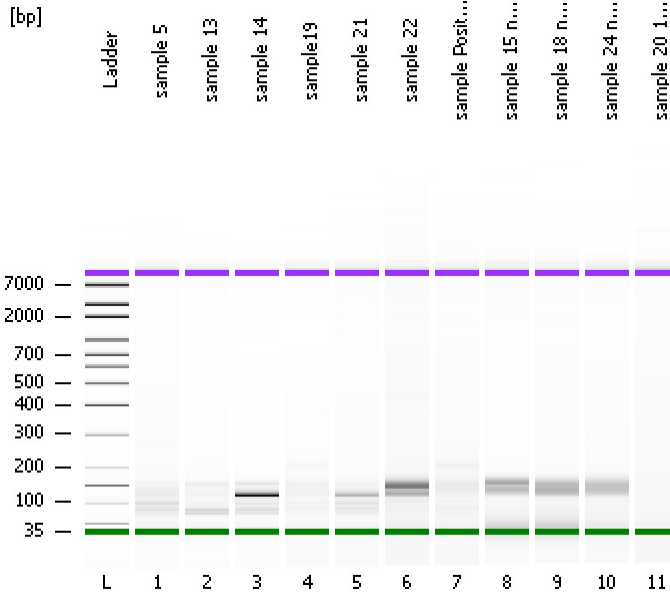


Assay Class: High Sensitivity DNA Assay  
Data Path: C:\...ents and Settings\Bioanalyzer\2014-09-25\2014-09-25\_005.xad

Created: 9/25/2014 11:12:50 AM  
Modified: 9/25/2014 11:53:18 AM

### Electrophoresis File Run Summary



#### Instrument Information:

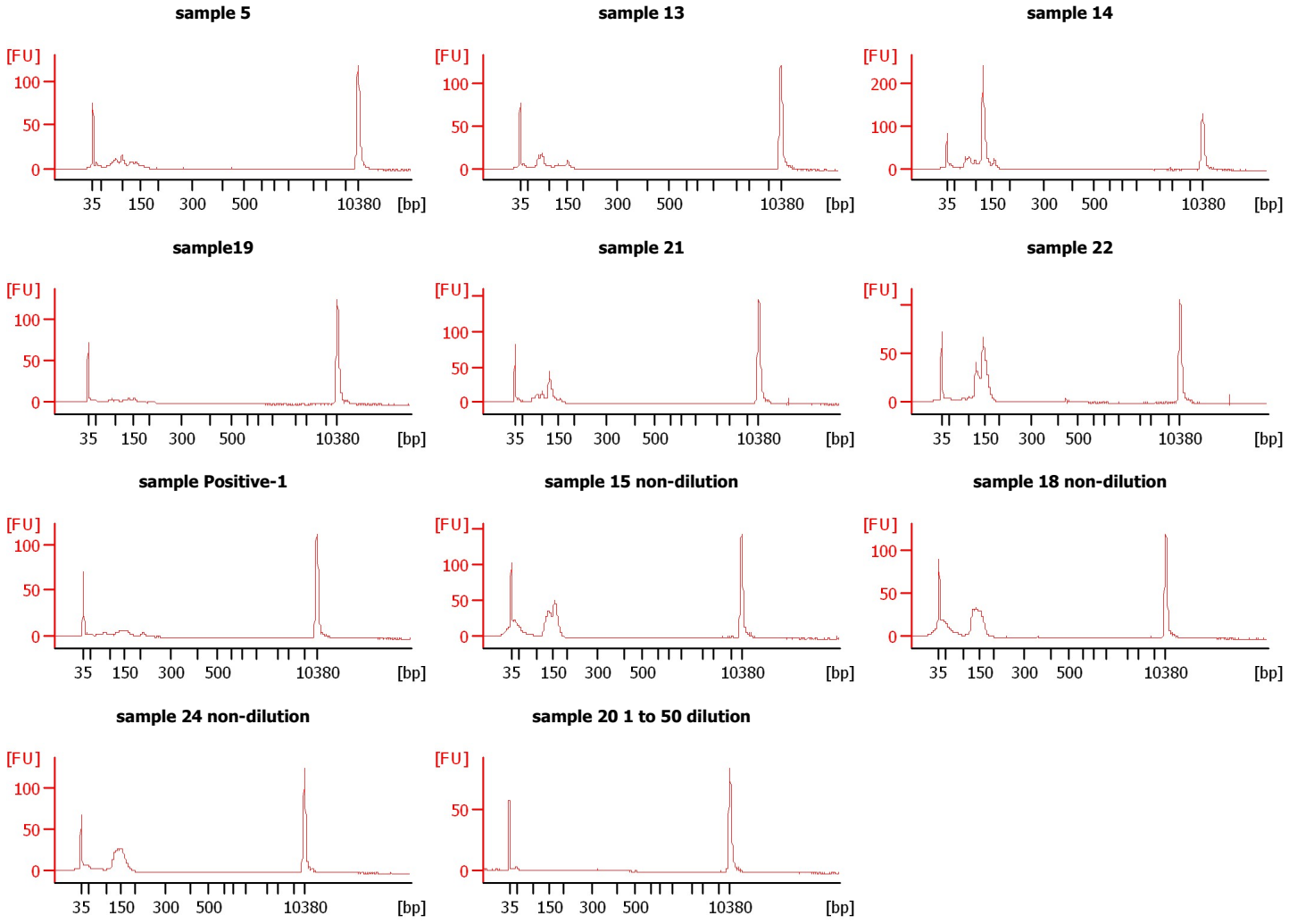
Instrument Name: DE13701086      Firmware: C.01.069  
Serial#: DE13701086      Type: G2938B

#### 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\2014-09-25\2014-09-25\_005.xad

Created: 9/25/2014 11:12:50 AM  
 Modified: 9/25/2014 11:53:18 AM

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

Sample Name	Sample Comment	Rest. Digest	Status	Observation	Result Label	Result Color
sample 5		<input type="checkbox"/>	✓			
sample 13		<input type="checkbox"/>	✓			
sample 14		<input type="checkbox"/>	✓			
sample19		<input type="checkbox"/>	✓			
sample 21		<input type="checkbox"/>	✓			
sample 22		<input type="checkbox"/>	✓			
sample Positive-1		<input type="checkbox"/>	✓			
sample 15 non-dilution		<input type="checkbox"/>	✓			
sample 18 non-dilution		<input type="checkbox"/>	✓			
sample 24 non-dilution		<input type="checkbox"/>	✓			
sample 20 1 to 50 dilution		<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\2014-09-25\2014-09-25\_005.xad

Created: 9/25/2014 11:12:50 AM  
 Modified: 9/25/2014 11:53:18 AM

**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

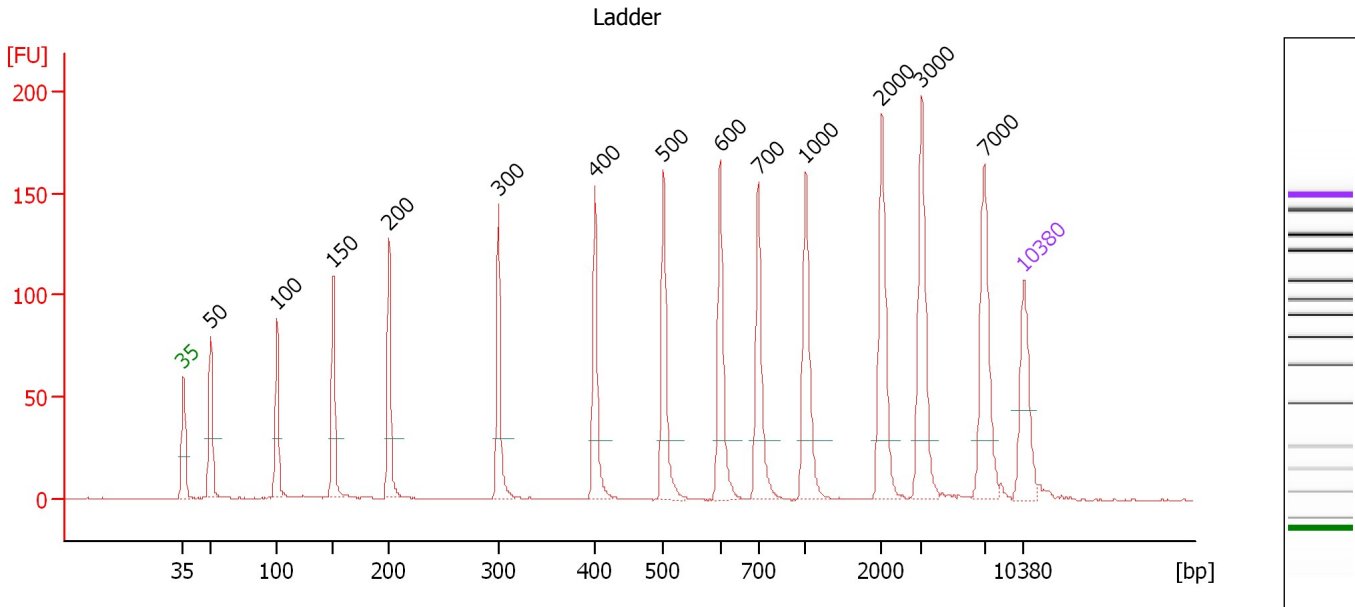
**Ladder**

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\2014-09-25\2014-09-25\_005.xad

Created: 9/25/2014 11:12:50 AM  
 Modified: 9/25/2014 11:53:18 AM

**Electropherogram Summary**



**Overall Results for Ladder**

Noise: 0.1

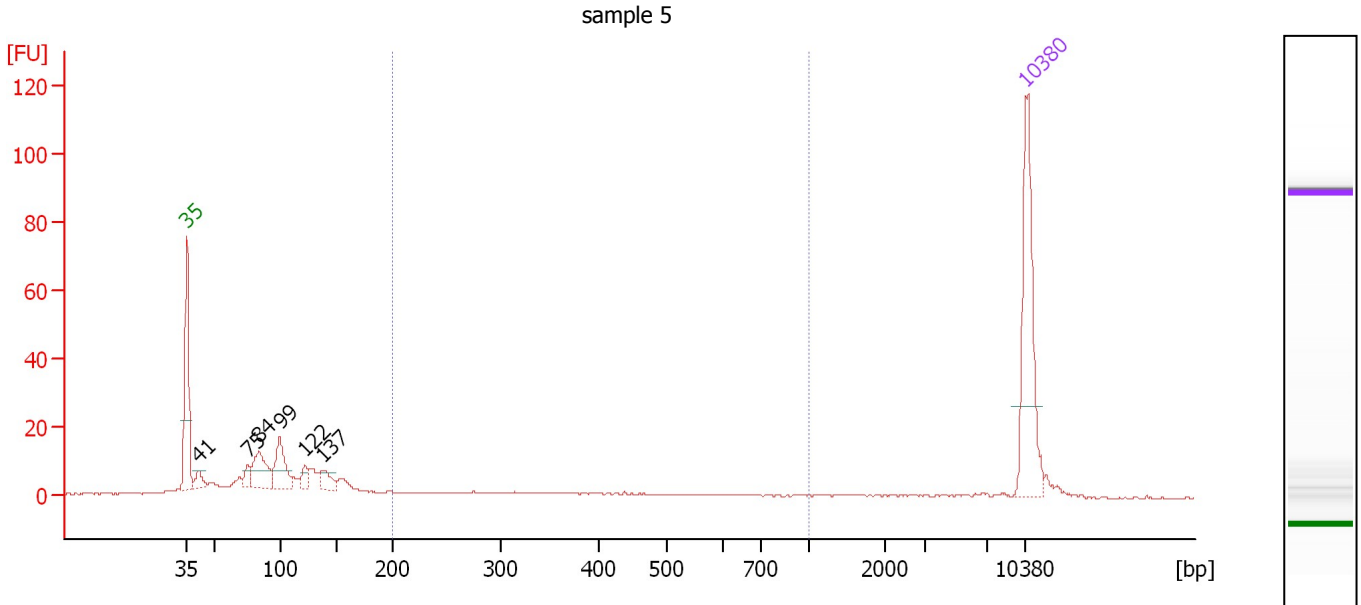
**Peak table for Ladder**

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\2014-09-25\2014-09-25\_005.xad

Created: 9/25/2014 11:12:50 AM  
 Modified: 9/25/2014 11:53:18 AM

**Electropherogram Summary Continued ...**



**Overall Results for sample 1 : sample 5**

Number of peaks found: 6                      Corr. Area 1: 22.9  
 Noise: 0.2

**Peak table for sample 1 : sample 5**

Peak	Size [bp]	Conc. [pg/μl]	Molarity [pmol/l]	Observations
1	35	125.00	5,411.3	Lower Marker
2	41	13.95	509.4	
3	75	11.91	239.6	
4	84	43.31	784.0	
5	99	43.54	664.1	
6	122	11.90	148.2	
7	137	16.76	184.9	
8	10,380	75.00	10.9	Upper Marker

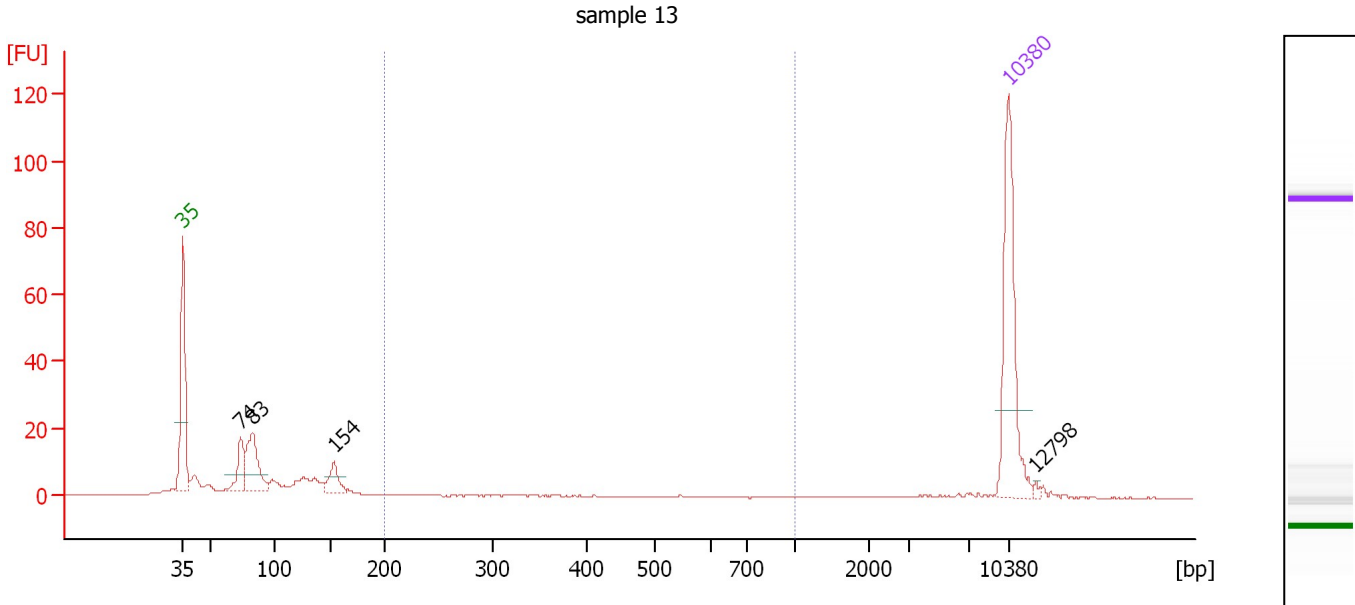
**Region table for sample 1 : sample 5**

From [bp]	Average Size [bp]	To [bp]	Corr. Area	% of Total	Size distribution in CV [%]	Conc. [pg/μl]	Molarity [pmol/l]	Color
200	342	1,000	22.9	10	35.3	25.14	126.4	Blue

Assay Class: High Sensitivity DNA Assay  
 Data Path: C:\...ents and Settings\Bioanalyzer\2014-09-25\2014-09-25\_005.xad

Created: 9/25/2014 11:12:50 AM  
 Modified: 9/25/2014 11:53:18 AM

**Electropherogram Summary Continued ...**



**Overall Results for sample 2 : sample 13**

Number of peaks found: 4                      Corr. Area 1: 6.5  
 Noise: 0.1

**Peak table for sample 2 : sample 13**

Peak	Size [bp]	Conc. [pg/μl]	Molarity [pmol/l]	Observations
1	35	125.00	5,411.3	Lower Marker
2	74	31.43	647.2	
3	83	56.87	1,038.8	
4	154	20.24	199.3	
5	10,380	75.00	10.9	Upper Marker
6	12,798	0.00	0.0	

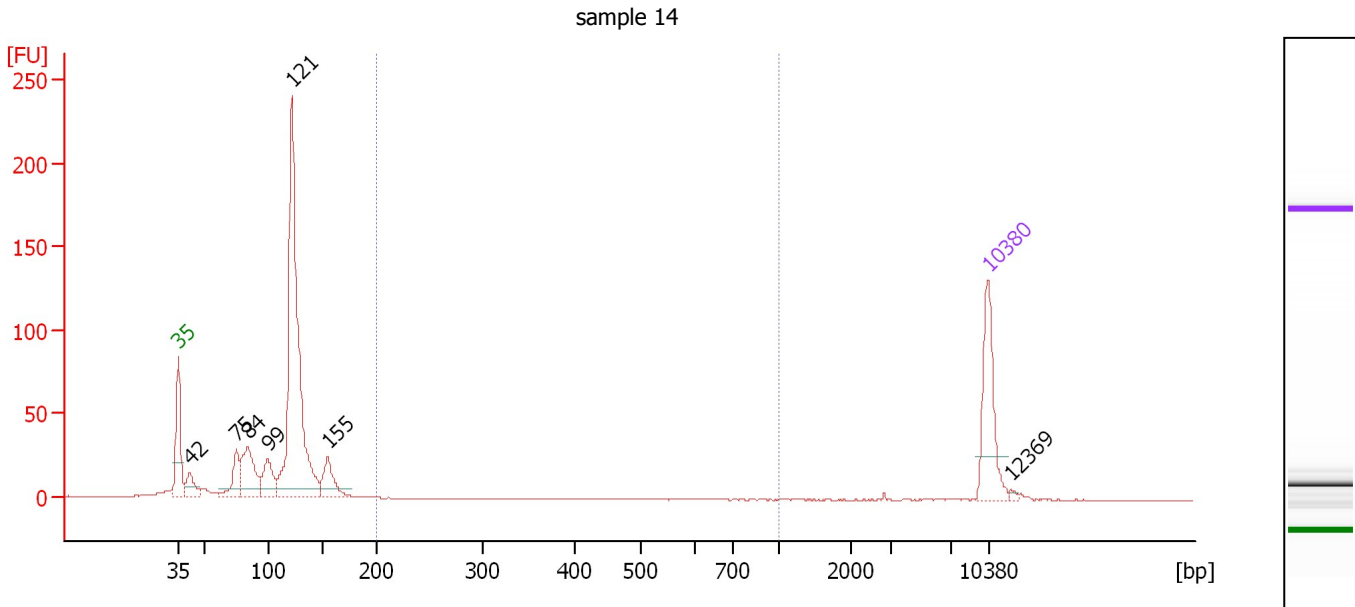
**Region table for sample 2 : sample 13**

From [bp]	Average Size [bp]	To [bp]	Corr. Area	% of Total	Size distribution in CV [%]	Conc. [pg/μl]	Molarity [pmol/l]	Color
200	376	1,000	6.5	3	40.7	6.43	30.8	Blue

Assay Class: High Sensitivity DNA Assay  
 Data Path: C:\...ents and Settings\Bioanalyzer\2014-09-25\2014-09-25\_005.xad

Created: 9/25/2014 11:12:50 AM  
 Modified: 9/25/2014 11:53:18 AM

**Electropherogram Summary Continued ...**



**Overall Results for sample 3 : sample 14**

Number of peaks found: 7                      Corr. Area 1: 0.0  
 Noise: 0.1

**Peak table for sample 3 : sample 14**

Peak	Size [bp]	Conc. [pg/μl]	Molarity [pmol/l]	Observations
1	35	125.00	5,411.3	Lower Marker
2	42	36.43	1,323.5	
3	75	53.93	1,092.3	
4	84	98.43	1,776.9	
5	99	58.75	896.7	
6	121	538.72	6,726.0	
7	155	54.65	534.5	
8	10,380	75.00	10.9	Upper Marker
9	12,369	0.00	0.0	

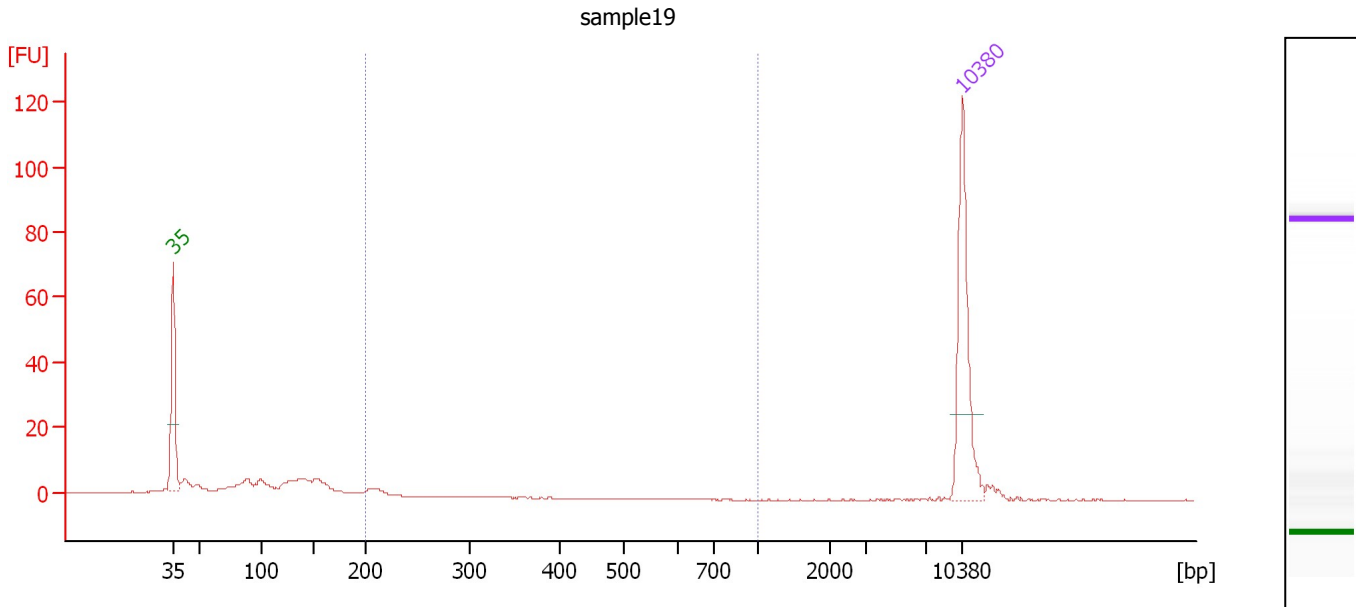
**Region table for sample 3 : sample 14**

From [bp]	Average Size [bp]	To [bp]	Corr. Area	% of Total	Size distribution in CV [%]	Conc. [pg/μl]	Molarity [pmol/l]	Color
200	202	1,000	0.0	0	0.1	0.00	0.0	Blue

Assay Class: High Sensitivity DNA Assay  
 Data Path: C:\...ents and Settings\Bioanalyzer\2014-09-25\2014-09-25\_005.xad

Created: 9/25/2014 11:12:50 AM  
 Modified: 9/25/2014 11:53:18 AM

**Electropherogram Summary Continued ...**



**Overall Results for sample 4 : sample19**

Number of peaks found: 0                      Corr. Area 1: 5.0  
 Noise: 0.1

**Peak table for sample 4 : sample19**

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 4 : sample19**

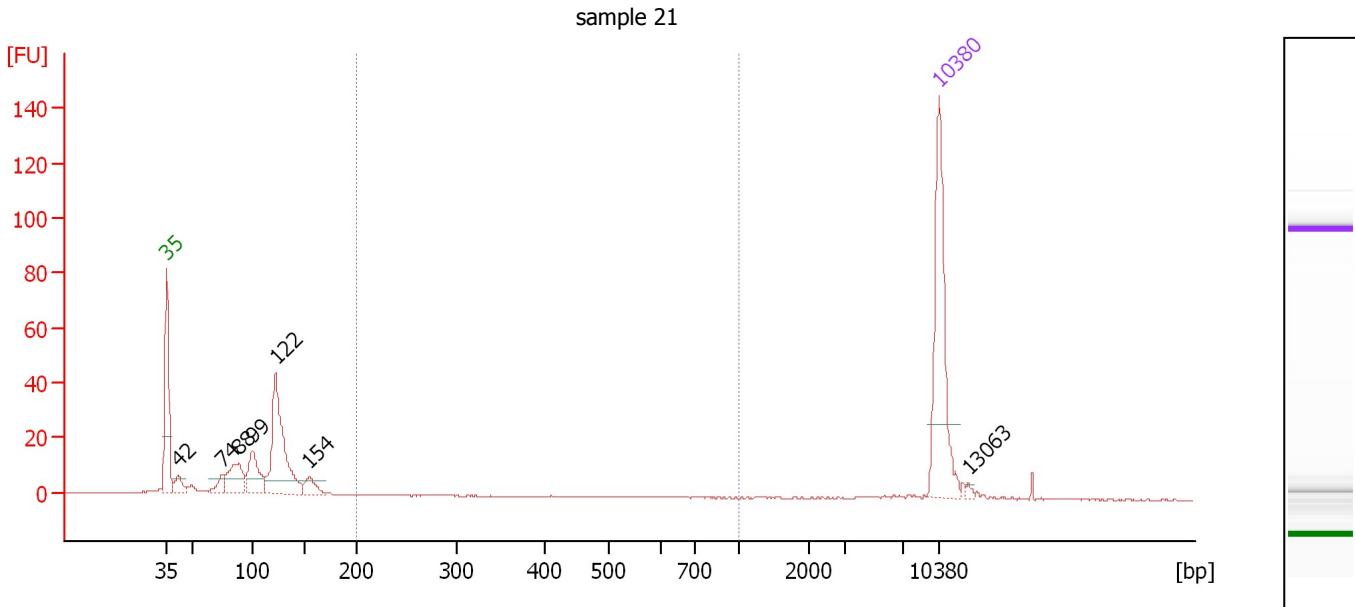
From [bp]	Average Size [bp]	To [bp]	Corr. Area	% of Total	Size distribution in CV [%]	Conc. [pg/μl]	Molarity [pmol/l]	Color
200	209	1,000	5.0	5	2.8	6.07	44.1	Blue



Assay Class: High Sensitivity DNA Assay  
 Data Path: C:\...ents and Settings\Bioanalyzer\2014-09-25\2014-09-25\_005.xad

Created: 9/25/2014 11:12:50 AM  
 Modified: 9/25/2014 11:53:18 AM

**Electropherogram Summary Continued ...**



**Overall Results for sample 5 : sample 21**

Number of peaks found: 7                      Corr. Area 1: 0.0  
 Noise: 0.1

**Peak table for sample 5 : sample 21**

Peak	Size [bp]	Conc. [pg/μl]	Molarity [pmol/l]	Observations
1	35	125.00	5,411.3	Lower Marker
2	42	14.08	511.3	
3	74	13.06	265.9	
4	88	39.51	677.6	
5	99	39.24	599.3	
6	122	117.68	1,463.4	
7	154	14.22	139.5	
8	10,380	75.00	10.9	Upper Marker
9	13,063	0.00	0.0	

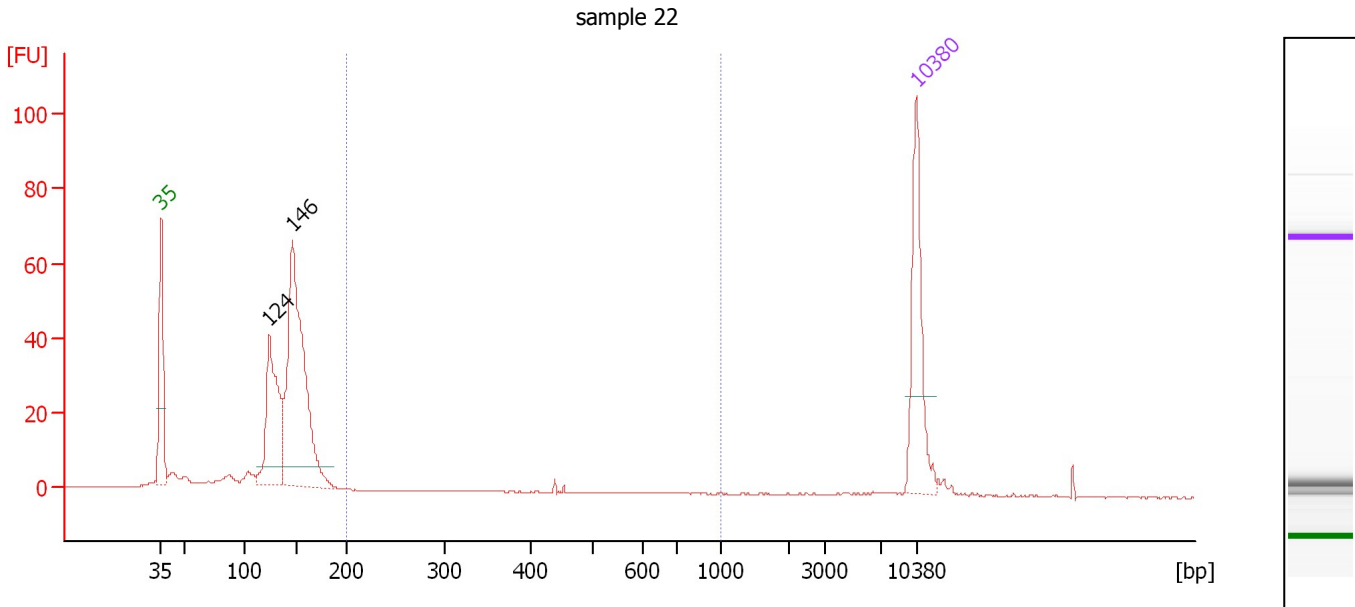
**Region table for sample 5 : sample 21**

From [bp]	Average Size [bp]	To [bp]	Corr. Area	% of Total	Size distribution in CV [%]	Conc. [pg/μl]	Molarity [pmol/l]	Color
200	338	1,000	0.0	0	12.6	0.01	0.0	Blue

Assay Class: High Sensitivity DNA Assay  
 Data Path: C:\...ents and Settings\Bioanalyzer\2014-09-25\2014-09-25\_005.xad

Created: 9/25/2014 11:12:50 AM  
 Modified: 9/25/2014 11:53:18 AM

**Electropherogram Summary Continued ...**



**Overall Results for sample 6 : sample 22**

Number of peaks found: 2                      Corr. Area 1: 1.7  
 Noise: 0.1

**Peak table for sample 6 : sample 22**

Peak	Size [bp]	Conc. [pg/μl]	Molarity [pmol/l]	Observations
1	35	125.00	5,411.3	Lower Marker
2	124	152.93	1,873.1	
3	146	326.76	3,380.0	
4	10,380	75.00	10.9	Upper Marker

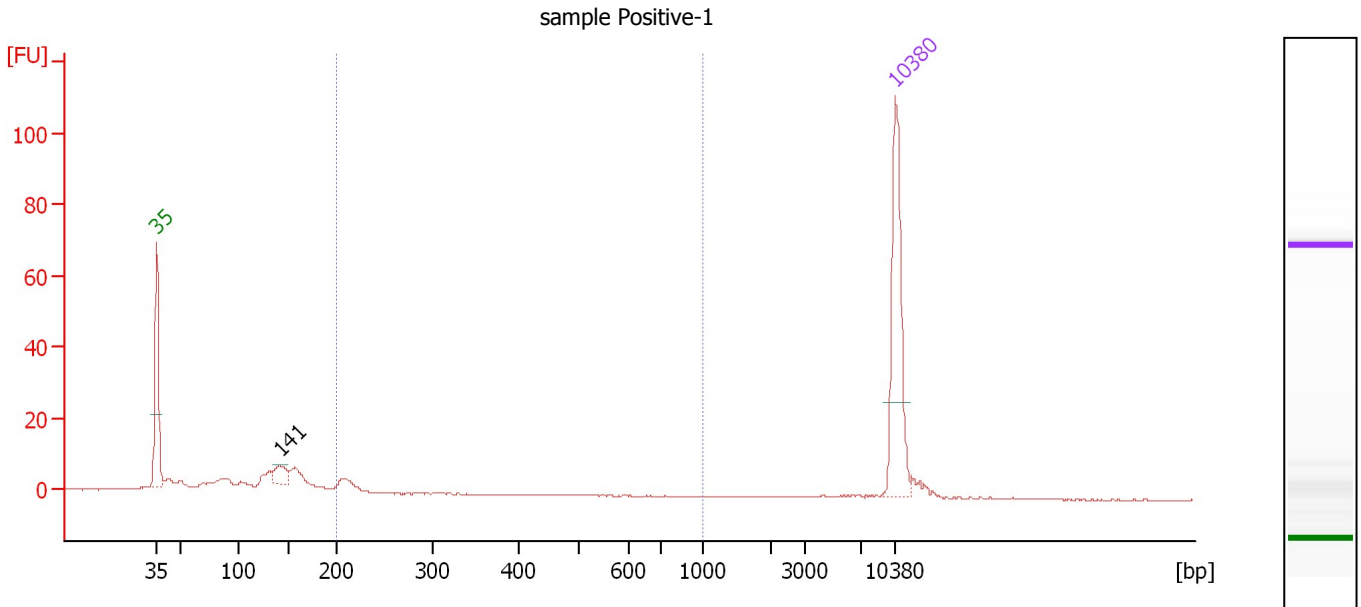
**Region table for sample 6 : sample 22**

From [bp]	Average Size [bp]	To [bp]	Corr. Area	% of Total	Size distribution in CV [%]	Conc. [pg/μl]	Molarity [pmol/l]	Color
200	430	1,000	1.7	0	19.4	1.85	7.0	Blue

Assay Class: High Sensitivity DNA Assay  
 Data Path: C:\...ents and Settings\Bioanalyzer\2014-09-25\2014-09-25\_005.xad

Created: 9/25/2014 11:12:50 AM  
 Modified: 9/25/2014 11:53:18 AM

**Electropherogram Summary Continued ...**



**Overall Results for sample 7 : sample Positive-1**

Number of peaks found: 1                      Corr. Area 1: 10.3  
 Noise: 0.1

**Peak table for sample 7 : sample Positive-1**

Peak	Size [bp]	Conc. [pg/μl]	Molarity [pmol/l]	Observations
1	35	125.00	5,411.3	Lower Marker
2	141	17.44	187.0	
3	10,380	75.00	10.9	Upper Marker

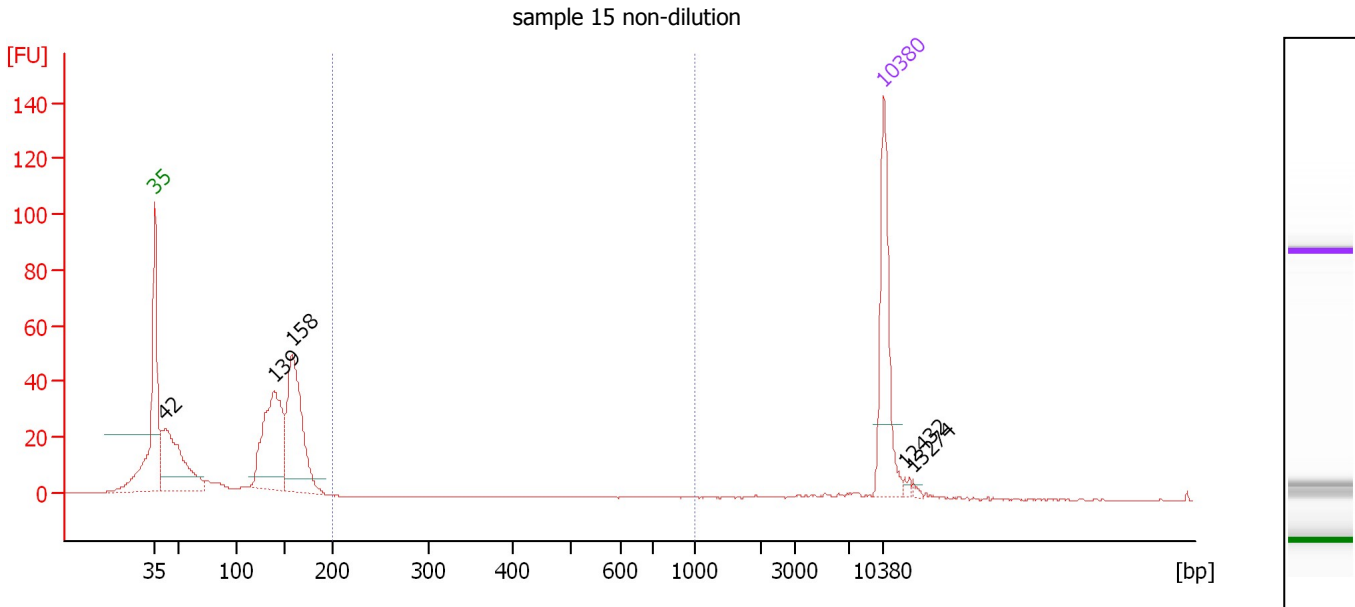
**Region table for sample 7 : sample Positive-1**

From [bp]	Average Size [bp]	To [bp]	Corr. Area	% of Total	Size distribution in CV [%]	Conc. [pg/μl]	Molarity [pmol/l]	Color
200	211	1,000	10.3	8	3.3	13.05	93.9	Blue

Assay Class: High Sensitivity DNA Assay  
 Data Path: C:\...ents and Settings\Bioanalyzer\2014-09-25\2014-09-25\_005.xad

Created: 9/25/2014 11:12:50 AM  
 Modified: 9/25/2014 11:53:18 AM

**Electropherogram Summary Continued ...**



**Overall Results for sample 8 : sample 15 non-dilution**

Number of peaks found: 5                      Corr. Area 1: 0.0  
 Noise: 0.1

**Peak table for sample 8 : sample 15 non-dilution**

Peak	Size [bp]	Conc. [pg/μl]	Molarity [pmol/l]	Observations
1	35	125.00	5,411.3	Lower Marker
2	42	159.99	5,802.6	
3	139	168.47	1,835.3	
4	158	169.88	1,631.9	
5	10,380	75.00	10.9	Upper Marker
6	12,432	0.00	0.0	
7	13,274	0.00	0.0	

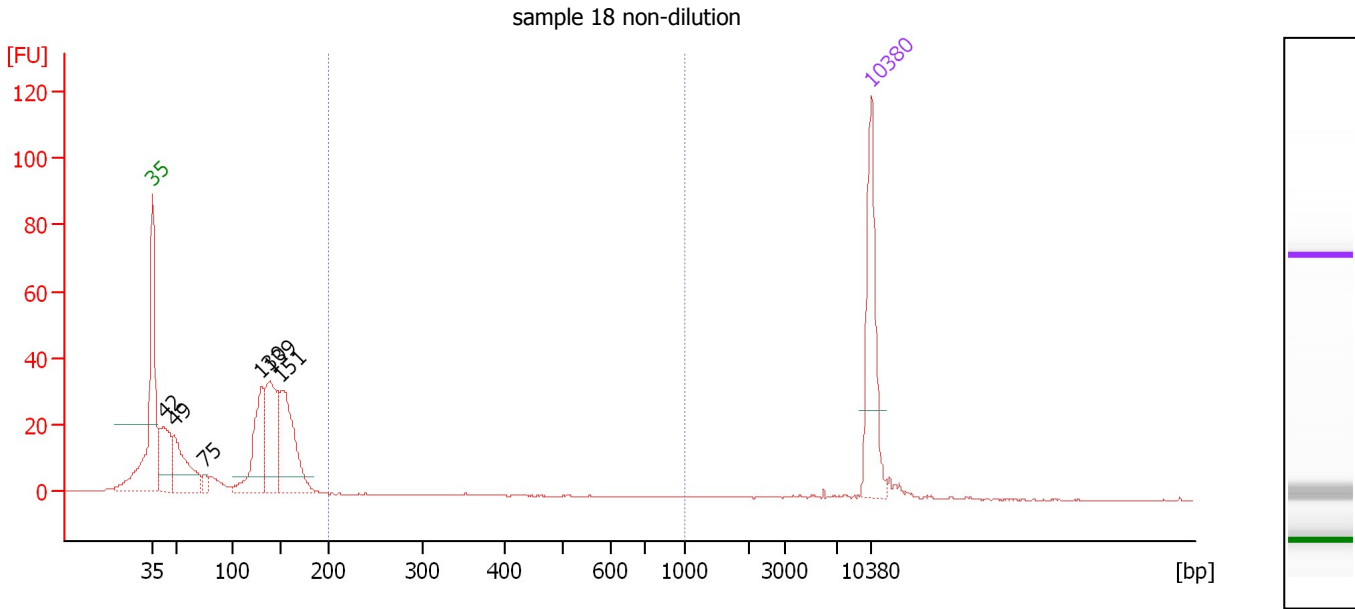
**Region table for sample 8 : sample 15 non-dilution**

From [bp]	Average Size [bp]	To [bp]	Corr. Area	% of Total	Size distribution in CV [%]	Conc. [pg/μl]	Molarity [pmol/l]	Color
200	0	1,000	0.0	0	0.0	0.00	0.0	Blue

Assay Class: High Sensitivity DNA Assay  
 Data Path: C:\...ents and Settings\Bioanalyzer\2014-09-25\2014-09-25\_005.xad

Created: 9/25/2014 11:12:50 AM  
 Modified: 9/25/2014 11:53:18 AM

**Electropherogram Summary Continued ...**



**Overall Results for sample 9 : sample 18 non-dilution**

Number of peaks found: 6                      Corr. Area 1: 0.3  
 Noise: 0.1

**Peak table for sample 9 : sample 18 non-dilution**

Peak	Size [bp]	Conc. [pg/μl]	Molarity [pmol/l]	Observations
1	35	125.00	5,411.3	Lower Marker
2	42	90.79	3,258.0	
3	49	89.65	2,766.6	
4	75	10.24	205.7	
5	130	103.46	1,208.0	
6	139	107.82	1,178.0	
7	151	130.82	1,313.4	
8	10,380	75.00	10.9	Upper Marker

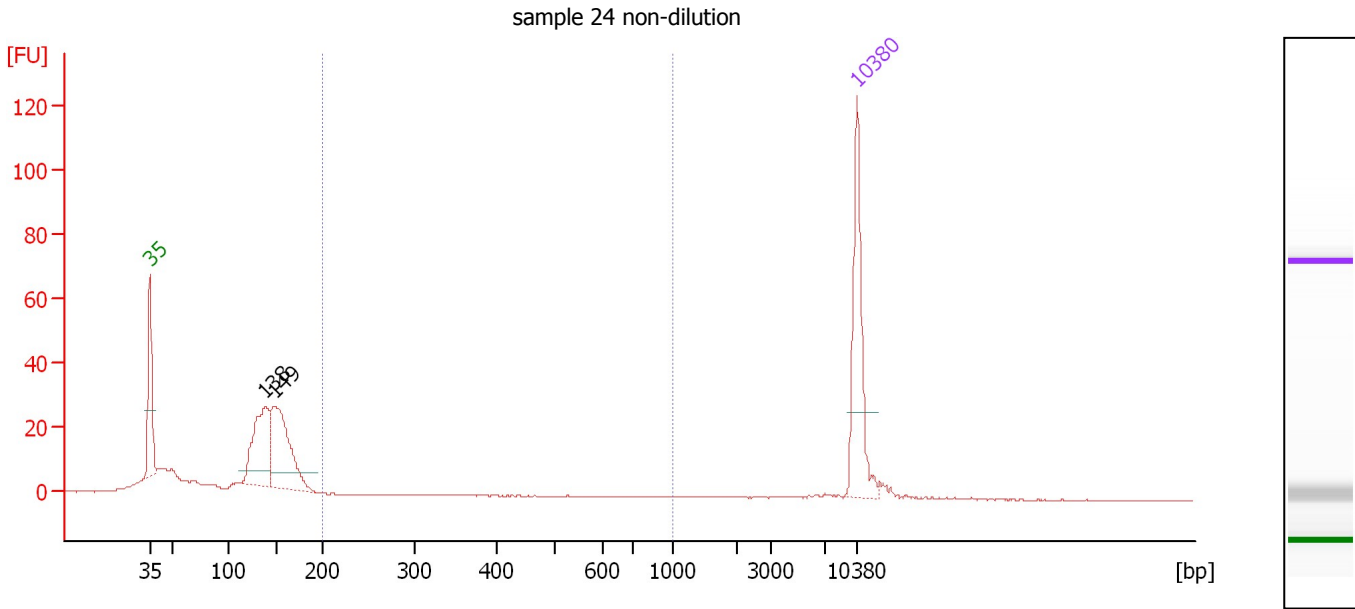
**Region table for sample 9 : sample 18 non-dilution**

From [bp]	Average Size [bp]	To [bp]	Corr. Area	% of Total	Size distribution in CV [%]	Conc. [pg/μl]	Molarity [pmol/l]	Color
200	375	1,000	0.3	0	32.6	0.30	1.4	Blue

Assay Class: High Sensitivity DNA Assay  
 Data Path: C:\...ents and Settings\Bioanalyzer\2014-09-25\2014-09-25\_005.xad

Created: 9/25/2014 11:12:50 AM  
 Modified: 9/25/2014 11:53:18 AM

**Electropherogram Summary Continued ...**



**Overall Results for sample 10 : sample 24 non-dilution**

Number of peaks found: 2                      Corr. Area 1: 0.0  
 Noise: 0.1

**Peak table for sample 10 : sample 24 non-dilution**

Peak	Size [bp]	Conc. [pg/μl]	Molarity [pmol/l]	Observations
1	35	125.00	5,411.3	Lower Marker
2	138	114.18	1,250.5	
3	149	142.57	1,448.9	
4	10,380	75.00	10.9	Upper Marker

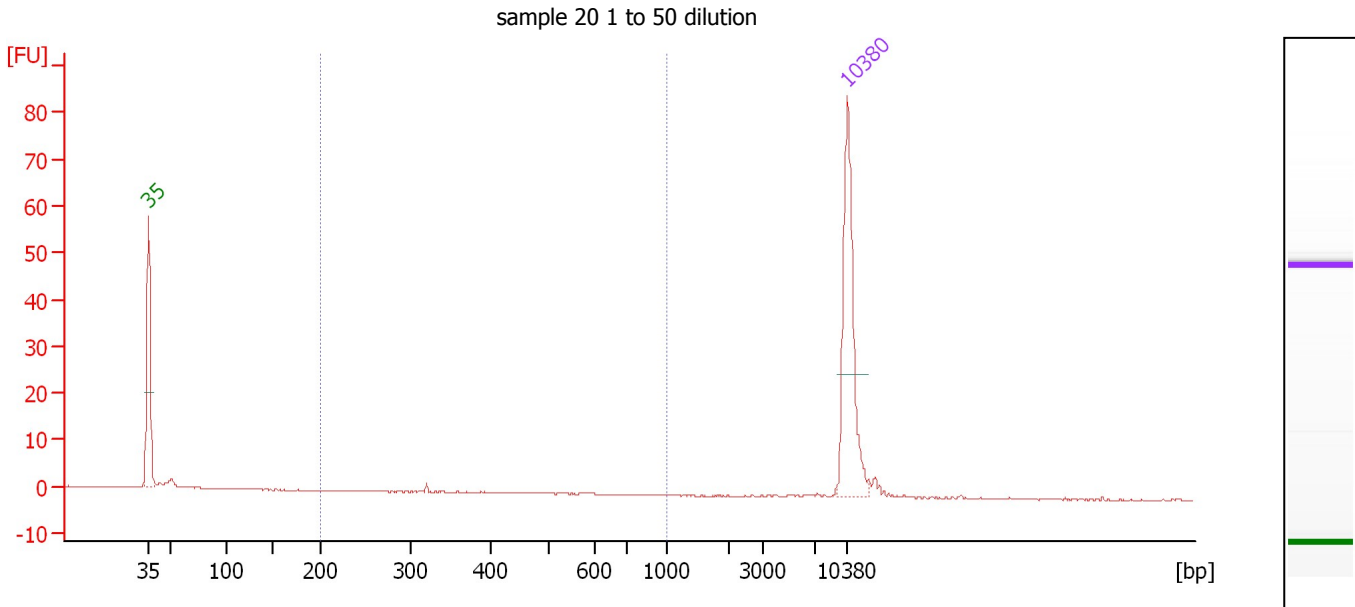
**Region table for sample 10 : sample 24 non-dilution**

From [bp]	Average Size [bp]	To [bp]	Corr. Area	% of Total	Size distribution in CV [%]	Conc. [pg/μl]	Molarity [pmol/l]	Color
200	530	1,000	0.0	0	0.0	0.00	0.0	Blue

Assay Class: High Sensitivity DNA Assay  
 Data Path: C:\...ents and Settings\Bioanalyzer\2014-09-25\2014-09-25\_005.xad

Created: 9/25/2014 11:12:50 AM  
 Modified: 9/25/2014 11:53:18 AM

**Electropherogram Summary Continued ...**



**Overall Results for sample 11 : sample 20 1 to 50 dilution**

Number of peaks found: 0                      Corr. Area 1: 0.6  
 Noise: 0.1

**Peak table for sample 11 : sample 20 1 to 50 dilution**

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

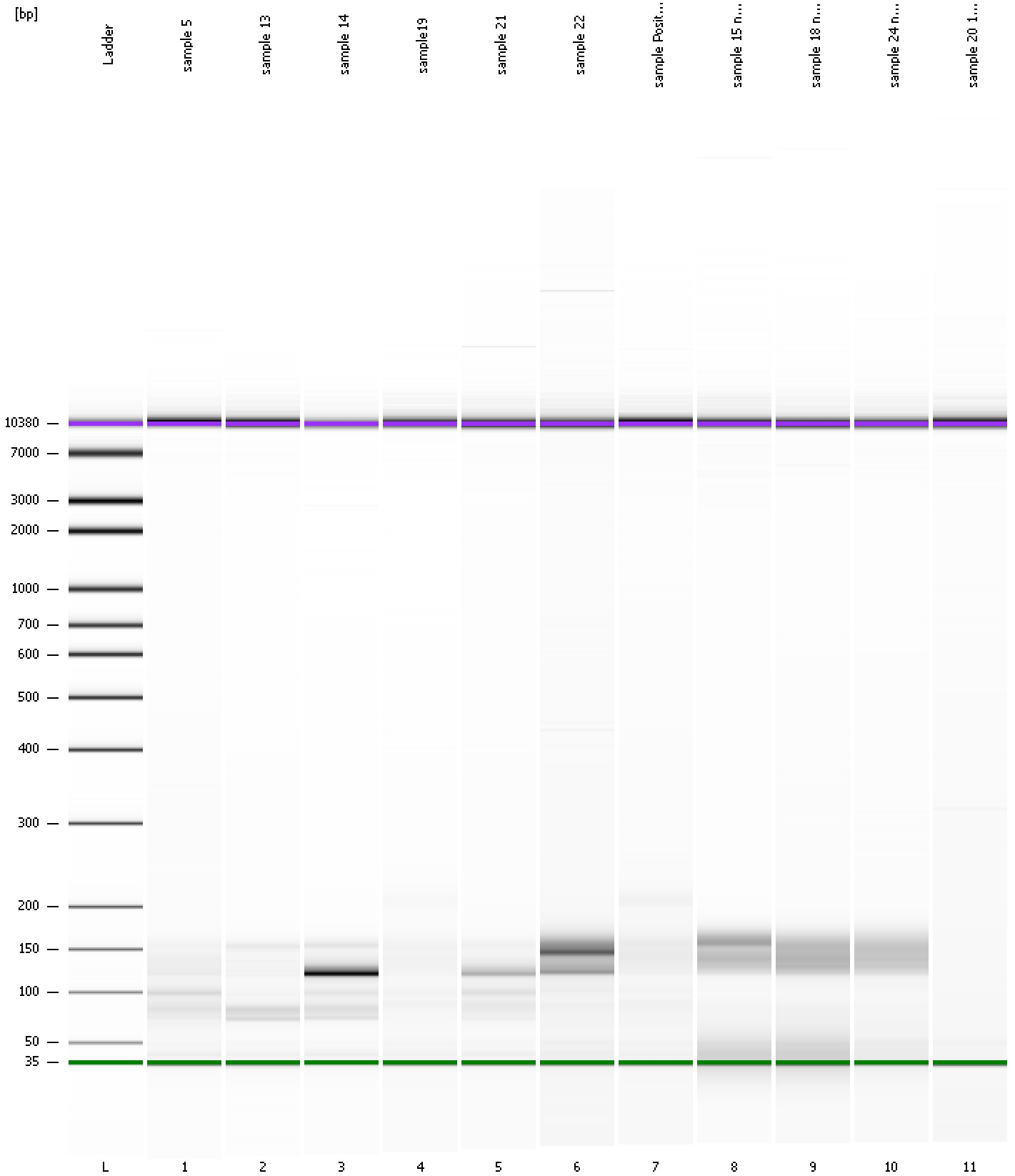
**Region table for sample 11 : sample 20 1 to 50 dilution**

From [bp]	Average Size [bp]	To [bp]	Corr. Area	% of Total	Size distribution in CV [%]	Conc. [pg/μl]	Molarity [pmol/l]	Color
200	321	1,000	0.6	4	5.8	0.75	3.6	Blue

Assay Class: High Sensitivity DNA Assay  
Data Path: C:\...ents and Settings\Bioanalyzer\2014-09-25\2014-09-25\_005.xad

Created: 9/25/2014 11:12:50 AM  
Modified: 9/25/2014 11:53:18 AM

**Gel Image**



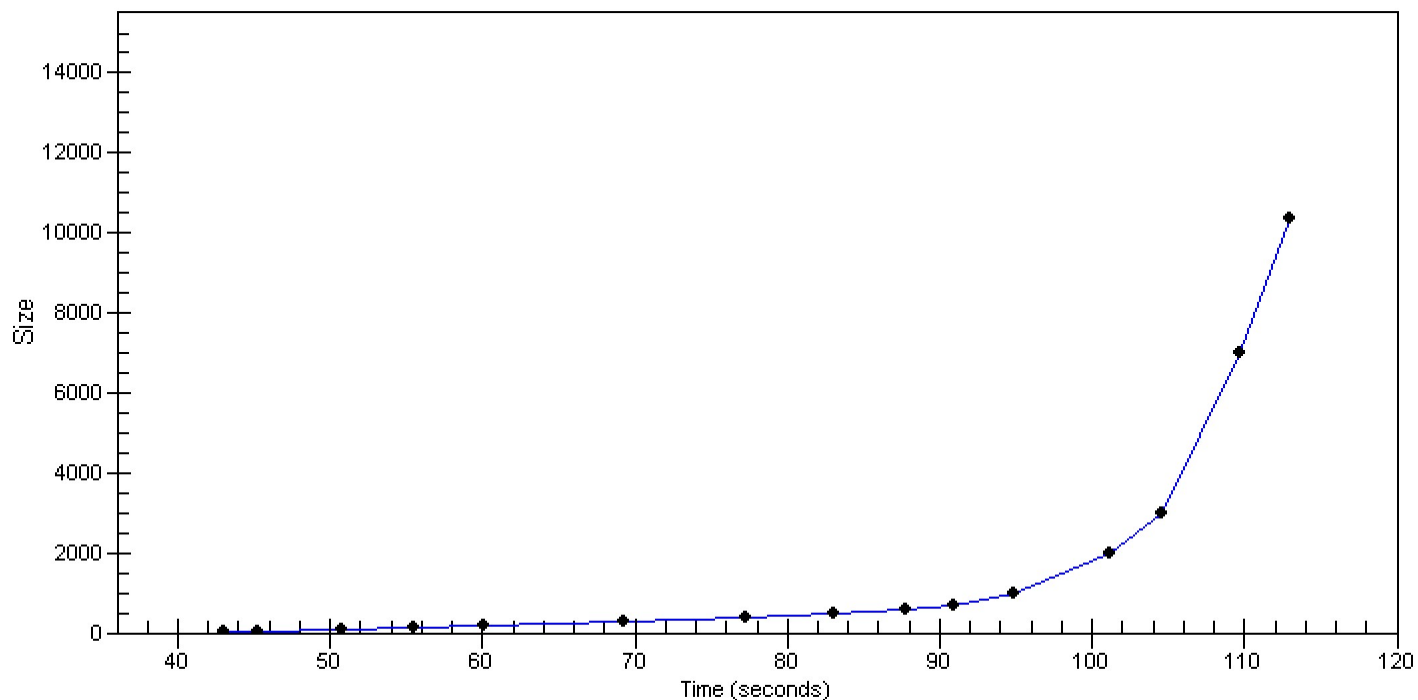


Assay Class: High Sensitivity DNA Assay  
Data Path: C:\...ents and Settings\Bioanalyzer\2014-09-25\2014-09-25\_005.xad

Created: 9/25/2014 11:12:50 AM  
Modified: 9/25/2014 11:53:18 AM

**Curves**

**Standard Curve**



Assay Class: High Sensitivity DNA Assay  
 Data Path: C:\...ents and Settings\Bioanalyzer\2014-09-25\2014-09-25\_005.xad

Created: 9/25/2014 11:12:50 AM  
 Modified: 9/25/2014 11:53:18 AM

**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		9/25/2014 11:53:13 AM	(GMT --07:00) Pacific Standard Time	UC Davis	D8XSMGH1
Run started on port 1 (File: C:\Documents and Settings\Bioanalyzer\2014-09-25\2014-09-25_005.xad)		Instrument	Run		9/25/2014 11:12:51 AM	(GMT --07:00) Pacific Standard Time	UC Davis	D8XSMGH1
Product Number : G2938B		Instrument	Run		9/25/2014 11:12:51 AM	(GMT --07:00) Pacific Standard Time	UC Davis	D8XSMGH1
Name :		Instrument	Run		9/25/2014 11:12:51 AM	(GMT --07:00) Pacific Standard Time	UC Davis	D8XSMGH1
Vendor : Agilent Technologies		Instrument	Run		9/25/2014 11:12:51 AM	(GMT --07:00) Pacific Standard Time	UC Davis	D8XSMGH1
Serial# : DE13701086		Instrument	Run		9/25/2014 11:12:51 AM	(GMT --07:00) Pacific Standard Time	UC Davis	D8XSMGH1
Firmware : C.01.069		Instrument	Run		9/25/2014 11:12:51 AM	(GMT --07:00) Pacific Standard Time	UC Davis	D8XSMGH1
Cartridge : Electrode		Instrument	Run		9/25/2014 11:12:51 AM	(GMT --07:00) Pacific Standard Time	UC Davis	D8XSMGH1