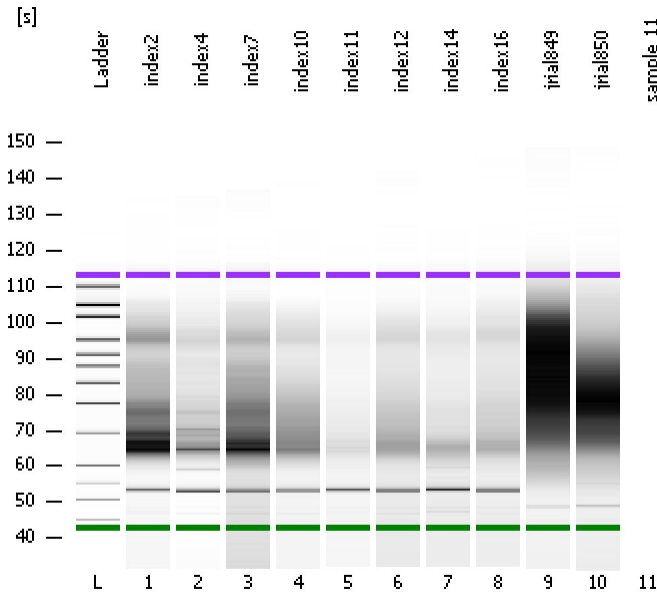


Assay Class: High Sensitivity DNA Assay
Data Path: C:\... bioanalyzer\2100 expert\data\2016-07-21\2016-07-21_001.xad

Created: 7/21/2016 3:14:48 PM
Modified: 7/21/2016 3:54:53 PM

Electrophoresis File Run Summary



Instrument Information:

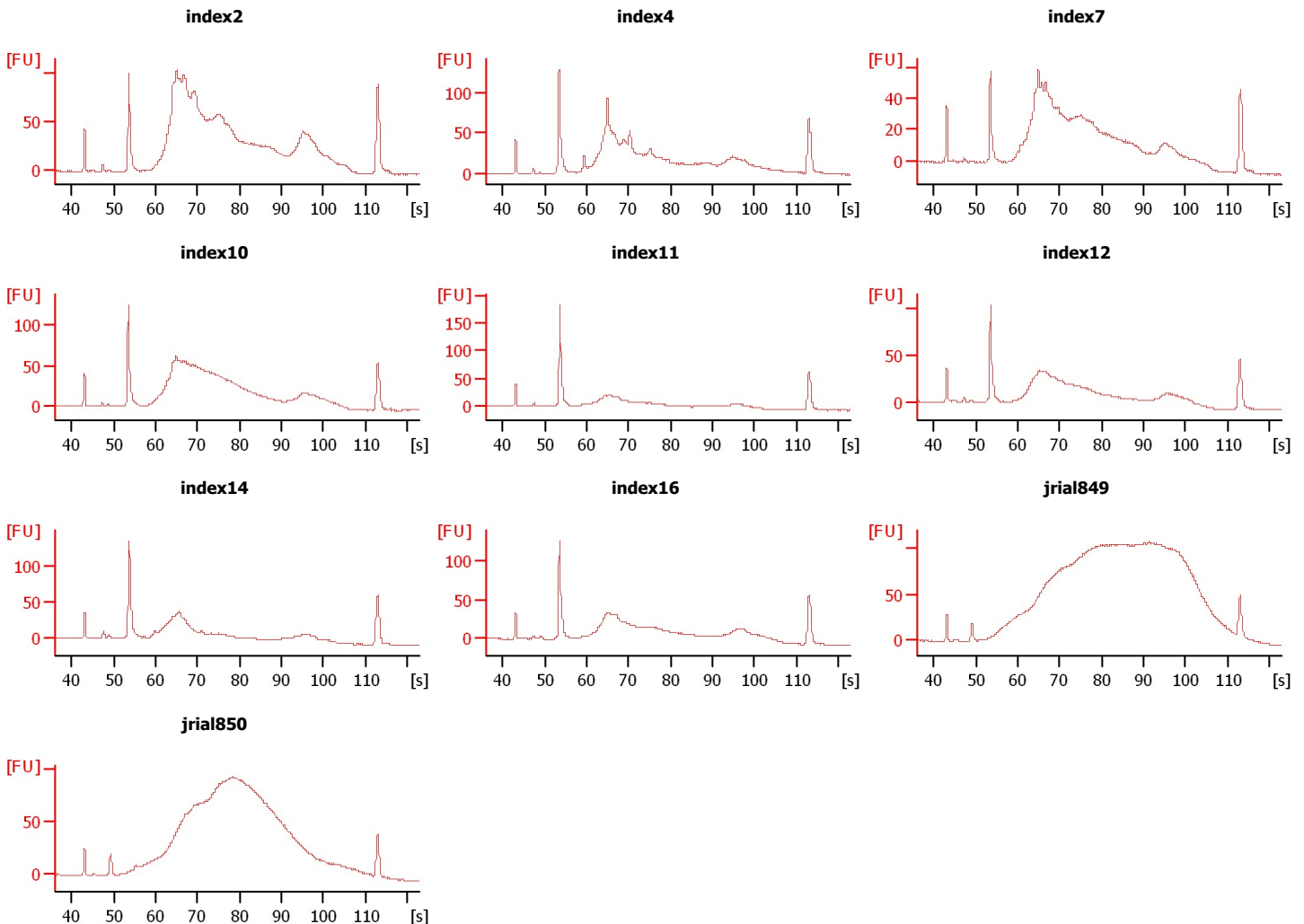
Instrument Name: DE13701086 Firmware: C.01.069
Serial#: DE13701086 Type: G2938B

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\2016-07-21\2016-07-21_001.xad

Created: 7/21/2016 3:14:48 PM
Modified: 7/21/2016 3:54:53 PM

Electrophoresis File Run Summary (Chip Summary)

Sample Name	Sample Comment	Rest. Digest	Status	Observation	Result Label	Result Color
index2		<input type="checkbox"/>	✓			
index4		<input type="checkbox"/>	✓			
index7		<input type="checkbox"/>	✓			
index10		<input type="checkbox"/>	✓			
index11		<input type="checkbox"/>	✓			
index12		<input type="checkbox"/>	✓			
index14		<input type="checkbox"/>	✓			
index16		<input type="checkbox"/>	✓			
jrial849		<input type="checkbox"/>	✓			
jrial850		<input type="checkbox"/>	✓			
sample 11		<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\2016-07-21\2016-07-21_001.xad

Created: 7/21/2016 3:14:48 PM
Modified: 7/21/2016 3:54:53 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

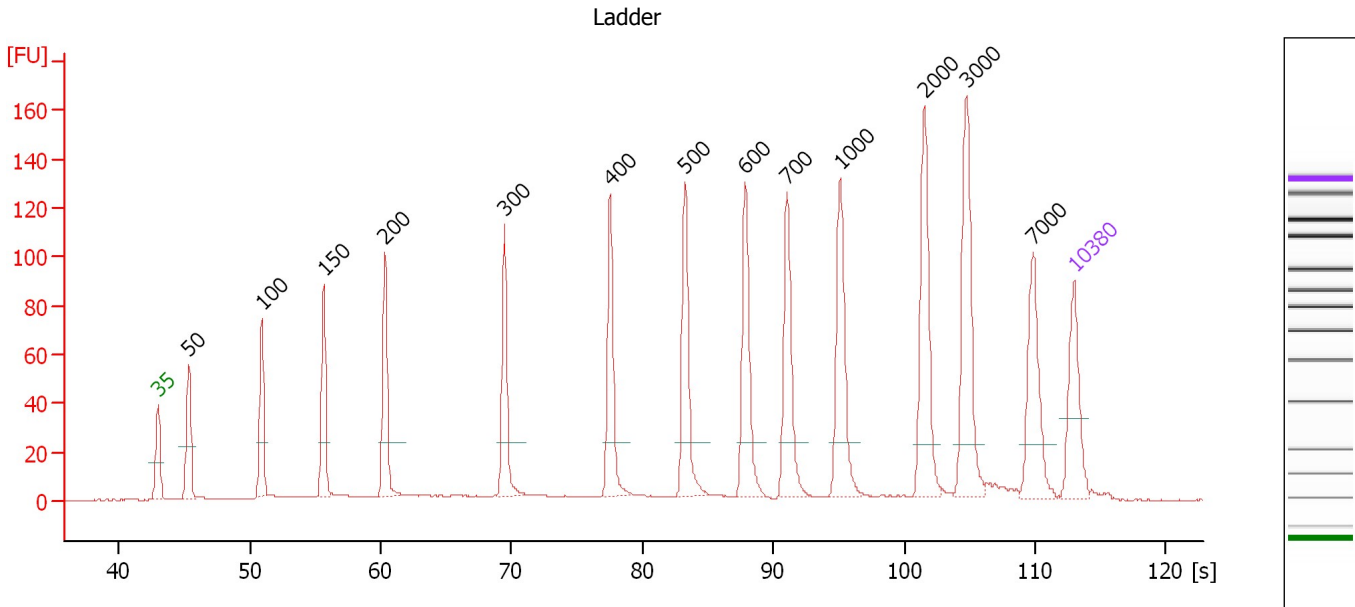
Ladder

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\2016-07-21\2016-07-21_001.xad

Created: 7/21/2016 3:14:48 PM
 Modified: 7/21/2016 3:54:53 PM

Electropherogram Summary



Overall Results for Ladder

Noise: 0.2

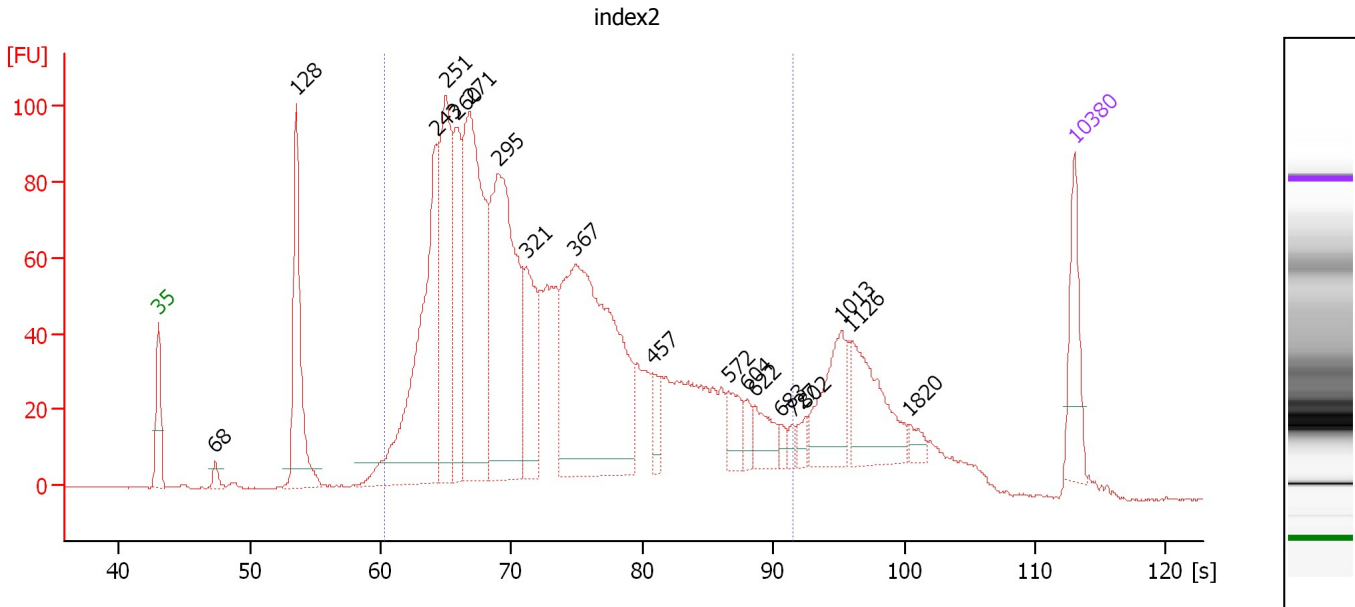
Peak table for Ladder

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	45.35
3	100	150.00	2,272.7	Ladder Peak	50.91
4	150	150.00	1,515.2	Ladder Peak	55.65
5	200	150.00	1,136.4	Ladder Peak	60.34
6	300	150.00	757.6	Ladder Peak	69.45
7	400	150.00	568.2	Ladder Peak	77.54
8	500	150.00	454.5	Ladder Peak	83.25
9	600	150.00	378.8	Ladder Peak	87.85
10	700	150.00	324.7	Ladder Peak	91.06
11	1,000	150.00	227.3	Ladder Peak	95.13
12	2,000	150.00	113.6	Ladder Peak	101.55
13	3,000	150.00	75.8	Ladder Peak	104.76
14	7,000	150.00	32.5	Ladder Peak	109.84
15	10,380	75.00	10.9	Upper Marker	113.00

Assay Class: High Sensitivity DNA Assay
 Data Path: C:\... bioanalyzer\2100 expert\data\2016-07-21\2016-07-21_001.xad

Created: 7/21/2016 3:14:48 PM
 Modified: 7/21/2016 3:54:53 PM

Electropherogram Summary Continued ...



Overall Results for sample 1 : index2

Number of peaks found: 19 Corr. Area 1: 2,020.0
 Noise: 0.2

Peak table for sample 1 : index2

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	68	16.38	364.4		47.36
3	128	269.28	3,185.9		53.57
4	243	468.84	2,926.7		64.23
5	251	306.41	1,847.9		65.01
6	260	196.80	1,145.6		65.83
7	271	489.29	2,736.3		66.80
8	295	496.05	2,548.6		68.98
9	321	155.17	733.3		71.12
10	367	594.64	2,452.9		74.90
11	457	35.44	117.4		80.81
12	572	45.74	121.0		86.58
13	604	20.44	51.2		87.99
14	622	46.91	114.2		88.57
15	683	11.93	26.5		90.51
16	727	11.52	24.0		91.43
17	802	17.12	32.3		92.45
18	1,013	105.35	157.6		95.21
19	1,126	125.72	169.2		95.94
20	1,820	15.47	12.9		100.40
21	10,380	75.00	10.9	Upper Marker	113.00

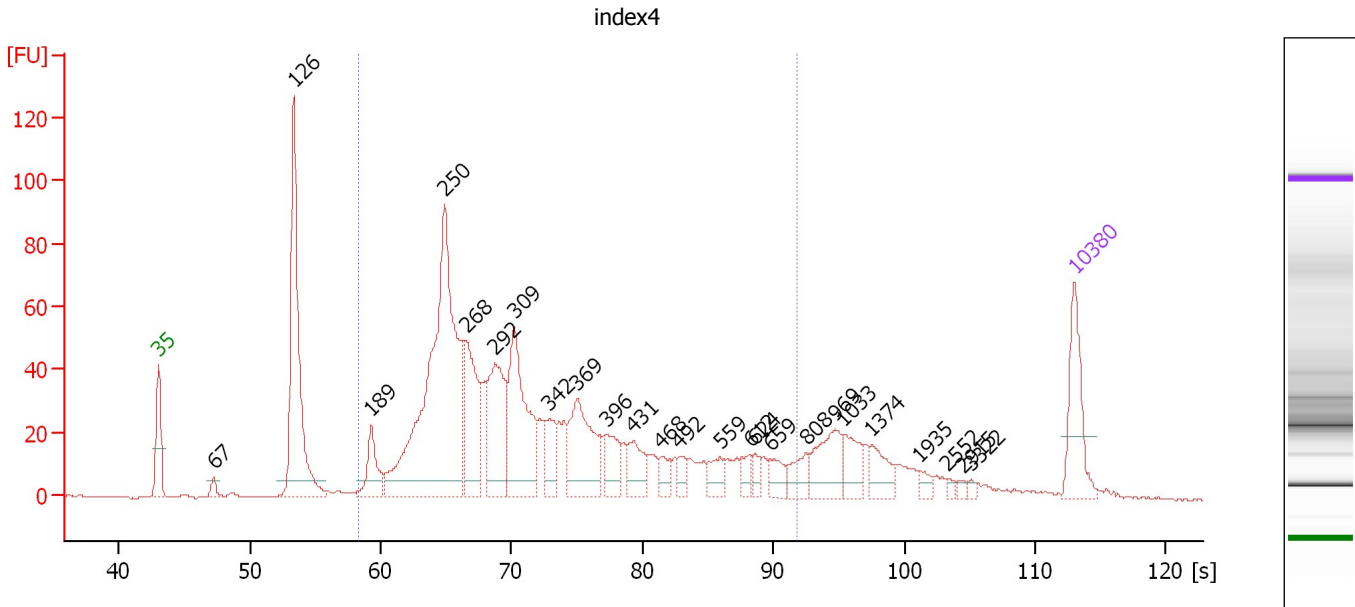
Region table for sample 1 : index2

From [s]	To [s]	Average Size [bp]	Corr. Area	Molarity [pmol/l]	Co Conc. [pg/μl]	% of Total	Size distribution in CV [%]
60.34	91.49	357	2,020.0	17,188.9	3,583.74	81	32.1

Assay Class: High Sensitivity DNA Assay
 Data Path: C:\... bioanalyzer\2100 expert\data\2016-07-21\2016-07-21_001.xad

Created: 7/21/2016 3:14:48 PM
 Modified: 7/21/2016 3:54:53 PM

Electropherogram Summary Continued ...



Overall Results for sample 2 : index4

Number of peaks found: 25 Corr. Area 1: 1,085.3
 Noise: 0.3

Peak table for sample 2 : index4

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	67	14.13	319.8		47.23
3	126	382.98	4,609.5		53.36
4	189	70.19	563.2		59.30
5	250	657.15	3,983.7		64.89
6	268	152.99	866.3		66.50
7	292	172.93	896.8		68.73
8	309	214.70	1,052.1		70.19
9	342	54.64	241.9		72.87
10	369	141.90	582.2		75.06
11	396	53.55	204.7		77.25
12	431	49.84	175.4		79.29
13	468	22.22	71.9		81.43
14	492	18.55	57.1		82.79
15	559	27.21	73.8		85.95
16	612	19.61	48.5		88.24
17	624	14.51	35.2		88.63
18	659	28.62	65.8		89.75
19	808	31.49	59.1		92.52
20	969	68.28	106.8		94.71
21	1,033	42.94	63.0		95.34
22	1,374	36.26	40.0		97.53
23	1,935	11.17	8.7		101.13
24	2,552	4.41	2.6		103.32
25	2,915	5.26	2.7		104.49

Assay Class: High Sensitivity DNA Assay
Data Path: C:\... bioanalyzer\2100 expert\data\2016-07-21\2016-07-21_001.xad

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Modified: 7/21/2016 3:54:53 PM

Electropherogram Summary Continued ...**... Peak table for sample 2 : index4**

Peak	Size [bp]	Conc. [pg/ μ l]	Molarity [pmol/l]	Observations	Aligned Migration Time [s]
26	3,322	3.87	1.8		105.17
27	10,380	75.00	10.9	Upper Marker	113.00

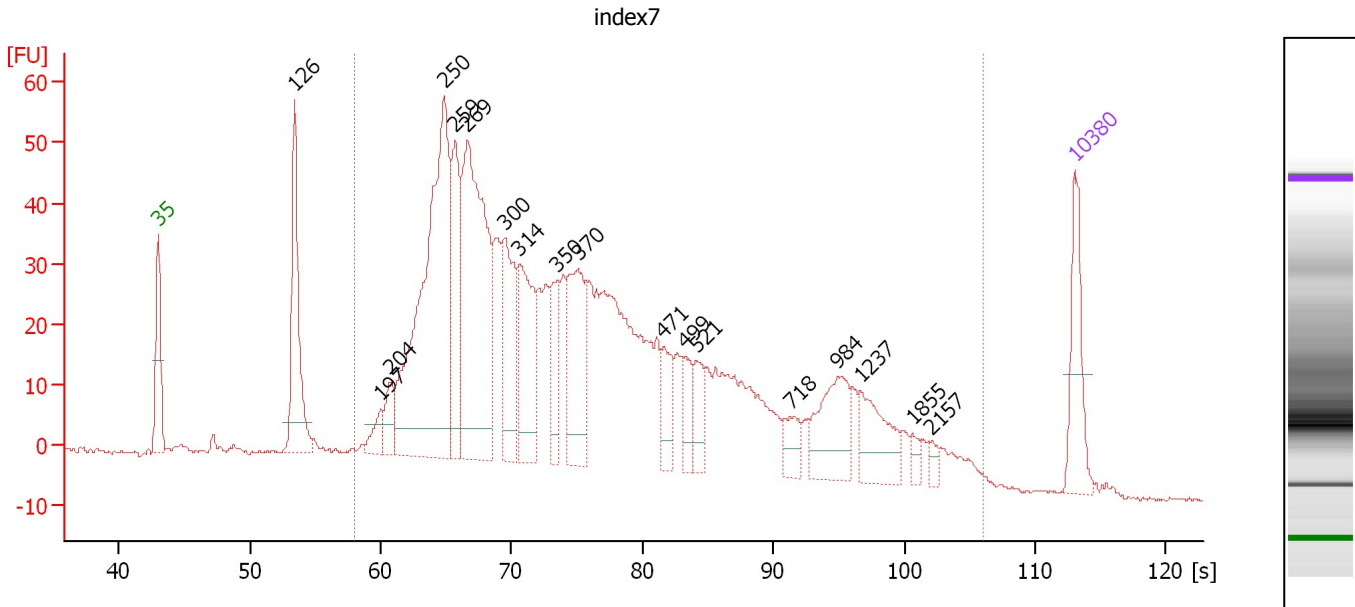
Region table for sample 2 : index4

From [s]	To [s]	Average Size [bp]	Corr. Area	Molarity [pmol/l]	Co Conc. lor [pg/ μ l]	% of Total	Size distribution in CV [%]
58.35	91.74	346	1,085.3	9,939.8	1,971.67	75	35.1

Assay Class: High Sensitivity DNA Assay
 Data Path: C:\... bioanalyzer\2100 expert\data\2016-07-21\2016-07-21_001.xad

Created: 7/21/2016 3:14:48 PM
 Modified: 7/21/2016 3:54:53 PM

Electropherogram Summary Continued ...



Overall Results for sample 3 : index7

Number of peaks found: 18 Corr. Area 1: 1,267.5
 Noise: 0.2

Peak table for sample 3 : index7

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	126	219.61	2,634.0		53.40
3	197	30.22	232.7		60.04
4	204	46.09	341.8		60.74
5	250	590.94	3,581.3		64.90
6	259	157.78	924.0		65.69
7	269	452.68	2,549.2		66.63
8	300	152.44	769.7		69.45
9	314	158.67	765.3		70.59
10	350	71.67	310.0		73.52
11	370	149.26	611.5		75.10
12	471	53.87	173.3		81.59
13	499	44.56	135.4		83.18
14	521	39.58	115.1		84.22
15	718	33.39	70.5		91.30
16	984	95.80	147.4		94.92
17	1,237	73.12	89.5		96.65
18	1,855	11.28	9.2		100.62
19	2,157	8.42	5.9		102.05
20	10,380	75.00	10.9	Upper Marker	113.00

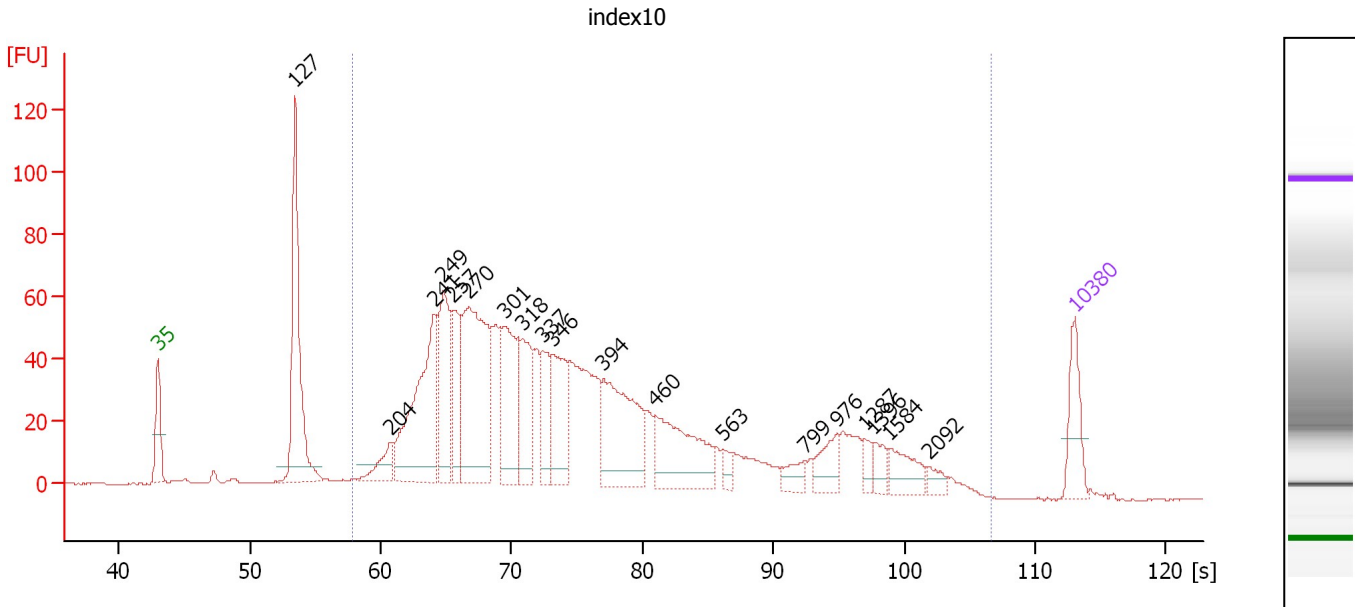
Region table for sample 3 : index7

From [s]	To [s]	Average Size [bp]	Corr. Area	Molarity [pmol/l]	Co Conc. lor [pg/μl]	% of Total	Size distribution in CV [%]
58.03	106.10	496	1,267.5	14,634.4	3,211.12	94	86.5

Assay Class: High Sensitivity DNA Assay
 Data Path: C:\... bioanalyzer\2100 expert\data\2016-07-21\2016-07-21_001.xad

Created: 7/21/2016 3:14:48 PM
 Modified: 7/21/2016 3:54:53 PM

Electropherogram Summary Continued ...



Overall Results for sample 4 : index10

Number of peaks found: 19 Corr. Area 1: 1,561.6
 Noise: 0.2

Peak table for sample 4 : index10

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	127	437.08	5,220.9		53.45
3	204	63.94	474.1		60.74
4	241	404.72	2,541.1		64.11
5	249	243.40	1,480.8		64.81
6	257	140.70	830.2		65.51
7	270	470.04	2,637.5		66.72
8	301	250.89	1,262.7		69.53
9	318	162.43	774.4		70.89
10	337	89.86	404.0		72.45
11	346	182.73	800.8		73.15
12	394	284.37	1,094.9		77.02
13	460	223.34	736.4		80.94
14	563	22.03	59.2		86.17
15	799	33.43	63.4		92.40
16	976	54.48	84.5		94.81
17	1,287	21.70	25.6		96.97
18	1,396	30.65	33.3		97.67
19	1,584	56.56	54.1		98.88
20	2,092	19.55	14.2		101.84
21	10,380	75.00	10.9	Upper Marker	113.00

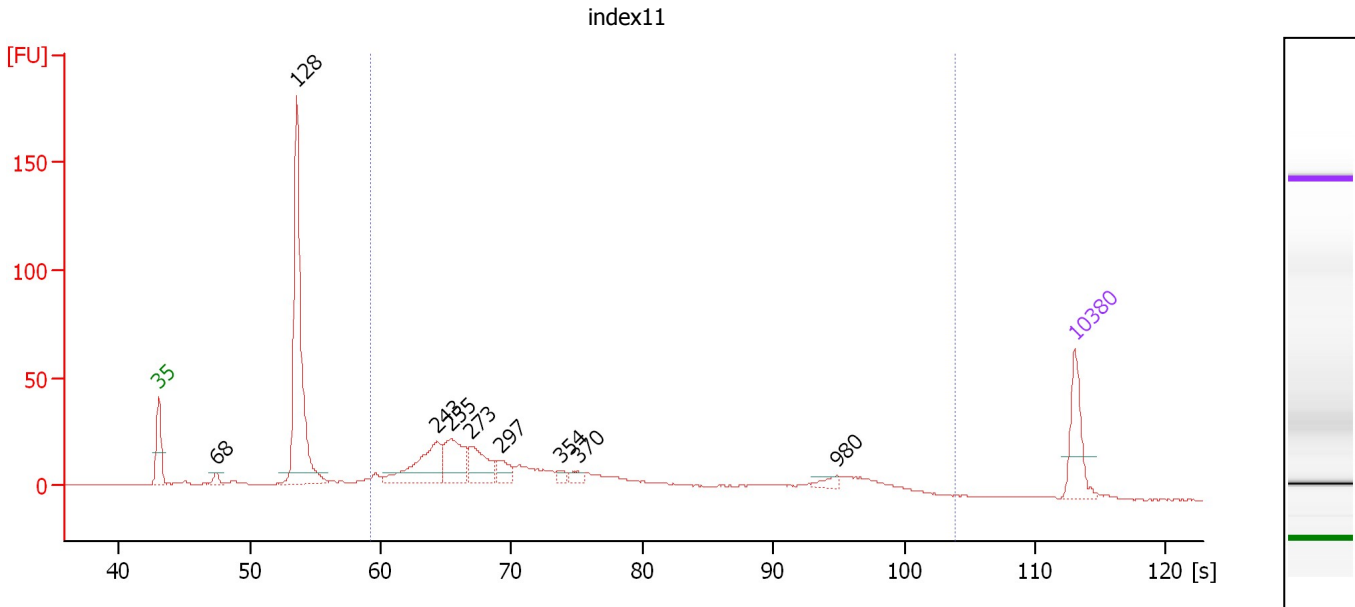
Region table for sample 4 : index10

From [s]	To [s]	Average Size [bp]	Corr. Area	Molarity [pmol/l]	Co Conc. lor [pg/μl]	% of Total	Size distribution in CV [%]
57.92	106.68	495	1,561.6	16,688.1	3,629.72	89	86.6

Assay Class: High Sensitivity DNA Assay
 Data Path: C:\... bioanalyzer\2100 expert\data\2016-07-21\2016-07-21_001.xad

Created: 7/21/2016 3:14:48 PM
 Modified: 7/21/2016 3:54:53 PM

Electropherogram Summary Continued ...



Overall Results for sample 5 : index11

Number of peaks found: 9 Corr. Area 1: 453.3
 Noise: 0.2

Peak table for sample 5 : index11

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	68	15.66	347.3		47.38
3	128	563.29	6,676.5		53.55
4	243	149.46	930.4		64.30
5	255	114.76	681.5		65.37
6	273	88.58	492.5		66.94
7	297	34.31	175.3		69.14
8	354	12.40	53.1		73.82
9	370	15.34	62.8		75.10
10	980	12.35	19.1		94.86
11	10,380	75.00	10.9	Upper Marker	113.00

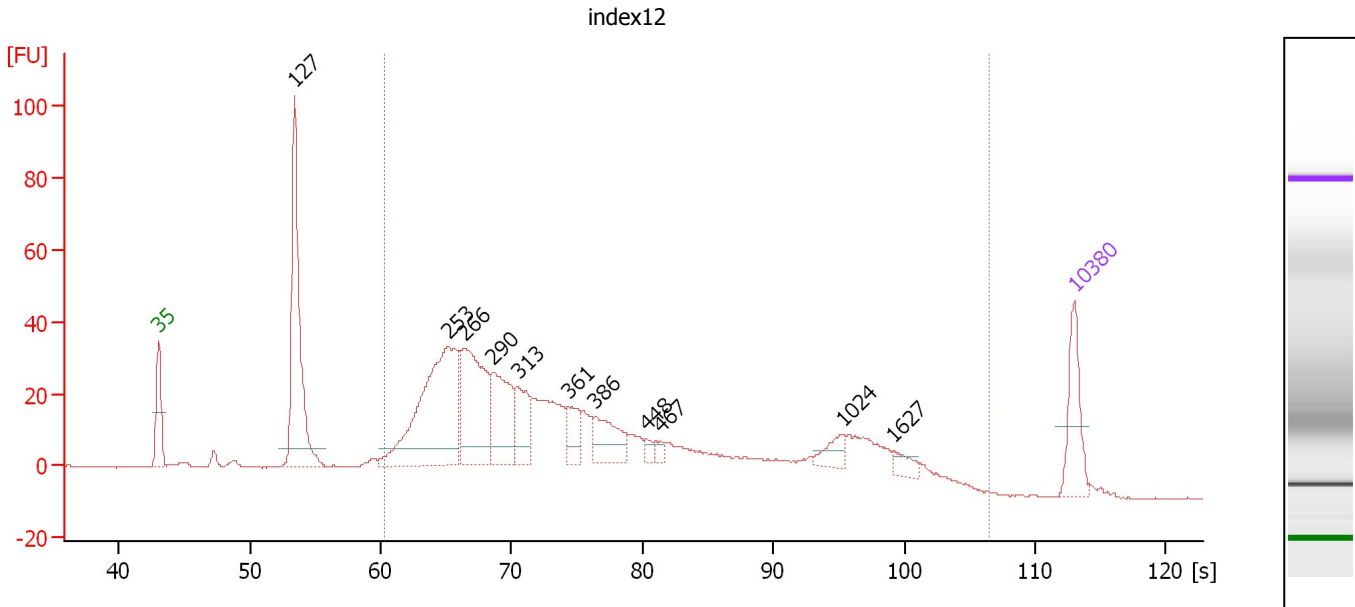
Region table for sample 5 : index11

From [s]	To [s]	Average Size [bp]	Corr. Area	Molarity [pmol/l]	Co Conc. lor [pg/μl]	% of Total	Size distribution in CV [%]
59.27	103.82	473	453.3	4,444.6	920.58	62	77.0

Assay Class: High Sensitivity DNA Assay
 Data Path: C:\... bioanalyzer\2100 expert\data\2016-07-21\2016-07-21_001.xad

Created: 7/21/2016 3:14:48 PM
 Modified: 7/21/2016 3:54:53 PM

Electropherogram Summary Continued ...



Overall Results for sample 6 : index12

Number of peaks found: 11 Corr. Area 1: 826.0
 Noise: 0.2

Peak table for sample 6 : index12

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	127	397.68	4,756.9		53.44
3	253	424.54	2,543.2		65.16
4	266	261.88	1,491.8		66.35
5	290	151.06	788.2		68.57
6	313	90.19	436.9		70.48
7	361	54.06	227.1		74.36
8	386	82.47	323.6		76.42
9	448	13.06	44.1		80.30
10	467	10.38	33.7		81.38
11	1,024	27.75	41.1		95.28
12	1,627	19.77	18.4		99.15
13	10,380	75.00	10.9	Upper Marker	113.00

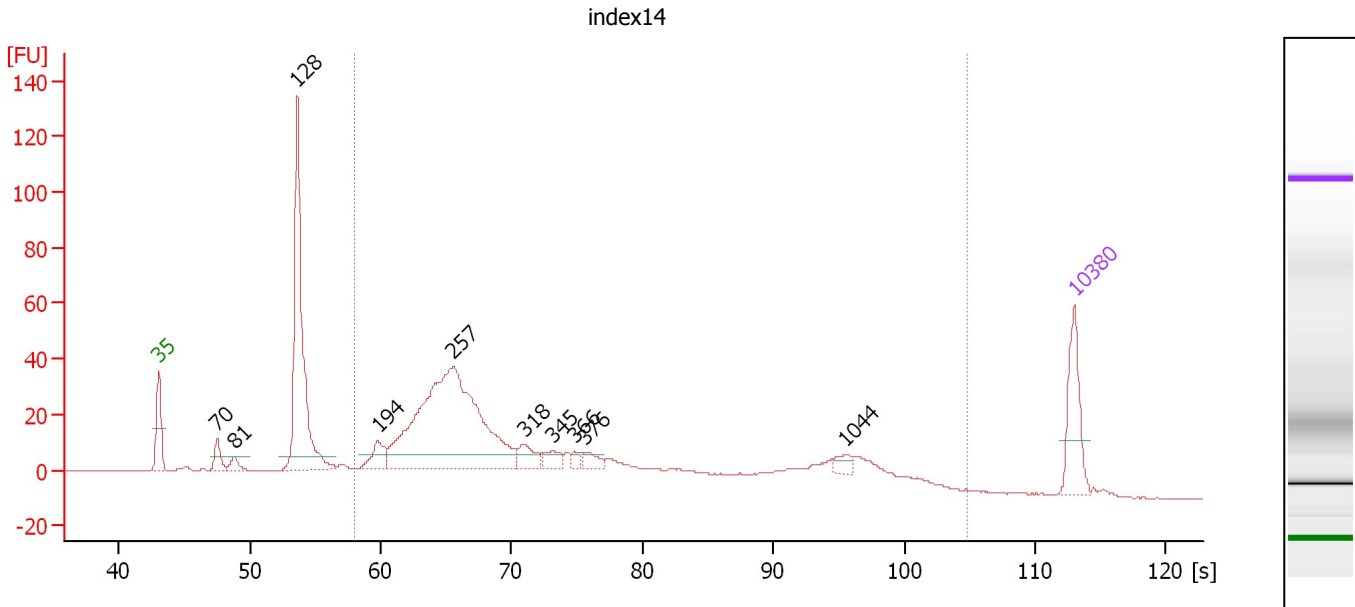
Region table for sample 6 : index12

From [s]	To [s]	Average Size [bp]	Corr. Area	Molarity [pmol/l]	Co Conc. lor [pg/μl]	% of Total	Size distribution in CV [%]
60.34	106.57	515	826.0	8,731.1	1,924.86	81	83.0

Assay Class: High Sensitivity DNA Assay
 Data Path: C:\... bioanalyzer\2100 expert\data\2016-07-21\2016-07-21_001.xad

Created: 7/21/2016 3:14:48 PM
 Modified: 7/21/2016 3:54:53 PM

Electropherogram Summary Continued ...



Overall Results for sample 7 : index14

Number of peaks found: 10 Corr. Area 1: 644.9
 Noise: 0.2

Peak table for sample 7 : index14

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	70	33.05	720.5		47.52
3	81	20.02	375.2		48.78
4	128	456.49	5,383.2		53.61
5	194	40.89	319.0		59.80
6	257	642.05	3,786.1		65.53
7	318	34.29	163.2		70.94
8	345	23.05	101.2		73.09
9	366	11.28	46.6		74.82
10	376	20.35	82.0		75.61
11	1,044	15.83	23.0		95.41
12	10,380	75.00	10.9	Upper Marker	113.00

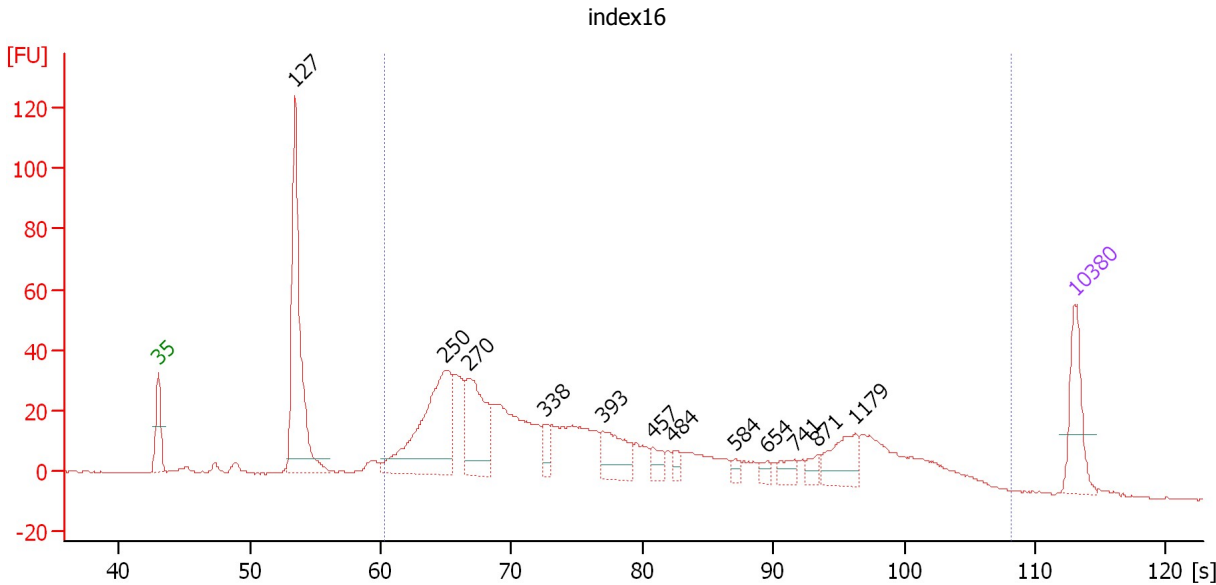
Region table for sample 7 : index14

From [s]	To [s]	Average Size [bp]	Corr. Area	Molarity [pmol/l]	Co Conc. lor [pg/μl]	% of Total	Size distribution in CV [%]
58.02	104.75	470	644.9	6,552.1	1,295.67	72	83.3

Assay Class: High Sensitivity DNA Assay
 Data Path: C:\... bioanalyzer\2100 expert\data\2016-07-21\2016-07-21_001.xad

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 Modified: 7/21/2016 3:54:53 PM

Electropherogram Summary Continued ...



Overall Results for sample 8 : index16

Number of peaks found: 12 Corr. Area 1: 839.8
 Noise: 0.2

Peak table for sample 8 : index16

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	127	418.09	4,994.2		53.45
3	250	313.02	1,899.4		64.87
4	270	175.15	981.8		66.74
5	338	32.43	145.3		72.53
6	393	81.88	315.7		76.98
7	457	23.41	77.6		80.79
8	484	14.94	46.8		82.34
9	584	9.93	25.8		87.11
10	654	12.35	28.6		89.58
11	741	23.04	47.1		91.61
12	871	15.88	27.6		93.38
13	1,179	63.51	81.6		96.28
14	10,380	75.00	10.9	Upper Marker	113.00

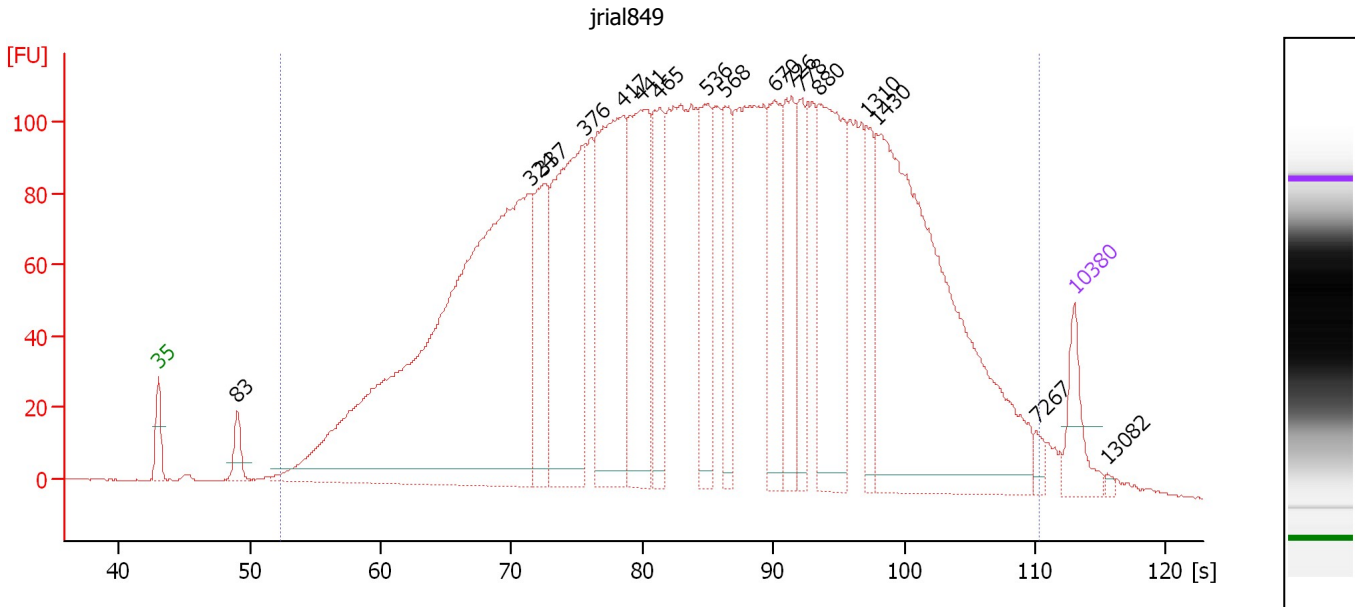
Region table for sample 8 : index16

From [s]	To [s]	Average Size [bp]	Corr. Area	Molarity [pmol/l]	Co Conc. lor [pg/μl]	% of Total	Size distribution in CV [%]
60.34	108.14	634	839.8	7,017.3	1,625.36	79	97.4

Assay Class: High Sensitivity DNA Assay
 Data Path: C:\... bioanalyzer\2100 expert\data\2016-07-21\2016-07-21_001.xad

Created: 7/21/2016 3:14:48 PM
 Modified: 7/21/2016 3:54:53 PM

Electropherogram Summary Continued ...



Overall Results for sample 9 : jrial849

Number of peaks found: 17 Corr. Area 1: 4,785.0
 Noise: 0.2

Peak table for sample 9 : jrial849

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	83	57.27	1,042.2		49.04
3	324	1,966.25	9,189.5		71.41
4	337	257.55	1,157.6		72.45
5	376	579.08	2,335.0		75.58
6	417	550.60	2,002.2		78.49
7	441	434.46	1,493.5		79.87
8	465	208.87	680.8		81.24
9	536	207.29	585.5		84.92
10	568	164.12	438.2		86.35
11	670	224.70	508.3		90.09
12	726	202.37	422.4		91.41
13	778	164.92	321.0		92.12
14	880	379.31	653.4		93.49
15	1,310	103.61	119.8		97.12
16	1,430	956.68	1,013.6		97.89
17	7,267	17.39	3.6		110.09
18	10,380	75.00	10.9	Upper Marker	113.00
19	13,082	0.00	0.0		115.53

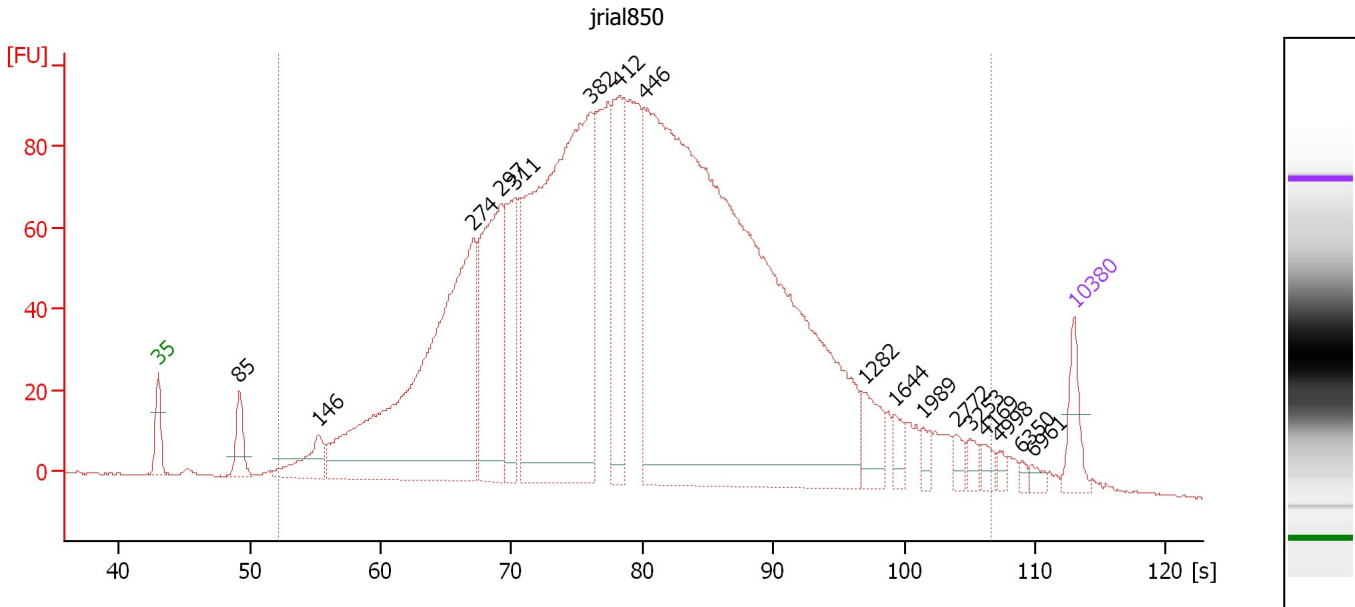
Region table for sample 9 : jrial849

From [s]	To [s]	Average Size [bp]	Corr. Area	Molarity [pmol/l]	Co Conc. lor [pg/μl]	% of Total	Size distribution in CV [%]
52.40	110.35	882	4,785.0	30,514.6	8,418.58	99	100.0

Assay Class: High Sensitivity DNA Assay
 Data Path: C:\... bioanalyzer\2100 expert\data\2016-07-21\2016-07-21_001.xad

Created: 7/21/2016 3:14:48 PM
 Modified: 7/21/2016 3:54:53 PM

Electropherogram Summary Continued ...



Overall Results for sample 10 : jrial850

Number of peaks found: 17 Corr. Area 1: 3,016.9
 Noise: 0.2

Peak table for sample 10 : jrial850

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	85	113.18	2,025.1		49.20
3	146	139.70	1,452.9		55.24
4	274	1,531.62	8,466.3		67.09
5	297	623.61	3,179.0		69.19
6	311	299.23	1,459.9		70.30
7	382	1,773.48	7,040.1		76.06
8	412	391.70	1,441.0		78.22
9	446	3,616.33	12,289.1		80.16
10	1,282	93.37	110.3		96.94
11	1,644	35.37	32.6		99.27
12	1,989	26.50	20.2		101.48
13	2,772	24.27	13.3		104.03
14	3,253	25.14	11.7		105.08
15	4,169	23.57	8.6		106.24
16	4,998	15.11	4.6		107.30
17	6,350	10.36	2.5		109.01
18	6,961	16.43	3.6		109.79
19	10,380	75.00	10.9	Upper Marker	113.00

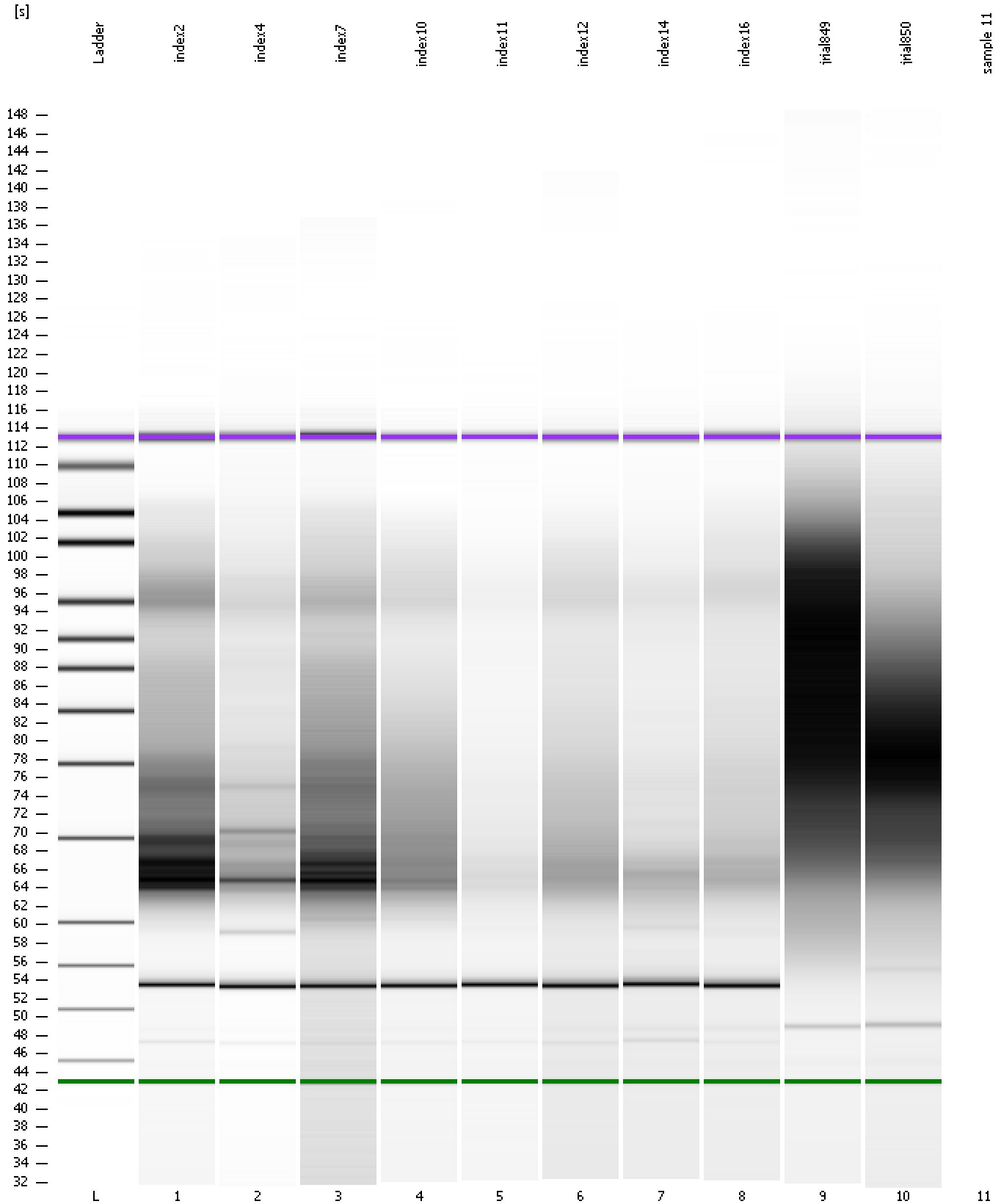
Region table for sample 10 : jrial850

From [s]	To [s]	Average Size [bp]	Corr. Area	Molarity [pmol/l]	Co Conc. [pg/μl]	% of Total	Size distribution in CV [%]
52.20	106.57	551	3,016.9	38,952.2	9,482.98	98	86.4

Assay Class: High Sensitivity DNA Assay
Data Path: C:\... bioanalyzer\2100 expert\data\2016-07-21\2016-07-21_001.xad

Created: 7/21/2016 3:14:48 PM
Modified: 7/21/2016 3:54:53 PM

Gel Image



Assay Class: High Sensitivity DNA Assay
Data Path: C:\... bioanalyzer\2100 expert\data\2016-07-21\2016-07-21_001.xad

Created: 7/21/2016 3:14:48 PM
Modified: 7/21/2016 3:54:53 PM

Invalid Samples

Sample 11 has not been run, no results available.

Assay Class: High Sensitivity DNA Assay
 Data Path: C:\... bioanalyzer\2100 expert\data\2016-07-21\2016-07-21_001.xad

Created: 7/21/2016 3:14:48 PM
 Modified: 7/21/2016 3:54:53 PM

Run Logbook

Description	Number	Source	Category	Sub Category	Time	Time Zone	User	Host
Run ended on port 1 (Number of wells acquired: 11)		Instrument	Run		7/21/2016 3:53:13 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\2016-07-21\2016-07-21_001.xad)		Instrument	Run		7/21/2016 3:14:53 PM	(GMT --07:00) Pacific Standard Time	UC Davis	D8XSMGH1
Product Number : G2938B		Instrument	Run		7/21/2016 3:14:53 PM	(GMT --07:00) Pacific Standard Time	UC Davis	D8XSMGH1
Name :		Instrument	Run		7/21/2016 3:14:53 PM	(GMT --07:00) Pacific Standard Time	UC Davis	D8XSMGH1
Vendor : Agilent Technologies		Instrument	Run		7/21/2016 3:14:53 PM	(GMT --07:00) Pacific Standard Time	UC Davis	D8XSMGH1
Serial# : DE13701086		Instrument	Run		7/21/2016 3:14:53 PM	(GMT --07:00) Pacific Standard Time	UC Davis	D8XSMGH1
Firmware : C.01.069		Instrument	Run		7/21/2016 3:14:53 PM	(GMT --07:00) Pacific Standard Time	UC Davis	D8XSMGH1
Cartridge : Electrode		Instrument	Run		7/21/2016 3:14:53 PM	(GMT --07:00) Pacific Standard Time	UC Davis	D8XSMGH1