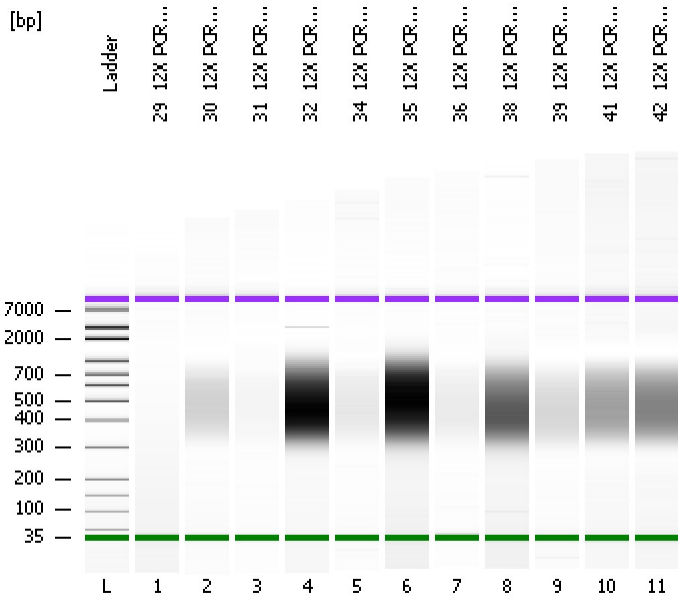


Assay Class: High Sensitivity DNA Assay  
Data Path: C:\... bioanalyzer\2100 expert\data\2019-04-24\2019-04-24\_002.xad

Created: 4/24/2019 3:22:34 PM  
Modified: 4/24/2019 4:27:53 PM

**Electrophoresis File Run Summary**



Instrument Information:

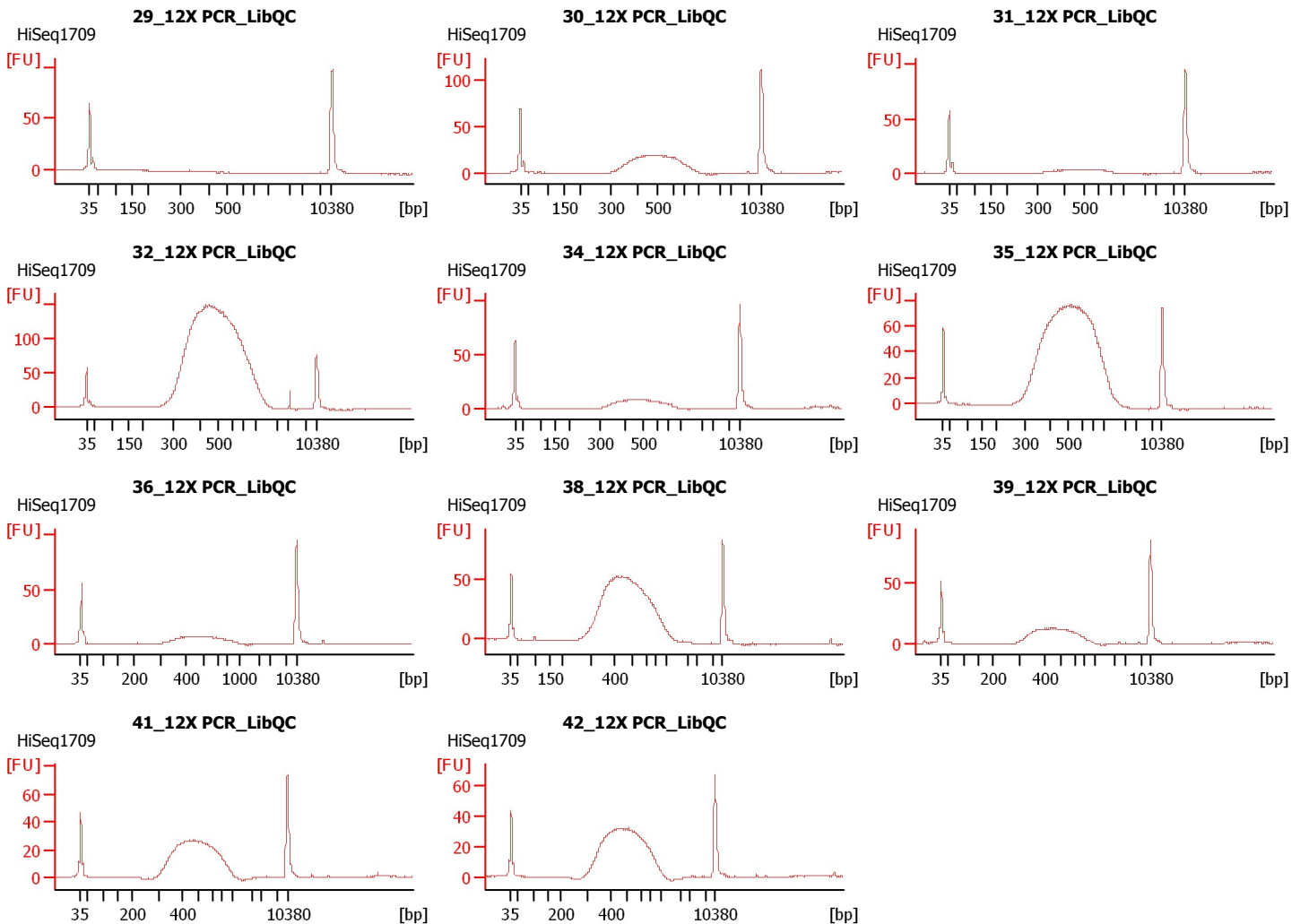
Instrument Name: DE34903152      Firmware: C.01.069  
Serial#: DE34903152      Type: G2938C

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\2019-04-24\2019-04-24\_002.xad

Created: 4/24/2019 3:22:34 PM  
 Modified: 4/24/2019 4:27:53 PM

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

Sample Name	Sample Comment	Rest. Digest	Status	Observation	Result Label	Result Color
29_12X PCR_LibQC	HiSeq1709	<input type="checkbox"/>	✓			
30_12X PCR_LibQC	HiSeq1709	<input type="checkbox"/>	✓			
31_12X PCR_LibQC	HiSeq1709	<input type="checkbox"/>	✓			
32_12X PCR_LibQC	HiSeq1709	<input type="checkbox"/>	✓			
34_12X PCR_LibQC	HiSeq1709	<input type="checkbox"/>	✓			
35_12X PCR_LibQC	HiSeq1709	<input type="checkbox"/>	✓			
36_12X PCR_LibQC	HiSeq1709	<input type="checkbox"/>	✓			
38_12X PCR_LibQC	HiSeq1709	<input type="checkbox"/>	✓			
39_12X PCR_LibQC	HiSeq1709	<input type="checkbox"/>	✓			
41_12X PCR_LibQC	HiSeq1709	<input type="checkbox"/>	✓			
42_12X PCR_LibQC	HiSeq1709	<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\2019-04-24\2019-04-24\_002.xad

Created: 4/24/2019 3:22:34 PM  
Modified: 4/24/2019 4:27:53 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

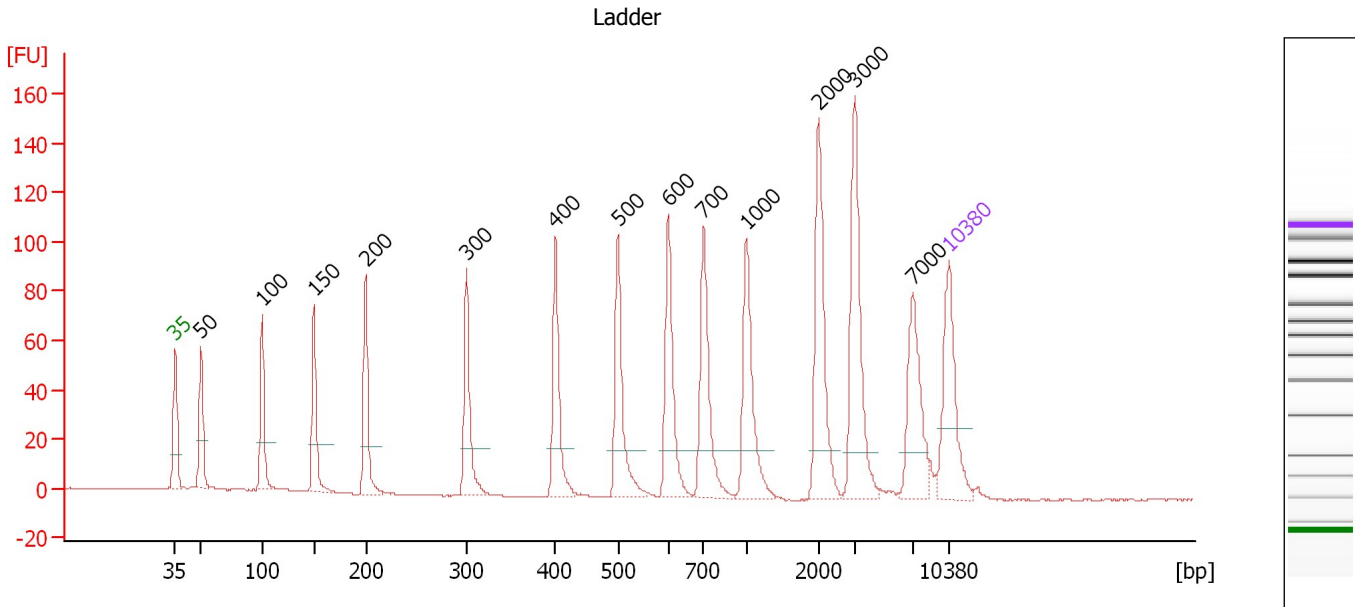
**Ladder**

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\2019-04-24\2019-04-24\_002.xad

Created: 4/24/2019 3:22:34 PM  
 Modified: 4/24/2019 4:27:53 PM

**Electropherogram Summary**



**Overall Results for Ladder**

Noise: 0.2

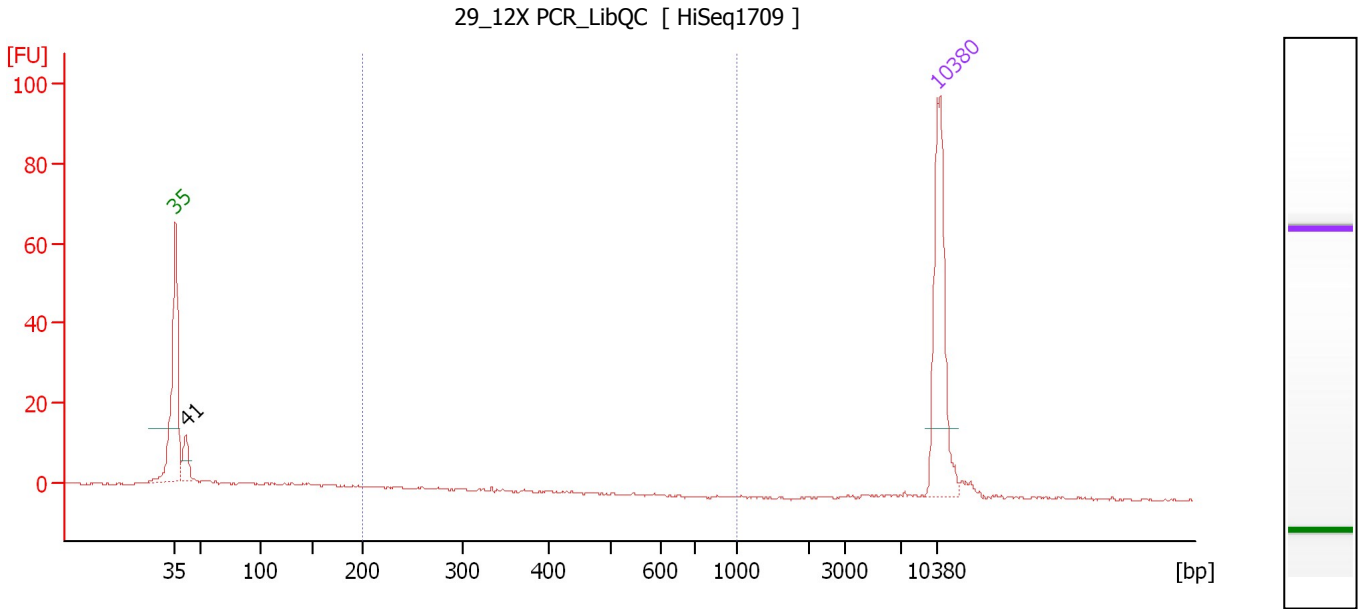
**Peak table for Ladder**

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	45.32
3	100	150.00	2,272.7	Ladder Peak	50.86
4	150	150.00	1,515.2	Ladder Peak	55.54
5	200	150.00	1,136.4	Ladder Peak	60.22
6	300	150.00	757.6	Ladder Peak	69.34
7	400	150.00	568.2	Ladder Peak	77.40
8	500	150.00	454.5	Ladder Peak	83.04
9	600	150.00	378.8	Ladder Peak	87.58
10	700	150.00	324.7	Ladder Peak	90.81
11	1,000	150.00	227.3	Ladder Peak	94.67
12	2,000	150.00	113.6	Ladder Peak	101.23
13	3,000	150.00	75.8	Ladder Peak	104.46
14	7,000	150.00	32.5	Ladder Peak	109.72
15	10,380	75.00	10.9	Upper Marker	113.00

Assay Class: High Sensitivity DNA Assay  
 Data Path: C:\... bioanalyzer\2100 expert\data\2019-04-24\2019-04-24\_002.xad

Created: 4/24/2019 3:22:34 PM  
 Modified: 4/24/2019 4:27:53 PM

**Electropherogram Summary Continued ...**



**Overall Results for sample 1 : 29\_12X PCR\_LibQC**

Number of peaks found: 1                      Corr. Area 1: 0.7  
 Noise: 0.2

**Peak table for sample 1 : 29\_12X PCR\_LibQC**

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	41	24.88	918.7		43.93
3	10,380	75.00	10.9	Upper Marker	113.00

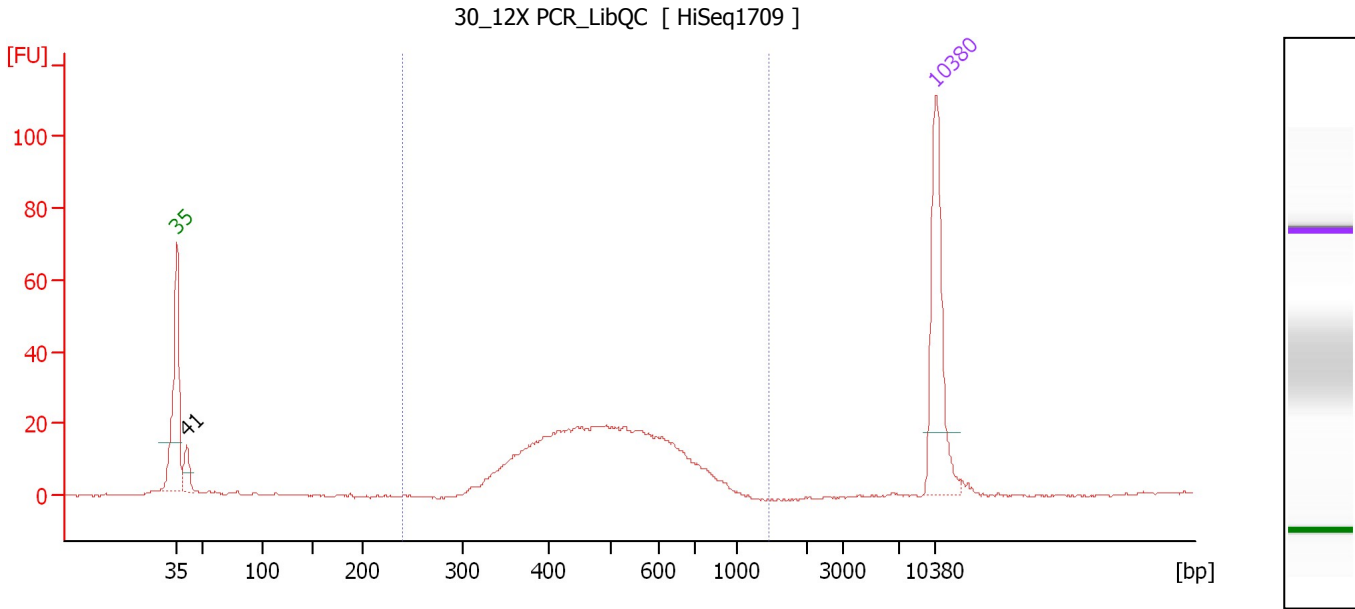
**Region table for sample 1 : 29\_12X PCR\_LibQC**

From [bp]	To [bp]	Average Size [bp]	Conc. [pg/μl]	Corr. Area	Molarity [pmol/l]	Co % of lor Total	Size distribution in CV [%]
200	1,000	255	0.87	0.7	5.4	2	18.6

Assay Class: High Sensitivity DNA Assay  
 Data Path: C:\... bioanalyzer\2100 expert\data\2019-04-24\2019-04-24\_002.xad

Created: 4/24/2019 3:22:34 PM  
 Modified: 4/24/2019 4:27:53 PM

**Electropherogram Summary Continued ...**



**Overall Results for sample 2 : 30\_12X PCR\_LibQC**

Number of peaks found: 1                      Corr. Area 1: 380.9  
 Noise: 0.3

**Peak table for sample 2 : 30\_12X PCR\_LibQC**

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	41	24.48	910.4		43.89
3	10,380	75.00	10.9	Upper Marker	113.00

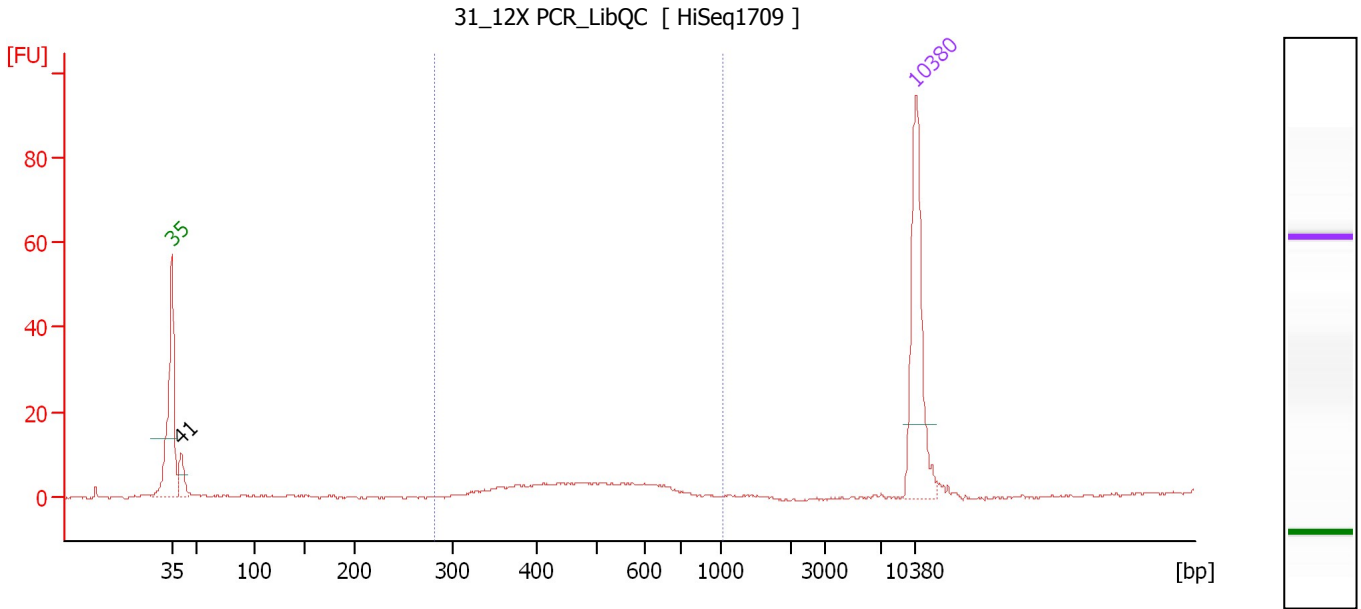
**Region table for sample 2 : 30\_12X PCR\_LibQC**

From [bp]	To [bp]	Average Size [bp]	Conc. [pg/μl]	Corr. Area	Molarity [pmol/l]	Co % of lor Total	Size distribution in CV [%]
239	1,442	503	334.43	380.9	1,079.9	91	23.9

Assay Class: High Sensitivity DNA Assay  
 Data Path: C:\... bioanalyzer\2100 expert\data\2019-04-24\2019-04-24\_002.xad

Created: 4/24/2019 3:22:34 PM  
 Modified: 4/24/2019 4:27:53 PM

**Electropherogram Summary Continued ...**



**Overall Results for sample 3 : 31\_12X PCR\_LibQC**

Number of peaks found: 1                      Corr. Area 1: 56.1  
 Noise: 0.3

**Peak table for sample 3 : 31\_12X PCR\_LibQC**

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	41	23.42	868.8		43.90
3	10,380	75.00	10.9	Upper Marker	113.00

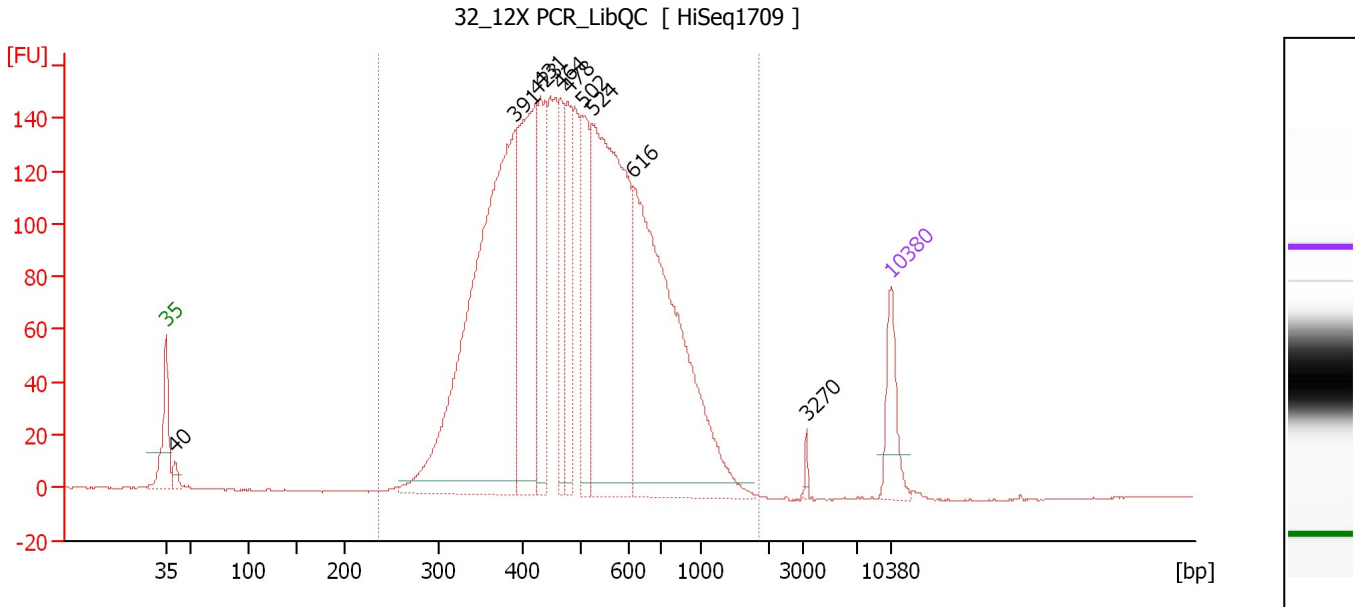
**Region table for sample 3 : 31\_12X PCR\_LibQC**

From [bp]	To [bp]	Average Size [bp]	Conc. [pg/μl]	Corr. Area	Molarity [pmol/l]	Co % of Ior Total	Size distribution in CV [%]
283	1,019	482	60.24	56.1	200.7	69	20.5

Assay Class: High Sensitivity DNA Assay  
 Data Path: C:\... bioanalyzer\2100 expert\data\2019-04-24\2019-04-24\_002.xad

Created: 4/24/2019 3:22:34 PM  
 Modified: 4/24/2019 4:27:53 PM

**Electropherogram Summary Continued ...**



**Overall Results for sample 4 : 32\_12X PCR\_LibQC**

Number of peaks found: 10                      Corr. Area 1: 3,438.7  
 Noise: 0.3

**Peak table for sample 4 : 32\_12X PCR\_LibQC**

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	40	27.08	1,017.2		43.82
3	391	1,160.45	4,498.2		76.66
4	423	476.66	1,709.2		78.67
5	431	239.94	844.0		79.13
6	464	160.41	524.3		80.99
7	478	169.44	536.9		81.81
8	502	183.01	552.0		83.15
9	524	779.71	2,255.0		84.13
10	616	819.40	2,016.0		88.09
11	3,270	7.62	3.5		104.82
12	10,380	75.00	10.9	Upper Marker	113.00

**Region table for sample 4 : 32\_12X PCR\_LibQC**

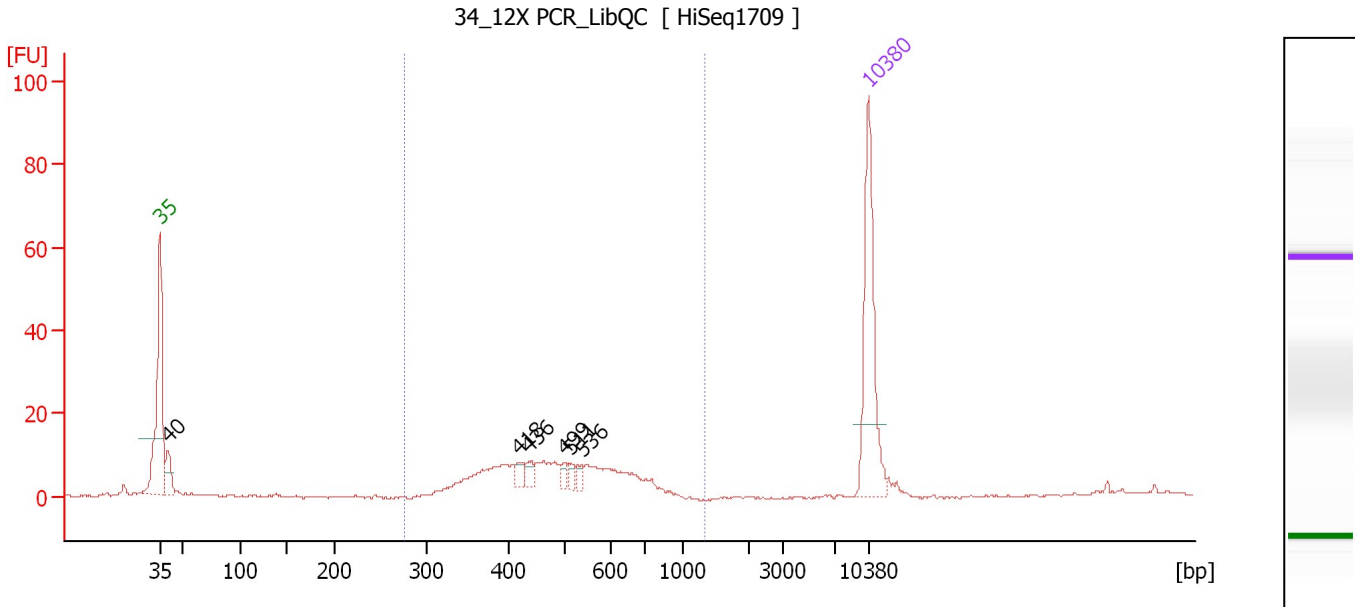
From [bp]	To [bp]	Average Size [bp]	Conc. [pg/μl]	Corr. Area	Molarity [pmol/l]	Co % of lor Total	Size distribution in CV [%]
237	1,857	519	4,411.14	3,438.7	14,461.4	99	33.6



Assay Class: High Sensitivity DNA Assay  
 Data Path: C:\... bioanalyzer\2100 expert\data\2019-04-24\2019-04-24\_002.xad

Created: 4/24/2019 3:22:34 PM  
 Modified: 4/24/2019 4:27:53 PM

**Electropherogram Summary Continued ...**



**Overall Results for sample 5 : 34 12X PCR LibQC**

Number of peaks found: 6                      Corr. Area 1: 161.0  
 Noise: 0.3

**Peak table for sample 5 : 34 12X PCR LibQC**

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	40	24.14	911.7		43.79
3	418	7.56	27.4		78.42
4	436	7.22	25.1		79.42
5	499	6.57	19.9		83.00
6	511	5.57	16.5		83.53
7	536	5.66	16.0		84.68
8	10,380	75.00	10.9	Upper Marker	113.00

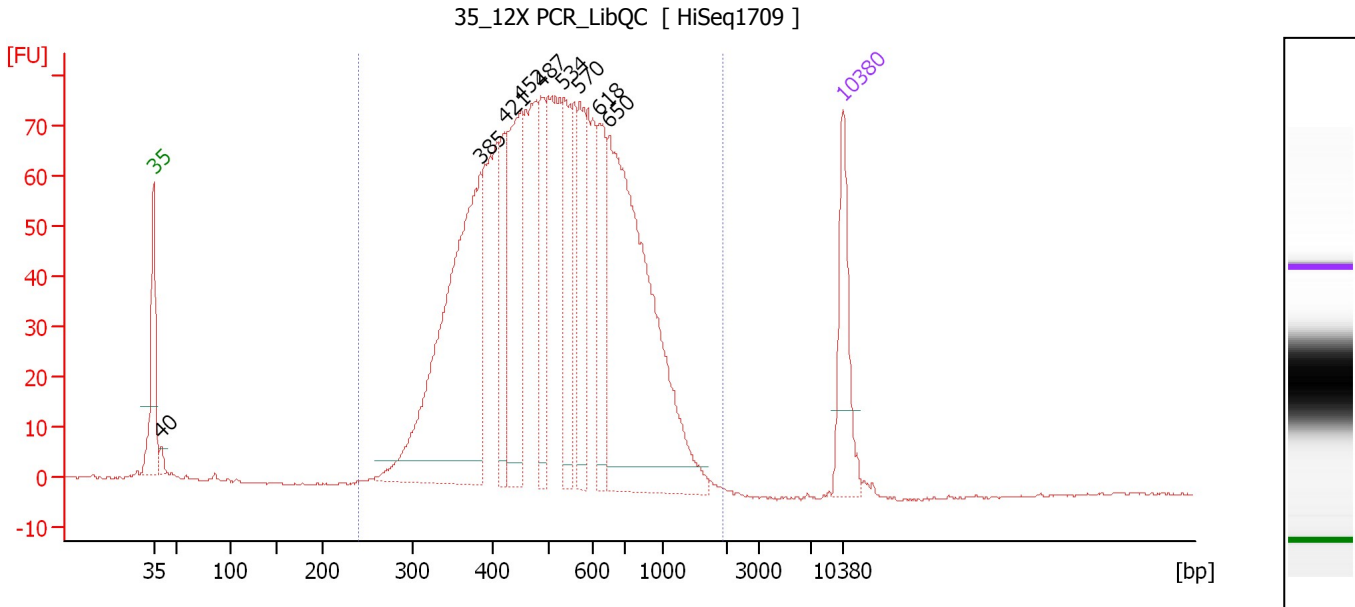
**Region table for sample 5 : 34 12X PCR LibQC**

From [bp]	To [bp]	Average Size [bp]	Conc. [pg/μl]	Corr. Area	Molarity [pmol/l]	Co % of Ior Total	Size distribution in CV [%]
276	1,337	493	180.15	161.0	592.4	81	23.2

Assay Class: High Sensitivity DNA Assay  
 Data Path: C:\... bioanalyzer\2100 expert\data\2019-04-24\2019-04-24\_002.xad

Created: 4/24/2019 3:22:34 PM  
 Modified: 4/24/2019 4:27:53 PM

**Electropherogram Summary Continued ...**



**Overall Results for sample 6 : 35 12X PCR LibQC**

Number of peaks found: 9                      Corr. Area 1: 1,855.7  
 Noise: 0.2

**Peak table for sample 6 : 35 12X PCR LibQC**

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	40	12.41	471.3		43.76
3	385	484.36	1,904.6		76.21
4	421	93.81	337.4		78.60
5	452	191.03	640.5		80.33
6	487	92.33	287.0		82.33
7	534	104.78	297.1		84.60
8	570	92.55	245.9		86.22
9	618	94.88	232.5		88.17
10	650	488.36	1,138.1		89.20
11	10,380	75.00	10.9	Upper Marker	113.00

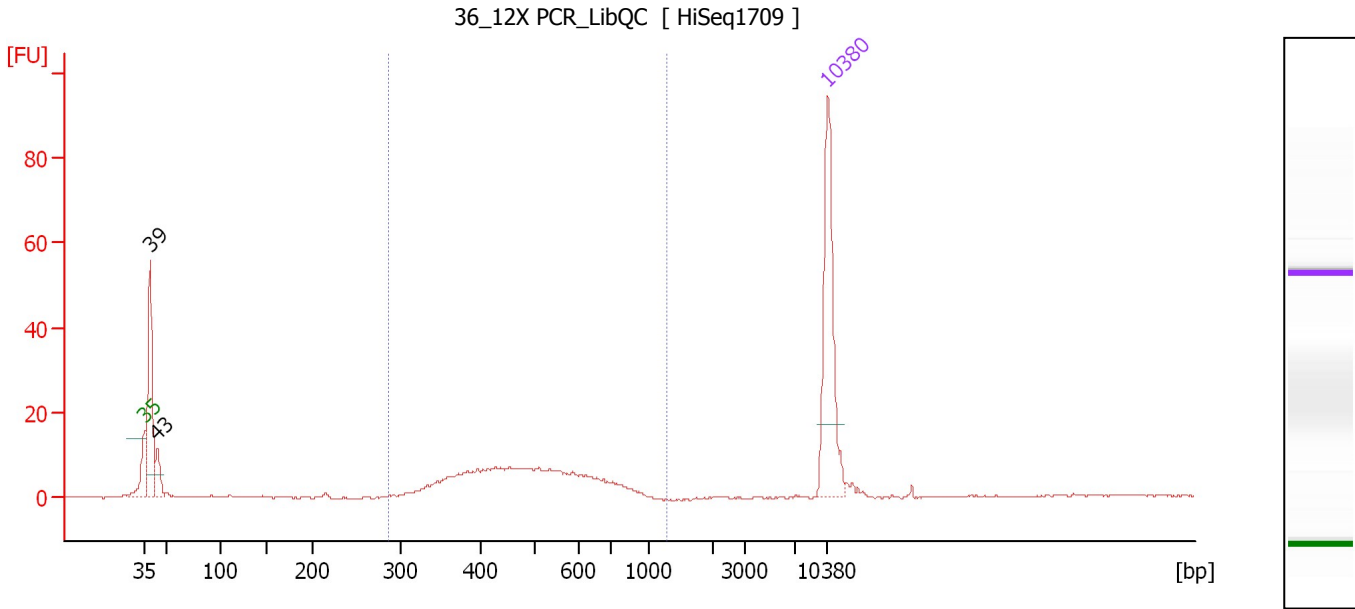
**Region table for sample 6 : 35 12X PCR LibQC**

From [bp]	To [bp]	Average Size [bp]	Conc. [pg/μl]	Corr. Area	Molarity [pmol/l]	Co % of lor Total	Size distribution in CV [%]
239	1,922	551	2,367.83	1,855.7	7,441.6	99	36.0

Assay Class: High Sensitivity DNA Assay  
 Data Path: C:\... bioanalyzer\2100 expert\data\2019-04-24\2019-04-24\_002.xad

Created: 4/24/2019 3:22:34 PM  
 Modified: 4/24/2019 4:27:53 PM

**Electropherogram Summary Continued ...**



**Overall Results for sample 7 : 36\_12X PCR\_LibQC**

Number of peaks found: 2                      Corr. Area 1: 136.8  
 Noise: 0.2

**Peak table for sample 7 : 36\_12X PCR\_LibQC**

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	39	116.75	4,548.5		43.60
3	43	22.41	780.7		44.31
4	10,380	75.00	10.9	Upper Marker	113.00

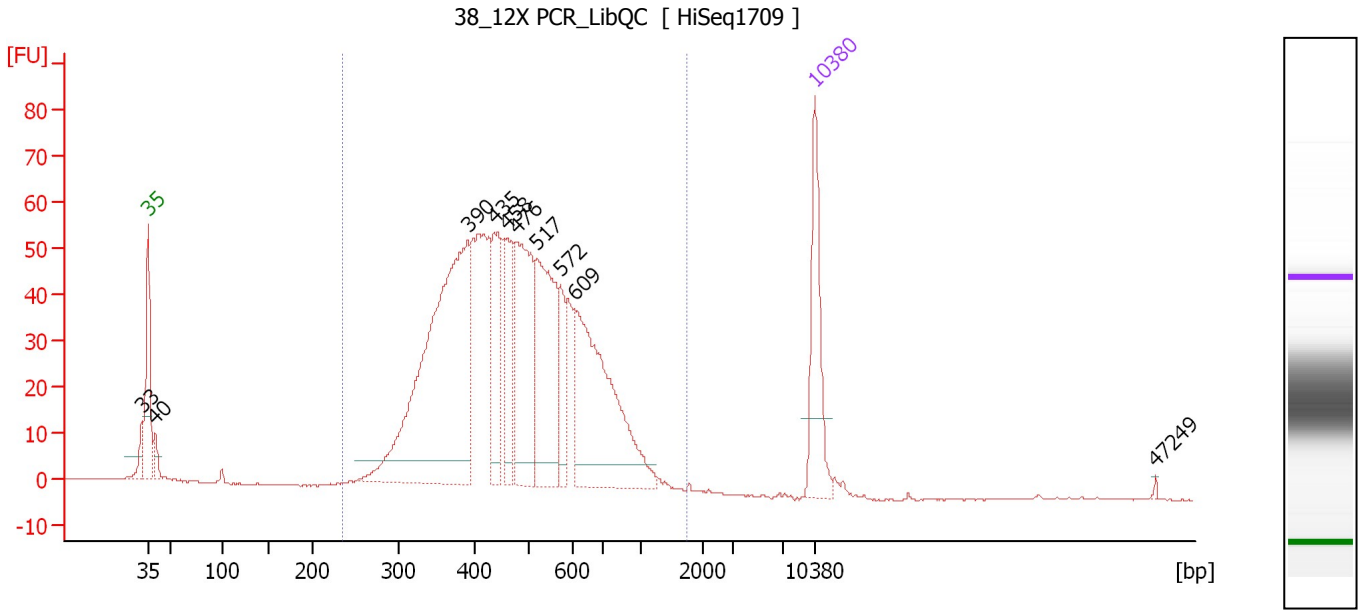
**Region table for sample 7 : 36\_12X PCR\_LibQC**

From [bp]	To [bp]	Average Size [bp]	Conc. [pg/μl]	Corr. Area	Molarity [pmol/l]	Co % of lor Total	Size distribution in CV [%]
286	1,270	495	152.40	136.8	502.3	60	24.5

Assay Class: High Sensitivity DNA Assay  
 Data Path: C:\... bioanalyzer\2100 expert\data\2019-04-24\2019-04-24\_002.xad

Created: 4/24/2019 3:22:34 PM  
 Modified: 4/24/2019 4:27:53 PM

**Electropherogram Summary Continued ...**



**Overall Results for sample 8 : 38 12X PCR LibQC**

Number of peaks found: 10                      Corr. Area 1: 1,223.1  
 Noise: 0.2

**Peak table for sample 8 : 38 12X PCR LibQC**

Peak	Size [bp]	Conc. [pg/μl]	Molarity [pmol/l]	Observations	Aligned Migration Time [s]
1	33	0.00	0.0		42.38
2	35	125.00	5,411.3	Lower Marker	43.00
3	40	20.57	784.9		43.73
4	390	457.05	1,775.1		76.60
5	435	90.64	315.4		79.40
6	458	69.31	229.1		80.69
7	476	158.30	503.7		81.70
8	517	168.12	492.4		83.82
9	572	44.75	118.6		86.29
10	609	226.32	563.4		87.86
11	10,380	75.00	10.9	Upper Marker	113.00
12	47,249	0.00	0.0		148.78

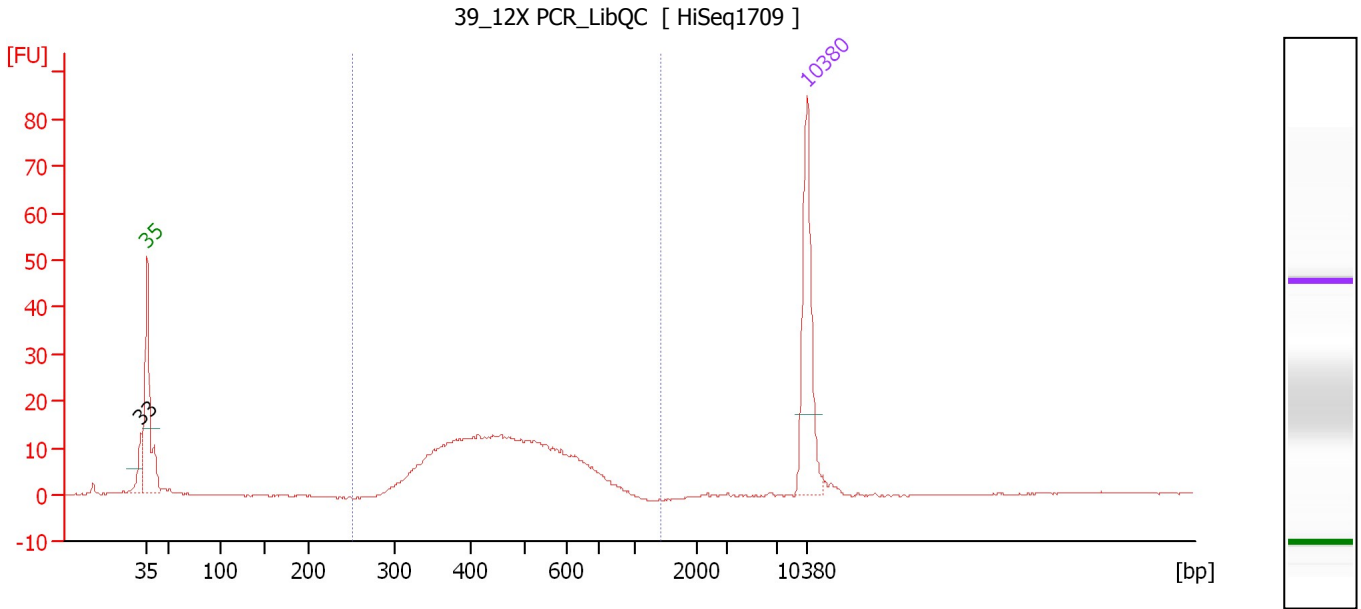
**Region table for sample 8 : 38 12X PCR LibQC**

From [bp]	To [bp]	Average Size [bp]	Conc. [pg/μl]	Corr. Area	Molarity [pmol/l]	Co % of Total	Size distribution in CV [%]
234	1,751	495	1,556.19	1,223.1	5,290.4	97	31.2

Assay Class: High Sensitivity DNA Assay  
 Data Path: C:\... bioanalyzer\2100 expert\data\2019-04-24\2019-04-24\_002.xad

Created: 4/24/2019 3:22:34 PM  
 Modified: 4/24/2019 4:27:53 PM

**Electropherogram Summary Continued ...**



**Overall Results for sample 9 : 39\_12X PCR\_LibQC**

Number of peaks found: 1                      Corr. Area 1: 256.7  
 Noise: 0.2

**Peak table for sample 9 : 39\_12X PCR\_LibQC**

Peak	Size [bp]	Conc. [pg/μl]	Molarity [pmol/l]	Observations	Aligned Migration Time [s]
1	33	0.00	0.0		42.38
2	35	125.00	5,411.3	Lower Marker	43.00
3	10,380	75.00	10.9	Upper Marker	113.00

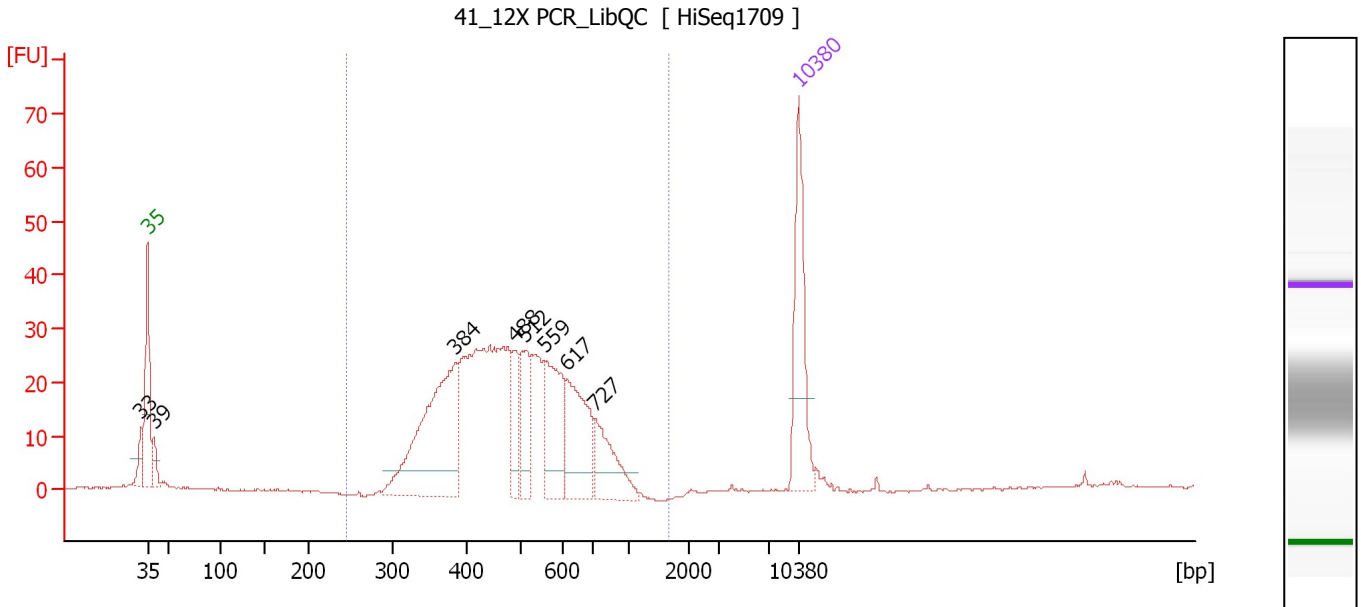
**Region table for sample 9 : 39\_12X PCR\_LibQC**

From [bp]	To [bp]	Average Size [bp]	Conc. [pg/μl]	Corr. Area	Molarity [pmol/l]	Co % of lor Total	Size distribution in CV [%]
250	1,415	474	336.07	256.7	1,153.6	89	24.0

Assay Class: High Sensitivity DNA Assay  
 Data Path: C:\... bioanalyzer\2100 expert\data\2019-04-24\2019-04-24\_002.xad

Created: 4/24/2019 3:22:34 PM  
 Modified: 4/24/2019 4:27:53 PM

**Electropherogram Summary Continued ...**



**Overall Results for sample 10 : 41\_12X PCR\_LibQC**

Number of peaks found: 8                      Corr. Area 1: 546.6  
 Noise: 0.2

**Peak table for sample 10 : 41\_12X PCR\_LibQC**

Peak	Size [bp]	Conc. [pg/μl]	Molarity [pmol/l]	Observations	Aligned Migration Time [s]
1	33	0.00	0.0		42.31
2	35	125.00	5,411.3	Lower Marker	43.00
3	39	21.66	831.7		43.69
4	384	200.74	792.8		76.08
5	488	40.48	125.6		82.39
6	512	49.58	146.7		83.59
7	559	82.29	223.1		85.71
8	617	84.82	208.4		88.12
9	727	57.03	118.8		91.16
10	10,380	75.00	10.9	Upper Marker	113.00

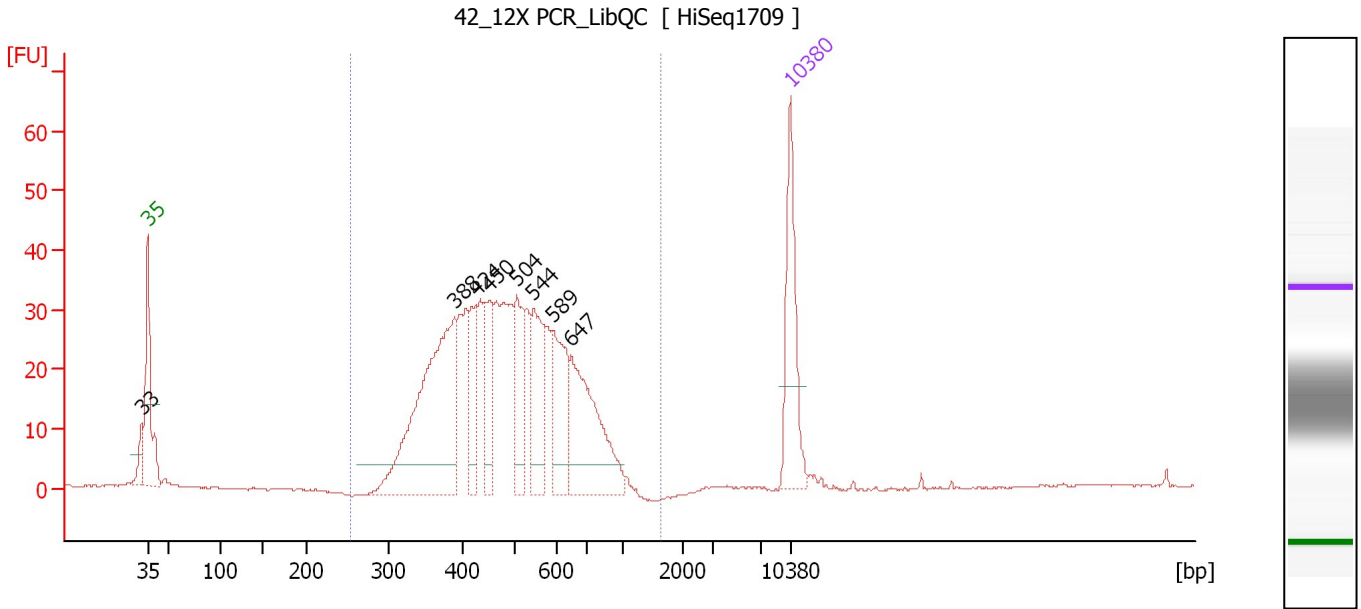
**Region table for sample 10 : 41\_12X PCR\_LibQC**

From [bp]	To [bp]	Average Size [bp]	Conc. [pg/μl]	Corr. Area	Molarity [pmol/l]	Co % of lor Total	Size distribution in CV [%]
245	1,658	500	792.91	546.6	2,602.0	93	25.9

Assay Class: High Sensitivity DNA Assay  
 Data Path: C:\... bioanalyzer\2100 expert\data\2019-04-24\2019-04-24\_002.xad

Created: 4/24/2019 3:22:34 PM  
 Modified: 4/24/2019 4:27:53 PM

**Electropherogram Summary Continued ...**



**Overall Results for sample 11 : 42\_12X PCR\_LibQC**

Number of peaks found: 8                      Corr. Area 1: 648.2  
 Noise: 0.1

**Peak table for sample 11 : 42\_12X PCR\_LibQC**

Peak	Size [bp]	Conc. [pg/μl]	Molarity [pmol/l]	Observations	Aligned Migration Time [s]
1	33	0.00	0.0		42.36
2	35	125.00	5,411.3	Lower Marker	43.00
3	388	277.32	1,082.8		76.43
4	424	54.14	193.4		78.75
5	450	62.06	209.1		80.21
6	504	65.71	197.5		83.22
7	544	81.65	227.5		85.02
8	589	80.32	206.8		87.05
9	647	133.09	311.8		89.09
10	10,380	75.00	10.9	Upper Marker	113.00

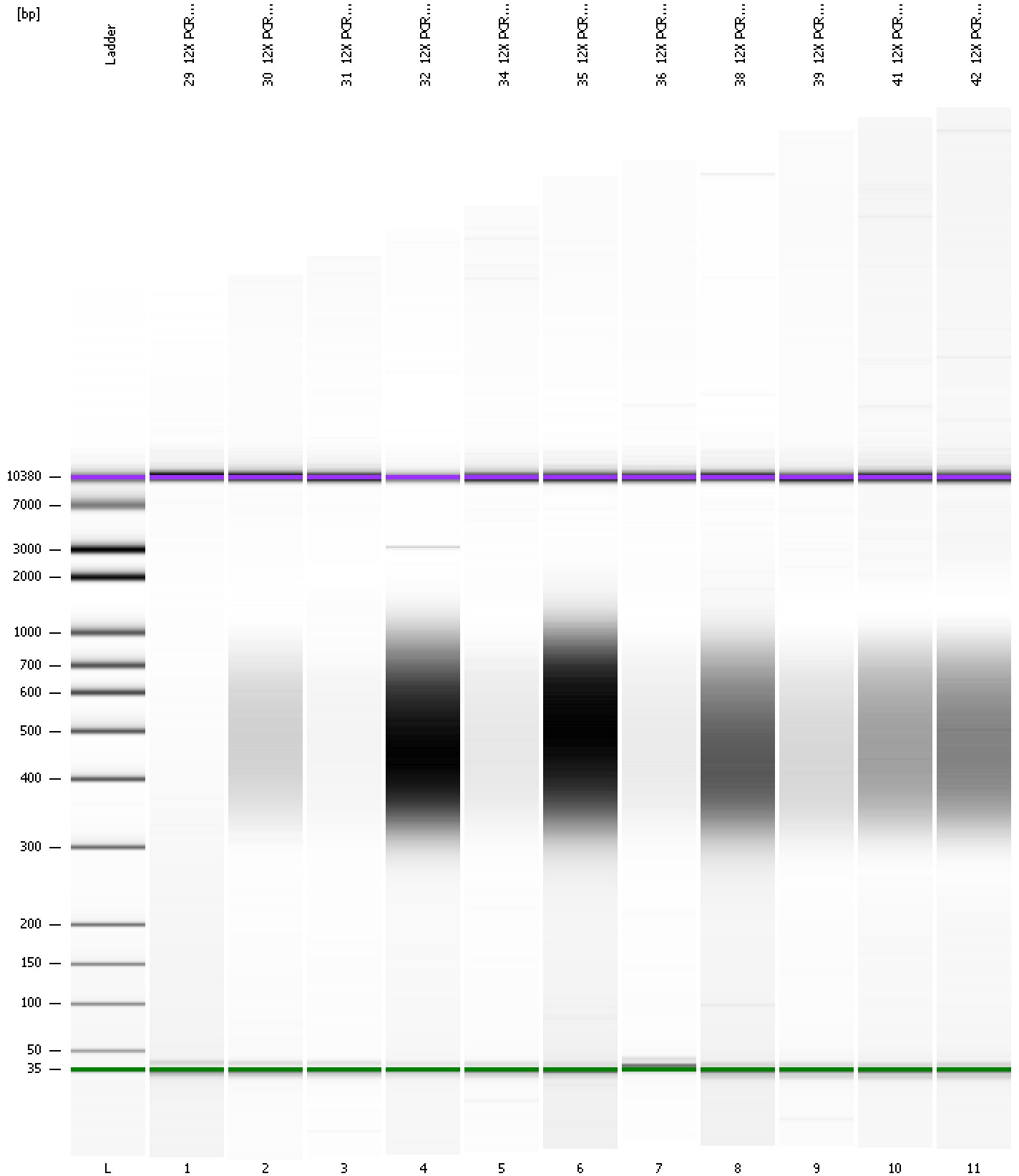
**Region table for sample 11 : 42\_12X PCR\_LibQC**

From [bp]	To [bp]	Average Size [bp]	Conc. [pg/μl]	Corr. Area	Molarity [pmol/l]	Co % of lor Total	Size distribution in CV [%]
253	1,627	500	1,038.35	648.2	3,412.3	97	26.1

Assay Class: High Sensitivity DNA Assay  
Data Path: C:\... bioanalyzer\2100 expert\data\2019-04-24\2019-04-24\_002.xad

Created: 4/24/2019 3:22:34 PM  
Modified: 4/24/2019 4:27:53 PM

**Gel Image**





Assay Class: High Sensitivity DNA Assay  
 Data Path: C:\... bioanalyzer\2100 expert\data\2019-04-24\2019-04-24\_002.xad

Created: 4/24/2019 3:22:34 PM  
 Modified: 4/24/2019 4:27:53 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		4/24/2019 4:03:00 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\2019-04-24\2019-04-24_002.xad)		Instrument	Run		4/24/2019 3:22:39 PM	(GMT --07:00) Pacific Standard Time	UC Davis	D8XSMGH1
Product Number : G2938C		Instrument	Run		4/24/2019 3:22:39 PM	(GMT --07:00) Pacific Standard Time	UC Davis	D8XSMGH1
Name :		Instrument	Run		4/24/2019 3:22:39 PM	(GMT --07:00) Pacific Standard Time	UC Davis	D8XSMGH1
Vendor : Agilent Technologies		Instrument	Run		4/24/2019 3:22:39 PM	(GMT --07:00) Pacific Standard Time	UC Davis	D8XSMGH1
Serial# : DE34903152		Instrument	Run		4/24/2019 3:22:39 PM	(GMT --07:00) Pacific Standard Time	UC Davis	D8XSMGH1
Firmware : C.01.069		Instrument	Run		4/24/2019 3:22:39 PM	(GMT --07:00) Pacific Standard Time	UC Davis	D8XSMGH1
Cartridge : Electrode		Instrument	Run		4/24/2019 3:22:39 PM	(GMT --07:00) Pacific Standard Time	UC Davis	D8XSMGH1