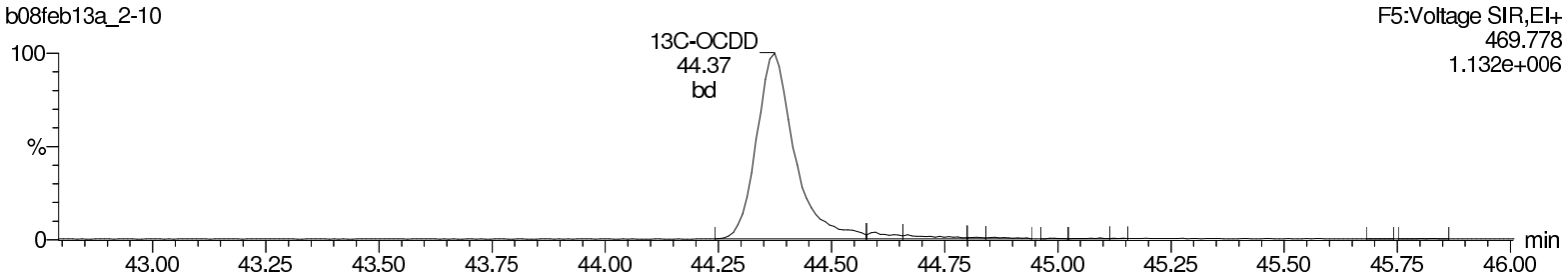
OCDD



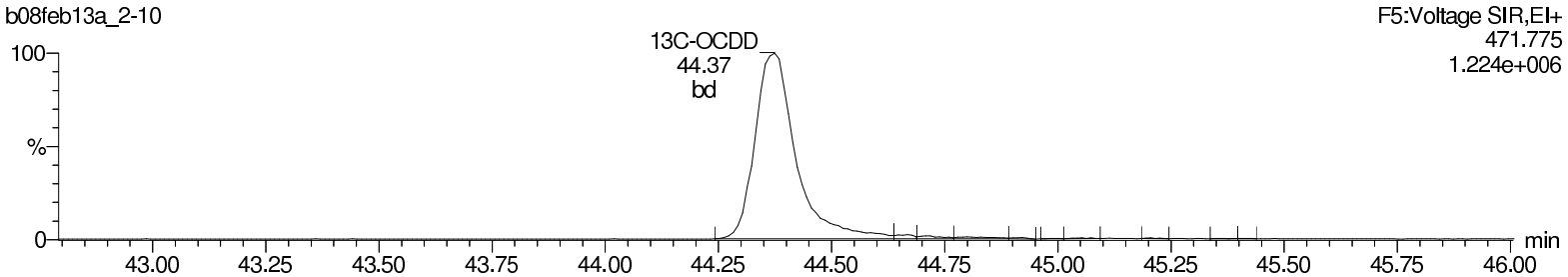
OCDD



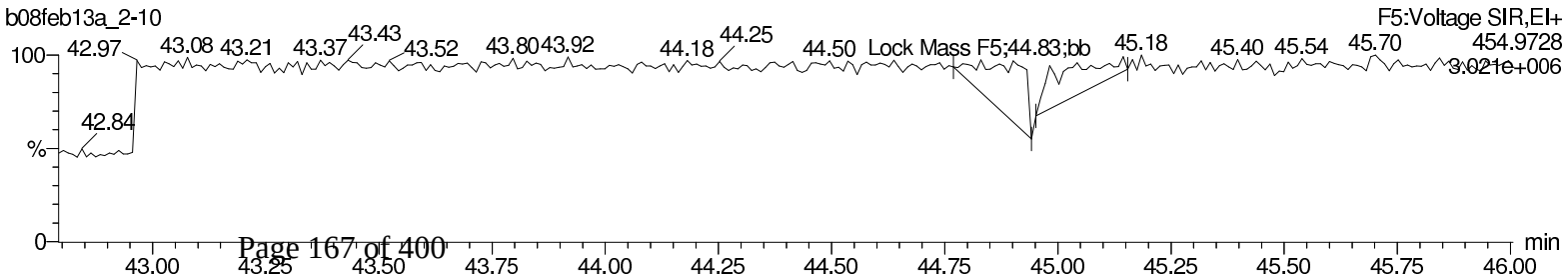
13C-OCDD



13C-OCDD



Lock Mass F5



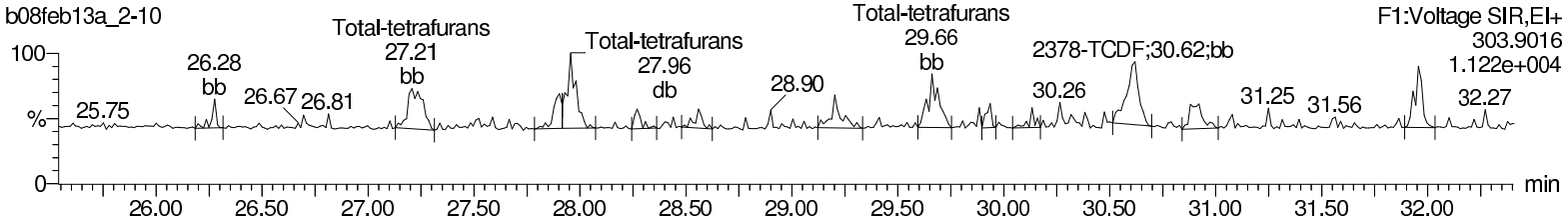
Quantify Sample Report **MassLynx 4.1**
Method 8290 Quantification Report

Dataset: C:\MassLynx\Default.pro\Sample Results\8290-b08feb13a_2.qld

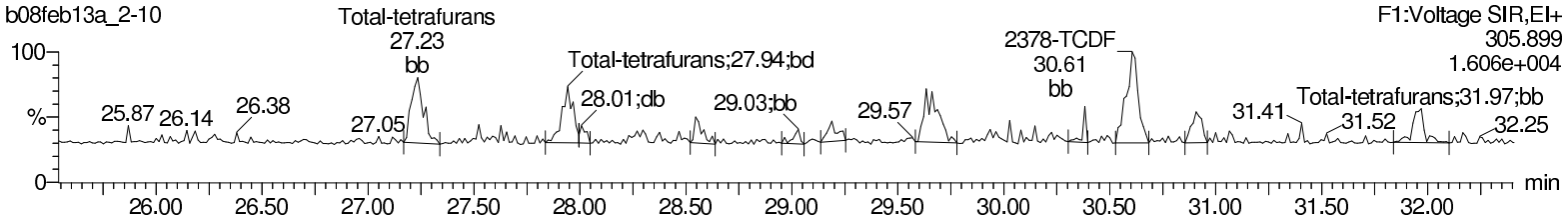
Last Altered: Monday, February 11, 2013 14:16:57 Eastern Standard Time
Printed: Monday, February 11, 2013 14:18:53 Eastern Standard Time

Name: b08feb13a_2-10, Date: 08-Feb-2013, Time: 21:59:06, ID: 4486006-1, Description: 22879, Job: HMS8290_1S, Task: HRP763_1, User: JTF

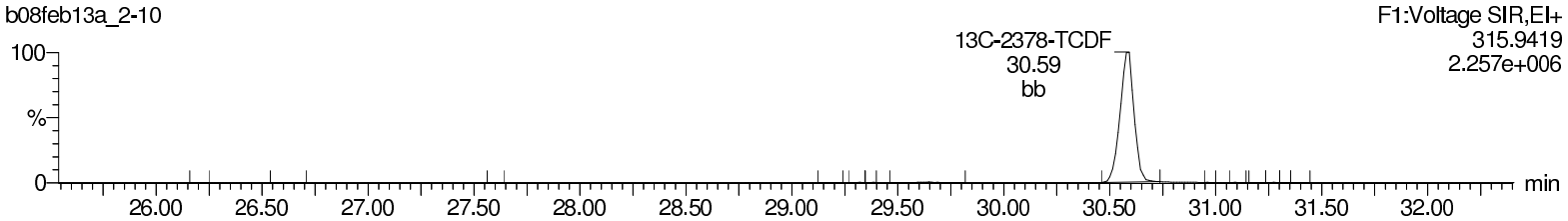
Total-tetrafurans



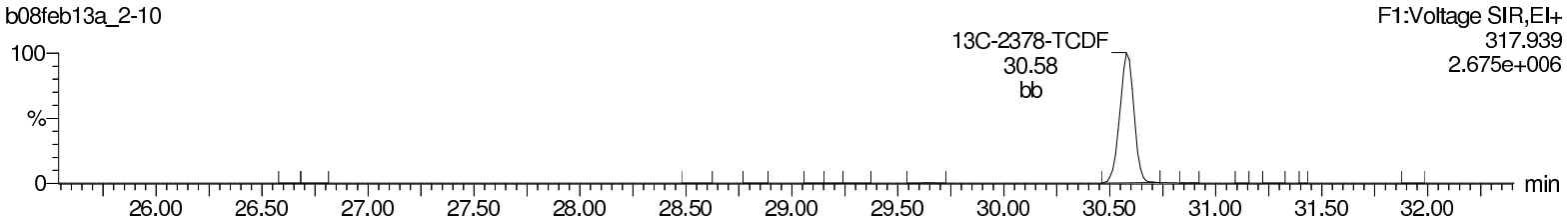
Total-tetrafurans



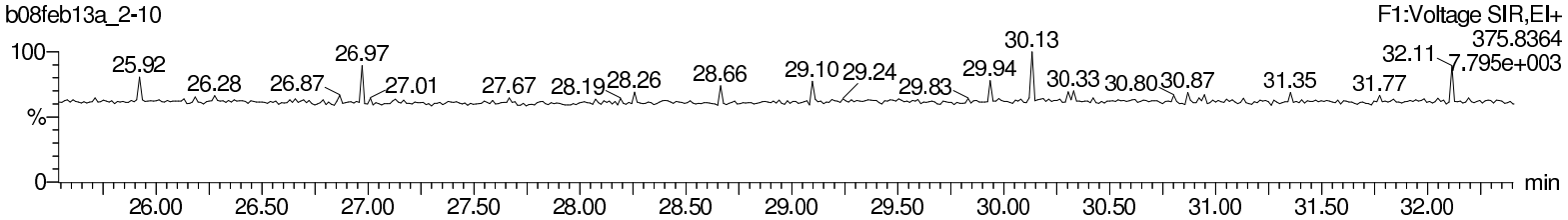
13C-2378-TCDF



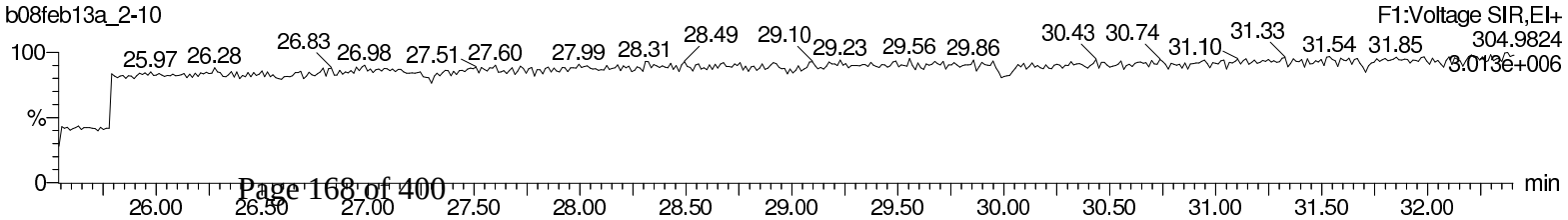
13C-2378-TCDF



HxDPE



Lock Mass F1



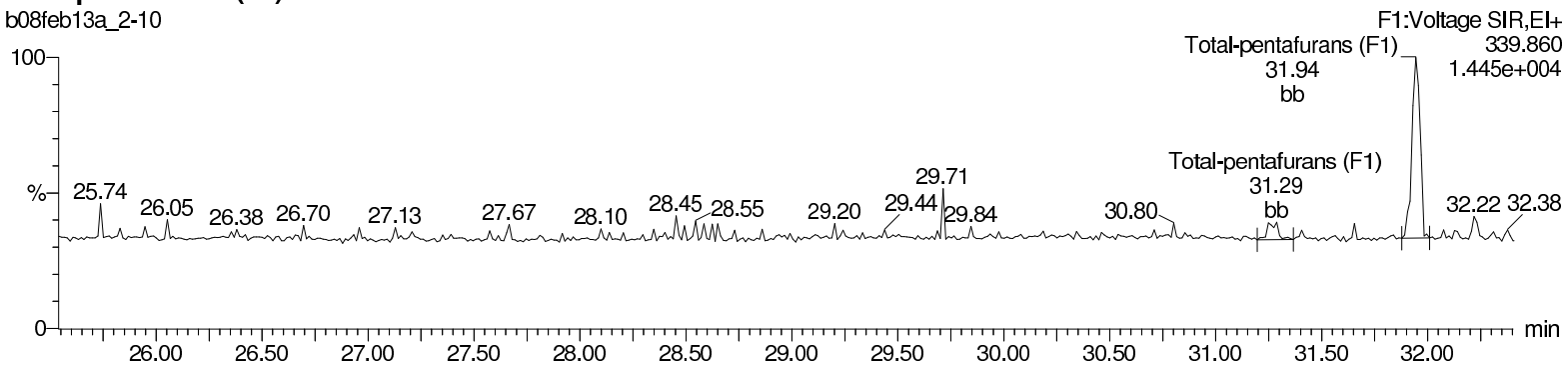
Quantify Sample Report **MassLynx 4.1**
Method 8290 Quantification Report

Dataset: C:\MassLynx\Default.pro\Sample Results\8290-b08feb13a_2.qld

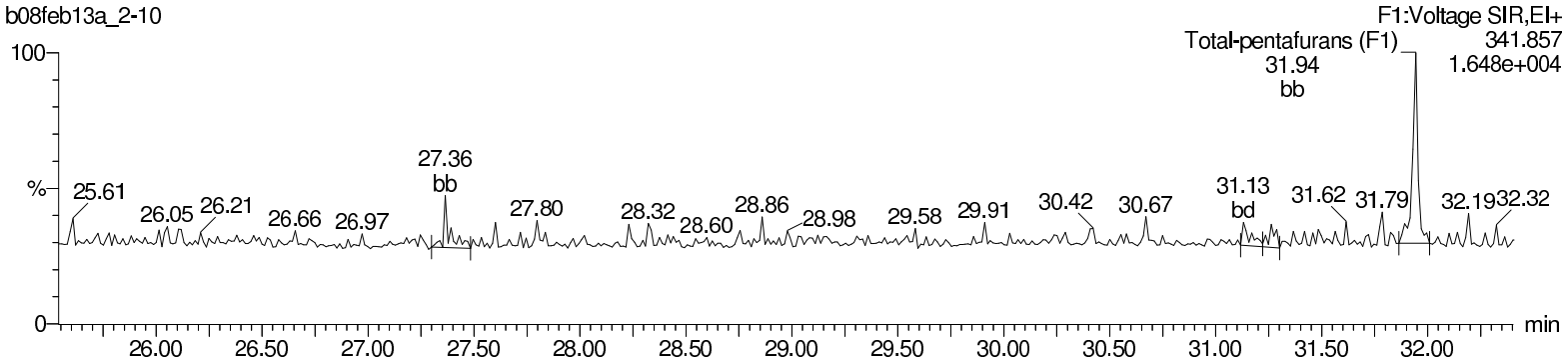
Last Altered: Monday, February 11, 2013 14:16:57 Eastern Standard Time
Printed: Monday, February 11, 2013 14:18:53 Eastern Standard Time

Name: b08feb13a_2-10, Date: 08-Feb-2013, Time: 21:59:06, ID: 4486006-1, Description: 22879, Job: HMS8290_1S, Task: HRP763_1, User: JTF

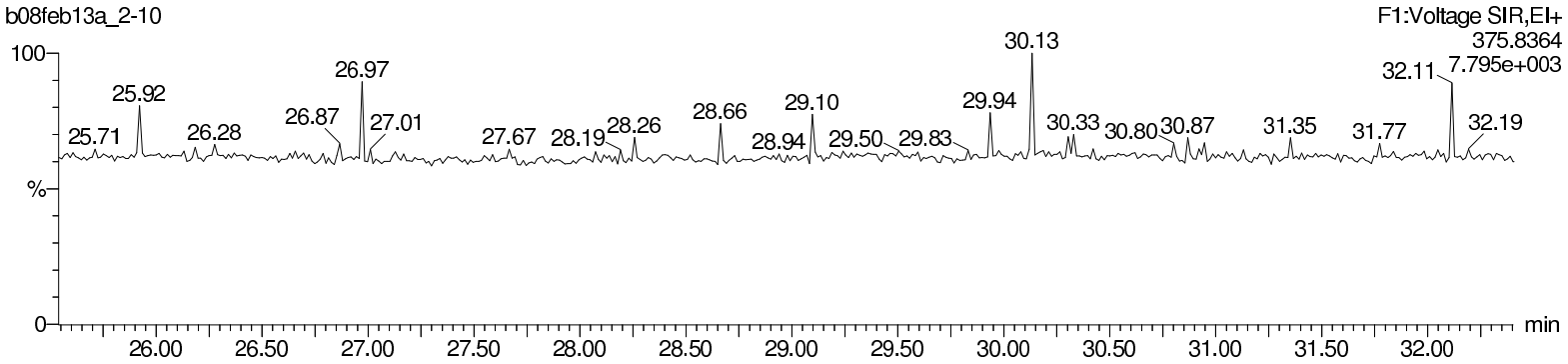
Total-pentafurans (F1)



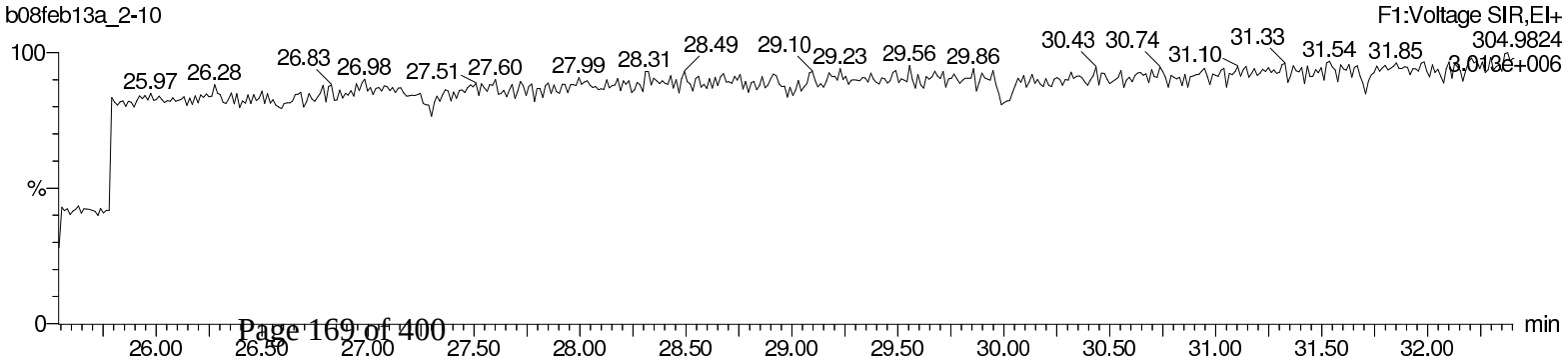
Total-pentafurans (F1)



HxDPE



Lock Mass F1



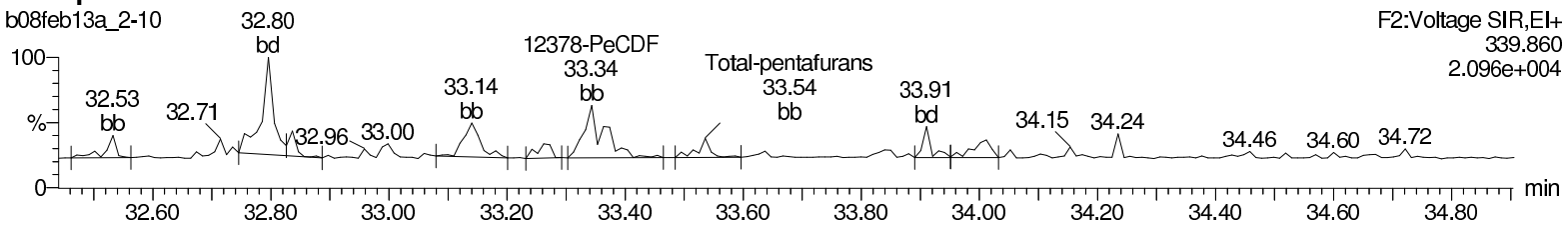
Quantify Sample Report **MassLynx 4.1**
Method 8290 Quantification Report

Dataset: C:\MassLynx\Default.pro\Sample Results\8290-b08feb13a_2.qld

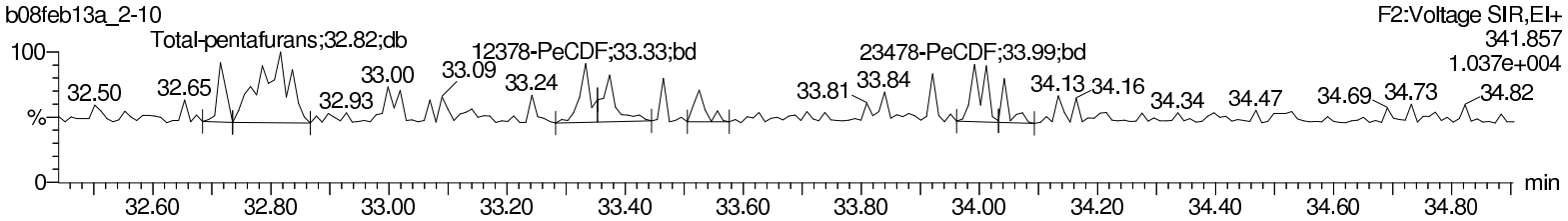
Last Altered: Monday, February 11, 2013 14:16:57 Eastern Standard Time
Printed: Monday, February 11, 2013 14:18:53 Eastern Standard Time

Name: b08feb13a_2-10, Date: 08-Feb-2013, Time: 21:59:06, ID: 4486006-1, Description: 22879, Job: HMS8290_1S, Task: HRP763_1, User: JTF

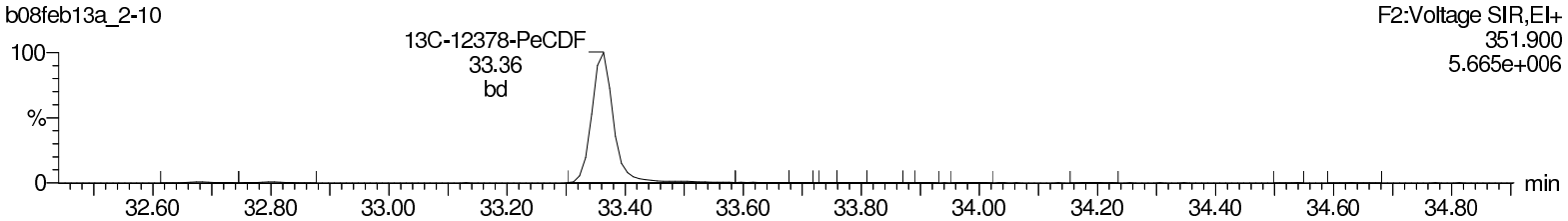
Total-pentafurans



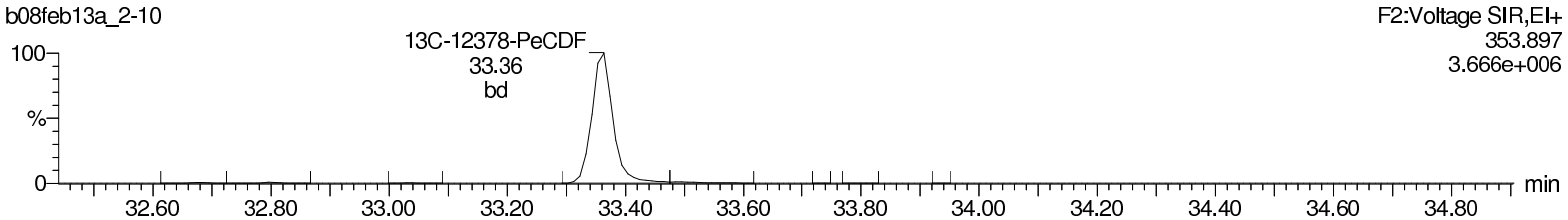
Total-pentafurans



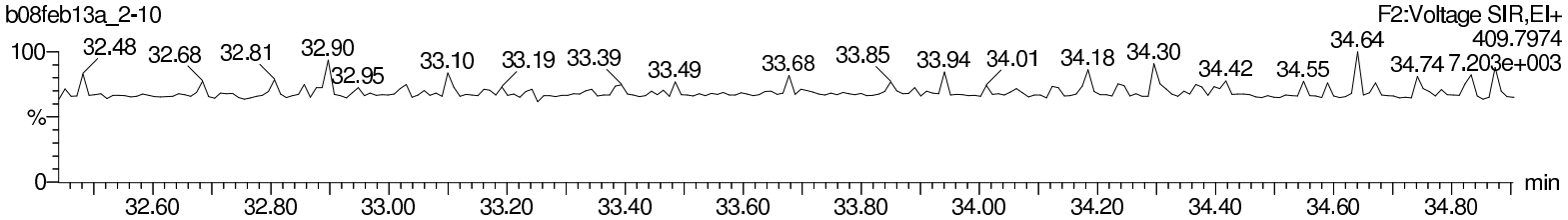
13C-12378-PeCDF



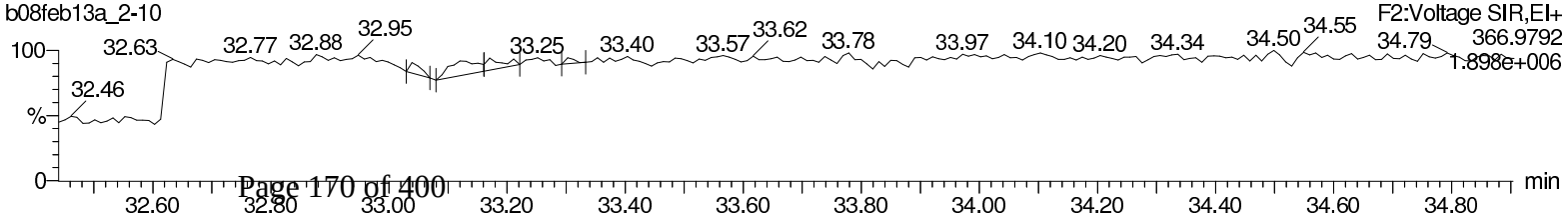
13C-12378-PeCDF



HpDPE



Lock Mass F2



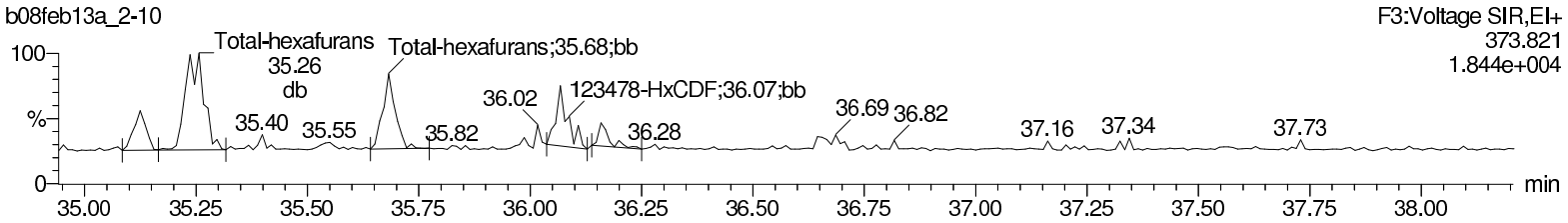
Quantify Sample Report **MassLynx 4.1**
Method 8290 Quantification Report

Dataset: C:\MassLynx\Default.pro\Sample Results\8290-b08feb13a_2.qld

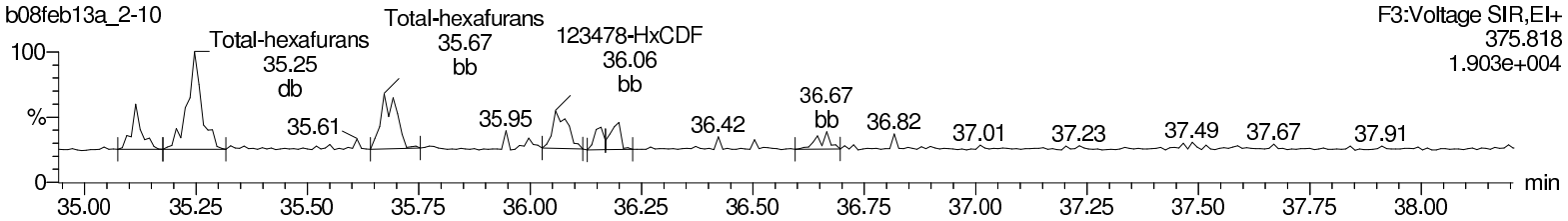
Last Altered: Monday, February 11, 2013 14:16:57 Eastern Standard Time
Printed: Monday, February 11, 2013 14:18:53 Eastern Standard Time

Name: b08feb13a_2-10, Date: 08-Feb-2013, Time: 21:59:06, ID: 4486006-1, Description: 22879, Job: HMS8290_1S, Task: HRP763_1, User: JTF

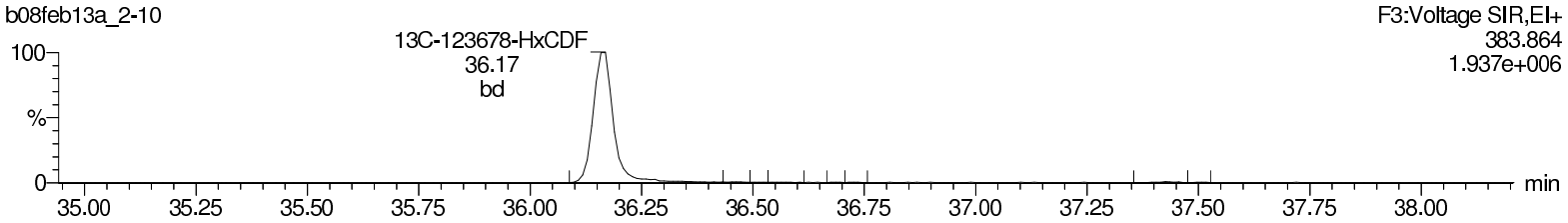
Total-hexafurans



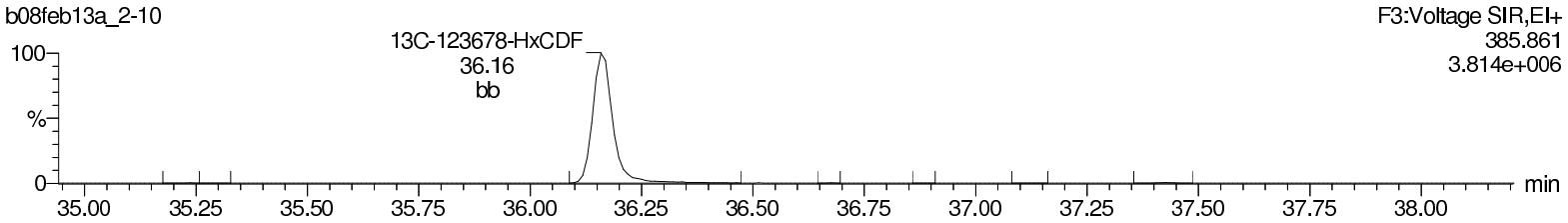
Total-hexafurans



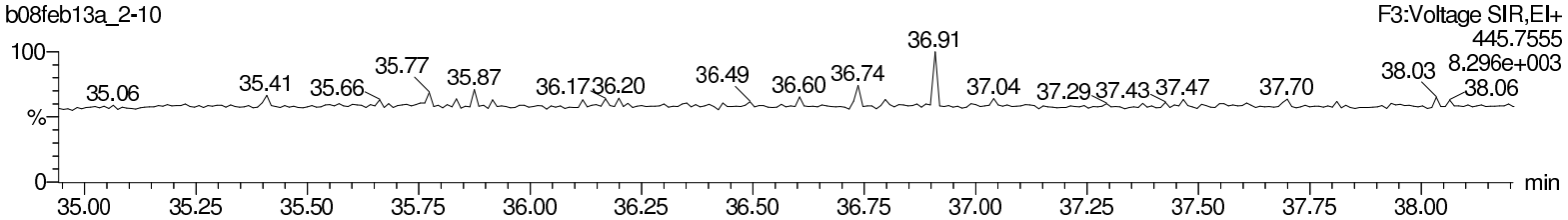
13C-123678-HxCDF



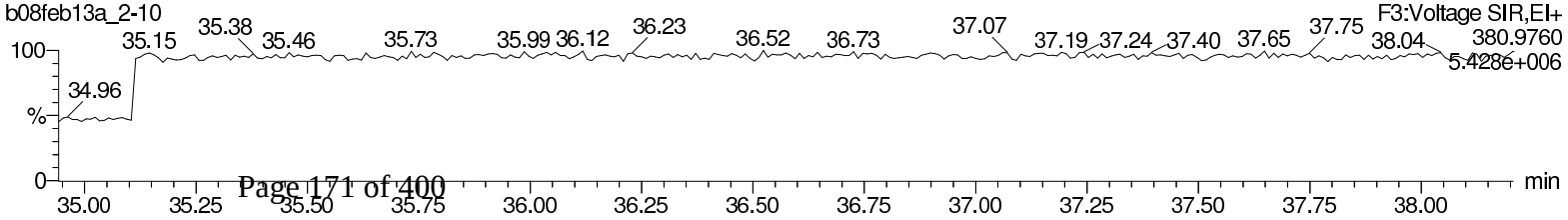
13C-123678-HxCDF



OcDPE



Lock Mass F3



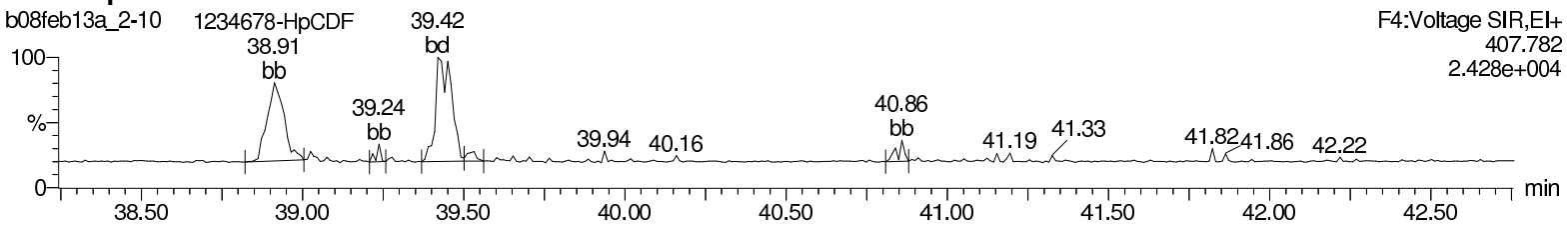
Quantify Sample Report **MassLynx 4.1**
Method 8290 Quantification Report

Dataset: C:\MassLynx\Default.pro\Sample Results\8290-b08feb13a_2.qld

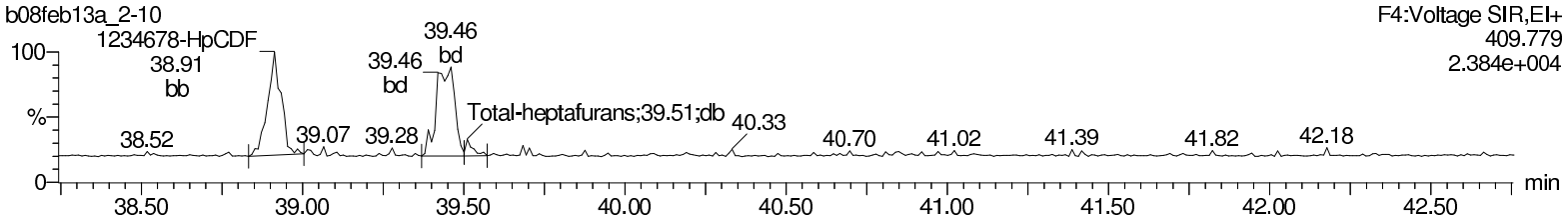
Last Altered: Monday, February 11, 2013 14:16:57 Eastern Standard Time
Printed: Monday, February 11, 2013 14:18:53 Eastern Standard Time

Name: b08feb13a_2-10, Date: 08-Feb-2013, Time: 21:59:06, ID: 4486006-1, Description: 22879, Job: HMS8290_1S, Task: HRP763_1, User: JTF

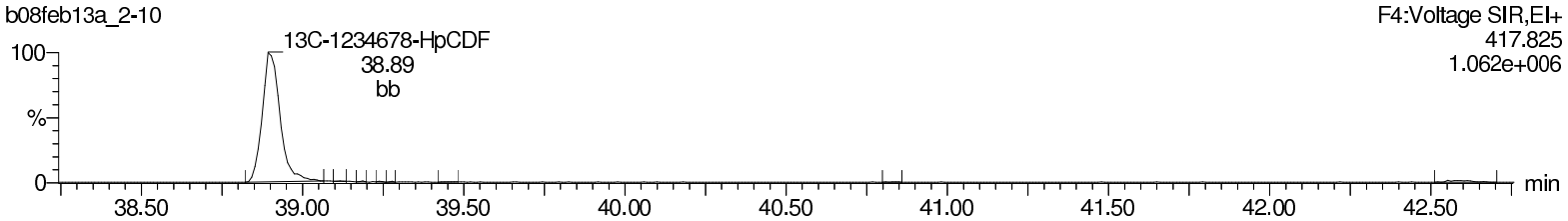
Total-heptafurans



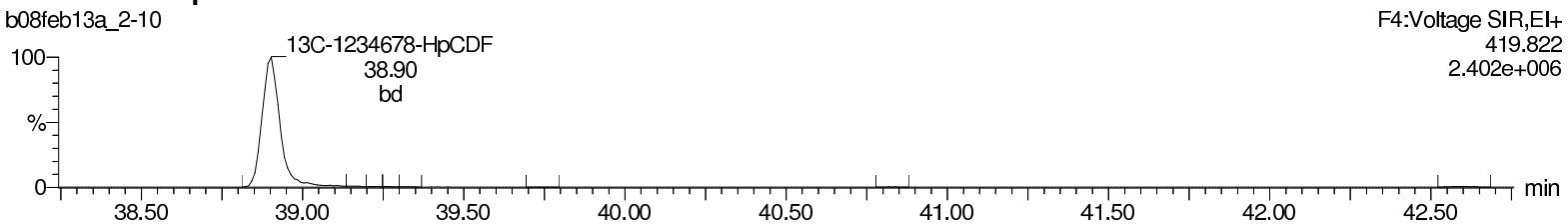
Total-heptafurans



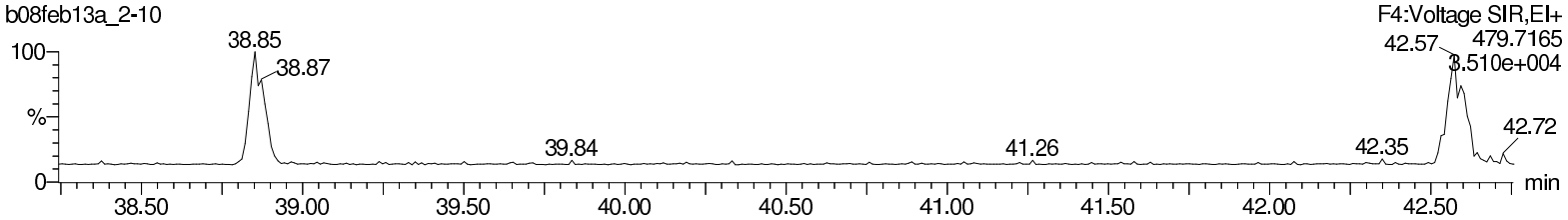
13C-1234678-HpCDF



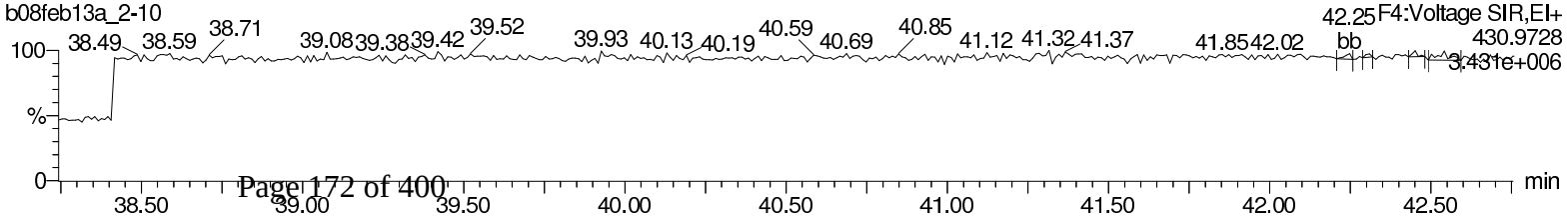
13C-1234678-HpCDF



NoDPE



Lock Mass F4



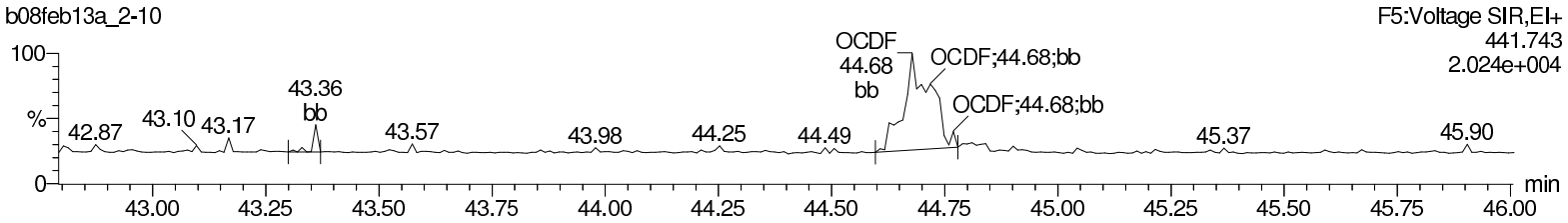
Quantify Sample Report **MassLynx 4.1**
Method 8290 Quantification Report

Dataset: C:\MassLynx\Default.pro\Sample Results\8290-b08feb13a_2.qld

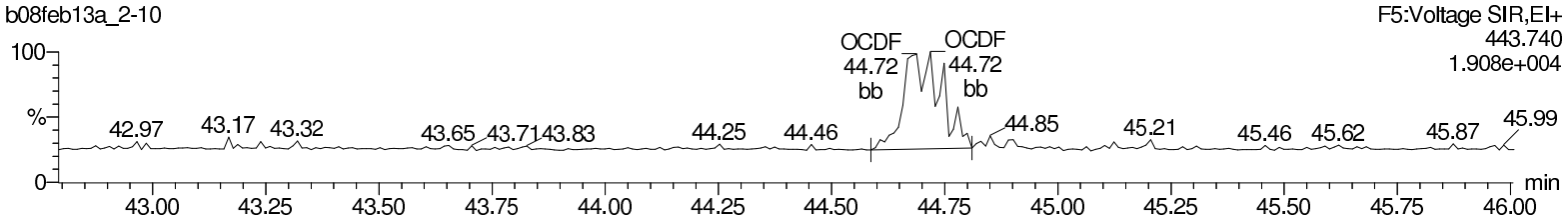
Last Altered: Monday, February 11, 2013 14:16:57 Eastern Standard Time
Printed: Monday, February 11, 2013 14:18:53 Eastern Standard Time

Name: b08feb13a_2-10, Date: 08-Feb-2013, Time: 21:59:06, ID: 4486006-1, Description: 22879, Job: HMS8290_1S, Task: HRP763_1, User: JTF

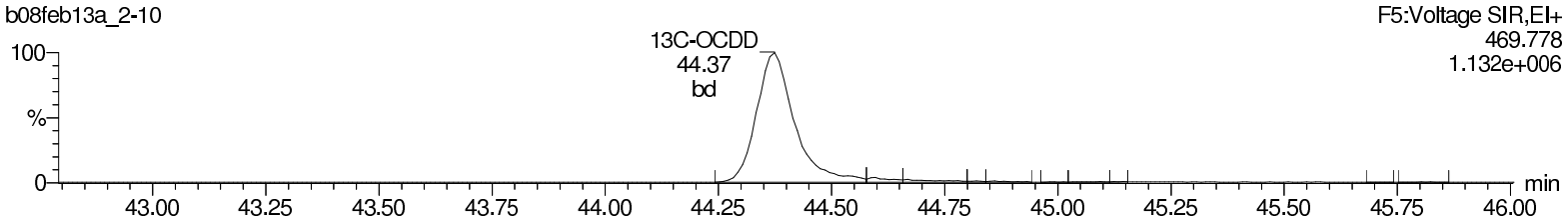
OCDF



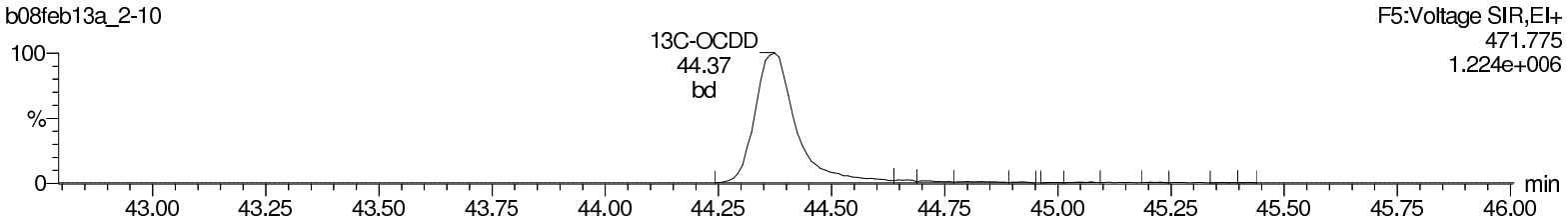
OCDF



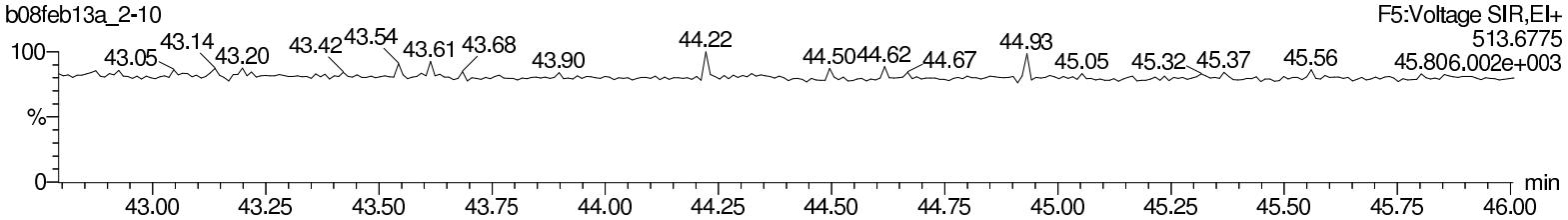
13C-OCDD



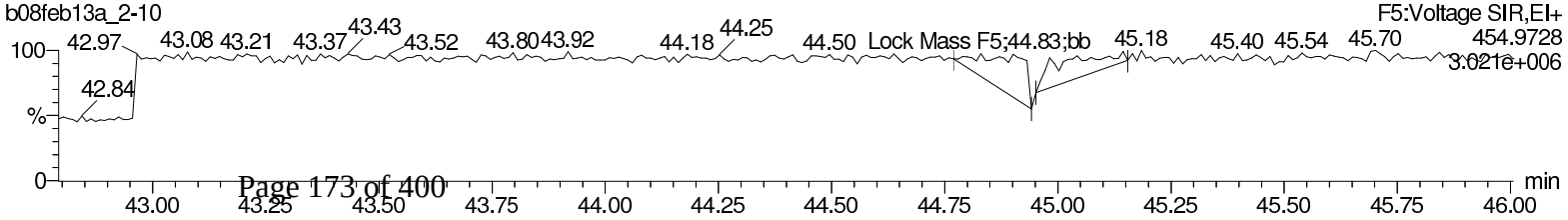
13C-OCDD



DeDPE



Lock Mass F5



Hi-Res Dioxins/Furans
Certificate of Analysis
Sample Summary

SDG Number:	**2013-505**	**Client:**	**LANL001**	**Project:**	**LANL00112**
Lab Sample ID:	**4486007**	**Date Collected:**	**01/31/2013 11:00**	**Matrix:**	**SOLID**
Client Sample:	**8290 Soil**	**Date Received:**	**02/05/2013 10:14**	**%Moisture:**	**41.6**
Client ID:	**CALA-13-28430**			**Prep Basis:**	**Dry Weight**
Batch ID:	**22879**	**Method:**	**SW846 8290A**		
Run Date:	**02/08/2013 22:47**	**Analyst:**	**JTF**	**Instrument:**	**HRP763**
Data File:	**b08feb13a_2-11**			**Dilution:**	**1**
Prep Batch:	**22876**	**Prep Method:**	**SW846 3540C**		
Prep Date:	**06-FEB-13**	**Aliquot:**	**10.22 g**		

CAS No.	Parmname	Qual	Result	EMPC	Units	EDL	PQL
1746-01-6	2,3,7,8-TCDD	U	.292		pg/g	0.292	1.68
40321-76-4	1,2,3,7,8-PeCDD	U	.838		pg/g	0.838	8.38
39227-28-6	1,2,3,4,7,8-HxCDD	U	.838		pg/g	0.838	8.38
57653-85-7	1,2,3,6,7,8-HxCDD	U	.838		pg/g	0.838	8.38
19408-74-3	1,2,3,7,8,9-HxCDD	U	.838		pg/g	0.838	8.38
35822-46-9	1,2,3,4,6,7,8-HpCDD	J	4.82		pg/g	0.838	8.38
3268-87-9	1,2,3,4,6,7,8,9-OCDD		45.5		pg/g	1.68	16.8
51207-31-9	2,3,7,8-TCDF	JK		0.952	pg/g	0.372	1.68
57117-41-6	1,2,3,7,8-PeCDF	U	.838		pg/g	0.838	8.38
57117-31-4	2,3,4,7,8-PeCDF	U	.838		pg/g	0.838	8.38
70648-26-9	1,2,3,4,7,8-HxCDF	JK		0.841	pg/g	0.838	8.38
57117-44-9	1,2,3,6,7,8-HxCDF	U	.838		pg/g	0.838	8.38
60851-34-5	2,3,4,6,7,8-HxCDF	U	.838		pg/g	0.838	8.38
72918-21-9	1,2,3,7,8,9-HxCDF	U	.838		pg/g	0.838	8.38
67562-39-4	1,2,3,4,6,7,8-HpCDF	J	2.56		pg/g	0.838	8.38
55673-89-7	1,2,3,4,7,8,9-HpCDF	U	.838		pg/g	0.838	8.38
39001-02-0	1,2,3,4,6,7,8,9-OCDF	JK		3.23	pg/g	1.68	16.8
41903-57-5	Total TCDDs		2.35		pg/g	0.292	1.68
36088-22-9	Total PeCDDs	U	.838		pg/g	0.838	8.38
34465-46-8	Total HxCDDs	J	1.11		pg/g	0.838	8.38
37871-00-4	Total HpCDDs		9.60		pg/g	0.838	8.38
30402-14-3	Total TCDFs	J	1.12	3.63	pg/g	0.372	1.68
30402-15-4	Total PeCDFs	U	.838		pg/g	0.838	8.38
55684-94-1	Total HxCDFs	J	1.24	2.08	pg/g	0.838	8.38
38998-75-3	Total HpCDFs	J	4.48		pg/g	0.838	8.38
3333-30-0	TEQ WHO2005 ND=0		0.0875	0.268	pg/g		
3333-30-1	TEQ WHO2005 ND=0.5		1.11	1.23	pg/g		

Surrogate/Tracer recovery	Qual	Result	Nominal	Units	Recovery%	Acceptable Limits
13C-2,3,7,8-TCDD		281	335	pg/g	84.0	(40%-135%)
13C-1,2,3,7,8-PeCDD		286	335	pg/g	85.3	(40%-135%)
13C-1,2,3,6,7,8-HxCDD		239	335	pg/g	71.4	(40%-135%)
13C-1,2,3,4,6,7,8-HpCDD		312	335	pg/g	93.0	(40%-135%)
13C-OCDD		548	670	pg/g	81.8	(40%-135%)
13C-2,3,7,8-TCDF		256	335	pg/g	76.5	(40%-135%)
13C-1,2,3,7,8-PeCDF		298	335	pg/g	88.8	(40%-135%)
13C-1,2,3,6,7,8-HxCDF		280	335	pg/g	83.5	(40%-135%)
13C-1,2,3,4,6,7,8-HpCDF		323	335	pg/g	96.4	(40%-135%)

Comments:

J Value is estimated

K Estimated Maximum Possible Concentration

U Analyte was analyzed for , but not detected above the specified detection limit.

Quantify Sample Summary Report **MassLynx 4.1**
Method 8290 Quantification Report

Dataset: C:\MassLynx\Default.pro\Sample Results\8290-b08feb13a_2.qld

Last Altered: Tuesday, February 12, 2013 11:20:51 Eastern Standard Time
Printed: Tuesday, February 12, 2013 11:23:13 Eastern Standard Time

Method: Untitled 20 Dec 2012 07:43:23
Calibration: C:\MassLynx\DEFAULT.PRO\CurveDB\8290-b30nov12a.cdb 03 Dec 2012 09:49:08

Name: b08feb13a_2-11, Date: 08-Feb-2013, Time: 22:47:08, ID: 4486007-1, Description: 22879, Job: HMS8290_1S, Task: HRP763_1, User: JTF

	Name	Ion1Area	Ion2Area	Response	RT	RRT	RA	Fail?	pg/uL	EDL	Height1	Noise1	S/N1	Height2	Noise2	S/N2	M
1	2378-TCDD							NO		0.0870		832			641		
2	12378-PeCDD							NO		0.0817		923			549		
3	123478-HxCDD							NO		0.211		1251			1125		
4	123678-HxCDD							NO		0.190		1251			1125		
5	123789-HxCDD							NO		0.207		1251			1125		
6	1234678-HpCDD	1.31e3	1.12e3	2.43e3	40.16	1.000	1.16	NO	1.439	0.172	2.27e4	1058	21.4	1.76e4	507	34.7	MM
7	OCDD	8.25e3	8.79e3	1.70e4	44.38	1.000	0.94	NO	13.590	0.383	8.75e4	951	92.0	9.27e4	976	95.0	bd
8	2378-TCDF	3.63e2	6.24e2	9.88e2	30.62	1.001	0.58	YES	0.284	0.111	5.20e3	773	6.7	1.09e4	1174	9.3	MM
9	12378-PeCDF							NO		0.0803		1615			999		
10	23478-PeCDF							NO		0.0774		1615			999		
11	123478-HxCDF	3.83e2	2.16e2	6.00e2	36.07	0.997	1.77	YES	0.251	0.114	1.04e4	1202	8.7	4.02e3	916	4.4	MM
12	123678-HxCDF	1.23e2	1.51e2	2.73e2	36.18	1.000	0.81	YES	0.100	0.0998	4.06e3	1202	3.4	3.48e3	916	3.8	db
13	234678-HxCDF	6.35e1	9.34e1	1.57e2	36.67	1.014	0.68	YES	0.062	0.108	2.13e3	1202	1.8	2.33e3	916	2.5	bb
14	123789-HxCDF							NO		0.128		1202			916		
15	1234678-HpCDF	9.45e2	1.00e3	1.95e3	38.94	1.001	0.94	NO	0.764	0.134	1.38e4	742	18.6	2.09e4	1389	15.1	MM
16	1234789-HpCDF							NO		0.175		742			1389		
17	OCDF	5.91e2	8.11e2	1.40e3	44.67	1.007	0.73	YES	0.964	0.278	7.52e3	1020	7.4	1.02e4	603	16.9	MM
18	13C-2378-TCDD	1.09e5	1.41e5	2.50e5	31.29	1.017	0.78	NO	83.994	0.198	1.94e6	1821	1065.0	2.56e6	1572	1625.9	bb
19	13C-12378-PeCDD	1.29e5	8.07e4	2.10e5	34.17	1.111	1.60	NO	85.328	0.291	2.87e6	1793	1598.4	1.83e6	2331	785.4	bd
20	13C-123678-HxCDD	8.12e4	7.08e4	1.52e5	36.87	0.994	1.15	NO	71.381	0.262	1.55e6	1914	807.5	1.31e6	2053	640.0	bb
21	13C-1234678-HpCDD	7.81e4	7.07e4	1.49e5	40.15	1.082	1.10	NO	93.009	0.307	1.05e6	2003	524.5	9.36e5	1489	628.5	bd
22	13C-OCDD	9.86e4	1.16e5	2.14e5	44.38	1.196	0.85	NO	163.677	0.548	9.89e5	2520	392.7	1.15e6	2574	448.4	bd
23	13C-2378-TCDF	1.55e5	1.83e5	3.38e5	30.58	0.994	0.85	NO	76.549	0.0927	1.95e6	1292	1510.5	2.40e6	1064	2255.6	bb
24	13C-12378-PeCDF	2.17e5	1.36e5	3.53e5	33.36	1.085	1.60	NO	88.795	0.360	5.31e6	2672	1986.8	3.30e6	5572	591.6	bd
25	13C-123678-HxCDF	8.94e4	1.73e5	2.63e5	36.17	0.975	0.52	NO	83.511	0.249	1.74e6	2712	641.1	3.45e6	2853	1207.6	bb
26	13C-1234678-HpCDF	6.39e4	1.44e5	2.08e5	38.90	1.049	0.44	NO	96.355	0.288	9.98e5	1899	525.3	2.22e6	2516	881.0	bd
27	13C-1234-TCDD	1.33e5	1.68e5	3.01e5	30.76	0.000	0.80	NO	100.000	0.196	1.92e6	1821	1054.5	2.39e6	1572	1521.9	bb
28	13C-123789-HxCDD	1.01e5	9.01e4	1.91e5	37.10	0.000	1.12	NO	100.000	0.292	1.80e6	1914	939.4	1.52e6	2053	741.9	bd
29	37Cl-2378-TCDD (SS)									0.0313		614					
30	13C-23478-PeCDF (SS)							NO		0.239		2672			5572		

Quantify Totals Report MassLynx 4.1
Method 8290 Quantification Report

Dataset: C:\MassLynx\Default.pro\Sample Results\8290-b08feb13a_2.qld

Last Altered: Tuesday, February 12, 2013 11:20:51 Eastern Standard Time
Printed: Tuesday, February 12, 2013 11:23:13 Eastern Standard Time

Method: Untitled 20 Dec 2012 07:43:23
Calibration: C:\MassLynx\DEFAULT.PRO\CurveDB\8290-b30nov12a.cdb 03 Dec 2012 09:49:08

Name: b08feb13a_2-11, Date: 08-Feb-2013, Time: 22:47:08, ID: 4486007-1, Description: 22879, Job: HMS8290_1S, Task: HRP763_1, User: JTF

TD

	Name	Ion1Area	Ion2Area	Response	RT	RA	Fail?	pg/uL	EDL	Height1	Noise1	S/N1	Height2	Noise2	S/N2	M
1	Total-tetradioxins	4.58e2	5.99e2	1.06e3	28.01	0.76	NO	0.443	0.0870	6.35e3	832	7.6	9.24e3	641	14.4	bb
2	Total-tetradioxins	2.85e2	3.28e2	6.13e2	28.30	0.87	NO	0.257	0.0870	6.66e3	832	8.0	7.12e3	641	11.1	bb

PD

	Name	Ion1Area	Ion2Area	Response	RT	RA	Fail?	pg/uL	EDL	Height1	Noise1	S/N1	Height2	Noise2	S/N2	M
1	Total-pentadioxins	1.09e2	6.12e1	1.70e2	32.81	1.78	NO	0.084	0.0817	3.92e3	923	4.2	2.36e3	549	4.3	bb
2	Total-pentadioxins	5.66e1	3.79e1	9.45e1	33.36	1.50	NO	0.047	0.0817	1.45e3	923	1.6	1.86e3	549	3.4	bb

HD

	Name	Ion1Area	Ion2Area	Response	RT	RA	Fail?	pg/uL	EDL	Height1	Noise1	S/N1	Height2	Noise2	S/N2	M
1	Total-hexadioxins	1.84e2	1.36e2	3.20e2	35.56	1.35	NO	0.208	0.202	4.37e3	1251	3.5	3.70e3	1125	3.3	bb
2	Total-hexadioxins	2.94e2	2.16e2	5.10e2	36.20	1.36	NO	0.331	0.202	6.11e3	1251	4.9	3.64e3	1125	3.2	MM
3	Total-hexadioxins	3.52e3	1.08e4	1.44e4	37.58	0.32	YES	9.317	0.202	6.48e4	1251	51.8	2.22e5	1125	197.8	bb

HPD

	Name	Ion1Area	Ion2Area	Response	RT	RA	Fail?	pg/uL	EDL	Height1	Noise1	S/N1	Height2	Noise2	S/N2	M
1	Total-heptadioxins	1.22e3	1.19e3	2.41e3	39.24	1.03	NO	1.427	0.172	2.03e4	1058	19.2	1.84e4	507	36.3	bd
2	Total-heptadioxins	6.00e1	6.50e1	1.25e2	39.34	0.92	NO	0.074	0.172	1.49e3	1058	1.4	1.67e3	507	3.3	db
3	1234678-HpCDD	1.31e3	1.12e3	2.43e3	40.16	1.16	NO	1.439	0.172	2.27e4	1058	21.4	1.76e4	507	34.7	MM
4	Total-heptadioxins	7.86e1	7.23e1	1.51e2	40.26	1.09	NO	0.089	0.172	2.79e3	1058	2.6	2.13e3	507	4.2	MM

Quantify Totals Report MassLynx 4.1
Method 8290 Quantification Report

Dataset: C:\MassLynx\Default.pro\Sample Results\8290-b08feb13a_2.qld

Last Altered: Tuesday, February 12, 2013 11:20:51 Eastern Standard Time
Printed: Tuesday, February 12, 2013 11:23:13 Eastern Standard Time

Name: b08feb13a_2-11, Date: 08-Feb-2013, Time: 22:47:08, ID: 4486007-1, Description: 22879, Job: HMS8290_1S, Task: HRP763_1, User: JTF

TF

	Name	Ion1Area	Ion2Area	Response	RT	RA	Fail?	pg/uL	EDL	Height1	Noise1	S/N1	Height2	Noise2	S/N2	M
1	Total-tetrafurans	2.17e2	2.52e2	4.69e2	27.25	0.86	NO	0.135	0.111	3.06e3	773	4.0	4.11e3	1174	3.5	bb
2	Total-tetrafurans	2.78e2	4.76e2	7.54e2	27.92	0.58	YES	0.217	0.111	3.90e3	773	5.1	5.90e3	1174	5.0	MM
3	Total-tetrafurans	1.58e2	2.02e2	3.60e2	29.20	0.78	NO	0.103	0.111	3.41e3	773	4.4	3.87e3	1174	3.3	bb
4	Total-tetrafurans	3.18e2	3.79e2	6.97e2	29.67	0.84	NO	0.200	0.111	5.05e3	773	6.5	6.11e3	1174	5.2	bb
5	2378-TCDF	3.63e2	6.24e2	9.88e2	30.62	0.58	YES	0.284	0.111	5.20e3	773	6.7	1.09e4	1174	9.3	MM
6	Total-tetrafurans	2.04e2	2.15e2	4.20e2	30.92	0.95	YES	0.121	0.111	4.34e3	773	5.6	5.16e3	1174	4.4	bb
7	Total-tetrafurans	2.16e2	2.27e2	4.43e2	31.96	0.95	YES	0.127	0.111	4.76e3	773	6.2	4.92e3	1174	4.2	MM

PF1

	Name	Ion1Area	Ion2Area	Response	RT	RA	Fail?	pg/uL	EDL	Height1	Noise1	S/N1	Height2	Noise2	S/N2	M
1	Total-pentafurans (F1)	4.29e2	2.85e2	7.14e2	31.93	1.50	NO	0.210	0.0355	1.09e4	376	28.9	9.21e3	801	11.5	bb

PF

	Name	Ion1Area	Ion2Area	Response	RT	RA	Fail?	pg/uL	EDL	Height1	Noise1	S/N1	Height2	Noise2	S/N2	M
1	Total-pentafurans	3.94e2	2.40e2	6.34e2	32.82	1.64	NO	0.187	0.0788	7.44e3	1615	4.6	6.40e3	999	6.4	db
2	Total-pentafurans	2.05e2	1.22e2	3.27e2	33.36	1.68	NO	0.096	0.0788	6.43e3	1615	4.0	3.34e3	999	3.3	bb
3	Total-pentafurans	5.21e1	6.73e1	1.19e2	34.16	0.77	YES	0.035	0.0788	2.43e3	1615	1.5	1.24e3	999	1.2	bb

HF

	Name	Ion1Area	Ion2Area	Response	RT	RA	Fail?	pg/uL	EDL	Height1	Noise1	S/N1	Height2	Noise2	S/N2	M
1	Total-hexafurans	6.67e1	6.80e1	1.35e2	35.12	0.98	YES	0.055	0.112	5.18e3	1202	4.3	1.66e3	916	1.8	bb
2	Total-hexafurans	4.95e2	4.12e2	9.06e2	35.25	1.20	NO	0.371	0.112	1.05e4	1202	8.7	1.10e4	916	12.0	MM
3	Total-hexafurans	1.81e2	1.28e2	3.09e2	35.69	1.42	NO	0.126	0.112	4.53e3	1202	3.8	6.35e3	916	6.9	bb
4	123478-HxCDF	3.83e2	2.16e2	6.00e2	36.07	1.77	YES	0.251	0.114	1.04e4	1202	8.7	4.02e3	916	4.4	MM
5	123678-HxCDF	1.23e2	1.51e2	2.73e2	36.18	0.81	YES	0.100	0.0998	4.06e3	1202	3.4	3.48e3	916	3.8	db
6	234678-HxCDF	6.35e1	9.34e1	1.57e2	36.67	0.68	YES	0.062	0.108	2.13e3	1202	1.8	2.33e3	916	2.5	bb

Quantify Totals Report MassLynx 4.1
Method 8290 Quantification Report

Dataset: C:\MassLynx\Default.pro\Sample Results\8290-b08feb13a_2.qld

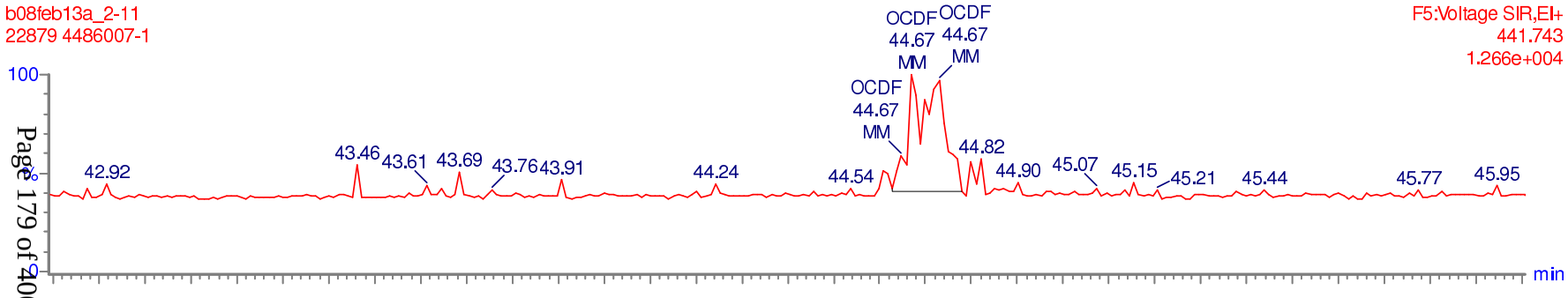
Last Altered: Tuesday, February 12, 2013 11:20:51 Eastern Standard Time
Printed: Tuesday, February 12, 2013 11:23:13 Eastern Standard Time

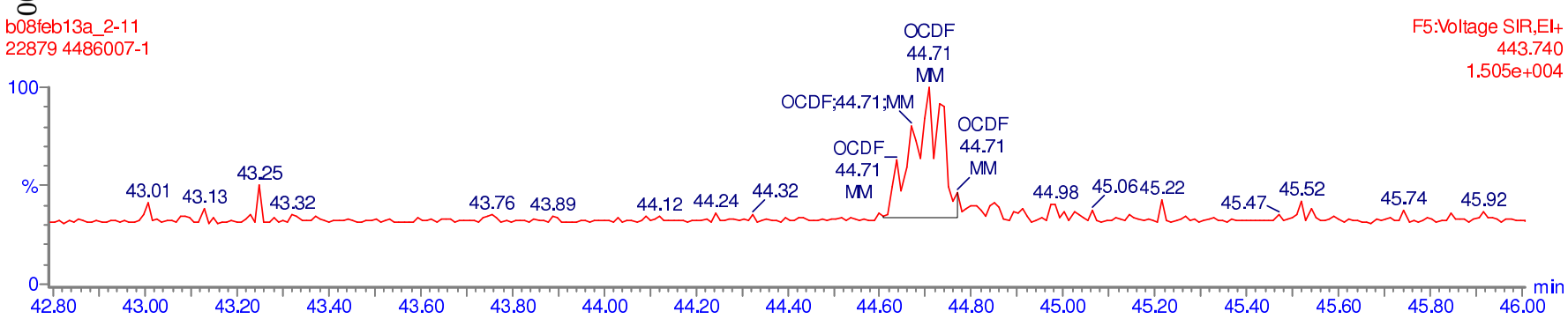
Name: b08feb13a_2-11, Date: 08-Feb-2013, Time: 22:47:08, ID: 4486007-1, Description: 22879, Job: HMS8290_1S, Task: HRP763_1, User: JTF

HPF

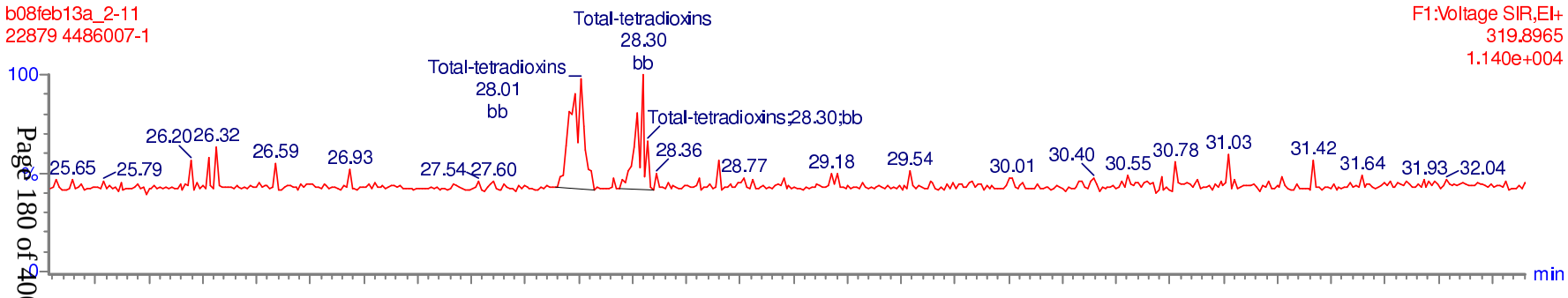
	Name	Ion1Area	Ion2Area	Response	RT	RA	Fail?	pg/uL	EDL	Height1	Noise1	S/N1	Height2	Noise2	S/N2	M
1	1234678-HpCDF	9.45e2	1.00e3	1.95e3	38.94	0.94	NO	0.764	0.134	1.38e4	742	18.6	2.09e4	1389	15.1	MM
2	Total-heptafurans	6.69e2	6.21e2	1.29e3	39.46	1.08	NO	0.573	0.152	1.58e4	742	21.3	1.12e4	1389	8.1	bb

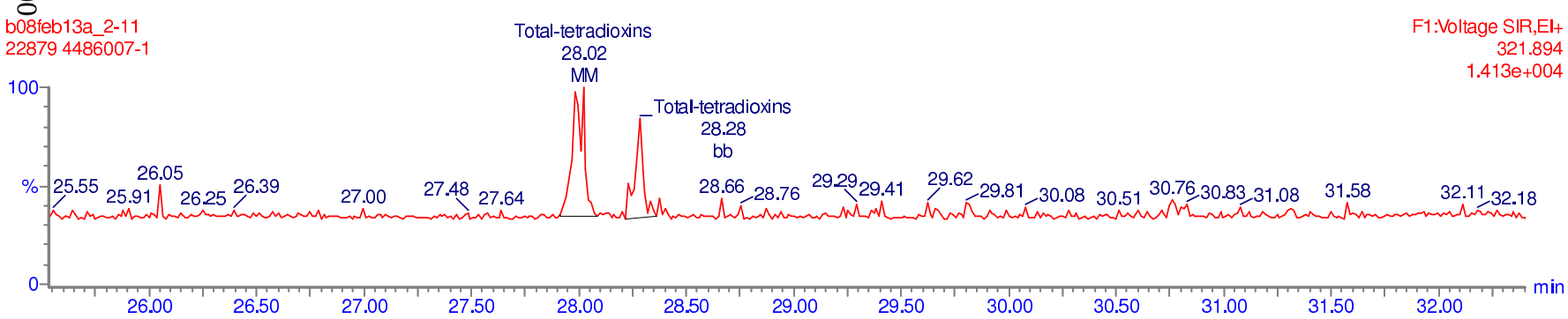
MANUAL INTEGRATION
METHOD 8290



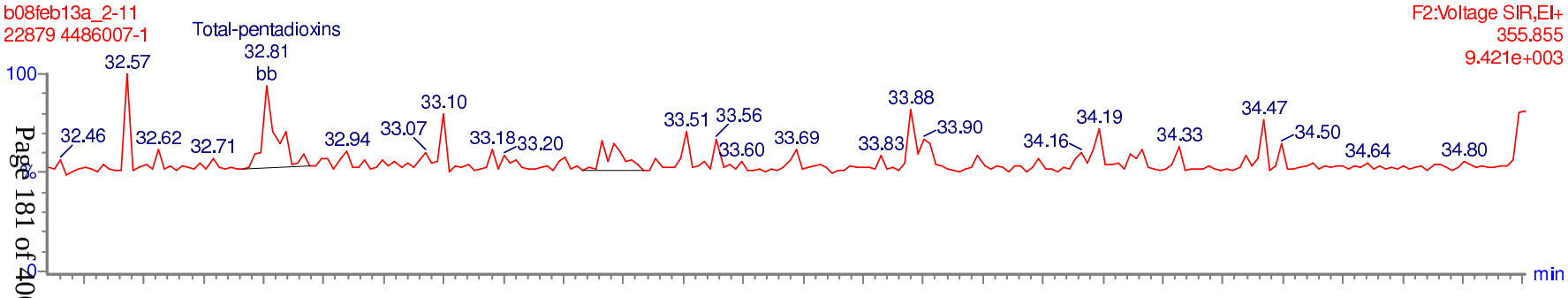


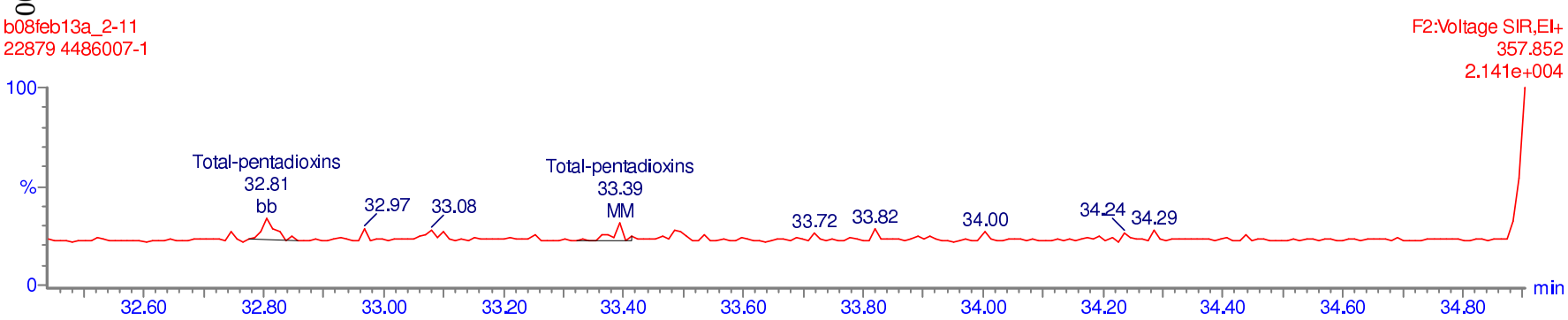
MANUAL INTEGRATION
METHOD 8290



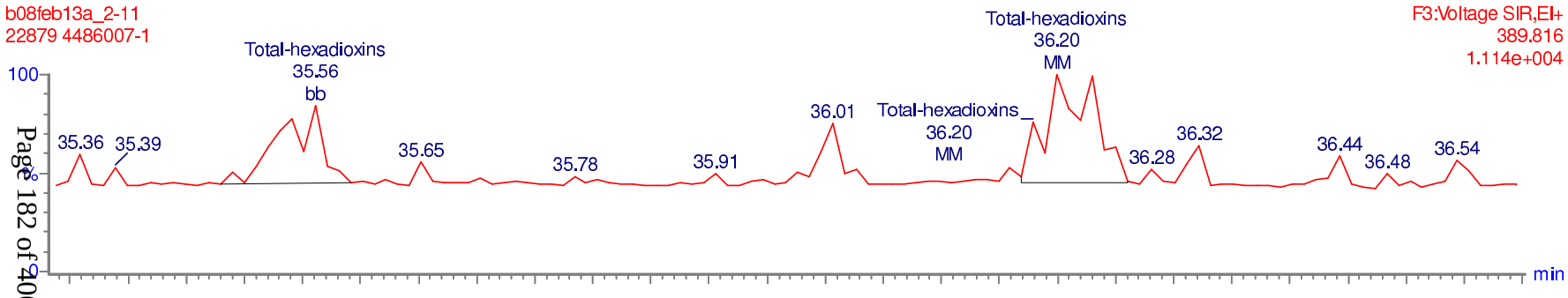


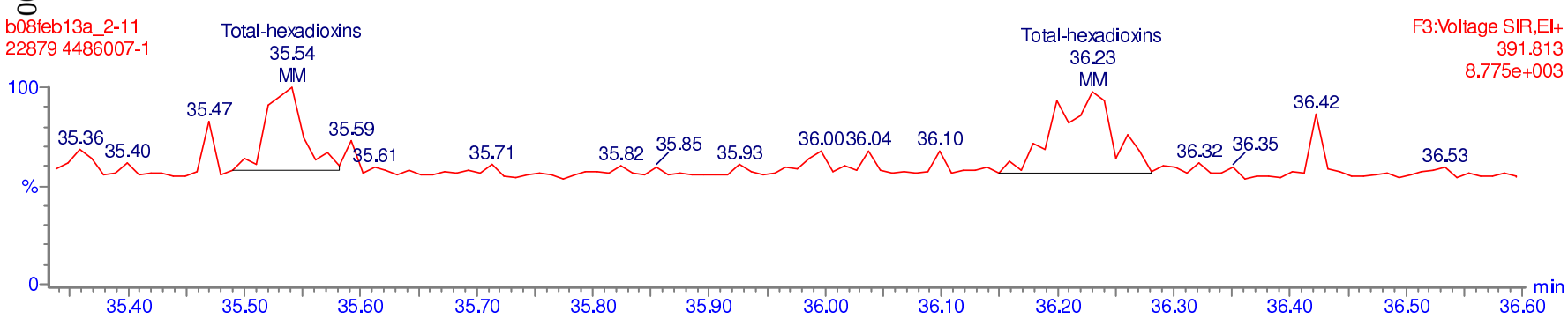
MANUAL INTEGRATION
METHOD 8290



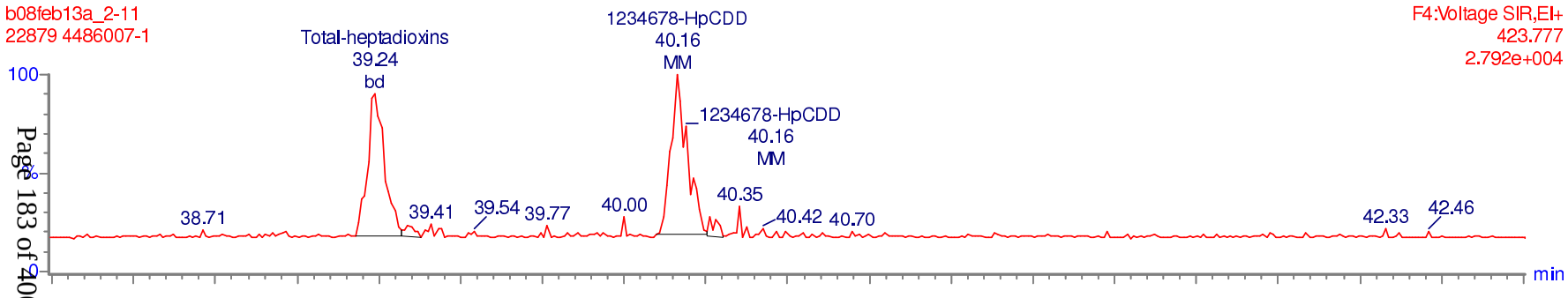


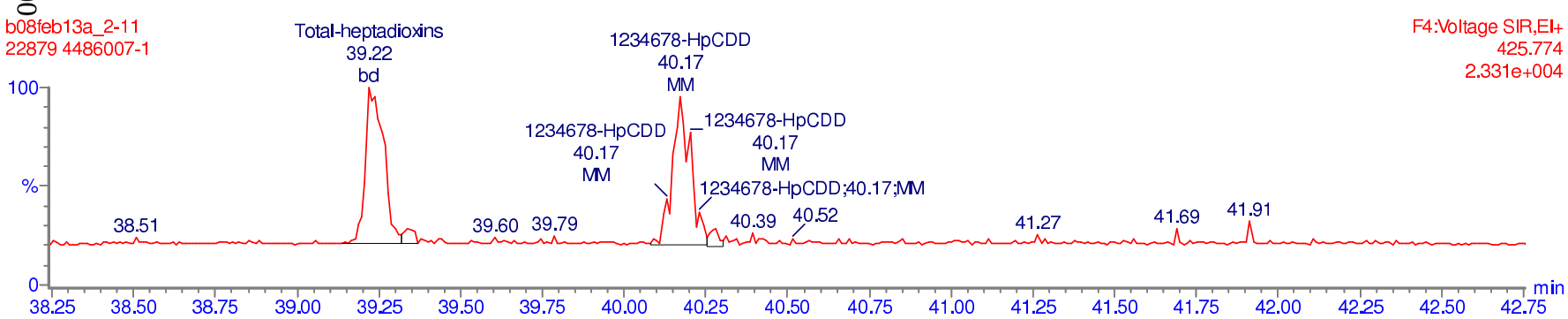
MANUAL INTEGRATION
METHOD 8290



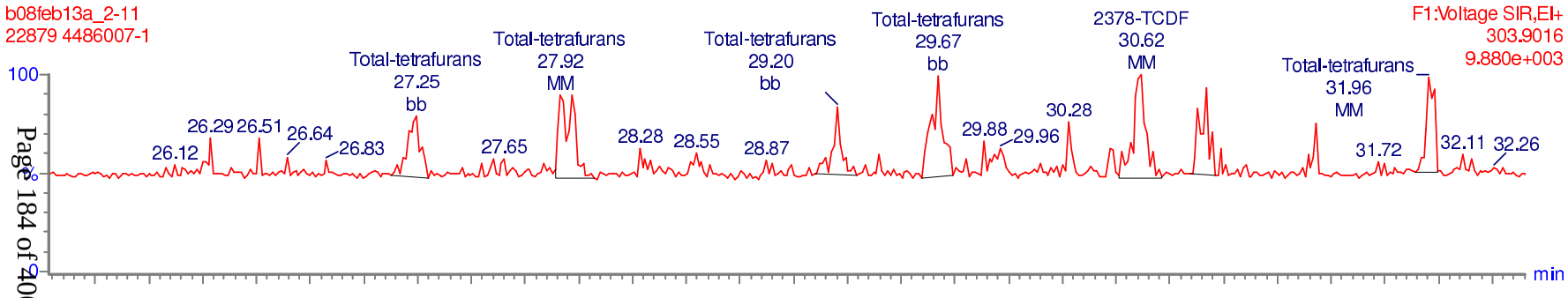


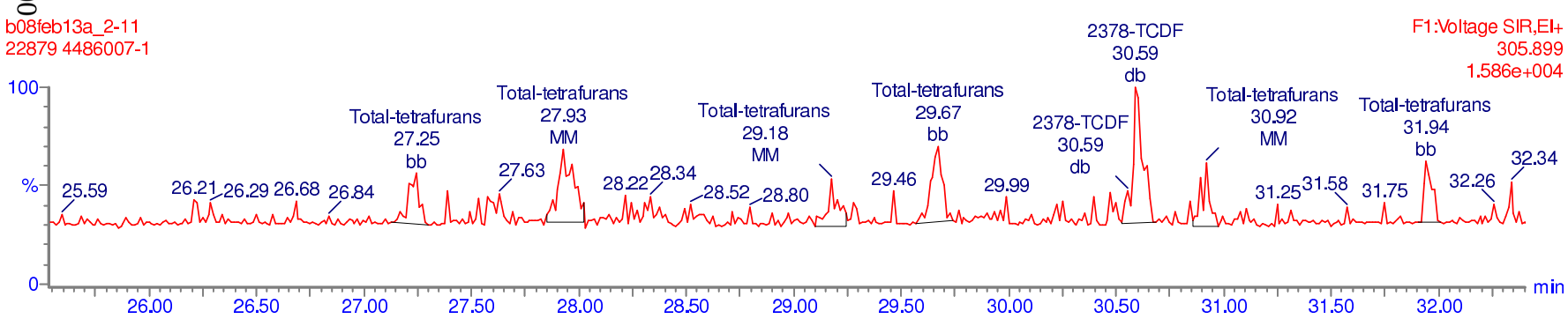
MANUAL INTEGRATION
METHOD 8290



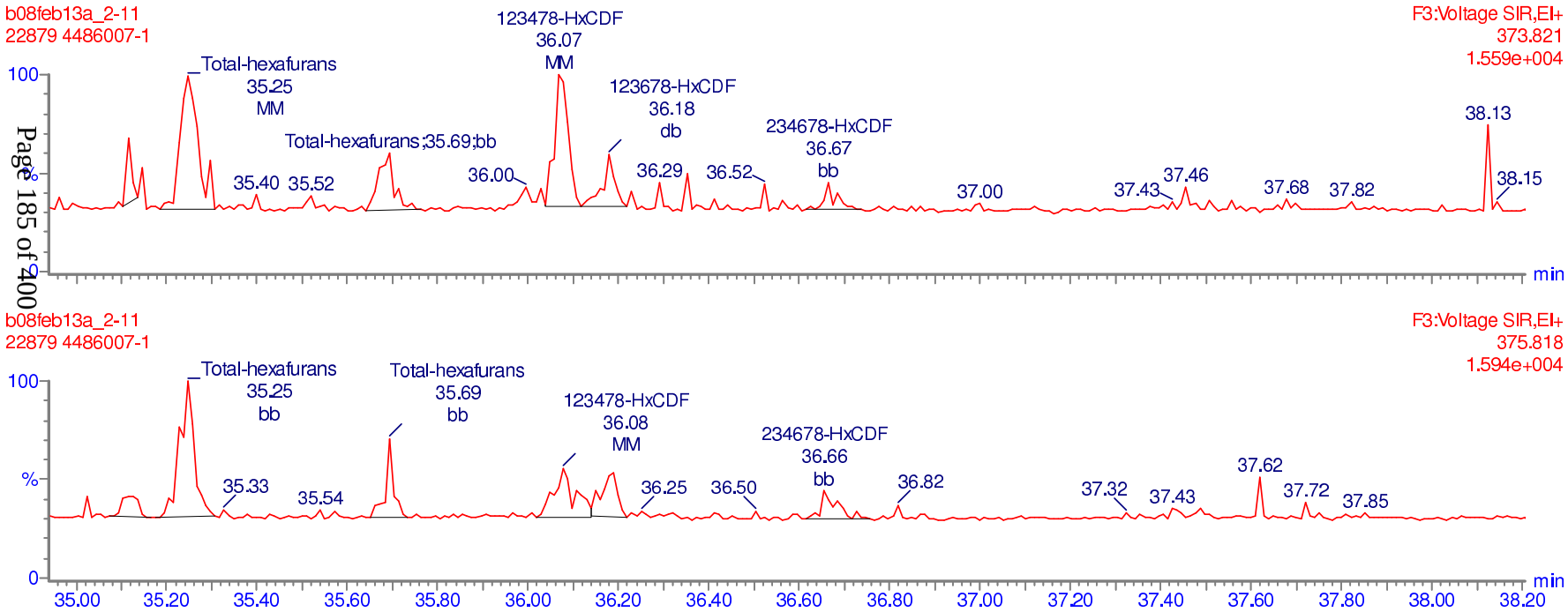


MANUAL INTEGRATION
METHOD 8290

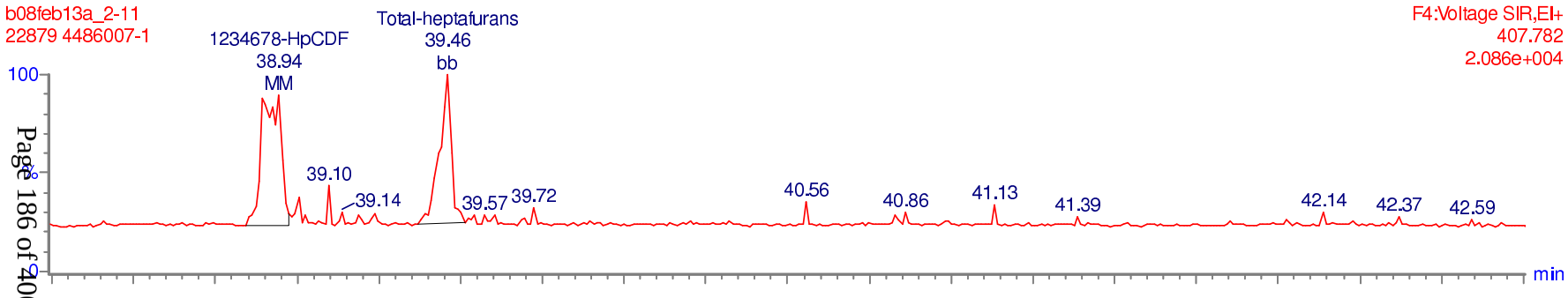


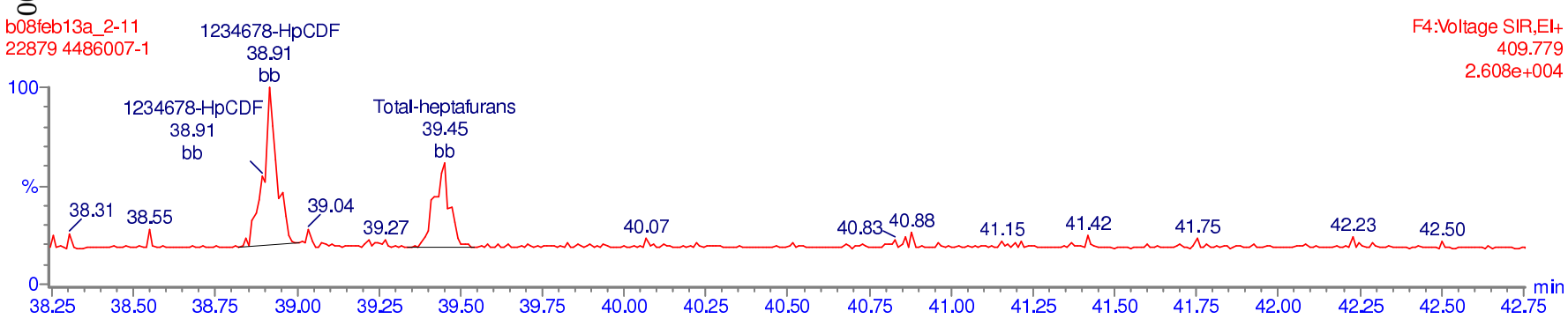


MANUAL INTEGRATION
METHOD 8290



MANUAL INTEGRATION
METHOD 8290





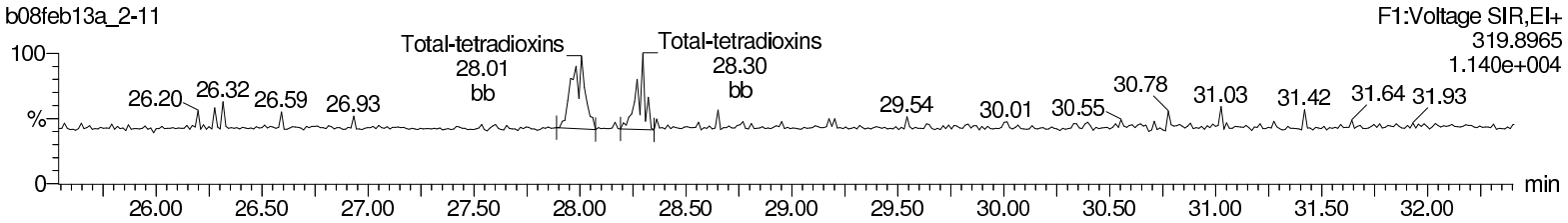
Quantify Sample Report **MassLynx 4.1**
Method 8290 Quantification Report

Dataset: C:\MassLynx\Default.pro\Sample Results\8290-b08feb13a_2.qld

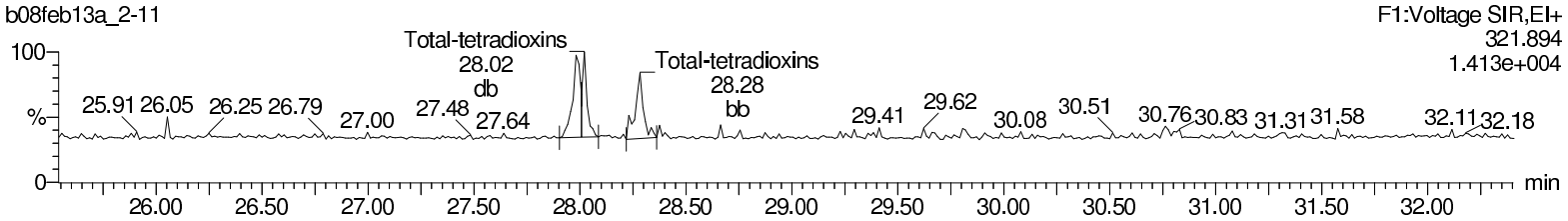
Last Altered: Monday, February 11, 2013 14:16:57 Eastern Standard Time
Printed: Monday, February 11, 2013 14:18:53 Eastern Standard Time

Name: b08feb13a_2-11, Date: 08-Feb-2013, Time: 22:47:08, ID: 4486007-1, Description: 22879, Job: HMS8290_1S, Task: HRP763_1, User: JTF

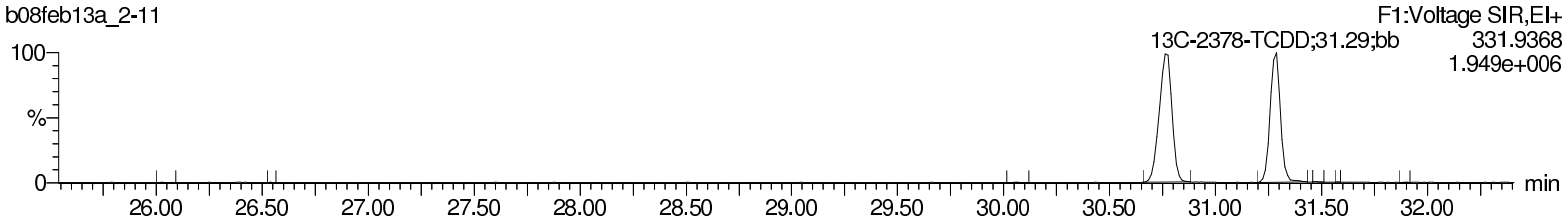
Total-tetradioxins



Total-tetradioxins



13C-2378-TCDD



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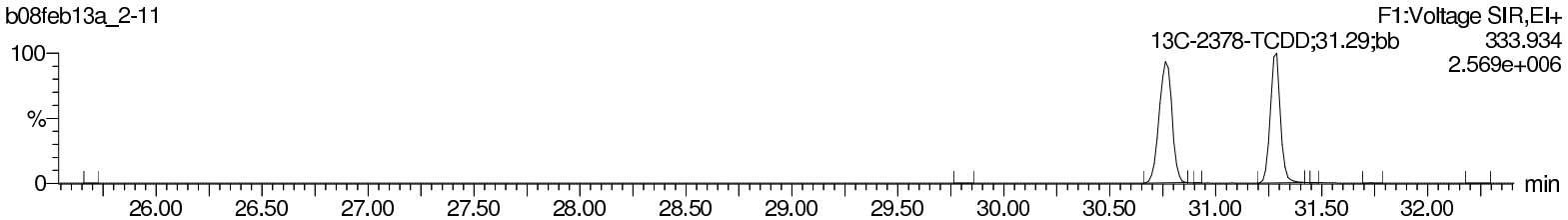
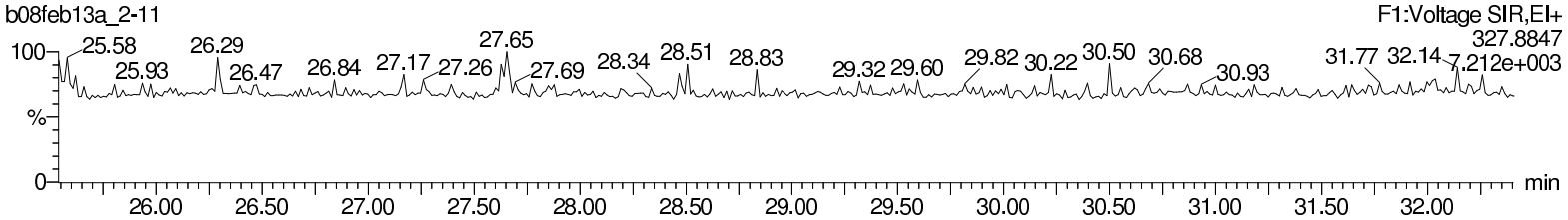
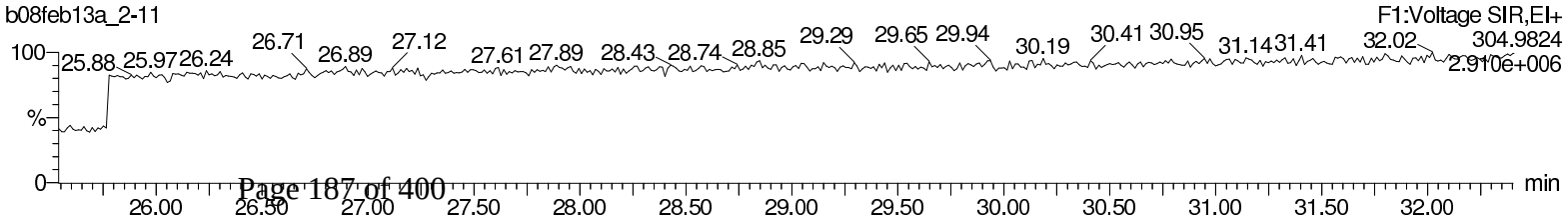


37Cl-2378-TCDD (SS)



Lock Mass F1



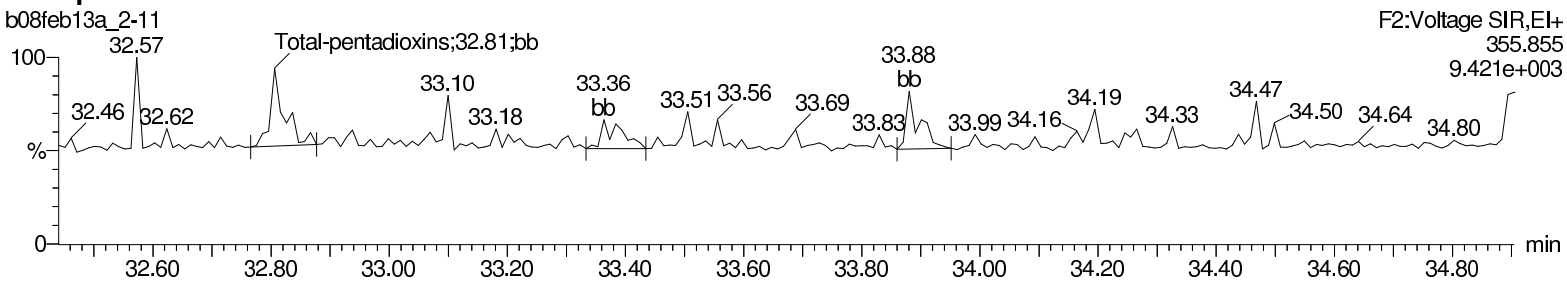
Quantify Sample Report **MassLynx 4.1**
Method 8290 Quantification Report

Dataset: C:\MassLynx\Default.pro\Sample Results\8290-b08feb13a_2.qld

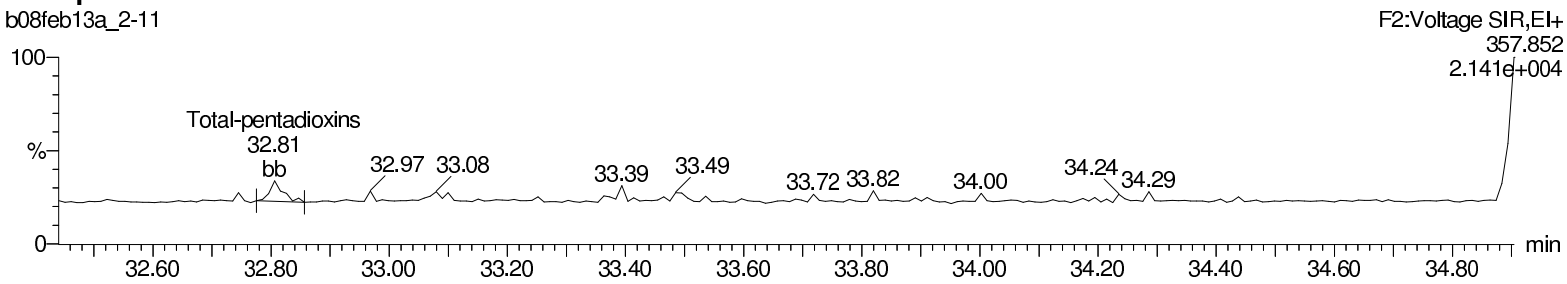
Last Altered: Monday, February 11, 2013 14:16:57 Eastern Standard Time
Printed: Monday, February 11, 2013 14:18:53 Eastern Standard Time

Name: b08feb13a_2-11, Date: 08-Feb-2013, Time: 22:47:08, ID: 4486007-1, Description: 22879, Job: HMS8290_1S, Task: HRP763_1, User: JTF

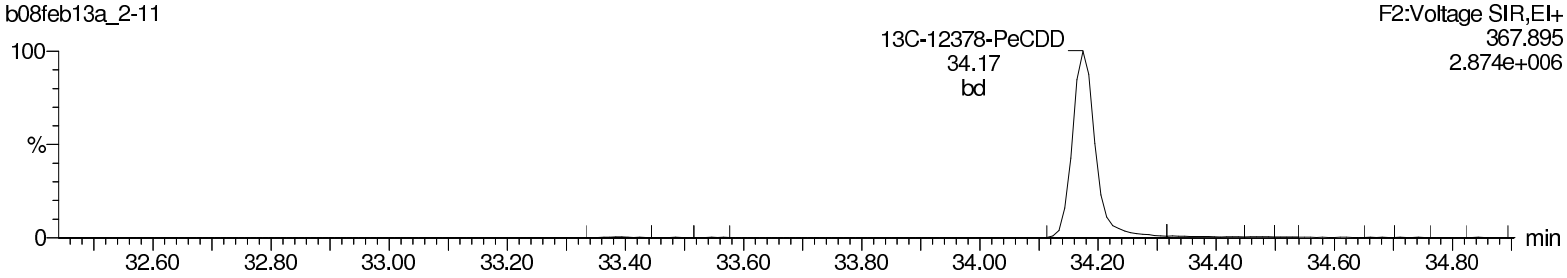
Total-pentadioxins



Total-pentadioxins



13C-12378-PeCDD



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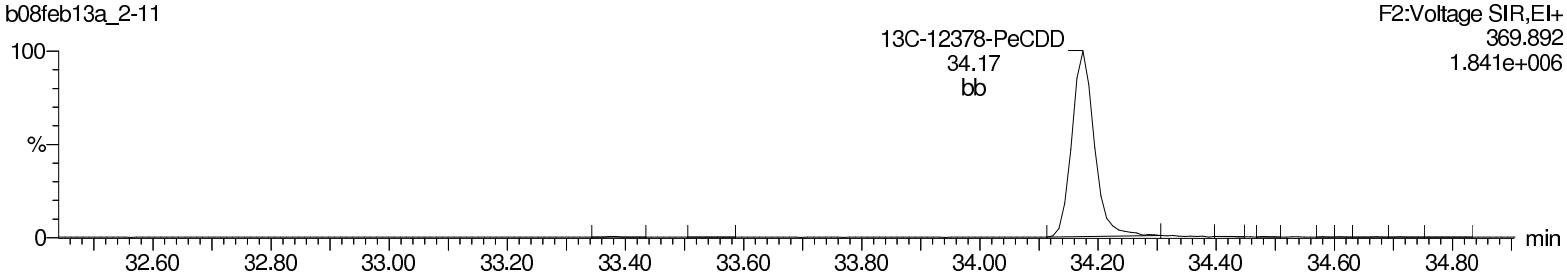
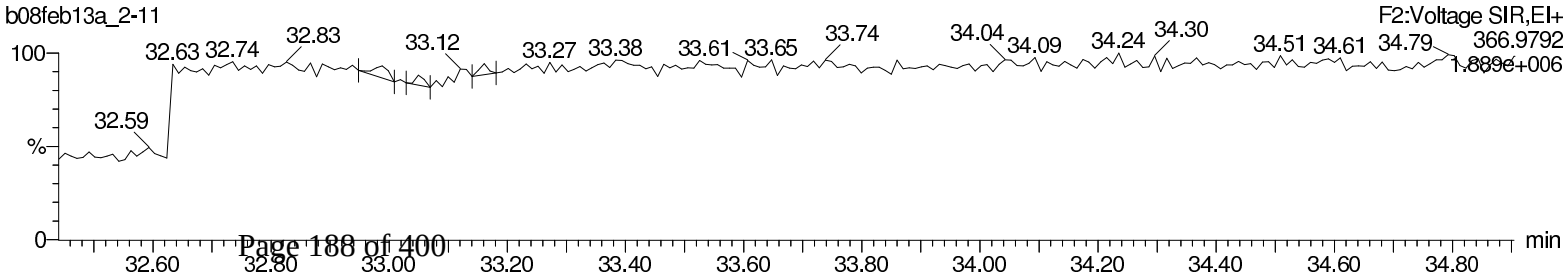


Lock Mass F2



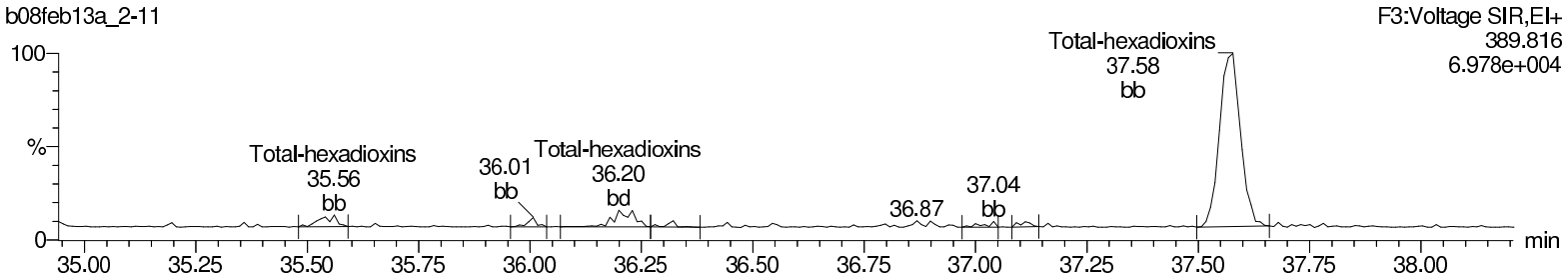
Quantify Sample Report **MassLynx 4.1**
Method 8290 Quantification Report

Dataset: C:\MassLynx\Default.pro\Sample Results\8290-b08feb13a_2.qld

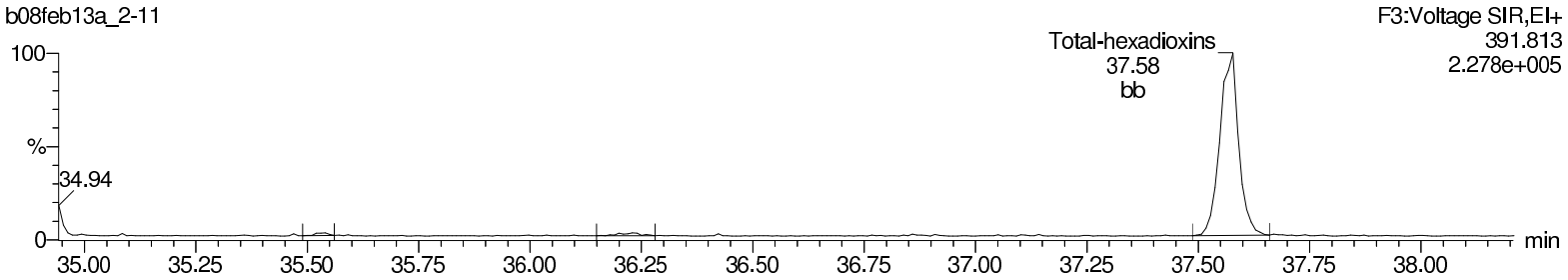
Last Altered: Monday, February 11, 2013 14:16:57 Eastern Standard Time
Printed: Monday, February 11, 2013 14:18:53 Eastern Standard Time

Name: b08feb13a_2-11, Date: 08-Feb-2013, Time: 22:47:08, ID: 4486007-1, Description: 22879, Job: HMS8290_1S, Task: HRP763_1, User: JTF

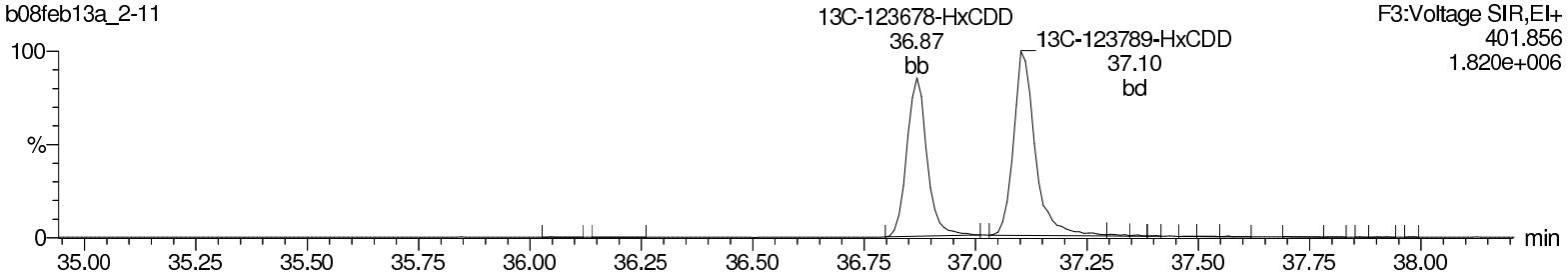
Total-hexadioxins



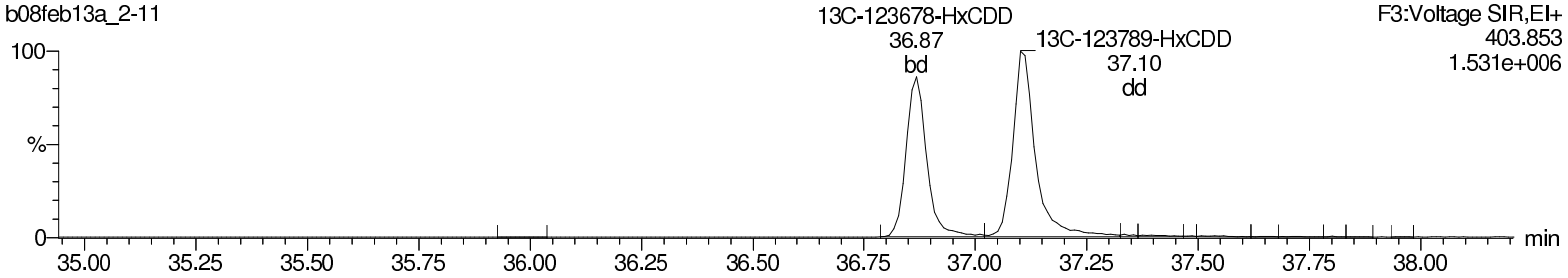
Total-hexadioxins



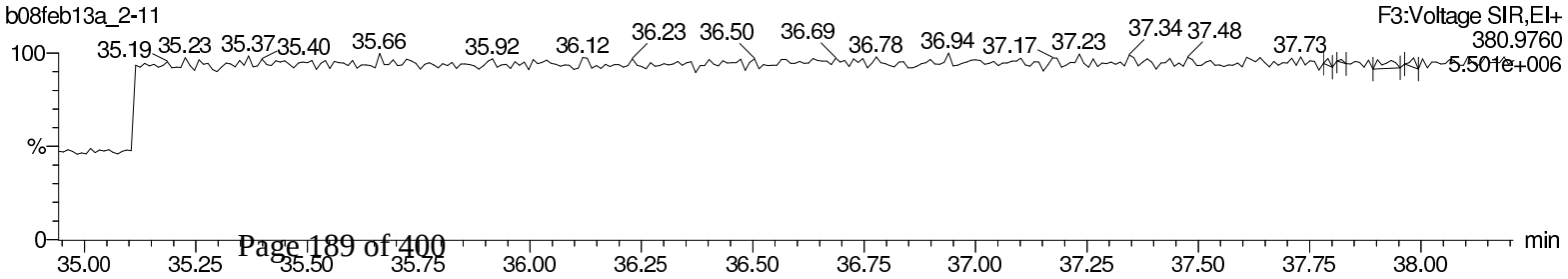
13C-123678-HxCDD



13C-123678-HxCDD



Lock Mass F3



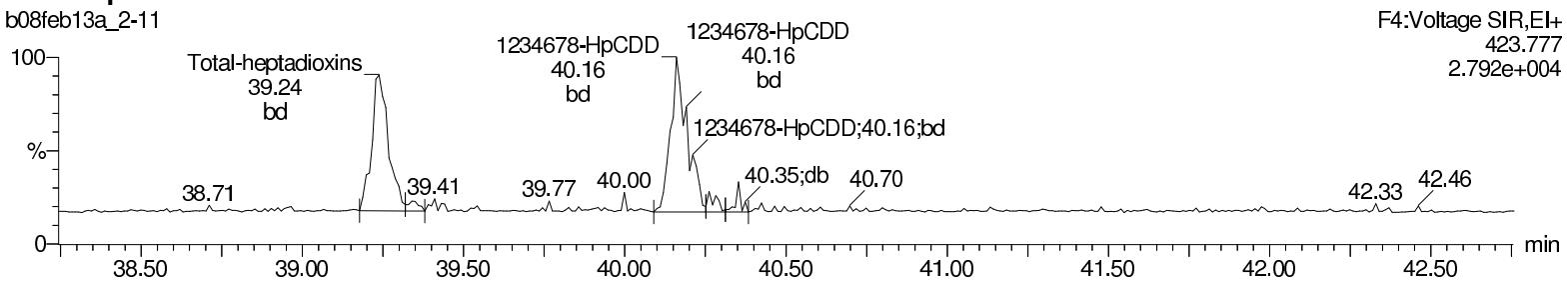
Quantify Sample Report **MassLynx 4.1**
Method 8290 Quantification Report

Dataset: C:\MassLynx\Default.pro\Sample Results\8290-b08feb13a_2.qld

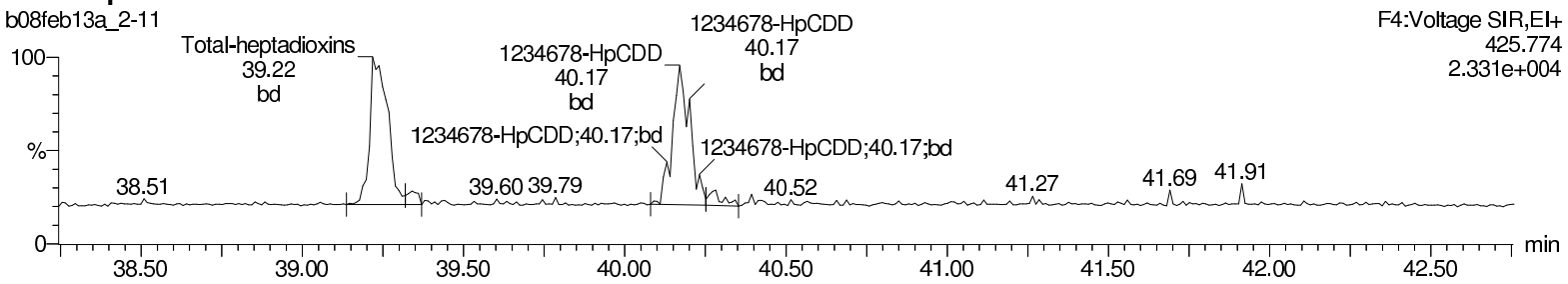
Last Altered: Monday, February 11, 2013 14:16:57 Eastern Standard Time
Printed: Monday, February 11, 2013 14:18:53 Eastern Standard Time

Name: b08feb13a_2-11, Date: 08-Feb-2013, Time: 22:47:08, ID: 4486007-1, Description: 22879, Job: HMS8290_1S, Task: HRP763_1, User: JTF

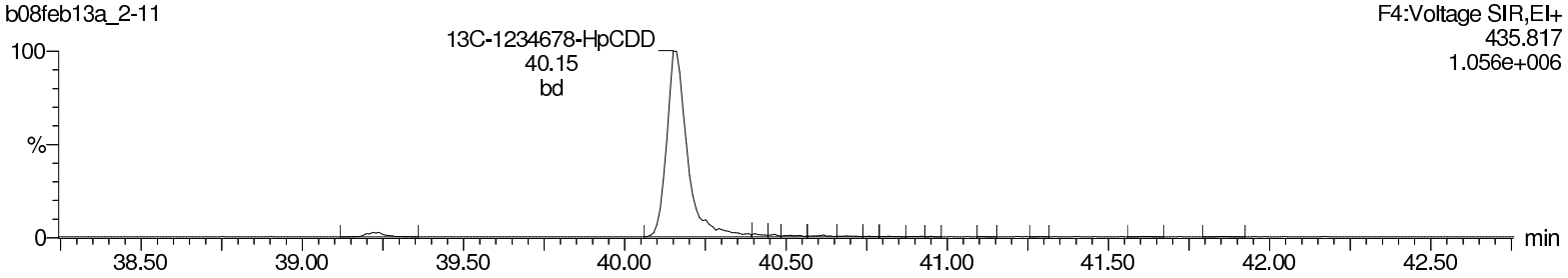
Total-heptadioxins



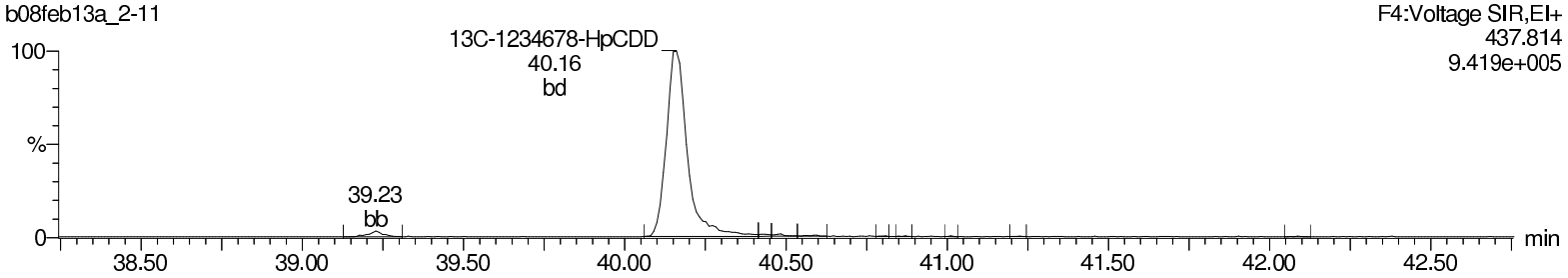
Total-heptadioxins



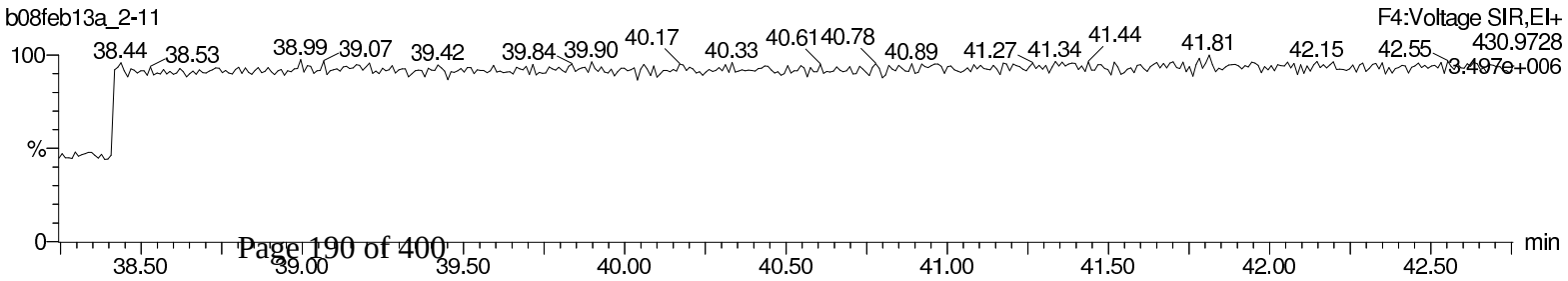
13C-1234678-HpCDD



13C-1234678-HpCDD



Lock Mass F4



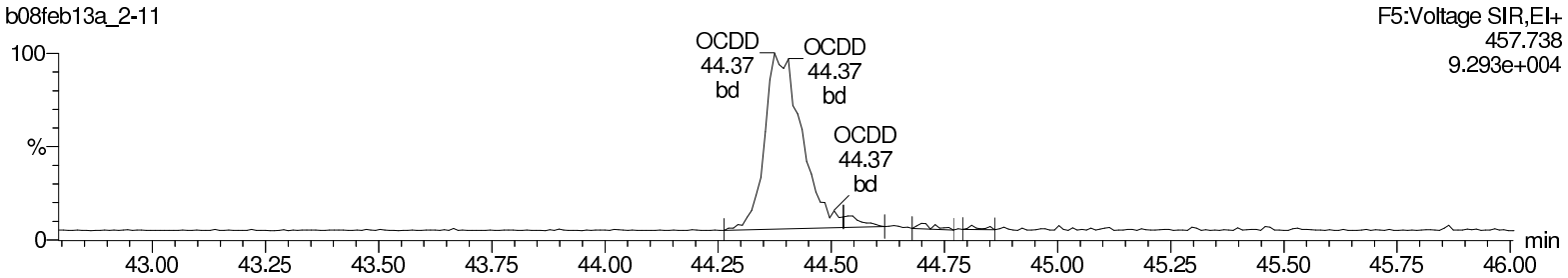
Quantify Sample Report **MassLynx 4.1**
Method 8290 Quantification Report

Dataset: C:\MassLynx\Default.pro\Sample Results\8290-b08feb13a_2.qld

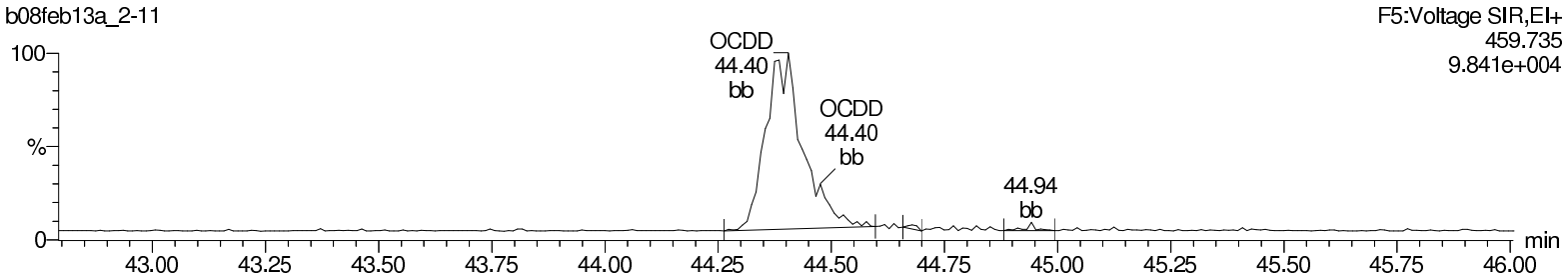
Last Altered: Monday, February 11, 2013 14:16:57 Eastern Standard Time
Printed: Monday, February 11, 2013 14:18:53 Eastern Standard Time

Name: b08feb13a_2-11, Date: 08-Feb-2013, Time: 22:47:08, ID: 4486007-1, Description: 22879, Job: HMS8290_1S, Task: HRP763_1, User: JTF

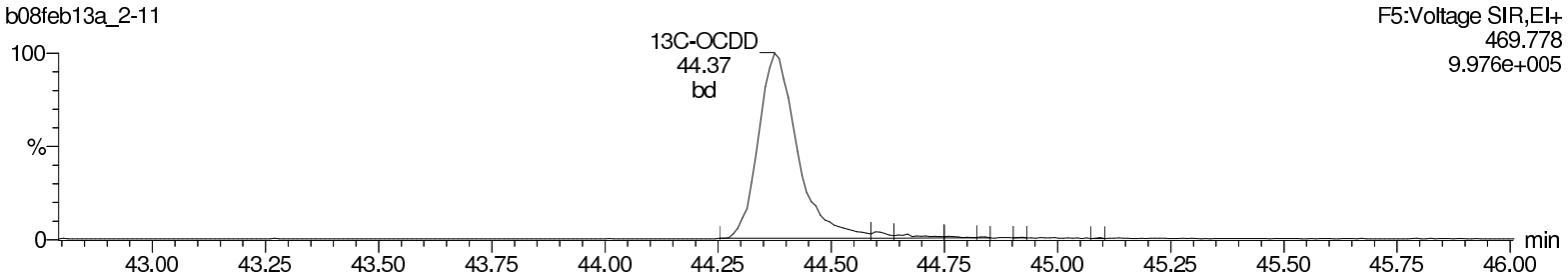
OCDD



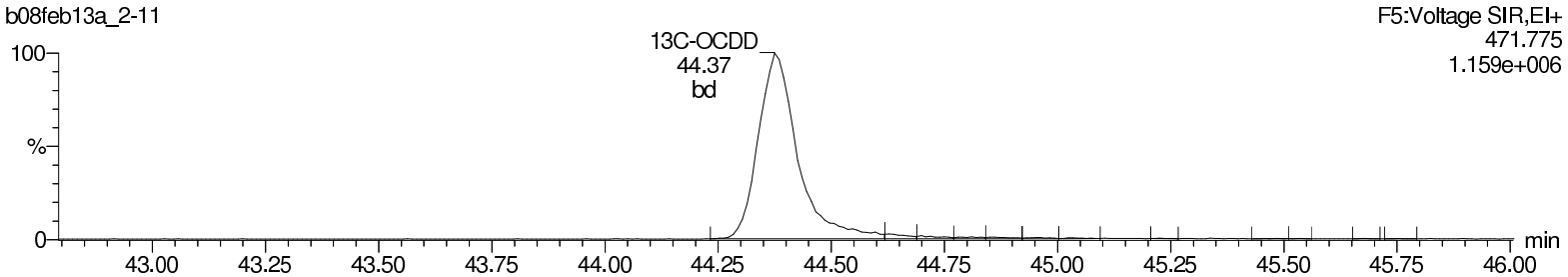
OCDD



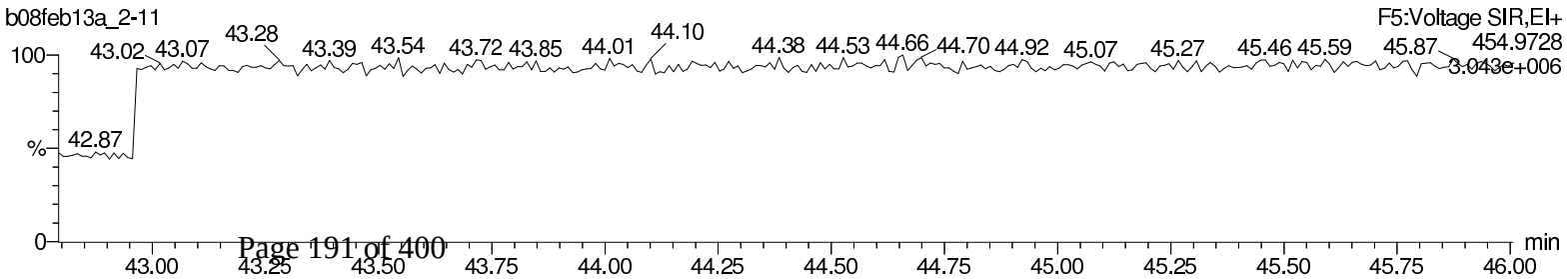
13C-OCDD



13C-OCDD



Lock Mass F5



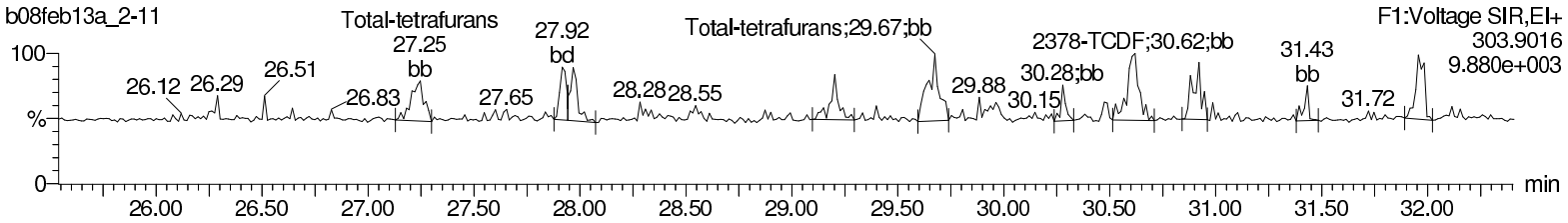
Quantify Sample Report **MassLynx 4.1**
Method 8290 Quantification Report

Dataset: C:\MassLynx\Default.pro\Sample Results\8290-b08feb13a_2.qld

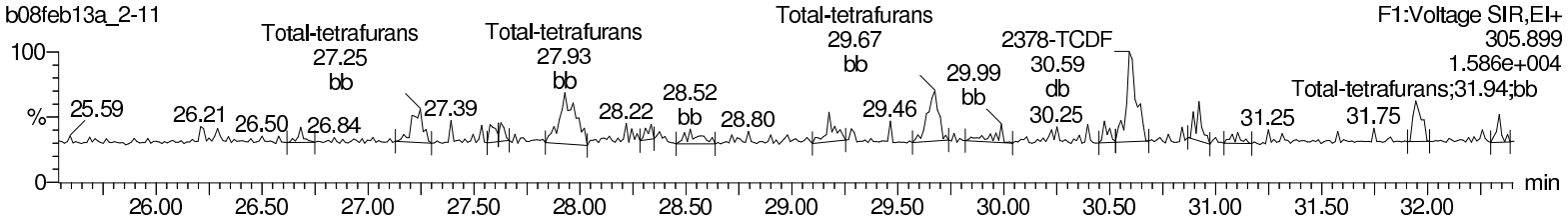
Last Altered: Monday, February 11, 2013 14:16:57 Eastern Standard Time
Printed: Monday, February 11, 2013 14:18:53 Eastern Standard Time

Name: b08feb13a_2-11, Date: 08-Feb-2013, Time: 22:47:08, ID: 4486007-1, Description: 22879, Job: HMS8290_1S, Task: HRP763_1, User: JTF

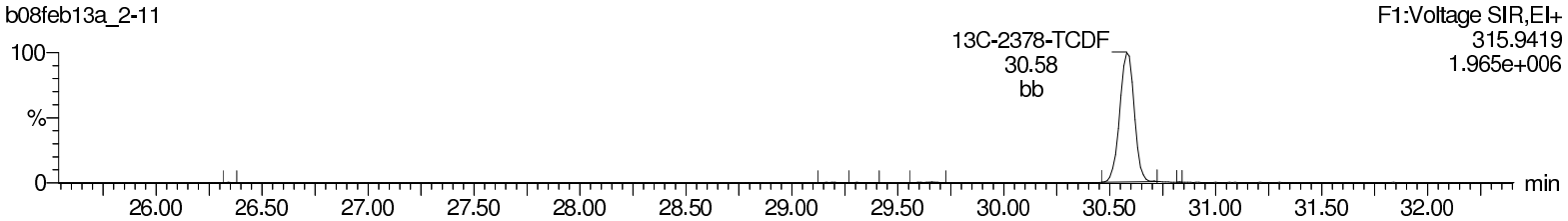
Total-tetrafurans



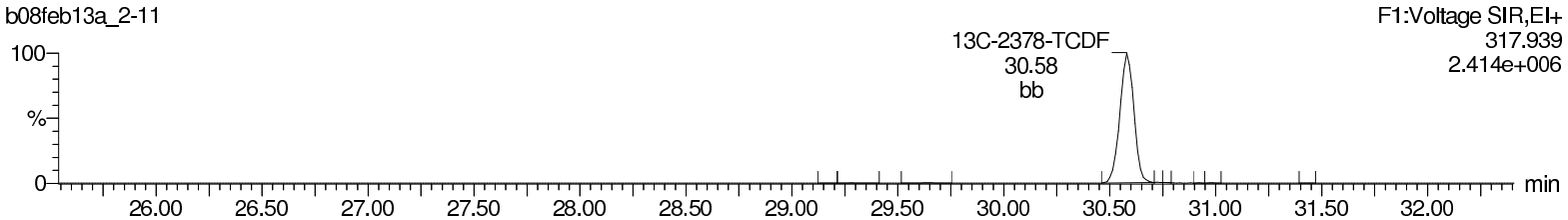
Total-tetrafurans



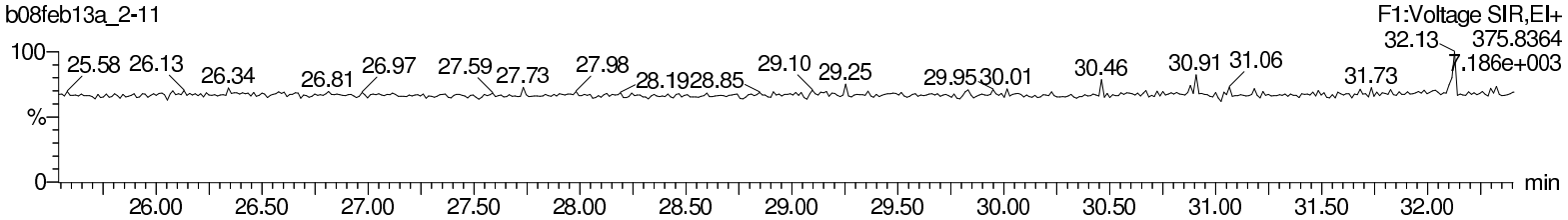
13C-2378-TCDF



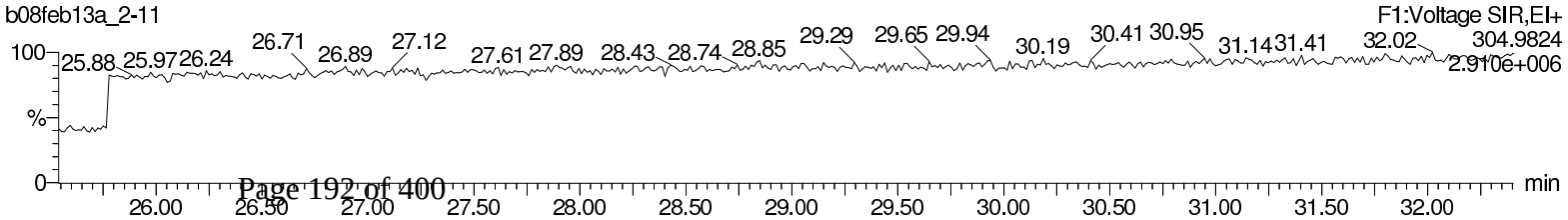
13C-2378-TCDF



HxDPE



Lock Mass F1



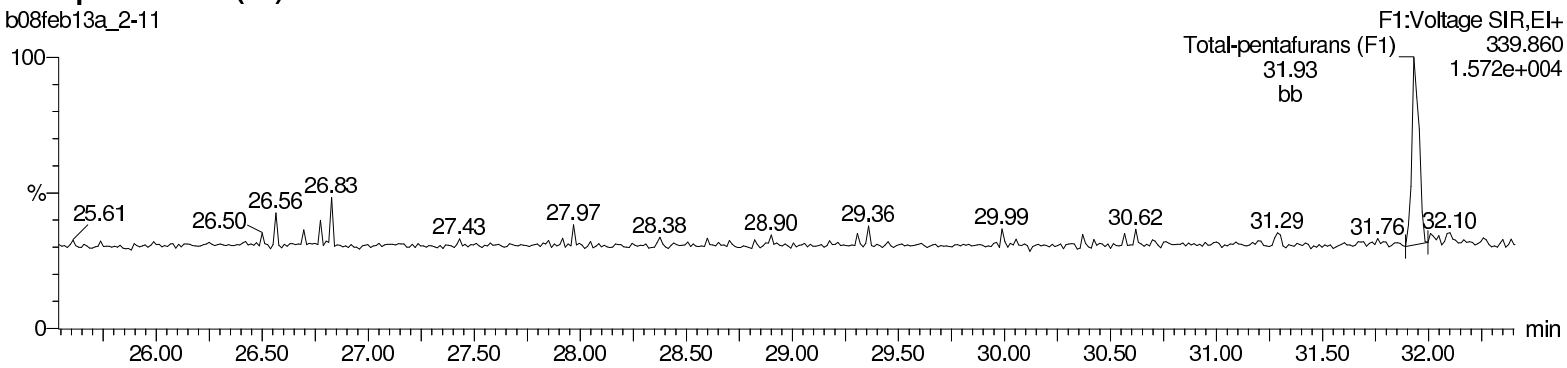
Quantify Sample Report **MassLynx 4.1**
Method 8290 Quantification Report

Dataset: C:\MassLynx\Default.pro\Sample Results\8290-b08feb13a_2.qld

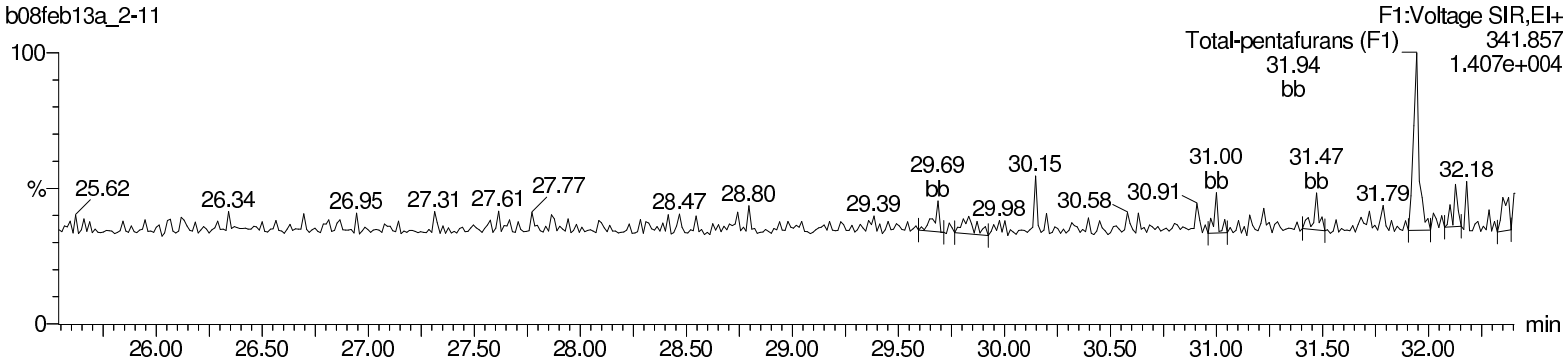
Last Altered: Monday, February 11, 2013 14:16:57 Eastern Standard Time
Printed: Monday, February 11, 2013 14:18:53 Eastern Standard Time

Name: b08feb13a_2-11, Date: 08-Feb-2013, Time: 22:47:08, ID: 4486007-1, Description: 22879, Job: HMS8290_1S, Task: HRP763_1, User: JTF

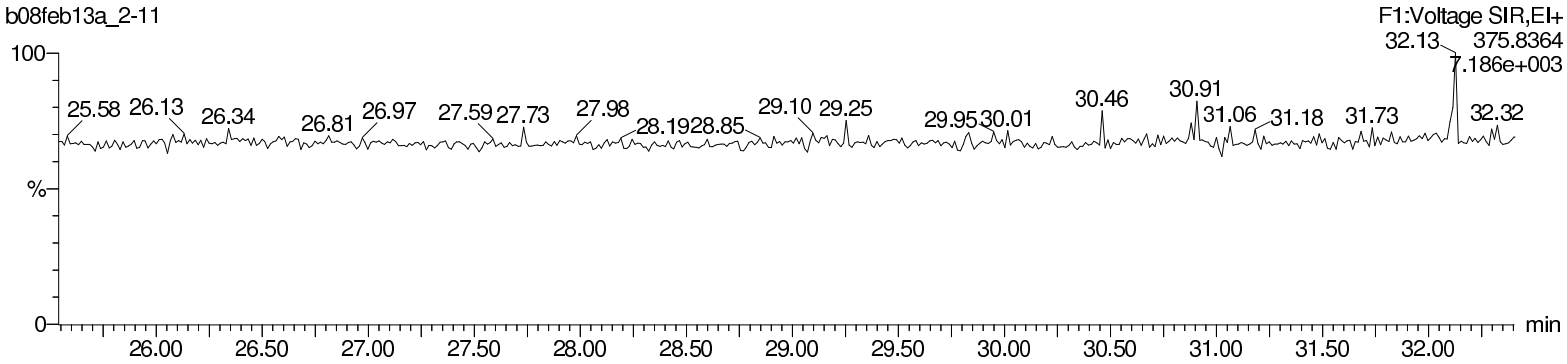
Total-pentafurans (F1)



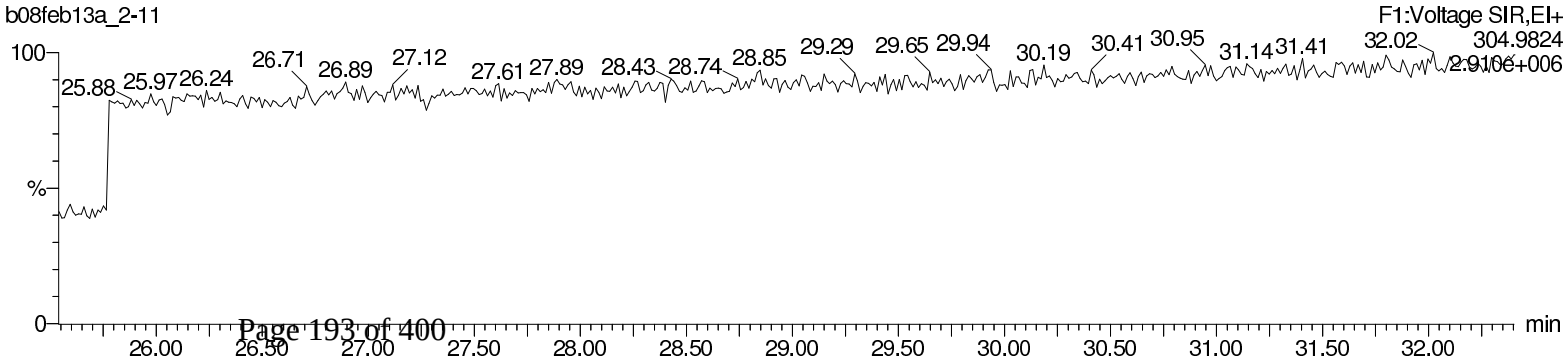
Total-pentafurans (F1)



HxDPE



Lock Mass F1



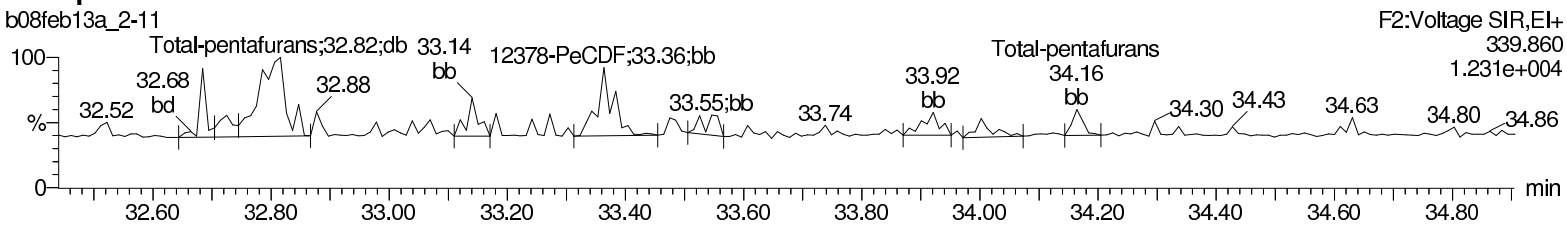
Quantify Sample Report **MassLynx 4.1**
Method 8290 Quantification Report

Dataset: C:\MassLynx\Default.pro\Sample Results\8290-b08feb13a_2.qld

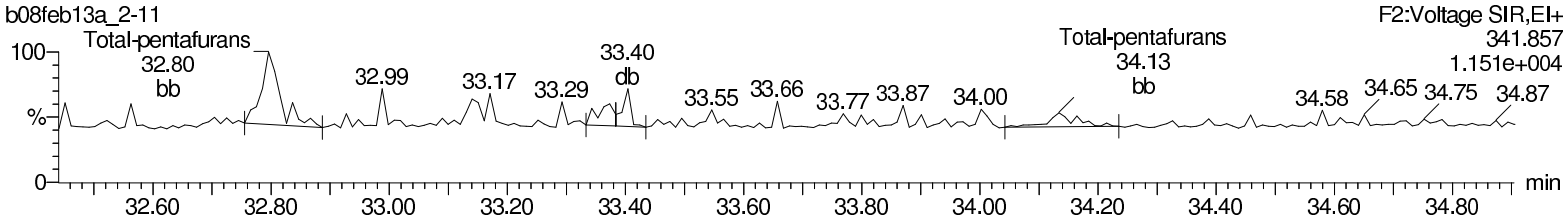
Last Altered: Monday, February 11, 2013 14:16:57 Eastern Standard Time
Printed: Monday, February 11, 2013 14:18:53 Eastern Standard Time

Name: b08feb13a_2-11, Date: 08-Feb-2013, Time: 22:47:08, ID: 4486007-1, Description: 22879, Job: HMS8290_1S, Task: HRP763_1, User: JTF

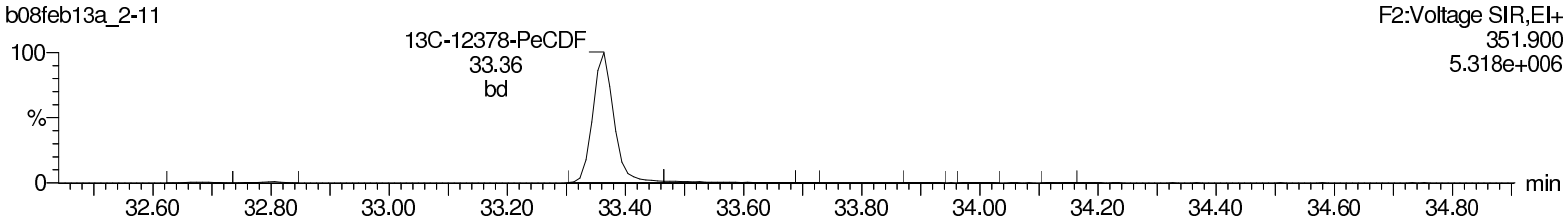
Total-pentafurans



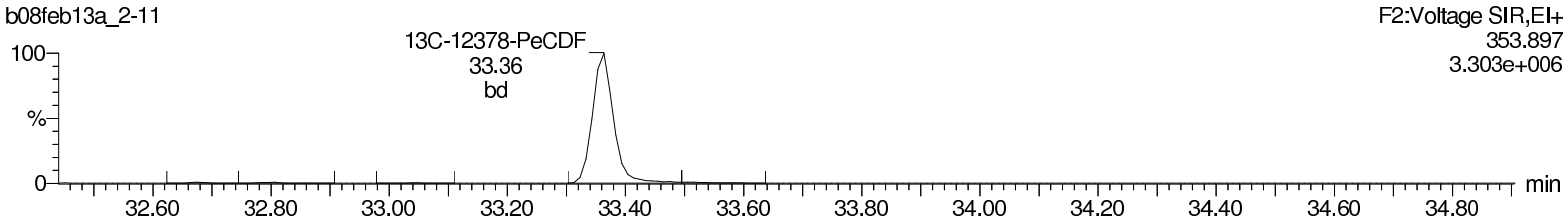
Total-pentafurans



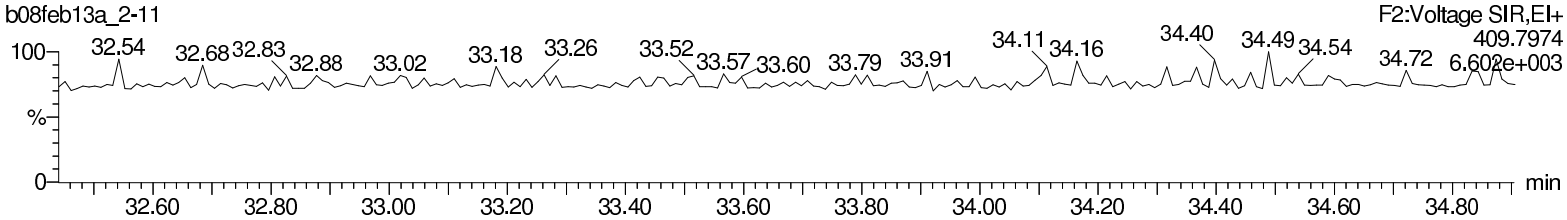
13C-12378-PeCDF



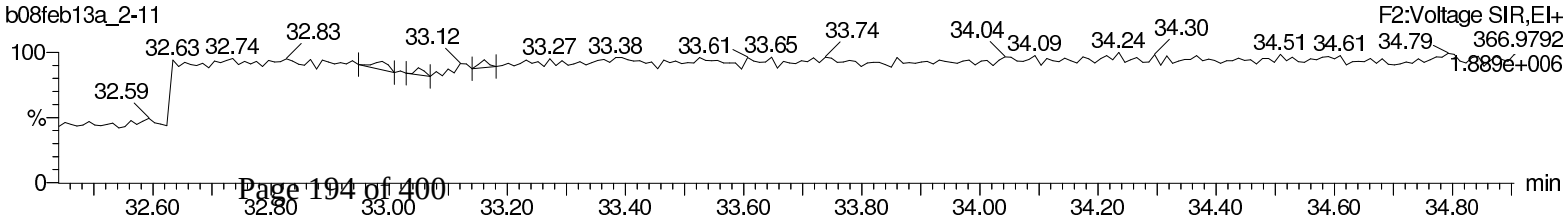
13C-12378-PeCDF



HpDPE



Lock Mass F2



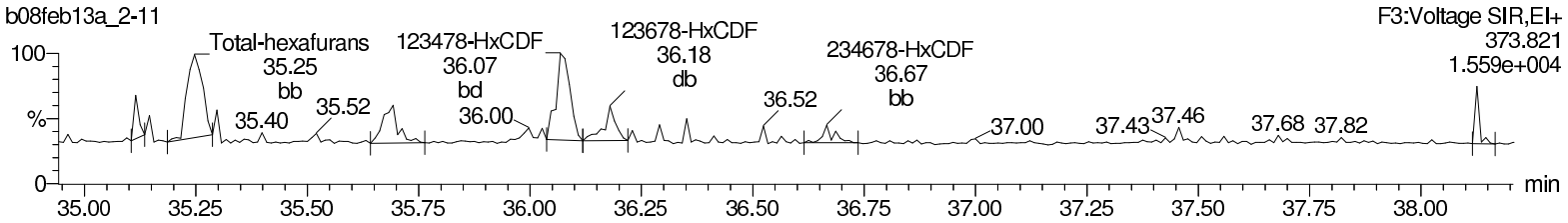
Quantify Sample Report **MassLynx 4.1**
Method 8290 Quantification Report

Dataset: C:\MassLynx\Default.pro\Sample Results\8290-b08feb13a_2.qld

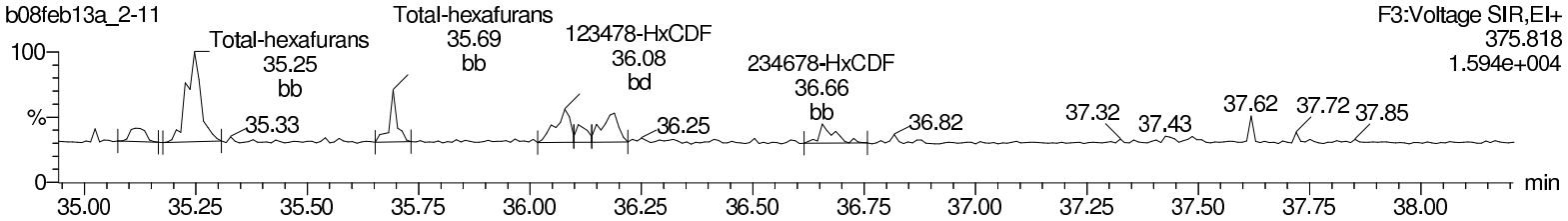
Last Altered: Monday, February 11, 2013 14:16:57 Eastern Standard Time
Printed: Monday, February 11, 2013 14:18:53 Eastern Standard Time

Name: b08feb13a_2-11, Date: 08-Feb-2013, Time: 22:47:08, ID: 4486007-1, Description: 22879, Job: HMS8290_1S, Task: HRP763_1, User: JTF

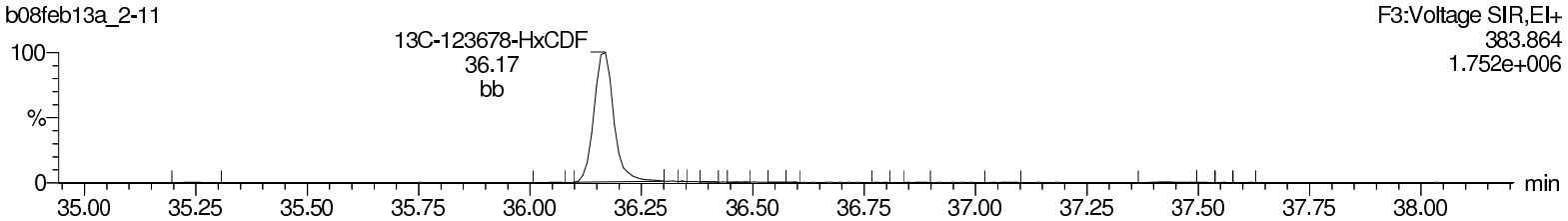
Total-hexafurans



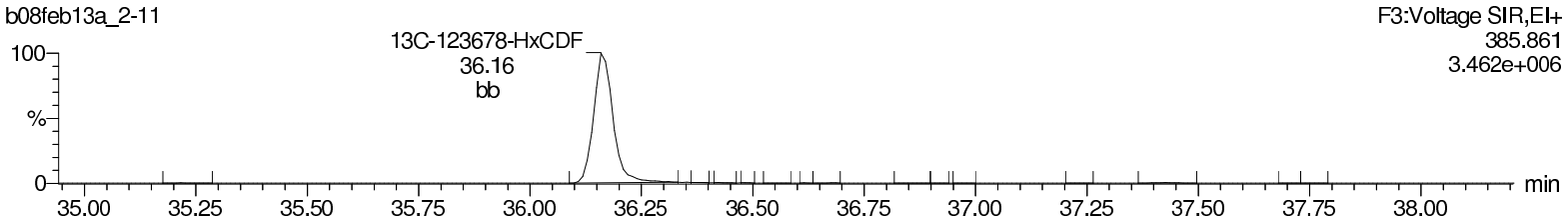
Total-hexafurans



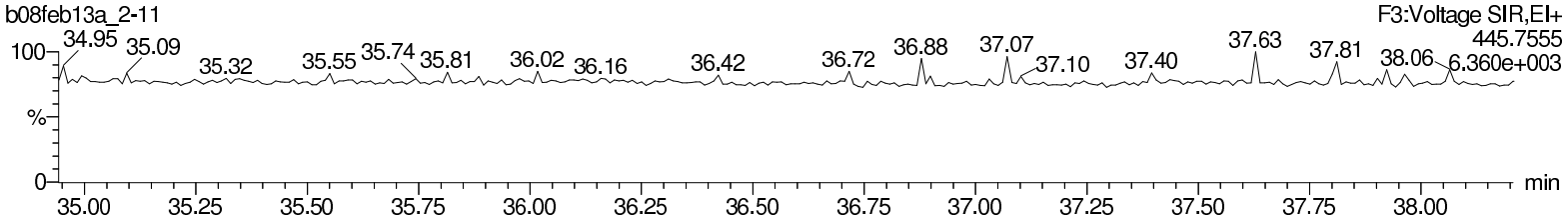
13C-123678-HxCDF



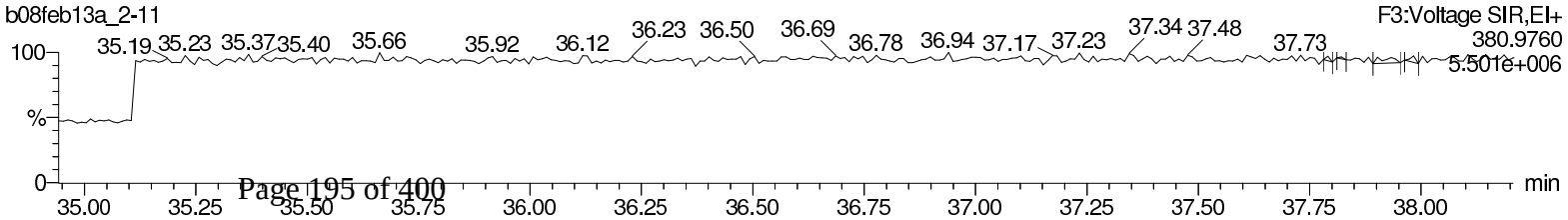
13C-123678-HxCDF



OcDPE



Lock Mass F3



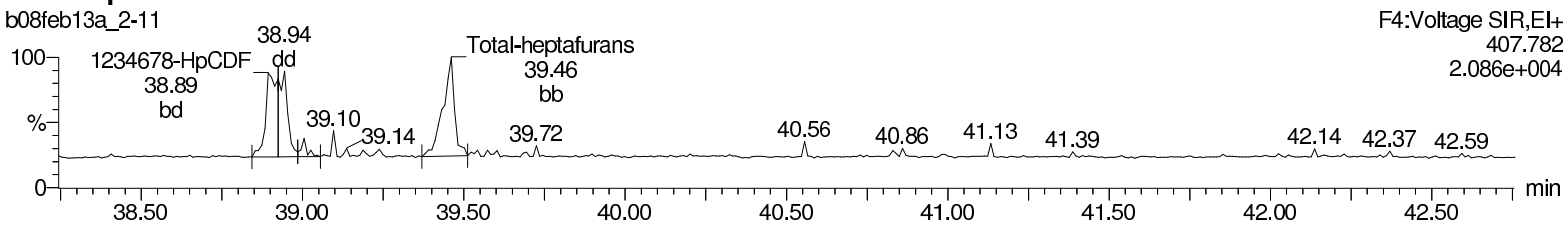
Quantify Sample Report **MassLynx 4.1**
Method 8290 Quantification Report

Dataset: C:\MassLynx\Default.pro\Sample Results\8290-b08feb13a_2.qld

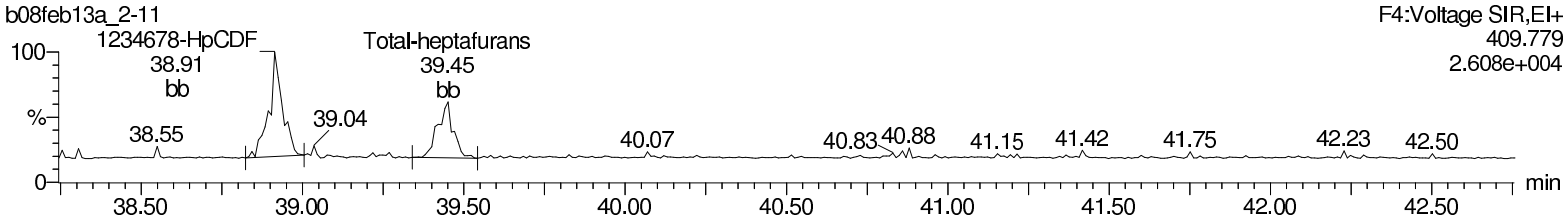
Last Altered: Monday, February 11, 2013 14:16:57 Eastern Standard Time
Printed: Monday, February 11, 2013 14:18:53 Eastern Standard Time

Name: b08feb13a_2-11, Date: 08-Feb-2013, Time: 22:47:08, ID: 4486007-1, Description: 22879, Job: HMS8290_1S, Task: HRP763_1, User: JTF

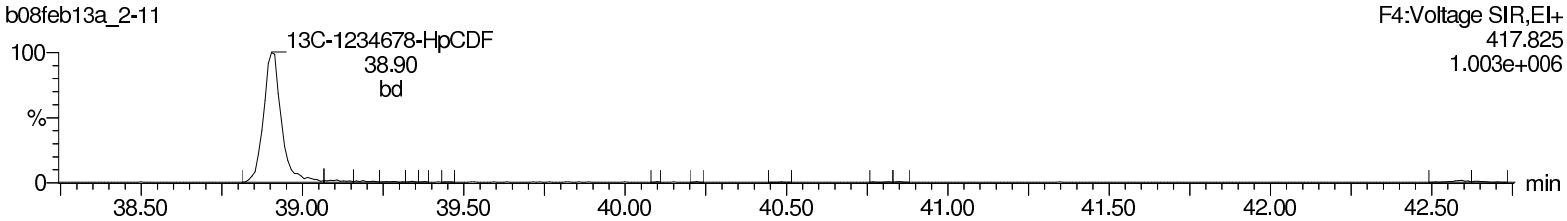
Total-heptafurans



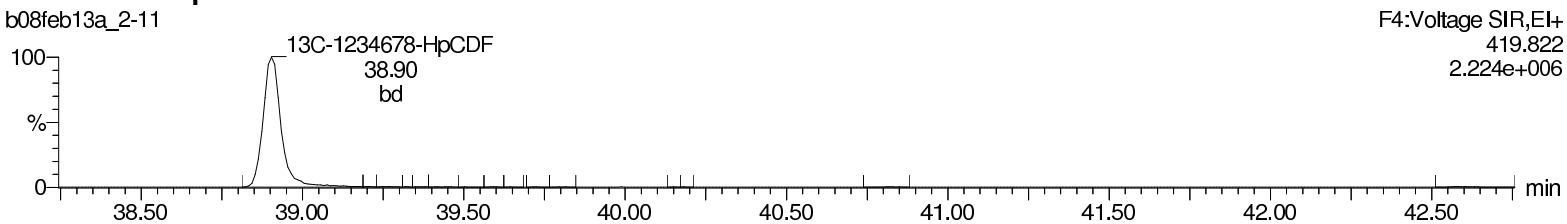
Total-heptafurans



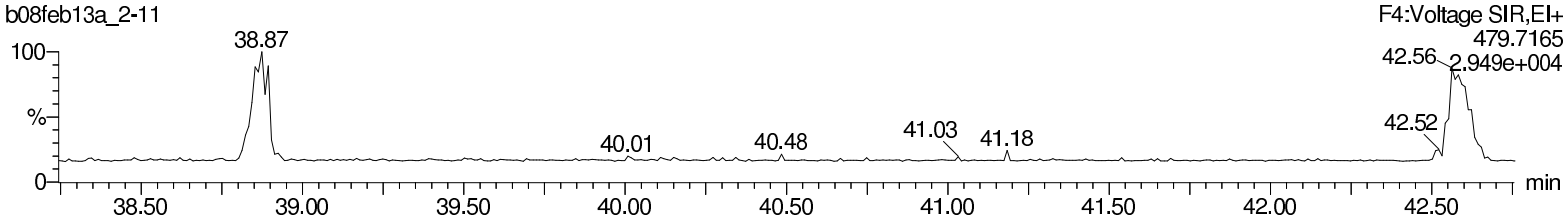
13C-1234678-HpCDF



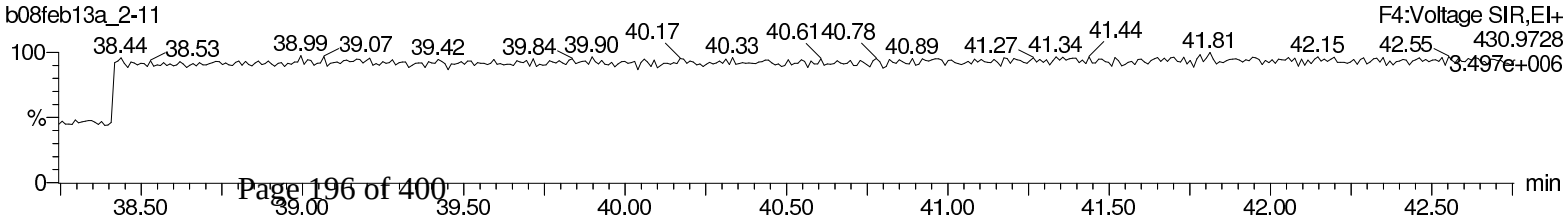
13C-1234678-HpCDF



NoDPE



Lock Mass F4



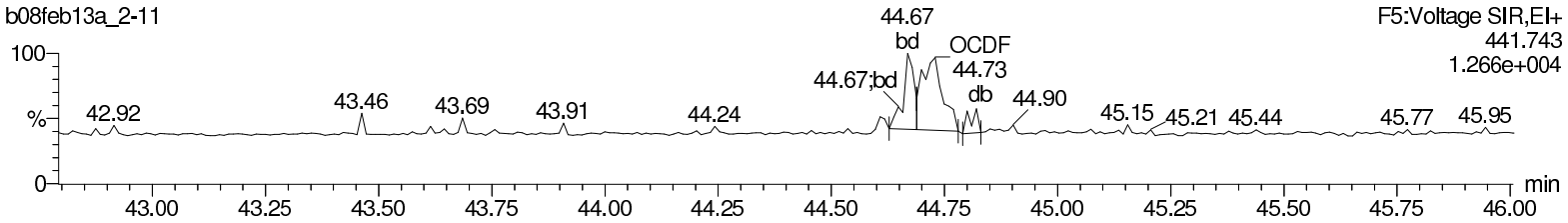
Quantify Sample Report **MassLynx 4.1**
Method 8290 Quantification Report

Dataset: C:\MassLynx\Default.pro\Sample Results\8290-b08feb13a_2.qld

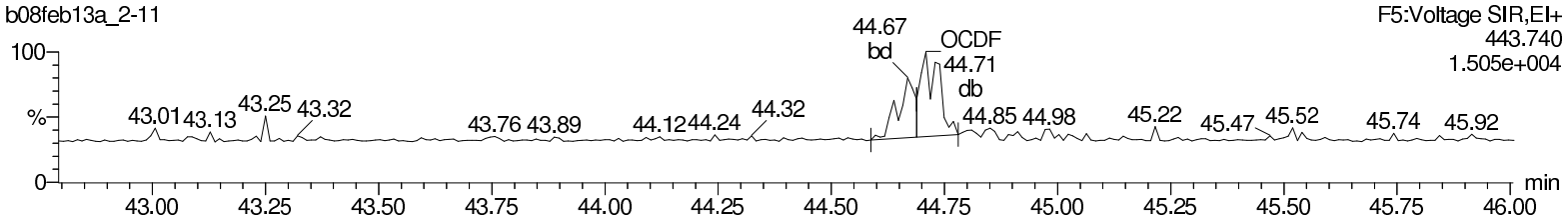
Last Altered: Monday, February 11, 2013 14:16:57 Eastern Standard Time
Printed: Monday, February 11, 2013 14:18:53 Eastern Standard Time

Name: b08feb13a_2-11, Date: 08-Feb-2013, Time: 22:47:08, ID: 4486007-1, Description: 22879, Job: HMS8290_1S, Task: HRP763_1, User: JTF

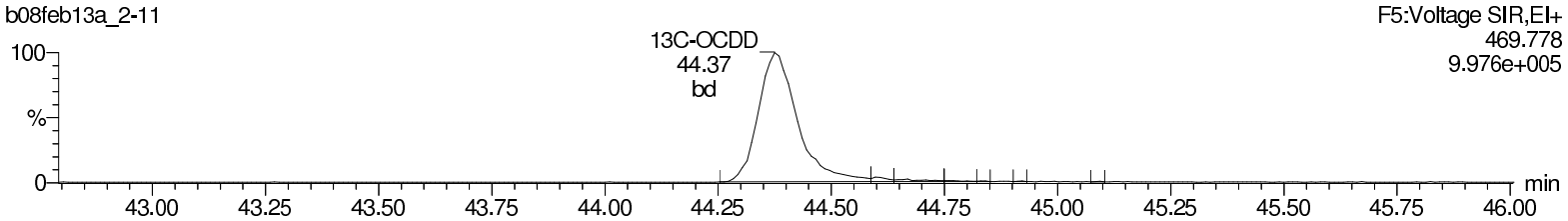
OCDF



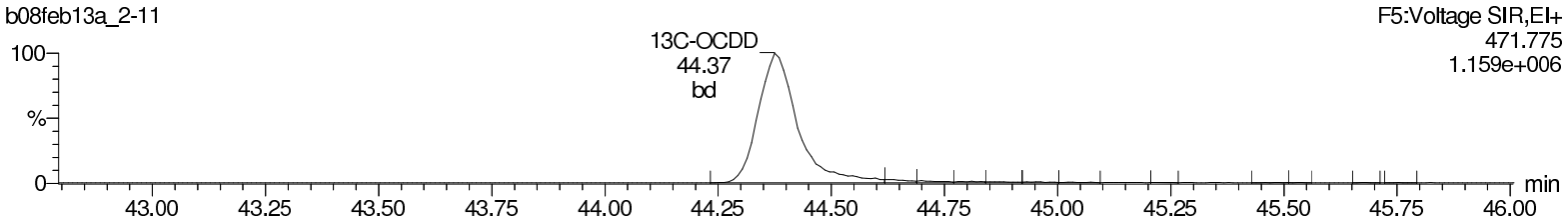
OCDF



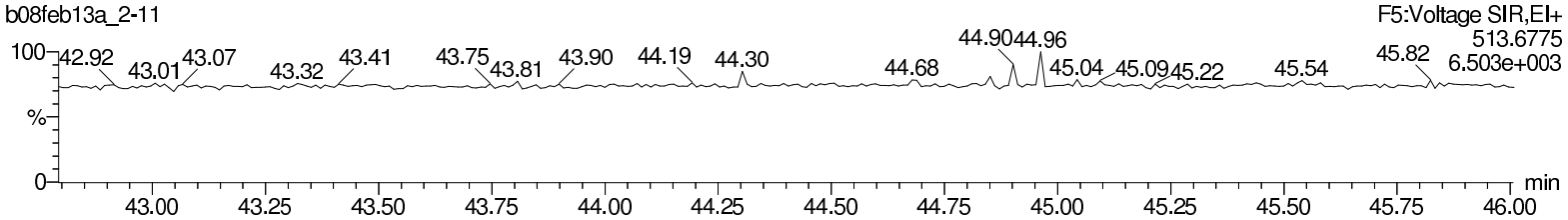
13C-OCDD



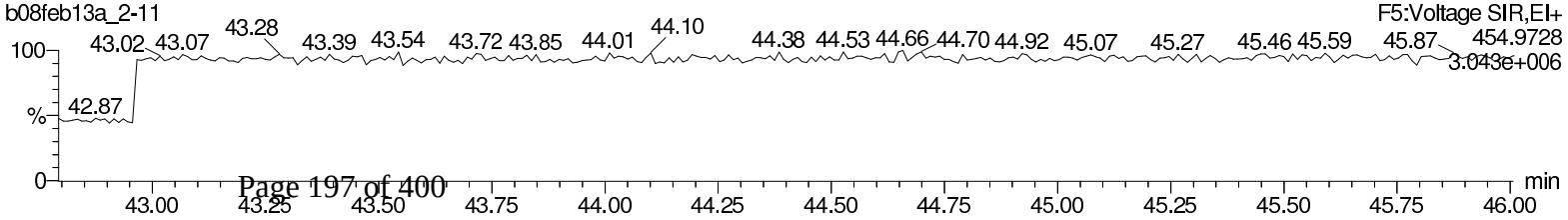
13C-OCDD



DeDPE



Lock Mass F5



Quality Control Raw Data

Hi-Res Dioxins/Furans
Certificate of Analysis
Sample Summary

SDG Number:	**2013-505**	**Client:**	**LANL001**	**Project:**	**LANL00112**
Lab Sample ID:	**12007606**			**Matrix:**	**SOLID**
Client Sample:	**QC for batch 22876**				
Client ID:	**MB for batch 22876**			**Prep Basis:**	**As Received**
Batch ID:	**22879**	**Method:**	**SW846 8290A**		
Run Date:	**02/08/2013 16:22**	**Analyst:**	**JTF**	**Instrument:**	**HRP763**
Data File:	**b08feb13a_2-3**			**Dilution:**	**1**
Prep Batch:	**22876**	**Prep Method:**	**SW846 3540C**		
Prep Date:	**06-FEB-13**	**Aliquot:**	**10 g**		

CAS No.	Parmname	Qual	Result	EMPC	Units	EDL	PQL
1746-01-6	2,3,7,8-TCDD	U	.112		pg/g	0.112	1.00
40321-76-4	1,2,3,7,8-PeCDD	U	.5		pg/g	0.500	5.00
39227-28-6	1,2,3,4,7,8-HxCDD	U	.5		pg/g	0.500	5.00
57653-85-7	1,2,3,6,7,8-HxCDD	U	.5		pg/g	0.500	5.00
19408-74-3	1,2,3,7,8,9-HxCDD	U	.5		pg/g	0.500	5.00
35822-46-9	1,2,3,4,6,7,8-HpCDD	U	.5		pg/g	0.500	5.00
3268-87-9	1,2,3,4,6,7,8,9-OCDD	U	1		pg/g	1.00	10.0
51207-31-9	2,3,7,8-TCDF	U	.165		pg/g	0.165	1.00
57117-41-6	1,2,3,7,8-PeCDF	U	.5		pg/g	0.500	5.00
57117-31-4	2,3,4,7,8-PeCDF	U	.5		pg/g	0.500	5.00
70648-26-9	1,2,3,4,7,8-HxCDF	U	.5		pg/g	0.500	5.00
57117-44-9	1,2,3,6,7,8-HxCDF	U	.5		pg/g	0.500	5.00
60851-34-5	2,3,4,6,7,8-HxCDF	U	.5		pg/g	0.500	5.00
72918-21-9	1,2,3,7,8,9-HxCDF	U	.5		pg/g	0.500	5.00
67562-39-4	1,2,3,4,6,7,8-HpCDF	U	.5		pg/g	0.500	5.00
55673-89-7	1,2,3,4,7,8,9-HpCDF	U	.5		pg/g	0.500	5.00
39001-02-0	1,2,3,4,6,7,8,9-OCDF	U	1		pg/g	1.00	10.0
41903-57-5	Total TCDDs	U	.112		pg/g	0.112	1.00
36088-22-9	Total PeCDDs	U	.5		pg/g	0.500	5.00
34465-46-8	Total HxCDDs	U	.5		pg/g	0.500	5.00
37871-00-4	Total HpCDDs	U	.5		pg/g	0.500	5.00
30402-14-3	Total TCDFs	U	.165		pg/g	0.165	1.00
30402-15-4	Total PeCDFs	U	.5		pg/g	0.500	5.00
55684-94-1	Total HxCDFs	U	.5		pg/g	0.500	5.00
38998-75-3	Total HpCDFs	U	.5		pg/g	0.500	5.00
3333-30-0	TEQ WHO2005 ND=0		0.00	0.00	pg/g		
3333-30-1	TEQ WHO2005 ND=0.5		0.580	0.580	pg/g		

Surrogate/Tracer recovery	Qual	Result	Nominal	Units	Recovery%	Acceptable Limits
13C-2,3,7,8-TCDD		174	200	pg/g	87.0	(40%-135%)
13C-1,2,3,7,8-PeCDD		179	200	pg/g	89.7	(40%-135%)
13C-1,2,3,6,7,8-HxCDD		154	200	pg/g	77.1	(40%-135%)
13C-1,2,3,4,6,7,8-HpCDD		196	200	pg/g	97.9	(40%-135%)
13C-OCDD		344	400	pg/g	86.0	(40%-135%)
13C-2,3,7,8-TCDF		163	200	pg/g	81.7	(40%-135%)
13C-1,2,3,7,8-PeCDF		189	200	pg/g	94.3	(40%-135%)
13C-1,2,3,6,7,8-HxCDF		177	200	pg/g	88.4	(40%-135%)
13C-1,2,3,4,6,7,8-HpCDF		194	200	pg/g	97.1	(40%-135%)

Comments:

J Value is estimated

K Estimated Maximum Possible Concentration

U Analyte was analyzed for , but not detected above the specified detection limit.

Quantify Sample Summary Report **MassLynx 4.1**
Method 8290 Quantification Report

Dataset: C:\MassLynx\Default.pro\Sample Results\8290-b08feb13a_2.qld

Last Altered: Tuesday, February 12, 2013 08:52:16 Eastern Standard Time
Printed: Tuesday, February 12, 2013 08:53:54 Eastern Standard Time

Method: C:\MassLynx\Default.pro\Methdb\CFA_EPA8290_121912.mdb 20 Dec 2012 07:43:23
Calibration: C:\MassLynx\DEFAULT.PRO\CurveDB\8290-b30nov12a.cdb 03 Dec 2012 09:49:08

Name: b08feb13a_2-3, Date: 08-Feb-2013, Time: 16:22:54, ID: 12007606-1 MB, Description: , Job: HMS8290_1S, Task: HRP763_1, User: JTF

	Name	Ion1Area	Ion2Area	Response	RT	RRT	RA	Fail?	pg/uL	EDL	Height1	Noise1	S/N1	Height2	Noise2	S/N2	M
1	2378-TCDD							NO		0.0560		521			499		
2	12378-PeCDD							NO		0.0561		770			322		
3	123478-HxCDD							NO		0.104		600			705		
4	123678-HxCDD							NO		0.0939		600			705		
5	123789-HxCDD							NO		0.103		600			705		
6	1234678-HpCDD							NO		0.105		572			477		
7	OCDD	2.58e2	3.22e2	5.80e2	44.38	1.000	0.80	NO	0.409	0.370	4.78e3	1052	4.5	8.54e3	988	8.6	MM
8	2378-TCDF	1.24e2	1.51e2	2.74e2	30.66	1.002	0.82	NO	0.071	0.0826	3.77e3	708	5.3	3.37e3	948	3.6	bb
9	12378-PeCDF	7.37e1	1.45e2	2.19e2	33.39	1.001	0.51	YES	0.059	0.0410	2.24e3	455	4.9	2.81e3	985	2.9	MM
10	23478-PeCDF	7.08e1	3.51e1	1.06e2	34.01	1.019	2.01	YES	0.028	0.0395	2.90e3	455	6.4	1.67e3	985	1.7	MM
11	123478-HxCDF							NO		0.0878		1008			794		
12	123678-HxCDF							NO		0.0769		1008			794		
13	234678-HxCDF							NO		0.0833		1008			794		
14	123789-HxCDF							NO		0.0987		1008			794		
15	1234678-HpCDF	6.26e1	5.17e1	1.14e2	38.93	1.001	1.21	YES	0.041	0.0599	1.67e3	506	3.3	1.59e3	526	3.0	bb
16	1234789-HpCDF							NO		0.0780		506			526		
17	OCDF	5.10e1	4.80e1	9.89e1	44.70	1.007	1.06	YES	0.060	0.158	1.95e3	410	4.8	1.33e3	601	2.2	MM
18	13C-2378-TCDD	1.18e5	1.53e5	2.70e5	31.29	1.017	0.77	NO	87.041	0.256	2.08e6	2771	751.0	2.73e6	1727	1579.5	bb
19	13C-12378-PeCDD	1.41e5	8.86e4	2.30e5	34.18	1.111	1.59	NO	89.709	0.276	3.09e6	2095	1477.0	1.99e6	1917	1037.2	bb
20	13C-123678-HxCDD	9.51e4	8.12e4	1.76e5	36.88	0.994	1.17	NO	77.130	0.285	1.73e6	2169	799.4	1.49e6	2077	715.3	bd
21	13C-1234678-HpCDD	9.02e4	7.82e4	1.68e5	40.17	1.082	1.15	NO	97.949	0.356	1.18e6	2388	492.6	1.02e6	1599	637.6	bd
22	13C-OCDD	1.15e5	1.27e5	2.42e5	44.39	1.196	0.91	NO	172.058	0.612	1.12e6	3873	289.9	1.28e6	1747	731.1	bd
23	13C-2378-TCDF	1.73e5	2.03e5	3.76e5	30.59	0.994	0.85	NO	81.715	0.0915	2.24e6	1143	1958.7	2.66e6	1245	2133.0	bb
24	13C-12378-PeCDF	2.40e5	1.51e5	3.91e5	33.37	1.084	1.59	NO	94.338	0.243	5.72e6	2862	1997.3	3.53e6	2857	1235.0	bd
25	13C-123678-HxCDF	1.00e5	1.99e5	2.98e5	36.17	0.975	0.50	NO	88.402	0.238	1.89e6	2514	751.1	3.69e6	2740	1348.2	bb
26	13C-1234678-HpCDF	6.83e4	1.57e5	2.25e5	38.91	1.049	0.44	NO	97.139	0.252	1.07e6	1824	585.0	2.46e6	1986	1239.9	bd
27	13C-1234-TCDD	1.38e5	1.76e5	3.14e5	30.78	0.000	0.78	NO	100.000	0.253	1.95e6	2771	705.0	2.53e6	1727	1463.3	bb
28	13C-123789-HxCDD	1.11e5	9.50e4	2.06e5	37.11	0.000	1.16	NO	100.000	0.317	1.80e6	2169	831.7	1.60e6	2077	771.4	dd
29	37Cl-2378-TCDD (SS)									0.0357		753					
30	13C-23478-PeCDF (SS)	1.19e2	1.72e2	2.91e2	34.00	1.019	0.69	YES	0.074	0.153	3.69e3	2862	1.3	7.48e3	2857	2.6	bb

Quantify Sample Summary Report **MassLynx 4.1**
Method 8290 Quantification Report

Dataset: C:\MassLynx\Default.pro\Sample Results\8290-b08feb13a_2.qld

Last Altered: Tuesday, February 12, 2013 08:52:16 Eastern Standard Time
Printed: Tuesday, February 12, 2013 08:53:54 Eastern Standard Time

Name: b08feb13a_2-3, Date: 08-Feb-2013, Time: 16:22:54, ID: 12007606-1 MB, Description: , Job: HMS8290_1S, Task: HRP763_1, User: JTF

	Name	Ion1Area	Ion2Area	Response	RT	RRT	RA	Fail?	pg/uL	EDL	Height1	Noise1	S/N1	Height2	Noise2	S/N2	M
31	13C-123478-HxCDF (SS)							NO		0.273		2514			2740		
32	13C-123478-HxCDD (SS)							NO		0.388		2169			2077		
33	13C-1234789-HpCDF (SS)							NO		0.348		1824			1986		

Quantify Totals Report MassLynx 4.1
Method 8290 Quantification Report

Dataset: C:\MassLynx\Default.pro\Sample Results\8290-b08feb13a_2.qld

Last Altered: Tuesday, February 12, 2013 08:52:16 Eastern Standard Time
Printed: Tuesday, February 12, 2013 08:53:54 Eastern Standard Time

Method: C:\MassLynx\Default.pro\Methdb\CFA_EPA8290_121912.mdb 20 Dec 2012 07:43:23
Calibration: C:\MassLynx\DEFAULT.PRO\CurveDB\8290-b30nov12a.cdb 03 Dec 2012 09:49:08

Name: b08feb13a_2-3, Date: 08-Feb-2013, Time: 16:22:54, ID: 12007606-1 MB, Description: , Job: HMS8290_1S, Task: HRP763_1, User: JTF

TD

	Name	Ion1Area	Ion2Area	Response	RT	RA	Fail?	pg/uL	EDL	Height1	Noise1	S/N1	Height2	Noise2	S/N2	M
1																

PD

	Name	Ion1Area	Ion2Area	Response	RT	RA	Fail?	pg/uL	EDL	Height1	Noise1	S/N1	Height2	Noise2	S/N2	M
1																

HD

	Name	Ion1Area	Ion2Area	Response	RT	RA	Fail?	pg/uL	EDL	Height1	Noise1	S/N1	Height2	Noise2	S/N2	M
1																

HPD

	Name	Ion1Area	Ion2Area	Response	RT	RA	Fail?	pg/uL	EDL	Height1	Noise1	S/N1	Height2	Noise2	S/N2	M
1																

TF

	Name	Ion1Area	Ion2Area	Response	RT	RA	Fail?	pg/uL	EDL	Height1	Noise1	S/N1	Height2	Noise2	S/N2	M
1	2378-TCDF	1.24e2	1.51e2	2.74e2	30.66	0.82	NO	0.071	0.0826	3.77e3	708	5.3	3.37e3	948	3.6	bb
2	Total-tetrafurans	7.35e1	7.62e1	1.50e2	29.73	0.96	YES	0.039	0.0826	2.34e3	708	3.3	2.07e3	948	2.2	bb

PF1

	Name	Ion1Area	Ion2Area	Response	RT	RA	Fail?	pg/uL	EDL	Height1	Noise1	S/N1	Height2	Noise2	S/N2	M
1																

Quantify Totals Report MassLynx 4.1
Method 8290 Quantification Report

Dataset: C:\MassLynx\Default.pro\Sample Results\8290-b08feb13a_2.qld

Last Altered: Tuesday, February 12, 2013 08:52:16 Eastern Standard Time
Printed: Tuesday, February 12, 2013 08:53:54 Eastern Standard Time

Name: b08feb13a_2-3, Date: 08-Feb-2013, Time: 16:22:54, ID: 12007606-1 MB, Description: , Job: HMS8290_1S, Task: HRP763_1, User: JTF

PF

	Name	Ion1Area	Ion2Area	Response	RT	RA	Fail?	pg/uL	EDL	Height1	Noise1	S/N1	Height2	Noise2	S/N2	M
1	23478-PeCDF	7.08e1	3.51e1	1.06e2	34.01	2.01	YES	0.028	0.0395	2.90e3	455	6.4	1.67e3	985	1.7	MM
2	12378-PeCDF	7.37e1	1.45e2	2.19e2	33.39	0.51	YES	0.059	0.0410	2.24e3	455	4.9	2.81e3	985	2.9	MM

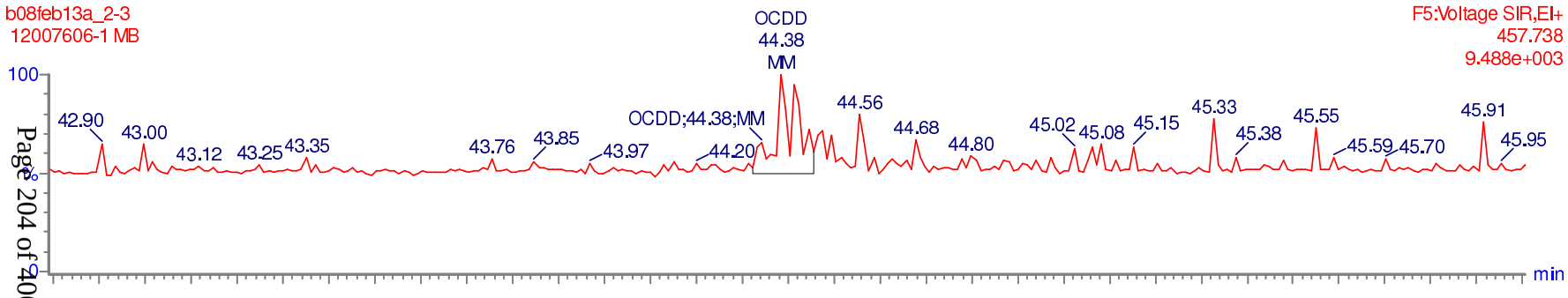
HF

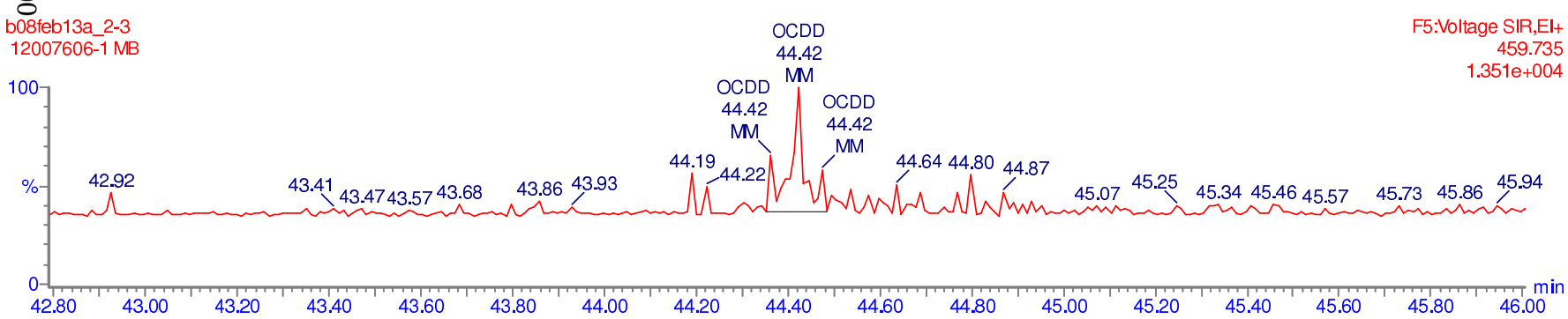
	Name	Ion1Area	Ion2Area	Response	RT	RA	Fail?	pg/uL	EDL	Height1	Noise1	S/N1	Height2	Noise2	S/N2	M
1																

HPF

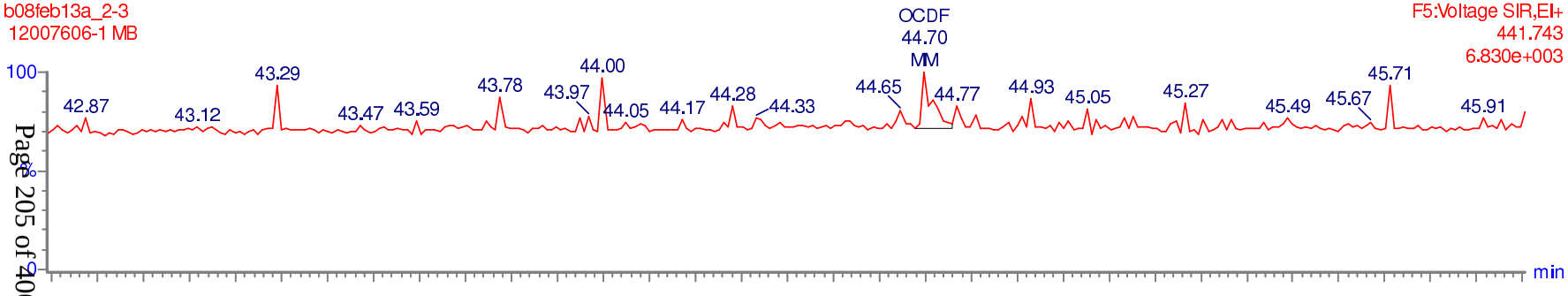
	Name	Ion1Area	Ion2Area	Response	RT	RA	Fail?	pg/uL	EDL	Height1	Noise1	S/N1	Height2	Noise2	S/N2	M
1	1234678-HpCDF	6.26e1	5.17e1	1.14e2	38.93	1.21	YES	0.041	0.0599	1.67e3	506	3.3	1.59e3	526	3.0	bb

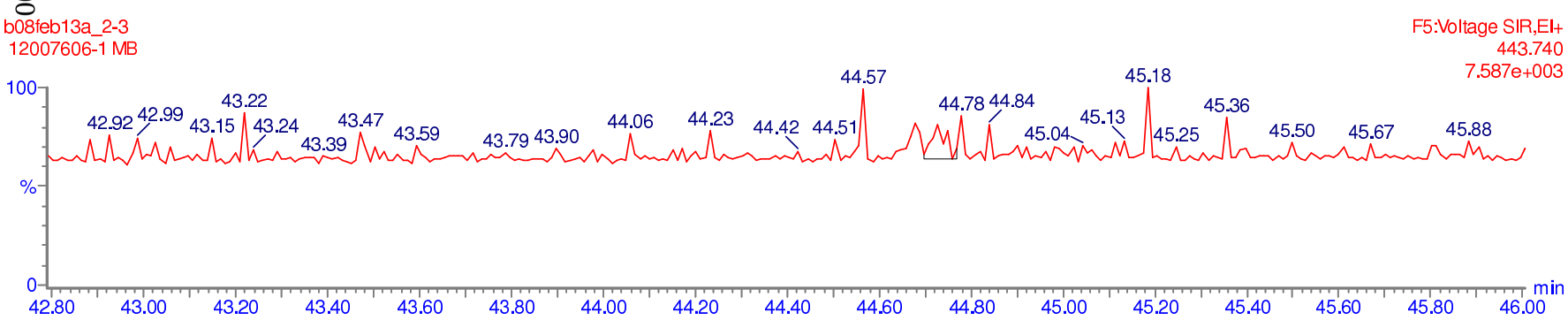
MANUAL INTEGRATION
METHOD 8290



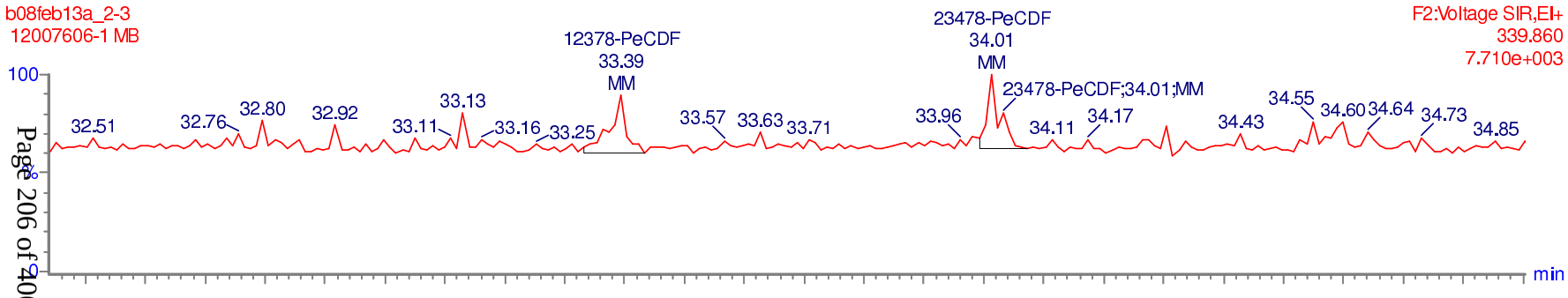


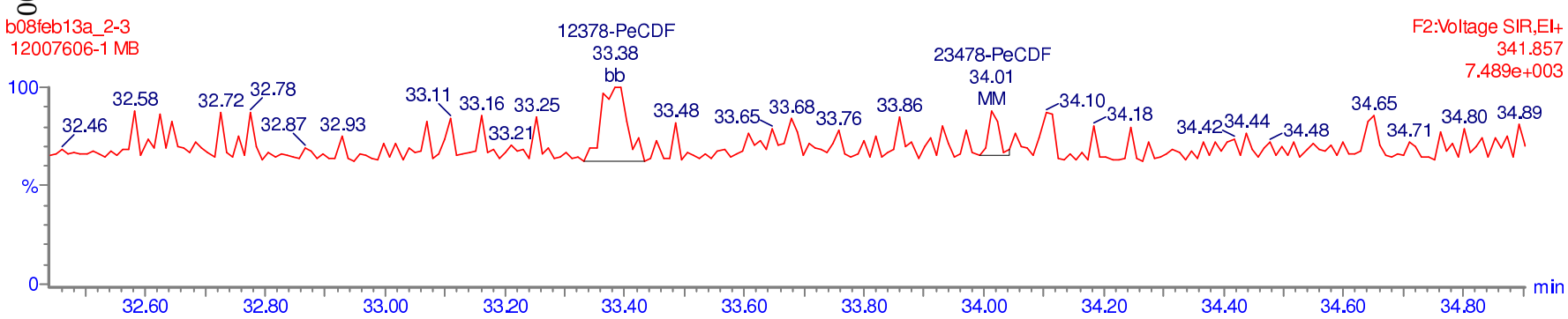
MANUAL INTEGRATION
METHOD 8290



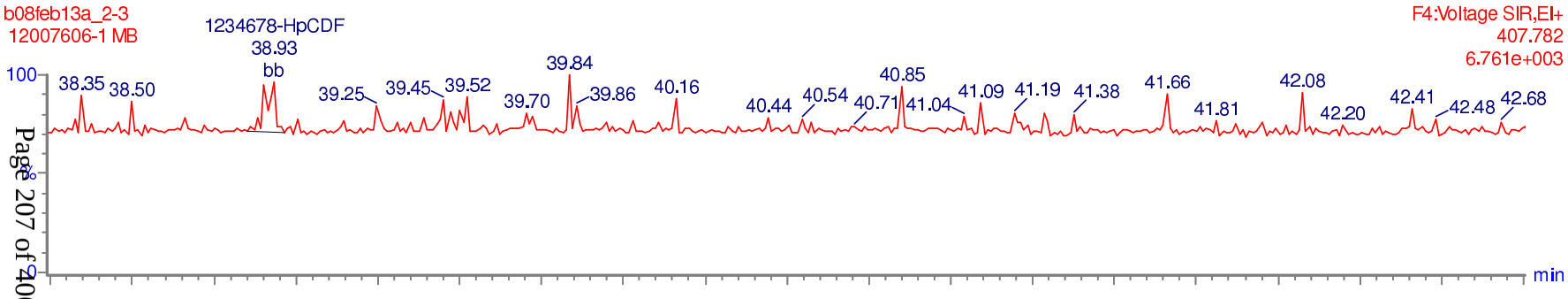


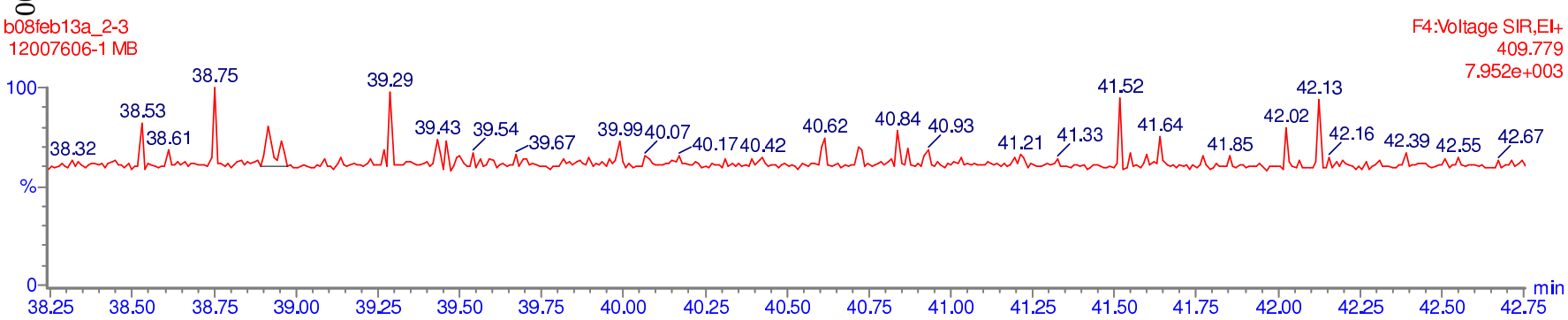
MANUAL INTEGRATION
METHOD 8290





MANUAL INTEGRATION
METHOD 8290





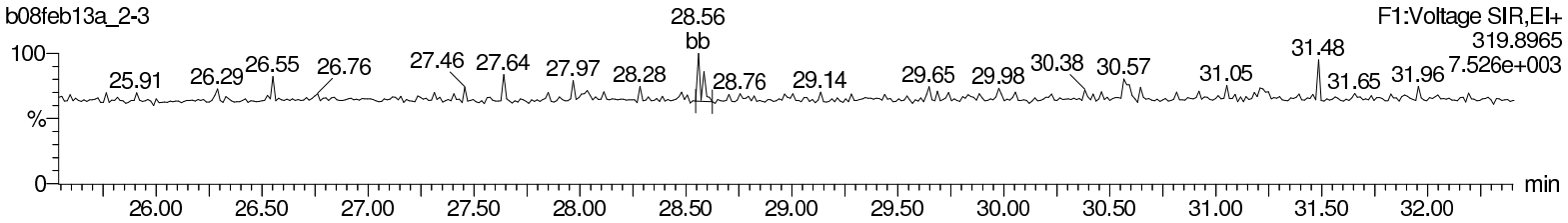
Quantify Sample Report **MassLynx 4.1**
Method 8290 Quantification Report

Dataset: C:\MassLynx\Default.pro\Sample Results\8290-b08feb13a_2.qld

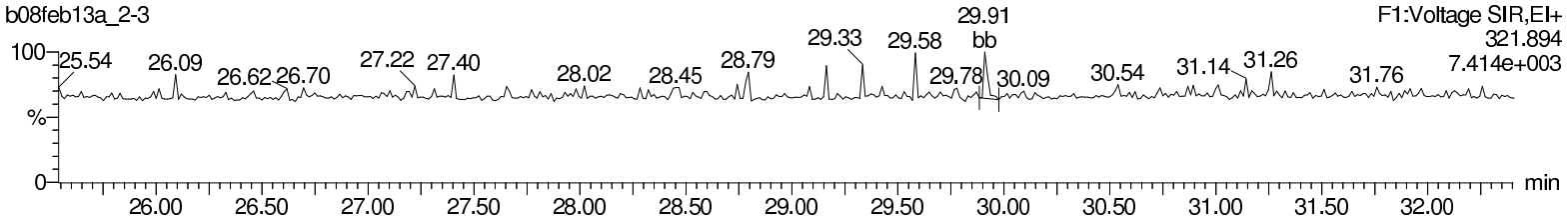
Last Altered: Monday, February 11, 2013 14:16:57 Eastern Standard Time
Printed: Monday, February 11, 2013 14:18:53 Eastern Standard Time

Name: b08feb13a_2-3, Date: 08-Feb-2013, Time: 16:22:54, ID: 12007606-1 MB, Description: , Job: HMS8290_1S, Task: HRP763_1, User: JTF

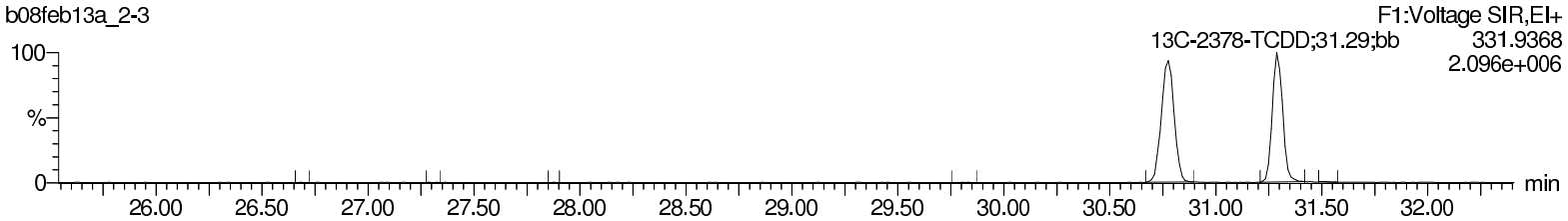
Total-tetradioxins



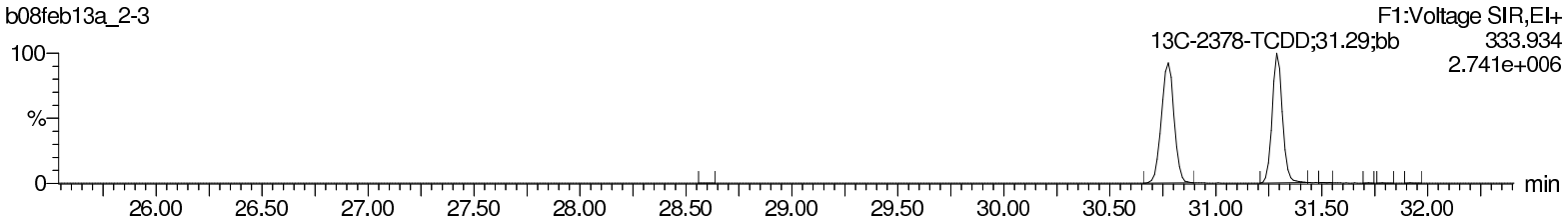
Total-tetradioxins



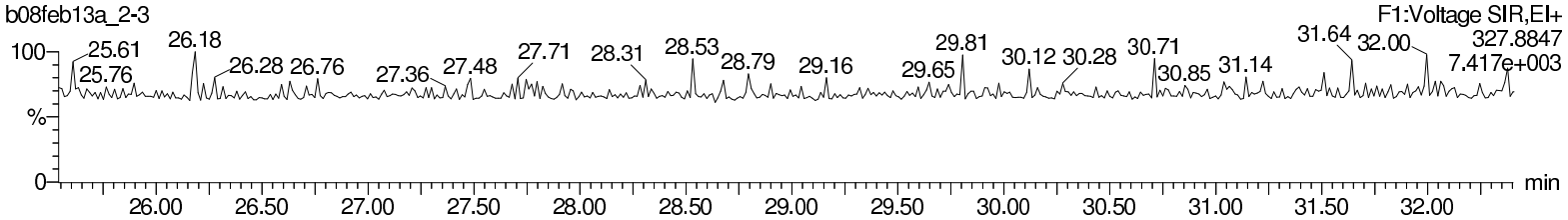
13C-2378-TCDD



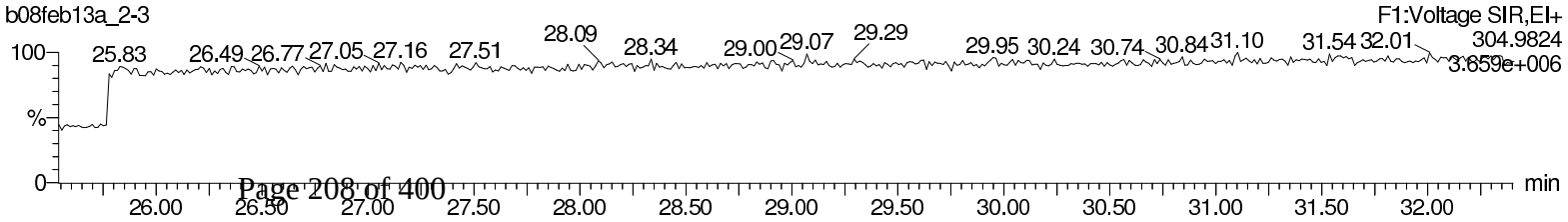
13C-2378-TCDD



37Cl-2378-TCDD (SS)



Lock Mass F1



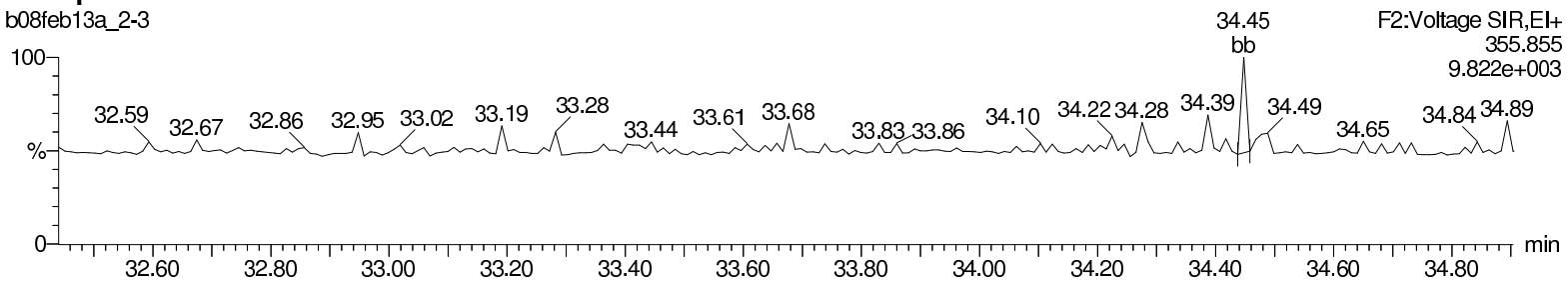
Quantify Sample Report **MassLynx 4.1**
Method 8290 Quantification Report

Dataset: C:\MassLynx\Default.pro\Sample Results\8290-b08feb13a_2.qld

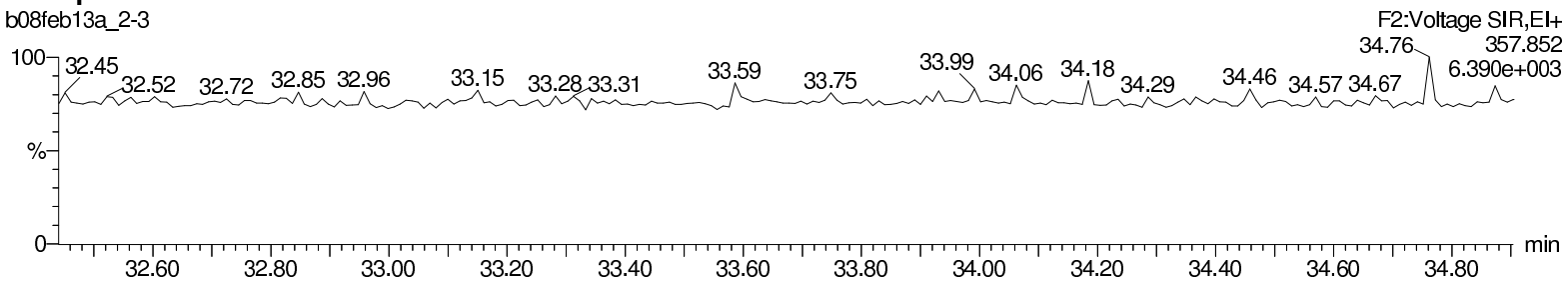
Last Altered: Monday, February 11, 2013 14:16:57 Eastern Standard Time
Printed: Monday, February 11, 2013 14:18:53 Eastern Standard Time

Name: b08feb13a_2-3, Date: 08-Feb-2013, Time: 16:22:54, ID: 12007606-1 MB, Description: , Job: HMS8290_1S, Task: HRP763_1, User: JTF

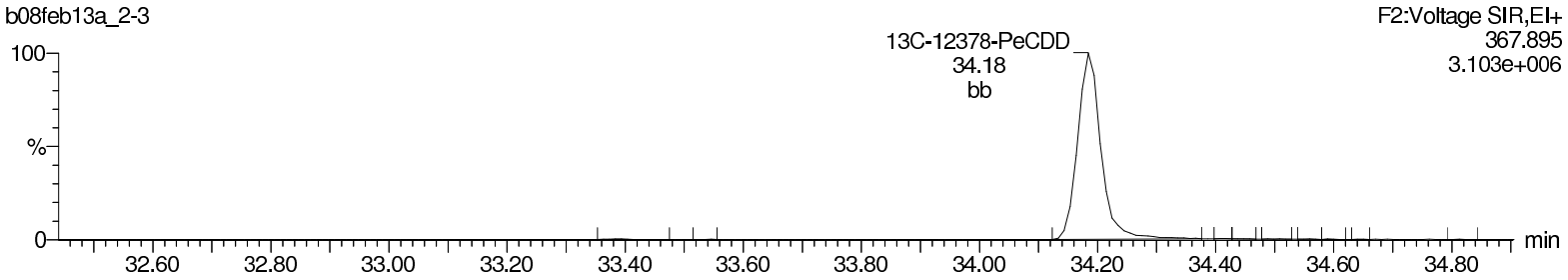
Total-pentadioxins



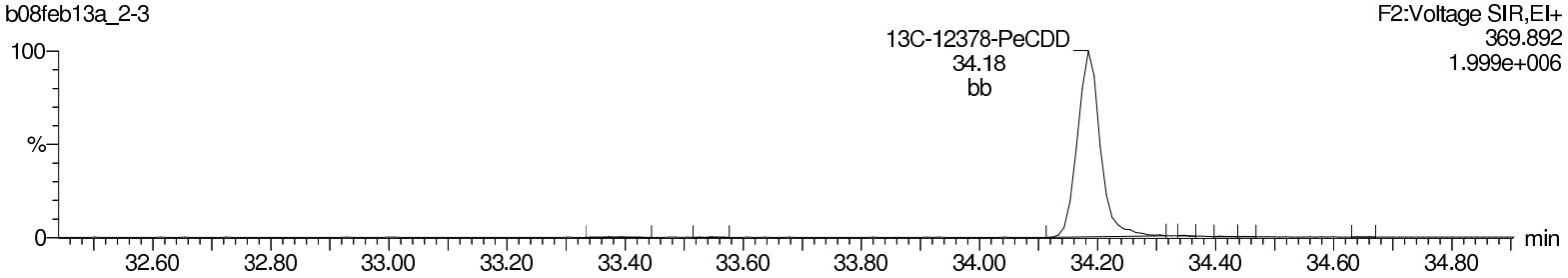
Total-pentadioxins



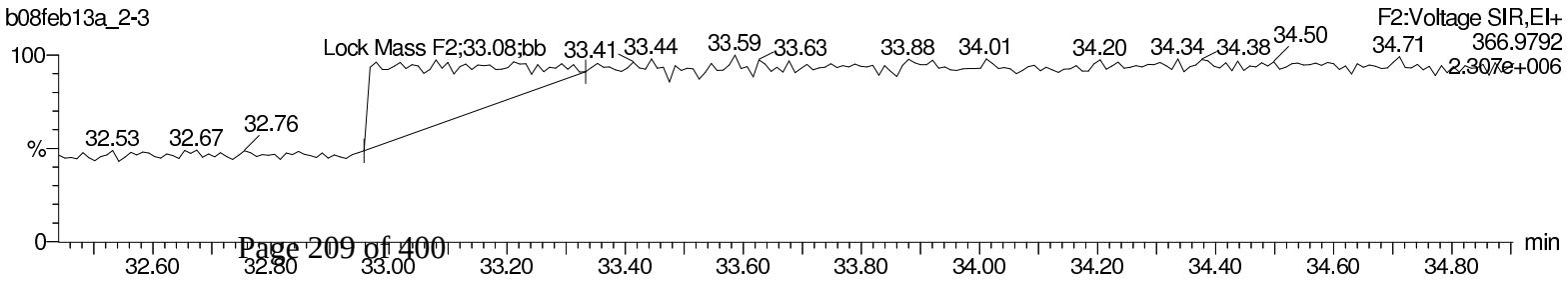
13C-12378-PeCDD



13C-12378-PeCDD



Lock Mass F2



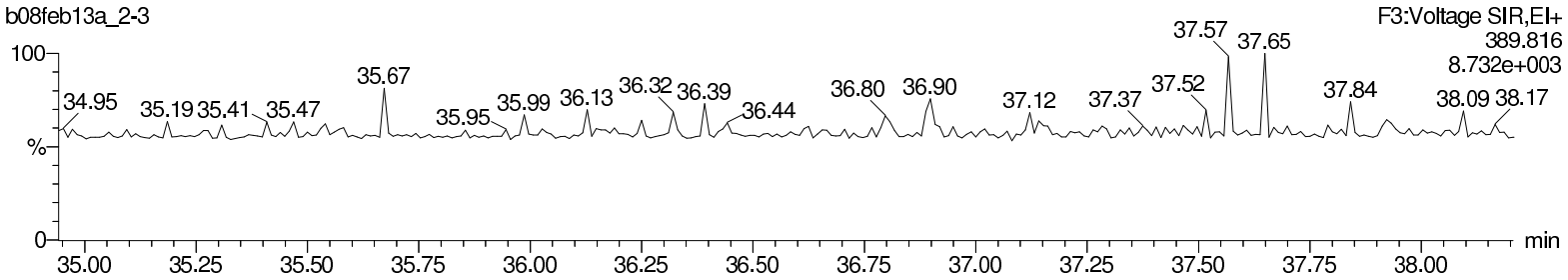
Quantify Sample Report **MassLynx 4.1**
Method 8290 Quantification Report

Dataset: C:\MassLynx\Default.pro\Sample Results\8290-b08feb13a_2.qld

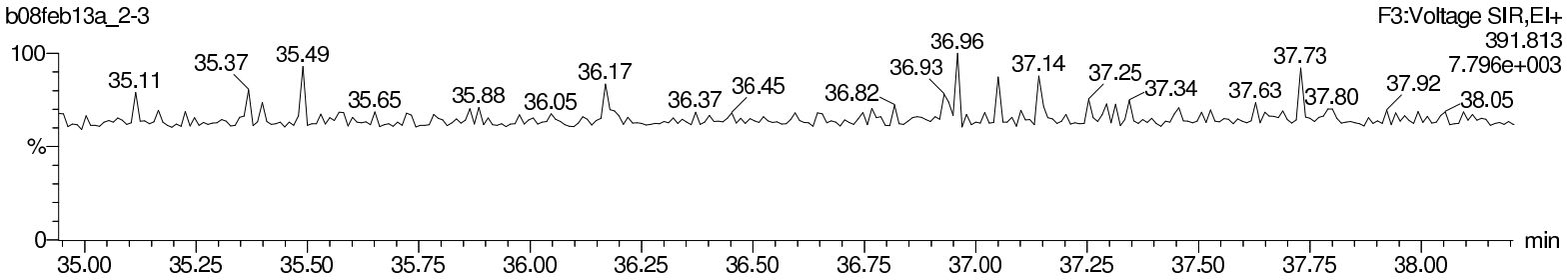
Last Altered: Monday, February 11, 2013 14:16:57 Eastern Standard Time
Printed: Monday, February 11, 2013 14:18:53 Eastern Standard Time

Name: b08feb13a_2-3, Date: 08-Feb-2013, Time: 16:22:54, ID: 12007606-1 MB, Description: , Job: HMS8290_1S, Task: HRP763_1, User: JTF

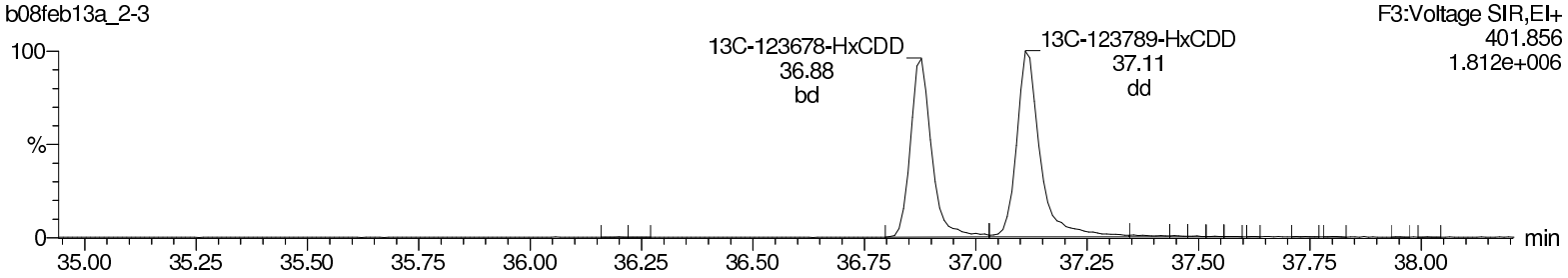
Total-hexadioxins



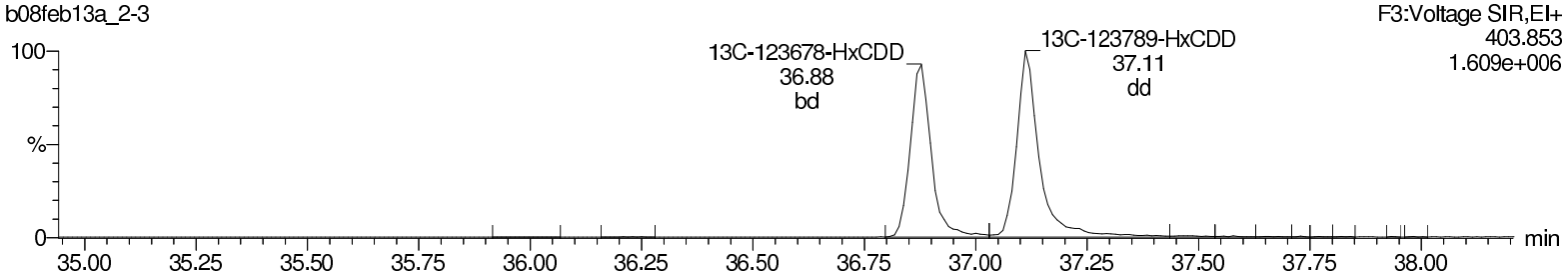
Total-hexadioxins



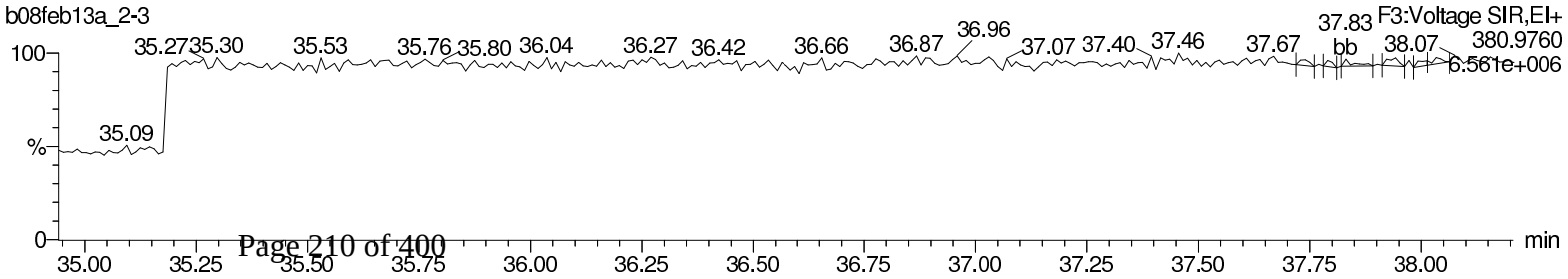
13C-123678-HxCDD



13C-123678-HxCDD



Lock Mass F3



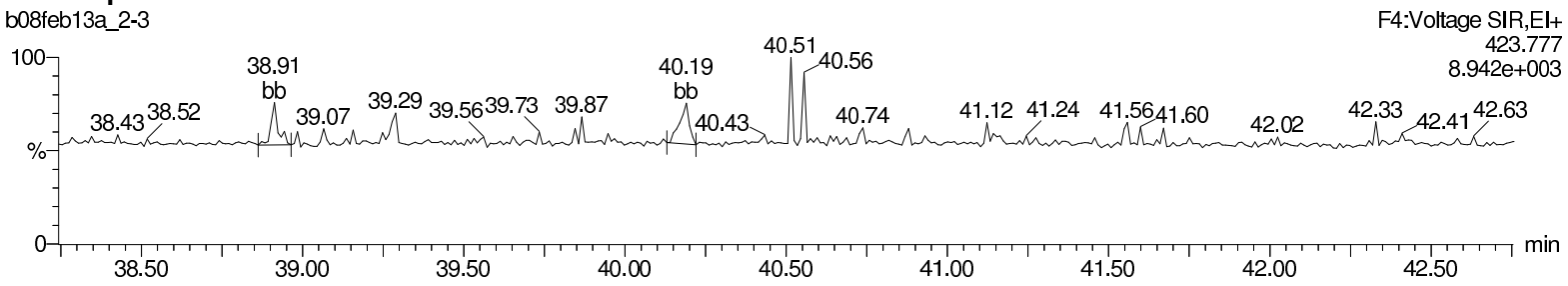
Quantify Sample Report **MassLynx 4.1**
Method 8290 Quantification Report

Dataset: C:\MassLynx\Default.pro\Sample Results\8290-b08feb13a_2.qld

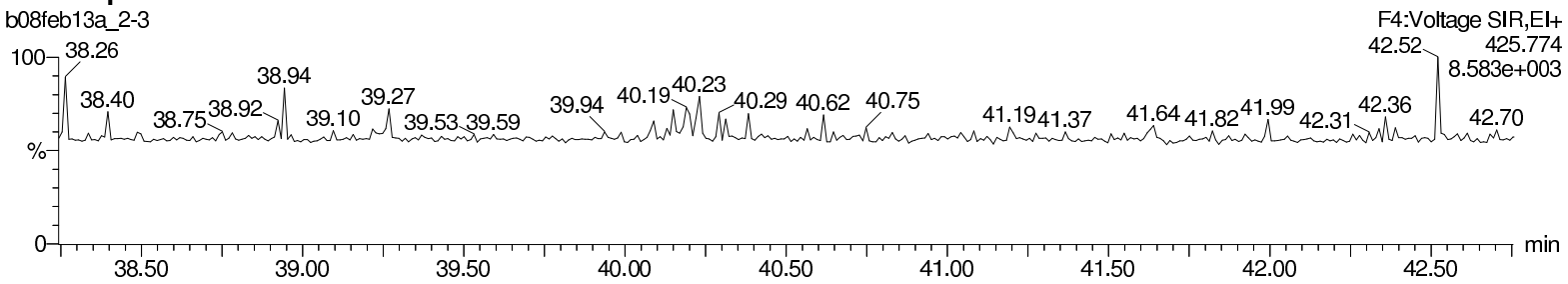
Last Altered: Monday, February 11, 2013 14:16:57 Eastern Standard Time
Printed: Monday, February 11, 2013 14:18:53 Eastern Standard Time

Name: b08feb13a_2-3, Date: 08-Feb-2013, Time: 16:22:54, ID: 12007606-1 MB, Description: , Job: HMS8290_1S, Task: HRP763_1, User: JTF

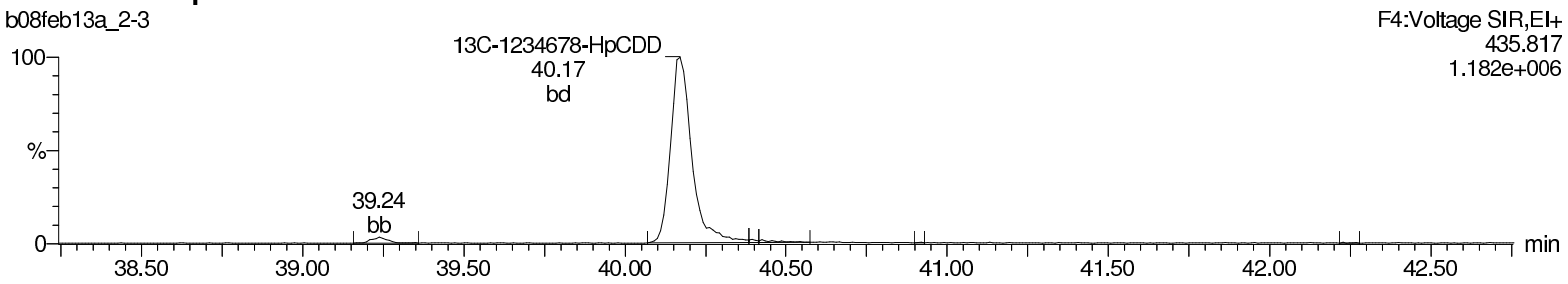
Total-heptadioxins



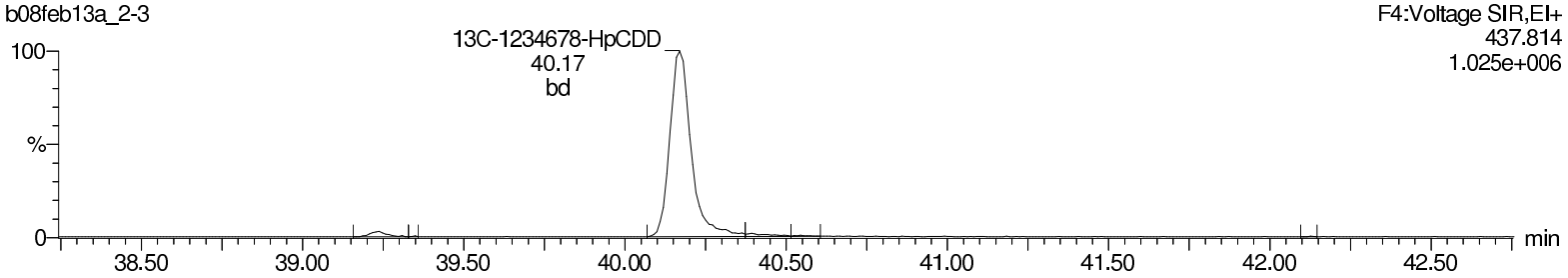
Total-heptadioxins



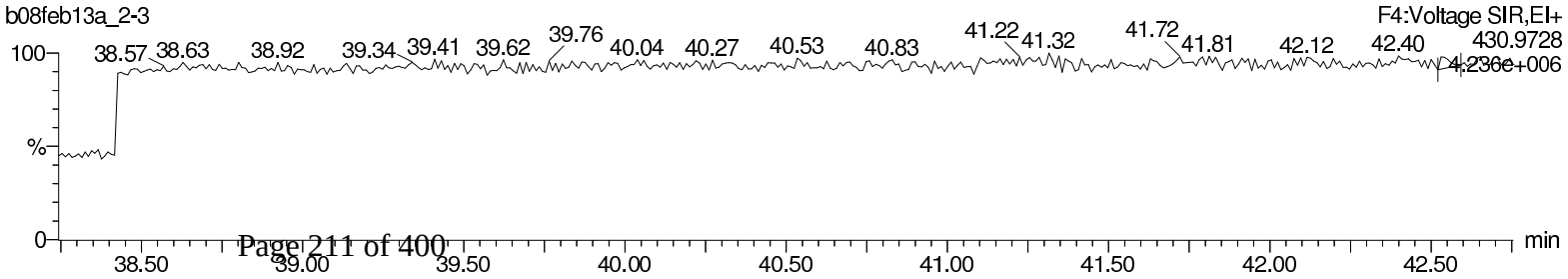
13C-1234678-HpCDD



13C-1234678-HpCDD



Lock Mass F4



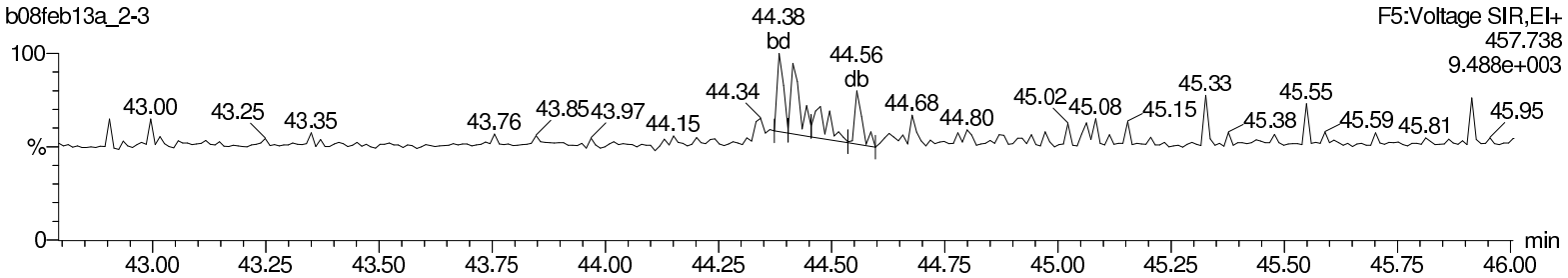
Quantify Sample Report **MassLynx 4.1**
Method 8290 Quantification Report

Dataset: C:\MassLynx\Default.pro\Sample Results\8290-b08feb13a_2.qld

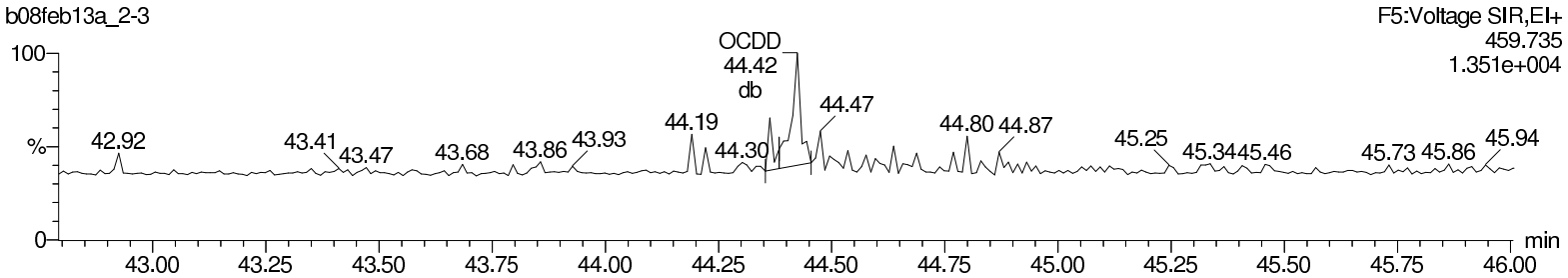
Last Altered: Monday, February 11, 2013 14:16:57 Eastern Standard Time
Printed: Monday, February 11, 2013 14:18:53 Eastern Standard Time

Name: b08feb13a_2-3, Date: 08-Feb-2013, Time: 16:22:54, ID: 12007606-1 MB, Description: , Job: HMS8290_1S, Task: HRP763_1, User: JTF

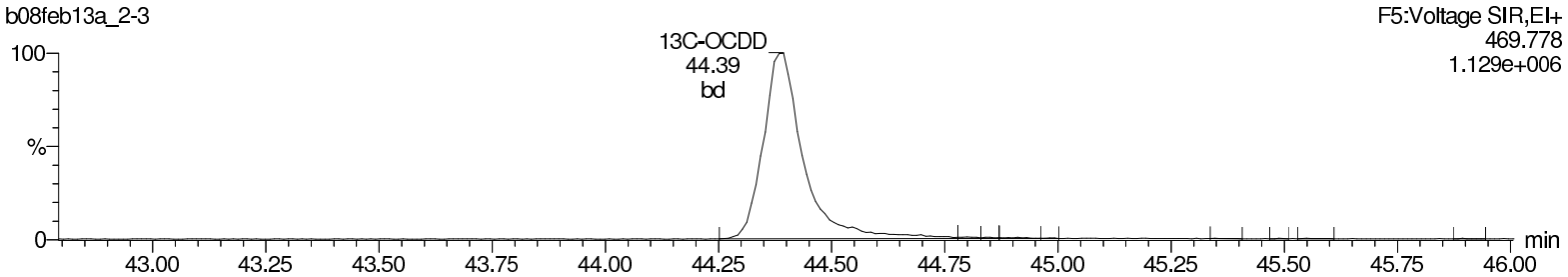
OCDD



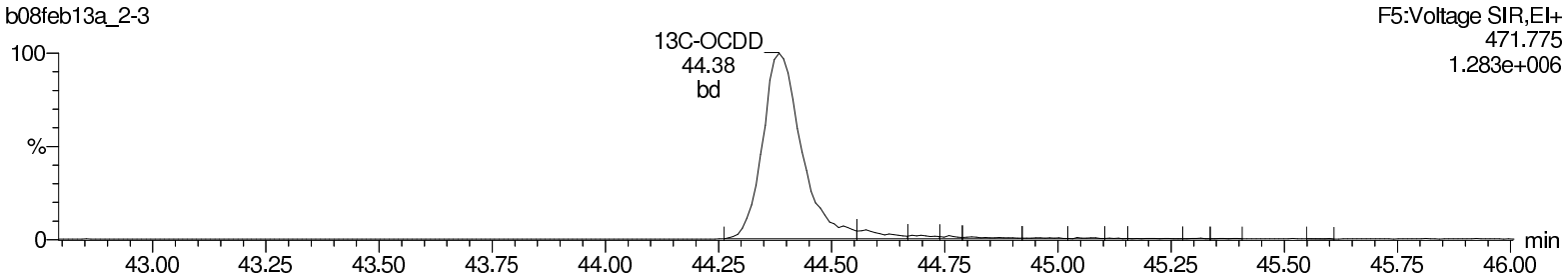
OCDD



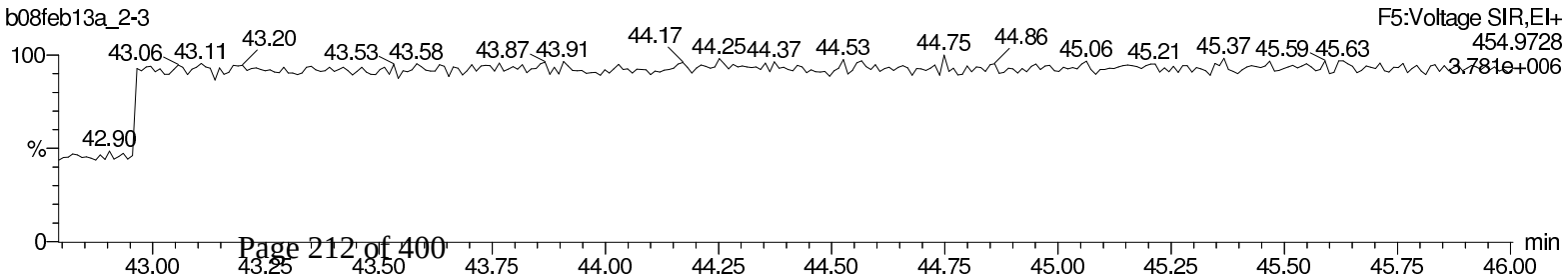
13C-OCDD



13C-OCDD



Lock Mass F5



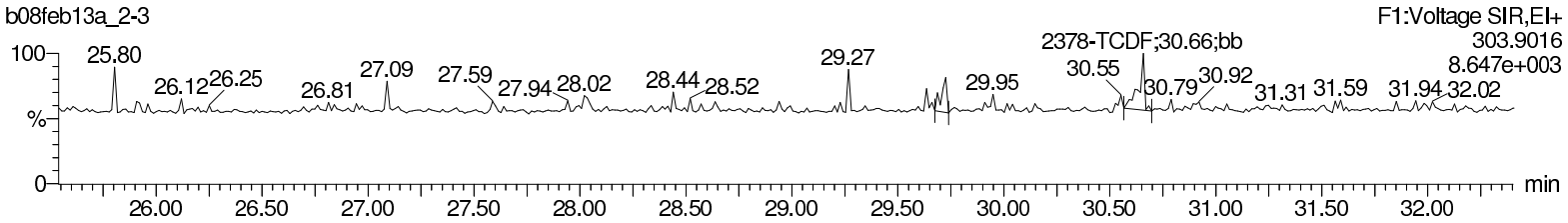
Quantify Sample Report **MassLynx 4.1**
Method 8290 Quantification Report

Dataset: C:\MassLynx\Default.pro\Sample Results\8290-b08feb13a_2.qld

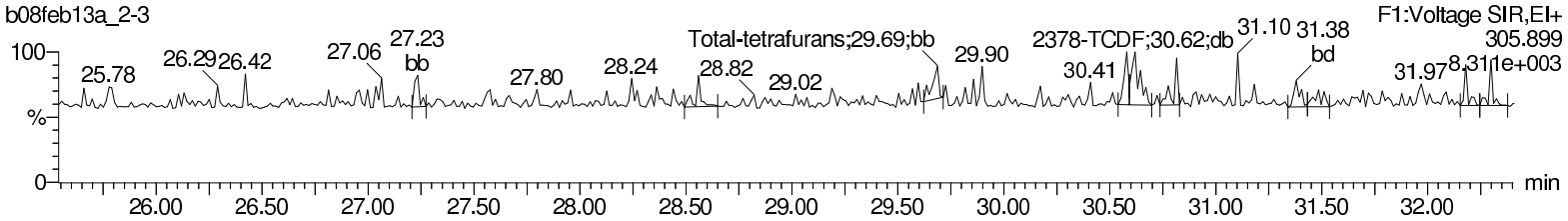
Last Altered: Monday, February 11, 2013 14:16:57 Eastern Standard Time
Printed: Monday, February 11, 2013 14:18:53 Eastern Standard Time

Name: b08feb13a_2-3, Date: 08-Feb-2013, Time: 16:22:54, ID: 12007606-1 MB, Description: , Job: HMS8290_1S, Task: HRP763_1, User: JTF

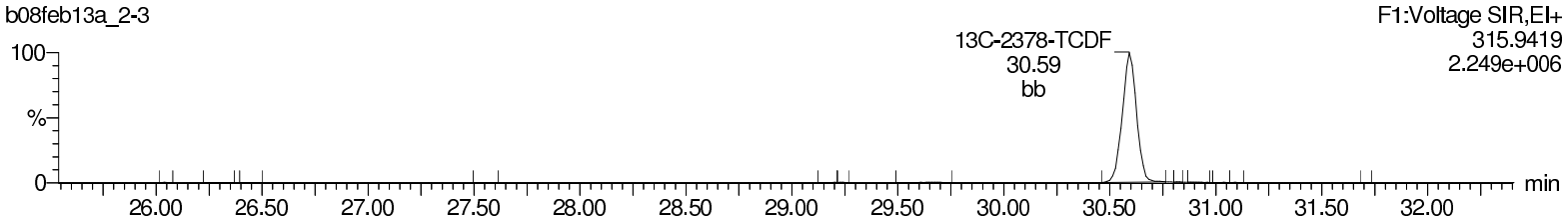
Total-tetrafurans



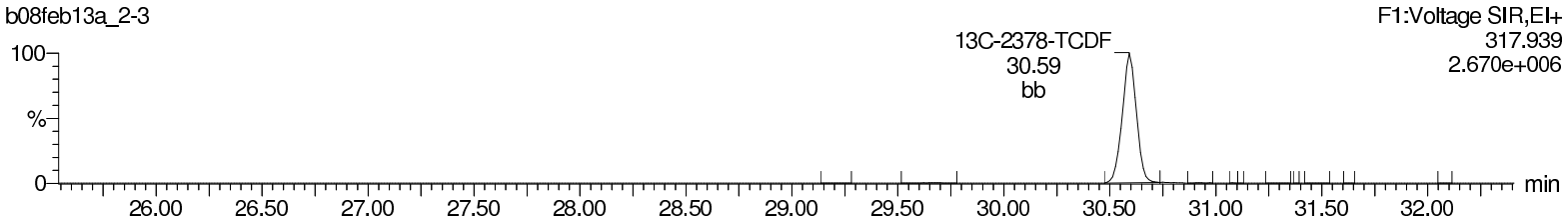
Total-tetrafurans



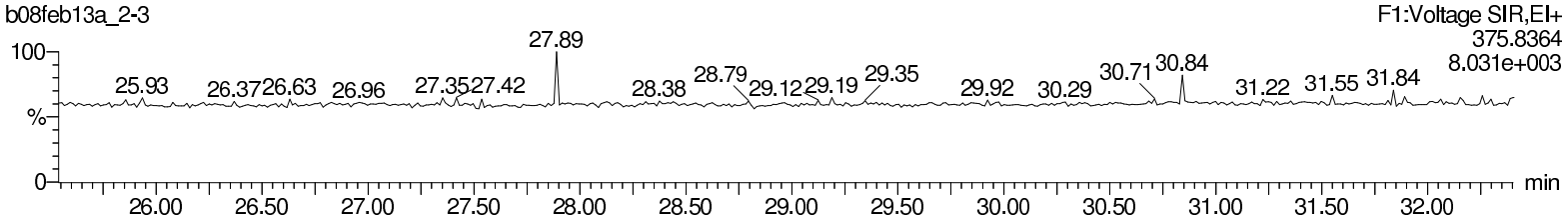
13C-2378-TCDF



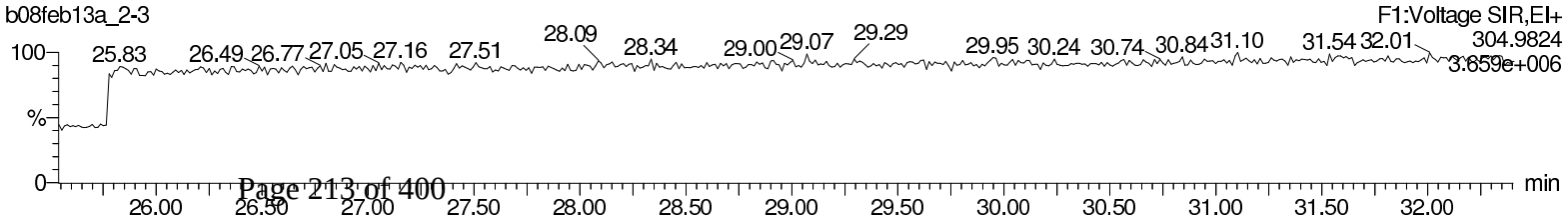
13C-2378-TCDF



HxDPE



Lock Mass F1



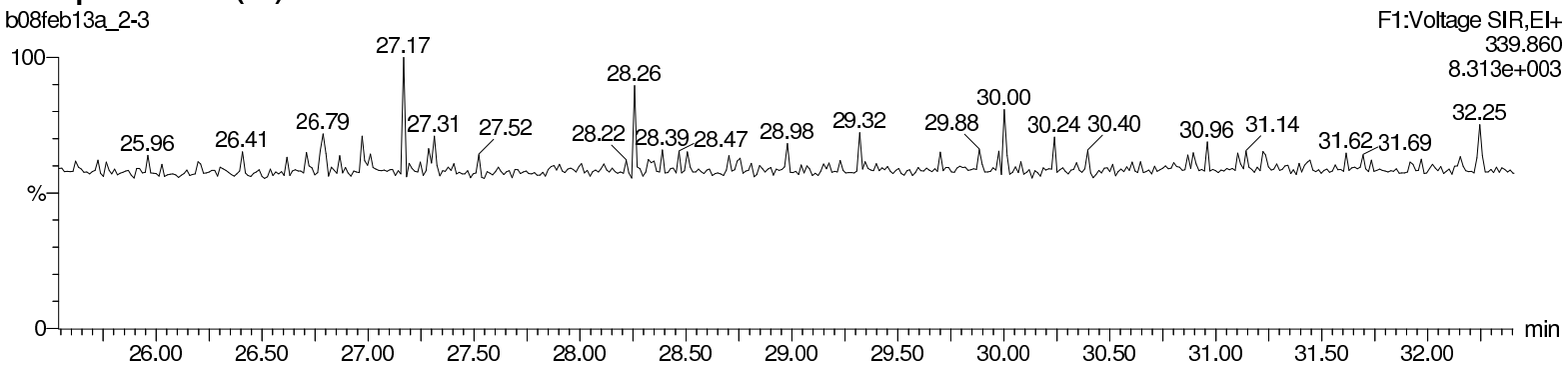
Quantify Sample Report **MassLynx 4.1**
Method 8290 Quantification Report

Dataset: C:\MassLynx\Default.pro\Sample Results\8290-b08feb13a_2.qld

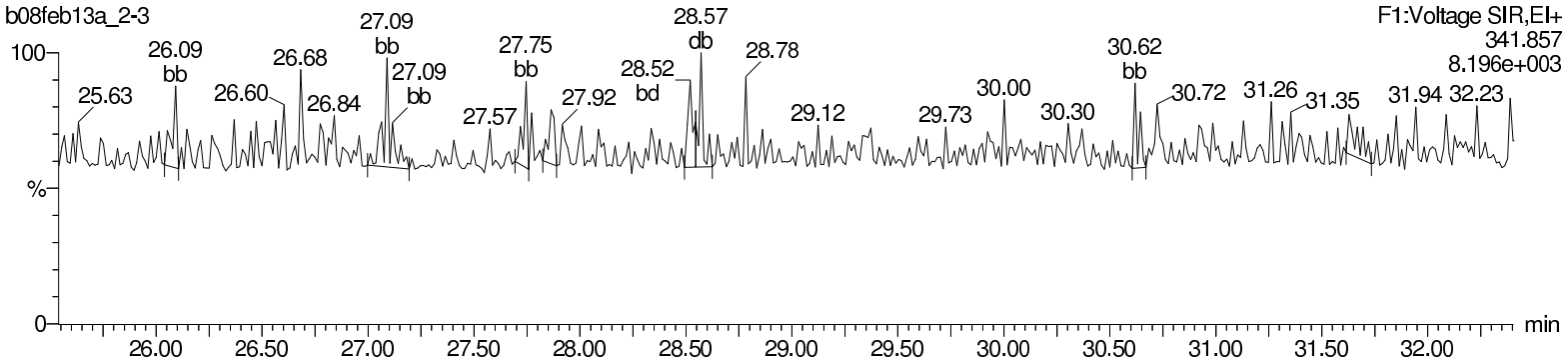
Last Altered: Monday, February 11, 2013 14:16:57 Eastern Standard Time
Printed: Monday, February 11, 2013 14:18:53 Eastern Standard Time

Name: b08feb13a_2-3, Date: 08-Feb-2013, Time: 16:22:54, ID: 12007606-1 MB, Description: , Job: HMS8290_1S, Task: HRP763_1, User: JTF

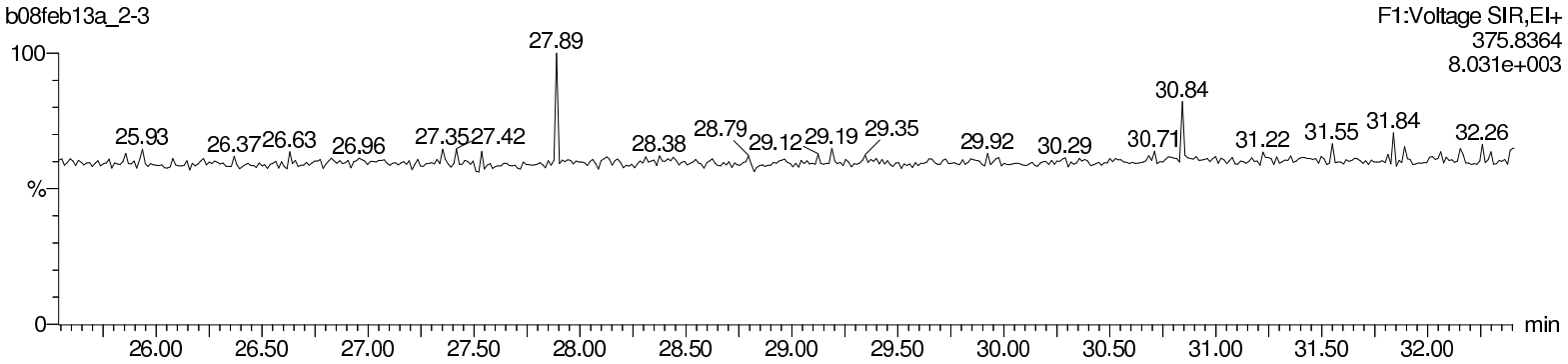
Total-pentafurans (F1)



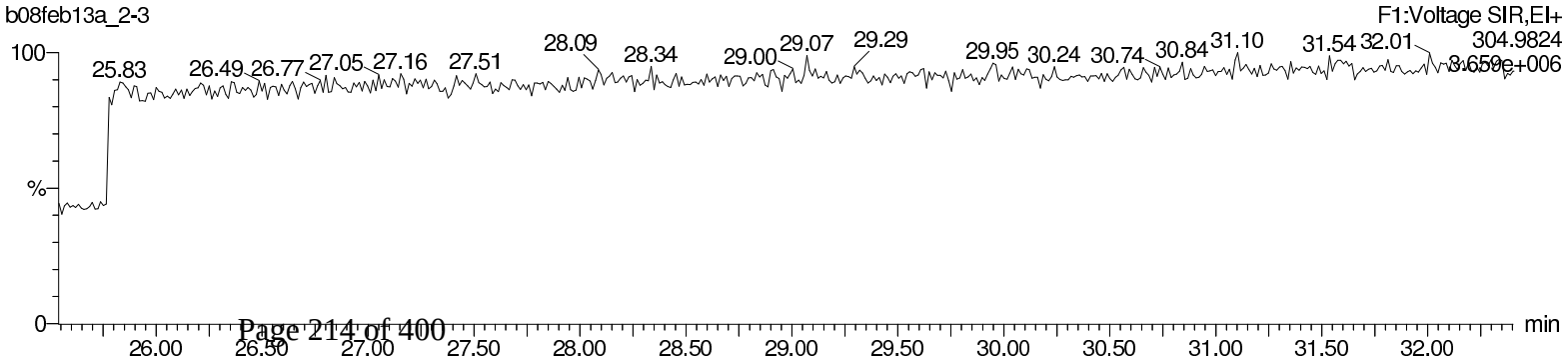
Total-pentafurans (F1)



HxDPE



Lock Mass F1



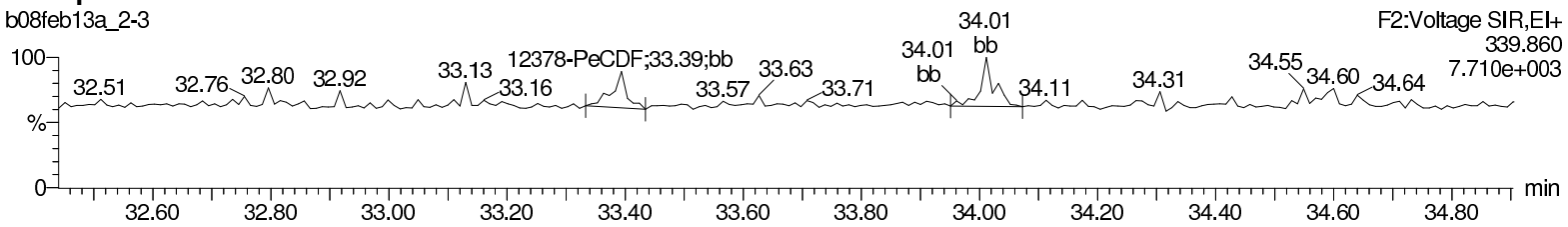
Quantify Sample Report **MassLynx 4.1**
Method 8290 Quantification Report

Dataset: C:\MassLynx\Default.pro\Sample Results\8290-b08feb13a_2.qld

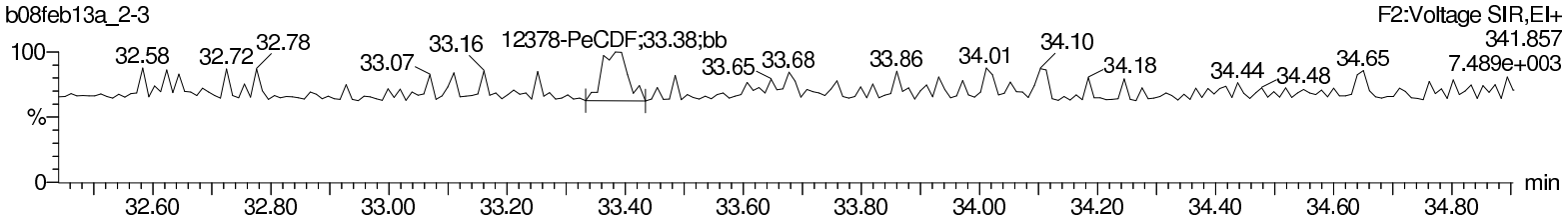
Last Altered: Monday, February 11, 2013 14:16:57 Eastern Standard Time
Printed: Monday, February 11, 2013 14:18:53 Eastern Standard Time

Name: b08feb13a_2-3, Date: 08-Feb-2013, Time: 16:22:54, ID: 12007606-1 MB, Description: , Job: HMS8290_1S, Task: HRP763_1, User: JTF

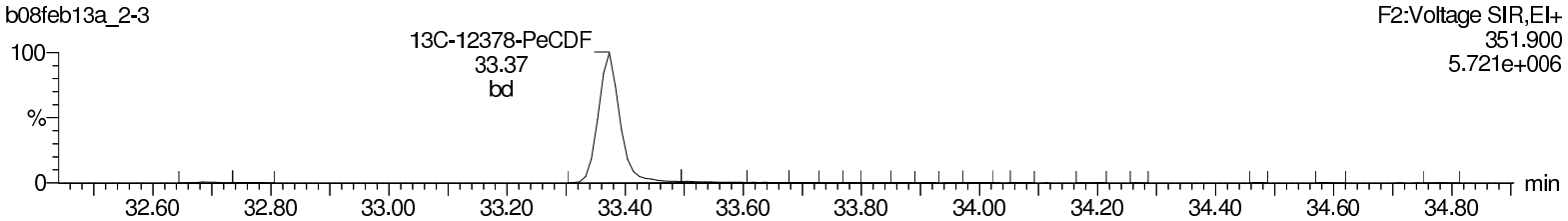
Total-pentafurans



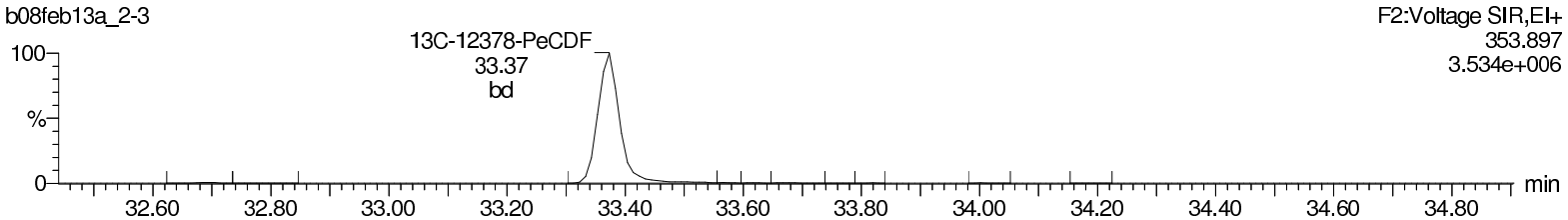
Total-pentafurans



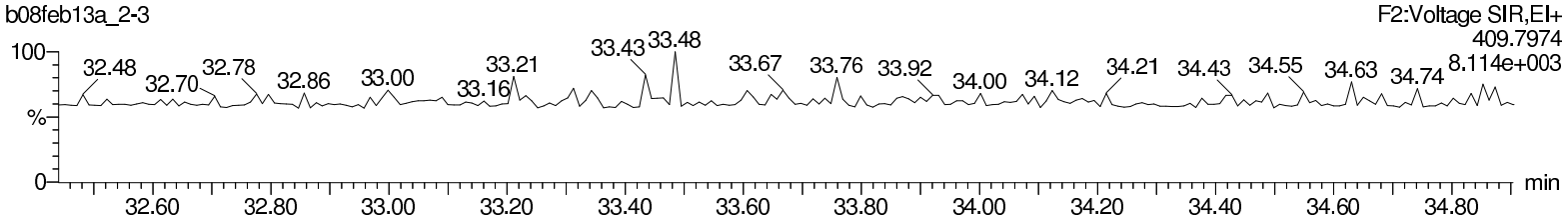
13C-12378-PeCDF



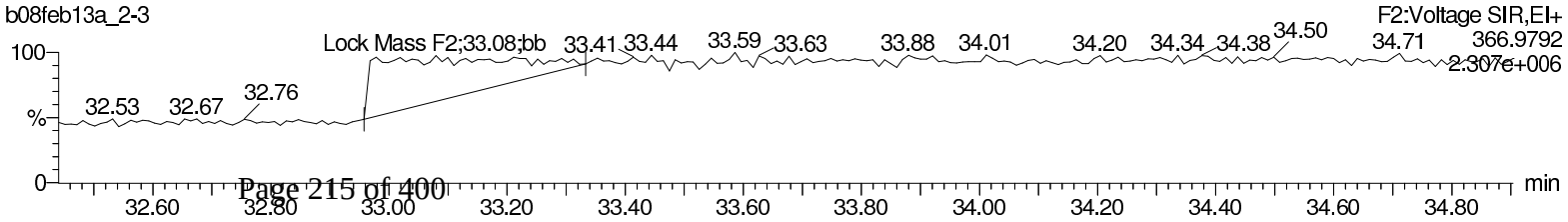
13C-12378-PeCDF



HpDPE



Lock Mass F2



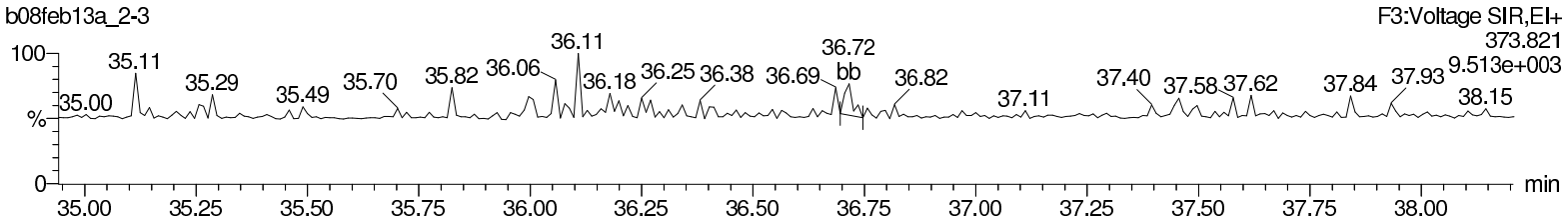
Quantify Sample Report **MassLynx 4.1**
Method 8290 Quantification Report

Dataset: C:\MassLynx\Default.pro\Sample Results\8290-b08feb13a_2.qld

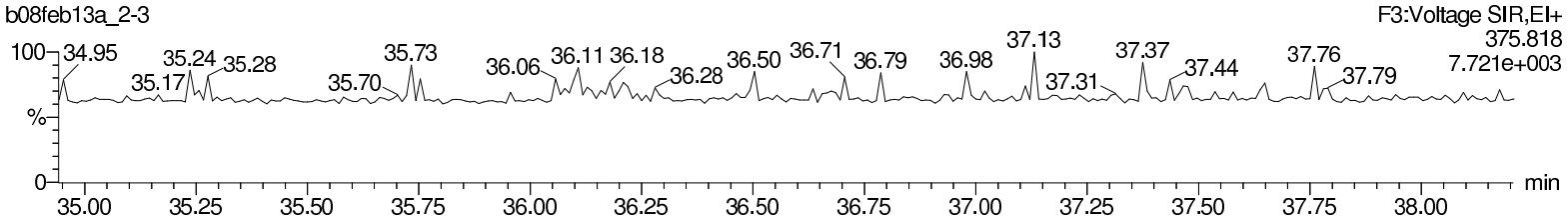
Last Altered: Monday, February 11, 2013 14:16:57 Eastern Standard Time
Printed: Monday, February 11, 2013 14:18:53 Eastern Standard Time

Name: b08feb13a_2-3, Date: 08-Feb-2013, Time: 16:22:54, ID: 12007606-1 MB, Description: , Job: HMS8290_1S, Task: HRP763_1, User: JTF

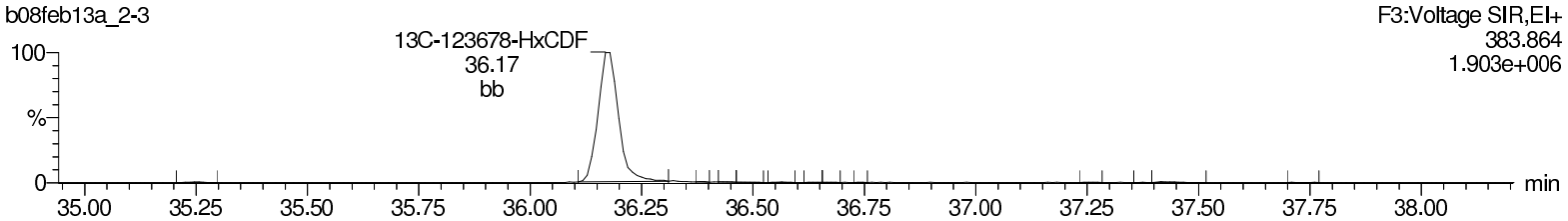
Total-hexafurans



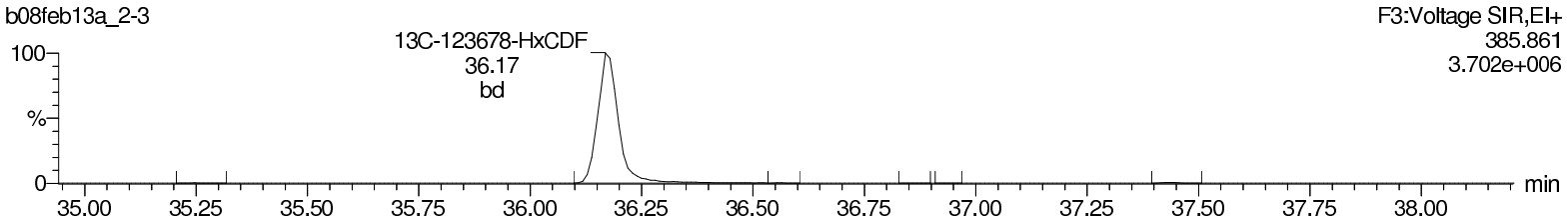
Total-hexafurans



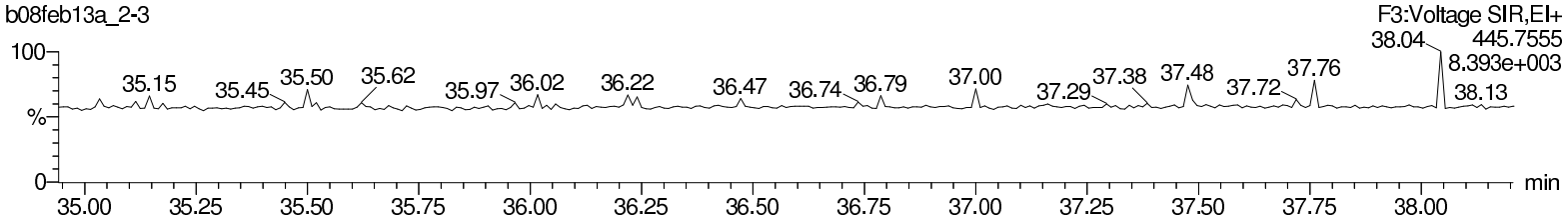
13C-123678-HxCDF



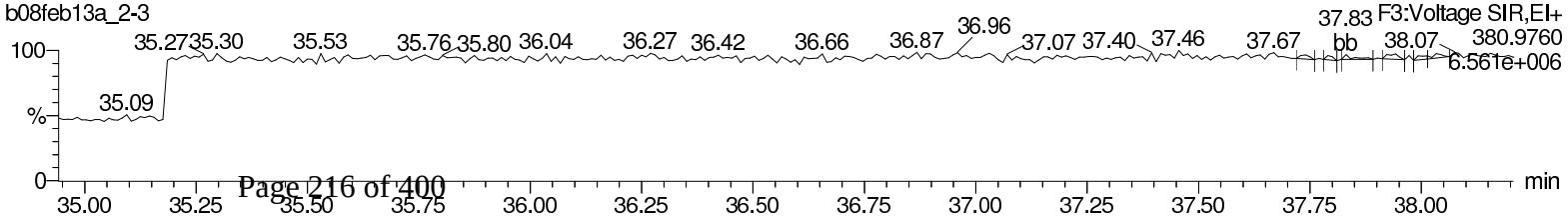
13C-123678-HxCDF



OcDPE



Lock Mass F3



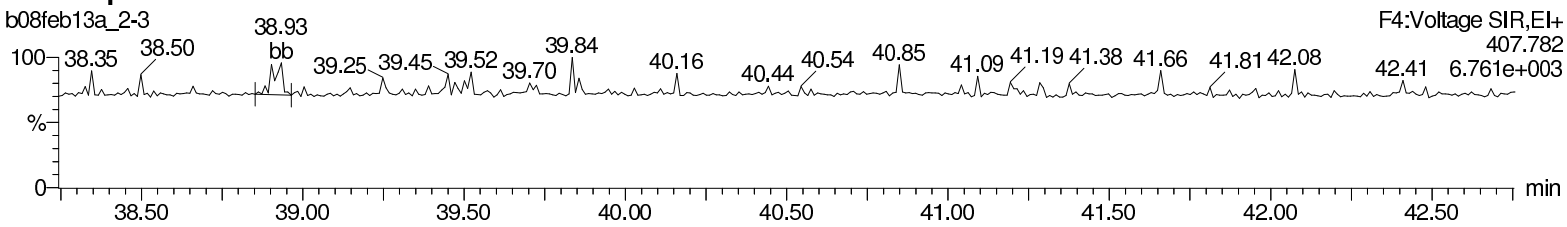
Quantify Sample Report **MassLynx 4.1**
Method 8290 Quantification Report

Dataset: C:\MassLynx\Default.pro\Sample Results\8290-b08feb13a_2.qld

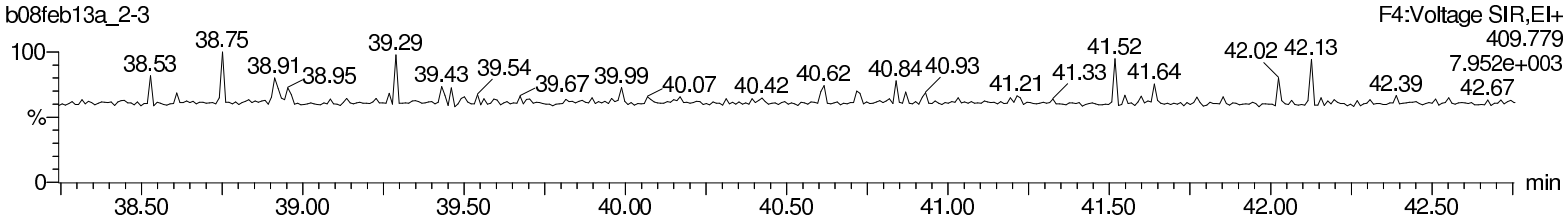
Last Altered: Monday, February 11, 2013 14:16:57 Eastern Standard Time
Printed: Monday, February 11, 2013 14:18:53 Eastern Standard Time

Name: b08feb13a_2-3, Date: 08-Feb-2013, Time: 16:22:54, ID: 12007606-1 MB, Description: , Job: HMS8290_1S, Task: HRP763_1, User: JTF

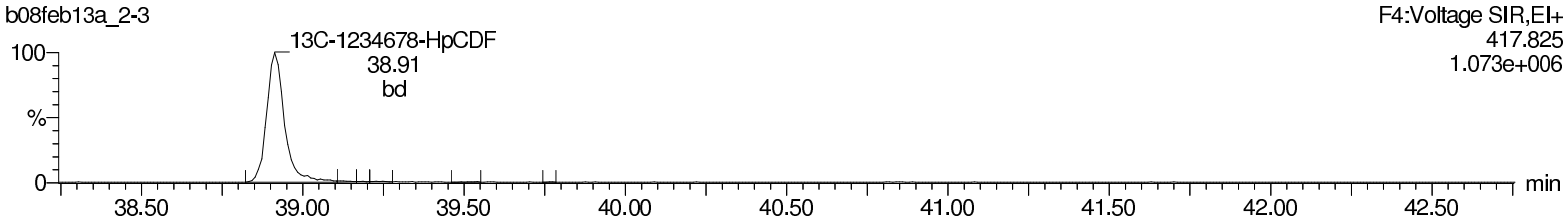
Total-heptafurans



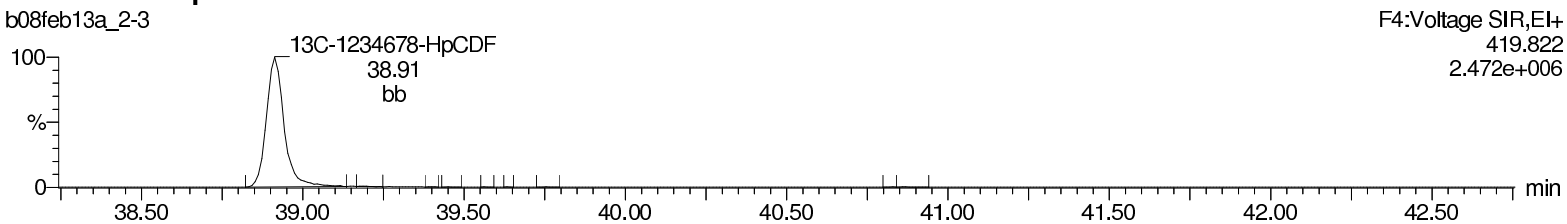
Total-heptafurans



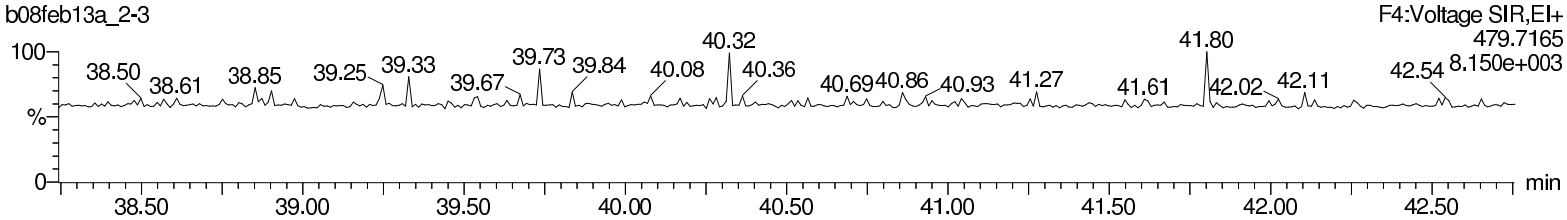
13C-1234678-HpCDF



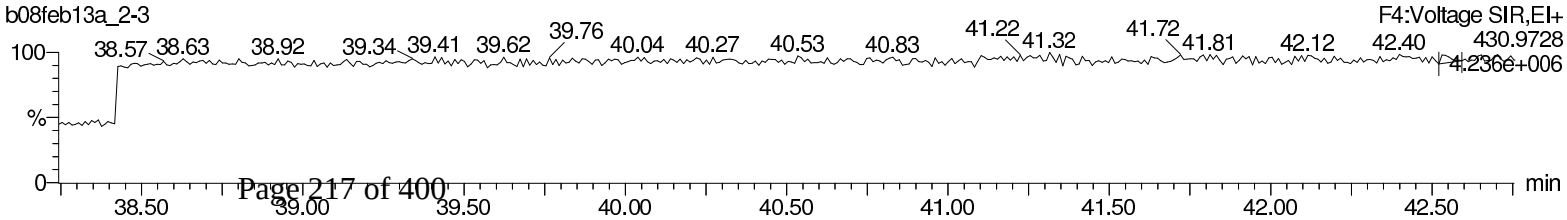
13C-1234678-HpCDF



NoDPE



Lock Mass F4



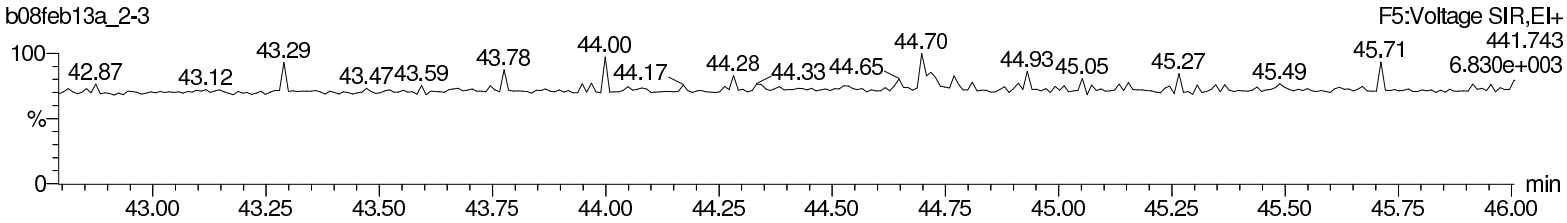
Quantify Sample Report **MassLynx 4.1**
Method 8290 Quantification Report

Dataset: C:\MassLynx\Default.pro\Sample Results\8290-b08feb13a_2.qld

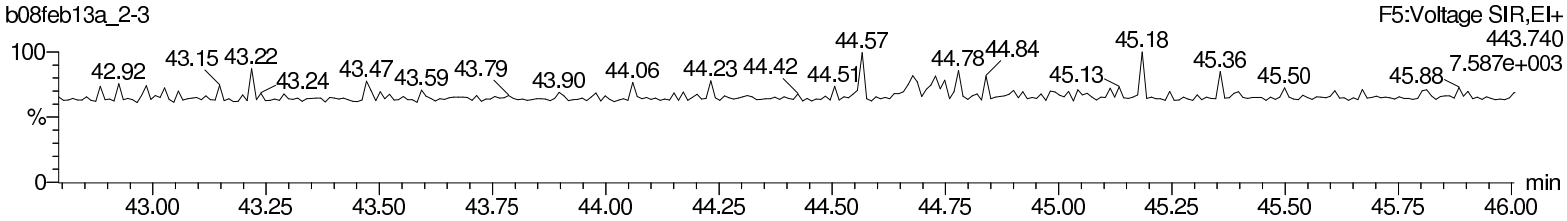
Last Altered: Monday, February 11, 2013 14:16:57 Eastern Standard Time
Printed: Monday, February 11, 2013 14:18:53 Eastern Standard Time

Name: b08feb13a_2-3, Date: 08-Feb-2013, Time: 16:22:54, ID: 12007606-1 MB, Description: , Job: HMS8290_1S, Task: HRP763_1, User: JTF

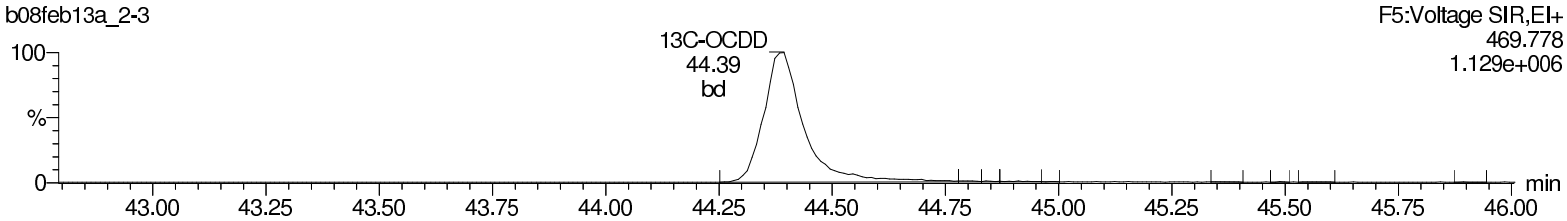
OCDF



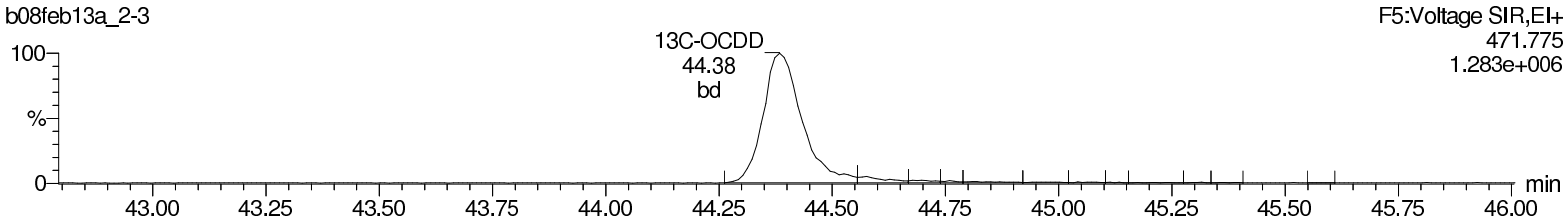
OCDF



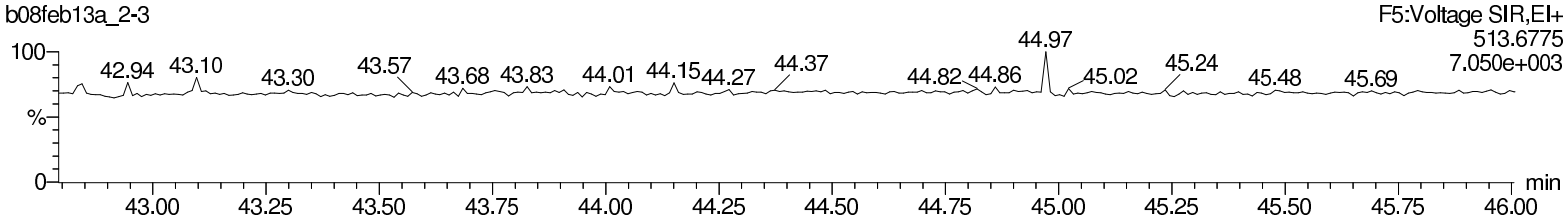
13C-OCDD



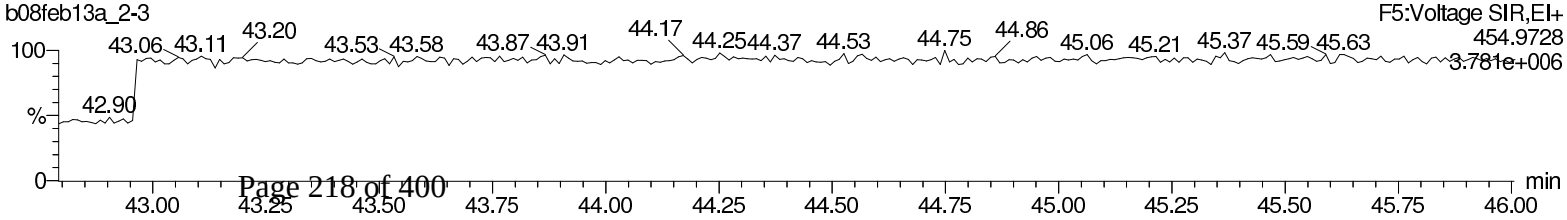
13C-OCDD



DeDPE



Lock Mass F5



Hi-Res Dioxins/Furans
Certificate of Analysis
Sample Summary

SDG Number:	**2013-505**	**Client:**	**LANL001**	**Project:**	**LANL00112**
Lab Sample ID:	**12007607**			**Matrix:**	**SOLID**
Client Sample:	**QC for batch 22876**				
Client ID:	**LCS for batch 22876**			**Prep Basis:**	**As Received**
Batch ID:	**22879**	**Method:**	**SW846 8290A**		
Run Date:	**02/08/2013 14:47**	**Analyst:**	**JTF**	**Instrument:**	**HRP763**
Data File:	**b08feb13a_2-1**			**Dilution:**	**1**
Prep Batch:	**22876**	**Prep Method:**	**SW846 3540C**		
Prep Date:	**06-FEB-13**	**Aliquot:**	**10 g**		

CAS No.	Parmname	Qual	Result	EMPC	Units	EDL	PQL
1746-01-6	2,3,7,8-TCDD		17.9		pg/g	0.117	1.00
40321-76-4	1,2,3,7,8-PeCDD		95.2		pg/g	0.500	5.00
39227-28-6	1,2,3,4,7,8-HxCDD		113		pg/g	0.576	5.00
57653-85-7	1,2,3,6,7,8-HxCDD		117		pg/g	0.518	5.00
19408-74-3	1,2,3,7,8,9-HxCDD		119		pg/g	0.566	5.00
35822-46-9	1,2,3,4,6,7,8-HpCDD		98.1		pg/g	0.872	5.00
3268-87-9	1,2,3,4,6,7,8,9-OCDD		213		pg/g	2.12	10.0
51207-31-9	2,3,7,8-TCDF		20.9		pg/g	0.200	1.00
57117-41-6	1,2,3,7,8-PeCDF		98.3		pg/g	0.500	5.00
57117-31-4	2,3,4,7,8-PeCDF		88.0		pg/g	0.500	5.00
70648-26-9	1,2,3,4,7,8-HxCDF		104		pg/g	0.880	5.00
57117-44-9	1,2,3,6,7,8-HxCDF		109		pg/g	0.772	5.00
60851-34-5	2,3,4,6,7,8-HxCDF		109		pg/g	0.836	5.00
72918-21-9	1,2,3,7,8,9-HxCDF		109		pg/g	0.990	5.00
67562-39-4	1,2,3,4,6,7,8-HpCDF		103		pg/g	0.684	5.00
55673-89-7	1,2,3,4,7,8,9-HpCDF		101		pg/g	0.892	5.00
39001-02-0	1,2,3,4,6,7,8,9-OCDF		229		pg/g	1.67	10.0

Surrogate/Tracer recovery	Qual	Result	Nominal	Units	Recovery%	Acceptable Limits
13C-2,3,7,8-TCDD		169	200	pg/g	84.6	(40%-135%)
13C-1,2,3,7,8-PeCDD		175	200	pg/g	87.7	(40%-135%)
13C-1,2,3,6,7,8-HxCDD		149	200	pg/g	74.6	(40%-135%)
13C-1,2,3,4,6,7,8-HpCDD		179	200	pg/g	89.6	(40%-135%)
13C-OCDD		320	400	pg/g	79.9	(40%-135%)
13C-2,3,7,8-TCDF		159	200	pg/g	79.6	(40%-135%)
13C-1,2,3,7,8-PeCDF		193	200	pg/g	96.6	(40%-135%)
13C-1,2,3,6,7,8-HxCDF		166	200	pg/g	82.9	(40%-135%)
13C-1,2,3,4,6,7,8-HpCDF		182	200	pg/g	91.2	(40%-135%)

Comments:

U Analyte was analyzed for , but not detected above the specified detection limit.

Quantify Sample Summary Report **MassLynx 4.1**
Method 8290 Quantification Report

Dataset: C:\MassLynx\Default.pro\Sample Results\8290-b08feb13a_2.qld

Last Altered: Monday, February 11, 2013 14:16:57 Eastern Standard Time
Printed: Tuesday, February 12, 2013 08:35:43 Eastern Standard Time

Method: C:\MassLynx\Default.pro\Methdb\CFA_EPA8290_121912.mdb 20 Dec 2012 07:43:23
Calibration: C:\MassLynx\DEFAULT.PRO\CurveDB\8290-b30nov12a.cdb 03 Dec 2012 09:49:08

Name: b08feb13a_2-1, Date: 08-Feb-2013, Time: 14:47:46, ID: 12007607-1 LCS, Description: , Job: HMS8290_1S, Task: HRP763_1, User: JTF

	Name	Ion1Area	Ion2Area	Response	RT	RRT	RA	Fail?	pg/uL	EDL	Height1	Noise1	S/N1	Height2	Noise2	S/N2	M
1	2378-TCDD	1.05e4	1.36e4	2.40e4	31.31	1.000	0.77	NO	8.937	0.0586	2.04e5	593	343.6	2.69e5	572	470.0	bd
2	12378-PeCDD	6.99e4	4.10e4	1.11e5	34.20	1.001	1.70	NO	47.576	0.129	1.53e6	1297	1181.7	9.16e5	1313	697.4	bb
3	123478-HxCDD	5.74e4	4.57e4	1.03e5	36.81	0.998	1.26	NO	56.301	0.288	1.16e6	1970	587.0	9.06e5	2019	448.5	bd
4	123678-HxCDD	6.90e4	5.03e4	1.19e5	36.90	1.001	1.37	NO	58.701	0.259	1.19e6	1970	602.3	9.29e5	2019	460.0	dd
5	123789-HxCDD	6.37e4	4.71e4	1.11e5	37.13	1.007	1.35	NO	59.521	0.283	1.09e6	1970	550.9	8.47e5	2019	419.4	dd
6	1234678-HpCDD	4.86e4	4.60e4	9.46e4	40.19	1.000	1.06	NO	49.067	0.436	6.83e5	1890	361.4	7.02e5	2569	273.4	bd
7	OCDD	7.29e4	8.15e4	1.54e5	44.42	1.000	0.89	NO	106.380	1.06	7.11e5	3402	209.1	7.81e5	2693	290.2	bd
8	2378-TCDF	1.82e4	2.41e4	4.22e4	30.62	1.000	0.75	NO	10.438	0.100	2.19e5	658	333.4	3.22e5	1470	218.9	bb
9	12378-PeCDF	1.20e5	7.94e4	1.99e5	33.38	1.000	1.51	NO	49.173	0.212	2.79e6	3439	811.4	1.85e6	4300	431.3	bd
10	23478-PeCDF	1.13e5	7.21e4	1.85e5	34.01	1.019	1.57	NO	43.982	0.204	2.74e6	3439	795.6	1.70e6	4300	396.5	bb
11	123478-HxCDF	8.07e4	6.56e4	1.46e5	36.09	0.998	1.23	NO	52.024	0.440	1.72e6	5341	322.9	1.40e6	4301	325.0	bd
12	123678-HxCDF	9.74e4	7.68e4	1.74e5	36.19	1.000	1.27	NO	54.260	0.386	1.77e6	5341	331.7	1.41e6	4301	328.2	dd
13	234678-HxCDF	9.01e4	7.16e4	1.62e5	36.68	1.014	1.26	NO	54.558	0.418	1.72e6	5341	322.2	1.35e6	4301	314.3	dd
14	123789-HxCDF	7.52e4	6.13e4	1.36e5	37.46	1.035	1.23	NO	54.560	0.495	1.23e6	5341	229.6	9.78e5	4301	227.5	bd
15	1234678-HpCDF	7.48e4	7.22e4	1.47e5	38.93	1.000	1.04	NO	51.461	0.342	1.13e6	3719	302.8	1.05e6	2368	442.6	bd
16	1234789-HpCDF	5.68e4	5.40e4	1.11e5	40.87	1.050	1.05	NO	50.515	0.446	7.36e5	3719	198.0	7.18e5	2368	303.3	bd
17	OCDF	9.12e4	1.01e5	1.92e5	44.72	1.007	0.90	NO	114.360	0.837	9.15e5	2774	329.9	1.03e6	2822	365.2	bd
18	13C-2378-TCDD	1.23e5	1.59e5	2.82e5	31.30	1.017	0.78	NO	84.596	0.241	2.28e6	2841	803.1	2.83e6	1824	1551.1	bb
19	13C-12378-PeCDD	1.47e5	9.45e4	2.41e5	34.18	1.111	1.55	NO	87.662	0.151	3.17e6	1279	2482.6	2.12e6	1136	1869.8	bd
20	13C-123678-HxCDD	1.03e5	8.52e4	1.88e5	36.88	0.993	1.21	NO	74.600	0.377	1.95e6	3308	589.2	1.65e6	2838	581.2	bd
21	13C-1234678-HpCDD	9.11e4	7.88e4	1.70e5	40.17	1.082	1.16	NO	89.590	0.335	1.21e6	1828	660.2	1.08e6	2273	475.8	bd
22	13C-OCDD	1.14e5	1.34e5	2.48e5	44.39	1.196	0.85	NO	159.841	0.582	1.13e6	2086	543.1	1.29e6	3746	344.9	bd
23	13C-2378-TCDF	1.82e5	2.12e5	3.93e5	30.60	0.994	0.86	NO	79.610	0.0967	2.38e6	1484	1605.1	2.68e6	1287	2082.4	bb
24	13C-12378-PeCDF	2.64e5	1.66e5	4.30e5	33.37	1.084	1.60	NO	96.611	0.227	5.95e6	2486	2392.3	3.78e6	3376	1121.3	bb
25	13C-123678-HxCDF	1.04e5	2.04e5	3.09e5	36.18	0.975	0.51	NO	82.910	0.244	2.03e6	2281	892.1	3.89e6	3587	1085.7	bd
26	13C-1234678-HpCDF	7.06e4	1.62e5	2.33e5	38.92	1.048	0.44	NO	91.197	0.206	1.10e6	1180	931.7	2.51e6	2230	1123.6	bd
27	13C-1234-TCDD	1.50e5	1.87e5	3.37e5	30.78	0.000	0.80	NO	100.000	0.239	2.17e6	2841	763.5	2.73e6	1824	1496.9	bb
28	13C-123789-HxCDD	1.23e5	1.04e5	2.27e5	37.12	0.000	1.18	NO	100.000	0.419	1.98e6	3308	599.5	1.68e6	2838	590.9	dd
29	37Cl-2378-TCDD (SS)	2.08e2		2.08e2	31.31	1.000			0.067	0.0370	3.56e3	853	4.2				bb
30	13C-23478-PeCDF (SS)	5.08e2	2.18e2	7.26e2	34.00	1.019	2.34	YES	0.168	0.151	1.10e4	2486	4.4	5.58e3	3376	1.7	bb

Quantify Sample Report **MassLynx 4.1**
Method 8290 Quantification Report

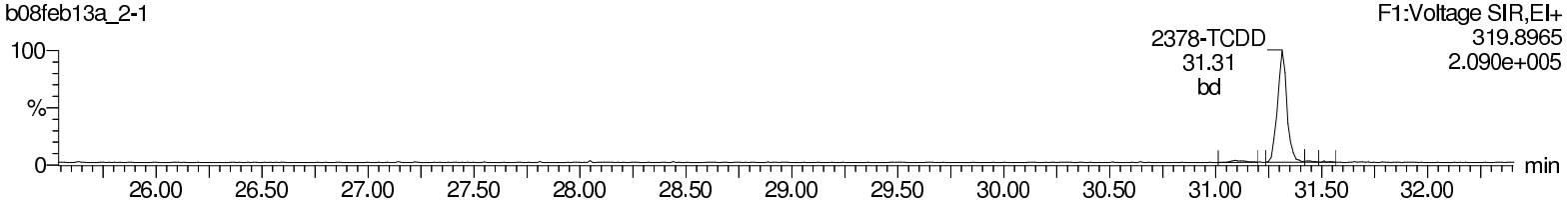
Dataset: C:\MassLynx\Default.pro\Sample Results\8290-b08feb13a_2.qld

Last Altered: Monday, February 11, 2013 14:16:57 Eastern Standard Time
Printed: Monday, February 11, 2013 14:18:53 Eastern Standard Time

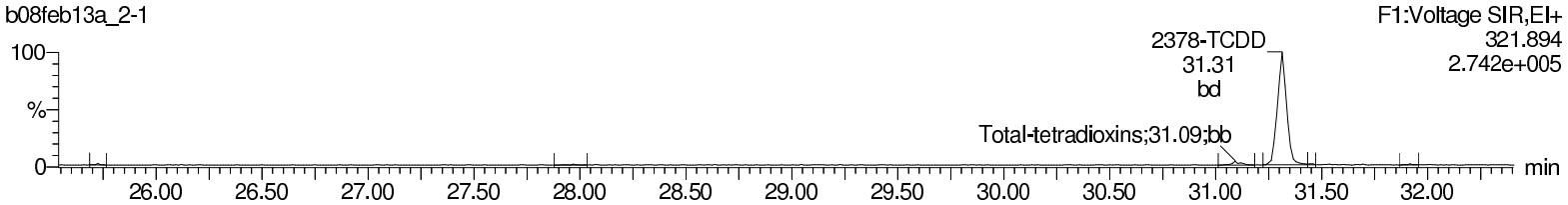
Method: C:\MassLynx\Default.pro\Methdb\CFA_EPA8290_121912.mdb 20 Dec 2012 07:43:23
Calibration: C:\MassLynx\DEFAULT.PRO\CurveDB\8290-b30nov12a.cdb 03 Dec 2012 09:49:08

Name: b08feb13a_2-1, Date: 08-Feb-2013, Time: 14:47:46, ID: 12007607-1 LCS, Description: , Job: HMS8290_1S, Task: HRP763_1, User: JTF

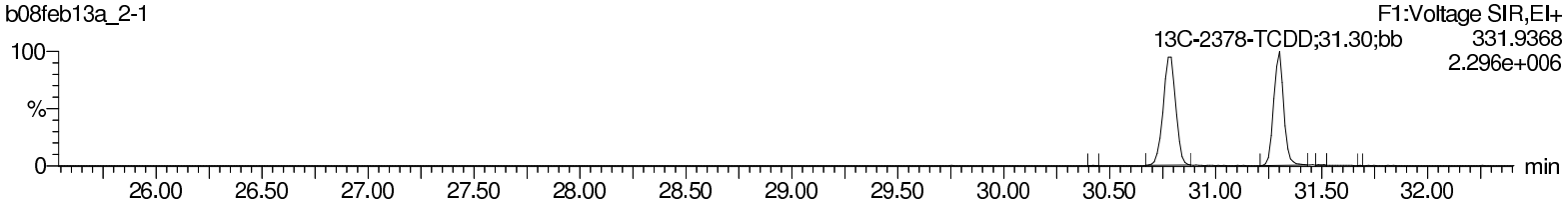
Total-tetradioxins



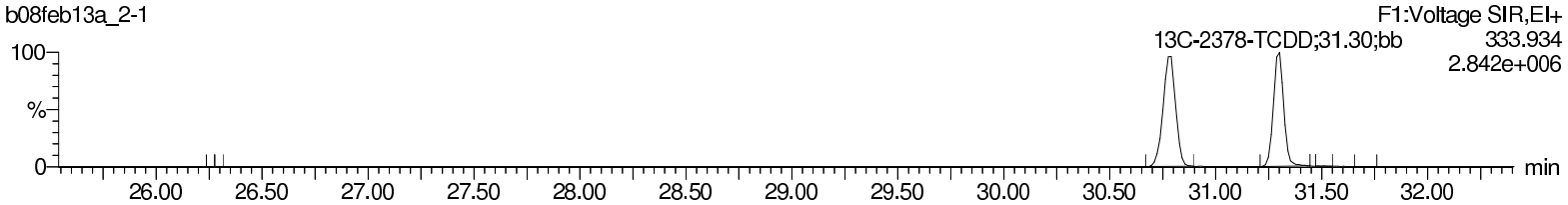
Total-tetradioxins



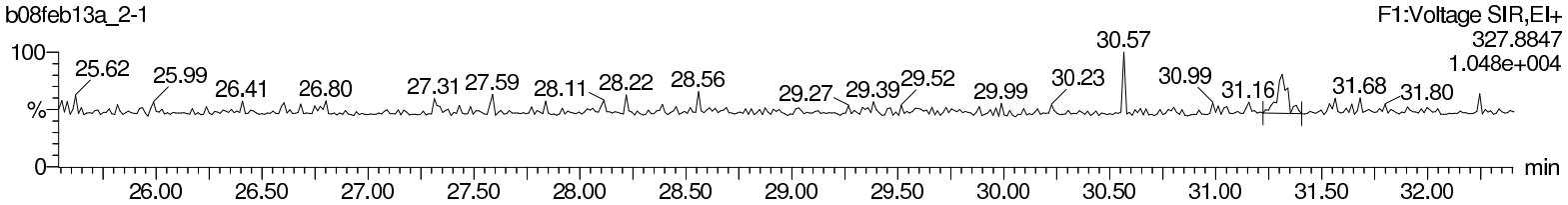
13C-2378-TCDD



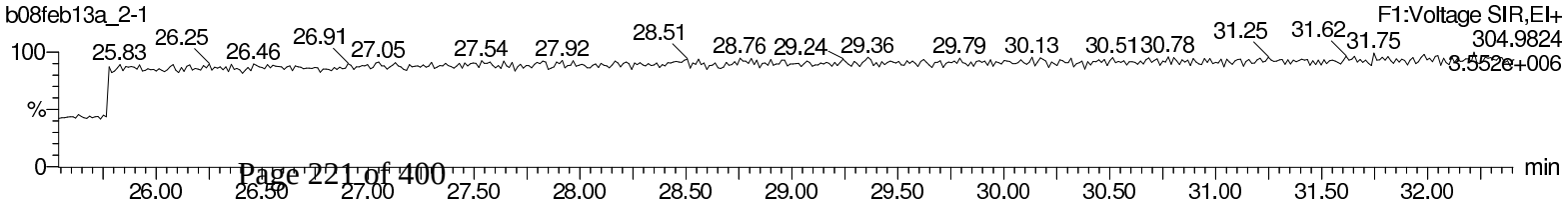
13C-2378-TCDD



37Cl-2378-TCDD (SS)



Lock Mass F1



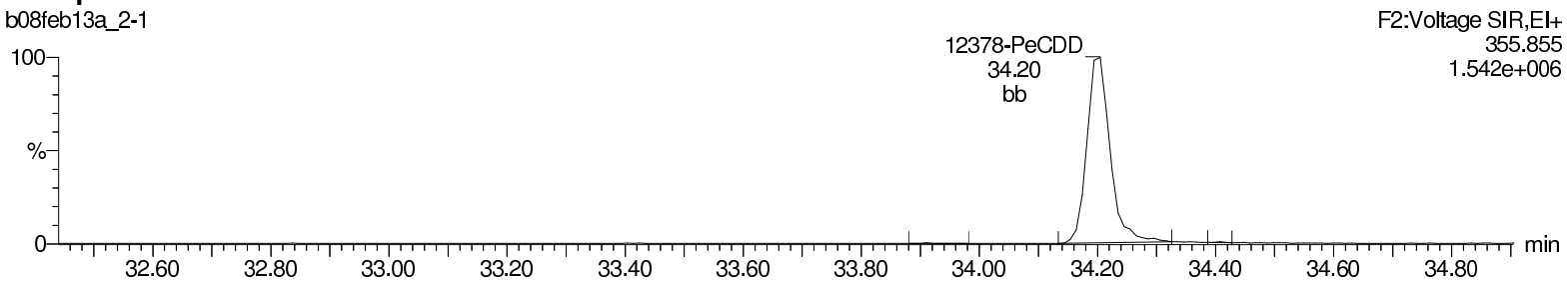
Quantify Sample Report **MassLynx 4.1**
Method 8290 Quantification Report

Dataset: C:\MassLynx\Default.pro\Sample Results\8290-b08feb13a_2.qld

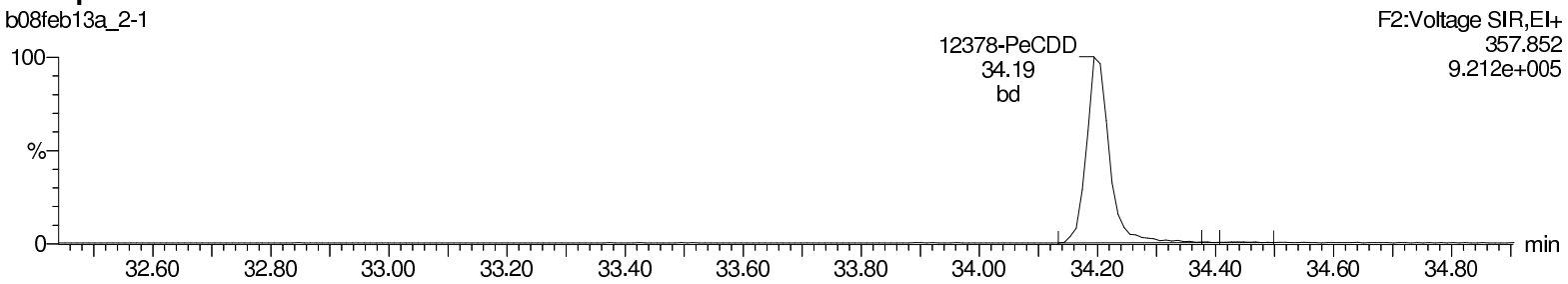
Last Altered: Monday, February 11, 2013 14:16:57 Eastern Standard Time
Printed: Monday, February 11, 2013 14:18:53 Eastern Standard Time

Name: b08feb13a_2-1, Date: 08-Feb-2013, Time: 14:47:46, ID: 12007607-1 LCS, Description: , Job: HMS8290_1S, Task: HRP763_1, User: JTF

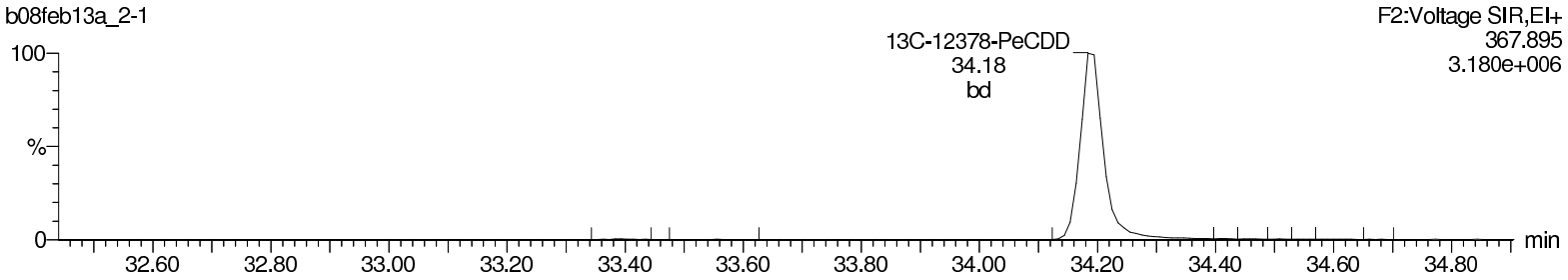
Total-pentadioxins



Total-pentadioxins



13C-12378-PeCDD



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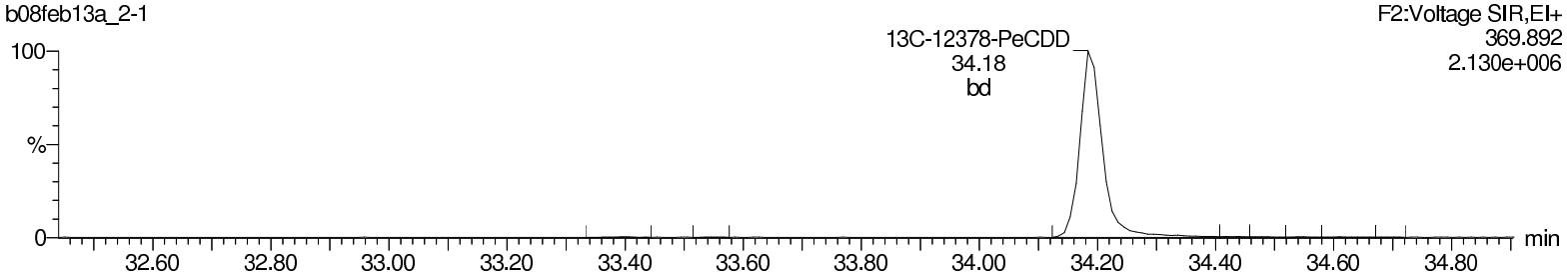
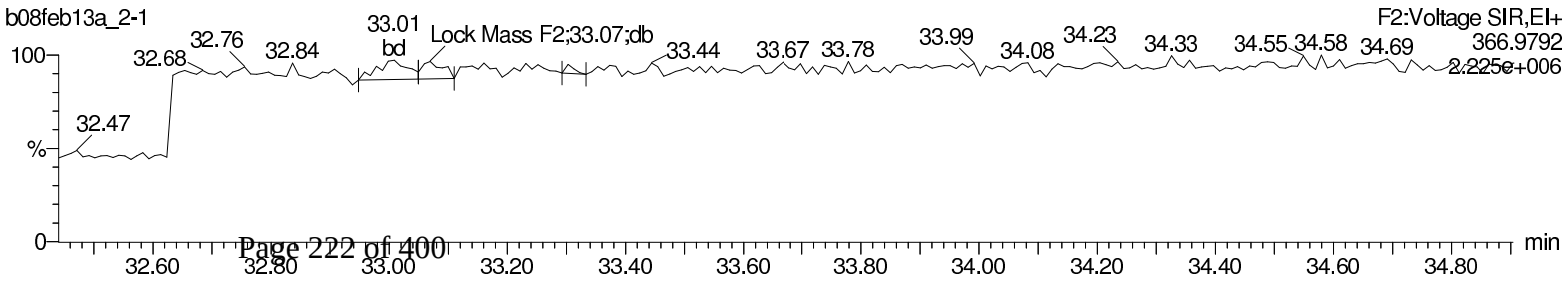


Lock Mass F2



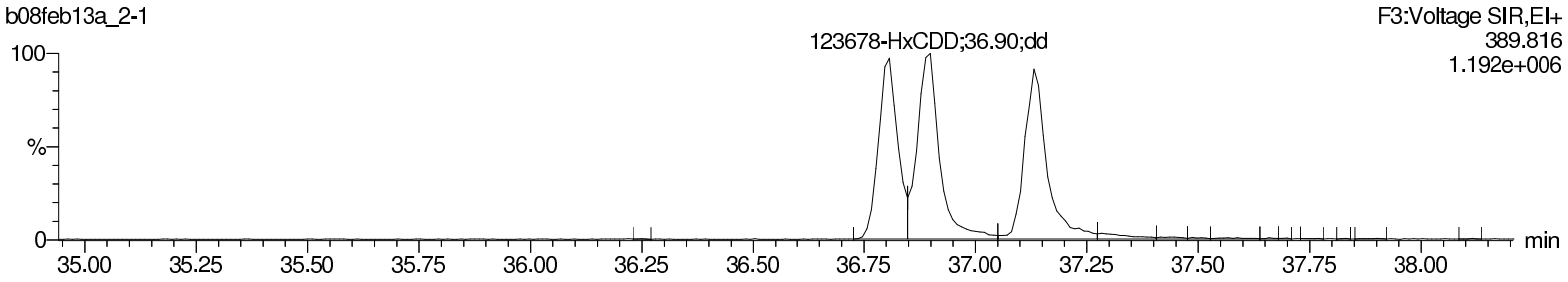
Quantify Sample Report **MassLynx 4.1**
Method 8290 Quantification Report

Dataset: C:\MassLynx\Default.pro\Sample Results\8290-b08feb13a_2.qld

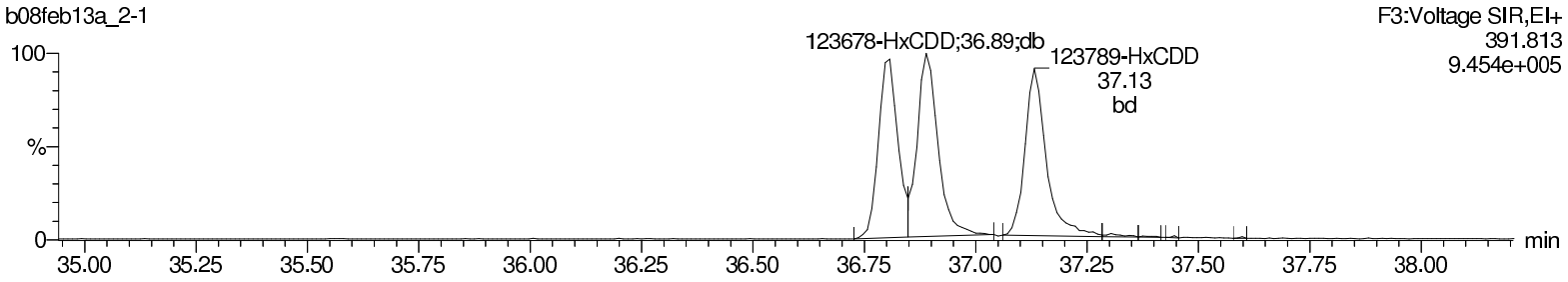
Last Altered: Monday, February 11, 2013 14:16:57 Eastern Standard Time
Printed: Monday, February 11, 2013 14:18:53 Eastern Standard Time

Name: b08feb13a_2-1, Date: 08-Feb-2013, Time: 14:47:46, ID: 12007607-1 LCS, Description: , Job: HMS8290_1S, Task: HRP763_1, User: JTF

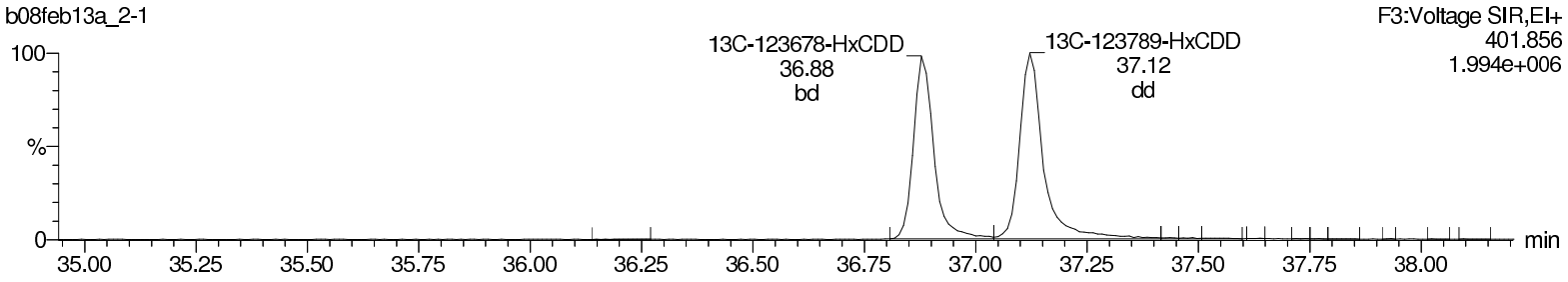
Total-hexadioxins



Total-hexadioxins



13C-123678-HxCDD



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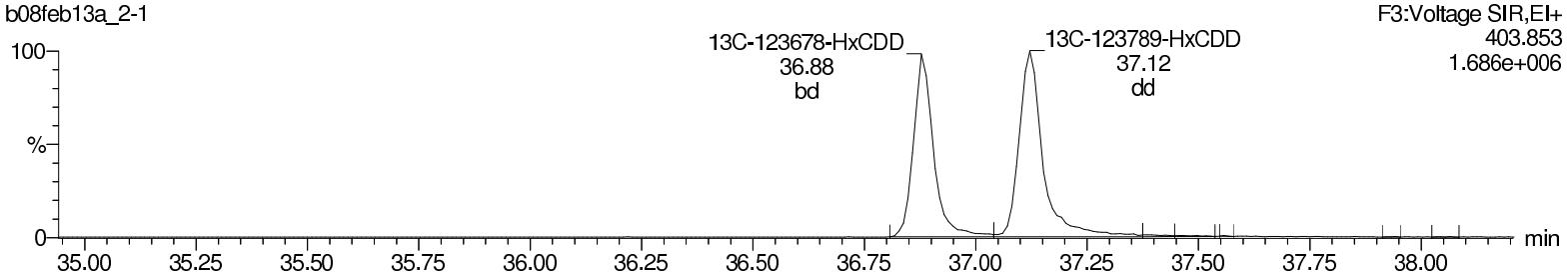
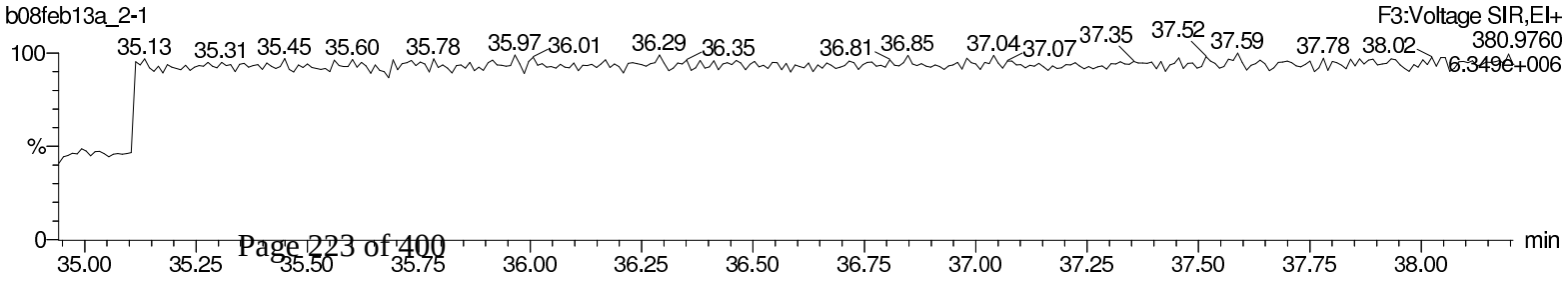


Lock Mass F3



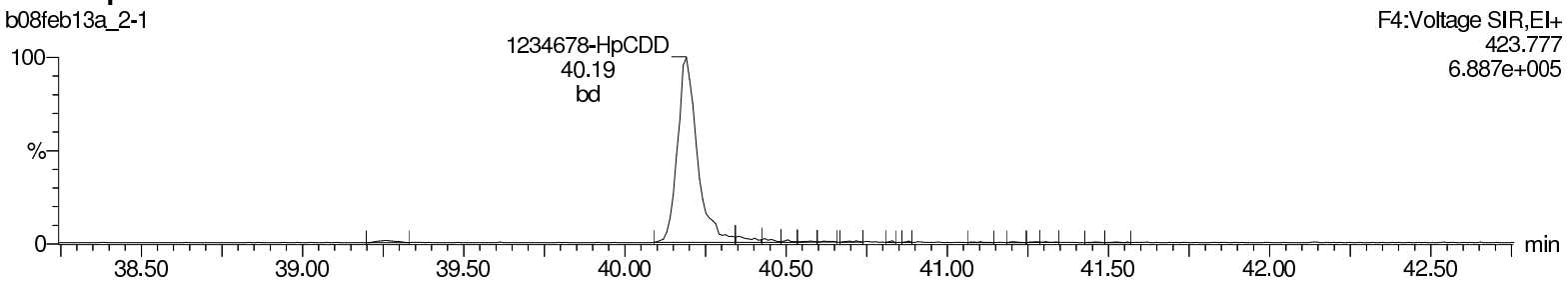
Quantify Sample Report **MassLynx 4.1**
Method 8290 Quantification Report

Dataset: C:\MassLynx\Default.pro\Sample Results\8290-b08feb13a_2.qld

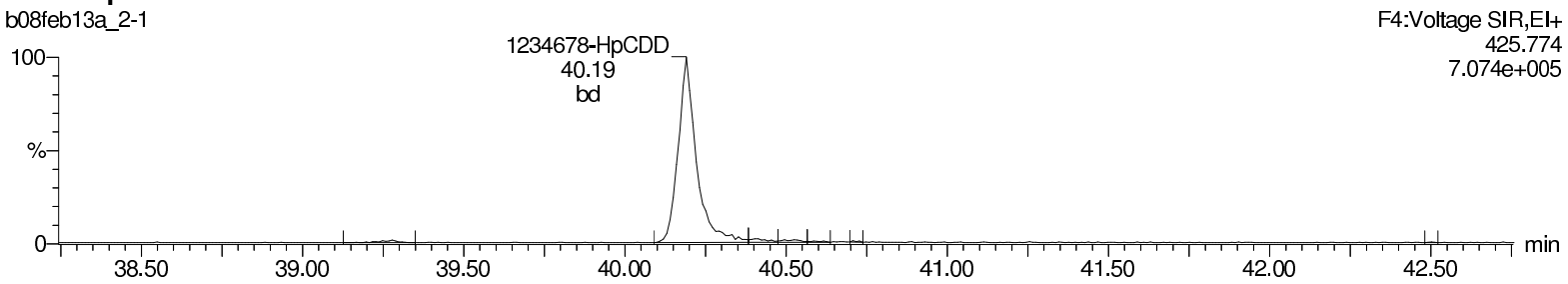
Last Altered: Monday, February 11, 2013 14:16:57 Eastern Standard Time
Printed: Monday, February 11, 2013 14:18:53 Eastern Standard Time

Name: b08feb13a_2-1, Date: 08-Feb-2013, Time: 14:47:46, ID: 12007607-1 LCS, Description: , Job: HMS8290_1S, Task: HRP763_1, User: JTF

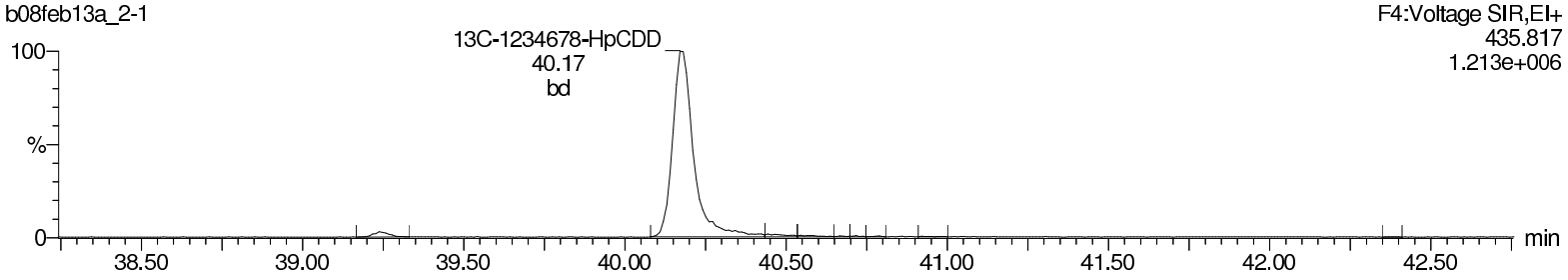
Total-heptadioxins



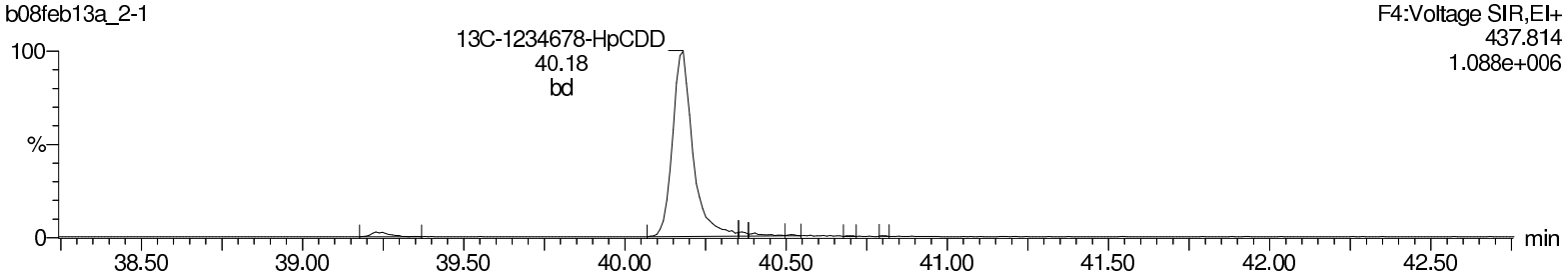
Total-heptadioxins



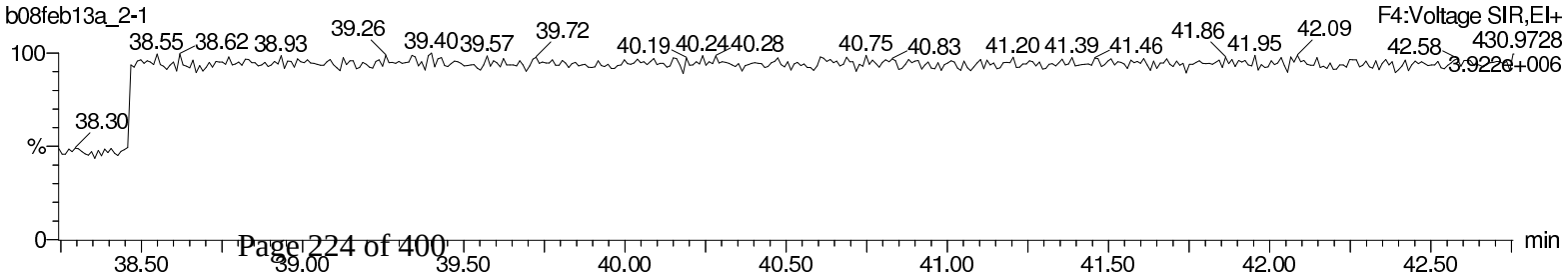
13C-1234678-HpCDD



13C-1234678-HpCDD



Lock Mass F4



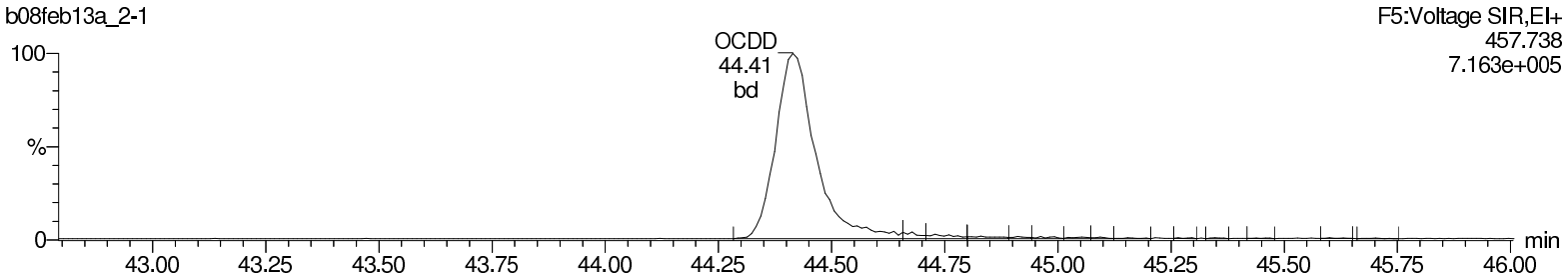
Quantify Sample Report **MassLynx 4.1**
Method 8290 Quantification Report

Dataset: C:\MassLynx\Default.pro\Sample Results\8290-b08feb13a_2.qld

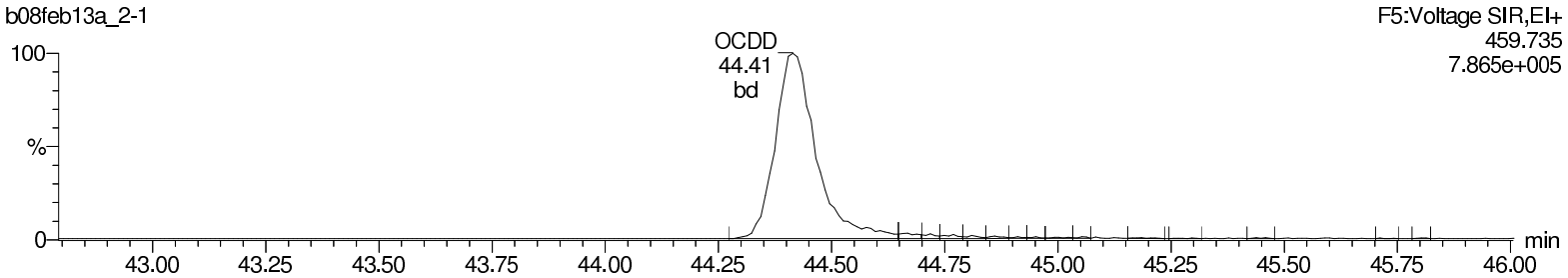
Last Altered: Monday, February 11, 2013 14:16:57 Eastern Standard Time
Printed: Monday, February 11, 2013 14:18:53 Eastern Standard Time

Name: b08feb13a_2-1, Date: 08-Feb-2013, Time: 14:47:46, ID: 12007607-1 LCS, Description: , Job: HMS8290_1S, Task: HRP763_1, User: JTF

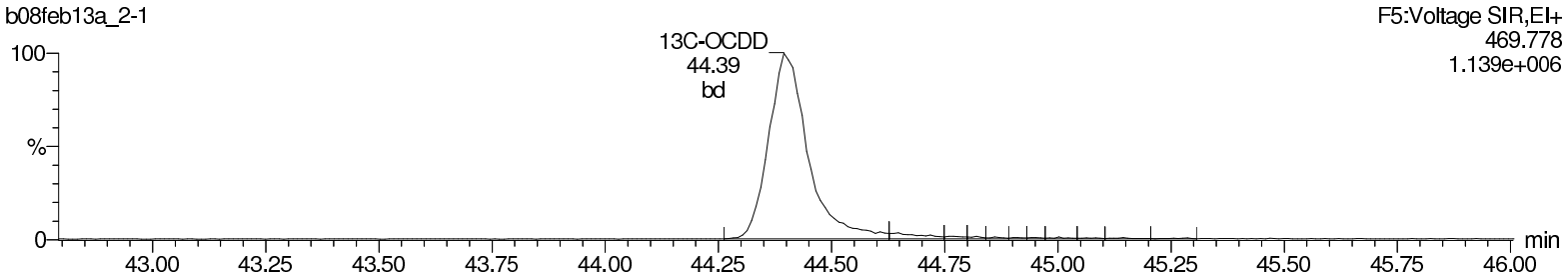
OCDD



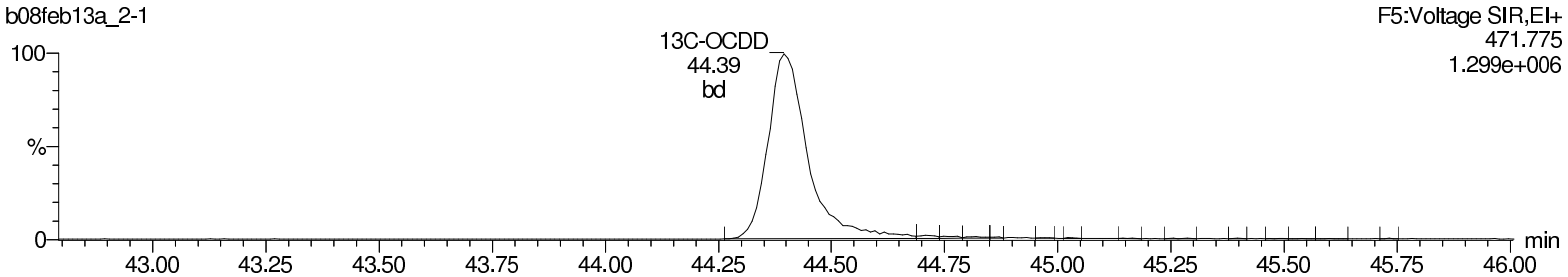
OCDD



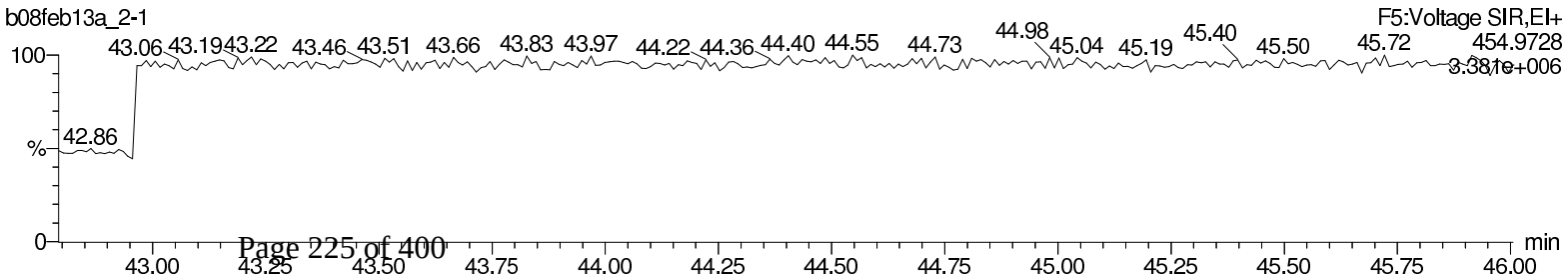
13C-OCDD



13C-OCDD



Lock Mass F5



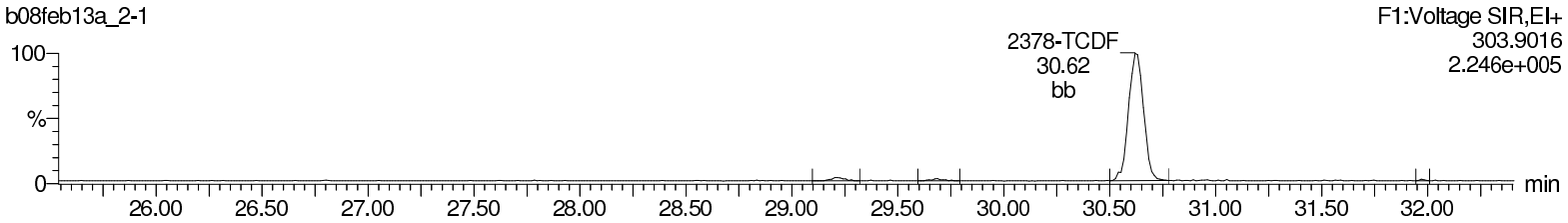
Quantify Sample Report **MassLynx 4.1**
Method 8290 Quantification Report

Dataset: C:\MassLynx\Default.pro\Sample Results\8290-b08feb13a_2.qld

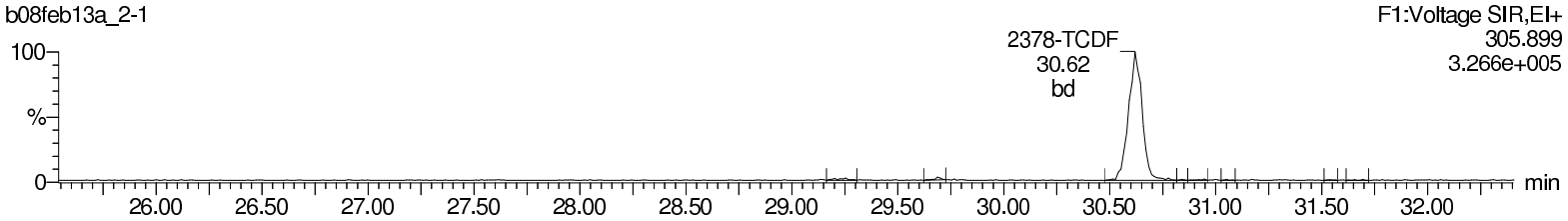
Last Altered: Monday, February 11, 2013 14:16:57 Eastern Standard Time
Printed: Monday, February 11, 2013 14:18:53 Eastern Standard Time

Name: b08feb13a_2-1, Date: 08-Feb-2013, Time: 14:47:46, ID: 12007607-1 LCS, Description: , Job: HMS8290_1S, Task: HRP763_1, User: JTF

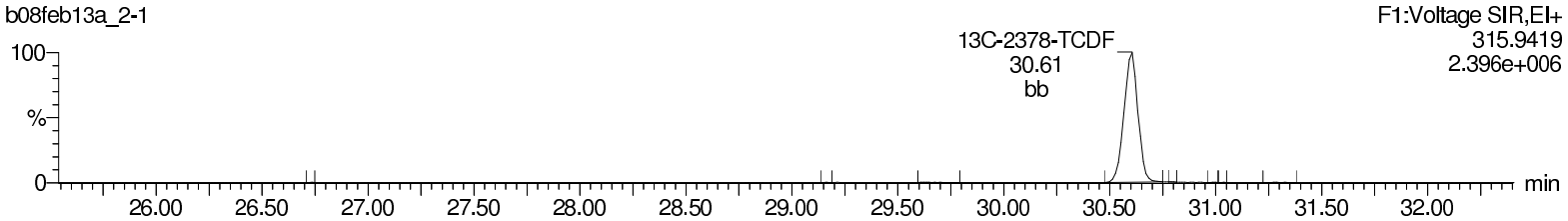
Total-tetrafurans



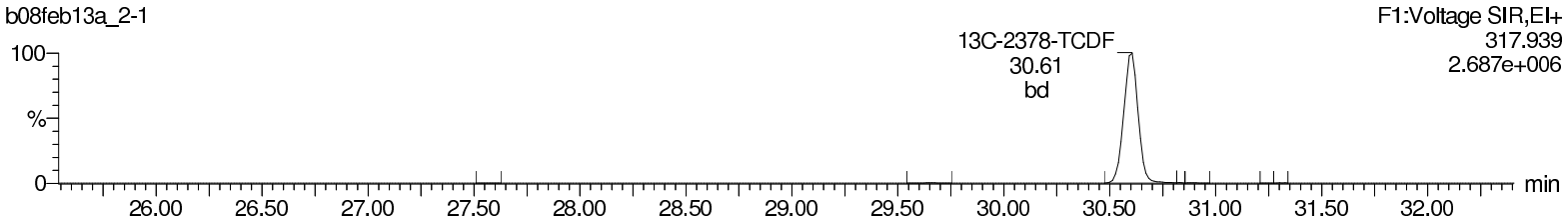
Total-tetrafurans



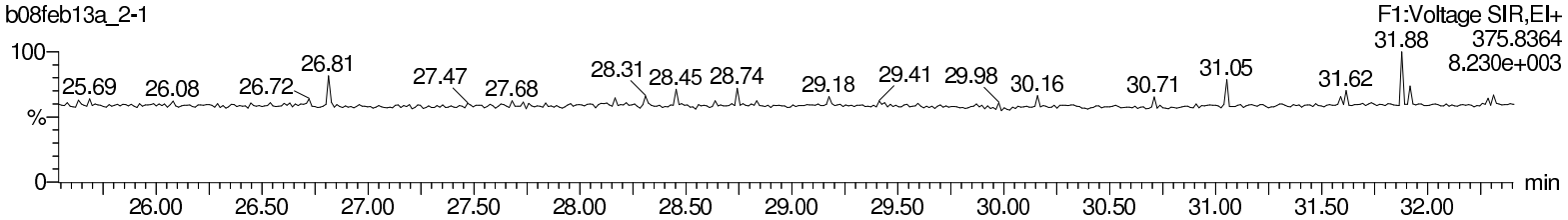
13C-2378-TCDF



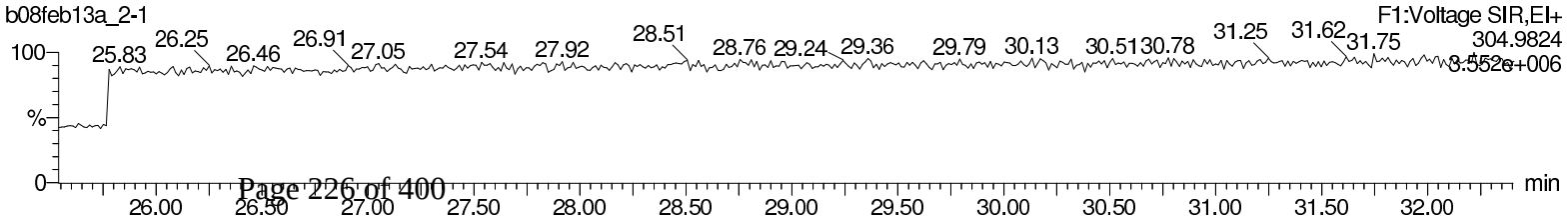
13C-2378-TCDF



HxDPE



Lock Mass F1



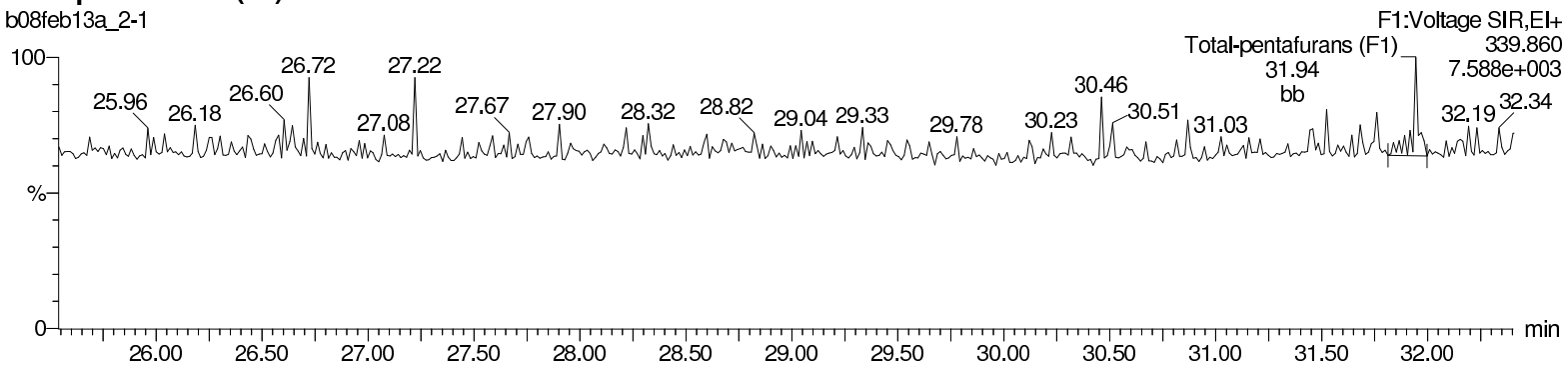
Quantify Sample Report **MassLynx 4.1**
Method 8290 Quantification Report

Dataset: C:\MassLynx\Default.pro\Sample Results\8290-b08feb13a_2.qld

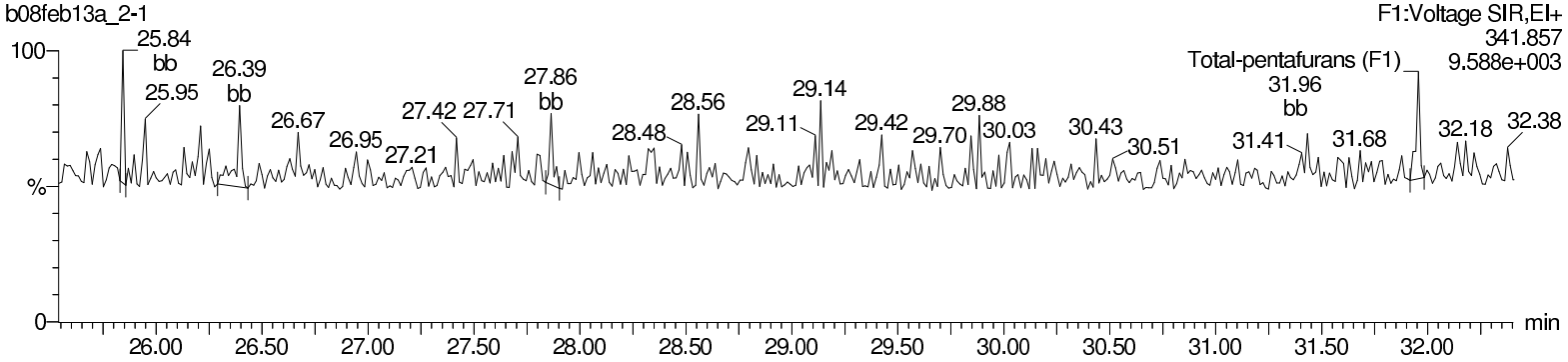
Last Altered: Monday, February 11, 2013 14:16:57 Eastern Standard Time
Printed: Monday, February 11, 2013 14:18:53 Eastern Standard Time

Name: b08feb13a_2-1, Date: 08-Feb-2013, Time: 14:47:46, ID: 12007607-1 LCS, Description: , Job: HMS8290_1S, Task: HRP763_1, User: JTF

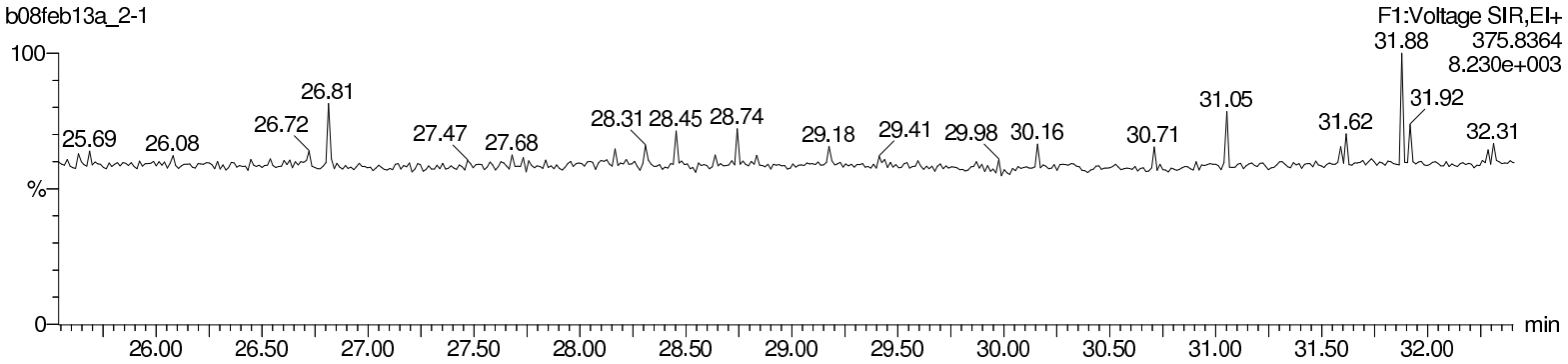
Total-pentafurans (F1)



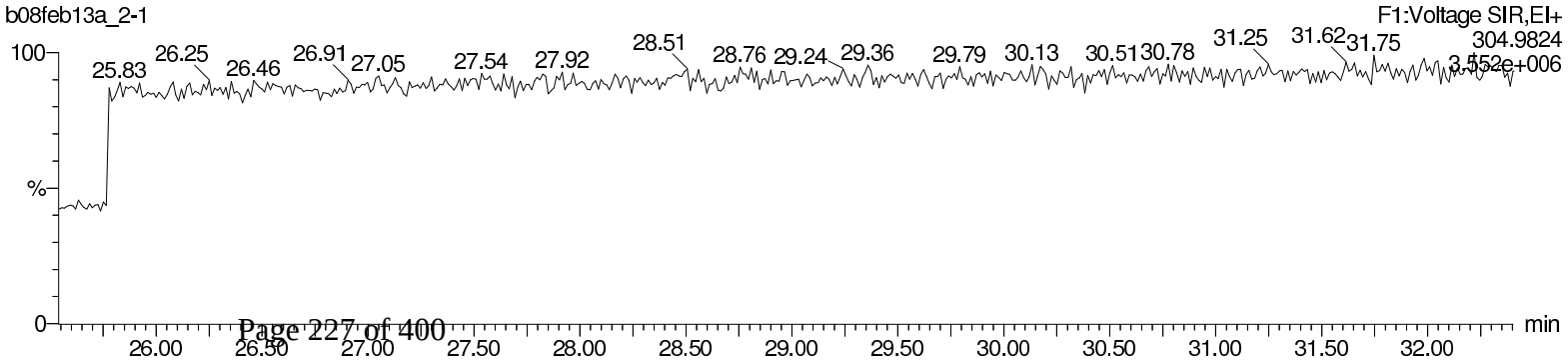
Total-pentafurans (F1)



HxDPE



Lock Mass F1



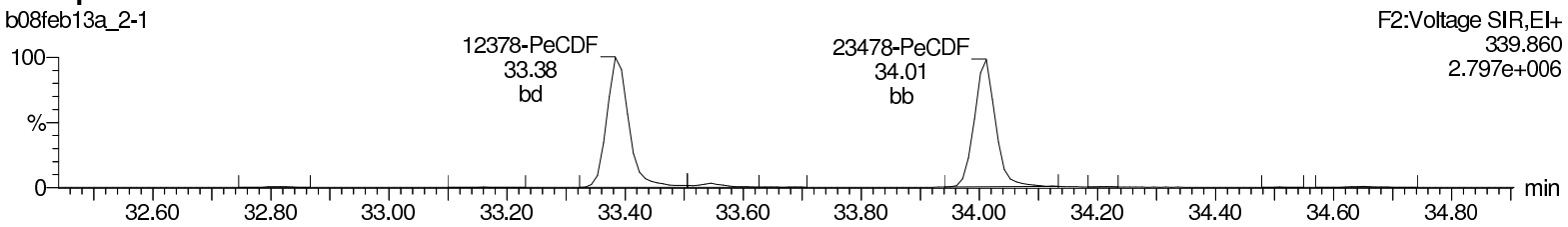
Quantify Sample Report **MassLynx 4.1**
Method 8290 Quantification Report

Dataset: C:\MassLynx\Default.pro\Sample Results\8290-b08feb13a_2.qld

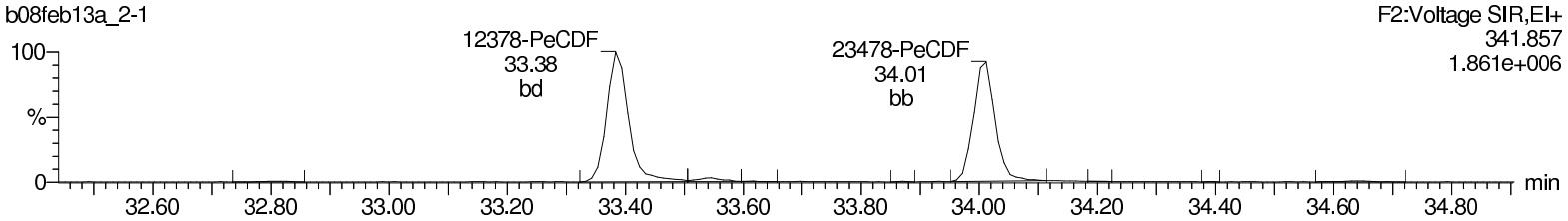
Last Altered: Monday, February 11, 2013 14:16:57 Eastern Standard Time
Printed: Monday, February 11, 2013 14:18:53 Eastern Standard Time

Name: b08feb13a_2-1, Date: 08-Feb-2013, Time: 14:47:46, ID: 12007607-1 LCS, Description: , Job: HMS8290_1S, Task: HRP763_1, User: JTF

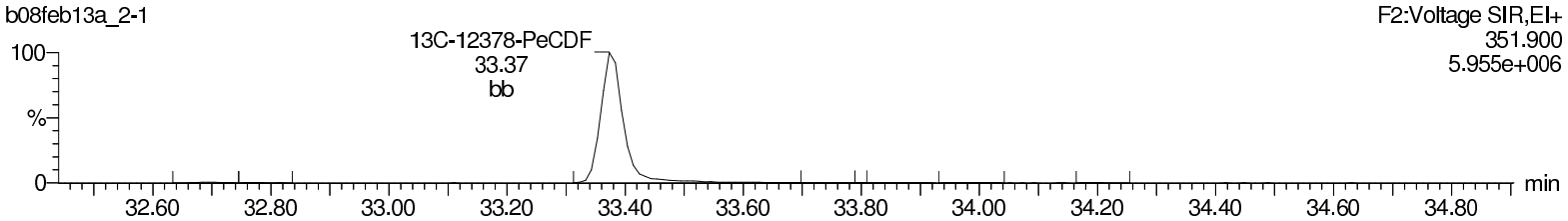
Total-pentafurans



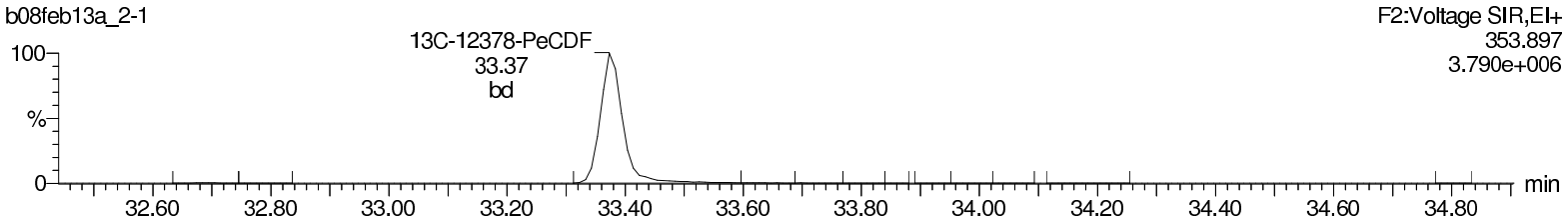
Total-pentafurans



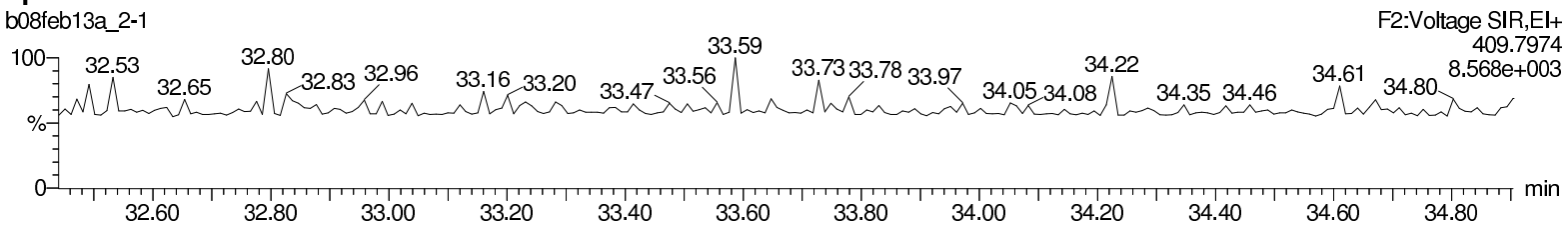
13C-12378-PeCDF



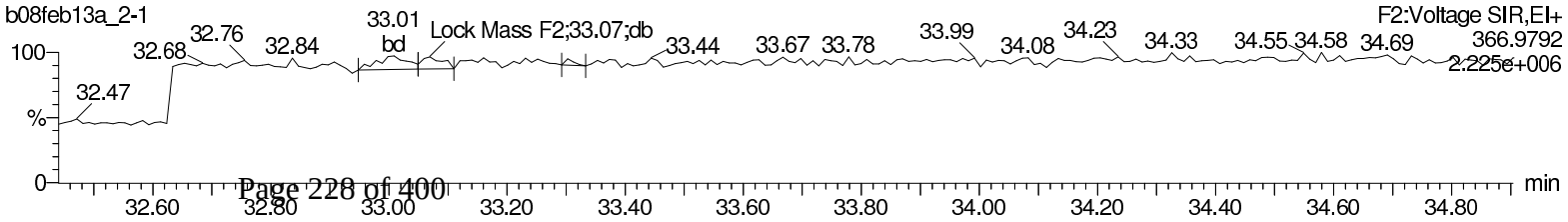
13C-12378-PeCDF



HpDPE



Lock Mass F2



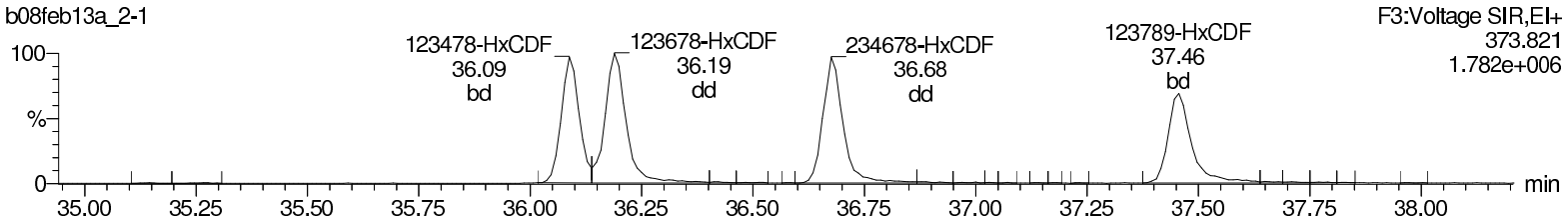
Quantify Sample Report **MassLynx 4.1**
Method 8290 Quantification Report

Dataset: C:\MassLynx\Default.pro\Sample Results\8290-b08feb13a_2.qld

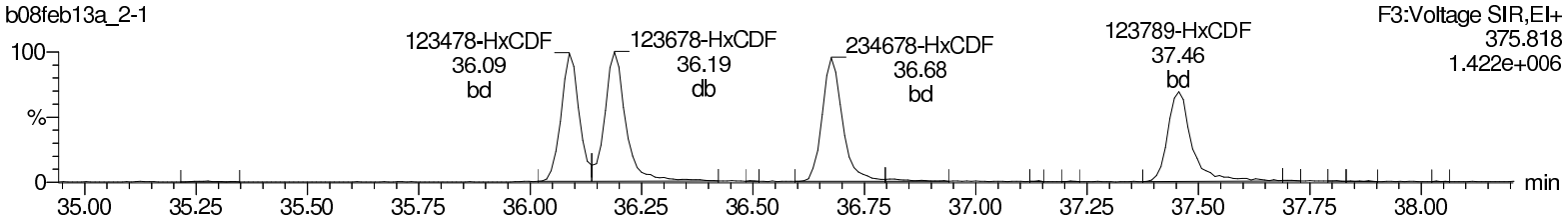
Last Altered: Monday, February 11, 2013 14:16:57 Eastern Standard Time
Printed: Monday, February 11, 2013 14:18:53 Eastern Standard Time

Name: b08feb13a_2-1, Date: 08-Feb-2013, Time: 14:47:46, ID: 12007607-1 LCS, Description: , Job: HMS8290_1S, Task: HRP763_1, User: JTF

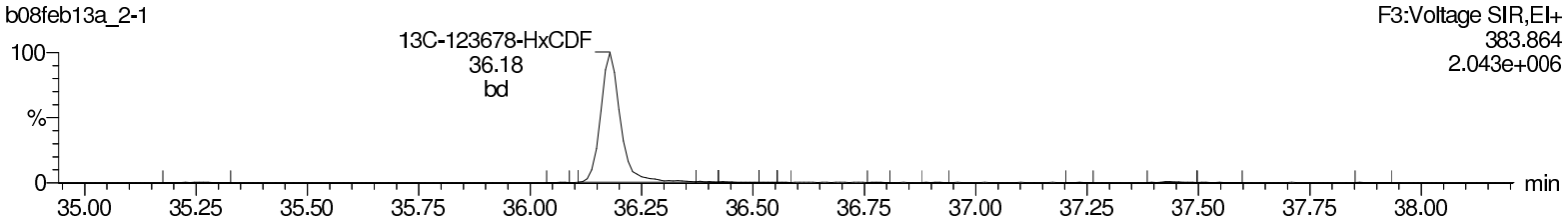
Total-hexafurans



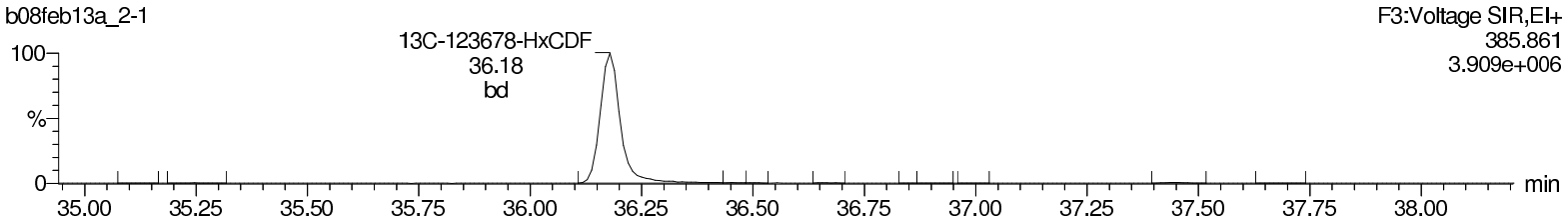
Total-hexafurans



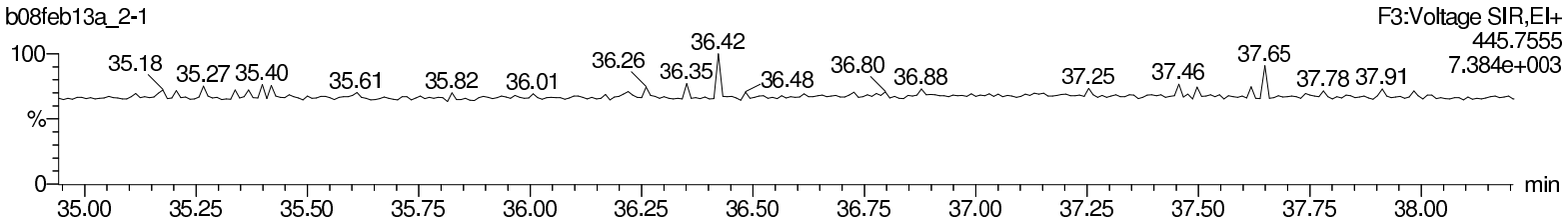
13C-123678-HxCDF



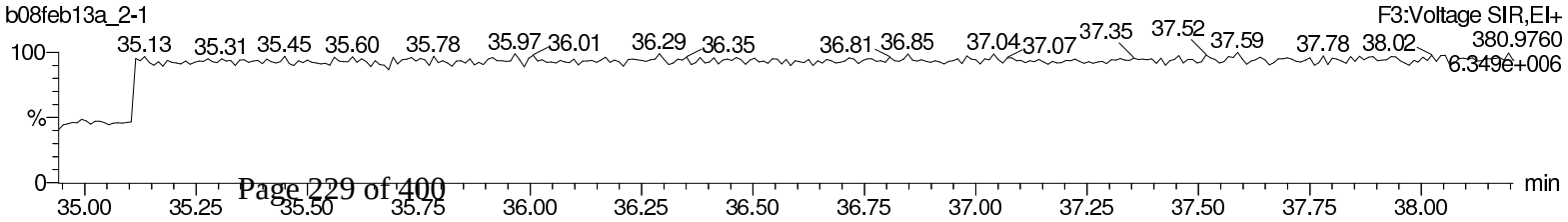
13C-123678-HxCDF



OcDPE



Lock Mass F3



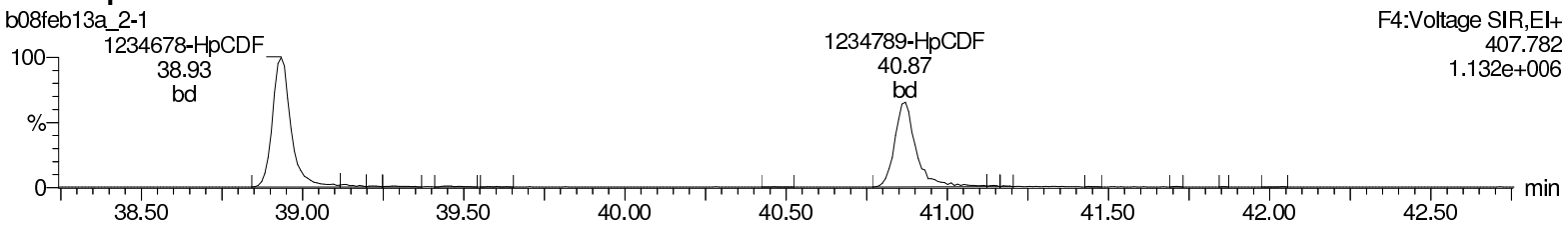
Quantify Sample Report **MassLynx 4.1**
Method 8290 Quantification Report

Dataset: C:\MassLynx\Default.pro\Sample Results\8290-b08feb13a_2.qld

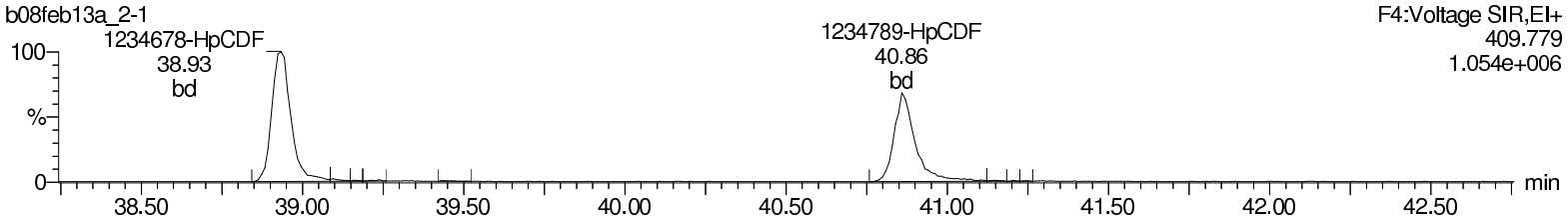
Last Altered: Monday, February 11, 2013 14:16:57 Eastern Standard Time
Printed: Monday, February 11, 2013 14:18:53 Eastern Standard Time

Name: b08feb13a_2-1, Date: 08-Feb-2013, Time: 14:47:46, ID: 12007607-1 LCS, Description: , Job: HMS8290_1S, Task: HRP763_1, User: JTF

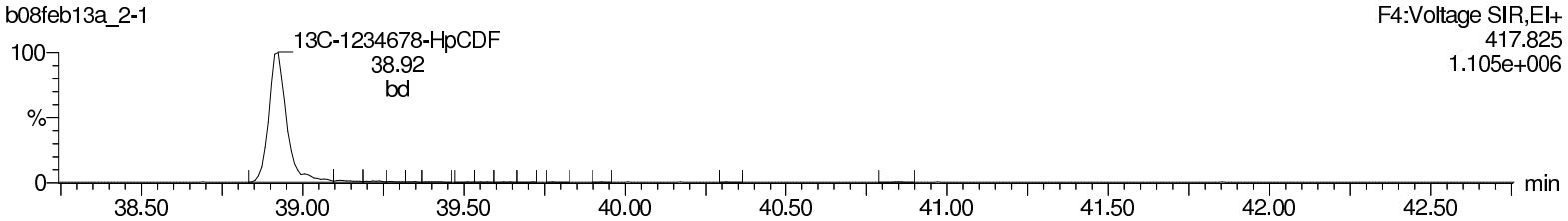
Total-heptafurans



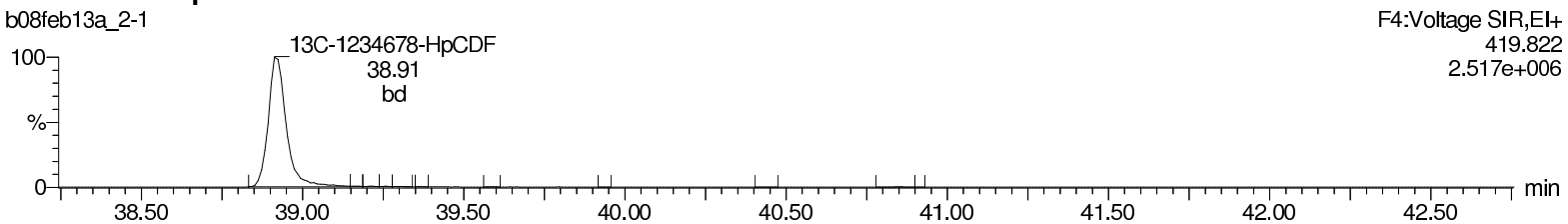
Total-heptafurans



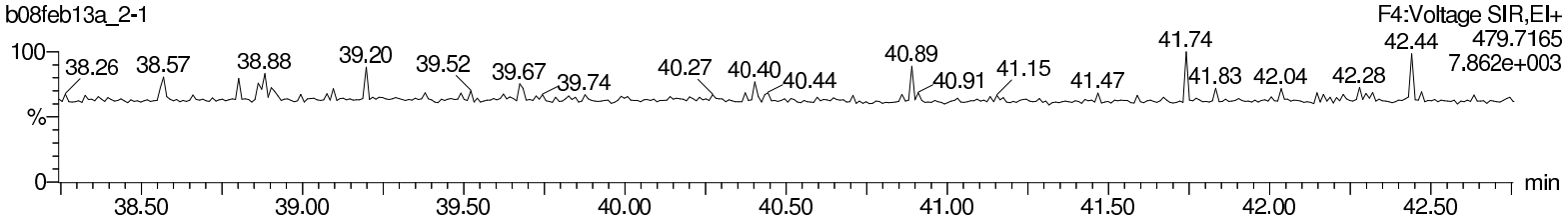
13C-1234678-HpCDF



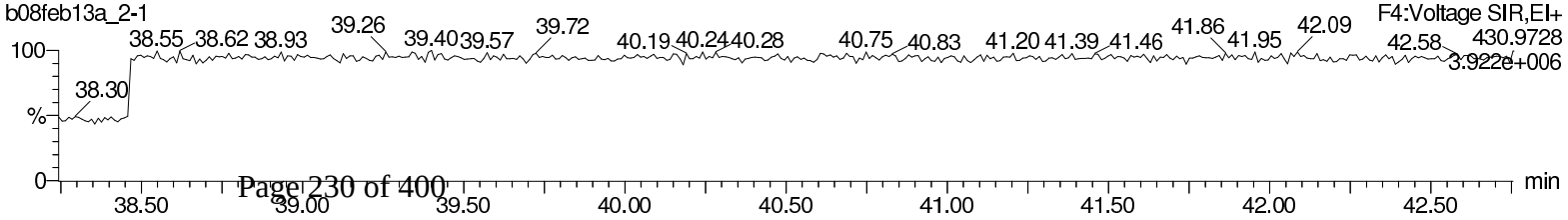
13C-1234678-HpCDF



NoDPE



Lock Mass F4



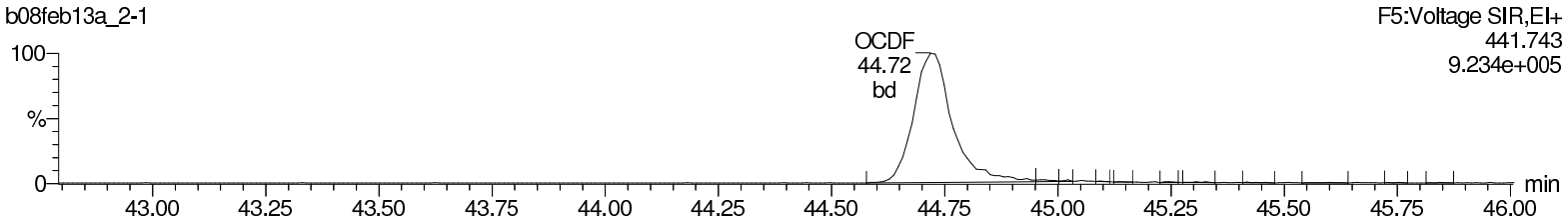
Quantify Sample Report **MassLynx 4.1**
Method 8290 Quantification Report

Dataset: C:\MassLynx\Default.pro\Sample Results\8290-b08feb13a_2.qld

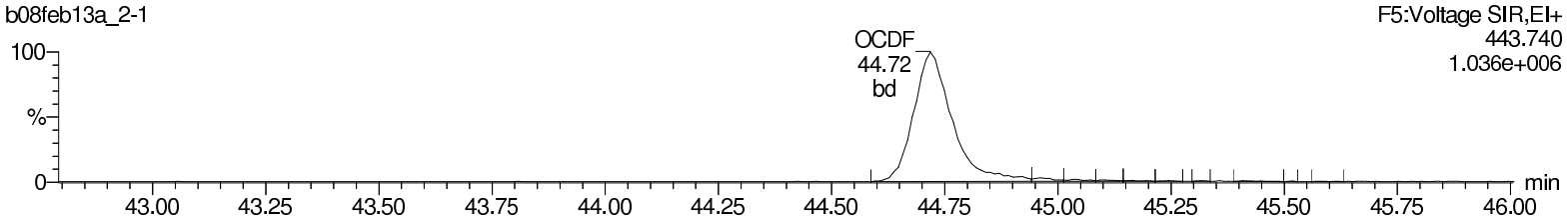
Last Altered: Monday, February 11, 2013 14:16:57 Eastern Standard Time
Printed: Monday, February 11, 2013 14:18:53 Eastern Standard Time

Name: b08feb13a_2-1, Date: 08-Feb-2013, Time: 14:47:46, ID: 12007607-1 LCS, Description: , Job: HMS8290_1S, Task: HRP763_1, User: JTF

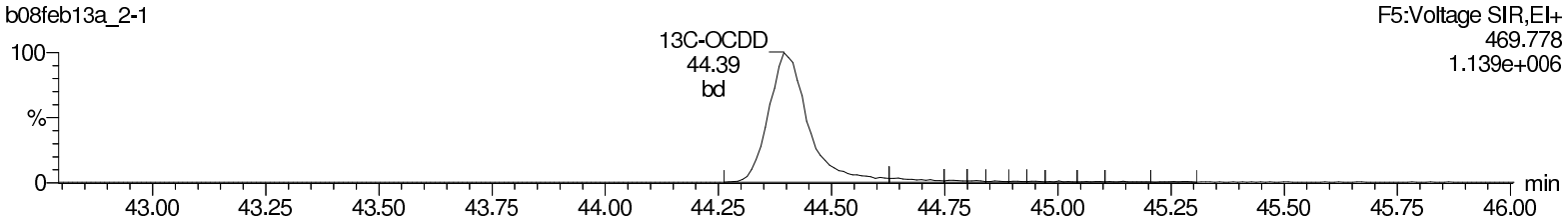
OCDF



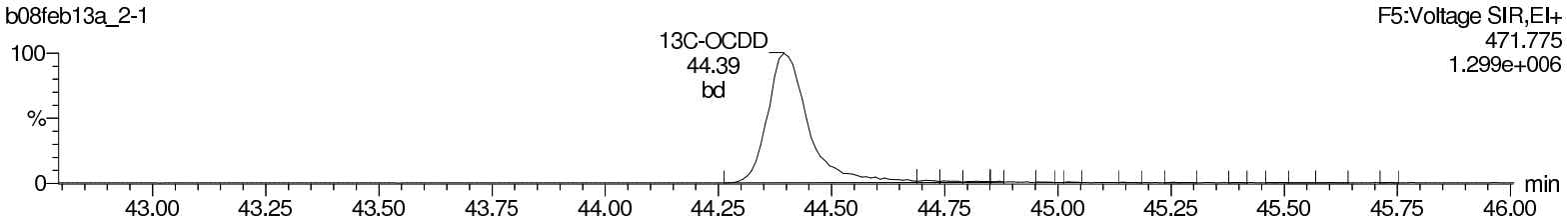
OCDF



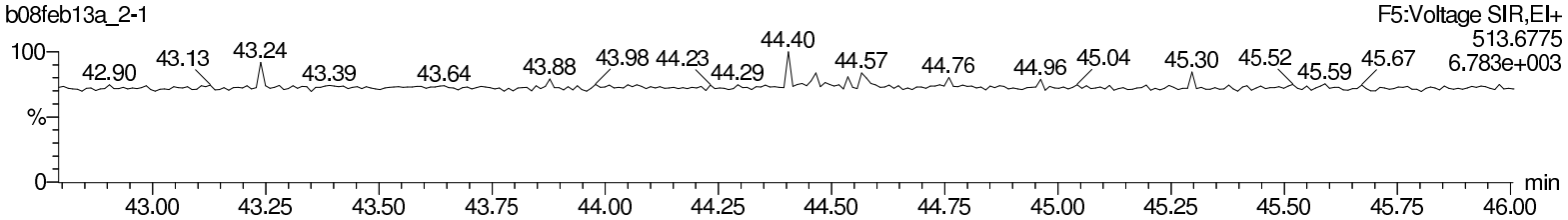
13C-OCDD



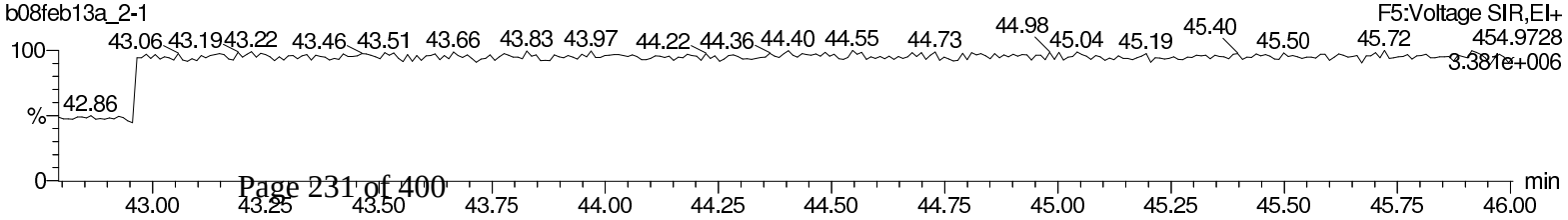
13C-OCDD



DeDPE



Lock Mass F5



Hi-Res Dioxins/Furans
Certificate of Analysis
Sample Summary

SDG Number:	**2013-505**	**Client:**	**LANL001**	**Project:**	**LANL00112**
Lab Sample ID:	**12007608**			**Matrix:**	**SOLID**
Client Sample:	**QC for batch 22876**				
Client ID:	**LCSD for batch 22876**			**Prep Basis:**	**As Received**
Batch ID:	**22879**	**Method:**	**SW846 8290A**		
Run Date:	**02/08/2013 15:34**	**Analyst:**	**JTF**	**Instrument:**	**HRP763**
Data File:	**b08feb13a_2-2**			**Dilution:**	**1**
Prep Batch:	**22876**	**Prep Method:**	**SW846 3540C**		
Prep Date:	**06-FEB-13**	**Aliquot:**	**10 g**		

CAS No.	Parmname	Qual	Result	EMPC	Units	EDL	PQL
1746-01-6	2,3,7,8-TCDD		17.3		pg/g	0.158	1.00
40321-76-4	1,2,3,7,8-PeCDD		98.8		pg/g	0.500	5.00
39227-28-6	1,2,3,4,7,8-HxCDD		120		pg/g	1.04	5.00
57653-85-7	1,2,3,6,7,8-HxCDD		122		pg/g	0.934	5.00
19408-74-3	1,2,3,7,8,9-HxCDD		126		pg/g	1.02	5.00
35822-46-9	1,2,3,4,6,7,8-HpCDD		95.8		pg/g	0.848	5.00
3268-87-9	1,2,3,4,6,7,8,9-OCDD		218		pg/g	1.80	10.0
51207-31-9	2,3,7,8-TCDF		21.7		pg/g	0.204	1.00
57117-41-6	1,2,3,7,8-PeCDF		100		pg/g	0.500	5.00
57117-31-4	2,3,4,7,8-PeCDF		96.5		pg/g	0.500	5.00
70648-26-9	1,2,3,4,7,8-HxCDF		107		pg/g	0.902	5.00
57117-44-9	1,2,3,6,7,8-HxCDF		108		pg/g	0.790	5.00
60851-34-5	2,3,4,6,7,8-HxCDF		110		pg/g	0.856	5.00
72918-21-9	1,2,3,7,8,9-HxCDF		107		pg/g	1.01	5.00
67562-39-4	1,2,3,4,6,7,8-HpCDF		104		pg/g	11.0	5.00
55673-89-7	1,2,3,4,7,8,9-HpCDF		101		pg/g	14.3	5.00
39001-02-0	1,2,3,4,6,7,8,9-OCDF		233		pg/g	1.99	10.0

Surrogate/Tracer recovery	Qual	Result	Nominal	Units	Recovery%	Acceptable Limits
13C-2,3,7,8-TCDD		160	200	pg/g	80.0	(40%-135%)
13C-1,2,3,7,8-PeCDD		163	200	pg/g	81.5	(40%-135%)
13C-1,2,3,6,7,8-HxCDD		145	200	pg/g	72.7	(40%-135%)
13C-1,2,3,4,6,7,8-HpCDD		180	200	pg/g	89.9	(40%-135%)
13C-OCDD		313	400	pg/g	78.4	(40%-135%)
13C-2,3,7,8-TCDF		148	200	pg/g	74.1	(40%-135%)
13C-1,2,3,7,8-PeCDF		173	200	pg/g	86.5	(40%-135%)
13C-1,2,3,6,7,8-HxCDF		168	200	pg/g	84.2	(40%-135%)
13C-1,2,3,4,6,7,8-HpCDF		175	200	pg/g	87.7	(40%-135%)

Comments:

U Analyte was analyzed for , but not detected above the specified detection limit.

Quantify Sample Summary Report **MassLynx 4.1**
Method 8290 Quantification Report

Dataset: C:\MassLynx\Default.pro\Sample Results\8290-b08feb13a_2.qld

Last Altered: Monday, February 11, 2013 14:16:57 Eastern Standard Time
Printed: Tuesday, February 12, 2013 08:39:05 Eastern Standard Time

Method: C:\MassLynx\Default.pro\Methdb\CFA_EPA8290_121912.mdb 20 Dec 2012 07:43:23
Calibration: C:\MassLynx\DEFAULT.PRO\CurveDB\8290-b30nov12a.cdb 03 Dec 2012 09:49:08

Name: b08feb13a_2-2, Date: 08-Feb-2013, Time: 15:34:54, ID: 12007608-1 LCSD, Description: , Job: HMS8290_1S, Task: HRP763_1, User: JTF

	Name	Ion1Area	Ion2Area	Response	RT	RRT	RA	Fail?	pg/uL	EDL	Height1	Noise1	S/N1	Height2	Noise2	S/N2	M
1	2378-TCDD	8.76e3	1.17e4	2.05e4	31.31	1.001	0.75	NO	8.628	0.0790	1.62e5	544	298.1	2.15e5	771	279.0	bb
2	12378-PeCDD	6.31e4	3.70e4	1.00e5	34.19	1.000	1.71	NO	49.407	0.185	1.34e6	1525	876.9	8.17e5	1773	460.8	bd
3	123478-HxCDD	5.37e4	4.13e4	9.50e4	36.81	0.998	1.30	NO	59.981	0.519	1.07e6	3108	344.6	8.09e5	2905	278.4	bd
4	123678-HxCDD	5.98e4	4.79e4	1.08e5	36.89	1.000	1.25	NO	61.230	0.467	1.09e6	3108	352.0	8.34e5	2905	287.2	dd
5	123789-HxCDD	5.75e4	4.40e4	1.02e5	37.13	1.007	1.31	NO	63.039	0.510	9.20e5	3108	296.0	7.46e5	2905	256.8	dd
6	1234678-HpCDD	4.21e4	4.02e4	8.22e4	40.19	1.000	1.05	NO	47.876	0.424	5.99e5	2061	290.4	5.68e5	1835	309.3	bd
7	OCDD	6.54e4	7.22e4	1.38e5	44.42	1.001	0.90	NO	108.958	0.899	6.50e5	2451	265.2	7.30e5	2139	341.4	bd
8	2378-TCDF	1.63e4	2.19e4	3.82e4	30.62	1.001	0.74	NO	10.849	0.102	2.00e5	587	341.0	2.88e5	1194	241.5	bd
9	12378-PeCDF	1.05e5	6.54e4	1.70e5	33.38	1.000	1.60	NO	50.079	0.186	2.47e6	3402	727.0	1.61e6	2400	672.2	bd
10	23478-PeCDF	1.06e5	6.44e4	1.70e5	34.00	1.019	1.64	NO	48.268	0.179	2.39e6	3402	703.1	1.53e6	2400	639.0	bd
11	123478-HxCDF	7.60e4	5.96e4	1.36e5	36.09	0.998	1.27	NO	53.509	0.451	1.63e6	5746	283.3	1.25e6	2814	444.8	bd
12	123678-HxCDF	8.61e4	7.05e4	1.57e5	36.19	1.000	1.22	NO	54.136	0.395	1.60e6	5746	278.7	1.25e6	2814	444.7	dd
13	234678-HxCDF	8.18e4	6.54e4	1.47e5	36.68	1.014	1.25	NO	55.088	0.428	1.56e6	5746	272.3	1.23e6	2814	436.3	bd
14	123789-HxCDF	6.74e4	5.33e4	1.21e5	37.46	1.035	1.26	NO	53.520	0.507	1.06e6	5746	184.1	8.55e5	2814	303.7	bb
15	1234678-HpCDF	6.45e4	6.21e4	1.27e5	38.93	1.000	1.04	NO	51.885	5.50	1.01e6	2638	383.0	1.01e6	77600	13.0	bd
16	1234789-HpCDF	4.75e4	4.72e4	9.47e4	40.87	1.050	1.01	NO	50.535	7.17	6.57e5	2638	249.0	6.16e5	77600	7.9	bb
17	OCDF	8.17e4	8.88e4	1.70e5	44.72	1.007	0.92	NO	116.394	0.997	8.09e5	2407	336.2	9.17e5	3496	262.5	bd
18	13C-2378-TCDD	1.09e5	1.40e5	2.49e5	31.29	1.017	0.77	NO	79.969	0.239	1.90e6	2667	713.7	2.44e6	1534	1589.6	bd
19	13C-12378-PeCDD	1.28e5	8.21e4	2.10e5	34.19	1.111	1.55	NO	81.523	0.198	2.80e6	1263	2218.0	1.82e6	1607	1130.3	bb
20	13C-123678-HxCDD	8.45e4	7.82e4	1.63e5	36.88	0.993	1.08	NO	72.686	0.210	1.55e6	1933	800.3	1.42e6	1251	1131.4	bb
21	13C-1234678-HpCDD	7.93e4	7.21e4	1.51e5	40.17	1.082	1.10	NO	89.924	0.361	1.06e6	2493	425.2	9.26e5	1631	567.4	bb
22	13C-OCDD	1.01e5	1.15e5	2.16e5	44.39	1.196	0.88	NO	156.700	0.495	1.02e6	2706	377.3	1.13e6	1922	586.3	bd
23	13C-2378-TCDF	1.58e5	1.84e5	3.42e5	30.59	0.994	0.86	NO	74.094	0.112	1.96e6	1459	1345.8	2.34e6	1452	1612.6	bd
24	13C-12378-PeCDF	2.22e5	1.38e5	3.60e5	33.37	1.084	1.61	NO	86.530	0.211	5.10e6	2047	2490.1	3.26e6	2912	1120.6	bd
25	13C-123678-HxCDF	9.35e4	1.85e5	2.78e5	36.18	0.975	0.51	NO	84.206	0.246	1.75e6	1822	959.9	3.53e6	3708	952.1	bd
26	13C-1234678-HpCDF	6.04e4	1.39e5	1.99e5	38.92	1.048	0.44	NO	87.738	0.243	9.02e5	1540	585.9	2.12e6	2205	961.6	bd
27	13C-1234-TCDD	1.37e5	1.78e5	3.15e5	30.78	0.000	0.77	NO	100.000	0.236	1.93e6	2667	724.4	2.54e6	1534	1657.5	bb
28	13C-123789-HxCDD	1.06e5	9.50e4	2.01e5	37.12	0.000	1.12	NO	100.000	0.233	1.80e6	1933	933.3	1.59e6	1251	1267.6	bd
29	37Cl-2378-TCDD (SS)	1.65e2		1.65e2	31.31	1.001			0.060	0.0472	4.48e3	910	4.9				bb
30	13C-23478-PeCDF (SS)							NO		0.150		2047			2912		

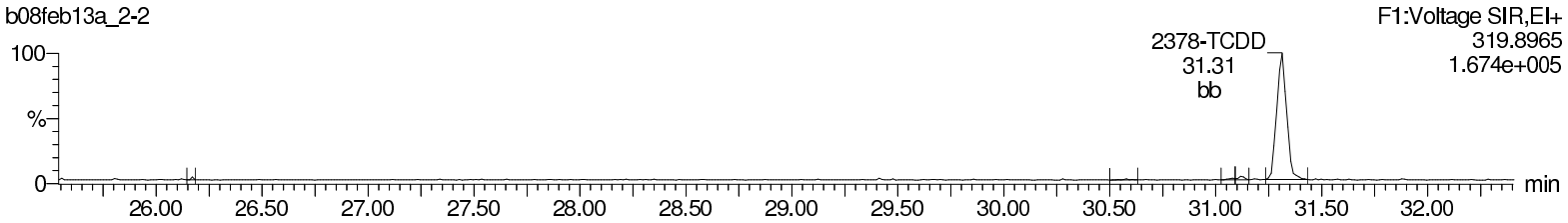
Quantify Sample Report **MassLynx 4.1**
Method 8290 Quantification Report

Dataset: C:\MassLynx\Default.pro\Sample Results\8290-b08feb13a_2.qld

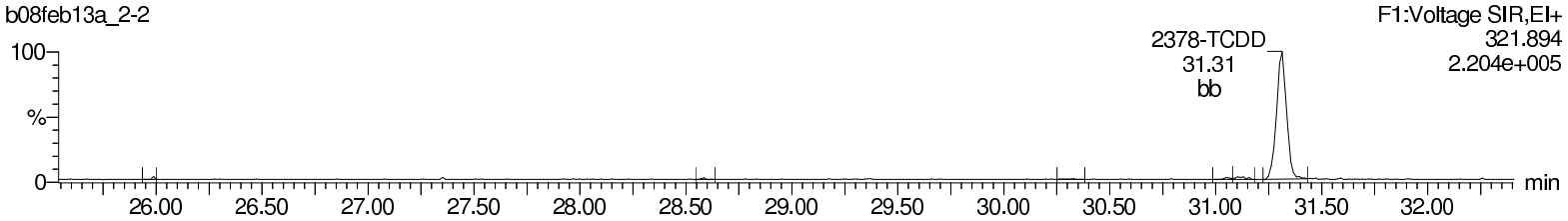
Last Altered: Monday, February 11, 2013 14:16:57 Eastern Standard Time
Printed: Monday, February 11, 2013 14:18:53 Eastern Standard Time

Name: b08feb13a_2-2, Date: 08-Feb-2013, Time: 15:34:54, ID: 12007608-1 LCSD, Description: , Job: HMS8290_1S, Task: HRP763_1, User: JTF

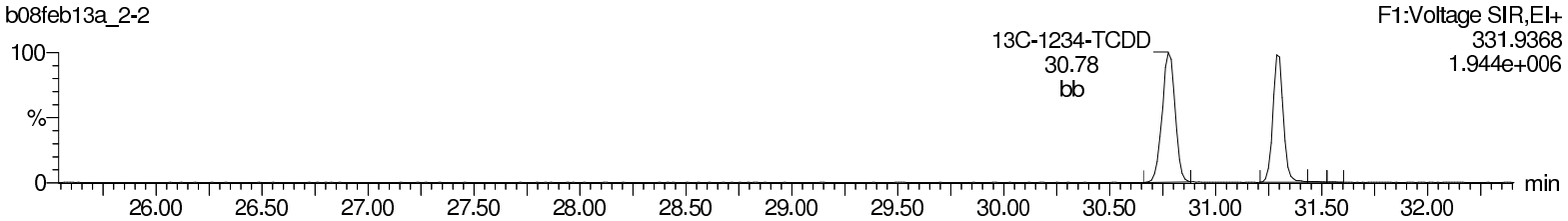
Total-tetradioxins



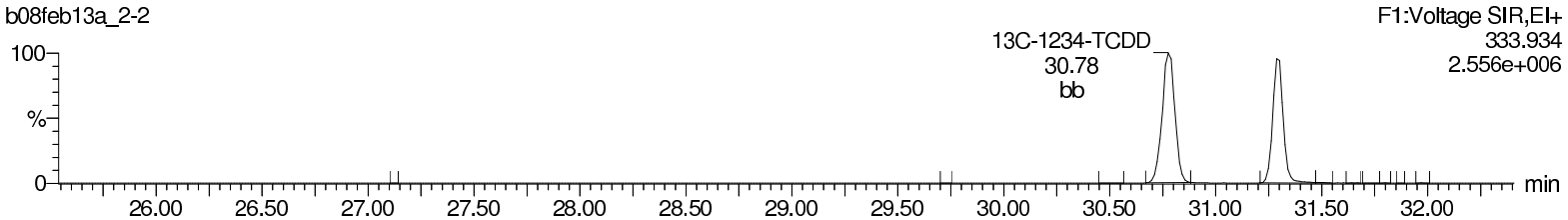
Total-tetradioxins



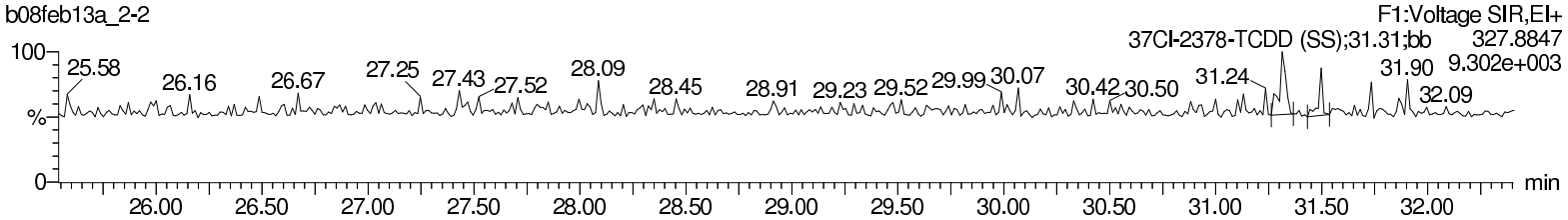
13C-2378-TCDD



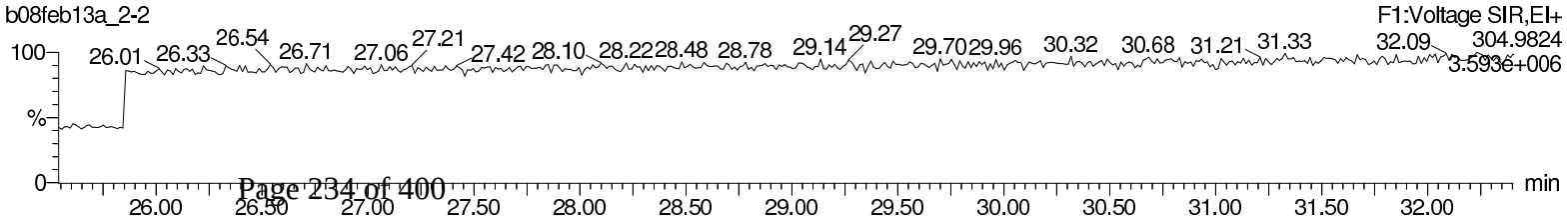
13C-2378-TCDD



37Cl-2378-TCDD (SS)



Lock Mass F1



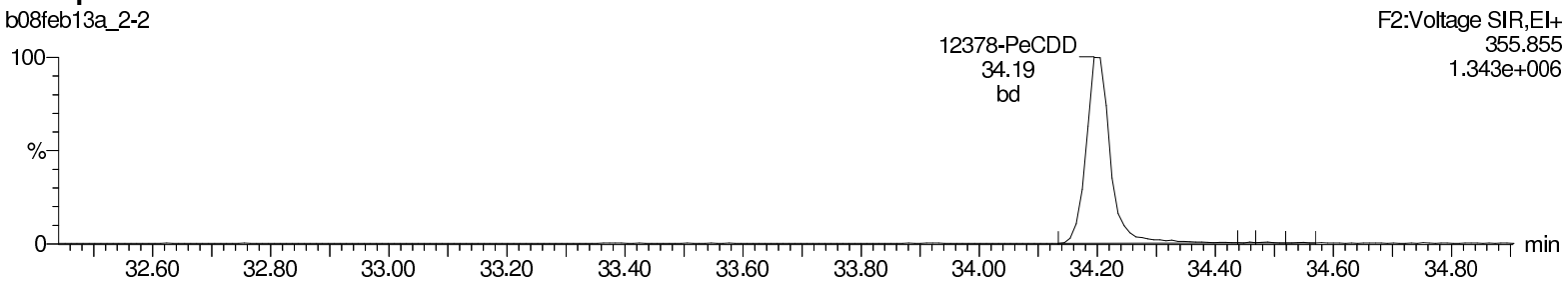
Quantify Sample Report **MassLynx 4.1**
Method 8290 Quantification Report

Dataset: C:\MassLynx\Default.pro\Sample Results\8290-b08feb13a_2.qld

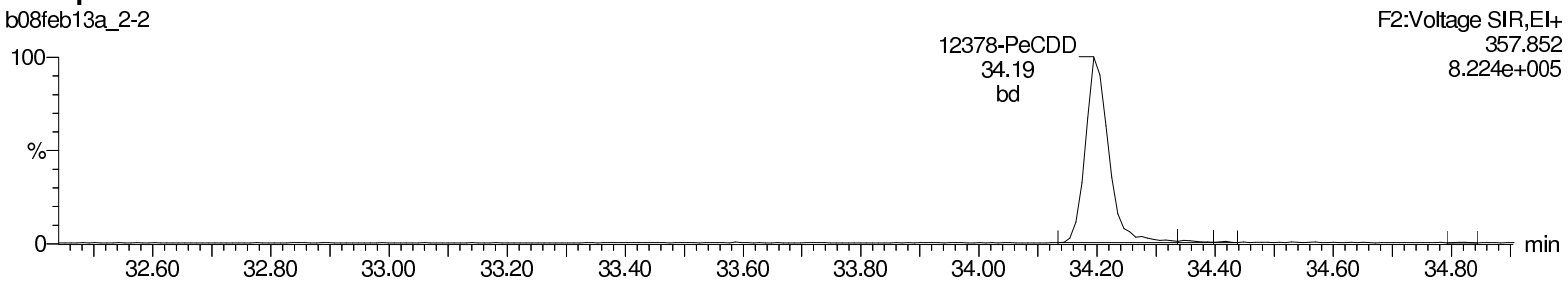
Last Altered: Monday, February 11, 2013 14:16:57 Eastern Standard Time
Printed: Monday, February 11, 2013 14:18:53 Eastern Standard Time

Name: b08feb13a_2-2, Date: 08-Feb-2013, Time: 15:34:54, ID: 12007608-1 LCSD, Description: , Job: HMS8290_1S, Task: HRP763_1, User: JTF

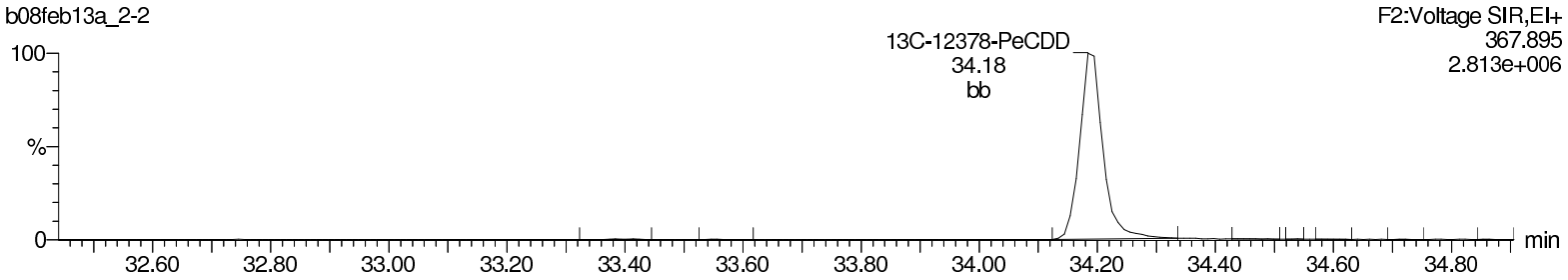
Total-pentadioxins



Total-pentadioxins



13C-12378-PeCDD



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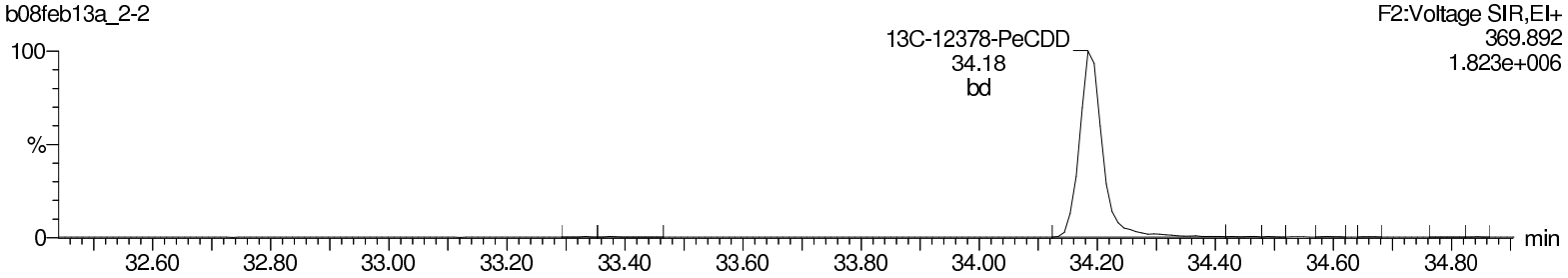
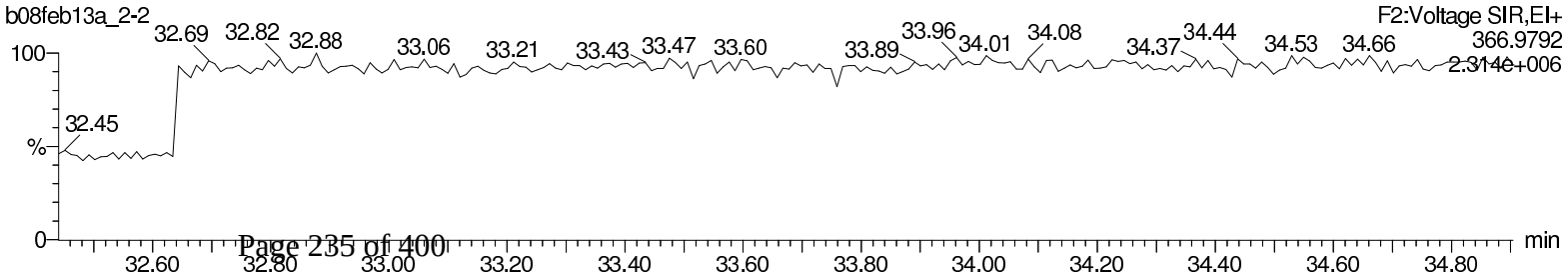


Lock Mass F2



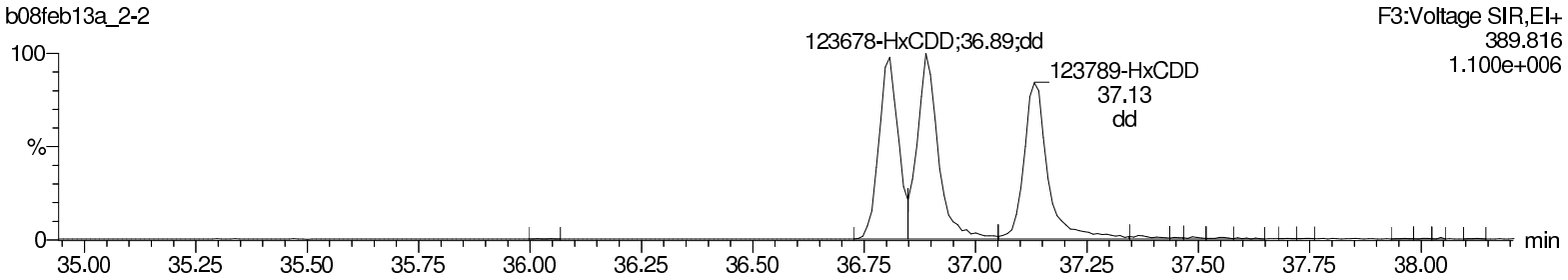
Quantify Sample Report **MassLynx 4.1**
Method 8290 Quantification Report

Dataset: C:\MassLynx\Default.pro\Sample Results\8290-b08feb13a_2.qld

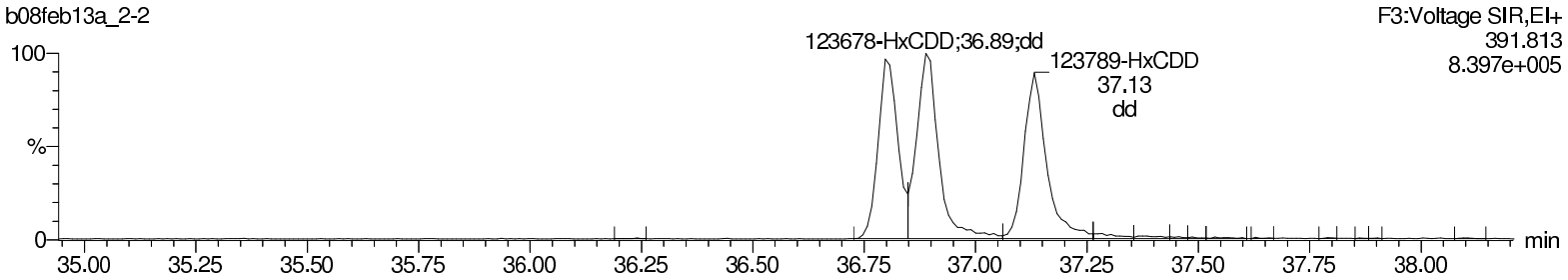
Last Altered: Monday, February 11, 2013 14:16:57 Eastern Standard Time
Printed: Monday, February 11, 2013 14:18:53 Eastern Standard Time

Name: b08feb13a_2-2, Date: 08-Feb-2013, Time: 15:34:54, ID: 12007608-1 LCSD, Description: , Job: HMS8290_1S, Task: HRP763_1, User: JTF

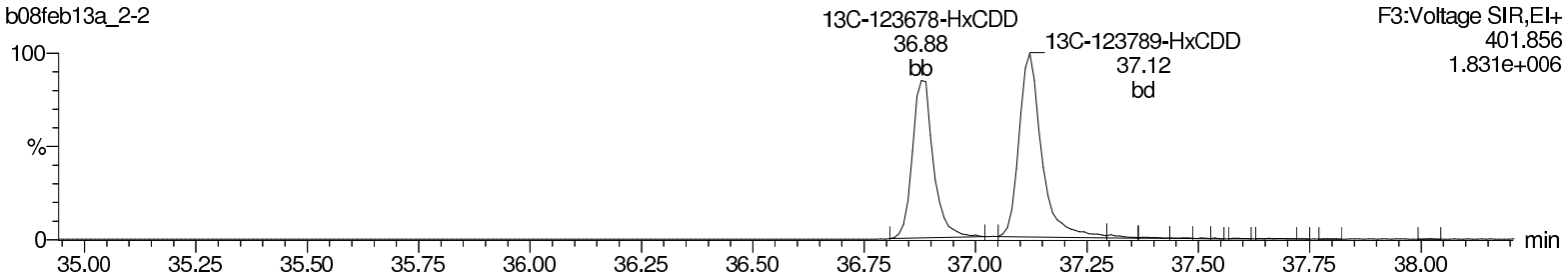
Total-hexadioxins



Total-hexadioxins



13C-123678-HxCDD



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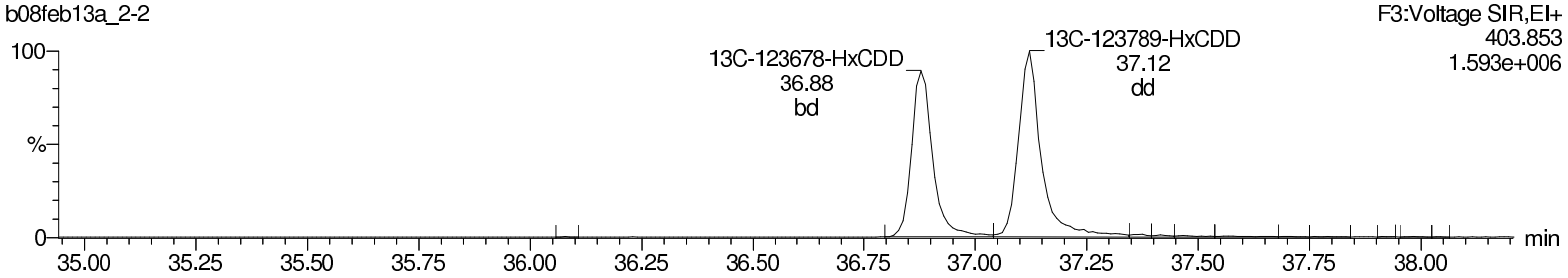
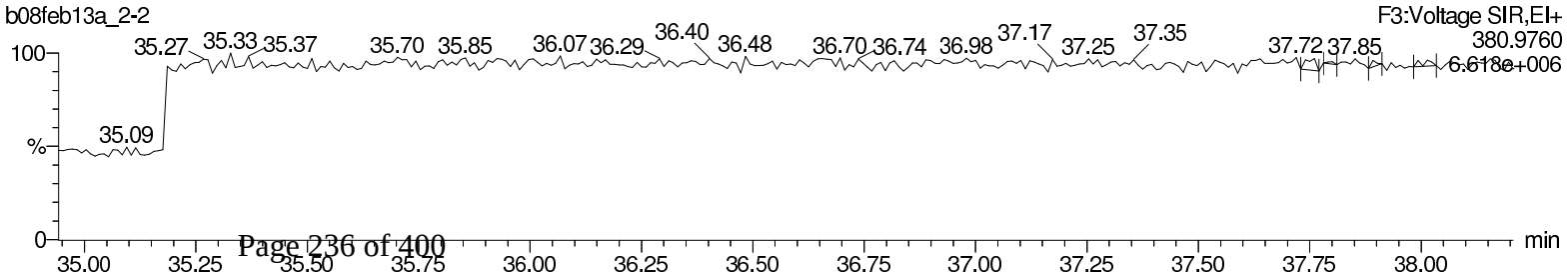


Lock Mass F3



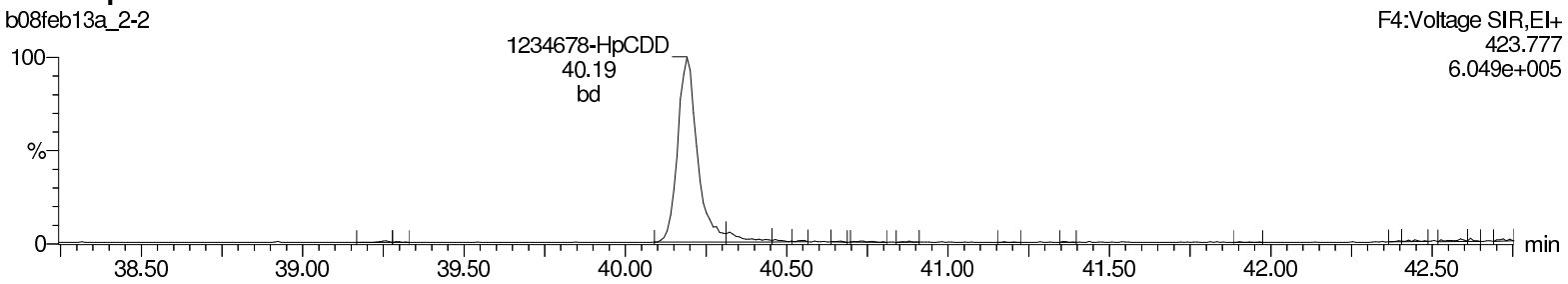
Quantify Sample Report **MassLynx 4.1**
Method 8290 Quantification Report

Dataset: C:\MassLynx\Default.pro\Sample Results\8290-b08feb13a_2.qld

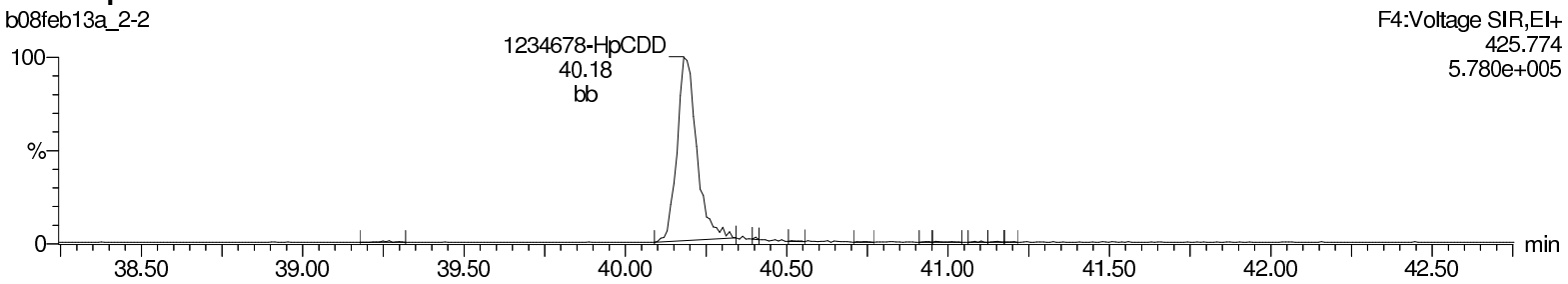
Last Altered: Monday, February 11, 2013 14:16:57 Eastern Standard Time
Printed: Monday, February 11, 2013 14:18:53 Eastern Standard Time

Name: b08feb13a_2-2, Date: 08-Feb-2013, Time: 15:34:54, ID: 12007608-1 LCSD, Description: , Job: HMS8290_1S, Task: HRP763_1, User: JTF

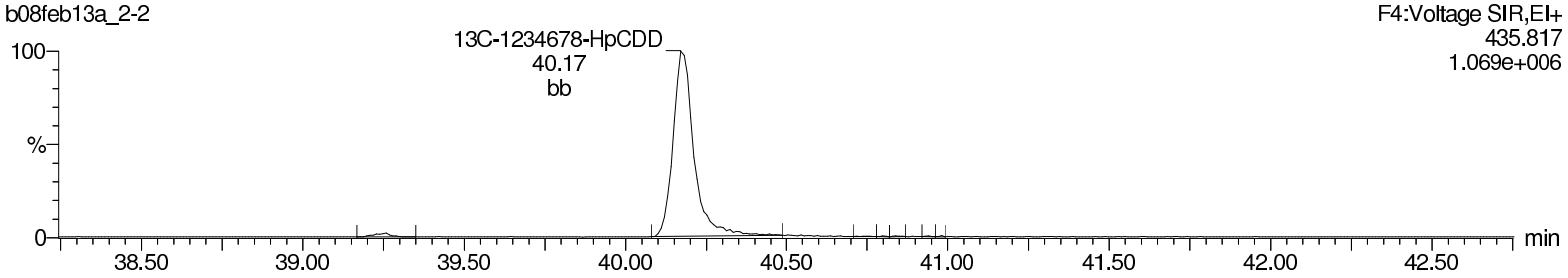
Total-heptadioxins



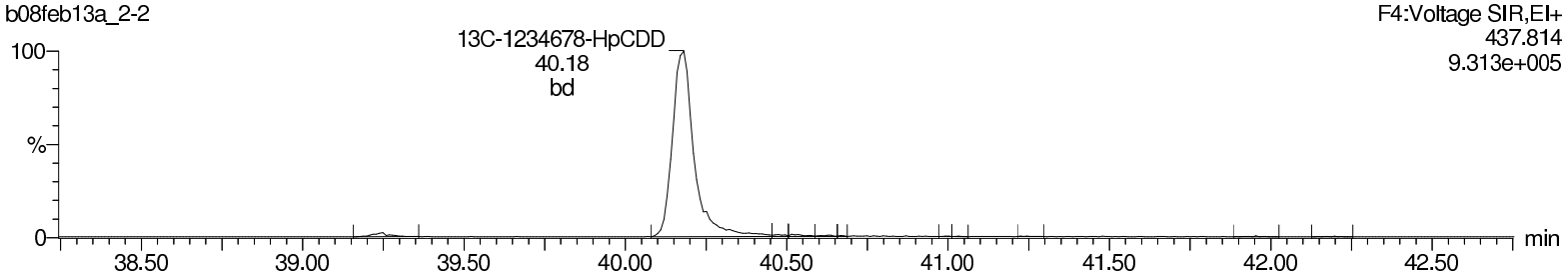
Total-heptadioxins



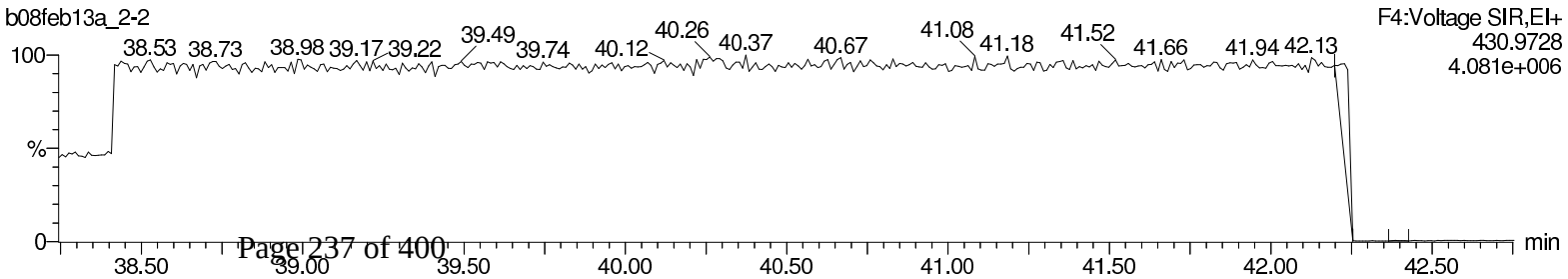
13C-1234678-HpCDD



13C-1234678-HpCDD



Lock Mass F4



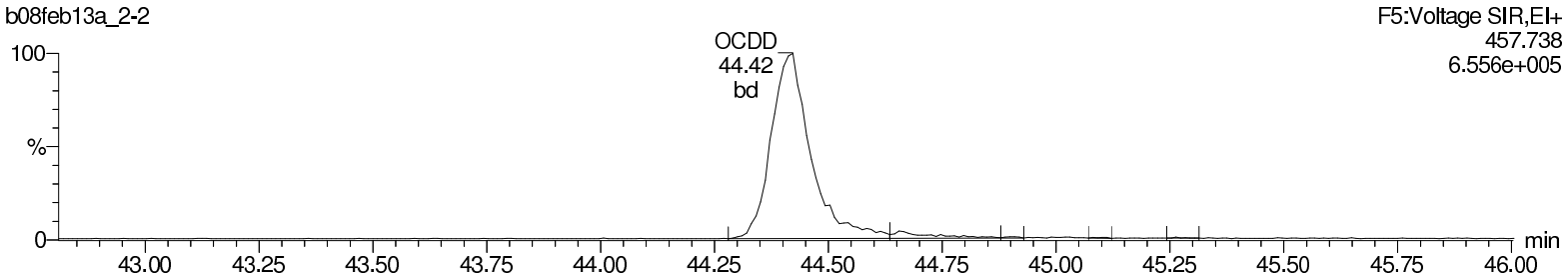
Quantify Sample Report **MassLynx 4.1**
Method 8290 Quantification Report

Dataset: C:\MassLynx\Default.pro\Sample Results\8290-b08feb13a_2.qld

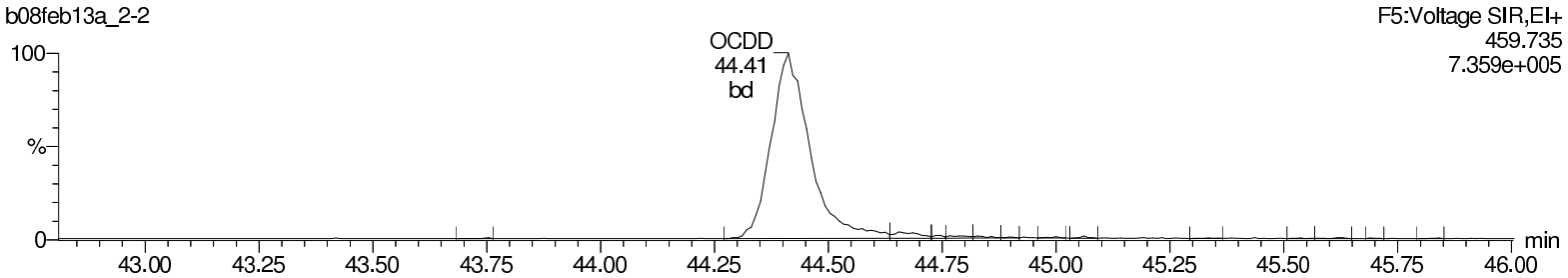
Last Altered: Monday, February 11, 2013 14:16:57 Eastern Standard Time
Printed: Monday, February 11, 2013 14:18:53 Eastern Standard Time

Name: b08feb13a_2-2, Date: 08-Feb-2013, Time: 15:34:54, ID: 12007608-1 LCSD, Description: , Job: HMS8290_1S, Task: HRP763_1, User: JTF

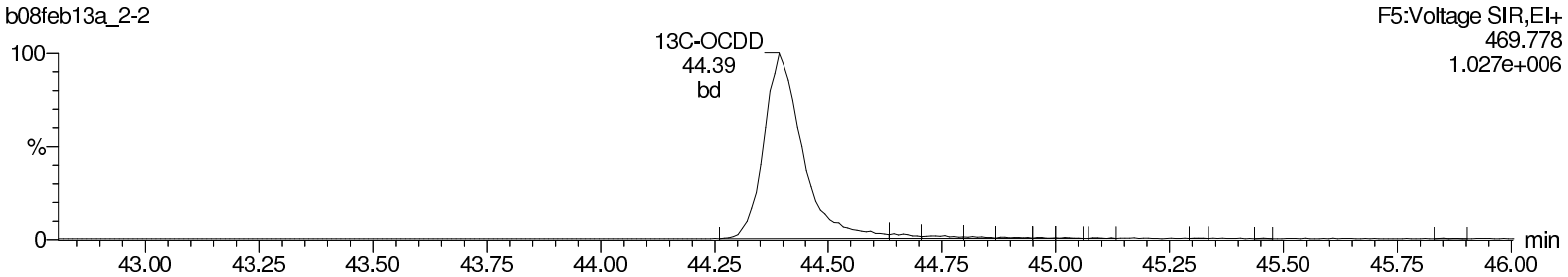
OCDD



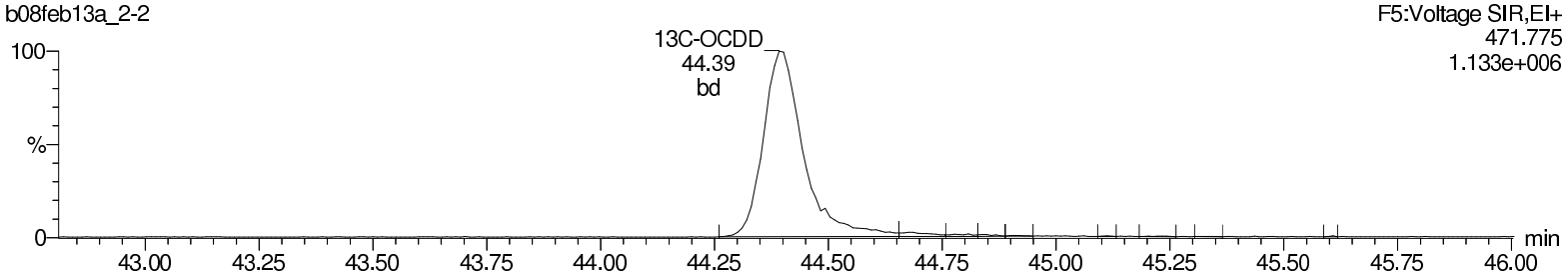
OCDD



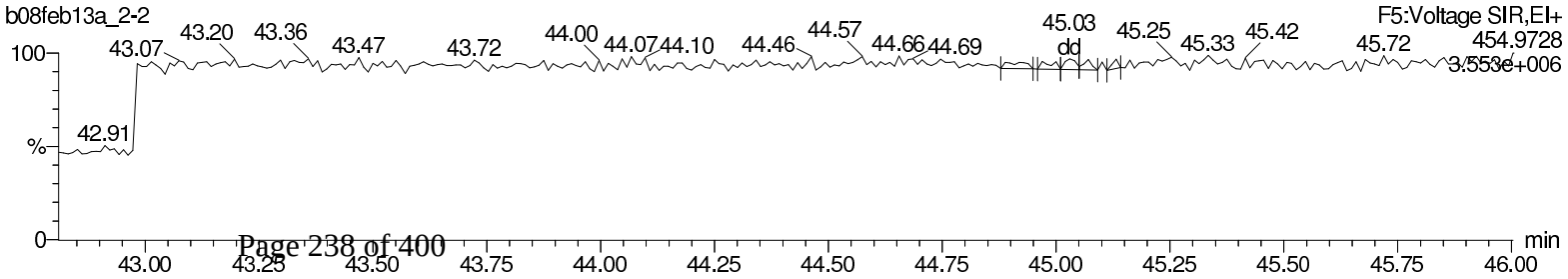
13C-OCDD



13C-OCDD



Lock Mass F5



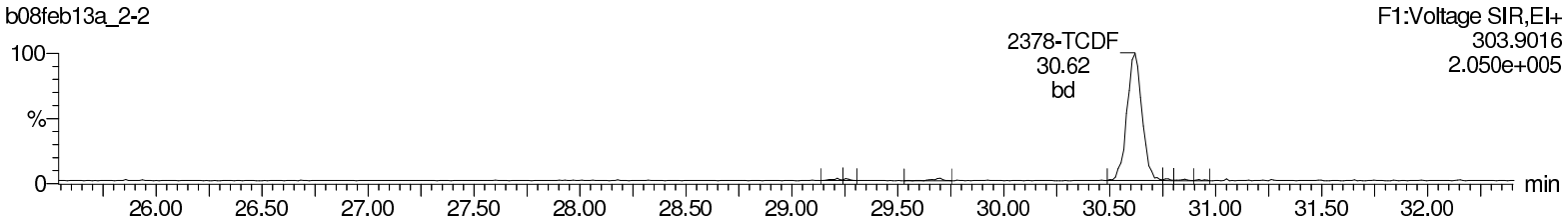
Quantify Sample Report **MassLynx 4.1**
Method 8290 Quantification Report

Dataset: C:\MassLynx\Default.pro\Sample Results\8290-b08feb13a_2.qld

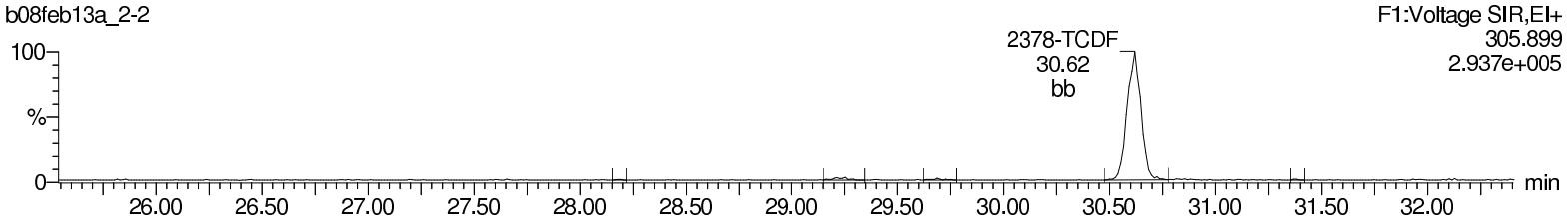
Last Altered: Monday, February 11, 2013 14:16:57 Eastern Standard Time
Printed: Monday, February 11, 2013 14:18:53 Eastern Standard Time

Name: b08feb13a_2-2, Date: 08-Feb-2013, Time: 15:34:54, ID: 12007608-1 LCSD, Description: , Job: HMS8290_1S, Task: HRP763_1, User: JTF

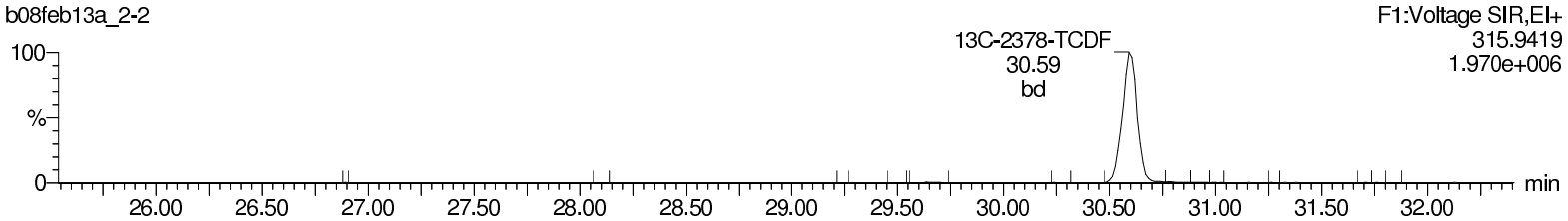
Total-tetrafurans



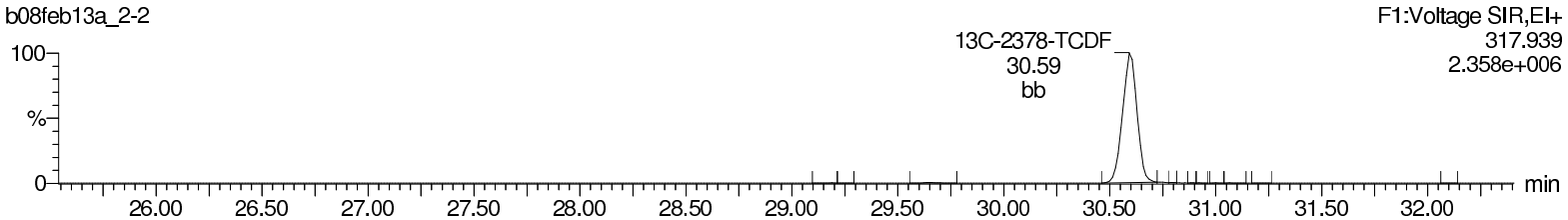
Total-tetrafurans



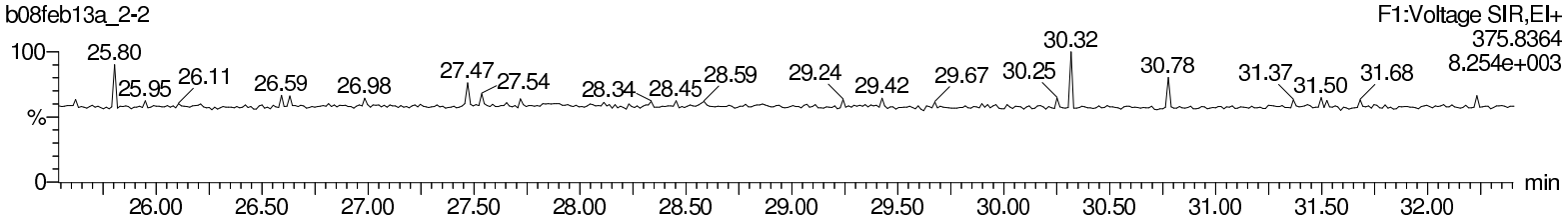
13C-2378-TCDF



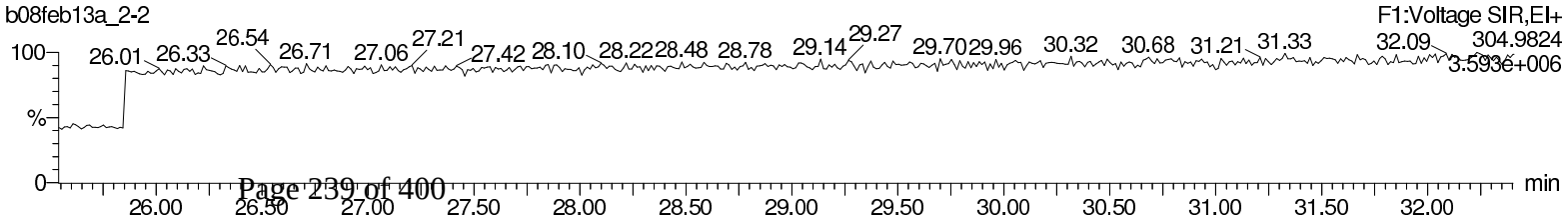
13C-2378-TCDF



HxDPE



Lock Mass F1



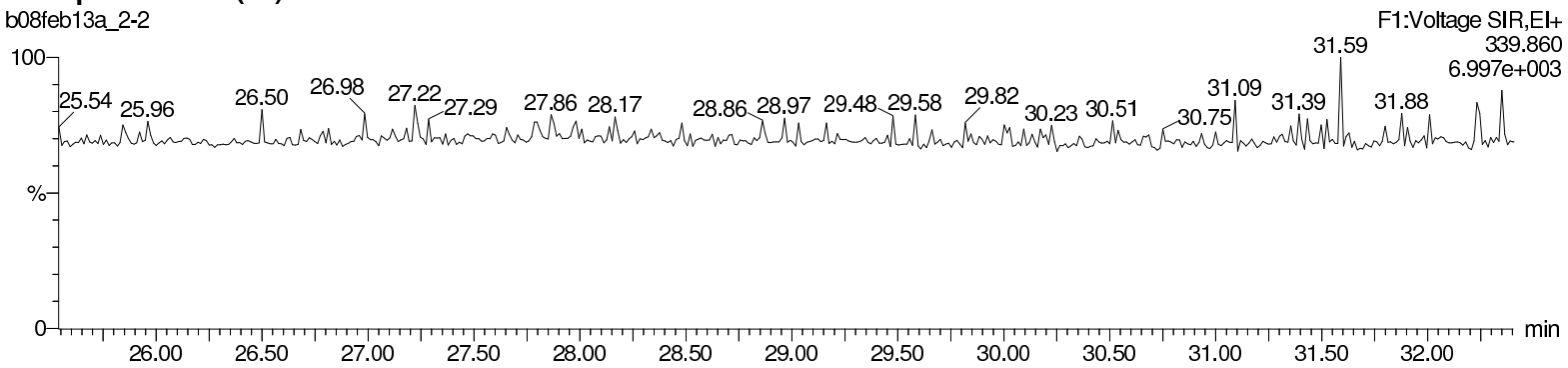
Quantify Sample Report **MassLynx 4.1**
Method 8290 Quantification Report

Dataset: C:\MassLynx\Default.pro\Sample Results\8290-b08feb13a_2.qld

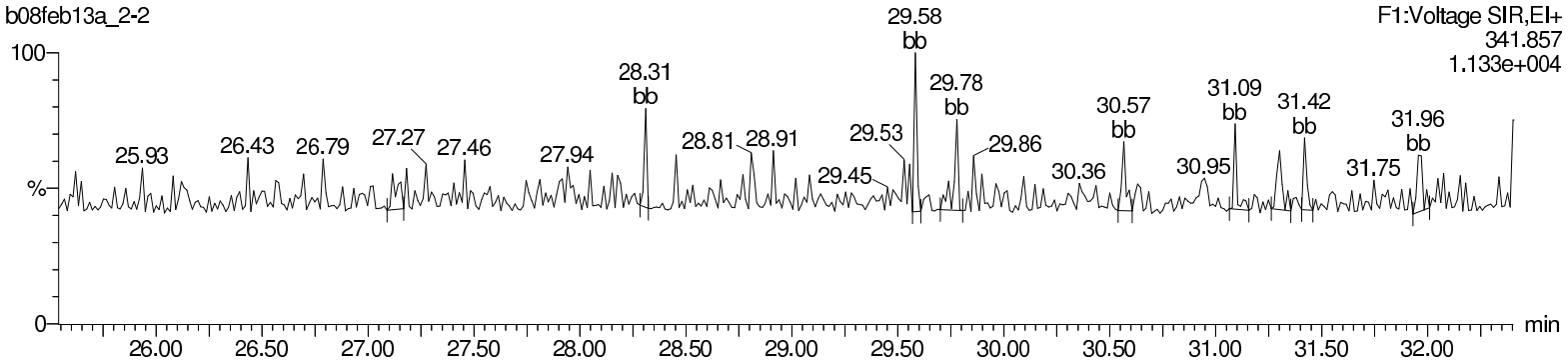
Last Altered: Monday, February 11, 2013 14:16:57 Eastern Standard Time
Printed: Monday, February 11, 2013 14:18:53 Eastern Standard Time

Name: b08feb13a_2-2, Date: 08-Feb-2013, Time: 15:34:54, ID: 12007608-1 LCSD, Description: , Job: HMS8290_1S, Task: HRP763_1, User: JTF

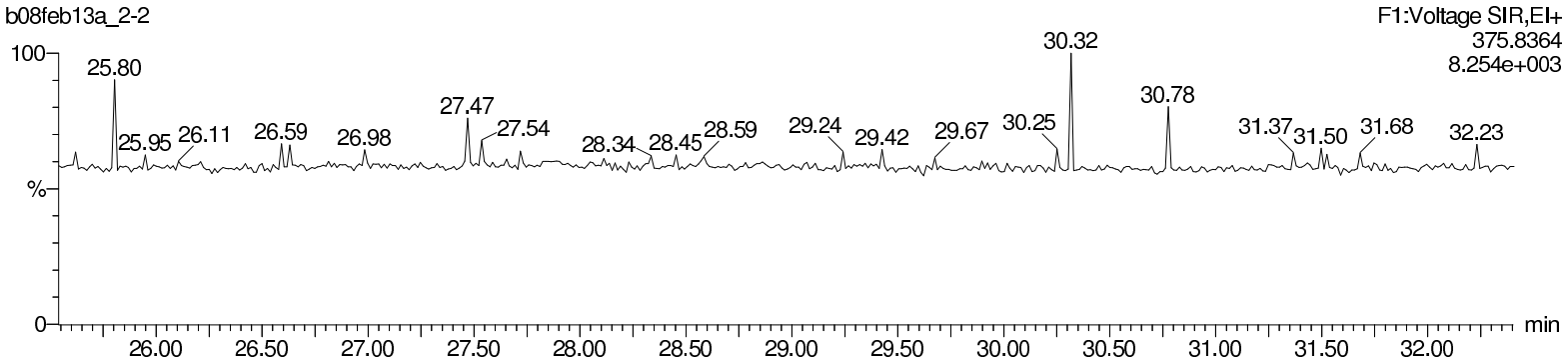
Total-pentafurans (F1)



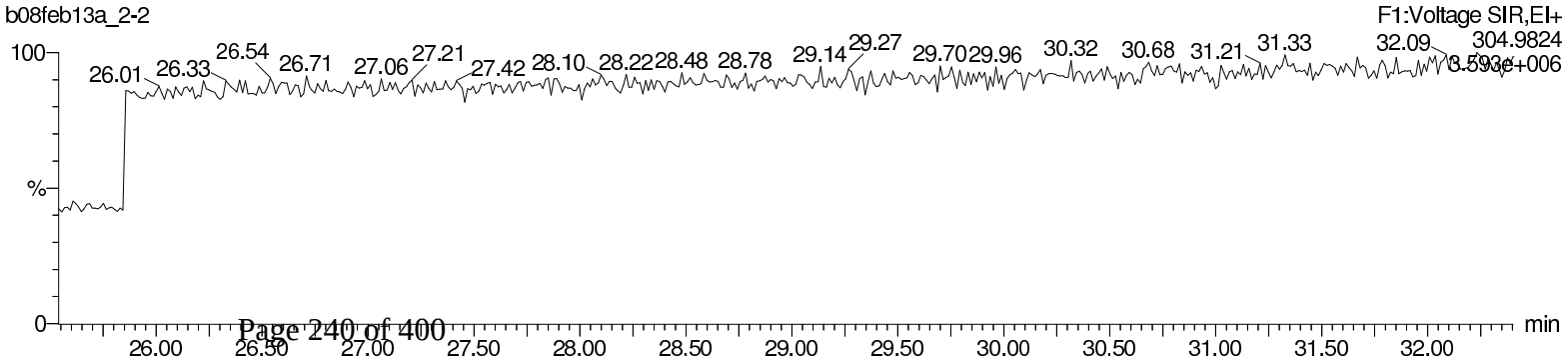
Total-pentafurans (F1)



HxDPE



Lock Mass F1



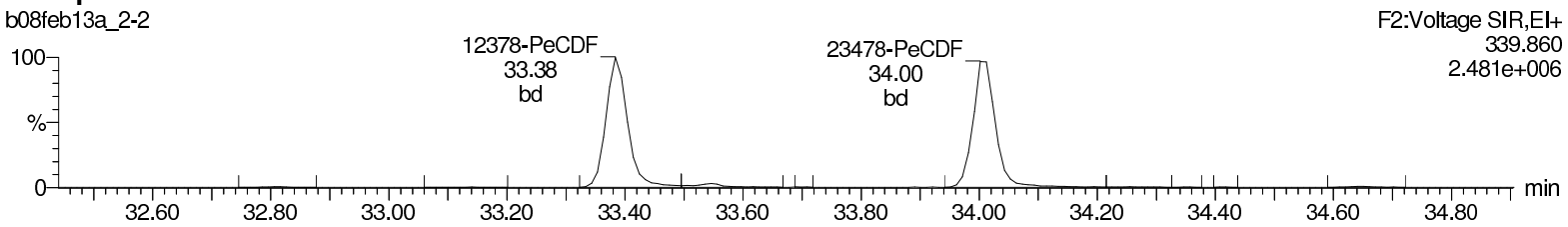
Quantify Sample Report **MassLynx 4.1**
Method 8290 Quantification Report

Dataset: C:\MassLynx\Default.pro\Sample Results\8290-b08feb13a_2.qld

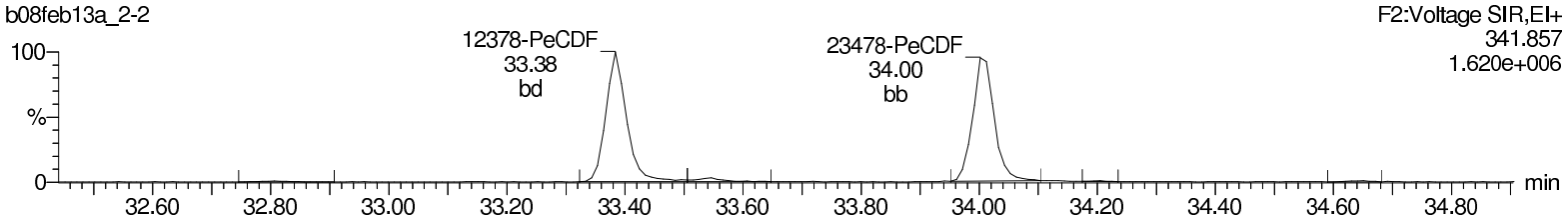
Last Altered: Monday, February 11, 2013 14:16:57 Eastern Standard Time
Printed: Monday, February 11, 2013 14:18:53 Eastern Standard Time

Name: b08feb13a_2-2, Date: 08-Feb-2013, Time: 15:34:54, ID: 12007608-1 LCSD, Description: , Job: HMS8290_1S, Task: HRP763_1, User: JTF

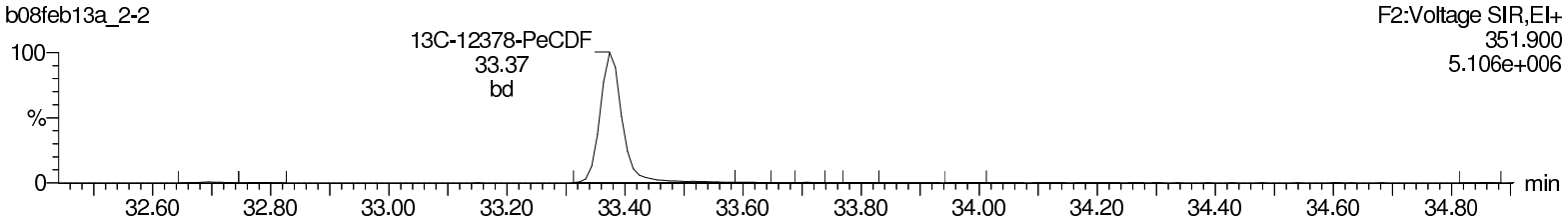
Total-pentafurans



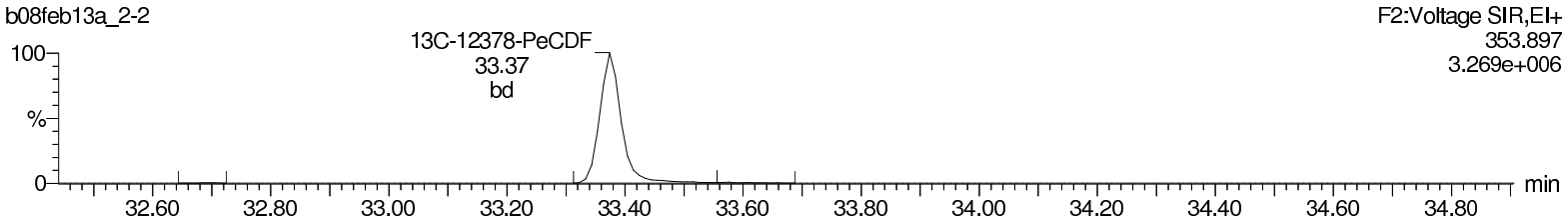
Total-pentafurans



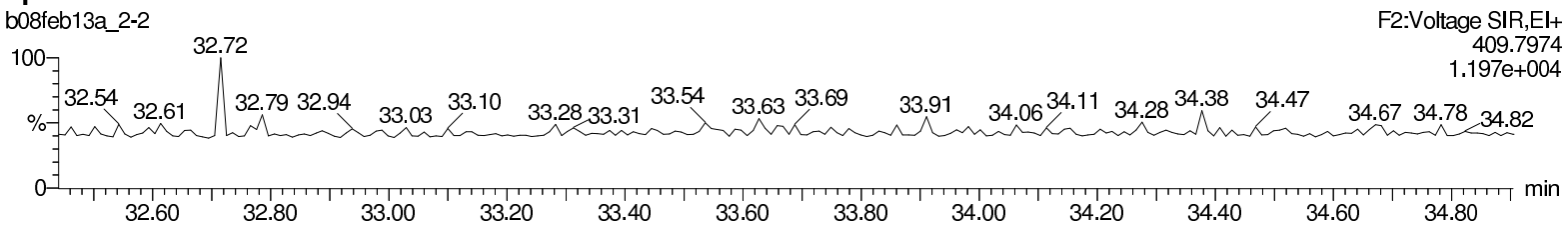
13C-12378-PeCDF



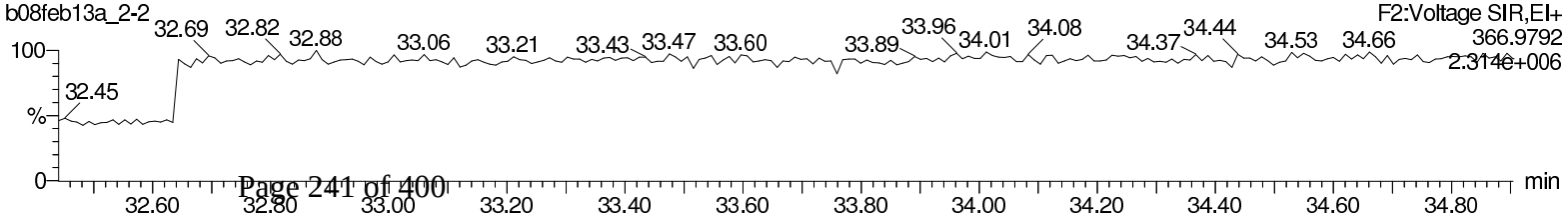
13C-12378-PeCDF



HpDPE



Lock Mass F2



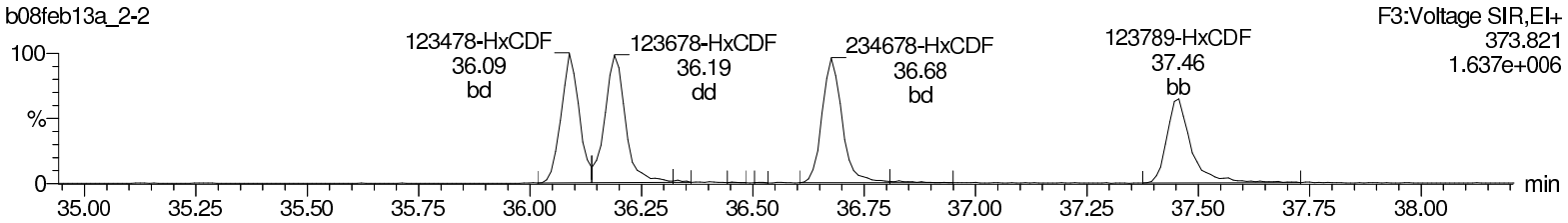
Quantify Sample Report **MassLynx 4.1**
Method 8290 Quantification Report

Dataset: C:\MassLynx\Default.pro\Sample Results\8290-b08feb13a_2.qld

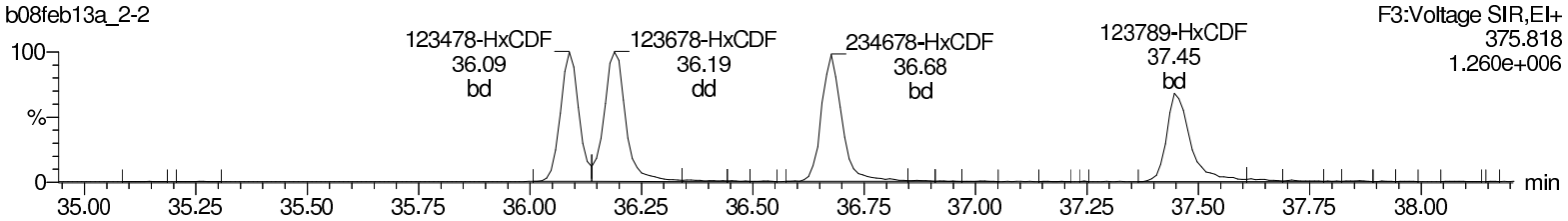
Last Altered: Monday, February 11, 2013 14:16:57 Eastern Standard Time
Printed: Monday, February 11, 2013 14:18:53 Eastern Standard Time

Name: b08feb13a_2-2, Date: 08-Feb-2013, Time: 15:34:54, ID: 12007608-1 LCSD, Description: , Job: HMS8290_1S, Task: HRP763_1, User: JTF

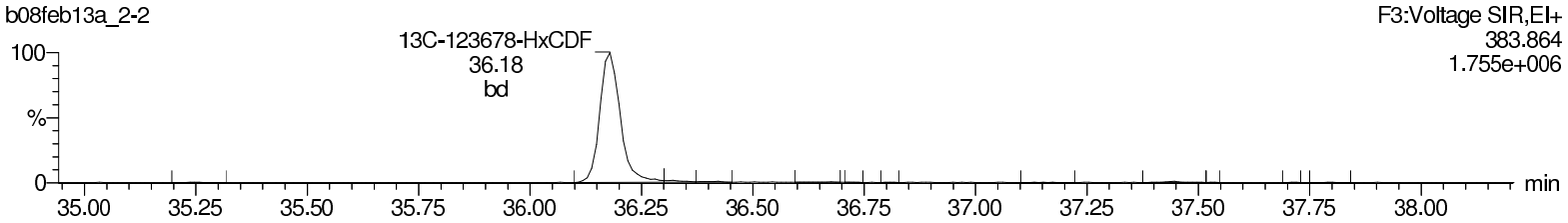
Total-hexafurans



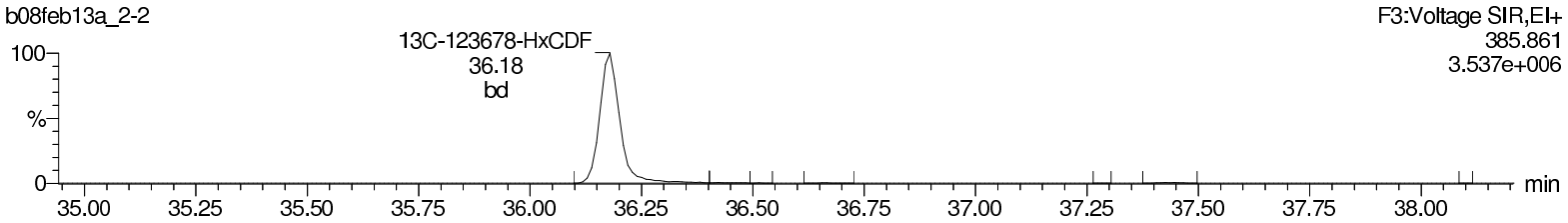
Total-hexafurans



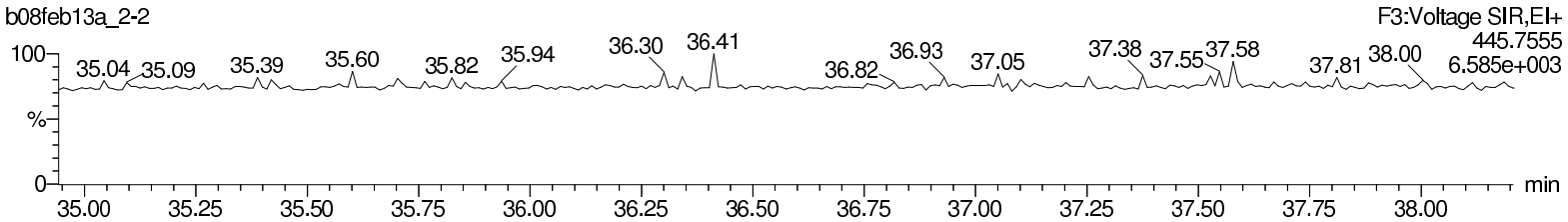
13C-123678-HxCDF



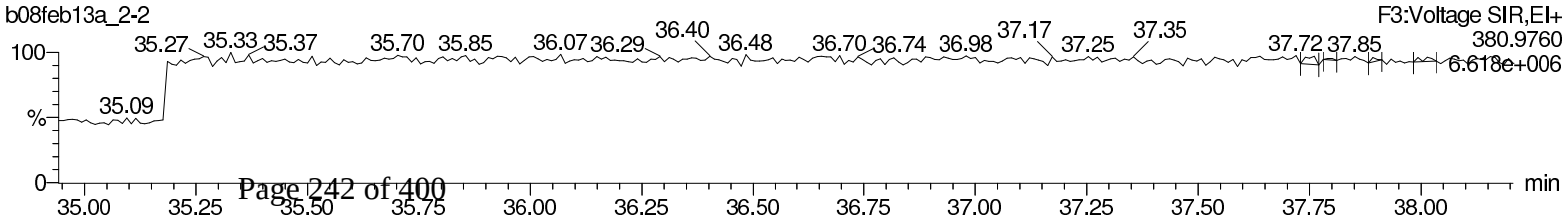
13C-123678-HxCDF



OcDPE



Lock Mass F3



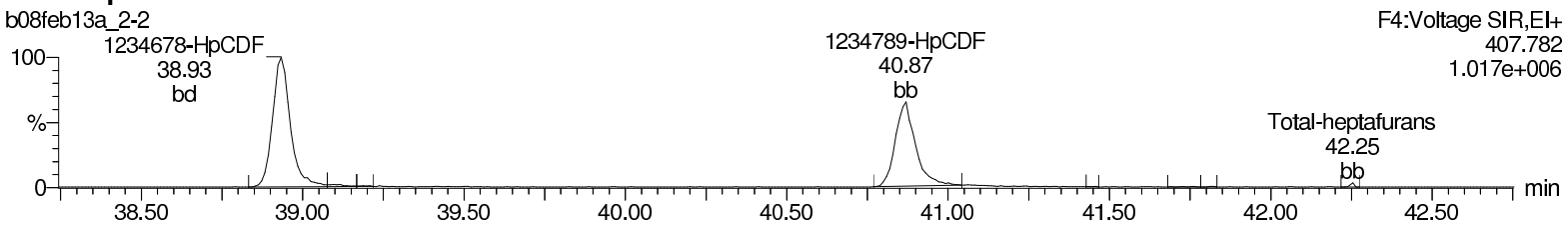
Quantify Sample Report **MassLynx 4.1**
Method 8290 Quantification Report

Dataset: C:\MassLynx\Default.pro\Sample Results\8290-b08feb13a_2.qld

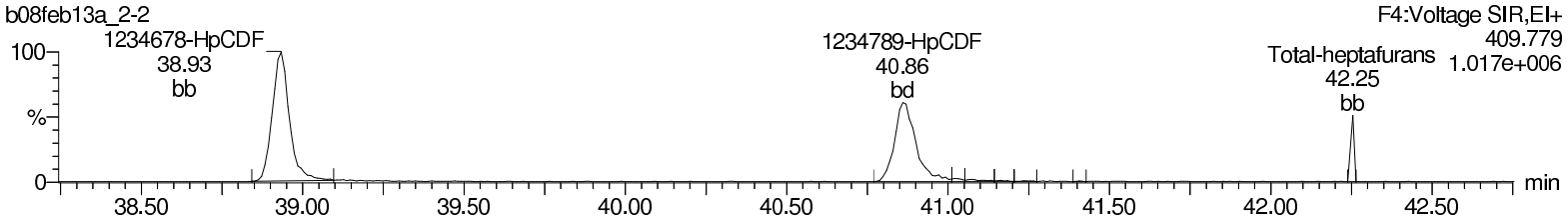
Last Altered: Monday, February 11, 2013 14:16:57 Eastern Standard Time
Printed: Monday, February 11, 2013 14:18:53 Eastern Standard Time

Name: b08feb13a_2-2, Date: 08-Feb-2013, Time: 15:34:54, ID: 12007608-1 LCSD, Description: , Job: HMS8290_1S, Task: HRP763_1, User: JTF

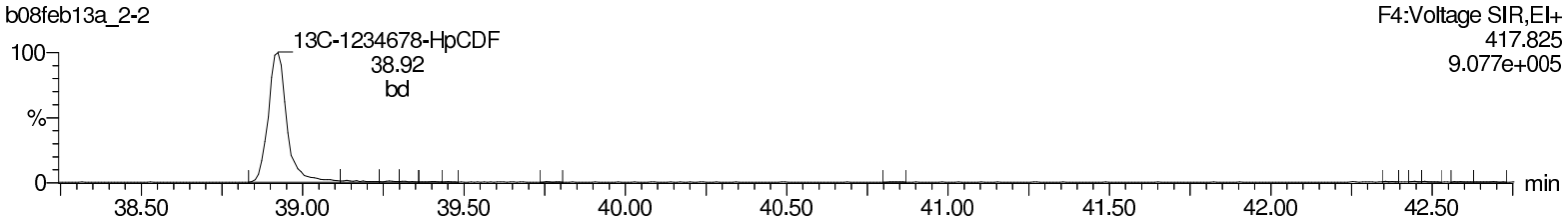
Total-heptafurans



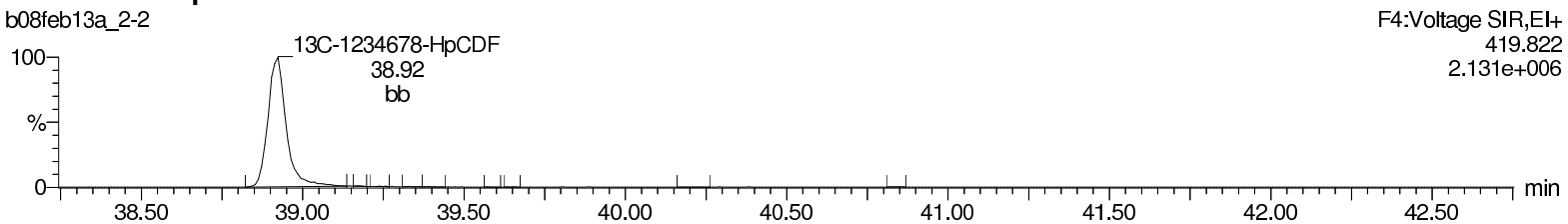
Total-heptafurans



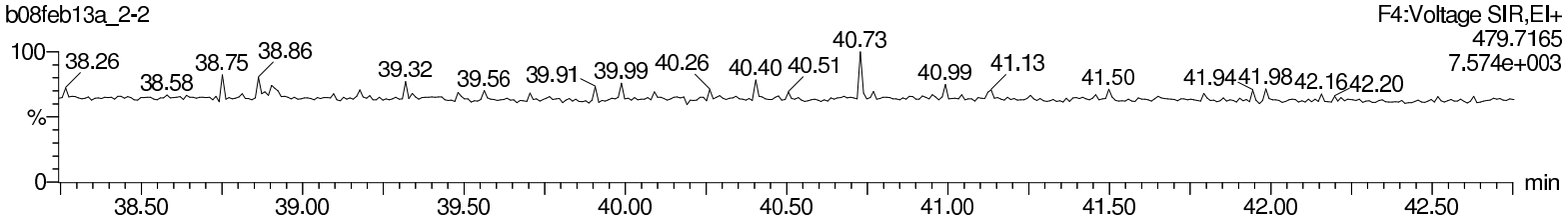
13C-1234678-HpCDF



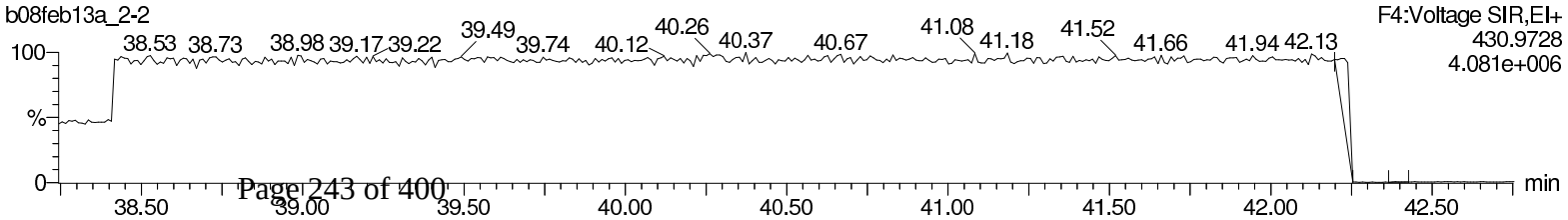
13C-1234678-HpCDF



NoDPE



Lock Mass F4



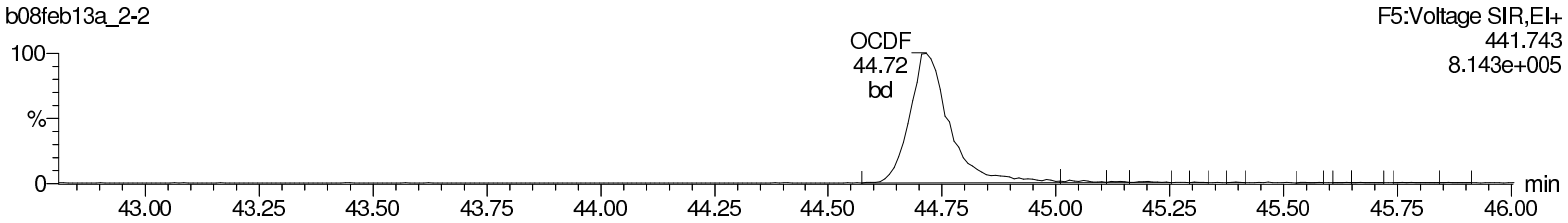
Quantify Sample Report **MassLynx 4.1**
Method 8290 Quantification Report

Dataset: C:\MassLynx\Default.pro\Sample Results\8290-b08feb13a_2.qld

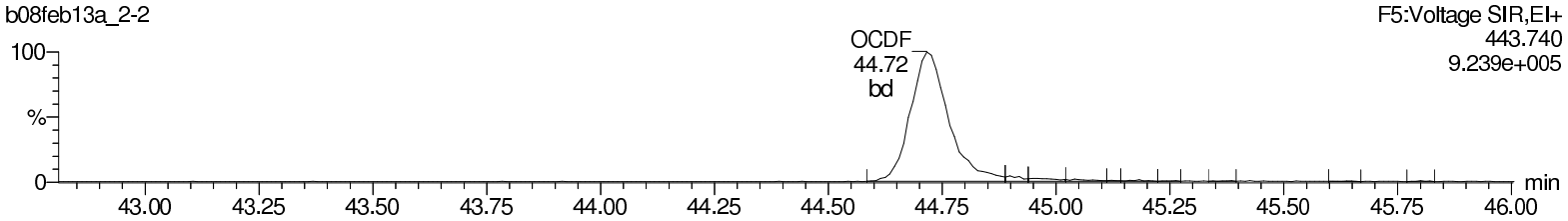
Last Altered: Monday, February 11, 2013 14:16:57 Eastern Standard Time
Printed: Monday, February 11, 2013 14:18:53 Eastern Standard Time

Name: b08feb13a_2-2, Date: 08-Feb-2013, Time: 15:34:54, ID: 12007608-1 LCSD, Description: , Job: HMS8290_1S, Task: HRP763_1, User: JTF

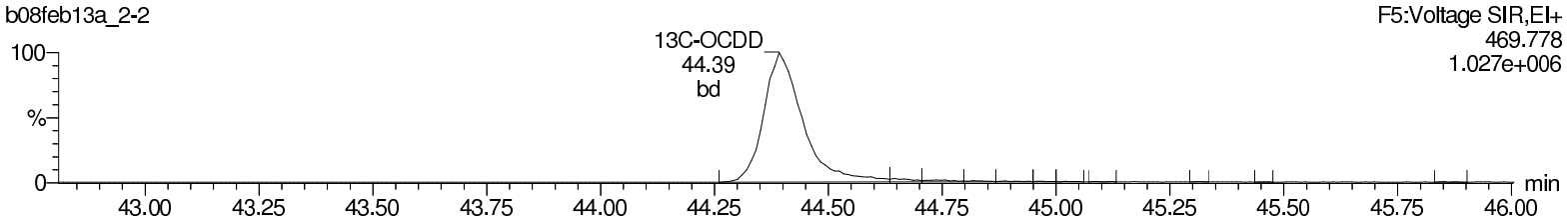
OCDF



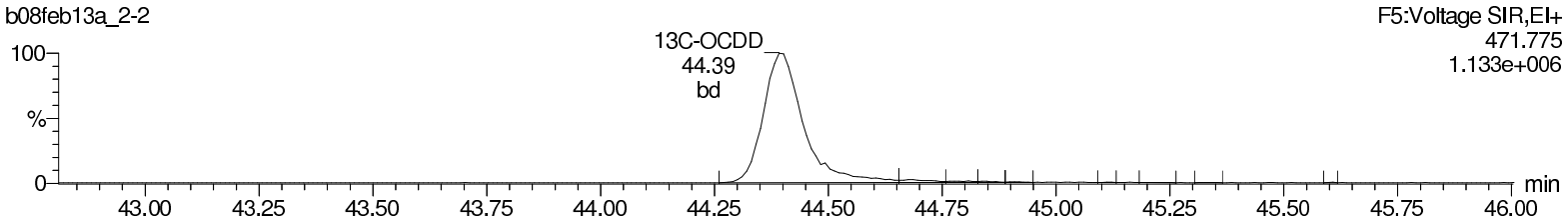
OCDF



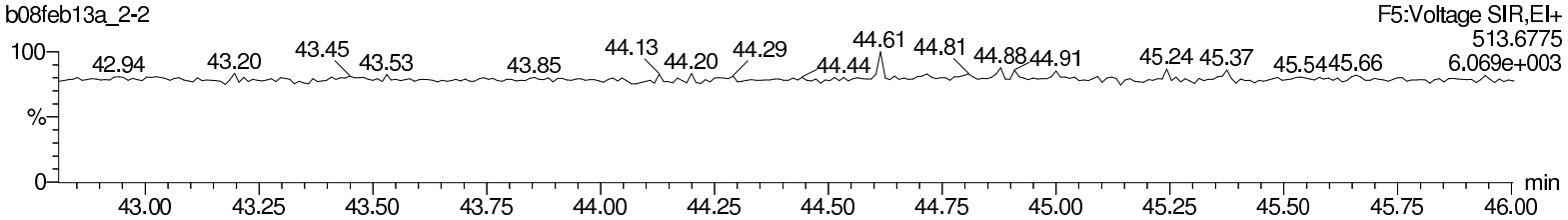
13C-OCDD



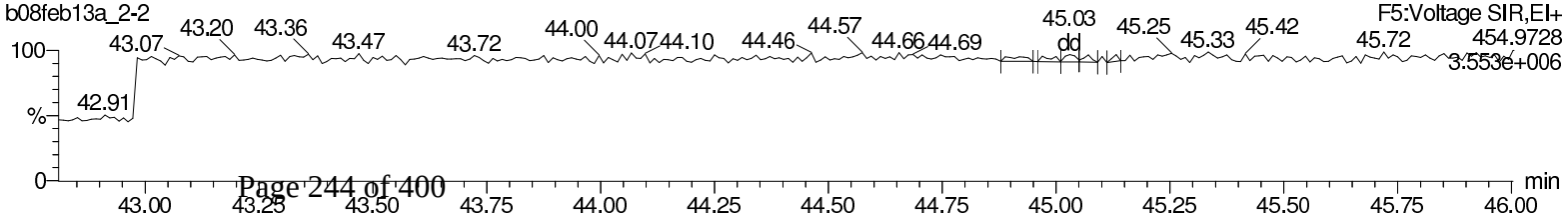
13C-OCDD



DeDPE



Lock Mass F5



Logbooks

Prep Logbook

3540C Solid Extraction for Method 8290A

Batch ID: 22876 **Verified by:** _____

Analyst: Mary Showalter

Method: SW846 3540C

Lab SOP:

Instrument: Ohaus Scout Pro 400

Sample ID	Start Run Date	Aliquot (g)	ES Amount (uL)	ES Serial#	MX Amount (uL)	MX Serial#	Decanted? (Y/N)
12007606 MB	06-FEB-2013 15:00	10	40	WD130125-01.2 .05 ng/uL			N
12007607 LCS	06-FEB-2013 15:00	10	40	WD130125-01.2 .05 ng/uL	40	WD130206-01 .005 ng/uL	N
12007608 LCSD	06-FEB-2013 15:00	10	40	WD130125-01.2 .05 ng/uL	40	WD130206-01 .005 ng/uL	N
4438001 - 2	06-FEB-2013 15:00	10.72	40	WD130125-01.2 .05 ng/uL			N
12007609 - 2 MS (4438001)	06-FEB-2013 15:00	10.74	40	WD130125-01.2 .05 ng/uL	40	WD130206-01 .005 ng/uL	N
12007610 - 2 MSD (4438001)	06-FEB-2013 15:00	10.72	40	WD130125-01.2 .05 ng/uL	40	WD130206-01 .005 ng/uL	N
4486001	06-FEB-2013 15:00	10.11	40	WD130125-01.2 .05 ng/uL			N
4486002	06-FEB-2013 15:00	10.38	40	WD130125-01.2 .05 ng/uL			N
4486003	06-FEB-2013 15:00	10.51	40	WD130125-01.2 .05 ng/uL			N
4486004	06-FEB-2013 15:00	11.18	40	WD130125-01.2 .05 ng/uL			N
4486005	06-FEB-2013 15:00	10.79	40	WD130125-01.2 .05 ng/uL			N
4486006	06-FEB-2013 15:00	11.69	40	WD130125-01.2 .05 ng/uL			N
4486007	06-FEB-2013 15:00	10.22	40	WD130125-01.2 .05 ng/uL			N
4488001	06-FEB-2013 15:00	11.54	40	WD130125-01.2 .05 ng/uL			N
4488002	06-FEB-2013 15:00	10.42	40	WD130125-01.2 .05 ng/uL			N
4488003	06-FEB-2013 15:00	10.13	40	WD130125-01.2 .05 ng/uL			N

Prep Logbook

Batch ID: 22876 **Verified by:** _____

Analyst: Mary Showalter

Method: SW846 3540C

Lab SOP:

Instrument: Ohaus Scout Pro 400

Sample ID	Start Run Date	Aliquot (g)	ES Amount (uL)	ES Serial#	MX Amount (uL)	MX Serial#	Decanted? (Y/N)

Type	Sample Id	Description	Serial Number	Spike Amt	Units
REAGENT		Sodium Sulfate	1097104-A	10	g
REAGENT		Glass beads	1099561-A.1	10	g
REAGENT		Purified tridecane	1099720-C	500	uL
REAGENT		Teflon boiling chips	1100436-A.4	10	each
REAGENT		Thimbles	1100448-A.2	1	each

Comments:

Finish Date/Time: 7-Feb-13 08:00

Prep Logbook

Cleanup Procedure for Solids

Batch ID: 22877 **Verified by:** _____

Analyst: Mike Medwedeff

Lab SOP:

Instrument: No analytical instrument

Sample ID	Start Run Date	Cleanup Type	Aliqout Analyzed (percent)
12007606 MB	07-FEB-2013 09:00	AB Silica Florisil	100
12007607 LCS	07-FEB-2013 09:00	AB Silica Florisil	100
12007608 LCSD	07-FEB-2013 09:00	AB Silica Florisil	100
4438001 - 2	07-FEB-2013 09:00	AB Silica Florisil	100
12007609 - 2 MS (4438001)	07-FEB-2013 09:00	AB Silica Florisil	100
12007610 - 2 MSD (4438001)	07-FEB-2013 09:00	AB Silica Florisil	100
4486001	07-FEB-2013 09:00	AB Silica Florisil	100
4486002	07-FEB-2013 09:00	AB Silica Florisil	100
4486003	07-FEB-2013 09:00	AB Silica Florisil	100
4486004	07-FEB-2013 09:00	AB Silica Florisil	100
4486005	07-FEB-2013 09:00	AB Silica Florisil	100
4486006	07-FEB-2013 09:00	AB Silica Florisil	100
4486007	07-FEB-2013 09:00	AB Silica Florisil	100
4488001	07-FEB-2013 09:00	AB Silica Florisil	100
4488002	07-FEB-2013 09:00	AB Silica Florisil	100
4488003	07-FEB-2013 09:00	AB Silica Florisil	100

Type	Sample Id	Description	Serial Number	Spike Amt	Units
REAGENT		Glass Wool	1096566-A	1	each
REAGENT		Sodium Sulfate	1097104-A	3	g
REAGENT		Silica Gel	1097891-A.5	2	g
REAGENT		Acid silica	1098634-C	7	g
REAGENT		Methylene Chloride	1099636-A	100	mL
REAGENT		Florisil	1100018-A.3	1.5	g
REAGENT		Hexane	1100378-A.18	150	mL
REAGENT		Base silica	1100701-C	3	g

Comments:

Prep Logbook

Method 8290A HRMS Solid Analysis

Batch ID: 22879 **Verified by:** _____

Analyst: Jason Frink

Method: SW846 8290A

Lab SOP: CF-OA-E-002 REV# 10

Instrument: Waters Autospec Premier High-Resolution GC/MS

Sample ID	Start Run Date	Final Volume (uL)	Prep Factor (Final Volume /Aliquot) (uL/g)	Dilution	Dilution Type	Injection Volume (uL)
12007607 LCS	08-FEB-2013 14:47	20	2	1	Internal	1
12007608 LCSD	08-FEB-2013 15:34	20	2	1	Internal	1
12007606 MB	08-FEB-2013 16:22	20	2	1	Internal	1
4486001	08-FEB-2013 17:59	20	1.97824	1	Internal	1
4486002	08-FEB-2013 18:47	20	1.92678	1	Internal	1
4486003	08-FEB-2013 19:35	20	1.90295	1	Internal	1
4486004	08-FEB-2013 20:23	20	1.78891	1	Internal	1
4486005	08-FEB-2013 21:11	20	1.85357	1	Internal	1
4486006	08-FEB-2013 21:59	20	1.71086	1	Internal	1
4486007	08-FEB-2013 22:47	20	1.95695	1	Internal	1

Type	Sample Id	Description	Serial Number	Spike Amt	Units
REAGENT		8290 Injection Standard	WD130207-05	20	uL
STANDARI		8290 Injection Standard	WD130207-05	20	uL

Comments:

Moisture LogBook

Batch: 22891
Analyst: MLS
Date/Time: 06-FEB-2013
Procedure Code DRY WEIGHT
Procedure Description Dry Weight-Percent Moisture
Lab Sop: CF-OA-E-020

Sample St	Sample Id	Rpd(%)
DUP	12007621	**5.802**

Sample ID	Instrument	Run Time	Container Wt	Initial Wt	Final Wt (g)	Net Initial Wt (g)	Net Final Wt (g)	Moisture (%)	Solids (%)	Equivalent Wt (g)
4484018	B1	15:15	1.02	11.79	6.68	10.77	5.66	47.447	52.553	19.03
4484019	B1	15:15	1.01	11.25	7.67	10.24	6.66	34.961	65.039	15.38
4484020	B1	15:15	0.99	10.24	6.84	9.25	5.85	36.757	63.243	15.81
4485001	B1	15:15	1.05	12.96	10.47	11.91	9.42	20.907	79.093	12.64
4485002	B1	15:15	1.02	11.45	7.4	10.43	6.38	38.83	61.17	16.35
4485003	B1	15:15	1	10	10	9	9	0	100	10
4485004	B1	15:15	1	10	10	9	9	0	100	10
4486001	B1	15:15	1.01	10.91	6.95	9.9	5.94	40	60	16.67
4486002	B1	15:15	1.03	10.35	6.26	9.32	5.23	43.884	56.116	17.82
4486003	B1	15:15	1	11.18	7.07	10.18	6.07	40.373	59.627	16.77
4486004	B1	15:15	1.02	10.56	6.61	9.54	5.59	41.405	58.595	17.07
4486005	B1	15:15	0.99	11.08	6.93	10.09	5.94	41.13	58.87	16.99
4486006	B1	15:15	1.04	10.16	6.43	9.12	5.39	40.899	59.101	16.92
4486007	B1	15:15	0.99	10.39	6.48	9.4	5.49	41.596	58.404	17.12
4491001	B1	15:15	1	5.12	5.11	4.12	4.11	.243	99.757	10.02
4491002	B1	15:15	1.04	5.09	5.04	4.05	4	1.235	98.765	10.13
4491003	B1	15:15	1.02	5.36	5	4.34	3.98	8.295	91.705	10.9
12007621	B1	15:15	1.03	10.21	6.1	9.18	5.07	44.771	55.229	18.11

Comments:

A) Result = (Net Initial - Net Final) /Net Initial * 100

Note: Aliquot is used for the determination of the effective MDL and PQL in LIMS

Initial Calibration Data

RUN LOG

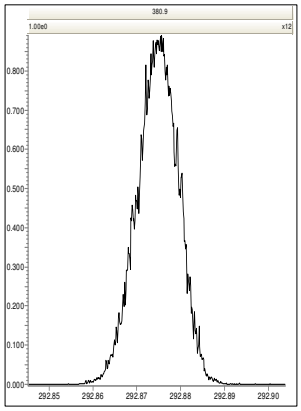
Instrument: HRP763_1

Name	Run Date	Analyst	Sample Information	Batch ID	Injection Volume	Ms Method	Tune Method
b30nov12a-1	30-NOV-2012 10:20:51	Matt Cash	CS3WT UD120824-01.2		1 uL	dioxin_db5ms	10K
CPS3K b30nov12a-2	30-NOV-2012 11:05:28	Matt Cash	SB		1 uL	dioxin_db5ms	10K
b30nov12a-3	30-NOV-2012 11:50:56	Matt Cash	CS0.1 UD110727-02		1 uL	dioxin_db5ms	10K
b30nov12a-4	30-NOV-2012 12:36:22	Matt Cash	CS0.5 UD121129-03		1 uL	dioxin_db5ms	10K
b30nov12a-5	30-NOV-2012 13:21:49	Matt Cash	CS1 UD101022-02		1 uL	dioxin_db5ms	10K
CS115 b30nov12a-6	30-NOV-2012 14:07:18	Matt Cash	CS2 UD101022-03		1 uL	dioxin_db5ms	10K
CS215 b30nov12a-7	30-NOV-2012 14:52:45	Matt Cash	CS3 UD101022-04		1 uL	dioxin_db5ms	10K
CS31R b30nov12a-8	30-NOV-2012 15:38:12	Matt Cash	CS4 UD121129-07		1 uL	dioxin_db5ms	10K
CS415 b30nov12a-9	30-NOV-2012 16:23:41	Matt Cash	CS5 UD101022-06		1 uL	dioxin_db5ms	10K
CS515 b30nov12a-10	30-NOV-2012 17:09:11	Matt Cash	SB		1 uL	dioxin_db5ms	10K
b30nov12a-11	30-NOV-2012 17:54:43	Matt Cash	CS3WT UD120824-01.2		1 uL	dioxin_db5ms	10K
CPS3L							

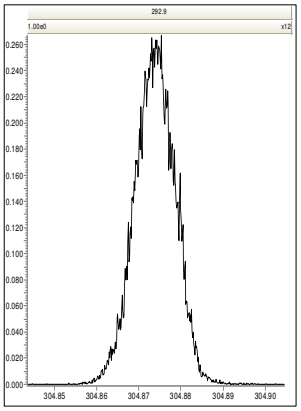
File: Experiment: dioxin_db5ms.exp Reference: pfk.ref Function: 1 @ 200 (ppm)

Printed: Friday, November 30, 2012 10:18:31 Eastern Standard Time

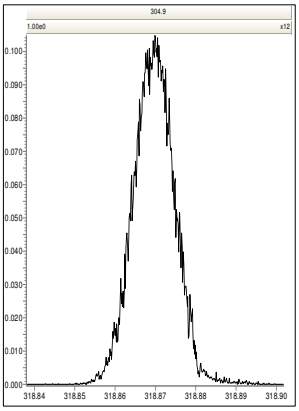
M 292.9824 R 13300



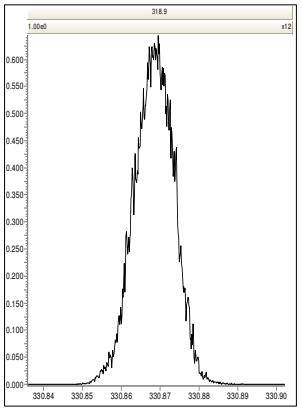
M 304.9824 R 14204



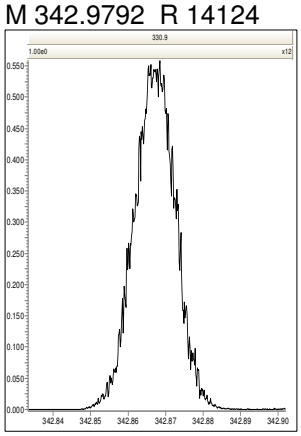
M 318.9792 R 13810



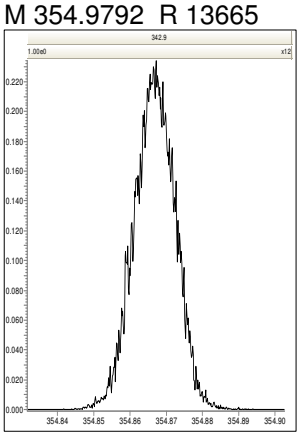
M 330.9792 R 14708



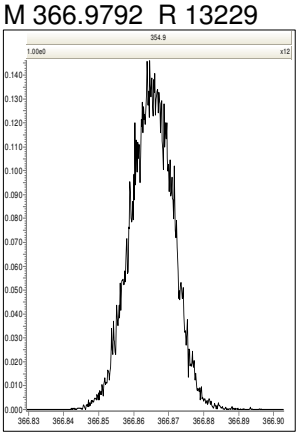
M 342.9792 R 14124



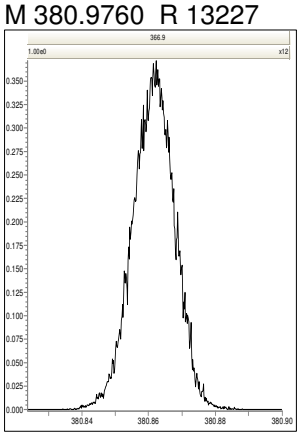
M 354.9792 R 13665



M 366.9792 R 13229



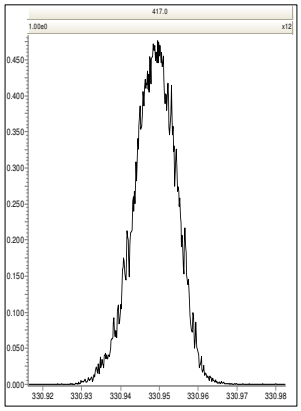
M 380.9760 R 13227



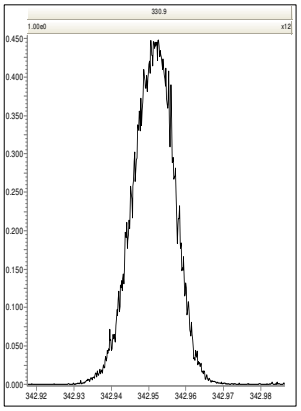
File: Experiment: dioxin_db5ms.exp Reference: pfk.ref Function: 2 @ 200 (ppm)

Printed: Friday, November 30, 2012 10:18:58 Eastern Standard Time

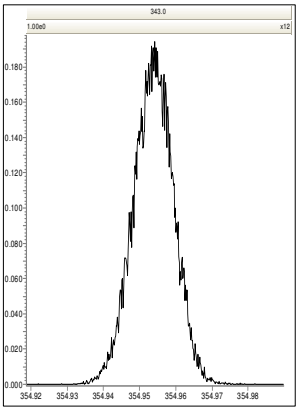
M 330.9792 R 13026



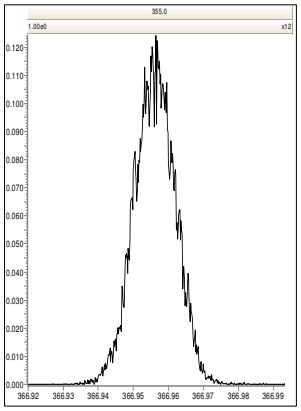
M 342.9792 R 12950



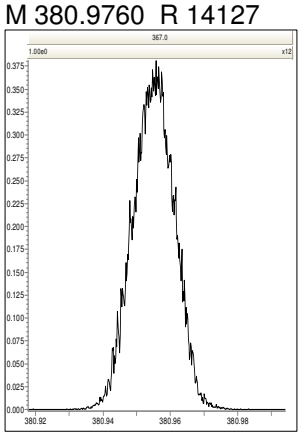
M 354.9792 R 13299



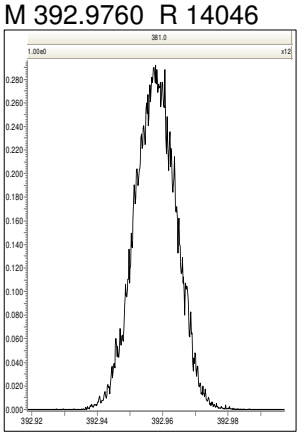
M 366.9792 R 13512



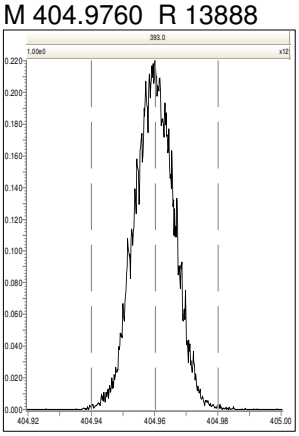
M 380.9760 R 14127



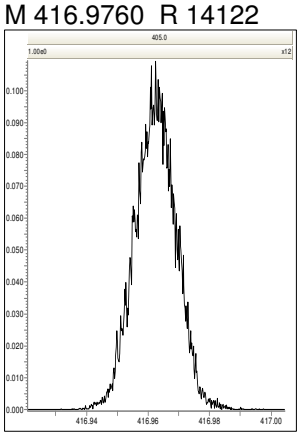
M 392.9760 R 14046



M 404.9760 R 13888



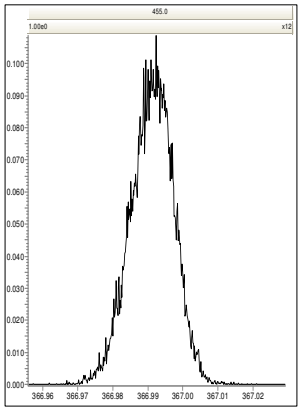
M 416.9760 R 14122



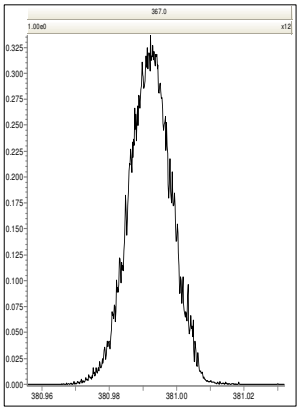
File: Experiment: dioxin_db5ms.exp Reference: pfk.ref Function: 3 @ 200 (ppm)

Printed: Friday, November 30, 2012 10:19:25 Eastern Standard Time

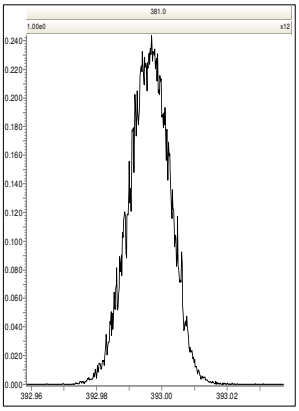
M 366.9792 R 13228



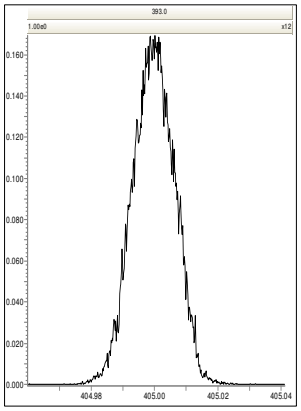
M 380.9760 R 12819



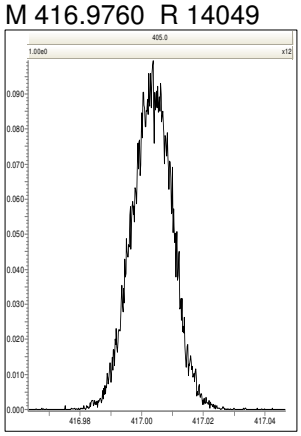
M 392.9760 R 13366



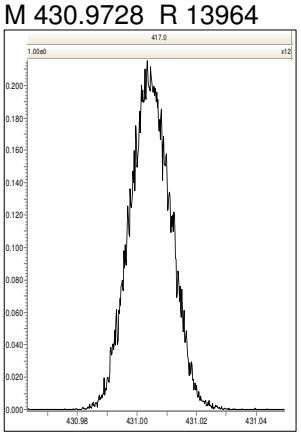
M 404.9760 R 13158



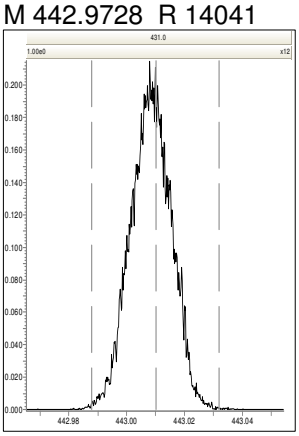
M 416.9760 R 14049



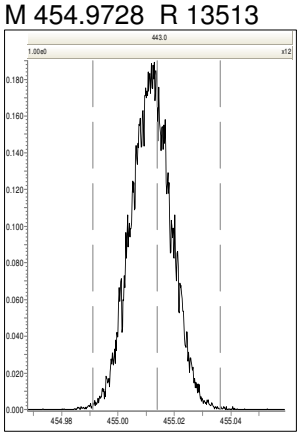
M 430.9728 R 13964



M 442.9728 R 14041



M 454.9728 R 13513



File: Experiment: dioxin_db5ms.exp Reference: pfk.ref Function: 4 @ 200 (ppm)

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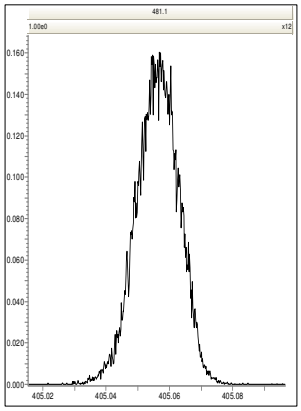
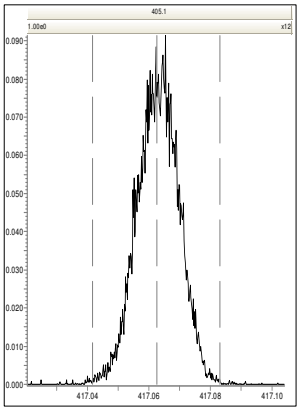
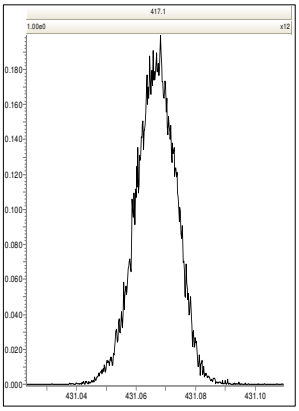
M 404.9760 R 13018



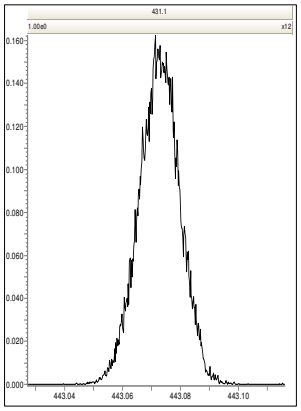
M 416.9760 R 13509



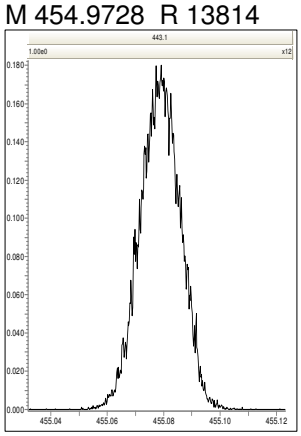
M 430.9728 R 14620



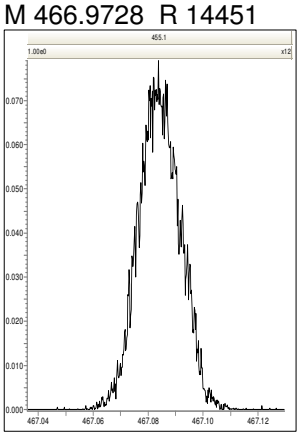
M 442.9728 R 13590



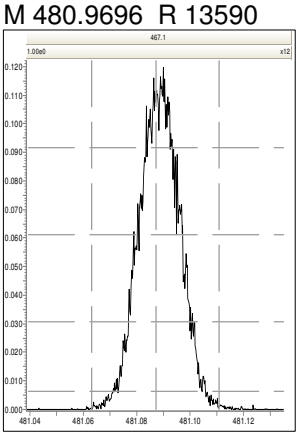
M 454.9728 R 13814



M 466.9728 R 14451



M 480.9696 R 13590



File: Experiment: dioxin_db5ms.exp Reference: pfk.ref Function: 5 @ 200 (ppm)

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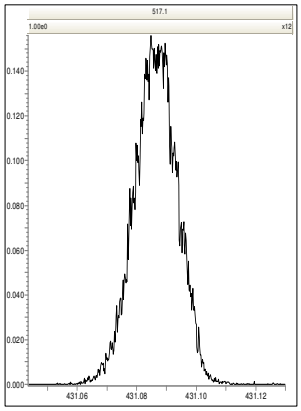
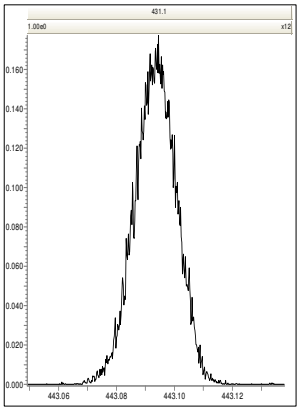
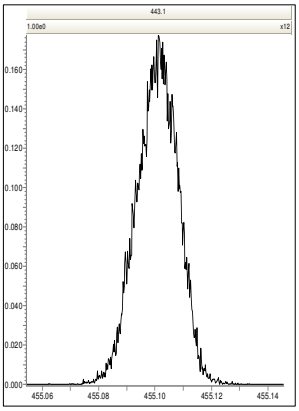
M 430.9728 R 12954



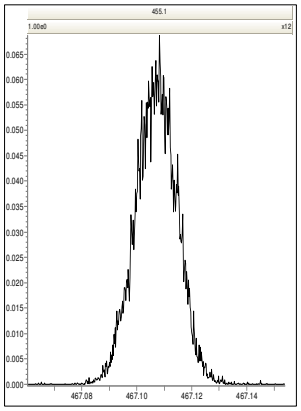
M 442.9728 R 13157



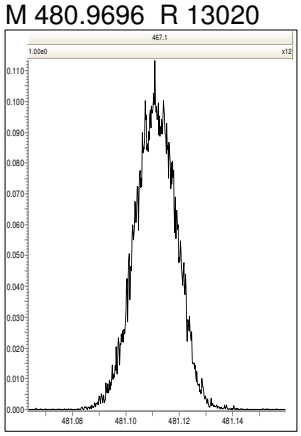
M 454.9728 R 13814



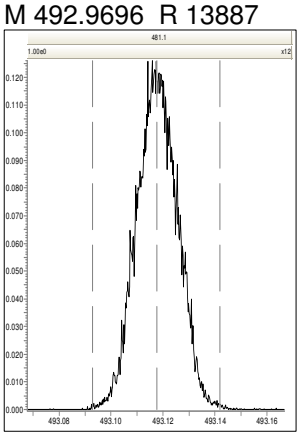
M 466.9728 R 13365



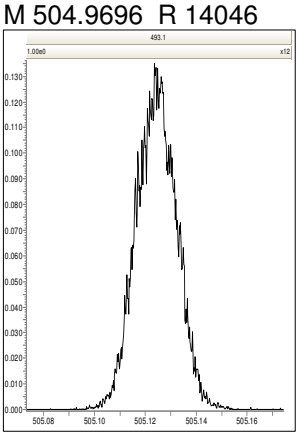
M 480.9696 R 13020



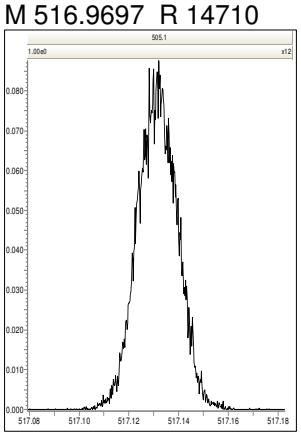
M 492.9696 R 13887



M 504.9696 R 14046



M 516.9697 R 14710



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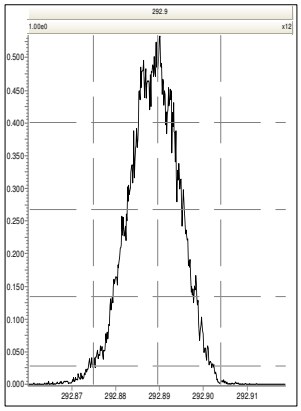
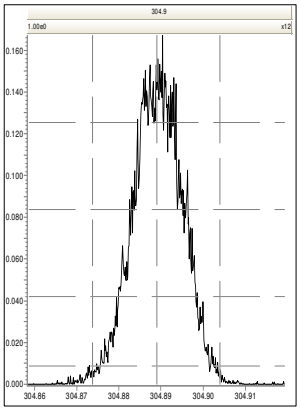
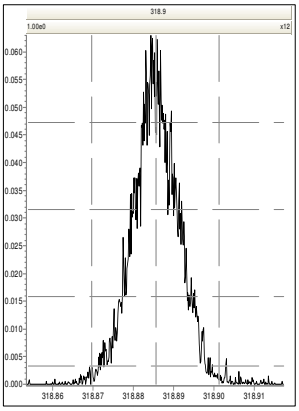
M 292.9824 R 10791



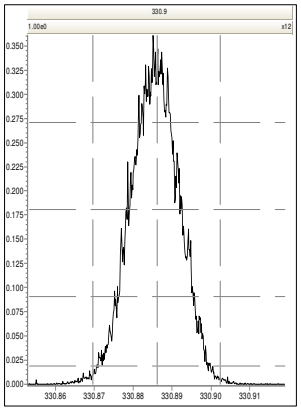
M 304.9824 R 11252



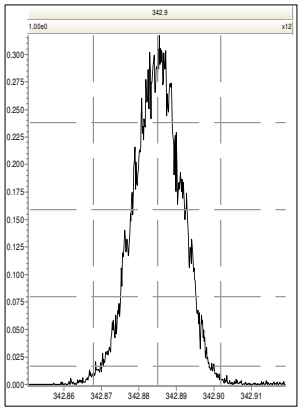
M 318.9792 R 12726



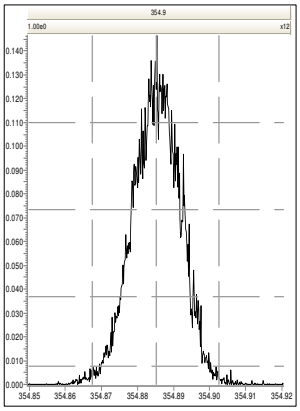
M 330.9792 R 11709



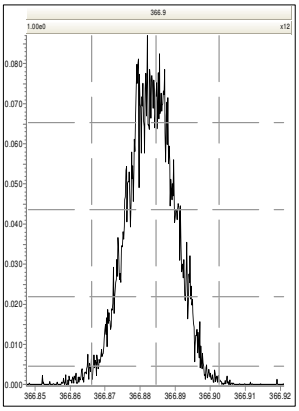
M 342.9792 R 11501



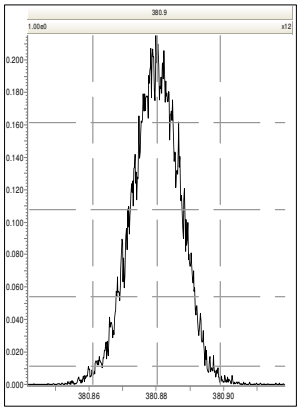
M 354.9792 R 12286



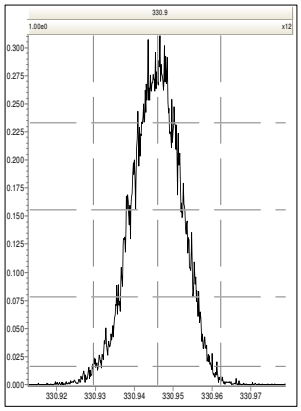
M 366.9792 R 11711



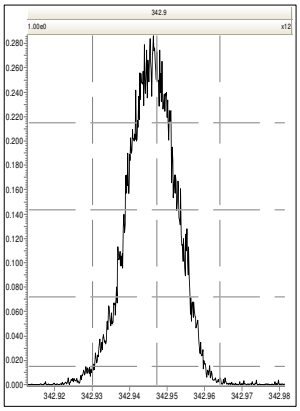
M 380.9760 R 11338



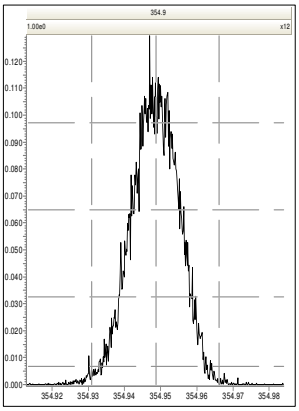
M 330.9792 R 11160



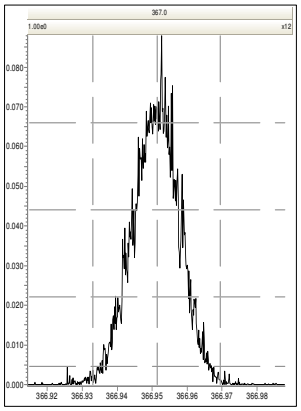
M 342.9792 R 11552



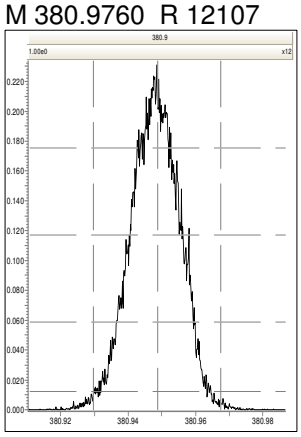
M 354.9792 R 12315



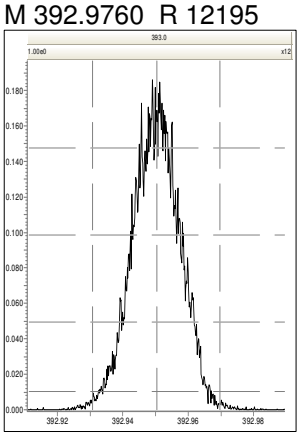
M 366.9792 R 11848



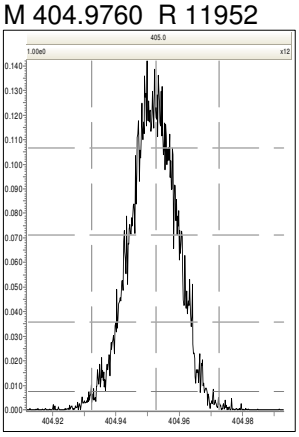
M 380.9760 R 12107



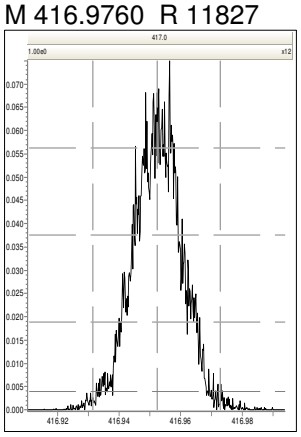
M 392.9760 R 12195



M 404.9760 R 11952

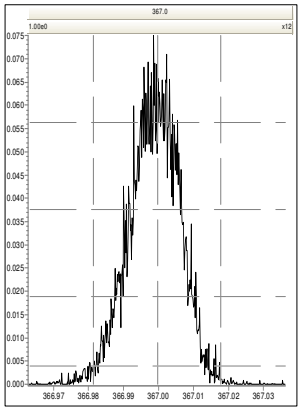


M 416.9760 R 11827

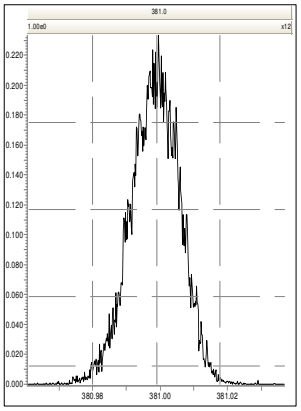


Printed: Friday, November 30, 2012 18:48:19 Eastern Standard Time

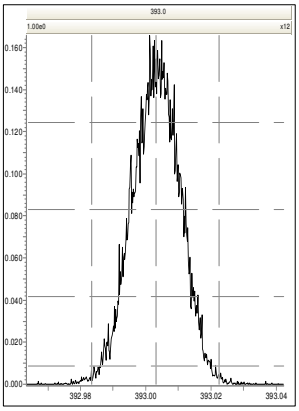
M 366.9792 R 11850



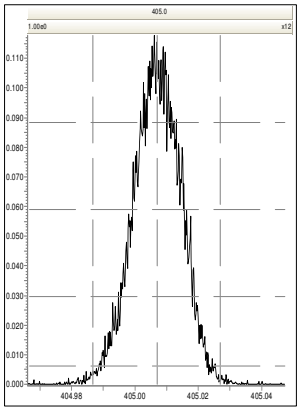
M 380.9760 R 11330



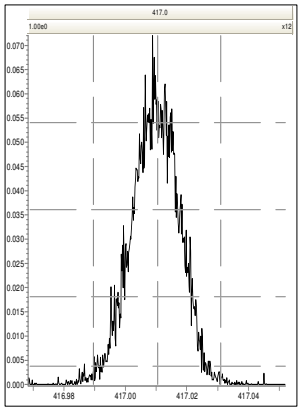
M 392.9760 R 11312



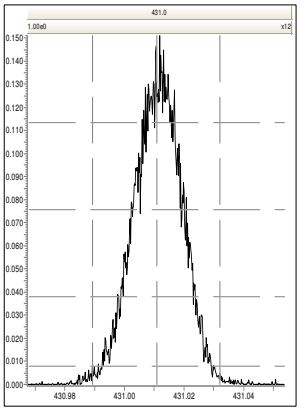
M 404.9760 R 11685



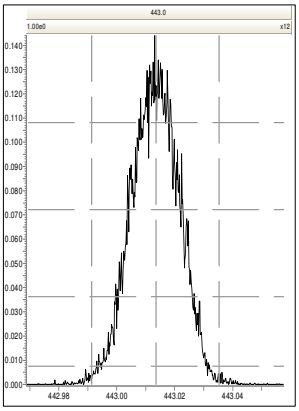
M 416.9760 R 12311



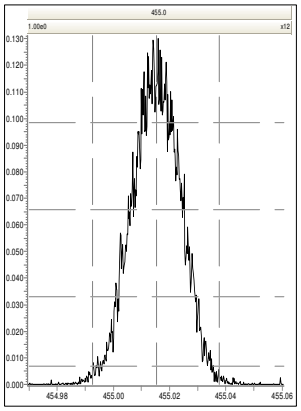
M 430.9728 R 11891



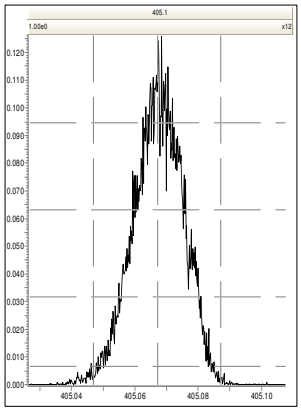
M 442.9728 R 11878



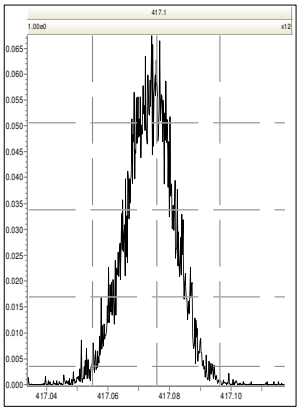
M 454.9728 R 12209



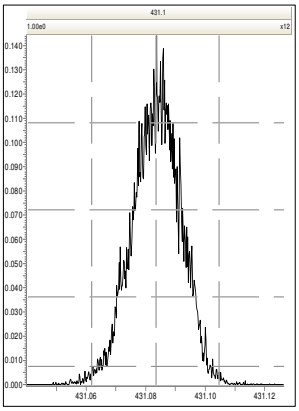
M 404.9760 R 11434



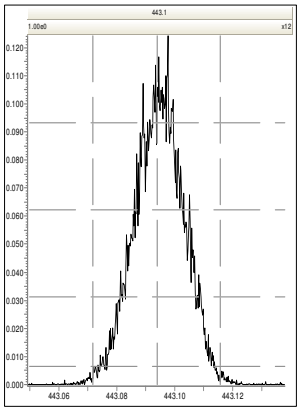
M 416.9760 R 12886



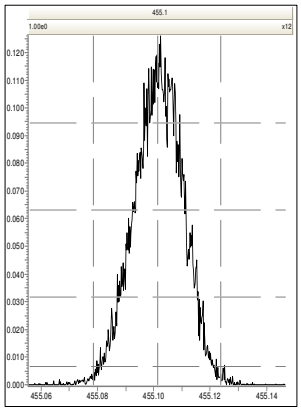
M 430.9728 R 11908



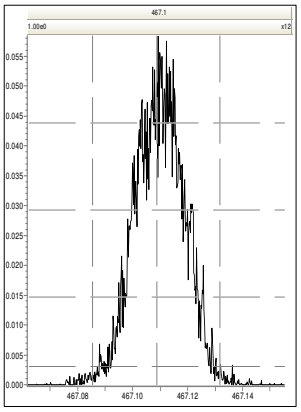
M 442.9728 R 11240



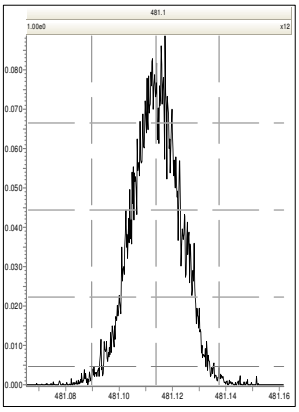
M 454.9728 R 11212



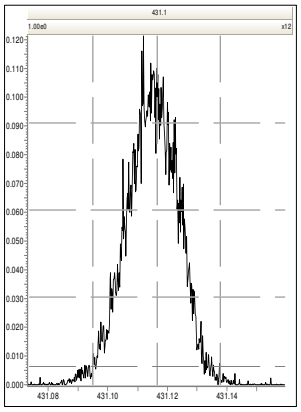
M 466.9728 R 12233



M 480.9696 R 11813



M 430.9728 R 10959



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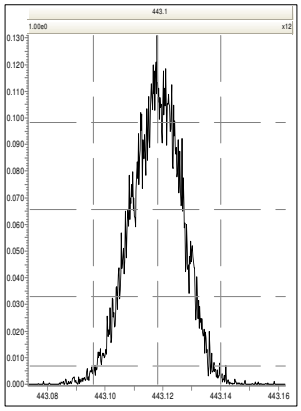
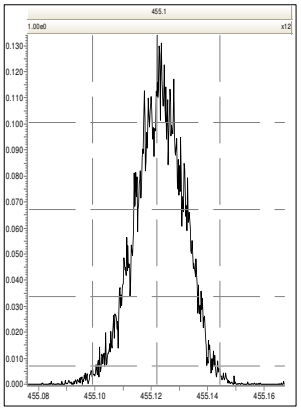
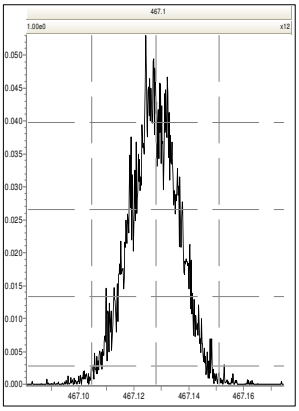
M 442.9728 R 11493



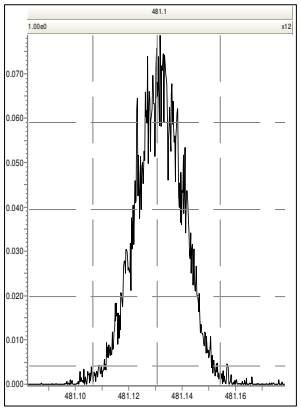
M 454.9728 R 11714



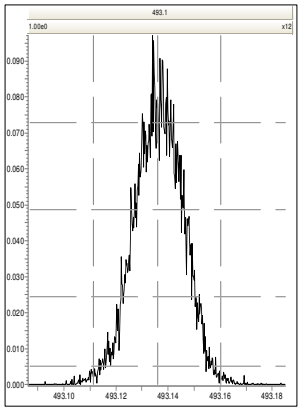
M 466.9728 R 12600



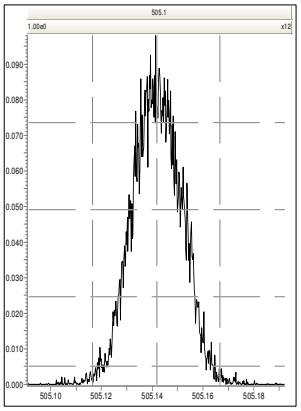
M 480.9696 R 12036



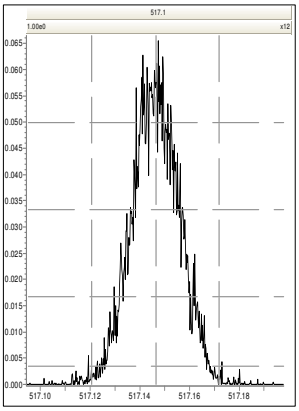
M 492.9696 R 11443



M 504.9696 R 11792



M 516.9697 R 12358



Quantify Sample Summary Report **MassLynx 4.1**
Method Window Defining Report

Dataset: C:\MassLynx\Default.pro\WDM Results\wdm-b30nov12a-1.qld

Last Altered: Monday, December 03, 2012 08:32:54 Eastern Standard Time
Printed: Monday, December 03, 2012 08:35:21 Eastern Standard Time

Method: C:\MassLynx\Default.pro\Methdb\WDM_113012.mdb 16 Oct 2012 09:17:48
Calibration: C:\MassLynx\DEFAULT.PRO\CurveDB\dlm-b30nov12a.cdb 01 Dec 2012 09:08:45

Name: b30nov12a-1, Date: 30-Nov-2012, Time: 10:20:51, ID: CS3WT UD120824-01.2, Description: , Job: b30nov12a, Task: HRP763_1, User: MJC

	Name	RT
1	First TCDF	22.46
2	Last TCDF	28.64
3	First PeCDF	28.65
4	Last PeCDF	32.77
5	First HxCDF	33.23
6	Last HxCDF	35.13
7	First HpCDF	36.35
8	Last HpCDF	37.86
9	OCDF	40.85
10	First TCDD	24.11
11	2378-TCDD	27.50
12	Last TCDD	28.52
13	First PeCDD	30.79
14	Last PeCDD	32.64
15	First HxCDD	33.60
16	Last HxCDD	34.90
17	First HpCDD	36.62
18	Last HpCDD	37.35
19	OCDD	40.63

Quantify Sample Report **MassLynx 4.1**
Method Window Defining Report

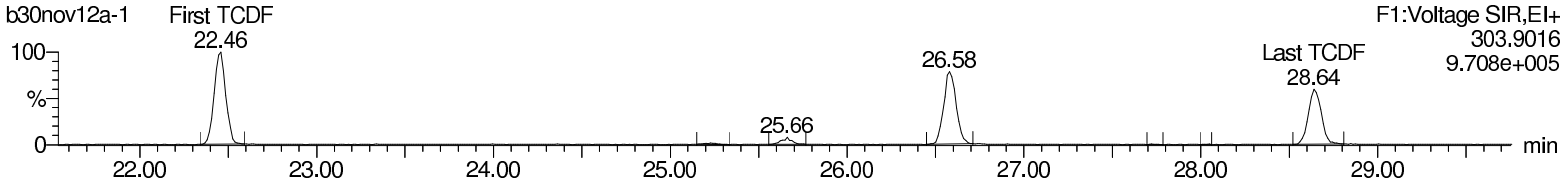
Dataset: C:\MassLynx\Default.pro\WDM Results\wdm-b30nov12a-1.qld

Last Altered: Monday, December 03, 2012 08:32:54 Eastern Standard Time
Printed: Monday, December 03, 2012 08:35:21 Eastern Standard Time

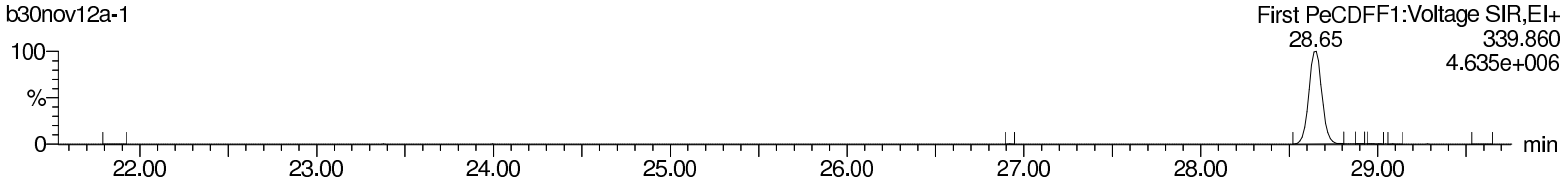
Method: C:\MassLynx\Default.pro\Methdb\WDM_113012.mdb 16 Oct 2012 09:17:48
Calibration: C:\MassLynx\DEFAULT.PRO\CurveDB\dlm-b30nov12a.cdb 01 Dec 2012 09:08:45

Name: b30nov12a-1, Date: 30-Nov-2012, Time: 10:20:51, ID: CS3WT UD120824-01.2, Description: , Job: b30nov12a, Task: HRP763_1, User: MJC

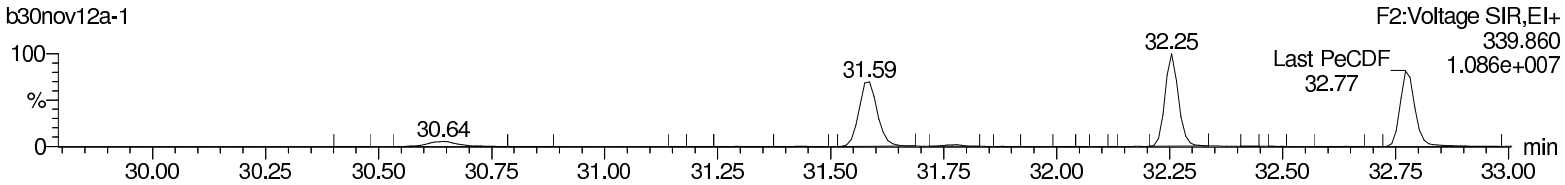
First TCDF



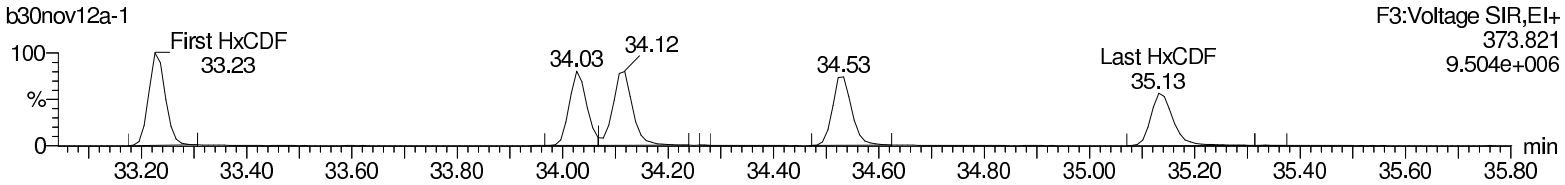
First PeCDF



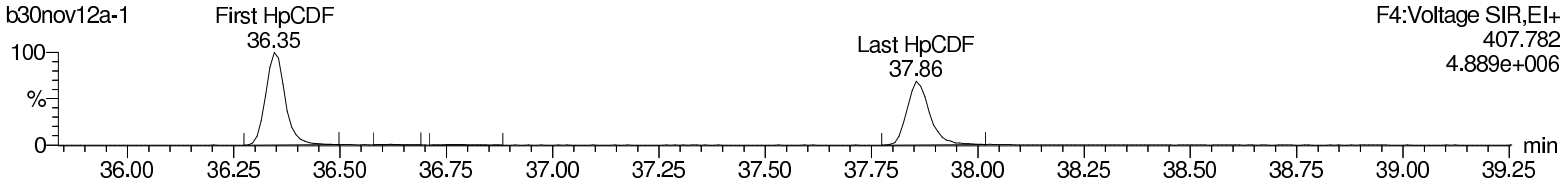
Last PeCDF



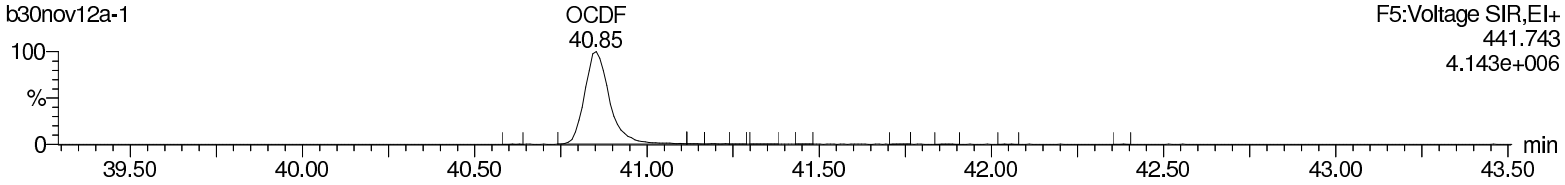
First HxCDF



First HpCDF



OCDF



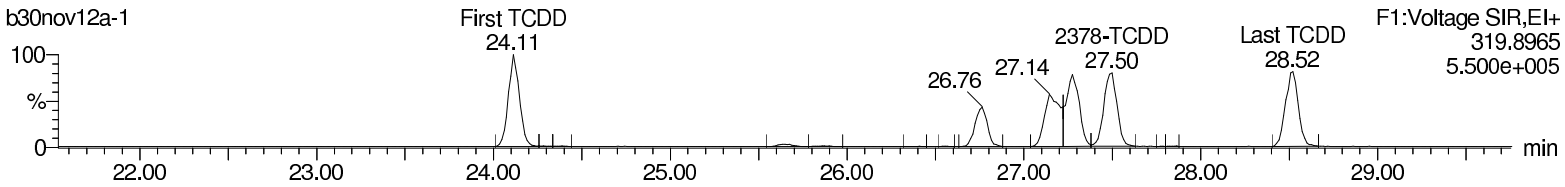
Quantify Sample Report **MassLynx 4.1**
Method Window Defining Report

Dataset: C:\MassLynx\Default.pro\WDM Results\wdm-b30nov12a-1.qld

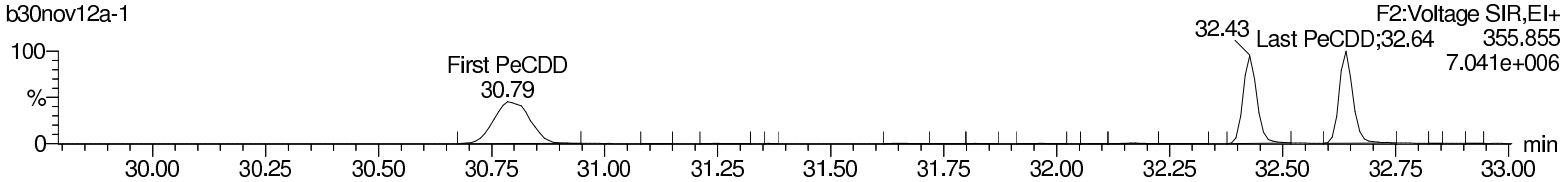
Last Altered: Monday, December 03, 2012 08:32:54 Eastern Standard Time
Printed: Monday, December 03, 2012 08:35:21 Eastern Standard Time

Name: b30nov12a-1, Date: 30-Nov-2012, Time: 10:20:51, ID: CS3WT UD120824-01.2, Description: , Job: b30nov12a, Task: HRP763_1, User: MJC

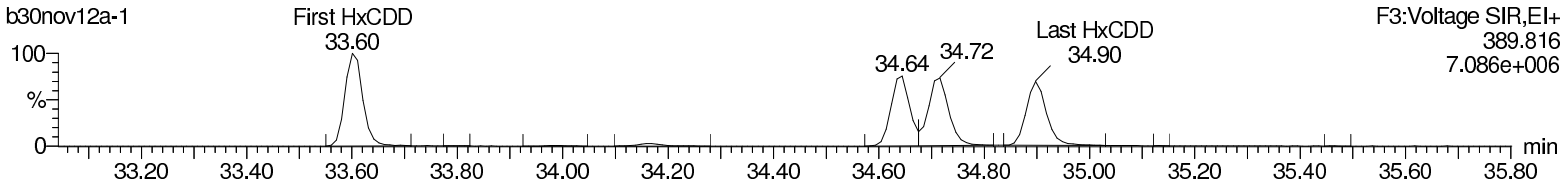
First TCDD



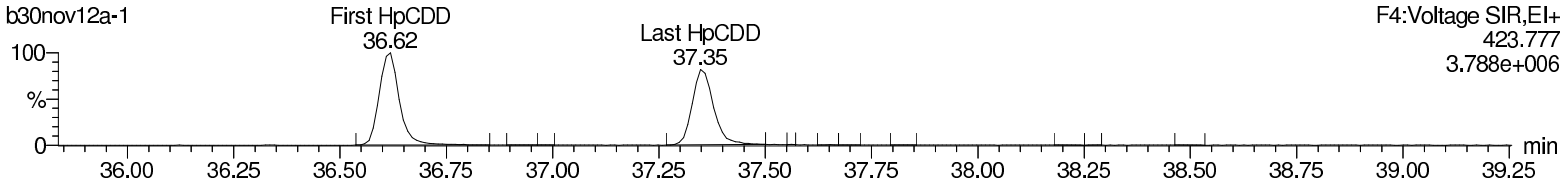
First PeCDD



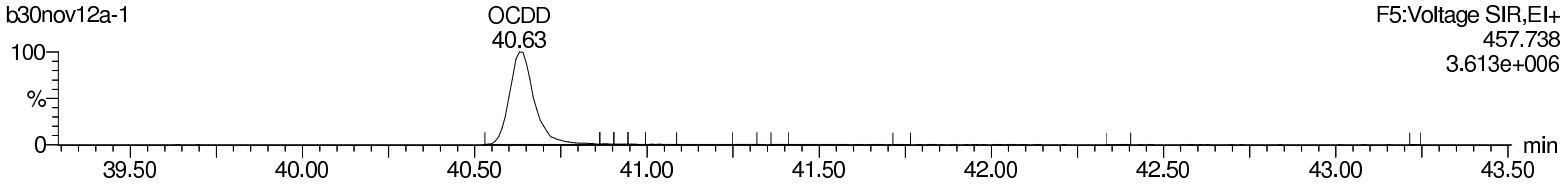
First HxCDD



First HpCDD



OCDD



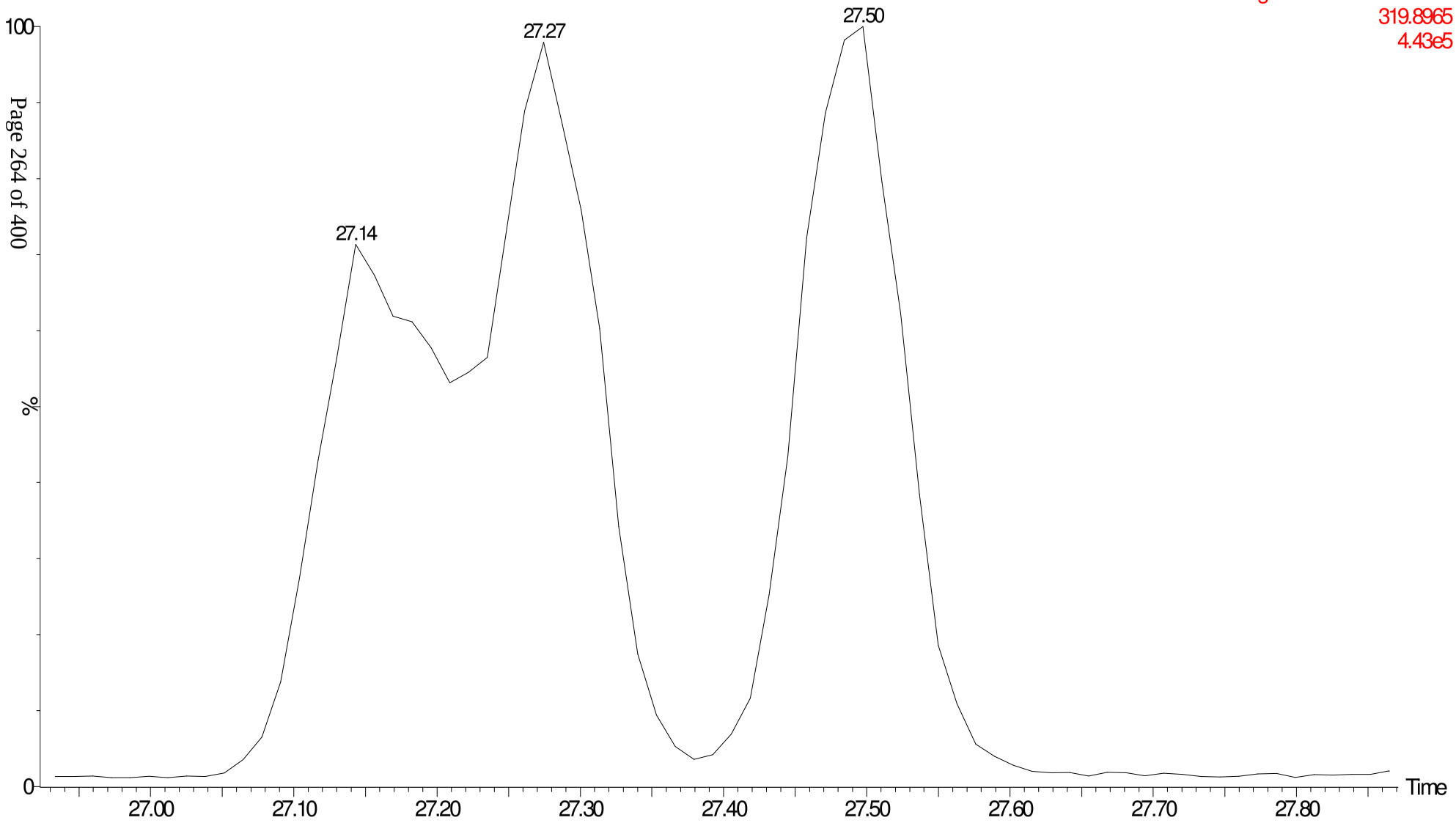
COLUMN CHECK (2378-TCDD 2%)

P763

30-Nov-2012 10:20:51

b30nov12a-1

1: Voltage SIR 13 Channels EI+
319.8965
4.43e5



Quantify Compound Summary Report **MassLynx 4.1**
Method 8290 ICAL Report

Dataset: C:\MassLynx\Default.pro\ICAL Results\8290-b30nov12a.qld

Last Altered: Monday, December 03, 2012 09:49:11 Eastern Standard Time
Printed: Monday, December 03, 2012 09:54:56 Eastern Standard Time

Method: Untitled 22 Oct 2012 15:48:00
Calibration: C:\MassLynx\Default.pro\Curvedb\8290-b30nov12a.cdb 03 Dec 2012 09:49:08

Compound name: 2378-TCDD
Response Factor: 0.953433
RRF SD: 0.0432965, Relative SD: 4.54112
Response type: Internal Std (Ref 18), Area * (IS Conc. / IS Area)
Curve type: RF

	Filename	Sample ID	Std. Conc	RT	pg/uL	RRF	AvgRRF	M
1	b30nov12a-4	CS0.5 UD121129-03	0.250	27.50	0.27	1.026	0.953	bb
2	b30nov12a-5	CS1 UD101022-02	0.500	27.46	0.48	0.912	0.953	bb
3	b30nov12a-6	CS2 UD101022-03	2.000	27.48	1.93	0.920	0.953	bd
4	b30nov12a-7	CS3 UD101022-04	10.000	27.48	9.77	0.932	0.953	bb
5	b30nov12a-8	CS4 UD121129-07	40.000	27.47	39.83	0.949	0.953	bb
6	b30nov12a-9	CS5 UD101022-06	200.000	27.47	205.71	0.981	0.953	bb

Compound name: 12378-PeCDD
Response Factor: 0.966841
RRF SD: 0.0268057, Relative SD: 2.77251
Response type: Internal Std (Ref 19), Area * (IS Conc. / IS Area)
Curve type: RF

	Filename	Sample ID	Std. Conc	RT	pg/uL	RRF	AvgRRF	M
1	b30nov12a-4	CS0.5 UD121129-03	1.250	32.43	1.21	0.937	0.967	bb
2	b30nov12a-5	CS1 UD101022-02	2.500	32.43	2.45	0.949	0.967	bd
3	b30nov12a-6	CS2 UD101022-03	10.000	32.43	9.78	0.946	0.967	bb
4	b30nov12a-7	CS3 UD101022-04	50.000	32.43	50.45	0.976	0.967	bb
5	b30nov12a-8	CS4 UD121129-07	200.000	32.43	206.49	0.998	0.967	bb
6	b30nov12a-9	CS5 UD101022-06	1000.000	32.43	1030.21	0.996	0.967	bb

Compound name: 123478-HxCDD
Response Factor: 0.972926
RRF SD: 0.0235692, Relative SD: 2.42251
Response type: Internal Std (Ref 20), Area * (IS Conc. / IS Area)
Curve type: RF

	Filename	Sample ID	Std. Conc	RT	pg/uL	RRF	AvgRRF	M
1	b30nov12a-4	CS0.5 UD121129-03	1.250	34.65	1.29	1.003	0.973	bd
2	b30nov12a-5	CS1 UD101022-02	2.500	34.64	2.41	0.938	0.973	dd
3	b30nov12a-6	CS2 UD101022-03	10.000	34.63	10.08	0.981	0.973	bd
4	b30nov12a-7	CS3 UD101022-04	50.000	34.65	49.50	0.963	0.973	bd
5	b30nov12a-8	CS4 UD121129-07	200.000	34.65	203.70	0.991	0.973	bd
6	b30nov12a-9	CS5 UD101022-06	1000.000	34.64	988.48	0.962	0.973	bd

Quantify Compound Summary Report **MassLynx 4.1**
Method 8290 ICAL Report

Dataset: C:\MassLynx\Default.pro\ICAL Results\8290-b30nov12a.qld

Last Altered: Monday, December 03, 2012 09:49:11 Eastern Standard Time
Printed: Monday, December 03, 2012 09:54:56 Eastern Standard Time

Compound name: 123678-HxCDD
Response Factor: 1.08018
RRF SD: 0.0195085, Relative SD: 1.80604
Response type: Internal Std (Ref 20), Area * (IS Conc. / IS Area)
Curve type: RF

	Filename	Sample ID	Std. Conc	RT	pg/uL	RRF	AvgRRF	M
1	b30nov12a-4	CS0.5 UD121129-03	1.250	34.72	1.28	1.104	1.080	db
2	b30nov12a-5	CS1 UD101022-02	2.500	34.72	2.50	1.081	1.080	dd
3	b30nov12a-6	CS2 UD101022-03	10.000	34.72	9.71	1.049	1.080	dd
4	b30nov12a-7	CS3 UD101022-04	50.000	34.72	50.20	1.084	1.080	dd
5	b30nov12a-8	CS4 UD121129-07	200.000	34.72	197.75	1.068	1.080	db
6	b30nov12a-9	CS5 UD101022-06	1000.000	34.72	1013.37	1.095	1.080	dd

Compound name: 123789-HxCDD
Response Factor: 0.989404
RRF SD: 0.0352585, Relative SD: 3.56361
Response type: Internal Std (Ref 20), Area * (IS Conc. / IS Area)
Curve type: RF

	Filename	Sample ID	Std. Conc	RT	pg/uL	RRF	AvgRRF	M
1	b30nov12a-4	CS0.5 UD121129-03	1.250	34.91	1.34	1.058	0.989	bb
2	b30nov12a-5	CS1 UD101022-02	2.500	34.90	2.42	0.957	0.989	dd
3	b30nov12a-6	CS2 UD101022-03	10.000	34.90	9.96	0.986	0.989	db
4	b30nov12a-7	CS3 UD101022-04	50.000	34.90	49.86	0.987	0.989	db
5	b30nov12a-8	CS4 UD121129-07	200.000	34.90	196.83	0.974	0.989	bb
6	b30nov12a-9	CS5 UD101022-06	1000.000	34.90	985.39	0.975	0.989	db

Compound name: 1234678-HpCDD
Response Factor: 1.13513
RRF SD: 0.0410339, Relative SD: 3.61492
Response type: Internal Std (Ref 21), Area * (IS Conc. / IS Area)
Curve type: RF

	Filename	Sample ID	Std. Conc	RT	pg/uL	RRF	AvgRRF	M
1	b30nov12a-4	CS0.5 UD121129-03	1.250	37.36	1.30	1.184	1.135	bd
2	b30nov12a-5	CS1 UD101022-02	2.500	37.34	2.36	1.072	1.135	bb
3	b30nov12a-6	CS2 UD101022-03	10.000	37.35	9.78	1.110	1.135	bd
4	b30nov12a-7	CS3 UD101022-04	50.000	37.35	49.55	1.125	1.135	bb
5	b30nov12a-8	CS4 UD121129-07	200.000	37.35	204.14	1.159	1.135	bb
6	b30nov12a-9	CS5 UD101022-06	1000.000	37.35	1023.85	1.162	1.135	bb

Compound name: OCDD
Response Factor: 1.17035
RRF SD: 0.0323294, Relative SD: 2.76238
Response type: Internal Std (Ref 22), Area * (IS Conc. / IS Area)
Curve type: RF

	Filename	Sample ID	Std. Conc	RT	pg/uL	RRF	AvgRRF	M
1	b30nov12a-4	CS0.5 UD121129-03	2.500	40.64	2.47	1.158	1.170	bb
2	b30nov12a-5	CS1 UD101022-02	5.000	40.63	4.85	1.136	1.170	bd

Quantify Compound Summary Report **MassLynx 4.1**
Method 8290 ICAL Report

Dataset: C:\MassLynx\Default.pro\ICAL Results\8290-b30nov12a.qld

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Compound name: OCDD

	Filename	Sample ID	Std. Conc	RT	pg/uL	RRF	AvgRRF	M
3	b30nov12a-6	CS2 UD101022-03	20.000	40.63	19.62	1.148	1.170	bd
4	b30nov12a-7	CS3 UD101022-04	100.000	40.63	99.34	1.163	1.170	bd
5	b30nov12a-8	CS4 UD121129-07	400.000	40.63	407.74	1.193	1.170	bb
6	b30nov12a-9	CS5 UD101022-06	2000.000	40.63	2091.22	1.224	1.170	bd

Compound name: 2378-TCDF
Response Factor: 1.02921
RRF SD: 0.0397308, Relative SD: 3.86031
Response type: Internal Std (Ref 23), Area * (IS Conc. / IS Area)
Curve type: RF

	Filename	Sample ID	Std. Conc	RT	pg/uL	RRF	AvgRRF	M
1	b30nov12a-4	CS0.5 UD121129-03	0.250	26.58	0.26	1.060	1.029	bd
2	b30nov12a-5	CS1 UD101022-02	0.500	26.58	0.49	1.004	1.029	bb
3	b30nov12a-6	CS2 UD101022-03	2.000	26.58	1.89	0.975	1.029	bb
4	b30nov12a-7	CS3 UD101022-04	10.000	26.57	9.76	1.005	1.029	bb
5	b30nov12a-8	CS4 UD121129-07	40.000	26.57	41.73	1.074	1.029	bb
6	b30nov12a-9	CS5 UD101022-06	200.000	26.57	205.44	1.057	1.029	bb

Compound name: 12378-PeCDF
Response Factor: 0.943435
RRF SD: 0.0347313, Relative SD: 3.68136
Response type: Internal Std (Ref 24), Area * (IS Conc. / IS Area)
Curve type: RF

	Filename	Sample ID	Std. Conc	RT	pg/uL	RRF	AvgRRF	M
1	b30nov12a-4	CS0.5 UD121129-03	1.250	31.59	1.17	0.886	0.943	bb
2	b30nov12a-5	CS1 UD101022-02	2.500	31.58	2.45	0.924	0.943	bd
3	b30nov12a-6	CS2 UD101022-03	10.000	31.59	9.98	0.942	0.943	bb
4	b30nov12a-7	CS3 UD101022-04	50.000	31.59	50.64	0.956	0.943	bb
5	b30nov12a-8	CS4 UD121129-07	200.000	31.58	207.01	0.976	0.943	bb
6	b30nov12a-9	CS5 UD101022-06	1000.000	31.59	1035.64	0.977	0.943	bb

Compound name: 23478-PeCDF
Response Factor: 0.979381
RRF SD: 0.0303355, Relative SD: 3.09742
Response type: Internal Std (Ref 24), Area * (IS Conc. / IS Area)
Curve type: RF

	Filename	Sample ID	Std. Conc	RT	pg/uL	RRF	AvgRRF	M
1	b30nov12a-4	CS0.5 UD121129-03	1.250	32.27	1.22	0.954	0.979	bb
2	b30nov12a-5	CS1 UD101022-02	2.500	32.26	2.41	0.943	0.979	bd
3	b30nov12a-6	CS2 UD101022-03	10.000	32.25	9.81	0.961	0.979	bb
4	b30nov12a-7	CS3 UD101022-04	50.000	32.26	50.80	0.995	0.979	bb
5	b30nov12a-8	CS4 UD121129-07	200.000	32.26	206.33	1.010	0.979	bb
6	b30nov12a-9	CS5 UD101022-06	1000.000	32.26	1033.99	1.013	0.979	bb

Quantify Compound Summary Report **MassLynx 4.1**
Method 8290 ICAL Report

Dataset: C:\MassLynx\Default.pro\ICAL Results\8290-b30nov12a.qld

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Compound name: 123478-HxCDF
Response Factor: 0.910487
RRF SD: 0.0285037, Relative SD: 3.1306
Response type: Internal Std (Ref 25), Area * (IS Conc. / IS Area)
Curve type: RF

	Filename	Sample ID	Std. Conc	RT	pg/uL	RRF	AvgRRF	M
1	b30nov12a-4	CS0.5 UD121129-03	1.250	34.04	1.23	0.893	0.910	bd
2	b30nov12a-5	CS1 UD101022-02	2.500	34.03	2.40	0.873	0.910	bd
3	b30nov12a-6	CS2 UD101022-03	10.000	34.03	9.88	0.900	0.910	bd
4	b30nov12a-7	CS3 UD101022-04	50.000	34.03	52.35	0.953	0.910	bd
5	b30nov12a-8	CS4 UD121129-07	200.000	34.03	200.74	0.914	0.910	dd
6	b30nov12a-9	CS5 UD101022-06	1000.000	34.03	1021.59	0.930	0.910	bd

Compound name: 123678-HxCDF
Response Factor: 1.03939
RRF SD: 0.0211318, Relative SD: 2.03309
Response type: Internal Std (Ref 25), Area * (IS Conc. / IS Area)
Curve type: RF

	Filename	Sample ID	Std. Conc	RT	pg/uL	RRF	AvgRRF	M
1	b30nov12a-4	CS0.5 UD121129-03	1.250	34.12	1.21	1.002	1.039	dd
2	b30nov12a-5	CS1 UD101022-02	2.500	34.11	2.48	1.032	1.039	db
3	b30nov12a-6	CS2 UD101022-03	10.000	34.11	9.97	1.036	1.039	db
4	b30nov12a-7	CS3 UD101022-04	50.000	34.12	50.78	1.056	1.039	db
5	b30nov12a-8	CS4 UD121129-07	200.000	34.11	204.05	1.060	1.039	db
6	b30nov12a-9	CS5 UD101022-06	1000.000	34.12	1009.46	1.049	1.039	db

Compound name: 234678-HxCDF
Response Factor: 0.959855
RRF SD: 0.0257733, Relative SD: 2.68512
Response type: Internal Std (Ref 25), Area * (IS Conc. / IS Area)
Curve type: RF

	Filename	Sample ID	Std. Conc	RT	pg/uL	RRF	AvgRRF	M
1	b30nov12a-4	CS0.5 UD121129-03	1.250	34.53	1.22	0.939	0.960	bb
2	b30nov12a-5	CS1 UD101022-02	2.500	34.53	2.40	0.923	0.960	bb
3	b30nov12a-6	CS2 UD101022-03	10.000	34.52	9.97	0.957	0.960	bd
4	b30nov12a-7	CS3 UD101022-04	50.000	34.53	51.64	0.991	0.960	bb
5	b30nov12a-8	CS4 UD121129-07	200.000	34.53	201.72	0.968	0.960	bd
6	b30nov12a-9	CS5 UD101022-06	1000.000	34.53	1022.26	0.981	0.960	bd

Compound name: 123789-HxCDF
Response Factor: 0.809965
RRF SD: 0.0130003, Relative SD: 1.60505
Response type: Internal Std (Ref 25), Area * (IS Conc. / IS Area)
Curve type: RF

	Filename	Sample ID	Std. Conc	RT	pg/uL	RRF	AvgRRF	M
1	b30nov12a-4	CS0.5 UD121129-03	1.250	35.14	1.23	0.795	0.810	bb
2	b30nov12a-5	CS1 UD101022-02	2.500	35.13	2.49	0.808	0.810	bd

Quantify Compound Summary Report **MassLynx 4.1**
Method 8290 ICAL Report

Dataset: C:\MassLynx\Default.pro\ICAL Results\8290-b30nov12a.qld

Last Altered: Monday, December 03, 2012 09:49:11 Eastern Standard Time
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Compound name: 123789-HxCDF

	Filename	Sample ID	Std. Conc	RT	pg/uL	RRF	AvgRRF	M
3	b30nov12a-6	CS2 UD101022-03	10.000	35.13	9.81	0.795	0.810	bb
4	b30nov12a-7	CS3 UD101022-04	50.000	35.14	50.86	0.824	0.810	bd
5	b30nov12a-8	CS4 UD121129-07	200.000	35.13	203.14	0.823	0.810	bb
6	b30nov12a-9	CS5 UD101022-06	1000.000	35.14	1006.68	0.815	0.810	bb

Compound name: 1234678-HpCDF
Response Factor: 1.22586
RRF SD: 0.0373268, Relative SD: 3.04494
Response type: Internal Std (Ref 26), Area * (IS Conc. / IS Area)
Curve type: RF

	Filename	Sample ID	Std. Conc	RT	pg/uL	RRF	AvgRRF	M
1	b30nov12a-4	CS0.5 UD121129-03	1.250	36.36	1.20	1.175	1.226	bb
2	b30nov12a-5	CS1 UD101022-02	2.500	36.35	2.42	1.189	1.226	bd
3	b30nov12a-6	CS2 UD101022-03	10.000	36.35	9.98	1.223	1.226	bb
4	b30nov12a-7	CS3 UD101022-04	50.000	36.35	50.68	1.243	1.226	bd
5	b30nov12a-8	CS4 UD121129-07	200.000	36.35	205.40	1.259	1.226	bb
6	b30nov12a-9	CS5 UD101022-06	1000.000	36.35	1033.18	1.267	1.226	bb

Compound name: 1234789-HpCDF
Response Factor: 0.941078
RRF SD: 0.0441505, Relative SD: 4.69148
Response type: Internal Std (Ref 26), Area * (IS Conc. / IS Area)
Curve type: RF

	Filename	Sample ID	Std. Conc	RT	pg/uL	RRF	AvgRRF	M
1	b30nov12a-4	CS0.5 UD121129-03	1.250	37.87	1.21	0.910	0.941	bd
2	b30nov12a-5	CS1 UD101022-02	2.500	37.86	2.37	0.890	0.941	bd
3	b30nov12a-6	CS2 UD101022-03	10.000	37.85	9.79	0.921	0.941	bb
4	b30nov12a-7	CS3 UD101022-04	50.000	37.86	49.78	0.937	0.941	bb
5	b30nov12a-8	CS4 UD121129-07	200.000	37.86	213.36	1.004	0.941	bb
6	b30nov12a-9	CS5 UD101022-06	1000.000	37.86	1045.64	0.984	0.941	bb

Compound name: OCDF
Response Factor: 1.35758
RRF SD: 0.0863108, Relative SD: 6.35771
Response type: Internal Std (Ref 22), Area * (IS Conc. / IS Area)
Curve type: RF

	Filename	Sample ID	Std. Conc	RT	pg/uL	RRF	AvgRRF	M
1	b30nov12a-4	CS0.5 UD121129-03	2.500	40.86	2.32	1.262	1.358	bd
2	b30nov12a-5	CS1 UD101022-02	5.000	40.84	4.81	1.306	1.358	bd
3	b30nov12a-6	CS2 UD101022-03	20.000	40.84	19.27	1.308	1.358	bd
4	b30nov12a-7	CS3 UD101022-04	100.000	40.84	99.94	1.357	1.358	bd
5	b30nov12a-8	CS4 UD121129-07	400.000	40.84	416.71	1.414	1.358	bd
6	b30nov12a-9	CS5 UD101022-06	2000.000	40.84	2207.27	1.498	1.358	bb

Quantify Compound Summary Report **MassLynx 4.1**
Method 8290 ICAL Report

Dataset: C:\MassLynx\Default.pro\ICAL Results\8290-b30nov12a.qld

Last Altered: Monday, December 03, 2012 09:49:11 Eastern Standard Time
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Compound name: 13C-2378-TCDD
Response Factor: 0.989268
RRF SD: 0.0303244, Relative SD: 3.06534
Response type: Internal Std (Ref 27), Area * (IS Conc. / IS Area)
Curve type: RF

	Filename	Sample ID	Std. Conc	RT	pg/uL	RRF	AvgRRF	M
1	b30nov12a-4	CS0.5 UD121129-03	100.000	27.46	97.48	0.964	0.989	bb
2	b30nov12a-5	CS1 UD101022-02	100.000	27.46	98.33	0.973	0.989	bb
3	b30nov12a-6	CS2 UD101022-03	100.000	27.46	99.78	0.987	0.989	bb
4	b30nov12a-7	CS3 UD101022-04	100.000	27.46	98.01	0.970	0.989	bb
5	b30nov12a-8	CS4 UD121129-07	100.000	27.44	100.62	0.995	0.989	bb
6	b30nov12a-9	CS5 UD101022-06	100.000	27.46	105.78	1.046	0.989	bb

Compound name: 13C-12378-PeCDD
Response Factor: 0.816219
RRF SD: 0.058176, Relative SD: 7.1275
Response type: Internal Std (Ref 27), Area * (IS Conc. / IS Area)
Curve type: RF

	Filename	Sample ID	Std. Conc	RT	pg/uL	RRF	AvgRRF	M
1	b30nov12a-4	CS0.5 UD121129-03	100.000	32.43	94.34	0.770	0.816	bb
2	b30nov12a-5	CS1 UD101022-02	100.000	32.42	96.46	0.787	0.816	bb
3	b30nov12a-6	CS2 UD101022-03	100.000	32.42	97.44	0.795	0.816	bb
4	b30nov12a-7	CS3 UD101022-04	100.000	32.42	95.48	0.779	0.816	bb
5	b30nov12a-8	CS4 UD121129-07	100.000	32.42	103.13	0.842	0.816	bb
6	b30nov12a-9	CS5 UD101022-06	100.000	32.42	113.14	0.923	0.816	bb

Compound name: 13C-123678-HxCDD
Response Factor: 1.11222
RRF SD: 0.0301169, Relative SD: 2.70782
Response type: Internal Std (Ref 28), Area * (IS Conc. / IS Area)
Curve type: RF

	Filename	Sample ID	Std. Conc	RT	pg/uL	RRF	AvgRRF	M
1	b30nov12a-4	CS0.5 UD121129-03	100.000	34.72	96.92	1.078	1.112	db
2	b30nov12a-5	CS1 UD101022-02	100.000	34.71	98.15	1.092	1.112	dd
3	b30nov12a-6	CS2 UD101022-03	100.000	34.71	98.47	1.095	1.112	dd
4	b30nov12a-7	CS3 UD101022-04	100.000	34.71	100.05	1.113	1.112	dd
5	b30nov12a-8	CS4 UD121129-07	100.000	34.70	103.84	1.155	1.112	db
6	b30nov12a-9	CS5 UD101022-06	100.000	34.71	102.57	1.141	1.112	dd

Compound name: 13C-1234678-HpCDD
Response Factor: 0.835948
RRF SD: 0.0291468, Relative SD: 3.48668
Response type: Internal Std (Ref 28), Area * (IS Conc. / IS Area)
Curve type: RF

	Filename	Sample ID	Std. Conc	RT	pg/uL	RRF	AvgRRF	M
1	b30nov12a-4	CS0.5 UD121129-03	100.000	37.35	102.36	0.856	0.836	bb
2	b30nov12a-5	CS1 UD101022-02	100.000	37.34	99.86	0.835	0.836	bd

Quantify Compound Summary Report **MassLynx 4.1**
Method 8290 ICAL Report

Dataset: C:\MassLynx\Default.pro\ICAL Results\8290-b30nov12a.qld

Last Altered: Monday, December 03, 2012 09:49:11 Eastern Standard Time
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Compound name: 13C-1234678-HpCDD

	Filename	Sample ID	Std. Conc	RT	pg/uL	RRF	AvgRRF	M
3	b30nov12a-6	CS2 UD101022-03	100.000	37.34	100.34	0.839	0.836	bd
4	b30nov12a-7	CS3 UD101022-04	100.000	37.34	95.83	0.801	0.836	bb
5	b30nov12a-8	CS4 UD121129-07	100.000	37.34	105.07	0.878	0.836	bb
6	b30nov12a-9	CS5 UD101022-06	100.000	37.34	96.54	0.807	0.836	bd

Compound name: 13C-OCDD
Response Factor: 0.683945
RRF SD: 0.0262454, Relative SD: 3.83736
Response type: Internal Std (Ref 28), Area * (IS Conc. / IS Area)
Curve type: RF

	Filename	Sample ID	Std. Conc	RT	pg/uL	RRF	AvgRRF	M
1	b30nov12a-4	CS0.5 UD121129-03	200.000	40.62	201.85	0.690	0.684	bd
2	b30nov12a-5	CS1 UD101022-02	200.000	40.62	193.69	0.662	0.684	bb
3	b30nov12a-6	CS2 UD101022-03	200.000	40.61	196.48	0.672	0.684	bb
4	b30nov12a-7	CS3 UD101022-04	200.000	40.61	191.79	0.656	0.684	bd
5	b30nov12a-8	CS4 UD121129-07	200.000	40.62	212.59	0.727	0.684	bb
6	b30nov12a-9	CS5 UD101022-06	200.000	40.62	203.61	0.696	0.684	bd

Compound name: 13C-2378-TCDF
Response Factor: 1.46629
RRF SD: 0.0373989, Relative SD: 2.55057
Response type: Internal Std (Ref 27), Area * (IS Conc. / IS Area)
Curve type: RF

	Filename	Sample ID	Std. Conc	RT	pg/uL	RRF	AvgRRF	M
1	b30nov12a-4	CS0.5 UD121129-03	100.000	26.55	98.90	1.450	1.466	bb
2	b30nov12a-5	CS1 UD101022-02	100.000	26.55	99.45	1.458	1.466	bd
3	b30nov12a-6	CS2 UD101022-03	100.000	26.54	101.21	1.484	1.466	bb
4	b30nov12a-7	CS3 UD101022-04	100.000	26.55	99.12	1.453	1.466	bb
5	b30nov12a-8	CS4 UD121129-07	100.000	26.54	96.92	1.421	1.466	bb
6	b30nov12a-9	CS5 UD101022-06	100.000	26.54	104.39	1.531	1.466	bb

Compound name: 13C-12378-PeCDF
Response Factor: 1.32109
RRF SD: 0.0840197, Relative SD: 6.35989
Response type: Internal Std (Ref 27), Area * (IS Conc. / IS Area)
Curve type: RF

	Filename	Sample ID	Std. Conc	RT	pg/uL	RRF	AvgRRF	M
1	b30nov12a-4	CS0.5 UD121129-03	100.000	31.58	95.12	1.257	1.321	bb
2	b30nov12a-5	CS1 UD101022-02	100.000	31.57	96.73	1.278	1.321	bb
3	b30nov12a-6	CS2 UD101022-03	100.000	31.57	98.56	1.302	1.321	bb
4	b30nov12a-7	CS3 UD101022-04	100.000	31.57	95.44	1.261	1.321	bb
5	b30nov12a-8	CS4 UD121129-07	100.000	31.57	102.35	1.352	1.321	bb
6	b30nov12a-9	CS5 UD101022-06	100.000	31.58	111.80	1.477	1.321	bb

Quantify Compound Summary Report **MassLynx 4.1**
Method 8290 ICAL Report

Dataset: C:\MassLynx\Default.pro\ICAL Results\8290-b30nov12a.qld

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Compound name: 13C-123678-HxCDF
Response Factor: 1.6423
RRF SD: 0.0448067, Relative SD: 2.72829
Response type: Internal Std (Ref 28), Area * (IS Conc. / IS Area)
Curve type: RF

	Filename	Sample ID	Std. Conc	RT	pg/uL	RRF	AvgRRF	M
1	b30nov12a-4	CS0.5 UD121129-03	100.000	34.11	100.60	1.652	1.642	db
2	b30nov12a-5	CS1 UD101022-02	100.000	34.10	99.30	1.631	1.642	db
3	b30nov12a-6	CS2 UD101022-03	100.000	34.10	100.84	1.656	1.642	db
4	b30nov12a-7	CS3 UD101022-04	100.000	34.11	95.83	1.574	1.642	db
5	b30nov12a-8	CS4 UD121129-07	100.000	34.10	104.20	1.711	1.642	db
6	b30nov12a-9	CS5 UD101022-06	100.000	34.11	99.22	1.630	1.642	db

Compound name: 13C-1234678-HpCDF
Response Factor: 1.12673
RRF SD: 0.0287213, Relative SD: 2.54908
Response type: Internal Std (Ref 28), Area * (IS Conc. / IS Area)
Curve type: RF

	Filename	Sample ID	Std. Conc	RT	pg/uL	RRF	AvgRRF	M
1	b30nov12a-4	CS0.5 UD121129-03	100.000	36.35	101.06	1.139	1.127	bb
2	b30nov12a-5	CS1 UD101022-02	100.000	36.34	99.87	1.125	1.127	bb
3	b30nov12a-6	CS2 UD101022-03	100.000	36.33	100.00	1.127	1.127	bb
4	b30nov12a-7	CS3 UD101022-04	100.000	36.34	97.34	1.097	1.127	bb
5	b30nov12a-8	CS4 UD121129-07	100.000	36.34	104.24	1.175	1.127	bb
6	b30nov12a-9	CS5 UD101022-06	100.000	36.34	97.49	1.098	1.127	bb

Compound name: 13C-1234-TCDD
Response Factor: 1
RRF SD: 0, Relative SD: 0
Response type: Internal Std (Ref 27), Area * (IS Conc. / IS Area)
Curve type: RF

	Filename	Sample ID	Std. Conc	RT	pg/uL	RRF	AvgRRF	M
1	b30nov12a-4	CS0.5 UD121129-03	100.000	26.74	100.00	1.000	1.000	bb
2	b30nov12a-5	CS1 UD101022-02	100.000	26.72	100.00	1.000	1.000	bb
3	b30nov12a-6	CS2 UD101022-03	100.000	26.72	100.00	1.000	1.000	bb
4	b30nov12a-7	CS3 UD101022-04	100.000	26.72	100.00	1.000	1.000	bb
5	b30nov12a-8	CS4 UD121129-07	100.000	26.72	100.00	1.000	1.000	bb
6	b30nov12a-9	CS5 UD101022-06	100.000	26.72	100.00	1.000	1.000	bb

Compound name: 13C-123789-HxCDD
Response Factor: 1
RRF SD: 4.96507e-017, Relative SD: 4.96507e-015
Response type: Internal Std (Ref 28), Area * (IS Conc. / IS Area)
Curve type: RF

	Filename	Sample ID	Std. Conc	RT	pg/uL	RRF	AvgRRF	M
1	b30nov12a-4	CS0.5 UD121129-03	100.000	34.90	100.00	1.000	1.000	bb
2	b30nov12a-5	CS1 UD101022-02	100.000	34.89	100.00	1.000	1.000	db

Quantify Compound Summary Report **MassLynx 4.1**
Method 8290 ICAL Report

Dataset: C:\MassLynx\Default.pro\ICAL Results\8290-b30nov12a.qld

Last Altered: Monday, December 03, 2012 09:49:11 Eastern Standard Time
Printed: Monday, December 03, 2012 09:54:56 Eastern Standard Time

Compound name: 13C-123789-HxCDD

	Filename	Sample ID	Std. Conc	RT	pg/uL	RRF	AvgRRF	M
3	b30nov12a-6	CS2 UD101022-03	100.000	34.89	100.00	1.000	1.000	db
4	b30nov12a-7	CS3 UD101022-04	100.000	34.89	100.00	1.000	1.000	db
5	b30nov12a-8	CS4 UD121129-07	100.000	34.89	100.00	1.000	1.000	bb
6	b30nov12a-9	CS5 UD101022-06	100.000	34.89	100.00	1.000	1.000	db

Compound name: 37Cl-2378-TCDD (SS)
Response Factor: 1.10507
RRF SD: 0.0455872, Relative SD: 4.12529
Response type: Internal Std (Ref 18), Area * (IS Conc. / IS Area)
Curve type: RF

	Filename	Sample ID	Std. Conc	RT	pg/uL	RRF	AvgRRF	M
1	b30nov12a-4	CS0.5 UD121129-03	0.250	27.48	0.23	1.032	1.105	bb
2	b30nov12a-5	CS1 UD101022-02	0.500	27.47	0.50	1.099	1.105	bb
3	b30nov12a-6	CS2 UD101022-03	2.000	27.48	1.95	1.078	1.105	bb
4	b30nov12a-7	CS3 UD101022-04	10.000	27.47	10.26	1.134	1.105	bb
5	b30nov12a-8	CS4 UD121129-07	40.000	27.47	40.88	1.129	1.105	bb
6	b30nov12a-9	CS5 UD101022-06	200.000	27.47	209.70	1.159	1.105	bb

Compound name: 13C-23478-PeCDF (SS)
Response Factor: 1.00216
RRF SD: 0.00824497, Relative SD: 0.822721
Response type: Internal Std (Ref 24), Area * (IS Conc. / IS Area)
Curve type: RF

	Filename	Sample ID	Std. Conc	RT	pg/uL	RRF	AvgRRF	M
1	b30nov12a-4	CS0.5 UD121129-03	100.000	32.26	99.98	1.002	1.002	bb
2	b30nov12a-5	CS1 UD101022-02	100.000	32.24	99.84	1.001	1.002	bb
3	b30nov12a-6	CS2 UD101022-03	100.000	32.24	98.73	0.989	1.002	bb
4	b30nov12a-7	CS3 UD101022-04	100.000	32.25	101.30	1.015	1.002	bb
5	b30nov12a-8	CS4 UD121129-07	100.000	32.25	99.93	1.002	1.002	db
6	b30nov12a-9	CS5 UD101022-06	100.000	32.24	100.21	1.004	1.002	bb

Compound name: 13C-123478-HxCDF (SS)
Response Factor: 0.85401
RRF SD: 0.0153786, Relative SD: 1.80075
Response type: Internal Std (Ref 25), Area * (IS Conc. / IS Area)
Curve type: RF

	Filename	Sample ID	Std. Conc	RT	pg/uL	RRF	AvgRRF	M
1	b30nov12a-4	CS0.5 UD121129-03	100.000	34.03	100.40	0.857	0.854	bd
2	b30nov12a-5	CS1 UD101022-02	100.000	34.02	99.36	0.849	0.854	bd
3	b30nov12a-6	CS2 UD101022-03	100.000	34.02	99.58	0.850	0.854	bd
4	b30nov12a-7	CS3 UD101022-04	100.000	34.02	103.22	0.881	0.854	bd
5	b30nov12a-8	CS4 UD121129-07	100.000	34.02	97.76	0.835	0.854	bd
6	b30nov12a-9	CS5 UD101022-06	100.000	34.02	99.68	0.851	0.854	bd

Quantify Compound Summary Report **MassLynx 4.1**
Method 8290 ICAL Report

Dataset: C:\MassLynx\Default.pro\ICAL Results\8290-b30nov12a.qld

Last Altered: Monday, December 03, 2012 09:49:11 Eastern Standard Time
Printed: Monday, December 03, 2012 09:54:56 Eastern Standard Time

Compound name: 13C-123478-HxCDD (SS)
Response Factor: 0.850501
RRF SD: 0.0265184, Relative SD: 3.11798
Response type: Internal Std (Ref 20), Area * (IS Conc. / IS Area)
Curve type: RF

	Filename	Sample ID	Std. Conc	RT	pg/uL	RRF	AvgRRF	M
1	b30nov12a-4	CS0.5 UD121129-03	100.000	34.63	104.43	0.888	0.851	bd
2	b30nov12a-5	CS1 UD101022-02	100.000	34.63	101.77	0.866	0.851	bd
3	b30nov12a-6	CS2 UD101022-03	100.000	34.63	101.03	0.859	0.851	bd
4	b30nov12a-7	CS3 UD101022-04	100.000	34.63	97.20	0.827	0.851	bd
5	b30nov12a-8	CS4 UD121129-07	100.000	34.64	99.67	0.848	0.851	bd
6	b30nov12a-9	CS5 UD101022-06	100.000	34.63	95.90	0.816	0.851	bd

Compound name: 13C-1234789-HpCDF (SS)
Response Factor: 0.779544
RRF SD: 0.0106917, Relative SD: 1.37153
Response type: Internal Std (Ref 26), Area * (IS Conc. / IS Area)
Curve type: RF

	Filename	Sample ID	Std. Conc	RT	pg/uL	RRF	AvgRRF	M
1	b30nov12a-4	CS0.5 UD121129-03	100.000	37.86	102.28	0.797	0.780	bb
2	b30nov12a-5	CS1 UD101022-02	100.000	37.85	99.69	0.777	0.780	bd
3	b30nov12a-6	CS2 UD101022-03	100.000	37.85	99.36	0.775	0.780	bb
4	b30nov12a-7	CS3 UD101022-04	100.000	37.85	98.21	0.766	0.780	bb
5	b30nov12a-8	CS4 UD121129-07	100.000	37.85	100.67	0.785	0.780	bd
6	b30nov12a-9	CS5 UD101022-06	100.000	37.85	99.79	0.778	0.780	bb

Quantify Sample Summary Report **MassLynx 4.1**
Method 8290 ICAL Report

Dataset: C:\MassLynx\Default.pro\ICAL Results\8290-b30nov12a.qld

Last Altered: Monday, December 03, 2012 09:49:11 Eastern Standard Time
Printed: Monday, December 03, 2012 10:06:35 Eastern Standard Time

Method: Untitled 22 Oct 2012 15:48:00
Calibration: C:\MassLynx\Default.pro\Curvedb\8290-b30nov12a.cdb 03 Dec 2012 09:49:08

Name: b30nov12a-4, Date: 30-Nov-2012, Time: 12:36:22, ID: CS0.5 UD121129-03, Description: , Job: b30nov12a, Task: HRP763_1, User: MJC

	Name	Ion1Area	Ion2Area	Response	RT	RRT	RA	Fail?	pg/uL	RRF	Mean	RSD	EDL	Height1	Noise1	S/N1	Height2	Noise2	S/N2	M
1	2378-TCDD	1.17e3	1.74e3	2.91e3	27.50	1.00	0.67	NO	0.269	1.026	0.953	4.54	0.0305	1.51e4	684	22.0	2.06e4	911	22.6	bb
2	12378-PeCDD	6.48e3	4.12e3	1.06e4	32.43	1.00	1.57	NO	1.211	0.937	0.967	2.77	0.0153	1.65e5	1014	163.0	1.04e5	435	238.6	bb
3	123478-HxCDD	5.95e3	4.72e3	1.07e4	34.65	1.00	1.26	NO	1.289	1.003	0.973	2.42	0.0378	1.41e5	1380	102.3	1.07e5	1337	79.8	bd
4	123678-HxCDD	6.46e3	5.29e3	1.17e4	34.72	1.00	1.22	NO	1.278	1.104	1.080	1.81	0.0340	1.30e5	1380	94.2	1.10e5	1337	82.3	db
5	123789-HxCDD	6.31e3	4.95e3	1.13e4	34.91	1.01	1.27	NO	1.337	1.058	0.989	3.56	0.0371	1.52e5	1380	110.2	1.05e5	1337	78.4	bb
6	1234678-HpCDD	5.12e3	4.88e3	1.00e4	37.36	1.00	1.05	NO	1.303	1.184	1.135	3.61	0.0490	8.59e4	1164	73.8	7.99e4	1305	61.2	bd
7	OCDD	7.52e3	8.26e3	1.58e4	40.64	1.00	0.91	NO	2.474	1.158	1.170	2.76	0.0614	9.20e4	568	161.8	9.18e4	1171	78.4	bb
8	2378-TCDF	1.83e3	2.69e3	4.52e3	26.58	1.00	0.68	NO	0.258	1.060	1.029	3.86	0.0266	2.44e4	565	43.1	3.01e4	1643	18.4	bd
9	12378-PeCDF	9.86e3	6.51e3	1.64e4	31.59	1.00	1.51	NO	1.174	0.886	0.943	3.68	0.0248	2.03e5	1151	176.3	1.26e5	1688	74.8	bb
10	23478-PeCDF	1.07e4	6.89e3	1.76e4	32.27	1.02	1.56	NO	1.217	0.954	0.979	3.10	0.0239	2.96e5	1151	257.3	1.78e5	1688	105.5	bb
11	123478-HxCDF	8.12e3	6.45e3	1.46e4	34.04	1.00	1.26	NO	1.226	0.893	0.910	3.13	0.0291	1.90e5	1740	109.3	1.67e5	1415	117.8	bd
12	123678-HxCDF	8.90e3	7.45e3	1.63e4	34.12	1.00	1.19	NO	1.205	1.002	1.039	2.03	0.0255	2.01e5	1740	115.3	1.71e5	1415	120.9	dd
13	234678-HxCDF	8.35e3	6.96e3	1.53e4	34.53	1.01	1.20	NO	1.223	0.939	0.960	2.69	0.0276	1.83e5	1740	105.2	1.60e5	1415	112.8	bb
14	123789-HxCDF	7.31e3	5.66e3	1.30e4	35.14	1.03	1.29	NO	1.227	0.795	0.810	1.61	0.0327	1.61e5	1740	92.3	1.11e5	1415	78.1	bb
15	1234678-HpCDF	6.61e3	6.60e3	1.32e4	36.36	1.00	1.00	NO	1.198	1.175	1.226	3.04	0.0338	1.43e5	1313	109.2	1.14e5	1372	83.1	bb
16	1234789-HpCDF	5.19e3	5.03e3	1.02e4	37.87	1.04	1.03	NO	1.209	0.910	0.941	4.69	0.0441	9.32e4	1313	71.0	7.73e4	1372	56.3	bd
17	OCDF	8.23e3	8.97e3	1.72e4	40.86	1.01	0.92	NO	2.324	1.262	1.358	6.36	0.0641	1.03e5	798	129.6	1.04e5	1307	79.4	bd
18	13C-2378-TCDD	4.97e5	6.37e5	1.13e6	27.46	1.03	0.78	NO	97.481	0.964	0.989	3.07	0.105	6.02e6	3428	1755.2	7.62e6	2505	3039.7	bb
19	13C-12378-PeCDD	5.47e5	3.58e5	9.06e5	32.43	1.21	1.53	NO	94.342	0.770	0.816	7.13	0.105	1.48e7	3506	4220.9	9.68e6	1380	7014.7	bb
20	13C-123678-HxCDD	4.69e5	3.82e5	8.51e5	34.72	0.99	1.23	NO	96.918	1.078	1.112	2.71	0.101	1.02e7	3761	2710.1	8.34e6	3898	2139.2	db
21	13C-1234678-HpCDD	3.54e5	3.22e5	6.76e5	37.35	1.07	1.10	NO	102.356	0.856	0.836	3.49	0.160	5.81e6	4857	1196.7	5.35e6	4293	1247.1	bb
22	13C-OCDD	5.20e5	5.70e5	1.09e6	40.62	1.16	0.91	NO	201.847	0.690	0.684	3.84	0.113	5.77e6	3432	1682.1	6.49e6	1841	3524.6	bd
23	13C-2378-TCDF	7.73e5	9.33e5	1.71e6	26.55	0.99	0.83	NO	98.900	1.450	1.466	2.55	0.0604	9.15e6	2300	3978.6	1.11e7	2767	4012.8	bb
24	13C-12378-PeCDF	9.12e5	5.66e5	1.48e6	31.58	1.18	1.61	NO	95.117	1.257	1.321	6.36	0.100	1.87e7	3901	4804.0	1.20e7	3692	3241.3	bb
25	13C-123678-HxCDF	4.49e5	8.56e5	1.30e6	34.11	0.98	0.53	NO	100.601	1.652	1.642	2.73	0.139	1.03e7	6795	1509.7	2.00e7	8751	2285.8	db
26	13C-1234678-HpCDF	2.77e5	6.22e5	8.99e5	36.35	1.04	0.45	NO	101.062	1.139	1.127	2.55	0.154	4.99e6	3813	1308.7	1.13e7	7999	1414.2	bb
27	13C-1234-TCDD	5.16e5	6.60e5	1.18e6	26.74	0.00	0.78	NO	100.000	1.000	1.000	0.00	0.104	6.27e6	3428	1830.3	8.04e6	2505	3209.1	bb
28	13C-123789-HxCDD	4.37e5	3.53e5	7.90e5	34.90	0.00	1.24	NO	100.000	1.000	1.000	0.00	0.112	9.44e6	3761	2509.1	7.51e6	3898	1926.5	bb
29	37Cl-2378-TCDD (SS)	2.93e3		2.93e3	27.48	1.00			0.233	1.032	1.105	4.13	0.0321	3.81e4	1945	19.6				bb
30	13C-23478-PeCDF (SS)	9.16e5	5.65e5	1.48e6	32.26	1.02	1.62	NO	99.983	1.002	1.002	0.82	0.0624	2.59e7	3901	6635.2	1.57e7	3692	4239.6	bb

Quantify Sample Summary Report **MassLynx 4.1**
Method 8290 ICAL Report

Dataset: C:\MassLynx\Default.pro\ICAL Results\8290-b30nov12a.qld

Last Altered: Monday, December 03, 2012 09:49:11 Eastern Standard Time
Printed: Monday, December 03, 2012 10:06:35 Eastern Standard Time

Name: b30nov12a-4, Date: 30-Nov-2012, Time: 12:36:22, ID: CS0.5 UD121129-03, Description: , Job: b30nov12a, Task: HRP763_1, User: MJC

	Name	Ion1Area	Ion2Area	Response	RT	RRT	RA	Fail?	pg/uL	RRF	Mean	RSD	EDL	Height1	Noise1	S/N1	Height2	Noise2	S/N2	M
31	13C-123478-HxCDF (SS)	3.83e5	7.35e5	1.12e6	34.03	1.00	0.52	NO	100.404	0.857	0.854	1.80	0.153	9.71e6	6795	1429.7	1.87e7	8751	2134.9	bd
32	13C-123478-HxCDD (SS)	4.17e5	3.39e5	7.56e5	34.63	1.00	1.23	NO	104.433	0.888	0.851	3.12	0.122	1.00e7	3761	2660.3	8.08e6	3898	2073.5	bd
33	13C-1234789-HpCDF (SS)	2.21e5	4.96e5	7.17e5	37.86	1.04	0.45	NO	102.281	0.797	0.780	1.37	0.234	3.44e6	3813	901.8	7.57e6	7999	946.0	bb

Quantify Sample Report **MassLynx 4.1**
Method 8290 ICAL Report

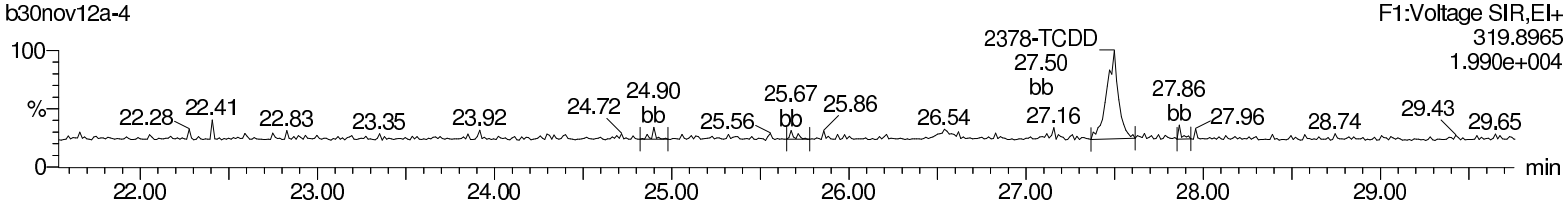
Dataset: C:\MassLynx\Default.pro\ICAL Results\8290-b30nov12a.qld

Last Altered: Monday, December 03, 2012 09:49:11 Eastern Standard Time
Printed: Monday, December 03, 2012 09:50:06 Eastern Standard Time

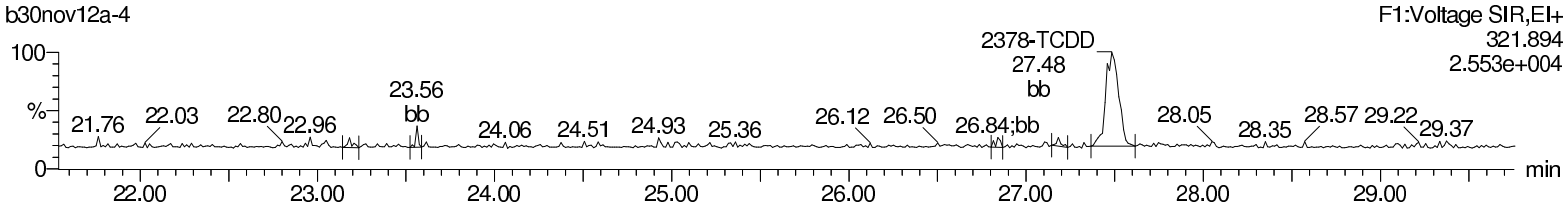
Method: Untitled 22 Oct 2012 15:48:00
Calibration: 03 Dec 2012 09:49:08

Name: b30nov12a-4, Date: 30-Nov-2012, Time: 12:36:22, ID: CS0.5 UD121129-03, Description: , Job: b30nov12a, Task: HRP763_1, User: MJC

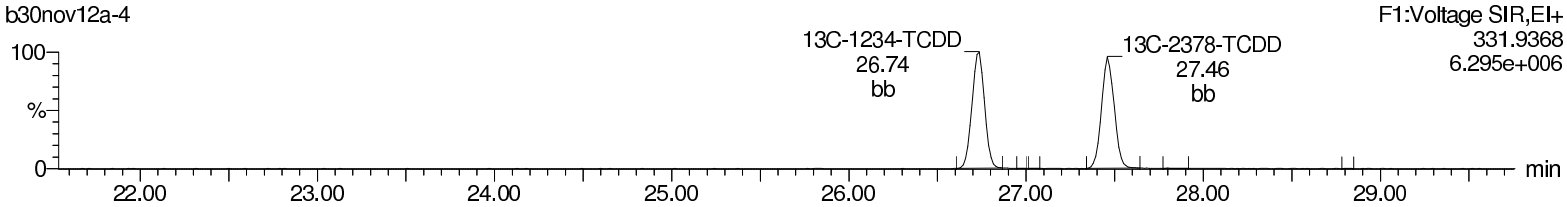
Total-tetradioxins



Total-tetradioxins



13C-2378-TCDD



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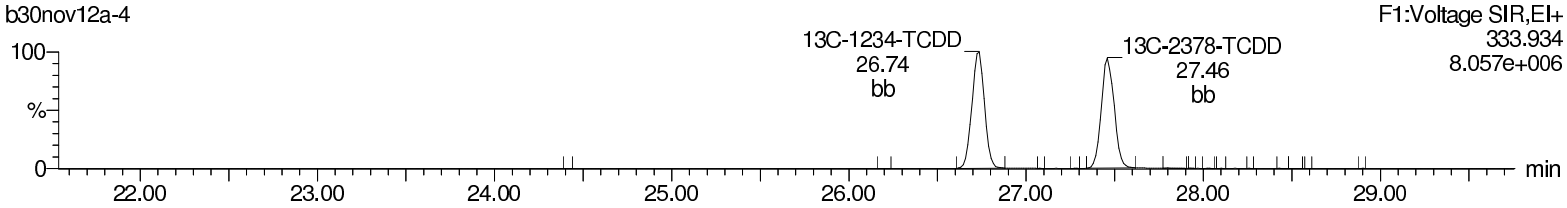
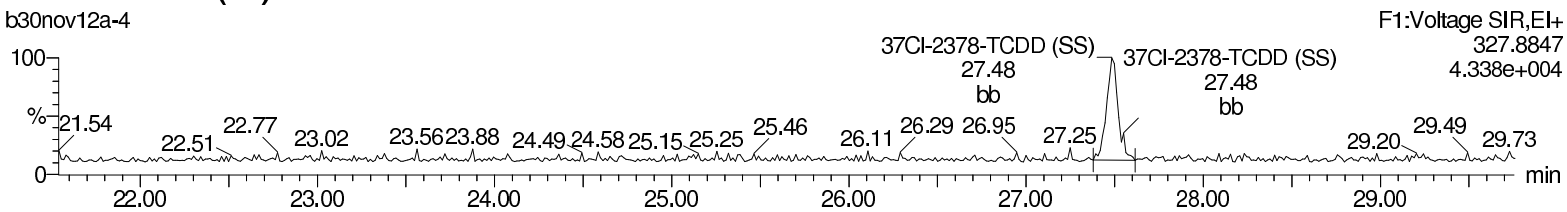


37Cl-2378-TCDD (SS)



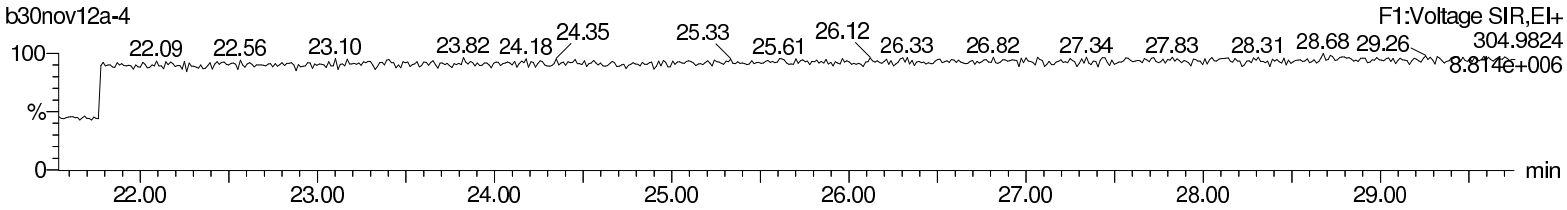
Quantify Sample Report **MassLynx 4.1**
Method 8290 ICAL Report

Dataset: C:\MassLynx\Default.pro\ICAL Results\8290-b30nov12a.qld

Last Altered: Monday, December 03, 2012 09:49:11 Eastern Standard Time
Printed: Monday, December 03, 2012 09:50:06 Eastern Standard Time

Name: b30nov12a-4, Date: 30-Nov-2012, Time: 12:36:22, ID: CS0.5 UD121129-03, Description: , Job: b30nov12a, Task: HRP763_1, User: MJC

Lock Mass F1



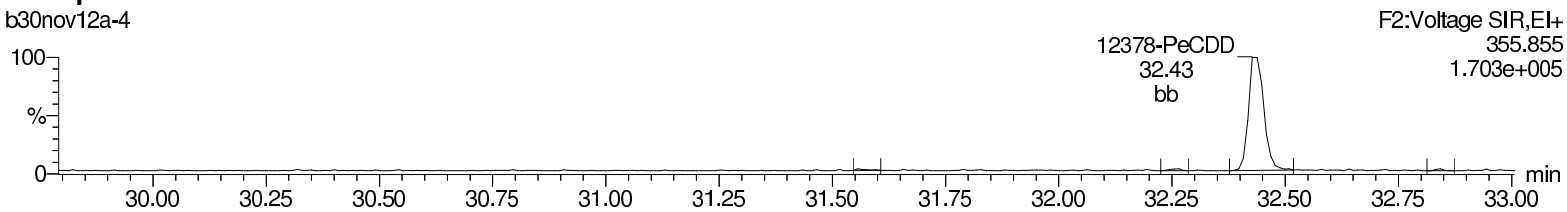
Quantify Sample Report **MassLynx 4.1**
Method 8290 ICAL Report

Dataset: C:\MassLynx\Default.pro\ICAL Results\8290-b30nov12a.qld

Last Altered: Monday, December 03, 2012 09:49:11 Eastern Standard Time
Printed: Monday, December 03, 2012 09:50:06 Eastern Standard Time

Name: b30nov12a-4, Date: 30-Nov-2012, Time: 12:36:22, ID: CS0.5 UD121129-03, Description: , Job: b30nov12a, Task: HRP763_1, User: MJC

Total-pentadioxins



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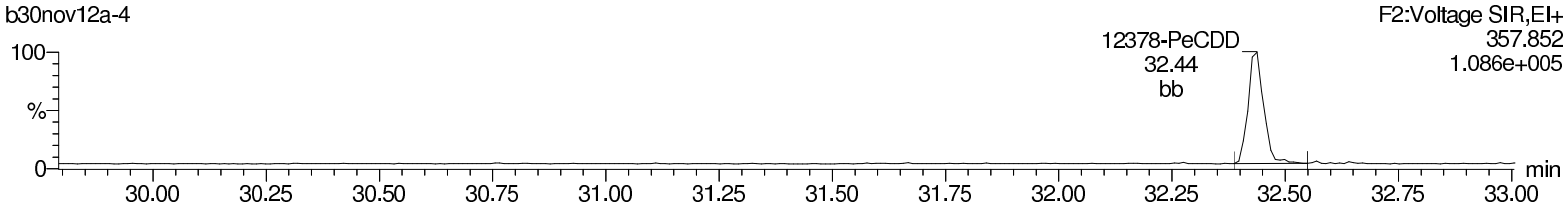

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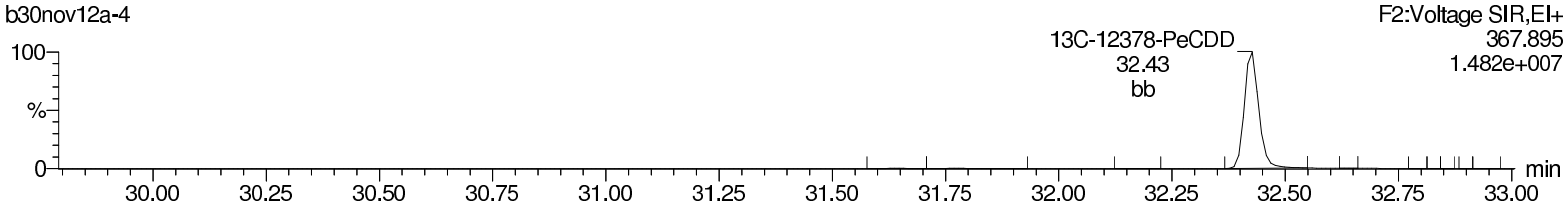
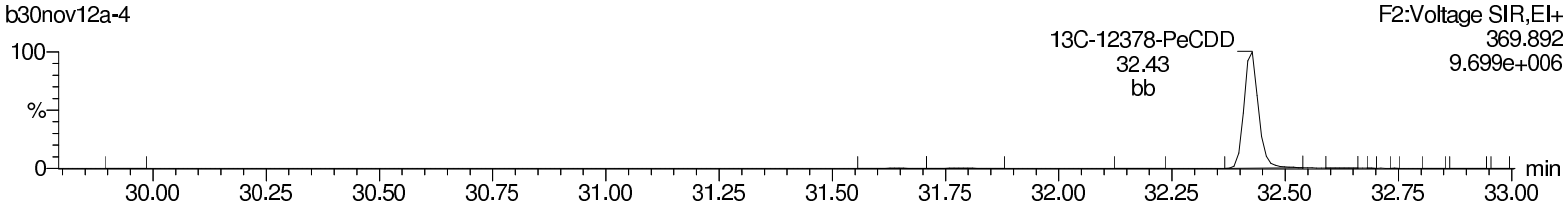
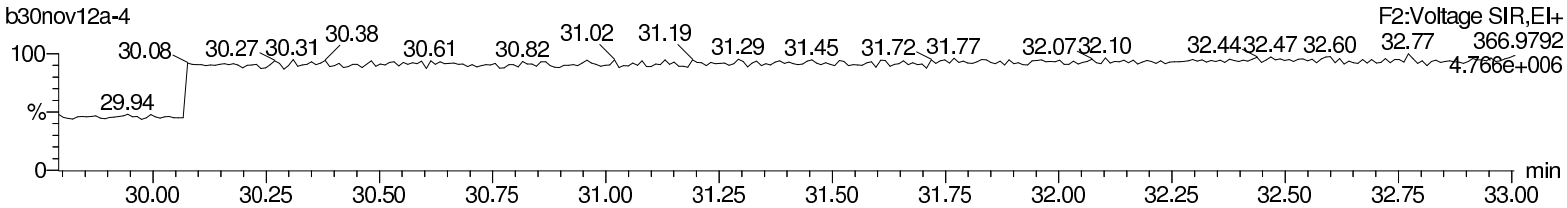


13C-12378-PeCDD



Lock Mass F2



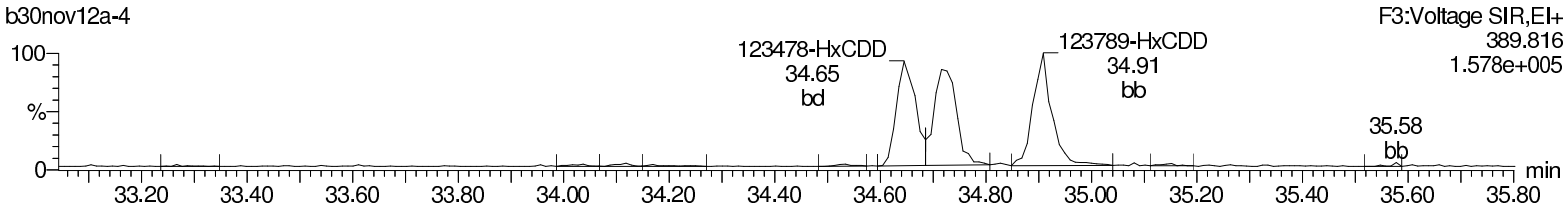
Quantify Sample Report **MassLynx 4.1**
Method 8290 ICAL Report

Dataset: C:\MassLynx\Default.pro\ICAL Results\8290-b30nov12a.qld

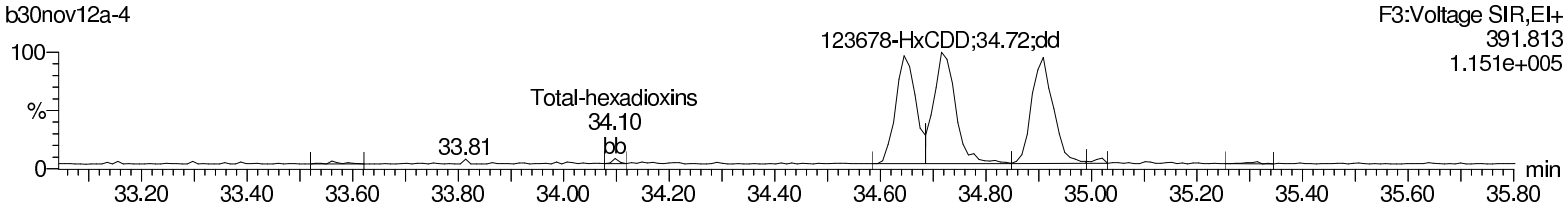
Last Altered: Monday, December 03, 2012 09:49:11 Eastern Standard Time
Printed: Monday, December 03, 2012 09:50:06 Eastern Standard Time

Name: b30nov12a-4, Date: 30-Nov-2012, Time: 12:36:22, ID: CS0.5 UD121129-03, Description: , Job: b30nov12a, Task: HRP763_1, User: MJC

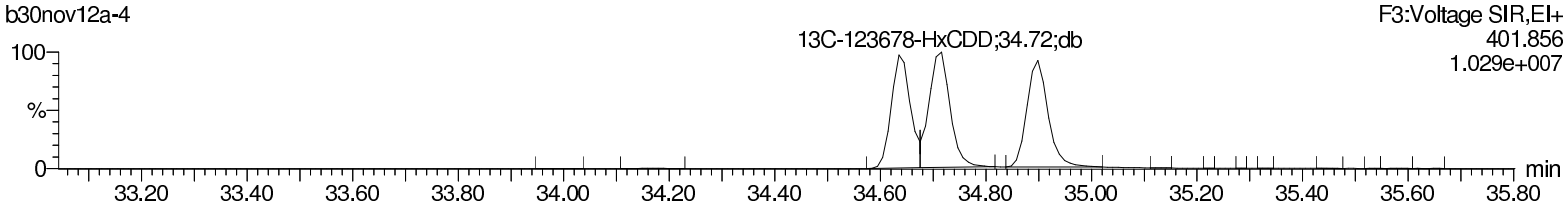
Total-hexadioxins



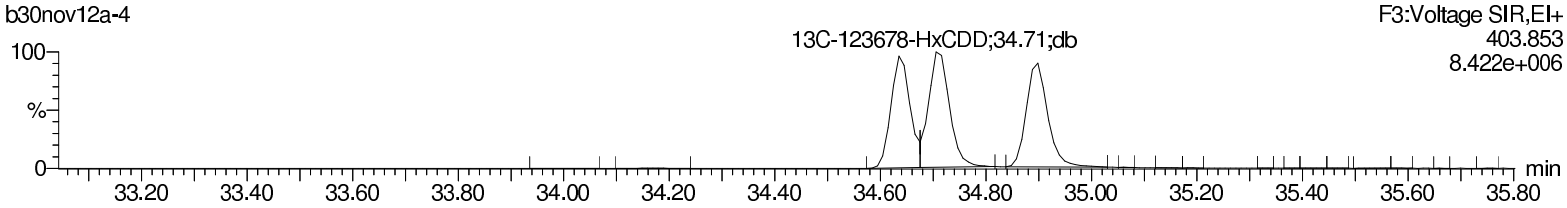
Total-hexadioxins



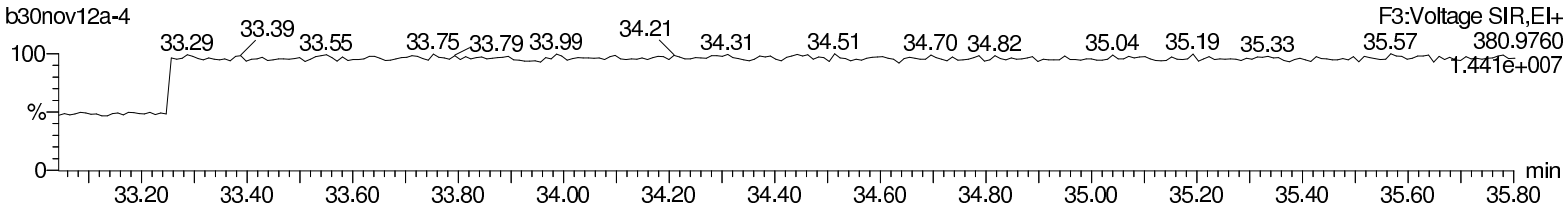
13C-123678-HxCDD



13C-123678-HxCDD



Lock Mass F3



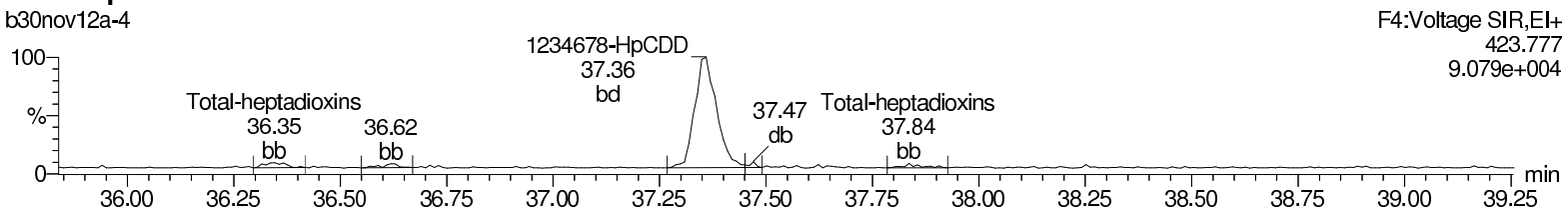
Quantify Sample Report **MassLynx 4.1**
Method 8290 ICAL Report

Dataset: C:\MassLynx\Default.pro\ICAL Results\8290-b30nov12a.qld

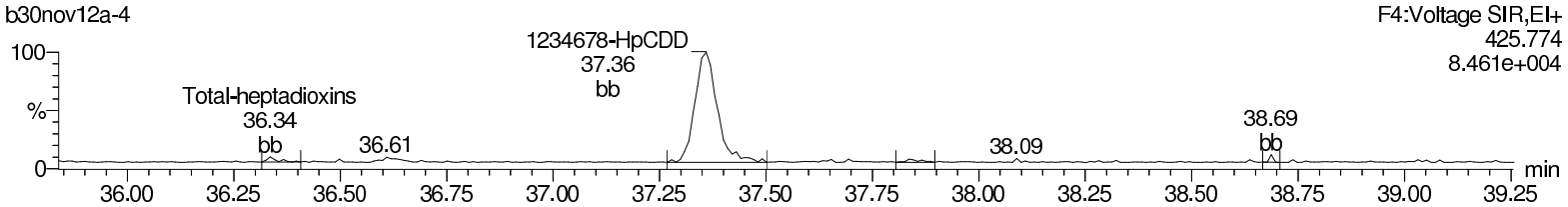
Last Altered: Monday, December 03, 2012 09:49:11 Eastern Standard Time
Printed: Monday, December 03, 2012 09:50:06 Eastern Standard Time

Name: b30nov12a-4, Date: 30-Nov-2012, Time: 12:36:22, ID: CS0.5 UD121129-03, Description: , Job: b30nov12a, Task: HRP763_1, User: MJC

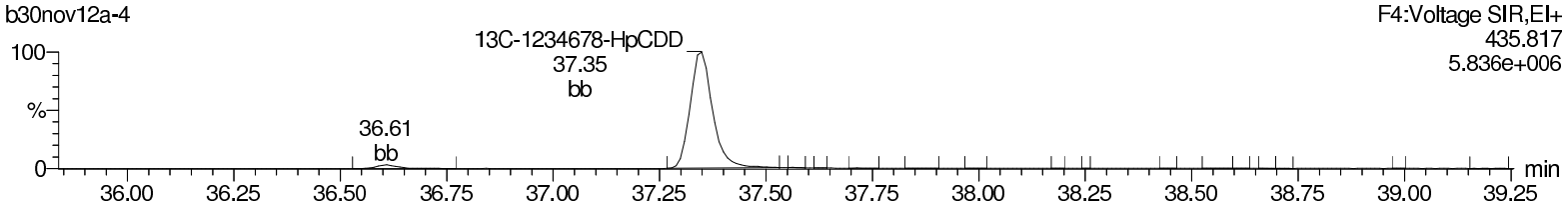
Total-heptadioxins



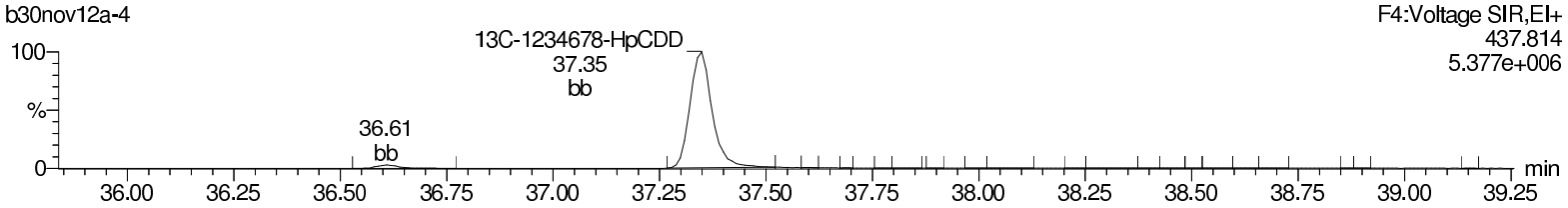
Total-heptadioxins



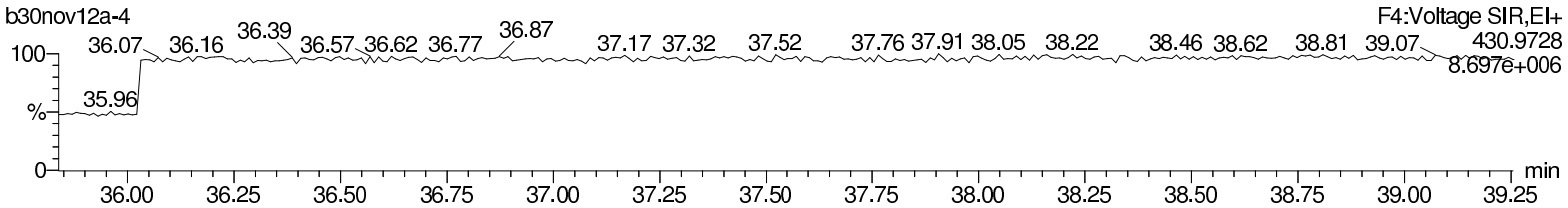
13C-1234678-HpCDD



13C-1234678-HpCDD



Lock Mass F4



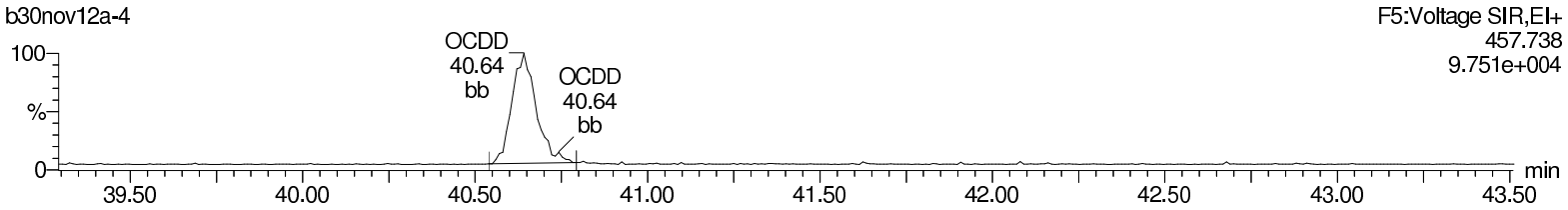
Quantify Sample Report **MassLynx 4.1**
Method 8290 ICAL Report

Dataset: C:\MassLynx\Default.pro\ICAL Results\8290-b30nov12a.qld

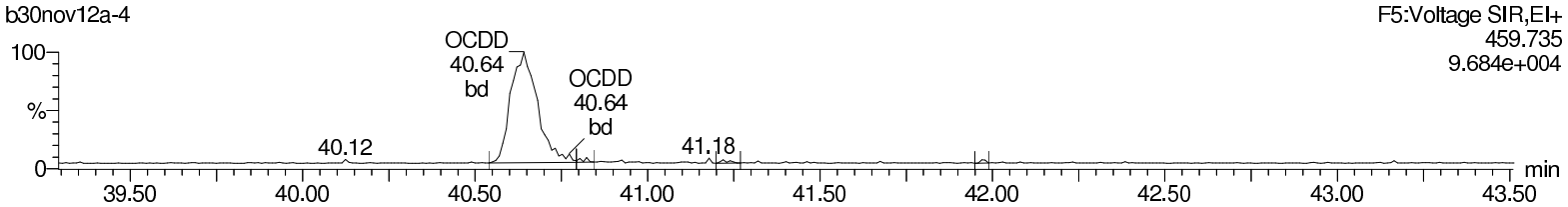
Last Altered: Monday, December 03, 2012 09:49:11 Eastern Standard Time
Printed: Monday, December 03, 2012 09:50:06 Eastern Standard Time

Name: b30nov12a-4, Date: 30-Nov-2012, Time: 12:36:22, ID: CS0.5 UD121129-03, Description: , Job: b30nov12a, Task: HRP763_1, User: MJC

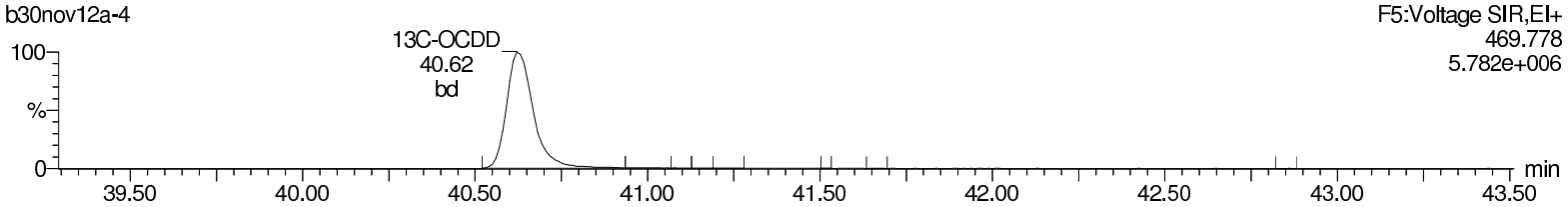
OCDD



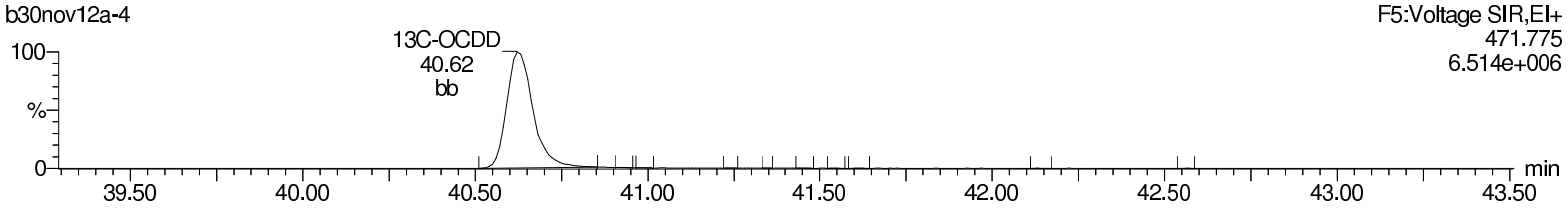
OCDD



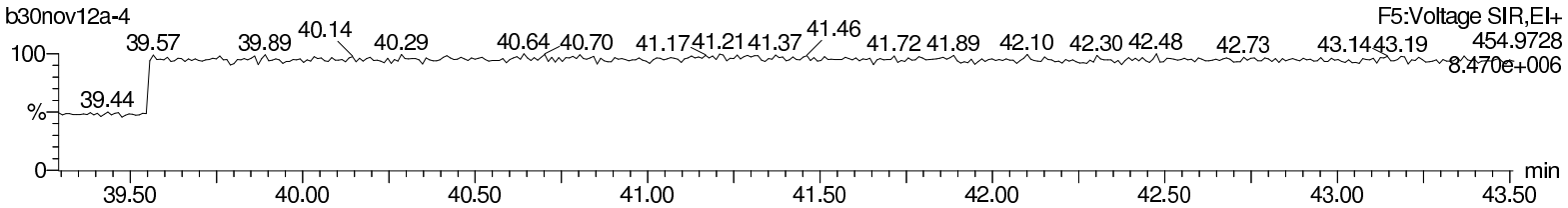
13C-OCDD



13C-OCDD



Lock Mass F5



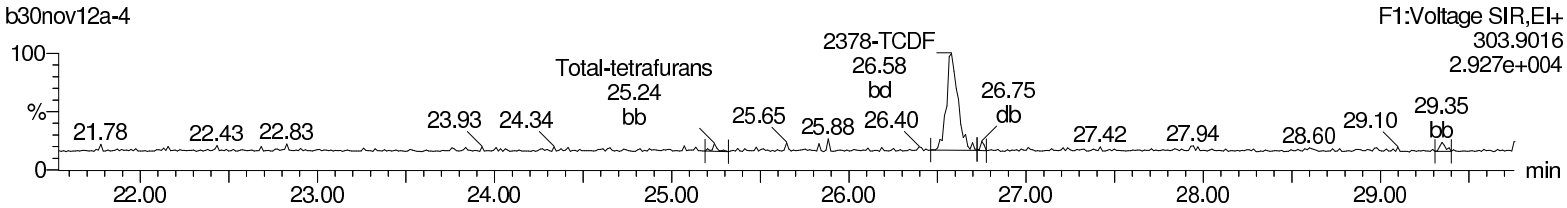
Quantify Sample Report **MassLynx 4.1**
Method 8290 ICAL Report

Dataset: C:\MassLynx\Default.pro\ICAL Results\8290-b30nov12a.qld

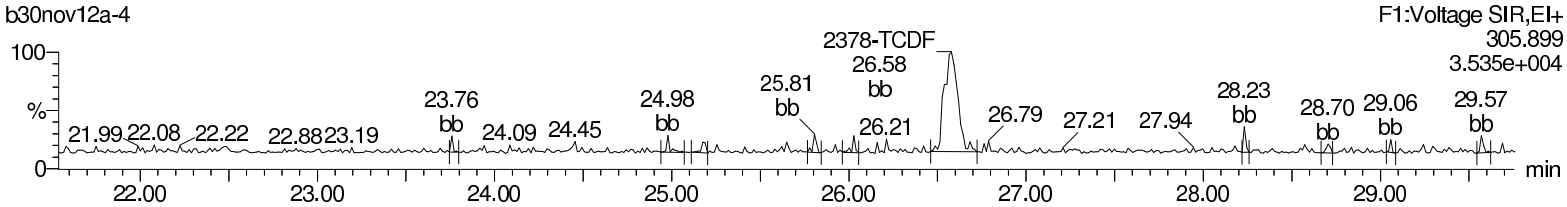
Last Altered: Monday, December 03, 2012 09:49:11 Eastern Standard Time
Printed: Monday, December 03, 2012 09:50:06 Eastern Standard Time

Name: b30nov12a-4, Date: 30-Nov-2012, Time: 12:36:22, ID: CS0.5 UD121129-03, Description: , Job: b30nov12a, Task: HRP763_1, User: MJC

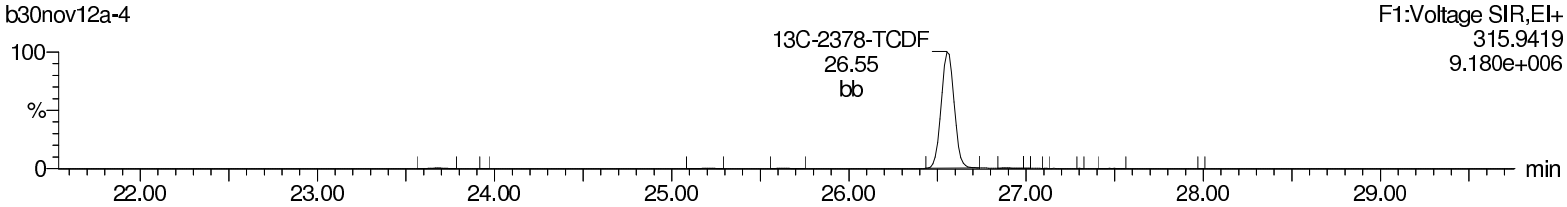
Total-tetrafurans



Total-tetrafurans



13C-2378-TCDF



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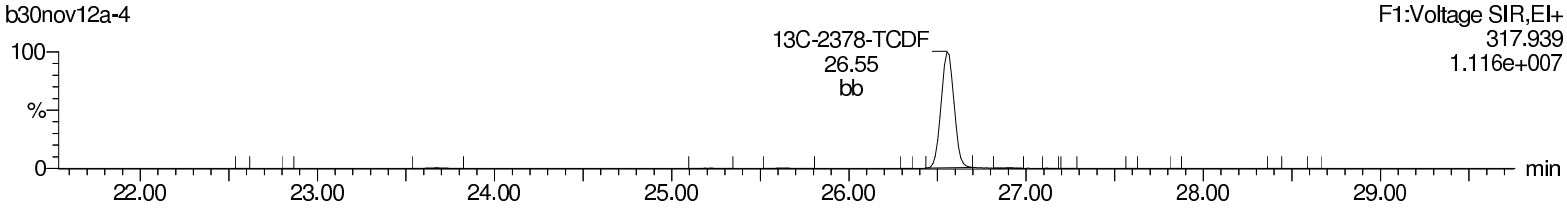
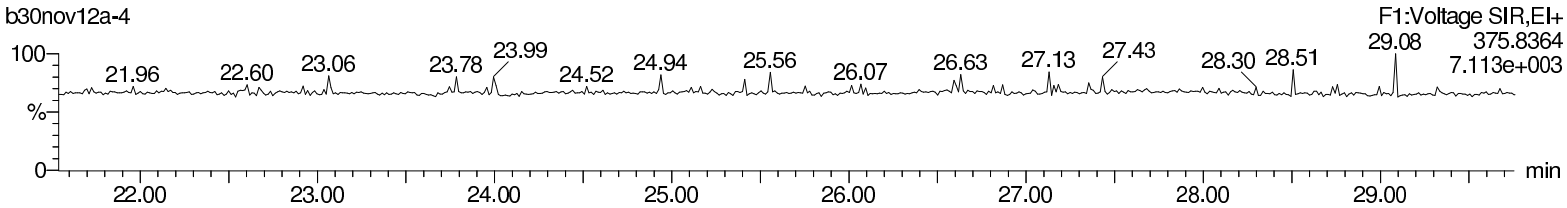
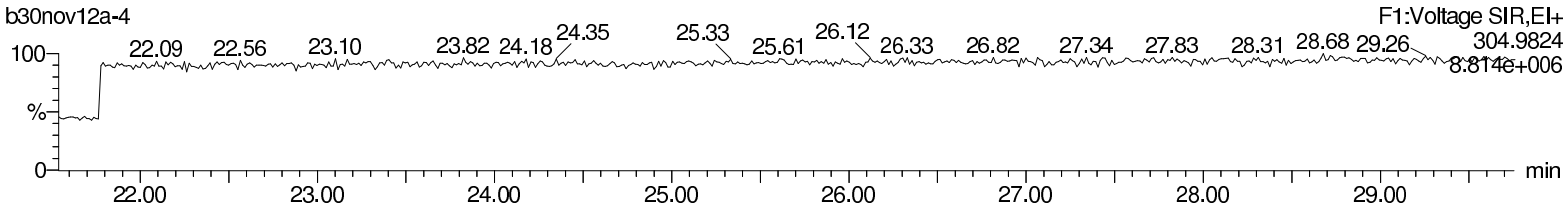


HxDPE



Lock Mass F1



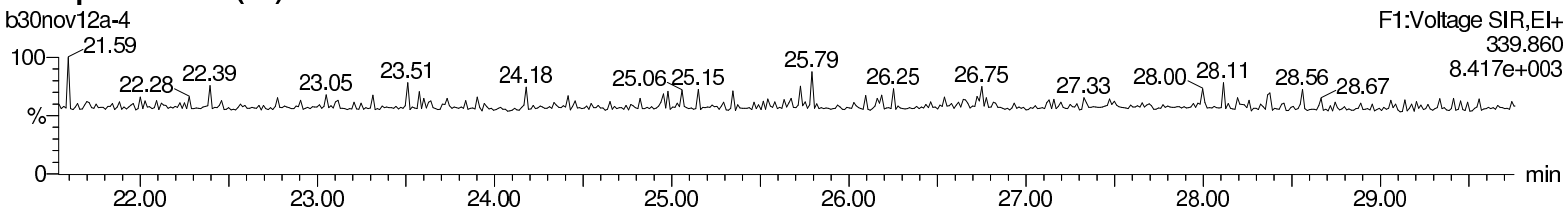
Quantify Sample Report **MassLynx 4.1**
Method 8290 ICAL Report

Dataset: C:\MassLynx\Default.pro\ICAL Results\8290-b30nov12a.qld

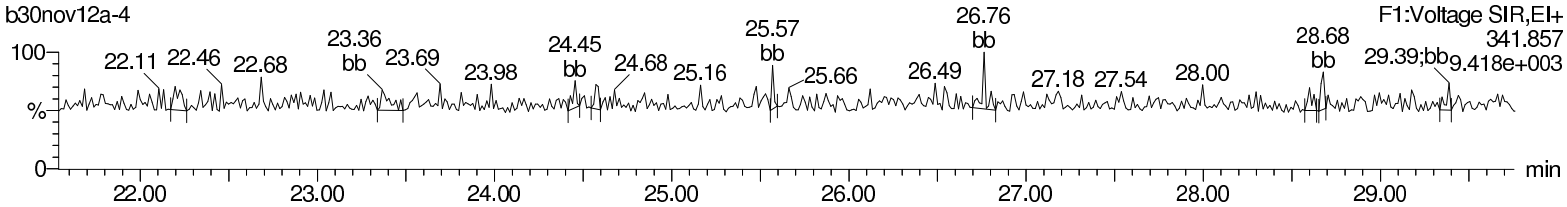
Last Altered: Monday, December 03, 2012 09:49:11 Eastern Standard Time
Printed: Monday, December 03, 2012 09:50:06 Eastern Standard Time

Name: b30nov12a-4, Date: 30-Nov-2012, Time: 12:36:22, ID: CS0.5 UD121129-03, Description: , Job: b30nov12a, Task: HRP763_1, User: MJC

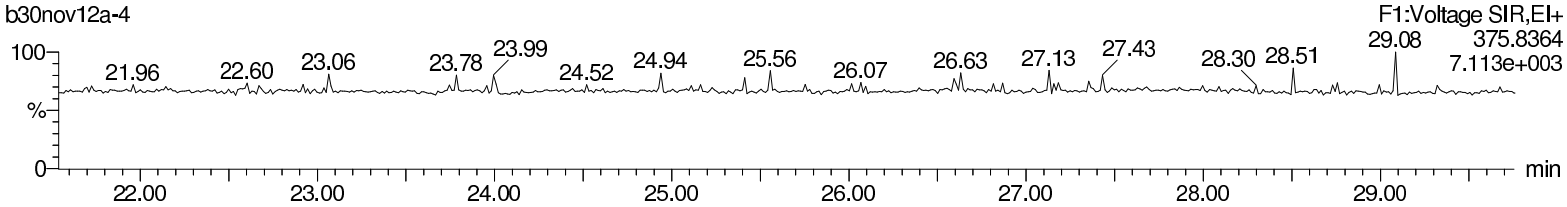
Total-pentafurans (F1)



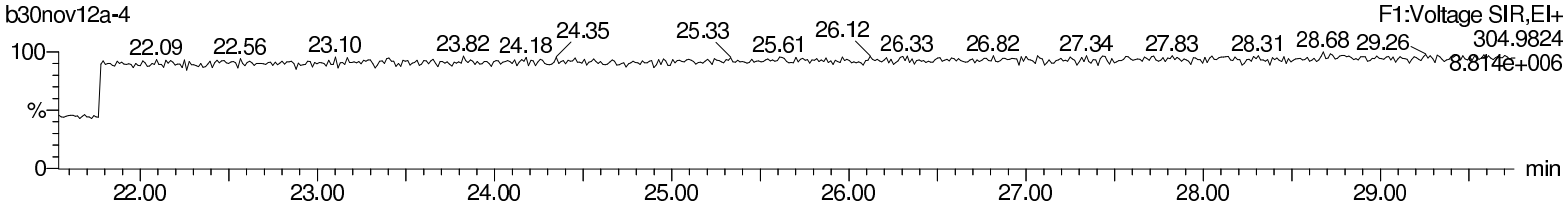
Total-pentafurans (F1)



HxDPE



Lock Mass F1



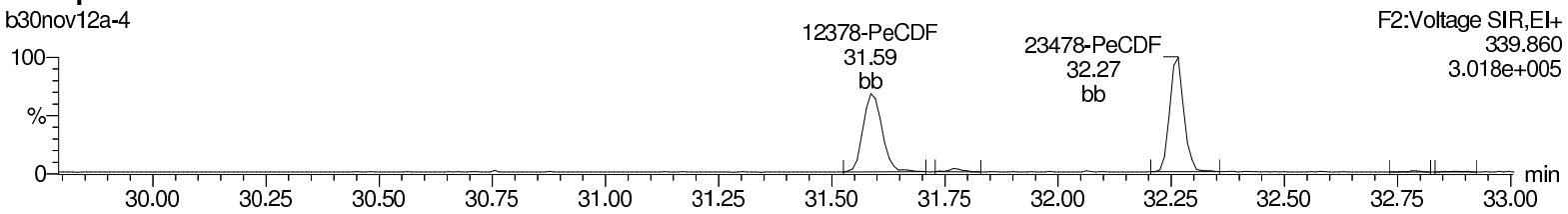
Quantify Sample Report **MassLynx 4.1**
Method 8290 ICAL Report

Dataset: C:\MassLynx\Default.pro\ICAL Results\8290-b30nov12a.qld

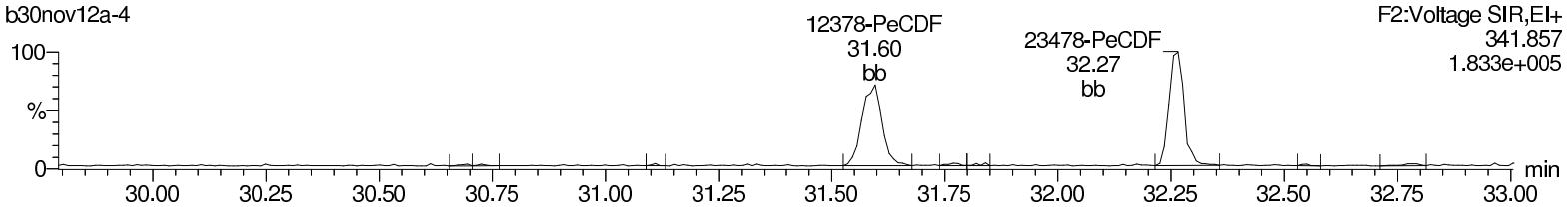
Last Altered: Monday, December 03, 2012 09:49:11 Eastern Standard Time
Printed: Monday, December 03, 2012 09:50:06 Eastern Standard Time

Name: b30nov12a-4, Date: 30-Nov-2012, Time: 12:36:22, ID: CS0.5 UD121129-03, Description: , Job: b30nov12a, Task: HRP763_1, User: MJC

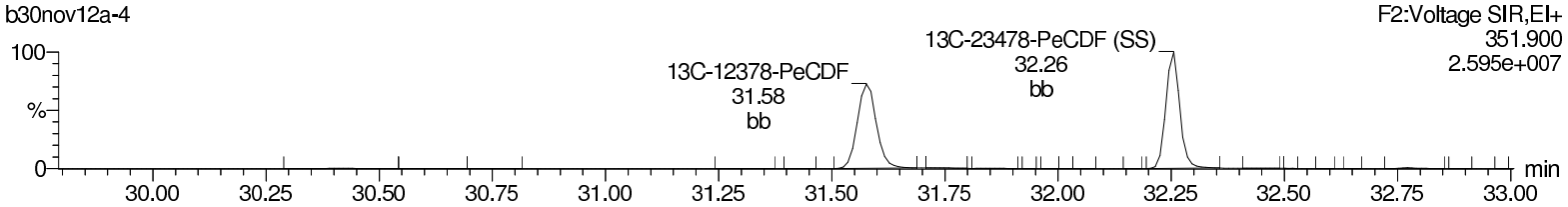
Total-pentafurans



Total-pentafurans



13C-12378-PeCDF



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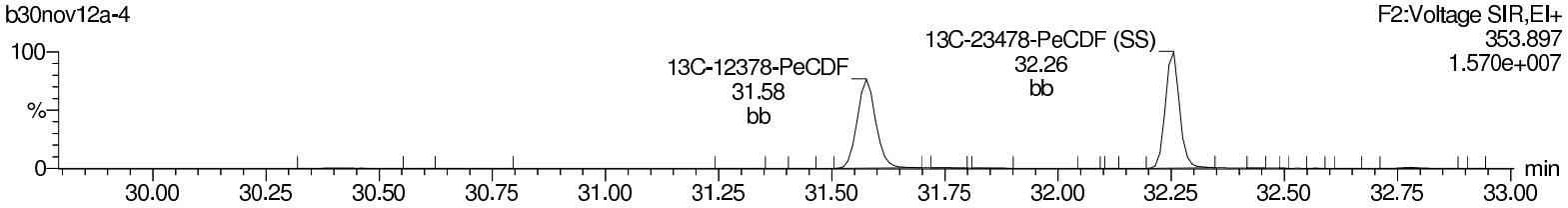
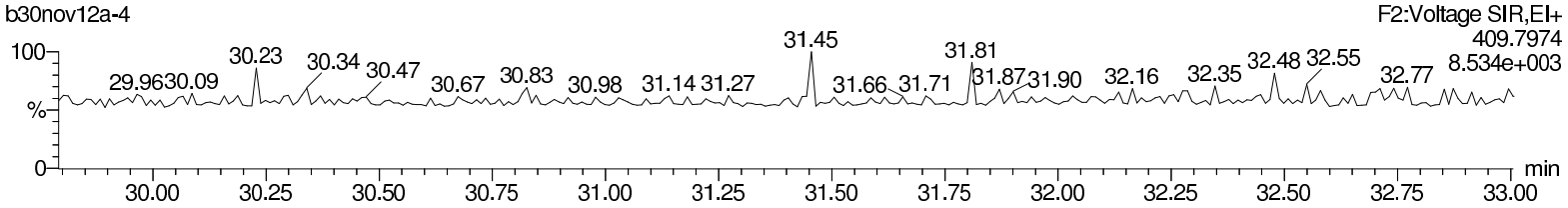
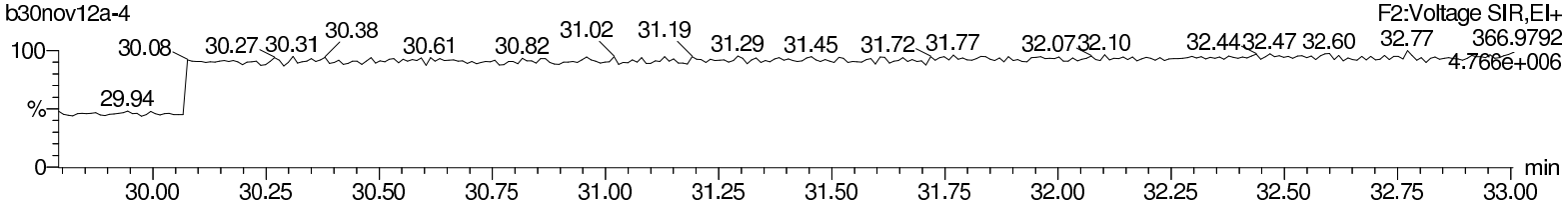


HpDPE



Lock Mass F2



Quantify Sample Report **MassLynx 4.1**
Method 8290 ICAL Report

Dataset: C:\MassLynx\Default.pro\ICAL Results\8290-b30nov12a.qld

Last Altered: Monday, December 03, 2012 09:49:11 Eastern Standard Time
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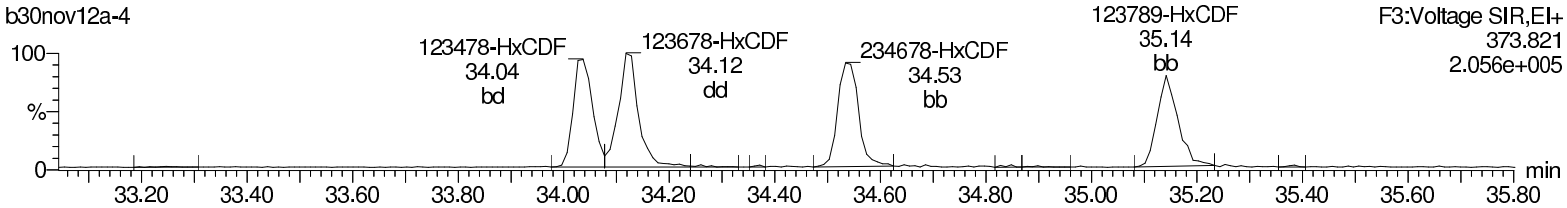
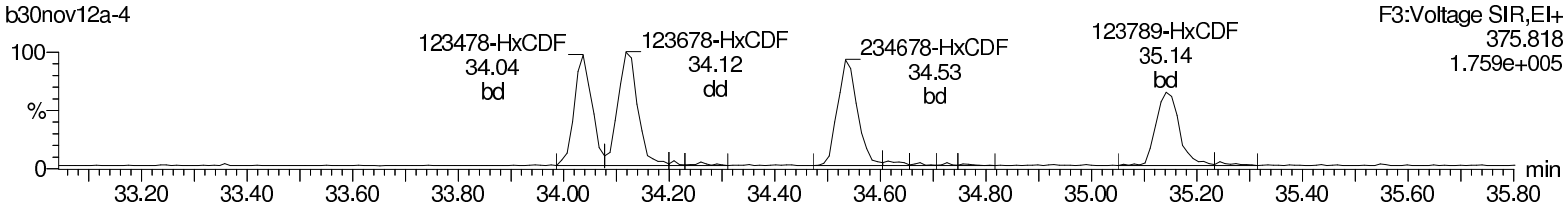
Name: b30nov12a-4, Date: 30-Nov-2012, Time: 12:36:22, ID: CS0.5 UD121129-03, Description: , Job: b30nov12a, Task: HRP763_1, User: MJC

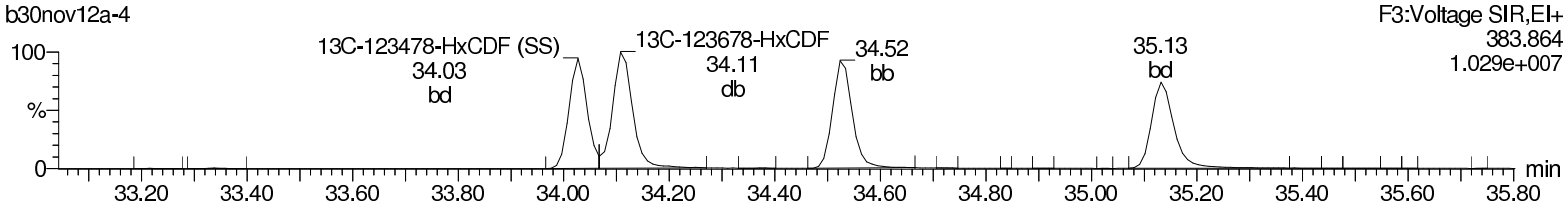
Total-hexafurans



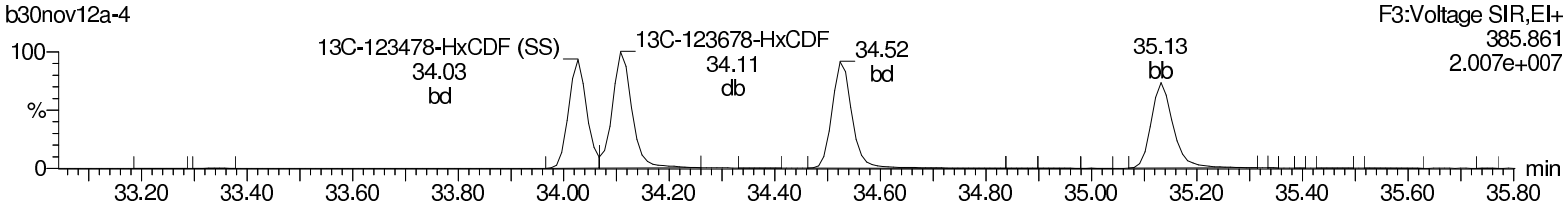
Total-hexafurans



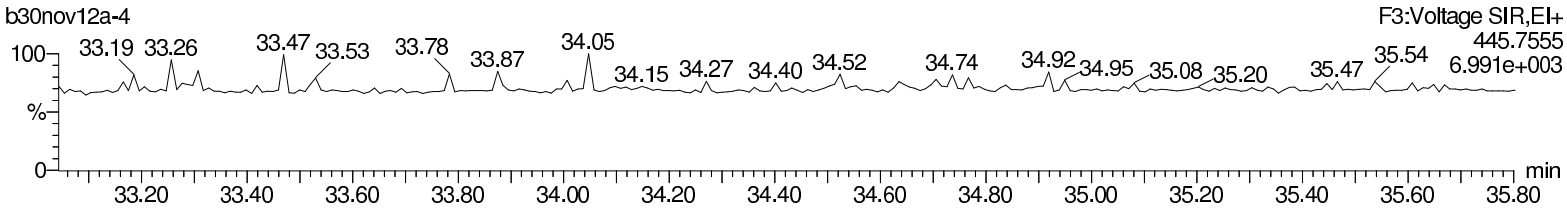
13C-123678-HxCDF



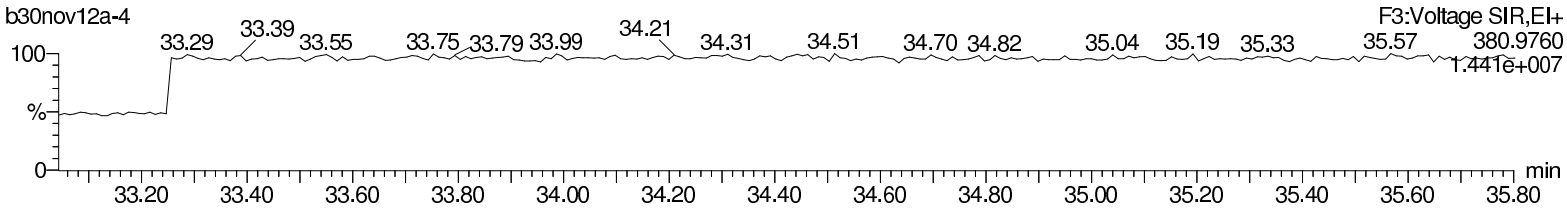
13C-123678-HxCDF



OcDPE



Lock Mass F3



Quantify Sample Report **MassLynx 4.1**
Method 8290 ICAL Report

Dataset: C:\MassLynx\Default.pro\ICAL Results\8290-b30nov12a.qld

Last Altered: Monday, December 03, 2012 09:49:11 Eastern Standard Time
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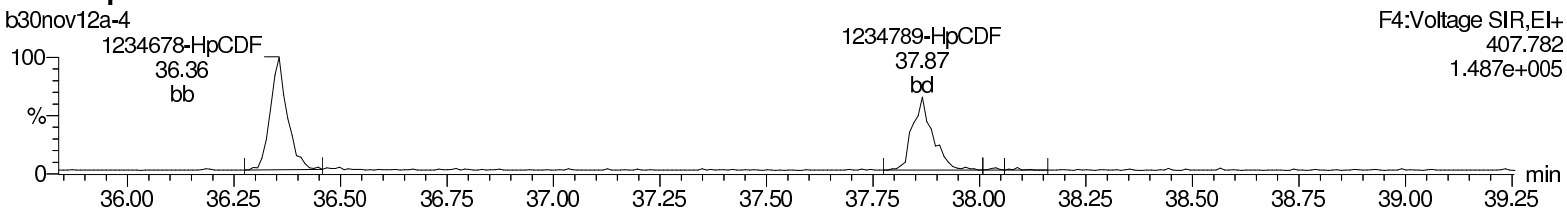
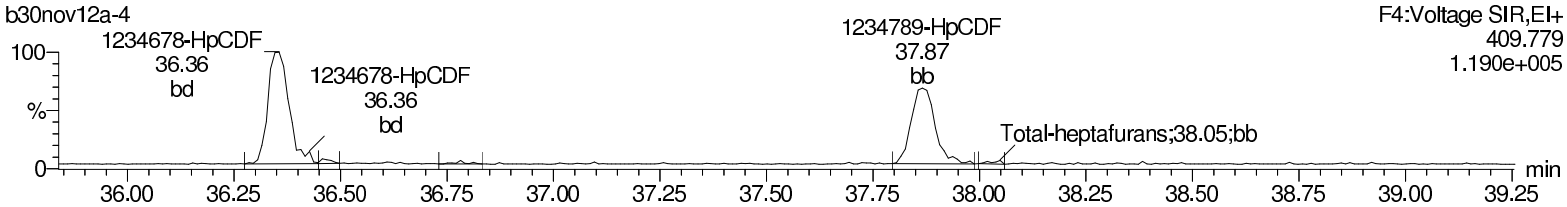
Name: b30nov12a-4, Date: 30-Nov-2012, Time: 12:36:22, ID: CS0.5 UD121129-03, Description: , Job: b30nov12a, Task: HRP763_1, User: MJC

Total-heptafurans



Total-heptafurans



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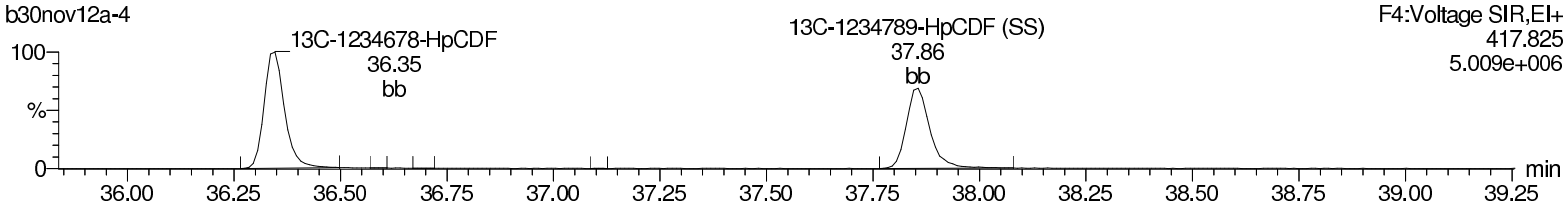
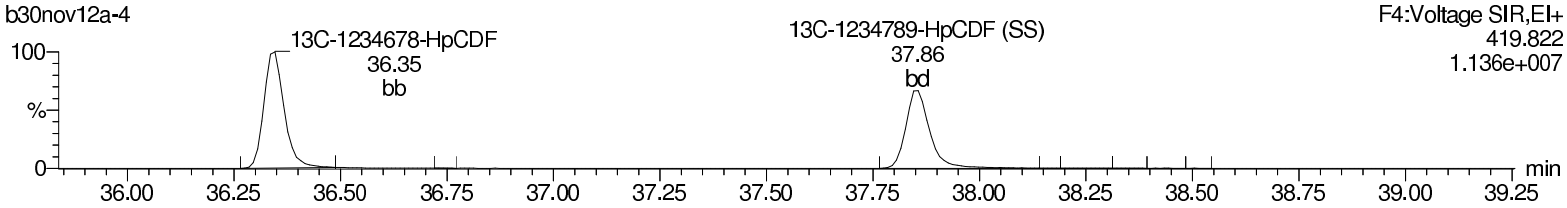
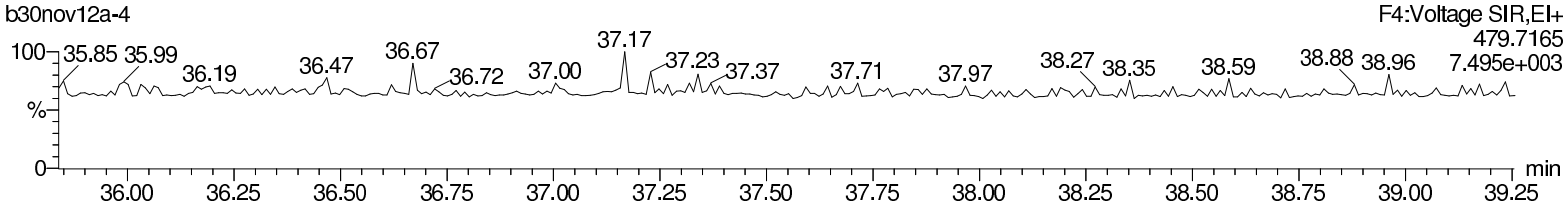


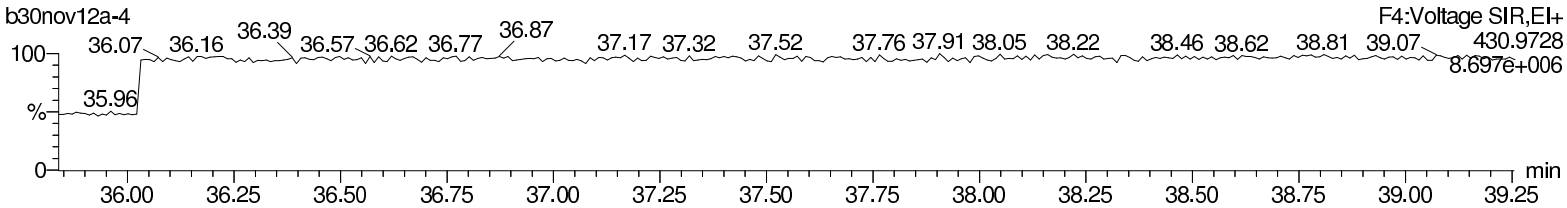
13C-1234678-HpCDF



NoDPE



Lock Mass F4



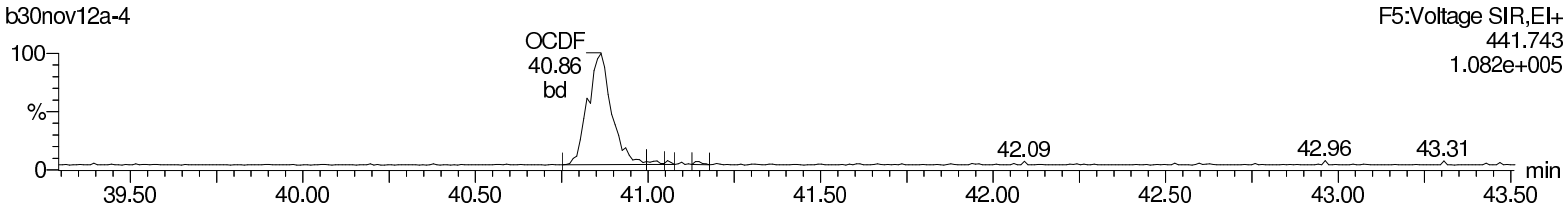
Quantify Sample Report **MassLynx 4.1**
Method 8290 ICAL Report

Dataset: C:\MassLynx\Default.pro\ICAL Results\8290-b30nov12a.qld

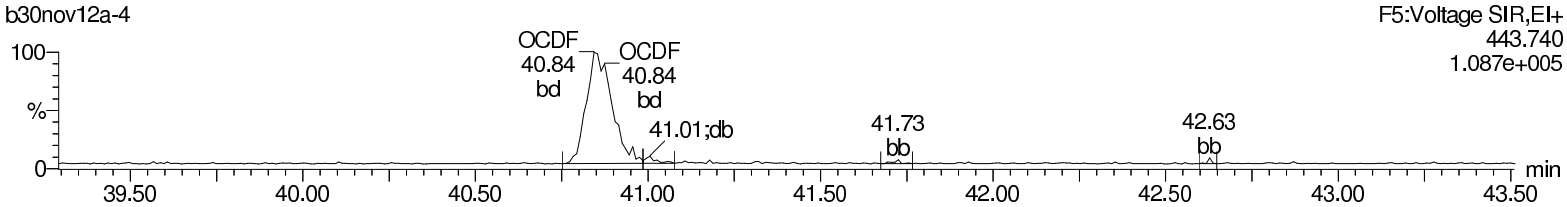
Last Altered: Monday, December 03, 2012 09:49:11 Eastern Standard Time
Printed: Monday, December 03, 2012 09:50:06 Eastern Standard Time

Name: b30nov12a-4, Date: 30-Nov-2012, Time: 12:36:22, ID: CS0.5 UD121129-03, Description: , Job: b30nov12a, Task: HRP763_1, User: MJC

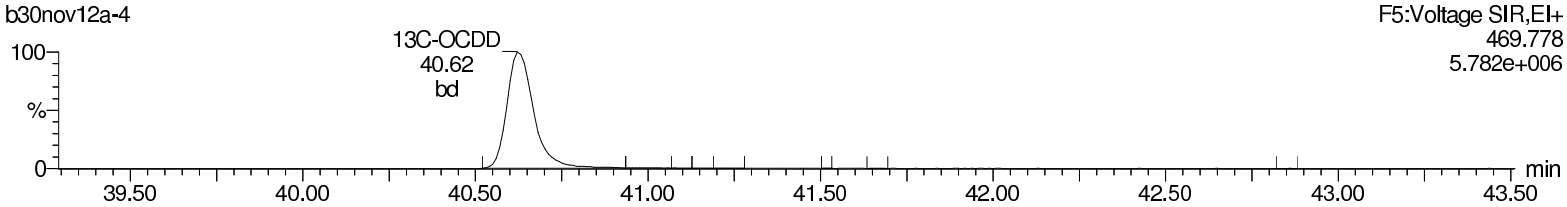
OCDF



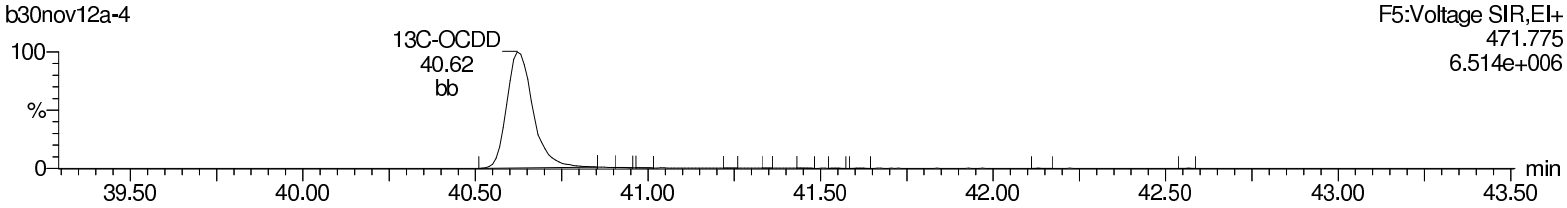
OCDF



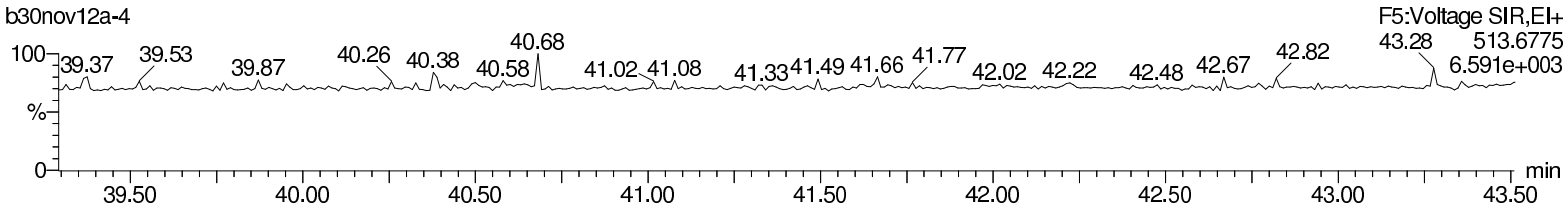
13C-OCDD



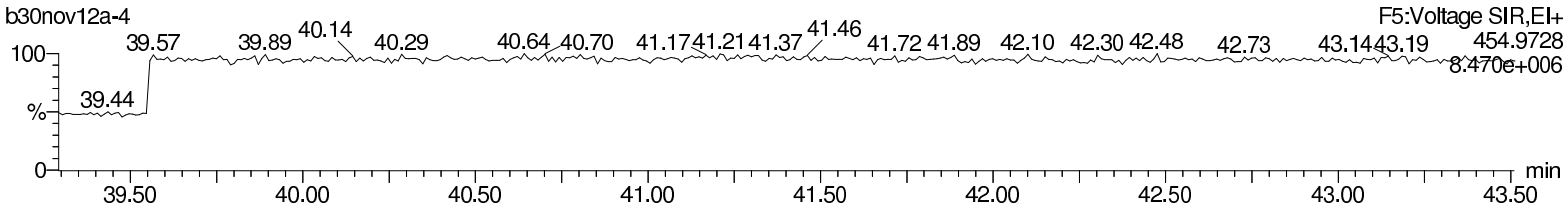
13C-OCDD



DeDPE



Lock Mass F5



Quantify Sample Summary Report **MassLynx 4.1**
Method 8290 ICAL Report

Dataset: C:\MassLynx\Default.pro\ICAL Results\8290-b30nov12a.qld

Last Altered: Monday, December 03, 2012 09:49:11 Eastern Standard Time
Printed: Monday, December 03, 2012 09:54:56 Eastern Standard Time

Name: b30nov12a-5, Date: 30-Nov-2012, Time: 13:21:49, ID: CS1 UD101022-02, Description: , Job: b30nov12a, Task: HRP763_1, User: MJC

	Name	Ion1Area	Ion2Area	Response	RT	RRT	RA	Fail?	pg/uL	RRF	Mean	RSD	EDL	Height1	Noise1	S/N1	Height2	Noise2	S/N2	M
1	2378-TCDD	2.61e3	2.97e3	5.58e3	27.46	1.00	0.88	NO	0.478	0.912	0.953	4.54	0.0285	3.31e4	758	43.6	3.37e4	804	41.9	bb
2	12378-PeCDD	1.48e4	8.71e3	2.35e4	32.43	1.00	1.70	NO	2.453	0.949	0.967	2.77	0.0167	4.18e5	1150	364.0	2.51e5	682	367.5	bd
3	123478-HxCDD	1.32e4	9.73e3	2.29e4	34.64	1.00	1.36	NO	2.409	0.938	0.973	2.42	0.0327	2.95e5	1345	219.4	2.11e5	1330	158.5	dd
4	123678-HxCDD	1.48e4	1.16e4	2.64e4	34.72	1.00	1.27	NO	2.502	1.081	1.080	1.81	0.0294	3.21e5	1345	239.0	2.60e5	1330	195.1	dd
5	123789-HxCDD	1.32e4	1.03e4	2.34e4	34.90	1.01	1.28	NO	2.419	0.957	0.989	3.56	0.0321	2.80e5	1345	208.3	2.43e5	1330	182.8	dd
6	1234678-HpCDD	1.02e4	9.80e3	2.00e4	37.34	1.00	1.04	NO	2.360	1.072	1.135	3.61	0.0454	1.80e5	1304	138.1	1.74e5	1230	141.7	bb
7	OCDD	1.61e4	1.76e4	3.37e4	40.63	1.00	0.92	NO	4.854	1.136	1.170	2.76	0.0633	2.06e5	757	271.4	2.15e5	1286	166.9	bd
8	2378-TCDF	4.25e3	4.96e3	9.21e3	26.58	1.00	0.86	NO	0.488	1.004	1.029	3.86	0.0233	5.18e4	877	59.1	6.33e4	1207	52.5	bb
9	12378-PeCDF	2.24e4	1.47e4	3.71e4	31.58	1.00	1.52	NO	2.448	0.924	0.943	3.68	0.0267	4.84e5	1269	381.3	3.18e5	2021	157.3	bd
10	23478-PeCDF	2.32e4	1.48e4	3.79e4	32.26	1.02	1.57	NO	2.408	0.943	0.979	3.10	0.0257	6.65e5	1269	523.8	4.21e5	2021	208.5	bd
11	123478-HxCDF	1.74e4	1.44e4	3.19e4	34.03	1.00	1.21	NO	2.397	0.873	0.910	3.13	0.0302	4.38e5	1988	220.2	3.50e5	1602	218.6	bd
12	123678-HxCDF	2.09e4	1.68e4	3.77e4	34.11	1.00	1.25	NO	2.483	1.032	1.039	2.03	0.0264	4.51e5	1988	227.1	3.68e5	1602	229.8	db
13	234678-HxCDF	1.90e4	1.48e4	3.37e4	34.53	1.01	1.28	NO	2.404	0.923	0.960	2.69	0.0286	4.55e5	1988	228.8	3.38e5	1602	211.1	bb
14	123789-HxCDF	1.68e4	1.27e4	2.95e4	35.13	1.03	1.32	NO	2.494	0.808	0.810	1.61	0.0339	3.23e5	1988	162.4	2.62e5	1602	163.2	bd
15	1234678-HpCDF	1.55e4	1.44e4	3.00e4	36.35	1.00	1.08	NO	2.424	1.189	1.226	3.04	0.0366	2.91e5	2096	138.6	2.81e5	1420	197.6	bd
16	1234789-HpCDF	1.14e4	1.11e4	2.25e4	37.86	1.04	1.02	NO	2.366	0.890	0.941	4.69	0.0477	1.75e5	2096	83.5	1.71e5	1420	120.5	bd
17	OCDF	1.78e4	2.09e4	3.88e4	40.84	1.01	0.85	NO	4.810	1.306	1.358	6.36	0.0709	2.19e5	1390	157.6	2.53e5	1264	200.2	bd
18	13C-2378-TCDD	5.39e5	6.85e5	1.22e6	27.46	1.03	0.79	NO	98.326	0.973	0.989	3.07	0.0906	6.32e6	2997	2107.3	8.15e6	2539	3210.5	bb
19	13C-12378-PeCDD	5.99e5	3.92e5	9.90e5	32.42	1.21	1.53	NO	96.457	0.787	0.816	7.13	0.0773	1.71e7	1472	11638.5	1.10e7	2426	4530.0	bb
20	13C-123678-HxCDD	5.49e5	4.29e5	9.78e5	34.71	0.99	1.28	NO	98.149	1.092	1.112	2.71	0.109	1.18e7	4867	2428.8	9.35e6	4467	2093.0	dd
21	13C-1234678-HpCDD	3.92e5	3.56e5	7.48e5	37.34	1.07	1.10	NO	99.863	0.835	0.836	3.49	0.123	6.45e6	3993	1616.4	5.95e6	3978	1494.7	bd
22	13C-OCDD	5.60e5	6.28e5	1.19e6	40.62	1.16	0.89	NO	193.689	0.662	0.684	3.84	0.110	6.50e6	3448	1884.9	7.38e6	2372	3109.8	bb
23	13C-2378-TCDF	8.29e5	1.01e6	1.83e6	26.55	0.99	0.83	NO	99.451	1.458	1.466	2.55	0.0460	9.81e6	2288	4288.6	1.20e7	1875	6402.6	bd
24	13C-12378-PeCDF	9.84e5	6.24e5	1.61e6	31.57	1.18	1.58	NO	96.734	1.278	1.321	6.36	0.101	2.00e7	4619	4327.6	1.28e7	3623	3526.2	bb
25	13C-123678-HxCDF	5.00e5	9.61e5	1.46e6	34.10	0.98	0.52	NO	99.304	1.631	1.642	2.73	0.117	1.12e7	6608	1693.6	2.17e7	8222	2634.0	db
26	13C-1234678-HpCDF	3.10e5	6.99e5	1.01e6	36.34	1.04	0.44	NO	99.866	1.125	1.127	2.55	0.105	6.02e6	4076	1475.8	1.33e7	5035	2636.0	bb
27	13C-1234-TCDD	5.55e5	7.03e5	1.26e6	26.72	0.00	0.79	NO	100.000	1.000	1.000	0.00	0.0896	6.81e6	2997	2271.8	8.66e6	2539	3409.7	bb
28	13C-123789-HxCDD	5.02e5	3.94e5	8.96e5	34.89	0.00	1.27	NO	100.000	1.000	1.000	0.00	0.121	1.08e7	4867	2226.4	8.70e6	4467	1947.3	db
29	37Cl-2378-TCDD (SS)	6.72e3		6.72e3	27.47	1.00			0.497	1.099	1.105	4.13	0.0274	7.41e4	1740	42.6				bb
30	13C-23478-PeCDF (...	9.92e5	6.16e5	1.61e6	32.24	1.02	1.61	NO	99.844	1.001	1.002	0.82	0.0629	2.85e7	4619	6164.7	1.78e7	3623	4914.3	bb
31	13C-123478-HxCDF (...	4.21e5	8.19e5	1.24e6	34.02	1.00	0.51	NO	99.359	0.849	0.854	1.80	0.133	1.04e7	6608	1566.7	2.01e7	8222	2439.9	bd
32	13C-123478-HxCDD ...	4.71e5	3.76e5	8.47e5	34.63	1.00	1.25	NO	101.766	0.866	0.851	3.12	0.130	1.07e7	4867	2199.8	8.69e6	4467	1944.2	bd
33	13C-1234789-HpCDF...	2.46e5	5.38e5	7.84e5	37.85	1.04	0.46	NO	99.686	0.777	0.780	1.37	0.149	3.76e6	4076	923.1	8.63e6	5035	1714.7	bd

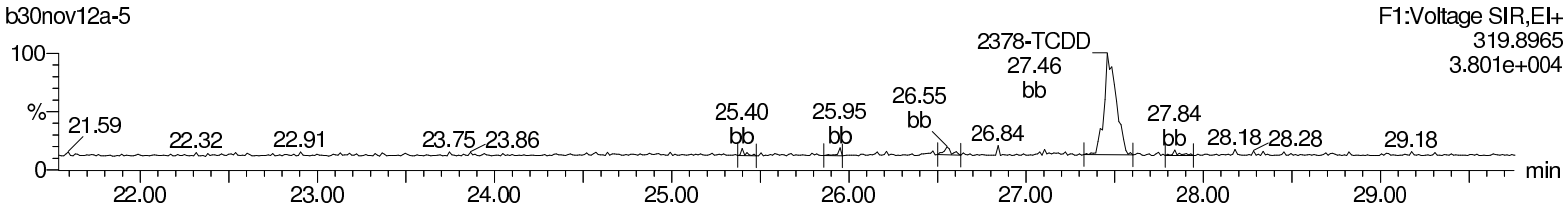
Quantify Sample Report **MassLynx 4.1**
Method 8290 ICAL Report

Dataset: C:\MassLynx\Default.pro\ICAL Results\8290-b30nov12a.qld

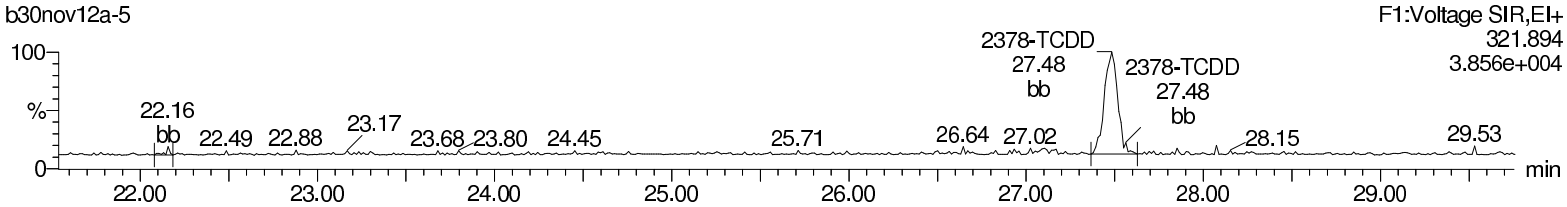
Last Altered: Monday, December 03, 2012 09:49:11 Eastern Standard Time
Printed: Monday, December 03, 2012 09:50:06 Eastern Standard Time

Name: b30nov12a-5, Date: 30-Nov-2012, Time: 13:21:49, ID: CS1 UD101022-02, Description: , Job: b30nov12a, Task: HRP763_1, User: MJC

Total-tetradioxins



Total-tetradioxins



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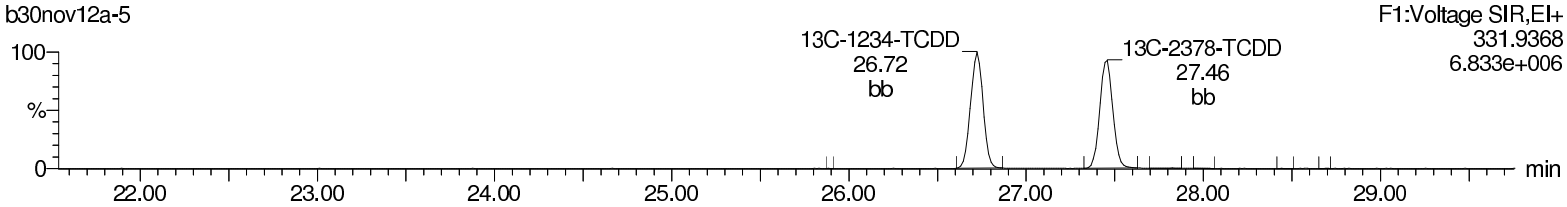

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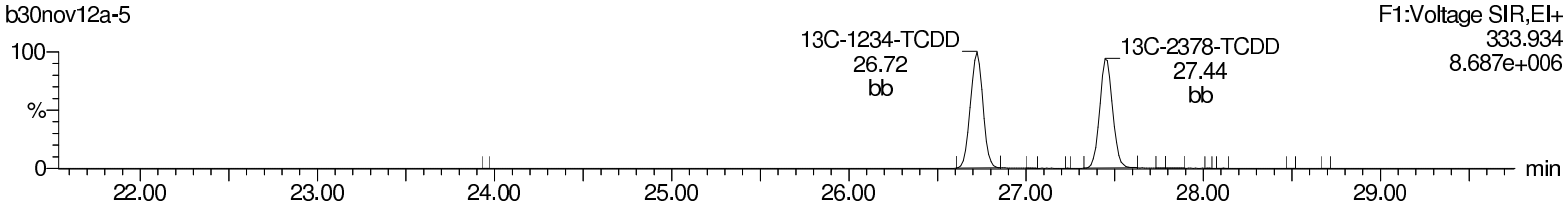
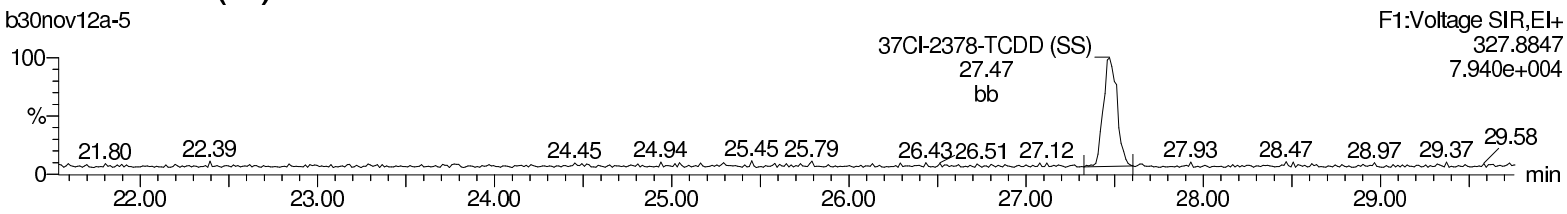
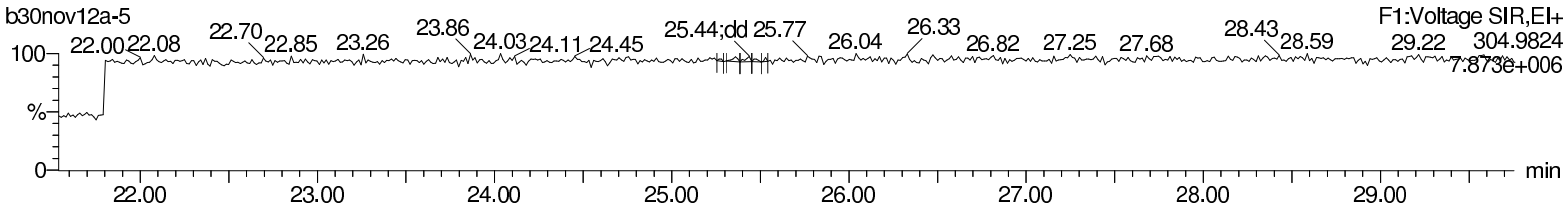


37Cl-2378-TCDD (SS)



Lock Mass F1



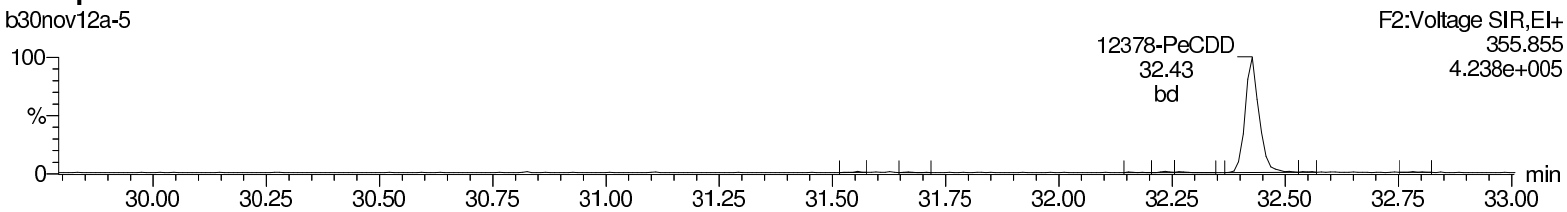
Quantify Sample Report **MassLynx 4.1**
Method 8290 ICAL Report

Dataset: C:\MassLynx\Default.pro\ICAL Results\8290-b30nov12a.qld

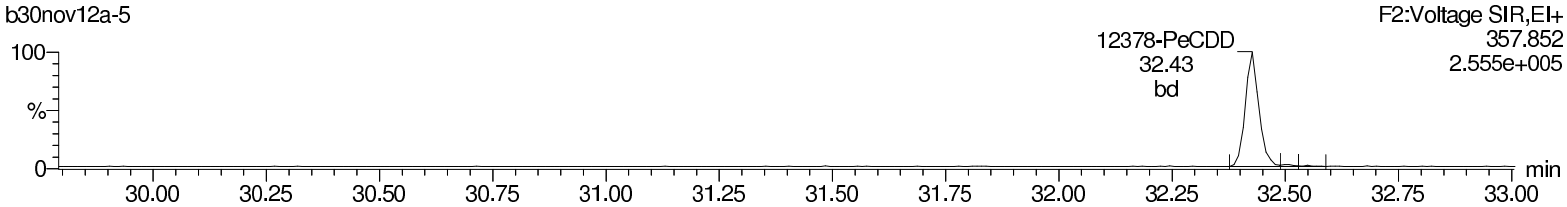
Last Altered: Monday, December 03, 2012 09:49:11 Eastern Standard Time
Printed: Monday, December 03, 2012 09:50:06 Eastern Standard Time

Name: b30nov12a-5, Date: 30-Nov-2012, Time: 13:21:49, ID: CS1 UD101022-02, Description: , Job: b30nov12a, Task: HRP763_1, User: MJC

Total-pentadioxins



Total-pentadioxins



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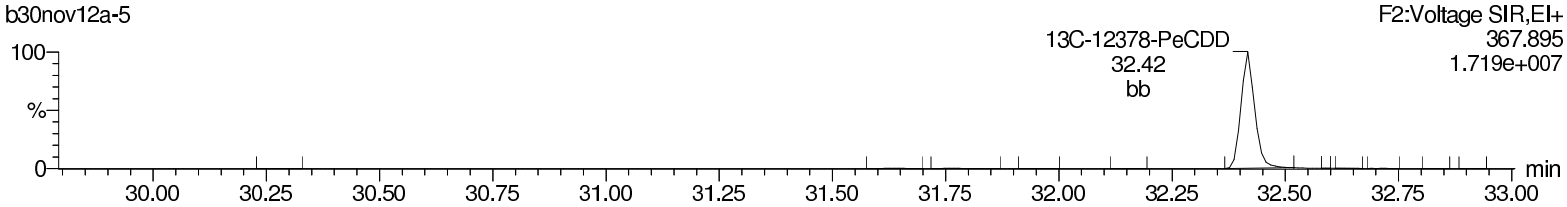

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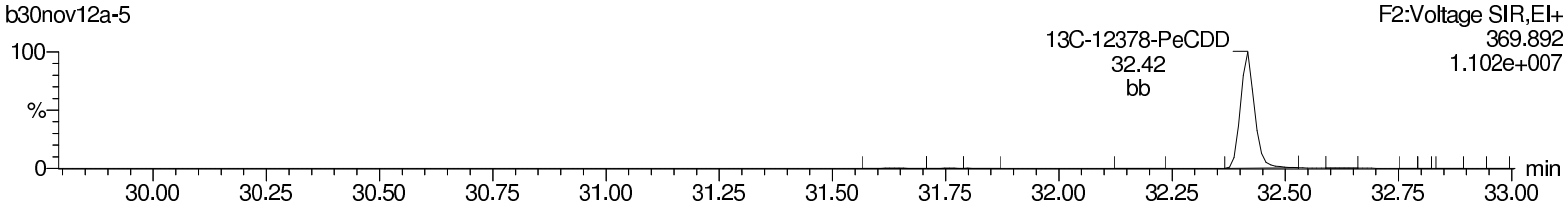

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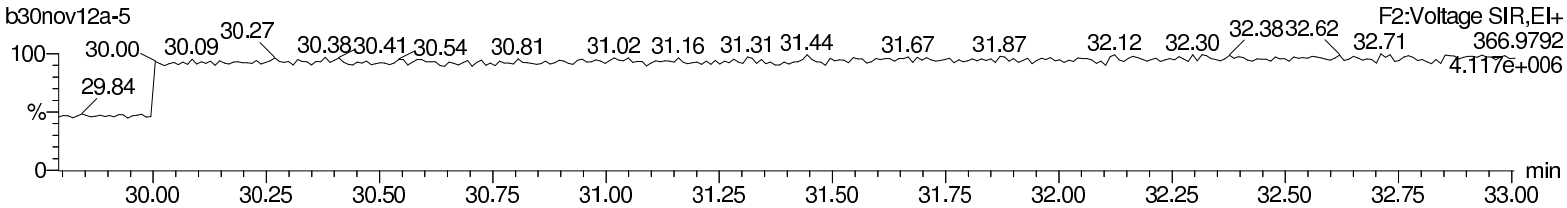


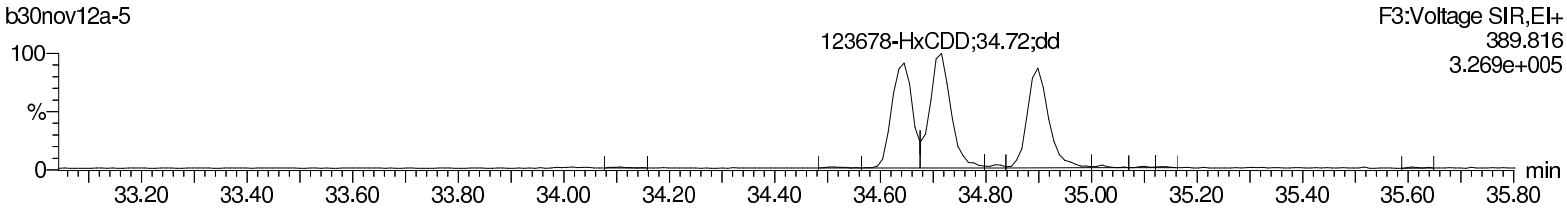
Quantify Sample Report **MassLynx 4.1**
Method 8290 ICAL Report

Dataset: C:\MassLynx\Default.pro\ICAL Results\8290-b30nov12a.qld

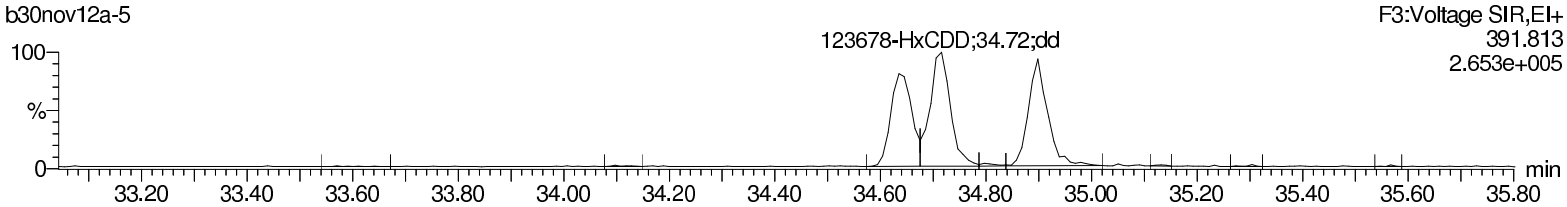
Last Altered: Monday, December 03, 2012 09:49:11 Eastern Standard Time
Printed: Monday, December 03, 2012 09:50:06 Eastern Standard Time

Name: b30nov12a-5, Date: 30-Nov-2012, Time: 13:21:49, ID: CS1 UD101022-02, Description: , Job: b30nov12a, Task: HRP763_1, User: MJC

Total-hexadioxins



Total-hexadioxins



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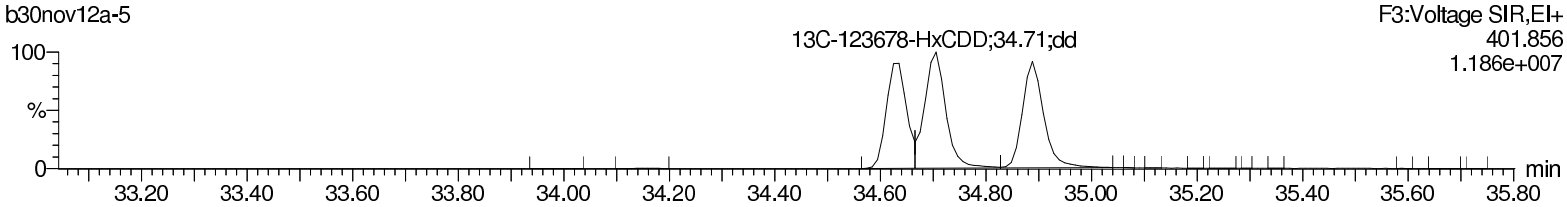

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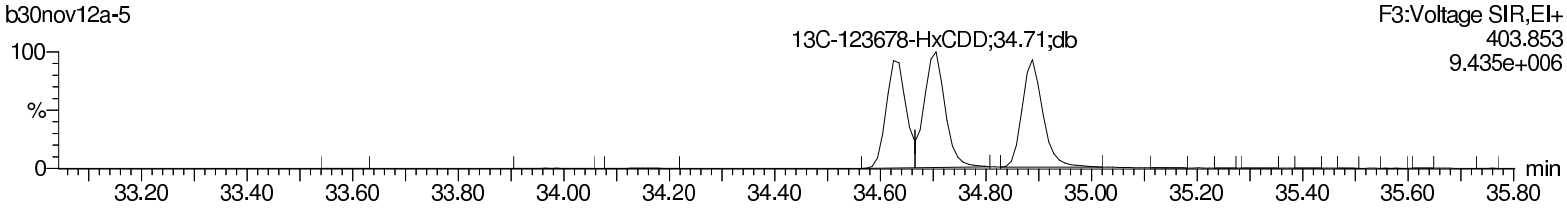

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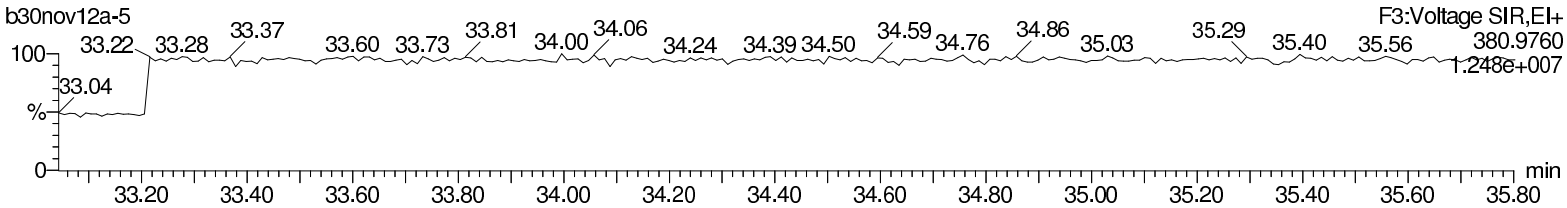

Quantify Sample Report **MassLynx 4.1**
Method 8290 ICAL Report

Dataset: C:\MassLynx\Default.pro\ICAL Results\8290-b30nov12a.qld

Last Altered: Monday, December 03, 2012 09:49:11 Eastern Standard Time
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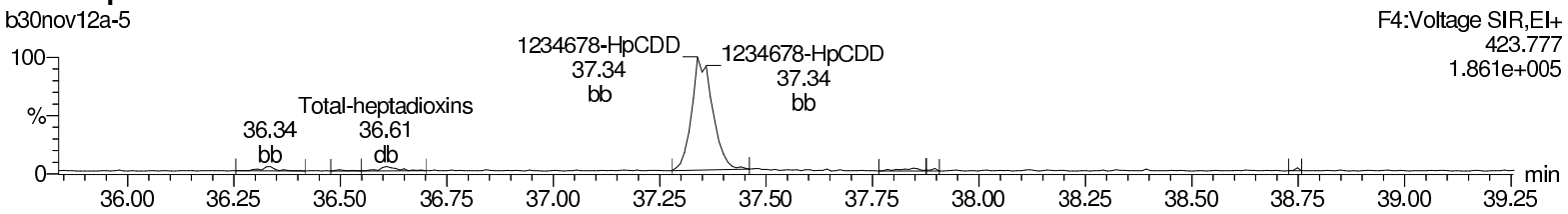
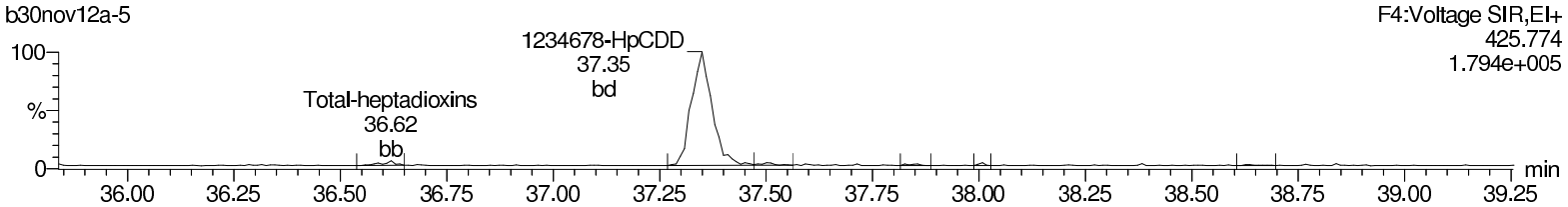
Name: b30nov12a-5, Date: 30-Nov-2012, Time: 13:21:49, ID: CS1 UD101022-02, Description: , Job: b30nov12a, Task: HRP763_1, User: MJC

Total-heptadioxins



Total-heptadioxins



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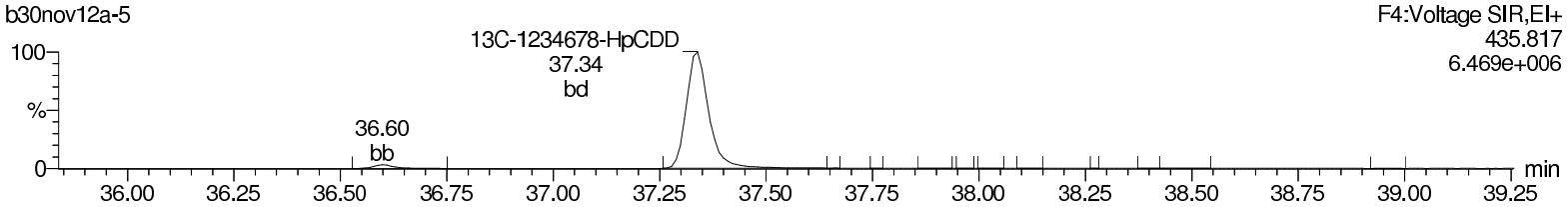

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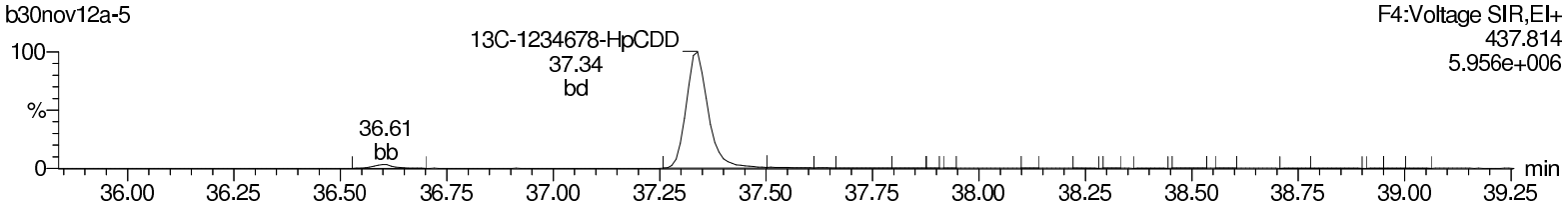

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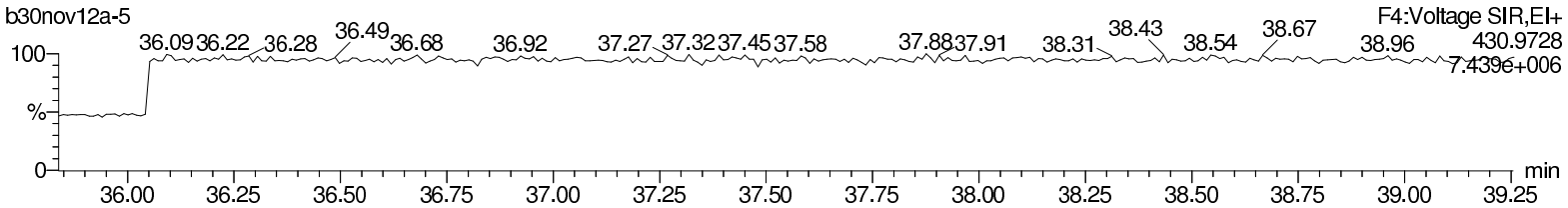

Quantify Sample Report **MassLynx 4.1**
Method 8290 ICAL Report

Dataset: C:\MassLynx\Default.pro\ICAL Results\8290-b30nov12a.qld

Last Altered: Monday, December 03, 2012 09:49:11 Eastern Standard Time
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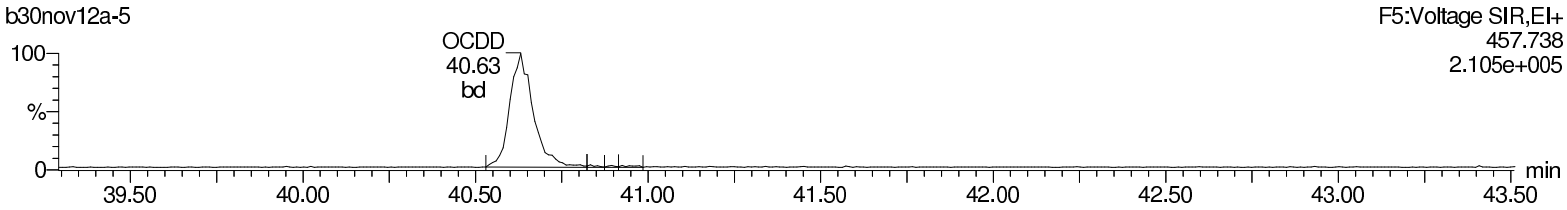
Name: b30nov12a-5, Date: 30-Nov-2012, Time: 13:21:49, ID: CS1 UD101022-02, Description: , Job: b30nov12a, Task: HRP763_1, User: MJC

OCDD



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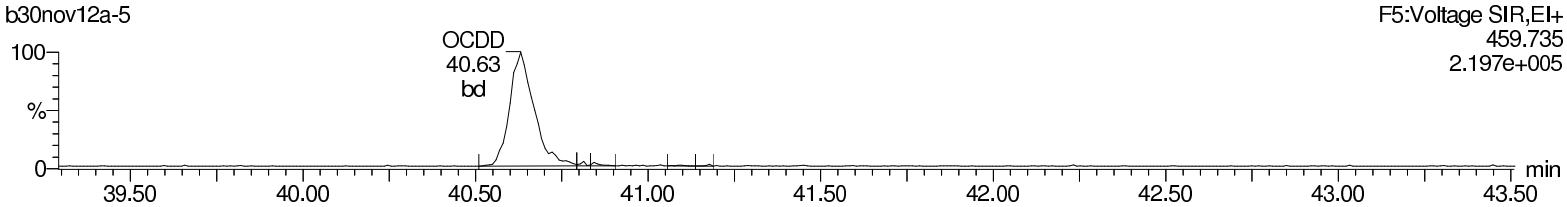

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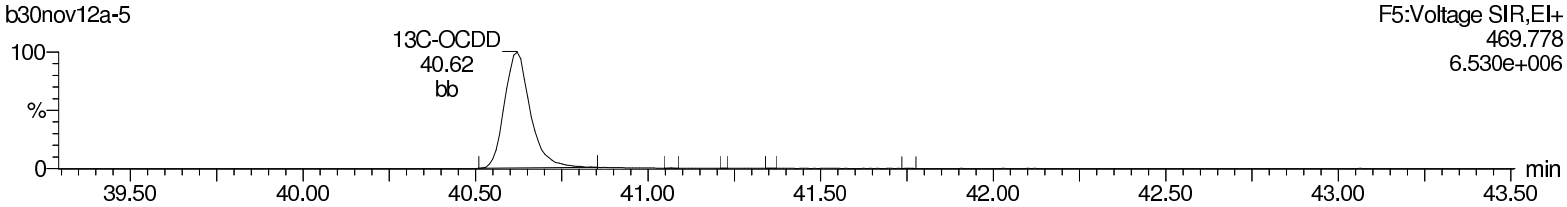

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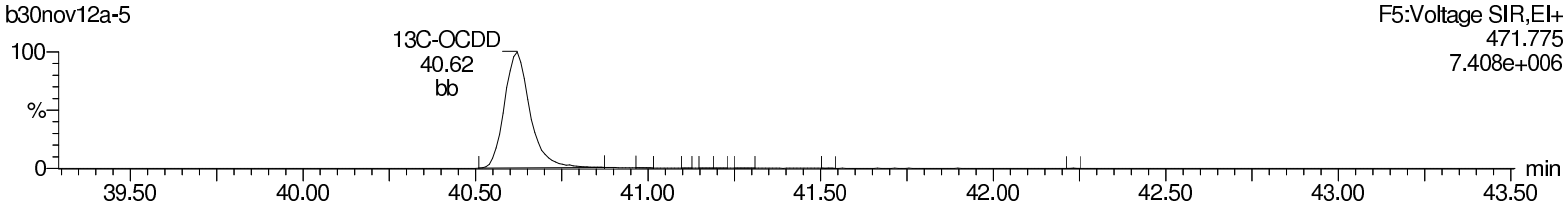
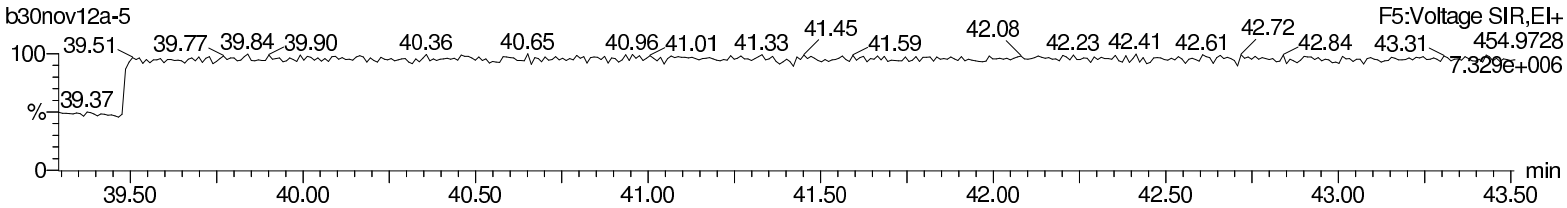


Lock Mass F5



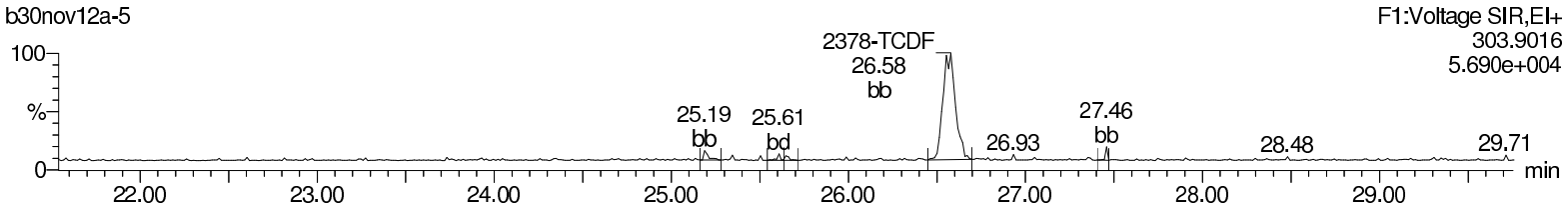
Quantify Sample Report **MassLynx 4.1**
Method 8290 ICAL Report

Dataset: C:\MassLynx\Default.pro\ICAL Results\8290-b30nov12a.qld

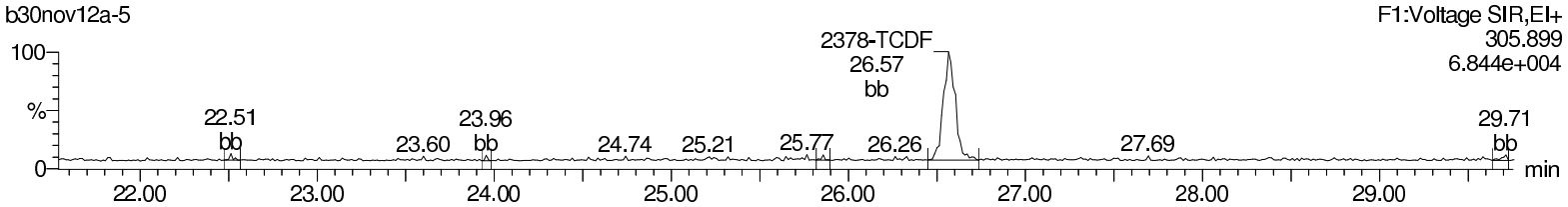
Last Altered: Monday, December 03, 2012 09:49:11 Eastern Standard Time
Printed: Monday, December 03, 2012 09:50:06 Eastern Standard Time

Name: b30nov12a-5, Date: 30-Nov-2012, Time: 13:21:49, ID: CS1 UD101022-02, Description: , Job: b30nov12a, Task: HRP763_1, User: MJC

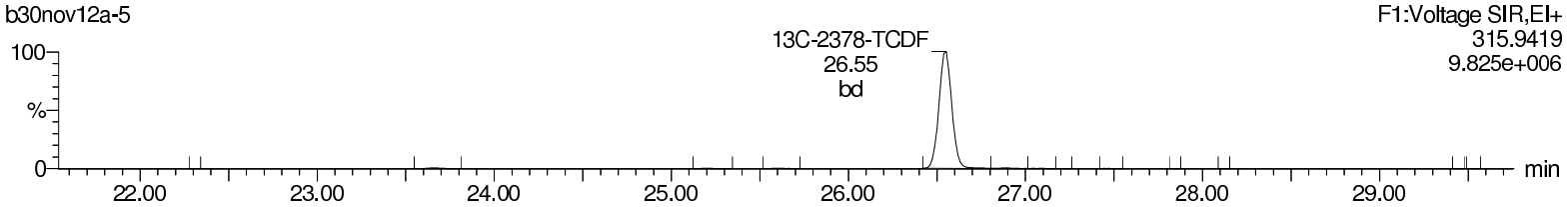
Total-tetrafurans



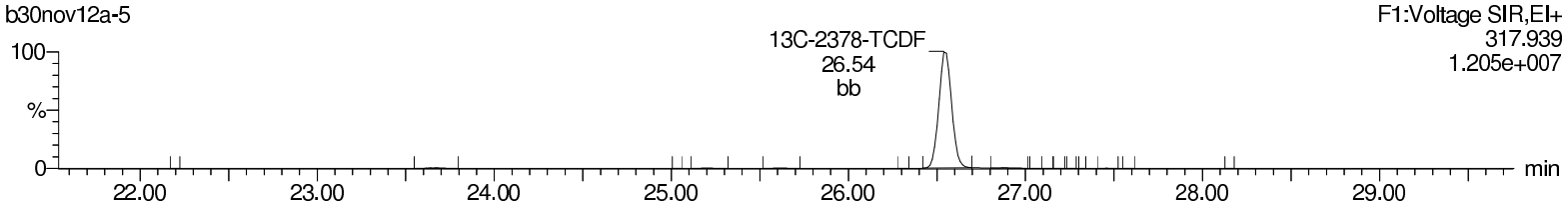
Total-tetrafurans



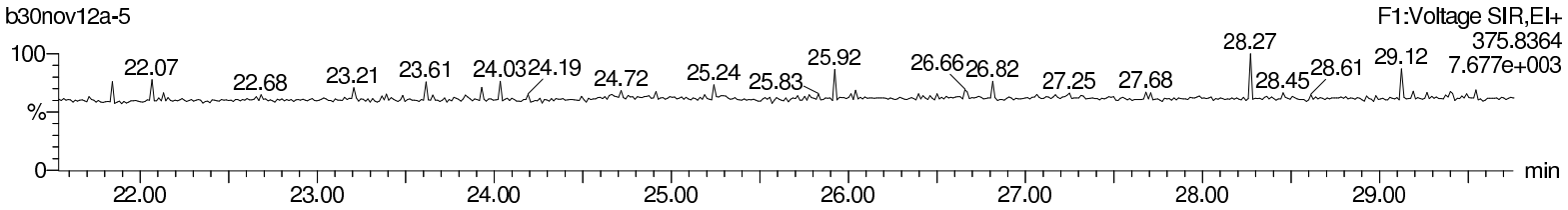
13C-2378-TCDF



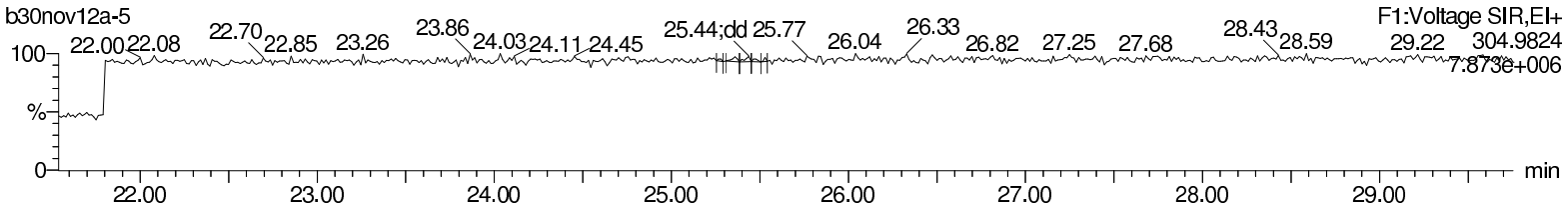
13C-2378-TCDF



HxDPE



Lock Mass F1



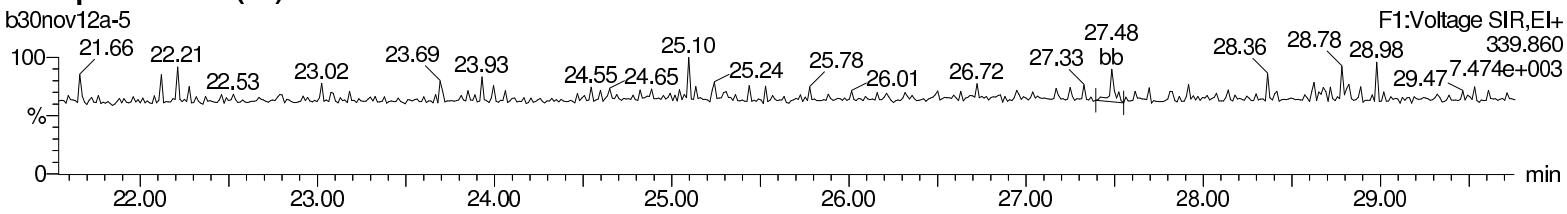
Quantify Sample Report **MassLynx 4.1**
Method 8290 ICAL Report

Dataset: C:\MassLynx\Default.pro\ICAL Results\8290-b30nov12a.qld

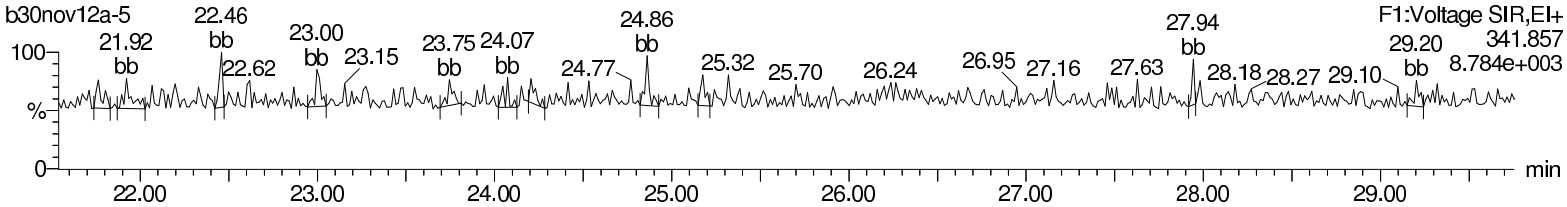
Last Altered: Monday, December 03, 2012 09:49:11 Eastern Standard Time
Printed: Monday, December 03, 2012 09:50:06 Eastern Standard Time

Name: b30nov12a-5, Date: 30-Nov-2012, Time: 13:21:49, ID: CS1 UD101022-02, Description: , Job: b30nov12a, Task: HRP763_1, User: MJC

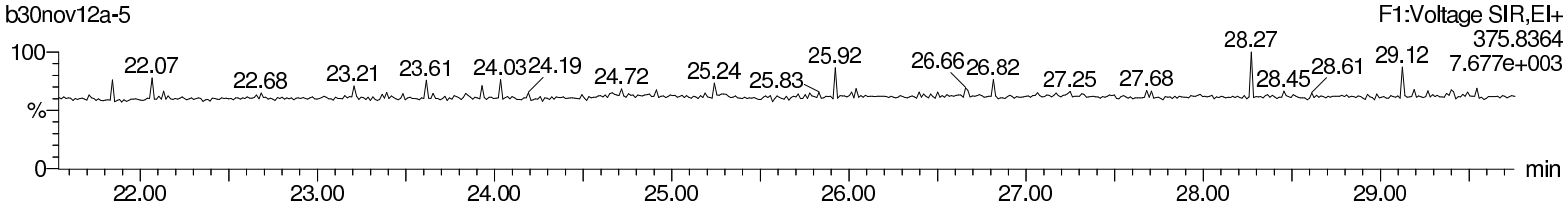
Total-pentafurans (F1)



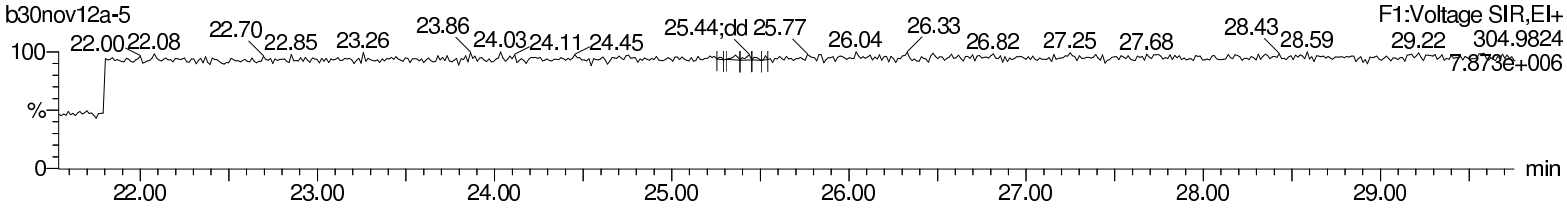
Total-pentafurans (F1)



HxDPE



Lock Mass F1



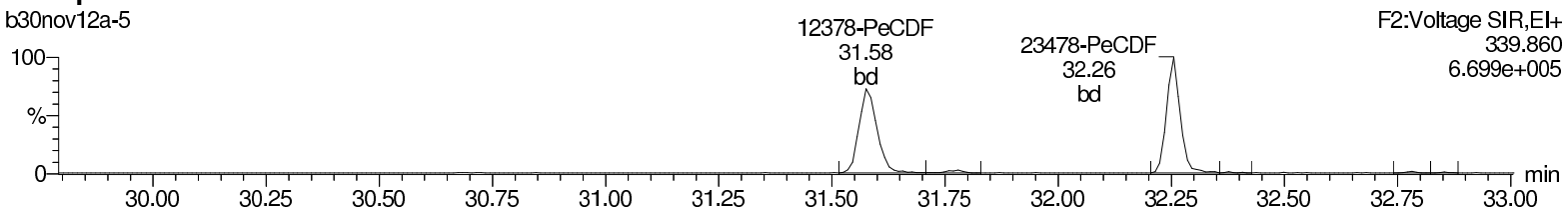
Quantify Sample Report **MassLynx 4.1**
Method 8290 ICAL Report

Dataset: C:\MassLynx\Default.pro\ICAL Results\8290-b30nov12a.qld

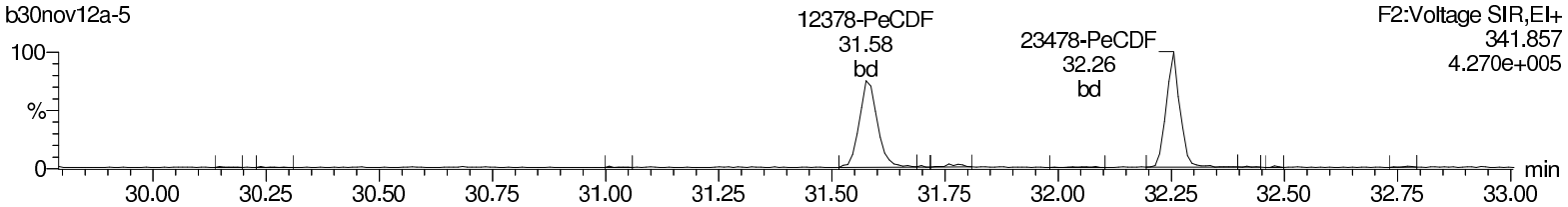
Last Altered: Monday, December 03, 2012 09:49:11 Eastern Standard Time
Printed: Monday, December 03, 2012 09:50:06 Eastern Standard Time

Name: b30nov12a-5, Date: 30-Nov-2012, Time: 13:21:49, ID: CS1 UD101022-02, Description: , Job: b30nov12a, Task: HRP763_1, User: MJC

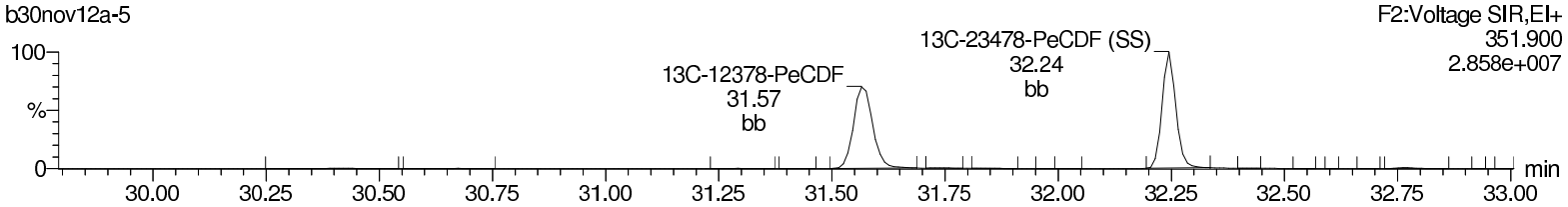
Total-pentafurans



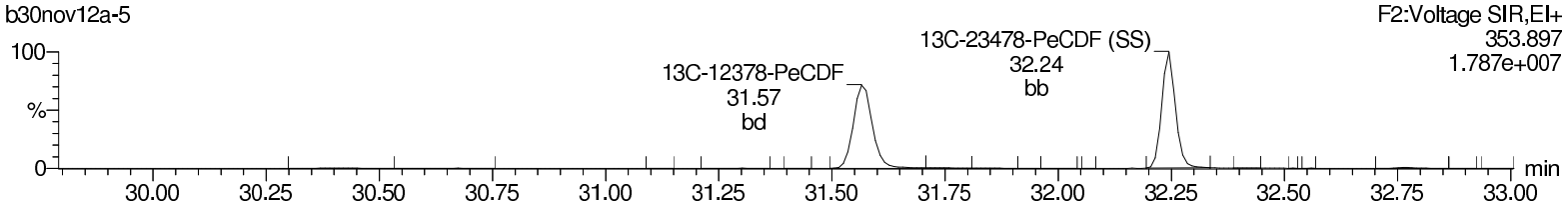
Total-pentafurans



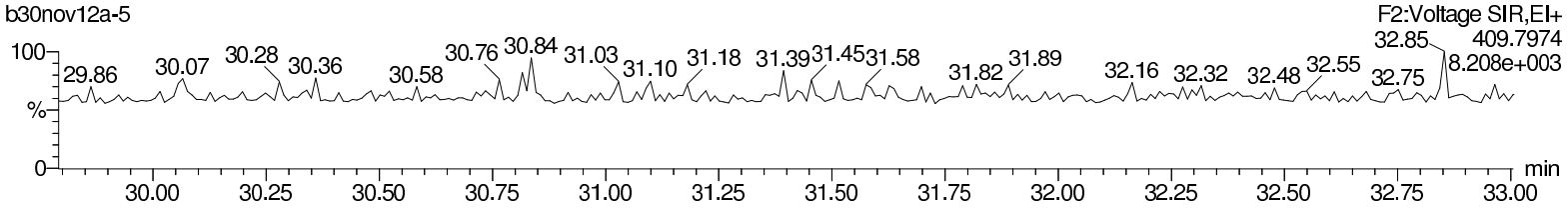
13C-12378-PeCDF



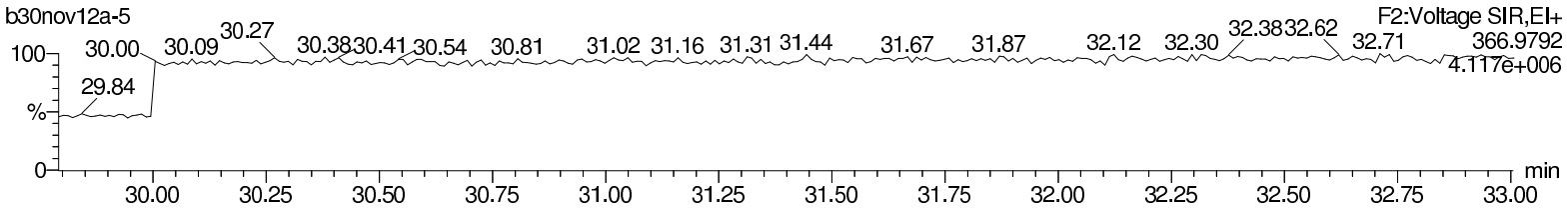
13C-12378-PeCDF



HpDPE



Lock Mass F2



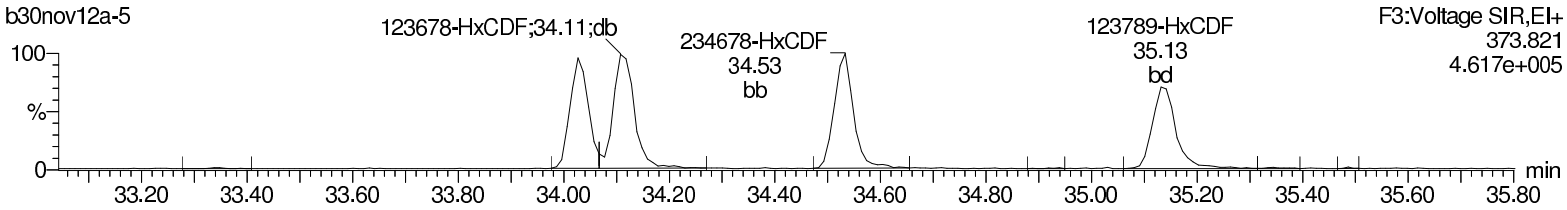
Quantify Sample Report **MassLynx 4.1**
Method 8290 ICAL Report

Dataset: C:\MassLynx\Default.pro\ICAL Results\8290-b30nov12a.qld

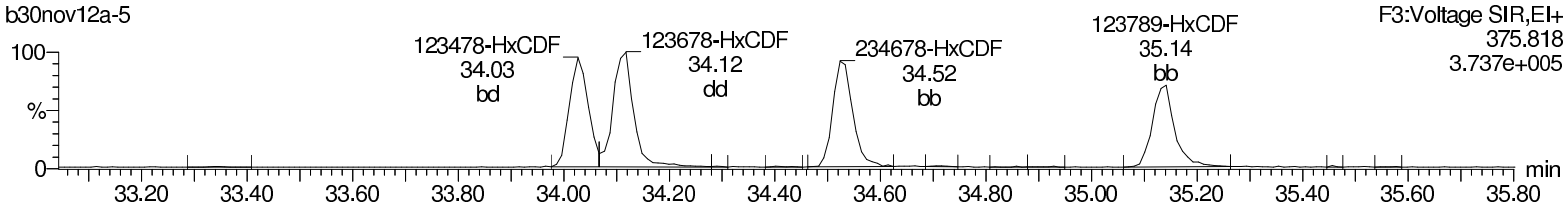
Last Altered: Monday, December 03, 2012 09:49:11 Eastern Standard Time
Printed: Monday, December 03, 2012 09:50:06 Eastern Standard Time

Name: b30nov12a-5, Date: 30-Nov-2012, Time: 13:21:49, ID: CS1 UD101022-02, Description: , Job: b30nov12a, Task: HRP763_1, User: MJC

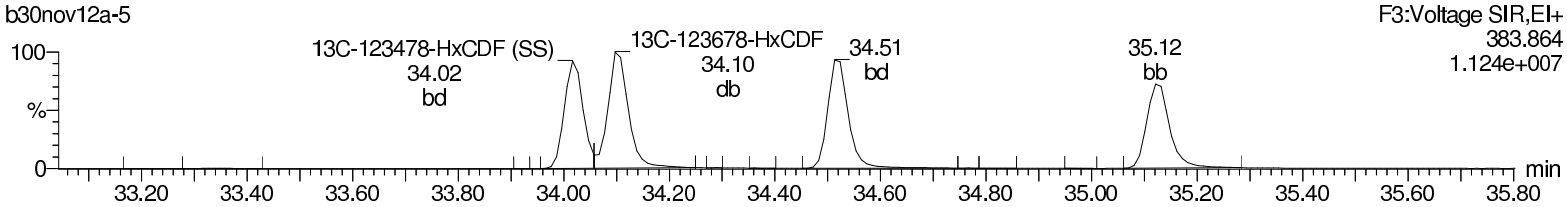
Total-hexafurans



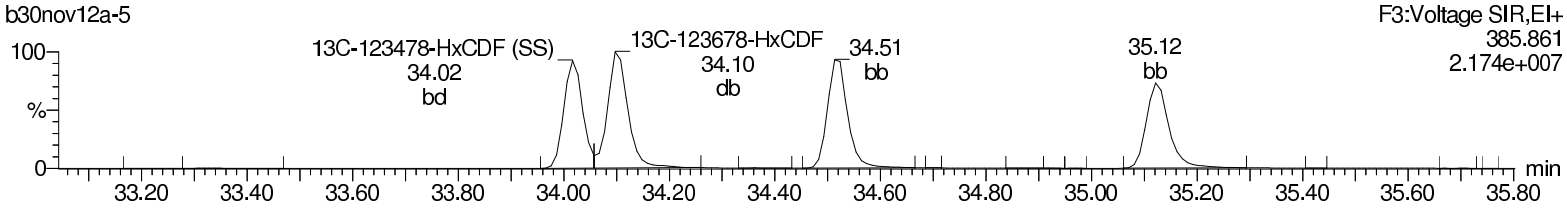
Total-hexafurans



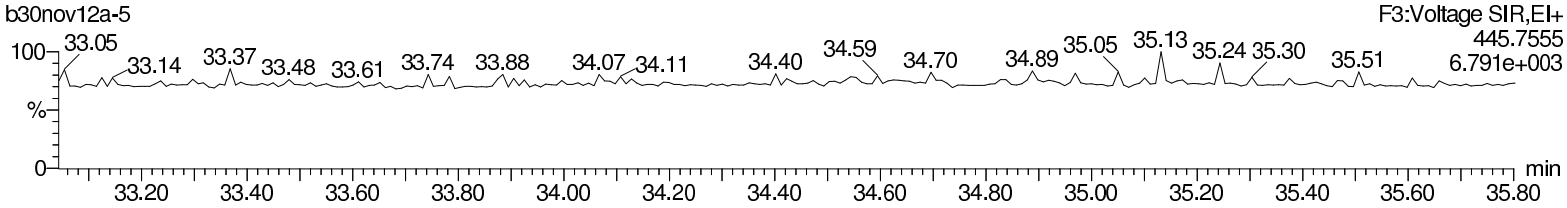
13C-123678-HxCDF



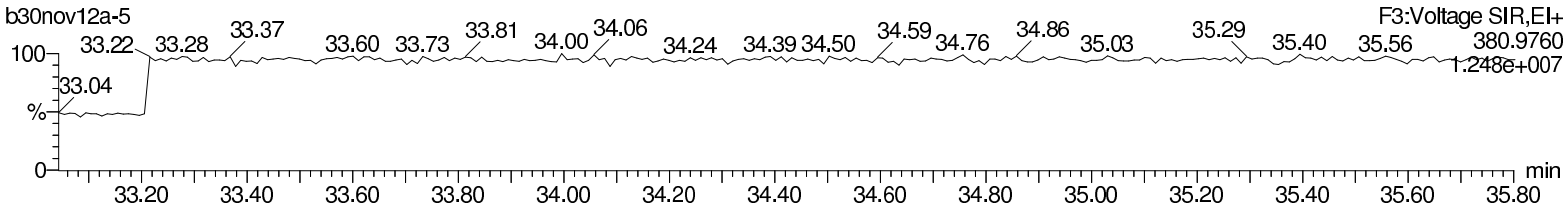
13C-123678-HxCDF



OcDPE



Lock Mass F3



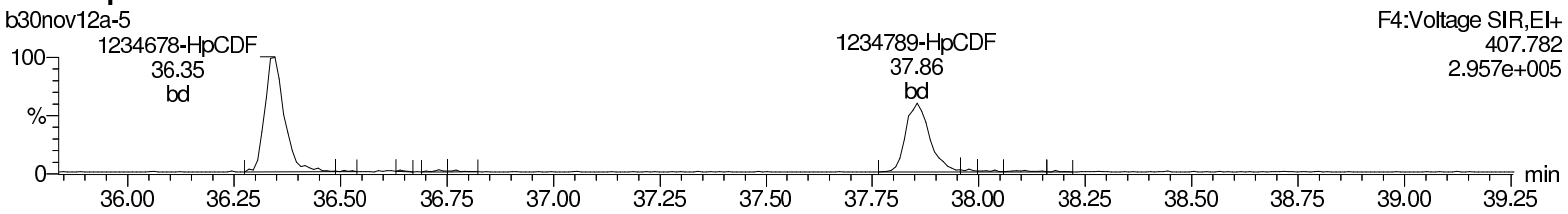
Quantify Sample Report **MassLynx 4.1**
Method 8290 ICAL Report

Dataset: C:\MassLynx\Default.pro\ICAL Results\8290-b30nov12a.qld

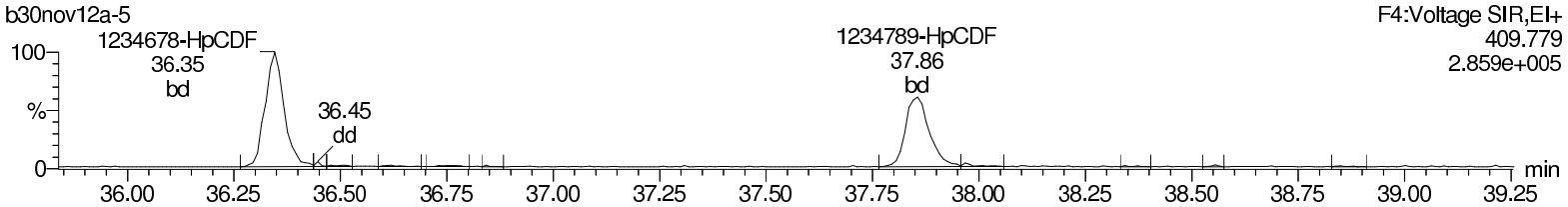
Last Altered: Monday, December 03, 2012 09:49:11 Eastern Standard Time
Printed: Monday, December 03, 2012 09:50:06 Eastern Standard Time

Name: b30nov12a-5, Date: 30-Nov-2012, Time: 13:21:49, ID: CS1 UD101022-02, Description: , Job: b30nov12a, Task: HRP763_1, User: MJC

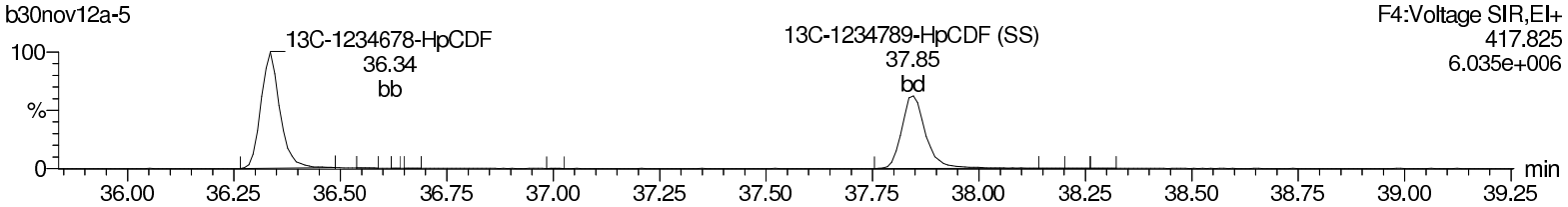
Total-heptafurans



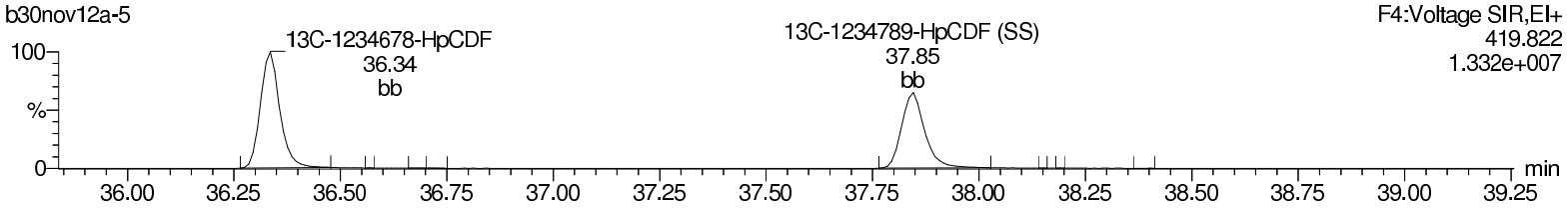
Total-heptafurans



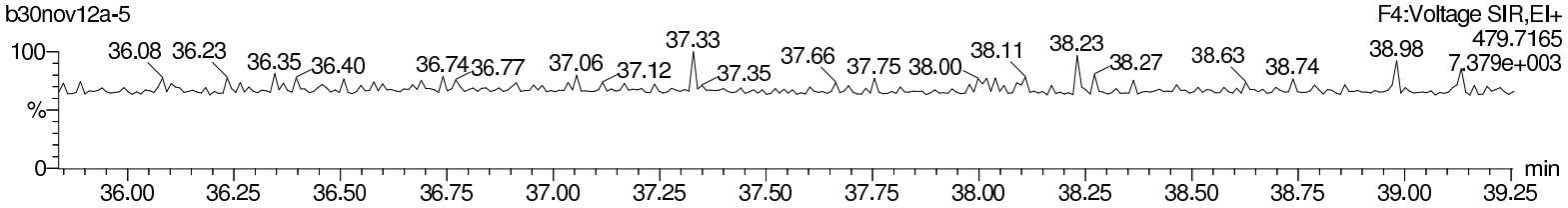
13C-1234678-HpCDF



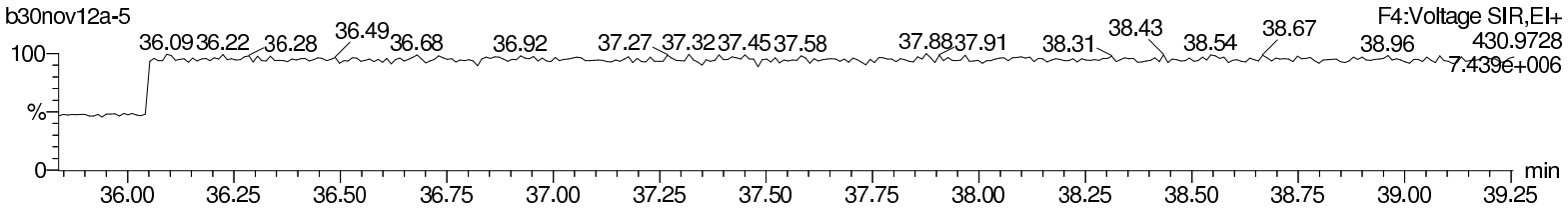
13C-1234678-HpCDF



NoDPE



Lock Mass F4



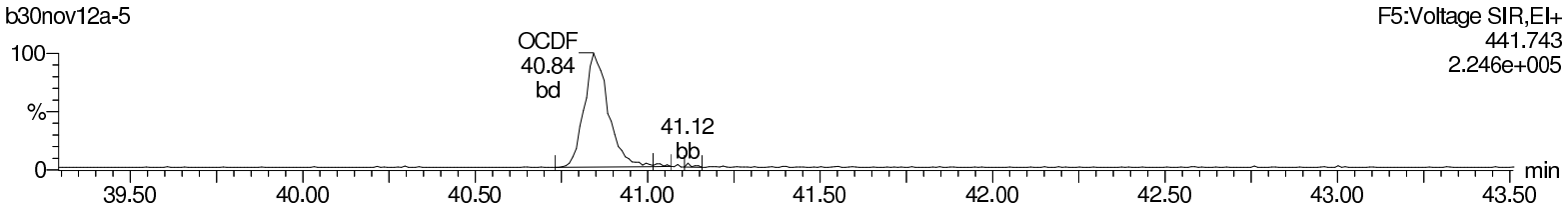
Quantify Sample Report **MassLynx 4.1**
Method 8290 ICAL Report

Dataset: C:\MassLynx\Default.pro\ICAL Results\8290-b30nov12a.qld

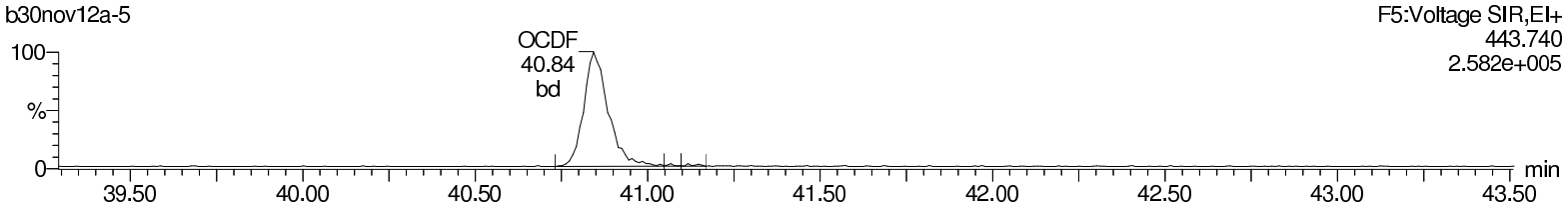
Last Altered: Monday, December 03, 2012 09:49:11 Eastern Standard Time
Printed: Monday, December 03, 2012 09:50:06 Eastern Standard Time

Name: b30nov12a-5, Date: 30-Nov-2012, Time: 13:21:49, ID: CS1 UD101022-02, Description: , Job: b30nov12a, Task: HRP763_1, User: MJC

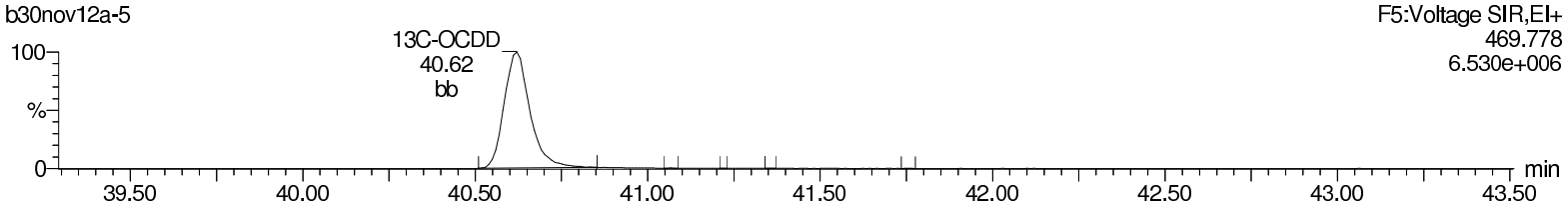
OCDF



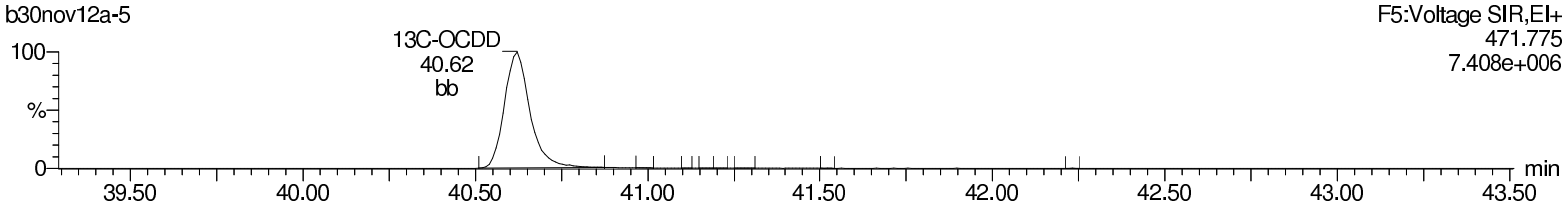
OCDF



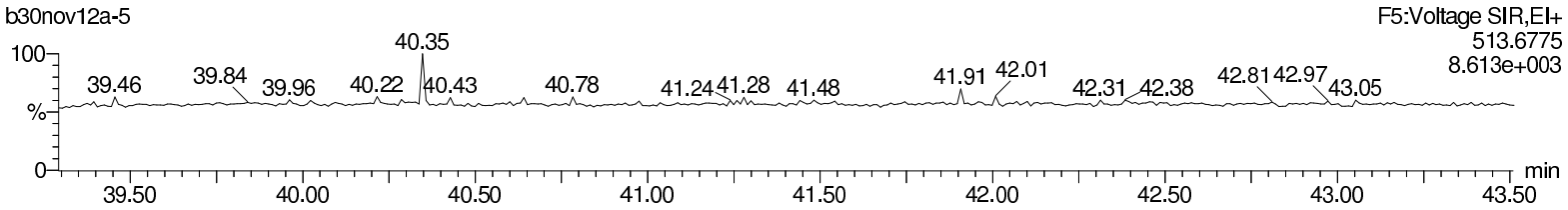
13C-OCDD



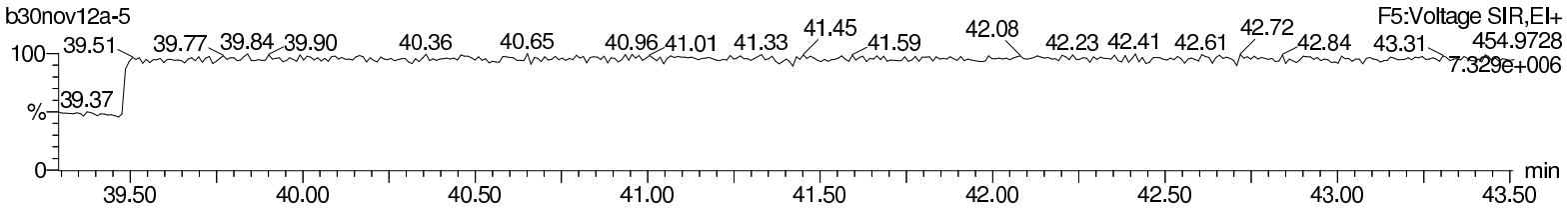
13C-OCDD



DeDPE



Lock Mass F5



Quantify Sample Summary Report **MassLynx 4.1**
Method 8290 ICAL Report

Dataset: C:\MassLynx\Default.pro\ICAL Results\8290-b30nov12a.qld

Last Altered: Monday, December 03, 2012 09:49:11 Eastern Standard Time
Printed: Monday, December 03, 2012 09:54:56 Eastern Standard Time

Name: b30nov12a-6, Date: 30-Nov-2012, Time: 14:07:18, ID: CS2 UD101022-03, Description: , Job: b30nov12a, Task: HRP763_1, User: MJC

	Name	Ion1Area	Ion2Area	Response	RT	RRT	RA	Fail?	pg/uL	RRF	Mean	RSD	EDL	Height1	Noise1	S/N1	Height2	Noise2	S/N2	M
1	2378-TCDD	1.07e4	1.39e4	2.45e4	27.48	1.00	0.77	NO	1.930	0.920	0.953	4.54	0.0274	1.36e5	789	172.4	1.71e5	850	201.6	bd
2	12378-PeCDD	6.26e4	3.90e4	1.02e5	32.43	1.00	1.61	NO	9.780	0.946	0.967	2.77	0.0246	1.70e6	1293	1316.2	1.10e6	1552	707.2	bb
3	123478-HxCDD	5.66e4	4.37e4	1.00e5	34.63	1.00	1.30	NO	10.083	0.981	0.973	2.42	0.0539	1.35e6	2320	580.3	1.02e6	2229	456.6	bd
4	123678-HxCDD	6.07e4	4.65e4	1.07e5	34.72	1.00	1.31	NO	9.713	1.049	1.080	1.81	0.0486	1.30e6	2320	561.5	9.95e5	2229	446.4	dd
5	123789-HxCDD	5.60e4	4.47e4	1.01e5	34.90	1.01	1.25	NO	9.961	0.986	0.989	3.56	0.0530	1.25e6	2320	539.1	1.02e6	2229	456.5	db
6	1234678-HpCDD	4.42e4	4.27e4	8.69e4	37.35	1.00	1.04	NO	9.776	1.110	1.135	3.61	0.0785	7.25e5	2470	293.3	7.12e5	2038	349.4	bd
7	OCDD	6.88e4	7.52e4	1.44e5	40.63	1.00	0.92	NO	19.622	1.148	1.170	2.76	0.0998	8.35e5	1656	504.4	8.78e5	1674	524.7	bd
8	2378-TCDF	1.65e4	2.26e4	3.91e4	26.58	1.00	0.73	NO	1.895	0.975	1.029	3.86	0.0247	2.07e5	861	239.8	2.73e5	1602	170.5	bb
9	12378-PeCDF	1.00e5	6.52e4	1.66e5	31.59	1.00	1.54	NO	9.980	0.942	0.943	3.68	0.0384	2.10e6	2374	886.3	1.39e6	3015	460.3	bb
10	23478-PeCDF	1.03e5	6.58e4	1.69e5	32.25	1.02	1.57	NO	9.812	0.961	0.979	3.10	0.0370	2.86e6	2374	1204.8	1.83e6	3015	608.4	bb
11	123478-HxCDF	7.65e4	6.26e4	1.39e5	34.03	1.00	1.22	NO	9.880	0.900	0.910	3.13	0.0568	1.97e6	3978	494.5	1.59e6	3198	496.0	bd
12	123678-HxCDF	8.81e4	7.21e4	1.60e5	34.11	1.00	1.22	NO	9.970	1.036	1.039	2.03	0.0497	2.00e6	3978	503.9	1.69e6	3198	527.7	db
13	234678-HxCDF	8.28e4	6.50e4	1.48e5	34.52	1.01	1.27	NO	9.965	0.957	0.960	2.69	0.0539	1.87e6	3978	469.5	1.50e6	3198	468.0	bd
14	123789-HxCDF	6.82e4	5.47e4	1.23e5	35.13	1.03	1.25	NO	9.813	0.795	0.810	1.61	0.0638	1.37e6	3978	344.8	1.13e6	3198	352.3	bb
15	1234678-HpCDF	6.40e4	6.46e4	1.29e5	36.35	1.00	0.99	NO	9.977	1.223	1.226	3.04	0.0561	1.14e6	2271	501.3	1.17e6	2963	396.3	bb
16	1234789-HpCDF	4.80e4	4.89e4	9.69e4	37.85	1.04	0.98	NO	9.788	0.921	0.941	4.69	0.0731	7.57e5	2271	333.5	8.05e5	2963	271.6	bb
17	OCDF	7.81e4	8.59e4	1.64e5	40.84	1.01	0.91	NO	19.270	1.308	1.358	6.36	0.0815	8.83e5	1315	671.1	9.62e5	1838	523.5	bd
18	13C-2378-TCDD	5.80e5	7.53e5	1.33e6	27.46	1.03	0.77	NO	99.782	0.987	0.989	3.07	0.0804	6.81e6	3026	2250.9	8.84e6	2196	4026.7	bb
19	13C-12378-PeCDD	6.50e5	4.24e5	1.07e6	32.42	1.21	1.53	NO	97.443	0.795	0.816	7.13	0.0865	1.81e7	1886	9610.8	1.17e7	2751	4239.6	bb
20	13C-123678-HxCDD	5.69e5	4.53e5	1.02e6	34.71	0.99	1.26	NO	98.470	1.095	1.112	2.71	0.0975	1.21e7	4790	2519.3	9.75e6	3945	2471.6	dd
21	13C-1234678-HpCDD	4.12e5	3.71e5	7.83e5	37.34	1.07	1.11	NO	100.340	0.839	0.836	3.49	0.124	6.65e6	4344	1531.4	6.04e6	3977	1519.0	bd
22	13C-OCDD	5.86e5	6.68e5	1.25e6	40.61	1.16	0.88	NO	196.479	0.672	0.684	3.84	0.120	6.66e6	2682	2484.0	7.65e6	3934	1943.5	bb
23	13C-2378-TCDF	8.95e5	1.11e6	2.00e6	26.54	0.99	0.81	NO	101.211	1.484	1.466	2.55	0.0410	1.08e7	1915	5647.6	1.33e7	2038	6508.3	bb
24	13C-12378-PeCDF	1.08e6	6.81e5	1.76e6	31.57	1.18	1.58	NO	98.558	1.302	1.321	6.36	0.141	2.28e7	6701	3397.4	1.40e7	5541	2524.1	bb
25	13C-123678-HxCDF	5.28e5	1.02e6	1.55e6	34.10	0.98	0.52	NO	100.840	1.656	1.642	2.73	0.114	1.19e7	6272	1890.9	2.30e7	8838	2606.6	db
26	13C-1234678-HpCDF	3.28e5	7.23e5	1.05e6	36.33	1.04	0.45	NO	99.999	1.127	1.127	2.55	0.103	5.94e6	4627	1283.6	1.33e7	4750	2805.7	bb
27	13C-1234-TCDD	5.93e5	7.58e5	1.35e6	26.72	0.00	0.78	NO	100.000	1.000	1.000	0.00	0.0795	7.21e6	3026	2382.5	9.22e6	2196	4198.5	bb
28	13C-123789-HxCDD	5.19e5	4.14e5	9.33e5	34.89	0.00	1.25	NO	100.000	1.000	1.000	0.00	0.108	1.12e7	4790	2335.8	8.96e6	3945	2272.1	db
29	37Cl-2378-TCDD (SS)	2.87e4		2.87e4	27.48	1.00			1.950	1.078	1.105	4.13	0.0264	3.52e5	1827	192.5				bb
30	13C-23478-PeCDF (...	1.08e6	6.64e5	1.74e6	32.24	1.02	1.62	NO	98.726	0.989	1.002	0.82	0.0822	3.07e7	6701	4575.1	1.88e7	5541	3401.6	bb
31	13C-123478-HxCDF (...	4.47e5	8.67e5	1.31e6	34.02	1.00	0.52	NO	99.585	0.850	0.854	1.80	0.127	1.13e7	6272	1809.0	2.20e7	8838	2487.3	bd
32	13C-123478-HxCDD ...	4.86e5	3.92e5	8.78e5	34.63	1.00	1.24	NO	101.029	0.859	0.851	3.12	0.118	1.15e7	4790	2396.7	8.90e6	3945	2256.5	bd
33	13C-1234789-HpCDF...	2.50e5	5.65e5	8.14e5	37.85	1.04	0.44	NO	99.362	0.775	0.780	1.37	0.158	4.02e6	4627	869.0	8.89e6	4750	1871.7	bb

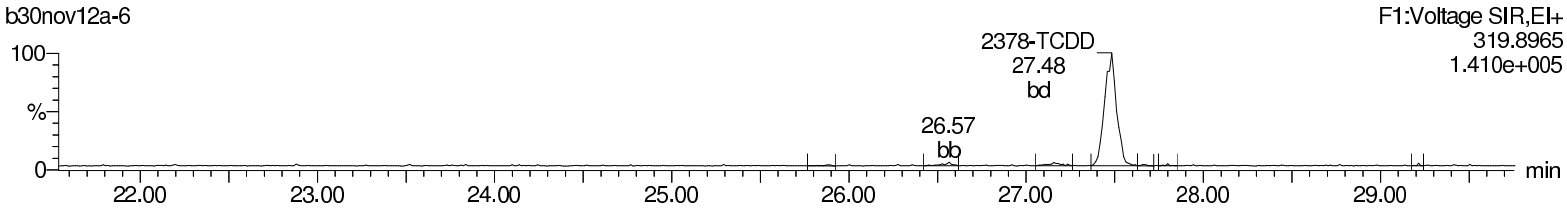
Quantify Sample Report **MassLynx 4.1**
Method 8290 ICAL Report

Dataset: C:\MassLynx\Default.pro\ICAL Results\8290-b30nov12a.qld

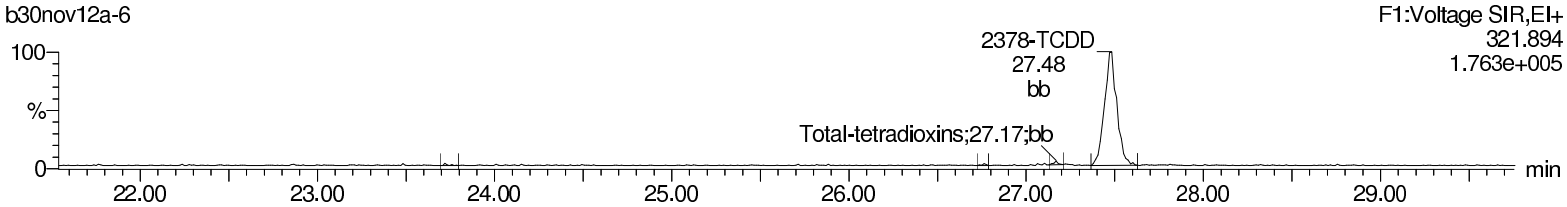
Last Altered: Monday, December 03, 2012 09:49:11 Eastern Standard Time
Printed: Monday, December 03, 2012 09:50:06 Eastern Standard Time

Name: b30nov12a-6, Date: 30-Nov-2012, Time: 14:07:18, ID: CS2 UD101022-03, Description: , Job: b30nov12a, Task: HRP763_1, User: MJC

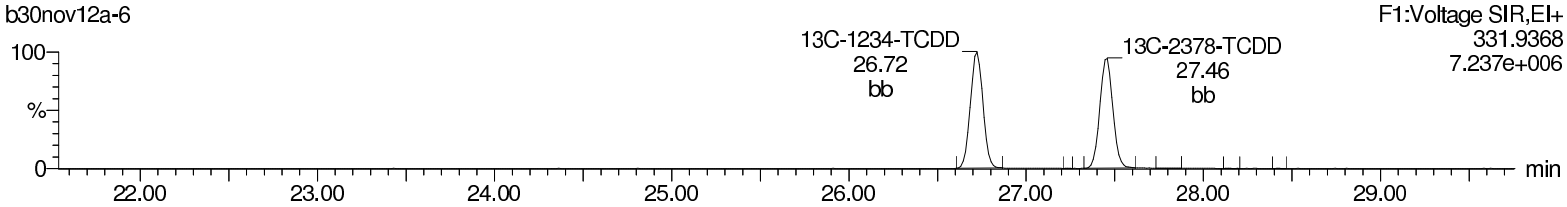
Total-tetradioxins



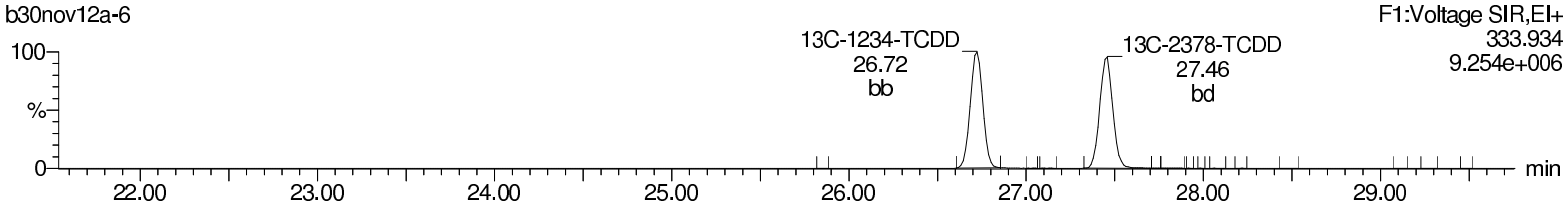
Total-tetradioxins



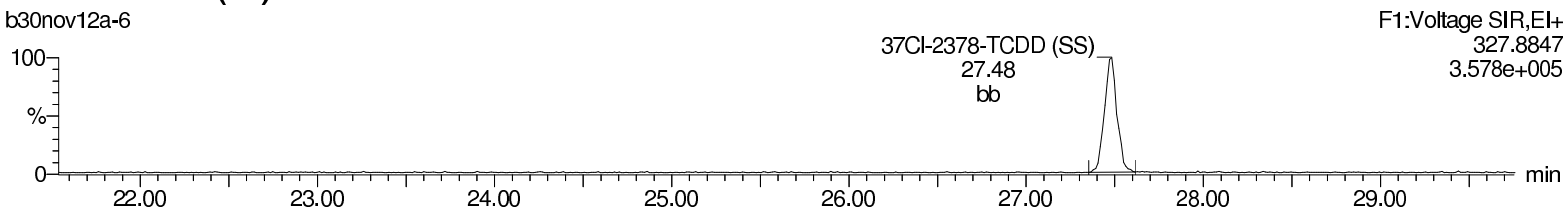
13C-2378-TCDD



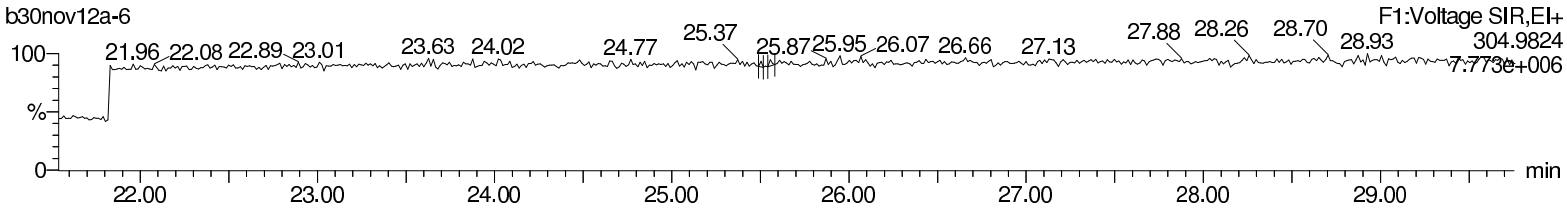
13C-2378-TCDD



37Cl-2378-TCDD (SS)



Lock Mass F1



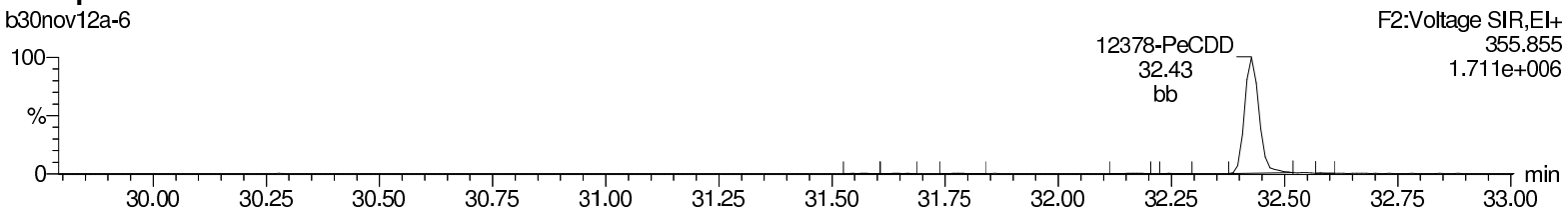
Quantify Sample Report **MassLynx 4.1**
Method 8290 ICAL Report

Dataset: C:\MassLynx\Default.pro\ICAL Results\8290-b30nov12a.qld

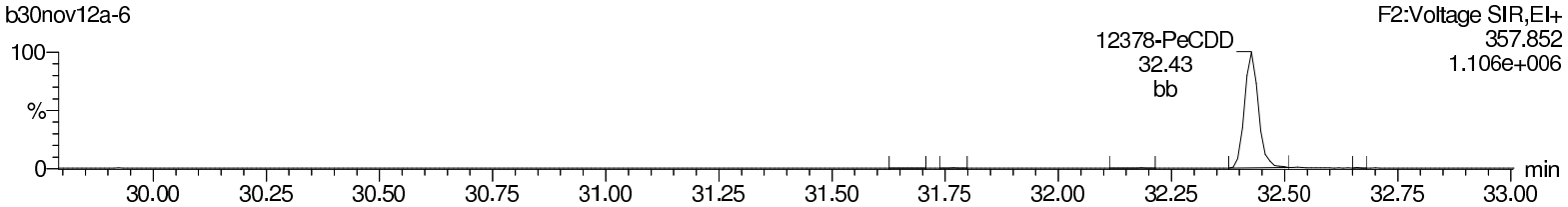
Last Altered: Monday, December 03, 2012 09:49:11 Eastern Standard Time
Printed: Monday, December 03, 2012 09:50:06 Eastern Standard Time

Name: b30nov12a-6, Date: 30-Nov-2012, Time: 14:07:18, ID: CS2 UD101022-03, Description: , Job: b30nov12a, Task: HRP763_1, User: MJC

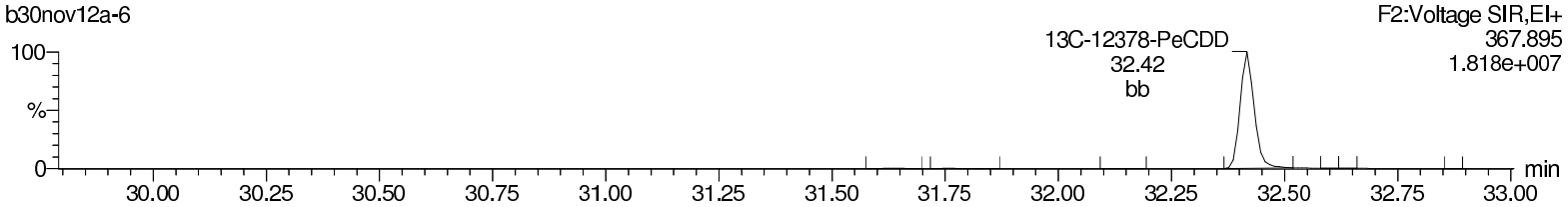
Total-pentadioxins



Total-pentadioxins



13C-12378-PeCDD



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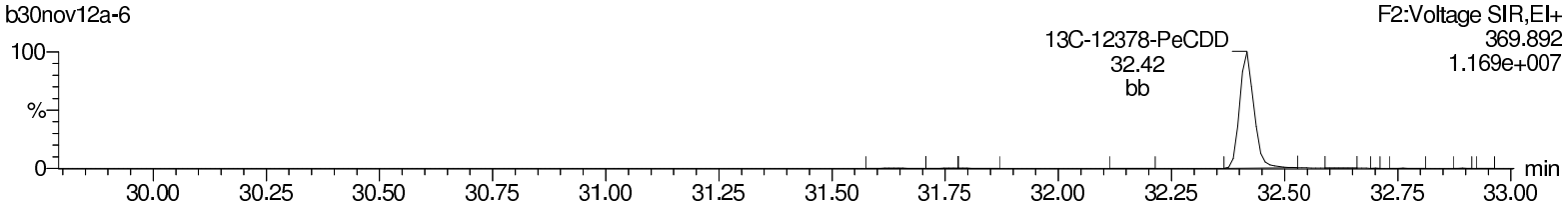
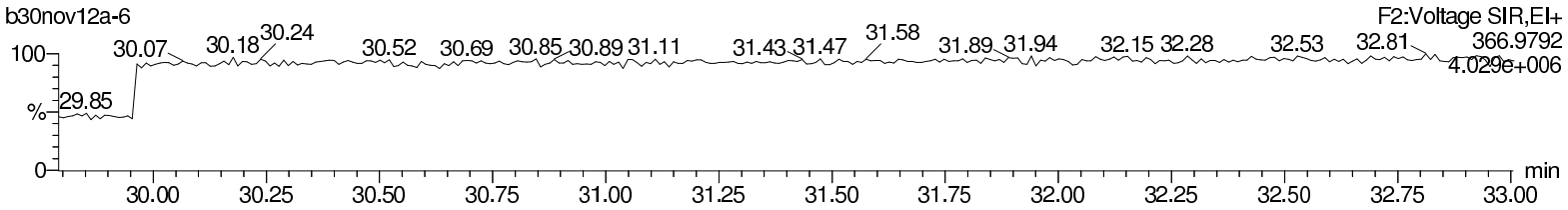


Lock Mass F2



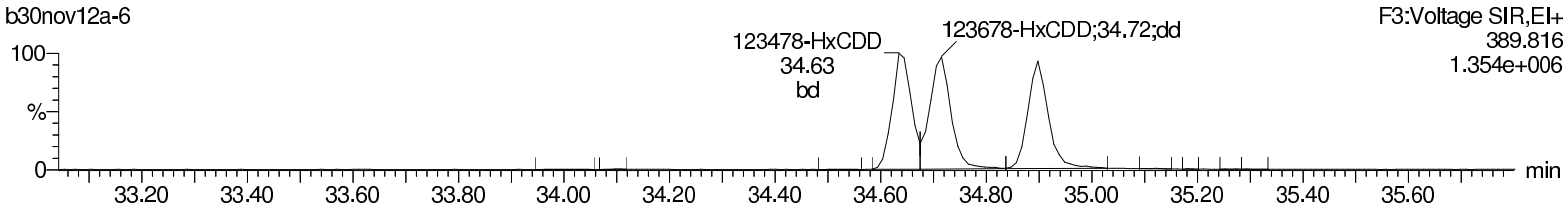
Quantify Sample Report **MassLynx 4.1**
Method 8290 ICAL Report

Dataset: C:\MassLynx\Default.pro\ICAL Results\8290-b30nov12a.qld

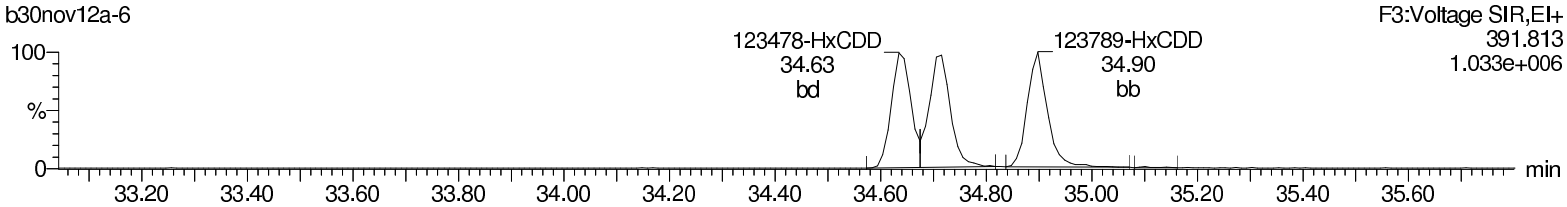
Last Altered: Monday, December 03, 2012 09:49:11 Eastern Standard Time
Printed: Monday, December 03, 2012 09:50:06 Eastern Standard Time

Name: b30nov12a-6, Date: 30-Nov-2012, Time: 14:07:18, ID: CS2 UD101022-03, Description: , Job: b30nov12a, Task: HRP763_1, User: MJC

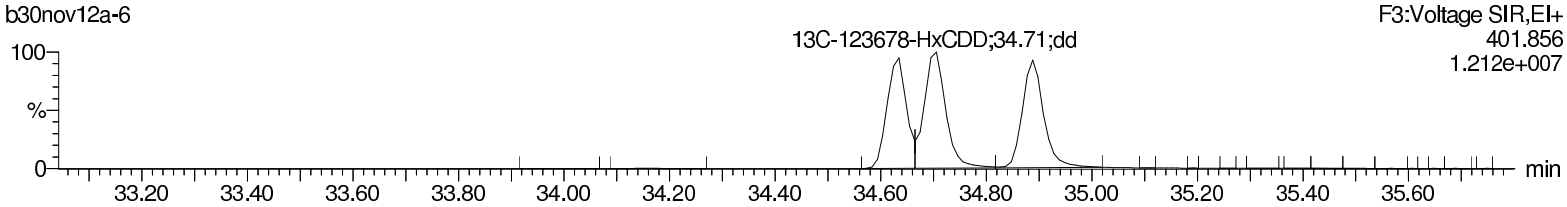
Total-hexadioxins



Total-hexadioxins



13C-123678-HxCDD



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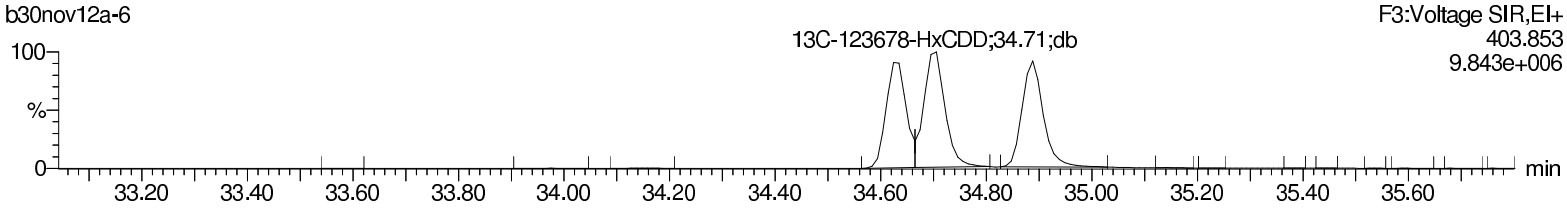
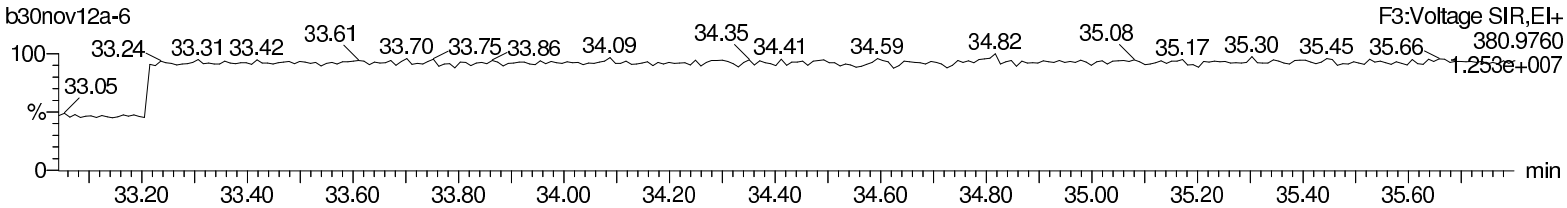


Lock Mass F3



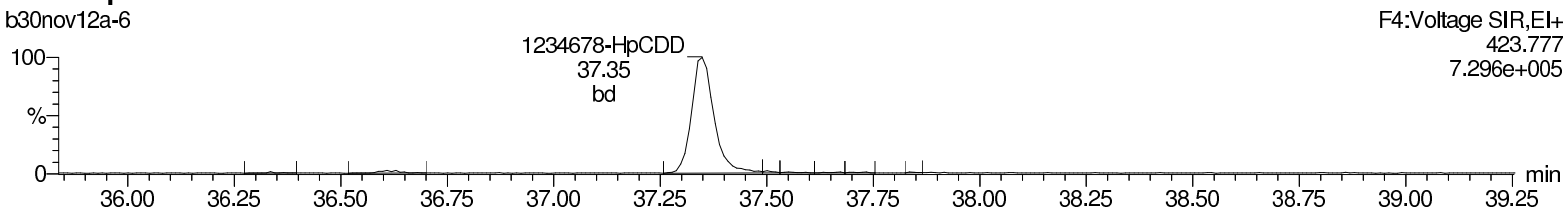
Quantify Sample Report **MassLynx 4.1**
Method 8290 ICAL Report

Dataset: C:\MassLynx\Default.pro\ICAL Results\8290-b30nov12a.qld

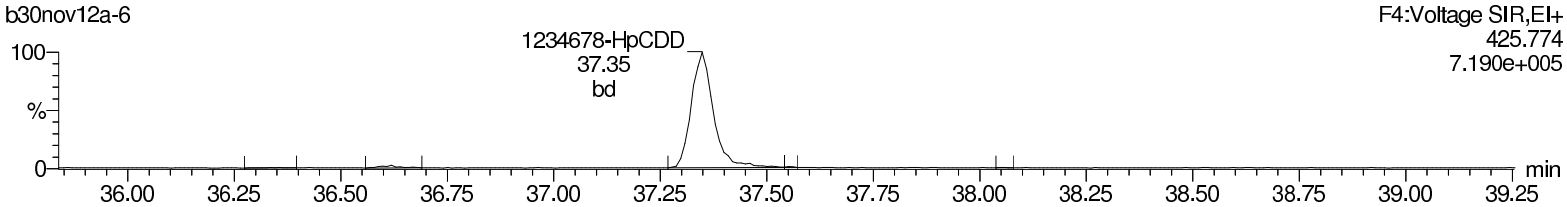
Last Altered: Monday, December 03, 2012 09:49:11 Eastern Standard Time
Printed: Monday, December 03, 2012 09:50:06 Eastern Standard Time

Name: b30nov12a-6, Date: 30-Nov-2012, Time: 14:07:18, ID: CS2 UD101022-03, Description: , Job: b30nov12a, Task: HRP763_1, User: MJC

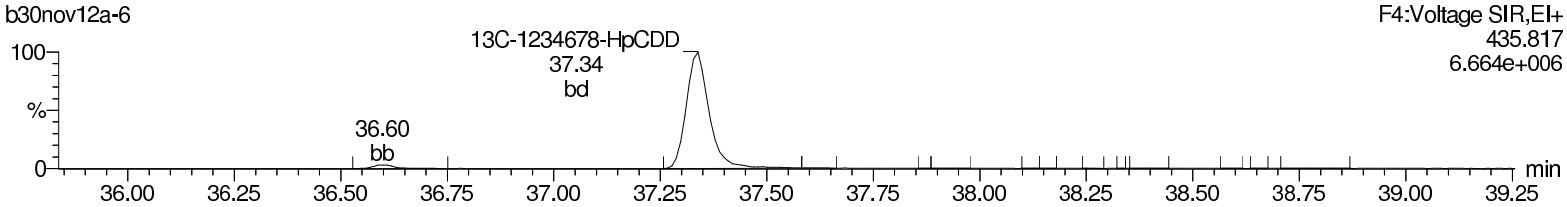
Total-heptadioxins



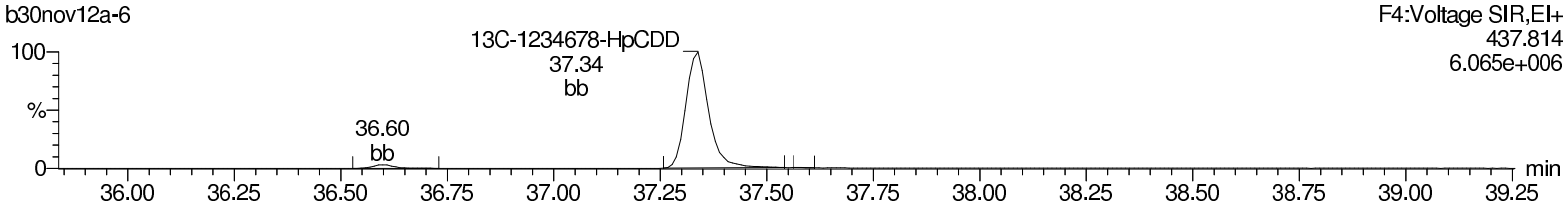
Total-heptadioxins



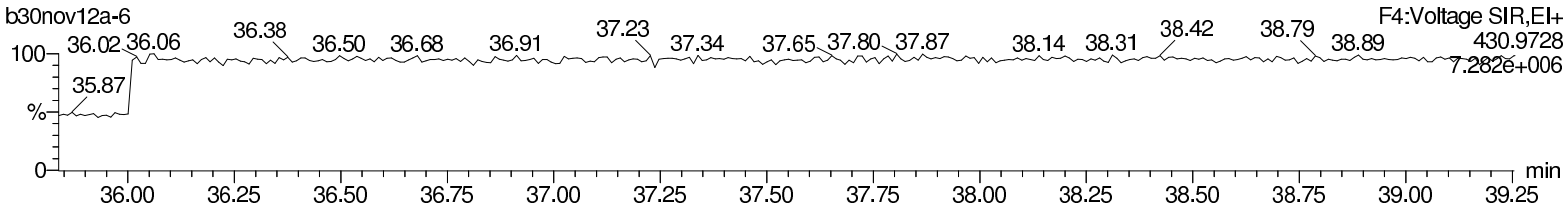
13C-1234678-HpCDD



13C-1234678-HpCDD



Lock Mass F4



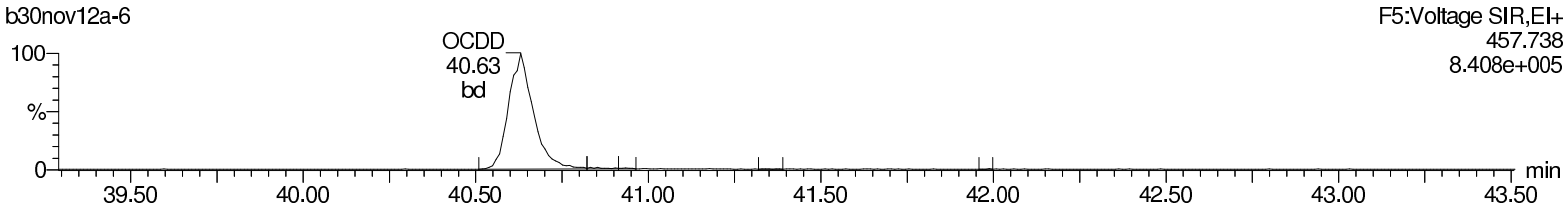
Quantify Sample Report **MassLynx 4.1**
Method 8290 ICAL Report

Dataset: C:\MassLynx\Default.pro\ICAL Results\8290-b30nov12a.qld

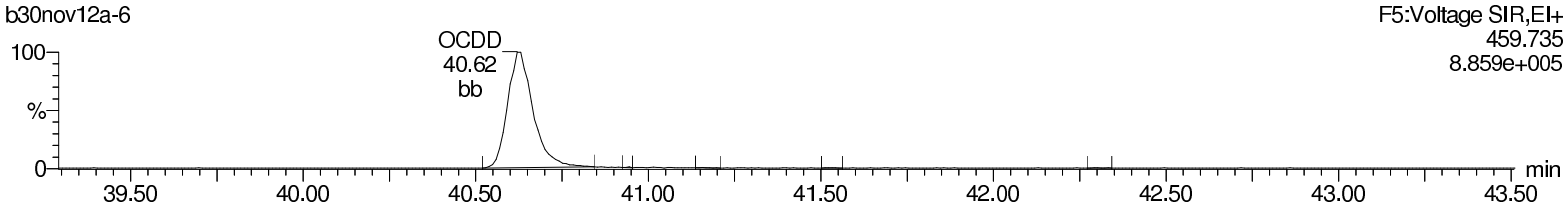
Last Altered: Monday, December 03, 2012 09:49:11 Eastern Standard Time
Printed: Monday, December 03, 2012 09:50:06 Eastern Standard Time

Name: b30nov12a-6, Date: 30-Nov-2012, Time: 14:07:18, ID: CS2 UD101022-03, Description: , Job: b30nov12a, Task: HRP763_1, User: MJC

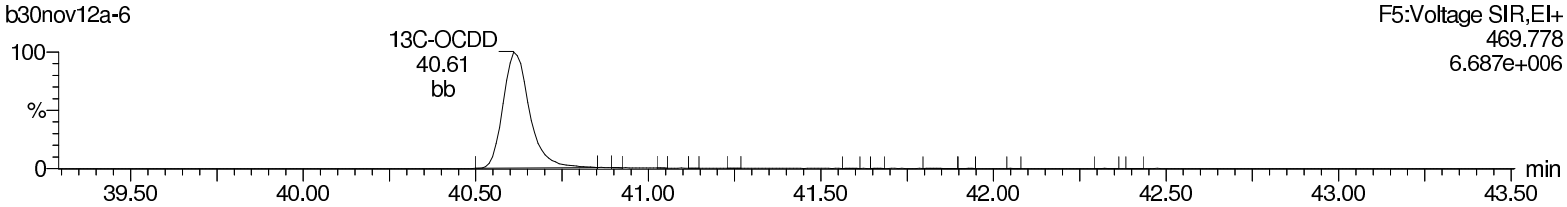
OCDD



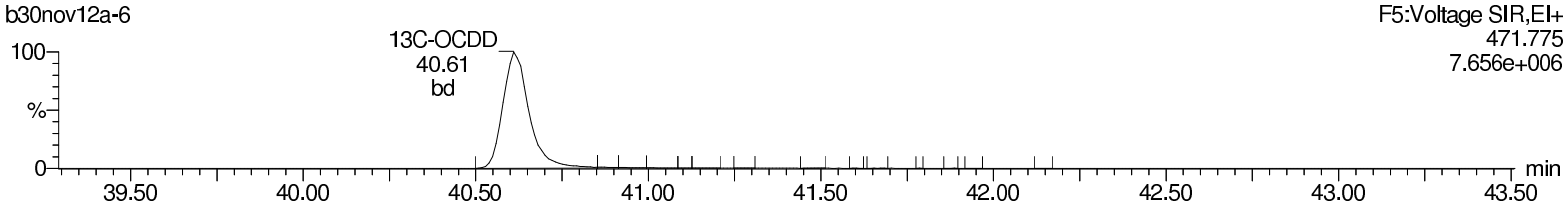
OCDD



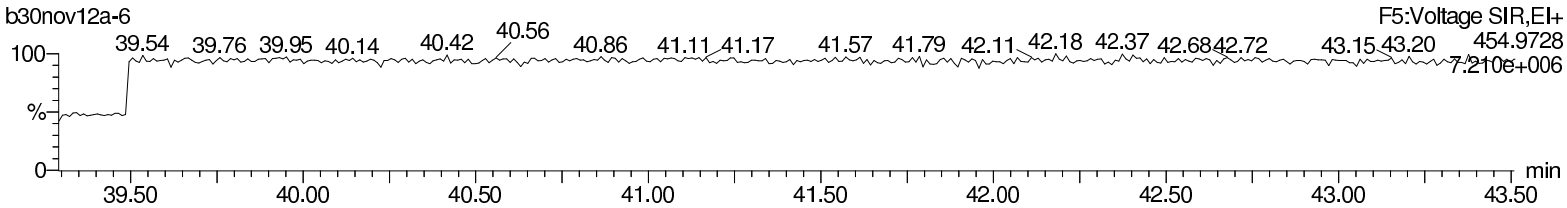
13C-OCDD



13C-OCDD



Lock Mass F5



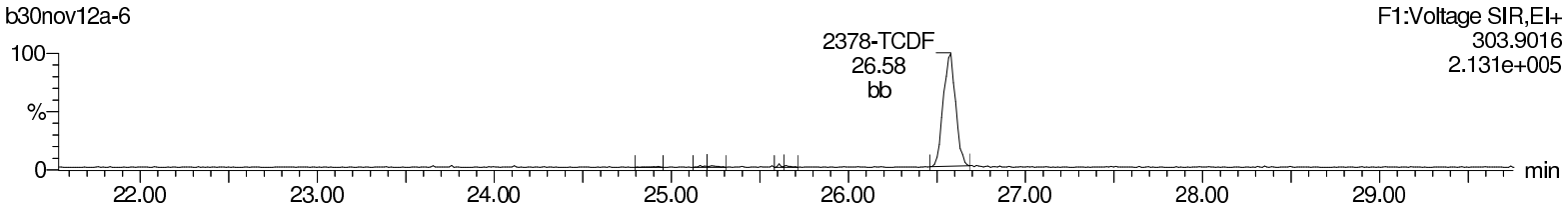
Quantify Sample Report **MassLynx 4.1**
Method 8290 ICAL Report

Dataset: C:\MassLynx\Default.pro\ICAL Results\8290-b30nov12a.qld

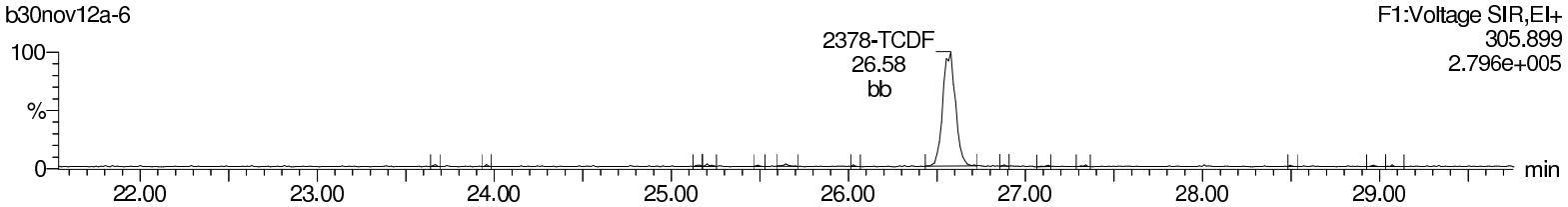
Last Altered: Monday, December 03, 2012 09:49:11 Eastern Standard Time
Printed: Monday, December 03, 2012 09:50:06 Eastern Standard Time

Name: b30nov12a-6, Date: 30-Nov-2012, Time: 14:07:18, ID: CS2 UD101022-03, Description: , Job: b30nov12a, Task: HRP763_1, User: MJC

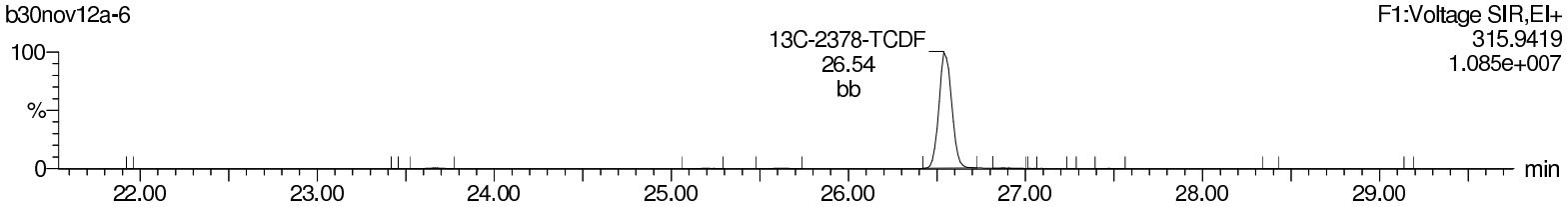
Total-tetrafurans



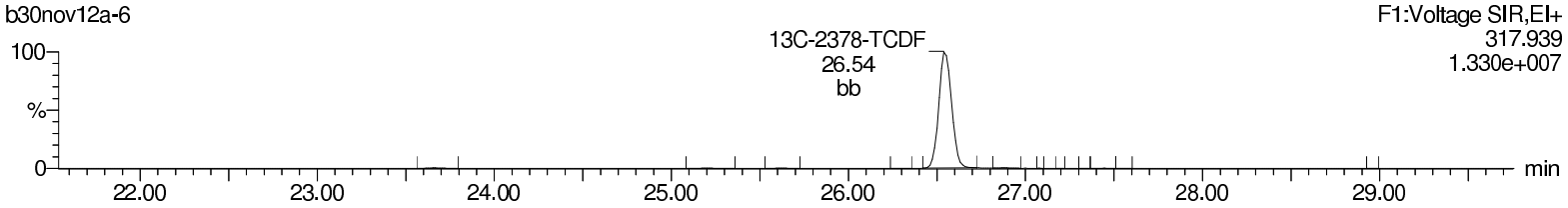
Total-tetrafurans



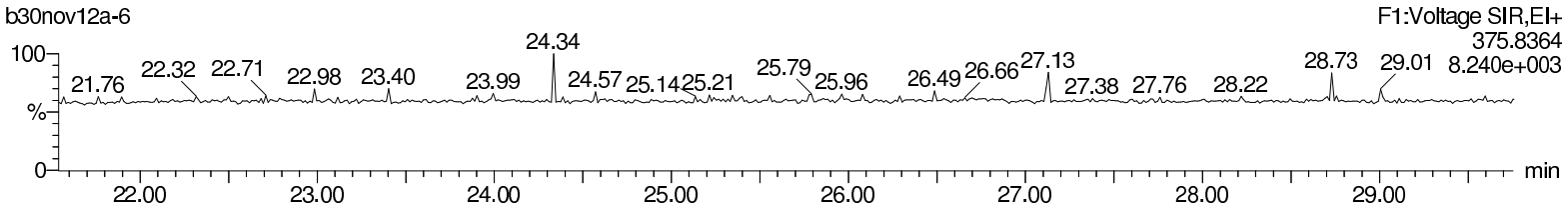
13C-2378-TCDF



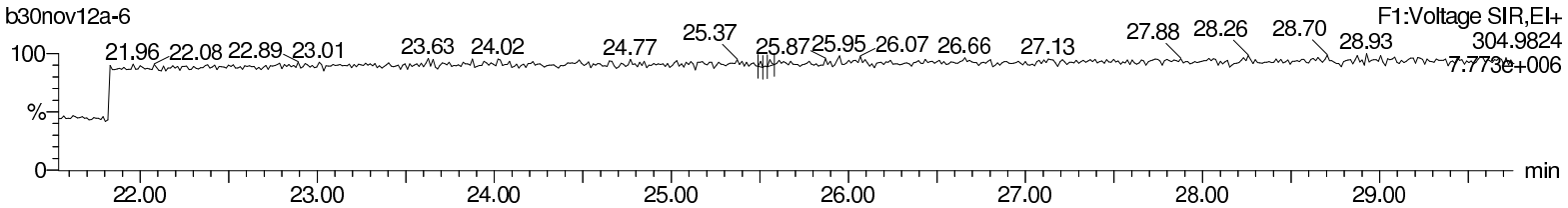
13C-2378-TCDF



HxDPE



Lock Mass F1



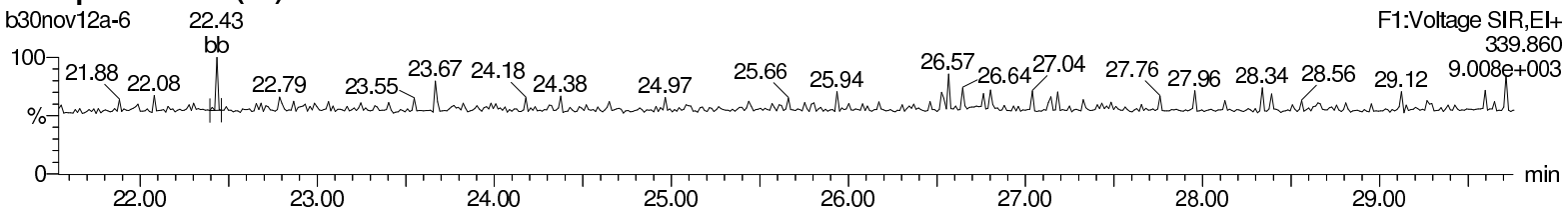
Quantify Sample Report **MassLynx 4.1**
Method 8290 ICAL Report

Dataset: C:\MassLynx\Default.pro\ICAL Results\8290-b30nov12a.qld

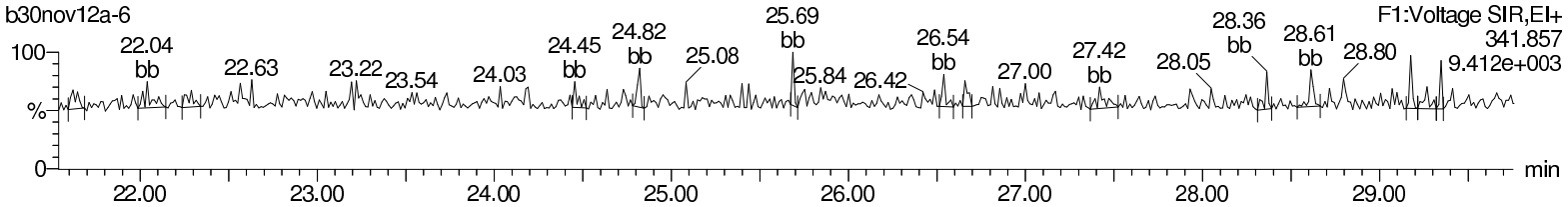
Last Altered: Monday, December 03, 2012 09:49:11 Eastern Standard Time
Printed: Monday, December 03, 2012 09:50:06 Eastern Standard Time

Name: b30nov12a-6, Date: 30-Nov-2012, Time: 14:07:18, ID: CS2 UD101022-03, Description: , Job: b30nov12a, Task: HRP763_1, User: MJC

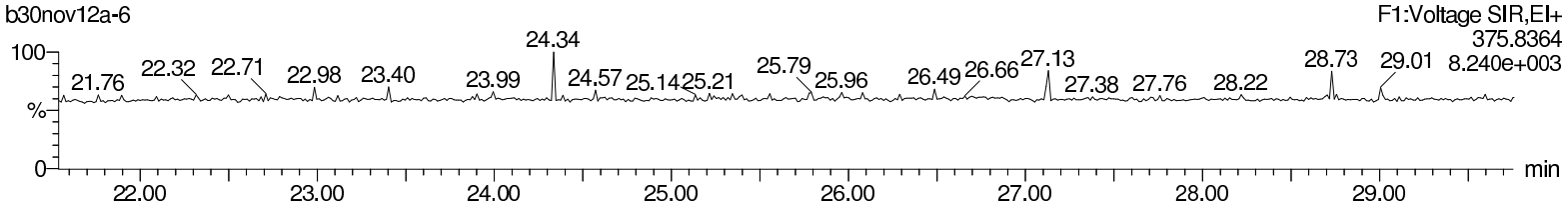
Total-pentafurans (F1)



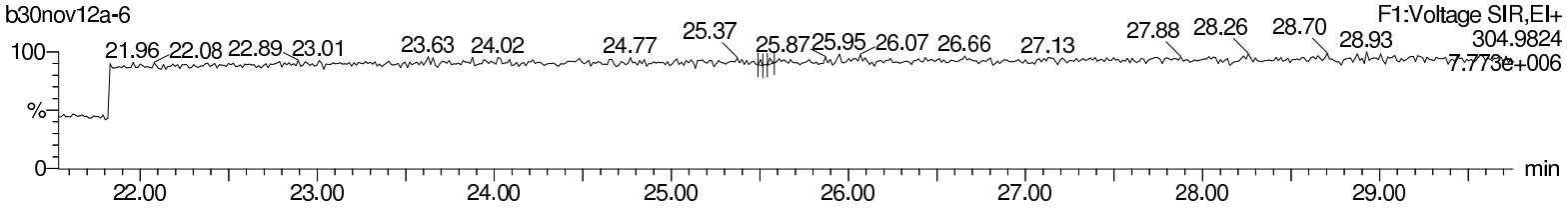
Total-pentafurans (F1)



HxDPE



Lock Mass F1



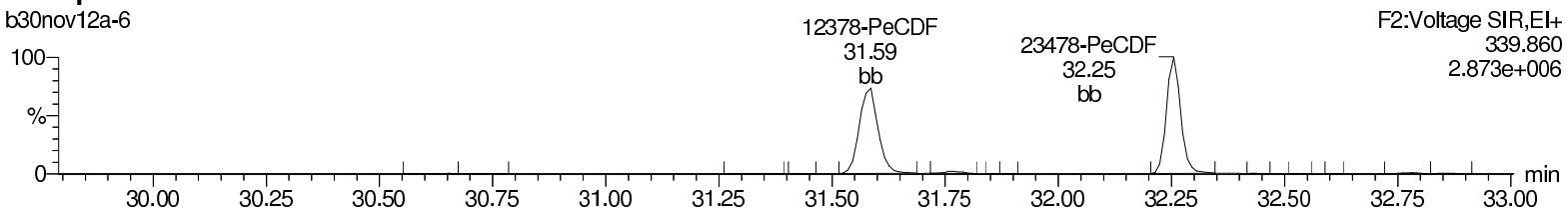
Quantify Sample Report **MassLynx 4.1**
Method 8290 ICAL Report

Dataset: C:\MassLynx\Default.pro\ICAL Results\8290-b30nov12a.qld

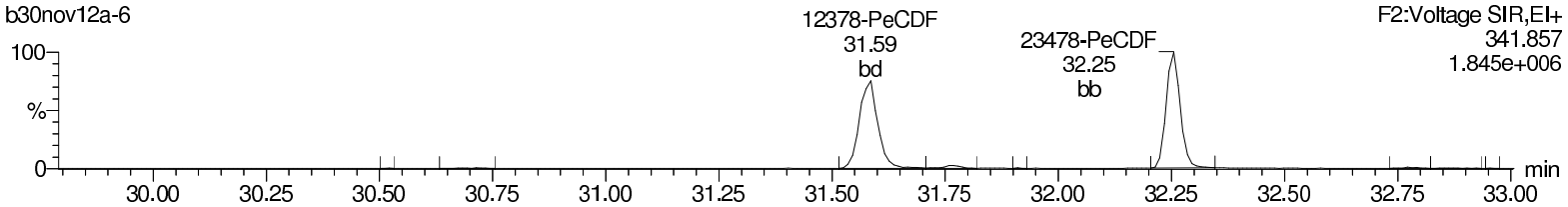
Last Altered: Monday, December 03, 2012 09:49:11 Eastern Standard Time
Printed: Monday, December 03, 2012 09:50:06 Eastern Standard Time

Name: b30nov12a-6, Date: 30-Nov-2012, Time: 14:07:18, ID: CS2 UD101022-03, Description: , Job: b30nov12a, Task: HRP763_1, User: MJC

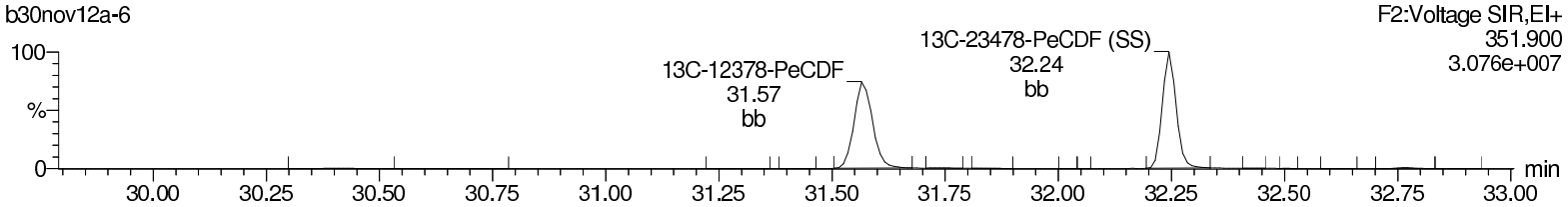
Total-pentafurans



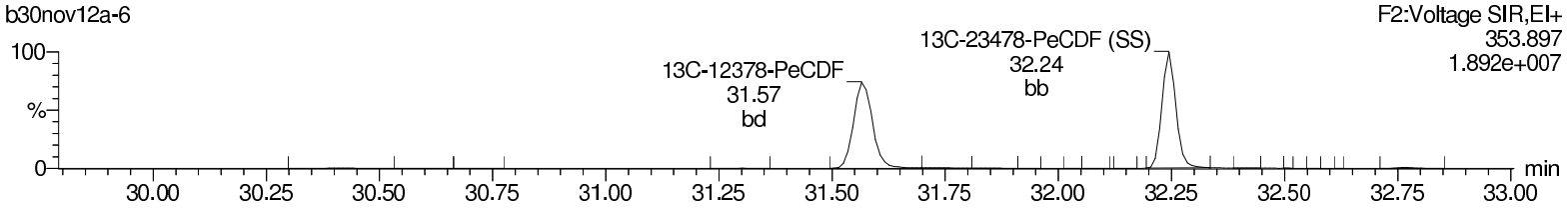
Total-pentafurans



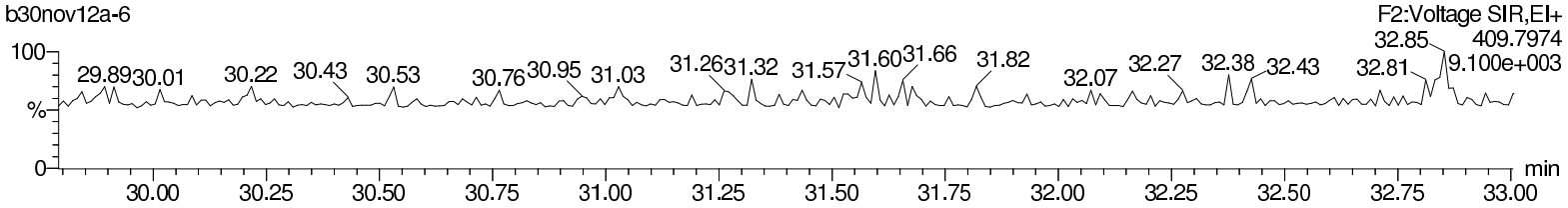
13C-12378-PeCDF



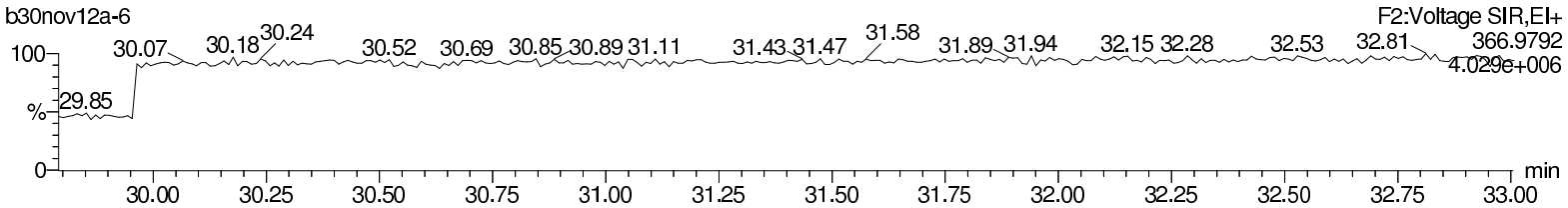
13C-12378-PeCDF



HpDPE



Lock Mass F2



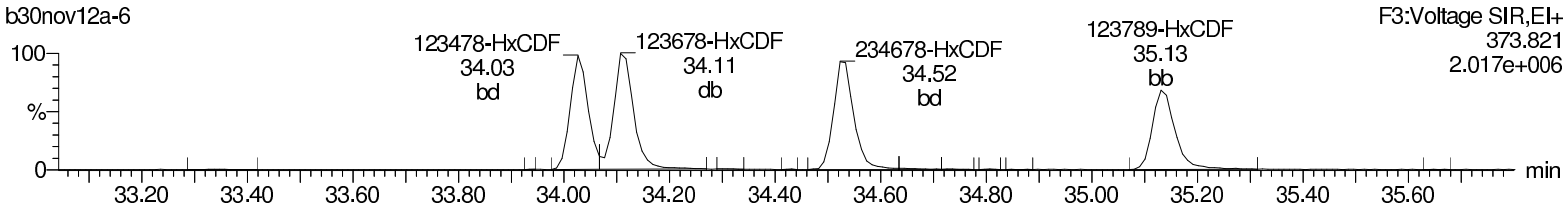
Quantify Sample Report **MassLynx 4.1**
Method 8290 ICAL Report

Dataset: C:\MassLynx\Default.pro\ICAL Results\8290-b30nov12a.qld

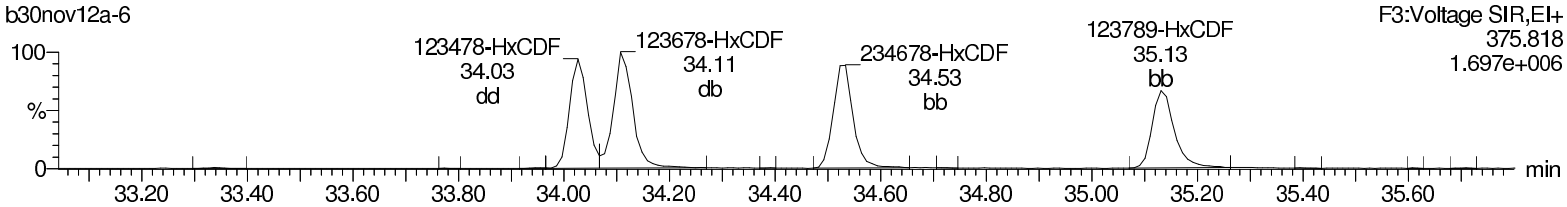
Last Altered: Monday, December 03, 2012 09:49:11 Eastern Standard Time
Printed: Monday, December 03, 2012 09:50:06 Eastern Standard Time

Name: b30nov12a-6, Date: 30-Nov-2012, Time: 14:07:18, ID: CS2 UD101022-03, Description: , Job: b30nov12a, Task: HRP763_1, User: MJC

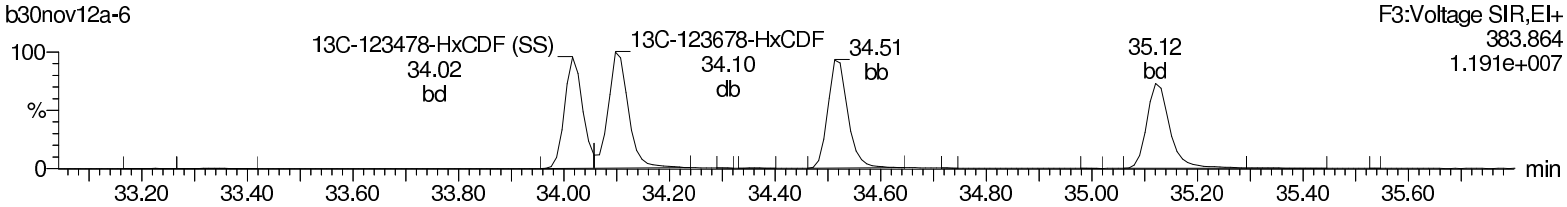
Total-hexafurans



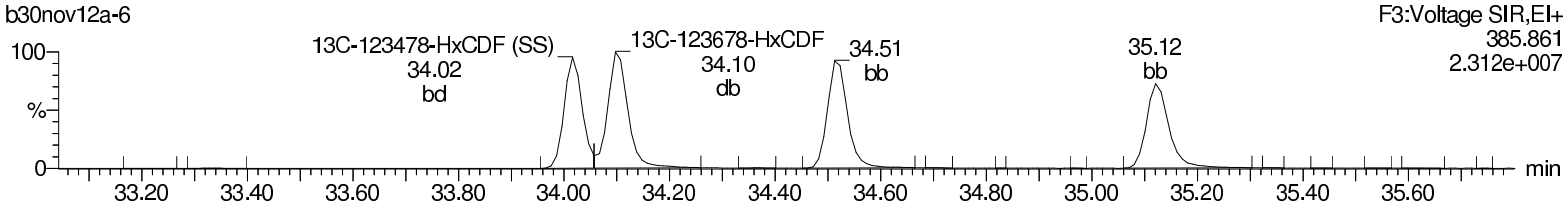
Total-hexafurans



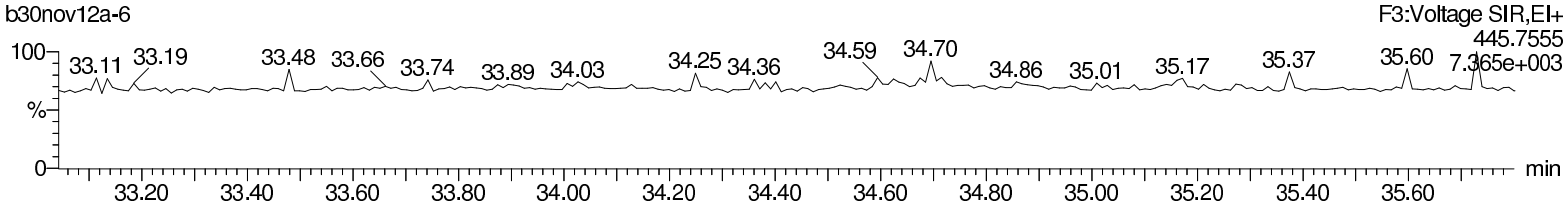
13C-123678-HxCDF



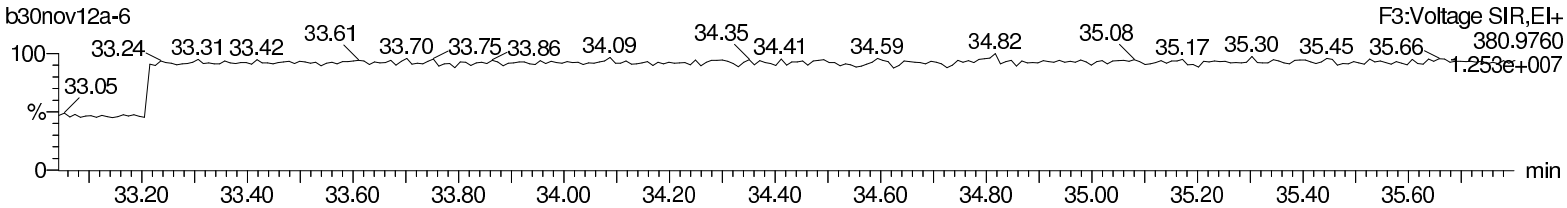
13C-123678-HxCDF



OcDPE



Lock Mass F3



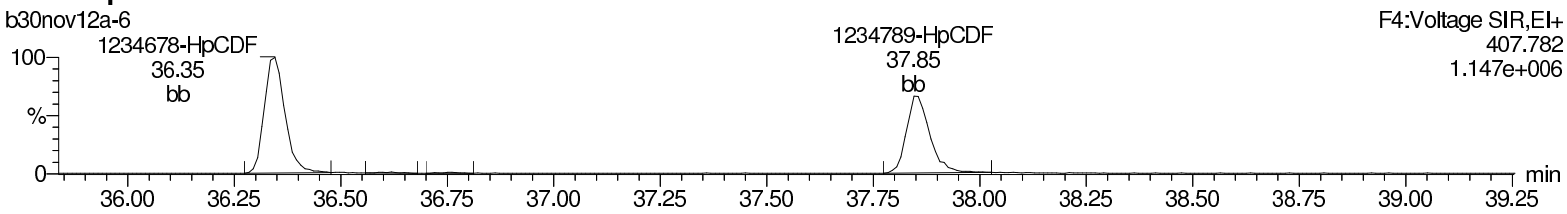
Quantify Sample Report **MassLynx 4.1**
Method 8290 ICAL Report

Dataset: C:\MassLynx\Default.pro\ICAL Results\8290-b30nov12a.qld

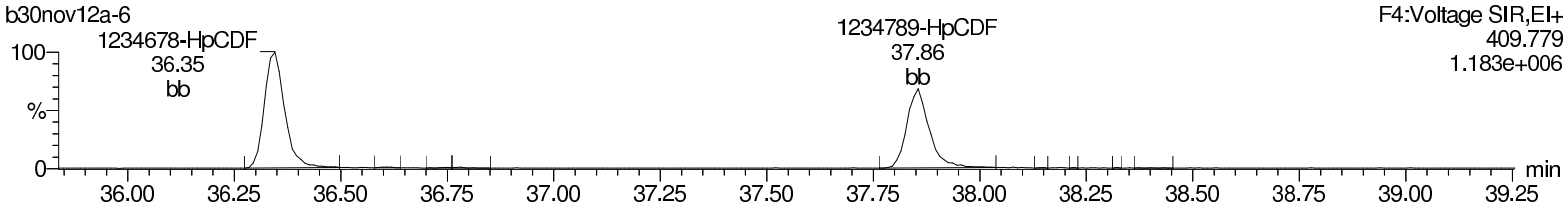
Last Altered: Monday, December 03, 2012 09:49:11 Eastern Standard Time
Printed: Monday, December 03, 2012 09:50:06 Eastern Standard Time

Name: b30nov12a-6, Date: 30-Nov-2012, Time: 14:07:18, ID: CS2 UD101022-03, Description: , Job: b30nov12a, Task: HRP763_1, User: MJC

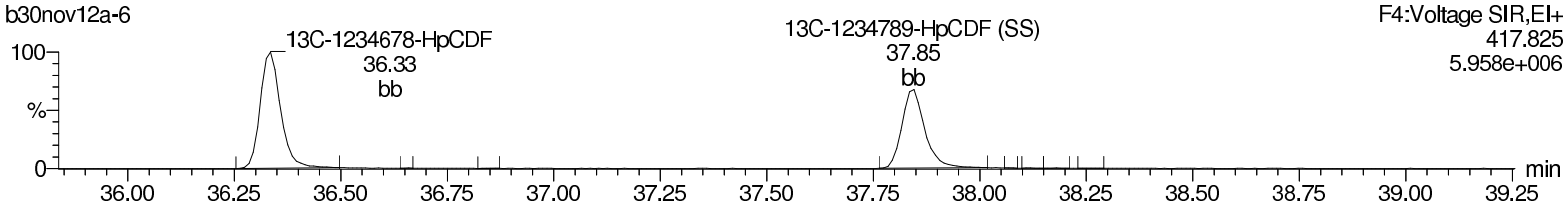
Total-heptafurans



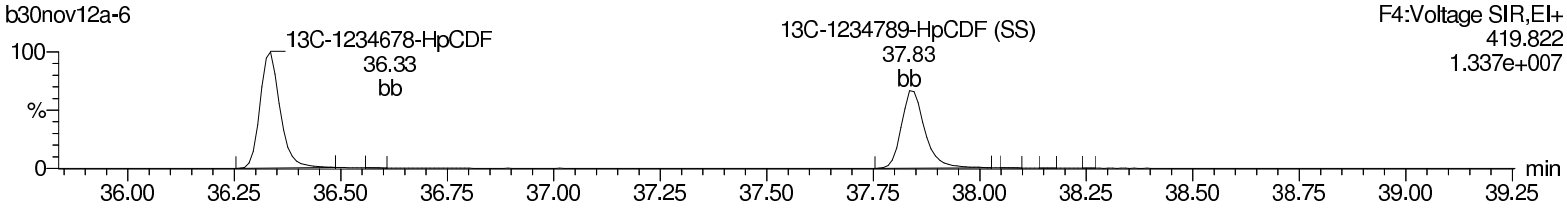
Total-heptafurans



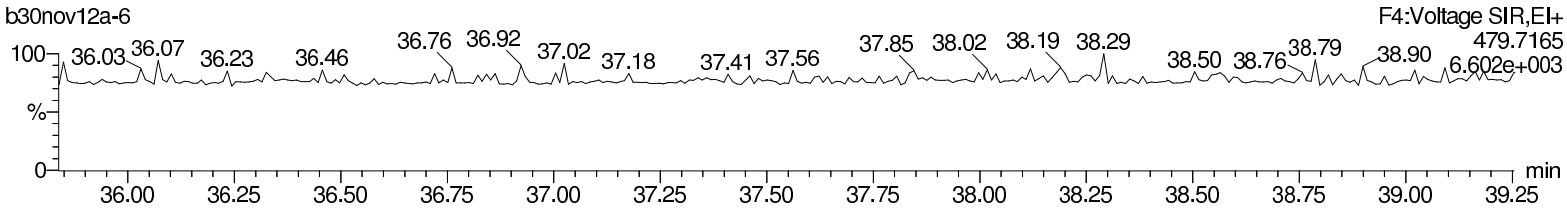
13C-1234678-HpCDF



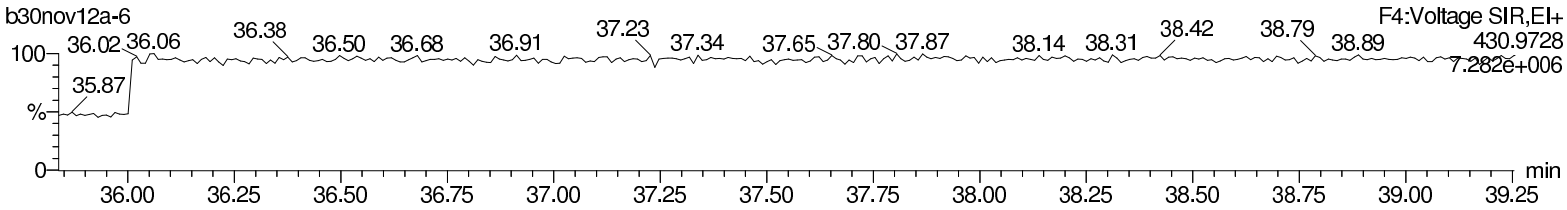
13C-1234678-HpCDF



NoDPE



Lock Mass F4



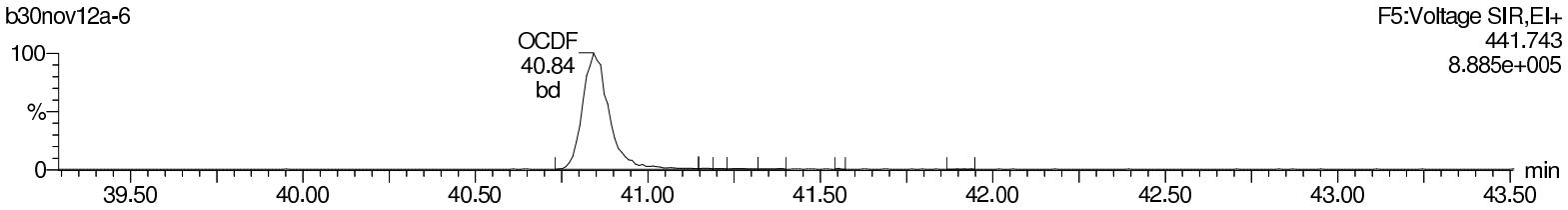
Quantify Sample Report **MassLynx 4.1**
Method 8290 ICAL Report

Dataset: C:\MassLynx\Default.pro\ICAL Results\8290-b30nov12a.qld

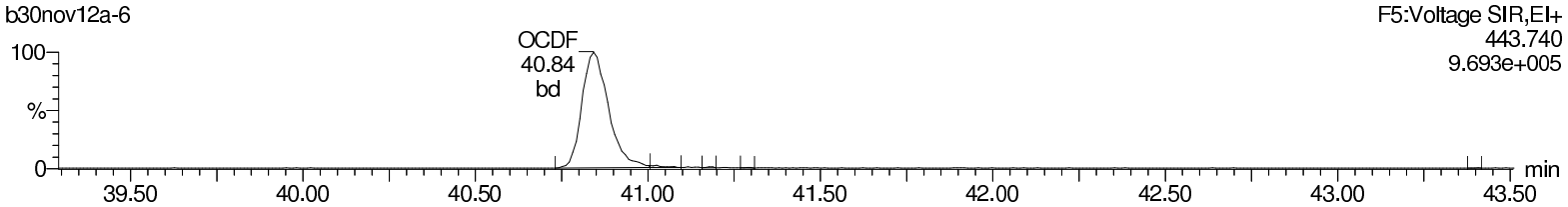
Last Altered: Monday, December 03, 2012 09:49:11 Eastern Standard Time
Printed: Monday, December 03, 2012 09:50:06 Eastern Standard Time

Name: b30nov12a-6, Date: 30-Nov-2012, Time: 14:07:18, ID: CS2 UD101022-03, Description: , Job: b30nov12a, Task: HRP763_1, User: MJC

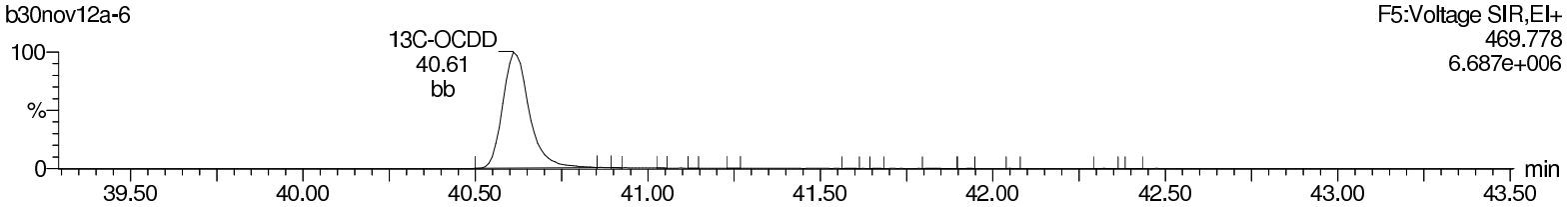
OCDF



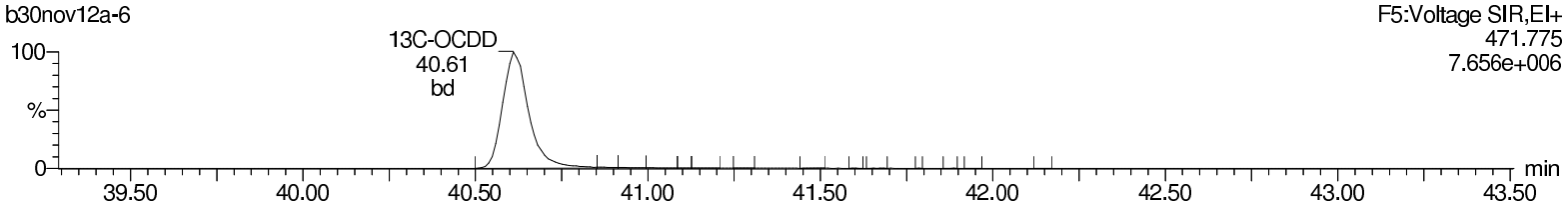
OCDF



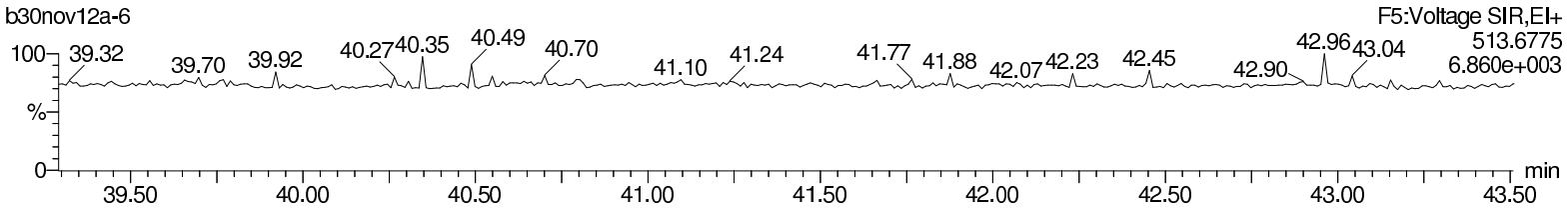
13C-OCDD



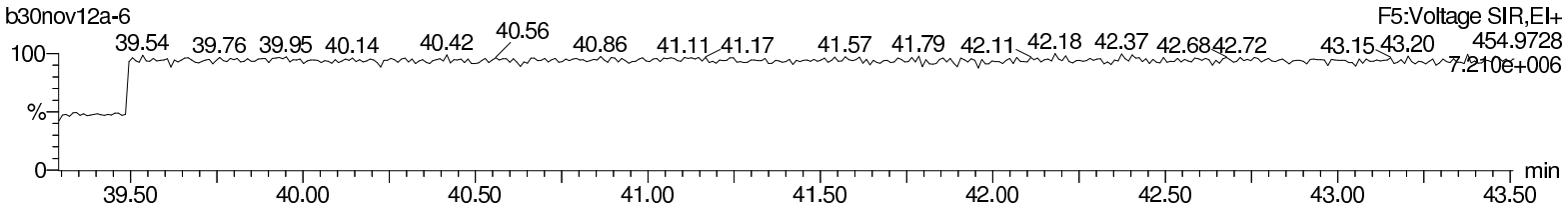
13C-OCDD



DeDPE



Lock Mass F5



Quantify Sample Summary Report **MassLynx 4.1**
Method 8290 ICAL Report

Dataset: C:\MassLynx\Default.pro\ICAL Results\8290-b30nov12a.qld

Last Altered: Monday, December 03, 2012 09:49:11 Eastern Standard Time
Printed: Monday, December 03, 2012 10:06:35 Eastern Standard Time

Name: b30nov12a-7, Date: 30-Nov-2012, Time: 14:52:45, ID: CS3 UD101022-04, Description: , Job: b30nov12a, Task: HRP763_1, User: MJC

	Name	Ion1Area	Ion2Area	Response	RT	RRT	RA	Fail?	pg/uL	RRF	Mean	RSD	EDL	Height1	Noise1	S/N1	Height2	Noise2	S/N2	M
1	2378-TCDD	4.97e4	6.47e4	1.14e5	27.48	1.00	0.77	NO	9.772	0.932	0.953	4.54	0.0423	6.10e5	1066	572.3	7.86e5	1343	585.3	bb
2	12378-PeCDD	2.98e5	1.84e5	4.82e5	32.43	1.00	1.62	NO	50.455	0.976	0.967	2.77	0.0349	7.88e6	2202	3577.3	5.02e6	1531	3275.8	bb
3	123478-HxCDD	2.62e5	2.07e5	4.69e5	34.65	1.00	1.26	NO	49.500	0.963	0.973	2.42	0.0934	6.30e6	3959	1591.6	5.04e6	3595	1401.2	bd
4	123678-HxCDD	2.95e5	2.33e5	5.28e5	34.72	1.00	1.27	NO	50.198	1.084	1.080	1.81	0.0842	6.25e6	3959	1579.0	4.99e6	3595	1388.5	dd
5	123789-HxCDD	2.66e5	2.15e5	4.80e5	34.90	1.01	1.24	NO	49.864	0.987	0.989	3.56	0.0919	5.57e6	3959	1408.0	4.34e6	3595	1207.3	db
6	1234678-HpCDD	2.03e5	1.92e5	3.94e5	37.35	1.00	1.06	NO	49.554	1.125	1.135	3.61	0.155	3.34e6	4927	678.0	3.16e6	3098	1018.6	bb
7	OCDD	3.16e5	3.51e5	6.67e5	40.63	1.00	0.90	NO	99.342	1.163	1.170	2.76	0.217	3.62e6	3659	990.5	3.98e6	2920	1364.8	bd
8	2378-TCDF	8.10e4	1.04e5	1.85e5	26.57	1.00	0.78	NO	9.764	1.005	1.029	3.86	0.0343	1.01e6	1220	825.5	1.32e6	1917	687.2	bb
9	12378-PeCDF	4.63e5	3.00e5	7.63e5	31.59	1.00	1.54	NO	50.644	0.956	0.943	3.68	0.0636	9.49e6	4385	2164.5	6.04e6	3509	1722.4	bb
10	23478-PeCDF	4.81e5	3.13e5	7.94e5	32.26	1.02	1.54	NO	50.798	0.995	0.979	3.10	0.0613	1.36e7	4385	3096.8	8.83e6	3509	2516.6	bb
11	123478-HxCDF	3.65e5	2.92e5	6.57e5	34.03	1.00	1.25	NO	52.349	0.953	0.910	3.13	0.0872	8.96e6	5472	1636.7	6.92e6	4384	1578.9	bd
12	123678-HxCDF	4.01e5	3.26e5	7.27e5	34.12	1.00	1.23	NO	50.780	1.056	1.039	2.03	0.0763	9.43e6	5472	1722.6	7.46e6	4384	1701.8	db
13	234678-HxCDF	3.73e5	3.10e5	6.83e5	34.53	1.01	1.20	NO	51.640	0.991	0.960	2.69	0.0827	8.91e6	5472	1629.2	7.05e6	4384	1607.8	bb
14	123789-HxCDF	3.15e5	2.52e5	5.67e5	35.14	1.03	1.25	NO	50.860	0.824	0.810	1.61	0.0980	6.27e6	5472	1146.2	5.02e6	4384	1144.5	bd
15	1234678-HpCDF	3.06e5	2.91e5	5.96e5	36.35	1.00	1.05	NO	50.679	1.243	1.226	3.04	0.123	5.52e6	6012	918.9	5.35e6	4975	1076.2	bd
16	1234789-HpCDF	2.29e5	2.21e5	4.50e5	37.86	1.04	1.03	NO	49.780	0.937	0.941	4.69	0.160	3.64e6	6012	606.3	3.56e6	4975	715.7	bb
17	OCDF	3.67e5	4.11e5	7.79e5	40.84	1.01	0.89	NO	99.940	1.357	1.358	6.36	0.133	4.12e6	2453	1678.2	4.67e6	2205	2118.6	bd
18	13C-2378-TCDD	5.38e5	6.90e5	1.23e6	27.46	1.03	0.78	NO	98.008	0.970	0.989	3.07	0.0813	6.55e6	3086	2124.0	8.54e6	1988	4297.4	bb
19	13C-12378-PeCDD	5.96e5	3.91e5	9.87e5	32.42	1.21	1.52	NO	95.484	0.779	0.816	7.13	0.0659	1.67e7	1602	10419.6	1.08e7	1793	6039.3	bb
20	13C-123678-HxCDD	5.40e5	4.34e5	9.74e5	34.71	0.99	1.25	NO	100.046	1.113	1.112	2.71	0.0727	1.15e7	3952	2916.2	9.27e6	1934	4792.1	dd
21	13C-1234678-HpCDD	3.66e5	3.35e5	7.01e5	37.34	1.07	1.09	NO	95.833	0.801	0.836	3.49	0.125	5.94e6	4177	1421.7	5.50e6	3420	1608.0	bb
22	13C-OCDD	5.41e5	6.07e5	1.15e6	40.61	1.16	0.89	NO	191.789	0.656	0.684	3.84	0.108	6.09e6	2467	2468.6	6.79e6	2932	2315.5	bd
23	13C-2378-TCDF	8.19e5	1.02e6	1.84e6	26.55	0.99	0.80	NO	99.118	1.453	1.466	2.55	0.0508	9.88e6	1959	5046.2	1.22e7	2741	4461.3	bb
24	13C-12378-PeCDF	9.81e5	6.16e5	1.60e6	31.57	1.18	1.59	NO	95.438	1.261	1.321	6.36	0.164	2.02e7	5142	3930.2	1.30e7	8538	1520.1	bb
25	13C-123678-HxCDF	4.70e5	9.07e5	1.38e6	34.11	0.98	0.52	NO	95.830	1.574	1.642	2.73	0.134	1.06e7	8355	1268.7	2.02e7	7623	2654.1	db
26	13C-1234678-HpCDF	2.93e5	6.67e5	9.60e5	36.34	1.04	0.44	NO	97.341	1.097	1.127	2.55	0.125	5.56e6	4287	1296.4	1.26e7	5924	2120.4	bb
27	13C-1234-TCDD	5.59e5	7.08e5	1.27e6	26.72	0.00	0.79	NO	100.000	1.000	1.000	0.00	0.0804	6.96e6	3086	2256.7	8.76e6	1988	4405.5	bb
28	13C-123789-HxCDD	4.76e5	3.99e5	8.75e5	34.89	0.00	1.19	NO	100.000	1.000	1.000	0.00	0.0809	9.90e6	3952	2505.6	8.09e6	1934	4185.0	db
29	37Cl-2378-TCDD (SS)	1.39e5		1.39e5	27.47	1.00			10.258	1.134	1.105	4.13	0.0285	1.68e6	1884	892.5				bb
30	13C-23478-PeCDF (SS)	1.01e6	6.14e5	1.62e6	32.25	1.02	1.64	NO	101.298	1.015	1.002	0.82	0.104	2.81e7	5142	5460.8	1.73e7	8538	2022.7	bb
31	13C-123478-HxCDF (SS)	4.13e5	8.02e5	1.21e6	34.02	1.00	0.51	NO	103.216	0.881	0.854	1.80	0.151	9.86e6	8355	1180.1	1.94e7	7623	2542.6	bd
32	13C-123478-HxCDD (SS)	4.46e5	3.59e5	8.05e5	34.63	1.00	1.24	NO	97.202	0.827	0.851	3.12	0.0833	1.09e7	3952	2752.7	8.60e6	1934	4445.4	bd
33	13C-1234789-HpCDF (SS)	2.27e5	5.08e5	7.35e5	37.85	1.04	0.45	NO	98.209	0.766	0.780	1.37	0.180	3.54e6	4287	826.2	7.84e6	5924	1323.0	bb

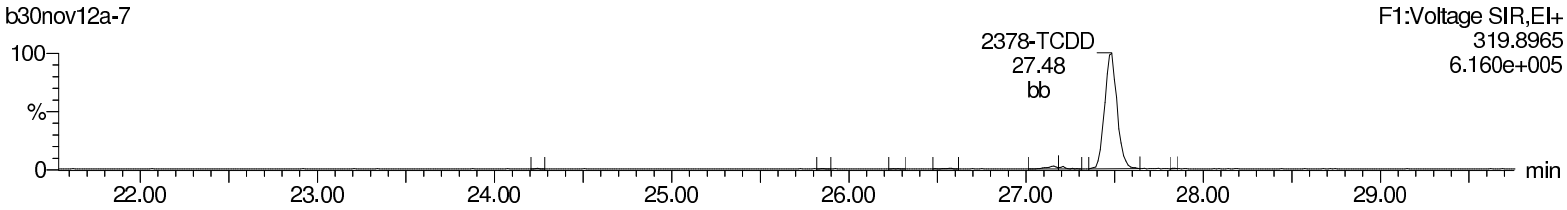
Quantify Sample Report **MassLynx 4.1**
Method 8290 ICAL Report

Dataset: C:\MassLynx\Default.pro\ICAL Results\8290-b30nov12a.qld

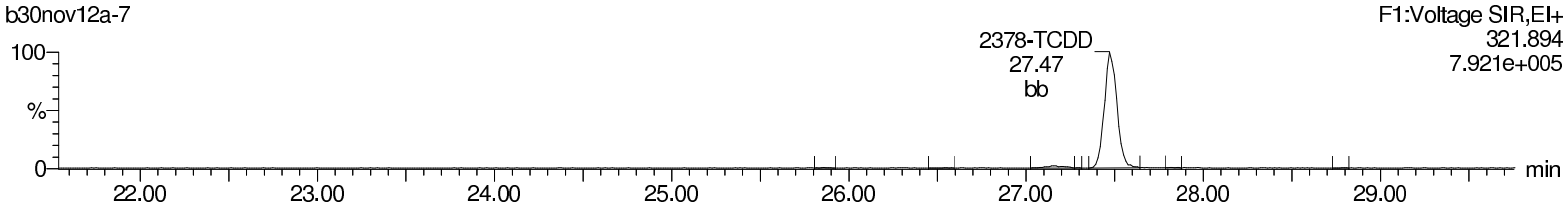
Last Altered: Monday, December 03, 2012 09:49:11 Eastern Standard Time
Printed: Monday, December 03, 2012 09:50:06 Eastern Standard Time

Name: b30nov12a-7, Date: 30-Nov-2012, Time: 14:52:45, ID: CS3 UD101022-04, Description: , Job: b30nov12a, Task: HRP763_1, User: MJC

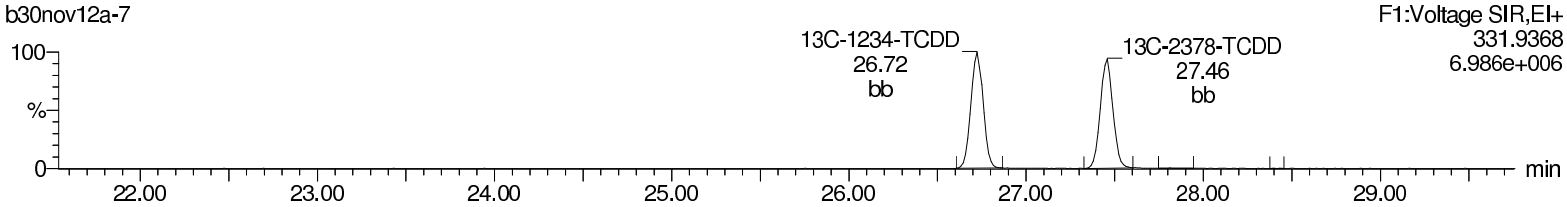
Total-tetradioxins



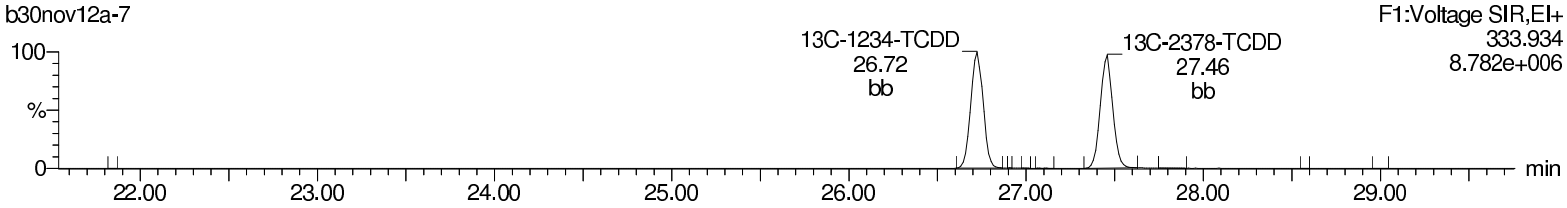
Total-tetradioxins



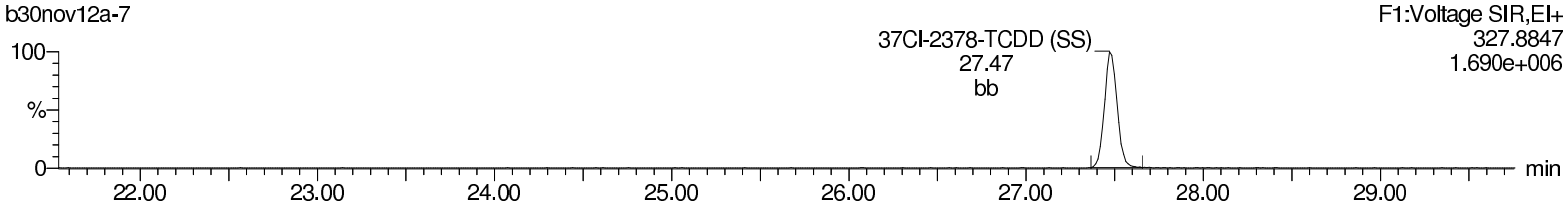
13C-2378-TCDD



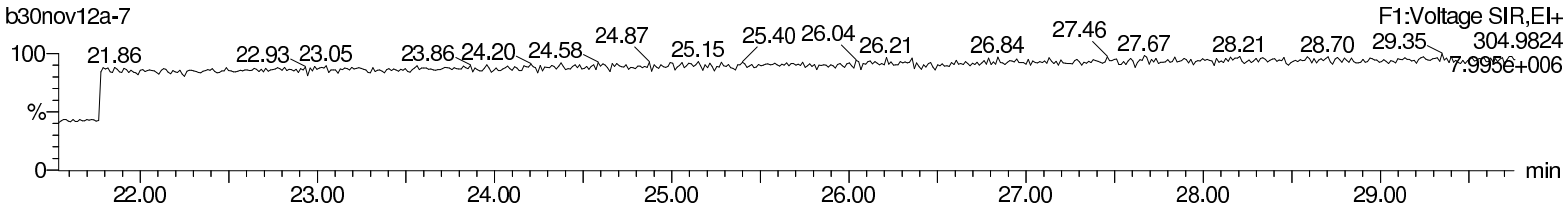
13C-2378-TCDD



37Cl-2378-TCDD (SS)



Lock Mass F1



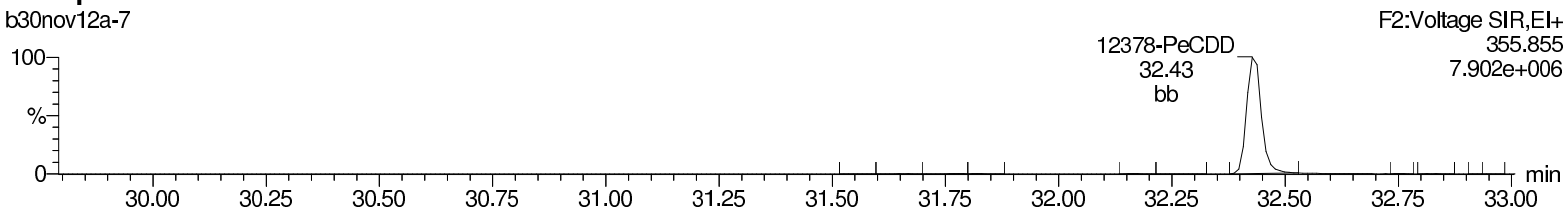
Quantify Sample Report **MassLynx 4.1**
Method 8290 ICAL Report

Dataset: C:\MassLynx\Default.pro\ICAL Results\8290-b30nov12a.qld

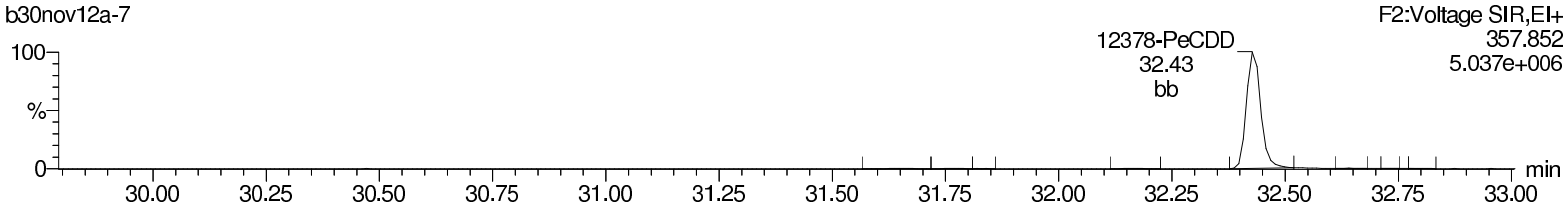
Last Altered: Monday, December 03, 2012 09:49:11 Eastern Standard Time
Printed: Monday, December 03, 2012 09:50:06 Eastern Standard Time

Name: b30nov12a-7, Date: 30-Nov-2012, Time: 14:52:45, ID: CS3 UD101022-04, Description: , Job: b30nov12a, Task: HRP763_1, User: MJC

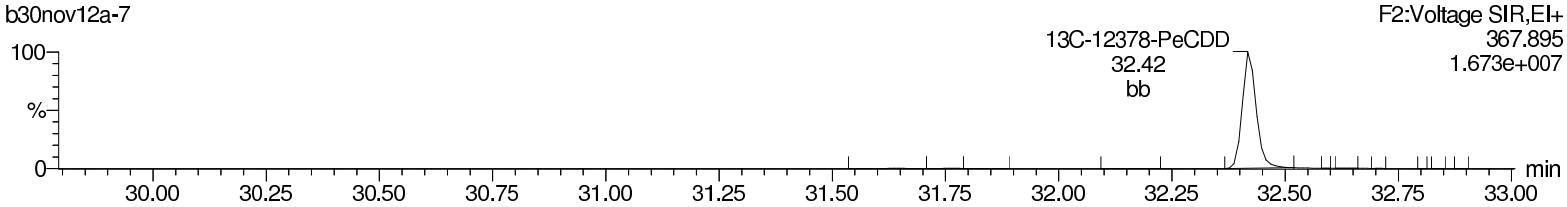
Total-pentadioxins



Total-pentadioxins



13C-12378-PeCDD



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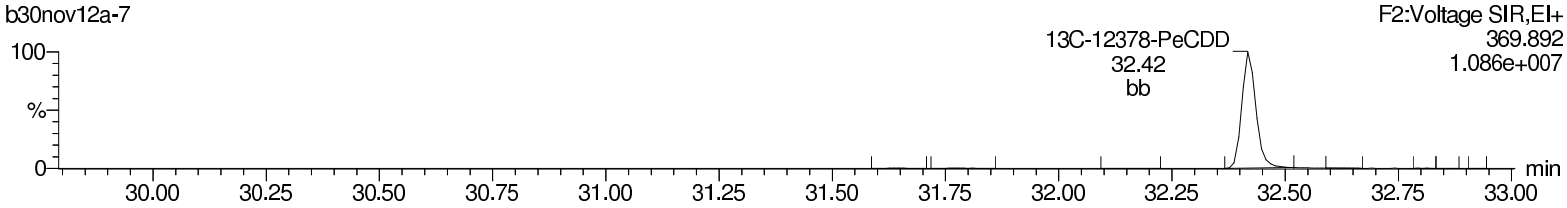
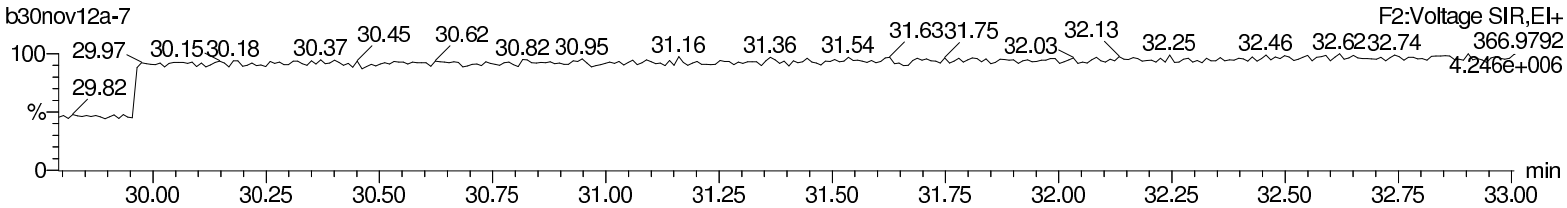


Lock Mass F2



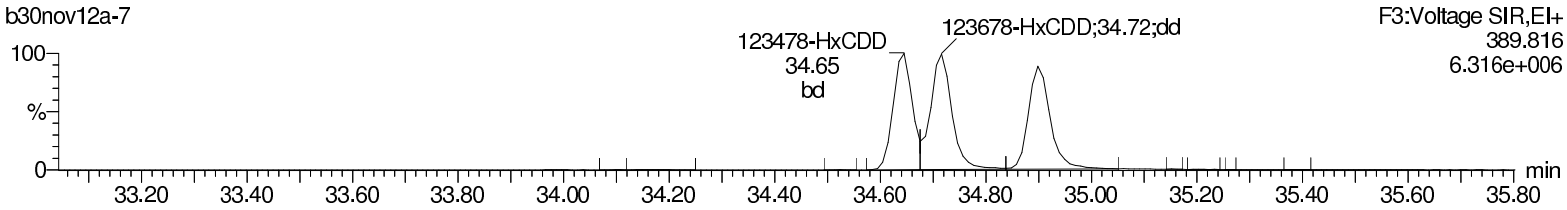
Quantify Sample Report **MassLynx 4.1**
Method 8290 ICAL Report

Dataset: C:\MassLynx\Default.pro\ICAL Results\8290-b30nov12a.qld

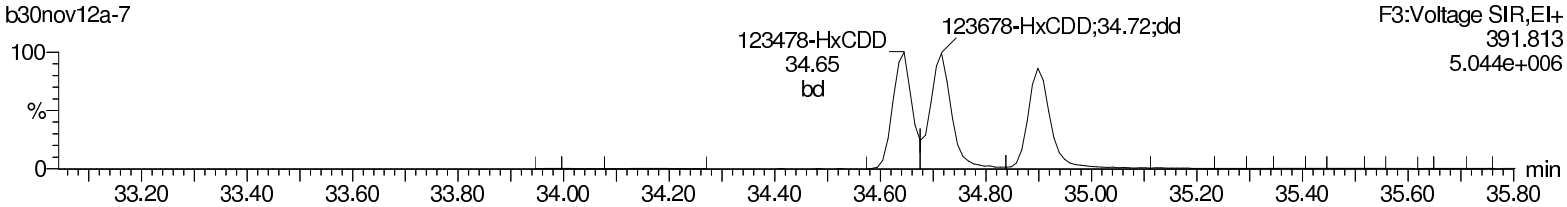
Last Altered: Monday, December 03, 2012 09:49:11 Eastern Standard Time
Printed: Monday, December 03, 2012 09:50:06 Eastern Standard Time

Name: b30nov12a-7, Date: 30-Nov-2012, Time: 14:52:45, ID: CS3 UD101022-04, Description: , Job: b30nov12a, Task: HRP763_1, User: MJC

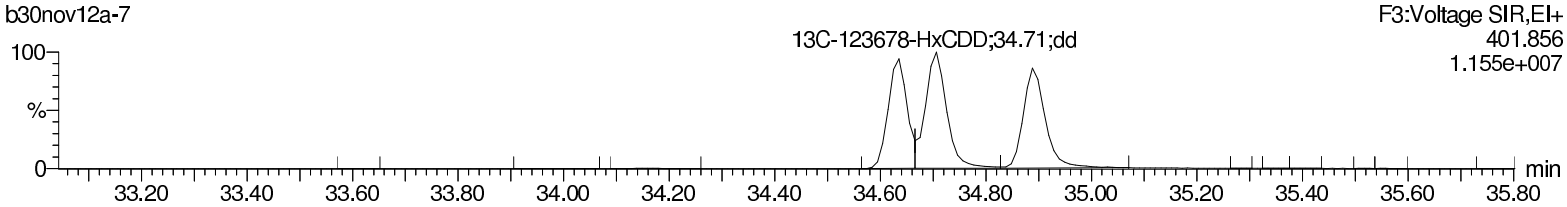
Total-hexadioxins



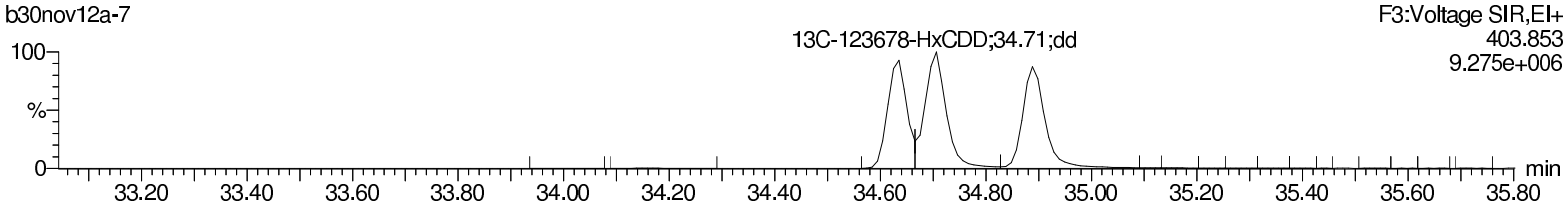
Total-hexadioxins



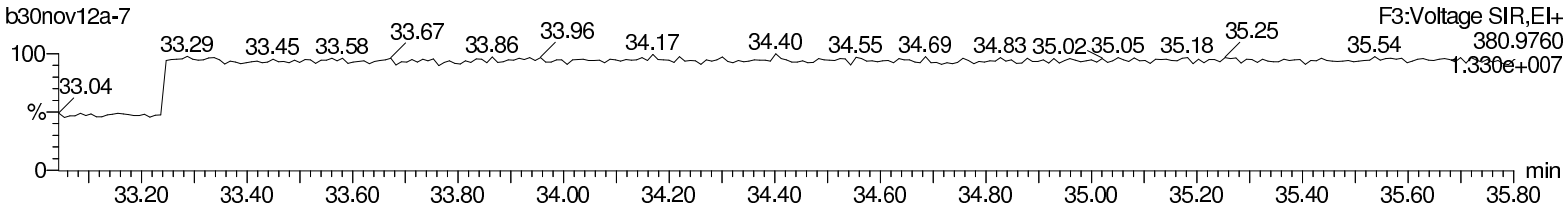
13C-123678-HxCDD



13C-123678-HxCDD



Lock Mass F3



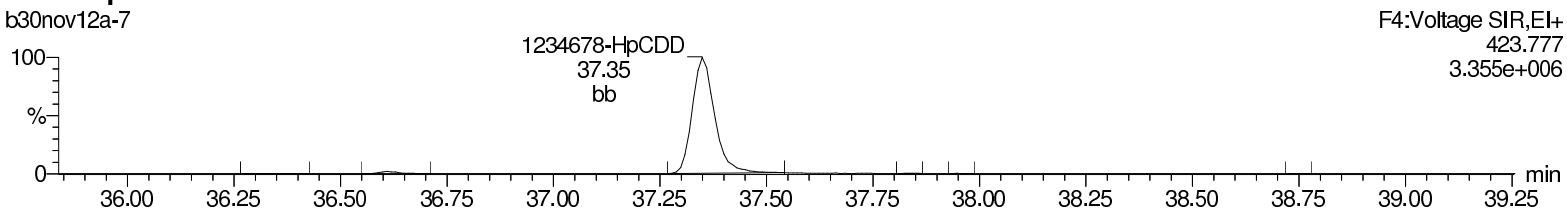
Quantify Sample Report **MassLynx 4.1**
Method 8290 ICAL Report

Dataset: C:\MassLynx\Default.pro\ICAL Results\8290-b30nov12a.qld

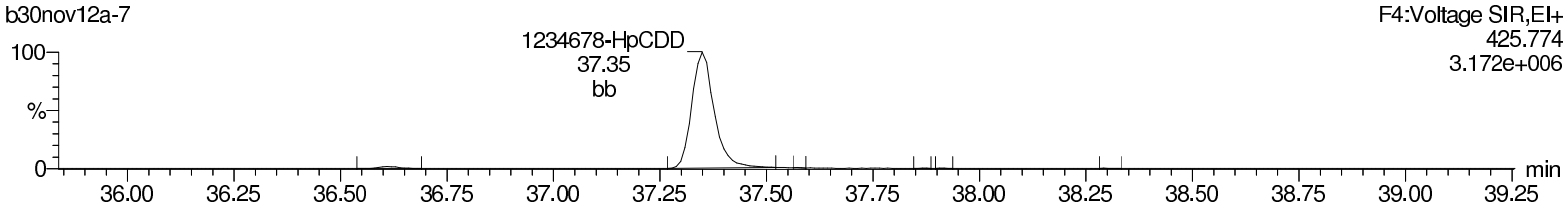
Last Altered: Monday, December 03, 2012 09:49:11 Eastern Standard Time
Printed: Monday, December 03, 2012 09:50:06 Eastern Standard Time

Name: b30nov12a-7, Date: 30-Nov-2012, Time: 14:52:45, ID: CS3 UD101022-04, Description: , Job: b30nov12a, Task: HRP763_1, User: MJC

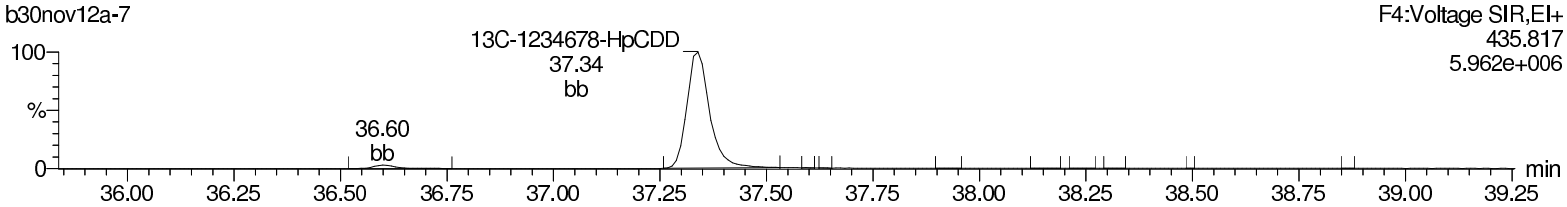
Total-heptadioxins



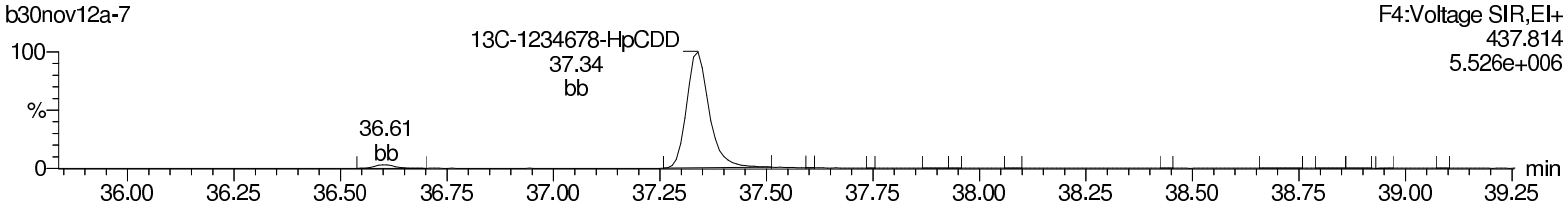
Total-heptadioxins



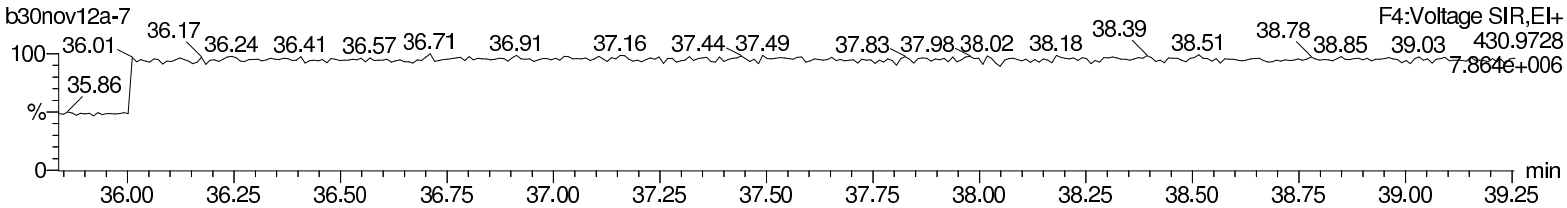
13C-1234678-HpCDD



13C-1234678-HpCDD



Lock Mass F4



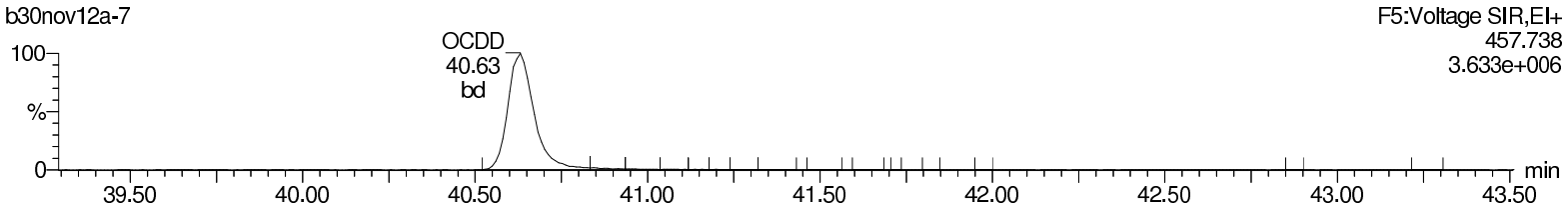
Quantify Sample Report **MassLynx 4.1**
Method 8290 ICAL Report

Dataset: C:\MassLynx\Default.pro\ICAL Results\8290-b30nov12a.qld

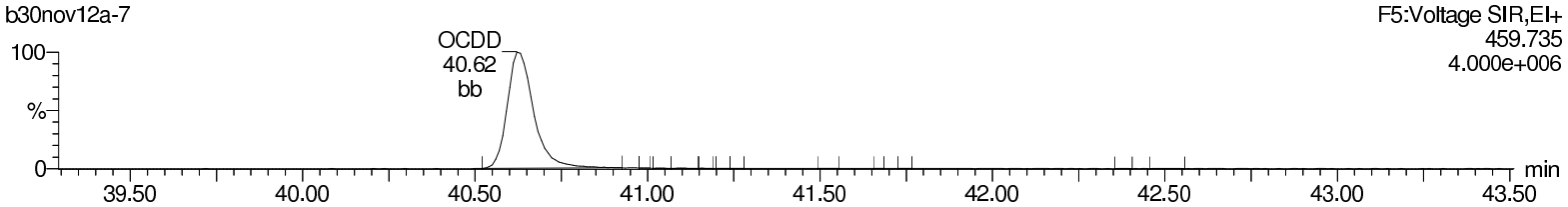
Last Altered: Monday, December 03, 2012 09:49:11 Eastern Standard Time
Printed: Monday, December 03, 2012 09:50:06 Eastern Standard Time

Name: b30nov12a-7, Date: 30-Nov-2012, Time: 14:52:45, ID: CS3 UD101022-04, Description: , Job: b30nov12a, Task: HRP763_1, User: MJC

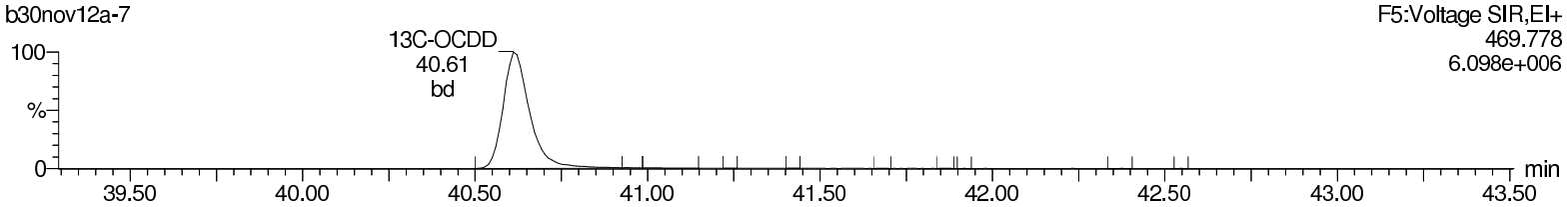
OCDD



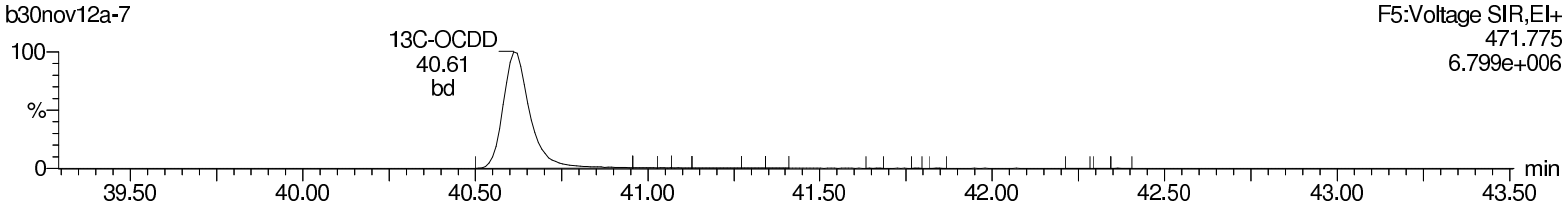
OCDD



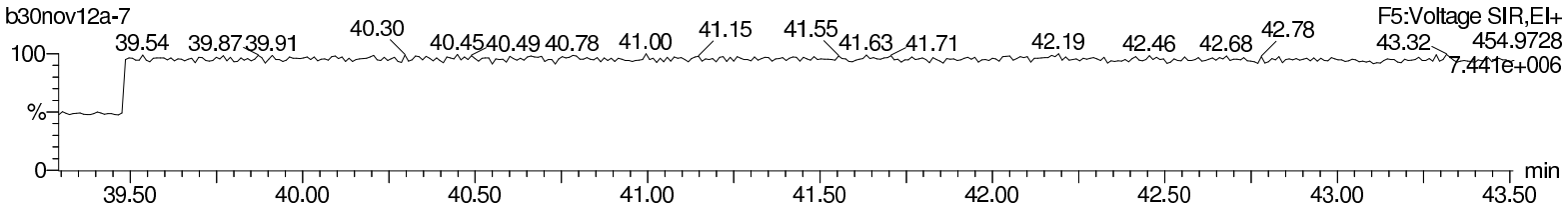
13C-OCDD



13C-OCDD



Lock Mass F5



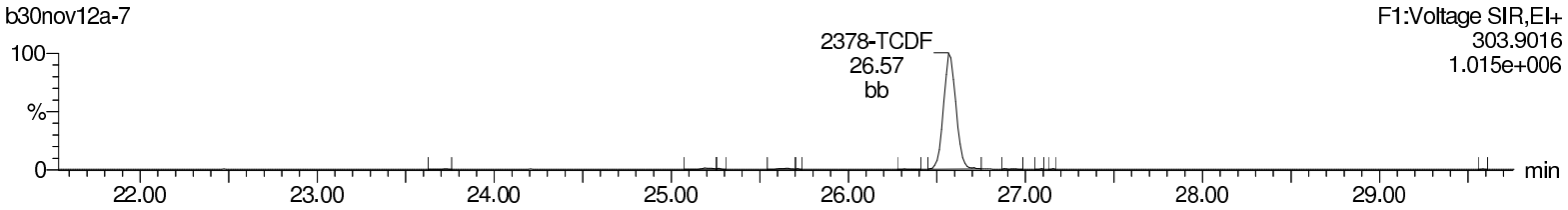
Quantify Sample Report **MassLynx 4.1**
Method 8290 ICAL Report

Dataset: C:\MassLynx\Default.pro\ICAL Results\8290-b30nov12a.qld

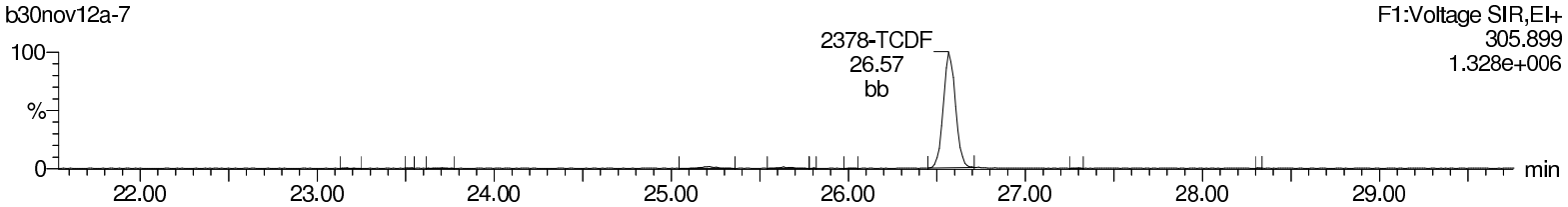
Last Altered: Monday, December 03, 2012 09:49:11 Eastern Standard Time
Printed: Monday, December 03, 2012 09:50:06 Eastern Standard Time

Name: b30nov12a-7, Date: 30-Nov-2012, Time: 14:52:45, ID: CS3 UD101022-04, Description: , Job: b30nov12a, Task: HRP763_1, User: MJC

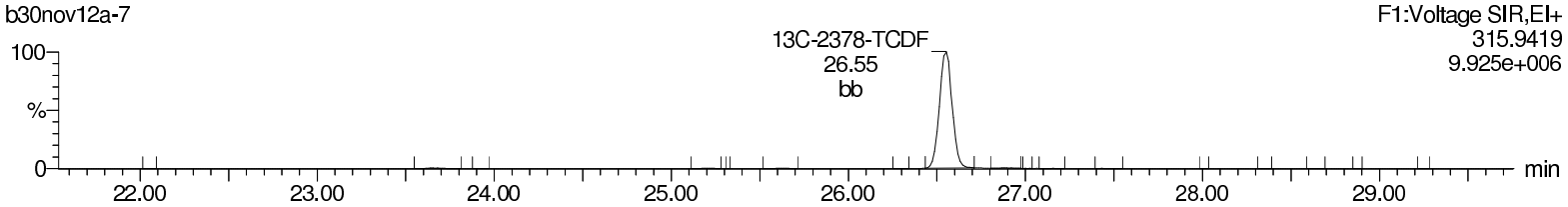
Total-tetrafurans



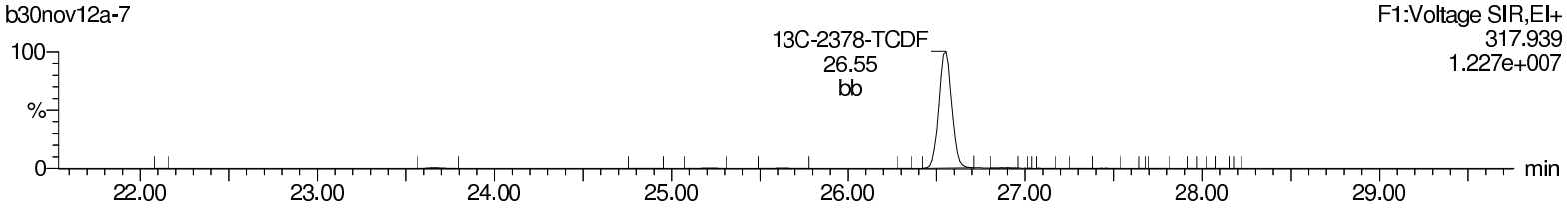
Total-tetrafurans



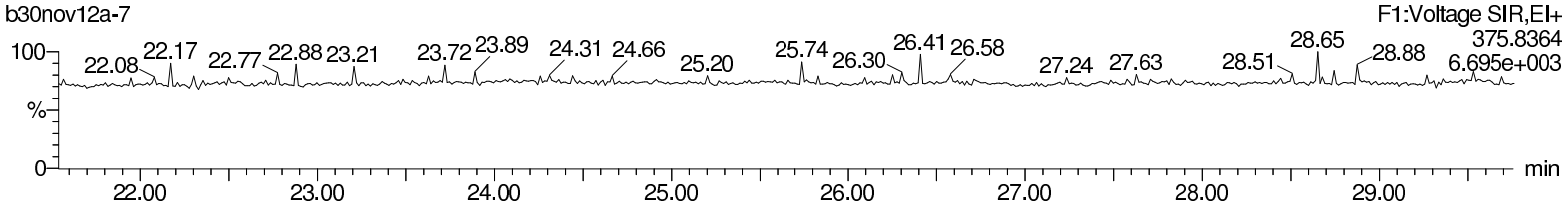
13C-2378-TCDF



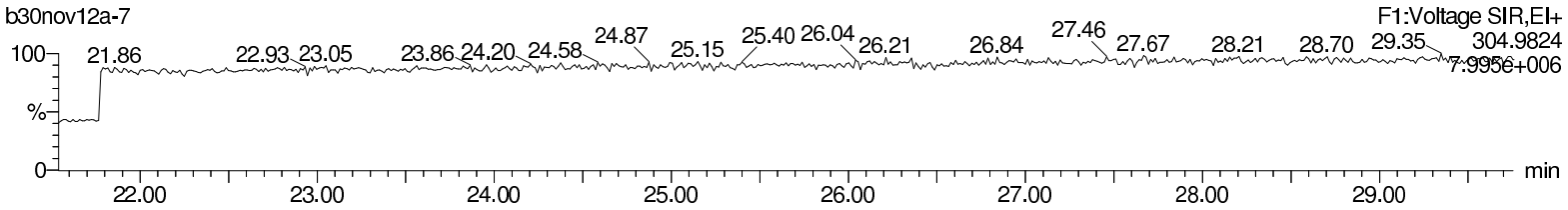
13C-2378-TCDF



HxDPE



Lock Mass F1



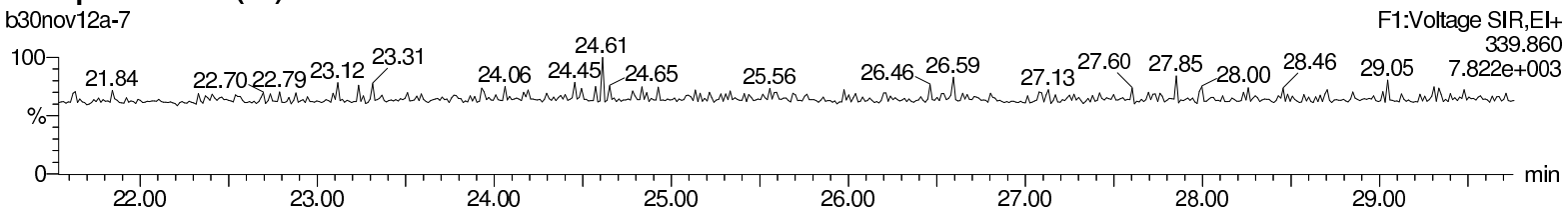
Quantify Sample Report **MassLynx 4.1**
Method 8290 ICAL Report

Dataset: C:\MassLynx\Default.pro\ICAL Results\8290-b30nov12a.qld

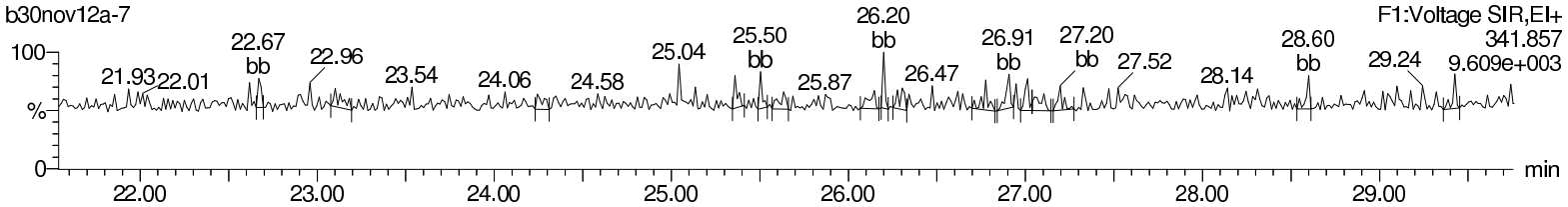
Last Altered: Monday, December 03, 2012 09:49:11 Eastern Standard Time
Printed: Monday, December 03, 2012 09:50:06 Eastern Standard Time

Name: b30nov12a-7, Date: 30-Nov-2012, Time: 14:52:45, ID: CS3 UD101022-04, Description: , Job: b30nov12a, Task: HRP763_1, User: MJC

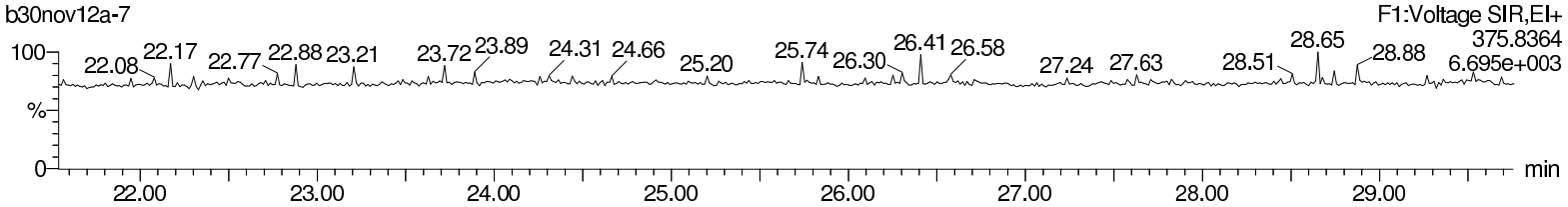
Total-pentafurans (F1)



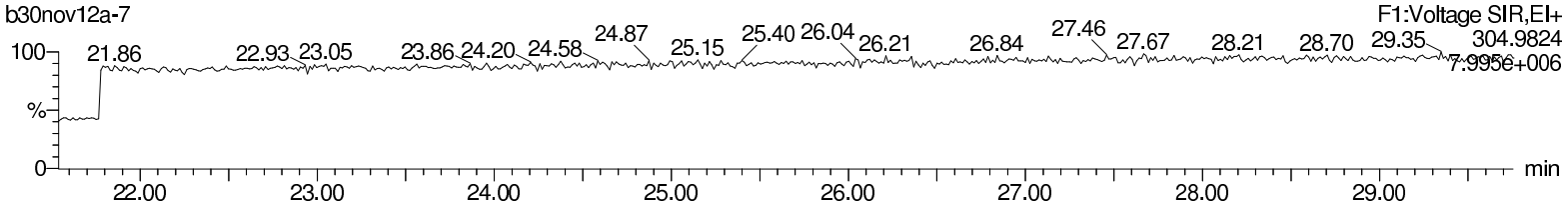
Total-pentafurans (F1)



HxDPE



Lock Mass F1



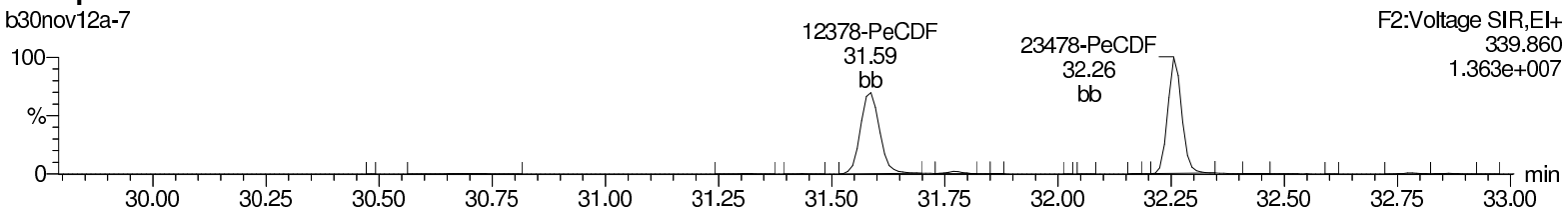
Quantify Sample Report **MassLynx 4.1**
Method 8290 ICAL Report

Dataset: C:\MassLynx\Default.pro\ICAL Results\8290-b30nov12a.qld

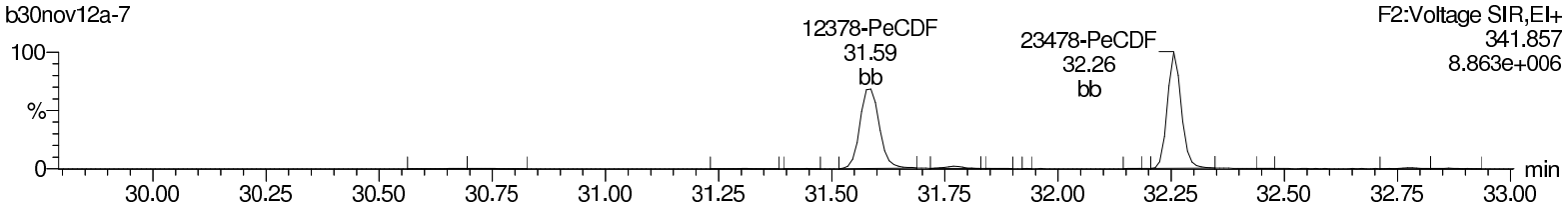
Last Altered: Monday, December 03, 2012 09:49:11 Eastern Standard Time
Printed: Monday, December 03, 2012 09:50:06 Eastern Standard Time

Name: b30nov12a-7, Date: 30-Nov-2012, Time: 14:52:45, ID: CS3 UD101022-04, Description: , Job: b30nov12a, Task: HRP763_1, User: MJC

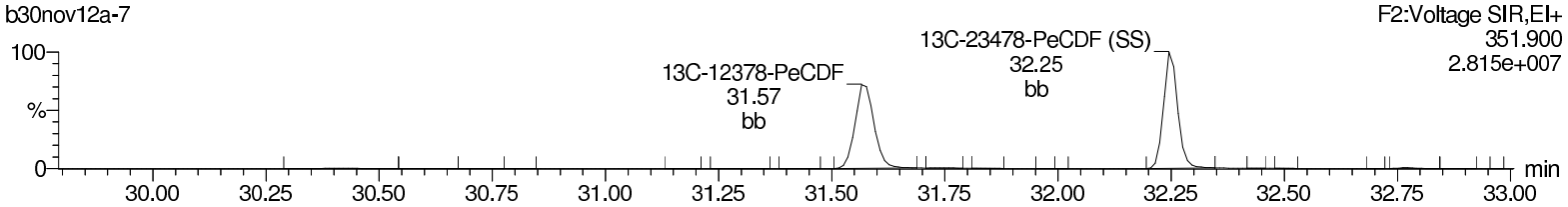
Total-pentafurans



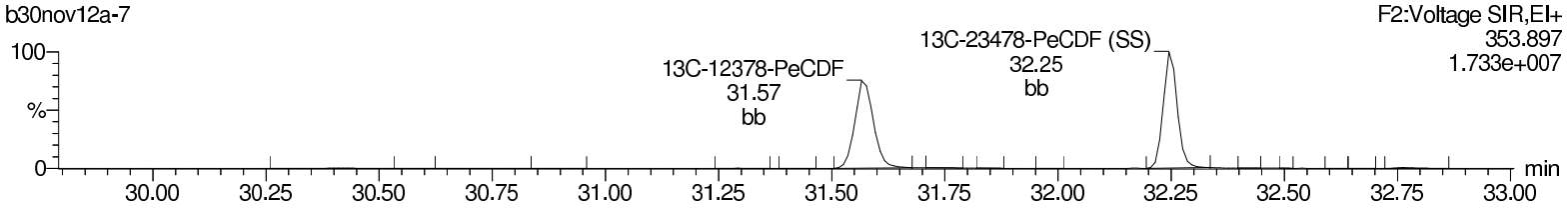
Total-pentafurans



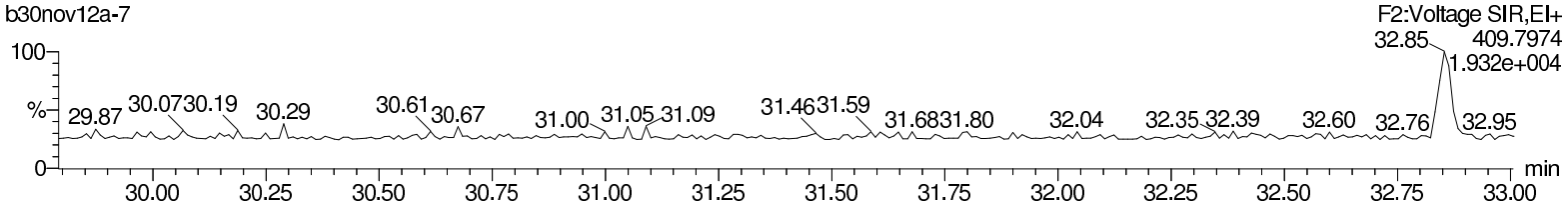
13C-12378-PeCDF



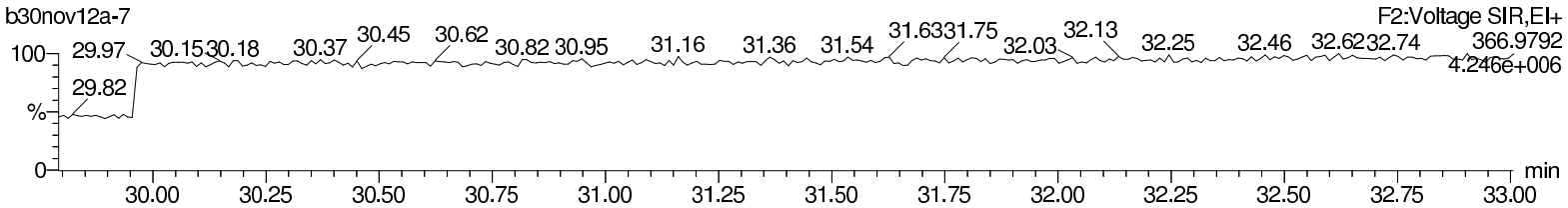
13C-12378-PeCDF



HpDPE



Lock Mass F2



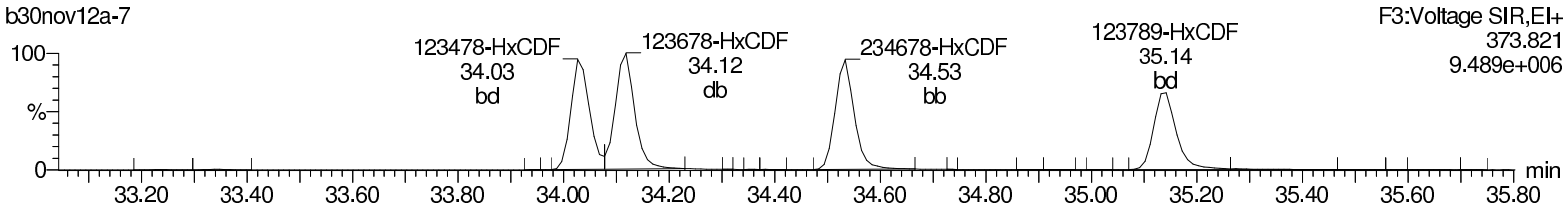
Quantify Sample Report **MassLynx 4.1**
Method 8290 ICAL Report

Dataset: C:\MassLynx\Default.pro\ICAL Results\8290-b30nov12a.qld

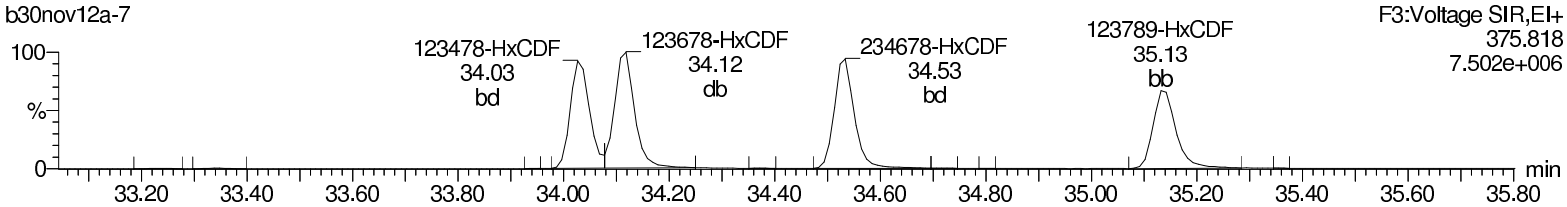
Last Altered: Monday, December 03, 2012 09:49:11 Eastern Standard Time
Printed: Monday, December 03, 2012 09:50:06 Eastern Standard Time

Name: b30nov12a-7, Date: 30-Nov-2012, Time: 14:52:45, ID: CS3 UD101022-04, Description: , Job: b30nov12a, Task: HRP763_1, User: MJC

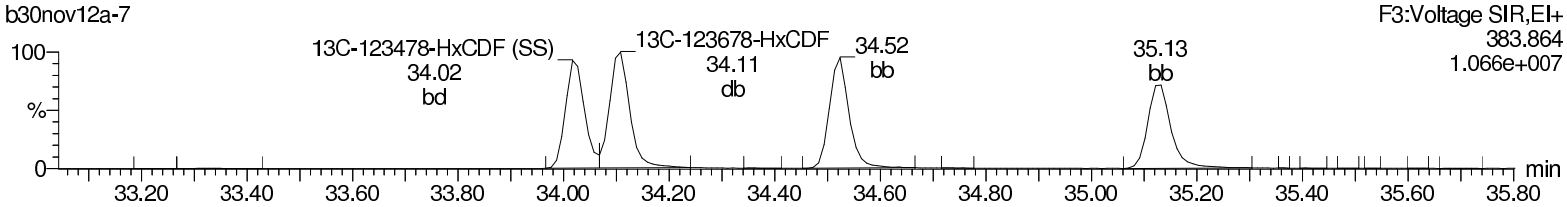
Total-hexafurans



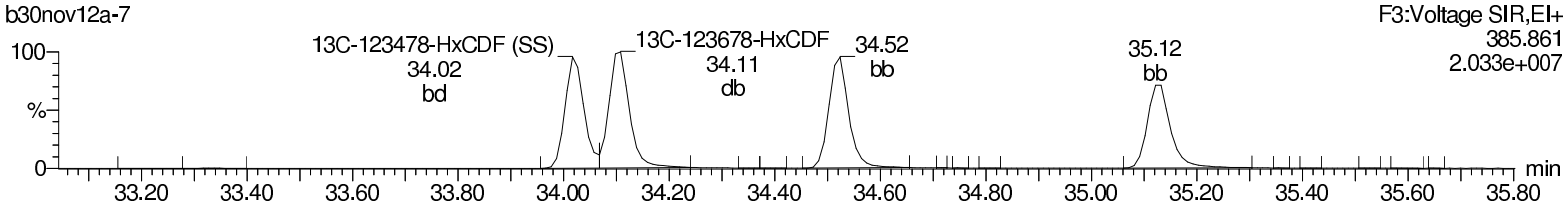
Total-hexafurans



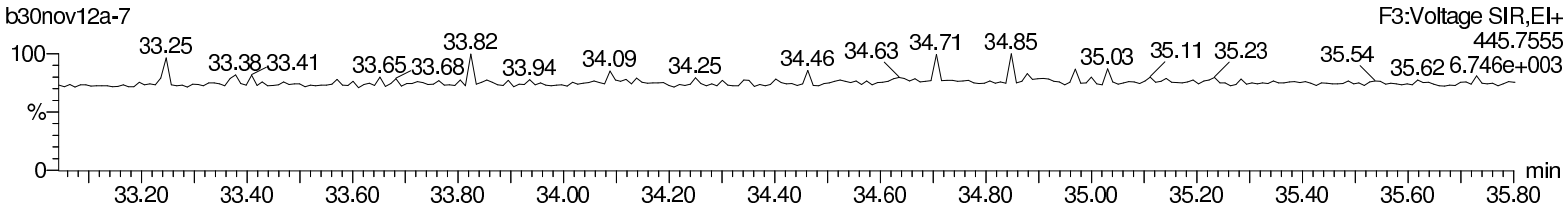
13C-123678-HxCDF



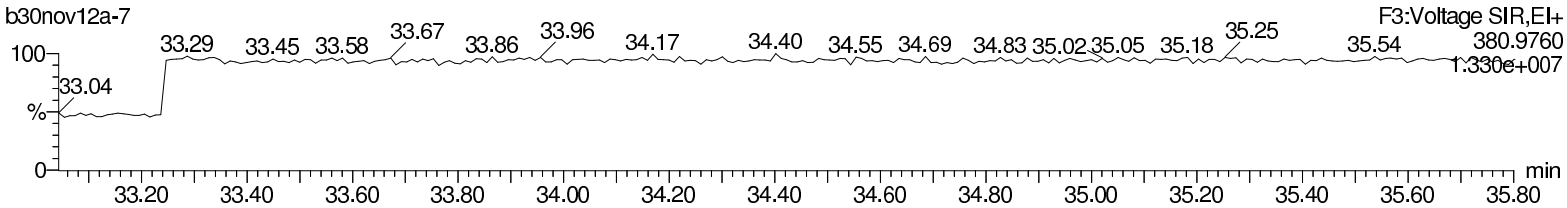
13C-123678-HxCDF



OcDPE



Lock Mass F3



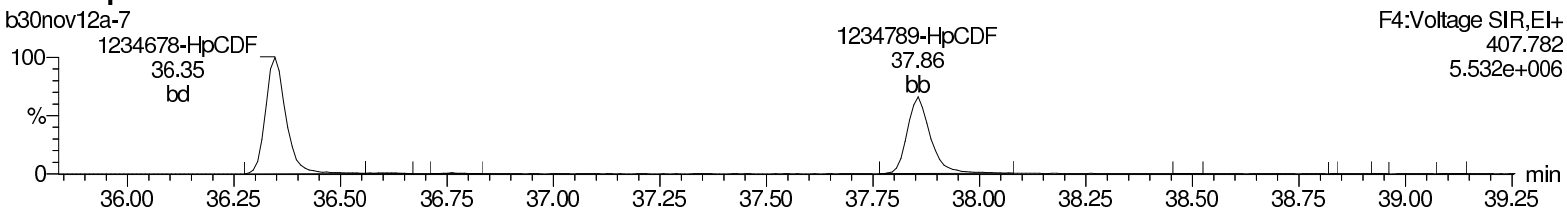
Quantify Sample Report **MassLynx 4.1**
Method 8290 ICAL Report

Dataset: C:\MassLynx\Default.pro\ICAL Results\8290-b30nov12a.qld

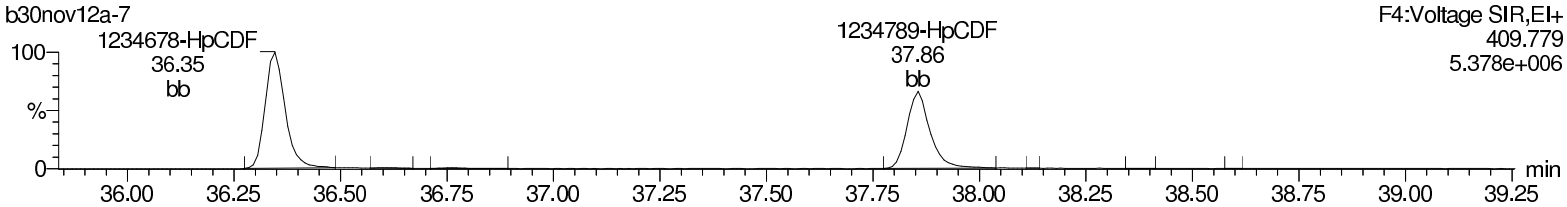
Last Altered: Monday, December 03, 2012 09:49:11 Eastern Standard Time
Printed: Monday, December 03, 2012 09:50:06 Eastern Standard Time

Name: b30nov12a-7, Date: 30-Nov-2012, Time: 14:52:45, ID: CS3 UD101022-04, Description: , Job: b30nov12a, Task: HRP763_1, User: MJC

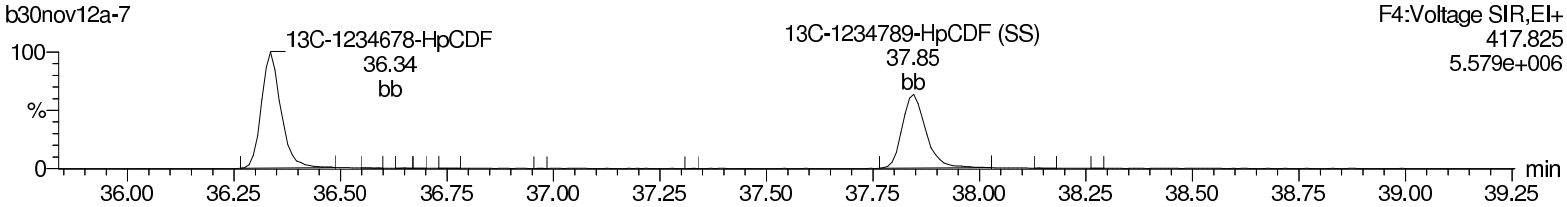
Total-heptafurans



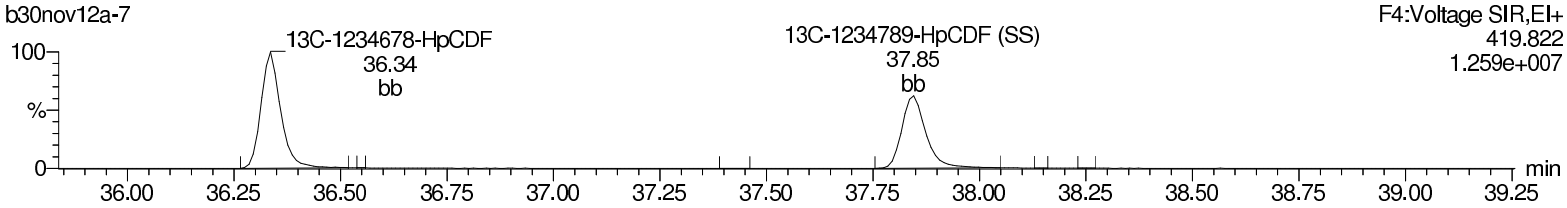
Total-heptafurans



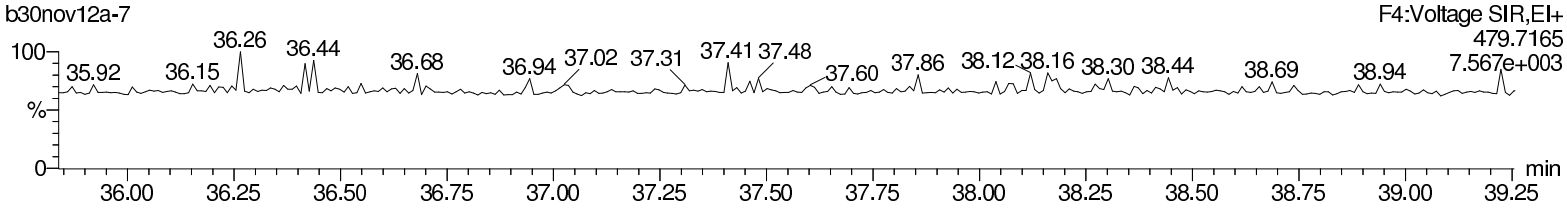
13C-1234678-HpCDF



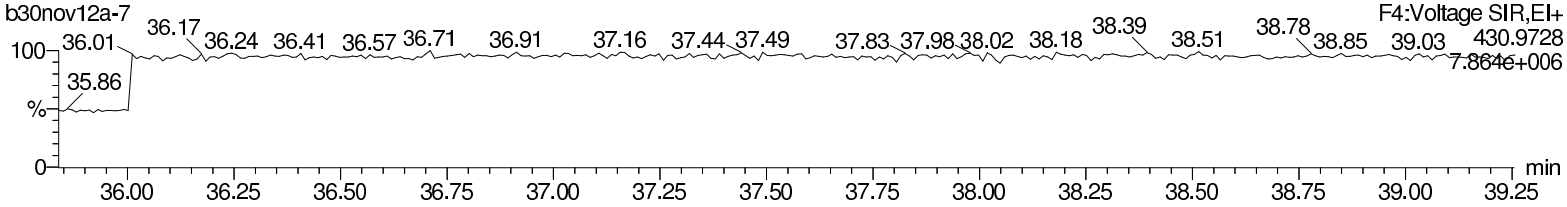
13C-1234678-HpCDF



NoDPE



Lock Mass F4



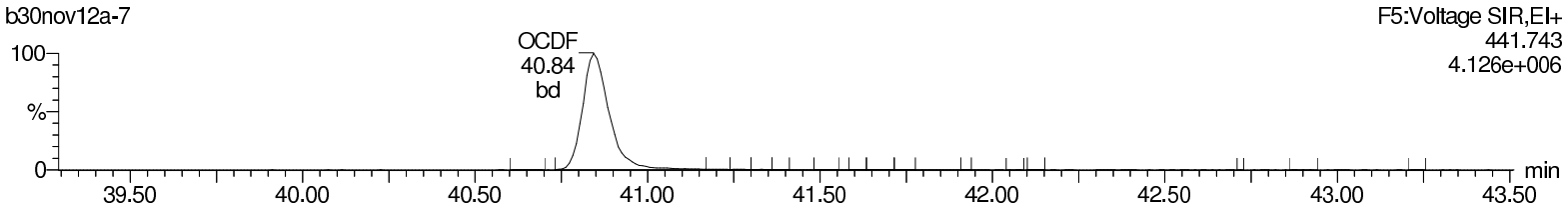
Quantify Sample Report **MassLynx 4.1**
Method 8290 ICAL Report

Dataset: C:\MassLynx\Default.pro\ICAL Results\8290-b30nov12a.qld

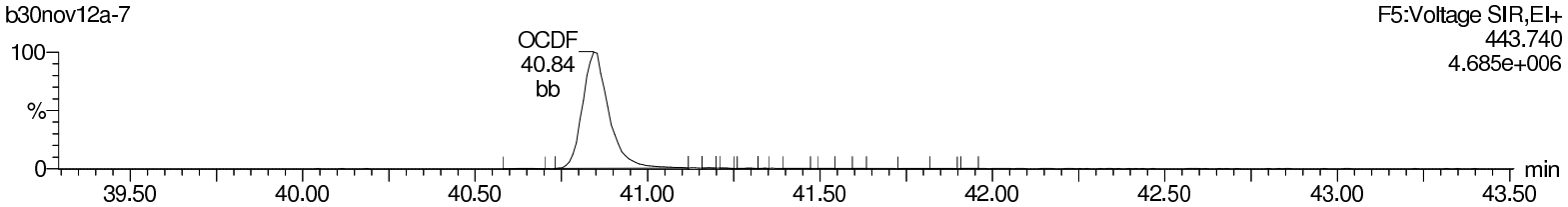
Last Altered: Monday, December 03, 2012 09:49:11 Eastern Standard Time
Printed: Monday, December 03, 2012 09:50:06 Eastern Standard Time

Name: b30nov12a-7, Date: 30-Nov-2012, Time: 14:52:45, ID: CS3 UD101022-04, Description: , Job: b30nov12a, Task: HRP763_1, User: MJC

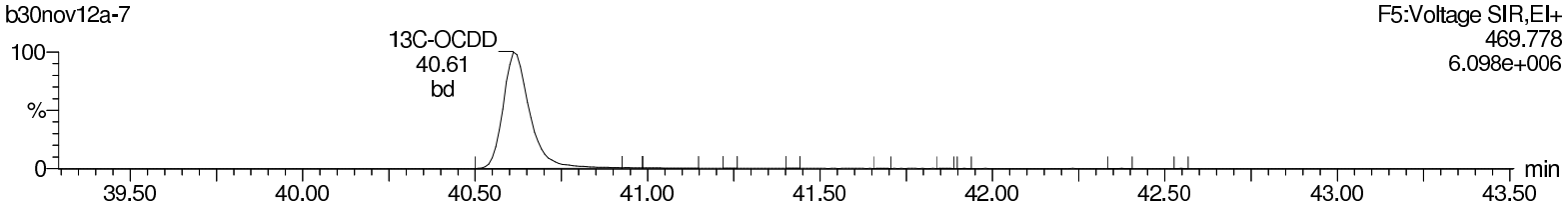
OCDF



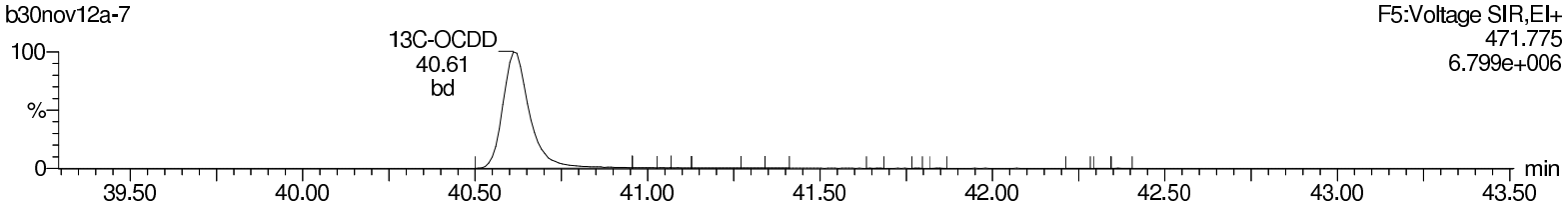
OCDF



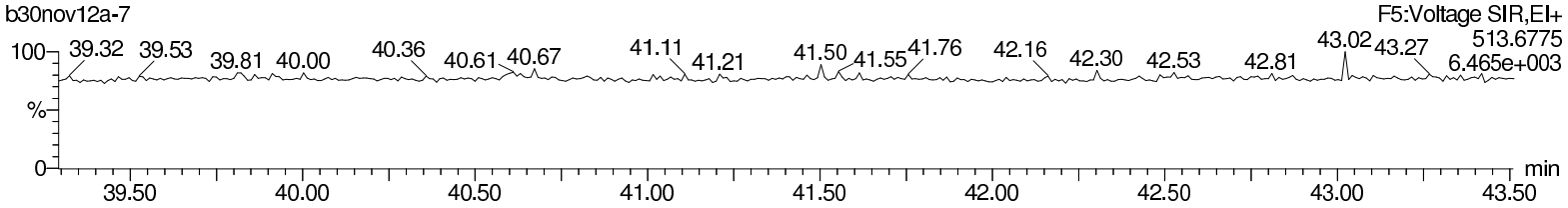
13C-OCDD



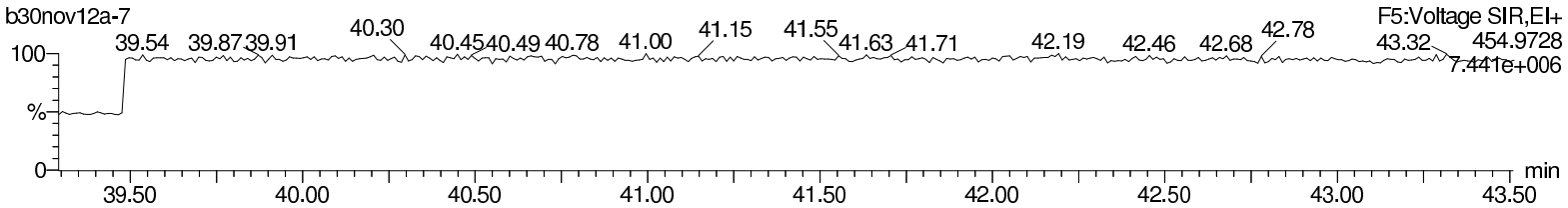
13C-OCDD



DeDPE



Lock Mass F5



Quantify Sample Summary Report **MassLynx 4.1**
Method 8290 ICAL Report

Dataset: C:\MassLynx\Default.pro\ICAL Results\8290-b30nov12a.qld

Last Altered: Monday, December 03, 2012 09:49:11 Eastern Standard Time
Printed: Monday, December 03, 2012 10:06:35 Eastern Standard Time

Name: b30nov12a-8, Date: 30-Nov-2012, Time: 15:38:12, ID: CS4 UD121129-07, Description: , Job: b30nov12a, Task: HRP763_1, User: MJC

	Name	Ion1Area	Ion2Area	Response	RT	RRT	RA	Fail?	pg/uL	RRF	Mean	RSD	EDL	Height1	Noise1	S/N1	Height2	Noise2	S/N2	M
1	2378-TCDD	2.10e5	2.72e5	4.83e5	27.47	1.00	0.77	NO	39.829	0.949	0.953	4.54	0.0379	2.52e6	1027	2455.0	3.24e6	1139	2847.2	bb
2	12378-PeCDD	1.33e6	8.21e5	2.15e6	32.43	1.00	1.61	NO	206.488	0.998	0.967	2.77	0.0509	3.80e7	3863	9839.0	2.30e7	2032	11332.6	bb
3	123478-HxCDD	1.18e6	9.28e5	2.11e6	34.65	1.00	1.27	NO	203.702	0.991	0.973	2.42	0.194	2.68e7	9181	2918.7	2.15e7	7829	2747.5	bd
4	123678-HxCDD	1.28e6	9.95e5	2.27e6	34.72	1.00	1.28	NO	197.749	1.068	1.080	1.81	0.175	2.72e7	9181	2966.3	2.14e7	7829	2727.5	db
5	123789-HxCDD	1.16e6	9.15e5	2.07e6	34.90	1.01	1.27	NO	196.830	0.974	0.989	3.56	0.191	2.49e7	9181	2713.7	1.94e7	7829	2479.1	bb
6	1234678-HpCDD	9.50e5	9.26e5	1.88e6	37.35	1.00	1.03	NO	204.143	1.159	1.135	3.61	0.254	1.56e7	8609	1809.8	1.49e7	6770	2199.0	bb
7	OCDD	1.52e6	1.68e6	3.20e6	40.63	1.00	0.91	NO	407.740	1.193	1.170	2.76	0.257	1.75e7	4837	3610.1	1.91e7	4521	4229.8	bb
8	2378-TCDF	3.39e5	4.41e5	7.80e5	26.57	1.00	0.77	NO	41.732	1.074	1.029	3.86	0.0504	4.27e6	2259	1888.2	5.43e6	2332	2329.6	bb
9	12378-PeCDF	2.03e6	1.34e6	3.37e6	31.58	1.00	1.52	NO	207.007	0.976	0.943	3.68	0.0868	4.36e7	4960	8791.9	2.84e7	6589	4313.8	bb
10	23478-PeCDF	2.11e6	1.38e6	3.49e6	32.26	1.02	1.53	NO	206.333	1.010	0.979	3.10	0.0836	5.93e7	4960	11961.8	3.82e7	6589	5804.0	bb
11	123478-HxCDF	1.59e6	1.30e6	2.88e6	34.03	1.00	1.22	NO	200.741	0.914	0.910	3.13	0.218	4.00e7	13875	2885.5	3.22e7	13705	2350.4	dd
12	123678-HxCDF	1.84e6	1.51e6	3.35e6	34.11	1.00	1.22	NO	204.051	1.060	1.039	2.03	0.191	4.19e7	13875	3019.8	3.45e7	13705	2515.8	db
13	234678-HxCDF	1.70e6	1.35e6	3.05e6	34.53	1.01	1.26	NO	201.724	0.968	0.960	2.69	0.207	3.77e7	13875	2715.6	3.06e7	13705	2229.8	bd
14	123789-HxCDF	1.43e6	1.16e6	2.60e6	35.13	1.03	1.23	NO	203.137	0.823	0.810	1.61	0.246	2.96e7	13875	2134.5	2.40e7	13705	1750.3	bb
15	1234678-HpCDF	1.37e6	1.35e6	2.73e6	36.35	1.00	1.02	NO	205.404	1.259	1.226	3.04	0.201	2.55e7	9148	2782.6	2.48e7	10096	2456.5	bb
16	1234789-HpCDF	1.09e6	1.08e6	2.17e6	37.86	1.04	1.01	NO	213.364	1.004	0.941	4.69	0.262	1.71e7	9148	1868.4	1.66e7	10096	1647.9	bb
17	OCDF	1.81e6	1.98e6	3.79e6	40.84	1.01	0.91	NO	416.710	1.414	1.358	6.36	0.217	2.10e7	3833	5486.5	2.35e7	5338	4395.1	bd
18	13C-2378-TCDD	5.56e5	7.16e5	1.27e6	27.44	1.03	0.78	NO	100.621	0.995	0.989	3.07	0.0869	6.55e6	3342	1961.1	8.51e6	2032	4190.2	bb
19	13C-12378-PeCDD	6.50e5	4.25e5	1.08e6	32.42	1.21	1.53	NO	103.131	0.842	0.816	7.13	0.121	1.81e7	4003	4524.3	1.17e7	2171	5410.8	bb
20	13C-123678-HxCDD	5.90e5	4.74e5	1.06e6	34.70	0.99	1.24	NO	103.843	1.155	1.112	2.71	0.0945	1.25e7	4034	3099.2	1.00e7	4364	2300.4	db
21	13C-1234678-HpCDD	4.21e5	3.89e5	8.09e5	37.34	1.07	1.08	NO	105.072	0.878	0.836	3.49	0.148	6.94e6	4836	1435.5	6.30e6	5077	1240.5	bb
22	13C-OCDD	6.35e5	7.05e5	1.34e6	40.62	1.16	0.90	NO	212.587	0.727	0.684	3.84	0.106	7.38e6	3129	2360.3	8.28e6	2642	3134.9	bb
23	13C-2378-TCDF	8.08e5	1.01e6	1.82e6	26.54	0.99	0.80	NO	96.925	1.421	1.466	2.55	0.0466	9.86e6	2359	4180.8	1.22e7	1913	6357.8	bb
24	13C-12378-PeCDF	1.06e6	6.62e5	1.73e6	31.57	1.18	1.61	NO	102.349	1.352	1.321	6.36	0.194	2.17e7	7880	2758.6	1.35e7	8154	1660.2	bb
25	13C-123678-HxCDF	5.45e5	1.03e6	1.58e6	34.10	0.98	0.53	NO	104.204	1.711	1.642	2.73	0.131	1.20e7	9813	1221.5	2.34e7	7329	3198.2	db
26	13C-1234678-HpCDF	3.36e5	7.46e5	1.08e6	36.34	1.04	0.45	NO	104.241	1.175	1.127	2.55	0.0961	6.06e6	3291	1841.0	1.35e7	5364	2519.9	bb
27	13C-1234-TCDD	5.61e5	7.17e5	1.28e6	26.72	0.00	0.78	NO	100.000	1.000	1.000	0.00	0.0859	6.86e6	3342	2053.8	8.67e6	2032	4267.6	bb
28	13C-123789-HxCDD	5.06e5	4.16e5	9.22e5	34.89	0.00	1.22	NO	100.000	1.000	1.000	0.00	0.105	1.10e7	4034	2719.0	8.85e6	4364	2028.5	bb
29	37Cl-2378-TCDD (SS)	5.74e5		5.74e5	27.47	1.00			40.883	1.129	1.105	4.13	0.0353	7.05e6	2341	3013.2				bb
30	13C-23478-PeCDF (SS)	1.07e6	6.64e5	1.73e6	32.25	1.02	1.61	NO	99.935	1.002	1.002	0.82	0.113	2.97e7	7880	3765.9	1.86e7	8154	2285.6	db
31	13C-123478-HxCDF (SS)	4.46e5	8.70e5	1.32e6	34.02	1.00	0.51	NO	97.760	0.835	0.854	1.80	0.145	1.11e7	9813	1127.6	2.16e7	7329	2950.2	bd
32	13C-123478-HxCDD (SS)	5.01e5	4.01e5	9.02e5	34.64	1.00	1.25	NO	99.674	0.848	0.851	3.12	0.109	1.14e7	4034	2819.4	9.22e6	4364	2112.2	bd
33	13C-1234789-HpCDF (SS)	2.64e5	5.86e5	8.49e5	37.85	1.04	0.45	NO	100.667	0.785	0.780	1.37	0.142	4.07e6	3291	1237.2	9.13e6	5364	1702.6	bd

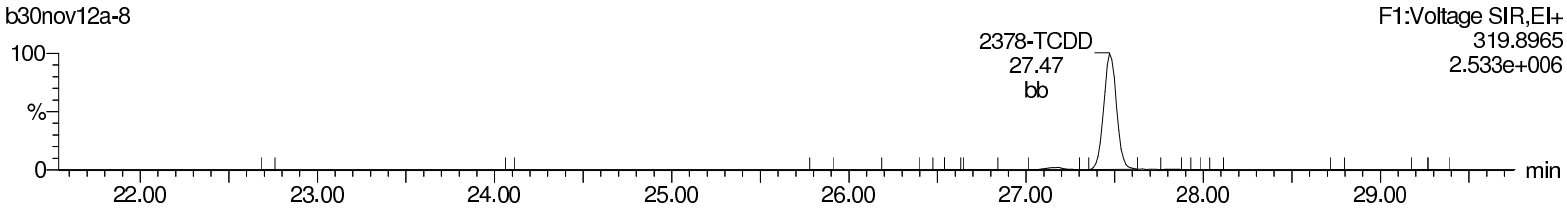
Quantify Sample Report **MassLynx 4.1**
Method 8290 ICAL Report

Dataset: C:\MassLynx\Default.pro\ICAL Results\8290-b30nov12a.qld

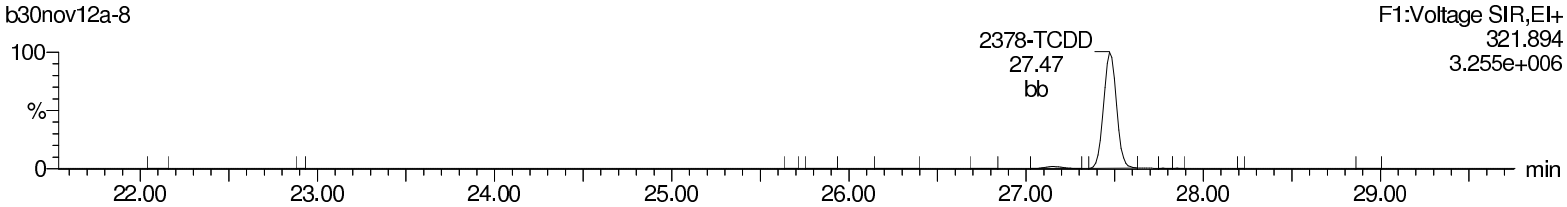
Last Altered: Monday, December 03, 2012 09:49:11 Eastern Standard Time
Printed: Monday, December 03, 2012 09:50:06 Eastern Standard Time

Name: b30nov12a-8, Date: 30-Nov-2012, Time: 15:38:12, ID: CS4 UD121129-07, Description: , Job: b30nov12a, Task: HRP763_1, User: MJC

Total-tetradioxins



Total-tetradioxins



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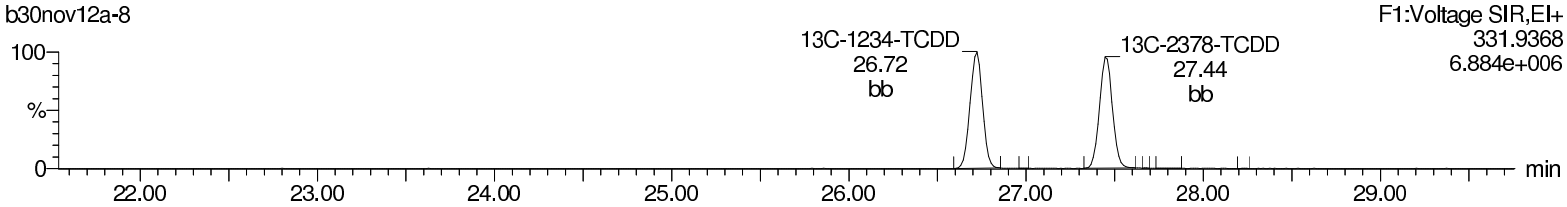

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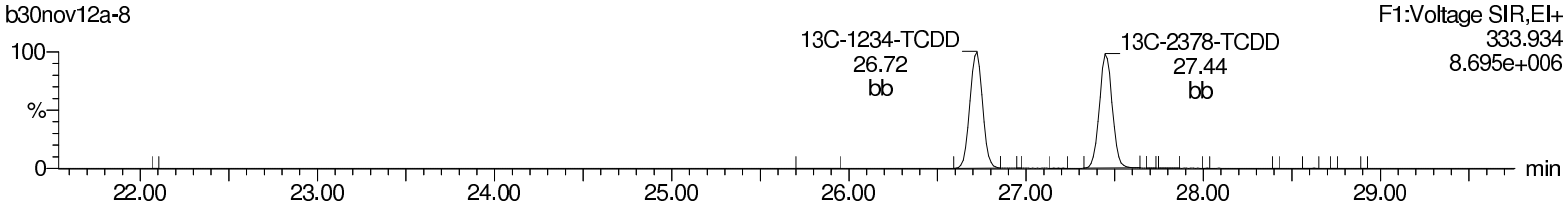
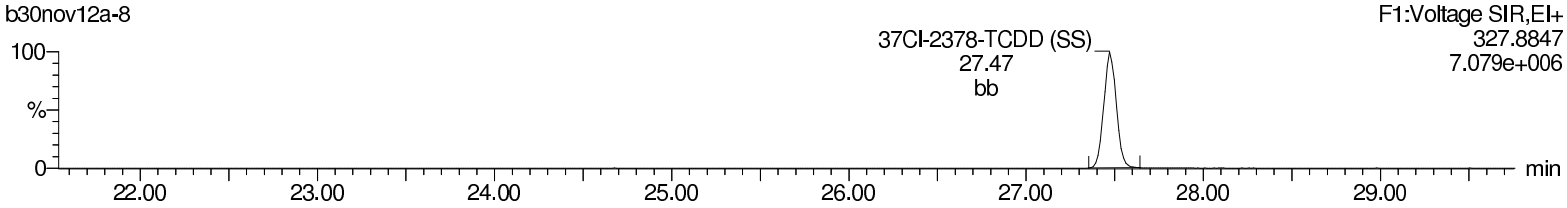
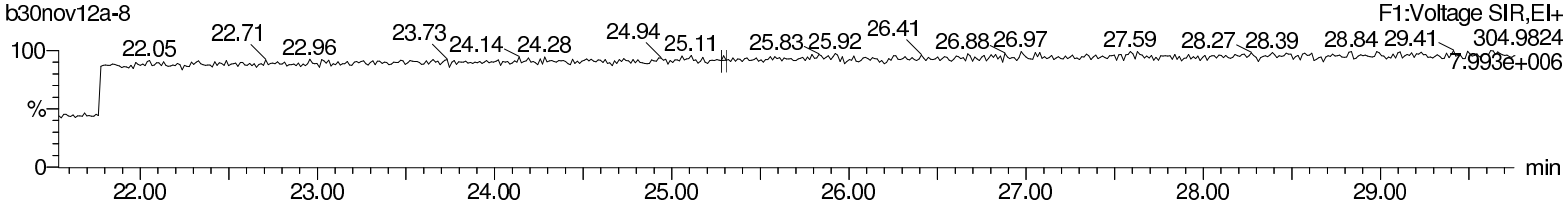


37Cl-2378-TCDD (SS)



Lock Mass F1



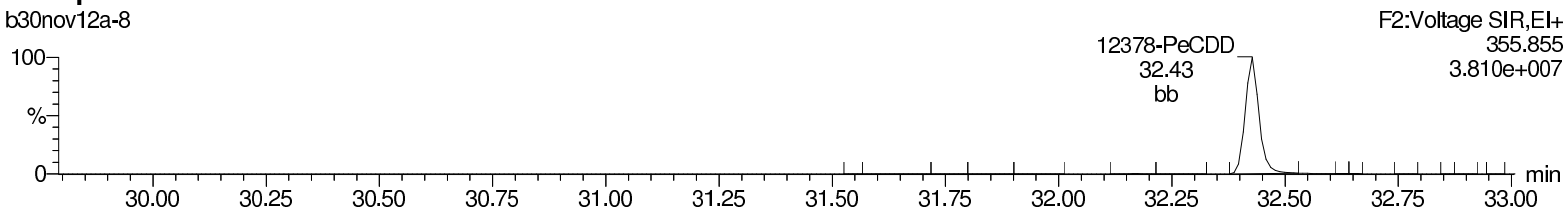
Quantify Sample Report **MassLynx 4.1**
Method 8290 ICAL Report

Dataset: C:\MassLynx\Default.pro\ICAL Results\8290-b30nov12a.qld

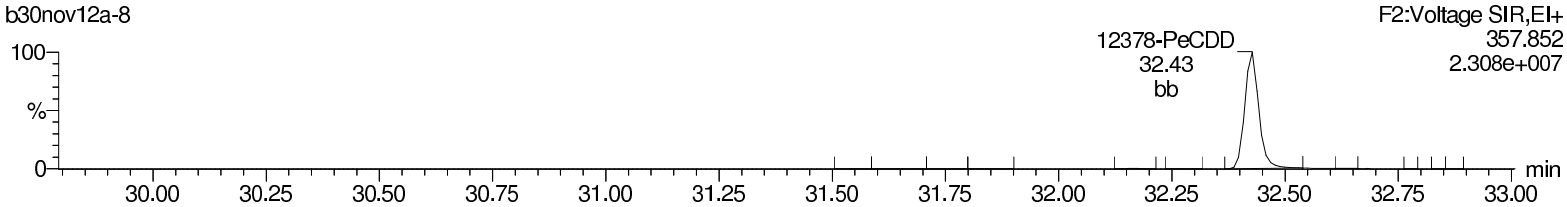
Last Altered: Monday, December 03, 2012 09:49:11 Eastern Standard Time
Printed: Monday, December 03, 2012 09:50:06 Eastern Standard Time

Name: b30nov12a-8, Date: 30-Nov-2012, Time: 15:38:12, ID: CS4 UD121129-07, Description: , Job: b30nov12a, Task: HRP763_1, User: MJC

Total-pentadioxins



Total-pentadioxins



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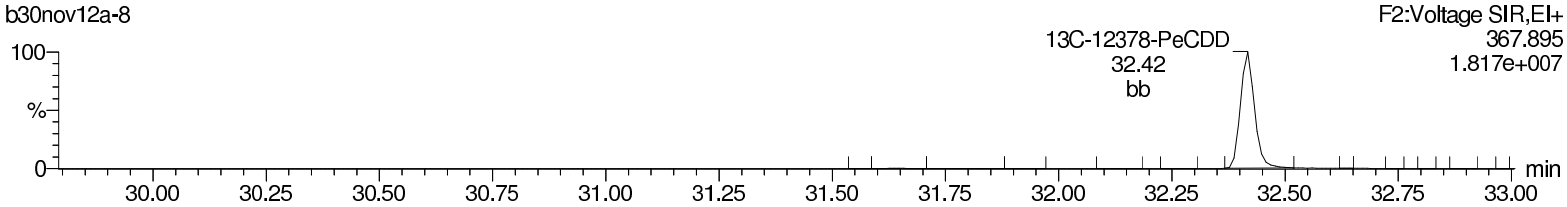

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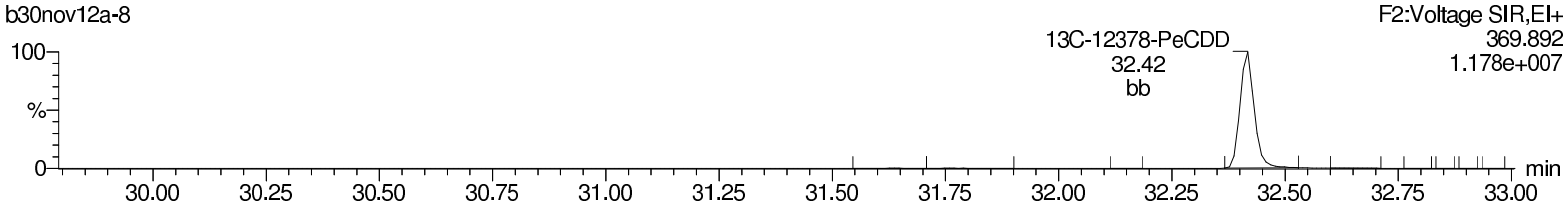

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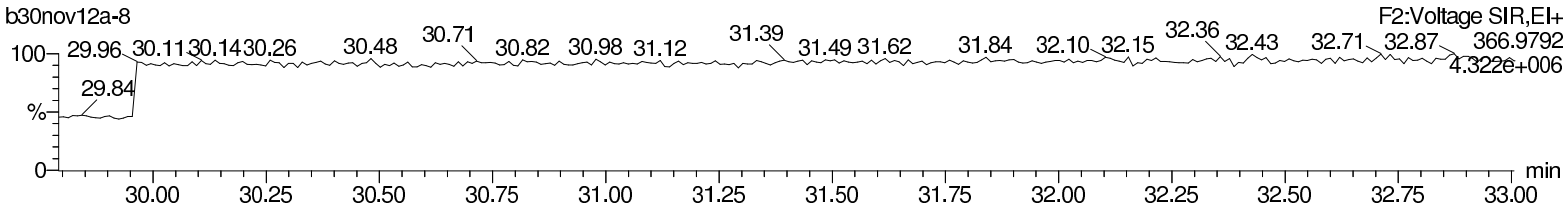


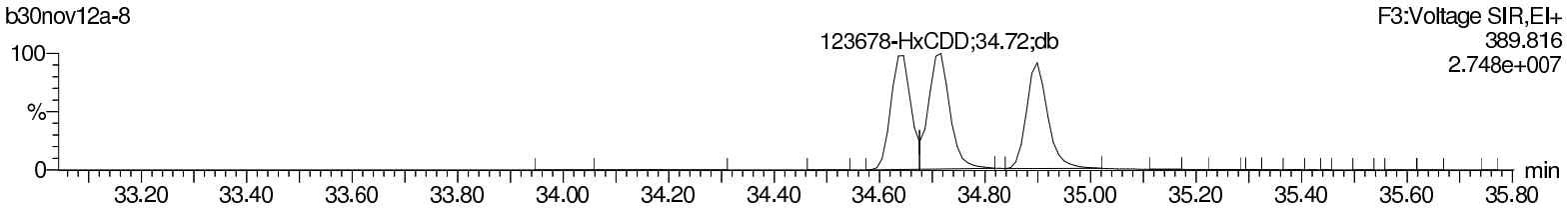
Quantify Sample Report **MassLynx 4.1**
Method 8290 ICAL Report

Dataset: C:\MassLynx\Default.pro\ICAL Results\8290-b30nov12a.qld

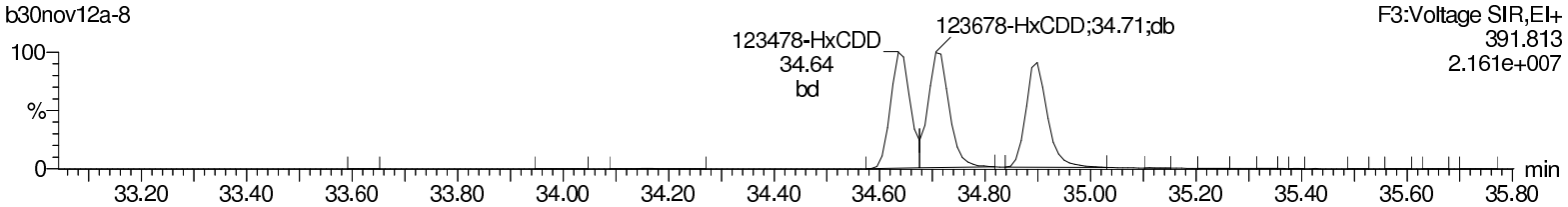
Last Altered: Monday, December 03, 2012 09:49:11 Eastern Standard Time
Printed: Monday, December 03, 2012 09:50:06 Eastern Standard Time

Name: b30nov12a-8, Date: 30-Nov-2012, Time: 15:38:12, ID: CS4 UD121129-07, Description: , Job: b30nov12a, Task: HRP763_1, User: MJC

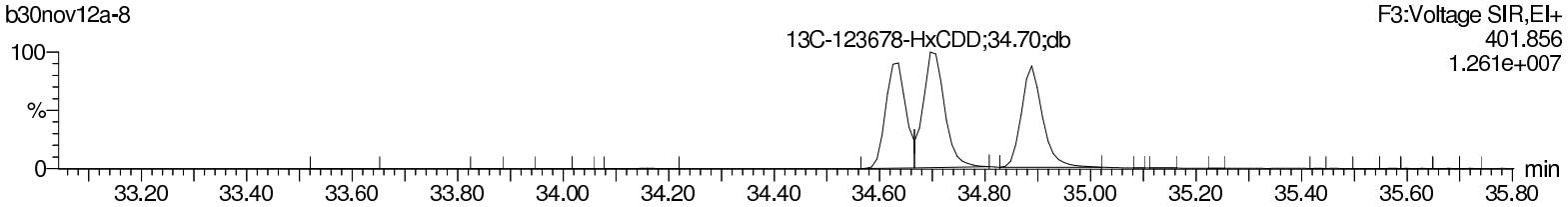
Total-hexadioxins



Total-hexadioxins



13C-123678-HxCDD



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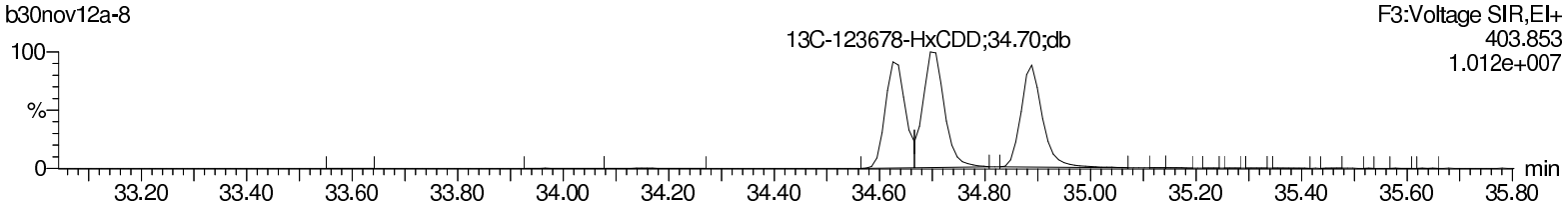
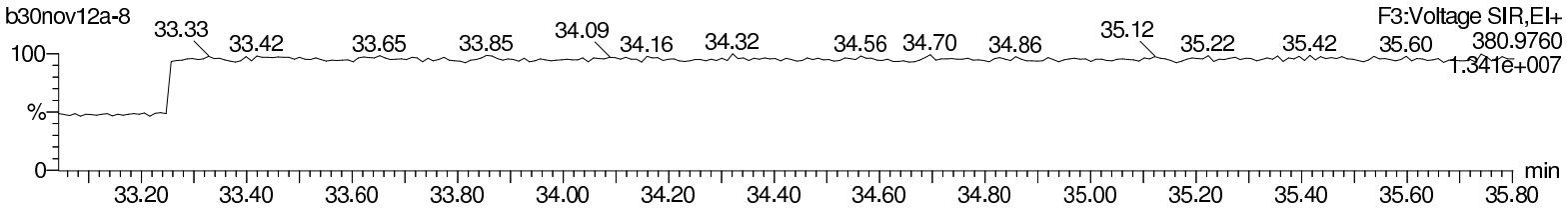


Lock Mass F3



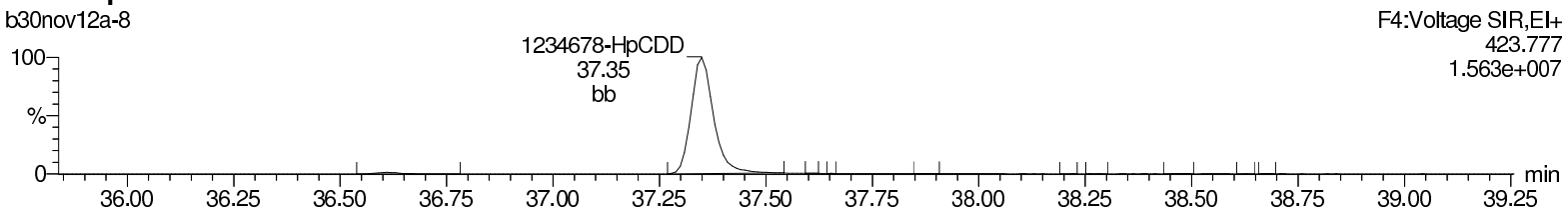
Quantify Sample Report **MassLynx 4.1**
Method 8290 ICAL Report

Dataset: C:\MassLynx\Default.pro\ICAL Results\8290-b30nov12a.qld

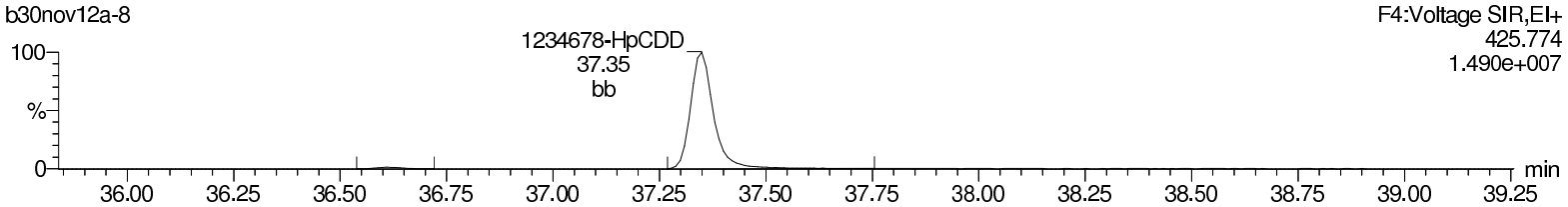
Last Altered: Monday, December 03, 2012 09:49:11 Eastern Standard Time
Printed: Monday, December 03, 2012 09:50:06 Eastern Standard Time

Name: b30nov12a-8, Date: 30-Nov-2012, Time: 15:38:12, ID: CS4 UD121129-07, Description: , Job: b30nov12a, Task: HRP763_1, User: MJC

Total-heptadioxins



Total-heptadioxins



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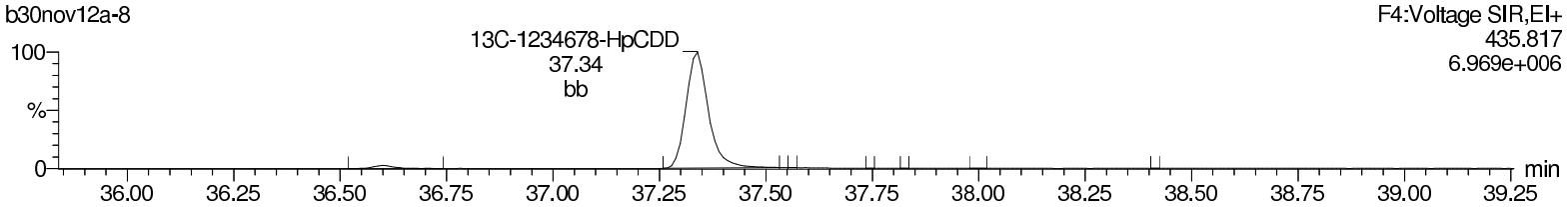

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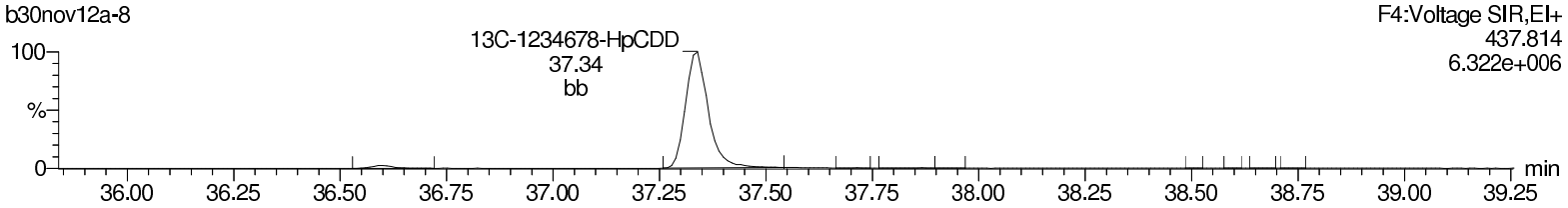
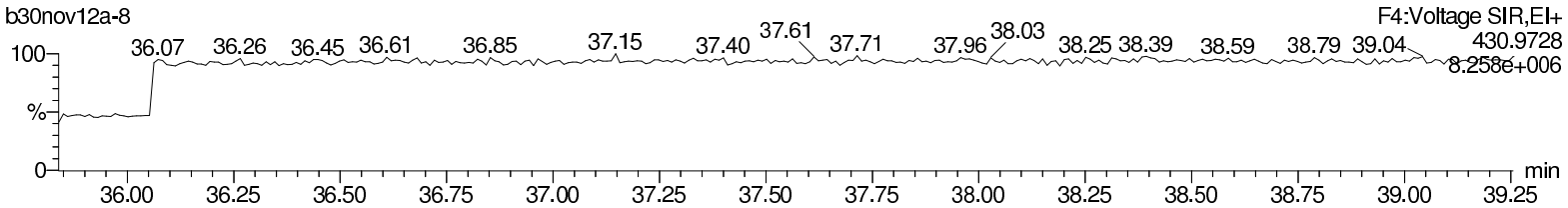


Lock Mass F4



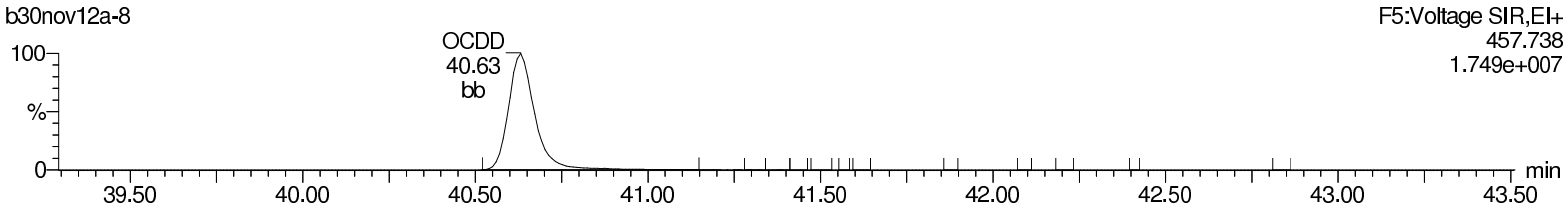
Quantify Sample Report **MassLynx 4.1**
Method 8290 ICAL Report

Dataset: C:\MassLynx\Default.pro\ICAL Results\8290-b30nov12a.qld

Last Altered: Monday, December 03, 2012 09:49:11 Eastern Standard Time
Printed: Monday, December 03, 2012 09:50:06 Eastern Standard Time

Name: b30nov12a-8, Date: 30-Nov-2012, Time: 15:38:12, ID: CS4 UD121129-07, Description: , Job: b30nov12a, Task: HRP763_1, User: MJC

OCDD



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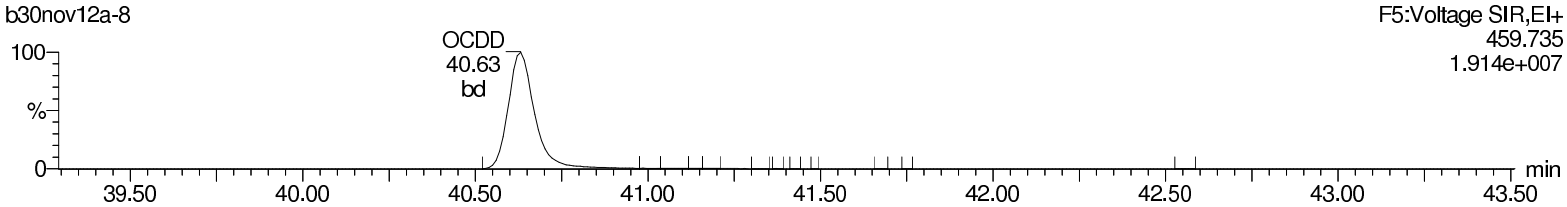
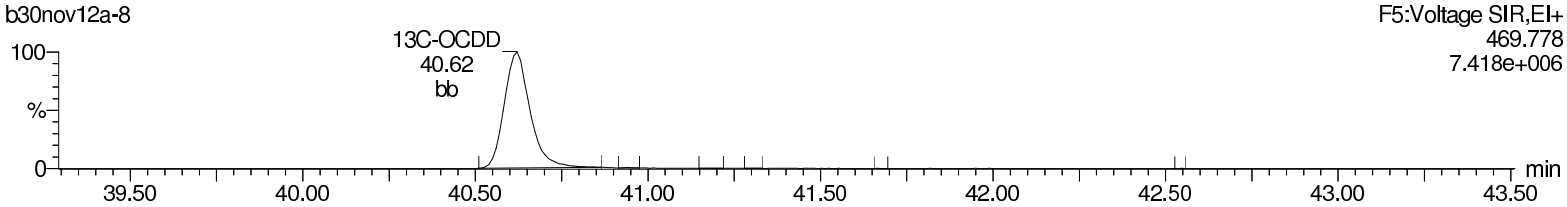


13C-OCDD



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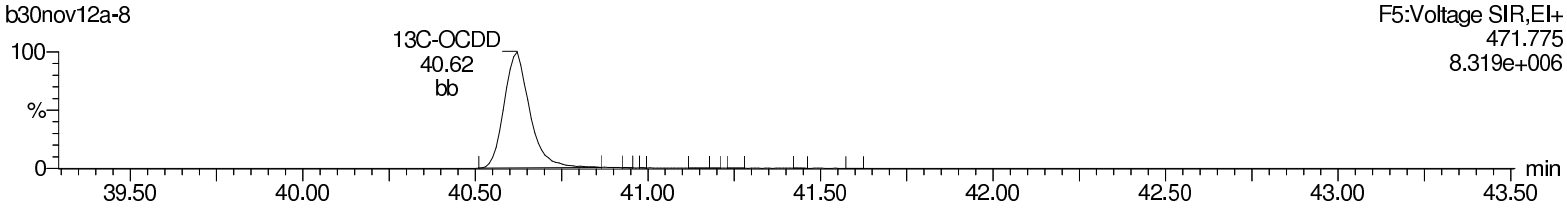
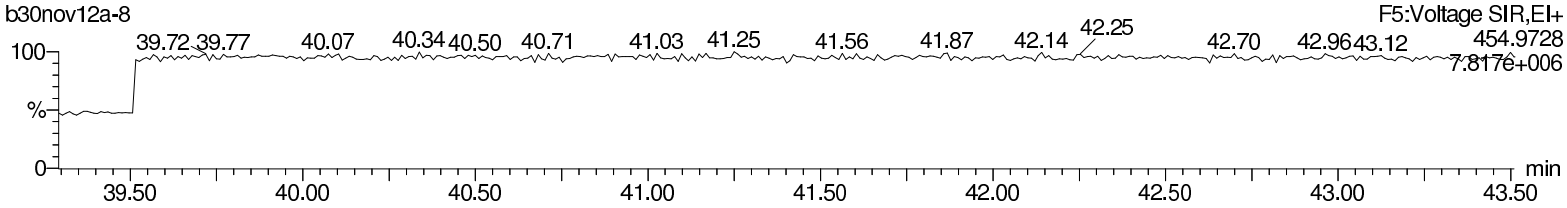


Lock Mass F5



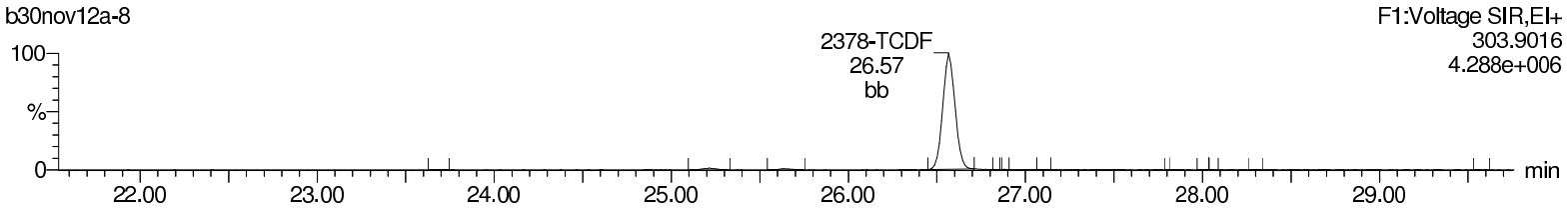
Quantify Sample Report **MassLynx 4.1**
Method 8290 ICAL Report

Dataset: C:\MassLynx\Default.pro\ICAL Results\8290-b30nov12a.qld

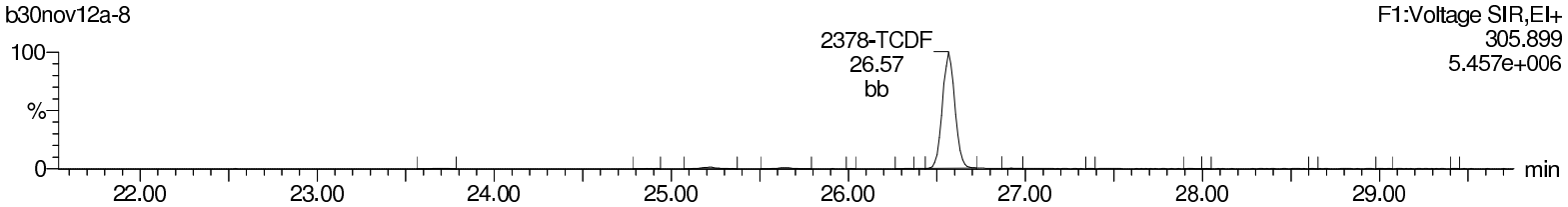
Last Altered: Monday, December 03, 2012 09:49:11 Eastern Standard Time
Printed: Monday, December 03, 2012 09:50:06 Eastern Standard Time

Name: b30nov12a-8, Date: 30-Nov-2012, Time: 15:38:12, ID: CS4 UD121129-07, Description: , Job: b30nov12a, Task: HRP763_1, User: MJC

Total-tetrafurans



Total-tetrafurans



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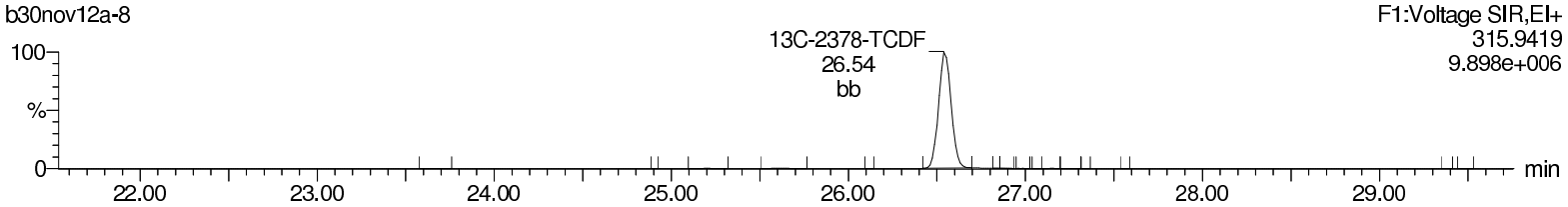

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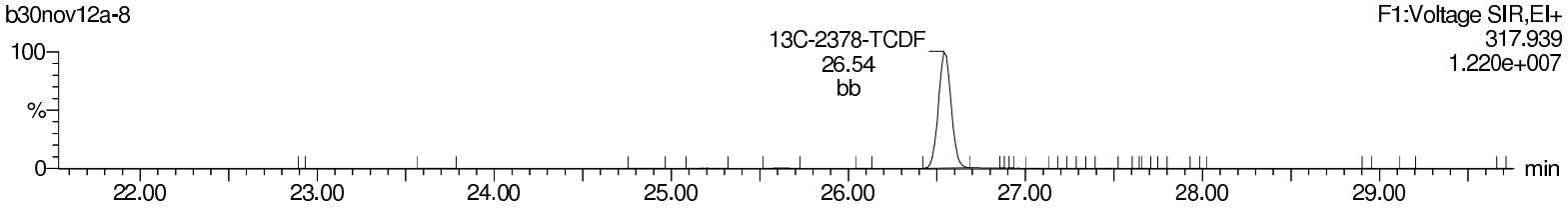
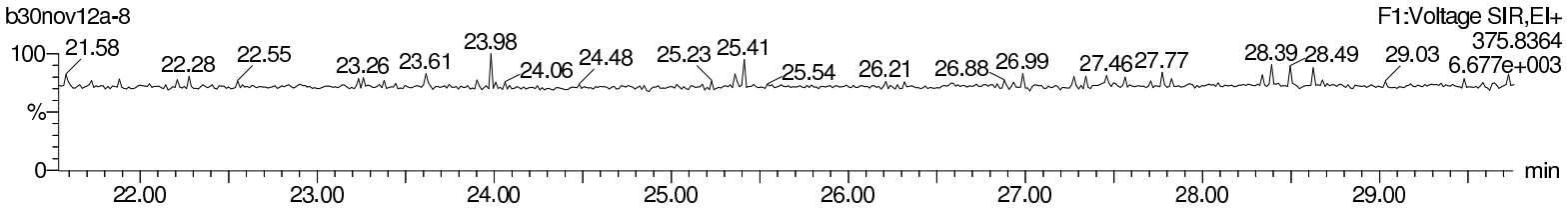
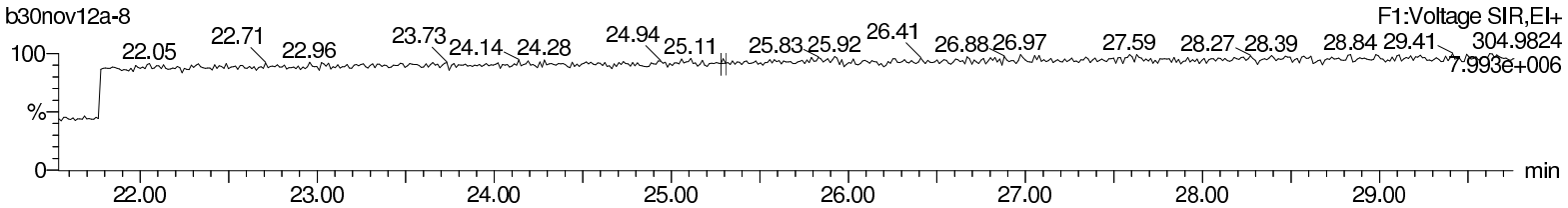


HxDPE



Lock Mass F1



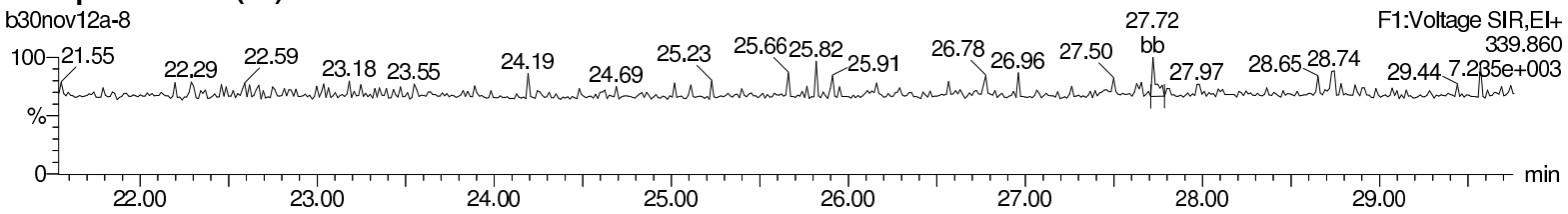
Quantify Sample Report **MassLynx 4.1**
Method 8290 ICAL Report

Dataset: C:\MassLynx\Default.pro\ICAL Results\8290-b30nov12a.qld

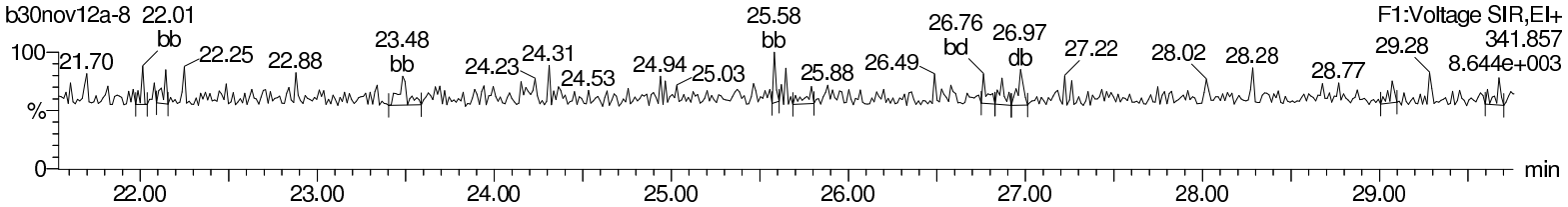
Last Altered: Monday, December 03, 2012 09:49:11 Eastern Standard Time
Printed: Monday, December 03, 2012 09:50:06 Eastern Standard Time

Name: b30nov12a-8, Date: 30-Nov-2012, Time: 15:38:12, ID: CS4 UD121129-07, Description: , Job: b30nov12a, Task: HRP763_1, User: MJC

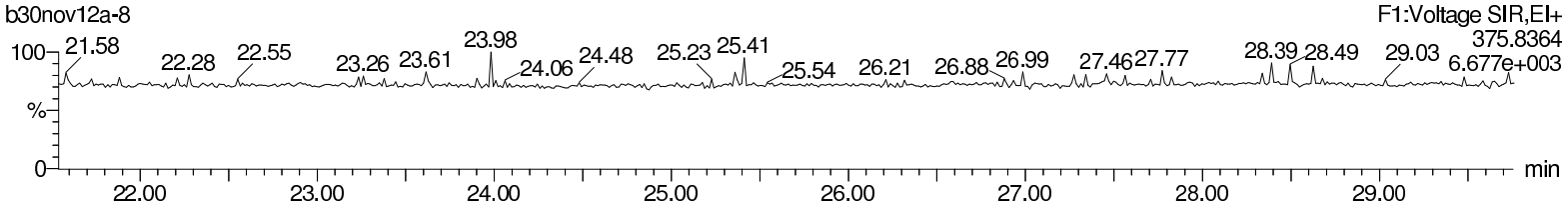
Total-pentafurans (F1)



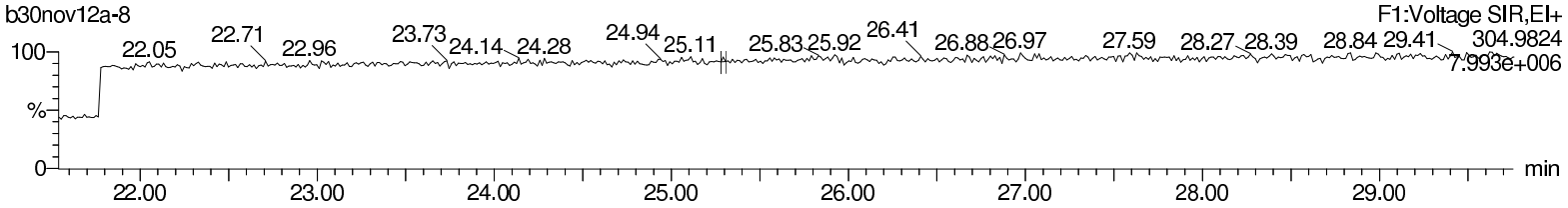
Total-pentafurans (F1)



HxDPE



Lock Mass F1



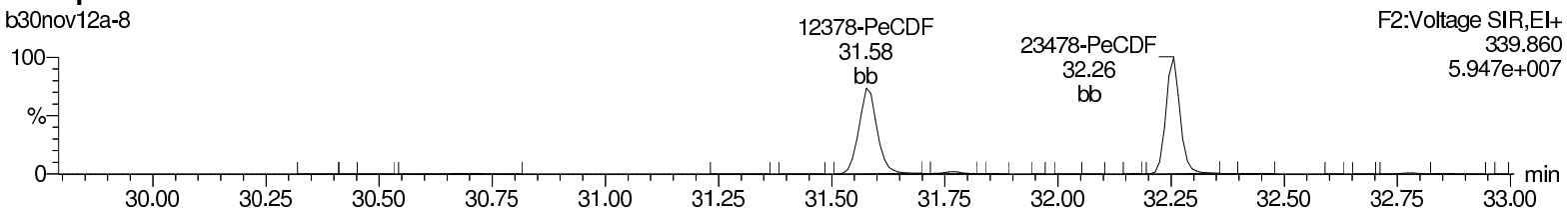
Quantify Sample Report **MassLynx 4.1**
Method 8290 ICAL Report

Dataset: C:\MassLynx\Default.pro\ICAL Results\8290-b30nov12a.qld

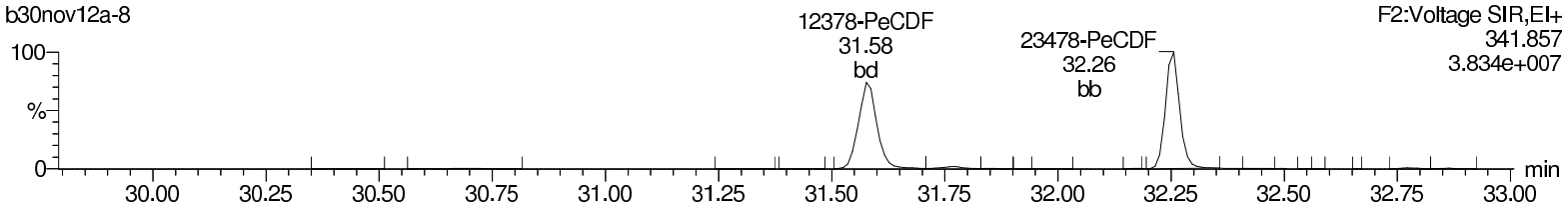
Last Altered: Monday, December 03, 2012 09:49:11 Eastern Standard Time
Printed: Monday, December 03, 2012 09:50:06 Eastern Standard Time

Name: b30nov12a-8, Date: 30-Nov-2012, Time: 15:38:12, ID: CS4 UD121129-07, Description: , Job: b30nov12a, Task: HRP763_1, User: MJC

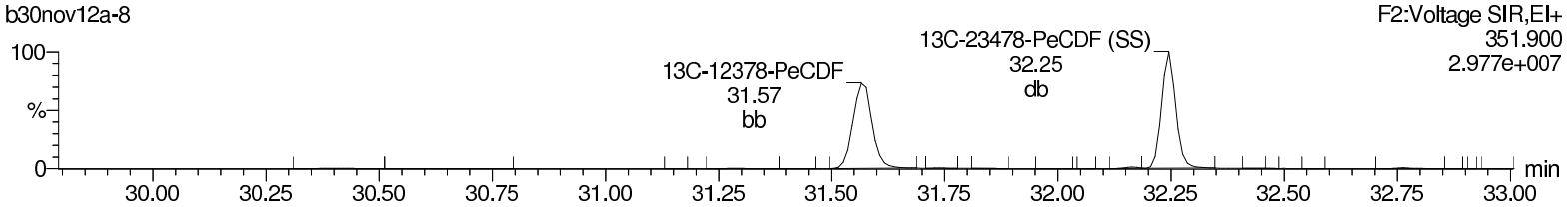
Total-pentafurans



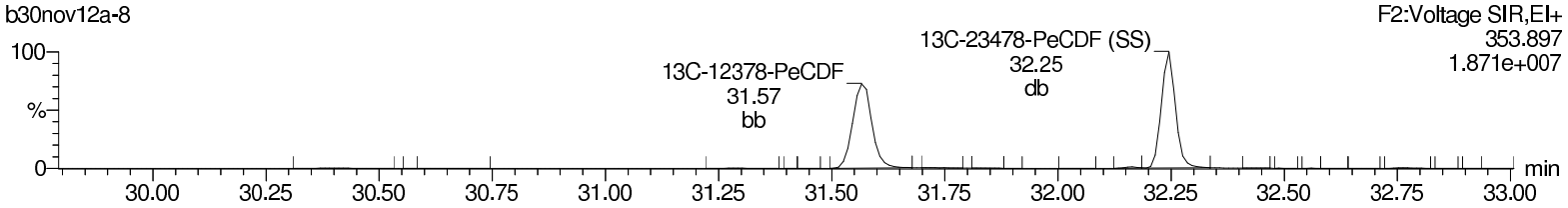
Total-pentafurans



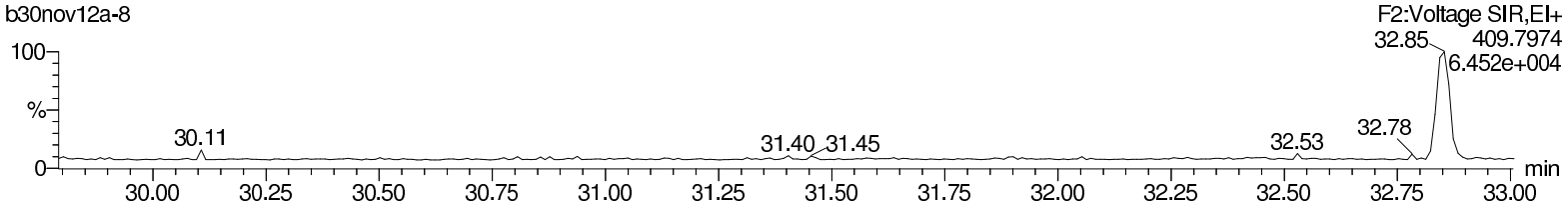
13C-12378-PeCDF



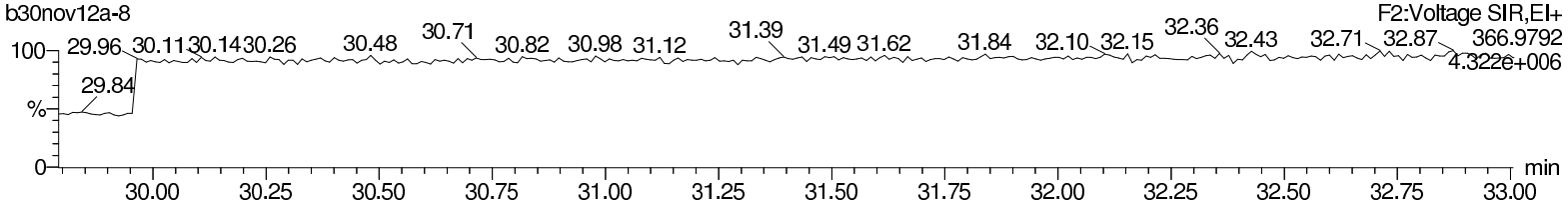
13C-12378-PeCDF



HpDPE



Lock Mass F2



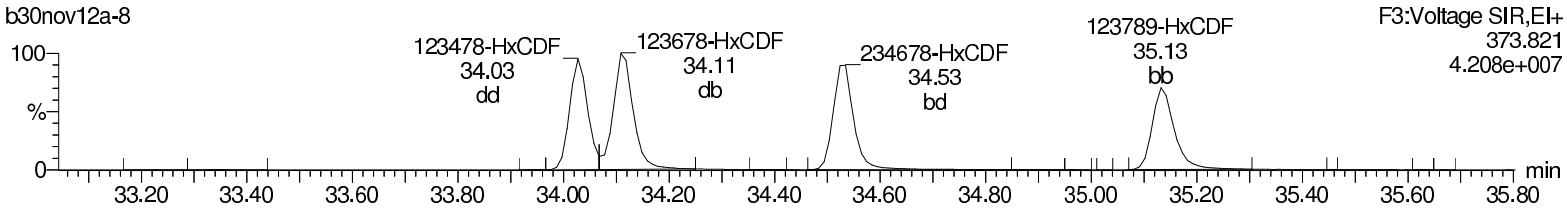
Quantify Sample Report **MassLynx 4.1**
Method 8290 ICAL Report

Dataset: C:\MassLynx\Default.pro\ICAL Results\8290-b30nov12a.qld

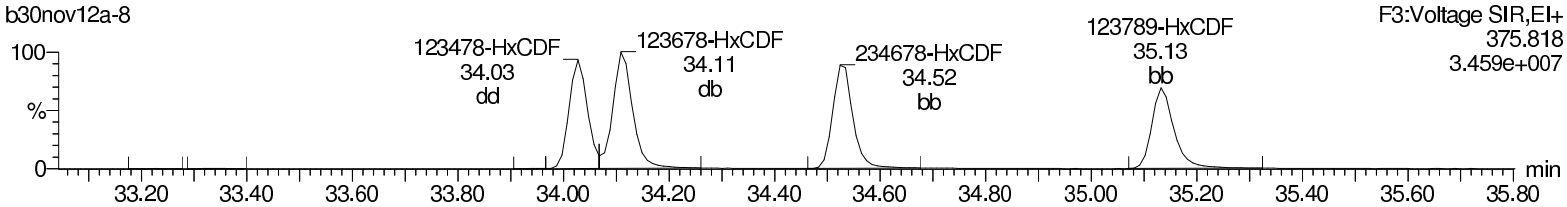
Last Altered: Monday, December 03, 2012 09:49:11 Eastern Standard Time
Printed: Monday, December 03, 2012 09:50:06 Eastern Standard Time

Name: b30nov12a-8, Date: 30-Nov-2012, Time: 15:38:12, ID: CS4 UD121129-07, Description: , Job: b30nov12a, Task: HRP763_1, User: MJC

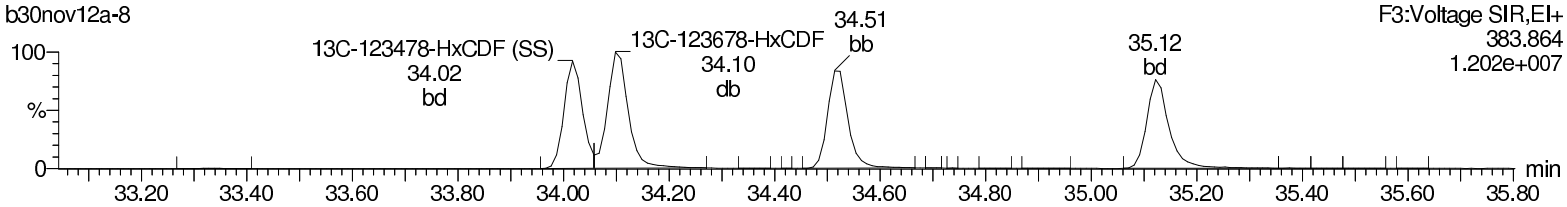
Total-hexafurans



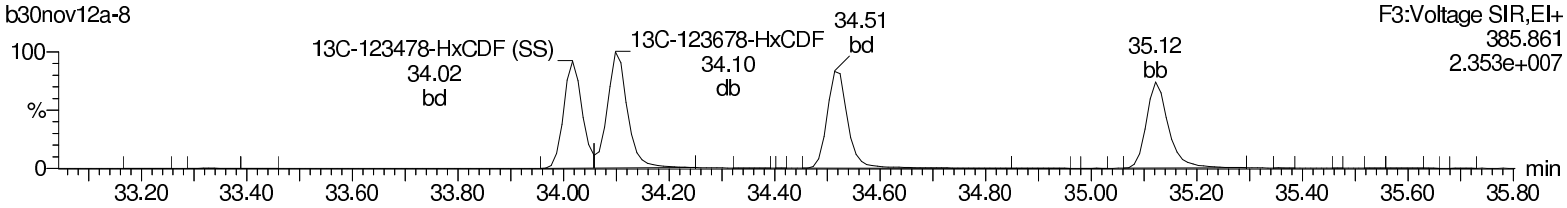
Total-hexafurans



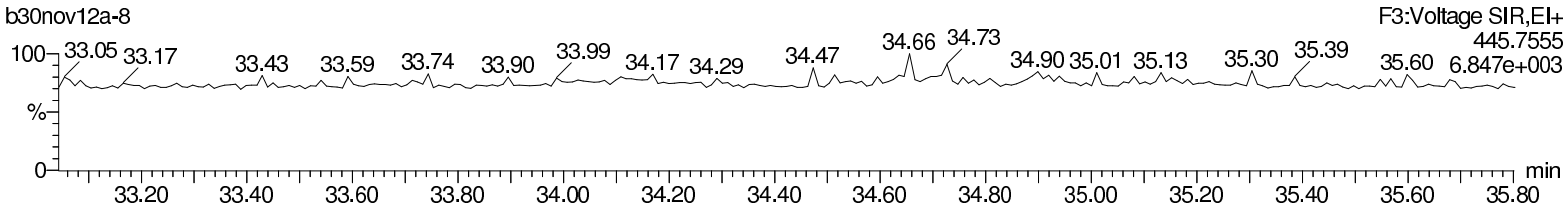
13C-123678-HxCDF



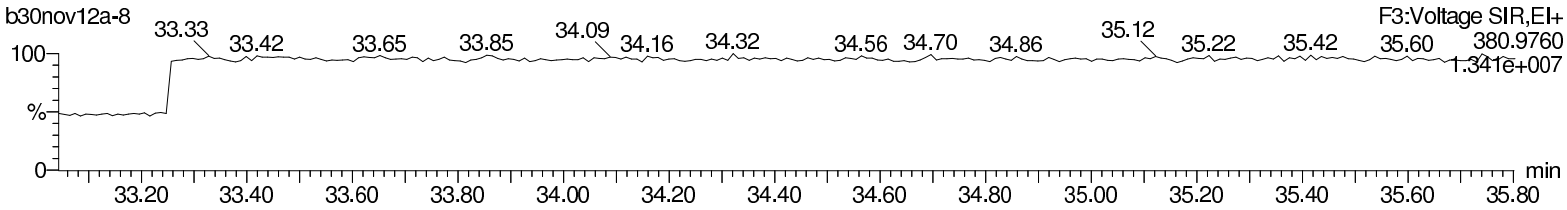
13C-123678-HxCDF



OcDPE



Lock Mass F3



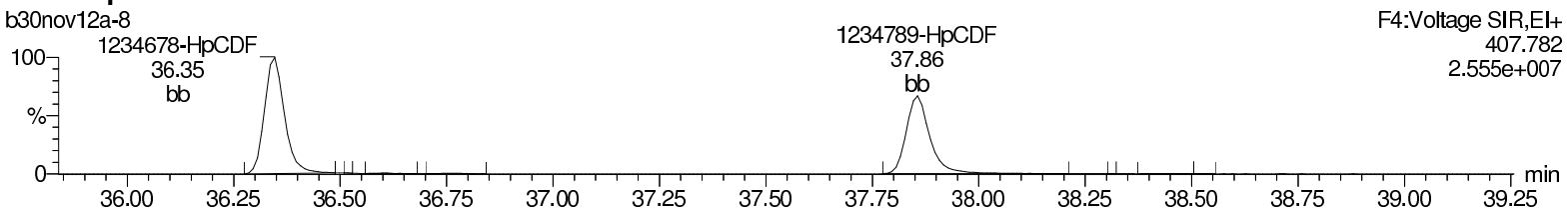
Quantify Sample Report **MassLynx 4.1**
Method 8290 ICAL Report

Dataset: C:\MassLynx\Default.pro\ICAL Results\8290-b30nov12a.qld

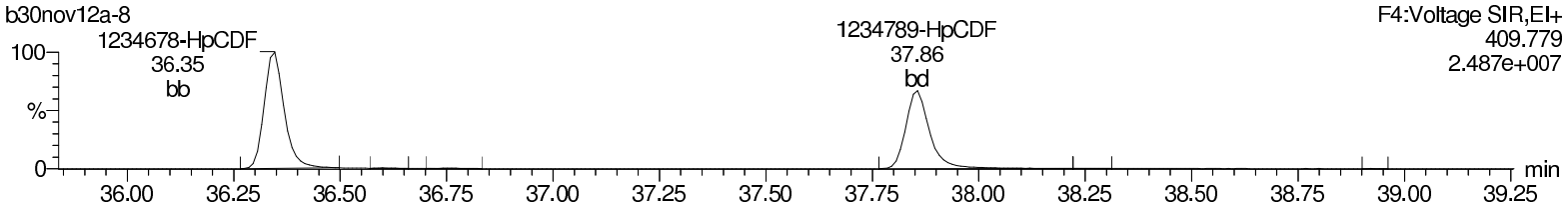
Last Altered: Monday, December 03, 2012 09:49:11 Eastern Standard Time
Printed: Monday, December 03, 2012 09:50:06 Eastern Standard Time

Name: b30nov12a-8, Date: 30-Nov-2012, Time: 15:38:12, ID: CS4 UD121129-07, Description: , Job: b30nov12a, Task: HRP763_1, User: MJC

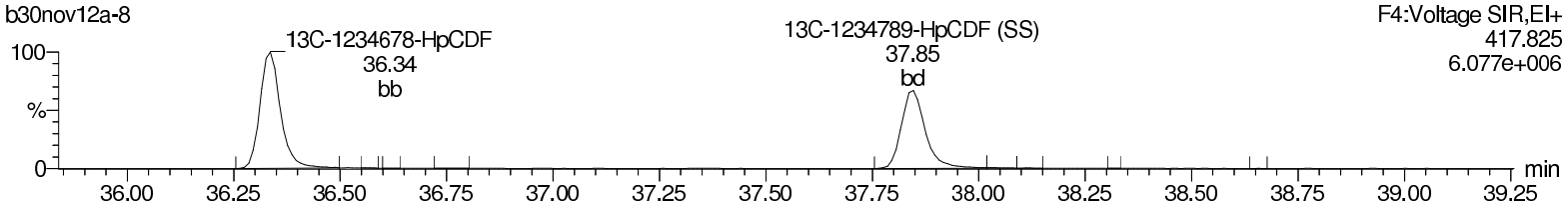
Total-heptafurans



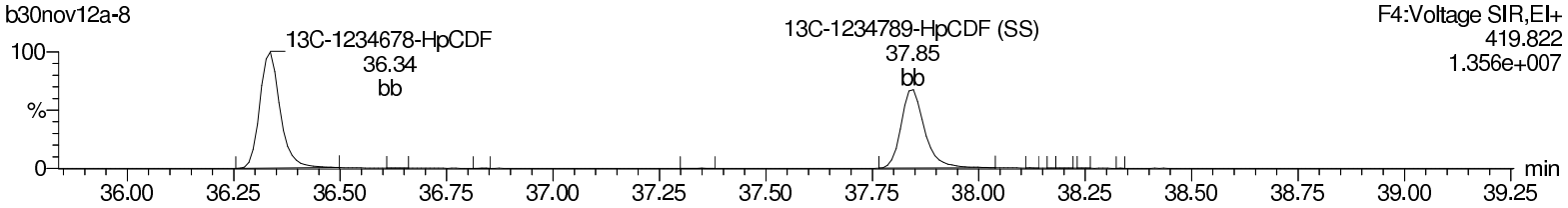
Total-heptafurans



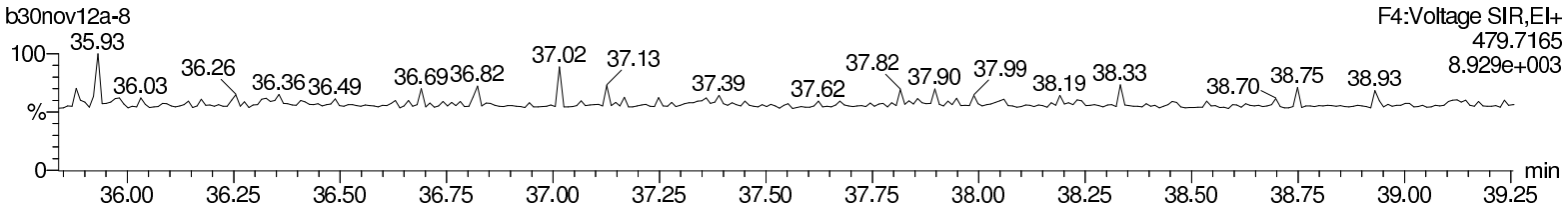
13C-1234678-HpCDF



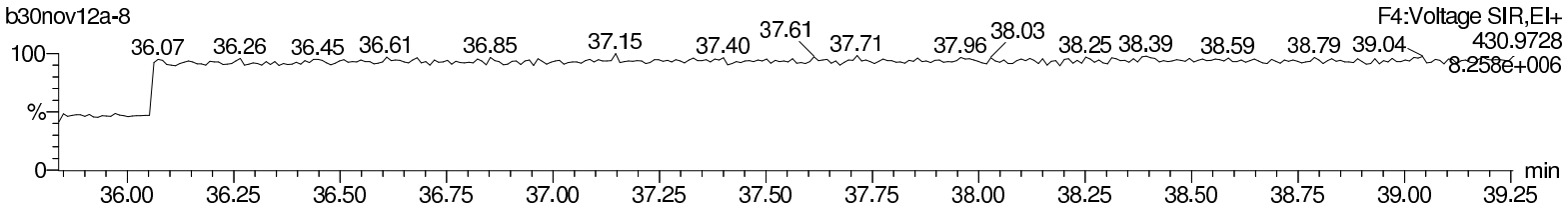
13C-1234678-HpCDF



NoDPE



Lock Mass F4



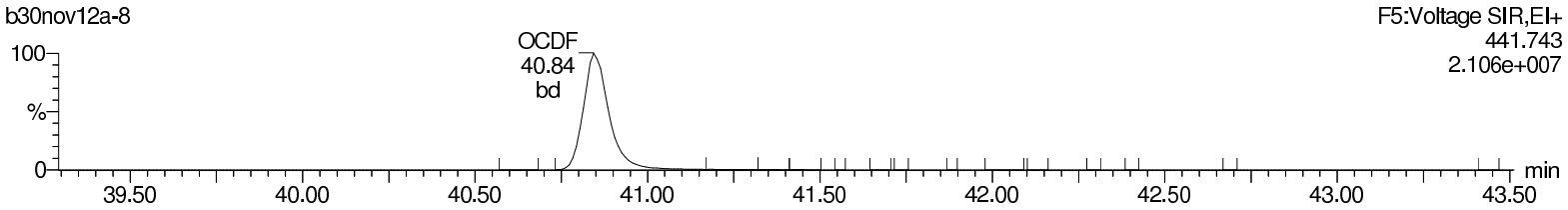
Quantify Sample Report **MassLynx 4.1**
Method 8290 ICAL Report

Dataset: C:\MassLynx\Default.pro\ICAL Results\8290-b30nov12a.qld

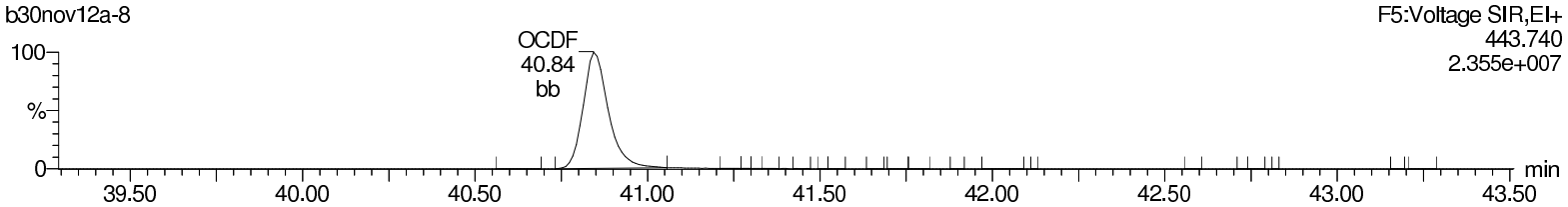
Last Altered: Monday, December 03, 2012 09:49:11 Eastern Standard Time
Printed: Monday, December 03, 2012 09:50:06 Eastern Standard Time

Name: b30nov12a-8, Date: 30-Nov-2012, Time: 15:38:12, ID: CS4 UD121129-07, Description: , Job: b30nov12a, Task: HRP763_1, User: MJC

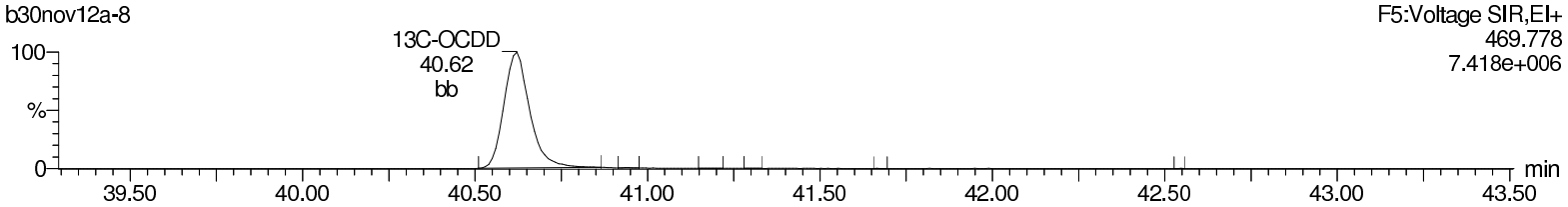
OCDF



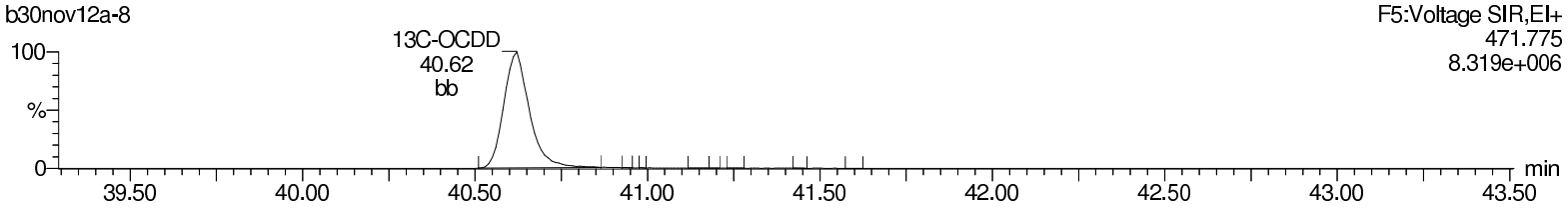
OCDF



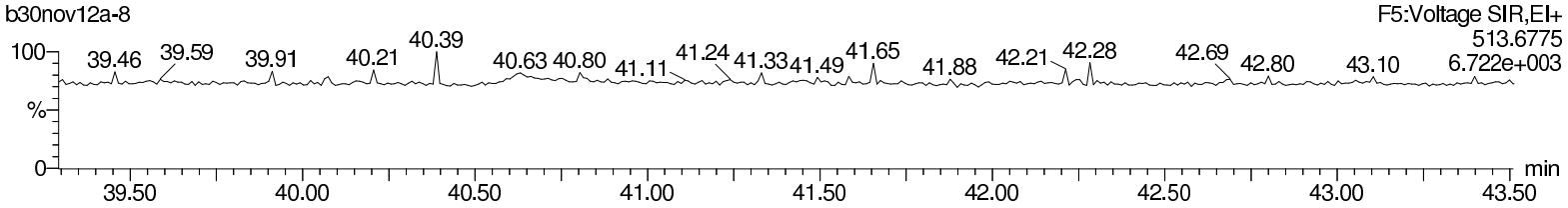
13C-OCDD



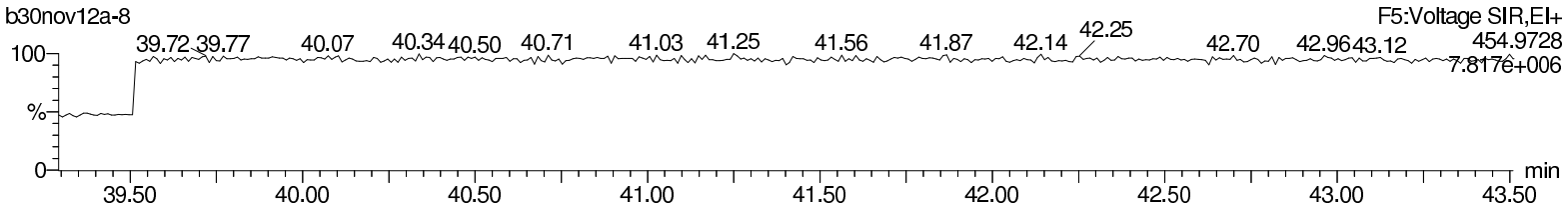
13C-OCDD



DeDPE



Lock Mass F5



Quantify Sample Summary Report **MassLynx 4.1**
Method 8290 ICAL Report

Dataset: C:\MassLynx\Default.pro\ICAL Results\8290-b30nov12a.qld

Last Altered: Monday, December 03, 2012 09:49:11 Eastern Standard Time
Printed: Monday, December 03, 2012 10:06:35 Eastern Standard Time

Name: b30nov12a-9, Date: 30-Nov-2012, Time: 16:23:41, ID: CS5 UD101022-06, Description: , Job: b30nov12a, Task: HRP763_1, User: MJC

	Name	Ion1Area	Ion2Area	Response	RT	RRT	RA	Fail?	pg/uL	RRF	Mean	RSD	EDL	Height1	Noise1	S/N1	Height2	Noise2	S/N2	M
1	2378-TCDD	1.26e6	1.63e6	2.88e6	27.47	1.00	0.77	NO	205.713	0.981	0.953	4.54	0.0651	1.51e7	1730	8749.4	1.93e7	2575	7511.5	bb
2	12378-PeCDD	7.96e6	4.95e6	1.29e7	32.43	1.00	1.61	NO	1030.211	0.996	0.967	2.77	0.0458	2.21e8	4228	52360.3	1.40e8	2032	68884.8	bb
3	123478-HxCDD	6.98e6	5.48e6	1.25e7	34.64	1.00	1.27	NO	988.482	0.962	0.973	2.42	0.175	1.67e8	11098	15007.9	1.31e8	7614	17177.7	bd
4	123678-HxCDD	7.96e6	6.23e6	1.42e7	34.72	1.00	1.28	NO	1013.373	1.095	1.080	1.81	0.158	1.68e8	11098	15168.6	1.32e8	7614	17358.9	dd
5	123789-HxCDD	7.09e6	5.54e6	1.26e7	34.90	1.01	1.28	NO	985.394	0.975	0.989	3.56	0.172	1.52e8	11098	13654.4	1.20e8	7614	15749.2	db
6	1234678-HpCDD	5.43e6	5.22e6	1.07e7	37.35	1.00	1.04	NO	1023.852	1.162	1.135	3.61	0.375	9.35e7	11983	7802.7	8.97e7	13503	6645.1	bb
7	OCDD	9.24e6	1.01e7	1.94e7	40.63	1.00	0.91	NO	2091.222	1.224	1.170	2.76	0.327	1.10e8	7797	14067.9	1.19e8	6794	17486.8	bd
8	2378-TCDF	1.98e6	2.57e6	4.55e6	26.57	1.00	0.77	NO	205.439	1.057	1.029	3.86	0.0959	2.49e7	3765	6623.6	3.21e7	6267	5115.1	bb
9	12378-PeCDF	1.23e7	7.99e6	2.03e7	31.59	1.00	1.54	NO	1035.645	0.977	0.943	3.68	0.153	2.61e8	15498	16861.1	1.68e8	9260	18124.0	bb
10	23478-PeCDF	1.27e7	8.28e6	2.10e7	32.26	1.02	1.54	NO	1033.987	1.013	0.979	3.10	0.148	3.68e8	15498	23715.6	2.41e8	9260	26012.3	bb
11	123478-HxCDF	9.43e6	7.79e6	1.72e7	34.03	1.00	1.21	NO	1021.590	0.930	0.910	3.13	0.239	2.24e8	22475	9965.1	1.90e8	15002	12636.7	bd
12	123678-HxCDF	1.07e7	8.71e6	1.94e7	34.12	1.00	1.23	NO	1009.464	1.049	1.039	2.03	0.209	2.49e8	22475	11097.4	2.01e8	15002	13393.9	db
13	234678-HxCDF	1.00e7	8.16e6	1.82e7	34.53	1.01	1.23	NO	1022.265	0.981	0.960	2.69	0.227	2.26e8	22475	10073.5	1.82e8	15002	12127.5	bd
14	123789-HxCDF	8.33e6	6.76e6	1.51e7	35.14	1.03	1.23	NO	1006.679	0.815	0.810	1.61	0.269	1.68e8	22475	7491.7	1.36e8	15002	9063.0	bb
15	1234678-HpCDF	7.97e6	7.84e6	1.58e7	36.35	1.00	1.02	NO	1033.179	1.267	1.226	3.04	0.322	1.51e8	18753	8036.0	1.47e8	17213	8552.0	bb
16	1234789-HpCDF	6.20e6	6.08e6	1.23e7	37.86	1.04	1.02	NO	1045.641	0.984	0.941	4.69	0.419	9.93e7	18753	5294.8	9.74e7	17213	5656.1	bb
17	OCDF	1.12e7	1.25e7	2.37e7	40.84	1.01	0.89	NO	2207.272	1.498	1.358	6.36	0.298	1.33e8	7700	17310.1	1.48e8	7721	19139.4	bb
18	13C-2378-TCDD	6.49e5	8.20e5	1.47e6	27.46	1.03	0.79	NO	105.782	1.046	0.989	3.07	0.0775	7.66e6	3019	2536.9	9.64e6	2249	4286.3	bb
19	13C-12378-PeCDD	7.83e5	5.14e5	1.30e6	32.42	1.21	1.52	NO	113.142	0.923	0.816	7.13	0.0748	2.13e7	1829	11671.3	1.41e7	2368	5954.9	bb
20	13C-123678-HxCDD	7.17e5	5.79e5	1.30e6	34.71	0.99	1.24	NO	102.575	1.141	1.112	2.71	0.0662	1.52e7	2579	5885.2	1.23e7	4538	2705.2	dd
21	13C-1234678-HpCDD	4.82e5	4.34e5	9.17e5	37.34	1.07	1.11	NO	96.536	0.807	0.836	3.49	0.100	7.88e6	4426	1780.6	7.31e6	3651	2003.3	bd
22	13C-OCDD	7.35e5	8.47e5	1.58e6	40.62	1.16	0.87	NO	203.608	0.696	0.684	3.84	0.0938	8.85e6	2919	3031.5	1.01e7	3279	3075.1	bd
23	13C-2378-TCDF	9.60e5	1.19e6	2.15e6	26.54	0.99	0.81	NO	104.395	1.531	1.466	2.55	0.0486	1.13e7	2655	4274.3	1.42e7	2246	6316.1	bb
24	13C-12378-PeCDF	1.28e6	7.93e5	2.07e6	31.58	1.18	1.61	NO	111.803	1.477	1.321	6.36	0.144	2.64e7	7880	3352.2	1.60e7	5179	3090.6	bb
25	13C-123678-HxCDF	6.32e5	1.22e6	1.85e6	34.11	0.98	0.52	NO	99.223	1.630	1.642	2.73	0.0984	1.47e7	7180	2047.8	2.81e7	8437	3324.9	db
26	13C-1234678-HpCDF	3.89e5	8.59e5	1.25e6	36.34	1.04	0.45	NO	97.492	1.098	1.127	2.55	0.110	7.10e6	4812	1476.2	1.57e7	7110	2202.3	bb
27	13C-1234-TCDD	6.20e5	7.84e5	1.40e6	26.72	0.00	0.79	NO	100.000	1.000	1.000	0.00	0.0767	7.58e6	3019	2512.0	9.55e6	2249	4247.8	bb
28	13C-123789-HxCDD	6.26e5	5.10e5	1.14e6	34.89	0.00	1.23	NO	100.000	1.000	1.000	0.00	0.0737	1.33e7	2579	5164.4	1.09e7	4538	2412.6	db
29	37Cl-2378-TCDD (SS)	3.41e6		3.41e6	27.47	1.00			209.701	1.159	1.105	4.13	0.0339	4.07e7	2598	15667.2				bb
30	13C-23478-PeCDF (SS)	1.29e6	7.98e5	2.08e6	32.24	1.02	1.61	NO	100.215	1.004	1.002	0.82	0.0762	3.58e7	7880	4542.0	2.27e7	5179	4387.9	bb
31	13C-123478-HxCDF (SS)	5.33e5	1.04e6	1.58e6	34.02	1.00	0.51	NO	99.676	0.851	0.854	1.80	0.106	1.26e7	7180	1750.8	2.47e7	8437	2922.5	bd
32	13C-123478-HxCDD (SS)	5.85e5	4.72e5	1.06e6	34.63	1.00	1.24	NO	95.896	0.816	0.851	3.12	0.0763	1.43e7	2579	5552.2	1.15e7	4538	2524.4	bd
33	13C-1234789-HpCDF (SS)	3.00e5	6.71e5	9.71e5	37.85	1.04	0.45	NO	99.795	0.778	0.780	1.37	0.168	4.85e6	4812	1006.8	1.08e7	7110	1524.1	bb

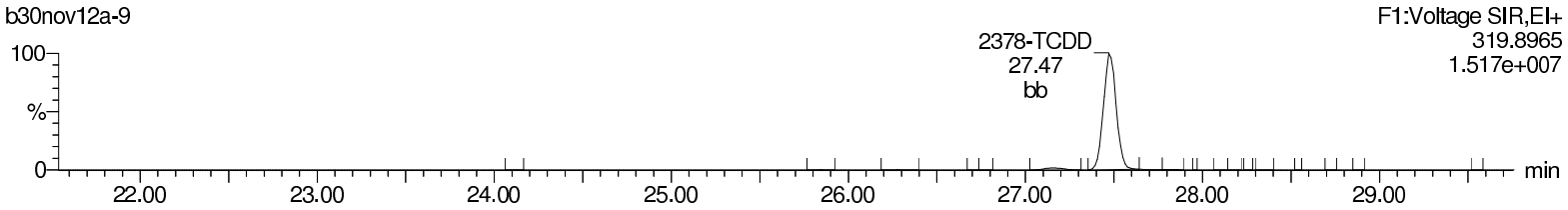
Quantify Sample Report **MassLynx 4.1**
Method 8290 ICAL Report

Dataset: C:\MassLynx\Default.pro\ICAL Results\8290-b30nov12a.qld

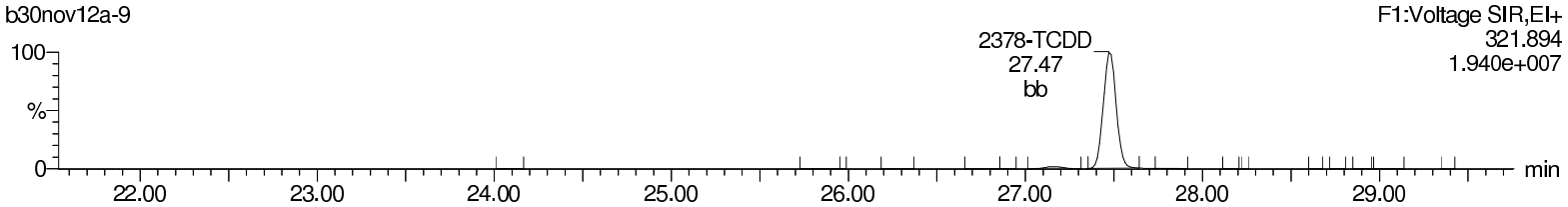
Last Altered: Monday, December 03, 2012 09:49:11 Eastern Standard Time
Printed: Monday, December 03, 2012 09:50:06 Eastern Standard Time

Name: b30nov12a-9, Date: 30-Nov-2012, Time: 16:23:41, ID: CS5 UD101022-06, Description: , Job: b30nov12a, Task: HRP763_1, User: MJC

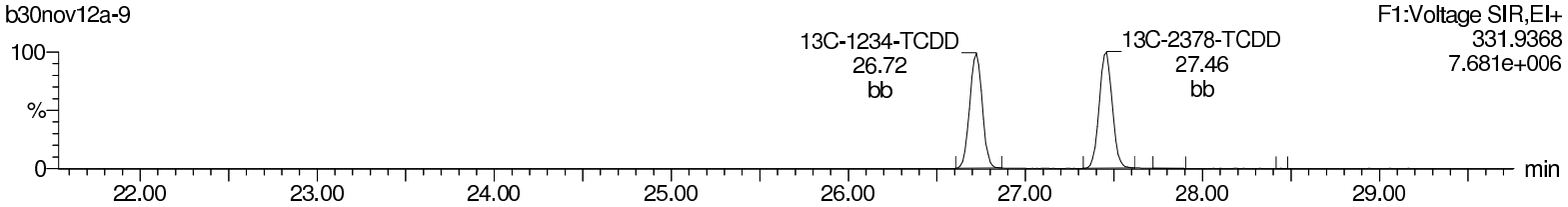
Total-tetradioxins



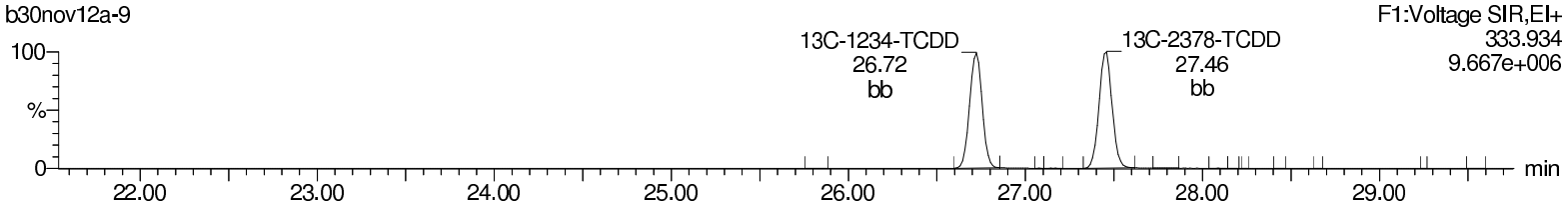
Total-tetradioxins



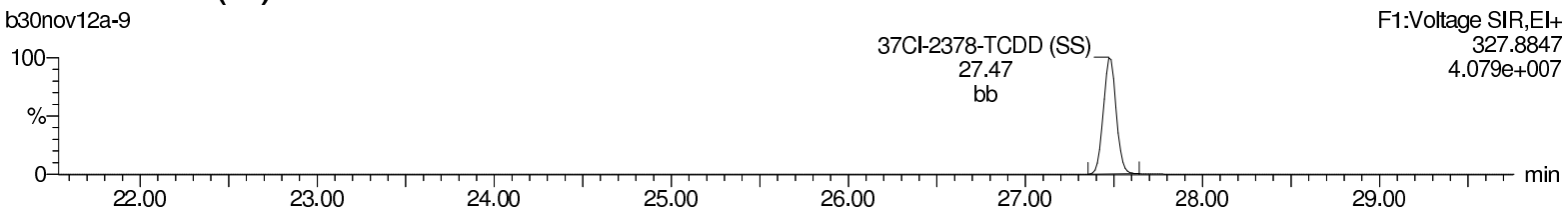
13C-2378-TCDD



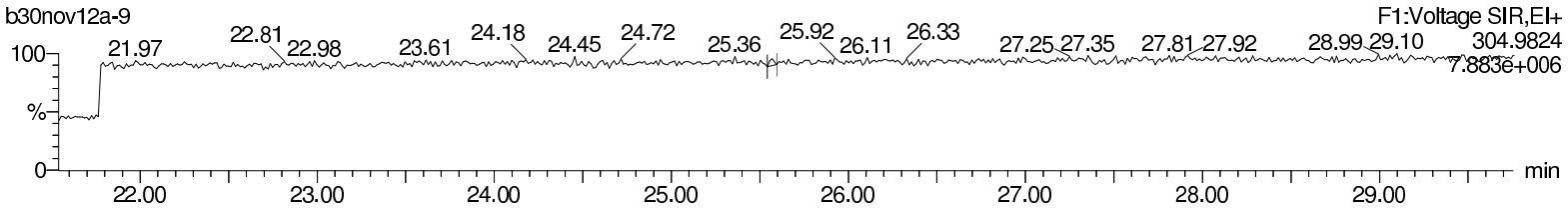
13C-2378-TCDD



37Cl-2378-TCDD (SS)



Lock Mass F1



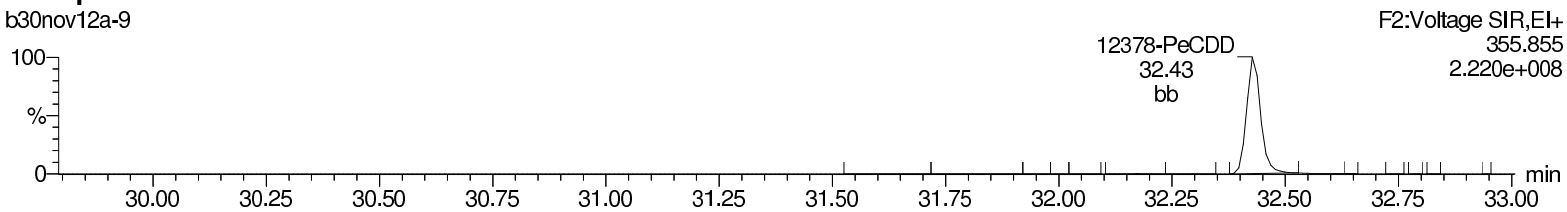
Quantify Sample Report **MassLynx 4.1**
Method 8290 ICAL Report

Dataset: C:\MassLynx\Default.pro\ICAL Results\8290-b30nov12a.qld

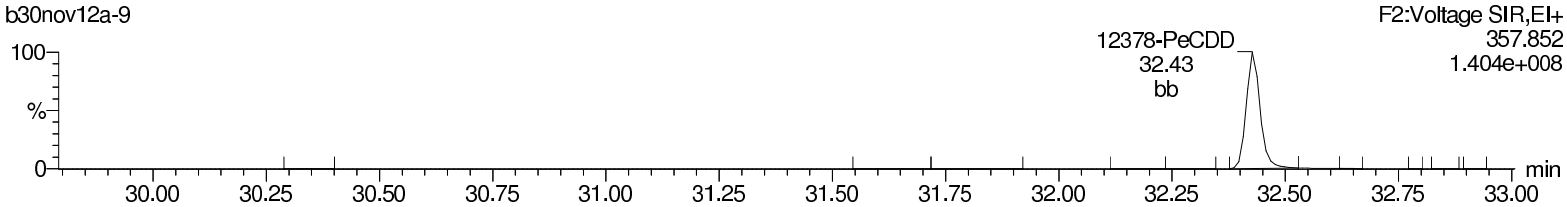
Last Altered: Monday, December 03, 2012 09:49:11 Eastern Standard Time
Printed: Monday, December 03, 2012 09:50:06 Eastern Standard Time

Name: b30nov12a-9, Date: 30-Nov-2012, Time: 16:23:41, ID: CS5 UD101022-06, Description: , Job: b30nov12a, Task: HRP763_1, User: MJC

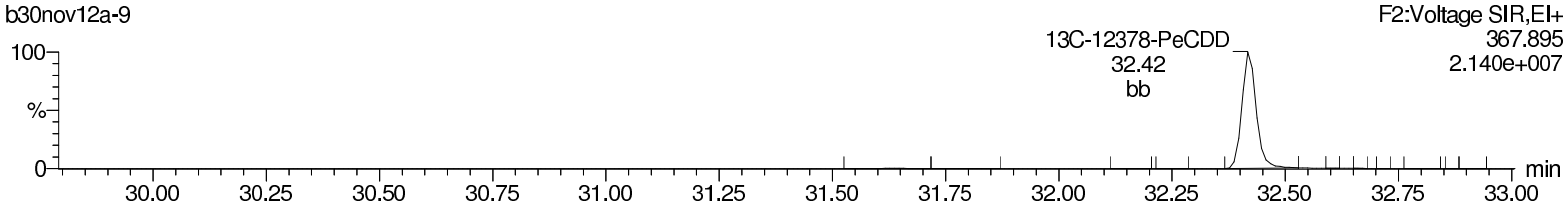
Total-pentadioxins



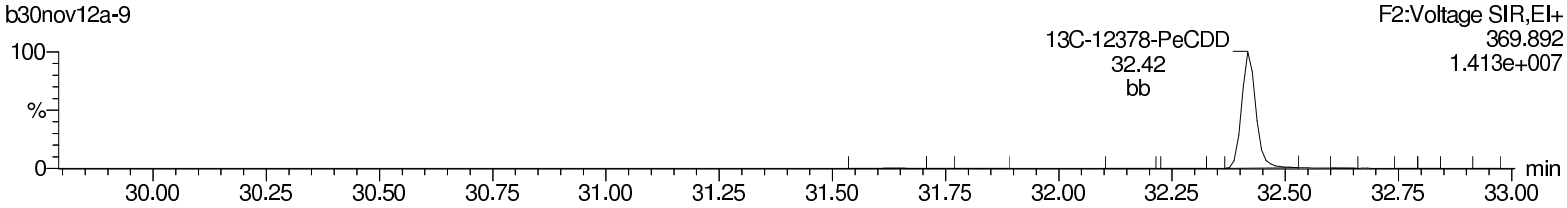
Total-pentadioxins



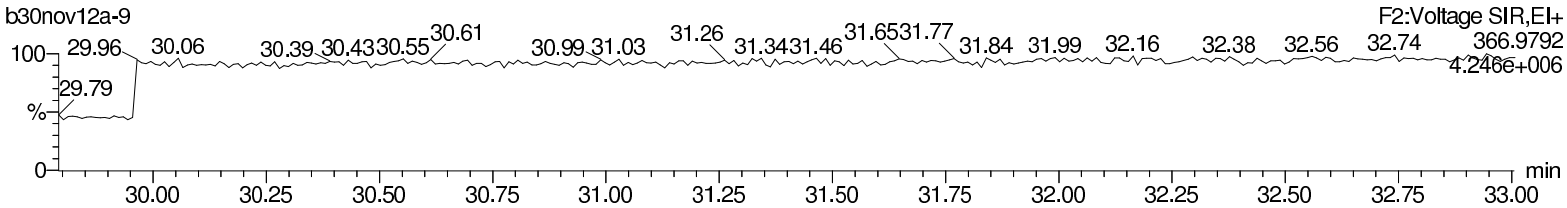
13C-12378-PeCDD



13C-12378-PeCDD



Lock Mass F2



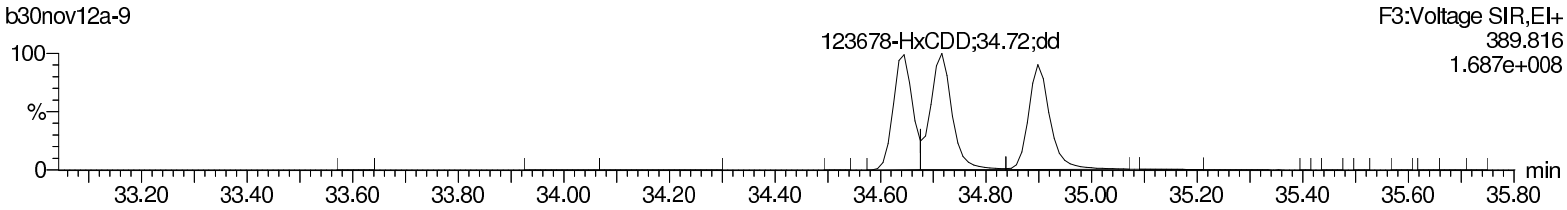
Quantify Sample Report **MassLynx 4.1**
Method 8290 ICAL Report

Dataset: C:\MassLynx\Default.pro\ICAL Results\8290-b30nov12a.qld

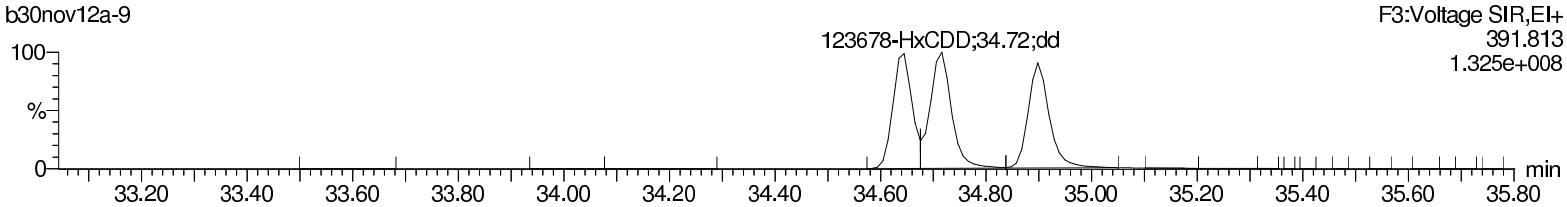
Last Altered: Monday, December 03, 2012 09:49:11 Eastern Standard Time
Printed: Monday, December 03, 2012 09:50:06 Eastern Standard Time

Name: b30nov12a-9, Date: 30-Nov-2012, Time: 16:23:41, ID: CS5 UD101022-06, Description: , Job: b30nov12a, Task: HRP763_1, User: MJC

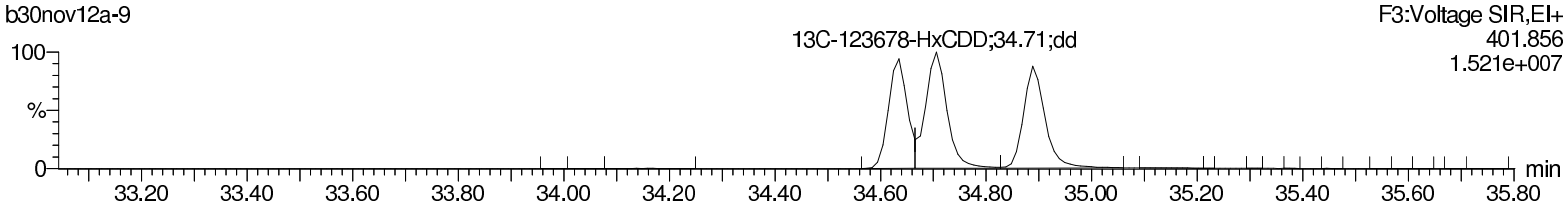
Total-hexadioxins



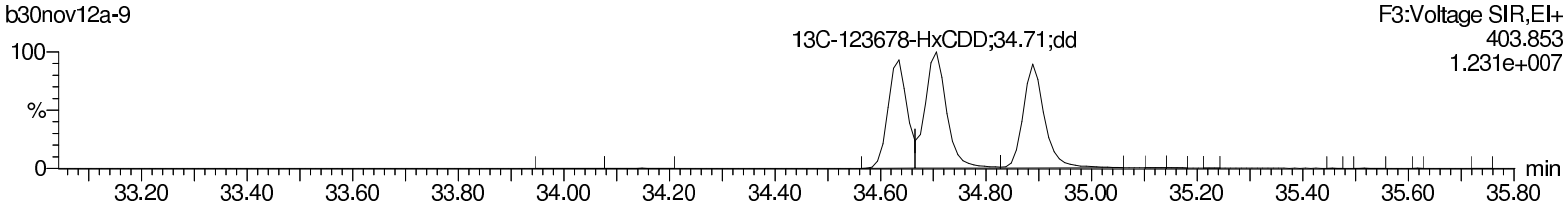
Total-hexadioxins



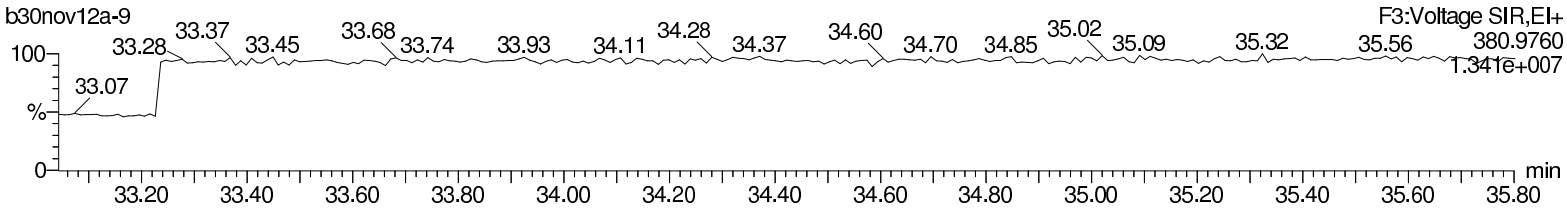
13C-123678-HxCDD



13C-123678-HxCDD



Lock Mass F3



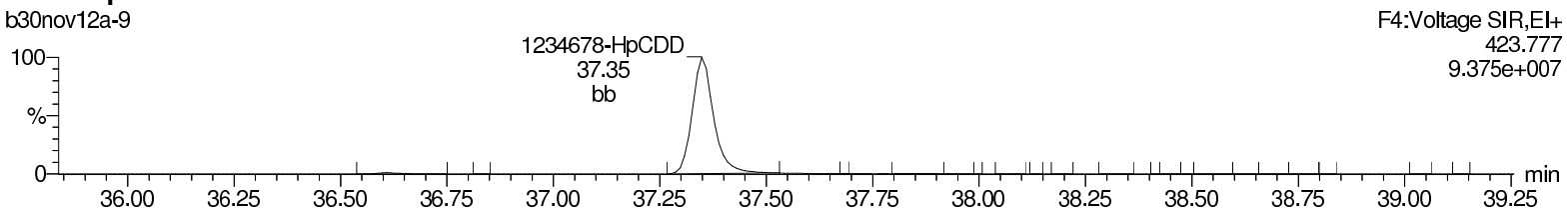
Quantify Sample Report **MassLynx 4.1**
Method 8290 ICAL Report

Dataset: C:\MassLynx\Default.pro\ICAL Results\8290-b30nov12a.qld

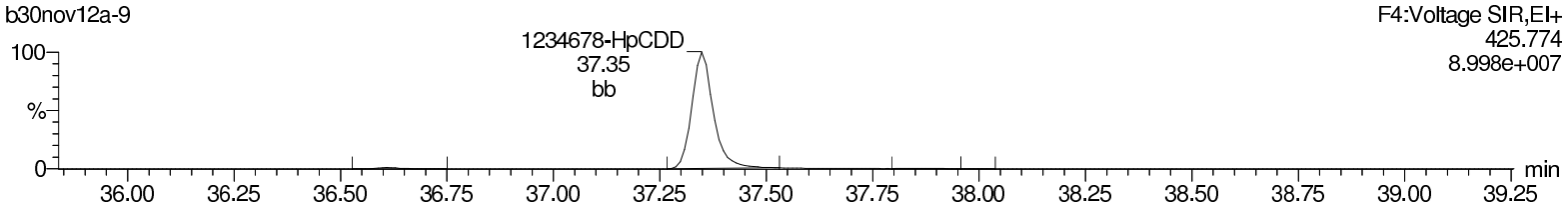
Last Altered: Monday, December 03, 2012 09:49:11 Eastern Standard Time
Printed: Monday, December 03, 2012 09:50:06 Eastern Standard Time

Name: b30nov12a-9, Date: 30-Nov-2012, Time: 16:23:41, ID: CS5 UD101022-06, Description: , Job: b30nov12a, Task: HRP763_1, User: MJC

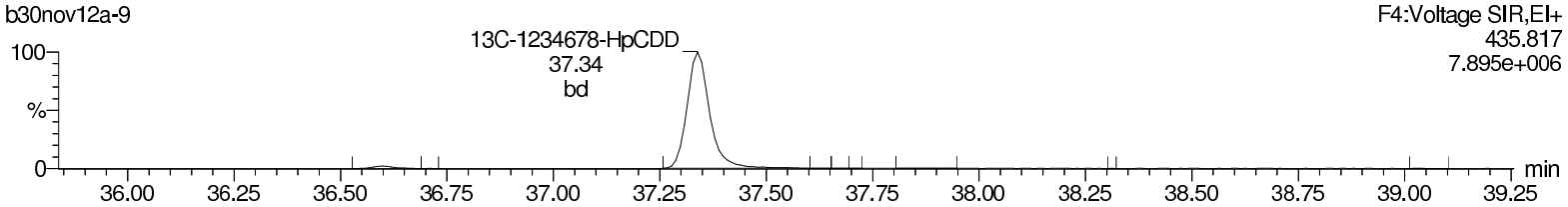
Total-heptadioxins



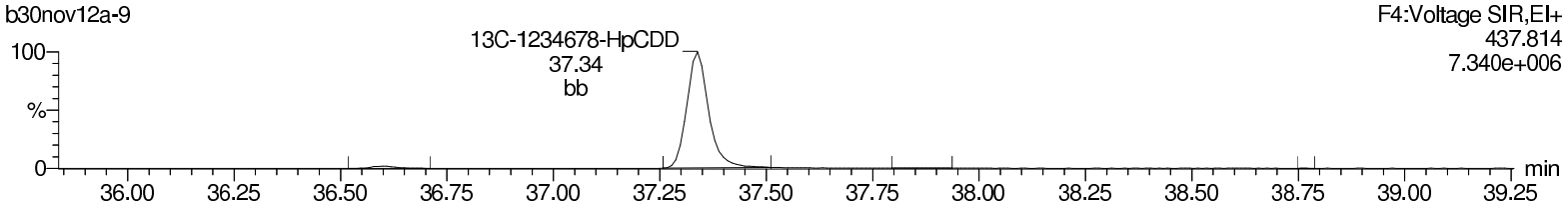
Total-heptadioxins



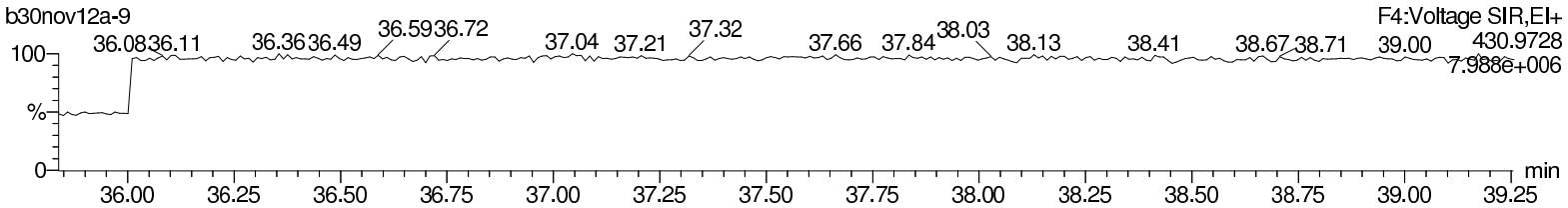
13C-1234678-HpCDD



13C-1234678-HpCDD



Lock Mass F4



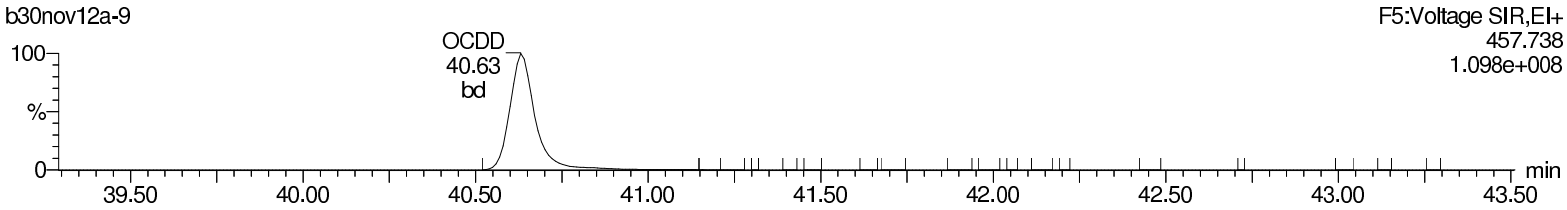
Quantify Sample Report **MassLynx 4.1**
Method 8290 ICAL Report

Dataset: C:\MassLynx\Default.pro\ICAL Results\8290-b30nov12a.qld

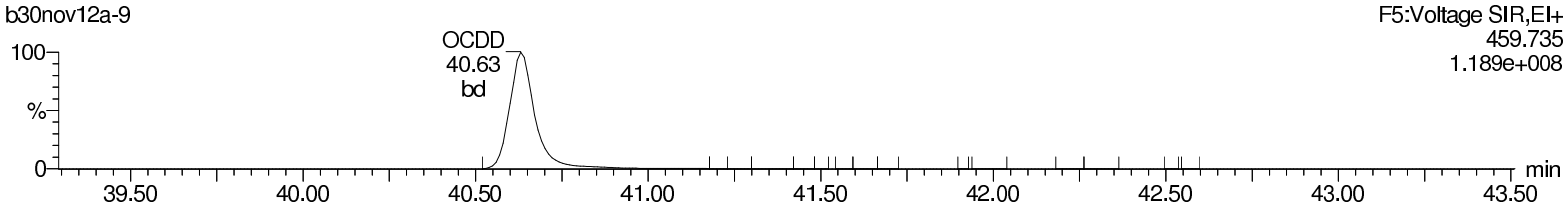
Last Altered: Monday, December 03, 2012 09:49:11 Eastern Standard Time
Printed: Monday, December 03, 2012 09:50:06 Eastern Standard Time

Name: b30nov12a-9, Date: 30-Nov-2012, Time: 16:23:41, ID: CS5 UD101022-06, Description: , Job: b30nov12a, Task: HRP763_1, User: MJC

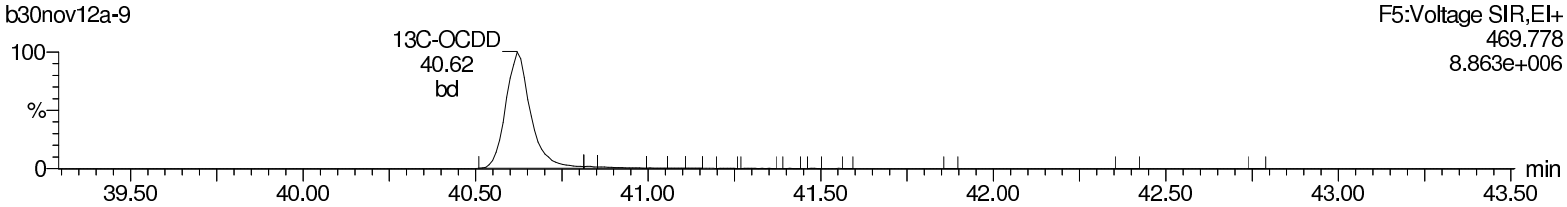
OCDD



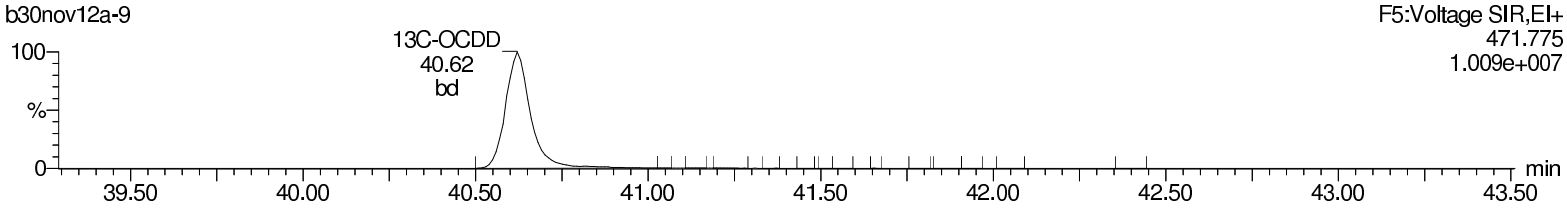
OCDD



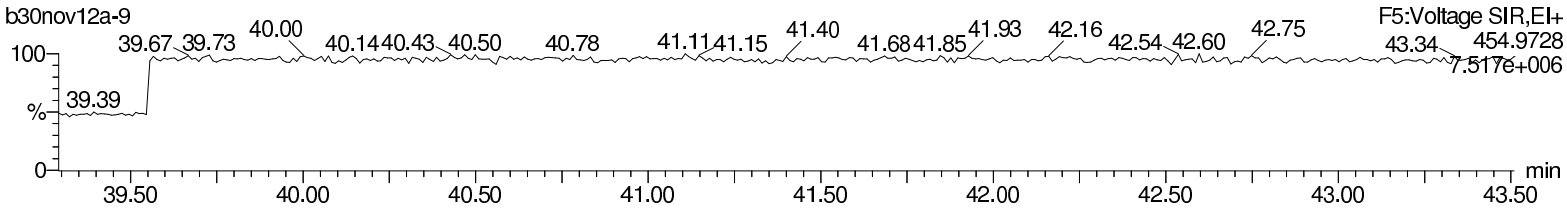
13C-OCDD



13C-OCDD



Lock Mass F5



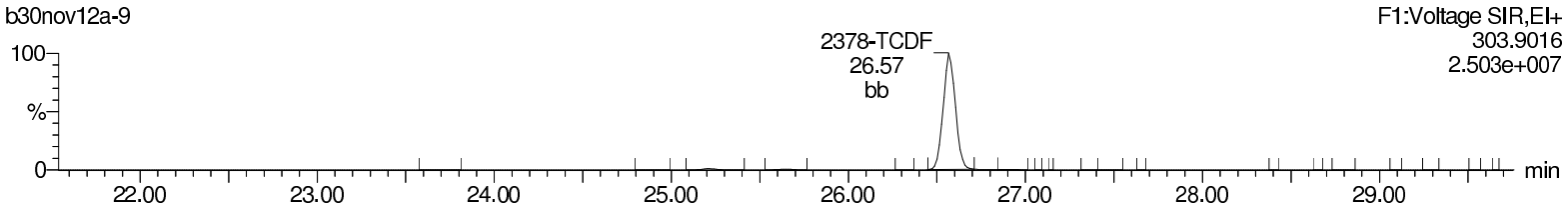
Quantify Sample Report **MassLynx 4.1**
Method 8290 ICAL Report

Dataset: C:\MassLynx\Default.pro\ICAL Results\8290-b30nov12a.qld

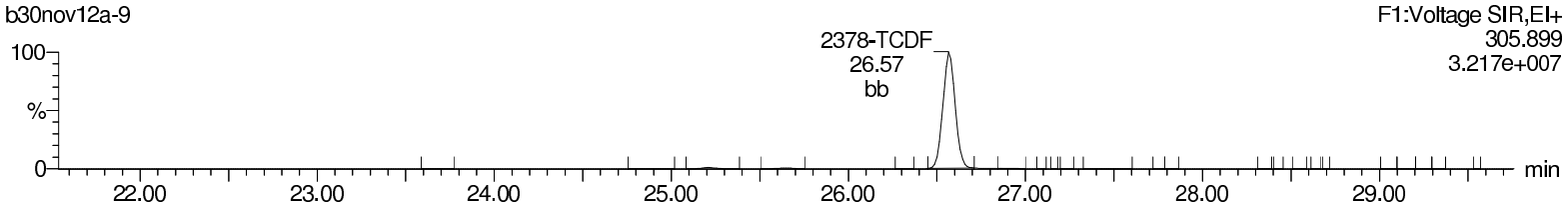
Last Altered: Monday, December 03, 2012 09:49:11 Eastern Standard Time
Printed: Monday, December 03, 2012 09:50:06 Eastern Standard Time

Name: b30nov12a-9, Date: 30-Nov-2012, Time: 16:23:41, ID: CS5 UD101022-06, Description: , Job: b30nov12a, Task: HRP763_1, User: MJC

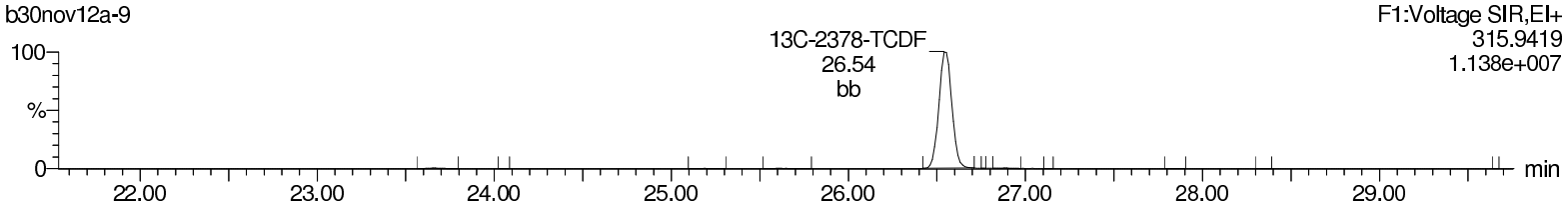
Total-tetrafurans



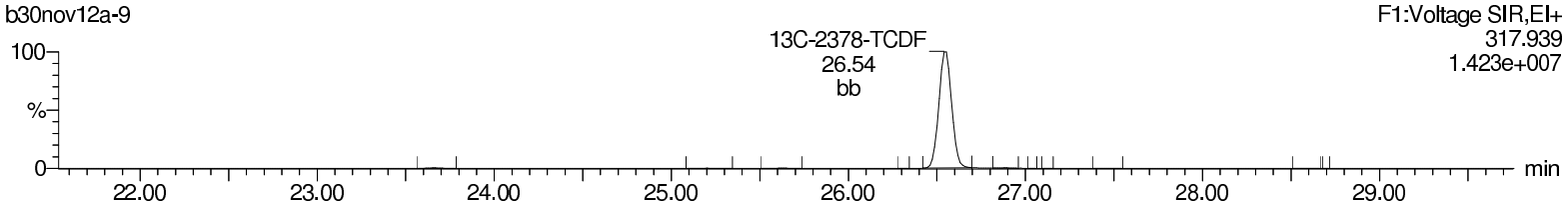
Total-tetrafurans



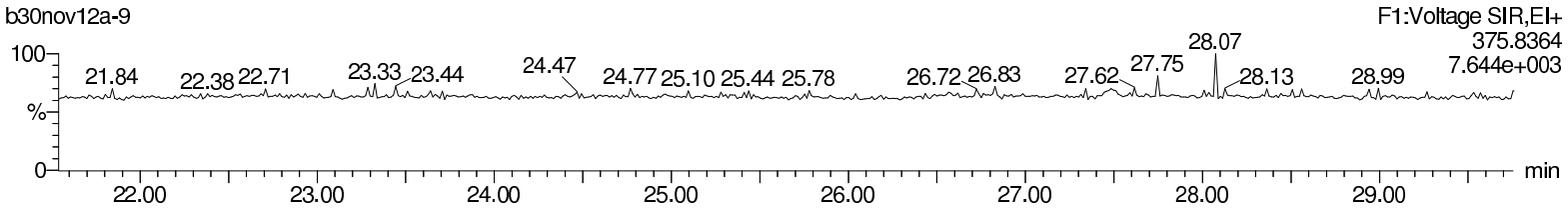
13C-2378-TCDF



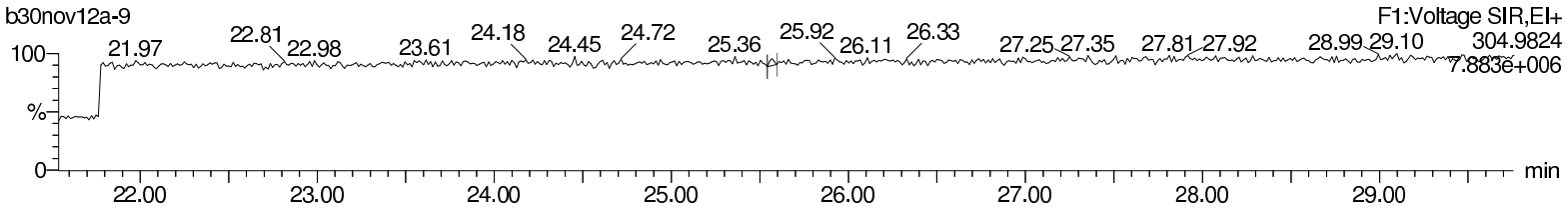
13C-2378-TCDF



HxDPE



Lock Mass F1



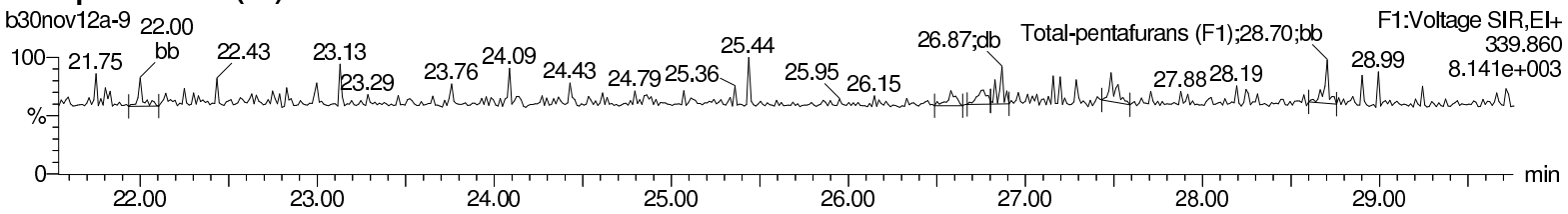
Quantify Sample Report **MassLynx 4.1**
Method 8290 ICAL Report

Dataset: C:\MassLynx\Default.pro\ICAL Results\8290-b30nov12a.qld

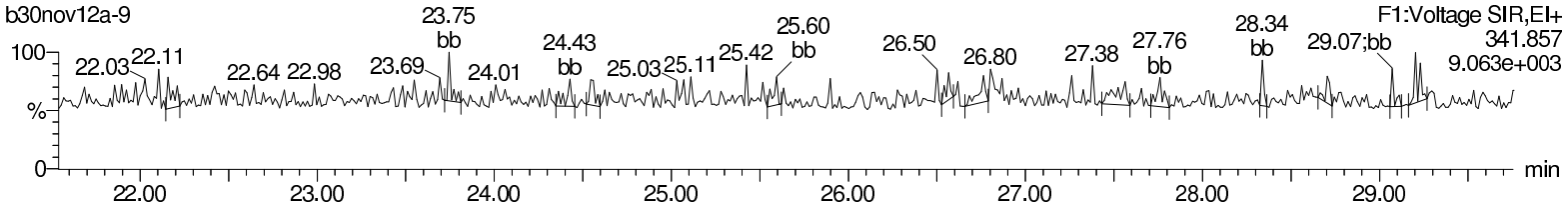
Last Altered: Monday, December 03, 2012 09:49:11 Eastern Standard Time
Printed: Monday, December 03, 2012 09:50:06 Eastern Standard Time

Name: b30nov12a-9, Date: 30-Nov-2012, Time: 16:23:41, ID: CS5 UD101022-06, Description: , Job: b30nov12a, Task: HRP763_1, User: MJC

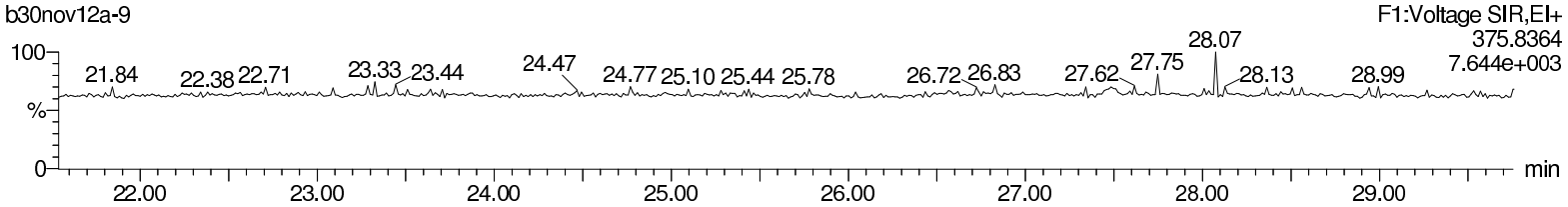
Total-pentafurans (F1)



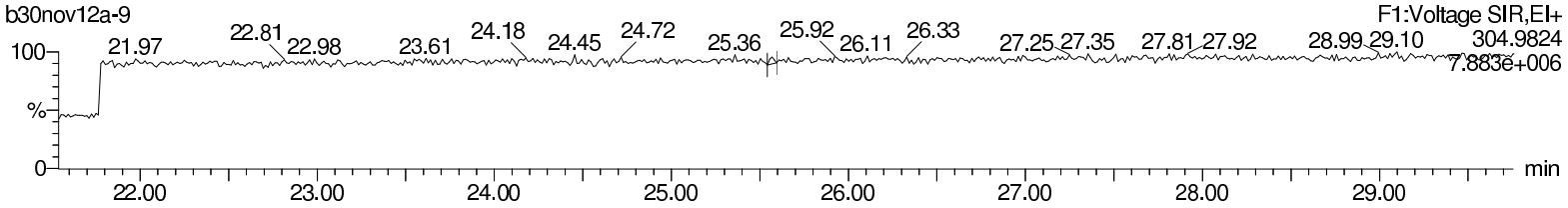
Total-pentafurans (F1)



HxDPE



Lock Mass F1



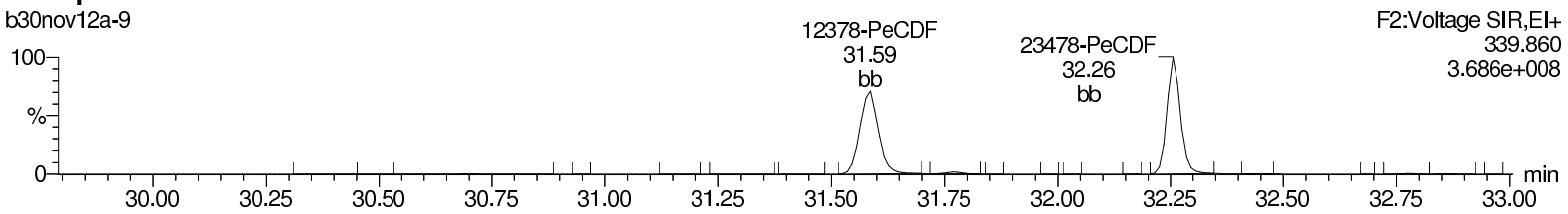
Quantify Sample Report **MassLynx 4.1**
Method 8290 ICAL Report

Dataset: C:\MassLynx\Default.pro\ICAL Results\8290-b30nov12a.qld

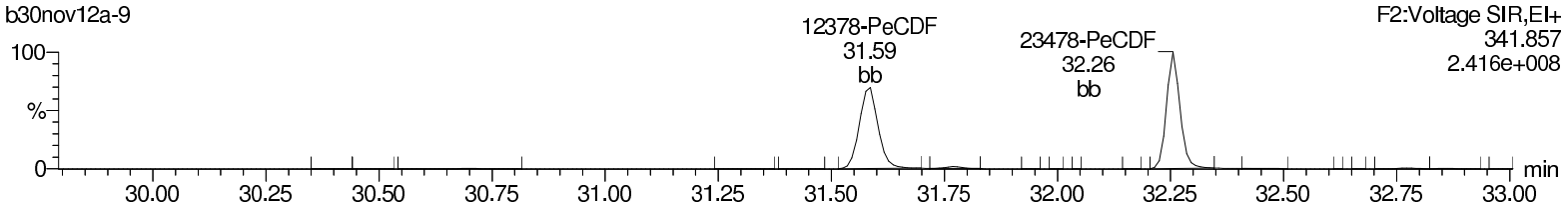
Last Altered: Monday, December 03, 2012 09:49:11 Eastern Standard Time
Printed: Monday, December 03, 2012 09:50:06 Eastern Standard Time

Name: b30nov12a-9, Date: 30-Nov-2012, Time: 16:23:41, ID: CS5 UD101022-06, Description: , Job: b30nov12a, Task: HRP763_1, User: MJC

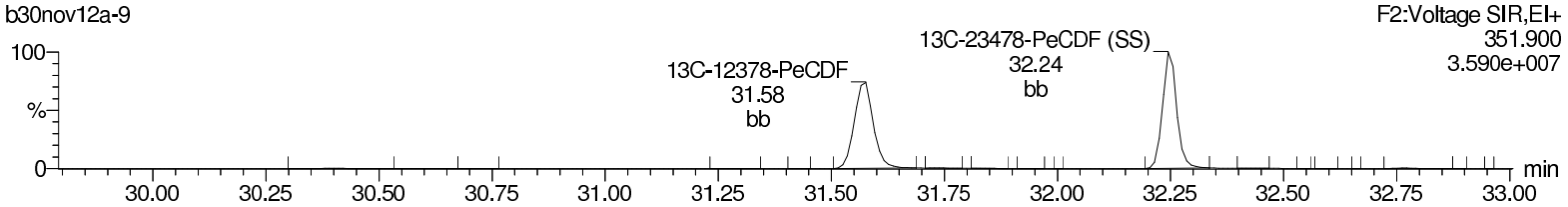
Total-pentafurans



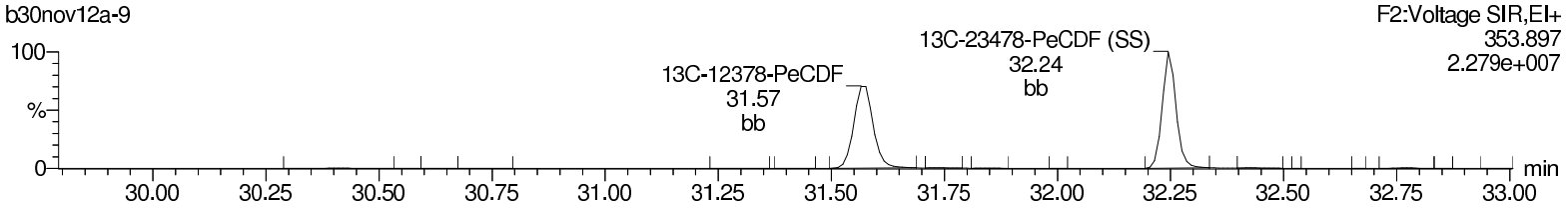
Total-pentafurans



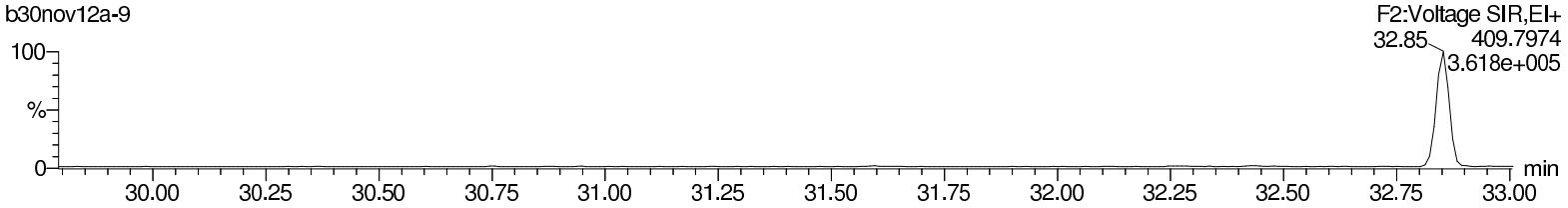
13C-12378-PeCDF



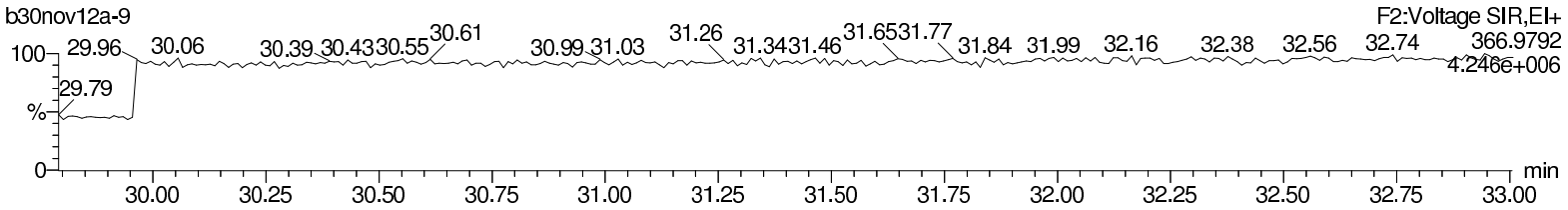
13C-12378-PeCDF



HpDPE



Lock Mass F2



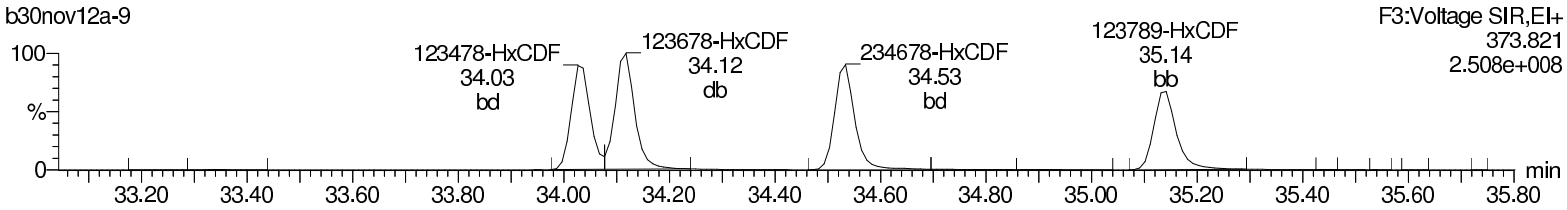
Quantify Sample Report **MassLynx 4.1**
Method 8290 ICAL Report

Dataset: C:\MassLynx\Default.pro\ICAL Results\8290-b30nov12a.qld

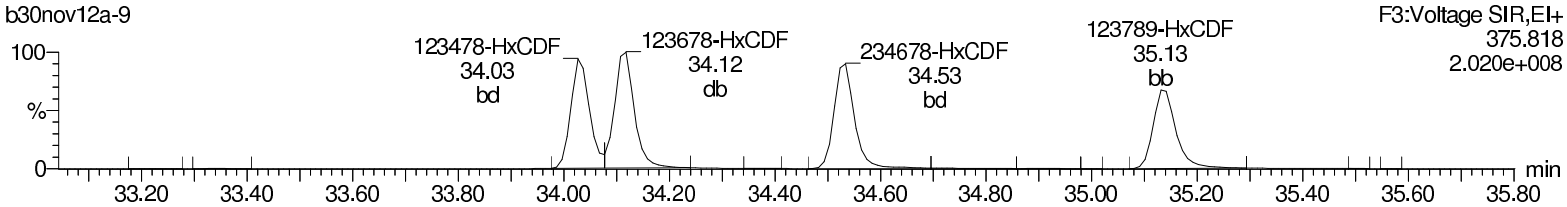
Last Altered: Monday, December 03, 2012 09:49:11 Eastern Standard Time
Printed: Monday, December 03, 2012 09:50:06 Eastern Standard Time

Name: b30nov12a-9, Date: 30-Nov-2012, Time: 16:23:41, ID: CS5 UD101022-06, Description: , Job: b30nov12a, Task: HRP763_1, User: MJC

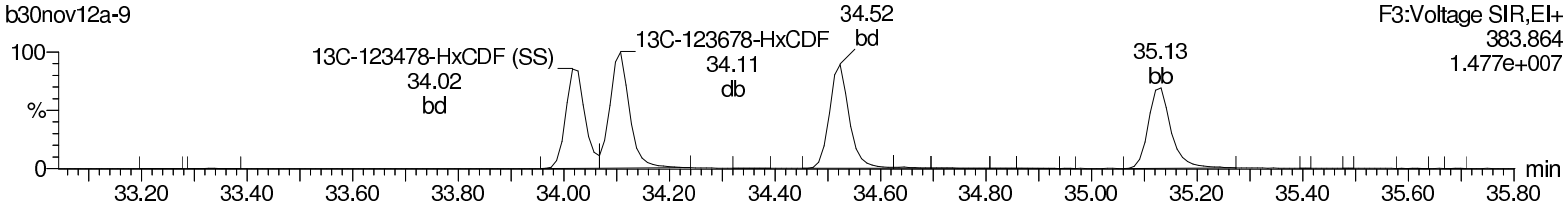
Total-hexafurans



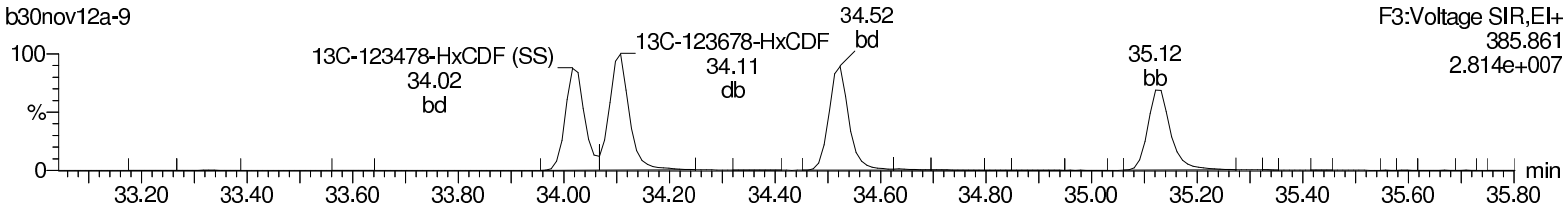
Total-hexafurans



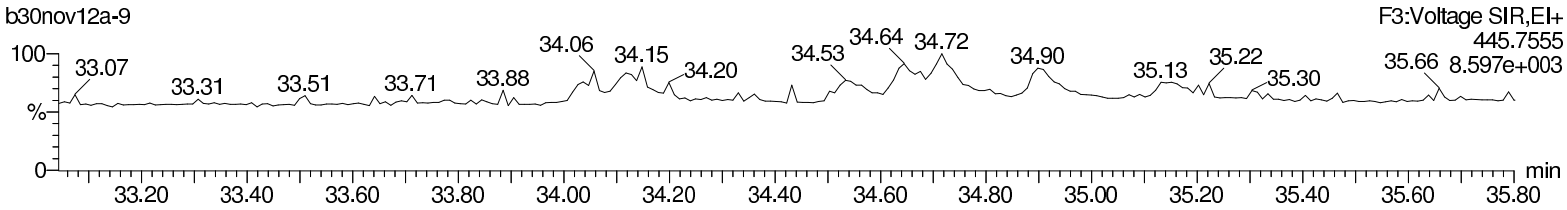
13C-123678-HxCDF



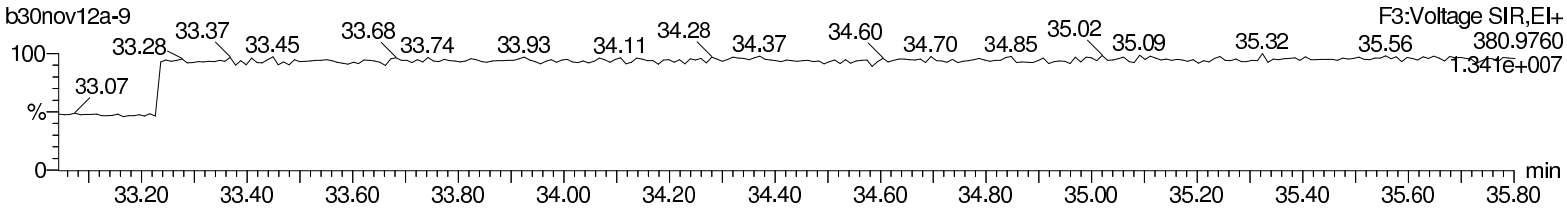
13C-123678-HxCDF



OcDPE



Lock Mass F3



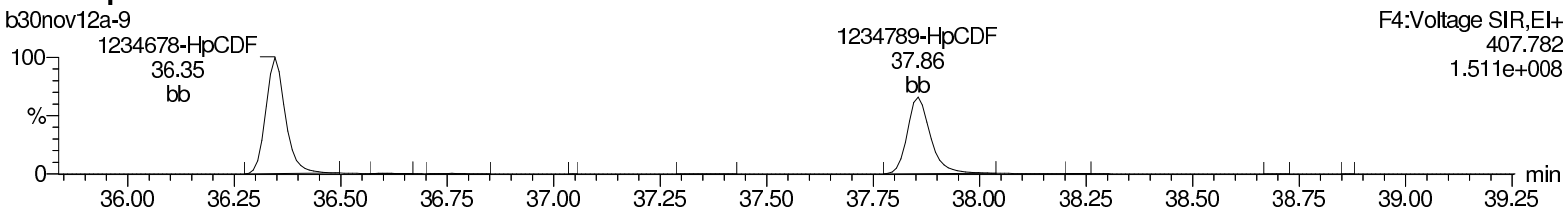
Quantify Sample Report **MassLynx 4.1**
Method 8290 ICAL Report

Dataset: C:\MassLynx\Default.pro\ICAL Results\8290-b30nov12a.qld

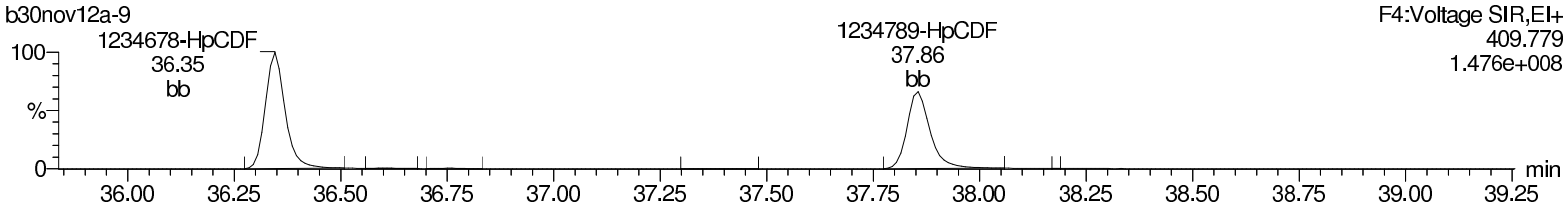
Last Altered: Monday, December 03, 2012 09:49:11 Eastern Standard Time
Printed: Monday, December 03, 2012 09:50:06 Eastern Standard Time

Name: b30nov12a-9, Date: 30-Nov-2012, Time: 16:23:41, ID: CS5 UD101022-06, Description: , Job: b30nov12a, Task: HRP763_1, User: MJC

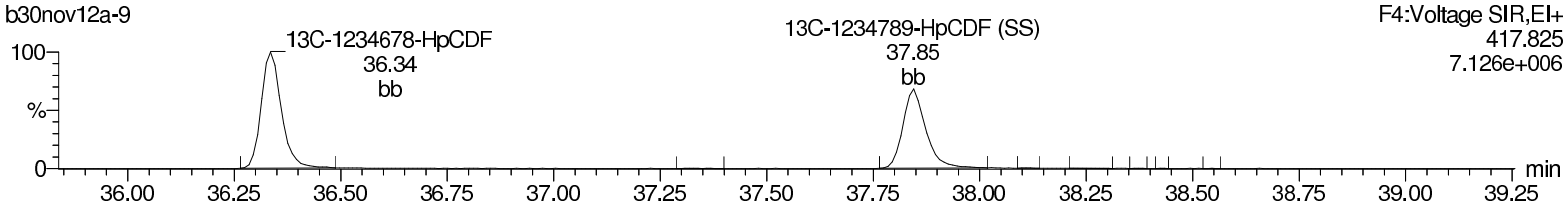
Total-heptafurans



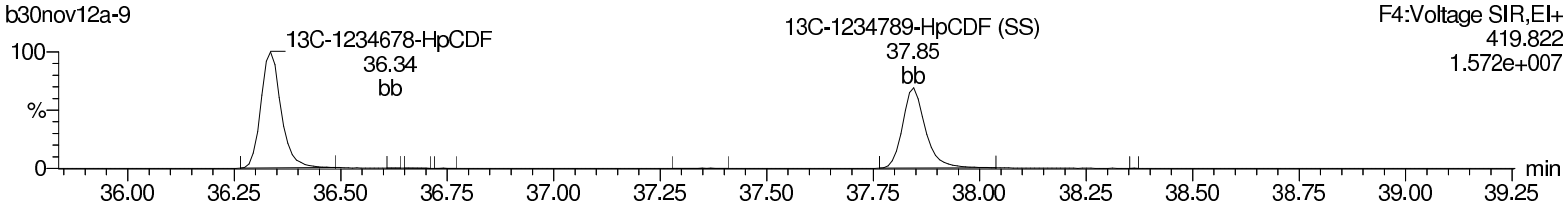
Total-heptafurans



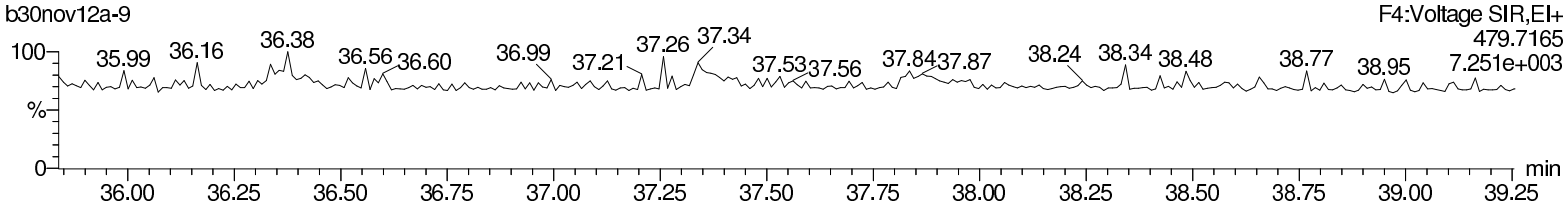
13C-1234678-HpCDF



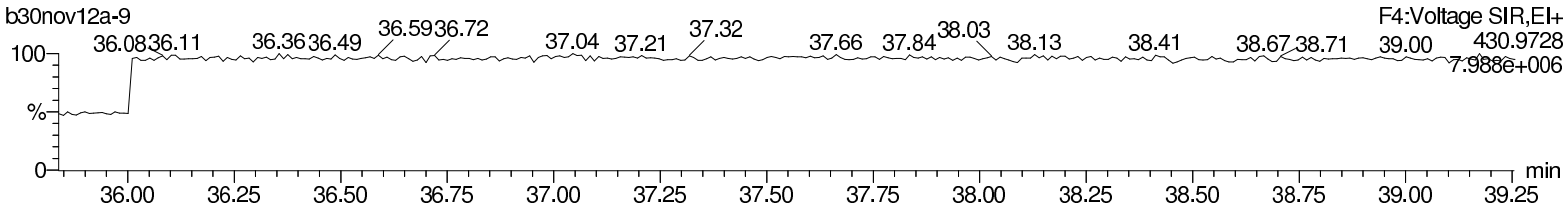
13C-1234678-HpCDF



NoDPE



Lock Mass F4



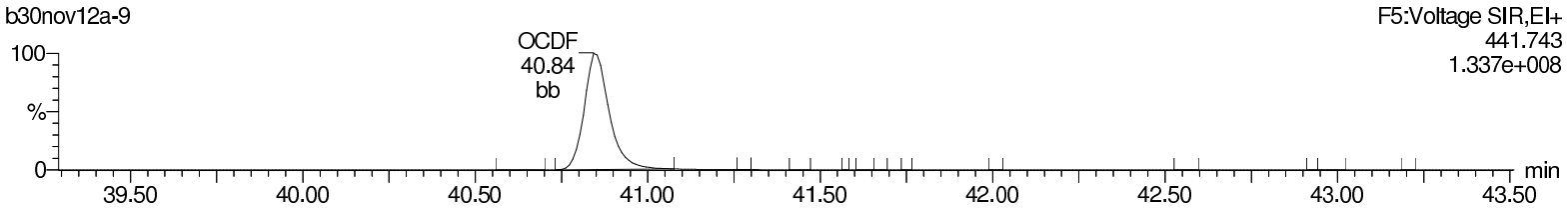
Quantify Sample Report **MassLynx 4.1**
Method 8290 ICAL Report

Dataset: C:\MassLynx\Default.pro\ICAL Results\8290-b30nov12a.qld

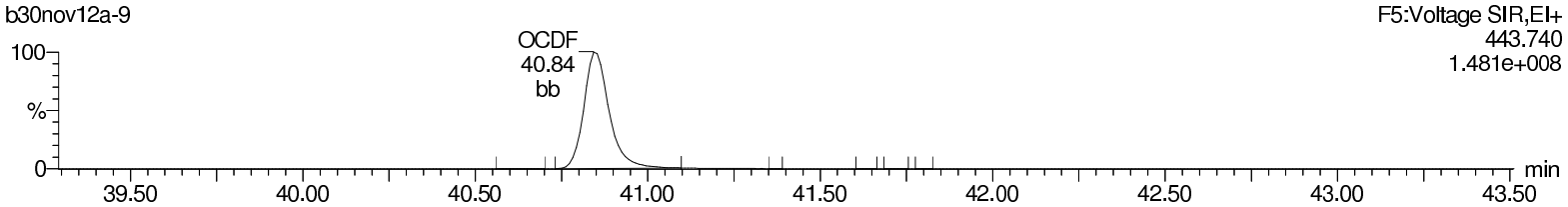
Last Altered: Monday, December 03, 2012 09:49:11 Eastern Standard Time
Printed: Monday, December 03, 2012 09:50:06 Eastern Standard Time

Name: b30nov12a-9, Date: 30-Nov-2012, Time: 16:23:41, ID: CS5 UD101022-06, Description: , Job: b30nov12a, Task: HRP763_1, User: MJC

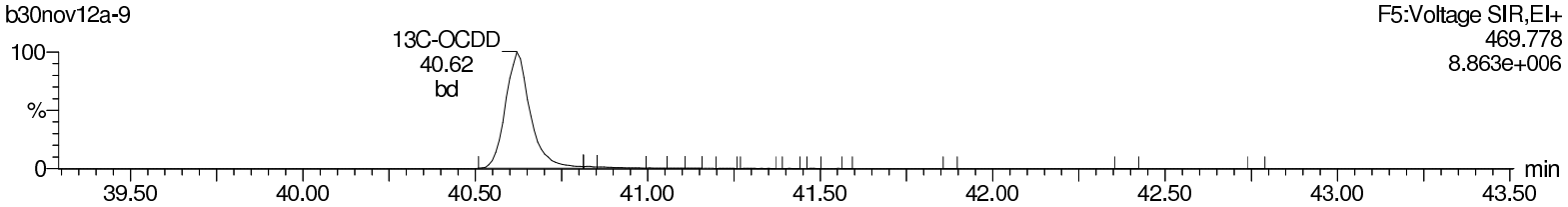
OCDF



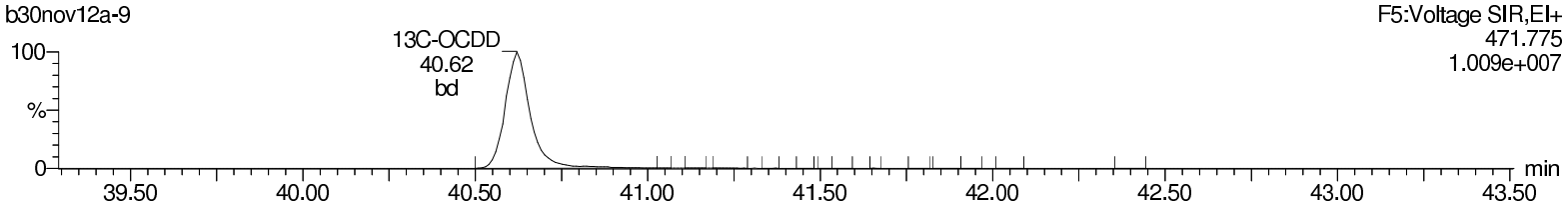
OCDF



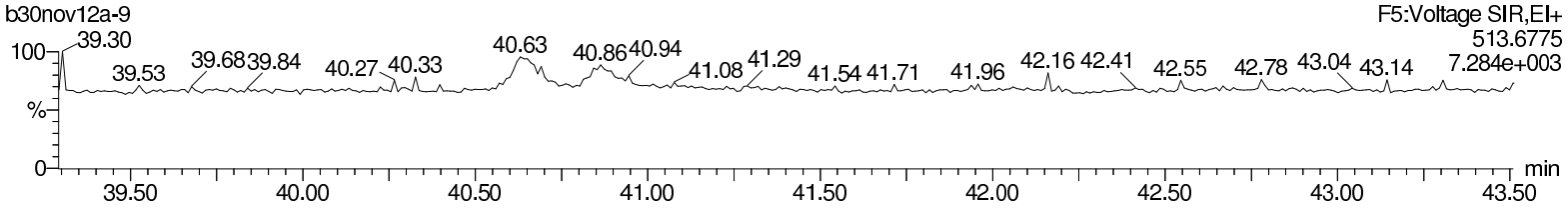
13C-OCDD



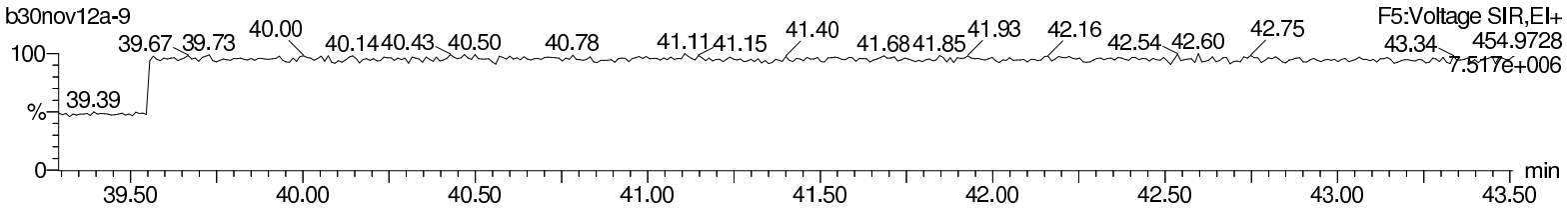
13C-OCDD



DeDPE



Lock Mass F5



Continuing Calibration Data

RUN LOG

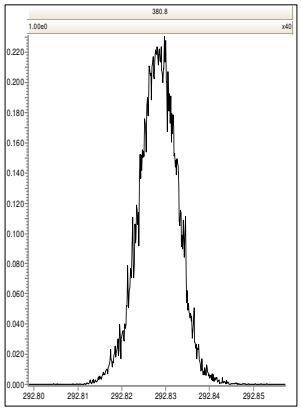
Instrument: HRP763_1

Name	Run Date	Analyst	Sample Information	Batch ID	Injection Volume	Ms Method	Tune Method
b08feb13a-1	08-FEB-2013 10:40:25	Matt Cash	CS3WT UD121129-1.2		1 uL	dioxin_db5ms	10K
b08feb13a-2	08-FEB-2013 11:27:42	Matt Cash	12007498-1 LCS		1 uL	dioxin_db5ms	10K
b08feb13a-3	08-FEB-2013 12:15:40	Matt Cash	12007499-1 LCSD		1 uL	dioxin_db5ms	10K
b08feb13a-4	08-FEB-2013 13:03:35	Matt Cash	12007497-1 MB		1 uL	dioxin_db5ms	10K
b08feb13a-5	08-FEB-2013 13:51:36	Matt Cash	CS3WT UD121129-1.2		1 uL	dioxin_db5ms	10K

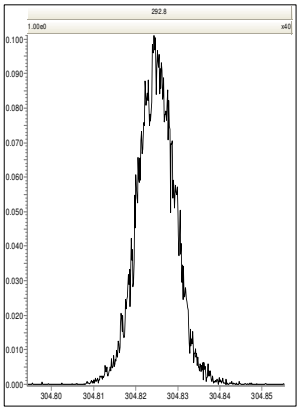
File: Experiment: dioxin_db5ms.exp Reference: pfk.ref Function: 1 @ 200 (ppm)

Printed: Friday, February 08, 2013 10:36:51 Eastern Standard Time

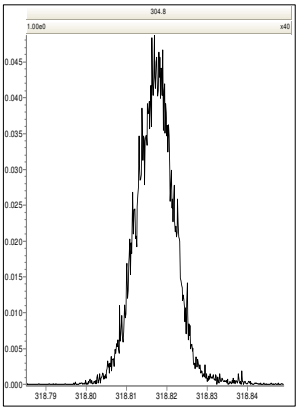
M 292.9824 R 13736



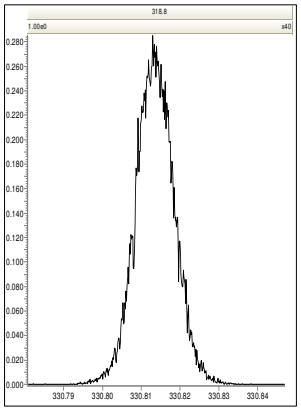
M 304.9824 R 14283



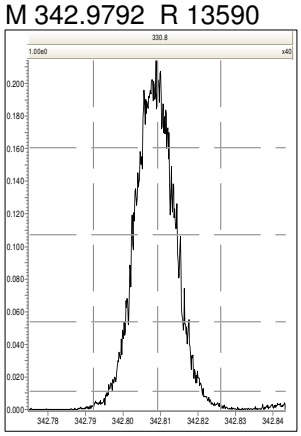
M 318.9792 R 14370



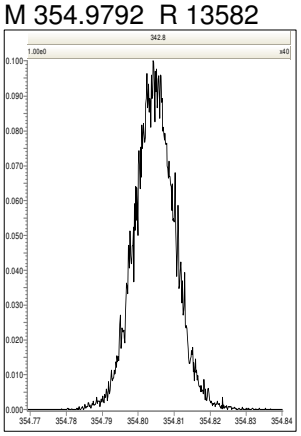
M 330.9792 R 14285



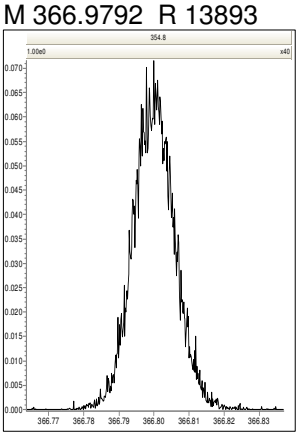
M 342.9792 R 13590



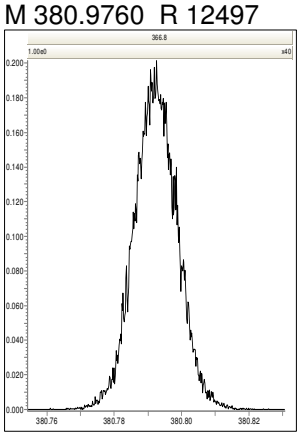
M 354.9792 R 13582



M 366.9792 R 13893



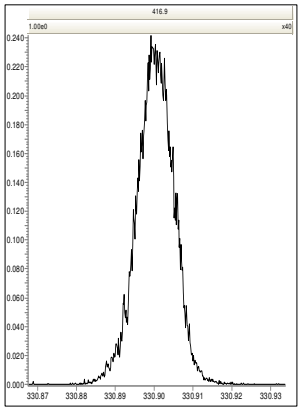
M 380.9760 R 12497



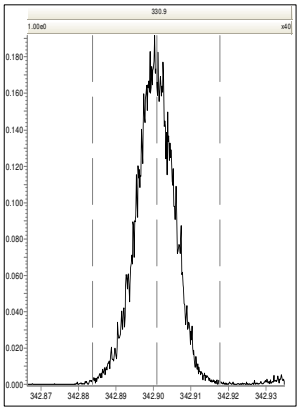
File: Experiment: dioxin_db5ms.exp Reference: pfk.ref Function: 2 @ 200 (ppm)

Printed: Friday, February 08, 2013 10:37:34 Eastern Standard Time

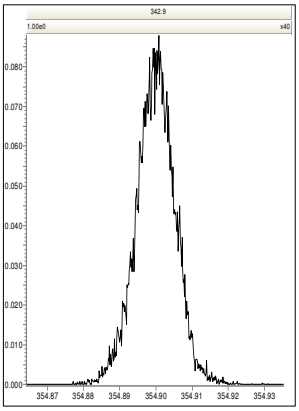
M 330.9792 R 14709



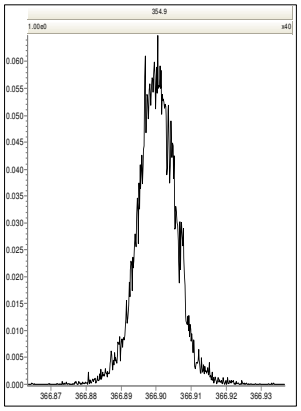
M 342.9792 R 14205



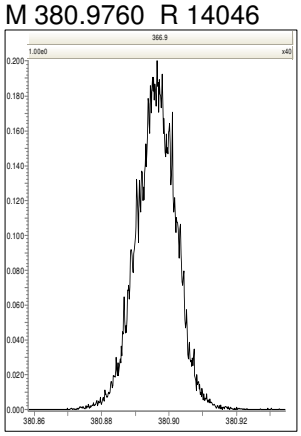
M 354.9792 R 14534



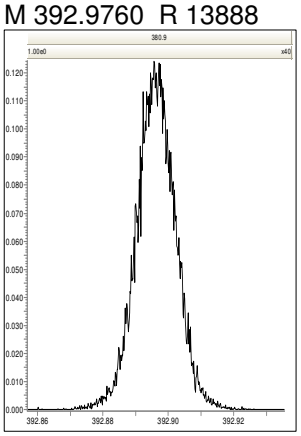
M 366.9792 R 14207



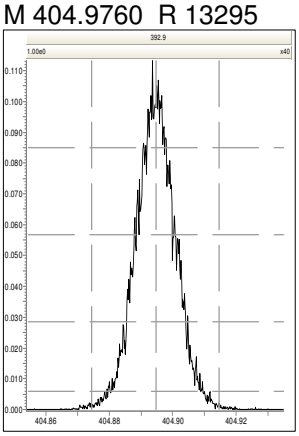
M 380.9760 R 14046



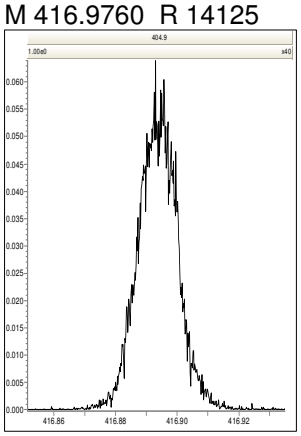
M 392.9760 R 13888



M 404.9760 R 13295



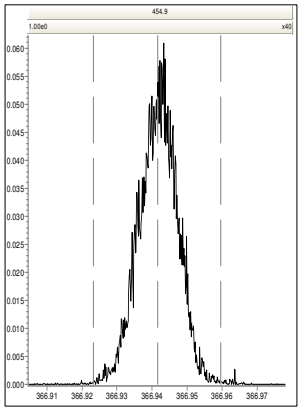
M 416.9760 R 14125



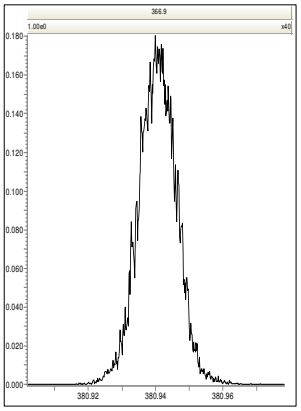
File: Experiment: dioxin_db5ms.exp Reference: pfk.ref Function: 3 @ 200 (ppm)

Printed: Friday, February 08, 2013 10:38:22 Eastern Standard Time

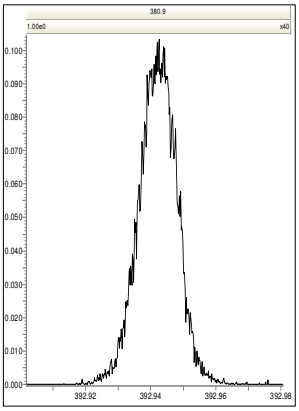
M 366.9792 R 14533



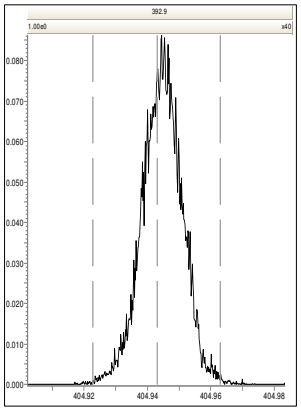
M 380.9760 R 15525



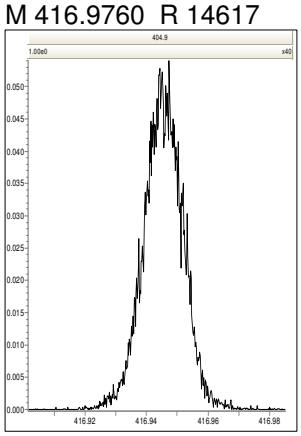
M 392.9760 R 14368



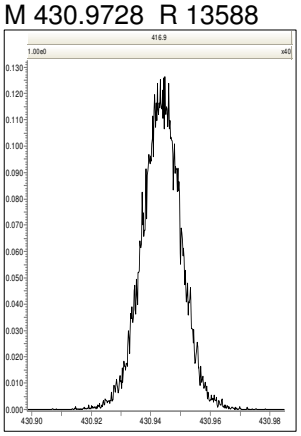
M 404.9760 R 13811



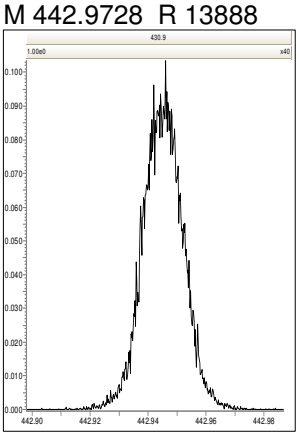
M 416.9760 R 14617



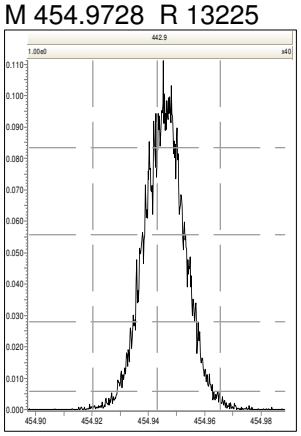
M 430.9728 R 13588



M 442.9728 R 13888



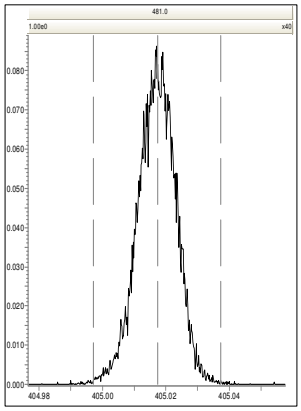
M 454.9728 R 13225



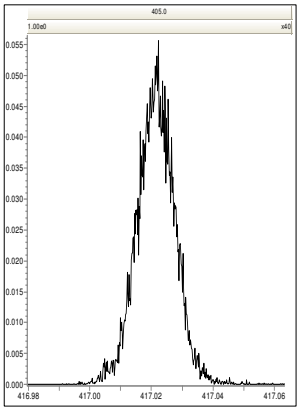
File: Experiment: dioxin_db5ms.exp Reference: pfk.ref Function: 4 @ 200 (ppm)

Printed: Friday, February 08, 2013 10:39:05 Eastern Standard Time

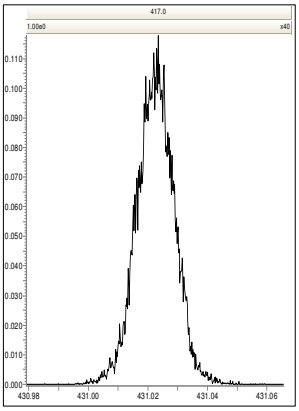
M 404.9760 R 15245



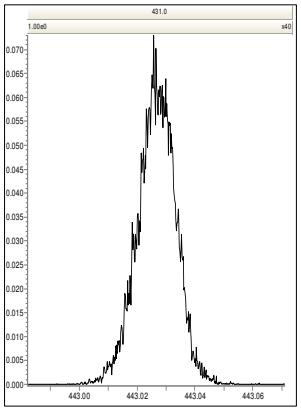
M 416.9760 R 15060



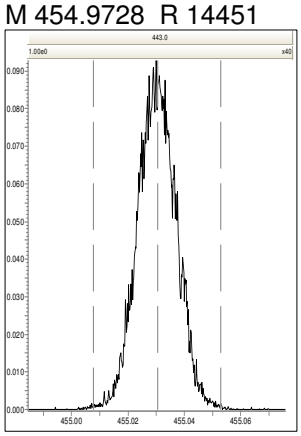
M 430.9728 R 15430



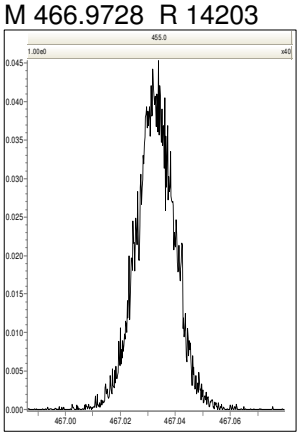
M 442.9728 R 14452



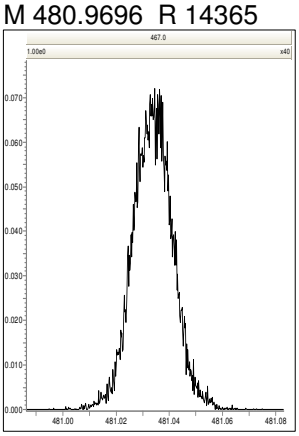
M 454.9728 R 14451



M 466.9728 R 14203



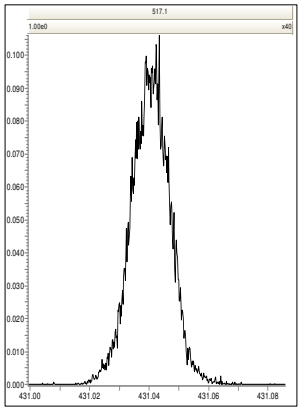
M 480.9696 R 14365



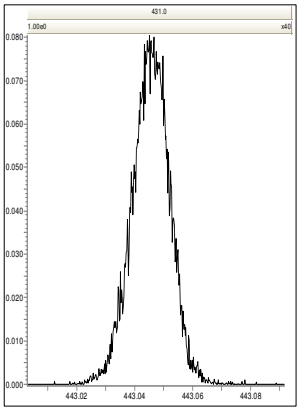
File: Experiment: dioxin_db5ms.exp Reference: pfk.ref Function: 5 @ 200 (ppm)

Printed: Friday, February 08, 2013 10:39:52 Eastern Standard Time

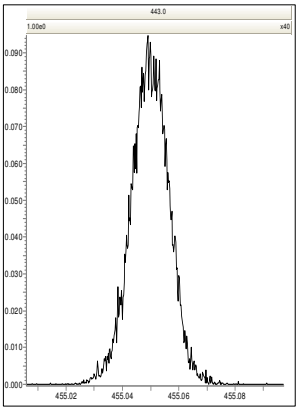
M 430.9728 R 13735



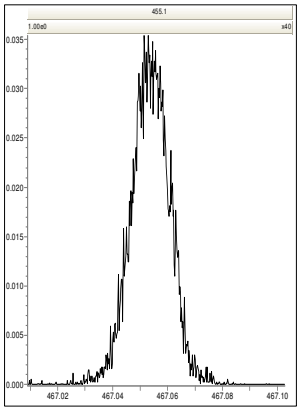
M 442.9728 R 15334



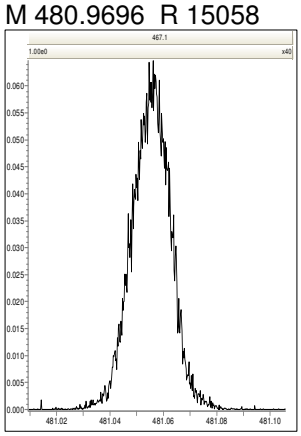
M 454.9728 R 15333



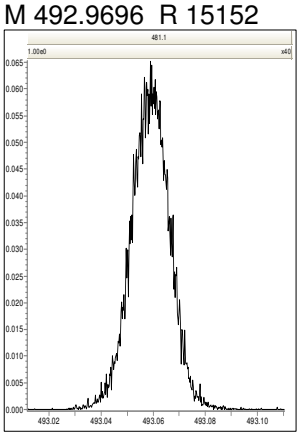
M 466.9728 R 14880



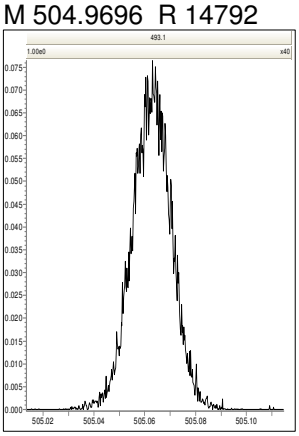
M 480.9696 R 15058



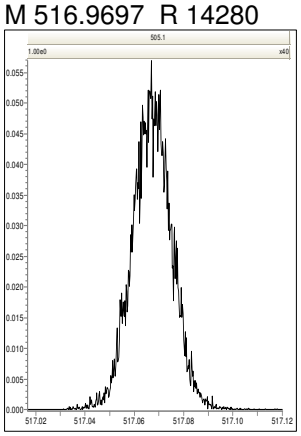
M 492.9696 R 15152



M 504.9696 R 14792



M 516.9697 R 14280



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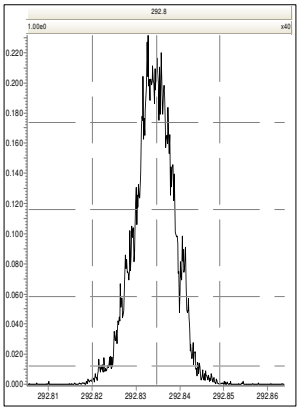
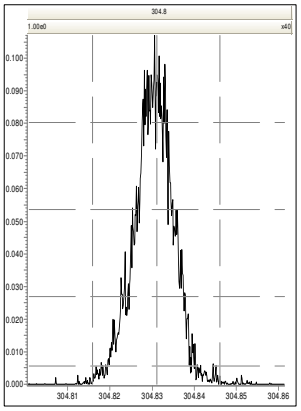
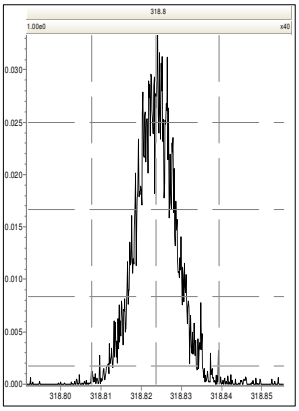
M 292.9824 R 14215



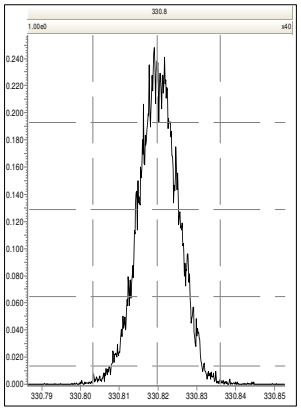
M 304.9824 R 15432



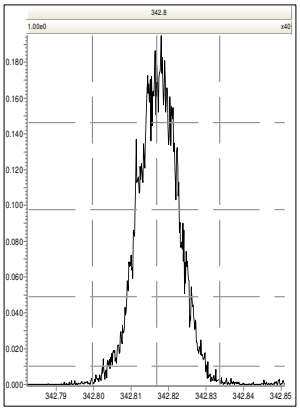
M 318.9792 R 16290



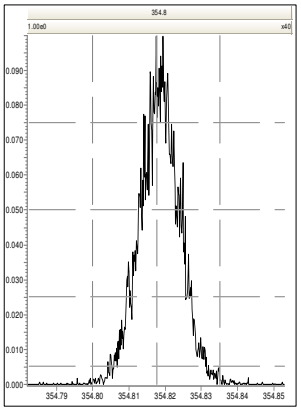
M 330.9792 R 14085



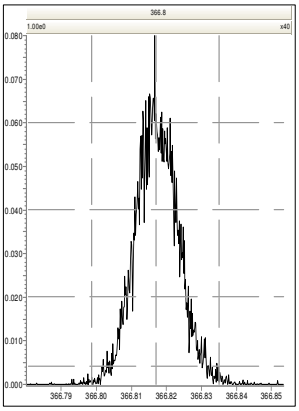
M 342.9792 R 13420



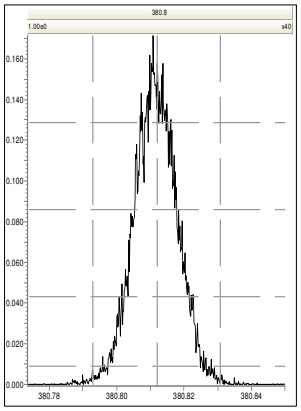
M 354.9792 R 13774



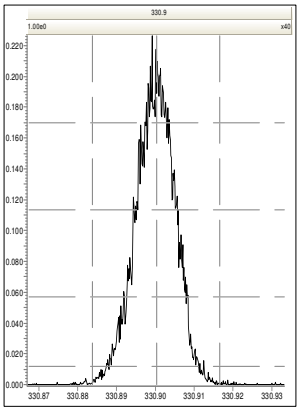
M 366.9792 R 13786



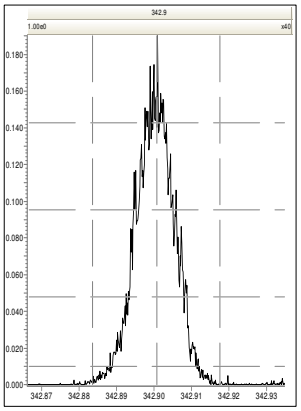
M 380.9760 R 13097



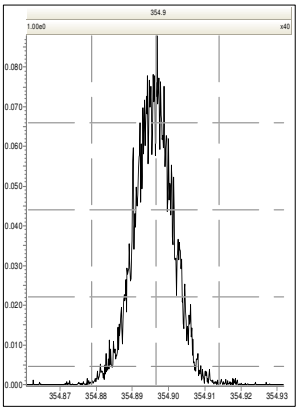
M 330.9792 R 15004



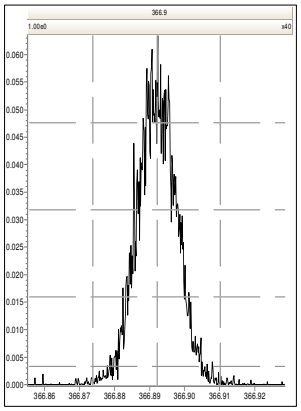
M 342.9792 R 14331



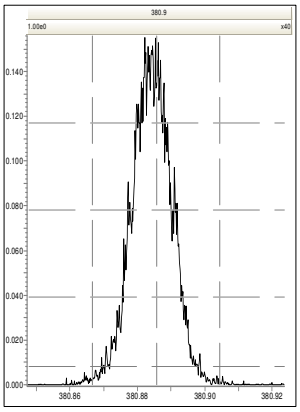
M 354.9792 R 14632



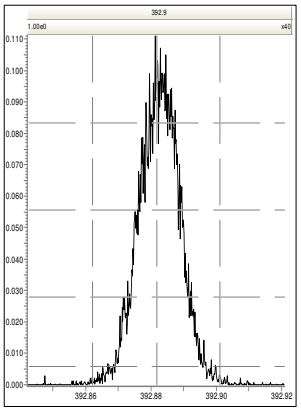
M 366.9792 R 15337



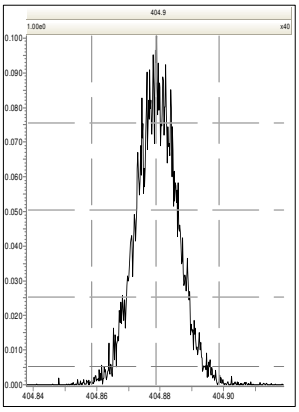
M 380.9760 R 14409



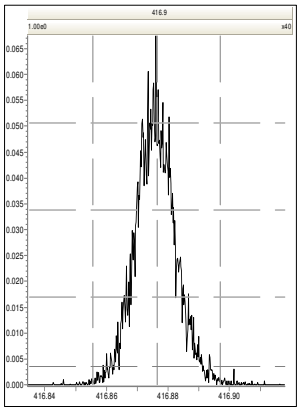
M 392.9760 R 14045



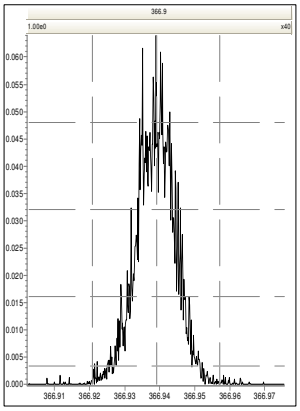
M 404.9760 R 14124



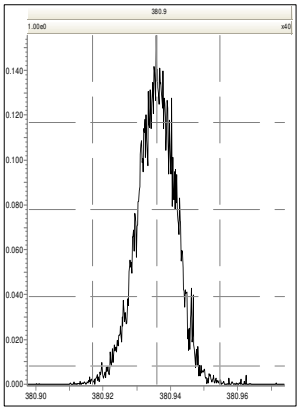
M 416.9760 R 14697



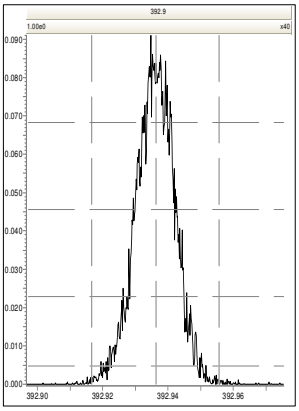
M 366.9792 R 14379



M 380.9760 R 14127



M 392.9760 R 14492



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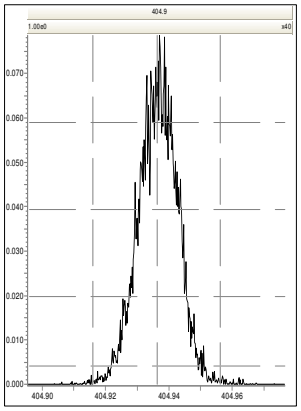
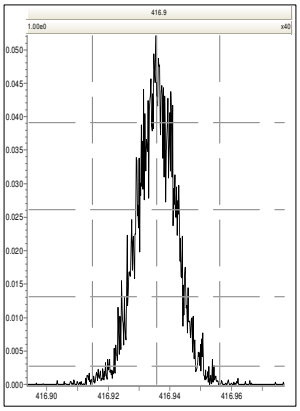
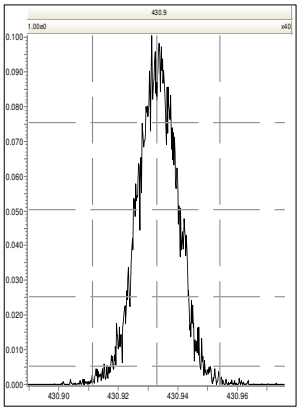


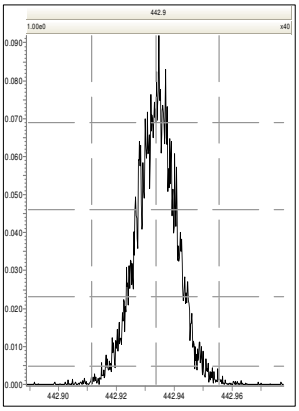
M 416.9760 R 15383



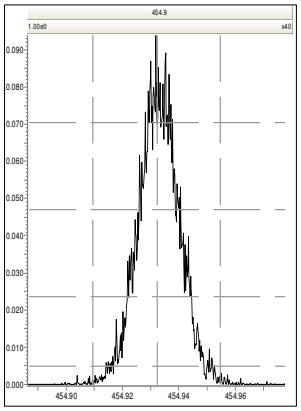
M 430.9728 R 14046



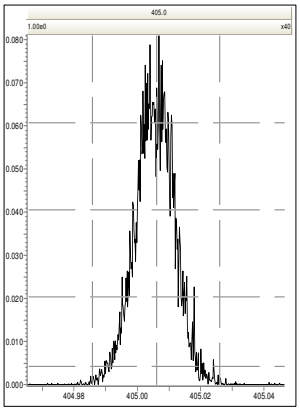
M 442.9728 R 14247



M 454.9728 R 14164



M 404.9760 R 14971



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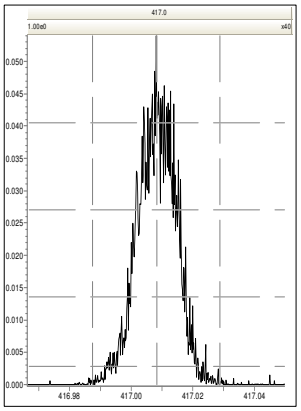
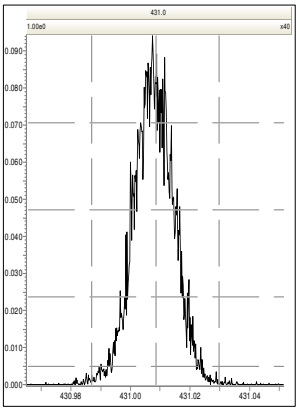
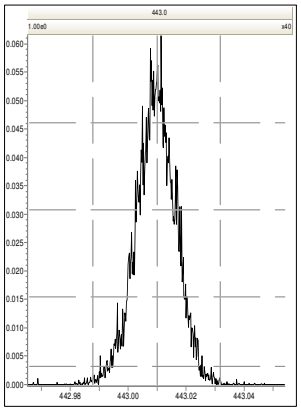


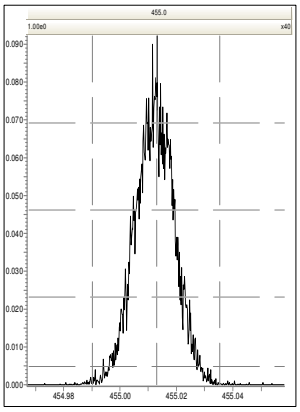
M 430.9728 R 14718



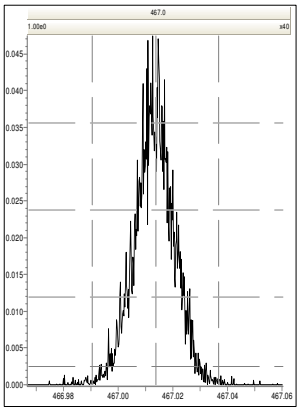
M 442.9728 R 14805



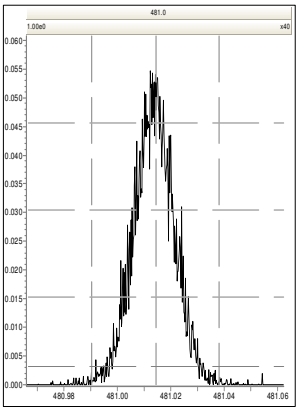
M 454.9728 R 14173



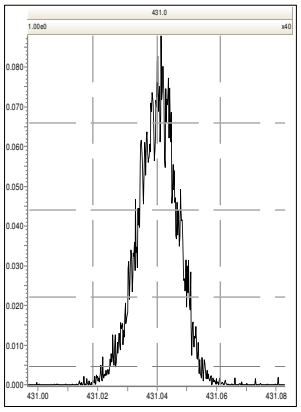
M 466.9728 R 14619



M 480.9696 R 15104



M 430.9728 R 14899



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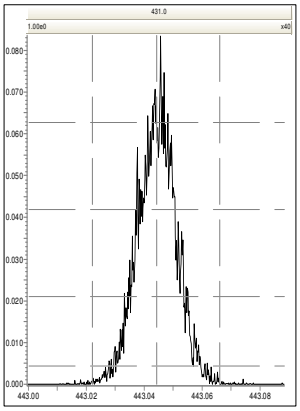
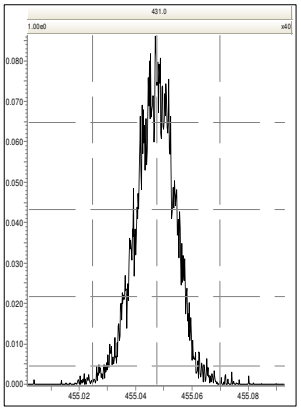
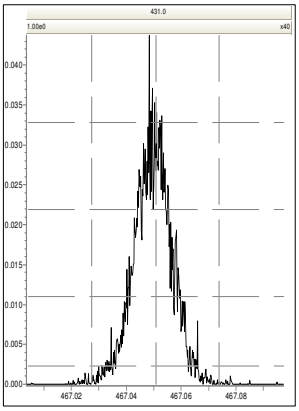
M 442.9728 R 13945



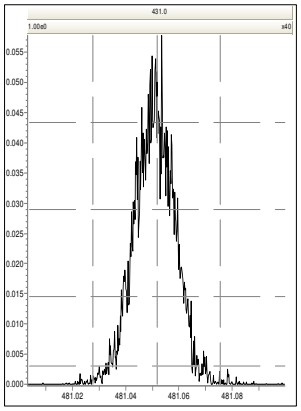
M 454.9728 R 15025



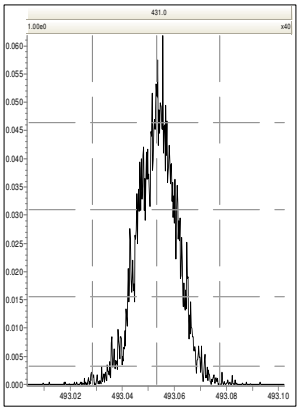
M 466.9728 R 15753



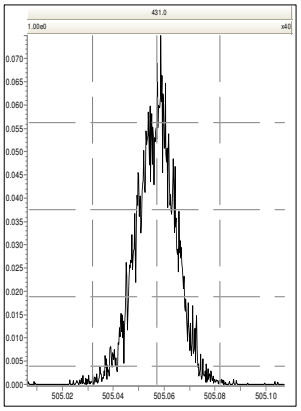
M 480.9696 R 16105



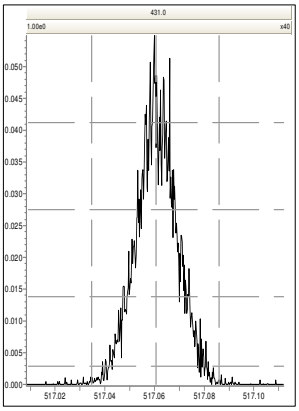
M 492.9696 R 15060



M 504.9696 R 14205



M 516.9697 R 14226



Quantify Sample Summary Report **MassLynx 4.1**
Method Window Defining Report

Dataset: C:\MassLynx\Default.pro\WDM Results\wdm-b08feb13a-5.qld

Last Altered: Friday, February 08, 2013 14:49:08 Eastern Standard Time
Printed: Friday, February 08, 2013 14:49:33 Eastern Standard Time

Method: C:\MassLynx\DEFAULT.PRO\MethDB\WDM_121912.mdb 19 Dec 2012 11:23:56
Calibration: C:\MassLynx\DEFAULT.PRO\CurveDB\8290-b30nov12a.cdb 03 Dec 2012 09:49:08

Name: b08feb13a-5, Date: 08-Feb-2013, Time: 13:51:36, ID: CS3WT UD121129-1.2, Description: , Job: b08feb13a, Task: HRP763_1, User: MJC

	Name	RT
1	First TCDF	26.28
2	Last TCDF	31.96
3	First PeCDF	31.93
4	Last PeCDF	34.63
5	First HxCDF	35.12
6	Last HxCDF	37.44
7	First HpCDF	38.91
8	Last HpCDF	40.86
9	OCDF	44.71
10	First TCDD	28.01
11	2378-TCDD	31.30
12	Last TCDD	31.88
13	First PeCDD	32.83
14	Last PeCDD	34.45
15	First HxCDD	35.55
16	Last HxCDD	37.12
17	First HpCDD	39.25
18	Last HpCDD	40.18
19	OCDD	44.40

Quantify Sample Report **MassLynx 4.1**
Method Window Defining Report

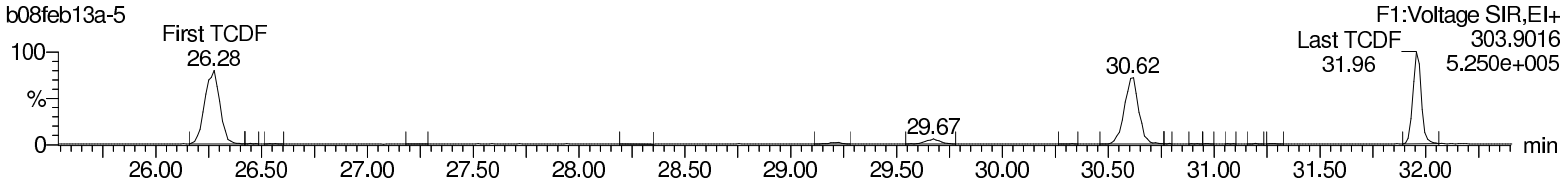
Dataset: C:\MassLynx\Default.pro\WDM Results\wdm-b08feb13a-5.qld

Last Altered: Friday, February 08, 2013 14:49:08 Eastern Standard Time
Printed: Friday, February 08, 2013 14:49:33 Eastern Standard Time

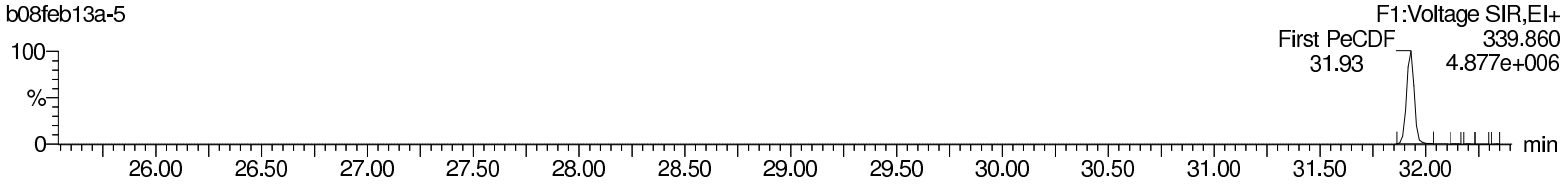
Method: C:\MassLynx\DEFAULT.PRO\MethDB\WDM_121912.mdb 19 Dec 2012 11:23:56
Calibration: C:\MassLynx\DEFAULT.PRO\CurveDB\8290-b30nov12a.cdb 03 Dec 2012 09:49:08

Name: b08feb13a-5, Date: 08-Feb-2013, Time: 13:51:36, ID: CS3WT UD121129-1.2, Description: , Job: b08feb13a, Task: HRP763_1, User: MJC

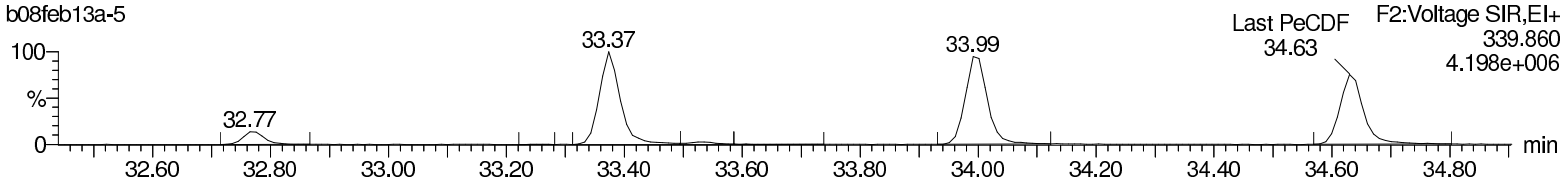
First TCDF



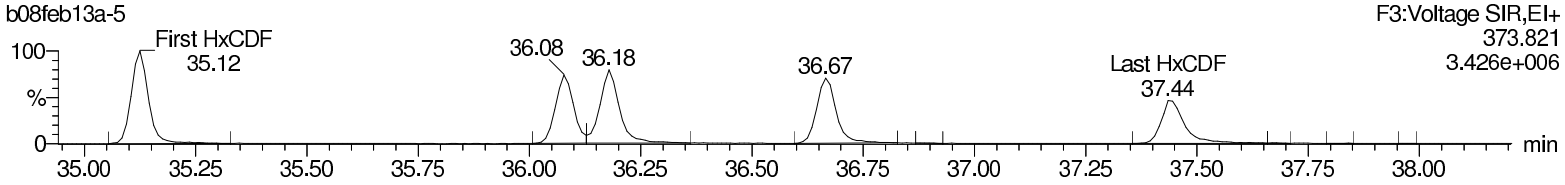
First PeCDF



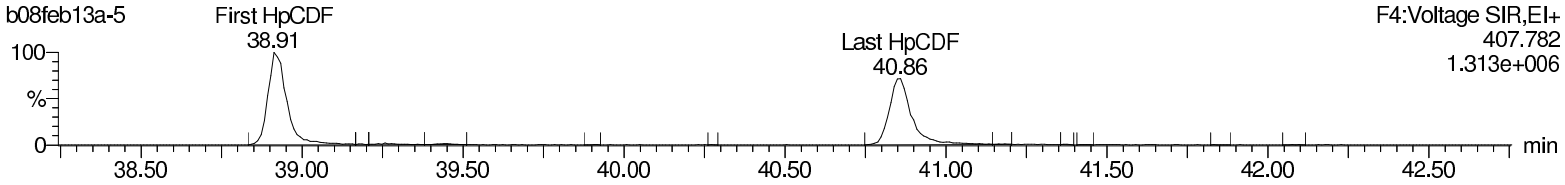
Last PeCDF



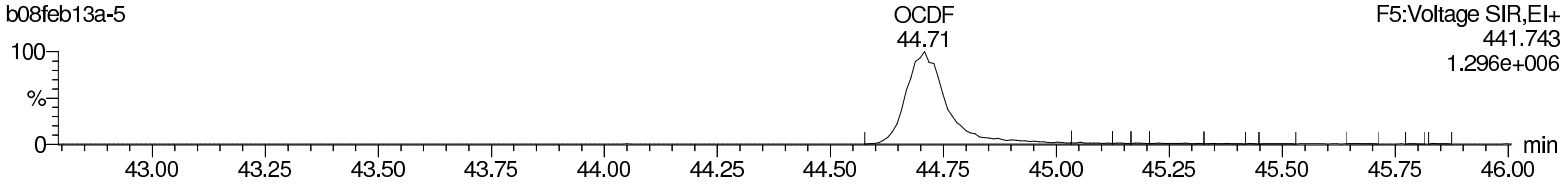
First HxCDF



First HpCDF



OCDF



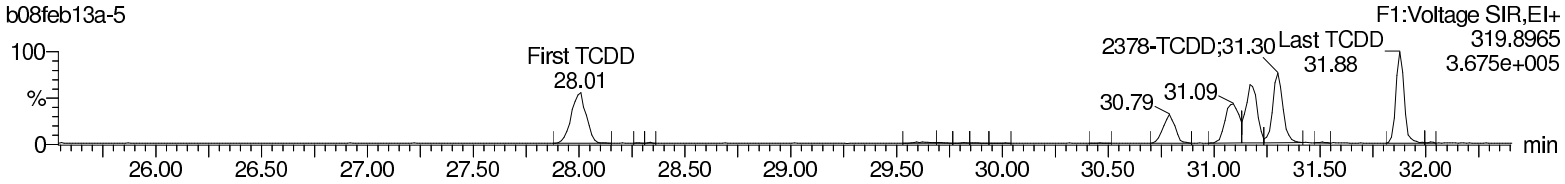
Quantify Sample Report **MassLynx 4.1**
Method Window Defining Report

Dataset: C:\MassLynx\Default.pro\WDM Results\wdm-b08feb13a-5.qld

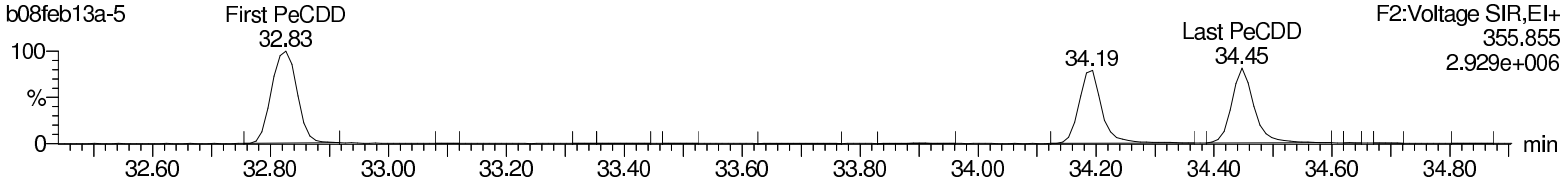
Last Altered: Friday, February 08, 2013 14:49:08 Eastern Standard Time
Printed: Friday, February 08, 2013 14:49:33 Eastern Standard Time

Name: b08feb13a-5, Date: 08-Feb-2013, Time: 13:51:36, ID: CS3WT UD121129-1.2, Description: , Job: b08feb13a, Task: HRP763_1, User: MJC

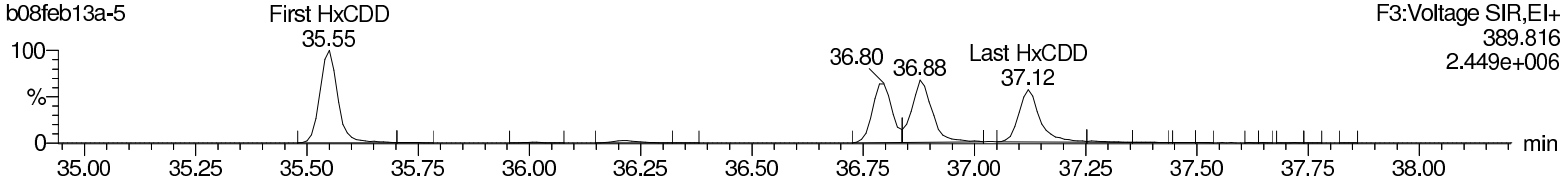
First TCDD



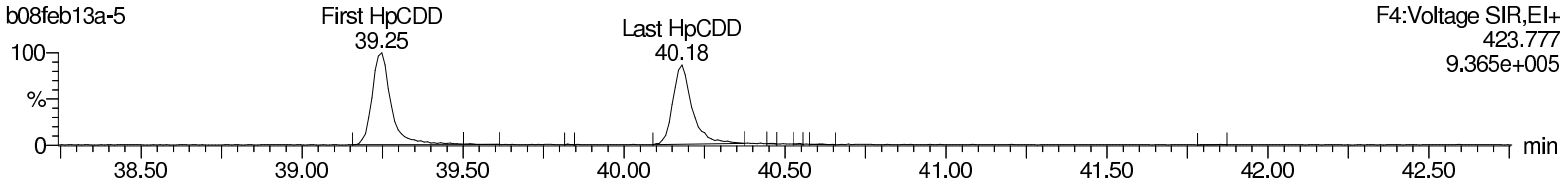
First PeCDD



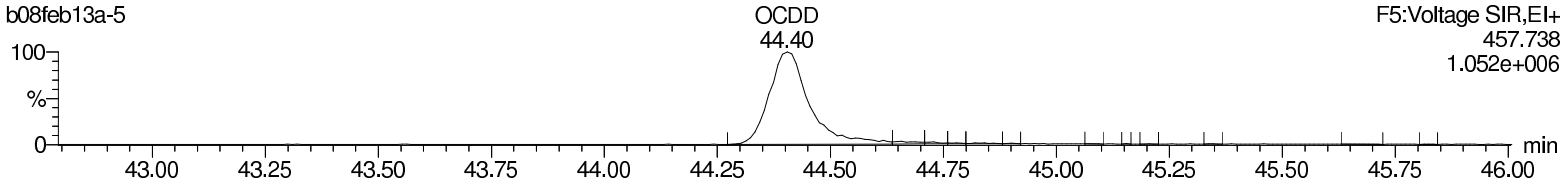
First HxCDD



First HpCDD



OCDD



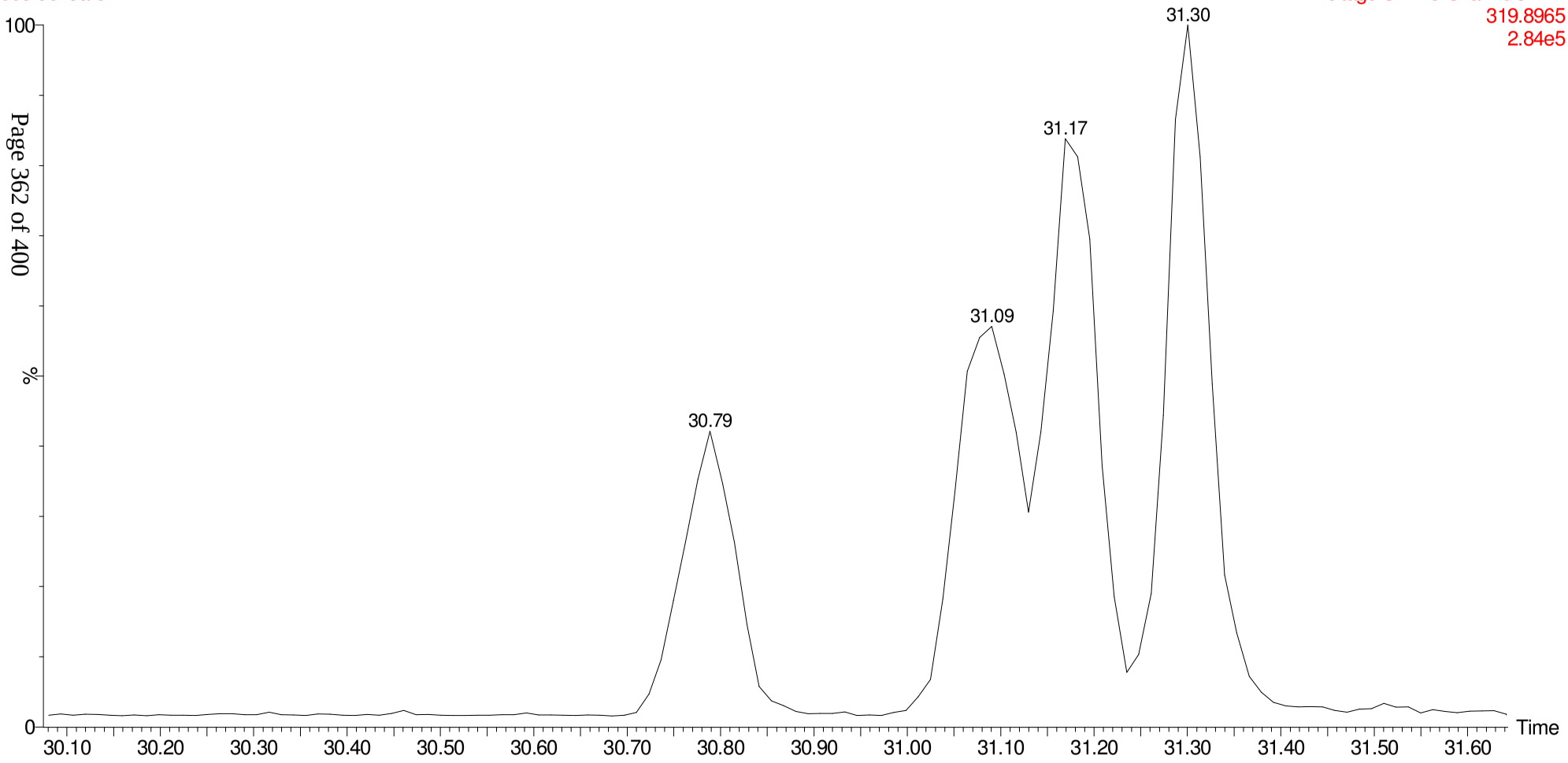
COLUMN CHECK (2378-TCDD 8%)

P763

08-Feb-2013 13:51:36

b08feb13a-5

1: Voltage SIR 13 Channels EI+
319.8965
2.84e5



Quantify Sample Summary Report **MassLynx 4.1**
Method 8290 CCAL Report

Dataset: C:\MassLynx\Default.pro\CCAL Results\8290-b08feb13a-5.qld

Last Altered: Monday, February 11, 2013 08:12:03 Eastern Standard Time
Printed: Monday, February 11, 2013 08:12:24 Eastern Standard Time

Method: C:\MassLynx\DEFAULT.PRO\MethDB\CFA_EPA8290_121912.mdb 20 Dec 2012 07:43:23
Calibration: C:\MassLynx\DEFAULT.PRO\CurveDB\8290-b30nov12a.cdb 03 Dec 2012 09:49:08

Name: b08feb13a-5, Date: 08-Feb-2013, Time: 13:51:36, ID: CS3WT UD121129-1.2, Description: , Job: b08feb13a, Task: HRP763_1, User: MJC

	Name	Ion1Area	Ion2Area	Response	RT	RRT	RA	Fail?	pg/uL	EDL	RRF	Mean	%D	Height1	Noise1	S/N1	Height2	Noise2	S/N2	M
1	2378-TCDD	1.54e4	2.16e4	3.69e4	31.30	1.000	0.71	NO	8.769	0.0728	0.836	0.953	-12.3	2.77e5	1053	262.8	3.60e5	1199	300.6	db
2	12378-PeCDD	1.03e5	5.96e4	1.63e5	34.19	1.001	1.73	NO	49.793	0.233	0.963	0.967	-0.4	2.31e6	3557	649.4	1.32e6	3202	412.4	bb
3	123478-HxCDD	7.94e4	6.34e4	1.43e5	36.80	0.998	1.25	NO	54.465	0.312	1.060	0.973	8.9	1.56e6	2600	599.1	1.24e6	3347	371.7	bd
4	123678-HxCDD	8.69e4	6.78e4	1.55e5	36.88	1.000	1.28	NO	53.085	0.281	1.147	1.080	6.2	1.64e6	2600	632.5	1.25e6	3347	373.5	db
5	123789-HxCDD	7.62e4	6.01e4	1.36e5	37.12	1.007	1.27	NO	51.077	0.307	1.011	0.989	2.2	1.38e6	2600	531.5	1.07e6	3347	319.1	bd
6	1234678-HpCDD	5.61e4	5.77e4	1.14e5	40.18	1.000	0.97	NO	50.031	0.454	1.136	1.135	0.1	8.05e5	2878	279.7	7.77e5	2519	308.5	bb
7	OCDD	1.08e5	1.16e5	2.24e5	44.40	1.000	0.93	NO	106.888	0.764	1.251	1.170	6.9	1.05e6	2595	403.1	1.17e6	3708	315.7	bd
8	2378-TCDF	2.93e4	3.65e4	6.58e4	30.62	1.001	0.80	NO	10.624	0.135	1.093	1.029	6.2	3.75e5	1204	311.3	4.83e5	2933	164.6	bd
9	12378-PeCDF	1.72e5	1.12e5	2.83e5	33.37	1.000	1.54	NO	50.556	0.210	0.954	0.943	1.1	4.19e6	6016	696.8	2.69e6	4607	583.2	bd
10	23478-PeCDF	1.71e5	1.11e5	2.82e5	33.99	1.019	1.55	NO	48.473	0.202	0.949	0.979	-3.1	3.96e6	6016	658.4	2.63e6	4607	570.7	bb
11	123478-HxCDF	1.18e5	9.52e4	2.13e5	36.08	0.997	1.24	NO	48.873	0.332	0.890	0.910	-2.3	2.53e6	5630	449.0	2.06e6	5051	407.8	bd
12	123678-HxCDF	1.38e5	1.12e5	2.50e5	36.18	1.000	1.23	NO	50.299	0.291	1.046	1.039	0.6	2.72e6	5630	482.3	2.17e6	5051	428.6	db
13	234678-HxCDF	1.23e5	9.96e4	2.23e5	36.67	1.014	1.23	NO	48.415	0.315	0.929	0.960	-3.2	2.41e6	5630	428.4	2.01e6	5051	398.3	bb
14	123789-HxCDF	9.81e4	7.96e4	1.78e5	37.44	1.035	1.23	NO	45.802	0.373	0.742	0.810	-8.4	1.59e6	5630	281.6	1.31e6	5051	258.6	bd
15	1234678-HpCDF	8.77e4	8.17e4	1.69e5	38.91	1.000	1.07	NO	51.310	0.328	1.258	1.226	2.6	1.31e6	3557	367.5	1.30e6	3076	422.4	bd
16	1234789-HpCDF	7.42e4	6.95e4	1.44e5	40.86	1.050	1.07	NO	56.704	0.427	1.067	0.941	13.4	9.34e5	3557	262.4	9.02e5	3076	293.3	bd
17	OCDF	1.34e5	1.44e5	2.77e5	44.71	1.007	0.93	NO	114.276	0.728	1.551	1.358	14.3	1.29e6	3023	426.5	1.38e6	3945	350.9	bd
18	13C-2378-TCDD	1.96e5	2.46e5	4.42e5	31.29	1.017	0.80	NO	101.777	0.204	1.007	0.989	1.8	3.60e6	2865	1256.6	4.39e6	2219	1976.8	bb
19	13C-12378-PeCDD	2.05e5	1.33e5	3.38e5	34.17	1.111	1.53	NO	94.350	0.220	0.770	0.816	-5.6	4.55e6	2582	1762.1	2.95e6	1928	1530.3	bb
20	13C-123678-HxCDD	1.42e5	1.28e5	2.70e5	36.87	0.993	1.10	NO	105.624	0.330	1.175	1.112	5.6	2.57e6	2995	858.0	2.28e6	2739	831.3	db
21	13C-1234678-HpCDD	1.07e5	9.34e4	2.00e5	40.17	1.082	1.15	NO	104.496	0.344	0.874	0.836	4.5	1.40e6	2443	572.9	1.22e6	2045	597.1	bd
22	13C-OCDD	1.64e5	1.94e5	3.58e5	44.38	1.196	0.84	NO	227.785	0.492	0.779	0.684	13.9	1.61e6	2228	723.4	1.91e6	3027	631.8	bd
23	13C-2378-TCDF	2.78e5	3.24e5	6.02e5	30.58	0.994	0.86	NO	93.546	0.0897	1.372	1.466	-6.5	3.43e6	1927	1780.4	3.97e6	1379	2877.7	bb
24	13C-12378-PeCDF	3.68e5	2.25e5	5.94e5	33.36	1.085	1.63	NO	102.360	0.306	1.352	1.321	2.4	8.33e6	4366	1907.1	5.26e6	5807	905.2	bd
25	13C-123678-HxCDF	1.63e5	3.16e5	4.79e5	36.17	0.975	0.51	NO	127.079	0.461	2.087	1.642	27.1	3.00e6	5716	524.9	5.88e6	6117	961.7	dd
26	13C-1234678-HpCDF	8.27e4	1.87e5	2.69e5	38.91	1.049	0.44	NO	104.127	0.449	1.173	1.127	4.1	1.27e6	3352	378.4	2.91e6	4556	638.3	bd
27	13C-1234-TCDD	1.93e5	2.46e5	4.39e5	30.76	0.000	0.79	NO	100.000	0.202	1.000	1.000	0.0	2.76e6	2865	964.6	3.61e6	2219	1625.0	bb
28	13C-123789-HxCDD	1.23e5	1.07e5	2.30e5	37.11	0.000	1.15	NO	100.000	0.367	1.000	1.000	0.0	2.09e6	2995	698.7	1.78e6	2739	649.1	MM
29	37Cl-2378-TCDD (SS)	4.77e4		4.77e4	31.30	1.000			9.773	0.0341	1.080	1.105	-2.3	8.19e5	1223	669.6				bb
30	13C-23478-PeCDF (SS)	3.50e5	2.22e5	5.73e5	33.99	1.019	1.57	NO	96.293	0.189	0.965	1.002	-3.7	7.97e6	4366	1824.6	5.03e6	5807	867.0	db

Quantify Sample Summary Report **MassLynx 4.1**
Method 8290 CCAL Report

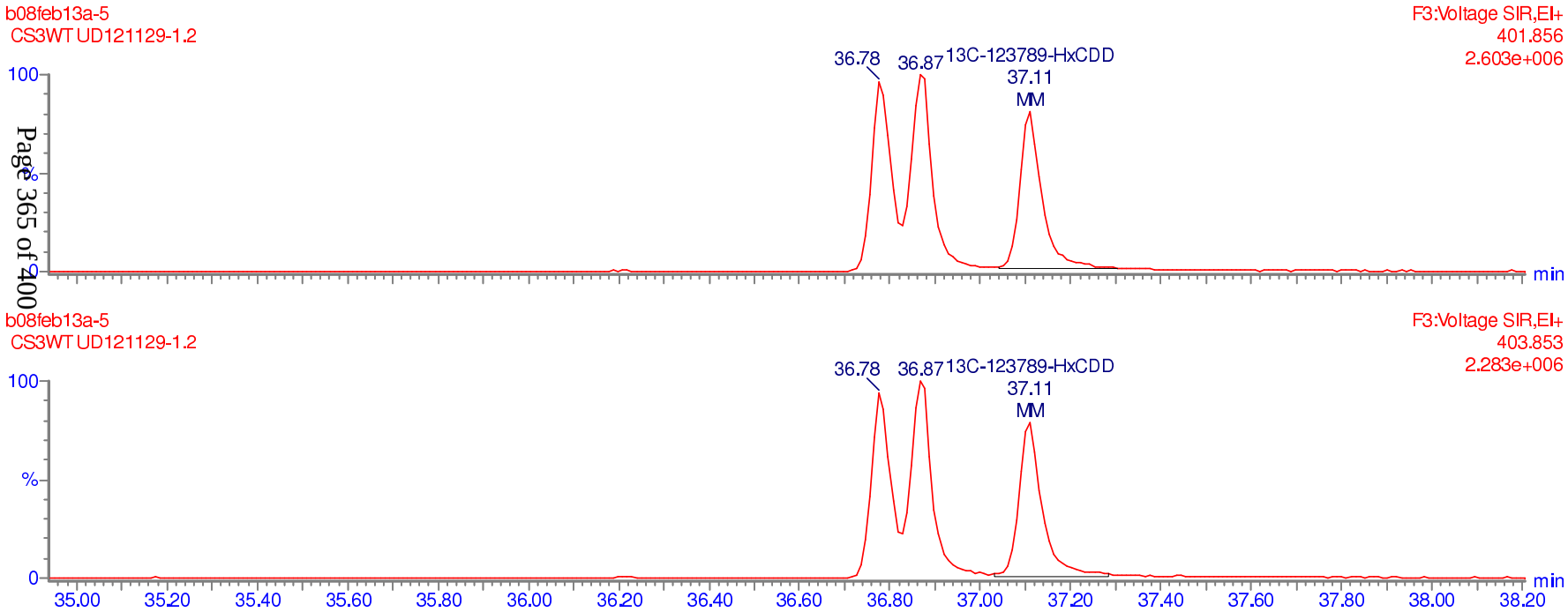
Dataset: C:\MassLynx\Default.pro\CCAL Results\8290-b08feb13a-5.qld

Last Altered: Monday, February 11, 2013 08:12:03 Eastern Standard Time
Printed: Monday, February 11, 2013 08:12:24 Eastern Standard Time

Name: b08feb13a-5, Date: 08-Feb-2013, Time: 13:51:36, ID: CS3WT UD121129-1.2, Description: , Job: b08feb13a, Task: HRP763_1, User: MJC

	Name	Ion1Area	Ion2Area	Response	RT	RRT	RA	Fail?	pg/uL	EDL	RRF	Mean	%D	Height1	Noise1	S/N1	Height2	Noise2	S/N2	M
31	13C-123478-HxCDF (SS)	1.36e5	2.64e5	3.99e5	36.07	0.997	0.51	NO	97.584	0.392	0.833	0.854	-2.4	2.87e6	5716	502.5	5.50e6	6117	898.5	bd
32	13C-123478-HxCDD (SS)	1.22e5	1.05e5	2.27e5	36.78	0.998	1.17	NO	99.132	0.344	0.843	0.851	-0.9	2.48e6	2995	828.8	2.14e6	2739	780.4	bd
33	13C-1234789-HpCDF (SS)	6.95e4	1.61e5	2.30e5	40.84	1.049	0.43	NO	109.645	0.614	0.855	0.780	9.6	8.86e5	3352	264.4	2.06e6	4556	453.1	bd

MANUAL INTEGRATION
METHOD 8290



Quantify Sample Report **MassLynx 4.1**
Method 8290 CCAL Report

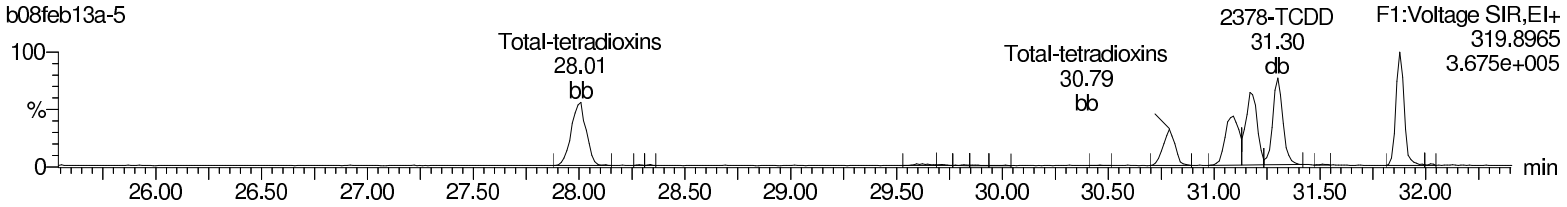
Dataset: C:\MassLynx\Default.pro\CCAL Results\8290-b08feb13a-5.qld

Last Altered: Friday, February 08, 2013 14:39:17 Eastern Standard Time
Printed: Friday, February 08, 2013 14:41:17 Eastern Standard Time

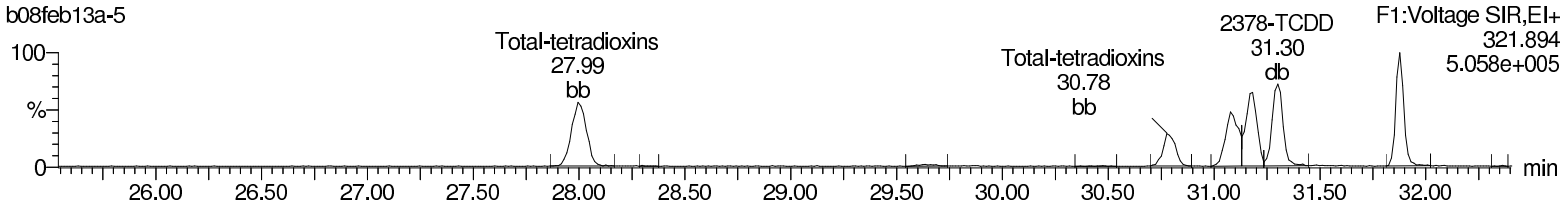
Method: C:\MassLynx\DEFAULT.PRO\MethDB\CFA_EPA8290_121912.mdb 20 Dec 2012 07:43:23
Calibration: C:\MassLynx\DEFAULT.PRO\CurveDB\8290-b30nov12a.cdb 03 Dec 2012 09:49:08

Name: b08feb13a-5, Date: 08-Feb-2013, Time: 13:51:36, ID: CS3WT UD121129-1.2, Description: , Job: b08feb13a, Task: HRP763_1, User: MJC

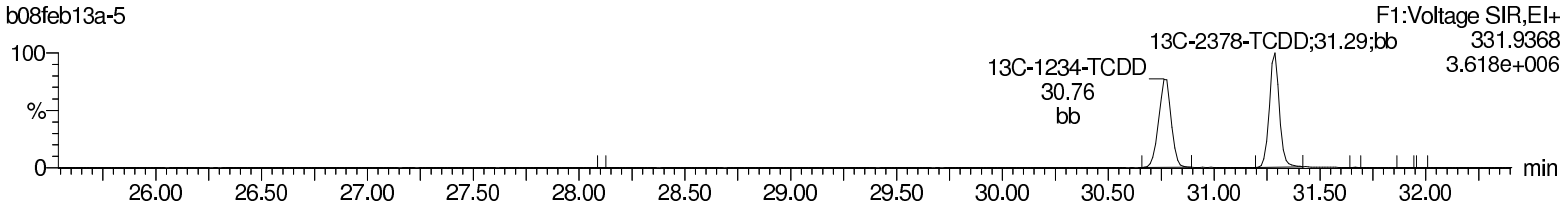
Total-tetradioxins



Total-tetradioxins



13C-2378-TCDD



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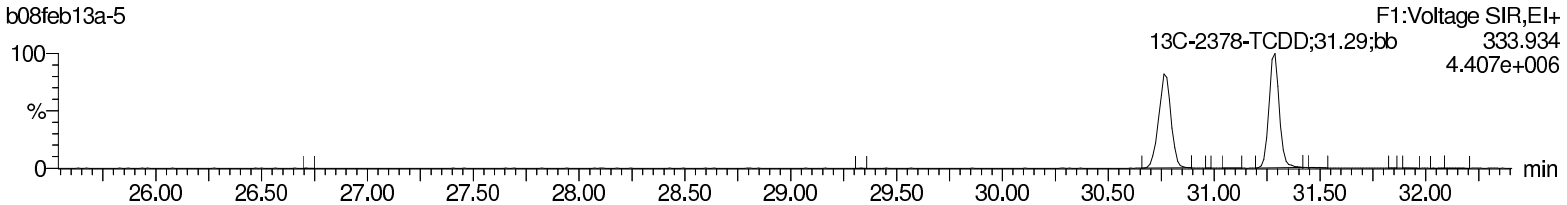
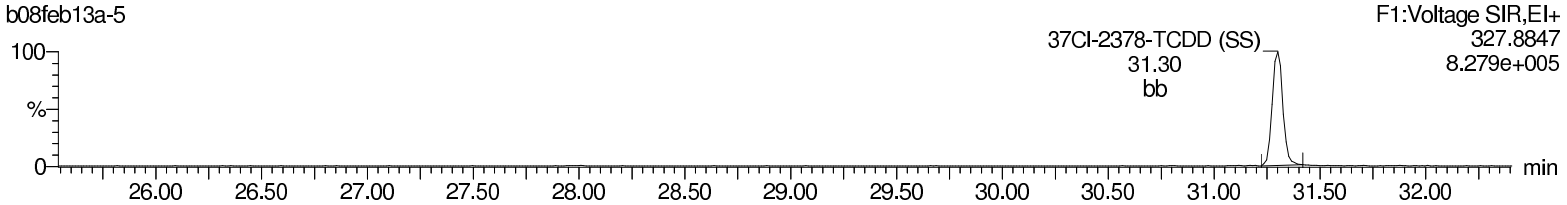
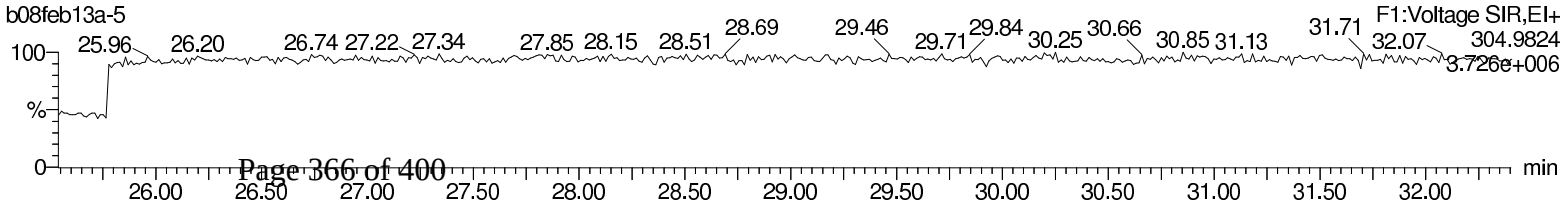


37Cl-2378-TCDD (SS)



Lock Mass F1



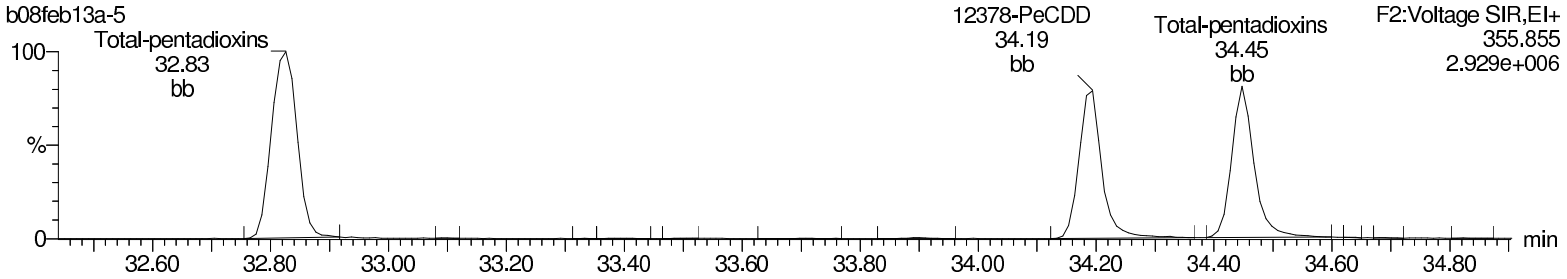
Quantify Sample Report **MassLynx 4.1**
Method 8290 CCAL Report

Dataset: C:\MassLynx\Default.pro\CCAL Results\8290-b08feb13a-5.qld

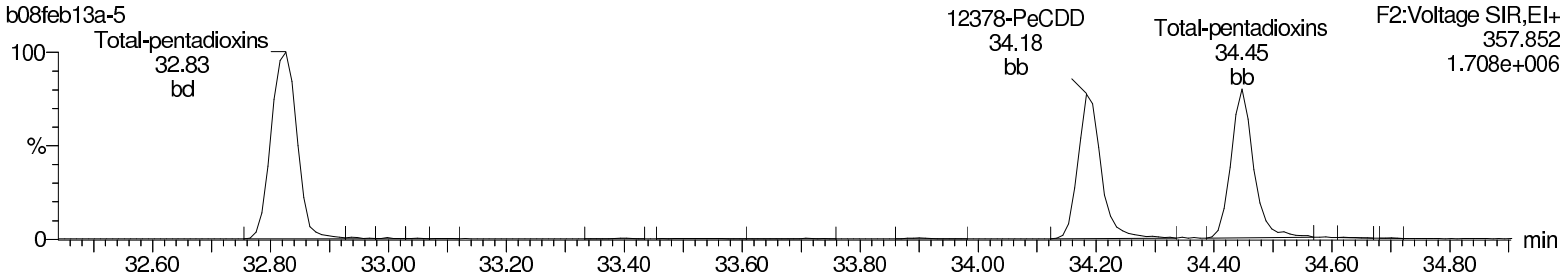
Last Altered: Friday, February 08, 2013 14:39:17 Eastern Standard Time
Printed: Friday, February 08, 2013 14:41:17 Eastern Standard Time

Name: b08feb13a-5, Date: 08-Feb-2013, Time: 13:51:36, ID: CS3WT UD121129-1.2, Description: , Job: b08feb13a, Task: HRP763_1, User: MJC

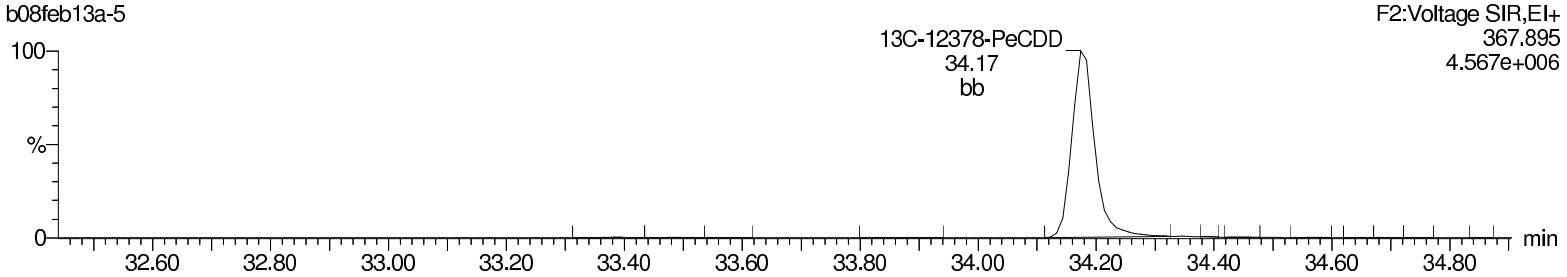
Total-pentadioxins



Total-pentadioxins



13C-12378-PeCDD



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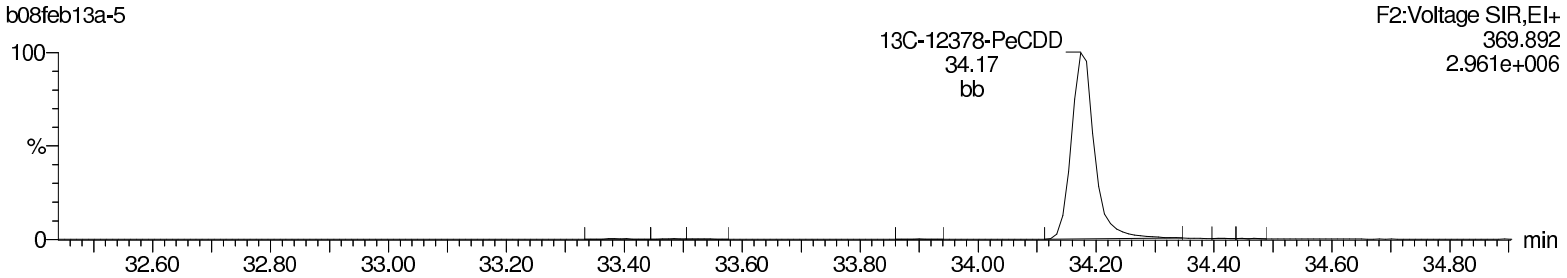
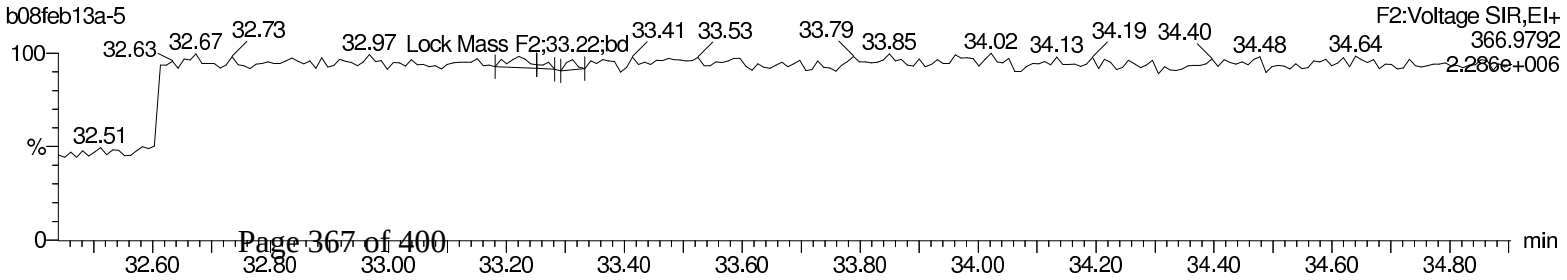


Lock Mass F2



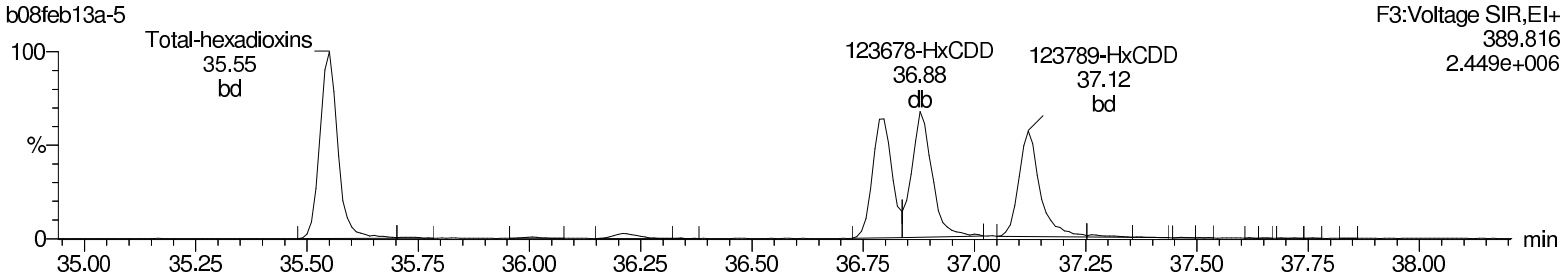
Quantify Sample Report **MassLynx 4.1**
Method 8290 CCAL Report

Dataset: C:\MassLynx\Default.pro\CCAL Results\8290-b08feb13a-5.qld

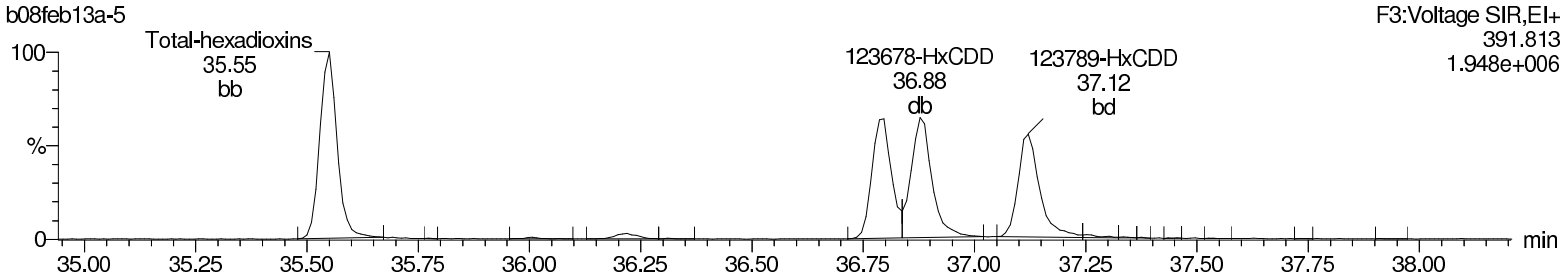
Last Altered: Friday, February 08, 2013 14:39:17 Eastern Standard Time
Printed: Friday, February 08, 2013 14:41:17 Eastern Standard Time

Name: b08feb13a-5, Date: 08-Feb-2013, Time: 13:51:36, ID: CS3WT UD121129-1.2, Description: , Job: b08feb13a, Task: HRP763_1, User: MJC

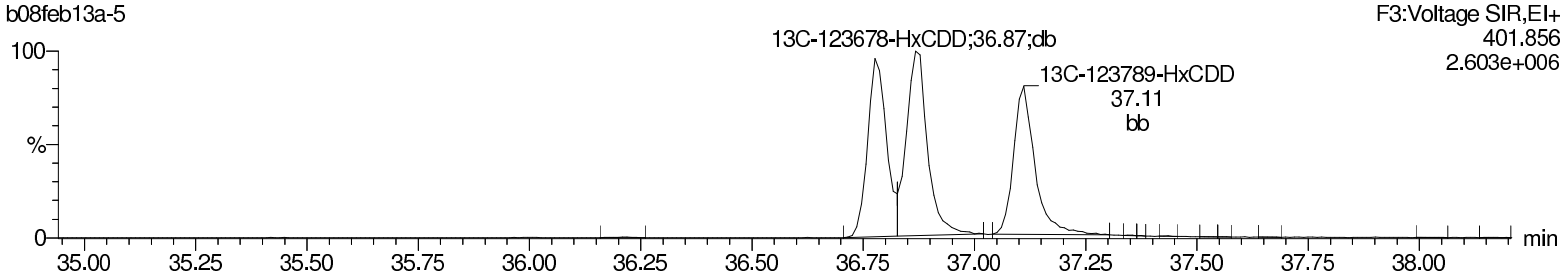
Total-hexadioxins



Total-hexadioxins



13C-123678-HxCDD



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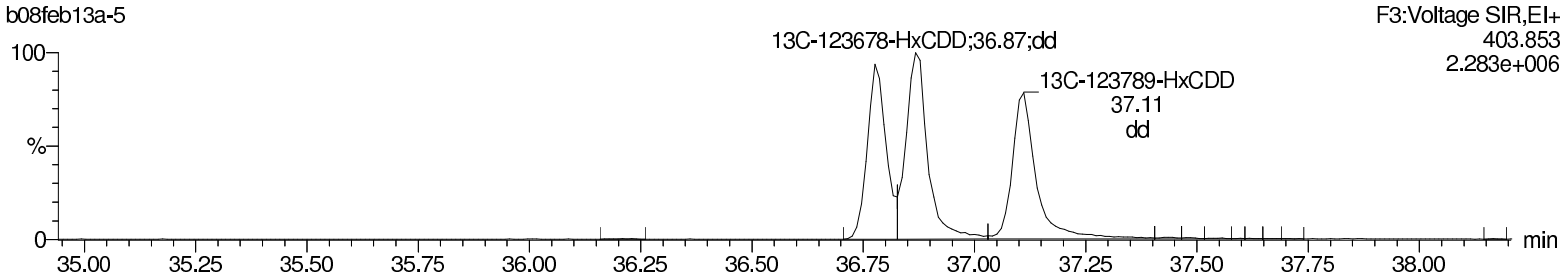
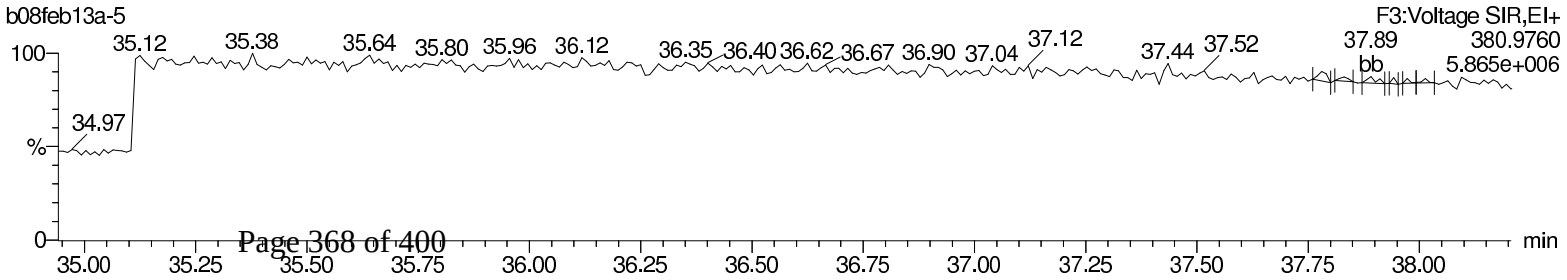


Lock Mass F3



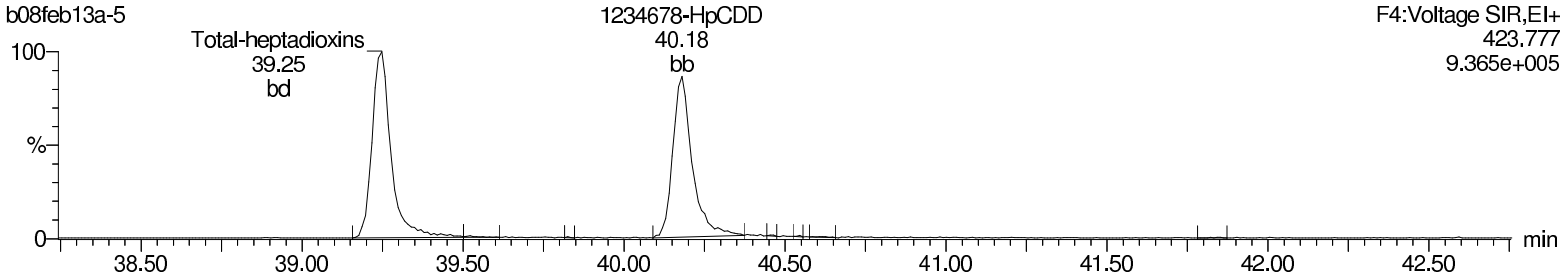
Quantify Sample Report **MassLynx 4.1**
Method 8290 CCAL Report

Dataset: C:\MassLynx\Default.pro\CCAL Results\8290-b08feb13a-5.qld

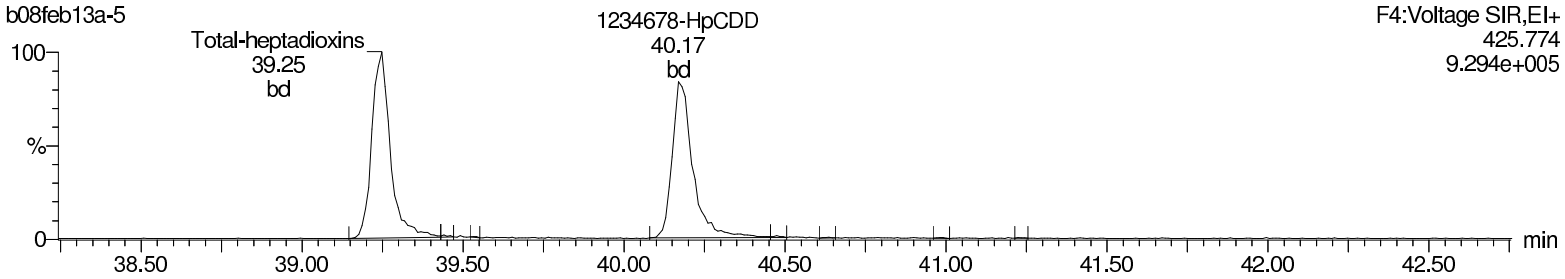
Last Altered: Friday, February 08, 2013 14:39:17 Eastern Standard Time
Printed: Friday, February 08, 2013 14:41:17 Eastern Standard Time

Name: b08feb13a-5, Date: 08-Feb-2013, Time: 13:51:36, ID: CS3WT UD121129-1.2, Description: , Job: b08feb13a, Task: HRP763_1, User: MJC

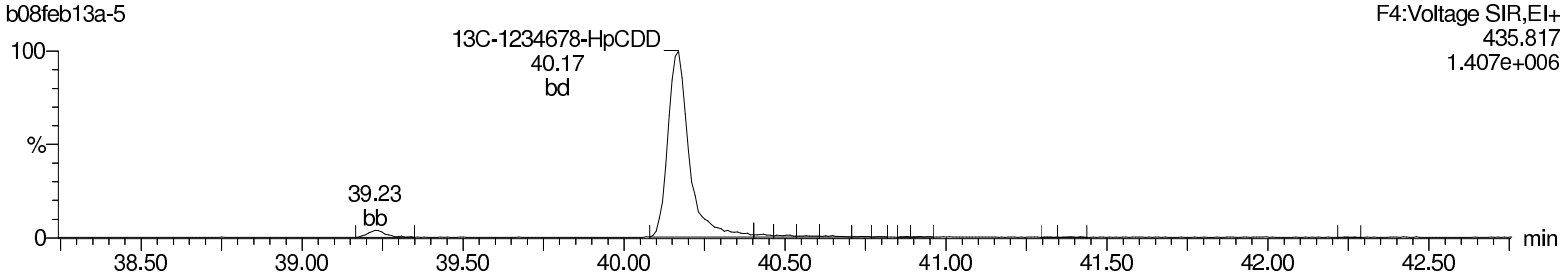
Total-heptadioxins



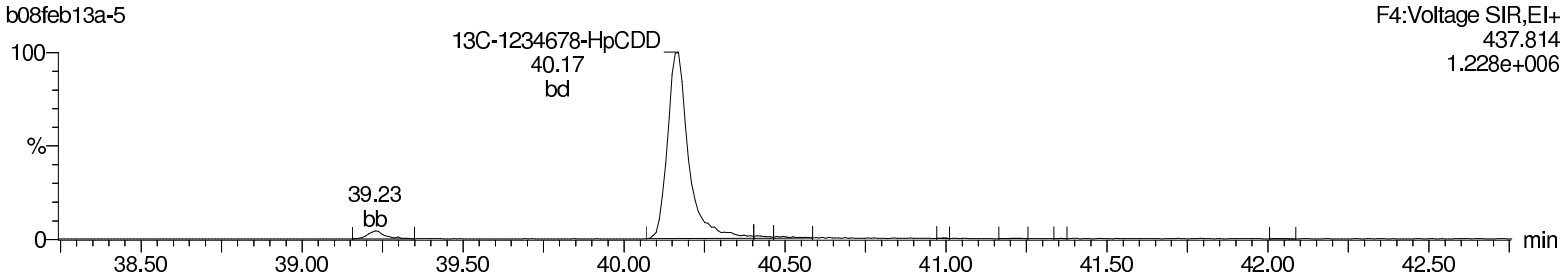
Total-heptadioxins



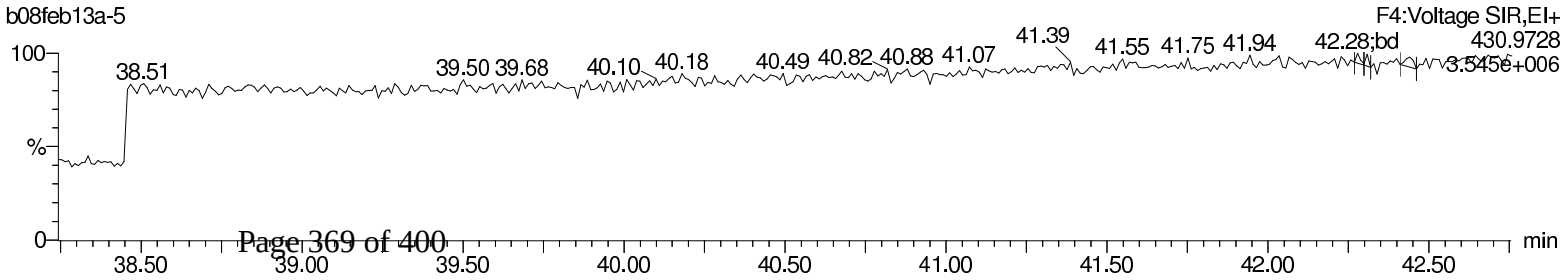
13C-1234678-HpCDD



13C-1234678-HpCDD



Lock Mass F4



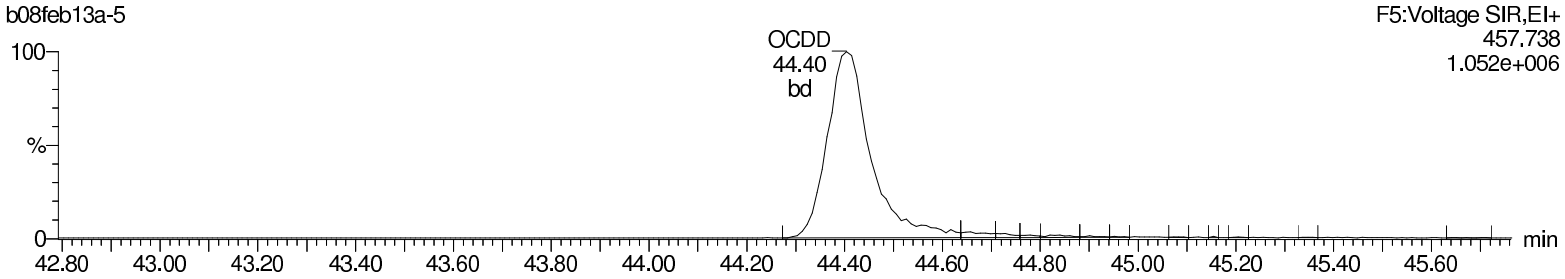
Quantify Sample Report **MassLynx 4.1**
Method 8290 CCAL Report

Dataset: C:\MassLynx\Default.pro\CCAL Results\8290-b08feb13a-5.qld

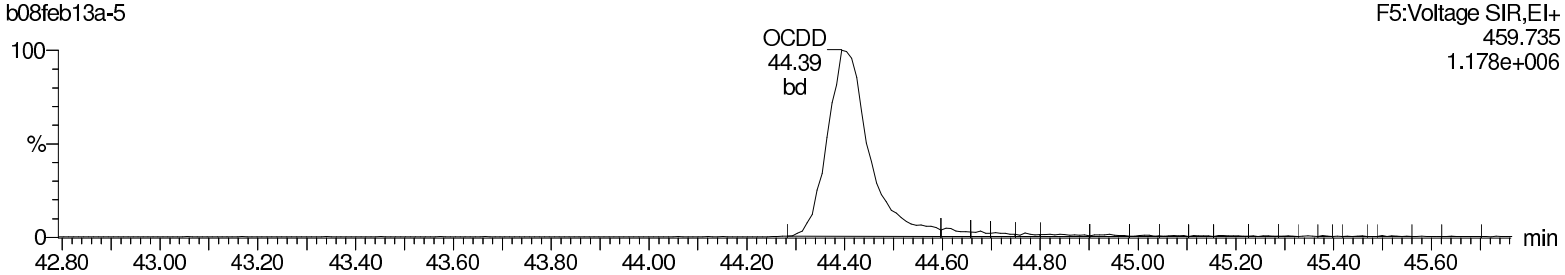
Last Altered: Friday, February 08, 2013 14:39:17 Eastern Standard Time
Printed: Friday, February 08, 2013 14:41:17 Eastern Standard Time

Name: b08feb13a-5, Date: 08-Feb-2013, Time: 13:51:36, ID: CS3WT UD121129-1.2, Description: , Job: b08feb13a, Task: HRP763_1, User: MJC

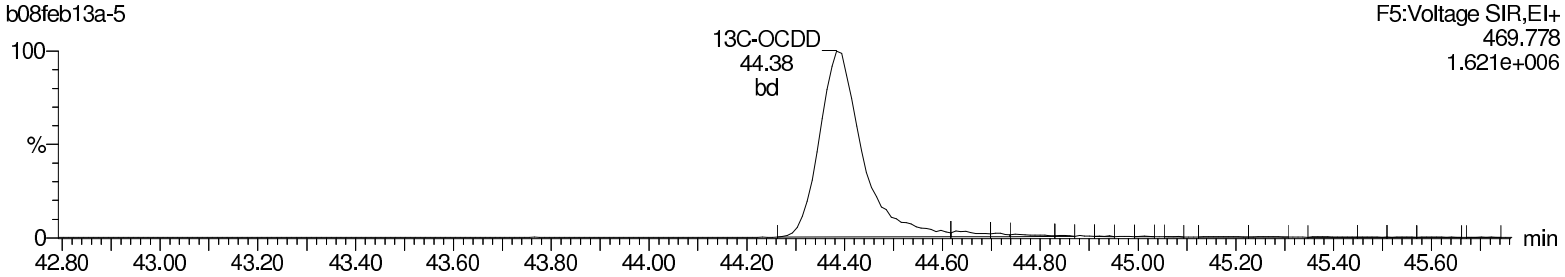
OCDD



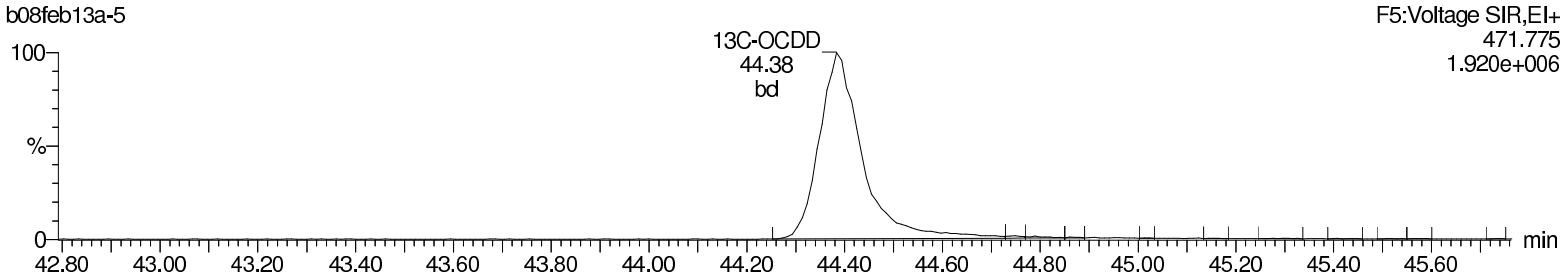
OCDD



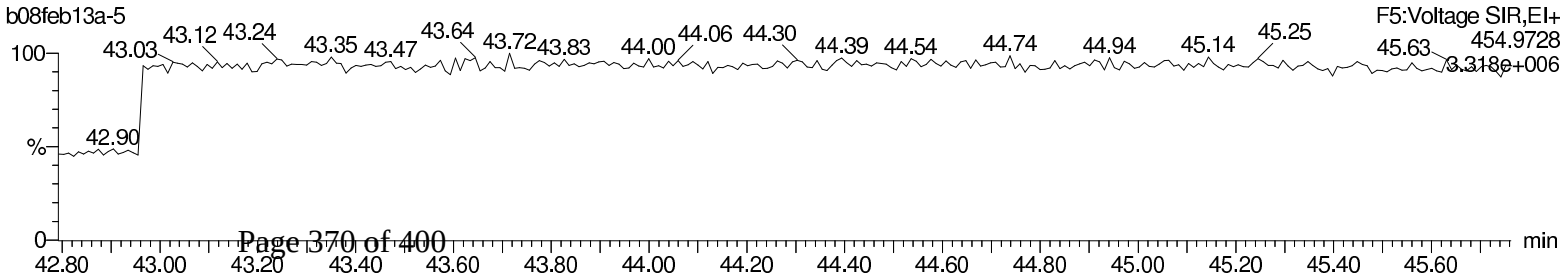
13C-OCDD



13C-OCDD



Lock Mass F5



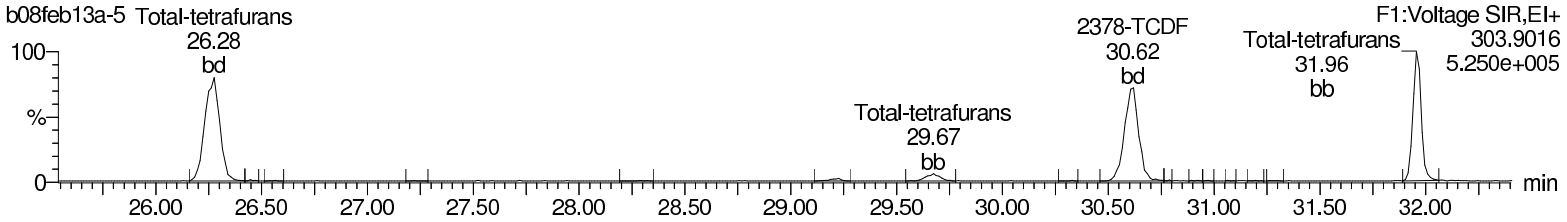
Quantify Sample Report **MassLynx 4.1**
Method 8290 CCAL Report

Dataset: C:\MassLynx\Default.pro\CCAL Results\8290-b08feb13a-5.qld

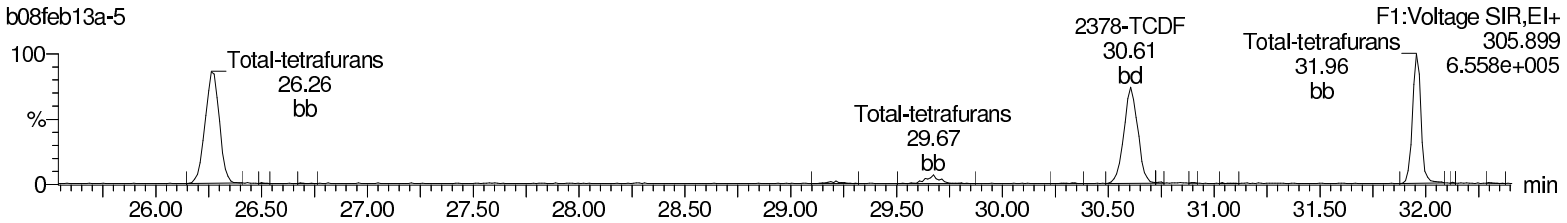
Last Altered: Friday, February 08, 2013 14:39:17 Eastern Standard Time
Printed: Friday, February 08, 2013 14:41:17 Eastern Standard Time

Name: b08feb13a-5, Date: 08-Feb-2013, Time: 13:51:36, ID: CS3WT UD121129-1.2, Description: , Job: b08feb13a, Task: HRP763_1, User: MJC

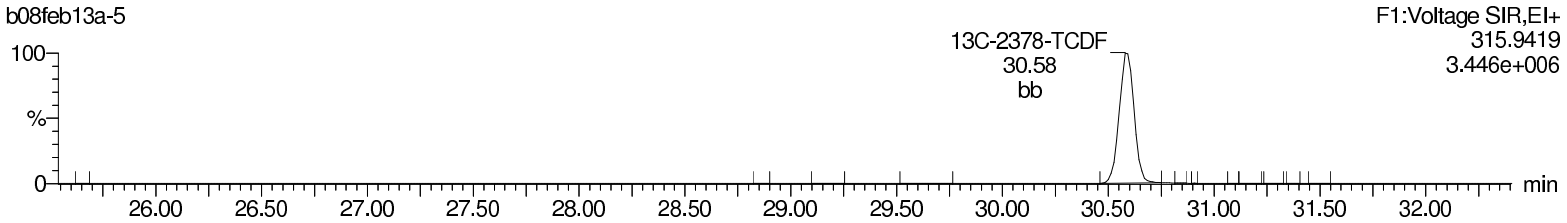
Total-tetrafurans



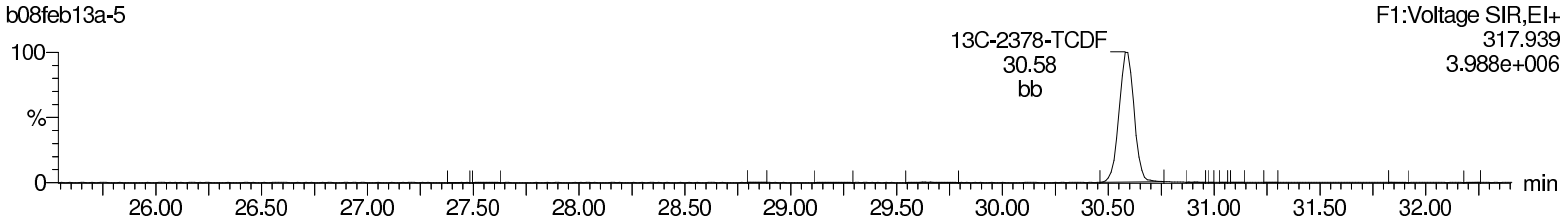
Total-tetrafurans



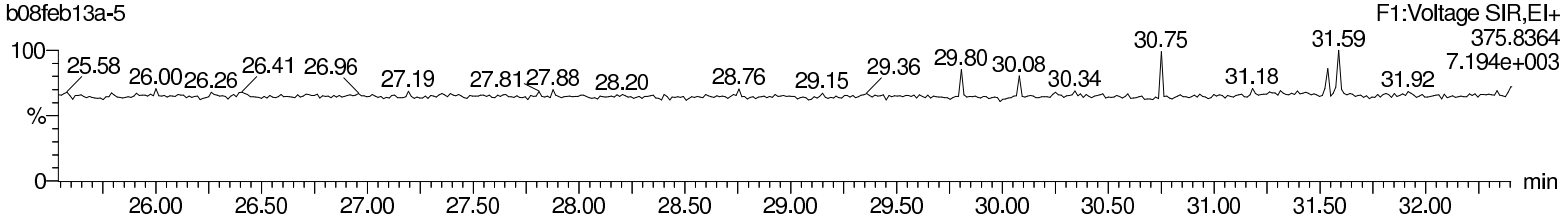
13C-2378-TCDF



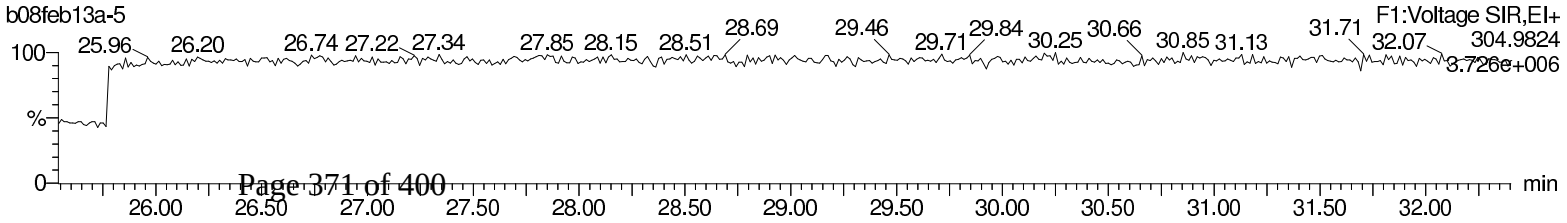
13C-2378-TCDF



HxDPE



Lock Mass F1



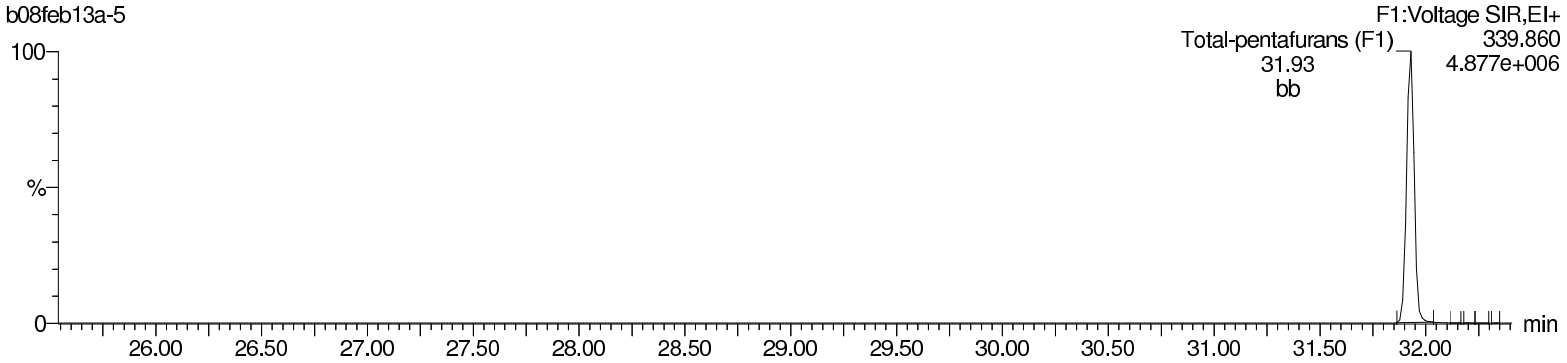
Quantify Sample Report **MassLynx 4.1**
Method 8290 CCAL Report

Dataset: C:\MassLynx\Default.pro\CCAL Results\8290-b08feb13a-5.qld

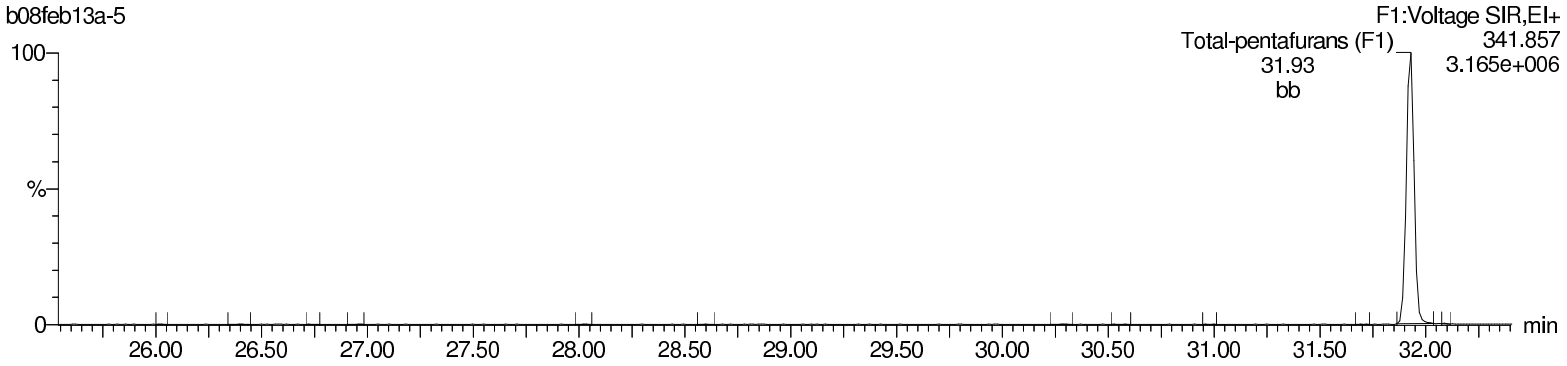
Last Altered: Friday, February 08, 2013 14:39:17 Eastern Standard Time
Printed: Friday, February 08, 2013 14:41:17 Eastern Standard Time

Name: b08feb13a-5, Date: 08-Feb-2013, Time: 13:51:36, ID: CS3WT UD121129-1.2, Description: , Job: b08feb13a, Task: HRP763_1, User: MJC

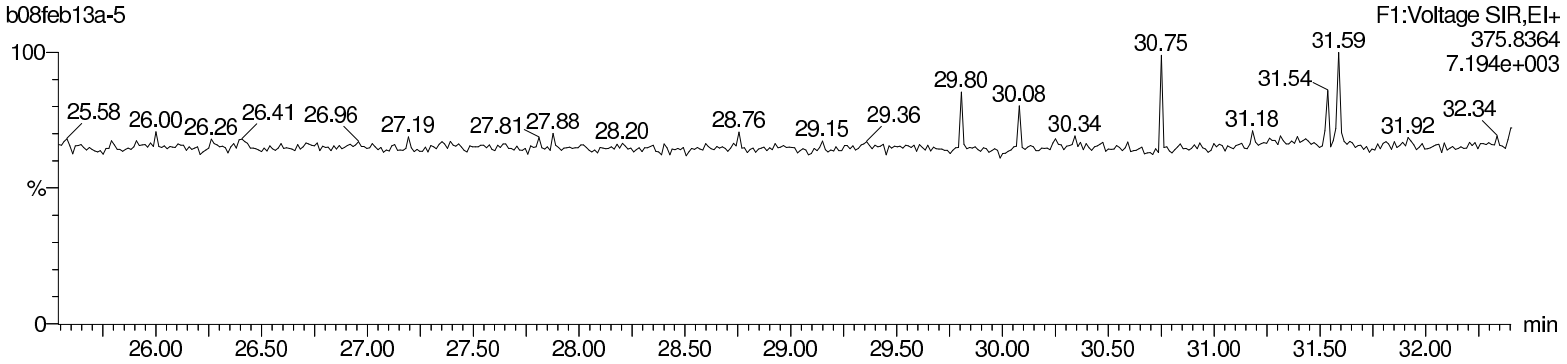
Total-pentafurans (F1)



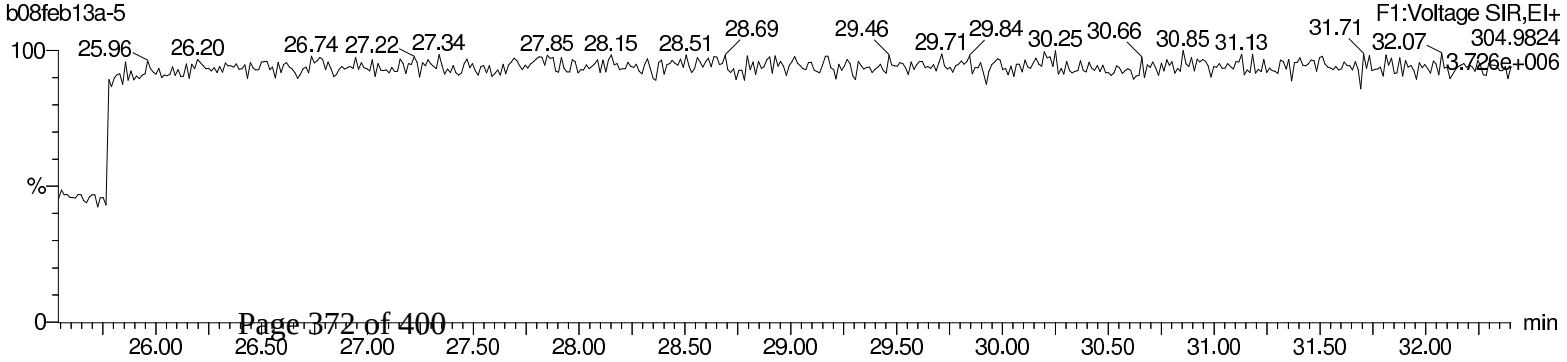
Total-pentafurans (F1)



HxDPE



Lock Mass F1



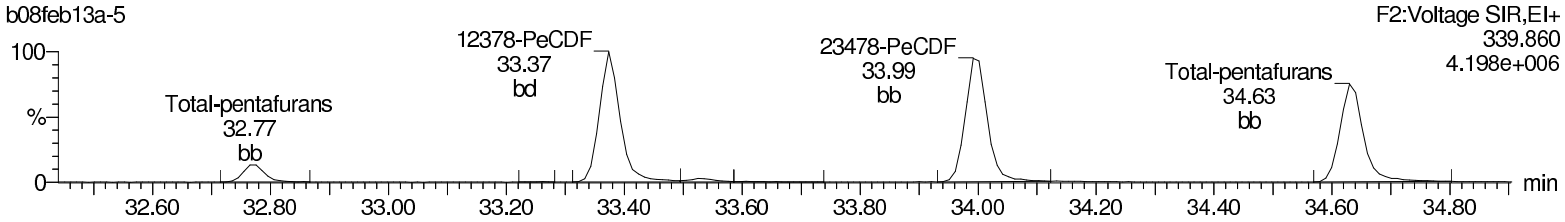
Quantify Sample Report **MassLynx 4.1**
Method 8290 CCAL Report

Dataset: C:\MassLynx\Default.pro\CCAL Results\8290-b08feb13a-5.qld

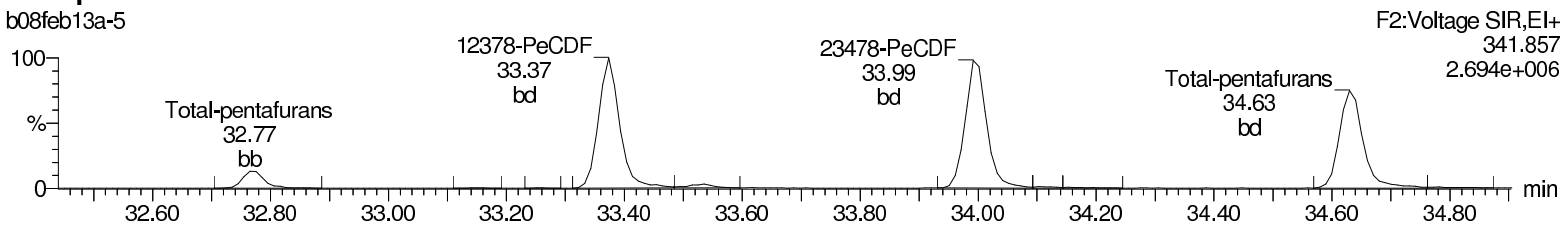
Last Altered: Friday, February 08, 2013 14:39:17 Eastern Standard Time
Printed: Friday, February 08, 2013 14:41:17 Eastern Standard Time

Name: b08feb13a-5, Date: 08-Feb-2013, Time: 13:51:36, ID: CS3WT UD121129-1.2, Description: , Job: b08feb13a, Task: HRP763_1, User: MJC

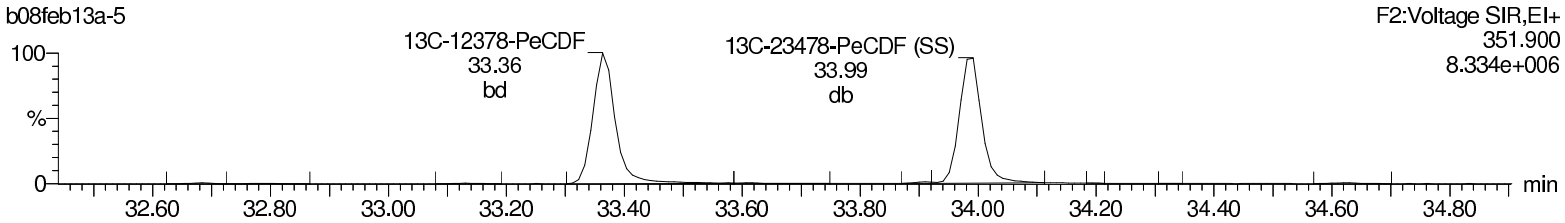
Total-pentafurans



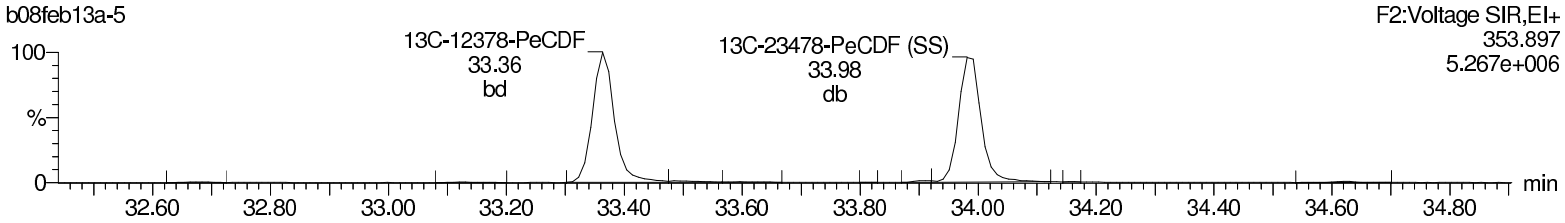
Total-pentafurans



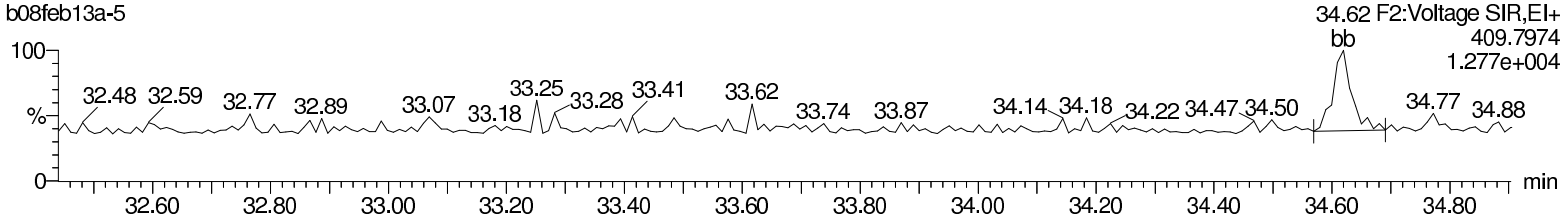
13C-12378-PeCDF



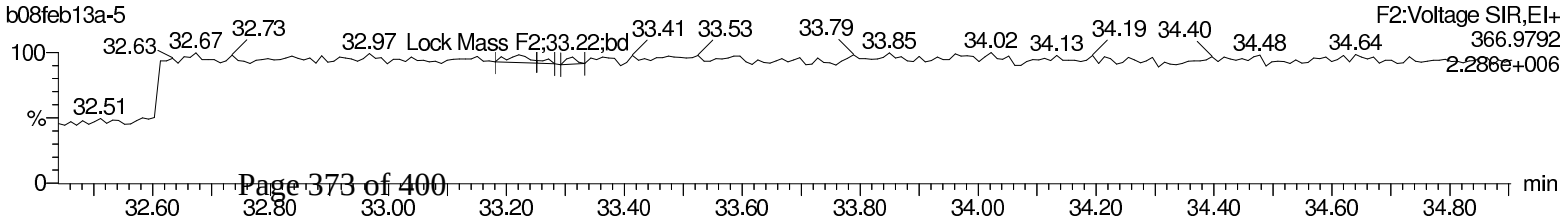
13C-12378-PeCDF



HpDPE



Lock Mass F2



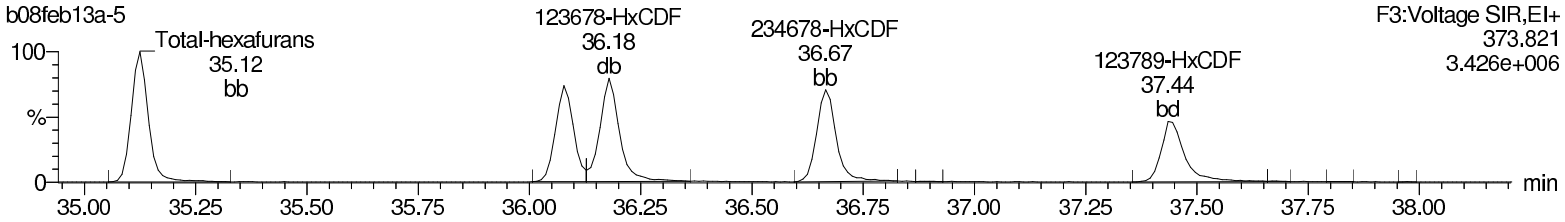
Quantify Sample Report **MassLynx 4.1**
Method 8290 CCAL Report

Dataset: C:\MassLynx\Default.pro\CCAL Results\8290-b08feb13a-5.qld

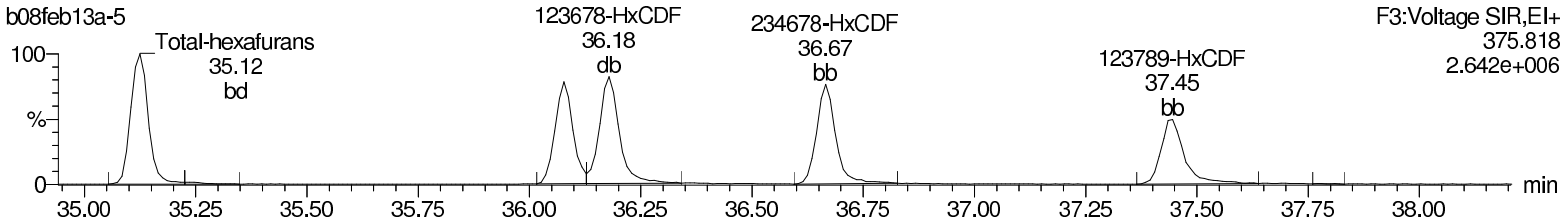
Last Altered: Friday, February 08, 2013 14:39:17 Eastern Standard Time
Printed: Friday, February 08, 2013 14:41:17 Eastern Standard Time

Name: b08feb13a-5, Date: 08-Feb-2013, Time: 13:51:36, ID: CS3WT UD121129-1.2, Description: , Job: b08feb13a, Task: HRP763_1, User: MJC

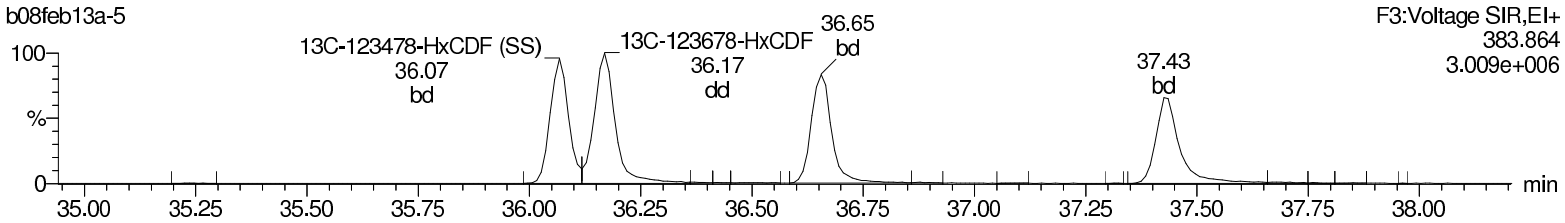
Total-hexafurans



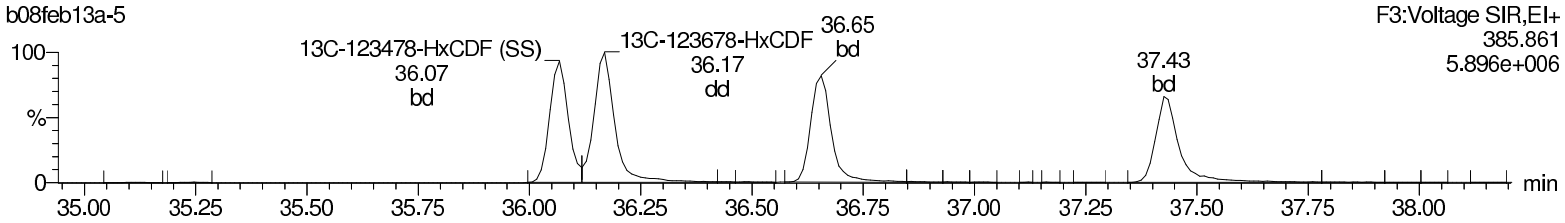
Total-hexafurans



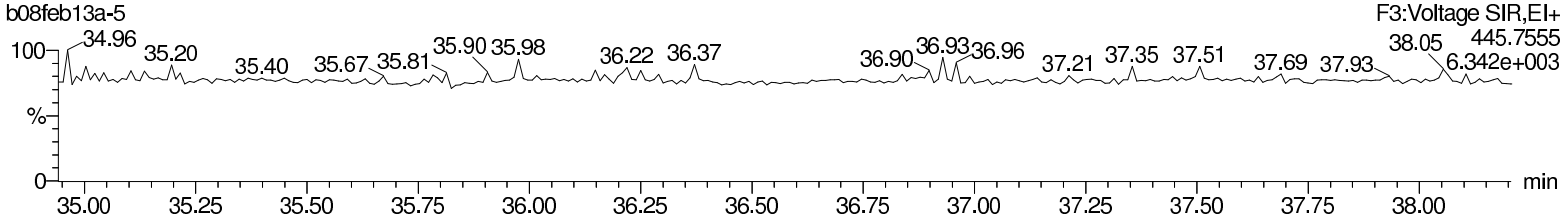
13C-123678-HxCDF



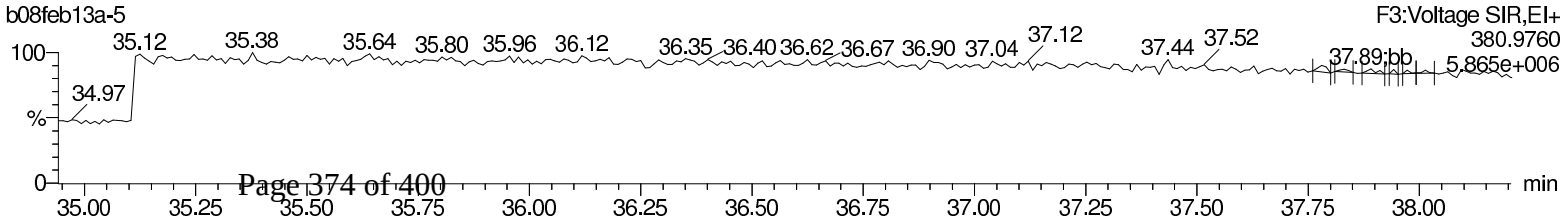
13C-123678-HxCDF



OcDPE



Lock Mass F3



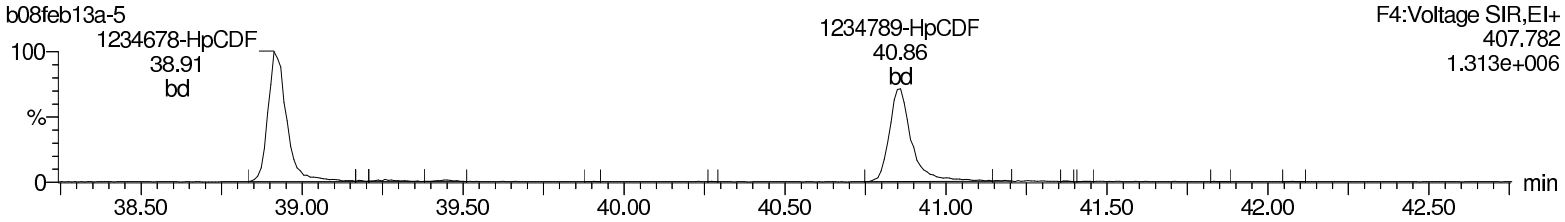
Quantify Sample Report **MassLynx 4.1**
Method 8290 CCAL Report

Dataset: C:\MassLynx\Default.pro\CCAL Results\8290-b08feb13a-5.qld

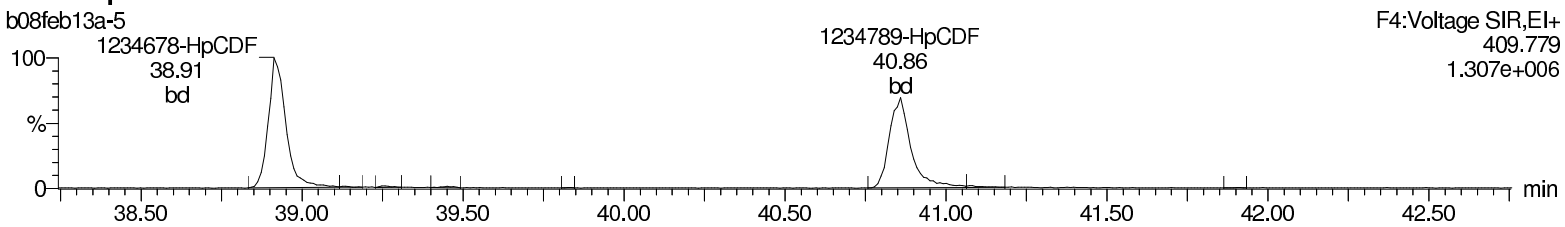
Last Altered: Friday, February 08, 2013 14:39:17 Eastern Standard Time
Printed: Friday, February 08, 2013 14:41:17 Eastern Standard Time

Name: b08feb13a-5, Date: 08-Feb-2013, Time: 13:51:36, ID: CS3WT UD121129-1.2, Description: , Job: b08feb13a, Task: HRP763_1, User: MJC

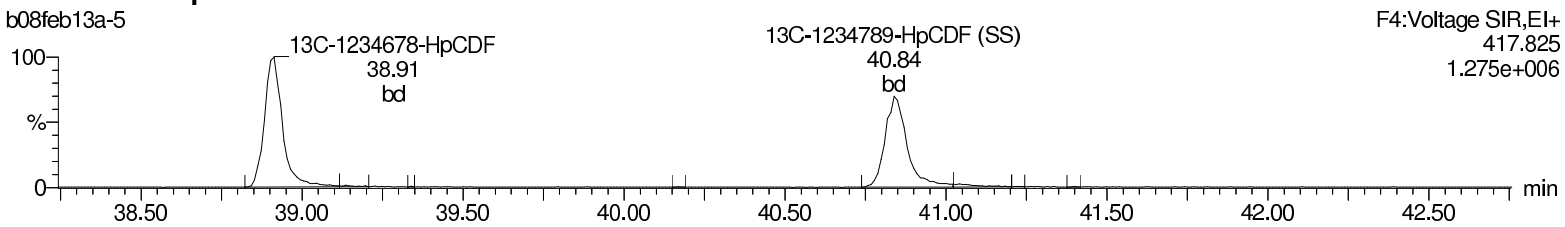
Total-heptafurans



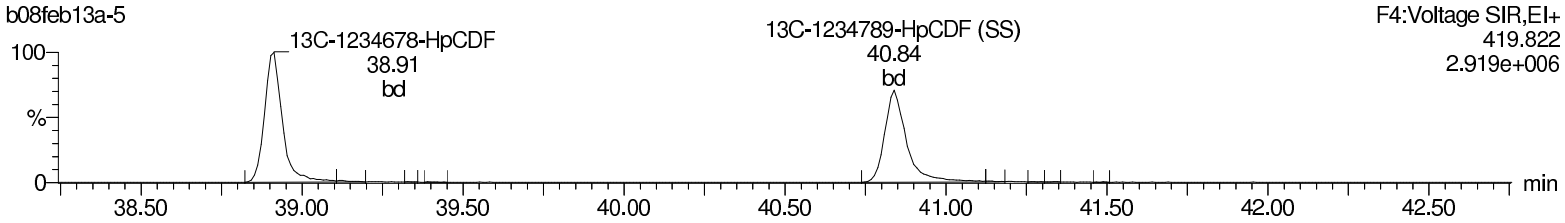
Total-heptafurans



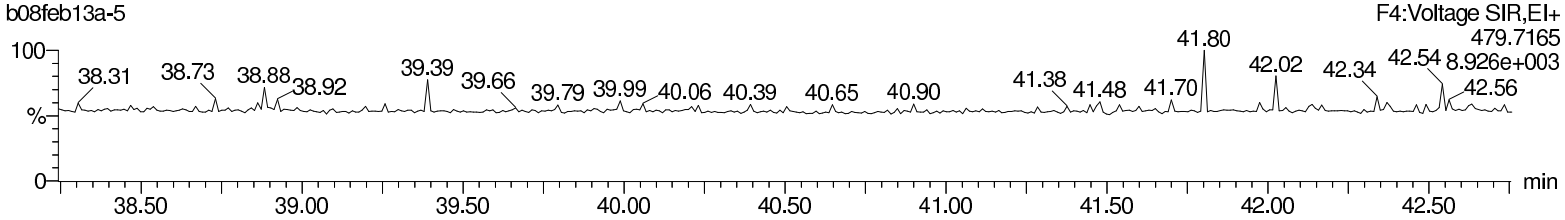
13C-1234678-HpCDF



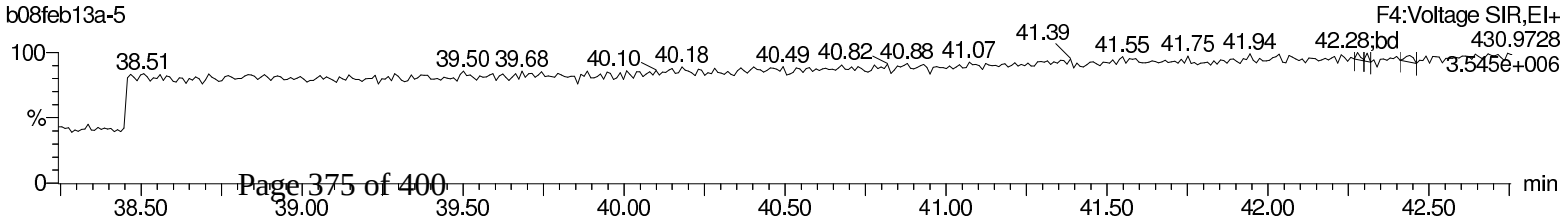
13C-1234678-HpCDF



NoDPE



Lock Mass F4



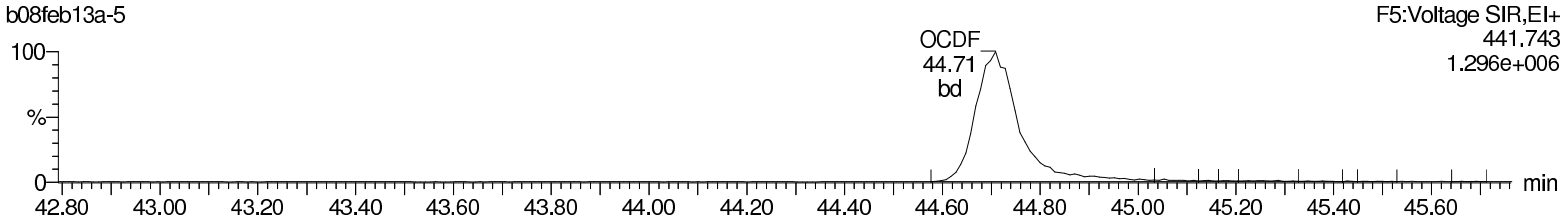
Quantify Sample Report **MassLynx 4.1**
Method 8290 CCAL Report

Dataset: C:\MassLynx\Default.pro\CCAL Results\8290-b08feb13a-5.qld

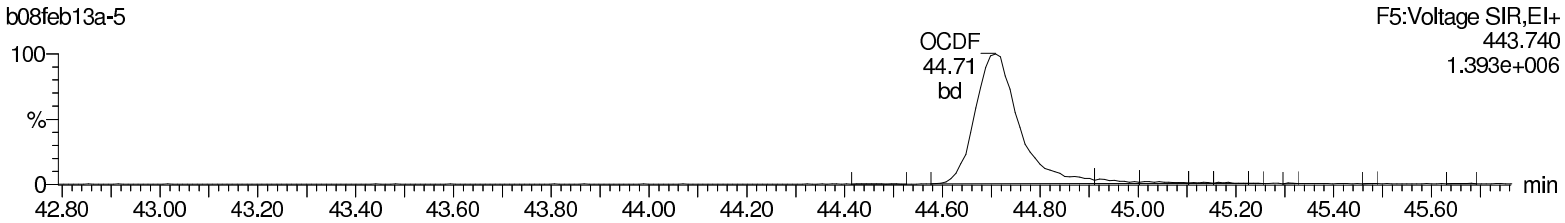
Last Altered: Friday, February 08, 2013 14:39:17 Eastern Standard Time
Printed: Friday, February 08, 2013 14:41:17 Eastern Standard Time

Name: b08feb13a-5, Date: 08-Feb-2013, Time: 13:51:36, ID: CS3WT UD121129-1.2, Description: , Job: b08feb13a, Task: HRP763_1, User: MJC

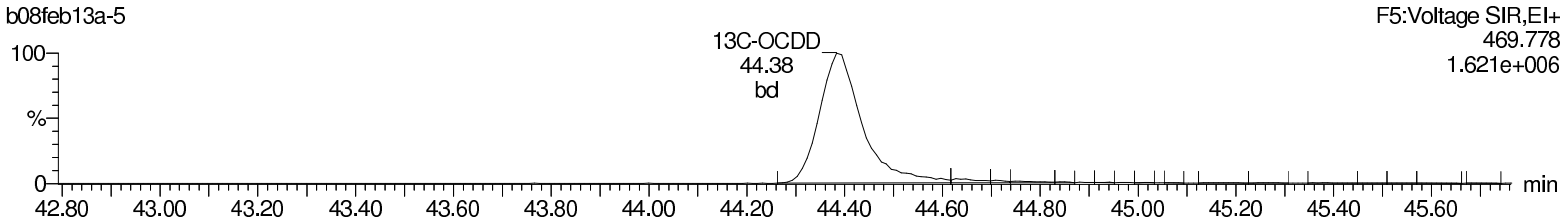
OCDF



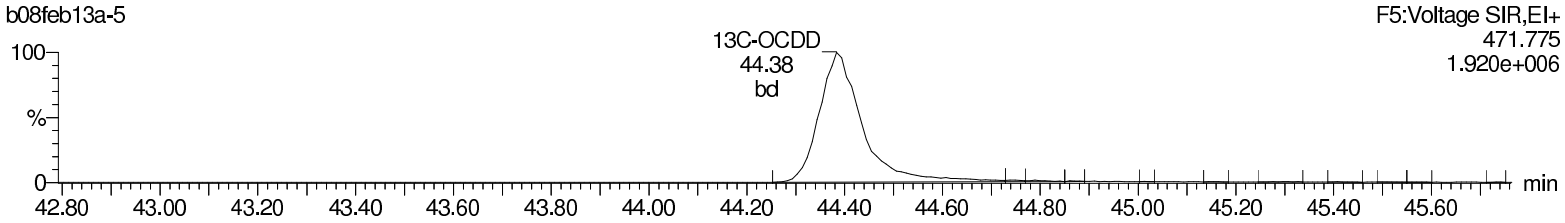
OCDF



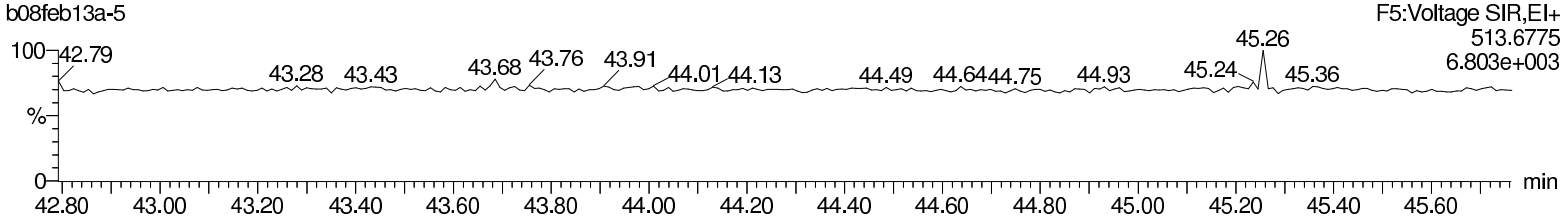
13C-OCDD



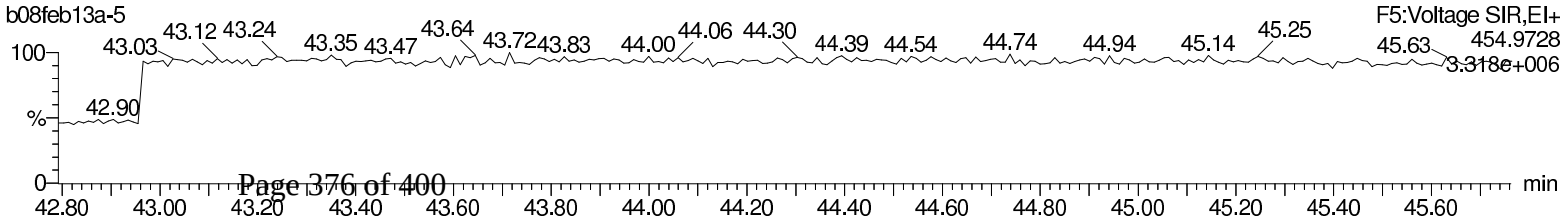
13C-OCDD



DeDPE



Lock Mass F5



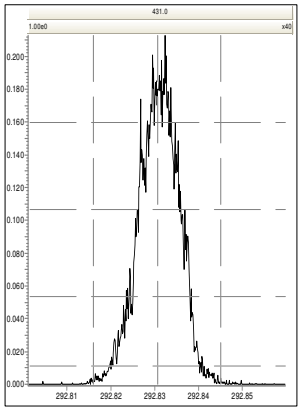
RUN LOG

Instrument: HRP763_1

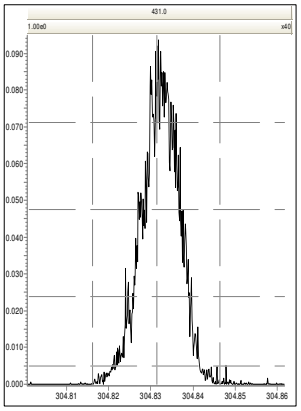
Name	Run Date	Analyst	Sample Information	Batch ID	Injection Volume	Ms Method	Tune Method
b08feb13a_2-1	08-FEB-2013 14:47:46	Jason Frink	12007607-1 LCS		1 uL	dioxin_db5ms	10K
b08feb13a_2-2	08-FEB-2013 15:34:54	Jason Frink	12007608-1 LCSD		1 uL	dioxin_db5ms	10K
b08feb13a_2-3	08-FEB-2013 16:22:54	Jason Frink	12007606-1 MB		1 uL	dioxin_db5ms	10K
b08feb13a_2-4	08-FEB-2013 17:10:57	Jason Frink	4438001-2	22878	1 uL	dioxin_db5ms	10K
b08feb13a_2-5	08-FEB-2013 17:59:00	Jason Frink	4486001-1	22879	1 uL	dioxin_db5ms	10K
b08feb13a_2-6	08-FEB-2013 18:47:01	Jason Frink	4486002-1	22879	1 uL	dioxin_db5ms	10K
b08feb13a_2-7	08-FEB-2013 19:35:02	Jason Frink	4486003-1	22879	1 uL	dioxin_db5ms	10K
b08feb13a_2-8	08-FEB-2013 20:23:03	Jason Frink	4486004-1	22879	1 uL	dioxin_db5ms	10K
b08feb13a_2-9	08-FEB-2013 21:11:05	Jason Frink	4486005-1	22879	1 uL	dioxin_db5ms	10K
b08feb13a_2-10	08-FEB-2013 21:59:06	Jason Frink	4486006-1	22879	1 uL	dioxin_db5ms	10K
b08feb13a_2-11	08-FEB-2013 22:47:08	Jason Frink	4486007-1	22879	1 uL	dioxin_db5ms	10K
b08feb13a_2-12	08-FEB-2013 23:35:08	Jason Frink	12007609-1 MS	22878	1 uL	dioxin_db5ms	10K
b08feb13a_2-13	09-FEB-2013 00:23:02	Jason Frink	12007610-1 MSD	22878	1 uL	dioxin_db5ms	10K
b08feb13a_2-14	09-FEB-2013 01:11:04	Jason Frink	CS3WT UD121129-1.2		1 uL	dioxin_db5ms	10K

Printed: Saturday, February 09, 2013 02:07:11 Eastern Standard Time

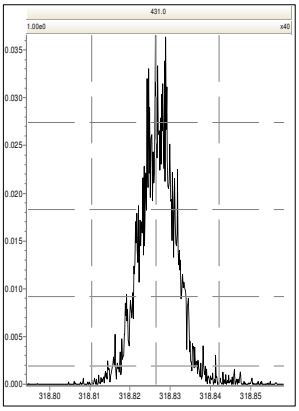
M 292.9824 R 13966



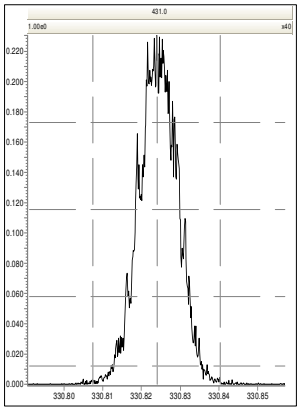
M 304.9824 R 14592



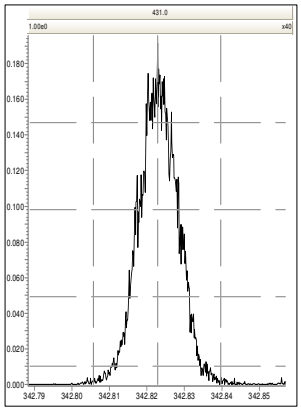
M 318.9792 R 16105



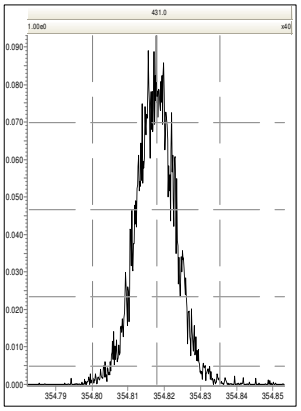
M 330.9792 R 13862



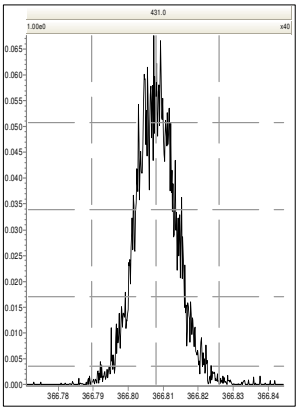
M 342.9792 R 14245



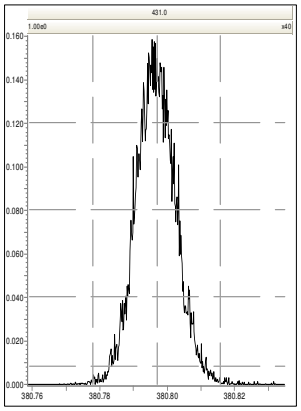
M 354.9792 R 14367



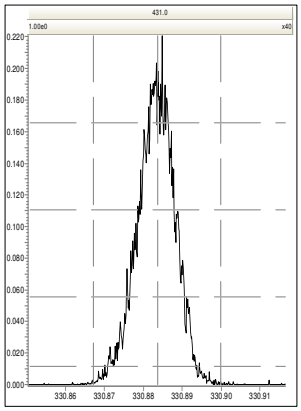
M 366.9792 R 14592



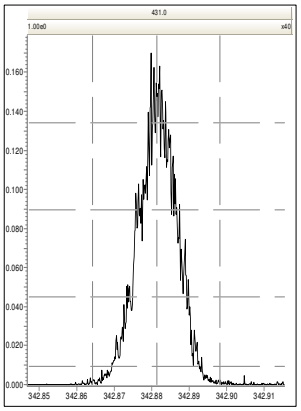
M 380.9760 R 13774



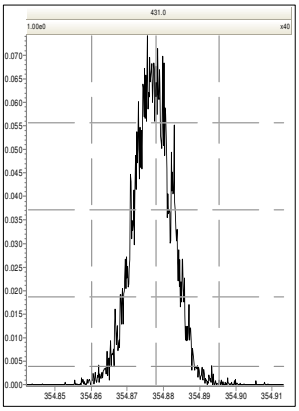
M 330.9792 R 14454



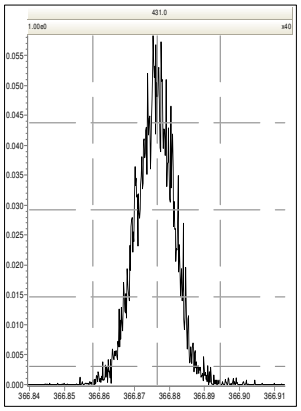
M 342.9792 R 14205



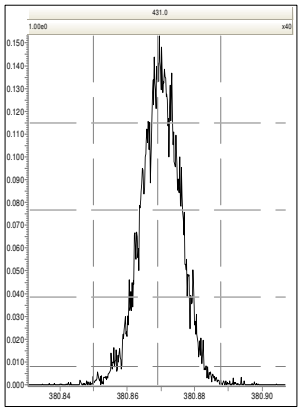
M 354.9792 R 15246



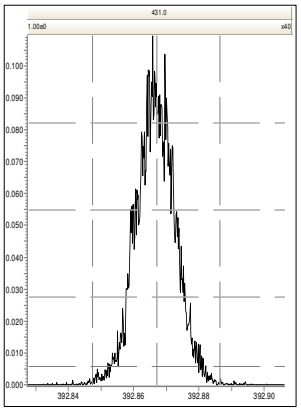
M 366.9792 R 15432



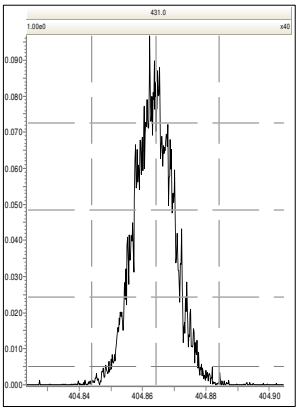
M 380.9760 R 14454



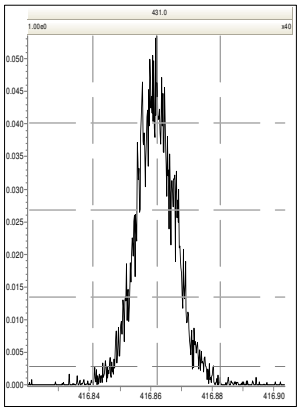
M 392.9760 R 14752



M 404.9760 R 14770

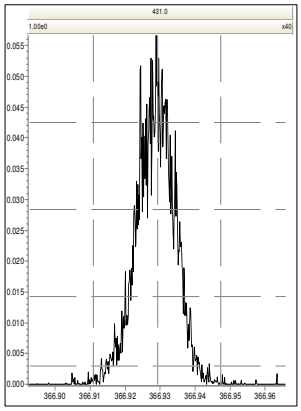


M 416.9760 R 15674

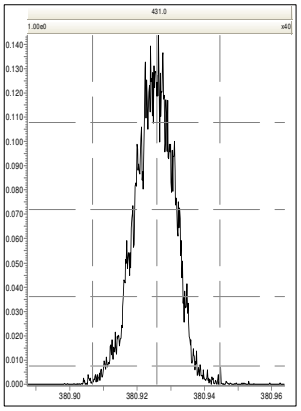


Printed: Saturday, February 09, 2013 02:07:11 Eastern Standard Time

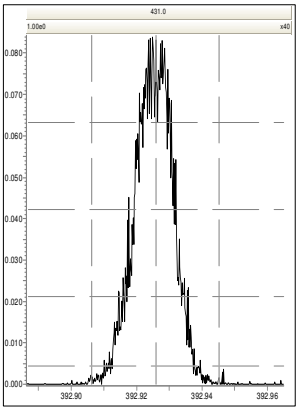
M 366.9792 R 15337



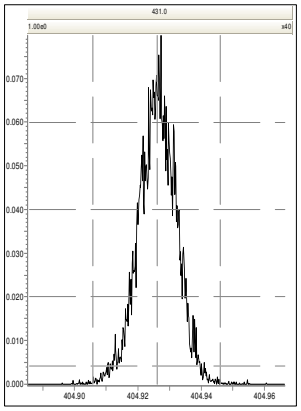
M 380.9760 R 13973



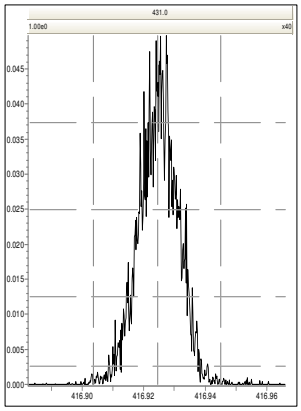
M 392.9760 R 15004



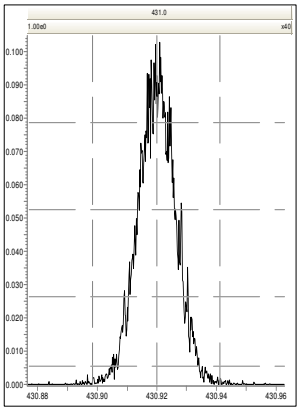
M 404.9760 R 15112



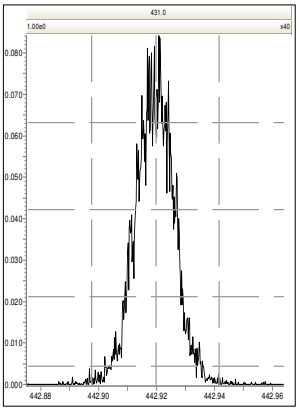
M 416.9760 R 16904



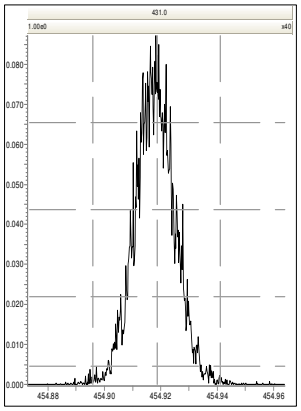
M 430.9728 R 15171



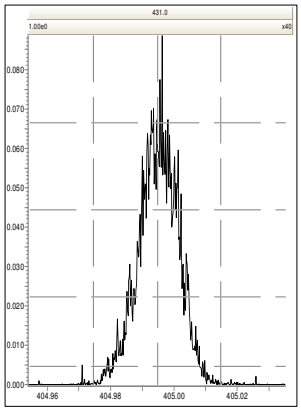
M 442.9728 R 14577



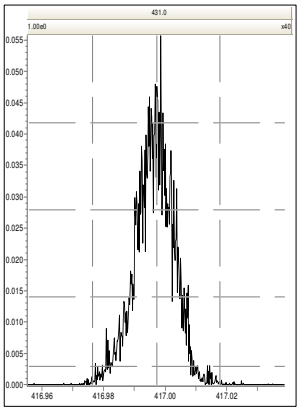
M 454.9728 R 14893



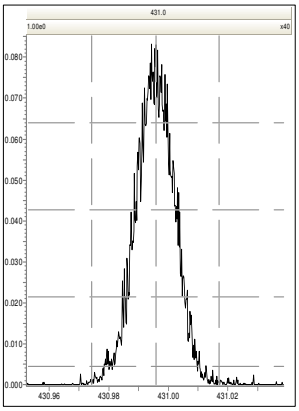
M 404.9760 R 14746



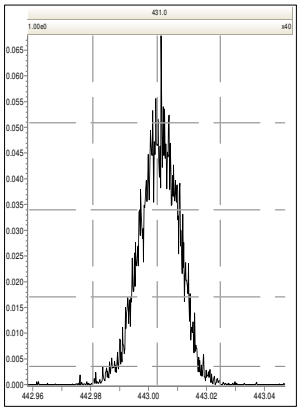
M 416.9760 R 16464



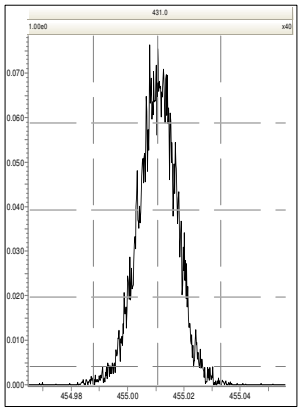
M 430.9728 R 14713



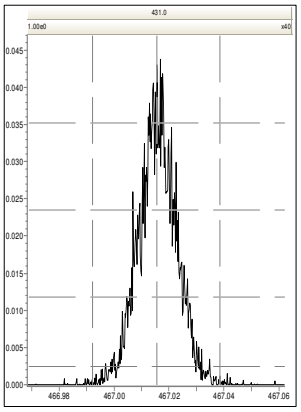
M 442.9728 R 14467



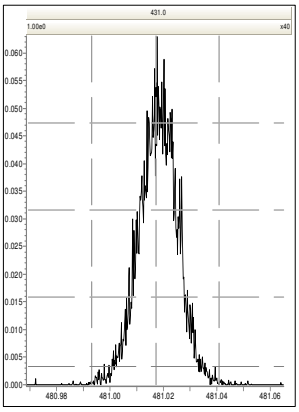
M 454.9728 R 15601



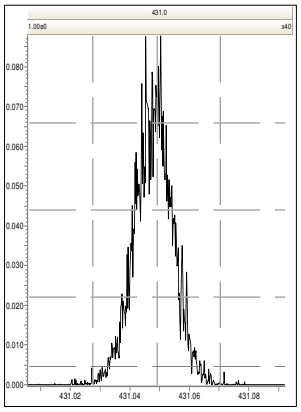
M 466.9728 R 14755



M 480.9696 R 15446

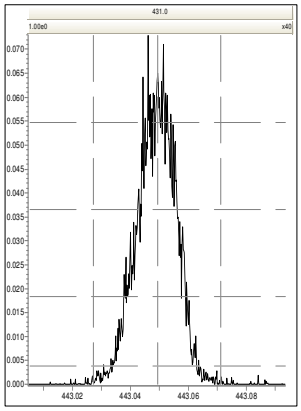


M 430.9728 R 14928

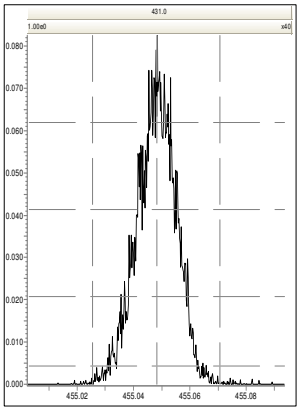


Printed: Saturday, February 09, 2013 02:07:11 Eastern Standard Time

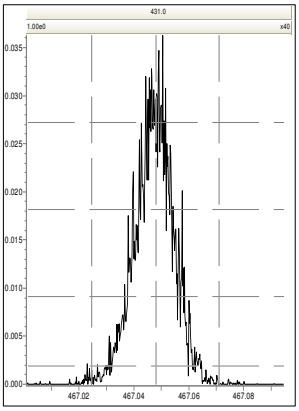
M 442.9728 R 15432



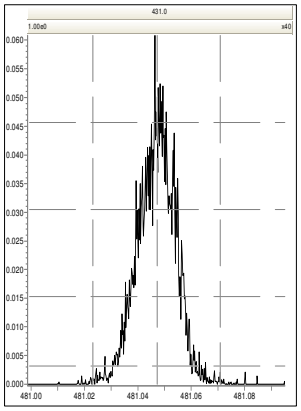
M 454.9728 R 14755



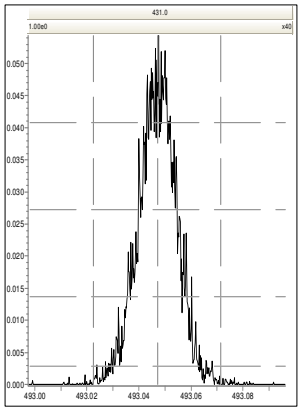
M 466.9728 R 15773



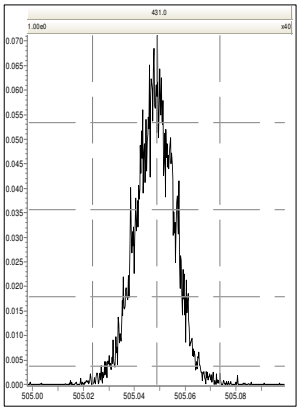
M 480.9696 R 16287



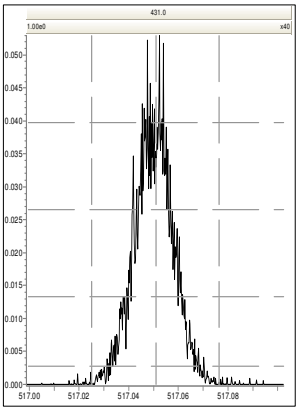
M 492.9696 R 14805



M 504.9696 R 14754



M 516.9697 R 15094



Quantify Sample Summary Report **MassLynx 4.1**
Method 8290 CCAL Report

Dataset: C:\MassLynx\Default.pro\CCAL Results\8290-B08FEB13A_2-14.qld

Last Altered: Monday, February 11, 2013 14:09:39 Eastern Standard Time
Printed: Monday, February 11, 2013 14:11:20 Eastern Standard Time

Method: C:\MassLynx\DEFAULT.PRO\MethDB\CFA_EPA8290_121912.mdb 20 Dec 2012 07:43:23
Calibration: C:\MassLynx\DEFAULT.PRO\CurveDB\8290-b30nov12a.cdb 03 Dec 2012 09:49:08

Name: b08feb13a_2-14, Date: 09-Feb-2013, Time: 01:11:04, ID: CS3WT UD121129-1.2, Description: , Job: b08feb13a_2, Task: HRP763_1, User: JTF

	Name	Ion1Area	Ion2Area	Response	RT	RRT	RA	Fail?	pg/uL	EDL	RRF	Mean	%D	Height1	Noise1	S/N1	Height2	Noise2	S/N2	M
1	2378-TCDD	1.75e4	2.40e4	4.14e4	31.29	1.000	0.73	NO	8.989	0.0763	0.857	0.953	-10.1	3.28e5	854	384.5	4.19e5	1676	249.8	db
2	12378-PeCDD	1.17e5	7.05e4	1.87e5	34.18	1.000	1.66	NO	48.429	0.183	0.936	0.967	-3.1	2.68e6	2351	1139.5	1.62e6	4028	401.4	bb
3	123478-HxCDD	9.29e4	7.39e4	1.67e5	36.79	0.998	1.26	NO	53.990	0.463	1.051	0.973	8.0	1.88e6	6125	307.5	1.54e6	3994	386.0	bd
4	123678-HxCDD	1.11e5	8.58e4	1.96e5	36.88	1.001	1.29	NO	57.230	0.417	1.236	1.080	14.5	1.93e6	6125	314.7	1.45e6	3994	364.1	dd
5	123789-HxCDD	1.02e5	7.76e4	1.80e5	37.11	1.007	1.32	NO	57.267	0.456	1.133	0.989	14.5	1.68e6	6125	274.9	1.35e6	3994	336.9	dd
6	1234678-HpCDD	7.14e4	7.27e4	1.44e5	40.17	1.001	0.98	NO	49.951	0.399	1.134	1.135	-0.1	9.71e5	3009	322.7	9.49e5	3340	284.0	bb
7	OCDD	1.42e5	1.60e5	3.02e5	44.39	1.000	0.89	NO	109.407	0.685	1.280	1.170	9.4	1.41e6	4421	318.3	1.56e6	2730	572.3	bd
8	2378-TCDF	3.19e4	4.05e4	7.24e4	30.59	1.000	0.79	NO	10.687	0.0771	1.100	1.029	6.9	3.96e5	977	405.9	5.03e5	1636	307.4	bb
9	12378-PeCDF	1.93e5	1.23e5	3.16e5	33.37	1.000	1.56	NO	49.174	0.210	0.928	0.943	-1.7	4.55e6	6025	755.2	2.80e6	6231	449.8	dd
10	23478-PeCDF	1.94e5	1.24e5	3.17e5	33.99	1.019	1.56	NO	47.583	0.202	0.932	0.979	-4.8	4.76e6	6025	789.8	3.10e6	6231	497.0	bd
11	123478-HxCDF	1.39e5	1.15e5	2.53e5	36.08	0.998	1.21	NO	49.579	0.287	0.903	0.910	-0.8	2.86e6	5291	540.1	2.34e6	5633	415.9	bd
12	123678-HxCDF	1.56e5	1.30e5	2.86e5	36.18	1.001	1.21	NO	49.017	0.251	1.019	1.039	-2.0	3.03e6	5291	572.1	2.43e6	5633	431.1	db
13	234678-HxCDF	1.42e5	1.20e5	2.62e5	36.66	1.014	1.18	NO	48.618	0.272	0.933	0.960	-2.8	2.75e6	5291	520.4	2.27e6	5633	403.7	bb
14	123789-HxCDF	1.18e5	9.28e4	2.11e5	37.44	1.035	1.27	NO	46.391	0.323	0.752	0.810	-7.2	1.94e6	5291	367.5	1.61e6	5633	285.3	bd
15	1234678-HpCDF	1.08e5	1.04e5	2.13e5	38.91	1.000	1.04	NO	50.369	0.302	1.235	1.226	0.7	1.75e6	3983	438.7	1.67e6	4019	415.3	bb
16	1234789-HpCDF	9.11e4	8.76e4	1.79e5	40.85	1.050	1.04	NO	55.130	0.394	1.038	0.941	10.3	1.16e6	3983	292.4	1.13e6	4019	281.7	bd
17	OCDF	1.70e5	1.91e5	3.60e5	44.69	1.007	0.89	NO	112.463	0.616	1.527	1.358	12.5	1.63e6	4258	382.7	1.81e6	3203	566.4	bd
18	13C-2378-TCDD	2.14e5	2.69e5	4.83e5	31.29	1.017	0.80	NO	104.156	0.158	1.030	0.989	4.2	3.85e6	2268	1698.1	4.72e6	1857	2543.4	bb
19	13C-12378-PeCDD	2.42e5	1.58e5	4.00e5	34.17	1.111	1.53	NO	104.598	0.170	0.854	0.816	4.6	5.46e6	1510	3613.8	3.59e6	2145	1675.0	bb
20	13C-123678-HxCDD	1.68e5	1.49e5	3.18e5	36.86	0.993	1.13	NO	107.455	0.372	1.195	1.112	7.5	2.97e6	3028	981.2	2.55e6	4393	581.6	db
21	13C-1234678-HpCDD	1.35e5	1.19e5	2.54e5	40.15	1.082	1.13	NO	114.367	0.303	0.956	0.836	14.4	1.86e6	2315	803.0	1.59e6	2222	717.0	bb
22	13C-OCDD	2.19e5	2.53e5	4.72e5	44.37	1.196	0.87	NO	259.561	0.566	0.888	0.684	29.8	2.07e6	3072	675.1	2.42e6	3875	625.1	MM
23	13C-2378-TCDF	3.01e5	3.57e5	6.58e5	30.58	0.994	0.84	NO	95.728	0.0901	1.404	1.466	-4.3	3.77e6	1851	2035.6	4.56e6	1630	2794.7	bb
24	13C-12378-PeCDF	4.21e5	2.60e5	6.81e5	33.36	1.085	1.62	NO	109.942	0.326	1.452	1.321	9.9	9.56e6	5487	1742.2	5.93e6	5864	1011.6	bd
25	13C-123678-HxCDF	1.89e5	3.71e5	5.61e5	36.16	0.975	0.51	NO	128.510	0.306	2.111	1.642	28.5	3.53e6	4748	743.8	6.68e6	4259	1568.6	db
26	13C-1234678-HpCDF	1.05e5	2.40e5	3.45e5	38.90	1.049	0.44	NO	115.041	0.368	1.296	1.127	15.0	1.64e6	3520	465.6	3.77e6	3916	962.7	bb
27	13C-1234-TCDD	2.08e5	2.61e5	4.69e5	30.76	0.000	0.80	NO	100.000	0.157	1.000	1.000	0.0	2.92e6	2268	1287.0	3.79e6	1857	2042.6	bb
28	13C-123789-HxCDD	1.40e5	1.25e5	2.66e5	37.10	0.000	1.12	NO	100.000	0.414	1.000	1.000	0.0	2.37e6	3028	781.7	2.06e6	4393	468.7	bd
29	37Cl-2378-TCDD (SS)	5.32e4		5.32e4	31.29	1.000			9.971	0.0309	1.102	1.105	-0.3	9.74e5	1187	820.3				bb
30	13C-23478-PeCDF (SS)	4.07e5	2.51e5	6.59e5	33.98	1.019	1.62	NO	96.467	0.183	0.967	1.002	-3.5	9.86e6	5487	1797.3	6.15e6	5864	1048.5	db

Quantify Sample Summary Report **MassLynx 4.1**
Method 8290 CCAL Report

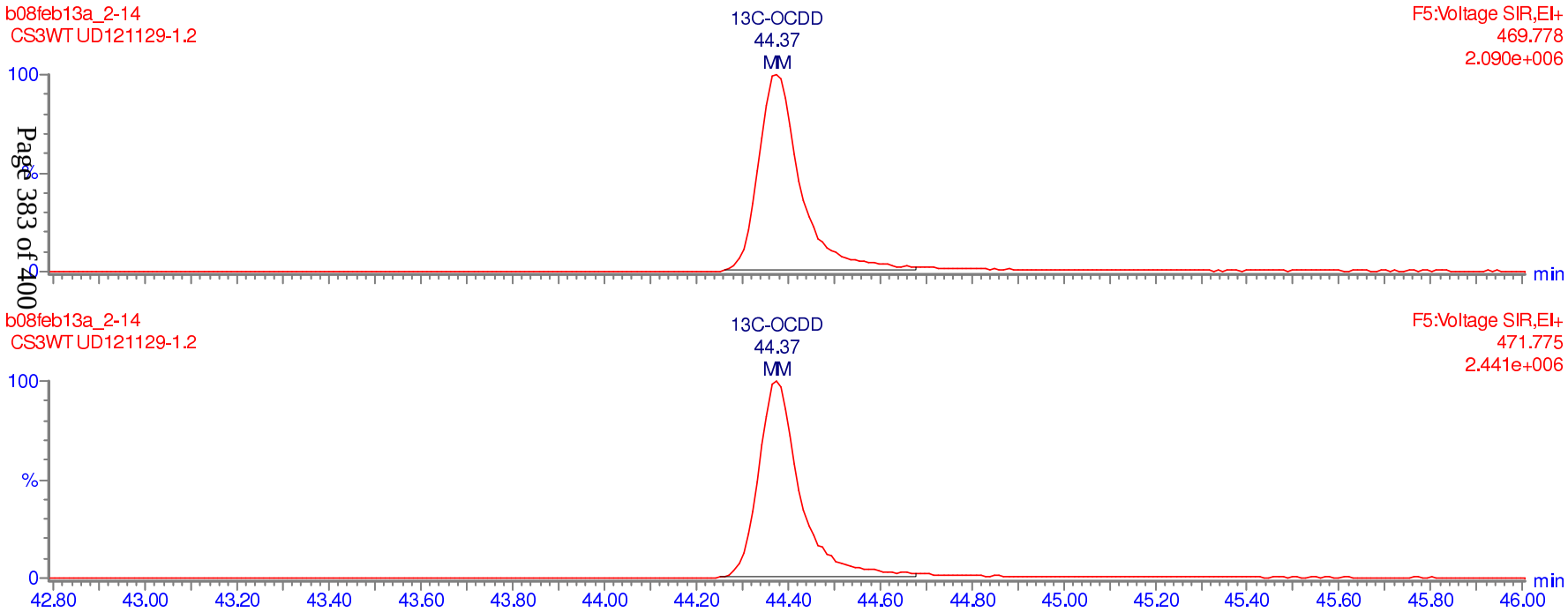
Dataset: C:\MassLynx\Default.pro\CCAL Results\8290-B08FEB13A_2-14.qld

Last Altered: Monday, February 11, 2013 14:09:39 Eastern Standard Time
Printed: Monday, February 11, 2013 14:11:20 Eastern Standard Time

Name: b08feb13a_2-14, Date: 09-Feb-2013, Time: 01:11:04, ID: CS3WT UD121129-1.2, Description: , Job: b08feb13a_2, Task: HRP763_1, User: JTF

	Name	Ion1Area	Ion2Area	Response	RT	RRT	RA	Fail?	pg/uL	EDL	RRF	Mean	%D	Height1	Noise1	S/N1	Height2	Noise2	S/N2	M
31	13C-123478-HxCDF (SS)	1.56e5	3.06e5	4.62e5	36.06	0.997	0.51	NO	96.356	0.252	0.823	0.854	-3.6	3.19e6	4748	672.3	6.44e6	4259	1512.5	bd
32	13C-123478-HxCDD (SS)	1.40e5	1.18e5	2.58e5	36.78	0.998	1.18	NO	95.353	0.389	0.811	0.851	-4.6	2.85e6	3028	941.2	2.33e6	4393	531.5	bd
33	13C-1234789-HpCDF (SS)	9.05e4	2.03e5	2.94e5	40.83	1.049	0.44	NO	109.421	0.442	0.853	0.780	9.4	1.13e6	3520	321.6	2.66e6	3916	678.8	bd

MANUAL INTEGRATION
METHOD 8290



Quantify Sample Report **MassLynx 4.1**
Method 8290 CCAL Report

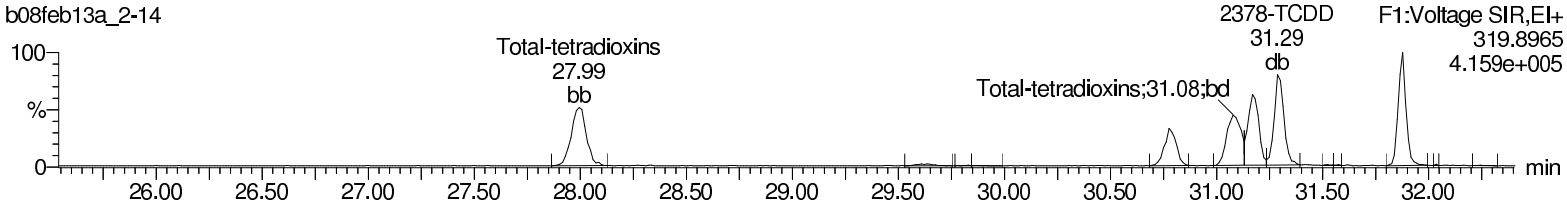
Dataset: Untitled

Last Altered: Monday, February 11, 2013 14:12:23 Eastern Standard Time
Printed: Monday, February 11, 2013 14:12:55 Eastern Standard Time

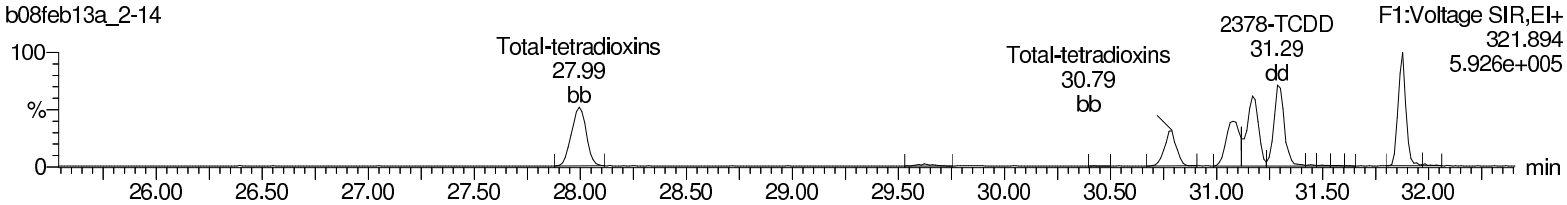
Method: C:\MassLynx\DEFAULT.PRO\MethDB\CFA_EPA8290_121912.mdb 20 Dec 2012 07:43:23
Calibration: C:\MassLynx\DEFAULT.PRO\CurveDB\8290-b30nov12a.cdb 03 Dec 2012 09:49:08

Name: b08feb13a_2-14, Date: 09-Feb-2013, Time: 01:11:04, ID: CS3WT UD121129-1.2, Description: , Job: b08feb13a_2, Task: HRP763_1, User: JTF

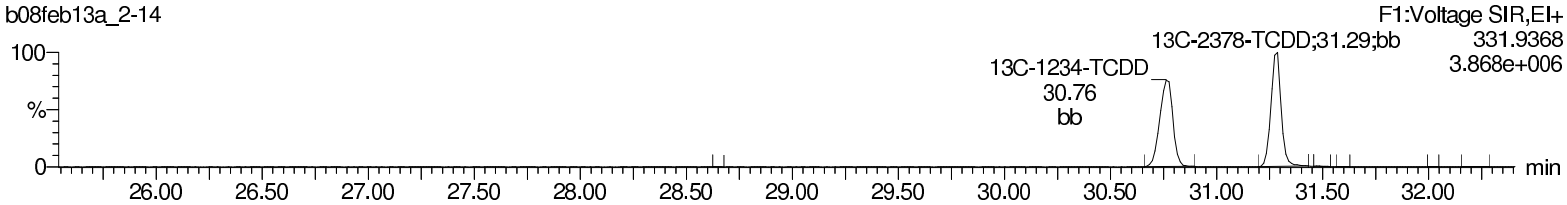
Total-tetradioxins



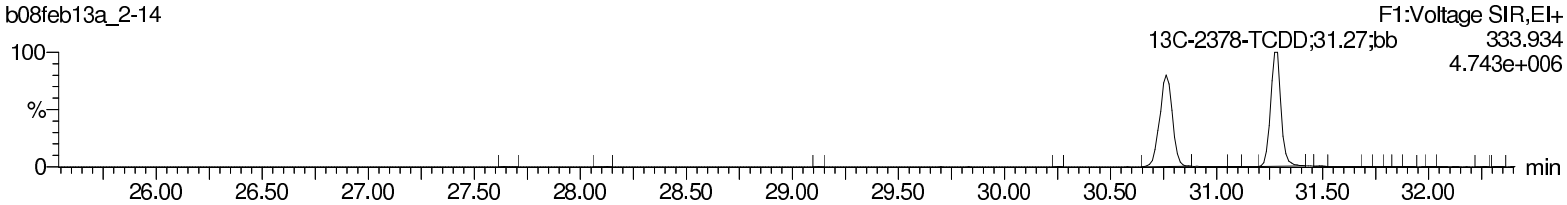
Total-tetradioxins



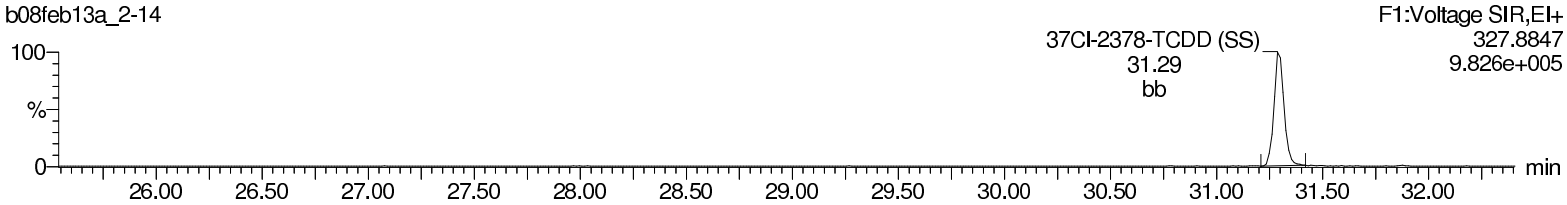
13C-2378-TCDD



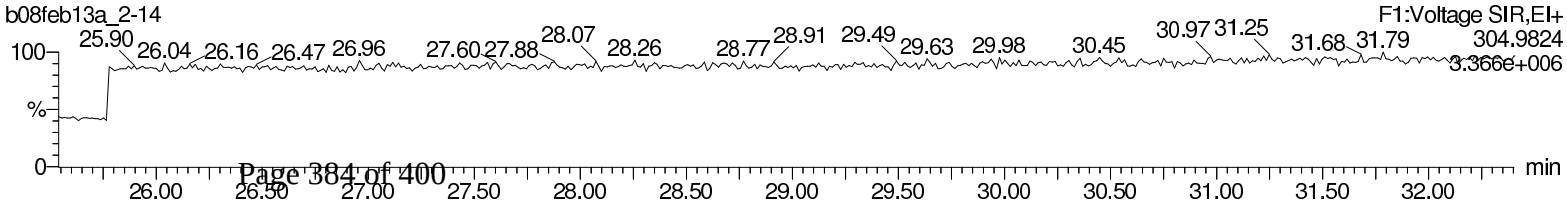
13C-2378-TCDD



37Cl-2378-TCDD (SS)



Lock Mass F1



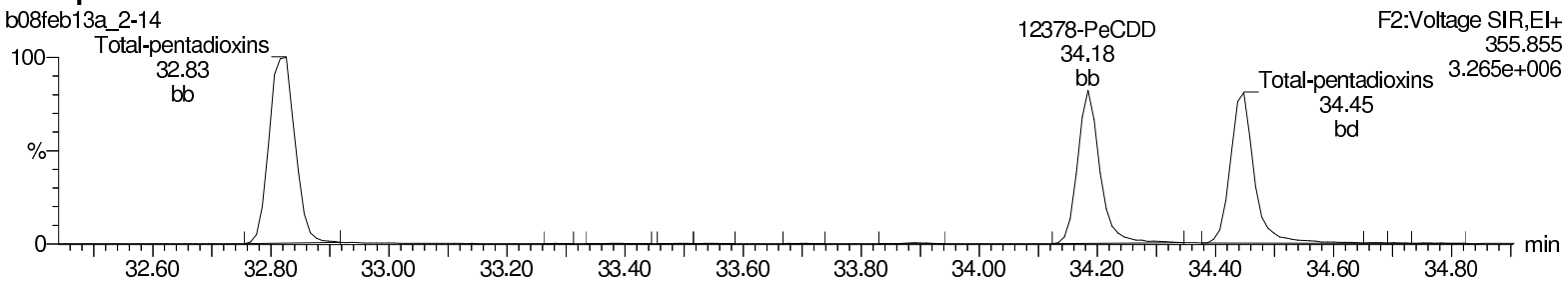
Quantify Sample Report **MassLynx 4.1**
Method 8290 CCAL Report

Dataset: Untitled

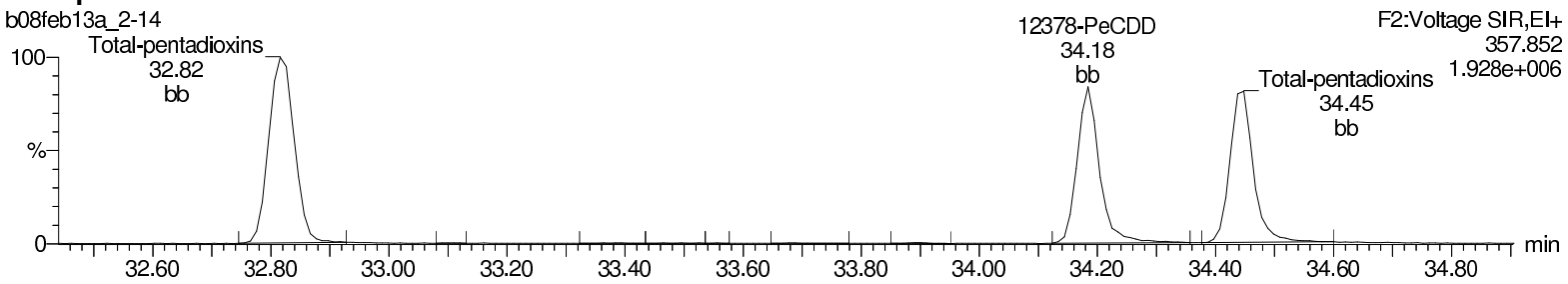
Last Altered: Monday, February 11, 2013 14:12:23 Eastern Standard Time
Printed: Monday, February 11, 2013 14:12:55 Eastern Standard Time

Name: b08feb13a_2-14, Date: 09-Feb-2013, Time: 01:11:04, ID: CS3WT UD121129-1.2, Description: , Job: b08feb13a_2, Task: HRP763_1, User: JTF

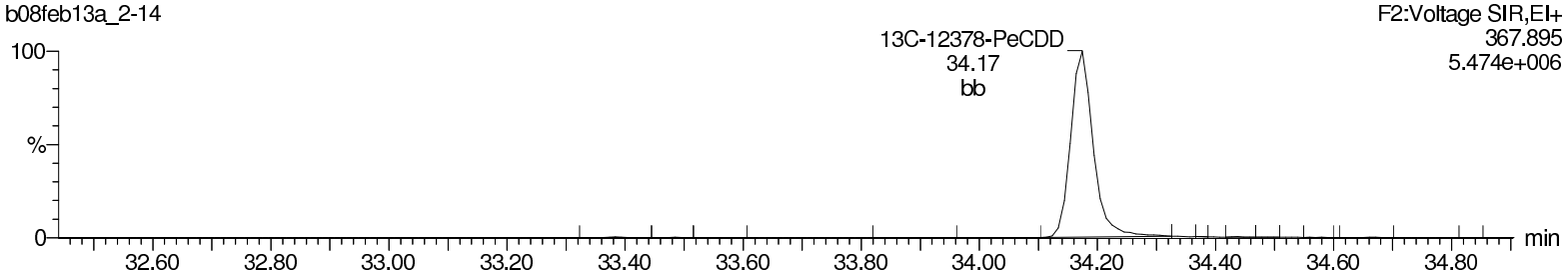
Total-pentadioxins



Total-pentadioxins



13C-12378-PeCDD



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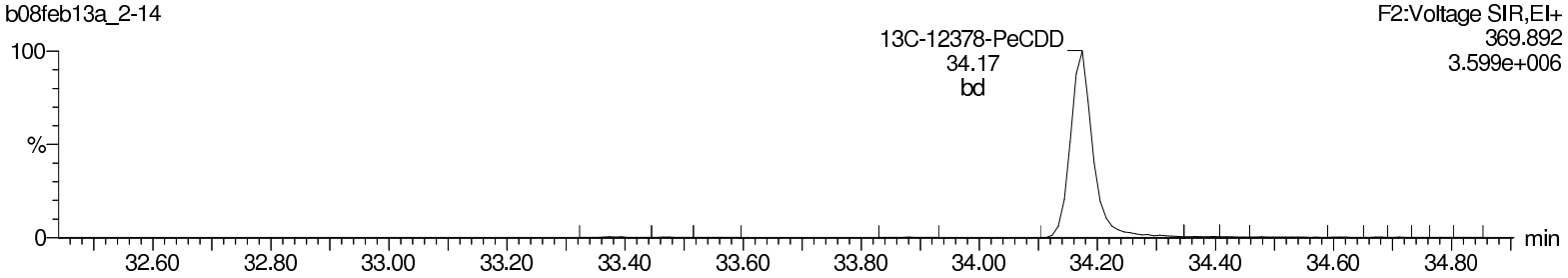
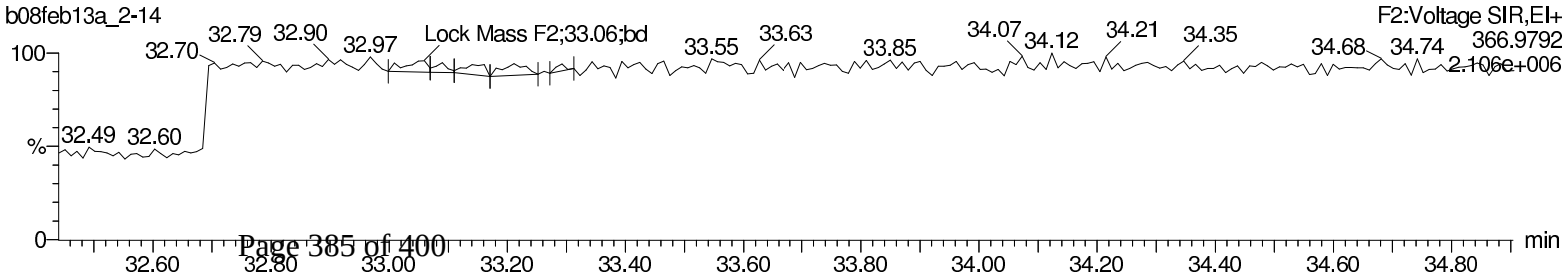


Lock Mass F2



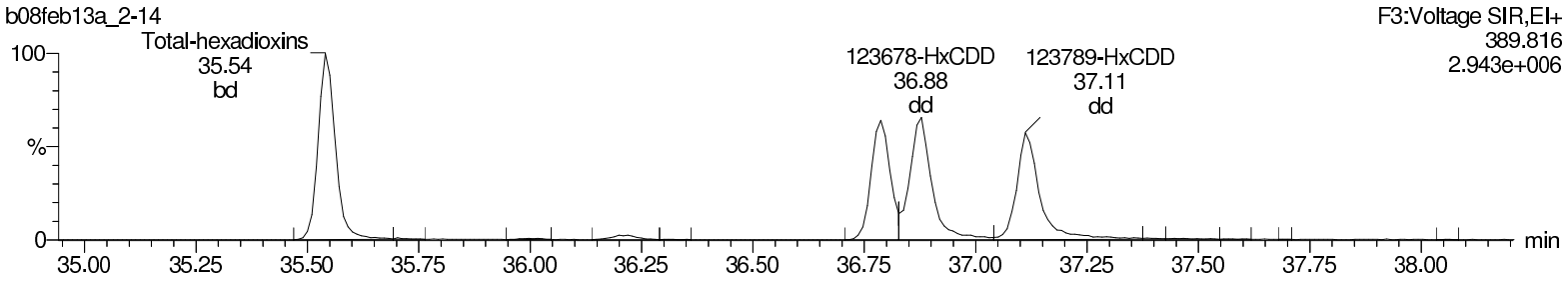
Quantify Sample Report **MassLynx 4.1**
Method 8290 CCAL Report

Dataset: Untitled

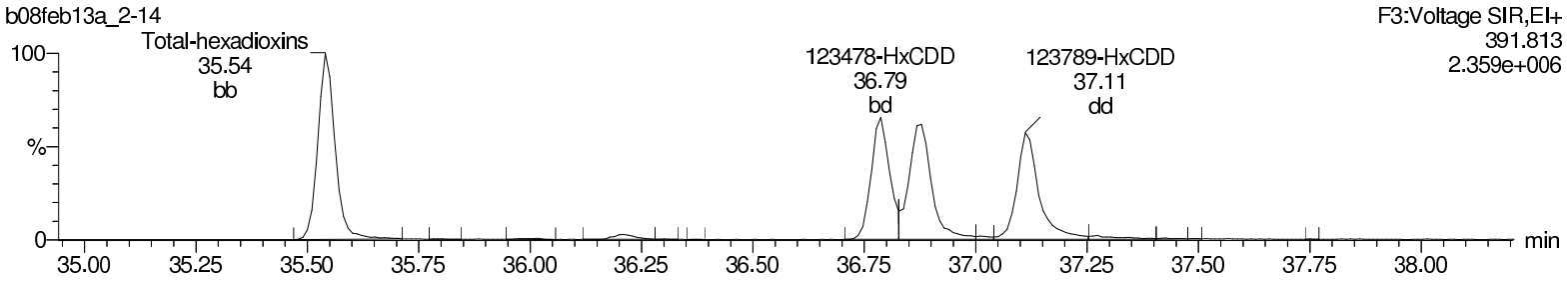
Last Altered: Monday, February 11, 2013 14:12:23 Eastern Standard Time
Printed: Monday, February 11, 2013 14:12:55 Eastern Standard Time

Name: b08feb13a_2-14, Date: 09-Feb-2013, Time: 01:11:04, ID: CS3WT UD121129-1.2, Description: , Job: b08feb13a_2, Task: HRP763_1, User: JTF

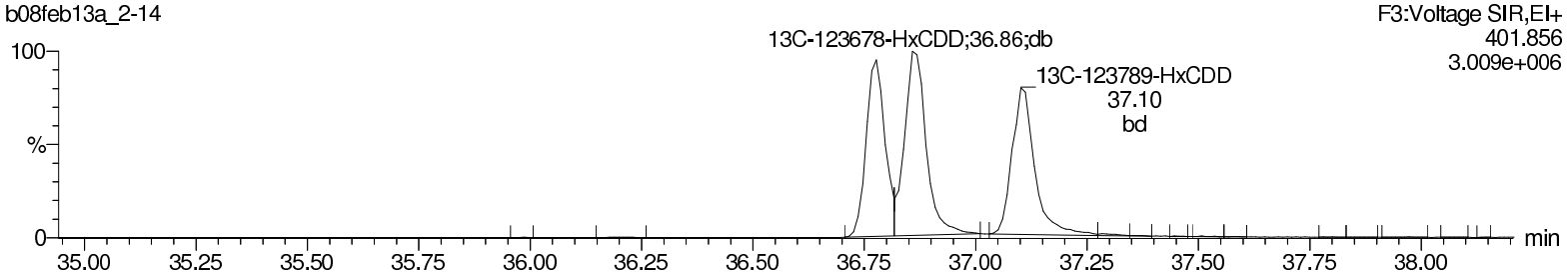
Total-hexadioxins



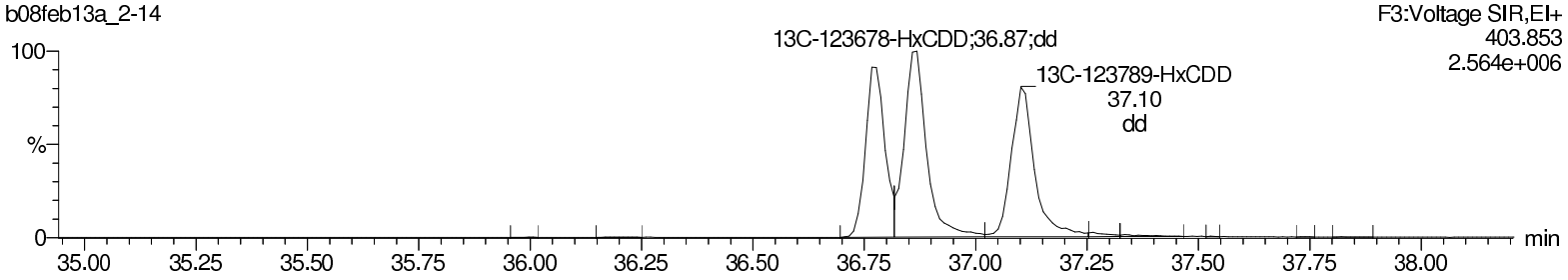
Total-hexadioxins



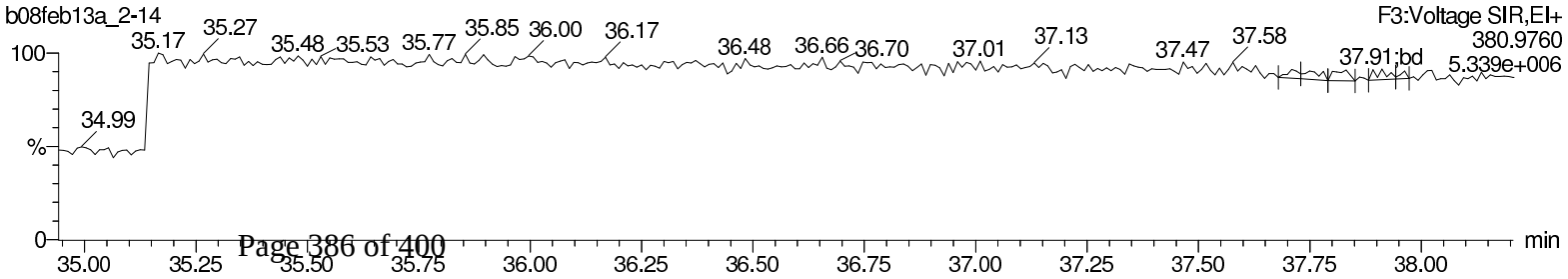
13C-123678-HxCDD



13C-123678-HxCDD



Lock Mass F3



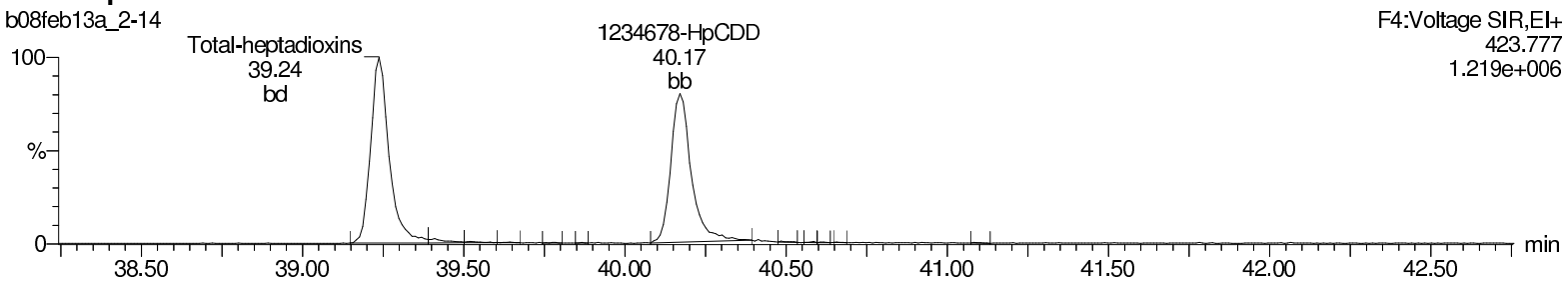
Quantify Sample Report **MassLynx 4.1**
Method 8290 CCAL Report

Dataset: Untitled

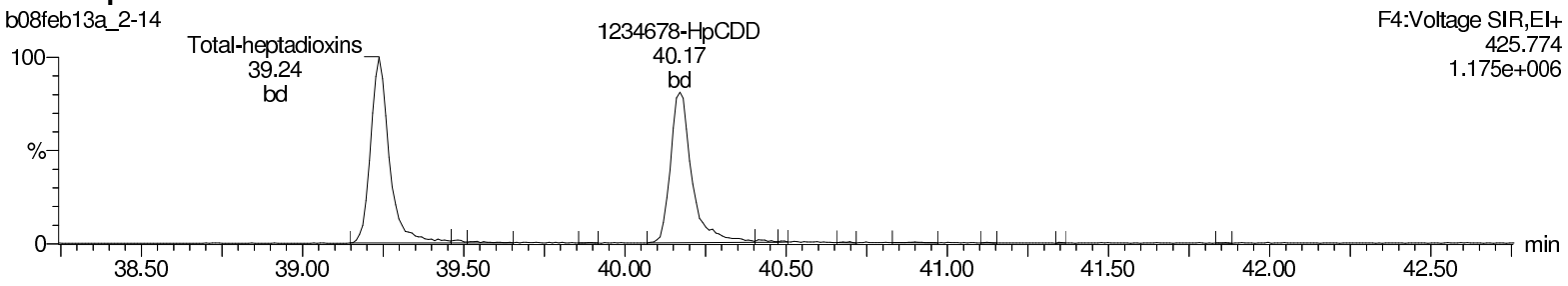
Last Altered: Monday, February 11, 2013 14:12:23 Eastern Standard Time
Printed: Monday, February 11, 2013 14:12:55 Eastern Standard Time

Name: b08feb13a_2-14, Date: 09-Feb-2013, Time: 01:11:04, ID: CS3WT UD121129-1.2, Description: , Job: b08feb13a_2, Task: HRP763_1, User: JTF

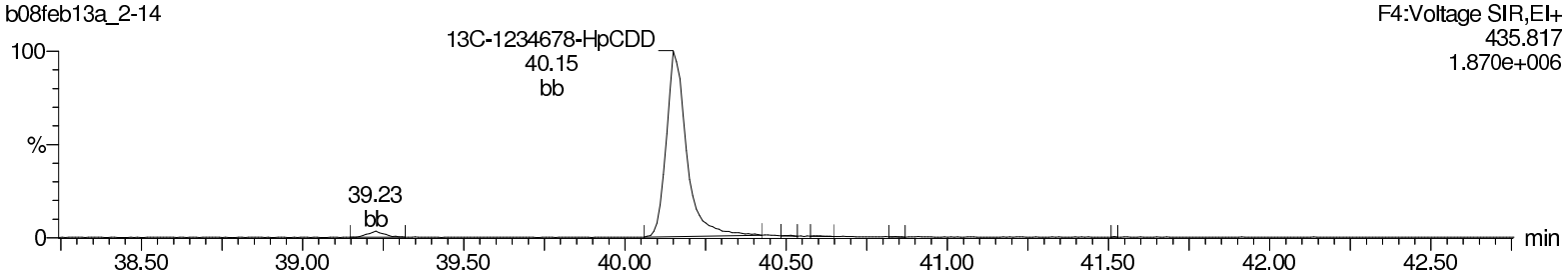
Total-heptadioxins



Total-heptadioxins



13C-1234678-HpCDD



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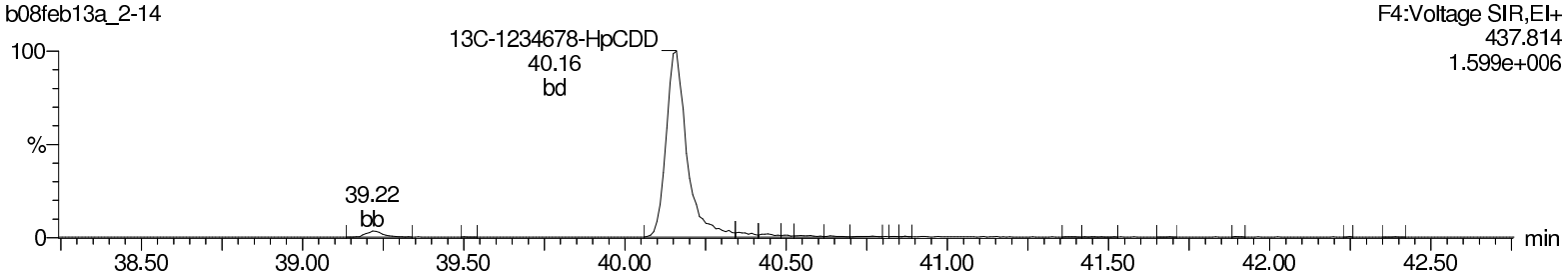
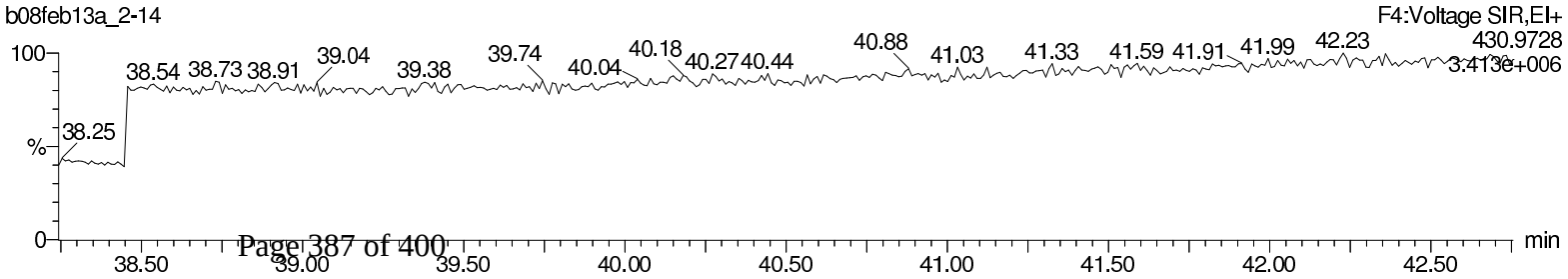


Lock Mass F4



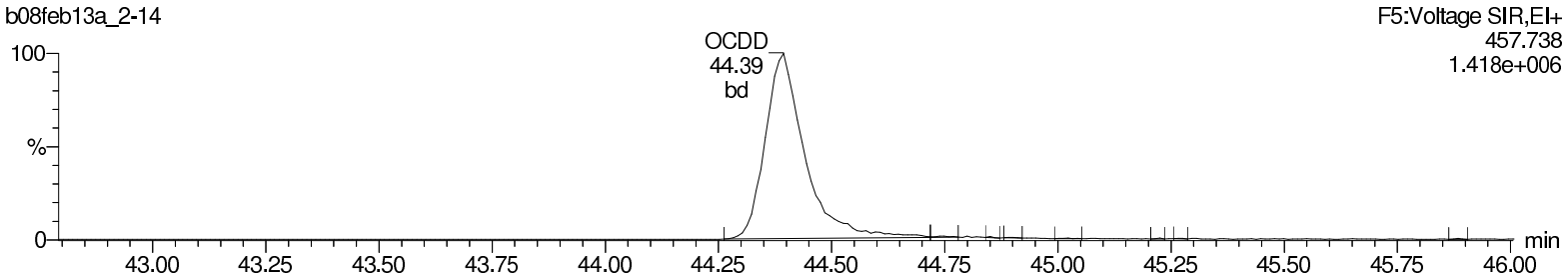
Quantify Sample Report **MassLynx 4.1**
Method 8290 CCAL Report

Dataset: Untitled

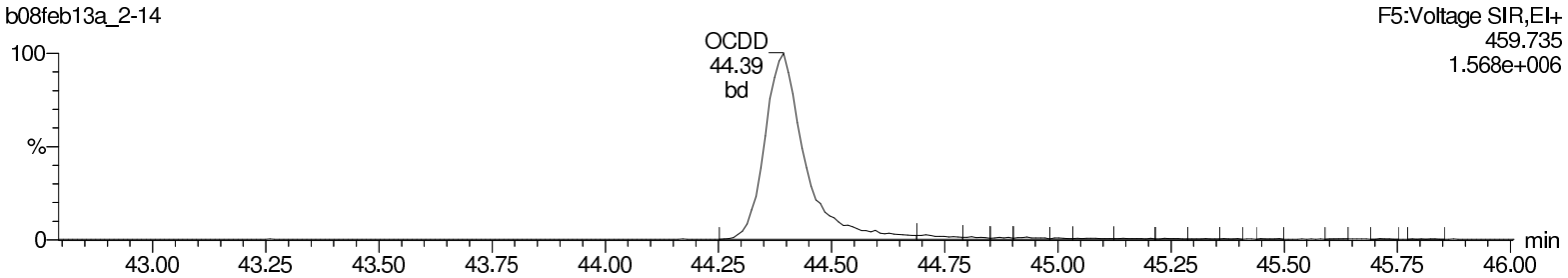
Last Altered: Monday, February 11, 2013 14:12:23 Eastern Standard Time
Printed: Monday, February 11, 2013 14:12:55 Eastern Standard Time

Name: b08feb13a_2-14, Date: 09-Feb-2013, Time: 01:11:04, ID: CS3WT UD121129-1.2, Description: , Job: b08feb13a_2, Task: HRP763_1, User: JTF

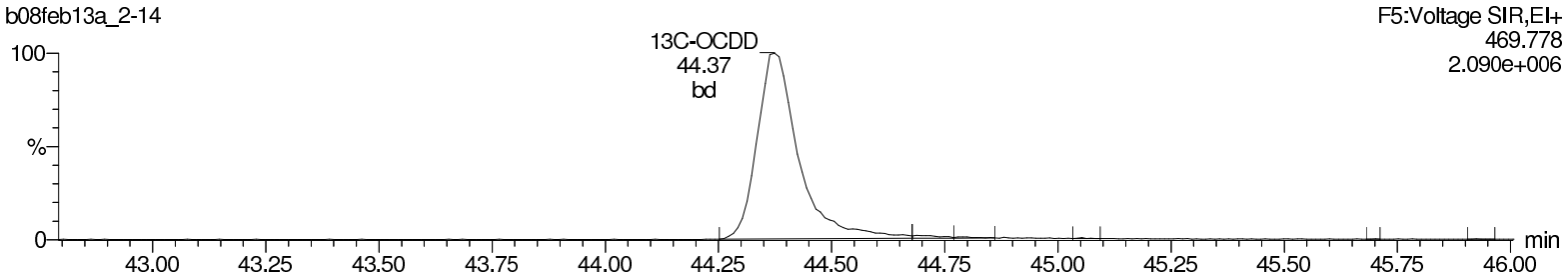
OCDD



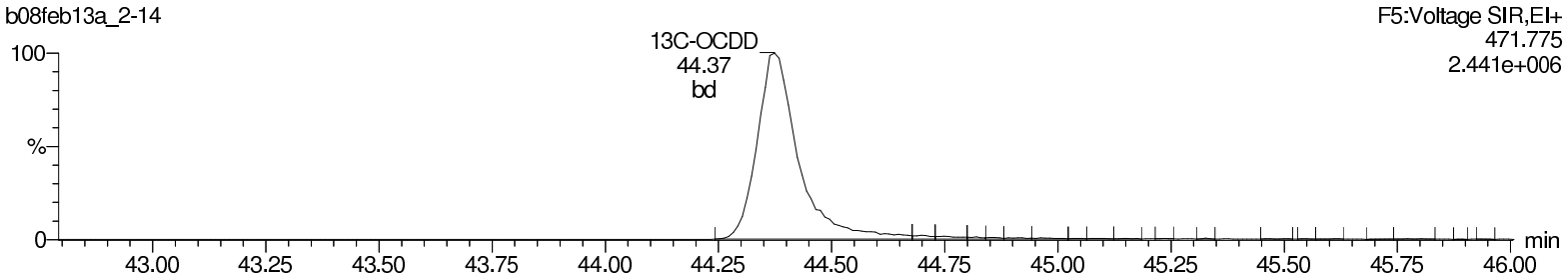
OCDD



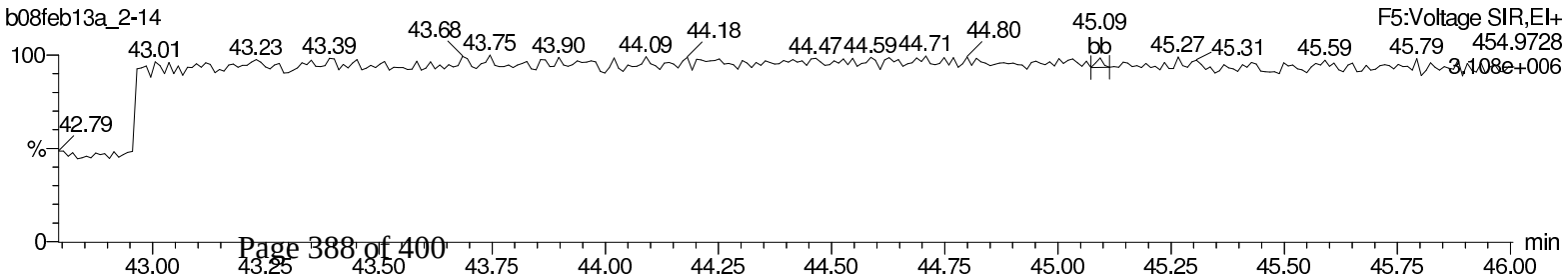
13C-OCDD



13C-OCDD



Lock Mass F5



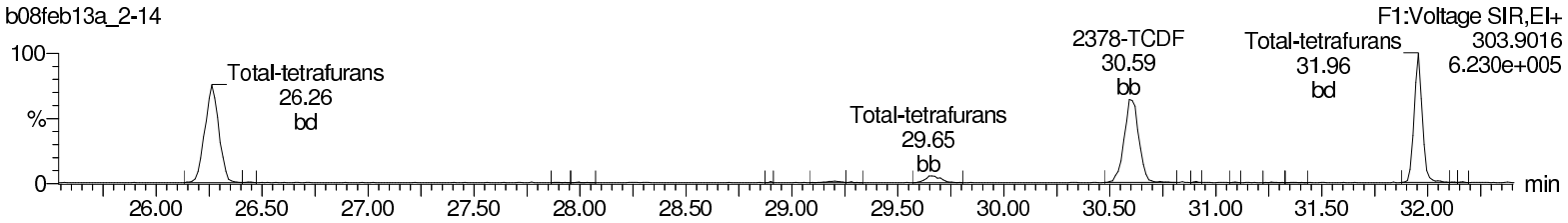
Quantify Sample Report **MassLynx 4.1**
Method 8290 CCAL Report

Dataset: Untitled

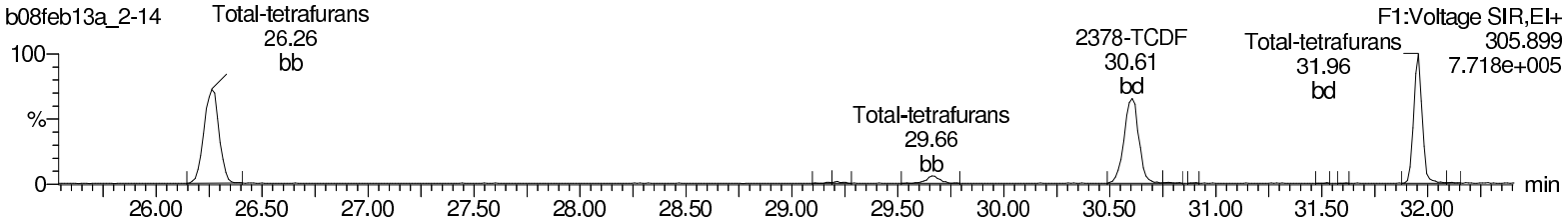
Last Altered: Monday, February 11, 2013 14:12:23 Eastern Standard Time
Printed: Monday, February 11, 2013 14:12:55 Eastern Standard Time

Name: b08feb13a_2-14, Date: 09-Feb-2013, Time: 01:11:04, ID: CS3WT UD121129-1.2, Description: , Job: b08feb13a_2, Task: HRP763_1, User: JTF

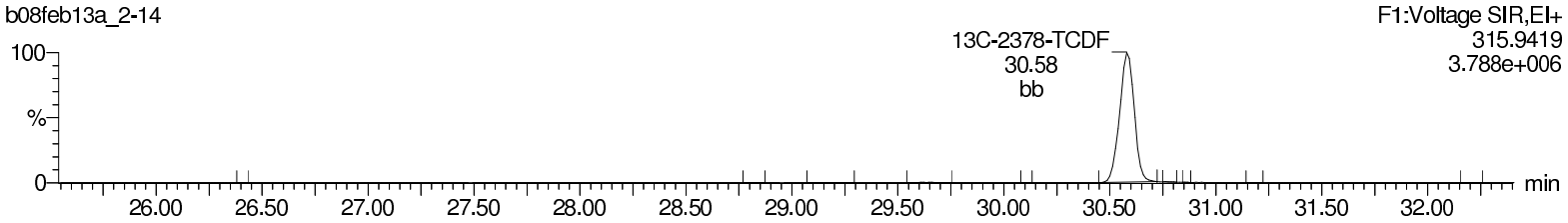
Total-tetrafurans



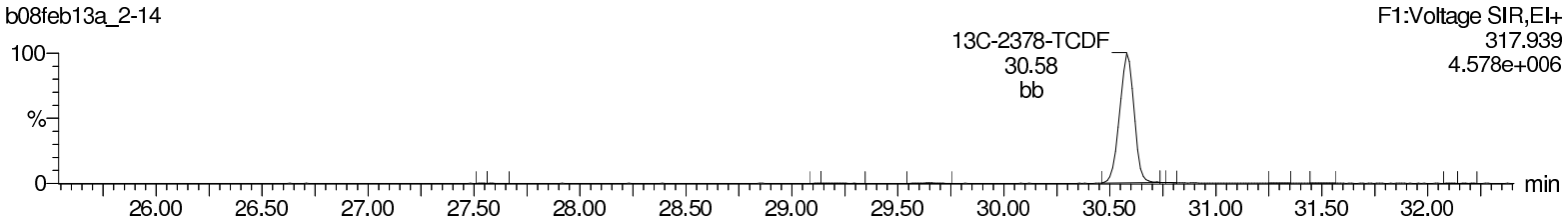
Total-tetrafurans



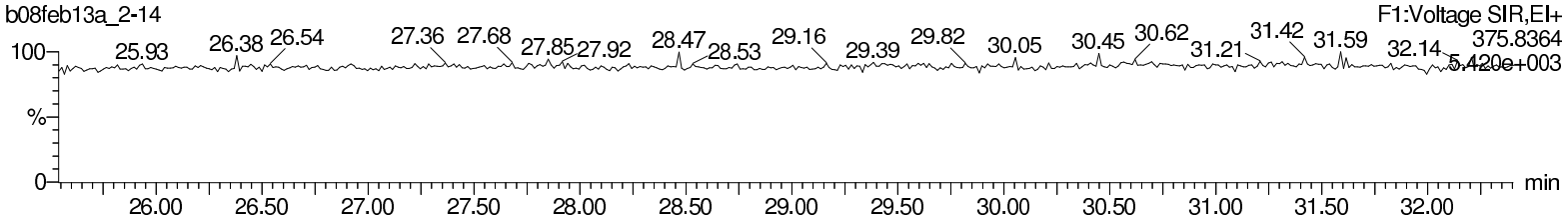
13C-2378-TCDF



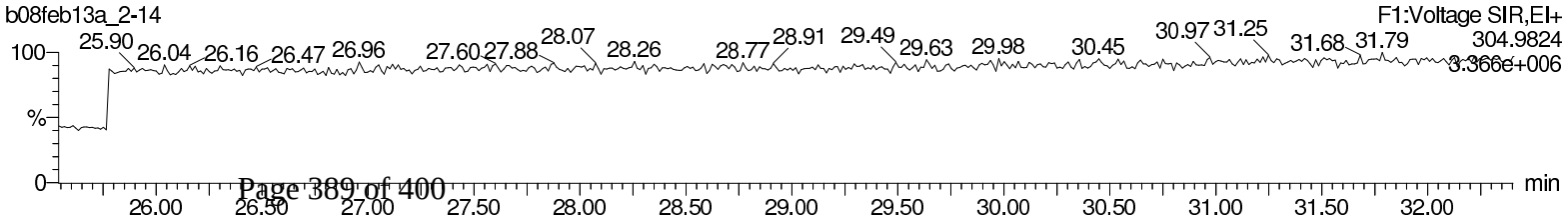
13C-2378-TCDF



HxDPE



Lock Mass F1



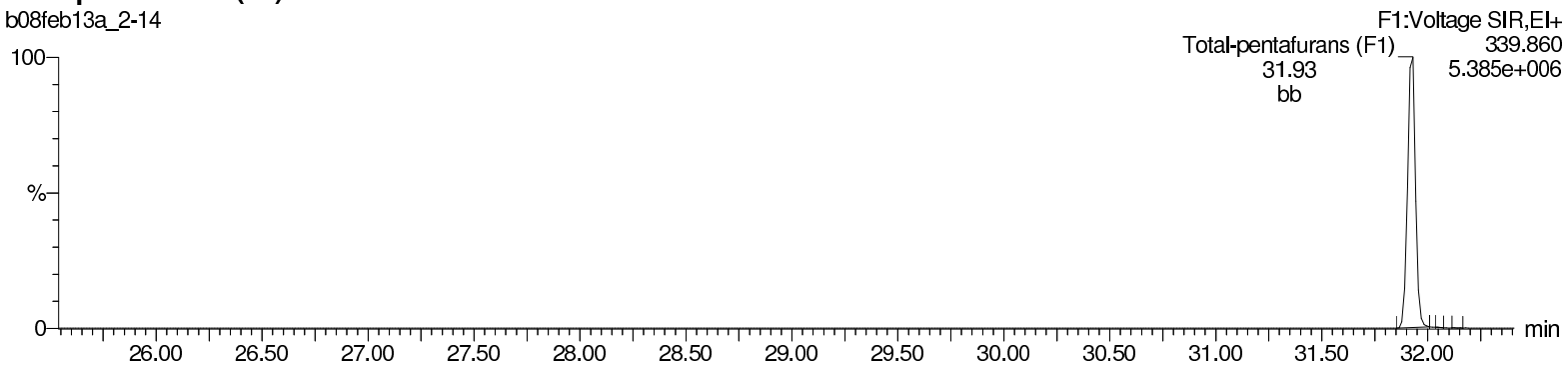
Quantify Sample Report **MassLynx 4.1**
Method 8290 CCAL Report

Dataset: Untitled

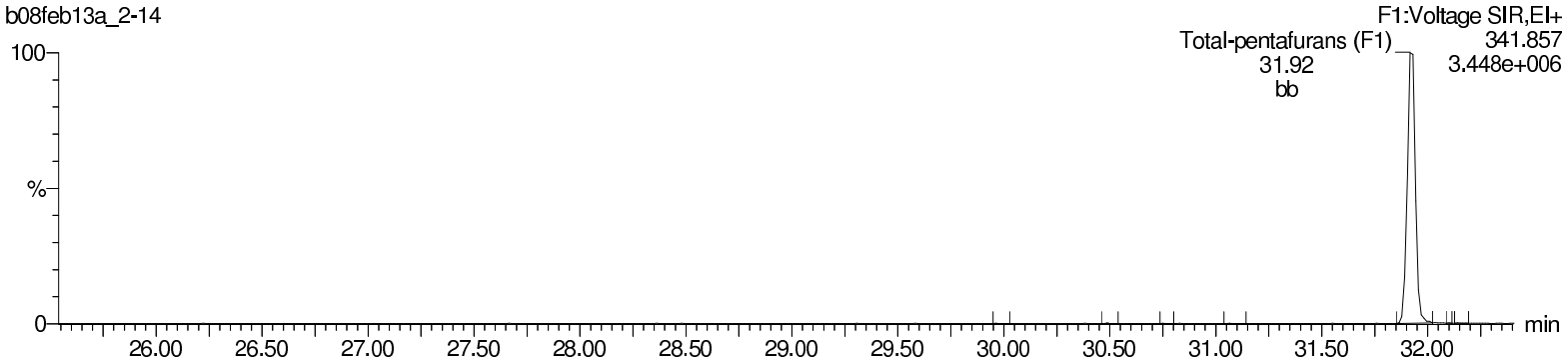
Last Altered: Monday, February 11, 2013 14:12:23 Eastern Standard Time
Printed: Monday, February 11, 2013 14:12:55 Eastern Standard Time

Name: b08feb13a_2-14, Date: 09-Feb-2013, Time: 01:11:04, ID: CS3WT UD121129-1.2, Description: , Job: b08feb13a_2, Task: HRP763_1, User: JTF

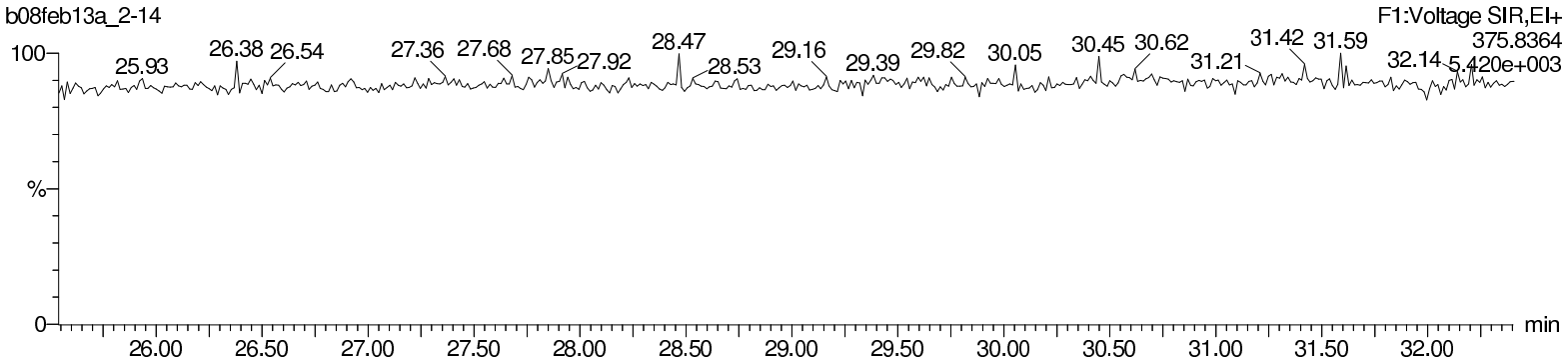
Total-pentafurans (F1)



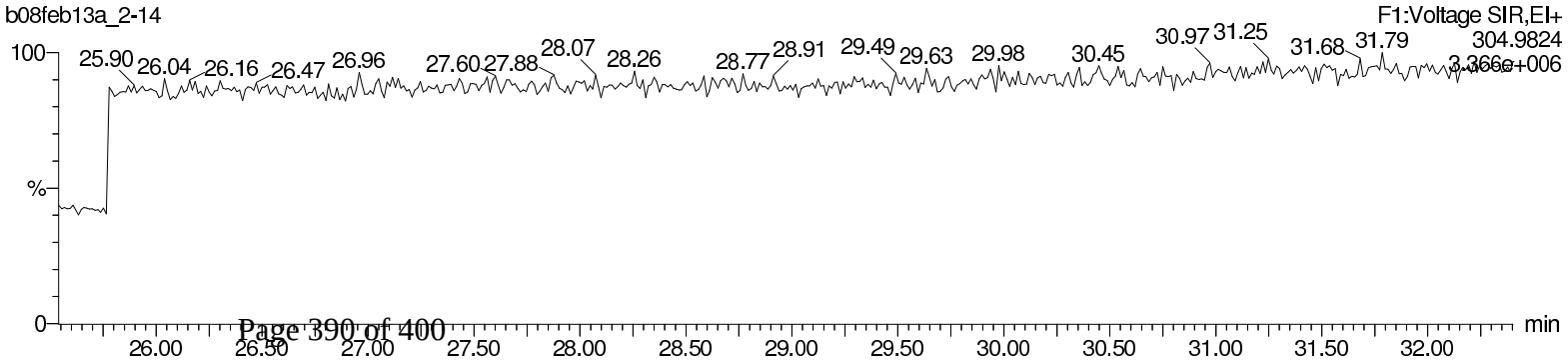
Total-pentafurans (F1)



HxDPE



Lock Mass F1



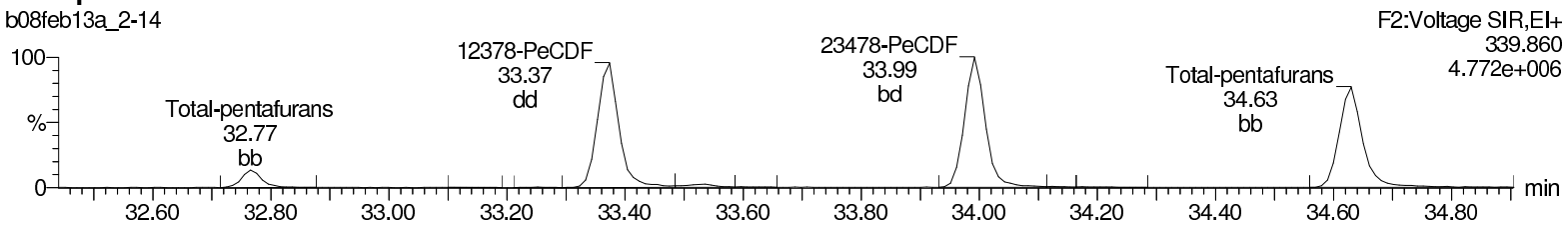
Quantify Sample Report **MassLynx 4.1**
Method 8290 CCAL Report

Dataset: Untitled

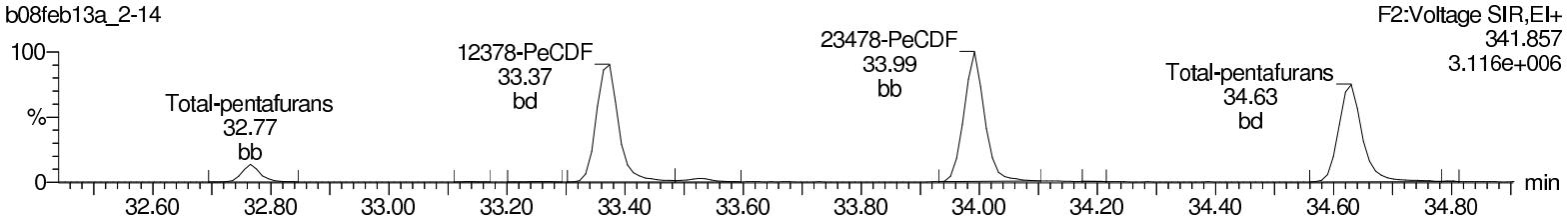
Last Altered: Monday, February 11, 2013 14:12:23 Eastern Standard Time
Printed: Monday, February 11, 2013 14:12:55 Eastern Standard Time

Name: b08feb13a_2-14, Date: 09-Feb-2013, Time: 01:11:04, ID: CS3WT UD121129-1.2, Description: , Job: b08feb13a_2, Task: HRP763_1, User: JTF

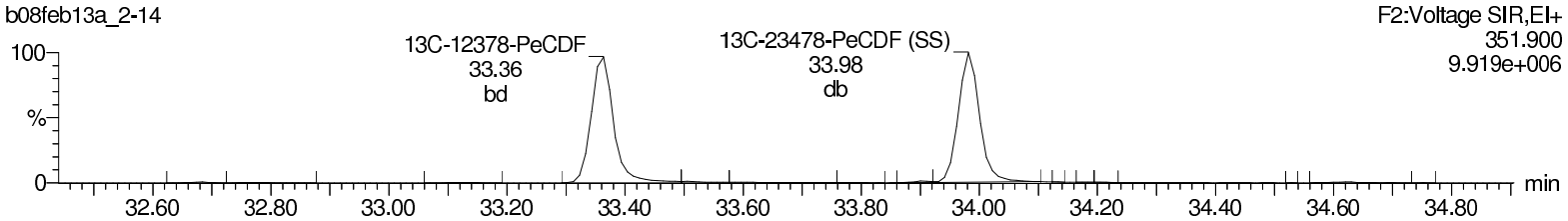
Total-pentafurans



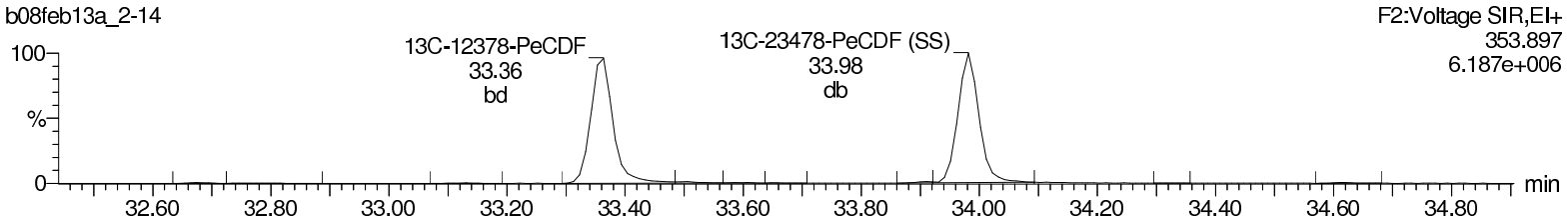
Total-pentafurans



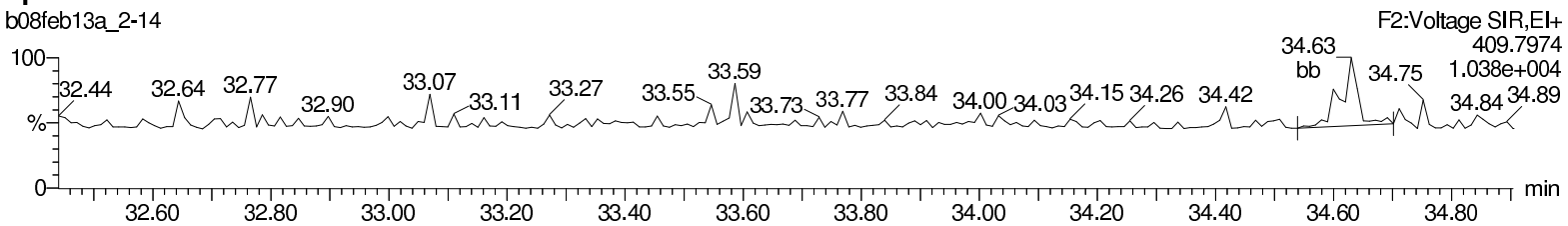
13C-12378-PeCDF



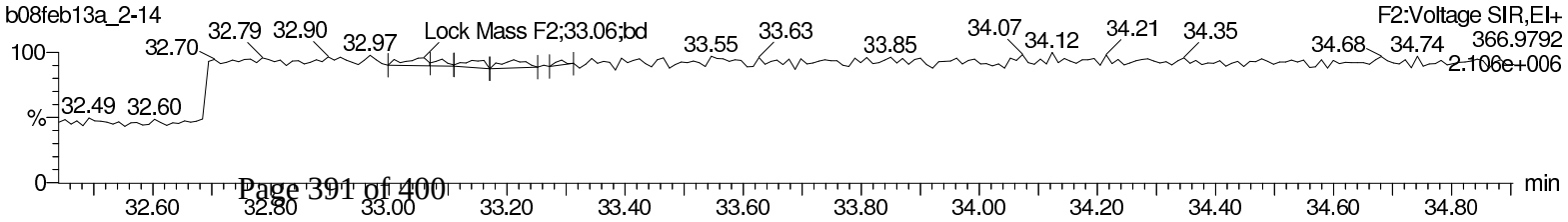
13C-12378-PeCDF



HpDPE



Lock Mass F2



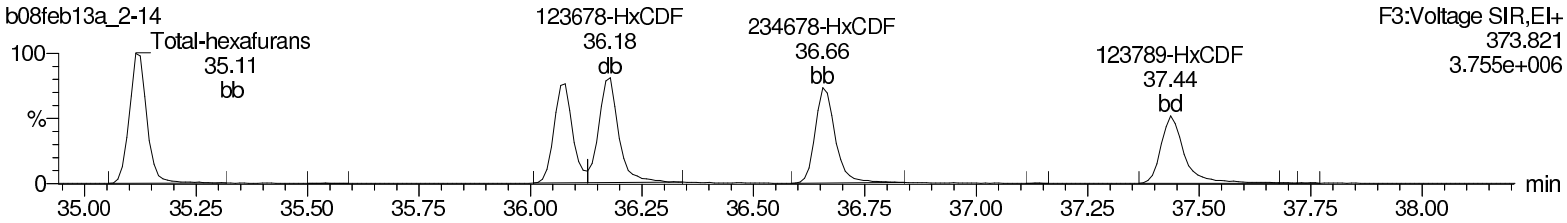
Quantify Sample Report **MassLynx 4.1**
Method 8290 CCAL Report

Dataset: Untitled

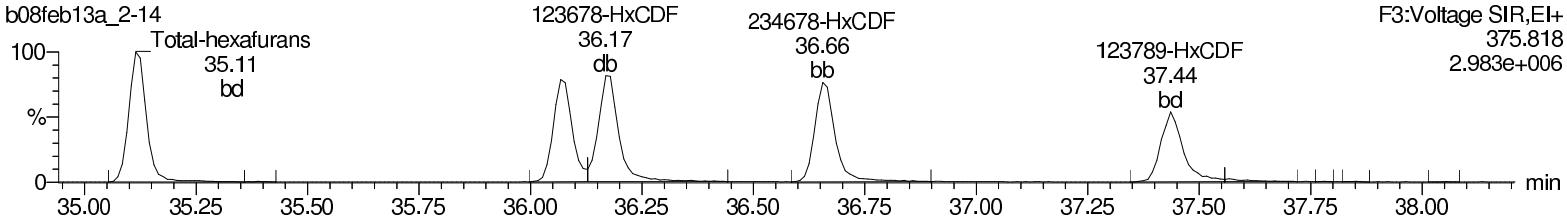
Last Altered: Monday, February 11, 2013 14:12:23 Eastern Standard Time
Printed: Monday, February 11, 2013 14:12:55 Eastern Standard Time

Name: b08feb13a_2-14, Date: 09-Feb-2013, Time: 01:11:04, ID: CS3WT UD121129-1.2, Description: , Job: b08feb13a_2, Task: HRP763_1, User: JTF

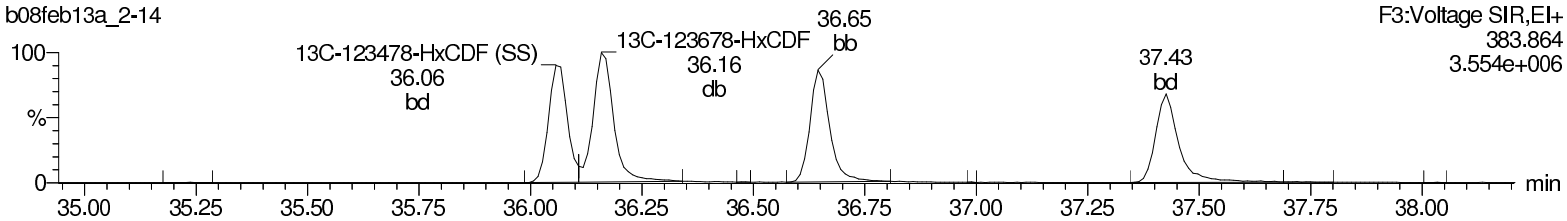
Total-hexafurans



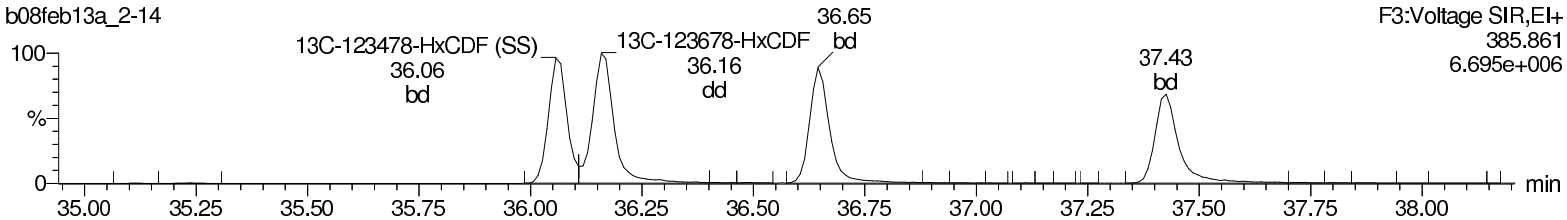
Total-hexafurans



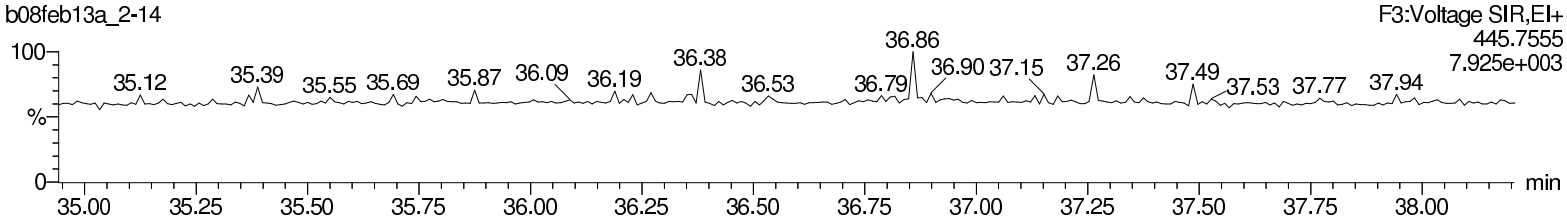
13C-123678-HxCDF



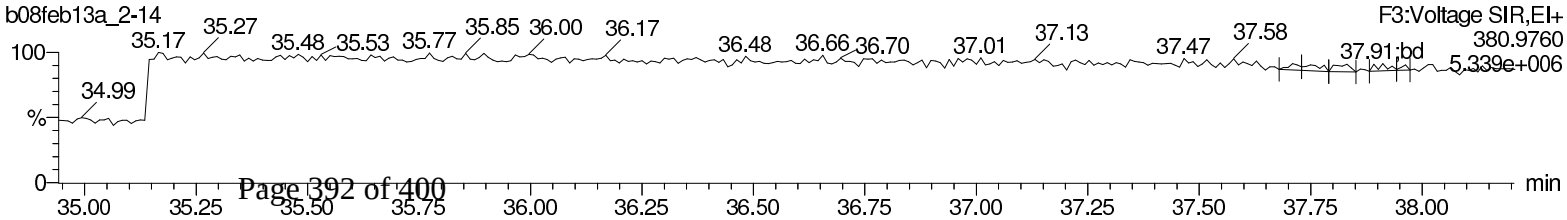
13C-123678-HxCDF



OcDPE



Lock Mass F3



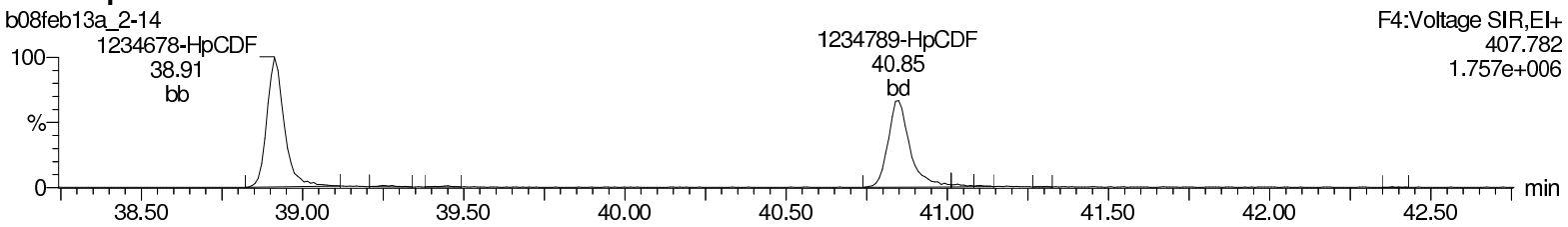
Quantify Sample Report **MassLynx 4.1**
Method 8290 CCAL Report

Dataset: Untitled

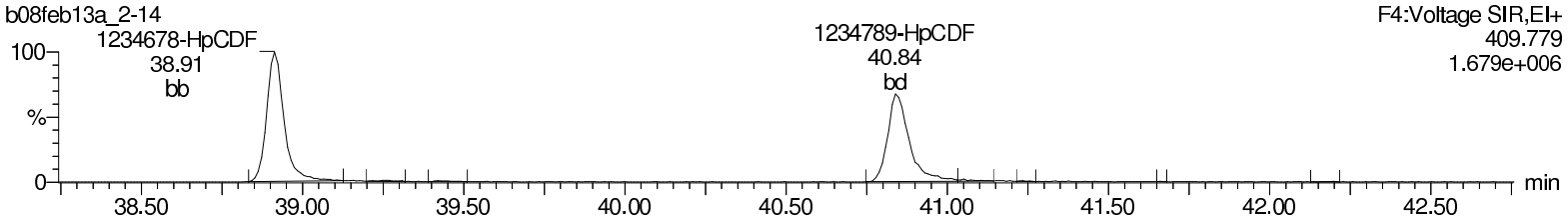
Last Altered: Monday, February 11, 2013 14:12:23 Eastern Standard Time
Printed: Monday, February 11, 2013 14:12:55 Eastern Standard Time

Name: b08feb13a_2-14, Date: 09-Feb-2013, Time: 01:11:04, ID: CS3WT UD121129-1.2, Description: , Job: b08feb13a_2, Task: HRP763_1, User: JTF

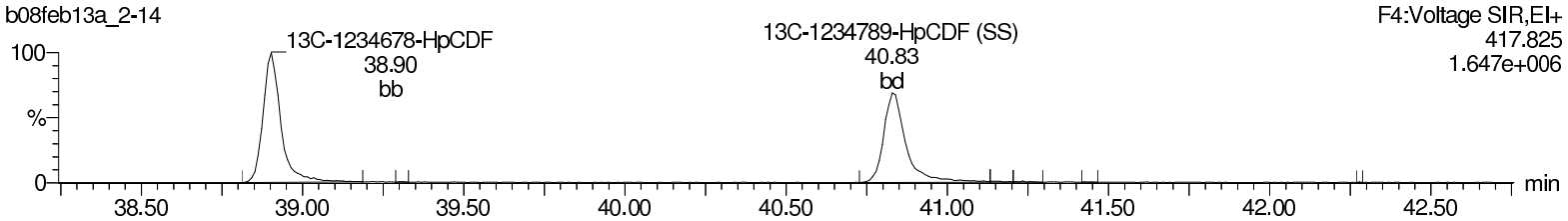
Total-heptafurans



Total-heptafurans



13C-1234678-HpCDF



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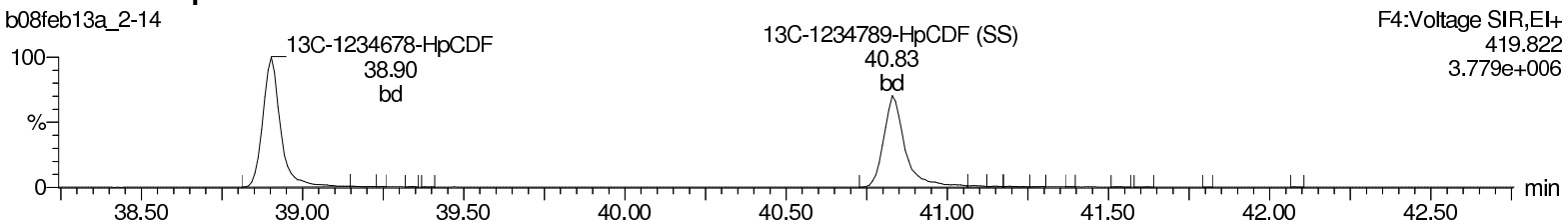

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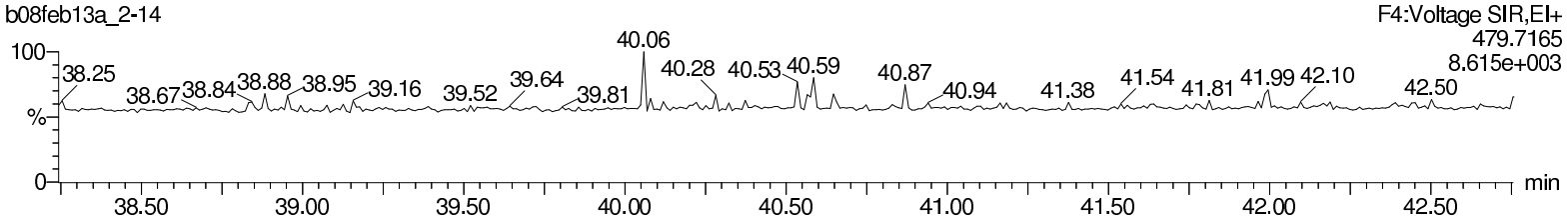

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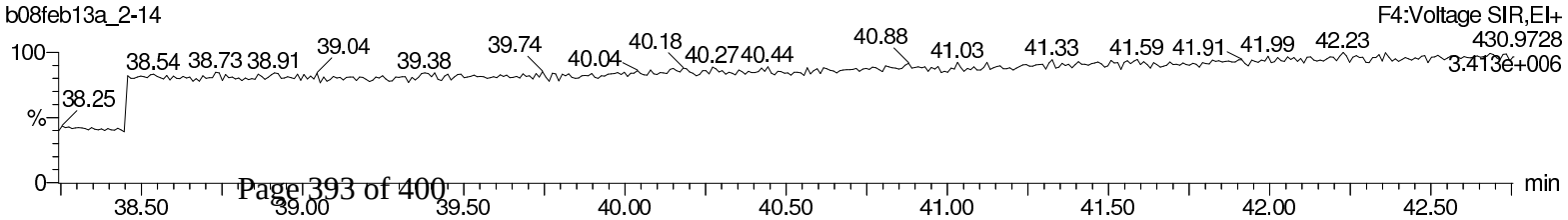


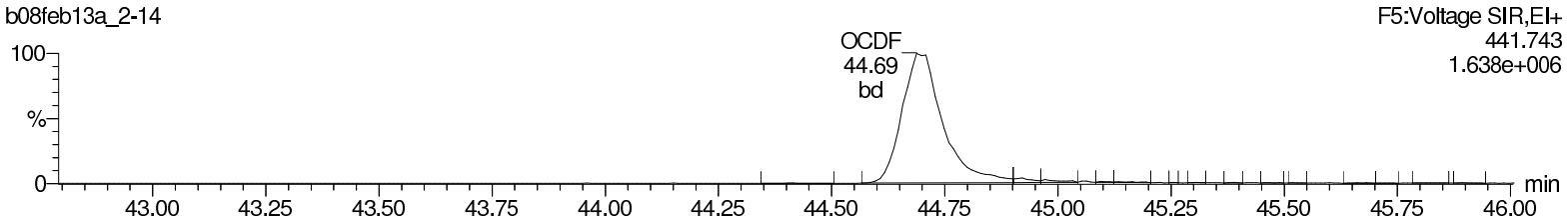
Quantify Sample Report **MassLynx 4.1**
Method 8290 CCAL Report

Dataset: Untitled

Last Altered: Monday, February 11, 2013 14:12:23 Eastern Standard Time
Printed: Monday, February 11, 2013 14:12:55 Eastern Standard Time

Name: b08feb13a_2-14, Date: 09-Feb-2013, Time: 01:11:04, ID: CS3WT UD121129-1.2, Description: , Job: b08feb13a_2, Task: HRP763_1, User: JTF

OCDF



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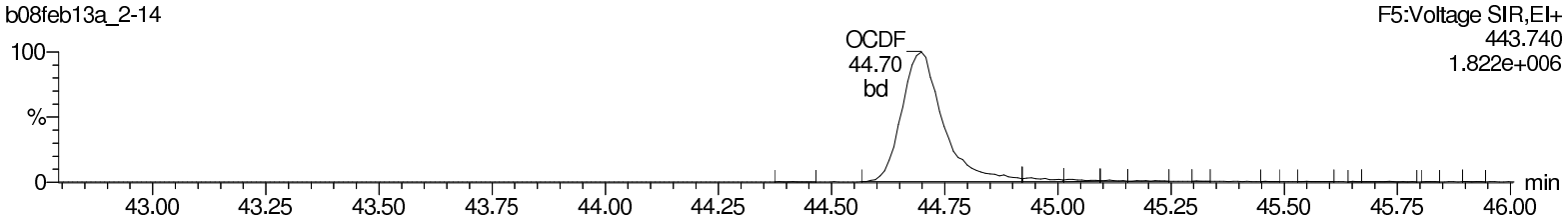

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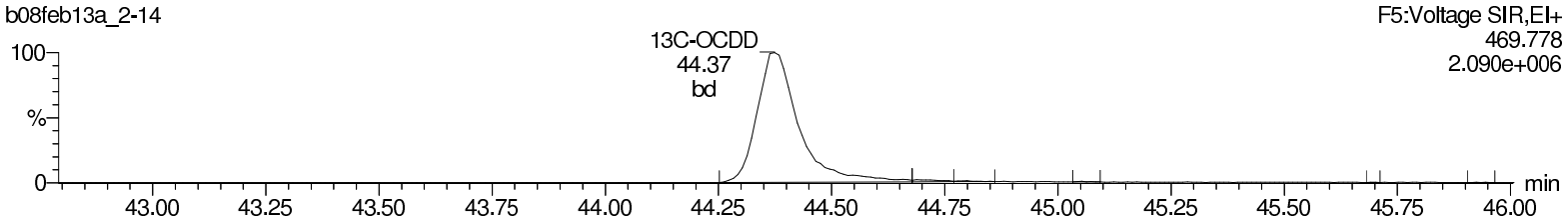

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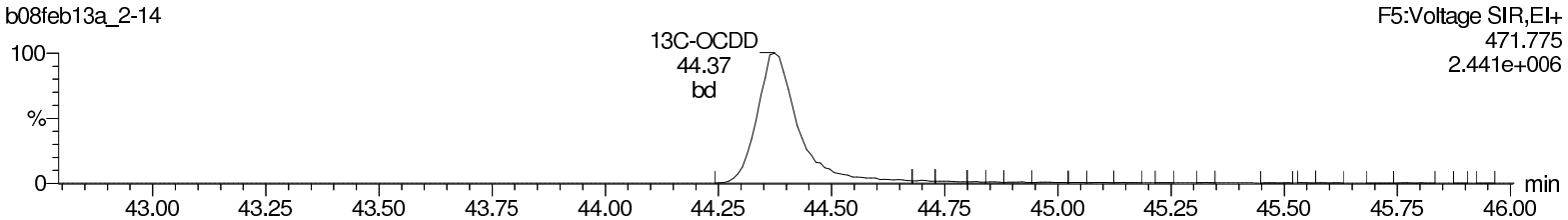

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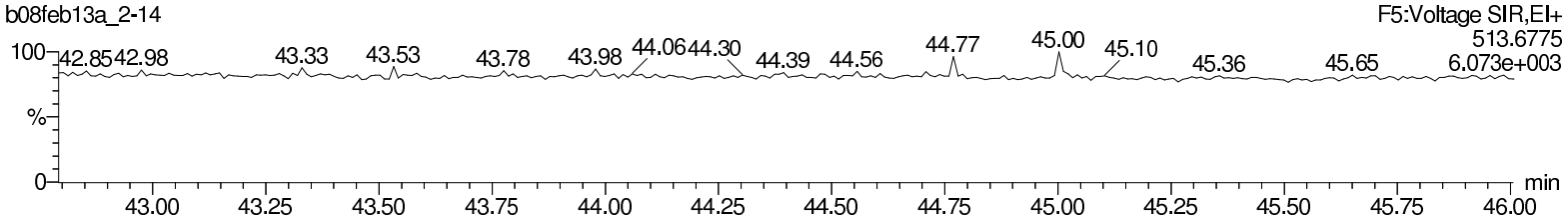

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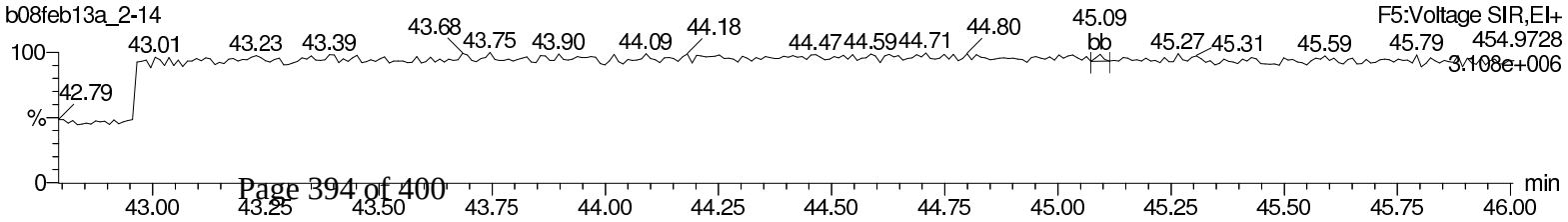

Standards Data

Reference Materials
Standards and Reagents Logbook

Serial ID:	UD101022-02	**Opened:**	29-NOV-12	**Amount :**	.5 mL
Name:	ICS1613CS1	**Received:**	22-OCT-10	**Catalog Number :**	EPA-1613CS1
Type:	Source Material	**Expires:**	01-FEB-17	**Lot Number :**	13CS11109
Employee:	Matt Cash			**Solvent :**	nonane
Supplier:	Wellington Labs				

Description: 1613 CS1 Initial Calibration Standard
Comments: None

Serial ID:	UD101022-03	**Opened:**	27-JUL-11	**Amount :**	.5 mL
Name:	ICS1613CS2	**Received:**	22-OCT-10	**Catalog Number :**	EPA-1613CS2
Type:	Source Material	**Expires:**	01-FEB-17	**Lot Number :**	13CS21109
Employee:	Matt Cash			**Solvent :**	nonane
Supplier:	Wellington Labs				

Description: 1613 CS2 Initial Calibration Standard
Comments: None

Serial ID:	UD101022-04	**Opened:**	29-NOV-12	**Amount :**	.5 mL
Name:	ICS1613CS3	**Received:**	22-OCT-10	**Catalog Number :**	EPA-1613CS3
Type:	Source Material	**Expires:**	01-FEB-17	**Lot Number :**	13CS31109
Employee:	Matt Cash			**Solvent :**	nonane
Supplier:	Wellington Labs				

Description: 1613 CS3 Initial Calibration Standard
Comments: None

Serial ID:	UD101022-06	**Opened:**	27-JUL-11	**Amount :**	.5 mL
Name:	ICS1613CS5	**Received:**	22-OCT-10	**Catalog Number :**	EPA-1613CS5
Type:	Source Material	**Expires:**	01-FEB-17	**Lot Number :**	13CS51109
Employee:	Matt Cash			**Solvent :**	nonane
Supplier:	Wellington Labs				

Description: 1613 CS5 Initial Calibration Standard
Comments: None

Serial ID:	UD120327-02.2	**Opened:**	27-DEC-12	**Amount :**	1.2 mL
Name:	SURR8280JS	**Received:**	27-MAR-12	**Catalog Number :**	EPA-8280RS
Type:	Source Material	**Expires:**	01-JAN-15	**Lot Number :**	80RS0608
Employee:	Matt Cash			**Solvent :**	nonane
Supplier:	Wellington Labs				

Description: 8280 Recovery Standard
Comments: None

Reference Materials
Standards and Reagents Logbook

Serial ID: UD120803-02.1 **Opened:** 03-AUG-12 **Amount :** 1.2 mL
Name: 1613MXSPIKE **Received:** 03-AUG-12 **Catalog Number :** EPA-1613STOCK
Type: Source Material **Expires:** 01-JAN-15 **Lot Number :** 13STK1109
Employee: Matt Cash **Solvent :** Nonane/Toluene
Supplier: Wellington Labs

Description: 1613 Matrix Spike Stock
Comments: None

Serial ID: UD121129-03 **Opened:** 29-NOV-12 **Amount :** .5 mL
Name: ICS1613CS0.5 **Received:** 29-NOV-12 **Catalog Number :** EPA-1613CS0.5
Type: Source Material **Expires:** 01-JAN-15 **Lot Number :** 13CS0.51109
Employee: Matt Cash **Solvent :** nonane
Supplier: Wellington Labs

Description: 1613 CS0.5 Initial Calibration Standard
Comments: None

Serial ID: UD121129-07 **Opened:** 29-NOV-12 **Amount :** .5 mL
Name: ICS1613CS4 **Received:** 29-NOV-12 **Catalog Number :** EPA-1613CS4
Type: Source Material **Expires:** 01-JAN-15 **Lot Number :** 13CS41109
Employee: Matt Cash **Solvent :** nonane
Supplier: Wellington Labs

Description: 1613 CS4 Initial Calibration Standard
Comments: None

Serial ID: UD121218-02.1 **Opened:** 09-JAN-13 **Amount :** 1.2 mL
Name: SURR23ES **Received:** 18-DEC-12 **Catalog Number :** EPA-23ISS
Type: Source Material **Expires:** 01-JAN-15 **Lot Number :** 23ISS0108
Employee: Matt Cash **Solvent :** nonane
Supplier: Wellington Labs

Description: Method 23 (8290) Extraction Standard
Comments: None

Serial ID: ID121217-01 **Opened:** 17-DEC-12 **Review :** MIK00434
Name: INT1613MXSPIKE **Received:** 17-DEC-12 **Solvent :** nonane
Type: Intermediate **Expires:** 17-DEC-13
Employee: Matt Cash
Supplier: CFA

Description: 1613 Matrix Spike Intermediate 0.1ng/uL
Comments: None

Reference Materials
Standards and Reagents Logbook

Serial ID: WD130125-01.2 **Opened:** 25-JAN-13 **Review :** MIK00434
Name: 8290ES **Received:** 25-JAN-13 **Solvent :** nonane
Type: Working **Expires:** 25-JAN-14
Employee: Matt Cash
Supplier: CFA

Description: 8290 Extraction Standard
Comments: None

Serial ID: WD130206-01 **Opened:** 06-FEB-13 **Review :** MIK00434
Name: 1613MXSPIKE **Received:** 06-FEB-13 **Solvent :** nonane
Type: Working **Expires:** 17-DEC-13
Employee: Chris Presnell
Supplier: CFA

Description: 1613 Matrix Spike
Comments: None

Serial ID: WD130207-05 **Opened:** 07-FEB-13 **Review :** MIK00434
Name: 8290JS **Received:** 07-FEB-13 **Solvent :** nonane
Type: Working **Expires:** 07-FEB-14
Employee: Matt Cash
Supplier: CFA

Description: 8290 Injection Standard
Comments: None

Miscellaneous

No non conformance reports were generated for this work order

LA-UR-15-24404
June 2015
EP2015-0102

2013 Excavation of the Los Alamos Canyon Low-Head Weir, Revision 1

Los Alamos
NATIONAL LABORATORY
EST. 1943

Prepared by the Environmental Programs Directorate

Los Alamos National Laboratory, operated by Los Alamos National Security, LLC, for the U.S. Department of Energy under Contract No. DE-AC52-06NA25396, has prepared this document pursuant to the Compliance Order on Consent, signed March 1, 2005. The Compliance Order on Consent contains requirements for the investigation and cleanup, including corrective action, of contamination at Los Alamos National Laboratory. The U.S. government has rights to use, reproduce, and distribute this document. The public may copy and use this document without charge, provided that this notice and any statement of authorship are reproduced on all copies.

EP2015-0102

2013 Excavation of the Los Alamos Canyon Low-Head Weir, Revision 1

June 2015

Responsible project manager:

Printed Name	Signature	Title	Organization	Date
Steve Veenis		Project Manager	Environmental Remediation Program	

Responsible LANS representative:

Printed Name	Signature	Title	Organization	Date
Randall Erickson		Acting Associate Director	Environmental Programs	

Responsible DOE representative:

Printed Name	Signature	Title	Organization	Date
Christine Gelles		Acting Manager	DOE-EM-LA	

This revision to the 2013 e~~r~~xcavation of the Los Alamos low-head weir report incorporates changes required by the New Mexico Environment Department's (NMED's) notice of disapproval, dated March 3, 2015 (NMED 2015, 600271). Excavation of the basins behind the Los Alamos Canyon low-head weir began on April 1, 2013, and was completed on May 6, 2013. The basins were excavated to maximize the sediment-retention capacity for the 2013 summer monsoon season. Much of the total available capacity had been lost as a result of sediment accumulation that followed the Las Conchas fire. An estimated 6000 yd^3 (including postexcavation expansion) of sediment was removed from the three basins, transported approximately 0.5 mi up Los Alamos Canyon, and stockpiled at a former borrow pit (Figures 1 and 2). The borrow pit provides an ideal location for the disposition of the excavated sediment because of its available capacity and its isolation from potential storm water runoff. A layer of sediment approximately 6 in. thick was retained in the bottom of each basin to mitigate against potential infiltration into underlying bedrock (Figures 3~~2~~ through 5).

Excavated sediment was removed from the basins using a front-end loader and transported in tandem wheel dump trucks upcanyon approximately 0.5 mi to a former borrow-pit basin. The borrow pit is bounded on three sides by elevated slopes. The sediment was placed on a plastic liner, compacted and contoured to match existing grade on the north and east sides, and hydroseeded with wood-fiber mulch and Los Alamos National Laboratory– (LANL-) approved native plant seed mix. In addition, a 3-ft-high runoff containment berm was constructed at the base of the open slope, tying in with the existing slope walls. Figures 6~~7~~ through 9~~–10~~ are photographs taken on ~~from~~ June 18, 2015, that show the current grade, vegetation established in the area, and the containment berm located along the west side. Vegetation cover and diversity are exceptional, and a substantial amount of the original hydromulch remains on the soil surface. There is virtually no evidence of soil erosion at the site.

Before excavation, samples were collected to characterize the material planned for excavation (Figure -10~~3~~). Samples were collected for polychlorinated biphenyls, pesticides, herbicides, dioxins/furans, general chemistry, inorganics, and radionuclides. Four depth-integrated subsamples were collected for analysis from each of six areas within the lower basin to represent the mixed condition of excavated sediment. This approach ensured that finer-grained deposits, with typically higher constituent concentrations and most prevalent in the lower basin, were included in the samples. Table 1 provides information on the samples collected to characterize the material in the basins. The data are provided on the CD included with this report (Appendix A).

A screening comparison was conducted to support decisions regarding disposition of the excavated sediment. The approach used for the analysis is consistent with the approach taken to evaluate the same type of sediment deposits behind the low-head weir structure in 2009 (LANL 2009, 105294).

The data were first compared with sediment background values (BVs) (LANL 1998, 059730) or detection limits (for organic chemicals), and those values that exceeded BVs and detected organic chemicals (chemicals of potential concern [COPCs]) were compared with the residential soil screening levels (SSLs)/screening action levels (SALs) (LANL 2012, 228852; NMED 2012, 219971) and minimum ecological screening levels (ESLs) (LANL 2012, 226667) (Table 2~~1~~).

The following is a summary of the assessment:

- 51 analytes were detected.
    - For the 13 detected dioxin and furan congeners, the 2,3,7,8-tetrachlorodibenzodioxin–(TCDD-) equivalent concentration for mammals was calculated from the toxic equivalency factors referenced in NMED guidance (2012, 219971).

- 22 detected analytes were identified as COPCs based on comparisons to background for inorganic compounds and radionuclides and detection status for organic compounds.
- Maximum COPC concentrations were not greater than residential SSLs/SALs, and therefore no potential unacceptable human health risks are present for the materials behind the low-head weir.
- Maximum concentrations of barium, copper, cyanide, lead, manganese, nickel, zinc, and TCDD were greater than the respective minimum ESLs.

COPCs with concentrations greater than the minimum ESLs were further evaluated to determine if they have the potential for causing ecological risk (chemicals of potential ecological concern [COPECs]). The approach taken in this assessment was to compare measured concentrations for a given COPEC with the lowest-effect level ESLs (L-ESLs).

Table ~~2~~ 3 lists the maximum concentrations of barium, copper, cyanide, lead, manganese, nickel, zinc, and TCDD. For comparison, the sediment and soil BVs as well as the minimum ESLs and L-ESLs are provided. In addition, the maximum concentrations measured in 2009 from the weir are presented as well as the maximum concentrations measured in postfire ash (samples collected after the Cerro Grande fire) (LANL 2004, 087390) because of the high ash content in the weir sediment.

The hazard quotient (HQ) is calculated by dividing the maximum concentration of each COPEC measured in 2013 by the minimum ESL or L-ESL.

The HQs for the minimum ESLs are all greater than 1; the HQs for the minimum L-ESLs are less than 1 for copper, nickel, zinc, and TCDD; and the HQs for the minimum L-ESLs are slightly above 1 for barium, cyanide, lead, and manganese. The latter COPECs are discussed below. The maximum concentrations for barium, lead, and manganese came from sample CALA-13-28430 at location LA-27, and the maximum concentration for cyanide came from sample CALA-13-28425 at location LA-22 (Figure 10~~3~~).

- **Barium**: All detected concentrations are above the sediment BV but below the soil BV. The minimum ESL is below the sediment and soil BVs, and the L-ESL is below the soil BV. The maximum HQ based on the L-ESL is 1.1, and the mean HQ is 0.9. Higher concentrations were measured in postfire ash after the Cerro Grande fire (LANL 2004, 087390), indicating the ash is a source of barium in the weir. ~~Therefore, there are no potential ecological risks from barium.~~
- **Cyanide**: Five of six detected concentrations are above the sediment BV, and all are above the soil BV. The minimum ESL is below the sediment and soil BVs, and the L-ESL is 0.18 mg/kg above the sediment BV. Elevated concentrations for cyanide are also probably related to ash from the Las Conchas fire. The maximum HQ based on the L-ESL is 1.4, and the mean HQ is 1.1.; both are equivalent to 1. ~~Therefore, there are no potential ecological risks from cyanide.~~
- **Lead**: All detected concentrations are above the sediment and soil BVs, but five of six concentrations are below the maximum soil background concentration. The minimum ESL is below the sediment and soil BVs, and the L-ESL is 8.3 mg/kg above the sediment BV and 5.7 mg/kg above the soil BV but the same as the maximum soil background concentration. The maximum HQ based on the L-ESL is 1.3, and the mean HQ is 1. Higher concentrations were measured in postfire ash after the Cerro Grande fire (LANL 2004, 087390), indicating the ash is a source of lead in the weir. ~~Therefore, there are no potential ecological risks from lead.~~
- **Manganese:** All detected concentrations are above the sediment and soil BVs, but three of six concentrations are below the maximum soil background concentration. The minimum ESL is below the sediment and soil BVs, and the L-ESL is above the sediment and soil BVs but the same as the maximum soil background concentration. The maximum HQ based on the L-ESL is

1.2, and the mean HQ is 1. Higher concentrations were measured in postfire ash after the Cerro Grande fire (LANL 2004, 087390), indicating the ash is a source of manganese in the weir. ~~Therefore, there are no potential ecological risks from manganese.~~

REFERENCES

The following list includes all documents cited in this report. Parenthetical information following each reference provides the author(s), publication date, and ER ID or ESH ID. This information is also included in text citations. ER IDs were assigned by the Environmental Programs Directorate's Records Processing Facility (IDs through 599999), and ESH IDs are assigned by the Environment, Safety, and Health (ESH) Directorate (IDs 600000 and above). IDs are used to locate documents in the Laboratory's Electronic Document Management System and, where applicable, in the master reference set.

Copies of the master reference set are maintained at the NMED Hazardous Waste Bureau and the ESH Directorate. The set was developed to ensure that the administrative authority has all material needed to review this document, and it is updated with every document submitted to the administrative authority. Documents previously submitted to the administrative authority are not included

LANL (Los Alamos National Laboratory), September 22, 1998. "Inorganic and Radionuclide Background Data for Soils, Canyon Sediments, and Bandelier Tuff at Los Alamos National Laboratory," Los Alamos National Laboratory document LA-UR-98-4847, Los Alamos, New Mexico. (LANL 1998, 059730)

LANL (Los Alamos National Laboratory), April 2004. "Los Alamos and Pueblo Canyons Investigation Report," Los Alamos National Laboratory document LA-UR-04-2714, Los Alamos, New Mexico. (LANL 2004, 087390)

LANL (Los Alamos National Laboratory), February 20, 2009. "Submittal of the Los Alamos Canyon Low-Head Weir Ecological Risk Screening," Los Alamos National Laboratory letter (EP2009-0107) to J.P. Bearzi (NMED-HWB) from M.J. Graham (LANL) and D.R. Gregory (DOE-LASO), Los Alamos, New Mexico. (LANL 2009, 105294)

LANL (Los Alamos National Laboratory), October 2012. "Derivation and Use of Radionuclide Screening Action Levels, Revision 2," Los Alamos National Laboratory document LA-UR-12-23292, Los Alamos, New Mexico. (LANL 2012, 228852)

LANL (Los Alamos National Laboratory), October 2012. "ECORISK Database (Release 3.1)," on CD, LA-UR-12-24548, Los Alamos National Laboratory, Los Alamos, New Mexico. (LANL 2012, 226667)

NMED (New Mexico Environment Department), February 2012 (updated June 2012). "Risk Assessment Guidance for Site Investigations and Remediation," Hazardous Waste Bureau and Ground Water Quality Bureau Voluntary Remediation Program, Santa Fe, New Mexico. (NMED 2012, 219971)

NMED (New Mexico Environment Department), March 3, 2015. "Disapproval, 2013 Excavation of the Los Alamos Canyon Low-Head Weir," New Mexico Environment Department letter to P. Maggiore (DOE-NA-LA) and M. Brandt (LANL) from J.E. Kieling (NMED-HWB), Santa Fe, New Mexico. (NMED 2015, 600271)

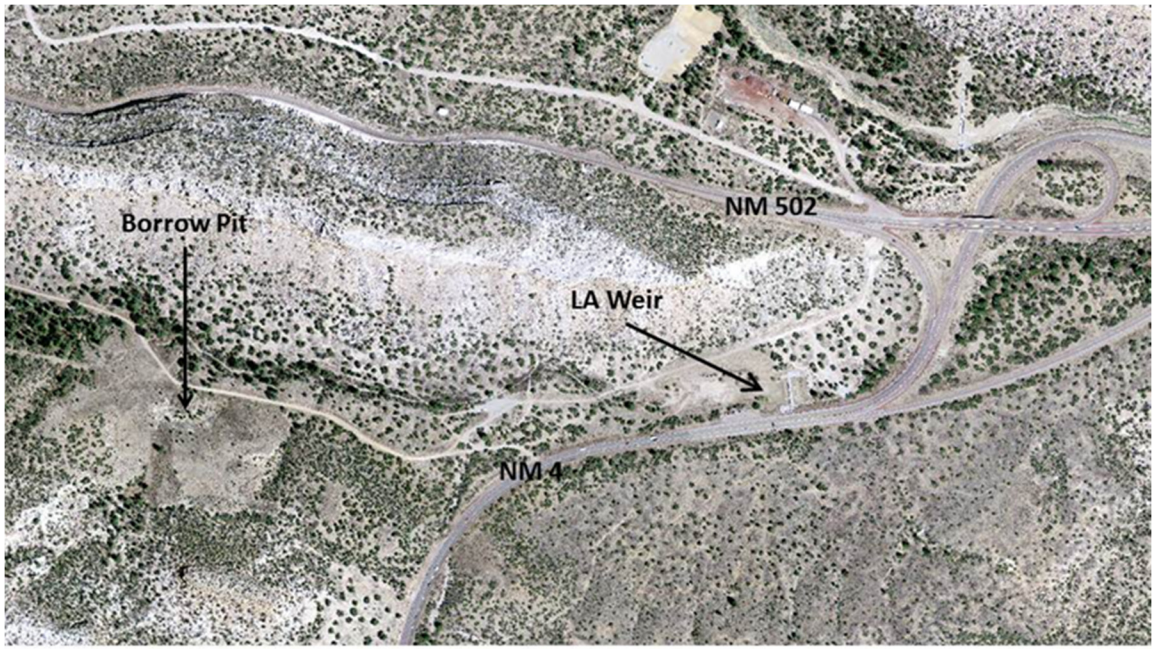

Figure 1 Orthophoto map showing locations of the Los Alamos Canyon weir and borrow pit near the intersection of NM 502 and NM 4

Figure 2 Excavated sediment being placed in former borrow pit in Los Alamos Canyon

Figure 3 Sediment removal activities in basin 3

Figure 4 Postexcavation view upcanyon from weir. Basin 3 is in the foreground.

Figure 5 Postexcavation view downcanyon into basin 3

Figure 6 Sediment placement in the borrow pit. Sediment was compacted and contoured to a gradual slope and then hydromulched. Berm is located in foreground of photo.

Figure 7 Looking NW at sediment placement within the former borrow pit. Stream channel is located in the ponderosas at the top of the photo.

Figure 8 Looking northeast at sediment placement within the former borrow pit. Run-off berm is located at base of slope, just right of vehicle.

Figure 9 Looking west at sediment placement within the former borrow pit

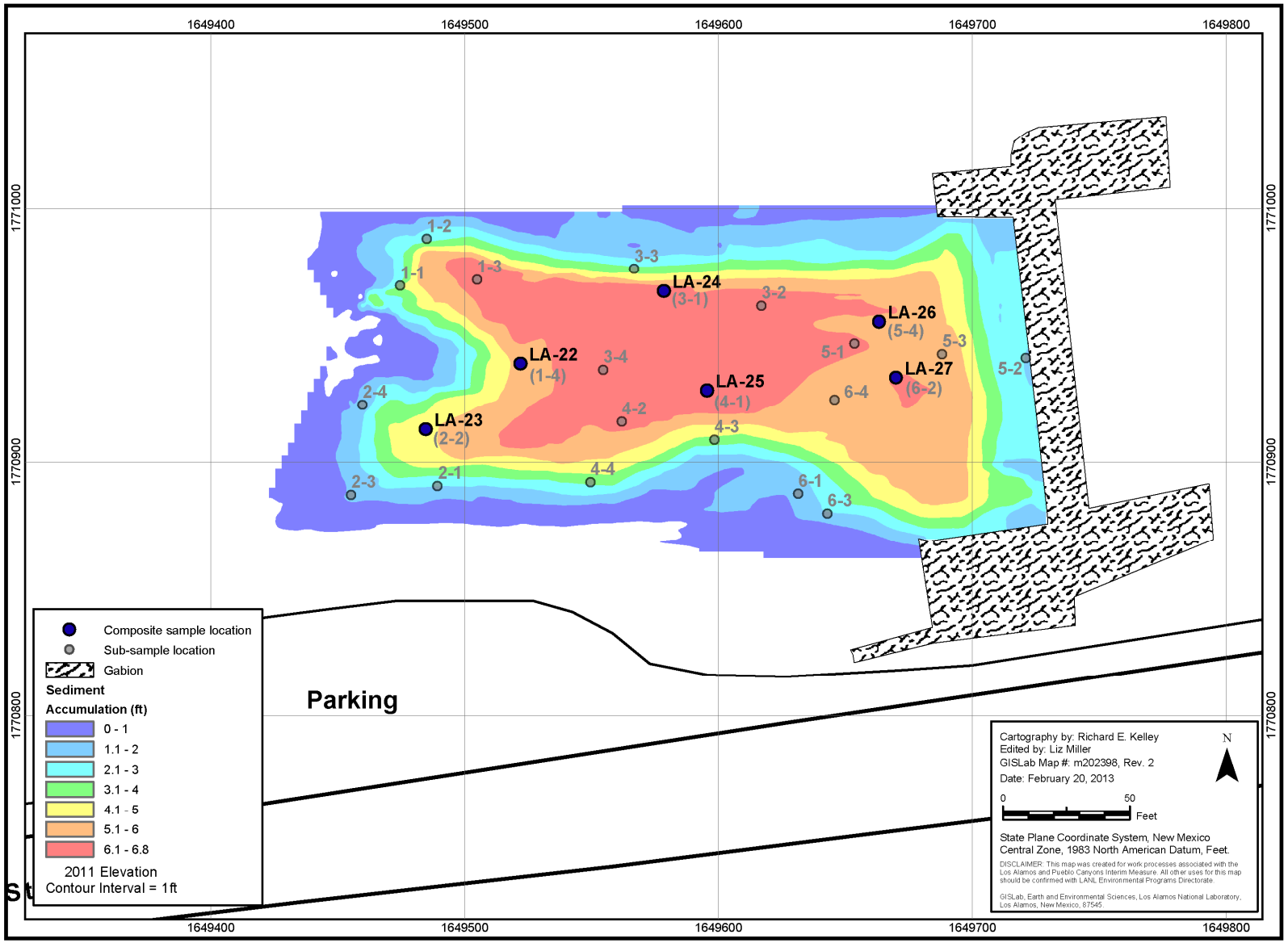

Figure 103 Sampling locations of material collected before excavation

Table 1
Samples Collected and Analyses Requested for the Los Alamos Weir Excavation

Sample ID	Location ID	Sample Depth (ft)	Media	Sample Date	Gamma Spec	Strontium-90	Tritium	Americium-241	Isotopic Plutonium	Metals	Pesticides/PCBs	Herbicides	Dioxan/Furans	Total Cyanide
CALA-13-28425	LA-22	0.0–5.6	SED	01/31/2013	2013-504	2013-504	2013-504	2013-504	2013-504	2013-504	2013-504	2013-504	2013-505	2013-504
CALA-13-28426	LA-23	0.0–4.85	SED	01/31/2013	2013-504	2013-504	2013-504	2013-504	2013-504	2013-504	2013-504	2013-504	2013-505	2013-504
CALA-13-28427	LA-24	0.0–6.5	SED	01/31/2013	2013-504	2013-504	2013-504	2013-504	2013-504	2013-504	2013-504	2013-504	2013-505	2013-504
CALA-13-28428	LA-25	0.0–6.7	SED	01/31/2013	2013-504	2013-504	2013-504	2013-504	2013-504	2013-504	2013-504	2013-504	2013-505	2013-504
CALA-13-28429	LA-26	0.0–6.25	SED	01/31/2013	2013-504	2013-504	2013-504	2013-504	2013-504	2013-504	2013-504	2013-504	2013-505	2013-504
CALA-13-28430	LA-27	0.0–6.1	SED	01/31/2013	2013-504	2013-504	2013-504	2013-504	2013-504	2013-504	2013-504	2013-504	2013-505	2013-504

Table ~~1~~2
Comparison of Maximum Detected Concentrations in Depth-Integrated Samples to Sediment BVs, Residential SSLs/SALs, and Minimum ESLs

Analyte	Analyte Code	Units	Maximum Concentration	Canyon Sediment BVs[a]	Residential SSL[b] or SAL[c]	Minimum ESL[d]
Aluminum	Al	mg/kg	14,500	15,400	n/a[e]	n/a
Arsenic	As	mg/kg	2.8	3.98	n/a	n/a
Barium	Ba	mg/kg	275	127	15,600	110
Beryllium	Be	mg/kg	1.82	1.31	156	2.5
Cadmium	Cd	mg/kg	0.207	0.4	n/a	n/a
Chromium	Cr	mg/kg	9.81	10.5	n/a	n/a
Cobalt	Co	mg/kg	6.06	4.73	23[f]	13
Copper	Cu	mg/kg	17.3	11.2	3130	15
Cyanide (Total)	Cn(total)	mg/kg	1.35	0.82	46.9	0.1
Iron	Fe	mg/kg	14,700	13,800	54,800	n/a
Lead	Pb	mg/kg	35.2	19.7	400	14
Manganese	Mn	mg/kg	1270	543	1860	220
Mercury	Hg	mg/kg	0.0398	0.1	n/a	n/a
Nickel	Ni	mg/kg	12.3	9.38	1560	9.7
Silver	Ag	mg/kg	0.222	1	n/a	n/a
Thallium	Tl	mg/kg	0.438	0.73	n/a	n/a
Vanadium	V	mg/kg	19	19.7	n/a	n/a
Zinc	Zn	mg/kg	84.8	60.2	23,500	48
Americium-241	Am-241	pCi/g	0.0993	0.04	30	44
Cesium-137	Cs-137	pCi/g	1.48	0.9	5.6	680

Table ~~1~~ 2 (continued)

Analyte	Analyte Code	Units	Maximum Concentration	Canyon Sediment BVs[a]	Residential SSL[b] or SAL[c]	Minimum ESL[d]
Plutonium-239/240	Pu-239/240	pCi/g	0.177	0.068	33	47
Dichlorodiphenyltrichloroethane [4,4'-]	50-29-3	mg/kg	0.000823	na[g]	17.2	0.044
Dichlorodiphenyldichloroethane [4,4'-]	72-55-9	mg/kg	0.00299	na	14.3	0.11
Methyl-4-chlorophenoxypropionic(2-) acid	93-65-2	mg/kg	1.32	na	61f	na
4-(2,4-Dichlorophenoxy)butyric acid	94-82-6	mg/kg	0.0234	na	490f	na
TCDD-equivalent concentration	1746-01-6	mg/kg	3.88E-07	na	4.50E-05	2.90E-07

[a] Sediment BVs from LANL (1998, 059730).

[b] Residential SSLs from NMED (2012, 219971), unless otherwise noted.

[c] Residential SALs from LANL (2012, 228852).

[d] Minimum ESLs from LANL (2012, 226667).

[e] n/a = Not applicable; maximum concentration less than the sediment BV.

[f] Residential SSLs from EPA regional screening table(http://www.epa.gov/region06/6pd/rcra_c/pd-n/screen.htm).

[g] na = Not available.

Table ~~2~~3

Summary of COPECs with Maximum Detected Concentrations Greater than Minimum ESLs

COPECs	Maximum Concentration in 2013 (mg/kg)	Maximum Concentration in 2009[a] (mg/kg)	Canyon Sediment BV[b] (mg/kg)	Soil BV[b] (mg/kg)	Maximum Concentration in Ash (mg/kg)	Minimum ESL[c] (mg/kg)	HQ	Minimum L-ESL[c] (mg/kg)	HQ
Barium	275	57.6	127	295	1300	110	2.5	260	1.1
Copper	17.3	32.6	11.2	14.7	45	15	1.2	46	0.4
Cyanide (Total)	1.35	2.21	0.82	0.5	n/a	0.1	13.5	1	1.4
Lead	35.2	22	19.7	22.3	84	14	2.5	28	1.3
Manganese	1270	301	543	671	8200	220	5.8	1100	1.2
Nickel	12.3	3.24	9.38	15.4	15	9.7	1.3	19	0.6
Zinc	84.8	52.7	60.2	48.8	180	48	1.8	480	0.2
TCDD-equivalent concentration	3.88E-07	na[d]	n/a[e]	n/a	n/a	2.90E-07	1.3	1.90E-06	0.2

Note: Grey shading indicates an HQ >1.

[a] From LANL (2009, 105294).

[b] Sediment and soil BVs from LANL (1998, 059730).

[c] Minimum ESLs and L-ESLs from LANL (2012, 226667).

[d] na = Not available.

[e] n/a = Not applicable.