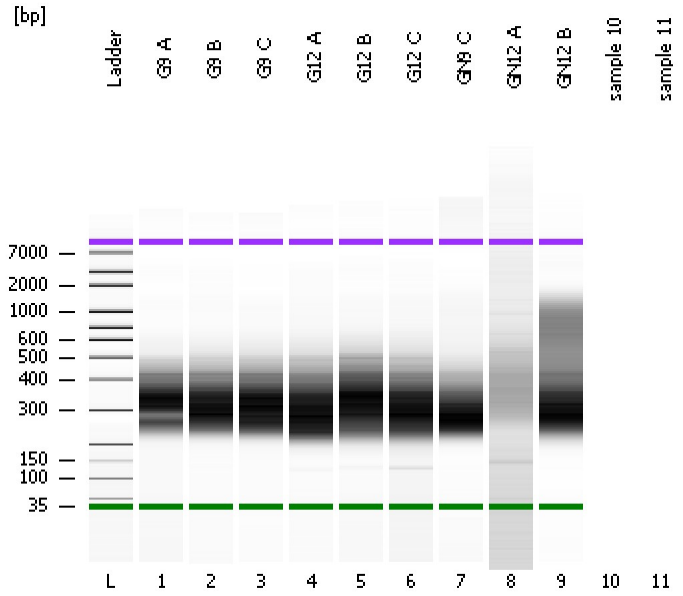
Assay Class: High Sensitivity DNA Assay
Data Path: C:\... bioanalyzer\2100 expert\data\2016-05-13\2016-05-13_001.xad

Created: 5/13/2016 12:26:52 PM
Modified: 5/13/2016 1:14:43 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

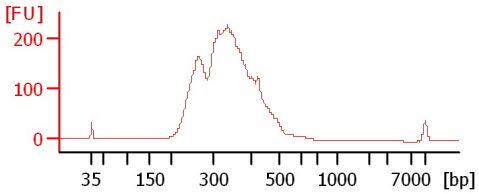
Chip Information:

Chip Lot #:

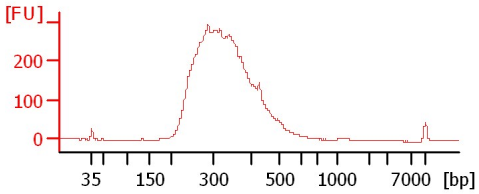
Reagent Kit Lot #:

Chip Comments:

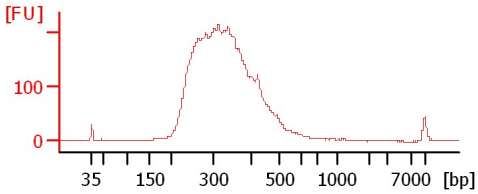
G9 A



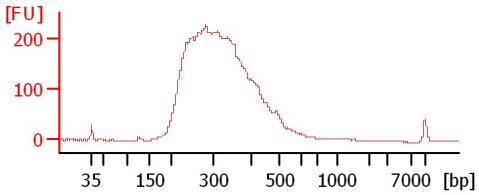
G9 B



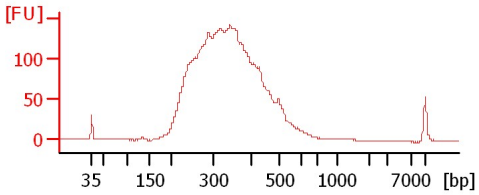
G9 C



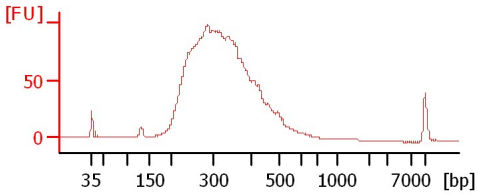
G12 A



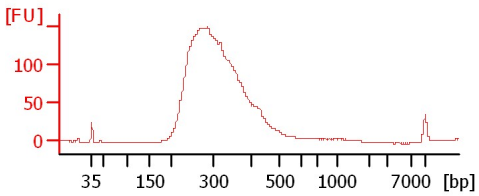
G12 B



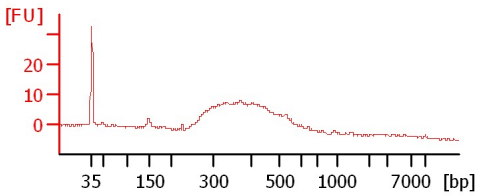
G12 C



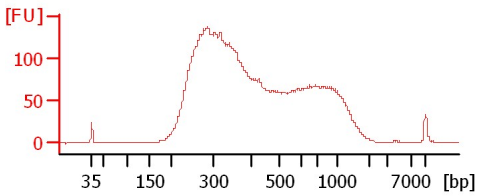
GN9 C



GN12 A



GN12 B



Assay Class: High Sensitivity DNA Assay
Data Path: C:\... bioanalyzer\2100 expert\data\2016-05-13\2016-05-13_001.xad

Created: 5/13/2016 12:26:52 PM
Modified: 5/13/2016 1:14:43 PM

Electrophoresis File Run Summary (Chip Summary)

Sample Name	Sample Comment	Rest. Digest	Status	Observation	Result Label	Result Color
G9 A		☐	✔			
G9 B		☐	✔			
G9 C		☐	✔			
G12 A		☐	✔			
G12 B		☐	✔			
G12 C		☐	✔			
GN9 C		☐	✔			
GN12 A		☐	✔			
GN12 B		☐	✔			
sample 10		☐				
sample 11		☐				
Ladder		☐	✔			

Chip Lot # **Reagent Kit Lot #**

Chip Comments :

Assay Class: High Sensitivity DNA Assay
Data Path: C:\... bioanalyzer\2100 expert\data\2016-05-13\2016-05-13_001.xad

Created: 5/13/2016 12:26:52 PM
Modified: 5/13/2016 1:14:43 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

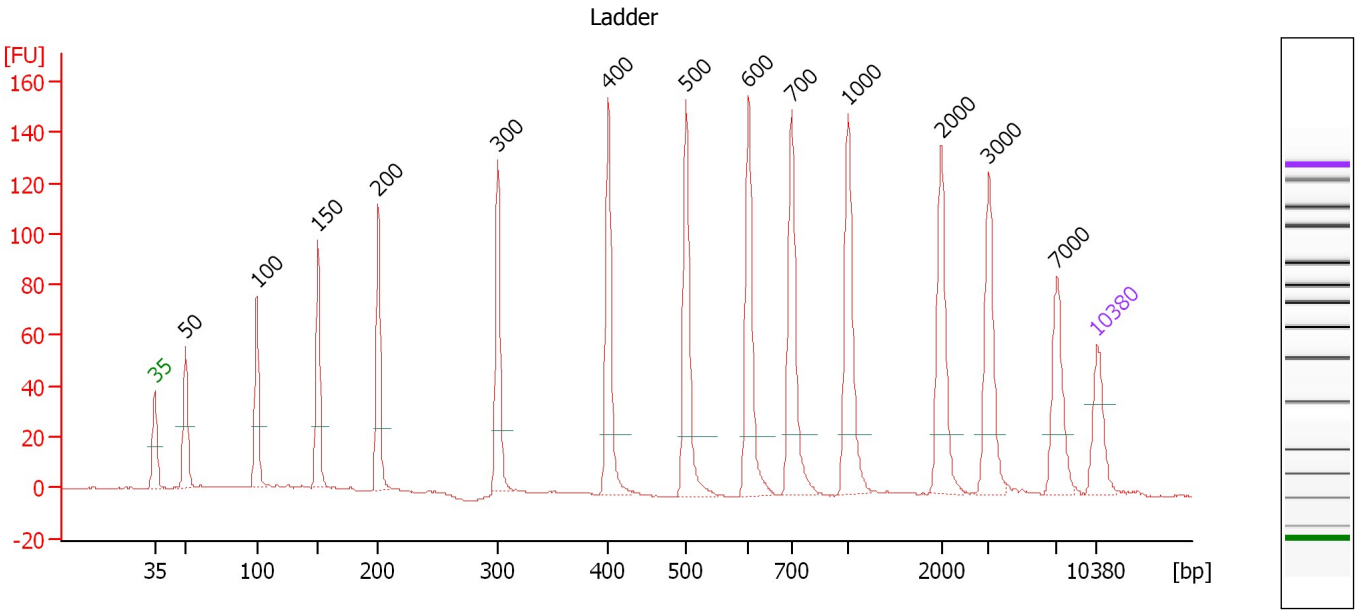
Ladder

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\2016-05-13\2016-05-13_001.xad

Created: 5/13/2016 12:26:52 PM
Modified: 5/13/2016 1:14:43 PM

Electropherogram Summary



Overall Results for Ladder

Noise: 0.3

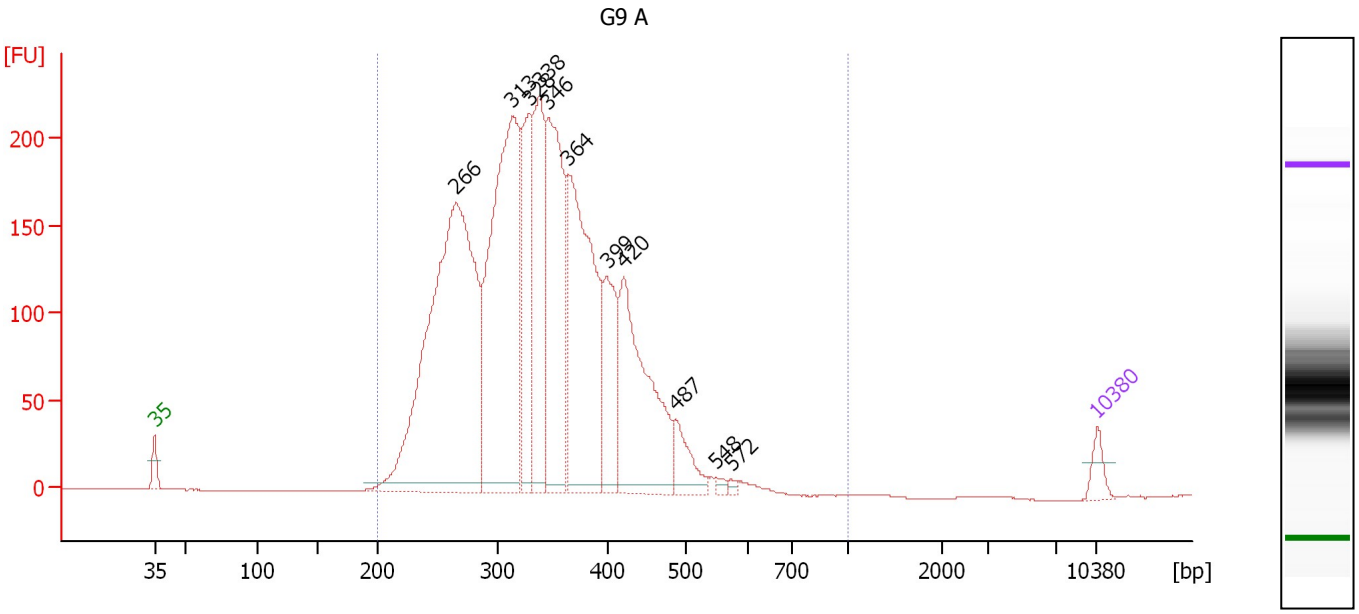
Peak table for Ladder

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	50.61
4		150	150.00	1,515.2	Ladder Peak	55.12
5		200	150.00	1,136.4	Ladder Peak	59.63
6		300	150.00	757.6	Ladder Peak	68.48
7		400	150.00	568.2	Ladder Peak	76.69
8		500	150.00	454.5	Ladder Peak	82.49
9		600	150.00	378.8	Ladder Peak	87.13
10		700	150.00	324.7	Ladder Peak	90.31
11		1,000	150.00	227.3	Ladder Peak	94.52
12		2,000	150.00	113.6	Ladder Peak	101.44
13		3,000	150.00	75.8	Ladder Peak	104.96
14		7,000	150.00	32.5	Ladder Peak	110.03
15		10,380	75.00	10.9	Upper Marker	113.00

Assay Class: High Sensitivity DNA Assay
Data Path: C:\... bioanalyzer\2100 expert\data\2016-05-13\2016-05-13_001.xad

Created: 5/13/2016 12:26:52 PM
Modified: 5/13/2016 1:14:43 PM

Electropherogram Summary Continued ...



Overall Results for sample 1 : G9 A

Number of peaks found:	11	Corr. Area 1:	4,008.7
Noise:	0.2		

Peak table for sample 1 : G9 A

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	266	3,640.98	20,778.2		65.43
3	313	2,480.32	11,987.6		69.59
4	328	782.08	3,607.9		70.82
5	338	963.51	4,318.5		71.60
6	346	1,381.68	6,049.5		72.26
7	364	1,703.84	7,088.4		73.75
8	399	556.63	2,114.3		76.60
9	420	1,197.68	4,325.0		77.82
10	487	233.28	726.1		81.72
11	548	27.69	76.6		84.70
12	572	19.67	52.1		85.84
13	10,380	75.00	10.9	Upper Marker	113.00

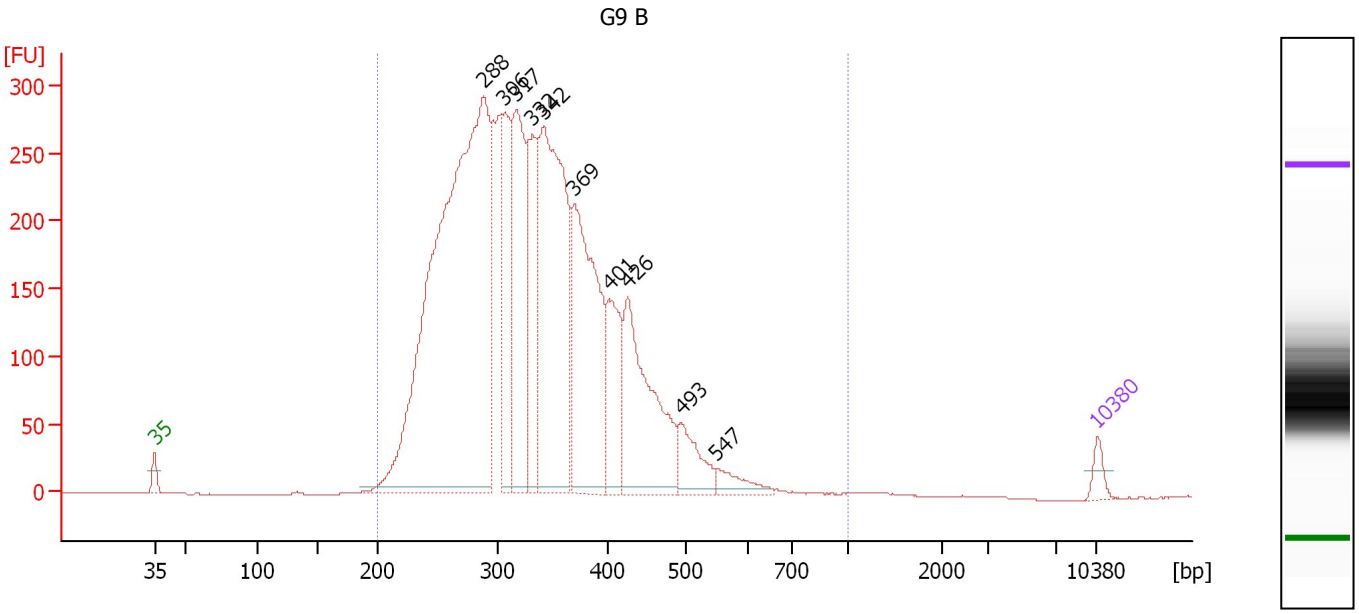
Region table for sample 1 : G9 A

From [bp]	To [bp]	Average Size [bp]	Corr. Area	Molarity [pmol/l]	Color [pg/µl]	% of Total	Size distribution in CV [%]
200	1,000	339	4,008.7	61,668.4	13,100.33	100	19.9

Assay Class: High Sensitivity DNA Assay
Data Path: C:\... bioanalyzer\2100 expert\data\2016-05-13\2016-05-13_001.xad

Created: 5/13/2016 12:26:52 PM
Modified: 5/13/2016 1:14:43 PM

Electropherogram Summary Continued ...



Overall Results for sample 2 : G9 B

Number of peaks found:	10	Corr. Area 1:	5,739.2
Noise:	0.4		

Peak table for sample 2 : G9 B

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	288	6,579.28	34,610.4		67.42
3	306	978.64	4,842.9		68.99
4	317	1,376.16	6,582.0		69.86
5	332	917.66	4,192.5		71.08
6	342	2,589.59	11,482.2		71.91
7	369	1,848.68	7,584.8		74.17
8	401	642.93	2,430.3		76.74
9	426	1,328.20	4,728.5		78.17
10	493	347.47	1,067.6		82.09
11	547	163.82	454.0		84.66
12	10,380	75.00	10.9	Upper Marker	113.00

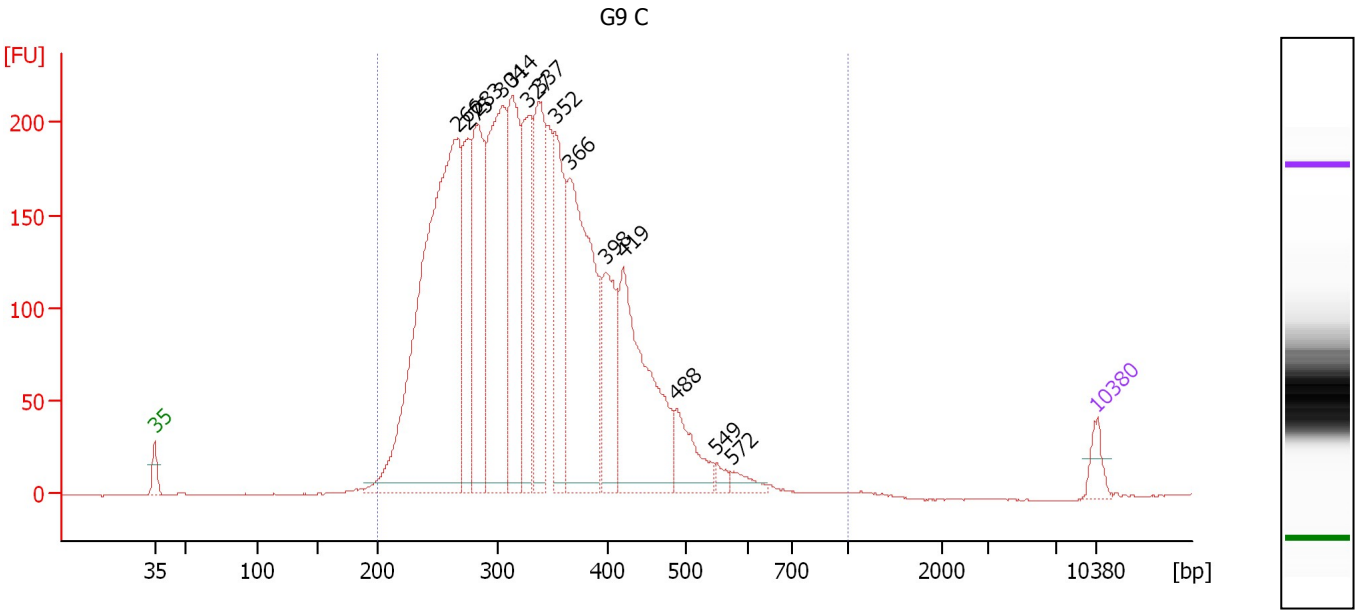
Region table for sample 2 : G9 B

From [bp]	To [bp]	Average Size [bp]	Corr. Area	Molarity [pmol/l]	Color [pg/µl]	% of Total	Size distribution in CV [%]
200	1,000	335	5,739.2	87,741.1	18,304.09	100	22.1

Assay Class: High Sensitivity DNA Assay
Data Path: C:\... bioanalyzer\2100 expert\data\2016-05-13\2016-05-13_001.xad

Created: 5/13/2016 12:26:52 PM
Modified: 5/13/2016 1:14:43 PM

Electropherogram Summary Continued ...



Overall Results for sample 3 : G9 C

Number of peaks found:	14	Corr. Area 1:	4,501.9
Noise:	0.3		

Peak table for sample 3 : G9 C

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	266	3,345.55	19,064.1		65.46
3	275	622.62	3,427.4		66.29
4	283	999.70	5,350.3		66.99
5	304	1,521.75	7,596.4		68.77
6	314	994.47	4,804.7		69.60
7	327	739.49	3,422.3		70.73
8	337	889.89	3,995.4		71.56
9	352	728.66	3,133.6		72.78
10	366	1,476.35	6,118.7		73.86
11	398	526.26	2,003.7		76.52
12	419	1,132.80	4,097.9		77.78
13	488	291.28	904.6		81.79
14	549	46.56	128.6		84.75
15	572	64.92	171.9		85.84
16	10,380	75.00	10.9	Upper Marker	113.00

Region table for sample 3 : G9 C

From [bp]	To [bp]	Average Size [bp]	Corr. Area	Molarity [pmol/l]	Color [pg/µl]	% of Total	Size distribution in CV [%]
200	1,000	334	4,501.9	68,056.2	14,093.09	100	22.3

Assay Class: High Sensitivity DNA Assay
Data Path: C:\... bioanalyzer\2100 expert\data\2016-05-13\2016-05-13_001.xad

Created: 5/13/2016 12:26:52 PM
Modified: 5/13/2016 1:14:43 PM

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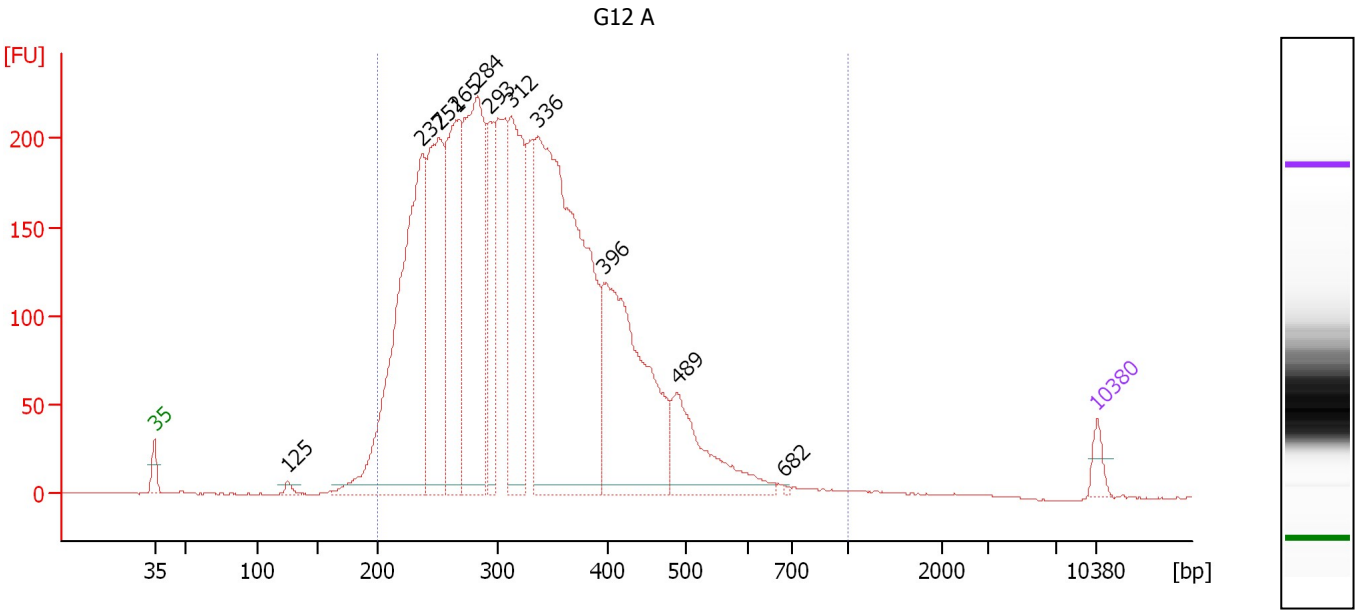

Overall Results for sample 4 : G12 A

Number of peaks found:	11	Corr. Area 1:	5,144.1
Noise:	0.4		

Peak table for sample 4 : G12 A

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	125	37.94	458.8		52.89
3	237	2,946.38	18,836.4		62.91
4	251	1,610.19	9,719.0		64.15
5	265	1,525.37	8,719.9		65.39
6	284	2,157.07	11,525.3		67.03
7	293	651.29	3,372.7		67.83
8	312	1,406.13	6,828.7		69.47
9	336	4,043.78	18,218.8		71.46
10	396	1,855.56	7,095.1		76.38
11	489	713.38	2,208.3		81.88
12	682	9.01	20.0		89.73
13	10,380	75.00	10.9	Upper Marker	113.00

Region table for sample 4 : G12 A

From [bp]	To [bp]	Average Size [bp]	Corr. Area	Molarity [pmol/l]	Color [pg/µl]	% of Total	Size distribution in CV [%]
200	1,000	329	5,144.1	90,970.4	18,231.59	98	26.6

Assay Class: High Sensitivity DNA Assay
Data Path: C:\... bioanalyzer\2100 expert\data\2016-05-13\2016-05-13_001.xad

Created: 5/13/2016 12:26:52 PM
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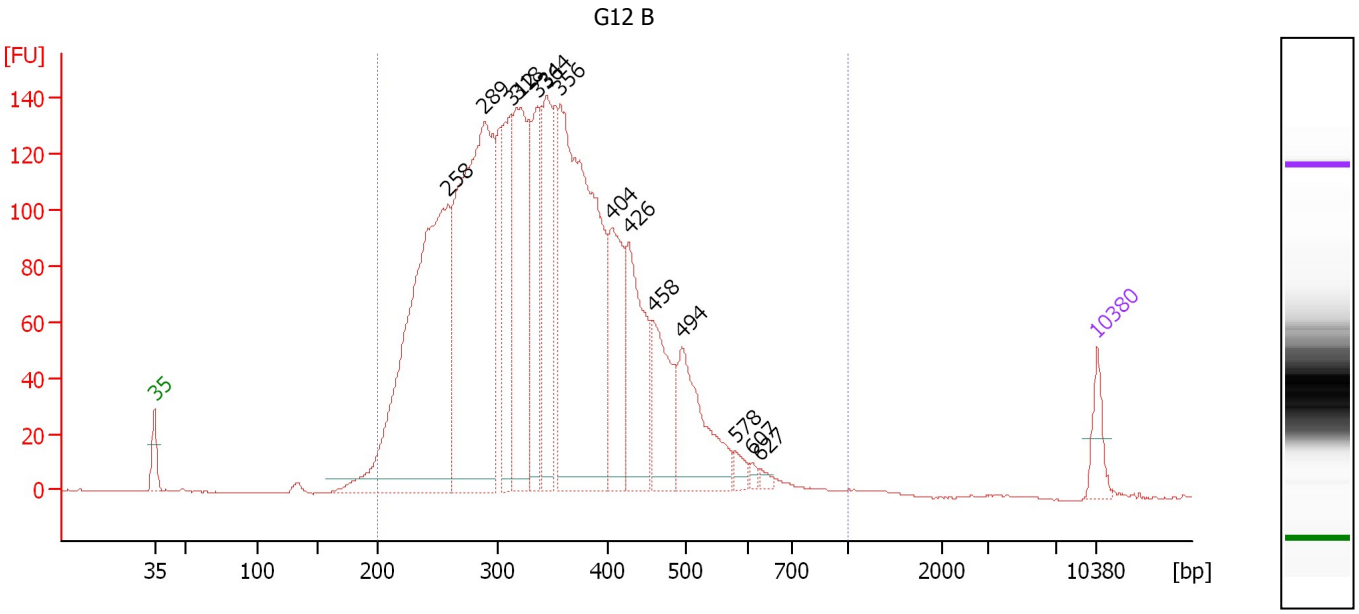


Overall Results for sample 5 : G12 B

Number of peaks found:	14	Corr. Area 1:	3,301.2
Noise:	0.2		

Peak table for sample 5 : G12 B

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	258	1,901.09	11,156.8		64.78
3	289	1,800.44	9,437.3		67.51
4	312	460.59	2,235.2		69.49
5	318	771.26	3,678.4		69.93
6	336	418.61	1,886.3		71.46
7	344	472.50	2,081.8		72.08
8	356	1,659.31	7,053.1		73.12
9	404	398.51	1,494.4		76.92
10	426	471.97	1,676.8		78.22
11	458	320.94	1,061.4		80.06
12	494	392.22	1,201.9		82.17
13	578	38.08	99.8		86.11
14	607	15.17	37.8		87.37
15	627	17.05	41.2		87.99
16	10,380	75.00	10.9	Upper Marker	113.00

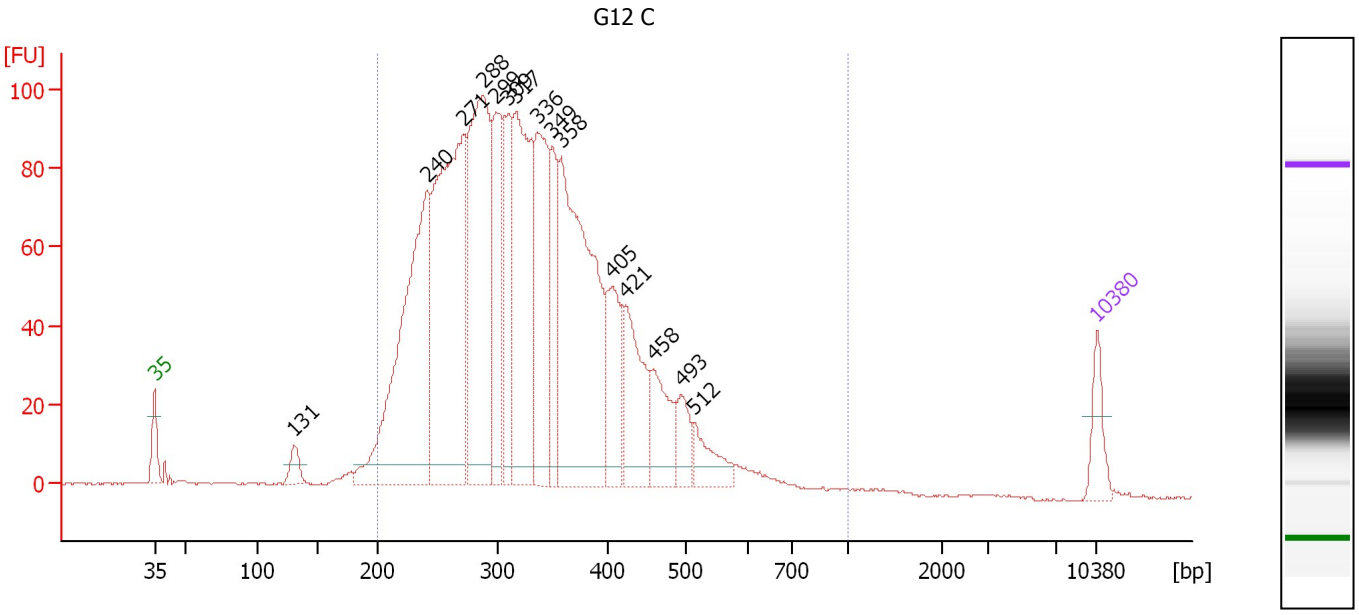
Region table for sample 5 : G12 B

From [bp]	To [bp]	Average Size [bp]	Corr. Area	Molarity [pmol/l]	Color [pg/µl]	% of Total	Size distribution in CV [%]
200	1,000	348	3,301.2	45,738.5	9,669.87	98	26.0

Assay Class: High Sensitivity DNA Assay
Data Path: C:\... bioanalyzer\2100 expert\data\2016-05-13\2016-05-13_001.xad

Created: 5/13/2016 12:26:52 PM
Modified: 5/13/2016 1:14:43 PM

Electropherogram Summary Continued ...



Overall Results for sample 6 : G12 C

Number of peaks found:	15	Corr. Area 1:	2,198.3
Noise:	0.3		

Peak table for sample 6 : G12 C

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	131	61.79	716.4		53.38
3	240	1,070.83	6,748.7		63.21
4	271	1,181.94	6,605.2		65.93
5	288	914.78	4,812.4		67.42
6	299	366.46	1,858.5		68.37
7	309	293.93	1,440.5		69.23
8	317	675.21	3,228.5		69.87
9	336	479.64	2,161.6		71.45
10	349	223.21	967.8		72.54
11	358	1,010.57	4,280.2		73.22
12	405	212.31	794.2		76.98
13	421	289.00	1,039.1		77.93
14	458	174.83	578.2		80.06
15	493	97.47	299.4		82.10
16	512	104.00	307.7		83.05
17	10,380	75.00	10.9	Upper Marker	113.00

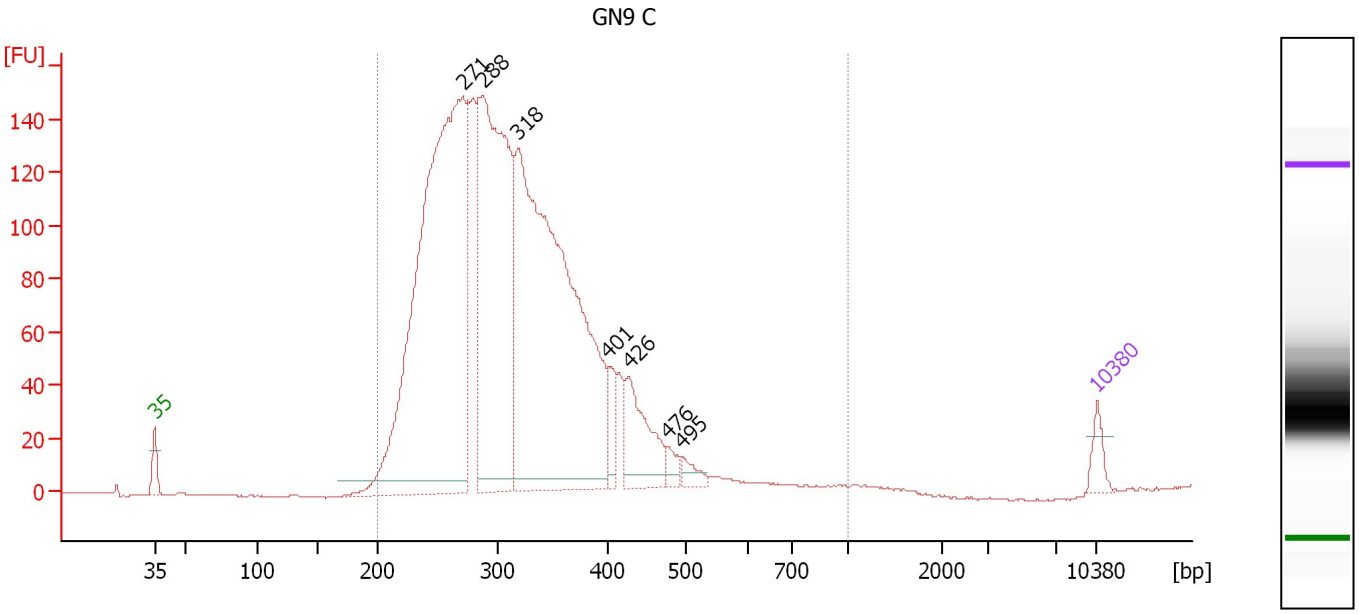
Region table for sample 6 : G12 C

From [bp]	To [bp]	Average Size [bp]	Corr. Area	Molarity [pmol/l]	Color [pg/µl]	% of Total	Size distribution in CV [%]
200	1,000	334	2,198.3	36,515.7	7,447.91	96	26.5

Assay Class: High Sensitivity DNA Assay
Data Path: C:\... bioanalyzer\2100 expert\data\2016-05-13\2016-05-13_001.xad

Created: 5/13/2016 12:26:52 PM
Modified: 5/13/2016 1:14:43 PM

Electropherogram Summary Continued ...



Overall Results for sample 7 : GN9 C

Number of peaks found:	7	Corr. Area 1:	2,715.0
Noise:	0.3		

Peak table for sample 7 : GN9 C

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		271	4,178.16	23,319.8		65.96
3		288	2,555.55	13,452.3		67.40
4		318	3,749.20	17,845.4		69.99
5		401	147.11	556.2		76.73
6		426	417.19	1,482.1		78.23
7		476	66.64	211.9		81.12
8		495	66.98	205.0		82.21
9	▶	10,380	75.00	10.9	Upper Marker	113.00

Region table for sample 7 : GN9 C

From [bp]	To [bp]	Average Size [bp]	Corr. Area	Molarity [pmol/l]	Co Conc. lor [pg/µl]	% of Total	Size distribution in CV [%]
200	1,000	316	2,715.0	60,781.8	11,978.35	100	23.2

Assay Class: High Sensitivity DNA Assay
Data Path: C:\... bioanalyzer\2100 expert\data\2016-05-13\2016-05-13_001.xad

Created: 5/13/2016 12:26:52 PM
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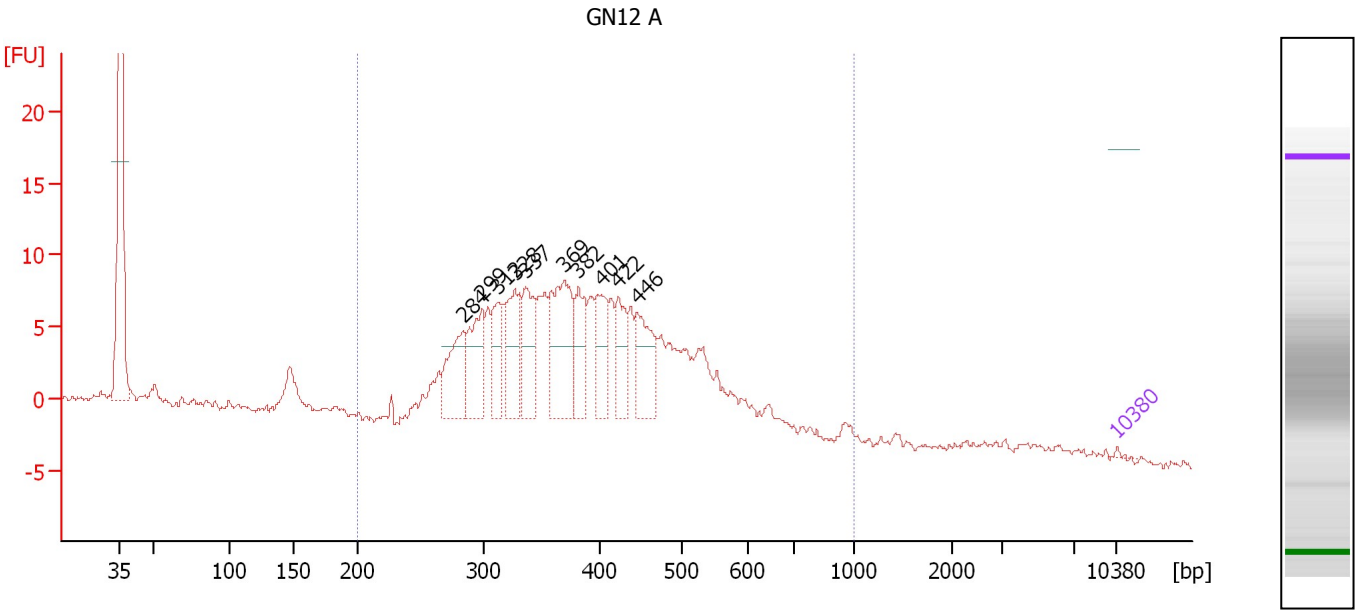


Overall Results for sample 8 : GN12 A

Number of peaks found:	10	Corr. Area 1:	222.5
Noise:	0.2		

Peak table for sample 8 : GN12 A

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	284	6,145.83	32,734.2		67.11
3	299	6,008.96	30,412.5		68.43
4	312	3,897.54	18,917.1		69.48
5	328	5,566.64	25,746.0		70.75
6	337	5,596.46	25,192.0		71.49
7	369	9,836.21	40,347.8		74.18
8	382	3,902.60	15,496.0		75.18
9	401	4,221.49	15,941.7		76.76
10	422	3,860.20	13,855.1		77.97
11	446	5,265.59	17,897.1		79.35
12	10,380	75.00	10.9	Upper Marker	113.00

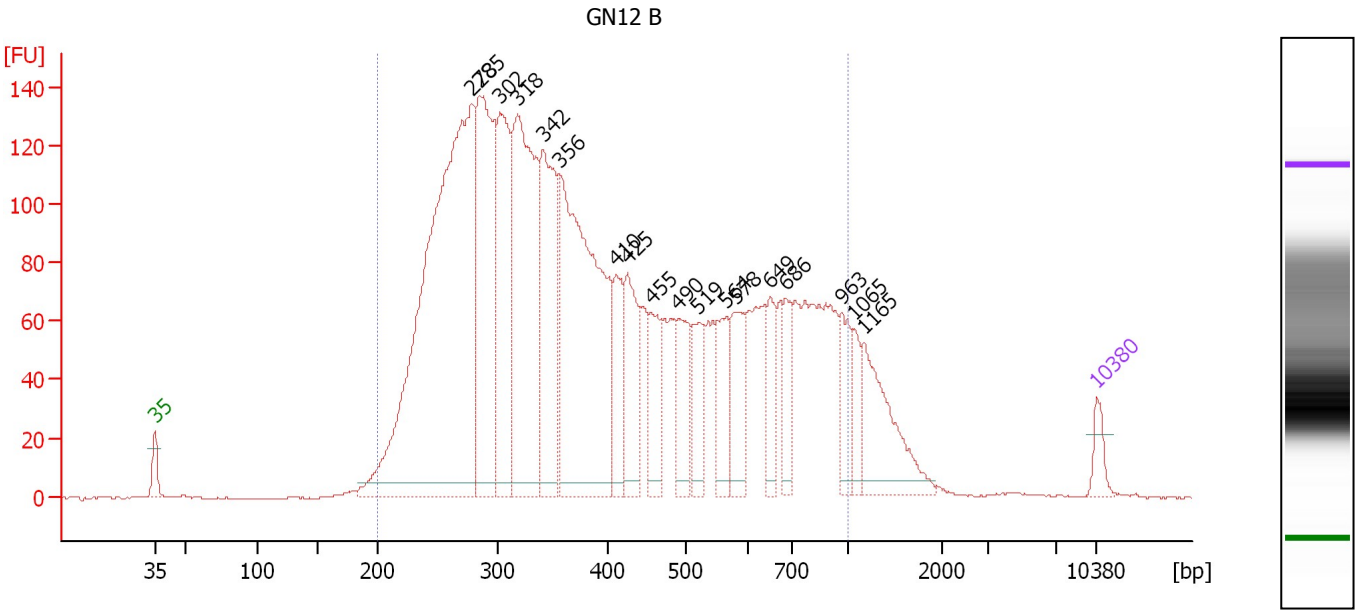
Region table for sample 8 : GN12 A

From [bp]	To [bp]	Average Size [bp]	Corr. Area	Molarity [pmol/l]	Color [pg/µl]	% of Total	Size distribution in CV [%]
200	1,000	409	222.5	464,726.6	113,992.23	77	29.0

Assay Class: High Sensitivity DNA Assay
Data Path: C:\... bioanalyzer\2100 expert\data\2016-05-13\2016-05-13_001.xad

Created: 5/13/2016 12:26:52 PM
Modified: 5/13/2016 1:14:43 PM

Electropherogram Summary Continued ...



Overall Results for sample 9 : GN12 B

Number of peaks found:	18	Corr. Area 1:	3,720.6
Noise:	0.2		

Peak table for sample 9 : GN12 B

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	278	4,067.43	22,141.7		66.56
3	285	1,474.53	7,836.2		67.16
4	302	967.33	4,845.5		68.69
5	318	1,623.70	7,731.3		69.98
6	342	1,008.31	4,469.6		71.91
7	356	2,120.33	9,028.0		73.07
8	410	313.29	1,158.1		77.26
9	425	468.80	1,671.4		78.14
10	455	296.14	985.7		79.89
11	490	335.29	1,036.4		81.92
12	519	278.23	811.5		83.40
13	564	267.53	718.4		85.47
14	578	309.55	811.3		86.12
15	649	225.75	526.8		88.70
16	686	201.57	445.5		89.85
17	963	207.16	326.0		94.00
18	1,065	146.30	208.2		94.97
19	1,165	475.30	618.3		95.66
20	10,380	75.00	10.9	Upper Marker	113.00

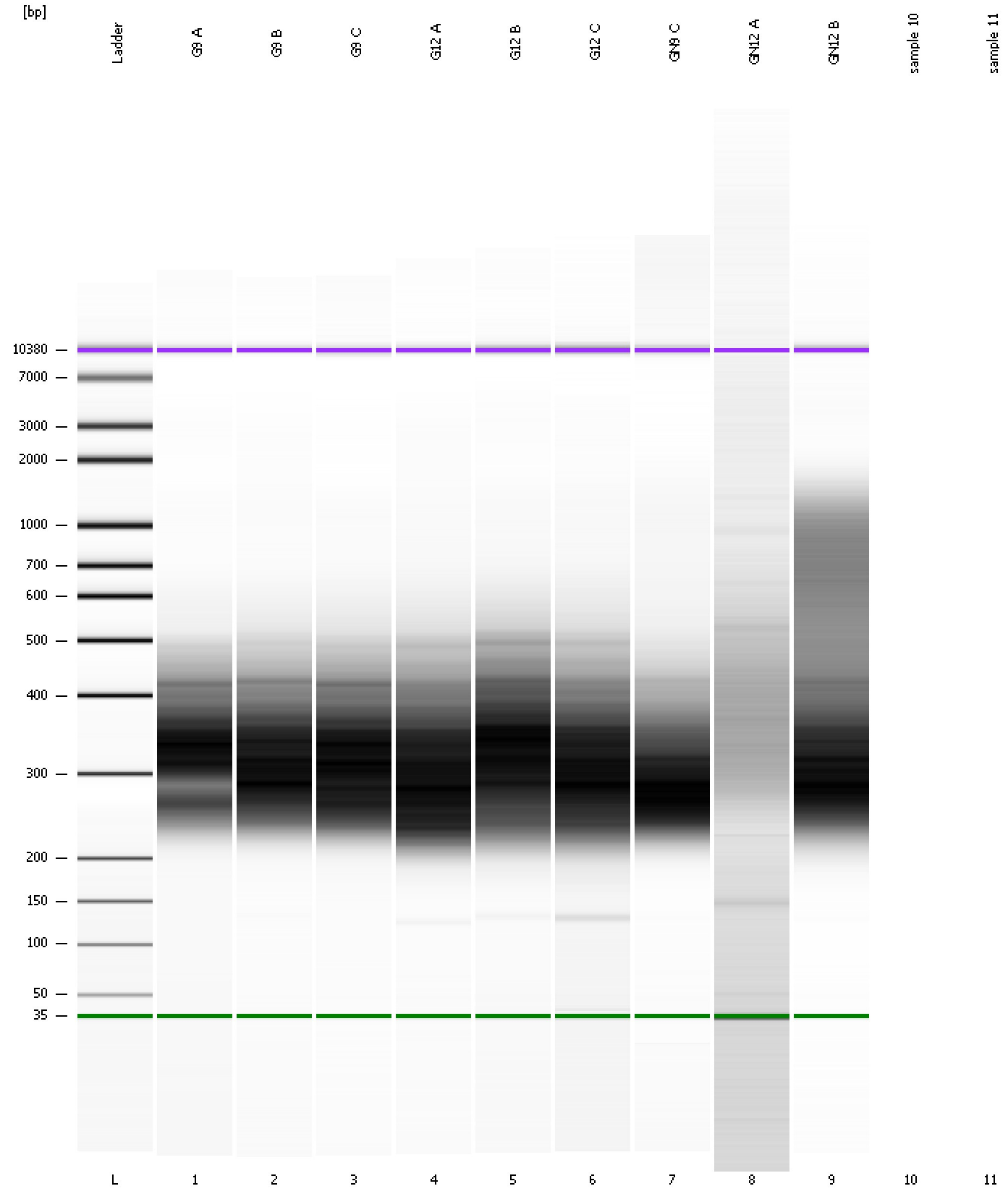
Region table for sample 9 : GN12 B

From [bp]	To [bp]	Average Size [bp]	Corr. Area	Molarity [pmol/l]	Color [pg/µl]	% of Total	Size distribution in CV [%]
200	1,000	429	3,720.6	71,539.6	16,547.84	94	42.5

Assay Class: High Sensitivity DNA Assay
Data Path: C:\... bioanalyzer\2100 expert\data\2016-05-13\2016-05-13_001.xad

Created: 5/13/2016 12:26:52 PM
Modified: 5/13/2016 1:14:43 PM

Gel Image



Assay Class: High Sensitivity DNA Assay
Data Path: C:\... bioanalyzer\2100 expert\data\2016-05-13\2016-05-13_001.xad

Created: 5/13/2016 12:26:52 PM
Modified: 5/13/2016 1:14:43 PM

Invalid Samples

Sample 10 has not been run, no results available.

Sample 11 has not been run, no results available.

Assay Class: High Sensitivity DNA Assay
Data Path: C:\... bioanalyzer\2100 expert\data\2016-05-13\2016-05-13_001.xad

Created: 5/13/2016 12:26:52 PM
Modified: 5/13/2016 1:14:43 PM

Run Logbook

Description	Number	Source	Category	Sub Category	Time	Time Zone	User	Host
Run ended on port 1 (Number of wells acquired: 10)		Instrument	Run		5/13/2016 1:02:29 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\2016-05-13\2016-05-13_001.xad)		Instrument	Run		5/13/2016 12:26:58 PM	(GMT --07:00) Pacific Standard Time	UC Davis	D8XSMGH1
Product Number : G2938B		Instrument	Run		5/13/2016 12:26:58 PM	(GMT --07:00) Pacific Standard Time	UC Davis	D8XSMGH1
Name :		Instrument	Run		5/13/2016 12:26:58 PM	(GMT --07:00) Pacific Standard Time	UC Davis	D8XSMGH1
Vendor : Agilent Technologies		Instrument	Run		5/13/2016 12:26:58 PM	(GMT --07:00) Pacific Standard Time	UC Davis	D8XSMGH1
Serial# : DE13701086		Instrument	Run		5/13/2016 12:26:58 PM	(GMT --07:00) Pacific Standard Time	UC Davis	D8XSMGH1
Firmware : C.01.069		Instrument	Run		5/13/2016 12:26:58 PM	(GMT --07:00) Pacific Standard Time	UC Davis	D8XSMGH1
Cartridge : Electrode		Instrument	Run		5/13/2016 12:26:58 PM	(GMT --07:00) Pacific Standard Time	UC Davis	D8XSMGH1