

canadian analytical laboratories inc.


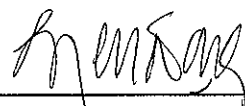
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*****CERTIFICATE OF ANALYSIS*****

CUSTOMER	PRODUCT	AR NO:	0049728
GLOBAL BIOTECHNOLOGIES	MICROSAN RX SOAP	DATE:	May 11, 2011
54 YORK STREET SUITE 1B		CUST PO NO:	LETTER
PORTLAND, MAINE		LOT NO:	T110504
04101 U.S.A.		PRN NO:	G-116-001
		FILE NO:	
		PAGE:	1 of 1

ATTN: A. ROBERT BOGOSIAN

TESTS	METHOD	SPECIFICATION	RESULTS
CHLOROXYLENOL (PCMX)	CAL-036A MAR/6/03 ORIGINAL	FOR INFORMATION ONLY	1.87%

SDN #:	CHECKED BY:		<u>May 12/11</u>
REVISION #:	MR. ASHISH BRAHMBHATT, M.Sc., DIRECTOR OF LABORATORIES		DATE
EFFECTIVE DATE :	APPROVED BY:		<u>May 12/2011</u>
	MR CHEN WONG, M.Sc., DIRECTOR OF QUALITY ASSURANCE		DATE

This report applies specifically to sample analysed and not to the bulk. Although our analysis has been carried out to the best of our knowledge and ability, this report is issued without legal liability on our part.



**CANADIAN ANALYTICAL LABORATORIES INCORPORATION
ANALYTICAL WORKSHEET**

CUSTOMER :	Global biotechnologies ✓
PRODUCT :	Microsan RX soap ✓
AR#S :	49728 ✓
LOT #	T110SD4 ✓
DATE :	05-11-2011

Objective: ^{Assay} ~~Id~~ of PCMX by HPLC

Method: CAL-036A, Mar/6/03, Original. ✓

Chemical / Reagent	Lot	Exp	Suppl
Dipotassium hydrogen phosphate	G7822	12/2013	Calson
Acetonitrile	76151	02/2015	↓
Methanol	MYBF 63894	04/2016	Signs
Gl. acetic acid	75138	01/2016	Calson
THF	76633	02/2016	↓
Water	fresh	-	CAL

Mobile Phase:

G: 3.7010g T: 0.0000g N: 3.7010g di ppt. phosphate ✓

Dissolve dipotassium phosphate into 500ml of water. Mix 500ml of ACN with 500ml of buffer, adjust pH 7.0 with gl. acetic acid. Filter through 0.45 µm filter & degas.

HPLC chrom. Parameters:

HPLC	HPLC # 14	N20: 08/2011 ✓
Column	Zorbax SB C18, 250 x 4.6 mm, 5 µm [CAL-08-09] ✓	
Column temp	ambient ✓	
Flow rate	1.5 ml/min ✓	Inj-Vol: 20 µl ✓
Wavelength	280 nm ✓	Runtime: 10 min

Std. Preparation

	Lot	Potency	Exp	Suppl
PCMX	MKBB 8290	99.4 %	06/2012 ✓	Signs-Aldrich

G(g)	T(g)	N(g)	Dilution in MeOH	conc (mg/ml)
0.0507	0.0000	0.0507	50.7/100 x 0.994	0.503958 ✓

Balance: CE 104 N20: 08/2011 ✓

Analyzed By:	DP	Reviewed By:	<i>Hand</i>	Notebook Reference:
Date:	5-11-11	Date:	05/11/11	KH-Vol.# 408



**CANADIAN ANALYTICAL LABORATORIES INCORPORATION
ANALYTICAL WORKSHEET**

CUSTOMER :	Global Biotechnologies		
PRODUCT :	Microsan RX soap		
AR#S:	49728		
LOT #	T110504	DATE :	5-11-11

Take std into 100 ul vol. flask, add about 50 ul of water and warm at 60°C water bath for 10 mins. Cool & take 100 ul with vial.

Sample Prep

G(%)	T(%)	N(%)	Dilution in MeOH
2.9360	0.0000	2.9360	Spl. wt → 100 ml

Balance: AE-104 MD: 08/2011

Weigh spl into 100 ul. vol. flask, add 5 ml THF & 20 ml MeOH. Warm at 60°C for 10 mins with occasional mixing. Cool & take volume with MeOH.

DF $\frac{100}{1} \times \frac{100}{1000} = 10$

Result:

System Suitability:		Result	Limit
RSD (%)	0.2	✓	NMT 2.0 %
Column efficiency	7707	✓	NLT 1000
Tailing	1.5	✓	NMT 2.0
Deviation (%)	-0.0	✓	± 2.0 %

Calculation

$$\frac{\text{Spl. Area}}{\text{Std Area}} \times \frac{\text{Std. conc}}{\text{Spl. conc}} \times 100$$

$$\frac{3838700}{3532327} \times \frac{0.503958}{2.9360} \times 10 = 1.87\%$$

PCMX : 1.87% (For information only)

Analyzed By:	DP	Reviewed By:	<i>Hand</i>	Notebook Reference:
Date:	5-11-11	Date:	05/11/11	KH-Vol.# 408

Canadian Analytical Laboratories Inc

HPLC COVER SHEET

AR No:	49728		
Lot No:	T110504		
Test:	AS PCMX		
HPLC System No:	HPLC 14	Next calibration Date:	08/2011
HPLC Column Type:	Zorbax SB C18, 250 x 4.6 mm, 5µm		
HPLC Column No:	CAL-0809		
Guard Column Type:	—		
Guard Column No:	—		
Book No & Page No.:	141-402, A-46173 / 174		
Analyst:	DL	Date:	5-11-11

ee
PH
5-11-11

Declaration of Content

I, Dipak declare that pages 1 to 13 have been printed out from the same chromatographic sequence, and all pages are included herein.

Signed by : DP Date: 5-11-11

Reviewed by: rand Date: 05/11/11

Vial	Label	Function	Sample Type	SampleName	Method Set / Report Method	Label Reference	Level
1	1	Inject Samples	Unknown	BLANK	051111MSDP_PCMX_LC14		
2	2	Inject Standards	Standard	STANDARD	051111MSDP_PCMX_LC14		
3	3	Inject Samples	Unknown	AR#49728	051111MSDP_PCMX_LC14		
4	4	Inject Controls	Control	STANDARD	051111MSDP_PCMX_LC14		

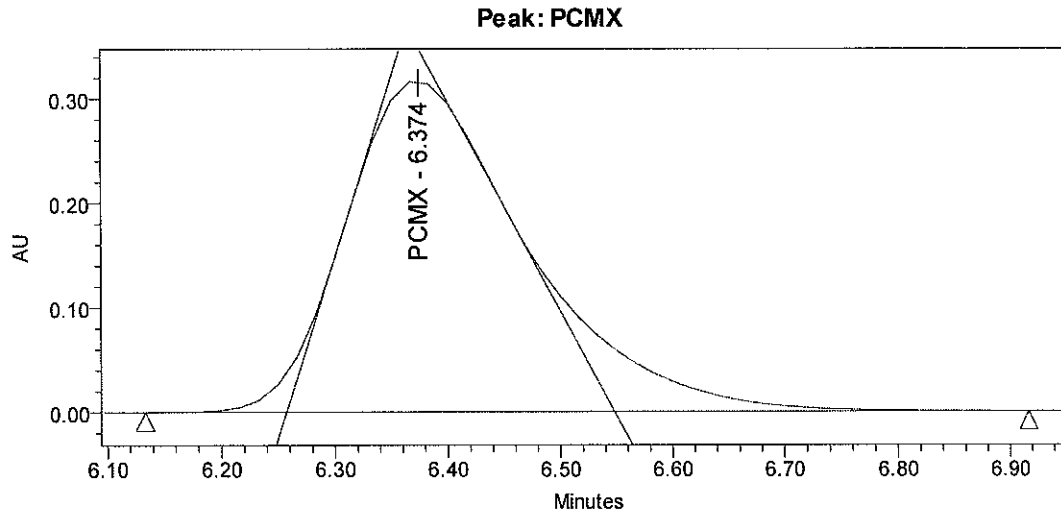
	SampleWeight	Dilution	Inj Vol (ul)	Processing	Altered
1	1.00000	1.00000	20.0	Normal	<input type="checkbox"/>
2	1.00000	1.00000	20.0	Normal	<input checked="" type="checkbox"/>
3	2.93600	10.00000	20.0	Normal	<input checked="" type="checkbox"/>
4	1.00000	1.00000	20.0	Normal	<input checked="" type="checkbox"/>

Component Editor

Component	Value (Standard)	Value (Control)	Units
PCMX	0.503958	0.503958	

CANADIAN ANALYTICAL LABORATORIES

HPLC SAMPLE REPORT



	Peak Name	RT	Area	USP Tailing	Tangent
1	PCMX	6.374	3542535	1.5	7707

Analysed By:

DP
5-2-11

Reviewed By:

md
05/11/11



SAMPLE INFORMATION

Sample Name:	BLANK	Acquired By:	Dipak
Sample Type:	Unknown	Date Acquired:	5/11/11 2:14:31 PM
Vial:	1	Acq. Method Set:	051111MSDP_PCMX_LC14
Injection #:	1	Date Processed:	5/11/11 3:47:01 PM
Injection Volume:	20.00 ul	Processing Method:	051111PMDP_PCMX_LC14
Run Time:	10.0 Minutes	Channel Name:	2487Channel 1
Sample Set Name:	051111SSDP_PCMX_LC14	Proc. Chnl. Descr.:	
Sample Weight:	1.00000	Dilution :	1.00000

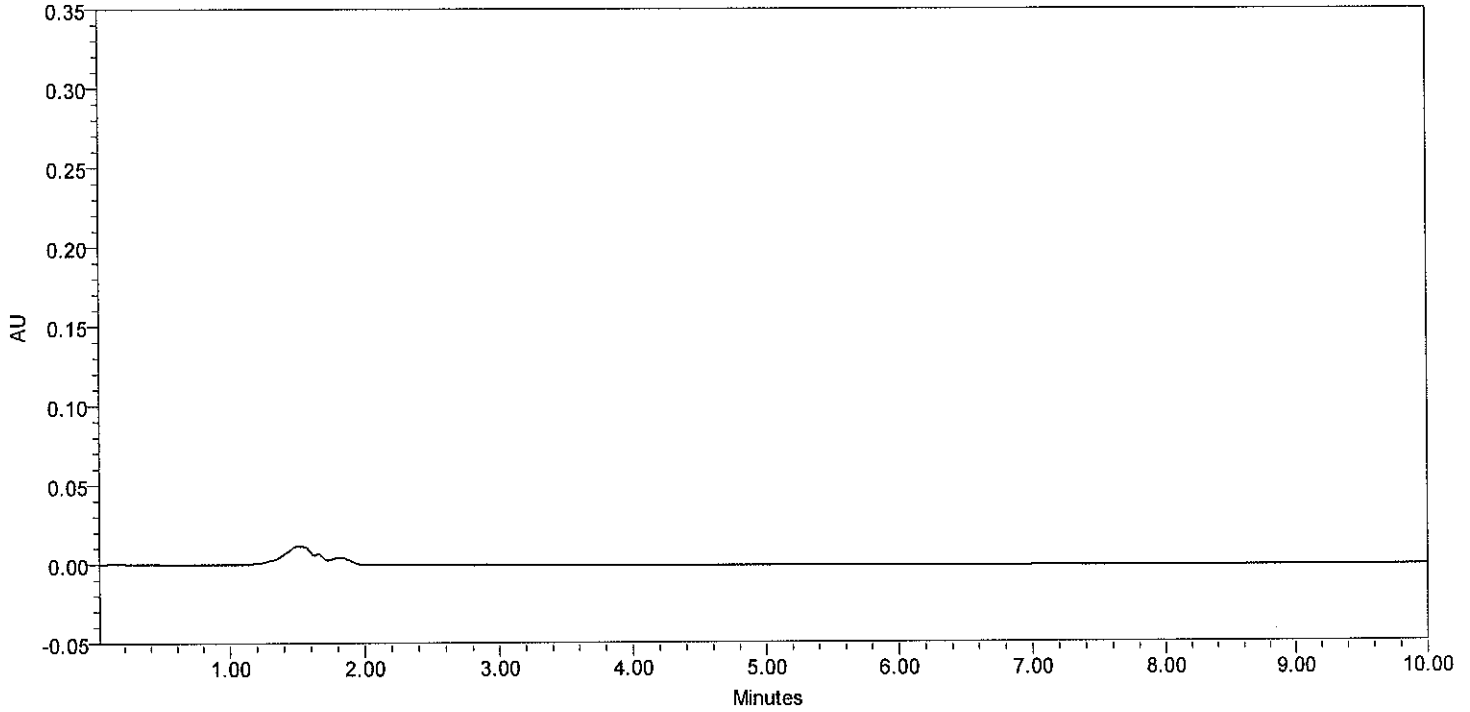
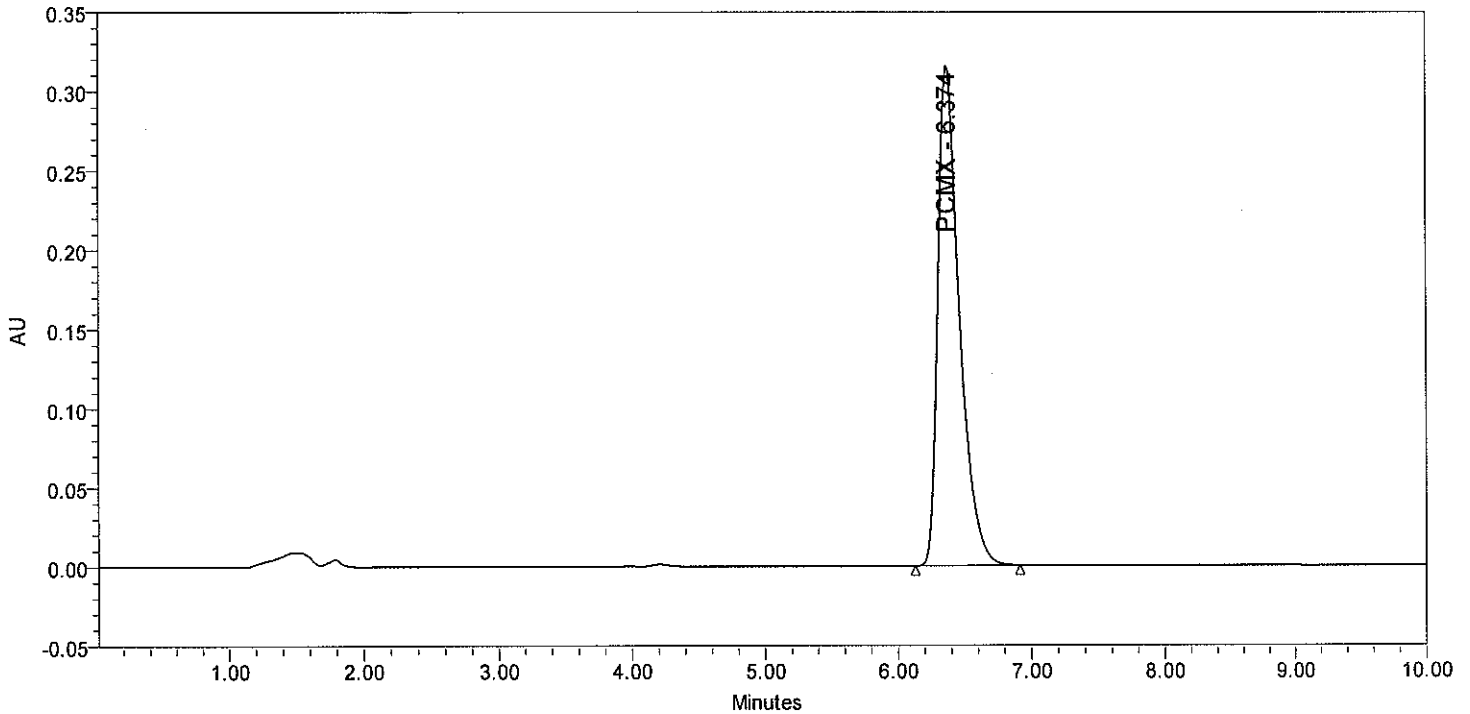


Table 'Peak Results' Contains no Data.



SAMPLE INFORMATION

Sample Name:	STANDARD	Acquired By:	Dipak
Sample Type:	Standard	Date Acquired:	5/11/11 2:25:55 PM
Vial:	2	Acq. Method Set:	051111MSDP_PCMX_LC14
Injection #:	1	Date Processed:	5/11/11 3:47:01 PM
Injection Volume:	20.00 ul	Processing Method:	051111PMDP_PCMX_LC14
Run Time:	10.0 Minutes	Channel Name:	2487Channel 1
Sample Set Name:	051111SSDP_PCMX_LC14	Proc. Chnl. Descr.:	
Sample Weight:	1.00000	Dilution:	1.00000



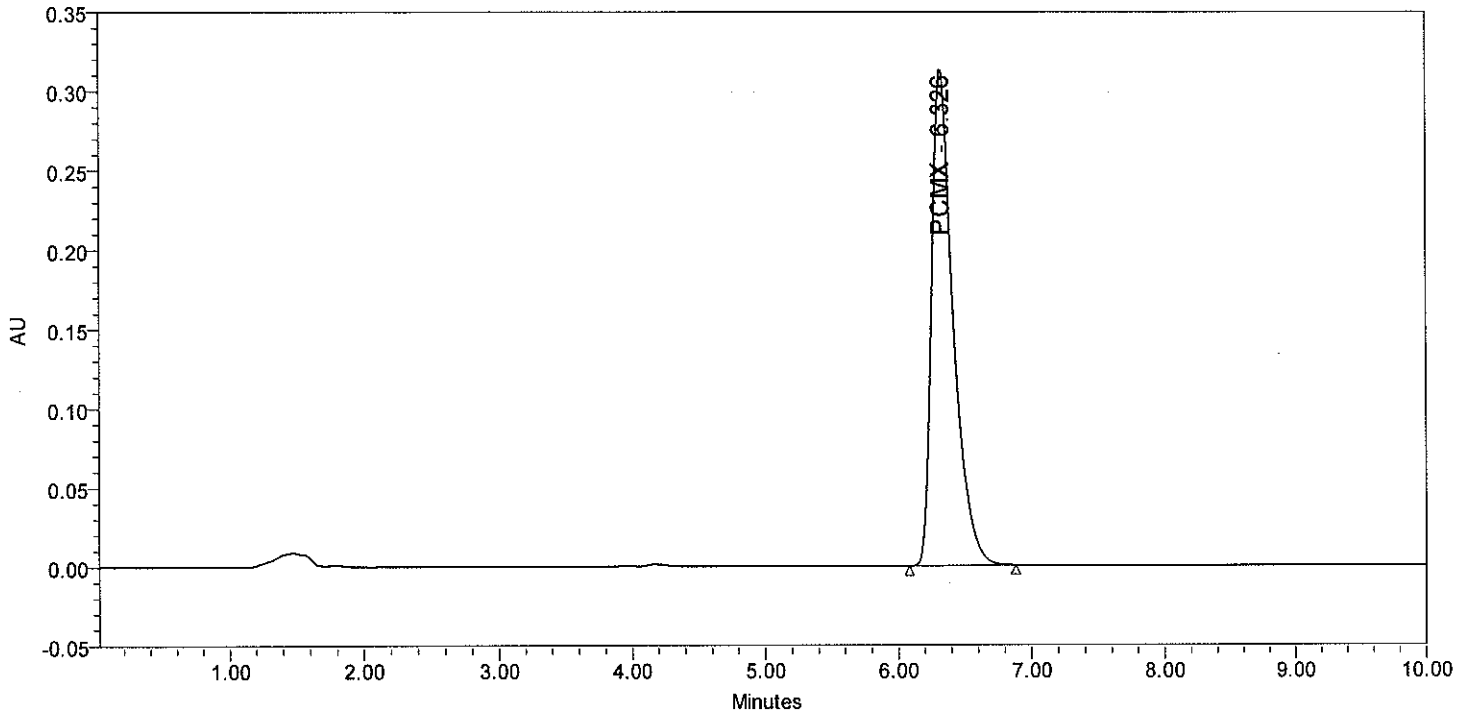
Peak Results

	Name	RT	Area	Amount
1	PCMX	6.374	3542535	0.50



SAMPLE INFORMATION

Sample Name:	STANDARD	Acquired By:	Dipak
Sample Type:	Standard	Date Acquired:	5/11/11 2:37:22 PM
Vial:	2	Acq. Method Set:	051111MSDP_PCMX_LC14
Injection #:	2	Date Processed:	5/11/11 3:47:01 PM
Injection Volume:	20.00 ul	Processing Method:	051111PMDP_PCMX_LC14
Run Time:	10.0 Minutes	Channel Name:	2487Channel 1
Sample Set Name:	051111SSDP_PCMX_LC14	Proc. Chnl. Descr.:	
Sample Weight:	1.00000	Dilution :	1.00000



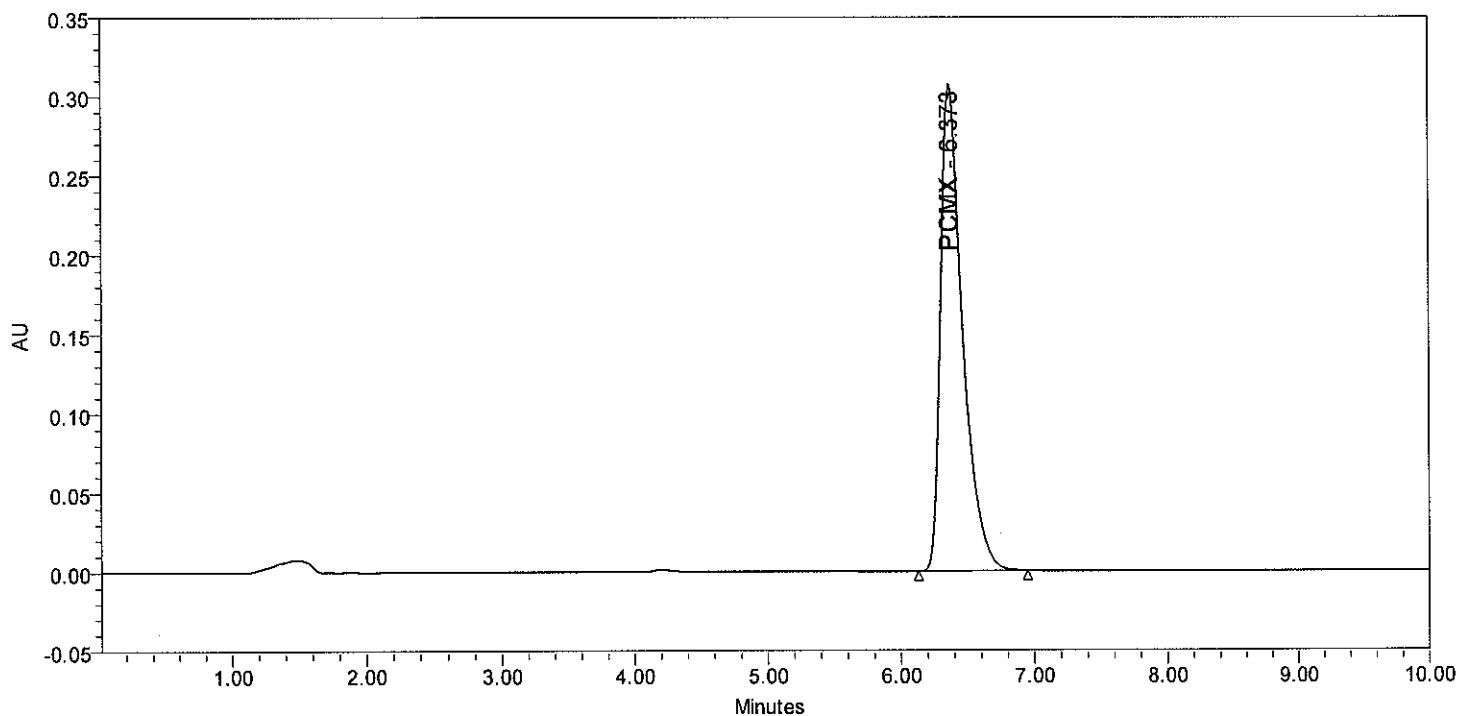
Peak Results

	Name	RT	Area	Amount
1	PCMX	6.326	3526876	0.50



SAMPLE INFORMATION

Sample Name:	STANDARD	Acquired By:	Dipak
Sample Type:	Standard	Date Acquired:	5/11/11 2:49:01 PM
Vial:	2	Acq. Method Set:	051111MSDP_PCMX_LC14
Injection #:	3	Date Processed:	5/11/11 3:47:01 PM
Injection Volume:	20.00 ul	Processing Method:	051111PMDP_PCMX_LC14
Run Time:	10.0 Minutes	Channel Name:	2487Channel 1
Sample Set Name:	051111SSDP_PCMX_LC14	Proc. Chnl. Descr.:	
Sample Weight:	1.00000	Dilution :	1.00000



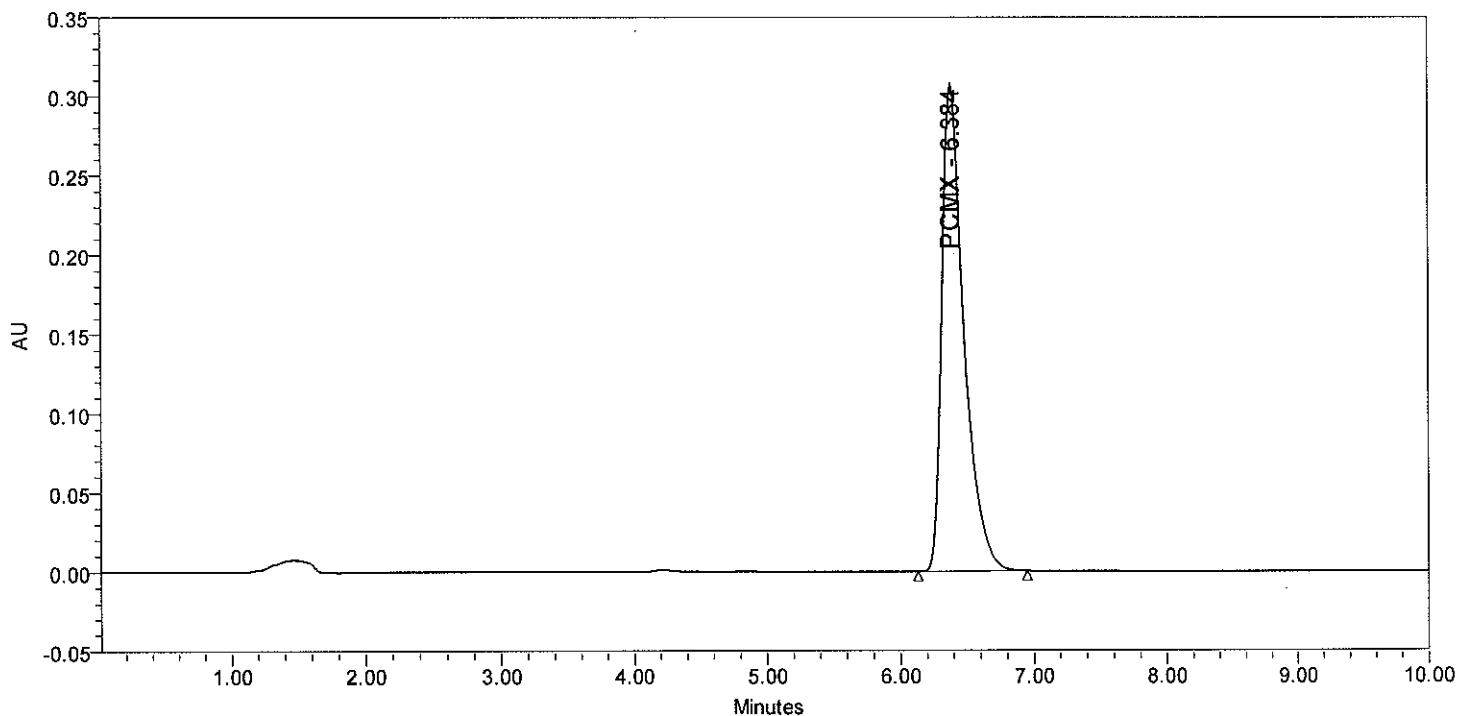
Peak Results

	Name	RT	Area	Amount
1	PCMX	6.373	3529912	0.50



SAMPLE INFORMATION

Sample Name:	STANDARD	Acquired By:	Dipak
Sample Type:	Standard	Date Acquired:	5/11/11 3:00:29 PM
Vial:	2	Acq. Method Set:	051111MSDP_PCMX_LC14
Injection #:	4	Date Processed:	5/11/11 3:47:01 PM
Injection Volume:	20.00 ul	Processing Method:	051111PMDP_PCMX_LC14
Run Time:	10.0 Minutes	Channel Name:	2487Channel 1
Sample Set Name:	051111SSDP_PCMX_LC14	Proc. Chnl. Descr.:	
Sample Weight:	1.00000	Dilution:	1.00000



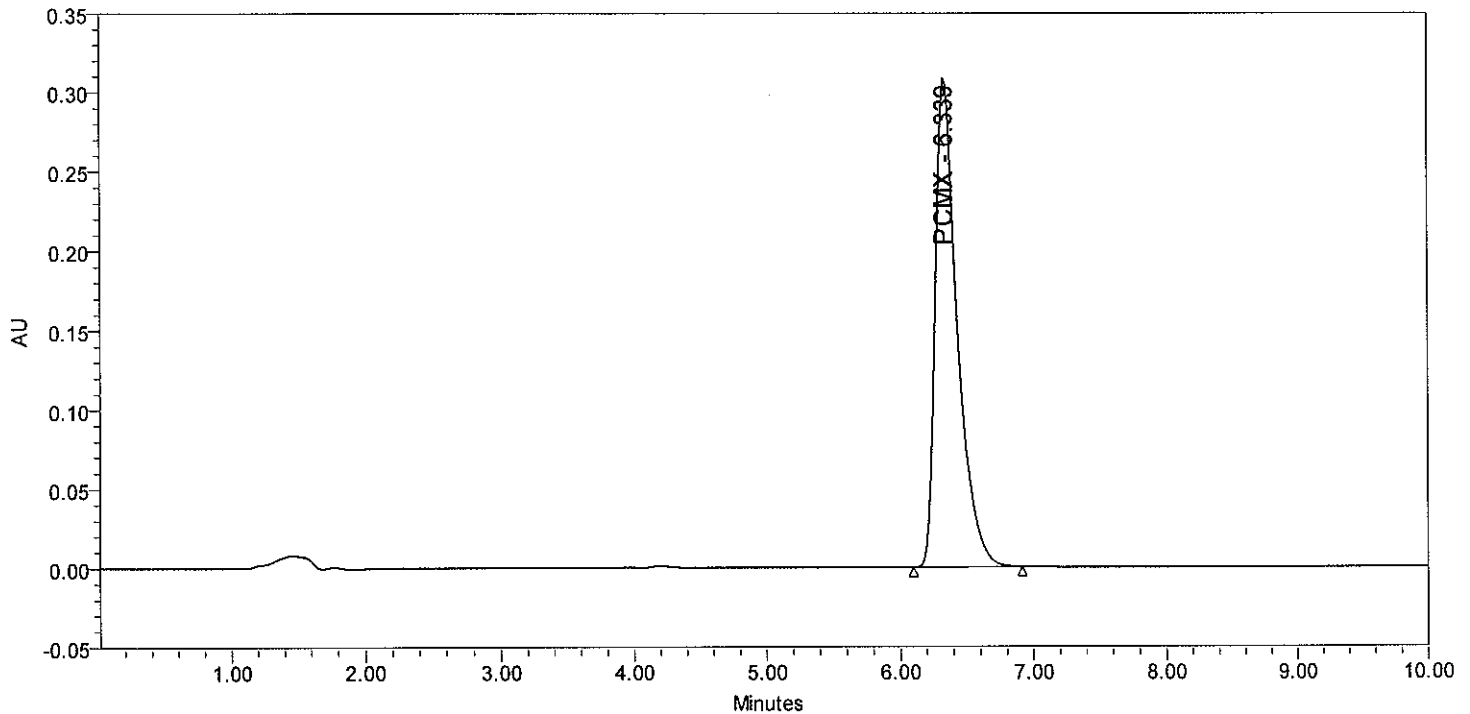
Peak Results

	Name	RT	Area	Amount
1	PCMX	6.384	3531143	0.50



SAMPLE INFORMATION

Sample Name:	STANDARD	Acquired By:	Dipak
Sample Type:	Standard	Date Acquired:	5/11/11 3:11:54 PM
Vial:	2	Acq. Method Set:	051111MSDP_PCMX_LC14
Injection #:	5	Date Processed:	5/11/11 3:47:01 PM
Injection Volume:	20.00 ul	Processing Method:	051111PMDP_PCMX_LC14
Run Time:	10.0 Minutes	Channel Name:	2487Channel 1
Sample Set Name:	051111SSDP_PCMX_LC14	Proc. Chnl. Descr.:	
Sample Weight:	1.00000	Dilution:	1.00000



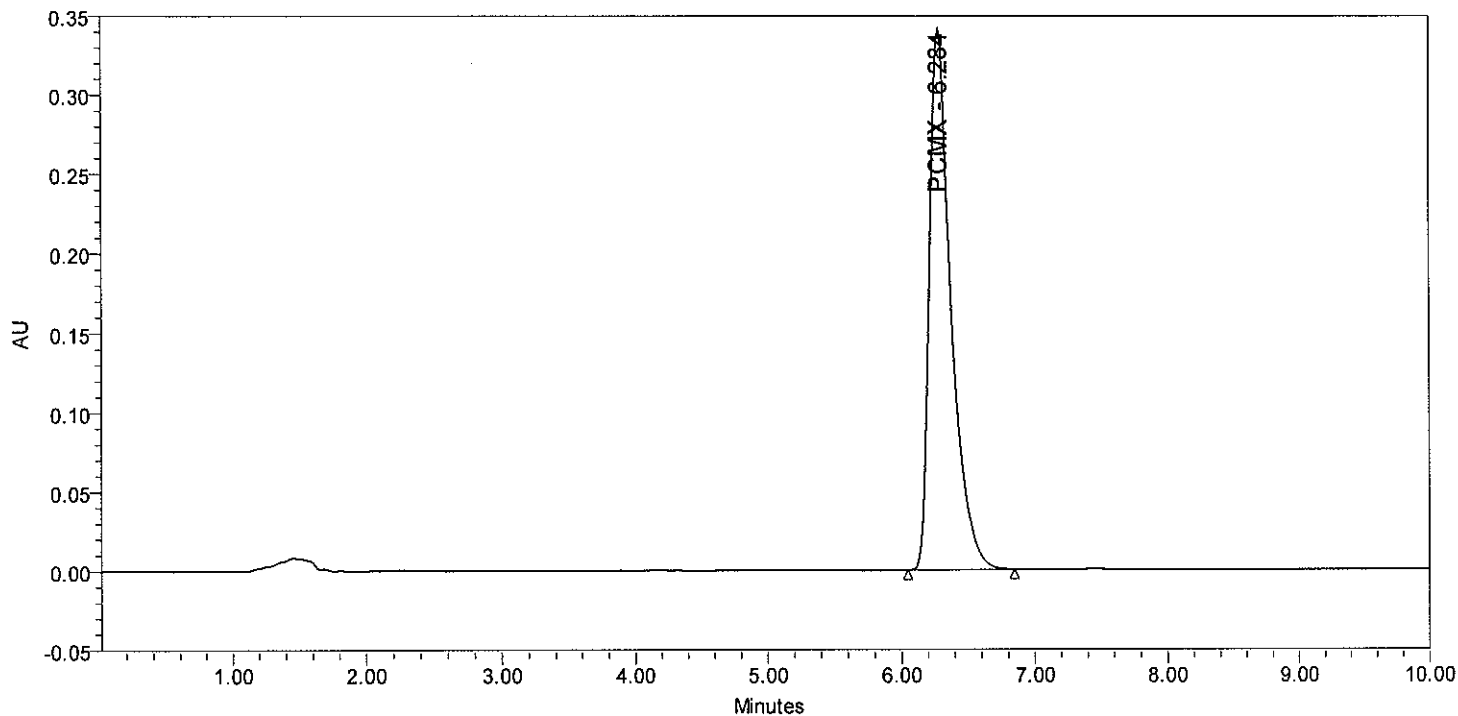
Peak Results

	Name	RT	Area	Amount
1	PCMX	6.339	3531168	0.50



SAMPLE INFORMATION

Sample Name:	AR#49728	Acquired By:	Dipak
Sample Type:	Unknown	Date Acquired:	5/11/11 3:23:15 PM
Vial:	3	Acq. Method Set:	051111MSDP_PCMX_LC14
Injection #:	1	Date Processed:	5/11/11 3:47:01 PM
Injection Volume:	20.00 ul	Processing Method:	051111PMDP_PCMX_LC14
Run Time:	10.0 Minutes	Channel Name:	2487Channel 1
Sample Set Name:	051111SSDP_PCMX_LC14	Proc. Chnl. Descr.:	
Sample Weight:	2.93600	Dilution:	10.00000



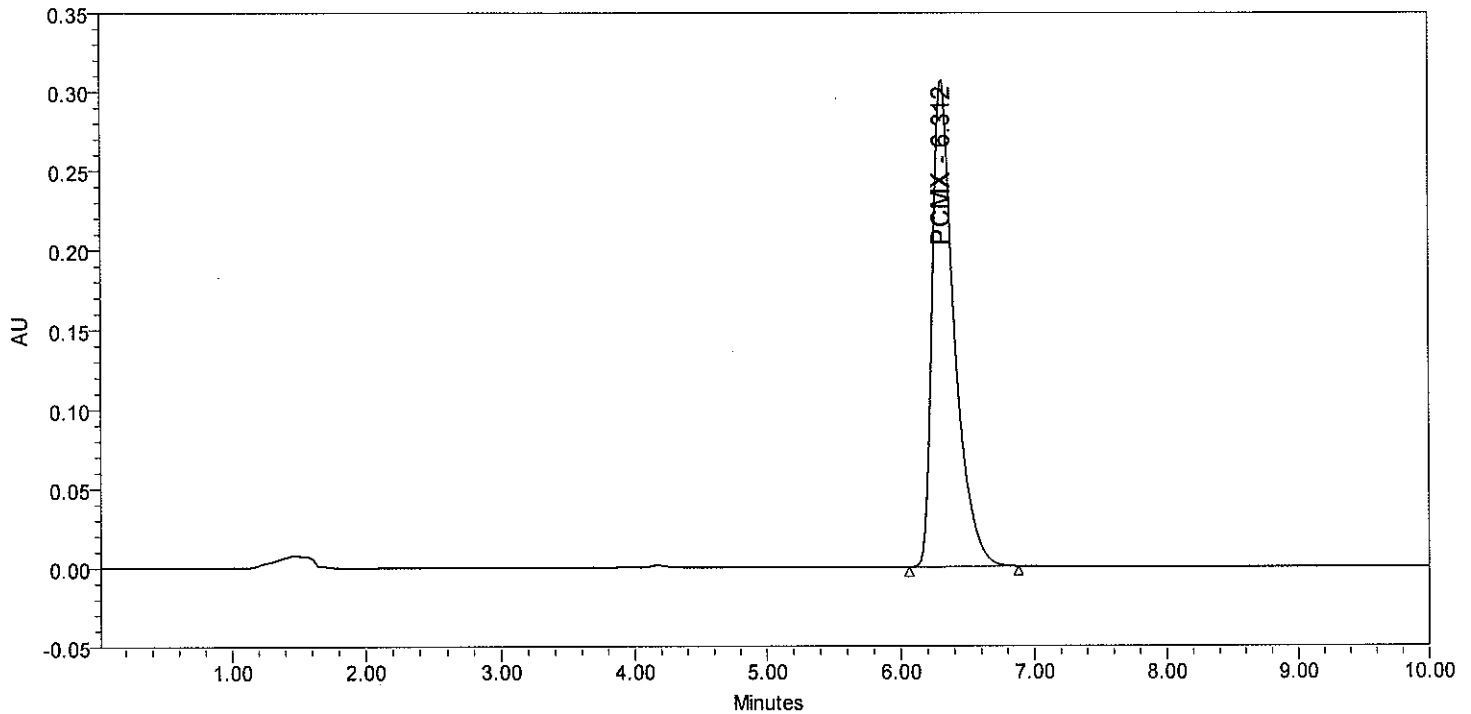
Peak Results

	Name	RT	Area	Amount
1	PCMX	6.284	3838700	1.87



SAMPLE INFORMATION

Sample Name:	STANDARD	Acquired By:	Dipak
Sample Type:	Control	Date Acquired:	5/11/11 3:34:44 PM
Vial:	4	Acq. Method Set:	051111MSDP_PCMX_LC14
Injection #:	1	Date Processed:	5/11/11 3:47:01 PM
Injection Volume:	20.00 ul	Processing Method:	051111PMDP_PCMX_LC14
Run Time:	10.0 Minutes	Channel Name:	2487Channel 1
Sample Set Name:	051111SSDP_PCMX_LC14	Proc. Chnl. Descr.:	
Sample Weight:	1.00000	Dilution:	1.00000



Peak Results

	Name	RT	Area	Amount	% Deviation
1	PCMX	6.312	3531593	0.50	-0.0



Table 'Peak: PCMX' Contains no Data.

Peak: PCMX

	SampleName	Vial	Injection	RT	Area
1	STANDARD	2	1	6.374	3542535
2	STANDARD	2	2	6.326	3526876
3	STANDARD	2	3	6.373	3529912
4	STANDARD	2	4	6.384	3531143
5	STANDARD	2	5	6.339	3531168
Mean				6.4	3532327
Std. Dev.				0.0	5968.4
% RSD				0.4	0.2

Component Summary For Amount

	SampleName	Inj	Channel	Vial	PCMX
1	STANDARD	1	2487Channel 1	2	0.50
2	STANDARD	2	2487Channel 1	2	0.50
3	STANDARD	3	2487Channel 1	2	0.50
4	STANDARD	4	2487Channel 1	2	0.50
5	STANDARD	5	2487Channel 1	2	0.50
6	AR#49728	1	2487Channel 1	3	1.87
7	STANDARD	1	2487Channel 1	4	0.50

Instrument Method: 051111IMDP_PCMX_LC14

Stored: 5/11/11 1:54:27 PM

Method Information

Comments .
 Modified User Dipak
 Locked No
 Method Id 1008
 Method Version 2
 Edit User

W2487 Instrument Setup

Type W2487
 Instrument Status On
 Dual Wavelength False
 Pulse Period Seconds 1.0
 Pulse Repeat Period Seconds 1.0

W2487 Channel Information

Channel Name 2487Channel 1
 Description
 Use Channels On
 Wavelength 280
 Output Mode Absorbance A (Ch1)

Data Mode Absorbance A (Ch1)
 Sampling Rate 1
 Filter Type Hamming
 Aups 2.0000
 Time Constant 1.0



Canadian Analytical Laboratories Inc

Reported by User: Dipak Patel (Dipak)

Project Name: PCMX_May_2011_WS5

AU Offset	0.000	AutoZero Inject	True
Voltage Offset	0	Chart Mark Enable	True
Polarity	+	Ratio AuMinimum	0.1000
AutoZero Wavelength	True	Minimum Ratio	0.00
AutoZero Keypad	True	Maximum Ratio	2.00
AutoZeroEvent Input	True		

W2487 Threshold Event Table

	Enable	Threshold Level	Level	Event	Function
1	False		1.0000	Switch 1	Off
2	False		1.0000	Switch 1	Off

W2487 Event Table

	Time	Event	Channel	Value	Function
1	30.00	Lamp	Channel A		Off

W2690 Instrument Setup

Type	W2690	Bubble Detect	False
Instrument Status	On	Pre Column Volume	0.0
Channel Name	2690	Sample Temp Target	-1.0
Description		Sample Temp Range	5.0
Use Channel Monitor	Off	Sparge A	0.0
Monitor Parameter	Flow Rate	Sparge B	0.0
Stroke Volume	Auto	Sparge C	0.0
Chart Out	%A	Sparge D	0.0
Syringe Draw Rate	Normal	Column Temp Target	-1.0
Depth Of Needle	0.0	Column Temp Range	5.0
Degas Mode	Continuous	Flow Ramp	2.00
Pump Mode	Gradient	Switch 1	No Change
Flow	1.500	Switch 2	No Change
%A	100.0	Switch 3	No Change
%B	0.0	Switch 4	No Change
%C	0.0	Use Events	False
%D	0.0	Solvent A	
High Limit	5000.0	Solvent B	
Low Limit	0.0	Solvent C	
Enable Sample Temp	False	Solvent D	
Enable Column Temp	False		

W2690 Gradient Table

	Time	Flow	%A	%B	%C	%D	Curve
1		1.50	100.0	0.0	0.0	0.0	
2	20.00	1.50	100.0	0.0	0.0	0.0	6
3	21.00	1.50	100.0	0.0	0.0	0.0	6
4	22.00	0.00	100.0	0.0	0.0	0.0	6

Revision History

Version 2 5/11/11 1:54:27 PM User Dipak



Processing Method: 051111PMDP_PCMX_LC14

Type: LC

Stored: 5/11/11 3:31:12 PM

Method Information

Comments
 Modified User Dipak
 Locked No
 Method Id 1045
 Method Version 2
 Edit User
 Average By None
 RT Window % 5.00
 Update RT Never
 CCalRef1
 Include Internal Standard Amounts in Amount Calculation No
 Vial/Default Value Type Amount

System Suitability Information

Void Volume Time 1.000 Maximum Noise
 Plate Count USP Tangent Maximum Drift
 Calculate Suitability Yes Baseline Start
 Flag Outside Yes Baseline End
 Calculate Unknowns Yes Tangent Percent 61
 Pharmacopoeia All
 % Runtime 5.0

Integration Parameters

Minimum Area 0
 Minimum Height 0
 Threshold 100.000
 Peak Width 30.00

Integration Events

	Time	Type	Value	Stop
1	0.000	Inhibit Integration		5.500

Component Table

	Name	Retention Time	RT Window	Peak Match	Calculate Suit Results	Flag Outside Limits	Y Value
1	PCMX	6.300	0.500	Closest	Yes	Yes	Area

Component Table

	X Value	Fit	Weighting	Internal Std	RT Reference	Rel Resol Reference
1	Amount	Linear thru Zero	None			

Component Table

	Curve Reference	Relative Response	Must	Default Pk	Default Pk Start	Default Pk End	Default Units
1			No	No			

Component Table

	Type	CCompRef1	CCompRef2	CCompRef3	CConst1	CConst2	CConst3	CConst4	CConst5
1	Single								



Canadian Analytical Laboratories Inc

Reported by User: Dipak Patel (Dipak)

Project Name: PCMX_May_2011_WS5

Component Table

	CGConst6	CGConst7
1		

Table 'Suit Limits-PCMX' Contains no Data.

Table 'Def Amt-PCMX' Contains no Data.

Table 'Name Groups' Contains no Data.

Table 'Time Groups' Contains no Data.

Noise and Drift Parameters

Calculate Detector Noise and Drift No
 Detector Noise and Drift Start Time (Minutes)
 Detector Noise and Drift End Time (Minutes)
 Detector Noise and Drift Segment Width 60(sec)

Revision History

Version 2 5/11/11 3:31:12 PM User Dipak

Sample Set Method: 051111SSDP_PCMX_LC14

Stored: 5/11/11 2:13:05 PM

Method Information

Comments NEWSS
 Modified User Dipak
 Locked No
 Method Id 1009
 Method Version 1
 Edit User

Sample Set Table

	Function	Processing	Method Set / Report Method	Label Reference	Vial	Sample Type	Level	Label
1	Inject Samples	Normal	051111MSDP_PCMX_LC14		1	Unknown		
2	Inject Standards	Normal	051111MSDP_PCMX_LC14		2	Standard		
3	Inject Samples	Normal	051111MSDP_PCMX_LC14		3	Unknown		
4	Inject Controls	Normal	051111MSDP_PCMX_LC14		4	Control		

Sample Set Table

	Vial Id	Altered	Dilution	SampleName	SampleWeight	# of Injs	Run Time (Minutes)	Data Start (Minutes)	Next Inj. Delay (Minutes)	Inj. Vol (ul)
1	0	No	1.00000	BLANK	1.00000	1	10.00	0.00	0.00	20.0
2	0	No	1.00000	STANDARD	1.00000	5	10.00	0.00	0.00	20.0
3	0	No	1.00000	AR#49728	1.00000	1	10.00	0.00	0.00	20.0
4	0	No	1.00000	STANDARD	1.00000	1	10.00	0.00	0.00	20.0



Sample Set Table

	Auto Additions:	Column Position
1		
2		
3		
4		

Table 'Vial Amounts for Vial 1, Sample Name: BLANK' Contains no Data.

Vial Amounts for Vial 2, Sample Name: STANDARD

	Component	Value	Units
1	PCMX	0.503958	

Table 'Vial Amounts for Vial 3, Sample Name: AR#49728' Contains no Data.

Vial Amounts for Vial 4, Sample Name: STANDARD

	Component	Value	Units
1	PCMX	0.503958	