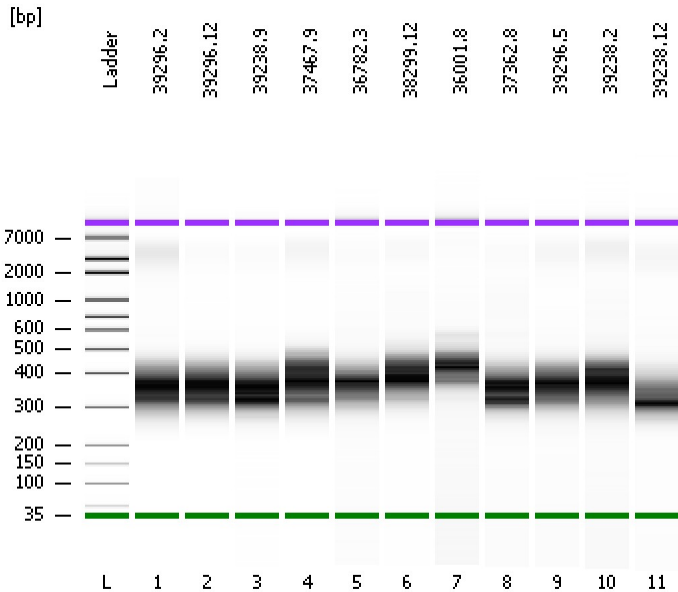


Assay Class: High Sensitivity DNA Assay  
Data Path: C:\... bioanalyzer\2100 expert\Data\2014-07-22\2014-07-22\_004.xad

Created: 7/22/2014 2:24:35 PM  
Modified: 7/22/2014 3:05:55 PM

**Electrophoresis File Run Summary**



Instrument Information:

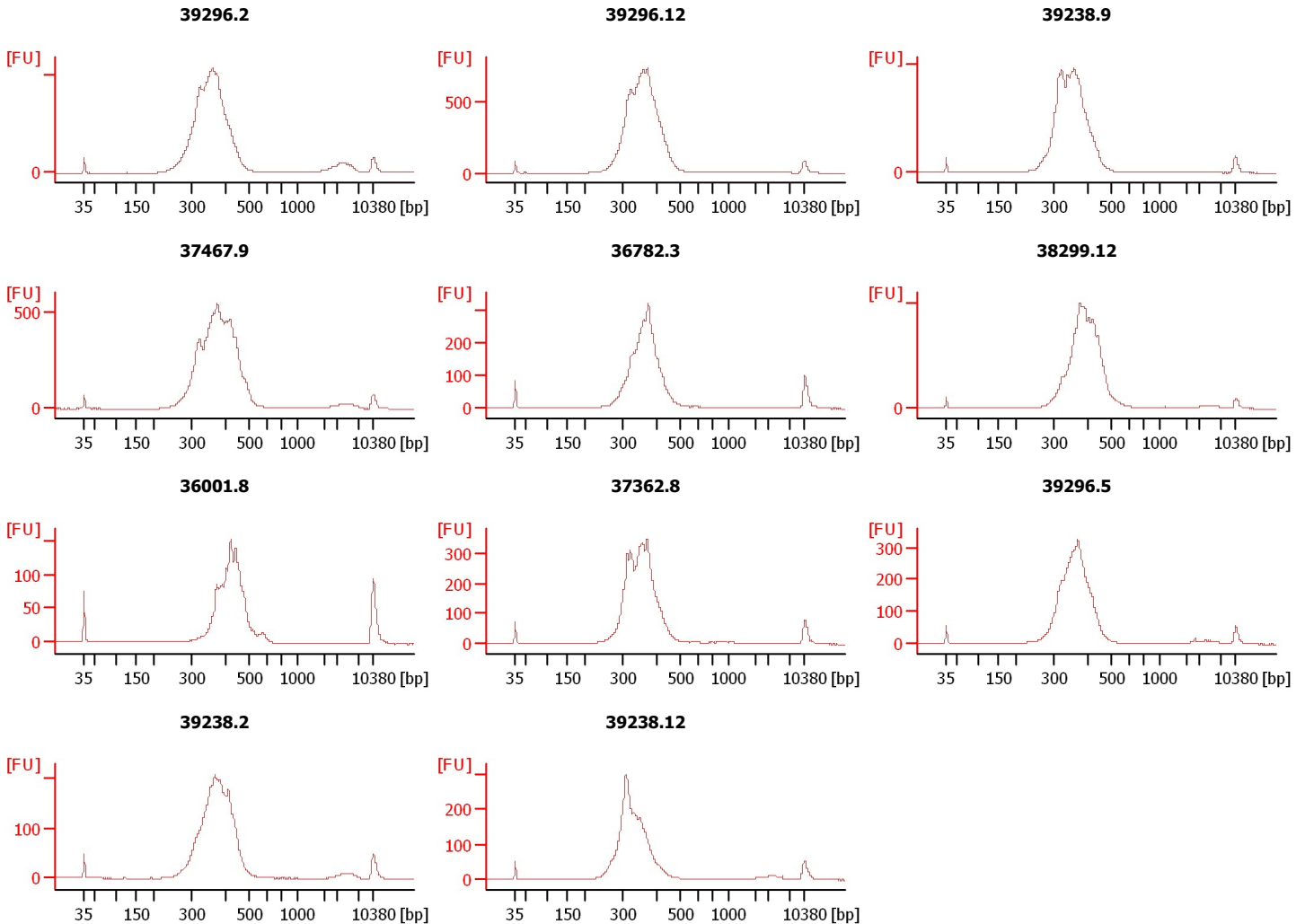
Instrument Name: DE13701086      Firmware: C.01.069  
Serial#: DE13701086      Type: G2938B

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:\... bioanalyzer\2100 expert\Data\2014-07-22\2014-07-22\_004.xad

Created: 7/22/2014 2:24:35 PM  
Modified: 7/22/2014 3:05:55 PM

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

Sample Name	Sample Comment	Rest. Digest	Status	Observation	Result Label	Result Color
39296.2		<input type="checkbox"/>	✓			
39296.12		<input type="checkbox"/>	✓			
39238.9		<input type="checkbox"/>	✓			
37467.9		<input type="checkbox"/>	✓			
36782.3		<input type="checkbox"/>	✓			
38299.12		<input type="checkbox"/>	✓			
36001.8		<input type="checkbox"/>	✓			
37362.8		<input type="checkbox"/>	✓			
39296.5		<input type="checkbox"/>	✓			
39238.2		<input type="checkbox"/>	✓			
39238.12		<input type="checkbox"/>	✓			
Ladder		<input type="checkbox"/>	✓			

**Chip Lot #**

**Reagent Kit Lot #**

**Chip Comments :**

Assay Class: High Sensitivity DNA Assay  
Data Path: C:\... bioanalyzer\2100 expert\Data\2014-07-22\2014-07-22\_004.xad

Created: 7/22/2014 2:24:35 PM  
Modified: 7/22/2014 3:05:55 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

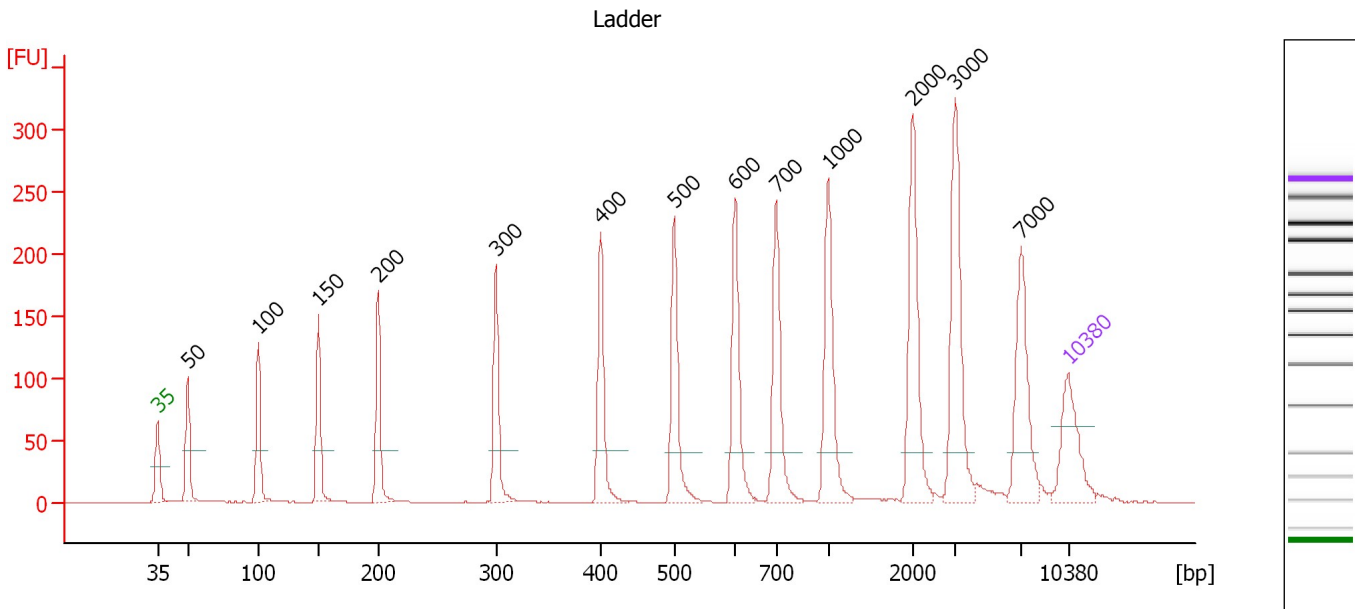
**Ladder**

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:\... bioanalyzer\2100 expert\Data\2014-07-22\2014-07-22\_004.xad

Created: 7/22/2014 2:24:35 PM  
 Modified: 7/22/2014 3:05:55 PM

**Electropherogram Summary**



**Overall Results for Ladder**

Noise: 0.1

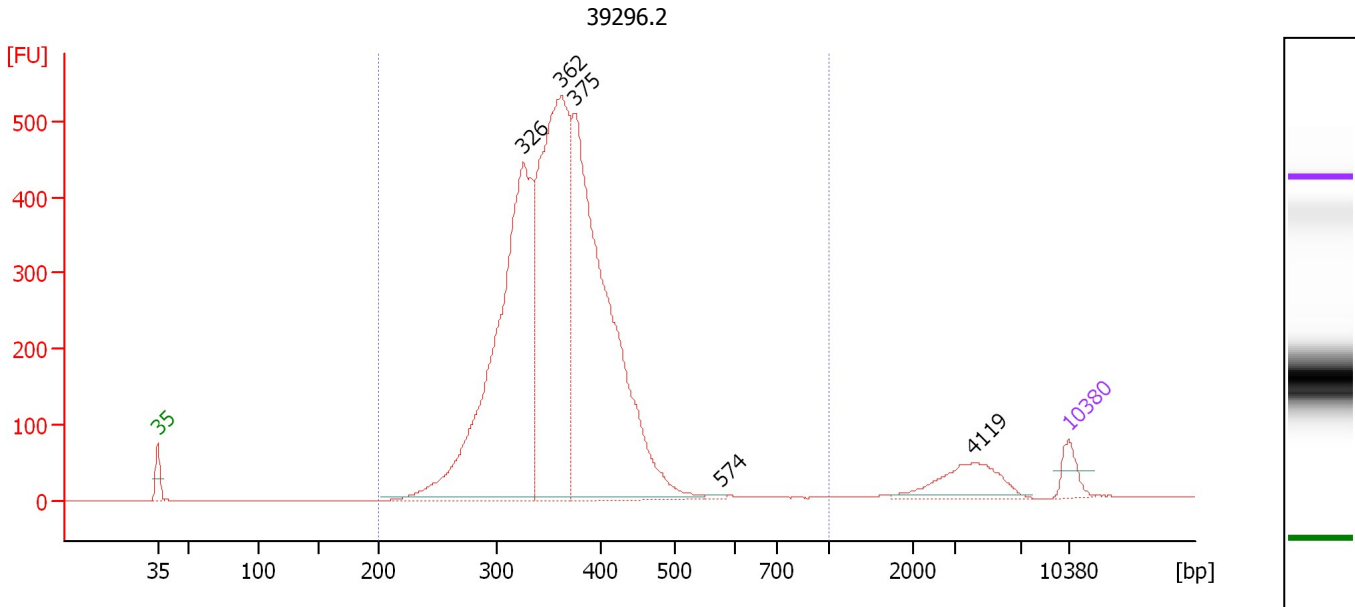
**Peak table for Ladder**

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:\... bioanalyzer\2100 expert\Data\2014-07-22\2014-07-22\_004.xad

Created: 7/22/2014 2:24:35 PM  
 Modified: 7/22/2014 3:05:55 PM

**Electropherogram Summary Continued ...**



**Overall Results for sample 1 : 39296.2**

Number of peaks found: 5                      Corr. Area 1: 6,525.4  
 Noise: 0.2

**Peak table for sample 1 : 39296.2**

Peak	Size [bp]	Conc. [pg/μl]	Molarity [pmol/l]	Observations
1	35	125.00	5,411.3	Lower Marker
2	326	2,746.01	12,748.6	
3	362	2,328.73	9,742.2	
4	375	2,716.88	10,971.4	
5	574	11.91	31.4	
6	4,119	214.99	79.1	
7	10,380	75.00	10.9	Upper Marker

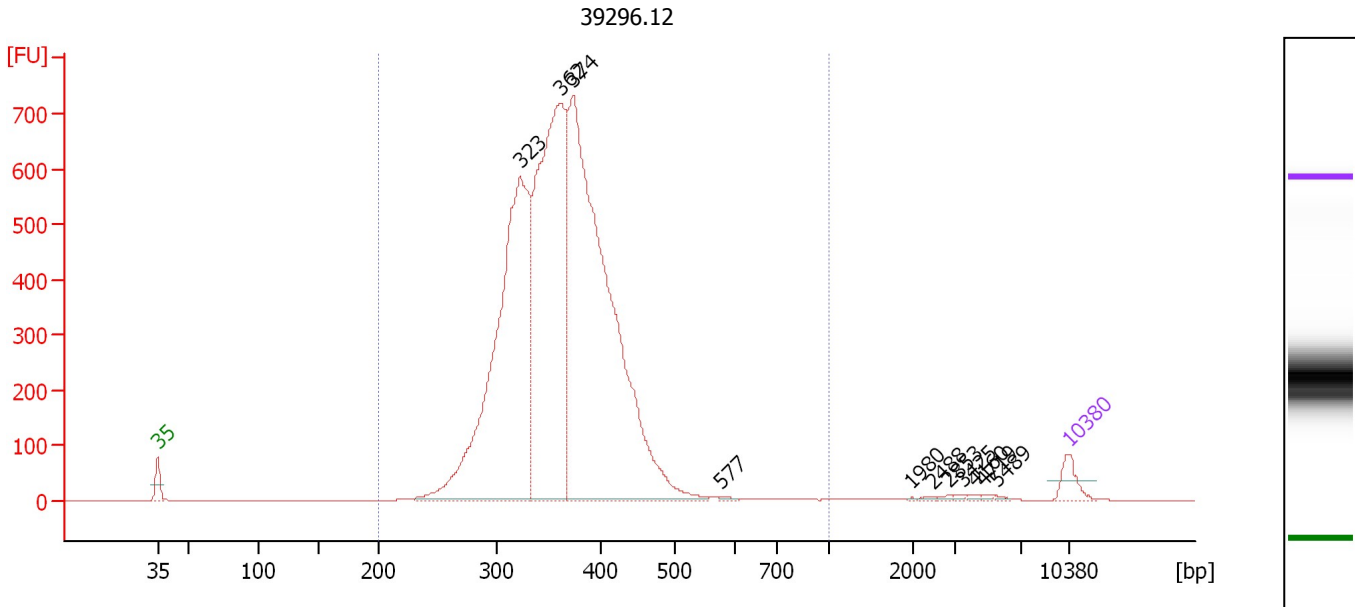
**Region table for sample 1 : 39296.2**

From [bp]	To [bp]	Average Size [bp]	Molarity [pmol/l]	Conc. [pg/μl]	Co Corr. lor Area	% of Total	Size distribution in CV [%]
200	1,000	360	33,557.7	7,789.77	6,525.4	96	14.5

Assay Class: High Sensitivity DNA Assay  
 Data Path: C:\... bioanalyzer\2100 expert\Data\2014-07-22\2014-07-22\_004.xad

Created: 7/22/2014 2:24:35 PM  
 Modified: 7/22/2014 3:05:55 PM

**Electropherogram Summary Continued ...**



**Overall Results for sample 2 : 39296.12**

Number of peaks found: 11                      Corr. Area 1: 8,960.7  
 Noise: 0.4

**Peak table for sample 2 : 39296.12**

Peak	Size [bp]	Conc. [pg/μl]	Molarity [pmol/l]	Observations
1	35	125.00	5,411.3	Lower Marker
2	323	2,993.31	14,032.4	
3	362	2,597.69	10,874.8	
4	374	3,889.04	15,758.4	
5	577	9.52	25.0	
6	1,980	2.78	2.1	
7	2,488	6.99	4.3	
8	2,853	7.77	4.1	
9	3,425	8.19	3.6	
10	4,160	9.34	3.4	
11	4,719	7.18	2.3	
12	5,489	6.35	1.8	
13	10,380	75.00	10.9	Upper Marker

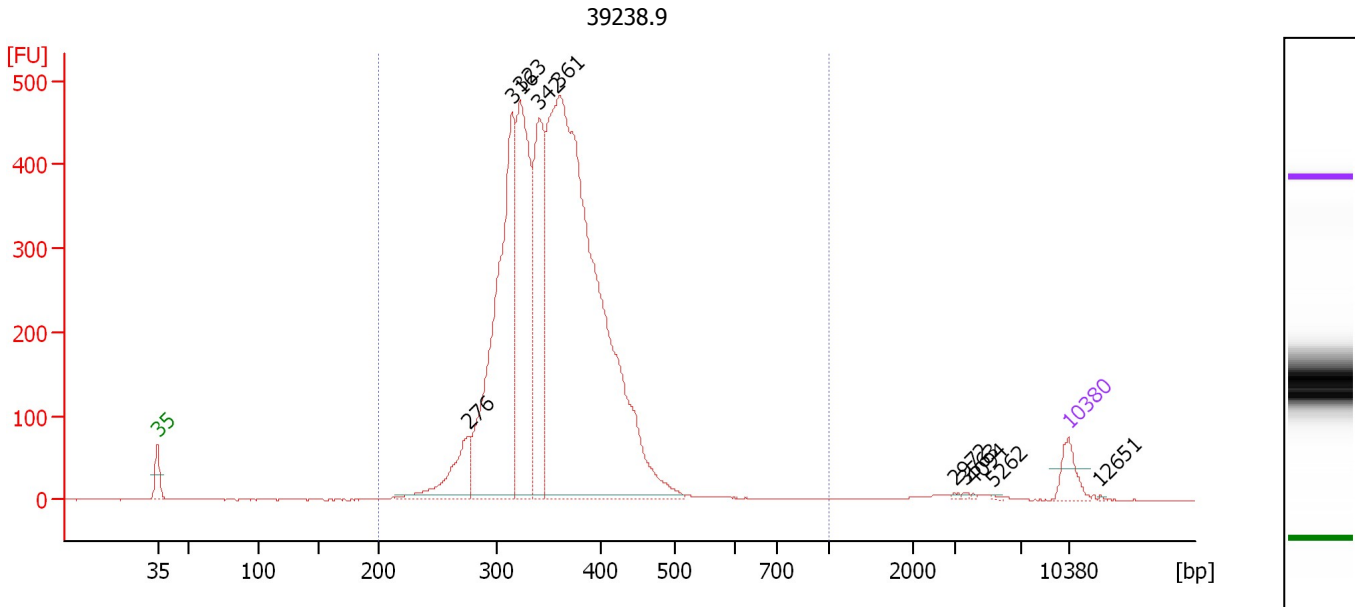
**Region table for sample 2 : 39296.12**

From [bp]	To [bp]	Average Size [bp]	Molarity [pmol/l]	Conc. [pg/μl]	Co Corr. lor Area	% of Total	Size distribution in CV [%]
200	1,000	363	40,630.8	9,519.23	8,960.7	99	14.5

Assay Class: High Sensitivity DNA Assay  
 Data Path: C:\... bioanalyzer\2100 expert\Data\2014-07-22\2014-07-22\_004.xad

Created: 7/22/2014 2:24:35 PM  
 Modified: 7/22/2014 3:05:55 PM

**Electropherogram Summary Continued ...**



**Overall Results for sample 3 : 39238.9**

Number of peaks found: 10      Corr. Area 1: 6,024.7  
 Noise: 0.4

**Peak table for sample 3 : 39238.9**

Peak	Size [bp]	Conc. [pg/μl]	Molarity [pmol/l]	Observations
1	35	125.00	5,411.3	Lower Marker
2	276	295.08	1,619.6	
3	316	1,628.68	7,819.7	
4	323	1,123.94	5,267.4	
5	342	803.43	3,564.6	
6	361	4,034.26	16,941.1	
7	2,972	4.98	2.5	
8	3,563	4.02	1.7	
9	4,094	3.59	1.3	
10	5,262	3.60	1.0	
11	10,380	75.00	10.9	Upper Marker
12	12,651	0.00	0.0	

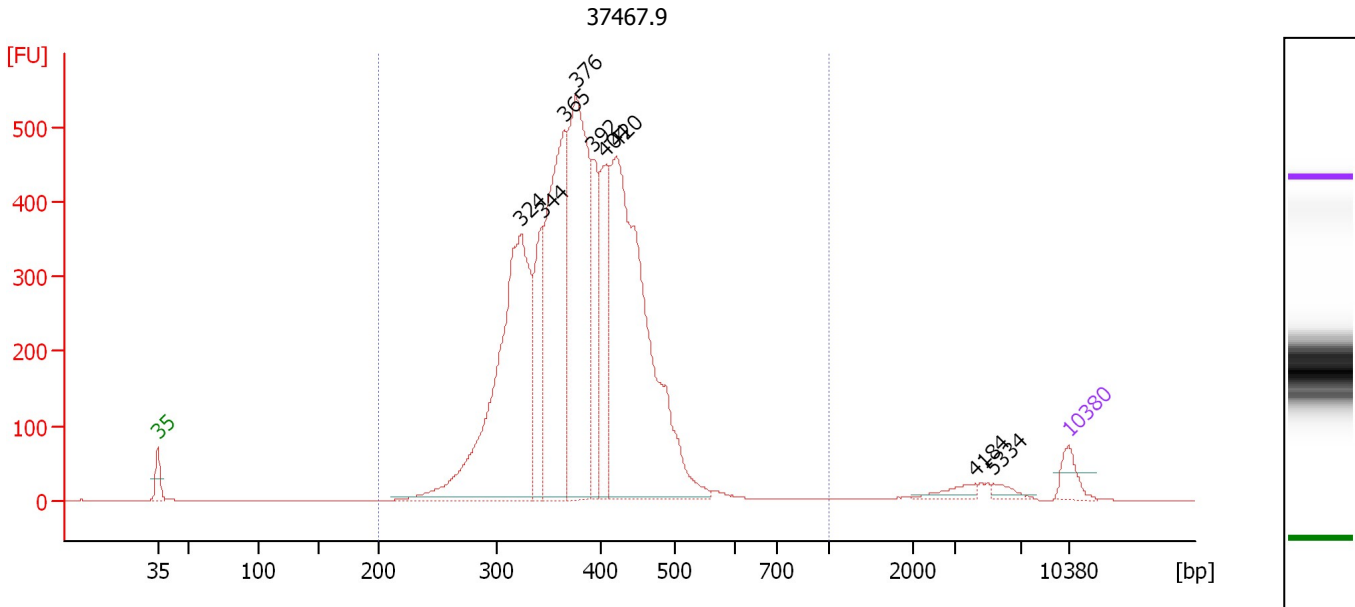
**Region table for sample 3 : 39238.9**

From [bp]	To [bp]	Average Size [bp]	Molarity [pmol/l]	Conc. [pg/μl]	Co Corr. lor Area	% of Total	Size distribution in CV [%]
200	1,000	356	34,251.6	7,861.93	6,024.7	98	15.0

Assay Class: High Sensitivity DNA Assay  
 Data Path: C:\... bioanalyzer\2100 expert\Data\2014-07-22\2014-07-22\_004.xad

Created: 7/22/2014 2:24:35 PM  
 Modified: 7/22/2014 3:05:55 PM

**Electropherogram Summary Continued ...**



**Overall Results for sample 4 : 37467.9**

Number of peaks found: 9                      Corr. Area 1: 7,375.6  
 Noise: 0.3

**Peak table for sample 4 : 37467.9**

Peak	Size [bp]	Conc. [pg/μl]	Molarity [pmol/l]	Observations
1	35	125.00	5,411.3	Lower Marker
2	324	2,065.60	9,654.4	
3	344	452.13	1,992.7	
4	365	1,357.20	5,632.9	
5	376	1,545.97	6,225.3	
6	392	412.62	1,595.1	
7	404	524.24	1,963.7	
8	420	2,318.41	8,355.9	
9	4,184	48.12	17.4	
10	5,334	33.95	9.6	
11	10,380	75.00	10.9	Upper Marker

**Region table for sample 4 : 37467.9**

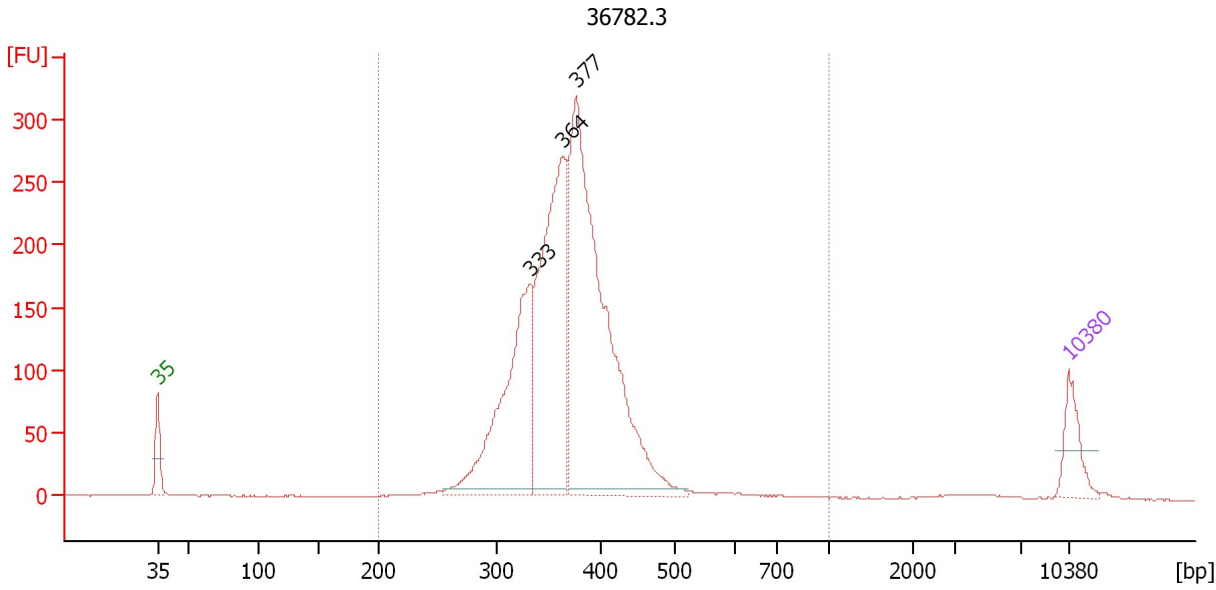
From [bp]	To [bp]	Average Size [bp]	Molarity [pmol/l]	Conc. [pg/μl]	Co Corr. lor Area	% of Total	Size distribution in CV [%]
200	1,000	384	35,768.2	8,790.69	7,375.6	98	15.6



Assay Class: High Sensitivity DNA Assay  
 Data Path: C:\... bioanalyzer\2100 expert\Data\2014-07-22\2014-07-22\_004.xad

Created: 7/22/2014 2:24:35 PM  
 Modified: 7/22/2014 3:05:55 PM

**Electropherogram Summary Continued ...**



**Overall Results for sample 5 : 36782.3**

Number of peaks found: 3                      Corr. Area 1: 2,907.6  
 Noise: 0.3

**Peak table for sample 5 : 36782.3**

Peak	Size [bp]	Conc. [pg/μl]	Molarity [pmol/l]	Observations
1	35	125.00	5,411.3	Lower Marker
2	333	616.85	2,810.5	
3	364	775.85	3,227.1	
4	377	1,249.77	5,026.5	
5	10,380	75.00	10.9	Upper Marker

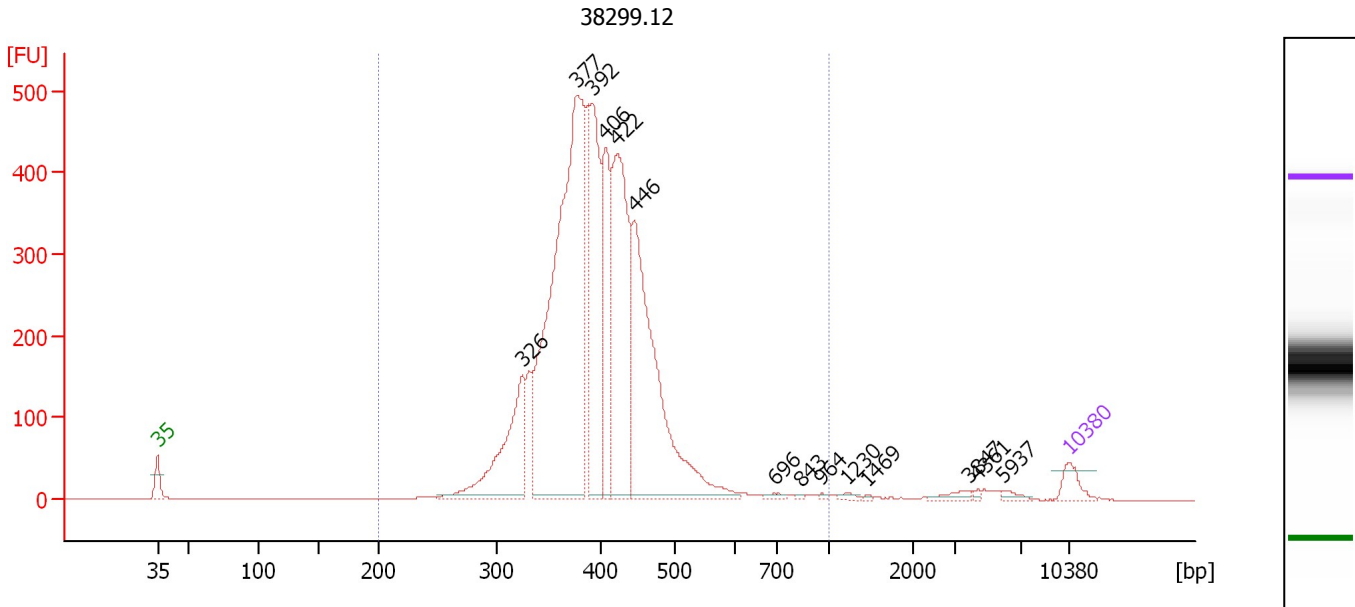
**Region table for sample 5 : 36782.3**

From [bp]	To [bp]	Average Size [bp]	Molarity [pmol/l]	Conc. [pg/μl]	Co Corr. lor Area	% of Total	Size distribution in CV [%]
200	1,000	371	11,470.8	2,749.06	2,907.6	98	15.1

Assay Class: High Sensitivity DNA Assay  
 Data Path: C:\... bioanalyzer\2100 expert\Data\2014-07-22\2014-07-22\_004.xad

Created: 7/22/2014 2:24:35 PM  
 Modified: 7/22/2014 3:05:55 PM

**Electropherogram Summary Continued ...**



**Overall Results for sample 6 : 38299.12**

Number of peaks found: 14                      Corr. Area 1: 5,458.6  
 Noise: 0.1

**Peak table for sample 6 : 38299.12**

Peak	Size [bp]	Conc. [pg/μl]	Molarity [pmol/l]	Observations
1	35	125.00	5,411.3	Lower Marker
2	326	780.29	3,631.8	
3	377	3,184.83	12,800.5	
4	392	1,005.65	3,888.6	
5	406	644.27	2,402.8	
6	422	1,355.41	4,860.7	
7	446	1,706.29	5,796.1	
8	696	23.02	50.1	
9	843	8.96	16.1	
10	964	8.27	13.0	
11	1,230	17.95	22.1	
12	1,469	5.92	6.1	
13	3,847	31.76	12.5	
14	4,361	9.65	3.4	
15	5,937	23.65	6.0	
16	10,380	75.00	10.9	Upper Marker

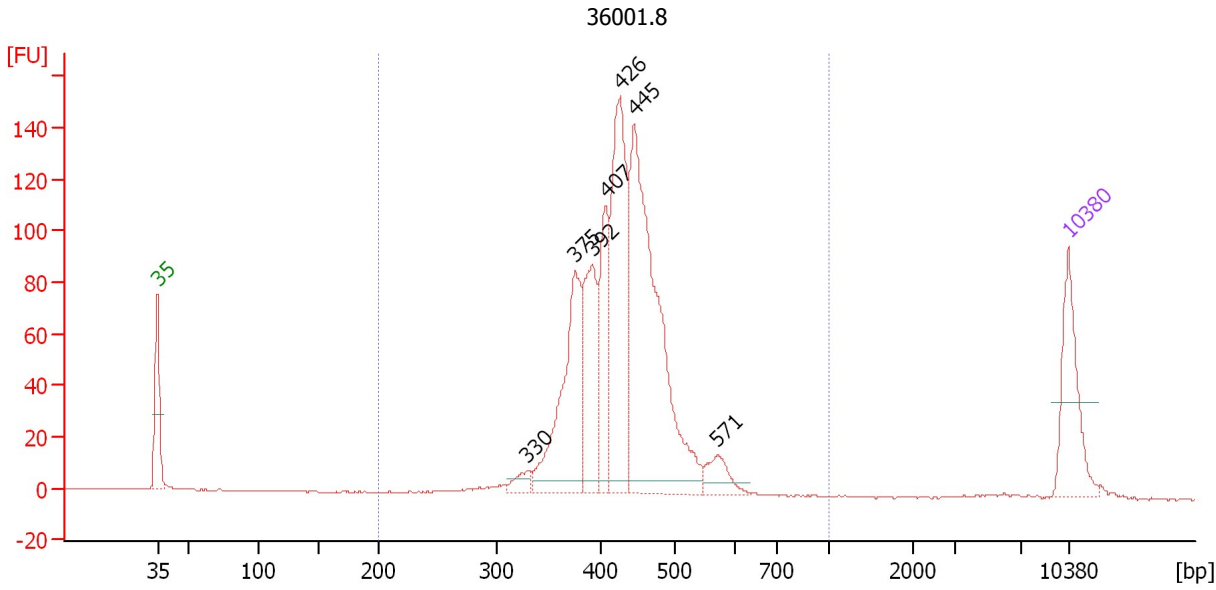
**Region table for sample 6 : 38299.12**

From [bp]	To [bp]	Average Size [bp]	Molarity [pmol/l]	Conc. [pg/μl]	Co Corr. lor Area	% of Total	Size distribution in CV [%]
200	1,000	403	36,328.3	9,395.01	5,458.6	98	16.6

Assay Class: High Sensitivity DNA Assay  
 Data Path: C:\... bioanalyzer\2100 expert\Data\2014-07-22\2014-07-22\_004.xad

Created: 7/22/2014 2:24:35 PM  
 Modified: 7/22/2014 3:05:55 PM

**Electropherogram Summary Continued ...**



**Overall Results for sample 7 : 36001.8**

Number of peaks found: 7                      Corr. Area 1: 1,243.7  
 Noise: 0.2

**Peak table for sample 7 : 36001.8**

Peak	Size [bp]	Conc. [pg/μl]	Molarity [pmol/l]	Observations
1	35	125.00	5,411.3	Lower Marker
2	330	16.40	75.4	
3	375	196.82	795.2	
4	392	126.89	490.1	
5	407	102.19	380.4	
6	426	240.46	855.6	
7	445	427.44	1,454.0	
8	571	30.97	82.2	
9	10,380	75.00	10.9	Upper Marker

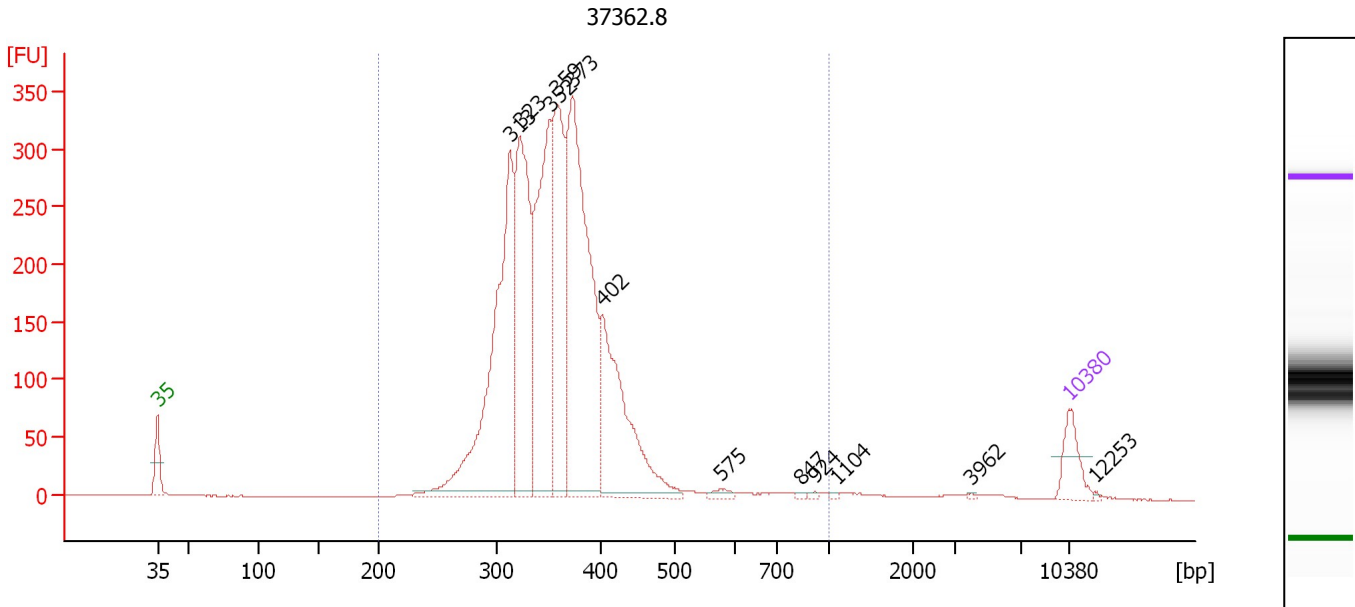
**Region table for sample 7 : 36001.8**

From [bp]	To [bp]	Average Size [bp]	Molarity [pmol/l]	Conc. [pg/μl]	Co Corr. lor Area	% of Total	Size distribution in CV [%]
200	1,000	429	4,153.8	1,155.49	1,243.7	99	12.2

Assay Class: High Sensitivity DNA Assay  
 Data Path: C:\... bioanalyzer\2100 expert\Data\2014-07-22\2014-07-22\_004.xad

Created: 7/22/2014 2:24:35 PM  
 Modified: 7/22/2014 3:05:55 PM

**Electropherogram Summary Continued ...**



**Overall Results for sample 8 : 37362.8**

Number of peaks found: 12                      Corr. Area 1: 3,915.1  
 Noise: 0.1

**Peak table for sample 8 : 37362.8**

Peak	Size [bp]	Conc. [pg/μl]	Molarity [pmol/l]	Observations
1	35	125.00	5,411.3	Lower Marker
2	313	986.98	4,774.5	
3	323	668.10	3,133.0	
4	352	686.34	2,952.6	
5	359	560.42	2,367.9	
6	373	1,031.87	4,189.8	
7	402	525.39	1,978.4	
8	575	15.39	40.5	
9	847	4.75	8.5	
10	924	5.02	8.2	
11	1,104	4.27	5.9	
12	3,962	2.64	1.0	
13	10,380	75.00	10.9	Upper Marker
14	12,253	0.00	0.0	

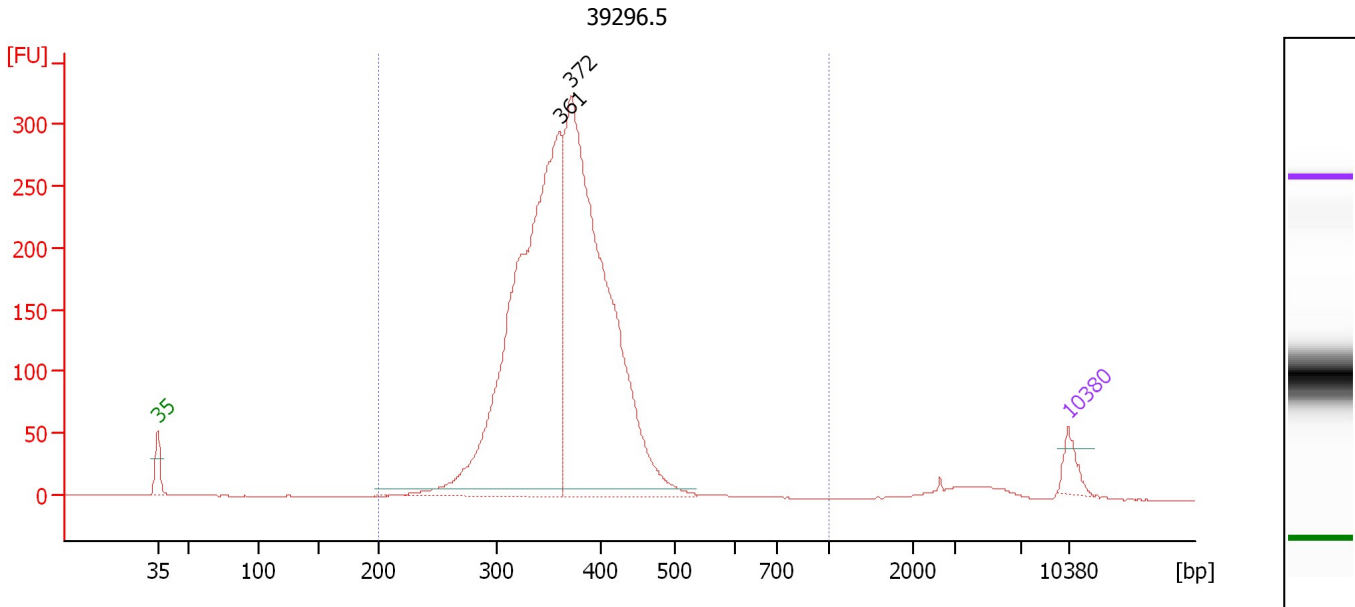
**Region table for sample 8 : 37362.8**

From [bp]	To [bp]	Average Size [bp]	Molarity [pmol/l]	Conc. [pg/μl]	Co Corr. lor Area	% of Total	Size distribution in CV [%]
200	1,000	361	19,481.1	4,523.05	3,915.1	98	18.1

Assay Class: High Sensitivity DNA Assay  
 Data Path: C:\... bioanalyzer\2100 expert\Data\2014-07-22\2014-07-22\_004.xad

Created: 7/22/2014 2:24:35 PM  
 Modified: 7/22/2014 3:05:55 PM

**Electropherogram Summary Continued ...**



**Overall Results for sample 9 : 39296.5**

Number of peaks found: 2                      Corr. Area 1: 3,380.6  
 Noise: 0.2

**Peak table for sample 9 : 39296.5**

Peak	Size [bp]	Conc. [pg/μl]	Molarity [pmol/l]	Observations
1	35	125.00	5,411.3	Lower Marker
2	361	3,388.24	14,224.1	
3	372	3,322.95	13,532.9	
4	10,380	75.00	10.9	Upper Marker

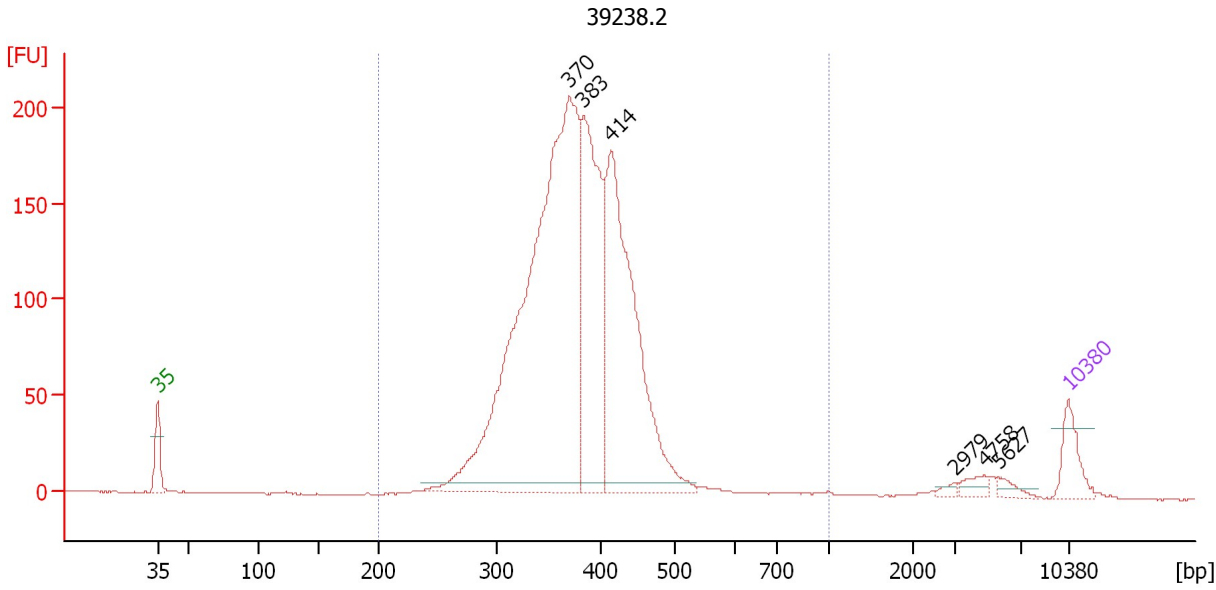
**Region table for sample 9 : 39296.5**

From [bp]	To [bp]	Average Size [bp]	Molarity [pmol/l]	Conc. [pg/μl]	Co Corr. lor Area	% of Total	Size distribution in CV [%]
200	1,000	366	29,155.0	6,911.51	3,380.6	98	13.0

Assay Class: High Sensitivity DNA Assay  
 Data Path: C:\... bioanalyzer\2100 expert\Data\2014-07-22\2014-07-22\_004.xad

Created: 7/22/2014 2:24:35 PM  
 Modified: 7/22/2014 3:05:55 PM

**Electropherogram Summary Continued ...**



**Overall Results for sample 10 : 39238.2**

Number of peaks found: 6                      Corr. Area 1: 2,447.3  
 Noise: 0.2

**Peak table for sample 10 : 39238.2**

Peak	Size [bp]	Conc. [pg/μl]	Molarity [pmol/l]	Observations
1	35	125.00	5,411.3	Lower Marker
2	370	2,241.18	9,184.2	
3	383	729.45	2,883.6	
4	414	1,027.00	3,759.5	
5	2,979	10.75	5.5	
6	4,758	27.78	8.8	
7	5,627	20.04	5.4	
8	10,380	75.00	10.9	Upper Marker

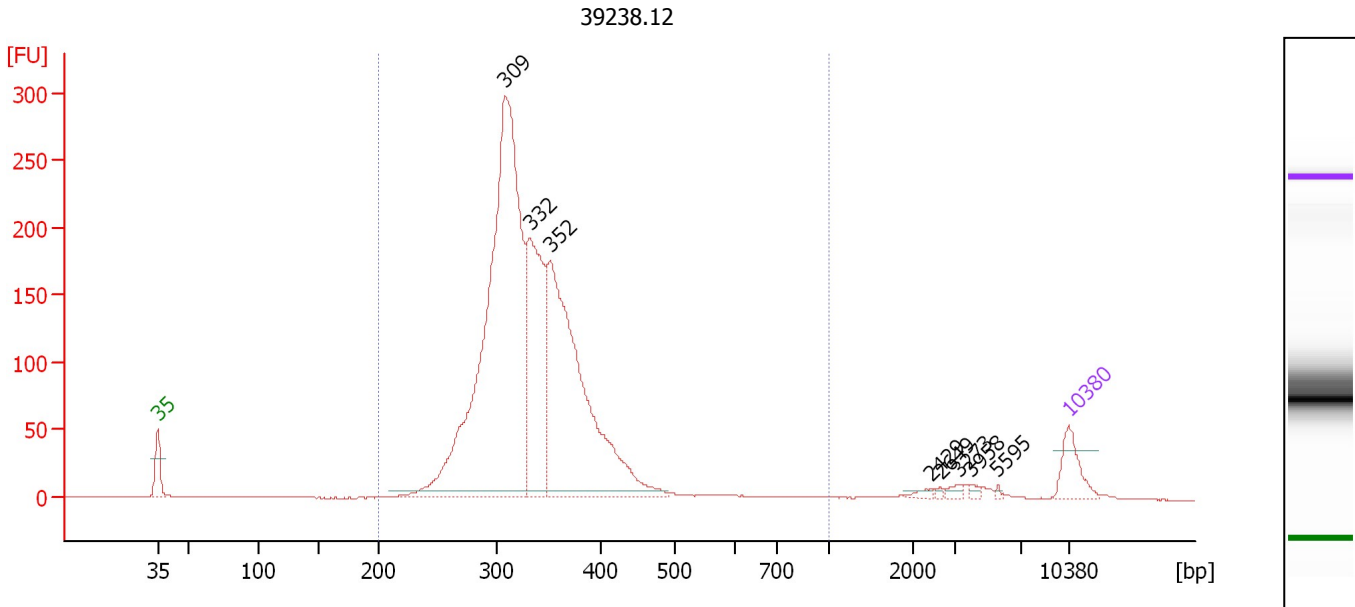
**Region table for sample 10 : 39238.2**

From [bp]	To [bp]	Average Size [bp]	Molarity [pmol/l]	Conc. [pg/μl]	Co Corr. lor Area	% of Total	Size distribution in CV [%]
200	1,000	381	17,311.6	4,242.76	2,447.3	97	15.9

Assay Class: High Sensitivity DNA Assay  
 Data Path: C:\... bioanalyzer\2100 expert\Data\2014-07-22\2014-07-22\_004.xad

Created: 7/22/2014 2:24:35 PM  
 Modified: 7/22/2014 3:05:55 PM

**Electropherogram Summary Continued ...**



**Overall Results for sample 11 : 39238.12**

Number of peaks found: 8                      Corr. Area 1: 2,551.6  
 Noise: 0.1

**Peak table for sample 11 : 39238.12**

Peak	Size [bp]	Conc. [pg/μl]	Molarity [pmol/l]	Observations
1	35	125.00	5,411.3	Lower Marker
2	309	2,127.58	10,426.2	
3	332	605.40	2,760.1	
4	352	1,191.86	5,131.5	
5	2,429	10.05	6.3	
6	2,649	5.34	3.1	
7	3,273	11.78	5.5	
8	3,958	9.21	3.5	
9	5,595	4.24	1.1	
10	10,380	75.00	10.9	Upper Marker

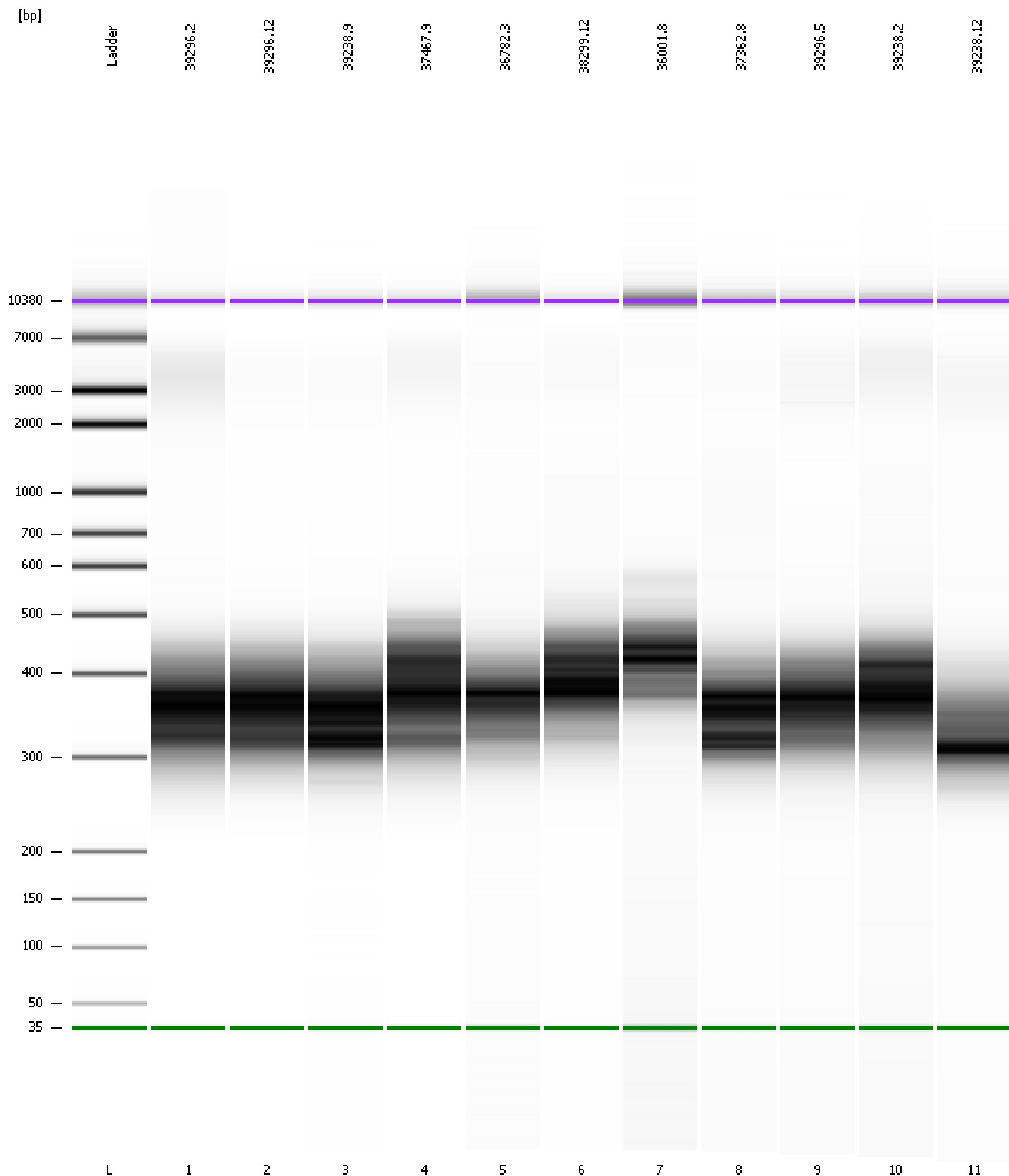
**Region table for sample 11 : 39238.12**

From [bp]	To [bp]	Average Size [bp]	Molarity [pmol/l]	Conc. [pg/μl]	Co Corr. lor Area	% of Total	Size distribution in CV [%]
200	1,000	337	18,305.9	3,970.78	2,551.6	97	16.7

Assay Class: High Sensitivity DNA Assay  
Data Path: C:\... bioanalyzer\2100 expert\Data\2014-07-22\2014-07-22\_004.xad

Created: 7/22/2014 2:24:35 PM  
Modified: 7/22/2014 3:05:55 PM

**Gel Image**





Assay Class: High Sensitivity DNA Assay  
 Data Path: C:\... bioanalyzer\2100 expert\Data\2014-07-22\2014-07-22\_004.xad

Created: 7/22/2014 2:24:35 PM  
 Modified: 7/22/2014 3:05:55 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		7/22/2014 3:05:52 PM	(GMT --07:00) Pacific Standard Time	UC Davis	D8XSMGH1
Run started on port 1 (File: C:\Program Files\Agilent\2100 bioanalyzer\2100 expert\Data\2014-07-22\2014-07-22_004.xad)		Instrument	Run		7/22/2014 2:24:40 PM	(GMT --07:00) Pacific Standard Time	UC Davis	D8XSMGH1
Product Number : G2938B		Instrument	Run		7/22/2014 2:24:40 PM	(GMT --07:00) Pacific Standard Time	UC Davis	D8XSMGH1
Name :		Instrument	Run		7/22/2014 2:24:40 PM	(GMT --07:00) Pacific Standard Time	UC Davis	D8XSMGH1
Vendor : Agilent Technologies		Instrument	Run		7/22/2014 2:24:40 PM	(GMT --07:00) Pacific Standard Time	UC Davis	D8XSMGH1
Serial# : DE13701086		Instrument	Run		7/22/2014 2:24:40 PM	(GMT --07:00) Pacific Standard Time	UC Davis	D8XSMGH1
Firmware : C.01.069		Instrument	Run		7/22/2014 2:24:40 PM	(GMT --07:00) Pacific Standard Time	UC Davis	D8XSMGH1
Cartridge : Electrode		Instrument	Run		7/22/2014 2:24:40 PM	(GMT --07:00) Pacific Standard Time	UC Davis	D8XSMGH1