



Compagnie
industrielle de
Monthey SA

Eaux du piézomètre C7

Screening GC - MS

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Date : 06.11.08



Laboratoire central

Mandat : LONZA_0801

Le 5.11.2008

D-HS12-205

Etat au :
05.05.2001



RAPPORT D'ANALYSE GC-MS

But : Screening GC-MS d'eau sous-terrain

Echantillon : Piézomètre C7 du 20.10.08

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Durée d'archivage : 10 ans

1. Conditions GC-MS

VARIAN CP-3800 GC / 1200 MS

Méthode : MIPOL_Scan.mth

Colonne : VF-5MS 25m x 0.20mm 0.33µm

Split-less LVI injection 25ul

Carrier gas : helium

Front Injector Type 1079

Coolant: Liquid CO2
 Enable Coolant at: 90 C
 Coolant Timeout: 20.00 min

Temp (C)	Rate (C/min)	Hold (min)	Total (min)
50	0	0.35	0.35
300	175	20.00	21.78

Time (min)	Split State	Split Ratio
Initial	On	30
0.00	On	100
0.35	Off	Off
3.00	On	30

Front Injector EFC Type 1

Constant Column Flow: 0.8 ml/min
 Pressure Pulse: -

Column oven

Temp (C)	Rate (C/min)	Hold (min)	Total (min)
40	0.0	3.00	3.00
120	12.0	0.00	9.67
310	5.0	4.00	51.67

1200 Mass Spectrometer

Ion source

Ionization mode: EI
 Electron Energy: -70 eV
 Filament Emission current: 50 uA

Temperatures

Manifold Temperature: 40 deg C
 Ion Source Temperature: 210 deg C
 Transfer Line Temperature: 280 deg C

Scan method

Collect delay: 6.0 min.
 Scan mode : Centroid
 SIM width : 0.700 amu total
 Scan time : 0.400 Sec.
 Detector : EDR
 CID Gas : Off
 Ion polarity : Positive ions

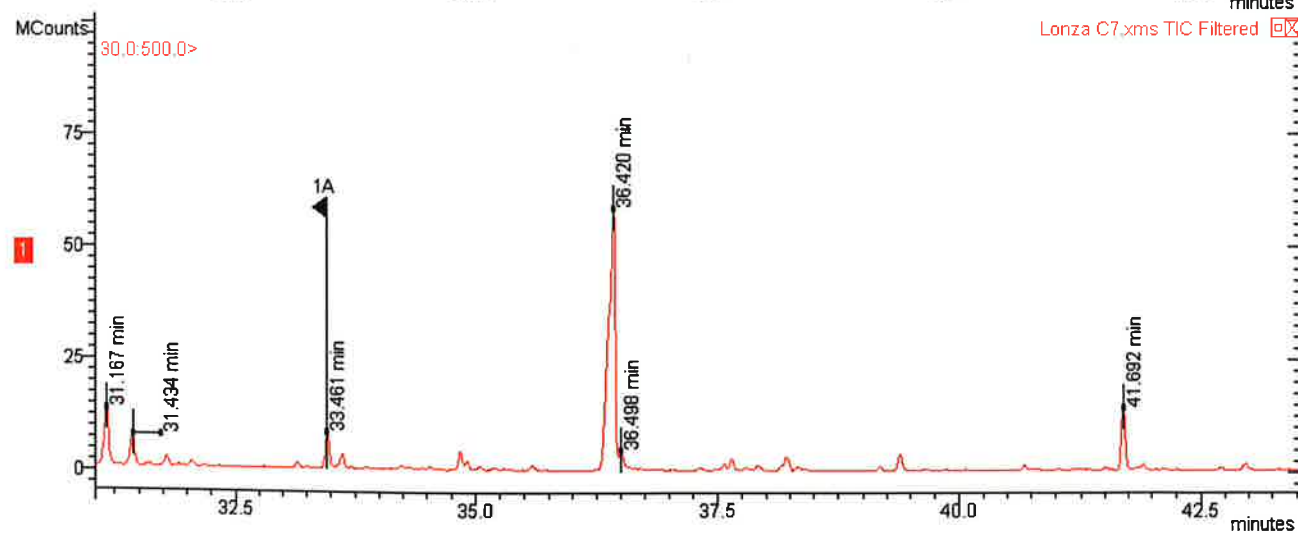
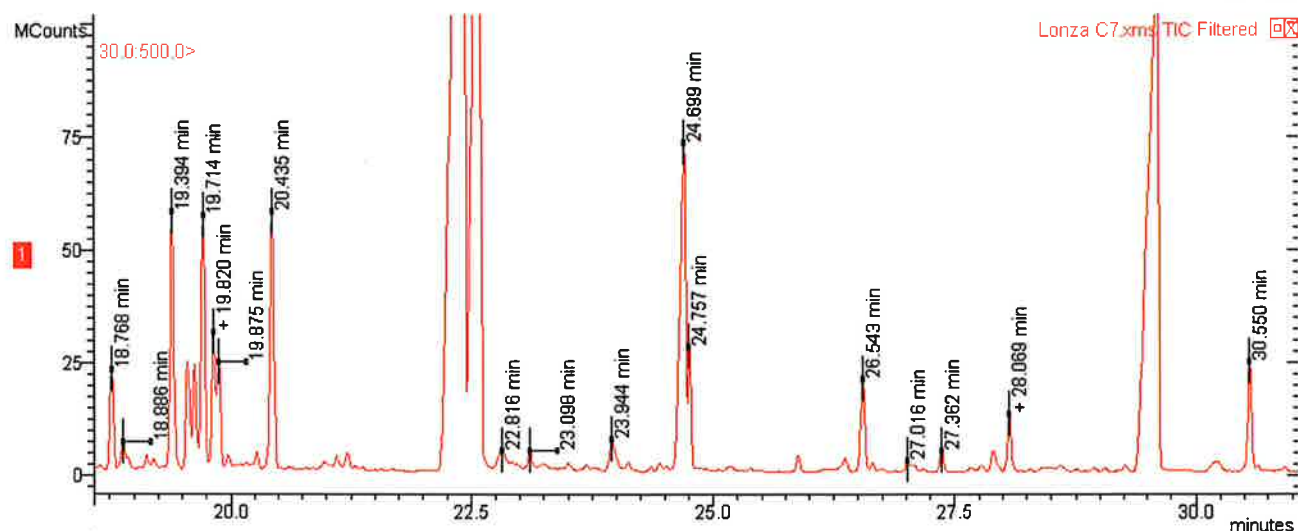
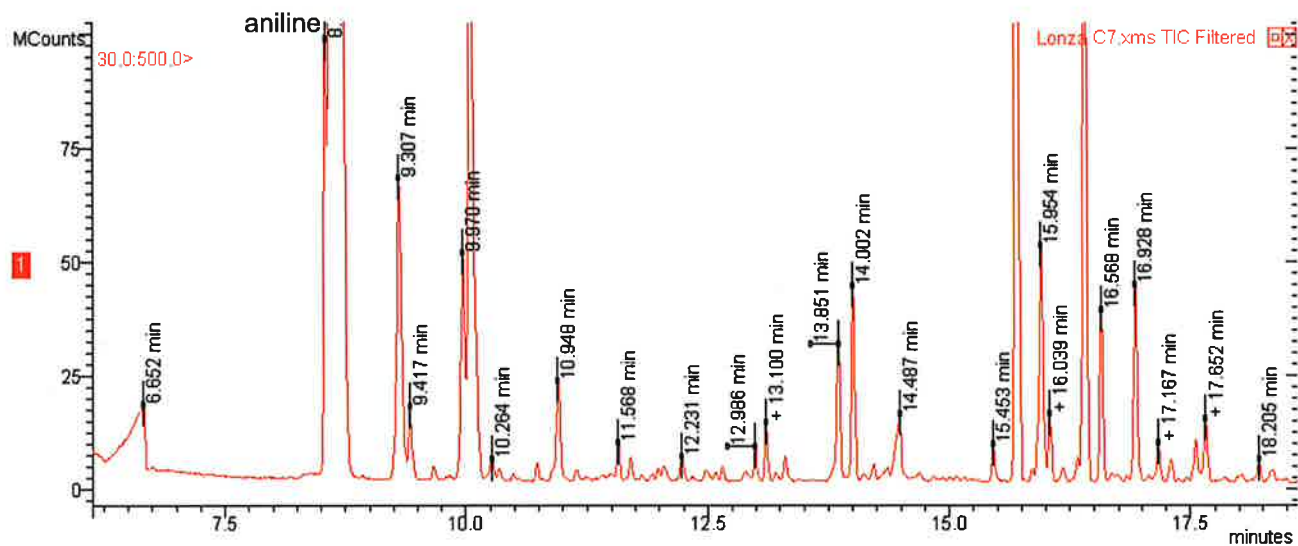
Scan m/z 29.0 - 500.0

2. Préparation de l'échantillon

procédure : extraction liquide-liquide 250 : 5 au dichlorométhane à pH 8

calibration : ratio, 8 = surface du pic de 8µg/l d'octadécanitrile RT 30.550

3. Chromatogramme



4. Résultats

Ratio = estimation en µg/l par rapport au standard interne 8 µg/l

	RT	ratio	N° CAS	substance
	6.652	17.3	3724-65-0	2-Butenoic acid
	8.545	23.3	62-53-3	Aniline
	8.640	157.6	62-53-3	Benzenamine } pic divisé
	8.666	174.9	62-53-3	
MEP	9.307	30.3	104-90-5	Pyridine, 5-ethyl-2-methyl-
	9.417	5.4	108-62-3	Acetaldehyde, tetramer
	9.970	16.1	106-44-5	Phenol, 4-methyl-
	10.054	64.3	108-44-1	Benzenamine, 3-methyl-
	10.264	1.7		inconnu
	10.948	8.6	108-42-9	m-Chloroaniline
	11.568	2.1	95-68-1	Benzenamine, 2,4-dimethyl-
	12.231	1.8	106-47-8	Benzenamine, 4-chloro-
	12.986	1.8		inconnu
	13.100	3.4		inconnu
	13.299	1.8	106-50-3	1,4-Benzenediamine
	13.851	10.2	156-43-4	Benzenamine, 4-ethoxy-
	14.002	12.6	95-74-9	Benzenamine, 3-chloro-4-methyl-
	14.487	7.3	988537	Ethyl cyclopropanecarboxylate
	15.453	2.6	None	2-phenyl-1,2,3-triazole
	15.711	70.8	None	1,1-di(2-methylbutoxy) ethane
	15.954	19.6		inconnu
	16.039	4.2		inconnu
	16.325	1.5	2379-55-7	Quinoxaline, 2,3-dimethyl- (CAS)
	16.410	63.7	None	2,2-Dipropyl-1,3-dioxolane
	16.568	10.7	None	1,1-di(1-methylbutoxy)ethane
	16.928	13.3	74810-43-8	2-Butanol, 3-(1-methylbutoxy)- (CAS)
	17.167	2.7		inconnu
	17.298	1.6		inconnu
	17.550	3.1	1453-81-2	1-Phenyl-1,2,3-triazole
	17.652	4.5	1131-16-4	1H-Pyrazole, 3,5-dimethyl-1-phenyl-
	18.205	1.6		inconnu
	18.768	7.3	90-43-7	o-Hydroxybiphenyl
	18.886	2.4	773-63-7	2,3,3-Trimethyl-5-amino-3H-indole
	19.394	18.4		inconnu
	19.553	8.1		inconnu
	19.629	7.3	None	1,1-di(1-methylbutoxy)ethane
	19.714	18.4		inconnu
	19.820	10.2		inconnu
	19.875	6.9		inconnu
	20.435	20.0	90-41-5	[1,1'-Biphenyl]-2-amine – o-phenylaniline
PMP	22.423	223.9	89-25-8	3H-Pyrazol-3-one, 2,4-dihydro-5-methyl-2-phenyl-
	22.583	115.9	1131-18-6	1H-Pyrazol-5-amine, 3-methyl-1-phenyl-
	22.816	2.9	17900-68-4	3,4-Dimethyl-1-phenyl-3-pyrazolin-5-one
	23.098	2.0	580-51-8	[1,1'-Biphenyl]-3-ol
	23.944	4.0		inconnu
	24.699	34.5	86-92-0	3H-Pyrazol-3-one, 2,4-dihydro-5-methyl-2-(4-methylphenyl)-
	24.757	7.7		inconnu
	26.543	7.7	60-80-0	3H-Pyrazol-3-one, 1,2-dihydro-1,5-dimethyl-2-phenyl-
	27.016	1.8		inconnu
	27.362	1.7	127-63-9	Diphenyl sulfone
	27.898	2.0	479-92-5	Propyphenazone
	28.069	4.4	1454-80-4	[1,1'-Biphenyl]-2,2'-diamine
	29.600	104.1	1678-25-7	Benzenesulfonilide
	30.550	8.0		Octadecanenitrile Standard interne 8 µg/l
	31.167	5.8	92-87-5	Benzidine

31.434	3.0		inconnu
33.461	2.9	80-28-4	p-Toluenesulfonyl-o-toluidide
36.420	33.6		inconnu
36.498	1.9		4-Aminodiphenylsulfone
41.692	4.9	7683-64-9	Squalene : pic système
Total	1404.4	sans std. interne	

5. Spectres de masses, propositions de structures

Pages suivantes

Sample ID:	Lonza C7	Operator:	Scr
Instrument ID:	Varian GC-MS 1200	Last Calibration:	None
Measurement Type:	Area	Calibration Type:	Area Percent
Acquisition Date:	31/10/2008 11:04	Data File:	...44lonza\lonza c7.xms
Calculation Date:	04/11/2008 14:00	Method:	...hodes\mipol_scan.mth
Sample Type:	Analysis		
Inj. Sample Notes:	Piezometre Lonza C7 20.10.08 250:5 DCMe		

<u>Parameter</u>	<u>Specification</u>	<u>Actual</u>	<u>Status</u>
Peak Number		55	
Retention Time		31.167 min.	
Area	>=1.000e+6	4.703e+7	Pass
Peak Name		Benzidine	
CAS Number		92-87-5	
1st Match Entry No.		22993	
1st Match Library		replib	
Forward Match	N-F >= 725	933	Pass

Match Types: N-F : Normal-Forward

