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Level IV Data Package

MWH Group 239631

Method: EPA 314: CLO4

2805060277
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2805060320

Perchlorate QC Checklist

rev: 27 Mar 03

Analysis Date: 5/8/08 **Analyst:** CW

QC'd by LM **Date** 25 May 08

Instrument: 1011 **Calculated MCT Level:** 3155 **umhos/cm**

Original IPC conductance: 3030 **umhos/cm** **Daily IPC conductance:** 3030 **umhos/cm**

Calibration including QCS

✓ QCS (20ppb) recovery is within 90% - 110% (18-22ppb) to verify that the calibration curve (minimum 5 points) still holds.

✓ Calibration curve is reanalyzed if QCS fails. Correlation Coefficient is 0.995 or better.

Initial QC Check Samples (MBLANK, MRL, ICCSCV, IPC) to be analyzed with every batch (up to 20 samples) or part thereof

✓ MLBANK is analyzed before samples. Perchlorate, if present, is < or = half of the MRL.

✓ *L-ClO4 only*: ICCSCV at 2ppb is within 50%-150% (1-3ppb)

✓ *ClO4 only*: MRL at 4ppb is within 75%-125% (3-5ppb)

PDA/H = 1.1 ✓

✓ IPC (25ppb) recovery is between 80%-120% (20-30ppb)

✓ IPC retention time is within 5% of the retention time of the standards

PDA = 0.9 ✓

✓ IPC Conductance level is within 10% of the original

LCS/LCSD (25ppb)

✓ Recoveries are between 90%-110% (22.5 – 27.5ppb)

✓ One pair is analyzed per batch (up to 20 samples) or part thereof

MS/MSD (25ppb) NOTE: For UCMR, MS/MSD concentrations alternate between 4ppb and 25ppb

✓ Recoveries are within 80%-120% (20-30ppb) for 25ppb spike

N/A (3.2-4.8ppb) for 4ppb spike

✓ One pair is analyzed per batch (up to 20 samples) or part thereof

✓ RPD between MS and MSD is within 15%.

Continuing Calibration Verification (MCV, HCV) NOTE: For UCMR ECV and MCV are required

✓ Verification Checks alternate between mid- and high-level during the analysis (low- and mid-level for UCMR)

✓ MCV (25ppb) recovery is between 85%-115% (21.25 – 28.75ppb)

✓ HCV (100ppb) recovery is between 85%-115% (85-115ppb) N/A ECV (4ppb) recovery is between 75%-125% (3.0-5.0)

Pretreat and include the following QC parameters for any batch or part thereof containing samples requiring pretreatment

— One Laboratory Reagent Blank (LRB). Perchlorate is < or = half of MRL.

N/A One pair of Laboratory Control Samples (LCS/LCSD). Recovery of perchlorate is between 85%-115%.

— One Pair of Laboratory Fortified Matrices (MS/MSD). Recoveries are between 80%-120%

Samples

✓ All samples are analyzed within 28 days of collection.

— All samples are analyzed within MCT Conductance limit.

QIR

N/A QIR needed for failed QC

— QIR needed for samples analyzed outside of hold time

Sample No.	Sample Name	Dil.Fac.	Comment	Time	Amount CLO4 CD_1	
1	autocal1	1.0		05.03.08 07:40	n.a.	
2	autocal2	1.0	2	05.03.08 08:13	n.a.	
3	autocal3	1.0	4	05.03.08 08:35	4.2062	
4	autocal4	1.0	10	05.03.08 08:57	9.8720	
5	autocal5	1.0	25	05.03.08 09:20	24.0753	
6	autocal6	1.0	50	05.03.08 09:42	51.2217	
7	autocal7	1.0	100	05.03.08 10:05	99.6249	
8	QCS	1.0	20	05.08.08 17:40	18.7690	93.8%
9	IPC	1.0	25	05.08.08 18:03	23.6876	94.8%
10	-MBLK	1.0		05.08.08 18:25	n.a.	
11	-MRLCHK-2	1.0	2	05.08.08 18:48	n.a.	
12	-MRLCHK-4	1.0	4	05.08.08 19:10	3.7057	92.6%
13	-LCS1	1.0	25	05.08.08 19:32	25.6071	102%
14	-LCS2	1.0	25	05.08.08 19:55	25.5665	102%
15	2805050346	1.0		05.08.08 20:17	n.a.	
16	2805050346-MS	1.0	25	05.08.08 20:40	26.2381	105%
17	2805050346-MSD	1.0	25	05.08.08 21:02	25.5352	102%
18	2805060229_1/2	2.0		05.08.08 21:24	50.0299	
19	2805060230_1/2	2.0		05.08.08 21:47	50.0152	
20	2805060231_1/2	2.0		05.08.08 22:09	66.8701	
21	2805060232_1/5	5.0		05.08.08 22:32	n.a.	
22	2805060234_1/10000	10000.0		05.08.08 22:54	260927.4846	
23	2805060259	1.0		05.08.08 23:16	n.a.	
24	2805060277_1/10000	10000.0		05.08.08 23:39	275644.7292	
25	2805060278_1/5000	5000.0		05.09.08 00:01	227096.2371	
26	2805060279_1/10000	10000.0		05.09.08 00:24	277570.0554	
27	CCV	1.0	25	05.09.08 00:46	24.2708	97.1%
28	2805060280_1/25000	25000.0		05.09.08 01:08	464479.0900	
29	2805060281_1/10000	10000.0		05.09.08 01:31	286396.4101	
30	2805060282_1/10000	10000.0		05.09.08 01:53	343032.6371	
31	2805060290_1/10000	10000.0		05.09.08 02:16	486739.6456	
32	2805060291_1/25000	25000.0		05.09.08 02:38	644358.8562	
33	2805060293	1.0		05.09.08 03:00	n.a.	
34	2805060294_1/10000	10000.0		05.09.08 03:23	673949.7726	
35	2805060303_1/25000	25000.0		05.09.08 03:45	482838.3368	
36	2805060305_1/10000	10000.0		05.09.08 04:08	415127.8098	
37	2805060311_1/200	200.0		05.09.08 04:30	4535.1699	
38	HCV	1.0	100	05.09.08 04:52	103.5256	103%
39	IPC	1.0	25	05.09.08 05:15	24.8300	99.3%
40	-MBLK	1.0		05.09.08 05:37	n.a.	
41	-MRLCHK-2	1.0	2	05.09.08 05:59	2.6995	
42	-MRLCHK-4	1.0	4	05.09.08 06:22	4.7221	118%
43	-LCS1	1.0	25	05.09.08 06:44	26.0827	104%
44	-LCS2	1.0	25	05.09.08 07:07	24.7628	99%

45	2805060312_1/200	200.0		05.09.08 07:29	5496.5533	
46	2805060313_1/500	500.0		05.09.08 07:51	9935.6695	
47	2805060314_1/10000	10000.0		05.09.08 08:14	430032.5317	
48	2805160315_1/5000	5000.0		05.09.08 08:36	192677.0913	
49	2805060316_1/10000	10000.0		05.09.08 08:59	414885.3019	
50	2805060317_1/500	500.0		05.09.08 09:21	8466.6686	
51	2805060318_1/100	100.0		05.09.08 09:43	2472.1348	
52	2805060319_1/25000	25000.0		05.09.08 10:06	540924.5745	
53	2805060320_1/10000	10000.0		05.09.08 10:28	320564.6535	
54	2805070441	1.0		05.09.08 10:51	n.a.	
55	2805070441-MS	1.0	25	05.09.08 11:13	26.8756	108%
56	2805070441-MSD	1.0	25	05.09.08 11:35	26.8079	107%
57	CCV	1.0	25	05.09.08 11:58	25.0499	100%
58	2805070442	1.0		05.09.08 12:20	n.a.	
59	2805070443	1.0		05.09.08 12:43	n.a.	
60	2805070444	1.0		05.09.08 13:05	n.a.	
61	2805070445	1.0		05.09.08 13:27	n.a.	
62	2805070446	1.0		05.09.08 13:50	n.a.	
63	2805070450	1.0		05.09.08 14:12	n.a.	
64	2805070484	1.0		05.09.08 14:35	n.a.	
65	2805070486	1.0		05.09.08 14:57	n.a.	
66	2805070487	1.0		05.09.08 15:19	n.a.	
67	2805070623	1.0		05.09.08 15:42	13.6635	
68	HCV	1.0	100	05.09.08 16:04	107.1120	107%

MWH Laboratories
750 Royal Oaks Drive, Suite 100
Monrovia, CA 91016-3629

CONDUCTIVITY MW SOP REVISION 5
SM2510B

Analysis Date: 5/8/08
Analyst: [illegible]
Reviewed By: ________
LIMS Check By: ________

Was QC Criteria Met: Y N
Was QIR Needed: Y N

Time of Analysis Start: 1840 End: ________
MRL 2umhos/cm: R# ________ exp of solution: ________
KCl Std 1412 R# 701819 exp of solution 9/08
TV = 1412 µmho/cm @ 25°C for 0.0100M
Reading: 1415
Instrument: YSI Model 3200 SN:01A0504, Year Aquired 2001 New

11C=303C

Run #	Sample Number	Sample ID	Client	Date Collected	Temp °C	pH	Scale (µmho/mmho)	Result: Instrument	Result: Reported (µmho/cm)	Comments
Blk	Blank				21	7	✓		0.796	
STD	MRL 2umhos/cm									
STD	KCl - 1000 mhos/cm									1-3—±50% of TV
1	2805050346		NE[illegible]						989	950-1050—±5% of TV
2	2805060229		KM					770		
3	0230							2500		
4	0231							2500		
5	0232							2400		
6	0234							8900		
7	0259		[illegible]					9000		
8	0277 ✓		KM					1800		
9	0278 ✓							7100		
10	0279 ✓							4000		
DUP	↓							9400		
11	0280 ✓							9400		RPD < 5%
12	0281 ✓							9500		
13	0282 ✓							8700		
14	0290 ✓							8600		
15	0291 ✓							6000		
16	0293 ✓							9500		
17	0294 ✓							170		
18	0303 ✓							9500		
19	0305 ✓							6000		
20	0311 ✓							9300		
DUP	↓							8100		
STD	KCl - 10 mhos/cm							8100		RPD < 5%
										8-12—RPD < 20% of TV

$$\% RPD = \frac{|S1-S2|}{(S1+S2)/2} \times 100$$

S1 = reading of 1st sample
S2 = reading of 2nd sample

28 Dec 05; Rev 5
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MWH Laboratories
750 Royal Oaks Drive, Suite 100
Monrovia, CA 91016-3629

CONDUCTIVITY MW SOP REVISION 5
SM2510B

Analysis Date: 5/2/05
Analyst: [illegible]
Reviewed By:
LIMS Check By:

Was QC Criteria Met: Y N
Was QIR Needed: Y N

Time of Analysis Start: 1855 End:

MRL 2umhos/cm: Rx exp of solution:
KCl Std 1412 Rx [illegible] exp of solution
TV = 1412 µmho/cm @ 25°C for 0.0100M
Reading: 1401

Instrument: YSI Model 3200 SN:01A0504 Year Aquired 2001 New

Run #	Sample Number	Sample ID	Client	Date Collected	Temp °C	pH	Scale (µmho/mmho)	Result: Instrument	Result: Reported (µmho/cm)	Comments
Blk	Blank				21	7	u		0.859	
STD	MRL 2umhos/cm									1-3—±50% of TV
STD	KCl - 1000 mhos/cm								1059	950-1050—±5% of TV
1	[illegible]	✓	KM					8600		
2	0313	✓						10700		
3	0314	✓						9700		
4	0315	✓						7000		
5	0316	✓						8400		
6	0317	✓						14000		
7	0318	✓						13800		
8	0319	✓						8400		
9	0320	✓						7600		
10	[illegible]		[illegible]					5800		
DUP	↑							5800		RPD < 5%
11	0442							2300		
12	0443							2300		
13	0444							2300		
14	0445							4000		
15	0446							2900		
16	0447							5800		
17	0448							3300		
18	0486							3700		
19	0487							5300		
20	0623							4100		
DUP	↓		↓					4100		RPD < 5%
STD	KCl - 10 mhos/cm									9-12—RPD < 20% of TV

% RPD = |S1-S2| * 100
(S1+S2)/2

S1 = reading of 1st sample
S2 = reading of 2nd sample

Sequence: 050808CLO4-IC11
Operator: clv

Title:
Datasource: Dionex_USPAS2SDIO2
Location: IC\IC11_CLO4\2008\MAY
Timebase: IC11
#Samples: 68

Created: 5/8/2008 5:38:27 PM by clv
Last Update: 5/9/2008 10:15:49 AM by clv

No.	Name	Sample ID	Dil. Factor	Type	Comment	Status	Program
1	autocal1		1.0000	Standard		Finished	Perchlorate-IC11
2	autocal2	R201449 EXP 07/28/09	1.0000	Standard	2	Finished	Perchlorate-IC11
3	autocal3		1.0000	Standard	4	Finished	Perchlorate-IC11
4	autocal4		1.0000	Standard	10	Finished	Perchlorate-IC11
5	autocal5		1.0000	Standard	25	Finished	Perchlorate-IC11
6	autocal6		1.0000	Standard	50	Finished	Perchlorate-IC11
7	autocal7		1.0000	Standard	100	Finished	Perchlorate-IC11
8	QCS	R201789 EXP 07/10/09	1.0000	Unknown	20	Finished	Perchlorate-IC11
9	IPC	EC=3155	1.0000	Unknown	25	Finished	Perchlorate-IC11
10	-MBLK		1.0000	Unknown		Finished	Perchlorate-IC11
11	-MRLCHK-2	2	1.0000	Unknown	2	Finished	Perchlorate-IC11
12	-MRLCHK-4	4	1.0000	Unknown	4	Finished	Perchlorate-IC11
13	-LCS1	25	1.0000	Unknown	25	Finished	Perchlorate-IC11
14	-LCS2	25	1.0000	Unknown	25	Finished	Perchlorate-IC11
15	2805050346	NEWPALL	1.0000	Unknown		Finished	Perchlorate-IC11
16	2805050346-MS	25	1.0000	Unknown	25	Finished	Perchlorate-IC11
17	2805050346-MSD	25	1.0000	Unknown	25	Finished	Perchlorate-IC11
18	2805060229_1/2	KM 6.05	2.0000	Unknown		Finished	Perchlorate-IC11
19	2805060230_1/2	KM 5.5	2.0000	Unknown		Finished	Perchlorate-IC11
20	2805060231_1/2	KM 055	2.0000	Unknown		Finished	Perchlorate-IC11
21	2805060232_1/5	KM EFF	5.0000	Unknown		Finished	Perchlorate-IC11
22	2805060234_1/10000	KM INF	10000.0000	Unknown		Finished	Perchlorate-IC11
23	2805060259	BORON	1.0000	Unknown		Finished	Perchlorate-IC11
24	2805060277_1/10000	KM PC54	10000.0000	Unknown		Finished	Perchlorate-IC11
25	2805060278_1/5000	KM M48	5000.0000	Unknown		Finished	Perchlorate-IC11
26	2805060279_1/10000	KM PC37	10000.0000	Unknown		Finished	Perchlorate-IC11
27	CCV	25	1.0000	Unknown	25	Finished	Perchlorate-IC11
28	2805060280_1/25000	KM PC71	25000.0000	Unknown		Finished	Perchlorate-IC11
29	2805060281_1/10000	KM PC72	10000.0000	Unknown		Finished	Perchlorate-IC11
30	2805060282_1/10000	KM PC73	10000.0000	Unknown		Finished	Perchlorate-IC11
31	2805060290_1/10000	KM M23	10000.0000	Unknown		Finished	Perchlorate-IC11
32	2805060291_1/25000	KM M44	25000.0000	Unknown		Finished	Perchlorate-IC11
33	2805060293	KM FB1	1.0000	Unknown		Finished	Perchlorate-IC11
34	2805060294_1/10000	KM MD1	10000.0000	Unknown		Finished	Perchlorate-IC11
35	2805060303_1/25000	KM MD5	25000.0000	Unknown		Finished	Perchlorate-IC11
36	2805060305_1/10000	KM PC123	10000.0000	Unknown		Finished	Perchlorate-IC11
37	2805060311_1/200	KM PC124	200.0000	Unknown		Finished	Perchlorate-IC11
38	HCV	100	1.0000	Unknown	100	Finished	Perchlorate-IC11
39	IPC	EC=3155	1.0000	Unknown	25	Finished	Perchlorate-IC11
40	-MBLK		1.0000	Unknown		Finished	Perchlorate-IC11
41	-MRLCHK-2	2	1.0000	Unknown	2	Finished	Perchlorate-IC11
42	-MRLCHK-4	4	1.0000	Unknown	4	Finished	Perchlorate-IC11

Title:
Datasource: Dionex_USPAS2SDIO2
Location: IC\IC11_CLO4\2008\MAY
Timebase: IC11
#Samples: 68

Created: 5/8/2008 5:38:27 PM by clv
Last Update: 5/9/2008 10:15:49 AM by clv

No.	Name	Method	Inj. Date/Time	*Analyst
1	autocal1	IC#4-CLO4-LOW	5/3/2008 7:40:48 AM	clv
2	autocal2	IC#4-CLO4-LOW	5/3/2008 8:13:08 AM	clv
3	autocal3	IC#4-CLO4-LOW	5/3/2008 8:35:32 AM	clv
4	autocal4	IC#4-CLO4-LOW	5/3/2008 8:57:56 AM	clv
5	autocal5	IC#4-CLO4-LOW	5/3/2008 9:20:20 AM	clv
6	autocal6	IC#4-CLO4-LOW	5/3/2008 9:42:43 AM	clv
7	autocal7	IC#4-CLO4-LOW	5/3/2008 10:05:07 AM	clv
8	QCS	IC#4-CLO4-LOW	5/8/2008 5:40:54 PM	clv
9	IPC	IC#4-CLO4-LOW	5/8/2008 6:03:18 PM	clv
10	-MBLK	IC#4-CLO4-LOW	5/8/2008 6:25:42 PM	clv
11	-MRLCHK-2	IC#4-CLO4-LOW	5/8/2008 6:48:06 PM	clv
12	-MRLCHK-4	IC#4-CLO4-LOW	5/8/2008 7:10:29 PM	clv
13	-LCS1	IC#4-CLO4-LOW	5/8/2008 7:32:53 PM	clv
14	-LCS2	IC#4-CLO4-LOW	5/8/2008 7:55:17 PM	clv
15	2805050346	IC#4-CLO4-LOW	5/8/2008 8:17:41 PM	clv
16	2805050346-MS	IC#4-CLO4-LOW	5/8/2008 8:40:05 PM	clv
17	2805050346-MSD	IC#4-CLO4-LOW	5/8/2008 9:02:29 PM	clv
18	2805060229_1/2	IC#4-CLO4-LOW	5/8/2008 9:24:52 PM	clv
19	2805060230_1/2	IC#4-CLO4-LOW	5/8/2008 9:47:16 PM	clv
20	2805060231_1/2	IC#4-CLO4-LOW	5/8/2008 10:09:40 PM	clv
21	2805060232_1/5	IC#4-CLO4-LOW	5/8/2008 10:32:04 PM	clv
22	2805060234_1/10000	IC#4-CLO4-LOW	5/8/2008 10:54:27 PM	clv
23	2805060259	IC#4-CLO4-LOW	5/8/2008 11:16:51 PM	clv
24	2805060277_1/10000	IC#4-CLO4-LOW	5/8/2008 11:39:15 PM	clv
25	2805060278_1/5000	IC#4-CLO4-LOW	5/9/2008 12:01:39 AM	clv
26	2805060279_1/10000	IC#4-CLO4-LOW	5/9/2008 12:24:02 AM	clv
27	CCV	IC#4-CLO4-LOW	5/9/2008 12:46:26 AM	clv
28	2805060280_1/25000	IC#4-CLO4-LOW	5/9/2008 1:08:50 AM	clv
29	2805060281_1/10000	IC#4-CLO4-LOW	5/9/2008 1:31:13 AM	clv
30	2805060282_1/10000	IC#4-CLO4-LOW	5/9/2008 1:53:37 AM	clv
31	2805060290_1/10000	IC#4-CLO4-LOW	5/9/2008 2:16:01 AM	clv
32	2805060291_1/25000	IC#4-CLO4-LOW	5/9/2008 2:38:25 AM	clv
33	2805060293	IC#4-CLO4-LOW	5/9/2008 3:00:48 AM	clv
34	2805060294_1/10000	IC#4-CLO4-LOW	5/9/2008 3:23:12 AM	clv
35	2805060303_1/25000	IC#4-CLO4-LOW	5/9/2008 3:45:36 AM	clv
36	2805060305_1/10000	IC#4-CLO4-LOW	5/9/2008 4:08:00 AM	clv
37	2805060311_1/200	IC#4-CLO4-LOW	5/9/2008 4:30:24 AM	clv
38	HCV	IC#4-CLO4-LOW	5/9/2008 4:52:48 AM	clv
39	IPC	IC#4-CLO4-LOW	5/9/2008 5:15:11 AM	clv
40	-MBLK	IC#4-CLO4-LOW	5/9/2008 5:37:35 AM	clv
41	-MRLCHK-2	IC#4-CLO4-LOW	5/9/2008 5:59:59 AM	clv
42	-MRLCHK-4	IC#4-CLO4-LOW	5/9/2008 6:22:22 AM	clv

Title:
Datasource: Dionex_USPAS2SDIO2
Location: IC\IC11_CLO4\2008\MAY
Timebase: IC11
#Samples: 68

Created: 5/8/2008 5:38:27 PM by clv
Last Update: 5/9/2008 10:15:49 AM by clv

No.	Name	Sample ID	Dil. Factor	Type	Comment	Status	Program
43	-LCS1	25	1.0000	Unknown	25	Finished	Perchlorate-IC11
44	-LCS2	25	1.0000	Unknown	25	Finished	Perchlorate-IC11
45	2805060312_1/200	KM PC125	200.0000	Unknown		Finished	Perchlorate-IC11
46	2805060313_1/500	KM PC126	500.0000	Unknown		Finished	Perchlorate-IC11
47	2805060314_1/10000	KM PC127	10000.0000	Unknown		Finished	Perchlorate-IC11
48	2805160315_1/5000	KM PC128	5000.0000	Unknown		Finished	Perchlorate-IC11
49	2805060316_1/10000	KM PC129	10000.0000	Unknown		Finished	Perchlorate-IC11
50	2805060317_1/500	KM PC131	500.0000	Unknown		Finished	Perchlorate-IC11
51	2805060318_1/100	KM PC132	100.0000	Unknown		Finished	Perchlorate-IC11
52	2805060319_1/25000	KM M95	25000.0000	Unknown		Finished	Perchlorate-IC11
53	2805060320_1/10000	KM M96	10000.0000	Unknown		Finished	Perchlorate-IC11
54	2805070441	CALWATER	1.0000	Unknown		Finished	Perchlorate-IC11
55	2805070441-MS	25	1.0000	Unknown	25	Finished	Perchlorate-IC11
56	2805070441-MSD	25	1.0000	Unknown	25	Finished	Perchlorate-IC11
57	CCV	25	1.0000	Unknown	25	Finished	Perchlorate-IC11
58	2805070442	CALWATER	1.0000	Unknown		Finished	Perchlorate-IC11
59	2805070443	CALWATER	1.0000	Unknown		Finished	Perchlorate-IC11
60	2805070444	CALWATER	1.0000	Unknown		Finished	Perchlorate-IC11
61	2805070445	CALWATER	1.0000	Unknown		Finished	Perchlorate-IC11
62	2805070446	CALWATER	1.0000	Unknown		Finished	Perchlorate-IC11
63	2805070450	CALWATER	1.0000	Unknown		Finished	Perchlorate-IC11
64	2805070484	CALWATER	1.0000	Unknown		Finished	Perchlorate-IC11
65	2805070486	CALWATER	1.0000	Unknown		Finished	Perchlorate-IC11
66	2805070487	CALWATER	1.0000	Unknown		Finished	Perchlorate-IC11
67	2805070623	CALWATER	1.0000	Unknown		Finished	Perchlorate-IC11
68	HCV	100	1.0000	Unknown	100	Finished	Perchlorate-IC11

Sequence: 050808CLO4-IC11
Operator: clv

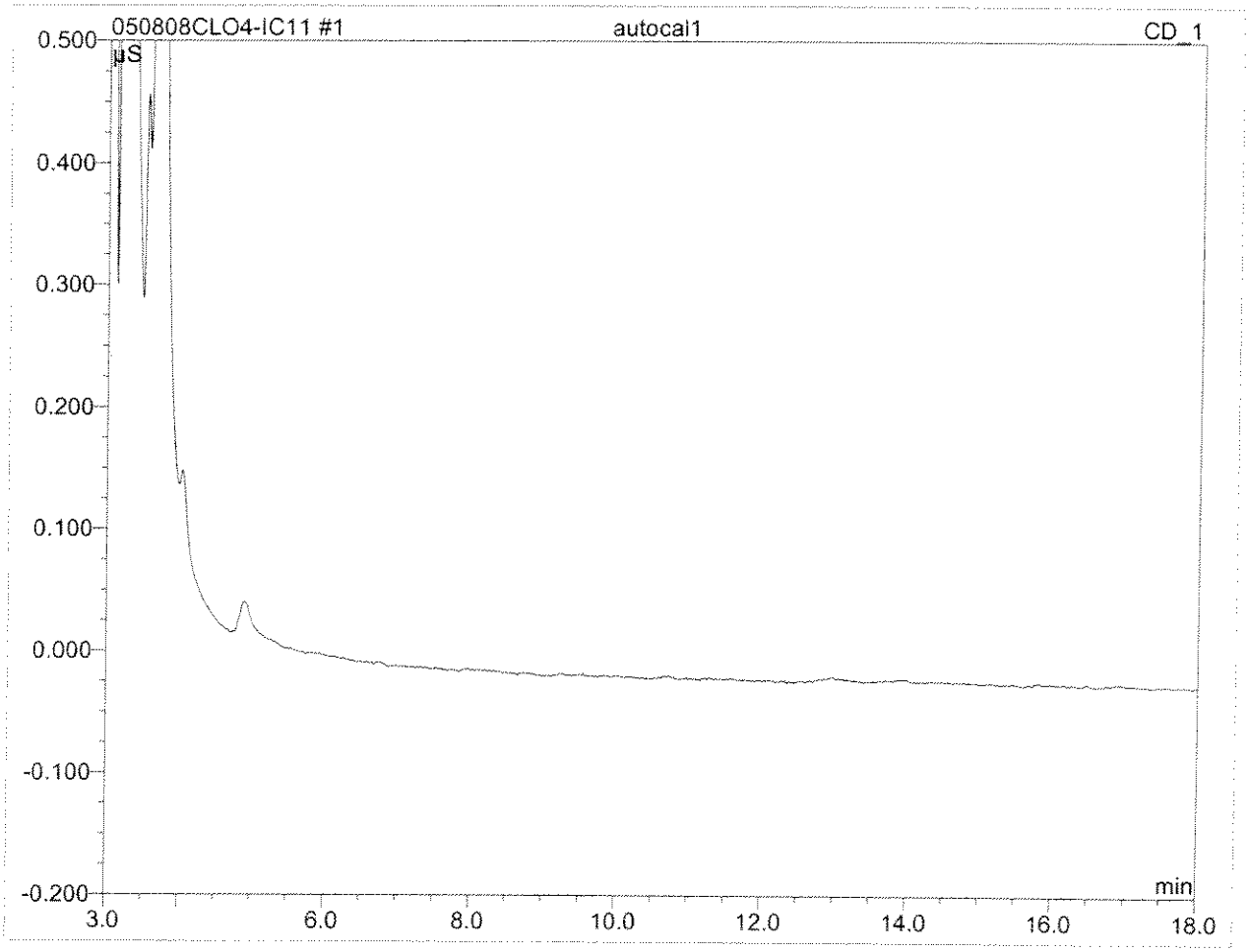
Title:
Datasource: Dionex_USPAS2SDIO2
Location: IC\IC11_CLO4\2008\MAY
Timebase: IC11
#Samples: 68

Created: 5/8/2008 5:38:27 PM by clv
Last Update: 5/9/2008 10:15:49 AM by clv

No.	Name	Method	Inj. Date/Time	*Analyst
43	-LCS1	IC#4-CLO4-LOW	5/9/2008 6:44:46 AM	clv
44	-LCS2	IC#4-CLO4-LOW	5/9/2008 7:07:10 AM	clv
45	2805060312_1/200	IC#4-CLO4-LOW	5/9/2008 7:29:34 AM	clv
46	2805060313_1/500	IC#4-CLO4-LOW	5/9/2008 7:51:58 AM	clv
47	2805060314_1/10000	IC#4-CLO4-LOW	5/9/2008 8:14:21 AM	clv
48	2805160315_1/5000	IC#4-CLO4-LOW	5/9/2008 8:36:45 AM	clv
49	2805060316_1/10000	IC#4-CLO4-LOW	5/9/2008 8:59:09 AM	clv
50	2805060317_1/500	IC#4-CLO4-LOW	5/9/2008 9:21:33 AM	clv
51	2805060318_1/100	IC#4-CLO4-LOW	5/9/2008 9:43:56 AM	clv
52	2805060319_1/25000	IC#4-CLO4-LOW	5/9/2008 10:06:21 AM	clv
53	2805060320_1/10000	IC#4-CLO4-LOW	5/9/2008 10:28:44 AM	clv
54	2805070441	IC#4-CLO4-LOW	5/9/2008 10:51:08 AM	clv
55	2805070441-MS	IC#4-CLO4-LOW	5/9/2008 11:13:32 AM	clv
56	2805070441-MSD	IC#4-CLO4-LOW	5/9/2008 11:35:56 AM	clv
57	CCV	IC#4-CLO4-LOW	5/9/2008 11:58:19 AM	clv
58	2805070442	IC#4-CLO4-LOW	5/9/2008 12:20:43 PM	clv
59	2805070443	IC#4-CLO4-LOW	5/9/2008 12:43:07 PM	clv
60	2805070444	IC#4-CLO4-LOW	5/9/2008 1:05:31 PM	clv
61	2805070445	IC#4-CLO4-LOW	5/9/2008 1:27:55 PM	clv
62	2805070446	IC#4-CLO4-LOW	5/9/2008 1:50:18 PM	clv
63	2805070450	IC#4-CLO4-LOW	5/9/2008 2:12:42 PM	clv
64	2805070484	IC#4-CLO4-LOW	5/9/2008 2:35:06 PM	clv
65	2805070486	IC#4-CLO4-LOW	5/9/2008 2:57:30 PM	clv
66	2805070487	IC#4-CLO4-LOW	5/9/2008 3:19:54 PM	clv
67	2805070623	IC#4-CLO4-LOW	5/9/2008 3:42:17 PM	clv
68	HCV	IC#4-CLO4-LOW	5/9/2008 4:04:41 PM	clv

1 autocal1

Sample Name:	**autocal1**	*Channel:*	**CD_1**
Sample Type:	**standard**	*Control Program:*	**Perchlorate-IC11**
Recording Time:	**05/03/2008 07:40**	*Quantif. Method:*	**IC#4-CLO4-LOW**
Analyst:	**clv**	*Dilution Factor:*	**1.0000**

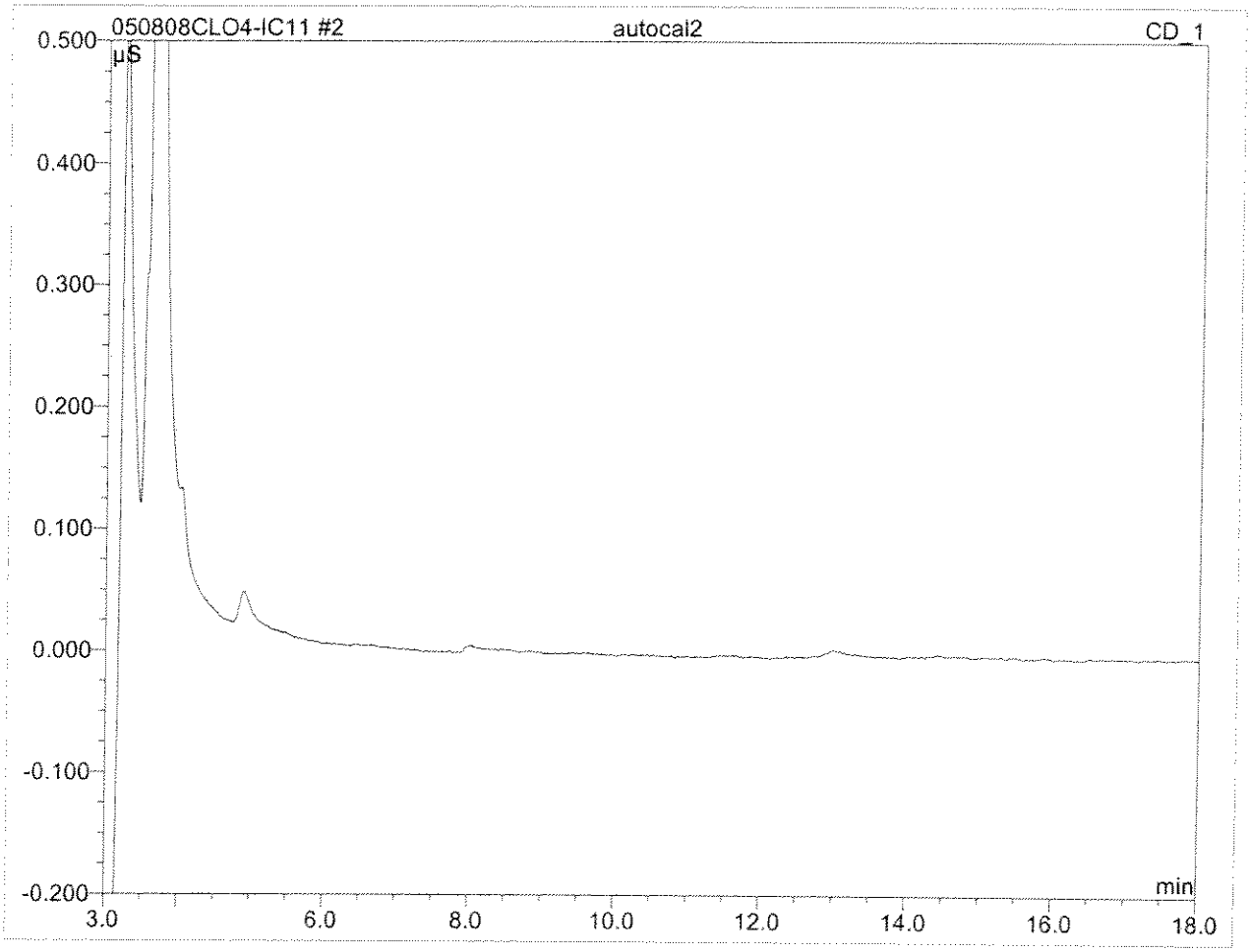


No.	Ret.Time min	Peak Name	Height µS	Area µS*min	Rel.Area %	Amount	Type
Total:			0.000	0.000	0.00	0.000	

2 autocal2

2

Sample Name:	**autocal2**	*Channel:*	**CD_1**
Sample Type:	**standard**	*Control Program:*	**Perchlorate-IC11**
Recording Time:	**05/03/2008 08:13**	*Quantif. Method:*	**IC#4-CLO4-LOW**
Analyst:	**clv**	*Dilution Factor:*	**1.0000**

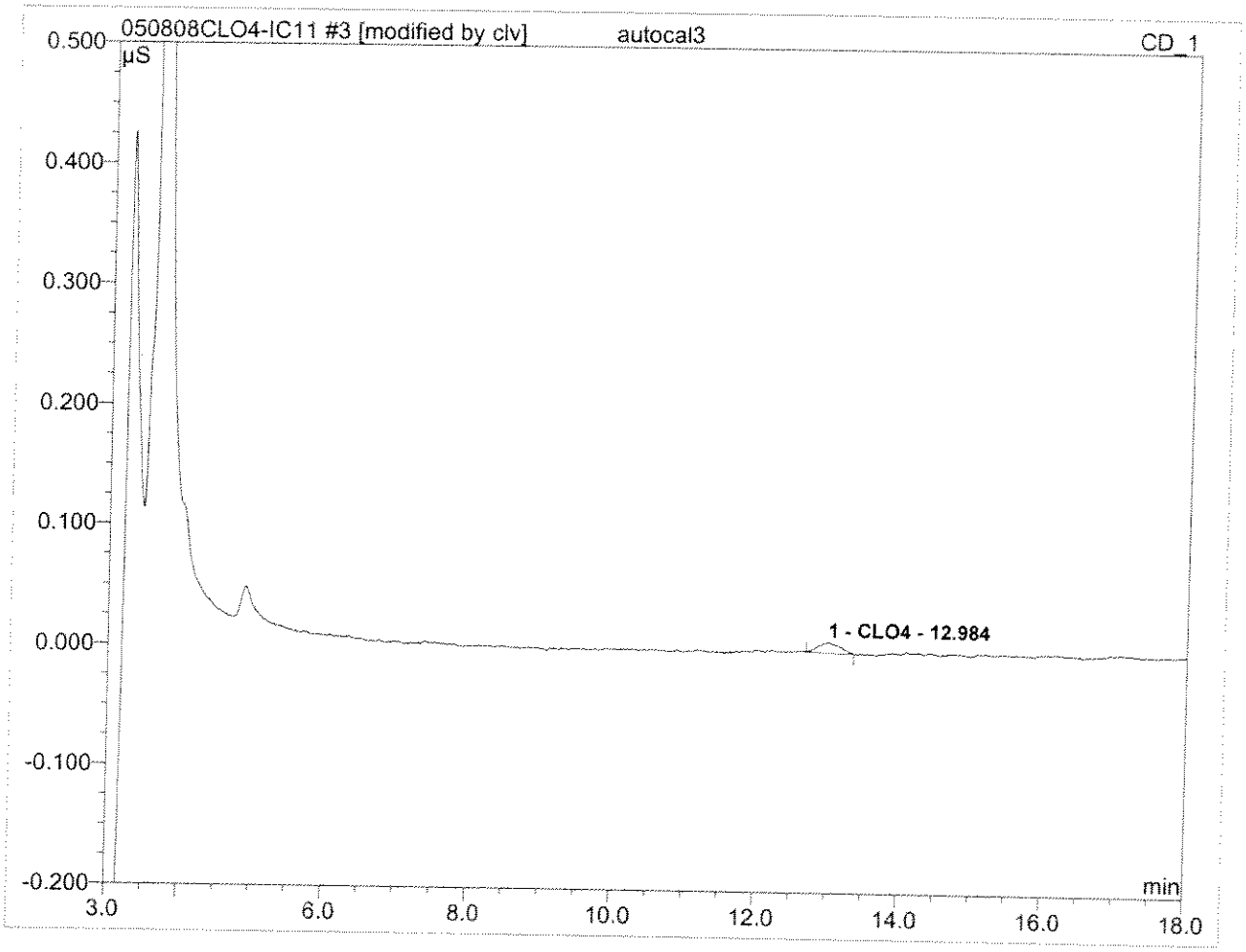


No.	Ret.Time min	Peak Name	Height µS	Area µS*min	Rel.Area %	Amount	Type
Total:			0.000	0.000	0.00	0.000	

3 autocal3

4

Sample Name:	**autocal3**	*Channel:*	**CD_1**
Sample Type:	**standard**	*Control Program:*	**Perchlorate-IC11**
Recording Time:	**05/03/2008 08:35**	*Quantif. Method:*	**IC#4-CLO4-LOW**
Analyst:	**clv**	*Dilution Factor:*	**1.0000**

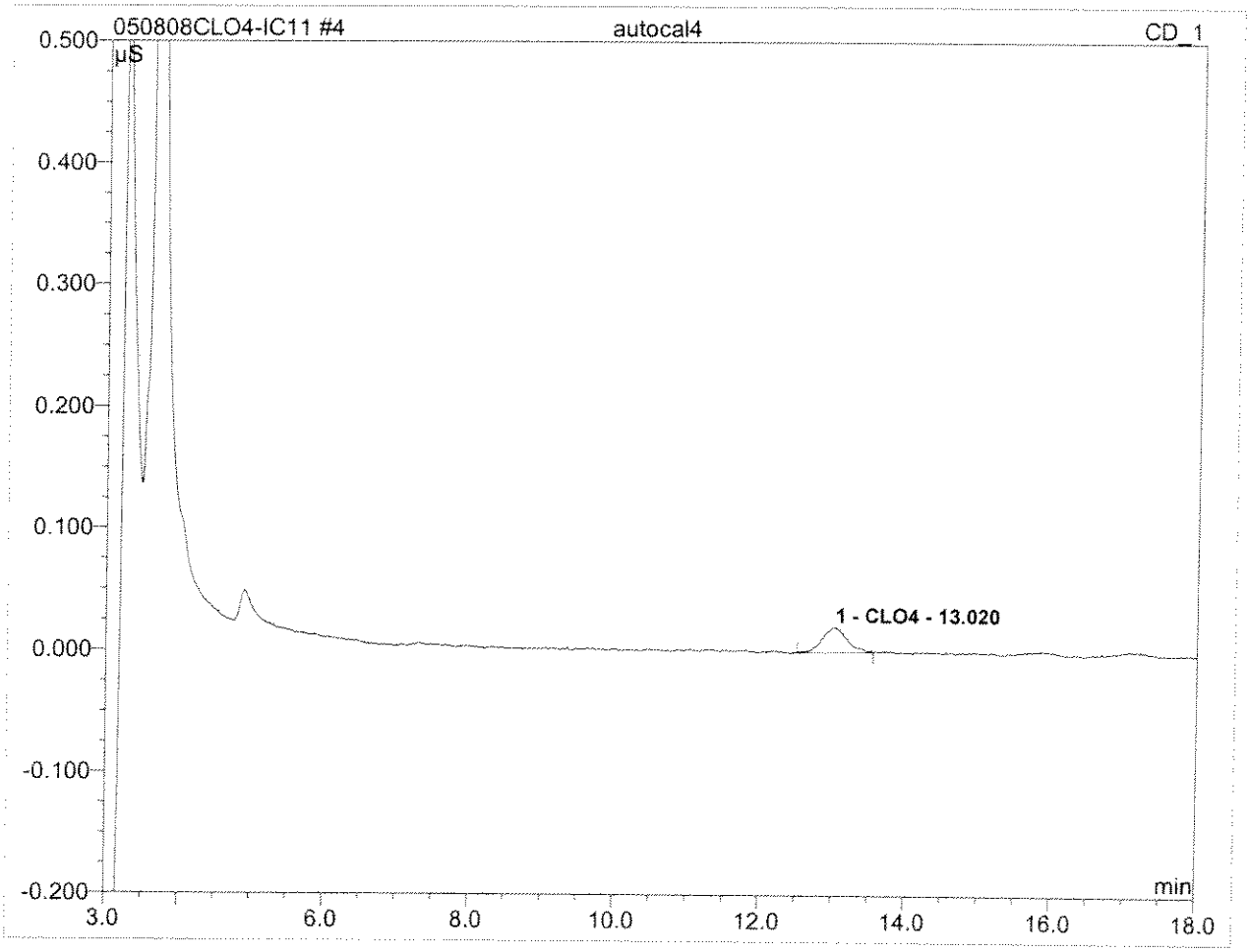


No.	Ret.Time min	Peak Name	Height µS	Area µS*min	Rel.Area %	Amount	Type
1	12.98	CLO4	0.009	0.003	100.00	4.206	BMB*
Total:			0.009	0.003	100.00	4.206	

4 autocal4

10

Sample Name:	**autocal4**	*Channel:*	**CD_1**
Sample Type:	**standard**	*Control Program:*	**Perchlorate-IC11**
Recording Time:	**05/03/2008 08:57**	*Quantif. Method:*	**IC#4-CLO4-LOW**
Analyst:	**clv**	*Dilution Factor:*	**1.0000**

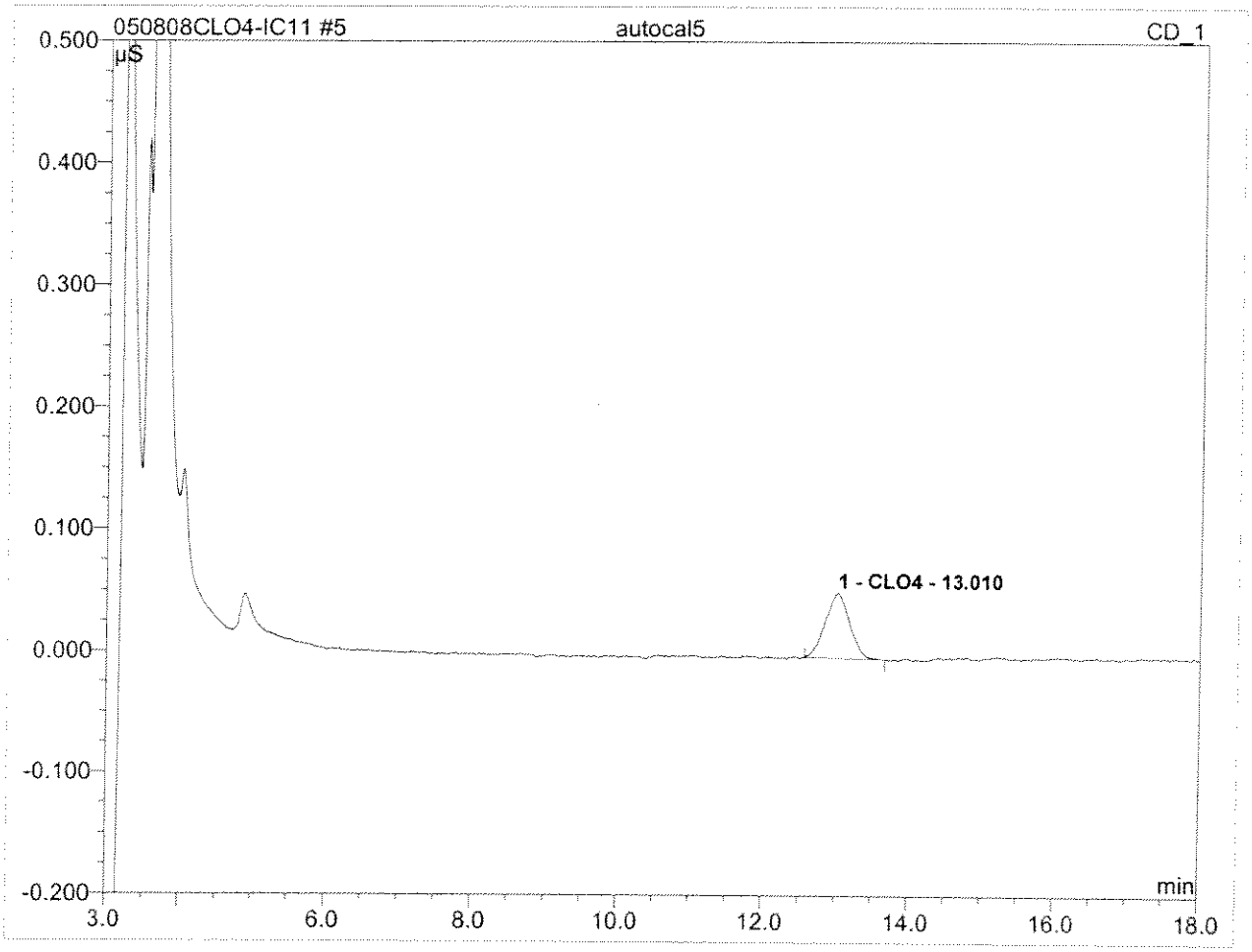


No.	Ret.Time min	Peak Name	Height µS	Area µS*min	Rel.Area %	Amount	Type
1	13.02	CLO4	0.021	0.008	100.00	9.872	BMB
Total:			0.021	0.008	100.00	9.872	

5 autocal5

25

Sample Name:	**autocal5**	*Channel:*	**CD_1**
Sample Type:	**standard**	*Control Program:*	**Perchlorate-IC11**
Recording Time:	**05/03/2008 09:20**	*Quantif. Method:*	**IC#4-CLO4-LOW**
Analyst:	**clv**	*Dilution Factor:*	**1.0000**

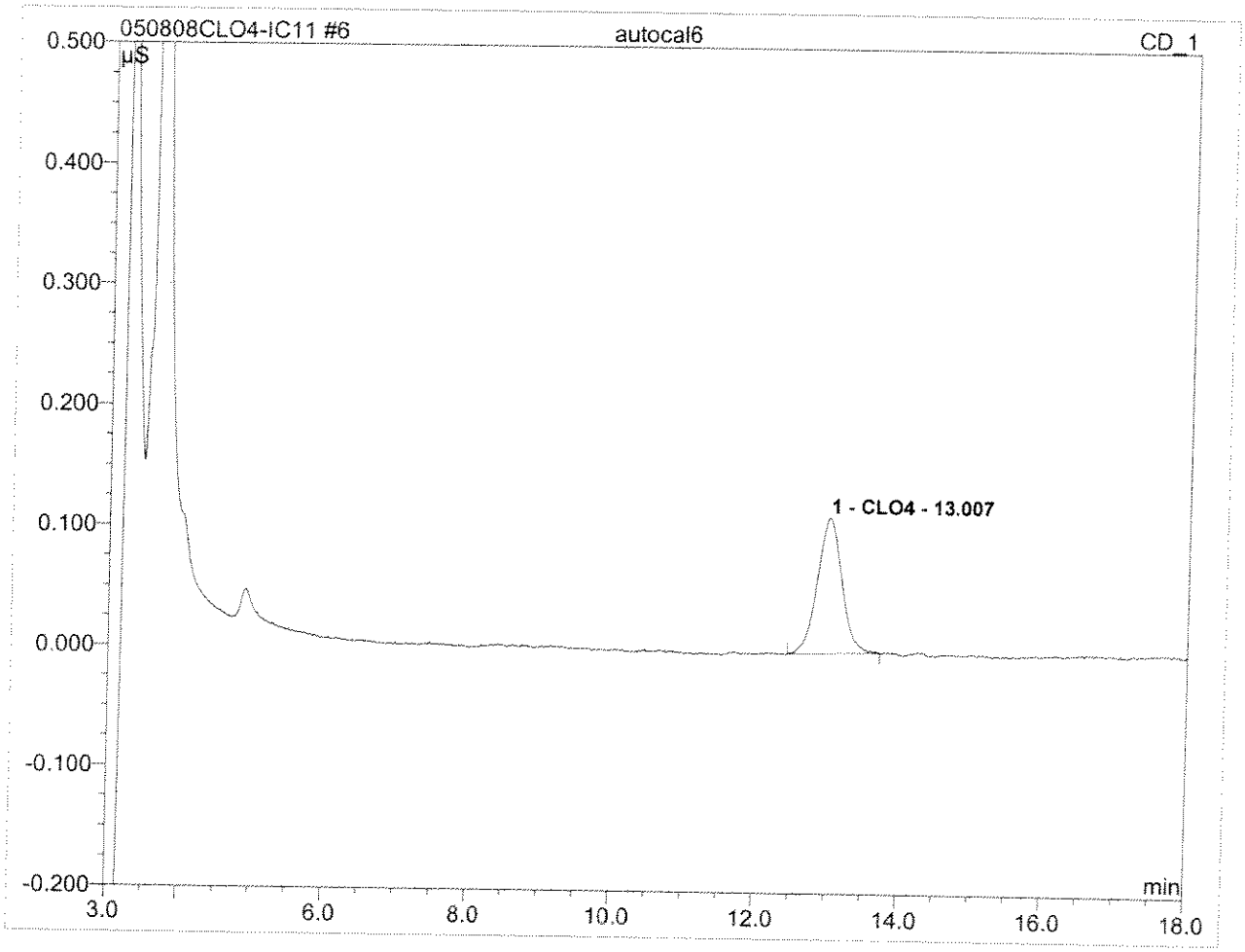


No.	Ret.Time min	Peak Name	Height µS	Area µS*min	Rel.Area %	Amount	Type
1	13.01	CLO4	0.054	0.021	100.00	24.075	BMB
Total:			0.054	0.021	100.00	24.075	

6 autocal6

50

Sample Name:	**autocal6**	*Channel:*	**CD_1**
Sample Type:	**standard**	*Control Program:*	**Perchlorate-IC11**
Recording Time:	**05/03/2008 09:42**	*Quantif. Method:*	**IC#4-CLO4-LOW**
Analyst:	**clv**	*Dilution Factor:*	**1.0000**

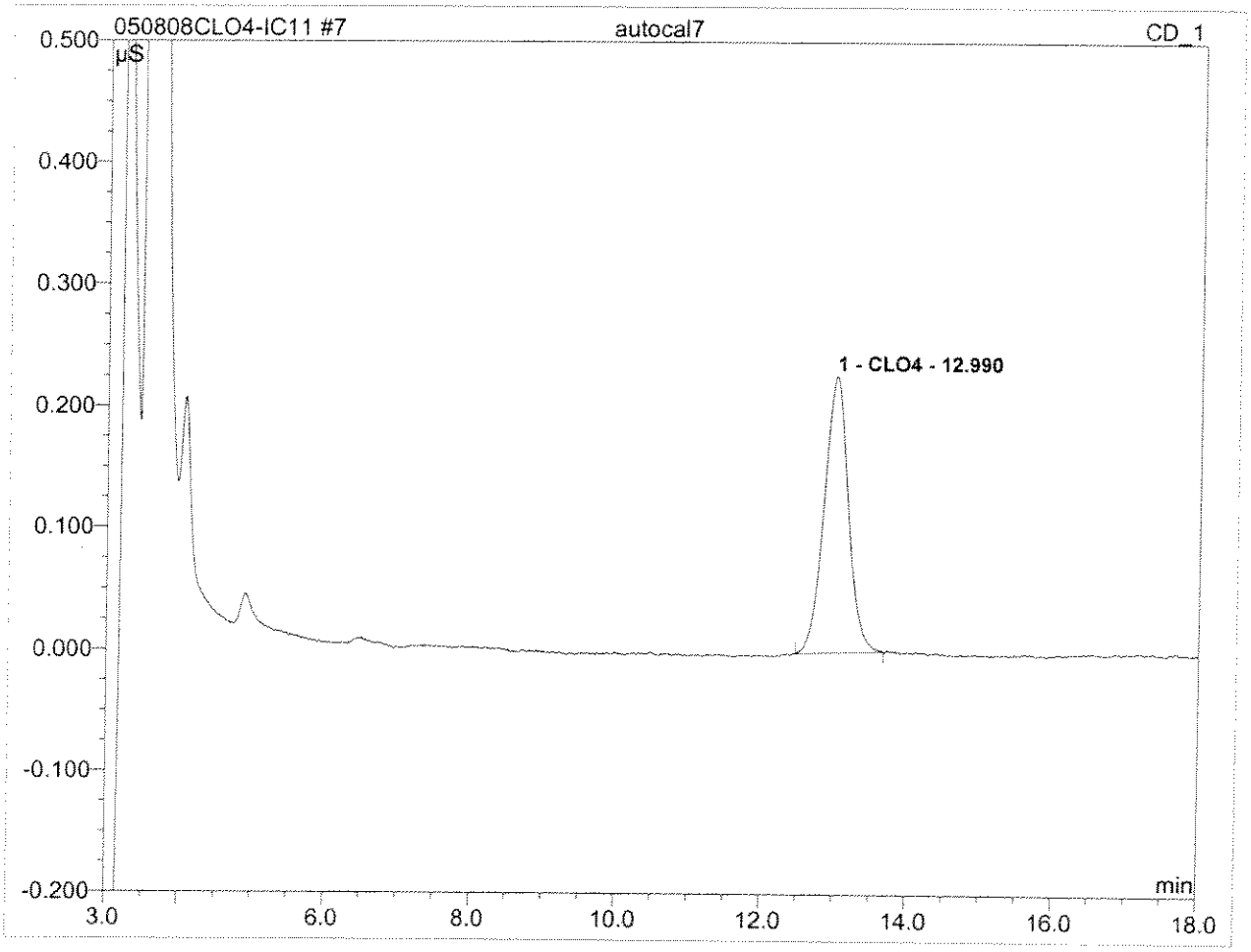


No.	Ret.Time min	Peak Name	Height µS	Area µS*min	Rel.Area %	Amount	Type
1	13.01	CLO4	0.113	0.045	100.00	51.222	BMB
Total:			0.113	0.045	100.00	51.222	

7 autocal7

100

Sample Name:	**autocal7**	*Channel:*	**CD_1**
Sample Type:	**standard**	*Control Program:*	**Perchlorate-IC11**
Recording Time:	**05/03/2008 10:05**	*Quantif. Method:*	**IC#4-CLO4-LOW**
Analyst:	**clv**	*Dilution Factor:*	**1.0000**

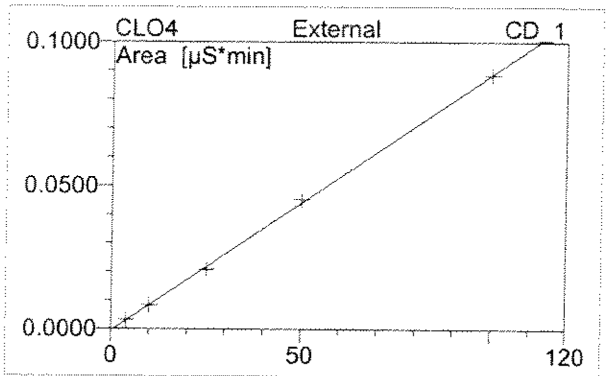


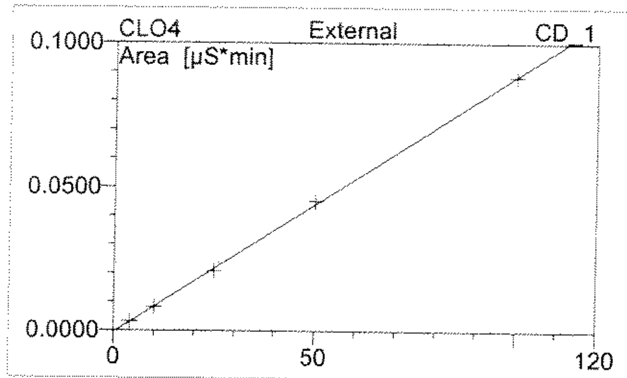
No.	Ret.Time min	Peak Name	Height µS	Area µS*min	Rel.Area %	Amount	Type
1	12.99	CLO4	0.228	0.088	100.00	99.625	BMB
Total:			0.228	0.088	100.00	99.625	

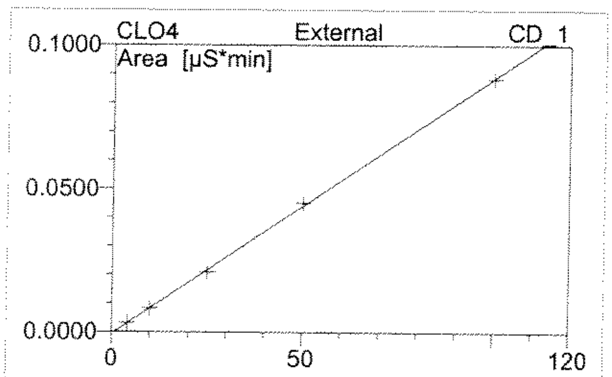
7 autocal7

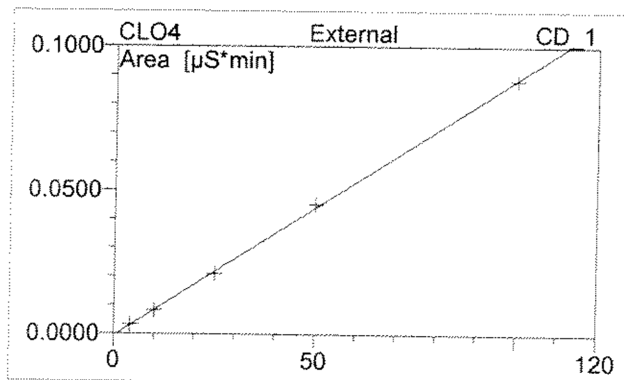
100

Sample Name:	**autocal7**	*Injection Volume:*	**20.0**
Vial Number:	**141**	*Channel:*	**CD_1**
Sample Type:	**standard**	*Wavelength:*	**n.a.**
Control Program:	**Perchlorate-IC11**	*Bandwidth:*	**n.a.**
Quantif. Method:	**IC#4-CLO4-LOW**	*Dilution Factor:*	**1.0000**
Recording Time:	**5/3/2008 10:05**	*Sample Weight:*	**1.0000**
Run Time (min):	**20.00**	*Sample Amount:*	**1.0000**







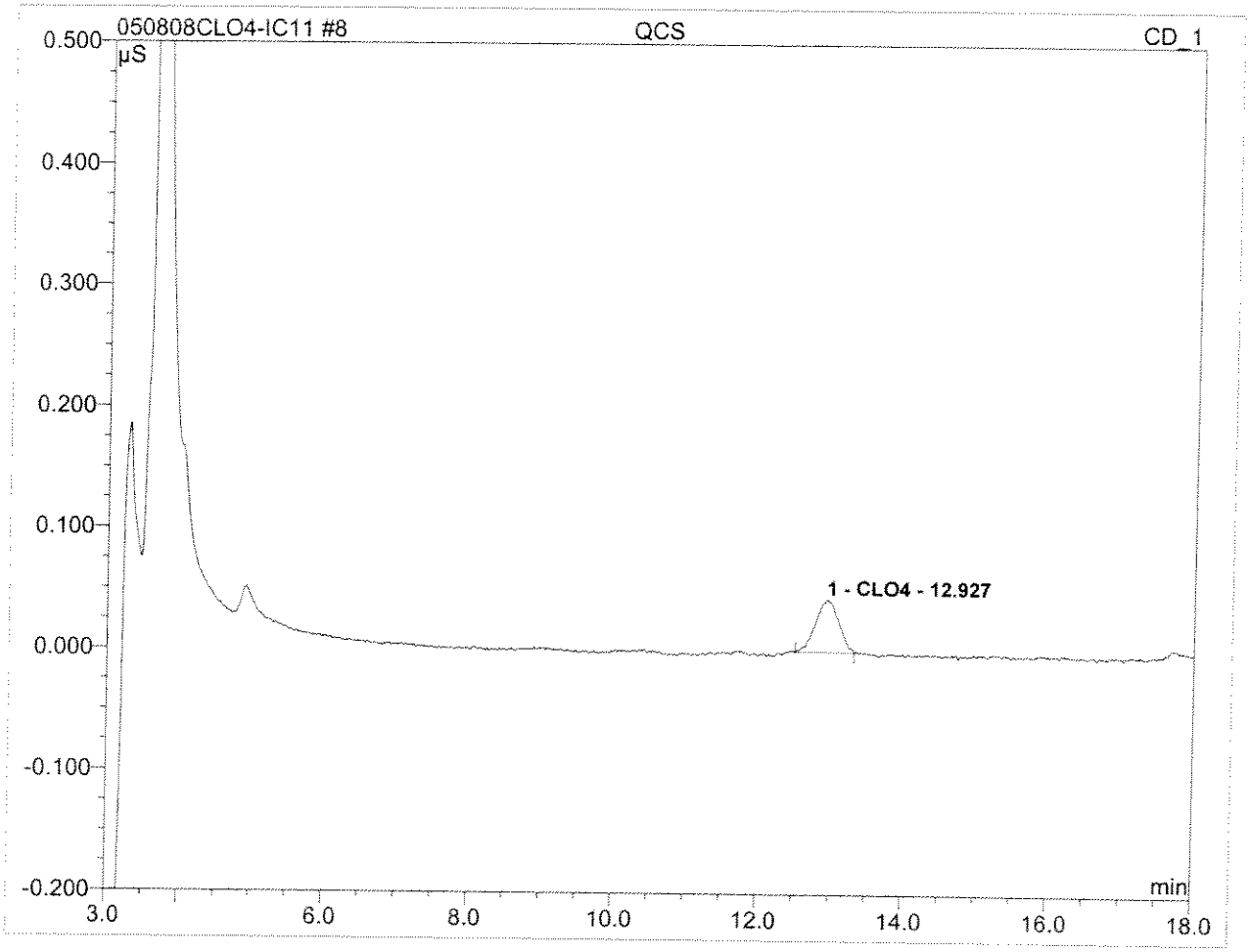


No.	Ret.Time min	Peak Name	Cal.Type	Points	Corr.Coeff. %	Offset	Slope	Curve
1	12.99	CLO4	LOff	5	99.9791	-0.0006	0.0009	0.0000
Average:					99.9791	-0.0006	0.0009	0.0000

8 QCS

20

Sample Name:	**QCS**	*Channel:*	**CD_1**
Sample Type:	**unknown**	*Control Program:*	**Perchlorate-IC11**
Recording Time:	**05/08/2008 17:40**	*Quantif. Method:*	**IC#4-CLO4-LOW**
Analyst:	**clv**	*Dilution Factor:*	**1.0000**

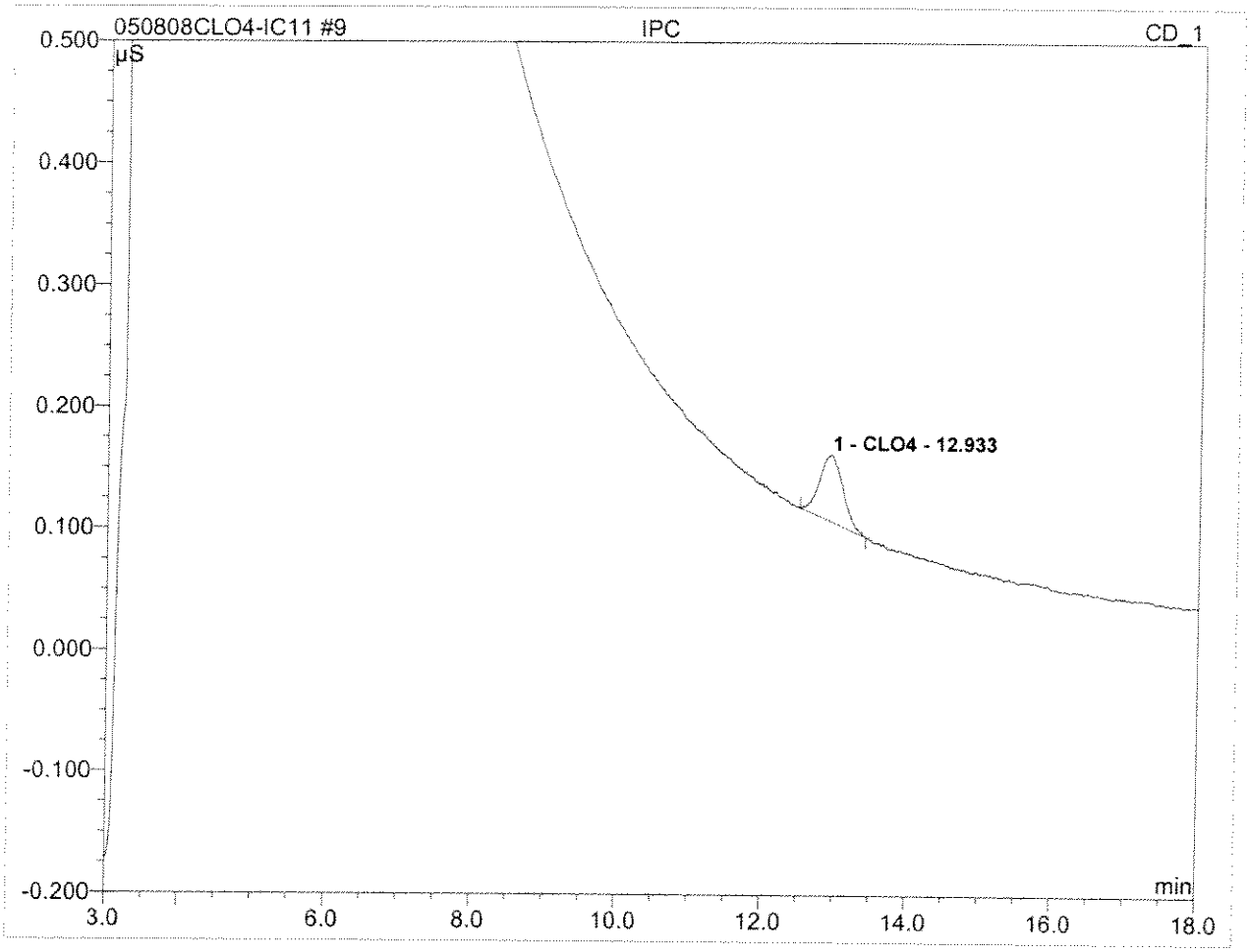


No.	Ret.Time min	Peak Name	Height µS	Area µS*min	Rel.Area %	Amount	Type
1	12.93	CLO4	0.043	0.016	100.00	18.769	BMB
Total:			0.043	0.016	100.00	18.769	

9 IPC

25

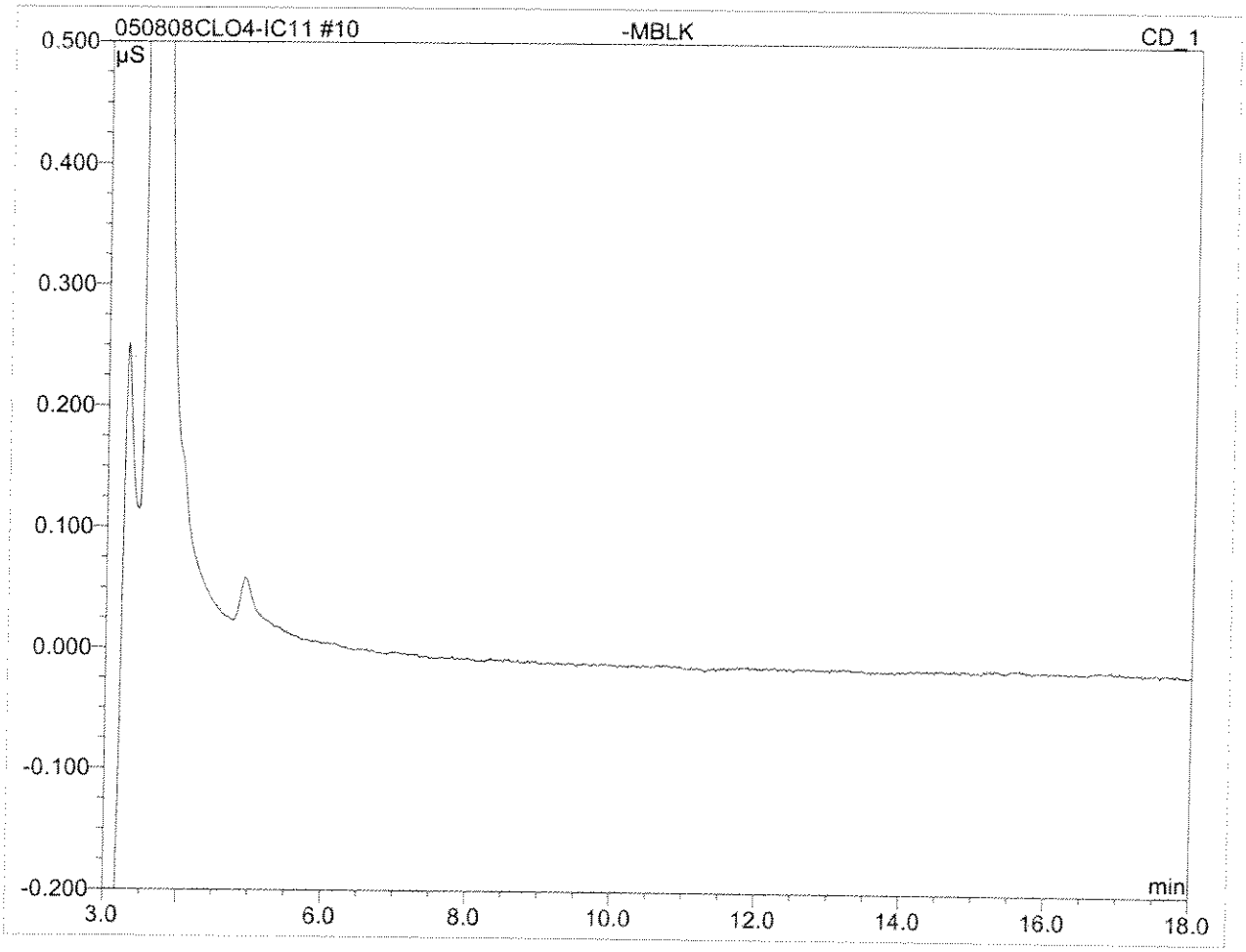
Sample Name:	**IPC**	*Channel:*	**CD_1**
Sample Type:	**unknown**	*Control Program:*	**Perchlorate-IC11**
Recording Time:	**05/08/2008 18:03**	*Quantif. Method:*	**IC#4-CLO4-LOW**
Analyst:	**clv**	*Dilution Factor:*	**1.0000**



No.	Ret.Time min	Peak Name	Height µS	Area µS*min	Rel.Area %	Amount	Type
1	12.93	CLO4	0.055	0.021	100.00	23.688	BMB
Total:			0.055	0.021	100.00	23.688	

10 -MBLK

Sample Name:	**-MBLK**	*Channel:*	**CD_1**
Sample Type:	**unknown**	*Control Program:*	**Perchlorate-IC11**
Recording Time:	**05/08/2008 18:25**	*Quantif. Method:*	**IC#4-CLO4-LOW**
Analyst:	**clv**	*Dilution Factor:*	**1.0000**

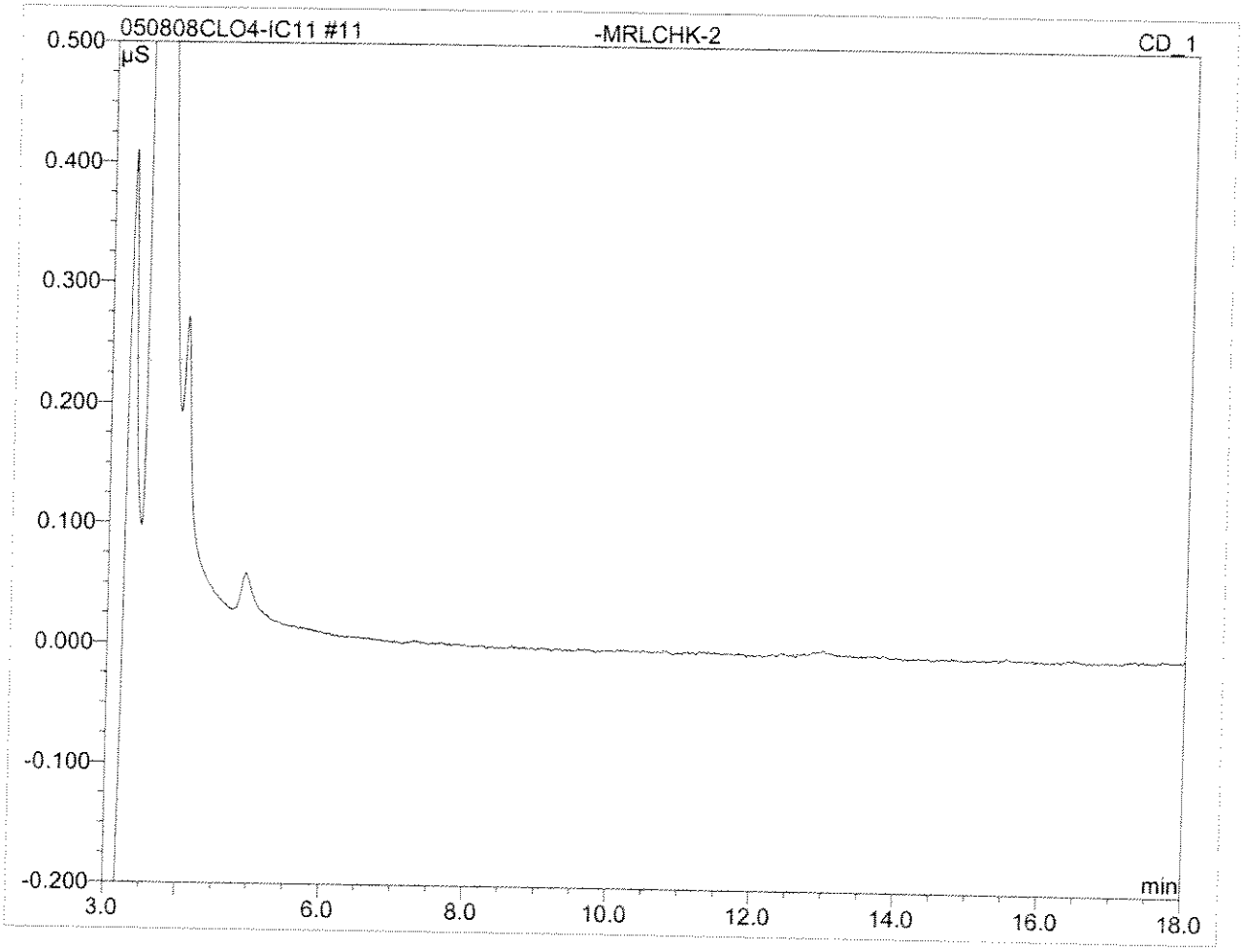


No.	Ret.Time min	Peak Name	Height µS	Area µS*min	Rel.Area %	Amount	Type
Total:			0.000	0.000	0.00	0.000	

11 -MRLCHK-2

2

Sample Name:	**-MRLCHK-2**	*Channel:*	**CD_1**
Sample Type:	**unknown**	*Control Program:*	**Perchlorate-IC11**
Recording Time:	**05/08/2008 18:48**	*Quantif. Method:*	**IC#4-CLO4-LOW**
Analyst:	**clv**	*Dilution Factor:*	**1.0000**

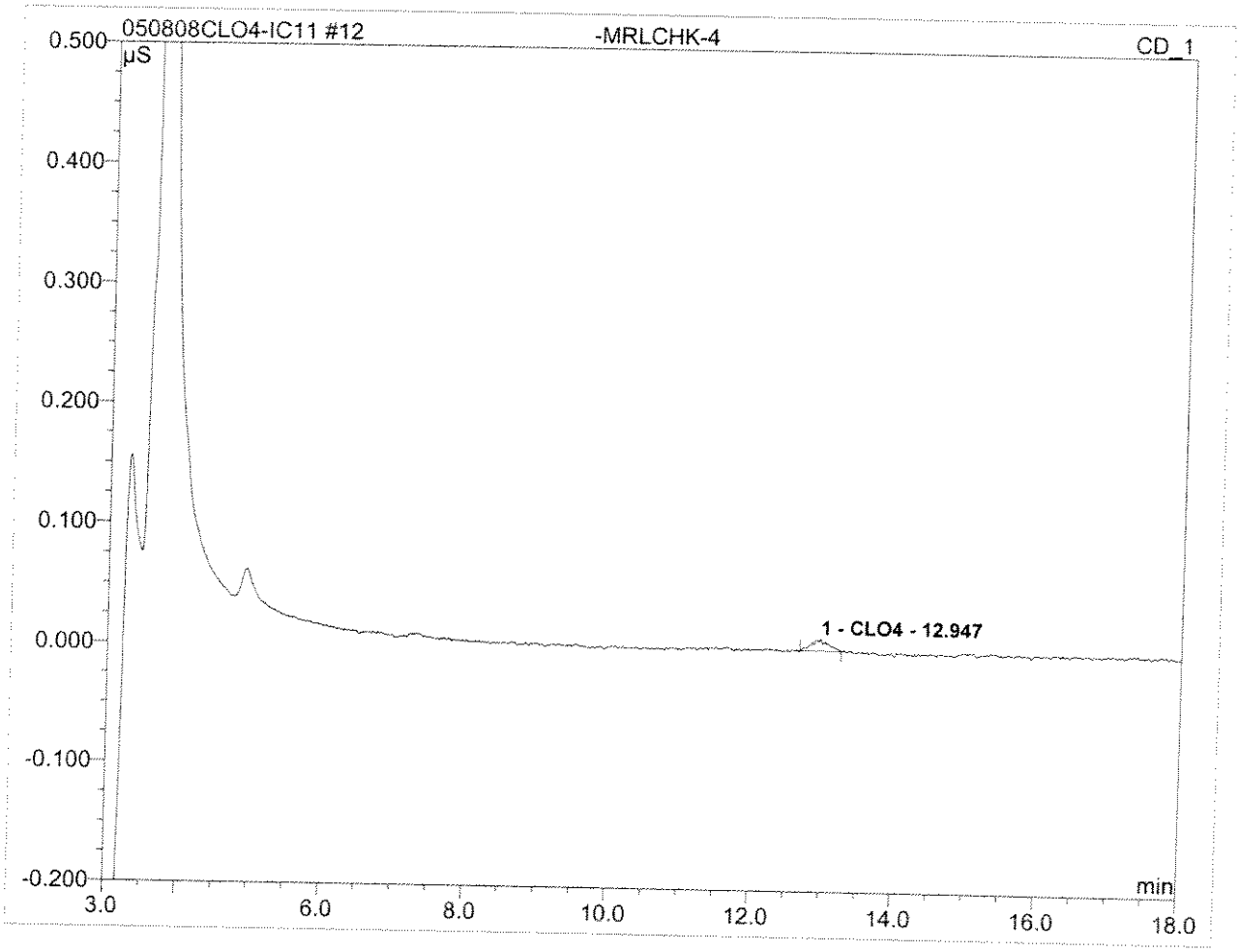


No.	Ret.Time min	Peak Name	Height µS	Area µS*min	Rel.Area %	Amount	Type
Total:			0.000	0.000	0.00	0.000	

12 -MRLCHK-4

4

Sample Name:	**-MRLCHK-4**	*Channel:*	**CD_1**
Sample Type:	**unknown**	*Control Program:*	**Perchlorate-IC11**
Recording Time:	**05/08/2008 19:10**	*Quantif. Method:*	**IC#4-CLO4-LOW**
Analyst:	**clv**	*Dilution Factor:*	**1.0000**

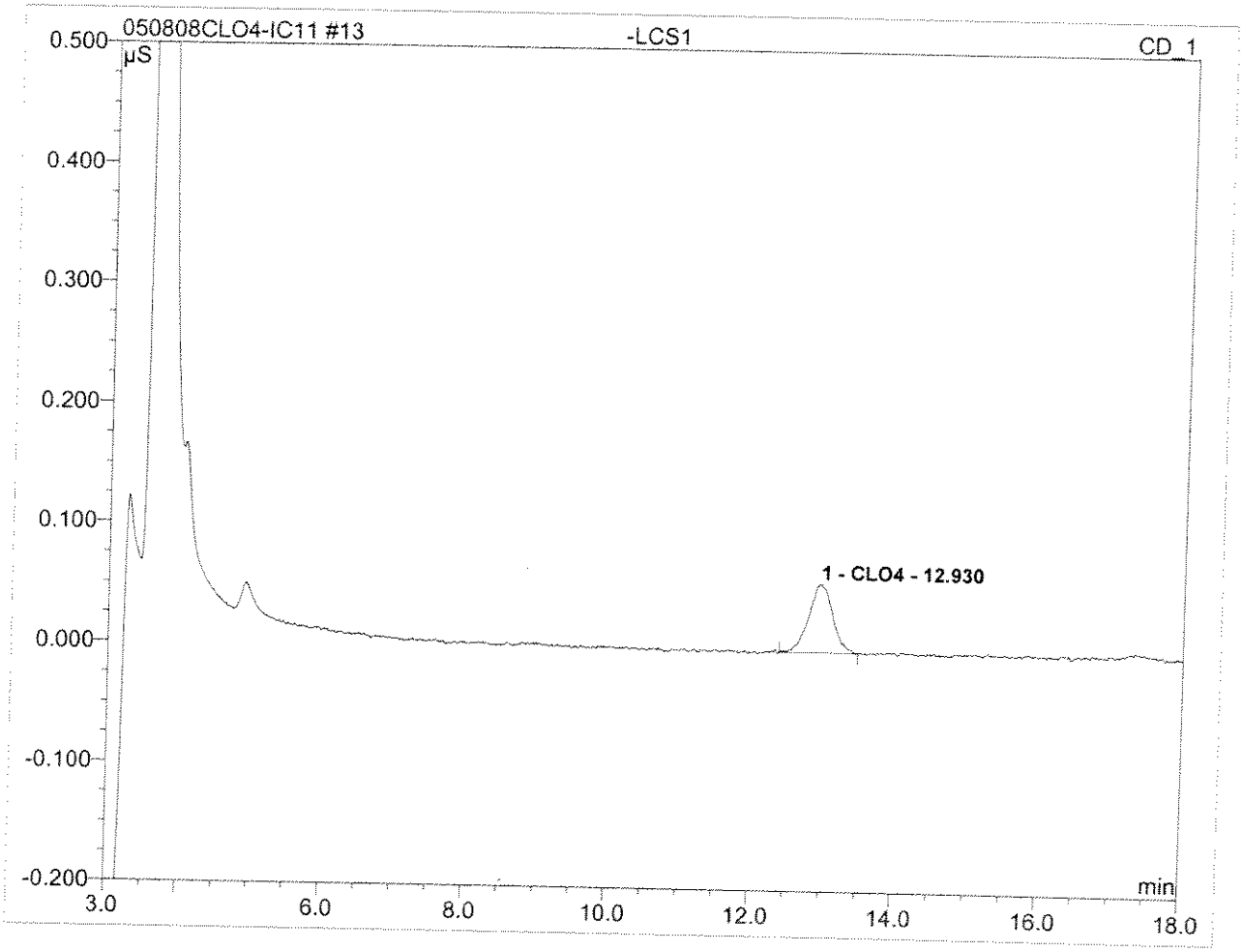


No.	Ret.Time min	Peak Name	Height µS	Area µS*min	Rel.Area %	Amount	Type
1	12.95	CLO4	0.010	0.003	100.00	3.706	BMB
Total:			0.010	0.003	100.00	3.706	

13 -LCS1

25

Sample Name:	**-LCS1**	*Channel:*	**CD_1**
Sample Type:	**unknown**	*Control Program:*	**Perchlorate-IC11**
Recording Time:	**05/08/2008 19:32**	*Quantif. Method:*	**IC#4-CLO4-LOW**
Analyst:	**clv**	*Dilution Factor:*	**1.0000**

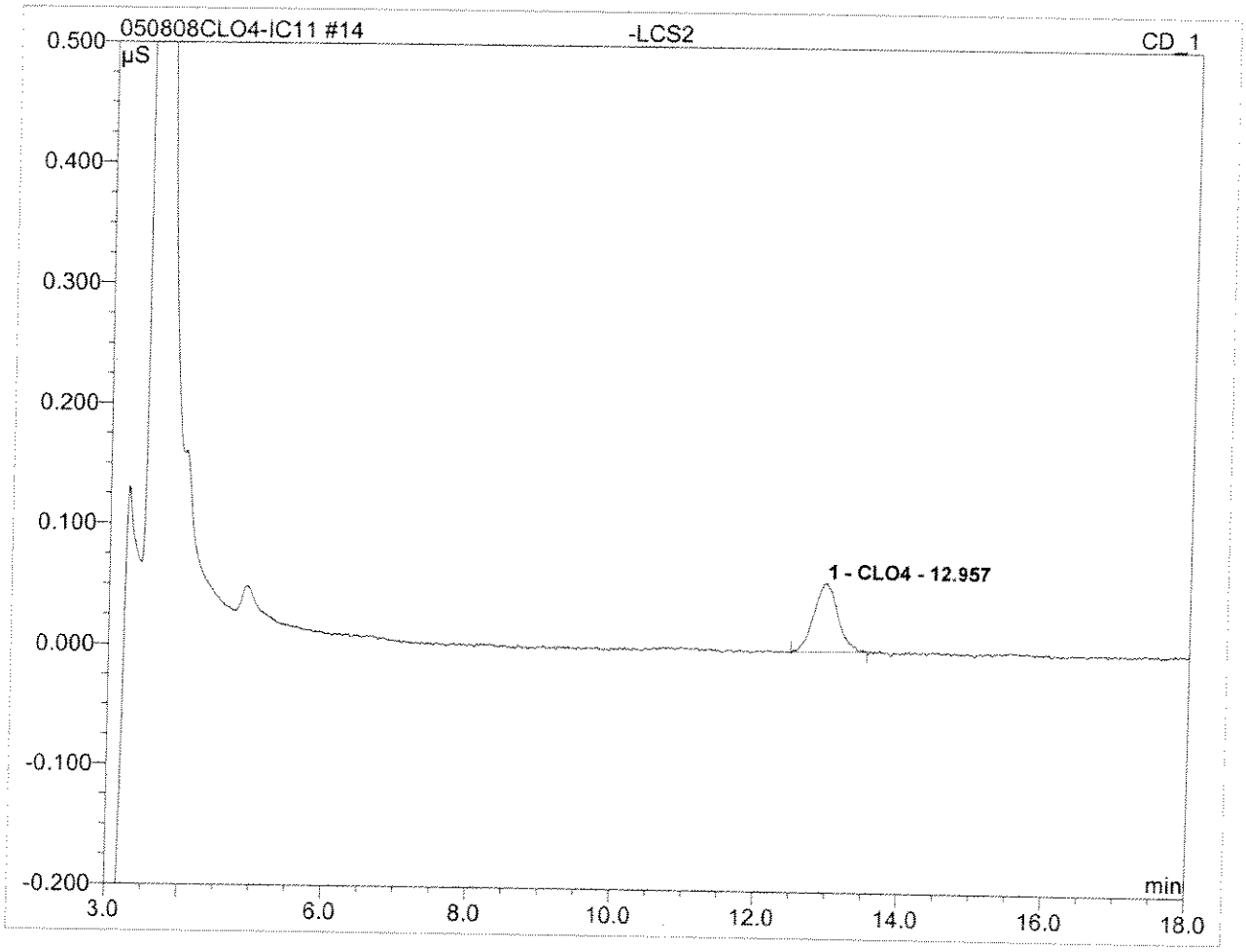


No.	Ret.Time min	Peak Name	Height µS	Area µS*min	Rel.Area %	Amount	Type
1	12.93	CLO4	0.057	0.022	100.00	25.607	BMB
Total:			0.057	0.022	100.00	25.607	

14 -LCS2

25

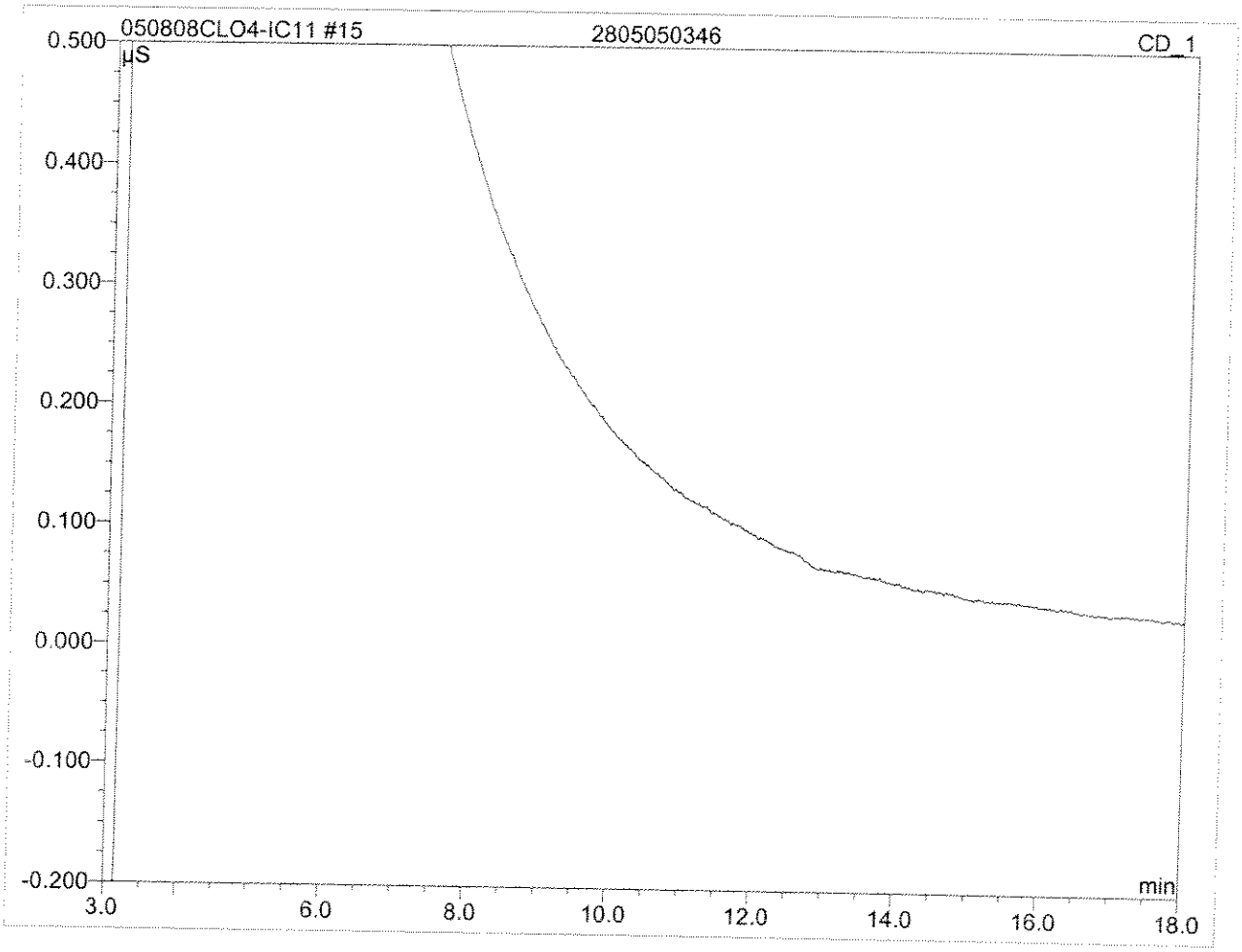
Sample Name:	**-LCS2**	*Channel:*	**CD_1**
Sample Type:	**unknown**	*Control Program:*	**Perchlorate-IC11**
Recording Time:	**05/08/2008 19:55**	*Quantif. Method:*	**IC#4-CLO4-LOW**
Analyst:	**clv**	*Dilution Factor:*	**1.0000**



No.	Ret.Time min	Peak Name	Height µS	Area µS*min	Rel.Area %	Amount	Type
1	12.96	CLO4	0.056	0.022	100.00	25.566	BMB
Total:			0.056	0.022	100.00	25.566	

15 2805050346

Sample Name:	**2805050346**	*Channel:*	**CD_1**
Sample Type:	**unknown**	*Control Program:*	**Perchlorate-IC11**
Recording Time:	**05/08/2008 20:17**	*Quantif. Method:*	**IC#4-CLO4-LOW**
Analyst:	**clv**	*Dilution Factor:*	**1.0000**

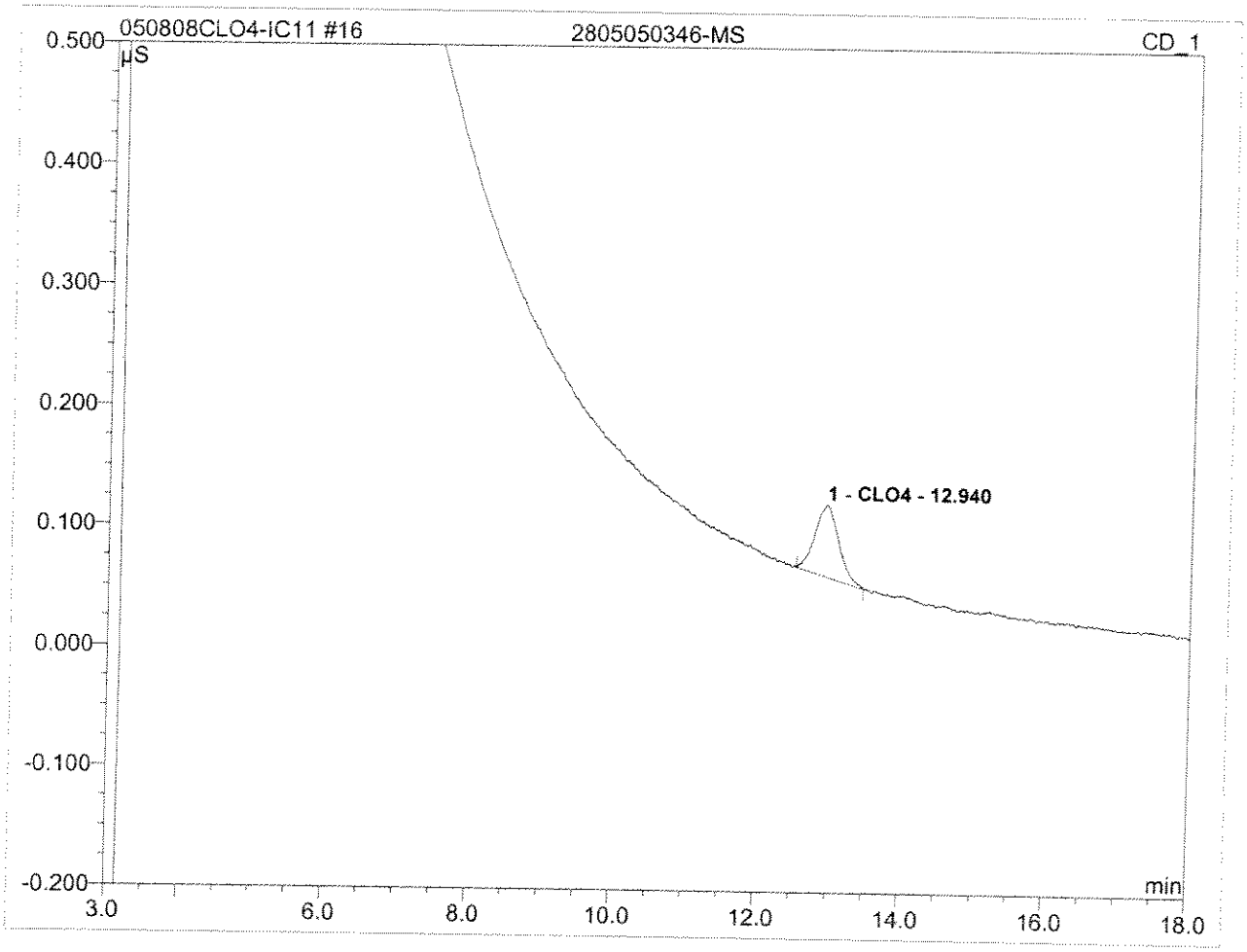


No.	Ret.Time min	Peak Name	Height µS	Area µS*min	Rel.Area %	Amount	Type
Total:			0.000	0.000	0.00	0.000	

16 2805050346-MS

25

Sample Name:	**2805050346-MS**	*Channel:*	**CD_1**
Sample Type:	**unknown**	*Control Program:*	**Perchlorate-IC11**
Recording Time:	**05/08/2008 20:40**	*Quantif. Method:*	**IC#4-CLO4-LOW**
Analyst:	**clv**	*Dilution Factor:*	**1.0000**

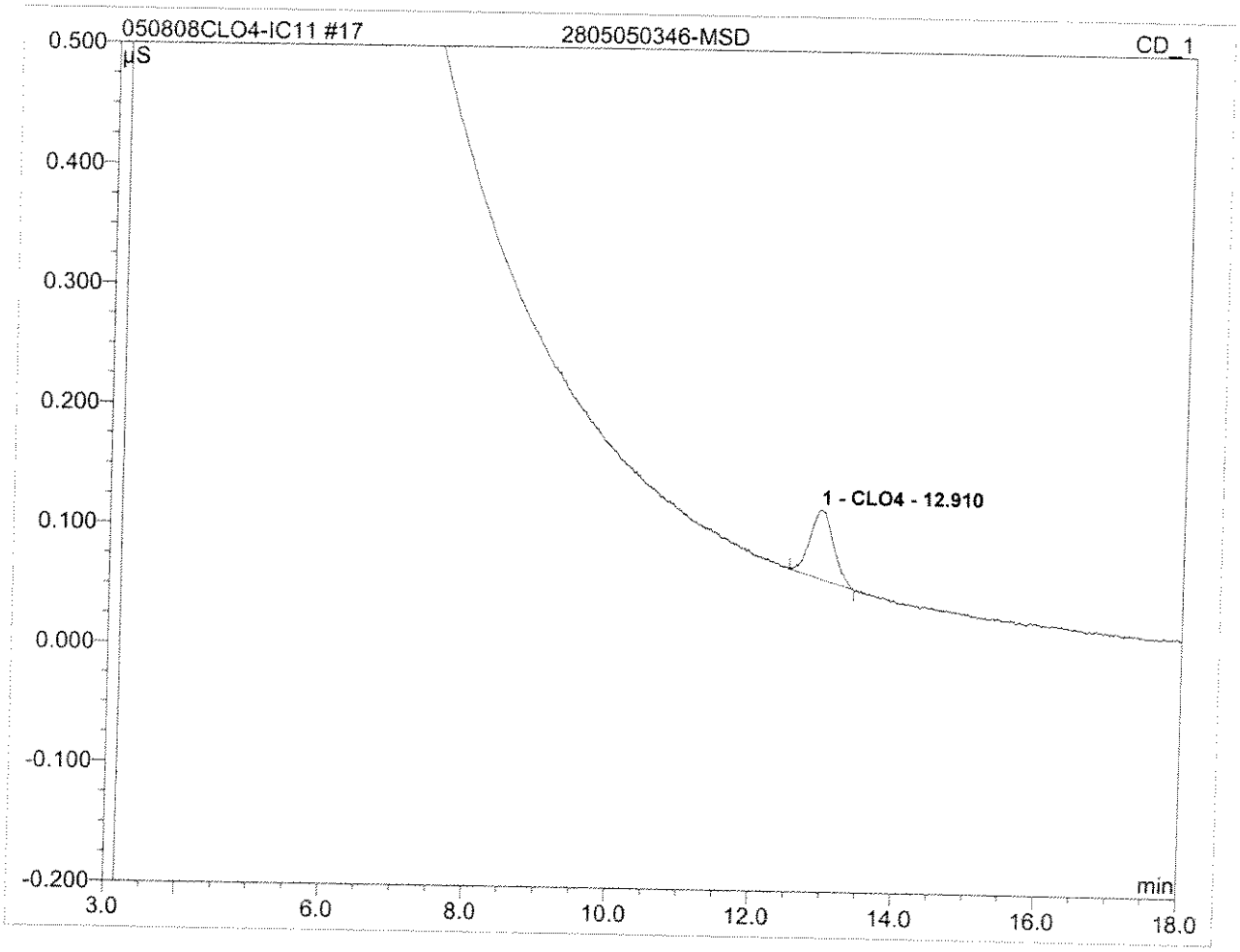


No.	Ret.Time min	Peak Name	Height µS	Area µS*min	Rel.Area %	Amount	Type
1	12.94	CLO4	0.060	0.023	100.00	26.238	BMB
Total:			0.060	0.023	100.00	26.238	

17 2805050346-MSD

25

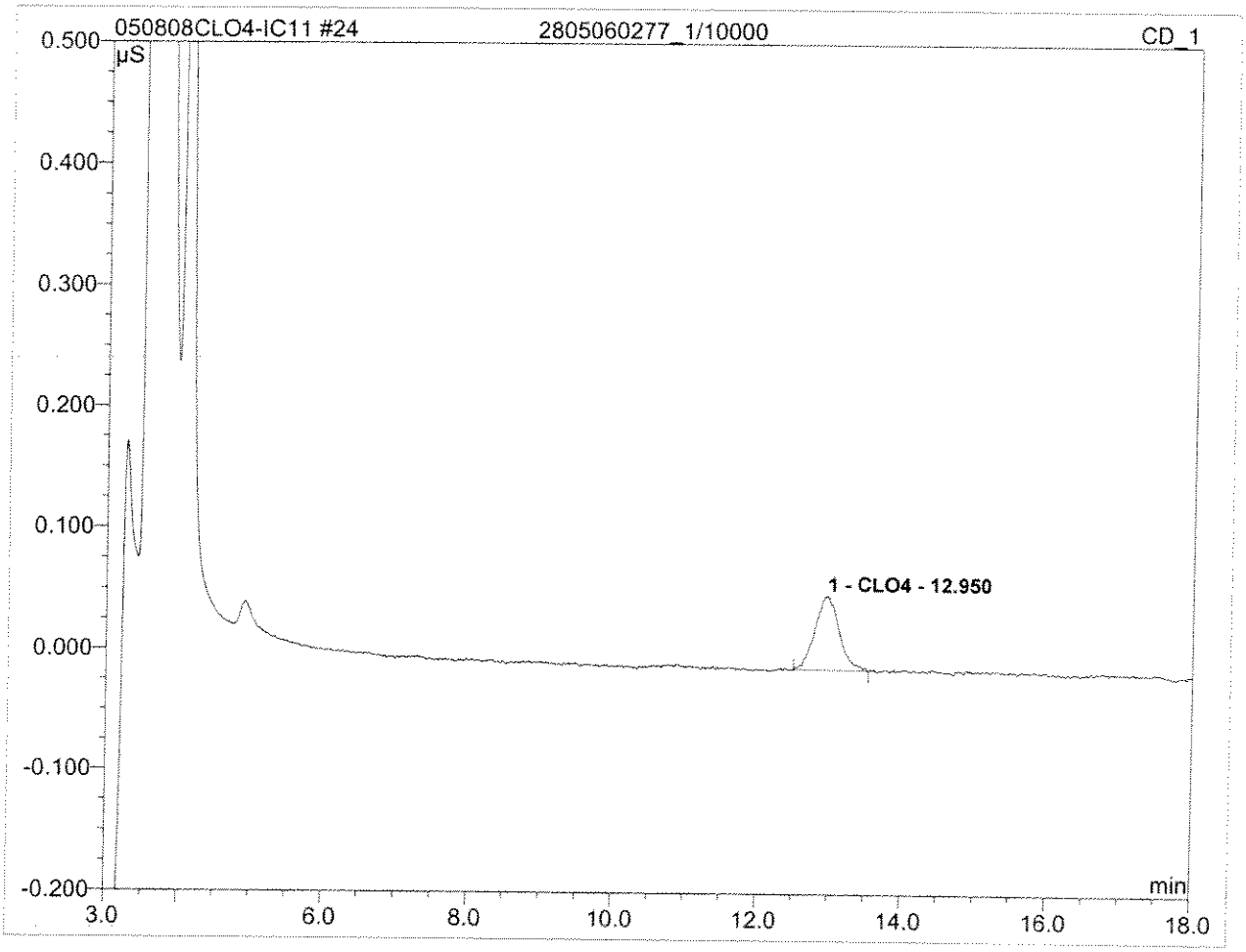
Sample Name:	**2805050346-MSD**	*Channel:*	**CD_1**
Sample Type:	**unknown**	*Control Program:*	**Perchlorate-IC11**
Recording Time:	**05/08/2008 21:02**	*Quantif. Method:*	**IC#4-CLO4-LOW**
Analyst:	**clv**	*Dilution Factor:*	**1.0000**



No.	Ret.Time min	Peak Name	Height µS	Area µS*min	Rel.Area %	Amount	Type
1	12.91	CLO4	0.058	0.022	100.00	25.535	BMB
Total:			0.058	0.022	100.00	25.535	

24 2805060277_1/10000

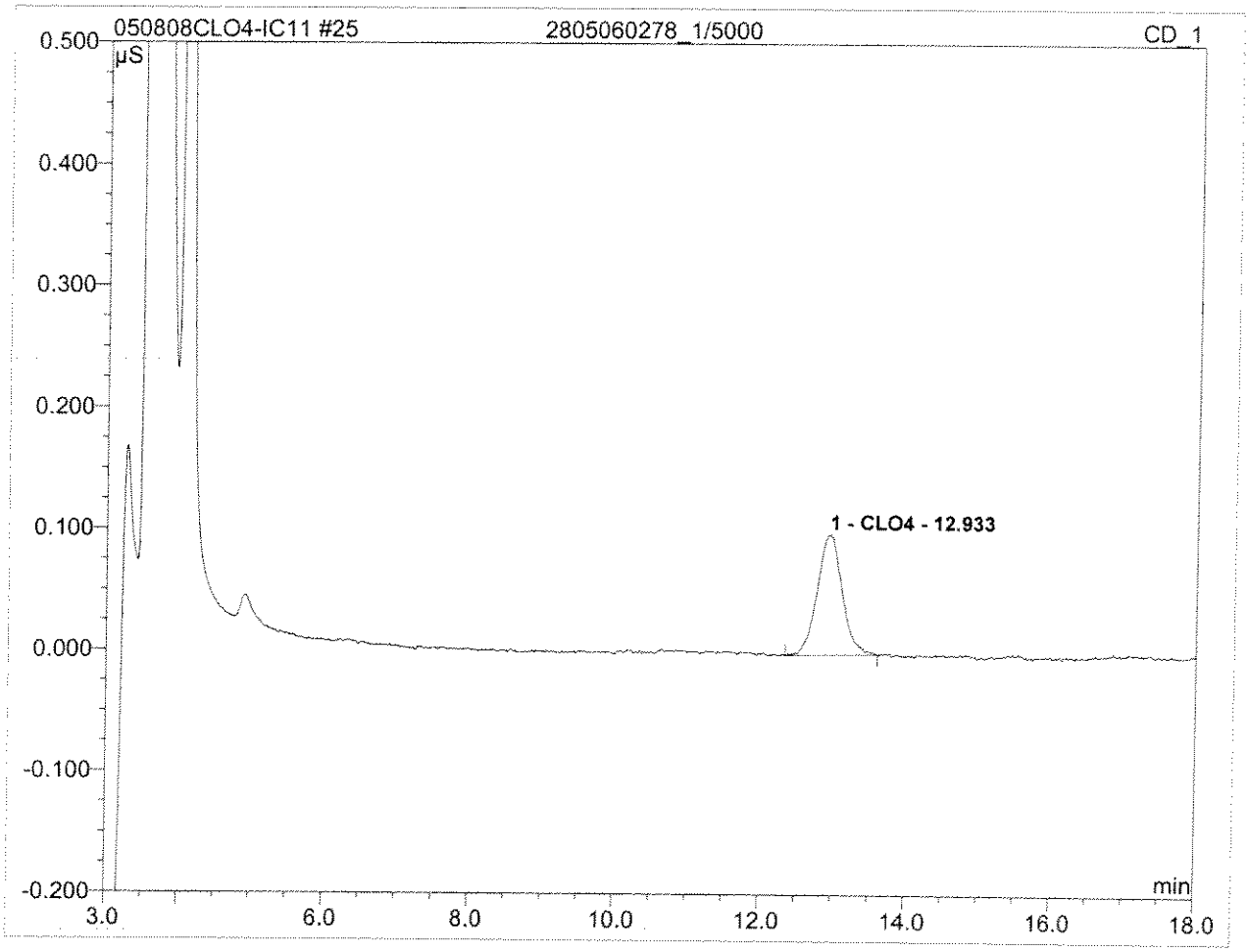
Sample Name:	**2805060277_1/10000**	*Channel:*	**CD_1**
Sample Type:	**unknown**	*Control Program:*	**Perchlorate-IC11**
Recording Time:	**05/08/2008 23:39**	*Quantif. Method:*	**IC#4-CLO4-LOW**
Analyst:	**clv**	*Dilution Factor:*	**10000.0000**



No.	Ret.Time min	Peak Name	Height µS	Area µS*min	Rel.Area %	Amount	Type
1	12.95	CLO4	0.061	0.024	100.00	275644.729	BMB
Total:			0.061	0.024	100.00	275644.729	

25 2805060278_1/5000

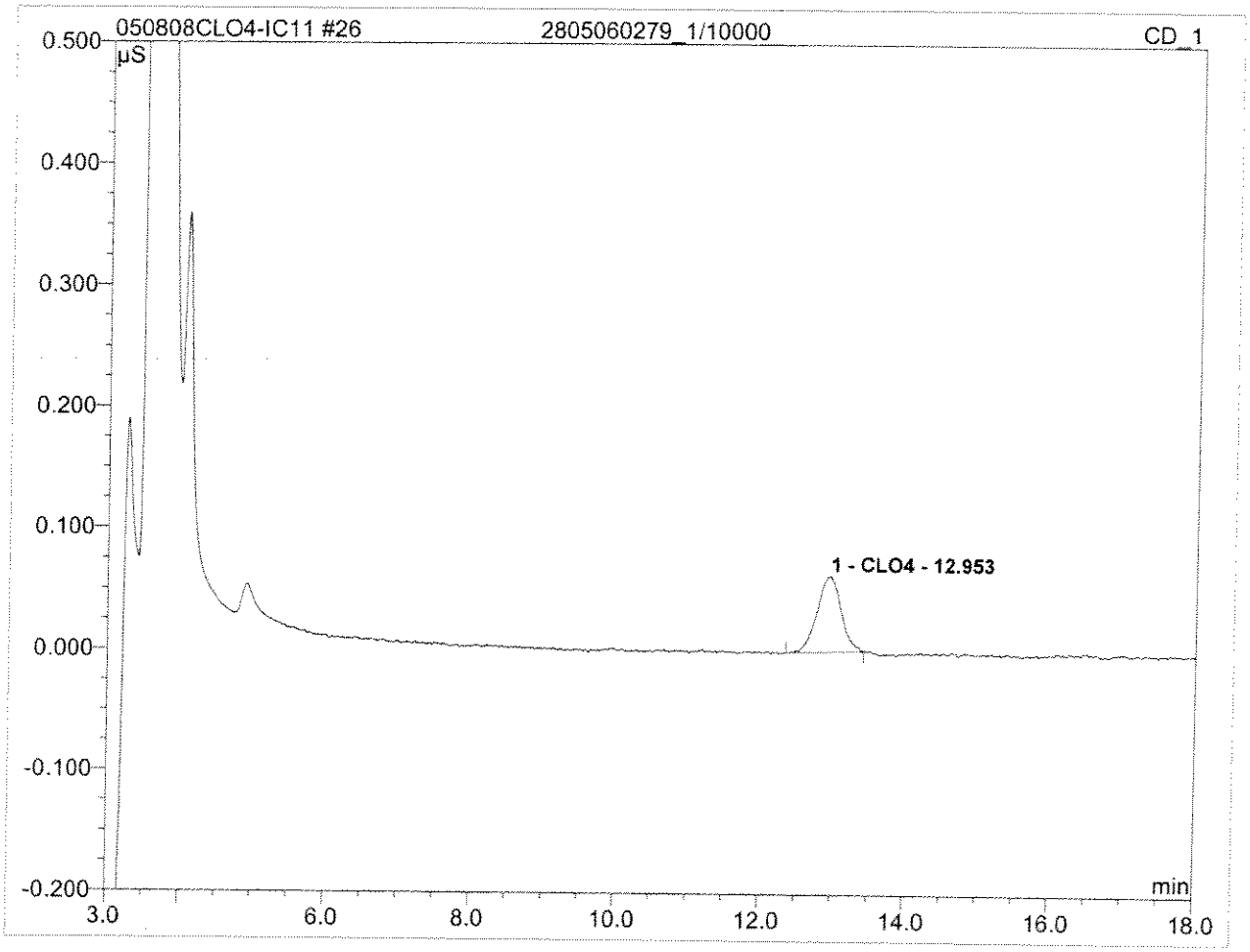
Sample Name:	**2805060278_1/5000**	*Channel:*	**CD_1**
Sample Type:	**unknown**	*Control Program:*	**Perchlorate-IC11**
Recording Time:	**05/09/2008 00:01**	*Quantif. Method:*	**IC#4-CLO4-LOW**
Analyst:	**clv**	*Dilution Factor:*	**5000.0000**



No.	Ret.Time min	Peak Name	Height µS	Area µS*min	Rel.Area %	Amount	Type
1	12.93	CLO4	0.100	0.040	100.00	227096.237	BMB
Total:			0.100	0.040	100.00	227096.237	

26 2805060279_1/10000

Sample Name:	**2805060279_1/10000**	*Channel:*	**CD_1**
Sample Type:	**unknown**	*Control Program:*	**Perchlorate-IC11**
Recording Time:	**05/09/2008 00:24**	*Quantif. Method:*	**IC#4-CLO4-LOW**
Analyst:	**clv**	*Dilution Factor:*	**10000.0000**

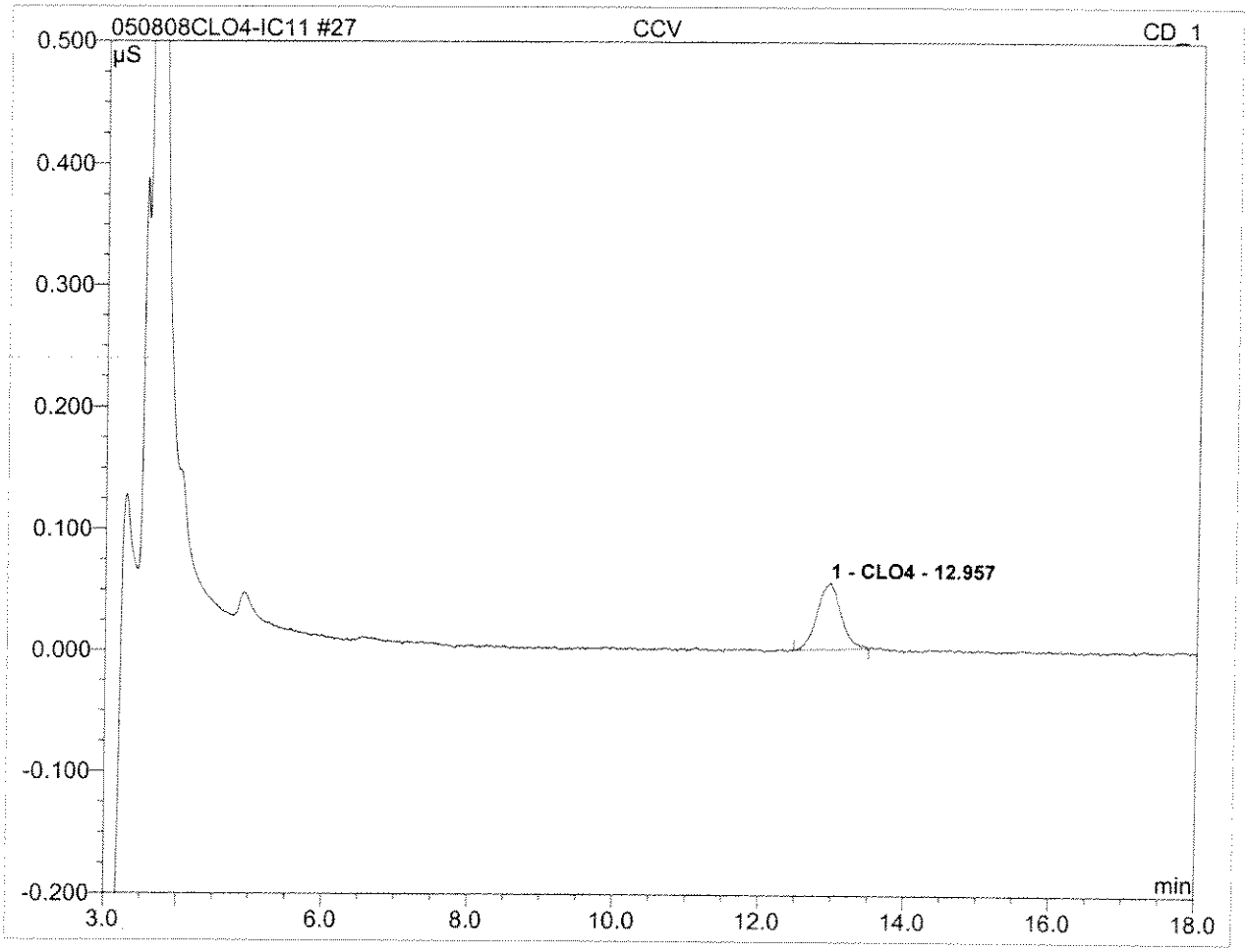


No.	Ret.Time min	Peak Name	Height µS	Area µS*min	Rel.Area %	Amount	Type
1	12.95	CLO4	0.063	0.024	100.00	277570.055	BMB
Total:			0.063	0.024	100.00	277570.055	

27 CCV

25

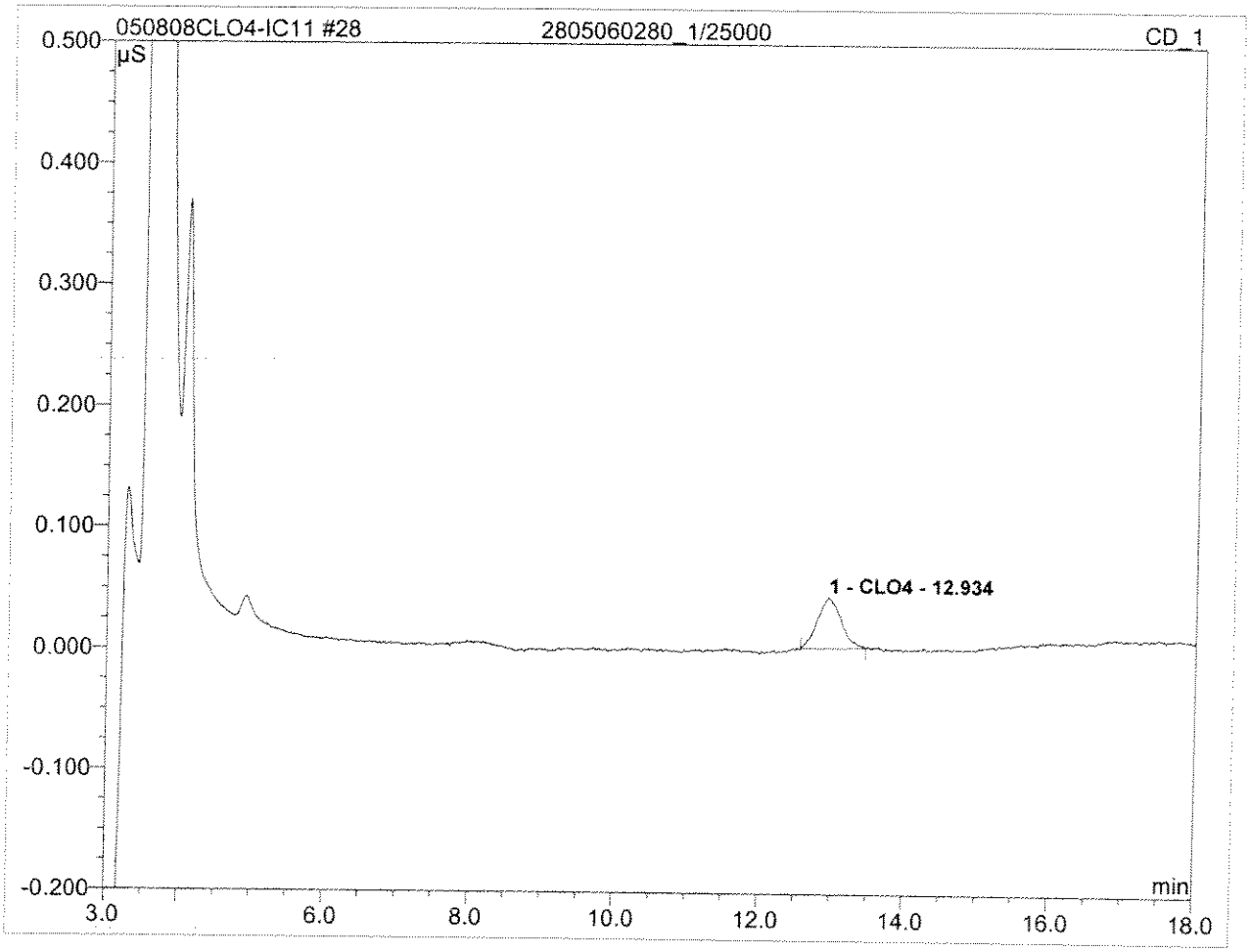
Sample Name:	**CCV**	*Channel:*	**CD_1**
Sample Type:	**unknown**	*Control Program:*	**Perchlorate-IC11**
Recording Time:	**05/09/2008 00:46**	*Quantif. Method:*	**IC#4-CLO4-LOW**
Analyst:	**clv**	*Dilution Factor:*	**1.0000**



No.	Ret.Time min	Peak Name	Height µS	Area µS*min	Rel.Area %	Amount	Type
1	12.96	CLO4	0.055	0.021	100.00	24.271	BMB
Total:			0.055	0.021	100.00	24.271	

28 2805060280_1/25000

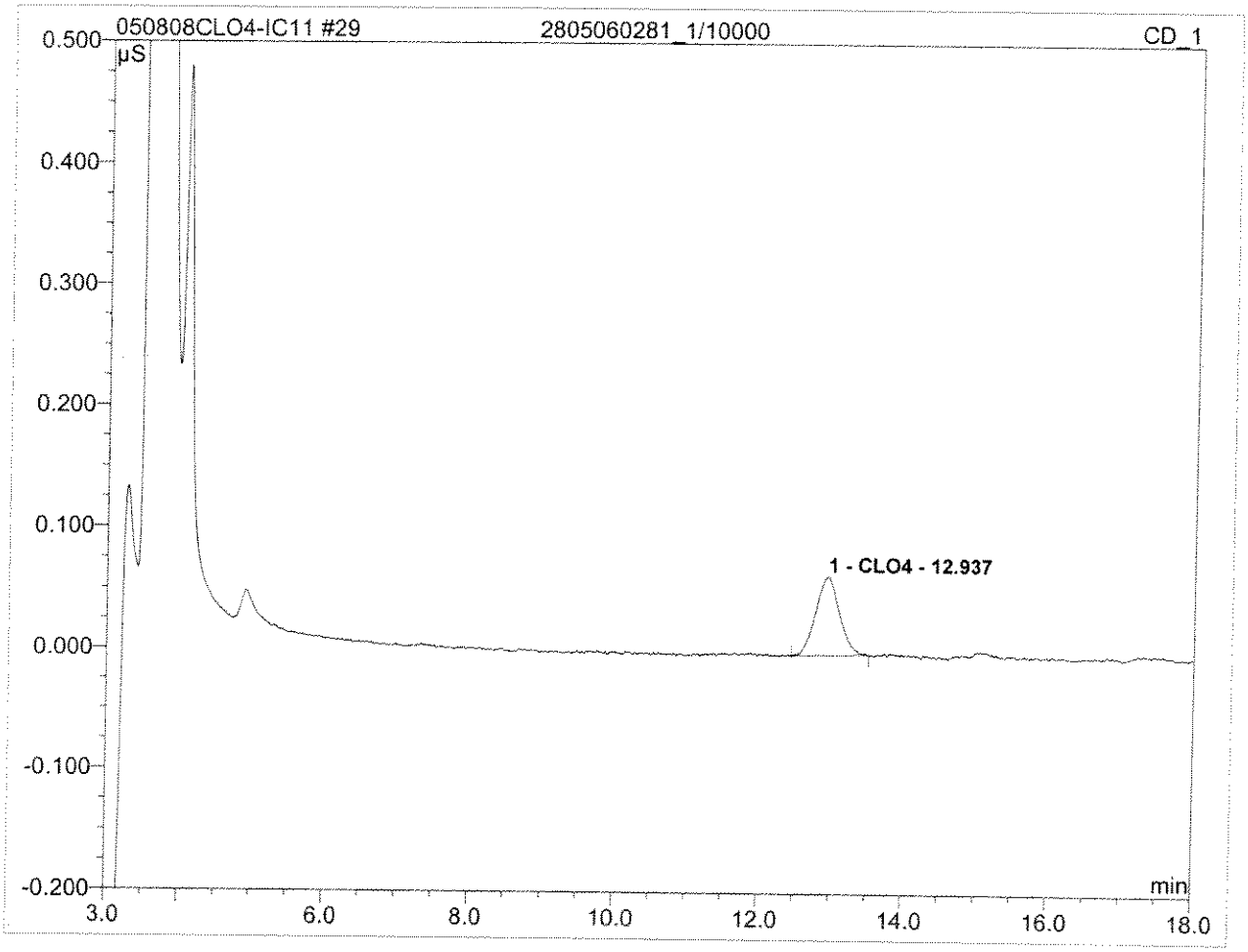
Sample Name:	**2805060280_1/25000**	*Channel:*	**CD_1**
Sample Type:	**unknown**	*Control Program:*	**Perchlorate-IC11**
Recording Time:	**05/09/2008 01:08**	*Quantif. Method:*	**IC#4-CLO4-LOW**
Analyst:	**clv**	*Dilution Factor:*	**25000.0000**



No.	Ret.Time min	Peak Name	Height µS	Area µS*min	Rel.Area %	Amount	Type
1	12.93	CLO4	0.042	0.016	100.00	464479.090	BMB
Total:			0.042	0.016	100.00	464479.090	

29 2805060281_1/10000

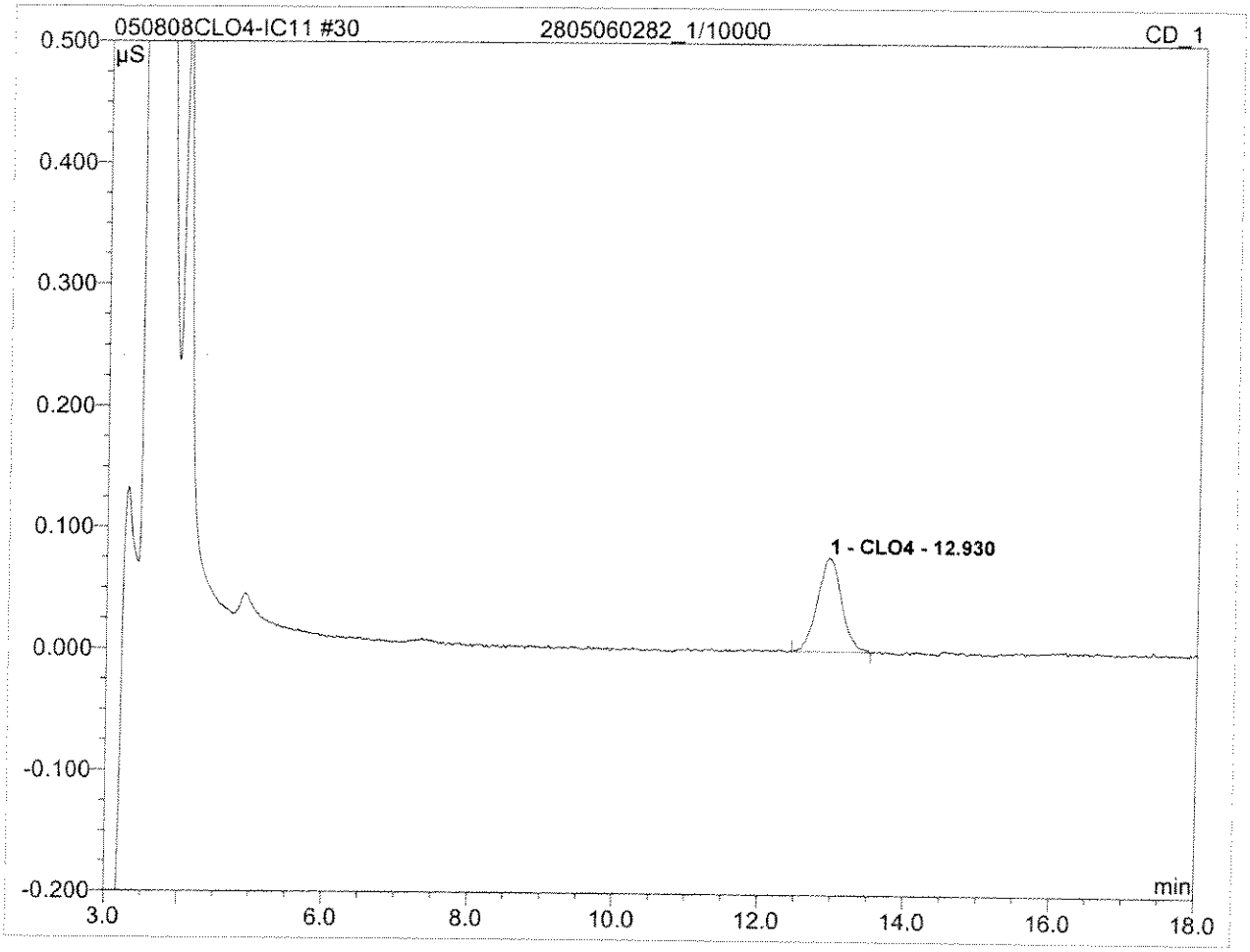
Sample Name:	**2805060281_1/10000**	*Channel:*	**CD_1**
Sample Type:	**unknown**	*Control Program:*	**Perchlorate-IC11**
Recording Time:	**05/09/2008 01:31**	*Quantif. Method:*	**IC#4-CLO4-LOW**
Analyst:	**clv**	*Dilution Factor:*	**10000.0000**



No.	Ret.Time min	Peak Name	Height µS	Area µS*min	Rel.Area %	Amount	Type
1	12.94	CLO4	0.065	0.025	100.00	286396.410	BMB
Total:			0.065	0.025	100.00	286396.410	

30 2805060282_1/10000

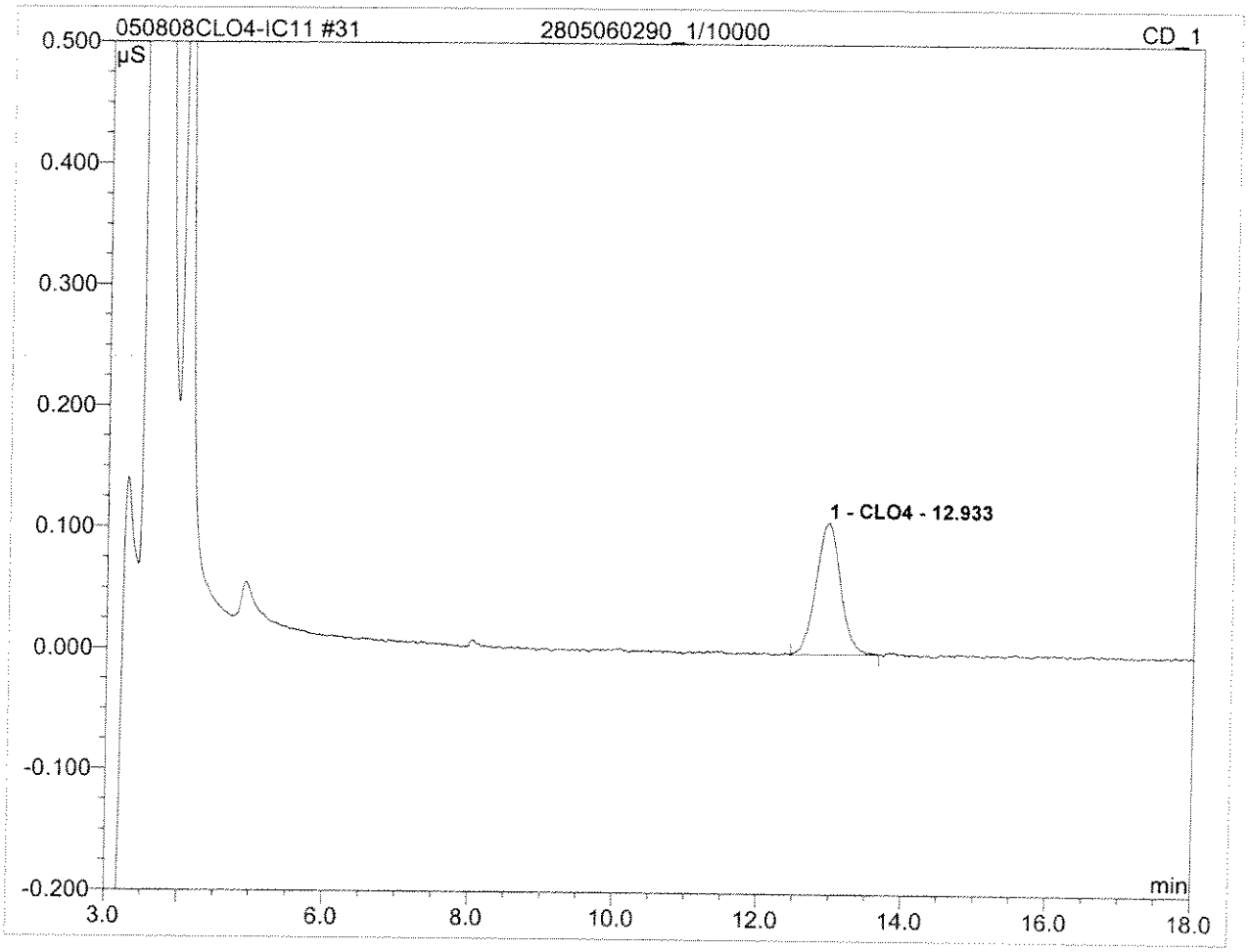
Sample Name:	**2805060282_1/10000**	*Channel:*	**CD_1**
Sample Type:	**unknown**	*Control Program:*	**Perchlorate-IC11**
Recording Time:	**05/09/2008 01:53**	*Quantif. Method:*	**IC#4-CLO4-LOW**
Analyst:	**clv**	*Dilution Factor:*	**10000.0000**



No.	Ret.Time min	Peak Name	Height µS	Area µS*min	Rel.Area %	Amount	Type
1	12.93	CLO4	0.077	0.030	100.00	343032.637	BMB
Total:			0.077	0.030	100.00	343032.637	

31 2805060290_1/10000

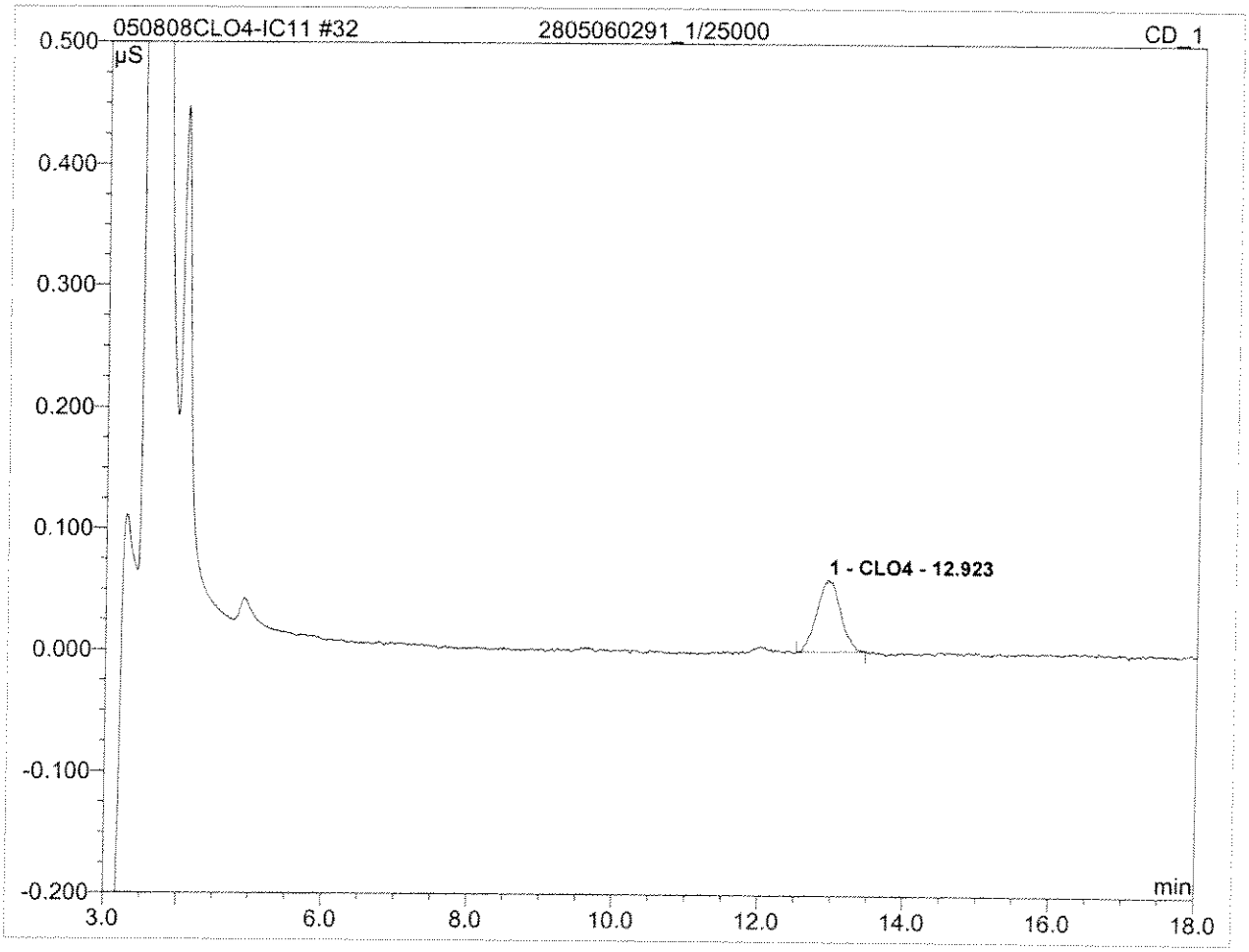
Sample Name:	**2805060290_1/10000**	*Channel:*	**CD_1**
Sample Type:	**unknown**	*Control Program:*	**Perchlorate-IC11**
Recording Time:	**05/09/2008 02:16**	*Quantif. Method:*	**IC#4-CLO4-LOW**
Analyst:	**clv**	*Dilution Factor:*	**10000.0000**



No.	Ret.Time min	Peak Name	Height µS	Area µS*min	Rel.Area %	Amount	Type
1	12.93	CLO4	0.108	0.043	100.00	486739.646	BMB
Total:			0.108	0.043	100.00	486739.646	

32 2805060291_1/25000

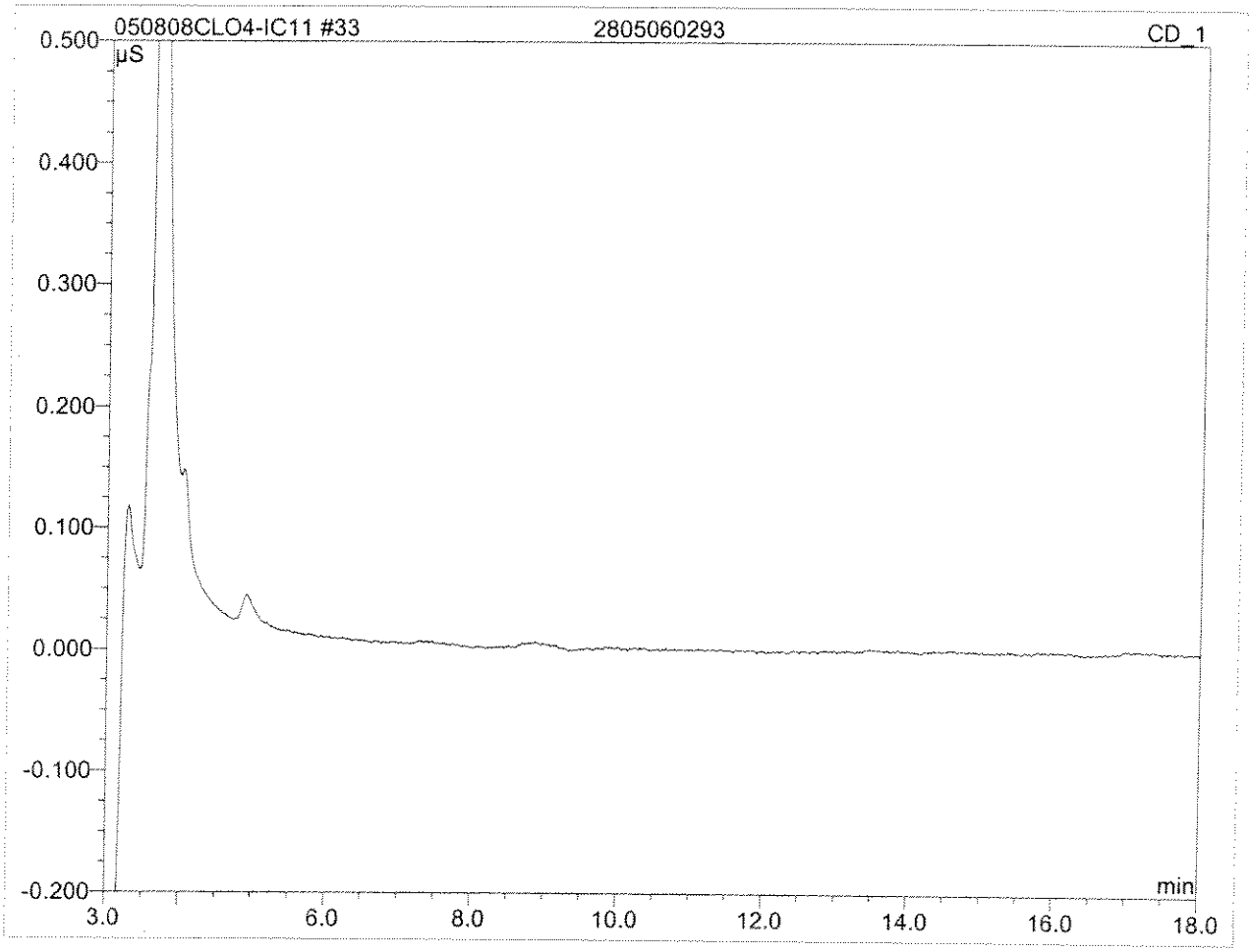
Sample Name:	**2805060291_1/25000**	*Channel:*	**CD_1**
Sample Type:	**unknown**	*Control Program:*	**Perchlorate-IC11**
Recording Time:	**05/09/2008 02:38**	*Quantif. Method:*	**IC#4-CLO4-LOW**
Analyst:	**clv**	*Dilution Factor:*	**25000.0000**



No.	Ret.Time min	Peak Name	Height µS	Area µS*min	Rel.Area %	Amount	Type
1	12.92	CLO4	0.060	0.022	100.00	644358.856	BMB
Total:			0.060	0.022	100.00	644358.856	

33 2805060293

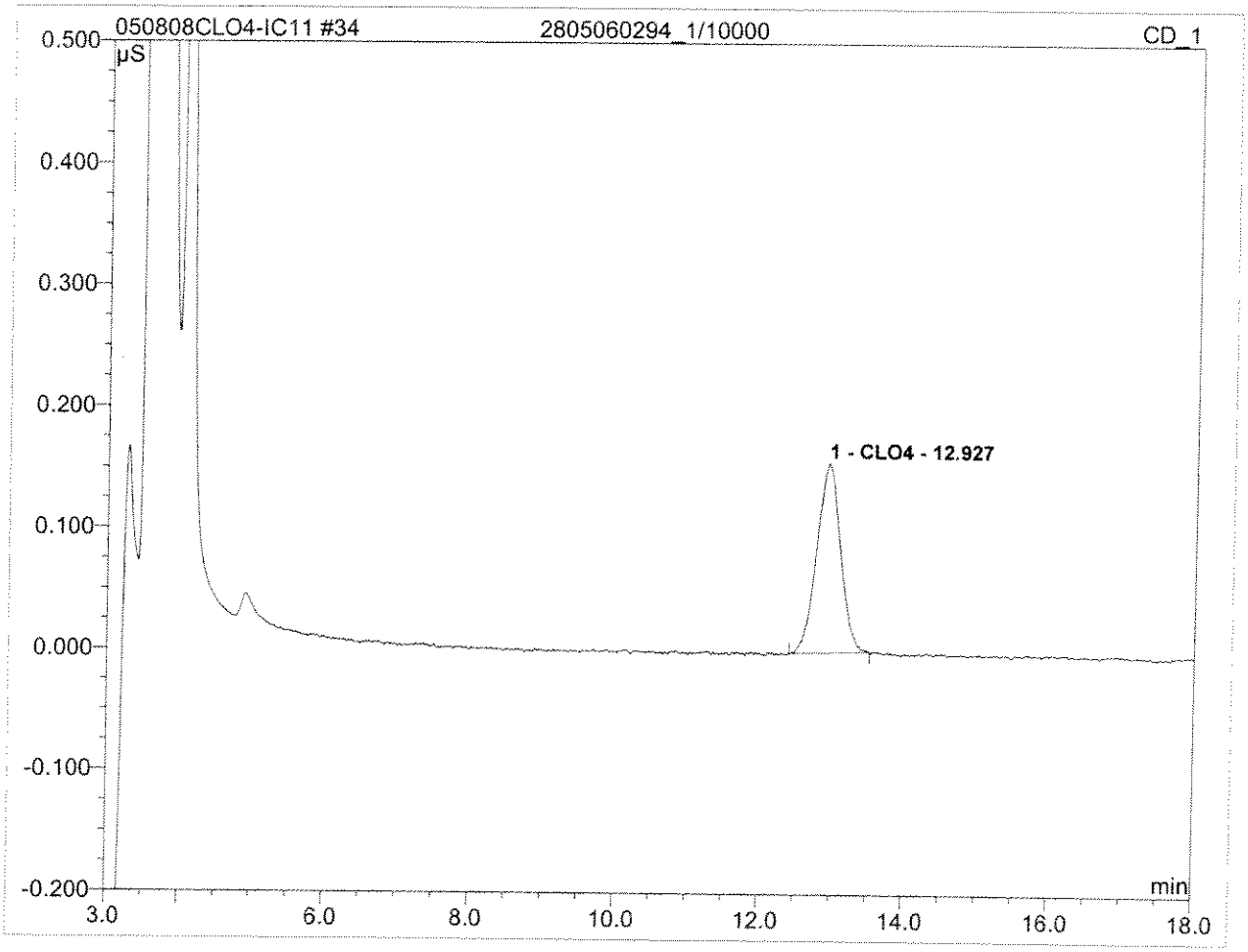
Sample Name:	**2805060293**	*Channel:*	**CD_1**
Sample Type:	**unknown**	*Control Program:*	**Perchlorate-IC11**
Recording Time:	**05/09/2008 03:00**	*Quantif. Method:*	**IC#4-CLO4-LOW**
Analyst:	**clv**	*Dilution Factor:*	**1.0000**



No.	Ret.Time min	Peak Name	Height µS	Area µS*min	Rel.Area %	Amount	Type
Total:			0.000	0.000	0.00	0.000	

34 2805060294_1/10000

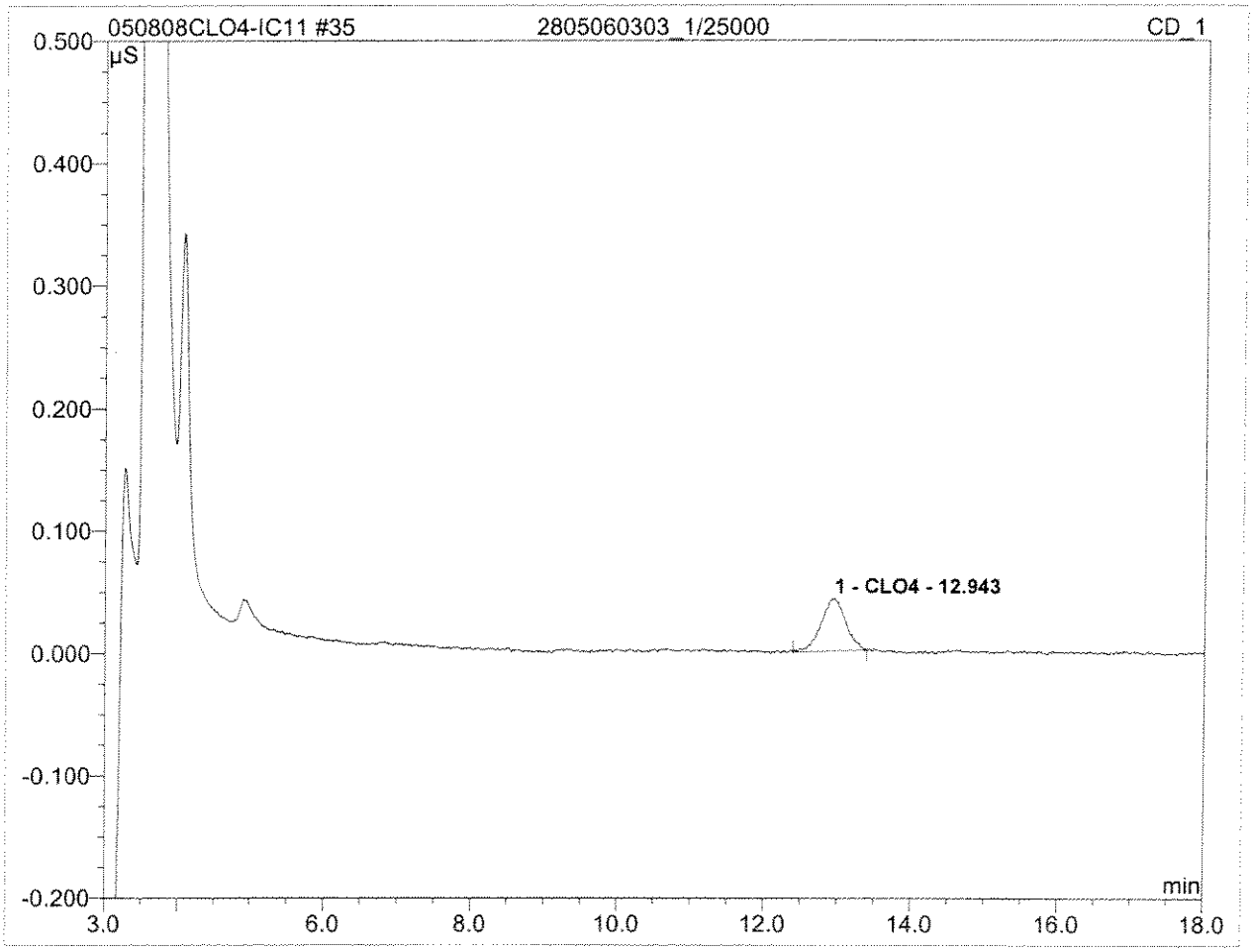
Sample Name:	**2805060294_1/10000**	*Channel:*	**CD_1**
Sample Type:	**unknown**	*Control Program:*	**Perchlorate-IC11**
Recording Time:	**05/09/2008 03:23**	*Quantif. Method:*	**IC#4-CLO4-LOW**
Analyst:	**clv**	*Dilution Factor:*	**10000.0000**



No.	Ret.Time min	Peak Name	Height µS	Area µS*min	Rel.Area %	Amount	Type
1	12.93	CLO4	0.156	0.060	100.00	673949.773	BMB
Total:			0.156	0.060	100.00	673949.773	

35 2805060303_1/25000

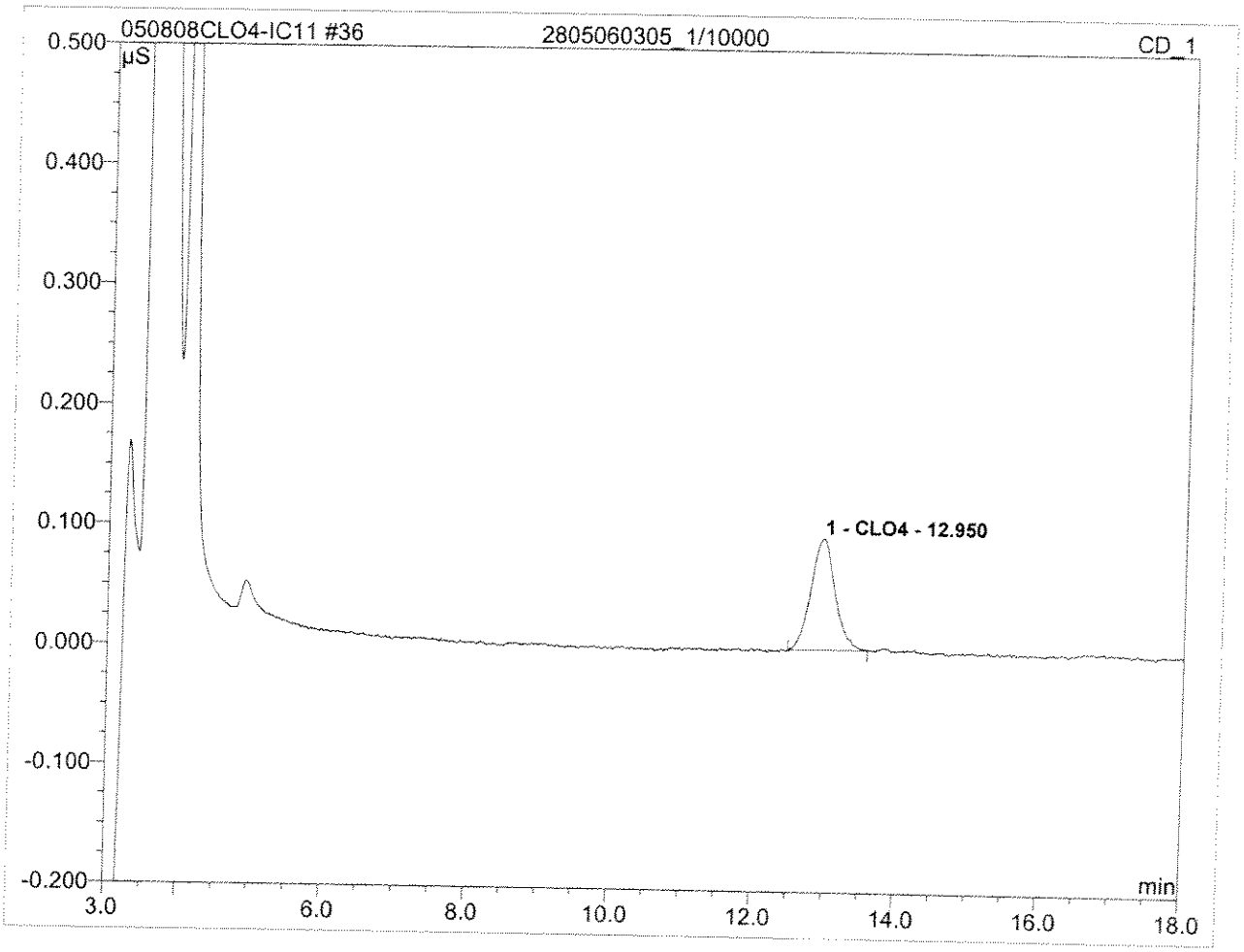
Sample Name:	**2805060303_1/25000**	*Channel:*	**CD_1**
Sample Type:	**unknown**	*Control Program:*	**Perchlorate-IC11**
Recording Time:	**05/09/2008 03:45**	*Quantif. Method:*	**IC#4-CLO4-LOW**
Analyst:	**clv**	*Dilution Factor:*	**25000.0000**



No.	Ret.Time min	Peak Name	Height µS	Area µS*min	Rel.Area %	Amount	Type
1	12.94	CLO4	0.043	0.017	100.00	482838.337	BMB
Total:			0.043	0.017	100.00	482838.337	

36 2805060305_1/10000

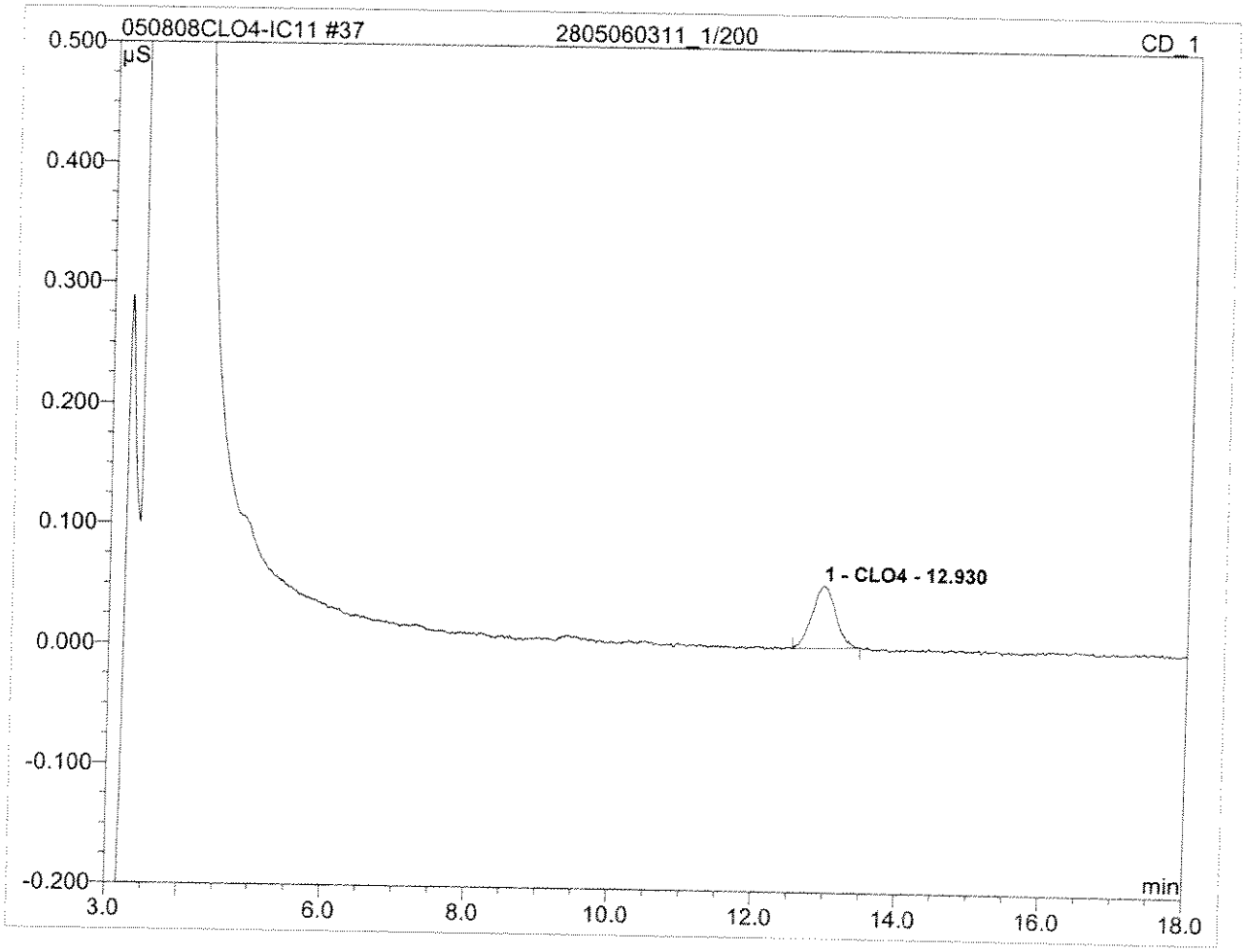
Sample Name:	**2805060305_1/10000**	*Channel:*	**CD_1**
Sample Type:	**unknown**	*Control Program:*	**Perchlorate-IC11**
Recording Time:	**05/09/2008 04:08**	*Quantif. Method:*	**IC#4-CLO4-LOW**
Analyst:	**clv**	*Dilution Factor:*	**10000.0000**



No.	Ret.Time min	Peak Name	Height µS	Area µS*min	Rel.Area %	Amount	Type
1	12.95	CLO4	0.093	0.036	100.00	415127.810	BMB
Total:			0.093	0.036	100.00	415127.810	

37 2805060311_1/200

Sample Name:	**2805060311_1/200**	*Channel:*	**CD_1**
Sample Type:	**unknown**	*Control Program:*	**Perchlorate-IC11**
Recording Time:	**05/09/2008 04:30**	*Quantif. Method:*	**IC#4-CLO4-LOW**
Analyst:	**clv**	*Dilution Factor:*	**200.0000**

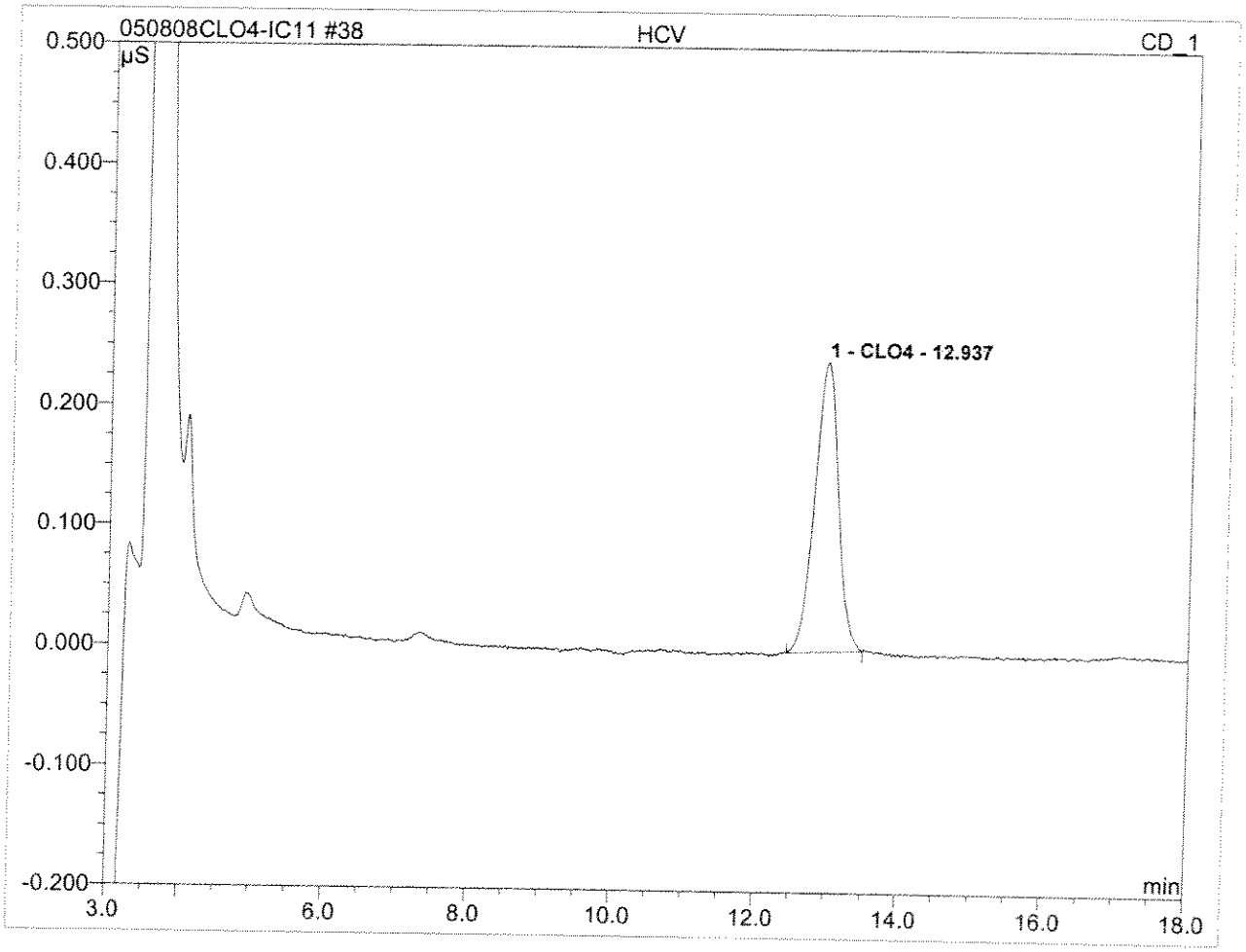


No.	Ret.Time min	Peak Name	Height µS	Area µS*min	Rel.Area %	Amount	Type
1	12.93	CLO4	0.052	0.020	100.00	4535.170	BMB
Total:			0.052	0.020	100.00	4535.170	

38 HCV

100

Sample Name:	**HCV**	*Channel:*	**CD_1**
Sample Type:	**unknown**	*Control Program:*	**Perchlorate-IC11**
Recording Time:	**05/09/2008 04:52**	*Quantif. Method:*	**IC#4-CLO4-LOW**
Analyst:	**clv**	*Dilution Factor:*	**1.0000**

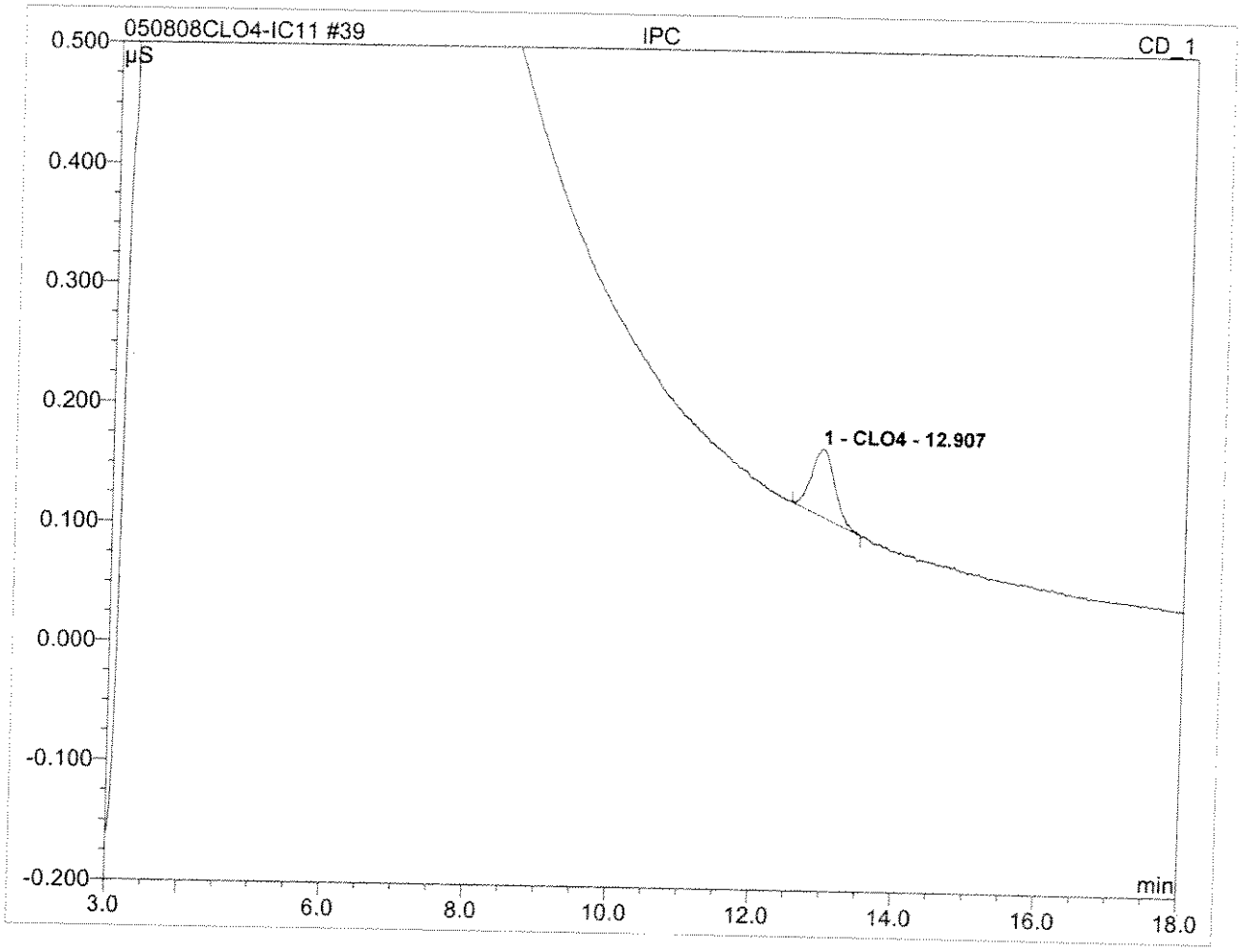


No.	Ret.Time min	Peak Name	Height µS	Area µS*min	Rel.Area %	Amount	Type
1	12.94	CLO4	0.241	0.092	100.00	103.526	BMB
Total:			0.241	0.092	100.00	103.526	

39 IPC

25

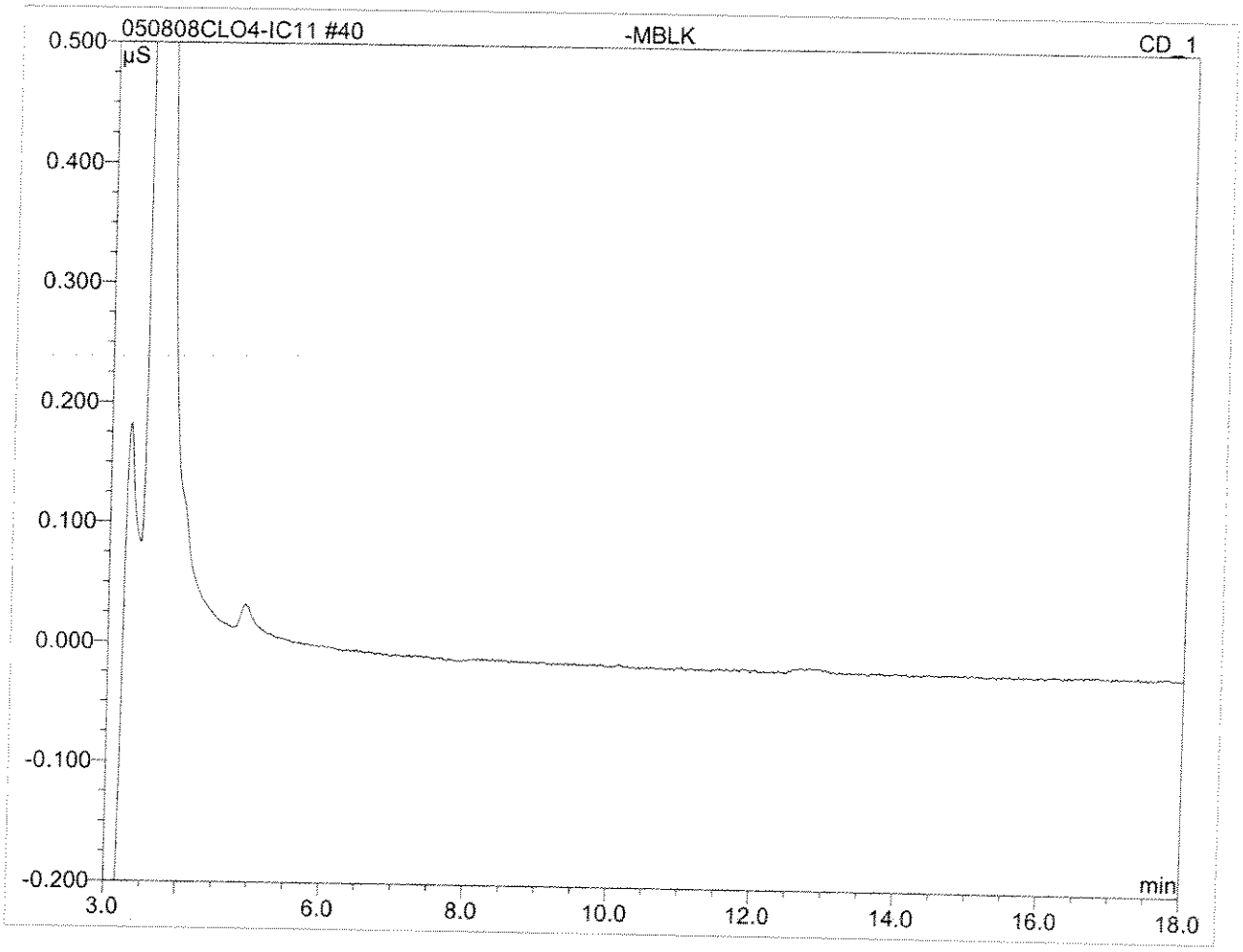
Sample Name:	**IPC**	*Channel:*	**CD_1**
Sample Type:	**unknown**	*Control Program:*	**Perchlorate-IC11**
Recording Time:	**05/09/2008 05:15**	*Quantif. Method:*	**IC#4-CLO4-LOW**
Analyst:	**clv**	*Dilution Factor:*	**1.0000**



No.	Ret.Time min	Peak Name	Height µS	Area µS*min	Rel.Area %	Amount	Type
1	12.91	CLO4	0.056	0.022	100.00	24.830	BMB
Total:			0.056	0.022	100.00	24.830	

40 -MBLK

Sample Name:	**-MBLK**	*Channel:*	**CD_1**
Sample Type:	**unknown**	*Control Program:*	**Perchlorate-IC11**
Recording Time:	**05/09/2008 05:37**	*Quantif. Method:*	**IC#4-CLO4-LOW**
Analyst:	**clv**	*Dilution Factor:*	**1.0000**

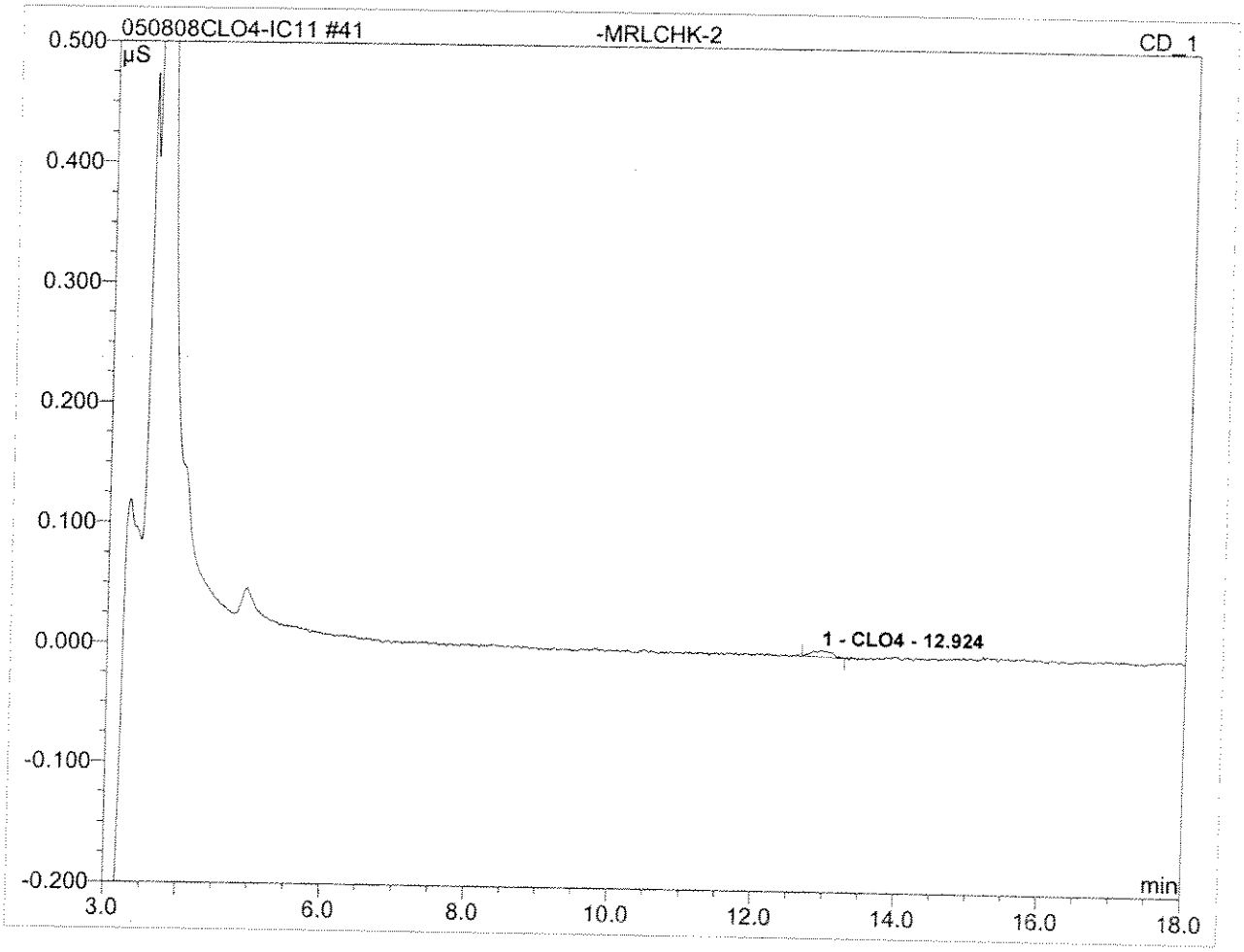


No.	Ret.Time min	Peak Name	Height µS	Area µS*min	Rel.Area %	Amount	Type
Total:			0.000	0.000	0.00	0.000	

41 -MRLCHK-2

2

Sample Name:	**-MRLCHK-2**	*Channel:*	**CD_1**
Sample Type:	**unknown**	*Control Program:*	**Perchlorate-IC11**
Recording Time:	**05/09/2008 05:59**	*Quantif. Method:*	**IC#4-CLO4-LOW**
Analyst:	**clv**	*Dilution Factor:*	**1.0000**

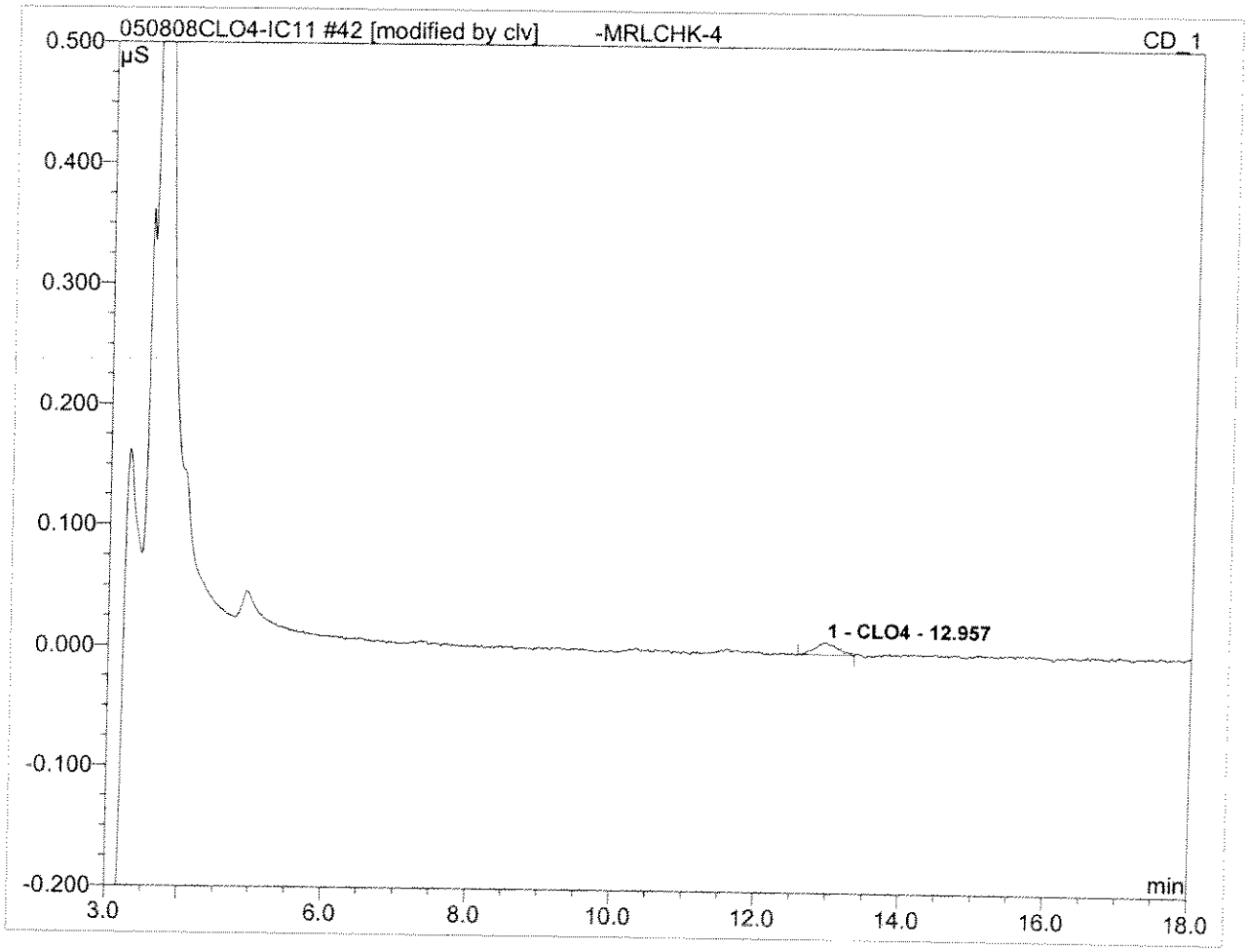


No.	Ret.Time min	Peak Name	Height µS	Area µS*min	Rel.Area %	Amount	Type
1	12.92	CLO4	0.006	0.002	100.00	2.700	BMB
Total:			0.006	0.002	100.00	2.700	

42 -MRLCHK-4

4

Sample Name:	**-MRLCHK-4**	*Channel:*	**CD_1**
Sample Type:	**unknown**	*Control Program:*	**Perchlorate-IC11**
Recording Time:	**05/09/2008 06:22**	*Quantif. Method:*	**IC#4-CLO4-LOW**
Analyst:	**clv**	*Dilution Factor:*	**1.0000**

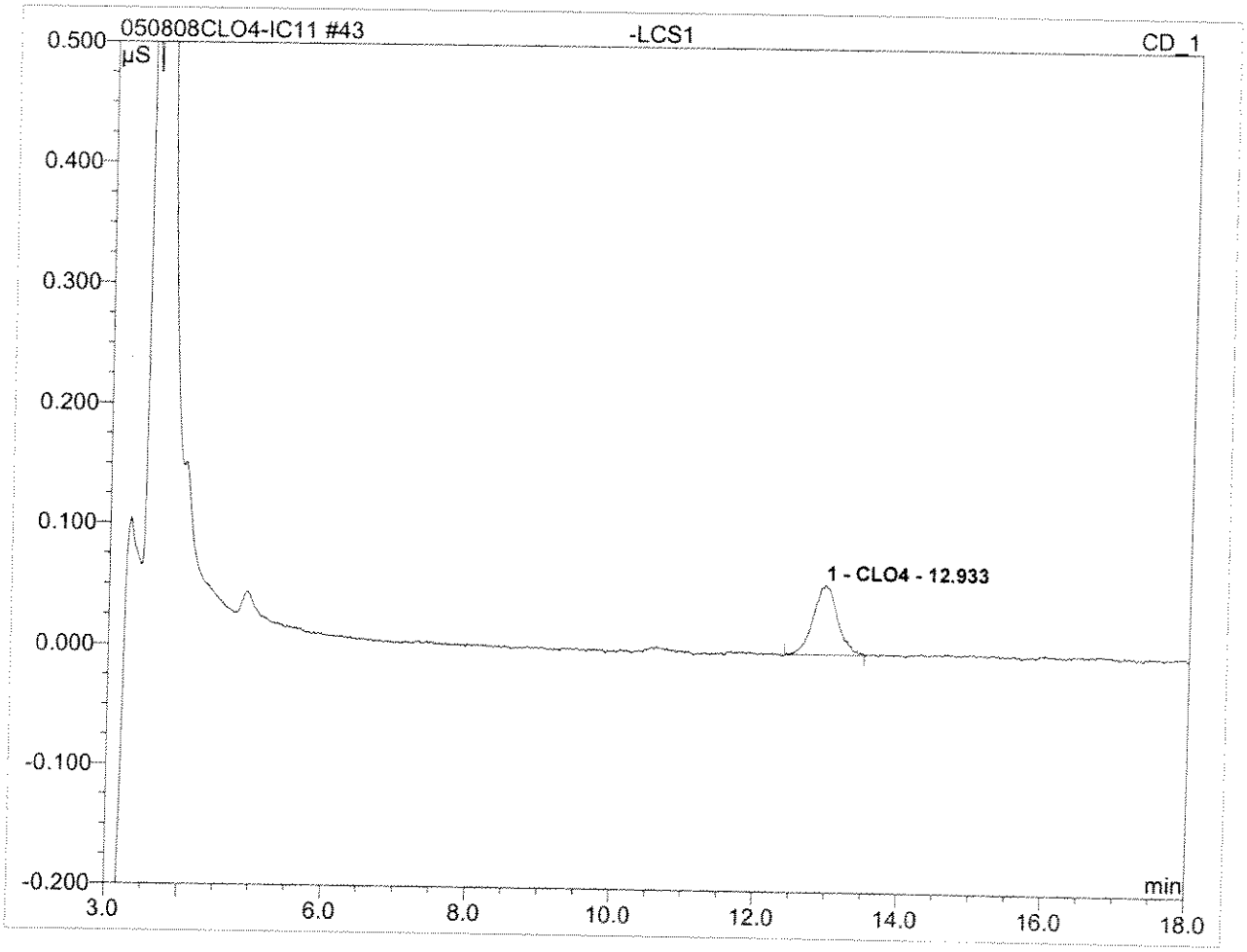


No.	Ret.Time min	Peak Name	Height µS	Area µS*min	Rel.Area %	Amount	Type
1	12.96	CLO4	0.010	0.004	100.00	4.722	BMB*
Total:			0.010	0.004	100.00	4.722	

43 -LCS1

25

Sample Name:	**-LCS1**	*Channel:*	**CD_1**
Sample Type:	**unknown**	*Control Program:*	**Perchlorate-IC11**
Recording Time:	**05/09/2008 06:44**	*Quantif. Method:*	**IC#4-CLO4-LOW**
Analyst:	**clv**	*Dilution Factor:*	**1.0000**

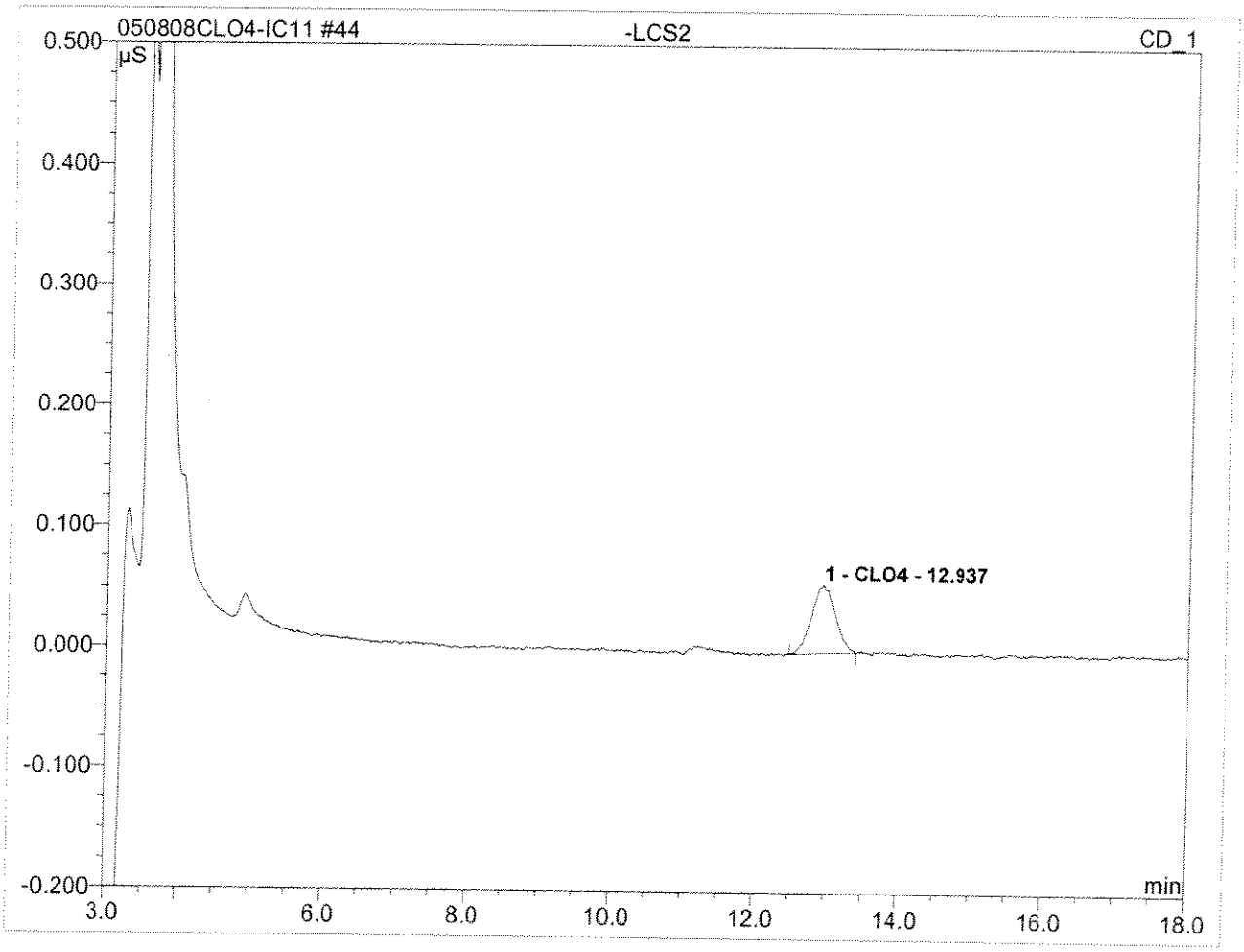


No.	Ret.Time min	Peak Name	Height µS	Area µS*min	Rel.Area %	Amount	Type
1	12.93	CLO4	0.058	0.023	100.00	26.083	BMB
Total:			0.058	0.023	100.00	26.083	

44 -LCS2

25

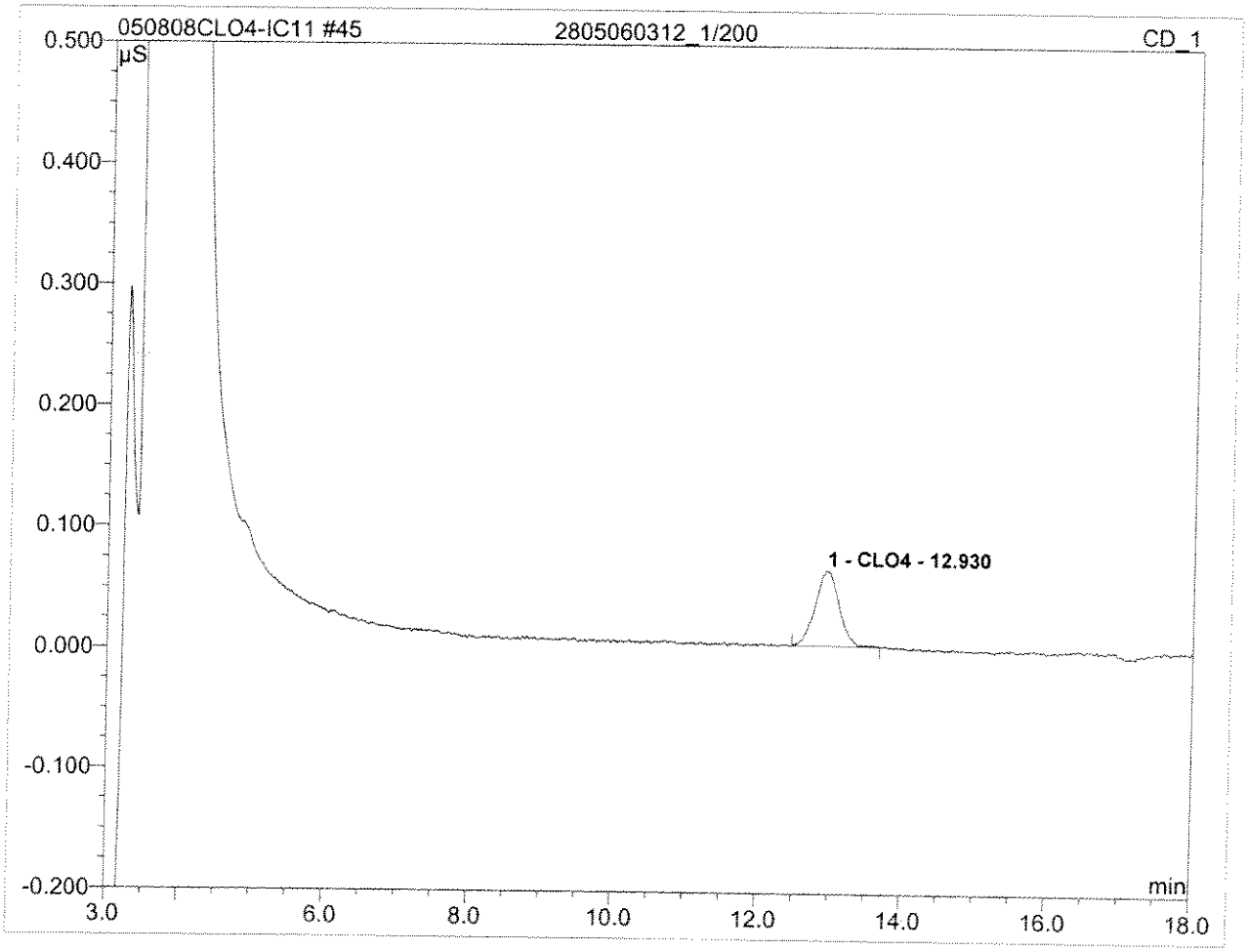
Sample Name:	**-LCS2**	*Channel:*	**CD_1**
Sample Type:	**unknown**	*Control Program:*	**Perchlorate-IC11**
Recording Time:	**05/09/2008 07:07**	*Quantif. Method:*	**IC#4-CLO4-LOW**
Analyst:	**clv**	*Dilution Factor:*	**1.0000**



No.	Ret.Time min	Peak Name	Height µS	Area µS*min	Rel.Area %	Amount	Type
1	12.94	CLO4	0.057	0.022	100.00	24.763	BMB
Total:			0.057	0.022	100.00	24.763	

45 2805060312_1/200

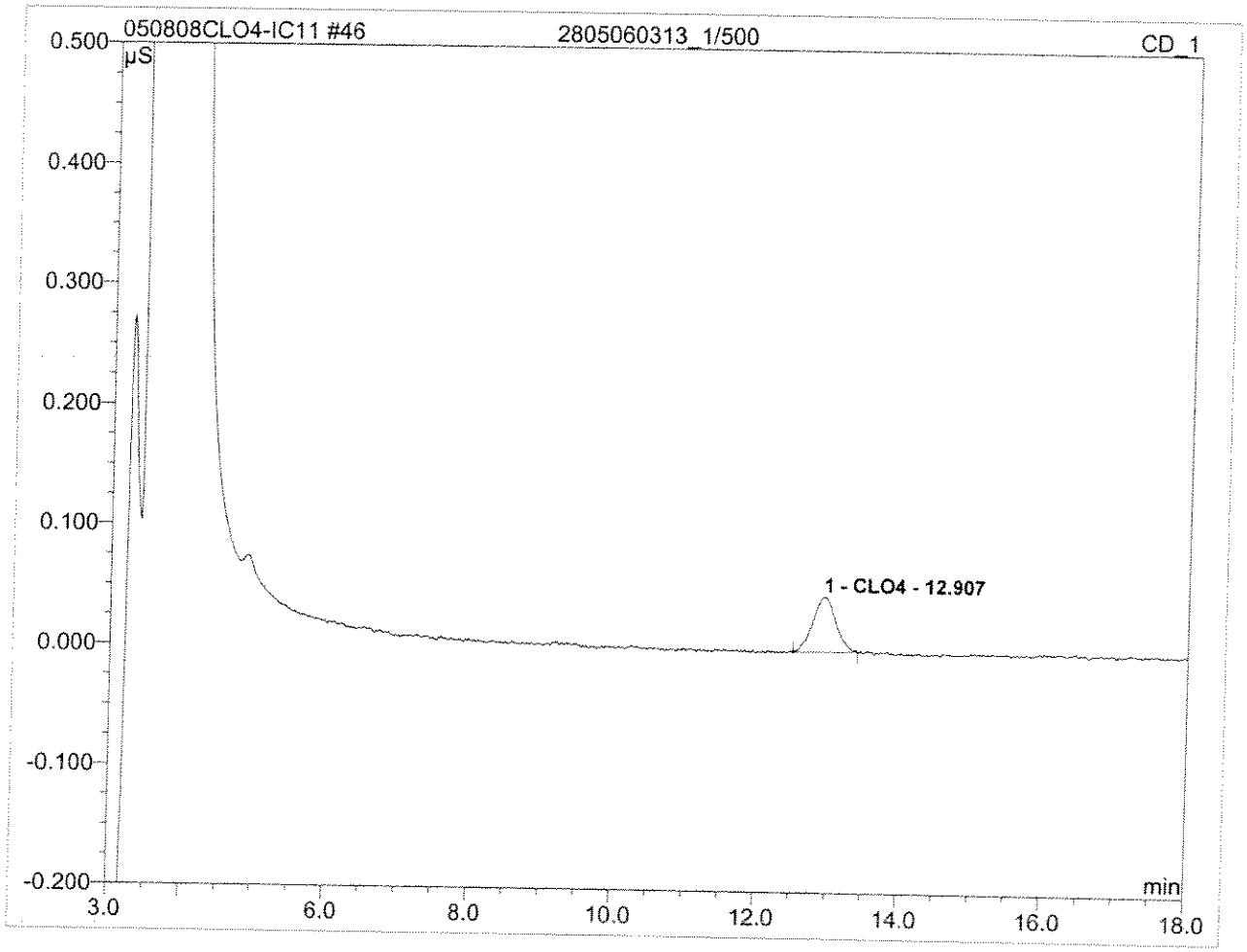
Sample Name:	**2805060312_1/200**	*Channel:*	**CD_1**
Sample Type:	**unknown**	*Control Program:*	**Perchlorate-IC11**
Recording Time:	**05/09/2008 07:29**	*Quantif. Method:*	**IC#4-CLO4-LOW**
Analyst:	**clv**	*Dilution Factor:*	**200.0000**



No.	Ret.Time min	Peak Name	Height µS	Area µS*min	Rel.Area %	Amount	Type
1	12.93	CLO4	0.062	0.024	100.00	5496.553	BMB
Total:			0.062	0.024	100.00	5496.553	

46 2805060313_1/500

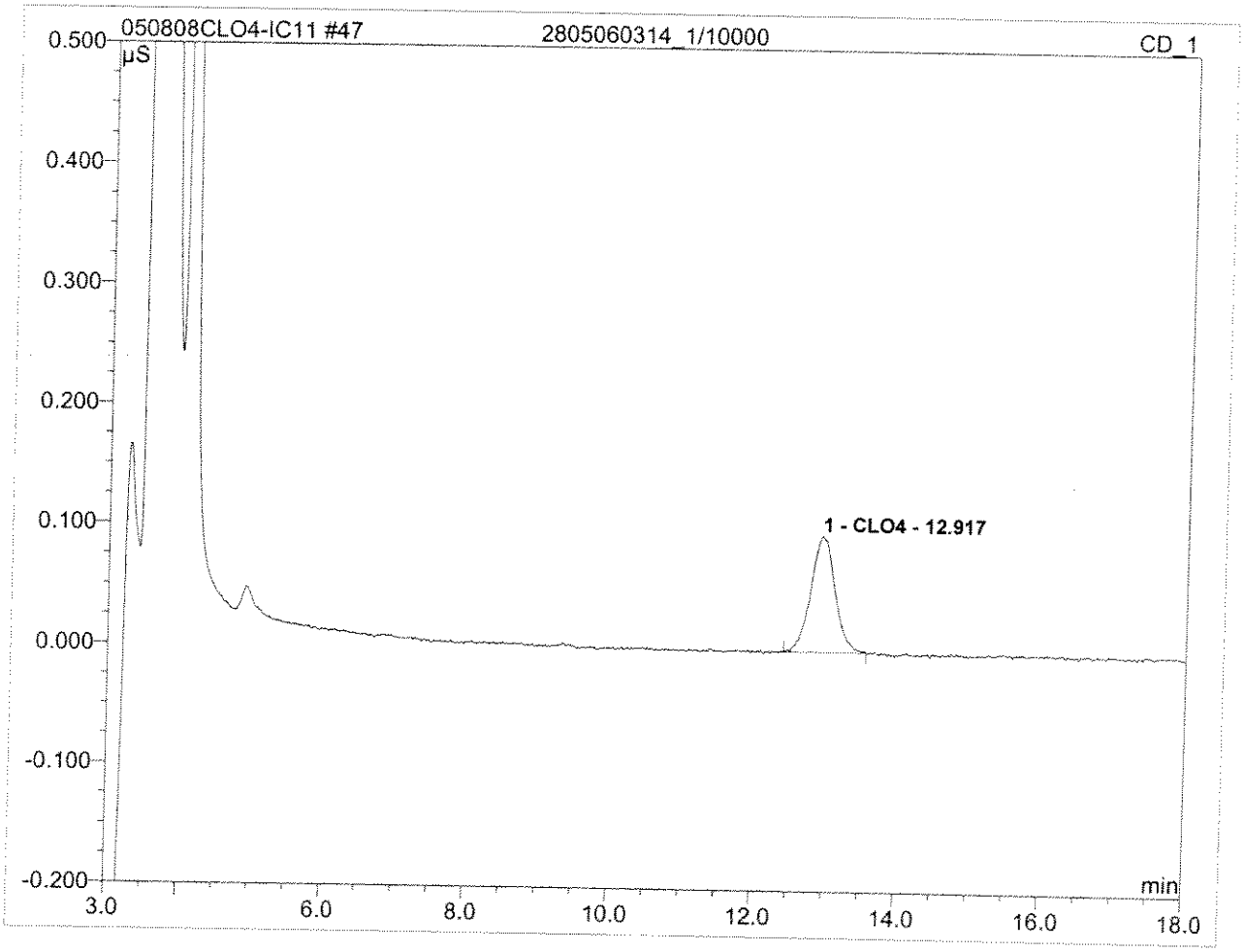
Sample Name:	**2805060313_1/500**	*Channel:*	**CD_1**
Sample Type:	**unknown**	*Control Program:*	**Perchlorate-IC11**
Recording Time:	**05/09/2008 07:51**	*Quantif. Method:*	**IC#4-CLO4-LOW**
Analyst:	**clv**	*Dilution Factor:*	**500.0000**



No.	Ret.Time min	Peak Name	Height µS	Area µS*min	Rel.Area %	Amount	Type
1	12.91	CLO4	0.046	0.017	100.00	9935.669	BMB
Total:			0.046	0.017	100.00	9935.669	

47 2805060314_1/10000

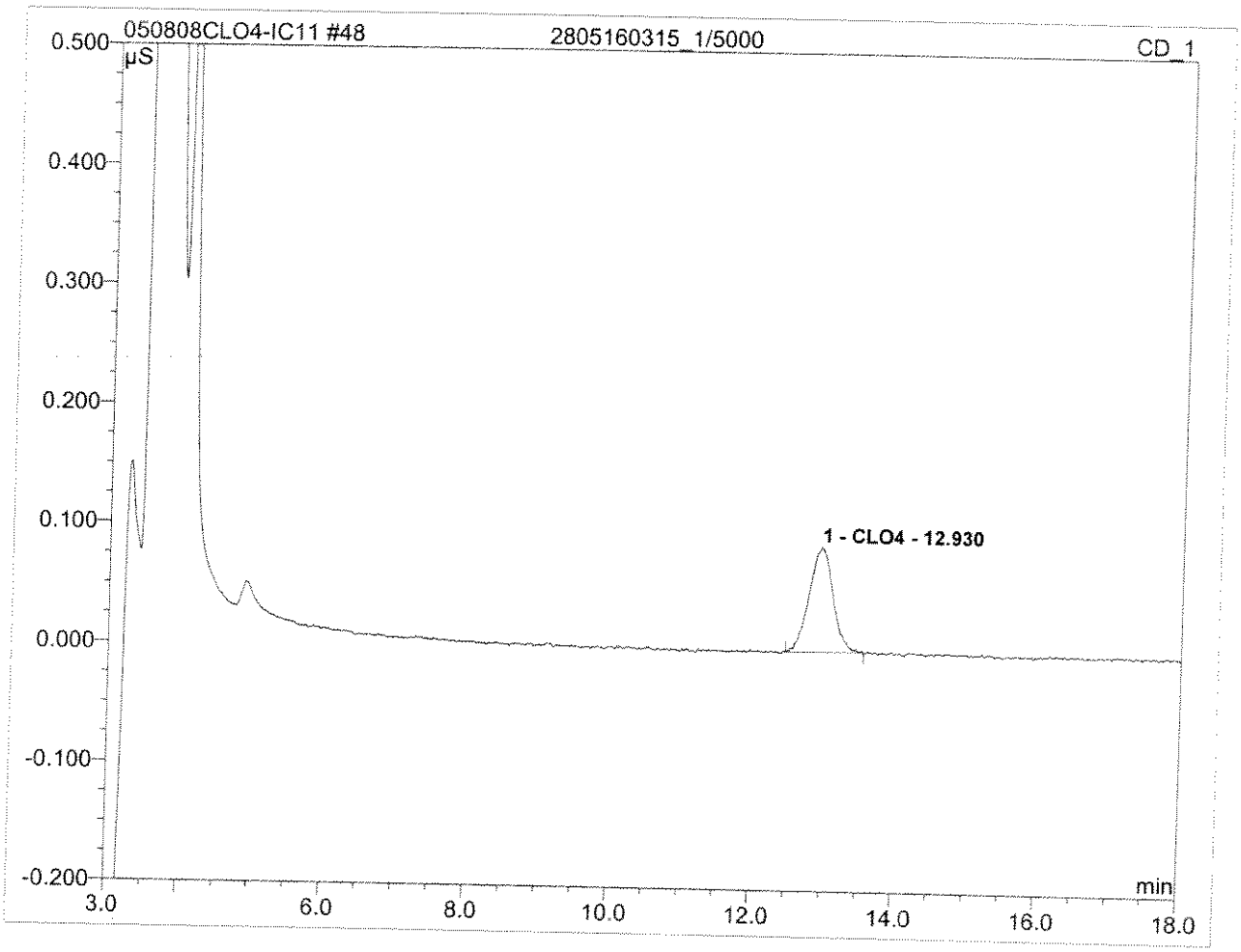
Sample Name:	**2805060314_1/10000**	*Channel:*	**CD_1**
Sample Type:	**unknown**	*Control Program:*	**Perchlorate-IC11**
Recording Time:	**05/09/2008 08:14**	*Quantif. Method:*	**IC#4-CLO4-LOW**
Analyst:	**clv**	*Dilution Factor:*	**10000.0000**



No.	Ret.Time min	Peak Name	Height µS	Area µS*min	Rel.Area %	Amount	Type
1	12.92	CLO4	0.096	0.038	100.00	430032.532	BMB
Total:			0.096	0.038	100.00	430032.532	

48 2805160315_1/5000

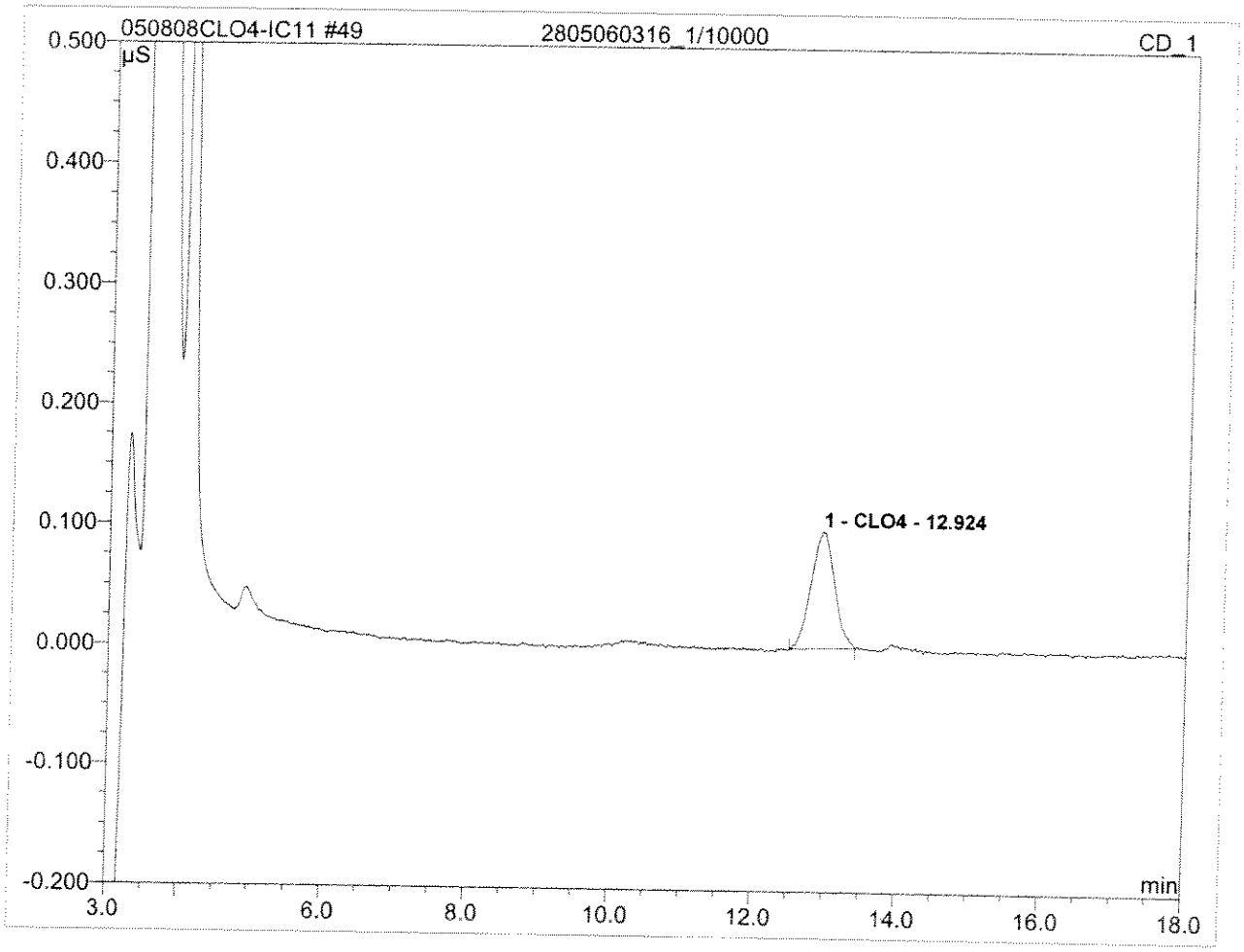
Sample Name:	**2805160315_1/5000**	*Channel:*	**CD_1**
Sample Type:	**unknown**	*Control Program:*	**Perchlorate-IC11**
Recording Time:	**05/09/2008 08:36**	*Quantif. Method:*	**IC#4-CLO4-LOW**
Analyst:	**clv**	*Dilution Factor:*	**5000.0000**



No.	Ret.Time min	Peak Name	Height µS	Area µS*min	Rel.Area %	Amount	Type
1	12.93	CLO4	0.088	0.034	100.00	192677.091	BMB
Total:			0.088	0.034	100.00	192677.091	

49 2805060316_1/10000

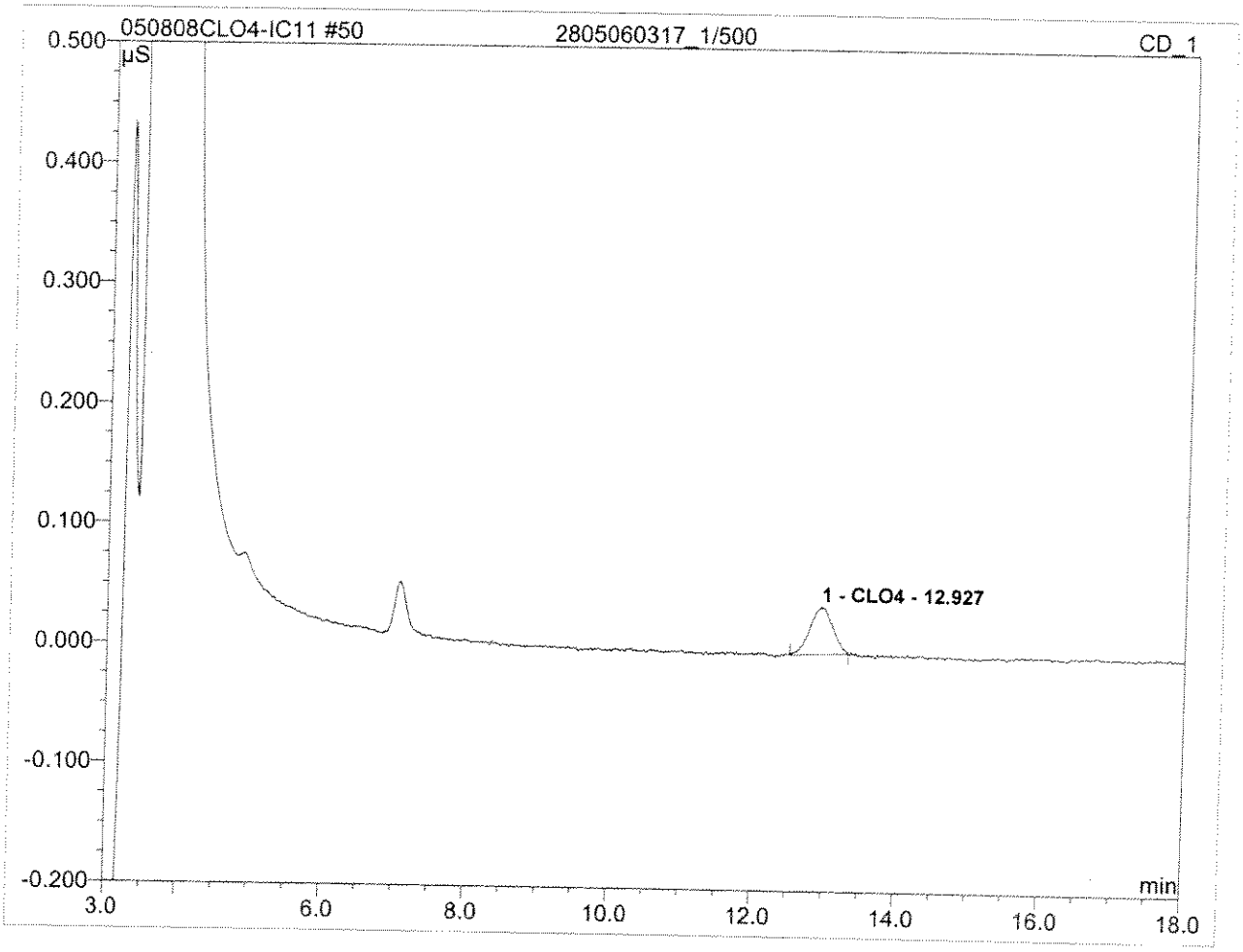
Sample Name:	**2805060316_1/10000**	*Channel:*	**CD_1**
Sample Type:	**unknown**	*Control Program:*	**Perchlorate-IC11**
Recording Time:	**05/09/2008 08:59**	*Quantif. Method:*	**IC#4-CLO4-LOW**
Analyst:	**clv**	*Dilution Factor:*	**10000.0000**



No.	Ret.Time min	Peak Name	Height µS	Area µS*min	Rel.Area %	Amount	Type
1	12.92	CLO4	0.097	0.036	100.00	414885.302	BMB
Total:			0.097	0.036	100.00	414885.302	

50 2805060317_1/500

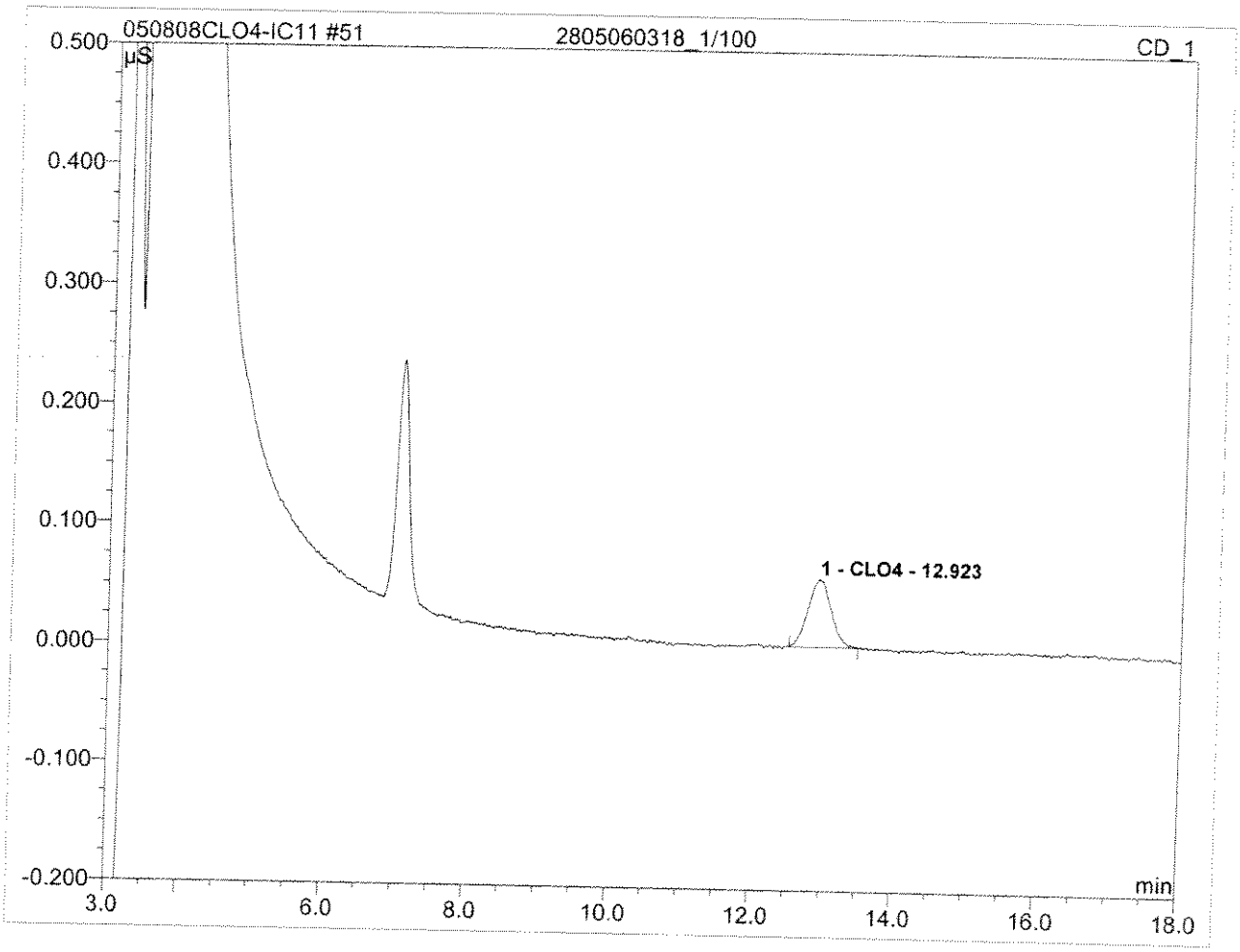
Sample Name:	**2805060317_1/500**	*Channel:*	**CD_1**
Sample Type:	**unknown**	*Control Program:*	**Perchlorate-IC11**
Recording Time:	**05/09/2008 09:21**	*Quantif. Method:*	**IC#4-CLO4-LOW**
Analyst:	**clv**	*Dilution Factor:*	**500.0000**



No.	Ret.Time min	Peak Name	Height µS	Area µS*min	Rel.Area %	Amount	Type
1	12.93	CLO4	0.040	0.015	100.00	8466.669	BMB
Total:			0.040	0.015	100.00	8466.669	

51 2805060318_1/100

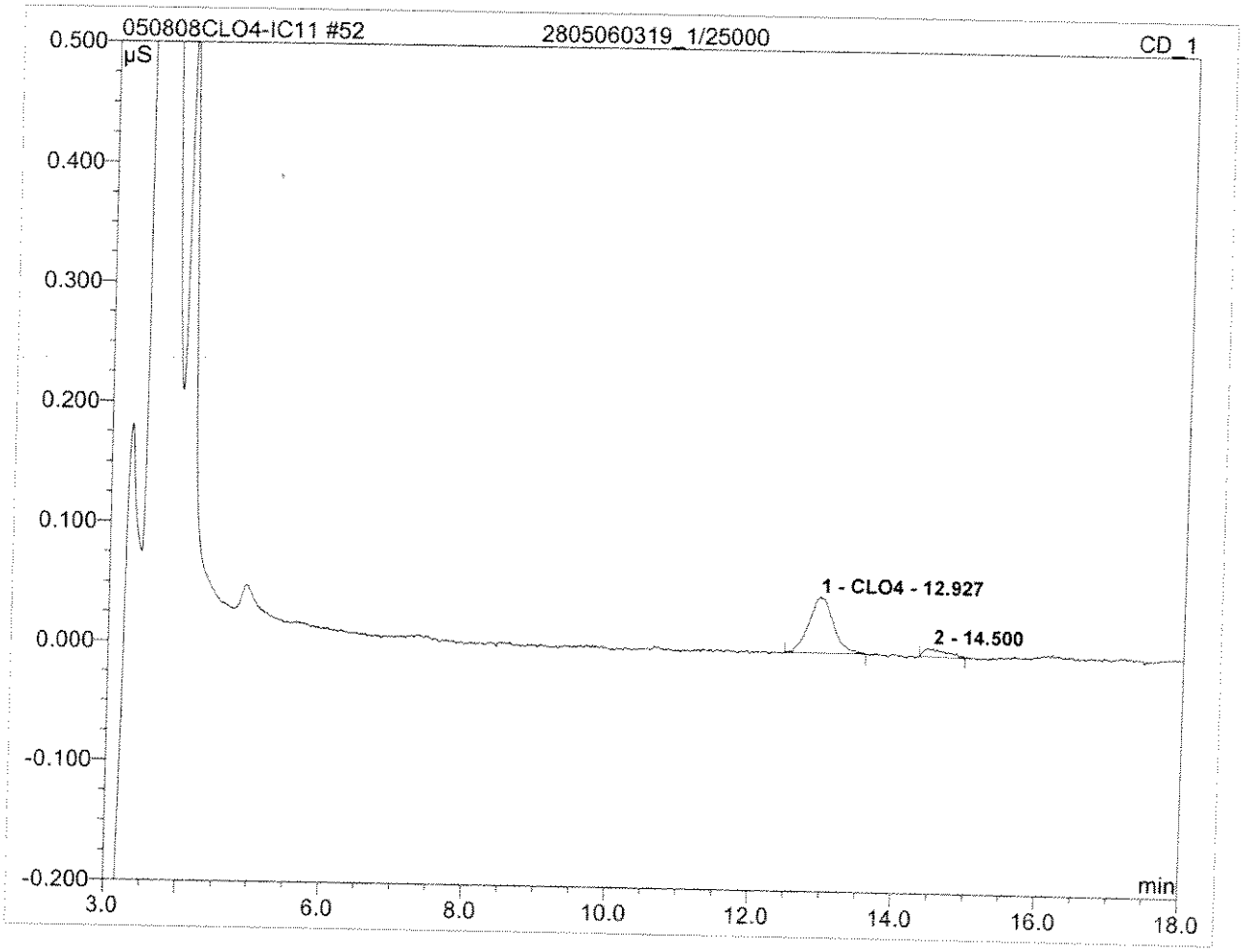
Sample Name:	**2805060318_1/100**	*Channel:*	**CD_1**
Sample Type:	**unknown**	*Control Program:*	**Perchlorate-IC11**
Recording Time:	**05/09/2008 09:43**	*Quantif. Method:*	**IC#4-CLO4-LOW**
Analyst:	**clv**	*Dilution Factor:*	**100.0000**



No.	Ret.Time min	Peak Name	Height µS	Area µS*min	Rel.Area %	Amount	Type
1	12.92	CLO4	0.056	0.021	100.00	2472.135	BMB
Total:			0.056	0.021	100.00	2472.135	

52 2805060319_1/25000

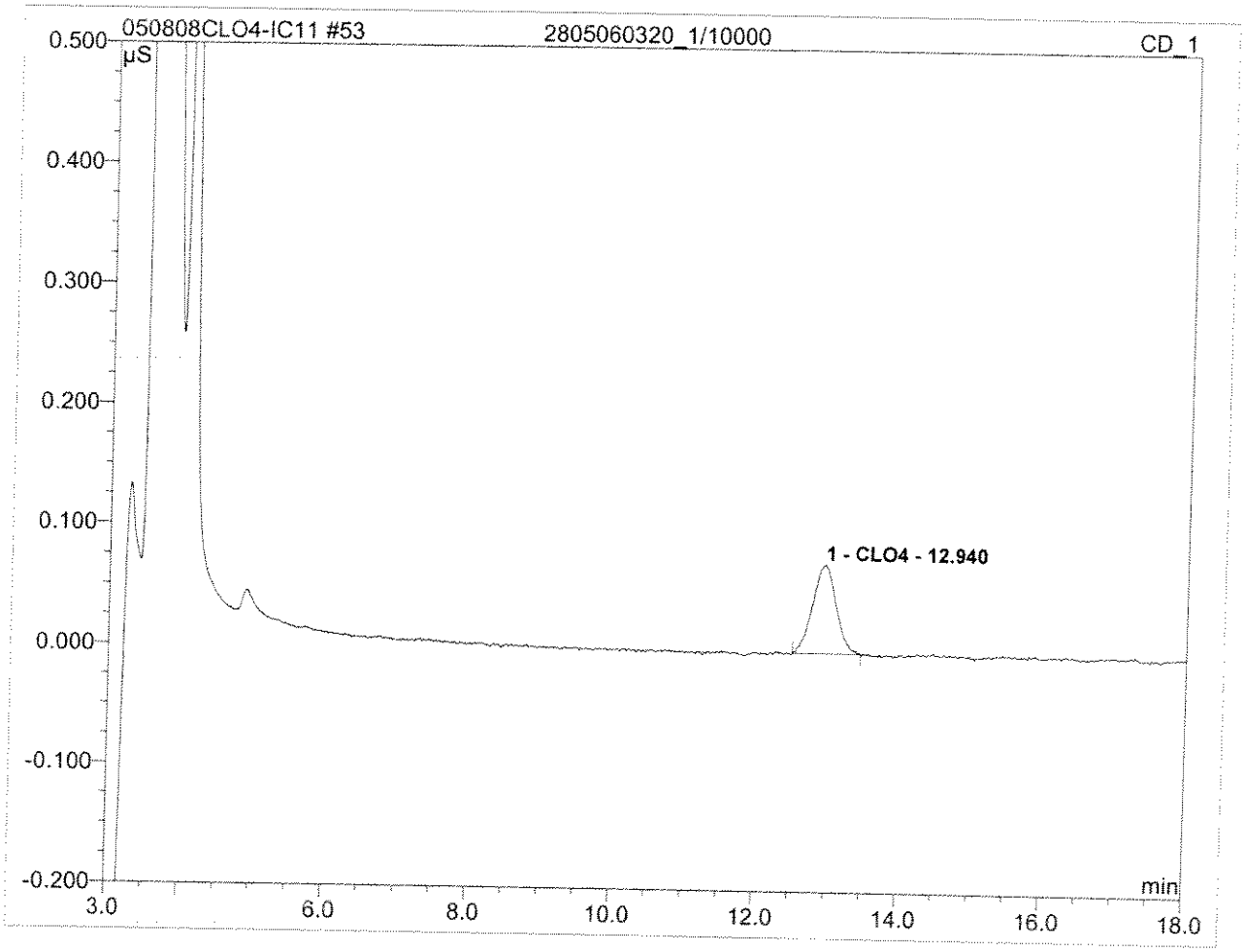
Sample Name:	**2805060319_1/25000**	*Channel:*	**CD_1**
Sample Type:	**unknown**	*Control Program:*	**Perchlorate-IC11**
Recording Time:	**05/09/2008 10:06**	*Quantif. Method:*	**IC#4-CLO4-LOW**
Analyst:	**clv**	*Dilution Factor:*	**25000.0000**



No.	Ret.Time min	Peak Name	Height µS	Area µS*min	Rel.Area %	Amount	Type
1	12.93	CLO4	0.047	0.019	88.08	540924.574	BMB
Total:			0.047	0.019	88.08	540924.574	

53 2805060320_1/10000

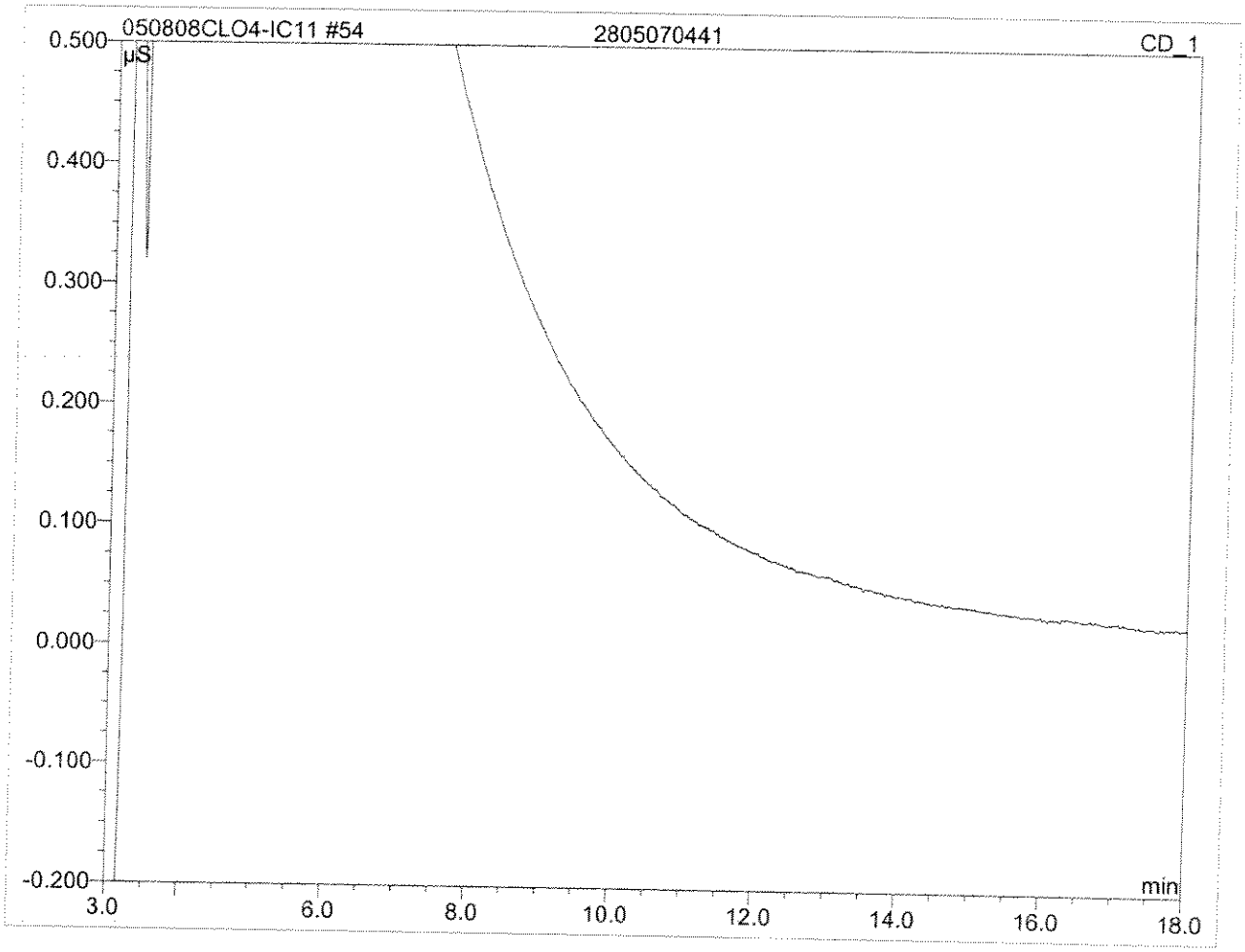
Sample Name:	**2805060320_1/10000**	*Channel:*	**CD_1**
Sample Type:	**unknown**	*Control Program:*	**Perchlorate-IC11**
Recording Time:	**05/09/2008 10:28**	*Quantif. Method:*	**IC#4-CLO4-LOW**
Analyst:	**clv**	*Dilution Factor:*	**10000.0000**



No.	Ret.Time min	Peak Name	Height µS	Area µS*min	Rel.Area %	Amount	Type
1	12.94	CLO4	0.074	0.028	100.00	320564.654	BMB
Total:			0.074	0.028	100.00	320564.654	

54 2805070441

Sample Name:	**2805070441**	*Channel:*	**CD_1**
Sample Type:	**unknown**	*Control Program:*	**Perchlorate-IC11**
Recording Time:	**05/09/2008 10:51**	*Quantif. Method:*	**IC#4-CLO4-LOW**
Analyst:	**clv**	*Dilution Factor:*	**1.0000**

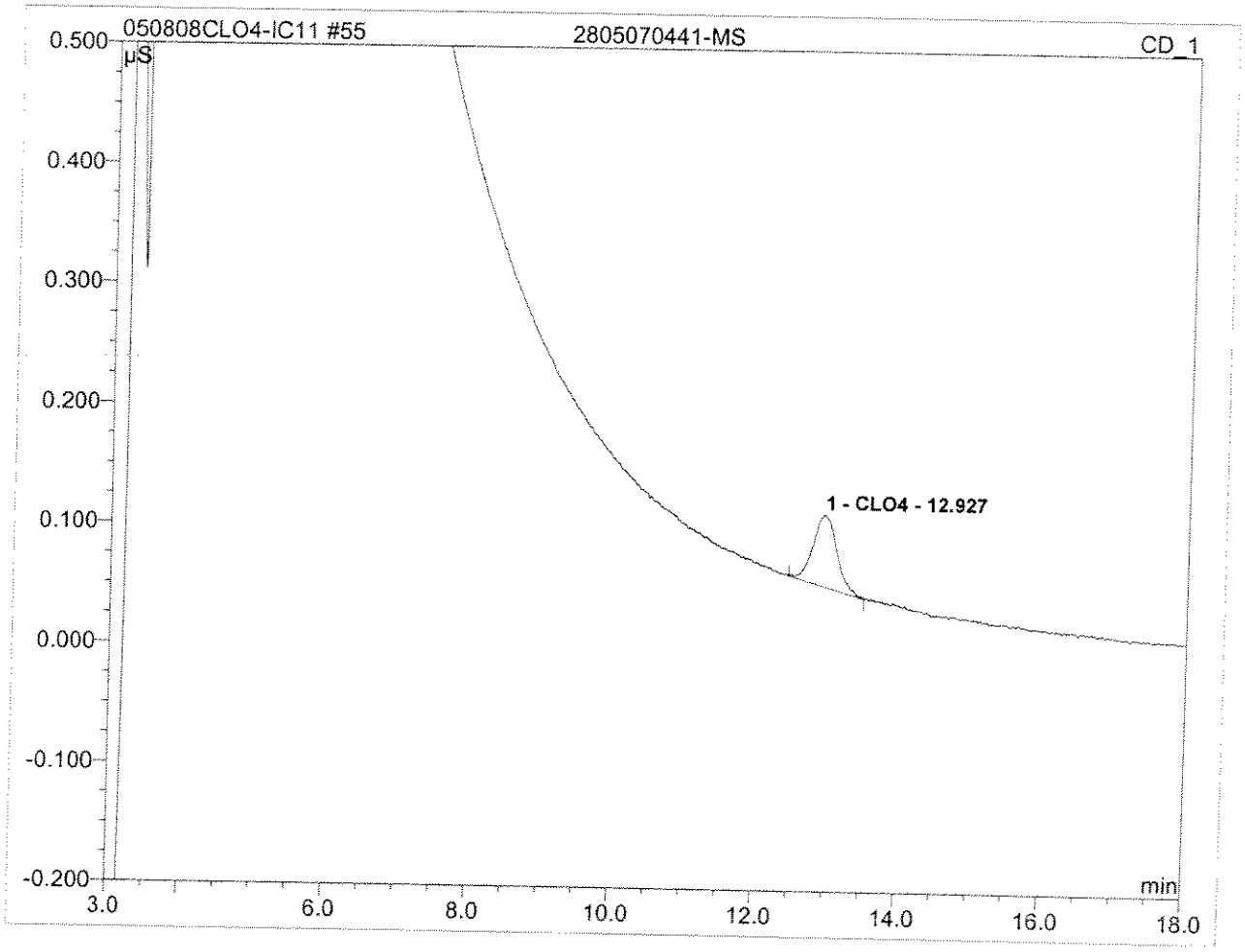


No.	Ret.Time min	Peak Name	Height µS	Area µS*min	Rel.Area %	Amount	Type
Total:			0.000	0.000	0.00	0.000	

55 2805070441-MS

25

Sample Name:	**2805070441-MS**	*Channel:*	**CD_1**
Sample Type:	**unknown**	*Control Program:*	**Perchlorate-IC11**
Recording Time:	**05/09/2008 11:13**	*Quantif. Method:*	**IC#4-CLO4-LOW**
Analyst:	**clv**	*Dilution Factor:*	**1.0000**

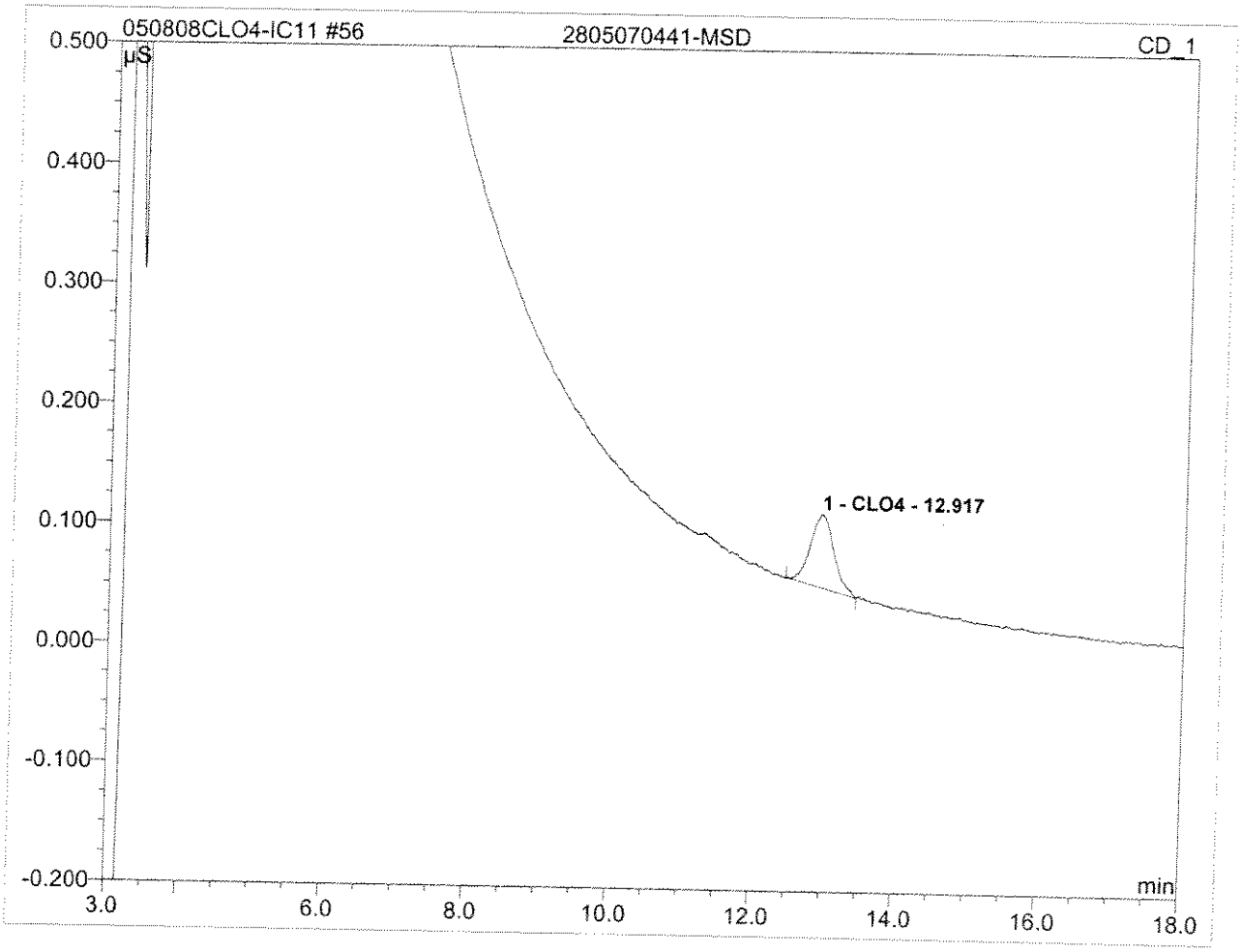


No.	Ret.Time min	Peak Name	Height µS	Area µS*min	Rel.Area %	Amount	Type
1	12.93	CLO4	0.060	0.023	100.00	26.876	BMB
Total:			0.060	0.023	100.00	26.876	

56 2805070441-MSD

25

Sample Name:	**2805070441-MSD**	*Channel:*	**CD_1**
Sample Type:	**unknown**	*Control Program:*	**Perchlorate-IC11**
Recording Time:	**05/09/2008 11:35**	*Quantif. Method:*	**IC#4-CLO4-LOW**
Analyst:	**clv**	*Dilution Factor:*	**1.0000**

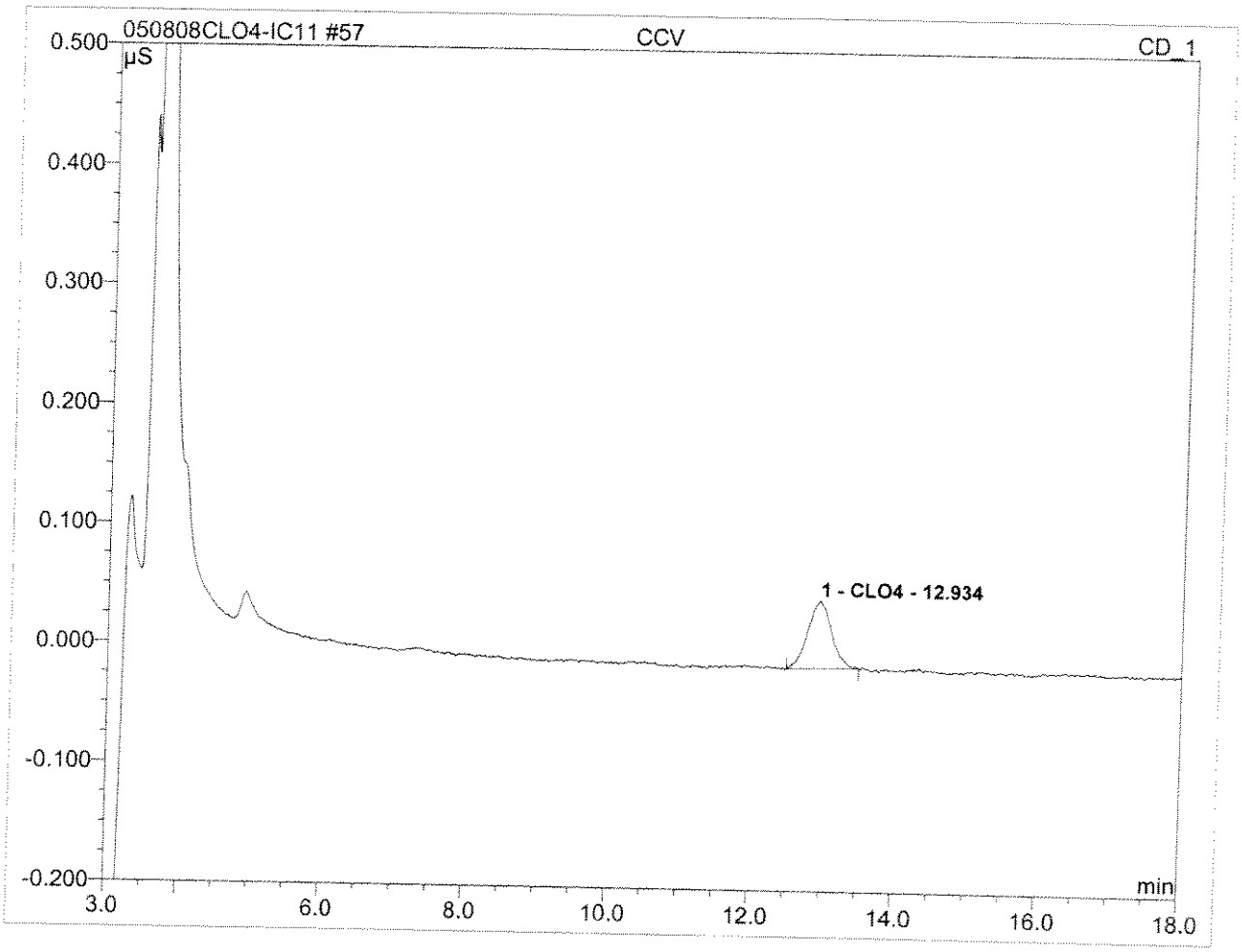


No.	Ret.Time min	Peak Name	Height µS	Area µS*min	Rel.Area %	Amount	Type
1	12.92	CLO4	0.061	0.023	100.00	26.808	BMB
Total:			0.061	0.023	100.00	26.808	

57 CCV

25

Sample Name:	**CCV**	*Channel:*	**CD_1**
Sample Type:	**unknown**	*Control Program:*	**Perchlorate-IC11**
Recording Time:	**05/09/2008 11:58**	*Quantif. Method:*	**IC#4-CLO4-LOW**
Analyst:	**clv**	*Dilution Factor:*	**1.0000**

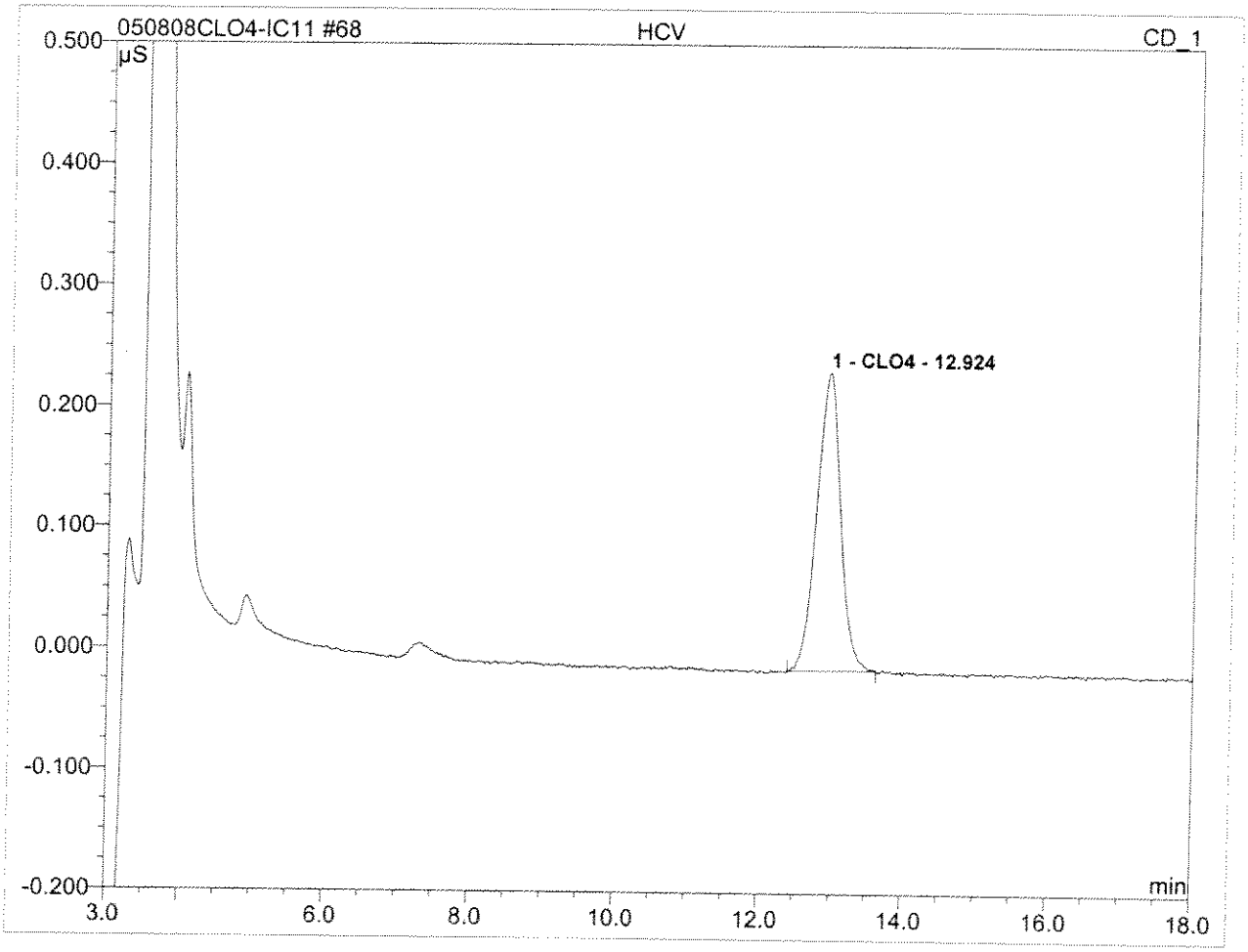


No.	Ret.Time min	Peak Name	Height µS	Area µS*min	Rel.Area %	Amount	Type
1	12.93	CLO4	0.056	0.022	100.00	25.050	BMB
Total:			0.056	0.022	100.00	25.050	

68 HCV

100

Sample Name:	**HCV**	*Channel:*	**CD_1**
Sample Type:	**unknown**	*Control Program:*	**Perchlorate-IC11**
Recording Time:	**05/09/2008 16:04**	*Quantif. Method:*	**IC#4-CLO4-LOW**
Analyst:	**clv**	*Dilution Factor:*	**1.0000**



No.	Ret.Time min	Peak Name	Height µS	Area µS*min	Rel.Area %	Amount	Type
1	12.92	CLO4	0.247	0.095	100.00	107.112	BMB
Total:			0.247	0.095	100.00	107.112	

Standard Preparation Worksheet & Certificate of Analysis

Reagent Preparation Documentation

Reagent: Anions LCS/LCSd Stds.
Date Received/Prepped: / / / / /
Date Expired: / / / / /
Manufacturer:
Storage Condition: fresh daily

MW #:
By: JKZ
Matrix: aq
Amount: 100 ml
Lot #: NA

Component	Comment	Standard	Concentration
Stk A	1 ml	R201752A	
Cl = 2500 ppm			Cl = 25 ppm
NO3 = 250	dilute to 1 ml w/ DI H2O		NO3 = 1
SO4 = 500			NO2 = 2.5
Stk B	1 ml	R201752B	SO4 = 50
NO2 100 ppm			

Comment: Stds mixed 12/01/08

Reagent: ClO4 Init. Cal. Std. 1000 ppb ~~MRL Check 20 ppb~~ JK
Date Received/Prepped: 01/15/081 / / / /
Date Expired: / / / / /
Manufacturer: Absolute Grade
Storage Condition: Room Temp

MW #: JKZ 080115-1
By: JKZ
Matrix: aq
Amount: 100 ml
Lot #: NA

Component	Comment	Standard	Concentration
0.10 ml R201449	→ 100 ml soln Exp. 072809	ClO4	1000 ppb
@ 1000 ppm			

Comment:

Reagent: ClO4 2nd Source 1000 ppb
Date Received/Prepped: 01/15/081 / / / /
Date Expired: / / / / /
Manufacturer:
Storage Condition: Room Temp

MW #: JKZ 080115-2
By: JKZ
Matrix: aq
Amount: 100 ml
Lot #: NA

Component	Comment	Standard	Concentration
0.10 ml	0.10 ml → 100 ml Soln	R201789	1000 ppb
1000 ppm ClO4		Exp. 07/10/09	

Comment:

Reagent Preparation Documentation

Reagent: ClO4 LCS/LCSD 25 ppb
Date Received/Prepped: 01/15/08 | 02/06/08 | 02/15/08 | 02/21/08 | 03/03/08
Date Expired: / / / / /
Manufacturer:
Storage Condition:

MW #: 080115-3
By: JKZ
Matrix: Aq
Amount: 100 mL
Lot #:

Component	Comment	Standard	Concentration
1000 ppb ClO4 2nd source	2.5 mL → 100 mL soln	R201789	
		Exp: 07/10/09	

Comment:

Reagent: ClO4 IPC E.C. = 3155 25 ppb
Date Received/Prepped: 01/15/08 | 02/06/08 | 02/25/08 | / | /
Date Expired: / / / / /
Manufacturer:
Storage Condition:

MW #: 080115-4
By: JKZ
Matrix: Aq
Amount: 100 mL
Lot #:

Component	Comment	Standard	Concentration
~~2.5 mL~~ 10000 ppm CO_3	3.5 mL } dilute to 100 mL w/ DI H_2O	CLV070205-4	
~~2.5~~ 10,000 ppm SO_4	3.5 mL	CLV070205-3	
10,000 ppm Cl	3.5 mL	CLV070205-2	
1000 ppb ClO4 Dril Cal	2.5 mL		
R201449 Exp. 07/2009			

Comment:

Reagent: ~~Ø~~ ClO4 QCSV 20 ppb
Date Received/Prepped: 01/15/08 | 02/20/08 | 02/25/08 | / | /
Date Expired: / / / / /
Manufacturer:
Storage Condition:

MW #: 080115-5
By: JKZ
Matrix: Aq
Amount: 100 mL
Lot #:

Component	Comment	Standard	Concentration
1000 ppb ClO4 2nd source	2.0 mL → 100 mL soln	R201789	
		Exp: 07/10/09	

Comment:

Reagent Preparation Documentation

Reagent: ClO4 CCSV 25 ppb
Date Received/Prepped: 01/15/08 / 02/04/08 / 02/26/08 / 03/03/08 / /
Date Expired: / / / / /
Manufacturer:
Storage Condition: Room Temp

MW #: JK2 - 080115-6
By: JK2
Matrix: Aq
Amount: 100 ml
Lot #:

Component	Comment	Standard	Concentration
1000 ppb ClO4	2.5 ml → 100 ml volm		25 ppb
Drk. Cal Std	R 20 1449 Exp. 07/28/09		
R20 1449			
exp. 072809			

Comment:

Reagent: ClO4 matrix 2 ppb
Date Received/Prepped: 01/15/08 / 02/13/08 / 03/25/08 / / /
Date Expired: / / / / /
Manufacturer:
Storage Condition: Room temp

MW #: JK2 080115-7
By: JK2
Matrix: Aq 100 ml
Amount: 100 ml
Lot #:

Component	Comment	Standard	Concentration
1000 ppb ClO4	0.20 ml → 100 ml volm		2 ppb
Drk Cal Std			
R20 1449 exp: 072809			
(5 Mo) US			

Comment:

Reagent: ClO4 ECSV 4 ppb
Date Received/Prepped: 01/15/08 / 02/13/08 / 02/26/08 / / /
Date Expired: / / / / /
Manufacturer:
Storage Condition:

MW #: JK2 080115-8
By: JK2
Matrix: Aq
Amount: 100 ml
Lot #:

Component	Comment	Standard	Concentration
1000 ppb ClO4	0.40 ml → 100 ml volm		4 ppb
Drk cal. Std			
R20 1449 exp 072809			
(5 Mo) US			

Comment:

Reagent Preparation Documentation

Reagent: ClO4 10 ppb cal Std.
Date Received/Prepped: 01/15/08 / / / /
Date Expired: / / / / /
Manufacturer:
Storage Condition: Room Temp

MW #: JKZ080115-9
By: JKZ
Matrix: Aq
Amount: 100 ml
Lot #:

Component	Comment	Standard	Concentration
1000 ppb Dil. Cal Std	1.0 ml → 100 ml soln	R201449 exp 072809	10 ppb

Comment:

Reagent: ClO4 50 ppb cal Std
Date Received/Prepped: 01/15/08 / 02/21/08 / / /
Date Expired: / / / / /
Manufacturer:
Storage Condition: Room temp

MW #: JKZ080115-10
By: JKZ
Matrix: Aq
Amount: 100 ml
Lot #:

Component	Comment	Standard	Concentration
1000 ppb Dil. Calib. Std	5.0 ml → 100 ml soln	R201449 exp 072509	50 ppb

Comment:

Reagent: ClO4 HCV 100 ppb
Date Received/Prepped: 01/15/08 / 02/13/08 / 02/21/08 / / /
Date Expired: / / / / /
Manufacturer:
Storage Condition: Room Temp

MW #: JKZ080115-11
By: JKZ
Matrix: Aq
Amount: 100 ml
Lot #:

Component	Comment	Standard	Concentration
1000 ppb Dil Cal. Std.	10 ml → 100 ml soln	R201449 exp. 072809	10 ppb

Comment:

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DLS ANSI/RAB Accredited

CERTIFIED WEIGHT REPORT:

Part Number: 57001
Lot Number: 072806
Description: Perchlorate

R201449

Expiration Date: 072809

Nominal Concentration (µg/mL): 1000

	Lot #	
Solvent(s):	072806	ASTM Type 1 Water

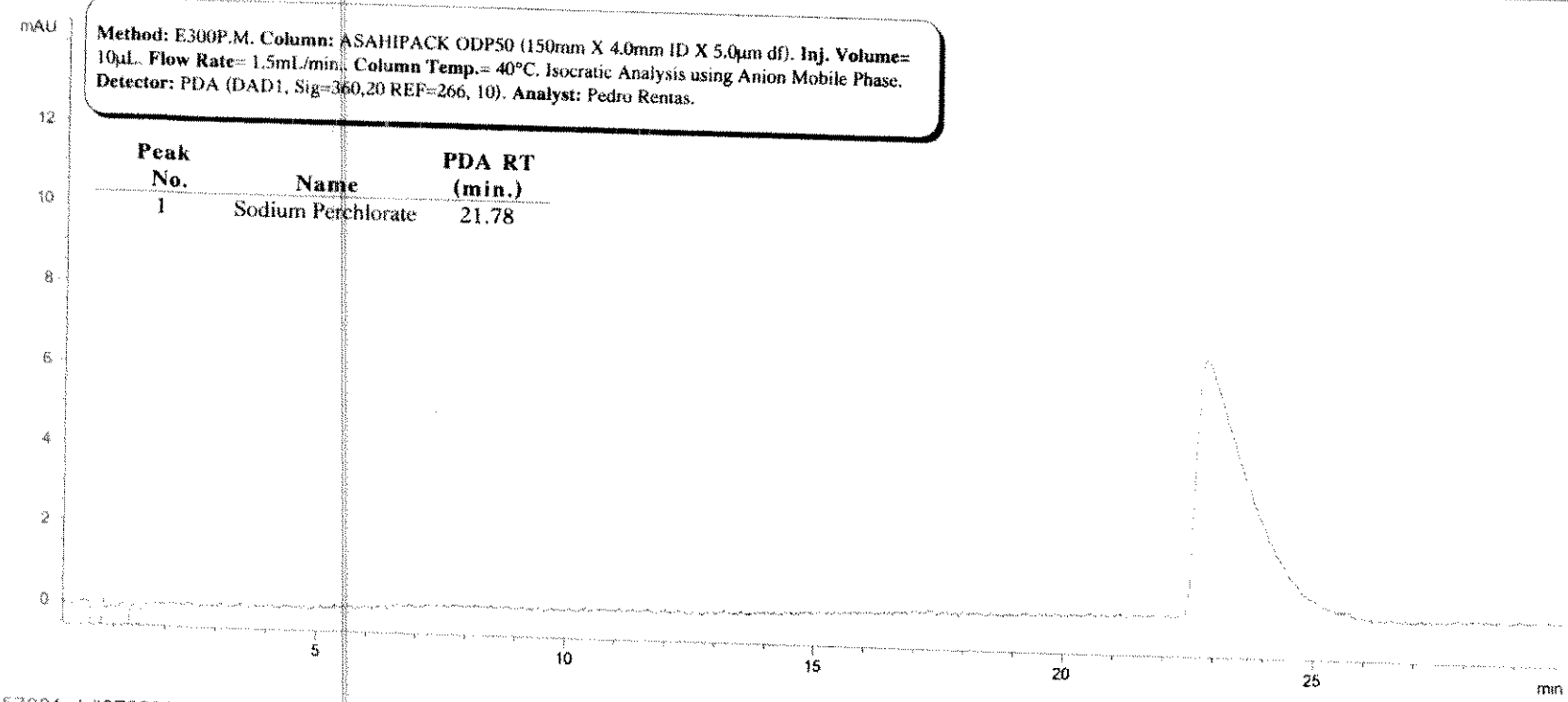
Weight(s) shown below were combined and diluted to (mL): 1000.55

5E-05 Balance Uncertainty
0.084 Flask Uncertainty

Formulated By: Lawrence Barry 072806

Reviewed By: Pedro L. Rentas 072806

Compound	RM#	Lot Number	Nominal Conc (µg/mL)	Purity	Uncertainty Purity	Assay (%)	*Target Weight(g)	Actual Weight(g)	*Actual Conc (µg/mL)	Expanded Uncertainty (+/-)	MSDS Information (Solvent Safety Info. On Attached pg.) CAS#	OSHA PEL (TWA)	LD50	NIST SRM
1. Sodium Perchlorate (ClO4)	IN119	AR06730TQ	1000.0	99.0	0.10	81.2	1.2319	1.23216	1000.2	0.00203	07601-89-0	N/A	N/A	3152a



Method: E300P.M. **Column:** ASAHIPACK ODP50 (150mm X 4.0mm ID X 5.0µm df). **Inj. Volume=** 10µL. **Flow Rate**= 1.5mL/min. **Column Temp.**= 40°C. Isocratic Analysis using Anion Mobile Phase. **Detector:** PDA (DAD1, Sig=360,20 REF=266, 10). **Analyst:** Pedro Rentas.

Peak No.	Name	PDA RT (min.)
1	Sodium Perchlorate	21.78

P#57001 L#072806

Printed on 9/5/06, 9:49 AM

JUL 10 2009

K201784 rec'd 7-11-08

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CERTIFICATE OF ANALYSIS

P/N 4400-010177

Ion Chromatography Perchlorate Standard
ClO_4 in H_2O
1000 µg/mL ± 0.5%

Lot # 06L058

Material Source: Sodium Perchlorate ($NaClO_4$)
Source Purity: 98.6%

This standard solution was prepared using a high-purity starting material and 18-megaohm deionized water. The starting material was weighed to five significant figures and diluted in a Class A volumetric glassware calibrated in accordance with National Bureau of Standards Circular 602. All balances are routinely calibrated using Class F NIST traceable weights.

This solution was certified instrumentally against the National Institute of Standards and Technology's SRM 3100 series.

Accuracy and stability are guaranteed to within plus or minus 0.5% of the certified value for 18 months after the date of shipment. The solution should be kept tightly capped and stored under normal laboratory conditions. See attached MSDS for proper handling information.

For questions or comments please call 1-800-878-7654 in the USA or +31 20 638 05 97 in Europe.