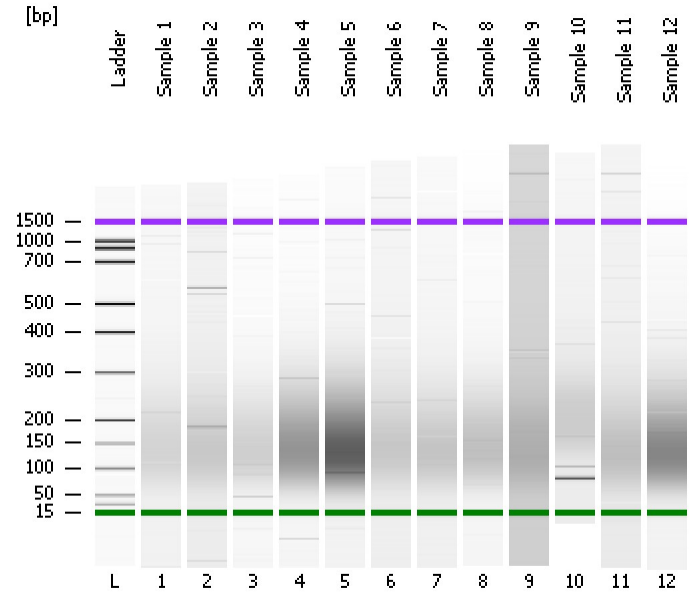
Assay Class: DNA 1000
Data Path: C:\...ents and Settings\Bioanalyzer\2013-04-22\2013-04-22_005.xad

Created: 4/22/2013 4:24:22 PM
Modified: 4/22/2013 5:08:28 PM

Electrophoresis File Run Summary



Instrument Information:

Instrument Name: DE13701086 Firmware: C.01.069
Serial#: DE13701086 Type: G2938B

Assay Information:

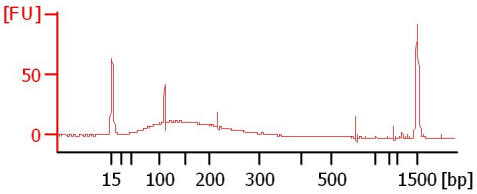
Assay Origin Path: C:\Program Files\Agilent\2100 bioanalyzer\2100 expert\assays\dsDNA\DNA 1000 Series II.xsy

Assay Class: DNA 1000
Version: 2.3
Assay Comments: DNA Analysis 25 -1000 bp

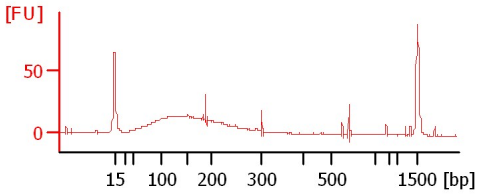
Chip Information:

Chip Lot #:
Reagent Kit Lot #:
Chip Comments:

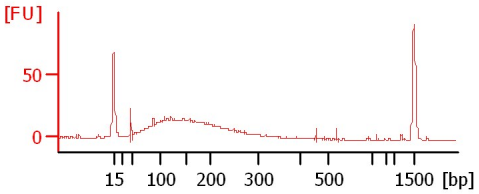
Sample 1



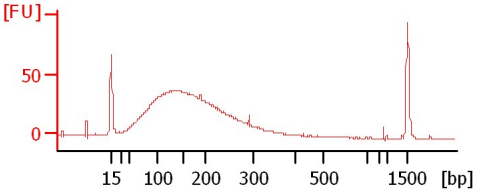
Sample 2



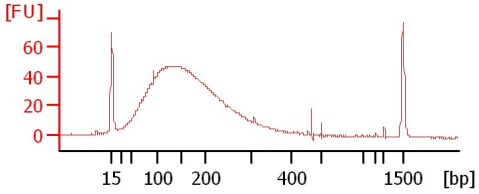
Sample 3



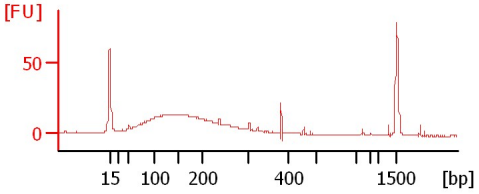
Sample 4



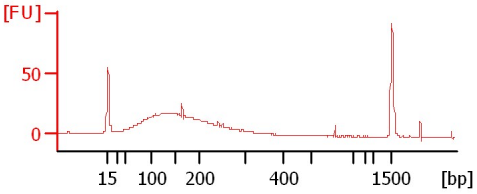
Sample 5



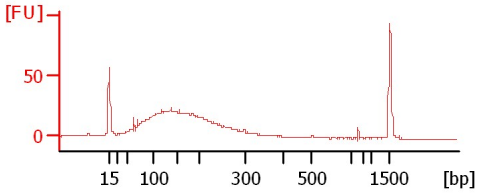
Sample 6



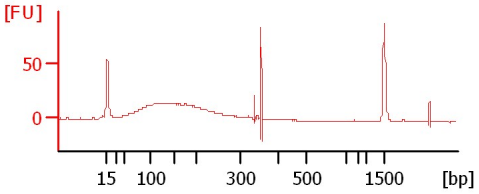
Sample 7



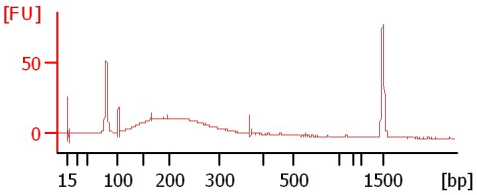
Sample 8



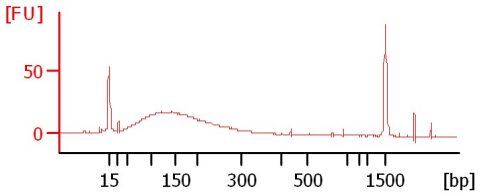
Sample 9



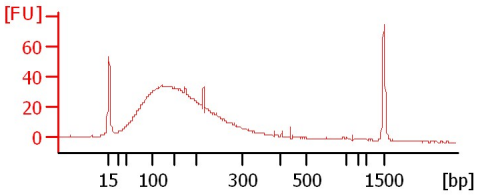
Sample 10



Sample 11



Sample 12



Assay Class: DNA 1000 Created: 4/22/2013 4:24:22 PM
Data Path: C:\...ents and Settings\Bioanalyzer\2013-04-22\2013-04-22_005.xad Modified: 4/22/2013 5:08:28 PM

Electrophoresis File Run Summary (Chip Summary)

Sample Name	Sample Comment	Rest. Digest	Status	Observation	Result Label	Result Color
Sample 1		☐	✔			
Sample 2		☐	✔			
Sample 3		☐	✔			
Sample 4		☐	✔			
Sample 5		☐	✔			
Sample 6		☐	✔			
Sample 7		☐	✔			
Sample 8		☐	✔			
Sample 9		☐	✔			
Sample 10		☐	✔			
Sample 11		☐	✔			
Sample 12		☐	✔			
Ladder		☐	✔			

Chip Lot # **Reagent Kit Lot #**

Chip Comments :

Assay Class: DNA 1000 Created: 4/22/2013 4:24:22 PM
Data Path: C:\...ents and Settings\Bioanalyzer\2013-04-22\2013-04-22_005.xad Modified: 4/22/2013 5:08:28 PM

Electrophoresis Assay Details

General Analysis Settings

Number of Available Sample and Ladder Wells (Max.) : 13
Minimum Visible Range [s] : 30
Maximum Visible Range [s] : 129
Start Analysis Time Range [s] : 30
End Analysis Time Range [s] : 128.95
Ladder Concentration [ng/µl] : 44
Uses Standard Area for Ladder Fragments
Lower Marker Concentration [ng/µl] : 4.2
Upper Marker Concentration [ng/µl] : 2.1
Used Upper Marker for Quantitation
Standard Curve Fit is Point to Point
Show Data Aligned to Lower and Upper Marker

Integrator Settings

Integration Start Time [s] : 30
Integration End Time [s] : 128.95
Slope Threshold : 0.5
Height Threshold [FU] : 20
Area Threshold : 0.1
Width Threshold [s] : 0.5
Baseline Plateau [s] : 0.5

Filter Settings

Filter Width [s] : 0.5
Polynomial Order : 4

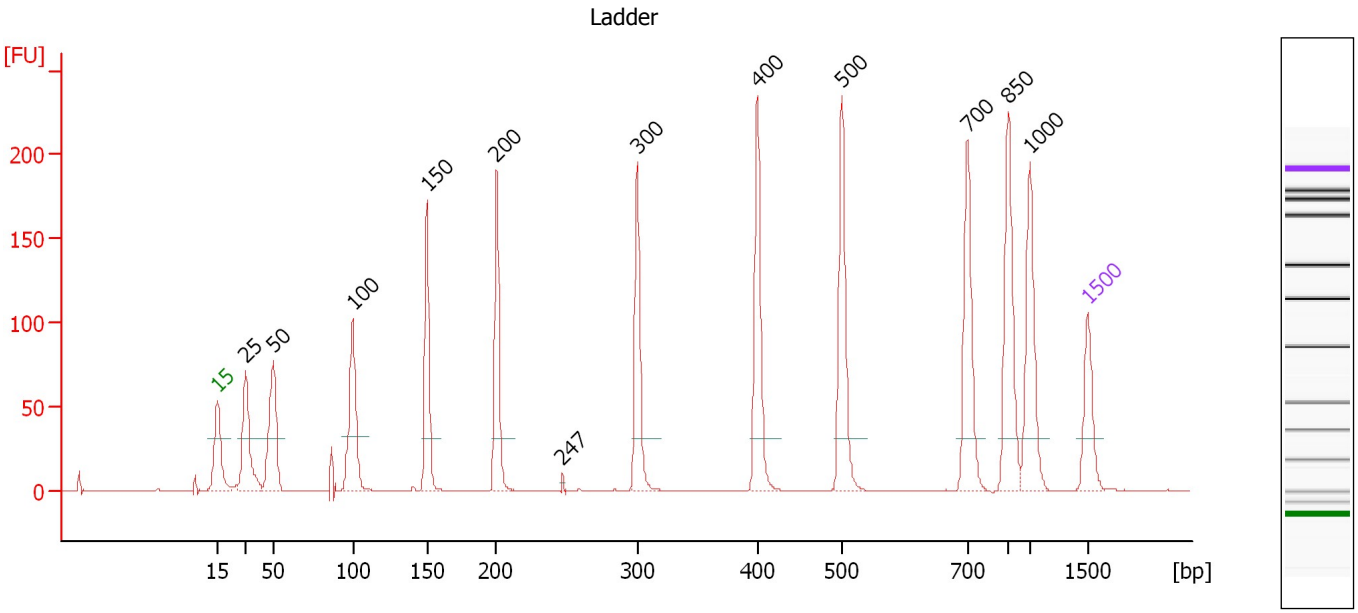
Ladder

Ladder Peak	Size	Area
1	15	25
2	25	26
3	50	34
4	100	41
5	150	45
6	200	52
7	300	63
8	400	76
9	500	83
10	700	88
11	850	86
12	1000	90
13	1500	52

Assay Class: DNA 1000
Data Path: C:\...ents and Settings\Bioanalyzer\2013-04-22\2013-04-22_005.xad

Created: 4/22/2013 4:24:22 PM
Modified: 4/22/2013 5:08:28 PM

Electropherogram Summary



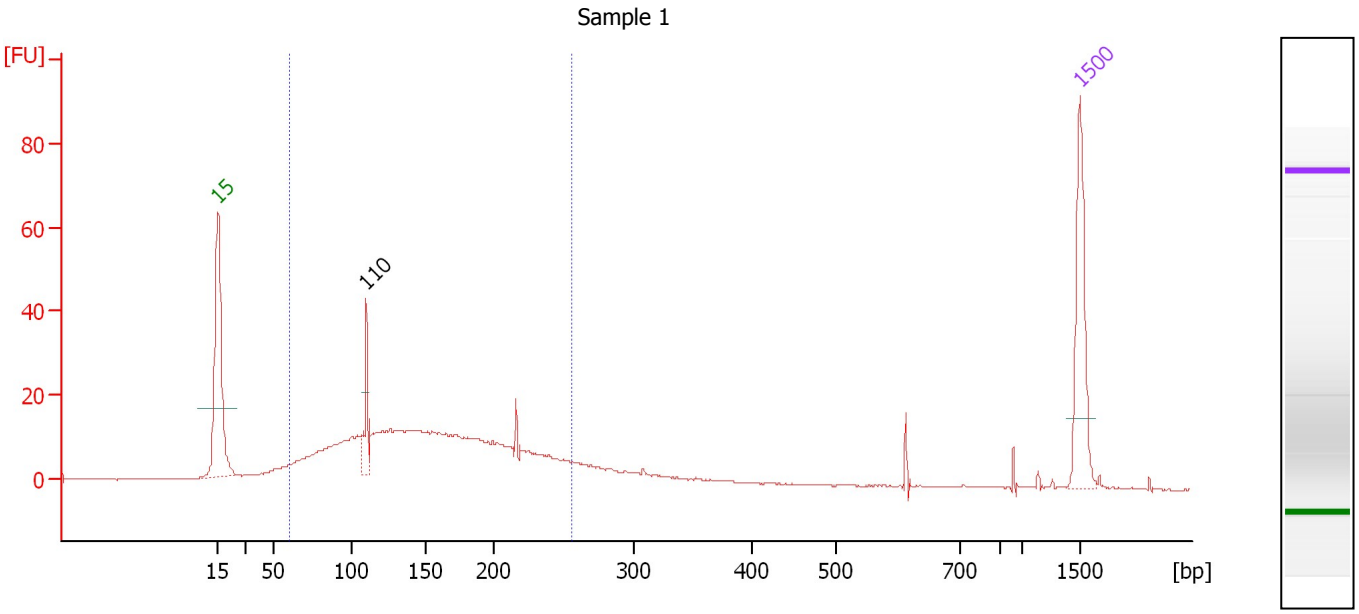
Peak table for Ladder

Peak		Size [bp]	Conc. [ng/µl]	Molarity [nmol/l]	Observations
1		15	4.20	424.2	Lower Marker
2		25	4.00	242.4	Ladder Peak
3		50	4.00	121.2	Ladder Peak
4		100	4.00	60.6	Ladder Peak
5		150	4.00	40.4	Ladder Peak
6		200	4.00	30.3	Ladder Peak
7		247	0.00	0.0	
8		300	4.00	20.2	Ladder Peak
9		400	4.00	15.2	Ladder Peak
10		500	4.00	12.1	Ladder Peak
11		700	4.00	8.7	Ladder Peak
12		850	4.00	7.1	Ladder Peak
13		1,000	4.00	6.1	Ladder Peak
14		1,500	2.10	2.1	Upper Marker

Assay Class: DNA 1000
Data Path: C:\...ents and Settings\Bioanalyzer\2013-04-22\2013-04-22_005.xad

Created: 4/22/2013 4:24:22 PM
Modified: 4/22/2013 5:08:28 PM

Electropherogram Summary Continued ...



Overall Results for sample 1 : Sample 1

Number of peaks found:	1	Area 1:	219.7

Peak table for sample 1 : Sample 1

Peak	Size [bp]	Conc. [ng/µl]	Molarity [nmol/l]	Observations
1	15	4.20	424.2	Lower Marker
2	110	0.80	11.0	
3	1,500	2.10	2.1	Upper Marker

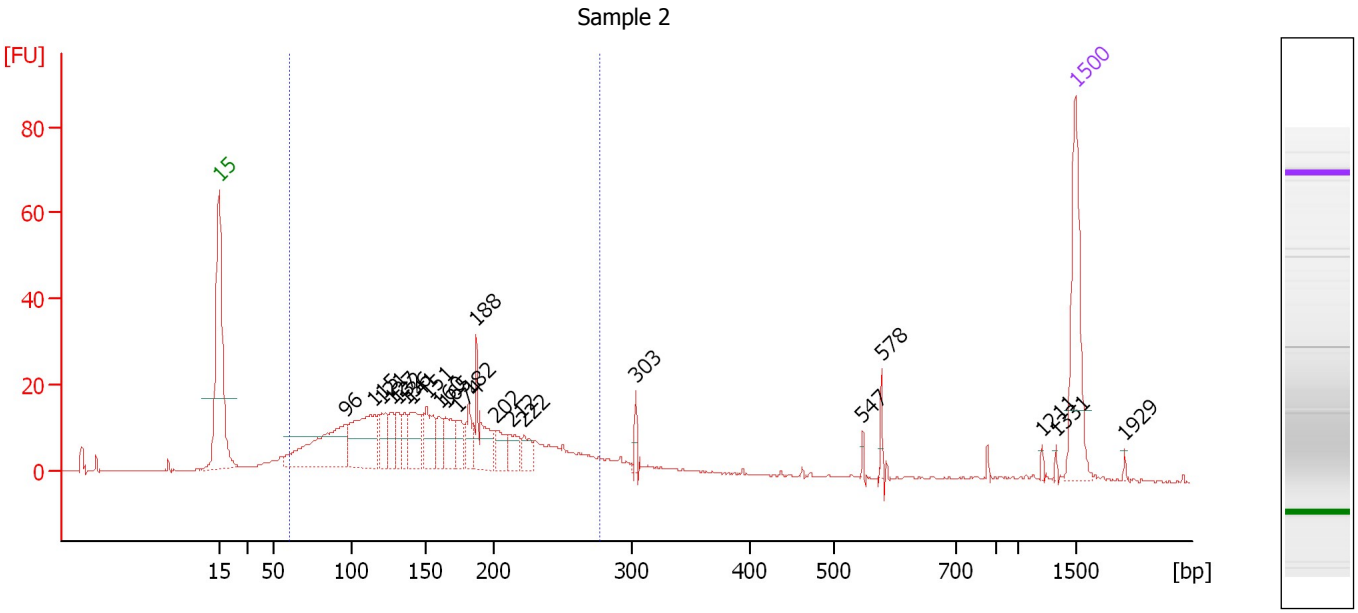
Region table for sample 1 : Sample 1

From [bp]	To [bp]	Area	% of Total	Molarity [nmol/l]	Conc. [ng/µl]	Average Size [bp]	Size distribution in CV [%]	Co lor	Name
60	256	219.7	84	143.4	12.58	153	32.4		Region 1

Assay Class: DNA 1000
Data Path: C:\...ents and Settings\Bioanalyzer\2013-04-22\2013-04-22_005.xad

Created: 4/22/2013 4:24:22 PM
Modified: 4/22/2013 5:08:28 PM

Electropherogram Summary Continued ...



Setpoint Deviations for sample 2 : Sample 2

Height Threshold [FU] : 7

Overall Results for sample 2 : Sample 2

Number of peaks found: 21 Area 1: 278.4

Peak table for sample 2 : Sample 2

Peak	Size [bp]	Conc. [ng/µl]	Molarity [nmol/l]	Observations
1	15	4.20	424.2	Lower Marker
2	96	2.26	35.9	
3	115	1.80	23.7	
4	121	0.62	7.8	
5	127	0.44	5.2	
6	132	0.43	5.0	
7	136	0.38	4.3	
8	141	0.85	9.2	
9	151	0.86	8.7	
10	160	0.41	3.9	
11	165	0.66	6.0	
12	174	0.43	3.8	
13	182	0.43	3.5	
14	188	1.12	9.1	
15	202	0.49	3.7	
16	212	0.44	3.2	
17	222	0.38	2.6	
18	303	0.16	0.8	
19	547	0.07	0.2	
20	578	0.16	0.4	
21	1,211	0.05	0.1	
22	1,331	0.05	0.1	
23	1,500	2.10	2.1	Upper Marker
24	1,929	0.00	0.0	

Assay Class: DNA 1000 Created: 4/22/2013 4:24:22 PM
Data Path: C:\...ents and Settings\Bioanalyzer\2013-04-22\2013-04-22_005.xad Modified: 4/22/2013 5:08:28 PM

Electropherogram Summary Continued ...

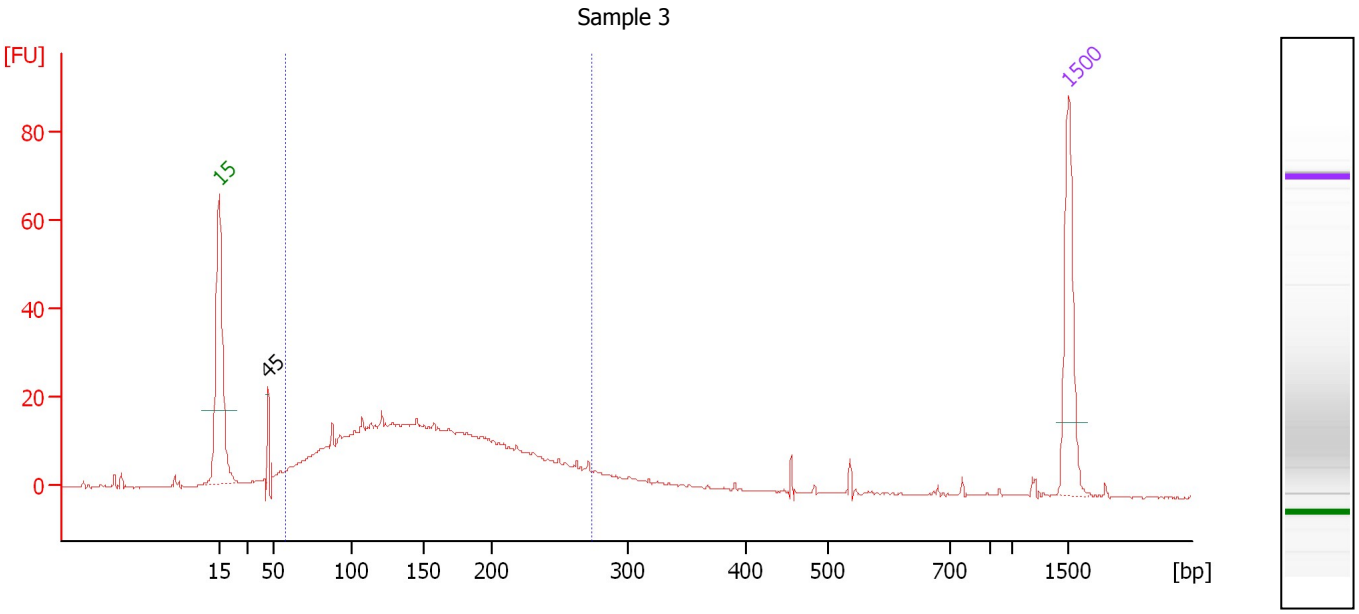
... Region table for sample 2 : Sample 2

From [bp]	To [bp]	Area	% of Total	Molarity [nmol/l]	Conc. [ng/µl]	Average Size [bp]	Size distribution in CV [%]	Co Name lo r
60	276	278.4	78	180.9	16.06	158	34.1	Region 1

Assay Class: DNA 1000
Data Path: C:\...ents and Settings\Bioanalyzer\2013-04-22\2013-04-22_005.xad

Created: 4/22/2013 4:24:22 PM
Modified: 4/22/2013 5:08:28 PM

Electropherogram Summary Continued ...



Overall Results for sample 3 : Sample 3

Number of peaks found:	1	Area 1:	286.3

Peak table for sample 3 : Sample 3

Peak	Size [bp]	Conc. [ng/µl]	Molarity [nmol/l]	Observations
1	15	4.20	424.2	Lower Marker
2	45	0.34	11.5	
3	1,500	2.10	2.1	Upper Marker

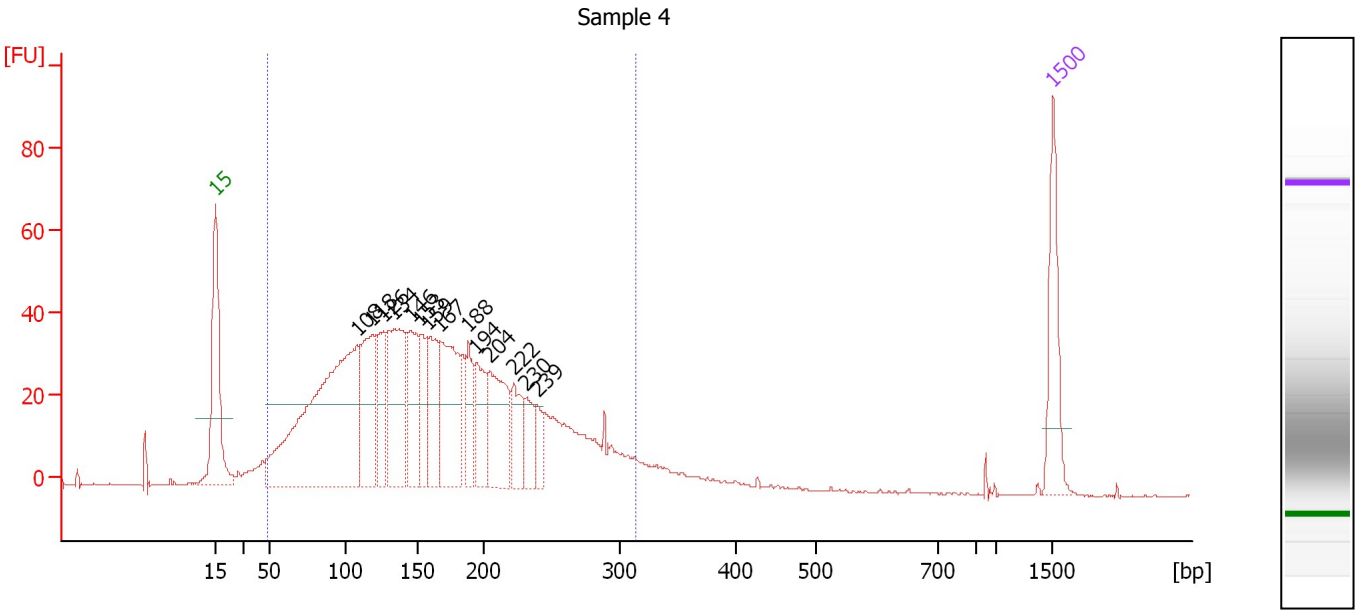
Region table for sample 3 : Sample 3

From [bp]	To [bp]	Area	% of Total	Molarity [nmol/l]	Conc. [ng/µl]	Average Size [bp]	Size distribution in CV [%]	Co Name lo r
58	274	286.3	84	185.6	16.27	156	34.6	Region 1

Assay Class: DNA 1000
Data Path: C:\...ents and Settings\Bioanalyzer\2013-04-22\2013-04-22_005.xad

Created: 4/22/2013 4:24:22 PM
Modified: 4/22/2013 5:08:28 PM

Electropherogram Summary Continued ...



Overall Results for sample 4 : Sample 4

Number of peaks found:	14	Area 1:	741.6

Peak table for sample 4 : Sample 4

Peak	Size [bp]	Conc. [ng/µl]	Molarity [nmol/l]	Observations
1	15	4.20	424.2	Lower Marker
2	108	10.26	144.5	
3	118	2.85	36.4	
4	126	1.84	22.0	
5	134	3.69	41.8	
6	146	2.21	23.0	
7	153	1.32	13.1	
8	159	2.05	19.6	
9	167	3.30	29.9	
10	188	1.13	9.1	
11	194	1.49	11.6	
12	204	2.49	18.5	
13	222	1.22	8.4	
14	230	0.85	5.6	
15	239	0.68	4.3	
16	1,500	2.10	2.1	Upper Marker

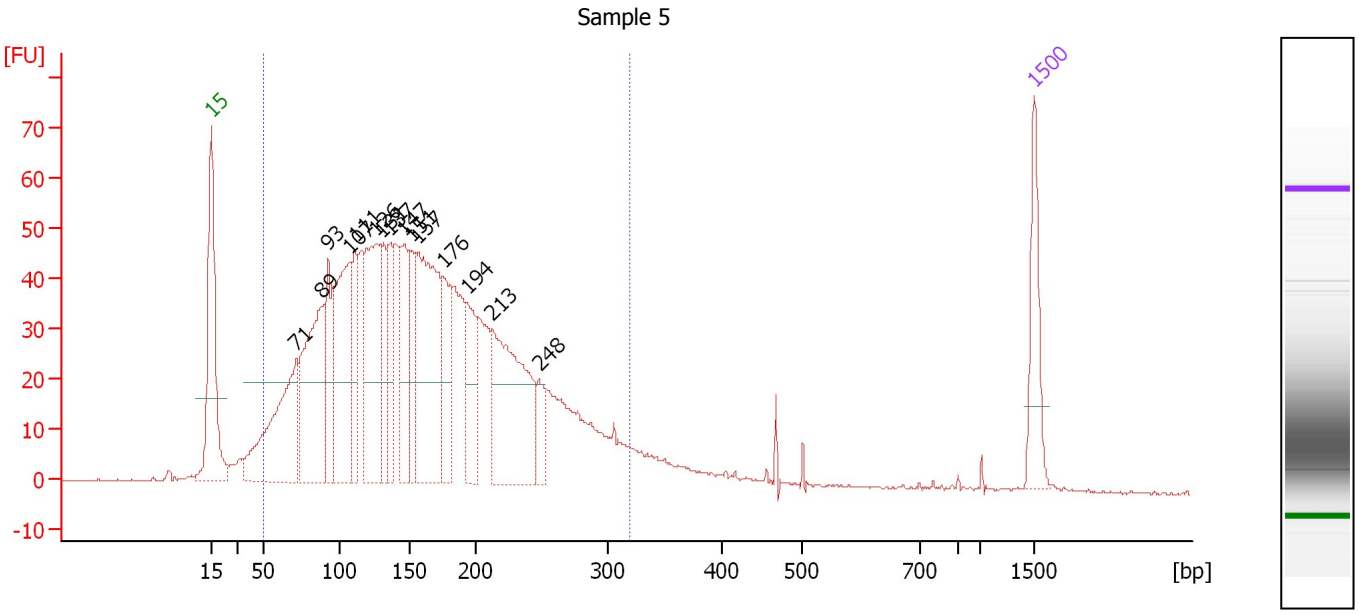
Region table for sample 4 : Sample 4

From [bp]	To [bp]	Area	% of Total	Molarity [nmol/l]	Conc. [ng/µl]	Average Size [bp]	Size distribution in CV [%]	Co Name lo r
48	313	741.6	94	445.6	39.76	164	37.5	Region 1

Assay Class: DNA 1000
Data Path: C:\...ents and Settings\Bioanalyzer\2013-04-22\2013-04-22_005.xad

Created: 4/22/2013 4:24:22 PM
Modified: 4/22/2013 5:08:28 PM

Electropherogram Summary Continued ...



Overall Results for sample 5 : Sample 5

Number of peaks found:	15	Area 1:	952.6

Peak table for sample 5 : Sample 5

Peak	Size [bp]	Conc. [ng/µl]	Molarity [nmol/l]	Observations
1	15	4.20	424.2	Lower Marker
2	71	5.25	111.4	
3	89	5.41	92.5	
4	93	2.60	42.4	
5	107	4.56	64.4	
6	111	2.02	27.5	
7	126	5.13	61.7	
8	131	1.87	21.6	
9	137	1.69	18.8	
10	147	2.64	27.3	
11	151	1.76	17.6	
12	157	6.70	64.7	
13	176	2.08	17.9	
14	194	2.02	15.8	
15	213	5.84	41.5	
16	248	0.92	5.7	
17	1,500	2.10	2.1	Upper Marker

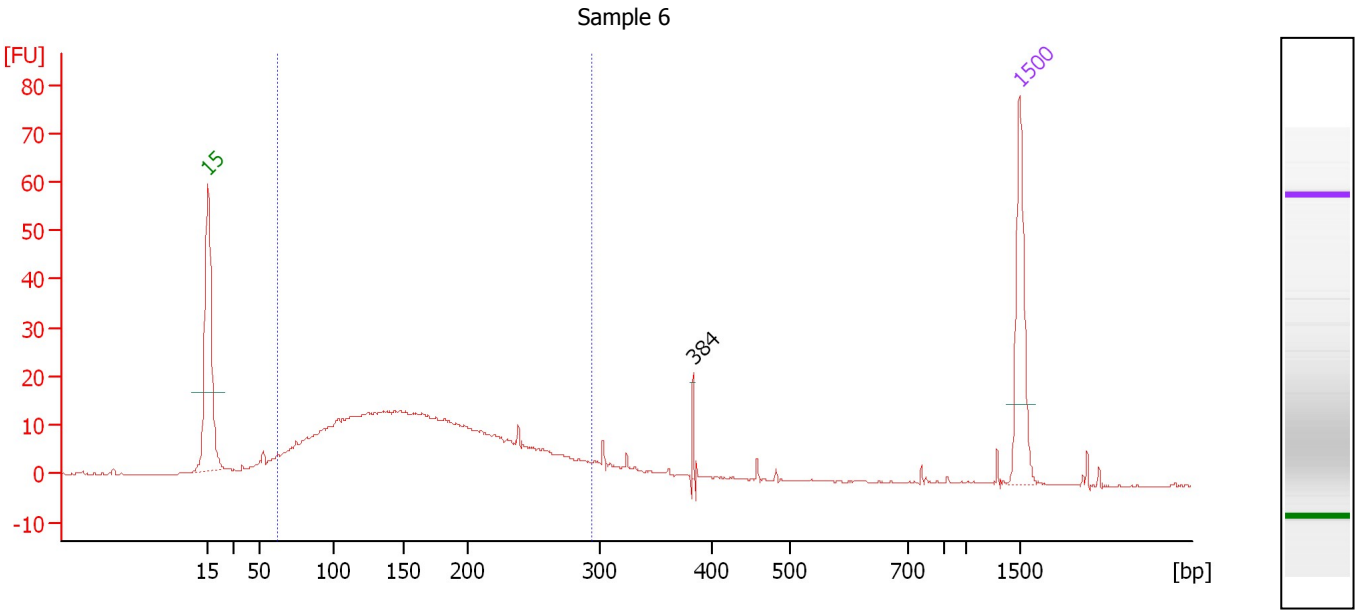
Region table for sample 5 : Sample 5

From [bp]	To [bp]	Area	% of Total	Molarity [nmol/l]	Conc. [ng/µl]	Average Size [bp]	Size distribution in CV [%]	Co Name lo r
49	318	952.6	91	736.2	64.24	162	38.6	Region 1

Assay Class: DNA 1000
Data Path: C:\...ents and Settings\Bioanalyzer\2013-04-22\2013-04-22_005.xad

Created: 4/22/2013 4:24:22 PM
Modified: 4/22/2013 5:08:28 PM

Electropherogram Summary Continued ...



Overall Results for sample 6 : Sample 6

Number of peaks found:	1	Area 1:	255.3

Peak table for sample 6 : Sample 6

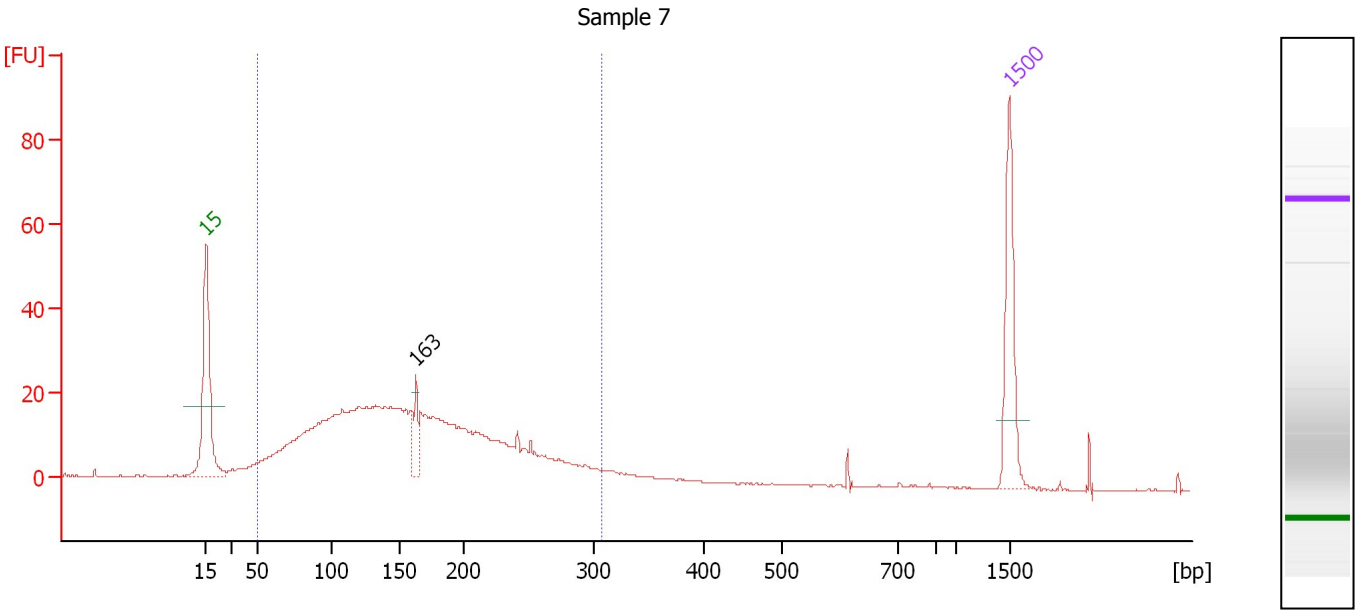
Peak	Size [bp]	Conc. [ng/µl]	Molarity [nmol/l]	Observations
1	15	4.20	424.2	Lower Marker
2	384	0.18	0.7	
3	1,500	2.10	2.1	Upper Marker

Region table for sample 6 : Sample 6

From [bp]	To [bp]	Area	% of Total	Molarity [nmol/l]	Conc. [ng/µl]	Average Size [bp]	Size distribution in CV [%]	Co lor	Name
62	295	255.3	84	188.9	17.36	165	35.0		Region 1

Assay Class: DNA 1000 Created: 4/22/2013 4:24:22 PM
Data Path: C:\...ents and Settings\Bioanalyzer\2013-04-22\2013-04-22_005.xad Modified: 4/22/2013 5:08:28 PM

Electropherogram Summary Continued ...



Overall Results for sample 7 : Sample 7

Number of peaks found:	1	Area 1:	337.8

Peak table for sample 7 : Sample 7

Peak	Size [bp]	Conc. [ng/µl]	Molarity [nmol/l]	Observations
1	15	4.20	424.2	Lower Marker
2	163	0.66	6.2	
3	1,500	2.10	2.1	Upper Marker

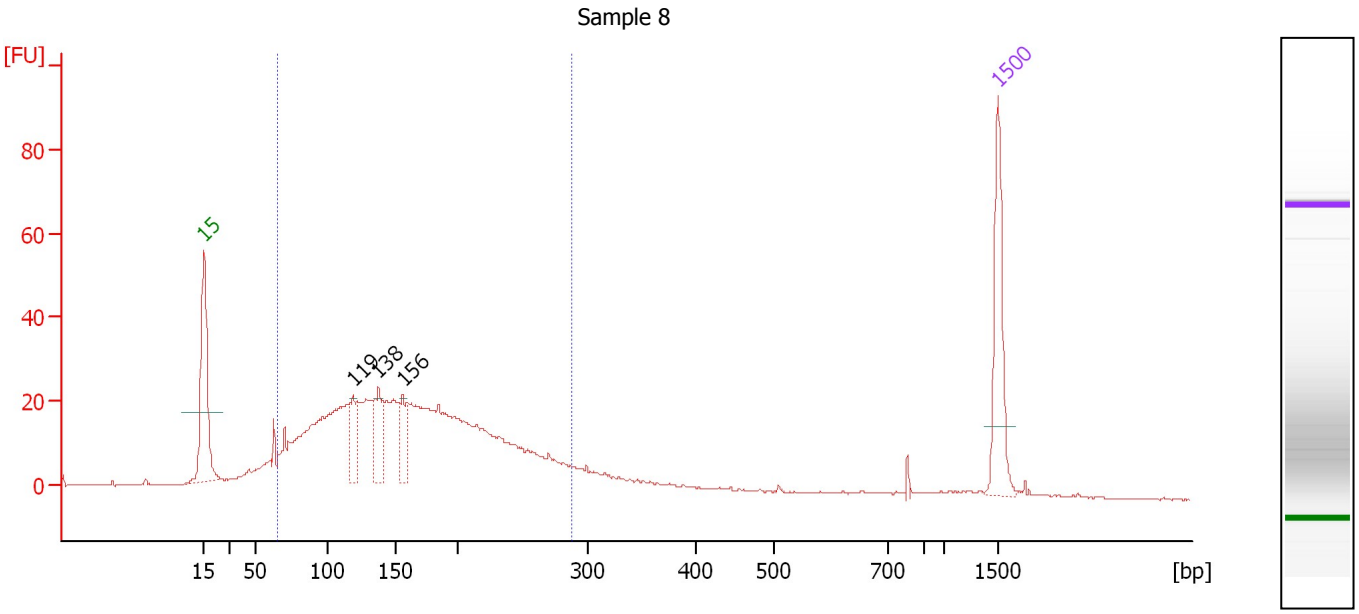
Region table for sample 7 : Sample 7

From [bp]	To [bp]	Area	% of Total	Molarity [nmol/l]	Conc. [ng/µl]	Average Size [bp]	Size distribution in CV [%]	Co lor	Name
50	308	337.8	90	228.8	19.98	161	37.9		Region 1

Assay Class: DNA 1000
Data Path: C:\...ents and Settings\Bioanalyzer\2013-04-22\2013-04-22_005.xad

Created: 4/22/2013 4:24:22 PM
Modified: 4/22/2013 5:08:28 PM

Electropherogram Summary Continued ...



Overall Results for sample 8 : Sample 8

Number of peaks found:	3	Area 1:	392.0

Peak table for sample 8 : Sample 8

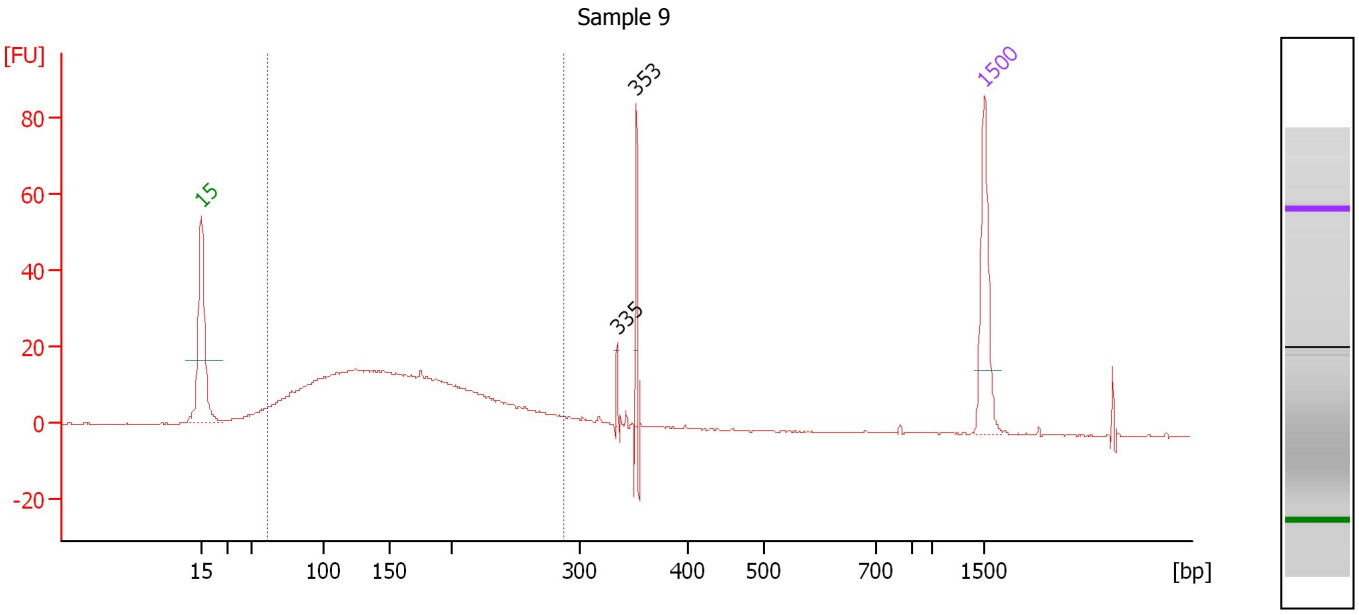
Peak	Size [bp]	Conc. [ng/µl]	Molarity [nmol/l]	Observations
1	15	4.20	424.2	Lower Marker
2	119	0.79	10.0	
3	138	0.93	10.2	
4	156	0.73	7.1	
5	1,500	2.10	2.1	Upper Marker

Region table for sample 8 : Sample 8

From [bp]	To [bp]	Area	% of Total	Molarity [nmol/l]	Conc. [ng/µl]	Average Size [bp]	Size distribution in CV [%]	Co Name lo r
66	288	392.0	83	241.2	22.19	164	34.2	Region 1

Assay Class: DNA 1000 Created: 4/22/2013 4:24:22 PM
Data Path: C:\...ents and Settings\Bioanalyzer\2013-04-22\2013-04-22_005.xad Modified: 4/22/2013 5:08:28 PM

Electropherogram Summary Continued ...



Overall Results for sample 9 : Sample 9

Number of peaks found: 2 Area 1: 259.9

Peak table for sample 9 : Sample 9

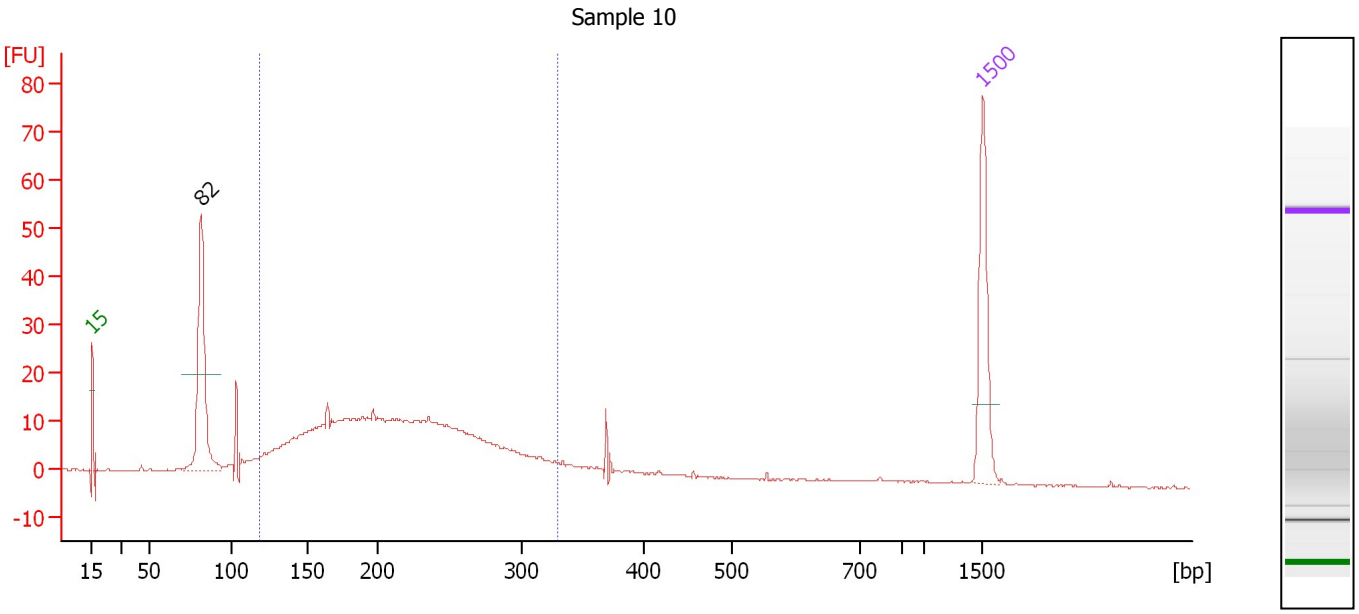
Peak	Size [bp]	Conc. [ng/µl]	Molarity [nmol/l]	Observations
1	15	4.20	424.2	Lower Marker
2	335	0.19	0.9	
3	353	0.66	2.8	
4	1,500	2.10	2.1	Upper Marker

Region table for sample 9 : Sample 9

From [bp]	To [bp]	Area	% of Total	Molarity [nmol/l]	Conc. [ng/µl]	Average Size [bp]	Size distribution in CV [%]	Co Name lo r
61	287	259.9	83	189.4	16.83	158	34.8	Region 1

Assay Class: DNA 1000 Created: 4/22/2013 4:24:22 PM
Data Path: C:\...ents and Settings\Bioanalyzer\2013-04-22\2013-04-22_005.xad Modified: 4/22/2013 5:08:28 PM

Electropherogram Summary Continued ...



Overall Results for sample 10 : Sample 10

Number of peaks found: 1 Area 1: 205.9

Peak table for sample 10 : Sample 10

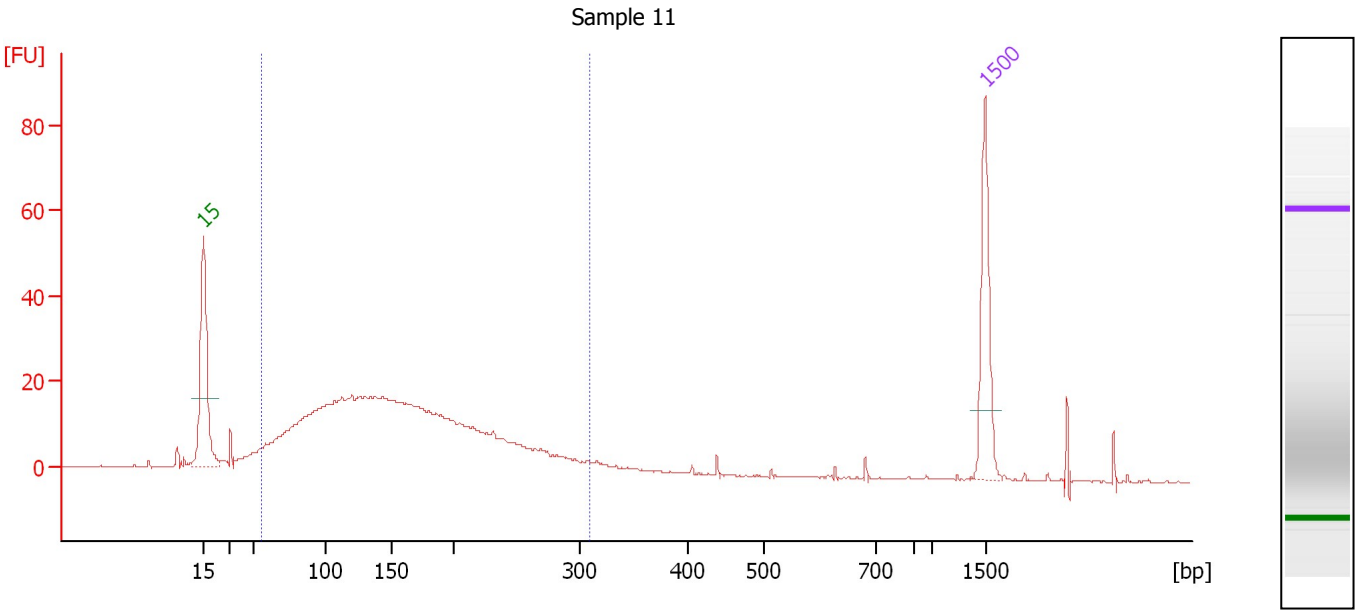
Peak	Size [bp]	Conc. [ng/µl]	Molarity [nmol/l]	Observations
1	15	4.20	424.2	Lower Marker
2	82	3.05	56.7	
3	1,500	2.10	2.1	Upper Marker

Region table for sample 10 : Sample 10

From [bp]	To [bp]	Area	% of Total	Molarity [nmol/l]	Conc. [ng/µl]	Average Size [bp]	Size distribution in CV [%]	Co Name lo r
119	328	205.9	76	94.7	12.48	215	23.2	Region 1

Assay Class: DNA 1000 Created: 4/22/2013 4:24:22 PM
Data Path: C:\...ents and Settings\Bioanalyzer\2013-04-22\2013-04-22_005.xad Modified: 4/22/2013 5:08:28 PM

Electropherogram Summary Continued ...



Overall Results for sample 11 : Sample 11

Number of peaks found:	0	Area 1:	315.4

Peak table for sample 11 : Sample 11

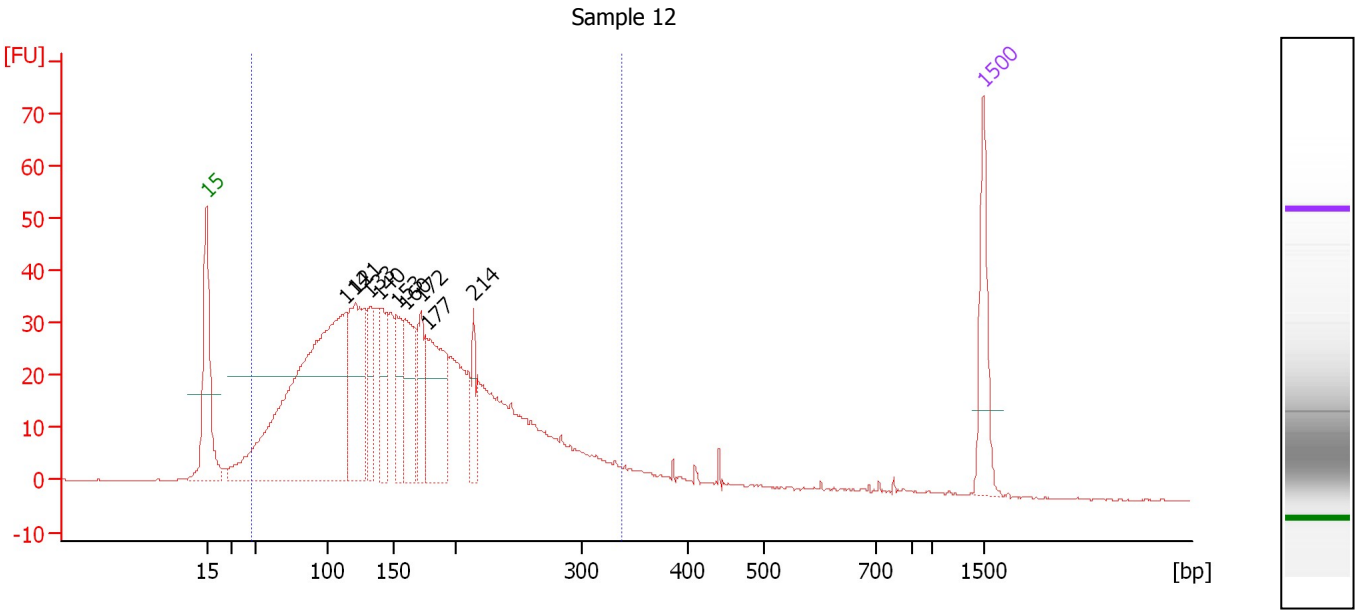
Peak	Size [bp]	Conc. [ng/µl]	Molarity [nmol/l]	Observations
1	15	4.20	424.2	Lower Marker
2	1,500	2.10	2.1	Upper Marker

Region table for sample 11 : Sample 11

From [bp]	To [bp]	Area	% of Total	Molarity [nmol/l]	Conc. [ng/µl]	Average Size [bp]	Size distribution in CV [%]	Co lor	Name
55	308	315.4	88	228.8	19.94	159	37.5		Region 1

Assay Class: DNA 1000 Created: 4/22/2013 4:24:22 PM
Data Path: C:\...ents and Settings\Bioanalyzer\2013-04-22\2013-04-22_005.xad Modified: 4/22/2013 5:08:28 PM

Electropherogram Summary Continued ...



Overall Results for sample 12 : Sample 12

Number of peaks found: 9 Area 1: 653.2

Peak table for sample 12 : Sample 12

Peak	Size [bp]	Conc. [ng/µl]	Molarity [nmol/l]	Observations
1	15	4.20	424.2	Lower Marker
2	114	14.65	194.8	
3	121	4.05	50.5	
4	133	1.59	18.2	
5	140	1.81	19.6	
6	153	1.44	14.3	
7	160	2.39	22.7	
8	172	1.62	14.3	
9	177	3.61	31.0	
10	214	0.98	6.9	
11	1,500	2.10	2.1	Upper Marker

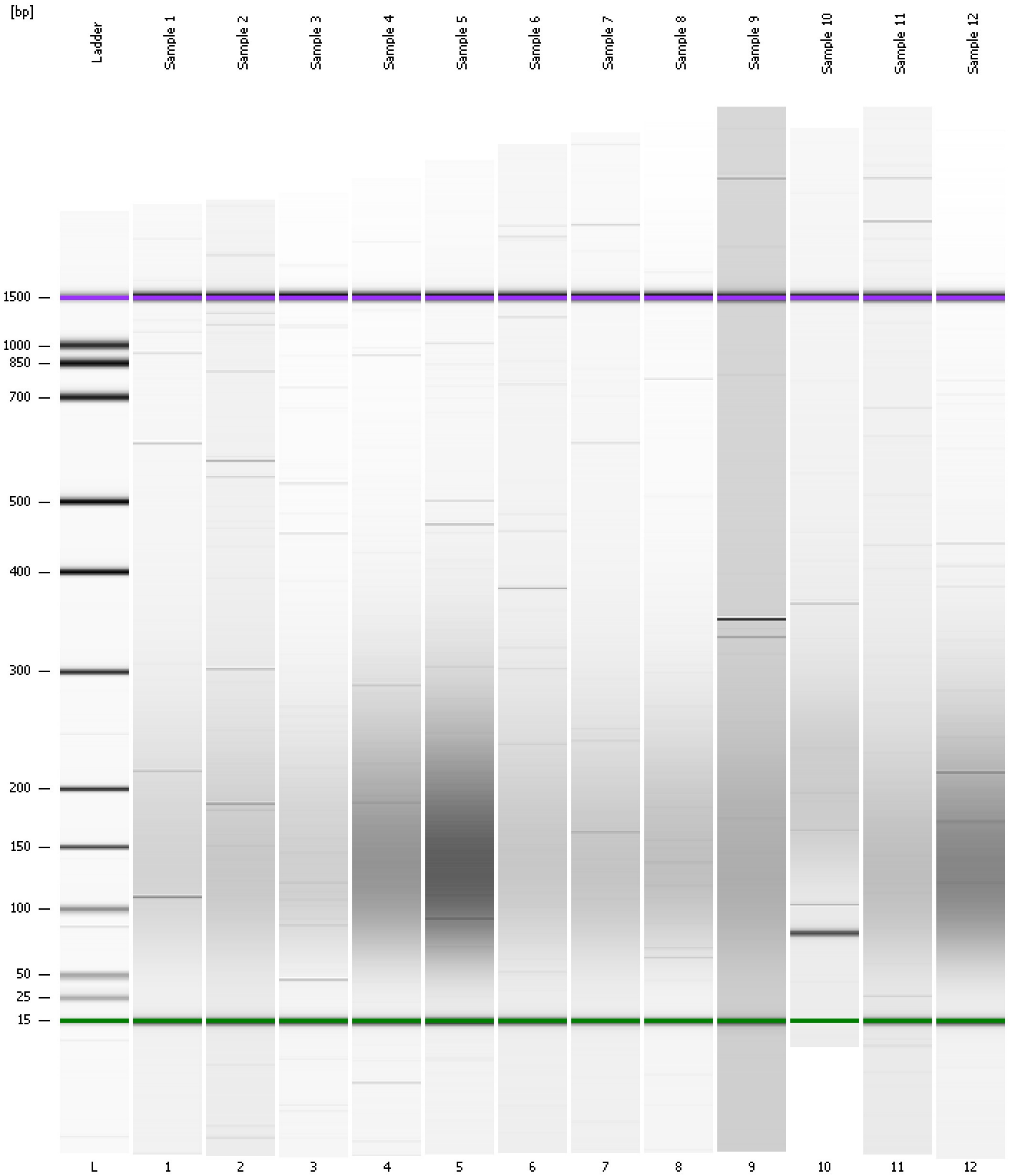
Region table for sample 12 : Sample 12

From [bp]	To [bp]	Area	% of Total	Molarity [nmol/l]	Conc. [ng/µl]	Average Size [bp]	Size distribution in CV [%]	Co Name lo r
44	338	653.2	91	566.9	48.91	163	40.3	Region 1

Assay Class: DNA 1000
Data Path: C:\...ents and Settings\Bioanalyzer\2013-04-22\2013-04-22_005.xad

Created: 4/22/2013 4:24:22 PM
Modified: 4/22/2013 5:08:28 PM

Gel Image



Assay Class: DNA 1000 Created: 4/22/2013 4:24:22 PM
Data Path: C:\...ents and Settings\Bioanalyzer\2013-04-22\2013-04-22_005.xad Modified: 4/22/2013 5:08:28 PM

Run Logbook

Description	Number	Source	Category	Sub Category	Time	Time Zone	User	Host
Run ended on port 1 (Number of wells acquired: 13)		Instrument	Run		4/22/2013 5:05:18 PM	(GMT --07:00) Pacific Standard Time	UC Davis	D8XSMGH1
Run started on port 1 (File: C:\Documents and Settings\Bioanalyzer\2013-04-22\2013-04-22_005.xad)		Instrument	Run		4/22/2013 4:24:28 PM	(GMT --07:00) Pacific Standard Time	UC Davis	D8XSMGH1
Product Number : G2938B		Instrument	Run		4/22/2013 4:24:28 PM	(GMT --07:00) Pacific Standard Time	UC Davis	D8XSMGH1
Name :		Instrument	Run		4/22/2013 4:24:28 PM	(GMT --07:00) Pacific Standard Time	UC Davis	D8XSMGH1
Vendor : Agilent Technologies		Instrument	Run		4/22/2013 4:24:28 PM	(GMT --07:00) Pacific Standard Time	UC Davis	D8XSMGH1
Serial# : DE13701086		Instrument	Run		4/22/2013 4:24:28 PM	(GMT --07:00) Pacific Standard Time	UC Davis	D8XSMGH1
Firmware : C.01.069		Instrument	Run		4/22/2013 4:24:28 PM	(GMT --07:00) Pacific Standard Time	UC Davis	D8XSMGH1
Cartridge : Electrode		Instrument	Run		4/22/2013 4:24:28 PM	(GMT --07:00) Pacific Standard Time	UC Davis	D8XSMGH1