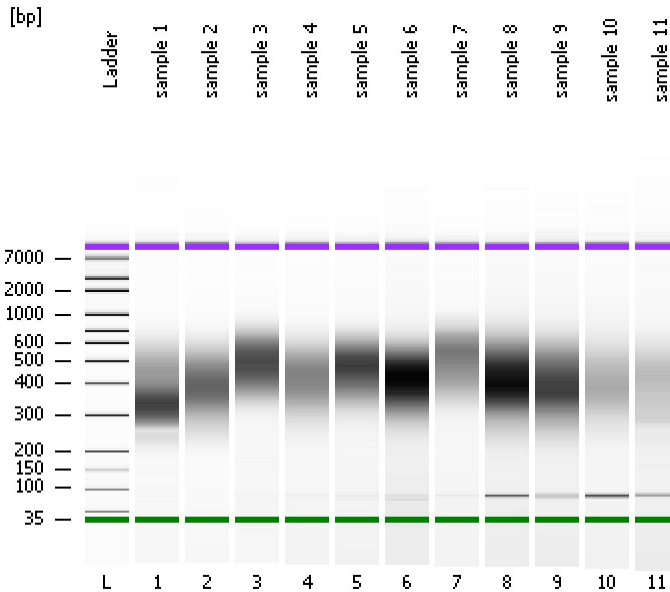


Assay Class: High Sensitivity DNA Assay  
Data Path: C:\...ents and Settings\Bioanalyzer\2013-07-18\2013-07-18\_004.xad

Created: 7/18/2013 3:31:40 PM  
Modified: 7/18/2013 4:12:05 PM

### Electrophoresis File Run Summary



#### Instrument Information:

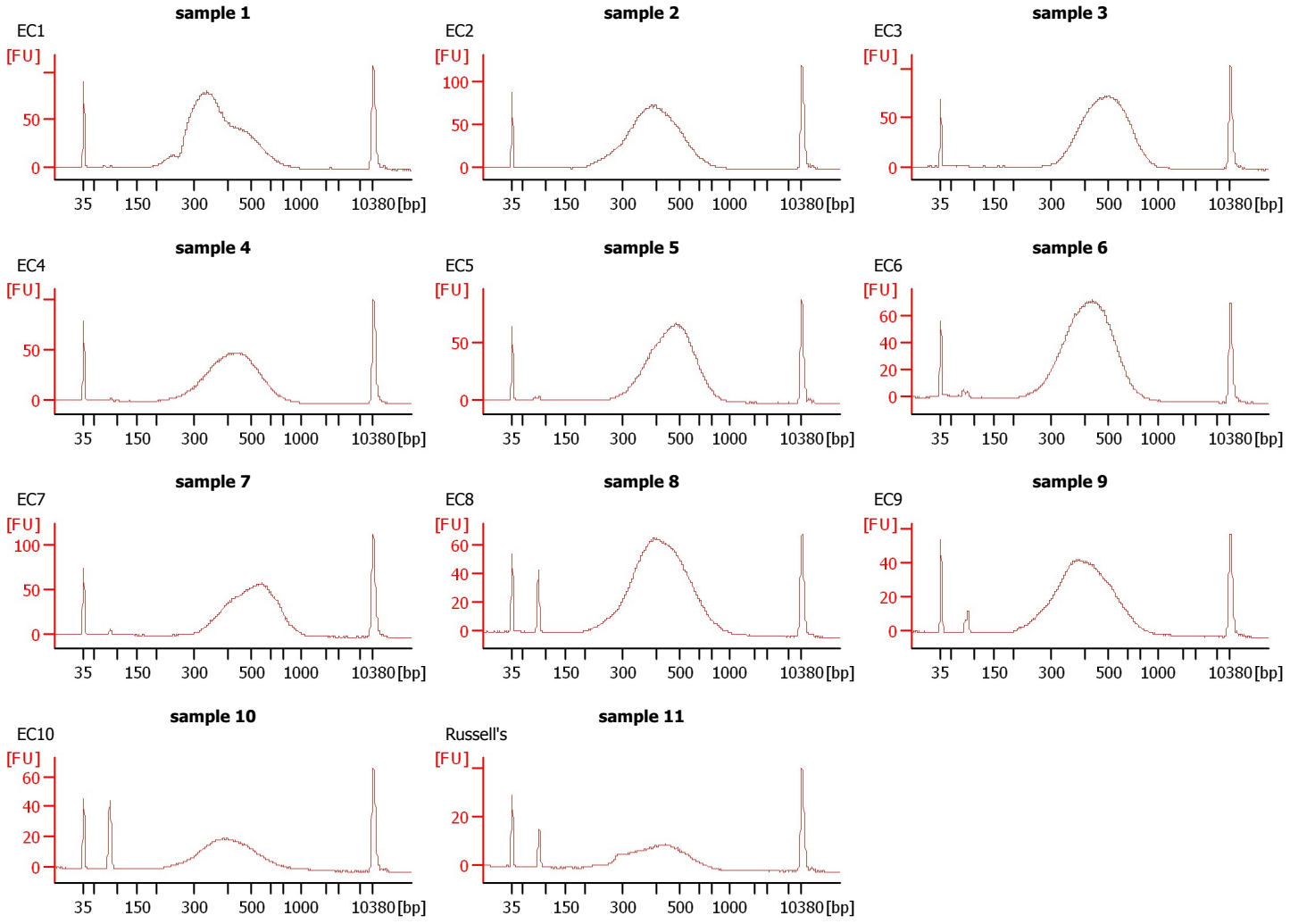
Instrument Name: DE13701086      Firmware: C.01.069  
Serial#: DE13701086      Type: G2938B

#### 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\2013-07-18\2013-07-18\_004.xad

Created: 7/18/2013 3:31:40 PM  
Modified: 7/18/2013 4:12:05 PM

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

Sample Name	Sample Comment	Rest. Digest	Status	Observation	Result Label	Result Color
sample 1	EC1	<input type="checkbox"/>	✓			
sample 2	EC2	<input type="checkbox"/>	✓			
sample 3	EC3	<input type="checkbox"/>	✓			
sample 4	EC4	<input type="checkbox"/>	✓			
sample 5	EC5	<input type="checkbox"/>	✓			
sample 6	EC6	<input type="checkbox"/>	✓			
sample 7	EC7	<input type="checkbox"/>	✓			
sample 8	EC8	<input type="checkbox"/>	✓			
sample 9	EC9	<input type="checkbox"/>	✓			
sample 10	EC10	<input type="checkbox"/>	✓			
sample 11	Russell's	<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\2013-07-18\2013-07-18\_004.xad

Created: 7/18/2013 3:31:40 PM  
Modified: 7/18/2013 4:12:05 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/ $\mu$ l] : 1950  
Uses Standard Area for Ladder Fragments  
Lower Marker Concentration [pg/ $\mu$ l] : 125  
Upper Marker Concentration [pg/ $\mu$ l] : 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

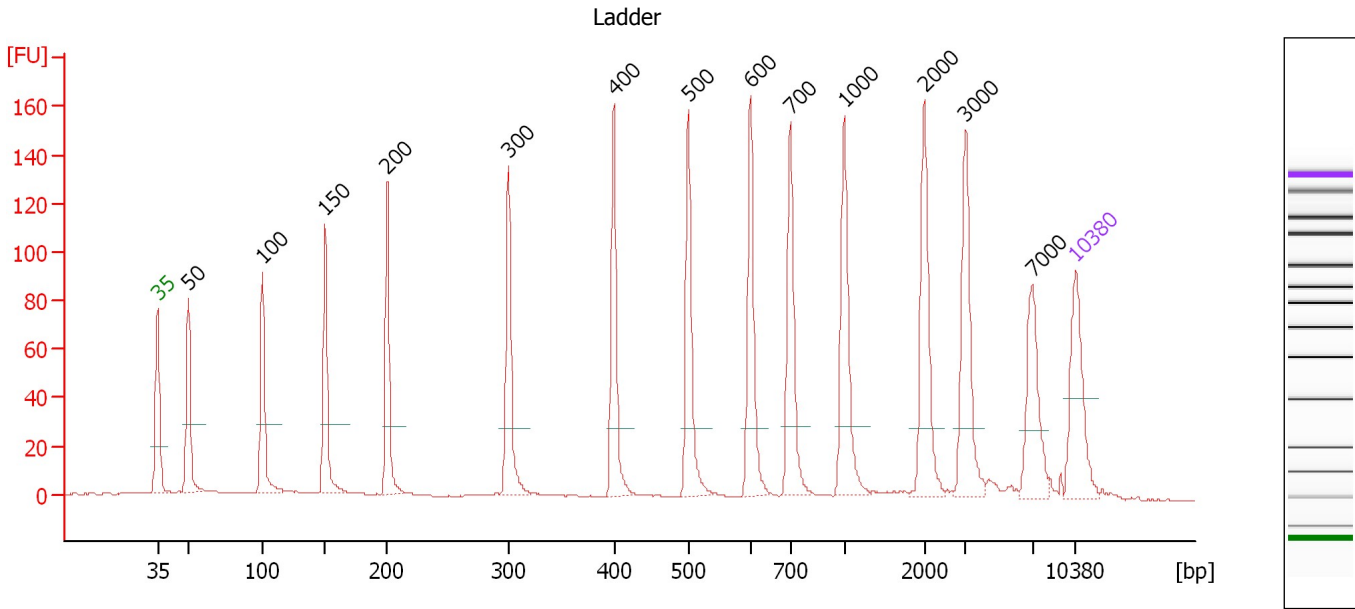
**Ladder**

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\2013-07-18\2013-07-18\_004.xad

Created: 7/18/2013 3:31:40 PM  
 Modified: 7/18/2013 4:12:05 PM

**Electropherogram Summary**



**Overall Results for Ladder**

Noise: 0.1

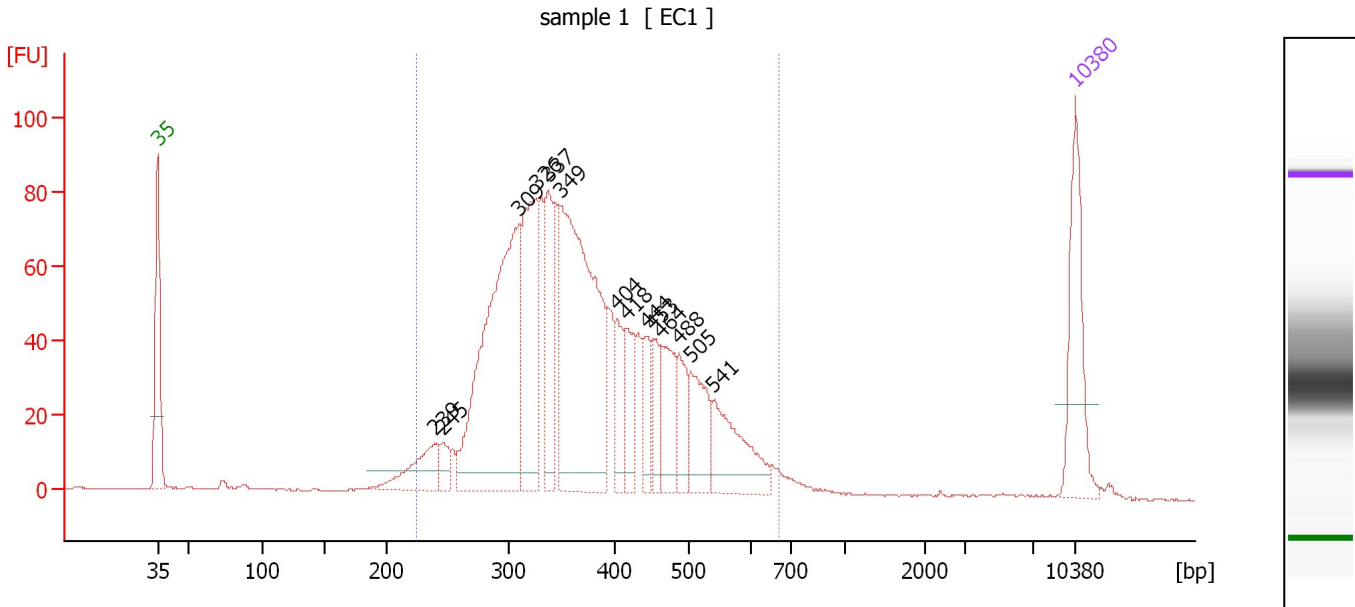
**Peak table for Ladder**

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\2013-07-18\2013-07-18\_004.xad

Created: 7/18/2013 3:31:40 PM  
 Modified: 7/18/2013 4:12:05 PM

**Electropherogram Summary Continued ...**



**Overall Results for sample 1 : sample 1**

Number of peaks found: 14      Corr. Area 1: 1,520.1  
 Noise: 0.2

**Peak table for sample 1 : sample 1**

Peak	Size [bp]	Conc. [pg/μl]	Molarity [pmol/l]	Observations
1	35	125.00	5,411.3	Lower Marker
2	239	57.56	365.2	
3	245	19.71	121.7	
4	309	363.99	1,782.0	
5	326	170.80	794.6	
6	337	91.76	412.3	
7	349	354.55	1,540.2	
8	404	39.63	148.5	
9	418	48.17	174.8	
10	444	35.28	120.5	
11	453	31.80	106.4	
12	464	57.58	187.9	
13	488	41.15	127.8	
14	505	60.95	182.8	
15	541	82.73	231.6	
16	10,380	75.00	10.9	Upper Marker

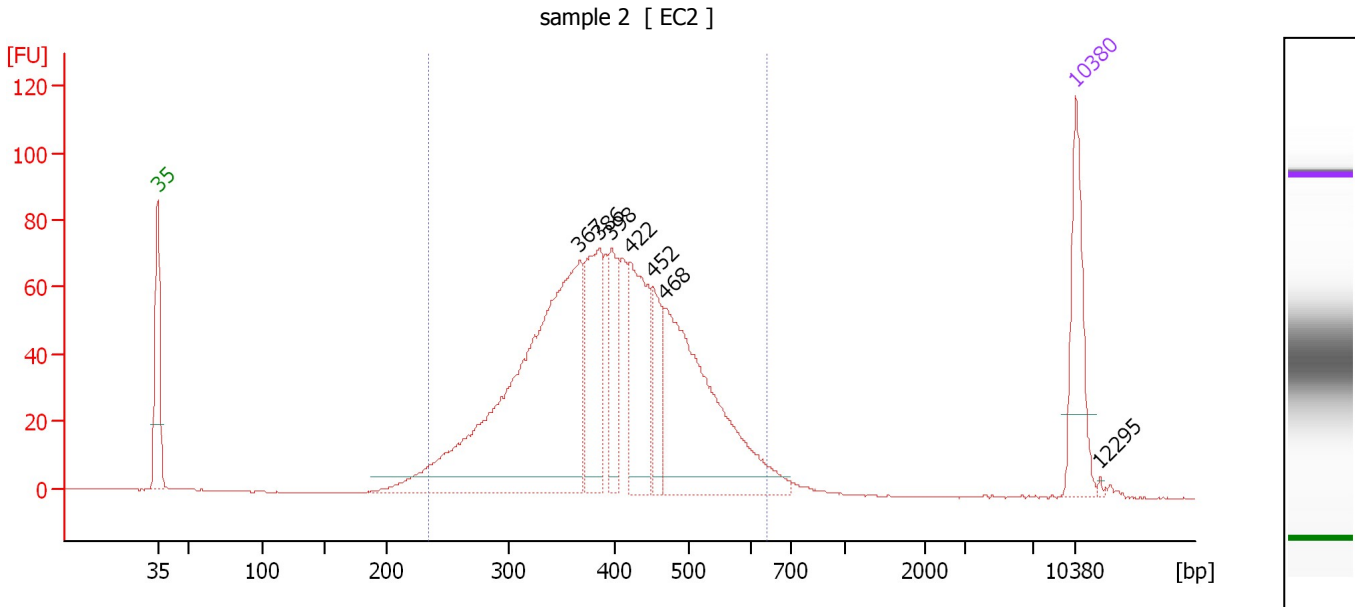
**Region table for sample 1 : sample 1**

From [bp]	To [bp]	Average Size [bp]	Molarity [pmol/l]	Conc. [pg/μl]	Corr. Area	% of Total	Size distribution in CV [%]	Color
224	670	380	7,028.7	1,642.34	1,520.1	97	23.2	Blue

Assay Class: High Sensitivity DNA Assay  
 Data Path: C:\...ents and Settings\Bioanalyzer\2013-07-18\2013-07-18\_004.xad

Created: 7/18/2013 3:31:40 PM  
 Modified: 7/18/2013 4:12:05 PM

**Electropherogram Summary Continued ...**



**Overall Results for sample 2 : sample 2**

Number of peaks found: 7                      Corr. Area 1: 1,420.8  
 Noise: 0.1

**Peak table for sample 2 : sample 2**

Peak	Size [bp]	Conc. [pg/μl]	Molarity [pmol/l]	Observations
1	35	125.00	5,411.3	Lower Marker
2	367	580.65	2,394.0	
3	386	140.23	550.2	
4	398	68.70	261.6	
5	422	137.17	492.7	
6	452	57.33	192.0	
7	468	304.21	984.6	
8	10,380	75.00	10.9	Upper Marker
9	12,295	0.00	0.0	

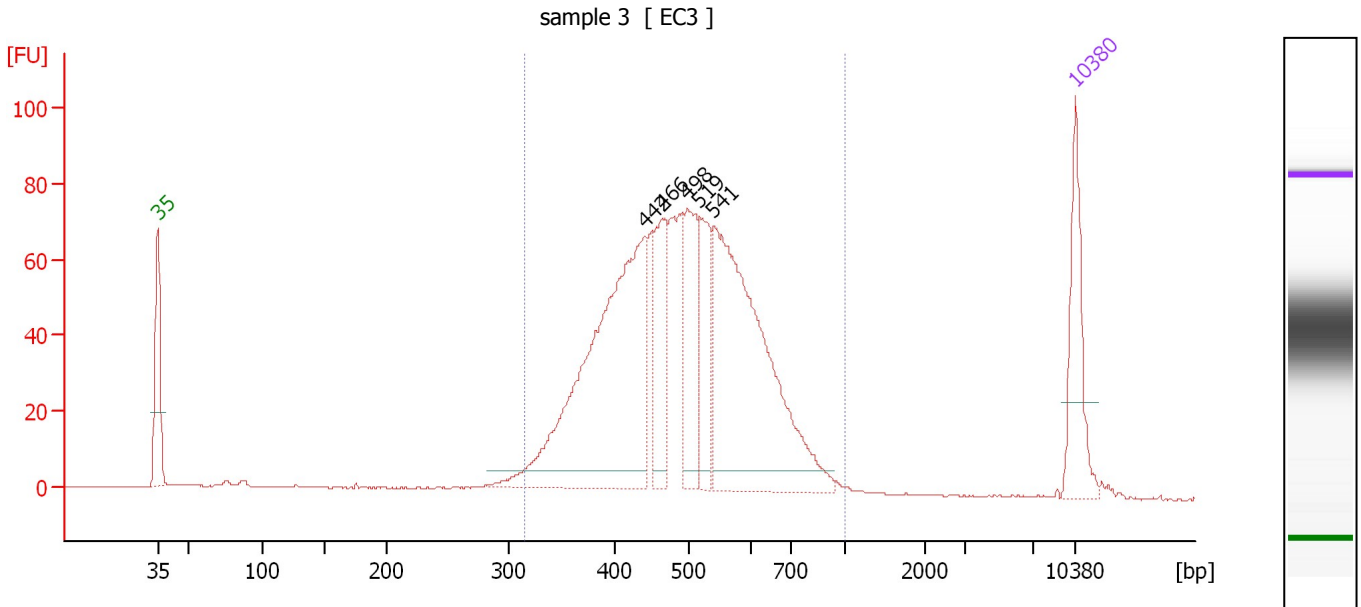
**Region table for sample 2 : sample 2**

From [bp]	To [bp]	Average Size [bp]	Molarity [pmol/l]	Conc. [pg/μl]	Corr. Area	% of Total	Size distribution in CV [%]	Color
234	643	403	5,692.4	1,423.96	1,420.8	96	20.7	Blue

Assay Class: High Sensitivity DNA Assay  
 Data Path: C:\...ents and Settings\Bioanalyzer\2013-07-18\2013-07-18\_004.xad

Created: 7/18/2013 3:31:40 PM  
 Modified: 7/18/2013 4:12:05 PM

**Electropherogram Summary Continued ...**



**Overall Results for sample 3 : sample 3**

Number of peaks found: 5                      Corr. Area 1: 1,280.6  
 Noise: 0.2

**Peak table for sample 3 : sample 3**

Peak	Size [bp]	Conc. [pg/μl]	Molarity [pmol/l]	Observations
1	35	125.00	5,411.3	Lower Marker
2	442	475.92	1,632.3	
3	466	113.60	369.5	
4	498	124.80	379.6	
5	519	86.14	251.7	
6	541	423.53	1,185.6	
7	10,380	75.00	10.9	Upper Marker

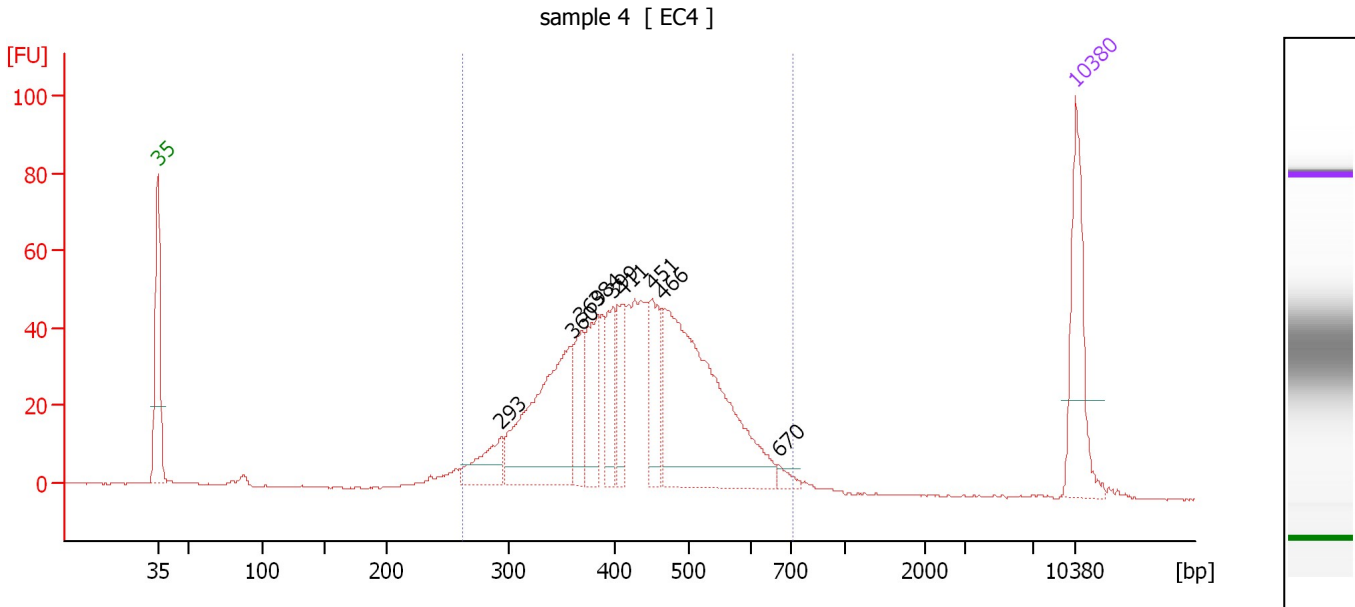
**Region table for sample 3 : sample 3**

From [bp]	To [bp]	Average Size [bp]	Molarity [pmol/l]	Conc. [pg/μl]	Corr. Area	% of Total	Size distribution in CV [%]	Color
314	1,000	501	4,600.8	1,440.07	1,280.6	95	21.1	Blue

Assay Class: High Sensitivity DNA Assay  
 Data Path: C:\...ents and Settings\Bioanalyzer\2013-07-18\2013-07-18\_004.xad

Created: 7/18/2013 3:31:40 PM  
 Modified: 7/18/2013 4:12:05 PM

**Electropherogram Summary Continued ...**



**Overall Results for sample 4 : sample 4**

Number of peaks found: 9                      Corr. Area 1: 938.8  
 Noise: 0.2

**Peak table for sample 4 : sample 4**

Peak	Size [bp]	Conc. [pg/μl]	Molarity [pmol/l]	Observations
1	35	125.00	5,411.3	Lower Marker
2	293	46.59	240.6	
3	360	197.04	828.1	
4	369	49.87	204.5	
5	384	67.36	265.7	
6	399	48.89	185.7	
7	411	46.85	172.6	
8	451	61.03	204.9	
9	466	310.26	1,009.5	
10	670	8.15	18.4	
11	10,380	75.00	10.9	Upper Marker

**Region table for sample 4 : sample 4**

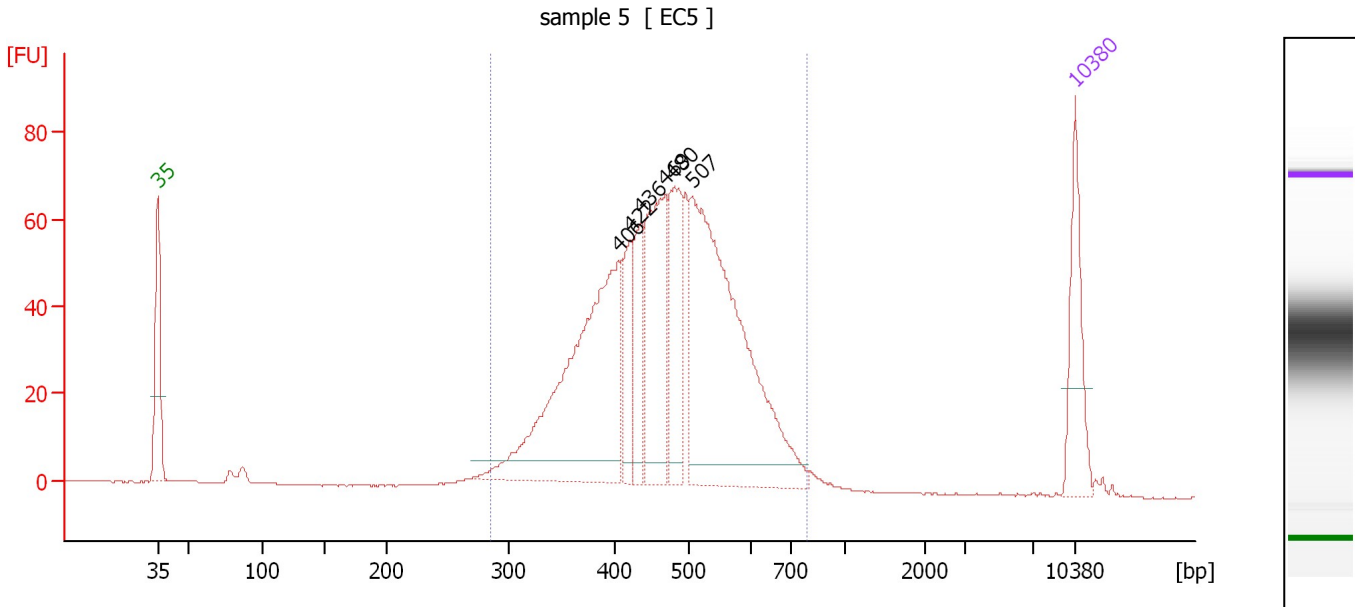
From [bp]	To [bp]	Average Size [bp]	Molarity [pmol/l]	Conc. [pg/μl]	Corr. Area	% of Total	Size distribution in CV [%]	Color
261	715	433	3,833.5	1,032.66	938.8	95	20.4	Blue



Assay Class: High Sensitivity DNA Assay  
 Data Path: C:\...ents and Settings\Bioanalyzer\2013-07-18\2013-07-18\_004.xad

Created: 7/18/2013 3:31:40 PM  
 Modified: 7/18/2013 4:12:05 PM

**Electropherogram Summary Continued ...**



**Overall Results for sample 5 : sample 5**

Number of peaks found: 6                      Corr. Area 1: 1,126.2  
 Noise: 0.1

**Peak table for sample 5 : sample 5**

Peak	Size [bp]	Conc. [pg/μl]	Molarity [pmol/l]	Observations
1	35	125.00	5,411.3	Lower Marker
2	406	432.34	1,612.9	
3	422	73.90	265.2	
4	436	83.92	291.3	
5	469	200.12	646.1	
6	480	126.91	400.4	
7	507	508.28	1,520.4	
8	10,380	75.00	10.9	Upper Marker

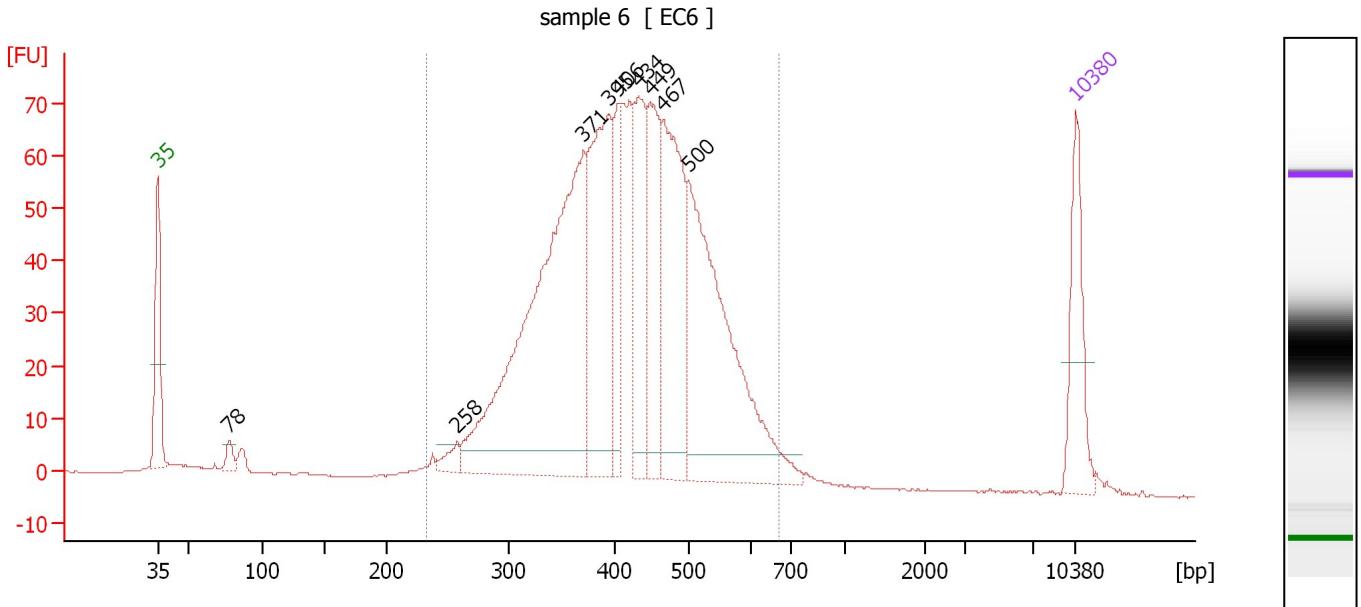
**Region table for sample 5 : sample 5**

From [bp]	To [bp]	Average Size [bp]	Molarity [pmol/l]	Conc. [pg/μl]	Corr. Area	% of Total	Size distribution in CV [%]	Color
285	792	472	5,278.2	1,562.25	1,126.2	96	19.1	Blue

Assay Class: High Sensitivity DNA Assay  
 Data Path: C:\...ents and Settings\Bioanalyzer\2013-07-18\2013-07-18\_004.xad

Created: 7/18/2013 3:31:40 PM  
 Modified: 7/18/2013 4:12:05 PM

**Electropherogram Summary Continued ...**



**Overall Results for sample 6 : sample 6**

Number of peaks found: 9                      Corr. Area 1: 1,370.2  
 Noise: 0.1

**Peak table for sample 6 : sample 6**

Peak	Size [bp]	Conc. [pg/μl]	Molarity [pmol/l]	Observations
1	35	125.00	5,411.3	Lower Marker
2	78	16.61	324.7	
3	258	17.29	101.6	
4	371	624.80	2,552.9	
5	395	261.47	1,003.5	
6	406	87.03	324.7	
7	434	140.55	490.5	
8	449	148.87	502.0	
9	467	226.17	733.5	
10	500	382.83	1,159.4	
11	10,380	75.00	10.9	Upper Marker

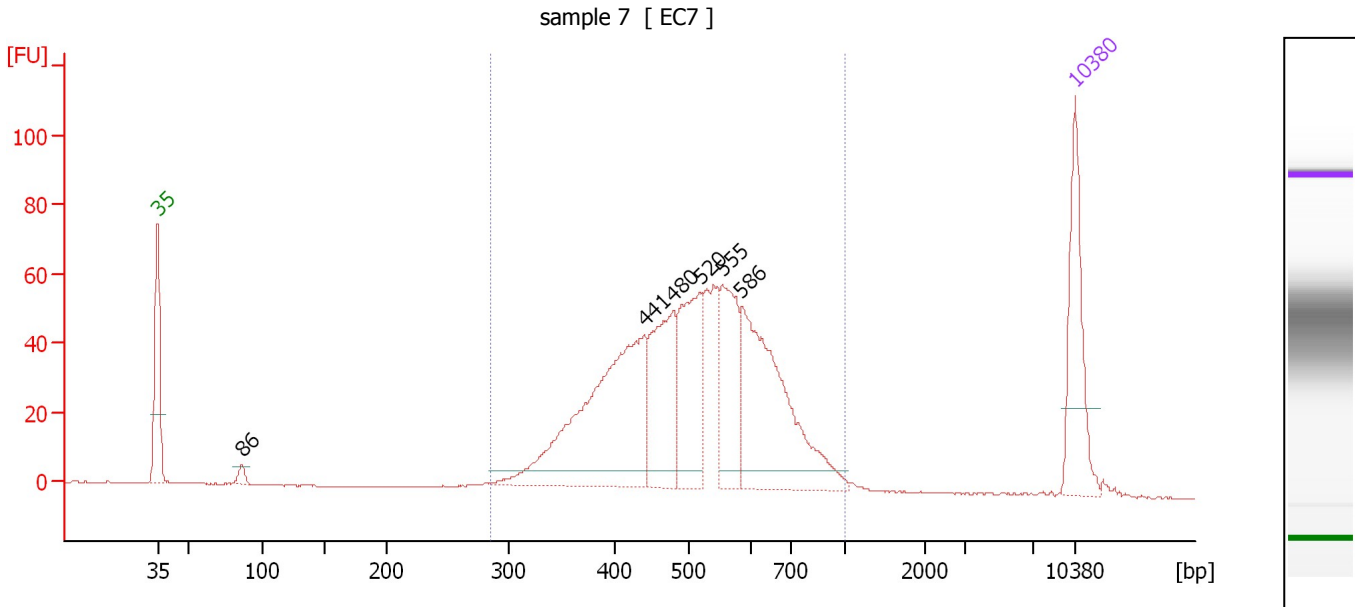
**Region table for sample 6 : sample 6**

From [bp]	To [bp]	Average Size [bp]	Molarity [pmol/l]	Conc. [pg/μl]	Corr. Area	% of Total	Size distribution in CV [%]	Color
232	673	424	8,103.9	2,141.56	1,370.2	94	20.0	Blue

Assay Class: High Sensitivity DNA Assay  
 Data Path: C:\...ents and Settings\Bioanalyzer\2013-07-18\2013-07-18\_004.xad

Created: 7/18/2013 3:31:40 PM  
 Modified: 7/18/2013 4:12:05 PM

**Electropherogram Summary Continued ...**



**Overall Results for sample 7 : sample 7**

Number of peaks found: 6                      Corr. Area 1: 1,012.8  
 Noise: 0.1

**Peak table for sample 7 : sample 7**

Peak	Size [bp]	Conc. [pg/μl]	Molarity [pmol/l]	Observations
1	35	125.00	5,411.3	Lower Marker
2	86	9.49	167.6	
3	441	279.12	959.2	
4	480	122.55	386.5	
5	520	113.25	330.3	
6	555	95.04	259.4	
7	586	203.56	526.4	
8	10,380	75.00	10.9	Upper Marker

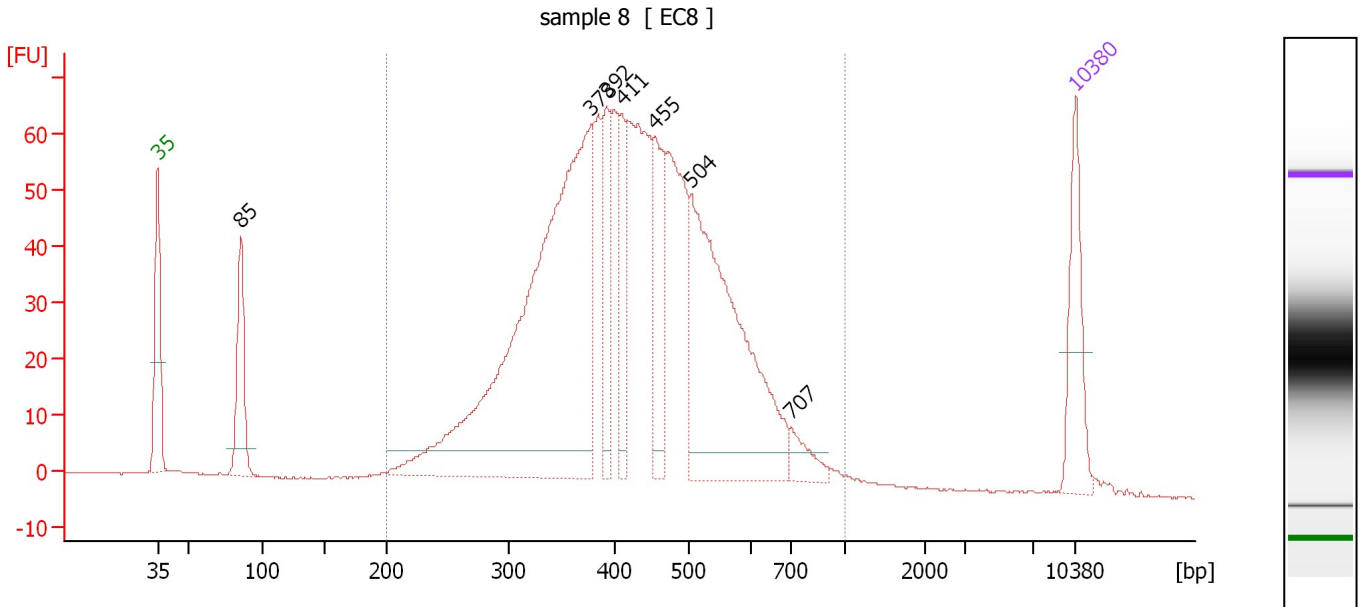
**Region table for sample 7 : sample 7**

From [bp]	To [bp]	Average Size [bp]	Molarity [pmol/l]	Conc. [pg/μl]	Corr. Area	% of Total	Size distribution in CV [%]	Color
286	1,000	518	2,958.9	945.07	1,012.8	97	23.1	Blue

Assay Class: High Sensitivity DNA Assay  
 Data Path: C:\...ents and Settings\Bioanalyzer\2013-07-18\2013-07-18\_004.xad

Created: 7/18/2013 3:31:40 PM  
 Modified: 7/18/2013 4:12:05 PM

**Electropherogram Summary Continued ...**



**Overall Results for sample 8 : sample 8**

Number of peaks found: 7                      Corr. Area 1: 1,388.2  
 Noise: 0.1

**Peak table for sample 8 : sample 8**

Peak	Size [bp]	Conc. [pg/μl]	Molarity [pmol/l]	Observations
1	35	125.00	5,411.3	Lower Marker
2	85	127.07	2,265.5	
3	378	808.15	3,235.8	
4	392	95.18	367.4	
5	411	84.92	313.1	
6	455	122.58	408.1	
7	504	424.27	1,275.1	
8	707	29.32	62.9	
9	10,380	75.00	10.9	Upper Marker

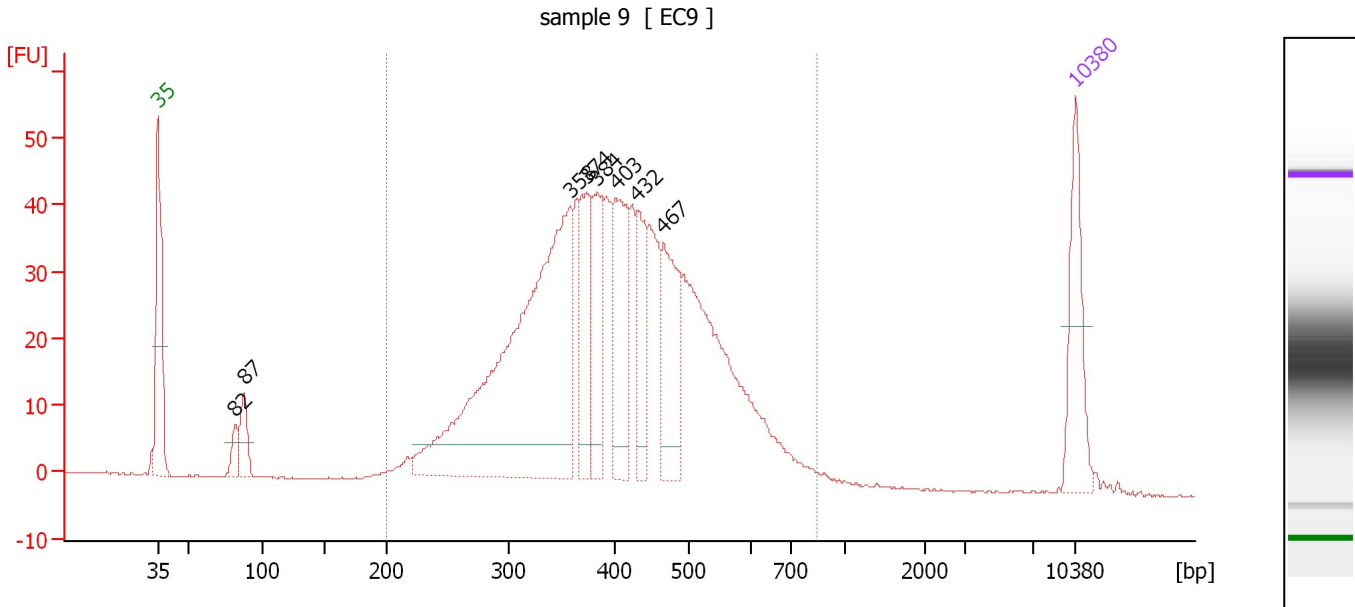
**Region table for sample 8 : sample 8**

From [bp]	To [bp]	Average Size [bp]	Molarity [pmol/l]	Conc. [pg/μl]	Corr. Area	% of Total	Size distribution in CV [%]	Color
200	1,000	434	8,816.3	2,313.87	1,388.2	95	25.8	Blue

Assay Class: High Sensitivity DNA Assay  
 Data Path: C:\...ents and Settings\Bioanalyzer\2013-07-18\2013-07-18\_004.xad

Created: 7/18/2013 3:31:40 PM  
 Modified: 7/18/2013 4:12:05 PM

**Electropherogram Summary Continued ...**



**Overall Results for sample 9 : sample 9**

Number of peaks found: 8                      Corr. Area 1: 930.2  
 Noise: 0.1

**Peak table for sample 9 : sample 9**

Peak	Size [bp]	Conc. [pg/μl]	Molarity [pmol/l]	Observations
1	35	125.00	5,411.3	Lower Marker
2	82	23.82	442.5	
3	87	43.26	751.4	
4	358	588.86	2,491.1	
5	374	97.42	394.5	
6	384	95.71	377.6	
7	403	130.14	489.6	
8	432	74.19	260.5	
9	467	121.89	395.2	
10	10,380	75.00	10.9	Upper Marker

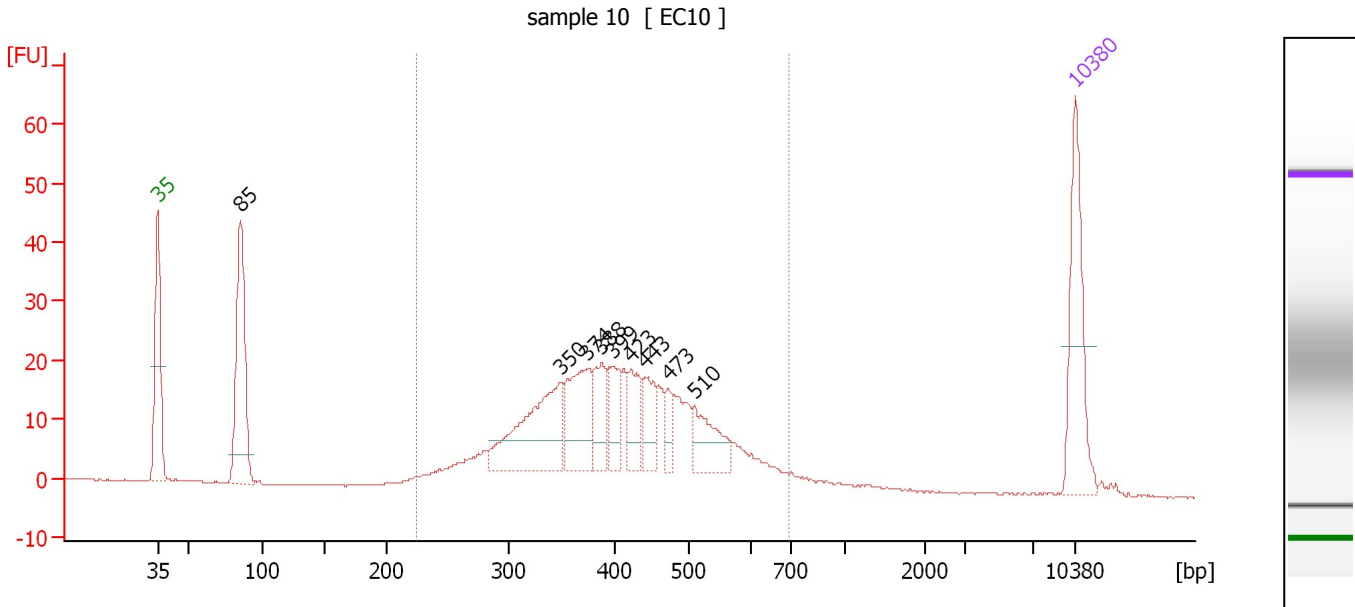
**Region table for sample 9 : sample 9**

From [bp]	To [bp]	Average Size [bp]	Molarity [pmol/l]	Conc. [pg/μl]	Corr. Area	% of Total	Size distribution in CV [%]	Color
200	851	414	7,344.9	1,842.03	930.2	96	24.7	Blue

Assay Class: High Sensitivity DNA Assay  
 Data Path: C:\...ents and Settings\Bioanalyzer\2013-07-18\2013-07-18\_004.xad

Created: 7/18/2013 3:31:40 PM  
 Modified: 7/18/2013 4:12:05 PM

**Electropherogram Summary Continued ...**



**Overall Results for sample 10 : sample 10**

Number of peaks found: 9                      Corr. Area 1: 408.9  
 Noise: 0.1

**Peak table for sample 10 : sample 10**

Peak	Size [bp]	Conc. [pg/μl]	Molarity [pmol/l]	Observations
1	35	125.00	5,411.3	Lower Marker
2	85	170.11	3,021.8	
3	350	118.21	511.2	
4	374	76.52	310.3	
5	388	39.87	155.7	
6	399	35.02	133.1	
7	423	35.79	128.1	
8	443	32.69	111.8	
9	473	17.59	56.3	
10	510	44.79	133.0	
11	10,380	75.00	10.9	Upper Marker

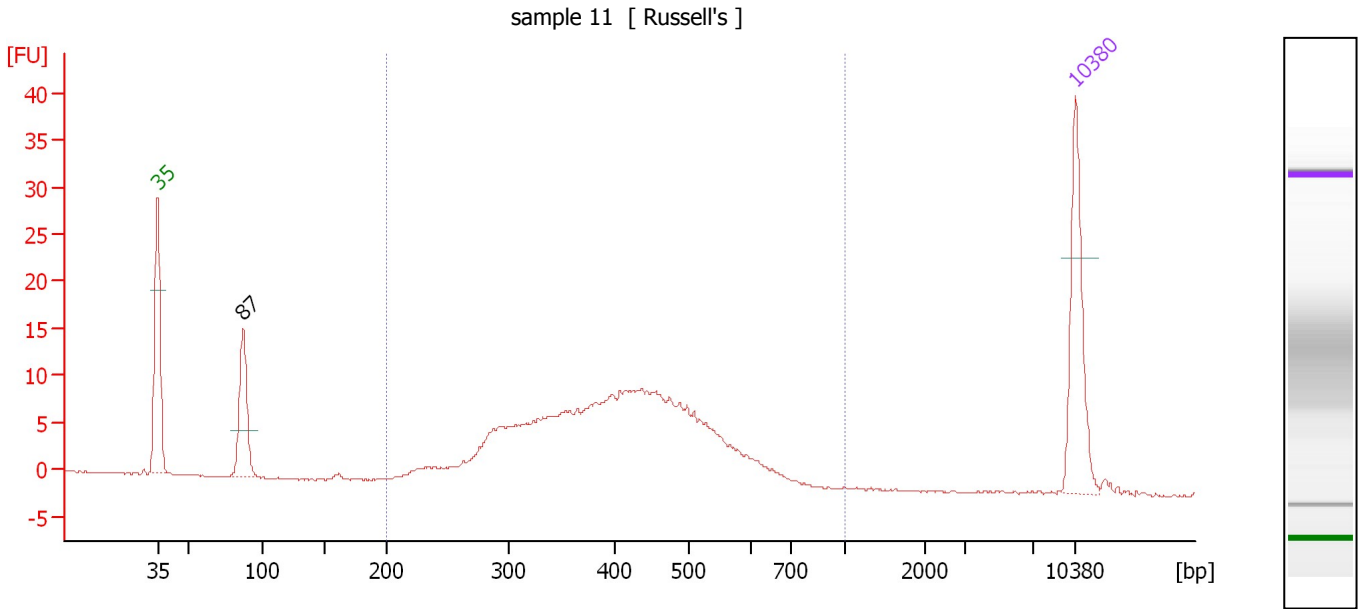
**Region table for sample 10 : sample 10**

From [bp]	To [bp]	Average Size [bp]	Molarity [pmol/l]	Conc. [pg/μl]	Corr. Area	% of Total	Size distribution in CV [%]	Color
224	699	415	2,732.3	696.75	408.9	82	22.6	Blue

Assay Class: High Sensitivity DNA Assay  
 Data Path: C:\...ents and Settings\Bioanalyzer\2013-07-18\2013-07-18\_004.xad

Created: 7/18/2013 3:31:40 PM  
 Modified: 7/18/2013 4:12:05 PM

**Electropherogram Summary Continued ...**



**Overall Results for sample 11 : sample 11**

Number of peaks found: 1                      Corr. Area 1: 204.5  
 Noise: 0.1

**Peak table for sample 11 : sample 11**

Peak	Size [bp]	Conc. [pg/μl]	Molarity [pmol/l]	Observations
1	35	125.00	5,411.3	Lower Marker
2	87	88.58	1,544.6	
3	10,380	75.00	10.9	Upper Marker

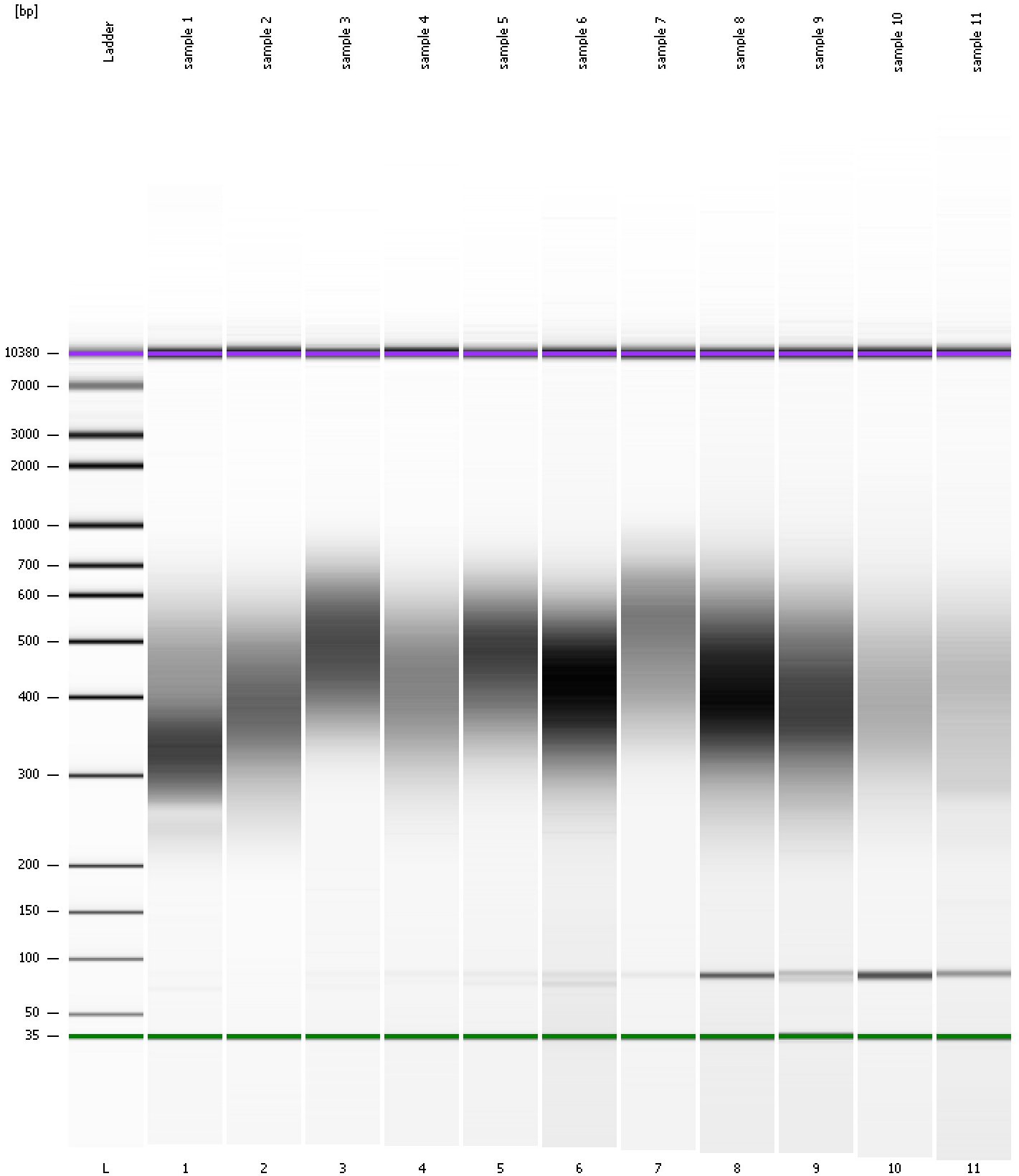
**Region table for sample 11 : sample 11**

From [bp]	To [bp]	Average Size [bp]	Molarity [pmol/l]	Conc. [pg/μl]	Corr. Area	% of Total	Size distribution in CV [%]	Color
200	1,000	417	2,447.6	619.74	204.5	90	23.9	Blue

Assay Class: High Sensitivity DNA Assay  
Data Path: C:\...ents and Settings\Bioanalyzer\2013-07-18\2013-07-18\_004.xad

Created: 7/18/2013 3:31:40 PM  
Modified: 7/18/2013 4:12:05 PM

**Gel Image**





Assay Class: High Sensitivity DNA Assay  
 Data Path: C:\...ents and Settings\Bioanalyzer\2013-07-18\2013-07-18\_004.xad

Created: 7/18/2013 3:31:40 PM  
 Modified: 7/18/2013 4:12:05 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		7/18/2013 4:12:02 PM	(GMT --07:00) Pacific Standard Time	UC Davis	D8XSMGH1
Run started on port 1 (File: C:\Documents and Settings\Bioanalyzer\2013-07-18\2013-07-18_004.xad)		Instrument	Run		7/18/2013 3:31:40 PM	(GMT --07:00) Pacific Standard Time	UC Davis	D8XSMGH1
Product Number : G2938B		Instrument	Run		7/18/2013 3:31:40 PM	(GMT --07:00) Pacific Standard Time	UC Davis	D8XSMGH1
Name :		Instrument	Run		7/18/2013 3:31:40 PM	(GMT --07:00) Pacific Standard Time	UC Davis	D8XSMGH1
Vendor : Agilent Technologies		Instrument	Run		7/18/2013 3:31:40 PM	(GMT --07:00) Pacific Standard Time	UC Davis	D8XSMGH1
Serial# : DE13701086		Instrument	Run		7/18/2013 3:31:40 PM	(GMT --07:00) Pacific Standard Time	UC Davis	D8XSMGH1
Firmware : C.01.069		Instrument	Run		7/18/2013 3:31:40 PM	(GMT --07:00) Pacific Standard Time	UC Davis	D8XSMGH1
Cartridge : Electrode		Instrument	Run		7/18/2013 3:31:40 PM	(GMT --07:00) Pacific Standard Time	UC Davis	D8XSMGH1