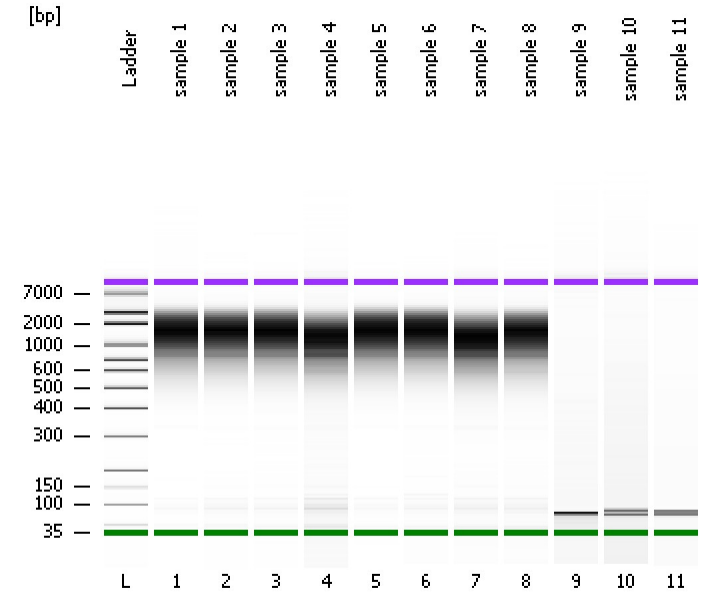
Assay Class: High Sensitivity DNA Assay
Data Path: C:\... bioanalyzer\2100 expert\data\2019-06-11\2019-06-11_002.xad

Created: 6/11/2019 4:05:50 PM
Modified: 6/11/2019 4:46:18 PM

Electrophoresis File Run Summary



Instrument Information:

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

Assay Information:

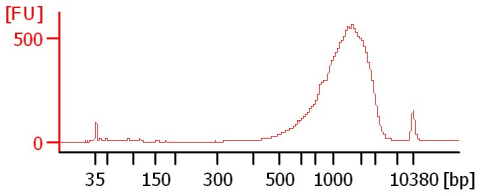
Assay Origin Path: C:\Program Files\Agilent\2100 bioanalyzer\2100 expert\assays\dsDNA\High Sensitivity DNA.xsy

Assay Class: High Sensitivity DNA Assay
Version: 1.03
Assay Comments: Copyright © 2003-2010 Agilent Technologies

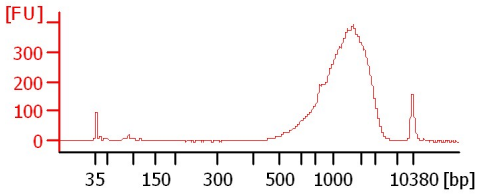
Chip Information:

Chip Lot #:
Reagent Kit Lot #:
Chip Comments:

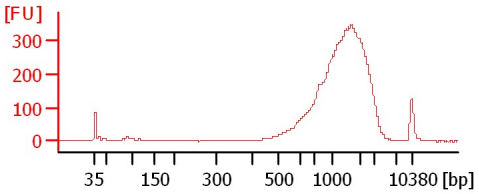
sample 1



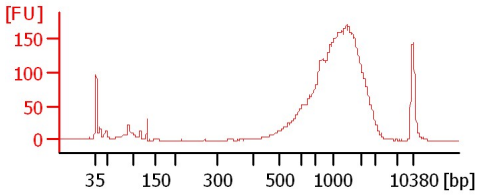
sample 2



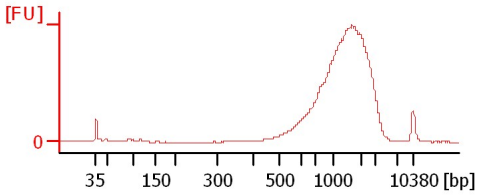
sample 3



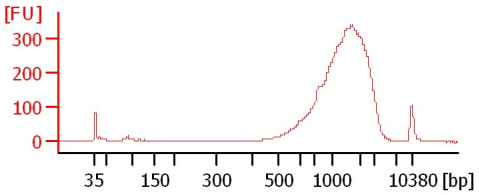
sample 4



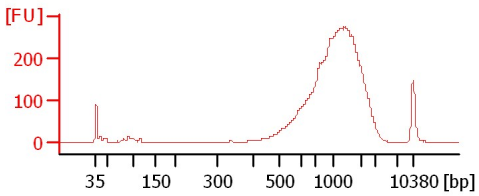
sample 5



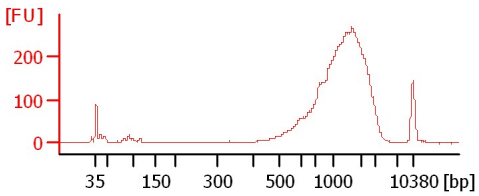
sample 6



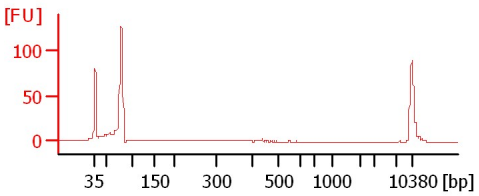
sample 7



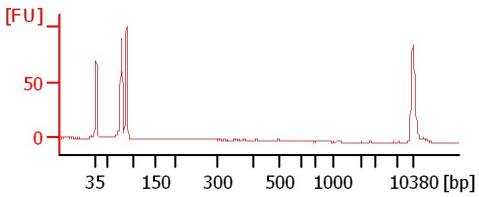
sample 8



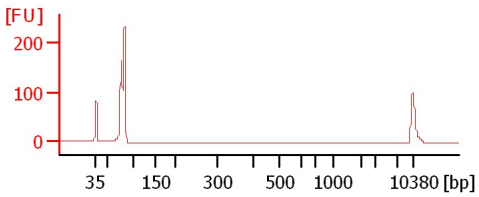
sample 9



sample 10



sample 11



Assay Class: High Sensitivity DNA Assay
Data Path: C:\... bioanalyzer\2100 expert\data\2019-06-11\2019-06-11_002.xad

Created: 6/11/2019 4:05:50 PM
Modified: 6/11/2019 4:46:18 PM

Electrophoresis File Run Summary (Chip Summary)

Sample Name	Sample Comment	Rest. Digest	Status	Observation	Result Label	Result Color
sample 1		☐	✔			
sample 2		☐	✔			
sample 3		☐	✔			
sample 4		☐	✔			
sample 5		☐	✔			
sample 6		☐	✔			
sample 7		☐	✔			
sample 8		☐	✔			
sample 9		☐	✔			
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\2019-06-11\2019-06-11_002.xad

Created: 6/11/2019 4:05:50 PM
Modified: 6/11/2019 4:46:18 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\2019-06-11\2019-06-11_002.xad

Created: 6/11/2019 4:05:50 PM
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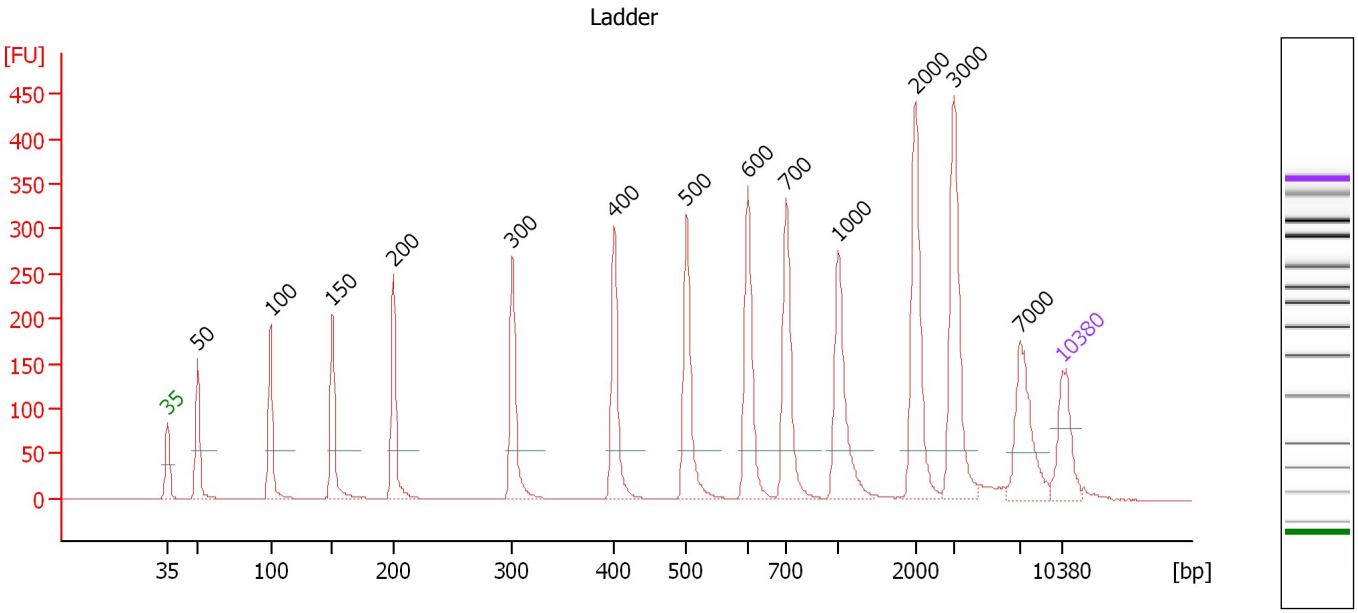
Electropherogram Summary



Overall Results for Ladder

Noise: 0.2

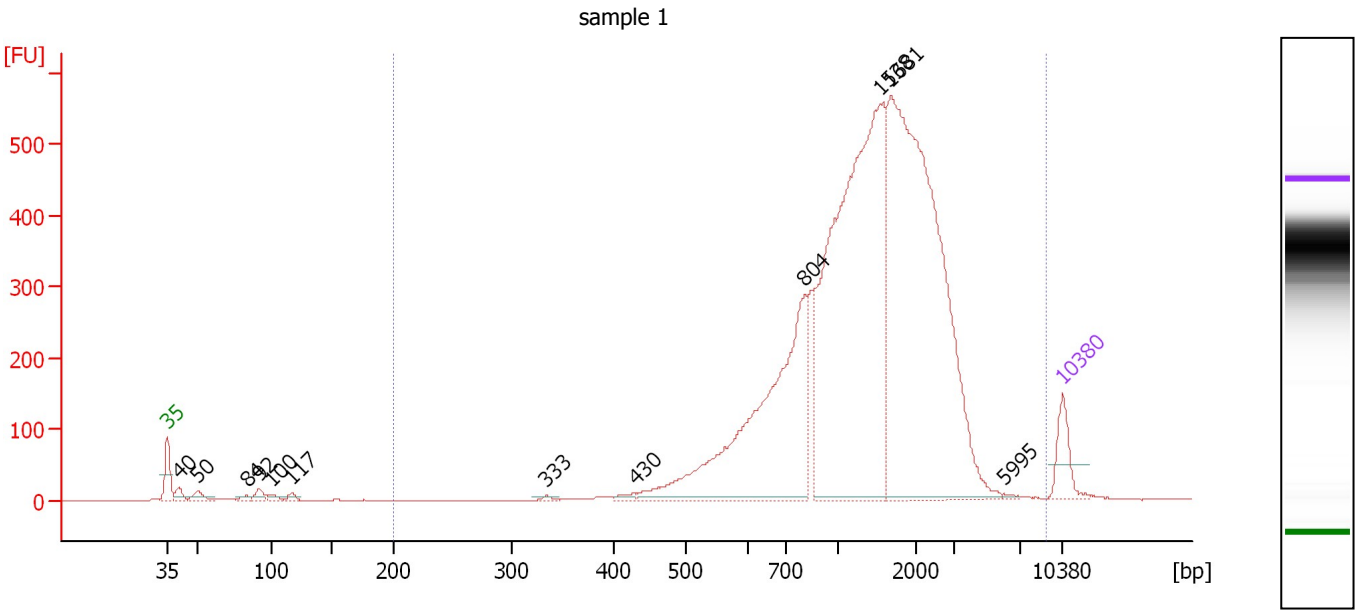
Peak table for Ladder

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	45.36
3		100	150.00	2,272.7	Ladder Peak	51.07
4		150	150.00	1,515.2	Ladder Peak	55.88
5		200	150.00	1,136.4	Ladder Peak	60.69
6		300	150.00	757.6	Ladder Peak	69.98
7		400	150.00	568.2	Ladder Peak	77.95
8		500	150.00	454.5	Ladder Peak	83.61
9		600	150.00	378.8	Ladder Peak	88.42
10		700	150.00	324.7	Ladder Peak	91.40
11		1,000	150.00	227.3	Ladder Peak	95.45
12		2,000	150.00	113.6	Ladder Peak	101.49
13		3,000	150.00	75.8	Ladder Peak	104.51
14		7,000	150.00	32.5	Ladder Peak	109.70
15		10,380	75.00	10.9	Upper Marker	113.00

Assay Class: High Sensitivity DNA Assay
Data Path: C:\... bioanalyzer\2100 expert\data\2019-06-11\2019-06-11_002.xad

Created: 6/11/2019 4:05:50 PM
Modified: 6/11/2019 4:46:18 PM

Electropherogram Summary Continued ...



Overall Results for sample 1 : sample 1

Number of peaks found:	12	Corr. Area 1:	7,049.5
Noise:	0.3		

Peak table for sample 1 : sample 1

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	31.00	1,159.9		43.86
3	50	33.02	993.6		45.40
4	84	13.79	250.1		49.19
5	92	28.79	474.3		50.15
6	100	16.79	254.6		51.06
7	117	15.13	195.2		52.74
8	333	7.77	35.3		72.65
9	430	13.76	48.5		79.66
10	804	922.14	1,738.0		92.80
11	1,538	1,485.88	1,463.6		98.70
12	1,681	1,548.29	1,395.3		99.57
13	5,995	4.45	1.1		108.39
14	10,380	75.00	10.9	Upper Marker	113.00

Region table for sample 1 : sample 1

From [bp]	To [bp]	Average Size [bp]	Conc. [pg/µl]	Corr. Area	Molarity [pmol/l]	Co % of lor Total	Size distribution in CV [%]
200	9,000	1,548	4,195.48	7,049.5	5,654.9	98	53.6

Assay Class: High Sensitivity DNA Assay
Data Path: C:\... bioanalyzer\2100 expert\data\2019-06-11\2019-06-11_002.xad

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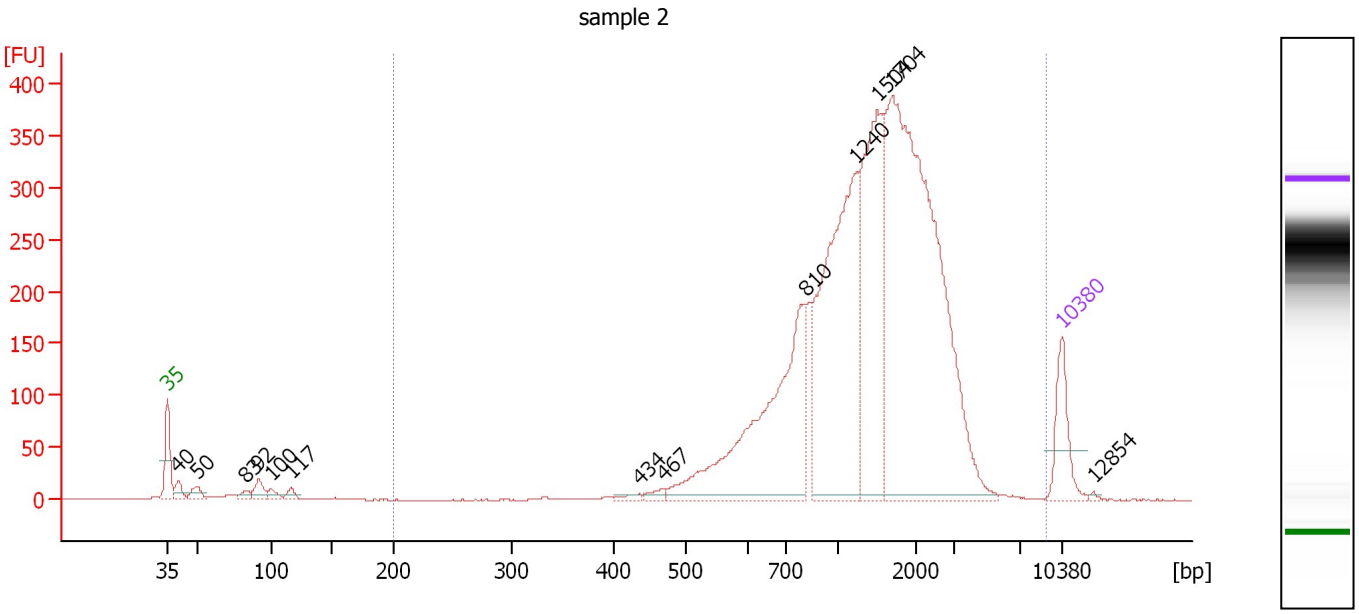
Electropherogram Summary Continued ...



Overall Results for sample 2 : sample 2

Number of peaks found:	13	Corr. Area 1:	4,578.5
Noise:	0.2		

Peak table for sample 2 : sample 2

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	26.14	984.6		43.82
3	50	25.23	768.2		45.32
4	83	15.14	277.4		49.09
5	92	32.12	531.4		50.11
6	100	16.54	250.4		51.07
7	117	15.49	201.2		52.67
8	434	8.03	28.0		79.89
9	467	12.70	41.2		81.77
10	810	503.99	942.2		92.89
11	1,240	552.99	675.7		96.90
12	1,504	389.79	392.6		98.50
13	1,704	980.76	871.9		99.71
14	10,380	75.00	10.9	Upper Marker	113.00
15	12,854	0.00	0.0		115.42

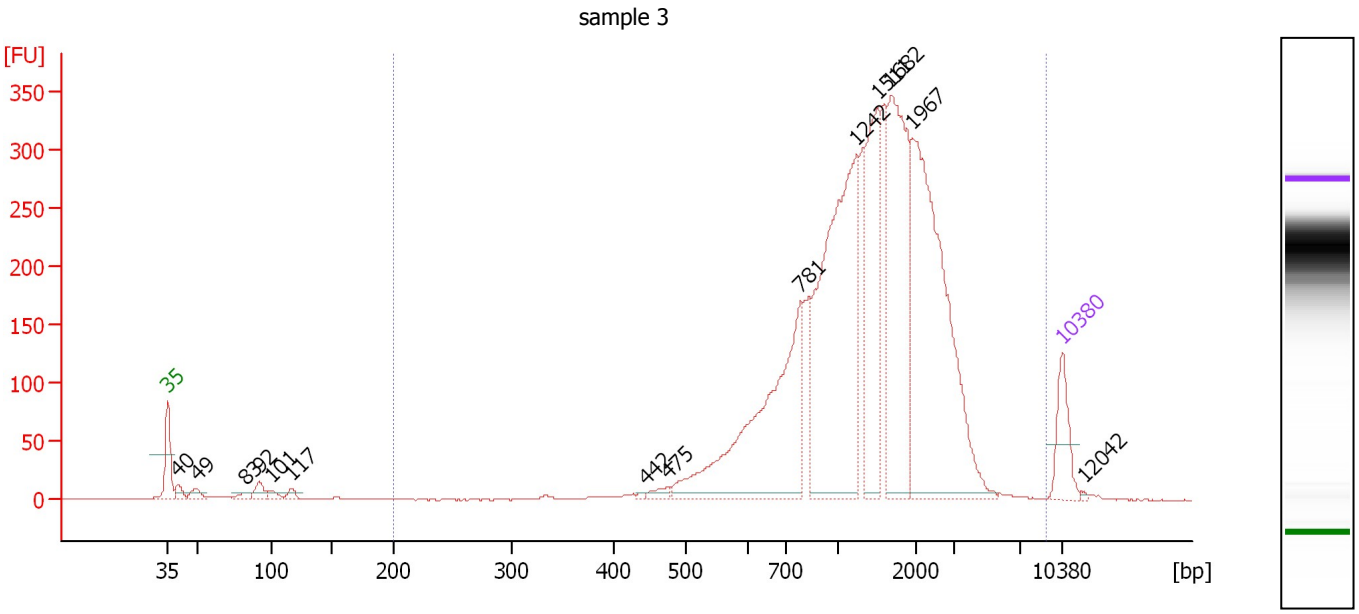
Region table for sample 2 : sample 2

From [bp]	To [bp]	Average Size [bp]	Conc. [pg/µl]	Corr. Area	Molarity [pmol/l]	Co % of lor Total	Size distribution in CV [%]
200	9,000	1,551	2,543.72	4,578.5	3,346.9	97	51.7

Assay Class: High Sensitivity DNA Assay
Data Path: C:\... bioanalyzer\2100 expert\data\2019-06-11\2019-06-11_002.xad

Created: 6/11/2019 4:05:50 PM
Modified: 6/11/2019 4:46:18 PM

Electropherogram Summary Continued ...



Overall Results for sample 3 : sample 3

Number of peaks found:	14	Corr. Area 1:	4,217.8
Noise:	0.3		

Peak table for sample 3 : sample 3

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	23.70	890.6		43.84
3	49	24.11	739.6		45.26
4	83	16.45	299.6		49.15
5	92	31.04	509.8		50.18
6	101	16.48	248.4		51.12
7	117	15.24	196.7		52.74
8	442	3.73	12.8		80.34
9	475	15.53	49.5		82.21
10	781	562.72	1,092.2		92.49
11	1,242	668.82	815.9		96.91
12	1,511	283.33	284.1		98.54
13	1,682	426.57	384.3		99.57
14	1,967	638.86	492.1		101.29
15	10,380	75.00	10.9	Upper Marker	113.00
16	12,042	0.00	0.0		114.62

Region table for sample 3 : sample 3

From [bp]	To [bp]	Average Size [bp]	Conc. [pg/µl]	Corr. Area	Molarity [pmol/l]	Co % of lor Total	Size distribution in CV [%]
200	9,000	1,547	3,013.93	4,217.8	4,004.5	97	52.6

Assay Class: High Sensitivity DNA Assay
Data Path: C:\... bioanalyzer\2100 expert\data\2019-06-11\2019-06-11_002.xad

Created: 6/11/2019 4:05:50 PM
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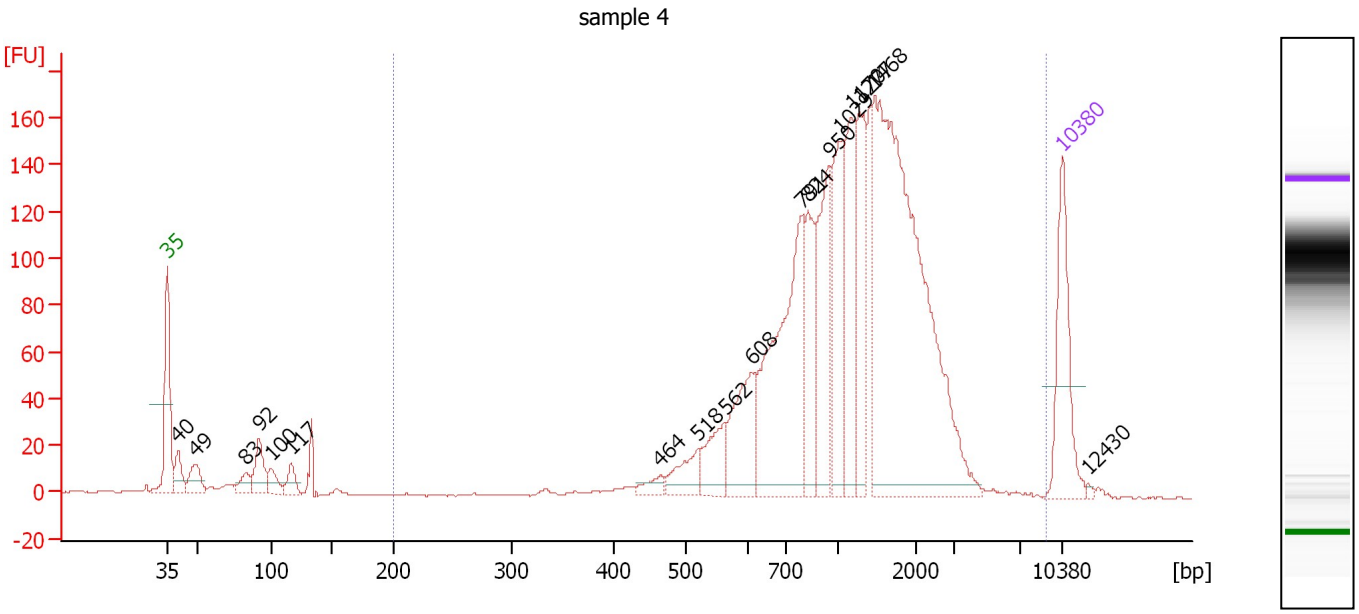
Electropherogram Summary Continued ...



Overall Results for sample 4 : sample 4

Number of peaks found:	18	Corr. Area 1:	2,181.5
Noise:	0.4		

Peak table for sample 4 : sample 4

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	30.06	1,135.9		43.80
3	49	30.84	953.3		45.20
4	83	17.87	325.1		49.16
5	92	41.64	685.3		50.16
6	100	19.76	299.5		51.06
7	117	19.58	253.2		52.71
8	464	11.52	37.6		81.56
9	518	32.77	95.9		84.46
10	562	43.20	116.4		86.61
11	608	76.90	191.6		88.67
12	791	221.36	424.3		92.62
13	824	73.76	135.7		93.07
14	950	100.83	160.9		94.77
15	1,029	92.46	136.2		95.63
16	1,170	91.26	118.2		96.48
17	1,277	81.21	96.3		97.13
18	1,468	457.71	472.4		98.28
19	10,380	75.00	10.9	Upper Marker	113.00
20	12,430	0.00	0.0		115.00

Region table for sample 4 : sample 4

From [bp]	To [bp]	Average Size [bp]	Conc. [pg/µl]	Corr. Area	Molarity [pmol/l]	Co % of Ior Total	Size distribution in CV [%]
200	9,000	1,326	1,349.75	2,181.5	2,064.1	92	54.9

Assay Class: High Sensitivity DNA Assay
Data Path: C:\... bioanalyzer\2100 expert\data\2019-06-11\2019-06-11_002.xad

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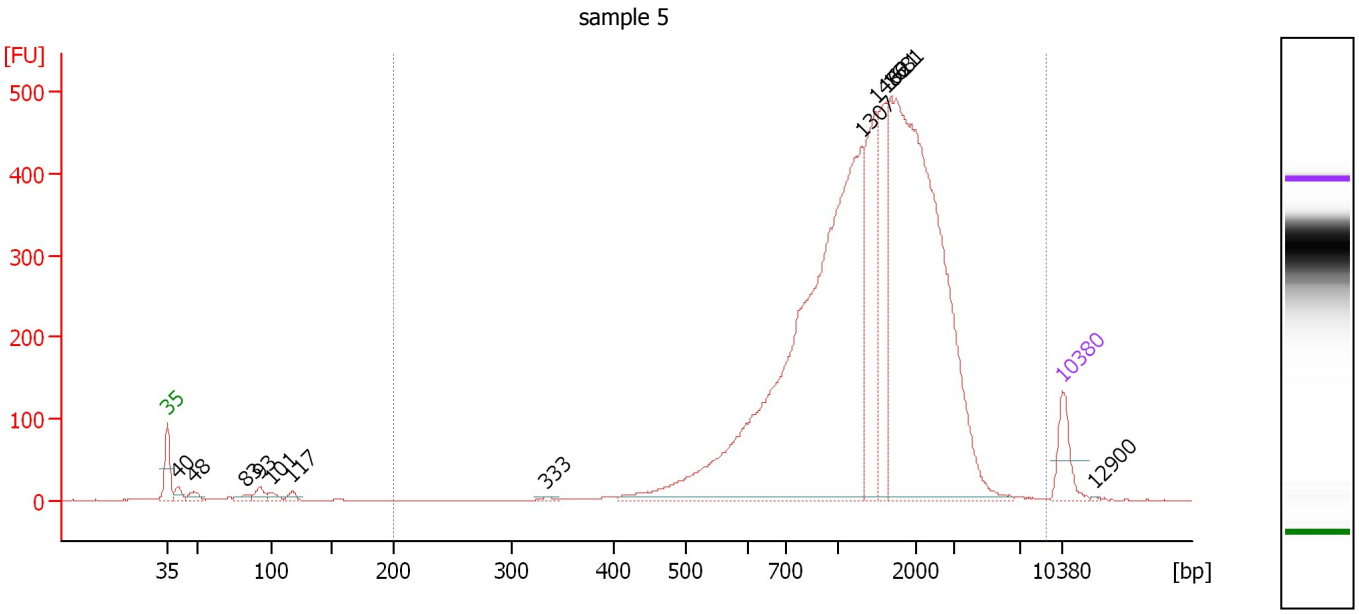
Electropherogram Summary Continued ...



Overall Results for sample 5 : sample 5

Number of peaks found:	12	Corr. Area 1:	6,116.2
Noise:	0.3		

Peak table for sample 5 : sample 5

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	27.59	1,039.3		43.82
3	48	26.93	849.4		45.05
4	83	17.38	316.4		49.15
5	93	31.77	519.3		50.23
6	101	18.29	274.6		51.15
7	117	16.56	213.7		52.74
8	333	6.22	28.3		72.59
9	1,307	1,754.11	2,033.1		97.31
10	1,486	322.10	328.5		98.38
11	1,621	221.40	206.9		99.21
12	1,681	1,497.14	1,349.5		99.56
13	10,380	75.00	10.9	Upper Marker	113.00
14	12,900	0.00	0.0		115.46

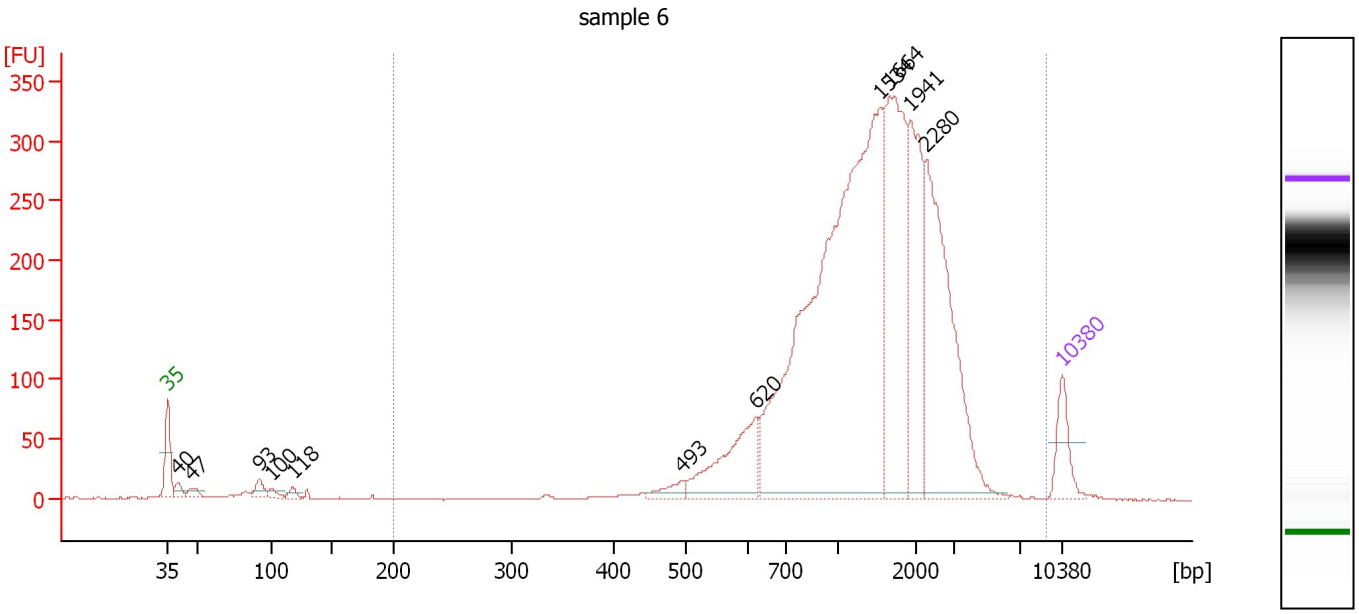
Region table for sample 5 : sample 5

From [bp]	To [bp]	Average Size [bp]	Conc. [pg/µl]	Corr. Area	Molarity [pmol/l]	Co % of lor Total	Size distribution in CV [%]
200	9,000	1,566	4,038.96	6,116.2	5,374.1	97	53.7

Assay Class: High Sensitivity DNA Assay
Data Path: C:\... bioanalyzer\2100 expert\data\2019-06-11\2019-06-11_002.xad

Created: 6/11/2019 4:05:50 PM
Modified: 6/11/2019 4:46:18 PM

Electropherogram Summary Continued ...



Overall Results for sample 6 : sample 6

Number of peaks found:	11	Corr. Area 1:	4,079.1
Noise:	0.3		

Peak table for sample 6 : sample 6

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	28.27	1,062.5		43.84
3	47	25.64	821.1		44.93
4	93	34.76	569.1		50.21
5	100	18.32	276.5		51.10
6	118	17.26	222.1		52.78
7	493	34.94	107.4		83.20
8	620	231.69	566.6		89.00
9	1,534	1,611.79	1,592.2		98.68
10	1,664	478.59	435.9		99.46
11	1,941	285.60	223.0		101.13
12	2,280	551.10	366.3		102.34
13	10,380	75.00	10.9	Upper Marker	113.00

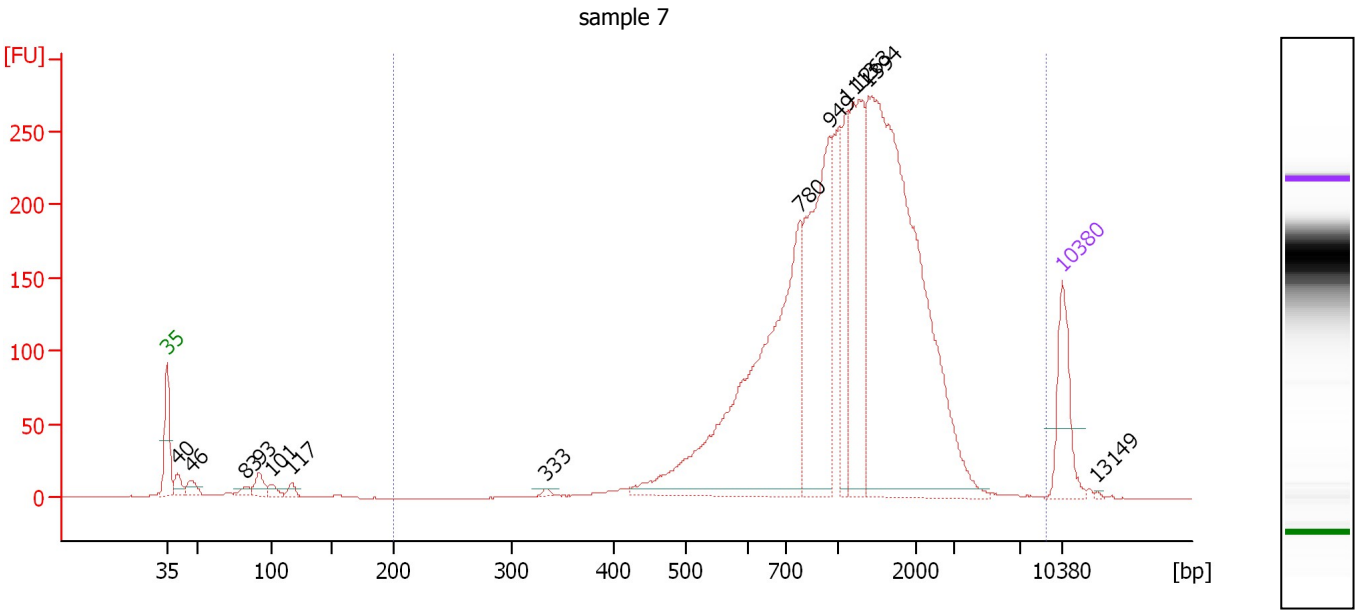
Region table for sample 6 : sample 6

From [bp]	To [bp]	Average Size [bp]	Conc. [pg/µl]	Corr. Area	Molarity [pmol/l]	Co % of lor Total	Size distribution in CV [%]
200	9,000	1,580	3,460.63	4,079.1	4,505.3	97	52.3

Assay Class: High Sensitivity DNA Assay
Data Path: C:\... bioanalyzer\2100 expert\data\2019-06-11\2019-06-11_002.xad

Created: 6/11/2019 4:05:50 PM
Modified: 6/11/2019 4:46:18 PM

Electropherogram Summary Continued ...



Overall Results for sample 7 : sample 7

Number of peaks found:	13	Corr. Area 1:	3,608.1
Noise:	0.2		

Peak table for sample 7 : sample 7

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	24.21	915.8		43.80
3	46	23.08	752.7		44.80
4	83	11.98	218.1		49.15
5	93	27.80	455.3		50.21
6	101	14.34	215.0		51.17
7	117	13.60	176.1		52.70
8	333	4.79	21.8		72.59
9	780	613.64	1,192.1		92.48
10	949	335.62	536.1		94.76
11	1,113	114.66	156.1		96.14
12	1,263	213.78	256.6		97.04
13	1,394	809.90	880.1		97.83
14	10,380	75.00	10.9	Upper Marker	113.00
15	13,149	0.00	0.0		115.70

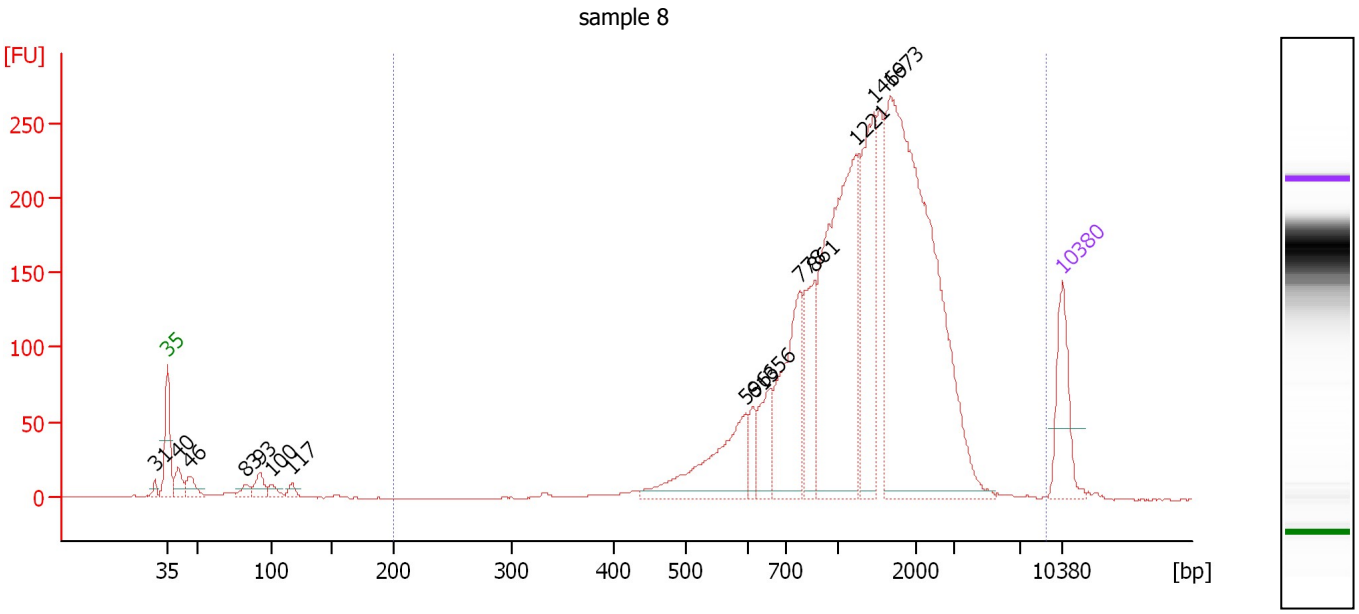
Region table for sample 7 : sample 7

From [bp]	To [bp]	Average Size [bp]	Conc. [pg/µl]	Corr. Area	Molarity [pmol/l]	Co % of lor Total	Size distribution in CV [%]
200	9,000	1,297	2,264.24	3,608.1	3,556.6	96	56.0

Assay Class: High Sensitivity DNA Assay
Data Path: C:\... bioanalyzer\2100 expert\data\2019-06-11\2019-06-11_002.xad

Created: 6/11/2019 4:05:50 PM
Modified: 6/11/2019 4:46:18 PM

Electropherogram Summary Continued ...



Overall Results for sample 8 : sample 8

Number of peaks found:	15	Corr. Area 1:	3,184.4
Noise:	0.2		

Peak table for sample 8 : sample 8

Peak	Size [bp]	Conc. [pg/µl]	Molarity [pmol/l]	Observations	Aligned Migration Time [s]
1	31	0.00	0.0		41.98
2	35	125.00	5,411.3	Lower Marker	43.00
3	40	33.58	1,268.5		43.80
4	46	32.13	1,053.0		44.77
5	83	17.45	319.5		49.10
6	93	28.30	463.0		50.22
7	100	15.54	235.0		51.08
8	117	12.80	165.2		52.74
9	596	155.82	396.3		88.22
10	613	31.91	78.9		88.81
11	656	61.47	141.9		90.09
12	778	184.59	359.5		92.45
13	861	97.58	171.7		93.57
14	1,221	407.21	505.5		96.78
15	1,469	183.00	188.8		98.28
16	1,673	703.66	637.4		99.51
17	10,380	75.00	10.9	Upper Marker	113.00

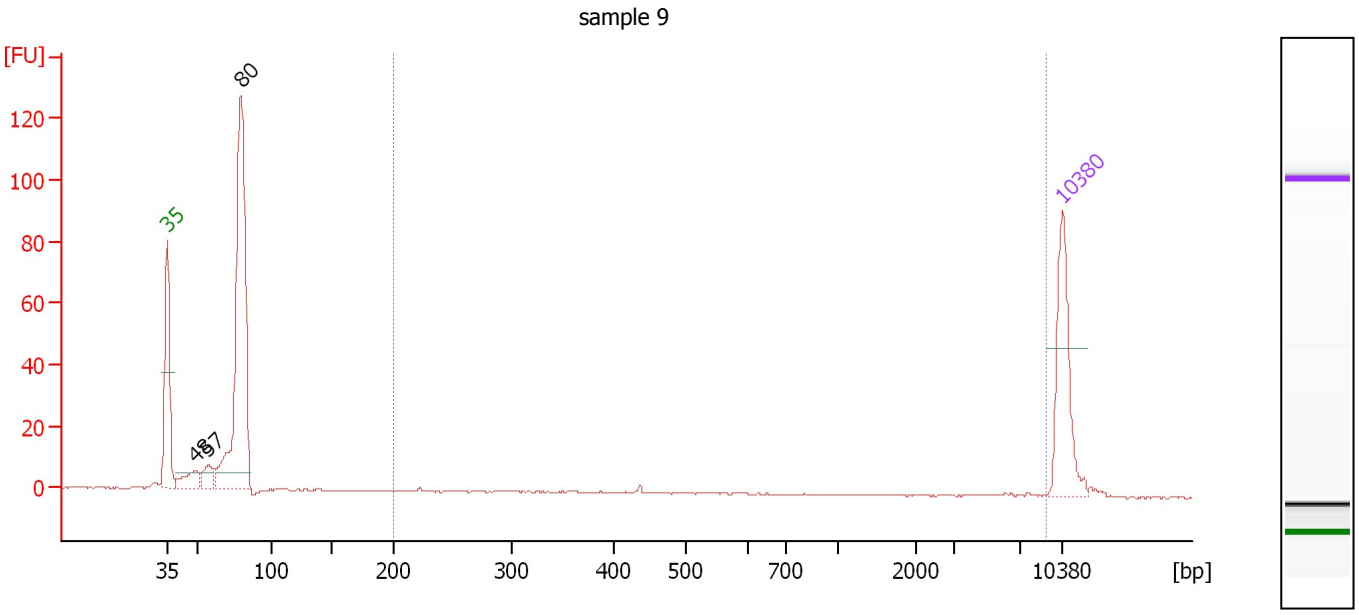
Region table for sample 8 : sample 8

From [bp]	To [bp]	Average Size [bp]	Conc. [pg/µl]	Corr. Area	Molarity [pmol/l]	Co % of Ior Total	Size distribution in CV [%]
200	9,000	1,479	1,972.30	3,184.4	2,731.9	95	52.5

Assay Class: High Sensitivity DNA Assay
Data Path: C:\... bioanalyzer\2100 expert\data\2019-06-11\2019-06-11_002.xad

Created: 6/11/2019 4:05:50 PM
Modified: 6/11/2019 4:46:18 PM

Electropherogram Summary Continued ...



Overall Results for sample 9 : sample 9

Number of peaks found:	3	Corr. Area 1:	3.5
Noise:	0.2		

Peak table for sample 9 : sample 9

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	48	30.98	969.0		45.11
3	57	23.61	623.9		46.20
4	80	406.66	7,735.8		48.74
5	10,380	75.00	10.9	Upper Marker	113.00

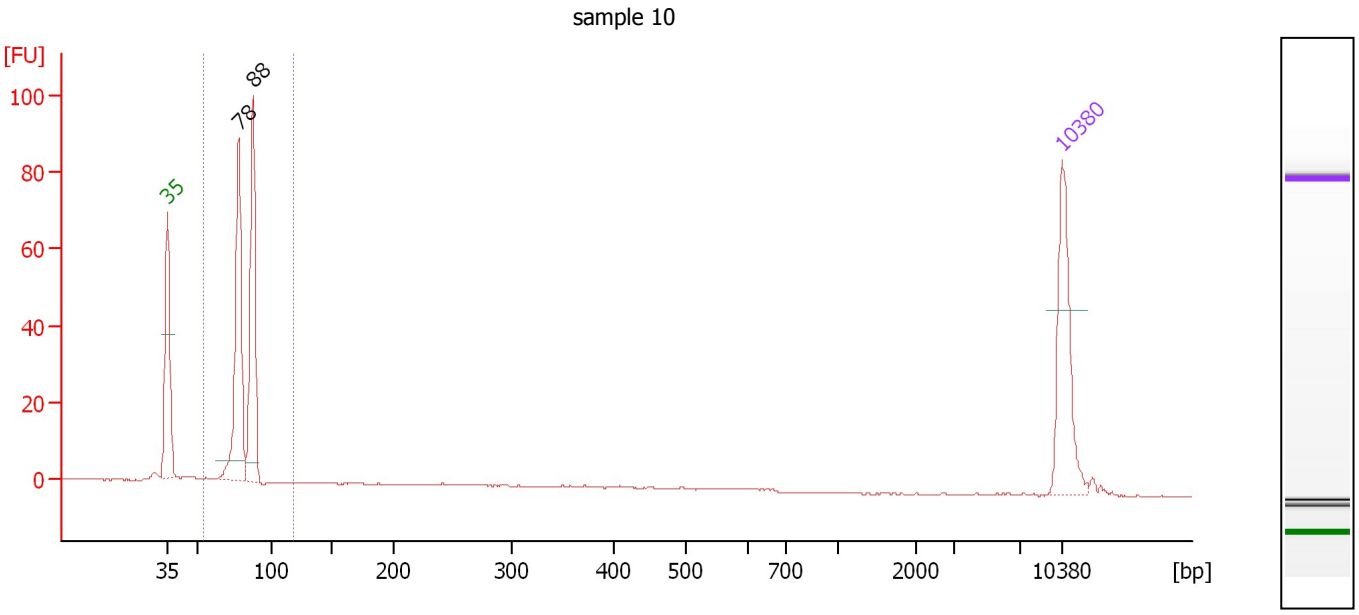
Region table for sample 9 : sample 9

From [bp]	To [bp]	Average Size [bp]	Conc. [pg/µl]	Corr. Area	Molarity [pmol/l]	Co % of lor Total	Size distribution in CV [%]
200	9,000	3,701	3.74	3.5	10.1	1	85.2

Assay Class: High Sensitivity DNA Assay
Data Path: C:\... bioanalyzer\2100 expert\data\2019-06-11\2019-06-11_002.xad

Created: 6/11/2019 4:05:50 PM
Modified: 6/11/2019 4:46:18 PM

Electropherogram Summary Continued ...



Overall Results for sample 10 : sample 10

Number of peaks found:	2	Corr. Area 1:	208.3
Noise:	0.2		

Peak table for sample 10 : sample 10

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	78	198.26	3,842.9		48.57
3	88	181.41	3,132.7		49.67
4	10,380	75.00	10.9	Upper Marker	113.00

Region table for sample 10 : sample 10

From [bp]	To [bp]	Average Size [bp]	Conc. [pg/µl]	Corr. Area	Molarity [pmol/l]	Co % of lor Total	Size distribution in CV [%]
54	119	82	388.96	208.3	7,184.3	93	7.4

Assay Class: High Sensitivity DNA Assay
Data Path: C:\... bioanalyzer\2100 expert\data\2019-06-11\2019-06-11_002.xad

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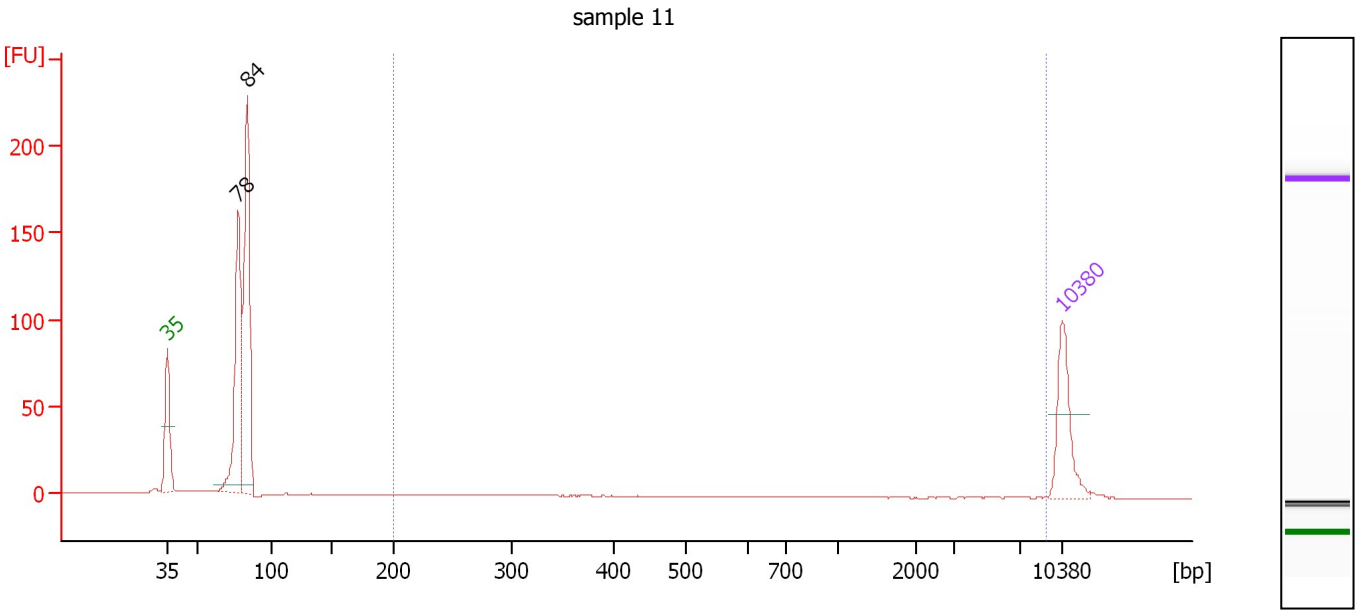
Modified: 6/11/2019 4:46:18 PM

Electropherogram Summary Continued ...



Overall Results for sample 11 : sample 11

Number of peaks found:	2	Corr. Area 1:	1.9
Noise:	0.1		

Peak table for sample 11 : sample 11

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	78	296.95	5,787.6		48.52
3	84	357.20	6,440.6		49.24
4	10,380	75.00	10.9	Upper Marker	113.00

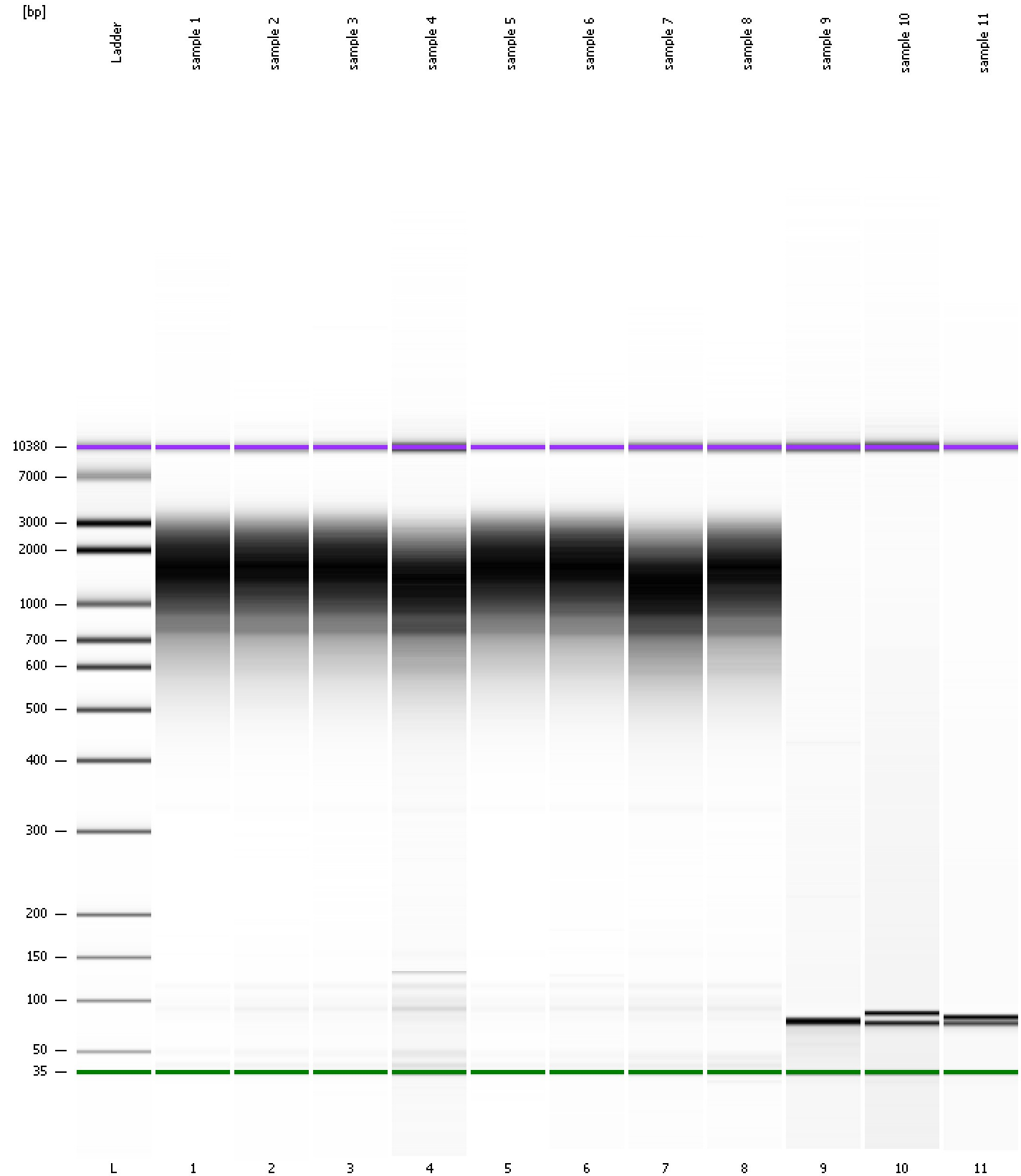
Region table for sample 11 : sample 11

From [bp]	To [bp]	Average Size [bp]	Conc. [pg/µl]	Corr. Area	Molarity [pmol/l]	Co % of lor Total	Size distribution in CV [%]
200	9,000	6,342	1.54	1.9	0.4	0	24.3

Assay Class: High Sensitivity DNA Assay
Data Path: C:\... bioanalyzer\2100 expert\data\2019-06-11\2019-06-11_002.xad

Created: 6/11/2019 4:05:50 PM
Modified: 6/11/2019 4:46:18 PM

Gel Image

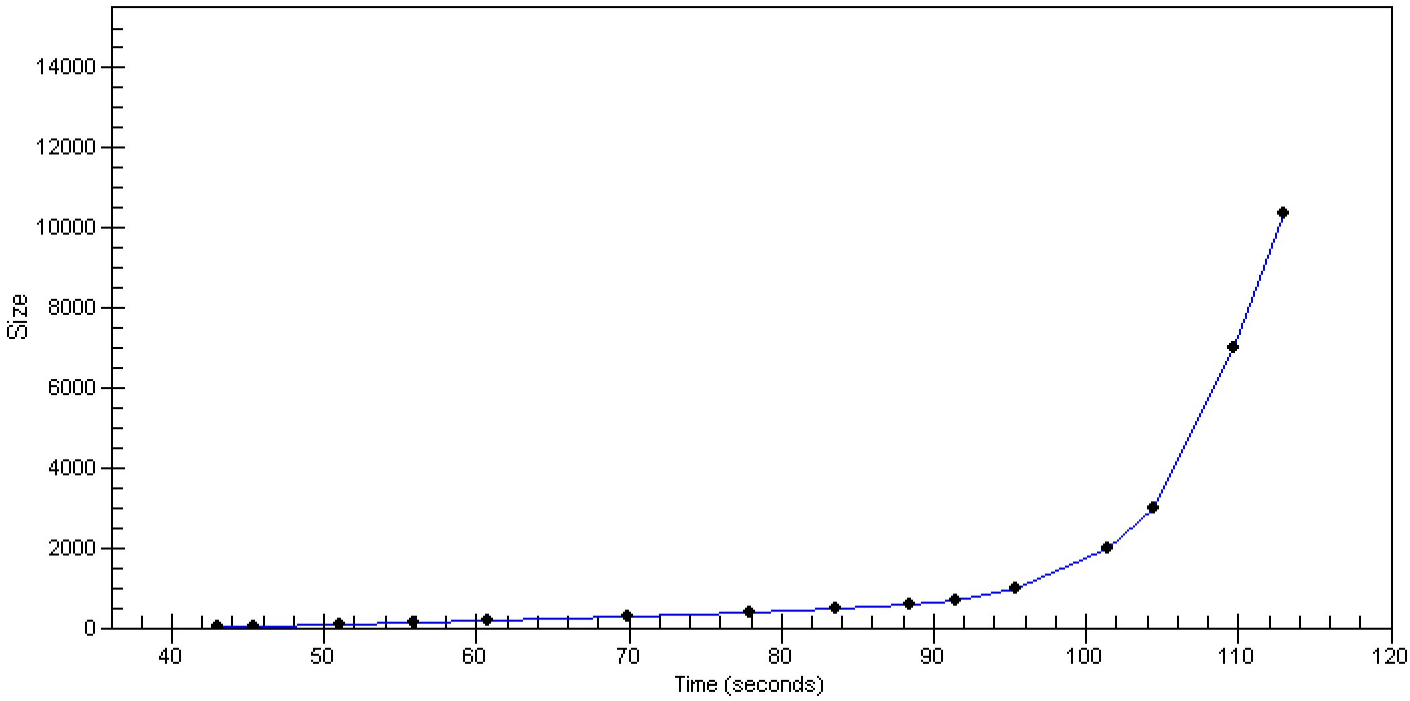


Assay Class: High Sensitivity DNA Assay
Data Path: C:\... bioanalyzer\2100 expert\data\2019-06-11\2019-06-11_002.xad

Created: 6/11/2019 4:05:50 PM
Modified: 6/11/2019 4:46:18 PM

Curves

Standard Curve



Assay Class: High Sensitivity DNA Assay
Data Path: C:\... bioanalyzer\2100 expert\data\2019-06-11\2019-06-11_002.xad

Created: 6/11/2019 4:05:50 PM
Modified: 6/11/2019 4:46:18 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		6/11/2019 4:46:17 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\2019-06-11\2019-06-11_002.xad)		Instrument	Run		6/11/2019 4:05:55 PM	(GMT --07:00) Pacific Standard Time	UC Davis	D8XSMGH1
Product Number : G2938C		Instrument	Run		6/11/2019 4:05:55 PM	(GMT --07:00) Pacific Standard Time	UC Davis	D8XSMGH1
Name :		Instrument	Run		6/11/2019 4:05:55 PM	(GMT --07:00) Pacific Standard Time	UC Davis	D8XSMGH1
Vendor : Agilent Technologies		Instrument	Run		6/11/2019 4:05:55 PM	(GMT --07:00) Pacific Standard Time	UC Davis	D8XSMGH1
Serial# : DE34903152		Instrument	Run		6/11/2019 4:05:55 PM	(GMT --07:00) Pacific Standard Time	UC Davis	D8XSMGH1
Firmware : C.01.069		Instrument	Run		6/11/2019 4:05:55 PM	(GMT --07:00) Pacific Standard Time	UC Davis	D8XSMGH1
Cartridge : Electrode		Instrument	Run		6/11/2019 4:05:55 PM	(GMT --07:00) Pacific Standard Time	UC Davis	D8XSMGH1