Bolduc, Amanda

From: Service [service@npas.com]
Sent: Wednesday, March 16, 2011 1:49 PM
To: Bolduc, Amanda
Subject: Bad chip lot number on dmt controller boards

Amanda,

Here is the information on the digital pots on the Controller PCB:

1. The top line of printing on the IC will say X9C102S. That part regardless of good or bad will be the same on all the chips.

2. The second line of printing of the bad lot will say "V002" This is a date of manufacturing code placed at the original factory.

We have NOT found 100% of these particular ones to be bad, but the ones that did fail all came from that same date code range. The only sure-fire way to know was to place the chips on the board and test functionality. This one failing on you is my fault. I apparently missed testing the RFI circuitry when getting them ready to ship after the other updates were performed.

Board designators and their related circuits are listed below:

U7 - Lamp circuit
U8 - Cooler circuit
U18 - Detector Bias Circuit
U27 - Chopper circuit
U34 - RF Detector circuit

Thanks,

Chris

Bolduc, Amanda

From: Kimball, Kirk
Sent: Friday, March 04, 2011 3:32 PM
To: Bolduc, Amanda
Subject: FW: Development Ltr

Attachments: Devel on ltrhd.pdf; ATT2634182.htm

Devel on ltrhd.pdf (56 KB)

ATT2634182.htm (3 KB)

This is on letterhead could you replace the copy in the NPAS folder with this one.
Thanks Kirk
-----Original Message-----
From: John Fusco [mailto:jd@npas.com]
Sent: Friday, March 04, 2011 3:29 PM
To: Kimball, Kirk
Subject: Development Ltr

Attached

Bolduc, Amanda

From: Glen Campbell [gcampbell@npas.com]
Sent: Thursday, February 24, 2011 10:17 AM
To: Bolduc, Amanda
Subject: RE: IACT 2011

Thank you! Appreciate the note about Bob as well.

Look forward to meeting you,

Glen

From: Bolduc, Amanda [mailto:Amanda.Bolduc@ahs.state.vt.us]
Sent: Thursday, February 24, 2011 9:39 AM
To: Glen Campbell
Subject: RE: IACT 2011

Kirk Kimball's email is kirk.kimball@ahs.state.vt.us

Only one of us will be able to attend the meeting this year (if they even approve that), but I'm sure he'll appreciate the invitation. Bob might be going as well, he has mentioned funding his own trip to IACT this year, but I'm not sure if that will also include the DM users group.

Thanks

ABolduc
Amanda Bolduc, MFS
PH Chemist III
Vermont Department of Health Laboratory
Alcohol and Toxicology Program
195 Colchester Ave
Burlington, VT 05402
(802) 585-6707 (mobile)
(802) 863-7412 (ph)
(802) 863-7632 (fax)
amanda.bolduc@ahs.state.vt.us
PLEASE NOTE new phone and email as of 10/13/10

From: Glen Campbell [mailto:gcampbell@npas.com]
Sent: Thursday, February 24, 2011 9:35 AM
To: Bolduc, Amanda
Subject: IACT 2011

Amanda,

Dave forwarded your e-mail asking about our user meeting. I have attached the sign up form for your files. Hopefully you will be able to attend.

Also, is it possible for you to advise me the e-mail address of Kurt Kimble? I understand he took over Bob's responsibilities and I would like to extend the same invitation to him as well.

Thank you,

Glen L. Campbell

Director of Sales & Marketing

National Patent Analytical Systems - NPAS

2090 Harrington Memorial Road

Mansfield, OH 44903

419-526-6727 (main)

419-564-9151 (cell)

Bolduc, Amanda

From: Bolduc, Amanda
Sent: Thursday, February 24, 2011 9:45 AM
To: 'Dave Radomski'
Subject: RE: IACT

Given the choice, I think it would be a better use of my time to meet with you-all rather than take the prep class. I can probably get the materials and take the test anyways, and save the state $175. I sent Glen my registration paper. Hopefully the state approves the travel and I'll see you in St. Louis!

ABolduc
Amanda Bolduc, MFS
PH Chemist III
Vermont Department of Health Laboratory
Alcohol and Toxicology Program
195 Colchester Ave
Burlington, VT 05402
(802) 585-6707 (mobile)
(802) 863-7412 (ph)
(802) 863-7632 (fax)
amanda.bolduc@ahs.state.vt.us
PLEASE NOTE new phone and email as of 10/13/10

-----Original Message-----
From: Dave Radomski [mailto:dmr@npas.com]
Sent: Thursday, February 24, 2011 9:42 AM
To: Bolduc, Amanda
Subject: Re: IACT

We go pretty much all day Saturday with various presentations in the am and issues specific open discussion in the afternoon. It will be in a conference room at the hotel so stop in if and when your schedule allows.

On Feb 24, 2011, at 7:54 AM, Bolduc, Amanda wrote:

> That's a bummer, I wanted to take the Certification Prep class on
> Saturday. Any way to work around that?
>
>
> ABolduc
> Amanda Bolduc, MFS
> PH Chemist III
> Vermont Department of Health Laboratory Alcohol and Toxicology Program
> 195 Colchester Ave
> Burlington, VT 05402
> (802) 585-6707 (mobile)
> (802) 863-7412 (ph)
> (802) 863-7632 (fax)
> amanda.bolduc@ahs.state.vt.us
> *PLEASE NOTE* new phone and email as of 10/13/10
>
> -----Original Message-----
> From: Dave Radomski [mailto:dmr@npas.com]
> Sent: Thursday, February 24, 2011 7:52 AM
> To: Bolduc, Amanda
> Cc: gcampbell@npas.com
> Subject: RE: IACT
>
> Yes. Meeting scheduled the Saturday prior as usual. Glen will be
> sending you details. Hope to see you there.
>

> Sent from my Verizon Wireless Phone
>
> -----Original Message-----
> From: Bolduc, Amanda <Amanda.Bolduc@ahs.state.vt.us>
> Sent: Thursday, February 24, 2011 7:37 AM
> To: Dave Radomski <dmr@npas.com>
> Subject: IACT
>
> Are you hosting a DM users group meeting at IACT this year? There's a
> slim chance the state may actually fund a trip for me!
>
> ABolduc
> Amanda Bolduc, MFS
> PH Chemist III
> Vermont Department of Health Laboratory Alcohol and Toxicology Program
> 195 Colchester Ave
> Burlington, VT 05402
> (802) 585-6707 (mobile)
> (802) 863-7412 (ph)
> (802) 863-7632 (fax)
> amanda.bolduc@ahs.state.vt.us
> *PLEASE NOTE* new phone and email as of 10/13/10
>
>
>
> [The entire original message is not included]
>

Bolduc, Amanda

From: Bolduc, Amanda
Sent: Thursday, February 24, 2011 9:43 AM
To: 'gcampbell@npas.com'
Subject: 2011 NPAS Program Managers Meeting.docx

Attachments: 2011 NPAS Program Managers Meeting.docx

2011 NPAS Program Managers Mee...

Bolduc, Amanda

From: Dave Radomski [dmr@npas.com]
Sent: Thursday, February 24, 2011 9:42 AM
To: Bolduc, Amanda
Subject: Re: IACT

We go pretty much all day Saturday with various presentations in the am and issues specific open discussion in the afternoon. It will be in a conference room at the hotel so stop in if and when your schedule allows.

On Feb 24, 2011, at 7:54 AM, Bolduc, Amanda wrote:

> That's a bummer, I wanted to take the Certification Prep class on
> Saturday. Any way to work around that?
>
>
> ABolduc
> Amanda Bolduc, MFS
> PH Chemist III
> Vermont Department of Health Laboratory Alcohol and Toxicology Program
> 195 Colchester Ave
> Burlington, VT 05402
> (802) 585-6707 (mobile)
> (802) 863-7412 (ph)
> (802) 863-7632 (fax)
> amanda.bolduc@ahs.state.vt.us
> *PLEASE NOTE* new phone and email as of 10/13/10
>
> -----Original Message-----
> From: Dave Radomski [mailto:dmr@npas.com]
> Sent: Thursday, February 24, 2011 7:52 AM
> To: Bolduc, Amanda
> Cc: gcampbell@npas.com
> Subject: RE: IACT
>
> Yes. Meeting scheduled the Saturday prior as usual. Glen will be
> sending you details. Hope to see you there.
>
> Sent from my Verizon Wireless Phone
>
> -----Original Message-----
> From: Bolduc, Amanda <Amanda.Bolduc@ahs.state.vt.us>
> Sent: Thursday, February 24, 2011 7:37 AM
> To: Dave Radomski <dmr@npas.com>
> Subject: IACT
>
> Are you hosting a DM users group meeting at IACT this year? There's a
> slim chance the state may actually fund a trip for me!
>
> ABolduc
> Amanda Bolduc, MFS
> PH Chemist III
> Vermont Department of Health Laboratory Alcohol and Toxicology Program
> 195 Colchester Ave
> Burlington, VT 05402
> (802) 585-6707 (mobile)
> (802) 863-7412 (ph)
> (802) 863-7632 (fax)
> amanda.bolduc@ahs.state.vt.us
> *PLEASE NOTE* new phone and email as of 10/13/10
>
>
>

> [The entire original message is not included]
>

Bolduc, Amanda

From: Bolduc, Amanda
Sent: Thursday, February 24, 2011 9:39 AM
To: 'Glen Campbell'
Subject: RE: IACT 2011

Kirk Kimball's email is kirk.kimball@ahs.state.vt.us
Only one of us will be able to attend the meeting this year (if they even approve that), but I'm sure he'll appreciate the invitation. Bob might be going as well, he has mentioned funding his own trip to IACT this year, but I'm not sure if that will also include the DM users group.
Thanks

A Bolduc

Amanda Bolduc, MFS
PH Chemist III
Vermont Department of Health Laboratory
Alcohol and Toxicology Program
195 Colchester Ave
Burlington, VT 05402
(802) 585-6707 (mobile)
(802) 863-7412 (ph)
(802) 863-7632 (fax)
amanda.bolduc@ahs.state.vt.us
PLEASE NOTE new phone and email as of 10/13/10

From: Glen Campbell [mailto:gcampbell@npas.com]
Sent: Thursday, February 24, 2011 9:35 AM
To: Bolduc, Amanda
Subject: IACT 2011

Amanda,

Dave forwarded your e-mail asking about our user meeting. I have attached the sign up form for your files. Hopefully you will be able to attend.

Also, is it possible for you to advise me the e-mail address of Kurt Kimble? I understand he took over Bob's responsibilities and I would like to extend the same invitation to him as well.

Thank you,

Glen L. Campbell

Director of Sales & Marketing

National Patent Analytical Systems - NPAS

2090 Harrington Memorial Road

Mansfield, OH 44903

419-526-6727 (main)

419-564-9151 (cell)

Bolduc, Amanda

From: Glen Campbell [gcampbell@npas.com]
Sent: Thursday, February 24, 2011 9:35 AM
To: Bolduc, Amanda
Subject: IACT 2011

Attachments: 2011 NPAS Program Managers Meeting.docx

2011 NPAS Program Managers Mee...

Amanda,

Dave forwarded your e-mail asking about our user meeting. I have attached the sign up form for your files. Hopefully you will be able to attend.

Also, is it possible for you to advise me the e-mail address of Kurt Kimble? I understand he took over Bob's responsibilities and I would like to extend the same invitation to him as well.

Thank you,

Glen L. Campbell

Director of Sales & Marketing

National Patent Analytical Systems - NPAS

2090 Harrington Memorial Road

Mansfield, OH 44903

419-526-6727 (main)

419-564-9151 (cell)

Bolduc, Amanda

From: Bolduc, Amanda
Sent: Thursday, February 24, 2011 7:54 AM
To: 'Dave Radomski'
Subject: RE: IACT

That's a bummer, I wanted to take the Certification Prep class on Saturday. Any way to work around that?

ABolduc
Amanda Bolduc, MFS
PH Chemist III
Vermont Department of Health Laboratory
Alcohol and Toxicology Program
195 Colchester Ave
Burlington, VT 05402
(802) 585-6707 (mobile)
(802) 863-7412 (ph)
(802) 863-7632 (fax)
amanda.bolduc@ahs.state.vt.us
PLEASE NOTE new phone and email as of 10/13/10

-----Original Message-----
From: Dave Radomski [mailto:dmr@npas.com]
Sent: Thursday, February 24, 2011 7:52 AM
To: Bolduc, Amanda
Cc: gcampbell@npas.com
Subject: RE: IACT

Yes. Meeting scheduled the Saturday prior as usual. Glen will be sending you details. Hope to see you there.

Sent from my Verizon Wireless Phone

-----Original Message-----
From: Bolduc, Amanda <Amanda.Bolduc@ahs.state.vt.us>
Sent: Thursday, February 24, 2011 7:37 AM
To: Dave Radomski <dmr@npas.com>
Subject: IACT

Are you hosting a DM users group meeting at IACT this year? There's a slim chance the state may actually fund a trip for me!

ABolduc
Amanda Bolduc, MFS
PH Chemist III
Vermont Department of Health Laboratory
Alcohol and Toxicology Program
195 Colchester Ave
Burlington, VT 05402
(802) 585-6707 (mobile)
(802) 863-7412 (ph)
(802) 863-7632 (fax)
amanda.bolduc@ahs.state.vt.us
PLEASE NOTE new phone and email as of 10/13/10

[The entire original message is not included]

Bolduc, Amanda

From: Bolduc, Amanda
Sent: Thursday, February 24, 2011 7:37 AM
To: 'Dave Radomski'
Subject: IACT

Are you hosting a DM users group meeting at IACT this year? There's a slim chance the state may actually fund a trip for me!

ABolduc

Amanda Bolduc, MFS
PH Chemist III
Vermont Department of Health Laboratory
Alcohol and Toxicology Program
195 Colchester Ave
Burlington, VT 05402
(802) 585-6707 (mobile)
(802) 863-7412 (ph)
(802) 863-7632 (fax)
amanda.bolduc@ahs.state.vt.us
PLEASE NOTE new phone and email as of 10/13/10

Bolduc, Amanda

From: Glen Campbell [gcampbell@npas.com]
Sent: Wednesday, February 23, 2011 3:19 PM
To: Harnois, Steven
Subject: IACT

Attachments: 2011 NPAS Program Managers Meeting.docx

2011 NPAS Program Managers Mee...

Steve,

Good speaking with you this afternoon! Attached is the form to be filled out and returned.

Hope you can attend!

Glen L. Campbell

Director of Sales & Marketing

National Patent Analytical Systems - NPAS

2090 Harrington Memorial Road

Mansfield, OH 44903

419-526-6727 (main)

419-564-9151 (cell)

Bolduc, Amanda

From: Kimball, Kirk
Sent: Wednesday, February 23, 2011 10:02 AM
To: Bolduc, Amanda
Subject: FW: Email address

Attachments: Development Notification Advisory; ATT1376819.htm

Development Notification Advis...

ATT1376819.htm (3 KB)

-----Original Message-----
From: John Fusco [mailto:jd@npas.com]
Sent: Tuesday, February 22, 2011 9:41 AM
To: Kimball, Kirk
Subject: Re: Email address

Kirk

Attached is the advisory I spoke of.

JF

Bolduc, Amanda

From: John Fusco [jd@npas.com]
Sent: Wednesday, February 09, 2011 11:04 AM
To: Bolduc, Amanda
Cc: vincentilluzzi@hotmail.com; linda@sleighandwilliams.com
Subject: Re: State v Kip Wyman

The DM is not our property and I have no authority over what the state does with the instrument. I also have no objections if I did have the authority.

JF

On Feb 9, 2011, at 10:36 AM, Bolduc, Amanda wrote:

> We have received this request from a defense attorney. We would like your opinion on this.
>
> A Bolduc
> Amanda Bolduc, MFS
> PH Chemist III
> Vermont Department of Health Laboratory
> Alcohol and Toxicology Program
> 195 Colchester Ave
> Burlington, VT 05402
> (802) 585-6707 (mobile)
> (802) 863-7412 (ph)
> (802) 863-7632 (fax)
> amanda.bolduc@ahs.state.vt.us
> *PLEASE NOTE* new phone and email as of 10/13/10
>
> ---
>
> **From:** Vince Illuzzi [mailto:vincentilluzzi@hotmail.com]
> **Sent:** Tuesday, February 08, 2011 4:39 PM
> **To:** Bolduc, Amanda
> **Subject:** FW: State v Kip Wyman
>
> FYI. Let me know what you think.
>
> ---
>
> From: Becky.Curtis@state.vt.us
> To: Stella.Celotti@ahs.state.vt.us

CC: linda@sleighandwilliams.com; vincentilluzzi@hotmail.com
Date: Tue, 8 Feb 2011 15:58:14 -0500
Subject: State v Kip Wyman

Mary -

Attached is a letter with a request from Kip Wyman's defense attorney pertaining to the BAC Datamaster used in this DUI case.

Vince would like a response from you regarding this request.

If you have any questions, or need any additional information, please let me know.

Thank you,
Becky

Becky Curtis, Victim Advocate

Essex County State's Attorney

PO Box 226

Orleans, VT 05860

Phone: (802) 754-2884

Fax: (802) 754-2881

<State v Kip Wyman.pdf>

John Fusco (jd@npas.com)
National Patent Analytical Systems, Inc.
Box 1435 Mansfield Ohio 44901
Phone 419+526-6727 Fax 419+526-9446

Bolduc, Amanda

From: Bolduc, Amanda
Sent: Wednesday, February 09, 2011 10:37 AM
To: 'jd@npas.com'
Subject: FW: State v Kip Wyman

Attachments: State v Kip Wyman.pdf

State v Kip Wyman.pdf (29 KB)

We have received this request from a defense attorney. We would like your opinion on this.

A Bolduc

Amanda Bolduc, MFS
PH Chemist III
Vermont Department of Health Laboratory
Alcohol and Toxicology Program
195 Colchester Ave
Burlington, VT 05402
(802) 585-6707 (mobile)
(802) 863-7412 (ph)
(802) 863-7632 (fax)
amanda.bolduc@ahs.state.vt.us
PLEASE NOTE new phone and email as of 10/13/10

From: Vince Illuzzi [mailto:vincentilluzzi@hotmail.com]
Sent: Tuesday, February 08, 2011 4:39 PM
To: Bolduc, Amanda
Subject: FW: State v Kip Wyman

FYI. Let me know what you think.

From: Becky.Curtis@state.vt.us
To: Stella.Celotti@ahs.state.vt.us
CC: linda@sleighandwilliams.com; vincentilluzzi@hotmail.com
Date: Tue, 8 Feb 2011 15:58:14 -0500
Subject: State v Kip Wyman

Mary -

Attached is a letter with a request from Kip Wyman's defense attorney pertaining to the BAC Datamaster used in this DUI case.

Vince would like a response from you regarding this request.

If you have any questions, or need any additional information, please let me know.

Thank you,
Becky

Becky Curtis, Victim Advocate

Essex County State's Attorney

PO Box 226

Orleans, VT 05860

Phone: (802) 754-2884

Fax: (802) 754-2881

Bolduc, Amanda

From: Bolduc, Amanda
Sent: Wednesday, February 09, 2011 7:01 AM
To: 'Scott Marhefka'
Subject: FW: State v Kip Wyman

Attachments: State v Kip Wyman.pdf

State v Kip Wyman.pdf (29 KB)

Huh. I wonder what he thinks his 'expert' can do that we cannot???

A Bolduc

Amanda Bolduc, MFS
PH Chemist III
Vermont Department of Health Laboratory
Alcohol and Toxicology Program
195 Colchester Ave
Burlington, VT 05402
(802) 585-6707 (mobile)
(802) 863-7412 (ph)
(802) 863-7632 (fax)
amanda.bolduc@ahs.state.vt.us
PLEASE NOTE new phone and email as of 10/13/10

From: Vince Illuzzi [mailto:vincentilluzzi@hotmail.com]
Sent: Tuesday, February 08, 2011 4:39 PM
To: Bolduc, Amanda
Subject: FW: State v Kip Wyman

FYI. Let me know what you think.

From: Becky.Curtis@state.vt.us
To: Stella.Celotti@ahs.state.vt.us
CC: linda@sleighandwilliams.com; vincentilluzzi@hotmail.com
Date: Tue, 8 Feb 2011 15:58:14 -0500
Subject: State v Kip Wyman

Mary -

Attached is a letter with a request from Kip Wyman's defense attorney pertaining to the BAC Datamaster used in this DUI case.

Vince would like a response from you regarding this request.

If you have any questions, or need any additional information, please let me know.

Thank you,
Becky

Becky Curtis, Victim Advocate

Essex County State's Attorney

PO Box 226

Orleans, VT 05860

Phone: (802) 754-2884

Fax: (802) 754-2881

Bolduc, Amanda

From: Scott Marhefka [eng@npas.com]
Sent: Tuesday, January 18, 2011 9:46 AM
To: Bolduc, Amanda
Subject: 950176

Attachments: 20110118093912259.pdf

20110118093912259.pdf (45 KB)

-------- Original Message --------
Date: Tue, 18 Jan 2011 09:39:12 -0500
From: ricoh2022@npas.com
To: Scott <eng@npas.com>

This E-mail was sent from "RNP7E17E4" (Aficio 2022).

Scan Date: 01.18.2011 09:39:11 (-0500)
Queries to: ricoh2022@npas.com

Bolduc, Amanda

From: Bolduc, Amanda
Sent: Wednesday, January 12, 2011 2:39 PM
To: Scott Marhefka

Attachments: P0001_011211.jpg

P0001_011211.jpg
(58 KB)

Sent from my Windows® phone.

Bolduc, Amanda

From: Bolduc, Amanda
Sent: Wednesday, January 12, 2011 2:23 PM
To: 'Scott Marhefka'
Subject: RE: download

same phone number, serial # 200073

A Bolduc

Amanda Bolduc, MFS
PH Chemist III
Vermont Department of Health Laboratory
Alcohol and Toxicology Program
195 Colchester Ave
Burlington, VT 05402
(802) 585-6707 (mobile)
(802) 863-7412 (ph)
(802) 863-7632 (fax)
amanda.bolduc@ahs.state.vt.us
PLEASE NOTE new phone and email as of 10/13/10

From: Scott Marhefka [mailto:eng@npas.com]
Sent: Wednesday, January 12, 2011 2:11 PM
To: Bolduc, Amanda
Subject: Re: download

Amanda,

The DataMaster did not pick up. The call went to voice mail.

Scott

On 1/12/2011 7:19 AM, Bolduc, Amanda wrote:

> So I set up a different BAC DataMaster. Please call (802) 951-1295 and try to connect to BAC 950172 and see what you get. Thanks
>
> A Bolduc
>
> Amanda Bolduc, MFS
> PH Chemist III
> Vermont Department of Health Laboratory
> Alcohol and Toxicology Program
> 195 Colchester Ave
> Burlington, VT 05402
> (802) 585-6707 (mobile)

(802) 863-7412 (ph)
(802) 863-7632 (fax)
amanda.bolduc@ahs.state.vt.us
PLEASE NOTE new phone and email as of 10/13/10

--

Scott Marhefka
National Patent Analytical Systems
2090 Harrington Memorial Road
Mansfield, OH 44903

email: eng@npas.com
phone: (419) 526-6727

Bolduc, Amanda

From: Bolduc, Amanda
Sent: Wednesday, January 12, 2011 2:13 PM
To: 'Scott Marhefka'
Subject: RE: download

hang on, I'll reconnect it

A Bolduc

Amanda Bolduc, MFS
PH Chemist III
Vermont Department of Health Laboratory
Alcohol and Toxicology Program
195 Colchester Ave
Burlington, VT 05402
(802) 585-6707 (mobile)
(802) 863-7412 (ph)
(802) 863-7632 (fax)
amanda.bolduc@ahs.state.vt.us
PLEASE NOTE new phone and email as of 10/13/10

From: Scott Marhefka [mailto:eng@npas.com]
Sent: Wednesday, January 12, 2011 2:11 PM
To: Bolduc, Amanda
Subject: Re: download

Amanda,

The DataMaster did not pick up. The call went to voice mail.

Scott

On 1/12/2011 7:19 AM, Bolduc, Amanda wrote:

> So I set up a different BAC DataMaster. Please call (802) 951-1295 and try to connect to BAC 950172 and see what you get. Thanks
>
> A Bolduc
>
> Amanda Bolduc, MFS
> PH Chemist III
> Vermont Department of Health Laboratory
> Alcohol and Toxicology Program
> 195 Colchester Ave
> Burlington, VT 05402
> (802) 585-6707 (mobile)

(802) 863-7412 (ph)
(802) 863-7632 (fax)
amanda.bolduc@ahs.state.vt.us
PLEASE NOTE new phone and email as of 10/13/10

--

Scott Marhefka
National Patent Analytical Systems
2090 Harrington Memorial Road
Mansfield, OH 44903

email: eng@npas.com
phone: (419) 526-6727

Bolduc, Amanda

From: Bolduc, Amanda
Sent: Wednesday, January 12, 2011 10:03 AM
To: 'Scott Marhefka'
Subject: RE: download

ok

ABolduc

Amanda Bolduc, MFS
PH Chemist III
Vermont Department of Health Laboratory
Alcohol and Toxicology Program
195 Colchester Ave
Burlington, VT 05402
(802) 585-6707 (mobile)
(802) 863-7412 (ph)
(802) 863-7632 (fax)
amanda.bolduc@ahs.state.vt.us
PLEASE NOTE new phone and email as of 10/13/10

From: Scott Marhefka [mailto:eng@npas.com]
Sent: Wednesday, January 12, 2011 10:02 AM
To: Bolduc, Amanda
Subject: Re: download

Amanda,

I won't be able to try until after lunch.

Scott

On 1/12/2011 7:19 AM, Bolduc, Amanda wrote:

> So I set up a different BAC DataMaster. Please call (802) 951-1295 and try to connect to BAC 950172 and see what you get. Thanks
>
> ABolduc
>
> Amanda Bolduc, MFS
> PH Chemist III
> Vermont Department of Health Laboratory
> Alcohol and Toxicology Program
> 195 Colchester Ave
> Burlington, VT 05402

(802) 585-6707 (mobile)
(802) 863-7412 (ph)
(802) 863-7632 (fax)
amanda.bolduc@ahs.state.vt.us
PLEASE NOTE new phone and email as of 10/13/10

--

Scott Marhefka
National Patent Analytical Systems
2090 Harrington Memorial Road
Mansfield, OH 44903

email: eng@npas.com
phone: (419) 526-6727

Bolduc, Amanda

From: Bolduc, Amanda
Sent: Wednesday, January 12, 2011 7:20 AM
To: 'Scott Marhefka'
Subject: download

So I set up a different BAC DataMaster. Please call (802) 951-1295 and try to connect to BAC 950172 and see what you get. Thanks

ABolduc

Amanda Bolduc, MFS
PH Chemist III
Vermont Department of Health Laboratory
Alcohol and Toxicology Program
195 Colchester Ave
Burlington, VT 05402
(802) 585-6707 (mobile)
(802) 863-7412 (ph)
(802) 863-7632 (fax)
amanda.bolduc@ahs.state.vt.us
PLEASE NOTE new phone and email as of 10/13/10

Bolduc, Amanda

From: John Fusco [jd@npas.com]
Sent: Thursday, December 23, 2010 4:45 PM
To: Customers
Cc: kenning1335@aol.com; jkm9900@aol.com

Hi all:

I thought I would have another set of thoughts from Opie and Moron ready for Christmas by now, but no such luck.

They seem to have turned to more destructive activities like pushing my new iMac onto the floor and shattering the front panel glass. The call to the Apple repair center went something like this:

Me: I need to get an estimate on replacing the front glass on my iMac. My cats pushed it onto the floor.

Apple Rep: OMG

Me: That's not what I said. In fact, after all the yelling they disappeared and I haven't seen them in two days.

Apple Rep: They will eventually turn up. I'm going to put you on hold and get a price.

Pause - 2 or 3 minutes - (but fortunately no bad music).

Apple Rep: Mr. Fusco, how about for free.

Me: Three? You mean three hundred dollars. That's not bad.

Apple Rep: No, free. That's F R E E.

Me: Wait, I said my cats pushed in onto the floor, not your cats.

Apple Rep: That's the way Apple treats the warranty on that part.

Me: Great! I'll make sure they never jump again if I can ever find'em.

Have a good Holiday season.

Best Regards to all from everyone here.

John Fusco (jd@npas.com)
National Patent Analytical Systems, Inc.
Box 1435 Mansfield Ohio 44901
Phone 419+526-6727 Fax 419+526-9446

Bolduc, Amanda

From: Pevey, Mark [Mark.Pevey@adfs.alabama.gov]
Sent: Wednesday, December 22, 2010 11:50 AM
To: Dave Radomski; Lisa (DCJS) Lee; Perry Curtis; Bolduc, Amanda; Brett Baker; Karin (DPS) Kierzek
Cc: Colleen S (DPS) O'Bryant
Subject: RE: Verification of Calibration

Attachments: chap 370-1-1 effective 070904 booklet locked.docx

chap 370-1-1 effective 070904 ...

Our overall design concept verifies calibration through two separate mechanisms.

First, at least once annually, we perform a "verification of calibration" on each instrument using NIST traceable GMIS ethanol standards @ concentrations of 0.020, 0.080, and 0.142 g/210L respectively. If the instrument fails to meet our "pass" criteria, it is "Adjusted" (i.e. calibrated). This is followed by a series of calibration checks utilizing wet-bath solutions of the following concentrations: 0.000, 0.020, 0.040, 0.080, 0.120, 0.200, 0.500 g/210L respectively.

Second, our DUI breath test routine incorporates 2 "time of test" calibration verifications (a.k.a. calibration checks) with the subject test for every test. We use Dry-gas Ethanol Standards @ 0.020 g/210L & 0.080 g/210L concentrations. These standards are NIST traceable as well and have been verified independently by our lab against our NTRM gas standards.

Here is the order of the DUI test event: 0.020 g/210L verification >> Subj. Sample #1 >> Subj. Sample #2 >> 0.080 g/210L verification.

In our opinion each of these serves a different purpose. The laboratory tests prove what the instrument is capable of. The "Time of Test" checks verify that the instrument was in fact accurate at the time of the subject test because it rightly identified a know control (standard) of a known concentration. For purposes of addressing instrument accuracy issues during litigation, I believe the latter is the more important of the two. We specifically chose the two concentrations as they address critical levels in our statutes.

I have attached a copy of our administrative rules for you review as well. If we can be of further help please call or write.

Mark A. Pevey, Director

Implied Consent Laboratory

AL Dept. of Forensic Sciences

1152 Hwy. 31 South

Calera, AL 35040

205.621.4696 Office

205.621.9962 Fax

mark.pevey@adfs.alabama.gov

This electronic message transmission contains information from the Alabama Department of Forensic Sciences which is not encrypted and may be confidential or protected. The information is intended to be for the use of the individual or entity named above. If you are not the intended recipient, be aware that any disclosure, copying, distribution or use of the contents of this information is prohibited. If you believe that you may have received this communication in error, please reply to the sender indicating that fact and delete the copy you received or notify us by telephone (205) 621-4696 immediately. Thank You.

From: Dave Radomski [mailto:dmr@npas.com]
Sent: Tuesday, December 21, 2010 12:25 PM
To: Lisa (DCJS) Lee; Perry Curtis; Amanda Bolduc; Pevey, Mark; Brett Baker; Karin (DPS) Kierzek
Cc: Colleen S (DPS) O'Bryant
Subject: Fwd: Verification of Calibration

Hello all.

If you could offer your information in response to the inquiry below directly to Colleen, I'm sure she would appreciate it.

Merry Christmas and Happy New Year to everyone!

Dave

Begin forwarded message:

From: "O'Bryant, Colleen S (DPS)" <colleen.obryant@alaska.gov>

Date: December 21, 2010 1:03:42 PM EST

To: dmr@npas.com

Subject: Verification of Calibration

Dave,

Could you tell me what you know of other states verifying their calibration? Are other states you routinely work with performing supervisor tests (5?) to verify their calibration periodically (60 days?)

Thanks

Colleen

Bolduc, Amanda

From: Bolduc, Amanda
Sent: Tuesday, December 21, 2010 2:20 PM
To: 'colleen.obryant@alaska.gov'
Cc: Lab_Alc
Subject: Calibration Verification

Colleen,

In response to your question to Dave Radomski, here is what we do.

In Vermont, we have a number of levels of verification that we put our DMT's though. After the instrument is calibrated, we run a calibration check using a known standard (n=10) of 0.100 EtOH simulator solution. The DMT must report and average of +/- 3% for the cal check. We then do a lengthy certification process where we first check the diagnostics. We then run a linearity test using 4 concentrations of EtOH, 0.02, 0.08, 0.16 and 0.40 (n=5 for each solution). Each solution must report within +/- 5% (10% at 0.02). We also check the invalid sample detection, interference detection, radio frequency detection and sample acceptance criteria of the unit. Once the instrument passes Certification, it is then tested again as it is installed at an agency. During Installation, the instrument runs an accuracy and precision test (n=7) using an external standard solution of 0.100 EtOH +/-5% tolerance. The external standard is then analyzed once prior to each and every subject's breath sample (+/-5% at a 0.100). Once in the field, the DMT is also tested every Feb, June and Oct by an on site DMT Supervisor who changes the external standard solution to a fresh 0.1 and runs a new accuracy and precision check (5%).
Please feel free to contact me for clarification or with questions!
Happy Holidays!

ABolduc

Amanda Bolduc, MFS
PH Chemist III
Vermont Department of Health Laboratory
Alcohol and Toxicology Program
195 Colchester Ave
Burlington, VT 05402
(802) 585-6707 (mobile)
(802) 863-7412 (ph)
(802) 863-7632 (fax)
amanda.bolduc@ahs.state.vt.us
PLEASE NOTE new phone and email as of 10/13/10

Bolduc, Amanda

From: Bolduc, Amanda
Sent: Monday, December 20, 2010 11:27 AM
To: 'Dave Radomski'
Subject: RE: redacted.doc

thanks

A Bolduc

Amanda Bolduc, MFS
PH Chemist III
Vermont Department of Health Laboratory
Alcohol and Toxicology Program
195 Colchester Ave
Burlington, VT 05402
(802) 585-6707 (mobile)
(802) 863-7412 (ph)
(802) 863-7632 (fax)
amanda.bolduc@ahs.state.vt.us
PLEASE NOTE new phone and email as of 10/13/10

From: Dave Radomski [mailto:dmr@npas.com]
Sent: Monday, December 20, 2010 11:23 AM
To: Bolduc, Amanda
Subject: Re: redacted.doc

Looks good. Concise and to the point.

On Dec 20, 2010, at 11:16 AM, Bolduc, Amanda wrote:

> Let me know what you think
>
> **<<redacted.doc>>**
>
> A Bolduc
>
> Amanda Bolduc, MFS
> PH Chemist III
> Vermont Department of Health Laboratory
> Alcohol and Toxicology Program
> 195 Colchester Ave
> Burlington, VT 05402
> (802) 585-6707 (mobile)
> (802) 863-7412 (ph)

(802) 863-7632 (fax)
amanda.bolduc@ahs.state.vt.us
PLEASE NOTE new phone and email as of 10/13/10

<redacted.doc>

Bolduc, Amanda

From: Dave Radomski [dmr@npas.com]
Sent: Monday, December 20, 2010 11:23 AM
To: Bolduc, Amanda
Subject: Re: redacted.doc

Looks good. Concise and to the point.

On Dec 20, 2010, at 11:16 AM, Bolduc, Amanda wrote:

> Let me know what you think
>
> **<<redacted.doc>>**
>
> A Bolduc
>
> Amanda Bolduc, MFS
> PH Chemist III
> Vermont Department of Health Laboratory
> Alcohol and Toxicology Program
> 195 Colchester Ave
> Burlington, VT 05402
> (802) 585-6707 (mobile)
> (802) 863-7412 (ph)
> (802) 863-7632 (fax)
> amanda.bolduc@ahs.state.vt.us
> *PLEASE NOTE* new phone and email as of 10/13/10
>
> <redacted.doc>

Bolduc, Amanda

From: Bolduc, Amanda
Sent: Monday, December 20, 2010 11:16 AM
To: 'dmr@npas.com'
Subject: redacted.doc

Attachments: redacted.doc

Let me know what you think

redacted.doc (33 KB)

A Bolduc

Amanda Bolduc, MFS
PH Chemist III
Vermont Department of Health Laboratory
Alcohol and Toxicology Program
195 Colchester Ave
Burlington, VT 05402
(802) 585-6707 (mobile)
(802) 863-7412 (ph)
(802) 863-7632 (fax)
amanda.bolduc@ahs.state.vt.us
PLEASE NOTE new phone and email as of 10/13/10

Bolduc, Amanda

From: Dave Radomski [dmr@npas.com]
Sent: Monday, December 20, 2010 10:43 AM
To: Bolduc, Amanda
Subject: Breath sample graph

Attachments: ΔDMT Sample acceptance graph ◇ Layer-1 ◇ 1 _ 1.pdf

?DMT Sample
ıcceptance graph ?..

Bolduc, Amanda

From: Bolduc, Amanda
Sent: Monday, December 20, 2010 8:17 AM
To: Harnois, Steven
Subject: Emailing: air flow sensor.pdf

Attachments: air flow sensor.pdf

air flow sensor.pdf
(197 KB)

The message is ready to be sent with the following file or link attachments:

air flow sensor.pdf

Note: To protect against computer viruses, e-mail programs may prevent sending or receiving certain types of file attachments. Check your e-mail security settings to determine how attachments are handled.

Bolduc, Amanda

From: Dave Radomski [dmr@npas.com]
Sent: Friday, December 17, 2010 4:12 PM
To: Bolduc, Amanda
Subject: Airflow

Attachments: DataMaster DMT Airflow Sensing Technique.docx; ATT134770.txt; DMTAirflow ◇ Layer-1 ◇ 2X.pdf; ATT134771.txt

DataMaster DMT Airflow Sensing...

ATT134770.txt (108 B)

DMTAirflow ? Layer-1 ? 2X.pdf ...

ATT134771.txt (66 B)

See if this works.

Bolduc, Amanda

From: Dave Radomski [dmr@npas.com]
Sent: Friday, December 17, 2010 4:12 PM
To: Bolduc, Amanda
Subject: Airflow

Attachments: DataMaster DMT Airflow Sensing Technique.docx; ATT134770.txt; DMTAirflow ◇ Layer-1 ◇ 2X.pdf; ATT134771.txt

DataMaster DMT Airflow Sensing...

ATT134770.txt (108 B)

DMTAirflow ? Layer-1 ? 2X.pdf ...

ATT134771.txt (66 B)

See if this works.

Bolduc, Amanda

From: Dave Radomski [dmr@npas.com]
Sent: Friday, December 17, 2010 3:45 PM
To: Bolduc, Amanda
Subject: http://www.honeywell-sensor.com.cn/prodinfo/sensor_mass_air_flow/installation/p88671_2.pdf

Here is the data sheet on the air sensor should you feel it necessary to provide it to the attorney. I will write up the means by which the DMT uses this part as the air sensor.

Dave

http://www.honeywell-sensor.com.cn/prodinfo/sensor_mass_air_flow/installation/p88671_2.pdf

Bolduc, Amanda

From: Dave Radomski [dmr@npas.com]
Sent: Friday, December 17, 2010 3:45 PM
To: Bolduc, Amanda
Subject: http://www.honeywell-sensor.com.cn/prodinfo/sensor_mass_air_flow/installation/p88671_2.pdf

Here is the data sheet on the air sensor should you feel it necessary to provide it to the attorney. I will write up the means by which the DMT uses this part as the air sensor.

Dave

http://www.honeywell-sensor.com.cn/prodinfo/sensor_mass_air_flow/installation/p88671_2.pdf

Bolduc, Amanda

From: John Fusco [jd@npas.com]
Sent: Wednesday, December 08, 2010 3:10 PM
To: Harnois, Steven

Attachments: 43399.pdf; ATT121349.htm

43399.pdf (35 KB)

ATT121349.htm (3 KB)

Bolduc, Amanda

From: Dave Radomski [dmr@npas.com]
Sent: Wednesday, December 08, 2010 9:49 AM
To: Harnois, Steven
Subject: RMA

Attachments: VT120810.pdf; ATT42039.txt

VT120810.pdf (39 KB)

ATT42039.txt (66 B)

Steve,

Print a copy of this order and add to the box(es) if not too late.

Dave

Bolduc, Amanda

From: Harnois, Steven
Sent: Thursday, December 02, 2010 11:30 AM
To: 'Dave Radomski'
Subject: RE: 2 DMT's

100145 seems to have calibrated fine now.

100161 Needs has a problem with it's Controller PCB not holding Voltage for the chopper or the electronic POT is not working correctly, Know issue, please send a warentee replacement. I think there is a problem in the chamber I can address here when I take it apart.

Please give me a call to talk about.

Thanks, Steve

Steven Harnois
State of Vermont
Agency Of Human Services
Department of Health
Public Health Electronics Technician
195 Colchester Avenue
Burlington, Vermont 05401
Phone (802) 863 7641
Fax (802) 863 7632
E Mail: NOTE NEW EMAIL Steven.Harnois@ahs.state.vt.us

-----Original Message-----
From: Dave Radomski [mailto:dmr@npas.com]
Sent: Thursday, December 02, 2010 10:10 AM
To: Harnois, Steven
Subject: 2 DMT's

Steve,

I looked in the records for 100145 and 100161.

100145 had a value for b2 of between 0.001 and 0.002 on calibrations done here. This falls within our allowable limits and tests ran as expected. If you have indications where this is presenting a problem in testing done at your end, please advise.

100161 had the following cal factor prior to shipping to you.

b1	0.000543
b2	0.006317
b3	0.000000
CAL	.989381
Xq	0.107347
a21	1.194797
a31	0.454307

These compare closely with the factors you conveyed by phone. Xq seemed to show the most deviation where you reported 0.1043 but this wouldn't appear to have any bearing on the issue of interference you reported. Testing here gave no indications of the instrument giving interference on ethanol samples. We can check the unit out here if you feel that would help.

Dave

Bolduc, Amanda

From: Dave Radomski [dmr@npas.com]
Sent: Thursday, December 02, 2010 10:10 AM
To: Harnois, Steven
Subject: 2 DMT's

Steve,

I looked in the records for 100145 and 100161.

100145 had a value for b2 of between 0.001 and 0.002 on calibrations done here. This falls within our allowable limits and tests ran as expected. If you have indications where this is presenting a problem in testing done at your end, please advise.

100161 had the following cal factor prior to shipping to you.

b1	0.000543
b2	0.006317
b3	0.000000
CAL	.989381
Xq	0.107347
a21	1.194797
a31	0.454307

These compare closely with the factors you conveyed by phone. Xq seemed to show the most deviation where you reported 0.1043 but this wouldn't appear to have any bearing on the issue of interference you reported. Testing here gave no indications of the instrument giving interference on ethanol samples. We can check the unit out here if you feel that would help.

Dave

Bolduc, Amanda

From: Scott Marhefka [eng@npas.com]
Sent: Tuesday, November 30, 2010 7:48 AM
To: Bolduc, Amanda
Subject: Re: who's gottem'?

Bermuda

On 11/30/2010 7:16 AM, Bolduc, Amanda wrote:

> Doesn't the Bahamas have them, too?
>
> A. Bolduc
>
> *Amanda Bolduc*
> *PH Chemist, Alcohol & Toxicology*
> *Vermont Department of Health Lab*
> *195 Colchester Ave*
> *Burlington, VT 05402*
> *(802) 863-7412 (ph)*
> *(802) 585-6707 (mobile)*
> *(802) 863-7632 (fax)*
> *amanda.bolduc@ahs.state.vt.us*

From: Scott Marhefka [mailto:eng@npas.com]
Sent: Monday, November 29, 2010 4:04 PM
To: Bolduc, Amanda
Subject: Re: who's gottem'?

Amanda,

NY - does not show graph on ticket
SC - does not show graph on ticket but it is in database and will eventually be on the web
Michigan - shows graph on ticket
PA - shows graph on ticket
Iowa - shows graph on ticket
Quebec - shows graph on ticket

I don't know that this is the total list but is most of it.

Scott

On 11/29/2010 2:31 PM, Bolduc, Amanda wrote:

> Hope you had a great Thanksgiving. I didn't glutton myself too badly :)
> I won't tax you too much today, I have one simple question. What states have the DMT's, and of those, who are using the graphing features?
> Thanks

A. Bolduc

Amanda Bolduc
PH Chemist, Alcohol & Toxicology
Vermont Department of Health Lab
195 Colchester Ave
Burlington, VT 05402
(802) 863-7412 (ph)
(802) 585-6707 (mobile)
(802) 863-7632 (fax)
amanda.bolduc@ahs.state.vt.us

--

Scott Marhefka
National Patent Analytical Systems
2090 Harrington Memorial Road
Mansfield, OH 44903

email: eng@npas.com
phone: (419) 526-6727

--

Scott Marhefka
National Patent Analytical Systems
2090 Harrington Memorial Road
Mansfield, OH 44903

email: eng@npas.com
phone: (419) 526-6727

Bolduc, Amanda

From: Scott Marhefka [eng@npas.com]
Sent: Monday, November 29, 2010 4:04 PM
To: Bolduc, Amanda
Subject: Re: who's gottem'?

Amanda,

NY - does not show graph on ticket
SC - does not show graph on ticket but it is in database and will eventually be on the web
Michigan - shows graph on ticket
PA - shows graph on ticket
Iowa - shows graph on ticket
Quebec - shows graph on ticket

I don't know that this is the total list but is most of it.

Scott

On 11/29/2010 2:31 PM, Bolduc, Amanda wrote:

> Hope you had a great Thanksgiving. I didn't glutton myself too badly :)
> I won't tax you too much today, I have one simple question. What states have the DMT's, and of those, who are using the graphing features?
> Thanks
>
> A. Bolduc
>
> *Amanda Bolduc*
> *PH Chemist, Alcohol & Toxicology*
> *Vermont Department of Health Lab*
> *195 Colchester Ave*
> *Burlington, VT 05402*
> *(802) 863-7412 (ph)*
> *(802) 585-6707 (mobile)*
> *(802) 863-7632 (fax)*
> *amanda.bolduc@ahs.state.vt.us*

--
Scott Marhefka
National Patent Analytical Systems
2090 Harrington Memorial Road
Mansfield, OH 44903

email: eng@npas.com
phone: (419) 526-6727

Bolduc, Amanda

From: Bolduc, Amanda
Sent: Monday, November 29, 2010 2:32 PM
To: 'Scott Marhefka'
Subject: who's gottem'?

Hope you had a great Thanksgiving. I didn't glutton myself too badly :)
I won't tax you too much today, I have one simple question. What states have the DMT's, and of those, who are using the graphing features?
Thanks

A. Bolduc

Amanda Bolduc
PH Chemist, Alcohol & Toxicology
Vermont Department of Health Lab
195 Colchester Ave
Burlington, VT 05402
(802) 863-7412 (ph)
(802) 585-6707 (mobile)
(802) 863-7632 (fax)
amanda.bolduc@ahs.state.vt.us

Bolduc, Amanda

From: Bolduc, Amanda
Sent: Friday, November 12, 2010 9:48 AM
To: 'Scott Marhefka'
Subject: RE: hold up

HA! You only say that because when I test it, it means more work for you :)

From: Scott Marhefka [mailto:eng@npas.com]
Sent: Friday, November 12, 2010 8:36 AM
To: Bolduc, Amanda
Subject: Re: hold up

Take as much time as you like. I just wanted to make sure we hadn't dropped the ball.

Have a great weekend.

On 11/12/2010 7:58 AM, Bolduc, Amanda wrote:

> You are waiting on me. I haven't had a chance to look at the new software yet. That is what I'll be doing today.
> Thanks
> A

--
Scott Marhefka
National Patent Analytical Systems
2090 Harrington Memorial Road
Mansfield, OH 44903

email: eng@npas.com
phone: (419) 526-6727

Bolduc, Amanda

From: Bolduc, Amanda
Sent: Friday, November 12, 2010 7:59 AM
To: 'eng@npas.com'
Subject: hold up

You are waiting on me. I haven't had a chance to look at the new software yet. That is what I'll be doing today.
Thanks
A

Bolduc, Amanda

From: John Fusco [jd@npas.com]
Sent: Thursday, November 11, 2010 12:51 PM
To: Lee Lisa (DCJS); Frank Sgarlata (DCJS); Harnois, Steven; Bleskacek Jim; Michael Tate [DPS]; Perry Curtis; Karin (DPS); nita.bolz@alaska.gov; Mark Peevy; Brett Baker; John Christy; Prokopanko Randy; Rich Bosman; Robin.Reichert@wsp.wa.gov
Cc: Radomski Dave; Fusco Dan; Glen Campbell
Subject: Return shipping

We have decided that rather than issue carrier pick up orders for returns (warranty item etc.) coming back to us, that we are simply going to make our FEDEX ground account number available to customers so that you can ship more easily. Please continue to get an RMA number prior to shipping - or at least before it gets back here - so we know what to do with something when it gets here. If need be, we can issue an RMA when it shows up here but we will need complete instructions. Since most of you have access to shipping departments, we feel this will be more convenient. We can also continue to issue pick up orders in the event you do not have access to FEDEX.

Also, since we are coming to the Holiday season you might wish to send me Christmas baked goods and having our Fedex number will certainly make that task more convenient. Moron and Opie were also asking if they might expect cat treats this year.

The FEDEX shipping number is 147650094.

John Fusco (jd@npas.com)
National Patent Analytical Systems, Inc.
Box 1435 Mansfield Ohio 44901
Phone 419+526-6727 Fax 419+526-9446

Bolduc, Amanda

From: Harnois, Steven
Sent: Wednesday, October 20, 2010 11:50 AM
To: 'dmr@npas.com'
Subject: Phone Call

Hay I did not even get a moment to talk to you for my actual reason that I called, can you call this PM I would just like to get my head completely wrapped around the Cal factor thing.

Thanks, Steve

Steven Harnois
State of Vermont
Agency Of Human Services
Department of Health
Public Health Electronics Technician
195 Colchester Avenue
Burlington, Vermont 05401
Phone (802) 863 7641
Fax (802) 863 7632
E Mail: NOTE NEW EMAIL Steven.Harnois@ahs.state.vt.us

Bolduc, Amanda

From: Bolduc, Amanda
Sent: Wednesday, October 20, 2010 9:04 AM
To: 'skoegler@npas.com'; 'Scott Marhefka'
Cc: Bolduc, Amanda
Subject: Today's notes

Here are my notes from the testing I did yesterday. I didn't do a lot of testing and I intend to do more this afternoon, but here's what I got so far.

- Can we make 1 information bar across the bottom instead of two? The new bar displays when a password is entered, but I think it looks messy to have two bars as opposed to one. I know it's cosmetic, but I wanted to ask.
- When I tried to run a test, the sim temp was at 33.7 and it wouldn't accept a test. Our simulator temperature acceptance is **33.5 - 34.5** inclusive.
- Can we report simulator temperatures and breath volumes to 1 decimal place not two?
- My installation failed because the simulator temperature was 33.7 which per the current software is too low, but the installation report only says failed, it doesn't give a reason.
- The require data entry fields for both the Check In test and the DUI test are wrong. The required fields are as follows:
  Subject: First Name, Last Name, Gender, Date of Birth, Guardian (if under 18)
  Incident: Case Number, Operation Time, Town
  Operator: First Name, Last Name, Agency, VTC #
- The only fields that are NOT required are license and stop location and middle initial
- Please make the titles of the required fields **bold**
- On the DOB field, the screen displays MM/dd/yyyy, can you make that either all caps or all lower case. (I know, another cosmetic issue but it just looks cleaner)
- Can you make the DOB field so it does not allow future dates?
- When you run a Check in, it's prompting for a second breath. The check is a quick and dirty, one-and-done test. Please change that to be a one test only sequence with no option for a second test and no option for refusal.
- When the tickets print, the Vermont Seal is not on the top
- Scott, remember that problem we had WAY back where if you press RUN a second time after you've entered the data and it goes back to the data entry screen, then you press cancel, it will erase all the data you've entered? It's doing that again. Please fix this
- The legend at the bottom of the ticket that says what the sim concentration, range and temp is, can we also add Lot # to that?
- The Agency list is a mess. Please list it entirely alphabetically, not by agency type (SO, VSP etc.) Also there are a few more agencies that should be in there: HQ VSP; Capitol PD, VDHL, and also allow typing for those who are not part of one of the pre-programmed agencies.
- When going through the alphabetical lists (Town, agency) you used to be able to type a few letters to get nearer to the selection you're interested in, but now it only allows one letter, can we go back to the other way?
- When you get to the end of 2 minutes and the sample is incomplete, can you prompt the "Take test yes/no" question sooner/quicker?
- And lastly...the weird picture of the pretty, pretty purple tickets...Don't know what happened there..

A Bolduc

Amanda Bolduc, MFS
PH Chemist II
Vermont Department of Health Laboratory
Alcohol and Toxicology Program
195 Colchester Ave
Burlington, VT 05402
(802) 585-6707 (mobile)
(802) 863-7412 (ph)
(802) 863-7632 (fax)
amanda.bolduc@ahs.state.vt.us
PLEASE NOTE new phone and email as of 10/13/10

Bolduc, Amanda

From: Dave Radomski [dmr@npas.com]
Sent: Tuesday, October 19, 2010 2:05 PM
To: Bolduc, Amanda
Subject: Re: SPAM-LOW:

Some of the IC's may be useful to someone.

If nothing else, we can get them out of your hair and dispose of properly.

How many?

Dave

On Oct 19, 2010, at 1:50 PM, Bolduc, Amanda wrote:

> Do you want these?
> Amanda
>
> Sent from my Windows® phone.<P0001_101910.jpg>

Bolduc, Amanda

From: Bryce-Parrott, Cara
Sent: Monday, October 18, 2010 10:55 AM
To: Bolduc, Amanda
Subject: FW: Central File

Attachments: Files added to the Alcohol Central File April 09.doc

Files added to the Alcohol Cen...

Here is the other listing that Darcy did that was added to Central File.

-----Original Message-----
From: Richardson, Darcy
Sent: Friday, April 17, 2009 11:11 AM
To: Bryce-Parrott, Cara
Cc: Bolduc, Amanda; Drawbaugh, Bob
Subject: Central File

Cara,

Attached is a word document listing all of the documents I added to the central file with cabinet and folder information. Let me know if you have any questions.

Thanks,

Darcy

Bolduc, Amanda

From: Bryce-Parrott, Cara
Sent: Monday, October 18, 2010 10:54 AM
To: Bolduc, Amanda
Subject: FW: Central File

Attachments: Table of ContentsJune2006.doc; Files added to the Alcohol Central File July 10.doc

Amanda,

I think the last update that was done dates back to June 2006. File attached. I also have this small memo that Darcy added to the file along with another listing that I will send to you.

Table of ntentsJune2006.doc

-----Original Message-----
From: Richardson, Darcy
Sent: Thursday, July 29, 2010 2:11 PM
To: Bryce-Parrott, Cara; Bolduc, Amanda
Subject: Central File

Hey Cara,

Attached is a small memo about documents we added to the central file today.

Files added to the Alcohol Cen...

~Darcy

Darcy Richardson
Vermont Department of Health Laboratory
Toxicology Program
195 Colchester Ave.
Burlington, VT. 05402-1125
802-863-7412
fax: 802-863-7632

Bolduc, Amanda

From: Bolduc, Amanda
Sent: Thursday, October 14, 2010 9:35 AM
To: 'Scott Marhefka'
Cc: Bolduc, Amanda
Subject: I'm stuck

Call me when you get this. Here is where I'm at with checking out the last update I received 10/1/10

Calibration Protocol:

1. The concentration field should be limited to 0.090 - 0.110

Certification Protocol:

1. Every step of the diagnostic test now says "passed". This in not necessary
2. Change the terms **"internal standard"** to **"calibration check"; "external standard"** to **"simulator vapor"; "verified"** to **"passed"**
3. Why is there a blank test between each rep on an Accuracy and Precision test? The old software didn't do this, do we want this?
4. There is a scroll bar in the information window during a sample acceptance test (where is flashes please blow)

Installation

1. Allow typing in Location Field
2. Add VPA to locations list
3. Lot number field not big enough to accommodate our lot numbers.
4. Step #1 of the installation is to reset the options, it should say that it did that on the screen and print the options on the report
5. The options currently reset to a Guth digital simulator. We use a Guth 34CNP. I can't get beyond this step because of the incorrect default.
6. The failure on the Installation was due to a lack of simulator temperature, but the report only says Failure. It doesn't give a reason as it should.

General

1. When there is not a simulator temperature it reports ?.??C. I liked it better when it said 0.00C
2. Printing Error Details box is WAY confusing and still says "Successrully"
3. Password entered notification
4. Without Cal/Cert/Install done, the screen is still flashing "Change Solution" not Cal/Cert/Install. Also, when you try to press run the instrument beeps, but it doesn't say on the screen what the problem is (i.e.. "Calibration Required")
5. What are the purge/blank levels?
6. Did the plateau levels change? This seems to be taking MUCH longer to analyze the simulator vapor. I even got a few simulator time out errors.

ABolduc

Amanda Bolduc, MFS
PH Chemist II
Vermont Department of Health Lab
Alcohol and Toxicology Program
195 Colchester Ave.
Burlington, VT 05402
(802) 863-7412
(802) 863-7632 (fax)
amanda.bolduc@ahs.state.vt.us
please take note of new phone number and email address 9/13/10

Bolduc, Amanda

From: John Fusco [jd@npas.com]
Sent: Monday, October 11, 2010 8:42 AM
To: Customers
Subject: 45120 CPU

Attachments: Opie&Moron-9-10.pdf; ATT166718.htm

Opie&Moron-9-10.pdf (41 KB)

ATT166718.htm (3 KB)

I am planning one more build of the 45120 universal CPU for the DataMaster and CDM. I have come up with enough parts for at least a build of 25 but may be able to go as high as 70 if it is required. Because some of the ICs are no longer available, these need to come through surplus houses, so this may be the last time they are available. While this board has never been a high volume replacement assembly, before I settle on a number, if any of you have any special requirements, now's the time to let me know. Otherwise, this may well be the last time we can make this board.

If you want to put any into your own stock, or have any other reason for wanting additional of these, let me know.

Bolduc, Amanda

From: John Fusco [jd@npas.com]
Sent: Monday, September 27, 2010 11:44 AM
To: Harnois, Steven
Subject: ESEEK

Steve

I checked with Scott and they are starting the software work with the items that Amanda sent last week. None of it had been done to get it into your software. Depending on how that goes, I might be able to adjust the pricing when it comes time for the order to be placed. He still thinks it will take at least 1 week for 2 engineers and possibly as much as 2 weeks.

The ESEEK does all three: 2D bar code, 3D bar code and Magnetic swipe. That's part of the reason why it is expensive.

John Fusco (jd@npas.com)
National Patent Analytical Systems, Inc.
Box 1435 Mansfield Ohio 44901
Phone 419+526-6727 Fax 419+526-9446

Bolduc, Amanda

From: Harnois, Steven
Sent: Wednesday, September 22, 2010 9:57 AM
To: 'rmartin@npas.com'
Subject: RE: questions about recent RMA repair order

No already done, but thanks for asking.

Steven Harnois
State of Vermont
Agency Of Human Services
Department of Health
Public Health Electronics Technician
195 Colchester Avenue
Burlington, Vermont 05401
Phone (802) 863 7641
Fax (802) 863 7632
E Mail: NOTE NEW EMAIL Steven.Harnois@ahs.state.vt.us

-----Original Message-----
From: Randy Martin [mailto:rmartin@npas.com]
Sent: Wednesday, September 22, 2010 8:58 AM
To: Harnois, Steven
Subject: Re: questions about recent RMA repair order

Steve,

No problem.
most stuff I already know whats wrong, but the inventory sheet and any data you send helps a lot. I repair/replace and send back everything sent to me and I might send parts back you dont need or already ordered.

So...do you need those filter wheels replaced?

Randy

On 9/22/2010 6:17 AM, Harnois, Steven wrote:
> Randy,
>
> I hang a tag on everything that I send to NPAS in one way or another,
> Dave wanted the filer wheels in that last shipment to check why I was
> getting the problems with them, the SI PCB did not boot up, and the
> detectors for what ever reason drifted. Please reference the tag on
> them and if need be the serial number and I can give you a more
> complete description of the problem. At the end of the day, the parts
> did not work.
>
> Thanks, Steve
>
> P.S. the parts have been replaced already.
>

> Steven Harnois
> State of Vermont
> Agency Of Human Services
> Department of Health
> Public Health Electronics Technician
> 195 Colchester Avenue
> Burlington, Vermont 05401
> Phone (802) 863 7641
> Fax (802) 863 7632
> E Mail: NOTE NEW EMAIL Steven.Harnois@ahs.state.vt.us
>
>
>
>
>
> -----Original Message-----
> From: Randy Martin [mailto:rmartin@npas.com]
> Sent: Friday, September 17, 2010 3:37 PM
> To: Harnois, Steven
> Subject: questions about recent RMA repair order
>
>
> Hi Steve,
>
> I received your parts repair order. I should have it finished before
> the end of next week. But, I've a few things to note.
>
> 1. The Si pcb returned: What was wrong with it?
>
> 2. I have attached an Inventory sheet for your future repair requests.
> Take note of the Disposition column. This tells me what you want done
> with the returned parts. (i.e repaired, replaced, scrapped, already
> replaced, etc...)
>
> 3. Lastly, Some of the parts you returned just stated "defective" or
> had
>
> no information. Just a short note, (unstable, drifts, wont boot, cold,
> etc..) helps a lot.
>
> Thanks,
> Randy
> p.s. this is my new email address. So if you have issues, concerns, or
> questions related to your repair orders, quality issues, etc.. feel
> free to drop me an email. I will respond asap.
>
>

Bolduc, Amanda

From: Randy Martin [rmartin@npas.com]
Sent: Wednesday, September 22, 2010 8:58 AM
To: Harnois, Steven
Subject: Re: questions about recent RMA repair order

Steve,

No problem.
most stuff I already know whats wrong, but the inventory sheet and any data you send helps a lot. I repair/replace and send back everything sent to me and I might send parts back you dont need or already ordered.

So...do you need those filter wheels replaced?

Randy

On 9/22/2010 6:17 AM, Harnois, Steven wrote:
> Randy,
>
> I hang a tag on everything that I send to NPAS in one way or another, Dave wanted the filer wheels in that last shipment to check why I was getting the problems with them, the SI PCB did not boot up, and the detectors for what ever reason drifted. Please reference the tag on them and if need be the serial number and I can give you a more complete description of the problem. At the end of the day, the parts did not work.
>
> Thanks, Steve
>
> P.S. the parts have been replaced already.
>
> Steven Harnois
> State of Vermont
> Agency Of Human Services
> Department of Health
> Public Health Electronics Technician
> 195 Colchester Avenue
> Burlington, Vermont 05401
> Phone (802) 863 7641
> Fax (802) 863 7632
> E Mail: NOTE NEW EMAIL Steven.Harnois@ahs.state.vt.us
>
>
>
>
>
> -----Original Message-----
> From: Randy Martin [mailto:rmartin@npas.com]
> Sent: Friday, September 17, 2010 3:37 PM
> To: Harnois, Steven
> Subject: questions about recent RMA repair order
>
>
> Hi Steve,
>

> I received your parts repair order. I should have it finished before
> the end of next week. But, I've a few things to note.
>
> 1. The Si pcb returned: What was wrong with it?
>
> 2. I have attached an Inventory sheet for your future repair requests.
> Take note of the Disposition column. This tells me what you want done
> with the returned parts. (i.e repaired, replaced, scrapped, already
> replaced, etc...)
>
> 3. Lastly, Some of the parts you returned just stated "defective" or
> had
>
> no information. Just a short note, (unstable, drifts, wont boot, cold,
> etc..) helps a lot.
>
> Thanks,
> Randy
> p.s. this is my new email address. So if you have issues, concerns, or
> questions related to your repair orders, quality issues, etc.. feel
> free to drop me an email. I will respond asap.
>
>

Bolduc, Amanda

From: Harnois, Steven
Sent: Wednesday, September 22, 2010 6:18 AM
To: 'rmartin@npas.com'
Subject: RE: questions about recent RMA repair order

Randy,

I hang a tag on everything that I send to NPAS in one way or another, Dave wanted the filer wheels in that last shipment to check why I was getting the problems with them, the SI PCB did not boot up, and the detectors for what ever reason drifted. Please reference the tag on them and if need be the serial number and I can give you a more complete description of the problem. At the end of the day, the parts did not work.

Thanks, Steve

P.S. the parts have been replaced already.

Steven Harnois
State of Vermont
Agency Of Human Services
Department of Health
Public Health Electronics Technician
195 Colchester Avenue
Burlington, Vermont 05401
Phone (802) 863 7641
Fax (802) 863 7632
E Mail: NOTE NEW EMAIL Steven.Harnois@ahs.state.vt.us

-----Original Message-----
From: Randy Martin [mailto:rmartin@npas.com]
Sent: Friday, September 17, 2010 3:37 PM
To: Harnois, Steven
Subject: questions about recent RMA repair order

Hi Steve,

I received your parts repair order. I should have it finished before the end of next week. But, I've a few things to note.

1. The Si pcb returned: What was wrong with it?

2. I have attached an Inventory sheet for your future repair requests. Take note of the Disposition column. This tells me what you want done with the returned parts. (i.e repaired, replaced, scrapped, already replaced, etc...)

3. Lastly, Some of the parts you returned just stated "defective" or had no information. Just a short note, (unstable, drifts, wont boot, cold, etc..) helps a lot.

Thanks,
Randy
p.s. this is my new email address. So if you have issues, concerns, or questions related to your repair orders, quality issues, etc.. feel free to drop me an email. I will respond asap.

Bolduc, Amanda

From: Randy Martin [rmartin@npas.com]
Sent: Friday, September 17, 2010 3:37 PM
To: Harnois, Steven
Subject: questions about recent RMA repair order

Attachments: Repair Parts Inventory.doc

Repair Parts Inventory.doc (12...

Hi Steve,

I received your parts repair order. I should have it finished before the end of next week. But, I've a few things to note.

1. The Si pcb returned: What was wrong with it?

2. I have attached an Inventory sheet for your future repair requests.
Take note of the Disposition column. This tells me what you want done with the returned parts. (i.e repaired, replaced, scrapped, already replaced, etc...)

3. Lastly, Some of the parts you returned just stated "defective" or had no information. Just a short note, (unstable, drifts, wont boot, cold, etc..) helps a lot.

Thanks,
Randy
p.s. this is my new email address. So if you have issues, concerns, or questions related to your repair orders, quality issues, etc.. feel free to drop me an email. I will respond asap.

Bolduc, Amanda

From: John Fusco [jd@npas.com]
Sent: Wednesday, September 15, 2010 9:25 AM
To: Harnois, Steven; Bleskacek Jim; Karin (DPS); John Christy; Lee Lisa (DCJS)
Subject: Service Center Alignment Fixture

Hi

We are sending you a fixture (NPAS Part no 41421) to assist your service people in aligning the chopper wheel and the chopper wheel collar. The fixture will self align the chopper wheel to the collar. This is a free item and is going out to all DMT service centers. Our recent engineering evaluations indicated that the centering of the collar to the wheel is important to the longevity of the chopper motor wear. This has been visually aligned in the past and this procedure was not always adequate resulting in an imbalance of the wheel on the motor and leading to premature wear of the motor along with possible eventual failure. While this is not something that will affect the results of any test, it can mean replacement of the motor.

IF you have instruments currently in service, we are suggesting that this alignment be checked with the fixture at the next certification or service of the instrument. It only need be checked one time as the alignment will stay correct as long as the wheel and the collar are not disassembled. Changing the motor will not affect the alignment and a good alignment should greatly reduce the probability of a chopper motor change.

The use of the fixture should be obvious to the techs. They need to remove the motor from the block, along with the chopper wheel assembly. Loosen the nut that retains the chopper to the collar and place the chopper wheel and collar into the fixture. Align the collar to the chopper wheel by seating both into the fixture and retighten the nut. Reinstall the motor and Chopper wheel into the block.

If they have any questions have the call Chris.

John Fusco
National Patent Analytical Systems, Inc.
jd@npas.com
Phone 419+526-6727 Fax 419+526-9446

Bolduc, Amanda

From: John Fusco [jd@npas.com]
Sent: Tuesday, September 14, 2010 2:00 PM
To: Bolduc, Amanda
Subject: Quote

Attachments: Vt ESEEK quote 9-10.pdf; ATT3276631.htm

Vt ESEEK quote 9-10.pdf (44 KB...

ATT3276631.htm (2 KB)

Amanda

Bolduc, Amanda

From: Service [service@npas.com]
Sent: Tuesday, September 14, 2010 9:35 AM
To: Dave Radomski
Cc: Harnois, Steven
Subject: Re: Warrantee return parts

Entered.
997005400139234 is tracking.

On 9/14/2010 9:13 AM, Dave Radomski wrote:

> Chris,
>
> Will you handle this please?
>
> Dave
>
> On Sep 14, 2010, at 6:29 AM, Harnois, Steven wrote:
>
> > Dave,
> >
> > I have a box of warrantee parts that are defective that includes 5 filters, 4 detectors, 3 breath tubes and 1 microprocessor all for the DMT, would you like to send a call tag?
> >
> > Thanks, Steve

Steven Harnois
State of Vermont
Agency Of Human Services
Department of Health
Public Health Electronics Technician
195 Colchester Avenue
Burlington, Vermont 05401
Phone (802) 863 7641
Fax (802) 863 7632
E Mail: NOTE NEW EMAIL Steven.Harnois@ahs.state.vt.us

Bolduc, Amanda

From: Dave Radomski [dmr@npas.com]
Sent: Tuesday, September 14, 2010 9:13 AM
To: Harnois, Steven
Cc: service@npas.com
Subject: Re: Warrantee return parts

Chris,

Will you handle this please?

Dave

On Sep 14, 2010, at 6:29 AM, Harnois, Steven wrote:

> Dave,
>
> I have a box of warrantee parts that are defective that includes 5 filters, 4 detectors, 3 breath tubes and 1 microprocessor all for the DMT, would you like to send a call tag?
>
> Thanks, Steve

Steven Harnois
State of Vermont
Agency Of Human Services
Department of Health
Public Health Electronics Technician
195 Colchester Avenue
Burlington, Vermont 05401
Phone (802) 863 7641
Fax (802) 863 7632
E Mail: NOTE NEW EMAIL Steven.Harnois@ahs.state.vt.us

Bolduc, Amanda

From: Harnois, Steven
Sent: Tuesday, September 14, 2010 6:29 AM
To: 'Dave Radomski (E-mail) (dmr@npas.com)'
Subject: Warrantee return parts

Dave,

I have a box of warrantee parts that are defective that includes 5 filters, 4 detectors, 3 breath tubes and 1 microprocessor all for the DMT, would you like to send a call tag?

Thanks, Steve

Steven Harnois
State of Vermont
Agency Of Human Services
Department of Health
Public Health Electronics Technician
195 Colchester Avenue
Burlington, Vermont 05401
Phone (802) 863 7641
Fax (802) 863 7632
E Mail: NOTE NEW EMAIL Steven.Harnois@ahs.state.vt.us

Bolduc, Amanda

From: Chris Spayde [cspayde@npas.com]
Sent: Wednesday, August 11, 2010 9:48 AM
To: Harnois, Steven
Subject: Calibration limits update

Steve,
Spoke with Scott about the document concerning the calibration limits and questions coming about related to those. He has actually been in the process of updating that document to include the DMT as well as clarify the jargon that it originally contained so it is a little easier on the eyes to read. Your request for this has not been ignored, just wanted to get you the most current version since one actually is in the works. As soon as it is released I will make sure you have it, sir.
Chris

Bolduc, Amanda

From: John Fusco [jd@npas.com]
Sent: Tuesday, August 10, 2010 9:30 AM
To: Gil Sapir
Subject: Re: smokeless cigarettes

Gil

I tested the electronic cigarette and came up with the following totally scientific results befitting of W. A. Jones, himself.

1. I put the cigarette in a charger overnight since I hadn't used it in a while. I puffed profusely on the cigarette on the way to work (1 hour drive) arriving just as the jitters from a nicotine overdose was setting in.

2. DataMaster cdm serial no. 130489 (Nebraska) was available and calibrated in the service area.

3. During the purge prior to the test, I puffed and blew the raw vapor into the cdm. The reading immediately went up to somewhere around a .200 and then while I was continuing to blow it declined to about .01. While the instrument was still purging, I stopped blowing and the reading went down to .004 at which time the purge stopped. I pressed the "abort" button and proceeded to the next step.

4. I then conducted a normal breath test by pressing the "Run" button and the instrument went through a normal cycle, including all purges and zeros. While it did this routine, I continued to puff. When the instrument indicated "please blow" I introduced a normal breath sample (not raw vapor as during the purge) and the results were .000. The test was completed and the print indicated .000.

5. I then conducted another normal breath test by pressing the "Run" button and the instrument went through a normal cycle. While it did this routine, I continued to puff. When the instrument indicated "please blow" I blew the raw vapor as during the purge (3 above) and the results were "invalid sample". The print indicated "invalid sample".

Swearing profusely to the truth of this statement, I remain

Sincerely

John Fusco

PS: Can I count this as a publication?

On Aug 9, 2010, at 8:21 AM, Gil Sapir wrote:

> okay.
>
> On Mon, Aug 9, 2010 at 6:48 AM, John Fusco <jd@npas.com> wrote:

I've got one of the electronic cigarettes. I'll bring it in and test it.

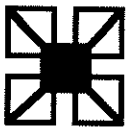
JF

On Aug 6, 2010, at 4:40 PM, Gil Sapir wrote:

> what is the affect, if any, of smoke less electronic cigarettes on breath alcohol testing equipment, especially the compound propylene-glycol. the issue is beginning to surface in breath alcohol testing with active use the artificial cigarette.
>
> active ingredients in most electric cigarette vapor are nicotine, water and propylene-glycol.

John Fusco
National Patent Analytical Systems, Inc.
jd@npas.com
Phone 419+526-6727 Fax 419+526-9446

John Fusco
National Patent Analytical Systems, Inc.
jd@npas.com
Phone 419+526-6727 Fax 419+526-9446



National Patent
Analytical Systems, Inc.

Ms. Amanda Bolduc
Vermont Dept of Health
Box 70
Burlington, Vt. 05402-0700

September 14, 2010

Via Fax to: 802-863-7632

Dear Ms. Bolduc:

Regarding your request for pricing to add the 3D bar code capability to the DMT instruments in service in Vermont I can offer you the following:

E Seek model M250 Bar Code Reader with RJ45 Port and Cable,
Including NPAS Software development $825.00 Each

Thanks for your consideration and if I can be of further help, please let me know.

Sincerely,

John Fusco,
President

2090 Harrington Memorial Road, Mansfield, Ohio 44901 Ph 419-526-6727 Fax 419-526-9446
jd@NPAS.com

National Patent
Analytical Systems, Inc.
2090 Harrington Memorial Road Bldg. 590
Ph: 1-800-800-8143 Fax: 1-419-526-9446

RETURN PARTS INVENTORY REPORT

WORK ORDER #	CUSTOMER	DATE SENT	DATE RCV'D

STREET						SHIPPING DAMAGE?
CITY		STATE		ZIP		
CONTACT		PHONE				

PART NUMBER	QTY	PART DESCRIPTION	WARRANTY (YES / NO)	DISPOSITION (REPAIR/REPLACE/UPGRADE)

NOTES:

SENDERS SIGNATURE:	RECEIVED BY:

Vermont Department of Health Laboratory Division
195 Colchester Avenue, P.O. Box 1125
Burlington, Vermont 05402-1125
(802)863-7335 or (800)660-9997

ALCOHOL PROGRAM DOCUMENTATION

Table of Contents

Section 1 - Statutory and Regulatory References

a.	Title 23 V.S.A. Subchapter 13.	1.a:1-1.a:17
b.	Breath and Blood Alcohol Analysis effective 2/15/92.	1.b:1-1.b:7
c.	Amendment to Breath and Blood Alcohol Analysis effective 4/18/90.	1.c:1-1.c:16
d.	Emergency Rule Filing.	1.d:1-1.d:2
e.	Breath and Blood Alcohol Analysis effective 10/18/88	1.e:1-1.e:11
f.	Breath and Blood Alcohol Analysis effective 9/29/75.	1.f:1-1.f:3
g.	Vol. 58 No. 54, March 20, 1991 - Highway Safety Programs; Amendment of Conforming Products List of Calibrating Units for Breath Alcohol Testers	1.g:1-1.g:3
h.	Vol. 49 No. 242, December 14, 1984 - Highway Safety Programs; Model Specifications for Evidential Breath Testing Devices; Publication of a Conforming Products List.	1.h:1-1.h:18
i.	Vol. 60 No. 51, March 16, 1995 - Highway Safety Programs; Model Specifications for Devices to Measure Breath Alcohol	1.i:1-1.i:3
j.	Legislative Committee on Administrative Rules, January 28, 1992	1.j:1-1.j:8
k.	Letter from Arthur Flores to Cliff Broder dated July 1, 1988. .	1.k:1
l.	Vol. 58 No. 179, September 17, 1993 - Highway Safety Programs; Model Specifications for Devices to Measure Breath Alcohol . . .	1.l:1-1.l:6
m.	Vol. 59 No. 147, August 2, 1994 - Highway Safety Programs; Model Specifications for Screening Devices to Measure Alcohol in Bodily Fluids	1.m:1-1.m:9
n.	Vol. 60 No. 157, August 15, 1995 - Highway Safety Programs; Conforming Products List of Screening Devices to Measure Alcohol in Bodily Fluids	1.n:1-1.n:3
o.	Vol. 61 No. 20, January 30, 1996 - Highway Safety Programs; Model Specifications for Devices to Measure Breath Alcohol	1.o:1-1.o:4
p.	State of Vermont, Department of Health, Approval of Instrumentation and Procedures, effective August 10, 1997	1.p:1
q.	Breath and Blood Alcohol Analysis Rule (97-P36)	1.q:1-1.q:24
r.	Vol. 62 No. 156, August 13, 1997 - Highway Safety Programs; Model Specifications for Calibrating Units for Breath Alcohol Testers; Conforming Products List of Calibrating Units	1.r:1-1.r:10
s.	Amendment of Conforming Products List for Instruments that Confrom to the Model Specifications for Evidential Breath Testing Devices, February 27, 1998, Vol 63, Number 39.	1.s:1—1.s.5
t.	Vol. 64 No. 107, June 4, 1999 – Highway Safety Programs; Model Specifications for Devices to Measure Breath Alcohol.	1.t:-1.t:4

Section 2 - Instrument Approval

a.	Approval of Instrumentation and Procedures - 2/15/92	2.a:1
b.	Statement Concerning Approval of Preliminary Screening Devices - 7/1/91	2.b:1
c.	Approval of Instrumentation and Procedures – 4/20/04	2.c:1
d.	Approval of Instrumentation and Procedures – 2/7/06	2.d:1

Section 3 - Vermont Department of Health Laboratory Infrared Instrument Evaluation

a.	Letter from Cathy Kloter to Joe Ceresa, dated December 13, 1988.	3.a:1-3.a:3
b.	Memo from John Houston to Joe Ceresa, dated November 10, 1988.	3.b:1
c.	Vermont Department of Health Laboratory Evaluation of Infrared Breath Testing Instrumentation (January 1989).	3.c:1-3.c:8
d.	Memorandum from R.J. Drawbaugh to Dr. Roberta Coffin, dated October 19, 1988	3.d:1-3.d:3
e.	Memorandum from R.J. Drawbaugh to Joe Ceresa, dated October 19, 1988	3.e:1
f.	Memorandum from R.J. Drawbaugh to Dr. Wilcke, dated November 14, 1988	3.f:1
g.	Memorandum from Joseph P. Ceresa to R.J. Drawbaugh, dated December 15, 1988	3.g:1
h.	Eastern Electronics letter dated January 2, 1990	3.h:1

Section 4 - Instrument Purchase

a.	Memo from Ted Manazir to K. Kelley, R. Drawbaugh, J. Ceresa, dated October 19, 1987.	4.a:1
b.	Letter from Terrence P. Dunn (NPAS) to Ms. Richardson, dated June 14, 1988.	4.b:1-4.b:8
c.	Letter from Jerry Miller (CMI) to Division of Purchasing, dated June 14, 1988.	4.c:1-4.c:14
d.	Bid Specifications for Instrumentation - 6/13/88	4.d:1-4.d:4
e.	Letter from Burton W. Wilcke to Terrence P. Dunn, dated May 22, 1989	4.e:1-4.e:2
f.	Letter to Howard Sarris from A. James Walton, dated May 23, 1989	4.f:1-4.f:3
g.	Letter to Burton W. Wilcke from David Radomski, dated May 30, 1989	4.g:1-4.g:2
h.	Letter to Dr. Wilcke from David Radomski, dated June 6, 1989	4.h:1
i.	Letter to Dr. Wilcke from Terrence P. Dunn, dated June 7, 1989	4.i:1
j.	Letter to Robert Drawbaugh from Deborah LaRose, dated July 12, 1989.	4.j:1-4.j:5
k.	Memorandum to Peter E. Noyes from Burton W. Wilcke, dated August 24, 1989	4.k:1-4.k:10

l.	Memorandum to Peter Noyes from Burton Wilcke, dated August 30, 1989.	4.l:1
m.	Letter to Barbara Mayo from Chris Krahn, dated September 7, 1989.	4.m:1
n.	Letter to Jan Carney from Barbara Mayo, dated October 14, 1989	4.n:1-4.n:2
o.	Letter to Barbara Mayo from Peter Noyes, dated October 18, 1989	4.o:1
p.	Memorandum from Roberta R. Coffin to Jim Walton, dated November 30, 1988	4.p:1
q.	Notice of Change in Contract No. 01, Infrared Breath Analyzers & Supplies, dated April 23, 1990	4.q:1-4.q:6
r.	Memorandum from Burton W. Wilcke, Jr. to Jim Walton, dated August 30, 1990	4.r:1
s.	Memorandum from Thomas A. Powlovich to Peter Noyes, dated September 16, 1991	4.s:1-4.s:2
t.	National Patent Contract, Changes 10 (12/19/96) and 11 (1/15/97)	4.t:1-4.t:5
u.	Agreement of Understanding and Compliance, Undated.	4.u:1-4.u:10
v.	Specifications for Infrared Breath Alcohol Analyzer, Undated . . .	4.v:1-4.v:3
w.	Specifications for Infrared Breath Alcohol Analyzer, dated June 2, 1988	4.w:1-4.w:10
x.	Letter from Clifford Broeder to Robert Drawbaugh, dated July 5, 1988	4.x:1-4.x:2
y.	Letter from R. J. Elrick to James A. Walton, dated September 6, 1989	4.y:1-4.y:2
z.	Letter from Thomas Powlovich to David Radomski, dated January 12, 1990	4.z:1-4.z:3
aa.	Letter from Gary Kessler to John Fusco, dated April 24, 1991 . .	4.aa:1-4.aa:2
bb.	Memorandum from Burton Wilcke to Jeanne Johnson, dated April 20, 1995	4.bb:1-4.bb:5
cc.	Letter from Burton Wilcke to John Fusco, dated August 23, 1995	4.cc:1-4.cc:3
dd.	Notice of Change in Contract, No. 12, Infrared Breath Analyzers Dated September 26, 1997	4.dd:1-4.dd:9

Section 5 - Silica Gel

a.	Analysis of Silica Gel Traps from Breath Alcohol Testers, January 7, 1989	5.a:1-5.a:2
b.	Analysis of Silica Gel Traps dated July 31, 1989 . . .	5.b:1
c.	Memo from Joe Ceresa to Robert J. Drawbaugh, dated November 8, 1989	5.c:1
d.	Silica-Gel, January, 1990	5.d:1
e.	Aquatec, VDH, Scitest data	5.e:1
f.	LAB2 data used	5.f:1
g.	Silica Gel Captured Simulator Solutions, dated January 12, 1990	5.g:9
h.	Human Subject Study Observations	5.h:1
I.	Instruments to Hanover, NH	5.i:1-5.i:2

j.	Silica Gel Capture	5.j:1-5.j:6
k.	Letter from Carl Tremmel to Scott Mitchell, dated May 1, 1990	5.k:1-5.k:4
l.	Evaluation of BAC DataMaster Analyzers Including a Draft Proposal for Testing Human Subjects, revised May 17, 1990	5.l:1-5.1:15
m.	Memo from Jan K. Carney to Jeanne Baker, Chris Leopold, Michael McShane, Jim Walton and Bill Wargo, dated June 18, 1990 with DRAFT Results of Testing Retrofitted BAC DataMaster Analyzers, Revised June 14, 1990	5.m:1-5.m:12
n.	Letter from Douglas W. Hoffman to A. James Walton, dated July 30, 1990	5.n:1-5.n:3
o.	Data obtained for the Comparison of the %[ETOH] Recovered from Silica Capture to that Registered by the IR Data-Master Instrument	5.o:1-5.0:13
p.	IR-Silica Correlation, dated November 16, 1990	5.p:1-5.p:8
q.	Report on the Performance of the BAC DataMaster Analyzers of the State of Vermont Using Human Subjects	5.q:1-5.q:31
r.	Letter from Douglas W. Hoffman to A. James Walton, dated November 28, 1990	5.r:1
s.	Letter from Douglas W. Hoffman to Robert Manley, dated July 5, 1994	5.s:1
t.	Affidavit of Douglas W. Hoffman, dated July 5, 1994 . .	5.t:1
u.	Affidavit of Douglas W. Hoffman, dated July 25, 1994 .	5.u:1
v.	Letter from Douglas W. Hoffman to the Editor, dated October 27, 1994	5.v:1
w.	Memo from Robert Drawbaugh to Joe Stidham, undated	5.w:1
x.	Memo from Burton W. Wilcke to Roberta R. Coffin, dated November 22, 1988	5.x:1-5.x:12
y.	Informed Consent, Testing the Reliability of Infrared for Measuring Ethanol in Expired Breath, dated July 24, 1990	5.y:1-5.y:6
z.	Series of Memos from Burton W. Wilcke to Jan K. Carney, dated April 3, 1990, April 4, 1990, April 11, 1990, April 11, 1990, April 18, 1990	5.z:1-5.z:12
aa.	Introduction	5.aa:1-5.aa:2
bb.	Instrument Features	5.bb:1
cc.	Hoffman Report of BAC DataMaster Performance, Summary of Review Comments	5.cc:1
dd.	Memorandum from Joe Ceresa to R.J. Drawbaugh, dated November 8, 1989	5.dd:1
ee.	Memorandum from Burton W. Wilcke to Infrared Review Committee, dated April 26, 1990	5.ee:1-5.ee:3
ff.	Letter from Tim Aldom to A. James Walton, Jr., dated December 4, 1990	5.ff:1
gg.	Letter from Dave Radomski to Carl Tremmel dated April 15, 1991	5.gg:1-5gg:2
hh.	Letter from Dave Radomski to Carl Tremmel dated September 5, 1991	5.hh:1
ii.	Letter from John Fusco to DataMaster Users dated February, 1992	5.ii:1

jj.	Letter from Cliff Brodeur to Carl Tremmel dated March 27, 1992	5.jj:1
kk.	Memorandum from John Fusco to All Concerned dated May 28, 1992	5.kk:1
ll.	Silica Gel Data dated January 19, 1990	5.ll:1
mm.	Letter from Harold Stowe to Wayne Buck, dated January 27, 1990	5.mm:1-5.mm:2
nn.	Memorandum from R. Drawbaugh to Dr. Wilcke, dated August 7, 1990	5.nn:1-5.nn:2
oo.	Letter from R. Mason McNeer to Harold Stowe, dated September 10, 1991	5.oo:1

Section 6 - Datamaster Operation

a.	Letter from Burton W. Wilcke to Robert L. Sand, dated August 15, 1995	6.a:1-6.a:16
b.	Curgus Report dated March 17, 1995	6.b:1-6.b:47
c.	NPAS Response to the Curgus Report, from John Fusco, dated February 21, 1995	6.c:1-6.c:9
d.	FAX from NPAS, dated March 22, 1995	6.d:1-6.d:4
e.	Letter from Brian McMillin to Robert Drawbaugh, dated February 22, 1995	6.e:1-6.e:2
f.	An Explanation of Components and Operations; BAC DataMaster Infrared Breath Testing Instrument, dated January 19, 1995	6.f:1-6.f:7
g.	Preliminary Results of Analysis of Washington State Police Breath Test Analysis Software dated September 26, 1994	6.g:1-6-g:17
h.	Memorandum from John Fusco to All Interested Customers dated September 24, 1995	6.h:1
i.	Courts' Findings of Fact, Conclusions of Law and Opinion, Aukeen Division, King County District Court, Washington State, dated September 25, 1995	6.i:1-6.i:16
j.	Letter from Burton W. Wilcke to Robert L. Sand, dated October 16, 1995.	6.j:1
k.	Memorandum from Robert Drawbaugh to Burton Wilcke, dated July 27, 1995	6.k:1
l.	Letter from Burton W. Wilcke to John Fusco, dated January 9, 1996	6.l:1-6.l:3
m.	Letter from Brian D. McMillan to Burton W. Wilcke, dated January 15, 1996	6.m:1
n.	Memorandum from Burton W. Wilcke to Robert Sand, dated June 15, 1995	6.n:1-6.n:2
o.	Ethyl alcohol anhydrous (Defendant's C)	6.o:1
p.	Memorandum from Robert L. Sand to Peggy Langlais, dated April 8, 1996 (attachments DataMaster error messages) .	6.p:1-6.p:13
q.	Affidavit re: DataMaster, dated March 22, 1996	6.q:1
r.	Memorandum from R.J. Drawbaugh to Burton Wilcke, Jr., dated July 27, 1995	6.r:1
s.	Letter from Carl Tremmel to John Fusco dated May 25, 1993	6.s.1

t.	Letter from Brian McMillin to Burton Wilcke dated October 18, 1996	6.t:1
u.	Memorandum from Carl Tremmel to All Regional Supervisors of DataMaster Instruments, dated May 20, 1994	6.u:1
v.	Memorandum from Carl Tremmel to All Regional Supervisors of DataMaster Instruments, dated May 10, 1994	6.v:1-6.v:2
w.	Letter from Carl Tremmel to David Radomski, dated August 12, 1991	6.w:1-6.w:2
x.	Letter from Carl Tremmel to David Radomski, dated August 29, 1991	6.x:1-6.x:4
y.	Memorandum from R. J. Drawbaugh to John Fusco dated February 14, 1995	6.y:1-6.y:2
z.	Letter from Burton Wilcke to John Fusco, dated February 7, 1996	6.z:1-6.z:14
aa.	Fax from Dave Radomski to Carl Tremmel, dated February 12, 1996	6.aa:1-6.aa:2
bb.	Vermont Breath Test Record, Error Record, Supervisor Test Record, undated	6.bb:1-6.bb:3
cc.	BAC DataMaster Error Directory, Undated	6.cc:1-6.cc:2
dd.	Operator's Manual, Undated, Unauthored	6.dd:1-6.dd:7
ee.	DM Host, National Patent Analytical Systems, Inc..	6.ee:1-6.ee:18
ff.	The BAC DataMaster	6.ff:1-6.ff:23
gg.	Model 34C Simulator Owner's Manual, Guth Laboratories, Inc.	6.gg:1-6.gg:10
hh.	BAC DataMaster Basic Operator Guide, National Patent Analytical Systems, Inc., 1994	6.hh:1-6.hh:8
ii	Affidavit of Burton W. Wilcke, Jr., November 13, 1997.	6.ii:1-6.ii:2
jj	Affidavit of William C. Bress, November 24, 1997	6.jj:1-6.jj:2
kk.	BAC DataMaster Basic Operator Guide, National Patent Analytical Systems, Inc., 1997	6.kk:1-6.kk:8
ll.	BAC DataMaster 2 Year Warranty	6.ll:1
mm.	National Patent Analytical Systems, Inc., Certificate Of Calibration	6.mm:1
nn.	National Patent Analytical Systems, Inc. (NPAS), Certificate of Authority Service Center, 9/15/04 includes NPAS cover letter And guidelines	6.nn:1-6.nn:3
00.	NPAS – The "Invalid Sample" message & the BAC DataMaster Infrared Breath Alcohol Measuring Instrument dated May 2, 2005	6.oo:1 – 6.oo:3

Section 7 - DataMaster References

a.	NPAS DataMaster Service Guide	7.a:1-7.a:63
b.	NPAS Technical Bulletins	7.b:1-7-b:21
Note:	Final Quality Control Reference Manual for Use with BAC DataMaster, dated February 7, 1992 - **Proprietary - NPAS must be contacted for release**	
c.	DataMaster Voltage Adjustments	7.c:1-7.c:5
d.	DataMaster promotional information	7.d:a-7.d:16
e.	List of DataMasters users dated August 1995	7.e:1-7.e:2

f.	Vermont DataMaster Voltage Checks (Post Upgrade) dated July 25, 1996	7.f:1
g.	Midwest Instruments Newsletter, January 1991	7.g:1-7.g:2
h.	DataMaster, Infrared Alcohol Breath Test Instrument by National Patent Analytical Systems	7.h:1-7-h:12
i.	The BAC DataMaster	7.i:1-7.i:6
j.	Fax from Brian McMillin to Bob Drawbaugh Re: States Using DataMaster and Number of Tests, dated October 29, 1997	7.j:1-7.j:3
k.	Fax from Dave Radomski to Jamie Meredith Re: a21, dated December 31, 1997	7.k:1
l.	NPAS A Policy Change Concerning DataMaster Training	7.l.1-7.1-2
m.	NPAS DMHost discrepancy clarification	7.m.1
n.	Fax from Dave Radomski to Darcy Richardson Re: "Invalid Sample" message dated December 12, 2003	7.n.1-7.n-2
0.	Electronic mail message from Scott Marhefka to Robert Drawbaugh Re: invalid tests message dated April 11, 2002	7.0.1

Section 8 - DataMaster Evaluation by Department of Health Laboratory

a.	Acetone Additions to 500 ml. 0.10 (see clarification page 8.a:3) Alcohol Standards, dated August 17, 1989	8.a:1-8.a:3
b.	Evaluation of the Vermont Alcohol Program by J. Robert Zettl, undated	8.b:1-8.b:3
c.	Correlation of Indium Encapsulation to Infrared Test Results for Simulated Breath Samples, dated October 26, 1990	8.c:1-8.c:6
d.	Evaluation of DataMaster BAC Analyzers for Infrared Testing in DUI Cases, dated January 15, 1991	8.d:1-8.d:26
e.	Testing Potentially Interfering Substances on the BAC DataMaster, dated February 5, 1993	8.e:1-8.e:4
f.	Memo To Dr. Katherine Kelley from Joseph Ceresa, dated January 11, 1988	8.f:1-8.f:5
g.	Indium vs Infrared for Simulated Breath Samples by Vermont Department of Health Laboratory	8.g:1-8.g:7
h.	Infrared Results for Simulated Breath Samples by Vermont Department of Health Laboratory	8.h:1-8.h:3
i.	Validation of DataMaster Instrument Response to Low Level Concentration of Acetone Vapor, Tina M. Gressani, August 15, 1995	8.i:1-8.i:3
j.	DataMaster comparison against Indium/Gas Chromatography Experiment, incomplete, undated	8.j:1-8.j:5
k.	Tetrochloroethylene, dated June 7, 1995	8.k:1-8.k:6
l.	Interference Testing, Undated	8.l:1-8.l:6
m.	Sample Collection design, Mean Determination of Indium - IR Capture Data, Undated	8.m:1-8.m:26
n.	Testing a BAC DataMaster for Acetone Interference, Undated	8.n:1-8.n:6
o.	Comments DataMaster Tests with Acetone, Harold Stowe, dated July 31, 1995	8.o:1-8.o:2
p.	Testing DataMaster for Mouth Alcohol Acceptance, Undated	8.p:1-8.p:17

q. Correlation of Indium Encapsulation to Infrared Test Results for Simulated Breath Samples by Vermont Department of Health Laboratory..... 8.q:1-8.q:4

Section 9 - Evaluation of Infrared Technology by Out of State Sources

a. Evaluation of Breath Test Instruments DataMaster, Intoxilyzer Model 5000, and Intoximeter Model 3000, Arkansas Department of Health, June, 1987 . . . . . 9.a:1-9.a:35
b. Breath Test for Alcohol Training Program, Blood/Breath Correlations, January 1990 . . . . . 9.b:1-9.b:2
c. WSP Crime Lab Breath Test Section, BAC Verifier DataMaster Blood/Breath Correlation Data 9.c:1-9.c:2
d. Letter from Rod G. Gullberg to Robert Drawbaugh, dated February 7, 1992 . . . . . 9.d:1-9.d:7
e. Memo from Rod Gullberg to Gary Kessler, dated November 9, 1993 . . . . . 9.e:1-9.e:6
f. Duplicate Breath Testing: Some Statistical Analyses, Rodney G. Gullberg 9.f:1-9.f:9
g. Brief Report on a Blood-Breath Correlation Study (Maine) 9.g:1-9.g:6
h. Methanol Detection using the BAC DataMaster, National Patent Analytical Systems, Inc., May 20, 1993 . . . . . 9.h:1-9.h:5
i. IACT/NHTSA Breath Alcohol Research Project 9.i:1-9.i:71
j. Affidavit, Arthur Flores, Ph.D., dated February 10, 1993 . . . . . 9.j:1
k. IACT Study Raw Data 9.k:1-9.k:5
l. Results of Conformance Testing of Evidential Breath Testing Devices, A. L. Flores, June 1986, Interim Report. 9.l:1-9.l:23
m. Results of Conformance Testing of Evidential Breath Alcohol Testing Devices, A. L. Flores, July 1988, Interim Report. . . . 9.m:1-9.m:21
n. Results of Conformance Testing of Evidential Breath Testing Devices, August 1993, A. L. Flores. 9.n:1-9.n:16
o. Testing the BAC Verifier DataMaster: Software and System Testing Issues, dated June 20, 1991, Barry Logan 9.o:1-9.o:34
p. Letter from Arthur Flores to Robert Sand, re: DataMaster results in IACT Study, dated January 22, 1996 . . . . . 9.p:1-9.p:2
q. Letter from Arthur Flores to Robert Sand, re: DataMaster results in IACT Study, dated January 25, 1996 . . . . . 9.q:1-9.q:2
r. Memorandum from Pat Harding to IACT Research Committee, re: Experimental Protocol revised 3/9/93, dated March 9, 1993 . . . . . 9.r:1-9.r:6
s. IACT Breath Alcohol Research Project Update, Patrick Harding, IACT Newsletter, Volume 6, Number 2, July 1995 . . . . . 9.s:1-9.s:3
t. IACT/DOT Study Breath-Blood Correlation, Breath/BAC DataMaster, Blood/Gas Chromatography 9.t:1-9.t:6
u. Memorandum from Robert L. Sand to Peggy Langlais, dated May 7, 1996 (attachments include Affidavit, Curriculum Vitae, and IACT/DOT Study Data from Shirley Ezelle) 9.u:1-9.u:13
v. IACT Study Data from Arthur Flores dated June 17, 1996 . . . 9.v:1-9.v:4
w. Acetic Acid in Water, Undated 9.w:1

x.	Experimental Design of Demers, Undated	9.x:1
y.	Testing of DataMaster 881328 by Patrick Demers, dated December 29, 1992	9.y:1-9.y:6
z.	IACT Newsletter, Volume 7, Number 1, March 1996	9.z:1-9.z:4
aa.	South Carolina Law Enforcement Division Blood/Breath Study, dated April 4, 1997	9.aa:1-9.aa:22
bb.	South Carolina Law Enforcement Division "Report on the State of South Carolina BAC DataMaster Evaluation by Kurt M. Dubowski, Ph.D., DABCC, DABFT"	9.bb:1-9.bb:26

Section 10 - Department of Health Laboratory

a.	Records Catalog/Inventory, dated December 22, 2000, pages 1-79	10.a
b.	Curriculum Vitae, Carl G. Tremmel	10.b:1-10.b:3
c.	Curriculum Vitae, Theodore Manazir	10.c:1
d.	Alcohol Program Literature References, September 1, 1995, revised January 31, 1996	10.d:1-10.d:16
e.	Vermont Department of Health Laboratory Division New DataMaster Instrument Site Selection Criteria, dated May, 1995	10.e:1
f.	Vermont Department of Health Laboratory BAC DataMaster Infrared Breath Analyzers, dated March 27, 1996	10.f:1-10.f:3
g.	IR Program Meeting Notes, October 19, 1992	10.g:1-10.g:4
h.	Minutes of Infrared Program Management Committee Meeting held on April 7, 1994	10.h:1-10.h:2
i.	Infrared Program Management Committee Meeting Minutes of Meeting, August 17, 1994	10.i:1-10.i:2
j.	Minutes of Infrared Program Management Committee Meeting held on September 23, 1994	10.j:1
k.	Infrared Program Management Committee Meeting Minutes of Meeting, November 7, 1994	10.k:1-10.k:2
l.	Infrared Program Management Committee Meeting Minutes of Meeting, February 9, 1995	10.l:1-10.l:2
m.	Minutes of Infrared Program Management Committee Meeting held on April 28, 1995, distributed June 15, 1995	10.m:1-10.m:5
n.	Infrared Program Management Committee Meeting, June 15, 1995	10.n:1
o.	Infrared Program Management Committee Meeting, Minutes of Meeting, July 27, 1995	10.o:1-10.o:2
p.	Infrared Program Management Committee Meeting, Minutes of Meeting, October 11, 1995	10.p:1
q.	Infrared Program Management Committee Meeting, Minutes of Meeting, January 9, 1996	10.q:1
r.	Memorandum from Robert Drawbaugh to Burton Wilcke, Dates April 28, 1992	10.r:1-10.r:2
s.	Memorandum from Carl Tremmel to Burton Wilcke, dated February 26, 1996	10.s:1
t.	Infrared Program Management Committee Meeting Agenda For October 11, 1995	10.t:1

u.	Infrared Program Management Committee Meeting Agenda for April 22, 1996	10.u:1
v.	Minutes of the Meeting - April 22, 1996	10.v:1-10.v:2
w.	Memorandum from Burton W. Wilcke, Jr. to Bob Drawbaugh dated September 6, 1996, Re: Blood Alcohol Testing.	10.w:1-10.w:2
x.	Memorandum from Burton W. Wilcke, Jr. to Jan K. Carney dated September 6, 1996, Re: DUI Issues	10.x:1
y.	Infrared Program Management Committee Meeting meetings dated January 27, 1997	10.y:1-10.y:3
z.	Memorandum from A. James Walton, Jr. to Richard Minard dated September 12, 1988.	10.z:1-10.z:11
aa.	Memorandum from R. J. Drawbaugh to Dr. Roberta Coffin dated September 26, 1988	10.aa:1-10:aa:4
bb.	Memorandum from Roberta R. Coffin to Gretchen B. Morse dated September 28, 1988	10.bb:1-10.bb:2
cc.	Memorandum from Burton Wilcke to Roberta Coffin dated January 6, 1989	10.cc:1-10.cc:3
dd.	Memorandum from Burton Wilcke to Bob Drawbaugh dated September 6, 1996	10.dd:1-10.dd:2
ee.	Memorandum from Robert J. Drawbaugh to Blood Alcohol Analysts; Theodore Manazir, Joseph Ceresa dated September 9, 1996	10.ee:1
ff.	Office memo from Carl Tremmel to BWW, Bob D dated August 8, 1991, Subject: Powlovich Letter	10.ff:1-10.ff:8
gg.	Memorandum from Thoms Powlovich to The Following Breath Testing Instructors, dated August 21, 1990	10.gg:1
hh.	Memorandum from Thomas Powlovich to Robert Drawbaugh, Dated March 13, 1991	10.hh:1-10hh:2
ii.	Memorandum from Jaime Meredith to Bob Drawbaugh dated July 16, 1997 RE: DataMaster Locations	10.ii:1-10.ii:6
jj.	Copies of overheads used in June 20, 1997 State's Attorneys training session	10.jj:1-10.jj:20
kk.	Use of DataMaster as an Evidential Breath Testing Instrument, Burton W. Wilcke, Jr., October 9, 1997	10.kk:1-1.kk:10
ll.	Letter from Burton W. Wilcke, Jr. to James P. Mongeon Re: Transposition of Lot Number for Simulator Solutions, dated October 14, 1997	10.ll:1-10.ll:2
mm.	Letter from Chris Porter to Judith Moriarty RE: Expiration Date of Vacuatiners in Blood Alcohol Collection Kits, dated March 11, 1985	10.mm:1-10.mm:3

Files added to the Alcohol Central File 4/14/09

Filing Cabinet A: *(Folder headings in bold)*

Conforming Products List:

Federal Register Volume 71 #125 6/29/06

Federal Register Volume 72 #241 12/17/07

Federal Register Volume 73 #62 3/31/08

Correspondence:

Letter from RJ Elrick to Captain Thomas Powlovich regarding errors during training on BAC DataMasters. 4/18/90

Letter to Commissioner James Walton from Kenneth Libby in regards to the Stowe instrument purchase. 3/11/92

Letter from Steven Harnois to Scott at NPAS regarding modems for the BAC DataMasters 11/8/04

Letter to Stella Celotti from Officer Mary Beth Hebert requesting a DataMaster for Vernon 11/8/06.

Request from the Franklin County Sheriff's Office for a DataMaster at the Enosburg Office 2/5/07

Data Collection:

Complaint for Temporary Restraining Order, Preliminary Injunction and Permanent Injunction VRCP 65,75 Schumann et al vs. Jarris 6/5/03

Defendant's Motion to Dismiss and Opposition to Plaintiff's Complaint for Temporary Restraining Order, Preliminary Injunction and Permanent Injunction VRCP 65,75 Schumann et al vs. Jarris

Letter from NPAS regarding Schumann et al vs. Jarris rec'd 6/17/03

Memo from William Wargo 6/25/03 in regards to Schumann vs. Jarris

Notice of Pre-hearing Conference 8/7/03 in regards to David Sleigh on behalf of unnamed motorists accused of DUI infractions

Exhibit List with Exhibits for the Data Collection Hearing 2003

Petitioner's Supplemental Memorandum in regards to David Sleigh on behalf of unnamed motorists accused of DUI infractions 11/17/03

Notice of Appeals to Supreme Court in regards to David Sleigh on behalf of unnamed motorists accused of DUI infractions 2/19/04

Supreme Court Docket Assignment to David Sleigh on behalf of unnamed motorists accused of DUI infractions 2/24/04

Instruments-Other:

Instructions for calibration of model 2100 simulators 5/21/08

Memo-External:

DataMaster Refresher Training Course Outline 3/12/05

Email from Steven Harnois to DataMaster Supervisors regarding the change from 4 decimal places to 3 on the simulator solution. 2/4/08

NPAS General:

Memo from John Fusco regarding changes to the BAC DataMaster 2/1992

Memo from Cliff Broeder to Carl Tremmel regarding Guth 34C Simulators 3/27/92

Letter from Dave Radomski to Carl Tremmel on retrofitting BAC DataMasters 4/19/92

Letter from Dave Radomski to Carl Tremmel on removing sample capture from the BAC DataMasters 9/5/98

NPAS customer memo regarding BAC DataMaster code 9/2/07

Other State Program Info:

New York State, Evidential Breath Test Devices (Infrared) Set-Up Procedures

Washington State Patrol, Proposed Protocol for New Instrument Evaluation 11/2006

Out-Of-State:

State of New Jersey vs. Chun Findings regarding Alcotest 7110 Mk III-C

Filing Cabinet A3: *(Folder headings in bold)*

Bids:

Memo from Steve Smith to Bob Drawbaugh including bids from NPAS for the DMT and Drager for the 7110. 5/11/06

Correspondence:

Memo from Amanda Bolduc to Dave Radomski in regards to a request for onsite training, a description of the NPAS DMT testing protocol and an explanation of anomalous testing results. 11/8/07

Letter from NPAS regarding New York State experience with invalid samples on the DMTs 5/1/08

Memo from Amanda Bolduc to Holly Moore regarding DMT Relocation 12/24/08

Letter from Amanda Bolduc to Bram Kranichfeld regarding delivery of all testing data for the 11 Chittenden County DMT Instruments 2/9/09

Manuals:

Vermont Department of Health DMT Software Protocol Final Draft 7/2006

(DRAFT) NPAS DataMaster DMT Technical Guide 11/14/07

DataMaster Instrument Supervisor and Record Administrator Manual 8/2008

NPAS Meeting Minutes:

Trip summary from Dave Radomski 11/1/06

Minutes of the Conference Call between NPAS and VDHL 1/14/08

NPAS Technical Info:

Introduction of the DMT Sales Document 2004

Email from Dave Radomski regarding DMT Voltage Settings 11/22/06

Vermont Tolerance Question Response 11/30/06

Memo regarding DMT Voltage Settings 10/31/07

Explanation of Invalid Sample 12/14/07

DMT Explanation of Status Codes and Limits based on South Carolina Software 8/20/08

"Filter Agreement" Document (Undated)

Performance Test Binders (Entire 4th drawer of Cabinet):

4/30/08: 102606, 102706, 102806, 102906, 103006, 103206, 103406, 121506

12/1/08: 102506, 121606, 121706, 122206, 122406, 123006, 123206, 123306, 123406

National Patent Analytical Systems Inc.
Sales Order

Sales Order No. 43610
Cust No. VT1678J
Date 12/8/10
RMA No
Taken By: Dave

Ship To:
Vermont Dept of Health
195 Colchester Avenue
Burlington Vt 05401
Attn: Steve H.

Bill To:
Vermont Dept of Health
P O Box 70
Burlington Vt 05402
Bill Ph 802-863-7622 Fax

PO No or Caller Name 03420-0000027880

Ship Via FedEx Fob Mfd

CC Information (Repeat to Caller to Verify):

CC Type

Credit Card Sale? ○ Yes ◉ No

Drop Ship Sale? ○ Yes ◉ No

Pin #

Name on Card

Order Comments SN's 102706 (Display flickering), 103406 (No power), 122206 (No problem reported)

Order Total-USD 3,870.00 Freight Charge

Part No / Ship Date	Ordered / Locate	Shipped / Picks	PO # WO#	Description	Price Ea	Exten
41602	1.0			PCB ASSY, DMT CONTROLLER	300.000	300.00
	SA 3-2	No	For SN 102706			
41602	1.0			PCB ASSY, DMT CONTROLLER	300.000	300.00
	SA 3-2	No	For SN 103406			
41602	1.0			PCB ASSY, DMT CONTROLLER	300.000	300.00
	SA 3-2	No	For SN 122206			
43601	1.0			KIT, SI CONTROLLER ADAPTER	990.000	990.00
		No	For SN 102706			
43601	1.0			KIT, SI CONTROLLER ADAPTER	990.000	990.00
		No	For SN 103406			
43601	1.0			KIT, SI CONTROLLER ADAPTER	990.000	990.00
		No	For SN 122206			

Packing List

From: National Patent Analytical Systems
2090 Harrington Mem. Rd., Mansfield, Ohio 44903

Cust No. VT1678J **Ord Date** 10/7/10
Sales Order No. 43399

Ship Date 10/7/10
Packing List No. 67639

Cust Purch Ord No. 03420-0000027880

Ship To:
Vermont Dept of Health
195 Colchester Avenue
Burlington Vt 05401

Bill To:
Vermont Dept of Health
P O Box 70
Burlington Vt 05402

0.00 **Freight**

Attn:

Ship Via FedEx

Comments SN's 123206, 103206, 122106 (Issue call tags)

Inv Part No	Quantity Ordered	This Shipment	Back Ordered	Total Ship To Date	Description	Customer Part No.	Drawing Part No. / Rev
41602	3.0	3		3.0	PCB ASSY, DMT CONTROLLER	None Given	No Draw # / NONE / No Date
Serial Nos.							
43601	3.0	3		3.0	KIT, SI CONTROLLER ADAPTER	None Given	No Draw # / NONE / No Date
Serial Nos.							

DataMaster DMT Airflow Sensing Technique

The DMT incorporates a Honeywell AWM3300V mass airflow sensor. It is a device that operates on the theory that airflow directed across the surface of a sensing element causes heat transfer. Output voltage varies in proportion to the mass of air or other gas flowing through a given sensor's inlet and outlet ports.

The AWM3300V has an output voltage of 1Vdc under no airflow conditions and 5Vdc under maximum airflow of 1 liter per minute.

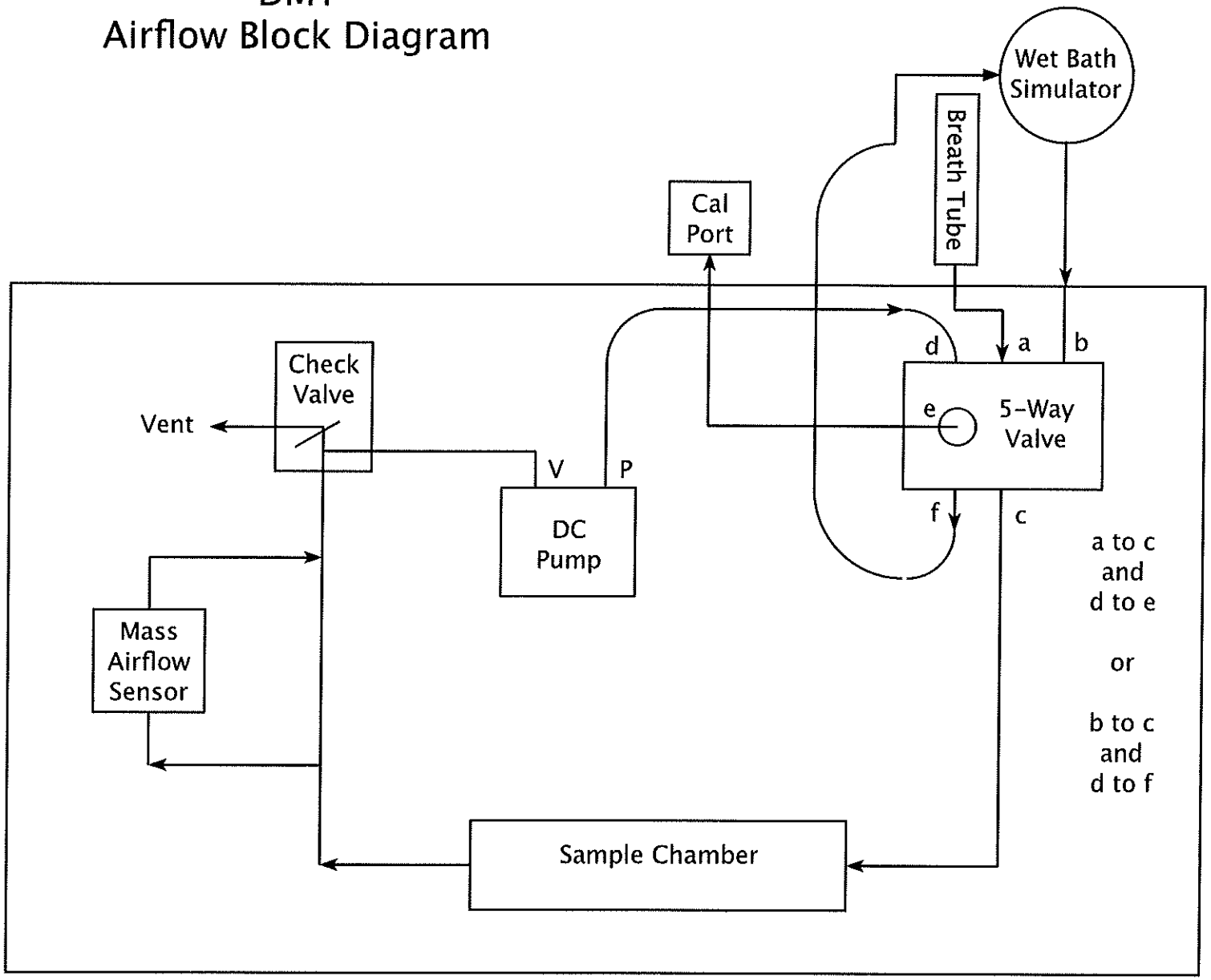
As the airflow through the DMT can exceed flow rates of 30 liters per minute, the airflow through the sensor is scaled down such that when 1 liter per minute is passing through the sensor, approximately 70 liters per minute is passing through the DMT sample chamber.

This scaling down is achieved with a standard bypass system where the flow sensor is configured in a parallel path with the main airflow passage and the connective tubing between the flow sensor ports and the main pathway is a smaller diameter than the tubing in the main pathway.

The instantaneous flow rate through the DMT in liters per minute (y) is calculated by applying the voltage from the airflow sensor (x) to the following formula:

$y = 2.5263*x^2 + 2.0857*x - 4.5474$

DMT
Airflow Block Diagram



DataMaster DMT Airflow Sensing Technique

The DMT incorporates a Honeywell AWM3300V mass airflow sensor. It is a device that operates on the theory that airflow directed across the surface of a sensing element causes heat transfer. Output voltage varies in proportion to the mass of air or other gas flowing through a given sensor's inlet and outlet ports.

The AWM3300V has an output voltage of 1Vdc under no airflow conditions and 5Vdc under maximum airflow of 1 liter per minute.

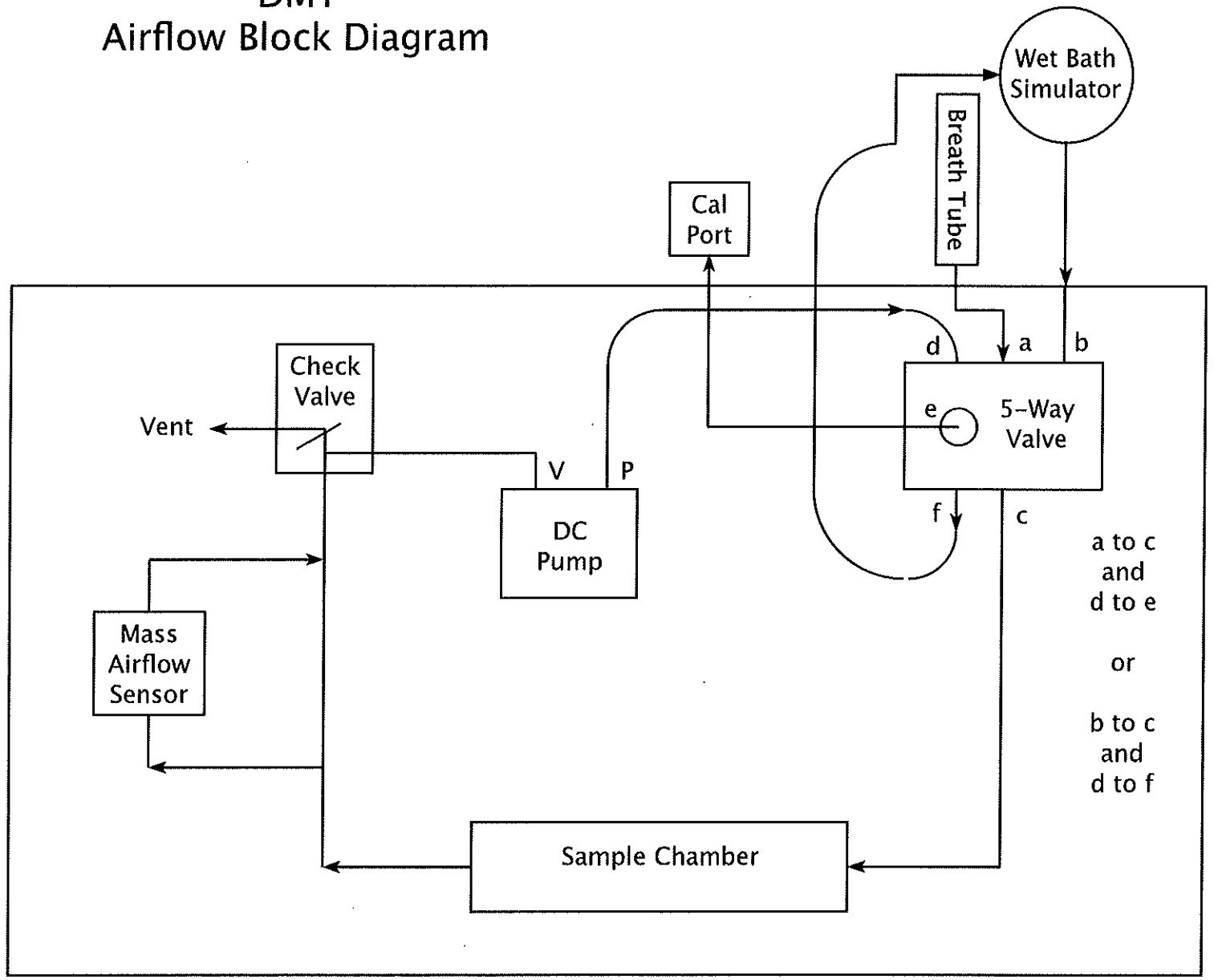
As the airflow through the DMT can exceed flow rates of 30 liters per minute, the airflow through the sensor is scaled down such that when 1 liter per minute is passing through the sensor, approximately 70 liters per minute is passing through the DMT sample chamber.

This scaling down is achieved with a standard bypass system where the flow sensor is configured in a parallel path with the main airflow passage and the connective tubing between the flow sensor ports and the main pathway is a smaller diameter than the tubing in the main pathway.

The instantaneous flow rate through the DMT in liters per minute (y) is calculated by applying the voltage from the airflow sensor (x) to the following formula:

$y = 2.5263*x^2 + 2.0857*x - 4.5474$

DMT
Airflow Block Diagram



Honeywell

Installation Instructions for the AWM3000 Series Microbridge Mass Airflow Sensors

ISSUE 2

PK 88671

⚠ WARNING

PERSONAL INJURY

DO NOT USE these products as safety or emergency stop devices or in any other application where failure of the product could result in personal injury.

Failure to comply with these instructions could result in death or serious injury.

GENERAL INFORMATION

AWM3000 Series Microbridge Mass Airflow Sensors operate on the theory that airflow directed across the surface of a sensing element causes heat transfer. Output voltage varies in proportion to the mass of air or other gas flowing through a given sensor's inlet and outlet ports. Current sink/source. Maximum current ratings are 10 mA sinking and 20 mA sourcing, governed by an LM224 operational amplifier in the final stage of the instrumentation amplifier.

MEDIA CONTAMINATION

Media flowing through the sensor should be free of condensing moisture and particulate contaminants. An inexpensive 5 micron filter upstream of the sensing element substantially reduces the risk of damage due to contaminants.

CLEANING

Cover the ends of the ports when cleaning. Certain solvents may attack the epoxy used to seal the chip tubes to the ceramic substrate.

⚠ CAUTION

CLEANING DAMAGE

- DO NOT USE ultrasonics when cleaning. Ultrasonic cleaning may damage the sensor's microstructure.
- Solvent cleaning may attack the epoxy that seals the chip tube. Do not use III Tri-chloroethane, methylene chloride, methyl pyrrolidone, or any oxidizing type acid such as formic acid.

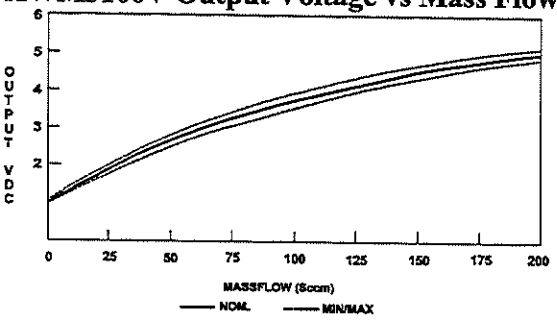
Failure to comply with these instructions may result in product damage.

SOLDERING INSTRUCTIONS

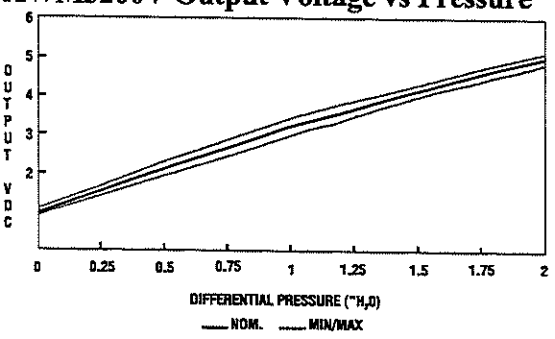
Please note: sensor should be securely attached to printed circuit board before soldering.
Hand soldering: Use temperature controlled soldering iron with 3,2 mm (1/8 in.) diameter tip. Set temperature at 400 °C [750 °F]. Hold tip on terminal for 5 seconds maximum. Use Type R flux rosin core solder and hand clean after soldering.
Wave soldering: Set solder temperature at 250 °C [480 °F) maximum. Run belt at minimum of 1.54 m [5 ft] per minute. Cover tube ends when cleaning.

OUTPUT CURVES

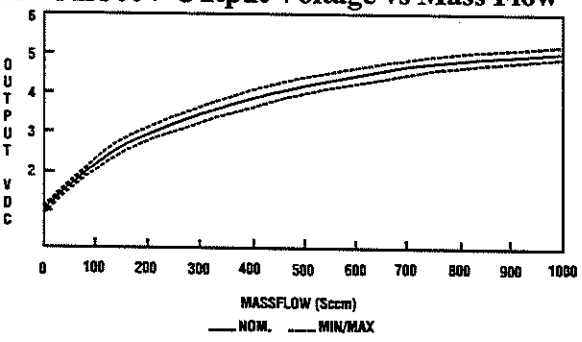
AWM3100V Output Voltage vs Mass Flow



AWM3200V Output Voltage vs Pressure



AWM3300V Output Voltage vs Mass Flow



© Honeywell 2002, All Rights Reserved

SPECIFICATIONS

Type	AWM3100V	AWM3150V	AWM3200V	AWM3300V
Recommended excitation	10 ± 0.01 Vdc	10 ± 0.01 Vdc	10 ± 0.01 Vdc	10 ± 0.01 Vdc (2)
Power consumption	50 mW	50 mW	50 mW	50 mW
Output voltage @ laser trim point	5.00 Vdc @ 200 sccm	1.5 Vdc @ 5 sccm	5.00 Vdc @ 2" H_2O	5.00 Vdc @ 1000 sccm
Null voltage	1.00 ± .05 Vdc	1.00 ± .10 Vdc	1.00 ± .08 Vdc	1.00 ± .10 Vdc
Null voltage shift @ -25 °C to 85 °C [-13 °F to 185 °F]	± 25 mV	± 75 mV	± 25 mV	± 25 mV
Output voltage shift				
-25 °C to 25 °C [-13 °F to 77 °F]	-5% Reading	-5% Reading	+24% Reading	-5% Reading (4)
25 °C to 85 °C [77 °F to 185 °F]	+6% Reading	+6% Reading	-24% Reading	+6% Reading
Repeatability and hysteresis, max.	± 0.50% reading	± 1.0% reading	± 0.50% reading	± 1.0% reading (3)
Maximum Response Time	3.0 msec	3.0 msec	3.0 msec	3.0 msec (1)
Operating Temperature range:	-25 °C to 85 °C [-13 °F to 77 °F]	-25 °C to 85 °C [-13 °F to 77 °F]	-25 °C to 85 °C [-13 °F to 77 °F]	-25 °C to 85 °C [-13 °F to 77 °F]
Storage Temperature range:	-40 °C to 90 °C [-40 °F to 194 °F]	-40 °C to 90 °C [-40 °F to 194 °F]	-40 °C to 90 °C [-40 °F to 194 °F]	-40 °C to 90 °C [-40 °F to 194 °F]
Termination (2,54 mm [0.100 in] centers)	0,635 mm [0.025 in] square	0,635 mm [0.025 in] square	0,635 mm [0.025 in] square	0,635 mm [0.025 in] square
Weight	10,8 g [0.381 oz]	10,8 g [0.381 oz]	10,8 g [0.381 oz]	10,8 g [0.381 oz]
Shock rating (5 drops, ea. of 6 axes)	100 g peak	100 g peak	100 g peak	100 g peak
Maximum Overpressure	25 psi	25 psi	25 psi	25 psi (5)

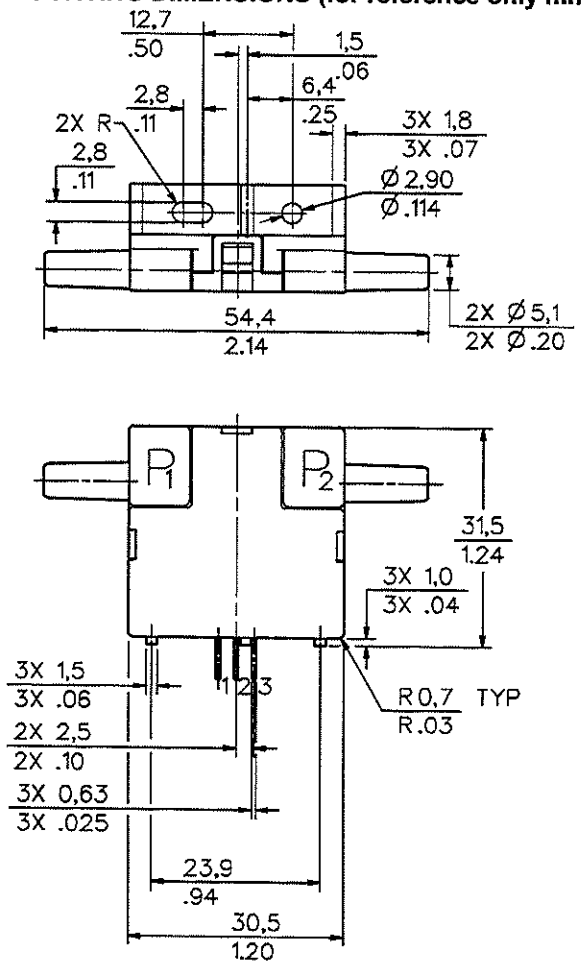
1. Response time typically 1 ms from 10% to 90%. Initial warm-up time for signal conditioned circuitry is 1 minute maximum
2. Output voltage is ratiometric to supply voltage.
3. Repeatability and hysteresis tolerances reflect inherent inaccuracies of the measurement equipment.
4. Temperature shifts in differential pressure devices are mostly due to the density change of the gas over temperature.
5. Maximum flow rate to prevent damage to sensing element (includes flow pulse) is 5 LPM.

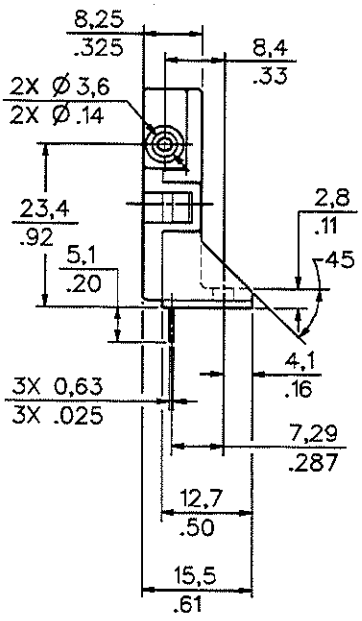
OUTPUT FLOW VS. INTERCHANGEABILITY

AWM3100V			AWM3150V			AWM3200V			AWM3300V		
Flow sccm	Nom. Vdc	Tol. (2 ± Vdc	Flow sccm	Nom. Vdc	Tol. (2) ± Vdc	Pressure in H_2O	Nom. Vdc	Tol. (2) ± Vdc	Flow sccm	Nom. Vdc	Tol. (2) ± Vdc
200	5.00	0.15	30	3.75	0.70	2.00	5.00	0.15	1000	5.00	0.15
175	4.80	0.16	20	2.90	0.45	1.75	4.59	0.15	900	4.90	0.16
150	4.50	0.17	10	1.95	0.20	1.50	4.16	0.16	800	4.80	0.17
125	4.17	0.18	5	1.50	0.07	1.25	3.70	0.20	700	4.66	0.18
100	3.75	0.19	4	1.40	0.08	1.00	3.25	0.22	600	4.42	0.19
75	3.27	0.19	3	1.30	0.08	0.75	2.65	0.22	500	4.18	0.20
50	2.67	0.17	2	1.20	0.07	0.50	2.15	0.19	400	3.82	0.21
25	1.90	0.13	1	1.10	0.06	0.25	1.55	0.11	300	3.41	0.19
0	1.00	0.05	0	1.00	0.05	0.00	1.00	0.08	200	2.96	0.17
									100	2.30	0.14
									0	1.00	0.10

The unique design of the microbridge mass airflow sensor accommodates your special requirements. Custom laser trimming and flow channel dimensioning can conform performance characteristics to specific applications. Please contact your Honeywell sales office for assistance.

MOUNTING DIMENSIONS (for reference only mm/in)





DESCRIPTION

Catalog Listing	Flow Range
AWM3100V	+200 sccm / + 0.2 in H_2O full scale
AWM3150V	+30 sccm / + 1 in H_2O full scale
AWM3200V	+ 60 sccm (± 20 sccm) + 2 in H_2O full scale
AWM3300V	+1000 sccm / 1.3 in (± 0.1 in) H_2O full scale

OUTPUT CONNECTIONS

Pin 1	Output voltage
Pin 2	+ Supply voltage
Pin 3	Ground

Note: Positive flow direction is defined as proceeding into Port 1 (P1) and out of Port 2 (P2), and results in a positive output.

WARRANTY/REMEDY

Honeywell warrants goods of its manufacture as being free of defective materials and faulty workmanship. Contact your local sales office for warranty information. If warranted goods are returned to Honeywell during the period of coverage, Honeywell will repair or replace without charge those items it finds defective. The foregoing is Buyer's sole remedy and is **in lieu of all other warranties, expressed or implied, including those of merchantability and fitness for a particular purpose.**

Specifications may change without notice. The information we supply is believed to be accurate and reliable as of this printing. However, we assume no responsibility for its use.

While we provide application assistance personally, through our literature and the Honeywell web site, it is up to the customer to determine the suitability of the product in the application.

For application assistance, current specifications, or name of the nearest Authorized Distributor, contact a nearby sales office. Or call:

1-800-537-6945 USA
1-800-737-3360 Canada
1-815-235-6847 International

FAX

1-815-235-6545 USA

INTERNET

www.honeywell.com/sensing
info.sc@honeywell.com

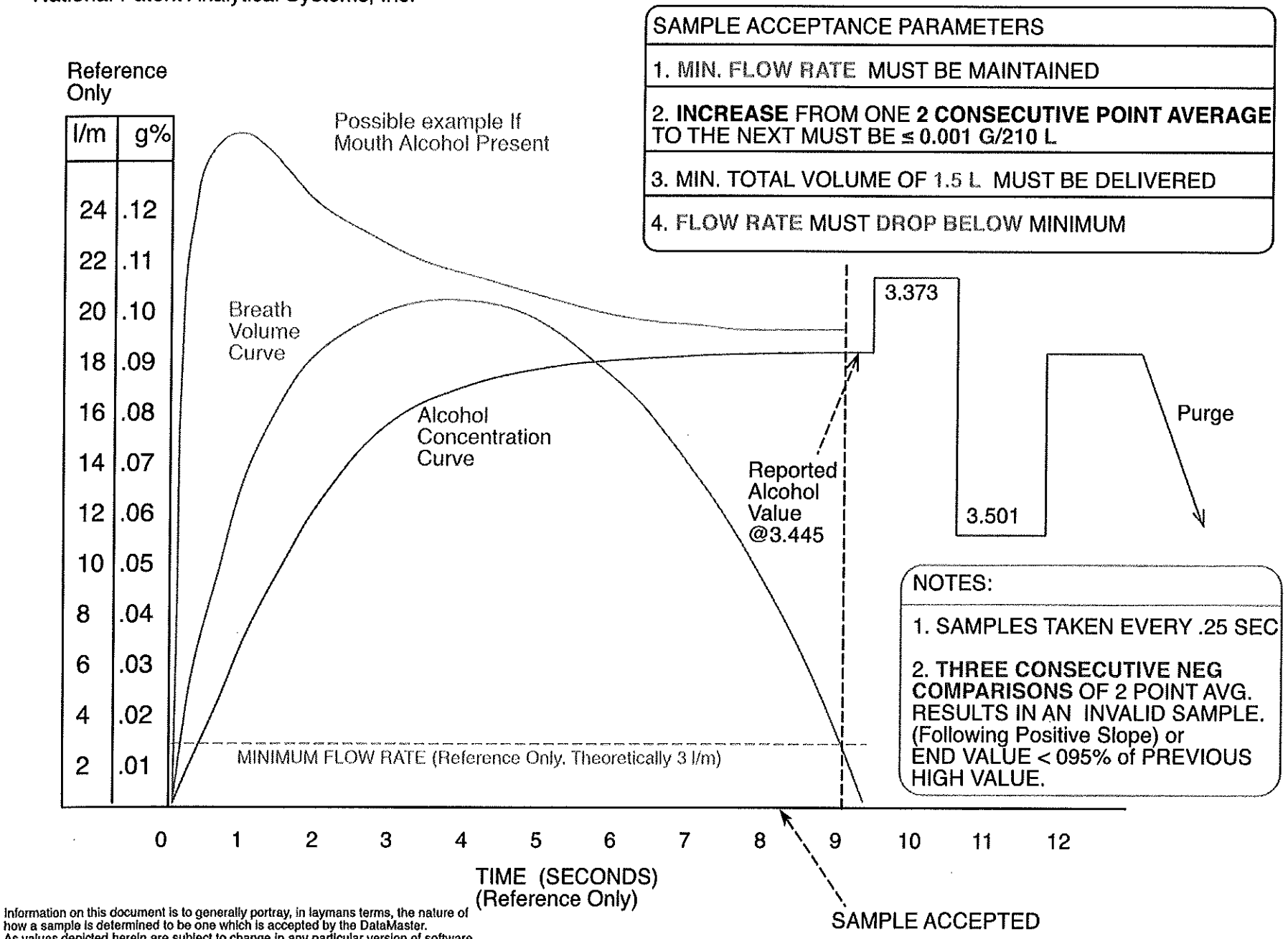
Honeywell

Automation and Control Products
Honeywell
11 West Spring Street
Freeport, Illinois 61032

www.honeywell.com/sensing

PK 88671-2-EN IL50 GLO 0902 Printed in USA

DataMaster DMT family of breath analysers SUMMARY OF HOW A BREATH SAMPLE IS ACCEPTED
National Patent Analytical Systems, Inc.



Information on this document is to generally portray, in laymans terms, the nature of how a sample is determined to be one which is accepted by the DataMaster.
As values depicted herein are subject to change in any particular version of software, these values may or may not be exactly what is used in any particular instrument.

CHEMIST AFFIDAVIT

NOW COMES Amanda Bolduc, affiant, being duly sworn and on oath, deposes and says:

1) The information contained in this affidavit is true and accurate to the best of my knowledge.

2) I am a chemist employed by the Vermont Department of Health Laboratory.

3) I have testified in Vermont as an expert witness in the field of analytical chemistry, blood alcohol physiology and pharmacology and on the workings of the DataMaster instrument. I have been qualified as an expert witness in every court in which I have testified.

4) My responsibilities include work in the breath alcohol testing program as employed throughout the state for producing evidential tests for suspected dui cases. I have been involved in breath alcohol testing since 2005 and have been trained in the theory, principles of operation, maintenance and repair of the DataMaster DMT.

5) On December 1, 2010, I reviewed the affidavit, processing form, and DataMaster evidence ticket of _____ with regard to an arrest of _____ for Driving under the Influence of alcohol. The date of arrest was August 7, 2010.

6) In the affidavit, the officer indicates that the motorist attempted to provide an evidentiary breath test using an infrared device; however a satisfactory sample was not reported.

7) The DMT incorporates a Honeywell AWM3300V mass airflow sensor to calculate the flow rate and total volume of air provided on each breath sample. It is a device that operates on the theory that airflow directed across the surface of a sensing element causes heat transfer. Output voltage varies in proportion to the mass of air or other gas flowing through a given sensor's inlet and outlet ports.

8) The Honeywell AWM3300V mass airflow sensor is an "off the shelf" product that is used in many different applications where monitoring the flow of gasses is required such as air conditioning, medical ventilation/anesthesia control, gas analyzers, gas metering, and fume cabinets.

9) The mass airflow sensor is checked by the Vermont Department of Health Laboratory DataMaster Technical Services during the Power Up procedure that each instrument must pass prior to Calibration, Certification and Installation. The airflow sensor is tested using a total volume of 1.5L of air delivered using a large syringe. The acceptable tolerance is +/- 0.2L

10) The graph printed on each DUI subject test report is a direct result of the subject sample delivered to the instrument at the time of the tests. The blue line printed on the graph correlates to the airflow that was detected by the mass airflow sensor.

11) In order for the instrument to report a subject sample result, the total volume of air delivered for one uninterrupted breath must exceed 1.5L and the alcohol result for that breath must have reached a minimum plateau level. Those criteria were not met in this case.

12) The lack of airflow was directly due to the subject's blowing pattern, and not a malfunction of the instrument or the mass airflow sensor. This is documented by observing the result of the simulator vapor on the test report. Proper airflow was observed during the simulator sample. If the airflow sensor had been malfunctioning, the DMT would have reported an error during the simulator cycle and the DMT would have aborted testing. Airflow is also monitored during the purge cycles. There are no purge errors documented, therefore proper airflow was attained a successfully monitored.

Dated at Burlington in the county of Chittenden, Vermont this 20th day of December, 2010.

_____

Amanda Bolduc, Affiant

Subscribed to and sworn before me on this _____day of _____, 2010.

_____

Notary Public

RULES
OF
THE ALABAMA DEPARTMENT OF FORENSIC SCIENCES

CHAPTER 370-1-1
CHEMICAL TEST FOR INTOXICATION

TABLE OF CONTENTS

370-1-1-.01 Admissibility Rule for the Evidential Breath Alcohol Test Method
370-1-1-.03 Blood, Urine, and Other Bodily Substances
370-1-1-.04 Field Sobriety Screening Tests
370-1-1-.05 Field Sobriety Screening Devices

370-1-1-.01 Admissibility Rule for the Evidential Breath Alcohol Test Method.

(1) Purpose.

This rule addresses the statutory elements required for the admissibility of evidence obtained from Breath Alcohol Testing Instruments. This rule contains the METHOD, as referred to by §32-5A-194 Code of Alabama, 1975 as amended, which insures and verifies that each individual Breath Alcohol Test is performed accurately and reliably. IN EVENT THAT ONE OF THESE REQUIREMENTS IS NOT FULFILLED, BREATH ALCOHOL TESTING EVIDENCE MAY STILL BE OFFERED THROUGH TRADITIONAL EVIDENTIARY PREDICATE as approved of in *Ex parte Mayo*, 652 So. 2d 201 (Ala. 1994).

(2) Definitions and Abbreviations.

(a) *Acceptable Breath Sample.* For the purpose of this rule the subject must provide the Draeger Alcotest 7110 MKIII with a breath sample of sufficient volume and duration, as required by the software to be accepted for analysis. Software versions prior to and including version 3.24 require the subject to provide a minimum of 1.5 liters of breath, for a minimum of 4.5 seconds. Software versions 3.25 or later require the subject to provide a minimum of 1.3 liters of breath, for a minimum of 4.0 seconds.

(b) *Accuracy Check Fail.* When the Calibration Check results are outside the programmed parameters of the Draeger Alcotest 7110 MKIII, the instrument will abort the testing sequence.

(c) *Admin. Breath Temperature Correction.* Administrative Breath Temperature Correction can result in an administrative lowering of the reported Breath Alcohol Result.

When the Draeger Alcotest 7110 MKIII determines a subject's Breath Temperature is not 34.0°C an adjustment to the reported value will be made. When the Breath Temperature is above 34.0°C the adjustment will result in a lower reported Breath Alcohol Concentration.

(d) *Alcohol.* For the purpose of this rule, use of the term alcohol shall refer to ethanol or ethyl alcohol unless otherwise specified.

(e) *Air Blank Check.* The Draeger Alcotest 7110 MKIII Breath Alcohol Testing Instrument verifies that the analytical pathway is free of contamination.

(f) *Ambient Air Check.* The Draeger Alcotest 7110 MKIII Breath Alcohol Testing Instrument verifies that the air used to purge the analytical pathway was free of contamination.

(g) *Ambient Air Fail.* The Draeger Alcotest 7110 MKIII will terminate a Breath Testing Sequence when the detector systems respond to ethanol or other substances in the room air.

(h) *Blowing Not Allowed.* Only when the "PLEASE BLOW" message appears will the Draeger Alcotest 7110 MKIII accept a subject breath sample. Any breath sample provided to the Draeger Alcotest 7110 MKIII at any time other than when prompted to do so will not be accepted by the instrument.

(i) *Blowing Time Too Short.* When a breath sample is provided to the Draeger Alcotest 7110 MKIII that is sufficient in volume but deficient in duration, as required by the software, the instrument will not accept the sample.

(j) *Br-Temp Meas Not Ok.* Breath Temperature Measurement Not Ok occurs when the difference between the two Breath Temperature thermistor values is outside the specified range for a single breath sample.

(k) *Breath Alcohol Test.* For the purpose of this rule, two (2) acceptable breath samples in conjunction with two diagnostic checks and two acceptable calibration checks shall constitute a Breath Alcohol Test.

(l) *Calibration.* The purpose of the calibration is to define the appropriate parameters to allow the instrument to accurately quantitate alcohol in a breath sample. The Draeger Alcotest 7110 MKIII does not calibrate itself at the time of the test; calibration is performed at the Alabama Department of Forensic Sciences laboratory and subsequently verified at the time of the test with dry gas standards.

(m) *Calibration Check.* For the purpose of this rule, a calibration check is the automated process whereby the Draeger Alcotest 7110 MKIII samples and tests a known dry gas standard to verify the instrument's acceptable calibration.

(n) *Certificate of Analysis.* For the purpose of this rule, the Certificate of Analysis is the document generated by the Draeger Alcotest 7110 MKIII for introduction of Breath Alcohol Test results to the Courts. By design, when the Certificate of Analysis indicates a numerical value for the subject's Breath Alcohol Concentration, the Certificate of Analysis is confirmation of successful method completion.

(o) *Chemical Analysis.* For the purpose of this rule, chemical analysis is the separation of a substance into its constituent elements to determine either their nature or their portions. The goal as set forth in §32-5A-194 Code of Alabama, 1975 as amended, is the chemical analyses of a person's breath to determine the presence and quantity of alcohol (ethanol).

(p) *Data Pack.* The Data Pack contains the supporting data for the Certificate of Analysis as referred to at the bottom of that document. By design, the Data Pack along with the Subject Mis-Try file, and when needed the IR Curves, EC Profile Plot, and Flow Profile Plot, constitute "*...full information concerning the test or tests shall be made available to him or his attorney...*" as referred to by §32-5A-194(a)(4) Code of Alabama, 1975 as amended.

(q) *Draeger.* For the purpose of this rule, Draeger is the appropriate English translation of the German name Dräger.

(r) *Deprivation Period.* For the purpose of the METHOD as referred to by §32-5A-194 Code of Alabama, 1975 as amended, prior to submitting to a Breath Alcohol Test a person should not be allowed to put anything in their mouth for at least 20 minutes.

(s) *EC.* For the purpose of this rule, EC will be the abbreviation for the electrochemical cell detector utilized by the Draeger Alcotest 7110 MKIII.

(t) *EC Profile Plot.* For the purpose of this rule, the EC Profile Plot is a plot utilized by the Draeger Alcotest 7110 MKIII that depicts EC Detector signal for a given breath sample.

(u) *Flow Profile Plot.* For the purpose of this rule, the Flow Profile Plot is a plot utilized by the Draeger Alcotest 7110 MKIII that depicts breath sample flow into the instrument.

(v) *Forensic Edits.* In the event an operator incorrectly input clerical data as requested by the Breath Alcohol Testing method, this information can be corrected by the following procedure: the operator should strike through the incorrect data (preferably a single strike leaving the original data legible), insert the correct data, and initial and date the correction.

(w) *Interference.* When the detector systems of the Draeger Alcotest 7110 MKIII respond to a substance other than alcohol (ethanol, ethyl alcohol), the instrument will terminate the test.

(x) *IR.* For the purpose of this rule, IR will be the abbreviation for the infrared detector utilized by the Draeger Alcotest 7110 MK III.

(y) *IR Curve.* For the purpose of this rule, the IR Curve is a plot of the infrared detector data utilized by the Draeger Alcotest 7110 MK III for a given breath sample.

(z) *Method.* For the purpose of this rule a method is an orderly and systematic approach to accomplishing a goal. The goal as set forth in §32-5A-194 Code of Alabama, 1975 as amended, is the chemical analyses of a person's breath to determine the presence and quantity of alcohol (ethanol). Therefore the method refers only to those tasks, manual or automated, which occur at the time of the breath test and result in accurately identifying and quantifying the amount of alcohol on a particular person's breath. The method in its entirety is performed and confirmed at the time of the breath test.

(aa) *Minimum Volume Not Achieved.* When a breath sample is provided to the Draeger Alcotest 7110 MKIII that is deficient in volume, as required by the software, the instrument will reject the sample.

(ab) *Mouth Alcohol.* When a breath sample contains a measurable amount of alcohol originating from the mouth, and is higher in concentration than the end expiratory air, the Draeger Alcotest 7110 MKIII will determine the sample to contain residual mouth alcohol. Once the presence of residual mouth alcohol has been determined the instrument will suspend the testing sequence for twenty (20) minutes. The testing sequence will resume at the end of the twenty-minute wait preserving all clerical data entries.

(ac) *Out of Measuring Range.* When the alcohol concentration of a breath sample exceeds 0.45 g/210L the instrument will abort the testing sequence.

(ad) *Operator.* For the purpose of this rule, an operator is an employee of a law enforcement agency possessing a valid permit (active permit number) and who is in control of the Draeger Alcotest 7110 MKIII during a testing sequence. The operator also acts as a "FACT" witness with regard to instrument operation in any litigation arising from the breath test. As stated by the Court in *Stubstad v. City of Orange Beach,* 575 So.2d 1240 (Ala.Cr.App. 1991), the operator need not be an expert on the mechanical functioning of the instrument.

(ae) *Permit.* For the purpose of this rule, a permit is an electronic mechanism for controlling access to a Breath Alcohol Testing Instrument through a unique operator permit number. Confirmation of an operator's active status as well as pending expiration date is designated on the Certificate of Analysis.

(af) *Purging.* The Draeger Alcotest 7110 MKIII Breath Alcohol Testing Instrument cycles fresh air through the instrument analysis path to cleanse the pathway of the last sample analyzed.

(ag) *Refusal.* The operator may elect to end an incomplete test by declaring the subject has refused to provide two complete and acceptable samples. Refusal indicates the operator believes the subject to be intentionally obstructing the collection of evidence via the breath sample. The Draeger Alcotest 7110 MKIII Breath Alcohol Testing Instrument cannot make the decision for the operator that any unacceptable subject breath sample or sequence of unacceptable subject breath samples constitutes a subject refusal. After each unacceptable subject breath sample the operator has the opportunity to determine by which of the following three options the testing sequence will proceed: <1> REFUSAL <2> UNABLE <3> RESTART TEST. In event circumstances require abruptly ending the testing sequence with a refusal, the operator may select <R> at the "PLEASE BLOW" prompt.

(ah) *Standard Gas Supply.* Failure of one of the two dry gas samples to be delivered to the Draeger Alcotest 7110 MKIII for analysis will result in the termination of the testing sequence.

(ai) *Subject "Mis-Try".* A subject "Mis-Try" is a breath sample that failed to meet the acceptable criteria as determined by the Draeger Alcotest 7110 MKIII. A record of the attempted breath sample is preserved in the Subject "Mis-Try" file.

(aj) *Unable.* The operator may elect to end an incomplete test by declaring the subject is unable to provide two complete and acceptable samples. Unable indicates the operator believes the subject to be incapable of providing the required breath sample and thereby is not intentionally obstructing the collection of evidence via the breath sample. The Draeger Alcotest 7110 MKIII Breath Alcohol Testing Instrument cannot assess the subject's physical condition for the operator. After each unacceptable subject breath sample the operator has the opportunity to determine by which of the following three options the testing sequence will proceed: <1> REFUSAL <2> UNABLE <3> RESTART TEST.

(3) Approved Evidential Breath Alcohol Instrument List.

(a) Alcotest 7110 MKIII, Draeger Safety, Inc., Durango CO. For the purpose of this rule, variations or enhancements that do not have any bearing on the alcohol measuring capability of the instrument, such as the addition of a modem designated as an Alcotest 7110 MKIII C, are approved.

(4) Approved Evidential Breath Alcohol Test Method.

(a) The method of operation of the Draeger Alcotest 7110 MKIII is software driven and controlled so as not to be influenced by operator technique. The method requires the operator to input the following clerical data (steps 1-18) as prompted. It is appropriate for the operator to enter a "-" for steps 6.(i), 6.(ii), 6(iii), 6.(iv), 6.(v), and 10 - 16 when the requested information cannot be obtained. Omission of an entry in any field will prevent the completion of the Breath Alcohol Testing method.

1. PERMIT NO. (NUMBER): The operator must enter and confirm his/her unique Draeger permit number.

2. <1> DUI <2> ADMIN <3> DEMO: The operator must select the type of testing routine to be administered to the subject.

3. ENTER DRY GAS STND (STANDARD) #1 PRESSURE: The operator must observe and record the pressure from the gas regulator gauge on dry gas standard #1 (0.020 g/210L ethanol standard). It should be noted that the gas pressure has no bearing on the analytical result obtained from the DUI testing routine.

4. ENTER DRY GAS STND (STANDARD) #2 PRESSURE: The operator must observe and record the pressure from the gas regulator gauge on dry gas standard #2 (0.080 g/210L ethanol standard). It should be noted that the gas pressure has no bearing on the analytical result obtained from the DUI testing routine.

5. 20 MIN (MINUTE) DEPRIVATION PERIOD: The operator must confirm that the subject has been under the control of the arresting officer, the operator, and/or other employee of a law enforcement agency for a minimum of 20 minutes. Enter "Y" for yes or "N" for no.

6. ARREST OFFICER SAME AS OPERATOR: The operator must designate whether the breath test operator is or is not the arresting officer. Enter "Y" for yes or "N" for no. If the arresting officer is not the breath test operator then the following information identifying the arresting officer will also be required.

(i) ARREST OFFICERS LAST NAME: The operator must enter the last name of the arresting officer.

(ii) ARREST OFFICERS FIRST NAME: The operator must enter the first name of the arresting officer.

(iii) ARREST OFFICERS MIDDLE INITIAL: The operator must enter the middle initial of the arresting officer.

(iv) ARREST OFFICERS IDENTIFICATION NUMBER: The operator must enter the agency identification number of the arresting officer.

(v) ARREST OFFICERS AGENCY: The operator must enter the agency of the arresting officer.

7. TIME OF OFFENSE: The operator must enter the date and time of the offense using the following format <MM/DD/YYYY_HH:MM>.

8. COUNTY OF OFFENSE: The operator must enter the county in which the offense occurred.

9. SUBJECT'S UTC (UNIFORM TRAFFIC COMPLAINT NUMBER): The operator must enter the subject's Uniform Traffic Complaint number.

10. SUBJECT LAST NAME: The operator must enter the subject's last name.

11. SUBJECT FIRST NAME: The operator must enter the subject's first name.

12. SUBJECT MIDDLE INIT (INITIAL): The operator must enter the subject's middle initial.

13. SUBJECT STREET ADDR/APT (ADDRESS/APARTMENT): The operator must enter the subject's street or apartment address.

14. SUBJECT TOWN/CITY: The operator must enter the subject's town or city of residence.

15. SUBJECT STATE: The operator must enter the subject's state of residence using appropriate two-letter designation.

16. SUBJECT DL# (DRIVER'S LICENSE NUMBER) OR SS# (SOCIAL SECURITY NUMBER): The operator must enter the subject's driver's license number, Alabama file number, social security number or Alabama I.D. number.

17. SUBJECT <M/F> (MALE/FEMALE): The operator must designate the subject's gender using "M" for male and "F" for female.

18. SUBJECT DOB (DATE OF BIRTH): The operator must designate the subject's date of birth using the format <MM/DD/YYYY>. An entry of 01/01/1900 will be used when the subject's date of birth can not be obtained.

(b) Upon completion of clerical data entry the Draeger Alcotest 7110 MKIII continues the Breath Alcohol Testing method by performing or displaying the following automated steps or messages.

1. PURGING

2. AMBIENT AIR CHECK

3. AIR BLANK CHECK

4. ACCURACY CHECK (0.020 g/210L)

5. PURGING

6. AMBIENT AIR CHECK
7. AIR BLANK CHECK
8. INSERT MOUTHPIECE, PRESS BUTTON (Operator Task)
9. PLEASE WAIT
10. PLEASE BLOW (First Subject Sample)
11. STOP
12. REMOVE MOUTHPIECE
13. PURGING
14. AMBIENT AIR CHECK
15. AIR BLANK CHECK
16. PLEASE WAIT
17. PURGING
18. AMBIENT AIR CHECK
19. AIR BLANK CHECK
20. INSERT MOUTHPIECE, PRESS BUTTON (Operator Task)
21. PLEASE WAIT
22. PLEASE BLOW (Second Subject Sample)
23. STOP
24. REMOVE MOUTHPIECE
25. PURGING
26. AMBIENT AIR CHECK
27. AIR BLANK CHECK
28. ACCURACY CHECK (0.080 g/210L)

29. PURGING

30. AMBIENT AIR CHECK

31. AIR BLANK CHECK

32. RESULT

33. DATA STORED

(5) Report of Breath Alcohol Test Result.

(a) The Certificate of Analysis produced for each individual Breath Alcohol Test is confirmation of successful METHOD completion when an analytical result (number) is obtained. For a Breath Alcohol Test result to be reported, indicating successful METHOD completion, the following steps must be performed.

1. "DIAGNOSTIC CHECKS BEFORE AND AFTER OK": An automated internal diagnostic check is performed by the Draeger Alcotest 7110 MKIII one hundred twenty eight (128) times per second. For each Breath Alcohol Test, the Draeger Alcotest 7110 MKIII stores in memory a record of a single diagnostic "Snap Shot" before the first subject sample is collected and after the second subject sample is collected.

2. "CALIBRATION CHECKS BEFORE AND AFTER OK": An automated calibration check is performed before the first subject sample is collected and after the second subject sample is collected to verify the calibration of the Draeger Alcotest 7110 MKIII at the time of the breath test. A 0.020 g/210L ethanol standard is introduced into the instrument before the first subject sample is collected. An acceptable result of 0.015 to 0.025 g/210L will allow the Breath Alcohol Test to proceed. A 0.080 g/210L ethanol standard is introduced into the instrument after the second subject sample is collected. An acceptable result of 0.076 to 0.084 g/210L must be obtained before the results of the Breath Alcohol Test will be reported. When results obtained from the calibration checks are not within the stated acceptable ranges, the "Certificate of Analysis" obtained from the Draeger Alcotest 7110 MKIII will indicate ACCURACY CHECK FAIL and no numerical result will be reported at the time of the breath test..

3. "INSPECTION BEFORE AND AFTER TEST OK": Completed Diagnostic Checks and Calibration Checks verify instrument accuracy and reliability and therefore constitute a time of test inspection. When a condition exist which prevents the completion of either the diagnostic checks or the calibration checks the "Certificate of Analysis" will not bear this statement.

4. "THE SUBJECT MUST COMPLETE A DEPRIVATION PERIOD OF AT LEAST TWENTY MINUTES BEFORE PROVIDING THE FIRST BREATH SAMPLE". An operator must attest that reasonable efforts were made by an employee of

a law enforcement agency to deprive the subject of putting potentially interfering substances in their mouth. In event the operator becomes aware of potentially interfering substances in the mouth, the deprivation period should be restarted.

5. "TWO ACCEPTABLE BREATH SAMPLES WERE ANALYZED, THE LOWEST RESULT IS REPORTED". The subject must provide two acceptable breath samples for analysis. The lowest alcohol result generated from each breath sample must agree within 0.020 g/210L of breath. If the alcohol results from the two breath samples do not agree within 0.020 g/210L of breath, the instrument will begin a second breath sample collection sequence. Failure to provide two (2) acceptable breath samples for the second breath sampling sequence will constitute a refusal of the whole test. When the results of two acceptable breath samples do agree within 0.020 g/210L of breath, the Draeger Alcotest 7110 MKIII will report the lowest result truncated to the second decimal place.

6. When the subject provides a breath sample that does not meet the minimum acceptable criteria or when not prompted to do so, one of the following errors will be recorded in the Subject "Mis-Try" file: "Minimum Volume Not Achieved", "Blowing Time Too Short", or "Blowing Not Allowed". When the Draeger Alcotest 7110 MKIII determines a sample or samples to be unacceptable the operator has the opportunity to determine by which of the following three options the testing sequence will proceed: <1> REFUSAL <2> UNABLE <3> RESTART TEST.

(b) Four copies of the Certificate of Analysis will be generated each bearing the statement "SUPPORTING DATA FOR THIS DOCUMENT IS AVAILABLE UPON WRITTEN REQUEST TO THE ALABAMA DEPARTMENT OF FORENSIC SCIENCES, IMPLIED CONSENT SECTION". The supporting data or information as referred to in §32-5A-194(a)(4) Code of Alabama, 1975 as amended, for the Certificate of Analysis consists of the "Data Pack", "Subject Mis-Try File", and when needed IR Curves, EC Profile Plot, and Flow Profile Plot.

(6) Qualifications:

An applicant must satisfactorily complete a new operator's course in the operational procedures of the Breath Alcohol Testing Instrument and be an employee for one of the agencies listed in §32-5A-194, Code of Alabama, 1975 as amended.

(7) Permits:

(a) Permits to perform a chemical analysis of a person's breath pursuant to §32-5A-194, Code of Alabama, 1975 as amended, will be issued by the Director of the Department of Forensic Sciences upon the recommendation of the Technical Director of the Implied Consent Section of the Department of Forensic Sciences.

(b) Permits issued to new operators will automatically expire at the end of the succeeding calendar year.

(c) Operator permit status can remain active by satisfactorily completing a continuing education session each calendar year and by being an employee for one of the agencies listed in §32-5A-194, Code of Alabama, 1975 as amended. The permit of an operator failing to complete a continuing education session any year after their new operator's course will automatically expire at the end of that calendar year.

(d) An operator who fails to attend a continuing education session may be reactivated provided they attend a continuing education session within two calendar years. Any operator who remains inactive for more than two successive calendar years must attend a new operator's class to be reinstated.

(e) Any action or practice which is misleading or deceptive, or the violation of any of the rules of the Alabama Department of Forensic Sciences promulgated under the provisions of §32-5A-194, Code of Alabama, 1975 as amended, shall constitute grounds upon which the Director may revoke such permit.

(f) If the Director receives a complaint or has reason to believe that an operator is participating in misleading or deceptive practices, violating or has violated any of the rules, he shall notify the operator that a hearing to determine if the alleged infraction has occurred. The Director will designate a place and time for the hearing.

(g) The Director or his designee shall conduct the hearing.

(h) Upon revocation of a permit, the Director shall notify the operator, the operator's immediate superior and the Technical Director of the Implied Consent Section of the Alabama Department of Forensic Sciences.

Relevant Cites:

Designated Instrument: *Harper v. City of Troy*, 467 So.2d 269 (Ala.Cr.App. 1985)

Method: *McDaniel v. State,* 706 So. 2d 1305, (Ala.Crim.App. 2001).

Predicate: *Ex parte Mayo*, 652 So. 2d 201 (Ala. 1994); *Ex Parte Vizzina*, 533 So.2d 269,271 (Ala. 1988); *Ex Parte Bush,* 474 So.2d 168 (Ala. 1985); *Moore v. State*, 442 So.2d 164, 167 (Ala.Cr.App.1983); *Patton v. City of Decatur,* 337 So.2d 321 (Ala.1976); *McGough v. Slaughter*, 395 So.2d 972, 977 (Ala.1981).

Testimony: *Stubstad v. City of Orange Beach*, 575 So.2d 1240 (Ala.Cr.App. 1991)

Author: Dale A. Carpenter, Mark A. Pevey, and Gregory L. Turner.
Statutory Authority: Section 32-5A-194 Code of Alabama, 1975, as amended.
History: Amended: Filed December 4, 1998; effective January 8, 1999. Amended: Filed May 7, 1999; effective June 11, 1999; Amended: Filed May 19, 2003: adopted July 7, 2003; effective August 11, 2003; Filed April 12, 2004: adopted June 4, 2004: effective July 9, 2004.

370-1-1-.03 Blood, Urine and Other Bodily Substances

(1) Purpose.

This rule describes the statutory elements required for the admissibility of evidence obtained from chemical analyses of a person's blood, urine, or other bodily substance. This rule contains the METHODS as referred to by §32-5A-194 Code of Alabama, 1975 as amended, that insures and verifies each chemical analysis is performed accurately and reliably. IN THE EVENT THAT ONE OF THESE REQUIREMENTS IS NOT FULFILLED, CHEMICAL ANALYSIS EVIDENCE MAY STILL BE OFFERED THROUGH TRADITIONAL EVIDENTIARY PREDICATE as described in *Powell v. State*, 515 So.2d 140 (Ala.Cr.App. 1986).

(2) Definitions and Abbreviations:

(a) *Alcohol*- For the purpose of this rule, use of the term alcohol shall refer to ethanol or ethyl alcohol unless otherwise specified.

(b) *Method*- For the purpose of this rule, a method is an orderly and systematic approach to accomplishing a goal. The goal as set forth in §32-5A-194 Code of Alabama, 1975 as amended, is the chemical analyses of a persons blood, urine or other bodily substance to determine the presence and quantity of alcohol (ethanol) or other chemical substances. Therefore the method refers only to those tasks, manual or automated, that result in accurately identifying and quantifying the amount of alcohol or other chemical substance in a particular person's blood or urine.

(c) *Permit*- For the purpose of this rule, a permit is authorization by the Director allowing an employee to analyze blood, urine, or other bodily substances for alcohol, drugs, or other chemical entities. By assigning a qualified employee this particular task the Director has expressed authorization.

(3) Qualifications. Applicants for a permit to perform a chemical analysis of a person's blood, urine, or other bodily substance pursuant to the Alabama Chemical Test for Intoxication Act shall meet the following requirements.

(a) Be employed as a Forensic Scientist by the Alabama Department of Forensic Sciences and be assigned to the Toxicology Section or Implied Consent Section by the Director.

(b) Have been approved by the Toxicology Section Discipline Chief to perform analyses on blood, urine, or other bodily substance analyses for the purpose of identification and quantitation of alcohol and/or other drugs.

(4) Certification Permits.

(a) Permits to perform a chemical analysis of a person's blood, urine, or other bodily substance pursuant to the Alabama Chemical Test for Intoxication Act will be issued by the Director and certified by the Toxicology Section Discipline Chief..

(b) Once issued, permits will remain effective concurrent with the term of employment of the individual. At the Directors discretion permits may be rescinded.

(5) Methods.

(a) Analysis of blood, urine, or other bodily substances for the presence of volatile compounds; such as alcohol (ethanol), shall be performed by Gas Chromatography utilizing internal standard headspace injection, in accordance with the Toxicology Section's Standard Operating Procedure for that analysis.

(b) Analysis of blood, urine, or other bodily substances for drugs or other chemical substances will utilize a screening technology in conjunction with Gas Chromatography Mass Spectrometry confirmation, in accordance with the Toxicology Section's Standard Operating Procedure for that analysis.

Author: Dale A. Carpenter, Jack R. Kalin.
Statutory Authority: §32-5A-194 Code of Alabama, 1975 as amended.
History: Amended: Filed May 19, 2003; adopted July 7, 2003; effective August 11, 2003.

370-1-1-.04 Field Sobriety Screening Tests

(1) Purpose.

This rule describes the approved TECHNIQUE (Procedure) as referred to by §32-6-49.13 Code of Alabama, 1975 as amended, that insures each Field Sobriety Screening Test performed on an operator of a commercial vehicle is performed in a standardized and reliable fashion.

(2) Definitions and Abbreviations.

(a) *Alcohol*- For the purpose of this rule, use of the term alcohol shall refer to ethanol or ethyl alcohol unless otherwise specified.

(3) Approved Procedure.

The test battery comprising the Horizontal Gaze Nystagmus (HGN), One-leg Stand (OLS), and Walk and Turn (WAT) Field Sobriety Tests as described and applied according to the DUI Detection and Standardized Field Sobriety Testing Student Manual, Publication HS178, Transportation Safety Institute, National Highway Traffic Safety Administration, U.S. Department of Transportation in its June, 1992 or successor printings.

(4) Training Certificates.

A certificate will be issued to each officer who successfully passes written and practical examinations during a minimum of 16 hours of Standardized Field Sobriety Test Training which included no less than two controlled drinking workshops using volunteer drinkers and wherein the administration and interpretation of the HGN, OLS, and WAT tests was presented.

Author: Dale A. Carpenter, Mark A. Pevey, and Gregory L. Turner
Statutory Authority: §32-6-49.13 Code of Alabama, 1975 as amended.
History: Amended: Filed May 19, 2003; adopted July 7, 2003; effective August 11, 2003.

370-1-1-.05 Field Sobriety Screening Devices

(1) Purpose.

This rule list the approved "FIELD BREATHALYZER or OTHER APPROVED DEVICE" as referred to by §32-6-49.13 Code of Alabama, 1975 as amended. Additionally, this rule describes training requirements and minimal operational criteria necessary for accurate and reliable results.

(2) Definitions and Abbreviations:

(a) *Alcohol.* For the purpose of this rule, use of the term alcohol shall refer to ethanol or ethyl alcohol unless otherwise specified.

(b) *Observation.* For the purpose of this rule, use of the term observaton shall mean to watch. Prior to the administration of a field sobriety screening test employing an approved field sobriety screening device a subject must be under the observation of the arresting officer for a period of not less than twenty minutes.

(3) Approved Training. Training afforded by the manufacturer of an approved device and/or training received as a part of the Alabama Preliminary Breath Testing Instrument course shall constitute approved training.

(4) Operation of Devices.

(a) Officers shall use the device according to the manufacturer's operational procedure.

(b) Every subject must be under observation by the arresting officer for a period of twenty minutes before the screening device test is administered.

(5) Calibration. Calibration shall be checked every twelve (12) months. The device passes the calibration check if it renders a reading between 0.030 g/210L and 0.050 g/210L inclusive on a 0.040 g/210L percent standard delivered from either a wet bath simulator or a dry gas cylinder.

(6) Training and Calibration Records. It shall be the responsibility of each law enforcement agency to maintain permanent records documenting the training of each officer in the use of approved field sobriety screening devices and the annual calibration check results on each device in use by the law enforcement agency.

(7) Approved Field Sobriety Screening Device List.

NOTE: For the purpose of this rule, variations or enhancements that do not have any bearing on the alcohol measuring capability of the instrument, such as the addition of a modem, external printer or passive sampling systems are approved.

(a) Alco-Sensor III (Device Model)
Intoximeters, Inc., Saint Louis, MO (Manufacturer)

(b) Alco-Sensor IV (Device Model)
Intoximeters, Inc., Saint Louis, MO (Manufacturer)

(c) Alcotest 7410 (Device Model)
Draeger Safety, Inc., Durango CO (Manufacturer)

(d) Lifeloc FC-10 (Device Model)
Lifeloc Technologies, Wheat Ridge, CO (Manufacturer)

(e) Lifeloc FC-20 (Device Model)
Lifeloc Technologies, Wheat Ridge, CO (Manufacturer)

(f) Intoxilyzer 300 (Device Model)
CMI, Inc., Owensboro, KY (Manufacturer)

(g) S-D2 (Device Model)
CMI, Inc., Owensboro, KY (Manufacturer)

Author: Dale A. Carpenter, Mark A. Pevey, and Gregory L. Turner
Statutory Authority: §32-6-49.13 Code of Alabama, 1975 as amended.
History: Amended: Filed May 19, 2003; adopted July 7, 2003; effective August 11, 2003.

APPENDIX

Evidential Breath Alcohol Testing Quality Control.

Purpose.

The purpose of this section is to inform the public of the quality control or good laboratory practices that are utilized by the Alabama Department of Forensic Sciences to support Breath Alcohol Testing in the field. The practices described in this section only demonstrate that each Draeger Alcotest 7110 MKIII is capable of performing as expected. The method as described in 370-1-1-.01(4) is the only sequence of steps that isolates alcohol (ethanol) from a subject to accurately determine the amount. Subsequently the quality control built into the method is the only process that verifies a particular Breath Alcohol Test did indeed perform as expected. Since the authority derived from §32-5A-194 Code of Alabama, 1975 as amended, is limited to a method to perform a chemical analysis to determine the alcoholic content of a subjects blood the following information pertaining to good laboratory practice **does not constitute a rule.**

(1) Pre-installation Evaluation. Each Draeger Alcotest 7110 MKIII is evaluated by the Alabama Department of Forensic Sciences Technical Director or his designee prior to being placed in operation. The evaluation will demonstrate the ability of each Draeger Alcotest 7110 MKIII to identify and flag specific conditions; as well as, verify the analytical integrity of the instrument.

(a) *Purging Error.* Place the instrument in the "Error Check" mode. Restrict the air flow into the ambient air inlet while the pump is running. This will prompt the instrument to display "Check Sampling Hose" and sound an audible alarm. Record pass if the message "Error Triggered, Test Okay" is printed. If the error is not triggered initiate the necessary corrective actions to restore the instrument to proper working condition.

(b) *Minimum Volume Not Achieved.* Place the instrument in the "Error Check" mode. At the prompt "Please Blow", deliver a deficient sample volume. Record pass if the message "Error Triggered, Test Okay" is printed. If the error is not triggered initiate the necessary corrective actions to restore the instrument to proper working condition.

(c) *Blowing Time Too Short.* Place the instrument in the "Error Check" mode. At the prompt "Please Blow", deliver a sample of sufficient volume and deficient duration. Record pass if the message "Error Triggered, Test Okay" is printed. If the error is not triggered initiate the necessary corrective actions to restore the instrument to proper working condition.

(d) *Blowing Not Allowed.* Place the instrument in the "Error Check" mode. At any time other than when the instrument indicates "Please Blow" deliver a sample into the instrument. Record pass if the message "Error Triggered, Test Okay" is printed. If the error is not triggered initiate the necessary corrective actions to restore the instrument to proper working condition.

(e) *Ready To Blow Expired.* Place the instrument in the "Error Check" mode. At the prompt "Please Blow" do not provide a sample. After three (3) minutes has elapsed this error will be triggered by the instrument. Record pass if the message "Error Triggered, Test Okay" is printed. If the error is not triggered initiate the necessary corrective actions to restore the instrument to proper working condition.

(f) *Ambient Air Check.* Place the instrument in the "Error Check" mode. When the instrument begins to purge itself, direct an ethanol vapor (typically from a 0.020 g/210L dry gas cylinder) near the breath hose inlet, but not directly into the breath hose inlet. Record pass if the message "Error Triggered, Test Okay" is printed. If the error is not triggered initiate the necessary corrective actions to restore the instrument to proper working condition.

(g) *Interference.* Place the instrument in the "Error Check" mode. Prepare a methanol control by adding 105 microliters of methanol to 500 milliliters of distilled water and dispense into a simulator. At the prompt "Please Blow", deliver a sufficient sample into the instrument. Record pass if the message "Error Triggered, Test Okay" is printed. If the error is not triggered initiate the necessary corrective actions to restore the instrument to proper working condition.

(h) *Mouth Alcohol.* Place the instrument in the "Error Check" mode. At the prompt "Please Blow" the evaluator should rinse his or her mouth with a common mouthwash containing ethanol, then deliver a sufficient sample into the instrument. Record pass if the message "Error Triggered, Test Okay" is printed. If the error is not triggered initiate the necessary corrective actions to restore the instrument to proper working condition.

(i) *Accuracy Check Fail.* Place the instrument in the "Error Check" mode. Connect the 0.020 g/210L dry gas cylinder to the 0.080 g/210L gas port and initiate a test. Record pass if the message "Error Triggered, Test Okay" is printed. If the error is not triggered initiate the necessary corrective actions to restore the instrument to proper working condition.

(j) *Standard Gas Supply.* Disconnect the dry gas cylinders from the instrument and initiate a test. Record pass if the message "Stnd Gas Supply" is displayed. If the error is not triggered initiate the necessary corrective actions to restore the instrument to proper working condition.

(k) *Outside +/- Tolerance.* Initiate an administrative test sequence. At the prompt "Please Blow" deliver a sufficient sample. When prompted to deliver the second sample, deliver a sufficient sample which varies in concentration from the first by at least 0.021 g/ 210 L. Record pass if the message "Outside +/- Tol" is displayed. If the error is not triggered initiate the necessary corrective actions to restore the instrument to proper working condition.

(l) *No Admittance.* The evaluator should attempt to initiate a restricted function without the use of an appropriate key. Record pass if the message "No Admittance" is displayed. If the error is not triggered initiate the necessary corrective actions to restore the instrument to proper working condition.

(m) *Linearity Check.* Utilizing manufactured solutions prepare simulators with the following ethanol concentrations: 0.000g/210L, 0.020g/210L (+/- 0.005 g/210L), 0.040 g/210L (+/- 0.005 g/210L), 0.080 g/210L (+/- 5%), 0.120 g/210L (+/- 5%), 0.200 g/210L (+/- 5%), and 0.500 g/210L (+/- 5%). Place the instrument in the "Acc-Check" mode. When instructed, connect the appropriate simulator to the instrument. Repeat this procedure three times for each ethanol control. Average the results obtained for each concentration from the three runs. To record pass, the average results must fall within the following parameters: 0.000 g/210L, 0.020 g/210L (+/- 0.005 g/210L), 0.040 g/210L (+/- 0.005 g/210L), 0.080 g/210L (+/- 5%), 0.120 g/210L (+/- 5%), 0.200 g/210L (+/- 5%), and 0.500 g/210L (+/- 5%). If the instrument does not pass, initiate the necessary corrective actions to achieve the desired specifications.

(n) *Breath Temperature Check.* Place the instrument in "ABA" mode. Initiate a testing sequence consisting of three breath samples. When instructed to do so deliver three breath samples into the instrument from a precisely controlled water bath apparatus adjusted to a temperature of approximately 34.0°C. Repeat this procedure using a precisely controlled water bath apparatus adjusted to a temperature of approximately 37.0°C. Record pass if the instrument records a temperature within +/- 0.3°C of the actual temperature. If the instrument does not pass initiate the necessary corrective actions to restore the instrument to proper working condition.

(o) *Acetone Interference Check.* Prepare a solution consisting of 500 milliliters of a manufactured 0.080 g/210L solution of ethanol and 950 microliters of Acetone in a simulator. Initiate an administrative test sequence. At the prompt "Please Blow", deliver a sufficient sample into the instrument. Record pass if the message "Interference" is displayed. If the error is not triggered initiate the necessary corrective actions to restore the instrument to proper working condition.

(p) *Voltage Range Check.* Verify the Draeger Alcotest 7110 MKIII's performance capability throughout a voltage range of approximately 90-200 volts AC and 12 volts DC.

1. With the instrument connected to a variable AC power supply, adjust the voltage to approximately 90 volts AC. Initiate a standard check sequence consisting of three measurements of a 0.080 g/210L dry gas standard. Record pass if the instrument records an average result between 0.076-0.084 g/210L. If the instrument does not pass, initiate the necessary corrective actions to achieve the desired specification.

2. With the instrument connected to a variable AC power supply, adjust the voltage to approximately 220 volts AC. Initiate a standard check sequence consisting of three measurements of a 0.080 g/210L dry gas standard. Record pass if the instrument

records an average result between 0.076-0.084 g/210L. If the instrument does not pass, initiate the necessary corrective actions to achieve the desired specification.

3. With the instrument connected to a DC power supply, adjust the voltage to approximately 12 volts DC. Initiate a standard check sequence consisting of three measurements of a 0.080 g/210L dry gas standard. Record pass if the instrument records an average result between 0.076-0.084 g/210L. If the instrument does not pass initiate the necessary corrective actions to achieve the desired specification.

(q) *Barometer Check.* Establish communication with the instrument in the diagnostic screen mode. Compare the barometric pressure as indicated by the instrument to the laboratories barometer. Record pass if the difference between the two readings is not greater than 5%. If the instrument does not pass initiate the necessary corrective actions to restore the instrument to proper working condition.

(r) *Standard Deviation Check.* Initiate a standard check sequence consisting of ten measurements of a 0.080% dry gas standard. Record pass if the instrument records the following: an average result between 0.076-0.084 g/210L and a standard deviation of less than 0.0025. If the instrument does not pass initiate the necessary corrective actions to restore the instrument to proper working condition.

(2) Data Download Review. The Test Data collected and stored by each Draeger Alcotest 7110 MKIII in the field is transferred to the Alabama Department of Forensic Sciences. Upon transfer, the data is systematically reviewed to identify instrument problems and to perform trend analyses. This data transfer allows the Alabama Department of Forensic Sciences to review essentially 100% of the Breath Alcohol Tests performed statewide.

(a) *Communication Check.* The Draeger Alcotest 7110 Data Retrieval and Archiving Program produces a Summary of Automatic Data Retrieval. The summary readily identifies those instruments for which communication was not established. For those instruments that automatic communication was unsuccessful, manually establish communication. If communication problems persist investigate the source of the problem and document.

(b) *Message Check.* Open the Message File (50 File) to identify the automatic Instrument Messages and Operator Messages retrieved by the current download. Review the messages to determine the needs of the instrument, operator, or location (supplies). Document any actions taken.

(c) *Instrument Parameter Check.* Open the Data File (10 File) to identify Instrument Parameter data retrieved by the current download. Isolate the data corresponding to each of the following parameters collected before and after the subject samples for review: *Ambient Air Pressure, 12V DC Power Supply, Battery Voltage, IR Signal, EC Offset, Cuvette Temperature, Breath Hose Temperature, Breath Probe Temperature, Breath Temperature Thermistors, Flow Sensor, Pre-Test Diagnostic Check,*

and Post-Test Diagnostic Check. For each parameter identify when if any an instrument recorded a result outside the specified operating range. Investigate the source of any problem and document any corrective action.

(d) *Dry Gas Configuration Check.* Open the Data File (10 File) to identify the Dry Gas Configuration data retrieved by the current download. Isolate the data corresponding to each of the following catagories for review: *0.02 Gas Lot Number, 0.02 Gas Expiration Date, 0.08 Gas Lot Number, 0.08 Gas Expiration Date, 0.02 Target Concentration, 0.02 Relative Tolerance, 0.02 Absolute Tolerance, 0.08 Target Concentration, 0.08 Relative Tolerance, and 0.08 Absolute Tolerance.* For each category identify if the instrument contains the correct configuration. Investigate any discrepancy and document any corrective action.

(e) *Error and Accuracy Check.* Open the Data File (10 File) to identify the Error and Accuracy Check data retrieved by the current download. Isolate the data corresponding to each of the following errors or measurements: *Error, Error 2, Error 3, Error 4, 0.02 gas data, and 0.08 gas data.* For each category identify when if any an instrument recorded a result outside the specified operating range. Also review the 0.02 g/210L and 0.08 g/210L gas data to identify low or high trends. Investigate the source of any problem or trend and document any corrective action.

(3) Electronic Inspection. The Electronic Inspection serves primarily as a quality assurance role by being a back-up inspection to the instrument set-up procedures and Data Download Review. The Electronic Inspection also is an opportunity to evaluate instrument performance over an extended time frame.

(a) *Diagnostic Screen Check.* Initiate the Draeger Alcotest 7110 Data Retrieval and Archiving Program. Establish communication with the instrument through the Diagnostic Screen. Evaluate the following displayed parameters: *Instrument Serial Number, Instrument Location, Firmware Version, Date, Time, Ambient Air Pressure, 12VDC Power Supply, Battery Voltage, IR Signal, EC Offset, Cuvette Temperature, Breath Hose Temperature, Breath Probe Temperature, Breath Temperature 1, Breath Temperature 2, Function Key, and Flow Sensor.* Investigate any discrepancy and document any corrective action.

(b) *Interactive Screen Check.* Initiate the Draeger Alcotest 7110 Data Retrieval and Archiving Program. Establish communication with the instrument through the Interactive Screen. Evaluate the following displayed parameters: *Measuring Units, Calibration Configuration, and Cylinder Pressure Limit.* Investigate any discrepancy and document any corrective action.

(c) *Calibration Check Plot.* Open the Data File (10 File) to identify the Accuracy Check data retrieved by the instrument over the last 6 months. Plot the Accuracy Check data for both the 0.02 and 0.08 g/210L Accuracy Checks. Investigate the source of any problem or trend and document any corrective action.

(4) Annual Re-Evaluation/Pre-Installation Evaluation. Regardless of the performance of an instrument in the field each instrument will be brought back to the Alabama Department of Forensic Sciences laboratory once a year for evaluation. This evaluation will consist of the battery of tests described under (1) Pre-Installation Evaluation.

National Patent
Analytical Systems, Inc.

Amanda,

01/13/2011

This letter is in response to technical assistance you requested regarding Vermont DataMaster 950176.

Despite our best efforts, we were unable to communicate with the instrument to retrieve any data that may or may not be there. The modems used in Vermont are 1200 baud. It is difficult to find hardware and software that will still communicate that slowly and use the same protocol.

Sincerely,

J. Scott Marhefka
Director of Engineering

P.O. Box 1435, 2090 Harrington Memorial Rd., Mansfield, Ohio 44901
Phone: (419) 526-6727 Fax: (419) 526-9446

RECEIVED
JAN 31 2011
Per_____

Sleigh&Gary
Attorneys at Law

David C. Sleigh Attorney at Law
Corby A. Gary Attorney at Law
Linda Penniman Office Manager
Julie Smith Administrative Assistant

364 Railroad Street, Suite E
St. Johnsbury, Vermont 05819
Phone 802 748-5176
Fax 802 748-6618
Email julie@sleighandgary.com
Email linda@sleighandgary.com

January 28, 2011

VIA EMAIL

Vincent Illuzzi Esq.
Essex State's Attorney
PO Box 226
Orleans, VT 05860-0226

Re: State v. Kip Wyman

Dear Vince:

Since the lab is unable to access the stored data on the instant BAC Datamaster and that the lab intends to destroy the device, would the State consent to give the device to me so that I may have my own expert access the stored data?

Please let me know.

Thanks.

Sincerely,

David C. Sleigh

RECEIVED
JAN 31 2011
Per_____

Sleigh&Gary
Attorneys at Law

David C. Sleigh Attorney at Law
Corby A. Gary Attorney at Law
Linda Penniman Office Manager
Julie Smith Administrative Assistant

364 Railroad Street, Suite E
St. Johnsbury, Vermont 05819
Phone 802 748-5176
Fax 802 748-6618
Email julie@sleighandgary.com
Email linda@sleighandgary.com

January 28, 2011

VIA EMAIL

Vincent Illuzzi Esq.
Essex State's Attorney
PO Box 226
Orleans, VT 05860-0226

Re: State v. Kip Wyman

Dear Vince:

Since the lab is unable to access the stored data on the instant BAC Datamaster and that the lab intends to destroy the device, would the State consent to give the device to me so that I may have my own expert access the stored data?

Please let me know.

Thanks.

Sincerely,

David C. Sleigh

On Feb 22, 2011, at 7:42 AM, Kimball, Kirk wrote:

John,

Sorry for taking so long to get this to you. I had called from home Friday and was on vacation on Monday.

Kirk L. Kimball
Organic Chemistry Program Chief
VT. Dept. of Health
Burlington, VT 05402
(802) 951-1293
kirk.kimball@ahs.state.vt.us

John Fusco (jd@npas.com)
National Patent Analytical Systems, Inc.
Box 1435 Mansfield Ohio 44901
Phone 419+526-6727 Fax 419+526-9446

National Patent
Analytical Systems, Inc.

2011 NPAS Program Managers Meeting

April 16th – Chase Park Plaza

St. Louis, Missouri

We are pleased to announce that NPAS will be holding a meeting for interested Program Managers and their team members to discuss;- the latest in BAC testing, current events and changes within our industry.

We have several new and exciting items we will share during our meeting and we are currently asking for your input on topics to be discussed. In addition, we are looking for speakers to present during the meeting itself. You will receive a detailed agenda for the meeting although we like to keep the meeting informal . The meeting start time is 8:30 AM and will last until your questions have been answered.

NPAS will provide a continental breakfast, lunch and snacks/beverages during mid-morning and mid-afternoon hours.

If you plan to attend, please complete the information requested below. If you are interested in further participation by making a presentation please advise us of your intent. You can e-mail this form back to gcampbell@npas.com, or fax to 419-526-9446.

Your Name_____ Program _____

Contact info: (phone) _____(e-mail) _____

Attend: _____Yes _____ No Suggested discussion topic _____

Would you consider presenting? _____Yes _____ No

Topic : _____

If you have any questions please feel free to contact me at any time.

Best Regards,

Glen L. Campbell

NPAS - Director of Sales & Marketing
419-526-6727 (main #)
419-564-9151 (cell)

National Patent
Analytical Systems, Inc.

2011 NPAS Program Managers Meeting

April 16th – Chase Park Plaza

St. Louis, Missouri

We are pleased to announce that NPAS will be holding a meeting for interested Program Managers and their team members to discuss;- the latest in BAC testing, current events and changes within our industry.

We have several new and exciting items we will share during our meeting and we are currently asking for your input on topics to be discussed. In addition, we are looking for speakers to present during the meeting itself. You will receive a detailed agenda for the meeting although we like to keep the meeting informal . The meeting start time is 8:30 AM and will last until your questions have been answered.

NPAS will provide a continental breakfast, lunch and snacks/beverages during mid-morning and mid-afternoon hours.

If you plan to attend, please complete the information requested below. If you are interested in further participation by making a presentation please advise us of your intent. You can e-mail this form back to gcampbell@npas.com, or fax to 419-526-9446.

Your Name Amanda Bolduc` Program Vermont Department of Health Laboratory

Contact info: (phone) (802) 863-7412 e-mail) amanda.bolduc@ahs.state.vt.us

Attend: ___X___Yes _____ No Suggested discussion topic _____

Would you consider presenting? _____Yes _____ No

Topic : _____

If you have any questions please feel free to contact me at any time.

Best Regards,

Glen L. Campbell

NPAS - Director of Sales & Marketing
419-526-6727 (main #)
419-564-9151 (cell)

2090 Harrington Memorial Road, Mansfield, Ohio 43901 – 800-800-8143, www.npas.com

National Patent
Analytical Systems, Inc.

Development Notification Advisory February 9, 2011

To all DMT Users.

Purpose and Scope of this document: The purpose of this communication is to keep DMT users and prospective users abreast of our development work on the DMT Family of Alcohol Breath Analyzers. This document is intended to be advisory in nature only and any users or prospective users who would like to explore further the items noted may contact our development engineering department for more information.

A mandatory change that CSA wants us to implement is the addition of a protective covering for the incoming AC power conductors. This is necessary to maintain our CSA approval even though the instrument was originally approved by CSA without it. This will be implemented on all production DMTs.

The fuel cell analytical system option has entered the final stages of development as the first instruments are out of production and undergoing extensive testing and QC analysis. One area that has undergone modification is the power source to the fuel cell itself that is also a common source to other areas of the electronics. The sensitivity of the signal from the fuel cell has led us to revisit this with an eye toward further decreasing the potential for any noise in this circuit. It is being changed to capacitors of the same value that are more effective with respect to higher frequency noise filtration. This change is also in keeping with our ongoing conversion of this board to fully surface mount technology as the older capacitors are not conducive to this mounting style. Since this change is fully compatible with older instruments, and will be incorporated into all production boards, we are noting that it is one that users may wish to incorporate into older versions of the boards when instruments are down for either maintenance or recertification since the effects of additional noise filtration are beneficial, regardless.

Even though this modification is simple, fast and inexpensive, it does require surface mount equipment to resolder and realizing that our customers are typically not equipped with this technology, we will make converted boards available to all customers for all DMTs regardless of age at no cost. You only need to cycle all boards through us.

There are no accuracy or software implications concerning this change, and there are no implications regarding DOT approvals.

An internal printer has been added to the DMT and will be available in production versions later this year. It is the same printer that is used on the cdm.

John Fusco
President

Po Box 1435, 2090 Harrington Memorial Road Mansfield, Ohio 44901
Phone 1-419-526-6727 Fax 1-419-526-9446

National Patent
Analytical Systems, Inc.

2011 NPAS Program Managers Meeting

April 16th – Chase Park Plaza

St. Louis, Missouri

We are pleased to announce that NPAS will be holding a meeting for interested Program Managers and their team members to discuss;- the latest in BAC testing, current events and changes within our industry.

We have several new and exciting items we will share during our meeting and we are currently asking for your input on topics to be discussed. In addition, we are looking for speakers to present during the meeting itself. You will receive a detailed agenda for the meeting although we like to keep the meeting informal . The meeting start time is 8:30 AM and will last until your questions have been answered.

NPAS will provide a continental breakfast, lunch and snacks/beverages during mid-morning and mid-afternoon hours.

If you plan to attend, please complete the information requested below. If you are interested in further participation by making a presentation please advise us of your intent. You can e-mail this form back to gcampbell@npas.com, or fax to 419-526-9446.

Your Name_____ Program _____

Contact info: (phone) _____(e-mail) _____

Attend: _____Yes _____ No Suggested discussion topic _____

Would you consider presenting? _____Yes _____ No

Topic : _____

If you have any questions please feel free to contact me at any time.

Best Regards,

Glen L. Campbell

NPAS - Director of Sales & Marketing
419-526-6727 (main #)
419-564-9151 (cell)

National Patent
Analytical Systems, Inc.

Training Topics Covered

VDHL staff attended a training course on the Theory of Operation, Supervisory functions and Maintenance and Repair as it pertains to the DataMaster DMT Infrared Breath Alcohol Analyzer and are authorized to use, maintain and perform repairs on the DataMaster DMT in accordance with the instruction received from National Patent Analytical Systems, Inc.

This training and the work outlined below was conducted January 3 and 4, 2008

by David Radomski, N.P.A.S.

Signature David Radomski Date 2-26-08

NPAS Work Performed

While at VDHL, NPAS staff performed mechanical upgrades as follows:

- DMT # 103306 was retired from testing and service. VDHL will receive a new instrument to replace 103306 due to numerous changes in non-critical mechanical components in newer instruments. All data previously collected on this instrument remains scientifically valid.
- DMT # 103406 received a new detector block assembly while maintaining the same filters and internal standard. Mechanical upgrade does not affect scientific validity of previously collected data. During mechanical upgrade, instrument memory was accidentally erased by NPAS staff. Hard copies of information remain, however electronic copies were lost.
- DMT # 103006 received a new detector block assembly while maintaining the same filters and internal standard. Mechanical upgrade does not affect scientific validity of previously collected data.
- DMT # 102606 received a new detector block assembly while maintaining the same filters and internal standard. Mechanical upgrade does not affect scientific validity of previously collected data.
- DMT # 102806 received a new detector block assembly while maintaining the same filters and internal standard. Mechanical upgrade does not affect scientific validity of previously collected data.
- NPAS informed VDHL of defective 'T' fittings on breath flow detector assemblies. Small imperfections in 'T' fittings causes air turbulence which can affect reported breath volumes. Instruments awaiting new 'T' fittings on breath flow detection assembly. VDHL technician will install new 'T' fittings when received as directed by Dave Radomski from NPAS..

P.O. Box 1435, 2090 Harrington Memorial Rd., Mansfield, Ohio 44901
Phone: (419) 526-6727 Fax: (419) 526-9446

National Patent
Analytical Systems, Inc.

NPAS Customer Memo

May 14, 2008

We are hoping to see many of you at IACT in a few days. Prior to this I thought I would briefly update everyone on the progress we have made in a few areas that I spoke of several months ago.

The work on the conversion to C Sharp coding is continuing to progress and will be substantially completed in June although the real benefit continues to be in the ability to do multi language support. This is not meaningful to most users except that as a side benefit the organizational structure of the code is much more advanced and will be incorporated into current coding. We continue to believe that the better organized structure will be much more defensible and presentable should the code be subjected to court issues.

I'm hoping to get Bob Drawbaugh to talk a little at the users meeting regarding the reporting work that we have done in the Vermont Software. It is, without a doubt, the most extensive and complex that has ever been attempted in any breath analysis software. Vermont will be placing the units into service in June. One (among many) of the unique features of this software is the ability to do graphs of the linearity checks.

New to the DMT software is the Volume Bar Graph recently implemented in the Bermuda code. It is easily added to existing software and presents an indication to the testing officer of the status of the blow with respect to volume requirements.

We will begin work shortly (June 1) on some software routines that will allow the XML formatted data (the form of the raw data from the DMT) to be converted to a format that can be easily imported into Excel. This will be convenient for anyone who wishes to do some statistical work without the necessity of implementing a full data base structure.

In the very near future we will begin work on the Iowa code and the attendant conversion of the TRACS system so that it will be compatible with the Iowa code. The goal in Iowa is a seamless transistion from the cdm into the DMT with full TRACS capabilities.

We are adding a third engineeer for at least the summer months to help complete a number of ongoing projects. He will be starting June 1.

Dave will be updating everyone with respect to progress and implementation of DMT hardware although it has generally settled in very well in terms of production consistency.

Again, we are looking forward to seeing all of you.

John Fusco

- Operator
  - Level 0
  - Run DUI and Check-In tests
  - Copy last ticket
- Administration
  - Level 1
  - Password: [redacted]
  - Access:
    - Reprint reports and old tickets
    - Generate discovery reports
    - Download (export) data
    - Change Date/Time
- Supervisors:
  - Level 2
  - Password: [redacted]
  - Access:
    - Installation
    - Routine Performance Check
    - Simulator Solution Change
    - Diagnostic Test
    - Accuracy and Precision Test
    - Read-only Technician screen
    - Change Date/Time
- Technicians:
  - Level 3
  - Password: [redacted]
  - Access:
    - Set-up Menu
    - Calibration
    - Certification
    - Annual Preventative Maintenance
    - Timer Override
    - Technician screen

The "Regional" settings can be deleted, we do not see the need to be able to operate the DMT in another language. There should not be access to change the serial number associated with each instrument.

PASSWORDS:
Operator: [redacted]
Administrator: [redacted]
Supervisor: [redacted]
Technician: [redacted]

Harnois, Steven

From: Scott Marhefka [eng@npas.com]
Sent: Thursday, June 05, 2008 10:57 AM
To: Bolduc, Amanda
Cc: Drawbaugh, Bob; Harnois, Steven; Richardson, Darcy
Subject: resistor upgrade

Procedure to Add 10K Resistor ...

Hello Everyone,

Attached is the info on updating the controller board.

--
Scott Marhefka
National Patent Analytical Systems
2090 Harrington Memorial Road
Mansfield, OH 44903

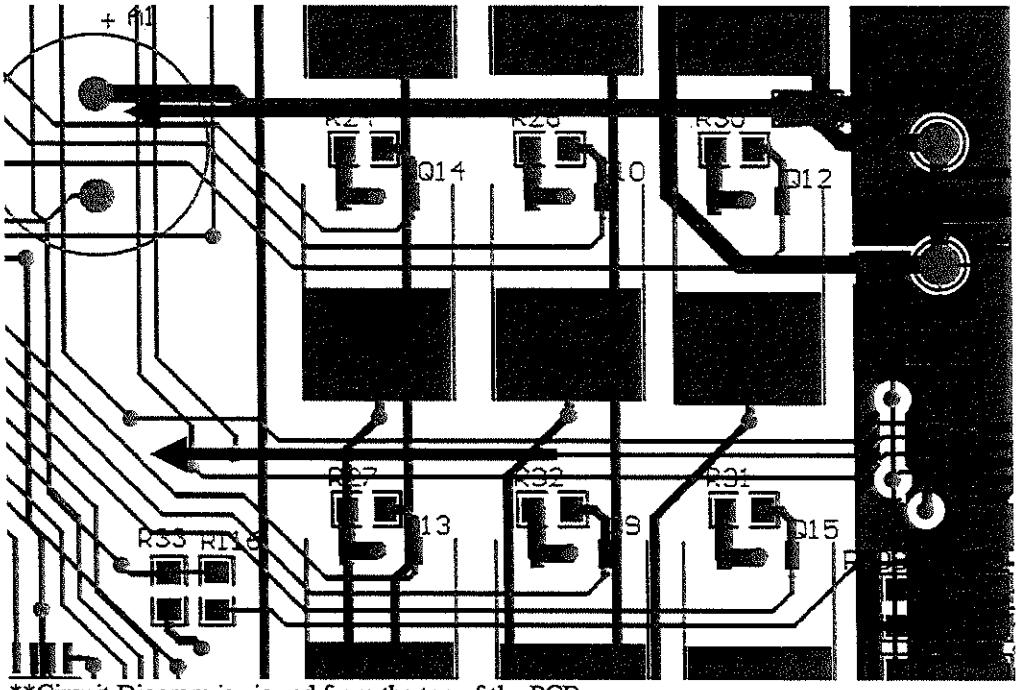
email: eng@npas.com
phone: (419) 526-6727

Procedure to Add 10K Resistor to RFI Circuitry when Detection Problem Exists

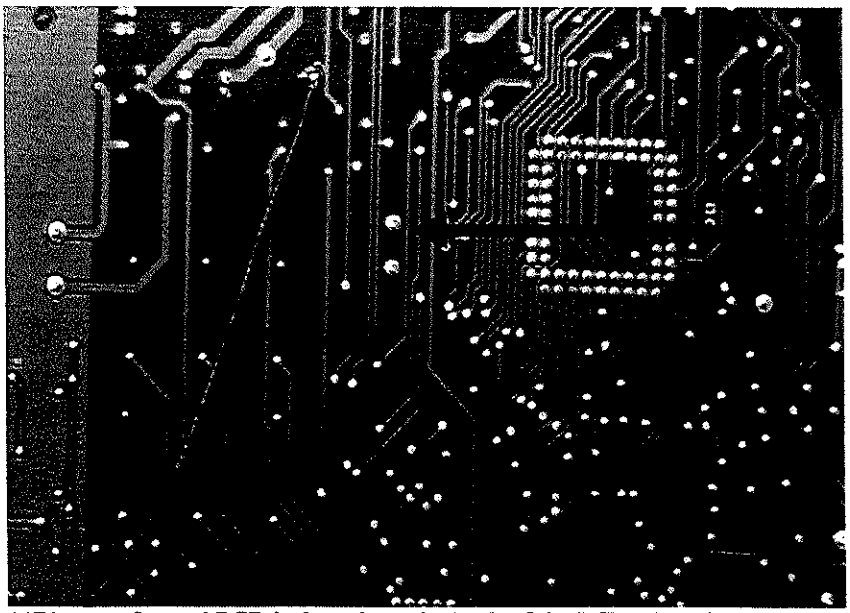
This procedure is to explain where to install the 10k resistor necessary for those DMT Controller PCB's (NPAS p/n 41602) that have been found to exhibit the inability to save the RFI detection setting established in the TECH screen functions of the Datamaster DMT. To date, not all PCB's have manifested this error, but as a precautionary step all new 41602 PCBs using bare-board 32557 rev B *only* will have this update applied to them.

1. Remove DMT Controller (p/n 41602) PCB from lid of dmt.

2. Locate the two nodes as pictured in the photos below, remove solder preparing holes for resistor installation.

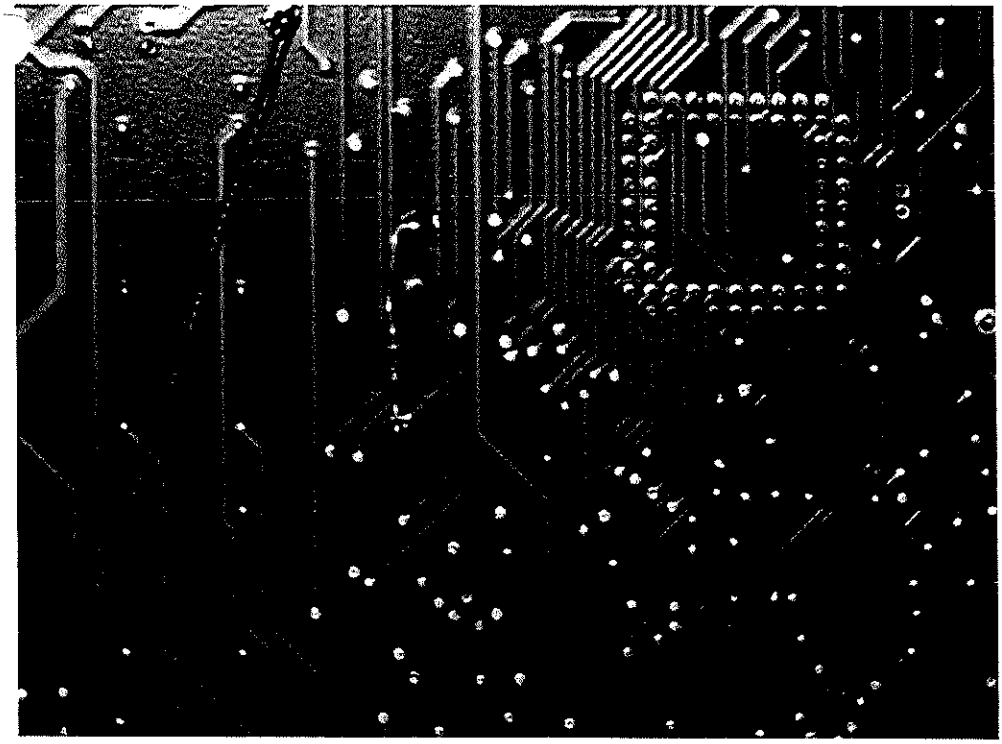


**Circuit Diagram is viewed from the top of the PCB.
***Arrows denote placement of resistor leads to perform RFI circuitry fix.



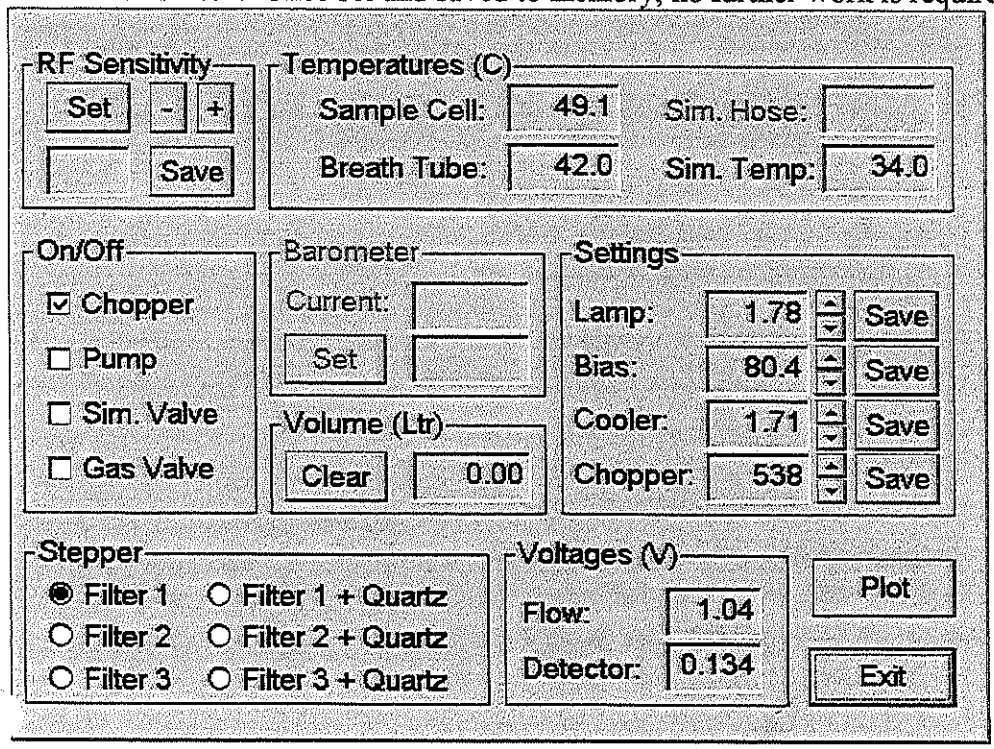
**Picture of actual PCB is done from the back of the PCB where installation needs to take place.

3. Proceed to install the 10k resistor in the two holes.



4. Reinstall the Controller board.

5. Upon initial power up after the installation of the resistor it will be necessary to reset the RFI detection level in the Tech screen. Once set and saved to memory, no further work is required with this circuit.



Bolduc, Amanda

From: Dave Radomski [dmr@npas.com]
Sent: Friday, November 09, 2007 9:55 AM
To: Bolduc, Amanda
Cc: John Fusco; Scott Marhefka; Richardson, Darcy; Harnois, Steven; Drawbaugh, Bob
Subject: Re: Error Memo

Hi Amanda,

In looking at the reports you faxed over, it would appear there is some issue with 103406. In addition to your finding of the RFI sensitivity, there is an intermittent issue with filter 3. The same may be the case for 103006. The test on 103406 at 12:33 is somewhat suspicious. That interference does not appear to be a filter related issue. It is consistent with the instrument actually picking up something with a slightly stronger absorption at 3.44μ.

What tubing was kinked on 102806? It seems interesting that 5 tests were run successfully and the last one had the kink develop just before that sample.

I'll look into possible dates to come up there for a couple of days for additional training.

I've attached the QA procedure form we use in test. It's somewhat of a generic form that covers the vast majority of checks that must be completed. The actual testing done on each instrument is more comprehensive than these stated requirements. The document just outlines the various procedures and minimum performance characteristics. Additionally, unique software requirements from agency to agency will dictate variances in the testing procedures and sequences. These are defined as the software is developed. The technicians have been learning the various aspects of the unique Vermont software and establishing the actual test protocol for your units.

I'll be in touch next week with some proposed training dates.

Dave

NPF 21.1.1A
New DMT Start-up, Burn-in and Test Procedure

DMT Start-up, Burn-in and Test:

1.1.1 Place the new instrument Start-up Record with unit, and check instrument for proper customer configuration referencing the BOM.

1.1.2 Tip Check the instrument for loose hardware. Ensure that all PCBs and assemblies are new.

1.1.3 Load appropriate customer software from Start-Up Record, according to the Software List from Engineering.

1.1.4 Proceed with voltage settings and adjust as necessary.

1.1.5 Check the Detector Voltage. The noise level on the Displayed Meter Voltage should not exceed +/-.003. Ensure that the frequency is between 520 and 590hz. Run a Diagnostic Test.

1.1.6 Check all cabling and tubing for proper connections. Check for kinks or breaks and replace as necessary.

1.1.7 Complete New Instrument Start-Up Record. Place a copy of the final Diagnostic Test, Start-up Record, and Calibration Certificate in the instrument folder. Place the instrument and paperwork on the burn-in shelf for a minimum of TWO DAYS.

1.1.8 Once the minimum burn-in time has been observed the instrument can be brought down, voltages rechecked.

NPF 21.2.1A
CALIBRATION PROCEDURES FOR DATAMASTER DMT

Equipment Needed:

1. Wet Bath Simulator containing 500ml Distilled or De-ionized water

2. Wet Bath Simulator containing a known concentration of Ethanol in Distilled or De-ionized Water ranging from .080 g% to .110 g% as indicated by the certificate provided by the solution manufacturer located in the original shipment box.

Datamaster DMT Calibration Procedures

2.1.1 Enter the Setup Menu by either pressing F3 on the keyboard or by using the pull-down menu on screen. Verify under the Calibration Standard that the instrument is set to the standard desired to be calibrated too. Change if necessary.

2.1.2 When DMT and Simulators have warmed up, press the F6 button on the keyboard or use the pull down menu and select Calibrate.

2.1.3 The DMT will perform various checks and then prompt the user to hook up the water simulator. At this time, connect the Water simulator to the breath tube and calibration port. The DMT will switch to filter 2, the 3.37u filter, and take a sample of the water vapor. The DMT will prompt the user to disconnect the water when it has obtained sufficient sample. This process will be repeated until the number of samples indicated in the Setup menu under the Calibration standard section has been selected.

2.1.4 The DMT will then perform various checks and prompt the user to hook up the Ethanol simulator. At this time, connect the Ethanol simulator to the breath tube and calibration port. The DMT will switch to filter 1, the 3.44u filter, and take a sample of the Ethanol vapor. The DMT will prompt the user to disconnect the water when it has obtained sufficient sample. This process will be repeated until the number of samples indicated in the Setup menu under the Calibration standard section has been selected.

2.1.5 When completed with analysis of the above samples the DMT will record and produce a printout of the calibration factors. The printout of these will also have the accepted tolerances printed on it as well. Verify that the calibration factors are correct against these factors. If they are not contact Engineering immediately. The DMT should catch this error and produce a Calibration Error throwing out the bad results. Continue on with testing if the Calibration is completed successfully.

NPF 21.2.2A
ACCURACY TEST PROCEDURES

Equipment Needed:
2 Wet Bath Simulators with .100 Bench Solutions
1 Wet Bath Simulator with a Low Solution (range: .030 to .070)
1 Wet Bath Simulator with a High Solution (range: .250 to .450)
1 Wet Bath Simulator with .100 OH Certified Solution
1 Wet Bath Simulator with .100 PA Certified Solution (if doing PA units)
1 Wet Bath Simulator with .100 Solution and .020 (+/-.005) g/210 l Acetone for Interference Testing
1 Wet Bath Simulator with approx .020 (+/-.005) g/210 l of Methanol for Interference Testing

Pre-requisites:

1. Simulators must be checked for proper operation, temperature, and seal on a routine basis. Minimally this should be done once a week.
2. High and Low solution Simulators must be maintained as per the procedure.
3. Target values for the .100 Bench and .100 Certified Solutions must be known before testing begins. After which, the tolerances for these tests are 2%, or +/-.002 of the target (i.e. .098 to .102 for a .100 solution, or .096 to .100 for a .098 solution). Target values will be obtained from the manufacturer's paperwork included with each box of solution.

Required Tests to Complete this Procedure:

**All tests must be successfully completed with the results staying within acceptable limits, before this procedure can be considered complete. Successful Test Results are to stay with the instrument paperwork.*

**One "Test" is considered to be a set of three to ten (3 - 10) sequential tests completed on one (1) Evidence Ticket.*

**Customer Software requirements may vary on how tests are displayed or accessed. This set of test data is to be done within the confines of the customer software and their requirements. Normally, tests are produced by activating the Supervisor test function from the pull down menu on screen or by utilizing the F5 key on the keyboard. However, customer software and terminology varies, what is important is that the instrument produce these results successfully independent of how the specific software calls the tests. Ex: Technician test (in NY), Accuracy and Precision test (in VT).*

These tests are still essentially what NPAS has termed a Supervisor test and it will be understood from here on out that "supervisor test" will be used as a generic term for these tests and their associated results.

2.2.1 Successful Calibration with values inside of the acceptable limits.
2.2.2 Two (2) .100 Bench Solution Tests.
2.2.3 One (1) High Solution Test (see attached reference 2.2.A1 for requirements).
2.2.4 One (1) Low Solution Test (see attached reference 2.2.A1 for requirements).
2.2.5 One (1) Acetone Interference Test.
2.2.6 One (1) Methanol Intereference Test
2.2.7 If an Ohio instrument, one (1) .100 Ohio Certified Solution Test.
2.2.8 If a Pennsylvania instrument, (1) .100 Pennsylvania Certified Solution Test.
2.2.9 One (1) User Level Breath Test.
2.2.10 One (1) User Level Supervisor Test.
2.2.11 One (1) 1600ml Syringe Breath Test.
2.2.12 One (1) Breath Tube/5-way Valve Correlation Breath Test (see attached reference 2.2.A2 for requirements).
2.2.13 One (1) Acetone Interference test, where the instrument correctly displays an "Interference Detected" message and the test is aborted, or otherwise marked as per software specifications.
2.2.14 One (1) Methanol Interference test, where the instrument correctly displays an "Interference Detected" message and the test is aborted, or otherwise marked as per software specifications.
2.2.15 One (1) Diagnostic Test.

NPF 21.2.2.A1

Accuracy Verification of Datamaster's Above and Below the Calibrated Concentration Procedure Outline

High Solution:

-Prepare a simulator solution with an ethanol concentration of 0.250 minimum to 0.450 maximum.

-Run this "high alcohol" solution on a properly working and verified accurate* Q.C. reference instrument in SUP mode with # of tests set to 5. Record the average of the 5 samples as the concentration of that simulator solution. Maintain all tickets in a folder with this reference instrument.

-Use this simulator to verify the accuracy of production and service instruments. The instruments must read the concentration of the high alcohol simulator ±3%. When calculating the tolerance window using the 3%, round off to the nearest whole number.

Low Solution:

Follow the same procedure as for the high concentration but target the alcohol concentration at 0.030 to 0.070 and allow a tolerance of ± 0.003 rather than the 3%.

Notes:

The high and low alcohol solutions must be changed no less frequently than once per week. When running the high and low alcohol simulator on the reference instrument, record the concentration and date a label.

The high alcohol simulator must be run on the reference instrument no less frequently than once per day. Depletion will be allowed as long as there is a determination of the actual concentration at least once per day. It is up to the discretion of the technician if a more frequent analysis might be required.

** Properly working and verified accurate means that, at a frequency determined by QA and Test, known certified solutions are run on this reference instrument and must meet the ±2% tolerance window.*

NPF 21.2.2.A2
Breathtube/5-way Valve Correlation Test

Guidelines for Testing the Breath Tube and 5-Way Correlation:

1. Use a simulator heated to 34.0^{0}C ±0.2 containing an ethanol concentration of 0.030 to 0.160.
2. Set the breath test sequence for 2 breath samples and three simulator tests (minimum). Do this by using SET ADV in the options of the DM and set simulator to ALL.
   Simple Example of what ticket printout should look like:
   External Standard
   Subject Test
   External Standard
   Subject Test
   External Standard

Determination of acceptability:

2.2.A2.1 Calculate average of External Standard results (ESAvg)

2.2.A2.2 Maximum ES reading - Minimum ES reading less than or equal to .003

2.2.A2.3 Calculate average of Subject Test readings (STAvg)

2.2.A2.4 Maximum ST reading - Minimum ST reading less than or equal to .002

2.2.A2.5 [ESAvg - STAvg] Less than or equal to .002

Note: As this test is solely designed to verify the correlation between tests run through the simulator ports and tests run through the breath tube, the specific concentration of the ethanol solution need NOT be known as long as it falls within the limits outlined above. Therefore, this test is not to be used as accuracy verification. That responsibility is on the specific level tests performed via the supervisor tests.

NPF 21.3.0

DATAMASTER CONFORMANCE TEST PROCEDURE

***ANY FAILURE DURING THIS PHASE OF TESTING RESULTS IN THE INSTRUMENT BEING RETURNED TO THE ORIGINAL TECHNICIAN HANDLING THE UNIT. THE INSTRUMENT WILL THEN GO THROUGH THE TESTING AND 24 HOUR WAIT PERIOD ALL OVER AGAIN.*

Follow the listing to complete the Conformance Testing Process

INSTRUMENT CONFIGURATION

3.1 VERIFY THAT THE INSTRUMENT CONFORMS TO PROPER CONFIGURATION AS DESCRIBED IN THE BOM.

EXTERNAL

3.2 BREATH TUBE DAMAGED, COLD, OFFGASSING
3.3 BREATH TUBE O-RINGS OK
3.4 VAPOR IN PORT O-RING OK
3.5 INSTRUMENT COVER CLEAN AND UNDAMAGED
3.6 ALL PARTS & ACCESSORIES OK
3.7 INSTRUMENT FEET SECURLY TIGHTENED
3.8 BASE PLUGS INSTALLED
3.9 ALL BACK PANEL FITTINGS SECURE

BACKPANEL, BASE AND GROUNDING

3.10 SNUBBER ASSY SECURE
3.11 ALL GROUND CONNECTIONS TIGHT
3.12 SIMULATOR PORTS SECURE
3.13 ALL CABLING PLACED CORRECTLY AND SECURE
3.14 BACK PANEL SCREWS SECURE

OPTICAL BENCH

3.15 LAMP TRANSISTOR ASSEMBLY TIGHT
3.16 COOLER TRANSISTOR ASSEMBLY TIGHT
3.17 LAMP ASSY TIE-WRAPPED
3.18 COOLER TRANSISTOR ASSY TIE-WRAPPED
3.19 CHECK VALVE SECURE AND POSITION OK
3.20 SECURITY OF INLET BLOCK OK
3.21 SECURITY OF OUTLET BLOCK OK

DETECTOR BLOCK ASSY

3.22 CHOPPER MOTOR WIRES TIE-WRAPPED
3.23 BLOCK ASSY SECURELY MOUNTED
3.24 VERIFY PROPER MOVEMENT OF THE FILTER WHEEL
3.25 VERIFY PROPER MOVEMENT OF THE FILTER WHEEL SOLENOID
3.26 VERIFY SECURITY OF THE SPRING ON THE FILTER WHEEL SOLENOID

PRINTED CIRCUIT BOARDS

3.27 ARE RIBBON CABLE CONNECTORS LOOSE
3.28 SOCKETED IC'S FIRMLY SEATED
3.29 ALL NECESSARY UPDATES COMPLETE
3.30 CURRENT ACCEPTED SOFTWARE INSTALLED

MISC

3.31 TUBING ON CALIBRATION PORT TIE-WRAPPED
3.32 TUBING NOT KINKED
3.33 TUBING ON CHECK VALVE TIE-WRAPPED
3.34 ALL TUBING PUSHED FULLY OVER FITTINGS
3.35 ALL CABLING NEATLY TIE-WRAPPED
3.36 NO FLATTENED WIRE ASSEMBLY CRIMPING
3.37 ALL SCREWS TIGHTENED
3.38 ALL CONNECTORS SNUG
3.39 BREATH FLOW VOLTAGE OK
3.40 DETECTOR VOLTAGE STABLE
3.41 IF A SIMULATOR TRAY IS INSTALLED, VERIFY PROPER HOLE SIZE AND SPACING FOR PORTS ON SIMULATOR TRAY.
3.42 IF A SIMULATOR TRAY IS INSTALLED, VERIFY PROPER CABLING FOR TEMPERATURE REPORTING, IF NECESSARY.

TESTS

3.43 CALIBRATION OK
3.44 DIAGNOSTIC TEST OK
3.45 USER LEVEL BREATH TEST
3.46 1600ml BREATH TEST
3.47 .100 TEST x2
3.48 BREATH TUBE/5-WAY CORRELATION BREATH TEST
3.49 KEYBOARD FUNCTIONS OK MODEM TEST OK (IF INSTALLED)

FINAL

3.50 INSTALLATION OF COVER SCREWS
3.51 COVER AND TOUCH SCREEN CLEAN
3.52 PAPERWORK COMPLETE

Bolduc, Amanda

From: Harnois, Steven
Sent: Thursday, November 15, 2007 10:43 AM
To: Bolduc, Amanda
Cc: Richardson, Darcy; Drawbaugh, Bob
Subject: FW: Preliminary

DMTVoltage.doc
(47 KB)

Amanda,

Bob wanted you to have this, I will review the document again and forward my comments to Bob for review and then to Dave and you for inclusion in our DMT notes.

Thanks, Steve

Steven Harnois
State of Vermont
Agency Of Human Services
Department of Health
Public Health Electronics Technician
195 Colchester Avenue
Burlington, Vermont 05401
Phone (802) 863 7641
Fax (802) 863 7632
E Mail: Sharnoi@vdh.state.vt.us

-----Original Message-----
From: Dave Radomski [mailto:dmr@npas.com]
Sent: Thursday, November 01, 2007 2:17 PM
To: Harnois, Steven; Lisa (DCJS) Lee
Subject: Preliminary

Lisa / Steve,

Look this document over and let me know your thoughts. It's preliminary, but I want to get something in a finalized version out soon.

Dave

National Patent Analytical Systems, Inc 10/31/07

Voltage Settings / Adjustments on the DataMaster DMT

Since the early days of the Verifier and the DataMaster, a primary objective was to maximize optical efficiency in the system so as to obtain maximum detector signal without overdriving the IR source or the detector's thermo-electric cooler. If either or both required substantial electric current to operate within acceptable parameters, excessive heat and undue wear and tear on circuit components would be the result. Systemic optical efficiency was the result of a number of variables.

First and foremost is the narrow bandwidth of the IR filters which is something that will not be compromised as it affords us the specificity to ethanol that the DataMaster is known for.

The sensitivity of a given PbSe detector to the amount of incident IR energy is also a big consideration. Many improvements have been made by the various manufacturers of the detectors to improve this sensitivity.

The efficiency of converting electrical energy (current/power) into IR energy by the source is another variable. For years, a simple kanthal coil has been used in the DataMaster with good reliability and decent efficiency. Very recently, a source has been specified for use, primarily in the DMT that incorporates a parabolic back reflector which greatly increases the amount of IR energy out with a given amount of power applied.

The remaining variables deal primarily with alignment, cleanliness and other related issues. System noise is kept to a minimum if ample signal can be obtained reducing the amount of gain (electronic) needed to produce the required signal levels. If gain must be increased due to low signal, this would also increase the amount of system noise.

Voltage settings in DataMasters up to this point have involved, among other things, setting the detector bias voltage to 120 Vdc, setting the cooler to the voltage level stated on the tag attached to the detector cable and then adjusting the IR source intensity to the needed level such that the output detector voltage (MTR) was somewhere around 0.000. The 120 Vdc bias is required with a 3mm x 3mm detector element. The cooler voltage was the level required in order to operate the detector at a temperature around zero degrees C. The IR source voltage would be a level that varied from a low level of around 1.5 Vdc in a very efficient system to something around 3.5 Vdc or more in a system with low efficiency. If the source voltage would approach 4 Vdc, this would be considered high.

Voltage settings in the DMT have been changed slightly due to a noticeable increase in efficiency across the board. Additionally, a change to a 2 mm x 2 mm PbSe detector was made due to the fact that the 2 mm x 2 mm detector is more readily available and there is no measurable difference in the sensitivity or performance in the two detectors. The 2 mm x 2 mm detector requires only a bias voltage of 80 Vdc.

In the DMT, aside from the RFI sensitivity adjustment, there are only three voltage settings that can be made and this is done using digital potentiometers via the Technician Mode screen. These are settings for the detector bias, TE cooler and IR source (lamp) intensity. The procedure for setting these voltages is as follows:

Set the bias to 80 Vdc for a 2 mm x 2 mm detector or 120 Vdc if 3 mm x 3 mm. This information should appear on the tag attached to the detector cable. The tolerance on this setting is ±5 Vdc.

Start with a cooler voltage of 1.5 Vdc and a lamp voltage of 1.5 Vdc. See what the detector voltage is at these settings. If the detector voltage is more negative negative than -.100, contact NPAS. If it is between -0.100 and +0.100, leave these settings as is. If the detector voltage is > 0.100, increase the cooler voltage no more than 0.1 Vdc. If this is enough to bring the detector voltage down to the acceptable range, save these settings. If not, increase the Lamp voltage no more than 0.1 Vdc. If this is enough to bring detector voltage within range, save these settings. If not, go back to the cooler and increase it no more than, 0.1 Vdc. Continue this alternating the increase of no more than 0.1 V dc of the cooler and lamp voltages until the detector voltage is within range. Remember to save these settings.

If you get to the point that both the lamp and cooler are around 2.0 V dc and the detector voltage is still not down to around zero, increase the lamp only. The maximum allowable lamp voltage for the IR source is 3.0 Vdc. If it is required to set the lamp above 2.6 Vdc to get the detector voltage within range, the unit more than likely requires service.

Any questions regarding these instructions can be directed to NPAS at 800-800-8143.

Vermont Department of Health Laboratory

Memo

Date: June 13, 2008

Re: DataMaster DMT

Controller Board Update

On June 5th, 2008, VDHL received an email from NPAS indicating an update was needed on the Controller PCB's used in the DataMaster DMT's. NPAS had found in testing that some DMT Controller PCB's exhibited the inability to save the RFI detection settings established in the TECH screen functions. As a precautionary step, all PCB's will have this update applied to them.

Enc.

ALB

Bolduc, Amanda

From: Scott Marhefka [eng@npas.com]
Sent: Thursday, June 05, 2008 10:57 AM
To: Bolduc, Amanda
Cc: Drawbaugh, Bob; Harnois, Steven; Richardson, Darcy
Subject: resistor upgrade

Procedure to Add 10K Resistor ...

Hello Everyone,

Attached is the info on updating the controller board.

--
Scott Marhefka
National Patent Analytical Systems
2090 Harrington Memorial Road
Mansfield, OH 44903

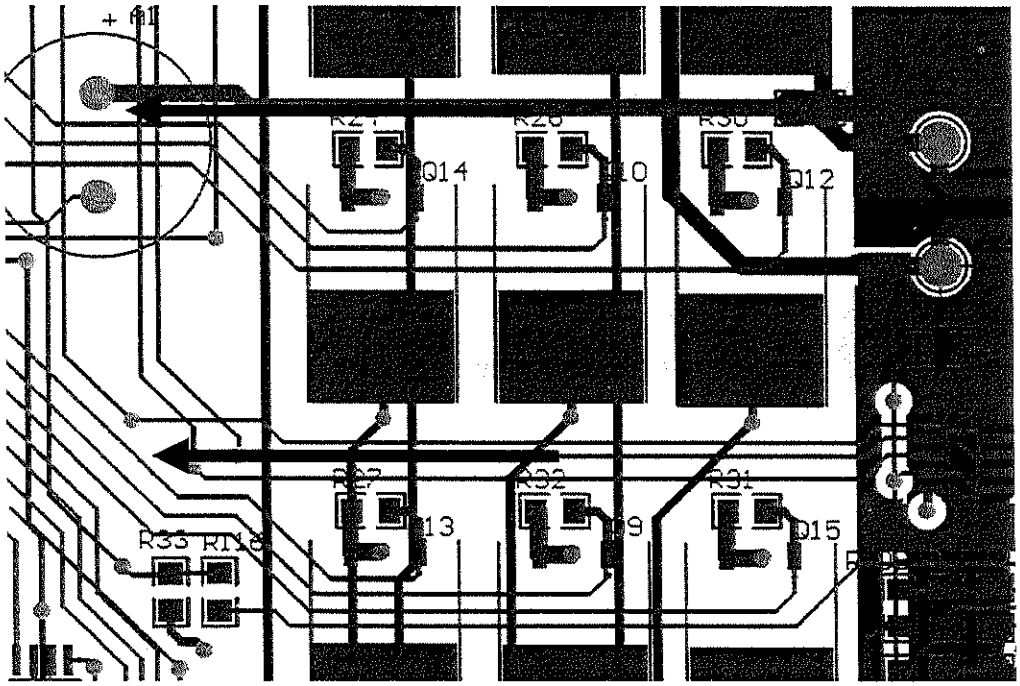
email: eng@npas.com
phone: (419) 526-6727

Procedure to Add 10K Resistor to RFI Circuitry when Detection Problem Exists

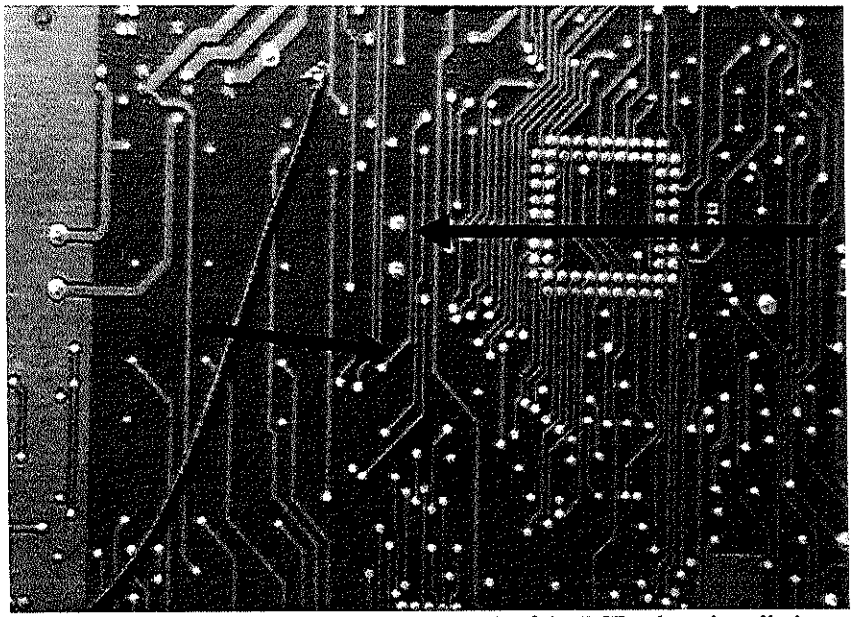
This procedure is to explain where to install the 10k resistor necessary for those DMT Controller PCB's (NPAS p/n 41602) that have been found to exhibit the inability to save the RFI detection setting established in the TECH screen functions of the Datamaster DMT. To date, not all PCB's have manifested this error, but as a precautionary step all new 41602 PCBs using bare-board 32557 rev B *only* will have this update applied to them.

1. Remove DMT Controller (p/n 41602) PCB from lid of dmt.

2. Locate the two nodes as pictured in the photos below, remove solder preparing holes for resistor installation.

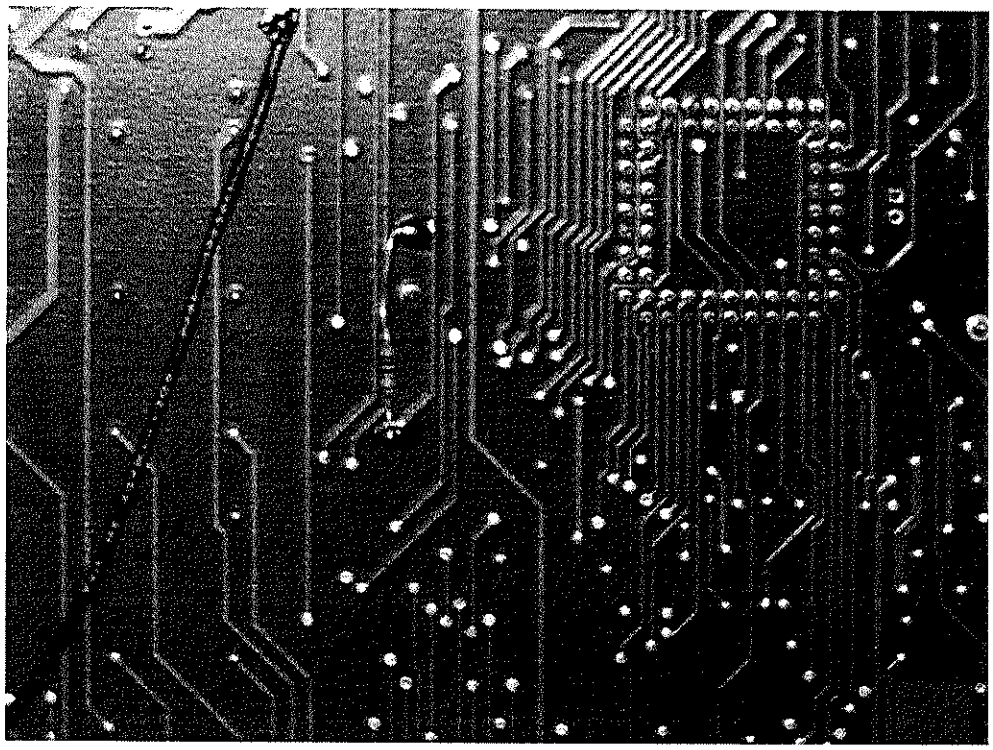


**Circuit Diagram is viewed from the top of the PCB.
***Arrows denote placement of resistor leads to perform RFI circuitry fix.



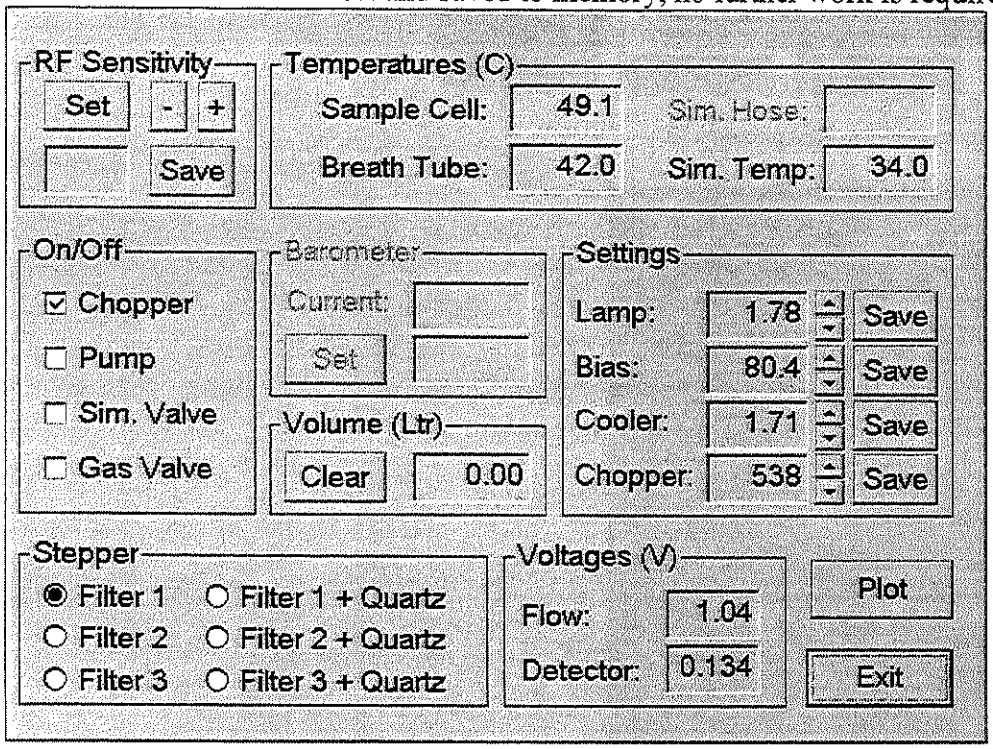
**Picture of actual PCB is done from the back of the PCB where installation needs to take place.

3. Proceed to install the 10k resistor in the two holes.



4. Reinstall the Controller board.

5. Upon initial power up after the installation of the resistor it will be necessary to reset the RFI detection level in the Tech screen. Once set and saved to memory, no further work is required with this circuit.



National Patent Analytical Systems, Inc.
Report on Data Obtained from the State of New York on
Evidential Breath Alcohol Tests using the DataMaster DMT

Invalid Sample data was recently evaluated from DMT instruments in service in New York State. The New York Division of Criminal Justice Services began installing these instruments in September 2007. This data was purged of all personal information prior to leaving New York State. A preliminary observation of this data was made by the staff at National Patent Analytical Systems Inc. ("NPAS") and the following is being offered for informational purposes. NPAS intends only to make this information available in summary form to existing customers and other interested parties. This is an informational report only and is not being offered as a scientific study.

Background and supporting Information

A. Explanation of the INVALID SAMPLE message criteria as it is employed in the DataMaster DMT

1. Measurements of the alcohol concentration during breath sample delivery are taken every 250 milliseconds (4x per second). This measurement is taken in real time and the result of an average of the 500+ Hz signal resulting from the chopping of the detector signal. There is no electronic delay in the processing of this signal since only 2 measurements are required for a single average.

2. A "positive going slope" is defined as a comparison of a 2 consecutive point average to the previous where the trend is not in the negative direction. Both conditions of a positive change and no change are considered a positive going slope.

3. The message "INVALID SAMPLE" will be produced while the instrument detects at least the minimum rate of airflow during sample delivery if:

a. There are three consecutive comparisons of two point averages where the trend is in the negative direction (values are decreasing) after seeing first a minimum of six positive comparisons of two point averages (1.5 seconds), or

b. If any final result $\geq$ 0.060 g/210 l is less than 95% of any previous high reading during that successfully delivered sample, or

c. If any final result $\geq$ 0.003 g/210 l but < 0.060 g/210 l is lower than any previous high reading during that successfully delivered sample by at least 0.003 g/210 l.

Note: The traditional BAC DataMaster and cdm do not utilize criteria 3b and 3c. Criteria 3a is similar except that a slightly longer positive going reading is required by the DMT prior to averaging for the negative going reading. (The DataMaster generally employed 4 positive going comparisons.)

B. Background of Data Evaluated

Actual subject test data was recently evaluated from DMT instruments in the field in New York State. The State of New York, through the Division of Criminal Justice Services began installing instruments in September 2007. At the time of the gathering of the data, 88 units were in evidential field service for varying lengths of time and a total of 1713 evidential tests were performed. Minimum initial deprivation periods were observed and a 20 minute additional waiting period is observed after any test that terminates with an "invalid sample" per New York testing procedures. There were a total of 71 (4% of total) "invalid samples" and 34 of these DMTs produced at least one invalid sample. The average # of tests per these 34 units was 33.1. The remaining 54 units that had no invalid samples averaged 10.9 tests per unit and it is probable that these 54 DMTs are either in low usage locations or have been in the field the shortest time.

C. Summary of Test Data

1. There were 35 tests (2% of the total) that were terminated with an invalid sample message because they met the criteria in either 3b or 3c above. These were all as a result of multiple blows during a single test attempt on the part of the subject that fit the citeria of these conditions. These tests could have also been terminated as incomplete as they met both the criteria for either 3b or 3c above in addition to the criteria for an incomplete test. These tests are somewhat unremarkable as starting and stopping blows during a single test typically results in an unpredictable outcome. A determination as to the exact reason cannot be made unless a graph of the alcohol and breath curves is available. Since multiple blows that terminate in an unsucessful test are generally more correctly considered as "incomplete" future versions of the software will accommodate this change.

2. There were 36 instances of invalid samples (2% of the total) triggered by a negative slope to the alcohol concentration curve. In these instances of invalid samples due to negative slope, there were 6 subjects who accounted for a total of 15 invalid sample tests.* Of interest here is that the negative slopes, as evaluated from the graphs produced, were in no way typical of what is traditionally percieved as a significant downward trend that could be as a result of mouth alcohol. Rather, the indication was that, as the subject was about to "run out of breath" and as the sample was near completion the alcohol concentration dropped off very slightly (.001 to a max .004) at the tail end of the breath delivery. This decline is sufficient to trigger the "invalid sample" message.

Comments

1. The ability to capture and evaluate this data in precise detail is possible because of the very fast response of the DMT system coupled to the graphic depiction of the breath and alcohol profile in real time, allowing a resolution in the data points to .0001. (see patent note below)

2. Since not a single test of the 1713 evaluated exhibited the anticipated significant rise and/or fall that would be expected if the sample were contaminated with mouth alcohol, the question then arises as to the cause of this minimal downward trend at the very end of the test as the subjects ceased blowing.

A study by J. C. Russel and R. L. Jones, Biochemistry Laboratory, Department of Surgery and Pulmonary Division, Department of Medicine, University of Alberta, Edmonton, Alberta titled "Breath Ethyl Alcohol Concentration and Analysis in the Presence of Chronic Obstructive Pulmonary Disease" (circa 1983?) may shed some light on this question. Among other things in this study, one thing that was seen was that, in patients with COPD, there was a characteristic of the breath alcohol curve almost identical to that which was observed on the invalid tests performed on the DMT. Normal subjects in this study did not exhibit this drop-off in the alcohol concentration at the end of exhalation.

3. The absence of any indications of invalid samples as a result of mouth alcohol in the total of 1713 tests may be significant. Future data will be used to validate this information.

*Removing the multiple tests per subject to get a clearer indication of the percentage of subjects producing invalid samples due to negative slopes, the 2.1% is reduced to 1.5%. This represents the total percentage of invalid sample tests produced on all instruments if only a single test was performed.

Note: Patents are pending on certain applications used to record, analyze and present this data. These applications are employed in the DMTs used in the New York testing and in all DMTs in service.

Prepared by:

David Radomski
John Fusco
May 1, 2008

Comments to Graph pages.

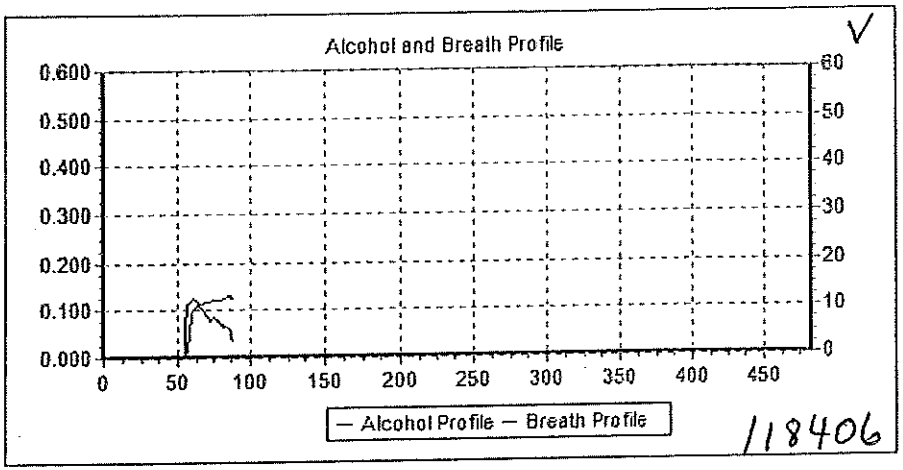
1. Left side: BrAC in %g/210L.

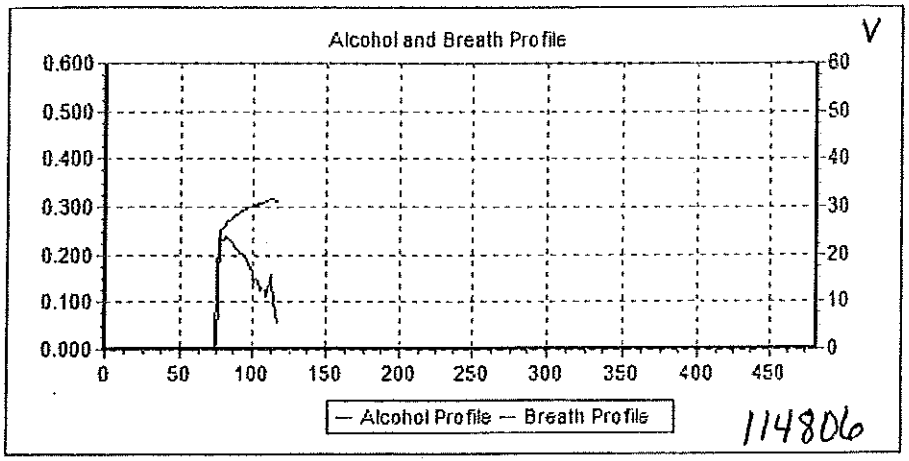
2. Bottom: Quarter Second intervals, typically 240 ° seconds or 60 Seconds but does reposition to a max of 450 ° second intervals.

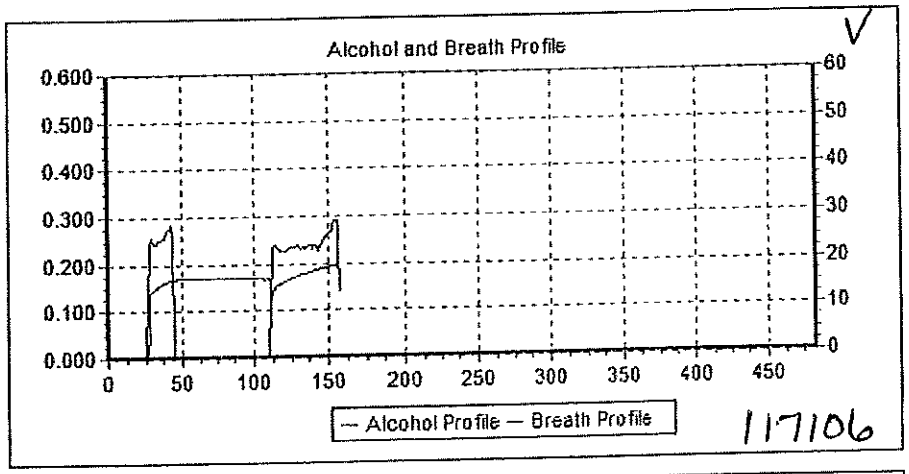
3. Right side: Liters per minute. Maximum is 40 L/m. Flat line at 40 L/m indicates blowing above that level.

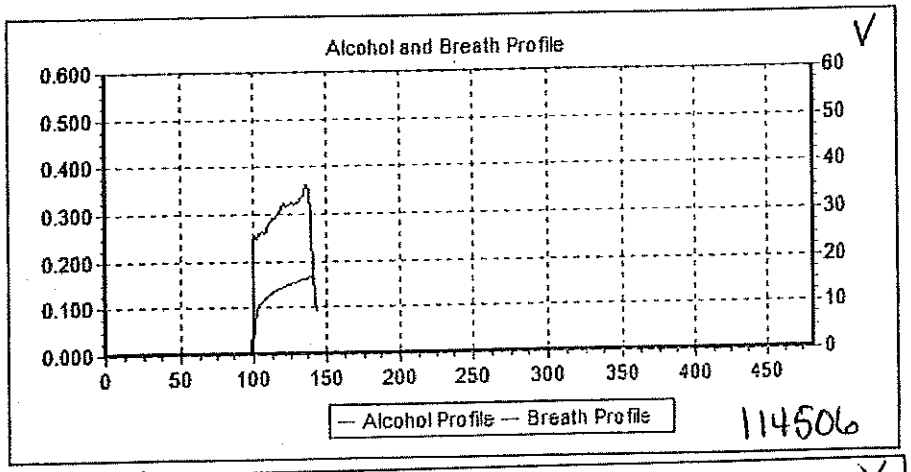
4. Alpha designation at upper right corner as follows: C = Completed Test, V = Invalid Sample Reported.

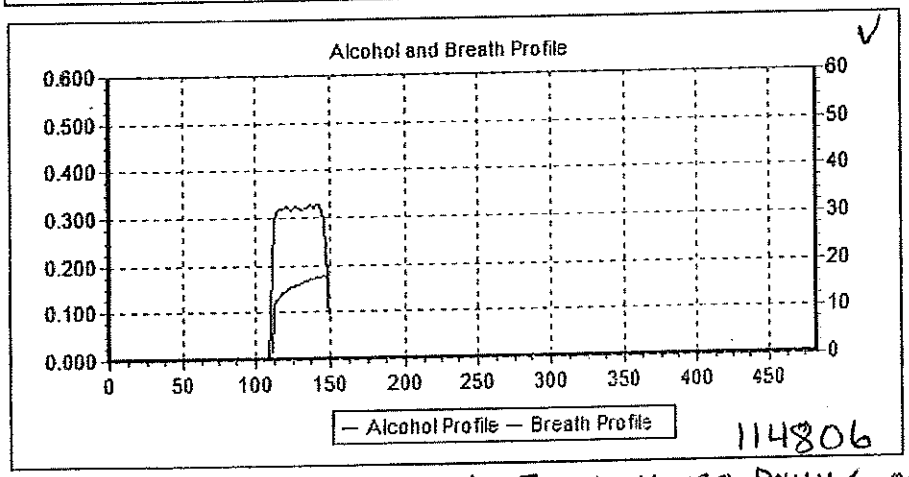
5. Number at lower right is the serial number of the DMT.

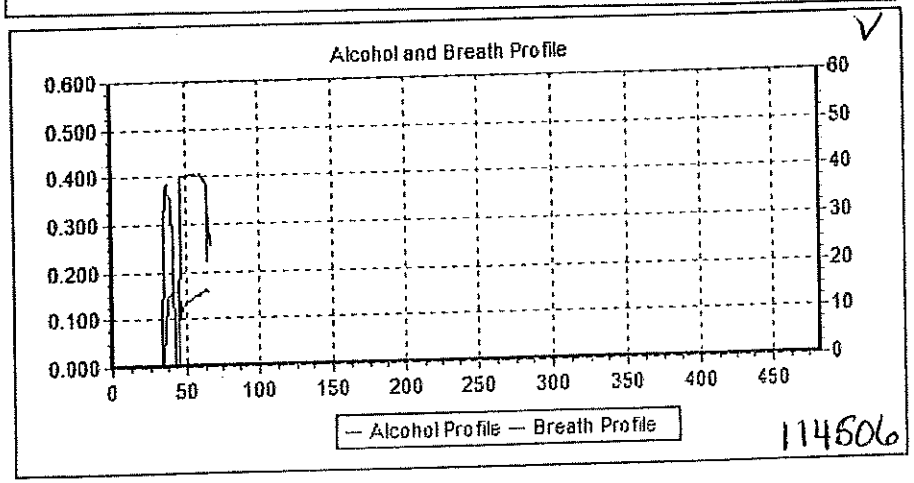




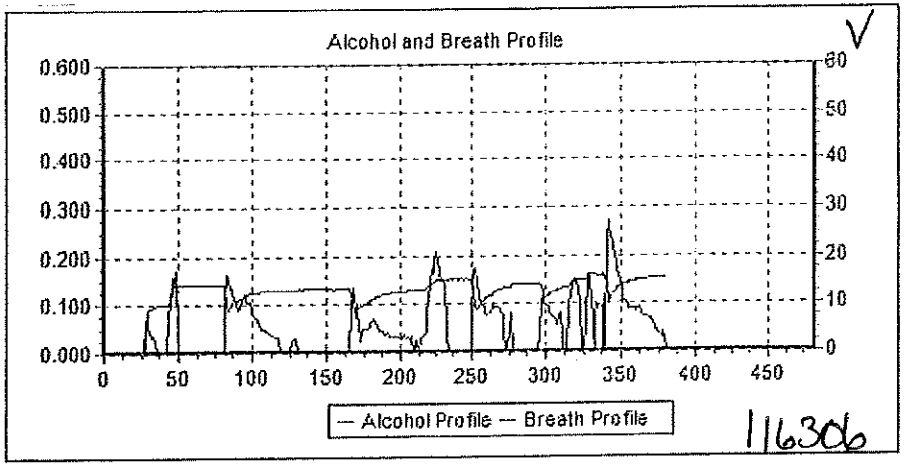


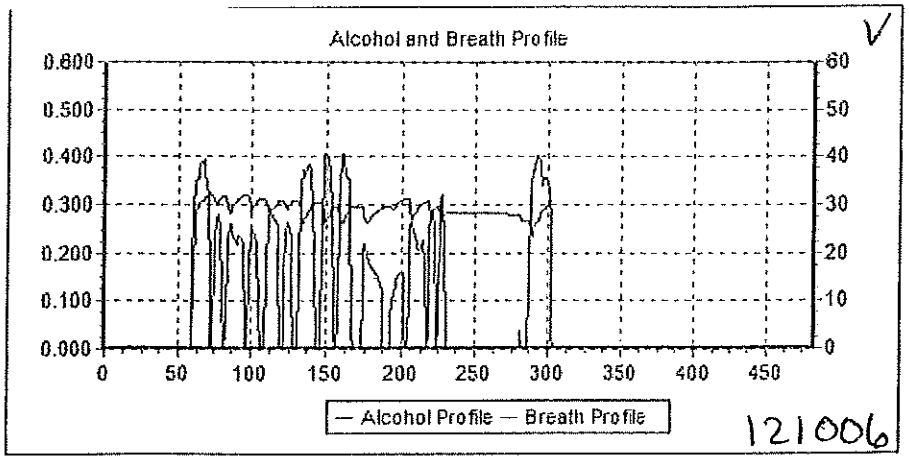


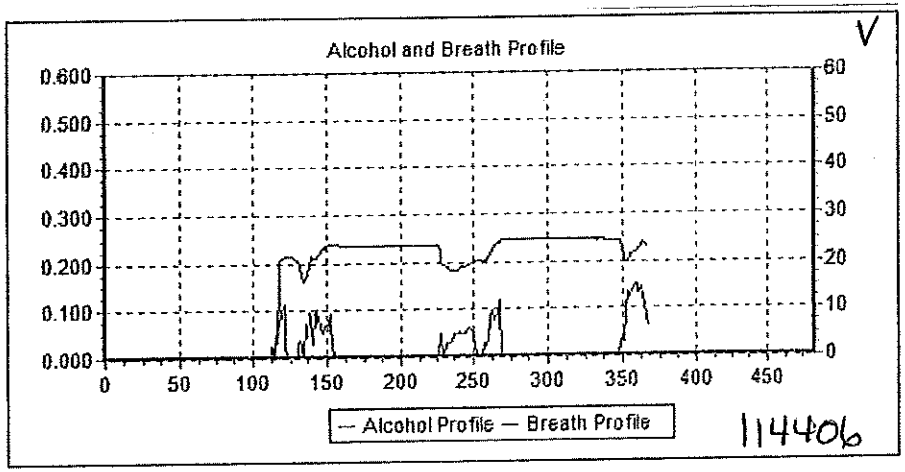


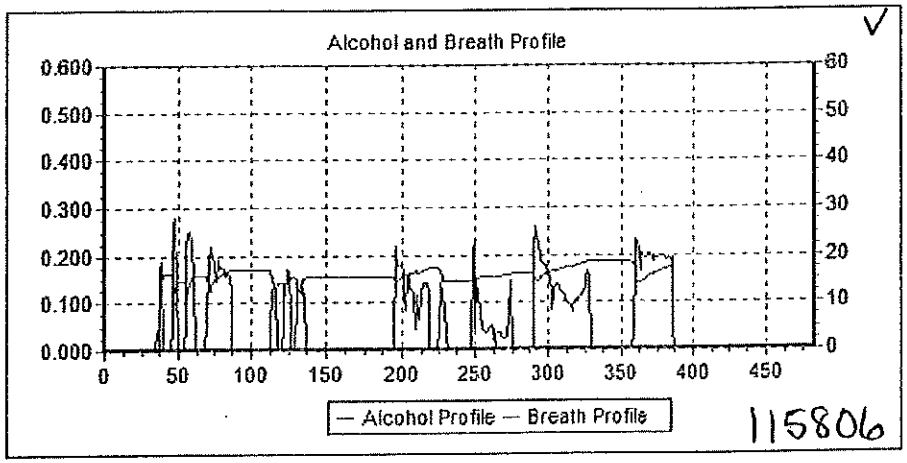


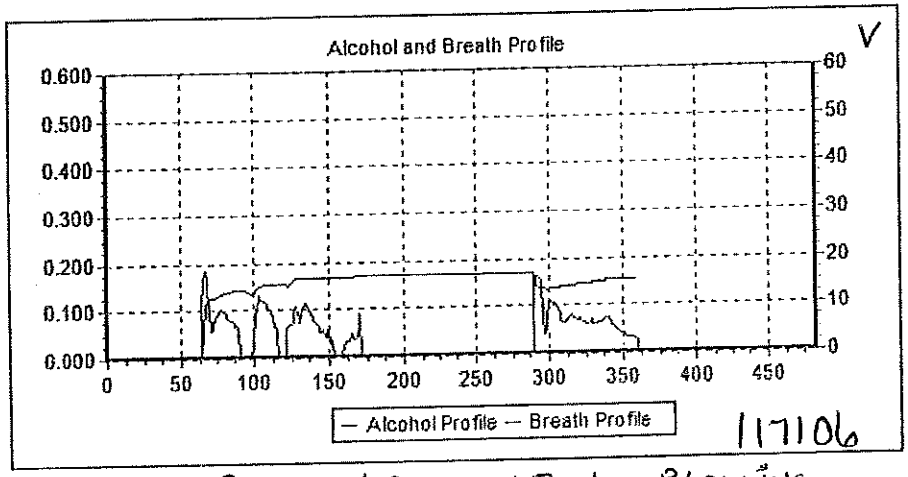
C. INVALID. FINAL MOVES DOWN < .004



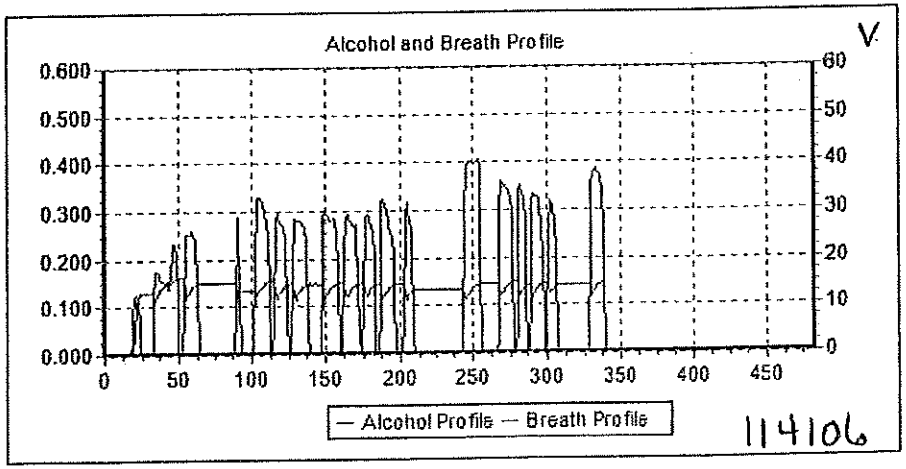


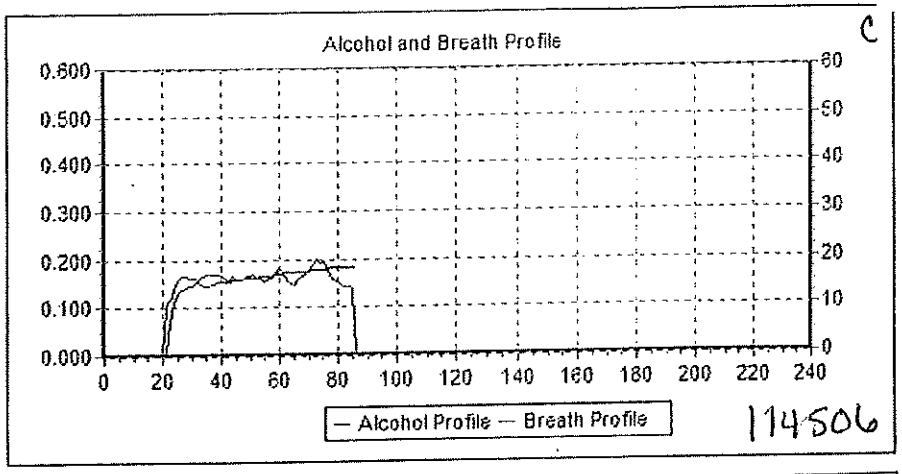


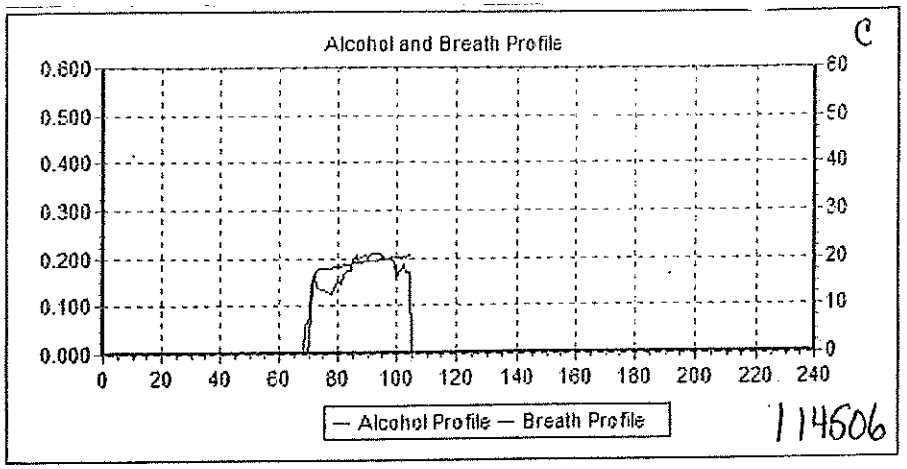


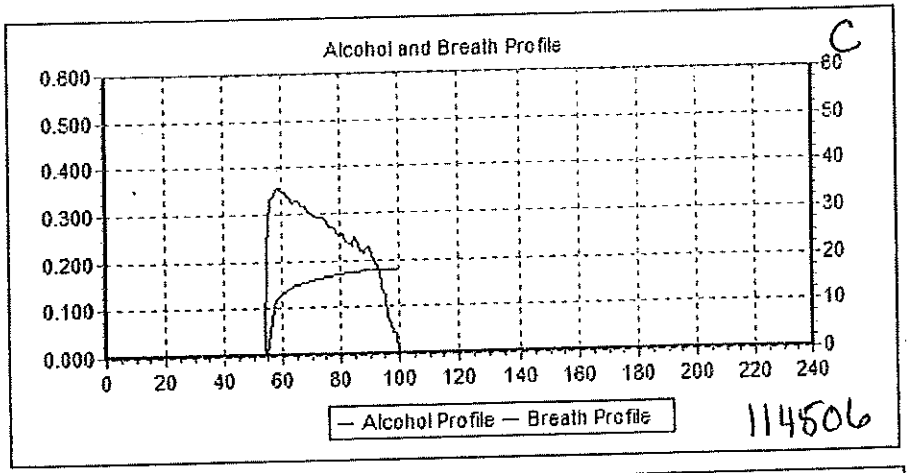


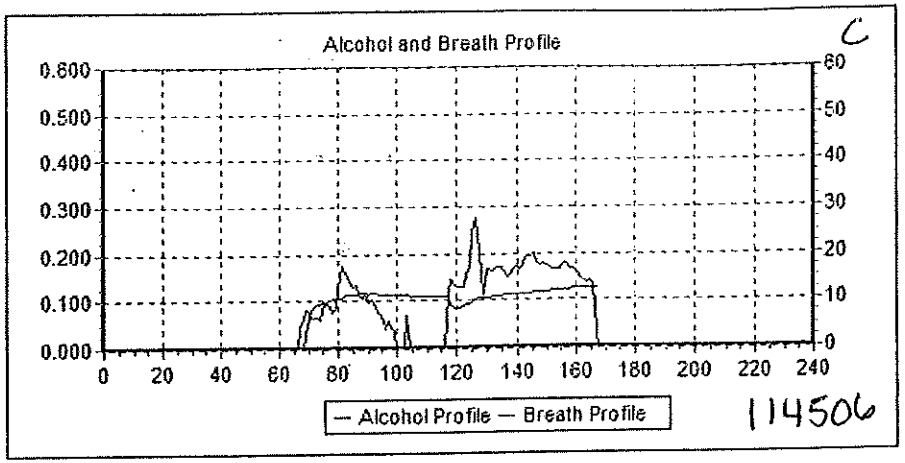
B. INVALID - MULTIPLE BLOWING

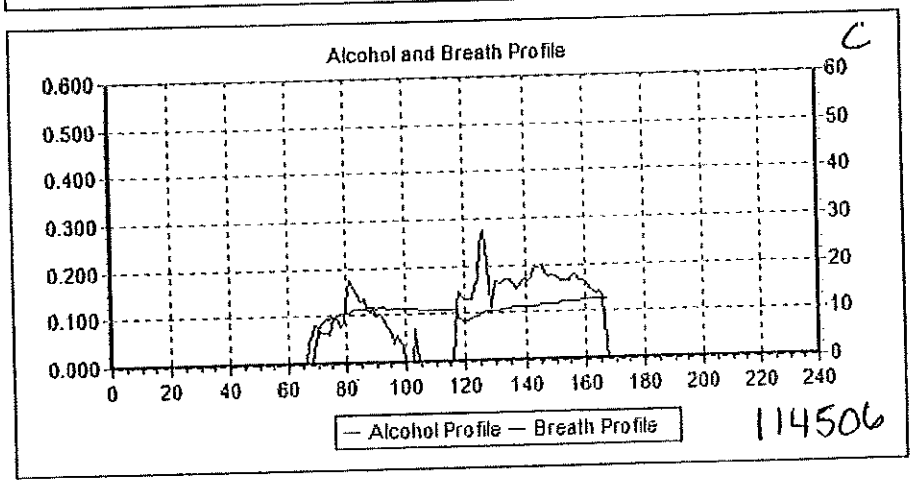


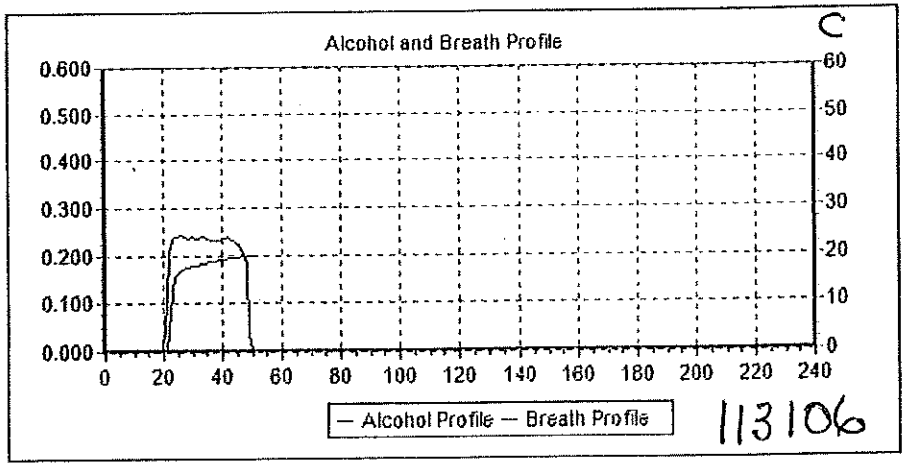












A. Completed Tests - NORMAL PROFILES

Bolduc, Amanda

From: John Fusco [jd@npas.com]
Sent: Tuesday, September 14, 2010 2:00 PM
To: Bolduc, Amanda
Subject: Quote

Attachments: Vt ESEEK quote 9-10.pdf; ATT3276631.htm

Vt ESEEK quote 9-10.pdf (44 KB...

ATT3276631.htm (2 KB)

Amanda

Bolduc, Amanda

From: Bolduc, Amanda
Sent: Tuesday, July 27, 2010 2:43 PM
To: 'Scott Marhefka'
Cc: Bolduc, Amanda
Subject: RE: software change

Additions to the list:

- Change the way the download to USB works to allow the agency to download from the permanently saved data, and the remote download to take the temporary data
- Option to print reports/summaries as PDF to USB or to Printer
- Add the following agencies: Rutland Town PD, Capitol PD, Dept. of Liquor Control
- Add a training level password that ONLY allows an override of the 15 minute timer to 15 seconds, can this also change the default number of printed reports to 1 instead of 3?
- Change the passwords to the following:
- **Training:** [redacted]
- **Admin:** [redacted]
- **Supervisor:** [redacted]
- **Technician:** [redacted]

Possibly more to come. Let me know what else you need or if anything doesn't make sense.
A

-----Original Message-----
From: Scott Marhefka [mailto:eng@npas.com]
Sent: Wednesday, June 09, 2010 1:28 PM
To: Bolduc, Amanda
Subject: software change

-------- Original Message --------
Subject: SPAM-LOW: Rev 2
Date: Wed, 24 Mar 2010 11:32:43 -0400
From: Bolduc, Amanda <abolduc@vdh.state.vt.us>
To: Scott Marhefka <eng@npas.com>

- Add a Simulator test (1 shot) to APM protocol
- Help menu which will contain our training manual
- Aborted RPC does not put unit out of service
- Ability to use previous timer on protocols
- Averaging glitch
- Standard deviation to 4 decimals
- Change background color when a password is in
- Update rev # for each update
- Training mode overrides timers

- Options reset does NOT change sim solution info
- Suck-back error does NOT abort sample acceptance test

This is not the limit of the update, more changes are likely

ABolduc

Amanda Bolduc
Vermont Department of Health Laboratory
195 Colchester Ave
PO Box 1125
Burlington, VT 05402-1125
(802) 863-7413
(802) 863-7632 (fax)

Bolduc, Amanda

From: Harnois, Steven
Sent: Thursday, July 08, 2010 8:00 AM
To: 'Cynthia Taylor-Patch'
Cc: Brad Vail (bvail@dps.state.vt.us); Dave Knight (dknight@dps.State.vt.us); Gene Martin (police@bradford-vt.us); Jeff Noyes; Linda Shedd (lshedd@dps.state.vt.us); Katherine Deslauriers; Kerry Skochin (kskochin@dps.state.vt.us); Celotti, Stella; Richardson, Darcy; Bolduc, Amanda; Drawbaugh, Bob
Subject: DATAMASTER DMT Class 7/7/2010

Cindy,

Please add the following people as attended the DataMaster DMT Class on 7/7/2010 at the Royalton VSP Barracks.

Brad Vail - Hartford
Dave Knight - Stowe
Gene Martin - Bradford
Jeff Noyes - Brighton / Canaan
Katherine Deslauriers - VSP Rockingham
Kerry Skochin - VSP Derby
Linda Shedd - Windsor

We had two four hour classes with Steven Harnois as the instructor.

I have entered the names and dates in our logs as to haven taken the class.

Thanks, Steve

Steven Harnois
State of Vermont
Agency Of Human Services
Department of Health
Public Health Electronics Technician
195 Colchester Avenue
Burlington, Vermont 05401
Phone (802) 863 7641
Fax (802) 863 7632
E Mail: NOTE NEW EMAIL Steven.Harnois@ahs.state.vt.us

Bolduc, Amanda

From: John Fusco [jd@npas.com]
Sent: Tuesday, June 15, 2010 11:54 AM
To: Drawbaugh, Bob; Bolduc, Amanda; Harnois, Steven
Cc: Radomski Dave; Service; Fusco Dan; Glen Campbell; Deb Russman
Subject: Vermont Service Memo

Attachments: Vt Memo 6-15.pdf; ATT564961.htm; Vt Memo 6_15; ATT564962.htm

Vt Memo 6-15.pdf (26 KB)

ATT564961.htm (213 B)

Vt Memo 6_15 (60 KB)

ATT564962.htm (2 KB)

FYI

Bolduc, Amanda

From: John Fusco [jd@npas.com]
Sent: Friday, June 11, 2010 9:04 AM
To: Bolduc, Amanda; Drawbaugh, Bob
Subject: Re: Order Coordination

Amanda

Turn around, including shipping should be on the order of 2 to 3 weeks. I need to confirm the availability of parts. I suggest we get it started ASAP as we have a bunch of projects going. When you call, ask for Tammy and get an RMA number. It would be good if you have the serial numbers at that time, but not essential. If Tammy is not here, ask for me. (My nap is usually 9:45 to 11:00, so try to avoid that time period or I might seem to be grumpy.)

Bob

Your idea on invoicing might create some coordination issues at this end. I suggest we invoice as we do them and your people can hold the invoices if that is easier and pay them all at once. If for some reason they have not all been returned to us by Sept., we can invoice the remainder in advance to accommodate the grant.

It seems like every time I try to side step our procedures we have problems.

JF

On Jun 11, 2010, at 7:15 AM, Bolduc, Amanda wrote:

> John,
> I think that sounds like a plan. We will probably be returning a few (1-3) at a time so it will probably be easiest to call Tammy and get a call tag when we have the units boxed up. Can you confirm the turn-around time for the upgrade?
> Thanks
> Amanda
>
> -----Original Message-----
> **From:** Drawbaugh, Bob
> **Sent:** Thursday, June 10, 2010 3:34 PM
> **To:** 'John Fusco'
> **Cc:** Bolduc, Amanda; Celotti, Stella
> **Subject:** RE: Order Coordination
>
> Thanks for the inquiry, John. I'm not sure how long it will take to get the project done and we will be charging this against a grant that end in Sept. So, If possible could we get an invoice at the end of August for whatever has been completed to that point and then a final invoice for the remainder? Let me know if that is a problelm at your end and we can see what else might work. Hope all is well in Mansfield.
>
> Bob
>
> -----Original Message-----

From: John Fusco [mailto:jd@npas.com]
Sent: Thursday, June 10, 2010 11:27 AM
To: Bolduc, Amanda
Cc: Drawbaugh, Bob; Harnois, Steven
Subject: Order Coordination

Amanda

I have the PO for the upgrades. How do you want to coordinate this? Will you advise our Tammy as to how many and when you want the pick up orders issued?

Also Bob: Do you want us to invoice these as we do them or wait and send one invoice on completion?

John Fusco
National Patent Analytical Systems, Inc.
jd@npas.com
Phone 419+526-6727 Fax 419+526-9446

John Fusco
National Patent Analytical Systems, Inc.
jd@npas.com
Phone 419+526-6727 Fax 419+526-9446

Bolduc, Amanda

From: Drawbaugh, Bob
Sent: Thursday, June 10, 2010 3:34 PM
To: 'John Fusco'
Cc: Bolduc, Amanda; Celotti, Stella
Subject: RE: Order Coordination

Thanks for the inquiry, John. I'm not sure how long it will take to get the project done and we will be charging this against a grant that end in Sept. So, If possible could we get an invoice at the end of August for whatever has been completed to that point and then a final invoice for the remainder? Let me know if that is a problelm at your end and we can see what else might work. Hope all is well in Mansfield.

Bob

-----Original Message-----
From: John Fusco [mailto:jd@npas.com]
Sent: Thursday, June 10, 2010 11:27 AM
To: Bolduc, Amanda
Cc: Drawbaugh, Bob; Harnois, Steven
Subject: Order Coordination

Amanda

I have the PO for the upgrades. How do you want to coordinate this? Will you advise our Tammy as to how many and when you want the pick up orders issued?

Also Bob: Do you want us to invoice these as we do them or wait and send one invoice on completion?

John Fusco
National Patent Analytical Systems, Inc.
jd@npas.com
Phone 419+526-6727 Fax 419+526-9446

Bolduc, Amanda

From: Scott Marhefka [eng@npas.com]
Sent: Wednesday, June 09, 2010 1:28 PM
To: Bolduc, Amanda
Subject: software change

-------- Original Message --------
Subject: SPAM-LOW: Rev 2
Date: Wed, 24 Mar 2010 11:32:43 -0400
From: Bolduc, Amanda <abolduc@vdh.state.vt.us>
To: Scott Marhefka <eng@npas.com>

- Add a Simulator test (1 shot) to APM protocol
- Help menu which will contain our training manual
- Aborted RPC does not put unit out of service
- Ability to use previous timer on protocols
- Averaging glitch
- Standard deviation to 4 decimals
- Change background color when a password is in
- Update rev # for each update
- Training mode overrides timers
- Options reset does NOT change sim solution info
- Suck-back error does NOT abort sample acceptance test

This is not the limit of the update, more changes are likely

ABolduc
Amanda Bolduc
Vermont Department of Health Laboratory
195 Colchester Ave
PO Box 1125
Burlington, VT 05402-1125
(802) 863-7413
(802) 863-7632 (fax)

Bolduc, Amanda

From: John Fusco [jd@npas.com]
Sent: Monday, May 17, 2010 2:30 PM
To: Bolduc, Amanda
Subject: Re: RFQ

Scott tells me that there is no reason to look at anything else.

Jf

On May 17, 2010, at 9:23 AM, Bolduc, Amanda wrote:

> Yes, this is still what we want. Unless there are other recommendations from your end, this is what we believe is necessary to bring the '06 units up to the standard of the '10 units, correct?
> A
>
> -----Original Message-----
> **From:** John Fusco [mailto:jd@npas.com]
> **Sent:** Monday, May 17, 2010 9:17 AM
> **To:** Bolduc, Amanda
> **Subject:** Re: RFQ
>
> I had this communication. I wanted to run it by Bob to be sure everything was still covered and that no changes were made at your end that I was not aware of.
>
> JF
>
> On May 17, 2010, at 9:13 AM, Bolduc, Amanda wrote:
>
> > John, here is the RFQ for the '06 DMT refurbishment. We would like to change both the controller board and the CPU to bring these units up to the '10 DMT standard. Thanks
> > Amanda
> > -----Original Message-----
> > **From:** John Fusco [mailto:jd@npas.com]
> > **Sent:** Wednesday, January 13, 2010 2:53 PM
> > **To:** Bolduc, Amanda
> > **Subject:** RFQ
> >
> > Attached and Thanks<VDH1_13_10.pdf><ATT755310.htm>
>
> John Fusco
> National Patent Analytical Systems, Inc.
> jd@npas.com
> Phone 419+526-6727 Fax 419+526-9446

John Fusco
National Patent Analytical Systems, Inc.
id@npas.com
Phone 419+526-6727 Fax 419+526-9446

Bolduc, Amanda

From: Drawbaugh, Bob
Sent: Tuesday, April 06, 2010 3:54 PM
To: Harnois, Steven
Cc: Bolduc, Amanda
Subject: RE: New Instrument

Just to document my conversation with you, you are authorized by the manufacturer to effect this kind of repair on the instrument so we should have them ship the part to us. If there are any complications or if that does not seem to correct the problem we can then ship the instrument back to them for further repair work.

-----Original Message-----
From: Harnois, Steven
Sent: Monday, April 05, 2010 12:43 PM
To: Drawbaugh, Bob
Subject: New Instrument

Bob,

I spoke to Chris at NPAS today the instrument that we sent back with the Comm. error just like the one we have here also has a broken (via Shipping) Microprocessor board, he said that he can send me a new si microcontroller and I can replace it here rather then shipping back and forth, As far as Time wise, it should only take me a 1/2 hour or less to replace this part, just for a contrast for you it will take that much time to box up send and receive the instrument if we were to send it to NPAS.

How would you like to proceed, 1) Ship it back and let them do the replacement - turn around at NPAS somewhat questionable, no experience, est. turnaround the end of next week.

2) ship new si here and have me do the replacement - gain the experience. - Instrument could be up and running as early as the end of this week

Let me know and I will do whatever you would like.

Thanks, Steve

Steven Harnois
State of Vermont
Agency Of Human Services
Department of Health
Public Health Electronics Technician
195 Colchester Avenue
Burlington, Vermont 05401
Phone (802) 863 7641
Fax (802) 863 7632
E Mail: Sharnoi@vdh.state.vt.us

Drawbaugh, Bob

From: John Fusco [jd@npas.com]
Sent: Tuesday, March 23, 2010 10:24 AM
To: Drawbaugh, Bob
Cc: service@npas.com
Subject: Couple of things.

I'm going to be furnishing you the HP Pro 8000 color Ink Jet printer. We have tested it and it works fine. This is a better printer than before but the one we furnished before has been discontinued. (no surprises there!)

39 will all be shipped direct to you at one time except the one we brought in for testing. We will keep that to test your instruments then ship it to you as the 40th printer.

Also, I am shipping all 40 of the simulators at one time. These have been cleaned and tested. They are all working. Service said we may be missing a jar or two. I'm checking on this. Also, we have adjusted the access port on the bracket to better accommodate the older simulators. Remind the girls and Steve, these are used simulators, gratis, from SC and there is no warranty or guarantee with them.

Thanks

John Fusco
National Patent Analytical Systems, Inc.
jd@npas.com
Phone 419+526-6727 Fax 419+526-9446

Drawbaugh, Bob

From: John Fusco [jd@npas.com]
Sent: Tuesday, March 23, 2010 2:00 PM
To: Drawbaugh, Bob
Subject: shipments

The simulators left today. 4 of the first 10 DMT's left today and I should conclude the Printer shipment today or tomorrow. You should have everything complete on the first 10 by the end of this week.

The next 10 are scheduled for the 2nd week of April.

John Fusco
National Patent Analytical Systems, Inc.
jd@npas.com
Phone 419+526-6727 Fax 419+526-9446

National Patent
Analytical Systems, Inc.

Mr. Robert Drawbaugh
Vermont Dept of Health
Box 70
Burlington, Vt. 05402-0700

March 15, 2010

Dear Mr. Drawbaugh:

Regarding your request for clarification of our warranty policy: We do have a stated 2 year warranty on DataMaster Products, including the DMT. However, we have always considered the warranty to start upon actual deployment of the instruments to the field rather than the shipping date when multi instrument state orders are involved. Further, since the placement of the instruments is often staggered in time, we usually pick a mutually agreeable date that reflects, more or less, an average placement date. This is easier and more convienent for all concerned. This is not a policy that was ever reduced to written form and probably never will be but it certainly is helpful to our customers. The only caveat is that the warranty maintenance, repairs and recalibrations be done by a technician who has been certified by us as a maintenance technician.

Regarding the issue of your technician using parts from one of our demonstrator or loaner instruments to repair an instrument from your inventory. If it is helpful to your program we certainly support this remedy. We can send you a replacement part for the loaner instrument and your technician can install it.

Our records currently indicate that your employee Steve Harnois is certified by us to perform maintenance and recalibrations on the DataMasters and DMT instruments. Given his experience and level of expertise, it is my opinion that he should perform the maintenance on the new DMT instruments.

Sincerely,

John Fusco,
President

2090 Harrington Memorial Road, Mansfield, Ohio 44901 Ph 419-526-6727 Fax 419-526-9446
jd@NPAS.com

National Patent
Analytical Systems, Inc.

Memo

Date: 6/15/10

To: Tammy, Service, Accounting, B Drawbaugh, A Bolduc, S Harnois

Re: Vermont Returns

Vermont will be returning 20 DMTs for upgrade in groups of 3 each over the next 3 months.

1. They will phone for an RMA each time and a single separate RMA is to be issued for each group. (They should provide the serial numbers at the time the RMA is requested, but if they do not, the serial numbers can be noted on the RMA on receipt of the DMTs.) The Customer Purchase Order Number to be used on all RMAs for this project is 03420-0000027880

2. A pick up order is to be issued for each DMT being returned. (Freight both directions is included in the agreed price so, either no freight entry is made or if an entry is made for freight, the price is $0.00 with the notation that the freight is paid by NPAS. If there is shipping damage, this must be resolved with the carrier prior to proceeding.

3. The DMTs are to have the the RLC Processor replaced with the SI Processor and the Controller replaced with the current version of 41602 along with the associated cables.

The following are the part that will be listed on the RMA Order Entry Form:

1	(Per DMT) 41602 Controller PCB	$300.00 Each, Service Included
1	(Per DMT) 43601 SI Processor Adapter Kit (includes 43602)	$990.00 Each, Service Included

4. Perform all service to return DMTs to operational status as necessary however, should any major assemblies be needed, notify JF. Vermont expects a 2 week turnaround, so one week in service should be the norm.

5. Upon shipping, invoice all three on the single RMA listing and Shipping all items noted above (for inventory control) at the prices shown. The RMA will be closed upon shipping and invoicing and a new RMA issued for the next batch of returns.

Any questions, ask.

John Fusco

Po Box 1435, 2090 Harrington Memorial Road Mansfield, Ohio 44901
Phone 1-419-526-6727 Fax 1-419-526-9446

Bolduc, Amanda

From: Harnois, Steven
Sent: Friday, March 12, 2010 9:03 AM
Subject: Daylight Saving Time

Dear DataMaster Supervisor,

This year as we approach the change to Daylight Saving Time, we at the Vermont Department of Health lab Toxicology Program would like to take this opportunity to remind you to check the clock on the DataMaster at your site. For sites with BAC DataMasters you will have to change your time. For sites with DataMaster DMT's you should not have to change the time on your instrument but please to be sure to check it for accuracy and contact us if Daylight Saving Time does NOT change on it's own.

The instructions for changing the time on the DataMaster(s) is located in the DataMaster Supervisor Manual appropriate for your type of instrument.

As with any other questions about the DataMaster, Please feel free to contact us at the lab for assistance.

Thank You for your help to ensure fair and accurate processing of DUI suspects.

Steve

Steven Harnois
State of Vermont
Agency Of Human Services
Department of Health
Public Health Electronics Technician
195 Colchester Avenue
Burlington, Vermont 05401
Phone (802) 863 7641
Fax (802) 863 7632
E Mail: Sharnoi@vdh.state.vt.us

Bolduc, Amanda

From: Scott Marhefka [eng@npas.com]
Sent: Wednesday, March 10, 2010 11:57 AM
To: Bolduc, Amanda
Subject: Re: SPAM-LOW: Rounding issue

Amanda,

The reason the supervisor test showed an average of 0.098 instead of
0.099 is as follows:

The DMT stores values and does all math in PPM.
Looking at the raw test data, the average was correctly calculated and stored as 257.895.
Data is converted to g/210L when displayed or printed.
Unfortunately, when the DMT took 257.895 / 2605 the result was
0.0989999999999999999999999999999999999999999999.
For averages we usually show an extra digit and round.
Since VT truncates to 3 digits the answer was 0.098 The fix will be to round to 6 digits
and then truncate to 3 digits.

Please let me know you received this.
--
Scott Marhefka
National Patent Analytical Systems
2090 Harrington Memorial Road
Mansfield, OH 44903

email: eng@npas.com
phone: (419) 526-6727

Bolduc, Amanda

From: Scott Marhefka [eng@npas.com]
Sent: Wednesday, March 10, 2010 11:57 AM
To: Bolduc, Amanda
Subject: Re: SPAM-LOW: Rounding issue

Amanda,

The reason the supervisor test showed an average of 0.098 instead of
0.099 is as follows:

The DMT stores values and does all math in PPM.
Looking at the raw test data, the average was correctly calculated and
stored as 257.895.
Data is converted to g/210L when displayed or printed. Unfortunately, when the DMT took
257.895 / 2605 the result was
0.0989999999999999999999999999999999999999999999.
For averages we usually show an extra digit and round.
Since VT truncates to 3 digits the answer was 0.098
The fix will be to round to 6 digits and then truncate to 3 digits.

Please let me know you received this.
--
Scott Marhefka
National Patent Analytical Systems
2090 Harrington Memorial Road
Mansfield, OH 44903

email: eng@npas.com
phone: (419) 526-6727

Bolduc, Amanda

From: Celotti, Stella
Sent: Wednesday, March 03, 2010 12:12 PM
To: Drawbaugh, Bob; Bolduc, Amanda; Richardson, Darcy; Harnois, Steven
Cc: Prender, Patrice
Subject: FYI - Purchase Order for Next Batch of DataMaster DMTs to Be Issued Today

Mary Celotti
Laboratory Director
Vermont Department of Health Laboratory
195 Colchester Avenue
Burlington, Vermont 05401
Office:802-863-7570
Fax:802-863-7632
scelott@vdh.state.vt.us

Bolduc, Amanda

From: Drawbaugh, Bob
Sent: Wednesday, February 17, 2010 1:49 PM
To: Bolduc, Amanda; Harnois, Steven; Richardson, Darcy
Subject: FW: TRACS Newsletter

Attachments: Jan-Feb-Mar 2010 NEWSLETTER.pdf; ATT192868.htm

Jan-Feb-Mar 2010 NEWSLETTER.pd...

ATT192868.htm (211 B)

-----Original Message-----
From: John Fusco [mailto:jd@npas.com]
Sent: Wednesday, February 17, 2010 1:10 PM
To: Customers
Subject: TRACS Newsletter

From Iowa

John Fusco
National Patent Analytical Systems, Inc.
jd@npas.com
Phone 419+526-6727 Fax 419+526-9446

Drawbaugh, Bob

From: John Fusco [jd@npas.com]
Sent: Tuesday, June 24, 2008 2:11 PM
To: Drawbaugh; Drawbaugh, Bob
Subject: Yesterday

Bob

I seem to remember talking to you yesterday, but it was just before my nap so let me know if I didn't get things correct.

I have 12 Hamamatsu detectors going out to you tomorrow. It would be today but Chris has to fire them up first and see that they are functional. They will not be burned in, so expect some shift during break in. I will forward you an RMA number which can be used to return the old ones so I can keep things straight.

Scott is working on the list from Amanda. I'm going to check with him a little later and will get back to you regarding progress.

John Fusco
National Patent Analytical Systems, Inc.
jd@npas.com
Phone 419+526-6727 Fax 419+526-9446

Drawbaugh, Bob

From: John Fusco [jd@npas.com]
Sent: Sunday, February 28, 2010 9:47 AM
To: Drawbaugh, Bob
Subject: Re: SPAM-LOW: RE: Card Readers

There are two directions you can go with the card readers both involve a significant upcharge.

1. SC is using the optical scanning reader. The slot is on the left side of the of the DMT and access is simple by removing the left side panel. It is wired internally through the Comm. Board. This is about a $500 option.

2. The other alternative is a USB combination bar code / mag swipe reader that is a separate small addition and sits at the side or on top the DMT. It hooks into the USB slot on the standard Keyboard. I don't think it can use the Cherry keyboard as I'm not sure there is an open USB port on that keyboard. It can hook into one of the spare USBs at the back. This is about a $650 upcharge.

It would be good to review this with Scott for additional details.

I really wish you were going to IACT on Saturday. Doing the remote thing is difficult and not easy to implement. We have a good program planned but may not have allot of users there since it seems some are not able to do the IACT thing this year.

JF

On Feb 26, 2010, at 4:57 PM, Drawbaugh, Bob wrote:

> John we are at 50/50 on the card reader issue. Can you remind me if there is a significant price difference; whether they both have magi/optical capability; where the slot would be on DMT for internal; is the internal also a usb connection?; would replacement of an internal reader require any dismantling other than unplug and replace?
>
> I won't be able to make it to the NPAS meeting on Sat. and have asked if I might be able to give a brief presentation/update on the VT program by conference call I am planning on being at IACT arriving Sun. night or Mon. afternoon. I haven't been there for a couple of years and this will be my 'swan song' for my roughly 30 years in this capacity.
>
> -----Original Message-----
> **From:** John Fusco [mailto:jd@npas.com]
> **Sent:** Thursday, February 25, 2010 4:58 PM
> **To:** Drawbaugh, Bob
> **Subject:** Card Readers
>
> The subject of card readers on your new instruments came up at the staff meeting. Dave was under the impression that they were to have built in card readers. I need to know this at this point. I can't find where I quoted card readers.
>
> JF
>
> What's this I hear from Glen that you may not be at IACT???

Drawbaugh, Bob

From: John Fusco [jd@npas.com]
Sent: Wednesday, February 17, 2010 2:03 PM
To: Drawbaugh, Bob
Subject: Re: SPAM-MED: RE: SPAM-LOW: BAC/CDM parts

I'll schedule 20 the first of April and the Balance in June. Make sure any software changes or updates are communicated to Scott. This could impact shipments.

Jf

On Feb 17, 2010, at 1:45 PM, Drawbaugh, Bob wrote:

> Whew!- Thanks! We would ideally have at least 6 here by the first full week of April to have enough to do the training then another 6 late in the month. That would give us enough to have for training and deployment in 3 more counties. If the next batch of 8 to make up the first 20 of 40 arrives at the end of May/early June that would be OK. If the final 20 can be delivered [again- it can be in smaller batches] by no later than the end of August we will be able to essentially meet our expenditure obligations. Sooner is better for any of the dates but I think we can 'survive' with what I have given you here. We appreciate the support you folks are able to provide to our humble [but important] program.
>
> Bob
>
> > -----Original Message-----
> > **From:** John Fusco [mailto:jd@npas.com]
> > **Sent:** Wednesday, February 17, 2010 1:05 PM
> > **To:** Drawbaugh, Bob
> > **Subject:** Re: SPAM-MED: RE: SPAM-LOW: BAC/CDM parts
> >
> > That's because I thought it looked good and was a sure fit. Let me know your schedule and I should be able to accommodate it.
> >
> > JF
> >
> > On Feb 17, 2010, at 12:32 PM, Drawbaugh, Bob wrote:
> >
> > > John, Do I understand your schedule message correctly - early June for the first 20?? If so I will need to see if we can do some major scheduling changes at this end regarding officer training. Its good to hear that you folks are apparently busy with production for other jurisdictions.
> > >
> > > Bob
> > >
> > > > -----Original Message-----
> > > > **From:** John Fusco [mailto:jd@npas.com]

Sent: Wednesday, February 17, 2010 10:53 AM
To: Drawbaugh, Bob
Subject: Re: SPAM-MED: RE: SPAM-LOW: BAC/CDM parts

Based on your information below I am going to get the first 20 into production. I would anticipate delivery in early June or a little before.

JF

On Feb 17, 2010, at 10:45 AM, Drawbaugh, Bob wrote:

> John,
> Thanks for your quick reply - the situation is as I had anticipated. We have been scrapping the parts in various waste streams. The purchase requisition was approved and processed in our Health Department and was said to have gone to our State Central Purchsing Division early last week. It needs the official Administration approval for sole-source vendor purchase just as we had to do last Fall so it will be another week or so until it is released but it is 'on its way'. As discussed earlier, it is for 40 instruments with staggered delivery. Since we have a rather tight schedule at this end as well, we can take delivery in smaller batches than the initial 20 in the first batch as indicated on the P.O. if that is a help in the production and pre-shipment testing process.
>
> Thus far, we continue to operate successfully with 30 instruments now deployed with no major legal challenges regarding the performance of the DMT.
>
> Bob
>
> > -----Original Message-----
> > **From:** John Fusco [mailto:jd@npas.com]
> > **Sent:** Wednesday, February 17, 2010 10:08 AM
> > **To:** Drawbaugh, Bob
> > **Subject:** Re: SPAM-LOW: BAC/CDM parts
> >
> > Bob
> >
> > I have a horribly high pile of parts from So. Carolina which in most cases are identical to yours. They did not want to scrap so they tore them down and shipped them all here. We are trying to scrap as much as possible now. I would suggest scrapping yours as the numbers of states using the older units are becoming scarce and it is difficult for us to reuse the parts. If there is a way, the defense community would probably be willing to pay the state 500 or 1K each for these.

We are starting to close in production wise and it appears that summer and into fall is going to be tight. Any idea how the request for additional DMTs is coming?

By the way, did you hear that the NYSP had to literally pull all the new 9510s from the field. I don't have the details, but understand that Draeger had to bring people from Germany to address the issues.

Jf

On Feb 17, 2010, at 9:55 AM, Drawbaugh, Bob wrote:

> John,
>
> As we continue to de-commission our BAC DataMasters we have the opportunity to redistribute/recycle parts from them as opposed to scrapping them. Dave suggested that I contact you as we would like to give you folks first refusal opportunity for obtaining any of them. I you folks have need for any of the components we would be happy to provide what we have and will cull from the remaining 40 or so units for some level of 'consideration'. Dave has also provided us with contacts in other DM programs that may be interested in some of these. Please let me know at your earliest convenience if you would like any of them. Thanks.
>
> Bob
>
> *Robert Drawbaugh, Chief*
> *Toxicology Program*
> *VT Department of Health Laboratory*
> *195 Colchester Ave.*
> *Burlington, VT 05402-1125*
> *802-863-7622*
> *fax: 802-863-7632*

John Fusco
National Patent Analytical Systems, Inc.
jd@npas.com

Phone 419+526-6727 Fax 419+526-9446

John Fusco
National Patent Analytical Systems, Inc.
jd@npas.com
Phone 419+526-6727 Fax 419+526-9446

John Fusco
National Patent Analytical Systems, Inc.
jd@npas.com
Phone 419+526-6727 Fax 419+526-9446

John Fusco
National Patent Analytical Systems, Inc.
jd@npas.com
Phone 419+526-6727 Fax 419+526-9446

Bolduc, Amanda

From: Dave Radomski [dmr@npas.com]
Sent: Friday, January 22, 2010 3:25 PM
To: Bolduc, Amanda
Cc: Drawbaugh, Bob; John Fusco
Subject: Refurbished instruments

Hi Amanda,

To properly implement and track these upgrades it would be helpful if:

-VT issued a PO for exactly what was expected to be included in the upgrade along with shipping details and costs (John quoted Bob these various possibilities).

-We will enter a sales order for the quantity and work to be done.

-We will track work done and invoice per this PO and sales order.

Hopefully this will eliminate any possible confusion as the upgrades are implemented.

Thanks,

Dave

Bolduc, Amanda

From: John Fusco [jd@npas.com]
Sent: Wednesday, January 13, 2010 2:53 PM
To: Bolduc, Amanda
Subject: RFQ

Attachments: VDH1_13_10.pdf; ATT755310.htm

VDH1_13_10.pdf (69 KB)

ATT755310.htm (2 KB)

Attached and Thanks

Bolduc, Amanda

From: Scott Marhefka [eng@npas.com]
Sent: Thursday, October 22, 2009 1:31 PM
To: Bolduc, Amanda
Subject: VT 10-22-09 software for RLC

Amanda,

I sent Jeff the file. The following changes have been made:

Calibration -- "OK" prompts will not time out for hooking up nor removing Water/Alcohol.

Installation/APM/RPC -- "OK" prompts will not time out when prompting to start Sample Acceptance.

Sample Acceptance Test -- "Did instrument pass all Sample Acceptance Tests" will still time out but default to "NO".

--

Scott Marhefka
National Patent Analytical Systems
2090 Harrington Memorial Road
Mansfield, OH 44903

email: eng@npas.com
phone: (419) 526-6727

Bolduc, Amanda

From: Scott Marhefka [eng@npas.com]
Sent: Thursday, October 22, 2009 1:27 PM
To: Seguin, Jeff
Cc: Bolduc, Amanda
Subject: 10/22/09 software for Amanda Bolduc

Jeff,

I have sent another zip file for Amanda Bolduc to use on her RLC DMTs.

--
Scott Marhefka
National Patent Analytical Systems
2090 Harrington Memorial Road
Mansfield, OH 44903

email: eng@npas.com
phone: (419) 526-6727

Bolduc, Amanda

From: Bolduc, Amanda
Sent: Tuesday, October 20, 2009 1:17 PM
To: 'eng@npas.com'
Cc: Lab_Alc
Subject: SI DMT Software issue

There is a problem with the SI DMT's software. If a protocol prompts a question and you don't answer in a timely manner, it assumes YES. For example, during the calibration the unit prompts "attach water". If you wait more than a minute, it assumes you pressed OK and starts running the water cal. When the instrument asks "did all sample acceptance checks pass?" after a minute of not pressing anything, it assumes YES. I haven't yet tested other prompts to see what else times out, but the 06-DMT's with the old software did not previously do this. I have to retest the new software on the 06's that Scott sent me on 10/5.
A

Bolduc, Amanda

From: Dave Radomski [dmr@npas.com]
Sent: Wednesday, October 14, 2009 1:59 PM
To: Bolduc, Amanda
Subject: [BULK] Status Codes

Importance: Low

VT DMT
anation of Status

ATT966823.txt
(66 B)

Here they are.

Bolduc, Amanda

From: Dave Radomski [dmr@npas.com]
Sent: Tuesday, October 13, 2009 9:30 AM
To: Bolduc, Amanda
Subject: Re: SPAM-LOW: RE: Isopropyl

Call tags issued. Will be there tomorrow.
I'll press Scott on the error codes document. I need him to get the specific details as written in code.

Dave

On Oct 13, 2009, at 7:24 AM, Bolduc, Amanda wrote:

> We are really pressed for time and space right now. We would like to
> send these two units back to you for repair or replacement.
> Technically,
> these two do not meet our acceptance requirements. Can you send a call
> tag for them?
>
> ABolduc
> Amanda Bolduc
> Vermont Department of Health Laboratory
> 195 Colchester Ave
> PO Box 1125
> Burlington, VT 05402-1125
> (802) 863-7413
> (802) 863-7632 (fax)
>
>
> -----Original Message-----
> From: Dave Radomski [mailto:dmr@npas.com]
> Sent: Monday, October 12, 2009 4:42 PM
> To: Bolduc, Amanda
> Subject: Re: SPAM-LOW: RE: Isopropyl
>
>
> We have
> Ca .100
> CAL 1.0395
> B1 0
> b2 .003
> b3 0
> Xq .0773
> a21 1.253
> a31 .5
>
> No major differences anywhere. Did some testing here and units built
> with filters from the same batch as yours flag isopropyl pretty low.
> Example, X1 .030, X2 .038. This would have flagged iso as interference
> down as low as X1 below .01. Something is not making sense here. Do
> you want a block with our iso numbers to try?
>
> Dave
>
> On Oct 12, 2009, at 3:28 PM, Bolduc, Amanda wrote:
>
>> Cal factors for 104109
>>
>> Ca = 0.101000
>> CAL = 1.048951
>> B1 = 0.0000000
>> B2 = 0.004286

>> B3 = 0.0000000
>> Xq = 0.076944
>> A21 = 1.262276
>> A31 = 0.503358
>>
>> ABolduc
>> Amanda Bolduc
>> Vermont Department of Health Laboratory
>> 195 Colchester Ave
>> PO Box 1125
>> Burlington, VT 05402-1125
>> (802) 863-7413
>> (802) 863-7632 (fax)
>>
>>
>> -----Original Message-----
>> From: Dave Radomski [mailto:dmr@npas.com]
>> Sent: Monday, October 12, 2009 2:13 PM
>> To: Bolduc, Amanda
>> Subject: Isopropyl
>>
>>
>> Hi Amanda,
>>
>> Could we get a copt of your calibration factors, specifically for
>> 104109?
>>
>> Thanks,
>>
>> Dave
>>
>>
>>
>>
>> This email message may contain privileged and/or confidential
>> information. If you are not the intended recipient(s), you are hereby
>> notified that any dissemination, distribution, or copying of this
>> email message is strictly prohibited. If you have received this
>> message in error, please immediately notify the sender and delete
>> this email message from your computer.
>.
>
>
>
> This email message may contain privileged and/or confidential
> information. If you are not the intended recipient(s), you are
> hereby notified that any dissemination, distribution, or copying of
> this email message is strictly prohibited. If you have received this
> message in error, please immediately notify the sender and delete
> this email message from your computer.

Bolduc, Amanda

From: Dave Radomski [dmr@npas.com]
Sent: Monday, October 12, 2009 4:42 PM
To: Bolduc, Amanda
Subject: Re: SPAM-LOW: RE: Isopropyl

We have
Ca .100
CAL 1.0395
B1 0
b2 .003
b3 0
Xq .0773
a21 1.253
a31 .5

No major differences anywhere. Did some testing here and units built with filters from the same batch as yours flag isopropyl pretty low. Example, X1 .030, X2 .038. This would have flagged iso as interference down as low as X1 below .01. Something is not making sense here. Do you want a block with our iso numbers to try?

Dave

On Oct 12, 2009, at 3:28 PM, Bolduc, Amanda wrote:

> Cal factors for 104109
>
> Ca = 0.101000
> CAL = 1.048951
> B1 = 0.0000000
> B2 = 0.004286
> B3 = 0.0000000
> Xq = 0.076944
> A21 = 1.262276
> A31 = 0.503358
>
> ABolduc
> Amanda Bolduc
> Vermont Department of Health Laboratory
> 195 Colchester Ave
> PO Box 1125
> Burlington, VT 05402-1125
> (802) 863-7413
> (802) 863-7632 (fax)
>
>
> -----Original Message-----
> From: Dave Radomski [mailto:dmr@npas.com]
> Sent: Monday, October 12, 2009 2:13 PM
> To: Bolduc, Amanda
> Subject: Isopropyl
>
>
> Hi Amanda,
>
> Could we get a copt of your calibration factors, specifically for
> 104109?
>
> Thanks,
>
> Dave
>

>
>
>
> This email message may contain privileged and/or confidential
> information. If you are not the intended recipient(s), you are
> hereby notified that any dissemination, distribution, or copying of
> this email message is strictly prohibited. If you have received this
> message in error, please immediately notify the sender and delete
> this email message from your computer.

Bolduc, Amanda

From: Dave Radomski [dmr@npas.com]
Sent: Monday, October 12, 2009 2:13 PM
To: Bolduc, Amanda
Subject: Isopropyl

Hi Amanda,

Could we get a copt of your calibration factors, specifically for 104109?

Thanks,

Dave

Bolduc, Amanda

From: Richardson, Darcy
Sent: Thursday, October 08, 2009 11:46 AM
To: Drawbaugh, Bob; Bolduc, Amanda; Harnois, Steven
Subject: UVM PD

Hello,

Matt Collins came by from UVM PD. His RPCs kept failing and he wasn't sure what to do. I checked the RPC and saw that the A&P was resulting in 0.000. I advised him that it was probably a stuck 5 way valve and not to change the solution again and that someone would be there today to check it out. (I did give him a bottle of solution though as a back up since he was also returning almost expired solution.) I relayed the info to Steve and offered to go if he didn't have time. Steve said he would go.

So as of right now, UVM PD is out of service.

Darcy Richardson
Chemist
Vermont Department of Health Laboratory
195 Colchester Ave
Burlington,VT 05402-1125
(802) 863-7412
fax (802) 863-7632

Bolduc, Amanda

From: Scott Marhefka [eng@npas.com]
Sent: Monday, October 05, 2009 5:35 PM
To: jdseguin@hotmail.com
Cc: Bolduc, Amanda
Subject: [BULK] version 1.04

Importance: Low

Jeff,

I have sent a file to your account. Please give it to Amanda. It is version 1.04 and is only to be used in the old instruments.

--
Scott Marhefka
National Patent Analytical Systems
2090 Harrington Memorial Road
Mansfield, OH 44903

email: eng@npas.com
phone: (419) 526-6727

Bolduc, Amanda

From: Scott Marhefka [eng@npas.com]
Sent: Wednesday, September 30, 2009 11:06 AM
To: jdseguin@hotmail.com
Cc: Bolduc, Amanda
Subject: new file

Jeff,
I sent a new file for you to scan and deliver to Amanda.

Amanda,
The new file is only to be used to upgrade the existing DMTs. Once you approve it I will send you a file to upgrade the new units with the SI controllers.
--
Scott Marhefka
National Patent Analytical Systems
2090 Harrington Memorial Road
Mansfield, OH 44903

email: eng@npas.com
phone: (419) 526-6727

Drawbaugh, Bob

From: John Fusco [jd@npas.com]
Sent: Wednesday, September 30, 2009 12:41 PM
To: Drawbaugh, Bob
Subject: Printers

They are shipping today. Will be 2 or 3 days enroute. 14 pcs of HP 6940.

JF

John Fusco
National Patent Analytical Systems, Inc.
jd@npas.com
Phone 419+526-6727 Fax 419+526-9446

Drawbaugh, Bob

From: John Fusco [jd@npas.com]
Sent: Thursday, September 24, 2009 2:50 PM
To: Drawbaugh, Bob
Subject: Re: SPAM-LOW: RE: Shipments

Printers will go tomorrow or Monday.

JF

On Sep 24, 2009, at 2:32 PM, Drawbaugh, Bob wrote:

> Thank you, John! Are you also having the printers shipped and billed on the same invoice? Obviously we don't need those delivered in the same time- frame as we won't need them until later.
>
> -----Original Message-----
> **From:** John Fusco [mailto:jd@npas.com]
> **Sent:** Thursday, September 24, 2009 2:13 PM
> **To:** Drawbaugh, Bob
> **Subject:** Shipments
>
> All 15 shipped today.
>
> John Fusco
> National Patent Analytical Systems, Inc.
> jd@npas.com
> Phone 419+526-6727 Fax 419+526-9446

This email message may contain privileged and/or confidential information. If you are not the intended recipient(s), you are hereby notified that any dissemination, distribution, or copying of this email message is strictly prohibited. If you have received this message in error, please immediately notify the sender and delete this email message from your computer.

John Fusco

Drawbaugh, Bob

From: John Fusco [jd@npas.com]
Sent: Thursday, September 24, 2009 2:13 PM
To: Drawbaugh, Bob
Subject: Shipments

All 15 shipped today.

John Fusco
National Patent Analytical Systems, Inc.
jd@npas.com
Phone 419+526-6727 Fax 419+526-9446

Drawbaugh, Bob

From: John Fusco [jd@npas.com]
Sent: Thursday, September 17, 2009 11:14 AM
To: Drawbaugh, Bob
Subject: Your DMTs

Your units moved from production into service today. I asked service to hold them and "burn" them in until the 24th. This will allow as long as possible to run them here before shipping. If we ship on the 24th / 25th they should be at your door and the 28th / 29th.

Scott has given service the latest version of your software.

John Fusco
National Patent Analytical Systems, Inc.
jd@npas.com
Phone 419+526-6727 Fax 419+526-9446

Bolduc, Amanda

From: Drawbaugh, Bob
Sent: Wednesday, September 30, 2009 9:55 AM
To: Lab_Alc
Cc: Celotti, Stella
Subject: NPAS updates

The correct printers are on their way to us.

Neil Claasen is no longer with NPAS, he has left to pursue other opportunities. The new head of sales and marketing is Glen Campbell.

It is determined that software fixes and final developments will be best served by Amanda working on-site with their software engineers. The cost of the trip will be shared between NPAS and the State.

Because of our tighter specs., it is expected that 2-3 of the detectors in the new units will need to be swapped out for some that meet our specs. There will be no cost to us for that.

****

Robert Drawbaugh, Chief
Toxicology Program
VT Department of Health Laboratory
195 Colchester Ave.
Burlington, VT 05402-1125
802-863-7622
fax: 802-863-7632

Bolduc, Amanda

From: Drawbaugh, Bob
Sent: Friday, September 18, 2009 12:33 PM
To: Lab_Alc
Subject: FW: Your DMTs

FYI

-----Original Message-----
From: John Fusco [mailto:jd@npas.com]
Sent: Thursday, September 17, 2009 11:14 AM
To: Drawbaugh, Bob
Subject: Your DMTs

Your units moved from production into service today. I asked service to hold them and "burn" them in until the 24th. This will allow as long as possible to run them here before shipping. If we ship on the 24th / 25th they should be at your door and the 28th / 29th.

Scott has given service the latest version of your software.

John Fusco
National Patent Analytical Systems, Inc.
jd@npas.com
Phone 419+526-6727 Fax 419+526-9446

Drawbaugh, Bob

From: John Fusco [jd@npas.com]
Sent: Thursday, September 03, 2009 7:58 AM
To: Drawbaugh, Bob
Subject: Re: SPAM-LOW: update

You are up awfully early.

I release the final assemblies to production yesterday. It will be tight, but I think we can ship around the 26th of the month. I'll keep you updated.

JF

On Sep 3, 2009, at 7:53 AM, Drawbaugh, Bob wrote:

> John, I have had confirmation that all of the hurdles have been cleared and the order is to be released. Thanks for you help. We anticipate more funds will become available by the close of the calendar year so will strategize additional order(s) and deliveries around that time.

This email message may contain privileged and/or confidential information. If you are not the intended recipient(s), you are hereby notified that any dissemination, distribution, or copying of this email message is strictly prohibited. If you have received this message in error, please immediately notify the sender and delete this email message from your computer.

John Fusco
National Patent Analytical Systems, Inc.
jd@npas.com
Phone 419+526-6727 Fax 419+526-9446

Drawbaugh, Bob

From: John Fusco [jd@npas.com]
Sent: Friday, August 28, 2009 11:52 AM
To: Apao, Bill
Cc: Drawbaugh, Bob
Subject: Prod Lia. Ins.

Dr. Apao

Bob Drawbaugh has indicated to me there is a glitch with the order due to our inability to obtain product liability insurance as is required per your purchasing protocol.

This has always been an issue for us for the following reasons:

a. We make flight critical parts for Military Aircraft - The insurance industry will not consider us if we make anything for airplanes.

b. We make a safety device for school buses that is designed to alert the driver to the presence of children in the vicinity of the bus - The insurance industry will not consider us if we make anything that attaches to a school bus.

c. None of the carriers that we have worked with has had experience in the evidential alcohol breath testing industry and therefore say they cannot price a package that will cover only that area.

We do periodically see this requirement in bids, usually as part of a "boiler plate" portion. The last was notably in Michigan where the requirement was by passed on a explanation, essentially that above, by myself. We have never had a situation where this requirement was an impediment to the business and, of course, have never had an issue as a result of a legal proceeding due to product liability. In fact, I know of no issues in the industry over the past 35 years of my experience that has resulted in a product liability lawsuit.

I hope this explains things and if I can help or explain things further, give me a call at 800-800-8143.

John Fusco
National Patent Analytical Systems, Inc.
jd@npas.com
Phone 419+526-6727 Fax 419+526-9446

Drawbaugh, Bob

From: John Fusco [jd@npas.com]
Sent: Friday, August 28, 2009 11:45 AM
To: Batao@vdh.state.vt.us
Cc: Drawbaugh, Bob
Subject: Prod Liability

Dr. Apao

Bob Drawbaugh has indicated to me there is a glitch with the order due to our inability to obtain product liability insurance as is required per your purchasing protocol.

This has always been an issue for us for the following reasons:

a. We make flight critical parts for Military Aircraft - The insurance industry will not consider us if we make anything for airplanes.

b. We make a safety device for school buses that is designed to alert the driver to the presence of children in the vicinity of the bus - The insurance industry will not consider us if we make anything that attaches to a school bus.

c. None of the carriers that we have worked with has had experience in the evidential alcohol breath testing industry and therefore say they cannot price a package that will cover only that area.

We do periodically see this requirement in bids, usually as part of a "boiler plate" portion. The last was notably in Michigan where the requirement was by passed on a explanation, essentially that above, by myself. We have never had a situation where this requirement was an impediment to the business and, of course, have never had an issue as a result of a legal proceeding due to product liability. In fact, I know of no issues in the industry over the past 35 years of my experience that has resulted in a product liability lawsuit.

I hope this explains things and if I can help or explain things further, give me a call at 800-800-8143.

John Fusco
National Patent Analytical Systems, Inc.
jd@npas.com
Phone 419+526-6727 Fax 419+526-9446

Drawbaugh, Bob

From: John Fusco [jd@npas.com]
Sent: Wednesday, August 05, 2009 4:40 PM
To: Drawbaugh, Bob
Subject: Printer

Printer shipped today and should be there either Friday or Monday.

John Fusco
National Patent Analytical Systems, Inc.
jd@npas.com
Phone 419+526-6727 Fax 419+526-9446

Bolduc, Amanda

From: Bolduc, Amanda
Sent: Friday, August 21, 2009 9:06 AM
To: 'Scott Marhefka'
Cc: Lab_Alc
Subject: DMT Software

Scott, the only issue I am finding with the software is with the simulator solution change. Everything else (the ranges!!) is working. We had discussed adding acceptance limits to the solution change. If the average or standard deviation is not within range, the instrument should not commit the concentration/lot change. Ideally the supervisor should be given the option to retry without having to wait another 30 minutes. Please let me know what we can do about this. This has become an issue as one of the Supervisors in the field entered a concentration as 0.009 instead of 0.099 and we're dealing with the backlash in court.
Thanks

ABolduc

Amanda Bolduc
Vermont Department of Health Laboratory
195 Colchester Ave
PO Box 1125
Burlington, VT 05402-1125
(802) 863-7413
(802) 863-7632 (fax)

Bolduc, Amanda

From: Bolduc, Amanda
Sent: Wednesday, August 12, 2009 10:11 AM
To: Seguin, Jeff; 'eng@npas.com'
Cc: 'thood@npas.com'; Lab_Alc
Subject: It works!

The DataLoader program is now working! Thank you to Jeff our IT person who created a local profile to run our various NPAS programs. DataLoader, DMTtech and DMHost are now accessible and functional. Scott, please contact at your earliest convenience to provide a tutorial on the DataLoader program.
Once I am better trained on using these programs, I will plan a training for the alc program.
Thanks everyone!

Amanda

Bolduc, Amanda

From: Scott Marhefka [eng@npas.com]
Sent: Tuesday, August 11, 2009 4:38 PM
To: Bolduc, Amanda
Cc: thood@npas.com
Subject: Dump file

Amanda,

Please send the dump file to

thood@npas.com

Thanks,
Scott

Bolduc, Amanda wrote:

> Got it installed. Cannot process data. I get the error message "Object reference not set to an instance of an object". When I press ok, it then says "could not find a part of the path 'h:_processing __tmp/file'
>
> Now what?
> A

This email message may contain privileged and/or confidential information. If you are not the intended recipient(s), you are hereby notified that any dissemination, distribution, or copying of this email message is strictly prohibited. If you have received this message in error, please immediately notify the sender and delete this email message from your computer.

--
Scott Marhefka
National Patent Analytical Systems
2090 Harrington Memorial Road
Mansfield, OH 44903

email: eng@npas.com
phone: (419) 526-6727

Bolduc, Amanda

From: Seguin, Jeff
Sent: Tuesday, August 11, 2009 10:28 AM
To: 'Scott Marhefka'
Cc: Bolduc, Amanda
Subject: RE: Emailing: DMT-VT.doc, DataLoader.doc

We have too smart a filter as it blocked the files again.

Would you please send all the needed zip files to this address please?

jdseguin@hotmail.com

-----Original Message-----
From: Scott Marhefka [mailto:eng@npas.com]
Sent: Tuesday, August 11, 2009 10:14 AM
To: Seguin, Jeff
Subject: Emailing: DMT-VT.doc, DataLoader.doc

Some parts of this message were removed because they violated your mail server's policies.

DMT-VT.doc was removed from the message because it violates your mail server's policy.
DataLoader.doc was removed from the message because it violates your mail server's policy.

Parts of your message have been stripped because they were considered suspect.

Bolduc, Amanda

From: Seguin, Jeff
Sent: Tuesday, August 11, 2009 9:56 AM
To: 'Scott Marhefka'
Cc: Bolduc, Amanda
Subject: RE: File for Amanda Bolduc

Scott-

The zip file is a problem as I received noe of the files. Would you rename the file with a .doc extension and then send it to me please. Hopefully then it will pass the filter.

-----Original Message-----
From: Scott Marhefka [mailto:eng@npas.com]
Sent: Tuesday, August 11, 2009 9:48 AM
To: Seguin, Jeff
Subject: File for Amanda Bolduc

Some parts of this message were removed because they violated your mail server's policies.

DMT-VT.zip was removed from the message because it violates your mail server's policy.

Parts of your message have been stripped because they were considered suspect.

Bolduc, Amanda

From: Dave Radomski [dmr@npas.com]
Sent: Tuesday, August 04, 2009 10:33 AM
To: Bolduc, Amanda
Subject: Re: SPAM-LOW: DMT Error Codes

Hi Amanda,

Just got back from 2 weeks out on the road. I'll look through your mark-up and try to nail down your questions. The list very well may not be complete as there are certain things which may be specific to your software that I am not aware of. I'll get with Scott and identify them.

Dave

On Jul 31, 2009, at 9:06 AM, Bolduc, Amanda wrote:

> Dave, here are our comments regarding the error code explanations. I have made notations in red. Are you sure this list is complete? I think there may be a few missing. I made notes at the end of a few others I believe we have generated in the past. Maybe these are no longer used? Please advise.
>
> <<VT DMT Explanation of Status Codes and Their Limits.doc>>

ABolduc
Amanda Bolduc
Vermont Department of Health Laboratory
195 Colchester Ave
PO Box 1125
Burlington, VT 05402-1125
(802) 863-7413
(802) 863-7632 (fax)

This email message may contain privileged and/or confidential information. If you are not the intended recipient(s), you are hereby notified that any dissemination, distribution, or copying of this email message is strictly prohibited. If you have received this message in error, please immediately notify the sender and delete this email message from your computer.

<VT DMT Explanation of Status Codes and Their Limits.doc>

Drawbaugh, Bob

From: John Fusco [jd@npas.com]
Sent: Wednesday, August 05, 2009 4:21 PM
To: Drawbaugh, Bob
Subject: Re: SPAM-LOW: RE: Order

There are others besides HP. My experience with HP has not been so great as to command an extraordinary loyalty. Should I look around?

On Aug 5, 2009, at 4:19 PM, Drawbaugh, Bob wrote:

I hope so - both Scott and our IT were having trouble identifying models available - even H-P technical support wasn't any help - they didn't have a list of their products with PL3 compatability. I'm sure we will prevail.

-----Original Message-----
From: John Fusco [mailto:jd@npas.com]
Sent: Wednesday, August 05, 2009 4:16 PM
To: Drawbaugh, Bob
Subject: Re: SPAM-LOW: RE: Order

If that one does not work, I'm fairly certain there are others that will.

JF

On Aug 5, 2009, at 4:14 PM, Drawbaugh, Bob wrote:

Thanks John - its worth a try.

-----Original Message-----
From: John Fusco [mailto:jd@npas.com].
Sent: Wednesday, August 05, 2009 4:00 PM
To: Wirein Sarah
Cc: Drawbaugh, Bob
Subject: Order

Sarah

Please ship one HP6940 (**Item #:** 6264365) printer to:

Mr Bob Drawbaugh
Vermont Dept of Health
195 Colchester Ave
Burlington, Vt 05401

Put it on my card. Call me if any question otherwise confirm it back. I need it to go asap.

John Fusco
National Patent Analytical Systems, Inc.
jd@npas.com
Phone 419+526-6727 Fax 419+526-9446

This email message may contain privileged and/or confidential information. If you are not the intended recipient(s), you are hereby notified that any dissemination, distribution, or copying of this email message is strictly prohibited. If you have received this message in error, please immediately notify the sender and delete this email message from your computer.

John Fusco
National Patent Analytical Systems, Inc.
jd@npas.com
Phone 419+526-6727 Fax 419+526-9446

This email message may contain privileged and/or confidential information. If you are not the intended recipient(s), you are hereby notified that any dissemination, distribution, or copying of this email message is strictly prohibited. If you have received this message in error, please immediately notify the sender and delete this email message from your computer.

John Fusco
National Patent Analytical Systems, Inc.
jd@npas.com
Phone 419+526-6727 Fax 419+526-9446

Drawbaugh, Bob

From: John Fusco [jd@npas.com]
Sent: Wednesday, August 05, 2009 4:16 PM
To: Drawbaugh, Bob
Subject: Re: SPAM-LOW: RE: Order

If that one does not work, I'm fairly certain there are others that will.

JF

On Aug 5, 2009, at 4:14 PM, Drawbaugh, Bob wrote:

> Thanks John - its worth a try.
>
> -----Original Message-----
> **From:** John Fusco [mailto:jd@npas.com]
> **Sent:** Wednesday, August 05, 2009 4:00 PM
> **To:** Wirein Sarah
> **Cc:** Drawbaugh, Bob
> **Subject:** Order
>
> Sarah
>
> Please ship one HP6940 (**Item #:** 6264365) printer to:
>
> Mr Bob Drawbaugh
> Vermont Dept of Health
> 195 Colchester Ave
> Burlington, Vt 05401
>
> Put it on my card. Call me if any question otherwise confirm it back. I need it to go asap.
>
> John Fusco
> National Patent Analytical Systems, Inc.
> jd@npas.com
> Phone 419+526-6727 Fax 419+526-9446

This email message may contain privileged and/or confidential information. If you are not the intended recipient(s), you are hereby notified that any dissemination, distribution, or copying of this email message is strictly prohibited. If you have received this message in error, please immediately notify the sender and delete this email message from your computer.

John Fusco
National Patent Analytical Systems, Inc.
jd@npas.com
Phone 419+526-6727 Fax 419+526-9446

Drawbaugh, Bob

From: John Fusco [jd@npas.com]
Sent: Wednesday, August 05, 2009 4:00 PM
To: Wirein Sarah
Cc: Drawbaugh, Bob
Subject: Order

Sarah

Please ship one HP6940 (**Item #:** 6264365) printer to:

Mr Bob Drawbaugh
Vermont Dept of Health
195 Colchester Ave
Burlington, Vt 05401

Put it on my card. Call me if any question otherwise confirm it back. I need it to go asap.

John Fusco
National Patent Analytical Systems, Inc.
id@npas.com
Phone 419+526-6727 Fax 419+526-9446

Drawbaugh, Bob

From: John Fusco [jd@npas.com]
Sent: Wednesday, August 05, 2009 3:22 PM
To: Drawbaugh, Bob
Subject: Re: SPAM-LOW: FW: DMT printers

Importance: High

Bob

The printer is included in the price and the style, as long as we stay away from the big expensive ones, is not different enough to quibble about. Scott is the printer guy and he is on the road today but will be in tomorrow. I'll look at the PLC3GUI specs and see if I can tell anything about the compatibility. I'll get back with you this PM if I can say something definitive or tomorrow if I can't tell for sure.

The initial cost of the ink jet is similar to the mono color non networked lasers, but the operating cost is higher because of the cartridge prices.

JF

On Aug 5, 2009, at 2:29 PM, Drawbaugh, Bob wrote:

> Hello John, We have opted to go with ink jet printers if we can find one that works with your system. Please see the note below re: one possibility that would otherwise suit our needs. This model is available from Newegg for 70$. Please advise as to whether you are willing to get one to try on your system. If so, and it works, are you interested in buying these and attaching to our sytem order configuration - with appropriate pricing to reflect your handling expenses and appropriate profit margin? If you do purchase to try and it works, and if it isn't in your interest to add to our system order, we would accept your adding the one unit to our overall purchase. Thanks for your consideration. We do need to move rather quickly on this because of federal funding deadlines for this FFY. I am advised that the requisition for the 15 instruments is in process but that the rate limiter for getting it into your hands is the Sec'y of Administration's office which has to sign off sole-source purchases.
>
> Bob.
>
> -----Original Message-----
> **From:** Bolduc, Amanda
> **Sent:** Tuesday, August 04, 2009 11:18 AM
> **To:** Drawbaugh, Bob
> **Subject:** DMT printers
> **Importance:** High
>
> I spoke with Jeff in IT and Chris/Scott at NPAS and they told me that the HP 6940 *might* work on the DMT. It has PCL 3GUI print language and they are not sure if that is the same as PCL 3E. They said NPAS would probably be willing to buy and test a printer for us, but that any request to do so must come from you and be directed to John. Thanks
>
> **ABolduc**
> **Amanda Bolduc**

Bolduc, Amanda

From: Seguin, Jeff
Sent: Tuesday, August 04, 2009 8:48 AM
To: Bolduc, Amanda; 'skoegler@npas.com'
Subject: RE: Update to data loader program

Steve-

The ZIP file you renamed to .doc was still seen by McAfee on our end as a zip containing an EXE so it was removed.

A file has been blocked due to the 'Executable' rule.
Context: 'DataLoader.exe'
Disallowed due to
Ticket Number: '07d8-4a77-09c1-0004'

As I recall the original Dataloader zip only contained 2 files: setup.exe and the DLinstaller.msi. So would you rename the setup.exe to setup.doc and then zip the files and send them directly to me please?

Thanks,
Jeff Seguin
AHS IT Desktop Support
Vermont Agency Of Human Services
108 Cherry Street
Burlington, VT 05401
802.863.7594
jseguin@vdh.state.vt.us

-----Original Message-----
From: Bolduc, Amanda
Sent: Tuesday, August 04, 2009 7:06 AM
To: Seguin, Jeff
Subject: FW: Update to data loader program

here is the program. Thanks

ABolduc
Amanda Bolduc
Vermont Department of Health Laboratory
195 Colchester Ave
PO Box 1125
Burlington, VT 05402-1125
(802) 863-7413
(802) 863-7632 (fax)
-----Original Message-----
From: Steven Koegler [mailto:skoegler@npas.com]
Sent: Monday, August 03, 2009 4:15 PM
To: Bolduc, Amanda
Subject: Update to data loader program

The following are instructions for applying the update for the data loader program:

1. Save the file attached to this email to the desktop.

2. Rename the file by changing the .doc portion to .zip

3. Open the zip file as you would any other zip file and save the contents to this folder: "C:\Program Files\NPAS\Data Loader"

Please contact us if there are any questions.

Steven Koegler

National Patent Analytical Systems

2090 Harrington Memorial Road

Mansfield, OH 44903

email: skoegler@npas.com

phone: (419) 526-6727

Bolduc, Amanda

From: Steven Koegler [skoegler@npas.com]
Sent: Monday, August 03, 2009 4:15 PM
To: Bolduc, Amanda
Subject: Update to data loader program

VTdataloader.doc (431 B)

The following are instructions for applying the update for the data loader program:

1. Save the file attached to this email to the desktop.

2. Rename the file by changing the .doc portion to .zip

3. Open the zip file as you would any other zip file and save the contents to this folder: "C:\Program Files\NPAS\Data Loader"

Please contact us if there are any questions.

Steven Koegler

National Patent Analytical Systems

2090 Harrington Memorial Road

Mansfield, OH 44903

email: skoegler@npas.com

phone: (419) 526-6727

Bolduc, Amanda

From: Seguin, Jeff
Sent: Monday, August 03, 2009 1:24 PM
To: Bolduc, Amanda
Subject: RE: Emailing: DataLoader.zip

Gotta love security. Would you rename the zip file dataloader.doc and send it again. McAfee ended up deleting the file as it saw the exe.....

-----Original Message-----
From: Bolduc, Amanda
Sent: Monday, August 03, 2009 1:18 PM
To: Seguin, Jeff
Subject: FW: Emailing: DataLoader.zip

The dataloader program that you installed on the DM Host computer needs to be updated with this version. The old version didn't work.

ABolduc
Amanda Bolduc
Vermont Department of Health Laboratory
195 Colchester Ave
PO Box 1125
Burlington, VT 05402-1125
(802) 863-7413
(802) 863-7632 (fax)

-----Original Message-----
From: Scott Marhefka [mailto:eng@npas.com]
Sent: Monday, August 03, 2009 12:00 PM
To: Bolduc, Amanda
Subject: Emailing: DataLoader.zip

Amanda,

Replace the data loader program with this one.

Chris is testing the DMT software.

--
Scott Marhefka
National Patent Analytical Systems
2090 Harrington Memorial Road
Mansfield, OH 44903

email: eng@npas.com
phone: (419) 526-6727

Bolduc, Amanda

From: Scott Marhefka [eng@npas.com]
Sent: Monday, August 03, 2009 12:00 PM
To: Bolduc, Amanda
Subject: Emailing: DataLoader.zip

DataLoader.zip
(430 B)

Amanda,

Replace the data loader program with this one.

Chris is testing the DMT software.

--
Scott Marhefka
National Patent Analytical Systems
2090 Harrington Memorial Road
Mansfield, OH 44903

email: eng@npas.com
phone: (419) 526-6727

Bolduc, Amanda

From: Bolduc, Amanda
Sent: Friday, July 31, 2009 9:06 AM
To: 'dmr@npas.com'
Cc: Lab_Alc
Subject: DMT Error Codes

Dave, here are our comments regarding the error code explanations. I have made notations in red. Are you sure this list is complete? I think there may be a few missing. I made notes at the end of a few others I believe we have generated in the past. Maybe these are no longer used? Please advise.

VT DMT
anation of Status

ABolduc
Amanda Bolduc
Vermont Department of Health Laboratory
195 Colchester Ave
PO Box 1125
Burlington, VT 05402-1125
(802) 863-7413
(802) 863-7632 (fax)

Bolduc, Amanda

From: Richardson, Darcy
Sent: Tuesday, July 28, 2009 4:09 PM
To: Drawbaugh, Bob; Bolduc, Amanda; Harnois, Steven
Subject: Software analysis

Hello all,

I spent the day reviewing the software, specifically looking at ranges on 101708 and 123106. Both had post-its from Amanda indicating that new software was put in on 7/21/09.

So, the results:

101708: It will accept the outside range but only when it is on the low end. For example, when the target was set at 0.099 the instrument declared 0.104 out of range. (acceptably range: 0.094-0.104) However, when I moved the target to 0.109 (acceptable range 0.104-0.114) it accepted 0.104 as within range. To me it seems that the instrument is first comparing the 4 digit average to the 3 digit acceptance range and then truncating rather than truncating first and then comparing it as it should be.

123106: I expected the same results as on 101708 but did not find that to be the case. On 123106, 0.095 was accepted both at the high and the low end as it should be.

It seems like they are not using the same software. I don't know if one had a full version and one had an update but they are not operating in the same manner. Both instruments have the same revision number but I know that's not changing every time a new revision comes in (which it really needs to so that we can avoid these questions.)

Also, 101708 did not display the average concentration on a failed linearity during the certification as we had requested. I did not check this on 123106.

I've left the pertinent print outs on Amanda's desk.

Darcy Richardson
Chemist
Vermont Department of Health Laboratory
195 Colchester Ave
Burlington,VT 05402-1125
(802) 863-7412
fax (802) 863-7632

Bolduc, Amanda

From: Richardson, Darcy
Sent: Friday, November 13, 2009 4:15 PM
To: Bolduc, Amanda
Subject: DMT

Hi Amanda,

Some things I noticed I wanted to write down because I'll forget by Monday.

1) I noticed some of the diagnostics show that the instruments were installed but don't show a location.
2) I'm so sick of saying this but: ranges! "Average is out of range!" keeps coming up on the 0.020 when it averages 0.018 which is as we know in-range.
3) I noticed one of the instruments hadn't been certified. Wasn't that part of the power up?
4) I started the TSI for Burlington, it's in work in progress.

Darcy Richardson
Chemist
Vermont Department of Health Laboratory
195 Colchester Ave
Burlington,VT 05402-1125
(802) 863-7412
fax (802) 863-7632

Drawbaugh, Bob

From: Dave Radomski [dmr@npas.com]
Sent: Friday, August 21, 2009 9:32 AM
To: Drawbaugh, Bob
Subject: Under pressure

Hi Bob,

Been looking at some of the pressure measurement possibilities. The internal barometer use to adjust the dry gas standard target
concentration will respond to internal pressure changes during sample delivery.
A tube connected to the bottom port of the transducer will achieve this. The specified range of the transducer is 0 - 15 psi. Typical atmospheric pressure here is about 14 psi (965 mbar). When a
breath sample is introduced at a fast rate, the pressure reading increases to about 14.4 psi (992 mbar).
Although not a lot of resolution, it may be useful. It has a pretty fast response time of 100 ms.
This particular transducer is designed to measure absolute pressure. The second port is actually a vacuum reference.

There is a version available which can measure differential or gage pressure. It is probably a drop in replacement for the current one. The down side of this is if installed in the controller board in the location of the existing transducer, we wouldn't be able to measure atmospheric pressure for dry gas.

I'm going to look into this a little more to see if we can improve on the resolution of the existing sensor.

Any thoughts would be appreciated.

Dave

Drawbaugh, Bob

From: Dave Radomski [dmr@npas.com]
Sent: Friday, June 26, 2009 11:11 AM
To: Drawbaugh, Bob
Subject: Flow values

Hi Bob,

Got info from Scott.

The values in the column for instantaneous rates of flow are in the units of

mL / quarter sec.

If multiplied by 0.24 that value will translate to L / M

Hope this helps.

Still looking into a pressure transducer.

Dave

Drawbaugh, Bob

From: Dave Radomski [dmr@npas.com]
Sent: Tuesday, June 23, 2009 12:23 PM
To: eng@npas.com
Cc: Drawbaugh, Bob
Subject: Flow Rates

Scott,

Please clarify for Bob (and myself) the translation from the values in the test data files for the flow to the actual units in liters per minute.

Dave

Drawbaugh, Bob

From: Dave Radomski [dmr@npas.com]
Sent: Tuesday, June 16, 2009 3:53 PM
To: Harnois, Steven
Cc: John Fusco; Drawbaugh, Bob; Bolduc, Amanda; service@npas.com
Subject: Parts

Steve,

To summarize our phone call this morning, an order for the following will be placed:

8 - Detector assemblies (41603)

2 - Breath tube assemblies (42222)

1 - DMT controller board (41602)

In addition, a call tag will be issued to have the replaced parts returned to us.

If there is anything needed further, let me know.

Dave

Drawbaugh, Bob

From: John Fusco [jd@npas.com]
Sent: Wednesday, December 23, 2009 2:46 PM
To: Drawbaugh, Bob
Subject: Talk

Glen said I should speak with you regarding pricing and other items. When you are free and it's convenient, give me a call. 800-800-8143

John Fusco
National Patent Analytical Systems, Inc.
jd@npas.com
Phone 419+526-6727 Fax 419+526-9446

Drawbaugh, Bob

From: John Fusco [jd@npas.com]
Sent: Thursday, August 13, 2009 10:50 AM
To: Drawbaugh, Bob
Subject: Re: SPAM-LOW: printer

Ok on the printer. It should be available.

I'm going to put the common subassemblies into work anyway. If I don't we won't stand a chance of making the delivery date.

I talked to Scott about the program. Your IT people should have been involved at the outset and were not because the parameter that Scott had was for a simple download to a laptop. The ability to talk around your system was not a part and had we known about it could have been done but would have required your IT people regardless. We simply would not have had the information to do it with.

JF

On Aug 13, 2009, at 9:51 AM, Drawbaugh, Bob wrote:

> John - in case you have not heard back from us, the printer you had drop-shipped to us did work !!!! We like pleasant surprises.
>
> Thanks. We now have a 'known' to work with. Will you be able to supply those with our order? BTW, the order is in process but I did hear that it is highly unlikely that it will be in your hands by tomorrow. I learned that because of the insurance issue it may have to go through a another layer of review before being released. Such is the false economy of bureaucracy. We have again had some help from IT at this end to make the dataloader part of the programming work for us..
>
> *Robert Drawbaugh, Chief*
> *Toxicology Program*

VT Department of Health Laboratory
195 Colchester Ave.
Burlington, VT 05402-1125
802-863-7622
fax: 802-863-7632

This email message may contain privileged and/or confidential information. If you are not the intended recipient(s), you are hereby notified that any dissemination, distribution, or copying of this email message is strictly prohibited. If you have received this message in error, please immediately notify the sender and delete this email message from your computer.

John Fusco
National Patent Analytical Systems, Inc.
jd@npas.com
Phone 419+526-6727 Fax 419+526-9446

Drawbaugh, Bob

From: John Fusco [jd@npas.com]
Sent: Monday, July 27, 2009 1:39 PM
To: Drawbaugh, Bob
Subject: RFQ Response

09.pdf (76 KB)

ATT86250.htm (1 KB)

Attach

Drawbaugh, Bob

From: John Fusco [jd@npas.com]
Sent: Friday, July 10, 2009 12:12 PM
To: Customers
Subject: FYI

5 Way Memo.PDF (121 KB)

ATT1238238.htm (1 KB)

Drawbaugh, Bob

From: John Fusco [jd@npas.com]
Sent: Friday, July 10, 2009 8:34 AM
To: Customers
Subject: FYI

http://www.latimes.com/news/nationworld/nation/wire/sns-ap-us-breath-test-accuracy,1,4432683.story

John Fusco
National Patent Analytical Systems, Inc.
jd@npas.com
Phone 419+526-6727 Fax 419+526-9446

National Patent
Analytical Systems, Inc.

Mr. Robert Drawbaugh
Vermont Dept of Health
Box 70
Burlington, Vt. 05402-0700

July 27, 2009

Via Email

Dear Mr. Drawbaugh:

Regarding your request for pricing on 12 to 15 additional DMT Instruments I am pleased to quote you as follows:

Our part no. 71700VT, DataMaster DMT Vermont Configuration $6,690.00 each.

This configuration currently includes a Laser Printer, One reconditioned and tested Guth 34CNP Simulator and software as approved and in effect on the date of shipment. All performance and maintenance specifications are to our standard testing protocol. Fob Vermont Department of Health.

The price is slightly higher than my email of March owing to the quantity being a maximum of 15 pcs. rather than our original discussion based on 24 pcs.

I will need to expedite this since you indicated you would require shipment by the middle of September, so the sooner I know, the more realistic the shipping date becomes.

Thanks for your consideration and if I can be of further help, please let me know.

Sincerely,

John Fusco,
President

2090 Harrington Memorial Road, Mansfield, Ohio 44901 Ph 419-526-6727 Fax 419-526-9446
jd@NPAS.com

Bolduc, Amanda

From: Scott Marhefka [eng@npas.com]
Sent: Tuesday, July 14, 2009 9:24 AM
To: Bolduc, Amanda
Subject: 2nd try

DMT.zi_ (1 MB) files.bmp (687 KB)

Amanda,

This time, change "DMT.zi_" to "DMT.zip". Uncompress the file. The uncompressed folder should look something like the screen shot I attached as "files.bmp". The ".ex_" files need changed to ".exe". The files in the uncompressed folder can then be put onto the dmt.

If this does not work, I am sending the cd of the DataLoader program today. I will make a cd of the files for fresh install and updating the dmts.

Let me know if changing the extensions works.

--

Scott Marhefka
National Patent Analytical Systems
2090 Harrington Memorial Road
Mansfield, OH 44903

email: eng@npas.com
phone: (419) 526-6727

Bolduc, Amanda

From: Scott Marhefka [eng@npas.com]
Sent: Monday, July 13, 2009 2:54 PM
To: Bolduc, Amanda
Subject: latest dmt software

DMT.zi_ (399 KB)

Amanda,

The extension of the attached file needs changed to zip. You can then ImportFromUSB on the dmt.

Please let me know if the attachment made it to you.

--
Scott Marhefka
National Patent Analytical Systems
2090 Harrington Memorial Road
Mansfield, OH 44903

email: eng@npas.com
phone: (419) 526-6727

National Patent
Analytical Systems, Inc.

Service Memo

To: All Concerned July 10, 2009

Subject: 5 Way Valve Update

We believe we have found a very simple solution to the issue of sticking 5 way valves that has surfaced intermittantly and has been very pesky to completely resolve. The reason this has been so difficult is that we were never able to fully identify the cause. Based on our recent engineering work it appears that the primary cause is residual magnetism in the structure of the solenoid that drives the 5 way valve. While the force of the return spring is over 125 grams pressure, the residual opposing magnetism can be as high as 30 or more grams pressure in a few solenoids. This combined with the other normal sources of friction can be sufficient, in some cases, to cause sticking. This varies from batch to batch depending on the composition of the steel used for the solenoid frame and core. This is not within our control.

I should note that the issue of a sticking 5 way does not present a problem with a test because there can never be a test if this conditions is present since the breath sample is vented to the outside and the reading will typically be .000. It can also result in a "pump error" in which case there is no test.

The solution is to provide for an air gap between the core and the guide structure of the solenoid which can be easily done with a very thin washer. We are suggesting a .006 thick Kapton washer that we will provide on request (at no charge) to any and all DataMaster users. It is our part no 34582 and we life tested this concept to 5000 cycles. We are suggesting that it be placed on all 5 way valve solenoid core stems regardless of wether or not that valve has stuck. It is a simple, fast and convenient fix that can be done on the next visit to the instrument. We do not suggest that a special effort be made to do this update unless there is an immediate issue with this problem on any given instrument. I should have these available the first part of next week.

In order to install simply remove the 5 way from the base (use caution as the lamp transistor that is mounted to the block will be warm), unscrew the nylon acorn nut from the front of the core stem and then pull out the core. Slide the washer over the core stem to the base of the stem and reassemble all. There should be no need to readjust anything although we suggest that a simulator be run after reassembly to insure that all is well. The time required should be less than 5 minutes.

John Fusco

2090 Harrington Memorial Road, Mansfield, Ohio 44901 Ph 419-526-6727 Fax 419-526-9446
jd@npas.com

Bolduc, Amanda

From: Scott Marhefka [eng@npas.com]
Sent: Wednesday, July 15, 2009 8:18 AM
To: Bolduc, Amanda
Cc: Lab_Alc
Subject: Software update shipped

Hello,

The latest software for your review to address the issues from the July 1, 2009 e-mail has been shipped. We are also sending a cd with the data loader program rewritten to hopefully work on your older computer systems.

The tracking number is 044955860034334. It was shipped FedEx ground.

--
Scott Marhefka
National Patent Analytical Systems
2090 Harrington Memorial Road
Mansfield, OH 44903

email: eng@npas.com
phone: (419) 526-6727

Drawbaugh, Bob

From: Scott Marhefka [eng@npas.com]
Sent: Wednesday, July 15, 2009 8:18 AM
To: Bolduc, Amanda
Cc: Lab_Alc
Subject: Software update shipped

Hello,

The latest software for your review to address the issues from the July 1, 2009 e-mail has been shipped. We are also sending a cd with the data loader program rewritten to hopefully work on your older computer systems.

The tracking number is 044955860034334. It was shipped FedEx ground.

--
Scott Marhefka
National Patent Analytical Systems
2090 Harrington Memorial Road
Mansfield, OH 44903

email: eng@npas.com
phone: (419) 526-6727

Drawbaugh, Bob

From: Scott Marhefka [eng@npas.com]
Sent: Tuesday, July 07, 2009 3:30 PM
To: Bolduc, Amanda
Cc: Lab_Alc
Subject: Software update status

Hello,

We have finished implementing the changes and the software should finish testing this week.

The page numbering in item 6 has not been changed. The way it works is all pages will have their page number printed. Only the last page will print the total number of pages. For instance, if 4 pages are printed then you will have Page 1, Page 2, Page 3 and Page 4 of 4. The WIN CE printer drivers do not have a way to accurately determine the number of pages printed until we are on the last page.

I will keep you informed of our testing.
Scott Marhefka

Bolduc, Amanda wrote:

> After a thorough review of the software, here is the list of problems.
> 1. While performing and Installation protocol, if you select "NO" that the site does not meet specifications, the instrument should prompt for a reason (it does) and it should then print a report with the failure (which it currently does not). The Annual Preventative Maintenance also prompts the site specification question and will properly cause a failure if NO is selected.

2. When the 15 minute timer is complete, one of the two tested instruments does not consistently beep to notify the operator that the observation period is complete.

3. The "use previous data" and "reuse previous timer" options are not resetting properly. On 6/22 I was able to use previous data from 6/16!

4. The instruments are NOT accepting/rejecting the proper limits on the simulator solution acceptance range. In one instance, the target value was listed as 0.093 with an acceptance range of 0.088-0.098. The average result was 0.098 and the instrument reported out of range. This is also the case on the low end. The target value was listed as 0.104 with an acceptance range of 0.099-0.109. The average was 0.099 resulting in a standard out of range error.

5. **The simulator solution change protocol is not failing out of range averages at all.** The target value was listed as 0.104 with a range of 0.099-0.109, the average result was 0.098. The instrument did not report a failure. The instrument was then subjected to a DUI breath test to which the lot# and [x] were listed as the changed value, when the result came in again at 0.098, the instrument appropriately reported standard out of range.

6. When printing a summary report, if there are multiple pages, the footers are still incorrect. For example, if there are two pages, page two will correctly display "page 2 of 2", however page one will only say "page 1" not "page 1 of 2". If there is only one page, the instrument will correctly report "page 1 of 1".

Scott, if you have any questions please contact me ASAP for clarification. Please respond with a time frame estimate for having these fixes to us. Thank you so much.

VDHL folks- if I failed to include anything, please respond ASAP. Thanks.

ABolduc
Amanda Bolduc
Vermont Department of Health Laboratory
195 Colchester Ave
PO Box 1125
Burlington, VT 05402-1125
(802) 863-7413
(802) 863-7632 (fax)

This email message may contain privileged and/or confidential information. If you are not the intended recipient(s), you are hereby notified that any dissemination, distribution, or copying of this email message is strictly prohibited. If you have received this message in error, please immediately notify the sender and delete this email message from your computer.

--
Scott Marhefka
National Patent Analytical Systems
2090 Harrington Memorial Road
Mansfield, OH 44903

email: eng@npas.com
phone: (419) 526-6727

Bolduc, Amanda

From: Scott Marhefka [eng@npas.com]
Sent: Tuesday, July 07, 2009 3:30 PM
To: Bolduc, Amanda
Cc: Lab_Alc
Subject: Software update status

Hello,

We have finished implementing the changes and the software should finish testing this week.

The page numbering in item 6 has not been changed. The way it works is all pages will have their page number printed. Only the last page will print the total number of pages. For instance, if 4 pages are printed then you will have Page 1, Page 2, Page 3 and Page 4 of 4. The WIN CE printer drivers do not have a way to accurately determine the number of pages printed until we are on the last page.

I will keep you informed of our testing.
Scott Marhefka

Bolduc, Amanda wrote:

> After a thorough review of the software, here is the list of problems.
> 1. While performing and Installation protocol, if you select "NO" that the site does not meet specifications, the instrument should prompt for a reason (it does) and it should then print a report with the failure (which it currently does not). The Annual Preventative Maintenance also prompts the site specification question and will properly cause a failure if NO is selected.
>
> 2. When the 15 minute timer is complete, one of the two tested instruments does not consistently beep to notify the operator that the observation period is complete.
>
> 3. The "use previous data" and "reuse previous timer" options are not resetting properly. On 6/22 I was able to use previous data from 6/16!
>
> 4. The instruments are NOT accepting/rejecting the proper limits on the simulator solution acceptance range. In one instance, the target value was listed as 0.093 with an acceptance range of 0.088-0.098. The average result was 0.098 and the instrument reported out of range. This is also the case on the low end. The target value was listed as 0.104 with an acceptance range of 0.099-0.109. The average was 0.099 resulting in a standard out of range error.
>
> 5. **The simulator solution change protocol is not failing out of range averages at all.** The target value was listed as 0.104 with a range of 0.099-0.109, the average result was 0.098. The instrument did not report a failure. The instrument was then subjected to a DUI breath test to which the lot# and [x] were listed as the changed value, when the result came in again at 0.098, the instrument appropriately reported standard out of range.
>
> 6. When printing a summary report, if there are multiple pages, the footers are still incorrect. For example, if there are two pages, page two will correctly display "page 2 of 2", however page one will only say "page 1" not "page 1 of 2". If there is only one page, the instrument will correctly report "page 1 of 1".

Scott, if you have any questions please contact me ASAP for clarification. Please respond with a time frame estimate for having these fixes to us. Thank you so much.

VDHL folks- if I failed to include anything, please respond ASAP. Thanks.

ABolduc
Amanda Bolduc
Vermont Department of Health Laboratory
195 Colchester Ave
PO Box 1125
Burlington, VT 05402-1125
(802) 863-7413
(802) 863-7632 (fax)

This email message may contain privileged and/or confidential information. If you are not the intended recipient(s), you are hereby notified that any dissemination, distribution, or copying of this email message is strictly prohibited. If you have received this message in error, please immediately notify the sender and delete this email message from your computer.

--
Scott Marhefka
National Patent Analytical Systems
2090 Harrington Memorial Road
Mansfield, OH 44903

email: eng@npas.com
phone: (419) 526-6727

National Patent
Analytical Systems, Inc.

Service Memo

To: All Concerned July 10, 2009

Subject: 5 Way Valve Update

We believe we have found a very simple solution to the issue of sticking 5 way valves that has surfaced intermittantly and has been very pesky to completely resolve. The reason this has been so difficult is that we were never able to fully identify the cause. Based on our recent engineering work it appears that the primary cause is residual magnetism in the structure of the solenoid that drives the 5 way valve. While the force of the return spring is over 125 grams pressure, the residual opposing magnetism can be as high as 30 or more grams pressure in a few solenoids. This combined with the other normal sources of friction can be sufficient, in some cases, to cause sticking. This varies from batch to batch depending on the composition of the steel used for the solenoid frame and core. This is not within our control.

I should note that the issue of a sticking 5 way does not present a problem with a test because there can never be a test if this conditions is present since the breath sample is vented to the outside and the reading will typically be .000. It can also result in a "pump error" in which case there is no test.

The solution is to provide for an air gap between the core and the guide structure of the solenoid which can be easily done with a very thin washer. We are suggesting a .006 thick Kapton washer that we will provide on request (at no charge) to any and all DataMaster users. It is our part no 34582 and we life tested this concept to 5000 cycles. We are suggesting that it be placed on all 5 way valve solenoid core stems regardless of wether or not that valve has stuck. It is a simple, fast and convenient fix that can be done on the next visit to the instrument. We do not suggest that a special effort be made to do this update unless there is an immediate issue with this problem on any given instrument. I should have these available the first part of next week.

In order to install simply remove the 5 way from the base (use caution as the lamp transistor that is mounted to the block will be warm), unscrew the nylon acorn nut from the front of the core stem and then pull out the core. Slide the washer over the core stem to the base of the stem and reassemble all. There should be no need to readjust anything although we suggest that a simulator be run after reassembly to insure that all is well. The time required should be less than 5 minutes.

John Fusco

2090 Harrington Memorial Road, Mansfield, Ohio 44901 Ph 419-526-6727 Fax 419-526-9446
jd@npas.com

Drawbaugh, Bob

From: John Fusco [jd@npas.com]
Sent: Friday, July 10, 2009 8:34 AM
To: Customers
Subject: FYI

http://www.latimes.com/news/nationworld/nation/wire/sns-ap-us-breath-test-accuracy,1,4432683.story

John Fusco
National Patent Analytical Systems, Inc.
jd@npas.com
Phone 419+526-6727 Fax 419+526-9446

Drawbaugh, Bob

From: John Fusco [jd@npas.com]
Sent: Wednesday, July 01, 2009 3:25 PM
To: Drawbaugh, Bob
Subject: Re: SPAM-LOW: FW: Software update

I'm working. How about you.

JF

On Jul 1, 2009, at 3:21 PM, Drawbaugh, Bob wrote:

> Thanks John- be gentle. Have a good July 4th holiday.
>
> -----Original Message-----
> **From:** John Fusco [mailto:jd@npas.com]
> **Sent:** Wednesday, July 01, 2009 3:19 PM
> **To:** Drawbaugh, Bob
> **Subject:** Re: SPAM-LOW: FW: Software update
>
> Scott is off today but I should be able to get with him in the next day or so. None of these look like there should be much involved. I believe #4 was already addressed. I will target Tuesday with Scott.
>
> JF

On Jul 1, 2009, at 2:59 PM, Drawbaugh, Bob wrote:

John - I thought I should share this with you for perspective. We are not able to order new instruments until the software is working properly - especially the simulator vapor range issue. I had a case in court last week that brought that up as an issue and an example of how these instruments are not working properly. We are r unning short on time for getting, testing and accepting for payment any new instrumentation for this Fed. F.Y.

-----Original Message-----
From: Bolduc, Amanda
Sent: Wednesday, July 01, 2009 12:33 PM
To: 'Scott Marhefka'
Cc: Lab_Alc
Subject: Software update

After a thorough review of the software, here is the list of problems.
1. While performing and Installation protocol, if you select "NO" that the site does not meet specifications, the instrument should prompt for a reason (it does) and it should then print a report with the failure (which it currently does not). The Annual Preventative Maintenance also prompts the site specification question and will properly cause a failure if NO is selected.

2. When the 15 minute timer is complete, one of the two tested instruments does not consistently beep to notify the operator that the observation period is complete.

3. The "use previous data" and "reuse previous timer" options are not resetting properly. On 6/22 I was able to use previous data from 6/16!

4. The instruments are NOT accepting/rejecting the proper limits on the simulator solution acceptance range. In one instance, the target value was listed as 0.093 with an acceptance range of 0.088-0.098. The average result was 0.098 and the instrument reported out of range. This is also the case on the low end. The target value was listed as 0.104 with an acceptance range of 0.099-0.109. The average was 0.099 resulting in a standard out of range error.

5. **The simulator solution change protocol is not failing out of range averages at all.** The target value was listed as 0.104 with a range of 0.099-0.109, the average result was 0.098. The instrument did not report a failure. The instrument was then subjected to a DUI breath test to which the lot# and [x] were listed as the changed value, when the result came in again at 0.098, the instrument appropriately reported standard out of range.

6. When printing a summary report, if there are multiple pages, the footers are still incorrect. For example, if there are two pages, page two will correctly display "page 2 of 2", however page one will only say "page 1" not "page 1 of 2". If there is only one page, the instrument will correctly report "page 1 of 1".

Scott, if you have any questions please contact me ASAP for clarification. Please respond with a time frame estimate for having these fixes to us. Thank you so much.

VDHL folks- if I failed to include anything, please respond ASAP. Thanks.

ABolduc
Amanda Bolduc
Vermont Department of Health Laboratory
195 Colchester Ave
PO Box 1125
Burlington, VT 05402-1125
(802) 863-7413
(802) 863-7632 (fax)

This email message may contain privileged and/or confidential information. If you are not the intended recipient(s), you are hereby notified that any dissemination, distribution, or copying of this email message is strictly prohibited. If you have received this message in error, please immediately notify the sender and delete this email message from your computer.

John Fusco
National Patent Analytical Systems, Inc.
jd@npas.com
Phone 419+526-6727 Fax 419+526-9446

This email message may contain privileged and/or confidential information. If you are not the intended recipient(s), you are hereby notified that any dissemination, distribution, or copying of this email message is strictly prohibited. If you have received this message in error, please immediately notify the sender and delete this email message from your computer.

John Fusco
National Patent Analytical Systems, Inc.
jd@npas.com
Phone 419+526-6727 Fax 419+526-9446

Drawbaugh, Bob

From: John Fusco [jd@npas.com]
Sent: Wednesday, July 01, 2009 3:19 PM
To: Drawbaugh, Bob
Subject: Re: SPAM-LOW: FW: Software update

Scott is off today but I should be able to get with him in the next day or so. None of these look like there should be much involved. I believe #4 was already addressed. I will target Tuesday with Scott.

JF

On Jul 1, 2009, at 2:59 PM, Drawbaugh, Bob wrote:

> John - I thought I should share this with you for perspective. We are not able to order new instruments until the software is working properly - especially the simulator vapor range issue. I had a case in court last week that brought that up as an issue and an example of how these instruments are not working properly. We are r unning short on time for getting, testing and accepting for payment any new instrumentation for this Fed. F.Y.
>
> -----Original Message-----
> **From:** Bolduc, Amanda
> **Sent:** Wednesday, July 01, 2009 12:33 PM
> **To:** 'Scott Marhefka'
> **Cc:** Lab_Alc
> **Subject:** Software update
>
> After a thorough review of the software, here is the list of problems.
> 1. While performing and Installation protocol, if you select "NO" that the site does not meet specifications, the instrument should prompt for a reason (it does) and it should then print a report with the failure (which it currently does not). The Annual Preventative Maintenance also prompts the site specification question and will properly cause a failure if NO is selected.
>
> 2. When the 15 minute timer is complete, one of the two tested instruments does not consistently beep to notify the operator that the observation period is complete.
>
> 3. The "use previous data" and "reuse previous timer" options are not resetting properly. On 6/22 I was able to use previous data from 6/16!
>
> 4. The instruments are NOT accepting/rejecting the proper limits on the simulator solution acceptance range. In one instance, the target value was listed as 0.093 with an acceptance range of 0.088-0.098. The average result was 0.098 and the instrument reported out of range. This is also the case on the low end. The target value was listed as 0.104 with an acceptance range of 0.099-0.109. The average was 0.099 resulting in a standard out of range error.
>
> 5. **The simulator solution change protocol is not failing out of range averages at all.** The target value was listed as 0.104 with a range of 0.099-0.109, the average result was 0.098. The instrument did not report a failure. The instrument was then subjected to a DUI breath test to which the lot# and [x] were listed as the changed value, when the result came in again at 0.098, the instrument appropriately reported standard out of range.
>
> 6. When printing a summary report, if there are multiple pages, the footers are still incorrect. For example, if there are two pages, page two will correctly display "page 2 of 2", however page one will only say "page 1" not "page 1 of 2". If there is only one page, the instrument will correctly report "page 1 of 1".

Scott, if you have any questions please contact me ASAP for clarification. Please respond with a time frame estimate for having these fixes to us. Thank you so much.

VDHL folks- if I failed to include anything, please respond ASAP. Thanks.

ABolduc
Amanda Bolduc
Vermont Department of Health Laboratory
195 Colchester Ave
PO Box 1125
Burlington, VT 05402-1125
(802) 863-7413
(802) 863-7632 (fax)

This email message may contain privileged and/or confidential information. If you are not the intended recipient(s), you are hereby notified that any dissemination, distribution, or copying of this email message is strictly prohibited. If you have received this message in error, please immediately notify the sender and delete this email message from your computer.

John Fusco
National Patent Analytical Systems, Inc.
jd@npas.com
Phone 419+526-6727 Fax 419+526-9446

Bolduc, Amanda

From: Richardson, Darcy
Sent: Monday, June 29, 2009 4:11 PM
To: Bolduc, Amanda; Harnois, Steven; Drawbaugh, Bob
Subject: FW: Notification

Here's the email we were looking for.

~Darcy
-----Original Message-----
From: John Fusco [mailto:jd@npas.com]
Sent: Thursday, April 30, 2009 11:34 AM
To: Drawbaugh, Bob
Subject: Notification

Bob

We ran into an unusual situation in So. Carolina that could be and issue in Vermont since it is related to the configuration of the breath exhaust in instruments that have the simulator attached in the manner both yourself and So. Carolina use.

In a testing condition where you have a *highly elevated breath alcohol reading (.43 was the reading in the So. Carolina instance) and multiple blow attempts (5 attempts in the the So. Carolina instance)* it is possible that there can be an accumulation of enough alcohol laden breath within the instrument that a "Blank Error" can result. We do not consider this likely, but it has happened at least once that we know of.

This condition cannot result in a false breath reading, but it can result in termination of the test sequence caused by a blank error after completion of the subject test.

The fix is simply to route the tubing from the check valve to an exhaust port at the back of the instrument.

We are suggesting that this modification be incorporated into the next routine certification or scheduled maintenance. One fitting and a short length of tubing is required which we will furnish. The time required to do this should be about 5 minutes or less. Let us know what you want to do.

John Fusco
National Patent Analytical Systems, Inc.
jd@npas.com
Phone 419+526-6727 Fax 419+526-9446

Bolduc, Amanda

From: Harnois, Steven
Sent: Wednesday, June 17, 2009 11:56 AM
To: Lab_Alc
Subject: NPAS Parts Return

Folks,

I Have requested that NPAS send a call tag to return some questionable and Defective Parts RMA Number R41346.

Thanks, Steve

Steven Harnois
State of Vermont
Agency Of Human Services
Department of Health
Public Health Electronics Technician
195 Colchester Avenue
Burlington, Vermont 05401
Phone (802) 863 7641
Fax (802) 863 7632
E Mail: Sharnoi@vdh.state.vt.us

Bolduc, Amanda

From: Dave Radomski [dmr@npas.com]
Sent: Tuesday, June 16, 2009 3:53 PM
To: Harnois, Steven
Cc: John Fusco; Drawbaugh, Bob; Bolduc, Amanda; service@npas.com
Subject: Parts

Steve,

To summarize our phone call this morning, an order for the following will be placed:

8 - Detector assemblies (41603)

2 - Breath tube assemblies (42222)

1 - DMT controller board (41602)

In addition, a call tag will be issued to have the replaced parts returned to us.

If there is anything needed further, let me know.

Dave

Bolduc, Amanda

From: Dave Radomski [dmr@npas.com]
Sent: Monday, June 15, 2009 3:07 PM
To: Bolduc, Amanda
Cc: Drawbaugh, Bob; John Fusco
Subject: Detectors

VDH(a).doc (54 KB)ATT229689.txt (70 B)

Amanda,

Here's the letter on detectors.

Dave

Drawbaugh, Bob

From: Dave Radomski [dmr@npas.com]
Sent: Monday, June 15, 2009 3:07 PM
To: Bolduc, Amanda
Cc: Drawbaugh, Bob; John Fusco
Subject: Detectors

VDH(a).doc (40 KB)ATT214418.txt (70 B)

Amanda,

Here's the letter on detectors.

Dave

National Patent
Analytical Systems, Inc.

Amanda Bolduc
Vermont Department of Health
195 Colchester Ave. PO Box 1125
Burlington, VT 05402-1125

6/11/09

Hi Amanda,

According to the manufacturer of the detectors, Hamamatsu, they began applying a "thermal process to improve stability of device performance". They identified detectors with and without this application as follows:

P/N	Qty	S/N	Thermal process
P9696-02SPL6435	500p	579-365	no
P9696-02SPL7862	237p	640-990	no
P9696-02SPL7862	438p	266-	yes

The "process" was implemented due to the fact that some (not all) of the detectors were exhibiting a measurable drift in the detector output that, if sufficient enough, would cause status messages to be produced by the DMT and preclude the running of those tests.

With the drift concern addressed, we have noticed better stability of detector voltages over the burn in period here. Since there is a certain amount of drift in the output of the overall system (as evidenced by the use of the ambient zeroing routine) the question "what is too much drift?" can only be answered as: "a level in the positive direction which causes Filter 1, 2 or 3 won't zero or a level in the negative direction which produces an internal standard error. A variation of up to +/- .2 volts or so in the detector voltage relative to an original set point is viewed as insignificant. General guidelines, but not absolute limits for the detector voltage would be anywhere in the range of -0.3 to +0.8 volts. Any given instrument may or may not produce a status message operating at these limits. If a status message is not produced, the instrument will function accurately as intended.

It is not necessary, nor is it advisable, to put specific limits on what is an acceptable detector voltage drift level. Identifying the drift trend of a particular detector could assist in identifying one that may produce a status message at some future point. Our position is that the adoption of any other policy is simply not warranted and potentially too constrictive.

We understand that you have incorporated a check to ensure the detector voltage is within 0.3 volts of zero. While we certainly have no issue with this, it must be noted that this range is reduced from the limits built into the instrument ensuring proper operation and increases the liklihood of not using, as is, an instrument in proper working order. Drift is normal in any infrared system and must be accommodated. While we did see a number of detectors from a batch exhibiting a larger than desired drift, very few were actually drifting to the point where they produced a status message and in no event would the integrity of any given test have been jeopardized.

If you have any additional questions, please let me know.

Regards,

Po Box 1435, 2090 Harrington Memorial Road Mansfield, Ohio 44901
Phone 1-419-526-6727 Fax 1-419-526-9446

Drawbaugh, Bob

From: John Fusco [jd@npas.com]
Sent: Thursday, June 11, 2009 9:30 AM
To: Drawbaugh, Bob
Subject: Response

Attached is the response that has been drafted to Amanda. I wanted to send it to you for comments or thoughts before we send it to Amanda.

National Patent
Analytical Systems, Inc.

Hi Amanda,

According to the manufacturer of the detectors, Hamamatsu, they began applying a "thermal process to improve stability of device performance". They identified detectors with and without this application as follows:

P/N	Qty	S/N	Thermal process
P9696-02SPL6435	500p	579-365	no
P9696-02SPL7862	237p	640-990	no
P9696-02SPL7862	438p	266-	yes

The "process" was implemented due to the fact that some (not all) of the detectors were exhibiting a measurable drift in the detector output that, if sufficient enough, would cause status messages to be produced by the DMT and preclude the running of those tests.

With the drift concern addressed, we have noticed better stability of detector voltages over the burn in period here. Since there is a certain amount of drift in the output of the overall system (as evidenced by the use of the ambient zeroing routine) the question "what is too much drift?" can only be answered as: "a level in the positive direction which causes Filter 1, 2 or 3 won't zero or a level in the negative direction which produces an internal standard error. A variation of up to +/- .2 volts or so in the detector voltage relative to an original set point is viewed as insignificant. General guidelines, but not absolute limits for the detector voltage would be anywhere in the range of -0.3 to +0.8 volts. Any given instrument may or may not produce a status message operating at these limits. If a status message is not produced, the instrument is and will function accurately as intended.

It not necessary, nor is it advisable, to put specific limits on what is an acceptable detector voltage drift level. Having said that, identifying the drift trend of a particular detector could assist in identifying one that may produce a status message at some future point.

We understand that you have incorporated a check to ensure the detector voltage is within 0.3 volts of zero. While we certainly have no issue with this, it must be noted that this range is reduced from the limits built into the instrument ensuring proper operation and increases the liklihood of not using, as is, an instrument in proper working order. Drift is normal in any infrared system and must be accommodated. While we did see a number of detectors from a batch exhibiting a larger than desired drift, very few were actually drifting to the point where they produced a status message and in no event would the integrity of any given test have been jeapordized.

If you have any additional questions, please let me know.

Po Box 1435, 2090 Harrington Memorial Road Mansfield, Ohio 44901
Phone 1-419-526-6727 Fax 1-419-526-9446

National Patent
Analytical Systems, Inc.

Amanda Bolduc
Vermont Department of Health
195 Colchester Ave. PO Box 1125
Burlington, VT 05402-1125

6/11/09

Hi Amanda,

According to the manufacturer of the detectors, Hamamatsu, they began applying a "thermal process to improve stability of device performance". They identified detectors with and without this application as follows:

P/N	Qty	S/N	Thermal process
P9696-02SPL6435	500p	579-365	no
P9696-02SPL7862	237p	640-990	no
P9696-02SPL7862	438p	266-	yes

The "process" was implemented due to the fact that some (not all) of the detectors were exhibiting a measurable drift in the detector output that, if sufficient enough, would cause status messages to be produced by the DMT and preclude the running of those tests.

With the drift concern addressed, we have noticed better stability of detector voltages over the burn in period here. Since there is a certain amount of drift in the output of the overall system (as evidenced by the use of the ambient zeroing routine) the question "what is too much drift?" can only be answered as: "a level in the positive direction which causes Filter 1, 2 or 3 won't zero or a level in the negative direction which produces an internal standard error. A variation of up to +/- .2 volts or so in the detector voltage relative to an original set point is viewed as insignificant. General guidelines, but not absolute limits for the detector voltage would be anywhere in the range of -0.3 to +0.8 volts. Any given instrument may or may not produce a status message operating at these limits. If a status message is not produced, the instrument will function accurately as intended.

It is not necessary, nor is it advisable, to put specific limits on what is an acceptable detector voltage drift level. Identifying the drift trend of a particular detector could assist in identifying one that may produce a status message at some future point. Our position is that the adoption of any other policy is simply not warranted and potentially too constrictive.

We understand that you have incorporated a check to ensure the detector voltage is within 0.3 volts of zero. While we certainly have no issue with this, it must be noted that this range is reduced from the limits built into the instrument ensuring proper operation and increases the likelihood of not using, as is, an instrument in proper working order. Drift is normal in any infrared system and must be accommodated. While we did see a number of detectors from a batch exhibiting a larger than desired drift, very few were actually drifting to the point where they produced a status message and in no event would the integrity of any given test have been jeopardized.

If you have any additional questions, please let me know.

Regards,

Po Box 1435, 2090 Harrington Memorial Road Mansfield, Ohio 44901
Phone 1-419-526-6727 Fax 1-419-526-9446

Dave Radomski,
N.P.A.S.

Po Box 1435, 2090 Harrington Memorial Road Mansfield, Ohio 44901
Phone 1-419-526-6727 Fax 1-419-526-9446

National Patent
Analytical Systems, Inc.

Amanda Bolduc
Vermont Department of Health
195 Colchester Ave. PO Box 1125
Burlington, VT 05402-1125

6/11/09

Hi Amanda,

According to the manufacturer of the detectors, Hamamatsu, they began applying a "thermal process to improve stability of device performance". They identified detectors with and without this application as follows:

P/N	Qty	S/N	Thermal process
P9696-02SPL6435	500p	579-365	no
P9696-02SPL7862	237p	640-990	no
P9696-02SPL7862	438p	266-	yes

The "process" was implemented due to the fact that some (not all) of the detectors were exhibiting a measurable drift in the detector output that, if sufficient enough, would cause status messages to be produced by the DMT and preclude the running of those tests.

With the drift concern addressed, we have noticed better stability of detector voltages over the burn in period here. Since there is a certain amount of drift in the output of the overall system (as evidenced by the use of the ambient zeroing routine) the question "what is too much drift?" can only be answered as: "a level in the positive direction which causes Filter 1, 2 or 3 won't zero or a level in the negative direction which produces an internal standard error. A variation of up to +/- .2 volts or so in the detector voltage relative to an original set point is viewed as insignificant. General guidelines, but not absolute limits for the detector voltage would be anywhere in the range of -0.3 to +0.8 volts. Any given instrument may or may not produce a status message operating at these limits. If a status message is not produced, the instrument will function accurately as intended.

It is not necessary, nor is it advisable, to put specific limits on what is an acceptable detector voltage drift level. Identifying the drift trend of a particular detector could assist in identifying one that may produce a status message at some future point. Our position is that the adoption of any other policy is simply not warranted and potentially too constrictive.

We understand that you have incorporated a check to ensure the detector voltage is within 0.3 volts of zero. While we certainly have no issue with this, it must be noted that this range is reduced from the limits built into the instrument ensuring proper operation and increases the liklihood of not using, as is, an instrument in proper working order. Drift is normal in any infrared system and must be accommodated. While we did see a number of detectors from a batch exhibiting a larger than desired drift, very few were actually drifting to the point where they produced a status message and in no event would the integrity of any given test have been jeopardized.

If you have any additional questions, please let me know.

Regards,

Po Box 1435, 2090 Harrington Memorial Road Mansfield, Ohio 44901
Phone 1-419-526-6727 Fax 1-419-526-9446

Dave Radomski,
N.P.A.S.

Po Box 1435, 2090 Harrington Memorial Road Mansfield, Ohio 44901
Phone 1-419-526-6727 Fax 1-419-526-9446

Vermont Department of Health Laboratory
195 Colchester Ave
PO Box 1125
Burlington, VT 05402-1125
(802) 863-7413
(802) 863-7632 (fax)

This email message may contain privileged and/or confidential information. If you are not the intended recipient(s), you are hereby notified that any dissemination, distribution, or copying of this email message is strictly prohibited. If you have received this message in error, please immediately notify the sender and delete this email message from your computer.

John Fusco
National Patent Analytical Systems, Inc.
jd@npas.com
Phone 419+526-6727 Fax 419+526-9446

8/5/09

Drawbaugh, Bob

From: John Fusco [jd@npas.com]
Sent: Wednesday, June 10, 2009 2:38 PM
To: Drawbaugh, Bob
Subject: FYI

Bob

Amanda requested of Dave that he get some information from Hamamatsu regarding the process used in the manufacture of detectors that exhibited some characteristics of drift. Three pcs. were involved and we are happy to do this. Dave has completed a statement to Amanda regarding the findings and a general comment regarding the handling and expectations of drift levels that are inherent in detectors.

The reason that I'm advising you is that I want to be sure you are abreast of this and in fact want this information sent to the department this way. Typically this is treated as a simple maintenance issue - which it is, rather than giving it some unknown level of additional treatment.

Detectors, over the years, have always had their ups and downs with each detector manufacturer. It is a characteristic of that device that some are better than others and they vary somewhat from batch to batch.

Let me know or give me a call if you can.

John Fusco
National Patent Analytical Systems, Inc.
jd@npas.com
Phone 419+526-6727 Fax 419+526-9446

Bolduc, Amanda

From: Celotti, Stella
Sent: Monday, June 08, 2009 11:02 AM
To: Drawbaugh, Bob; Bolduc, Amanda; Richardson, Darcy; Harnois, Steven
Subject: Breath Testing Equipment

Hello, I have made the decision to purchase the NPAS DMT's with the next round of Highway Safety funds. I appreciate everyone's input and work done on evaluating the two options, and now it is time to move forward with the project. Thank you, Stella.

Mary Celotti
Laboratory Director
Vermont Department of Health Laboratory
195 Colchester Avenue
Burlington, Vermont 05401
Office:802-863-7570
Fax:802-863-7632
scelott@vdh.state.vt.us

Bolduc, Amanda

From: Scott Marhefka [eng@npas.com]
Sent: Thursday, May 14, 2009 6:00 PM
To: Bolduc, Amanda
Subject: data importer

Amanda,

I will be shipping you a cd next week with the program for bringing the data into excel.

Have you been able to test the new modem dll?

--
Scott Marhefka
National Patent Analytical Systems
2090 Harrington Memorial Road
Mansfield, OH 44903

email: eng@npas.com
phone: (419) 526-6727

Drawbaugh, Bob

From: Dave Radomski [dmr@npas.com]
Sent: Thursday, May 07, 2009 1:29 PM
To: Drawbaugh, Bob
Subject: Re: Follow-up

I would love to blame the travel for the memory loss except it happens even when I don't travel.

On May 7, 2009, at 12:19 PM, Drawbaugh, Bob wrote:

> What? Travel has erased memory? Actually it was the drop-off at tjhe end of a breath and how we might measure inlet pressure during delivery. I,ll give a call within the next few days
>
> ----- Original Message -----
> From: Dave Radomski <dmr@npas.com>
> To: Drawbaugh, Bob
> Sent: Thu May 07 12:14:13 2009
> Subject: Follow-up
>
> Hi Bob,
>
> Back from Anchorage.
>
> What was the issue from Saturday that you raised towards the end of
> the meeting that we were going to address?
>
> Dave

Drawbaugh, Bob

From: Dave Radomski [dmr@npas.com]
Sent: Thursday, May 07, 2009 12:14 PM
To: Drawbaugh, Bob
Subject: Follow-up

Hi Bob,

Back from Anchorage.

What was the issue from Saturday that you raised towards the end of
the meeting that we were going to address?

Dave

Bolduc, Amanda

From: Amanda Bolduc [abolduc@gmavt.net]
Sent: Monday, May 04, 2009 6:07 AM
To: Bolduc, Amanda
Subject: dmt meeting minutes

No new orders to NPAS since the 1st of year. Old orders will keep them busy for 9 months.

Doing a lot of new development. NPAS is testing fuel cell. Only going to dual for marketing reasons, not because of design issues. "We gain very little if anything at all in terms of specificity b/c of the current 3 filter technology which NPAS thinks is better than fuel cell."
Analytical testing of fuel cell is done, application of technology is being developed. 60-90 days until launch.
Portable unit still under development. Configuration still under construction. Aug/Sept until portable. "Build like a tank" steel case.
New engineers. Scott does code work and electronic design. Steve does most of DMT application coding. Terrell (new guy) does communication applications.
2 filter IR plus fuel cell (qual and quant)
"Nobody can match the real time invalid identification"
Buying fuel cells from a German company. Seem to be satisfied with the cells they are buying. NPAS will have 10 demo units to share in July

Bolduc, Amanda

From: Dave Radomski [dmr@npas.com]
Sent: Wednesday, April 22, 2009 10:58 AM
To: Bolduc, Amanda
Subject: Re: Gas

Are you referring to the controller PCB?

On Apr 22, 2009, at 9:55 AM, Bolduc, Amanda wrote:

> I am also waiting on a modem that I asked Chris for two weeks ago, and
> just this morning I had to order a new detector and a new PCB for the
> son-of-chucky.
>
> ABolduc
> Amanda Bolduc
> Chemist
> Vermont Department of Health Lab
> 195 Colchester Ave
> PO Box 1125
> Burlington, VT 05402-1125
> (802) 863-7413
> (802) 863-7632 (fax)
>
> -----Original Message-----
> From: Dave Radomski [mailto:dmr@npas.com]
> Sent: Wednesday, April 22, 2009 9:50 AM
> To: Bolduc, Amanda
> Subject: Gas
>
> Has the gas cylinder arrived from ILMO?
>
> Dave
>

Drawbaugh, Bob

From: John Fusco [jd@npas.com]
Sent: Friday, May 22, 2009 11:13 AM
To: Customers
Subject: FYI

To all customers FYI

http://winbackyourlife.org/http:/problems-breath-testing-michigan/

John Fusco
National Patent Analytical Systems, Inc.
jd@npas.com
Phone 419+526-6727 Fax 419+526-9446

Drawbaugh, Bob

From: John Fusco [jd@npas.com]
Sent: Thursday, April 30, 2009 11:34 AM
To: Drawbaugh, Bob
Subject: Notification

Bob

We ran into an unusual situation in So. Carolina that could be and issue in Vermont since it is related to the configuration of the breath exhaust in instruments that have the simulator attached in the manner both yourself and So. Carolina use.

In a testing condition where you have a *highly elevated breath alcohol reading (.43 was the reading in the So. Carolina instance) and multiple blow attempts (5 attempts in the the So. Carolina instance)* it is possible that there can be an accumulation of enough alcohol laden breath within the instrument that a "Blank Error" can result. We do not consider this likely, but it has happened at least once that we know of.

This condition cannot result in a false breath reading, but it can result in termination of the test sequence caused by a blank error after completion of the subject test.

The fix is simply to route the tubing from the check valve to an exhaust port at the back of the instrument.

We are suggesting that this modification be incorporated into the next routine certification or scheduled maintenance. One fitting and a short length of tubing is required which we will furnish. The time required to do this should be about 5 minutes or less. Let us know what you want to do.

John Fusco
National Patent Analytical Systems, Inc.

jd@npas.com
Phone 419+526-6727 Fax 419+526-9446

Drawbaugh, Bob

From: John Fusco [jd@npas.com]
Sent: Friday, April 24, 2009 4:46 PM
To: Customers

This is to let you all know that we have added a third software engineer. His focus area is internet and communications protocol in general. That brings our total engineering staff to 5 full time - may be 6 depending on who you want to count.

Hope to see you at IACT.

John Fusco
National Patent Analytical Systems, Inc.
jd@npas.com
Phone 419+526-6727 Fax 419+526-9446

Drawbaugh, Bob

From: John Fusco [jd@npas.com]
Sent: Friday, April 24, 2009 4:36 PM
To: Drawbaugh, Bob
Subject: Some thoughts

Bob

I spoke at length with Scott this week regarding the state of your program and in particular what it would take to bring both your software and hardware up to current configurations. We both feel that it would be best if this could be done. You already have tested the new processor and the gas unit reflects the current menu configuration that cannot be adapted unless we configure your existing software to current standards rather than have it run your old system as an overlay. I'm not sure that is a correct analogy, but I think you get the idea. For the most part, your hardware is current, but those instruments that are not should be brought current.

I asked Scott what it would take to complete this project and his response was in the area of 3 to 4 months with one person dedicated full time to rewrite the code, possibly sooner.

I'm not sure you know, because we have not announced it, but we have added another software engineer now giving us 3 on board in that area, along with the other two that have other disciplines. The focus of the 3rd engineer is primarily in the area of ethernet communications, but he can work in other areas also. Between the three, we are very strong at this point considering the core work has

long since been completed. Yours is primarily adaptation of the extensive reporting system.

My feeling at this point is that we should bite the bullet and bring your system up to date without additional charges beyond the quoted cost for additional instruments. Your system, even after all the delays and pain, is a showcase system unlike any other. I want to see it kept that way. This would be allot of work on our end and your operations would stay undisturbed until the actual transition is made. New equipment could be made using the existing software which has been approved and an update made on approval of the new software or simply delay deliveries until the new software is completed.

One area I think needs to be addressed and I admit I am at a loss to offer any real suggestions - but I am absolutely open to discussions - is the area of the ability of my engineering to work consistently well with one or more of your people. Some of these issues have been communication problems and some have been personality conflicts. I have made it known here that the objective is to get the job done. I not sure this has always sunk in, but it remains my position. This is a difficult situation to work with and if you have any thoughts on it, let me know. Otherwise, I will continue to check in with Scott regarding the progress and do everything I can to see that he and his people stay responsive and helpful.

On the upside, your people are well along on the learning curve and this goes a long way toward easing some of the issues. It has also been a real benefit that we are well along on our own curve and the work can now be done in a much more efficient fashion which hopefully will tend to build confidence at your end.

Let me know what you think.

John Fusco
National Patent Analytical Systems, Inc.
jd@npas.com
Phone 419+526-6727 Fax 419+526-9446

Drawbaugh, Bob

From: John Fusco [jd@npas.com]
Sent: Wednesday, April 22, 2009 1:42 PM
To: Drawbaugh, Bob
Subject: Software

Follow Up Flag: Follow up
Flag Status: Flagged

Bob

I was speaking with Scott about your software and the issues relative to converting it to the current configuration. I have a good feel for the engineering time required to do this. Both Scott and I feel that everyone would be better off if this transition were made. I think for a fairly nominal amount, the original 20 could be converted to the newer processor and the software rewritten to current configuration. When you have a little time, give a call and we can talk about it.

John Fusco
National Patent Analytical Systems, Inc.
jd@npas.com
Phone 419+526-6727 Fax 419+526-9446

Drawbaugh, Bob

From: John Fusco [jd@npas.com]
Sent: Wednesday, April 01, 2009 9:08 AM
To: Drawbaugh, Bob
Subject: Software

Bob

I met with Scott regarding your software and thought I would pass on some of the points we talked about.

We can easily adapt your software to run on the SI processor. The advantage of this is that the software, as you tested it, remains intact, with no changes to the core code. All the forms, features, sequences and functionality remain the same.

However, we have done some things that Amanda may see in the gas demo unit that she might decide she would like to have. This may create problems since unless your existing software is left as is, modifications within the SI structure will be a problem. Adding or changing functions can be an issue although the gas capability is already in your system and turning it on is not a problem.

As questions come up on this I'll get the answers from Scott on the best options.

Bolduc, Amanda

From: Scott Marhefka [eng@npas.com]
Sent: Thursday, April 09, 2009 10:34 AM
To: Bolduc, Amanda
Subject: Re: Software?

Amanda,

Would you please call into a DMT that didn't poll any data and Print the Options. I'd like to make sure that data collection is turned on.

--
Scott Marhefka
National Patent Analytical Systems
2090 Harrington Memorial Road
Mansfield, OH 44903

email: eng@npas.com
phone: (419) 526-6727

Bolduc, Amanda

From: Drawbaugh, Bob
Sent: Wednesday, April 01, 2009 1:30 PM
To: Bolduc, Amanda
Cc: Richardson, Darcy; Harnois, Steven
Subject: FW: Software

-----Original Message-----
From: John Fusco [mailto:jd@npas.com]
Sent: Wednesday, April 01, 2009 9:08 AM
To: Drawbaugh, Bob
Subject: Software

Bob

I met with Scott regarding your software and thought I would pass on some of the points we talked about.

We can easily adapt your software to run on the SI processor. The advantage of this is that the software, as you tested it, remains intact, with no changes to the core code. All the forms, features, sequences and functionality remain the same.

However, we have done some things that Amanda may see in the gas demo unit that she might decide she would like to have. This may create problems since unless your existing software is left as is, modifications within the SI structure will be a problem. Adding or changing functions can be an issue although the gas capability is already in your system and turning it on is not a problem.

As questions come up on this I'll get the answers from Scott on the best options.

John Fusco
National Patent Analytical Systems, Inc.
jd@npas.com
Phone 419+526-6727 Fax 419+526-9446

Bolduc, Amanda

From: Scott Marhefka [eng@npas.com]
Sent: Tuesday, March 31, 2009 5:09 PM
To: Bolduc, Amanda
Subject: Emailing: DmtTech.zip

DmtTech.zip (228 KB)

Amanda,

Try these files instead. Create a shortcut to DMT.EXE and add to the command line -d. This will cause log files to be created. Hopefully we can use these to figure out what is up.

--
Scott Marhefka
National Patent Analytical Systems
2090 Harrington Memorial Road
Mansfield, OH 44903

email: eng@npas.com
phone: (419) 526-6727

Bolduc, Amanda

From: Scott Marhefka [eng@npas.com]
Sent: Tuesday, March 31, 2009 9:25 AM
To: Bolduc, Amanda
Subject: Emailing: DmtTech.zip

DmtTech.zip (229 KB)

Amanda,

The attached zip file holds the program to call DMTs. You will need to have dotNet2.0 or greater installed for it to work. Call me when you are ready to give it a try.

--

Scott Marhefka
National Patent Analytical Systems
2090 Harrington Memorial Road
Mansfield, OH 44903

email: eng@npas.com
phone: (419) 526-6727

Drawbaugh, Bob

From: Dave Radomski [dmr@npas.com]
Sent: Monday, March 30, 2009 4:29 PM
To: Bolduc, Amanda
Cc: Drawbaugh, Bob
Subject: More dmt

Hi Amanda,

I stumbled across some additional notes regarding the status messages that need to be added to the document sent earlier. I'll review and send that off to you hopefully tomorrow.

Dave

Drawbaugh, Bob

From: Dave Radomski [dmr@npas.com]
Sent: Monday, March 30, 2009 10:05 AM
To: Bolduc, Amanda
Cc: Drawbaugh, Bob
Subject: Doc

/T DMT Explanation of Status C...

This has been edited based on feedback from Scott. Amanda, let me know what has been omitted.

Thanks.

DataMaster DMT Explanation of Status Codes and Their Limits

Based on Vermont Software as of 3/30/2009

"PUMP ERROR"

If at anytime during the purge cycle or the running of a wet bath external standard, the flow rate drops below approximately 3 liters per minute (derived from a flow voltage limit of 1.35 Vdc), the message "PUMP ERROR" will be generated.

This voltage and the corresponding flow rate of approximately 3 l/m is also used as the MINIMUM FLOW RATE required when determining subject sample acceptance.

"FILTER (1, 2 or 3) WON'T ZERO"

In the event the DMT's D to A converter is unable to adjust the output detector signal prior to an analysis at any of the three wavelengths (3.44μ, 3.37μ and 3.50μ) to within 30 mV of 0.000 V, the message "FILTER (1, 2 or 3) WON'T ZERO" will be generated identifying which specific filter was unable to zero.

Preliminary

"AMBIENT FAIL"

During the initial purge cycle of a given test, the output signal of the detector is measured and quantified. The initial measurement is made 10 seconds after the pump comes on. A second measurement is made at the completion of the purge, 25 seconds from the start. When these 2 measurements are compared, if the difference is > .040 Vdc, the message "AMBIENT FAIL" will be generated.

"BLANK ERROR"

A Blank Test is performed subsequent to zeroing and prior to analysis when the primary, or 3.44μ filter is in the optical path. If this measurement produces a measurement ≥ 0.004 g/210 liters or equivalent, the message "BLANK ERROR" will be generated.

Additionally, if, after the allotted purge time after a sample has been delivered the displayed value ≥ 0.008 g/210 liters or equivalent, the message "BLANK ERROR" will be generated.

"STANDARD OUT OF RANGE"

If the simulator tolerance check is enabled, the value of an external standard must be within ±0.005 g/210 liters, or equivalent, of the target ethanol concentration for values of 0.080 g/210 liters or equivalent and above. For target concentrations below 0.080 g/210

liters, the limit is ± 0.004 g/210 liters. If the result produce is outside the above allotted tolerances, the message "STANDARD OUT OF RANGE" is generated.

"SIMULATOR NOT TO TEMPERATURE"

When connected to a digital wet bath simulator, if the monitored temperature falls outside the limit of 33.5 to 34.5 degrees C inclusive when a test is conducted, the message "SIMULATOR NOT TO TEMPERATURE" will be generated.

"SIMULATOR TIMEOUT"

When running an external standard, if the sample acceptance parameters are not met within the allotted 30 second window, the message "SIMULATOR TIMEOUT" will be generated.

"INTERNAL STANDARD ERROR"

When performing a measurement of the internal quartz standard during the testing sequence, if the measured value equals or exceeds the Xq value stored in the calibration factors by ± 4%, the message "INTERNAL STANDARD ERROR" will be generated.

Preliminary

"INVALID SAMPLE"

Reference NPAS document DMT Invalid.doc dated 12/14/07 (attached).

"DETECTOR OVERFLOW"

When a voltage corresponding to the alcohol concentration (Detector Voltage) during any time the DMT is taking any type of measurement exceeds the limit of -2 Vdc to +2 Vdc, the message "DETECTOR OVERFLOW" will be generated. This voltage corresponds to an alcohol concentration outside the limits of detection of the DMT (approximately 0.83 (or -0.83 g/210 liters) as a reference).

SAMPLE CHAMBER TEMPERATURE CHECK

The temperature range for the sample chamber is 44 to 52 degrees C exclusive. The DMT will only allow a test to be conducted if the sample chamber temperature is above 44 and below 52 degrees C. If the temperature is outside this limit, a message stating so will be displayed when a test is attempted.

When the DMT is powered-up, the 20 minute wait period to the time that a test can be conducted is 20 minutes after the sample chamber temperature reaches 45 degrees C.

BREATH TUBE TEMPERATURE CHECK

The temperature range for the breath tube is 40 ±10 degrees C inclusive. If the temperature is outside this limit, a message stating so will be displayed when a test is attempted.

"RFI DETECTED"

An antenna wire in the breath tube monitors the environment around the DMT for elevated levels of radio frequency interference. If the set threshold for detection is exceeded due to elevated levels of RFI the message "RFI DETECTED" will be generated.

"INCOMPLETE SAMPLE"

If the breath sample parameters are not met during the allotted 2 minute window for accepting a breath sample the message "INCOMPLETE-SAMPLE" will be generated if it is determined that it is not a refusal.

Preliminary

"FILTER WHEEL ERROR"

2 optical sensors are used to validate proper positioning of the filters and quartz standard in the optical path. A stepper motor is used to move the filters and quartz standard into the proper position and a locking pin is actuated via a solenoid to secure in place. The software monitors the movement of these wheels and if there is misalignment during any of the movement sequences, the message "FILTER WHEEL ERROR" will be generated.

"SUCK BACK ERROR"

In addition to being able to determine the rate of airflow through the pathway, the mass airflow sensor can determine the direction of airflow. If the sensor detects airflow in the reverse direction during a breath test (sucking), the message "SUCK BACK ERROR" will be generated.

"INTERFERENCE DETECTED"

Each sample measured by the DMT is done so to determine the ethanol concentration. In addition, by measuring the sample at 3 wavelengths, we determine whether or not the sample is specific to ethanol. If a discrepancy is found compared to what is expected at the three separate filters, the sample is said to be non-specific to ethanol and the message "INTERFERENCE DETECTED" is generated. The limits for determining this are outlined in NPAS document DMT interference threshold.doc dated 1/18/2008 (attached).

Note: Status messages are in some instances software specific based upon customer requests. This list may not cover all scenarios and possible status messages. Additionally, allowable limits for certain checks may also differ among software / hardware configurations at the customers' request.

Preliminary

National Patent Analytical Systems, Inc.

Explanation of the INVALID SAMPLE message and the DataMaster DMT

12/14/07

Measurements of the alcohol concentration during breath sample delivery are taken every 250 milliseconds (4x per second).

A "positive slope" is defined as a comparison of a 2 consecutive point average to the previous where the trend is not in the negative direction. Both conditions of a positive change and no change are considered a positive slope.

The message "INVALID SAMPLE" will be produced while the instrument detects at least the minimum rate of airflow during sample delivery if:

There are three consecutive comparisons of two point averages where the trend is in the negative direction (values are decreasing) after seeing first a minimum of six positive comparisons of two point averages.

Preliminary

Or

Any final result $\geq$ 0.060 g/210 l is less than 95% of any previous high reading during that successfully delivered sample.

Or

Any final result $\geq$ 0.003 g/210 l but < 0.060 g/210 l is lower than any previous high reading during that successfully delivered sample by at least 0.003 g/210 l.

The "Filter Agreement" concept as it pertains to analytical principles incorporated in the DataMaster DMT breath test instruments. (Interference Detection)

Calibrating a DMT involves introducing known standards of water vapor and either wet or dry ethanol vapor. The purpose is twofold. First, the error in quantifying the ethanol, pre-calibration, as evidenced in the discrepancy between the known ethanol concentration (Ca) and that analyzed and displayed by the instrument upon introduction of that standard, is normalized to the known (Ca) by dividing the known value (Ca) into the reported (resulting in CAL). Second, by knowing that a true ethanol standard, free of any potential interfering substances, is introduced during the calibration procedure, the instrument determines the relative measurement of the ethanol sample when analyzing the vapor at each of the three narrow bandpass filter wavelengths (ref: a21, a31), thereby allowing subsequent analyses to be qualified as either containing or being free of interfering substance(s).

Water vapor is introduced so as to allow the amount evident at each of the filter wavelengths to be subtracted from all analyses thereafter. This water vapor concentration will be constant regardless of the ethanol concentration of the sample so a straight subtraction will suffice (ref: b1, b2, b3).

For discussion of the basic concept, we will show an example using 2 of the three filters (3.44 [filter 1] and 3.37 [filter 2] microns) and calibrating with water and ethanol. As stated above, water is introduced to determine the amount to be subtracted at 3.44μ and 3.37μ. These will not be the same value as water absorbs IR energy to a greater degree at 3.37μ than at 3.44μ. With the water content accounted for, the relative absorption by ethanol between 3.37μ and 3.44μ is determined. Since ethanol absorbs approximately 20% more IR energy at 3.37μ than that at 3.44μ, we would expect a21 to be in the neighborhood of 1.2 as a21 is defined as the value of ethanol measured at 3.37μ with respect to that at 3.44μ. As each IR filter has slightly different transmittance characteristics (center wavelength and half peak bandwidth), albeit within the published filter specifications, each instrument must be calibrated to determine the specific calibration factors for the use of those filters in a specific instrument. Those calibration factors are the characteristic values for that particular instrument. The a21 value is used on subsequent analyses do determine the presence (or absence) of an interfering substance.

This is done by first determining the concentration of the sample as analyzed at the 3.44μ filter. The 3.37μ filter is then inserted into the optical path and the sample is analyzed at that wavelength. The result analyzed at 3.44μ is multiplied by a21. The result at 3.37μ is subtracted from this product of the value at 3.44μ x a21. If the difference is ≤ the filter agreement threshold (default 0.005) then the sample is said to be free from an interfering substance. This is because the relative absorption seen between 3.37μ and 3.44μ for this sample is the same as that for the ethanol standard used to calibrate the instrument. When a substance other than ethanol, but still absorbing IR energy in the 3.4μ region, is added to the sample, a disagreement becomes evident in the value at 3.37μ with the result from

3.44μ x a21. The greater the concentration of the interference, or the less like ethanol (a21), the greater the discrepancy becomes.

As some allowance for variation between the values (3.44μ x a21 and 3.37μ) is necessary due to expected variability in any measurement (+/-0.002 for each measurement) the question arises as to at what level the discrepancy becomes significant and scientifically and legally of importance. The limit for the filter agreement threshold is 0.005. What this means is that once the discrepancy between the value at 3.37μ and the value at 3.44μ x a21 $\geq$ 0.005, the sample is said to contain an interfering substance. This threshold can, however, be adjusted.

The following is an explanation of what might happen if the sample were to contain acetone in addition to ethanol. Lets assume the ethanol concentration of the sample as measured at 3.44μ was 0.160. Knowing that ethanol absorbs approximately 20% more energy at 3.37μ, we would anticipate the result at 3.37μ to be 0.160 X 1.2 = 0.192. If acetone is also a component of the sample, it would be useful to know the characteristics of acetone at 3.44μ and 3.37μ. Test data has shown that acetone absorbs 2 to 3 times the amount of IR energy at 3.37μ than it does at 3.44μ (again, independent of the concentration). For this discussion we will use a 2:1 ratio. Assume a contribution of 0.010 at 3.44μ. Since we expect in this example 2X that concentration at 3.37μ, the value would be 0.020. If we add these concentrations of acetone to the ethanol portion we would see:

Preliminary

Reading at 3.44μ = 0.160 (etoh) + 0.010 (ace) = 0.170 total concentration

Reading at 3.37μ = 0.192 (etoh) + 0.020 (ace) = 0.212 total concentration

When multiplying the result at 3.44μ by a21 we see:

0.170 x 1.2 = 0.204

Comparing this to the result at 3.37μ we see:

0.204 – 0.212 = -0.008

This exceeds the "filter agreement threshold", (preset at 0.005) by 0.03. This test would result in the message of "interference detected" if the software were designed to handle the discrepancy in this manner.

If the contribution by acetone were 0.005 at 3.44μ in the above example, the amount at 3.37μ would be expected to be 2X or 0.010. This, added to our base ethanol concentration would yield:

Reading at 3.44 = 0.160 (etoh) + 0.005 (ace) = 0.165 total concentration

Reading at 3.37 = 0.192 (etoh) + 0.010 (ace) = 0.202 total concentration

When multiplying the result at 3.44μ by a21 we see:

0.165 x 1.2 = 0.198

Comparing this to the result at 3.37μ we see:

0.198 – 0.202 = -0.004

This would be below the set filter agreement threshold (0.005) an in this instance, the final result would be a reported ethanol concentration of 0.165.

The explanation above is repeated except filter 2 (3.37μ) is replaced with filter 3 (3.50μ) and a21 is replaced with a31.

This example is when acetone absorbs only 2x as much at 3.37μ wrt 3.44μ. As you approach a 3x relationship, the allowable contribution by acetone at 3.44μ is reduced.

The filter agreement threshold will be adjustable. This settable level (2-10) implying, when referring to g/210l units of measurement, an adjustable threshold of between 0.002 g/210L and 0.010 g/210L will pertain to the difference in the calculated concentration at filter 1 (3.44μ) and filter 2 (3.37μ) or the difference in the calculated concentration at filter 1 and filter 3 (3.50μ). The selected filter agreement threshold will be the absolute value for sample concentrations measured at filter 1 of up to 0.100 g/210L. For values at or greater than 0.100 g/210L the threshold will be a percentage of the analyzed concentration at 3.44μ:

Filter Agreement if 3.44μ ≥ 0.100 g/210L = (Int x 0.001) x (value at filter 1 / 0.100)
Where Int is the set filter agreement threshold value from 2 to 10

If the difference when comparing the results of 3.44μ and 3.37μ OR when comparing the results of 3.44μ and 3.50μ exceeds the threshold, a non-specific to ethanol sample is said to have occurred.

An additional filter agreement threshold calculation will also be employed where the threshold outlined above is not exceeded but the difference in the 2 calculated differences (filter 1-2 and filter 1-3) when combined reaches a level defined as:

For filter 1 measured concentrations of up to 0.100 g/210L interference detected will be the result if:
Diff filter 1-2 plus Diff filter 1-3 ≥ (Int x 0.001) x (7/5) = 0.007
For concentrations measured at filter 1 of 0.100 g/210L or greater interference detected will be the result if:
Diff filter 1-2 plus Diff filter 1-3 ≥ (Int x 0.001) x (value at filter 1 / 0.100) x (7/5)

See table below for example of thresholds with INT set to 5

Value @ Filt 1	Filter I1-2I Diff	Filter I1-3I Diff	Combined Diff I1-2I + I1-3I
0.025	0.0050	0.0050	0.0070
0.050	0.0050	0.0050	0.0070
0.075	0.0050	0.0050	0.0070
0.100	0.0050	0.0050	0.0070
0.150	0.0075	0.0075	0.0105
0.200	0.0100	0.0100	0.0140
0.250	0.0125	0.0125	0.0175
0.300	0.0150	0.0150	0.0210
0.350	0.0175	0.0175	0.0245
0.400	0.0200	0.0200	0.0280
0.450	0.0225	0.0225	0.0315
0.500	0.0250	0.0250	0.0350
0.550	0.0275	0.0275	0.0385
0.600	0.0300	0.0300	0.0420

Preliminary

Enter Int Thrshld (2-10)
5

Separate worksheet allows changing Threshold setting to see limits.

Drawbaugh, Bob

From: Dave Radomski [dmr@npas.com]
Sent: Thursday, January 29, 2009 11:17 AM
To: Drawbaugh, Bob
Cc: Bolduc, Amanda
Subject: Detectors

Hi Bob,

We received IR detectors from a new supplier (CAL sensor) for evaluation. Actually, we used to do business with them many moons ago. They are under new management and asked if they could provide us some detectors to evaluate. We tested in instruments here for more than two months and the results look very good. Very low noise with good stability both short and long term (very little drift. <0.100 V).

Would you be interested in installing one of these in a training instrument to evaluate? Obviously at no charge. This will also free up a Hamamatsu to have on hand if needed.

Please let me know.

Thanks,

Dave

Drawbaugh, Bob

From: Dave Radomski [dmr@npas.com]
Sent: Tuesday, March 11, 2008 11:04 AM
To: Bolduc, Amanda
Cc: Drawbaugh, Bob; Harnois, Steven; Richardson, Darcy
Subject: Re: DMT problem update 31108

First shipment of Detector block, KB and power cord shipped 3/10. Order entered for remaining items and hope to ship today 3/11.

On Mar 11, 2008, at 10:08 AM, Bolduc, Amanda wrote:

> <<DMT problem update 31108.doc>>
>
> Here is the list of "issues" we are having. I spoke with Dave today (3/11/08) and we have found possible solutions to our problems. Steve, the parts should be here in the next couple of days. Please inform me as soon as they get here and we can work together to get these instruments up and running. In the mean time, please install the upgraded pics in the instruments that did not get them yet. Thanks

ABolduc
Amanda Bolduc
Vermont Department of Health Lab
195 Colchester Ave - PO Box 1125
Burlington VT 05402-1125
(802) 863-7413

DataMaster DMT Explanation of Status Codes and Their Limits

Based on Vermont Software as of 3/30/2009

"PUMP ERROR"

If at anytime during the purge cycle or the running of a wet bath external standard, the flow rate drops below approximately 3 liters per minute (derived from a flow voltage limit of 1.35 Vdc), the message "PUMP ERROR" will be generated.

This voltage and the corresponding flow rate of approximately 3 l/m is also used as the MINIMUM FLOW RATE required when determining subject sample acceptance.

"FILTER (1, 2 or 3) WON'T ZERO"

In the event the DMT's D to A converter is unable to adjust the output detector signal prior to an analysis at any of the three wavelengths (3.44μ, 3.37μ and 3.50μ) to within 30 mV of 0.000 V, the message "FILTER (1, 2 or 3) WON'T ZERO" will be generated identifying which specific filter was unable to zero.

Preliminary

"AMBIENT FAIL"

During the initial purge cycle of a given test, the output signal of the detector is measured and quantified. The initial measurement is made 10 seconds after the pump comes on. A second measurement is made at the completion of the purge, 25 seconds from the start. When these 2 measurements are compared, if the difference is > .040 Vdc, the message "AMBIENT FAIL" will be generated.

"BLANK ERROR"

A Blank Test is performed subsequent to zeroing and prior to analysis when the primary, or 3.44μ filter is in the optical path. If this measurement produces a measurement ≥ 0.004 g/210 liters or equivalent, the message "BLANK ERROR" will be generated.

Additionally, if, after the allotted purge time after a sample has been delivered the displayed value ≥ 0.008 g/210 liters or equivalent, the message "BLANK ERROR" will be generated.

"STANDARD OUT OF RANGE"

If the simulator tolerance check is enabled, the value of an external standard must be within ±0.005 g/210 liters, or equivalent, of the target ethanol concentration for values of 0.080 g/210 liters or equivalent and above. For target concentrations below 0.080 g/210

liters, the limit is ± 0.004 g/210 liters. If the result produce is outside the above allotted tolerances, the message "STANDARD OUT OF RANGE" is generated.

"SIMULATOR NOT TO TEMPERATURE"

When connected to a digital wet bath simulator, if the monitored temperature falls outside the limit of 33.5 to 34.5 degrees C inclusive when a test is conducted, the message "SIMULATOR NOT TO TEMPERATURE" will be generated.

"SIMULATOR TIMEOUT"

When running an external standard, if the sample acceptance parameters are not met within the allotted 30 second window, the message "SIMULATOR TIMEOUT" will be generated.

"INTERNAL STANDARD ERROR"

When performing a measurement of the internal quartz standard during the testing sequence, if the measured value equals or exceeds the Xq value stored in the calibration factors by ± 4%, the message "INTERNAL STANDARD ERROR" will be generated.

Preliminary

"INVALID SAMPLE"

Reference NPAS document DMT Invalid.doc dated 12/14/07 (attached).

"DETECTOR OVERFLOW"

When a voltage corresponding to the alcohol concentration (Detector Voltage) during any time the DMT is taking any type of measurement exceeds the limit of -2 Vdc to +2 Vdc, the message "DETECTOR OVERFLOW" will be generated. This voltage corresponds to an alcohol concentration outside the limits of detection of the DMT (approximately 0.83 (or -0.83 g/210 liters) as a reference).

SAMPLE CHAMBER TEMPERATURE CHECK

The temperature range for the sample chamber is 44 to 52 degrees C exclusive. The DMT will only allow a test to be conducted if the sample chamber temperature is above 44 and below 52 degrees C. If the temperature is outside this limit, a message stating so will be displayed when a test is attempted.

When the DMT is powered-up, the 20 minute wait period to the time that a test can be conducted is 20 minutes after the sample chamber temperature reaches 45 degrees C.

BREATH TUBE TEMPERATURE CHECK

The temperature range for the breath tube is 40 ±10 degrees C inclusive. If the temperature is outside this limit, a message stating so will be displayed when a test is attempted.

"RFI DETECTED"

An antenna wire in the breath tube monitors the environment around the DMT for elevated levels of radio frequency interference. If the set threshold for detection is exceeded due to elevated levels of RFI the message "RFI DETECTED" will be generated.

"INCOMPLETE SAMPLE"

If the breath sample parameters are not met during the allotted 2 minute window for accepting a breath sample the message "INCOMPLETE SAMPLE" will be generated if it is determined that it is not a refusal.

Preliminary

"FILTER WHEEL ERROR"

2 optical sensors are used to validate proper positioning of the filters and quartz standard in the optical path. A stepper motor is used to move the filters and quartz standard into the proper position and a locking pin is actuated via a solenoid to secure in place. The software monitors the movement of these wheels and if there is misalignment during any of the movement sequences, the message "FILTER WHEEL ERROR" will be generated.

"SUCK BACK ERROR"

In addition to being able to determine the rate of airflow through the pathway, the mass airflow sensor can determine the direction of airflow. If the sensor detects airflow in the reverse direction during a breath test (sucking), the message "SUCK BACK ERROR" will be generated.

"INTERFERENCE DETECTED"

Each sample measured by the DMT is done so to determine the ethanol concentration. In addition, by measuring the sample at 3 wavelengths, we determine whether or not the sample is specific to ethanol. If a discrepancy is found compared to what is expected at the three separate filters, the sample is said to be non-specific to ethanol and the message "INTERFERENCE DETECTED" is generated. The limits for determining this are outlined in NPAS document DMT interference threshold.doc dated 1/18/2008 (attached).

Note: Status messages are in some instances software specific based upon customer requests. This list may not cover all scenarios and possible status messages. Additionally, allowable limits for certain checks may also differ among software / hardware configurations at the customers' request.

Preliminary

National Patent Analytical Systems, Inc.

Explanation of the INVALID SAMPLE message and the DataMaster DMT

12/14/07

Measurements of the alcohol concentration during breath sample delivery are taken every 250 milliseconds (4x per second).

A "positive slope" is defined as a comparison of a 2 consecutive point average to the previous where the trend is not in the negative direction. Both conditions of a positive change and no change are considered a positive slope.

The message "INVALID SAMPLE" will be produced while the instrument detects at least the minimum rate of airflow during sample delivery if:

There are three consecutive comparisons of two point averages where the trend is in the negative direction (values are decreasing) after seeing first a minimum of six positive comparisons of two point averages.

Preliminary

Or

Any final result $\geq$ 0.060 g/210 l is less than 95% of any previous high reading during that successfully delivered sample.

Or

Any final result $\geq$ 0.003 g/210 l but < 0.060 g/210 l is lower than any previous high reading during that successfully delivered sample by at least 0.003 g/210 l.

The "Filter Agreement" concept as it pertains to analytical principles incorporated in the DataMaster DMT breath test instruments. (Interference Detection)

Calibrating a DMT involves introducing known standards of water vapor and either wet or dry ethanol vapor. The purpose is twofold. First, the error in quantifying the ethanol, pre-calibration, as evidenced in the discrepancy between the known ethanol concentration (Ca) and that analyzed and displayed by the instrument upon introduction of that standard, is normalized to the known (Ca) by dividing the known value (Ca) into the reported (resulting in CAL). Second, by knowing that a true ethanol standard, free of any potential interfering substances, is introduced during the calibration procedure, the instrument determines the relative measurement of the ethanol sample when analyzing the vapor at each of the three narrow bandpass filter wavelengths (ref: a21, a31), thereby allowing subsequent analyses to be qualified as either containing or being free of interfering substance(s).

Water vapor is introduced so as to allow the amount evident at each of the filter wavelengths to be subtracted from all analyses thereafter. This water vapor concentration will be constant regardless of the ethanol concentration of the sample so a straight subtraction will suffice (ref: b1, b2, b3).

For discussion of the basic concept, we will show an example using 2 of the three filters (3.44 [filter 1] and 3.37 [filter 2] microns) and calibrating with water and ethanol. As stated above, water is introduced to determine the amount to be subtracted at 3.44μ and 3.37μ. These will not be the same value as water absorbs IR energy to a greater degree at 3.37μ than at 3.44μ. With the water content accounted for, the relative absorption by ethanol between 3.37μ and 3.44μ is determined. Since ethanol absorbs approximately 20% more IR energy at 3.37μ than that at 3.44μ, we would expect a21 to be in the neighborhood of 1.2 as a21 is defined as the value of ethanol measured at 3.37μ with respect to that at 3.44μ. As each IR filter has slightly different transmittance characteristics (center wavelength and half peak bandwidth), albeit within the published filter specifications, each instrument must be calibrated to determine the specific calibration factors for the use of those filters in a specific instrument. Those calibration factors are the characteristic values for that particular instrument. The a21 value is used on subsequent analyses do determine the presence (or absence) of an interfering substance.

This is done by first determining the concentration of the sample as analyzed at the 3.44μ filter. The 3.37μ filter is then inserted into the optical path and the sample is analyzed at that wavelength. The result analyzed at 3.44μ is multiplied by a21. The result at 3.37μ is subtracted from this product of the value at 3.44μ x a21. If the difference is ≤ the filter agreement threshold (default 0.005) then the sample is said to be free from an interfering substance. This is because the relative absorption seen between 3.37μ and 3.44μ for this sample is the same as that for the ethanol standard used to calibrate the instrument. When a substance other than ethanol, but still absorbing IR energy in the 3.4μ region, is added to the sample, a disagreement becomes evident in the value at 3.37μ with the result from

3.44μ x a21. The greater the concentration of the interference, or the less like ethanol (a21), the greater the discrepancy becomes.

As some allowance for variation between the values (3.44μ x a21 and 3.37μ) is necessary due to expected variability in any measurement (+/-0.002 for each measurement) the question arises as to at what level the discrepancy becomes significant and scientifically and legally of importance. The limit for the filter agreement threshold is 0.005. What this means is that once the discrepancy between the value at 3.37μ and the value at 3.44μ x a21 $\geq$ 0.005, the sample is said to contain an interfering substance. This threshold can, however, be adjusted.

The following is an explanation of what might happen if the sample were to contain acetone in addition to ethanol. Lets assume the ethanol concentration of the sample as measured at 3.44μ was 0.160. Knowing that ethanol absorbs approximately 20% more energy at 3.37μ, we would anticipate the result at 3.37μ to be 0.160 X 1.2 = 0.192. If acetone is also a component of the sample, it would be useful to know the characteristics of acetone at 3.44μ and 3.37μ. Test data has shown that acetone absorbs 2 to 3 times the amount of IR energy at 3.37μ than it does at 3.44μ (again, independent of the concentration). For this discussion we will use a 2:1 ratio. Assume a contribution of 0.010 at 3.44μ. Since we expect in this example 2X that concentration at 3.37μ, the value would be 0.020. If we add these concentrations of acetone to the ethanol portion we would see:

Preliminary

Reading at 3.44μ = 0.160 (etoh) + 0.010 (ace) = 0.170 total concentration

Reading at 3.37μ = 0.192 (etoh) + 0.020 (ace) = 0.212 total concentration

When multiplying the result at 3.44μ by a21 we see:

0.170 x 1.2 = 0.204

Comparing this to the result at 3.37μ we see:

0.204 – 0.212 = -0.008

This exceeds the "filter agreement threshold", (preset at 0.005) by 0.03. This test would result in the message of "interference detected" if the software were designed to handle the discrepancy in this manner.

If the contribution by acetone were 0.005 at 3.44μ in the above example, the amount at 3.37μ would be expected to be 2X or 0.010. This, added to our base ethanol concentration would yield:

Reading at 3.44 = 0.160 (etoh) + 0.005 (ace) = 0.165 total concentration

Reading at 3.37 = 0.192 (etoh) + 0.010 (ace) = 0.202 total concentration

When multiplying the result at 3.44μ by a21 we see:

0.165 x 1.2 = 0.198

Comparing this to the result at 3.37μ we see:

0.198 – 0.202 = -0.004

This would be below the set filter agreement threshold (0.005) an in this instance, the final result would be a reported ethanol concentration of 0.165.

The explanation above is repeated except filter 2 (3.37μ) is replaced with filter 3 (3.50μ) and a21 is replaced with a31.

This example is when acetone absorbs only 2x as much at 3.37μ wrt 3.44μ. As you approach a 3x relationship, the allowable contribution by acetone at 3.44μ is reduced.

The filter agreement threshold will be adjustable. This settable level (2-10) implying, when referring to g/210l units of measurement, an adjustable threshold of between 0.002 g/210L and 0.010 g/210L will pertain to the difference in the calculated concentration at filter 1 (3.44μ) and filter 2 (3.37μ) or the difference in the calculated concentration at filter 1 and filter 3 (3.50μ). The selected filter agreement threshold will be the absolute value for sample concentrations measured at filter 1 of up to 0.100 g/210L. For values at or greater than 0.100 g/210L the threshold will be a percentage of the analyzed concentration at 3.44μ:

Filter Agreement if 3.44μ ≥ 0.100 g/210L = (Int x 0.001) x (value at filter 1 / 0.100)
Where Int is the set filter agreement threshold value from 2 to 10

If the difference when comparing the results of 3.44μ and 3.37μ OR when comparing the results of 3.44μ and 3.50μ exceeds the threshold, a non-specific to ethanol sample is said to have occurred.

An additional filter agreement threshold calculation will also be employed where the threshold outlined above is not exceeded but the difference in the 2 calculated differences (filter 1-2 and filter 1-3) when combined reaches a level defined as:

For filter 1 measured concentrations of up to 0.100 g/210L interference detected will be the result if:
Diff filter 1-2 plus Diff filter 1-3 ≥ (Int x 0.001) x (7/5) = 0.007
For concentrations measured at filter 1 of 0.100 g/210L or greater interference detected will be the result if:
Diff filter 1-2 plus Diff filter 1-3 ≥ (Int x 0.001) x (value at filter 1 / 0.100) x (7/5)

See table below for example of thresholds with INT set to 5

Value @ Filt 1	Filter I1-2I Diff	Filter I1-3I Diff	Combined Diff I1-2I + I1-3I
0.025	0.0050	0.0050	0.0070
0.050	0.0050	0.0050	0.0070
0.075	0.0050	0.0050	0.0070
0.100	0.0050	0.0050	0.0070
0.150	0.0075	0.0075	0.0105
0.200	0.0100	0.0100	0.0140
0.250	0.0125	0.0125	0.0175
0.300	0.0150	0.0150	0.0210
0.350	0.0175	0.0175	0.0245
0.400	0.0200	0.0200	0.0280
0.450	0.0225	0.0225	0.0315
0.500	0.0250	0.0250	0.0350
0.550	0.0275	0.0275	0.0385
0.600	0.0300	0.0300	0.0420

Preliminary

Enter Int Thrshld (2-10)
5

Separate worksheet allows changing Threshold setting to see limits.

Bolduc, Amanda

From: Dave Radomski [dmr@npas.com]
Sent: Monday, March 30, 2009 10:05 AM
To: Bolduc, Amanda
Cc: Drawbaugh, Bob
Subject: Doc

/T DMT Explanation of Status C...

This has been edited based on feedback from Scott. Amanda, let me know what has been omitted.

Thanks.

John Fusco
National Patent Analytical Systems, Inc.
jd@npas.com
Phone 419+526-6727 Fax 419+526-9446

Drawbaugh, Bob

From: John Fusco [jd@npas.com]
Sent: Thursday, March 26, 2009 12:07 PM
To: Drawbaugh, Bob
Subject: Demo Gas DMT

It is shipping today. You should have it Monday or Tues.

John Fusco
National Patent Analytical Systems, Inc.
jd@npas.com
Phone 419+526-6727 Fax 419+526-9446

Drawbaugh, Bob

From: John Fusco [jd@npas.com]
Sent: Tuesday, March 24, 2009 3:35 PM
To: Jo; Alex ag.hemken; Luce Steve; Owen Watson; Dewayne Carver; Bleskacek Jim; Brooks Randy; Perry Curtis; Murray Todd; Randy Brooks N; Lee Lisa (DCJS); Robin.Reichert@wsp.wa.gov; Wagner Mike; Rich Bostec Inc.; Lutmer Brian; Beaty Randall; Mark Peevy; zwonechek Fred; Gullberg Rod; Koperski Ted; (DPS) Swartz Jeanne M; Visneskie Dale; Office Bostec; Harnois, Steven; Brett Baker; Drawbaugh, Bob; Welsh Robert; Bailey Laura; Ken.Denton@wsp.wa.gov
Subject: Updated Price list

Attached in an updated parts and assemblies price list in pdf format. This price list adds the parts for the DMT and updates all others although there are no significant changes either up or down that I noticed. It all was updated because I could not add the parts for the DMT without updating the balance of the list.

There are two copies of the same list for your convenience, one is sorted by part number and the other is by description.

John Fusco
National Patent Analytical Systems, Inc.
jd@npas.com
Phone 419+526-6727 Fax 419+526-9446

Drawbaugh, Bob

From: John Fusco [jd@npas.com]
Sent: Tuesday, March 24, 2009 10:50 AM
To: Drawbaugh, Bob
Cc: Scott Marhefka
Subject: Pricing

Bob

I'm OK holding the old price of $6450 and adding the gas system less the tank, assuming the following:

1. You can test and approve the newer micro controller which should not be a problem. The demo that I'm sending will have it in it.

2. We do not get involved in an extensive additional software development program. Adapting your present software to dry gas and the new micro controller is not a major issue, but if we start to get involved in changing all the reports and functions, the time could get really burdensome. Reasonable and modest changes are OK.

Since you may not be certain of what additional software changes would be required it might be possible to inflate the price per unit some and then if the heavy work is not needed we could make the difference up by adding another unit when everything is taken care of.

The reason why I can hold the price and add the dry gas is because the lower cost of the newer micro controller virtually offsets the price of the dry gas. I'm going to get the demo underway to you today. If you want to include the tank in the purchase price, add another $95 which may well be a better price than you can get by going direct. The way we furnished these last was without printers.

Let me know your thoughts.

John Fusco
National Patent Analytical Systems, Inc.
jd@npas.com
Phone 419+526-6727 Fax 419+526-9446

Drawbaugh, Bob

From: John Fusco [jd@npas.com]
Sent: Wednesday, March 18, 2009 9:08 AM
To: Drawbaugh, Bob
Subject: Re: Tech Manual

Not a problem

On Mar 18, 2009, at 8:40 AM, Drawbaugh, Bob wrote:

> John, thank you for the information and clarification regarding the Technical Manual provided for our review. Because of discovery requests for such a document we will have to reply that we have none at this time but that they may contact NPAS to make such a request. I don't think it will create too much of a burden at your end.
>
> Bob
>
> -----Original Message-----
> **From:** John Fusco [mailto:jd@npas.com]
> **Sent:** Tuesday, March 17, 2009 11:38 AM
> **To:** Drawbaugh, Bob
> **Subject:** Tech Manual
>
> Bob
>
> The Tech manual Dave sent you is for your comments only. It is preliminary and as such we are only asking for customer input at this time so we can evaluate the usefulness of the information in that format. A manual will be available later based on the needs and abilities of the maintenance personnel as we have done in the past. The copy you received is not for distribution and at this time is not complete.
>
> John Fusco
> National Patent Analytical Systems, Inc.
> jd@npas.com
> Phone 419+526-6727 Fax 419+526-9446

This email message may contain privileged and/or confidential information. If you are not the intended recipient(s), you are hereby notified that any dissemination, distribution, or copying of this email message is strictly prohibited. If you have received this message in error, please immediately notify the sender and delete this email message from your computer. CAUTION: The

Drawbaugh, Bob

From: John Fusco [jd@npas.com]
Sent: Tuesday, March 17, 2009 11:38 AM
To: Drawbaugh, Bob
Subject: Tech Manual

Bob

The Tech manual Dave sent you is for your comments only. It is preliminary and as such we are only asking for customer input at this time so we can evaluate the usefulness of the information in that format. A manual will be available later based on the needs and abilities of the maintenance personnel as we have done in the past. The copy you received is not for distribution and at this time is not complete.

John Fusco
National Patent Analytical Systems, Inc.
jd@npas.com
Phone 419+526-6727 Fax 419+526-9446

Bolduc, Amanda

From: Drawbaugh, Bob
Sent: Wednesday, March 18, 2009 8:37 AM
To: Bolduc, Amanda; Harnois, Steven; Richardson, Darcy
Subject: FW: Tech Manual

FYI
-----Original Message-----
From: John Fusco [mailto:jd@npas.com]
Sent: Tuesday, March 17, 2009 11:38 AM
To: Drawbaugh, Bob
Subject: Tech Manual

Bob

The Tech manual Dave sent you is for your comments only. It is preliminary and as such we are only asking for customer input at this time so we can evaluate the usefulness of the information in that format. A manual will be available later based on the needs and abilities of the maintenance personnel as we have done in the past. The copy you received is not for distribution and at this time is not complete.

John Fusco
National Patent Analytical Systems, Inc.
jd@npas.com
Phone 419+526-6727 Fax 419+526-9446

Bolduc, Amanda

From: Bolduc, Amanda
Sent: Tuesday, March 17, 2009 7:49 AM
To: Lab_Alc
Subject: FW: Parts List

DataMaster DMT recommended spa...

Found this in my old email folder. We should go over this ASAP

-----Original Message-----
From: Harnois, Steven
Sent: Monday, July 14, 2008 7:30 AM
To: Drawbaugh, Bob; Bolduc, Amanda; Richardson, Darcy
Subject: FW: Parts List

I have to talk to Dave and see if this is what they are recommending we have on hand, or just a list of parts, I also need to find out Pricing for all of this stuff. Just taking a quick look at this list and it looks to me as if it is a spare DMT, without the case, much more then I think we need on hand, or want to spend.

Steve

Steven Harnois
State of Vermont
Agency Of Human Services
Department of Health
Public Health Electronics Technician
195 Colchester Avenue
Burlington, Vermont 05401
Phone (802) 863 7641
Fax (802) 863 7632
E Mail: Sharnoi@vdh.state.vt.us

-----Original Message-----
From: Dave Radomski [mailto:dmr@npas.com]
Sent: Thursday, July 10, 2008 3:17 PM
To: Harnois, Steven
Subject: Parts List

Steve,

Look this over and see if I'm missing anything.

Dave

DataMaster DMT recommended spare parts list 7/10/08

Part#	Description
21080	12 VDC Switching Power supply
30320	Cable Tie Holder W/ Adhesive
31360	Rubber Bumper W/ Washer (foot)
31473	Mica insulator
37030	Optical Bench Mount #6-32
37101	X-Scale Mini Embedded Controller
41145	FET Source/Cooler Cable Assembly
41248	12 VDC Pump Assembly
41278	Embedded to Controller DB-9 Cable Assembly
41279	DMT Modem Ribbon Cable Assembly
41284	DMT Modem Power Cable Assembly
41436	DMT Embedded Controller Power Cable Assembly
41505	DMT 12 VDC 5-Way Valve Assembly
41602	DMT Controller PCB Assembly
41603	DMT Connector PCB Assembly
26002	CPC QD Fitting Male
30277	CPC QD Fitting Female
31588	On-Off-On Switch
41151	Heated Simulator Tubes Receptacle Cable Assembly
41152	Heated Breath Tube Receptacle Cable Assembly
41277	DMT Simulator Temperature Ribbon Cable Assembly
41435	DMT AC Receptacle Cable Assembly
41437	DMT AC/DC Power Harness Assembly
43360	8.4" LCD Display Assembly
41139	Flat Cap Sample Chamber Assembly
41275	Flow Sensor Module Assembly
41303	DMT Snubber
41400	Stepper/Detector Block Final Assembly
41503	Check Valve Assembly
41601	DMT Detector Mounting Assembly
41630	Lamp Assembly TO-8 Package
41351	Chopper/Lens Block Sub-Assembly
41352	Wheel/Detector Block Sub-Assembly
41310	DMT Chopper Motor Assembly
41311	Stepper Motor Assembly
41344	Filter Wheel Locking Solenoid Assembly
41340	Geared Filter Wheel Assembly
41341	Geared Quartz Wheel Assembly
41466	Quartz Wheel Optical Sensor Assembly
41467	Filter Wheel Optical Sensor Assembly

Bolduc, Amanda

From: Scott Marhefka [eng@npas.com]
Sent: Tuesday, March 10, 2009 7:29 AM
To: Bolduc, Amanda
Subject: Emailing: DMT-VT.zip

DMT-VT.zip (812 KB)

Amanda,

Import/UpdateFromDisk this file and you should be set.

--
Scott Marhefka
National Patent Analytical Systems
2090 Harrington Memorial Road
Mansfield, OH 44903

email: eng@npas.com
phone: (419) 526-6727

Drawbaugh, Bob

From: John Fusco [jd@npas.com]
Sent: Monday, March 09, 2009 8:46 AM
To: Customers
Subject: Phone Service

All

Very heavy rain storms yesterday and last evening have resulted in phone service disruptions in this area. If you need to contact us use email or my cell number (as long as the battery holds out) at 419-565-2514 if you cannot get through on the normal phone lines.

John Fusco
National Patent Analytical Systems, Inc.
jd@npas.com
Phone 419+526-6727 Fax 419+526-9446

Drawbaugh, Bob

From: John Fusco [jd@npas.com]
Sent: Wednesday, January 21, 2009 9:31 AM
To: Customers

All:

I want to remind everyone or clarify any misconceptions about the availability of parts and support for the traditional DataMasters and cdms.

We have and will continue to have parts and service support for all configurations of the DataMaster family of instruments as long as these are in the field. This has always been our policy and will continue to be our policy. There are no shortages of parts or components at this time. The pricing continues to be as per our price list and I do not anticipate that the pricing structure will change in any significant manner in the near future.

John Fusco
National Patent Analytical Systems, Inc.
jd@npas.com
Phone 419+526-6727 Fax 419+526-9446

Drawbaugh, Bob

From: John Fusco [jd@npas.com]
Sent: Friday, February 27, 2009 8:41 AM
To: Drawbaugh, Bob
Subject: Re: ?????

OK

This will get a little lengthy.

Bar code is where things are headed. It is very standardized and any OL with a bar code will be the same. However, not all states have bar code on their OLs. Mag Swipe is not well standardized between states and OLs from other states may not be readable. Bar Code is probably the way things will go since it holds so much more information and is fairly well standardized. But Mag swipes will be around for the indefinite future also.

We go both directions and both are developed. SC went with Bar Code. the card is inserted into the left side of the unit. The mag swipe is developed but we haven't placed any except maybe in Iowa, I'm not sure.

When I say developed I mean the we have the core done and working and the only development necessary would be to put it into the VT software. You can have either or both together although both together would get a little messy from the development standpoint - but not all that bad. It would be another question to determine if one was going to be used and if so, which one. There would be some database work if the questions and data are not the same or in the identical formats. Again, this should not be all that extensive.

The easiest, most economical and cleanest way to go with the mag swipe is to use one that is already in the keyboard. This option would add about $250.00 to the price. Since the software is basically done and adaptation should not be a big issue, there would be no development cost.

The bar code reader is a much less simple proposition as the technology is very different. The cost of this would be $670.00 a copy but, again, the development should be minimal so there would be no separate cost for that part.

There are no common parts so putting both into the same unit would simply mean the price of both parts but since the development becomes more significant I would be inclined to simply add another $50 per unit and spread it out over the purchase. So combining both into one unit would total about $970.00 each. Still not all that bad.

Delivery currently is 10 to 14 weeks. It is a little hard to predict next year, especially with all the economy bad news going on. It could be a week to 10 days if things slow down but my guess would be it will not change a whole lot.

Jf

On Feb 27, 2009, at 8:03 AM, Drawbaugh, Bob wrote:

Being a 'progressive state - we have both. but we were thinking the mag reader and hadn't considered the 2d barcode - perhaps out of ignorance of the possibility.

-----Original Message-----
From: John Fusco [mailto:jd@npas.com]
Sent: Friday, February 27, 2009 8:01 AM
To: Drawbaugh, Bob
Subject: Re: ?????

When you say card swipe. Are you talking about magnetic card swipe like a credit card or are you referring to bar code readers like what is on many Operator Permits? The Bar codes are the strange looking patterns. What does Vt actually use?

On Feb 27, 2009, at 7:49 AM, Drawbaugh, Bob wrote:

> John, When we spoke recently re: budget prep and est. cost of DMTs I did not ask all the questions that have come up. One inquiry was about the additional cost of adding a card swipe device and the other is the projected, as best you can, delivery time from purchase to delivery currently and a year from now. Thanks for any help you can give.

This email message may contain privileged and/or confidential information. If you are not the intended recipient(s), you are hereby notified that any dissemination, distribution, or copying of this email message is strictly prohibited. If you have received this message in error, please immediately notify the sender and delete this email message from your computer. CAUTION: The Agency of Human Services cannot ensure the confidentiality or security of email transmissions.

John Fusco
National Patent Analytical Systems, Inc.
jd@npas.com
Phone 419+526-6727 Fax 419+526-9446

This email message may contain privileged and/or confidential information. If you are not the intended recipient(s), you are hereby notified that any dissemination, distribution, or copying of this email message is strictly prohibited. If you have received this message in error, please

immediately notify the sender and delete this email message from your computer. CAUTION: The Agency of Human Services cannot ensure the confidentiality or security of email transmissions.

John Fusco
National Patent Analytical Systems, Inc.
jd@npas.com
Phone 419+526-6727 Fax 419+526-9446

Drawbaugh, Bob

From: John Fusco [jd@npas.com]
Sent: Friday, February 27, 2009 8:02 AM
To: Drawbaugh, Bob
Subject: Re: DMTs

I'm at my desk early but seldom productive before 10 or 11.

On Feb 27, 2009, at 7:59 AM, Drawbaugh, Bob wrote:

> Hey, Hey I'm usually up by 5:30 - 6:00 and at my desk AND productive by 7:15 !
>
> -----Original Message-----
> **From:** John Fusco [mailto:jd@npas.com]
> **Sent:** Friday, February 27, 2009 7:52 AM
> **To:** Drawbaugh, Bob
> **Subject:** Re: DMTs
>
> What gets you up so early??? Trouble sleeping???
>
> Go get some coffee and I'll get back in a bit with the answers.
>
> JF
>
> On Feb 27, 2009, at 7:49 AM, Drawbaugh, Bob wrote:
>
> > John, When we spoke recently re: budget prep and est. cost of DMTs I did not ask all the questions that have come up. One inquiry was about the additional cost of adding a card swipe device and the other is the projected, as best you can, delivery time from purchase to delivery currently and a year from now. Thanks for any help you can give.

This email message may contain privileged and/or confidential information. If you are not the intended recipient(s), you are hereby notified that any dissemination, distribution, or copying of this email message is strictly prohibited. If you have received this message in error, please immediately notify the sender and delete this email message from your computer. CAUTION: The Agency of Human Services cannot ensure the confidentiality or security of email transmissions.

John Fusco
National Patent Analytical Systems, Inc.
jd@npas.com
Phone 419+526-6727 Fax 419+526-9446

This email message may contain privileged and/or confidential information. If you are not the intended recipient(s), you are hereby notified that any dissemination, distribution, or copying of this email message is strictly prohibited. If you have received this message in error, please immediately notify the sender and delete this email message from your computer. CAUTION: The Agency of Human Services cannot ensure the confidentiality or security of email transmissions.

John Fusco
National Patent Analytical Systems, Inc.
jd@npas.com
Phone 419+526-6727 Fax 419+526-9446

Drawbaugh, Bob

From: John Fusco [jd@npas.com]
Sent: Friday, February 27, 2009 8:01 AM
To: Drawbaugh, Bob
Subject: Re: ?????

When you say card swipe. Are you talking about magnetic card swipe like a credit card or are you referring to bar code readers like what is on many Operator Permits? The Bar codes are the strange looking patterns. What does Vt actually use?

On Feb 27, 2009, at 7:49 AM, Drawbaugh, Bob wrote:

> John, When we spoke recently re: budget prep and est. cost of DMTs I did not ask all the questions that have come up. One inquiry was about the additional cost of adding a card swipe device and the other is the projected, as best you can, delivery time from purchase to delivery currently and a year from now. Thanks for any help you can give.

This email message may contain privileged and/or confidential information. If you are not the intended recipient(s), you are hereby notified that any dissemination, distribution, or copying of this email message is strictly prohibited. If you have received this message in error, please immediately notify the sender and delete this email message from your computer. CAUTION: The Agency of Human Services cannot ensure the confidentiality or security of email transmissions.

John Fusco
National Patent Analytical Systems, Inc.
jd@npas.com
Phone 419+526-6727 Fax 419+526-9446

Drawbaugh, Bob

From: John Fusco [jd@npas.com]
Sent: Friday, February 27, 2009 7:52 AM
To: Drawbaugh, Bob
Subject: Re: DMTs

What gets you up so early??? Trouble sleeping???

Go get some coffee and I'll get back in a bit with the answers.

JF

On Feb 27, 2009, at 7:49 AM, Drawbaugh, Bob wrote:

> John, When we spoke recently re: budget prep and est. cost of DMTs I did not ask all the questions that have come up. One inquiry was about the additional cost of adding a card swipe device and the other is the projected, as best you can, delivery time from purchase to delivery currently and a year from now. Thanks for any help you can give.

This email message may contain privileged and/or confidential information. If you are not the intended recipient(s), you are hereby notified that any dissemination, distribution, or copying of this email message is strictly prohibited. If you have received this message in error, please immediately notify the sender and delete this email message from your computer. CAUTION: The Agency of Human Services cannot ensure the confidentiality or security of email transmissions.

John Fusco
National Patent Analytical Systems, Inc.
jd@npas.com
Phone 419+526-6727 Fax 419+526-9446

Bolduc, Amanda

From: Dave Radomski [dmr@npas.com]
Sent: Thursday, February 26, 2009 2:07 PM
To: Bolduc, Amanda
Subject: Re: Memo?

Progress, yes. I have to consult with Scott on some software specific limits and parameters but I dare not take away from his time at the moment. He's working on some final software details for a very important customer!

On Feb 26, 2009, at 11:16 AM, Bolduc, Amanda wrote:

> Any progress on the error memo for us?
>
> *ABolduc*
> ***Amanda Bolduc***
> ***Vermont Department of Health Lab***
> ***195 Colchester Ave - PO Box 1125***
> ***Burlington VT 05402-1125***
> ***(802) 863-7413***
> ***(802) 863-7632 (fax)***

This email message may contain privileged and/or confidential information. If you are not the intended recipient(s), you are hereby notified that any dissemination, distribution, or copying of this email message is strictly prohibited. If you have received this message in error, please immediately notify the sender and delete this email message from your computer. CAUTION: The Agency of Human Services cannot ensure the confidentiality or security of email transmissions.

Bolduc, Amanda

From: Scott Marhefka [eng@npas.com]
Sent: Wednesday, February 18, 2009 7:50 PM
To: Bolduc, Amanda
Subject: MOST CURRENT -- USE THIS ONE!!!

DMT-VT.zip (1 MB)

Amanda,

The previous e-mail still had my debug code in it. Please use this one instead.

--

Scott Marhefka
National Patent Analytical Systems
2090 Harrington Memorial Road
Mansfield, OH 44903

email: eng@npas.com
phone: (419) 526-6727

Bolduc, Amanda

From: Scott Marhefka [eng@npas.com]
Sent: Wednesday, February 11, 2009 5:51 PM
To: Bolduc, Amanda
Subject: Emailing: DMT-VT.zip

DMT-VT.zip (812 KB)

Amanda,

Here is the current release with the version upped to 1.01. I restructured the averaging routine used during the linearity test. Please confirm that it works as expected under the conditions Darcy was testing.

Please test thoroughly before installing in the field.

--
Scott Marhefka
National Patent Analytical Systems
2090 Harrington Memorial Road
Mansfield, OH 44903

email: eng@npas.com
phone: (419) 526-6727

Bolduc, Amanda

From: Scott Marhefka [eng@npas.com]
Sent: Monday, February 09, 2009 10:22 PM
To: Bolduc, Amanda
Subject: Emailing: DMT-VT.zip

DMT-VT.zip (1 MB)

Amanda,

Please UpdateFromDisk the attached file. It addresses the "last" set of changes.

I have some questions for you concerning the certification that Darcy ran so please call.

--
Scott Marhefka
National Patent Analytical Systems
2090 Harrington Memorial Road
Mansfield, OH 44903

email: eng@npas.com
phone: (419) 526-6727

Drawbaugh, Bob

From: John Fusco [jd@npas.com]
Sent: Friday, February 06, 2009 12:40 PM
To: Drawbaugh, Bob
Subject: Re: RE:

I think what he is up to is to try to come up with something to use to impeach testimony. Like if they ask for records from you and from us and get something from us that you did not turn over. I spoke with Scott and know that he does not keep a written log of Amanda's requests that come via phone communications. I am also not about to get into a position where I am giving information to the defense that concerns activities on developmental software which, in some ways, yours still is.

JF

On Feb 6, 2009, at 12:20 PM, Drawbaugh, Bob wrote:

> Thanks for the info, John. Gene is an investigator for one of the attorneys' offices here in town and not infrequently seek to delay or have dismissed cases based on claims of non-compliance with discovery requests. Anything we supply from our program has to be requested as related to a specific case or group of cases. You should know that we have placed in the local State's Attorney's office a very large amount of data - from all our testing, calibration, etc. - the good the bad and the anomalous - for access by prosecutors and defense counsel alike.. We have, of course, also make available all written communications that are related to the lengthy DMT evelopment and implementation project [still on-going, of course]. I expect we'll hear from him soon.
>
> Stay warm, stay well,
>
> Bob
>
> -----Original Message-----
> **From:** John Fusco [mailto:jd@npas.com]
> **Sent:** Friday, February 06, 2009 10:16 AM
> **To:** Drawbaugh, Bob
> **Subject:**
>
> Heads up
>
> I had a call from a Gene White who is either an attorney or works for an attorney in Burlington looking for records of communications between Amanda and someone here regarding something to do with "Standard out of range." This guy mentioned Al Staubus and said that Staubus said to call me which may be true. I have no idea what they are talking about and do not want to bother Scott with what is probably some developmental changes. I told the guy that I have no information and that he needed to go to the Dept of Health for that.
>
> I get the idea that they may have been trying to pull a fast one on you.
>
> John Fusco
> National Patent Analytical Systems, Inc.
> jd@npas.com

Phone 419+526-6727 Fax 419+526-9446

This email message may contain privileged and/or confidential information. If you are not the intended recipient(s), you are hereby notified that any dissemination, distribution, or copying of this email message is strictly prohibited. If you have received this message in error, please immediately notify the sender and delete this email message from your computer. CAUTION: The Agency of Human Services cannot ensure the confidentiality or security of email transmissions.

John Fusco
National Patent Analytical Systems, Inc.
jd@npas.com
Phone 419+526-6727 Fax 419+526-9446

Drawbaugh, Bob

From: John Fusco [jd@npas.com]
Sent: Friday, February 06, 2009 10:16 AM
To: Drawbaugh, Bob

Heads up

I had a call from a Gene White who is either an attorney or works for an attorney in Burlington looking for records of communications between Amanda and someone here regarding something to do with "Standard out of range." This guy mentioned Al Staubus and said that Staubus said to call me which may be true. I have no idea what they are talking about and do not want to bother Scott with what is probably some developmental changes. I told the guy that I have no information and that he needed to go to the Dept of Health for that.

I get the idea that they may have been trying to pull a fast one on you.

John Fusco
National Patent Analytical Systems, Inc.
jd@npas.com
Phone 419+526-6727 Fax 419+526-9446

Bolduc, Amanda

From: Drawbaugh, Bob
Sent: Friday, February 06, 2009 1:00 PM
To: Lab_Alc
Cc: Celotti, Stella
Subject: FW: RE:

FYI You can follow the brief thread from the bottom of this message.

-----Original Message-----
From: John Fusco [mailto:jd@npas.com]
Sent: Friday, February 06, 2009 12:40 PM
To: Drawbaugh, Bob
Subject: Re: RE:

I think what he is up to is to try to come up with something to use to impeach testimony. Like if they ask for records from you and from us and get something from us that you did not turn over. I spoke with Scott and know that he does not keep a written log of Amanda's requests that come via phone communications. I am also not about to get into a position where I am giving information to the defense that concerns activities on developmental software which, in some ways, yours still is.

JF

On Feb 6, 2009, at 12:20 PM, Drawbaugh, Bob wrote:

> Thanks for the info, John. Gene is an investigator for one of the attorneys' offices here in town and not infrequently seek to delay or have dismissed cases based on claims of non-compliance with discovery requests. Anything we supply from our program has to be requested as related to a specific case or group of cases. You should know that we have placed in the local State's Attorney's office a very large amount of data - from all our testing, calibration, etc. - the good the bad and the anomalous - for access by prosecutors and defense counsel alike.. We have, of course, also make available all written communications that are related to the lengthy DMT evelopment and implementation project [still on-going, of course]. I expect we'll hear from him soon.
>
> Stay warm, stay well,
>
> Bob
>
> > -----Original Message-----
> > **From:** John Fusco [mailto:jd@npas.com]
> > **Sent:** Friday, February 06, 2009 10:16 AM
> > **To:** Drawbaugh, Bob
> > **Subject:**
> >
> > Heads up
> >
> > I had a call from a Gene White who is either an attorney or works for an attorney in Burlington looking for records of communications between Amanda and someone here regarding something to do with "Standard out of range." This guy mentioned Al Staubus and said that

Staubus said to call me which may be true. I have no idea what they are talking about and do not want to bother Scott with what is probably some developmental changes. I told the guy that I have no information and that he needed to go to the Dept of Health for that.

I get the idea that they may have been trying to pull a fast one on you.

John Fusco
National Patent Analytical Systems, Inc.
jd@npas.com
Phone 419+526-6727 Fax 419+526-9446

This email message may contain privileged and/or confidential information. If you are not the intended recipient(s), you are hereby notified that any dissemination, distribution, or copying of this email message is strictly prohibited. If you have received this message in error, please immediately notify the sender and delete this email message from your computer. CAUTION: The Agency of Human Services cannot ensure the confidentiality or security of email transmissions.

John Fusco
National Patent Analytical Systems, Inc.
jd@npas.com
Phone 419+526-6727 Fax 419+526-9446

Bolduc, Amanda

From: Drawbaugh, Bob
Sent: Tuesday, February 03, 2009 1:10 PM
To: Celotti, Stella; Prender, Patrice
Cc: Bolduc, Amanda; Harnois, Steven; Richardson, Darcy
Subject: FW: Used DMs

This documents credit toward parts and supplies with NPAS. We will try to include this information on our next requisition for both DMT and BAC parts.

-----Original Message-----
From: John Fusco [mailto:jd@npas.com]
Sent: Friday, January 30, 2009 8:36 AM
To: Harnois, Steven; Drawbaugh, Bob
Cc: Dave Radomski
Subject: Used DMs

Steve:

The instruments you have are almost 20 years old and have no value. If you are looking for a way to get rid of them, I will offer you a credit of $50 each toward parts for the DMT's, up to 20 instrument ($1,000) credit and you dispose of the DataMasters. I would suggest you strip them and use the parts toward maintenance of the remaining instruments. Whatever you do, don't send them back as there is nothing of value to us and it is not worth the freight to get them back here.

John Fusco
National Patent Analytical Systems, Inc.
jd@npas.com
Phone 419+526-6727 Fax 419+526-9446

Bolduc, Amanda

From: Bolduc, Amanda
Sent: Tuesday, February 03, 2009 10:53 AM
To: 'Scott Marhefka'
Cc: Lab_Alc
Subject: DMT Software Updates

As follow-up the phone conversation between Amanda and Scott 2/2/09:

Currently most of our DMT's are not connected to an analog phone line. This will need to be done in order to remotely access the instruments for future software upgrades, downloads, etc. We must ensure that the DMT's are connected to analog lines only as digital lines will ruin the modem in the unit. Scott said he should have remote access software for us next week.
Other issues Scott will be addressing in our next software upgrades:

- Including both breath and simulator tests on the summary report when it is a two test sequence
- Fixing the footer on the summary report to print on all pages (it is currently not printing on the first page when there is more than one and the page number field on the second page is not working properly)
- Fixing the certification test to correctly average each of the simulator results and to accept the outer limits of the acceptance range. The last certification that Darcy ran reported 0.019 for each repition, however it reported the average as 0.018. The resulting 0.018 was the lower limit to the acceptance range, and should have been accepted, but it was not.

Scott will also be looking at a few of out Invalid results from the field and ensuring the algorithm worked properly for identifying invalid samples.

ABolduc
Amanda Bolduc
Vermont Department of Health Lab
195 Colchester Ave - PO Box 1125
Burlington VT 05402-1125
(802) 863-7413
(802) 863-7632 (fax)

Drawbaugh, Bob

From: John Fusco [jd@npas.com]
Sent: Friday, January 30, 2009 1:35 PM
To: Drawbaugh, Bob
Subject: Re: Used DMs

Bob

I'll check with Scott on the status of any remaining Software issues. He has a very, very full plate at this point and unless something is really essential, it is on the back burner. This probably won't ease up for another 60 days. The big deals now are Michigan, Iowa, Canada and the Far East.

I'll just issue the credit for 1K. At my age, if I don't do it now, I may never think about it again.

We are booked through July at this point. It's this fall and next year I'm concerned about since we always seem to follow the economy by 12 to 18 months.

JF

On Jan 30, 2009, at 1:05 PM, Drawbaugh, Bob wrote:

> John, thank you for the consideration regarding our 'retired' BAC DataMasters. We will be parting out some of them and disposing of all parts from others. We will make note of the $50 credit per instrument - up to 20 units and keep you informed of the progress in batches of 10 if you would like.
>
> We are still having some fine tuning with the software and awaitng some of the deliverables whoch we hope will be resolved in the near future. The general performance of the instruments in the field seems to be good. The changeover was well received during training. We will continue to evaluate data and gain additional understanding of performance in field application.
>
> Hope all is well at NPAS and that the economic downturn has not had a serious impact.
>
> Bob
>
> **********
> Robert Drawbaugh, Chief
> Toxicology Program
> VT Department of Health Laboratory
> 195 Colchester Ave.
> Burlington, VT 05402-1125
> 802-863-7622
>
> -----Original Message-----
> **From:** John Fusco [mailto:jd@npas.com]
> **Sent:** Friday, January 30, 2009 8:36 AM
> **To:** Harnois, Steven; Drawbaugh, Bob
> **Cc:** Dave Radomski
> **Subject:** Used DMs

Steve:

The instruments you have are almost 20 years old and have no value. If you are looking for a way to get rid of them, I will offer you a credit of $50 each toward parts for the DMT's, up to 20 instrument ($1,000) credit and you dispose of the DataMasters. I would suggest you strip them and use the parts toward maintenance of the remaining instruments. Whatever you do, don't send them back as there is nothing of value to us and it is not worth the freight to get them back here.

John Fusco
National Patent Analytical Systems, Inc.
jd@npas.com
Phone 419+526-6727 Fax 419+526-9446

This email message may contain privileged and/or confidential information. If you are not the intended recipient(s), you are hereby notified that any dissemination, distribution, or copying of this email message is strictly prohibited. If you have received this message in error, please immediately notify the sender and delete this email message from your computer. CAUTION: The Agency of Human Services cannot ensure the confidentiality or security of email transmissions.

John Fusco
National Patent Analytical Systems, Inc.
jd@npas.com
Phone 419+526-6727 Fax 419+526-9446

Bolduc, Amanda

From: Dave Radomski [dmr@npas.com]
Sent: Thursday, January 29, 2009 11:17 AM
To: Drawbaugh, Bob
Cc: Bolduc, Amanda
Subject: Detectors

Hi Bob,

We received IR detectors from a new supplier (CAL sensor) for evaluation. Actually, we used to do business with them many moons ago. They are under new management and asked if they could provide us some detectors to evaluate. We tested in instruments here for more than two months and the results look very good. Very low noise with good stability both short and long term (very little drift. <0.100 V).

Would you be interested in installing one of these in a training instrument to evaluate? Obviously at no charge. This will also free up a Hamamatsu to have on hand if needed.

Please let me know.

Thanks,

Dave

Bolduc, Amanda

From: Scott Marhefka [eng@npas.com]
Sent: Friday, January 23, 2009 7:14 AM
To: Bolduc, Amanda
Subject: Re: Emailing: DMT-VT.zip

Amanda,

The latest update fixes the date on the screen for the Diagnostic Test.
I am only here for a little while today so please test soon. Otherwise,
it will be Feb before you receive a fix.

--
Scott Marhefka
National Patent Analytical Systems
2090 Harrington Memorial Road
Mansfield, OH 44903

email: eng@npas.com
phone: (419) 526-6727

Bolduc, Amanda

From: Scott Marhefka [eng@npas.com]
Sent: Thursday, January 22, 2009 3:24 PM
To: Bolduc, Amanda
Subject: Emailing: DMT-VT.zip

DMT-VT.zip (1 MB)

Amanda,

Please reply to this e-mail to let me know you have it. I keep getting blocked by Vermont's firewall. I don't get notification for an hour or so.

--
Scott Marhefka
National Patent Analytical Systems
2090 Harrington Memorial Road
Mansfield, OH 44903

email: eng@npas.com
phone: (419) 526-6727

Bolduc, Amanda

From: Scott Marhefka [eng@npas.com]
Sent: Wednesday, January 07, 2009 6:47 AM
To: Bolduc, Amanda
Subject: DMT-VT.zip

DMT-VT.zip (811 KB)

Amanda,

Place the attached file into the upload folder and Import/Update.

All of the issues from the Dec 30th Work/Fixes Still Needed e-mail have been addressed. Please let me know what you find.

I will be out of the office the last week of January and you are out the week of the 20th so hopefully this takes care of everything.

Happy Testing!

--
Scott Marhefka
National Patent Analytical Systems
2090 Harrington Memorial Road
Mansfield, OH 44903

email: eng@npas.com
phone: (419) 526-6727

Bolduc, Amanda

From: Scott Marhefka [eng@npas.com]
Sent: Tuesday, January 06, 2009 8:35 AM
To: Bolduc, Amanda
Subject: Re: DMT Software Upgrade 123008

Amanda,

I should have software for you to try tomorrow. Sorry for not getting back to you sooner. I have been out for 2 weeks.

Please do not use the engineering@npas.com anymore. Use eng@npas.com. I thought the engineering account had been terminated but apparently it is still accepting mail. I checked it recently and found e-mails from you that you must think I ignored (along with several thousand spam messages).

Hope you and your family had a great Christmas. Welcome back to work.

--

Scott Marhefka
National Patent Analytical Systems
2090 Harrington Memorial Road
Mansfield, OH 44903

email: eng@npas.com
phone: (419) 526-6727

Bolduc, Amanda

From: Bolduc, Amanda
Sent: Tuesday, December 30, 2008 8:22 AM
To: 'Scott Marhefka'; Lab_Alc
Subject: DMT Software Upgrade 123008

DMT Software
Upgrade 123008.do..

Upon review of the software, this is where we stand with fixes/glitches to date.
Scott, please let me know how soon you think you can get the fixes to me. It would be really helpful if I could have them by 1/5. I realize that's less than a week. Please let me know if this is possible.
Thank you
Amanda

DMT Software Upgrade
Work/Fixes Still Needed
December 30th, 2008

1. When performing a stand-alone Accuracy and Precision Check, the "true value" of the Simulator Vapor stored in the Set-up menu should not change.
2. When performing a stand-alone Accuracy and Precision Check, the reported average should be to 3 decimal places.
3. The Cal Factors are no longer accessible in the reports menu ??
4. The Cal Records are no longer accessible in the reports menu ??

Bolduc, Amanda

From: Bolduc, Amanda
Sent: Thursday, December 11, 2008 6:42 AM
To: 'Scott Marhefka'
Cc: Lab_Alc
Subject: Sorry

Sorry I didn't get back to you sooner. The lab has been CRAZY this week. I spoke to Bob and he said to average the Sup test and truncate to 3 decimal places. He also said that we cannot wait until Jan/Feb for our upgrade, so we will forgo those other modifications for now. We will need the software by 12/22 so I can inspect it that week and barring any problems we will be putting it on our instruments ASAP.
We also need the remote access software and instructions on how to use it. Thanks

ABolduc
Amanda Bolduc
Vermont Department of Health Lab
195 Colchester Ave - PO Box 1125
Burlington VT 05402-1125
(802) 863-7413
(802) 863-7632 (fax)

Bolduc, Amanda

From: Scott Marhefka [eng@npas.com]
Sent: Monday, August 25, 2008 9:08 AM
To: Bolduc, Amanda
Subject: Re: FW: August Memo

We have been working on it for you. It needs further testing but it is about done.

--

Scott Marhefka
National Patent Analytical Systems
2090 Harrington Memorial Road
Mansfield, OH 44903

email: eng@npas.com
phone: (419) 526-6727

Drawbaugh, Bob

From: John Fusco [jd@npas.com]
Sent: Monday, October 06, 2008 10:36 AM
To: Drawbaugh; Drawbaugh, Bob
Subject: Spares for training

Bob

I spoke with Dave regarding Amanda's request. It is possible to load Vt software onto a South Carolina DMT but some features would need to be disabled. This may or may not work for training. One would be the temperature monitoring since the configuration of the simulator hook ups are not the same. SC uses Repco and you use Guth. The are other items that probably would also need to be tended to. It isn't possible to tell exactly what all unless we actually try it.

Let me know if you would like me to proceed.

Is the boat out of the water yet?

JF

John Fusco
National Patent Analytical Systems, Inc.
jd@npas.com
Phone 419+526-6727 Fax 419+526-9446

Drawbaugh, Bob

From: John Fusco [jd@npas.com]
Sent: Friday, October 03, 2008 3:23 PM
To: Drawbaugh, Bob
Subject: Re: Spare DMTs

I'm not done with it yet.

Jf

On Oct 3, 2008, at 3:18 PM, Drawbaugh, Bob wrote:

Thanks John - its a good exercise for you if nothing else. It looks as if we'll be OK without them.

-----Original Message-----
From: John Fusco [mailto:jd@npas.com]
Sent: Friday, October 03, 2008 3:09 PM
To: Drawbaugh, Bob
Subject: Re: Spare DMTs

Bob

I'll check this out for sure on Monday, but I don't think it is possible to load the Vermont Software onto an instrument that does not have the same configuration of hardware. This means the side mounting guth simulator. SC might work, but the simulator they use is the repco and the entire connection configuration is different. I'll get back to you on Monday with details.

JF

On Oct 3, 2008, at 2:29 PM, Drawbaugh, Bob wrote:

John,
Thanks for your reply regarding our request for loaner DMT instruments for our training. Just for clarification, we were not looking for VT-specific insturments but rather instruments on which we could temporarily mount the VT software. I'm hoping that those instruments being built for other jurisdictions do not have fundamentally different analytical component construction for either the physical design or analytical algorithms. Also it may not have been clear, we were only looking for instruments to be on loan for a short period of time - on the order of a few weeks. Understanding that production does not have shelved units available we have determined that, with some rearrangement of our training and deployment schedule, we will be able to go ahead with our continuing implementation of the remaining DMTs in our 'fleet'

We do not have a source of funding for future purchases at this time but anticipate that, with successful implementation of those we have- including satisfying legal challenges, there would be efforts to provide funding for further replacements of the BAC DataMaster units now in use.

Hope all is well with you and the other folks at NPAS and you are enjoying the change of seasons. Its beautiful here in VT - a classic autumn.

Best Wishes, Bob

****

Robert Drawbaugh, Chief
Toxicology Program
VT Department of Health Laboratory
195 Colchester Ave.
Burlington, VT 05402-1125
802-863-7622

-----Original Message-----
From: John Fusco [mailto:jd@npas.com]
Sent: Thursday, October 02, 2008 3:33 PM
To: Drawbaugh; Drawbaugh, Bob
Subject: Spare DMTs

Dave referred this to me. It seems that Amanda has asked Dave if there was any possibility of getting her some loaner units for training.

This is a tough one since Vermont DMTs with the side simulator mount are not a standard unit. We could build some, but there are none in work and it is different enough from South Carolina that we cannot use those we are building for them for this purpose. We do have the parts for Vermont and can build some, but they would need to be the exact Vermont style. The problem is how do we work out the details since she has said that the State cannot pay for any. I can't simply donate them to the state. This is a nice thought, but we won't survive long doing that sort of thing.

The only thought I have is that if the State will be buying some at some point in the not too distant future, we could build some and use them against the future order. Essentially we would be loaning them to the State with the understanding they would take them and pay at some point.

Let me know your thoughts.

John Fusco
National Patent Analytical Systems, Inc.
jd@npas.com
Phone 419+526-6727 Fax 419+526-9446

This email message may contain privileged and/or confidential information. If you are not the intended recipient(s), you are hereby notified that any dissemination, distribution, or copying of this email message is strictly prohibited. If you have received this message in error, please immediately notify the sender and delete this email message from your computer. CAUTION: The Agency of Human Services cannot ensure the confidentiality or security of email transmissions.

John Fusco
National Patent Analytical Systems, Inc.
jd@npas.com
Phone 419+526-6727 Fax 419+526-9446

This email message may contain privileged and/or confidential information. If you are not the intended recipient(s), you are hereby notified that any dissemination, distribution, or copying of this email message is strictly prohibited. If you have received this message in error, please immediately notify the sender and delete this email message from your computer. CAUTION: The Agency of Human Services cannot ensure the confidentiality or security of email transmissions.

John Fusco
National Patent Analytical Systems, Inc.
jd@npas.com
Phone 419+526-6727 Fax 419+526-9446

Drawbaugh, Bob

From: John Fusco [jd@npas.com]
Sent: Friday, October 03, 2008 3:09 PM
To: Drawbaugh, Bob
Subject: Re: Spare DMTs

Bob

I'll check this out for sure on Monday, but I don't think it is possible to load the Vermont Software onto an instrument that does not have the same configuration of hardware. This means the side mounting guth simulator. SC might work, but the simulator they use is the repco and the entire connection configuration is different. I'll get back to you on Monday with details.

JF

On Oct 3, 2008, at 2:29 PM, Drawbaugh, Bob wrote:

John,
Thanks for your reply regarding our request for loaner DMT instruments for our training. Just for clarification, we were not looking for VT-specific insturments but rather instruments on which we could temporarily mount the VT software. I'm hoping that those instruments being built for other jurisdictions do not have fundamentally different analytical component construction for either the physical design or analytical algorithms. Also it may not have been clear, we were only looking for instruments to be on loan for a short period of time - on the order of a few weeks. Understanding that production does not have shelved units available we have determined that, with some rearrangement of our training and deployment schedule, we will be able to go ahead with our continuing implementation of the remaining DMTs in our 'fleet'

We do not have a source of funding for future purchases at this time but anticipate that, with successful implementation of those we have- including satisfying legal challenges, there would be efforts to provide funding for further replacements of the BAC DataMaster units now in use.

Hope all is well with you and the other folks at NPAS and you are enjoying the change of seasons. Its beautiful here in VT - a classic autumn.

Best Wishes, Bob

****

Robert Drawbaugh, Chief
Toxicology Program
VT Department of Health Laboratory
195 Colchester Ave.
Burlington, VT 05402-1125
802-863-7622

-----Original Message-----
From: John Fusco [mailto:jd@npas.com]
Sent: Thursday, October 02, 2008 3:33 PM
To: Drawbaugh; Drawbaugh, Bob
Subject: Spare DMTs

Dave referred this to me. It seems that Amanda has asked Dave if there was any possibility of

getting her some loaner units for training.

This is a tough one since Vermont DMTs with the side simulator mount are not a standard unit. We could build some, but there are none in work and it is different enough from South Carolina that we cannot use those we are building for them for this purpose. We do have the parts for Vermont and can build some, but they would need to be the exact Vermont style. The problem is how do we work out the details since she has said that the State cannot pay for any. I can't simply donate them to the state. This is a nice thought, but we won't survive long doing that sort of thing.

The only thought I have is that if the State will be buying some at some point in the not too distant future, we could build some and use them against the future order. Essentially we would be loaning them to the State with the understanding they would take them and pay at some point.

Let me know your thoughts.

John Fusco
National Patent Analytical Systems, Inc.
jd@npas.com
Phone 419+526-6727 Fax 419+526-9446

This email message may contain privileged and/or confidential information. If you are not the intended recipient(s), you are hereby notified that any dissemination, distribution, or copying of this email message is strictly prohibited. If you have received this message in error, please immediately notify the sender and delete this email message from your computer. CAUTION: The Agency of Human Services cannot ensure the confidentiality or security of email transmissions.

John Fusco
National Patent Analytical Systems, Inc.
jd@npas.com
Phone 419+526-6727 Fax 419+526-9446

Drawbaugh, Bob

From: John Fusco [jd@npas.com]
Sent: Thursday, October 02, 2008 3:33 PM
To: Drawbaugh; Drawbaugh, Bob
Subject: Spare DMTs

Follow Up Flag: Follow up
Flag Status: Flagged

Dave referred this to me. It seems that Amanda has asked Dave if there was any possibility of getting her some loaner units for training.

This is a tough one since Vermont DMTs with the side simulator mount are not a standard unit. We could build some, but there are none in work and it is different enough from South Carolina that we cannot use those we are building for them for this purpose. We do have the parts for Vermont and can build some, but they would need to be the exact Vermont style. The problem is how do we work out the details since she has said that the State cannot pay for any. I can't simply donate them to the state. This is a nice thought, but we won't survive long doing that sort of thing.

The only thought I have is that if the State will be buying some at some point in the not too distant future, we could build some and use them against the future order. Essentially we would be loaning them to the State with the understanding they would take them and pay at some point.

Let me know your thoughts.

John Fusco
National Patent Analytical Systems, Inc.
jd@npas.com
Phone 419+526-6727 Fax 419+526-9446

Drawbaugh, Bob

From: John Fusco [jd@npas.com]
Sent: Wednesday, September 03, 2008 4:32 PM
To: Customers
Subject: E Mails

I need to let you know that last week I had a problem with some of my e-mails getting lost. Some came in but others did not. If you sent me anything last week or even earlier - I'm not sure when the issue started - and did not receive a response from me when you think you should have, please resend the message. I think it is fixed now - or at least Scott thinks it is.

Best Regards.

John Fusco
National Patent Analytical Systems, Inc.
jd@npas.com
Phone 419+526-6727 Fax 419+526-9446

Bolduc, Amanda

From: Scott Marhefka [eng@npas.com]
Sent: Wednesday, November 26, 2008 9:04 AM
To: Bolduc, Amanda
Subject: Emailing: Vermont.zip

Vermont.zip (1 MB)

Amanda,

I have attached the complete Vermont image. The NPAS and STARTUP folders are in the Vermont folder.

All of the the changes are done except for the following:

1) The simulator vapor check to the APM.
2) The option to not redo the 30 minute timer.
3) Changes to the A&P decimals. I may have already done this. It looked right to me so let me know if this works the way you expect.

The first 2 items are going to take significant work.

Have a happy Thanksgiving!

--
Scott Marhefka
National Patent Analytical Systems
2090 Harrington Memorial Road
Mansfield, OH 44903

email: eng@npas.com
phone: (419) 526-6727

Bolduc, Amanda

From: Bolduc, Amanda
Sent: Wednesday, September 17, 2008 11:02 AM
To: Lab_Alc
Subject: 103106 DMT

I just spoke with Chris regarding this unit. It will be returning to us by the end of next week. He found the RFI chip on the PCB was bad, along with a few other bad solders and connections. He said "this board looked a little reworked". I reminded him that we JUST received that board from HIM two weeks ago. To which he solemnly replied "I know". UGH. So he replaced the PCB and is finishing testing right now.

ABolduc
Amanda Bolduc
Vermont Department of Health Lab
195 Colchester Ave - PO Box 1125
Burlington VT 05402-1125
(802) 863-7413
(802) 863-7632 (fax)

Bolduc, Amanda

From: Bolduc, Amanda
Sent: Thursday, August 14, 2008 9:00 AM
To: 'engineering@npas.com'; Lab_Alc
Subject: PCBs

After further discussion, we have decided that if the old style PCBs are still available, we would rather have two of those boards than the new style. It makes more sense to have all of our boards the same in all of our instruments. Especially if these new boards are having RFI issues. Can we please exchange the two new boards for two old boards? Thank you.

ABolduc
Amanda Bolduc
Vermont Department of Health Lab
195 Colchester Ave - PO Box 1125
Burlington VT 05402-1125
(802) 863-7413
(802) 863-7632 (fax)

Bolduc, Amanda

From: Bolduc, Amanda
Sent: Wednesday, August 13, 2008 2:08 PM
To: 'Scott Marhefka'
Cc: Lab_Alc
Subject: RE: RFI Interference on new PCBs

We are not having problems with the old style boards, sorry if I wasn't clear on that. We are only having RF problems with the new boards, and I am SURE that the RF sensitivity was saved. Otherwise when the instrument was turned off, the sensitivity would have been lost, and this was not the case. The sensitivity seemed to deminish over time. ALB

-----Original Message-----
From: Scott Marhefka [mailto:eng@npas.com]
Sent: Wednesday, August 13, 2008 2:04 PM
To: Bolduc, Amanda
Cc: Lab_Alc
Subject: Re: RFI Interference on new PCBs

Amanda,

The fact that you are having RFI problems on one of the old and new style controller boards got me thinking that maybe the problem is procedure. Please be sure that after you Set the RFI sensitivity that you Save it. If it is not saved and the instrument resets, then it will revert to the previously saved sensitivity. One way to make sure that the instrument has not been reset at night is to set the IdleTime to 0 and then leave it in some screen and make sure it is where you left it when you return.

Sorry for stating the obvious but sometimes that's the first thing to be overlooked.

--
Scott Marhefka
National Patent Analytical Systems
2090 Harrington Memorial Road
Mansfield, OH 44903

email: eng@npas.com
phone: (419) 526-6727

Bolduc, Amanda

From: Bolduc, Amanda
Sent: Wednesday, August 13, 2008 11:32 AM
To: 'Scott Marhefka'
Cc: Lab_Alc
Subject: RFI Interference on new PCBs

As a follow-up to our phone conversation (ALB and Scott Marhefka 8/13) regarding RF Interferences on the new PCB's we received. PCB was installed 8/5 on DMT 103106 and the sensitivity was set. RFI was tested 8/6 with no problem. Tested again 8/11 and found RF response slow. Tested again 8/13 and found major RF intereference with no error reported. I have reset the RFI settings today (8/13) and will continue to monitor it. SM advised he will be looking into this problem as well.
Amanda Bolduc

Bolduc, Amanda

From: Harnois, Steven
Sent: Wednesday, July 30, 2008 3:19 PM
To: Lab_Alc
Subject: FW: Controller Boards

Steven Harnois
State of Vermont
Agency Of Human Services
Department of Health
Public Health Electronics Technician
195 Colchester Avenue
Burlington, Vermont 05401
Phone (802) 863 7641
Fax (802) 863 7632
E Mail: Sharnoi@vdh.state.vt.us

-----Original Message-----
From: Service Dept. [mailto:service@npas.com]
Sent: Wednesday, July 30, 2008 3:17 PM
To: Harnois, Steven
Subject: Re: Controller Boards

Steve,
The original reason we added the wiring was to remove noise being generated on the ground lines from the heaters turning on and off. We took the grounds from critical components like the lamp and separated them from direct connection to the ground of the heaters. When the current version of the board was implemented Scott incorporated that design change into the layout so that the wires and cuts no longer needed done because it was actually part of the design of the board to keep those things separated.

Chris

Harnois, Steven wrote:

> Chris,
>
> Could you please tell us more about the wire going from the Front to the Back of the controller board and what was done so that has been removed from the newer rev board.
>
> Thanks, Steve
>
> Steven Harnois
> State of Vermont

Agency Of Human Services
Department of Health
Public Health Electronics Technician
195 Colchester Avenue
Burlington, Vermont 05401
Phone (802) 863 7641
Fax (802) 863 7632
E Mail: Sharnoi@vdh.state.vt.us

-----Original Message-----
From: Service Dept. [mailto:service@npas.com]
Sent: Wednesday, July 30, 2008 11:19 AM
To: Harnois, Steven
Subject: Controller Boards

Steve,
I'm sending you two replacement Controller Boards to replace the two I had just recently sent to you. They are the same revision boards as the ones you just received however there is a resistor value that was incorrect. The resistor number is R86. Currently, there is a 20k resistance value installed, and that needs changed to a 10k. I will be sending these boards out today, July 30 2008.

Also, regarding the RFI issue you mentioned on the phone, I have not seen the issue yet except on the old version of the controller board, however I have seen the new boards "settle in" after burn-in requiring the RFI setting to be redone and then be fine throughout the rest of the testing and QC process. We are watching that circuit because of the past issues we had already felt to be dealt with and I will keep you posted on whats going on as I find new developments.

Chris

Bolduc, Amanda

From: Harnois, Steven
Sent: Wednesday, July 30, 2008 3:13 PM
To: Lab_Alc
Subject: FW: 7/30/08 Phone Call

Steven Harnois
State of Vermont
Agency Of Human Services
Department of Health
Public Health Electronics Technician
195 Colchester Avenue
Burlington, Vermont 05401
Phone (802) 863 7641
Fax (802) 863 7632
E Mail: Sharnoi@vdh.state.vt.us

-----Original Message-----
From: Dave Radomski [mailto:dmr@npas.com]
Sent: Wednesday, July 30, 2008 3:11 PM
To: Harnois, Steven
Subject: Re: 7/30/08 Phone Call

Steve

The purpose of the ambient zeroing is to accommodate for long term drift in the output of the detector which is something that is a characteristic of PbSe and other types of detectors. The initial set-up of the detector voltage is designed to put the detector output somewhere around zero volts. In fact, the DMT can easily zero out a detector voltage in the approximate range of -.300 to + .800. A drift over the long term (more than 15 minutes or so) of a couple hundred millivolts is not concern.

Dave
On Jul 30, 2008, at 11:07 AM, Harnois, Steven wrote:

> David,
>
> Please respond to our phone call today about detector voltage.
>
> Thanks, Steve
>
> Steven Harnois
> State of Vermont
> Agency Of Human Services
> Department of Health

Bolduc, Amanda

From: Richardson, Darcy
Sent: Friday, July 25, 2008 3:35 PM
To: Bolduc, Amanda
Subject: FW:

-----Original Message-----
From: Service Dept. [mailto:service@npas.com]
Sent: Thursday, July 24, 2008 3:28 PM
To: Harnois, Steven
Subject: second try

Detector Burn-in Procedure:
-After the detector assembly is installed, power on the instrument.
-Enter the tech screen and adjust the cooler voltage setting to 1.70Vdc +/-0.10.
-Adjust the Lamp voltage setting so that the detector voltage displayed is approximately +0.000 +/-0.100.
-Note the initial noise of the detector voltage once unit has had a minute to adjust to the adjusted voltages.
Noise tolerance at NPAS is +/-0.003 on a detector.
-Allow the instrument to remain powered for four (4) days. Having the instrument in the technician screen during the entire four days is not necessary.
-After the burn-in period is complete, return to the technician screen and recheck the noise level of the detector.
-If the detector is going to remain installed in the instrument, adjust the detector voltage to the desired level and proceed with testing as needed.

Bolduc, Amanda

From: Harnois, Steven
Sent: Monday, July 14, 2008 7:30 AM
To: Drawbaugh, Bob; Bolduc, Amanda; Richardson, Darcy
Subject: FW: Parts List

DataMaster DMT recommended spa...

I have to talk to Dave and see if this is what they are recommending we have on hand, or just a list of parts, I also need to find out Pricing for all of this stuff. Just taking a quick look at this list and it looks to me as if it is a spare DMT, without the case, much more then I think we need on hand, or want to spend.

Steve

Steven Harnois
State of Vermont
Agency Of Human Services
Department of Health
Public Health Electronics Technician
195 Colchester Avenue
Burlington, Vermont 05401
Phone (802) 863 7641
Fax (802) 863 7632
E Mail: Sharnoi@vdh.state.vt.us

-----Original Message-----
From: Dave Radomski [mailto:dmr@npas.com]
Sent: Thursday, July 10, 2008 3:17 PM
To: Harnois, Steven
Subject: Parts List

Steve,

Look this over and see if I'm missing anything.

Dave

DataMaster DMT recommended spare parts list 7/10/08

Part#	Description
21080	12 VDC Switching Power supply
30320	Cable Tie Holder W/ Adhesive
31360	Rubber Bumper W/ Washer (foot)
31473	Mica insulator
37030	Optical Bench Mount #6-32
37101	X-Scale Mini Embedded Controller
41145	FET Source/Cooler Cable Assembly
41248	12 VDC Pump Assembly
41278	Embedded to Controller DB-9 Cable Assembly
41279	DMT Modem Ribbon Cable Assembly
41284	DMT Modem Power Cable Assembly
41436	DMT Embedded Controller Power Cable Assembly
41505	DMT 12 VDC 5-Way Valve Assembly
41602	DMT Controller PCB Assembly
41603	DMT Connector PCB Assembly
26002	CPC QD Fitting Male
30277	CPC QD Fitting Female
31588	On-Off-On Switch
41151	Heated Simulator Tubes Receptacle Cable Assembly
41152	Heated Breath Tube Receptacle Cable Assembly
41277	DMT Simulator Temperature Ribbon Cable Assembly
41435	DMT AC Receptacle Cable Assembly
41437	DMT AC/DC Power Harness Assembly
43360	8.4" LCD Display Assembly
41139	Flat Cap Sample Chamber Assembly
41275	Flow Sensor Module Assembly
41303	DMT Snubber
41400	Stepper/Detector Block Final Assembly
41503	Check Valve Assembly
41601	DMT Detector Mounting Assembly
41630	Lamp Assembly TO-8 Package
41351	Chopper/Lens Block Sub-Assembly
41352	Wheel/Detector Block Sub-Assembly
41310	DMT Chopper Motor Assembly
41311	Stepper Motor Assembly
41344	Filter Wheel Locking Solenoid Assembly
41340	Geared Filter Wheel Assembly
41341	Geared Quartz Wheel Assembly
41466	Quartz Wheel Optical Sensor Assembly
41467	Filter Wheel Optical Sensor Assembly

Bolduc, Amanda

From: Scott Marhefka [eng@npas.com]
Sent: Monday, June 30, 2008 11:17 AM
To: Bolduc, Amanda
Subject: timer fixed

DMT.zip (822 KB)

--
Scott Marhefka
National Patent Analytical Systems
2090 Harrington Memorial Road
Mansfield, OH 44903

email: eng@npas.com
phone: (419) 526-6727

Bolduc, Amanda

From: Scott Marhefka [eng@npas.com]
Sent: Thursday, June 26, 2008 11:41 PM
To: Bolduc, Amanda
Subject: Emailing: DMT.zip

DMT.zip (822 KB)

Amanda,

Put this into UPLOAD and let me know.

--
Scott Marhefka
National Patent Analytical Systems
2090 Harrington Memorial Road
Mansfield, OH 44903

email: eng@npas.com
phone: (419) 526-6727

Bolduc, Amanda

From: Richardson, Darcy
Sent: Thursday, June 19, 2008 4:15 PM
To: Bolduc, Amanda
Subject: software

Amanda,

I put my print outs on your desk from my testing today. Almost everything looks good except:

1) When the stop time is left blank the error message "Invalid Observation Time Press <Enter> to continue" appears instead of the standard message of a required field being left blank as it's supposed to.
2) The un-identified USB message is still there when you plug in the printer, followed by a "Enter the name of the USB Device" message which quickly disappears.
3) The calculated range on the simulator solution change is incorrect. It's truncating there even though it's rounding in other parts of the software.

Darcy Richardson
Toxicology Program
Vermont Department of Health
195 Colchester Ave. P.O. Box 1125
Burlington, Vermont 05402-1125
(802) 863-7412
Fax: (802) 863-7632
drichar@vdh.state.vt.us

Drawbaugh, Bob

From: John Fusco [jd@npas.com]
Sent: Friday, January 30, 2009 8:36 AM
To: Harnois, Steven; Drawbaugh, Bob
Cc: Dave Radomski
Subject: Used DMs

Steve:

The instruments you have are almost 20 years old and have no value. If you are looking for a way to get rid of them, I will offer you a credit of $50 each toward parts for the DMT's, up to 20 instrument ($1,000) credit and you dispose of the DataMasters. I would suggest you strip them and use the parts toward maintenance of the remaining instruments. Whatever you do, don't send them back as there is nothing of value to us and it is not worth the freight to get them back here.

John Fusco
National Patent Analytical Systems, Inc.
jd@npas.com
Phone 419+526-6727 Fax 419+526-9446

Drawbaugh, Bob

From: John Fusco [jd@npas.com]
Sent: Tuesday, June 24, 2008 2:11 PM
To: Drawbaugh; Drawbaugh, Bob
Subject: Yesterday

Bob

I seem to remember talking to you yesterday, but it was just before my nap so let me know if I didn't get things correct.

I have 12 Hamamatsu detectors going out to you tomorrow. It would be today but Chris has to fire them up first and see that they are functional. They will not be burned in, so expect some shift during break in. I will forward you an RMA number which can be used to return the old ones so I can keep things straight.

Scott is working on the list from Amanda. I'm going to check with him a little later and will get back to you regarding progress.

John Fusco
National Patent Analytical Systems, Inc.
jd@npas.com
Phone 419+526-6727 Fax 419+526-9446

Drawbaugh, Bob

From: John Fusco [jd@npas.com]
Sent: Wednesday, June 04, 2008 2:04 PM
To: Customers
Subject: Fwd: Could you send this out to Datamaster users

Begin forwarded message:

> **From:** "Bleskacek, James [DPS]" <bleskace@dps.state.ia.us>
> **Date:** June 4, 2008 1:56:29 PM EDT
> **To:** "John Fusco" <jd@npas.com>
> **Subject: Could you send this out to Datamaster users**
>
> John, since you have a email group for the Datamaster users, could you forward something for me.
>
> The State of Iowa will soon be implementing the BEAST lims and the breath alcohol section is wondering if any state/local breath program is utilizing the BEAST in some manner with their breath program. If you are using it and

Bolduc, Amanda

From: Scott Marhefka [eng@npas.com]
Sent: Wednesday, June 18, 2008 7:56 AM
To: Bolduc, Amanda
Subject: Emailing: DMT.zip

DMT.zip (809 KB)

Amanda,

The attached file is NOT for a new install. It is for Import/Update. It does include all necessary files. It fixes the "?." and should allow saving partial Installations, APMs, RPCs and Solution Changes in the DOWNLOAD folder.

--
Scott Marhefka
National Patent Analytical Systems
2090 Harrington Memorial Road
Mansfield, OH 44903

email: eng@npas.com
phone: (419) 526-6727

Bolduc, Amanda

From: Scott Marhefka [eng@npas.com]
Sent: Tuesday, June 17, 2008 9:59 AM
To: Bolduc, Amanda
Subject: updater

DMT.zip (809 KB)

Amanda,

This file can be used by IMPORT/UPDATE_FROM_DISK. It contains all the files so you don't need to worry about some not being updated.

--

Scott Marhefka
National Patent Analytical Systems
2090 Harrington Memorial Road
Mansfield, OH 44903

email: eng@npas.com
phone: (419) 526-6727

Bolduc, Amanda

From: Scott Marhefka [eng@npas.com]
Sent: Tuesday, June 17, 2008 9:57 AM
To: Bolduc, Amanda
Subject: fresh install zip

npas.zip (2 MB)

Amanda,

The files in this zip archive can be used when doing a fresh install.

--
Scott Marhefka
National Patent Analytical Systems
2090 Harrington Memorial Road
Mansfield, OH 44903

email: eng@npas.com
phone: (419) 526-6727

Bolduc, Amanda

From: Service Dept. [service@npas.com]
Sent: Friday, June 13, 2008 2:20 PM
To: Bolduc, Amanda
Subject: Re: Attn Chris: FW: DMT care

Hello Amanda,

This is Randy. Your email ended up in our junk folder so no one saw it!
This isnt really a concern. In tech mode, the chopper motor runs unless specifically turned off. Out of tech mode, the motor stops. Its not a problem.
My concern would be unwanted access to the tech screen.

The motors are essentially similar to the DM motors and I have a test jig that has had the motor running nearly 100% of the time for the past few yrs.

As with any motor, constant use would likely lead to a shorter life, but this should not affect the detector.

Randy
QA Mgr

Bolduc, Amanda wrote:

> Chris,
> Is this even possible? Should this be a concern? It was my understanding that the chopper wheel is always spinning to prevent detector burn out? Am I wrong?
>
> Thanks
> Amanda
>
> -----Original Message-----
> **From:** Harnois, Steven
> **Sent:** Friday, June 13, 2008 8:17 AM
> **To:** Drawbaugh, Bob; Bolduc, Amanda; Richardson, Darcy
> **Subject:** DMT care
>
> Folks,
>
> Last night when I returned from ST. Johnsbury / Springfield, I noticed that one of the DataMaster DMT's had been left in tech mode. Please do not leave the instruments in tech mode, as this keeps the detector chopper wheel running the entire time. And may have led to the chopper motor wearing out on one of the instruments.
>
> Thanks,
>
> Steve
>
> Steven Harnois
> State of Vermont
> Agency Of Human Services
> Department of Health
> Public Health Electronics Technician
> 195 Colchester Avenue

Bolduc, Amanda

From: Harnois, Steven
Sent: Friday, June 13, 2008 8:17 AM
To: Drawbaugh, Bob; Bolduc, Amanda; Richardson, Darcy
Subject: DMT care

Folks,

Last night when I returned from ST. Johnsbury / Springfield, I noticed that one of the DataMaster DMT's had been left in tech mode. Please do not leave the instruments in tech mode, as this keeps the detector chopper wheel running the entire time. And may have led to the chopper motor wearing out on one of the instruments.

Thanks,

Steve

Steven Harnois
State of Vermont
Agency Of Human Services
Department of Health
Public Health Electronics Technician
195 Colchester Avenue
Burlington, Vermont 05401
Phone (802) 863 7641
Fax (802) 863 7632
E Mail: Sharnoi@vdh.state.vt.us

Bolduc, Amanda

From: Bolduc, Amanda
Sent: Thursday, June 12, 2008 10:10 AM
To: Harnois, Steven
Cc: Drawbaugh, Bob; Richardson, Darcy; Bolduc, Amanda
Subject: DMT Detectors

Per my conversation with Chris:

The Judson detectors are good, we WANT to keep them. If we have a SA (Sensoray) Detectors, those have a high failure rate and only about a 6 month life span. We do not want those. Chris said if we want to exchange them, we will need to know exactly how many we want and Bob will need to draft a letter to John or Dave asking for new detectors. The new detectors are Hamamatsu and they are "great" according to Chris. Much more sensitive (in some cases too sensitive!). The only down side to the Hamamatsu detectors is they require a 4 day burn-in period. This really isn't a big deal, you just put them in, turn on the DMT and leave it for a few days before adjusting the voltages.

So, what needs to happen in order to get the new detectors is we need to open ALL of our DMT's and check which detectors they have. This way we can get a count and order the new parts. To save time and energy, while they are already open we should install the RFI resistor and the gold connector. This way all of out DMT's will be up to date and testing ready. I have done a little housekeeping to reorganize the DMT's in the lab to allow for this work. 121506 is on the Calibration bench. This is the unit I have been using to check software and would like to keep it there for now. I have moved some of the other units to make a spot on the bench for an additional DMT. This is where we can pull one out at a time, open it up, do all the fix-its and then put it back on the shelf. I have also added a column to the DMT Log for detector brand: JD for Judson, SA for Sensoray and HM for Hamamatsu (which we probably don't have in house but I added just in case). Please keep the log updated so we don't have any confusion as to which instruments need what for testing/fixing/etc.

Thank you all for your help in this.

PS. 102606 will be coming back on Monday. Chris found some minor bugs which he has worked out and he is just completing some additional testing to make sure it is totally up to spec.

ABolduc
Amanda Bolduc
Vermont Department of Health Lab
195 Colchester Ave - PO Box 1125
Burlington VT 05402-1125
(802) 863-7413
(802) 863-7632 (fax)

Bolduc, Amanda

From: Scott Marhefka [eng@npas.com]
Sent: Tuesday, June 10, 2008 4:14 PM
To: Bolduc, Amanda
Subject: Emailing: DMT.zip

DMT.zip (809 KB)

Amanda,

This one should have the failed installation and failed rpc working the way we discussed with Bob on Thursday. I still need to make sure the timeouts are working appropriately. If you find any that are not then please let me know.

--
Scott Marhefka
National Patent Analytical Systems
2090 Harrington Memorial Road
Mansfield, OH 44903

email: eng@npas.com
phone: (419) 526-6727

Bolduc, Amanda

From: Scott Marhefka [eng@npas.com]
Sent: Thursday, June 05, 2008 10:57 AM
To: Bolduc, Amanda
Cc: Drawbaugh, Bob; Harnois, Steven; Richardson, Darcy
Subject: resistor upgrade

Procedure to Add 10K Resistor ...

Hello Everyone,

Attached is the info on updating the controller board.

--
Scott Marhefka
National Patent Analytical Systems
2090 Harrington Memorial Road
Mansfield, OH 44903

email: eng@npas.com
phone: (419) 526-6727

Drawbaugh, Bob

From: John Fusco [jd@npas.com]
Sent: Thursday, June 05, 2008 11:01 AM
To: Customers
Subject: Fwd: Could you send this out to Datamaster users

Begin forwarded message:

From: "Banks, Debbie" <DBanks@sled.sc.gov>
Date: June 5, 2008 10:57:46 AM EDT
To: "John Fusco" <jd@npas.com>, <bleskace@dps.state.ia.us>
Subject: RE: Could you send this out to Datamaster users

SLED (S.C. Law Enforcement Division) Forensics Division utilizes the BEAST. However, Implied Consent does not. We used DMHost only.

Lieutenant Debbie Banks
S.C. Law Enforcement Division
Implied Consent Department
4416 Broad River Road
Columbia, SC 29210
(803) 896-7570

From: John Fusco [mailto:jd@npas.com]
Sent: Wednesday, June 04, 2008 2:04 PM
To: Customers
Subject: Fwd: Could you send this out to Datamaster users

Begin forwarded message:

From: "Bleskacek, James [DPS]" <bleskace@dps.state.ia.us>
Date: June 4, 2008 1:56:29 PM EDT
To: "John Fusco" <jd@npas.com>
Subject: Could you send this out to Datamaster users

John, since you have a email group for the Datamaster users, could you forward something for me.

The State of Iowa will soon be implementing the BEAST lims and the breath alcohol section is wondering if any state/local breath program is utilizing the BEAST in some manner with their breath program. If you are using it

and would be willing to share your experience with it, please notify Jim Bleskacek in Iowa via email at bleskace@dps.state.ia.us.

Thanks.

James A. Bleskacek
Iowa Division of Criminal Investigation
Criminalist - Alcohol Section
2240 South Ankeny Blvd, Ankeny, IA 50023
ph 515.559.7050 or 515.725.1500
fx 515.725.1675

**NOTICE* This email message (including any file attachments transmitted with it) is for the sole use of the intended recipient(s) and may contain confidential and legally privileged information. Any unauthorized use or disclosure of this email by an unintended recipient is prohibited. If you have received this e-mail in error please notify the sender by return e-mail and destroy all copies of the original message. No representation is made that this email or any attachments are free of viruses. Virus scanning is recommended and is the responsibility of the recipient.*

John Fusco
National Patent Analytical Systems, Inc.
jd@npas.com
Phone 419+526-6727 Fax 419+526-9446

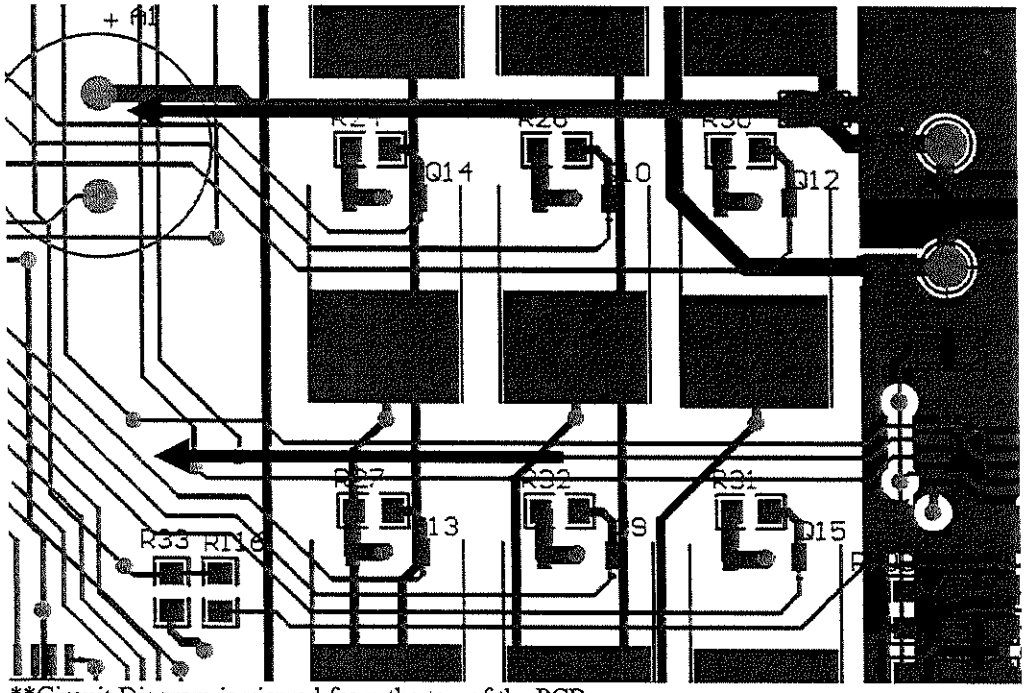
John Fusco
National Patent Analytical Systems, Inc.
jd@npas.com
Phone 419+526-6727 Fax 419+526-9446

Procedure to Add 10K Resistor to RFI Circuitry when Detection Problem Exists

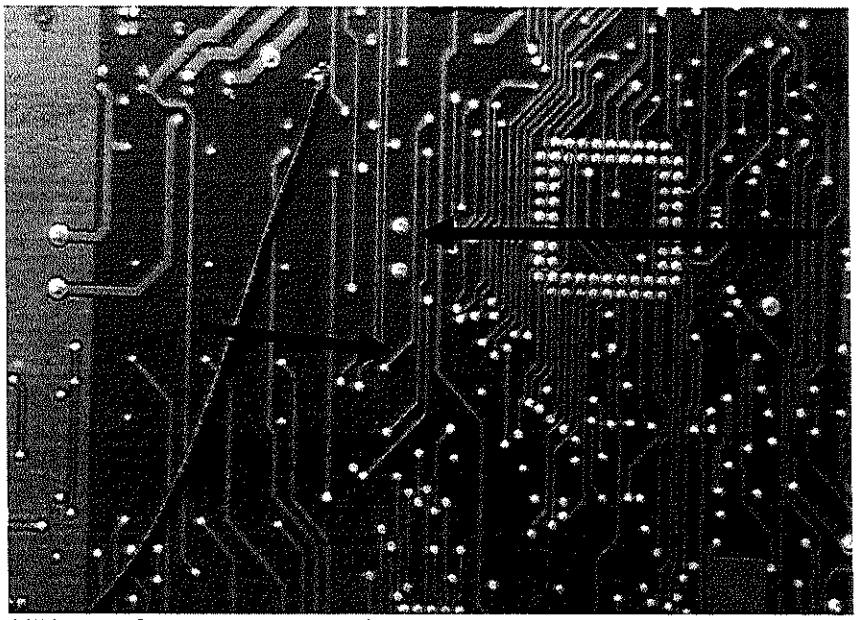
This procedure is to explain where to install the 10k resistor necessary for those DMT Controller PCB's (NPAS p/n 41602) that have been found to exhibit the inability to save the RFI detection setting established in the TECH screen functions of the Datamaster DMT. To date, not all PCB's have manifested this error, but as a precautionary step all new 41602 PCBs using bare-board 32557 rev B *only* will have this update applied to them.

1. Remove DMT Controller (p/n 41602) PCB from lid of dmt.

2. Locate the two nodes as pictured in the photos below, remove solder preparing holes for resistor installation.

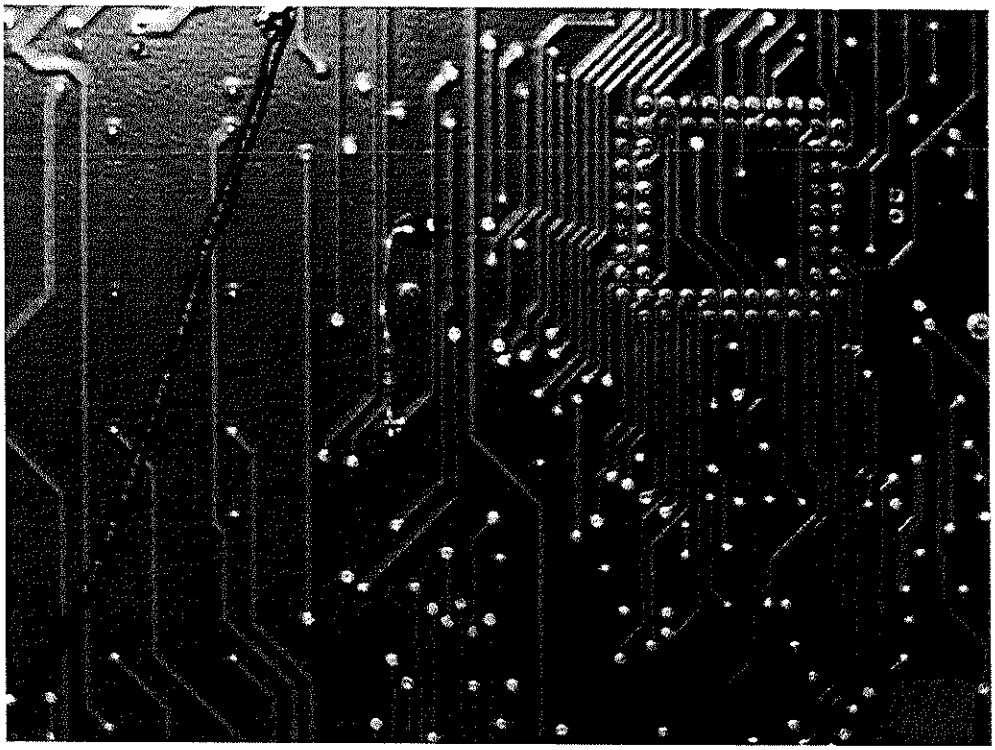


**Circuit Diagram is viewed from the top of the PCB.
***Arrows denote placement of resistor leads to perform RFI circuitry fix.



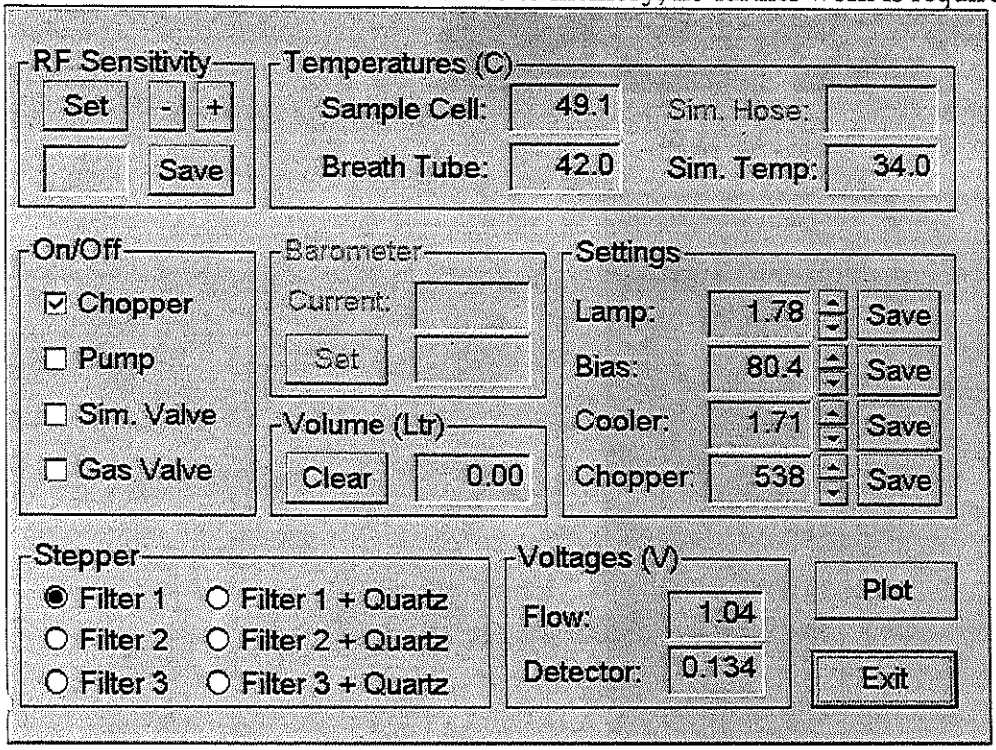
**Picture of actual PCB is done from the back of the PCB where installation needs to take place.

3. Proceed to install the 10k resistor in the two holes.



4. Reinstall the Controller board.

5. Upon initial power up after the installation of the resistor it will be necessary to reset the RFI detection level in the Tech screen. Once set and saved to memory, no further work is required with this circuit.



Bolduc, Amanda

From: John Fusco [jd@npas.com]
Sent: Friday, May 30, 2008 3:21 PM
To: Bolduc, Amanda
Subject: Re: Quick question

The graphs were from the DMT test reports. We do have the raw data and I'll ask Scott to send it over if NY agrees. Monday. You can regenerate the data in excel, also.

Jf

On May 30, 2008, at 3:17 PM, Bolduc, Amanda wrote:

> I received your information regarding invalid samples. I wanted to know how the graphs were created, whether is was by the DMT or if the data was downloaded and was regenerated using another graphing program. Also, would it be possible for you to sent us the raw data or larger graphs in order to better see the information.
>
> Thanks
> Amanda Bolduc
> Vermont Department of Health Lab
> Alcohol and Toxicology Program

John Fusco
National Patent Analytical Systems, Inc.
jd@npas.com
Phone 419+526-6727 Fax 419+526-9446

Bolduc, Amanda

From: Scott Marhefka [eng@npas.com]
Sent: Thursday, May 29, 2008 11:56 AM
To: Bolduc, Amanda
Subject: fixes for 5/28/2008

DMT-VT.zip (821 KB)

Amanda,

This update should resolve everything on your list from 5/28/2008 except for showing the 4th digit on the setup screen as we discussed. This file should be put into the UPLOAD folder on the thumb drive and then use UPDATE FROM DISK.

This file contains all required files and so will not require previous upgrades to be installed first. I am taking a long lunch but can be reached on my cel phone.

--
Scott Marhefka
National Patent Analytical Systems
2090 Harrington Memorial Road
Mansfield, OH 44903

email: eng@npas.com
phone: (419) 526-6727

Bolduc, Amanda

From: Bolduc, Amanda
Sent: Thursday, May 29, 2008 9:02 AM
To: 'Scott Marhefka'
Cc: Bolduc, Amanda
Subject: Software Errors 52808

Software Errors 52808.doc (34 ...

When this is complete, please send me a full version of our software which includes everything. I have found that sometimes you send me patches, then we have a conversation I tell you that I am NOT installing the patch because more changes are being made, then the next version has changes which need the previous patch in order to work. To save my sanity, please send me full versions each time. This way I know we have everything together.
A

Software Errors 5/28/08

General Operation:

1. While running the Simulator Vapor, DMT displays "Running External Standard." As previously requested, it should instead display "Running Simulator."
2. When running the Simulator Vapor, the acceptable range should be **95% ≤ [x] ≥ 105%** (based on the final 3 digit reported value). Currently if the concentration is exactly 105% or is greater than 105% in the fourth decimal place it is failing.
3. Remove option for "Filter Test" under the Functions tab.
4. What is the "Regional Setting" option for under the Functions tab?
5. The Multiple Breath Test sequence is not password protected. It should ONLY be allowed at the Technician level password. It should NOT be available to operators.

Set-Up Menu:

1. The simulator tab still displays the calibration concentration to 4 decimal places instead of the required 3 decimals.

Calibration:

1. The DMT no longer prompts to hook up or disconnect EtOH. Even though we are calibrating through the simulator ports, the software should still prompt to hook up or disconnect the calibration solution. This was correct on previous versions of software.

Certification:

1. The lot number entry field requires exactly 9 characters for a valid lot number, this is not correct. It should allow 1 to 15 alpha numeric characters.
2. The user is allowed to perform a Subject Test even though a passing Certification is not complete. A user should NOT be allowed to run a test until the instrument is Calibrated AND Certified. The software is currently correct in that it does not allow an operator to run any of the maintenance protocols unless the Calibration and Certification is complete.

Routine Performance Check:

1. The test does not perform to specifications.

DUI Subject Test:

1. As stated on Punch List 4/25/08: If the subject provides a first sample, an option for a second test is given. The DMT will then run through its system checks and prompt a second time "Subject Take Second Test? Y/N". If the operator selects NO, the ticket should print "Second Test Not Requested." Currently it prints REFUSAL, this is NOT correct.
2. As stated on Punch List 4/25/08: If the DMT reports and invalid sample, the DMT should IMMEDIATELY end the test sequence and print a ticket stating "Invalid Sample". The operator should NOT be prompted to offer a second test.

Bolduc, Amanda

From: Richardson, Darcy
Sent: Wednesday, May 28, 2008 4:01 PM
To: Bolduc, Amanda
Subject: Tuesday nights class

#102806: Random Pump error, worked fine when test was restarted
#102706: Was not installed and would not allow a test to be run. I ran an installation (still a 30 second timer not 30 minutes) which failed with the simulator too high. Even though the installation failed, the instrument allowed a subject test to be run.
#102906: The screen was jumping constantly and very unstable.

#102706, 102906 and one other which I did not get a report from (Steve was dealing with it) all had failures with the simulator solution. Steve was not sure what the certified value of the solution was so this was a complication. However, we had numerous Standard out of Range messages when it should have passed. For example, a value of 0.100 failed when the solution read 0.105. This happened on numerous occasions. The range should include the outside limits of acceptance and should only be using the 3 digit final result. This is the same issue we were having with the 0.02 solution failing when it read 0.018. So for example: a solution certified at 0.101 should accept readings of 0.096 through 0.106. This should be based on the final 3 digit reported value.

Darcy Richardson
Alcohol and Toxicology Program
Vermont Department of Health
195 Colchester Ave. P.O. Box 1125
Burlington, Vermont 05402-1125
(802) 863-7412
Fax: (802) 863-7632
drichar@vdh.state.vt.us

Bolduc, Amanda

From: Scott Marhefka [eng@npas.com]
Sent: Wednesday, May 28, 2008 7:50 AM
To: Bolduc, Amanda
Subject: DMT-VT.zip

DMT-VT.zip (809 KB)

Amanda,

I am resending the file that should have the filter test removed.

--
Scott Marhefka
National Patent Analytical Systems
2090 Harrington Memorial Road
Mansfield, OH 44903

email: eng@npas.com
phone: (419) 526-6727

Bolduc, Amanda

From: Scott Marhefka [eng@npas.com]
Sent: Tuesday, May 27, 2008 3:12 PM
To: Bolduc, Amanda
Subject: Re: Emailing: DMT-VT.zip

Amanda,

The fix was attached to my previous e-mail.

--
Scott Marhefka
National Patent Analytical Systems
2090 Harrington Memorial Road
Mansfield, OH 44903

email: eng@npas.com
phone: (419) 526-6727

Bolduc, Amanda

From: Scott Marhefka [eng@npas.com]
Sent: Tuesday, May 27, 2008 11:52 AM
To: Bolduc, Amanda
Subject: Emailing: DMT-VT.zip

DMT-VT.zip (809 KB)

Amanda,

This is the correct one.

--
Scott Marhefka
National Patent Analytical Systems
2090 Harrington Memorial Road
Mansfield, OH 44903

email: eng@npas.com
phone: (419) 526-6727

Bolduc, Amanda

From: Scott Marhefka [eng@npas.com]
Sent: Monday, May 05, 2008 9:24 AM
To: Bolduc, Amanda
Subject: Emailing: Vermont.zip

Vermont.zip (1 MB)

Amanda,

This is the most current VT software for your DMTs. This software contains many of the items requested on your punch list from 4/25/2008 but not all.

--
Scott Marhefka
National Patent Analytical Systems
2090 Harrington Memorial Road
Mansfield, OH 44903

email: eng@npas.com
phone: (419) 526-6727

would be willing to share your experience with it, please notify Jim Bleskacek in Iowa via email at bleskace@dps.state.ia.us.

Thanks.

James A. Bleskacek
Iowa Division of Criminal Investigation
Criminalist - Alcohol Section
2240 South Ankeny Blvd, Ankeny, IA 50023
ph 515.559.7050 or 515.725.1500
fx 515.725.1675

**NOTICE* This email message (including any file attachments transmitted with it) is for the sole use of the intended recipient(s) and may contain confidential and legally privileged information. Any unauthorized use or disclosure of this email by an unintended recipient is prohibited. If you have received this e-mail in error please notify the sender by return e-mail and destroy all copies of the original message. No representation is made that this email or any attachments are free of viruses. Virus scanning is recommended and is the responsibility of the recipient.*

John Fusco
National Patent Analytical Systems, Inc.
jd@npas.com
Phone 419+526-6727 Fax 419+526-9446

Drawbaugh, Bob

From: John Fusco [jd@npas.com]
Sent: Thursday, May 15, 2008 8:49 AM
To: Drawbaugh, Bob
Subject: Re: Volume

I'll tell everyone you wanted to be there but wouldn't give up the European Vacation.

As always, thanks Bob.

JF

On May 15, 2008, at 8:47 AM, Drawbaugh, Bob wrote:

John- I saw your update note yesterday - wish I could be there to talk about the fancies we have in the software, too. Please let everyone know that they are more than welcome to contact me for information. I hope to make a digital video that shows us putting the different included protocols to use which will be used in our training series for officers and can be a good representation of what is there for the 'curious' in other programs. I'll let you know about that when it is ready as well.

Safe travels,
Bob

John Fusco
National Patent Analytical Systems, Inc.
jd@npas.com
Phone 419+526-6727 Fax 419+526-9446

Drawbaugh, Bob

From: John Fusco [jd@npas.com]
Sent: Thursday, May 15, 2008 8:19 AM
To: Drawbaugh, Bob
Subject: Re: Volume

Bob

Wish you were going to be there. Please keep me in the loop with the volume stuff.

JF

On May 14, 2008, at 4:26 PM, Drawbaugh, Bob wrote:

John ,
The flow/volume equipment set-up works well. I don't have enough data yet to draw any general conclusions. The little bit of testing I've done so far has shown a fairly consistent bias within an individual instrument, but different amounts among instruments, across the range of flow rates from 7.5 to 30 lpm. I'm hoping that the bias can be corrected to be able to report a value close to the actual volume. I haven't pushed the data collection since we weren't approved for attending and presenting at IACT and are in the midst of training all the law enforcement officers and prosecutors in the first two counties to receive the DMT. The full volume testing will be done when they come back from the training sessions and before they are certified for evidential use. We go 'live' on June 2 unless there is some compelling problem that crops up to delay it. Dave should have all the 'history' re: variable volume measurements and the 'fixes' related to a possible turbulence problem and ridges in the T-fittings etc.

Have fun at IACT and have one for me. I'll miss being with you all.

Bob
-----Original Message-----
From: John Fusco [mailto:jd@npas.com]
Sent: Wednesday, May 14, 2008 3:28 PM
To: Drawbaugh; Drawbaugh, Bob
Subject: Volume

Bob

A few weeks ago we spoke of some volume considerations that you were working on. I spoke with Dave about this and he was no help with respect to knowing anything about what you were up to. How's the equipment you got working out and is there anything we should know about???

John Fusco
National Patent Analytical Systems, Inc.
jd@npas.com
Phone 419+526-6727 Fax 419+526-9446

John Fusco
National Patent Analytical Systems, Inc.
jd@npas.com
Phone 419+526-6727 Fax 419+526-9446

Drawbaugh, Bob

From: John Fusco [jd@npas.com]
Sent: Wednesday, May 14, 2008 3:28 PM
To: Drawbaugh; Drawbaugh, Bob
Subject: Volume

Bob

A few weeks ago we spoke of some volume considerations that you were working on. I spoke with Dave about this and he was no help with respect to knowing anything about what you were up to. How's the equipment you got working out and is there anything we should know about???

John Fusco
National Patent Analytical Systems, Inc.
jd@npas.com
Phone 419+526-6727 Fax 419+526-9446

National Patent Analytical Systems, Inc.
Report on Data Obtained from the State of New York on
Evidential Breath Alcohol Tests using the DataMaster DMT

Invalid Sample data was recently evaluated from DMT instruments in service in New York State. The New York Division of Criminal Justice Services began installing these instruments in September 2007. This data was purged of all personal information prior to leaving New York State. A preliminary observation of this data was made by the staff at National Patent Analytical Systems Inc. ("NPAS") and the following is being offered for informational purposes. NPAS intends only to make this information available in summary form to existing customers and other interested parties. This is an informational report only and is not being offered as a scientific study.

Background and supporting Information

A. Explanation of the INVALID SAMPLE message criteria as it is employed in the DataMaster DMT

1. Measurements of the alcohol concentration during breath sample delivery are taken every 250 milliseconds (4x per second). This measurement is taken in real time and the result of an average of the 500+ Hz signal resulting from the chopping of the detector signal. There is no electronic delay in the processing of this signal since only 2 measurements are required for a single average.

2. A "positive going slope" is defined as a comparison of a 2 consecutive point average to the previous where the trend is not in the negative direction. Both conditions of a positive change and no change are considered a positive going slope.

3. The message "INVALID SAMPLE" will be produced while the instrument detects at least the minimum rate of airflow during sample delivery if:

a. There are three consecutive comparisons of two point averages where the trend is in the negative direction (values are decreasing) after seeing first a minimum of six positive comparisons of two point averages, or

b. If any final result $\geq$ 0.060 g/210 l is less than 95% of any previous high reading during that successfully delivered sample, or

c. If any final result $\geq$ 0.003 g/210 l but $<$ 0.060 g/210 l is lower than any previous high reading during that successfully delivered sample by at least 0.003 g/210 l.

Note: The traditional BAC DataMaster and cdm do not utilize criteria 3b and 3c. Criteria 3a is similar except that a slightly longer positive going reading is required by the DMT prior to averaging for the negative going reading.

B. Background of Data Evaluated

Actual subject test data was recently evaluated from DMT instruments in the field in New York State. The State of New York, through the Division of Criminal Justice Services began installing instruments in September 2007. At the time of the gathering of the data, 88 units were in evidential field service for varying lengths of time and a total of 1713 evidential tests were performed. Minimum initial deprivation periods were observed and a 20 minute additional waiting period is observed after any test that terminates with an "invalid sample" per New York testing procedures. There were a total of 71 (4% of total) "invalid samples" and 34 of these DMTs produced at least one invalid sample. The average # of tests per these 34 units was 33.1. The remaining 54 units that had no invalid samples averaged 10.9 tests per unit and it is probable that these 54 DMTs are either in low usage locations or have been in the field the shortest time.

C. Summary of Test Data

1. There were 35 tests (2% of the total) that were terminated with an invalid sample message because they met the criteria in either 3b or 3c above. These were all as a result of multiple blows during a single test attempt on the part of the subject that fit the citeria of these conditions. These tests could have also been terminated as incomplete as they met both the criteria for either 3b or 3c above in addition to the criteria for an incomplete test. These tests are somewhat unremarkable as starting and stopping blows during a single test typically results in an unpredictable outcome. A determination as to the exact reason cannot be made unless a graph of the alcohol and breath curves is available. Since multiple blows that terminate in an unsucessful test are generally more correctly considered as "incomplete" future versions of the software will accommodate this change.

2. There were 36 instances of invalid samples (2% of the total) triggered by a negative slope to the alcohol concentration curve. In these instances of invalid samples due to negative slope, there were 6 subjects who accounted for a total of 15 invalid sample tests.* Of interest here is that the negative slopes, as evaluated from the graphs produced, were in no way typical of what is traditionally percieved as a significant downward trend that could be as a result of mouth alcohol. Rather, the indication was that, as the subject was about to "run out of breath" and as the sample was near completion the alcohol concentration dropped off very slightly (.001 to a max .004) at the tail end of the breath delivery. This decline is sufficient to trigger the "invalid sample" message.

Comments

1. The ability to capture and evaluate this data in precise detail is possible because of the very fast response of the DMT system coupled to the graphic depiction of the breath and alcohol profile in real time, allowing a resolution in the data points to .0001. (see patent note below)

2. Since not a single test of the 1713 evaluated exhibited the anticipated significant rise and/or fall that would be expected if the sample were contaminated with mouth alcohol, the question then arises as to the cause of this minimal downward trend at the very end of the test as the subjects ceased blowing.

A study by J. C. Russel and R. L. Jones, Biochemistry Laboratory, Department of Surgery and Pulmonary Division, Department of Medicine, University of Alberta, Edmonton, Alberta titled "Breath Ethyl Alcohol Concentration and Analysis in the Presence of Chronic Obstructive Pulmonary Disease" (circa 1983?) may shed some light on this question. Among other things in this study, one thing that was seen was that, in patients with COPD, there was a characteristic of the breath alcohol curve almost identical to that which was observed on the invalid tests performed on the DMT. Normal subjects in this study did not exhibit this drop-off in the alcohol concentration at the end of exhalation.

3. The absence of any indications of invalid samples as a result of mouth alcohol in the total of 1713 tests may be significant. Future data will be used to validate this information.

*Removing the multiple tests per subject to get a clearer indication of the percentage of subjects producing invalid samples due to negative slopes, the 2.1% is reduced to 1.47%. This represents the total percentage of invalid sample tests produced on all instruments if only a single test was performed.

Note: Patents are pending on certain applications used to record, analyze and present this data. These applications are employed in the DMTs used in the New York testing and in all DMTs in service.

Prepared by:

David Radomski
John Fusco
May 1, 2008

Drawbaugh, Bob

From: John Fusco [jd@npas.com]

Sent: Tuesday, May 06, 2008 3:19 PM

To: Banks Debbie; Drawbaugh, Bob; Prokopanko Randy; Perry Curtis; rnbrooks@duke-energy.com; (DPS) Swartz Jeanne M; Method Peter; Ken.Denton@wsp.wa.gov; clnavett@lasd.org; D Baker; Murray, Todd (DCJS); Robin.Reichert@wsp.wa.gov; Dewayne Carver; ag.hemken; Jo; Welsh Robert; Rich Bostec Inc.; Lutmer Brian; monserra@dps.state.ia.us; Ward Dean; Visneskie Dale; Bailey Laura; Lee Lisa (DCJS); Rod.Gullberg@wsp.wa.gov; Office Bostec

General Customer Release:

Everyone:

We have received the first data from the instruments in service in New York. We had anticipated that it would look good - and it certainly does- but we had not anticipated the possible implications for the ongoing defense claims regarding invalid samples. Having the precise alcohol data points and depicting them on a graph along with the breath profile essentially removes all questions as to what was happening during any given test.

However, the implications of the absence of any signs of "mouth alcohol" (as it has been traditionally pictured with the rise followed by a significant decline) in over 1700 tests floored us. This is probably the very first large group of actual test data that has been available with adequate information to validate the absence of any potential for mouth alcohol after the deprivation period.

We are going to review this at our group's meeting in Phoenix but would appreciate your thoughts and comments before that. We anticipate an additional group of test data in several months which will reflect data gathered for a similar time period and may be even more meaningful. If you have any suggestions for further study of this data, let me know.

It will be difficult to overestimate the value of this information.

Looking forward to seeing you in Az.

John Fusco
National Patent Analytical Systems, Inc.
jd@npas.com
Phone 419+526-6727 Fax 419+526-9446

Bolduc, Amanda

From: Drawbaugh, Bob
Sent: Friday, May 02, 2008 1:00 PM
To: Bolduc, Amanda; Richardson, Darcy
Subject: FW: Conversation

-----Original Message-----
From: John Fusco [mailto:jd@npas.com]
Sent: Friday, May 02, 2008 11:14 AM
To: Drawbaugh, Bob
Subject: Conversation

Bob

Scott is somewhat ahead of us on a method of making better use of the data without the need to revamp your Host Database.

You are presently able to off load the data into a thumb drive and reload it into a pc. The difficulty is in coming up with a friendly format so that you can import this into an excell spreadsheet or something similar. He is working on a routine that will allow this data to be put into a format that will allow this transition and will be assigning the project to the engineer that we are bringing on. Hopefully he will be starting within the next week or so and this project will be the first he will tackle after all the familiarity needs are done. This will take a month or two, but we should have it resolved at that point. I'll have it sped up as much as possible, but I can't detail Scott or Steve to it with all the other projects they have going on. There will be no cost associated with this as we need it for everyone, regardless.

I have asked him to modify the DataMaster code to make data collection default to the off position. This will happen soon and we can talk next week about how to get these installed. I may need a listing of the instruments you wish to update. Your only cost will be the tech time to burn the proms. That shouldn't take much more than 3 or 4 hours and we can simply swap the EPROMs since they are reusable.

I thank you for your usual patience and cooperation and your continued patronage.

John Fusco
National Patent Analytical Systems, Inc.
jd@npas.com
Phone 419+526-6727 Fax 419+526-9446

Bolduc, Amanda

From: Scott Marhefka [eng@npas.com]
Sent: Friday, April 25, 2008 11:09 AM
To: Bolduc, Amanda
Subject: Re: Time limits?

Amanda,

The dmt has a setting IdleTime. When you are at the main screen and the dmt has been idle for IdleTime minutes, the screen saver will activate and the user level is reset. Additionally, the Reports screen will close after IdleTime minutes and return you to the main screen. After an additional IdleTime minutes the screen saver will activate and the user level will be reset.

Have a great weekend!
--
Scott Marhefka
National Patent Analytical Systems
2090 Harrington Memorial Road
Mansfield, OH 44903

email: eng@npas.com
phone: (419) 526-6727

Drawbaugh, Bob

From: John Fusco [jd@npas.com]
Sent: Friday, May 02, 2008 11:14 AM
To: Drawbaugh, Bob
Subject: Conversation

Bob

Scott is somewhat ahead of us on a method of making better use of the data without the need to revamp your Host Database.

You are presently able to off load the data into a thumb drive and reload it into a pc. The difficulty is in coming up with a friendly format so that you can import this into an excell spreadsheet or something similar. He is working on a routine that will allow this data to be put into a format that will allow this transition and will be assigning the project to the engineer that we are bringing on. Hopefully he will be starting within the next week or so and this project will be the first he will tackle after all the familiarity needs are done. This will take a month or two, but we should have it resolved at that point. I'll have it sped up as much as possible, but I can't detail Scott or Steve to it with all the other projects they have going on. There will be no cost associated with this as we need it for everyone, regardless.

I have asked him to modify the DataMaster code to make data collection default to the off position. This will happen soon and we can talk next week about how to get these installed. I may need a listing of the instruments you wish to update. Your only cost will be the tech time to burn the proms. That shouldn't take much more than 3 or 4 hours and we can simply swap the EPROMs since they are reusable.

I thank you for your usual patience and cooperation and your continued patronage.

John Fusco
National Patent Analytical Systems, Inc.
jd@npas.com
Phone 419+526-6727 Fax 419+526-9446

Drawbaugh, Bob

From: John Fusco [jd@npas.com]
Sent: Wednesday, April 30, 2008 4:52 PM
To: Drawbaugh; Drawbaugh, Bob

Bob

I had a call from Lisa Lee in New York last week that was a little strange. She asked me why one of your people would have called her to inquire about all the invalid sample problems New York was having. We haven't generally shared the data with anyone although a few knew we had it and were looking at it. The strange part was that the data is absolutely beautiful. It is almost perfect with less than 2% invalid samples in over 1700 tests.

The 2% that were called invalid did not fit the expected significant downward profile and qualified only by reason of a very slight downward movement of less than .004 as the subject stopped blowing. We are continuing to investigate these as there may well be a physical reason.

Regardless, Lisa was very surprised that anyone would call it a problem and asked me to check around and see where that may have come from since false information like that could hurt her program.

I was very disappointed that the Washington people came away from their visit with Vermont with a bad impression of us. Maybe it is deserved, but it appears that we are no longer in consideration in Washington.

John Fusco
National Patent Analytical Systems, Inc.
jd@npas.com
Phone 419+526-6727 Fax 419+526-9446

Bolduc, Amanda

From: Scott Marhefka [eng@npas.com]
Sent: Wednesday, May 28, 2008 4:11 PM
To: Bolduc, Amanda
Subject: DMT-VT.zip again

DMT-VT.zip (809 KB)

Amanda,

The attached update contains the following:

Removed Accuracy/Precision Summary from reports. Hookup/Disconnect Ethanol prompts added to the calibration. Run Button now requires Certification to be completed. RPC testing code is removed and should now work properly. Cert test now allows 1-15 characters for the lot field.

--

Scott Marhefka
National Patent Analytical Systems
2090 Harrington Memorial Road
Mansfield, OH 44903

email: eng@npas.com
phone: (419) 526-6727

Bolduc, Amanda

From: Dave Radomski [dmr@npas.com]
Sent: Monday, January 14, 2008 11:22 AM
To: Bolduc, Amanda
Subject: Re: NPAS training memo

Looks good as is.

I'm assuming you're not concerned with the 5 newer units as little or no data had yet been obtained.

Please get me the names as you will want them on the certificates along with titles and official agency name.

On Jan 14, 2008, at 11:05 AM, Bolduc, Amanda wrote:

> <NPAS training memo.doc>

Bolduc, Amanda

From: Richardson, Darcy
Sent: Thursday, April 24, 2008 2:07 PM
To: Bolduc, Amanda
Subject: Software Notes

Here goes:

1) "License #" and "state" are still bolded although not required. It gets confusing when you leave another field blank though and the message comes up saying that a required field is not filled in. Those should be un-bolded if they are not required.

2) This could just be a training thing but it's a little confusing when you enter in the information and a box comes up that says "Timer Started" but the timer doesn't actually start until you hit ok. If it's not a big deal it would make more sense for it to say "Start Timer?"

3) When you fail a sample acceptance test the graph does not print even though samples were provided to the instrument and did display on screen.

4) The VDH logo is on the Simulator Solution change worksheet. This should be the state seal since we did just make a big deal about those forms not being our documentation for the BACs.

Darcy Richardson
Alcohol and Toxicology Program
Vermont Department of Health
195 Colchester Ave, P.O. Box 1125
Burlington, Vermont 05402-1125
(802) 863-7412
Fax: (802) 863-7632
drichar@vdh.state.vt.us

Bolduc, Amanda

From: Bolduc, Amanda
Sent: Wednesday, April 23, 2008 8:51 AM
To: Bolduc, Amanda; Richardson, Darcy; Harnois, Steven; Drawbaugh, Bob
Subject: RE: DMT Software testing

One other addition. If you want to start a list of things to change for the next rev, that would be helpful. I have a few things written down already but this would save us time down the road. We will do one punch-list of things to change now, and one of things to change later. Thanks
A

-----Original Message-----
From: Bolduc, Amanda
Sent: Wednesday, April 23, 2008 7:45 AM
To: Richardson, Darcy; Harnois, Steven; Drawbaugh, Bob; Bolduc, Amanda
Subject: DMT Software testing

Just a quick update on where we are with testing. I plan on sending Scott our final punch list by Friday. As such, I will need all of the testing complete and to me on Thursday so I can compile our notes. I have noticed that on some of the reports, there are notes asking for changes that are not consistent with our protocol. Please see me for a copy of the protocol if you have questions regarding software specs. While I realize we have found things we would like to change to our protocol, at this point, any of these things will need to go on a revision down the road. Right now we need to concentrate our efforts on ensuring functionality and essential performance. For example, the footer missing on the DUI ticket is essential. The lot numbers not being consistent on the certification protocol is essential. The sim solution change having the DOH logo on it instead of the state seal is not essential, and was not requested in the protocol that way.
I have also noticed that during testing people have only run through a protocol once "correctly". What needs to happen is at every step in every protocol we need to try every option to ensure they function as requested. This means generating failures. Darcy did a great job of this on the RPC, Installation and subject test sequences.
I am confident that we will do a thorough job if we can all spend some time focusing our efforts on this project. It is critical that we complete this as soon as possible. I cannot complete the officer or the supervisor training until we have our final version of software. Time is running out. It would be most embarassing to be forced to delay the launch of the instrument. I understand that this is a crazy time for all of us. I really appreciate the effort you have all shown thus far. Thank you all for your continued help in this project.

ABolduc
Amanda Bolduc
Vermont Department of Health Lab
195 Colchester Ave - PO Box 1125
Burlington VT 05402-1125
(802) 863-7413
(802) 863-7632 (fax)

Bolduc, Amanda

From: Scott Marhefka [eng@npas.com]
Sent: Monday, April 21, 2008 11:56 AM
To: Bolduc, Amanda
Subject: Emailing: more-vt-bmp.zip

more-vt-bmp.zip
(159 KB)

The message is ready to be sent with the following file or link attachments:
more-vt-bmp.zip

Note: To protect against computer viruses, e-mail programs may prevent sending or receiving certain types of file attachments. Check your e-mail security settings to determine how attachments are handled.

--
Scott Marhefka
National Patent Analytical Systems
2090 Harrington Memorial Road
Mansfield, OH 44903

email: eng@npas.com
phone: (419) 526-6727

Bolduc, Amanda

From: service@npas.com
Sent: Friday, April 11, 2008 1:26 PM
To: Bolduc, Amanda; David Radomski
Cc: service@npas.com
Subject: Re: 102506

Hello Amanda,

Your instrument will be coming back to you. The main delay in returning it to you is that I have been running accuracy tests with it and monitoring the performance after repairing it. Scott also tested out a couple of the software patches I believe he discussed with you as well, but the main delay has been the testing process. You should see the unit back by mid next week.

Chris

On 10 Apr 2008 at 17:58, David Radomski wrote:

Hi Amanda,

If repairable, it will be returned unless you see a need to receive a replacement. I don't know the status right now. I'm kind of stranded working from home due to a long delayed vehicle repair. I copied Chris on this reply and if he has further information about this instrument, he'll let you know.

Dave

We sent 102506 back to you at NPAS for service. Will we be receiving this unit back, or a replacement unit?
Thanks

ABolduc
Amanda Bolduc
Vermont Department of Health Lab
195 Colchester Ave - PO Box 1125
Burlington VT 05402-1125
(802) 863-7413
(802) 863-7632 (fax)

Bolduc, Amanda

From: Scott Marhefka [eng@npas.com]
Sent: Wednesday, April 09, 2008 6:34 PM
To: Bolduc, Amanda
Subject: rlc with software

Hello Amanda,

I wanted to make sure that you received the RLC unit with the latest software. I did make minor changes to the summary reports so you may want to investigate. I will continue working on those changes. Please let me know of anything else you find.

--

Scott Marhefka
National Patent Analytical Systems
2090 Harrington Memorial Road
Mansfield, OH 44903

email: eng@npas.com
phone: (419) 526-6727

Bolduc, Amanda

From: Bolduc, Amanda
Sent: Thursday, April 03, 2008 3:14 PM
To: 'sheriff@franklincountysheriff.net'; 'maamodt@dps.state.vt.us'; 'gtaylor@dps.state.vt.us'; 'ted.oshaughnessy@state.vt.us'; 'allenc@dps.state.vt.us'; 'david.miller@state.vt.us'
Cc: Drawbaugh, Bob; Richardson, Darcy; Harnois, Steven; Bolduc, Amanda
Subject: DataMaster DMT Training

Training signup.doc
(1 MB)

The Vermont Department of Health Laboratory is pleased to announce the introduction of the DataMaster DMT evidential breath testing instrument. We will be launching this instrument in Franklin and Grand Isle Counties on June 2nd, 2008. This instrument will replace the current BAC DataMaster. All officers who work in these counties will be required to attend a four hour training course in order to be able to use the new instrument. I have attached a flier outlining the class times available. Please ensure that all officers at your agency attend one of the training classes. Make-up sessions will be available by appointment if necessary. We will be holding a State's Attorney training on May 16th, the time is still to be determined.

We are very excited and look forward to a successful implementation of this new instrument. Thank you for your assistance in this matter.

ABolduc
Amanda Bolduc
Vermont Department of Health Lab
195 Colchester Ave - PO Box 1125
Burlington VT 05402-1125
(802) 863-7413
(802) 863-7632 (fax)

Bolduc, Amanda

From: service@npas.com
Sent: Monday, March 31, 2008 1:09 PM
To: Bolduc, Amanda
Subject: RE: Returned NPAS parts wo# 39196 rcv'd 03/26

Hi,

Okee doke. When parts come back, Tammy automatically makes a Work Order and gives them to me for repair. If a note is attached, explaining things, then I take care of it. At least that way, you wont end up receiving parts you didn't order.
Thanks for responding quickly.

Oh, and did you get my previous email about the old detector pcb's? There has been confusion in the past about which style people want. I wanted to clarify things at our end and am making a list. Which version do you prefer?

the Right Angle connector for 41223 J37, or the green terminal block? The terminal block uses bare wires on the detector, and the R/A uses a connector header.

Randy

On 31 Mar 2008 at 11:12, Bolduc, Amanda wrote:

Sorry about that, the parts are from me, not Steve. These parts are not being sent in for repair. We have already received replacements for all of these part, we just thought you might want those old parts back.

The detector blocks are from the units which were exhibiting either filter wheel errors or blank errors. The two processor boards did not read our simulator temperatures accurately. The breath tubes do not contain one-way valves.
Sorry for the confusion.
Thank you.

Amanda Bolduc

> -----Original Message-----
> **From:** service@npas.com [mailto:service@npas.com]
> **Sent:** Monday, March 31, 2008 9:27 AM
> **To:** Bolduc, Amanda
> **Subject:** Returned NPAS parts wo# 39196 rcv'd 03/26
>
> Hi,
>
> This is Randy at NPAS. I just received some DMT parts for repair from Steve Harnois. He sent 4 DMT blocks, 2 processor pcbs, and 2 breath tubes. He also did NOT supply any information as to their rejection.
>
> I cannot correct issues seen unless I know what those issues are. I would apprecate it if you could see that future returns reflect this. Any and all information related to the

problem seen is very helpful. In addition, each item should note its warranty status if known. If you have any questions, please call.
Thank you.

Randy Martin
NPAS
QA Mgr, Tech

Bolduc, Amanda

From: Scott Marhefka [eng@npas.com]
Sent: Thursday, March 27, 2008 9:32 AM
To: Bolduc, Amanda
Subject: Emailing: Vermont.zip

Vermont.zip (1 MB)

Amanda,

I have attached the Full version for use after a fresh install. The problem you are going to have is that you aren't going to be able to change the serial number.

--
Scott Marhefka
National Patent Analytical Systems
2090 Harrington Memorial Road
Mansfield, OH 44903

email: eng@npas.com
phone: (419) 526-6727

Bolduc, Amanda

From: Scott Marhefka [eng@npas.com]
Sent: Wednesday, March 26, 2008 4:05 PM
To: Bolduc, Amanda
Subject: Re: DMT.zip

Amanda,

I have found an oversight on my part already. When logged in as a supervisor, the tech screen prevents you from changing voltages. It currently allows you to change the rf sensitivity. Probably shouldn't let them have access to that.

--
Scott Marhefka
National Patent Analytical Systems
2090 Harrington Memorial Road
Mansfield, OH 44903

email: eng@npas.com
phone: (419) 526-6727

Bolduc, Amanda

From: Scott Marhefka [eng@npas.com]
Sent: Wednesday, March 26, 2008 11:03 AM
To: Bolduc, Amanda
Subject: DMT.zip

DMT.zip (1 MB)

Amanda,

Here "it" is.

--
Scott Marhefka
National Patent Analytical Systems
2090 Harrington Memorial Road
Mansfield, OH 44903

email: eng@npas.com
phone: (419) 526-6727

Bolduc, Amanda

From: Scott Marhefka [eng@npas.com]
Sent: Tuesday, March 25, 2008 9:30 AM
To: Bolduc, Amanda
Subject: Re: security settings

Hello,

Your software is getting close. The calibrations are now storing the signature properly and the cert averages are added. I want Chris to do some more testing but I should be able to e-mail you something Thursday.

--
Scott Marhefka
National Patent Analytical Systems
2090 Harrington Memorial Road
Mansfield, OH 44903

email: eng@npas.com
phone: (419) 526-6727

Bolduc, Amanda

From: Bolduc, Amanda
Sent: Monday, March 24, 2008 9:45 AM
To: Harnois, Steven
Cc: Drawbaugh, Bob; Richardson, Darcy; Bolduc, Amanda
Subject: RE: DMT Update

Upon investigation, DMT #103406 received a new detector block on 3/14/08. The unit was never recalibrated after the new block was installed. After recalibration on 3/24/08, unit functioned properly. Please continue with voltage testing as discussed.
Amanda

-----Original Message-----
From: Harnois, Steven
Sent: Monday, March 24, 2008 7:02 AM
To: Bolduc, Amanda; Drawbaugh, Bob; Richardson, Darcy
Subject: RE: DMT Update

I attempted to run Voltage testing on 103406, What Amanda and I talked about doing was to run a diagnostic and A A&P on the ~0.1 solution that has been used for calibration, at 120V, 140V and 90 volts.

During my first pass at the A&P at 120 Volts I received 10 for 10 Interference detected. Amanda told me that she thought it was because I had the window cracked to try to cool this lab. I closed the window and shielded the simulator so as to make sure there was no draft on the simulator and attempted the A&P again, the results were the same 10 for 10 interference detected. I stopped trying to do any testing as I am not sure what we want to do from here.

Please Advise.

Steve

Steven Harnois
State of Vermont
Agency Of Human Services
Department of Health
Public Health Electronics Technician
195 Colchester Avenue
Burlington, Vermont 05401
Phone (802) 863 7641
Fax (802) 863 7632
E Mail: Sharnoi@vdh.state.vt.us

-----Original Message-----
From: Bolduc, Amanda
Sent: Friday, March 21, 2008 11:24 AM
To: Drawbaugh, Bob; Harnois, Steven; Richardson, Darcy; Bolduc, Amanda
Subject: DMT Update

I wanted to have a meeting, but our schedules all seem to be conflicting at this point. Here are the latest issues with the DMT Testing.

1. I spoke with Scott on 3/20. He said he will be able to provide us with screen shots very easily, we need only provide him a list of what we want. I will be sending him that list today.
2. Scott informed me that he 'should' have software to us 'next week'.
3. Each of the 5 instruments currently being tested have completed 5 of the 10 required linearity tests. I hope to have the rest completed early next week so we can move on to interference testing.
4. However, DMT #102506 is being sent back to NPAS for service. This instrument has been performing

remarkably poorly at the low levels, recoveries have been in the 80% range at the 0.020; 92% at 0.040; and 94% at 0.082. I tried adjusting the lamp/cooler settings while maintaining a ~0.0 detector voltage, however after multiple recalibrations, this did not remedy the problem. I did some additional troubleshooting with Dave on the phone and neither of us was able to come up with a fix. We decided to send the unit back to NPAS for service, rather than waste our time fixing their problem.
5. We will continue the testing on the remaining 4 units, rather than install a 5th unit. It would be more time consuming to try and 'catch-up' a 5th DMT than to just keep going with 4. When this batch of testing is complete, barring any unforseen errors, we should have 8 units through testing. This will satisfy the 5 needed to go in the field and we will still have back-up units available.
6. Bob, Steve and Hillary need to each run 1 linearity on the instruments. Darcy needs to run 2. Darcy has agreed to run her tests on Monday and Tuesday. I spoke with Hilllary, she will run her tests either Friday afternoon or sometime Monday as her schedule permits. Bob and Steve, please email me back when you will be able to complete your tests. Please remember to also run a diagnostic test with your linearity package.

Thank you.

ABolduc
Amanda Bolduc
Vermont Department of Health Lab
195 Colchester Ave - PO Box 1125
Burlington VT 05402-1125
(802) 863-7413
(802) 863-7632 (fax)

Bolduc, Amanda

From: Harnois, Steven
Sent: Thursday, March 20, 2008 10:20 AM
To: Bolduc, Amanda
Subject: FW: DMT's

Steven Harnois
State of Vermont
Agency Of Human Services
Department of Health
Public Health Electronics Technician
195 Colchester Avenue
Burlington, Vermont 05401
Phone (802) 863 7641
Fax (802) 863 7632
E Mail: Sharnoi@vdh.state.vt.us

-----Original Message-----
From: Dave Radomski [mailto:dmr@npas.com]
Sent: Wednesday, March 19, 2008 10:42 AM
To: Harnois, Steven
Subject: DMT's

Hi Steve,

Trying to reconcile some record keeping conflicts here.

Could you verify for me the 20 serial numbers you actually have possession of?

Thanks,

Dave

Bolduc, Amanda

From: service@npas.com

Sent: Wednesday, March 19, 2008 1:28 PM

To: Bolduc, Amanda

Cc: welsh@cmsu.edu; dale@davtech.ca; dbanks@sled.sc.gov; dewayne.carver@mshp.dps.mo.gov; jeanne_swartz@dps.state.ak.us; bleskace@dps.state.ia.us; laura.bailey2@arkansas.gov; lisa.lee@dcjs.state.ny.us; pmethod@iupui.edu; rich@bostec.com; ted.koperski@dmv.state.ne.us

Subject: National Patent: Parts ordering

Hello All,

This is Randy at NPAS.
There has been some issue recently on ordering and receiving the correct version of the detector pcb. Therefore I am supplying everyone with the correct part numbers. I would also request from each of you, "which" version you want. Then I can correct discrepancies at my end and ensure you get the right version.

These are the part numbers and their style:

40223	detector pcb with nothing installed in J37
41223	detector pcb with J37 terminal block
41223-1	detector pcb with J37 right angle connector header

Please email me back specifying the version you want. If you use both styles, let me know and I will expect future orders to denote "which" version. email back at service@npas.com

Lastly, if you have any questions or issues surrounding repair parts, let me know and I will correct them.

Thanks,
Randy Martin
QA Mgr
NPAS

Drawbaugh, Bob

From: John Fusco [jd@npas.com]
Sent: Monday, March 17, 2008 12:17 PM
To: Drawbaugh, Bob
Subject: Re: RE:

OK

On Mar 17, 2008, at 12:13 PM, Drawbaugh, Bob wrote:

> Thanks!
>
> -----Original Message-----
> **From:** John Fusco [mailto:jd@npas.com]
> **Sent:** Monday, March 17, 2008 11:57 AM
> **To:** Customers
> **Subject:**
>
> One more time.

John Fusco
National Patent Analytical Systems, Inc.
jd@npas.com
Phone 419+526-6727 Fax 419+526-9446

Drawbaugh, Bob

From: John Fusco [jd@npas.com]
Sent: Monday, March 17, 2008 11:16 AM
To: Customers
Subject: Memo

Attached memo is in pdf format for those that had a problem with Word format.

Best Regards,

John Fusco
National Patent Analytical Systems, Inc.
jd@npas.com
Phone 419+526-6727 Fax 419+526-9446

Bolduc, Amanda

From: Drawbaugh, Bob
Sent: Tuesday, March 18, 2008 12:21 PM
To: Bolduc, Amanda
Subject: RE: Stylus for DMT

Yes, we should get them if NPAS is not going to provide them. We should inquire of them first. I'll do that along with the chip inquiry.

-----Original Message-----
From: Bolduc, Amanda
Sent: Monday, March 17, 2008 2:16 PM
To: Drawbaugh, Bob
Subject: Stylus for DMT

I am having trouble finding cheap tethered styluses (styli?) The lowest price I have found is $4.59 each. For twenty that's about $90. What do you think? Do we even need them? A finger seems to work just fine...
A

National Patent
Analytical Systems, Inc.

NPAS Customer Memo

March 14, 2008

With no distractions like last weekend's 18-inch snowfall (I got to use the snow blower!), I think this is a good time to update everyone on some good things happening at NPAS.

First, as most of you are aware, there is an addition to our executive staff in the person of my son, Daniel J. Fusco. Daniel started last September and has been working quietly in the background and generally annoying the rest of the staff (like father, like son). He received his undergraduate degree in finance and accounting from Ashland University, and his law degree from Capital University, Columbus, Ohio. Daniel practiced law for the past eight or so years in Columbus for a small law firm. Before practicing law, Dan was an investment and trust advisor with JP Morgan Chase. With his business and legal background Dan will be working into a number of areas over the coming months before we finally decide how to divvy up the golf outings. I thought it was important to get him out of the legal field before he went into defense work.

Second, Cliff Broeder has sort of retired, which means that he is not around quite as much but still phoning and visiting customers and lending his opinions and expertise to us on a continual basis. Cliff can still be reached at our offices in Mansfield. This year at IACT, when I announce Cliff's retirement, it will be for real, although don't look for him to go away soon. Plans are that he will continue consulting and working with us for an indefinite period.

I wrote to you last fall regarding the work we had done to insure that our software for the DMT was in a very strong position to withstand any potential scrutiny. We actually went somewhat further with our advances. As this project progressed, engineering decided that, if we were going to do any work on the overall organization of the code, we should advance the system from C++ to C Sharp. Although it is the same basic coding language, it is considerably more advanced in terms of organizational structure than C++. This DMT advancement is being completed and should be finalized by June 1.

I realize that the entire software issue is very complex. Therefore, we have begun a program to assist everyone who is connected with this issue in any way to understand the capabilities of the DMT software system in ways that are easier to conceptualize. Among the various software we have developed for Vermont, South Carolina and New York, there is now a sizeable pool of applications that now must be put together into a cohesive format that everyone can understand so that these can be used to implement future programs. The investment in engineering hours over the past two years is approaching 10,000, and this does not include the time expended to develop the original operating software. This, I believe, is as much an investment in our own company future as it is a work for these valued customers and future customers.

The bigger software issue in terms of the defense community is not presenting any new issues for us. We continue to make it available under a protective order or non-disclosure agreement.

In terms of hardware I am very pleased to tell you that our work on the tolerances of the detector block assembly is now complete, and any blocks in the field of the original configuration have been or are being replaced with current production blocks. The design is identical; only the manufacturing tolerances and assembly procedures have changed. Each assembly now passes a production operation test with a minimum of 300 cycles before installation. This is prior to any QA testing during final operational work.

We have further refined the tolerances on the valve assembly with respect to the Teflon coating and have improved the reliability of this device to an expected 10,000 cycles. We have not seen the first failure in production in many months.

We have also finalized the three-filter software that is used for dry gas testing, as the initial versions were incomplete with respect to some very slight temperature compensation routines. Some of these were marginally apparent in evaluation instruments but were never an issue with field instruments.

The first three prototype DMTs with the enclosed dry gas housing are now complete. The housing profile is the same as the basic DMT and all wiring and tubing are completely enclosed in the instrument with easy access to the gas cylinder from a locked rear door. Production parts are being readied and should be available within twelve weeks. The name of this version of the DMT is DMT-G and it will be forwarded to DOT shortly.

We are presently working on 10 prototype DMT-P instruments and are optimistic that we will be able to show this concept at IACT. The basic design is 12 volt Portable with built in Gas, a standard ticket printer and bar code reader. It will operate with most of the same capabilities of the standard DMT but in a smaller package that will lend itself better to vehicle use.

As you can see, the past eighteen months or so have been very hectic with multiple, related projects going at the same time. In our efforts to give you the best possible products and services, we have also seen our number of employees grow from about 22 to 32 people. As I look back, we have made substantial progress in all areas and are looking forward to continuing to work with all of you.

John Fusco

Bolduc, Amanda

From: Scott Marhefka [eng@npas.com]
Sent: Thursday, March 13, 2008 8:43 AM
To: Bolduc, Amanda
Subject: Re: Punch list 022208

Amanda,

I am still working on getting the signatures to save with the cal factors. It sounds easy but the routines just weren't built with that in mind. It is almost done however.

Please remember that you need to send me the new security settings. You were going to talk to everyone out there and get back to me.

Have a great day!
--
Scott Marhefka
National Patent Analytical Systems
2090 Harrington Memorial Road
Mansfield, OH 44903

email: eng@npas.com
phone: (419) 526-6727

Bolduc, Amanda

From: Dave Radomski [dmr@npas.com]
Sent: Tuesday, March 11, 2008 11:04 AM
To: Bolduc, Amanda
Cc: Drawbaugh, Bob; Harnois, Steven; Richardson, Darcy
Subject: Re: DMT problem update 31108

First shipment of Detector block, KB and power cord shipped 3/10. Order entered for remaining items and hope to ship today 3/11.

On Mar 11, 2008, at 10:08 AM, Bolduc, Amanda wrote:

> <<DMT problem update 31108.doc>>
>
> Here is the list of "issues" we are having. I spoke with Dave today (3/11/08) and we have found possible solutions to our problems. Steve, the parts should be here in the next couple of days. Please inform me as soon as they get here and we can work together to get these instruments up and running. In the mean time, please install the upgraded pics in the instruments that did not get them yet. Thanks
>
> *ABolduc*
> ***Amanda Bolduc***
> ***Vermont Department of Health Lab***
> ***195 Colchester Ave - PO Box 1125***
> ***Burlington VT 05402-1125***
> ***(802) 863-7413***
> ***(802) 863-7632 (fax)***
>
> <DMT problem update 31108.doc>

3/11/08
DMT Problem Update

During testing, a number of issues arose which will need rectifying. The following is a list of the issues and the required remedies.

102506:	Issue:	1. Simulator Temperature Errors 2. Pic processor 2.04 still in unit
	Remedy:	1. A new BNC cable was installed. Temperature now within specifications. NPAS will send a spare BNC cable. 2. VDHL to install 2.05 pic processor.
102706:	Issue:	1. Pic processor 2.04 still in unit
	Remedy:	1. VDHL to install 2.05 pic processor.
102906:	Issue:	1. Multiple Filter Wheel Errors and chopper wheel making loud noises.
	Remedy:	1. NPAS to send VDHL a new detector block assembly. VDHL will install new detector block.
103106:	Issue:	1.Repeated Pump Errors during testing 2. Pic processor 2.04 still in unit
	Remedy:	1.VDHL will rough the surface of the snubber. If Pump Error problem persists, the snubber will be replaced by VDHL. Spare snubber is being sent to VDHL by NPAS. 2. VDHL to install 2.05 pic processor.
103406:	Issue:	1. Multiple intermittent Filter Wheel and Blank Errors during testing.
	Remedy:	1. NPAS to send VDHL a new detector block assembly. VDHL will install new detector block.
121506:	Issue:	1. Multiple Filter Wheel Errors, instrument did not pass power-up testing.
	Remedy:	1. NPAS to send VDHL a new detector block assembly. VDHL will install new detector block

Deleted: &
Deleted: &

Bolduc, Amanda

From: Bolduc, Amanda
Sent: Monday, March 10, 2008 3:32 PM
To: Drawbaugh, Bob
Cc: Bolduc, Amanda
Subject: UGH

Well, I just love it when I spend the whole day working on the DMT's and all I have to show for it is bad data and error reports. *SIGH* Where to begin...I did not CC this to Darcy and Steve, I wanted to talk to you about it first.
Here is a breakdown of the problems:
102506- Does not read the sim temp correctly. This instrument calls all simulators 35C. I had to go into the set-up and turn off the sim temp reading in order to get it to run the A&P tests. It did pass it's linearity check.
102706- WOW! An instrument with no errors (knock on wood). This one actually did the full linearity check with no issues.
102906- This instrumet made it through about half of the concentrations when it reported filter wheel error. I could not get the DMT to generate the error from the tech screen by flipping through the filters.
103106- This instrument would not run the 0.400 solution, each time it tried, after about 4 reps it would report a pump error. It had previously ran the 0.04 and the 0.16 solutions without incident.
103206- This one also ran the entire linearity check without incident.
121506- I cannot get this instrument to pass the power-up protocol. Not only did it arrive without a keyboard or a power cable, it continuously reports a filter wheel error, but only when you are running an A&P test. I cannot cause a filter wheel error either though the tech screen, or by running a diagnostic test. I am considering RTV-ing this unit.

I spoke with Chris at NPAS. He was no help whatsoever. I have left a message for Dave to call me ASAP. Until then, I highly doubt we will be completing the testing as scheduled due to these problems. I just don't forsee these as being easy fixes. Please let me know what you would like me to do next.

Bolduc, Amanda

From: Dave Radomski [dmr@npas.com]
Sent: Monday, March 10, 2008 9:51 AM
To: Bolduc, Amanda
Cc: service@npas.com
Subject: Re: Newest DMT 121506 and 103406

I'll get your parts rolling.

I mailed out the certificates early last week to your attention. Let me know if you don't see them soon.

Dave

On Mar 10, 2008, at 9:46 AM, Bolduc, Amanda wrote:

> I opened DMT #10 (the one to replace 103306). The new one is serial #121506. It arrived without a keyboard, power cord or a Certificate of Calibration. We returned these items with 103306, so we are short a few accessories for our fleet of instruments.
>
> Also, please send us a new detector block/filter wheel assembly for 103406. We continue to have filter wheel and blank errors on this instrument. Per Bob, we would prefer to have a new assembly rather than continue to trouble-shoot the problems with this one.
>
> Finally, we were under the impression you were going to send individual certificates of completion for our DMT training? Is this the case? If you have any questions, please call.
>
> Thanks
>
> *ABolduc*
> ***Amanda Bolduc***
> ***Vermont Department of Health Lab***
> ***195 Colchester Ave - PO Box 1125***
> ***Burlington VT 05402-1125***
> ***(802) 863-7413***
> ***(802) 863-7632 (fax)***

Bolduc, Amanda

From: Scott Marhefka [eng@npas.com]
Sent: Friday, March 07, 2008 7:44 AM
To: Bolduc, Amanda
Subject: Re: Punch list 022208

Amanda,

Are you going to be doing repair work? The Serial Number is stored in the embedded pc. If you need to change one out, if you don't have access to the sn then we would have to send it to you with it predefined.

--

Scott Marhefka
National Patent Analytical Systems
2090 Harrington Memorial Road
Mansfield, OH 44903

email: eng@npas.com
phone: (419) 526-6727

Bolduc, Amanda

From: Bolduc, Amanda
Sent: Friday, March 07, 2008 7:42 AM
To: 'Scott Marhefka'
Cc: Drawbaugh, Bob; Richardson, Darcy; Harnois, Steven; Bolduc, Amanda
Subject: RE: Punch list 022208

Yup, we're supposed to get a mess of snow, too.
Darcy noticed something yesterday we need changed. We don't want to have access to changing the serial numbers. Can you do that, too? Thanks Amanda

-----Original Message-----
From: Scott Marhefka [mailto:eng@npas.com]
Sent: Friday, March 07, 2008 6:06 AM
To: Bolduc, Amanda
Subject: Re: Punch list 022208

Amanda,

Your list is taking longer than I expected. It is over half done but now I have the harder stuff on the list to do. I'm working to get it done next week. I'll let you know how I progress.

Have a great weekend. We're supposed to receive 8-12 inches of snow.
--
Scott Marhefka
National Patent Analytical Systems
2090 Harrington Memorial Road
Mansfield, OH 44903

email: eng@npas.com
phone: (419) 526-6727

Bolduc, Amanda

From: Bolduc, Amanda
Sent: Thursday, February 28, 2008 1:57 PM
To: 'Dave Radomski'
Cc: Drawbaugh, Bob; Harnois, Steven; Richardson, Darcy; Bolduc, Amanda
Subject: Final 10 instruments

The VDHL would like to request shipment of our final 10 instruments for receipt the week of 3/26/08. Further, we would like to ensure that all of our instruments (both new and previously received) contain the lastest version of hardware configuration, including but not limited to: detector blocks, filter arangements, T-fittings, pic processesors, etc.
Thanks you

ABolduc
Amanda Bolduc
Vermont Department of Health Lab
195 Colchester Ave - PO Box 1125
Burlington VT 05402-1125
(802) 863-7413
(802) 863-7632 (fax)

Bolduc, Amanda

From: Harnois, Steven
Sent: Monday, February 25, 2008 1:48 PM
To: Bolduc, Amanda
Cc: Drawbaugh, Bob; Richardson, Darcy
Subject: DMT's Controller board pic processors

Amanda,

We have received the Controller PC board for DMT 102906 and the Pic Processors labeled 2.05 I will be installing these over the next few days.

Steve

Steven Harnois
State of Vermont
Agency Of Human Services
Department of Health
Public Health Electronics Technician
195 Colchester Avenue
Burlington, Vermont 05401
Phone (802) 863 7641
Fax (802) 863 7632
E Mail: Sharnoi@vdh.state.vt.us

Bolduc, Amanda

From: Richardson, Darcy
Sent: Friday, February 22, 2008 2:24 PM
To: Bolduc, Amanda
Subject: Passwords

I tried the supervisor password downstairs. It works but it looks like it lets you do everything except under setup. It doesn't grey anything out though. It does what Scott said it would do. If you try to do something above the password level it asks you for a password again. So we could add installation to the supervisor password and just not tell them if we're not sure about them doing it yet. They won't know the difference unless they try to do it. We still have to talk to Bob but it's an option.

Darcy Richardson
Alcohol and Toxicology Program
Vermont Department of Health
195 Colchester Ave, P.O. Box 1125
Burlington, Vermont 05402-1125
(802) 863-7412
Fax: (802) 863-7632
drichar@vdh.state.vt.us

Bolduc, Amanda

From: Bolduc, Amanda
Sent: Friday, February 22, 2008 9:37 AM
To: 'Scott Marhefka'
Cc: Drawbaugh, Bob; Richardson, Darcy; Harnois, Steven; Bolduc, Amanda
Subject: Expect a call

I will be calling at 1pm to discuss software revisions. I will email you "the list" shortly, I am finishing it up right now. Bob hasn't had a chance to review the software yet, but I feel we can go forward on what Steve, Darcy and I found and if he has anything to add, I am sure there will be time. I am expecting at least one more update before we call it "Final". Let me know if this time doesn't work for you.

ABolduc
Amanda Bolduc
Vermont Department of Health Lab
195 Colchester Ave - PO Box 1125
Burlington VT 05402-1125
(802) 863-7413
(802) 863-7632 (fax)

1. The following reports should print in duplicate: Calibration, Certification, Installation, Annual Preventative Maintenance, Routine Performance Check.
2. Subject Test results should print in triplicate.
3. Add "DMT Serial Number #" and "page 1 of 1" (or 1 of 2, etc as applicable) to all report footers (including subject test report)
4. Wherever the phrase RFI Interference Tests is stated, please change to either RF Interference Test or RFI Test. "RFI Interference" is redundant.
5. Anywhere lot numbers are entered, should allow 15 alpha/numeric characters and not be limited to the ##-##-### format. We may be changing how we assign lot numbers and we do on occasion put letters in the lot number.
6. **All entered concentrations, generated results or computed averages are ALL to be limited to three (3) significant digits ONLY. For example 0.102 or 0.080.**
7. **CALIBRATION:**
    a. During Calibration, while running water through the cal port, DMT displays "running external standard" which isn't really accurate.
    b. **Calibrated by** field is not populating
    c. Some instruments are not requiring a signature despite the fact that all instruments currently have the SAME software update installed.
    d. Signature and date fields not populating
8. **CERTIFICATION:**
    a. **Calibration Date** field not populating
    b. Vermont is not a dry gas state, so all references to dry gas should be removed from software
    c. Ensure that DMT runs 7 replicates of solution during linearity test
    d. Average result of each concentration should be displayed on the Check Box screen so operator can monitor progress of Certification
    e. During the 0.020 test, a result of 0.018 was obtained, yet with an acceptance criteria of +/- 0.002 the DMT failed the solution. The DMT should allow passage $\leq [X] \geq$
    f. Currently, if you touch a box that has already been checked on the Check Box screen, it will uncheck that test and force you to rerun the concentration. This should not occur. If the operator touches one of the check boxes, it should ask if they would like to rerun the concentration, not automatically eliminate the previous test.
9. **INSTALLATION:**
    a. If you select "No" when promted "Sample Acceptance Test Pass?" the instrument still printed "Passed" on the report.
10. **SIMUTLATOR SOLUTION CHANGE:**
    a. Location field not populating
11. **ROUTINE PERFORMANCE CHECK:**
    a. Date change reminder not functioning
    b. Location field not populating
12. **ANNUAL PREVENTATIVE MAINTENCE:**
    a. Location field not populating
    b. Change **Technician:** to **Performed by:** in the title section
    c. If you select "No" when promted "Sample Acceptance Test Pass?" the instrument still printed "Passed" on the report.
13. **SUBJECT TEST SEQUENCE:**
    a. The first prompt after the Operator presses run should ask "Type of Test?" with the options being "DUI" or "Check In", NOT "DUI?" Yes or No.

Bolduc, Amanda

From: Dave Radomski [dmr@npas.com]
Sent: Monday, February 18, 2008 10:01 AM
To: Bolduc, Amanda
Subject: Re: DMT 8 102906

Hi Amanda,

Just got back from a trip to Canada. Did you receive the board?

Dave

On Feb 8, 2008, at 3:16 PM, Bolduc, Amanda wrote:

> Dave, just to clarify, we need an entire new PCB to replace the defective one. Steve will take the pic processor from the old PCB and install that on the new PCB and we will return the defective one to you.
> Thanks
> Amanda
>
> -----Original Message-----
> **From:** Harnois, Steven
> **Sent:** Friday, February 08, 2008 2:53 PM
> **To:** 'Dave Radomski (E-mail) (dmr@npas.com)'
> **Cc:** Bolduc, Amanda
> **Subject:** DMT 8 102906
>
> Dave
>
> We have had a problem with DMT 8 102906 reading the sim temp, turns out that instrument is missing R91 on the PCB on the lid.
>
> Would you please ship a replacement to us.
>
> Thanks, Steve
>
> Steven Harnois
> State of Vermont
> Agency Of Human Services
> Department of Health
> Public Health Electronics Technician
> 195 Colchester Avenue
> Burlington, Vermont 05401
> Phone (802) 863 7641
> Fax (802) 863 7632
> E Mail: Sharnoi@vdh.state.vt.us

Drawbaugh, Bob

From: Dave Radomski [dmr@npas.com]
Sent: Friday, February 08, 2008 3:23 PM
To: Bolduc, Amanda
Cc: Harnois, Steven; Drawbaugh, Bob; Richardson, Darcy; service@npas.com
Subject: Re: DMT 8 102906

Got it,

Will send.

Dave

Chris, will you see that a tested board is shipped out to them.

On Feb 8, 2008, at 3:16 PM, Bolduc, Amanda wrote:

> Dave, just to clarify, we need an entire new PCB to replace the defective one. Steve will take the pic processor from the old PCB and install that on the new PCB and we will return the defective one to you.
> Thanks
> Amanda
>
> -----Original Message-----
> **From:** Harnois, Steven
> **Sent:** Friday, February 08, 2008 2:53 PM
> **To:** 'Dave Radomski (E-mail) (dmr@npas.com)'
> **Cc:** Bolduc, Amanda
> **Subject:** DMT 8 102906
>
> Dave
>
> We have had a problem with DMT 8 102906 reading the sim temp, turns out that instrument is missing R91 on the PCB on the lid.
>
> Would you please ship a replacement to us.
>
> Thanks, Steve
>
> Steven Harnois
> State of Vermont
> Agency Of Human Services
> Department of Health
> Public Health Electronics Technician
> 195 Colchester Avenue
> Burlington, Vermont 05401
> Phone (802) 863 7641
> Fax (802) 863 7632
> E Mail: Sharnoi@vdh.state.vt.us

Drawbaugh, Bob

From: Dave Radomski [dmr@npas.com]
Sent: Tuesday, January 15, 2008 10:58 AM
To: Drawbaugh, Bob
Subject: DATA & SOLUTION

Got the package. Thanks.

Will run immediately.

Dave

Drawbaugh, Bob

From: Dave Radomski [dmr@npas.com]
Sent: Monday, January 07, 2008 11:55 AM
To: Bolduc, Amanda
Cc: Harnois, Steven; Drawbaugh, Bob
Subject: SN's

Hi Amanda,

I'm sending SN labels with the numbers 122706 and 122806. These are to retire the other 2 serial numbers. Please remind me of what those old numbers are so I can retire them from the system.

I've issued a call tag for the box of detector blocks we replaced. They will probably be picked up sometime tomorrow. Please see that the parts are packaged and ready to go.

Thank you,.

Dave

Bolduc, Amanda

From: Scott Marhefka [eng@npas.com]
Sent: Wednesday, February 06, 2008 9:17 AM
To: Bolduc, Amanda
Subject: Re: skiing

Amanda,

I think I already know the answer to my question but I thought I better ask it anyway.

If an INVALID SAMPLE occurs during the Certification's Sample Acceptance Test, do you want the question "Sample Acceptance Test Passed?" to be asked? Currently, it does ask. It seems like you shouldn't be allowed to answer "YES" because the final portion is supposed to be a good test. I think the same thing may happen if the 60 second window expires with an INCOMPLETE. Chris has not yet confirmed the incomplete yet.

Please call if you need clarification. Two out of the four kids were up sick last night so I may not be thinking clearly.

--
Scott Marhefka
National Patent Analytical Systems
2090 Harrington Memorial Road
Mansfield, OH 44903

email: eng@npas.com
phone: (419) 526-6727

Bolduc, Amanda

From: Dave Radomski [dmr@npas.com]
Sent: Monday, January 28, 2008 4:00 PM
To: Bolduc, Amanda
Subject: Re: "T" fittings

I did, but if I then held the bit stationary in the fitting and "polished" it a little, that cleaned things up pretty well. They have some nice sharp drill bits back in the machine shop.

On Jan 28, 2008, at 3:34 PM, Bolduc, Amanda wrote:

> We tried a drill and found it left spirals in the tubes. We worried
> about that causing turbulence as well. Did you notice that? A
>
> -----Original Message-----
> From: Dave Radomski [mailto:dmr@npas.com]
> Sent: Monday, January 28, 2008 1:53 PM
> To: Bolduc, Amanda
> Subject: Re: "T" fittings
>
>
> Used a 0.196" drill (didn't have a reamer that size) and it cleaned
> the fitting pretty well. Gave volumes a little low (10-15%) but was
> able to correct for that be increasing the distance between the
> fittings. Will continue to test and advise.
>
> Dave
>
>
>
> Amanda,
>
> I tried to ream a few fittings here. The starting ID is around 0.191".
> I reamed it out to 0.203" and tested. The increase in the ID caused
> the flow to be reported about 33% low. Push 3 liters through, get 2
> liters reported. I'll try smaller and let you know my results.
>
> Dave
>
>
> On Jan 28, 2008, at 7:46 AM, Bolduc, Amanda wrote:
>
>> I talked to my uncle who owns a company that does injection
>> molding of
>
>> plastics and he suggested using a Reamer to finish the insides of the
>> T's. It doesn't leave a spiral like a conventional drill and is
>> designed to smooth out holes. They are only 8 or $9 in the Granger
>> catalog. I think that is what we are going to try. A
>>
>> -----Original Message-----
>> From: Dave Radomski [mailto:dmr@npas.com]
>> Sent: Thursday, January 24, 2008 10:52 AM
>> To: Bolduc, Amanda
>> Subject: "T" fittings
>>
>>
>> Hi Amanda,
>>
>> Scott reminded me that you are still looking for the fittings. They
>> were shipped, I think it was Tuesday? I advised Steve and actually

>> assembled them in sets for easier installation. I also tested them
>> here prior to shipping.
>>
>> If you don't see them SOON let me know.
>>
>> Thanks,
>>
>> Dave
>

Bolduc, Amanda

From: Bolduc, Amanda
Sent: Wednesday, November 07, 2007 12:56 PM
To: 'John Fusco'
Cc: Drawbaugh, Bob; Harnois, Steven; Richardson, Darcy
Subject: RE: Next 10

Well...we are still unsure which simulator these instruments will be using, either the Guth's or the Calwave. The problem is Calwave has been slow to send us a test unit so we are not sure if we will be using this simulator or not. We would like the next batch of DMT's probably around the first of the year, but we will need to figure out the simulator situation first. I'll let you know ASAP what we decide. Thanks.
Amanda

-----Original Message-----
From: John Fusco [mailto:jd@npas.com]
Sent: Wednesday, November 07, 2007 10:47 AM
To: Bolduc, Amanda
Subject: Next 10

Amanda

Chris is getting close on the next 10 units. He has them all in test. What do you want for a ship schedule??

John Fusco
National Patent Analytical Systems, Inc.
jd@npas.com
Phone 419+526-6727 Fax 419+526-9446

Bolduc, Amanda

From: Bolduc, Amanda
Sent: Wednesday, November 07, 2007 12:51 PM
To: Drawbaugh, Bob
Subject: FW: Next 10

-----Original Message-----
From: John Fusco [mailto:jd@npas.com]
Sent: Wednesday, November 07, 2007 10:47 AM
To: Bolduc, Amanda
Subject: Next 10

Amanda

(802) 863-7632 (fax)

<DMT problem update 31108.doc>

Drawbaugh, Bob

From: Dave Radomski [dmr@npas.com]
Sent: Friday, February 22, 2008 9:42 AM
To: Harnois, Steven
Cc: Bolduc, Amanda; Drawbaugh, Bob; Richardson, Darcy
Subject: Re: DMT 102906 Filter 3 wont zero error

Board being tested. Will ship today.

On Feb 22, 2008, at 7:09 AM, Harnois, Steven wrote:

> Amanda,
> Per our conversation yesterday I spoke to Dave Radomski at NPAS 2/20/08 reference the issue with 102906 DMT and the Filter 3 Wont Zero Error. Dave and I did some troubleshooting and determined that the Digital to Analog converter for the signal coming from the detector and going to the computer had failed at some point. To verify, Dave asked me to put the old Board back in this morning, I did this and verified that the Old Board would zero at filter 3 as with the rest of the filters. I have requested a working new board be sent to us by Tuesday AM as Bob had requested of me to do.
>
> Thanks, Steve
>
> Steven Harnois
> State of Vermont
> Agency Of Human Services
> Department of Health
> Public Health Electronics Technician
> 195 Colchester Avenue
> Burlington, Vermont 05401
> Phone (802) 863 7641
> Fax (802) 863 7632
> E Mail: Sharnoi@vdh.state.vt.us

Drawbaugh, Bob

From: Dave Radomski [dmr@npas.com]
Sent: Wednesday, January 16, 2008 11:52 AM
To: Drawbaugh, Bob
Subject: Solution

Hi Bob,

Would you like me to return the unused solutions or would you prefer we run them on the Vermont units we have here to ensure we get the results you will be expecting?

Dave

Drawbaugh, Bob

From: Dave Radomski [dmr@npas.com]
Sent: Tuesday, January 08, 2008 11:20 AM
To: Drawbaugh, Bob
Subject: 0.020 Testing

Hi Bob,

I have on order some 0.020 simulator solution to test the situation we were discussing.

Would it be possible to get a bottle or two of your 0.0205 solution to test side by side with what I'm getting in so as to not overlook any discrepancies in the two batches? If you would like, I can send you a bottle or two of what were getting in to do similar testing at your end. Let me know.

Thanks,

Dave

Drawbaugh, Bob

From: David Radomski [daverado@hughes.net]
Sent: Wednesday, May 21, 2008 2:19 PM
To: Drawbaugh, Bob
Subject: RE:

Hi Bob,

Back from IACT and tried to call today about the volume stuff. Spoke to Amanda about the instrument return and she said you were out of the office. Give a shout when you're in and we can go over that.

Phoenix was pretty good but it was so hot you couldn't do anything outside after 8 AM or before 7 PM. It hit 109 degrees one afternoon. I think that whole "dry heat" argument is a bunch of baloney!

Talk to you soon.

Dave

Vermont Department of Health Lab DataMaster Program

Memo

$18 per

100 pass $100

30wk + 20wk

$75 + $49 mo/pool

26mo/kid

To: Robert Drawbaugh
Darcy Richardson
Steven Harnois

From: Amanda Bolduc

CC: NPAS

Date: January 7, 2008

Re: NPAS Training

Training Topics Covered

VDHL staff attended a training course on the Theory of Operation, Supervisory functions and Maintenance and Repair as it pertains to the DataMaster DMT Infrared Breath Alcohol Analyzer and are authorized to use, maintain and perform repairs on the DataMaster DMT in accordance with the instruction received from National Patent Analytical Systems, Inc.

NPAS Work Performed

While at VDHL, NPAS staff performed mechanical upgrades as follows:

- DMT # 103306 was retired from testing and service. VDHL will receive a new instrument to replace 103306 due to numerous changes in non-critical mechanical components in newer instruments. All data previously collected on this instrument is scientifically valid.
- DMT # 103406 received a new detector block assembly while maintaining the same filters and internal standards. Mechanical upgrade does not affect scientific validity of previously collected data. During mechanical upgrade, instrument memory was accidentally erased by NPAS staff. Hard copies of information remain, however electronic copies were destroyed.
- DMT # 103006 received a new detector block assembly while maintaining the same filters and internal standards. Mechanical upgrade does not affect scientific validity of previously collected data.
- DMT # 102606 received a new detector block assembly while maintaining the same filters and internal standards. Mechanical upgrade does not affect scientific validity of previously collected data.

- DMT # 102806 received a new detector block assembly while maintaining the same filters and internal standards. Mechanical upgrade does not affect scientific validity of previously collected data.

- NPAS informed VDHL of defective 'T' fittings on breath flow detector assemblies. Small imperfections in 'T' fittings causes air turbulence which can affect reported breath volumes. Instruments awaiting new 'T' fittings on breath flow detection assembly. VDHL technician will install new 'T' fittings when received from NPAS.

Vermont Department of Health Lab DataMaster Program

Memo

To: Robert Drawbaugh
Darcy Richardson
Steven Harnois

From: Amanda Bolduc

CC: NPAS

Date: January 7, 2008

Re: NPAS Training

Training Topics Covered

VDHL staff attended a training course on the Theory of Operation, Supervisory functions and Maintenance and Repair as it pertains to the DataMaster DMT Infrared Breath Alcohol Analyzer and are authorized to use, maintain and perform repairs on the DataMaster DMT in accordance with the instruction received from National Patent Analytical Systems, Inc.

NPAS Work Performed

While at VDHL, NPAS staff performed mechanical upgrades as follows:

- DMT # 103306 was retired from testing and service. VDHL will receive a new instrument to replace 103306 due to numerous changes in non-critical mechanical components in newer instruments. All data previously collected on this instrument is scientifically valid.

- DMT # 103406 received a new detector block assembly while maintaining the same filters and internal standards. Mechanical upgrade does not affect scientific validity of previously collected data. During mechanical upgrade, instrument memory was accidentally erased by NPAS staff. Hard copies of information remain, however electronic copies were destroyed.

- DMT # 103006 received a new detector block assembly while maintaining the same filters and internal standards. Mechanical upgrade does not affect scientific validity of previously collected data.

- DMT # 102606 received a new detector block assembly while maintaining the same filters and internal standards. Mechanical upgrade does not affect scientific validity of previously collected data.

- DMT # 102806 received a new detector block assembly while maintaining the same filters and internal standards. Mechanical upgrade does not affect scientific validity of previously collected data.

- NPAS informed VDHL of defective 'T' fittings on breath flow detector assemblies. Small imperfections in 'T' fittings causes air turbulence which can affect reported breath volumes. Instruments awaiting new 'T' fittings on breath flow detection assembly. VDHL technician will install new 'T' fittings when received from NPAS.

NPAS Training
1/3/08

for Europe/GB/CIM2

3.5 filter in DMT
low EtOH response, higher diethylether response - differentiates
T° shift can effect 3.5 filter
during Cal - warm up DMT sufficiently (>1hr)
or can get variation in filter 3
which could cause interference later on

DMT detector more sensitive so doesn't ~~need~~ to be cooled as much as BAC's. If cooled too much, less IR energy needed & could be too low - regulates detector
Back fill Detector w/ inert gas to prevent condensation

Detector sensitive to 2-5 microns, so can't use 9micron filter. Would need different detector which is less sensitive than the lead celenoid detector DMT uses

Methanol .012 (.009 - .015)

3.44 is refrence filter. other filters are compared and ratio is observed
filter 2 3.37u = a21 1.2X } ratios
filter 3 3.5u = a31 0.45X }

Read @ filter 1 = (3.44u)
Reading @ filter 2 should be ≅ 3.44 x a21 ←
value in ( ) is what is read at filter 2 - expected
tolerance .005

Noise .004

Filter agreement .001 greater than noise ∴ .005
(AKA interference threshold)

MeOH

Read @ filter 3 → reading @ 3.44x a31
if (≥ .005) = INTERFERENCE (Possibly)
AKA = Filter Agreement condition

OR

if combination sum of absolute values is ≥ .007 for both filters

Reading up to and including @ .100g/210L

When looking at higher concentrations, ratio acceptance % increases

National Patent Analytical Systems, Inc.

Explanation of the INVALID SAMPLE message and the DataMaster DMT

12/14/07

Measurements of the alcohol concentration during breath sample delivery are taken every 250 milliseconds (4x per second).

A "positive slope" is defined as a comparison of a 2 consecutive point average to the previous where the trend is not in the negative direction. Both conditions of a positive change and no change are considered a positive slope.

The message "INVALID SAMPLE" will be produced while the instrument detects at least the minimum rate of airflow during sample delivery if:

There are three consecutive comparisons of two point averages where the trend is in the negative direction (values are decreasing) after seeing first a minimum of six positive comparisons of two point averages.

Or

Any final result $\geq$ 0.060 g/210 l is less than 95% of any previous high reading during that successfully delivered sample.

Or

Any final result $\geq$ 0.003 g/210 l but < 0.060 g/210 l is lower than any previous high reading during that successfully delivered sample by at least 0.003 g/210 l.

National Patent Analytical Systems, Inc 10/31/07

Voltage Settings / Adjustments on the DataMaster DMT

Since the early days of the Verifier and the DataMaster, a primary objective was to maximize optical efficiency in the system so as to obtain maximum detector signal without overdriving the IR source or the detector's thermo-electric cooler. If either or both required substantial electric current to operate within acceptable parameters, excessive heat and undue wear and tear on circuit components would be the result. Systemic optical efficiency was the result of a number of variables.

First and foremost is the narrow bandwidth of the IR filters which is something that will not be compromised as it affords us the specificity to ethanol that the DataMaster is known for.

The sensitivity of a given PbSe detector to the amount of incident IR energy is also a big consideration. Many improvements have been made by the various manufacturers of the detectors to improve this sensitivity.

The efficiency of converting electrical energy (current/power) into IR energy by the source is another variable. For years, a simple kanthal coil has been used in the DataMaster with good reliability and decent efficiency. Very recently, a source has been specified for use, primarily in the DMT that incorporates a parabolic back reflector which greatly increases the amount of IR energy out with a given amount of power applied.

The remaining variables deal primarily with alignment, cleanliness and other related issues. System noise is kept to a minimum if ample signal can be obtained reducing the amount of gain (electronic) needed to produce the required signal levels. If gain must be increased due to low signal, this would also increase the amount of system noise.

Voltage settings in DataMasters up to this point have involved, among other things, setting the detector bias voltage to 120 Vdc, setting the cooler to the voltage level stated on the tag attached to the detector cable and then adjusting the IR source intensity to the needed level such that the output detector voltage (MTR) was somewhere around 0.000. The 120 Vdc bias is required with a 3mm x 3mm detector element. The cooler voltage was the level required in order to operate the detector at a temperature around zero degrees C. The IR source voltage would be a level that varied from a low level of around 1.5 Vdc in a very efficient system to something around 3.5 Vdc or more in a system with low efficiency. If the source voltage would approach 4 Vdc, this would be considered high.

Voltage settings in the DMT have been changed slightly due to a noticeable increase in efficiency across the board. Additionally, a change to a 2 mm x 2 mm PbSe detector was made due to the fact that the 2 mm x 2 mm detector is more readily available and there is no measurable difference in the sensitivity or performance in the two detectors. The 2 mm x 2 mm detector requires only a bias voltage of 80 Vdc.

In the DMT, aside from the RFI sensitivity adjustment, there are only three voltage settings that can be made and this is done using digital potentiometers via the Technician Mode screen. These are settings for the detector bias, TE cooler and IR source (lamp) intensity. The procedure for setting these voltages is as follows:

Set the bias to 80 Vdc for a 2 mm x 2 mm detector or 120 Vdc if 3 mm x 3 mm. This information should appear on the tag attached to the detector cable. The tolerance on this setting is ±5 Vdc.

Start with a cooler voltage of 1.5 Vdc and a lamp voltage of 1.5 Vdc. See what the detector voltage is at these settings. If the detector voltage is more negative negative than -.100, contact NPAS. If it is between -0.100 and +0.100, leave these settings as is. If the detector voltage is > 0.100, increase the cooler voltage no more than 0.1 Vdc. If this is enough to bring the detector voltage down to the acceptable range, save these settings. If not, increase the Lamp voltage no more than 0.1 Vdc. If this is enough to bring detector voltage within range, save these settings. If not, go back to the cooler and increase it no more than, 0.1 Vdc. Continue this alternating the increase of no more than 0.1 V dc of the cooler and lamp voltages until the detector voltage is within range. Remember to save these settings.

If you get to the point that both the lamp and cooler are around 2.0 V dc and the detector voltage is still not down to arqund zero, increase the lamp only. The maximum allowable lamp voltage for the IR source is 3.0 Vdc. If it is required to set the lamp above 2.6 Vdc to get the detector voltage within range, the unit more than likely requires service.

Any questions regarding these instructions can be directed to NPAS at 800-800-8143.

The "Filter Agreement" concept as it pertains to analytical principles incorporated in the DataMaster DMT breath test instrument.

Calibrating a DMT involves introducing known standards of water vapor and either wet or dry ethanol vapor. The purpose is twofold. First, the error in quantifying the ethanol, pre-calibration, as evidenced in the discrepancy between the known ethanol concentration (Ca) and that analyzed and displayed by the instrument upon introduction of that standard, is normalized to the known (Ca) by dividing the known value (Ca) into the reported (resulting in CAL). Second, by knowing that a true ethanol standard, free of any potential interfering substances, is introduced during the calibration procedure, the instrument determines the relative measurement of the ethanol sample when analyzing the vapor at each of the three narrow bandpass filter wavelengths (ref: a21, a31), thereby allowing subsequent analyses to be qualified as either containing or being free of interfering substance(s).

Water vapor is introduced so as to allow the amount evident at each of the filter wavelengths to be subtracted from all analyses thereafter. This water vapor concentration will be constant regardless of the ethanol concentration of the sample so a straight subtraction will suffice (ref: b1, b2, b3).

For discussion of the basic concept, we will discuss using 2 of the three filters (3.44 and 3.37 microns) and calibrating with water and ethanol. As stated above, water is introduced to determine the amount to be subtracted at 3.44µ and 3.37µ. These will not be the same value as water absorbs IR energy to a greater degree at 3.37µ than at 3.44µ. With the water content accounted for, the relative absorption by ethanol between 3.37µ and 3.44µ is determined. Since ethanol absorbs approximately 20% more IR energy at 3.37µ than that at 3.44µ, we would expect a21 to be in the neighborhood of 1.2 as a21 is defined as the value of ethanol measured at 3.37µ with respect to that at 3.44µ. As each IR filter has slightly different transmittance characteristics (center wavelength and half peak bandwidth), albeit within the published filter specifications, each instrument must be calibrated to determine the specific calibration factors for the use of those filters in a specific instrument. Those calibration factors are the characteristic values for that particular instrument. The a21 value is used on subsequent analyses do determine the presence (or absence) of an interfering substance.

This is done by first determining the concentration of the sample as analyzed at the 3.44µ filter. The 3.37µ filter is then inserted into the optical path and the sample is analyzed at that wavelength. The result analyzed at 3.44µ is multiplied by a21. The result at 3.37µ is subtracted from this product of the value at 3.44µ x a21. If the difference is ≤ the filter agreement threshold (default 0.005) then the sample is said to be free from an interfering substance. This is because the relative absorption seen between 3.37µ and 3.44µ for this sample is the same as that for the ethanol standard used to calibrate the instrument. When a substance other than ethanol, but still absorbing IR energy in the 3.4µ region, is added to

the sample, a disagreement becomes evident in the value at 3.37μ with the result from 3.44μ x a21. The greater the concentration of the interference, or the less like ethanol (a21), the greater the discrepancy becomes.

As some allowance for variation between the values (3.44μ x a21 and 3.37μ) is necessary due to expected variability in any measurement (+/-0.002 for each measurement) the question arises as to at what level the discrepancy becomes significant and scientifically and legally of importance. The limit for the filter agreement threshold is 0.005. What this means is that once the discrepancy between the value at 3.37μ and the value at 3.44μ x a21 ≥ 0.005, the sample is said to contain an interfering substance.

The following is an explanation of what might happen if the sample were to contain acetone in addition to ethanol. Lets assume the ethanol concentration of the sample as measured at 3.44μ was 0.160. Knowing that ethanol absorbs approximately 20% more energy at 3.37μ, we would anticipate the result at 3.37μ to be 0.160 X 1.2 = 0.192. If acetone is also a component of the sample, it would be useful to know the characteristics of acetone at 3.44μ and 3.37μ. Test data has shown that acetone absorbs 2 to 3 times the amount of IR energy at 3.37μ than it does at 3.44μ (again, independent of the concentration). For this discussion we will use a 2:1 ratio. Assume a contribution of 0.010 at 3.44μ. Since we expect in this example 2X that concentration at 3.37μ, the value would be 0.020. If we add these concentrations of acetone to the ethanol portion we would see:

Reading at 3.44μ = 0.100 (etoh) + 0.010 (ace) = 0.110 total concentration

Reading at 3.37μ = 0.120 (etoh) + 0.020 (ace) = 0.140 total concentration

When multiplying the result at 3.44μ by a21 we see:

0.110 x 1.2 = 0.132

Comparing this to the result at 3.37μ we see:

0.132 – 0.140 = -0.008

This exceeds the "filter agreement threshold", (preset at 0.005) by 0.03. This test would result in the message of "interference detected" if the software were designed to handle the discrepancy in this manner.

If the contribution by acetone were 0.005 at 3.44μ in the above example, the amount at 3.37μ would be expected to be 2X or 0.010. This, added to our base ethanol concentration would yield:

Reading at 3.44 = 0.100 (etoh) + 0.005 (ace) = 0.105 total concentration

Reading at 3.37 = 0.120 (etoh) + 0.010 (ace) = 0.130 total concentration

When multiplying the result at 3.44μ by a21 we see:

0.105 x 1.2 = 0.126

Comparing this to the result at 3.37μ we see:

0.126 – 0.130 = -0.004

This would be below the set filter agreement threshold (0.005) an in this instance, the final result would be a reported ethanol concentration of 0.105.

The explanation above is repeated except filter 2 (3.37μ) is replaced with filter 3 (3.50μ) and a21 is replaced with a31.

The filter agreement threshold will be adjustable. This settable level (2-10) implying, when referring to g/210l units of measurement, an adjustable threshold of between 0.002 g/210L and 0.010 g/210L will pertain to the difference in the calculated concentration at filter 1 (3.44μ) and filter 2 (3.37μ) or the difference in the calculated concentration at filter 1 and filter 3 (3.50μ). The selected filter agreement threshold will be the absolute value for sample concentrations measured at filter 1 of up to 0.100 g/210L. For values at or greater than 0.100 g/210L the threshold will be a percentage of the analyzed concentration at 3.44μ:

Filter Agreement if 3.44μ ≥ 0.100 g/210L = (Int x 0.001) x (value at filter 1 / 0.100)
Where Int is the set filter agreement threshold value from 2 to 10

If the difference when comparing the results of 3.44μ and 3.37μ OR when comparing the results of 3.44μ and 3.37μ exceeds the threshold, a non-specific to ethanol sample is said to have occurred.

An additional filter agreement threshold calculation will also be employed where the threshold outlined above is not exceeded but the difference in the 2 calculated differences (filter 1-2 and filter 1-3) when combined reaches a level defined as:

For filter 1 measured concentrations of up to 0.100 g/210L
[Diff filter 1-2] plus [Diff filter 1-3] ≥ ~~(Int x 0.001) x (7/5)~~ ≥ .007
For concentrations measured at filter 1 of 0.100 g/210L or greater,
(Int x 0.001) x (value at filter 1 / 0.100) x ~~(7/5)~~ ≥ .007

See table below for example of thresholds with INT set to 5

Value @ Filt 1	Filter I1-2I Diff	Filter I1-3I Diff	Combined Diff I1-2I/I1-3I
0.025	0.0050	0.0050	0.0070
0.050	0.0050	0.0050	0.0070
0.075	0.0050	0.0050	0.0070
0.100	0.0050	0.0050	0.0070
0.150	0.0075	0.0075	0.0105
0.200	0.0100	0.0100	0.0140
0.250	0.0125	0.0125	0.0175
0.300	0.0150	0.0150	0.0210
0.350	0.0175	0.0175	0.0245
0.400	0.0200	0.0200	0.0280
0.450	0.0225	0.0225	0.0315
0.500	0.0250	0.0250	0.0350
0.550	0.0275	0.0275	0.0385
0.600	0.0300	0.0300	0.0420

Enter Int Thrshld (2-10)
5

Separate worksheet allows changing Threshold setting to see limits.

Drawbaugh, Bob

From: David Radomski [daverado@hughes.net]
Sent: Wednesday, January 09, 2008 10:24 PM
To: Ken.Denton@wsp.wa.gov; Laura.Bailey2@arkansas.gov; Drawbaugh, Bob; Brian.Lutmer@dhss.mo.gov
Cc: dmr@npas.com; Barry.Logan@wsp.wa.gov; jd@npas.com
Subject: Re: Accuracy of BAC

Hi Ken,

What's your time frame on this testimony?

I've copied J. Fusco on this reply so as to get the official company response to your inquiry. There are a number of factors that need to be considered in your question that I don't want to overlook in an e-mail response. A number of things come to mind; NHTSA, DM accuracy specs, variability in concentration of certified solutions, etc. Further, any instrument's accuracy is borne out in the results produced.

I'll leave it at that and consult with our folks at NPAS to see if there is an official response that might suit your question in this matter.

I'm in Arkansas until Friday but if you need to reach me, 419-544-0946.

Dave

Drawbaugh, Bob

From: Scott Marhefka [eng@npas.com]
Sent: Wednesday, August 13, 2008 2:04 PM
To: Bolduc, Amanda
Cc: Lab_Alc
Subject: Re: RFI Interference on new PCBs

Amanda,

The fact that you are having RFI problems on one of the old and new style controller boards got me thinking that maybe the problem is procedure. Please be sure that after you Set the RFI sensitivity that you Save it. If it is not saved and the instrument resets, then it will revert to the previously saved sensitivity. One way to make sure that the instrument has not been reset at night is to set the IdleTime to 0 and then leave it in some screen and make sure it is where you left it when you return.

Sorry for stating the obvious but sometimes that's the first thing to be overlooked.

--
Scott Marhefka
National Patent Analytical Systems
2090 Harrington Memorial Road
Mansfield, OH 44903

email: eng@npas.com
phone: (419) 526-6727

Drawbaugh, Bob

From: David Radomski [daverado@hughes.net]
Sent: Saturday, May 17, 2008 6:14 PM
To: Drawbaugh, Bob
Subject: RE:

Hey Bob,

It's HOT here. Just perused your reply and will address in full upon my return next Wed. Give me a call and we'll go over in detail.

Again, we missed you here today.

Dave

Drawbaugh, Bob

From: David Radomski [daverado@hughes.net]
Sent: Thursday, May 15, 2008 1:33 PM
To: Drawbaugh, Bob
Cc: jd@npas.com

Hi Bob,

We'll miss you and Carol at IACT. (& Ted and Alice. Sorry, just an old song that popped in my head)

The flow sensor is calibrated at a delivery of 2 and 3 liters total volume. There were some "T" fittings you received that were not molded properly. That's when Amanda suggested the reamer, which we have on hand, to remedy badly molded fittings. We have since, however, received a delivery of fittings with no sign of this deformity. If you have instruments that are not giving proper volume measurements, let us know and we'll send
new fittings.

Just a side note; Volume is just used as an indicator of sample delivery. The critical parameter is the slope of the alcohol concentration curve. That's why there is no documented tolerance on the volume measurement. The most important indicator of sampling of alveolar air is the decrease in increase over time.

Remember, this is the DataMaster dmt breath alcohol analyzer, not the DataMaster dmt breath volume analyzer.

Dave

Begin forwarded message:

From: "Drawbaugh, Bob" <BDrawba@vdh.state.vt.us>
Date: May 14, 2008 4:26:45 PM EDT
To: "John Fusco" <BDrawba@vdh.state.vt.us>
Subject: RE: Volume

John ,
The flow/volume equipment set-up works well. I don't have enough data yet to draw any general conclusions. The little bit of testing I've done so far has shown a fairly consistent bias within an individual instrument, but different amounts among instruments, across

the range of flow rates from 7.5 to 30 lpm. I'm hoping that the bias can be corrected to be able to report a value close to the actual volume. I haven't pushed the data collection since we weren't approved for attending and presenting at IACT and are in the midst of training all the law enforcement officers and prosecutors in the first two counties to receive the DMT. The full volume testing will be done when they come back from the training sessions and before they are certified for evidential use. We go 'live' on June 2 unless there is some compelling problem that crops up to delay it. Dave should have all the 'history' re: variable volume measurements and the 'fixes' related to a possible turbulence problem and ridges in the T-fittings etc.

Have fun at IACT and have one for me. I'll miss being with you all.

Bob

-----Original Message-----
From: John Fusco [mailto:jd@npas.com]
Sent: Wednesday, May 14, 2008 3:28 PM
To: Drawbaugh; Drawbaugh, Bob
Subject: Volume

Bob

A few weeks ago we spoke of some volume considerations that you were working on. I spoke with Dave about this and he was no help with respect to knowing anything about what you were up to. How's the equipment you got working out and is there anything we should know about???

John Fusco
National Patent Analytical Systems, Inc.
jd@npas.com
Phone 419+526-6727 Fax 419+526-9446

John Fusco
National Patent Analytical Systems, Inc.
jd@npas.com
Phone 419+526-6727 Fax 419+526-9446

Drawbaugh, Bob

From: Dave Radomski [dmr@npas.com]
Sent: Thursday, December 20, 2007 10:47 AM
To: Drawbaugh, Bob
Subject: Re: Training

Flight booked and good to go.

On Dec 20, 2007, at 9:18 AM, Drawbaugh, Bob wrote:

> Well isn't that just Grand! Our court schedule is clear for those two
> days so that would be good considering your travel restrictions.
> Thanks.
>
> -----Original Message-----
> From: Dave Radomski [mailto:dmr@npas.com]
> Sent: Wednesday, December 19, 2007 12:00 PM
> To: Drawbaugh, Bob
> Subject: Training
>
>
> Hi Bob,
>
> Would you want to try and sneak the training in the Thursday / Friday
> after New Years (1/3 - 1/4)?
>
> If not, may have to wait until after March 7. I just received notice
> to report for Grand Jury duty starting 1/7/08. I'm obligated to be
> available to serve for a 2 month period. I looked into getting out of
> this but no dice. I'm tied down.
>
> Let me know your thoughts.
>
> Thanks,
>
> Dave
>
>

Drawbaugh, Bob

From: Dave Radomski [dmr@npas.com]
Sent: Wednesday, December 19, 2007 12:00 PM
To: Drawbaugh, Bob
Subject: Training

Hi Bob,

Would you want to try and sneak the training in the Thursday / Friday after New Years (1/3 - 1/4)?

If not, may have to wait until after March 7. I just received notice to report for Grand Jury duty starting 1/7/08. I'm obligated to be available to serve for a 2 month period. I looked into getting out of this but no dice. I'm tied down.

Let me know your thoughts.

Thanks,

Dave

Drawbaugh, Bob

From: Dave Radomski [dmr@npas.com]
Sent: Thursday, December 13, 2007 11:25 AM
To: Drawbaugh, Bob
Subject: Re: Training

Thanks Bob,

Looking forward to coming out there. I don't think the weather will be an issue. I can handle the cold.

Info to cover looks good. I may be at a disadvantage when it comes to discussing software issues as I've been out of that loop from the get-go. I'll try to glean as much info from Scott as I can.

See you Monday AM.

Dave

On Dec 13, 2007, at 11:10 AM, Drawbaugh, Bob wrote:

> Dave - In answer to your inquiry regarding what we would like to cover during training - we would like to spend some time with the basic technical info. regarding the DMT components and mechanisms used in the determination of the presence of quantitation of EtOH in breath. E.g. What the three filters are doing since it is different from our current two filter system; a reminder of detector function and any differences from BAC DM; data evaluation algorithms; sensitivity options re: EtOH detection and quantitation, interfering substance detection; source type and typical performance characteristics; a description of DMT variations/ options available; the affect of changing source and detector voltages; your testing protocols - including acceptance criteria; etc. We will also want to 'pick your brain' regarding instrument performance as we have measured it. This would include explanations for anomalous behaviors and error messages. We are hoping that you can provide information regarding the projected completion of the first complete version of our specified software protocols and what we can expect from NPAS for support re: changes to that version. For this we will also want to go over the bid request specifications as compared to instrument performance and the requested software protocol submitted. While we expect to work you hard we will also have some good meals and fun together. We're hoping that the forcasted weather does not modify the schedule or get you hung up someplace. I hope the information is helpful for your preparation and we're looking forward to having you here.
>
> Bob
>
> **********
>
> Robert Drawbaugh, Chief
> Toxicology Program
> VT Department of Health Laboratory
> 195 Colchester Ave.
> Burlington, VT 05402-1125
> 802-863-7622

Drawbaugh, Bob

From: Dave Radomski [dmr@npas.com]
Sent: Thursday, November 08, 2007 11:52 AM
To: Bolduc, Amanda
Cc: John Fusco; Scott Marhefka; Richardson, Darcy; Harnois, Steven; Drawbaugh, Bob
Subject: Re: Error Memo

Got the fax, Amanda.

Will evaluate and respond.

Dave

On Nov 8, 2007, at 10:53 AM, Bolduc, Amanda wrote:

> <<Error Memo.doc>>
> I have faxed this memo and the necessary attachment to the attention of Dave Radomski at NPAS.
> Thank you.
>
> ***ABolduc***
> ***Amanda Bolduc***
> ***Vermont Department of Health Lab***
> ***195 Colchester Ave - PO Box 1125***
> ***Burlington VT 05402-1125***
> ***(802) 863-7413***
> ***(802) 863-7632 (fax)***
>
> <Error Memo.doc>

Bolduc, Amanda

From: Drawbaugh, Bob
Sent: Thursday, December 13, 2007 11:11 AM
To: 'dmr@npas.com'
Cc: Bolduc, Amanda; Richardson, Darcy; Harnois, Steven; 'John Fusco'
Subject: Training

Dave - In answer to your inquiry regarding what we would like to cover during training - we would like to spend some time with the basic technical info. regarding the DMT components and mechanisms used in the determination of the presence of quantitation of EtOH in breath. E.g. What the three filters are doing since it is different from our current two filter system; a reminder of detector function and any differences from BAC DM; data evaluation algorithms; sensitivity options re: EtOH detection and quantitation, interfering substance detection; source type and typical performance characteristics; a description of DMT variations/ options available; the affect of changing source and detector voltages; your testing protocols - including acceptance criteria; etc. We will also want to 'pick your brain' regarding instrument performance as we have measured it. This would include explanations for anomalous behaviors and error messages. We are hoping that you can provide information regarding the projected completion of the first complete version of our specified software protocols and what we can expect from NPAS for support re: changes to that version. For this we will also want to go over the bid request specifications as compared to instrument performance and the requested software protocol submitted. While we expect to work you hard we will also have some good meals and fun together. We're hoping that the forcasted weather does not modify the schedule or get you hung up someplace. I hope the information is helpful for your preparation and we're looking forward to having you here.

Bob

****

Robert Drawbaugh, Chief
Toxicology Program
VT Department of Health Laboratory
195 Colchester Ave.
Burlington, VT 05402-1125
802-863-7622

Bolduc, Amanda

From: Scott Marhefka [eng@npas.com]
Sent: Thursday, December 06, 2007 11:10 AM
To: Bolduc, Amanda
Cc: Dave Radomski
Subject: interference

Amanda,

Unfortunately, your interference "threshold" question is not as easy to answer as you may think. Dave plans to explain in detail while he is there. In the meantime, he said he would send you a write-up he has done on the topic.

--

Scott Marhefka
National Patent Analytical Systems
2090 Harrington Memorial Road
Mansfield, OH 44903

email: eng@npas.com
phone: (419) 526-6727

email: eng@npas.com
phone: (419) 526-6727

Bolduc, Amanda

From: Bolduc, Amanda
Sent: Thursday, December 06, 2007 7:39 AM
To: 'Scott Marhefka'
Subject: RE: software changes

I'm confused?? If part of the Install, APM or RPC fails, the istrument does NOT go out of service? HUH? Call me A

-----Original Message-----
From: Scott Marhefka [mailto:eng@npas.com]
Sent: Wednesday, December 05, 2007 6:34 PM
To: Bolduc, Amanda
Subject: Re: software changes

Amanda,

I've been reviewing the packet and came upon something that I think may be wrong.

The Installation, APM and RPC all have a box associated with the Sample Acceptance Check that says, "This box should respond immediately to a 'NO' answer. 40 character max. After reason is entered, instrument should go Out of Service." This is what I currently have the DMT doing.

My question is, "Is it the Sample Acceptance Check failing that should cause the DMT to go Out of Service or is it the failure of the Installation, APM or RPC?" Currently, each of these protocols could fail but not remove the instrument from service if it wasn't the Sample Acceptance Check that caused the failure.

Please let me know how to proceed.
--
Scott Marhefka
National Patent Analytical Systems
2090 Harrington Memorial Road
Mansfield, OH 44903

email: eng@npas.com
phone: (419) 526-6727

Bolduc, Amanda

From: Bolduc, Amanda
Sent: Thursday, December 06, 2007 10:36 AM
To: 'Scott Marhefka'

What is the trigger level for interference detection? On the BAC's we set it to 0.01 but we cannot control where it's set on the DMT's (which is fine) I just need to know where it's set. Thanks

ABolduc
Amanda Bolduc
Vermont Department of Health Lab
195 Colchester Ave - PO Box 1125
Burlington VT 05402-1125
(802) 863-7413
(802) 863-7632 (fax)

Bolduc, Amanda

From: Bolduc, Amanda
Sent: Thursday, December 06, 2007 7:44 AM
To: 'Scott Marhefka'
Subject: RE: INVALIDs

Failed solution change...the instrument should not run if it does not have a passing sim solution associated with it. I would say yes, failed solution change puts DMT OOS.

For an invalid sample, the DMT should print a ticket with the error on it. If the operator wants to take another test, they should have to start the 15 minutes again. If the error is and incomplete or interference detected, the operator should be given a chance to take another test before the test is 'complete' and the ticket is printed, in this case, they do not have to do another 15min observation. Make sense? A

-----Original Message-----
From: Scott Marhefka [mailto:eng@npas.com]
Sent: Wednesday, December 05, 2007 5:29 PM
To: Bolduc, Amanda
Subject: INVALIDs

Amanda,

Two questions:

1) What is supposed to happen on a subject test when an Invalid Sample is detected?

2) Is a failed Solution Change supposed to remove the instrument from service?

--
Scott Marhefka
National Patent Analytical Systems
2090 Harrington Memorial Road
Mansfield, OH 44903

Bolduc, Amanda

From: Scott Marhefka [eng@npas.com]
Sent: Wednesday, December 05, 2007 6:34 PM
To: Bolduc, Amanda
Subject: Re: software changes

Amanda,

I've been reviewing the packet and came upon something that I think may be wrong.

The Installation, APM and RPC all have a box associated with the Sample Acceptance Check that says, "This box should respond immediately to a 'NO' answer. 40 character max. After reason is entered, instrument should go Out of Service." This is what I currently have the DMT doing.

My question is, "Is it the Sample Acceptance Check failing that should cause the DMT to go Out of Service or is it the failure of the Installation, APM or RPC?" Currently, each of these protocols could fail but not remove the instrument from service if it wasn't the Sample Acceptance Check that caused the failure.

Please let me know how to proceed.
--
Scott Marhefka
National Patent Analytical Systems
2090 Harrington Memorial Road
Mansfield, OH 44903

email: eng@npas.com
phone: (419) 526-6727

Bolduc, Amanda

From: Scott Marhefka [eng@npas.com]
Sent: Wednesday, December 05, 2007 5:29 PM
To: Bolduc, Amanda
Subject: INVALIDs

Amanda,

Two questions:

1) What is supposed to happen on a subject test when an Invalid Sample is detected?

2) Is a failed Solution Change supposed to remove the instrument from service?

--
Scott Marhefka
National Patent Analytical Systems
2090 Harrington Memorial Road
Mansfield, OH 44903

email: eng@npas.com
phone: (419) 526-6727

Bolduc, Amanda

From: Scott Marhefka [eng@npas.com]
Sent: Wednesday, December 05, 2007 4:34 PM
To: Bolduc, Amanda
Cc: Drawbaugh, Bob; Richardson, Darcy; John Fusco; Dave Radomski
Subject: Re: software changes

Amanda,

We have completed our list of changes to your software in advance of Dave coming out. All I have to do now is prevent tests from running based on whether the Certification and the Installation has been performed. At one point I thought we discussed Dave installing the software when he is out there. Is that what you want or do you want me to e-mail it to you?

Sincerely,
--
Scott Marhefka
National Patent Analytical Systems
2090 Harrington Memorial Road
Mansfield, OH 44903

email: eng@npas.com
phone: (419) 526-6727

Bolduc, Amanda

From: Scott Marhefka [eng@npas.com]
Sent: Wednesday, November 14, 2007 5:03 PM
To: Bolduc, Amanda
Subject: blanks

Amanda,

I wanted to clarify what I was talking about a few minutes ago because I don't know if we were talking about the same thing. I was discussing the lowest alochol value reported by the DMT. We have a setting for the Display Threshold. The software you have been evaluating has it set to 0.004g/210L. Whenever an alcohol reading from breath or external standard is displayed or reported, if it is less than the Display Threshold then it is forced to 0.000 g/210L. We have sold DataMasters that have had the Display Threshold set anywhere from 0.000 to 0.008 depending on the needs of the customer.

The amount of "apparent alcohol" that can cause a Blank Error is something totally different.

Hopefully this clarifies what I was saying.

--
Scott Marhefka
National Patent Analytical Systems
2090 Harrington Memorial Road
Mansfield, OH 44903

email: eng@npas.com
phone: (419) 526-6727

Bolduc, Amanda

From: Dave Radomski [dmr@npas.com]
Sent: Friday, November 09, 2007 11:26 AM
To: Bolduc, Amanda
Subject: Re: 1.6L requirements

The 1600 ml test is where we pull the 2 l syringe to a volume of 1600 ml and ensure that the instrument accepts a breath sample at that volume. It's actually a quick check to ensure the volume measurement is within limits. An additional volume test is done in the technician screen where we fill the syringe to 2 l and check that the volume reads to within + / - 10%.

Regarding 103406, if you just want to hang on to it until I get out there, we can do that as well.

On Nov 9, 2007, at 10:52 AM, Bolduc, Amanda wrote:

> What is your acceptance range on the 1600ml syringe breath test?
>
> *ABolduc*
> ***Amanda Bolduc***
> ***Vermont Department of Health Lab***
> ***195 Colchester Ave - PO Box 1125***
> ***Burlington VT 05402-1125***
> ***(802) 863-7413***
> ***(802) 863-7632 (fax)***

Bolduc, Amanda

From: Bolduc, Amanda
Sent: Friday, November 09, 2007 10:52 AM
To: 'Dave Radomski'
Cc: Richardson, Darcy; Bolduc, Amanda; Drawbaugh, Bob; Harnois, Steven
Subject: 1.6L requirements

What is your acceptance range on the 1600ml syringe breath test?

ABolduc
Amanda Bolduc
Vermont Department of Health Lab
195 Colchester Ave - PO Box 1125
Burlington VT 05402-1125
(802) 863-7413
(802) 863-7632 (fax)

Bolduc, Amanda

From: Bolduc, Amanda
Sent: Friday, November 09, 2007 10:41 AM
To: 'Dave Radomski'
Cc: John Fusco; Scott Marhefka; Richardson, Darcy; Harnois, Steven; Drawbaugh, Bob
Subject: RE: Error Memo

The tubing that was kinked on 102806 was the tygon tubing which we had running from the simulator to the breath tube (ie. "our" tubing, not DMT tubing) The interesting part is there was not enough air flow to register a breath initally, but there was sufficient air to supply EtOH. Not really an error, as much as it is an anomaly that we found interesting.

What do you propose we do with 103406?
A

-----Original Message-----
From: Dave Radomski [mailto:dmr@npas.com]
Sent: Friday, November 09, 2007 9:55 AM
To: Bolduc, Amanda
Cc: John Fusco; Scott Marhefka; Richardson, Darcy; Harnois, Steven; Drawbaugh, Bob
Subject: Re: Error Memo

Hi Amanda,

In looking at the reports you faxed over, it would appear there is some issue with 103406. In addition to your finding of the RFI sensitivity, there is an intermittent issue with filter 3. The same may be the case for 103006. The test on 103406 at 12:33 is somewhat suspicious. That interference does not appear to be a filter related issue. It is consistent with the instrument actually picking up something with a slightly stronger absorption at 3.44μ.

What tubing was kinked on 102806? It seems interesting that 5 tests were run successfully and the last one had the kink develop just before that sample.

I'll look into possible dates to come up there for a couple of days for additional training.

I've attached the QA procedure form we use in test. It's somewhat of a generic form that covers the vast majority of checks that must be completed. The actual testing done on each instrument is more comprehensive than these stated requirements. The document just outlines the various procedures and minimum performance characteristics. Additionally, unique software requirements from agency to agency will dictate variances in the testing procedures and sequences. These are defined as the software is developed. The technicians have been learning the various aspects of the unique Vermont software and establishing the actual test protocol for your units.

I'll be in touch next week with some proposed training dates.

Dave

Bolduc, Amanda

From: Bolduc, Amanda
Sent: Thursday, November 08, 2007 10:53 AM
To: 'Dave Radomski'
Cc: 'John Fusco'; 'Scott Marhefka'; Richardson, Darcy; Harnois, Steven; Drawbaugh, Bob; Bolduc, Amanda
Subject: Error Memo

Error Memo.doc (42 KB)

I have faxed this memo and the necessary attachment to the attention of Dave Radomski at NPAS.
Thank you.

ABolduc
Amanda Bolduc
Vermont Department of Health Lab
195 Colchester Ave - PO Box 1125
Burlington VT 05402-1125
(802) 863-7413
(802) 863-7632 (fax)

JOB STATUS REPORT

TIME : 11/08/2007 11:02
NAME : DEPT OF HEALTH LAB
FAX# : 802-863-7632
TEL# :
SER.# : BROM12500444

DATE,TIME	11/08 11:00
FAX NO./NAME	91419526944613363
DURATION	00:02:28
PAGE(S)	08
RESULT	OK
MODE	FINE ECM

VERMONT

Vermont Department of Health
Division of Health Surveillance
Public Health Laboratory
195 Colchester Avenue - P.O. Box 1125
Burlington, VT 05402-1125

[phone] 802-863-7335
[or] 800-660-9997
[fax] 802-863-7632

Agency of Human Services

FAX TRANSMISSION COVERSHEET

Date: 11/8/07

To: Dave Radomski

Co/Dept: NPAS

Fax #: 419-526-9446

Sender: Amanda Boldue VDHL

Re: DMT

Pages: 1 of 8

CONFIDENTIALITY NOTICE

The documents accompanying this facsimile transmission may be confidential and intended only for the use of the individual to whom the transmission is directed. If you are not the intended recipient, be aware that any disclosure, copying, distribution or use of the contents of this telecopied information is prohibited. If you have received this facsimile in error, please notify us by telephone immediately so we can arrange for the retrieval of the original documents at no cost to your office. Thank you for your assistance.

Vermont Department of Health Lab Toxicology Program

Memo

To: Dave Radomski, NPAS

From: Amanda Bolduc, VDHL

CC: John Fusco, NPAS

Scott Marhefka. NPAS

Bob Drawbaugh, VDHL

Date: November 8, 2007

Re: DataMaster DMT Performance Testing

Request for onsite DMT training

Please contact us to schedule a time for you to come to the Vermont Department of Health Lab to perform a two or three day DMT training session to be held before the New Year.

Request for description of DMT Testing

It is imperative that we receive a detailed description of the quality control testing performed by NPAS staff prior to instrument shipments.

Request for explanation of results

We have seen some anomalies in our testing results. Please see attached reports and provide possible explanations as to the causes of these anomalies, and possible solutions to avoid these issues in the future. Also, we seem to have the majority of the anomalies appearing on one instrument (Serial # 103406). Could there be a possible defect in this particular instrument?

6 attachments

ACCURACY AND PRECISION TEST

STATE OF VERMONT

DataMaster DMT: 103406

Date: 11/06/2007
Time: 11:11:22

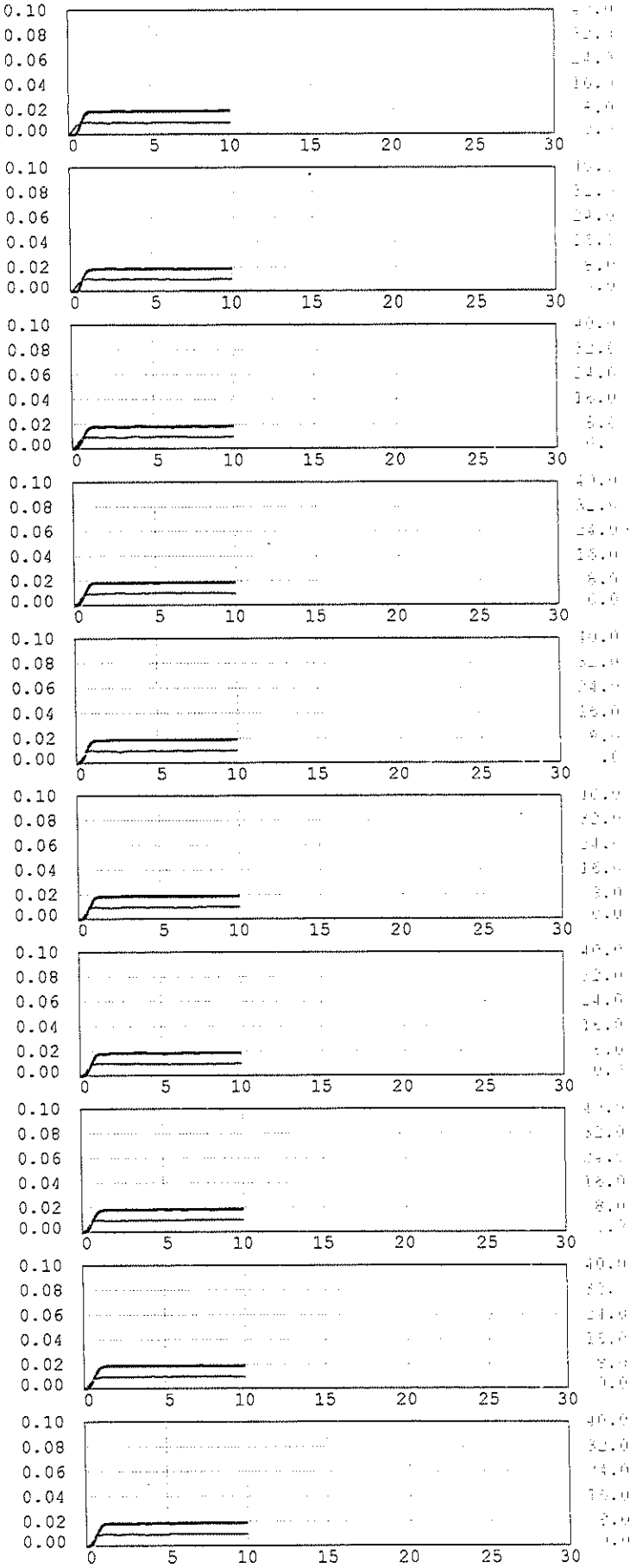
SUPERVISOR NAME: A L B

SOLUTION LOT #: 07-15-020
SOLUTION CONCENTRATION: 0.020

BLANK TEST	0.000	11:12
INTERNAL STANDARD	PASSED	11:12
Xq = 0.1290 (0.35%)		
SIMULATOR VAPOR (33.6°C)	0.019	11:12
X[1] = 0.0192 (-0.0014) (0.0009)		
SIMULATOR VAPOR (33.6°C)	0.019	11:14
X[1] = 0.0192 (-0.0021) (0.0007)		
SIMULATOR VAPOR (33.6°C)	0.018	11:15
X[1] = 0.0186 (-0.0021) (0.0000)		
SIMULATOR VAPOR (33.6°C)	0.019	11:16
X[1] = 0.0191 (-0.0017) (0.0002)		
SIMULATOR VAPOR	INTERFERENCE ≠	11:17
X[1] = 0.0194 (0.0014) (-0.0198)		
SIMULATOR VAPOR (33.7°C)	0.019	11:19
X[1] = 0.0192 (-0.0018) (0.0007)		
SIMULATOR VAPOR (33.6°C)	0.018	11:20
X[1] = 0.0188 (-0.0022) (0.0006)		
SIMULATOR VAPOR (33.6°C)	0.018	11:21
X[1] = 0.0188 (-0.0028) (0.0006)		
SIMULATOR VAPOR (33.6°C)	0.019	11:22
X[1] = 0.0198 (0.0018) (0.0009)		
SIMULATOR VAPOR (33.6°C)	0.018	11:23
X[1] = 0.0189 (0.0009) (0.0002)		
BLANK TEST	0.000	11:24

filters out
hand calculated averages

Avg = .0186
Std dev = .0005



ACCURACY AND PRECISION TEST

STATE OF VERMONT

DataMaster DMT: 103406

Date: 11/06/2007
Time: 12:32:28

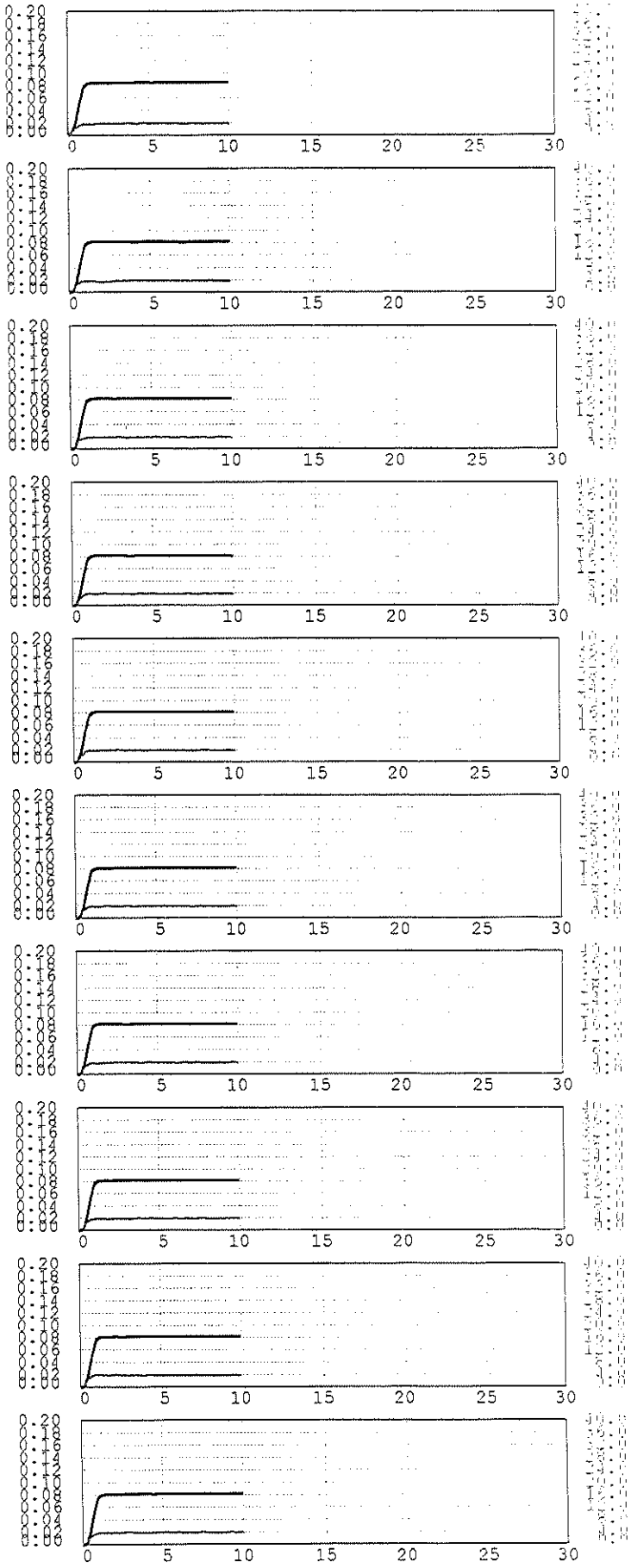
SUPERVISOR NAME: D M R

SOLUTION LOT #: 07-09-080
SOLUTION CONCENTRATION: 0.082

BLANK TEST	0.000	12:33
INTERNAL STANDARD	PASSED	12:33
Xq = 0.1324 (2.98%)		
SIMULATOR VAPOR	INTERFERENCE	12:33
X[1] = 0.0851 (0.0040) (0.0038)		
SIMULATOR VAPOR (33.8°C)	0.081	12:35
X[1] = 0.0810 (-0.0009) (0.0015)		
SIMULATOR VAPOR (33.8°C)	0.081	12:36
X[1] = 0.0818 (-0.0006) (0.0008)		
SIMULATOR VAPOR (33.8°C)	0.081	12:38
X[1] = 0.0814 (-0.0006) (0.0007)		
SIMULATOR VAPOR (33.8°C)	0.081	12:39
X[1] = 0.0815 (-0.0008) (0.0014)		
SIMULATOR VAPOR (33.8°C)	0.081	12:41
X[1] = 0.0815 (0.0026) (0.0012)		
SIMULATOR VAPOR (33.8°C)	0.081	12:42
X[1] = 0.0816 (-0.0006) (0.0009)		
SIMULATOR VAPOR (33.8°C)	0.081	12:43
X[1] = 0.0818 (0.0024) (0.0011)		
SIMULATOR VAPOR (33.8°C)	0.081	12:45
X[1] = 0.0814 (0.0021) (0.0009)		
SIMULATOR VAPOR (33.8°C)	0.081	12:46
X[1] = 0.0811 (-0.0011) (0.0011)		
BLANK TEST	0.000	12:47

2nd filter out on 1st rep DMR 11/6/07

Avg = .0814
Std dev = .0012



11/06/2007 12:47

DUI Subject Test

STATE OF VERMONT

DataMaster DMT: 103406

Installation Date:

Date: 10/29/2007
Time: 14:00:01

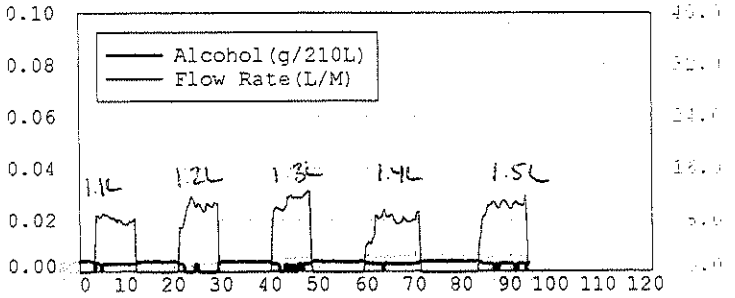
Subject Name: VOLUME TEST

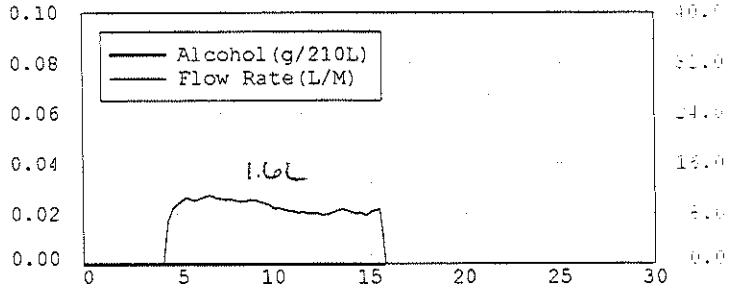
Test Operator Name: H X B
Comment:

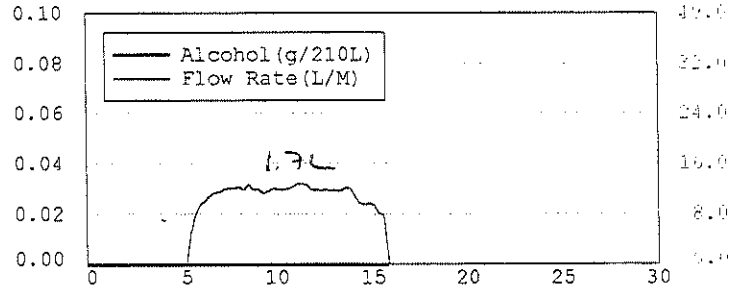
Obs. Period Start: 15:05

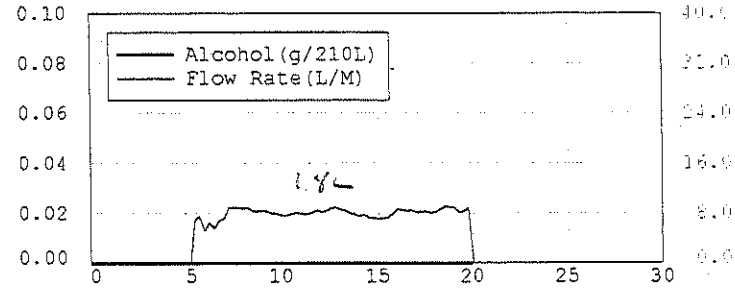
BLANK TEST	0.000	14:00
INTERNAL STANDARD	PASSED	14:01
SUBJECT SAMPLE (Vol=1.6L)	0.004	14:02
BLANK TEST	0.000	14:03
SUBJECT SAMPLE (Vol=1.7L)	0.000	14:04
BLANK TEST	0.000	14:05
SUBJECT SAMPLE (Vol=1.8L)	0.000	14:05
BLANK TEST	0.000	14:06
SUBJECT SAMPLE (Vol=1.9L)	0.000	14:06
BLANK TEST	0.000	14:07
SUBJECT SAMPLE (Vol=2.0L)	0.000	14:07
BLANK TEST	0.000	14:08
SUBJECT SAMPLE (Vol=2.1L)	0.000	14:08

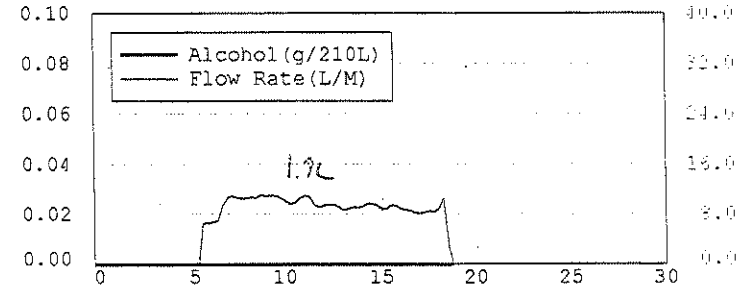
Radio frequency caused apparent alcohol. RFI detection not set-up ∴ did not cause error. 11/29/07

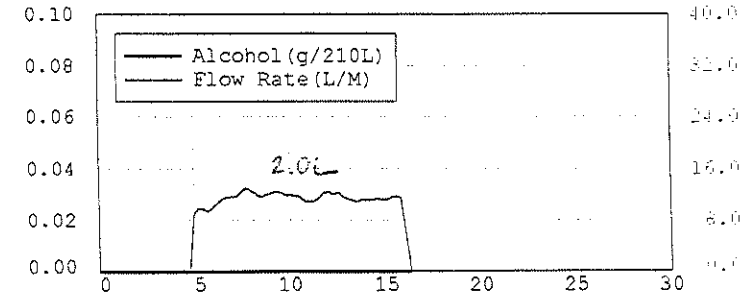












DUI Subject Test

STATE OF VERMONT

DataMaster DMT: 103406

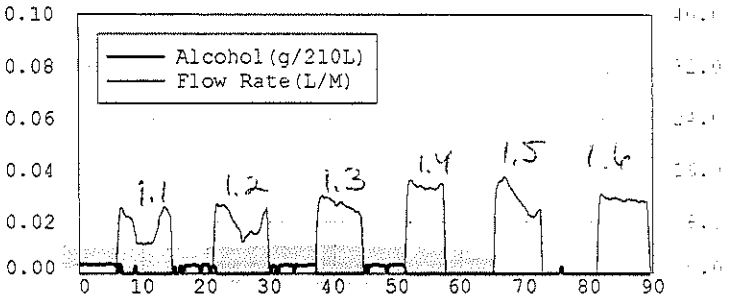
Installation Date:

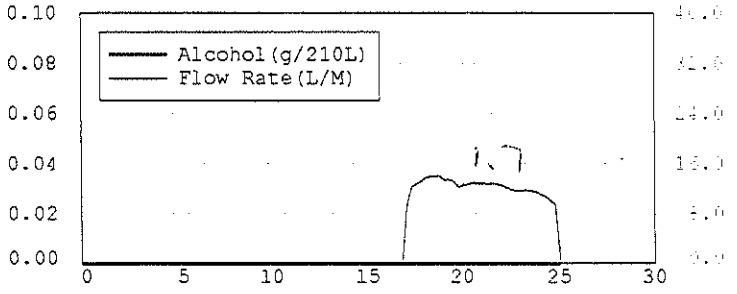
Date: 11/06/2007
Time: 16:09:57

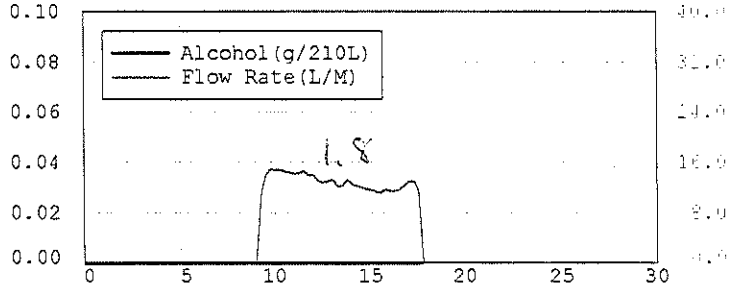
Subject Name: D M R

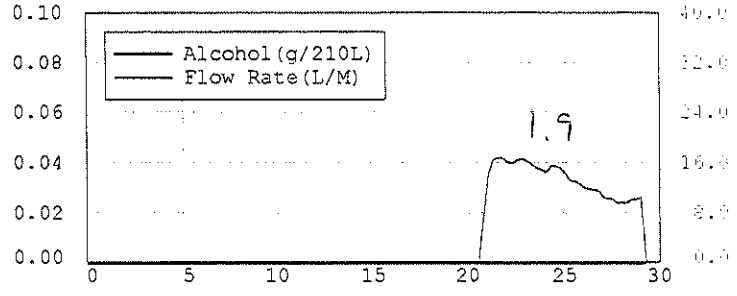
Test Operator Name: D M R
Comment: BREATH VOLUME TESTING

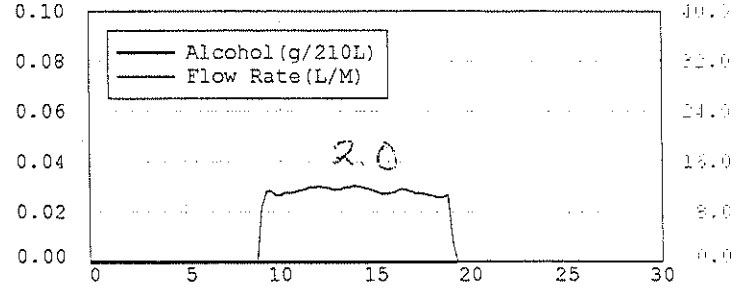
BLANK TEST	0.000	16:10
INTERNAL STANDARD	PASSED	16:10
Xq = 0.1319 (2.63%)		
SUBJECT SAMPLE (Vol=1.5L)	0.000	16:12
X[1] = 0.0028 (0.0033) (0.0013)		
BLANK TEST	0.000	16:13
SUBJECT SAMPLE (Vol=1.6L)	0.000	16:14
X[1] = 0.0001 (0.0001) (-0.0001)		
BLANK TEST	0.000	16:15
SUBJECT SAMPLE (Vol=1.8L)	0.000	16:15
X[1] = 0.0000 (0.0000) (-0.0001)		
BLANK TEST	0.000	16:16
SUBJECT SAMPLE (Vol=1.8L)	0.000	16:16
X[1] = 0.0000 (0.0000) (0.0000)		
BLANK TEST	0.000	16:17
SUBJECT SAMPLE (Vol=1.8L)	0.000	16:17
X[1] = 0.0000 (0.0000) (0.0000)		
BLANK TEST	0.000	16:18
SUBJECT SAMPLE (Vol=1.5L)	0.000	16:19
X[1] = 0.0000 (0.0000) (-0.0004)		

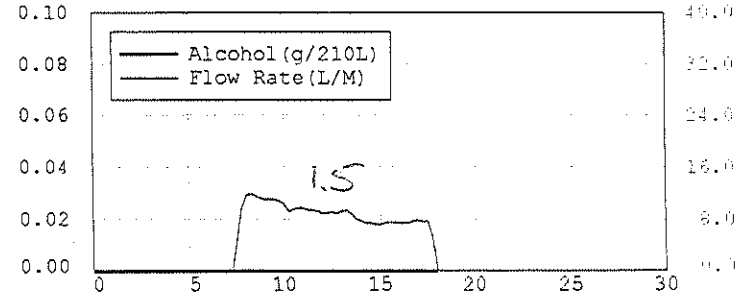












ACCURACY AND PRECISION TEST

STATE OF VERMONT

DataMaster DMT: 103006

Date: 11/07/2007
Time: 11:13:56

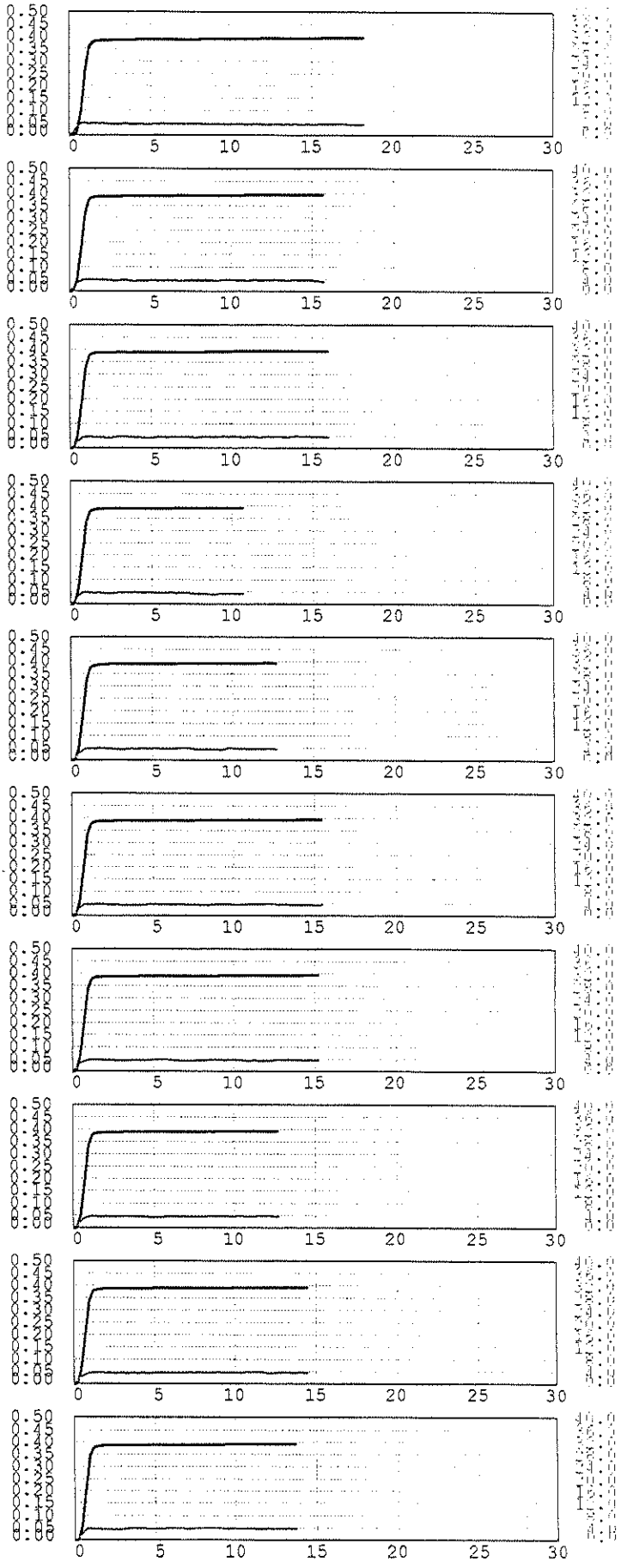
SUPERVISOR NAME: S E H

SOLUTION LOT #: 07-12-400
SOLUTION CONCENTRATION: 0.397

BLANK TEST		0.000	11:14
INTERNAL STANDARD		PASSED	11:14
Xq = 0.1550 (0.40%)			
SIMULATOR VAPOR (34.0°C)		0.391	11:15
X[1] = 0.3915	(0.0103)	(-0.0003)	
SIMULATOR VAPOR (33.9°C)		0.390	11:16
X[1] = 0.3909	(0.0089)	(-0.0018)	
SIMULATOR VAPOR (33.9°C)		0.392	11:18
X[1] = 0.3925	(0.0102)	(-0.0021)	
SIMULATOR VAPOR (34.0°C)		0.389	11:19
X[1] = 0.3897	(0.0090)	(-0.0027)	
SIMULATOR VAPOR		INTERFERENCE	11:20
X[1] = 0.3914	(0.0077)	(0.1760)	
SIMULATOR VAPOR (34.0°C)		0.391	11:21
X[1] = 0.3910	(0.0089)	(-0.0028)	
SIMULATOR VAPOR (34.0°C)		0.390	11:22
X[1] = 0.3906	(0.0087)	(-0.0030)	
SIMULATOR VAPOR (34.0°C)		0.389	11:23
X[1] = 0.3898	(0.0092)	(-0.0036)	
SIMULATOR VAPOR (34.0°C)		0.389	11:25
X[1] = 0.3899	(0.0082)	(-0.0033)	
SIMULATOR VAPOR		INTERFERENCE	11:26
X[1] = 0.3898	(0.0088)	(0.1753)	
BLANK TEST		0.000	11:26

Avg = .3901
Std dev = .0011
11/7/07 dss

* 2nd filter out on 2 reps dss 11/7



DUI Subject Test

STATE OF VERMONT

DataMaster DMT: 102806

Installation Date:

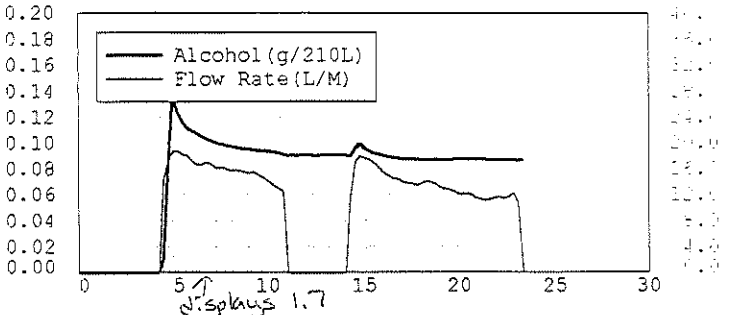
Date: 11/06/2007
Time: 17:06:02

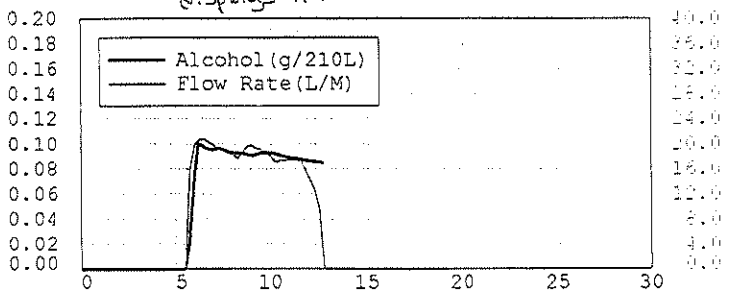
Subject Name: D M R

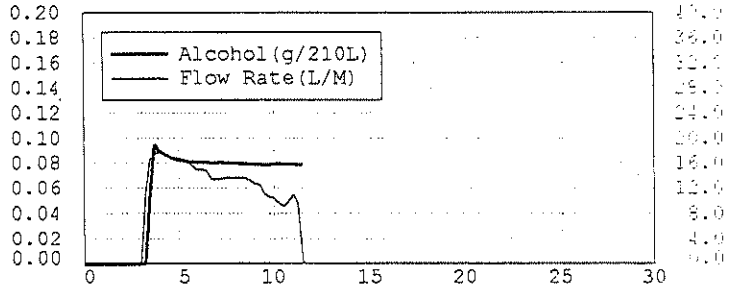
Test Operator Name: D M R
Comment: MOUTH ALCOHOL TESTING

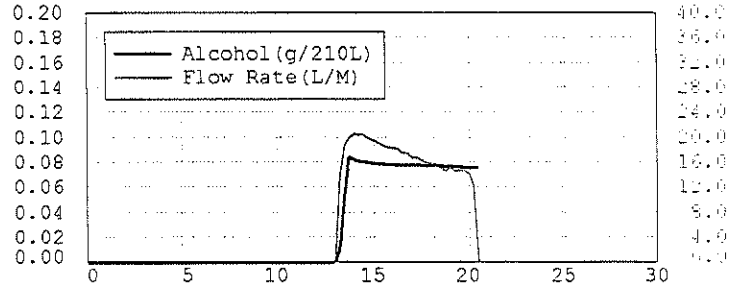
BLANK TEST	0.000	17:06
INTERNAL STANDARD	PASSED	17:07
Xq = 0.1077 (0.088)		
SUBJECT SAMPLE (Vol=2.0L)	INVALID	17:07
X[1] = 0.0000 (0.0000) (0.0000)		
BLANK TEST	0.000	17:08
SUBJECT SAMPLE (Vol=2.0L)	INVALID	17:08
X[1] = 0.0000 (0.0000) (0.0000)		
BLANK TEST	0.000	17:09
SUBJECT SAMPLE (Vol=1.8L)	INVALID	17:10
X[1] = 0.0000 (0.0000) (0.0000)		
BLANK TEST	0.000	17:10
SUBJECT SAMPLE (Vol=2.0L)	INVALID	17:11
X[1] = 0.0000 (0.0000) (0.0000)		
BLANK TEST	0.000	17:11
SUBJECT SAMPLE (Vol=1.8L)	INVALID	17:12
X[1] = 0.0000 (0.0000) (0.0000)		
BLANK TEST	0.000	17:12
SUBJECT SAMPLE (Vol=1.8L)	INVALID	17:13
X[1] = 0.0000 (0.0000) (0.0000)		

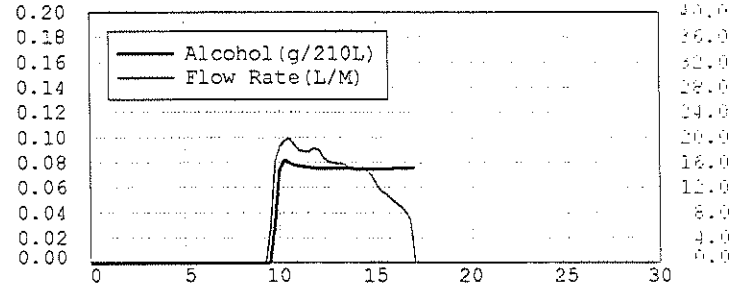
11/06/2007 17:19

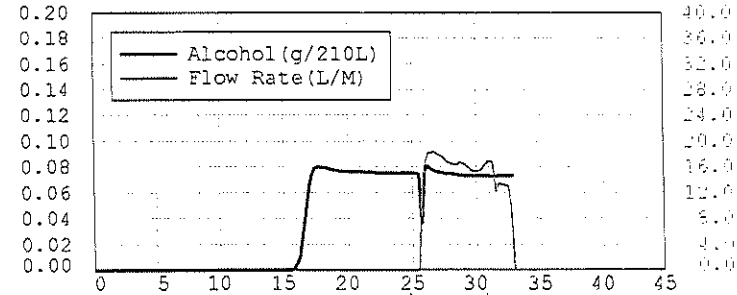












tubing kinked, volume not registering although alcohol reads subject unkinked tubing.

id@npas.com
Phone 419+526-6727 Fax 419+526-9446

Bolduc, Amanda

From: Bolduc, Amanda
Sent: Tuesday, October 30, 2007 1:28 PM
To: 'Dave Radomski'
Cc: Drawbaugh, Bob; Harnois, Steven; Richardson, Darcy
Subject: RE: DMT's

Are you certain that all 5 instrument have the SAME software revision in them? We are finding that the DMT's we have now all have different versions of the software in them and each has it's own unique....quirks (?) I have been waiting for the latest update from Scott before I worry too much about the software, but it would be nice on the next batch to have them all the same. Thanks A

-----Original Message-----
From: Dave Radomski [mailto:dmr@npas.com]
Sent: Tuesday, October 30, 2007 12:59 PM
To: Bolduc, Amanda
Subject: DMT's

Hi Amanda,

I've just been informed that the next 5 DMT's are through test and QC and will be forwarded to shipping. The software in these units has been "cleaned up". If you have any questions as to what that specifically means, you may contact Scott or Chris.

Dave

Bolduc, Amanda

From: Bolduc, Amanda
Sent: Tuesday, October 30, 2007 12:51 PM
To: Drawbaugh, Bob; Richardson, Darcy
Subject: FW: Instruments

I think he means 5, I have emailed him to double check
A

-----Original Message-----
From: John Fusco [mailto:jd@npas.com]
Sent: Tuesday, October 30, 2007 12:41 PM
To: Bolduc, Amanda
Subject: Instruments

The 4 units remaining of the first are being shipped today and tomorrow.

JF

Bolduc, Amanda

From: Bolduc, Amanda
Sent: Tuesday, October 30, 2007 10:40 AM
To: 'Dave Radomski'
Subject: RE: 103406

We prefer the hard kb. It's easier to type on.
A

-----Original Message-----
From: Dave Radomski [mailto:dmr@npas.com]
Sent: Tuesday, October 30, 2007 10:34 AM
To: Bolduc, Amanda
Subject: Re: 103406

Amanda,

What is your preference regarding the keyboard? The flat, flexible spill-proof or the mini-Cherry hard KB?

Dave

On Oct 29, 2007, at 3:11 PM, Bolduc, Amanda wrote:

I got the sticker. Thanks!

ABolduc
Amanda Bolduc
Vermont Department of Health Lab
195 Colchester Ave - PO Box 1125
Burlington VT 05402-1125
(802) 863-7413
(802) 863-7632 (fax)

Bolduc, Amanda

From: Dave Radomski [dmr@npas.com]
Sent: Tuesday, October 30, 2007 12:59 PM
To: Bolduc, Amanda
Subject: DMT's

Hi Amanda,

I've just been informed that the next 5 DMT's are through test and QC and will be forwarded to shipping. The software in these units has been "cleaned up". If you have any questions as to what that specifically means, you may contact Scott or Chris.

Dave

Drawbaugh, Bob

From: Dave Radomski [dmr@npas.com]
Sent: Tuesday, October 30, 2007 1:48 PM
To: Bolduc, Amanda
Cc: Drawbaugh, Bob; Harnois, Steven; Richardson, Darcy; eng@npas.com
Subject: Re: DMT's

That's my understanding, Amanda.

Most all of the software testing and updating was handled between Scott and Chris. I'm copying Scott on this reply so that he's aware of your concerns.

Dave

On Oct 30, 2007, at 1:27 PM, Bolduc, Amanda wrote:

> Are you certain that all 5 instrument have the SAME software
> revision in
> them? We are finding that the DMT's we have now all have different
> versions of the software in them and each has it's own
> unique....quirks
> (?) I have been waiting for the latest update from Scott before I
> worry
> too much about the software, but it would be nice on the next batch to
> have them all the same. Thanks
> A
>
> -----Original Message-----
> From: Dave Radomski [mailto:dmr@npas.com]
> Sent: Tuesday, October 30, 2007 12:59 PM
> To: Bolduc, Amanda
> Subject: DMT's
>
>
> Hi Amanda,
>
> I've just been informed that the next 5 DMT's are through test and QC
> and will be forwarded to shipping. The software in these units has
> been "cleaned up". If you have any questions as to what that
> specifically means, you may contact Scott or Chris.
>
> Dave
>
>

Bolduc, Amanda

From: Dave Radomski [dmr@npas.com]
Sent: Tuesday, October 30, 2007 10:34 AM
To: Bolduc, Amanda
Subject: Re: 103406

Amanda,

What is your preference regarding the keyboard? The flat, flexible spill-proof or the mini-Cherry hard KB?

Dave

On Oct 29, 2007, at 3:11 PM, Bolduc, Amanda wrote:

> I got the sticker. Thanks!
>
> ABolduc
> ***Amanda Bolduc***
> ***Vermont Department of Health Lab***
> ***195 Colchester Ave - PO Box 1125***
> ***Burlington VT 05402-1125***
> ***(802) 863-7413***
> ***(802) 863-7632 (fax)***

Bolduc, Amanda

From: Scott Marhefka [eng@npas.com]
Sent: Tuesday, October 23, 2007 9:50 AM
To: Bolduc, Amanda
Subject: Re: DMT order

Amanda,

I'd like to clarify one of my previous questions. The end of the Sample Acceptance Test asks if it passed. What happens if you say "NO"? Is it possible to answer "NO" to that question and still have the Installation or whatever "Pass"?

--

Scott Marhefka
National Patent Analytical Systems
2090 Harrington Memorial Road
Mansfield, OH 44903

email: eng@npas.com
phone: (419) 526-6727

Bolduc, Amanda

From: Scott Marhefka [eng@npas.com]
Sent: Tuesday, October 23, 2007 9:20 AM
To: Bolduc, Amanda
Subject: Re: DMT order

Hello Amanda,

I was going over my to do list and found an item that I need clarified. You recently called and asked that the high level password would bypass a timer. I did not write down which timer. The Subject Timer already changes to 15 seconds at the tech level. I would prefer the tech level reduce the needed time rather than eliminate the timer at all. This helps keep the flow obvious. Please let me know which timers should be reduced. The most painful one is obviously the solution change timer but I thought you weren't allowed to change that one per Bob.

My second question pertains to the Installation, APM and RPC. Once part of the protocol does NOT "PASS" should it continue with the rest of the protocol?

Additionally, does it still need signed?

Chris and I are working to get you new software for Friday. I will keep you updated on the progress. The refactoring is taking longer than anticipated but it is starting to come together. It will greatly simplify things from this point forward.

On a side note, my kids have started the countdown to Christmas. It sure is going to be a fun one for you this year!

--

Scott Marhefka
National Patent Analytical Systems
2090 Harrington Memorial Road
Mansfield, OH 44903

email: eng@npas.com
phone: (419) 526-6727

Bolduc, Amanda

From: Richardson, Darcy
Sent: Friday, October 19, 2007 3:32 PM
To: Boucher, Hillary; Bolduc, Amanda; Harnois, Steven; Drawbaugh, Bob
Subject: DMT Testing

Hello all,

I noticed while doing my linearity testing today that people have not been adding the B on to the printouts from 103306B. It is very easy to confuse printouts when they have the same serial number printed on them and we need to be sure that what we are saying was generated from one instrument is from that instrument (as opposed to the other 103306). Please make sure to correct your printouts until we get the new serial number put into the software. Amanda, will this be on the next revision? I also had the 0.02 std fail on all of the DMT's. I was recovering from between 81% and 86% depending on the instrument. I know that Amanda and Bob are going to discuss this on Monday but if we see anything out of range we really should be documenting it. Also, just as a matter of organization. It would be good to file our linearities in order (diagnostic, 0.02, 0.08, 0.16 and 0.40). This will make it a little more user friendly to look at as well as for Amanda when she enters the data into excel.

This is one of the rare times where we know that the data we generate will be brought into court so we should be extra careful.

Darcy Richardson
Alcohol and Toxicology Program
Vermont Department of Health
195 Colchester Ave, P.O. Box 1125
Burlington, Vermont 05402-1125
(802) 863-7412
Fax: (802) 863-7632
richar@vdh.state.vt.us

Bolduc, Amanda

From: Drawbaugh, Bob
Sent: Tuesday, October 09, 2007 12:58 PM
To: Bolduc, Amanda; Harnois, Steven; Richardson, Darcy
Subject: FW: DMT order

Amanda - Let them know an approximate date for the next 5. We may want to anticipate some overlap in testing. Thanks
-----Original Message-----
From: John Fusco [mailto:jd@npas.com]
Sent: Tuesday, October 09, 2007 12:53 PM
To: Drawbaugh, Bob
Subject: Re: DMT order

Further on the instruments. There are an additional 5 units ready for software testing. If you can give me a tentative time when you think you might want these, I'll see that they are on the schedule. There are 10 more that are sidelined in production that will need to be completed. I'm going to assume that these will be needed at some point over the next couple of months so I will have them completed to the point that they are also ready for testing. This should take about a week to 10 days. I would suggest that at some point we get the one you have and bring it back for a complete check prior to placing it into service.

Two of the 4 went to shipping about 30 Min. ago. They are going next day air. The other two will go to shipping this PM but may not make it out the door today.

On Oct 9, 2007, at 12:16 PM, Drawbaugh, Bob wrote:

> John - thank you very much for the reply. We will keep it on file to answer any challenges we might get on the issue.
>
> the racing boat is readied for hauling but will have to do some work on it before winter closes in. We finished the season last Sat. in winds ranging from 5 to 20 mph [variety is the spice..] and pouring rain. the up side was that we did well in that 15 mi. race. OK, I'm back to work
>
> -----Original Message-----
> **From:** John Fusco [mailto:jd@npas.com]
> **Sent:** Tuesday, October 09, 2007 11:31 AM
> **To:** Drawbaugh, Bob
> **Cc:** Radomski Dave; Scott Marhefka
> **Subject:** Re: DMT order
>
> Bob:
>
> Dave was notified on the 26th that 4 additional instruments were needed. These were on the shelf, but ready to go is very relative. They were ready from a hardware and electronic testing standpoint, but not from a software testing standpoint. Scott spent a considerable amount of time last week being certain that all the current and most recent software work was done and passed it to service late last week. Essentially, because of the time that had elapsed since the last shipment, he did a

complete review again before he gave it to service for installation in the the new instruments. He worked on it last week, working it in with some visitors which took some time away. Service began testing protocols at that time and will finish today. This testing takes about 1 day for each instrument. In this case, I have two techs on the four instruments for 2 days since they can run them concurrently.

This is our normal procedure since software is never loaded until we are as certain as we can be that it is current. Essentially these four were treated as new instruments again from that perspective, and each time we ship, they are each run through the same procedures. This will be shortened somewhat when the software is considered final, but until then, they will go through the same routine, and if there are changes, the testing will be more extensive again.

I'm not sure there is any good way around this that will still insure that we are doing the best that we can. Your requirements, particularly from a software perspective have been very extensive and in many ways have allowed us to do some unique development work that I think we can both be proud of and hopefully, we can use elsewhere. The price of this is time and as long as we are in the evaluation phase, it will continue to be an important factor. Hopefully, all will go well with these four, but if there are issues that your people find, we will address them and test it all again.

Now get your boat in dry dock and go back to work.

JF

On Oct 9, 2007, at 10:20 AM, Drawbaugh, Bob wrote:

> John, Just a note to let you know that it appears that either there is a lack of communication within NPAS or incorrect information coming to us regarding our DMT order. We recently requested an additional 4 instruments to be sent to us from the batch that , we have been told, is on the shelf to supply our order. The instruments were not shipped as had been promised which has held up our testing schedule. The reason for the delay is unclear to us as one entity has cited another as the reason while that person claims no responsibility for that decision. The delay in itself is not a particularly big issue if they are shipped as per reply to our inquiry yesterday, however, in review of the total experience there are concerns regarding NPAS ability to provide the products in a timely manner and which perform as specified in the purchase performance specifications. What is concern for all of us in the field as users is the apparent lack of abiltiy of the industry manufacturers to provide equipment meeting the perceived or specified need. You may want to articulate this concern to the next meeting of the manufacturers. I hope that we can move forward together and get resounding approval and appreciation of the new DataMaster model in the very near future.
>
> Cordially,
>
> Bob
>
> **********
>
> Robert Drawbaugh, Chief
> Toxicology Program

VT Department of Health Laboratory
195 Colchester Ave.
Burlington, VT 05402-1125
(802) 863-7622

John Fusco
National Patent Analytical Systems, Inc.
jd@npas.com
Phone 419+526-6727 Fax 419+526-9446

John Fusco
National Patent Analytical Systems, Inc.
jd@npas.com
Phone 419+526-6727 Fax 419+526-9446

Bolduc, Amanda

From: Bolduc, Amanda
Sent: Tuesday, September 25, 2007 7:37 AM
To: 'Dave Radomski'
Subject: RE: Slope Detector

Yes, that is the plot we were looking at. If I recall correctly, Scott was mentioning changing the negative slope detector to be more sensitive when looking at the two point average difference. I think that is what we were talking about. It's been a long time. This is the last thing we talked about before my leave and I am not sure what we ever determined about this, or if we decided anything. What are your thoughts about this plot? We thought it looked a little funny, but it wasn't called an invalid even though there is a very obvious negative slope. I realize it wasn't negative 'enough' (for lack fo a better term) to call it invalid. I think that is why we were talking about the way the negative slope is determined to see if there was any room for improvement. Thoughts?? A

-----Original Message-----
From: Dave Radomski [mailto:dmr@npas.com]
Sent: Monday, September 24, 2007 4:21 PM
To: Bolduc, Amanda
Subject: Slope Detector

Hi Amanda,

Scott asked that I get in touch with you regarding the plots you were asking about. I recall looking them over with him months ago. Refresh my memory as to your primary concern in this matter. I'm looking at the data from one of the plots that we pulled from a test on 6/13/07 at 09:49 where the final result produced was 0.0836. Is this the type of plot you had concerns about?

Dave

received phone call from Scott 11.30am 9/25/07

Drawbaugh, Bob

From: John Fusco [jd@npas.com]
Sent: Monday, September 10, 2007 1:07 PM
To: Drawbaugh, Bob
Subject: Re: RE: RE:

Besides, those defense guys know better than to mess with us.

JF

On Sep 10, 2007, at 12:20 PM, Drawbaugh, Bob wrote:

You'll have time to learn American Sign Language. Let me know how those classes are going.

-----Original Message-----
From: John Fusco [mailto:jd@npas.com]
Sent: Monday, September 10, 2007 12:07 PM
To: Drawbaugh, Bob
Subject: Re: RE:

I've lost my voice, so testimony is out of the question.

JF

On Sep 10, 2007, at 9:29 AM, Drawbaugh, Bob wrote:

Thank you John. This will be available in our files for the legal community's review. We, of course, are anticipating a significant challenge re: the accuracy and reliability of the DMT results. Fortunately we are building a large data base of information that will answer many of the challenges. We expect that sometime within 2008 or the first half of 2009 your [NPAS's] testimony will be needed. Thanks to all at NPAS for your continued support for and development of reliable dui testing products.

Bob

****

Robert Drawbaugh, Chief
Toxicology Program
VT Department of Health Laboratory
195 Colchester Ave.
Burlington, VT 05402-1125
(802) 863-7622
fax (802) 863-7632
bdrawba@vdh.state.vt.us

-----Original Message-----
From: John Fusco [mailto:jd@npas.com]
Sent: Friday, September 07, 2007 3:27 PM
To: Drawbaugh, Bob
Subject:

John Fusco
National Patent Analytical Systems, Inc.
jd@npas.com
Phone 419+526-6727 Fax 419+526-9446

John Fusco
National Patent Analytical Systems, Inc.
jd@npas.com
Phone 419+526-6727 Fax 419+526-9446

Drawbaugh, Bob

From: John Fusco [jd@npas.com]
Sent: Monday, September 10, 2007 12:07 PM
To: Drawbaugh, Bob
Subject: Re: RE:

I've lost my voice, so testimony is out of the question.

JF

On Sep 10, 2007, at 9:29 AM, Drawbaugh, Bob wrote:

> Thank you John. This will be available in our files for the legal community's review. We, of course, are anticipating a significant challenge re: the accuracy and reliability of the DMT results. Fortunately we are building a large data base of information that will answer many of the challenges. We expect that sometime within 2008 or the first half of 2009 your [NPAS's] testimony will be needed. Thanks to all at NPAS for your continued support for and development of reliable dui testing products.
>
> Bob
>
> **********
> Robert Drawbaugh, Chief
> Toxicology Program
> VT Department of Health Laboratory
> 195 Colchester Ave.
> Burlington, VT 05402-1125
> (802) 863-7622
> fax (802) 863-7632
> bdrawba@vdh.state.vt.us
>
> -----Original Message-----
> **From:** John Fusco [mailto:jd@npas.com]
> **Sent:** Friday, September 07, 2007 3:27 PM
> **To:** Drawbaugh, Bob
> **Subject:**

John Fusco
National Patent Analytical Systems, Inc.
id@npas.com
Phone 419+526-6727 Fax 419+526-9446

Drawbaugh, Bob

From: Dave Radomski [dmr@npas.com]
Sent: Tuesday, November 03, 2009 6:49 PM
To: Drawbaugh, Bob
Cc: Glen Campbell
Subject: Re: SPAM-LOW: RE: November 5

Hi Bob,

Arrived in Montreal today and will be here through Wed PM. We're still planning on a visit with you Thursday AM if you're available. Is 10 AM OK and then maybe lunch before we fly back?

Dave

On Oct 15, 2009, at 10:32 AM, Drawbaugh, Bob wrote:

> We'll be here since it will too late for either golf or sailing - poor
> timing on your part! We have had the snow flurries off and on over
> the
> past few days and the mountains andhigher elevations have had inches
> of
> snow on the ground. If you reeeeaaaaaly wanted to go for a frostbite
> sail I could launch the little boat but I'm not sure there would be
> room
> for all of us when we bundle up the way we would have to- too bad.
> Looking forward to meeting Glen and, of course, to seeing you again.
> Hope all is well with you.
>
> Bob
>
> -----Original Message-----
> From: Dave Radomski [mailto:dmr@npas.com]
> Sent: Thursday, October 15, 2009 10:13 AM
> To: Drawbaugh, Bob
> Cc: Glen Campbell
> Subject: November 5
>
>
> Hi Bob,
>
> I will be traveling through Burlington along with our new director of
> sales and marketing, Glen Campbell on our way up to Quebec for a dog
> and pony show on the DMT for the QPP.
>
> We will be in Burlington the morning of Nov. 5 and would like to stop
> by to introduce Glen and say Hi and address anything you may want.
>
> The time limitation will prevent sneaking out for even nine holes and
> the potential for snow by then would further hamper the golfing
> effort. I'm guessing the boat will be put away for the winter by then
> as well.
>
> Let me know if you might be available.
>
> Thanks,
>
> Dave
>
>
>
>
> This email message may contain privileged and/or confidential

> information. If you are not the intended recipient(s), you are
> hereby notified that any dissemination, distribution, or copying of
> this email message is strictly prohibited. If you have received this
> message in error, please immediately notify the sender and delete
> this email message from your computer.

Drawbaugh, Bob

From: Dave Radomski [dmr@npas.com]
Sent: Thursday, October 15, 2009 10:13 AM
To: Drawbaugh, Bob
Cc: Glen Campbell
Subject: November 5

Hi Bob,

I will be traveling through Burlington along with our new director of sales and marketing, Glen Campbell on our way up to Quebec for a dog and pony show on the DMT for the QPP.

We will be in Burlington the morning of Nov. 5 and would like to stop by to introduce Glen and say Hi and address anything you may want.

The time limitation will prevent sneaking out for even nine holes and the potential for snow by then would further hamper the golfing effort. I'm guessing the boat will be put away for the winter by then as well.

Let me know if you might be available.

Thanks,

Dave

National Patent
Analytical Systems, Inc.

NPAS Customer Memo

September 2, 2007

It seems that I'm spending a bunch of time lately responding to issues being created by our competition's court problems, the most recent being the software report in the New Jersey proceedings. If you do not have this report, there are plenty of copies circulating, so look around or let me know. You can also go to http://missouridwiblog.com/?p=28 for a summary.

I have passed the New Jersey report to our engineering staff and asked them to review it with an eye toward any possible implications there might be that would relate to our code. Initially, they have indicated that there are none. I expect that within the next several weeks, this review will be complete.

What ultimately happens in New Jersey may be determined by how relevant the court finds the reported software issues to be. However, I think it is appropriate to keep our customers abreast of our position relative to our software and of our internal procedures followed for software development.

First, the Standard DataMaster code used on the "K" and "cdm" is, by any stretch of the imagination, a very mature code and has been examined by the defense on at least 4 occasions of which I'm aware of. None of the examinations produced any significant issues. Because of this, and because of the fact that these instruments are nearing the end of their production life (support will continue indefinitely) there is little point in doing anything further in the way of code changes. We will continue to release the code under a non disclosure agreement or a court protective order, although lately these requests have been non existent. The absence of these requests, I believe, are due to the fact that the defense community knows it is available and that it has been examined in the past.

Obviously, the DMT code may be subject to these same requests as more instruments continue to be placed in the field. Our position is that it is better to have the code available than to have our customers subjected to the kind of problems that are going on elsewhere. Further, since this kind of code is primarly hardware dependent, there are few issues of trade secrets and therefore copyrite issues are virtually moot. As long as the code itself does not fall into our competitor's hands, I am not concerned. Our policy regarding release of the code will be the same as it is for the Standard Code and we will provide testimony as required to support it in court if necessary.

I am uncertain as to what disclosure problems there might be with the Windows system as we cannot legally furnish this code. However, this is not the operating code for the DMT so it may not be terribly relevant.

National Patent operates under the MIL Std 790 quality assurance system and is not a subscriber to ISO. In most respects the MIL Std system is much more stringent than the ISO system but it does not cover software development. We therefore are updating our formalized software development procedures to our software quality assurance protocol using the most recent "best practices" guidelines. This will be done over the coming few months. Meantime, our development continues using these guidelines as we have in the past, although in a manner that is more procedure concious than before.

Compared to the original DataMaster code, the new DMT code - and it has been re-written - is structured significantly different, making it much more robust and much simpler to customize for different applications. It is this customization after the basic code is written that has been the source of problems in older codes. By modularizing the code in this fashion it is easier and safer to work with and the changes are much less intrusive on other areas of the code structure.

We are fortunate that we do have two software engineers that can cross check and test this work before it goes to our QA department for testing and then on to customers for user testing before it is placed into service. A third engineer is available on a consulting basis.

Additionally we are employing the use of a commercial software examination tool that will be very helpful in identifying areas of potential issues such as those found in New Jersey.

As we have done in the past, a testing procedure for the software is in place that replicates, as nearly as we can, actual usage conditions. By no means is this a total test because it is not possible to anticipate every condition. However, this procedure will remain flexible and will be continually updated as additional possible issues are identified. We will continue to rely on our customer's acceptance testing as the final authority for code approval.

We are fortunate that over the past 16 years we have had only a very few software issues that were discovered after field deployment. I am not aware of even one of these that were of a nature that would have created a problem during a subject test.

We will be reviewing this policy on our code development again in the coming months and will alter it as necessary to maintain a high degree of confidence and integrity.

John Fusco

Bolduc, Amanda

From: Bolduc, Amanda
Sent: Tuesday, September 18, 2007 1:15 PM
To: 'Scott Marhefka'
Subject: Where we were

vodka5.xls (24 KB)

This is the last email from before my leave. Did we ever reach a conclusion on this? Did you solve this "problem"?? A

-----Original Message-----
From: Scott Marhefka [mailto:eng@npas.com]
Sent: Wednesday, June 13, 2007 4:01 PM
To: Bolduc, Amanda
Subject: Emailing: vodka5.xls

--
Scott Marhefka
National Patent Analytical Systems
2090 Harrington Memorial Road
Mansfield, OH 44903

email: eng@npas.com
phone: (419) 526-6727

Bolduc, Amanda

From: Bolduc, Amanda
Sent: Tuesday, September 18, 2007 9:18 AM
To: 'Scott Marhefka'
Subject: DataMaster DMT Operating Protocol

DataMaster DMT Operating Proto...

MERRIAM-GRAVES
SPECIALIZED GASES & EQUIPMENT FOR ANY APPLICATION

6/13/07 .208 - .032 .176

Breath Requirements

- 1.5L air
- Near & Slope (Plateau) 1.5sec
- 1.5sec min
- No more than .001 ↑

↑ now says please blow 3c not plateau

- Open DMT Ld
- as blowing .08 through
- Pull ↑ locking pin on Gilterwheel
- put pressure on Gilterwheel to turn it a little <1°

(Now change if trend ↓ but not changing each sec by -.2)

- 3 (-2.) avg = Invalid
- on DM spl .180 .179 .178 .177 .176
  Condrop .001 → ø ≠ invalid

Memo From: John Fusco Date: August 23, 2007

To: All DataMaster Users

Subject: Recent Florida Court Opinion

The following is an email forwarded to me:

———— Forwarded message ————
From: **Tom Hudson** <mrrnr@oco.net>
Date: Aug 22, 2007 7:52 PM
Subject: [dwi-defenders] County Court in FL throws out Intoxilyzer on grounds OTHER than source code.
To: dwi-defenders@yahoogroups.com

A Leon County (Tallahassee) Judge yesterday granted a motion in limine(excluding Intoxilyzer results on the basis that the results can be(manipulated by the officers telling the subject to "keep blowing." ((I've been arguing this for years in front of juries, but never thought(of using it for a Motion in Limine. (Kicking myself...)((I can't get this thing to post pdf files, so here is the link to the (opinion on my website.((http://duisarasota.com/BriggsOpinion.pdf((Tom Hudson

The following is the news report from the Miami Herald:

"(AP): TALLAHASSEE, Fla. – Blood-alcohol breath-test results were thrown out in four DUI cases after a Leon County judge ruled Tuesday that results can vary depending on how long someone breathes into the device.

Attorney Lee Meadows, who is representing the four men arrested in 2006, said the ruling could have a big impact on others facing DUI charges.
"At this point, it will potentially stop the prosecution of every DUI case in Leon County that has a breath-test result," Meadows told the Tallahassee Democrat.
State Attorney Willie Meggs told the newspaper that the ruling likely will be appealed.
"We've got the newest and best technology out there to determine a person's blood-alcohol content," Meggs said. "It's been approved by FDLE and used all over the country."
Aiken's decision regarding the Intoxilyzer 8000 is similar to a ruling by Bay County circuit-court ruling, which said, "Rules that permit a test operator to have the subject blow into the machine as long as he, in his undirected discretion wishes ... is insufficient to create a scientifically reliable test."
Meadows said he planned to file motions seeking to adopt the ruling for 30-35 other clients he's representing."

The following is taken from our instrument operating manuals:

"In all instruments, the best procedure for the testing officer to use is simply to tell the subject to take a normal or moderate breath and to blow until he is told to stop. The officer waits until the person runs out of breath before telling them to stop. The subject will run out of breath and the instrument will cycle complete at the same time. This is exactly how it should happen. Instructing the subject to take a deep breath or to blow hard is not helpful."

My Comments:

At this point I am unaware of the exact testimony that may have been offered in the Florida case, nor am I aware of the instructions that the manufacturer suggests, if any, in the pertinent operating manual. Obviously, there must have been testimony that ongoing coaching was being offered by the test administrator. Although our operating manual does not suggest ongoing coaching during the exhalation portion of the test on the part of the operator in order to obtain a

sample I am not certain that the wording may or may not be open to interpretation in that manner. I would appreciate your comments and thoughts.

We are of the opinion that because of the manner in which the slope is treated in the DataMasters (all models) – specifically with regard to the use of the 500 hz. Chopper – that the potential for operator influence as might be caused by ongoing coaching is virtually non-existant except from the possible standpoint of establishing a minimum volume and avoiding a potential "refusal". Even if this type of coaching is done, in a correctly operating instrument, the effect will be insignificant.

During any given subject test, once the minimum volume has been established, the only criteria of significance is the slowing down of the rate of increase. If this is not met, there will be no acceptance of the sample. If this is met, the sample will be accepted when the flow drops below the minimum required for system activation. If it is met, it will be within a narrow range at the plateau that should be well within the range of duplicate test guidelines.

Drawbaugh, Bob

From: Scott Marhefka [eng@npas.com]
Sent: Monday, July 30, 2007 11:47 AM
To: Drawbaugh, Bob
Subject: Re: back from vacation

Bob,

I'm not trying to rush you. If you want to e-mail your notes, we can work on what you have so far.

--
Scott Marhefka
National Patent Analytical Systems
2090 Harrington Memorial Road
Mansfield, OH 44903

email: eng@npas.com
phone: (419) 526-6727

Drawbaugh, Bob

From: Scott Marhefka [eng@npas.com]
Sent: Monday, July 30, 2007 10:23 AM
To: Drawbaugh, Bob
Subject: back from vacation

Hello Bob,

I am now back from vacation and was wondering where you are in the evaluation of the software. Please give me an update at your convenience.

--
Scott Marhefka
National Patent Analytical Systems
2090 Harrington Memorial Road
Mansfield, OH 44903

email: eng@npas.com
phone: (419) 526-6727

Bolduc, Amanda

From: Bolduc, Amanda
Sent: Wednesday, June 13, 2007 2:47 PM
To: 'eng@npas.com'
Subject: Emailing: BR20070516091512, BR20070604134858, BR20070604135746, BR20070604140432, BR20070605135959, BR20070607123006, BR20070607130256, BR20070607131745, BR20070607132501, BR20070607133321, BR20070607134149, BR20070607135338

BR2007051609151 2.zip (4 KB)

BR2007060413485 8.zip (4 KB)

BR2007060413574 6.zip (4 KB)

BR2007060414043 2.zip (4 KB)

BR2007060513595 9.zip (6 KB)

BR2007060712300 6.zip (4 KB)

BR2007060713025 6.zip (5 KB)

BR2007060713174 5.zip (5 KB)

BR2007060713250 1.zip (5 KB)

BR2007060713332 1.zip (6 KB)

BR2007060713414 9.zip (5 KB)

BR2007060713533 8.zip (6 KB)

The message is ready to be sent with the following file or link attachments:

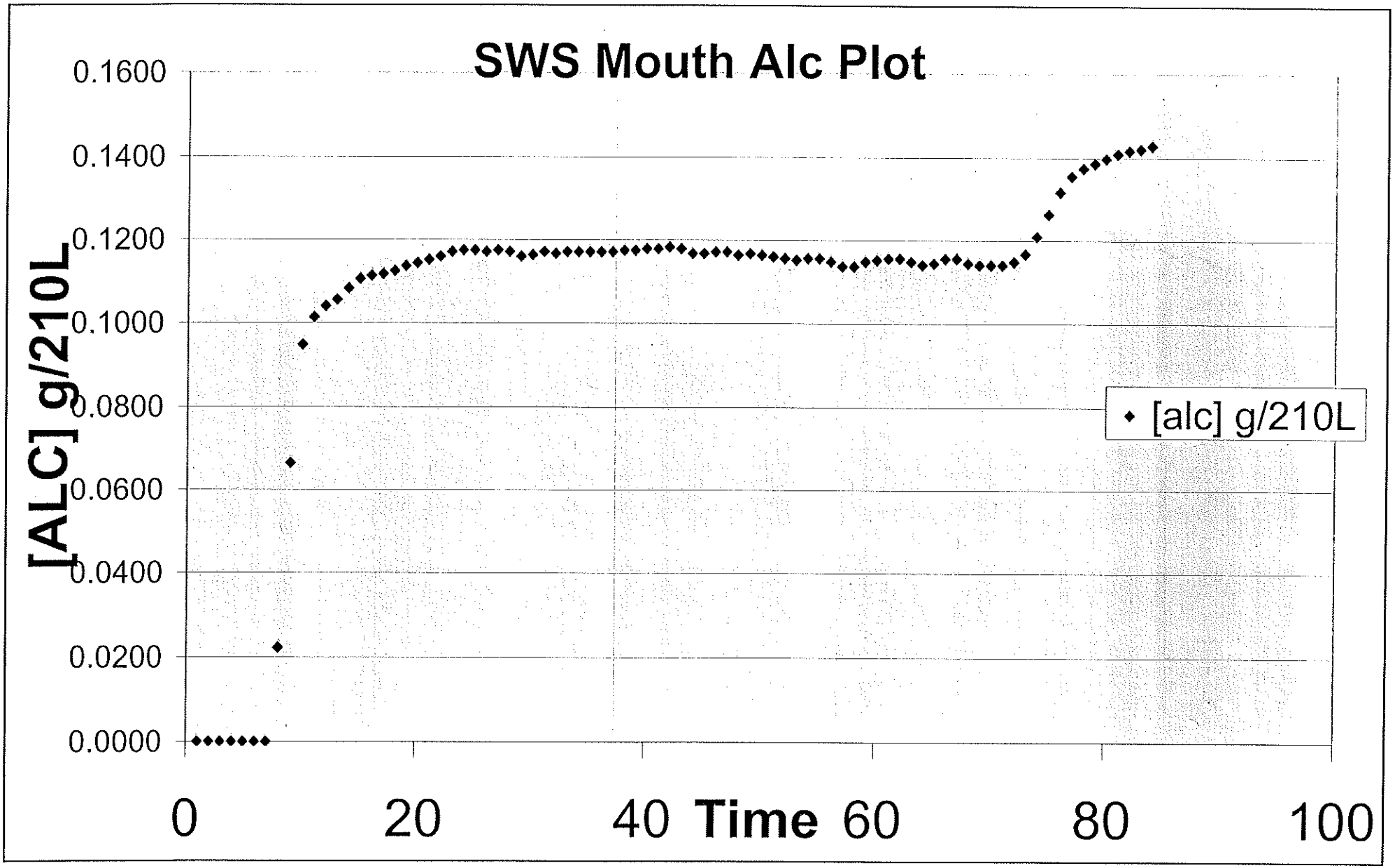
BR20070516091512
BR20070604134858
BR20070604135746
BR20070604140432
BR20070605135959
BR20070607123006
BR20070607130256
BR20070607131745
BR20070607132501
BR20070607133321
BR20070607134149
BR20070607135338

Note: To protect against computer viruses, e-mail programs may prevent sending or receiving certain types of file attachments. Check your e-mail security settings to determine how attachments are handled.

0,0
0,0
0,0
0,0
0,0
0,0
0,0
0,0
0,0
0,0
0,0
0,0
0,0
0,0
0,0
0,0
0,0
0,0
0,0
0,0
0,0
0,0
0,0
0,0
0,0
0,3687
34,4475
114,4550
199,4539
219,4865
207,5432
199,5590
196,6096
194,7783
194,10427
195,11529
198,12993
201,13726
203,14182
205,13999
206,14397
208,14939
209,15157
211,15551
212,15362
214,16157
215,16269
215,15425
215,14954
216,15551
216,15362
216,16077
217,16463
217,16934
217,16771
217,16109
217,15504
217,15440
218,15583

1/2605

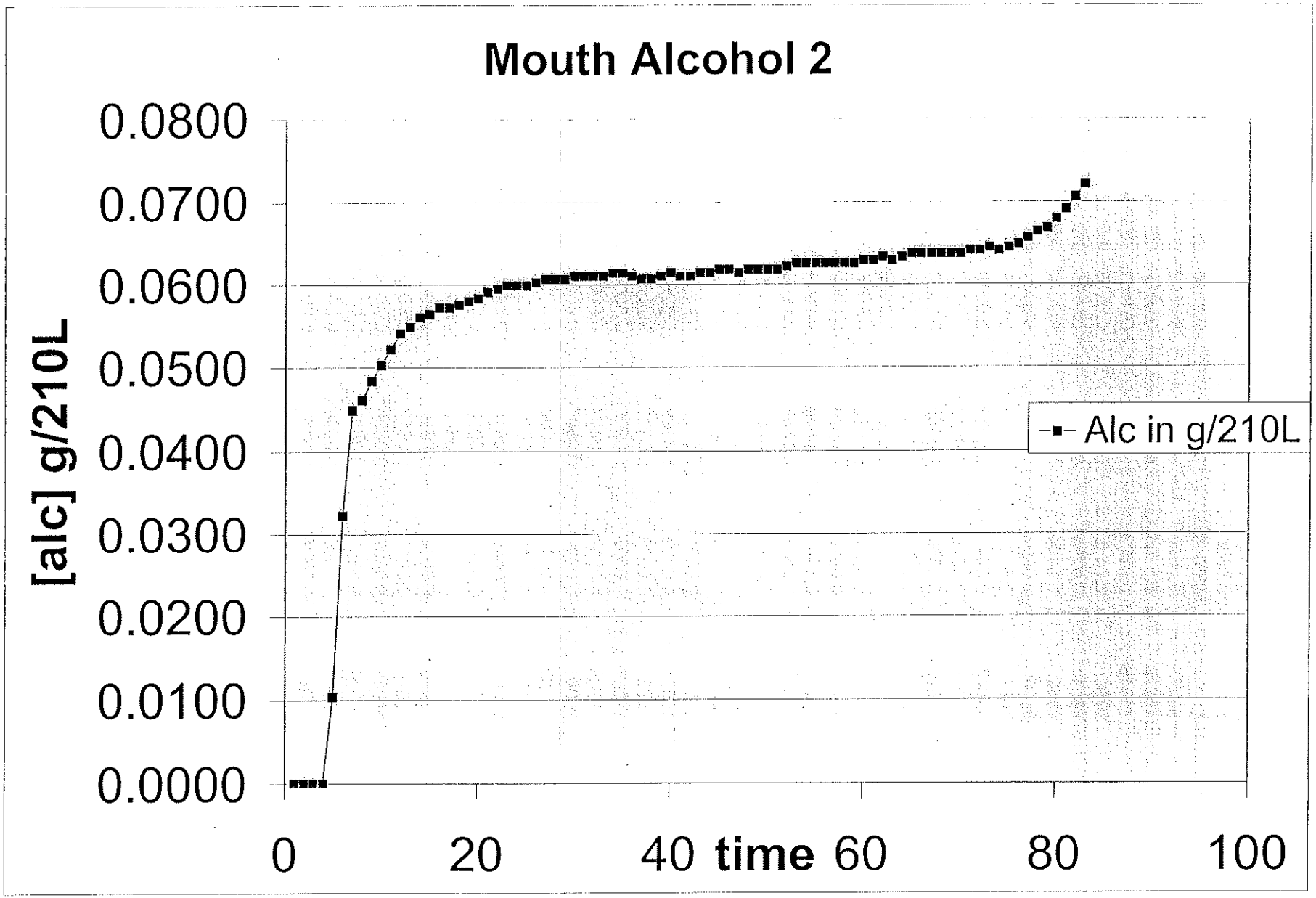
218,15157
218,15173
218,14644
218,13984
217,13862
216,13757
217,13082
217,12802
217,12567
217,12552
217,11886
217,11843
217,3432
217,0


SWS Mouth Alc Plot
0.1600
0.1400
0.1200
0.1000
0.0800
0.0600
0.0400
0.0200
0.0000
[ALC] g/210L
[alc] g/210L
0
20
40
Time
60
80
100

	Alc in PPM	Flow	Alc in g/210L	2 pt Avg	2 pt avg dif	dif
0,0	0	0	0.0000	(d2+d3)/2	e4-e3	d3-d2
0,0	0	0	0.0000	0.000000		0.0000
0,0	0	0	0.0000	0.000000	0.0000	0.0000
0,0	0	0	0.0000	0.000000	0.0000	0.0000
0,0	0	0	0.0000	0.000000	0.0000	0.0000
0,0	0	0	0.0000	0.000000	0.0000	0.0000
0,6318	0	6318	0.0000	0.000000	0.0000	0.0000
58,17477	58	17477	0.0223	0.011132	0.0111	0.0223
173,21571	173	21571	0.0664	0.044338	0.0332	0.0441
247,24376	247	24376	0.0948	0.080614	0.0363	0.0284
264,26085	264	26085	0.1013	0.098081	0.0175	0.0065
271,25407	271	25407	0.1040	0.102687	0.0046	0.0027
275,23943	275	23943	0.1056	0.104798	0.0021	0.0015
282,24075	282	24075	0.1083	0.106910	0.0021	0.0027
288,23289	288	23289	0.1106	0.109405	0.0025	0.0023
290,21859	290	21859	0.1113	0.110940	0.0015	0.0008
291,19542	291	19452	0.1117	0.111516	0.0006	0.0004
293,18940	293	18940	0.1125	0.112092	0.0006	0.0008
296,18532	296	18532	0.1136	0.113052	0.0010	0.0012
298,17943	298	17943	0.1144	0.114012	0.0010	0.0008
300,17477	300	17477	0.1152	0.114779	0.0008	0.0008
302,17510	302	17510	0.1159	0.115547	0.0008	0.0008
305,17726	305	17726	0.1171	0.116507	0.0010	0.0012
306,17544	306	17544	0.1175	0.117274	0.0008	0.0004
306,17776	306	17776	0.1175	0.117466	0.0002	0.0000
305,18027	305	18027	0.1171	0.117274	(0.0002)	(0.0004)
306,18380	306	18380	0.1175	0.117274	0.0000	0.0004
305,18668	305	18668	0.1171	0.117274	0.0000	(0.0004)
302,18753	302	18753	0.1159	0.116507	(0.0008)	(0.0012)
303,18634	303	18634	0.1163	0.116123	(0.0004)	0.0004
305,19026	305	19026	0.1171	0.116699	0.0006	0.0008
304,19524	304	19524	0.1167	0.116891	0.0002	(0.0004)
305,19524	305	19524	0.1171	0.116891	0.0000	0.0004
305,20221	305	20221	0.1171	0.117083	0.0002	0.0000
305,19646	305	19646	0.1171	0.117083	0.0000	0.0000
305,19266	305	19266	0.1171	0.117083	0.0000	0.0000
305,19317	305	19317	0.1171	0.117083	0.0000	0.0000
306,19576	306	19576	0.1175	0.117274	0.0002	0.0004
306,19386	306	19386	0.1175	0.117466	0.0002	0.0000
307,19802	307	19802	0.1179	0.117658	0.0002	0.0004
307,19559	307	19559	0.1179	0.117850	0.0002	0.0000
308,19993	308	19993	0.1182	0.118042	0.0002	0.0004
307,20484	307	20484	0.1179	0.118042	0.0000	(0.0004)
304,19854	304	19854	0.1167	0.117274	(0.0008)	(0.0012)
304,20151	304	20151	0.1167	0.116699	(0.0006)	0.0000
305,20046	305	20046	0.1171	0.116891	0.0002	0.0004
305,20396	305	20396	0.1171	0.117083	0.0002	0.0000
303,19871	303	19871	0.1163	0.116699	(0.0004)	(0.0008)
304,19300	304	19300	0.1167	0.116507	(0.0002)	0.0004
303,19611	303	19611	0.1163	0.116507	0.0000	(0.0004)

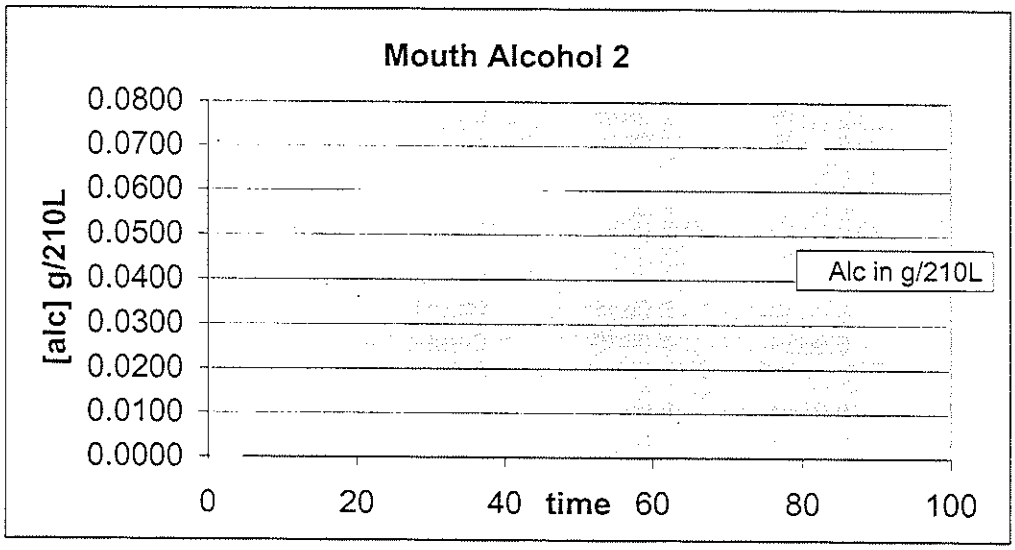
302,19906	302	19906	0.1159	0.116123	(0.0004)	(0.0004)
301,19715	301	19715	0.1155	0.115739	(0.0004)	(0.0004)
300,19421	300	19421	0.1152	0.115355	(0.0004)	(0.0004)
301,19214	301	19214	0.1155	0.115355	0.0000	0.0004
301,18787	301	18787	0.1155	0.115547	0.0002	0.0000
299,18532	299	18532	0.1148	0.115163	(0.0004)	(0.0008)
296,18195	296	18195	0.1136	0.114203	(0.0010)	(0.0012)
296,18668	296	18668	0.1136	0.113628	(0.0006)	0.0000
299,19249	299	19249	0.1148	0.114203	0.0006	0.0012
300,18804	300	18804	0.1152	0.114971	0.0008	0.0004
301,18787	301	18787	0.1155	0.115355	0.0004	0.0004
301,18279	301	18279	0.1155	0.115547	0.0002	0.0000
299,17926	299	17926	0.1148	0.115163	(0.0004)	(0.0008)
297,17860	297	17860	0.1140	0.114395	(0.0008)	(0.0008)
298,18060	298	18060	0.1144	0.114203	(0.0002)	0.0004
301,19197	301	19197	0.1155	0.114971	0.0008	0.0012
301,19197	301	19197	0.1155	0.115547	0.0006	0.0000
298,19043	298	19043	0.1144	0.114971	(0.0006)	(0.0012)
297,19715	297	19715	0.1140	0.114203	(0.0008)	(0.0004)
297,19628	297	19628	0.1140	0.114012	(0.0002)	0.0000
297,19231	297	19231	0.1140	0.114012	0.0000	0.0000
299,18957	299	18957	0.1148	0.114395	0.0004	0.0008
304,13984	304	13984	0.1167	0.115739	0.0013	0.0019
315,9035	315	9035	0.1209	0.118810	0.0031	0.0042
329,7009	329	7009	0.1263	0.123608	0.0048	0.0054
343,5865	343	5865	0.1317	0.128983	0.0054	0.0054
353,4040	353	4040	0.1355	0.133589	0.0046	0.0038
358,4561	358	4561	0.1374	0.136468	0.0029	0.0019
361,4219	361	4219	0.1386	0.138004	0.0015	0.0012
364,3230	364	3230	0.1397	0.139155	0.0012	0.0012
367,3371	367	3371	0.1409	0.140307	0.0012	0.0012
369,3081	369	3081	0.1417	0.141267	0.0010	0.0008
370,2815	370	2815	0.1420	0.141843	0.0006	0.0004
372,0	372	0	0.1428	0.142418	0.0006	0.0008

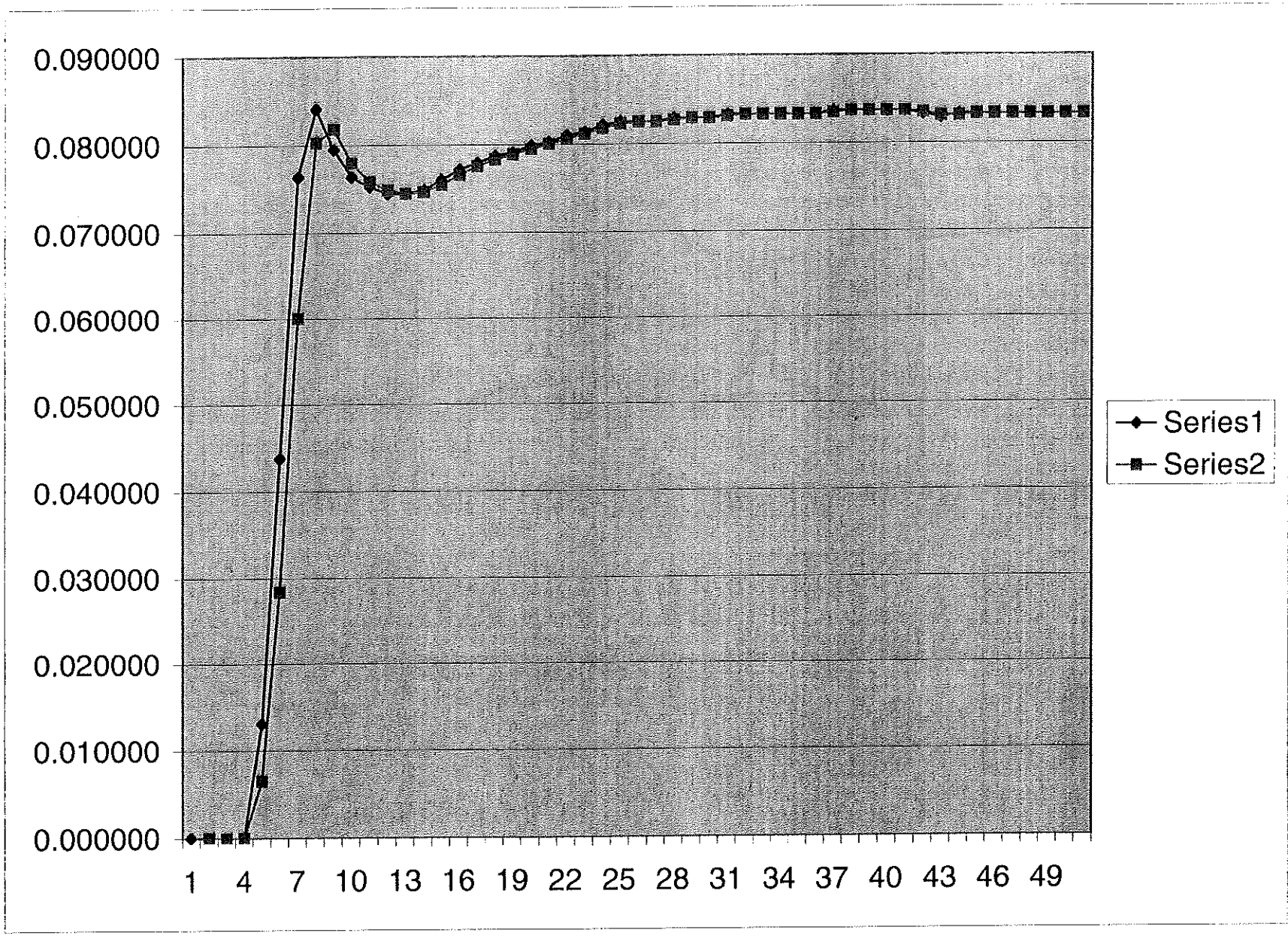
0.0000
0.0000
0.0000


Mouth Alcohol 2
0.0800
0.0700
0.0600
0.0500
0.0400
0.0300
0.0200
0.0100
0.0000
[alc] g/210L
Alc in g/210L
0
20
40
time
60
80
100

	Alc in PPM	Flow	Alc in g/210L	2 pt avg	2 pt avg dif	dif
0,0	0	0	0.0000			
0,0	0	0	0.0000	0.0000		0.0000
0,0	0	0	0.0000	0.0000	0.0000	0.0000
0,5097	0	5097	0.0000	0.0000	0.0000	0.0000
27,10578	27	10578	0.0104	0.0052	0.0052	0.0104
84,11416	84	11416	0.0322	0.0213	0.0161	0.0219
117,9790	117	9790	0.0449	0.0386	0.0173	0.0127
120,8891	120	8891	0.0461	0.0455	0.0069	0.0012
126,8982	126	8982	0.0484	0.0472	0.0017	0.0023
131,8325	131	8325	0.0503	0.0493	0.0021	0.0019
136,10523	136	10523	0.0522	0.0512	0.0019	0.0019
141,10647	141	10647	0.0541	0.0532	0.0019	0.0019
143,11205	143	11205	0.0549	0.0545	0.0013	0.0008
146,11829	146	11829	0.0560	0.0555	0.0010	0.0012
147,12743	147	12743	0.0564	0.0562	0.0008	0.0004
149,13666	149	13666	0.0572	0.0568	0.0006	0.0008
149,13561	149	13561	0.0572	0.0572	0.0004	0.0000
150,13485	150	13485	0.0576	0.0574	0.0002	0.0004
151,13261	151	13261	0.0580	0.0578	0.0004	0.0004
152,13008	152	13008	0.0583	0.0582	0.0004	0.0004
154,13726	154	13726	0.0591	0.0587	0.0006	0.0008
155,14060	155	14060	0.0595	0.0593	0.0006	0.0004
156,14830	156	14830	0.0599	0.0597	0.0004	0.0004
156,15535	156	15535	0.0599	0.0599	0.0002	0.0000
156,15535	156	15535	0.0599	0.0599	0.0000	0.0000
157,15821	157	15821	0.0603	0.0601	0.0002	0.0004
158,15567	158	15567	0.0607	0.0605	0.0004	0.0004
158,15789	158	15789	0.0607	0.0607	0.0002	0.0000
158,16061	158	16061	0.0607	0.0607	0.0000	0.0000
159,15789	159	15789	0.0610	0.0608	0.0002	0.0004
159,15456	159	15456	0.0610	0.0610	0.0002	0.0000
159,15965	159	15965	0.0610	0.0610	0.0000	0.0000
159,16350	159	16350	0.0610	0.0610	0.0000	0.0000
160,16414	160	16414	0.0614	0.0612	0.0002	0.0004
160,16253	160	16253	0.0614	0.0614	0.0002	0.0000
159,16576	159	16576	0.0610	0.0612	-0.0002	-0.0004
158,16885	158	16885	0.0607	0.0608	-0.0004	-0.0004
158,16350	158	16350	0.0607	0.0607	-0.0002	0.0000
159,15805	159	15805	0.0610	0.0608	0.0002	0.0004
160,16221	160	16221	0.0614	0.0612	0.0004	0.0004
159,15757	159	15757	0.0610	0.0612	0.0000	-0.0004
159,16285	159	16285	0.0610	0.0610	-0.0002	0.0000
160,16269	160	16269	0.0614	0.0612	0.0002	0.0004
160,15965	160	15965	0.0614	0.0614	0.0002	0.0000
161,15710	161	15710	0.0618	0.0616	0.0002	0.0004
161,15981	161	15981	0.0618	0.0618	0.0002	0.0000
160,15757	160	15757	0.0614	0.0616	-0.0002	-0.0004
161,16511	161	16511	0.0618	0.0616	0.0000	0.0004
161,15299	161	15299	0.0618	0.0618	0.0002	0.0000
161,15425	161	15425	0.0618	0.0618	0.0000	0.0000

161,15048	161	15048	0.0618	0.0618	0.0000	0.0000
162,15409	162	15409	0.0622	0.0620	0.0002	0.0004
163,15330	163	15330	0.0626	0.0624	0.0004	0.0004
163,15267	163	15267	0.0626	0.0626	0.0002	0.0000
163,15110	163	15110	0.0626	0.0626	0.0000	0.0000
163,15236	163	15236	0.0626	0.0626	0.0000	0.0000
163,15048	163	15048	0.0626	0.0626	0.0000	0.0000
163,15314	163	15314	0.0626	0.0626	0.0000	0.0000
163,14876	163	14876	0.0626	0.0626	0.0000	0.0000
164,14566	164	14566	0.0630	0.0628	0.0002	0.0004
164,13802	164	13802	0.0630	0.0630	0.0002	0.0000
165,13893	165	13893	0.0633	0.0631	0.0002	0.0004
164,13455	164	13455	0.0630	0.0631	0.0000	-0.0004
165,12377	165	12377	0.0633	0.0631	0.0000	0.0004
166,12333	166	12333	0.0637	0.0635	0.0004	0.0004
166,12934	166	12934	0.0637	0.0637	0.0002	0.0000
166,12479	166	12479	0.0637	0.0637	0.0000	0.0000
166,12757	166	12757	0.0637	0.0637	0.0000	0.0000
166,12611	166	12611	0.0637	0.0637	0.0000	0.0000
166,13142	166	13142	0.0637	0.0637	0.0000	0.0000
167,12772	167	12772	0.0641	0.0639	0.0002	0.0004
167,12450	167	12450	0.0641	0.0641	0.0002	0.0000
168,13216	168	13216	0.0645	0.0643	0.0002	0.0004
167,12001	167	12001	0.0641	0.0643	0.0000	-0.0004
168,10565	168	10565	0.0645	0.0643	0.0000	0.0004
169,8363	169	8363	0.0649	0.0647	0.0004	0.0004
171,6341	171	6341	0.0656	0.0653	0.0006	0.0008
173,4713	173	4713	0.0664	0.0660	0.0008	0.0008
174,3462	174	3462	0.0668	0.0666	0.0006	0.0004
177,3738	177	3738	0.0679	0.0674	0.0008	0.0012
180,2884	180	2884	0.0691	0.0685	0.0012	0.0012
184,3401	184	3401	0.0706	0.0699	0.0013	0.0015
188,0	188	0	0.0722	0.0714	0.0015	0.0015


Mouth Alcohol 2
[alc] g/210L
0.0800
0.0700
0.0600
0.0500
0.0400
0.0300
0.0200
0.0100
0.0000
0
20
40
time
60
80
100
Alc in g/210L


0.090000
0.080000
0.070000
0.060000
0.050000
0.040000
0.030000
0.020000
0.010000
0.000000
1
4
7
10
13
16
19
22
25
28
31
34
37
40
43
46
49
Series1
Series2

DUI Subject Test

STATE OF VERMONT

DataMaster DMT: 103306
VDHL
Certification Date: 06/05/2007
Installation Date: 06/05/2007

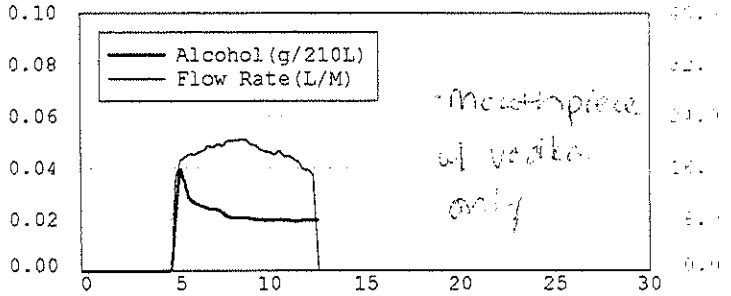
Date: 06/13/2007
Time: 09:42:55

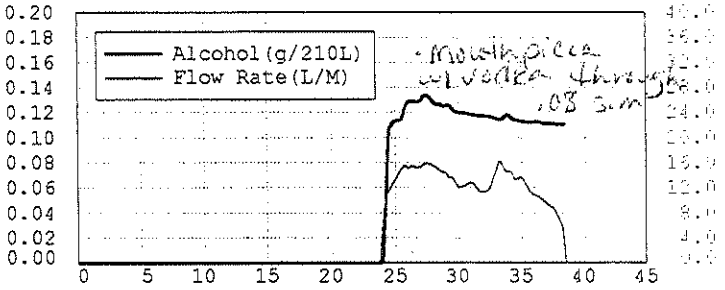
Subject Name: TEST TEST

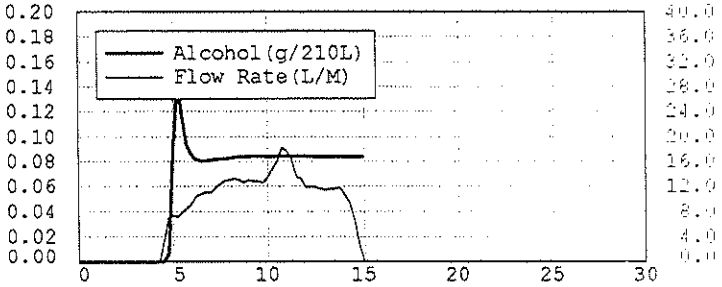
Test Operator Name: A B
Comment: MOUTH ALC TEST

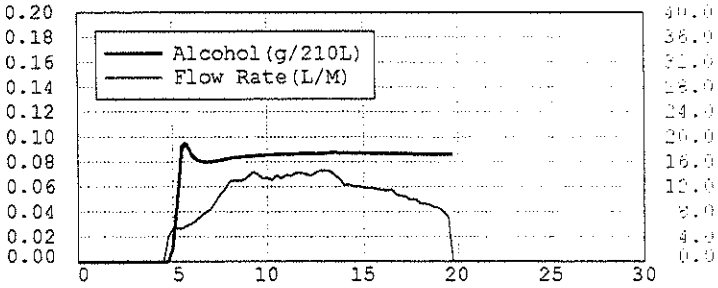
BLANK TEST	0.000	09:43
INTERNAL STANDARD	PASSED	09:43
Xq = 0.1482 (0.78%)		
SUBJECT SAMPLE (Vol=2.2L)	INVALID	09:44
X[1] = 0.0000 (0.0000) (0.0000)		
BLANK TEST	0.000	09:45
SUBJECT SAMPLE (Vol=3.0L)	INVALID	09:46
X[1] = 0.0000 (0.0000) (0.0000)		
BLANK TEST	0.000	09:47
SUBJECT SAMPLE (Vol=2.0L)	INVALID	09:47
X[1] = 0.0000 (0.0000) (0.0000)		
BLANK TEST	0.000	09:48
SUBJECT SAMPLE (Vol=2.7L)	INVALID	09:48
X[1] = 0.0000 (0.0000) (0.0000)		
BLANK TEST	0.000	09:49
SUBJECT SAMPLE (Vol=2.4L)	0.083	09:49
X[1] = 0.0836 (0.0006) (-0.0002)		
BLANK TEST	0.000	09:50
SUBJECT SAMPLE (Vol=2.6L)	0.082	09:50
X[1] = 0.0825 (0.0010) (-0.0001)		

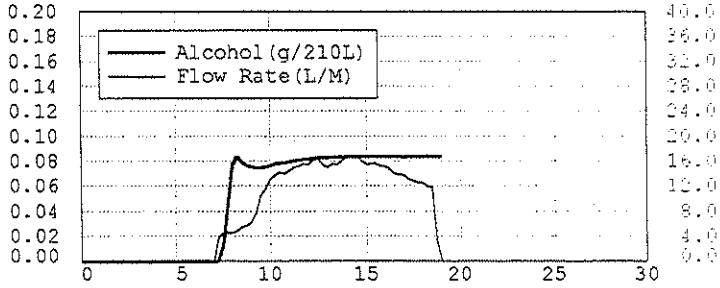
- diluted vodka blown through .0821 Sim

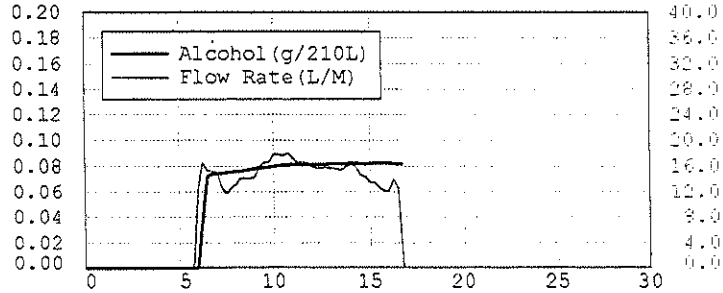








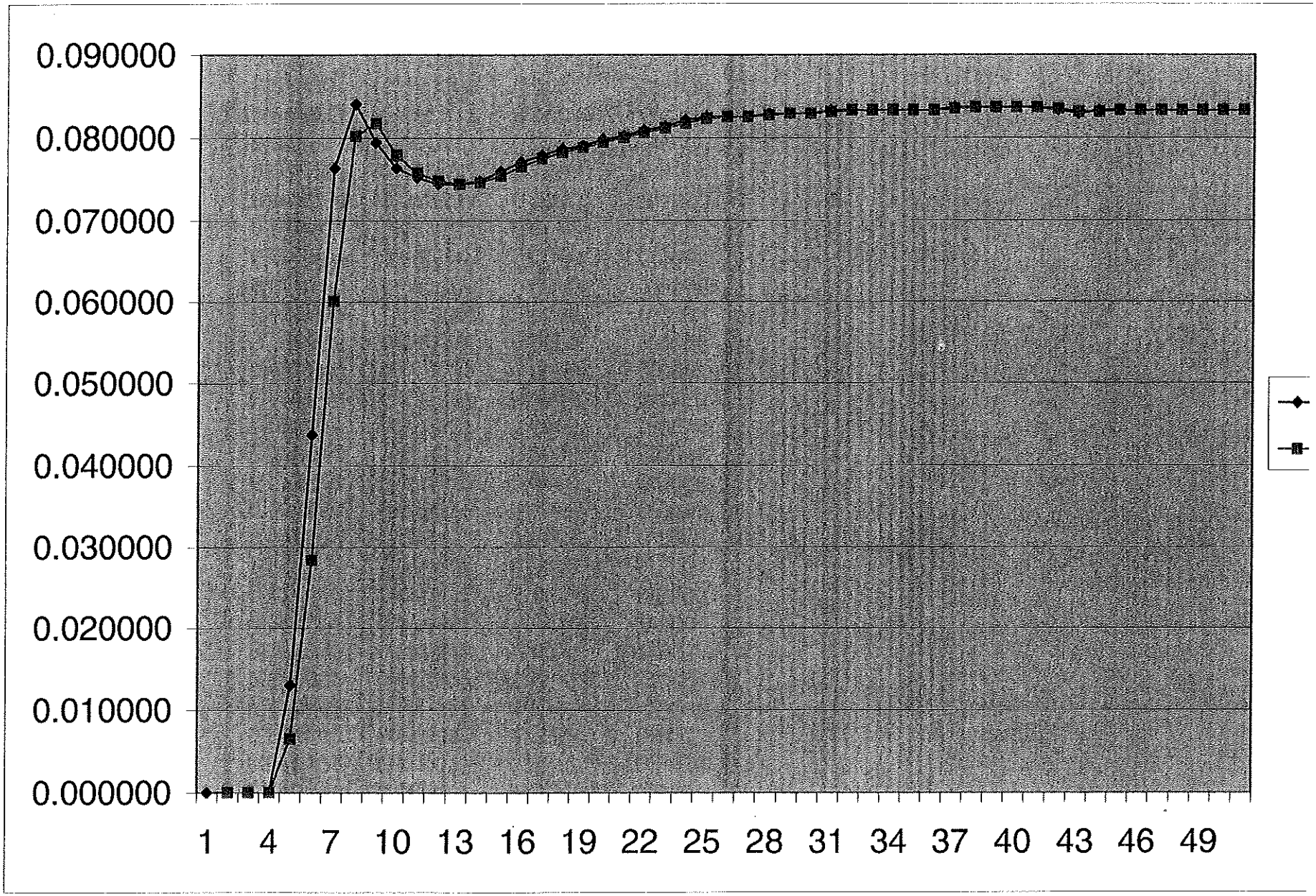




Alc in PPM	Flow	Alc in g/210L	2 pt Avg	2 pt Avg Dif	Dif
0	0	0.000000			
0	0	0.000000	0.000000		0.0000
0	0	0.000000	0.000000	0.0000	0.0000
0	3687	0.000000	0.000000	0.0000	0.0000
34	4475	0.013052	0.006526	0.0065	0.0131
114	4550	0.043762	0.028407	0.0219	0.0307
199	4539	0.076392	0.060077	0.0317	0.0326
219	4865	0.084069	0.080230	0.0202	0.0077
207	5432	0.079463	0.081766	0.0015	-(0.0046)
199	5590	0.076392	0.077927	-(0.0038)	-(0.0031)
196	6096	0.075240	0.075816	-(0.0021)	-(0.0012)
194	7783	0.074472	0.074856	-(0.0010)	-(0.0008)
194	10427	0.074472	0.074472	-(0.0004)	0.0000
195	11529	0.074856	0.074664	0.0002	0.0004
198	12993	0.076008	0.075432	0.0008	0.0012
201	13726	0.077159	0.076583	0.0012	0.0012
203	14182	0.077927	0.077543	0.0010	0.0008
205	13999	0.078695	0.078311	0.0008	0.0008
206	14397	0.079079	0.078887	0.0006	0.0004
208	14939	0.079846	0.079463	0.0006	0.0008
209	15157	0.080230	0.080038	0.0006	0.0004
211	15551	0.080998	0.080614	0.0006	0.0008
212	15362	0.081382	0.081190	0.0006	0.0004
214	16157	0.082150	0.081766	0.0006	0.0008
215	16269	0.082534	0.082342	0.0006	0.0004
215	15425	0.082534	0.082534	0.0002	0.0000
215	14954	0.082534	0.082534	0.0000	0.0000
216	15551	0.082917	0.082726	0.0002	0.0004
216	15362	0.082917	0.082917	0.0002	0.0000
216	16077	0.082917	0.082917	0.0000	0.0000
217	16463	0.083301	0.083109	0.0002	0.0004
217	16934	0.083301	0.083301	0.0002	0.0000
217	16771	0.083301	0.083301	0.0000	0.0000
217	16109	0.083301	0.083301	0.0000	0.0000
217	15504	0.083301	0.083301	0.0000	0.0000

if 3 in a row are more (-) than >.001 than = invalid

217	15440	0.083301	0.083301	0.0000	0.0000
218	15583	0.083685	0.083493	0.0002	0.0004
218	15157	0.083685	0.083685	0.0002	0.0000
218	15173	0.083685	0.083685	0.0000	0.0000
218	14644	0.083685	0.083685	0.0000	0.0000
218	13984	0.083685	0.083685	0.0000	0.0000
217	13862	0.083301	0.083493	(0.0002)	(0.0004)
216	13757	0.082917	0.083109	(0.0004)	(0.0004)
217	13082	0.083301	0.083109	0.0000	0.0004
217	12802	0.083301	0.083301	0.0002	0.0000
217	12567	0.083301	0.083301	0.0000	0.0000
217	12552	0.083301	0.083301	0.0000	0.0000
217	11886	0.083301	0.083301	0.0000	0.0000
217	11843	0.083301	0.083301	0.0000	0.0000
217	3432	0.083301	0.083301	0.0000	0.0000
217	0	0.083301	0.083301	0.0000	0.0000


0.090000
0.080000
0.070000
0.060000
0.050000
0.040000
0.030000
0.020000
0.010000
0.000000
1
4
7
10
13
16
19
22
25
28
31
34
37
40
43
46
49

Alc in PPM	Flow	Alc in g/210L	2 pt Avg	2 pt Avg Dif	Dif
0	0	0.000000			
0	0	0.000000	0.000000		0.0000
0	0	0.000000	0.000000	0.0000	0.0000
0	3687	0.000000	0.000000	0.0000	0.0000
34	4475	0.013052	0.006526	0.0065	0.0131
114	4550	0.043762	0.028407	0.0219	0.0307
199	4539	0.076392	0.060077	0.0317	0.0326
219	4865	0.084069	0.080230	0.0202	0.0077
207	5432	0.079463	0.081766	0.0015	(0.0046)
199	5590	0.076392	0.077927	(0.0038)	(0.0031)
196	6096	0.075240	0.075816	(0.0021)	(0.0012)
194	7783	0.074472	0.074856	(0.0010)	(0.0008)
194	10427	0.074472	0.074472	(0.0004)	0.0000
195	11529	0.074856	0.074664	0.0002	0.0004
198	12993	0.076008	0.075432	0.0008	0.0012
201	13726	0.077159	0.076583	0.0012	0.0012
203	14182	0.077927	0.077543	0.0010	0.0008
205	13999	0.078695	0.078311	0.0008	0.0008
206	14397	0.079079	0.078887	0.0006	0.0004
208	14939	0.079846	0.079463	0.0006	0.0008
209	15157	0.080230	0.080038	0.0006	0.0004
211	15551	0.080998	0.080614	0.0006	0.0008
212	15362	0.081382	0.081190	0.0006	0.0004
214	16157	0.082150	0.081766	0.0006	0.0008
215	16269	0.082534	0.082342	0.0006	0.0004
215	15425	0.082534	0.082534	0.0002	0.0000
215	14954	0.082534	0.082534	0.0000	0.0000
216	15551	0.082917	0.082726	0.0002	0.0004
216	15362	0.082917	0.082917	0.0002	0.0000
216	16077	0.082917	0.082917	0.0000	0.0000
217	16463	0.083301	0.083109	0.0002	0.0004
217	16934	0.083301	0.083301	0.0002	0.0000
217	16771	0.083301	0.083301	0.0000	0.0000
217	16109	0.083301	0.083301	0.0000	0.0000
217	15504	0.083301	0.083301	0.0000	0.0000

217	15440	0.083301	0.083301	0.0000	0.0000
218	15583	0.083685	0.083493	0.0002	0.0004
218	15157	0.083685	0.083685	0.0002	0.0000
218	15173	0.083685	0.083685	0.0000	0.0000
218	14644	0.083685	0.083685	0.0000	0.0000
218	13984	0.083685	0.083685	0.0000	0.0000
217	13862	0.083301	0.083493	(0.0002)	(0.0004)
216	13757	0.082917	0.083109	(0.0004)	(0.0004)
217	13082	0.083301	0.083109	0.0000	0.0004
217	12802	0.083301	0.083301	0.0002	0.0000
217	12567	0.083301	0.083301	0.0000	0.0000
217	12552	0.083301	0.083301	0.0000	0.0000
217	11886	0.083301	0.083301	0.0000	0.0000
217	11843	0.083301	0.083301	0.0000	0.0000
217	3432	0.083301	0.083301	0.0000	0.0000
217	0	0.083301	0.083301	0.0000	0.0000

Bolduc, Amanda

From: Scott Marhefka [eng@npas.com]
Sent: Friday, June 22, 2007 3:45 PM
To: Bolduc, Amanda
Cc: Drawbaugh, Bob; Richardson, Darcy
Subject: latest updates

upload.zip (657 KB)

Bob,

I am resending this from Wednesday night. I only sent it to Amanda and I received a baby photo today.

Hello Amanda,

The contents of the attached zip file need put onto the DMT. Please call if you need help.

These updates include the addition of ranges to the solution change and beeping when the RFI test starts. I have also included a screen saver that you may or may not want. To see the screen saver, in Setup - Advanced change Idle Time to something other than 0. After Idle Time minutes have passed the screen saver will appear until you press the screen or a key.

--
Scott Marhefka
National Patent Analytical Systems
2090 Harrington Memorial Road
Mansfield, OH 44903

email: eng@npas.com
phone: (419) 526-6727

Bolduc, Amanda

From: Scott Marhefka [eng@npas.com]
Sent: Wednesday, June 13, 2007 4:01 PM
To: Bolduc, Amanda
Subject: Emailing: vodka5.xls

vodka5.xls (24 KB)

--
Scott Marhefka
National Patent Analytical Systems
2090 Harrington Memorial Road
Mansfield, OH 44903

email: eng@npas.com
phone: (419) 526-6727

Bolduc, Amanda

From: Bolduc, Amanda
Sent: Tuesday, June 05, 2007 8:54 AM
To: 'engineering@npas.com'
Cc: Drawbaugh, Bob; Richardson, Darcy; Harnois, Steven; Bolduc, Amanda
Subject: "problem" list

Well...it's not really problems, so much as modifications...Call me when you get this to discuss.

1. When running a series of simulator samples, the purge between samples needs to be longer
2. (This is a hardware issue) The hole around the sim temp cable needs to be bigger with a rubber gromit protecting the wire, with better shrink wrapping over the wire.
3. The calibration report did not say calibration failed on the failing calibrations
4. The passing calibration did not say calibration passed, nor did it require a signature as requested
5. In the header where the calibration report says "Calibrated by" it does not input the data of who calibrated the instrument.
6. The certification report did not print automatically after the protocol was complete.
7. Lot # for the actone test (and all other sim solutions) should be required fields
8. When the RFI test box pops up, it currently says Detector Voltage. It should say somewhere in that box RFI Test
9. Attempted Installation, protocol failed due to simulator [X] out of range, yet still printed Passed
10. All data entry pages for protocols start the same way. This should not be the case. RPC, sim soln change should NOT say "does site meet specifications..."
11. On the RPC, the instrument should prompt operator to add new solution before protocol begins (pg 20 #2)
12. When testing the RPC protocol, the DMT skipped all the testing and went directly to the sample acceptance test (step #6) yet still said Passed
13. On subject test tickets, State of Vermont is printed twice
14. When a ticket is printed, whether is passes OR NOT, the simulator solution information needs to printed on the bottom of the ticket.
15. On a subject test ticket, only print the sim temp once at the bottom, not next to each test
16. Can you widen the test results box so that next to each result you can print g/210L or print a statement at the bottom of the ticket that all results are reported in g/10L
17. After the first subject test, BEFORE the instrument runs it's checks, the DMT needs to prompt Subject take 2nd test? If yes, then run int, ext stds. If no, then prints report.
18. If the person refuses on the first test (subject take test y/n?) then the DMT should prompt Reason for refusal? 2nd test is not offered if refusal
19. There is a big problem with entering the simulator concentration on Install, RPC and Sim Soln change, but I can't explain it well enough in this email. Please call to discuss.

I think that's it for now...I do have some questions for you on the 15 min timer. I just need to clarify how it works. I know we've discussed it before, but my memory isn't working to recall all of our decisions :)

ABolduc
Amanda Bolduc
Vermont Department of Health Lab
195 Colchester Ave - PO Box 1125
Burlington VT 05402-1125
(802) 863-7413
(802) 863-7632 (fax)

Bolduc, Amanda

From: Scott Marhefka [eng@npas.com]
Sent: Tuesday, June 05, 2007 1:03 PM
To: Bolduc, Amanda
Subject: mouth alcohol tester

upload.zip (618 KB)

Hello Amanda,

I put together a protocol to allow you to run 6 subject samples back to back. I think you said you needed this for Wednesday. Please test ASAP and let me know if it will work.
It does not ask questions.
It does not do an internal standard between subject samples.
It does not do a 2 minute wait nor ask about refusal stuff.
It keeps on trucking even if it gets Incomplete, Invalid or Interference.
The report sorta just uses the Vermont breath record report.

Good! Scale maybe?

Additionally in the included software,
The storage algorithm has been changed. All saved tests will have the alcohol incorrectly scaled down by 2.605. (sorry).
Please confirm that all new tests show correct alcohol values on the graph for printing and display.

Certification Protocol
Should now print when complete.
Lot# and alc values / tolerance are required fields.
RFI dialog box should already have said RFI Test in the title.
Page numbering now added to bottom of Certification Report (This was not in any of the previous specs.)
Put back in the CERTIFICATION PASSED at the bottom of the Report.

→ reason for failure would/did let me type?

RPC
Fixed the questions so did not ask for meeting the specs. Actually, I did not have to change this so maybe I didn't send you everything you needed last time. This may fix some of the alcohol entering problems you were having -- then again, maybe not.

- when finished Cert - last displayed Out of Service

Please call me if you need help. If I'm at lunch (it's going to be a long one), call my cel 419-295-0300.
--
Scott Marhefka
National Patent Analytical Systems
2090 Harrington Memorial Road
Mansfield, OH 44903

email: eng@npas.com
phone: (419) 526-6727

June 4th, 2007
DataMaster DMT Testing

Problem List

"Certification needs deleted"
"Installation needs deleted" ?

1. Sim Temperature wire malfunctions, needs improvement
2. Longer purge between simulator samples requested
3. Calibrated Instrument
   a. Calibration Error on 1st try, b2 = 0.000397; should be .002<b2<.013
   b. Retried Calibration, error again; b2 = 0.000240
   c. Called Dave @NPAS; was instructed in proper assembly of water hose during Cal, retired using correct cal port, error again
   d. Trimmed tygon tubing for tighter fit at cal port, retried Cal; Passed
   e. Calibration did not request signature as requested
   f. Calibrated by was left blank, DMT did not input what was entered
4. Certified Instrument
   a. Certification report did not print automatically, had to reprint from reports menu
   b. Should require lot # for all solutions including acetone
   c. When RFI test box pops up, it should say "RFI test" currently only says 'detector voltage'
   d. Passed
5. Attempted to Install Instument
   a. Entered .101g/210L for Sim [X], DMT displayed on screen .101 for [X], however, printed 0.000 for [X] under A&P and failed instrument 'simulator out of range'
   b. Printed Passed on Installation Report despite failing protocol
6. Ran Annual Preventative Maintenance
   a. Worked perfectly
7. Ran Routine Performance Check
   a. Data entry page should not say 'Site meet specifications?'
   b. Does not prompt to add new solution
   c. DMT skipped the diagnostic test and went directly to the sample acceptance test
   d. Printed RCP Passed despite blatant omissions of protocols
8. Ran Simulator Solution Change
   a. Data entry page should not say 'Site meet specifications?'
   b. Does not prompt to add new solution
   c. Entered .101g/210L for Sim [X], DMT displayed on screen .101 for [X], however, printed 0.000 for [X] under A&P and failed instrument 'simulator out of range'
9. Ran DUI Subject Test Sequence
   a. Ticket says State of Vermont twice on the top of the ticket
   b. Failed due to simulator out of range, however sim actual [X] was not printed on bottom of ticket
   c. Rechecked set-up screen and found [X] to be at .010 instead of .101
10. Reran Simulator Solution Change
   a. Entered .101g/210L for Sim [X], DMT displayed on screen .101 for [X], however, printed 0.000 for [X] under A&P and failed instrument 'simulator out of range'
   b. Rechecked set-up screen found [X] had changed back to .010; reset to .101
11. Ran DUI Subject Test Sequence
   a. Query's subject take 2nd test AFTER running second ext std instead of before
   b. If a refusal, does not query reason for refusal. Also, if refusal on 1st test, DMT will still run a 2nd test sequence.
   c. If Instrument fails during a subject test sequence, and needs to be restarted, will use previous 15min observation start time without question, is this how we want it?

We want g/210L on test tickets

Bolduc, Amanda

From: Bolduc, Amanda
Sent: Friday, June 01, 2007 12:45 PM
To: 'Scott Marhefka'
Cc: Drawbaugh, Bob; Richardson, Darcy; Harnois, Steven; Bolduc, Amanda
Subject: RE: certification framework

I only had time to look at the Certification. The framework is there, it works, it's not quite how we pictured it, but it does work. A few things I noticed:

1. When we enter the solution concentration, it displays it in PPM instead of g/210L

2. The scale displayed as the solutions are running only goes to a .2 on the Y axis, so when we ran a .4 solution it looked funny

3. We were able to generate a suck back error using the new breath tube. ??

4. The mouth alcohol test does work, you said in your email that you thought it didn't??

5. There should be a footer on BOTH pages of the report that says the date, time and page 1 of 2.

6. At the bottom of the report, above the signature it should say Certification Passed

7. The font on the first page of the cert report is a bit small (petty I know, but there is plenty of room and it would make it easier to read)

I'll be checking out the rest of the software next week. But these are my notes from the Cert today. Thanks! A

Bolduc, Amanda

From: Scott Marhefka [eng@npas.com]
Sent: Tuesday, June 05, 2007 1:03 PM
To: Bolduc, Amanda
Subject: mouth alcohol tester

upload.zip (618 KB)

Hello Amanda,

I put together a protocol to allow you to run 6 subject samples back to back. I think you said you needed this for Wednesday. Please test ASAP and let me know if it will work.
It does not ask questions.
It does not do an internal standard between subject samples.
It does not do a 2 minute wait nor ask about refusal stuff.
It keeps on trucking even if it gets Incomplete, Invalid or Interference.
The report sorta just uses the Vermont breath record report.

Additionally in the included software,
The storage algorithm has been changed. All saved tests will have the alcohol incorrectly scaled down by 2.605. (sorry).
Please confirm that all new tests show correct alcohol values on the graph for printing and display.

Certification Protocol.
Should now print when complete.
Lot# and alc values / tolerance are required fields.
RFI dialog box should already have said RFI Test in the title.
Page numbering now added to bottom of Certification Report (This was not in any of the previous specs.)
Put back in the CERTIFICATION PASSED at the bottom of the Report.

RPC
Fixed the questions so did not ask for meeting the specs. Actually, I did not have to change this so maybe I didn't send you everything you needed last time. This may fix some of the alcohol entering problems you were having -- then again, maybe not.

Please call me if you need help. If I'm at lunch (it's going to be a long one), call my cel 419-295-0300.
--
Scott Marhefka
National Patent Analytical Systems
2090 Harrington Memorial Road
Mansfield, OH 44903

email: eng@npas.com
phone: (419) 526-6727

Bolduc, Amanda

From: Bolduc, Amanda
Sent: Friday, June 01, 2007 3:39 PM
To: 'Scott Marhefka'
Subject: RE: One more thing

OH OK!! Do you think you will have it to me by next Wed? That is when my next live subject testing is A

-----Original Message-----
From: Scott Marhefka [mailto:eng@npas.com]
Sent: Friday, June 01, 2007 2:50 PM
To: Bolduc, Amanda
Subject: Re: One more thing

Amanda,

When I said that the mouth alcohol test wasn't done yet, I didn't mean the one in the Certification. I was referring to the multiple test sequence. Sorry for not being clear.
--
Scott Marhefka
National Patent Analytical Systems
2090 Harrington Memorial Road
Mansfield, OH 44903

email: eng@npas.com
phone: (419) 526-6727

Bolduc, Amanda

From: Bolduc, Amanda
Sent: Friday, June 01, 2007 12:45 PM
To: 'Scott Marhefka'
Cc: Drawbaugh, Bob; Richardson, Darcy; Harnois, Steven; Bolduc, Amanda
Subject: RE: certification framework

I only had time to look at the Certification. The framework is there, it works, it's not quite how we pictured it, but it does work. A few things I noticed:
1. When we enter the solution concentration, it displays it in PPM instead of g/210L

2. The scale displayed as the solutions are running only goes to a .2 on the Y axis, so when we ran a .4 solution it looked funny

3. We were able to generate a suck back error using the new breath tube. ??

4. The mouth alcohol test does work, you said in your email that you thought it didn't??

5. There should be a footer on BOTH pages of the report that says the date, time and page 1 of 2.

6. At the bottom of the report, above the signature it should say Certification Passed

7. The font on the first page of the cert report is a bit small (petty I know, but there is plenty of room and it would make it easier to read)

I'll be checking out the rest of the software next week. But these are my notes from the

Bolduc, Amanda

From: Scott Marhefka [eng@npas.com]
Sent: Friday, June 01, 2007 2:50 PM
To: Bolduc, Amanda
Subject: Re: One more thing

Amanda,

When I said that the mouth alcohol test wasn't done yet, I didn't mean the one in the Certification. I was referring to the multiple test sequence. Sorry for not being clear.

--
Scott Marhefka
National Patent Analytical Systems
2090 Harrington Memorial Road
Mansfield, OH 44903

email: eng@npas.com
phone: (419) 526-6727

Bolduc, Amanda

From: Scott Marhefka [eng@npas.com]
Sent: Friday, June 01, 2007 9:02 AM
To: Bolduc, Amanda
Subject: certification framework

update.zip (606 KB)

Amanda,

Attached is "UPDATE.ZIP". Unzip it and put its contents into an UPLOAD folder on a usb stick. Then Update From USB on the DMT. Call if you have questions.

The main thing I want you to start testing is the Certification Protocol. Here is the list of things that need fixed:

1) When you tab into the alcohol concentration field it auto advances to the tolerance field. This will be fixed next week.

2) I only have 2 external standards being run for the linearity tests. This is to save you time since I just want you to see how I have it working.

3) The R-Square value being out of tolerance does not stop the test but lets you know it would have. This is so you can test with just 1 simulator. I've been using a 0.100 simulator but I call it .101, .102, .103, .104 with a tolerance of .01 so I can speed through.

4) Make sure the RFI is set up correctly before you start the Certification. It's frustrating getting down to that step and realizing you have a problem.

I'm pretty sure the Certification will work as expected. At this point I need to find out if all the pieces parts work the way you want. If so then I will start putting in all the safeguards like making sure the Cert is done before allowing an Installation, making sure Installation

is done before other stuff, counters since last APM or RPC, etc., etc., etc....

The mouth alcohol testing procedure will be done early next week.

--
Scott Marhefka
National Patent Analytical Systems
2090 Harrington Memorial Road
Mansfield, OH 44903

email: eng@npas.com
phone: (419) 526-6727

Bolduc, Amanda

From: Scott Marhefka [eng@npas.com]
Sent: Tuesday, May 29, 2007 11:04 PM
To: Bolduc, Amanda
Subject: R2

Hello Amanda,

The certification protocol no longer has water introduced as part of the linearity test. I'm OK with that but I have a question.

Does the calculation of R*R use the four averages only or do I include a virtual (0, 0) data point into the calculation? I'm assuming that I just use the 4 points but assuming is bad.

Also, what scenario causes R*R <= 0.995? I've been playing with excel and if everything falls with 10% tolerance, I think it's impossible to fail. Of course Proof By Failure To Find A Counter Example is not really a proof. Are you still going to enter in a tolerance for each Certification Concentration or are you just going to force it better than 5%?

--
Scott Marhefka
National Patent Analytical Systems
2090 Harrington Memorial Road
Mansfield, OH 44903

email: eng@npas.com
phone: (419) 526-6727

Bolduc, Amanda

From: Scott Marhefka [eng@npas.com]
Sent: Friday, June 01, 2007 9:02 AM
To: Bolduc, Amanda
Subject: certification framework

update.zip (606 KB)

Amanda,
UPLOAD.ZIP
Attached is "~~UPDATE~~.ZIP". Unzip it and put its contents into an UPLOAD folder on a usb stick. Then Update From USB on the DMT. Call if you have questions.

The main thing I want you to start testing is the Certification Protocol. Here is the list of things that need fixed:

1) When you tab into the alcohol concentration field it auto advances to the tolerance field. This will be fixed next week.

2) I only have 2 external standards being run for the linearity tests. instead of 7 This is to save you time since I just want you to see how I have it working.

Still 4 Sol'n's only running 2x vs 7x

3) The R-Square value being out of tolerance does not stop the test but lets you know it would have. This is so you can test with just 1 simulator. I've been using a 0.100 simulator but I call it .101, .102, .103, .104 with a tolerance of .01 so I can speed through.

4) Make sure the RFI is set up correctly before you start the Certification. It's frustrating getting down to that step and realizing you have a problem.

I'm pretty sure the Certification will work as expected. At this point I need to find out if all the pieces parts work the way you want. If so then I will start putting in all the safeguards like making sure the Cert is done before allowing an Installation, making sure Installation is done before other stuff, counters since last APM or RPC, etc., etc., etc....

The mouth alcohol testing procedure will be done early next week.

Works already?
• May need recal.

--
Scott Marhefka
National Patent Analytical Systems
2090 Harrington Memorial Road
Mansfield, OH 44903

email: eng@npas.com
phone: (419) 526-6727

S

Bolduc, Amanda

From: Bolduc, Amanda
Sent: Friday, June 01, 2007 12:45 PM
To: 'Scott Marhefka'
Cc: Drawbaugh, Bob; Richardson, Darcy; Harnois, Steven; Bolduc, Amanda
Subject: RE: certification framework

I only had time to look at the Certification. The framework is there, it works, it's not quite how we pictured it, but it does work. A few things I noticed:

1. When we enter the solution concentration, it displays it in PPM instead of g/210L

2. The scale displayed as the solutions are running only goes to a .2 on the Y axis, so when we ran a .4 solution it looked funny

3. We were able to generate a suck back error using the new breath tube. ??

4. The mouth alcohol test does work, you said in your email that you thought it didn't??

5. There should be a footer on BOTH pages of the report that says the date, time and page 1 of 2.

6. At the bottom of the report, above the signature it should say Certification Passed

7. The font on the first page of the cert report is a bit small (petty I know, but there is plenty of room and it would make it easier to read)

I'll be checking out the rest of the software next week. But these are my notes from the Cert today. Thanks! A

CERTIFICATION REPORT

VERMONT
DEPARTMENT OF HEALTH

DataMaster DMT: 103306
Calibration Date: 06/01/2007
Certification Date: 06/01/2007
Certified by: A L B

Diagnostic Results

VERSIONS
DMT 1.24
PIC 2.01
Questions 1.0
Reports 1.3

TEMPERATURES
Sample Chamber = 48.7 C
Breath Tube = 42.7 C
Simulator Hose = 0.0 C
Digital Sim = 34.1 C

Acceptable ranges?

SETTINGS
Lamp Voltage = 1.94 V
Cooler Voltage = 1.86 V
Bias Voltage = 119.7 V
Chopper Freq = 531.6 Hz

PUMP INFO
Flow Rate = 5.433 L/M

DETECTOR INFO
PUMP ON OFF
MAX(V) 0.0809 0.0835
MIN(V) 0.0791 0.0817

FILTER INFO
Filter 1 0.082 Zero = true
Filter 2 0.564 Zero = true
Filter 3 1.422 Zero = true

INTERNAL STANDARD
Xq = 0.1483 0.12%

Options

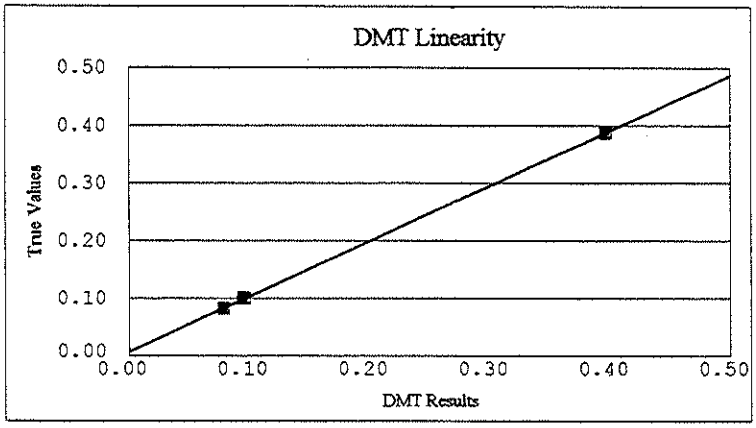
Printer: yes
Number of Copies: 1
Number of Supervisor Tests: 10
Tolerance Check: yes
Data Collection: yes
Units: g/210L
Simulator Check: yes
Uses Wet Bath Simulator: yes
Simulator Nominal: 0.101
Dry Gas PPM: 422.010
Digital Simulator: none
Simulator Before: yes
Simulator Between: yes
Simulator After: no
Number of Subject Tests: 2
AskQuestions: yes
Query Refusal: yes
Alcohol Display: yes
Show Two Digits: no
Volume Display: yes
Number of Calibration Tests: 2
Calibrate with Wet Bath: yes
Calibration Nominal: 0.100
Calibration PPM: 260.500

take out dry gas unless we use it.

Linearity Check Results

True Value	Reported Average	Std Dev
0.100g/210L Lot # 07-04-100	0.096g/210L	0.0000
0.101g/210L Lot # 07-04-100	0.095g/210L	0.0007
0.082g/210L Lot # 07-09-080	0.079g/210L	0.0000
0.387g/210L Lot # 07-12-400	0.396g/210L	0.0007

$R^2 = 0.9999$



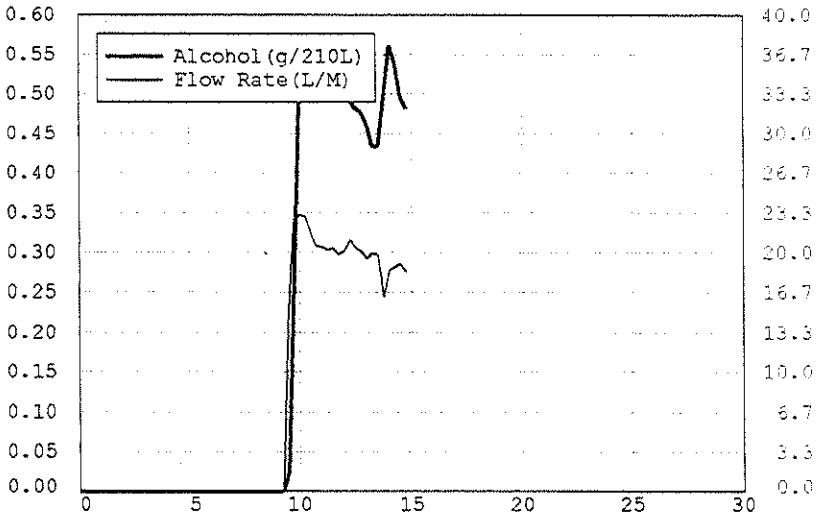
Acetone Interference Test

Lot #

Interference Detected

Mouth Alcohol Test

Mouth Alcohol Detected

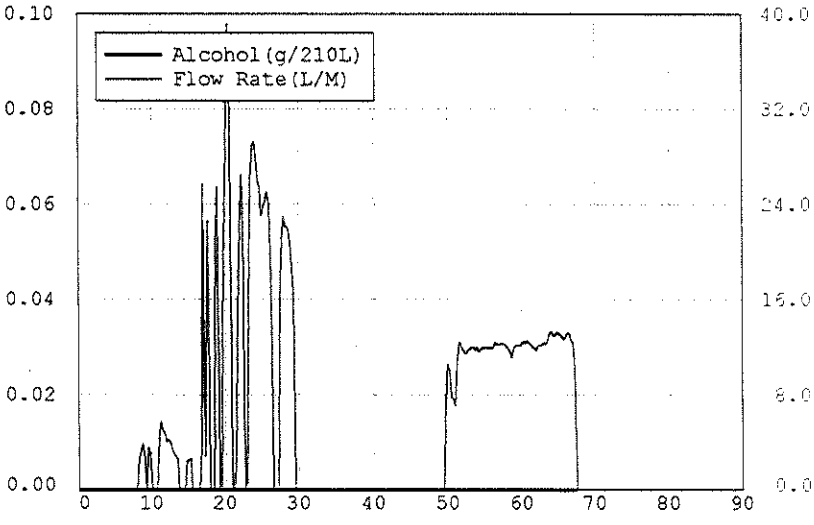


RFI Interference Test

RFI detected

Sample Acceptance Test

Passed



Cert Passed

Performed by x _____ Date 06/01/2007

Reviewed by _____ Date _____

Cert today. Thanks! A

Bolduc, Amanda

From: Bolduc, Amanda
Sent: Thursday, May 31, 2007 9:06 AM
To: 'Scott Marhefka'
Subject: R2

I made a mistake. The acceptable limit for the R2 should be 0.99 not 0.995. Not that it make a difference, but we need to be consistent with our regs. Thanks

ABolduc
Amanda Bolduc
Vermont Department of Health Lab
195 Colchester Ave - PO Box 1125
Burlington VT 05402-1125
(802) 863-7413
(802) 863-7632 (fax)

Bolduc, Amanda

From: Bolduc, Amanda
Sent: Thursday, May 31, 2007 7:59 AM
To: 'Scott Marhefka'
Subject: RE: R2

That's fine, I can't get to it until after lunch anyways.
A

-----Original Message-----
From: Scott Marhefka [mailto:eng@npas.com]
Sent: Wednesday, May 30, 2007 11:32 PM
To: Bolduc, Amanda
Subject: Re: R2

Amanda,

It will be closer to lunch before I send you the update. I ran out of coffee.
--
Scott Marhefka
National Patent Analytical Systems
2090 Harrington Memorial Road
Mansfield, OH 44903

email: eng@npas.com
phone: (419) 526-6727

Bolduc, Amanda

From: Bolduc, Amanda
Sent: Wednesday, May 30, 2007 8:03 AM
To: 'Scott Marhefka'
Subject: RE: R2

You're crazy! But at least we know you are dedicated to this project. I hope NPAS is making it worth your while, you have put so much into our software...

-----Original Message-----
From: Scott Marhefka [mailto:eng@npas.com]
Sent: Wednesday, May 30, 2007 7:58 AM
To: Bolduc, Amanda
Subject: Re: R2

Yes!
--
Scott Marhefka
National Patent Analytical Systems
2090 Harrington Memorial Road
Mansfield, OH 44903

email: eng@npas.com
phone: (419) 526-6727

Bolduc, Amanda

From: Bolduc, Amanda
Sent: Wednesday, May 30, 2007 7:54 AM
To: 'Scott Marhefka'
Subject: RE: R2

Were you really working on this at 11pm?

-----Original Message-----
From: Scott Marhefka [mailto:eng@npas.com]
Sent: Tuesday, May 29, 2007 11:04 PM
To: Bolduc, Amanda
Subject: R2

Hello Amanda,

The certification protocol no longer has water introduced as part of the linearity test. I'm OK with that but I have a question.

Does the calculation of R*R use the four averages only or do I include a virtual (0, 0) data point into the calculation? I'm assuming that I just use the 4 points but assuming is bad.

Also, what scenario causes R*R <= 0.995? I've been playing with excel and if everything falls with 10% tolerance, I think it's impossible to fail. Of course Proof By Failure To Find A Counter Example is not really a proof. Are you still going to enter in a tolerance for each Certification Concentration or are you just going to force it better than 5%?

--

Scott Marhefka
National Patent Analytical Systems
2090 Harrington Memorial Road
Mansfield, OH 44903

email: eng@npas.com
phone: (419) 526-6727

Bolduc, Amanda

From: Bolduc, Amanda
Sent: Wednesday, May 30, 2007 7:54 AM
To: 'Scott Marhefka'
Cc: Richardson, Darcy; Drawbaugh, Bob; Harnois, Steven
Subject: RE: R2

1. Do not force a 0,0 in the linearity calculation
2. Don't know when you would see R2 out of .995, but the error still needs to be there. It may be mathmatically impossible if all points fall in 10%, but I am not sure. 3. We are going to enter a tolerance for each concentration. Our current standards allow for different acceptances for different concentrations. For example, the .08 is +/- 5%, but the .02 is +/- 10%

Thanks!
A

-----Original Message-----
From: Scott Marhefka [mailto:eng@npas.com]
Sent: Tuesday, May 29, 2007 11:04 PM
To: Bolduc, Amanda
Subject: R2

Hello Amanda,

The certification protocol no longer has water introduced as part of the linearity test. I'm OK with that but I have a question.

Does the calculation of R*R use the four averages only or do I include a virtual (0, 0) data point into the calculation? I'm assuming that I just use the 4 points but assuming is bad.

Also, what scenario causes R*R <= 0.995? I've been playing with excel and if everything falls with 10% tolerance, I think it's impossible to fail. Of course Proof By Failure To Find A Counter Example is not really a proof. Are you still going to enter in a tolerance for each Certification Concentration or are you just going to force it better than 5%?

--
Scott Marhefka
National Patent Analytical Systems
2090 Harrington Memorial Road
Mansfield, OH 44903

email: eng@npas.com
phone: (419) 526-6727

Bolduc, Amanda

From: Bolduc, Amanda
Sent: Tuesday, May 29, 2007 1:13 PM
To: 'Scott Marhefka'
Subject: failures

I spoke with Bob re: Certification. The way you have it sounds correct. If the protocol fails, there does not need to be a printed record. Hope that helps!

ABolduc
Amanda Bolduc
Vermont Department of Health Lab
195 Colchester Ave - PO Box 1125
Burlington VT 05402-1125
(802) 863-7413
(802) 863-7632 (fax)

Bolduc, Amanda

From: Bolduc, Amanda
Sent: Wednesday, June 13, 2007 10:45 AM
To: 'Scott Marhefka'; 'Dave Radomski'
Cc: Drawbaugh, Bob
Subject: Invalid samples

I faxed a result to NPAS. The DMT does kick out blatant invalids, but the fifth test on this report should have been invalid also, and wasn't. ?? I also have not been able to reproduce in the lab sequestered mouth alcohol. (The second rise we saw on the live subjects) I am still trying to figure out how to do that. Bob won't let me take the DMT home and dose my hubby :(

ABolduc
Amanda Bolduc
Vermont Department of Health Lab
195 Colchester Ave - PO Box 1125
Burlington VT 05402-1125
(802) 863-7413
(802) 863-7632 (fax)

Bolduc, Amanda

From: Scott Marhefka [eng@npas.com]
Sent: Tuesday, May 15, 2007 4:18 PM
To: Bolduc, Amanda
Cc: Drawbaugh, Bob; Richardson, Darcy; Harnois, Steven; John Fusco
Subject: Re: Any news?

Amanda,

I have questions concerning the Certification Protocol and Report.

Per the draft received May 1, 2007 on page 11, Item 3 indicates that water is evaluated. The report on page 14 does not indicate that the water was run.

No H_2O on 1st draft we ran an ext. Std SPL acc. before test.

Additionally, Item 10 on page 12 indicates that a new solution is added. I don't see anywhere on the report where this info is used. Is it really supposed to be there? I recommend that it be removed because the Installation Protocol asks for the same info and actually runs an Accuracy/Precision (see page 15 Item 4).

On Page 11 Item 2 I think it should say,"(see page 13 ~~25~~ for Diagnostic Test Print Out)". Page 24 is a Solution Change. Yes

The Report Printout on Page 13 shows that the options are printed. Is that a copy of the options each time the report is printed or is that a copy of the options at the time of the certification?

That's it for now,
--
Scott Marhefka
National Patent Analytical Systems
2090 Harrington Memorial Road
Mansfield, OH 44903

email: eng@npas.com
phone: (419) 526-6727

Bolduc, Amanda

From: Scott Marhefka [eng@npas.com]
Sent: Tuesday, May 29, 2007 11:04 PM
To: Bolduc, Amanda
Subject: R2

Hello Amanda,

The certification protocol no longer has water introduced as part of the linearity test. I'm OK with that but I have a question.

Does the calculation of R*R use the four averages only or do I include a virtual (0, 0) data point into the calculation? I'm assuming that I just use the 4 points but assuming is bad.

Also, what scenario causes R*R <= 0.995? I've been playing with excel and if everything falls with 10% tolerance, I think it's impossible to fail. Of course Proof By Failure To Find A Counter Example is not really a proof. Are you still going to enter in a tolerance for each Certification Concentration or are you just going to force it better than 5%?

--
Scott Marhefka
National Patent Analytical Systems
2090 Harrington Memorial Road
Mansfield, OH 44903

email: eng@npas.com
phone: (419) 526-6727

Bolduc, Amanda

From: Scott Marhefka [eng@npas.com]
Sent: Tuesday, May 22, 2007 2:31 PM
To: Bolduc, Amanda
Subject: Re: Error codes

Amanda,

I am resending this message. Please let me know that you received it.

Here are the current error messages. I think most of them are self explanatory. The different flavors of communication error should all just be considered a communication error. The extra info will be helpful to me if they ever happen.
{
COMMUNICATION ERROR <WRT> -- communication errors indicate that the embedded PC is unable to communicate with the controller board over the serial cable.

COMMUNICATION ERROR <SOH>

COMMUNICATION ERROR <LEN>

COMMUNICATION ERROR <CMD>

COMMUNICATION ERROR <EOT>

USER ABORT -- user hit the escape key or the icon in upper left corner.

PUMP ERROR

FILTER 1 WON'T ZERO

FILTER 2 WON'T ZERO

FILTER 3 WON'T ZERO

AMBIENT FAIL -- occurs if the initial purge causes a change in detector voltage of >= 40mV.

STANDARD OUT OF RANGE

SIMULATOR TIMEOUT

SIMULATOR TEMPERATURE TOO HIGH

SIMULATOR TEMPERATURE TOO LOW

BLANK ERROR -- occurs if a purge (other than initial) doesn't get the detector voltage close enough to 0.

INTERNAL STANDARD ERROR

INVALID SAMPLE

DETECTOR OVERFLOW

SAMPLE CHAMBER TEMPERATURE TOO HIGH

SAMPLE CHAMBER TEMPERATURE TOO LOW

RFI DETECTED

BREATH TUBE TEMPERATURE TOO HIGH

BREATH TUBE TEMPERATURE TOO LOW

CHOPPER OUT OF REGULATION

INCOMPLETE SAMPLE

FILTER WHEEL ERROR

SAMPLE AGREEMENT ERROR

SUCK BACK ERROR -- The breath tubes now have the "check valve" in them so this error indicates the valve is not working properly.

UNDEFINED ERROR -- This is here in case an error happens that I haven't anticipated.
}
--
Scott Marhefka
National Patent Analytical Systems
2090 Harrington Memorial Road
Mansfield, OH 44903

email: eng@npas.com
phone: (419) 526-6727

Bolduc, Amanda

From: Scott Marhefka [eng@npas.com]
Sent: Tuesday, May 22, 2007 2:31 PM
To: Bolduc, Amanda
Subject: Re: Error codes

Amanda,

I am resending this message. Please let me know that you received it.

Here are the current error messages. I think most of them are self explanatory. The different flavors of communication error should all just be considered a communication error. The extra info will be helpful to me if they ever happen.
{
COMMUNICATION ERROR <WRT> -- communication errors indicate that the embedded PC is unable to communicate with the controller board over the serial cable.

COMMUNICATION ERROR <SOH>

COMMUNICATION ERROR <LEN>

COMMUNICATION ERROR <CMD>

COMMUNICATION ERROR <EOT>

USER ABORT -- user hit the escape key or the icon in upper left corner.

PUMP ERROR

FILTER 1 WON'T ZERO

FILTER 2 WON'T ZERO

FILTER 3 WON'T ZERO

AMBIENT FAIL -- occurs if the initial purge causes a change in detector voltage of >= 40mV.

STANDARD OUT OF RANGE

SIMULATOR TIMEOUT

SIMULATOR TEMPERATURE TOO HIGH

SIMULATOR TEMPERATURE TOO LOW

BLANK ERROR -- occurs if a purge (other than initial) doesn't get the detector voltage close enough to 0.

INTERNAL STANDARD ERROR

INVALID SAMPLE

DETECTOR OVERFLOW

SAMPLE CHAMBER TEMPERATURE TOO HIGH

SAMPLE CHAMBER TEMPERATURE TOO LOW

RFI DETECTED

BREATH TUBE TEMPERATURE TOO HIGH

BREATH TUBE TEMPERATURE TOO LOW

CHOPPER OUT OF REGULATION

INCOMPLETE SAMPLE

FILTER WHEEL ERROR

SAMPLE AGREEMENT ERROR

SUCK BACK ERROR -- The breath tubes now have the "check valve" in them so this error indicates the valve is not working properly.

UNDEFINED ERROR -- This is here in case an error happens that I haven't anticipated.
}
--
Scott Marhefka
National Patent Analytical Systems
2090 Harrington Memorial Road
Mansfield, OH 44903

email: eng@npas.com
phone: (419) 526-6727

Bolduc, Amanda

From: Scott Marhefka [eng@npas.com]
Sent: Tuesday, May 15, 2007 4:18 PM
To: Bolduc, Amanda
Cc: Drawbaugh, Bob; Richardson, Darcy; Harnois, Steven; John Fusco
Subject: Re: Any news?

Amanda,

I have questions concerning the Certification Protocol and Report.

Per the draft received May 1, 2007 on page 11, Item 3 indicates that water is evaluated. The report on page 14 does not indicate that the water was run.

Additionally, Item 10 on page 12 indicates that a new solution is added. I don't see anywhere on the report where this info is used. Is it really supposed to be there? I recommend that it be removed because the Installation Protocol asks for the same info and actually runs an Accuracy/Precision (see page 15 Item 4).

On Page 11 Item 2 I think it should say,"(see page 13 for Diagnostic Test Print Out)". Page 24 is a Solution Change.

The Report Printout on Page 13 shows that the options are printed. Is that a copy of the options each time the report is printed or is that a copy of the options at the time of the certification?

That's it for now,
--
Scott Marhefka
National Patent Analytical Systems
2090 Harrington Memorial Road
Mansfield, OH 44903

Drawbaugh, Bob

From: Scott Marhefka [eng@npas.com]
Sent: Tuesday, May 15, 2007 4:18 PM
To: Bolduc, Amanda
Cc: Drawbaugh, Bob; Richardson, Darcy; Harnois, Steven; John Fusco
Subject: Re: Any news?

Amanda,

I have questions concerning the Certification Protocol and Report.

Per the draft received May 1, 2007 on page 11, Item 3 indicates that water is evaluated. The report on page 14 does not indicate that the water was run.

Additionally, Item 10 on page 12 indicates that a new solution is added. I don't see anywhere on the report where this info is used. Is it really supposed to be there? I recommend that it be removed because the Installation Protocol asks for the same info and actually runs an Accuracy/Precision (see page 15 Item 4).

On Page 11 Item 2 I think it should say,"(see page 13 for Diagnostic Test Print Out)". Page 24 is a Solution Change.

The Report Printout on Page 13 shows that the options are printed. Is that a copy of the options each time the report is printed or is that a copy of the options at the time of the certification?

That's it for now,
--
Scott Marhefka
National Patent Analytical Systems
2090 Harrington Memorial Road
Mansfield, OH 44903

email: eng@npas.com
phone: (419) 526-6727

Drawbaugh, Bob

From: Scott Marhefka [eng@npas.com]
Sent: Tuesday, May 01, 2007 9:25 AM
To: Bolduc, Amanda
Cc: engineering@npas.com; Dave Radomski; Drawbaugh, Bob; Richardson, Darcy; Harnois, Steven
Subject: Re: DMT Software

Hello Amanda,

I intend to send you an update today but I have more questions.

On some of your tickets you have Agency Name and on some you have Location. What is the difference? If they are the same, which way do you prefer?

On some of your tickets you have NPAS DataMaster DMT and others just DataMaster DMT. Is just DataMaster DMT OK?

Are all of the headings in your latest proposal (received 04/20/2007) how you actually want them to be? Steve has been changing things to match but I have stopped him. They all have some combination of Cert Date, Install Date and Calibration Date. It would be nice if we could standardize a bit. I'm not trying to tell you what you need, I just want to make sure we are doing what you want. The question came up because Solution Change doesn't show any of the above mentioned dates.

Thanks
--
Scott Marhefka
National Patent Analytical Systems
2090 Harrington Memorial Road
Mansfield, OH 44903

email: eng@npas.com
phone: (419) 526-6727

Bolduc, Amanda

From: Scott Marhefka [eng@npas.com]
Sent: Tuesday, May 01, 2007 9:25 AM
To: Bolduc, Amanda
Cc: engineering@npas.com; Dave Radomski; Drawbaugh, Bob; Richardson, Darcy; Harnois, Steven
Subject: Re: DMT Software

Hello Amanda,

I intend to send you an update today but I have more questions.

On some of your tickets you have Agency Name and on some you have Location. What is the difference? If they are the same, which way do you prefer?

On some of your tickets you have NPAS DataMaster DMT and others just DataMaster DMT. Is just DataMaster DMT OK?

Are all of the headings in your latest proposal (received 04/20/2007) how you actually want them to be? Steve has been changing things to match but I have stopped him. They all have some combination of Cert Date, Install Date and Calibration Date. It would be nice if we could standardize a bit. I'm not trying to tell you what you need, I just want to make sure we are doing what you want. The question came up because Solution Change doesn't show any of the above mentioned dates.

Thanks
--
Scott Marhefka
National Patent Analytical Systems
2090 Harrington Memorial Road
Mansfield, OH 44903

email: eng@npas.com
phone: (419) 526-6727

- When recal - - loc
- install date
- Cert.

Change fields

Make sure doesn't change old reports

- Document version changes

Bolduc, Amanda

From: Scott Marhefka [eng@npas.com]
Sent: Tuesday, April 24, 2007 9:29 AM
To: Bolduc, Amanda
Subject: Re: Quick question

conversion from PPM → g/210L

Amanda,

The Standard Deviation was in PPM. It still needs to be divided by 2605 -- my bad. The Sim temp that was not listed is the temperature at the beginning of the Accuracy and Precision check. The other temp is at the time of the Diagnostic Test. I will find out where it went.

--

Scott Marhefka
National Patent Analytical Systems
2090 Harrington Memorial Road
Mansfield, OH 44903

email: eng@npas.com
phone: (419) 526-6727

Tx dig = lock-up
Pic processor problem
→ new chip fixes problem

email: eng@npas.com
phone: (419) 526-6727

Bolduc, Amanda

From: Scott Marhefka [eng@npas.com]
Sent: Tuesday, May 01, 2007 9:25 AM
To: Bolduc, Amanda
Cc: engineering@npas.com; Dave Radomski; Drawbaugh, Bob; Richardson, Darcy; Harnois, Steven
Subject: Re: DMT Software

Hello Amanda,

I intend to send you an update today but I have more questions.

On some of your tickets you have Agency Name and on some you have Location. What is the difference? If they are the same, which way do you prefer?

On some of your tickets you have NPAS DataMaster DMT and others just DataMaster DMT. Is just DataMaster DMT OK?

Are all of the headings in your latest proposal (received 04/20/2007) how you actually want them to be? Steve has been changing things to match but I have stopped him. They all have some combination of Cert Date, Install Date and Calibration Date. It would be nice if we could standardize a bit. I'm not trying to tell you what you need, I just want to make sure we are doing what you want. The question came up because Solution Change doesn't show any of the above mentioned dates.

Thanks
--
Scott Marhefka
National Patent Analytical Systems
2090 Harrington Memorial Road
Mansfield, OH 44903

email: eng@npas.com
phone: (419) 526-6727

Bolduc, Amanda

From: Scott Marhefka [eng@npas.com]
Sent: Tuesday, April 24, 2007 9:29 AM
To: Bolduc, Amanda
Subject: Re: Quick question

Amanda,

The Standard Deviation was in PPM. It still needs to be divided by 2605 -- my bad. The Sim temp that was not listed is the temperature at the beginning of the Accuracy and Precision check. The other temp is at the time of the Diagnostic Test. I will find out where it went.

--
Scott Marhefka
National Patent Analytical Systems
2090 Harrington Memorial Road
Mansfield, OH 44903

email: eng@npas.com
phone: (419) 526-6727

Bolduc, Amanda

From: Scott Marhefka [eng@npas.com]
Sent: Tuesday, April 24, 2007 8:35 AM
To: Bolduc, Amanda
Subject: Re: Quick question

Hello Amanda,

I hope today is going better for you. Last night I shipped you new PIC processors to install on the control board. The new chips should eliminate the lock-up that occurs on the Diagnostic Test. An easier way to simulate the problem is to power up the DMT and then goto HELP -> ABOUT seven times. The same lock-up will occur. Thank you for your help resolving that issue.

Would you please fax or e-mail a copy of the ticket referenced in item 3 of your e-mail concerning the simulator temp? I would also like to see a copy of the ticket with the wrong Standard Deviation.

Thanks for your help and attention to detail!

--
Scott Marhefka
National Patent Analytical Systems
2090 Harrington Memorial Road
Mansfield, OH 44903

email: eng@npas.com
phone: (419) 526-6727

Bolduc, Amanda

From: Scott Marhefka [eng@npas.com]
Sent: Tuesday, April 24, 2007 8:35 AM
To: Bolduc, Amanda
Subject: Re: Quick question

Hello Amanda,

I hope today is going better for you. Last night I shipped you new PIC processors to install on the control board. The new chips should eliminate the lock-up that occurs on the Diagnostic Test. An easier way to simulate the problem is to power up the DMT and then goto HELP -> ABOUT seven times. The same lock-up will occur. Thank you for your help resolving that issue.

Would you please fax or e-mail a copy of the ticket referenced in item 3 of your e-mail concerning the simulator temp? I would also like to see a copy of the ticket with the wrong Standard Deviation.

Thanks for your help and attention to detail!
--
Scott Marhefka
National Patent Analytical Systems
2090 Harrington Memorial Road
Mansfield, OH 44903

email: eng@npas.com
phone: (419) 526-6727

DataMaster Memory Options

1) **Memory is turned on and collects all information:** All RPC's, APM's and other maintenance or performance reports will be emailed to us from the DMT to an IR program email account. Routine Discovery requests will be handled by the DM agencies. Advantages: IR program will be able to monitor the performance of the DMT's in the field and collect additional information regarding volume of breath, error code status, etc. Disadvantages: At least initially, discovery requests will be frequent and there may be communication issues between police agencies, state's attorneys, defense attorneys and the IR program.

Search for NY.

2) **Memory is partially on:** Maintenance records including RPC's, APM's, error codes would be collected by the instrument. Reports would be emailed to an IR program email account. Individual agencies would handle routine discovery requests. Subject breath tests would not be collected. Advantages: It could potentially limit discovery requests. Error codes would be available for review. Disadvantages: Very little additional information available (error codes) but discovery requests would still be common.

3) **Memory is turned off:** Nothing is collected and retained. Additionally, aborted protocols would not be retained to be taken up at a later time. RPC reminders would be void. Advantages: Discovery requests would not be applicable. Disadvantages: Severely limits our monitoring ability and protocol ability. Could be a big legal challenge as the DMT collects information regardless and purges information if memory is turned "off." In the previous Supreme Court ruling, it was decided that the health department could not be forced to "create evidence" however, with his function we would actually be destroying evidence.

• NAE data as from a Non-producing instrument. Instrument returned to NPAS As per Dave @ NPAS Instrument only for demonstration, not analytically accurate.

Bolduc, Amanda

From: Scott Marhefka [eng@npas.com]
Sent: Friday, April 20, 2007 12:01 AM
To: Bolduc, Amanda
Subject: Emailing: upload.zip

upload.zip (606 KB)

Hello Amanda,

Attached is "upload.zip". Extract and put onto the DMT. If you need me to talk you through the process, call my cel #419-295-0300. I am out Friday but please call.

I was hoping to have the Certification Process enabled but something wasn't working right and I didn't want you to have to deal with it. I will fix it Monday along with some of the other disabled features.

The main things I need you to examine are as follows:

The 4 hour and 33 minute lock-up was eliminated.

We discovered that the flow units were incorrectly scaled. For the scaling to be correct it should have been (Liters)/(quarter second). This has been resolved and the new flow rate is shown in (Liters/Minute). All of the volume calculations were correct. It only pertained to the numbers on the right y-axis.

The Installation and APM are active in the menu under protocols. These items are currently not password protected nor do they care about warm up or calibration or blah blah blah. The Installation also only runs the simulator twice. The countdown timer is 1 minute instead of 30. I wanted to let you check it out without being bogged down. I think you will be pleased with the way the printouts are turning out. One note, the Certification Date will be blank because I disabled your Certification Protocol.

Is the instrument allowed to perform an Installation if the Cert has not been done?

Is the instrument allowed to run tests if an Installation has not been done?

Is the RPC supposed to have an Accuracy/Precision?

Does the RPC do an RFI test?

Does the APM do an RFI test?

--
Scott Marhefka
National Patent Analytical Systems
2090 Harrington Memorial Road
Mansfield, OH 44903

email: eng@npas.com
phone: (419) 526-6727

Bolduc, Amanda

From: Scott Marhefka [eng@npas.com]
Sent: Wednesday, April 18, 2007 8:44 AM
To: Bolduc, Amanda
Subject: Re: Quick question

Hello Amanda,

The 4 hour 33 minute lockup issue was definately related to the timer. We have tested it thoroughly and are confident the issue is resolved.

We are almost finished moving the Current Date and Time on printouts to the footer. You will have the next update to your software in your e-mail Friday morning.

The biggest thing I'm working on now is the RFI test. I'm planning on a window popping up that displays the detector voltage. The window will stay open until RFI is detected or the test is cancelled. Is this how you wanted it to work?

--
Scott Marhefka
National Patent Analytical Systems
2090 Harrington Memorial Road
Mansfield, OH 44903

email: eng@npas.com
phone: (419) 526-6727

Bolduc, Amanda

From: Scott Marhefka [eng@npas.com]
Sent: Wednesday, April 11, 2007 9:54 AM
To: Bolduc, Amanda
Subject: Re: Quick question

Amanda,

I was going to tell you to be on the lookout for your dmt locking up overnight but Dave tells me you have already seen it. Mine has locked up several nights in a row with the Vermont software in it. I leave my dmt on all the time and have never had a problem.

Dave says you thought it to be power related. I don't think that is it. The switchers inside can handle about anything all the way down to around 50-60 volts ac. Additionally, nothing that I know has changed here since last week. Unfortunately I think I introduced something into the software. Keep me informed and we will track it down here as well.

--
Scott Marhefka
National Patent Analytical Systems
2090 Harrington Memorial Road
Mansfield, OH 44903

email: eng@npas.com
phone: (419) 526-6727

Bolduc, Amanda

From: Bolduc, Amanda
Sent: Friday, April 20, 2007 2:00 PM
To: 'engineering@npas.com'; 'Dave Radomski'
Cc: Drawbaugh, Bob; Richardson, Darcy; Harnois, Steven; Bolduc, Amanda
Subject: DMT Software

Here is the punch list of software modifications/clarifications the we have noted in the current software rev.

1. Still waiting for Certification and RPC protocols
2. On the generated reports, under Sample Acceptance Test, we would like it to say Passed or Failed as necessary
3. On the Installation Report under A&P check, the standard deviation was not accurately calculated. Also, the Sim temp was not printed. We noticed that the digital sim temp is printed under the TEMPS area. The temp does not necessarily need to be there twice, but if it is there, the actual temp needs to be recorded.
4. DUI Subject test. See attached ticket example or page 7 of the Operating Protocol. The agency, Cert date and Install date should be on the top of the ticket. Also, there should be dashes above Obs. Period Start time to separte the case info from the test info. Finally, there needs to be a space between the first subject sample and the second blank test to separate the two portions of the testing.
5. When the internal standard is tested, the result should say PASSED not VERIFIED
6. The Calibration Report, Diagnotsic test report and Options print-out should have the Health Dept logo on the top, not the state crest and other information as seen in the Operating protocol. Please see pages 10, 25 and 26 of the software protocol.
7. Currently the Check-In button does not go anywhere.
8. The main screen should only have the timer and the RUN button. When the RUN button is selected, a second box should pop up asking if it is a DUI Test or a Check In. If DUI Test is selected, a DUI subject test is run (correct as is with changes mentioned above). If check in is selected, the 15 min clock is bypassed and a Check-In Test is run (see page 6 of protocol).
9. In both DUI and Check-In tests, once all the information is entered and the operator presses Enter, a box should pop up that says Review Data Y/N? If the person presses N, then the test goes forward, if they press Y then it returns them to the data entry screen.
10. During a DUI test, before the subject is instructed to blow, the instrument should query "subject take test Y/N?" If N then a reason for refusal should be entered. If Y, then continue with testing. After the first subject sample, the instrument should query "Will subject provide 2nd sample Y/N?" (See page 5 of protocol).
11. Currently when a protocol fails, no report is generated. This should not be the case. A report should be printed even if the protocol fails and the report should say FAILED.
12. The Supervisor Test should be renamed Accuracy and Precision Test everywhere it appears.
13. When running the Accuracy and Precision Test, the instrument promps to enter the simulator solution concentration twice. First when entering the operator and solution information, and secondly when a box pops up. We would prever to only enter the solution information once to reduce confusion.
14. The Simulator Solution Change option does not go anywhere.

To respond to Scott's questions:

Is the instrument allowed to perform and Installation if the Cert has not been done? NO
Is the instrument allowed to run tests if an Installation has not been done? YES, but on ticket there won't be an Install Date
Is the RPC supposed to have and A&P Test? YES, see page 20, #4 of Operating Protocol
Does the RPC do and RFI Test? YES, see page 20, #5 of Operating Protocol
Does the APM do an RFI Test? YES, see page 18 #5 of Operating Protocol

I have attched the latest update to the Operating Protocol if you need this as a pdf file, please let me know.

ticket portrait.doc (141 KB)
DataMaster DMT Operating Proto...

Thank you

Bolduc, Amanda

From: Scott Marhefka [eng@npas.com]
Sent: Friday, April 20, 2007 12:01 AM
To: Bolduc, Amanda
Subject: Emailing: upload.zip

upload.zip (606 KB)

Hello Amanda,

Attached is "upload.zip". Extract and put onto the DMT. If you need me to talk you through the process, call my cel #419-295-0300. I am out Friday but please call.

I was hoping to have the Certification Process enabled but something wasn't working right and I didn't want you to have to deal with it. I will fix it Monday along with some of the other disabled features.

The main things I need you to examine are as follows:

The 4 hour and 33 minute lock-up was eliminated.

We discovered that the flow units were incorrectly scaled. For the scaling to be correct it should have been (Liters)/(quarter second). This has been resolved and the new flow rate is shown in (Liters/Minute). All of the volume calculations were correct. It only pertained to the numbers on the right y-axis.

The Installation and APM are active in the menu under protocols. These items are currently not password protected nor do they care about warm up or calibration or blah blah blah. The Installation also only runs the simulator twice. The countdown timer is 1 minute instead of 30. I wanted to let you check it out without being bogged down. I think you will be pleased with the way the printouts are turning out. One note, the Certification Date will be blank because I disabled your Certification Protocol. VS 7x

Is the instrument allowed to perform an Installation if the Cert has not been done? NO

Is the instrument allowed to run tests if an Installation has not been done? Yes

Is the RPC supposed to have an Accuracy/Precision? Yes #4

Does the RPC do an RFI test? Yes #5

Does the APM do an RFI test? Yes (#5)

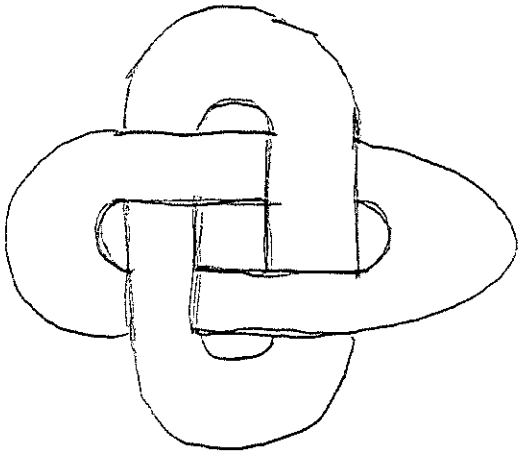
--
Scott Marhefka
National Patent Analytical Systems
2090 Harrington Memorial Road
Mansfield, OH 44903

email: eng@npas.com
phone: (419) 526-6727

Conversation w/ Scott @ NPAS 9/12/06

Questions:
1. Are ranges (acceptable) necessary on repeats?
2. If part of a protocol fails, do we start all over or from fail point?
   - for example [x]#3 during linearity
3. Data memory? On/off/Partial
4. Use DM Host for memory in stead of DMT as far as database

- Option #1 all off - purge
- Option #2 all on
- Option #3 partially on



8/14/06 Data Master Transportable

Conversation with Scott from NPAS

- Could not read word document b/c of format issues → re-emailed protocol as .pdf
- If 4 or more graphs are displayed/printed on a subject test report, there might be too much info for 1 page → VDHL will discuss

multiple pages OK pT of 2

- Units "on" axes → Units for axes (ie. key vs. label) recommended
- Min flow rate is very low, basically zero. DMT registers anything less than min flow as zero VDHL will remove min-flow from protocol
- NPAS says there is no "fatal system error" VDHL told NPAS that error codes listed in protocol are not complete
- NPAS requests VDHL, VT logos in .bmp format VDHL will contact IT. for .bmp logos
- NPAS explained mouth alcohol detection
  - 3 drops in [x]
  - final [x] < max [x] by ≥ 5%

  Invalid
- NPAS informed VDHL while suspect is providing sample, breath curve and/or alcohol curve could be displayed → VDHL will discuss
  - leave breath, alc curves up while sampling
  - leave [x] alc + breath vol. on screen