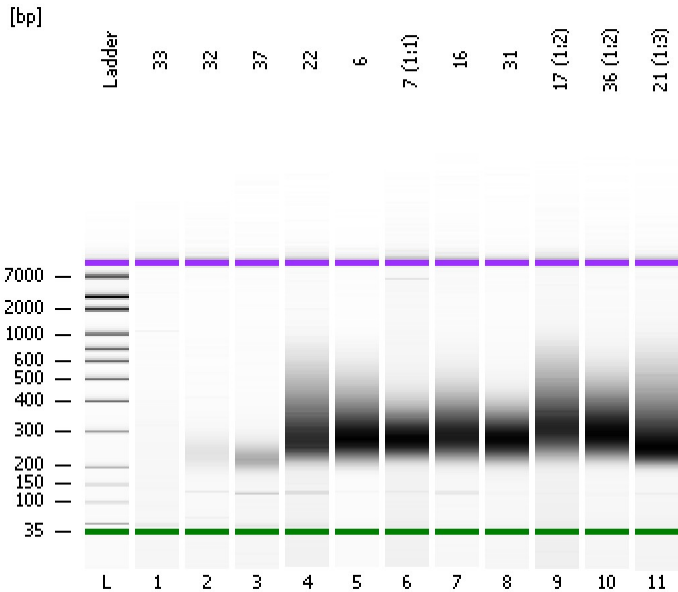


Assay Class: High Sensitivity DNA Assay  
Data Path: C:\...ents and Settings\Bioanalyzer\2015-01-28\2015-01-28\_003.xad

Created: 1/28/2015 1:15:10 PM  
Modified: 1/28/2015 2:04:08 PM

### Electrophoresis File Run Summary



#### Instrument Information:

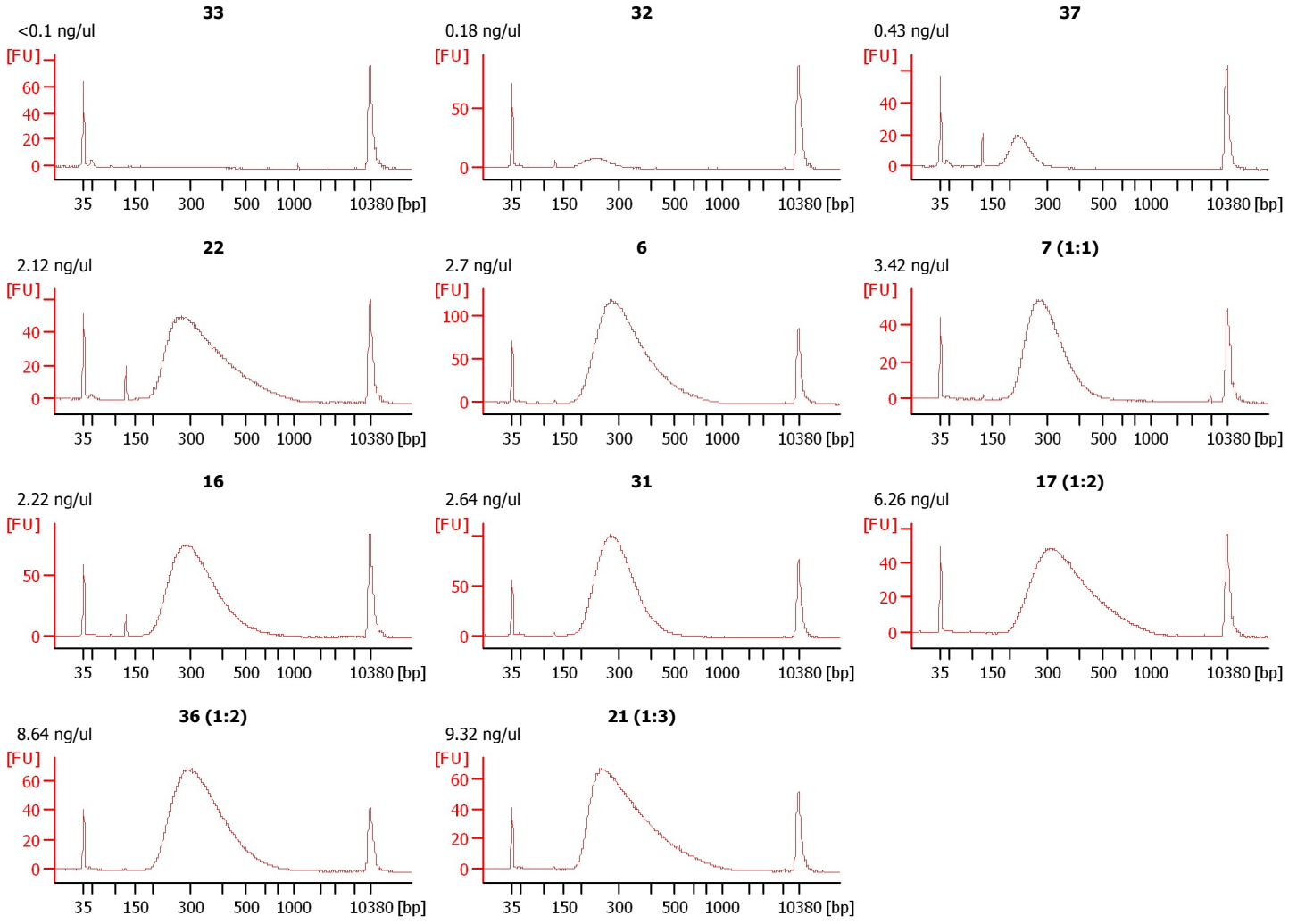
Instrument Name: DE13701086      Firmware: C.01.069  
Serial#: DE13701086      Type: G2938B

#### 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\2015-01-28\2015-01-28\_003.xad

Created: 1/28/2015 1:15:10 PM  
Modified: 1/28/2015 2:04:08 PM

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

Sample Name	Sample Comment	Rest. Digest	Status	Observation	Result Label	Result Color
33	<0.1 ng/ul	<input type="checkbox"/>	✓			
32	0.18 ng/ul	<input type="checkbox"/>	✓			
37	0.43 ng/ul	<input type="checkbox"/>	✓			
22	2.12 ng/ul	<input type="checkbox"/>	✓			
6	2.7 ng/ul	<input type="checkbox"/>	✓			
7 (1:1)	3.42 ng/ul	<input type="checkbox"/>	✓			
16	2.22 ng/ul	<input type="checkbox"/>	✓			
31	2.64 ng/ul	<input type="checkbox"/>	✓			
17 (1:2)	6.26 ng/ul	<input type="checkbox"/>	✓			
36 (1:2)	8.64 ng/ul	<input type="checkbox"/>	✓			
21 (1:3)	9.32 ng/ul	<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\2015-01-28\2015-01-28\_003.xad

Created: 1/28/2015 1:15:10 PM  
Modified: 1/28/2015 2:04:08 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

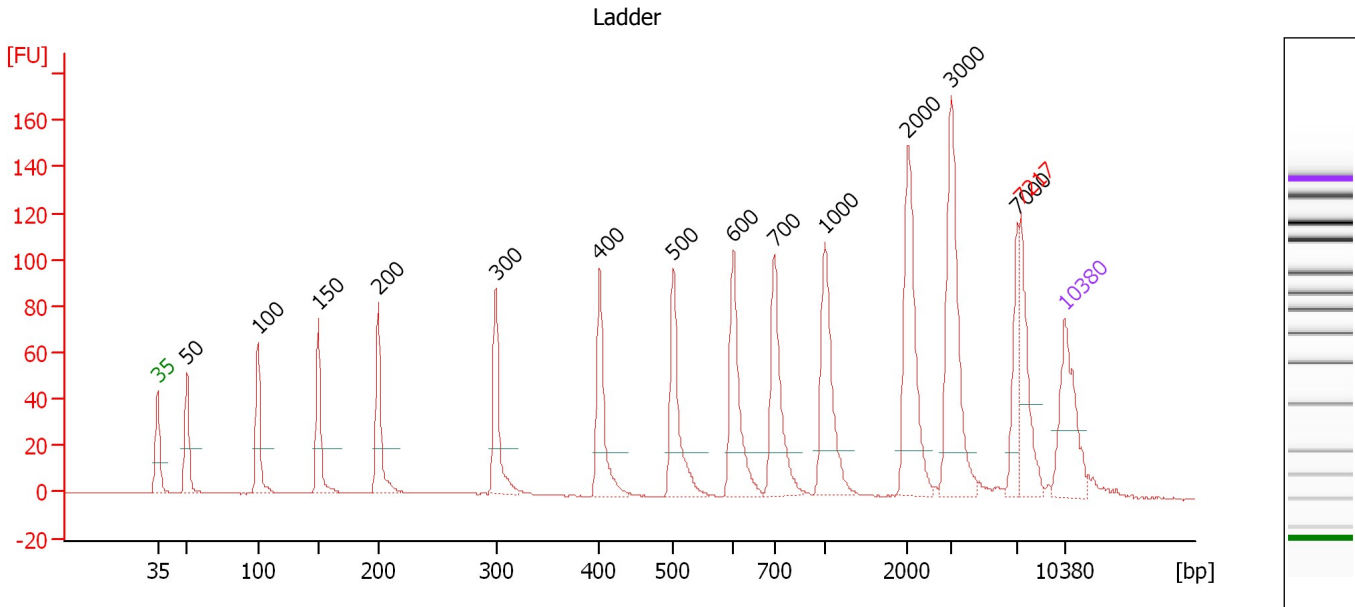
**Ladder**

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\2015-01-28\2015-01-28\_003.xad

Created: 1/28/2015 1:15:10 PM  
 Modified: 1/28/2015 2:04:08 PM

**Electropherogram Summary**



**Overall Results for Ladder**

Noise: 0.2

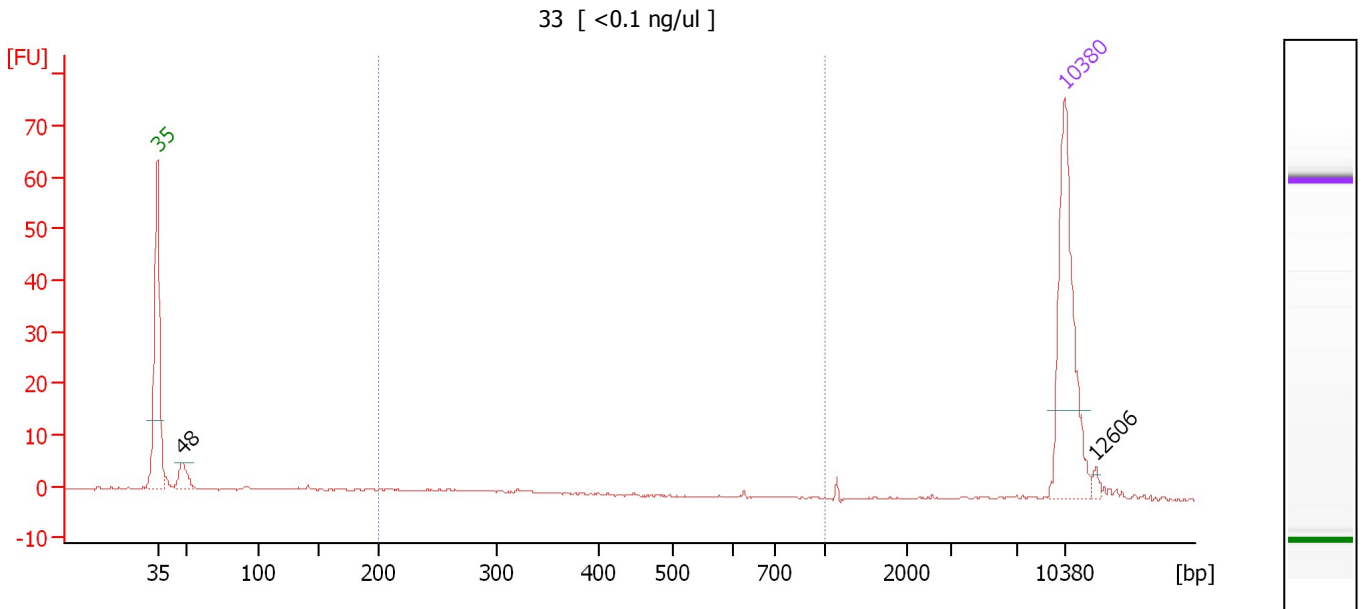
**Peak table for Ladder**

Peak	Size [bp]	Conc. [pg/μl]	Molarity [pmol/l]	Observations	Aligned Migration Time [s]
1	35	125.00	5,411.3	Lower Marker	43.00
2	50	150.00	4,545.5	Ladder Peak	45.27
3	100	150.00	2,272.7	Ladder Peak	50.73
4	150	150.00	1,515.2	Ladder Peak	55.41
5	200	150.00	1,136.4	Ladder Peak	60.04
6	300	150.00	757.6	Ladder Peak	69.11
7	400	150.00	568.2	Ladder Peak	77.12
8	500	150.00	454.5	Ladder Peak	82.81
9	600	150.00	378.8	Ladder Peak	87.44
10	700	150.00	324.7	Ladder Peak	90.59
11	1,000	150.00	227.3	Ladder Peak	94.48
12	2,000	150.00	113.6	Ladder Peak	100.92
13	3,000	150.00	75.8	Ladder Peak	104.25
14	7,000	150.00	32.5	Ladder Peak	109.39
15	7,217	0.00	0.0	excluded peak	109.62
16	10,380	75.00	10.9	Upper Marker	113.00

Assay Class: High Sensitivity DNA Assay  
 Data Path: C:\...ents and Settings\Bioanalyzer\2015-01-28\2015-01-28\_003.xad

Created: 1/28/2015 1:15:10 PM  
 Modified: 1/28/2015 2:04:08 PM

**Electropherogram Summary Continued ...**



**Overall Results for sample 1 : 33**

Number of peaks found: 2                      Corr. Area 1: 9.2  
 Noise: 0.1

**Peak table for sample 1 : 33**

Peak	Size [bp]	Conc. [pg/μl]	Molarity [pmol/l]	Observations	Aligned Migration Time [s]
1	35	125.00	5,411.3	Lower Marker	43.00
2	48	16.42	522.1		44.91
3	10,380	75.00	10.9	Upper Marker	113.00
4	12,606	0.00	0.0		115.38

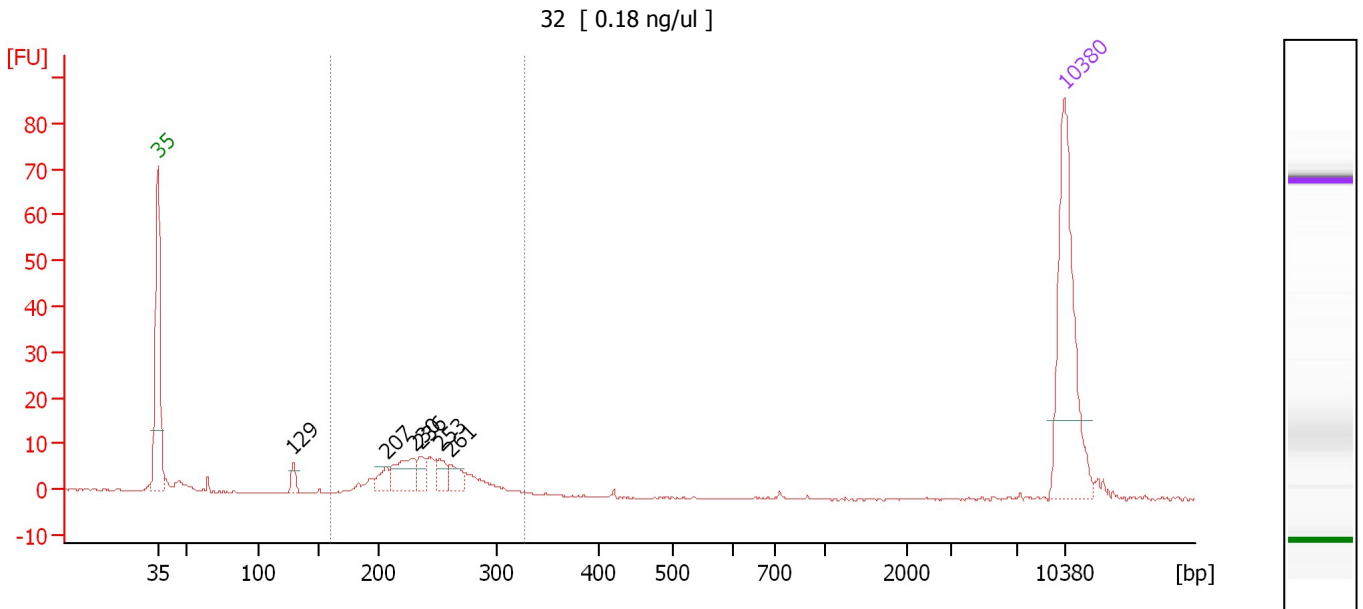
**Region table for sample 1 : 33**

From [bp]	Average Size [bp]	To [bp]	Corr. Area	% of Total	Size distribution in CV [%]	Conc. [pg/μl]	Molarity [pmol/l]	Color
200	299	1,000	9.2	21	32.1	12.09	66.4	Blue

Assay Class: High Sensitivity DNA Assay  
 Data Path: C:\...ents and Settings\Bioanalyzer\2015-01-28\2015-01-28\_003.xad

Created: 1/28/2015 1:15:10 PM  
 Modified: 1/28/2015 2:04:08 PM

**Electropherogram Summary Continued ...**



**Overall Results for sample 2 : 32**

Number of peaks found: 6                      Corr. Area 1: 94.8  
 Noise: 0.2

**Peak table for sample 2 : 32**

Peak	Size [bp]	Conc. [pg/μl]	Molarity [pmol/l]	Observations	Aligned Migration Time [s]
1	35	125.00	5,411.3	Lower Marker	43.00
2	129	7.01	82.1		53.47
3	207	9.56	70.1		60.63
4	230	24.72	162.8		62.76
5	236	10.63	68.2		63.33
6	253	10.15	60.8		64.85
7	261	10.65	61.8		65.56
8	10,380	75.00	10.9	Upper Marker	113.00

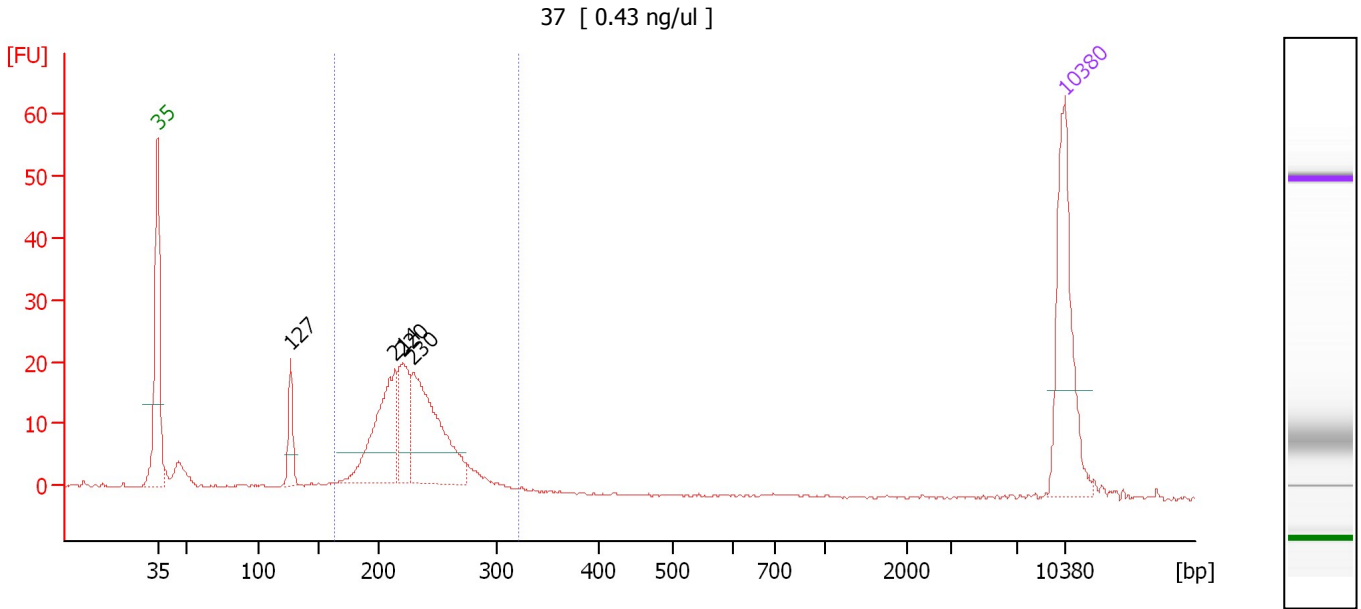
**Region table for sample 2 : 32**

From [bp]	Average Size [bp]	To [bp]	Corr. Area	% of Total	Size distribution in CV [%]	Conc. [pg/μl]	Molarity [pmol/l]	Color
160	242	328	94.8	79	12.7	109.31	692.7	Blue

Assay Class: High Sensitivity DNA Assay  
 Data Path: C:\...ents and Settings\Bioanalyzer\2015-01-28\2015-01-28\_003.xad

Created: 1/28/2015 1:15:10 PM  
 Modified: 1/28/2015 2:04:08 PM

**Electropherogram Summary Continued ...**



**Overall Results for sample 3 : 37**

Number of peaks found: 4                      Corr. Area 1: 193.8  
 Noise: 0.2

**Peak table for sample 3 : 37**

Peak	Size [bp]	Conc. [pg/μl]	Molarity [pmol/l]	Observations	Aligned Migration Time [s]
1	35	125.00	5,411.3	Lower Marker	43.00
2	127	32.41	385.7		53.29
3	214	103.66	733.6		61.32
4	220	52.02	358.4		61.85
5	230	125.00	823.4		62.76
6	10,380	75.00	10.9	Upper Marker	113.00

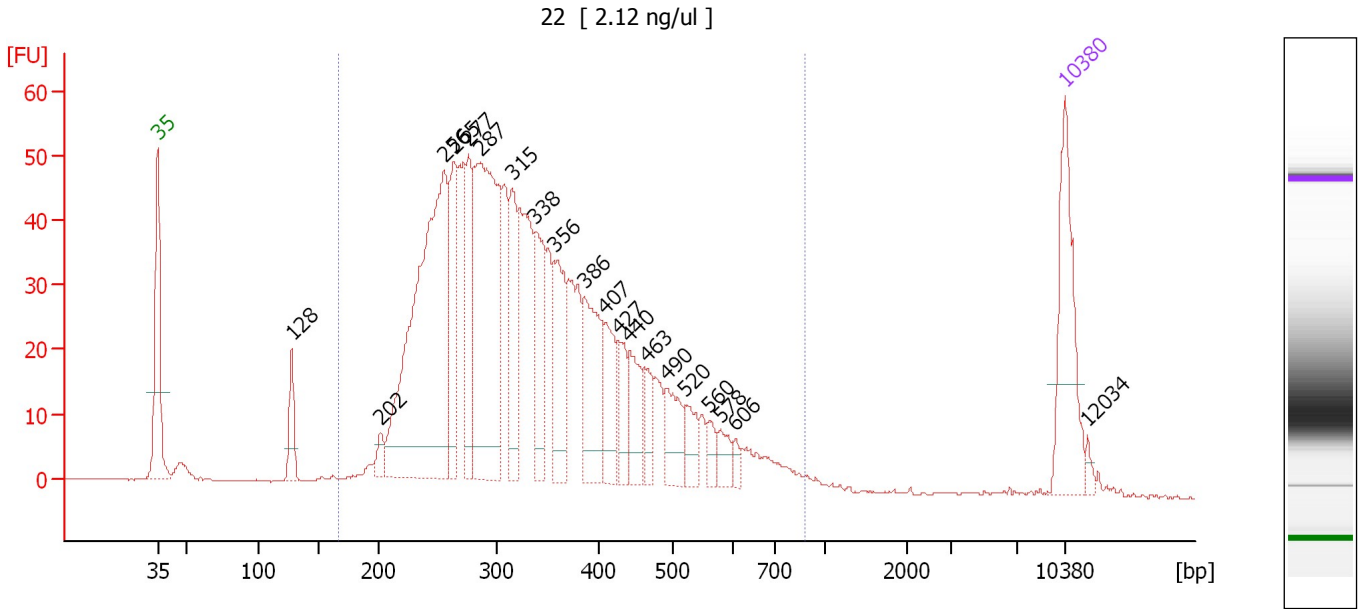
**Region table for sample 3 : 37**

From [bp]	Average Size [bp]	To [bp]	Corr. Area	% of Total	Size distribution in CV [%]	Conc. [pg/μl]	Molarity [pmol/l]	Color
163	229	322	193.8	82	11.7	326.74	2,187.0	Blue

Assay Class: High Sensitivity DNA Assay  
 Data Path: C:\...ents and Settings\Bioanalyzer\2015-01-28\2015-01-28\_003.xad

Created: 1/28/2015 1:15:10 PM  
 Modified: 1/28/2015 2:04:08 PM

**Electropherogram Summary Continued ...**



**Overall Results for sample 4 : 22**

Number of peaks found: 20                      Corr. Area 1: 1,189.1  
 Noise: 0.1

**Peak table for sample 4 : 22**

Peak	Size [bp]	Conc. [pg/μl]	Molarity [pmol/l]	Observations	Aligned Migration Time [s]
1	35	125.00	5,411.3	Lower Marker	43.00
2	128	33.68	398.4		53.36
3	202	14.26	106.9		60.23
4	256	389.58	2,308.6		65.09
5	265	84.44	483.0		65.92
6	277	83.84	458.9		67.00
7	287	274.93	1,453.9		67.89
8	315	73.60	353.6		70.34
9	338	76.91	344.7		72.16
10	356	79.18	337.2		73.58
11	386	90.06	353.6		75.99
12	407	50.88	189.5		77.51
13	427	35.04	124.4		78.64
14	440	41.87	144.0		79.42
15	463	21.21	69.4		80.70
16	490	39.01	120.5		82.27
17	520	22.74	66.3		83.74
18	560	11.90	32.2		85.61
19	578	15.11	39.6		86.44
20	606	7.04	17.6		87.62
21	10,380	75.00	10.9	Upper Marker	113.00
22	12,034	0.00	0.0		114.77




Assay Class: High Sensitivity DNA Assay  
Data Path: C:\...ents and Settings\Bioanalyzer\2015-01-28\2015-01-28\_003.xad

Created: 1/28/2015 1:15:10 PM  
Modified: 1/28/2015 2:04:08 PM

**Electropherogram Summary Continued ...**

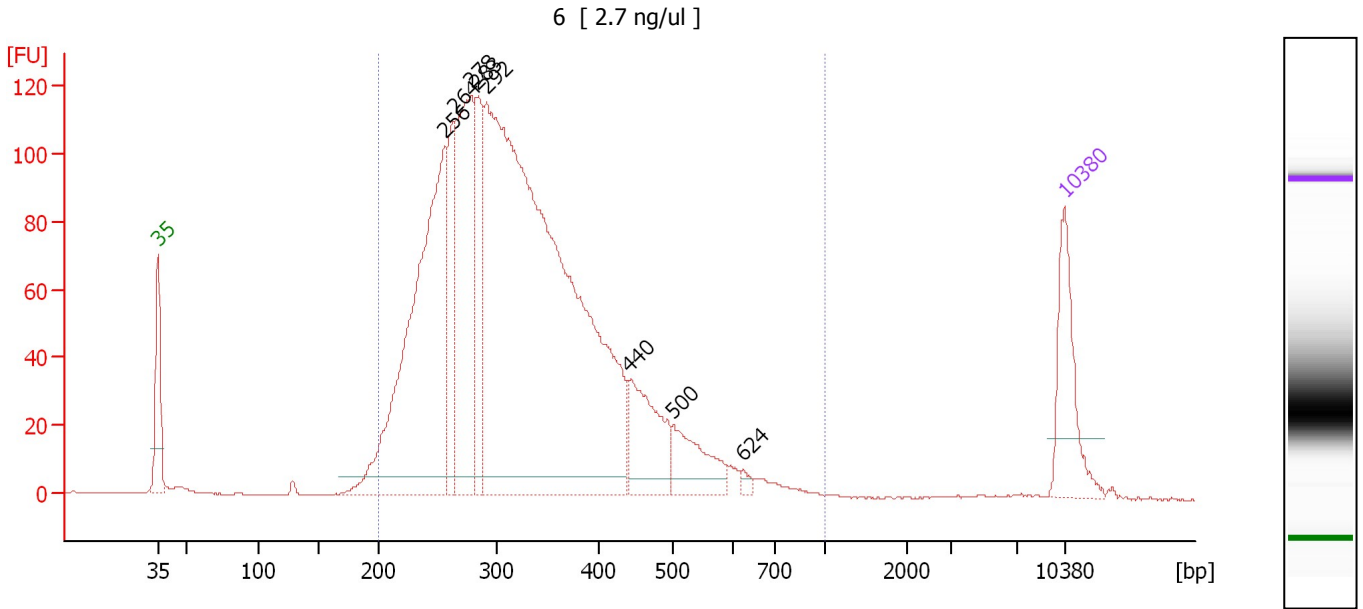
... Region table for sample 4 : 22

From [bp]	Average Size [bp]	To [bp]	Corr. Area	% of Total	Size distribution in CV [%]	Conc. [pg/ $\mu$ l]	Molarity [pmol/l]	Color
168	347	878	1,189.1	96	30.6	1,951.65	9,482.4	

Assay Class: High Sensitivity DNA Assay  
 Data Path: C:\...ents and Settings\Bioanalyzer\2015-01-28\2015-01-28\_003.xad

Created: 1/28/2015 1:15:10 PM  
 Modified: 1/28/2015 2:04:08 PM

**Electropherogram Summary Continued ...**



**Overall Results for sample 5 : 6**

Number of peaks found: 8                      Corr. Area 1: 2,400.7  
 Noise: 0.1

**Peak table for sample 5 : 6**

Peak	Size [bp]	Conc. [pg/μl]	Molarity [pmol/l]	Observations	Aligned Migration Time [s]
1	35	125.00	5,411.3	Lower Marker	43.00
2	256	566.43	3,346.8		65.16
3	264	123.32	707.5		65.85
4	278	293.74	1,599.1		67.14
5	283	127.82	683.7		67.59
6	292	1,376.60	7,142.6		68.39
7	440	110.85	381.4		79.42
8	500	72.99	221.3		82.79
9	624	6.31	15.3		88.21
10	10,380	75.00	10.9	Upper Marker	113.00

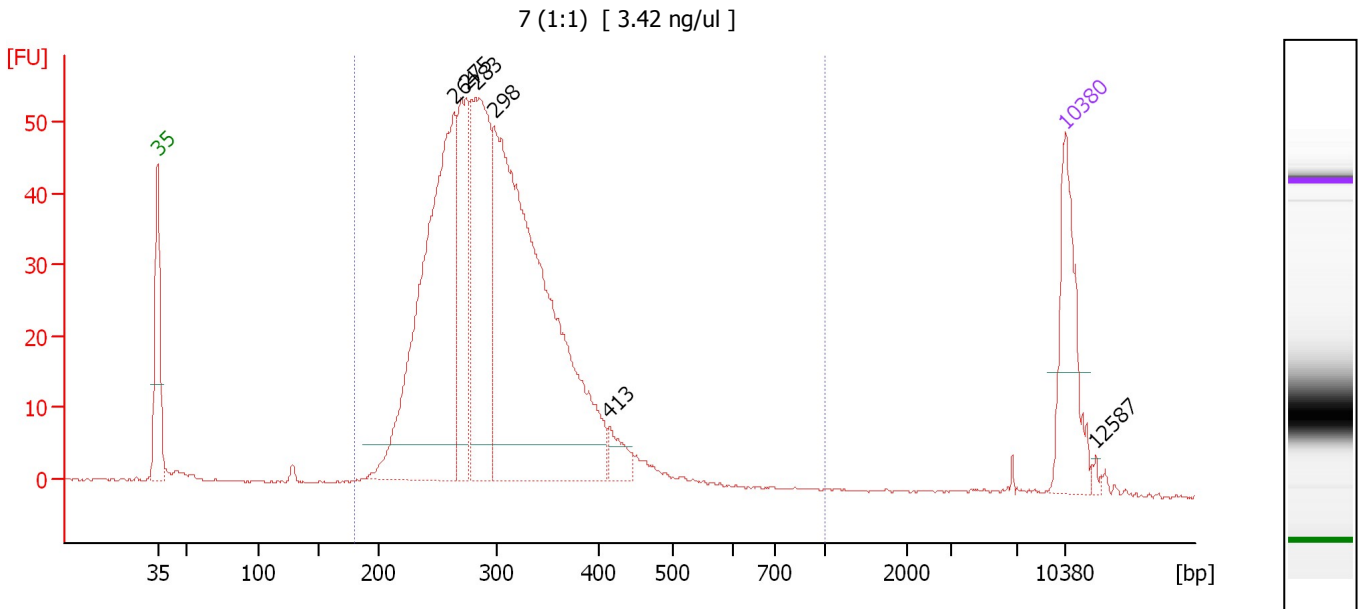
**Region table for sample 5 : 6**

From [bp]	Average Size [bp]	To [bp]	Corr. Area	% of Total	Size distribution in CV [%]	Conc. [pg/μl]	Molarity [pmol/l]	Color
200	332	1,000	2,400.7	98	27.6	2,572.35	12,747.8	Blue

Assay Class: High Sensitivity DNA Assay  
 Data Path: C:\...ents and Settings\Bioanalyzer\2015-01-28\2015-01-28\_003.xad

Created: 1/28/2015 1:15:10 PM  
 Modified: 1/28/2015 2:04:08 PM

**Electropherogram Summary Continued ...**



**Overall Results for sample 6 : 7 (1:1)**

Number of peaks found: 6                      Corr. Area 1: 875.2  
 Noise: 0.2

**Peak table for sample 6 : 7 (1:1)**

Peak	Size [bp]	Conc. [pg/μl]	Molarity [pmol/l]	Observations	Aligned Migration Time [s]
1	35	125.00	5,411.3	Lower Marker	43.00
2	264	469.83	2,692.3		65.88
3	275	140.66	775.2		66.84
4	283	249.76	1,336.2		67.59
5	298	657.90	3,343.4		68.94
6	413	22.73	83.3		77.87
7	10,380	75.00	10.9	Upper Marker	113.00
8	12,587	0.00	0.0		115.36

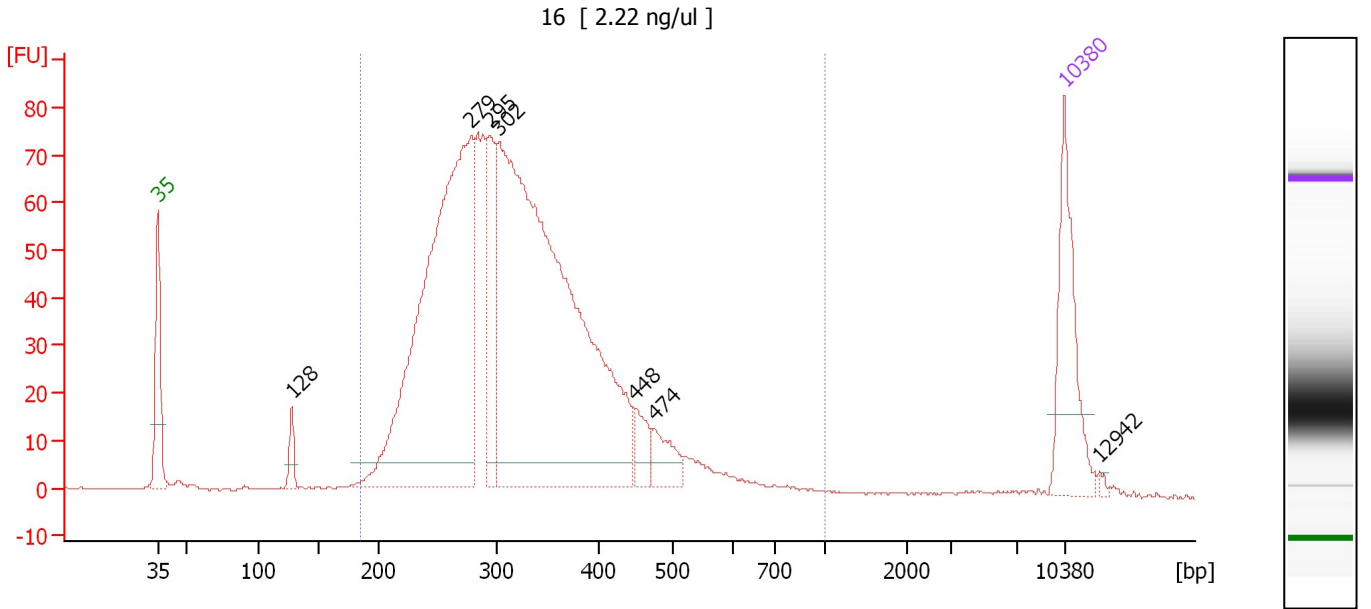
**Region table for sample 6 : 7 (1:1)**

From [bp]	Average Size [bp]	To [bp]	Corr. Area	% of Total	Size distribution in CV [%]	Conc. [pg/μl]	Molarity [pmol/l]	Color
180	306	1,000	875.2	97	21.8	1,625.20	8,424.9	Blue

Assay Class: High Sensitivity DNA Assay  
 Data Path: C:\...ents and Settings\Bioanalyzer\2015-01-28\2015-01-28\_003.xad

Created: 1/28/2015 1:15:10 PM  
 Modified: 1/28/2015 2:04:08 PM

**Electropherogram Summary Continued ...**



**Overall Results for sample 7 : 16**

Number of peaks found: 7                      Corr. Area 1: 1,472.5  
 Noise: 0.1

**Peak table for sample 7 : 16**

Peak	Size [bp]	Conc. [pg/μl]	Molarity [pmol/l]	Observations	Aligned Migration Time [s]
1	35	125.00	5,411.3	Lower Marker	43.00
2	128	20.34	240.9		53.34
3	279	595.01	3,228.3		67.23
4	295	92.22	473.8		68.65
5	302	820.29	4,109.4		69.31
6	448	25.50	86.3		79.85
7	474	30.24	96.7		81.32
8	10,380	75.00	10.9	Upper Marker	113.00
9	12,942	0.00	0.0		115.74

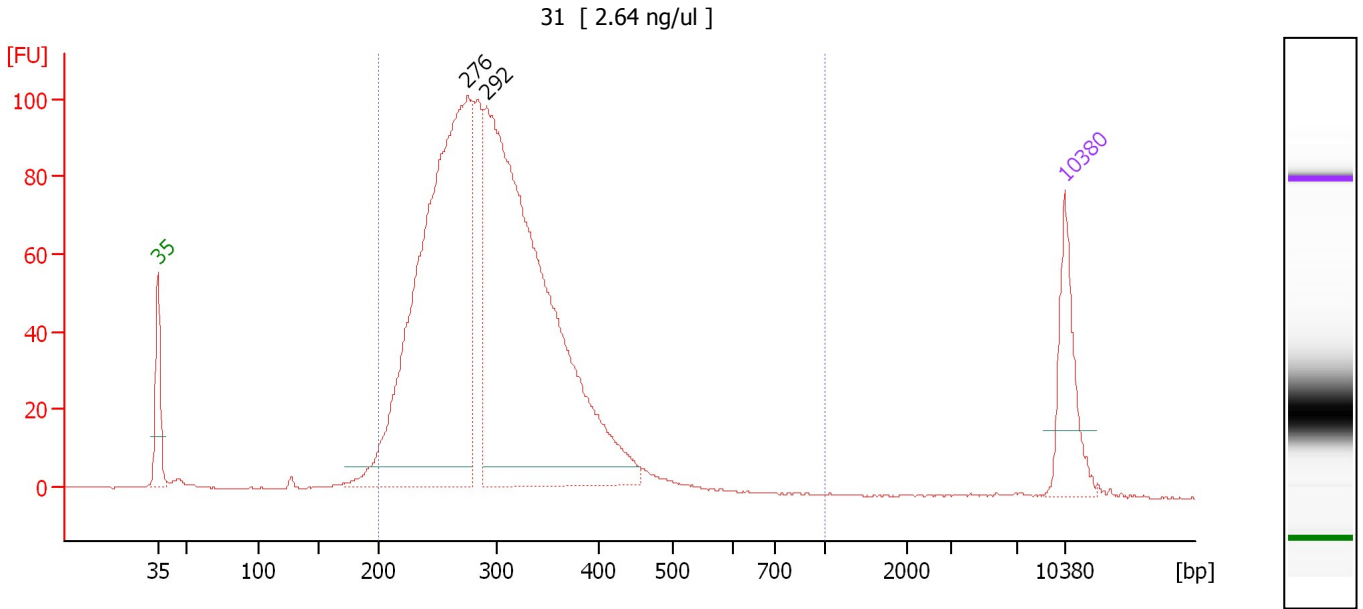
**Region table for sample 7 : 16**

From [bp]	Average Size [bp]	To [bp]	Corr. Area	% of Total	Size distribution in CV [%]	Conc. [pg/μl]	Molarity [pmol/l]	Color
185	327	1,000	1,472.5	97	25.7	1,723.10	8,579.5	Blue

Assay Class: High Sensitivity DNA Assay  
 Data Path: C:\...ents and Settings\Bioanalyzer\2015-01-28\2015-01-28\_003.xad

Created: 1/28/2015 1:15:10 PM  
 Modified: 1/28/2015 2:04:08 PM

**Electropherogram Summary Continued ...**



**Overall Results for sample 8 : 31**

Number of peaks found: 2                      Corr. Area 1: 1,660.7  
 Noise: 0.1

**Peak table for sample 8 : 31**

Peak	Size [bp]	Conc. [pg/μl]	Molarity [pmol/l]	Observations	Aligned Migration Time [s]
1	35	125.00	5,411.3	Lower Marker	43.00
2	276	943.34	5,179.9		66.93
3	292	1,059.72	5,505.5		68.35
4	10,380	75.00	10.9	Upper Marker	113.00

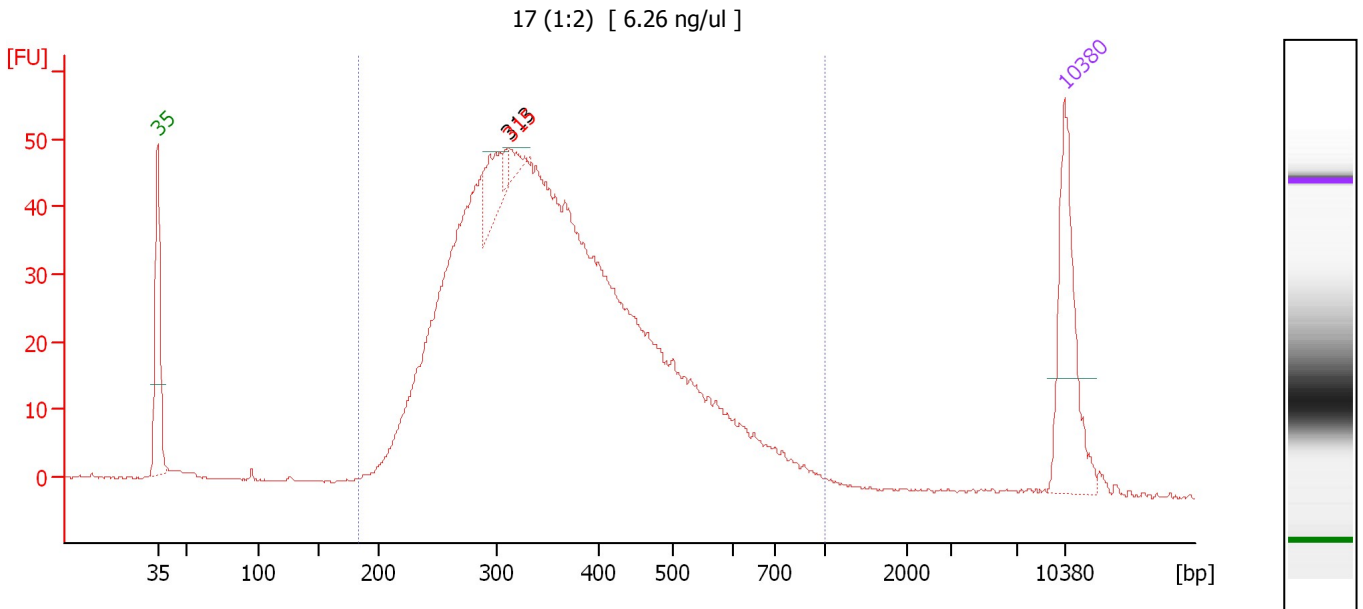
**Region table for sample 8 : 31**

From [bp]	Average Size [bp]	To [bp]	Corr. Area	% of Total	Size distribution in CV [%]	Conc. [pg/μl]	Molarity [pmol/l]	Color
200	300	1,000	1,660.7	97	19.2	2,180.02	11,439.2	Blue

Assay Class: High Sensitivity DNA Assay  
 Data Path: C:\...ents and Settings\Bioanalyzer\2015-01-28\2015-01-28\_003.xad

Created: 1/28/2015 1:15:10 PM  
 Modified: 1/28/2015 2:04:08 PM

**Electropherogram Summary Continued ...**



**Overall Results for sample 9 : 17 (1:2)**

Number of peaks found: 1                      Corr. Area 1: 1,156.5  
 Noise: 0.1

**Peak table for sample 9 : 17 (1:2)**

Peak	Size [bp]	Conc. [pg/μl]	Molarity [pmol/l]	Observations	Aligned Migration Time [s]
1	35	125.00	5,411.3	Lower Marker	43.00
2	313	42.44	205.3		70.17
3	315	14.46	69.5	excluded peak	70.32
4	10,380	75.00	10.9	Upper Marker	113.00

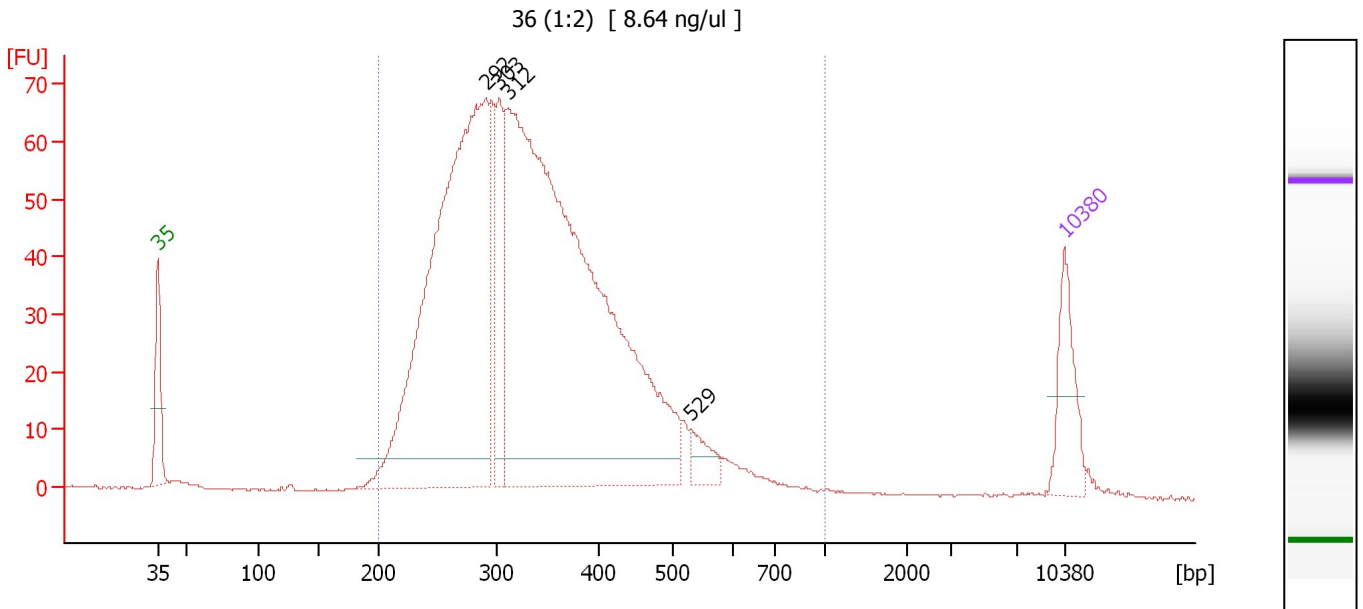
**Region table for sample 9 : 17 (1:2)**

From [bp]	Average Size [bp]	To [bp]	Corr. Area	% of Total	Size distribution in CV [%]	Conc. [pg/μl]	Molarity [pmol/l]	Color
184	373	1,000	1,156.5	97	31.2	1,783.09	8,085.8	Blue

Assay Class: High Sensitivity DNA Assay  
 Data Path: C:\...ents and Settings\Bioanalyzer\2015-01-28\2015-01-28\_003.xad

Created: 1/28/2015 1:15:10 PM  
 Modified: 1/28/2015 2:04:08 PM

**Electropherogram Summary Continued ...**



**Overall Results for sample 10 : 36 (1:2)**

Number of peaks found: 4                      Corr. Area 1: 1,410.6  
 Noise: 0.2

**Peak table for sample 10 : 36 (1:2)**

Peak	Size [bp]	Conc. [pg/μl]	Molarity [pmol/l]	Observations	Aligned Migration Time [s]
1	35	125.00	5,411.3	Lower Marker	43.00
2	292	1,115.59	5,797.1		68.35
3	303	142.68	712.7		69.38
4	312	1,593.06	7,743.1		70.05
5	529	38.86	111.4		84.14
6	10,380	75.00	10.9	Upper Marker	113.00

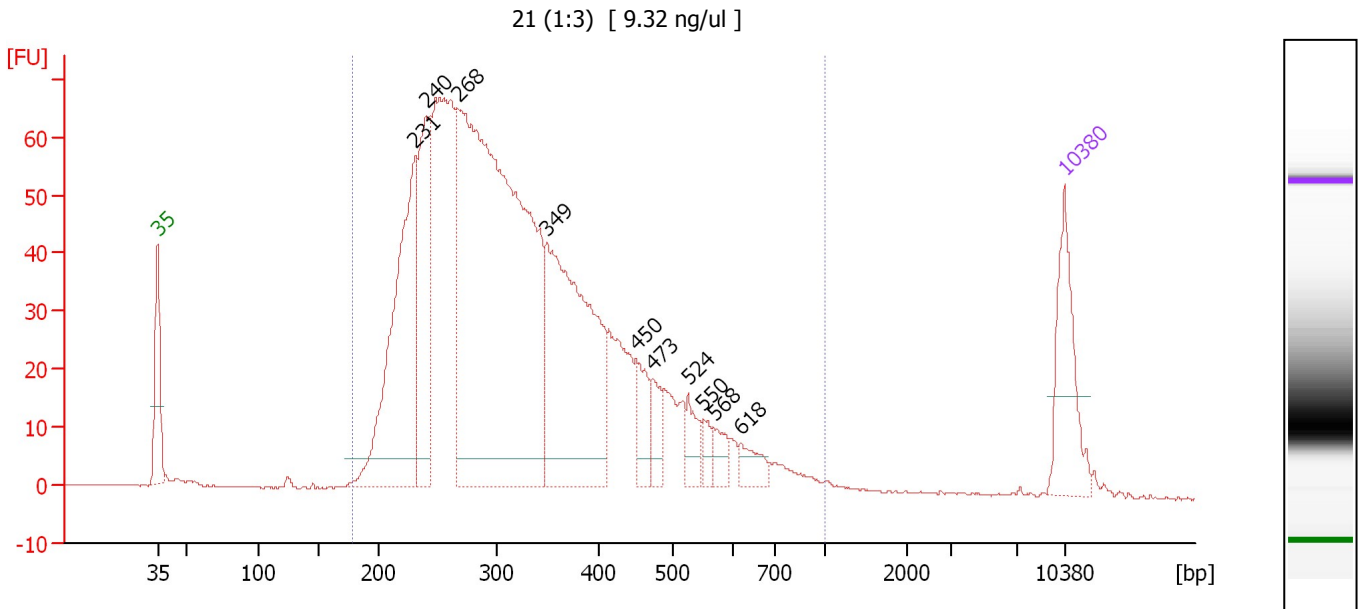
**Region table for sample 10 : 36 (1:2)**

From [bp]	Average Size [bp]	To [bp]	Corr. Area	% of Total	Size distribution in CV [%]	Conc. [pg/μl]	Molarity [pmol/l]	Color
200	343	1,000	1,410.6	98	26.6	3,026.85	14,471.4	Blue

Assay Class: High Sensitivity DNA Assay  
 Data Path: C:\...ents and Settings\Bioanalyzer\2015-01-28\2015-01-28\_003.xad

Created: 1/28/2015 1:15:10 PM  
 Modified: 1/28/2015 2:04:08 PM

**Electropherogram Summary Continued ...**



**Overall Results for sample 11 : 21 (1:3)**

Number of peaks found: 10                      Corr. Area 1: 1,510.2  
 Noise: 0.1

**Peak table for sample 11 : 21 (1:3)**

Peak	Size [bp]	Conc. [pg/μl]	Molarity [pmol/l]	Observations	Aligned Migration Time [s]
1	35	125.00	5,411.3	Lower Marker	43.00
2	231	340.60	2,231.5		62.87
3	240	185.44	1,168.5		63.71
4	268	991.45	5,604.2		66.21
5	349	369.50	1,603.6		73.04
6	450	42.49	143.0		79.98
7	473	31.20	99.9		81.29
8	524	28.73	83.0		83.95
9	550	15.57	42.9		85.15
10	568	17.68	47.1		85.98
11	618	22.49	55.1		88.01
12	10,380	75.00	10.9	Upper Marker	113.00

**Region table for sample 11 : 21 (1:3)**

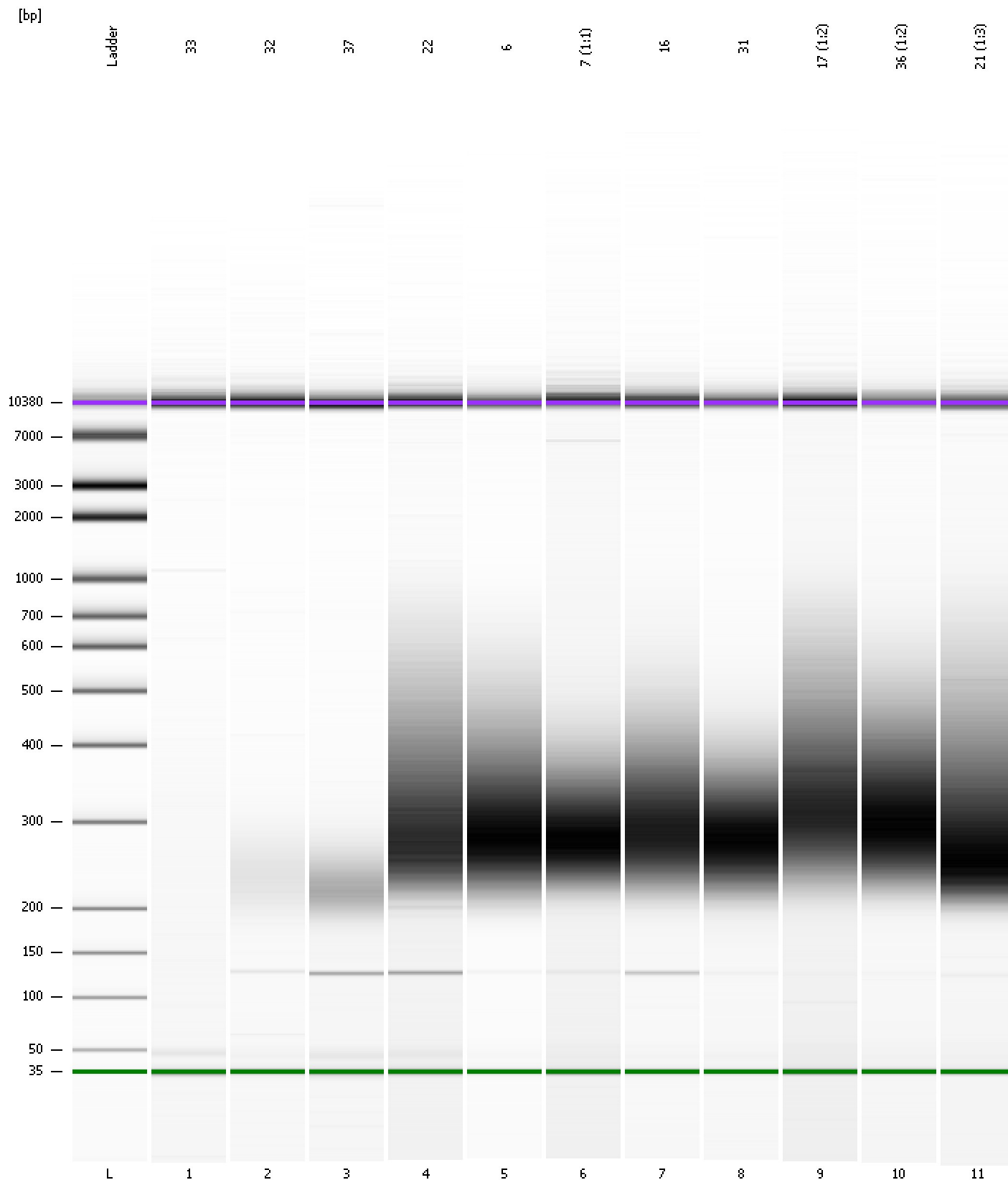
From [bp]	Average Size [bp]	To [bp]	Corr. Area	% of Total	Size distribution in CV [%]	Conc. [pg/μl]	Molarity [pmol/l]	Color
179	337	1,000	1,510.2	98	33.6	2,583.42	13,039.2	Blue



Assay Class: High Sensitivity DNA Assay  
Data Path: C:\...ents and Settings\Bioanalyzer\2015-01-28\2015-01-28\_003.xad

Created: 1/28/2015 1:15:10 PM  
Modified: 1/28/2015 2:04:08 PM

**Gel Image**



Assay Class: High Sensitivity DNA Assay  
 Data Path: C:\...ents and Settings\Bioanalyzer\2015-01-28\2015-01-28\_003.xad

Created: 1/28/2015 1:15:10 PM  
 Modified: 1/28/2015 2:04:08 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		1/28/2015 1:55:38 PM	(GMT --08:00) Pacific Standard Time	UC Davis	D8XSMGH1
Run started on port 1 (File: C:\Documents and Settings\Bioanalyzer\2015-01-28\2015-01-28_003.xad)		Instrument	Run		1/28/2015 1:15:15 PM	(GMT --08:00) Pacific Standard Time	UC Davis	D8XSMGH1
Product Number : G2938B		Instrument	Run		1/28/2015 1:15:15 PM	(GMT --08:00) Pacific Standard Time	UC Davis	D8XSMGH1
Name :		Instrument	Run		1/28/2015 1:15:15 PM	(GMT --08:00) Pacific Standard Time	UC Davis	D8XSMGH1
Vendor : Agilent Technologies		Instrument	Run		1/28/2015 1:15:15 PM	(GMT --08:00) Pacific Standard Time	UC Davis	D8XSMGH1
Serial# : DE13701086		Instrument	Run		1/28/2015 1:15:15 PM	(GMT --08:00) Pacific Standard Time	UC Davis	D8XSMGH1
Firmware : C.01.069		Instrument	Run		1/28/2015 1:15:15 PM	(GMT --08:00) Pacific Standard Time	UC Davis	D8XSMGH1
Cartridge : Electrode		Instrument	Run		1/28/2015 1:15:15 PM	(GMT --08:00) Pacific Standard Time	UC Davis	D8XSMGH1