

Applied P & Ch Laboratory

13760 Magnolia Ave. Chino CA 91710

Tel: (909) 590-1828 Fax: (909) 590-1498

Submitted to:

GEOFON, Inc.

Attention: Leo Williamson

22632 Golden Spring Dr Ste 270

Diamond Bar 91765

Tel: (909)396-7662 Fax: (909)396-1455

APCL Analytical Report

Service ID #: 801-032966

Received: 04/29/03

Collected by:

Extracted: N/A

Collected on: 04/29/03

Tested: N/A

Reported: 05/28/03

Sample Description: Water

Project Description: 04-4428.10 JPL

Analysis of Water Samples

Component Analyzed	Method	Unit	PQL	Analysis Result
				MW-24-1 03-02966-1
NITROSAMINES BY HRMS. ^(a)			0.0	

PQL: Practical Quantitation Limit. MDL: Method Detection Limit. CRDL: Contract Required Detection Limit

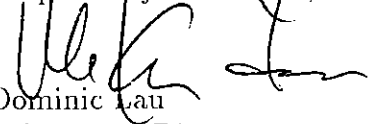
N.D.: Not Detected or less than the practical quantitation limit. "-": Analysis is not required.

J: Reported between PQL and MDL.

Listed Dilution Factors (DF) are relative to the method default DF. All unlisted DFs are 1.0

^(a) Subcontracted to Maxxam Analytics Inc. See attached.

Respectfully submitted;



Dominic Lau
Laboratory Director
Applied P & Ch Laboratory



INCORPORATED
22632 GOLDEN SPRINGS DR., SUITE 270
DIAMOND BAR, CA 91765 • (909) 396-7662 • FAX (909) 396-1455

CHAIN-OF-CUSTODY RECORD

LABORATORY COPY

NW-24 0026

Item	Sample Identifier	Matrix	Date	Time	Preserved	# of Cont.	QC Level	T.A.T	Analyses	Comments
1	NW-24-1	H ₂ O	4/29/03	1400	NONE	241L 241R	ITC	WORK	A N	
2										
3										
4										
5										
6										
7										
8										
9										
10										

GEOFON LAB COORDINATOR: Brad Shogae (909) 396-7662
 LAB COORDINATOR'S PHONE: (909) 396-1455
 LAB COORDINATOR'S FAX: (909) 396-1455
 PROJECT NAME: JPL 6th Mon-2403
 PROJECT LOCATION: NW-24 (E. of Security Bldg)
 PROJECT NUMBER: 04-442810
 PROJECT CONTACT: Leo W. Williamson
 PROJECT PHONE NUMBER: (714) 920-8729
 PROJECT FAX: (909) 396-1455
 PROJECT ADDRESS: 4800 Oak Grove Dr.
 CITY, STATE AND ZIP CODE: Pasadena, CA
 CLIENT: US NAVY SANDIV
 PROJECT MANAGER'S PHONE: (909) 396-7662
 PROJECT MANAGER'S FAX: (909) 396-1455
 LABORATORY SERVICE ID: —
 LABORATORY CONTACT: Kenny Chan
 LABORATORY PHONE: (909) 590-1628
 LABORATORY FAX: (909) 590-1498
 LABORATORY ADDRESS: 13760 Magallanes Ave
 CITY, STATE AND ZIP CODE: Chino, CA 91710
 RECIPIENT NAME: GEOFON, INC.
 ADDRESS: 22632 Golden Springs Dr. #270
 CITY, STATE AND ZIP CODE: Diamond Bar, CA. 91765

SAMPLES COLLECTED BY: Leo W. Williamson
 COURIER AND AIR BILL NUMBER:
 REMOVED BY: A. Williamson
 RECEIVED BY: A. Williamson
 DATE: 4/29/03 1415
 TIME: 4/29/03 1545
 COOLER TEMPERATURE UPON RECEIPT:
 SAMPLE'S CONDITION UPON RECEIPT:

2966

Distribution: White - Laboratory (To be returned with Analytical Report); Goldenrod - Project File; Yellow - Project Data Manager

Part 2: Sample Information

Seq. #	Sample ID (on COC)	Sample Sub-ID	APCL Sample ID	Matrix	Cont- tainer	Preser- vative	Vol, ml Am. g	# of Replica	Condition G, L, B	Collected mmdyy	Hold ?	Composite Group	TAT Days
1	MW-24-1	NDMA	03-02966-1	W	G		1000	2	G	042903	N	0	7 <input type="checkbox"/>

Part 3: Analysis Information

Test Items: Customized-13, Sub-contract

Seq. #	Client's Sample ID (as given on COC)	Sample Sub-ID	APCL Sample ID	Matrix	CUSTOM
1	MW-24-1	NDMA	03-02966-1	W	X <input type="checkbox"/>

Login By En-Yu Paul Kou

Check By *PK*

**SUBMISSION CASE NARRATIVE
NDMA**

MAXXAM L.I.M.S. No. A315100

PROJECT: Applied P&CH Laboratory NDMA Analysis

I. Receipt

Sample was received at Maxxam on May 2, 2003.
Sample was received in good condition.

II. Holding Times

- A. Sample preparation: all holding times were met.
- B. Sample analysis: all holding times were met.

III. Method

The method followed was Maxxam's in-house method for NDMA analysis, Entitled "EXTRACTION & ANALYSIS OF NITROSAMINES AND NDMA BY HRMS" SOP # TO.1021.08.

IV. Preparation

Sample preparation proceeded normally. Sample was extracted on May 5, 2003.

V. Analysis

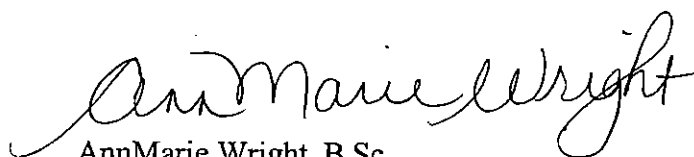
Analysis proceeded normally. Sample was analyzed on May 14, 2003.

- A. Calibration: All criteria were met.
- B. Mass Resolution: All criteria met.

000001

- C. Method Blank: All acceptance criteria were met for the method blank and no detects have been observed above the MDL.
- D. Laboratory Control Spike: A LCS and LCSDUP were analyzed with all acceptance criteria met and they had a RPD of 10%.
- E. Matrix spike/Matrix spike duplicate: MS and MSD were analyzed not analyzed with these samples.
- F. Surrogate Standards: All samples and QC samples met surrogate Standard criteria
- G. Samples: Sample analysis proceeded normally.
- H. Glass blank: All acceptance criteria for the glass blank were met.

I certify that this data package is in compliance with the terms and conditions agreed to by the client and Maxxam Analytics Inc., both technically and for completeness, except for any conditions noted above. Release of the data contained in this hardcopy data package has been authorized by the HRMS Strategic Business Unit Operational Manager, as verified by the following signature.



AnnMarie Wright, B.Sc.
Laboratory Operations Manager

This report contains 110 pages.

000002

SUMMARY OF SAMPLES SUBMITTED-NDMA

(YYYY/MM/DD)

JPL SAMPLE NO.	MAXXAM L.I.M.S. ID	DATE SAMPLED	DATE RECEIVED	DATE EXTRACTED	DATE ANALYZED	ASSOCIATED QC LABEL
MW-24-1	A315100-A01366	2003/04/29	2003/05/02	2003/05/05	2003/05/14	472719

Glossary of Definitions

NDMA	N-Nitrosodimethylamine
OPR	Ongoing Performance & Recovery Standard (Matrix spike)
PAR	Performance & Recovery Standard (Spiking Mixture)
IPR	Initial Performance & Recovery Standard (Matrix spike)
K-D	Kuderna-Danish concentrator; a device used to concentrate the analytes in a solvent
LIMS	Laboratory Information Management System
MISA	Municipal Industrial Strategy for Abatement
EPA	see USEPA
USEPA	United States Environmental Protection Agency
CEPA	Canadian Environmental Protection Agency
amp	ampere
cm	centimetre
g	gram
h	hour
ID	internal diameter
OD	outside diameter
In.	inch
L	litre
M	Molecular ion
min	minute
mL	millilitre
mm	millimetre
m/z	mass-to-charge ratio
N	Normal; gram molecular weight of solute divided by hydrogen equivalent of solute, per litre of solution
mg	milligram 10^{-3} g
μ g	microgram 10^{-6} g
ng	nanogram 10^{-9} g
pg	picogram 10^{-12} g
fg	femtogram 10^{-15} g
ppm	parts per million (mg/L, mg/kg)
ppb	parts per billion (μ g/L, μ g/kg)
ppt	parts per trillion (ng/L, ng/kg)
ppq	parts per quadrillion (pg/L, pg/kg)
v/v	volume per unit volume
w/v	weight per unit volume
DCM	Dichloromethane (Methylene Chloride)
PFK	Perfluorokerosene
HIRES	High Resolution
GC	Gas Chromatography

MS Mass Spectrometry
HRMS High Resolution Mass Spectrometry

Acceptance Criteria

Values used by the laboratory in order to determine that a process is in control.

Accuracy It is the degree of agreement of a measured value with the true or expected value of the quantity of concern.

Analyte A Nitrosodimethylamine and/or 1,4-Dioxane parameter tested by a method.

Blind Sample It is a sample submitted for analysis whose composition is known to the submitter but unknown to the analyst. A blind sample is used to test the proficiency of a measurement process.

Calibration Standard (CAL)

Consist of a set of solutions containing known amounts of native & carbon-13-labelled NDMA and/or 1,4-Dioxane. These solutions are used to establish the relationship between the parameter's concentration & MS detector response over the expected range of sample concentration.

Calibration Verification Material

Consists of a calibration standard solution of intermediate level concentration (e.g. CS3), used to assess whether the initial calibration is still valid.

Certified Reference Material

It is a stable, homogenous, and well characterized reference material, one or more of whose property values are certified by repetitive analysis by several operators & different methodologies in one or more qualified laboratories of known precision & accuracy. This material is used to assess the accuracy of a measurement process.

CAS# Chemical Abstracts Compound Registry Number.

Control Sample

It is a reference material of known composition that is analyzed concurrently with test samples to evaluate the accuracy and/or precision of a measurement process.

EDL Estimated detection limit or detection limit.

Glassware Proof Rinse

It is the composite final solvent rinse of each piece of glassware intended for use in processing a batch of samples. Proof rinse samples are analyzed before sample processing begins.

Instrument Detection Limit

It is the smallest concentration/amount of analyte, in a solution containing only the analyte(s) of interest, which produces an instrumental response that satisfies all analyte detection & identification criteria.

IS

Internal Standard, a deuterated or ¹³C-labelled analyte that is added to a sample extract prior to instrument analysis.

Isomer

A member of a group of compounds that differ from each other only in terms of locations of a specified number of common substituent atoms, or groups of atoms, on the parent compound.

Method Blank Laboratory control sample using reagents, purified water, soil or relevant matrix known to be free of contaminants.

Method Detection Limit (MDL)

It is the smallest test sample concentration/amount of analyte that produces an instrumental response that satisfies all analyte detection & identification criteria when the sample is processed & analyzed according to the requirements of a specific test method. Reported MDL values reflect the composite effect of sample-related variables as well as method-related variables.

MSDS

Material Safety Data Sheet

NIOSH

National Institute of Occupational Safety & Health

Precision

It is the degree of agreement between the data generated from repetitive measurements under specified conditions. It is generally reported as the standard deviation (SD) or relative standard deviation (RSD).

%D

Percent Difference.

Quality Assurance (QA)

It is a system of activities whose purpose is to provide the producer or user of a product with the assurance that the product meets a defined standard of quality. The system consists of two separate but related activities, quality control & quality assessment.

Quality Control (QC)

It is the overall system of activities whose purpose is to control the quality of a product so that it meets the needs of users.

Recovery Standards

They are selected compounds that are added to sample extracts immediately before instrumental analysis so that surrogate (internal standard) recoveries can be calculated.

RPD (%) Relative Percent Difference.

Relative Retention Factor (RRF)

It is the quotient of a target analyte response factor (instrument response per unit weight) divided by the response factor (RF) for its corresponding labelled surrogate. An RRF value remains constant over the range of concentration for which instrument response is linear.

RSD Relative Standard Deviation.

SDS Soxhlet/Dean-Stark extractor, an extraction device applied to the extraction of solid & semi-solid materials.

Spiked blank Laboratory control sample that has been fortified with native analytes of interest.

Stock Solution A solution containing an analyte that is prepared using a reference material traceable to EPA, the National Institute of Science & Technology (NIST), or a source that will attest to the purity & authenticity of the reference material.

Surrogate A compound whose composition and chemical properties are nearly identical to those of target analytes, but which is distinguishable from target analytes by some means of detection (i.e. MS). These include deuterated or ¹³C-labelled analogues of the target analytes, which are added to the sample prior to extraction or clean-up steps.

Window Defining Mixture

It is a solution containing the earliest & latest eluting congeners within each homologous group of target analytes on a specified GC column.

Glossary of Definitions

NDMA	N-Nitrosodimethylamine
OPR	Ongoing Performance & Recovery Standard (Matrix spike)
PAR	Performance & Recovery Standard (Spiking Mixture)
IPR	Initial Performance & Recovery Standard (Matrix spike)
K-D	Kuderna-Danish concentrator; a device used to concentrate the analytes in a solvent
LIMS	Laboratory Information Management System
MISA	Municipal Industrial Strategy for Abatement
EPA	see USEPA
USEPA	United States Environmental Protection Agency
CEPA	Canadian Environmental Protection Agency
amp	ampere
cm	centimetre
g	gram
h	hour
ID	internal diameter
OD	outside diameter
In.	inch
L	litre
M	Molecular ion
min	minute
mL	millilitre
mm	millimetre
m/z	mass-to-charge ratio
N	Normal; gram molecular weight of solute divided by hydrogen equivalent of solute, per litre of solution
mg	milligram 10^{-3} g
μ g	microgram 10^{-6} g
ng	nanogram 10^{-9} g
pg	picogram 10^{-12} g
fg	femtogram 10^{-15} g
ppm	parts per million (mg/L, mg/kg)
ppb	parts per billion (μ g/L, μ g/kg)
ppt	parts per trillion (ng/L, ng/kg)
ppq	parts per quadrillion (pg/L, pg/kg)
v/v	volume per unit volume
w/v	weight per unit volume
DCM	Dichloromethane (Methylene Chloride)
PFK	Perfluorokerosene
HIRES	High Resolution
GC	Gas Chromatography

SAMPLE DATA

000009

MW-24-1

Lab Name Maxxam Analytics Inc.

Matrix (soil/water): water

Sample wt/vol: 1000 (g/mL) mL

Level (low/med) low

% Moisture Not applicable Decanted (Y/N): N

Concentrated Extract Volume 1000 (uL)

Injection Volume 2 (uL)

Acid Wash Cleanup (Y/N): N pH Not analyzed

Lab Sample ID: A315100-A01366

Project Name: JPL

Lab File ID: KR23490013

Date Received: May 2, 2003

Date Extracted: May 5, 2003

Lab Batch: 472719

Date Analyzed: May 14, 2003

Calib. Ref.: 20030513

Time Analyzed: 12:14:45

Dilution Factor: 1

CAS No.	Compound	Conc. (ug/L)	Qualifier	EDL (ug/L)	RL (ug/L)
62-75-9	NDMA	0.00200	U	0.000370	0.00200
	Surrogate	Recovery (%)	Acceptance Criteria (%)		
000	D6-NDMA	27	10-85		

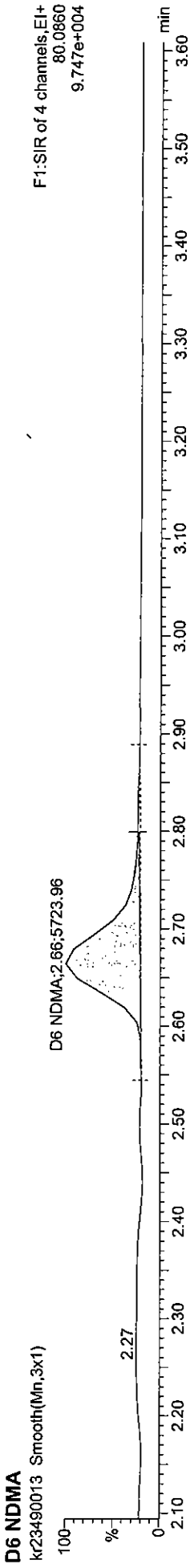
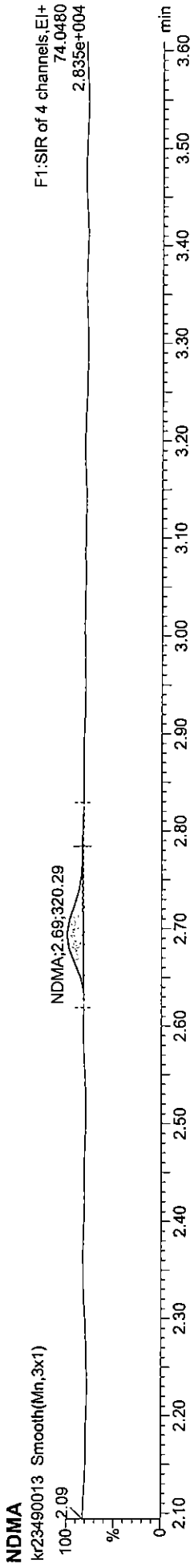
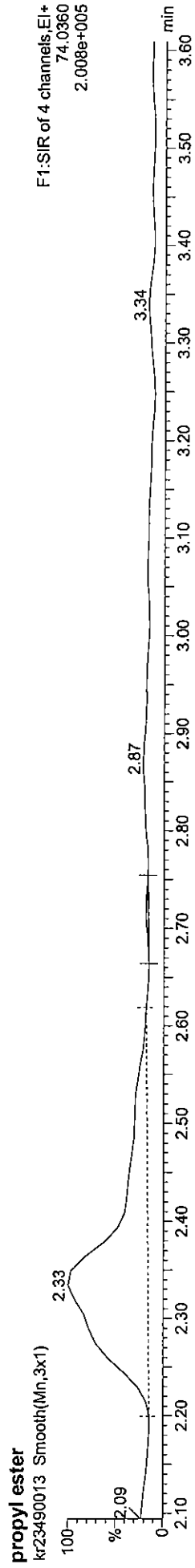
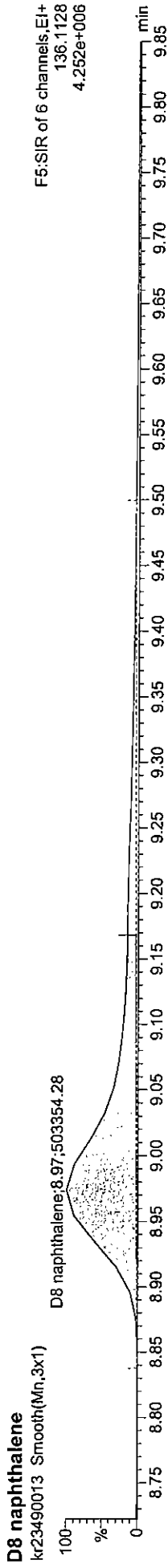
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Quantify Sample Report

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Name: kr23490013.*, Date: 14-May-2003, Time: 12:14:45, Job: , Description: 472719,A01366-01R,N,1,2



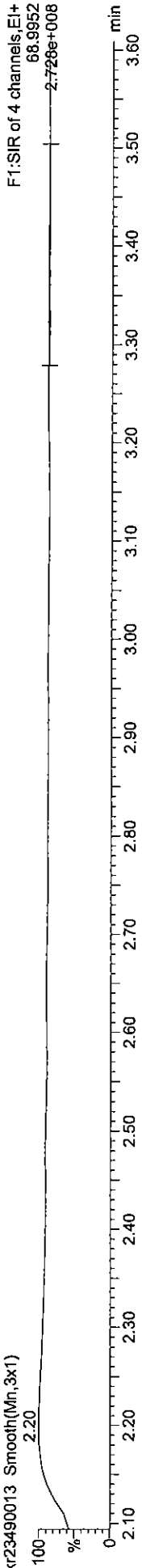
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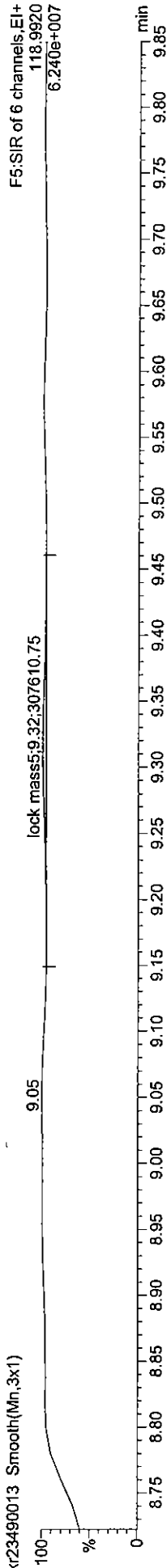
lock mass1

kr23490013 Smooth(Mn,3x1)
2.20



lock mass5

kr23490013 Smooth(Mn,3x1)
9.05



#	Compound Name	Trace	Abs Resp	RT	ng/L	%Rec	Mod Date	Divisor	RRF Mean
1	NDMA	74.0480	320	2.69	ND	27.15	14-May-03	1000	1.731
2	D6 NDMA	80.0860	5724	2.66	2661.14	100.00	14-May-03	1	0.107
3	D8 naphthalene	136.1128	503354	8.97	25000.00	15.38	14-May-03	1	1.000
4	propyl ester	74.0360	256	2.71	0.15		14-May-03	1	1666.430

LOL = 0.37 ng/L

000012

LABORATORY BLANK

000013

WATER LABORATORY METHOD BLANK

Lab Name Maxxam Analytics Inc.

Matrix (soil/water): water

Sample wt/vol: 1000 (g/mL) mL

Level (low/med) low

% Moisture Not applicable Decanted N

Concentrated Extract Volume 1000 (uL)

Injection Volume 2 (uL)

Acid Wash Cleanup (Y/N): N pH Not analyzed

Lab Sample ID: A315100-472719B

Project Name: JPL

Lab File ID: KR23480023

Date Received: Not Applicable

Date Extracted: May 5, 2003

Lab Batch: 472719

Date Analyzed: May 13, 2003

Calib. Ref.: 20030513

Time Analyzed: 16:37:28

Dilution Factor: 1

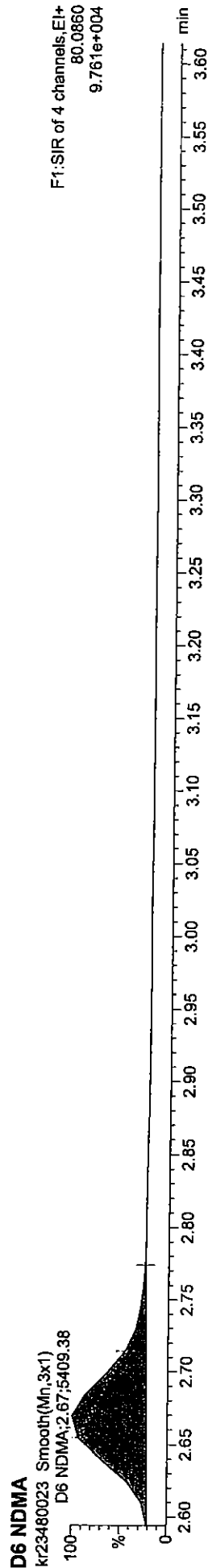
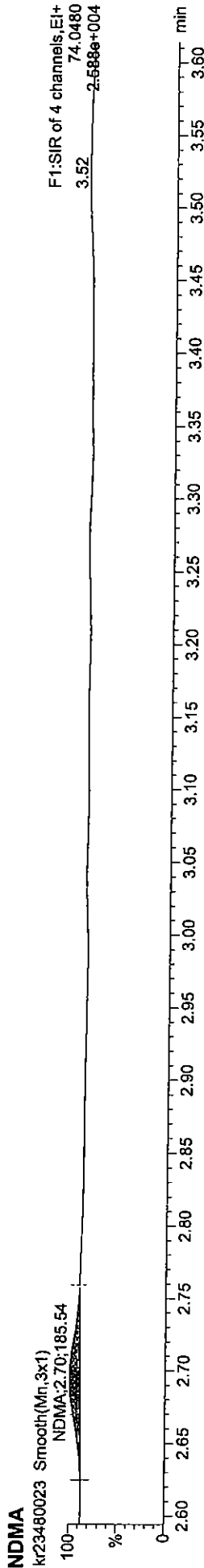
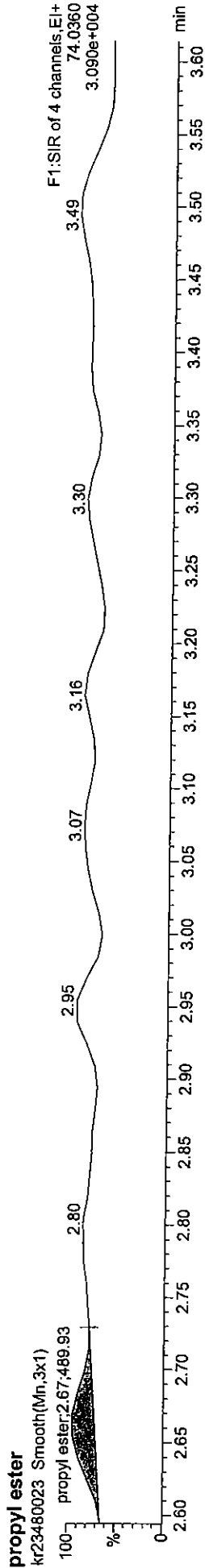
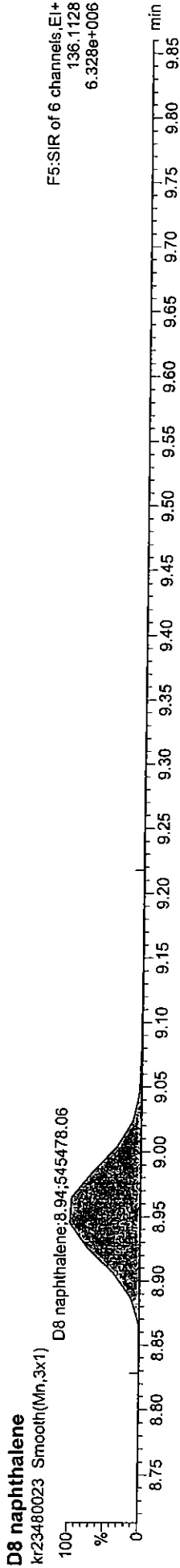
CAS No.	Compound	Conc. (ug/L)	Qualifier	EDL (ug/L)	RL (ug/L)
62-75-9	NDMA	0.00200	U	0.000370	0.00200
	Surrogate	Recovery (%)	Acceptance Criteria (%)		
000	D6-NDMA	24	10-85		

000014

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Name: kr23480023.*, Date: 13-May-2003, Time: 16:37:28, Job: , Description: 472719,BLANK,N,1,2

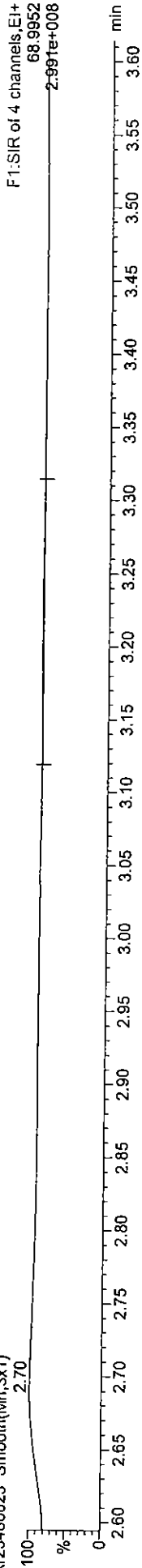


000015

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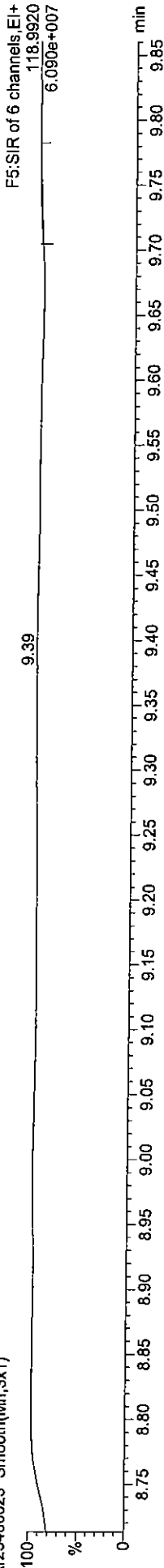
lock mass1

kr23480023 Smooth(Mn,3x1)
2.70



lock mass5

kr23480023 Smooth(Mn,3x1)



Compound Name	Area	Abundance	Retention Time	Integration	Integration	Integration	Integration	Integration	Integration	Integration
1 NDMA	74.0480	186	2.70	0.9	ND	1000	14-May-03	1.731		
2 D6 NDMA	80.0860	5409	2.67	2320.68	23.68	1	14-May-03	0.107		
3 D8 naphthalene	136.1128	545478	8.94	25000.00	100.00	1	14-May-03	1.000		
4 propyl ester	74.0360	490	2.67	0.29	29.40	1	14-May-03	1666.430		

EOL=0.37ng/L

000016

LABORATORY CONTROL SAMPLE

000017

WATER LABORATORY SPIKED BLANK

Lab Name Maxxam Analytics Inc.

Matrix (soil/water): water

Sample wt/vol: 1000 (g/mL) mL

Level (low/med) low

% Moisture Not applicable Decanted (Y/N): N

Concentrated Extract Volume 1000 (uL)

Injection Volume 2 (uL)

Acid Wash Cleanup (Y/N): N pH Not analyzed

Lab Sample ID: A315100-472719S

Project Name: JPL

Lab File ID: KR23480021

Date Received: Not Applicable

Date Extracted: May 5, 2003

Lab Batch: 472719

Date Analyzed: May 13, 2003

Calib. Ref.: 20030513

Time Analyzed: 15:59:44

Dilution Factor: 1

CAS No.	Compound	Extract Conc. (ug/L)	Spike Level (ug/L)	Recovery (%)	Acceptance Criteria (%)
62-75-9	NDMA	0.00416	0.00500	83	10-173
	Surrogate	Recovery (%)	Acceptance Criteria (%)		
000	D6-NDMA	19	10-85		

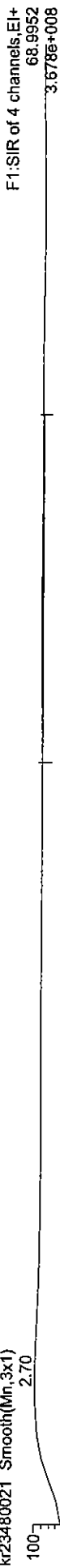
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Quantify Sample Report

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lock mass1

kr23480021 Smooth(Mn,3x1)
2.70



lock mass5

kr23480021 Smooth(Mn,3x1)
9.00



Compound Name Trace Area Adjusted Response Retention Time Rec. Mod. Date Divisor IRR Mean

#	Compound Name	Trace Area	Adjusted Response	Retention Time	Rec.	Mod. Date	Divisor	IRR Mean
1	NDMA	74.0480	3417	2.74	4.16	83.21	1000	1.731
2	D6 NDMA	80.0860	4649	2.71	1857.15	18.95	1	0.107
3	D8 naphthalene	136.1128	585816	9.02	25000.00	100.00	1	1.000
4	propyl ester	74.0360	597	2.67	0.36	35.85	1	1666.430

000020

WATER LABORATORY SPIKED BLANK DUPLICATE

Lab Name Maxxam Analytics Inc.

Matrix (soil/water): water

Sample wt/vol: 1000 (g/mL) mL

Level (low/med) low

% Moisture Not applicable Decanted (Y/N): N

Concentrated Extract Volume 1000 (uL)

Injection Volume 2 (uL)

Acid Wash Cleanup (Y/N): N pH Not analyzed

Lab Sample ID: A315100-472719SD

Project Name: JPL

Lab File ID: KR23480022

Date Received: Not Applicable

Date Extracted: May 5, 2003

Lab Batch: 472719

Date Analyzed: May 13, 2003

Calib. Ref.: 20030513

Time Analyzed: 16:18:32

Dilution Factor: 1

CAS No.	Compound	LCS Extract Conc (ug/L)	Spike Level (ug/L)	Recovery (%)	%RPD LCS/LCSD	Acceptance Criteria (%)
62-75-9	NDMA	0.00377	0.00500	75	10	25
	Surrogate					
000	D6-NDMA			21		10-85

000021

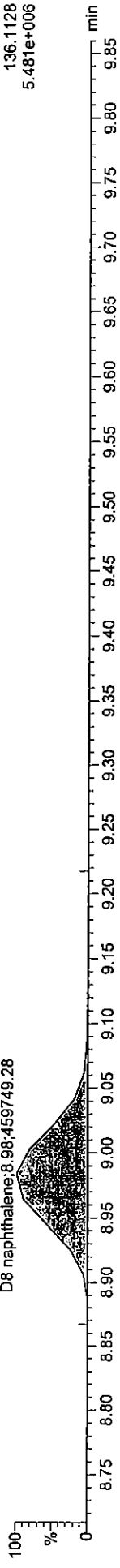
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Name: kr23480022.*, Date: 13-May-2003, Time: 16:18:32, Job: , Description: 472719,SPIKE,D,1,2

D8 naphthalene

kr23480022 Smooth(Mn,3x1)

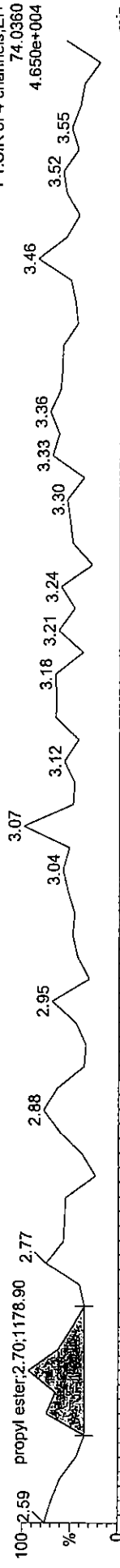
F5:SIR of 6 channels,EI+
136.1128
5.481e+006



propyl ester

kr23480022

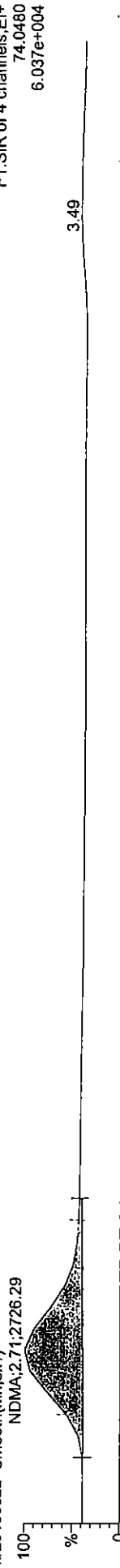
F1:SIR of 4 channels,EI+
74.0360
4.650e+004



NDMA

kr23480022 Smooth(Mn,3x1)

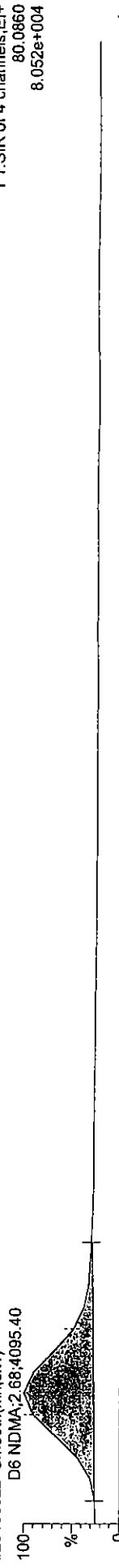
F1:SIR of 4 channels,EI+
74.0480
6.037e+004



D6 NDMA

kr23480022 Smooth(Mn,3x1)

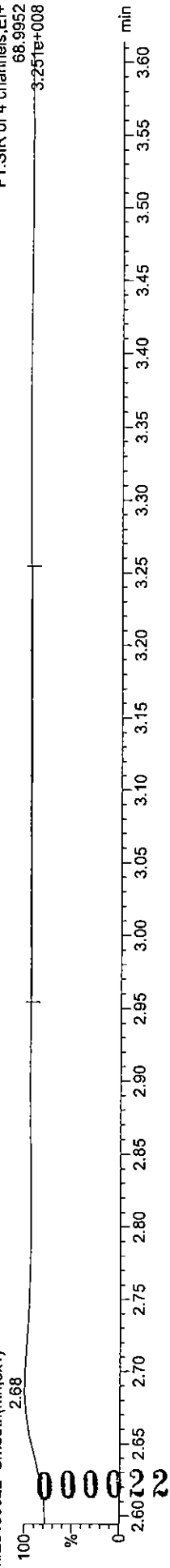
F1:SIR of 4 channels,EI+
80.0860
8.052e+004



lock mass1

kr23480022 Smooth(Mn,3x1)

F1:SIR of 4 channels,EI+
68.9952
3.257e+008



Quantify Sample Report

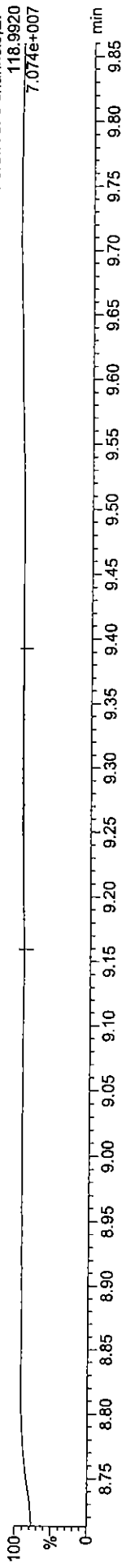
Printed: Mon May 26 10:57:51 2003, Page 4 of 5

Dataset: C:\MASSLYNX\Default.pro\QuantlynxFiles\QC\Blks_Spks\20030505\spks_ndma_20030505.qld, Time: Mon May 26 10:56:29 2003

lock mass5

kr23480022 Smooth(Mn,3x1)

F5:SIR of 6 channels, EI+
118.9920
7.074e+007



#	Compound Name	Area	Height	%Area	%Height	Area	Height	%Area	%Height	RRR	Mean
1	NDMA	74.0480	2.71	3.77	75.37	26-May-03	1000	1.731			
2	D6 NDMA	80.0860	2.68	2084.59	21.27	26-May-03	1	0.107			
3	D8 naphthalene	136.1128	8.98	25000.00	100.00						
4	propyl ester	74.0360	2.70	0.71	70.74						1666.430

000023

GLASS BLANK

000024

Quantify Sample Report

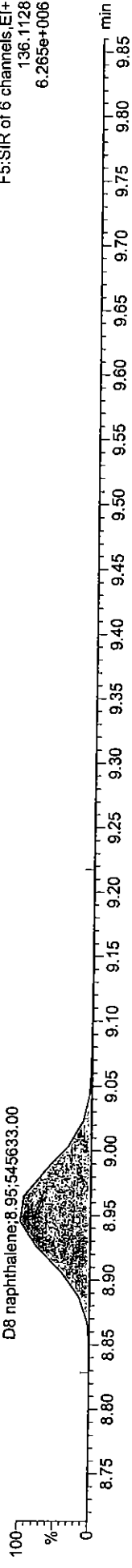
FILE: C:\MASCHWIN\DATA\13MAY03\13MAY03.D; FILE NAME: 13MAY03.D; DATE: 13 MAY 2003 14:00:36:39 2003

Name: kr23480024.; Date: 13-May-2003, Time: 16:56:25, Job: , Description: GLASS BLANK,2003/05/05,N,1,2

D8 naphthalene

kr23480024 Smooth(Mn,3x1)

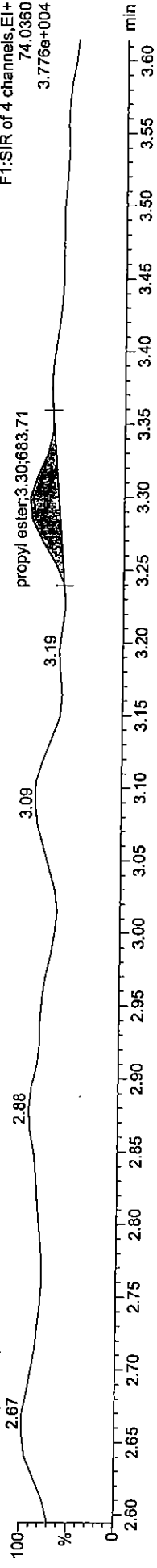
F5:SIR of 6 channels,EI+
136.1128
6.265e+006



propyl ester

kr23480024 Smooth(Mn,3x1)

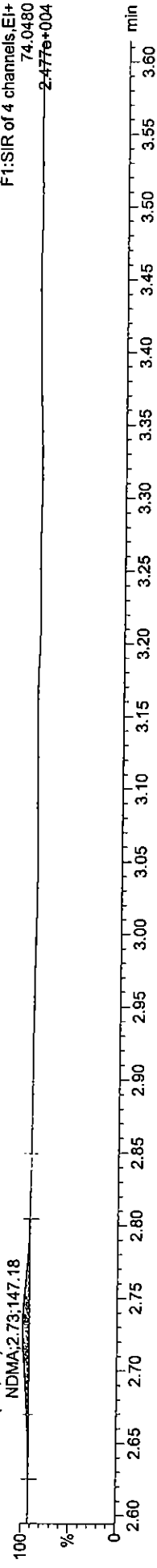
F1:SIR of 4 channels,EI+
74.0360
3.776e+004



NDMA

kr23480024 Smooth(Mn,3x1)

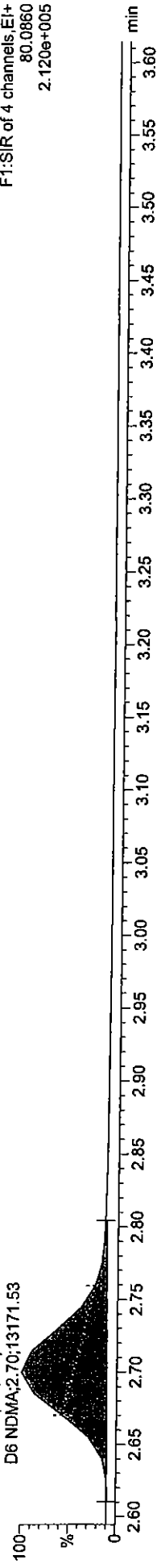
F1:SIR of 4 channels,EI+
74.0480
2.477e+004



D6 NDMA

kr23480024 Smooth(Mn,3x1)

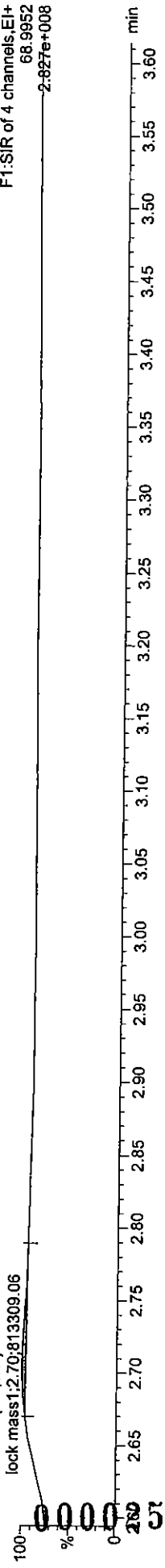
F1:SIR of 4 channels,EI+
80.0860
2.120e+005



lock mass1

kr23480024 Smooth(Mn,3x1)

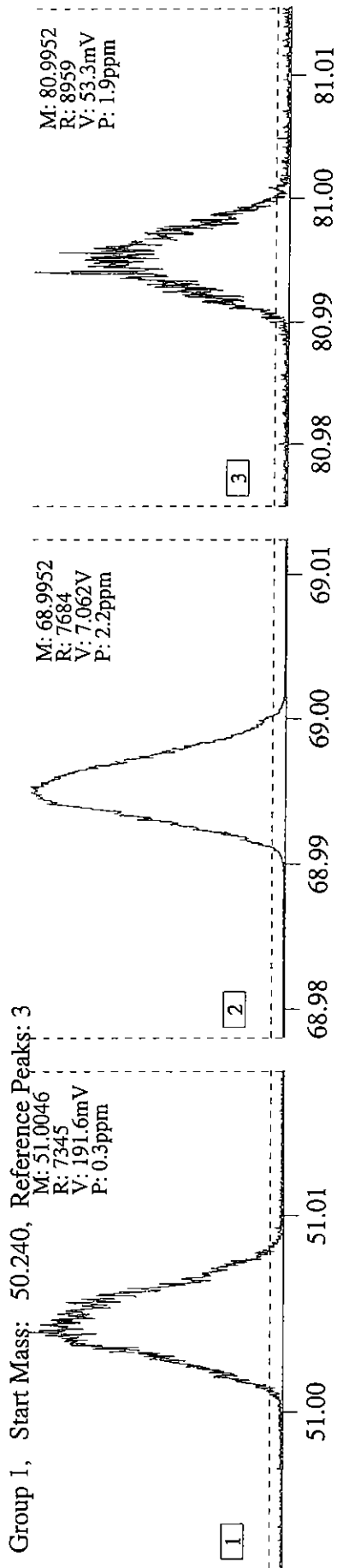
F1:SIR of 4 channels,EI+
68.9952
2.827e+008



MASS RESOLUTION CALIBRATION

000027

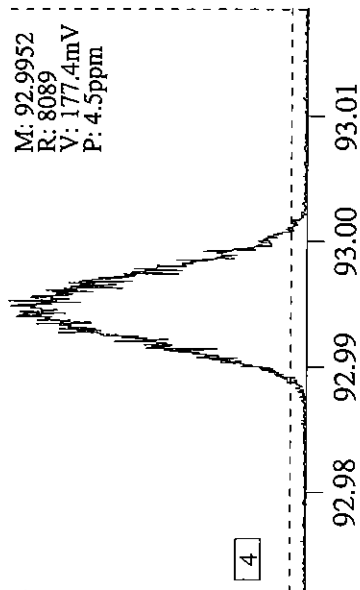
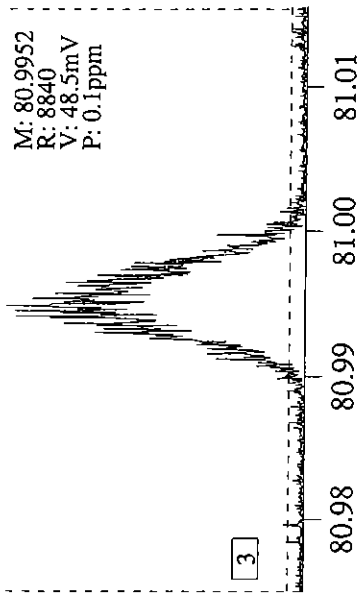
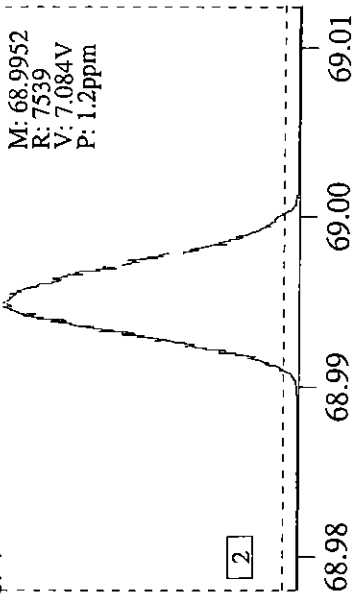
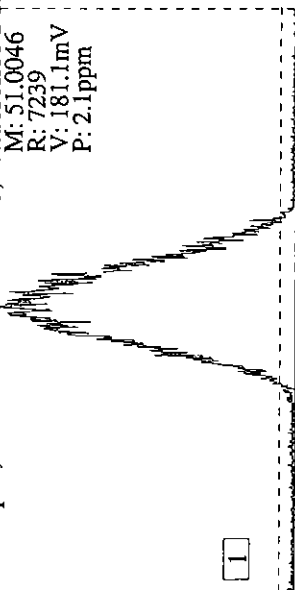
S.I.M. Calibration 13-May-2003 09:34, Run: kr23480003, Expt: nitros200 Normalised Plot Sweep: 500 ppm, Threshold: 0.00mV, Tolerance: 500 ppm



000028

S.I.M. Calibration 13-May-2003 09:34, Run: kr23480003, Expt: nitros200 Normalised Plot Sweep: 500 ppm, Threshold: 0.00mV, Tolerance: 500 ppm

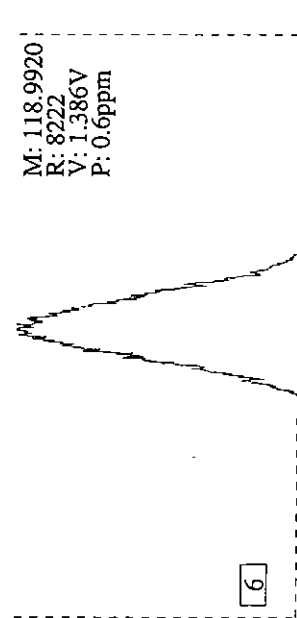
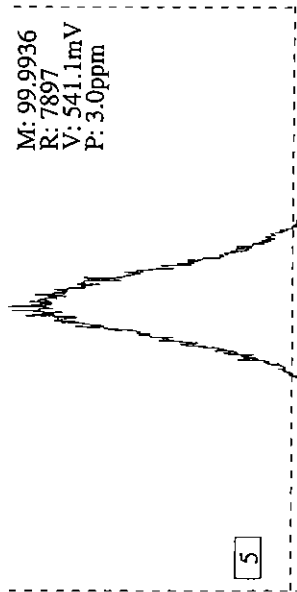
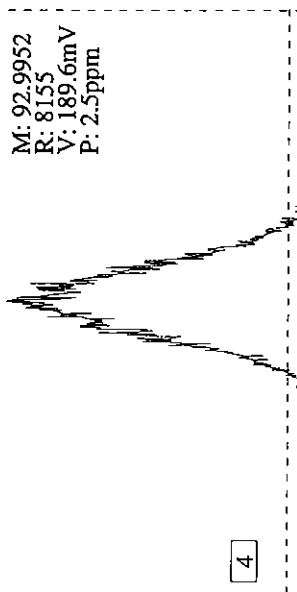
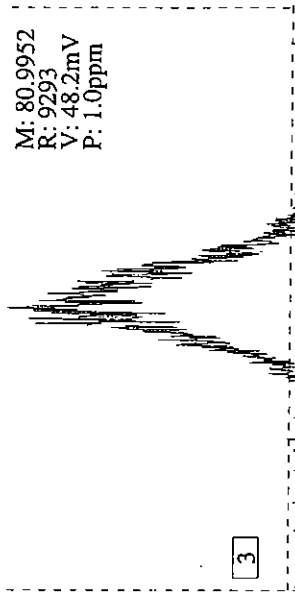
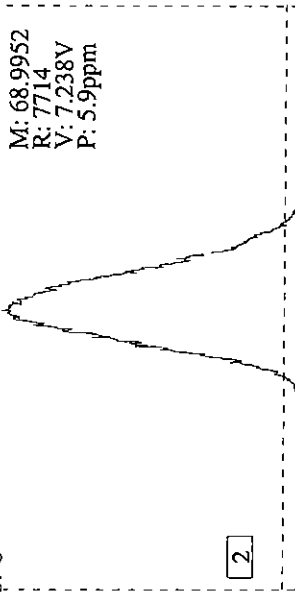
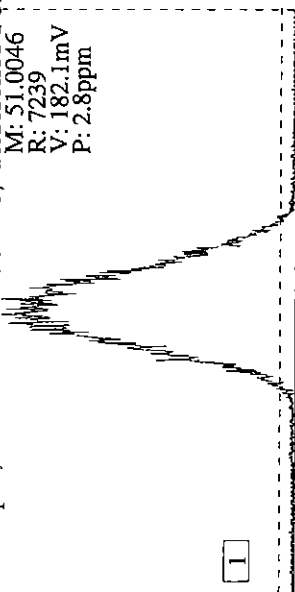
Group 2, Start Mass: 50.240, Reference Peaks: 4



000029

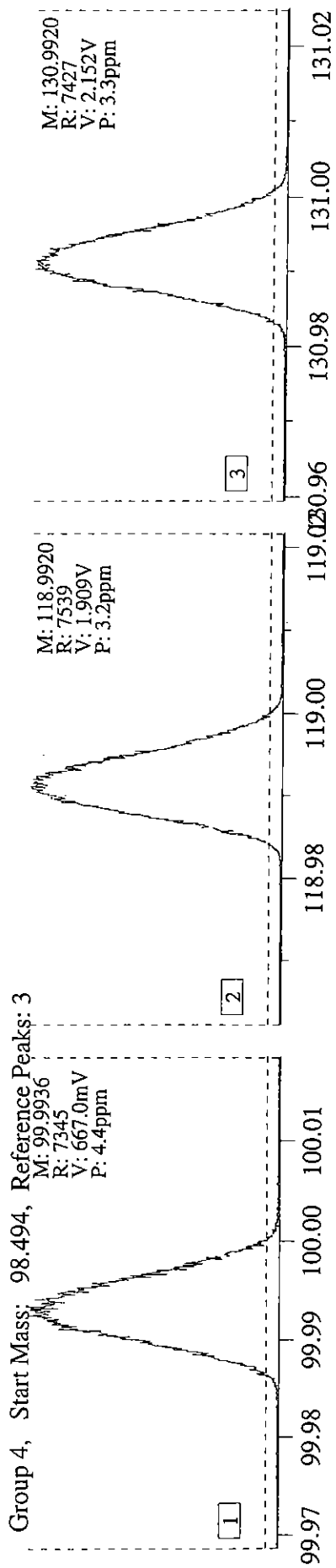
S.I.M. Calibration 13-May-2003 09:34, Run: kr23480003, Expt: nitros200 Normalised Plot Sweep: 500 ppm, Threshold: 0.00mV, Tolerance: 500 ppm

Group 3, Start Mass: 50.240, Reference Peaks: 6



000030

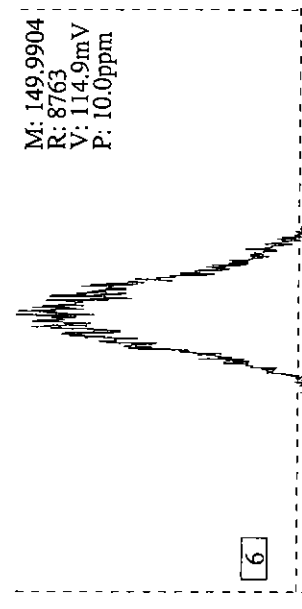
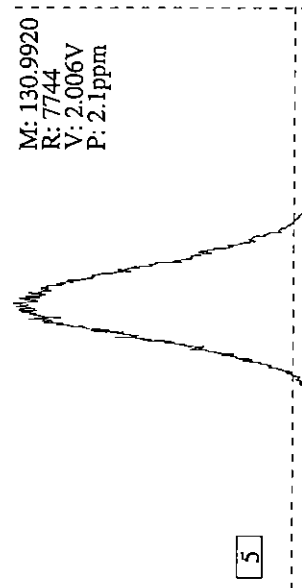
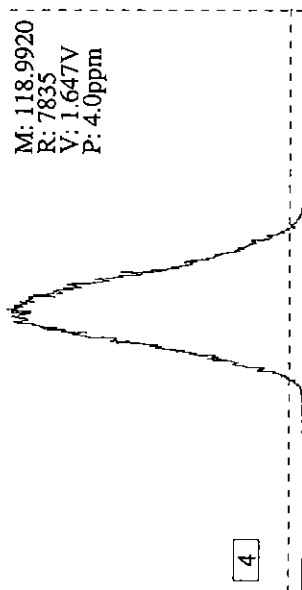
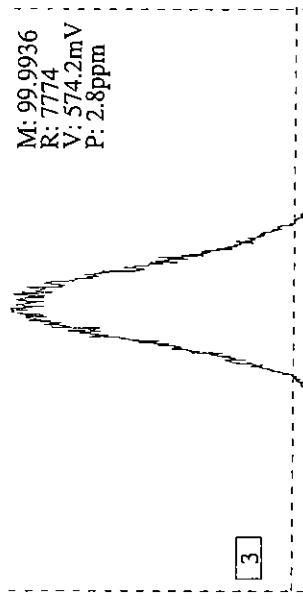
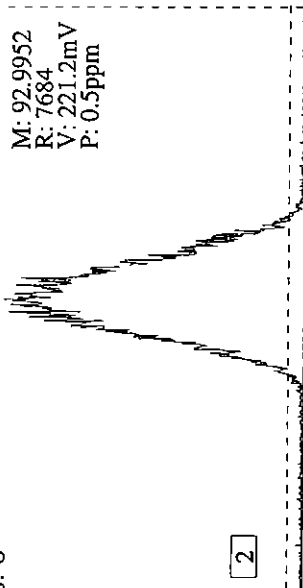
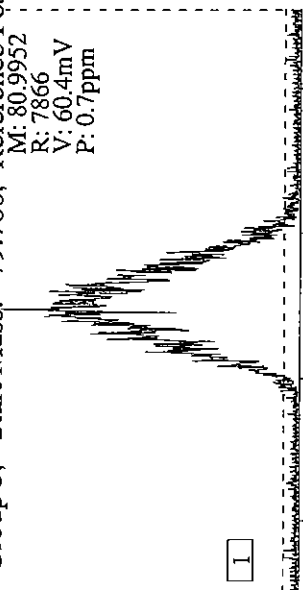
S.I.M. Calibration 13-May-2003 09:34, Run: kr23480003, Expt: nitros200 Normalised Plot Sweep: 500 ppm, Threshold: 0.00mV, Tolerance: 500 ppm



000031

S.I.M. Calibration 13-May-2003 09:34, Run: kr23480003, Expt: nitros200 Normalised Plot Sweep: 500 ppm, Threshold: 0.00mV, Tolerance: 500 ppm

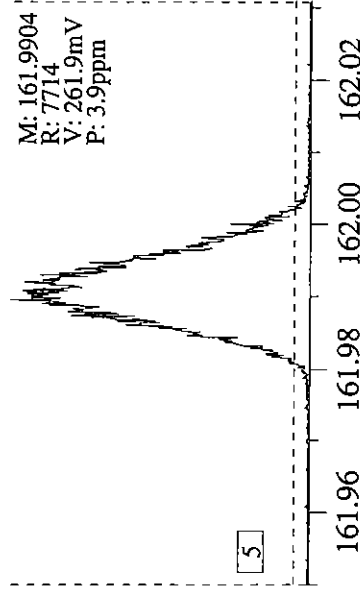
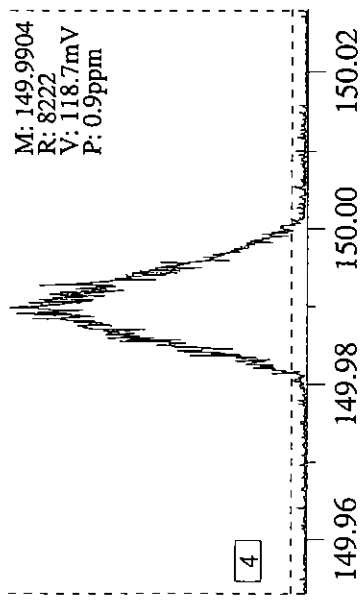
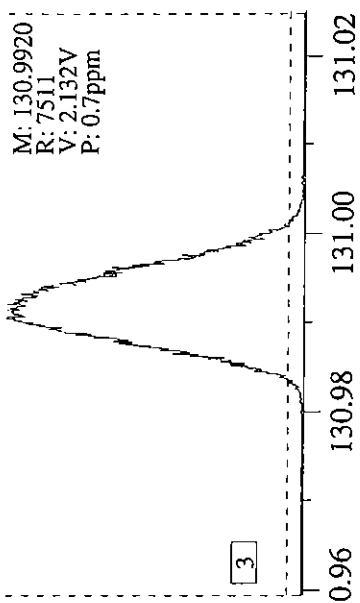
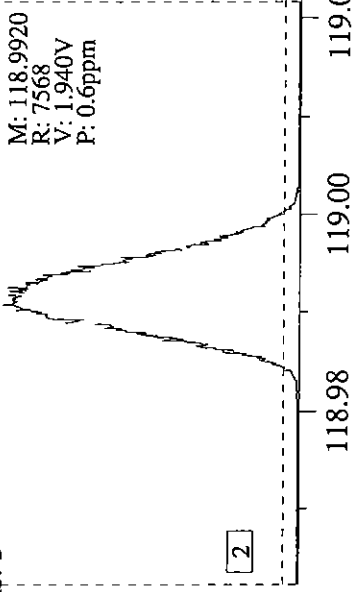
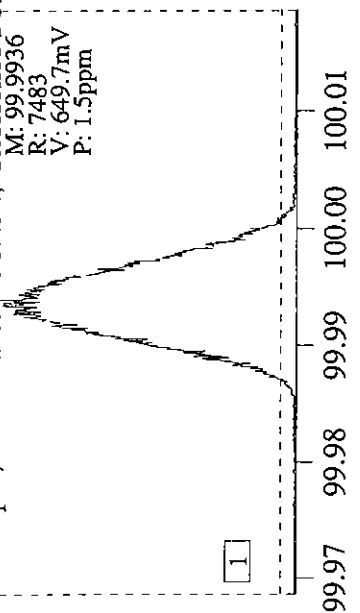
Group 5, Start Mass: 79.780, Reference Peaks: 6



000032

S.I.M. Calibration 13-May-2003 09:34, Run: kr23480003, Expt: nitros200 Normalised Plot Sweep: 500 ppm, Threshold: 0.00mV, Tolerance: 500 ppm

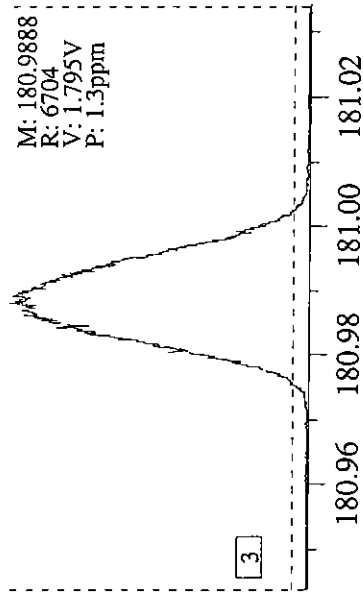
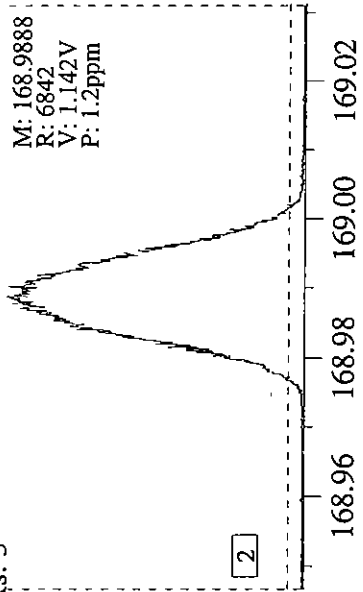
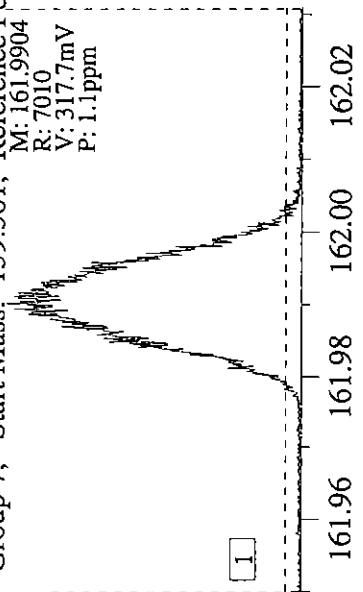
Group 6, Start Mass: 98.494, Reference Peaks: 5



000033

S.I.M. Calibration 13-May-2003 09:34, Run: kr23480003, Expt: nitros200 Normalised Plot Sweep: 500 ppm, Threshold: 0.00mV, Tolerance: 500 ppm

Group 7, Start Mass: 159.561, Reference Peaks: 3



000034

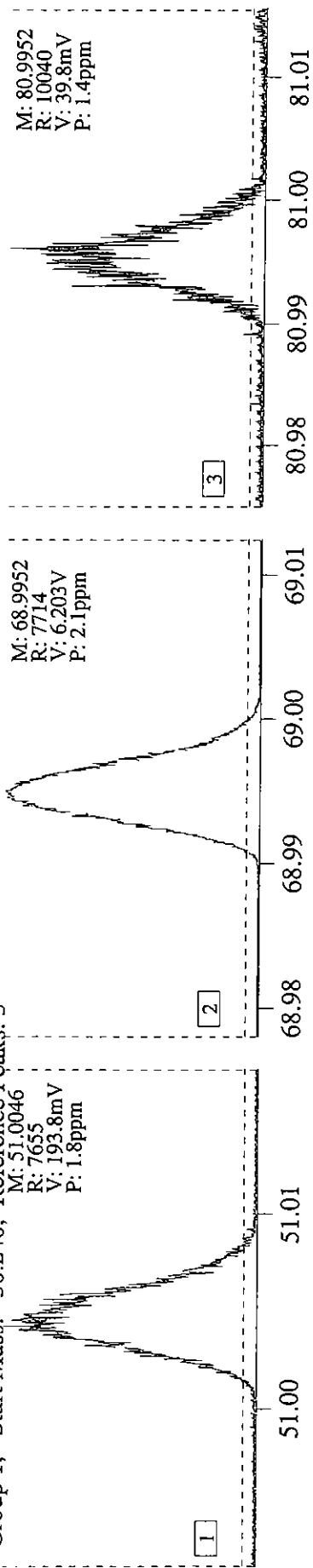
S.I.M. Calibration 13-May-2003 15:23, Run: kr23480018, Expt: nitros200 Normalised Plot Sweep: 500 ppm, Threshold: 0.00mV, Tolerance: 500 ppm

Group 1, Start Mass: 50.240, Reference Peaks: 3

M: 51.0046
R: 7655
V: 193.8mV
P: 1.8ppm

M: 68.9952
R: 7714
V: 6.203V
P: 2.1ppm

M: 80.9952
R: 10040
V: 39.8mV
P: 1.4ppm



000035

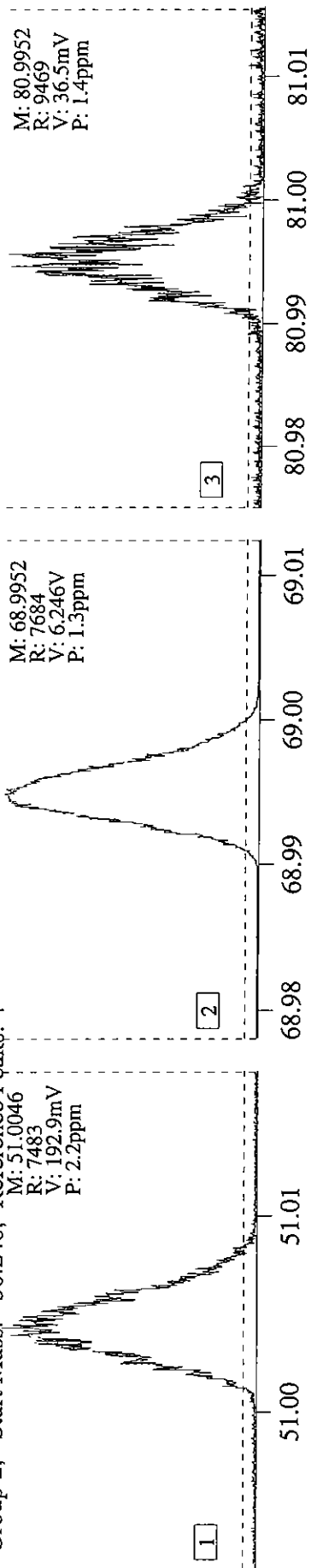
S.I.M. Calibration 13-May-2003 15:23, Run: kr23480018, Expt: nitros200 Normalised Plot Sweep: 500 ppm, Threshold: 0.00mV, Tolerance: 500 ppm

Group 2, Start Mass: 50.240, Reference Peaks: 4

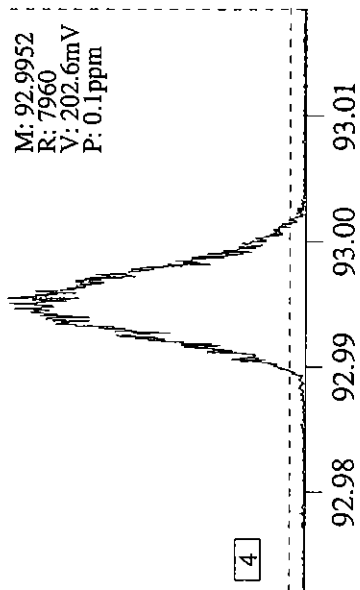
M: 51.0046
R: 7483
V: 192.9mV
P: 2.2ppm

M: 68.9952
R: 7684
V: 6.246V
P: 1.3ppm

M: 80.9952
R: 9469
V: 36.5mV
P: 1.4ppm



M: 92.9952
R: 7960
V: 202.6mV
P: 0.1ppm



000036

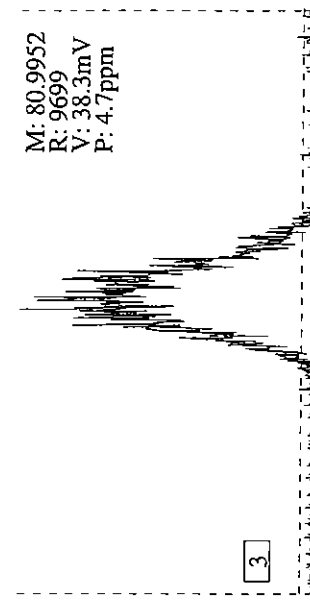
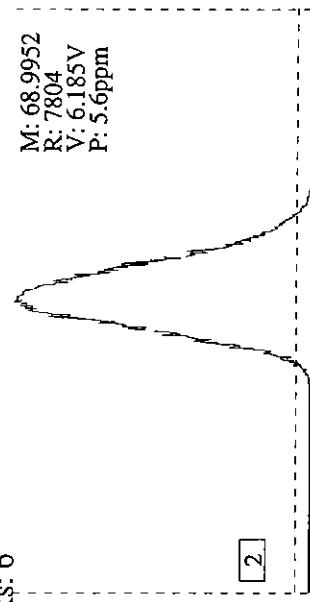
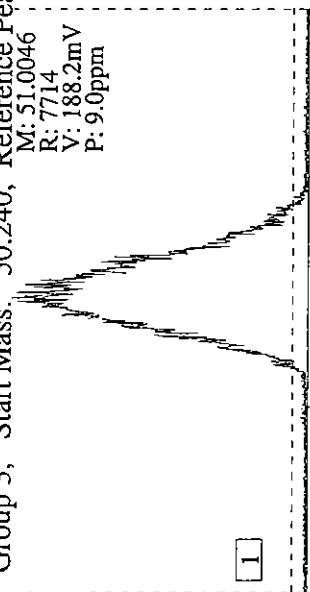
S.I.M. Calibration 13-May-2003 15:23, Run: kr23480018, Expt: nitros200 Normalised Plot Sweep: 500 ppm, Threshold: 0.00mV, Tolerance: 500 ppm

Group 3, Start Mass: 50.240, Reference Peaks: 6

M: 51.0046
R: 7714
V: 188.2mV
P: 9.0ppm

M: 68.9952
R: 7804
V: 6.185V
P: 5.6ppm

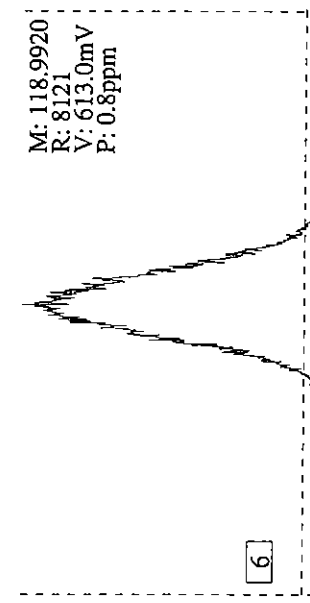
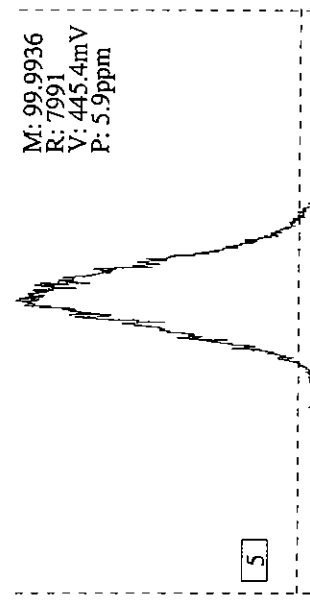
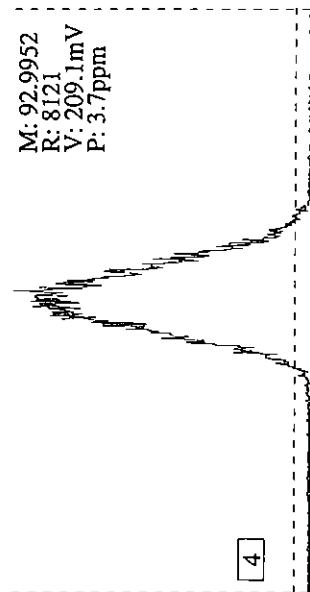
M: 80.9952
R: 9699
V: 38.3mV
P: 4.7ppm



M: 92.9952
R: 8121
V: 209.1mV
P: 3.7ppm

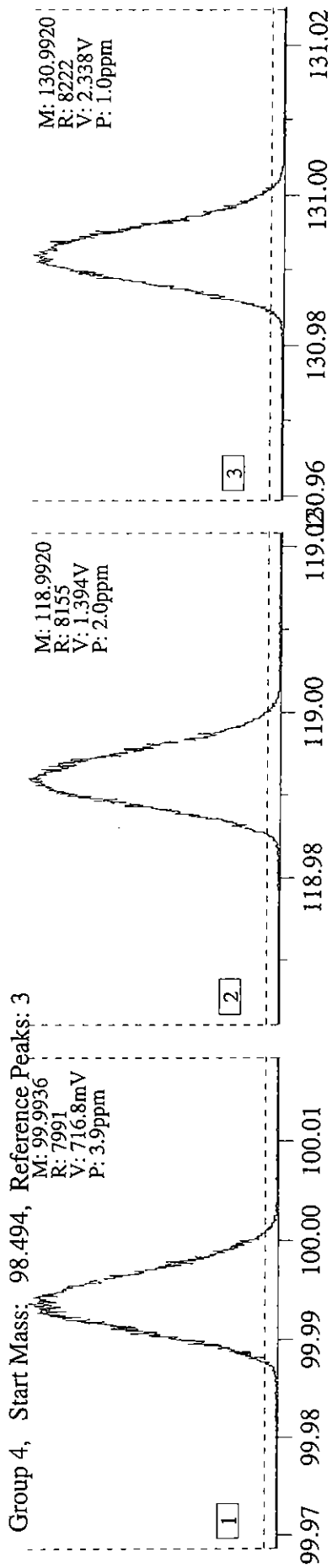
M: 99.9936
R: 7991
V: 445.4mV
P: 5.9ppm

M: 118.9920
R: 8121
V: 613.0mV
P: 0.8ppm



000037

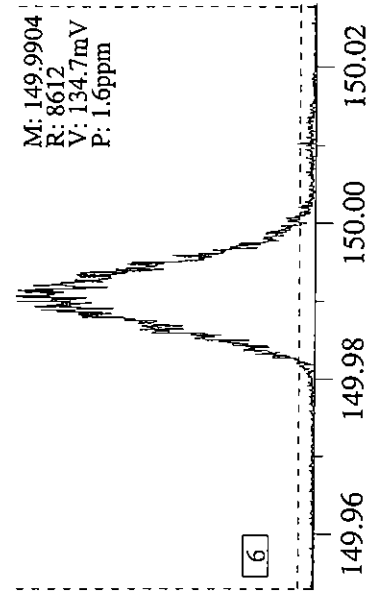
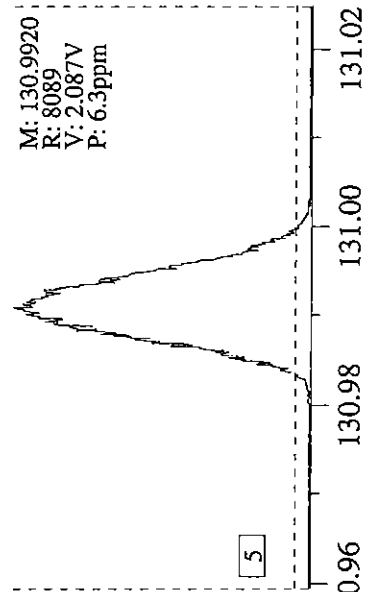
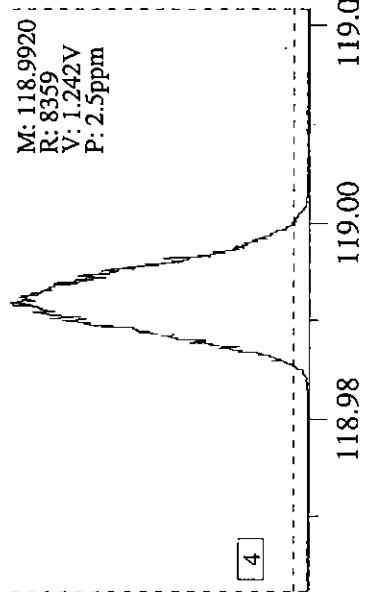
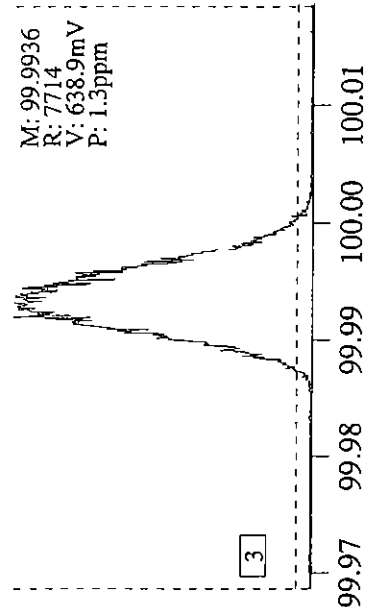
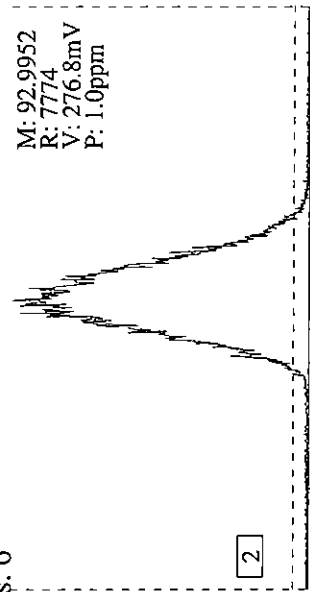
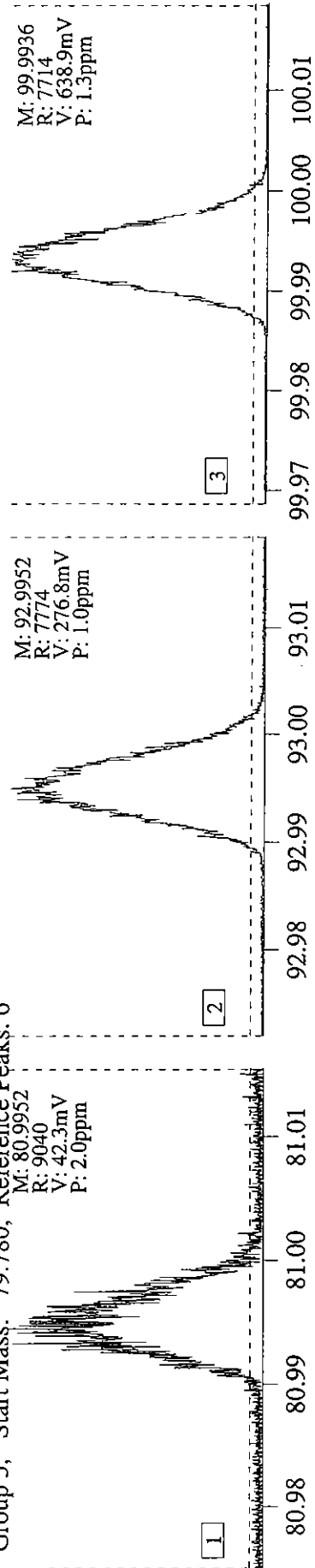
S.I.M. Calibration 13-May-2003 15:23, Run: kr23480018, Expt: nitros200 Normalised Plot Sweep: 500 ppm, Threshold: 0.00mV, Tolerance: 500 ppm



000038

S.I.M. Calibration 13-May-2003 15:23, Run: kr23480018, Expt: nitros200 Normalised Plot Sweep: 500 ppm, Threshold: 0.00mV, Tolerance: 500 ppm

Group 5, Start Mass: 79.780, Reference Peaks: 6



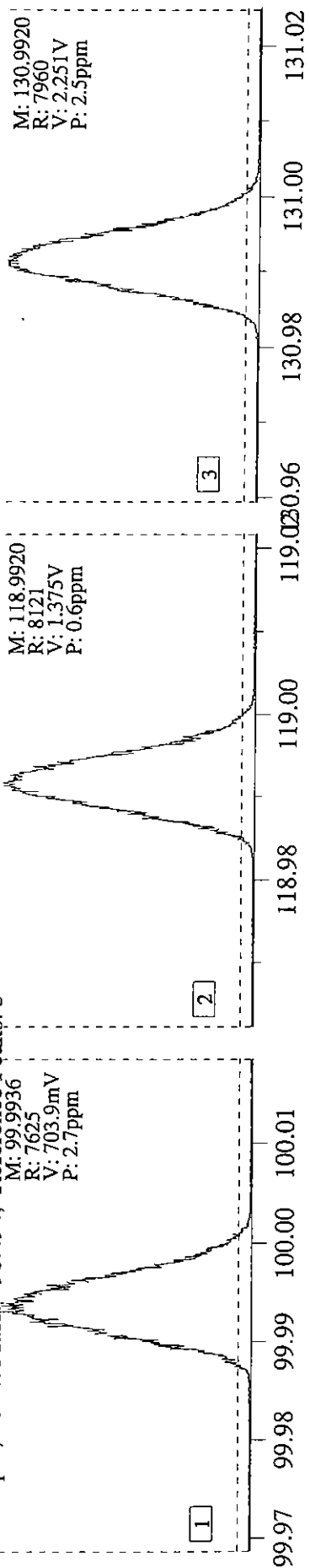
S.I.M. Calibration 13-May-2003 15:23, Run: kr23480018, Expt: nitros200 Normalised Plot Sweep: 500 ppm, Threshold: 0.00mV, Tolerance: 500 ppm

Group 6, Start Mass: 98.494, Reference Peaks: 5

M: 99.9936
R: 7625
V: 703.9mV
P: 2.7ppm

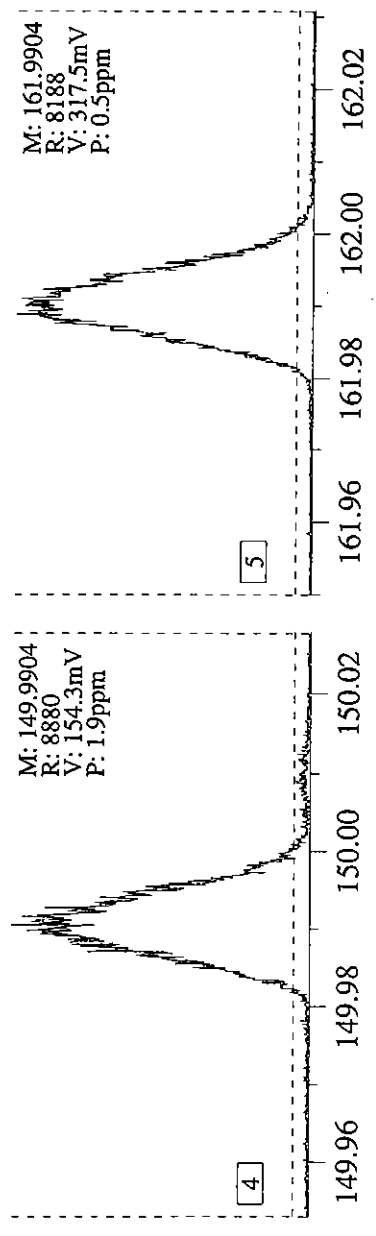
M: 118.9920
R: 8121
V: 1.375V
P: 0.6ppm

M: 130.9920
R: 7960
V: 2.251V
P: 2.5ppm



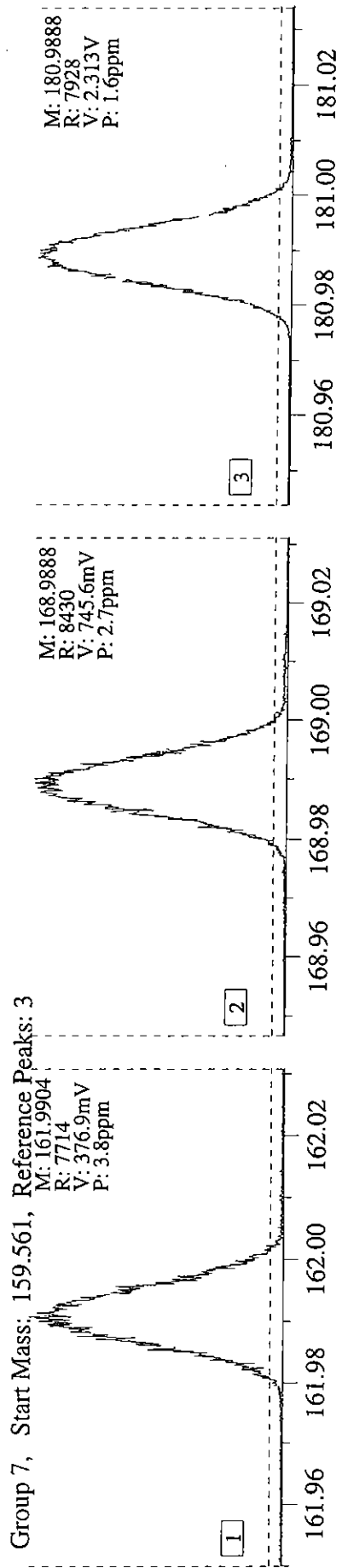
M: 149.9904
R: 8880
V: 154.3mV
P: 1.9ppm

M: 161.9904
R: 8188
V: 317.5mV
P: 0.5ppm



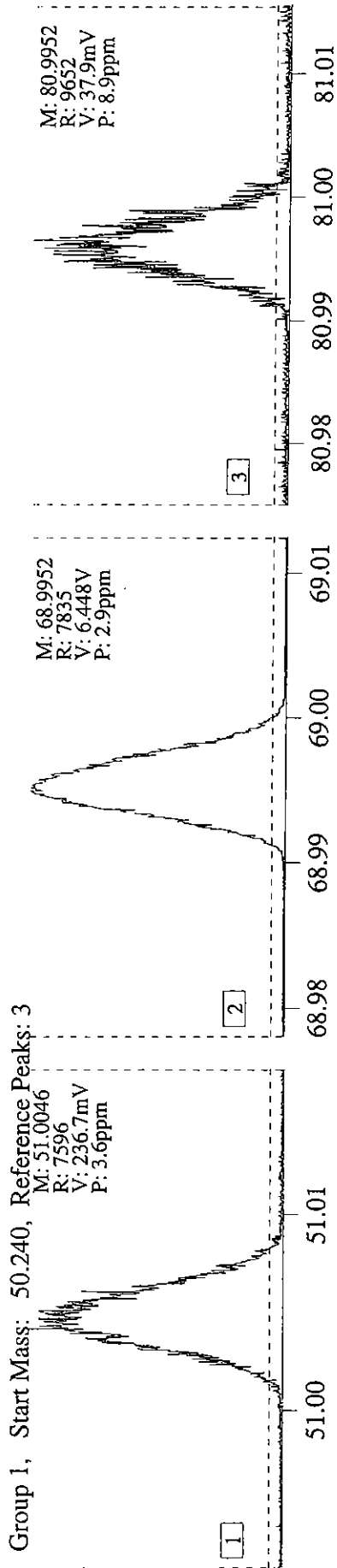
000040

S.I.M. Calibration 13-May-2003 15:23, Run: kr23480018, Expt: nitros200 Normalised Plot Sweep: 500 ppm, Threshold: 0.00mV, Tolerance: 500 ppm



000041

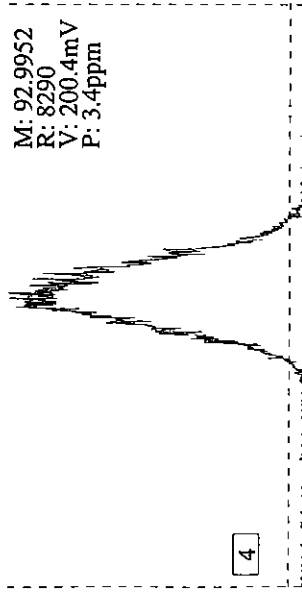
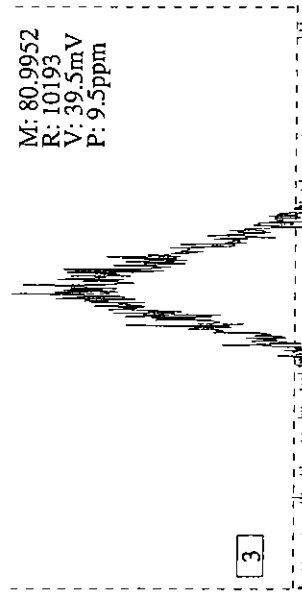
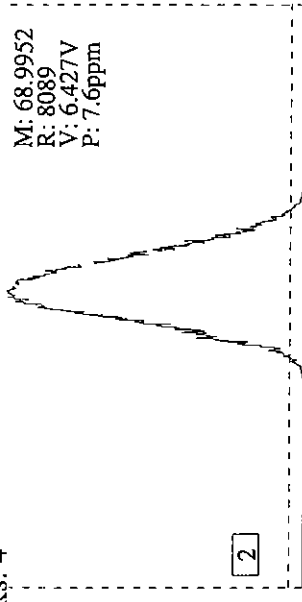
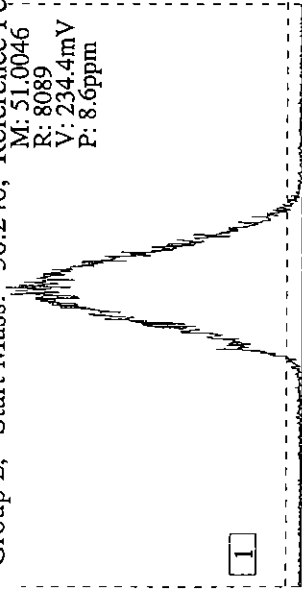
S.I.M. Calibration 14-May-2003 08:47, Run: kr23490003, Expt: nitros200 Normalised Plot Sweep: 500 ppm, Threshold: 0.00mV, Tolerance: 500 ppm



000042

S.I.M. Calibration 14-May-2003 08:47, Run: kr23490003, Expt: nitros200 Normalised Plot Sweep: 500 ppm, Threshold: 0.00mV, Tolerance: 500 ppm

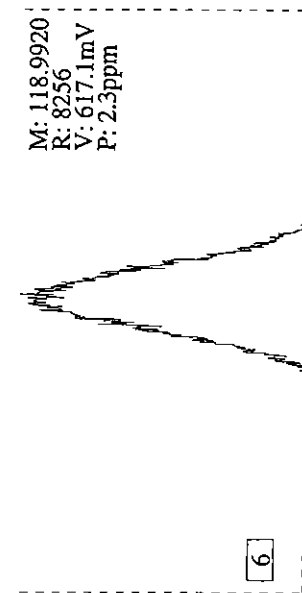
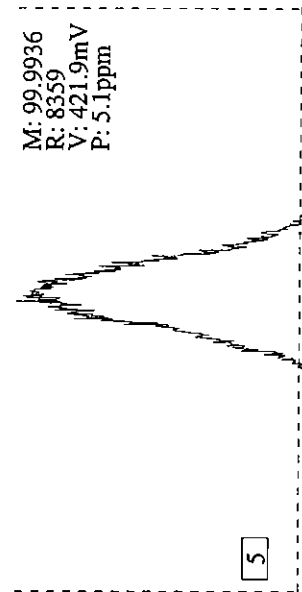
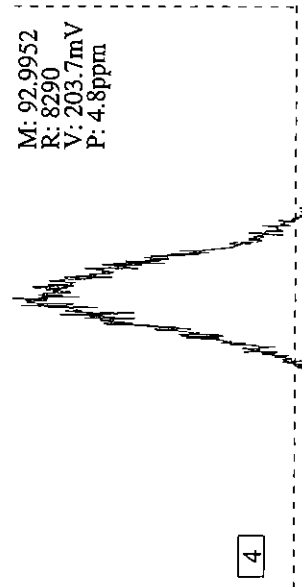
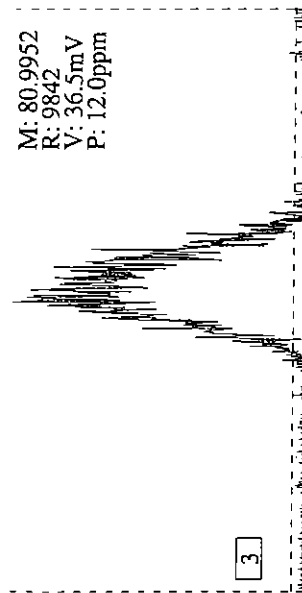
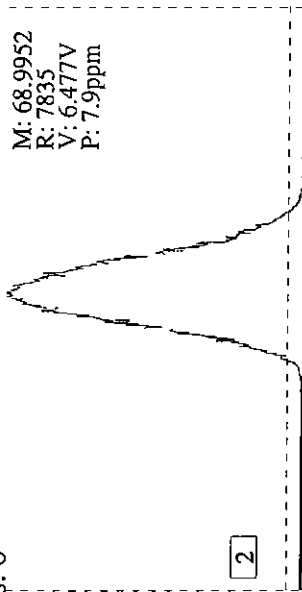
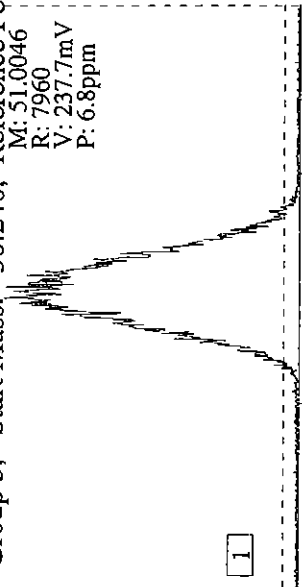
Group 2, Start Mass: 50.240, Reference Peaks: 4



000043

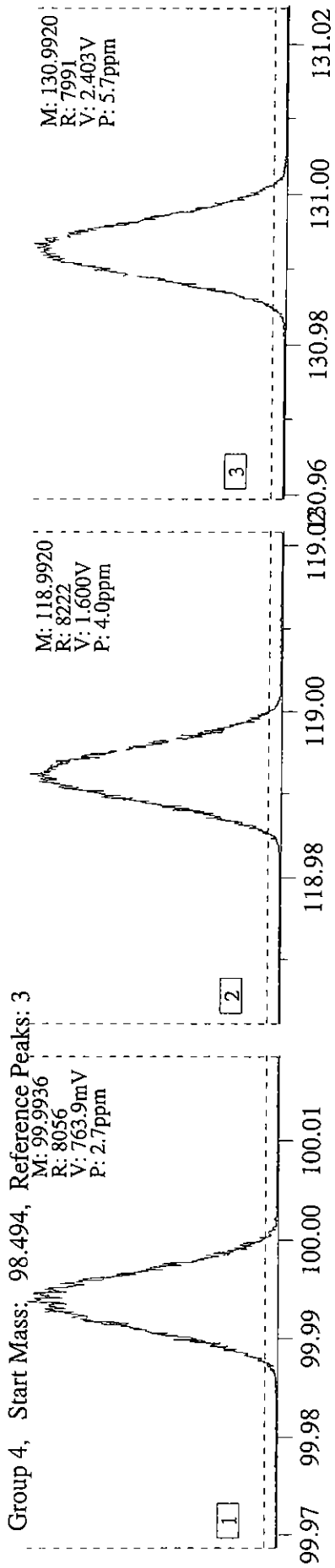
S.I.M. Calibration 14-May-2003 08:47, Run: kr23490003, Expt: nitros200 Normalised Plot Sweep: 500 ppm, Threshold: 0.00mV, Tolerance: 500 ppm

Group 3, Start Mass: 50.240, Reference Peaks: 6



000044

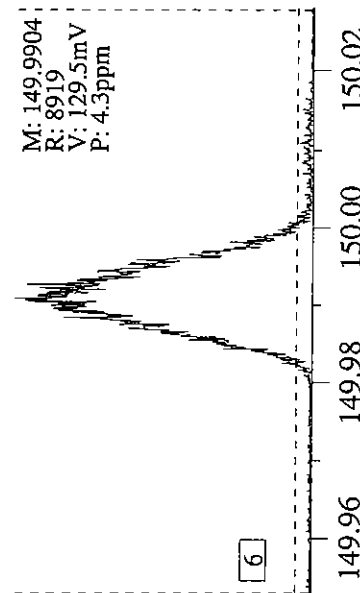
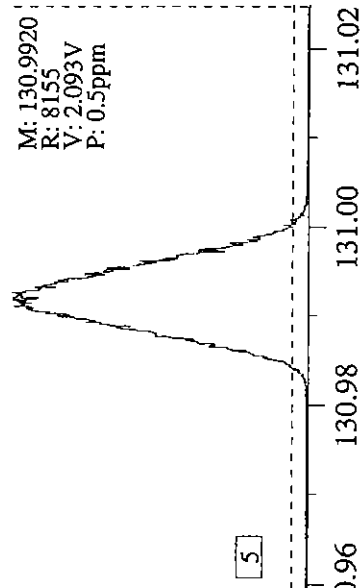
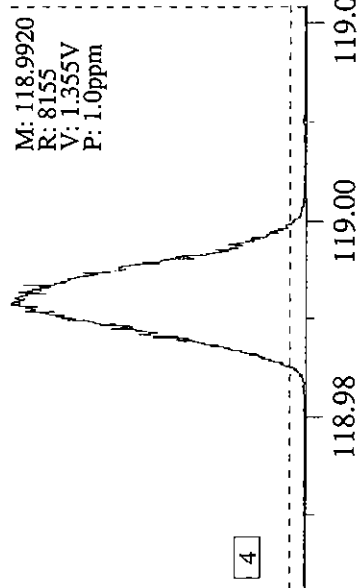
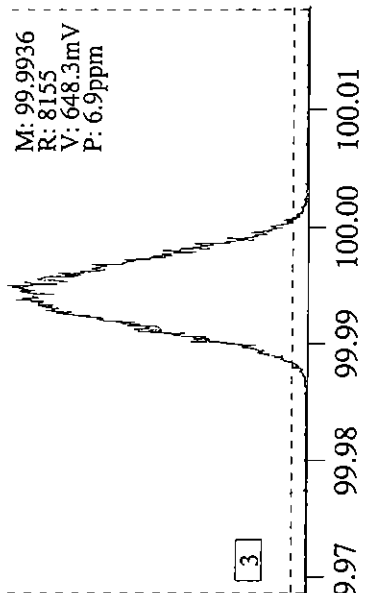
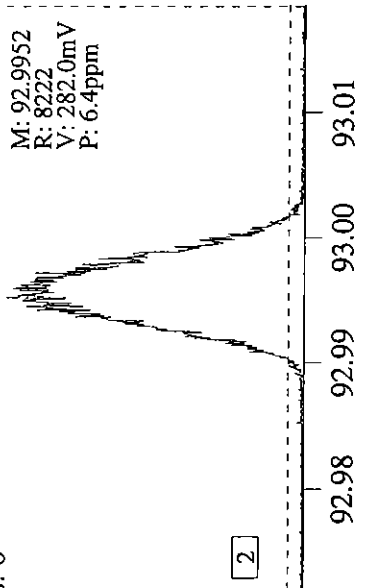
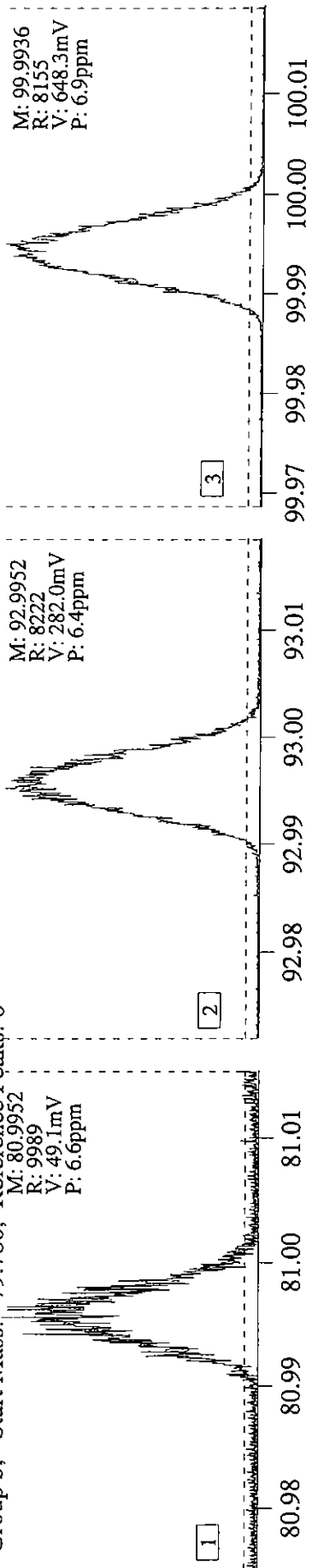
S.I.M. Calibration 14-May-2003 08:47, Run: kr23490003, Expt: nitros200 Normalised Plot Sweep: 500 ppm, Threshold: 0.00mV, Tolerance: 500 ppm



000043

S.I.M. Calibration 14-May-2003 08:47, Run: kr23490003, Expt: nitros200 Normalised Plot Sweep: 500 ppm, Threshold: 0.00mV, Tolerance: 500 ppm

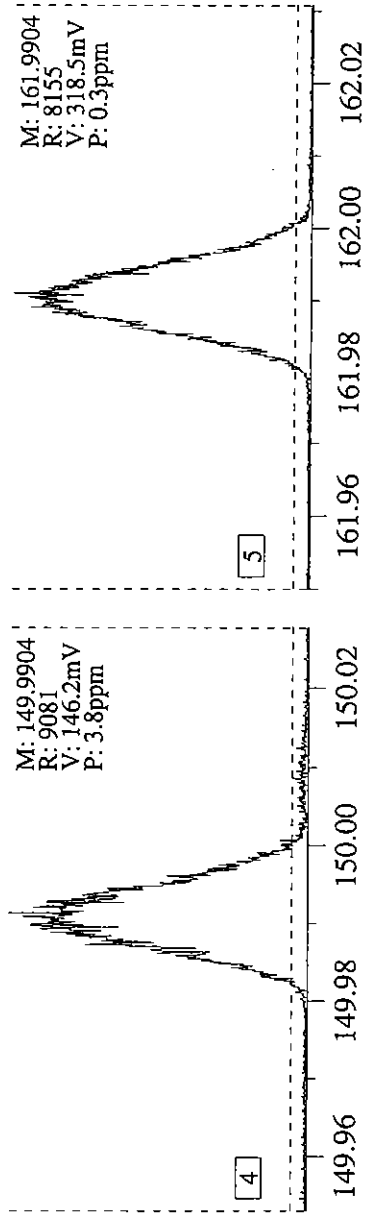
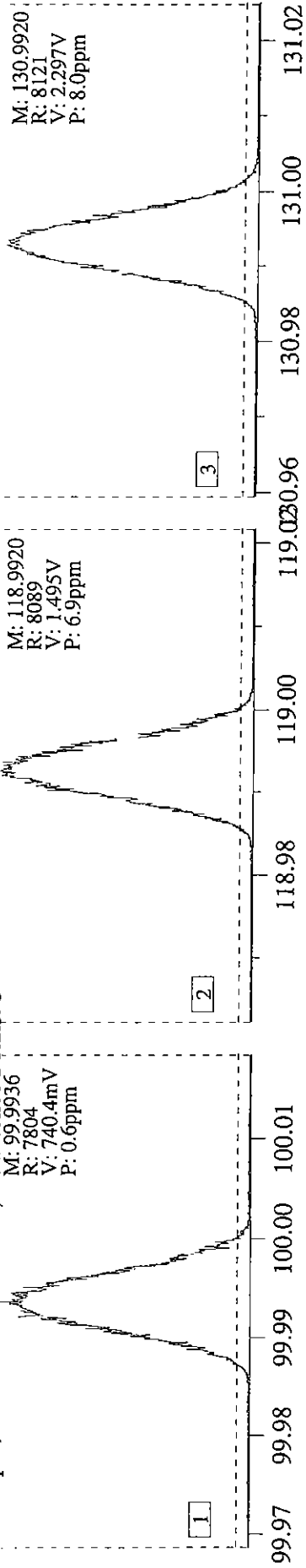
Group 5, Start Mass: 79.780, Reference Peaks: 6



000046

S.I.M. Calibration 14-May-2003 08:47, Run: kr23490003, Expt: nitros200 Normalised Plot Sweep: 500 ppm, Threshold: 0.00mV, Tolerance: 500 ppm

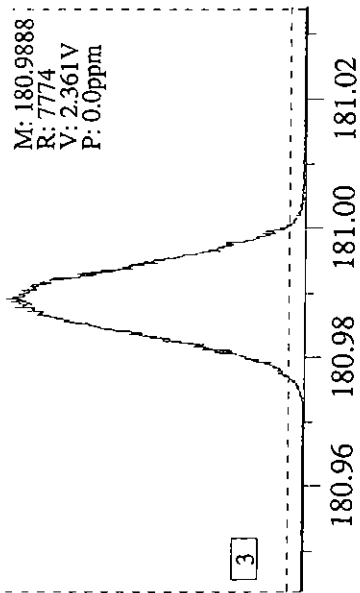
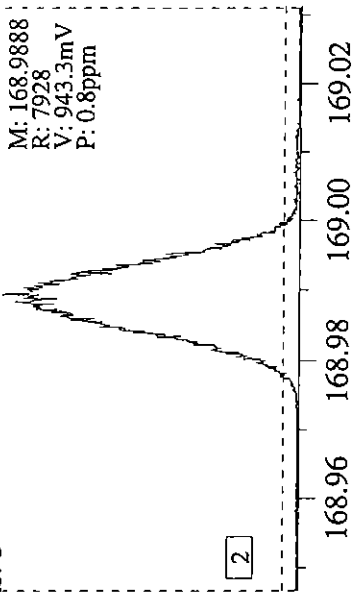
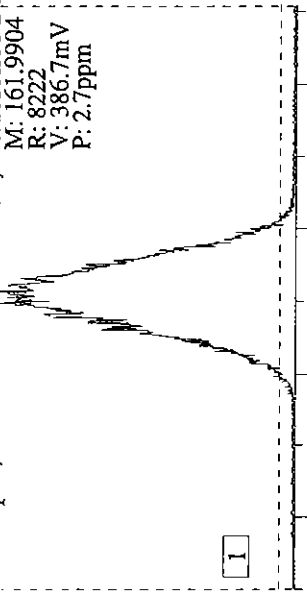
Group 6, Start Mass: 98.494, Reference Peaks: 5



000047

S.I.M. Calibration 14-May-2003 08:47, Run: kr23490003, Expt: nitros200 Normalised Plot Sweep: 500 ppm, Threshold: 0.00mV, Tolerance: 500 ppm

Group 7, Start Mass: 159.561, Reference Peaks: 3



000048

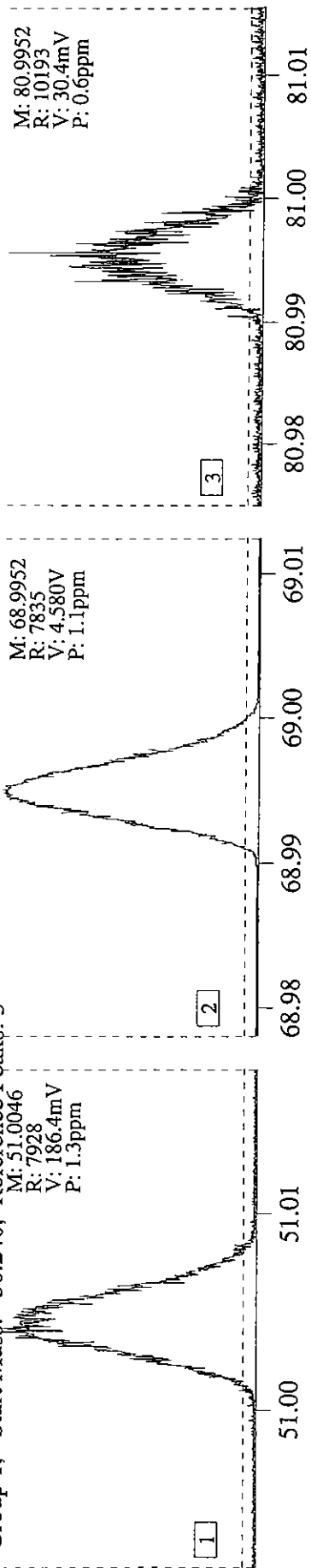
S.I.M. Calibration 14-May-2003 17:30, Run: kr23490028, Expt: nitros200 Normalised Plot Sweep: 500 ppm, Threshold: 0.00mV, Tolerance: 500 ppm

Group 1, Start Mass: 50.240, Reference Peaks: 3

M: 51.0046
R: 7928
V: 186.4mV
P: 1.3ppm

M: 68.9952
R: 7835
V: 4.580V
P: 1.1ppm

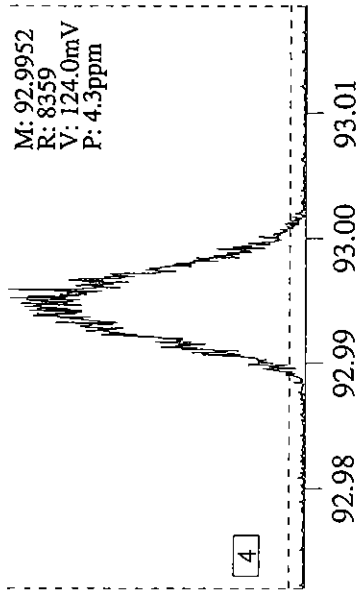
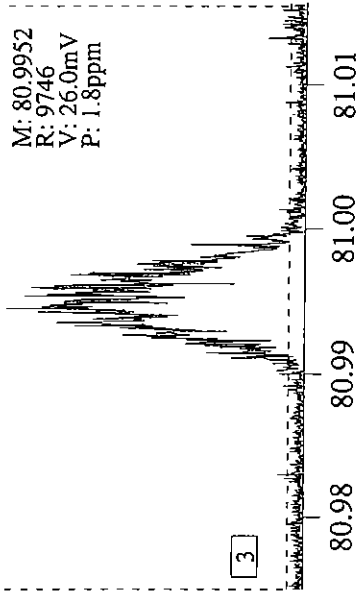
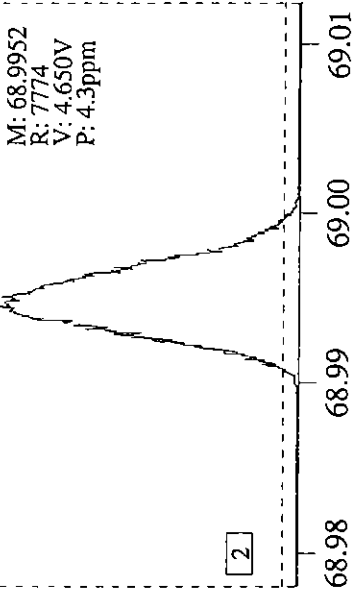
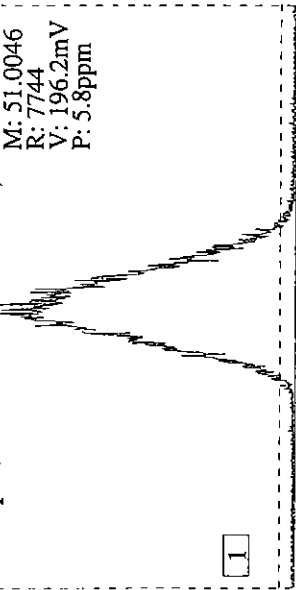
M: 80.9952
R: 10193
V: 30.4mV
P: 0.6ppm



000049

S.I.M. Calibration 14-May-2003 17:30, Run: kr23490028, Expt: nitros200 Normalised Plot Sweep: 500 ppm, Threshold: 0.00mV, Tolerance: 500 ppm

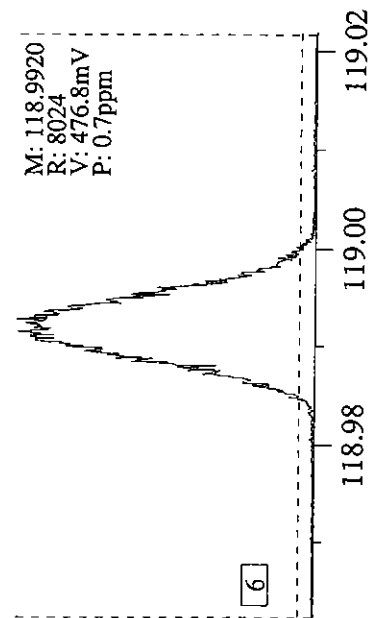
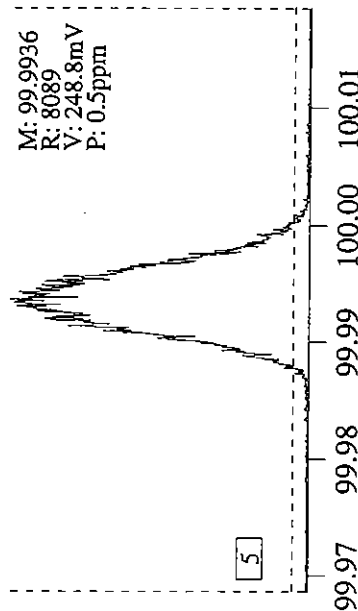
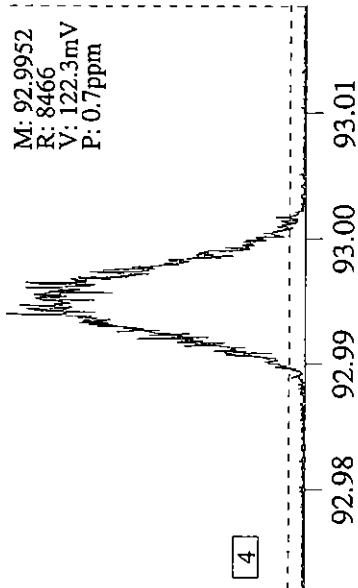
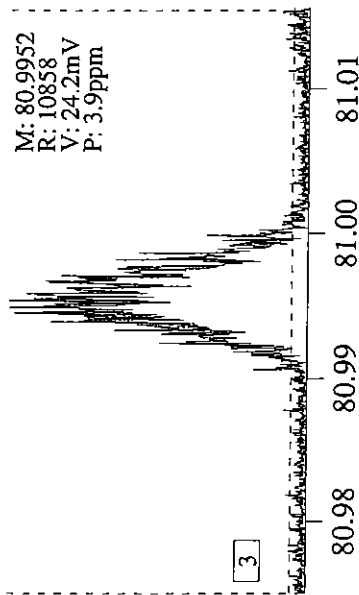
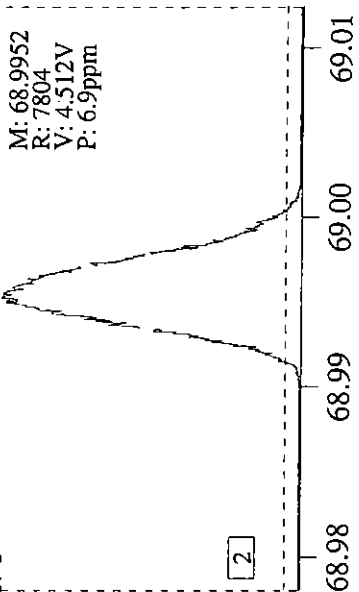
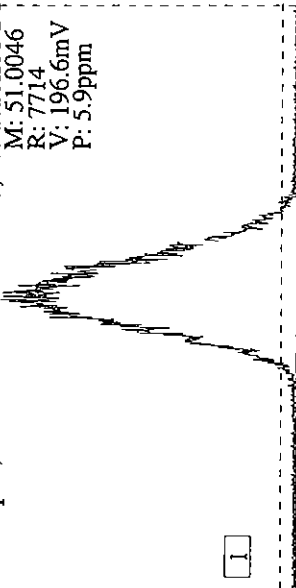
Group 2, Start Mass: 50.240, Reference Peaks: 4



000050

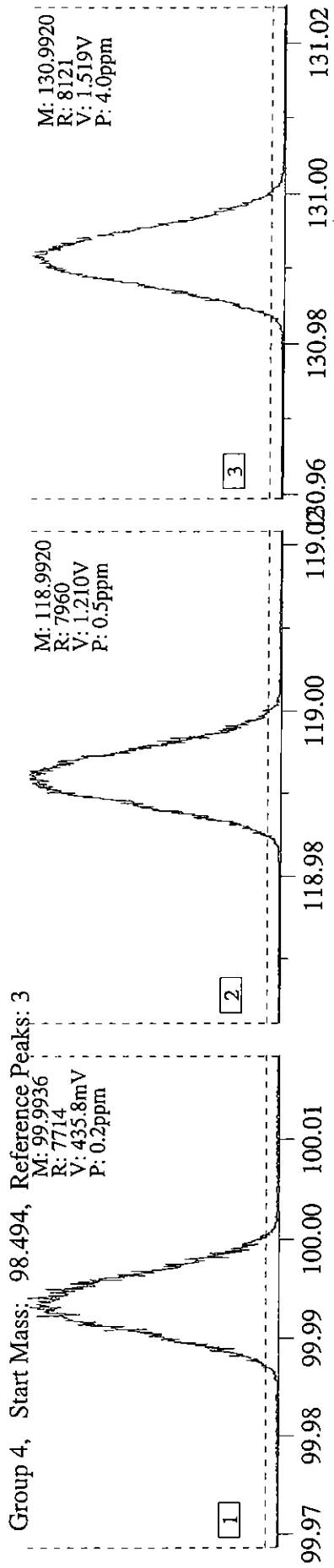
S.I.M. Calibration 14-May-2003 17:30, Run: kr23490028, Expt: nitros200 Normalised Plot Sweep: 500 ppm, Threshold: 0.00mV, Tolerance: 500 ppm

Group 3, Start Mass: 50.240, Reference Peaks: 6



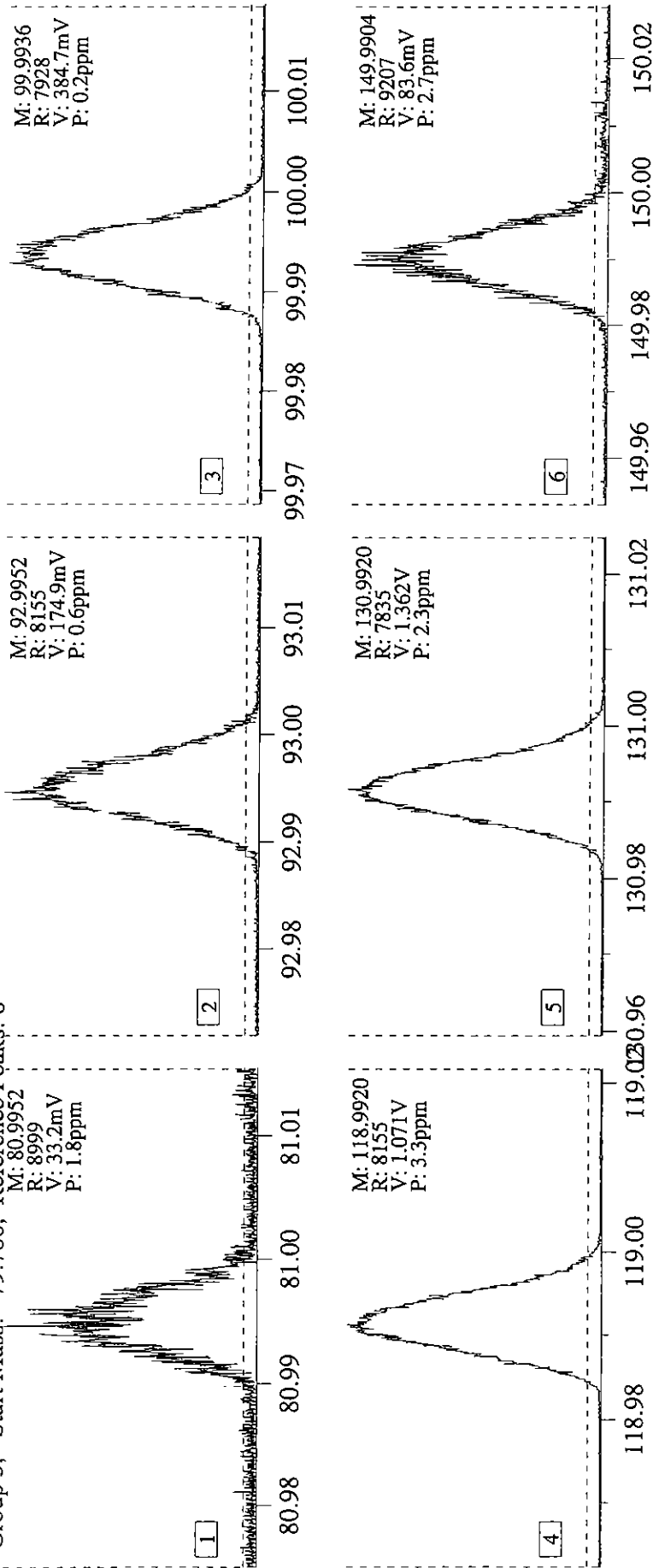
000051

S.I.M. Calibration 14-May-2003 17:30, Run: kr23490028, Expt: nitros200 Normalised Plot Sweep: 500 ppm, Threshold: 0.00mV, Tolerance: 500 ppm



S.I.M. Calibration 14-May-2003 17:30, Run: kr23490028, Expt: nitros200 Normalised Plot Sweep: 500 ppm, Threshold: 0.00mV, Tolerance: 500 ppm

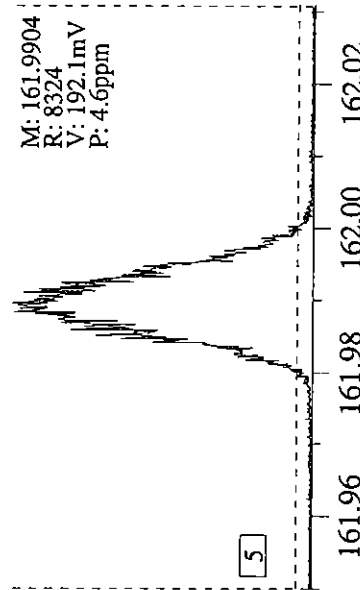
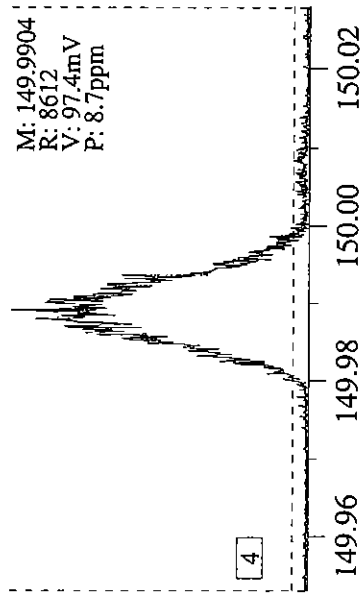
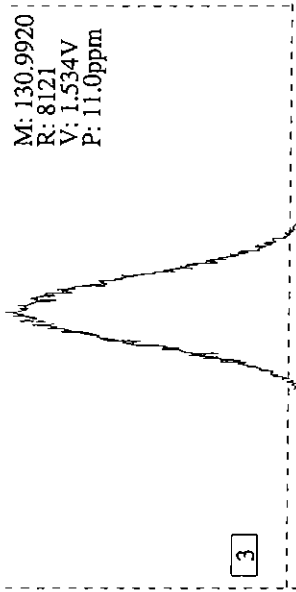
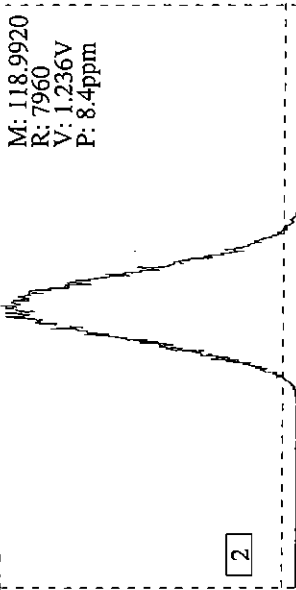
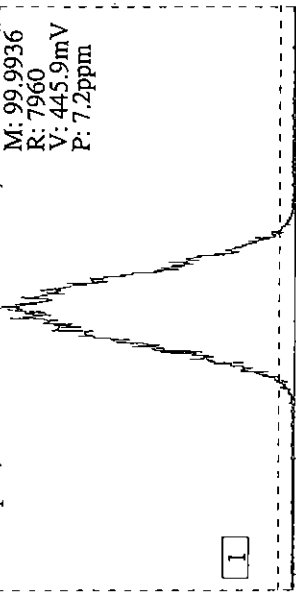
Group 5, Start Mass: 79.780, Reference Peaks: 6



000053

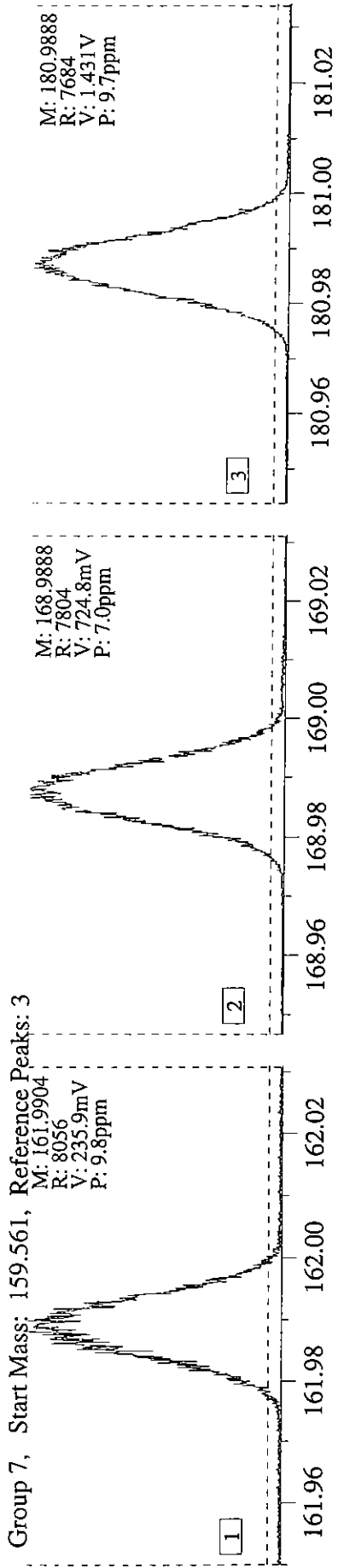
S.I.M. Calibration 14-May-2003 17:30, Run: kr23490028, Expt: nitros200 Normalised Plot Sweep: 500 ppm, Threshold: 0.00mV, Tolerance: 500 ppm

Group 6, Start Mass: 98.494, Reference Peaks: 5



000054

S.I.M. Calibration 14-May-2003 17:30, Run: kr23490028, Expt: nitros200 Normalised Plot Sweep: 500 ppm, Threshold: 0.00mV, Tolerance: 500 ppm



000055

INITIAL CALIBRATION

000056

INITIAL CALIBRATION

Lab Name Maxxam Analytics Inc.

Instrument: Kratos HRGC/HRMS Calibration Date 2003/05/13

LAB FILE ID. KR23480005 CS1
 KR23480006 CS2
 KR23480007 CS3
 KR23480008 CS4
 KR23480009 CS5
 KR23480010 CS6

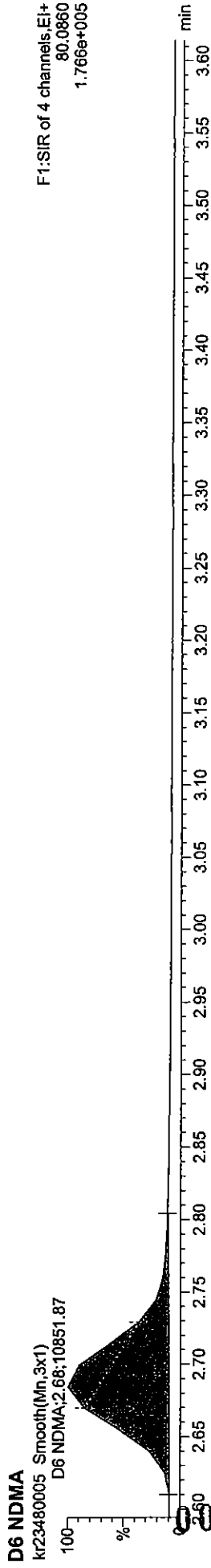
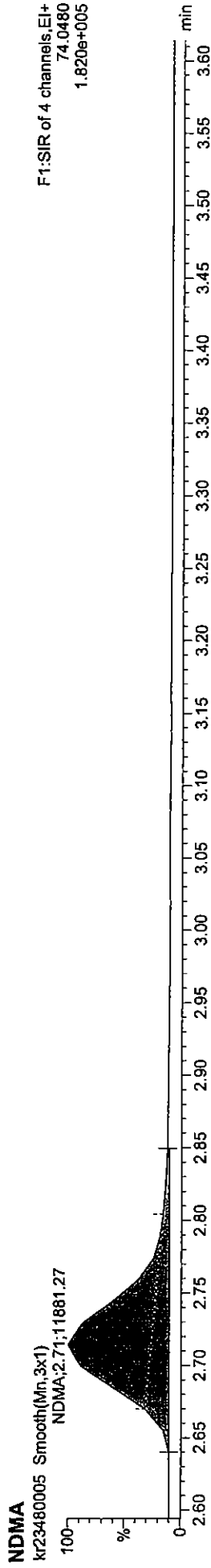
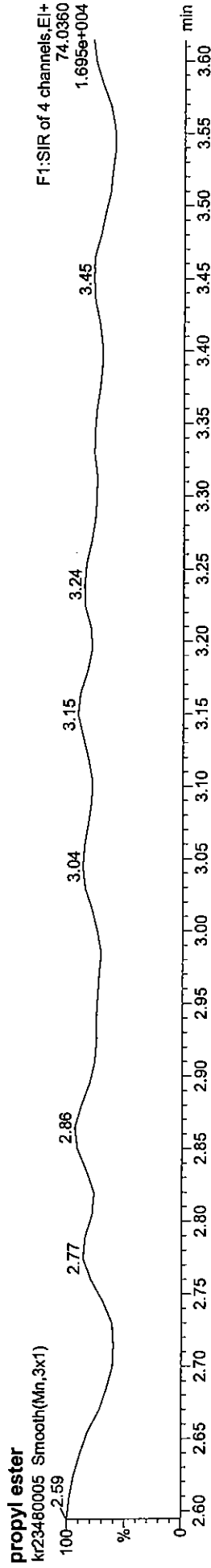
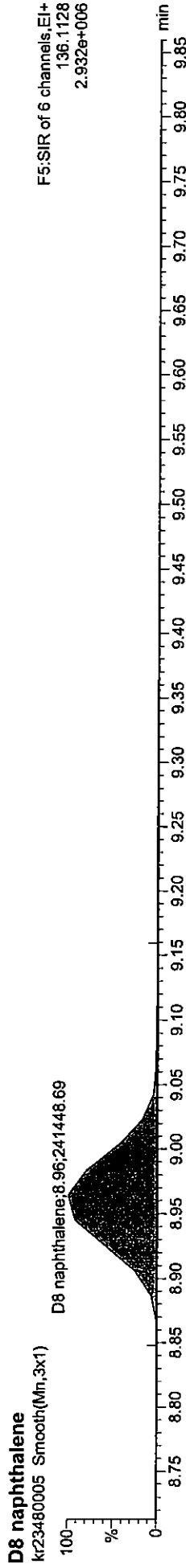
Compound	RRF CS1 (5.00ng/mL)	RRF CS2 (50.0ng/mL)	RRF CS3 (80.00ng/mL)	RRF CS4 (200.0ng/mL)	RRF CS5 (1000ng/mL)	RRF CS6 (2000ng/mL)	AVERAGE RRF	%RSD	Max %RSD
NDMA	2.15	1.77	1.51	1.81	1.58	1.57	1.73	14	25
D6 NDMA	0.115	0.0910	0.109	0.0910	0.117	0.118	0.107	12	25

000057

Dataset: C:\MASSLYNX\Default.pro\QuantlynxFiles\QC\Calibration\20030513\ndmacali-20030513.qld, Time: Tue May 13 13:55:16 2003

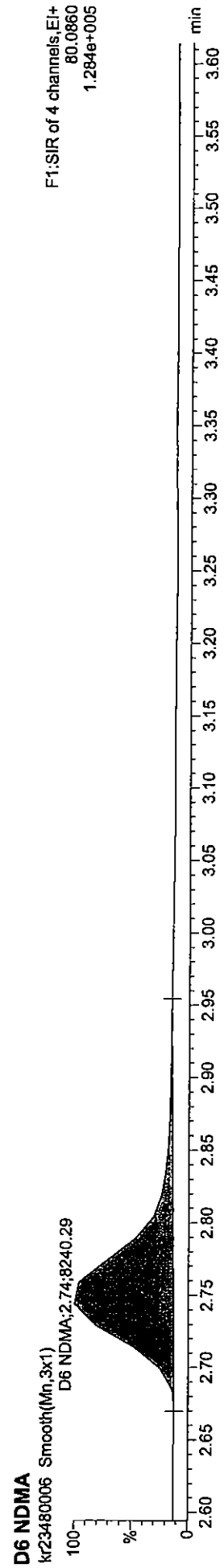
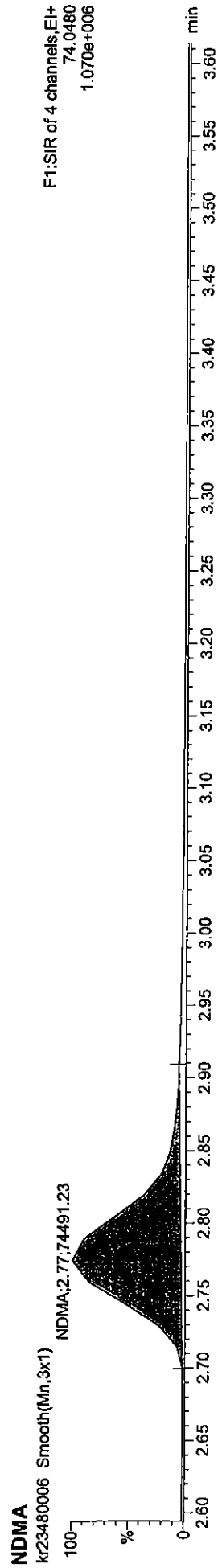
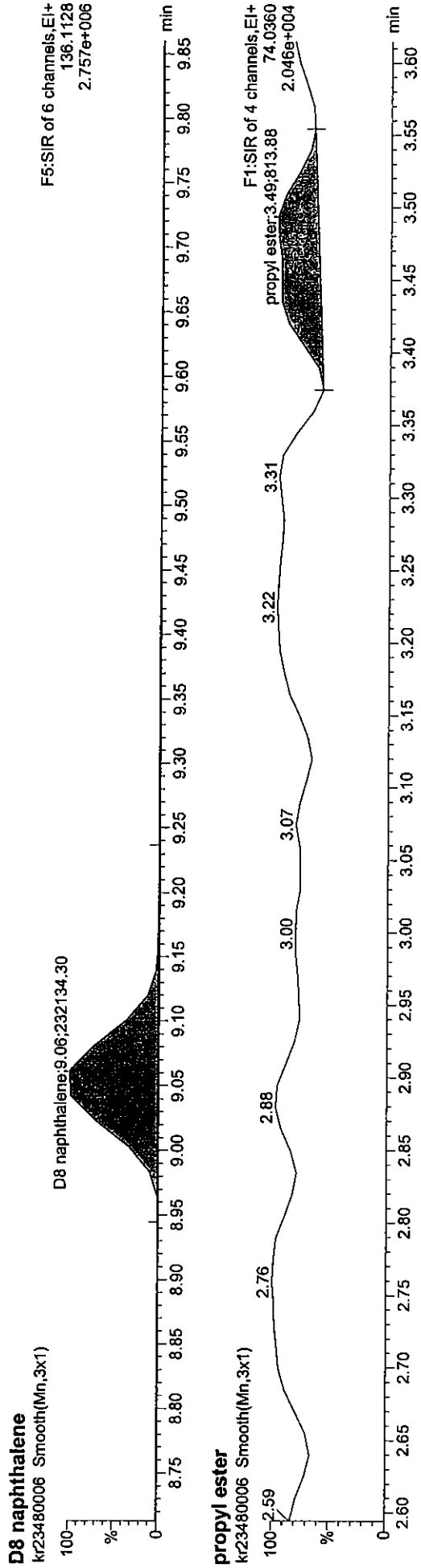
Method: C:\MASSLYNX\Default.pro\METHDB\initros_ET.mdb, Time: Tue May 13 13:54:07 2003
Calibration: Untitled, Time: Tue May 13 13:55:16 2003

Name: kr23480005.*, Date: 13-May-2003, Time: 10:09:06, ID: , Description: 5.00ng/ml 70-206NDMW-1254



Dataset: C:\MASSLYNX\Default.pro\QuantlynxFiles\QC\Calibration\20030513\ndmacali-20030513.qld, Time: Tue May 13 13:55:16 2003

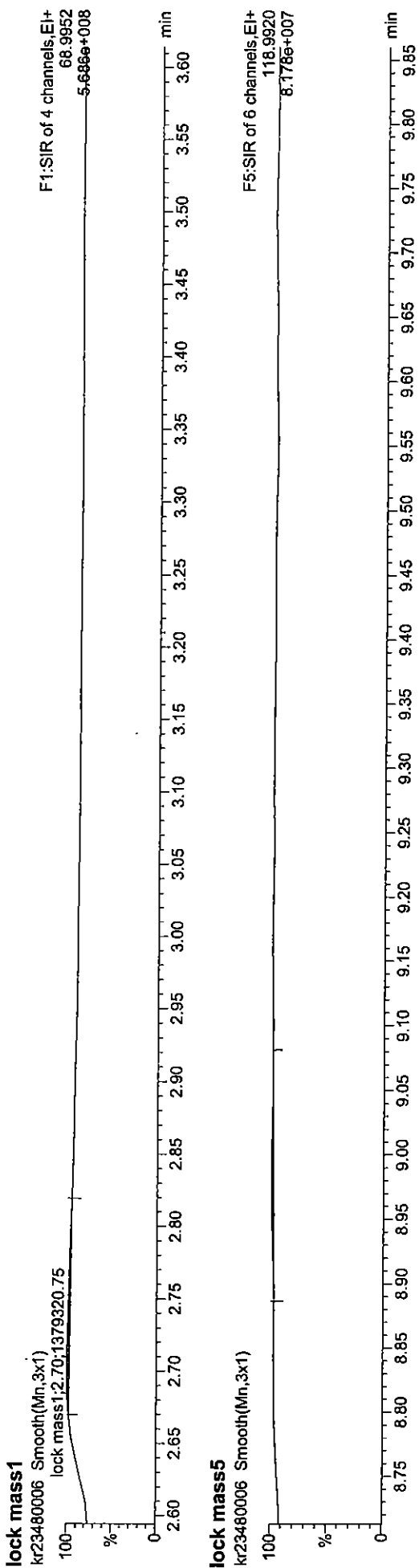
Name: kr23480006.*, Date: 13-May-2003, Time: 11:10:31, ID: , Description: 50.0ng/mL 70-204NDMW-1247



000060

Quantify Sample Report

Dataset: C:\MASSLYNX\Default.pro\Quant\ynxFiles\QC\Calibration\20030513\ndmacali-20030513.qld, Time: Tue May 13 13:55:16 2003

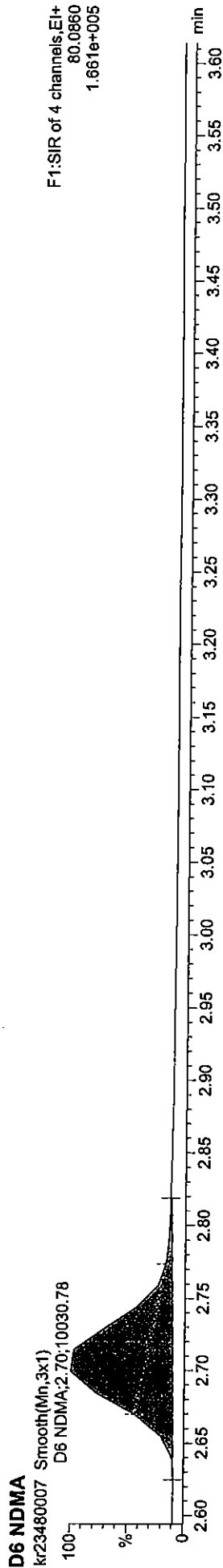
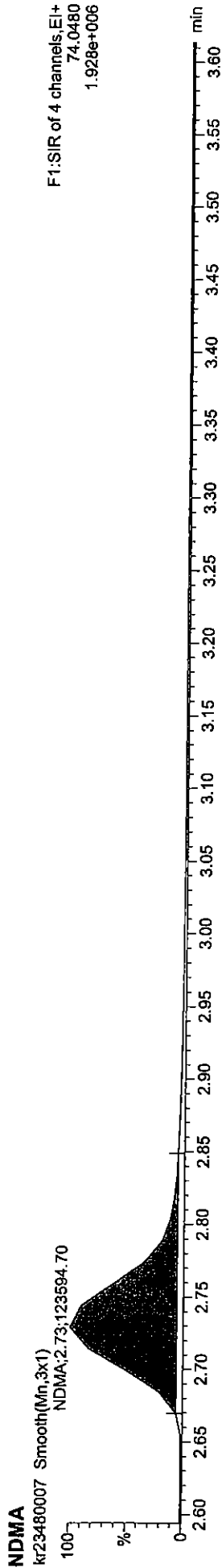
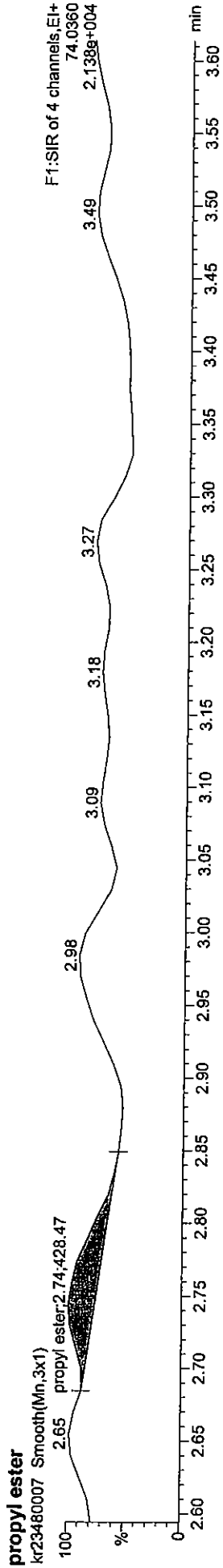
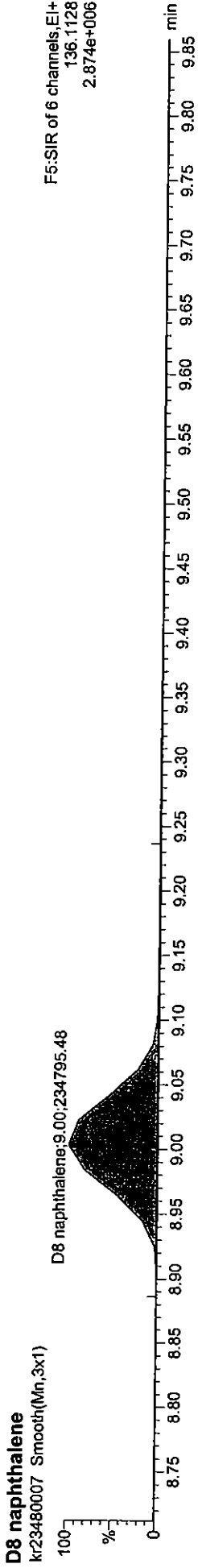


IR	Retention Time	Mass	Area	Height	Width	Height	Area	Height	Width
1	NDMA	74.0480	74491	2.77	51172	2.34	1.772		
2	D6 NDMA	80.0860	8240	2.74	8307	-15.23	0.091		
3	D8 naphthalene	136.1128	232134	9.06	25000	0.00	1.000		
4	propyl ester	74.0360	814	3.49	0	-51.16	813.884		

000061

Dataset: C:\MASSLYNX\Default.pro\QuantYnxFiles\QC\Calibration\20030513\Indmacali-20030513.qld, Time: Tue May 13 13:55:16 2003

Name: kr23480007.*, Date: 13-May-2003, Time: 11:24:30, ID: , Description: 80.0ng/mL 70-204NDMW-1248

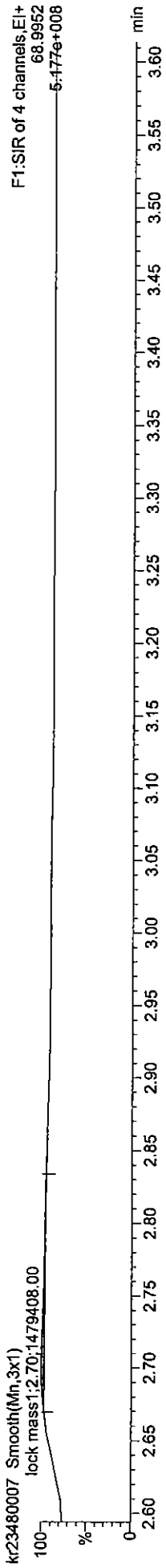


000062

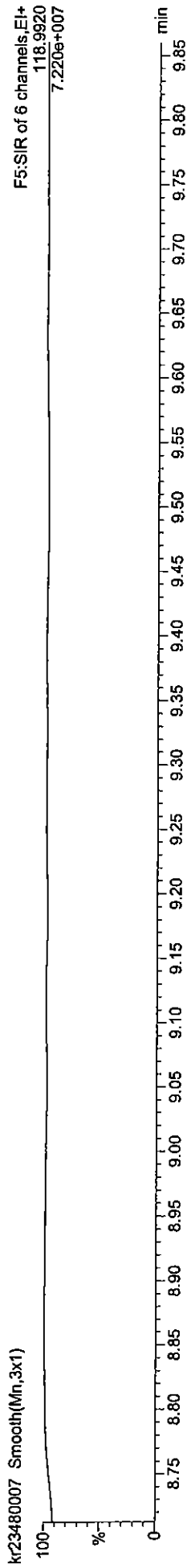
Quantify Sample Report

Dataset: C:\MASSLYNX\Default.pro\QuantlynxFiles\QC\Calibration\20030513\ndmacali-20030513.qld, Time: Tue May 13 13:55:16 2003

lock mass1



lock mass5

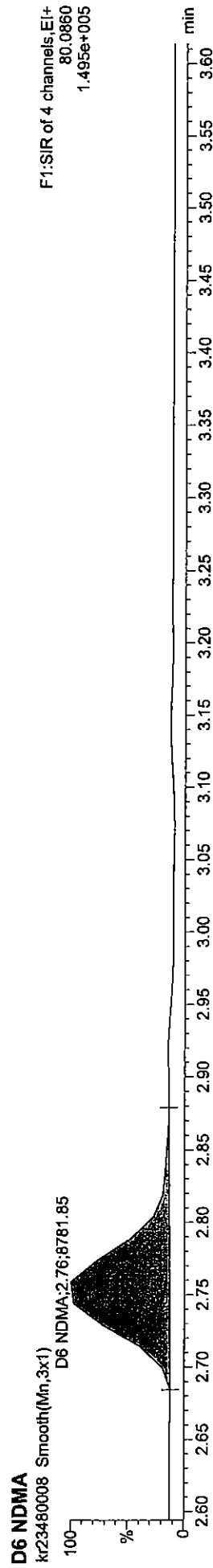
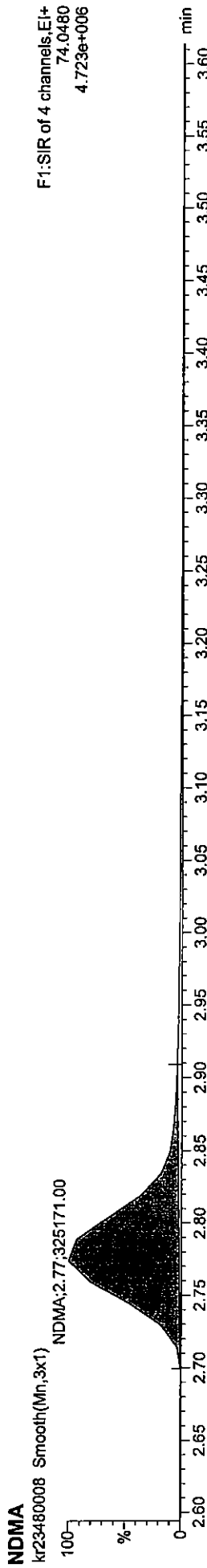
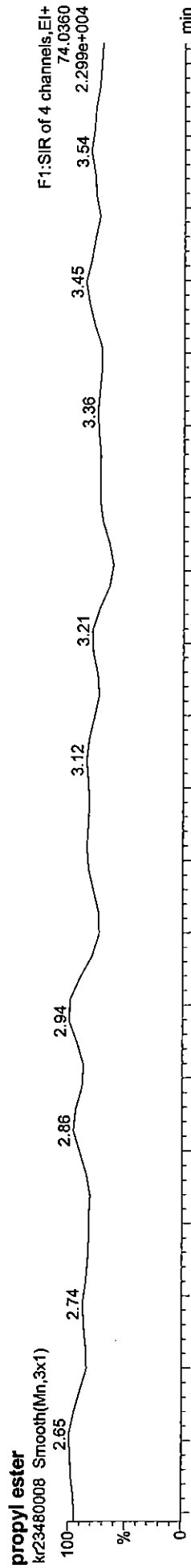
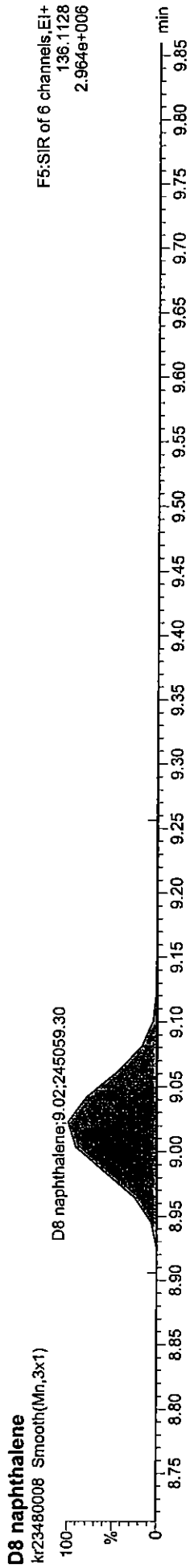


Compound Name	RT	Area	Height	Width	Area%	Height%	Width%	Integration
1 NDMA	74.0480	123595	2.73	69748	-12.81	1.509		
2 D6 NDMA	80.0860	10031	2.70	9997	2.02	0.109		13-May-03
3 D8 naphthalene	136.1128	234795	9.00	25000	0.00	1.000		
4 propyl ester	74.0360	428	2.74	0	-74.29	428.470		

000063

Dataset: C:\MASSLYNX\Default.pro\Quant\ynxFiles\QC\Calibration\20030513\ndmacali-20030513.qld, Time: Tue May 13 13:55:16 2003

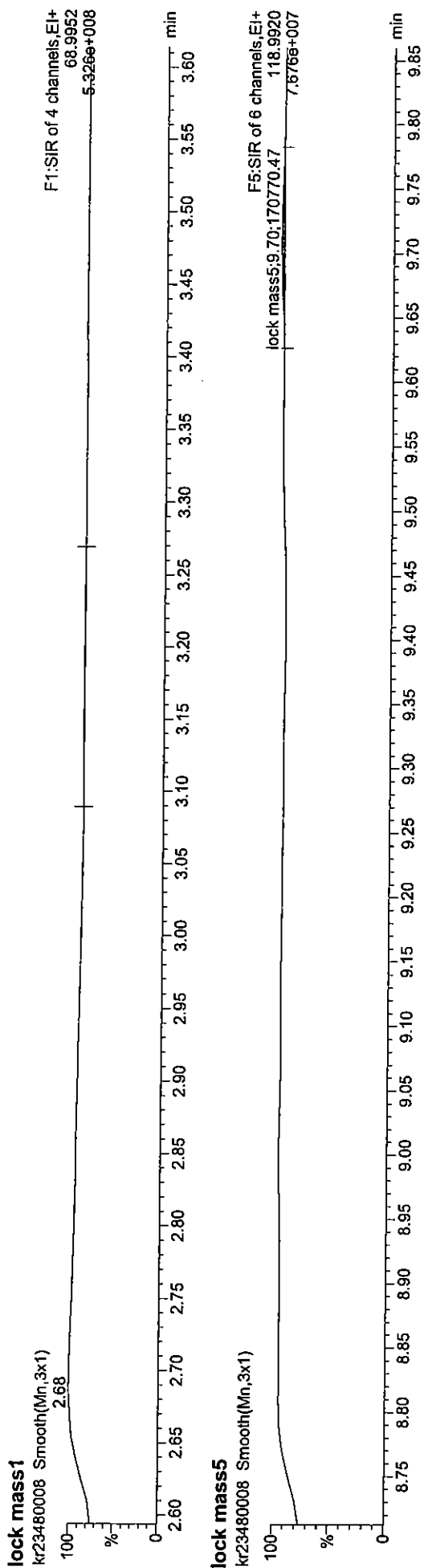
Name: kr23480008.*, Date: 13-May-2003, Time: 11:43:19, ID: , Description: 200ng/mL 70-206NDMW-1255



000064

Quantify Sample Report

Dataset: C:\MASSLYNX\Default.pro\Quant\Files\QC\Calibration\20030513\ndmacali-20030513.qld, Time: Tue May 13 13:55:16 2003

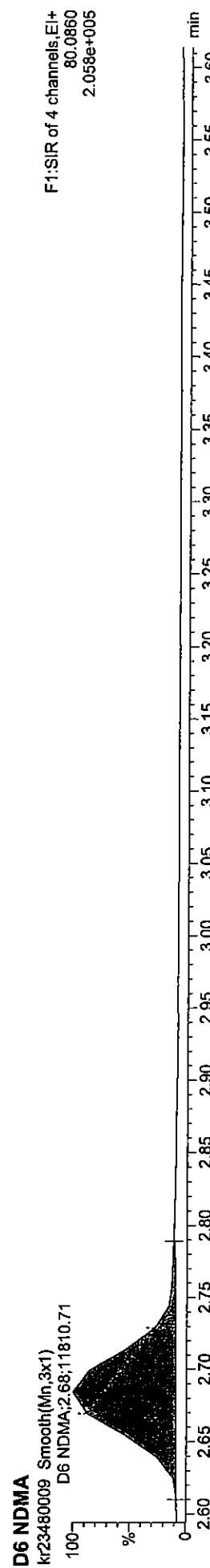
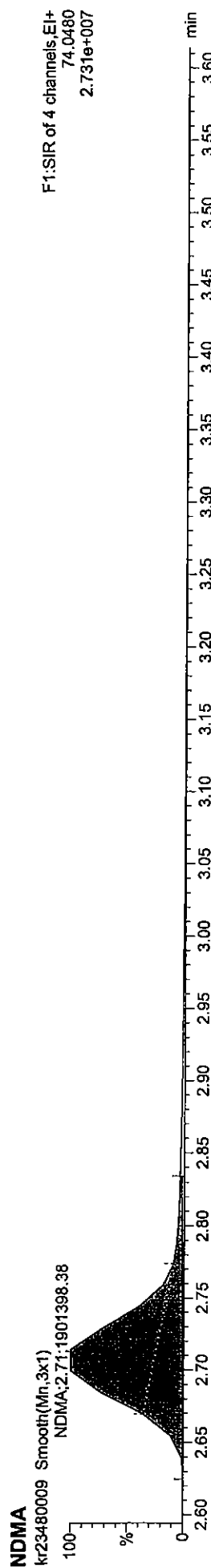
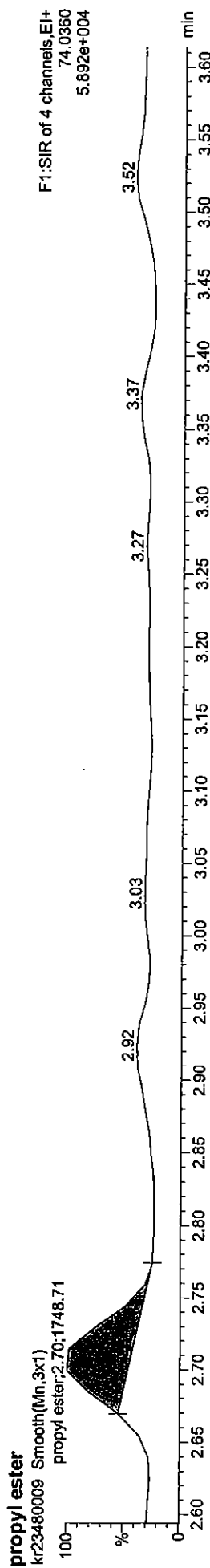
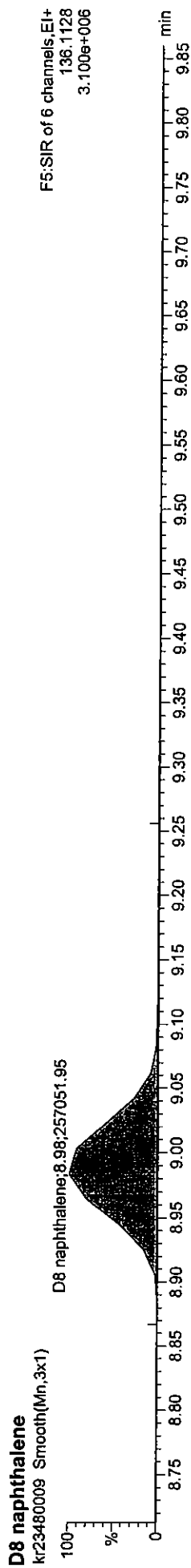


COMPONENT NAME	RT	AREA	HEIGHT	WIDTH	AREA%	RT	AREA	HEIGHT	WIDTH	AREA%
1 NDMA	74.0480	325171	2.77	209602	4.80	1.814				
2 D6 NDMA	80.0860	8782	2.76	8386	-14.43	0.091				
3 D8 naphthalene	136.1128	245059	9.02	25000	0.00	1.000				
4 propyl ester	74.0360									

000065

Dataset: C:\MASSLYNX\Default.pro\QuanlynFiles\QC\Calibration\20030513\ndmacali-20030513.qld, Time: Tue May 13 13:55:16 2003

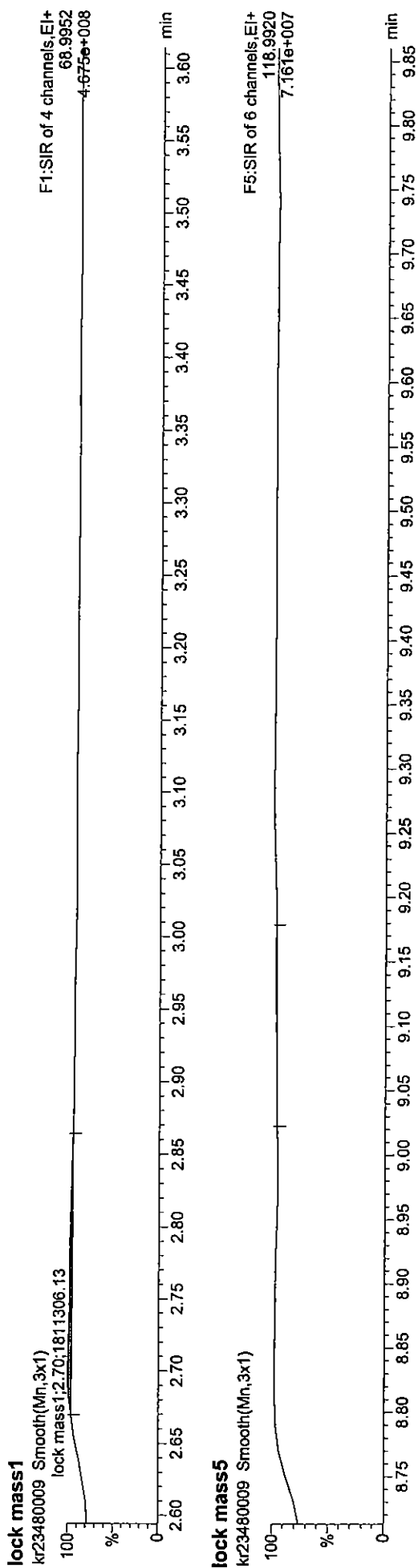
Name: kr23480009.*, Date: 13-May-2003, Time: 12:02:11, ID: , Description: 1000ng/mL 70-204NDMW-1250



000066

Quantify Sample Report

Dataset: C:\MASSLYNX\Default.pro\QuantYnxFiles\QC\Calibration\20030513\ndmacali-20030513.qld, Time: Tue May 13 13:55:16 2003

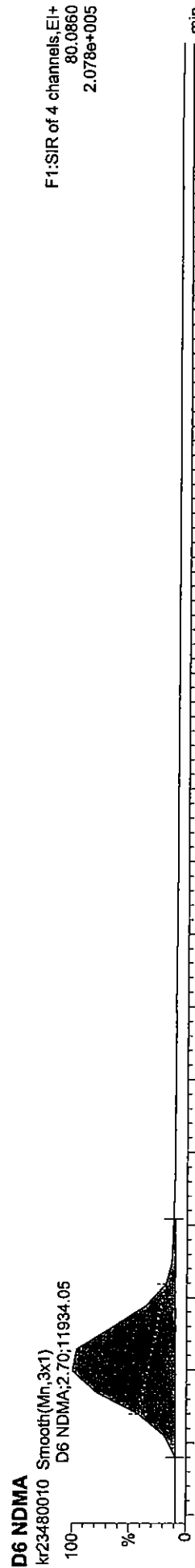
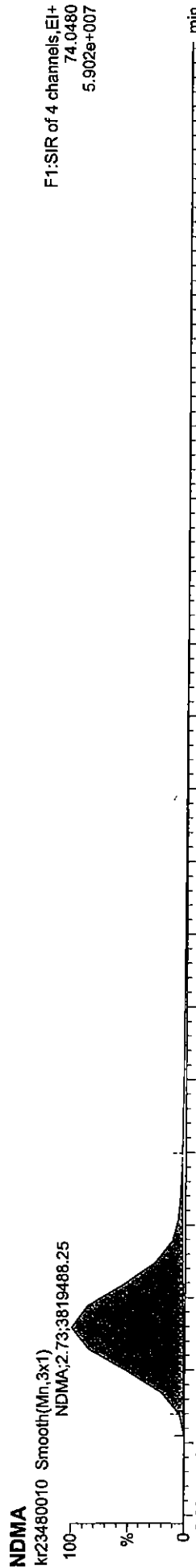
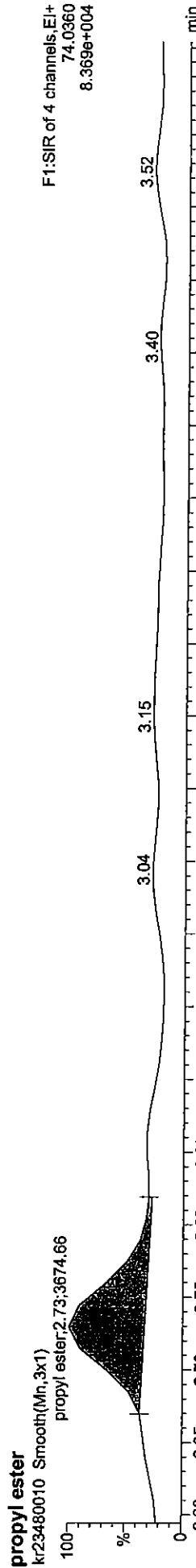
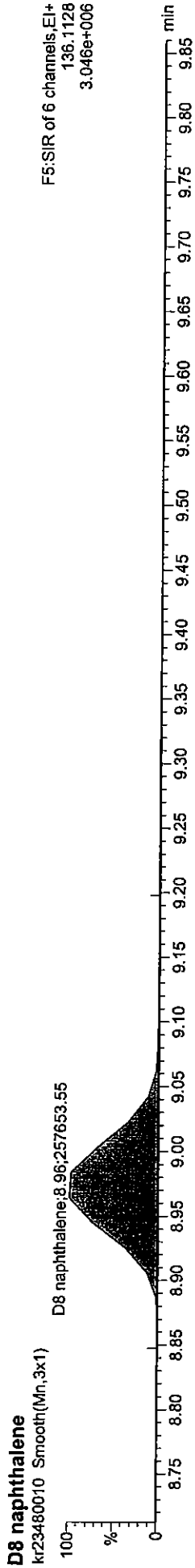


Retention Time (min)	Mass	Abundance	Reference
2.71	911311		
2.68	10752		
8.98	25000		
2.70	1		
1.578			13-May-03
0.117			13-May-03
8.87			
9.72			
0.00			
4.94			
1748			

000067

Dataset: C:\MASSLYNX\Default.pro\Quant\Files\QC\Calibration\20030513\ndmacali-20030513.qld, Time: Tue May 13 13:55:16 2003

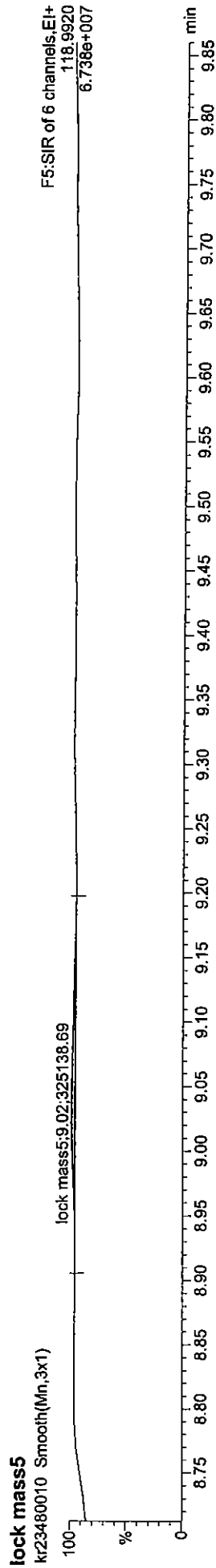
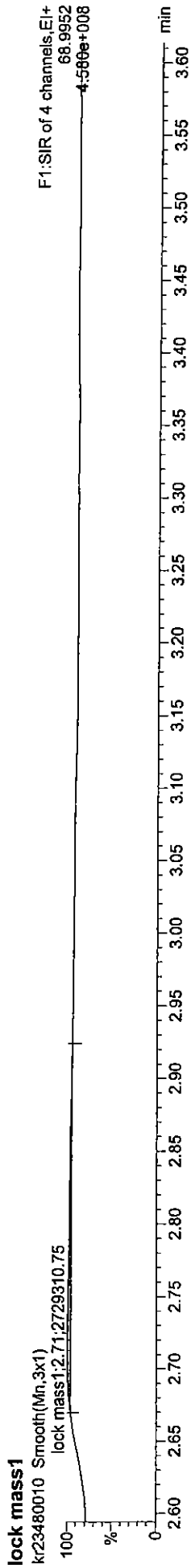
Name: kr23480010.*, Date: 13-May-2003, Time: 12:21:14, ID: , Description: 2000ng/mL 70-204NDMW-1251



000068

Quantify Sample Report

Dataset: C:\MASSLYNX\Default.pro\QuantlynxFiles\QC\Calibration\20030513\ndmacali-20030513.qld, Time: Tue May 13 13:55:16 2003



Component Name	Area	Height	Retention Time (min)	Integration
1 NDMA	74.0480	3819488	2.73	1811703
2 D6 NDMA	80.0660	11934	2.70	10839
3 D8 naphthalene	136.1128	257654	8.96	25000
4 propyl ester	74.0360	3675	2.73	2

000069

SECOND SOURCE CALIBRATION CHECK

000070

SECOND SOURCE CALIBRATION CHECK

Lab Name Maxxam Analytics Inc.

Instrument: Kratos HRGC/HRMS Calibration Date 2003/05/13

LAB FILE ID. KR23480012

Compound	REPORTED CONC. (ug/L)	ACTUAL CONC. (ug/L)	%D	% D LIMIT
NDMA	8.14	10.00	19	25

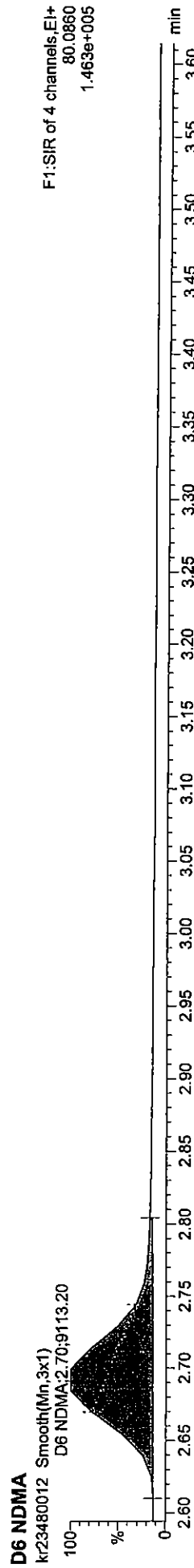
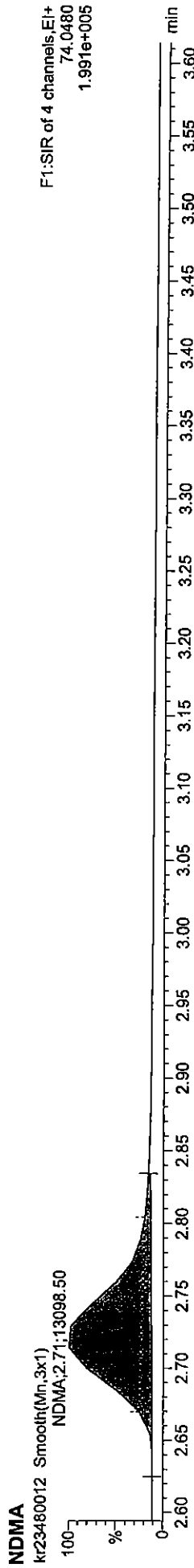
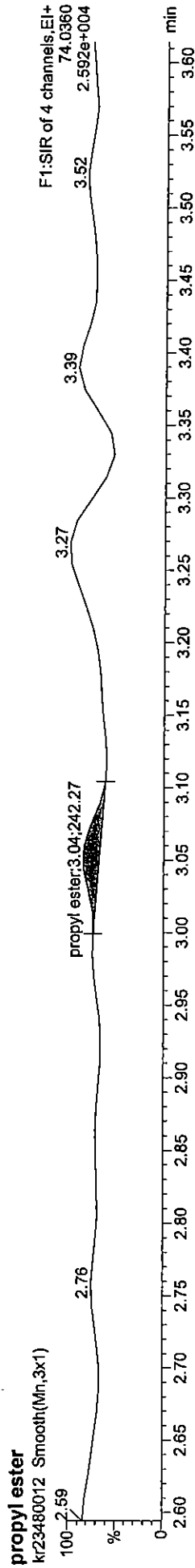
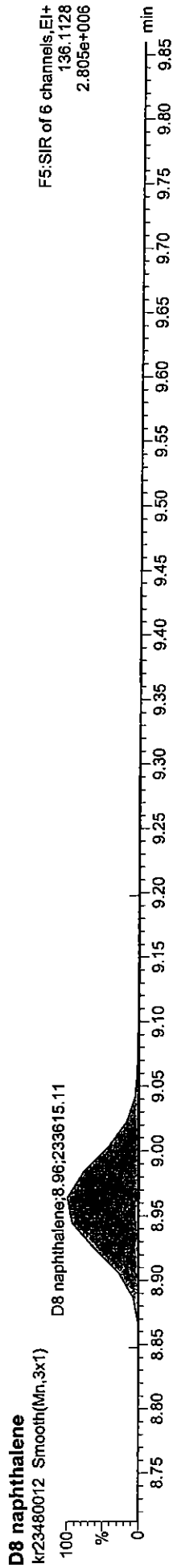
Compound	%RECOVERY
D6-NDMA	93

000071

Dataset: C:\MASSLYNX\Default.pro\QuantumFiles\QC\Calibration\20030513\2ndsource_20030513.qld, Time: Tue May 13 13:59:47 2003

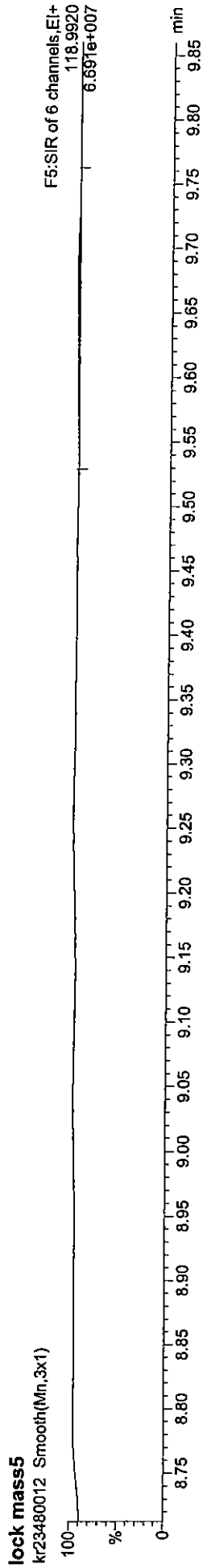
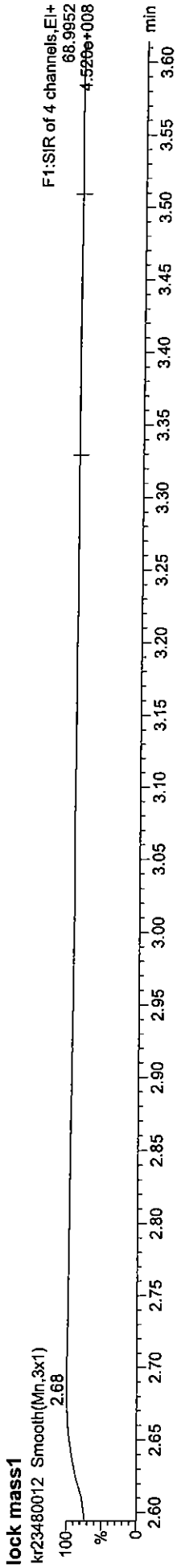
Method: C:\MASSLYNX\Default.pro\METHOD\nitros_ET.mdb, Time: Tue May 13 13:54:07 2003
Calibration: C:\MASSLYNX\Default.pro\CURVEDB\ndmacali_20030513.cdb, Time: Tue May 13 13:55:16 2003

Name: kr23480012.*, Date: 13-May-2003, Time: 12:58:36, Job: , Description: 10.00ng/mL 70-206NDMW-1256



Quantify Sample Report

Dataset: C:\MASSLYNX\Default.pro\QuantlynxFiles\QC\Calibration\20030513\2ndsource_20030513.qld, Time: Tue May 13 13:59:47 2003



NO	COMPOUND NAME	RT	AREA	%AREA	CONC	DATE	DIVISION	REMARK
1	NDMA	2.71	8136.18	81.36	13-May-03	1	1.731	
2	D6 NDMA	2.70	9128.84	93.15	13-May-03	1	0.107	
3	D6 naphthalene	8.96	25000.00	100.00		1	1.000	
4	propyl ester	3.04	0.15	14.54		1	1666.430	

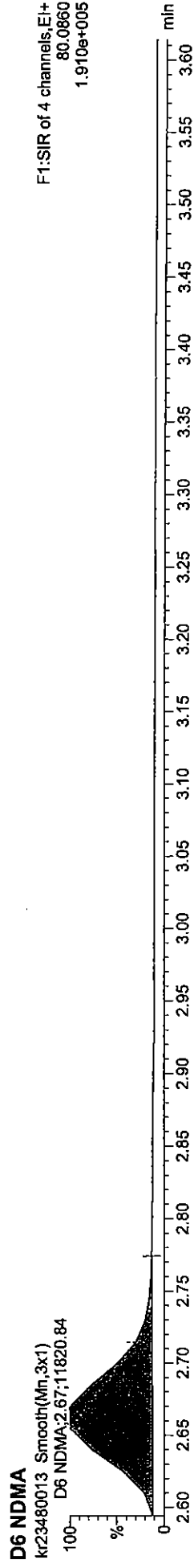
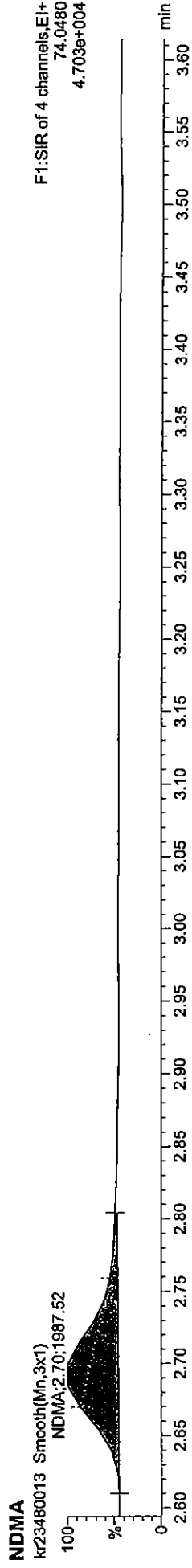
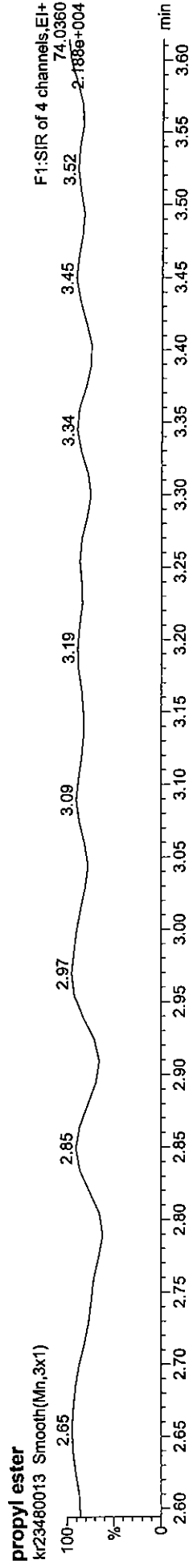
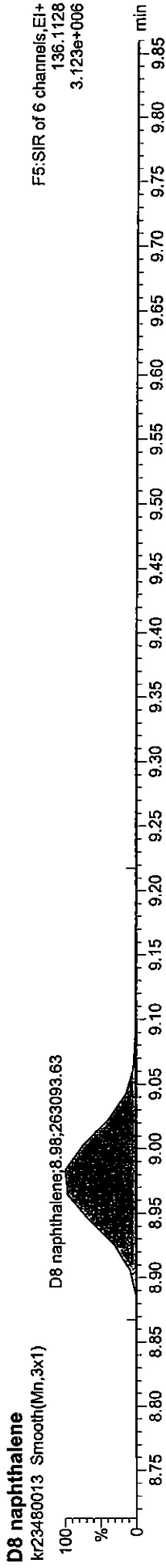
000073

Quantify Sample Report

Dataset: C:\MASSLYNX\Default.pro\QuantlynxFiles\QC\Calibration\20030513\threshold_20030513.qld, Time: Tue May 13 14:00:48 2003

Method: C:\MASSLYNX\Default.pro\METHDB\nitros_ET.mdb, Time: Tue May 13 13:54:07 2003
Calibration: C:\MASSLYNX\Default.pro\CURVEDB\Indmacali_20030513.cdb, Time: Tue May 13 13:55:16 2003

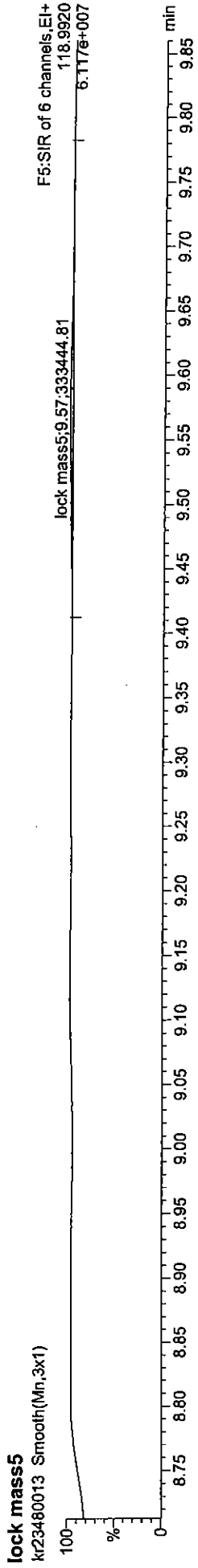
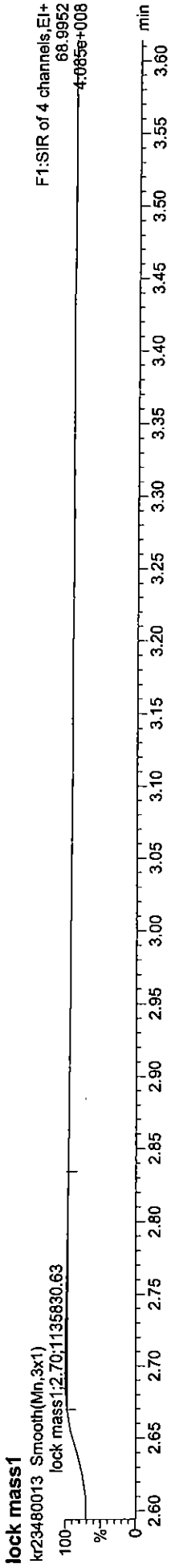
Name: kr23480013.*, Date: 13-May-2003, Time: 13:17:31, Job: , Description: 1.00ng/mL 70-206NDMW-1257



000074

Quantify Sample Report

Dataset: C:\MASSLYNX\Default.pro\QuantlynFiles\QC\Calibration\20030513\threshold_20030513.qld, Time: Tue May 13 14:00:48 2003



Component Name	Area	Height	Retention Time (min)	Integration	Divisor	Mean
1 NDMA	74.0480	1988	2.70	951.77	1	1.731
2 D6 NDMA	80.0860	11821	2.67	10514.38	1	0.107
3 D8 naphthalene	136.1128	263094	8.98	250000.00	1	1.000
4 propyl ester	74.0360				1	1666.430

000075

1.00ng/mL 70-206NDMW-1257

kr23480013

1: SIR of 4 Channels EI+
74.048
6.44e4

2.68

2.80

3.58

$S/N = 23/1$

5mm

113mm

Time

2.60 2.70 2.80 2.90 3.00 3.10 3.20 3.30 3.40 3.50 3.60

000076

100 %

0

SECOND SOURCE CALIBRATION CHECK

Lab Name Maxxam Analytics Inc.

Instrument: Kratos HRGC/HRMS Calibration Date 2003/05/14

LAB FILE ID. KR23490005

Compound	REPORTED CONC. (ug/L)	ACTUAL CONC. (ug/L)	%D	% D LIMIT
NDMA	10.2	10.00	2	25

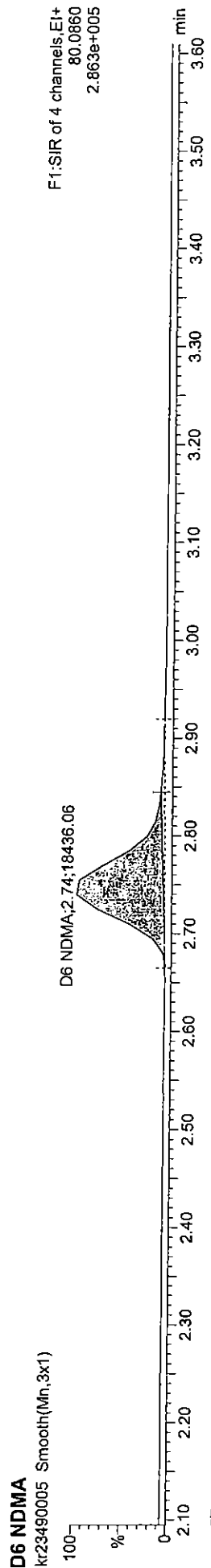
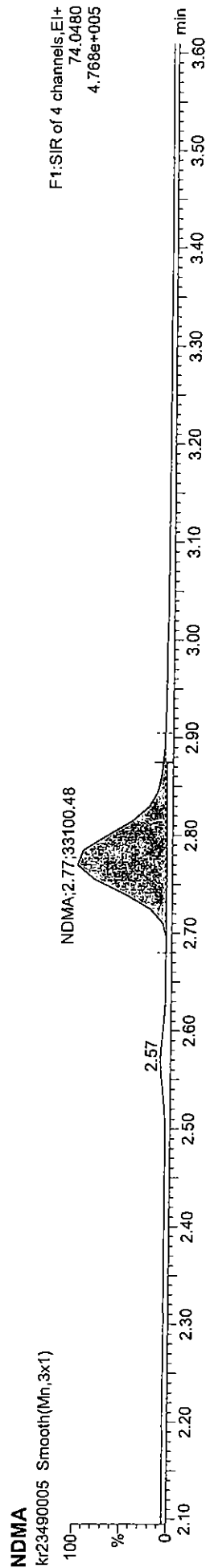
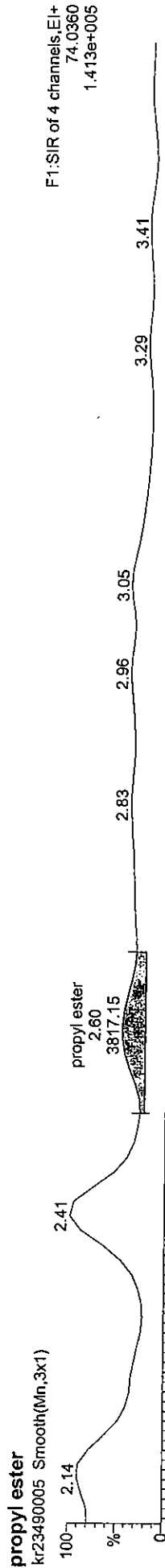
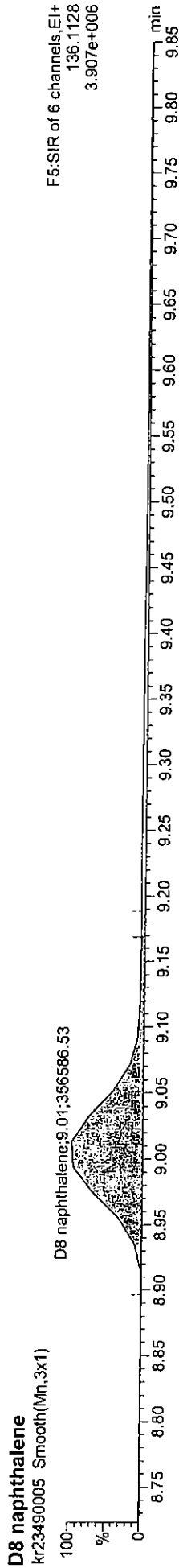
Compound	%RECOVERY
D6-NDMA	123

000077

Dataset: C:\MASSLYNX\Default.pro\QuantifyFiles\QC\Calibration\20030514\2ndsource_20030514.qld, Time: Wed May 14 10:16:16 2003

Method: C:\MASSLYNX\Default.pro\METHOD\Nitros_ET.mdb, Time: Tue May 13 13:54:07 2003
Calibration: C:\MASSLYNX\Default.pro\CURVEDB\ndmacali_20030513.cdb, Time: Tue May 13 13:55:16 2003

Name: kr23490005.*, Date: 14-May-2003, Time: 09:22:15, Job: , Description: 10.00ng/ml 70-206NDMW-1256



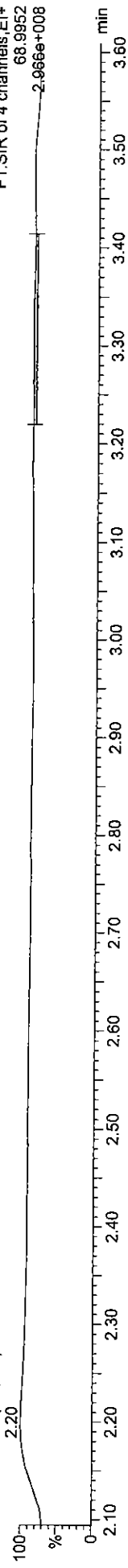
000078

Quantify Sample Report

Dataset: C:\MASSLYNX\Default.pro\QuantlynxFiles\QC\Calibration\20030514\2hdsources_20030514.qld, Time: Wed May 14 10:16:16 2003

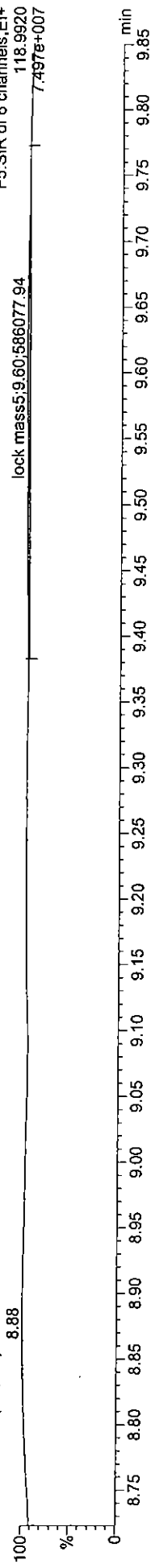
lock mass1

kr23490005 Smooth(Mn,3x1)



lock mass5

kr23490005 Smooth(Mn,3x1)



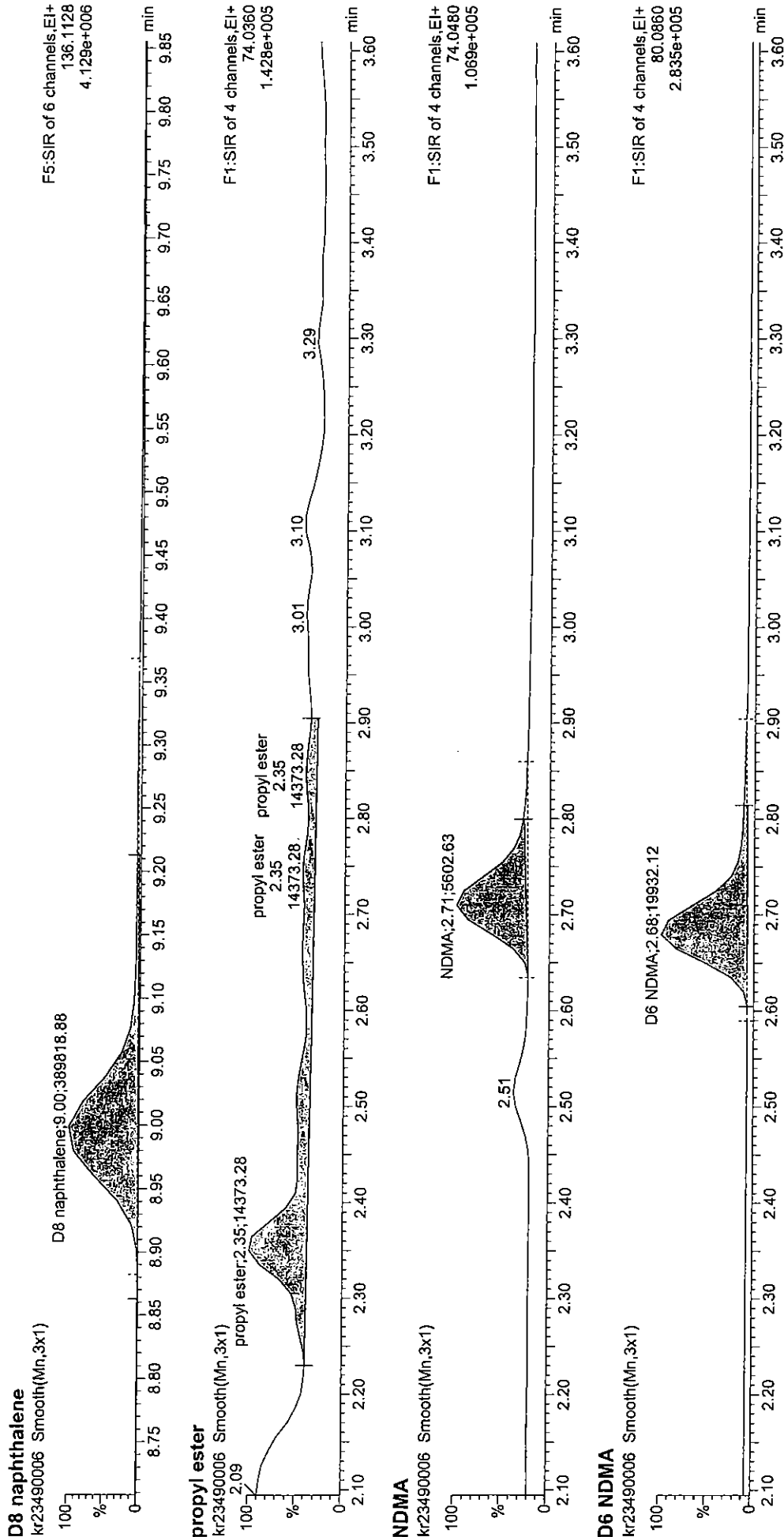
Compound Name	Trace	Abs. Resp.	RT	Area	%Rec	Mod. Date	Division	RRF	Mean
1 NDMA	74.0480	33100	2.77	10163.33	101.63	14-May-03	1	1.731	
2 D6 NDMA	80.0860	18436	2.74	12098.98	123.46	14-May-03	1	0.107	
3 D8 naphthalene	136.1128	356587	9.01	25000.00	100.00	14-May-03	1	1.000	
4 propyl ester	74.0360	3817	2.60	2.29	229.06		1	1666.430	

000079

Dataset: C:\MASSLYNX\Default.pro\QuantynxFiles\Q\Calibration\20030514\threshold_20030514.qld, Time: Wed May 14 10:18:51 2003

Method: C:\MASSLYNX\Default.pro\METHODB\nitros_ET.mdb, Time: Tue May 13 13:54:07 2003
Calibration: C:\MASSLYNX\Default.pro\CURVEDB\ndmacali_20030513.cdb, Time: Tue May 13 13:55:16 2003

Name: kr23490006.*, Date: 14-May-2003, Time: 09:36:16, Job: , Description: 1.00 ng/ml 70-206NDMMW-1257



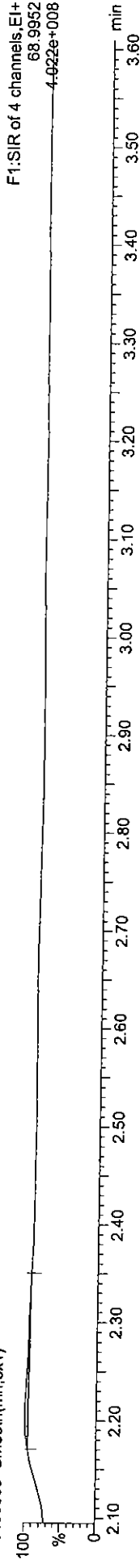
000080

Quantify Sample Report

Dataset: C:\MASSLYNX\Default.pro\QuantlynxFiles\QCI\Calibration\20030514\threshold_20030514.qld, Time: Wed May 14 10:18:51 2003

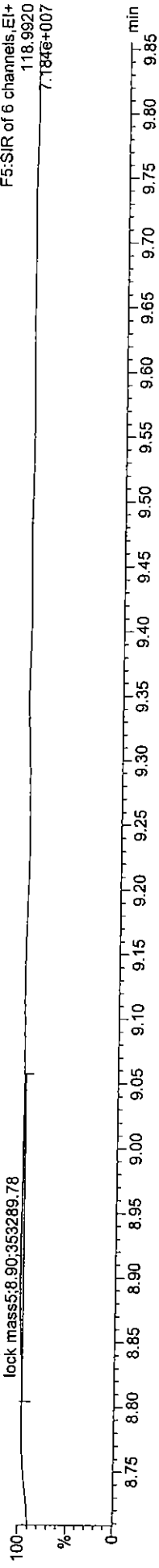
lock mass1

kr23490006 Smooth(Mn,3x1)



lock mass5

kr23490006 Smooth(Mn,3x1)



Compound Name	Area	Height	Width	Area%	Height%	Width%	Divisor	RRR	Mean
1 NDMA	74.0480	2.71	1591.14	5603	19932	122.10	1	1.731	
2 D6 NDMA	80.0860	2.68	11965.65	1932	389819	100.00	1	0.107	
3 D8 naphthalene	136.1128	9.00	25000.00	389819	14373	862.52	1	1.000	
4 propyl ester	74.0360	2.35	8.63	14373	862.52		1	1666.430	

000081

1.00 ng/ml 70-206NDMW-1257

Kr23490006

1: SIR of 4 Channels EI+
74.048
1.72e5

2.71

5/10 = 48/1

2.51

145mm

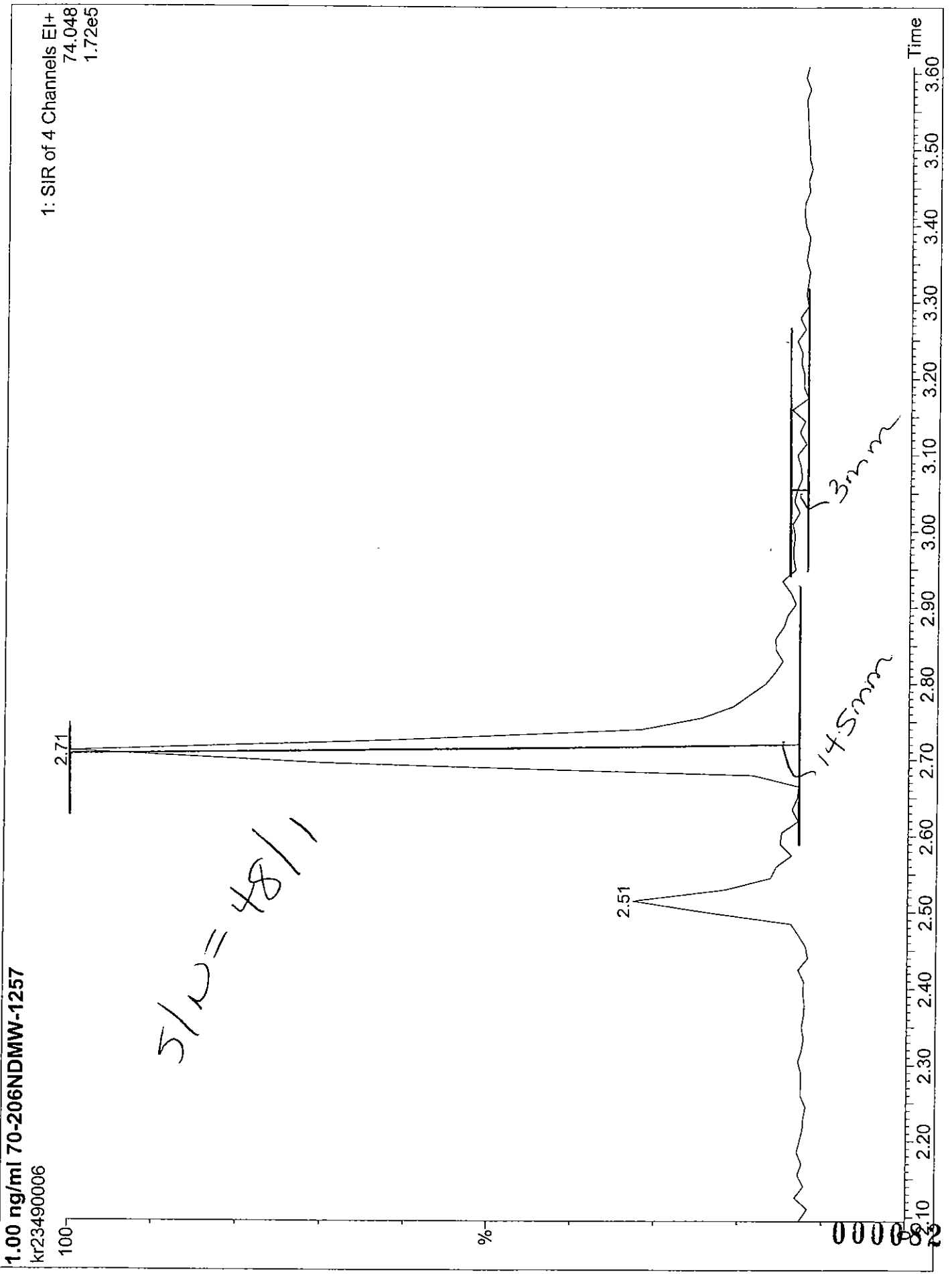
3mm

Time
3.60
3.50
3.40
3.30
3.20
3.10
3.00
2.90
2.80
2.70
2.60
2.50
2.40
2.30
2.20
2.10

100

%

000082



CONTINUING CALIBRATION

000083

CONTINUING CALIBRATION CHECK

Lab Name Maxxam Analytics Inc.

Instrument: Kratos HRGC/HRMS Calibration Date 2003/05/13 Time 19:27:05

LAB FILE ID. KR23480032 CS4

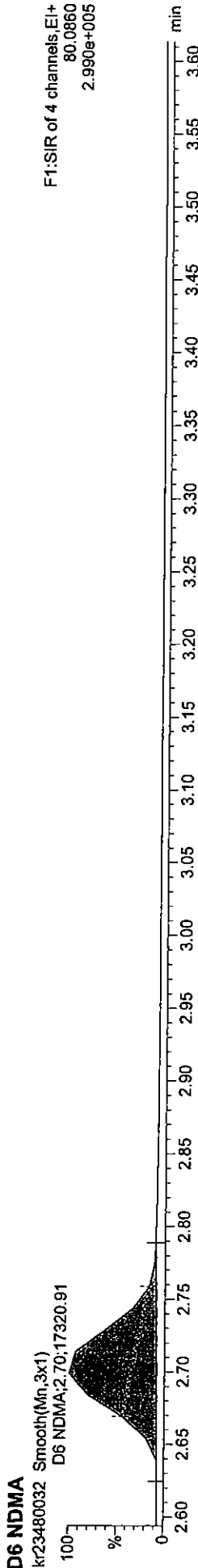
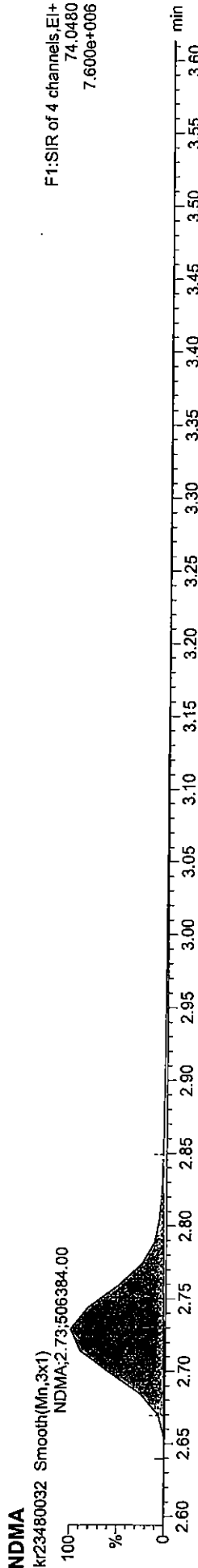
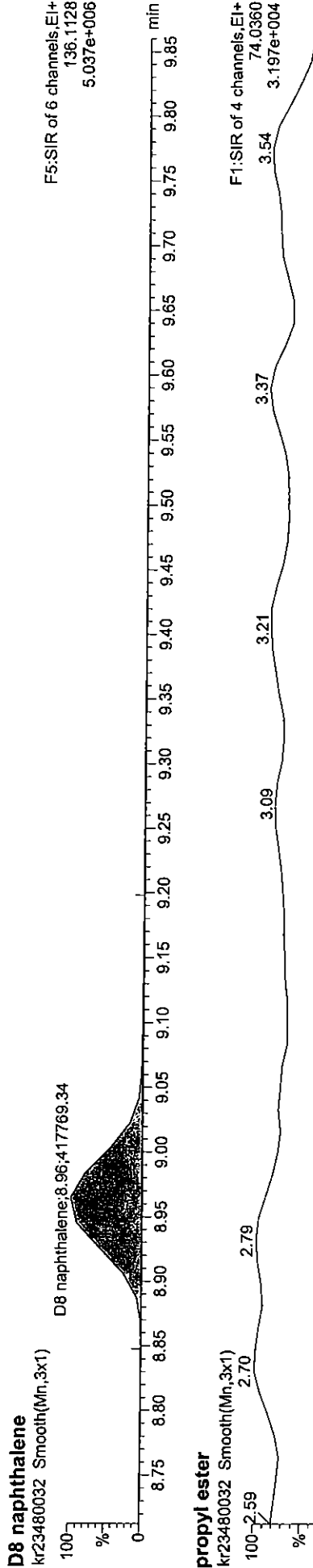
Compound	AVERAGE RRF	RRF CS4	%D	% D LIMIT
NDMA	1.73	1.43	17	25
D6-NDMA	0.107	0.106	1	25

000084

Quantify Sample Report

Dataset: C:\MASSLYNX\Default.pro\QuantlynxFiles\QC\Calibration\20030513\Indmaconcal_20030513.qld, Time: Wed May 14 08:25:05 2003

Method: C:\MASSLYNX\Default.pro\METHDB\Nitros_ET.mdb, Time: Tue May 13 13:54:07 2003
Calibration: C:\MASSLYNX\Default.pro\CURVEDB\Indmacali_20030513.cdb, Time: Tue May 13 13:55:16 2003
Name: kr23480032.*, Date: 13-May-2003, Time: 19:27:05, Job: , Description: 200ng/mL 70-206NDMW-1255,N,1,2



CONTINUING CALIBRATION CHECK

Lab Name Maxxam Analytics Inc.

Instrument: Kratos HRGC/HRMS Calibration Date 2003/05/14 Time 08:51:00

LAB FILE ID. KR23490004 CS4

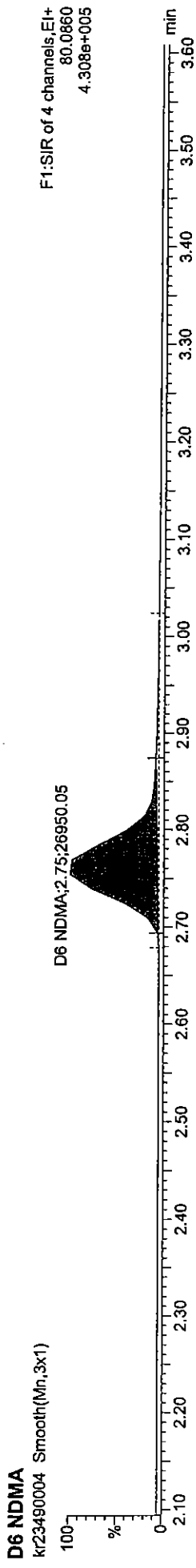
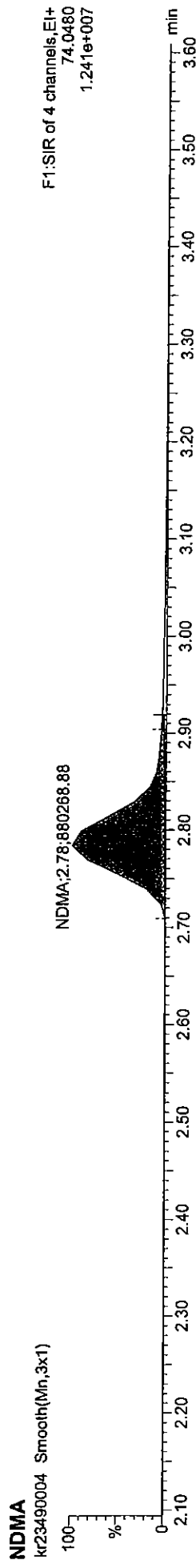
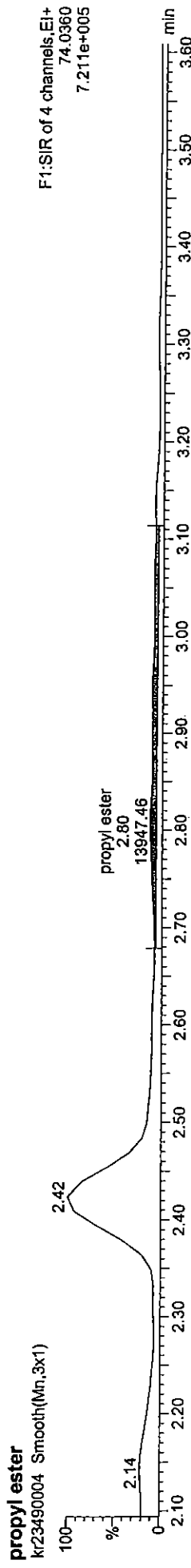
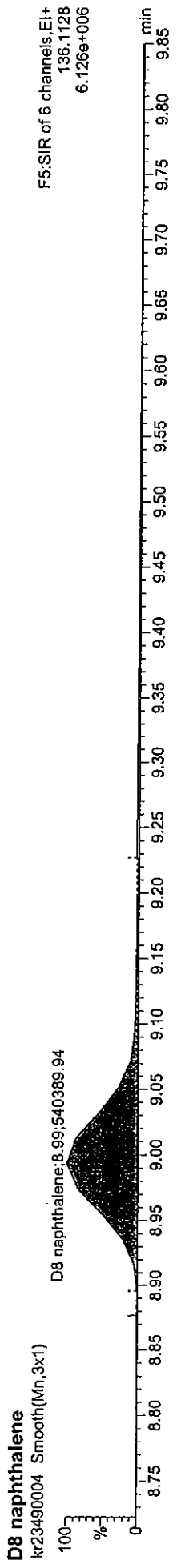
Compound	AVERAGE RRF	RRF CS4	%D	% D LIMIT
NDMA	1.73	1.60	8	25
D6-NDMA	0.107	0.127	19	25

000087

File: C:\MASSCALIBRATION\Calibration\20030514\Indmaconcal_20030514.qld, Time: Wed May 14 09:28:27 2003

Method: C:\MASSLYNX\Default.pro\METHDB\nitros_ET.mdb, Time: Tue May 13 13:54:07 2003
Calibration: C:\MASSLYNX\Default.pro\CURVEDB\Indmacali_20030513.cdb, Time: Tue May 13 13:55:16 2003

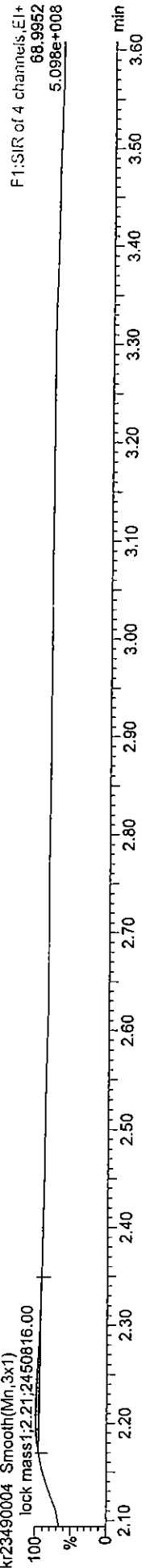
Name: kr23490004.*, Date: 14-May-2003, Time: 08:51:00, Job: , Description: 200ng/ml 70-206NDMW-1255



000088

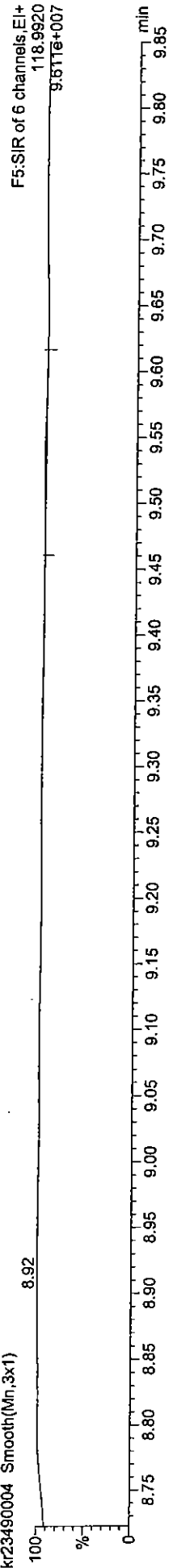
lock mass1

kr23490004 Smooth(Mn,3x1)
lock mass1:2.21,2450816.00



lock mass5

kr23490004 Smooth(Mn,3x1)



Peak #	Retention Time (min)	Area	Height	Width	Integration	Reference
1	2.21	74.0480	880269	2.78	184895	1.600
2	8.92	80.0860	26950	2.75	11671	0.127
3	136.1128	540390	8.99	25000	100.00	1.000
4	74.0360	13947	2.80	8	836.97	13947...

CONTINUING CALIBRATION CHECK

Lab Name Maxxam Analytics Inc.

Instrument: Kratos HRGC/HRMS Calibration Date 2003/05/14 Time 12:33:36

LAB FILE ID. KR23490014 CS4

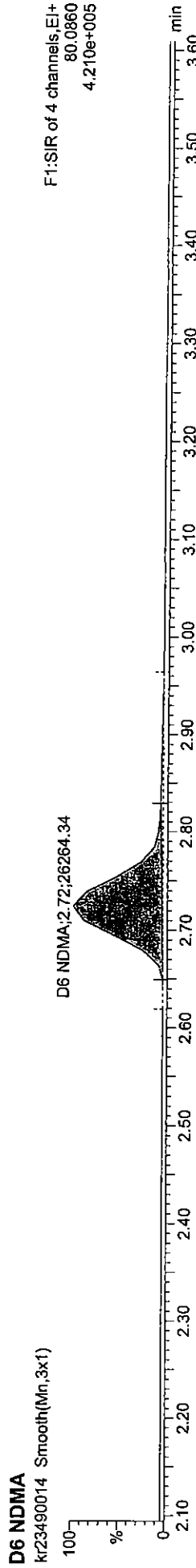
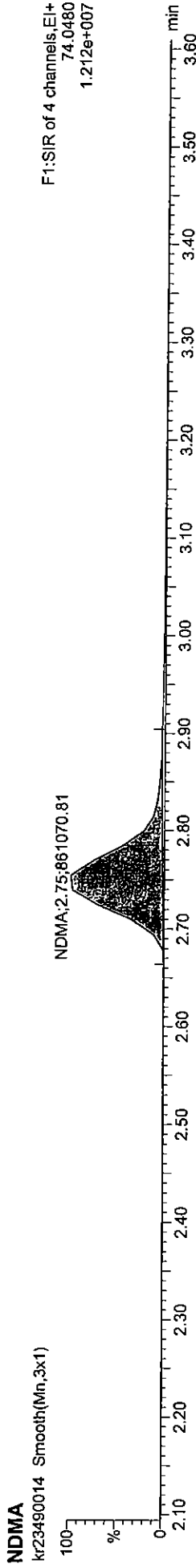
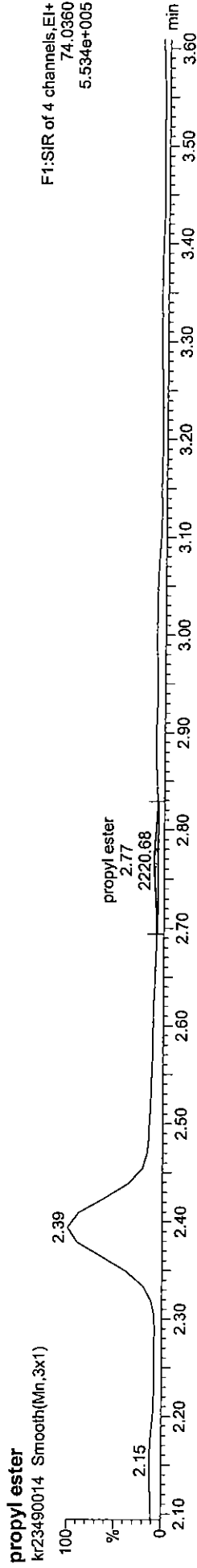
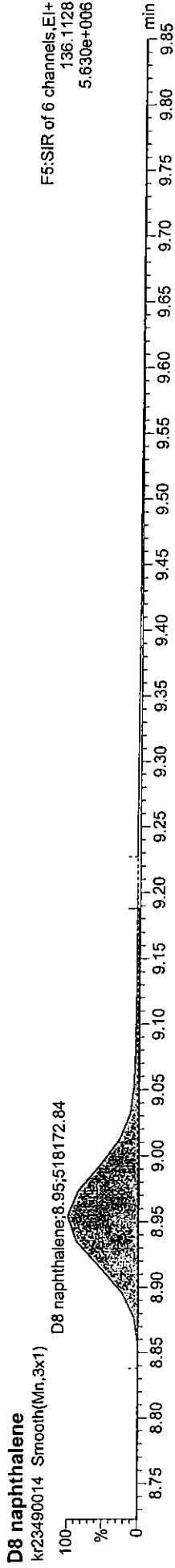
Compound	AVERAGE RRF	RRF CS4	%D	% D LIMIT
NDMA	1.73	1.61	7	25
D6-NDMA	0.107	0.129	21	25

000000

Dataset: C:\MASSLYNX\Default.pro\Quant\Files\QC\Calibration\20030514\ndmaconcal2_20030514.qld, Time: Wed May 14 14:06:29 2003

Method: C:\MASSLYNX\Default.pro\METHOD\nitros_ET.mdb, Time: Tue May 13 13:54:07 2003
Calibration: C:\MASSLYNX\Default.pro\CURVEDB\ndmacali_20030513.cdb, Time: Tue May 13 13:55:16 2003

Name: kr23490014.*, Date: 14-May-2003, Time: 12:33:36, Job: , Description: 200ng/mL 70-206NDMW-1255,N,1,2



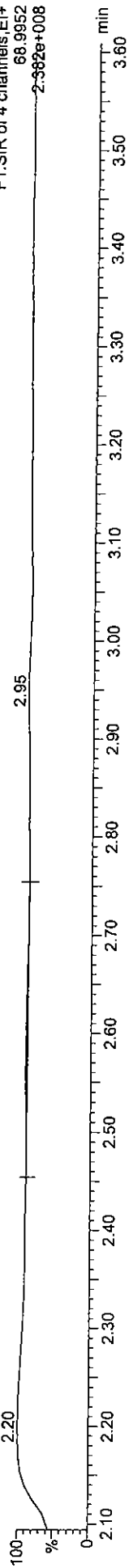
000091

Quantify Sample Report

Dataset: C:\MASSLYNX\Default.pro\QuantlynxFiles\QC\Calibration\20030514\Indmaconcal2_20030514.qld, Time: Wed May 14 14:06:29 2003

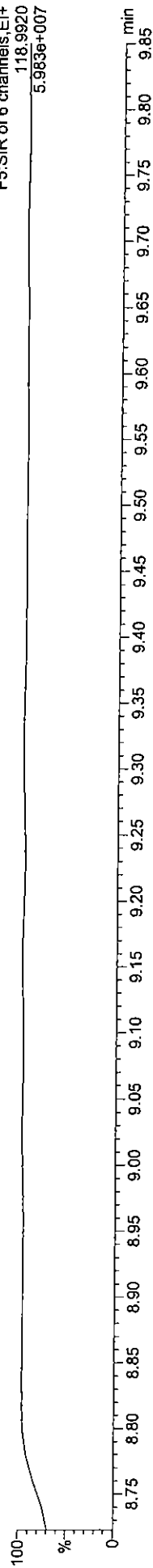
lock mass1

kr23490014 Smooth(Mn,3x1)



lock mass5

kr23490014 Smooth(Mn,3x1)



Compound Name	Time	Area	Height	%Area	%Height	Dev	Med
1 NDMA	74.0480	861071	2.75	185585	92.79	-7.21	1.606
2 D6 NDMA	80.0860	26264	2.72	11861	121.04	21.04	0.129
3 D8 naphthalene	136.1128	518173	8.95	25000	100.00	0.00	1.000
4 propyl ester	74.0360	2221	2.77	1	133.26	33.26	2220....

000092

SAMPLE PREPARATION RECORDS

000093

2003-05-05
10:00 AM
KG, RA, BK, JK

2003-05-06
10:00 AM
KG, RA, BK, JK

IV	FV	SF	FB	Rotorop	Int Std.	Comments
-	InL	-	DW18	1	5ul	70-104 NARR-27
1000	14	454	454	1		80th sent for en. robin
980	1	231	231	1		RUST
-	↓	-	GB3	3		
1000	14	451	451	3	5ul	70-204 NARR-27
500	13	221	221	2		
500	29	421	421	1		
500	4	228	228	3		
500	8	208	208	2		
500	6	406	406	1		
1000	20	453	453	3		
1000	12	DW18	DW18	2		
1000	11	DW3	DW3	3		
990	22	457	457	2		
980	19	230	230	1		
990	1	DW13	DW13	1		
980	18	459	459	3		
-	21	DW22	DW22	2		
↓	-	GB3	GB3	1		

IV	FV	SF	FB	Rotorop	Int Std.	Comments
1000	InL	18	DW13	3	5ul	70-204 NARR-27
↓	6	DW4	DW4	2		
500	4	DW2	DW2	1		
↓	11	221	221	2		
↓	8	457	457	2		
↓	19	230	230	2		

2003-05-05
10:00 AM
KG, RA, BK, JK

2003-05-06
10:00 AM
KG, RA, BK, JK

IV	FV	SF	FB	Rotorop	Int Std.	Comments
1000	InL	18	DW13	3	5ul	70-204 NARR-27
↓	6	DW4	DW4	2		
500	4	DW2	DW2	1		
↓	11	221	221	2		
↓	8	457	457	2		
↓	19	230	230	2		

IV	FV	SF	FB	Rotorop	Int Std.	Comments
1000	InL	18	DW13	3	5ul	70-204 NARR-27
↓	6	DW4	DW4	2		
500	4	DW2	DW2	1		
↓	11	221	221	2		
↓	8	457	457	2		
↓	19	230	230	2		

INSTRUMENT LOG

000095

Kr 2346 09 1.0 ng/ml 70-202 NDMW-1245 Kc
 ↓ 10-13 Mass resolution / Accuracy for nitro Kc
 ↓ 14 1.0 ng/ml 70-202 NDMW-1245 Kc

2003/05/05

Kr 2347 01-02 Mass resolution / Accuracy for geosmin 2 MMs Kc

↓ 03 No file

↓ 04 10 ng/ml 70-204 ~~DMW~~ DMW-157

2003/05/13

Kr 2348 Mass Resolution / Accuracy for nitro dD

04 5.00 ng/ml 70-206 NDMW-1254 dD

05 " " dD

06 50.00 ng/ml 70-204 NDMW-1247 dD

07 80.00 ng/ml 70-204 NDMW-1248 dD

08 200 ng/ml 70-206 NDMW-1255 dD

09 1000 ng/ml 70-204 NDMW-1250 dD

10 2000 ng/ml 70-204 NDMW-1251 dD

11 DCM Blank, N.I. 2 dD

12 1000 ng/ml 70-206 NDMW-1256 dD

13 1.00 ng/ml 70-206 NDMW-1257 dD

14-18 Mass Resolution / Accuracy for nitro dD

19 44 473037, SPIKE, N.I. 2 dD

20 15 473037, SPIKE, N.I. 2 dD

21 16 472719, SPIKE, N.I. 2 dD

22 17 472719, SPIKE, N.I. 2 dD

23 18 472719, BLANK, N.I. 2 dD

24 19 Glass Blank, 2003/05/05 dD

25 20 472719, A01591-01F, N.I. 2 dD

2003/05/13

2003/05/13

fail

fail signal lost

lost signal

Sander Memms in - switched power supply

A315145 Binj, adjust window + die 1/2

2003/05/13 (cont'd)

26
~~472348~~ 472719, A01592-01C, N1,2, dD
 27 ~~27~~ " , A01669-01C, N1,2, dD
 28 ~~28~~ " , A01670-01C, N1,2, dD
 29 ~~29~~ " , A01690-01C, N1,2, dD
 30 ~~30~~ " , A01352-01C, N1,2, dD
 31 ~~31~~ " , A01366-01C, N1,2, dD
 32 200ng/ml 70-206NDHW-1255, N1,2, dD
 33 ~~33~~ 472719, A00937-01C, N1,2, dD
 34 ~~34~~ " , A00946-01C, N1,2, dD
 35 ~~35~~ " , A00947-01C, N1,2, dD
 36 ~~36~~ " , A00948-01C, N1,2, dD
 37 32 472175, SPIKE, N1,2, dD
 38 33 " , SPIKE, N1,2, dD
 39 34 " , BLANK, N1,2, dD
 40 35 Glass Blank, 2003/05/02, dD
 41 ~~41~~ 472175, A00713-01C, N1,2, dD
 42 " , A00714-01C, N1,2, dD
 43 " , A00715-01C, N1,2, dD
 44 " , A00718-01C, N1,2, dD
 45 " , A00719-01C, N1,2, dD
 46 " , A00720-01C, N1,2, dD
 47 " , A00721-01C, N1,2, dD
 48 200ng/ml 70-206NDHW-1255, N1,2, dD
 49 470708, 992302-00L, 1100, 1,2, dD
 50 OCM Blank, N1,2, dD
 51 200ng/ml 70-206NDHW-1255, N1,2, dD
 52 no file

A315145 Rinj, adjust window
A315163

↓
A315096
A315100 ↓

✓ A314983

↓
die '10, add ^{2003/05/14} stds back.

Rinj, adjust window

↓

✓
~~A314940~~
A314940

die '110, int's

✓

~~2003/05/13~~ die '110, NMA off curve.
Rinj, chk carryover + surf.
Rinj, chk carryover
die '110, NMA off curve + int's

✓

stds added back A313116 Rinj, cancel

X

2003/05/14

- 11-23-49 01-03 Mass Resolution Accuracy for nitros dD ✓
- 04 200ng/mL 70-206NDMW-1255 dD ✓
- 05 10.00ng/mL 70-206NDMW-1256 dD ✓
- 06 1.00ng/mL 70-206NDMW-1257 dD ✓
- 07 472719, A01592-01R, N,1,2 dD A315145 ✓
- 08 " " A01591-01R, "2,1,2 dD ↓
- 09 " " A01669-01R, N,1,2 dD A315163 ✓
- 10 " " A01670-01R, N,1,2 dD ↓
- 11 " " A01690-01R, N,1,2 dD ✓
- 12 " " A01352-01R, N,1,2 dD A315096
- 13 " " A01366-01R, N,1,2 dD A315100
- 14 200ng/mL 70-206NDMW-1257 dD ✓
- 15 472175, SPIKE, N,1,2 dD ✓
- 16 472175, SPIKE, N,1,2 dD ✓
- 17 " " BANK, N,1,2 dD ✓
- 18 " " A00719-01R, N,1,2 dD A314940 ✓
- 19 " " A00720-01R, N,1,2 dD ✓
- 20 " " A00718-01R, "10,1,2 dD ✓
- 21 " " A00714-01R, "10,1,2 dD ✓
- 22 " " A00721-01R, "10,1,2 dD ✓
- 23 472719, A00948-01R, "10,1,2 dD A314983 ✓
- 24 200ng/mL 70-206NDMW-1255 dD ✓
- 25 470708, 992367-COL, "100,1,2 dD ✓
- 26 200ng/mL 70-206NDMW-1255 dD ✓
- 27-28 Mass Resolution Accuracy for nitros dD
- 29 473037, A00620-01R, N,1,2 dD A314920 ✓
- 30 " " A00621-01R, N,1,2 dD ↓

stds added back A313116 ✓

STANDARDS PREPARATION RECORDS

000099

Date	Lot #	Init used	Final conc	Final Vol	Solvent	Use	Code	Final conc	Expiry	Comments	Initials
2002/11/11	70-162NDMN-28 100µL	100µL	20,000 ng/mL	1 mL	DCM	Nitrosamines Working Standards	70-162NDMN-1035	2000.0 ng/mL	2002/12/11	Use 100µL 70-162NDMN-102 Use 50µL 70-162NDMN-28	W
	70-162NDMN-28 100µL	100µL	1000 ng/mL			Nitrosamines Standard Stock Std	1036	10.0 ng/mL			
	70-162NDMN-28 100µL	100µL	100 ng/mL			Nitrosamines	1037	1.0 ng/mL			
2002/11/12	131CSG02 100µL	100µL	200 ng/mL	10 mL	Acetone	DIP Intra gate	70-162NDMN-172	2µg/mL	2003/05/12	Use 10 mL	DP
							70-162NDMN-173				
							70-162NDMN-174				
							70-162NDMN-175				
							70-162NDMN-176				
							70-162NDMN-177				
2002/11/13	70-162NDMN-33 100µL	100µL	50 ng/mL	1 mL	DCM	NITROSAMINES WORKING STDS	70-162NDMN-1035	5.00 ng/mL	2002/		LD
							1036	50 ng/mL			
							1037	80.0 ng/mL			
							1038	200 ng/mL			
							1039	1000 ng/mL			
							1040	2000 ng/mL			
							1041	10.00 ng/mL			
							1042	1.00 ng/mL			
2002/11/14	70-82NDMSL-08 100µL	100µL	98 ng/mL	10 mL	MeOH	dg-NDA working std	70-162NDMN-109	98 ng/mL	2002/11/23	Use 100µL	W
							70-162NDMN-04	9.8 ng/mL	2003/11/14	stock solution	OK
2002/11/14	70-162NDMN-01 100µL	100µL	98 ng/mL	10 mL	MeOH	dg-NDA stock solution	70-162NDMN-109	98 ng/mL	2003/10/14	Use 100µL for analysis Use 10µL for std	OK
2002/11/14	70-162NDMN-01 100µL	100µL	9.8 ng/mL	10 mL	MeOH	NDA of Working Std	70-162NDMN-36	20,000 ng/mL	2003/02/28	Intermediate # 1	OK
2002/11/14	70-162NDMN-02 1 µL	1 µL	200 ng/mL	10 µL	MeOH	Nitrosamines Intermediate # 2	70-162NDMN-37	2000 ng/mL	2003/02/28	Intermediate # 2	OK
2002/11/15	70-162NDMSL-04 100µL	100µL	9.8 ng/mL	10 mL	MeOH	dg-NDA stock	70-162NDMN-111	98 ng/mL	2003/02/15	Use 100 µL	SL
							70-162NDMN-112				
2002/11/15	70-162NDMN-37 100µL	100µL	2000 ng/mL	1 mL	DCM	Nitrosamines Working Stds	70-162NDMN-1043	200 ng/mL	2002/12/14	Use 5µL 70-162NDMN-28 100µL 70-82NDMN-110	OK

Date	Lot #	Init used	Final conc	Final Vol	Solvent	Use	Code	Final conc	Expiry	Comments	Initials
2002/11/11	70-162NDMN-28 100µL	100µL	20,000 ng/mL	1 mL	DCM	Nitrosamines Working Standards	70-162NDMN-1035	2000.0 ng/mL	2002/12/11	Use 100µL 70-162NDMN-102 Use 50µL 70-162NDMN-28	W
	70-162NDMN-28 100µL	100µL	1000 ng/mL			Nitrosamines Standard Stock Std	1036	10.0 ng/mL			
	70-162NDMN-28 100µL	100µL	100 ng/mL			Nitrosamines	1037	1.0 ng/mL			
2002/11/12	131CSG02 100µL	100µL	200 ng/mL	10 mL	Acetone	DIP Intra gate	70-162NDMN-172	2µg/mL	2003/05/12	Use 10 mL	DP
							70-162NDMN-173				
							70-162NDMN-174				
							70-162NDMN-175				
							70-162NDMN-176				
							70-162NDMN-177				
2002/11/13	70-162NDMN-33 100µL	100µL	50 ng/mL	1 mL	DCM	NITROSAMINES WORKING STDS	70-162NDMN-1035	5.00 ng/mL	2002/		LD
							1036	50 ng/mL			
							1037	80.0 ng/mL			
							1038	200 ng/mL			
							1039	1000 ng/mL			
							1040	2000 ng/mL			
							1041	10.00 ng/mL			
							1042	1.00 ng/mL			
2002/11/14	70-82NDMSL-08 100µL	100µL	98 ng/mL	10 mL	MeOH	dg-NDA working std	70-162NDMN-109	98 ng/mL	2002/11/23	Use 100µL	W
							70-162NDMN-04	9.8 ng/mL	2003/11/14	stock solution	OK
2002/11/14	70-162NDMN-01 100µL	100µL	98 ng/mL	10 mL	MeOH	dg-NDA stock solution	70-162NDMN-109	98 ng/mL	2003/10/14	Use 100µL for analysis Use 10µL for std	OK
2002/11/14	70-162NDMN-01 100µL	100µL	9.8 ng/mL	10 mL	MeOH	NDA of Working Std	70-162NDMN-36	20,000 ng/mL	2003/02/28	Intermediate # 1	OK
2002/11/14	70-162NDMN-02 1 µL	1 µL	200 ng/mL	10 µL	MeOH	Nitrosamines Intermediate # 2	70-162NDMN-37	2000 ng/mL	2003/02/28	Intermediate # 2	OK
2002/11/15	70-162NDMSL-04 100µL	100µL	9.8 ng/mL	10 mL	MeOH	dg-NDA stock	70-162NDMN-111	98 ng/mL	2003/02/15	Use 100 µL	SL
							70-162NDMN-112				
2002/11/15	70-162NDMN-37 100µL	100µL	2000 ng/mL	1 mL	DCM	Nitrosamines Working Stds	70-162NDMN-1043	200 ng/mL	2002/12/14	Use 5µL 70-162NDMN-28 100µL 70-82NDMN-110	OK

Date	Lot #	Act. vol.	Final conc.	Final vol.	Solvent	Vol.	Code	Final conc.	Expiry date	Comments	Initials
2003/02/05	70-162 NDMIN-36	50 µL	20,000 ng/mL	1 mL	DCM	Nitrosamines nitrosamines std	70-184 NDMIN-1165	1000 ng/mL	2003/03/05	related to 1003 5 µL 70-174 NMP-20 10 µL 70-182 NDM-40	KE
	↓	100 µL	↓	↓	↓	↓	1166	2000 ng/mL	↓	It was 100 µL	↓
	70-160 NDMIN-35	100 µL	100 ng/mL	↓	↓	2nd source nitrosamines	1167	10 ng/mL	↓	↓	↓
	70-184 NDMIN-1167	100 µL	10 ng/mL	↓	↓	Thiobarbituric nitrosamines	1168	1.00 ng/mL	↓	↓	↓
2003/02/06	PROTOCOL 70-174 NDMIN-37	1 mL	2000 ng/mL	10 mL	MeOH	Nitrosamines 2nd source stock	70-184 NDMIN-082	200 µg/mL	2004/02/06		KE
	70-184 NDMIN-38	100 µL	200 µg/mL	10 mL	MeOH	Nitrosamines 2nd source int. #1	70-184 NDMIN-38	2000 ng/mL	2003/03/06		↓
	70-184 NDMIN-39	500 µL	2000 ng/mL	10 mL	DCM	Nitrosamines 2nd source int. #2	70-184 NDMIN-39	100 ng/mL	2003/03/06		↓
	70-184 NDMIN-1169	100 µL	100 ng/mL	1 mL	DCM	Nitrosamines 2nd source, with #1	70-184 NDMIN-1169	10 ng/mL	2003/03/06	related to each 5 µL 70-174 NMP-20 10 µL 70-182 NDM-40	KE
	70-184 NDMIN-1170	100 µL	10 ng/mL	↓	↓	Thiobarbituric nitrosamines	70-184 NDMIN-1170	1.00 ng/mL	↓	It was 100 µL	↓
2003-02-06	70-184 NDMIN-1171	100 µL	9.9 ng/mL	10 mL	MeOH	Nitrosamines 2nd source	70-184 NDMIN-1171	9.9 ng/mL	2003-05-06	max 100 µL	KE
	↓	↓	↓	↓	↓	↓	1172	↓	↓	↓	↓
2003/02/07	70-162 NDMIN-37	100 µL	2000 ng/mL	1 mL	DCM	Nitrosamines nitrosamines std	70-184 NDMIN-1171	200 ng/mL	2003/03/07	related to each 5 µL 70-174 NMP-20 10 µL 70-182 NDM-40	KE
	↓	↓	↓	↓	↓	↓	1172	5.0 ng/mL	2003/02/28	related to each 5 µL 70-174 NMP-20 10 µL 70-182 NDM-40	KE
	70-162 NDMIN-37	25 µL	2000 ng/mL	↓	↓	↓	1173	50 ng/mL	↓	↓	↓
	↓	40 µL	↓	↓	↓	↓	1174	80 ng/mL	↓	↓	↓
	↓	100 µL	↓	↓	↓	↓	1175	200 ng/mL	↓	↓	↓
	70-162 NDMIN-36	50 µL	20,000 ng/mL	↓	↓	↓	1176	1000 ng/mL	↓	↓	↓
	↓	100 µL	↓	↓	↓	↓	1177	2000 ng/mL	↓	↓	↓
	70-184 NDMIN-39	100 µL	100 ng/mL	↓	↓	2nd source nitrosamines	1178	10 ng/mL	↓	↓	↓
	70-184 NDMIN-1178	100 µL	10 ng/mL	↓	↓	Thiobarbituric nitrosamines	1179	1.00 ng/mL	↓	↓	↓
2003/02/12	70-94 PDBN-02	100 µL	10 ng/mL	10 mL	Acet.	PDB tissue	70-184 PDBN-25	0.1 ng/mL	2003/03/26	max 1.0 mL - tissue	SL
	↓	↓	↓	↓	↓	↓	26	↓	↓	↓	↓
2003/02/13	70-174 NDMIN-37	100 µL	2000 ng/mL	1 mL	DCM	Nitrosamines nitrosamines std	70-184 NDMIN-1180	200 ng/mL	2003/02/28	related to each 5 µL 70-174 NMP-20 10 µL 70-182 NDM-40	KE
	70-162 NDMIN-39	100 µL	100 ng/mL	↓	↓	2nd source nitrosamines	70-184 NDMIN-1181	10 ng/mL	↓	↓	↓
	70-184 NDMIN-1181	100 µL	10 ng/mL	↓	↓	Thiobarbituric nitrosamines	70-184 NDMIN-1182	1.00 ng/mL	↓	↓	↓
	↓	↓	↓	↓	↓	↓			2003/02/13		↓
	↓	↓	↓	↓	↓	↓			10K		↓

188

189

DATE	LOT #	ANALYST USER	INITIAL CONC	FINAL VOLUME	SOLVENT	USE	CODE	FINAL CONC	EXPIRY DATE	COMMENTS	INITIALS
2003/02/17	13LCS0602	100µL	100 µg/ml	10 µL	ACETONE	ATP-SUBSTRATE	70-188NDMIN-232	12 µg/ml	2003/02/17		OK
2003/02/17	70-174NDMIN-37	100 µL	2000 µg/ml	1 µL	DCM	Nitroacetic acid	70-188NDMIN-232	200 µg/ml	2003/02/18	added: 5µL 70-174NDMIN-20 100µL 70-182NDMIN-120	OK
2003/02/17	70-146WARD-20	500 µL	5000 µg/ml	10 mL	DCM	Nitroacetic acid nitroacetic acid	70-188NDMIN-232	250 µg/ml	2003/02/26	- use 5µL in F.V. = 50 µL - use 3µL in F.V. = 30 µL add in each: 100µL 70-182NDMIN-120 5µL 70-186NDMIN-07	LD
2003/02/18	70-166GEMIN-10	10 µL	500 µg/ml	1 µL	DCM	GEOMIN/MS	70-188NDMIN-184	5.0 µg/ml	2003/02/26		OK
		50 µL					183	25.0			
		10 µL					184	50.0			
		2.5 µL	5000 µg/ml				185	125.0			
		50 µL					186	250.0			
2003/02/18	70-174NDMIN-34	100 µL	50 µg/ml	1 µL	DCM	Nitroacetic acid	70-188NDMIN-184	5.0 µg/ml	2003/02/28	added: 5µL 70-174NDMIN-20 5µL 70-182NDMIN-120	OK
		25 µL	2000 µg/ml				185	50 µg/ml			
		40 µL					186	80 µg/ml			
		100 µL					187	200 µg/ml			
		50 µL	20,000 µg/ml				188	1000 µg/ml			
		100 µL					189	2000 µg/ml			
		100 µL	100 µg/ml			2-nd source nitroacetic acid	190	10 µg/ml			
		100 µL	10 µg/ml			nitroacetic acid	191	1.00 µg/ml			
2003/02/20	13LCS0602	1.0 µL	40 µg/ml	5 µL	Hexane	MS OF elemental S.A.	70-188NDMIN-09	0.008 µg/ml	2003/02/20	use 25 µL / extract.	OK
2003/02/20	13LCS0602	100 µL	100/200 µg/ml	10 µL	Acetone	ATP-SUBSTRATE	70-188NDMIN-253	112 µg/ml	2003/02/20		OK
							183				
							184				
							185				
							186				
							187				
							188				
							189				
							190				
							191				
2003/02/26	UTICA SCIENTIF US-113 N	1 mL	2000 µg/ml	10 mL	MeOH	Nitroacetic acid STOCK 500	70-188NDMIN-03	200 µg/ml	2004/02/26	STOCK NITROACETAMINES	OK
							183				
							184				
							185				
							186				
							187				
							188				
							189				
							190				
							191				
2003/02/26	70-188NDMIN-03	1 mL	200 µg/ml	10 mL	MeOH	Nitroacetic acid #1 INTERM	70-188NDMIN-10	20,000 µg/ml	2003/02/26	INTERM. #1 NITROS	OK
							183				
							184				
							185				
							186				
							187				
							188				
							189				
							190				
							191				

Date	Lot #	Final vol.	Final conc.	Solvent	Proc	Code	Final conc	Expiry Date	Comments	Initial
2003/02/26	70-190NDMIN-40	1 mL	20000 ng/mL	MeOH	Nitroaromatics intermediate # 2	70-190NDMIN-41	2000 ng/mL	2003/08/26	INTERM. # 2 NITROS	190
	70-190NDMIN-41	250 µL	2000 µg/mL	MeOH	Nitroaromatics daily spike (LAB)	70-190NDMIN-42	50 µg/mL	2003/05/26	DAIY NITROS LAB SPIKE	190
	70-190NDMIN-41	250 µL	2000 mg/mL	MeOH	Nitroaromatics spike	70-190NDMIN-42	50 µg/mL	2003/05/26	DAIY NITROS WORKING SPIKE	190
	70-190-NDMIN-42	100 µL	50 µg/mL	DCM	Nitroaromatics one shot spike	70-190NDMIN-192	5.00 µg/mL	2003/03/26	added: 5 µL 70-177NMP-20 100 µL 70-182NDM-120 Method spike to test new steps	190
	70-190-NDMIN-43	100 µL	↓	↓	↓	70-190NDMIN-193	↓	↓	↓	190
2003/02/26	13LC50602	100 µL	100 µg/mL	ACETONE	DIC-SURROGATE	70-190NDMIL-259	1/2 µg/mL	2003/08/26		DK
						-260				
						-261				
						-262				
						-263				
						-264				
						-265				
						-266				
						-267				
						-268				
						-269				
2003/02/27	70-190NDMIN-41	100 µL	2000 ng/mL	DCM	Nitroaromatics working set	70-190NDMIN-194	200 ng/mL	2003/03/27	added in each: 5 µL 70-177NMP-20 100 µL 70-182NDM-120	190
	70-184NDMIN-39	100 µL	100 ng/mL	DCM	Nitroaromatics working set spike	70-190NDMIN-195	10 ng/mL	↓	↓	
	70-190NDMIN-195	100 µL	100 ng/mL	DCM	THAT-PROD nitroaromatics	70-190NDMIL-196	1.0 ng/mL	↓	↓	
2003/02/27	MC850898	100 µL	100 µg/mL	Acetone	Chlorophenols Surv.	70-190CPHIL-12	1 µg/L	2003/08/27		OK
2003/02/27	MC850199	100 µL	100 µg/mL	Acetone	Chlorobenzenes Surv.	70-190CPHIL-12	1 µg/L	2003/08/27		OK
2003/02/27	CP59708	100 µL	100 µg/mL	MeOH	Chlorophenols Spike	70-190CPHIL-12	1 µg/L	2003/08/27		OK
2003/02/27	CB59708	100 µL	100 µg/mL	MeOH	Chlorobenzenes Spike	70-190CPHIL-12	1 µg/L	2003/08/27		DK
	MAX-SOL-4	↓	↓	↓	↓	↓	↓	↓	↓	DK
2003/03/03	EPH163500K of 15350602	250 µL	400000000 µg/mL	Acetone	3 IF 31 µg 15350602	70-19016IZN-02	10/50/100 µg/mL	2003/03/03		190
2003/03/03	70-19016IZN-02	1 mL	10/50/100	Acetone	3 IF spike, daily	70-19016IZN-13	1/5/10 µg/mL	2003/09/03	use 100 µL	190
2003/03/05	CBAL-C-50950	50 µL	1 µg/mL	Acetone	PCB - morning daily	70-190-100-20	2 µg/mL	2003/09/05	use 200 µL	190

200

21

DATE	LOT #	AMT USED	INITIAL CONC.	FINAL VOL	SOLVENT	WFE	CODE	FINAL CONC.	EXPIRY DATE	COMMENTS	INITIAL
2003/03/23	19 LC50602	100 µL	100/200 ng/mL	10 µL	ACETONE	O/P-Su (10 µL)	70-200 PBMN-285	1/2 ng/mL	2003/09/25	O/P-Su reg. to	DK
2003/03/28	6PHS0401	1 mL	2.0 ng/mL	10 mL	ACETONE	POSITIVE SPIKE	70-200 PBMN-03	0.2 ng/mL	2004/03/28	added to each file 500 µL for Intern.	DK
2003/03/28	70-200 PBMN-03	500 µL	0.2 ng/mL	10 mL	ACETONE	INTERNAL POS SPIKE	70-200 PBMN-02	10 ng/mL	2004/03/28	also 10 µL for tissue	
2003/03/28	70-200 PBMN-03	100 µL	10 ng/mL	10 mL	ACETONE	POSITIVE SPIKE	70-200 PBMN-24	0.1 ng/mL	2003/09/28	also 1.0 mL for tissue	
2003-03-28		1 µL	10 ng/mL	10 µL	MEOH	GEN TOXIC SURV.		1 ng/mL	2003-06-28	also 100 µL	KSL
2003-03-28		2 mL	200 ng/mL	10 mL	MEOH	GEN TOXIC SURV.		200 ng/mL	2003-06-28	also 100 µL	
2003/04/01	70-190 NMMN-41	100 µL	2000 ng/mL	1 mL	DCM	NH4 DISV. W/REGEN. W/REGEN. STD	70-200 NMMN-126	200 ng/mL	2003/05/01	added to each file 50 µL for NMMN-25 100 µL for NMMN-125	KL
	70-190 NMMN-39	100 µL	100 ng/mL	1 mL	DCM	2nd source	1217	10.0 ng/mL			
	70-200 NMMN-127	100 µL	10 ng/mL	1 mL	DCM	Thickbed	1218	1.00 ng/mL			
2003-04-04	70-182 NMMN-24	100 µL	9.8 ng/mL	10 mL	MEOH	NH4 DISV.	70-200 NMMN-125	9.8 ng/mL	2003-07-04	also 100 µL	KSL
		100 µL	50 ng/mL	1 mL	DCM	NH4 DISV. W/REGEN. W/REGEN. STD	70-200 NMMN-126	5.0 ng/mL	2003/05/08	added to each file 50 µL for NMMN-25 100 µL for NMMN-125	KL
	70-190 NMMN-41	100 µL	2000 ng/mL	1 mL	DCM	2nd source	70-200 NMMN-122	200 ng/mL			
	70-184 NMMN-39	100 µL	100 ng/mL	1 mL	DCM	Thickbed	70-200 NMMN-121	10.0 ng/mL			
	70-200 NMMN-122	100 µL	10.0 ng/mL	1 mL	DCM	Thickbed	70-200 NMMN-122	1.0 ng/mL			
2003-04-11	70-190 NMMN-41	450 µL	2000 ng/mL	10 mL	MEOH	NH4 DISV. W/REGEN. W/REGEN. STD	70-200 NMMN-44	50 ng/mL	2003-07-11	also 100 µL (1 mL for soil)	KSL
2003-04-11	70-190 NMMN-41	100 µL	2000 ng/mL	10 mL	MEOH	2nd source	70-200 NMMN-122	200 ng/mL	2003-04-11	also 100 µL	KSL
2003/04/15	70-190 NMMN-41	100 µL	2000 ng/mL	1 mL	DCM	NH4 DISV. W/REGEN. W/REGEN. STD	70-200 NMMN-122	200 ng/mL	2003/05/15	added to each file 50 µL for NMMN-25 100 µL for NMMN-125	KL
	70-184 NMMN-39	100 µL	2000 ng/mL	1 mL	DCM	2nd source	1224	10.0 ng/mL			
	70-200 NMMN-122	100 µL	2000 ng/mL	1 mL	DCM	Thickbed	1225	1.0 ng/mL			
2003/04/15	13LC50602	100 µL	100/200 ng/mL	10 mL	Acetone	O/P-Su (10 µL)	70-200 NMMN-287	1/2 ng/mL	2003/10/15	NH4-SUBSTRATE	17
		100 µL	100/200 ng/mL	10 mL	Acetone	2nd source	70-200 NMMN-288	10 ng/mL			
		100 µL	100/200 ng/mL	10 mL	Acetone	Thickbed	70-200 NMMN-289	10 ng/mL			
		100 µL	100/200 ng/mL	10 mL	Acetone	Thickbed	70-200 NMMN-290	10 ng/mL			

App	Lot #	Net wt	Initial conc	Final vol	Solvent	Use	Code	Final conc	Expiry date	Comments	205
2003/04/30	UHN Scientific R-1212 15T 200	1 ml	10000 ng/ml	5 ml	DCM	08-methylalum. 2000 for 1-10	70-204NAPP-15	200 ng/ml	2003/10/30	use 5ml	Final test OK
2003/04/30	UHN Scientific S1116	1.5 ml	10000 ng/ml	10 ml	MeOH	1,4-Dioxane 5%k	70-204OANN-09	15 ng/ml	2003/10/30	use 100ul	OK
2003/04/30	CIL 90-18-147	0.1018 g	99%	10 ml	MeOH	dg 1,4 Dioxane intermediate stock	70-204OANN-17	10.18 ng/ml	2003/10/30	use as stock	OK
2003/04/30	70-204OANN-17	1.25 ml	10180 ng/ml	10 ml	MeOH	dg 1,4 Dioxane intermediate stock	70-204OANN-18	127.25 ng/ml	2003/10/30	use as intermediate	OK
2003/04/30	70-204OANN-18	1.0 ml	127.25 ng/ml	10 ml	MeOH	dg 1,4 Dioxane surrogate	70-204OANN-19	12.73 ng/ml	2003/10/30	use 100ul	OK
2003/04/30	13LCS0602	100ul	10000 ng/ml	10 ml	Acetone	HT SURROGATE	70-204/67L-291	112.09 ng/ml	2003/10/30 working by	use 1.0 ml	17
							70-204/67L-292				
							70-204/67L-293				
							70-204/67L-294				
							70-204/67L-295				
							70-204/67L-296				
2003/04/30	Waters R1212	50ul	10000 ng/ml	10 ml	DCM	NDA D8 int. std.	70-204 NAPP-27	5 ng/ml	2003-07-30	use 5ul	K8
2003-05-01	70-162 NDMNL-04	100ul	98 ng/ml	10 ml	MeOH	NDA D8 surr.	70-204 NDMNL-127	98 ng/ml	2003 08.01	use 100ul	K8
							70-204 NDMNL-128				
2003-05-01	70-190 NDMIN-41	250ul	2000 ng/ml	10 ml	MeOH	NDA D8 intermediate	70-204 NDMIN-45	50 ng/ml	2003-08-01	use 100ul	F-4
2003-05-05	70-190 NDMIN-42	100ul	50 ng/ml	1 ml	DCM	Reference std	70-204 NDMIN-124	5.0 ng/ml	2003/05/16	use 100ul	K8
							70-204 NDMIN-41				
							70-188 NDMIN-40				
							70-184 NDMIN-46				
							70-204 NDMIN-182				
							70-184 NDMIN-38				
2003-05-05	70-198 GEMIN-11	10ul	500 ng/ml	1 ml	DCM	Reference std	70-204 GEMIN-157	5.0 ng/ml	2003/06/15	use 100ul	K8
							70-198 GEMIN-11				
							70-198 GEMIN-15				
							70-198 GEMIN-15				
							70-198 GEMIN-15				



206	207	Ant #	Ant. level	Initial conc.	Extraction solvent	Use	Code	Final conc.	Expiry date	Comments	Initial
2003/05/05	2003/05/05	70-1986EMIN-04	85 µL	5000 ng/mL	DCM	GC/MS 2 A13	70-2066EMV-160	125 ng/mL	2003/06/05	added to 2003/08/08/08 - 08 5 µL of 70-1986EMV-15 100 µL of 70-1986EMV-15	IL
↓	↓	↓	50 µL	↓	↓	↓	161	250 ng/mL	↓	↓	↓
2003/05/08	2003/11/08	15LCS0602	100 µL	100 µg/mL	ACETONE	DIF-SURROGATE	70-2061L-297	1/2 ng/mL	2003/11/08	use 1.0 mL	PK
↓	↓	↓	↓	↓	↓	↓	70-2061L-298	↓	↓	↓	↓
2003/05/08	2003/11/08	WPLCS0698	50 µL	1 ng/mL	ACETONE	WJH P/B	70-2061L-99	2 ng/mL	2003/11/08	use 1.0 mL	PK
↓	↓	↓	↓	↓	↓	↓	70-2061L-99	↓	↓	↓	↓
2003/05/08	2003/11/08	MCBS0199	100 µL	100 ng/mL	ACETONE	CB surrogate	70-2061L-14	1 ng/mL	2003/11/08	CB surrogate use 1.0 mL	OK
↓	↓	↓	100 µL	100 ng/mL	ACETONE	CP surrogate	70-2061L-14	1 ng/mL	2003/11/08	CP surrogate use 1.0 mL	OK
2003/05/08	2003/11/08	MCP50898	100 µL	100 ng/mL	ACETONE	CP surrogate	70-2061L-14	1 ng/mL	2003/11/08	CP surrogate use 1.0 mL	OK
↓	↓	↓	50 µL	200 ng/mL	ACETONE	PAH surrogate	70-2061L-08	1 ng/mL	2003/11/08	PAH surrogate use 1.0 mL	OK
2003/05/08	2003/05/126	70-186PAHL-05	100 µL	50 ng/mL	DCM	PAH surrogate	70-2061L-08	5.0 ng/mL	2003/05/126	PAH surrogate use 1.0 mL	OK
↓	↓	↓	100 µL	2000 ng/mL	↓	↓	1855	200 ng/mL	2003/106/08	added to 2003/106/08 5 µL of 70-186PAHL-06 100 µL of 70-186PAHL-06	OK
2003/05/09	2003/10/14	70-190NDMN-42	100 µL	100 µg/mL	↓	↓	1856	10 ng/mL	↓	↓	↓
↓	↓	↓	100 µL	100 ng/mL	↓	↓	1857	1.0 ng/mL	↓	↓	↓
2003/05/13	2003/11/13	70-186PAHL-10	100 µL	20 ng/mL	MeOH	PAH SURV	70-2061L-11	2.0 ng/mL	2003/11/13	MPL INTERMEDIATE	OK
↓	↓	↓	100 µL	100 ng/mL	ACETONE	DIF-SURROGATE	70-2061L-299	1/2 ng/mL	2003/11/14	USE 1.0 mL	M
2003/05/14	2003/10/15	13LCS0602	100 µL	100 ng/mL	↓	↓	70-2061L-230	↓	↓	↓	↓
↓	↓	↓	↓	↓	↓	↓	70-2061L-231	↓	↓	↓	↓
↓	↓	↓	↓	↓	↓	↓	70-2061L-232	↓	↓	↓	↓
↓	↓	↓	↓	↓	↓	↓	70-2061L-233	↓	↓	↓	↓
↓	↓	↓	↓	↓	↓	↓	70-2061L-234	↓	↓	↓	↓
↓	↓	↓	↓	↓	↓	↓	70-2061L-235	↓	↓	↓	↓
2003/05/15	2003/10/15	70-186PAHL-10	100 µL	50 ng/mL	DCM	WITROBAMINUS	70-2061L-1258	500 ng/mL	2003/10/15	17 rack added. 5 µL 70-186PAHL-26 100 µL 70-198NDMN-125	OK
↓	↓	↓	25 µL	2000 ng/mL	↓	↓	-1259	50.0 ng/mL	↓	↓	↓
↓	↓	↓	40 µL	↓	↓	↓	-1260	80 ng/mL	↓	↓	↓
↓	↓	↓	100 µL	↓	↓	↓	-1261	200 ng/mL	↓	↓	↓
↓	↓	↓	50 µL	20,000 ng/mL	↓	↓	-1262	1000 ng/mL	↓	↓	↓
↓	↓	↓	100 µL	↓	↓	↓	-1263	2000 ng/mL	↓	↓	↓

CHAIN OF CUSTODY DOCUMENTATION

Report Name: Entry

Job #: A315100

Page #: 1

Client: APPLIED P & CH LABORATORY
13769 MAGNOLIA AVE
CHINO CA
USA 91710-7018

Inv Attn: Kenny Chan

Printed: 2003/05/02 Version 1
Reception Date: 2003/05/02
Reception Time: 12:39
Login Date: 2003/05/02
REQUIRED DATE: 2003/05/23
Quote Number: A20018

Report: same

Attention: Kenny Chan
Phone: (909) 590 - 1828Ext: 263
Fax: (909) 902 - 1661

P.O. Number:
Project Number: JPL

Client Number: 9417
Rpt Address #:
Q.C. Samples: No

Project Coordinator: AGY

<u>Maxxam Client</u>	<u>Store Recd.</u>	<u>Sampling</u>	<u>Test Codes</u>	
<u>Number</u> <u>Sample ID</u>	<u>Cont's</u> <u>Code</u> <u>OK</u>	<u>Date</u>	<u>Matrix</u>	
A01366-01R MW-24-1	2-ILAG WWI-538 Yes	2003/04/29	LIQ	W-NDMA-L

Remarks: EPA 1625. LEVEL 5

Quote Remarks:

EPA Level 4 reporting (15% surcharge).
For Extract & Hold samples, charge U\$175

000108



SAMPLE RECEIPT RECORD

Way Bill #838068291068
Received 2003-05-02 12:34PM
Courier Company FEDEX
Assigned Job # A315100 / A315096
Project #JPL
Client Name Applied P & CH
Project Contact Kenny Chan

Observation	Yes	NO
Were custody seals on the outside of the cooler?	✓	
Was the Chain of custody inside the cooler?	✓	
Was the Chain of Custody properly filled out?	✓	
Was ice or ice packs used to keep samples cool?	✓	
Temperature of the cooler or blank.	0.5°c,	
Was the temperature acceptance limit of <8 c met?	✓	
Were the sample containers in good condition?	✓	

If the answer to any of the questions above is NO, a sample exceptions report must be completed.

Date Logged in 2003-05-02

Sample Entry
Tracy Strelau

Maxxam Analytics Inc

50 Bathurst Dr, Unit #12
Waterloo, ON
N2V 2C5
(519) 747 2575 ext.21

Comments: