

Gebruik van Chromeleon CDS binnen het DSM Service Lab Delft

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Introduction

1. Use of LIMS
2. Use of Chromeleon
3. Interface Chromeleon LIMS (Chrom2Lims)
4. Transfer from Chromeleon 6.8 -> 7.2

LIMS for Service Lab Delft (SLD)

1. Sample manager from Thermo
2. “Open lijst”
3. Chrom2Lims

“Open lijst”

Group	(Multiple Items)									
Number	ANALYSIS DESCRIPTION	STATUS	VWN	VVN	VVY	VPY	VCN	VCY	CCY	Grand Total
C0000	URGENT TIME							1		1
C10003	FATTY ACIDS IN VARIOUS MATRICES (GC)				18					18
C10014	ENVIRONMENTAL CONTROL (HPLC)								15	15
C10059	ANIONS AND ORGANIC ACIDS (HPAEC-ED)				24					24
C10077	SOLVENT RESIDUES IN WASTE WATER AND BROTH (HEADSPACE GC)				14				2	16
C1453	ANIONES (HPLC)				1		1		6	9
C1546	LOWER FATTY ACIDS (GLC NA EXTRA)				1					1
C1587	SACCHARIDES (HPLC)				9			2	1	12
C1594	NUCLEOTIDEN (HPLC)				3					3
C1628	FERMENTATION BYPRODUCTS (HPLC)		3		7					10
C1774	FAZ/FPZ (ID METHOD)				4					4
C1952	ORGANIC ACIDS (HPLC)					63				63
C2469	SODIUM BENZOATE AND POTASSIUM SORBATE (HPLC)				3					3
C2622	RESULT REPORT BY MAIL				1					1
C2627	NATAMYCIN PHARMA CONTENT - USP (HPLC)				2					2
C2634	DETERMINATION OF 1-PROPANOL AND IMPURITIES (GC)				1	1				2
C2712	WEEKEND CHARGE (GPB)				3					3
C2773	AMINO ACIDS AFTER HYDROLYSIS USING ACCQ-TAG METHOD (UPLC)					4				4
Grand Total			3	91	68	1	1	8	19	191

Sample status/test status/worksheet

Process of reporting

- Prepare sequence
- Prepare quantification file
- Batch report to Excel
- Review results via Chrom2Lims
- Import results in LIMS via Chrom2Lims

Sequence voor Chrom2Lims (fatty acids)

Chromeleon - [CM_SLD_ACC>Data\2014\Uniformeren\C2200+C2266 Berekening Gerald\0601_3 - Browser]

File Edit View Workspace Qualification Batch Tools Window Help

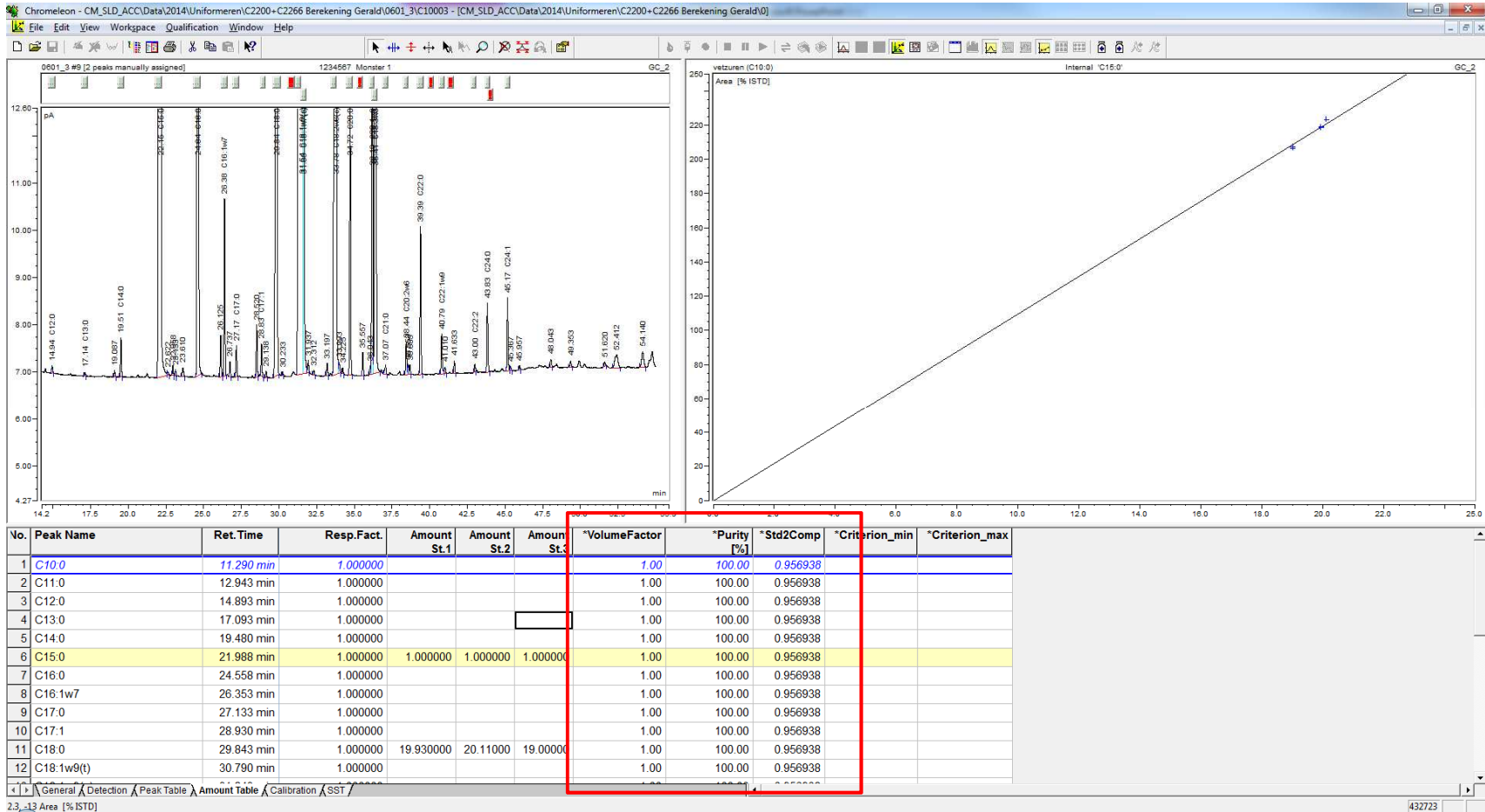
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C10003.qnt	C10003		30-10-2015 11:40:3	432723	164 K
C10003.rdf			30-10-2015 11:34:0		160 K
Vetzuren (lang C15)\HP6890-bos.qnt			26-11-2007 9:17:11	513376	11 KB
VETZUREN(G_KG).qnt			8-1-2015 9:58:44	286503	107 K

No.	Pos.	Name	Comment	*AAF_nr	Type	Weight	ISTD Amount	Dil. Factor	*UNIT	*UNITFACTOR	*Column_nr	Program	Method	Inj. Vol.	Status	Inj. Date/Time
1	1	Blanco heptaan			Matrix	1.0000	1.0000	1.0000			CHR-8191	Ve zuren6890-2	C10003	1.000	Finished	6-1-2015 14:26:01
2	2	Fame verdund			Matrix	1.0000	1.0000	1.0000			CHR-8191	Ve zuren6890-2	C10003	1.000	Finished	6-1-2015 15:27:43
3	3	Fame			Matrix	1.0000	1.0000	1.0000			CHR-8191	Ve zuren6890-2	C10003	1.000	Finished	6-1-2015 16:29:29
4	4	St.1			Standard	1.0000	9.5725	1.0000			CHR-8191	Ve zuren6890-2	C10003	1.000	Finished	6-1-2015 17:31:17
5	5	St.2			Standard	1.0000	9.5725	1.0000			CHR-8191	Ve zuren6890-2	C10003	1.000	Finished	6-1-2015 18:33:04
6	5	St.2			Matrix	1.0000	9.5725	1.0000			CHR-8191	Ve zuren6890-2	C10003	1.000	Finished	7-1-2015 12:09:06
7	6	St.3			Standard	1.0000	9.5725	1.0000			CHR-8191	Ve zuren6890-2	C10003	1.000	Finished	6-1-2015 19:34:51
8	7	Blanco I.S.			Matrix	1.0000	9.5725	1.0000			CHR-8191	Ve zuren6890-2	C10003	1.000	Finished	6-1-2015 20:36:34
9	8	1234567	Monster 1		Unknown	313.6200	9.5725	1.0000	g/kg	1000	CHR-8191	Ve zuren6890-2	C10003	1.000	Finished	6-1-2015 21:38:20
10	9	1234568	Monster 2		Unknown	307.9700	9.5725	1.0000	g/kg	1000	CHR-8191	Ve zuren6890-2	C10003	1.000	Finished	6-1-2015 22:40:02
11	10	1234569	Monster 3		Unknown	321.4400	9.5725	1.0000	g/kg	1000	CHR-8191	Ve zuren6890-2	C10003	1.000	Finished	6-1-2015 23:41:51
12	11	1234570	Monster 4		Unknown	269.1900	9.5725	1.0000	g/kg	1000	CHR-8191	Ve zuren6890-2	C10003	1.000	Finished	7-1-2015 0:43:37
13	12	1234571	Monster 5		Unknown	1013.490	9.5725	1.0000	g/kg	1000	CHR-8191	Ve zuren6890-2	C10003	1.000	Finished	7-1-2015 1:45:19
14	13	1234572	Monster 6		Unknown	990.1800	9.5725	1.0000	g/kg	1000	CHR-8191	Ve zuren6890-2	C10003	1.000	Finished	7-1-2015 2:47:18
15	14	1234573	Monster 7		Unknown	1003.140	9.5725	1.0000	g/kg	1000	CHR-8191	Ve zuren6890-2	C10003	1.000	Finished	7-1-2015 3:49:04
16	15	1234574	Monster 8		Unknown	209.5600	9.5725	1.0000	g/kg	1000	CHR-8191	Ve zuren6890-2	C10003	1.000	Finished	7-1-2015 4:50:50
17	16	1234575	Monster 9		Unknown	989.4600	9.5725	1.0000	g/kg	1000	CHR-8191	Ve zuren6890-2	C10003	1.000	Finished	7-1-2015 5:52:32
18	17	1234576	Monster 10		Unknown	1078.010	9.5725	1.0000	g/kg	1000	CHR-8191	Ve zuren6890-2	C10003	1.000	Finished	7-1-2015 6:54:16
19	18	1234577	Monster 11		Unknown	1053.780	9.5725	1.0000	g/kg	1000	CHR-8191	Ve zuren6890-2	C10003	1.000	Finished	7-1-2015 7:56:00
20	19	1234578	Monster 12		Unknown	1065.480	9.5725	1.0000	g/kg	1000	CHR-8191	Ve zuren6890-2	C10003	1.000	Finished	7-1-2015 8:57:43
21	20	1234579	Monster 13		Unknown	1055.340	9.5725	1.0000	g/kg	1000	CHR-8191	Ve zuren6890-2	C10003	1.000	Finished	7-1-2015 9:59:28
22	21	1234580	Monster 14		Unknown	1056.150	9.5725	1.0000	g/kg	1000	CHR-8191	Ve zuren6890-2	C10003	1.000	Finished	7-1-2015 11:01:17
23	22	1234581	Monster 15		Unknown	1084.910	9.5725	1.0000	g/kg	1000	CHR-8191	Ve zuren6890-2	C10003	1.000	Finished	7-1-2015 13:10:48
24	23	1234582	Monster 16		Unknown	1094.630	9.5725	1.0000	g/kg	1000	CHR-8191	Ve zuren6890-2	C10003	1.000	Finished	7-1-2015 14:12:34
25	24	1234583	Monster 17		Unknown	1057.940	9.5725	1.0000	g/kg	1000	CHR-8191	Ve zuren6890-2	C10003	1.000	Finished	7-1-2015 15:14:33
26	25	1234584	Monster 18		Unknown	1066.230	9.5725	1.0000	g/kg	1000	CHR-8191	Ve zuren6890-2	C10003	1.000	Finished	7-1-2015 16:16:17
27	26	1234585	Monster 19		Unknown	1058.270	9.5725	1.0000	g/kg	1000	CHR-8191	Ve zuren6890-2	C10003	1.000	Finished	7-1-2015 17:17:58
28	27	1234586	Monster 20		Unknown	1066.350	9.5725	1.0000	g/kg	1000	CHR-8191	Ve zuren6890-2	C10003	1.000	Finished	7-1-2015 18:19:41
29	28	1234587	Monster 21		Unknown	1082.890	9.5725	1.0000	g/kg	1000	CHR-8191	Ve zuren6890-2	C10003	1.000	Finished	7-1-2015 19:21:24
30	29	1234588	Monster 22		Unknown	1092.520	9.5725	1.0000	g/kg	1000	CHR-8191	Ve zuren6890-2	C10003	1.000	Finished	7-1-2015 20:23:04
31	30	1234589	Monster 23		Unknown	1073.580	9.5725	1.0000	g/kg	1000	CHR-8191	Ve zuren6890-2	C10003	1.000	Finished	7-1-2015 21:24:23
32	31	1234590	Monster 24		Unknown	1098.130	9.5725	1.0000	g/kg	1000	CHR-8191	Ve zuren6890-2	C10003	1.000	Finished	7-1-2015 22:26:06
33	32	1234591	Monster 25		Unknown	990.7200	9.5725	1.0000	g/kg	1000	CHR-8191	Ve zuren6890-2	C10003	1.000	Finished	7-1-2015 23:26:48
34	33	1234592	Monster 26		Unknown	309.1100	9.5725	1.0000	g/kg	1000	CHR-8191	Ve zuren6890-2	C10003	1.000	Finished	8-1-2015 0:28:30
35	34	1234593	Monster 27		Unknown	310.0400	9.5725	1.0000	g/kg	1000	CHR-8191	Ve zuren6890-2	C10003	1.000	Finished	8-1-2015 1:30:14
36	35	CM1			Unknown	39.0400	9.5725	1.0000	g/kg	1000	CHR-8191	Ve zuren6890-2	C10003	1.000	Finished	8-1-2015 2:31:57
37	36	CM2			Unknown	40.3500	9.5725	1.0000	g/kg	1000	CHR-8191	Ve zuren6890-2	C10003	1.000	Finished	8-1-2015 3:33:54
38	37	St.1			Standard	1.0000	9.5725	1.0000			CHR-8191	Ve zuren6890-2	C10003	1.000	Finished	8-1-2015 4:35:40
39	38	St.2			Matrix	1.0000	9.5725	1.0000			CHR-8191	Ve zuren6890-2	C10003	1.000	Finished	8-1-2015 5:37:18
40	39	St.3			Standard	1.0000	9.5725	1.0000			CHR-8191	Ve zuren6890-2	C10003	1.000	Finished	8-1-2015 6:37:53
41	1	Blanco heptaan			Matrix	1.0000	9.5725	1.0000			CHR-8191	Ve zuren6890-2	C10003	1.000	Finished	8-1-2015 7:39:31

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432723

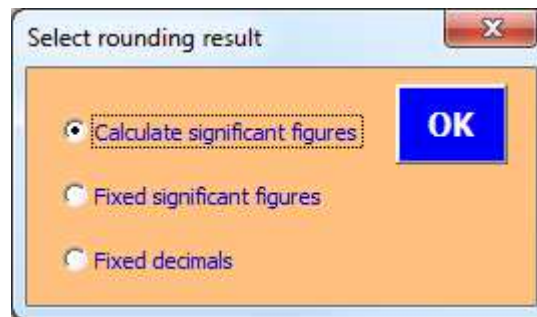
QNT file



Chrom2Lims in Chromeleon

Sequence		0601_3														
Operator		432723 Mathijssen, Gerald														
No.	Name	Weight	Dil.Fac.	UNITFACT	UNIT	Amount	Amount	Amount	Amount	Amount	Amount	Amount	Amount	Amount	Amount	Amount
						C10:0	C11:0	C12:0	C13:0	C14:0	C16:0	C16:1w7	C17:0	C17:1	C18:0	C18:1w9(t
						GC_2	GC_2	GC_2	GC_2	GC_2	GC_2	GC_2	GC_2	GC_2	GC_2	GC_2
9	1234567	313.62	1	1000	g/kg	0.0124	n.a.	0.0134	0.006	0.0673	5.3577	0.3058	0.0606	0.0579	1.5767	n.a.
10	1234568	307.97	1	1000	g/kg	0.0234	n.a.	0.0249	n.a.	0.1378	7.8117	0.6188	0.0906	0.0805	2.3382	n.a.
11	1234569	321.44	1	1000	g/kg	0.0191	n.a.	0.0342	n.a.	0.0974	7.9043	0.4723	0.0886	0.0853	2.3808	n.a.
12	1234570	269.19	1	1000	g/kg	0.0219	n.a.	0.0299	0.0084	0.1379	8.9499	0.7453	0.1016	0.0924	2.6604	n.a.
13	1234571	1013.49	1	1000	g/kg	n.a.	n.a.	n.a.	n.a.	0.002	0.0659	0.0046	n.a.	n.a.	0.0183	n.a.
14	1234572	990.18	1	1000	g/kg	n.a.	n.a.	n.a.	n.a.	n.a.	0.0843	0.0057	n.a.	n.a.	0.0238	n.a.
15	1234573	1003.14	1	1000	g/kg	n.a.	n.a.	n.a.	n.a.	0.0022	0.0702	0.0052	n.a.	n.a.	0.0186	n.a.
16	1234574	209.56	1	1000	g/kg	n.a.	n.a.	n.a.	n.a.	n.a.	0.3614	0.0254	n.a.	n.a.	0.1001	n.a.
17	1234575	989.46	1	1000	g/kg	n.a.	n.a.	n.a.	0.002	0.002	0.0653	0.0045	n.a.	n.a.	0.0175	n.a.
18	1234576	1078.01	1	1000	g/kg	n.a.	n.a.	n.a.	n.a.	n.a.	0.0031	n.a.	n.a.	n.a.	0.0022	n.a.
19	1234577	1053.78	1	1000	g/kg	n.a.	n.a.	n.a.	n.a.	n.a.	0.0031	n.a.	n.a.	n.a.	0.0021	n.a.
20	1234578	1065.48	1	1000	g/kg	n.a.	n.a.	n.a.	n.a.	n.a.	0.0099	n.a.	n.a.	n.a.	0.0042	n.a.
21	1234579	1055.34	1	1000	g/kg	n.a.	n.a.	n.a.	n.a.	n.a.	0.0373	0.0026	n.a.	n.a.	0.0114	n.a.
22	1234580	1056.15	1	1000	g/kg	n.a.	n.a.	n.a.	n.a.	n.a.	0.005	n.a.	n.a.	n.a.	0.0031	n.a.
23	1234581	1084.91	1	1000	g/kg	n.a.	n.a.	n.a.	n.a.	n.a.	0.0086	n.a.	n.a.	n.a.	0.0033	n.a.
24	1234582	1094.63	1	1000	g/kg	n.a.	n.a.	n.a.	n.a.	n.a.	0.0038	n.a.	n.a.	n.a.	0.0023	n.a.
25	1234583	1057.94	1	1000	g/kg	n.a.	n.a.	n.a.	n.a.	n.a.	0.0043	n.a.	n.a.	n.a.	n.a.	n.a.
26	1234584	1066.23	1	1000	g/kg	n.a.	n.a.	n.a.	n.a.	n.a.	0.0037	n.a.	n.a.	n.a.	0.0022	n.a.
27	1234585	1058.27	1	1000	g/kg	n.a.	n.a.	n.a.	n.a.	n.a.	0.0035	n.a.	n.a.	n.a.	0.0022	n.a.
28	1234586	1066.35	1	1000	g/kg	n.a.	n.a.	n.a.	n.a.	n.a.	0.0036	n.a.	n.a.	n.a.	0.002	n.a.
29	1234587	1082.89	1	1000	g/kg	n.a.	n.a.	n.a.	n.a.	n.a.	0.0026	n.a.	n.a.	n.a.	0.0018	n.a.
30	1234588	1092.52	1	1000	g/kg	n.a.	n.a.	n.a.	n.a.	n.a.	0.0032	n.a.	n.a.	n.a.	0.003	n.a.
31	1234589	1073.58	1	1000	g/kg	n.a.	n.a.	n.a.	n.a.	n.a.	0.0035	n.a.	n.a.	n.a.	0.0025	n.a.
32	1234590	1098.13	1	1000	g/kg	n.a.	n.a.	n.a.	n.a.	n.a.	0.0035	n.a.	n.a.	n.a.	0.0026	n.a.
33	1234591	990.72	1	1000	g/kg	n.a.	n.a.	n.a.	n.a.	n.a.	0.003	n.a.	n.a.	n.a.	0.0024	n.a.
34	1234592	309.11	1	1000	g/kg	0.0068	n.a.	0.0185	0.0071	0.1067	6.3066	0.5158	0.0855	0.0807	1.94	0.2111
35	1234593	310.04	1	1000	g/kg	n.a.	n.a.	n.a.	n.a.	0.0258	1.2895	0.1109	0.0241	0.0139	0.4712	0.0085
36	CM1	39.04	1	1000	g/kg	n.a.	n.a.	0.0954	0.0691	4.9902	97.9443	0.8833	3.3114	0.5564	81.8064	0.9391
37	CM2	40.35	1	1000	g/kg	n.a.	n.a.	0.1085	0.0707	5.1053	100.1535	0.9071	3.4243	0.5624	84.456	0.984

Chrom2Lims can estimate precision



Dynamic range determination

< LOD
 > LOD and < LOQ
 > UpperLimit

LimsNumber	JobName	Description	Weight	Volume	Report Unit	LOD [mg/l]	LOD [mg/l]	LOD [mg/l]	LOD [mg/l]	LOD [mg/l]	LOD [mg/l]	LOD [mg/l]	LOD [mg/l]	LOD [mg/l]	LOD [mg/l]	LOD [mg/l]	
						1	1	1	1	1	1	1	1	1	1	1	1
						RSD [%]	RSD [%]	RSD [%]	RSD [%]	RSD [%]	RSD [%]	RSD [%]	RSD [%]	RSD [%]	RSD [%]	RSD [%]	RSD [%]
						Ulimit [mg/l]	Ulimit [mg/l]	Ulimit [mg/l]	Ulimit [mg/l]	Ulimit [mg/l]	Ulimit [mg/l]	Ulimit [mg/l]	Ulimit [mg/l]	Ulimit [mg/l]	Ulimit [mg/l]	Ulimit [mg/l]	Ulimit [mg/l]
						3	3	3	3	3	3	3	3	3	3	3	3
						20000	20000	20000	20000	20000	20000	20000	20000	20000	20000	20000	20000
						C10:0 [mg/l]	C11:0 [mg/l]	C12:0 [mg/l]	C13:0 [mg/l]	C14:0 [mg/l]	C16:0 [mg/l]	C16:1w7 [mg/l]	C17:0 [mg/l]	C17:1 [mg/l]	C18:0 [mg/l]	C18:1w9(t) [mg/l]	
1234567	?	?	313.62	1	g/kg	3.887	0.000	4.189	1.896	21.104	1680.269	95.912	19.004	18.174	494.495	0.000	
1234568	?	?	307.97	1	g/kg	7.195	0.000	7.663	0.000	42.436	2405.777	190.580	27.896	24.784	720.093	0.000	
1234569	?	?	321.44	1	g/kg	6.125	0.000	10.983	0.000	31.318	2540.753	151.817	28.495	27.418	765.300	0.000	
1234570	?	?	269.19	1	g/kg	5.905	0.000	8.038	2.249	37.130	2409.211	200.622	27.348	24.871	716.164	0.000	
1234571	?	?	1013.49	1	g/kg	0.000	0.000	0.000	0.000	2.015	66.748	4.674	0.000	0.000	18.558	0.000	
1234572	?	?	990.18	1	g/kg	0.000	0.000	0.000	0.000	0.000	83.500	5.645	0.000	0.000	23.565	0.000	
1234573	?	?	1003.14	1	g/kg	0.000	0.000	0.000	0.000	2.237	70.460	5.241	0.000	0.000	18.689	0.000	
1234574	?	?	209.56	1	g/kg	0.000	0.000	0.000	0.000	0.000	75.741	5.329	0.000	0.000	20.977	0.000	
1234575	?	?	989.46	1	g/kg	0.000	0.000	0.000	2.006	1.973	64.592	4.497	0.000	0.000	17.331	0.000	
1234576	?	?	1078.01	1	g/kg	0.000	0.000	0.000	0.000	0.000	3.360	0.000	0.000	0.000	2.353	0.000	
1234577	?	?	1053.78	1	g/kg	0.000	0.000	0.000	0.000	0.000	3.293	0.000	0.000	0.000	2.175	0.000	
1234578	?	?	1065.48	1	g/kg	0.000	0.000	0.000	0.000	0.000	10.595	0.000	0.000	0.000	4.445	0.000	
1234579	?	?	1055.34	1	g/kg	0.000	0.000	0.000	0.000	0.000	39.353	2.751	0.000	0.000	12.070	0.000	
1234580	?	?	1056.15	1	g/kg	0.000	0.000	0.000	0.000	0.000	5.229	0.000	0.000	0.000	3.256	0.000	
1234581	?	?	1084.91	1	g/kg	0.000	0.000	0.000	0.000	0.000	9.297	0.000	0.000	0.000	3.599	0.000	
1234582	?	?	1094.63	1	g/kg	0.000	0.000	0.000	0.000	0.000	4.184	0.000	0.000	0.000	2.535	0.000	
1234583	?	?	1057.94	1	g/kg	0.000	0.000	0.000	0.000	0.000	4.552	0.000	0.000	0.000	0.000	0.000	
1234584	?	?	1066.23	1	g/kg	0.000	0.000	0.000	0.000	0.000	3.966	0.000	0.000	0.000	2.323	0.000	
1234585	?	?	1058.27	1	g/kg	0.000	0.000	0.000	0.000	0.000	3.729	0.000	0.000	0.000	2.296	0.000	
1234586	?	?	1066.35	1	g/kg	0.000	0.000	0.000	0.000	0.000	3.836	0.000	0.000	0.000	2.123	0.000	
1234587	?	?	1082.89	1	g/kg	0.000	0.000	0.000	0.000	0.000	2.781	0.000	0.000	0.000	1.963	0.000	
1234588	?	?	1092.52	1	g/kg	0.000	0.000	0.000	0.000	0.000	3.478	0.000	0.000	0.000	3.226	0.000	
1234589	?	?	1073.58	1	g/kg	0.000	0.000	0.000	0.000	0.000	3.723	0.000	0.000	0.000	2.700	0.000	
1234590	?	?	1098.13	1	g/kg	0.000	0.000	0.000	0.000	0.000	3.833	0.000	0.000	0.000	2.870	0.000	
1234591	?	?	990.72	1	g/kg	0.000	0.000	0.000	0.000	0.000	2.983	0.000	0.000	0.000	2.329	0.000	
1234592	?	?	309.11	1	g/kg	2.112	0.000	5.720	2.198	32.997	1949.428	159.433	26.442	24.935	599.675	65.242	
1234593	?	?	310.04	1	g/kg	0.000	0.000	0.000	0.000	8.008	399.807	34.377	7.481	4.308	146.097	2.635	
CM1	?	?	39.04	1	g/kg	0.000	0.000	3.725	2.698	194.818	3823.747	34.484	129.277	21.721	3193.721	36.662	
CM2	?	?	40.35	1	g/kg	0.000	0.000	4.378	2.853	206.000	4041.194	36.602	138.170	22.694	3407.798	39.705	

Final results

Method	C10003	Rounding method	CalcSignFigures
ReportDate	20151102		
DoneBy	432723		
Sequence	0601_3		

Transfer

Description	Unit	C10:0	C11:0	C12:0	C13:0	C14:0	C16:0	C16:1w7	C17:0	C17:1	C18:0	C18:1w9(t)
1234567	g/kg	0.0124	< 0.004	0.0134	~ 0.0060	0.067	5.36	0.306	0.061	0.058	1.58	< 0.004
1234568	g/kg	0.0234	< 0.004	0.0249	0.004	0.138	7.8	0.619	0.091	0.080	2.34	< 0.004
1234569	g/kg	0.0191	< 0.004	0.0342	< 0.004	0.097	7.9	0.472	0.089	0.085	2.38	< 0.004
1234570	g/kg	0.0219	< 0.004	0.0299	~ 0.0084	0.138	8.9	0.75	0.102	0.092	2.66	< 0.004
1234571	g/kg	< 0.0010	< 0.0010	< 0.0010	< 0.0010	~ 0.0020	0.066	0.0046	< 0.0010	< 0.0010	0.0183	< 0.0010
1234572	g/kg	< 0.001	< 0.001	< 0.001	0.001	0.001	0.084	0.0057	< 0.001	< 0.001	0.0238	< 0.001
1234573	g/kg	< 0.0010	< 0.0010	< 0.0010	0.0010	~ 0.0022	0.070	0.0052	< 0.0010	< 0.0010	0.0186	< 0.0010
1234574	g/kg	< 0.005	< 0.005	< 0.005	0.005	0.005	0.361	0.0254	< 0.005	< 0.005	0.100	< 0.005
1234575	g/kg	< 0.001	< 0.001	< 0.001	~ 0.0020	~ 0.0020	0.0653	0.0045	< 0.001	< 0.001	0.0175	< 0.001
1234576	g/kg	< 0.0010	< 0.0010	< 0.0010	< 0.0010	< 0.0010	0.0031	< 0.0010	< 0.0010	< 0.0010	0.0022	< 0.0010
1234577	g/kg	< 0.0010	< 0.0010	< 0.0010	< 0.0010	< 0.0010	~ 0.0031	< 0.0010	< 0.0010	< 0.0010	~ 0.0021	< 0.0010
1234578	g/kg	< 0.0010	< 0.0010	< 0.0010	0.0010	< 0.0010	0.0099	< 0.0010	< 0.0010	< 0.0010	0.0042	< 0.0010
1234579	g/kg	< 0.0010	< 0.0010	< 0.0010	0.0010	< 0.0010	0.0373	~ 0.0026	< 0.0010	< 0.0010	0.0114	< 0.0010
1234580	g/kg	< 0.0010	< 0.0010	< 0.0010	0.0010	< 0.0010	0.0050	< 0.0010	< 0.0010	< 0.0010	~ 0.0031	< 0.0010
1234581	g/kg	< 0.0010	< 0.0010	< 0.0010	0.0010	< 0.0010	0.0086	< 0.0010	< 0.0010	< 0.0010	0.0033	< 0.0010
1234582	g/kg	< 0.0010	< 0.0010	< 0.0010	0.0010	< 0.0010	0.0038	< 0.0010	< 0.0010	< 0.0010	~ 0.0023	< 0.0010
1234583	g/kg	< 0.0010	< 0.0010	< 0.0010	0.0010	< 0.0010	0.0043	< 0.0010	< 0.0010	< 0.0010	0.0010	< 0.0010
1234584	g/kg	< 0.0010	< 0.0010	< 0.0010	0.0010	< 0.0010	0.0037	< 0.0010	< 0.0010	< 0.0010	0.0022	< 0.0010
1234585	g/kg	< 0.0010	< 0.0010	< 0.0010	0.0010	< 0.0010	0.0035	< 0.0010	< 0.0010	< 0.0010	0.0022	< 0.0010
1234586	g/kg	< 0.0010	< 0.0010	< 0.0010	0.0010	< 0.0010	0.0036	< 0.0010	< 0.0010	< 0.0010	0.0020	< 0.0010
1234587	g/kg	< 0.0010	< 0.0010	< 0.0010	0.0010	< 0.0010	~ 0.0026	< 0.0010	< 0.0010	< 0.0010	0.0018	< 0.0010
1234588	g/kg	< 0.0010	< 0.0010	< 0.0010	0.0010	< 0.0010	0.0032	< 0.0010	< 0.0010	< 0.0010	0.0030	< 0.0010
1234589	g/kg	< 0.0010	< 0.0010	< 0.0010	0.0010	< 0.0010	0.0035	< 0.0010	< 0.0010	< 0.0010	0.0025	< 0.0010
1234590	g/kg	< 0.0010	< 0.0010	< 0.0010	0.0010	< 0.0010	0.0035	< 0.0010	< 0.0010	< 0.0010	0.0026	< 0.0010
1234591	g/kg	< 0.001	< 0.001	< 0.001	0.001	< 0.001	~ 0.0030	< 0.001	< 0.001	< 0.001	~ 0.0024	< 0.001
1234592	g/kg	~ 0.0068	< 0.004	0.0185	~ 0.0071	0.107	6.31	0.516	0.086	0.081	1.94	0.211
1234593	g/kg	< 0.004	< 0.004	< 0.004	0.004	0.0258	1.29	0.111	0.0241	0.0139	0.471	~ 0.0085
CM1	g/kg	< 0.03	< 0.03	0.095	0.069	4.99	98	0.88	3.31	0.556	82	0.94
CM2	g/kg	< 0.03	< 0.03	0.108	~ 0.071	5.11	100	0.91	3.42	0.562	84	0.98



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