

**Droplet Measurement Technologies Inc.**

5710B Flatiron Parkway, Boulder, CO, 80301, USA

Ph: 303-440-5576, Fax: 303-440-1965

www.dropletmeasurement.com

**CDP
CAL Data**Customer:
U of North DakotaProject:
Stand Alone 4" Strut

Work Order No.:

Serial No. CDP:
CDP-0901-048Engineer:
GGDate:
12/16/2009**CDPE PCBA (ABD-0072): Rev: 4C**Firmware (FIRM-0013): Rev 169D PbP

Offset Voltage: Sizer: 308

Qualifier: 280

Serial
Interface: RS-422

20um Pinhole >

2:1: $V_{\text{qualifier}}$: 1.20 v V_{size} : 600

Size: 18

CDPE Power PCBA (ABD-0073): Rev: 4**Sizer PCBA (ABD-0187) Rev: 1**

R1	R11	C1	Baseline Offset (mV)
18.0K	24.9K	1pF	-540

Qualifier PCBA (ABD-0188): Rev: 1

R14	R24	C13	Baseline Offset (mV)
36.0K	24.9K	1pF	-540

Signal and Power PCBA (ABD-0189) Rev: 1**Laser Driver PCBA (ABD-0186) Rev: 1** Heater Installed

Serial No.: CDP090119A	Laser Power (mW)	Laser Current (mA)	Current Trip
Power Monitor: 3.06	$P_L = 27.0$	$I_L = 80.15$	$I_t: 120$

Comments:

Replaced strut with 4" length
Cleaned and calibrated unit
Installed new PbP firmware 169D revision

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*Cloud and Aerosol Spectrometer**Cloud Aerosol and Precipitation Spectrometer*



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CDP
Final Notes

Comments (continued):

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Cloud and Aerosol Spectrometer

Cloud Aerosol and Precipitation Spectrometer



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CDP
Final Notes

Customer:
U of North Dakota

Project:
CCP

Work Order No.:

Serial No. CDP:
CDP-0901-048

Technician:
GG

Date:
12/16/2009

Comments:

Laser Power: 27.0 mW Laser Current: 62.16.0 mA Laser Power Monitor: 3.06

Beam Diameter: _____ mm Depth of Field Length: _____ mm

Sample Area: 0.240 mm² calculated

Firmware: 169D

Customer Copy

Cloud and Aerosol Spectrometer

Cloud Aerosol and Precipitation Spectrometer

Sample **Not Recording** **Read a File**

Current Data File: 20091216101950

(0) CDP_PBP Setup Debug

Menu Slow Medium Fast

10:19:52 10:20:00 10:20:10 10:20:20 10:20:29

00 d 10:20:06 (37207sec)

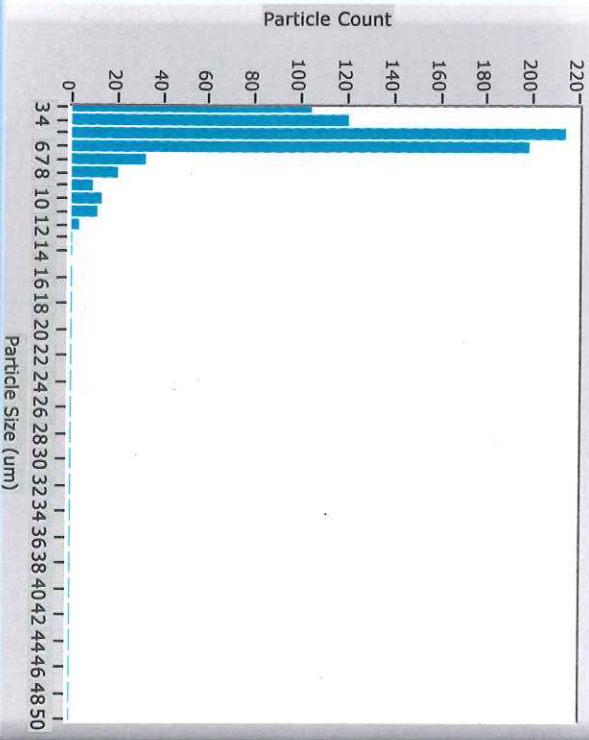
COM Port 5 **No Fault**

V2.8.1

Enable **Enabled**

CDP_PBP Data

Number Conc (# / cm ³)	CDP ED (um)	Wing_Board_Temp
120.67	6.02	25.2
CDP LWC (g / m ³)	Volume Conc (um ³ / cm ³)	Laser_Temp
0.01	9635	25.9
CDP MVD (um)	Laser_Current (um)	DOF_Reject_Cnt
5.88	80.52	1963
	Dump_Spot_Monitor	
	3.19	

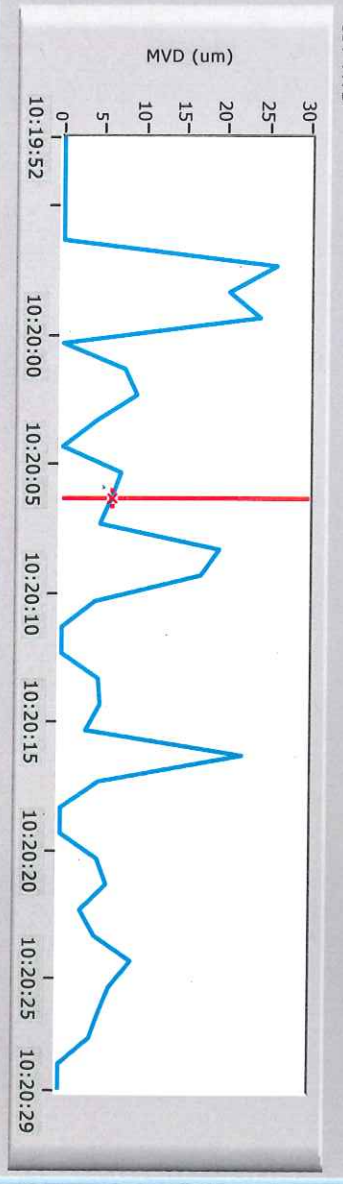
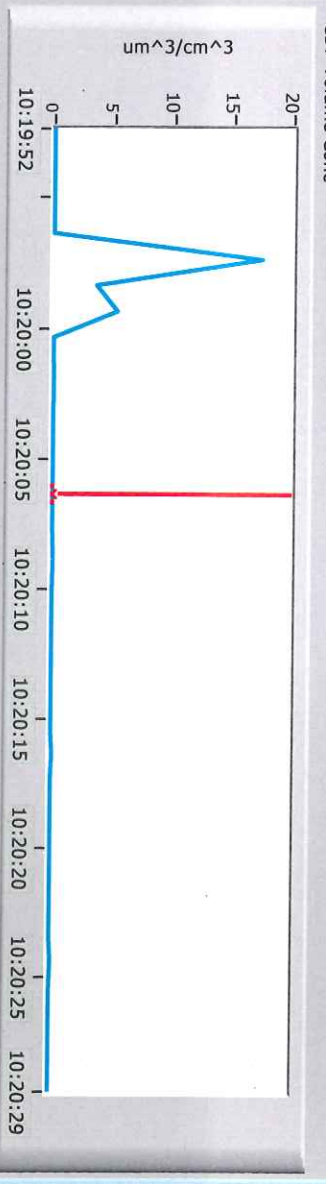
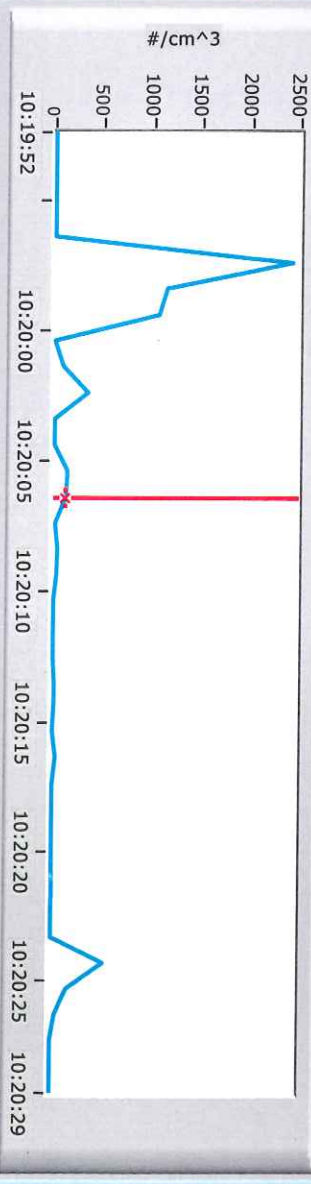


/ Vol Conc

Selectable Charts **PPB Data** Particle Count Full

COM Port 5 **No Fault**

V2.8.1



Sample **Not Recording** Read a File

Current Data File: 20091216101815

(0) CDP_PBP Setup Debug

Manua Slow Mediu Fast

10:18:17 10:18:30 10:18:45

00 d 10:18:41 (37121sec)

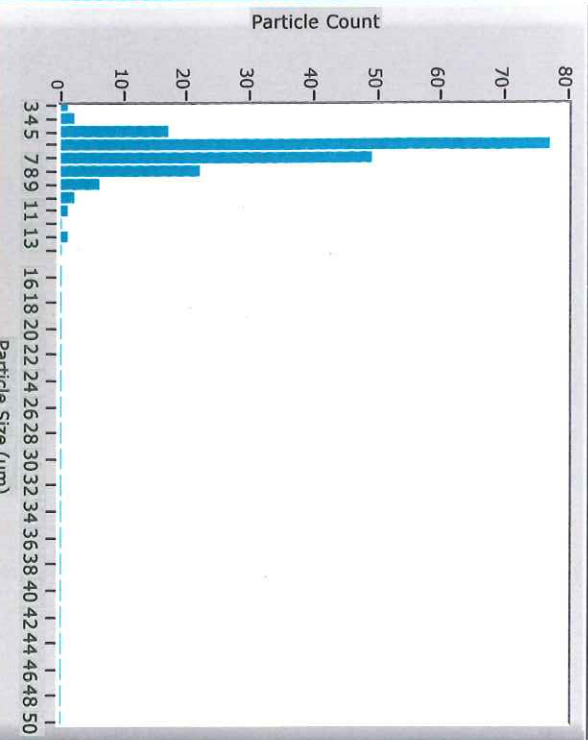
COM Port 5 V2.8.1

No Fault

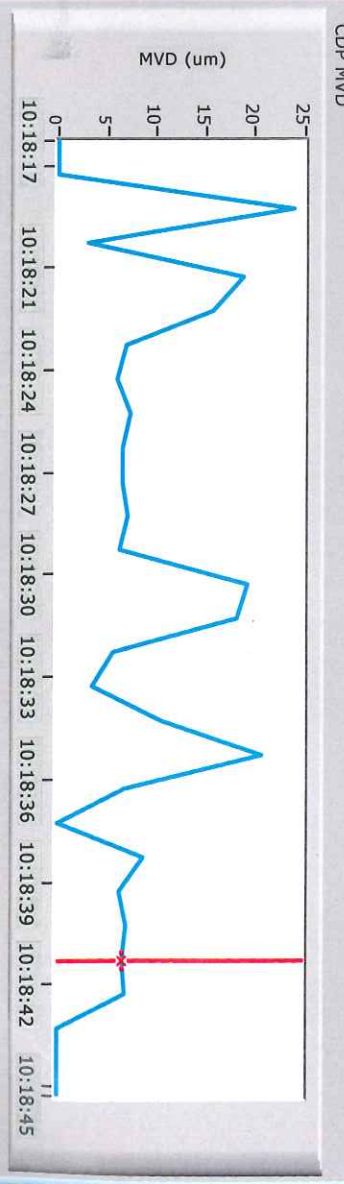
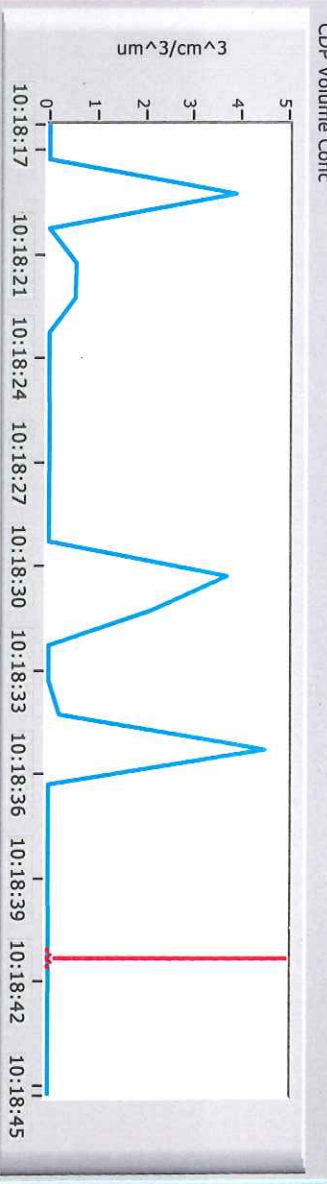
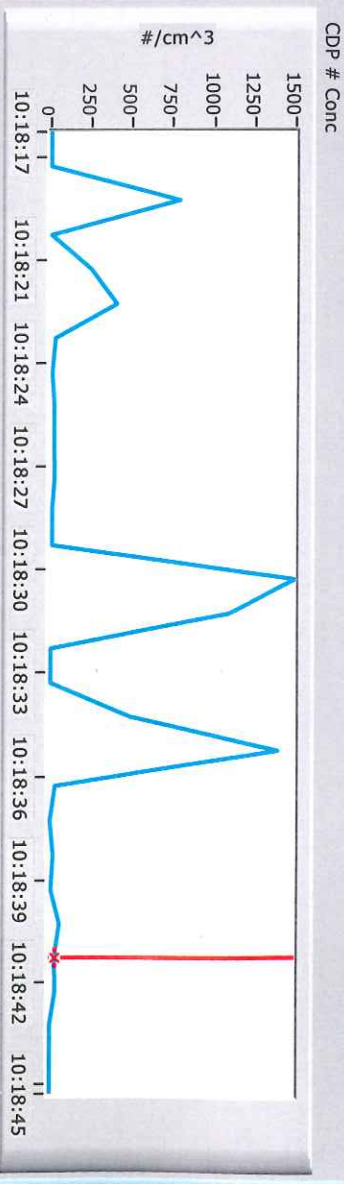
CDP_PBP Data

Enable Enabled

Number Conc (# / cm ³)	29.67	CDP ED (um)	6.63	Wing_Board_Temp	25.3
CDP LWC (g / m ³)	0	Volume Conc (um ³ / cm ³)	3989	Laser_Temp	25.9
CDP MVD (um)	6.62	Laser_Current (um)	80.58	DOF_Reject_Cnt	545
		Dump_Spot_Monitor	3.2		



/ Vol Conc Selectable Charts PBP Data Particle Count Full



DMT Particle Analysis and Display System
 C:\Program Files\PADS\PADS.exe\PADS.vi
 Last modified on 5/27/2009 at 10:08 AM
 Printed on 12/16/2009 at 11:24 AM

Sample **Not Recording** Read a File

Current Data File: 20091216102042

(0) CDP_PBP Setup Debug

Manual Slow Medium Fast

10:21:13 10:22:00 10:22:30 10:23:13

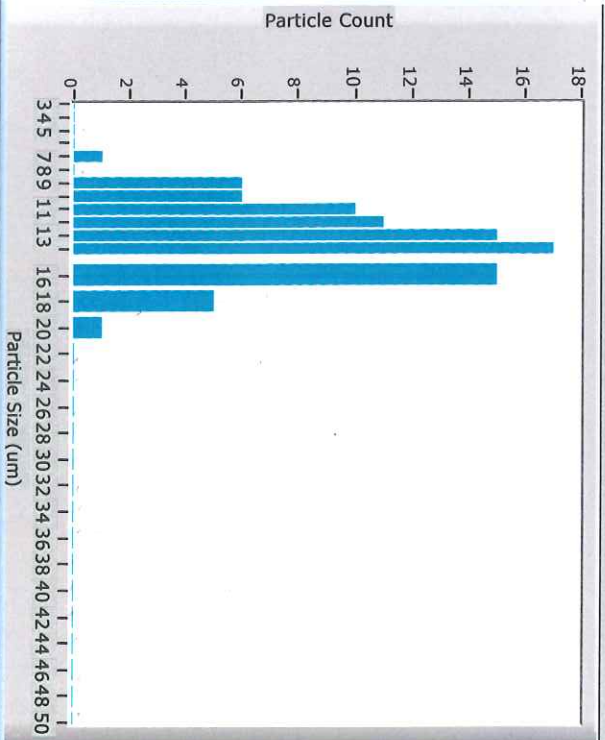
00 d 10:21:47 (37308sec)

COM Port 5 V2.8.1

No Fault

Enable **Enabled**

Number Conc (# / cm ³)	14.5	CDP ED (um)	13.42	Wing_Board_Temp	25.2
CDP LWC (g / m ³)	0.02	Volume Conc (um ³ / cm ³)	16631	Laser_Temp	26
CDP MWD (um)	13.68	Laser_Current (um)	80.46	DOF_Reject_Cnt	463
		Dump_Spot_Monitor	3.19		



/ Vol Conc Selectable Charts PBP Data Particle Count Full

COM Port 5 V2.8.1

No Fault



DMT Particle Analysis and Display System
 C:\Program Files\PADS\PADS.exe\PADS.VI
 Last modified on 5/27/2009 at 10:08 AM
 Printed on 12/16/2009 at 11:20 AM

Sample

Current Data File: 20091216102753

(0) CDP_PBP

Manua

10:42:55 10:43:10 10:43:20 10:43:33

00 d 10:43:12 (385933sec) *30pm*

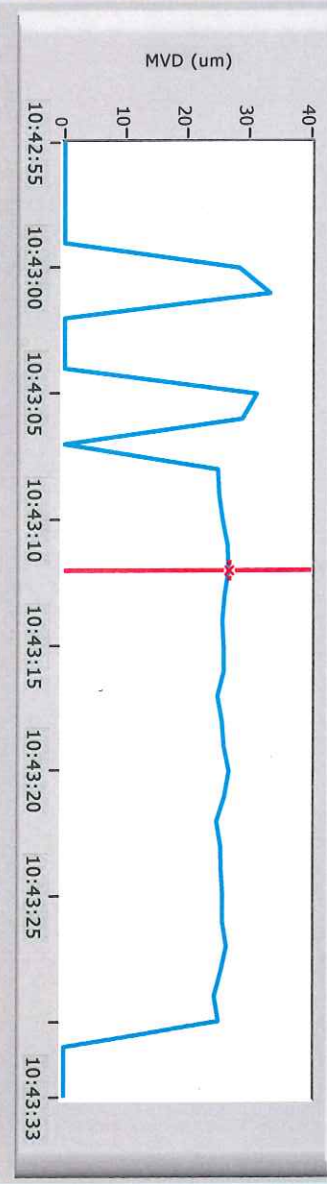
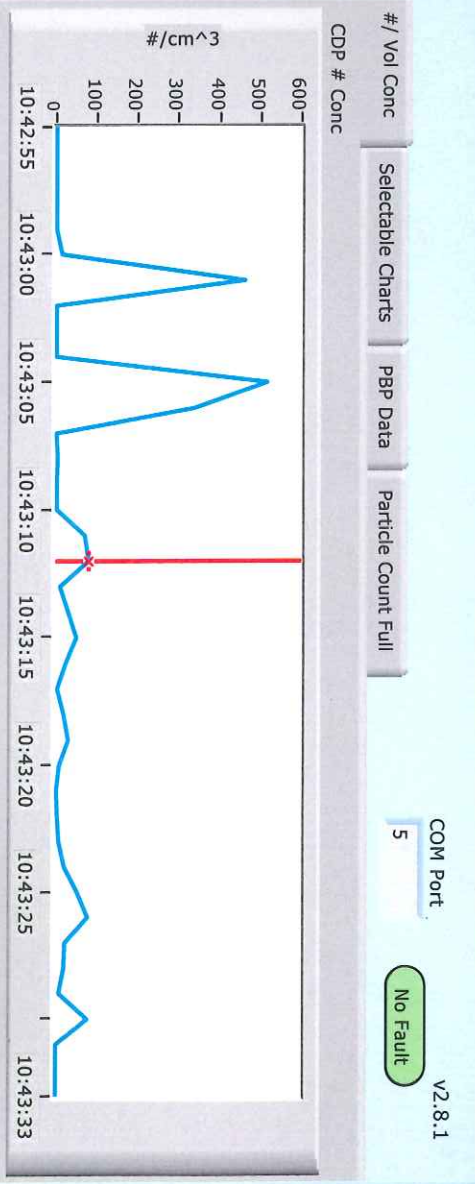
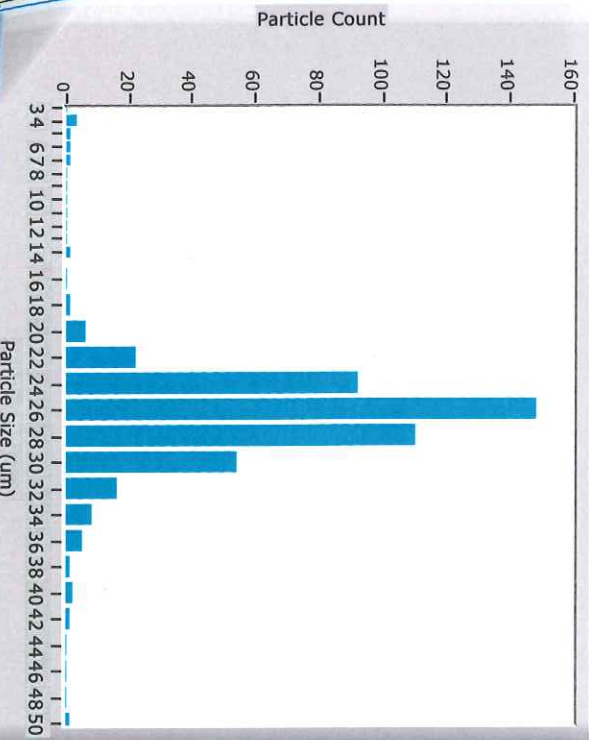
COM Port: 5

V2.8.1

Enable

CDP_PBP Data

Number Conc (# / cm ³)	79	CDP ED (um)	26.74	Wing_Board_Temp	25.4
CDP LWC (g / m ³)	0.74	Volume Conc (um ³ / cm ³)	741880	Laser_Temp	26.1
CDP MVD (um)	26.52	Laser_Current (um)	80.58	DOF_Reject_Cnt	3257
		Dump_Spot_Monitor	3.19		



DMT Particle Analysis and Display System
 C:\Program Files\PADS\PADS.exe\PADS.vi
 Last modified on 5/27/2009 at 10:08 AM
 Printed on 12/16/2009 at 11:18 AM

Sample **Not Recording** Read a File

Current Data File: 20091216104518

(0) CDP_PBP Setup Debug

Enable Enabled

Manual Slow Medium Fast

10:45:20 10:45:25 10:45:30 10:45:37

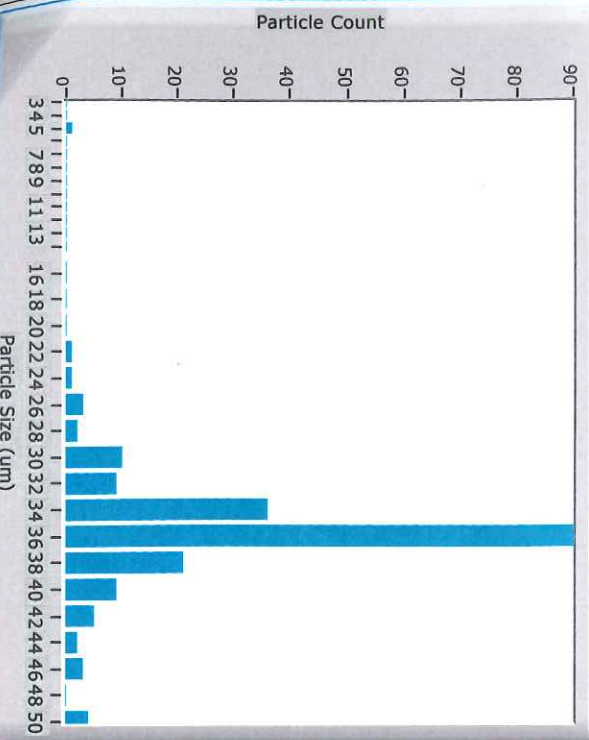
00 D 10:45:32 (38732sec)

OCC

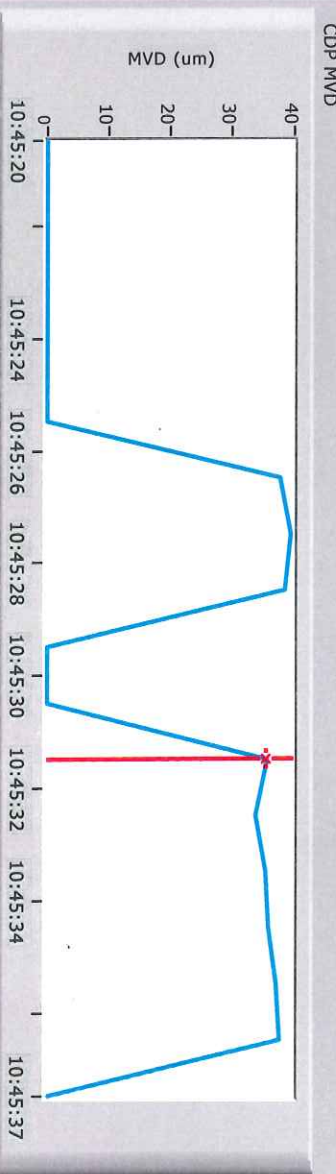
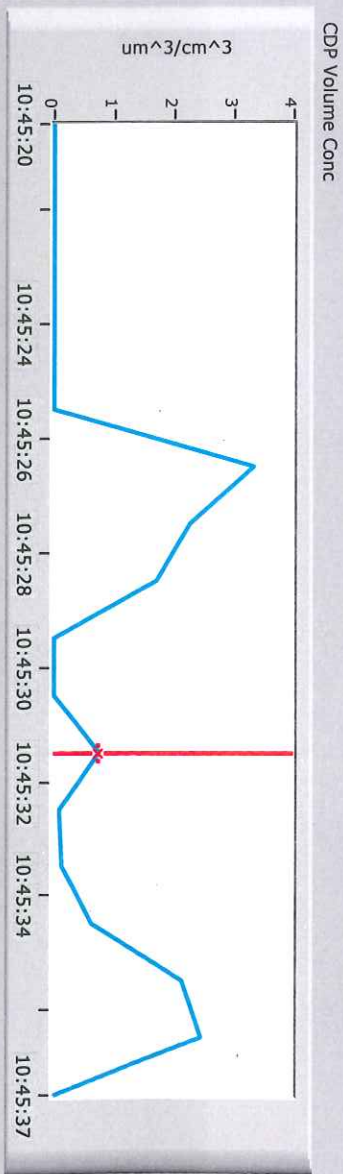
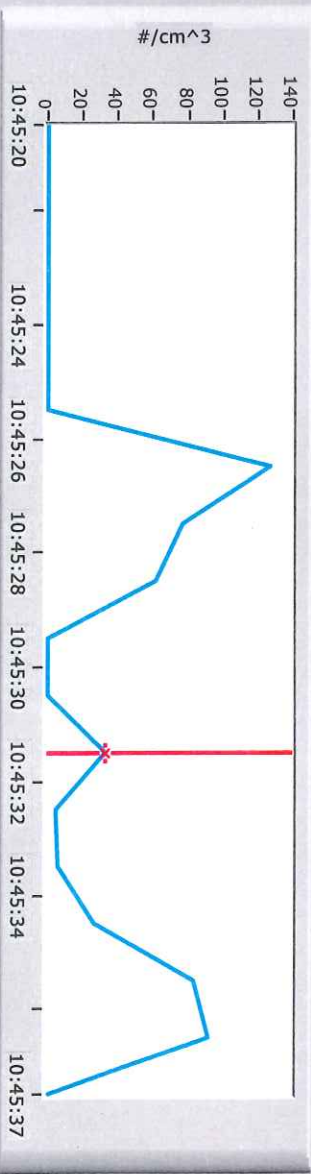
COM Port 5 V2.8.1
 No Fault

CDP_PBP Data

Number Conc (# / cm ³)	32.83	CDP ED (um)	35.75	Wing_Board_Temp	25.4
CDP LWC (g / m ³)	0.75	Volume Conc (um ³ / cm ³)	752012	Laser_Temp	26.2
CDP MVD (um)	35.24	Laser_Current (um)	80.52	DOF_Reject_Cnt	3108
		Dump_Spot_Monitor	3.2		



/ Vol Conc Selectable Charts PBP Data Particle Count Full



42um

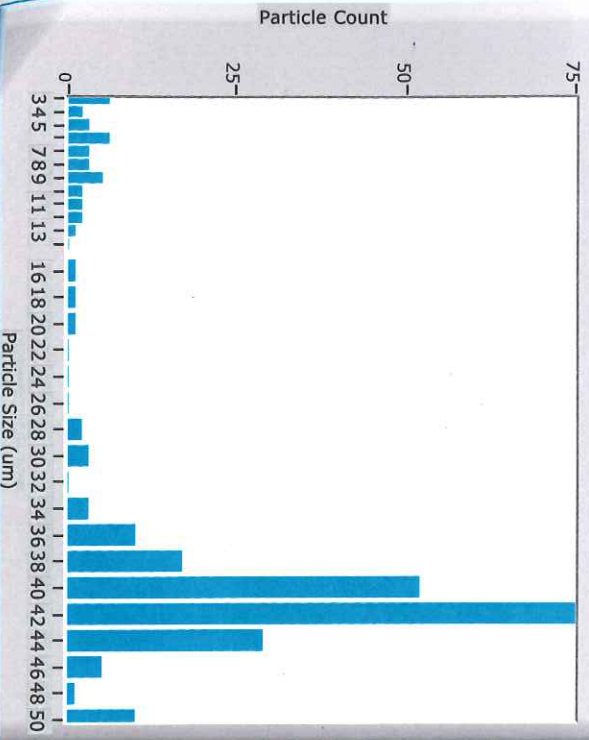
DMT Particle Analysis and Display System
 C:\Program Files\PADS\PADS.exe\PADS.vi
 Last modified on 5/27/2009 at 10:08 AM
 Printed on 12/16/2009 at 11:15 AM

Sample **Not Recording** Read a File
 Current Data File: 20091216104645
 (0) CDP_PBP Setup Debug
 Manual Slow Medium Fast
 10:46:47 10:47:00 10:47:15 10:47:30 10:47:44
 00 D 10:46:52 (38813sec) *50 p.p.m*
 COM Port 5 V2.8.1
No Fault

Enable **Enabled**

CDP_PBP Data

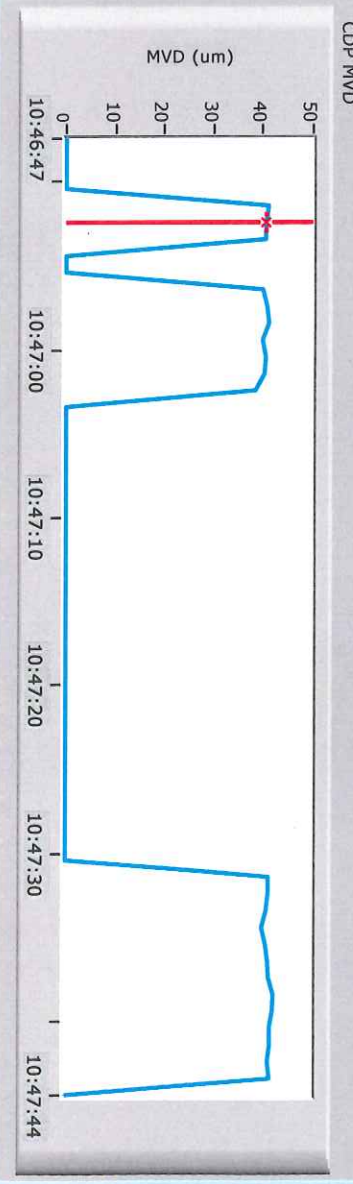
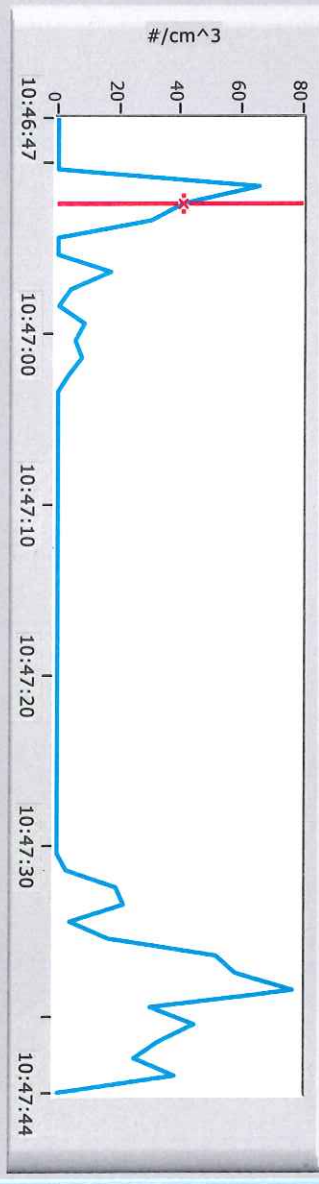
Number Conc (# / cm ³)	40.83	CDP ED (um)	40.63	Wing_Board_Temp	25.4
CDP LWC (g / m ³)	1.21	Volume Conc (um ³ / cm ³)	1207443	Laser_Temp	26.2
CDP MVD (um)	40.89	Laser_Current (um)	80.58	DOF_Reject_Cnt	2145
		Dump_Spot_Monitor	3.19		



/ Vol Conc Selectable Charts PBP Data Particle Count Full

CDP # Conc

COM Port 5 V2.8.1
No Fault



MIST

00 d 10:57:13 (394333sec)

0cc

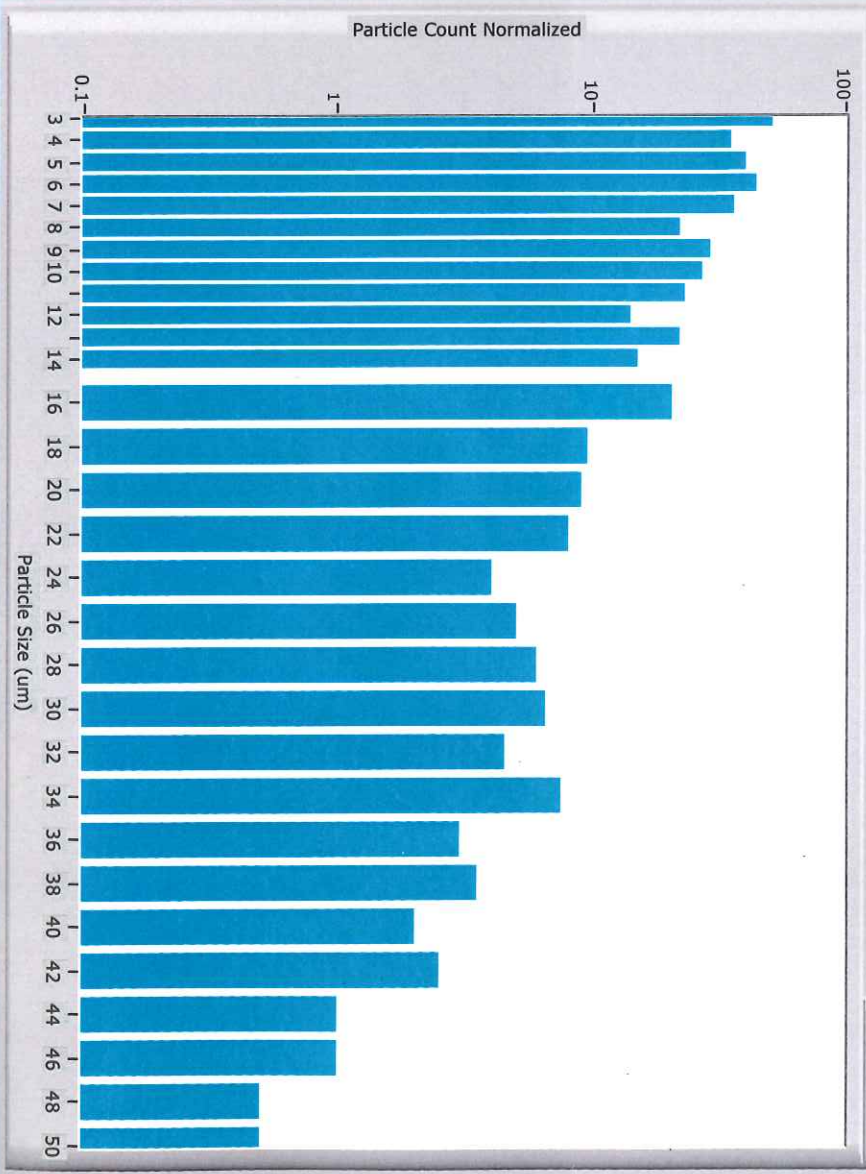
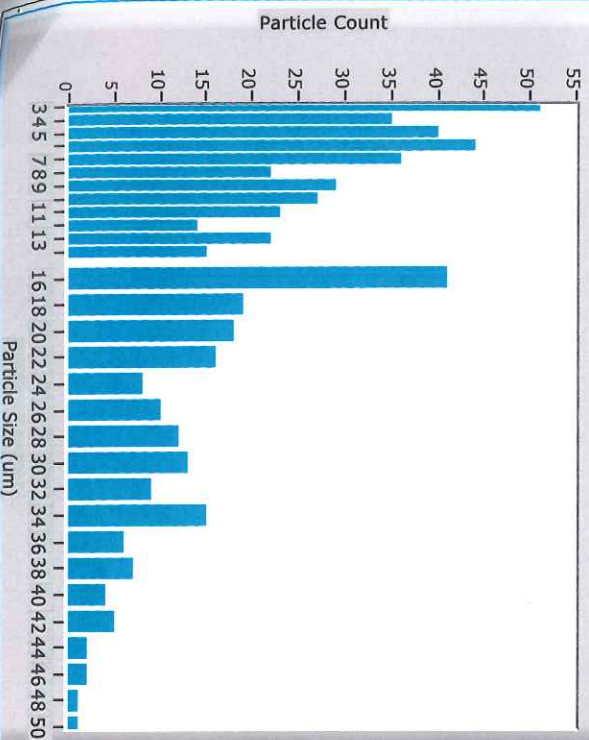
Sample
 Current Data File: 20091216105619

(0) CDP_PBP Setup Debug
 Menu Slow Medium Fast
 10:56:21 10:56:40 10:57:00 10:57:20 10:57:43

COM Port 5 V2.8.1

CDP_PBP Data

Number Conc (# / cm ³)	91.17	CDP ED (um)	27.55	Wing_Board_Temp	25.3
CDP LWC (g / m ³)	0.36	Volume Conc (um ³ / cm ³)	355610	Laser_Temp	26.2
CDP MWD (um)	32.96	Laser_Current (um)	80.52	DOF_Reject_Cnt	17
		Dump_Spot_Monitor	2.86		



/ Vol Conc
 Y-Axis
 X-Axis