FILE COPY

OLIN CORPORATION
RI ANALYTICAL - WILMINGTON
SDG: WIL-22
SE3249

KATAHDIN ANALYTICAL SERVICES, INC.
600 TECHNOLOGY WAY
SCARBOROUGH, ME 04074

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SAMPLE DATA PACKAGE

SDG NARRATIVE
KATAHDIN ANALYTICAL SERVICES
OLIN CORPORATION
RI ANALYTICAL - WILMINGTON
WIL-22
SE3249

Sample Receipt

The following samples were received on June 8, 2011 and were logged in under Katahdin Analytical Services work order number SE3249 for a hardcopy due date of June 30, 2011.

KATAHDIN Sample No.	OLIN CORPORATION Sample Identification
SE3249-1	-SS-448-0.0/1.0-DUP
SE3249-2	-SS-448-0.0/1.0-XXX

The samples were logged in for the analyses specified on the chain of custody form. All problems encountered and resolved during sample receipt have been documented on the applicable chain of custody forms.

We certify that the test results provided in this report meet all the requirements of the NELAC standards unless otherwise noted in this narrative or in the Report of Analysis.

The client IDs on the Chain of Custody exceeds the 19-character limit of the Katahdin Analytical Information Management System. Therefore, the first characters "OC" in the client IDs for all samples were omitted on all forms.

Sample analyses have been performed by the methods as noted herein.

Should you have any questions or comments concerning this Report of Analysis, please do not hesitate to contact your Katahdin Analytical Services Project Manager, **Ms. Kelly Perkins**. This narrative is an integral part of the Report of Analysis.

Organics Analysis

The samples of SDG WIL-22 were analyzed in accordance with "Test Methods for Evaluating Solid Wastes: Physical/Chemical Methods." SW-846 , 2nd edition, 1982 (revised 1984), 3rd edition, 1986, and Updates I, II, IIA, III, IIIA, and IIIB 1996, 1998 & 2004, Office of Solid Waste and Emergency Response, U.S. EPA, and/or for the specific methods listed below or on the Report of Analysis.

8033M DMF Analysis

Sample SE3249-2 was used for the matrix spike (MS) and matrix spike duplicate (MSD), per client request.

The sample with the client ID –SS-448-0.0/1.0-XXX (laboratory ID SE3249-2) exceeds the 19-character limit of the Katahdin Analytical Services' organics forms processing system when appended with the MSD designation. Therefore, the first three characters ("-SS") in the client ID for this sample was omitted on all forms for the sample, MS, and MSD analyses.

Sample WG92941-6 was analyzed as a duplicate of sample SE3249-2 as per the client's request of one duplicate sample per 20 samples.

All samples of SDG WIL-22 were manually integrated for the surrogate diethylformamide. The specific reasons for the manual integrations are indicated on the raw data by the manual integration codes (M1-M11). These codes are further explained in the attachment following this narrative.

The MS and MSD WG92941-4 and 5 had low recoveries for the spiked analyte diethylformamide which were outside of the QAPP acceptance limits. Since the associated LCS/LCSD had acceptable recoveries, the MS/MSD was not reextracted.

The closing calibration verification standard (CV) (file 6EF1143) had low responses for dimethylformamide and the surrogate diethylformamide, which resulted in %D's that were outside of the QAPP acceptance limits of 25%.

There were no other protocol deviations or observations noted by the organics laboratory staff.

Wet Chemistry Analysis

The samples of SDG WIL-22 were analyzed in accordance with the specific methods listed on the Report of Analysis.

Analyses for total solids were performed according to "Annual Book of ASTM Standards", Method D2216-98 "Standard Test Method for Laboratory Determination of Water (Moisture) Content of Soil and Rock by Mass".

All analyses were performed within analytical holding times. All quality control criteria were met.

I certify that this data package is in compliance with the terms and conditions of the contract, both technically and for completeness, for other than the conditions detailed above. Release of the data contained in this hardcopy data package has been authorized by the Operations Manager or the Quality Assurance Officer as verified by the following signature.

Leslie Dimond
07 11 11

Leslie Dimond
Quality Assurance Officer

Katahdin Analytical Services, Inc.

Manual Integration Codes For GC/MS, GC, HPLC and/or IC

M1	Peak splitting.
M2	Well defined peaks on the shoulders of the other peaks.
M3	There is additional area due to a coeluting interferant.
M4	There are negative spikes in the baseline.
M5	There are rising or falling baselines.
M6	The software has failed to detect a peak or misidentified a peak.
M7	Excessive peak tailing.
M8	Analysis such as GRO, DRO and TPH require a baseline hold.
M9	Peak was not completely integrated as in GC/MS.
M10	Primary ion was correctly integrated, but secondary or tertiary ion needed manual integration as in GC/MS.
M11	For GC analysis, when a sample is diluted by 1:10 or more, the surrogate is set to undetected and then the area under the surrogate is manually integrated.
M12	Manual integration saved in method due to TurboChrom floating point error.

Client: Mactec	KAS PM: KAP	Sampled By: Client
Project:	KIMS Entry By: GN	Delivered By: Client
KAS Work Order#: SE3249 / SE3250	KIMS Review By: KAP	Received By: GN
SDG #:	Cooler: 1 of 1	Date/Time Rec.: 6-8-11 / 16:30

Receipt Criteria	Y	N	EX*	NA	Comments and/or Resolution
1. Custody seals present / intact?		✓			
2. Chain of Custody present in cooler?	✓				
3. Chain of Custody signed by client?	✓				
4. Chain of Custody matches samples?	✓				
5. Temperature Blanks present? If not, take temperature of any sample w/ IR gun.	✓				Temp (°C): 1.6
Samples received at <6 °C w/o freezing?	✓				Note: Not required for metals analysis.
Ice packs or ice present?	✓				The lack of ice or ice packs (i.e. no attempt to begin cooling process) may not meet certain regulatory requirements and may invalidate certain data.
If temp. out, has the cooling process begun (i.e. ice or packs present) and sample collection times <6hrs., but samples are not yet cool?				✓	Note: No cooling process required for metals analysis.
6. Volatiles free of headspace: **Aqueous:** No bubble larger than a pea	✓			~~NA~~ DD	
Soil/Sediment: Received in airtight container?				✓	
Received in methanol?				✓	
Methanol covering soil?				✓	
7. Trip Blank present in cooler?				✓	
8. Proper sample containers and volume?	✓				
9. Samples within hold time upon receipt?	✓				
10. Aqueous samples properly preserved? Metals, COD, NH3, TKN, O/G, phenol, TPO4, N+N, TOC, DRO, TPH – pH <2				✓	
Sulfide - >9				✓	
Cyanide – pH >12				✓	

* Log-In Notes to Exceptions: document any problems with samples or discrepancies or pH adjustments

0000005

Jennifer Obrin

From: Kelly Perkins [kperkins@katahdinlab.com]
Sent: Monday, June 13, 2011 1:49 PM
To: 'Cunningham, Tige'
Cc: jobrin@katahdinlab.com
Subject: RE: COC and sample receipt condition reports for Olin samples received 6/8/11 (SE3249 and SE3250)

Hi Tige,

There were too many characters to fit in the field. It will show up in the narrative and in the EDD.

Kelly Perkins
Project Manager
Katahdin Analytical Services
600 Technology Way
Scarborough, ME 04074
(207) 874-2400 Ext. 17

PLEASE NOTE: This message, including any attachments, may include privileged, confidential and/or inside information. Any distribution or use of this communication by anyone other than the intended recipient is strictly prohibited and may be unlawful. If you are not the intended recipient, please notify the sender by replying to this message and then delete it from your system.

From: Cunningham, Tige [mailto:TLCunningham@mactec.com]
Sent: Monday, June 13, 2011 1:42 PM
To: Kelly Perkins
Subject: RE: COC and sample receipt condition reports for Olin samples received 6/8/11 (SE3249 and SE3250)

Hi Kelly
I just reviewed the log-ins for SE3249. Did the "OC" get left off of our field sample IDs? Just to confirm there is one soil sample, one field dup, a MS and MSD.

Tige L. Cunningham, NRCC EAC
Project Environmental Scientist
MACTEC is now amec
511 Congress Street, Portland, Maine 04101
Receptionist 207.775.5401 Fax 207.772.4762
Direct 207.828.3415 Cell 207.329.0164

From: Kelly Perkins [mailto:kperkins@katahdinlab.com]
Sent: Thursday, June 09, 2011 1:54 PM
To: Ricardi, Christian; Chatterton, Kelly; Cunningham, Tige
Subject: COC and sample receipt condition reports for Olin samples received 6/8/11 (SE3249 and SE3250)

Attached please find the requested COC and sample receipt condition reports for Olin samples received 6/8/11 (SE3249 and SE3250). Any questions, please call!

Kelly Perkins
Project Manager
Katahdin Analytical Services

0000006

SE3249 Soil Program Katahdin

Client:	Olin Corporation	Client Project #:	6107090016
Address:	3855 North Ocoee St. Suite 200	Work Site ID:	Wilmington, MA
	Cleveland, TN 37312	Reports Sent To:	Steve Morrow
Phone:	423-336-4511	Fax: 423-336-1466	Email SGMorrow@olin.com Email Rpt:____

Requested Turnaround Time (SPECIFY): Standard_____ Rush_____ (Lab Approval Required)

Regulatory Programs: MADEP MCP____ Superfund _____

Report Requirements Level IV Package ____ Level II Package _____

EDD Requirements: MACTEC EQUIS EZ EDD

INVOICE INFO	Shaded Areas for office use only
Company Name: Olin Corp	
Company Contact: ERG Accounts Payable	
Address: Same as Client	
Phone: Email	
Job # _____	Quote # _____
Lab SDG #_____	PO #_____

MACTEC

Sample ID	Date/Time Collected	Fraction (1)	QC Code (2)	Sample Matrix (3)	Composite (C) or Grab (G)	Total # of Containers	Cr+6 (3060A / 7199)	Cr+6 (7199)	DMF (Mod 8033 - GC/NPD)	DMF (Mod 8033 - GC/NPD)	Opex / Kempore (8000B - HPLC)	Perchlorate (6850)												Hydrazine, MMH, UDMH (Mod 8315 LC/MS/MS)	Hydrazine, MMH, UDMH (Mod 8315 LC/MS/MS)			Comments (Special Instructions)
							-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	Zn	-	-	<--Preservative Type (4)
							G	P	G	V	V	V												AG	AV			<--Bottle Type (5)
OC-SS-448-0.0/1.0-DUP	6/8/2011 9:35:00 AM	T	FD	SO	G	1			X																			

Special Instructions For Lab

Notes:

1.) Fraction: T = Total, D = Dissolved, S = SPLP, C = TCLP, N = Not Applicable

2.) QC Codes: FS = Field Sample, TB = Trip Blank, FD = Field Duplicate, EB = Equipment Blank, MS = Matrix Spike, MSD = Matrix Spike Duplicate, PE = Performance Evaluation Sample, FB = Field Blank

3.) Sample Matrix: GW = Groundwater, SW = Surface Water, DW = Drinking Water SO = Soil, SD = Sediment, BW = Blank Water, NAL = Non-Aqueous Liquid, PR = Product, O = Oil

4.) Preservation Type: HA = Hydrochloric Acid, NI = Nitric Acid, SA = Sulfuric Acid, SH = Sodium Hydroxide, Zn = Zinc Acetate, ME = Methanol, DI = DI Water

5.) Bottle Type: G = Glass, P = Plastic, V = 40mL VOA Glass Vial, AG = Amber Glass, AV = 40mL VOA Amber Glass Vial,

Cooler ? Y / N	MADEP Requirement
	Samples Iced? Y / N

Temp @ receipt: _____Deg C

Preservation / pH checked? Y / N

By: _____ Date: _____

Relinquished: Ryan Marland *Date:* 6 / 8 / 11 *Time:* 1630 *Received:* [signature] *Date:* 6 / 8 / 11 *Time:* 16-30

*Relinquished:*_____ *Date:* ___/___/___ *Time:*_____ *Received:*_____ *Date:* ___/___/___ *Time:*_

LC00007

SE3249 Soil Program Katandin

MACTEC

Sample ID	Date/Time Collected	Fraction (1)	QC Code (2)	Sample Matrix (3)	Composite (C) or Grab (G)	Total # of Containers	Cr+6 (3060A / 7199)	Cr+6 (7199)	DMF (Mod 8033 - GC/NPD)	DMF (Mod 8033 - GC/NPD)	Opex / Kempore (8000B - HPLC)	Perchlorate (6850)	Hydrazine, MMH, UDMH (Mod 8315 LC/MS/MS)	Hydrazine, MMH, UDMH (Mod 8315 LC/MS/MS)	Comments (Special Instructions)
							G	P	G	V	V	V	AG	Zn AV	<--Preservative Type (4) <--Bottle Type (5)
OC-SS-448-0.0/1.0-MSD	6/8/2011 9:35:00 AM	T	MS	SO	G	0	Ro		X						MS/MSD is in (1) Jar
OC-SS-448-0.0/1.0-XMS	6/8/2011 9:35:00 AM	T	MS	SO	G	1			X						" "
OC-SS-448-0.0/1.0-XXX	6/8/2011 9:35:00 AM	T	FS	SOIL	G	1			X						

Special Instructions For Lab

Notes:

1.) Fraction: T = Total, D = Dissolved, S = SPLP, C = TCLP, N = Not Applicable

2.) QC Codes: FS = Field Sample, TB = Trip Blank, FD = Field Duplicate, EB = Equipment Blank, MS = Matrix Spike, MSD = Matrix Spike Duplicate, PE = Performance Evaluation Sample, FB = Field Blank

3.) Sample Matrix: GW = Groundwater, SW = Surface Water, DW = Drinking Water SO = Soil, SD = Sediment, BW = Blank Water, NAL = Non-Aqueous Liquid, PR = Product, O = Oil

4.) Preservation Type: HA = Hydrochloric Acid, NI = Nitric Acid, SA = Sulfuric Acid, SH = Sodium Hydroxide, Zn = Zinc Acetate, ME = Methanol, DI = DI Water

5.) Bottle Type: G = Glass, P = Plastic, V = 40mL VOA Glass Vial, AG = Amber Glass, AV = 40mL VOA Amber Glass Vial.

Relinquished: [signature] Date: 6/8/11 Time: 1630 Received: [signature] Date: 6/8/11 Time: 1630

Relinquished: _____ Date: __/__/__ Time: ____ Received: _____ Date: __/__/__ Time: ____

Cooler ? Y / N	MADEP Requirement Samples Iced? Y / N
	Temp @ receipt: _____ Deg C
	Preservation / pH checked? Y / N
	By: _____ Date: _____

8000000

Katahdin ANALYTICAL SERVICES

Katahdin Analytical Services

Login Chain of Custody Report (lno1)

Jun. 09, 2011
01:30 PM

Login Number: SE3249

Account: OLINCO001 Web
Olin Corporation

Project:

Quote/Incoming: OLWIL

Primary Report Address:
Mr. Chris Ricardi
MACTEC Engineering and Consulting
P.O. Box 7050 DTS

Portland,ME 04112-7050
csricardi@mactec.com

Primary Invoice Address:
ERG
Olin Corporation
3855 North Ocoee St
Suite 200
Cleveland,TN 37312

Report CC Addresses:

Ms. Kelly Chatterton
MACTEC
107 Audubon Rd.
Suite 301
Wakefield,MA 01880

Steve Morrow
Olin Corporation
3855 North Ocoee Street
Suite 200
Cleveland,TN 37312

Invoice CC Addresses:

Login Information:

ANALYSIS INSTRUCTIONS	:	Batch as many as possible. See special acceptance limits in QAPP. Include Lab Dup as batch QC, 1:20.
CHECK NO.	:	
CLIENT PO#	:	ERRE9844, REWI0014
CLIENT PROJECT MANAGE	:	
CONTRACT	:	
COOLER TEMPERATURE	:	1.6
DELIVERY SERVICES	:	Client
EDD FORMAT	:	KAS075-CSV & KAS134QC-CSV
LOGIN INITIALS	:	GN
PM	:	KAP
PROJECT NAME	:	RI Analytical - Wilmington
QC LEVEL	:	IV
REGULATORY LIST	:	
REPORT INSTRUCTIONS	:	Merge results. Data summary needs all forms. Send full CDs to K. Chatterton and C. Ricardi. Send CD with SDS and SDP only to S. Morrow.
SDG ID	:	WIL-22
SDG STATUS	:	Begin/End

Laboratory Sample ID	Client Sample Number	Collect Date/Time	Receive Date	PR	Verbal Date	Due Date	Mailed
SE3249-1	-SS-448-0.0/1.0-DUP	08-JUN-11 09:35	08-JUN-11			30-JUN-11	

Matrix		Product	Hold Date (shortest)	Bottle Type	Bottle Count	Comments
Solid	S	SW8033M	22-JUN-11	4oz Glass	1	OC-SS-448-0.0/1.0-DUP
Solid	S	TS	08-JUL-11	4oz Glass		

Laboratory Sample ID	Client Sample Number	Collect Date/Time	Receive Date	PR	Verbal Date	Due Date	Mailed
SE3249-2	-SS-448-0.0/1.0-XXX	08-JUN-11 09:35	08-JUN-11			30-JUN-11	

Matrix		Product	Hold Date (shortest)	Bottle Type	Bottle Count	Comments
Solid	S	SW8033M	22-JUN-11	4oz Glass	1	OC-SS-448-0.0/1.0-XXX MS/MSD
Solid	S	TS	08-JUL-11	4oz Glass		

Total Samples: *2* ***Total Analyses:*** *4*

0000009
kap 6/9/11

SAMPLE DATA SUMMARY PACKAGE

KATAHDIN ANALYTICAL SERVICES - ORGANIC DATA QUALIFIERS

The sampled date indicated on the attached Report(s) of Analysis (ROA) is the date for which a grab sample was collected or the date for which a composite sample was completed. Beginning and start times for composite samples can be found on the Chain-of-Custody.

U Indicates the compound was analyzed for but not detected above the specified level. This level may be the Limit of Quantitation (LOQ)(previously called Practical Quantitation Level (PQL)), the Limit of Detection (LOD) or Method Detection Limit (MDL) as required by the client.

Note: All results reported as "U" MDL have a 50% rate for false negatives compared to those results reported as "U" PQL/LOQ or "U" LOD, where the rate of false negatives is <1%.

* Compound recovery outside of quality control limits.

D Indicates the result was obtained from analysis of a diluted sample. Surrogate recoveries may not be calculable.

E Estimated value. This flag identifies compounds whose concentrations exceed the upper level of the calibration range of the instrument for that specific analysis.

J Estimated value. The analyte was detected in the sample at a concentration less than the laboratory Limit of Quantitation (LOQ)(previously called Practical Quantitation Limit (PQL)), but above the Method Detection Limit (MDL).

or

J Used for Pesticide/Aroclor analyte when there is a greater than 40% difference for detected concentrations between the two GC columns.

B Indicates the analyte was detected in the laboratory method blank analyzed concurrently with the sample.

N Presumptive evidence of a compound based on a mass spectral library search.

A Indicates that a tentatively identified compound is a suspected aldol-condensation product.

P Used for Pesticide/Aroclor analyte when there is a greater than 25% difference for detected concentrations between the two GC columns. (for CLP methods only).

KATAHDIN ANALYTICAL SERVICES – INORGANIC DATA QUALIFIERS
(Refer to BOD Qualifiers Page for BOD footnotes)

The sampled date indicated on the attached Report(s) of Analysis (ROA) is the date for which a grab sample was collected or the date for which a composite sample was completed. Beginning and start times for composite samples can be found on the Chain-of-Custody.

U Indicates the compound was analyzed for but not detected above the specified level. This level may be the Limit of Quantitation (LOQ)(previously called Practical Quantitation Level (PQL)), the Limit of Detection (LOD) or Method Detection Limit (MDL) as required by the client.

Note: All results reported as "U" MDL have a 50% rate for false negatives compared to those results reported as "U" PQL/LOQ or "U" LOD, where the rate of false negatives is <1%.

E Estimated value. This flag identifies compounds whose concentrations exceed the upper level of the calibration range of the instrument for that specific analysis.

J Estimated value. The analyte was detected in the sample at a concentration less than the laboratory Limit of Quantitation (LOQ)(previously called Practical Quantitation Limit (PQL)), but above the Method Detection Limit (MDL).

I-7 The laboratory's Practical Quantitation Level could not be achieved for this parameter due to sample composition, matrix effects, sample volume, or quantity used for analysis.

A-4 Please refer to cover letter or narrative for further information.

MCL Maximum Contaminant Level

NL No limit

NFL No Free Liquid Present

FLP Free Liquid Present

NOD No Odor Detected

TON Threshold Odor Number

H1 Please note that the regulatory holding time for pH is "analyze immediately". Ideally, this analysis must be performed in the field at the time of sample collection. pH for this sample was not performed at the time of sample collection. The analysis was performed as soon as possible after receipt by the laboratory.

H2 Please note that the regulatory holding time for DO is "analyze immediately". Ideally, this analysis must be performed in the field at the time of sample collection. DO for this sample was not performed at the time of sample collection. The analysis was performed as soon as possible after receipt by the laboratory.

H3 Please note that the regulatory holding time for sulfite is "analyze immediately". Ideally, this analysis must be performed in the field at the time of sample collection. Sulfite for this sample was not performed at the time of sample collection. The analysis was performed as soon as possible after receipt by the laboratory.

H4 Please note that the regulatory holding time for residual chlorine is "analyze immediately". Ideally, this analysis must be performed in the field at the time of sample collection. Residual chlorine for this sample was not performed at the time of sample collection. The analysis was performed as soon as possible after receipt by the laboratory.

KATAHDIN ANALYTICAL SERVICES
Report of Analytical Results

Client: Olin Corporation
Project: RI Analytical-Wilmington
PO No:
Sample Date: 06/08/11
Received Date: 06/08/11
Extraction Date: 06/16/11
Analysis Date: 23-JUN-2011 16:53
Report Date: 07/07/2011
Matrix: SOIL
% Solids: 93.8

Lab ID: SE3249-1
Client ID: -SS-448-0.0/1.0-DUP
SDG: WIL-22
Extracted by: JLP
Extraction Method: 8033M
Analyst: JLP
Analysis Method: SW846 8033M
Lab Prep Batch: WG92941
Units: mg/Kgdrywt

CAS#	Compound	Flags	Results	DF	PQL	Adj.PQL	Adj.MDL
	dimethylformamide	U	0.21	1.0	0.20	0.21	0.14
	diethylformamide		84%				

KATAHDIN ANALYTICAL SERVICES
Report of Analytical Results

Client: Olin Corporation
Project: RI Analytical-Wilmington
PO No:
Sample Date: 06/08/11
Received Date: 06/08/11
Extraction Date: 06/16/11
Analysis Date: 23-JUN-2011 17:21
Report Date: 07/07/2011
Matrix: SOIL
% Solids: 93.8

Lab ID: SE3249-2
Client ID: -448-0.0/1.0-XXX
SDG: WIL-22
Extracted by: JLP
Extraction Method: 8033M
Analyst: JLP
Analysis Method: SW846 8033M
Lab Prep Batch: WG92941
Units: mg/Kgdrywt

CAS#	Compound	Flags	Results	DF	PQL	Adj.PQL	Adj.MDL
	dimethylformamide	U	0.20	1.0	0.20	0.20	0.13
	diethylformamide		80%				

Page 01 of 01 6EF1137.d

KATAHDIN ANALYTICAL SERVICES
Report of Analytical Results

Client: Olin Corporation
Project: RI Analytical-Wilmington
PO No:
Sample Date: 06/08/11
Received Date: 06/08/11
Extraction Date: 06/16/11
Analysis Date: 23-JUN-2011 16:24
Report Date: 07/07/2011
Matrix: SOIL
% Solids: 93.8

Lab ID: WG92941-6
Client ID: -SS-448-0.0/1.0-XXX
SDG: WIL-22
Extracted by: JLP
Extraction Method: 8033M
Analyst: JLP
Analysis Method: SW846 8033M
Lab Prep Batch: WG92941
Units: mg/Kgdrywt

CAS#	Compound	Flags	Results	DF	PQL	Adj.PQL	Adj.MDL
	dimethylformamide	U	0.20	1.0	0.20	0.20	0.13
	diethylformamide		82%				

KATAHDIN ANALYTICAL SERVICES
Report of Analytical Results

Client:
Project: RI Analytical-Wilmington
PO No:
Sample Date:
Received Date:
Extraction Date: 06/16/11
Analysis Date: 23-JUN-2011 10:29
Report Date: 07/07/2011
Matrix: SOIL
% Solids: 100

Lab ID: WG92941-1
Client ID: WG92941-Blank
SDG: WIL-22
Extracted by: JLP
Extraction Method: 8033M
Analyst: JLP
Analysis Method: SW846 8033M
Lab Prep Batch: WG92941
Units: mg/Kgdrywt

CAS#	Compound	Flags	Results	DF	PQL	Adj.PQL	Adj.MDL
	dimethylformamide	U	0.20	1.0	0.20	0.20	0.13
	diethylformamide		92%				

Page 01 of 01 6EF1108.d

FORM 2

SOIL DMF SYSTEM MONITORING COMPOUND RECOVERY

Lab Name: KATAHDIN ANALYTICAL SERVICES Lab Code: KAS

Project: RI ANALYTICAL-WILMINGTON SDG No.: WIL-22

Level:(low/med) LOW

	CLIENT SAMPLE ID	LAB SAMPLE ID	SMC1 #	SMC2 #	SMC3 #	SMC4	TOT OUT
01	WG92941-BLANK	WG92941-1	92				0
02	WG92941-LCS	WG92941-2	106				0
03	WG92941-LCSD	WG92941-3	102				0
04	-SS-448-0.0/1.0-XXX	WG92941-6	82				0
05	-SS-448-0.0/1.0-DUP	SE3249-1	84				0
06	-448-0.0/1.0-XXX	SE3249-2	80				0
07	-448-0.0/1.0-XXXMS	WG92941-4	73				0
08	-448-0.0/1.0-XXXMSD	WG92941-5	77				0
09							
10							
11							
12							
13							
14							
15							
16							
17							
18							
19							
20							
21							
22							
23							
24							
25							
26							
27							
28							

QC LIMITS

SMC1 = diethylformamide (70-130)

Column to be used to flag recovery values

* Values outside of contract required QC limits

D System Monitoring Compound diluted out

KATAHDIN ANALYTICAL SERVICES
LAB CONTROL SAMPLE

Client:
Project: RI Analytical-Wilmington
PO No:
Sample Date:
Received Date:
Extraction Date: 06/16/11
Analysis Date: 06/23/11
Report Date: 07/07/2011
Matrix: SOIL

Lab ID: WG92941-2 & WG92941-3
Client ID: WG92941-LCS & WG92941-LCSD
SDG: WIL-22
Extracted by: JLP
Extraction Method: 8033M
Analyst: JLP
Analysis Method: SW846 8033M
Lab Prep Batch: WG92941
Units: mg/Kgdrywt

COMPOUND	LCS SPIKE	LCSD SPIKE	SAMPLE CONC.	LCS CONC.	LCSD CONC.	LCS %REC.	LCSD %REC.	%RPD	%RPD LIMIT	QC. LIMITS
dimethylformamide	10	10	NA	8.4	9.6	84	96	14	50	70-130

FORM III DMF-2

6EF1109.d & 6EF1111.d

KATAHDIN ANALYTICAL SERVICES
MATRIX SPIKE/MATRIX SPIKE DUPLICATE RECOVERY

Client: Olin Corporation
Project: RI Analytical-Wilmington
PO No:
Sample Date: 06/08/11
Received Date: 06/08/11
Extraction Date: 06/16/11
Analysis Date: 06/23/11
Report Date: 07/07/2011
Matrix: SOIL

Lab ID: WG92941-4 & WG92941-5
Client ID: -448-0.0/1.0-XXXMS & -448-0.0/1.0-XXXMSD
SDG: WIL-22
Extracted by: JLP
Extraction Method: 8033M
Analyst: JLP
Analysis Method: SW846 8033M
Lab Prep Batch: WG92941
Units: mg/Kgdrywt

COMPOUND	MS SPIKE	MSD SPIKE	SAMPLE CONC.	MS CONC.	MSD CONC.	MS %REC.	MSD %REC.	%RPD	%RPD LIMIT	QC. LIMITS
dimethylformamide	9.2	9.0	0.00	2.6	3.2	* 28	* 35	21	50	70-130

FORM III DMF-2

6EF1139.d & 6EF1141.d

FORM 4
VOLATILE METHOD BLANK SUMMARY

CLIENT SAMPLE ID

WG92941-BLANK

Lab Name: KATAHDIN ANALYTICAL SERVICES Lab Code: KAS

Project: RI ANALYTICAL-WILMINGTON SDG No.: WIL-22

Lab File ID: 6EF1108 Lab Sample ID: WG92941-1

Date Analyzed: 06/23/11 Time Analyzed: 1029

GC Column: STABILWAX ID: 0.53 (mm) Heated Purge: (Y/N) N

Instrument ID: GC06

THIS METHOD BLANK APPLIES TO THE FOLLOWING SAMPLES, MS and MSD:

	CLIENT SAMPLE ID	LAB SAMPLE ID	LAB FILE ID	DATE ANALYZED	TIME ANALYZED
01	WG92941-LCS	WG92941-2	6EF1109	06/23/11	1043
02	WG92941-LCSD	WG92941-3	6EF1111	06/23/11	1112
03	-SS-448-0.0/1.0-XXX	WG92941-6	6EF1133	06/23/11	1624
04	-SS-448-0.0/1.0-DUP	SE3249-1	6EF1135	06/23/11	1653
05	-448-0.0/1.0-XXX	SE3249-2	6EF1137	06/23/11	1721
06	-448-0.0/1.0-XXXMS	WG92941-4	6EF1139	06/23/11	1749
07	-448-0.0/1.0-XXXMSD	WG92941-5	6EF1141	06/23/11	1818
08					
09					
10					
11					
12					
13					
14					
15					
16					
17					
18					
19					
20					
21					
22					
23					
24					
25					
26					
27					
28					
29					
30					

COMMENTS:

FORM IVDMF

Katahdin Analytical Services A0000011

FORM 6

DMF INITIAL CALIBRATION DATA

Lab Name: KATAHDIN ANALYTICAL SERVICES Lab Code: KAS

Project RI ANALYTICAL-WILMINGTON SDG No.: WIL-22

Instrument ID: GC06 Calibration Date(s): 06/22/11 06/22/11

Column: STABILWAX ID: 0.53 (mm) Calibration Time(s): 0905 1111

LAB FILE ID: RF0.02: 6EF1033 RF0.05: 6EF1034 RF0.1: 6EF1035
RF0.25: 6EF1030 RF0.5: 6EF1036 RF1: 6EF1038

COMPOUND	RF0.02	RF0.05	RF0.1	RF0.25	RF0.5	RF1	CURVE	COEFFICENTS A0	COEFFICENTS A1	%RSD OR R^2	MAX %RSD OR R^2
dimethylformamide	902	2668	5276	13708	27534	58061	LINR	6.631e-003	1.728e-005	0.99938	0.99000
diethylformamide	10151	20700	41138	107010	170800		LINR	1.37e-002	2.334e-005	0.99992	0.99000

FORM VI DMF

FORM 6

DMF INITIAL CALIBRATION DATA

Lab Name: KATAHDIN ANALYTICAL SERVICES Lab Code: KAS

Project RI ANALYTICAL-WILMINGTON SDG No.: WIL-22

Instrument ID: GC06 Calibration Date(s): 06/22/11 06/22/11

Column: STABILWAX ID: 0.53 (mm) Calibration Time(s): 0905 1111

RF0.005: 6EF1032

COMPOUND	RF0.005	CURVE	COEFFICENTS A0	A1	%RSD OR R^2	MAX %RSD OR R^2
dimethylformamide	184	LINR	6.631e-003	1.728e-005	0.99938	0.99000
diethylformamide	3890	LINR	1.37e-002	2.334e-005	0.99992	0.99000

FORM VI DMF

FORM 7B
VOLATILE CALIBRATION VERIFICATION SUMMARY

Lab Name: KATAHDIN ANALYTICAL SERVICES Lab Code: KAS

Project: RI ANALYTICAL-WILMINGTON SDG No.: WIL-22

Instrument ID: GC06 Calibration Date: 06/23/11 Time: 0946

Lab File ID: 6EF1106 Init. Calib. Date(s): 06/22/11 06/22/11

Init. Calib. Times: 0905 1111

GC Column: STABILWAX ID: 0.53 (mm)

COMPOUND	RRF or AMOUNT	RRF0.2500 or AMOUNT	CCAL RRF0.2500	MIN RRF	%D or %DRIFT	MAX %D or %DRIFT	CURV TYPE
dimethylformamide	0.2345100	0.2500000	52752.000	0.01	-6.20	25.00	LINR
diethylformamide	2.7089000	2.5000000	46195.000	0.01	8.36	25.00	LINR

FORM VII PEST

FORM 7B
VOLATILE CALIBRATION VERIFICATION SUMMARY

Lab Name: KATAHDIN ANALYTICAL SERVICES Lab Code: KAS

Project: RI ANALYTICAL-WILMINGTON SDG No.: WIL-22

Instrument ID: GC06 Calibration Date: 06/23/11 Time: 1459

Lab File ID: 6EF1127 Init. Calib. Date(s): 06/22/11 06/22/11

Init. Calib. Times: 0905 1111

GC Column: STABILWAX ID: 0.53 (mm)

COMPOUND	RRF or AMOUNT	RRF0.2500 or AMOUNT	CCAL RRF0.2500	MIN RRF	%D or %DRIFT	MAX %D or %DRIFT	CURV TYPE
dimethylformamide	0.2143300	0.2500000	48080.000	0.01	-14.27	25.00	LINR
diethylformamide	2.2734000	2.5000000	38731.000	0.01	-9.06	25.00	LINR

FORM VII PEST

FORM 7B
VOLATILE CALIBRATION VERIFICATION SUMMARY

Lab Name: KATAHDIN ANALYTICAL SERVICES Lab Code: KAS

Project: RI ANALYTICAL-WILMINGTON SDG No.: WIL-22

Instrument ID: GC06 Calibration Date: 06/23/11 Time: 1846

Lab File ID: 6EF1143 Init. Calib. Date(s): 06/22/11 06/22/11

Init. Calib. Times: 0905 1111

GC Column: STABILWAX ID: 0.53 (mm)

COMPOUND	RRF or AMOUNT	RRF0.2500 or AMOUNT	CCAL RRF0.2500	MIN RRF	%D or %DRIFT	MAX %D or %DRIFT	CURV TYPE	
dimethylformamide	0.1553600	0.2500000	34430.000	0.01	-37.86	25.00	LINR	<-
diethylformamide	1.7588000	2.5000000	29910.000	0.01	-29.65	25.00	LINR	<-

FORM VII PEST

FORM 8
DMF ANALYTICAL SEQUENCE

Lab Name: KATAHDIN ANALYTICAL SERVICES Lab Code: KAS

Project: RI ANALYTICAL-WILMINGTON SDG No.: WIL-22

GC Column: STABILWAX ID: 0.53 (mm) Init. Calib. Date(s): 06/22/11 06/22/11

Instrument ID: GC06

THE ANALYTICAL SEQUENCE OF PERFORMANCE EVALUATION MIXTURES, BLANKS, SAMPLES, AND STANDARDS IS GIVEN BELOW:

MEAN SURROGATE RT FROM INITIAL CALIBRATION
S1 : 2.93

	CLIENT SAMPLE ID	LAB SAMPLE ID	DATE ANALYZED	TIME ANALYZED	S1 RT #	RT #
01		ICAL 0.25	06/22/11	0905	2.87	
02		ICAL 0.005	06/22/11	0946	2.85	
03		ICAL 0.02	06/22/11	1000	2.84	
04		ICAL 0.05	06/22/11	1014	2.85	
05		ICAL 0.1	06/22/11	1028	2.92	
06		ICAL 0.5	06/22/11	1042	2.84	
07		ICAL 1.0	06/22/11	1111		
08		CV 0.25	06/23/11	0946	2.84	
09	WG92941-BLAN	WG92941-1	06/23/11	1029	2.89	
10	WG92941-LCS	WG92941-2	06/23/11	1043	2.89	
11	WG92941-LCSD	WG92941-3	06/23/11	1112	2.85	
12		CV 0.25	06/23/11	1459	2.87	
13	-SS-448-0.0/	WG92941-6	06/23/11	1624	2.88	
14	-SS-448-0.0/	SE3249-1	06/23/11	1653	2.88	
15	-448-0.0/1.0	SE3249-2	06/23/11	1721	2.84	
16	-448-0.0/1.0	WG92941-4	06/23/11	1749	2.87	
17	-448-0.0/1.0	WG92941-5	06/23/11	1818	2.85	
18		CV 0.25	06/23/11	1846	2.89	
19						
20						

QC LIMITS
S1 = diethylformamide (+/- 0.20 MINUTES)

Column used to flag retention time values with an asterisk.
* Values outside of QC limits.

FORM VIII DMF

Katahdin
ANALYTICAL SERVICES

Cert No E87604

Report of Analytical Results

Client: Mr. Chris Ricardi
MACTEC Engineering and Consulting
P.O. Box 7050 DTS
Portland,ME 04112-7050

Lab Sample ID: SE3249-1
Report Date: 27-JUN-11
Client PO: ERRE9844, REWI0014
Project: RI Analytical - Wilmington
SDG: WIL-22

Sample Description	Matrix	Date Sampled	Date Received
-SS-448-0.0/1.0-DUP	SL	08-JUN-11	08-JUN-11

Parameter	Result	Adj PQL	Anal. Method	QC.Batch	Anal. Date	Prep. Method	Prep. Date	Analyst	Footnotes
Total Solids	94. %	1	SM2540G	WG93208	23-JUN-11 16:12:00	ASTM D2216	22-JUN-11	MMM	

Katahdin
ANALYTICAL SERVICES

Cert No E87604

Report of Analytical Results

Client: Mr. Chris Ricardi
MACTEC Engineering and Consulting
P.O. Box 7050 DTS
Portland,ME 04112-7050

Lab Sample ID: SE3249-2
Report Date: 27-JUN-11
Client PO: ERRE9844, REWI0014
Project: RI Analytical - Wilmington
SDG: WIL-22

Sample Description	Matrix	Date Sampled	Date Received
-SS-448-0.0/1.0-XXX	SL	08-JUN-11	08-JUN-11

Parameter	Result	Adj PQL	Anal. Method	QC.Batch	Anal. Date	Prep. Method	Prep. Date	Analyst	Footnotes
Total Solids	94. %	1	SM2540G	WG93208	23-JUN-11 16:00:00	ASTM D2216	22-JUN-11	MMM	

Quality Control Report

Blank Sample Summary Report

Total Solids

Samp Type	QC Batch	Anal. Method	Anal. Date	Prep. Date	Result	PQL
MBLANK	WG93208	ASTM D2216	23-JUN-11	22-JUN-11	U 1 %	1 %

600 Technology Way
P.O. Box 540, Scarborough, ME 04070
Tel:(207) 874-2400 Fax:(207) 775-4029
http://katahdinlab.com
sales@katahdinlab.com

Katahdin
ANALYTICAL SERVICES

Cert No E87604

Quality Control Report

Laboratory Control Sample Summary Report

Total Solids

Lab Sample Id	Samp Type	QC Batch	Analysis Date	Prep Date	Units	Spike Amt.	Result	Recovery	Acceptance Range	RPD
WG93208-2	LCS	WG93208	23-JUN-11	22-JUN-11	%	90	90.	100	80-120	

600 Technology Way
P.O. Box 540, Scarborough, ME 04070
Tel:(207) 874-2400 Fax:(207) 775-4029

http://katahdinlab.com
sales@katahdinlab.com

Katahdin
ANALYTICAL SERVICES

Cert No E87604

Quality Control Report

Duplicate Sample Summary Report

Total Solids

Duplicate Sample ID	Original Sample ID	QC Batch	Analysis Date	Result Units	Sample Result	Duplicate Result	RPD(%)	RPD Limit
WG93208-4	SE3249-2	WG93208	23-JUN-11	%	94.	94.	0	20

600 Technology Way
P.O. Box 540, Scarborough, ME 04070
Tel:(207) 874-2400 Fax:(207) 775-4029

http://katahdinlab.com
sales@katahdinlab.com

DMF DATA

QC Summary Section

FORM 2
SOIL DMF SYSTEM MONITORING COMPOUND RECOVERY

Lab Name: KATAHDIN ANALYTICAL SERVICES Lab Code: KAS

Project: RI ANALYTICAL-WILMINGTON SDG No.: WIL-22

Level:(low/med) LOW

	CLIENT SAMPLE ID	LAB SAMPLE ID	SMC1 #	SMC2 #	SMC3 #	SMC4	TOT OUT
01	WG92941-BLANK	WG92941-1	92				0
02	WG92941-LCS	WG92941-2	106				0
03	WG92941-LCSD	WG92941-3	102				0
04	-SS-448-0.0/1.0-XXX	WG92941-6	82				0
05	-SS-448-0.0/1.0-DUP	SE3249-1	84				0
06	-448-0.0/1.0-XXX	SE3249-2	80				0
07	-448-0.0/1.0-XXXMS	WG92941-4	73				0
08	-448-0.0/1.0-XXXMSD	WG92941-5	77				0
09							
10							
11							
12							
13							
14							
15							
16							
17							
18							
19							
20							
21							
22							
23							
24							
25							
26							
27							
28							

		QC LIMITS
SMC1	= diethylformamide	(70-130)

Column to be used to flag recovery values

* Values outside of contract required QC limits

D System Monitoring Compound diluted out

FORM 4
VOLATILE METHOD BLANK SUMMARY

CLIENT SAMPLE ID

WG92941-BLANK

Lab Name: KATAHDIN ANALYTICAL SERVICES Lab Code: KAS

Project: RI ANALYTICAL-WILMINGTON SDG No.: WIL-22

Lab File ID: 6EF1108 Lab Sample ID: WG92941-1

Date Analyzed: 06/23/11 Time Analyzed: 1029

GC Column: STABILWAX ID: 0.53 (mm) Heated Purge: (Y/N) N

Instrument ID: GC06

THIS METHOD BLANK APPLIES TO THE FOLLOWING SAMPLES, MS and MSD:

	CLIENT SAMPLE ID	LAB SAMPLE ID	LAB FILE ID	DATE ANALYZED	TIME ANALYZED
01	WG92941-LCS	WG92941-2	6EF1109	06/23/11	1043
02	WG92941-LCSD	WG92941-3	6EF1111	06/23/11	1112
03	-SS-448-0.0/1.0-XXX	WG92941-6	6EF1133	06/23/11	1624
04	-SS-448-0.0/1.0-DUP	SE3249-1	6EF1135	06/23/11	1653
05	-448-0.0/1.0-XXX	SE3249-2	6EF1137	06/23/11	1721
06	-448-0.0/1.0-XXXMS	WG92941-4	6EF1139	06/23/11	1749
07	-448-0.0/1.0-XXXMSD	WG92941-5	6EF1141	06/23/11	1818
08					
09					
10					
11					
12					
13					
14					
15					
16					
17					
18					
19					
20					
21					
22					
23					
24					
25					
26					
27					
28					
29					
30					

COMMENTS:

FORM IVDMF

FORM 8
DMF ANALYTICAL SEQUENCE

Lab Name: KATAHDIN ANALYTICAL SERVICES Lab Code: KAS

Project: RI ANALYTICAL-WILMINGTON SDG No.: WIL-22

GC Column: STABILWAX ID: 0.53 (mm) Init. Calib. Date(s): 06/22/11 06/22/11

Instrument ID: GC06

THE ANALYTICAL SEQUENCE OF PERFORMANCE EVALUATION MIXTURES, BLANKS, SAMPLES, AND STANDARDS IS GIVEN BELOW:

MEAN SURROGATE RT FROM INITIAL CALIBRATION
S1 : 2.93

	CLIENT SAMPLE ID	LAB SAMPLE ID	DATE ANALYZED	TIME ANALYZED	S1 RT #	RT #
01		ICAL 0.25	06/22/11	0905	2.87	
02		ICAL 0.005	06/22/11	0946	2.85	
03		ICAL 0.02	06/22/11	1000	2.84	
04		ICAL 0.05	06/22/11	1014	2.85	
05		ICAL 0.1	06/22/11	1028	2.92	
06		ICAL 0.5	06/22/11	1042	2.84	
07		ICAL 1.0	06/22/11	1111		
08		CV 0.25	06/23/11	0946	2.84	
09	WG92941-BLAN	WG92941-1	06/23/11	1029	2.89	
10	WG92941-LCS	WG92941-2	06/23/11	1043	2.89	
11	WG92941-LCSD	WG92941-3	06/23/11	1112	2.85	
12		CV 0.25	06/23/11	1459	2.87	
13	-SS-448-0.0/	WG92941-6	06/23/11	1624	2.88	
14	-SS-448-0.0/	SE3249-1	06/23/11	1653	2.88	
15	-448-0.0/1.0	SE3249-2	06/23/11	1721	2.84	
16	-448-0.0/1.0	WG92941-4	06/23/11	1749	2.87	
17	-448-0.0/1.0	WG92941-5	06/23/11	1818	2.85	
18		CV 0.25	06/23/11	1846	2.89	
19						
20						

QC LIMITS
S1 = diethylformamide (+/- 0.20 MINUTES)

Column used to flag retention time values with an asterisk.
* Values outside of QC limits.

FORM VIII DMF

Sample Data Section

KATAHDIN ANALYTICAL SERVICES - ORGANIC DATA QUALIFIERS

The sampled date indicated on the attached Report(s) of Analysis (ROA) is the date for which a grab sample was collected or the date for which a composite sample was completed. Beginning and start times for composite samples can be found on the Chain-of-Custody.

U Indicates the compound was analyzed for but not detected above the specified level. This level may be the Limit of Quantitation (LOQ)(previously called Practical Quantitation Level (PQL)), the Limit of Detection (LOD) or Method Detection Limit (MDL) as required by the client.

Note: All results reported as "U" MDL have a 50% rate for false negatives compared to those results reported as "U" PQL/LOQ or "U" LOD, where the rate of false negatives is <1%.

* Compound recovery outside of quality control limits.

D Indicates the result was obtained from analysis of a diluted sample. Surrogate recoveries may not be calculable.

E Estimated value. This flag identifies compounds whose concentrations exceed the upper level of the calibration range of the instrument for that specific analysis.

J Estimated value. The analyte was detected in the sample at a concentration less than the laboratory Limit of Quantitation (LOQ)(previously called Practical Quantitation Limit (PQL)), but above the Method Detection Limit (MDL).

or

J Used for Pesticide/Aroclor analyte when there is a greater than 40% difference for detected concentrations between the two GC columns.

B Indicates the analyte was detected in the laboratory method blank analyzed concurrently with the sample.

N Presumptive evidence of a compound based on a mass spectral library search.

A Indicates that a tentatively identified compound is a suspected aldol-condensation product.

P Used for Pesticide/Aroclor analyte when there is a greater than 25% difference for detected concentrations between the two GC columns. (for CLP methods only).

Katahdin Analytical Services, Inc.

Manual Integration Codes For GC/MS, GC, HPLC and/or IC

M1	Peak splitting.
M2	Well defined peaks on the shoulders of the other peaks.
M3	There is additional area due to a coeluting interferant.
M4	There are negative spikes in the baseline.
M5	There are rising or falling baselines.
M6	The software has failed to detect a peak or misidentified a peak.
M7	Excessive peak tailing.
M8	Analysis such as GRO, DRO and TPH require a baseline hold.
M9	Peak was not completely integrated as in GC/MS.
M10	Primary ion was correctly integrated, but secondary or tertiary ion needed manual integration as in GC/MS.
M11	For GC analysis, when a sample is diluted by 1:10 or more, the surrogate is set to undetected and then the area under the surrogate is manually integrated.
M12	Manual integration saved in method due to TurboChrom floating point error.

KATAHDIN ANALYTICAL SERVICES
Report of Analytical Results

Client: Olin Corporation
Project: RI Analytical-Wilmington
PO No:
Sample Date: 06/08/11
Received Date: 06/08/11
Extraction Date: 06/16/11
Analysis Date: 23-JUN-2011 16:53
Report Date: 07/07/2011
Matrix: SOIL
% Solids: 93.8

Lab ID: SE3249-1
Client ID: -SS-448-0.0/1.0-DUP
SDG: WIL-22
Extracted by: JLP
Extraction Method: 8033M
Analyst: JLP
Analysis Method: SW846 8033M
Lab Prep Batch: WG92941
Units: mg/Kgdrywt

CAS#	Compound	Flags	Results	DF	PQL	Adj.PQL	Adj.MDL
	dimethylformamide	U	0.21	1.0	0.20	0.21	0.14
	diethylformamide		84%				

Data File: \\Target_server\gg\chem\gc06.i\GC06EF23A1.b\6EF1135.d
Report Date: 07-Jul-2011 10:18

Katahdin Analytical Services

Data file : \\Target_server\gg\chem\gc06.i\GC06EF23A1.b\6EF1135.d
Lab Smp Id: SE3249-1 Client Smp ID: -SS-448-0.0/1.0-DUP
Inj Date : 23-JUN-2011 16:53
Operator : JLP Inst ID: gc06.i
Smp Info : DMFA02A.M,GC06EF23A1.B,1,SE3249-1
Misc Info : SW846 8033M
Comment :
Method : \\Target_server\gg\chem\gc06.i\GC06EF23A1.b\dmfA02A.m
Meth Date : 07-Jul-2011 10:15 jprescott Quant Type: ESTD
Cal Date : 22-JUN-2011 11:11 Cal File: 6EF1038.d
Als bottle: 1
Dil Factor: 1.00000
Integrator: Falcon Compound Sublist: SW8033M.sub
Target Version: 4.12

Concentration Formula: Amt * DF * (Vt/Ws)*(100/(100-M)) * CpndVariable

Name	Value	Description
DF	1.000	Dilution Factor
Vt	0.04000	Final Volume (L)
Ws	0.00101	Weight of Sample (Kg)
M	6.173	% Moisture
Cpnd Variable		Local Compound Variable

Compounds	RT	EXP RT	DLT RT	RESPONSE	CONCENTRATIONS ON-COLUMN (mg/L)	FINAL (mg/Kgdrywt)	REVIEW CODE
$ 2 diethylformamide	2.880	2.933	-0.053	8362	0.20885	8.82(M)	M5

JLP 070711

QC Flag Legend

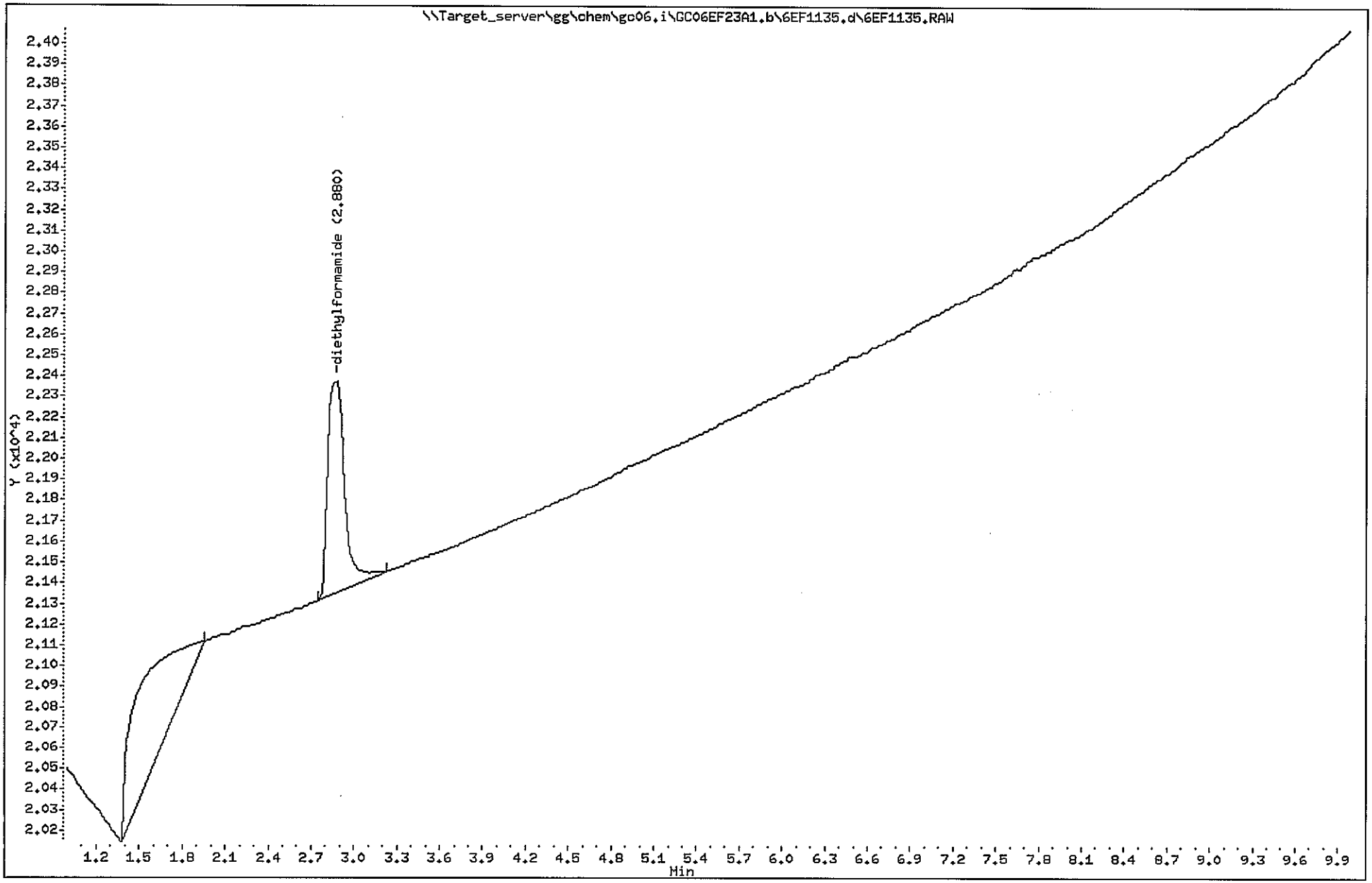
M - Compound response manually integrated.

Data File: \\Target_server\gg\chem\go06.i\GC06EF23A1.b\6EF1135.d
Date : 23-JUN-2011 16:53
Client ID: -SS-448-0.0/1.0-DUP
Sample Info: DMFA02A.M,GC06EF23A1.B,1,SE3249-1

Column phase: Stabilwax

Instrument: go06.i

Operator: JLP
Column diameter: 0.53



Katahdin Analytical Services 1000011

KATAHDIN ANALYTICAL SERVICES
Report of Analytical Results

Client: Olin Corporation
Project: RI Analytical-Wilmington
PO No:
Sample Date: 06/08/11
Received Date: 06/08/11
Extraction Date: 06/16/11
Analysis Date: 23-JUN-2011 17:21
Report Date: 07/07/2011
Matrix: SOIL
% Solids: 93.8

Lab ID: SE3249-2
Client ID: -448-0.0/1.0-XXX
SDG: WIL-22
Extracted by: JLP
Extraction Method: 8033M
Analyst: JLP
Analysis Method: SW846 8033M
Lab Prep Batch: WG92941
Units: mg/Kgdrywt

CAS#	Compound	Flags	Results	DF	PQL	Adj.PQL	Adj.MDL
	dimethylformamide	U	0.20	1.0	0.20	0.20	0.13
	diethylformamide		80%				

Data File: \\Target_server\gg\chem\gc06.i\GC06EF23A1.b\6EF1137.d
Report Date: 07-Jul-2011 10:18

Katahdin Analytical Services

Data file : \\Target_server\gg\chem\gc06.i\GC06EF23A1.b\6EF1137.d
Lab Smp Id: SE3249-2 Client Smp ID: -448-0.0/1.0-XXX
Inj Date : 23-JUN-2011 17:21
Operator : JLP Inst ID: gc06.i
Smp Info : DMFA02A.M,GC06EF23A1.B,1,SE3249-2
Misc Info : SW846 8033M
Comment :
Method : \\Target_server\gg\chem\gc06.i\GC06EF23A1.b\dmfA02A.m
Meth Date : 07-Jul-2011 10:15 jprescott Quant Type: ESTD
Cal Date : 22-JUN-2011 11:11 Cal File: 6EF1038.d
Als bottle: 1
Dil Factor: 1.00000
Integrator: Falcon Compound Sublist: SW8033M.sub
Target Version: 4.12

Concentration Formula: Amt * DF * (Vt/Ws)*(100/(100-M)) * CpndVariable

Name	Value	Description
DF	1.000	Dilution Factor
Vt	0.04000	Final Volume (L)
Ws	0.00108	Weight of Sample (Kg)
M	6.229	% Moisture
Cpnd Variable		Local Compound Variable

Compounds	RT	EXP RT	DLT RT	RESPONSE	CONCENTRATIONS ON-COLUMN (mg/L)	FINAL (mg/Kgdrywt)	REVIEW CODE
$ 2 diethylformamide	2.840	2.933	-0.093	8036	0.20124	7.95(M)	M5

JLP 070711

QC Flag Legend

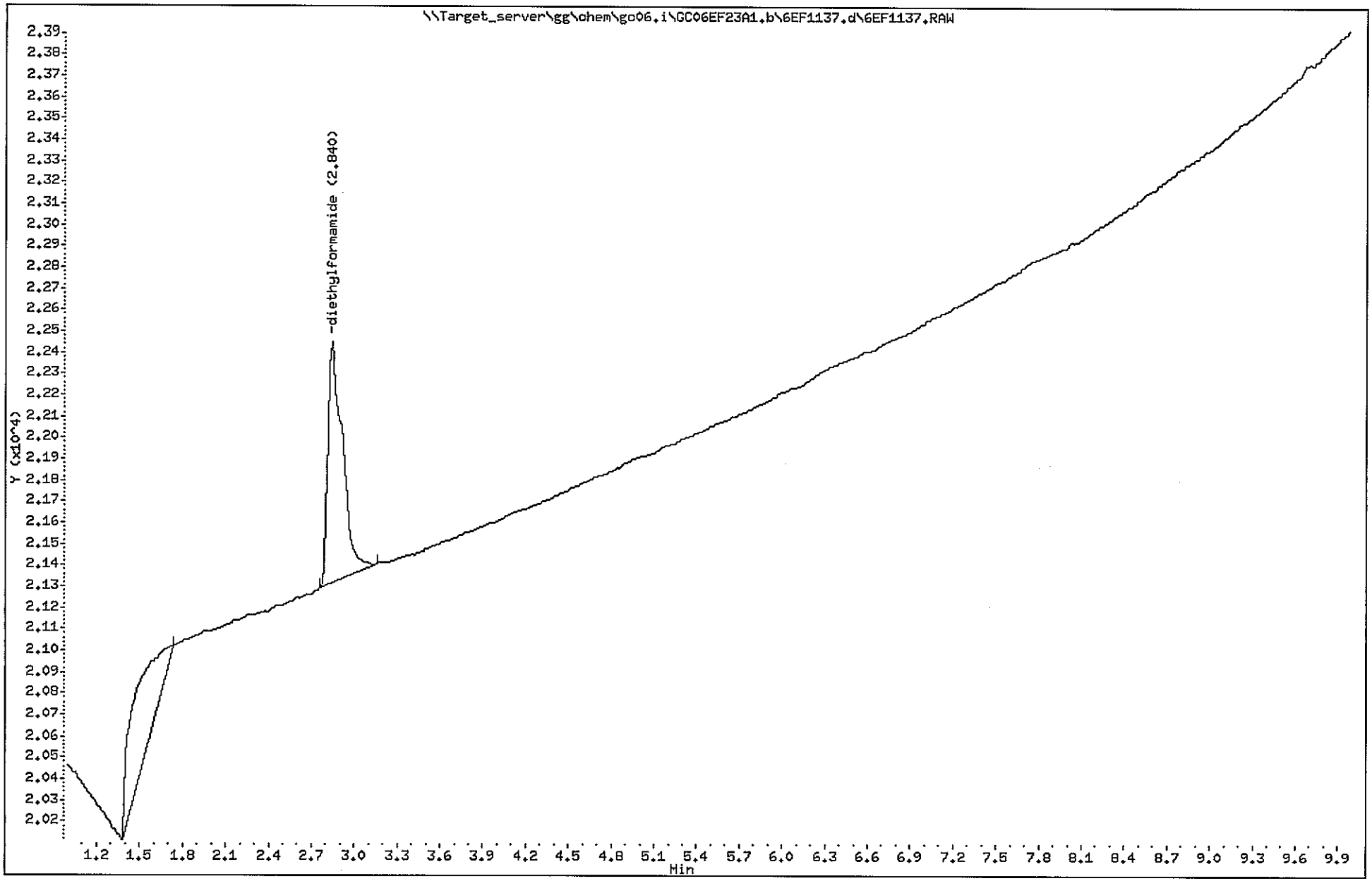
M - Compound response manually integrated.

Data File: \\Target_server\gg\chem\go06.i\GC06EF23A1.b\6EF1137.d
Date : 23-JUN-2011 17:21
Client ID: -448-0.0/1.0-XXX
Sample Info: DMFA02A.M,GC06EF23A1.B,1,SE3249-2

Column phase: Stabilwax

Instrument: go06.i

Operator: JLP
Column diameter: 0.53



Katahdin Analytical Services 1000014

KATAHDIN ANALYTICAL SERVICES
Report of Analytical Results

Client: Olin Corporation
Project: RI Analytical-Wilmington
PO No:
Sample Date: 06/08/11
Received Date: 06/08/11
Extraction Date: 06/16/11
Analysis Date: 23-JUN-2011 16:24
Report Date: 07/07/2011
Matrix: SOIL
% Solids: 93.8

Lab ID: WG92941-6
Client ID: -SS-448-0.0/1.0-XXX
SDG: WIL-22
Extracted by: JLP
Extraction Method: 8033M
Analyst: JLP
Analysis Method: SW846 8033M
Lab Prep Batch: WG92941
Units: mg/Kgdrywt

CAS#	Compound	Flags	Results	DF	PQL	Adj.PQL	Adj.MDL
	dimethylformamide	U	0.20	1.0	0.20	0.20	0.13
	diethylformamide		82%				

Data File: \\Target_server\gg\chem\gc06.i\GC06EF23A1.b\6EF1133.d
Report Date: 07-Jul-2011 10:18

Katahdin Analytical Services

Data file : \\Target_server\gg\chem\gc06.i\GC06EF23A1.b\6EF1133.d
Lab Smp Id: WG92941-6 Client Smp ID: -SS-448-0.0/1.0-XXX
Inj Date : 23-JUN-2011 16:24
Operator : JLP Inst ID: gc06.i
Smp Info : DMFA02A.M,GC06EF23A1.B,1,WG92941-6
Misc Info : SW846 8033M
Comment :
Method : \\Target_server\gg\chem\gc06.i\GC06EF23A1.b\dmfA02A.m
Meth Date : 07-Jul-2011 10:15 jprescott Quant Type: ESTD
Cal Date : 22-JUN-2011 11:11 Cal File: 6EF1038.d
Als bottle: 1
Dil Factor: 1.00000
Integrator: Falcon Compound Sublist: SW8033M.sub
Target Version: 4.12

Concentration Formula: Amt * DF * (Vt/Ws)*(100/(100-M)) * CpndVariable

Name	Value	Description
DF	1.000	Dilution Factor
Vt	0.04000	Final Volume (L)
Ws	0.00105	Weight of Sample (Kg)
M	6.229	% Moisture
Cpnd Variable		Local Compound Variable

Compounds	RT	EXP RT	DLT RT	RESPONSE	CONCENTRATIONS ON-COLUMN (mg/L)	CONCENTRATIONS FINAL (mg/Kgdrywt)	REVIEW CODE
$ 2 diethylformamide	2.880	2.933	-0.053	8208	0.20525	8.34(M)	M5

JP 070711

QC Flag Legend

M - Compound response manually integrated.

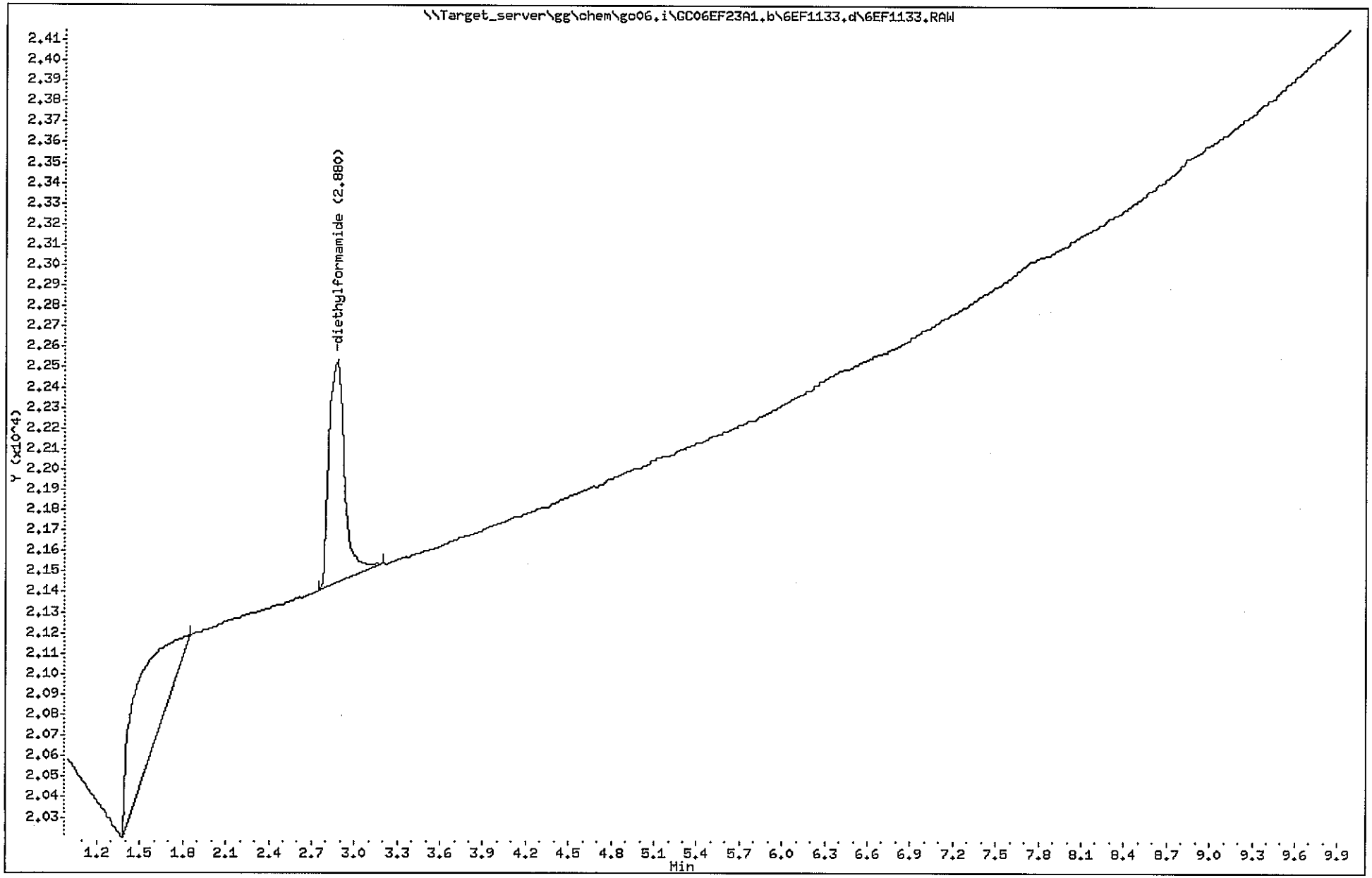
Data File: \\Target_server\gg\chem\go06.i\GC06EF23A1.b\6EF1133.d
Date : 23-JUN-2011 16:24
Client ID: -SS-448-0.0/1.0-XXX
Sample Info: DHFA02A.M,GC06EF23A1.B,1,WG92941-6

Instrument: go06.i

Operator: JLP

Column phase: Stabilwax

Column diameter: 0.53



Katahdin Analytical Services 1000017

Standards Data Section

FORM 6
DMF INITIAL CALIBRATION DATA

Lab Name: KATAHDIN ANALYTICAL SERVICES Lab Code: KAS

Project RI ANALYTICAL-WILMINGTON SDG No.: WIL-22

Instrument ID: GC06 Calibration Date(s): 06/22/11 06/22/11

Column: STABILWAX ID: 0.53 (mm) Calibration Time(s): 0905 1111

LAB FILE ID: RF0.02: 6EF1033 RF0.05: 6EF1034 RF0.1: 6EF1035
RF0.25: 6EF1030 RF0.5: 6EF1036 RF1: 6EF1038

COMPOUND	RF0.02	RF0.05	RF0.1	RF0.25	RF0.5	RF1	CURVE	COEFFICENTS A0	COEFFICENTS A1	%RSD OR R^2	MAX %RSD OR R^2
dimethylformamide	902	2668	5276	13708	27534	58061	LINR	6.631e-003	1.728e-005	0.99938	0.99000
diethylformamide	10151	20700	41138	107010	170800		LINR	1.37e-002	2.334e-005	0.99992	0.99000

FORM VI DMF

FORM 6
DMF INITIAL CALIBRATION DATA

Lab Name: KATAHDIN ANALYTICAL SERVICES Lab Code: KAS

Project RI ANALYTICAL-WILMINGTON SDG No.: WIL-22

Instrument ID: GC06 Calibration Date(s): 06/22/11 06/22/11

Column: STABILWAX ID: 0.53 (mm) Calibration Time(s): 0905 1111

RF0.005: 6EF1032

COMPOUND	RF0.005	CURVE	COEFFICENTS A0	A1	%RSD OR R^2	MAX %RSD OR R^2
dimethylformamide	184	LINR	6.631e-003	1.728e-005	0.99938	0.99000
diethylformamide	3890	LINR	1.37e-002	2.334e-005	0.99992	0.99000

FORM VI DMF

Data File: \\Target_server\gg\chem\gc06.i\GC06EF22A1.b\6EF1030.d
Report Date: 08-Jul-2011 10:11

Katahdin Analytical Services

Data file : \\Target_server\gg\chem\gc06.i\GC06EF22A1.b\6EF1030.d
Lab Smp Id: ICAL 0.25
Inj Date : 22-JUN-2011 09:05
Operator : JLP Inst ID: gc06.i
Smp Info : DMFA02A.M,GC06EF20A1.B,1,ICAL 0.25
Misc Info : CV
Comment :
Method : \\Target_server\gg\chem\gc06.i\GC06EF22A1.b\DMFA02A.m
Meth Date : 23-Jun-2011 07:48 jprescott Quant Type: ESTD
Cal Date : 22-JUN-2011 09:05 Cal File: 6EF1030.d
Als bottle: 1 Calibration Sample, Level: 4
Dil Factor: 1.00000
Integrator: Falcon Compound Sublist: SW8033M.sub
Target Version: 4.12
Processing Host: V200T2

Concentration Formula: Amt * DF * (Vt/Vo) * CpndVariable

Name	Value	Description
DF	1.000	Dilution Factor
Vt	0.00100	Final Volume (L)
Vo	0.00100	Sample Volume (L)
Cpnd Variable		Local Compound Variable

Compounds	RT	EXP RT	DLT RT	RESPONSE	AMOUNTS CAL-AMT (mg/L)	AMOUNTS ON-COL (mg/L)	REVIEW CODE
1 dimethylformamide	2.213	2.267	-0.054	13708	0.25000	0.148(M)	M4
$ 2 diethylformamide	2.866	2.933	-0.067	107008	2.50000	3.45	

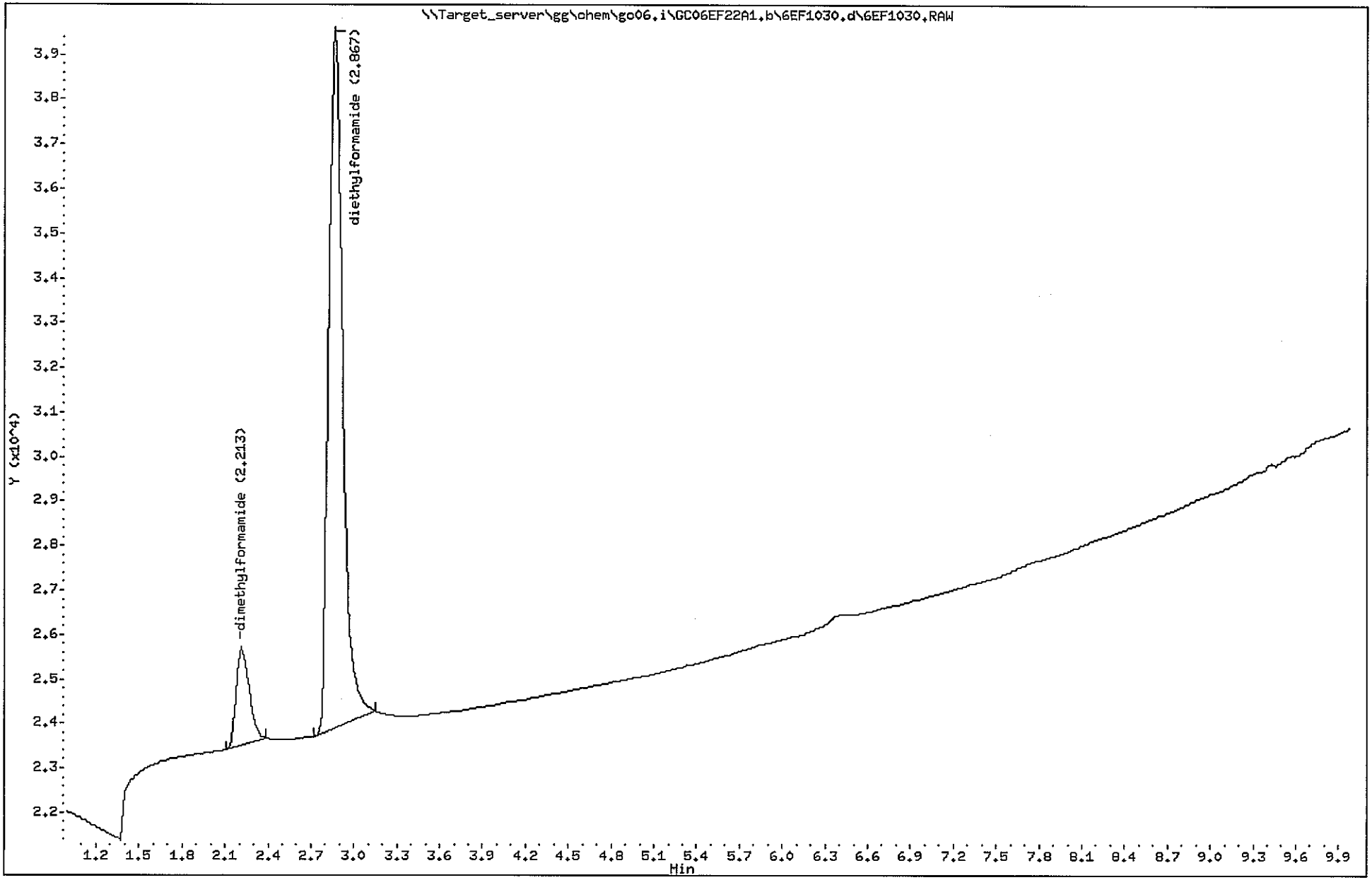
JLP
070811

QC Flag Legend

M - Compound response manually integrated.

Data File: \\Target_server\gg\chem\gc06.i\GC06EF22A1.b\6EF1030.d
Date : 22-JUN-2011 09:05
Client ID:
Sample Info: DMFA02A.M,GC06EF20A1.B,1,ICAL 0.25
Purge Volume: 0.0
Column phase: Stabilwax

Instrument: gc06.i
Operator: JLP
Column diameter: 0.53



Katahdin Analytical Services 1000022

Data File: \\Target_server\gg\chem\gc06.i\GC06EF22A1.b\6EF1032.d
Report Date: 07-Jul-2011 10:19

Katahdin Analytical Services

Data file : \\Target_server\gg\chem\gc06.i\GC06EF22A1.b\6EF1032.d
Lab Smp Id: ICAL 0.005
Inj Date : 22-JUN-2011 09:46
Operator : JLP Inst ID: gc06.i
Smp Info : DMFA02A.M,GC06EF22A1.B,1,ICAL 0.005
Misc Info :
Comment :
Method : \\TARGET_SERVER\GG\chem\gc06.i\GC06EF22A1.B\DMFA02A.m
Meth Date : 23-Jun-2011 07:48 jprescott Quant Type: ESTD
Cal Date : 22-JUN-2011 09:46 Cal File: 6EF1032.d
Als bottle: 1 Calibration Sample, Level: 7
Dil Factor: 1.00000
Integrator: Falcon Compound Sublist: SW8033M.sub
Target Version: 4.12
Processing Host: V200T2

Concentration Formula: Amt * DF * (Vt/Vo) * CpndVariable

Name	Value	Description
DF	1.000	Dilution Factor
Vt	0.00100	Final Volume (L)
Vo	0.00100	Sample Volume (L)
Cpnd Variable		Local Compound Variable

Compounds	RT	EXP RT	DLT RT	RESPONSE	AMOUNTS CAL-AMT (mg/L)	AMOUNTS ON-COL (mg/L)	REVIEW CODE
1 dimethylformamide	2.306	2.267	0.039	184	0.00500	0.0333(M)	M1
$ 2 diethylformamide	2.853	2.933	-0.080	3890	0.10000	0.205(M)	

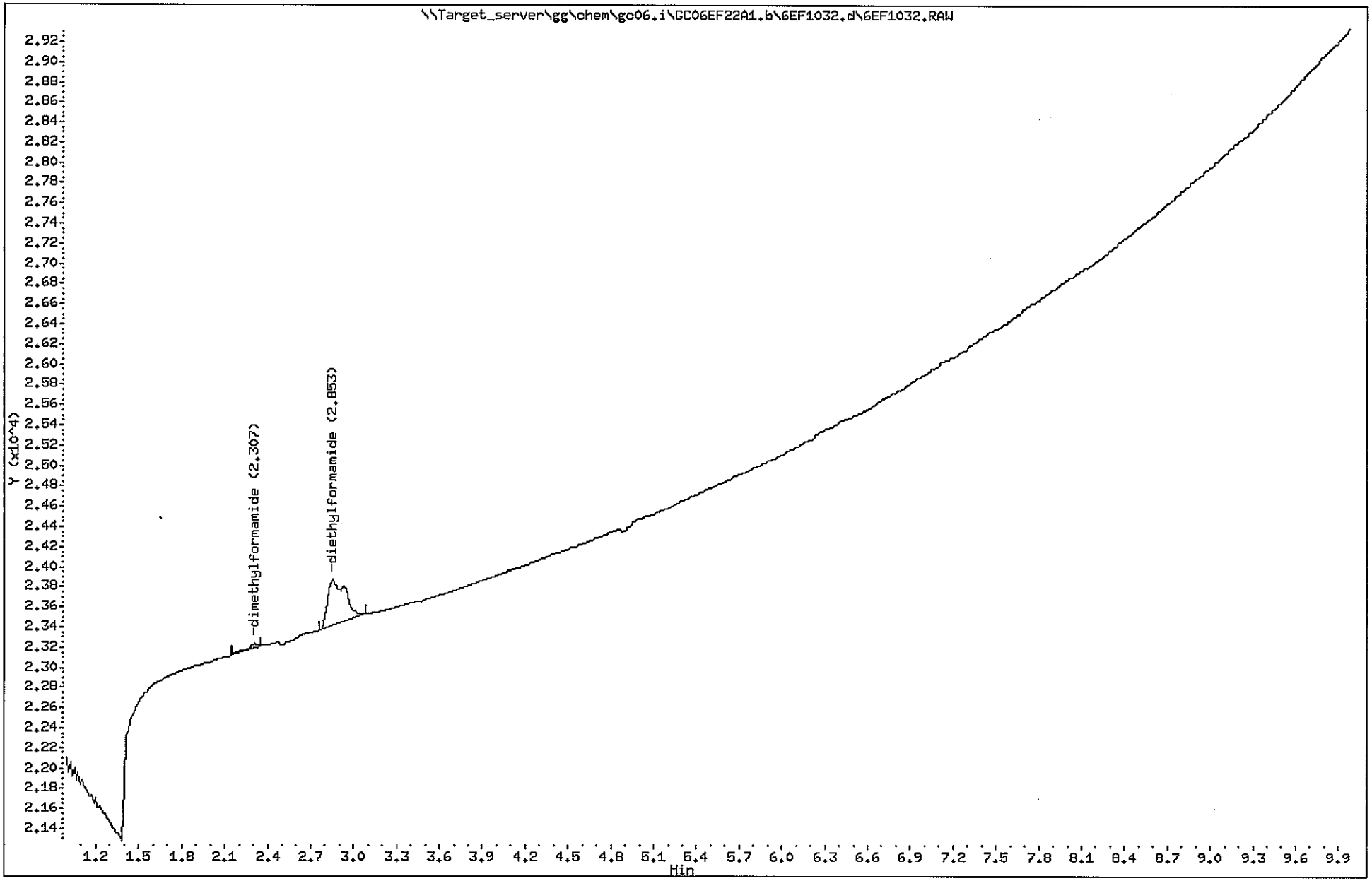
JLP 070711

QC Flag Legend

M - Compound response manually integrated.

Data File: \\Target_server\gg\chem\gc06.i\GC06EF22A1.b\6EF1032.d
Date : 22-JUN-2011 09:46
Client ID:
Sample Info: DMFA02A.M,GC06EF22A1.B,1,ICAL 0.005
Purge Volume: 0.0
Column phase: Stabilwax

Instrument: gc06.i
Operator: JLP
Column diameter: 0.53



Katahdin Analytical Services 1000024

Data File: \\Target_server\gg\chem\gc06.i\GC06EF22A1.b\6EF1033.d
Report Date: 07-Jul-2011 10:19

Katahdin Analytical Services

Data file : \\Target_server\gg\chem\gc06.i\GC06EF22A1.b\6EF1033.d
Lab Smp Id: ICAL 0.02
Inj Date : 22-JUN-2011 10:00
Operator : JLP Inst ID: gc06.i
Smp Info : DMFA02A.M,GC06EF22A1.B,1,ICAL 0.02
Misc Info :
Comment :
Method : \\TARGET_SERVER\GG\chem\gc06.i\GC06EF22A1.B\DMFA02A.m
Meth Date : 23-Jun-2011 07:48 jprescott Quant Type: ESTD
Cal Date : 22-JUN-2011 10:00 Cal File: 6EF1033.d
Als bottle: 1 Calibration Sample, Level: 1
Dil Factor: 1.00000
Integrator: Falcon Compound Sublist: SW8033M.sub
Target Version: 4.12
Processing Host: V200T2

Concentration Formula: Amt * DF * (Vt/Vo) * CpndVariable

Name	Value	Description
DF	1.000	Dilution Factor
Vt	0.00100	Final Volume (L)
Vo	0.00100	Sample Volume (L)
Cpnd Variable		Local Compound Variable

Compounds	RT	EXP RT	DLT RT	RESPONSE	AMOUNTS CAL-AMT (mg/L)	AMOUNTS ON-COL (mg/L)	REVIEW CODE
1 dimethylformamide	2.293	2.267	0.026	902	0.02000	0.0416(M)	M1
$ 2 diethylformamide	2.840	2.933	-0.093	10151	0.25000	0.402(M)	

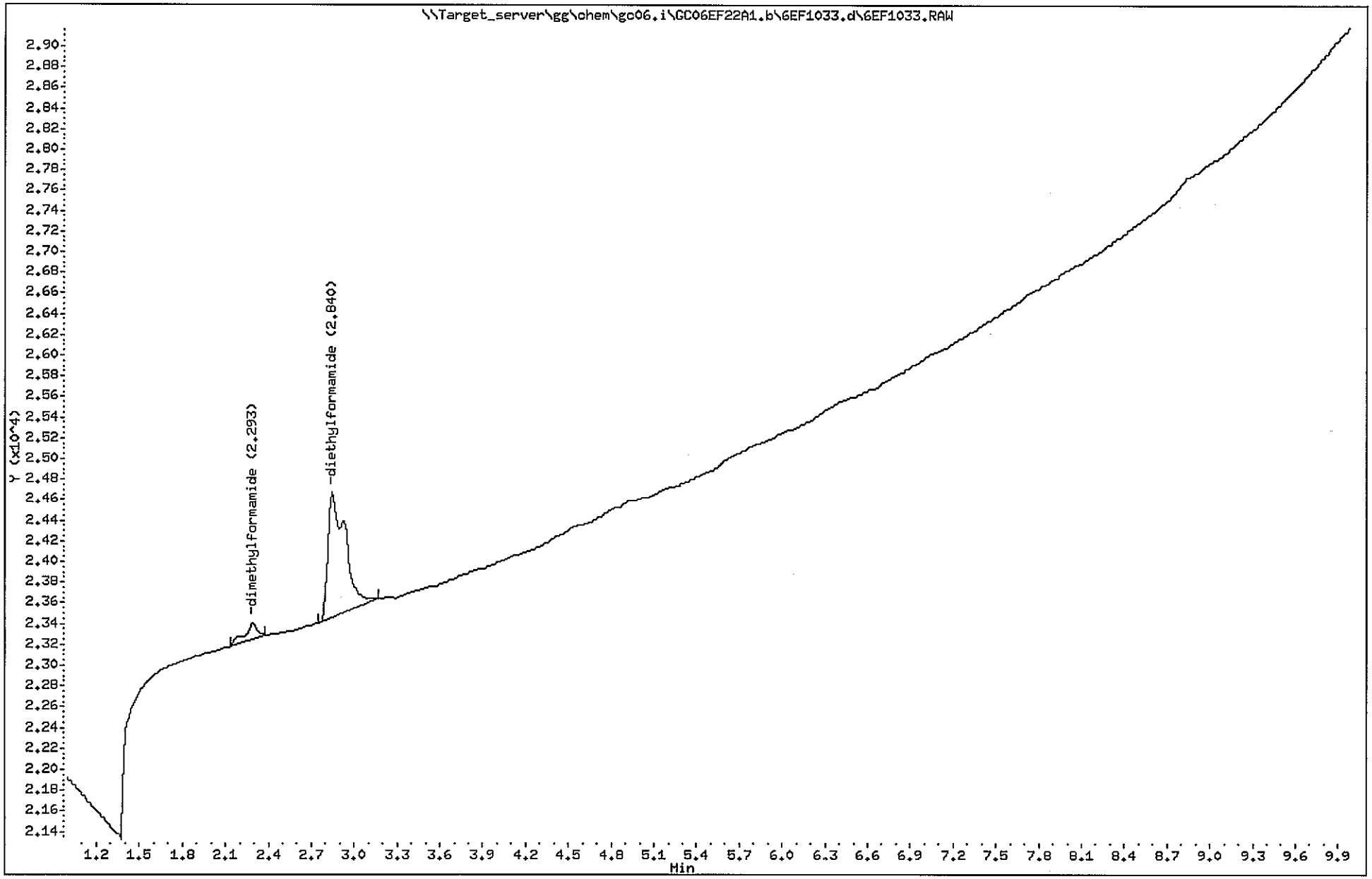
JVF 07071

QC Flag Legend

M - Compound response manually integrated.

Data File: \\Target_server\gg\chem\gc06.i\GC06EF22A1.b\6EF1033.d
Date : 22-JUN-2011 10:00
Client ID:
Sample Info: DMFA02A.M,GC06EF22A1.B,1,ICAL 0.02
Purge Volume: 0.0
Column phase: Stabilwax

Instrument: gc06.i
Operator: JLP
Column diameter: 0.53



Katahdin Analytical Services 1000026

Data File: \\Target_server\gg\chem\gc06.i\GC06EF22A1.b\6EF1034.d
Report Date: 07-Jul-2011 10:19

Katahdin Analytical Services

Data file : \\Target_server\gg\chem\gc06.i\GC06EF22A1.b\6EF1034.d
Lab Smp Id: ICAL 0.05
Inj Date : 22-JUN-2011 10:14
Operator : JLP Inst ID: gc06.i
Smp Info : DMFA02A.M,GC06EF22A1.B,1,ICAL 0.05
Misc Info :
Comment :
Method : \\TARGET_SERVER\GG\chem\gc06.i\GC06EF22A1.B\DMFA02A.m
Meth Date : 23-Jun-2011 07:48 jprescott Quant Type: ESTD
Cal Date : 22-JUN-2011 10:14 Cal File: 6EF1034.d
Als bottle: 1 Calibration Sample, Level: 2
Dil Factor: 1.00000
Integrator: Falcon Compound Sublist: SW8033M.sub
Target Version: 4.12
Processing Host: V200T2

Concentration Formula: Amt * DF * (Vt/Vo) * CpndVariable

Name	Value	Description
DF	1.000	Dilution Factor
Vt	0.00100	Final Volume (L)
Vo	0.00100	Sample Volume (L)
Cpnd Variable		Local Compound Variable

Compounds	RT	EXP RT	DLT RT	RESPONSE	AMOUNTS CAL-AMT (mg/L)	AMOUNTS ON-COL (mg/L)	REVIEW CODE
1 dimethylformamide	2.293	2.267	0.026	2668	0.05000	0.0557(M)	M1
$ 2 diethylformamide	2.853	2.933	-0.080	20700	0.50000	0.727(M)	

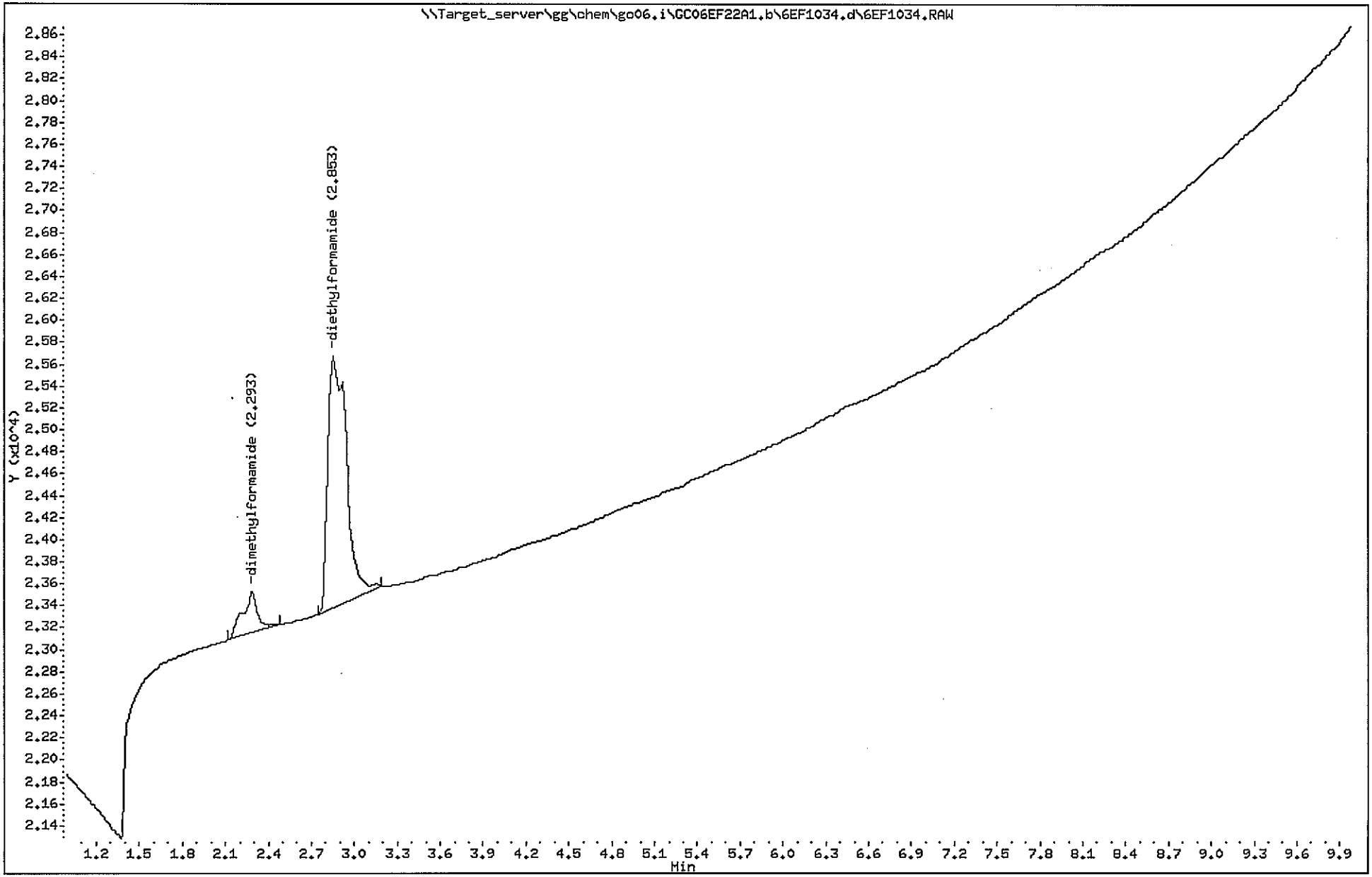
JLP 070711

QC Flag Legend

M - Compound response manually integrated.

Data File: \\Target_server\gg\chem\go06.i\GC06EF22A1.b\6EF1034.d
Date : 22-JUN-2011 10:14
Client ID:
Sample Info: DMFA02A.M,GC06EF22A1.B,1,ICAL 0.05
Purge Volume: 0.0
Column phase: Stabilwax

Instrument: go06.i
Operator: JLP
Column diameter: 0.53



Katahdin Analytical Services 1000028

Data File: \\Target_server\gg\chem\gc06.i\GC06EF22A1.b\6EF1035.d
Report Date: 07-Jul-2011 10:19

Katahdin Analytical Services

Data file : \\Target_server\gg\chem\gc06.i\GC06EF22A1.b\6EF1035.d
Lab Smp Id: ICAL 0.1
Inj Date : 22-JUN-2011 10:28
Operator : JLP Inst ID: gc06.i
Smp Info : DMFA02A.M,GC06EF22A1.B,1,ICAL 0.1
Misc Info :
Comment :
Method : \\TARGET_SERVER\GG\chem\gc06.i\GC06EF22A1.B\DMFA02A.m
Meth Date : 23-Jun-2011 07:48 jprescott Quant Type: ESTD
Cal Date : 22-JUN-2011 10:28 Cal File: 6EF1035.d
Als bottle: 1 Calibration Sample, Level: 3
Dil Factor: 1.00000
Integrator: Falcon Compound Sublist: SW8033M.sub
Target Version: 4.12
Processing Host: V200T2

Concentration Formula: Amt * DF * (Vt/Vo) * CpndVariable

Name	Value	Description
DF	1.000	Dilution Factor
Vt	0.00100	Final Volume (L)
Vo	0.00100	Sample Volume (L)
Cpnd Variable		Local Compound Variable

Compounds	RT	EXP RT	DLT RT	RESPONSE	AMOUNTS CAL-AMT (mg/L)	AMOUNTS ON-COL (mg/L)	REVIEW CODE
1 dimethylformamide	2.293	2.267	0.026	5276	0.10000	0.108(M)	M1
$ 2 diethylformamide	2.920	2.933	-0.013	41138	1.00000	1.27(M)	

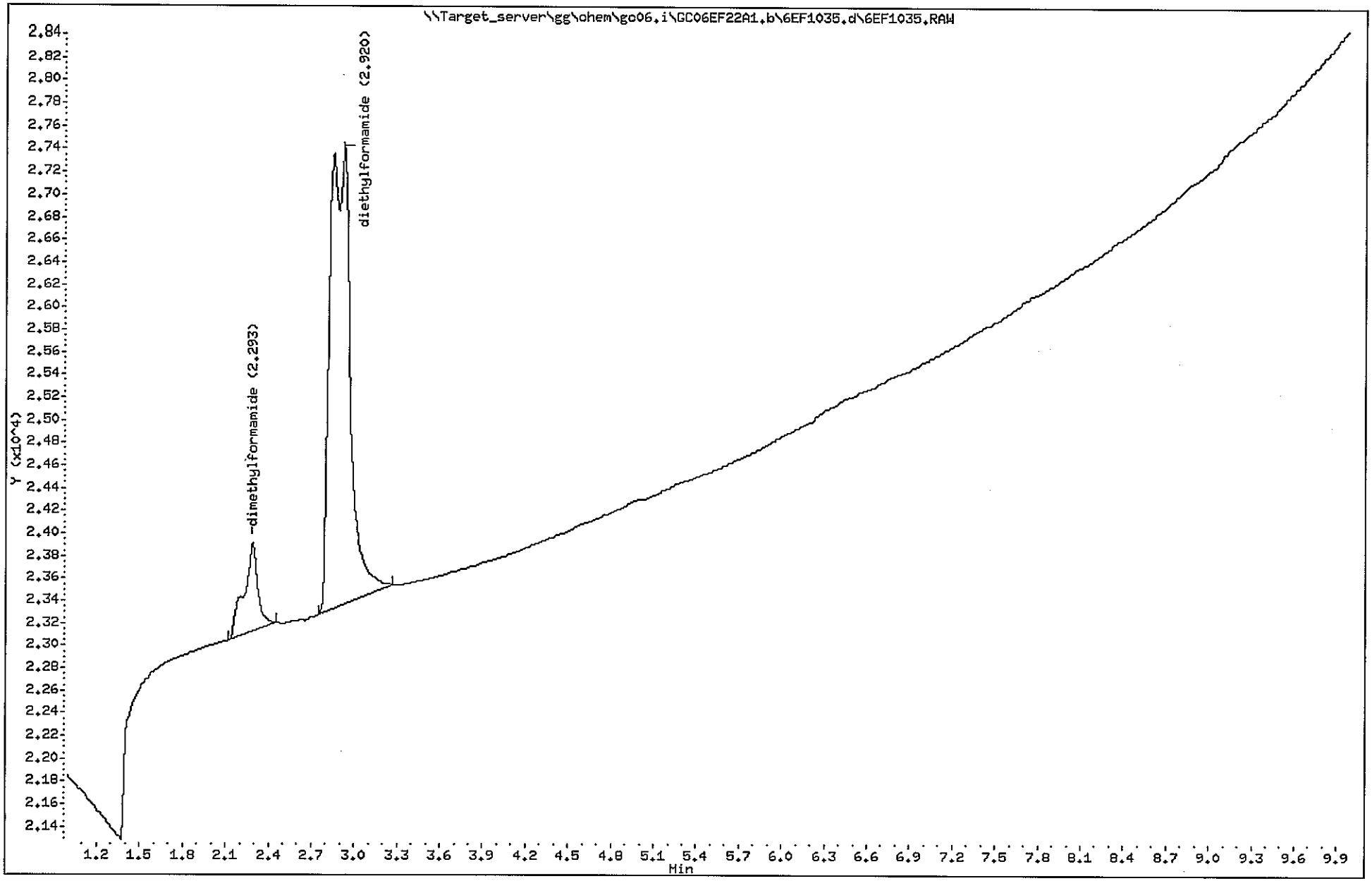
JLP 070711

QC Flag Legend

M - Compound response manually integrated.

Data File: \\Target_server\gg\chem\go06.i\GC06EF22A1.b\6EF1035.d
Date : 22-JUN-2011 10:28
Client ID:
Sample Info: DMFA02A.M,GC06EF22A1.B,1,ICAL 0.1
Purge Volume: 0.0
Column phase: Stabilwax

Instrument: go06.i
Operator: JLP
Column diameter: 0.53



Katahdin Analytical Services 1000030

Data File: \\Target_server\gg\chem\gc06.i\GC06EF22A1.b\6EF1036.d
Report Date: 07-Jul-2011 10:19

Katahdin Analytical Services

Data file : \\Target_server\gg\chem\gc06.i\GC06EF22A1.b\6EF1036.d
Lab Smp Id: ICAL 0.5
Inj Date : 22-JUN-2011 10:42
Operator : JLP Inst ID: gc06.i
Smp Info : DMFA02A.M,GC06EF22A1.B,1,ICAL 0.5
Misc Info :
Comment :
Method : \\TARGET_SERVER\GG\chem\gc06.i\GC06EF22A1.B\DMFA02A.m
Meth Date : 23-Jun-2011 07:48 jprescott Quant Type: ESTD
Cal Date : 22-JUN-2011 10:42 Cal File: 6EF1036.d
Als bottle: 1 Calibration Sample, Level: 5
Dil Factor: 1.00000
Integrator: Falcon Compound Sublist: SW8033M.sub
Target Version: 4.12
Processing Host: V200T2

Concentration Formula: Amt * DF * (Vt/Vo) * CpndVariable

Name	Value	Description
DF	1.000	Dilution Factor
Vt	0.00100	Final Volume (L)
Vo	0.00100	Sample Volume (L)
Cpnd Variable		Local Compound Variable

Compounds	RT	EXP RT	DLT RT	RESPONSE	AMOUNTS CAL-AMT (mg/L)	AMOUNTS ON-COL (mg/L)	REVIEW CODE
1 dimethylformamide	2.280	2.267	0.013	27534	0.50000	0.610(M)	M1
$ 2 diethylformamide	2.840	2.933	-0.093	170798	4.00000	4.00(M)	

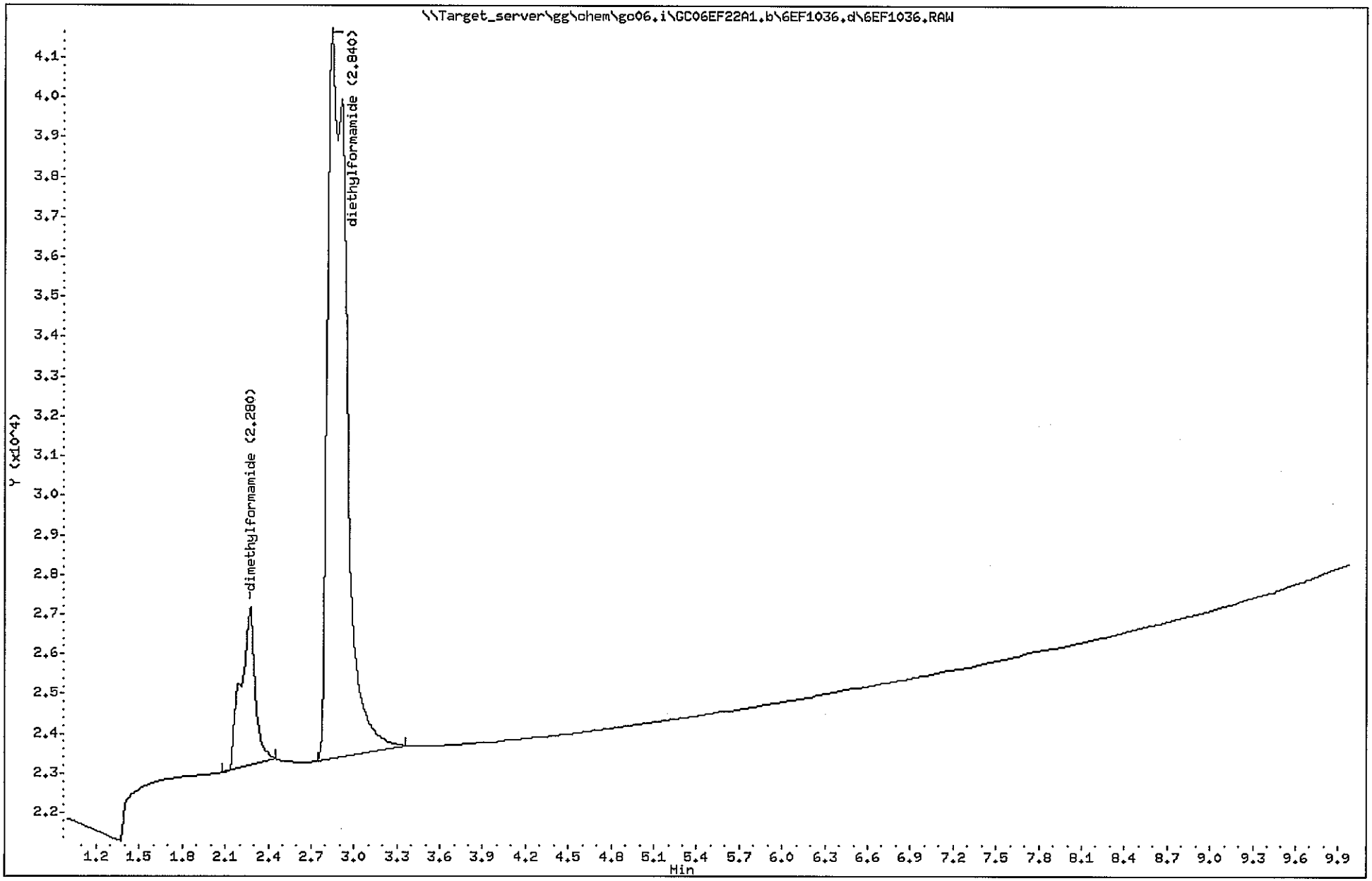
JLP 070711

QC Flag Legend

M - Compound response manually integrated.

Data File: \\Target_server\gg\chem\go06.i\GC06EF22A1.b\6EF1036.d
Date : 22-JUN-2011 10:42
Client ID:
Sample Info: DMFA02A.M,GC06EF22A1.B,1,ICAL 0.5
Purge Volume: 0.0
Column phase: Stabilwax

Instrument: go06.i
Operator: JLP
Column diameter: 0.53



Katahdin Analytical Services 1000032

Data File: \\Target_server\gg\chem\gc06.i\GC06EF22A1.b\6EF1038.d
Report Date: 07-Jul-2011 10:19

Katahdin Analytical Services

Data file : \\Target_server\gg\chem\gc06.i\GC06EF22A1.b\6EF1038.d
Lab Smp Id: ICAL 1.0
Inj Date : 22-JUN-2011 11:11
Operator : JLP Inst ID: gc06.i
Smp Info : DMFA02A.M,GC06EF22A1.B,1,ICAL 1.0
Misc Info :
Comment :
Method : \\TARGET_SERVER\GG\chem\gc06.i\GC06EF22A1.B\DMFA02A.m
Meth Date : 23-Jun-2011 07:48 jprescott Quant Type: ESTD
Cal Date : 22-JUN-2011 11:11 Cal File: 6EF1038.d
Als bottle: 1 Calibration Sample, Level: 6
Dil Factor: 1.00000
Integrator: Falcon Compound Sublist: SW8033M.sub
Target Version: 4.12
Processing Host: V200T2

Concentration Formula: Amt * DF * (Vt/Vo) * CpndVariable

Name	Value	Description
DF	1.000	Dilution Factor
Vt	0.00100	Final Volume (L)
Vo	0.00100	Sample Volume (L)
Cpnd Variable		Local Compound Variable

Compounds	RT	EXP RT	DLT RT	RESPONSE	AMOUNTS CAL-AMT (mg/L)	AMOUNTS ON-COL (mg/L)	REVIEW CODE
1 dimethylformamide	2.293	2.267	0.026	58061	1.00000	1.01(AM)	M1

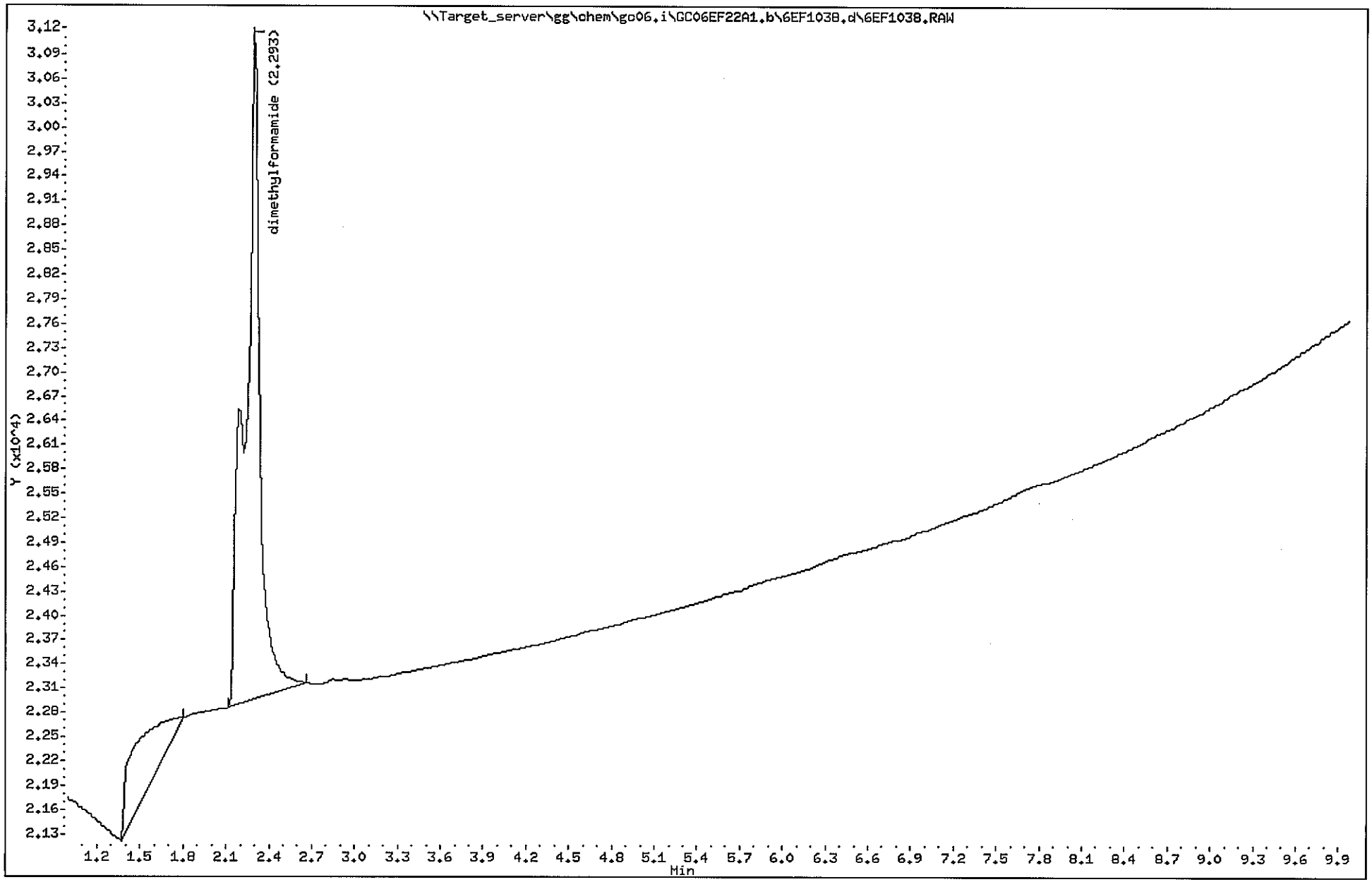
JLP 07071

QC Flag Legend

A - Target compound detected but, quantitated amount exceeded maximum amount.
M - Compound response manually integrated.

Data File: \\Target_server\gg\chem\go06.i\GC06EF22A1.b\6EF1038.d
Date : 22-JUN-2011 11:11
Client ID:
Sample Info: DHFA02A.H,GC06EF22A1.B,1,ICAL 1.0
Purge Volume: 0.0
Column phase: Stabilwax

Instrument: go06.i
Operator: JLP
Column diameter: 0.53



Katahdin Analytical Services 1000034

FORM 7B
VOLATILE CALIBRATION VERIFICATION SUMMARY

Lab Name: KATAHDIN ANALYTICAL SERVICES Lab Code: KAS

Project: RI ANALYTICAL-WILMINGTON SDG No.: WIL-22

Instrument ID: GC06 Calibration Date: 06/23/11 Time: 0946

Lab File ID: 6EF1106 Init. Calib. Date(s): 06/22/11 06/22/11

Init. Calib. Times: 0905 1111

GC Column: STABILWAX ID: 0.53 (mm)

COMPOUND	RRF or AMOUNT	RRF0.2500 or AMOUNT	CCAL RRF0.2500	MIN RRF	%D or %DRIFT	MAX %D or %DRIFT	CURV TYPE
dimethylformamide	0.2345100	0.2500000	52752.000	0.01	-6.20	25.00	LINR
diethylformamide	2.7089000	2.5000000	46195.000	0.01	8.36	25.00	LINR

FORM VII PEST

Data File: \\Target_server\gg\chem\gc06.i\GC06EF23A1.b\6EF1106.d
Report Date: 07-Jul-2011 10:18

Katahdin Analytical Services

Data file : \\Target_server\gg\chem\gc06.i\GC06EF23A1.b\6EF1106.d
Lab Smp Id: CV 0.25
Inj Date : 23-JUN-2011 09:46
Operator : JLP Inst ID: gc06.i
Smp Info : DMFA02A.M,GC06EF23A1.B,1,CV 0.25
Misc Info : CV
Comment :
Method : \\TARGET_SERVER\GG\chem\gc06.i\GC06EF23A1.B\DMFA02A.m
Meth Date : 07-Jul-2011 10:15 jprescott Quant Type: ESTD
Cal Date : 22-JUN-2011 11:11 Cal File: 6EF1038.d
Als bottle: 1 Continuing Calibration Sample
Dil Factor: 1.00000
Integrator: Falcon Compound Sublist: SW8033M.sub
Target Version: 4.12
Processing Host: V200T2

Concentration Formula: Amt * DF * (Vt/Vo) * CpndVariable

Name	Value	Description
DF	1.000	Dilution Factor
Vt	0.00100	Final Volume (L)
Vo	0.00100	Sample Volume (L)
Cpnd Variable		Local Compound Variable

Compounds	RT	EXP RT	DLT RT	RESPONSE	AMOUNTS CAL-AMT (mg/L)	AMOUNTS ON-COL (mg/L)	REVIEW CODE
1 dimethylformamide	2.293	2.267	0.026	13188	0.25000	0.234(M)	M1
$ 2 diethylformamide	2.840	2.933	-0.093	115487	2.50000	2.71(M)	

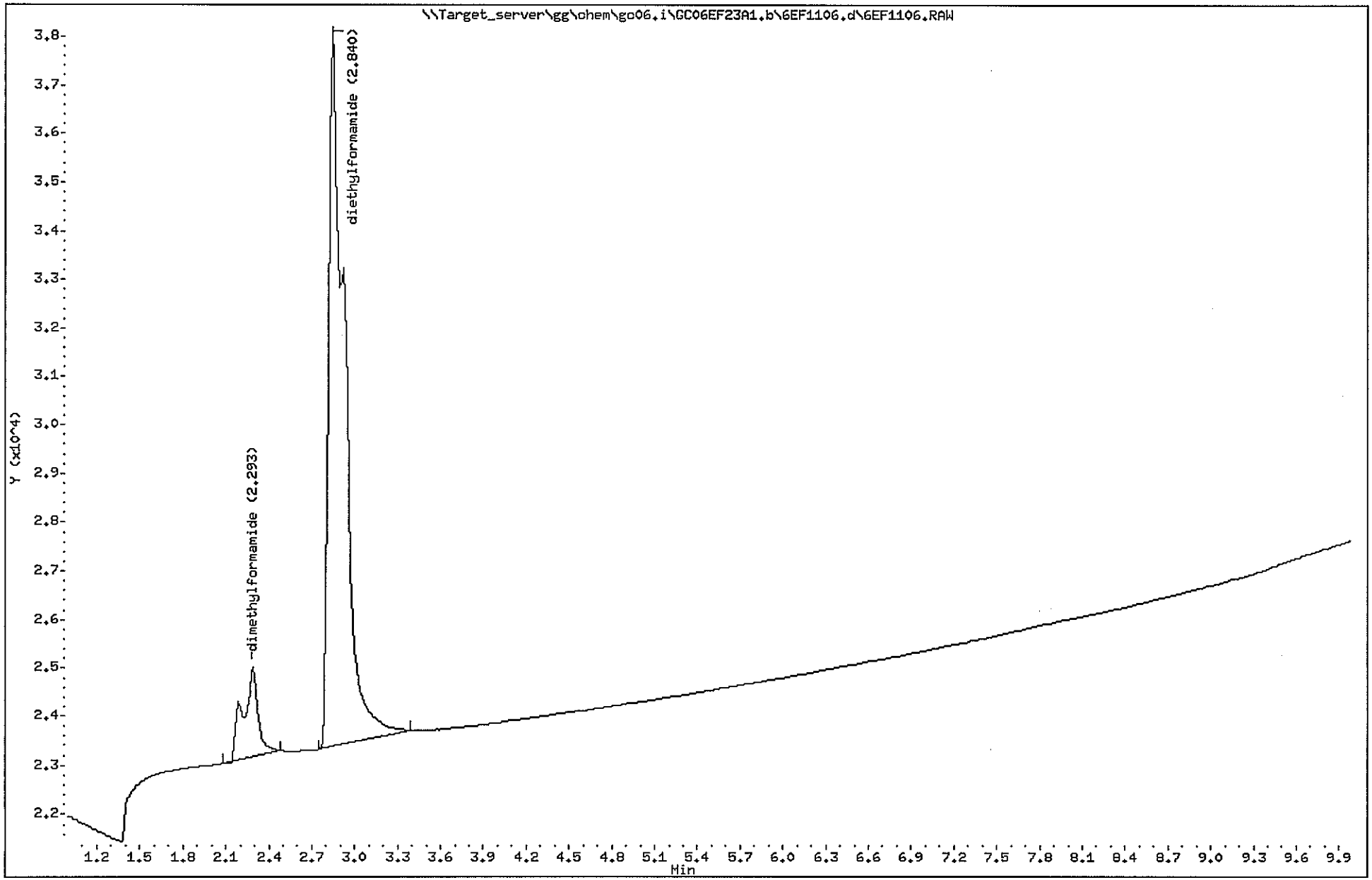
JV 070711

QC Flag Legend

M - Compound response manually integrated.

Data File: \\Target_server\gg\chem\go06.i\GC06EF23A1.b\6EF1106.d
Date : 23-JUN-2011 09:46
Client ID:
Sample Info: DMFA02A.M,GC06EF23A1.B,1,CV 0.25
Purge Volume: 0.0
Column phase: Stabilwax

Instrument: go06.i
Operator: JLP
Column diameter: 0.53



Katahdin Analytical Services 1000037

FORM 7B
VOLATILE CALIBRATION VERIFICATION SUMMARY

Lab Name: KATAHDIN ANALYTICAL SERVICES Lab Code: KAS

Project: RI ANALYTICAL-WILMINGTON SDG No.: WIL-22

Instrument ID: GC06 Calibration Date: 06/23/11 Time: 1459

Lab File ID: 6EF1127 Init. Calib. Date(s): 06/22/11 06/22/11

Init. Calib. Times: 0905 1111

GC Column: STABILWAX ID: 0.53 (mm)

COMPOUND	RRF or AMOUNT	RRF0.2500 or AMOUNT	CCAL RRF0.2500	MIN RRF	%D or %DRIFT	MAX %D or %DRIFT	CURV TYPE
dimethylformamide	0.2143300	0.2500000	48080.000	0.01	-14.27	25.00	LINR
diethylformamide	2.2734000	2.5000000	38731.000	0.01	-9.06	25.00	LINR

FORM VII PEST

Data File: \\Target_server\gg\chem\gc06.i\GC06EF23A1.b\6EF1127.d
Report Date: 07-Jul-2011 10:18

Katahdin Analytical Services

Data file : \\Target_server\gg\chem\gc06.i\GC06EF23A1.b\6EF1127.d
Lab Smp Id: CV 0.25
Inj Date : 23-JUN-2011 14:59
Operator : JLP Inst ID: gc06.i
Smp Info : DMFA02A.M,GC06EF23A1.B,1,CV 0.25
Misc Info : CV
Comment :
Method : \\TARGET_SERVER\GG\chem\gc06.i\GC06EF23A1.B\DMFA02A.m
Meth Date : 07-Jul-2011 10:15 jprescott Quant Type: ESTD
Cal Date : 22-JUN-2011 11:11 Cal File: 6EF1038.d
Als bottle: 1 Continuing Calibration Sample
Dil Factor: 1.00000
Integrator: Falcon Compound Sublist: SW8033M.sub
Target Version: 4.12
Processing Host: V200T2

Concentration Formula: Amt * DF * (Vt/Vo) * CpndVariable

Name	Value	Description
DF	1.000	Dilution Factor
Vt	0.00100	Final Volume (L)
Vo	0.00100	Sample Volume (L)
Cpnd Variable		Local Compound Variable

Compounds	RT	EXP RT	DLT RT	RESPONSE	AMOUNTS CAL-AMT (mg/L)	AMOUNTS ON-COL (mg/L)	REVIEW CODE
1 dimethylformamide	2.240	2.267	-0.027	12020	0.25000	0.214(M)	M5
$ 2 diethylformamide	2.866	2.933	-0.067	96827	2.50000	2.27(M)	

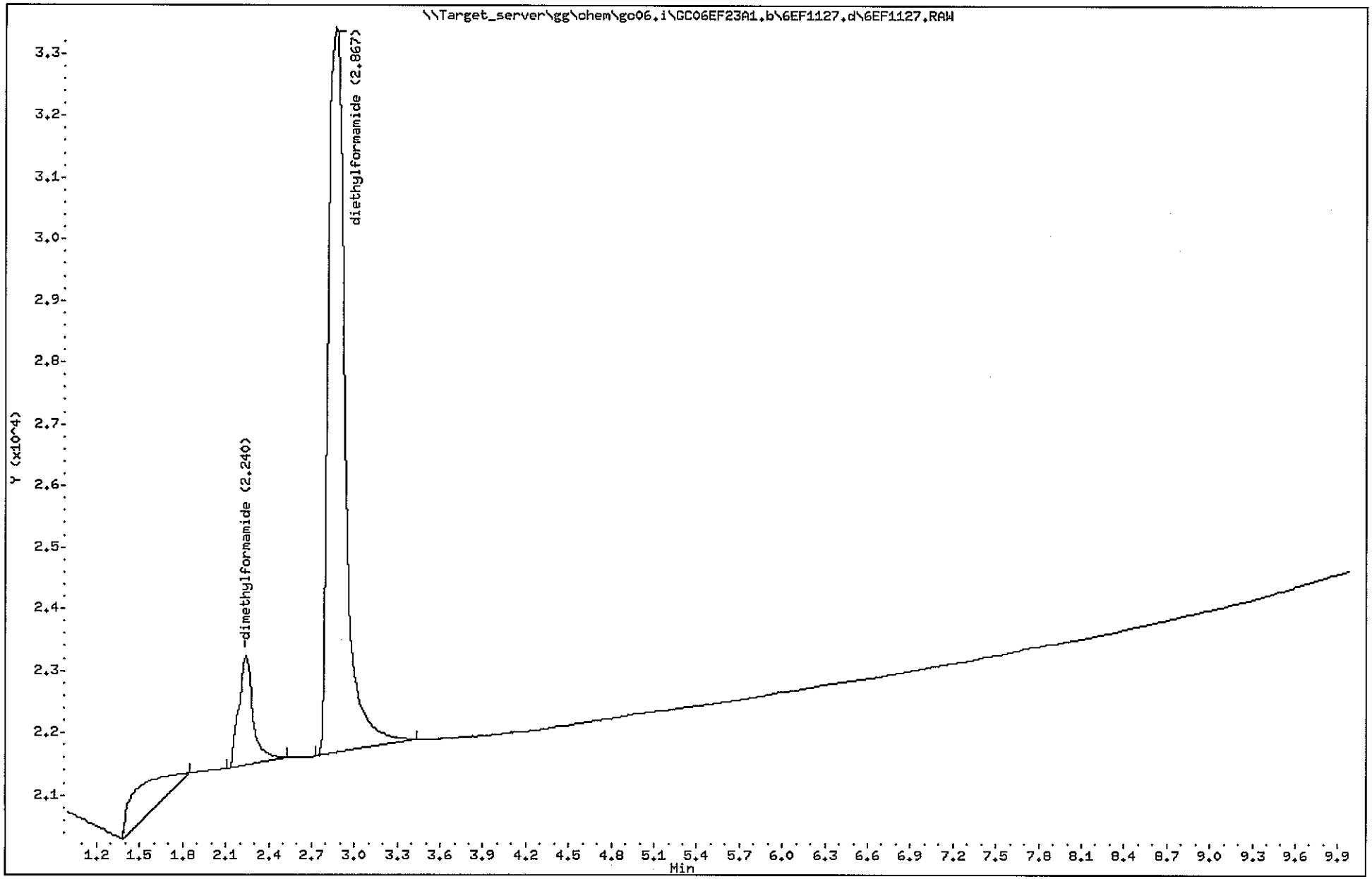
JP 07071

QC Flag Legend

M - Compound response manually integrated.

Data File: \\Target_server\gg\chem\go06.i\GC06EF23A1.b\6EF1127.d
Date : 23-JUN-2011 14:59
Client ID:
Sample Info: DMFA02A.M,GC06EF23A1.B,1,CV 0.25
Purge Volume: 0.0
Column phase: Stabilwax

Instrument: go06.i
Operator: JLP
Column diameter: 0.53



Katahdin Analytical Services 1000040

FORM 7B
VOLATILE CALIBRATION VERIFICATION SUMMARY

Lab Name: KATAHDIN ANALYTICAL SERVICES Lab Code: KAS

Project: RI ANALYTICAL-WILMINGTON SDG No.: WIL-22

Instrument ID: GC06 Calibration Date: 06/23/11 Time: 1846

Lab File ID: 6EF1143 Init. Calib. Date(s): 06/22/11 06/22/11

Init. Calib. Times: 0905 1111

GC Column: STABILWAX ID: 0.53 (mm)

COMPOUND	RRF or AMOUNT	RRF0.2500 or AMOUNT	CCAL RRF0.2500	MIN RRF	%D or %DRIFT	MAX %D or %DRIFT	CURV TYPE	
dimethylformamide	0.1553600	0.2500000	34430.000	0.01	-37.86	25.00	LINR	<-
diethylformamide	1.7588000	2.5000000	29910.000	0.01	-29.65	25.00	LINR	<-

FORM VII PEST

Data File: \\Target_server\gg\chem\gc06.i\GC06EF23A1.b\6EF1143.d
Report Date: 07-Jul-2011 10:18

Katahdin Analytical Services

Data file : \\Target_server\gg\chem\gc06.i\GC06EF23A1.b\6EF1143.d
Lab Smp Id: CV 0.25
Inj Date : 23-JUN-2011 18:46
Operator : JLP Inst ID: gc06.i
Smp Info : DMFA02A.M,GC06EF23A1.B,1,CV 0.25
Misc Info : CV
Comment :
Method : \\TARGET_SERVER\GG\chem\gc06.i\GC06EF23A1.B\DMFA02A.m
Meth Date : 07-Jul-2011 10:15 jprescott Quant Type: ESTD
Cal Date : 22-JUN-2011 11:11 Cal File: 6EF1038.d
Als bottle: 1 Continuing Calibration Sample
Dil Factor: 1.00000
Integrator: Falcon Compound Sublist: SW8033M.sub
Target Version: 4.12
Processing Host: V200T2

Concentration Formula: Amt * DF * (Vt/Vo) * CpndVariable

Name	Value	Description
DF	1.000	Dilution Factor
Vt	0.00100	Final Volume (L)
Vo	0.00100	Sample Volume (L)
Cpnd Variable		Local Compound Variable

Compounds	RT	EXP RT	DLT RT	RESPONSE	AMOUNTS CAL-AMT (mg/L)	AMOUNTS ON-COL (mg/L)	REVIEW CODE
1 dimethylformamide	2.253	2.267	-0.014	8607	0.25000	0.155(M)	M5
$ 2 diethylformamide	2.893	2.933	-0.040	74776	2.50000	1.76(M)	

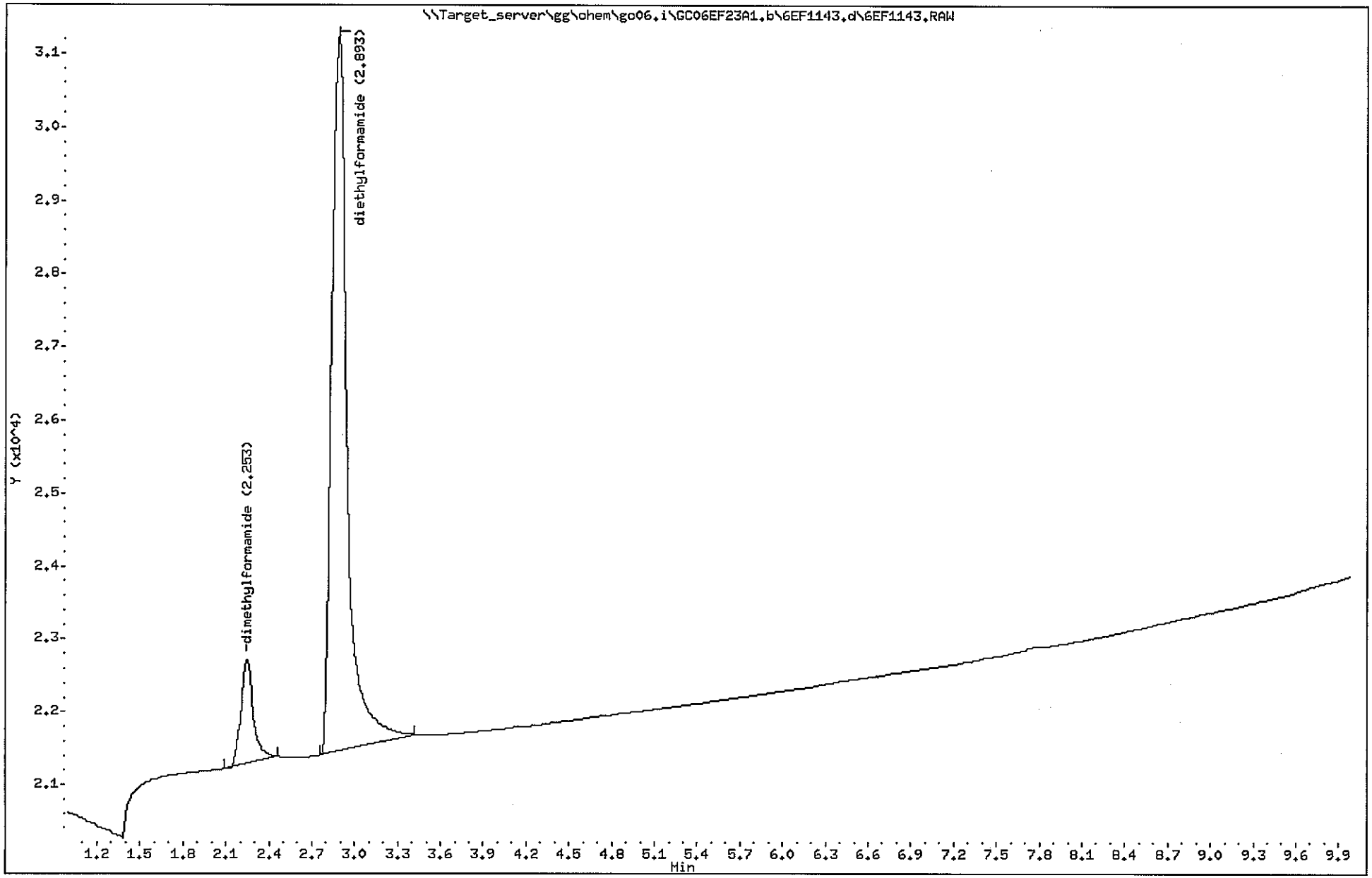
JLP 070711

QC Flag Legend

M - Compound response manually integrated.

Data File: \\Target_server\gg\chem\go06.i\GC06EF23A1.b\6EF1143.d
Date : 23-JUN-2011 18:46
Client ID:
Sample Info: DMFA02A.M,GC06EF23A1.B,1,CV 0.25
Purge Volume: 0.0
Column phase: Stabilwax

Instrument: go06.i
Operator: JLP
Column diameter: 0.53



Katahdin Analytical Services 1000043

Raw QC Data Section

KATAHDIN ANALYTICAL SERVICES
Report of Analytical Results

Client:
Project: RI Analytical-Wilmington
PO No:
Sample Date:
Received Date:
Extraction Date: 06/16/11
Analysis Date: 23-JUN-2011 10:29
Report Date: 07/07/2011
Matrix: SOIL
% Solids: 100

Lab ID: WG92941-1
Client ID: WG92941-Blank
SDG: WIL-22
Extracted by: JLP
Extraction Method: 8033M
Analyst: JLP
Analysis Method: SW846 8033M
Lab Prep Batch: WG92941
Units: mg/Kgdrywt

CAS#	Compound	Flags	Results	DF	PQL	Adj.PQL	Adj.MDL
	dimethylformamide	U	0.20	1.0	0.20	0.20	0.13
	diethylformamide		92%				

Data File: \\Target_server\gg\chem\gc06.i\GC06EF23A1.b\6EF1108.d
Report Date: 07-Jul-2011 10:18

Katahdin Analytical Services

Data file : \\Target_server\gg\chem\gc06.i\GC06EF23A1.b\6EF1108.d
Lab Smp Id: WG92941-1 Client Smp ID: WG92941-Blank
Inj Date : 23-JUN-2011 10:29
Operator : JLP Inst ID: gc06.i
Smp Info : DMFA02A.M,GC06EF23A1.B,1,WG92941-1
Misc Info : SW846 8033M
Comment :
Method : \\Target_server\gg\chem\gc06.i\GC06EF23A1.b\dmfA02A.m
Meth Date : 07-Jul-2011 10:15 jprescott Quant Type: ESTD
Cal Date : 22-JUN-2011 11:11 Cal File: 6EF1038.d
Als bottle: 1 QC Sample: BLANK
Dil Factor: 1.00000
Integrator: Falcon Compound Sublist: SW8033M.sub
Target Version: 4.12

Concentration Formula: Amt * DF * (Vt/Ws)*(100/(100-M)) * CpndVariable

Name	Value	Description
DF	1.000	Dilution Factor
Vt	0.04000	Final Volume (L)
Ws	0.00100	Weight of Sample (Kg)
M	0.00000	% Moisture
Cpnd Variable		Local Compound Variable

Compounds	RT	EXP RT	DLT RT	RESPONSE	CONCENTRATIONS ON-COLUMN (mg/L)	FINAL (mg/Kgdrywt)	REVIEW CODE
$ 2 diethylformamide	2.893	2.933	-0.040	9254	0.22966	9.19(M)	M9

JLP 070711

QC Flag Legend

M - Compound response manually integrated.

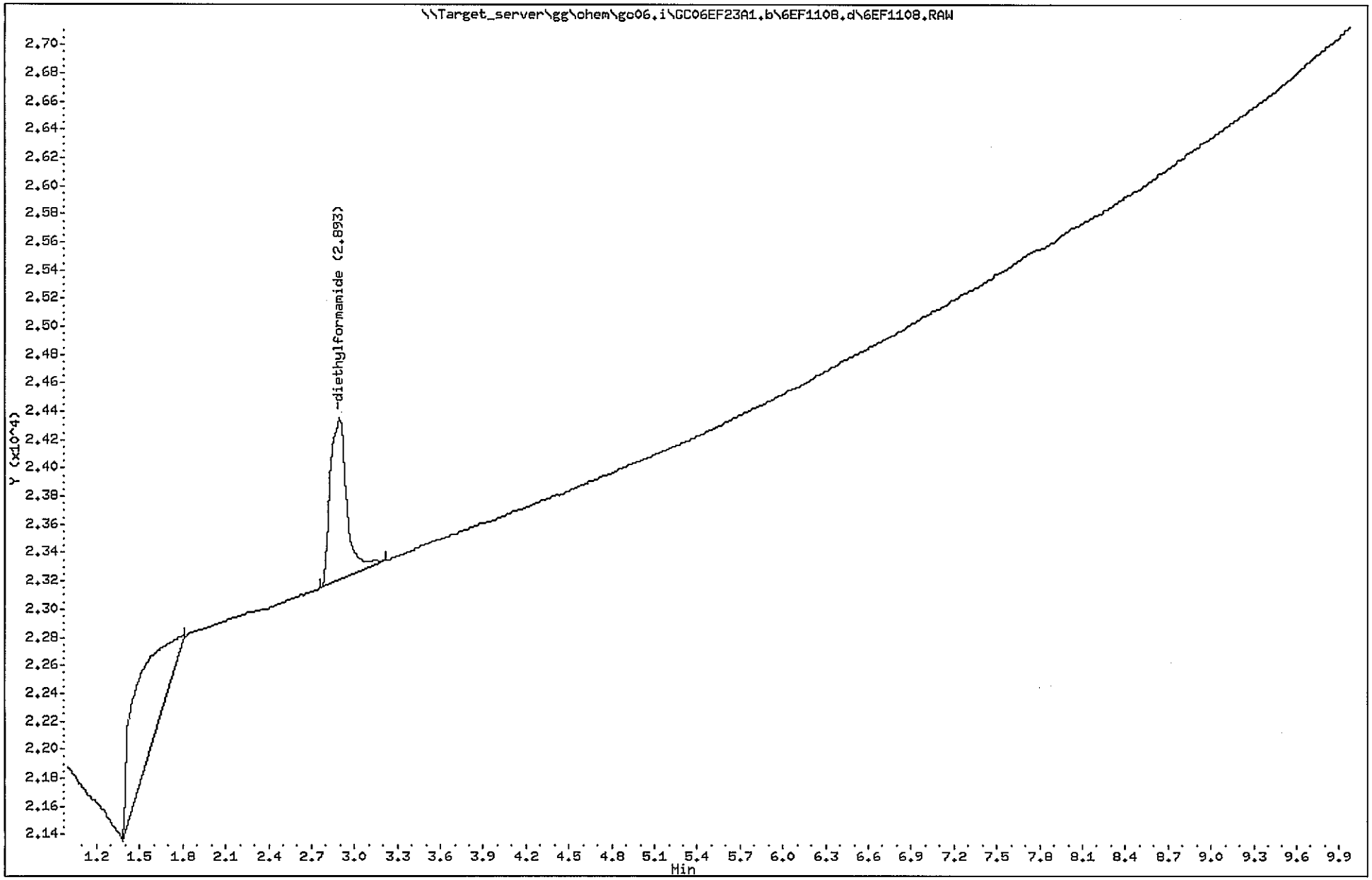
Data File: \\Target_server\gg\chem\gc06.i\GC06EF23A1.b\6EF1108.d
Date : 23-JUN-2011 10:29
Client ID: WG92941-Blank
Sample Info: DMFA02A.M,GC06EF23A1.B,1,WG92941-1

Instrument: gc06.i

Operator: JLP

Column phase: Stabilwax

Column diameter: 0.53



Katahdin Analytical Services 1000047

KATAHDIN ANALYTICAL SERVICES
LAB CONTROL SAMPLE

Client:
Project: RI Analytical-Wilmington
PO No:
Sample Date:
Received Date:
Extraction Date: 06/16/11
Analysis Date: 06/23/11
Report Date: 07/07/2011
Matrix: SOIL

Lab ID: WG92941-2 & WG92941-3
Client ID: WG92941-LCS & WG92941-LCSD
SDG: WIL-22
Extracted by: JLP
Extraction Method: 8033M
Analyst: JLP
Analysis Method: SW846 8033M
Lab Prep Batch: WG92941
Units: mg/Kgdrywt

COMPOUND	LCS SPIKE	LCSD SPIKE	SAMPLE CONC.	LCS CONC.	LCSD CONC.	LCS %REC.	LCSD %REC.	%RPD	%RPD LIMIT	QC. LIMITS
dimethylformamide	10	10	NA	8.4	9.6	84	96	14	50	70-130

FORM III DMF-2

6EF1109.d & 6EF1111.d

Data File: \\Target_server\gg\chem\gc06.i\GC06EF23A1.b\6EF1109.d
Report Date: 07-Jul-2011 10:18

Katahdin Analytical Services

Data file : \\Target_server\gg\chem\gc06.i\GC06EF23A1.b\6EF1109.d
Lab Smp Id: WG92941-2 Client Smp ID: WG92941-LCS
Inj Date : 23-JUN-2011 10:43
Operator : JLP Inst ID: gc06.i
Smp Info : DMFA02A.M,GC06EF23A1.B,1,WG92941-2
Misc Info : SW846 8033M
Comment :
Method : \\Target_server\gg\chem\gc06.i\GC06EF23A1.b\dmfA02A.m
Meth Date : 07-Jul-2011 10:15 jprescott Quant Type: ESTD
Cal Date : 22-JUN-2011 11:11 Cal File: 6EF1038.d
Als bottle: 1 QC Sample: LCS
Dil Factor: 1.00000
Integrator: Falcon Compound Sublist: SW8033M.sub
Target Version: 4.12

Concentration Formula: Amt * DF * (Vt/Ws)*(100/(100-M)) * CpndVariable

Name	Value	Description
DF	1.000	Dilution Factor
Vt	0.04000	Final Volume (L)
Ws	0.00100	Weight of Sample (Kg)
M	0.00000	% Moisture
Cpnd Variable		Local Compound Variable

Compounds	RT	EXP RT	DLT RT	RESPONSE	CONCENTRATIONS ON-COLUMN (mg/L)	CONCENTRATIONS FINAL (mg/Kgdrywt)	REVIEW CODE
1 dimethylformamide	2.240	2.267	-0.027	11761	0.20986	8.39(M)	M9
$ 2 diethylformamide	2.893	2.933	-0.040	10803	0.26581	10.6(M)	

JLP 070711

QC Flag Legend

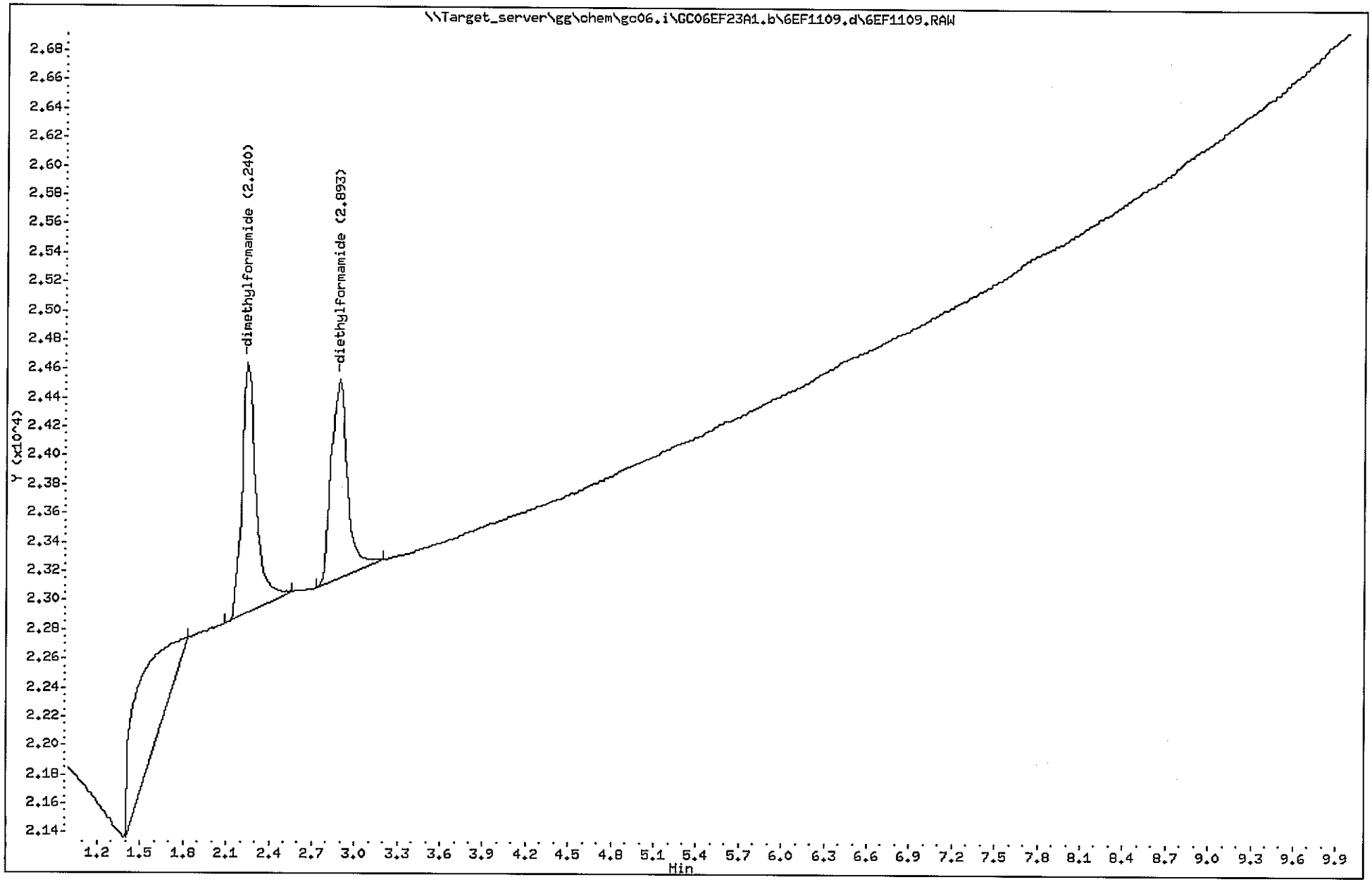
M - Compound response manually integrated.

Data File: \\Target_server\gg\chem\go06.i\GC06EF23A1.b\6EF1109.d
Date : 23-JUN-2011 10:43
Client ID: WG92941-LCS
Sample Info: DHFA02A.H,GC06EF23A1.B,1,WG92941-2

Instrument: go06.i

Operator: JLP
Column diameter: 0.53

Column phase: Stabilwax



Katahdin Analytical Services 1000050

Data File: \\Target_server\gg\chem\gc06.i\GC06EF23A1.b\6EF1111.d
Report Date: 07-Jul-2011 10:18

Katahdin Analytical Services

Data file : \\Target_server\gg\chem\gc06.i\GC06EF23A1.b\6EF1111.d
Lab Smp Id: WG92941-3 Client Smp ID: WG92941-LCSD
Inj Date : 23-JUN-2011 11:12
Operator : JLP Inst ID: gc06.i
Smp Info : DMFA02A.M,GC06EF23A1.B,1,WG92941-3
Misc Info : SW846 8033M
Comment :
Method : \\Target_server\gg\chem\gc06.i\GC06EF23A1.b\dmfA02A.m
Meth Date : 07-Jul-2011 10:15 jprescott Quant Type: ESTD
Cal Date : 22-JUN-2011 11:11 Cal File: 6EF1038.d
Als bottle: 1 QC Sample: LCSD
Dil Factor: 1.00000
Integrator: Falcon Compound Sublist: SW8033M.sub
Target Version: 4.12

Concentration Formula: Amt * DF * (Vt/Ws)*(100/(100-M)) * CpndVariable

Name	Value	Description
DF	1.000	Dilution Factor
Vt	0.04000	Final Volume (L)
Ws	0.00100	Weight of Sample (Kg)
M	0.00000	% Moisture
Cpnd Variable		Local Compound Variable

Compounds	RT	EXP RT	DLT RT	RESPONSE	CONCENTRATIONS ON-COLUMN (mg/L)	CONCENTRATIONS FINAL (mg/Kgdrywt)	REVIEW CODE
1 dimethylformamide	2.280	2.267	0.013	13524	0.24032	9.61(M)	M9
$ 2 diethylformamide	2.853	2.933	-0.080	10402	0.25646	10.2(M)	

JLP 070711

QC Flag Legend

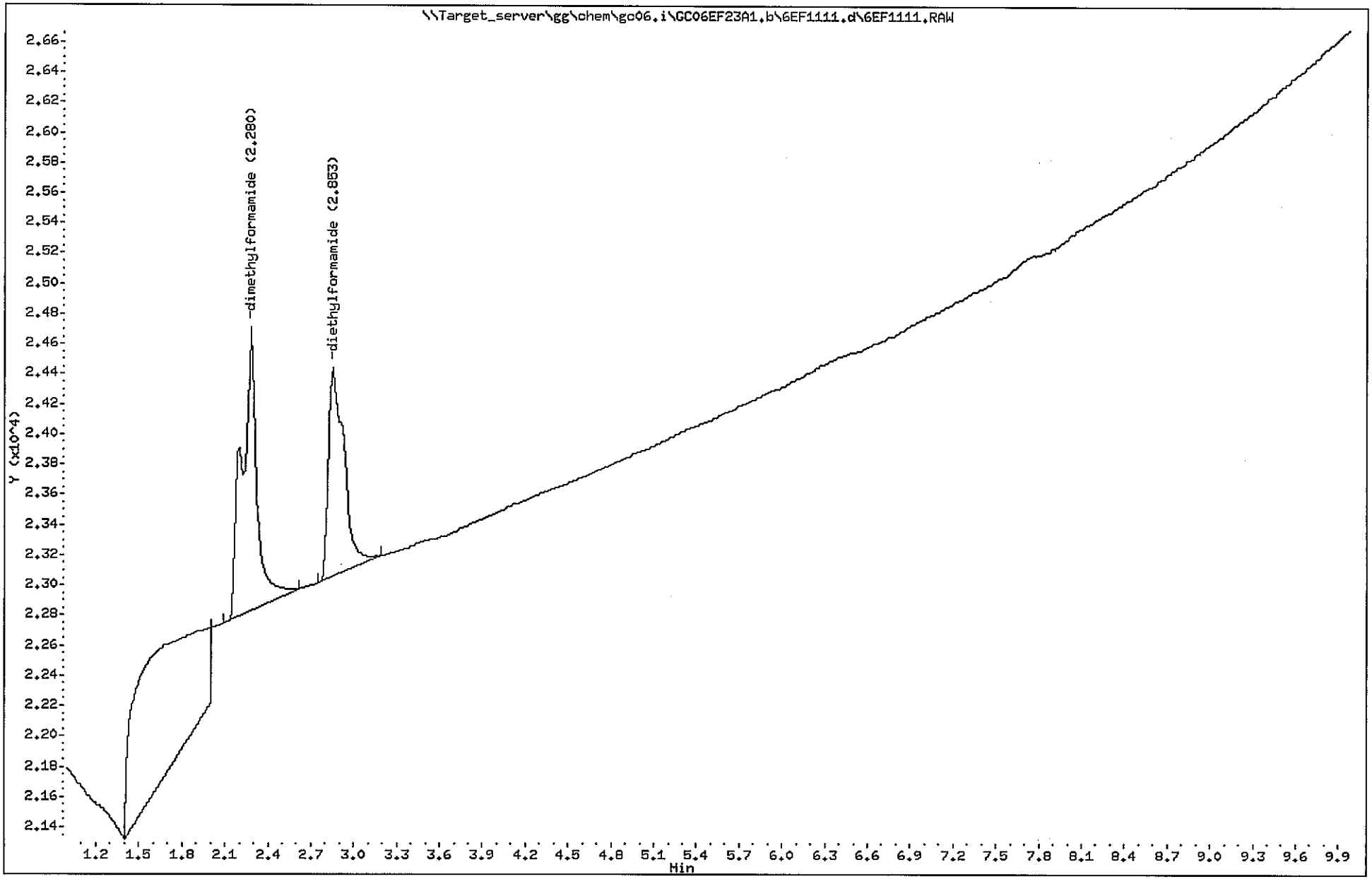
M - Compound response manually integrated.

Data File: \\Target_server\gg\chem\go06.i\GC06EF23A1.b\6EF1111.d
Date : 23-JUN-2011 11:12
Client ID: WG92941-LCSD
Sample Info: DMFA02A.M,GC06EF23A1.B,1,WG92941-3

Column phase: Stabilwax

Instrument: go06.i

Operator: JLP
Column diameter: 0.53



Katahdin Analytical Services 1000052

KATAHDIN ANALYTICAL SERVICES
MATRIX SPIKE/MATRIX SPIKE DUPLICATE RECOVERY

Client: Olin Corporation
Project: RI Analytical-Wilmington
PO No:
Sample Date: 06/08/11
Received Date: 06/08/11
Extraction Date: 06/16/11
Analysis Date: 06/23/11
Report Date: 07/07/2011
Matrix: SOIL

Lab ID: WG92941-4 & WG92941-5
Client ID: -448-0.0/1.0-XXXMS & -448-0.0/1.0-XXXMSD
SDG: WIL-22
Extracted by: JLP
Extraction Method: 8033M
Analyst: JLP
Analysis Method: SW846 8033M
Lab Prep Batch: WG92941
Units: mg/Kgdrywt

COMPOUND	MS SPIKE	MSD SPIKE	SAMPLE CONC.	MS CONC.	MSD CONC.	MS %REC.	MSD %REC.	%RPD	%RPD LIMIT	QC. LIMITS
dimethylformamide	9.2	9.0	0.00	2.6	3.2	* 28	* 35	21	50	70-130

FORM III DMF-2

6EF1139.d & 6EF1141.d

Data File: \\Target_server\gg\chem\gc06.i\GC06EF23A1.b\6EF1139.d
Report Date: 07-Jul-2011 10:18

Katahdin Analytical Services

Data file : \\Target_server\gg\chem\gc06.i\GC06EF23A1.b\6EF1139.d
Lab Smp Id: WG92941-4 Client Smp ID: -448-0.0/1.0-XXXMS
Inj Date : 23-JUN-2011 17:49
Operator : JLP Inst ID: gc06.i
Smp Info : DMFA02A.M,GC06EF23A1.B,1,WG92941-4
Misc Info : SW846 8033M
Comment :
Method : \\Target_server\gg\chem\gc06.i\GC06EF23A1.b\dmfA02A.m
Meth Date : 07-Jul-2011 10:15 jprescott Quant Type: ESTD
Cal Date : 22-JUN-2011 11:11 Cal File: 6EF1038.d
Als bottle: 1 QC Sample: MS
Dil Factor: 1.00000
Integrator: Falcon Compound Sublist: SW8033M.sub
Target Version: 4.12

Concentration Formula: Amt * DF * (Vt/Ws)*(100/(100-M)) * CpndVariable

Name	Value	Description
DF	1.000	Dilution Factor
Vt	0.04000	Final Volume (L)
Ws	0.00116	Weight of Sample (Kg)
M	6.229	% Moisture
Cpnd Variable		Local Compound Variable

Compounds	RT	EXP RT	DLT RT	RESPONSE	CONCENTRATIONS ON-COLUMN (mg/L)	CONCENTRATIONS FINAL (mg/Kgdrywt)	REVIEW CODE
1 dimethylformamide	2.226	2.267	-0.041	3689	0.07038	2.59(RM)	M5
$ 2 diethylformamide	2.866	2.933	-0.067	7230	0.18243	6.71(M)	

JLP 070711

QC Flag Legend

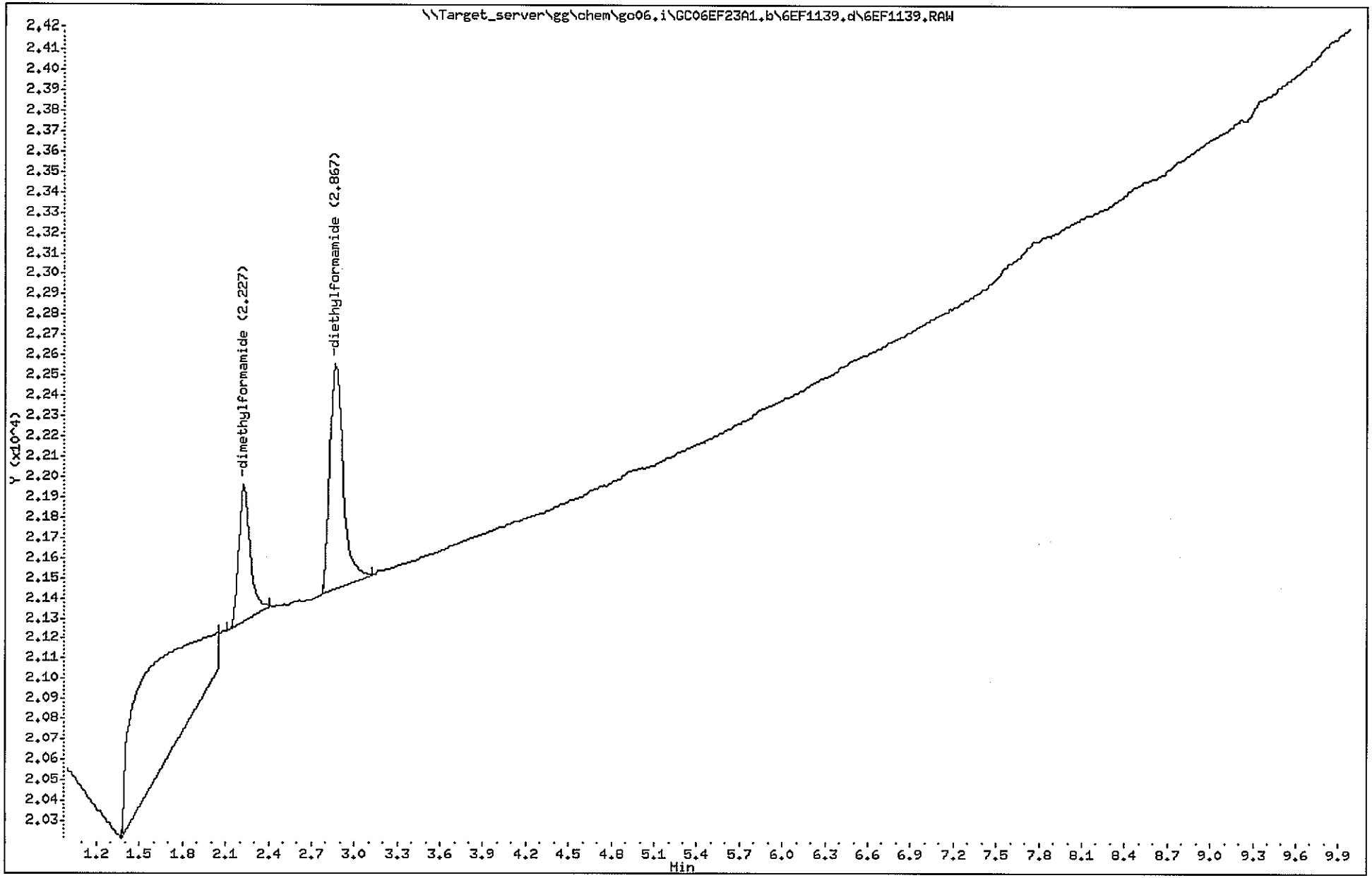
R - Spike/Surrogate failed recovery limits.
M - Compound response manually integrated.

Data File: \\Target_server\gg\chem\go06.i\GC06EF23A1.b\6EF1139.d
Date : 23-JUN-2011 17:49
Client ID: -448-0.0/1.0-XXXMS
Sample Info: DMFA02A.M,GC06EF23A1.B,1,WG92941-4

Column phase: Stabilwax

Instrument: go06.i

Operator: JLP
Column diameter: 0.53



Katahdin Analytical Services 1000055

Data File: \\Target_server\gg\chem\gc06.i\GC06EF23A1.b\6EF1141.d
Report Date: 07-Jul-2011 10:18

Katahdin Analytical Services

Data file : \\Target_server\gg\chem\gc06.i\GC06EF23A1.b\6EF1141.d
Lab Smp Id: WG92941-5 Client Smp ID: -448-0.0/1.0-XXXMSD
Inj Date : 23-JUN-2011 18:18
Operator : JLP Inst ID: gc06.i
Smp Info : DMFA02A.M,GC06EF23A1.B,1,WG92941-5
Misc Info : SW846 8033M
Comment :
Method : \\Target_server\gg\chem\gc06.i\GC06EF23A1.b\dmfA02A.m
Meth Date : 07-Jul-2011 10:15 jprescott Quant Type: ESTD
Cal Date : 22-JUN-2011 11:11 Cal File: 6EF1038.d
Als bottle: 1 QC Sample: MSD
Dil Factor: 1.00000
Integrator: Falcon Compound Sublist: SW8033M.sub
Target Version: 4.12

Concentration Formula: Amt * DF * (Vt/Ws)*(100/(100-M)) * CpndVariable

Name	Value	Description
DF	1.000	Dilution Factor
Vt	0.04000	Final Volume (L)
Ws	0.00118	Weight of Sample (Kg)
M	6.229	% Moisture
Cpnd Variable		Local Compound Variable

Compounds	RT	EXP RT	DLT RT	RESPONSE	CONCENTRATIONS ON-COLUMN (mg/L)	FINAL (mg/Kgdrywt)	REVIEW CODE
1 dimethylformamide	2.253	2.267	-0.014	4738	0.08850	3.20(RM)	M5
$ 2 diethylformamide	2.853	2.933	-0.080	7696	0.19330	6.99(M)	

JLP 070711

QC Flag Legend

R - Spike/Surrogate failed recovery limits.
M - Compound response manually integrated.

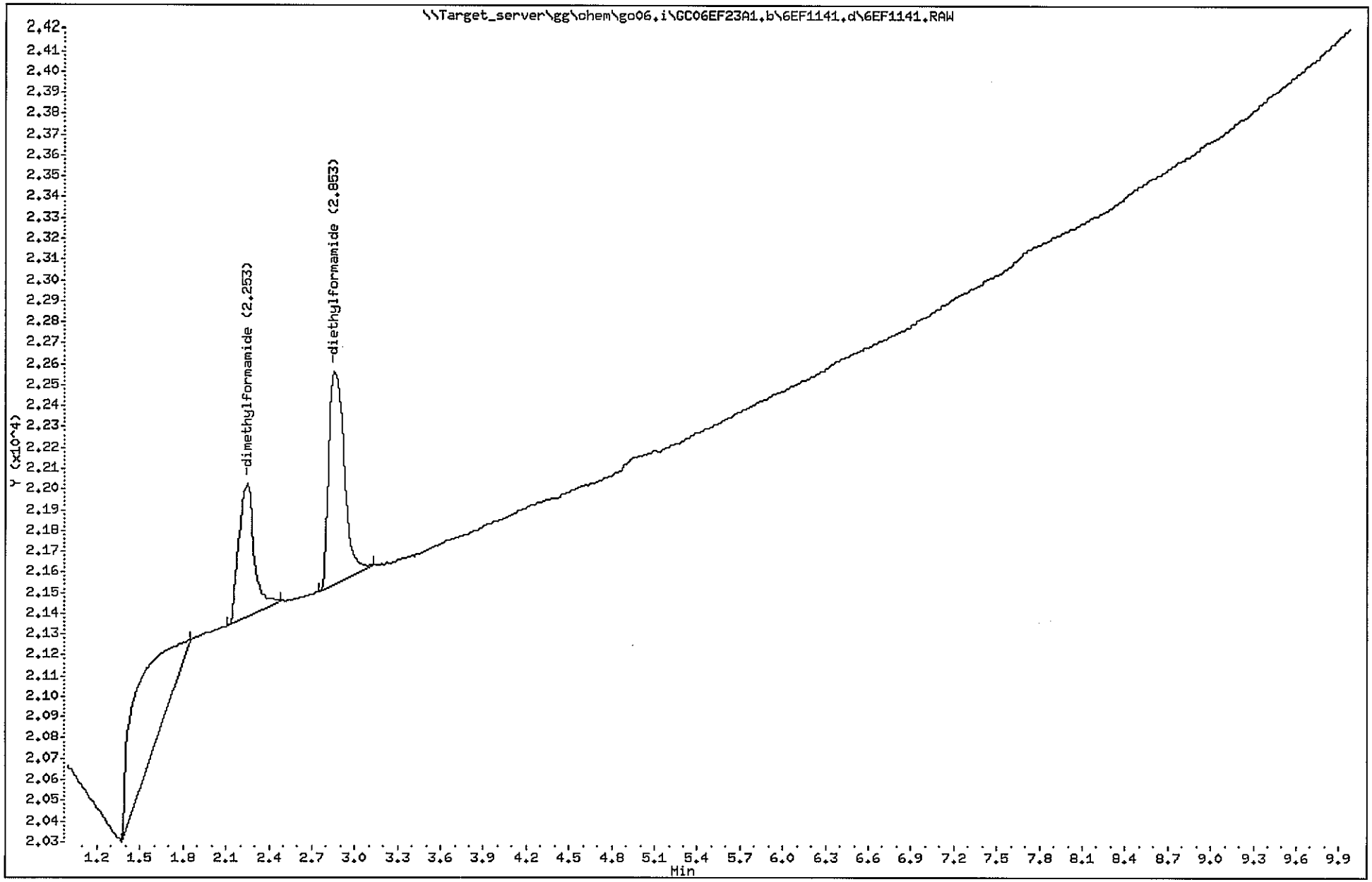
Data File: \\Target_server\gg\chem\go06.i\GC06EF23A1.b\6EF1141.d
Date : 23-JUN-2011 18:18
Client ID: -448-0.0/1.0-XXXMSD
Sample Info: DMFA02A.M,GC06EF23A1.B,1,WG92941-5

Instrument: go06.i

Operator: JLP

Column phase: Stabilwax

Column diameter: 0.53



Katahdin Analytical Services 1000057

Logbooks and Supporting Documents

KATAHDIN ANALYTICAL SERVICES
GC SOIL PREP LOG

Date of Sample Preparation	Analyst Initials	Sample #	Sample Weight (g)	Volume (mL) Methanol ☐ or DI Water ☒	Spike ID and Volume (µL)	Surrogate ID and Volume (µL)	Method	Comments
6-16-11	JLP	WG92941-1	1.00	40	NA	100µl GCV2703 @100µg/mL	8033 DMF	start shake: 1432 end: 0729
		-2	0.96		100µl GCV2706 @100µg/mL			
		-3	0.99					
		-4A	1.16					SE3249-2MS
		-5A	1.18					-2MSD
		-6A	1.05		NA			-2DUP
		SE3249-1A	1.01		NA			
		-2A	1.08		NA			
		MDL 1	1.00		20µl GCV2707 @10µg/mL			
		2	1.01					
		3	1.08					
		4	1.00					
		5	0.99					
		6	1.03					
		7	0.98					

GC-012 – Revision 1 – 08/18/10

Katahdin Analytical Services, Inc.
GC Laboratory Instrument Runlog
Instrument: GC06
Amount Injected 1 ul

8033

Methods: SW846 8081 / 8082 / 8151
EPA 504 / 556 / 608
Reviewed by/ Date:

Date	Init.	Result File	Sample ID	Y/N	Method	Column	Comments
6-21-11	JLP	6EF1018	CV	N	DMFA01A	227	
		19					Still no peaks +
		20					
		21					Not stable
		22					
		23					Flow ↑ to 2 ml/min
		24					
		25					
		26					
6-22-11	JLP	27	CV 1	Y			detector
		28	CV 2				stable +
		29	Flow 1.5				peaks!
6-22-11	JLP	30	ICAL 0.25	Y	DMFA02A		GCV2712
		31	Water	N			
		32	ICAL 0.005	Y			GCV2715
		33	0.02				GCV2709
		34	0.05				GCV2710
		35	0.1				GCV2711
		36	0.5				GCV2713
		37	Water	N			
		38	ICAL 1.0	Y			GCV2714
		39	Water	N			
		40		N			
		41	WG93073-1	Y			Sul GCV2704
		42	-2	Y			*
		43	Water	N			
		44	WG93073-3	Y			*
		45	Water	N			
		46	WG93073-6	Y			SE3250-3 DUP 2
		47	Water	N			
		48	SE3250-1	Y			2
		49	Water	N			

QAGC203

* Sul GCV2704 - DUP GCV2706
2 Sul GCV2704

8033

Katahdin Analytical Services, Inc.
GC Laboratory Instrument Runlog
Instrument: GC06
Amount Injected 1ul

Methods: SW846 8081 / 8082 / 8151
EPA 504 / 556 / 608
Reviewed by/ Date:

Date	Init.	Result File	Sample ID	Y/N	Method	Column	Comments
6-22-11	JLP	6EF1 082	Water	N	DMFA02	227	
		083	mDL 5	N			
		084	Water	N			
		085	mDL 6	N			
		086	Water	N			
		087	mDL 7	N			
		088	Water	N			
6-23-11		089	mDL 8	N			
		090	Water	N			
		091	MDL Check	N			
		092	Water	N			
		093	WG92941-6	N			
		094	Water	N			
		095	SE3249-1	N			
		096	Water	N			
		097	SE3249-2	N			
		098	Water	N			
		099	WG92941-4	N			
		100	Water	N			
		101	WG92941-5	N			
		102	Water	N			
		103	CV 0.25	N			CV ↓
		104	Water	N			
6-23-11	JLP	105	Water	N	DMFA02		
		106	CV 0.25	Y			GCV2712
		107	Water	N			
		108	WG92941-1	Y			
		109	↓ -2	Y			
		110	Water	N			
		111	WG92941-3	Y			
		112	Water	N			
		113	MDL 1	Y			

8033

Katahdin Analytical Services, Inc.
GC Laboratory Instrument Runlog
Instrument: GC06
Amount Injected 1ul

Methods: SW846 8081 / 8082 / 8151
EPA 504 / 556 / 608
Reviewed by/ Date:

Date	Init.	Result File	Sample ID	Y/N	Method	Column	Comments
6-23-11	JP	6E11 114	Water	N	DMFA02A	227	
		115	MDL2	Y			
		116	Water	N			
		117	MDL3	Y			
		118	Water	N			
		119	MDL4	Y			
		120	Water	N			
		121	MDL5	Y			
		122	Water	N			
		123	MDL6	Y			
		124	Water	N			
		125	MDL7	Y			
		126	Water	N			
		127	CV 0.25	Y			GCV2712
		128	Water	N			
		129	MDL8	Y			
		130	Water	N			
		131	MDL Check	Y			
		132	Water	N			
		133	WG92941-6	Y			
		134	Water	N			
		135	SE3249-1	Y			
		136	Water	N			
		137	SE3249-2	Y			
		138	Water	N			
		139	WG92941-4	~~N~~ Y	JP 06 24 11		↓DMF
		140	Water	N			
		141	VG92941-5	~~N~~ Y			↓DMF
		142	Water	N			
		143	CV 0.25	Y			↓ both GCV2712
		144	Water	N			
6-24-11		145	Water	N			

CONVENTIONAL AND PHYSICAL ANALYTICAL DATA

QC Summary Section

Quality Control Report

Blank Sample Summary Report

Total Solids

Samp Type	QC Batch	Anal. Method	Anal. Date	Prep. Date	Result	PQL
MBLANK	WG93208	ASTM D2216	23-JUN-11	22-JUN-11	U 1 %	1 %

600 Technology Way
P.O. Box 540, Scarborough, ME 04070
Tel:(207) 874-2400 Fax:(207) 775-4029
http://katahdinlab.com
sales@katahdinlab.com

Katahdin
ANALYTICAL SERVICES

Cert No E87604

Quality Control Report

Laboratory Control Sample Summary Report

Total Solids

Lab Sample Id	Samp Type	QC Batch	Analysis Date	Prep Date	Units	Spike Amt.	Result	Recovery	Acceptance Range	RPD
WG93208-2	LCS	WG93208	23-JUN-11	22-JUN-11	%	90	90.	100	80-120	

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Katahdin
ANALYTICAL SERVICES

Cert No E87604

Quality Control Report

Duplicate Sample Summary Report

Total Solids

Duplicate Sample ID	Original Sample ID	QC Batch	Analysis Date	Result Units	Sample Result	Duplicate Result	RPD(%)	RPD Limit
WG93208-4	SE3249-2	WG93208	23-JUN-11	%	94.	94.	0	20

600 Technology Way
P.O. Box 540, Scarborough, ME 04070
Tel:(207) 874-2400 Fax:(207) 775-4029

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Sample Data Section

KATAHDIN ANALYTICAL SERVICES – INORGANIC DATA QUALIFIERS
(Refer to BOD Qualifiers Page for BOD footnotes)

The sampled date indicated on the attached Report(s) of Analysis (ROA) is the date for which a grab sample was collected or the date for which a composite sample was completed. Beginning and start times for composite samples can be found on the Chain-of-Custody.

U Indicates the compound was analyzed for but not detected above the specified level. This level may be the Limit of Quantitation (LOQ)(previously called Practical Quantitation Level (PQL)), the Limit of Detection (LOD) or Method Detection Limit (MDL) as required by the client.

Note: All results reported as "U" MDL have a 50% rate for false negatives compared to those results reported as "U" PQL/LOQ or "U" LOD, where the rate of false negatives is <1%.

E Estimated value. This flag identifies compounds whose concentrations exceed the upper level of the calibration range of the instrument for that specific analysis.

J Estimated value. The analyte was detected in the sample at a concentration less than the laboratory Limit of Quantitation (LOQ)(previously called Practical Quantitation Limit (PQL)), but above the Method Detection Limit (MDL).

I-7 The laboratory's Practical Quantitation Level could not be achieved for this parameter due to sample composition, matrix effects, sample volume, or quantity used for analysis.

A-4 Please refer to cover letter or narrative for further information.

MCL Maximum Contaminant Level

NL No limit

NFL No Free Liquid Present

FLP Free Liquid Present

NOD No Odor Detected

TON Threshold Odor Number

H1 Please note that the regulatory holding time for pH is "analyze immediately". Ideally, this analysis must be performed in the field at the time of sample collection. pH for this sample was not performed at the time of sample collection. The analysis was performed as soon as possible after receipt by the laboratory.

H2 Please note that the regulatory holding time for DO is "analyze immediately". Ideally, this analysis must be performed in the field at the time of sample collection. DO for this sample was not performed at the time of sample collection. The analysis was performed as soon as possible after receipt by the laboratory.

H3 Please note that the regulatory holding time for sulfite is "analyze immediately". Ideally, this analysis must be performed in the field at the time of sample collection. Sulfite for this sample was not performed at the time of sample collection. The analysis was performed as soon as possible after receipt by the laboratory.

H4 Please note that the regulatory holding time for residual chlorine is "analyze immediately". Ideally, this analysis must be performed in the field at the time of sample collection. Residual chlorine for this sample was not performed at the time of sample collection. The analysis was performed as soon as possible after receipt by the laboratory.

Katahdin
ANALYTICAL SERVICES

Cert No E87604

Report of Analytical Results

Client: Mr. Chris Ricardi
MACTEC Engineering and Consulting
P.O. Box 7050 DTS
Portland,ME 04112-7050

Lab Sample ID: SE3249-1
Report Date: 27-JUN-11
Client PO: ERRE9844, REWI0014
Project: RI Analytical - Wilmington
SDG: WIL-22

Sample Description	Matrix	Date Sampled	Date Received
-SS-448-0.0/1.0-DUP	SL	08-JUN-11	08-JUN-11

Parameter	Result	Adj PQL	Anal. Method	QC.Batch	Anal. Date	Prep. Method	Prep. Date	Analyst	Footnotes
Total Solids	94. %	1	SM2540G	WG93208	23-JUN-11 16:12:00	ASTM D2216	22-JUN-11	MMM	

Report of Analytical Results

Client: Mr. Chris Ricardi
MACTEC Engineering and Consulting
P.O. Box 7050 DTS
Portland,ME 04112-7050

Lab Sample ID: SE3249-2
Report Date: 27-JUN-11
Client PO: ERRE9844, REWI0014
Project: RI Analytical - Wilmington
SDG: WIL-22

Sample Description	Matrix	Date Sampled	Date Received
-SS-448-0.0/1.0-XXX	SL	08-JUN-11	08-JUN-11

Parameter	Result	Adj PQL	Anal. Method	QC.Batch	Anal. Date	Prep. Method	Prep. Date	Analyst	Footnotes
Total Solids	94. %	1	SM2540G	WG93208	23-JUN-11 16:00:00	ASTM D2216	22-JUN-11	MMM	

Raw Data Section

TOTAL SOLIDS BATCH REPORT
Jun 23 2011, 04:46 pm
Batch: WG93208

Sample	Matrix	Type	Batch	Prep Date	Tare	Initial	Final	by	Date	Raw TS	Rep TS	Recovery	RPD
SE3249-1	SL	SAMP	WG93208	22-JUN-11	1.295 g	5.701 g	5.429 g	MMM	23-JUN-11	93.8270	94. %		
SE3249-2	SL	SAMP	WG93208	22-JUN-11	1.287 g	5.814 g	5.532 g	MMM	23-JUN-11	93.7710	94. %		
SE3414-1	SL	SAMP	WG93208	22-JUN-11	1 g	5 g	5 g	MMM	23-JUN-11	100.0000	100 %		
SE3414-2	SL	SAMP	WG93208	22-JUN-11	1.29 g	5.531 g	5.482 g	MMM	23-JUN-11	98.8450	99. %		
SE3443-1	SL	SAMP	WG93208	22-JUN-11	1.287 g	9.295 g	4.063 g	MMM	23-JUN-11	34.6650	35. %		
SE3443-2	SL	SAMP	WG93208	22-JUN-11	1.285 g	13.788 g	5.991 g	MMM	23-JUN-11	37.6390	38. %		
SE3443-3	SL	SAMP	WG93208	22-JUN-11	1.286 g	7.898 g	3.207 g	MMM	23-JUN-11	29.0530	29. %		
SE3460-1	SL	SAMP	WG93208	22-JUN-11	1.285 g	5.707 g	5.368 g	MMM	23-JUN-11	92.3340	92. %		
SE3460-10	SL	SAMP	WG93208	22-JUN-11	1.291 g	5.963 g	4.992 g	MMM	23-JUN-11	79.2170	79. %		
SE3460-11	SL	SAMP	WG93208	22-JUN-11	1 g	5 g	5 g	MMM	23-JUN-11	100.0000	100 %		
SE3460-2	SL	SAMP	WG93208	22-JUN-11	1.289 g	5.992 g	4.877 g	MMM	23-JUN-11	76.2920	76. %		
SE3460-3	SL	SAMP	WG93208	22-JUN-11	1.293 g	5.745 g	5.473 g	MMM	23-JUN-11	93.8900	94. %		
SE3460-4	SL	SAMP	WG93208	22-JUN-11	1.295 g	5.804 g	5.571 g	MMM	23-JUN-11	94.8320	95. %		
SE3460-5	SL	SAMP	WG93208	22-JUN-11	1.298 g	5.942 g	5.729 g	MMM	23-JUN-11	95.4130	95. %		
SE3460-6	SL	SAMP	WG93208	22-JUN-11	1.299 g	5.683 g	5.239 g	MMM	23-JUN-11	89.8720	90. %		
SE3460-7	SL	SAMP	WG93208	22-JUN-11	1.288 g	6.144 g	5.869 g	MMM	23-JUN-11	94.3370	94. %		
SE3460-8	SL	SAMP	WG93208	22-JUN-11	1.29 g	5.664 g	5.247 g	MMM	23-JUN-11	90.4660	90. %		
SE3509-1	SL	SAMP	WG93208	22-JUN-11	1.289 g	6.374 g	5.209 g	MMM	23-JUN-11	77.0890	77. %		
SE3518-1	SL	SAMP	WG93208	22-JUN-11	1.289 g	5.803 g	5.095 g	MMM	23-JUN-11	84.3150	84. %		
SE3535-1	SL	SAMP	WG93208	22-JUN-11	1.291 g	5.714 g	5.614 g	MMM	23-JUN-11	97.7390	98. %		
WG93208-1	SL	MBLANK	WG93208	22-JUN-11	1.289 g	1.79 g	1.289 g	MMM	23-JUN-11	0.0000	1 %		
WG93208-2	SL	LCS	WG93208	22-JUN-11	1.29 g	6.291 g	5.788 g	MMM	23-JUN-11	89.9420	90. %	100	
WG93208-3	SL	DUP	WG93208	22-JUN-11	1.293 g	5.755 g	5.656 g	MMM	23-JUN-11	97.7810	98. %		0
WG93208-4	SL	DUP	WG93208	22-JUN-11	1.293 g	5.534 g	5.269 g	MMM	23-JUN-11	93.7510	94. %		0

Comments:

SE3249-1	OC-SS-448-0.0/1.0-DUP
SE3249-2	OC-SS-448-0.0/1.0-XXX MS/MSD
SE3460-11	VPH trip blank
WG93208-1	SE3535-1
WG93208-2	SE3535-1
WG93208-3	SE3535-1
WG93208-4	SE3249-2

Entered by: CP Date: 6/23/11 Accepted by: [signature] Date: 06/24/11

W693208 B1163146

KATAHDIN ANALYTICAL SERVICES, INC.

TOTAL SOLIDS: ASTM D2216		PQL: 0.10%	BALANCE ID: B0050012
TOTAL VOLATILE SOLIDS: SM2540 G	E160.4	PQL: 0.10%	ASTM CLASS 1 WEIGHTS
ANALYST IN: MMM	ANALYST OUT: DMB		
DATE IN: 6-22-11	DATE OUT: 6-23-11		
TIME IN: 0940	TIME OUT: 1306		
TEMP IN: 102°C	TEMP OUT: 103°C		
Oven ID: 107W0042	Muffle Oven ID:		
CHECKED BY: [illegible]	DATE: 06/24/11		

TRUE WT (g)	INITIAL WT (g)	FINAL WT (g)
2.0000	2.000	2.000
5.0000	5.001	5.000
10.0000	10.002	10.001
100.0000		

SAMPLE ID	DISH ID	DISH WT (g)	DISH WET WT (g)	DISH DRY WT (g)	DISH/ASH WT (g)	TIME
Blank	1	1.289	1.790	1.289		1550
LCS	2	1.290	6.291	5.788		51
SE3535-1	3	1.291	5.714	5.614		52
-1 Dup	4	1.293	5.755	5.656		53
SE3509-1	5	1.2889	6.374	5.709		54
SE3443-1	6	1.287	9.295	4.063		55
-2	7	1.285	13.788	5.991		56
-3	8	1.286	7.898	3.207		57
SE3414-1	9	1.000	5.000	5.000		58
-2	10	1.290	5.531	5.482		59
SE3249 ~~SE3311-2~~ mm 6-22-11	11	1.287	5.814	5.532		1600
SE3460-1	12	1.285	5.707	5.368		01
-2	13	1.289	5.992	4.877		02
-3	14	1.293	5.745	5.473		03
-4	15	1.295	5.804	5.571		04
-5	16	1.298	5.942	5.729		05
-6	17	1.299	5.683	5.239		06
-7	18	1.288	6.144	5.869		07
-8	19	1.290	5.664	5.247		08
SE3518-1 ~~-9~~ mm 6-22-11	20	1.289	5.803	5.095		09
SE3460-10	21	1.291	5.963	4.992		10
-11	22	1.000	5.000	5.000		11
SE3249-1	23	1.295	5.701	5.429		12
-2 Dup	24	1.2983	5.534	5.269		13

Katahdin Analytical Services 5000012