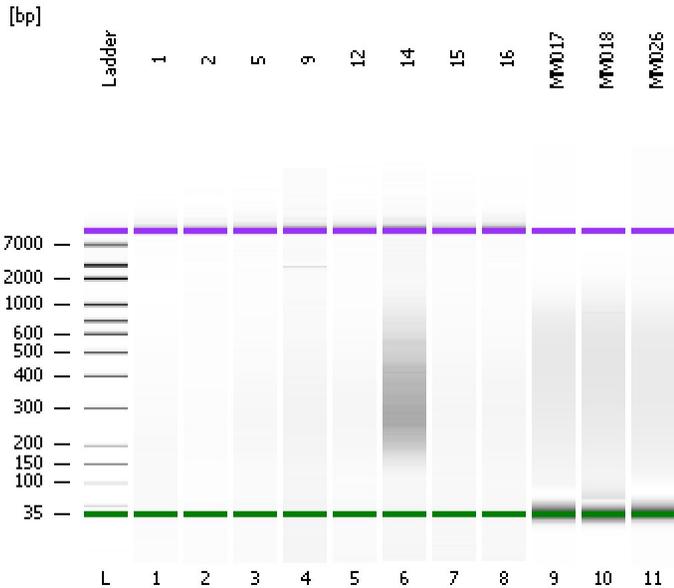


Assay Class: High Sensitivity DNA Assay  
Data Path: C:\...ents and Settings\Bioanalyzer\2014-10-04\2014-10-04\_001.xad

Created: 10/4/2014 12:35:11 PM  
Modified: 10/4/2014 1:25:30 PM

### Electrophoresis File Run Summary



#### Instrument Information:

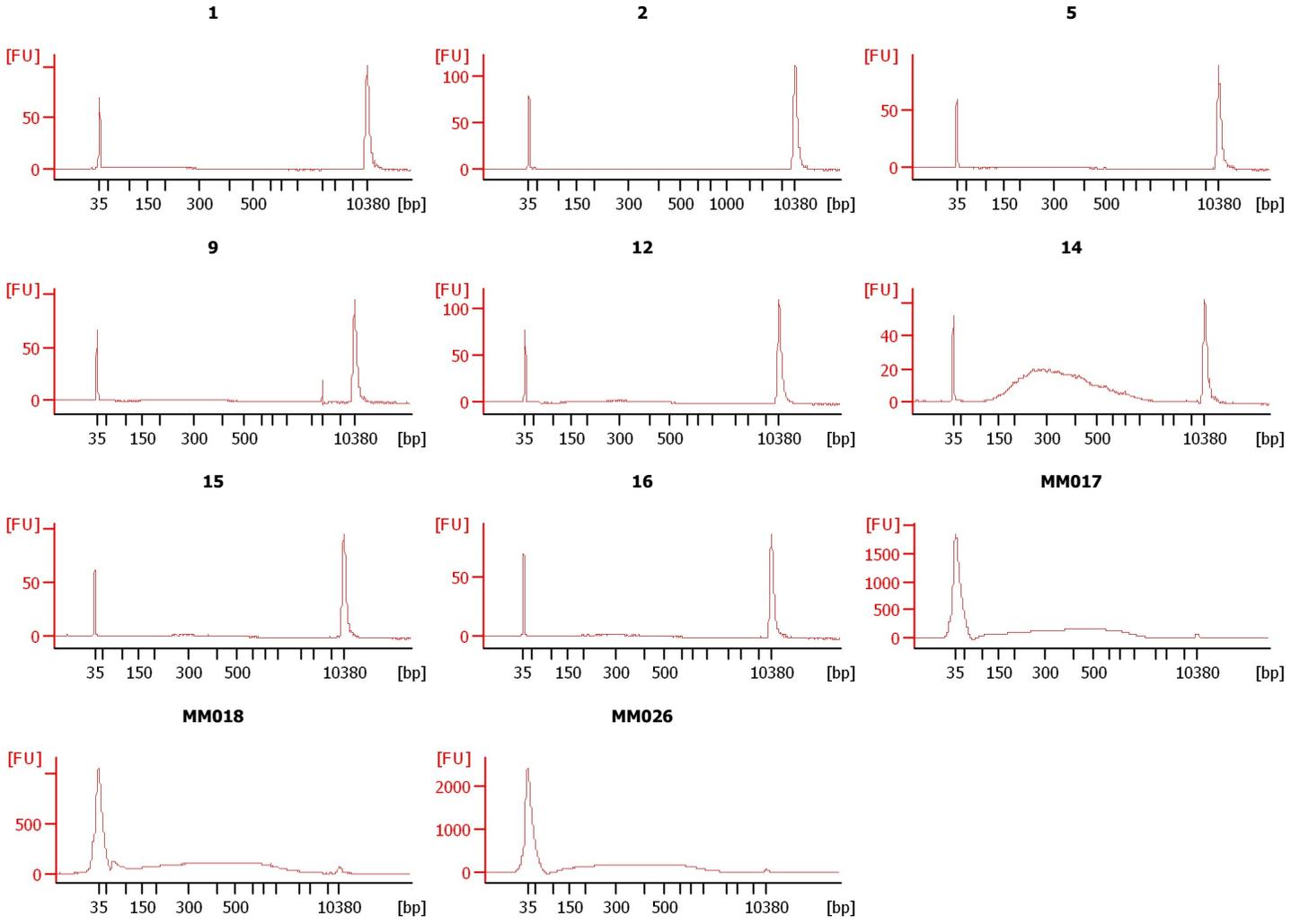
Instrument Name: DE13701086      Firmware: C.01.069  
Serial#: DE13701086      Type: G2938B

#### Assay Information:

Assay Origin Path: C:\Program Files\Agilent\2100 bioanalyzer\2100 expert\assays\dsDNA\High Sensitivity DNA.xsy  
Assay Class: High Sensitivity DNA Assay  
Version: 1.03  
Assay Comments: Copyright © 2003-2010 Agilent Technologies

#### Chip Information:

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



Assay Class: High Sensitivity DNA Assay  
 Data Path: C:\...ents and Settings\Bioanalyzer\2014-10-04\2014-10-04\_001.xad

Created: 10/4/2014 12:35:11 PM  
 Modified: 10/4/2014 1:25:30 PM

**Electrophoresis File Run Summary (Chip Summary)**

Sample Name	Sample Comment	Rest. Digest	Status	Observation	Result Label	Result Color
1		<input type="checkbox"/>	✓			
2		<input type="checkbox"/>	✓			
5		<input type="checkbox"/>	✓			
9		<input type="checkbox"/>	✓			
12		<input type="checkbox"/>	✓			
14		<input type="checkbox"/>	✓			
15		<input type="checkbox"/>	✓			
16		<input type="checkbox"/>	✓			
MM017		<input type="checkbox"/>	✓			
MM018		<input type="checkbox"/>	✓			
MM026		<input type="checkbox"/>	✓			
Ladder		<input type="checkbox"/>	✓			

Chip Lot #

Reagent Kit Lot #

Chip Comments :

Assay Class: High Sensitivity DNA Assay  
 Data Path: C:\...ents and Settings\Bioanalyzer\2014-10-04\2014-10-04\_001.xad

Created: 10/4/2014 12:35:11 PM  
 Modified: 10/4/2014 1:25:30 PM

**Electrophoresis Assay Details**

**General Analysis Settings**

Number of Available Sample and Ladder Wells (Max.) : 12  
 Minimum Visible Range [s] : 32  
 Maximum Visible Range [s] : 138  
 Start Analysis Time Range [s] : 33  
 End Analysis Time Range [s] : 137.5  
 Ladder Concentration [pg/μl] : 1950  
 Uses Standard Area for Ladder Fragments  
 Lower Marker Concentration [pg/μl] : 125  
 Upper Marker Concentration [pg/μl] : 75  
 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] : 33.05  
 Integration End Time [s] : 137  
 Slope Threshold : 0.8  
 Height Threshold [FU] : 5  
 Area Threshold : 0.1  
 Width Threshold [s] : 0.6  
 Baseline Plateau [s] : 0.5

**Filter Settings**

Filter Width [s] : 0.5  
 Polynomial Order : 4

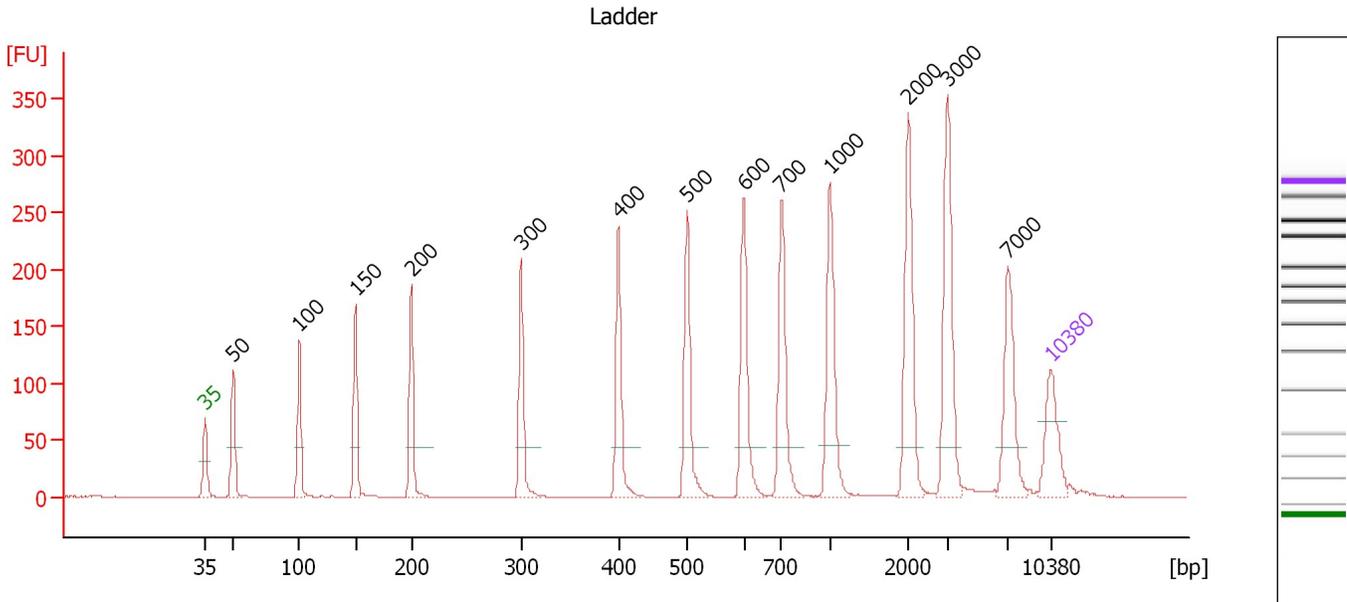
**Ladder**

Ladder Peak	Size	Area
1	35	160
2	50	210
3	100	208
4	150	221
5	200	242
6	300	270
7	400	305
8	500	306
9	600	336
10	700	321
11	1000	366
12	2000	413
13	3000	411
14	7000	400
15	10380	214

Assay Class: High Sensitivity DNA Assay  
 Data Path: C:\...ents and Settings\Bioanalyzer\2014-10-04\2014-10-04\_001.xad

Created: 10/4/2014 12:35:11 PM  
 Modified: 10/4/2014 1:25:30 PM

**Electropherogram Summary**



**Overall Results for Ladder**

Noise: 0.1

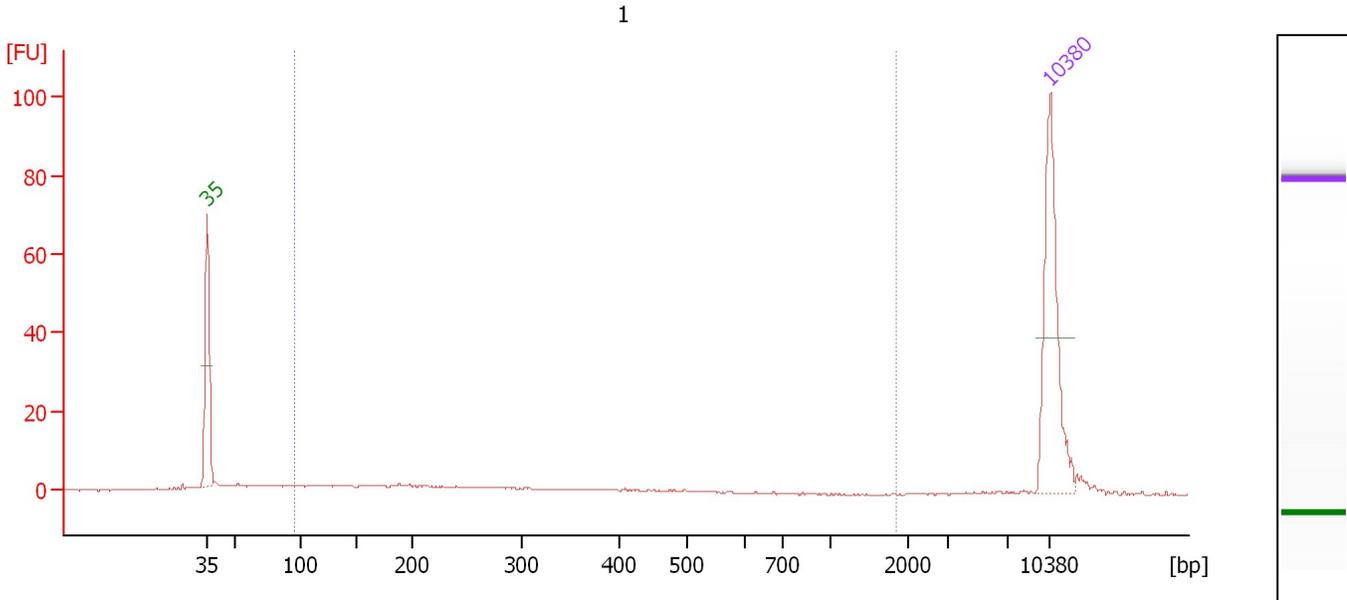
**Peak table for Ladder**

Peak	Size [bp]	Conc. [pg/μl]	Molarity [pmol/l]	Observations
1	35	125.00	5,411.3	Lower Marker
2	50	150.00	4,545.5	Ladder Peak
3	100	150.00	2,272.7	Ladder Peak
4	150	150.00	1,515.2	Ladder Peak
5	200	150.00	1,136.4	Ladder Peak
6	300	150.00	757.6	Ladder Peak
7	400	150.00	568.2	Ladder Peak
8	500	150.00	454.5	Ladder Peak
9	600	150.00	378.8	Ladder Peak
10	700	150.00	324.7	Ladder Peak
11	1,000	150.00	227.3	Ladder Peak
12	2,000	150.00	113.6	Ladder Peak
13	3,000	150.00	75.8	Ladder Peak
14	7,000	150.00	32.5	Ladder Peak
15	10,380	75.00	10.9	Upper Marker

Assay Class: High Sensitivity DNA Assay  
 Data Path: C:\...ents and Settings\Bioanalyzer\2014-10-04\2014-10-04\_001.xad

Created: 10/4/2014 12:35:11 PM  
 Modified: 10/4/2014 1:25:30 PM

**Electropherogram Summary Continued ...**



**Overall Results for sample 1 : 1**

Number of peaks found: 0                      Corr. Area 1: 56.6  
 Noise: 0.2

**Peak table for sample 1 : 1**

Peak	Size [bp]	Conc. [pg/μl]	Molarity [pmol/l]	Observations
1	35	125.00	5,411.3	Lower Marker
2	10,380	75.00	10.9	Upper Marker

**Region table for sample 1 : 1**

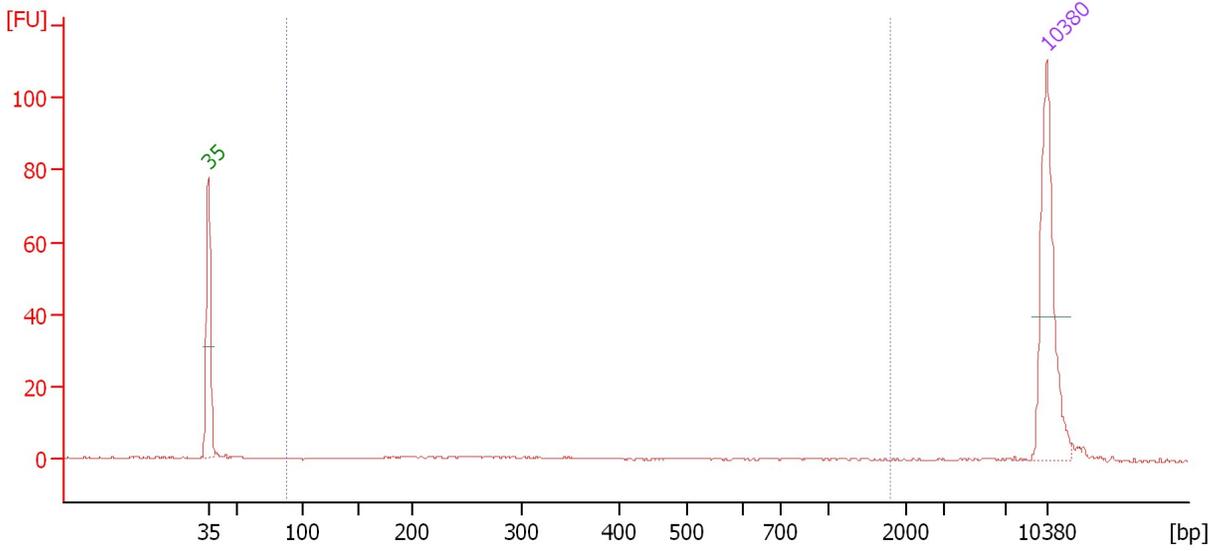
From [bp]	Average Size [bp]	To [bp]	Corr. Area	% of Total	Size distribution in CV [%]	Conc. [pg/μl]	Molarity [pmol/l]	Color
95	261	1,853	56.6	61	50.0	64.52	514.1	Blue

Assay Class: High Sensitivity DNA Assay  
 Data Path: C:\...ents and Settings\Bioanalyzer\2014-10-04\2014-10-04\_001.xad

Created: 10/4/2014 12:35:11 PM  
 Modified: 10/4/2014 1:25:30 PM

**Electropherogram Summary Continued ...**

2



**Overall Results for sample 2 : 2**

Number of peaks found: 0                      Corr. Area 1: 28.9  
 Noise: 0.1

**Peak table for sample 2 : 2**

Peak	Size [bp]	Conc. [pg/μl]	Molarity [pmol/l]	Observations
1	35	125.00	5,411.3	Lower Marker
2	10,380	75.00	10.9	Upper Marker

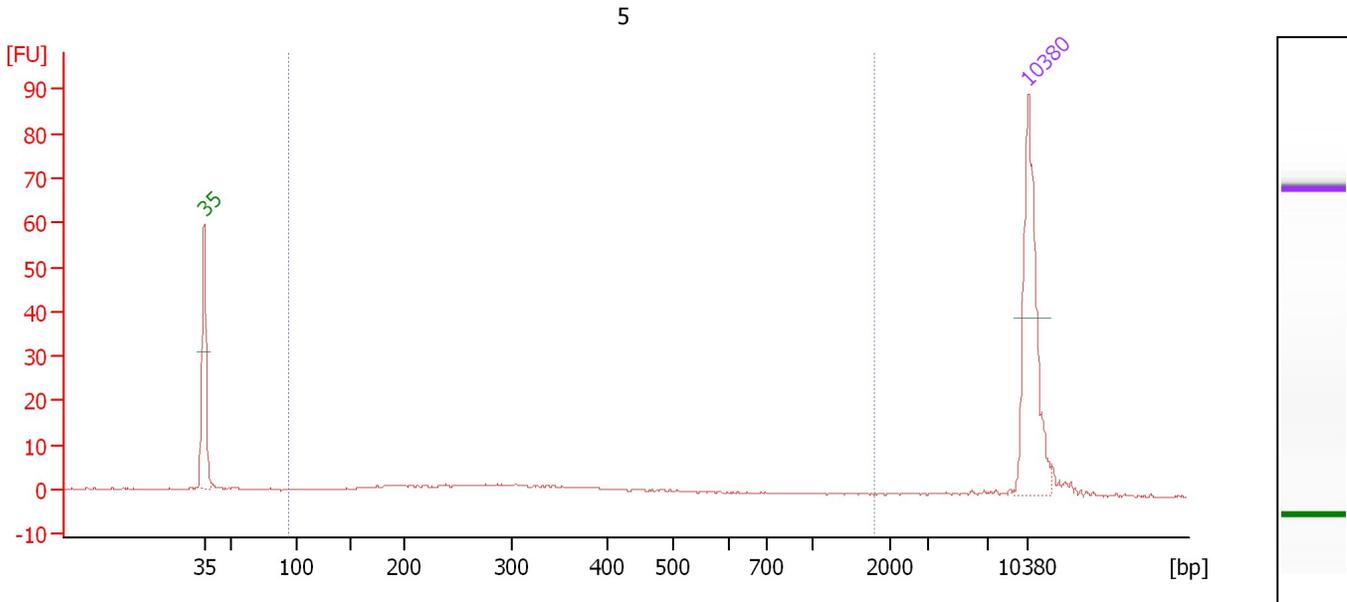
**Region table for sample 2 : 2**

From [bp]	Average Size [bp]	To [bp]	Corr. Area	% of Total	Size distribution in CV [%]	Conc. [pg/μl]	Molarity [pmol/l]	Color
88	457	1,800	28.9	54	76.2	27.82	155.7	Blue

Assay Class: High Sensitivity DNA Assay  
 Data Path: C:\...ents and Settings\Bioanalyzer\2014-10-04\2014-10-04\_001.xad

Created: 10/4/2014 12:35:11 PM  
 Modified: 10/4/2014 1:25:30 PM

**Electropherogram Summary Continued ...**



**Overall Results for sample 3 : 5**

Number of peaks found: 0                      Corr. Area 1: 52.2  
 Noise: 0.1

**Peak table for sample 3 : 5**

Peak	Size [bp]	Conc. [pg/μl]	Molarity [pmol/l]	Observations
1	35	125.00	5,411.3	Lower Marker
2	10,380	75.00	10.9	Upper Marker

**Region table for sample 3 : 5**

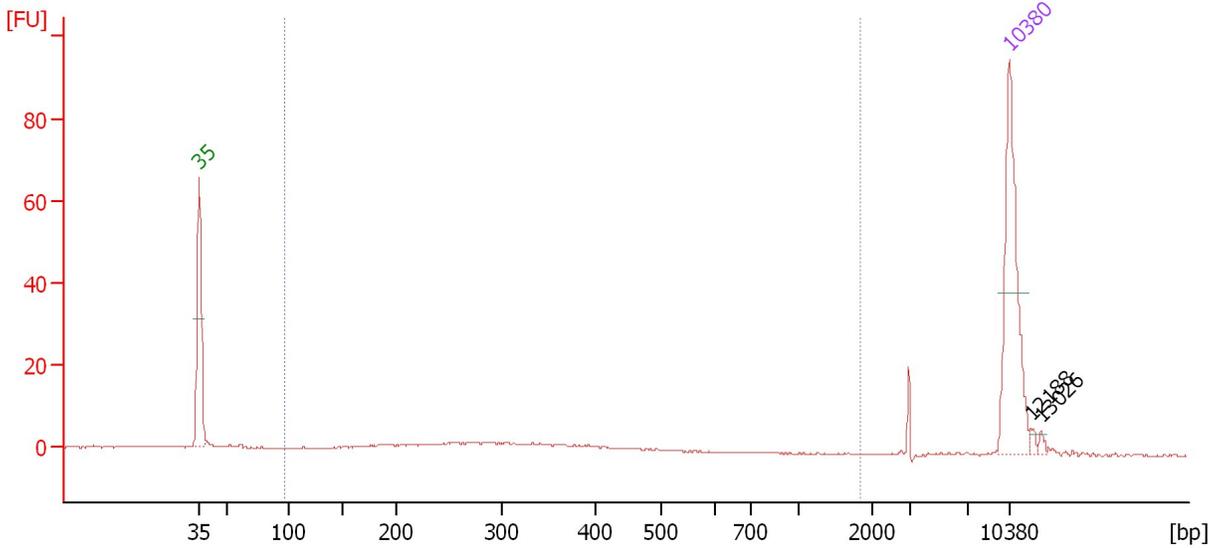
From [bp]	Average Size [bp]	To [bp]	Corr. Area	% of Total	Size distribution in CV [%]	Conc. [pg/μl]	Molarity [pmol/l]	Color
94	324	1,807	52.2	72	54.9	63.20	385.5	Blue

Assay Class: High Sensitivity DNA Assay  
 Data Path: C:\...ents and Settings\Bioanalyzer\2014-10-04\2014-10-04\_001.xad

Created: 10/4/2014 12:35:11 PM  
 Modified: 10/4/2014 1:25:30 PM

**Electropherogram Summary Continued ...**

9



**Overall Results for sample 4 : 9**

Number of peaks found: 2                      Corr. Area 1: 55.7  
 Noise: 0.1

**Peak table for sample 4 : 9**

Peak	Size [bp]	Conc. [pg/μl]	Molarity [pmol/l]	Observations
1	35	125.00	5,411.3	Lower Marker
2	10,380	75.00	10.9	Upper Marker
3	12,188	0.00	0.0	
4	13,026	0.00	0.0	

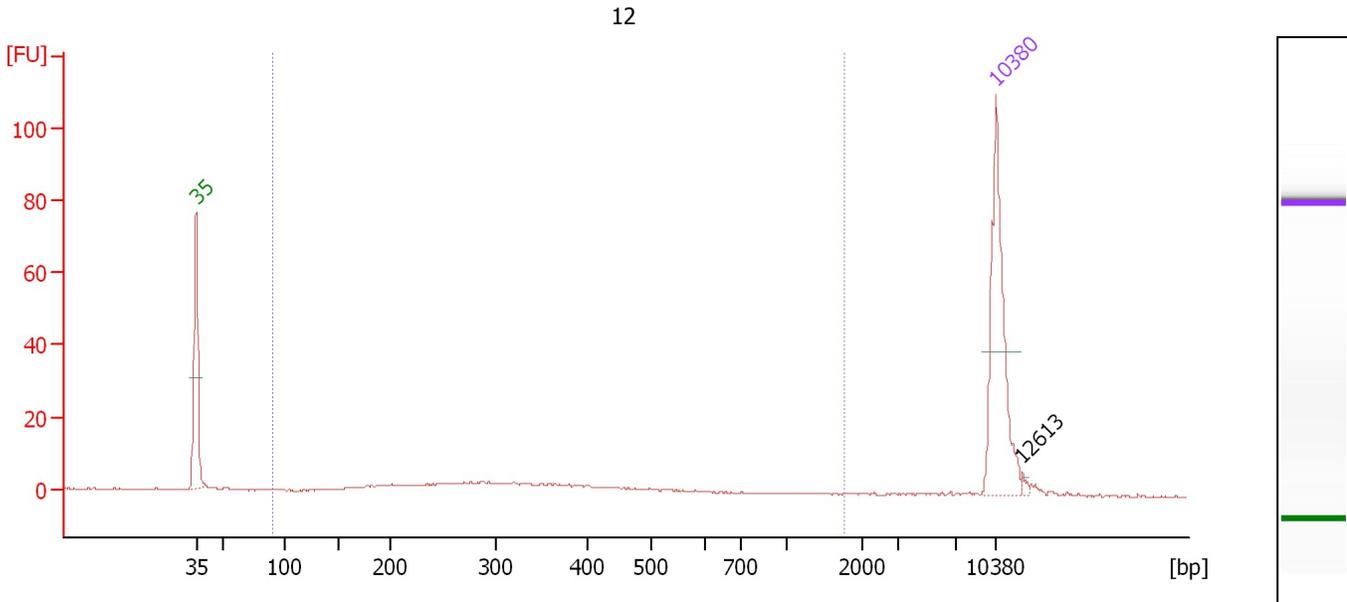
**Region table for sample 4 : 9**

From [bp]	Average Size [bp]	To [bp]	Corr. Area	% of Total	Size distribution in CV [%]	Conc. [pg/μl]	Molarity [pmol/l]	Color
97	303	1,822	55.7	69	32.1	66.37	393.0	Blue

Assay Class: High Sensitivity DNA Assay  
 Data Path: C:\...ents and Settings\Bioanalyzer\2014-10-04\2014-10-04\_001.xad

Created: 10/4/2014 12:35:11 PM  
 Modified: 10/4/2014 1:25:30 PM

**Electropherogram Summary Continued ...**



**Overall Results for sample 5 : 12**

Number of peaks found: 1      Corr. Area 1: 83.0  
 Noise: 0.2

**Peak table for sample 5 : 12**

Peak	Size [bp]	Conc. [pg/μl]	Molarity [pmol/l]	Observations
1	35	125.00	5,411.3	Lower Marker
2	10,380	75.00	10.9	Upper Marker
3	12,613	0.00	0.0	

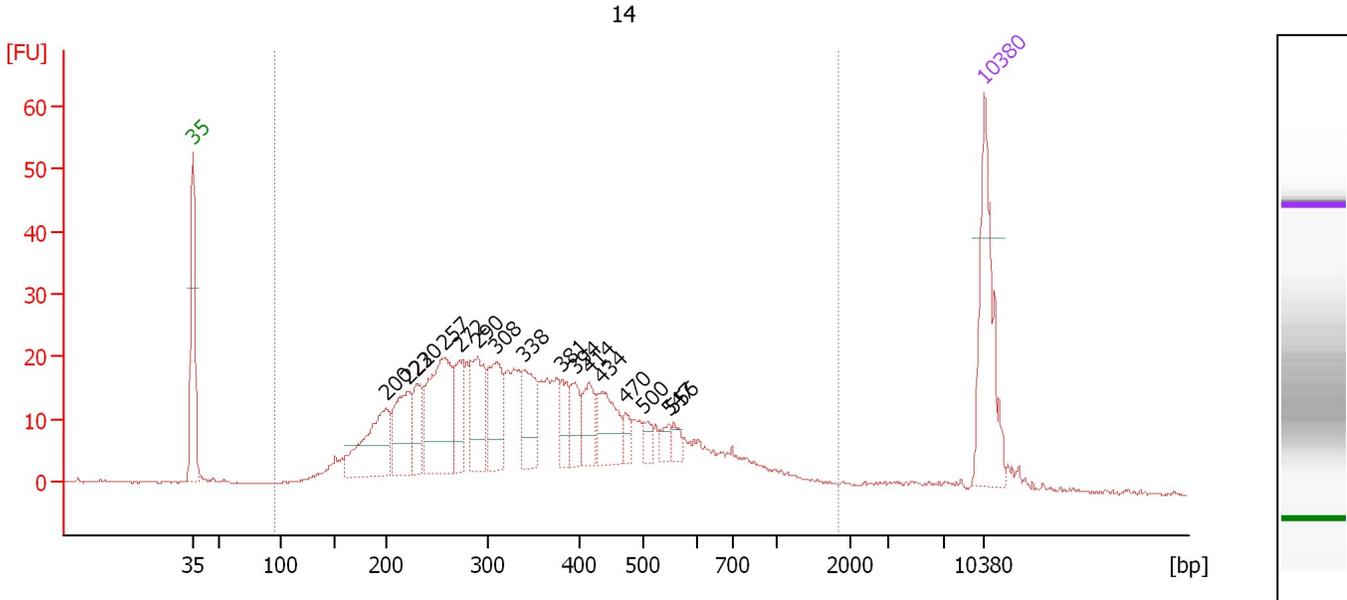
**Region table for sample 5 : 12**

From [bp]	Average Size [bp]	To [bp]	Corr. Area	% of Total	Size distribution in CV [%]	Conc. [pg/μl]	Molarity [pmol/l]	Color
90	348	1,769	83.0	82	48.7	81.61	442.5	Blue

Assay Class: High Sensitivity DNA Assay  
 Data Path: C:\...ents and Settings\Bioanalyzer\2014-10-04\2014-10-04\_001.xad

Created: 10/4/2014 12:35:11 PM  
 Modified: 10/4/2014 1:25:30 PM

**Electropherogram Summary Continued ...**



**Overall Results for sample 6 : 14**

Number of peaks found: 16                      Corr. Area 1: 718.6  
 Noise: 0.2

**Peak table for sample 6 : 14**

Peak	Size [bp]	Conc. [pg/μl]	Molarity [pmol/l]	Observations
1	35	125.00	5,411.3	Lower Marker
2	200	90.58	684.7	
3	222	64.36	439.1	
4	230	34.88	229.4	
5	257	115.97	683.2	
6	272	43.44	242.3	
7	290	66.06	345.5	
8	308	60.64	298.7	
9	338	49.27	220.6	
10	381	21.89	87.1	
11	394	26.00	100.0	
12	414	28.97	106.0	
13	434	43.55	152.1	
14	470	11.40	36.7	
15	500	9.29	28.1	
16	547	10.08	27.9	
17	556	8.58	23.4	
18	10,380	75.00	10.9	Upper Marker

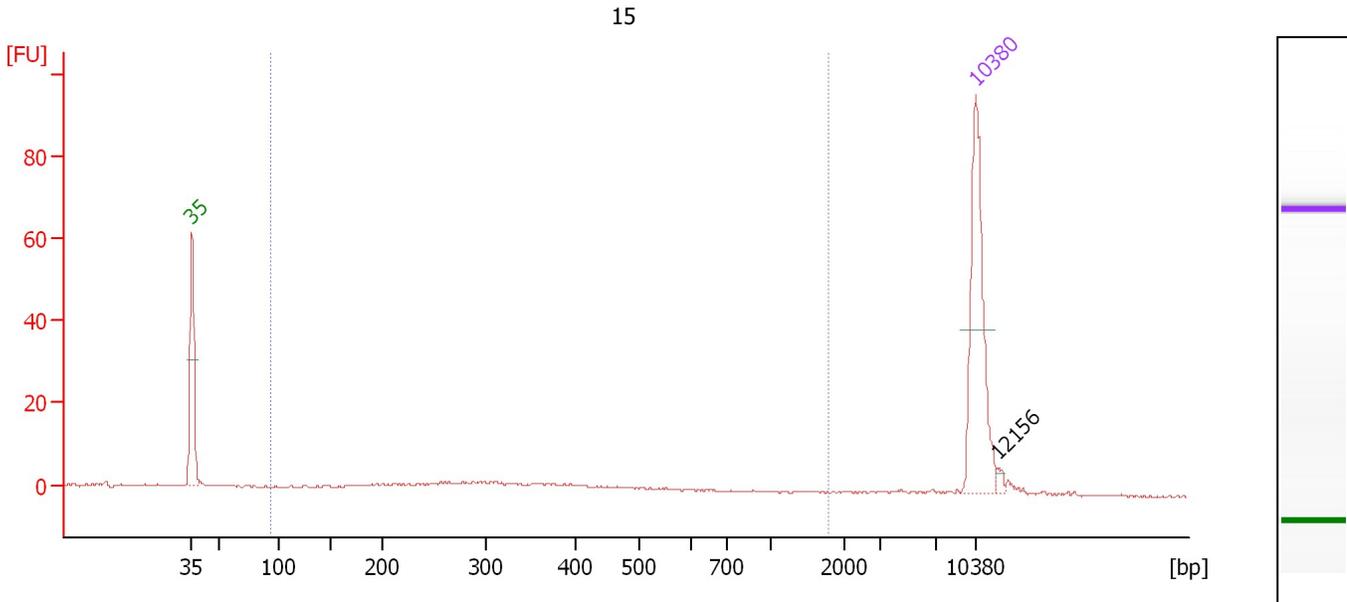
**Region table for sample 6 : 14**

From [bp]	Average Size [bp]	To [bp]	Corr. Area	% of Total	Size distribution in CV [%]	Conc. [pg/μl]	Molarity [pmol/l]	Color
95	385	1,817	718.6	96	53.0	1,171.64	5,991.5	Blue

Assay Class: High Sensitivity DNA Assay  
 Data Path: C:\...ents and Settings\Bioanalyzer\2014-10-04\2014-10-04\_001.xad

Created: 10/4/2014 12:35:11 PM  
 Modified: 10/4/2014 1:25:30 PM

**Electropherogram Summary Continued ...**



**Overall Results for sample 7 : 15**

Number of peaks found: 1                      Corr. Area 1: 48.5  
 Noise: 0.2

**Peak table for sample 7 : 15**

Peak	Size [bp]	Conc. [pg/μl]	Molarity [pmol/l]	Observations
1	35	125.00	5,411.3	Lower Marker
2	10,380	75.00	10.9	Upper Marker
3	12,156	0.00	0.0	

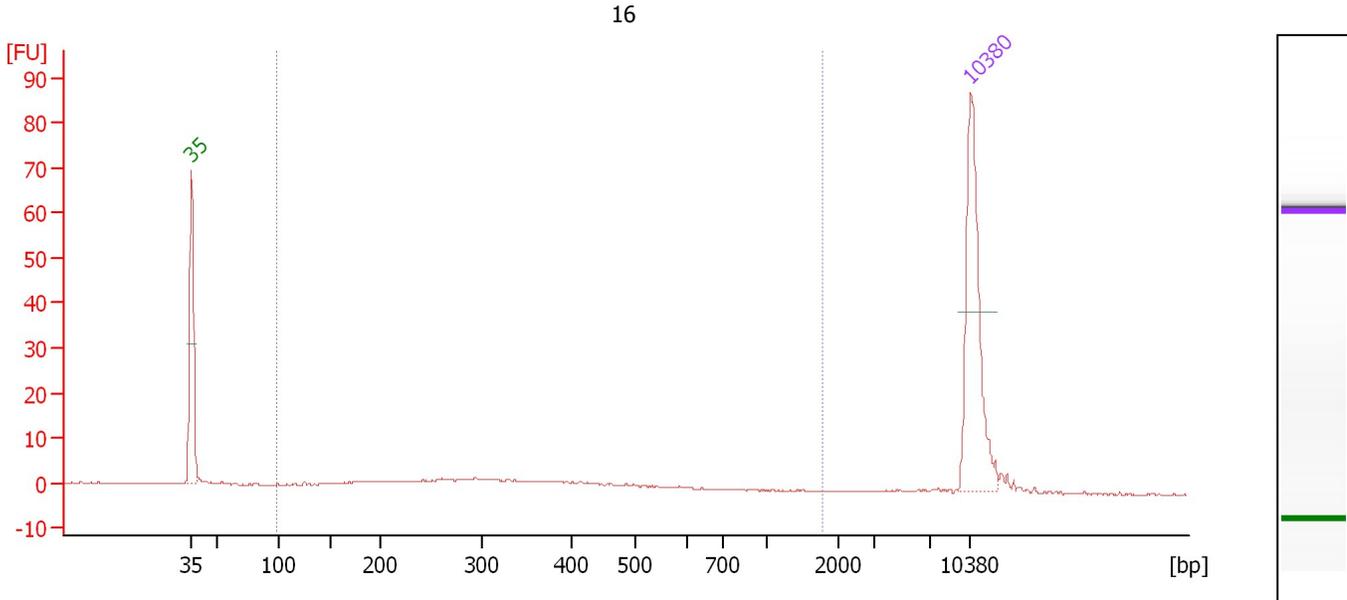
**Region table for sample 7 : 15**

From [bp]	Average Size [bp]	To [bp]	Corr. Area	% of Total	Size distribution in CV [%]	Conc. [pg/μl]	Molarity [pmol/l]	Color
93	387	1,788	48.5	72	59.4	51.36	263.5	Blue

Assay Class: High Sensitivity DNA Assay  
 Data Path: C:\...ents and Settings\Bioanalyzer\2014-10-04\2014-10-04\_001.xad

Created: 10/4/2014 12:35:11 PM  
 Modified: 10/4/2014 1:25:30 PM

**Electropherogram Summary Continued ...**



**Overall Results for sample 8 : 16**

Number of peaks found: 0                      Corr. Area 1: 56.3  
 Noise: 0.1

**Peak table for sample 8 : 16**

Peak	Size [bp]	Conc. [pg/μl]	Molarity [pmol/l]	Observations
1	35	125.00	5,411.3	Lower Marker
2	10,380	75.00	10.9	Upper Marker

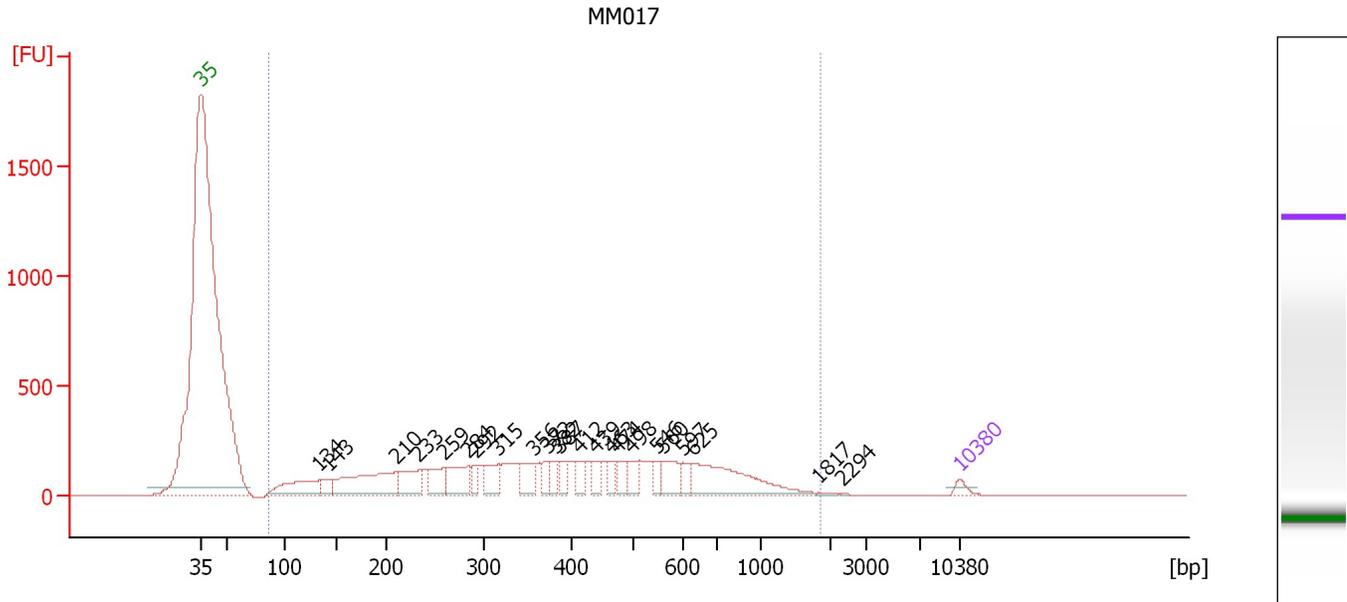
**Region table for sample 8 : 16**

From [bp]	Average Size [bp]	To [bp]	Corr. Area	% of Total	Size distribution in CV [%]	Conc. [pg/μl]	Molarity [pmol/l]	Color
99	342	1,770	56.3	81	43.5	62.03	341.2	Blue

Assay Class: High Sensitivity DNA Assay  
 Data Path: C:\...ents and Settings\Bioanalyzer\2014-10-04\2014-10-04\_001.xad

Created: 10/4/2014 12:35:11 PM  
 Modified: 10/4/2014 1:25:30 PM

**Electropherogram Summary Continued ...**



**Overall Results for sample 9 : MM017**

Number of peaks found: 23                      Corr. Area 1: 7,717.2  
 Noise: 0.2

**Peak table for sample 9 : MM017**

Peak	Size [bp]	Conc. [pg/μl]	Molarity [pmol/l]	Observations
1	35	125.00	5,411.3	Lower Marker
2	134	817.00	9,257.1	
3	143	225.25	2,384.3	
4	210	1,356.92	9,775.7	
5	233	543.06	3,526.1	
6	259	455.73	2,670.7	
7	284	598.95	3,198.5	
8	292	173.54	901.2	
9	315	406.85	1,954.1	
10	356	403.52	1,715.2	
11	372	200.66	818.3	
12	382	186.42	739.9	
13	387	197.07	771.2	
14	412	216.07	794.9	
15	439	200.30	692.1	
16	463	174.69	571.1	
17	474	242.55	775.7	
18	498	250.47	762.3	
19	546	136.49	378.7	
20	560	382.96	1,036.9	
21	597	166.02	421.4	
22	625	1,180.20	2,860.8	
23	1,817	19.51	16.3	
24	2,294	4.70	3.1	
25	10,380	75.00	10.9	Upper Marker

Assay Class: High Sensitivity DNA Assay  
Data Path: C:\...ents and Settings\Bioanalyzer\2014-10-04\2014-10-04\_001.xad

Created: 10/4/2014 12:35:11 PM  
Modified: 10/4/2014 1:25:30 PM

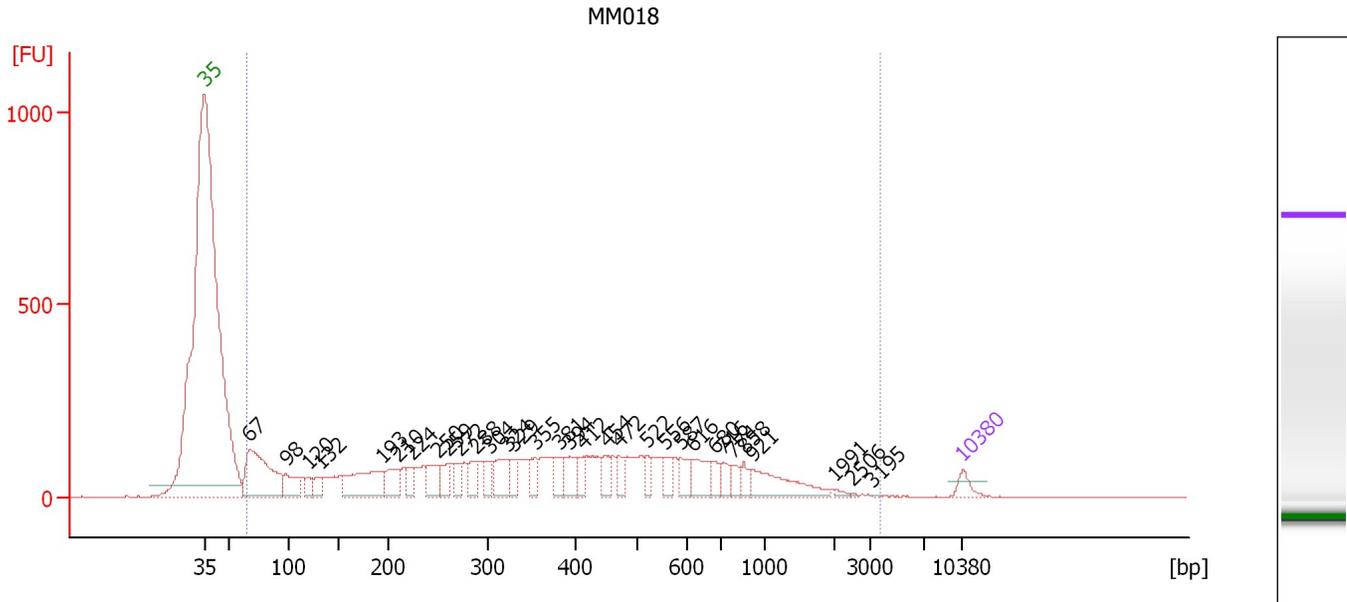
**Electropherogram Summary Continued ...****... Region table for sample 9 : MM017**

<b>From [bp]</b>	<b>Average Size [bp]</b>	<b>To [bp]</b>	<b>Corr. Area</b>	<b>% of Total</b>	<b>Size distribution in CV [%]</b>	<b>Conc. [pg/<math>\mu</math>l]</b>	<b>Molarity [pmol/l]</b>	<b>Color</b>
87	435	1,859	7,717.2	99	57.8	10,505.58	58,454.7	

Assay Class: High Sensitivity DNA Assay  
 Data Path: C:\...ents and Settings\Bioanalyzer\2014-10-04\2014-10-04\_001.xad

Created: 10/4/2014 12:35:11 PM  
 Modified: 10/4/2014 1:25:30 PM

**Electropherogram Summary Continued ...**



**Overall Results for sample 10 : MM018**

Number of peaks found: 32                      Corr. Area 1: 6,113.0  
 Noise: 0.3

**Peak table for sample 10 : MM018**

Peak	Size [bp]	Conc. [pg/μl]	Molarity [pmol/l]	Observations
1	35	125.00	5,411.3	Lower Marker
2	67	1,263.47	28,542.2	
3	98	300.10	4,643.9	
4	120	105.15	1,327.2	
5	132	149.71	1,717.5	
6	193	640.18	5,022.3	
7	210	247.43	1,783.7	
8	224	156.47	1,060.4	
9	250	249.08	1,510.7	
10	259	149.27	871.8	
11	272	122.14	679.7	
12	288	177.59	933.1	
13	304	149.44	745.4	
14	324	264.95	1,240.3	
15	329	128.72	592.7	
16	355	150.05	640.4	
17	381	154.69	614.4	
18	394	235.30	904.5	
19	412	132.42	486.7	
20	454	145.84	487.2	
21	472	119.47	383.1	
22	522	105.69	307.0	
23	556	147.70	402.6	
24	587	136.25	351.7	
25	616	244.52	601.2	
26	680	93.65	208.6	

Assay Class: High Sensitivity DNA Assay  
 Data Path: C:\...ents and Settings\Bioanalyzer\2014-10-04\2014-10-04\_001.xad

Created: 10/4/2014 12:35:11 PM  
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### Electropherogram Summary Continued ...

#### ... Peak table for sample 10 : MM018

Peak	Size [bp]	Conc. [pg/μl]	Molarity [pmol/l]	Observations
27	716	99.44	210.5	
28	774	100.37	196.4	
29	858	83.02	146.5	
30	921	376.27	619.3	
31	1,991	21.17	16.1	
32	2,506	6.49	3.9	
33	3,195	4.02	1.9	
34	▶ 10,380	75.00	10.9	Upper Marker

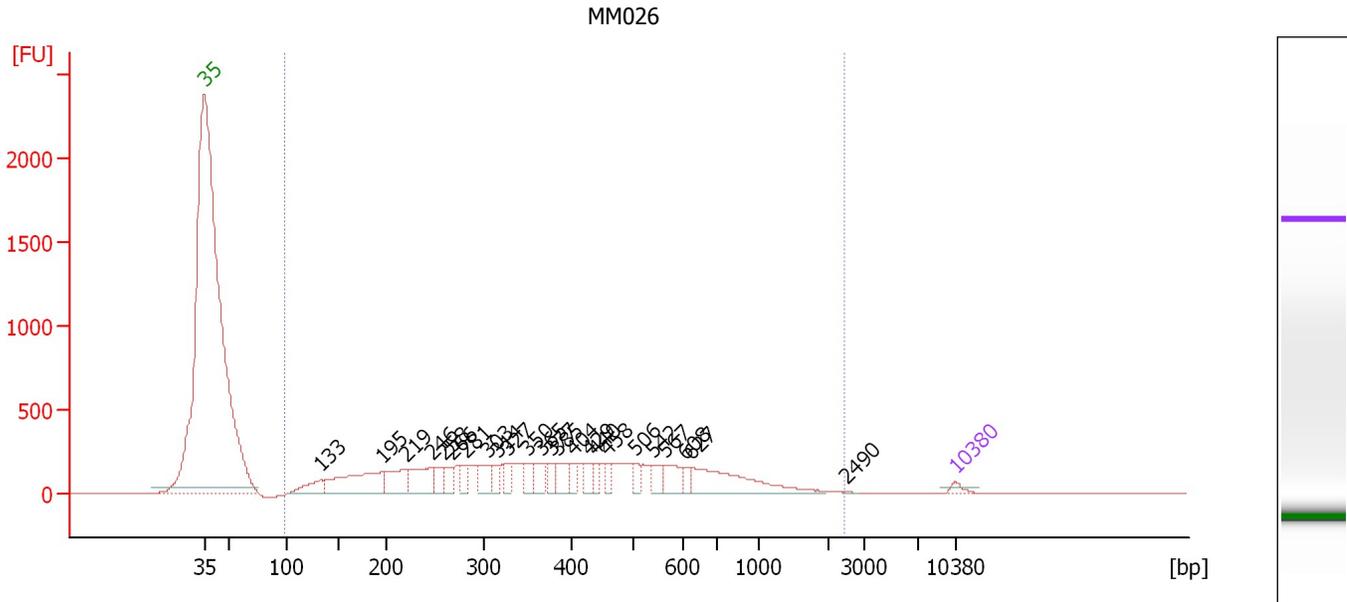
#### Region table for sample 10 : MM018

From [bp]	Average Size [bp]	To [bp]	Corr. Area	% of Total	Size distribution in CV [%]	Conc. [pg/μl]	Molarity [pmol/l]	Color
65	461	3,798	6,113.0	99	82.4	8,735.84	63,718.8	■

Assay Class: High Sensitivity DNA Assay  
 Data Path: C:\...ents and Settings\Bioanalyzer\2014-10-04\2014-10-04\_001.xad

Created: 10/4/2014 12:35:11 PM  
 Modified: 10/4/2014 1:25:30 PM

**Electropherogram Summary Continued ...**



**Overall Results for sample 11 : MM026**

Number of peaks found: 24                      Corr. Area 1: 8,773.0  
 Noise: 0.1

**Peak table for sample 11 : MM026**

Peak	Size [bp]	Conc. [pg/μl]	Molarity [pmol/l]	Observations
1	35	125.00	5,411.3	Lower Marker
2	133	501.12	5,699.8	
3	195	1,563.90	12,158.6	
4	219	764.41	5,285.0	
5	246	830.84	5,124.6	
6	258	329.32	1,937.4	
7	266	294.99	1,682.4	
8	281	294.47	1,588.9	
9	303	460.29	2,303.7	
10	314	251.82	1,214.0	
11	327	249.41	1,155.4	
12	350	306.56	1,328.7	
13	365	327.31	1,357.2	
14	377	198.51	797.9	
15	385	406.53	1,600.4	
16	404	247.27	928.3	
17	429	257.26	909.1	
18	440	183.44	631.6	
19	458	194.44	642.9	
20	506	181.57	543.5	
21	542	272.56	762.3	
22	567	428.13	1,144.4	
23	608	130.28	324.4	
24	627	1,263.30	3,051.3	
25	2,490	9.67	5.9	
26	10,380	75.00	10.9	Upper Marker

Assay Class: High Sensitivity DNA Assay  
Data Path: C:\...ents and Settings\Bioanalyzer\2014-10-04\2014-10-04\_001.xad

Created: 10/4/2014 12:35:11 PM  
Modified: 10/4/2014 1:25:30 PM

**Electropherogram Summary Continued ...**

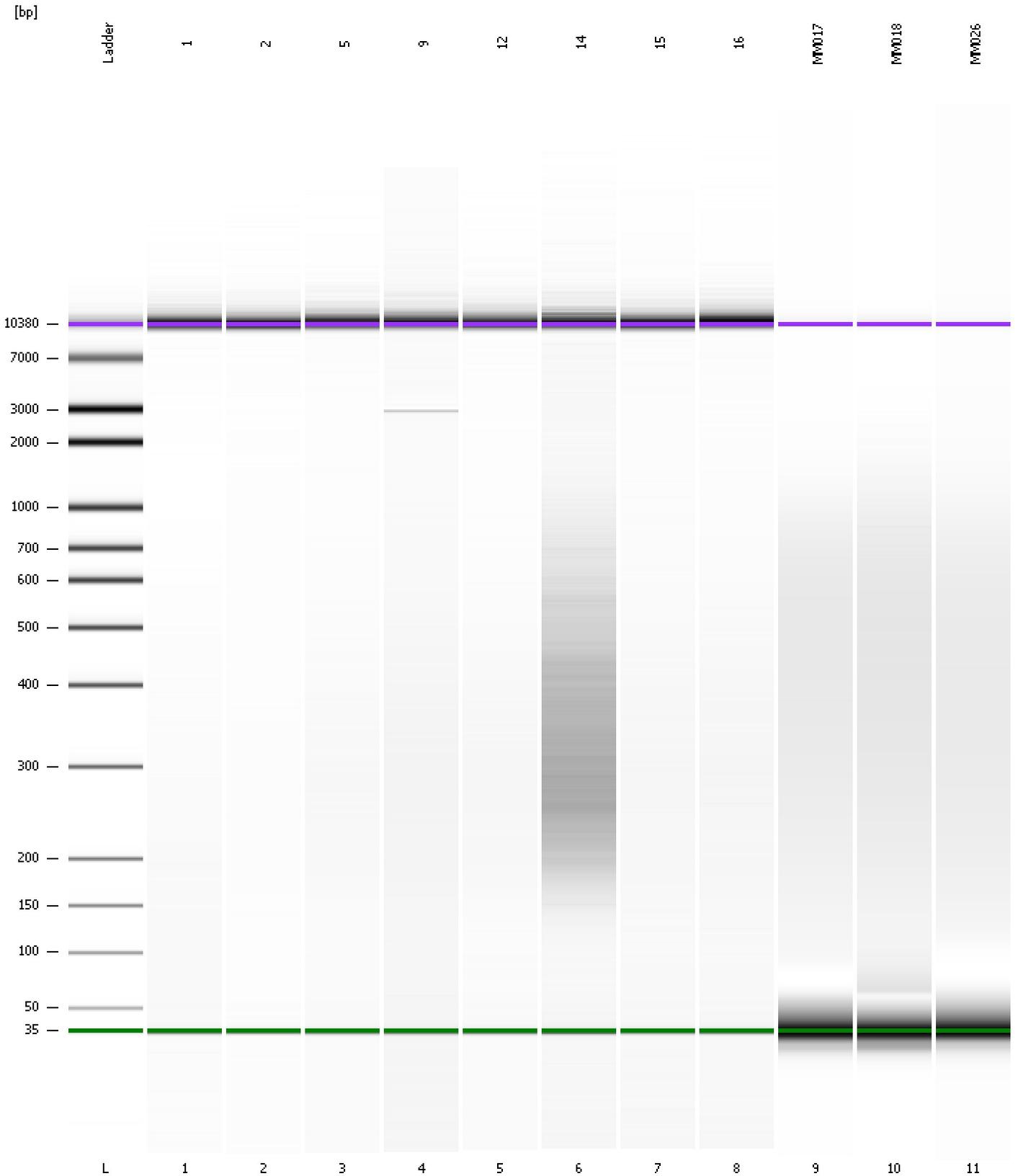
... Region table for sample 11 : MM026

From [bp]	Average Size [bp]	To [bp]	Corr. Area	% of Total	Size distribution in CV [%]	Conc. [pg/ $\mu$ l]	Molarity [pmol/l]	Color
98	439	2,420	8,773.0	99	62.6	12,314.71	64,706.5	

Assay Class: High Sensitivity DNA Assay  
Data Path: C:\...ents and Settings\Bioanalyzer\2014-10-04\2014-10-04\_001.xad

Created: 10/4/2014 12:35:11 PM  
Modified: 10/4/2014 1:25:30 PM

**Gel Image**

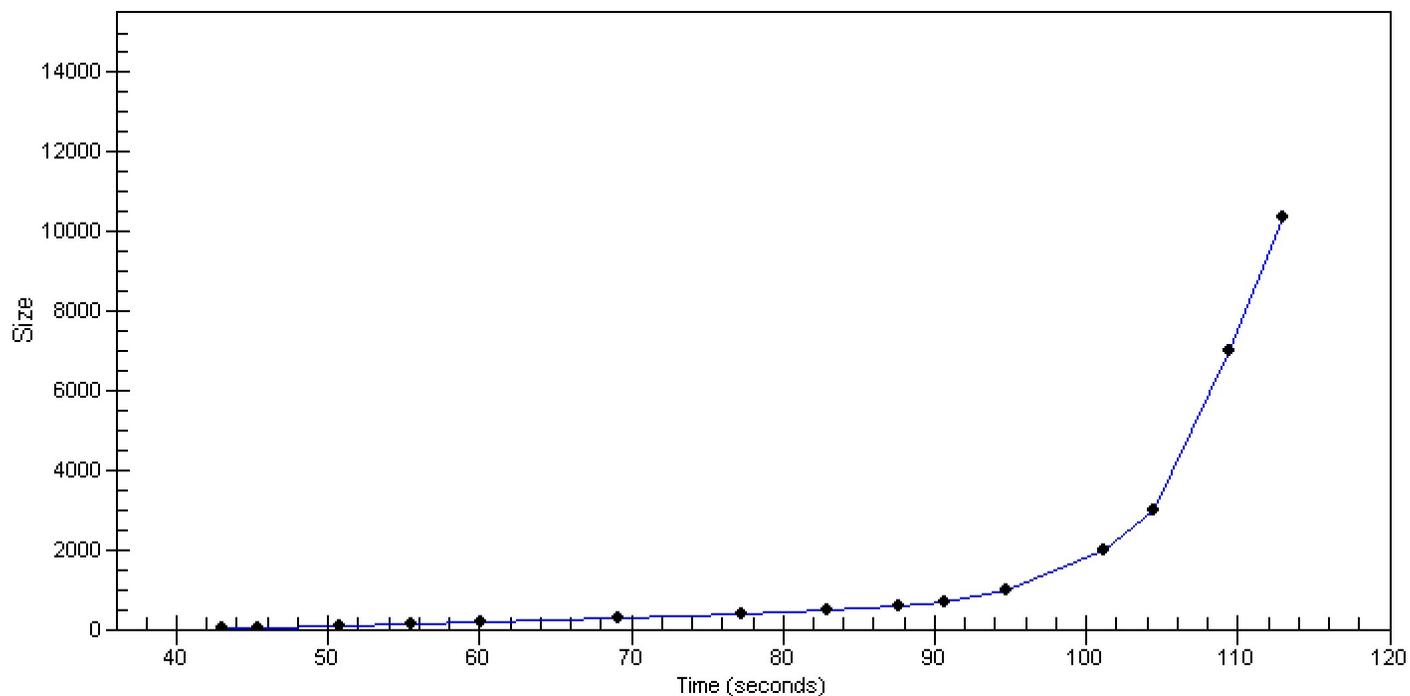


Assay Class: High Sensitivity DNA Assay  
Data Path: C:\...ents and Settings\Bioanalyzer\2014-10-04\2014-10-04\_001.xad

Created: 10/4/2014 12:35:11 PM  
Modified: 10/4/2014 1:25:30 PM

**Curves**

**Standard Curve**



Assay Class: High Sensitivity DNA Assay  
 Data Path: C:\...ents and Settings\Bioanalyzer\2014-10-04\2014-10-04\_001.xad

Created: 10/4/2014 12:35:11 PM  
 Modified: 10/4/2014 1:25:30 PM

**Run Logbook**

Description	Number	Source	Category	Sub Category	Time	Time Zone	User	Host
Run ended on port 1 (Number of wells acquired: 12)		Instrument	Run		10/4/2014 1:16:28 PM	(GMT --07:00) Pacific Standard Time	UC Davis	D8XSMGH1
Run started on port 1 (File: C:\Documents and Settings\Bioanalyzer\2014-10-04\2014-10-04_001.xad)		Instrument	Run		10/4/2014 12:35:16 PM	(GMT --07:00) Pacific Standard Time	UC Davis	D8XSMGH1
Product Number : G2938B		Instrument	Run		10/4/2014 12:35:16 PM	(GMT --07:00) Pacific Standard Time	UC Davis	D8XSMGH1
Name :		Instrument	Run		10/4/2014 12:35:16 PM	(GMT --07:00) Pacific Standard Time	UC Davis	D8XSMGH1
Vendor : Agilent Technologies		Instrument	Run		10/4/2014 12:35:16 PM	(GMT --07:00) Pacific Standard Time	UC Davis	D8XSMGH1
Serial# : DE13701086		Instrument	Run		10/4/2014 12:35:16 PM	(GMT --07:00) Pacific Standard Time	UC Davis	D8XSMGH1
Firmware : C.01.069		Instrument	Run		10/4/2014 12:35:16 PM	(GMT --07:00) Pacific Standard Time	UC Davis	D8XSMGH1
Cartridge : Electrode		Instrument	Run		10/4/2014 12:35:16 PM	(GMT --07:00) Pacific Standard Time	UC Davis	D8XSMGH1