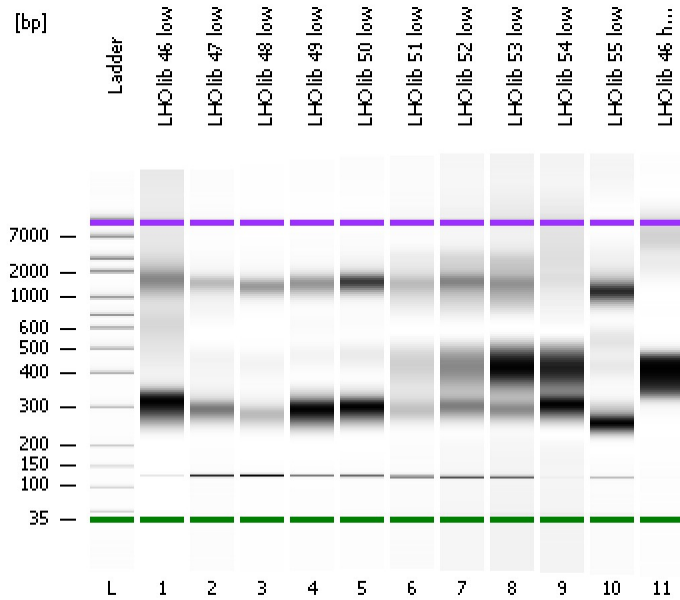


Assay Class: High Sensitivity DNA Assay
Data Path: C:\...ents and Settings\Bioanalyzer\2013-07-17\2013-07-17_001.xad

Created: 7/17/2013 9:15:56 AM
Modified: 7/17/2013 10:57:30 AM

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

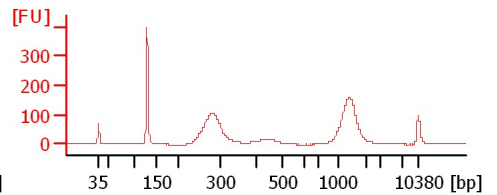
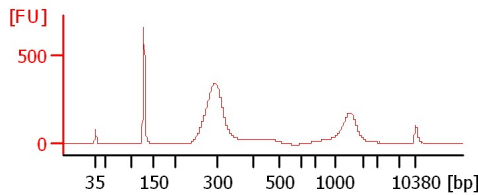
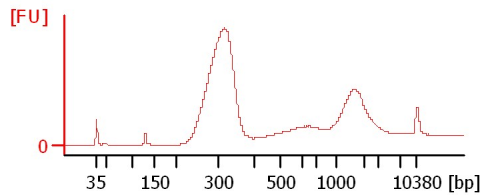
Chip Information:

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

LHO lib 46 low

LHO lib 47 low

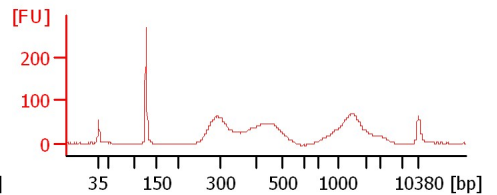
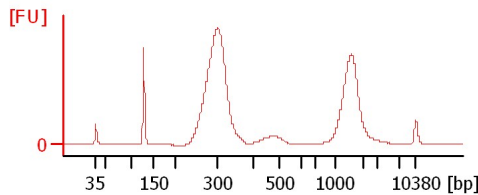
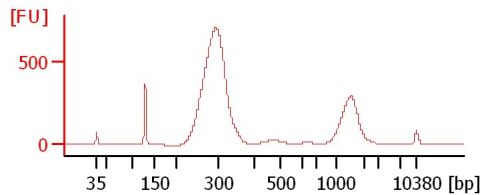
LHO lib 48 low



LHO lib 49 low

LHO lib 50 low

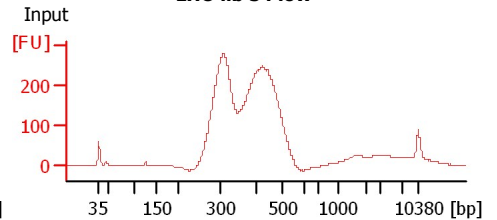
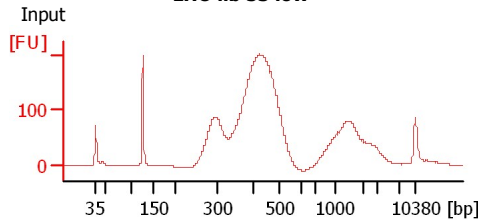
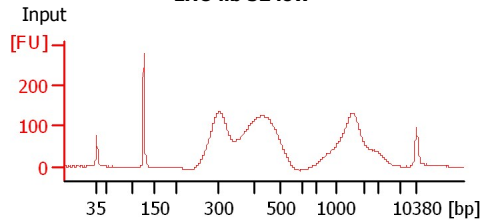
LHO lib 51 low



LHO lib 52 low

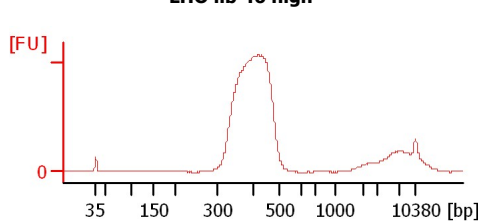
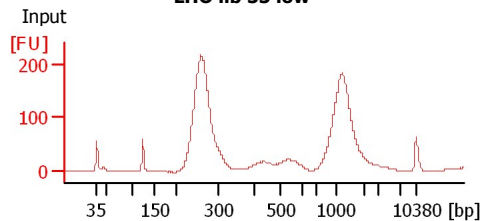
LHO lib 53 low

LHO lib 54 low



LHO lib 55 low

LHO lib 46 high



Assay Class: High Sensitivity DNA Assay
Data Path: C:\...ents and Settings\Bioanalyzer\2013-07-17\2013-07-17_001.xad

Created: 7/17/2013 9:15:56 AM
Modified: 7/17/2013 10:57:30 AM

Electrophoresis File Run Summary (Chip Summary)

Sample Name	Sample Comment	Rest. Digest	Status	Observation	Result Label	Result Color
LHO lib 46 low		<input type="checkbox"/>	✓			
LHO lib 47 low		<input type="checkbox"/>	✓			
LHO lib 48 low		<input type="checkbox"/>	✓			
LHO lib 49 low		<input type="checkbox"/>	✓			
LHO lib 50 low		<input type="checkbox"/>	✓			
LHO lib 51 low	Input	<input type="checkbox"/>	✓			
LHO lib 52 low	Input	<input type="checkbox"/>	✓			
LHO lib 53 low	Input	<input type="checkbox"/>	✓			
LHO lib 54 low	Input	<input type="checkbox"/>	✓			
LHO lib 55 low	Input	<input type="checkbox"/>	✓			
LHO lib 46 high		<input type="checkbox"/>	✓			
Ladder		<input type="checkbox"/>	✓			

Chip Lot #

Reagent Kit Lot #

Chip Comments :

Assay Class: High Sensitivity DNA Assay
Data Path: C:\...ents and Settings\Bioanalyzer\2013-07-17\2013-07-17_001.xad

Created: 7/17/2013 9:15:56 AM
Modified: 7/17/2013 10:57:30 AM

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

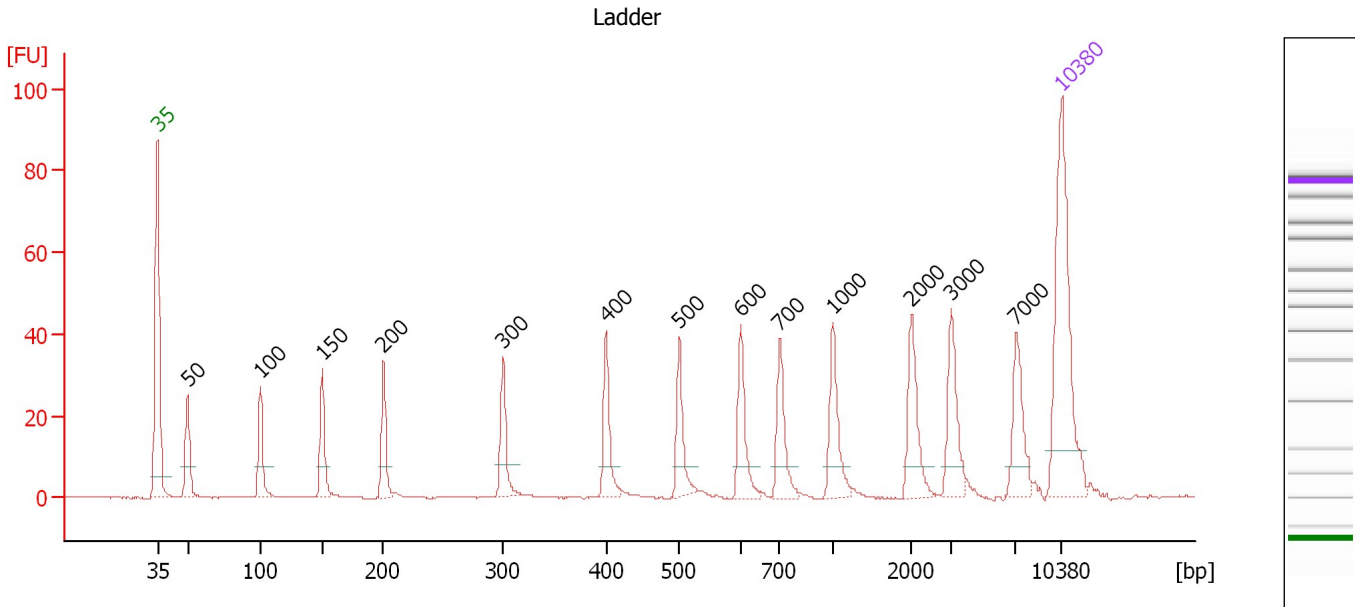
Ladder

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:\...ents and Settings\Bioanalyzer\2013-07-17\2013-07-17_001.xad

Created: 7/17/2013 9:15:56 AM
 Modified: 7/17/2013 10:57:30 AM

Electropherogram Summary



Overall Results for Ladder

Noise: 0.1

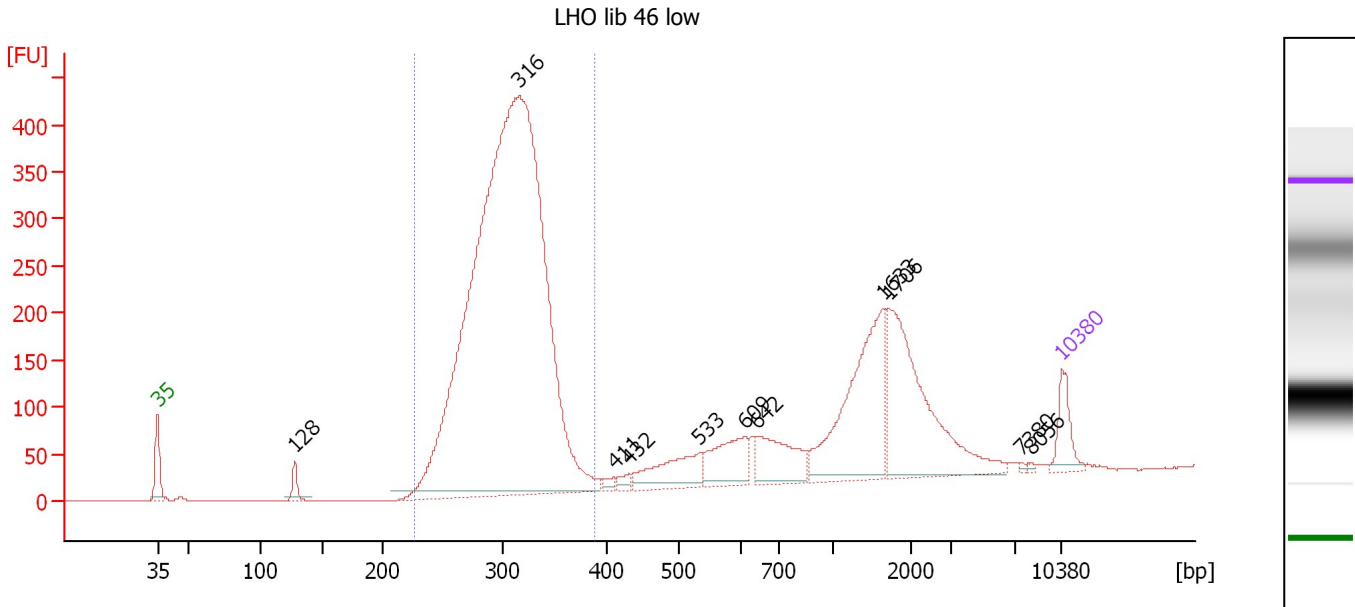
Peak table for Ladder

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:\...ents and Settings\Bioanalyzer\2013-07-17\2013-07-17_001.xad

Created: 7/17/2013 9:15:56 AM
 Modified: 7/17/2013 10:57:30 AM

Electropherogram Summary Continued ...



Overall Results for sample 1 : LHO lib 46 low

Number of peaks found: 11 Corr. Area 1: 3,892.7
 Noise: 0.2

Peak table for sample 1 : LHO lib 46 low

Peak	Size [bp]	Conc. [pg/μl]	Molarity [pmol/l]	Observations
1	35	125.00	5,411.3	Lower Marker
2	128	50.97	605.6	
3	316	4,438.62	21,286.5	
4	411	17.18	63.4	
5	432	21.87	76.7	
6	533	171.75	488.2	
7	609	163.71	407.5	
8	642	184.99	436.3	
9	1,633	463.92	430.3	
10	1,706	499.94	443.9	
11	7,380	4.67	1.0	
12	8,056	3.99	0.8	
13	10,380	75.00	10.9	Upper Marker

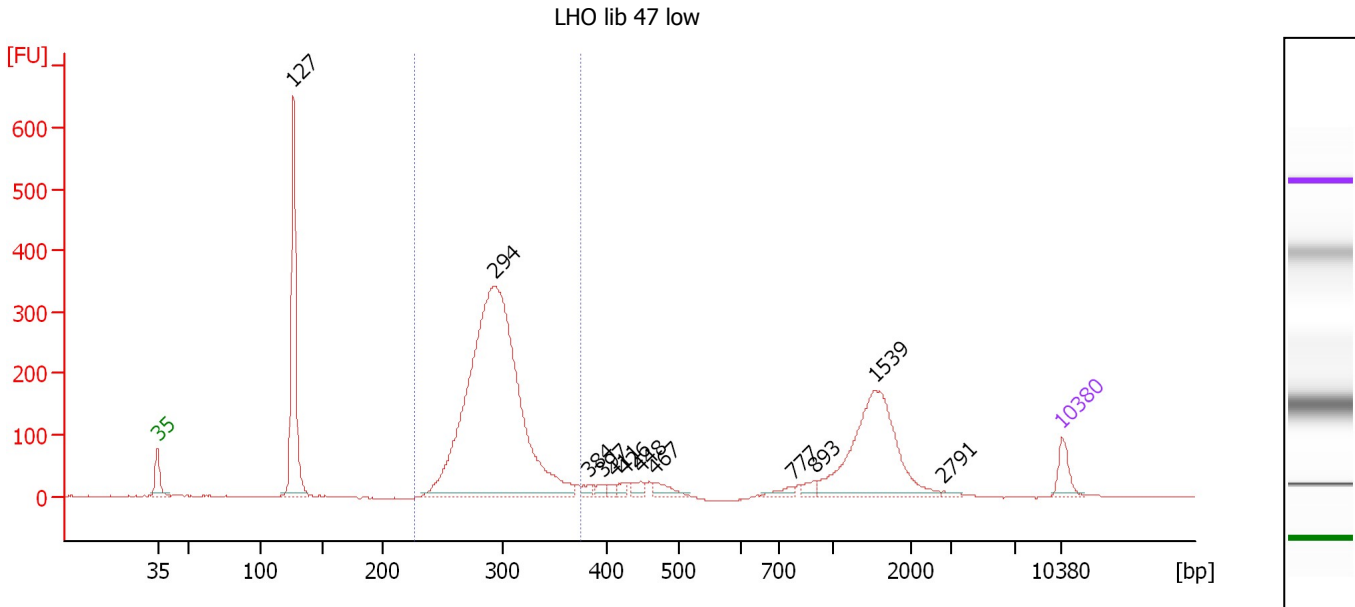
Region table for sample 1 : LHO lib 46 low

From [bp]	To [bp]	Average Size [bp]	Molarity [pmol/l]	Conc. [pg/μl]	Corr. Area	% of Total	Size distribution in CV [%]	Color
226	388	305	21,569.7	4,299.68	3,892.7	69	9.2	Blue

Assay Class: High Sensitivity DNA Assay
 Data Path: C:\...ents and Settings\Bioanalyzer\2013-07-17\2013-07-17_001.xad

Created: 7/17/2013 9:15:56 AM
 Modified: 7/17/2013 10:57:30 AM

Electropherogram Summary Continued ...



Overall Results for sample 2 : LHO lib 47 low

Number of peaks found: 12 Corr. Area 1: 2,374.1
 Noise: 0.9

Peak table for sample 2 : LHO lib 47 low

Peak	Size [bp]	Conc. [pg/μl]	Molarity [pmol/l]	Observations
1	35	125.00	5,411.3	Lower Marker
2	127	1,039.88	12,444.5	
3	294	3,549.13	18,316.4	
4	384	27.83	109.8	
5	397	27.36	104.5	
6	411	26.88	99.1	
7	426	26.98	96.0	
8	448	37.80	127.9	
9	467	60.91	197.8	
10	777	32.53	63.5	
11	893	33.67	57.1	
12	1,539	738.86	727.6	
13	2,791	9.27	5.0	
14	10,380	75.00	10.9	Upper Marker

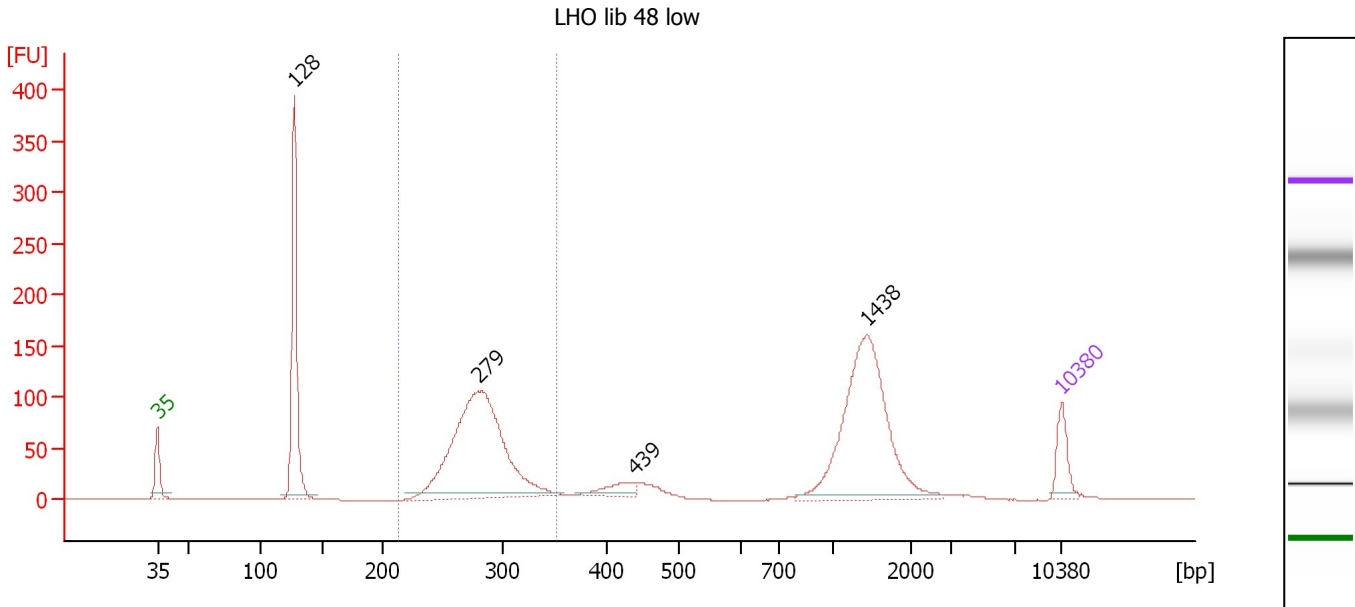
Region table for sample 2 : LHO lib 47 low

From [bp]	To [bp]	Average Size [bp]	Molarity [pmol/l]	Conc. [pg/μl]	Corr. Area	% of Total	Size distribution in CV [%]	Color
225	375	294	18,475.2	3,567.58	2,374.1	60	8.0	Blue

Assay Class: High Sensitivity DNA Assay
 Data Path: C:\...ents and Settings\Bioanalyzer\2013-07-17\2013-07-17_001.xad

Created: 7/17/2013 9:15:56 AM
 Modified: 7/17/2013 10:57:30 AM

Electropherogram Summary Continued ...



Overall Results for sample 3 : LHO lib 48 low

Number of peaks found: 4 Corr. Area 1: 754.9
 Noise: 0.2

Peak table for sample 3 : LHO lib 48 low

Peak	Size [bp]	Conc. [pg/μl]	Molarity [pmol/l]	Observations
1	35	125.00	5,411.3	Lower Marker
2	128	643.69	7,647.9	
3	279	1,089.45	5,916.4	
4	439	63.04	217.5	
5	1,438	669.53	705.3	
6	10,380	75.00	10.9	Upper Marker

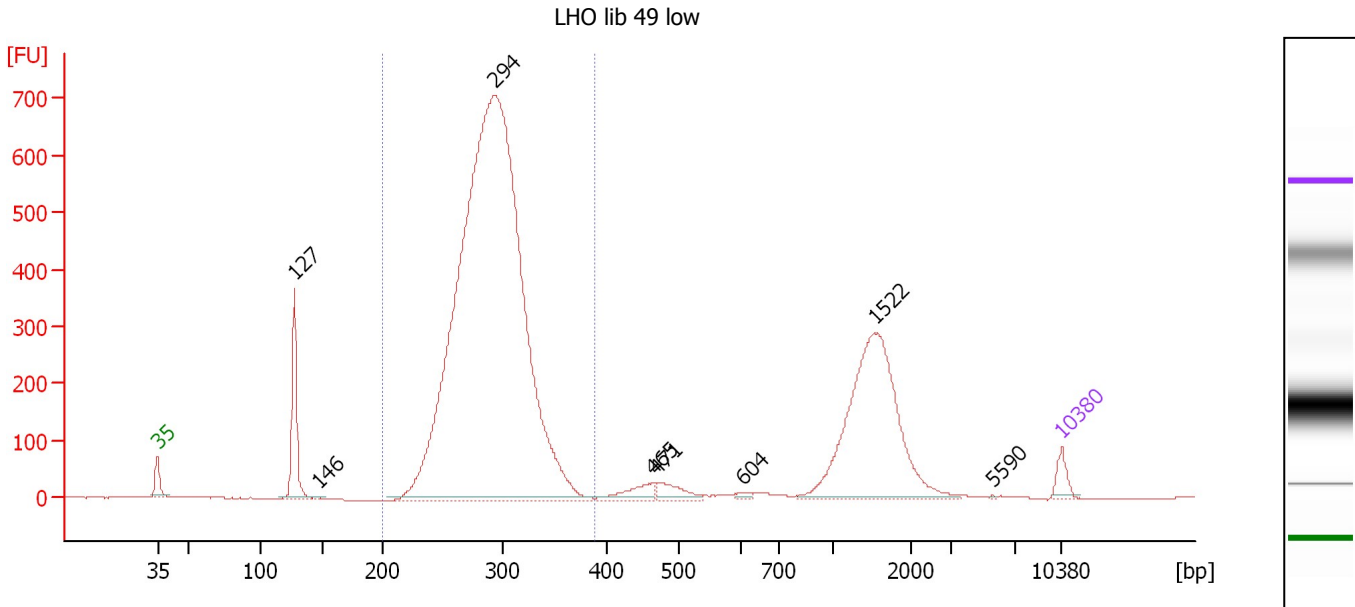
Region table for sample 3 : LHO lib 48 low

From [bp]	To [bp]	Average Size [bp]	Molarity [pmol/l]	Conc. [pg/μl]	Corr. Area	% of Total	Size distribution in CV [%]	Color
212	352	281	6,041.6	1,116.62	754.9	40	8.0	Blue

Assay Class: High Sensitivity DNA Assay
 Data Path: C:\...ents and Settings\Bioanalyzer\2013-07-17\2013-07-17_001.xad

Created: 7/17/2013 9:15:56 AM
 Modified: 7/17/2013 10:57:30 AM

Electropherogram Summary Continued ...



Overall Results for sample 4 : LHO lib 49 low

Number of peaks found: 8 Corr. Area 1: 6,076.9
 Noise: 0.3

Peak table for sample 4 : LHO lib 49 low

Peak	Size [bp]	Conc. [pg/μl]	Molarity [pmol/l]	Observations
1	35	125.00	5,411.3	Lower Marker
2	127	665.10	7,921.9	
3	146	14.00	145.1	
4	294	10,677.19	55,096.3	
5	465	141.09	459.5	
6	471	134.65	433.3	
7	604	25.34	63.6	
8	1,522	1,620.39	1,612.9	
9	5,590	3.10	0.8	
10	10,380	75.00	10.9	Upper Marker

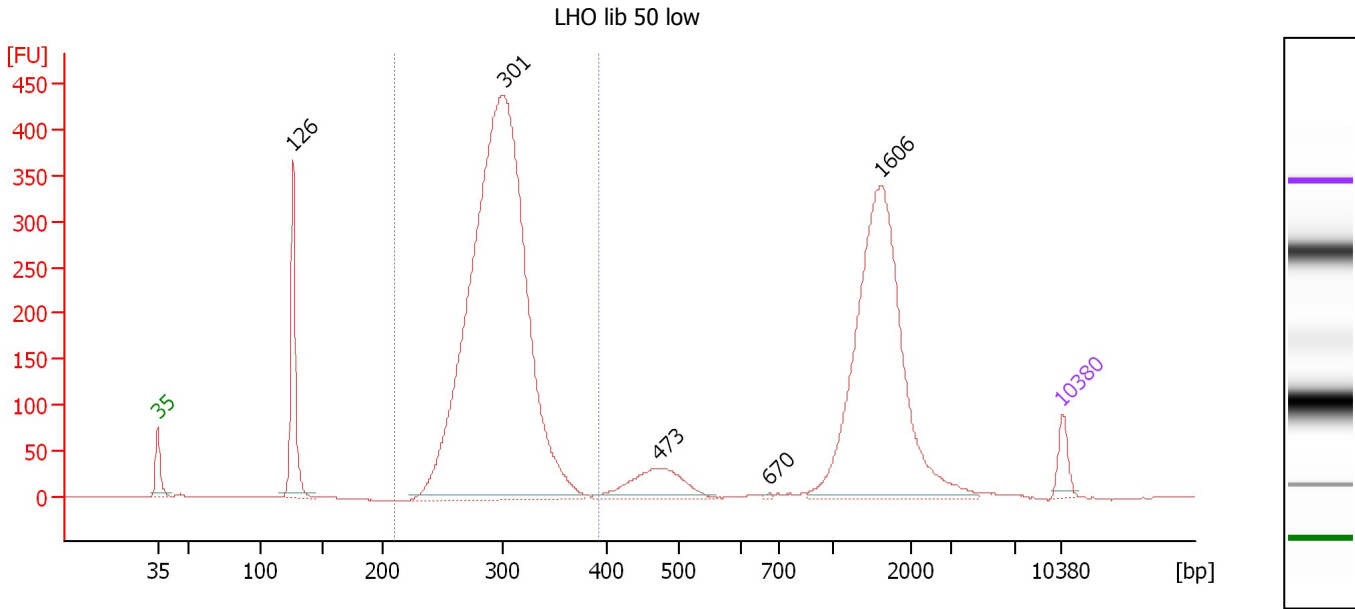
Region table for sample 4 : LHO lib 49 low

From [bp]	To [bp]	Average Size [bp]	Molarity [pmol/l]	Conc. [pg/μl]	Corr. Area	% of Total	Size distribution in CV [%]	Color
200	389	290	55,708.4	10,580.59	6,076.9	77	9.0	Blue

Assay Class: High Sensitivity DNA Assay
 Data Path: C:\...ents and Settings\Bioanalyzer\2013-07-17\2013-07-17_001.xad

Created: 7/17/2013 9:15:56 AM
 Modified: 7/17/2013 10:57:30 AM

Electropherogram Summary Continued ...



Overall Results for sample 5 : LHO lib 50 low

Number of peaks found: 5 Corr. Area 1: 3,275.2
 Noise: 0.3

Peak table for sample 5 : LHO lib 50 low

Peak	Size [bp]	Conc. [pg/μl]	Molarity [pmol/l]	Observations
1	35	125.00	5,411.3	Lower Marker
2	126	653.84	7,843.6	
3	301	5,451.07	27,459.4	
4	473	316.04	1,012.1	
5	670	7.32	16.5	
6	1,606	1,662.61	1,568.9	
7	10,380	75.00	10.9	Upper Marker

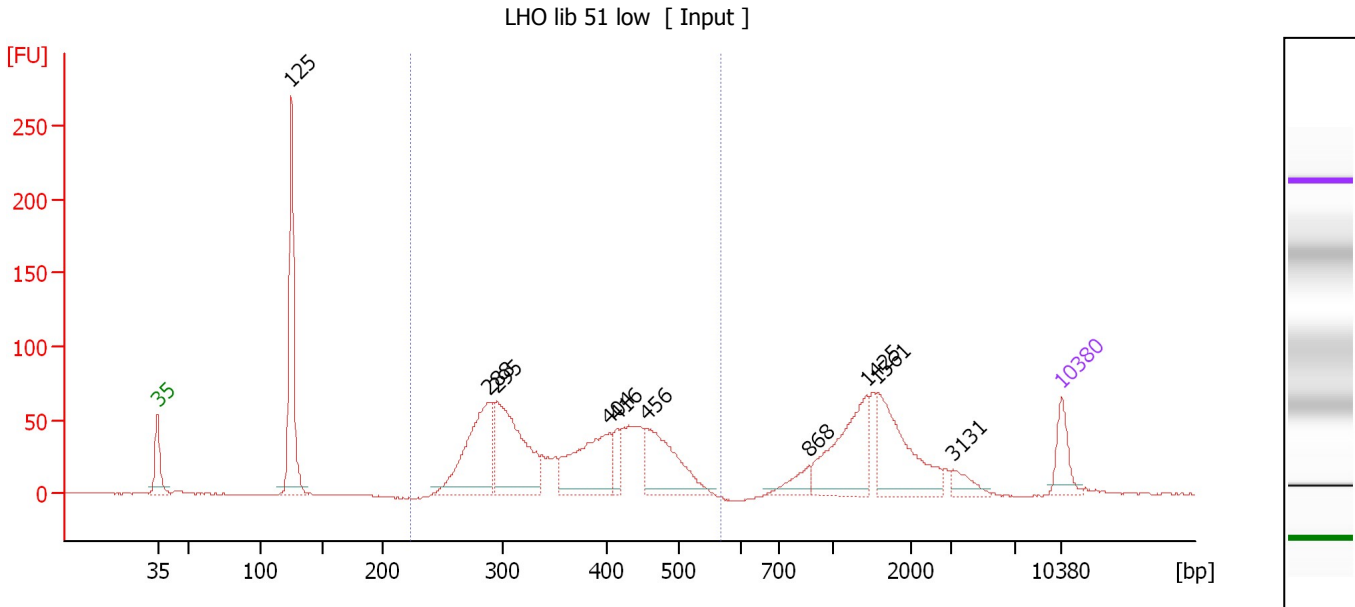
Region table for sample 5 : LHO lib 50 low

From [bp]	To [bp]	Average Size [bp]	Molarity [pmol/l]	Conc. [pg/μl]	Corr. Area	% of Total	Size distribution in CV [%]	Color
209	393	297	27,825.9	5,411.06	3,275.2	62	8.1	Blue

Assay Class: High Sensitivity DNA Assay
 Data Path: C:\...ents and Settings\Bioanalyzer\2013-07-17\2013-07-17_001.xad

Created: 7/17/2013 9:15:56 AM
 Modified: 7/17/2013 10:57:30 AM

Electropherogram Summary Continued ...



Overall Results for sample 6 : LHO lib 51 low

Number of peaks found: 10 Corr. Area 1: 985.7
 Noise: 0.3

Peak table for sample 6 : LHO lib 51 low

Peak	Size [bp]	Conc. [pg/μl]	Molarity [pmol/l]	Observations
1	35	125.00	5,411.3	Lower Marker
2	125	592.14	7,185.3	
3	288	443.87	2,332.8	
4	295	460.33	2,366.5	
5	404	316.77	1,187.3	
6	416	60.07	219.0	
7	456	289.36	961.3	
8	868	58.48	102.0	
9	1,425	266.26	283.1	
10	1,561	269.26	261.4	
11	3,131	40.98	19.8	
12	10,380	75.00	10.9	Upper Marker

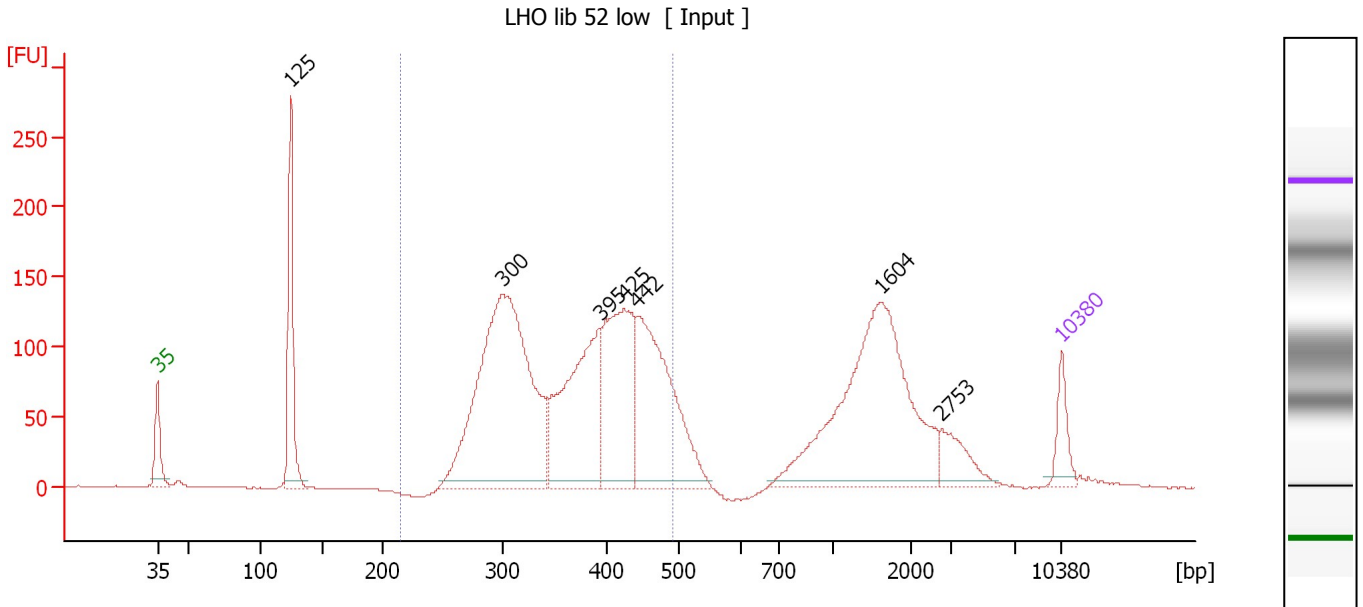
Region table for sample 6 : LHO lib 51 low

From [bp]	To [bp]	Average Size [bp]	Molarity [pmol/l]	Conc. [pg/μl]	Corr. Area	% of Total	Size distribution in CV [%]	Color
222	568	368	7,969.1	1,824.43	985.7	57	20.5	Blue

Assay Class: High Sensitivity DNA Assay
 Data Path: C:\...ents and Settings\Bioanalyzer\2013-07-17\2013-07-17_001.xad

Created: 7/17/2013 9:15:56 AM
 Modified: 7/17/2013 10:57:30 AM

Electropherogram Summary Continued ...



Overall Results for sample 7 : LHO lib 52 low

Number of peaks found: 7 Corr. Area 1: 2,213.6
 Noise: 0.2

Peak table for sample 7 : LHO lib 52 low

Peak	Size [bp]	Conc. [pg/µl]	Molarity [pmol/l]	Observations
1	35	125.00	5,411.3	Lower Marker
2	125	471.97	5,741.1	
3	300	1,507.51	7,620.5	
4	395	651.62	2,500.4	
5	425	580.27	2,070.2	
6	442	700.54	2,402.0	
7	1,604	880.47	831.7	
8	2,753	104.28	57.4	
9	10,380	75.00	10.9	Upper Marker

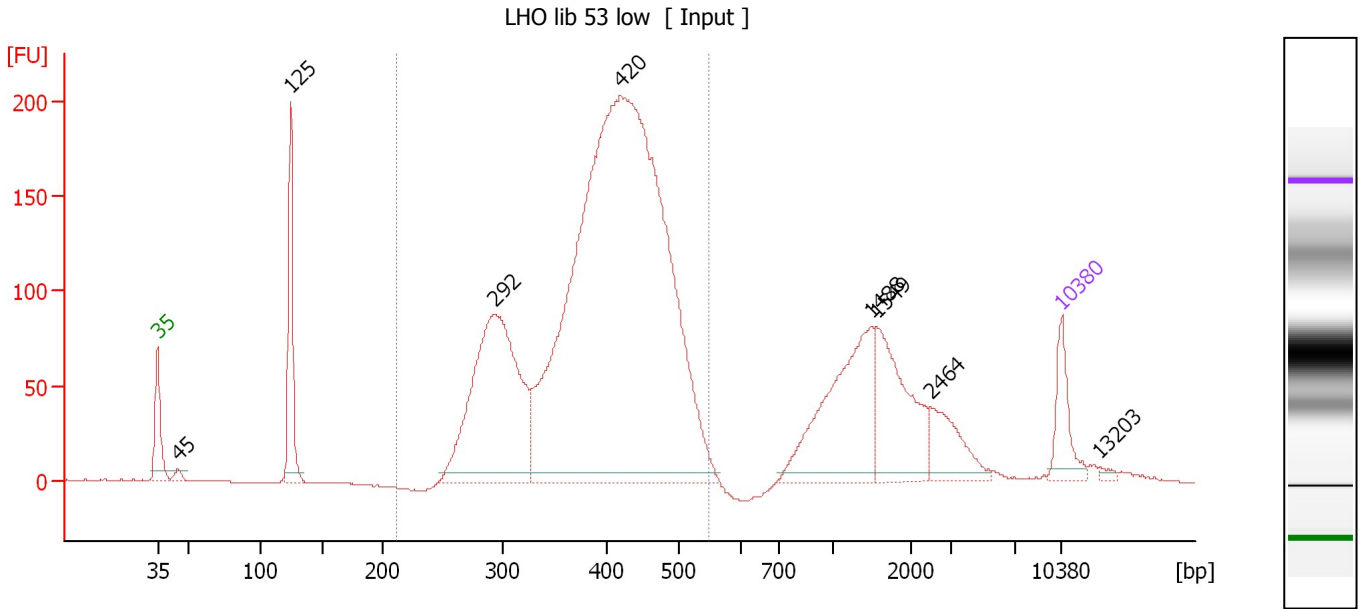
Region table for sample 7 : LHO lib 52 low

From [bp]	To [bp]	Average Size [bp]	Molarity [pmol/l]	Conc. [pg/µl]	Corr. Area	% of Total	Size distribution in CV [%]	Color
214	492	370	13,853.4	3,237.28	2,213.6	63	17.5	Blue

Assay Class: High Sensitivity DNA Assay
 Data Path: C:\...ents and Settings\Bioanalyzer\2013-07-17\2013-07-17_001.xad

Created: 7/17/2013 9:15:56 AM
 Modified: 7/17/2013 10:57:30 AM

Electropherogram Summary Continued ...



Overall Results for sample 8 : LHO lib 53 low

Number of peaks found: 8 Corr. Area 1: 2,761.5
 Noise: 0.3

Peak table for sample 8 : LHO lib 53 low

Peak	Size [bp]	Conc. [pg/μl]	Molarity [pmol/l]	Observations
1	35	125.00	5,411.3	Lower Marker
2	45	16.50	553.3	
3	125	274.82	3,341.1	
4	292	777.61	4,029.3	
5	420	2,724.52	9,824.1	
6	1,488	325.33	331.2	
7	1,549	230.41	225.3	
8	2,464	99.07	60.9	
9	10,380	75.00	10.9	Upper Marker
10	13,203	0.00	0.0	

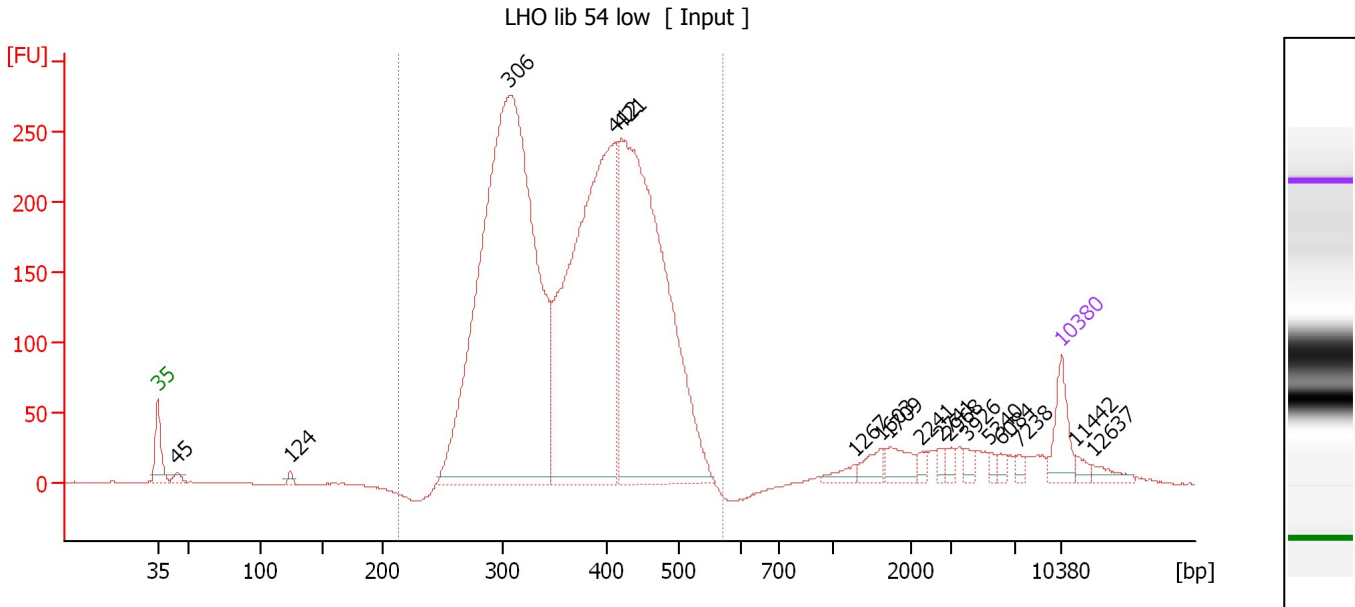
Region table for sample 8 : LHO lib 53 low

From [bp]	To [bp]	Average Size [bp]	Molarity [pmol/l]	Conc. [pg/μl]	Corr. Area	% of Total	Size distribution in CV [%]	Color
210	548	400	13,788.7	3,482.98	2,761.5	76	16.7	Blue

Assay Class: High Sensitivity DNA Assay
 Data Path: C:\...ents and Settings\Bioanalyzer\2013-07-17\2013-07-17_001.xad

Created: 7/17/2013 9:15:56 AM
 Modified: 7/17/2013 10:57:30 AM

Electropherogram Summary Continued ...



Overall Results for sample 9 : LHO lib 54 low

Number of peaks found: 17 Corr. Area 1: 4,577.0
 Noise: 0.2

Peak table for sample 9 : LHO lib 54 low

Peak	Size [bp]	Conc. [pg/μl]	Molarity [pmol/l]	Observations
1	35	125.00	5,411.3	Lower Marker
2	45	20.06	676.7	
3	124	13.88	169.6	
4	306	2,638.82	13,054.6	
5	412	1,492.14	5,481.6	
6	421	1,571.66	5,660.9	
7	1,267	23.22	27.8	
8	1,603	36.36	34.4	
9	1,709	51.20	45.4	
10	2,241	15.67	10.6	
11	2,741	13.30	7.4	
12	2,968	16.32	8.3	
13	3,926	17.40	6.7	
14	5,340	10.47	3.0	
15	6,084	14.65	3.6	
16	7,238	13.80	2.9	
17	10,380	75.00	10.9	Upper Marker
18	11,442	0.00	0.0	
19	12,637	0.00	0.0	

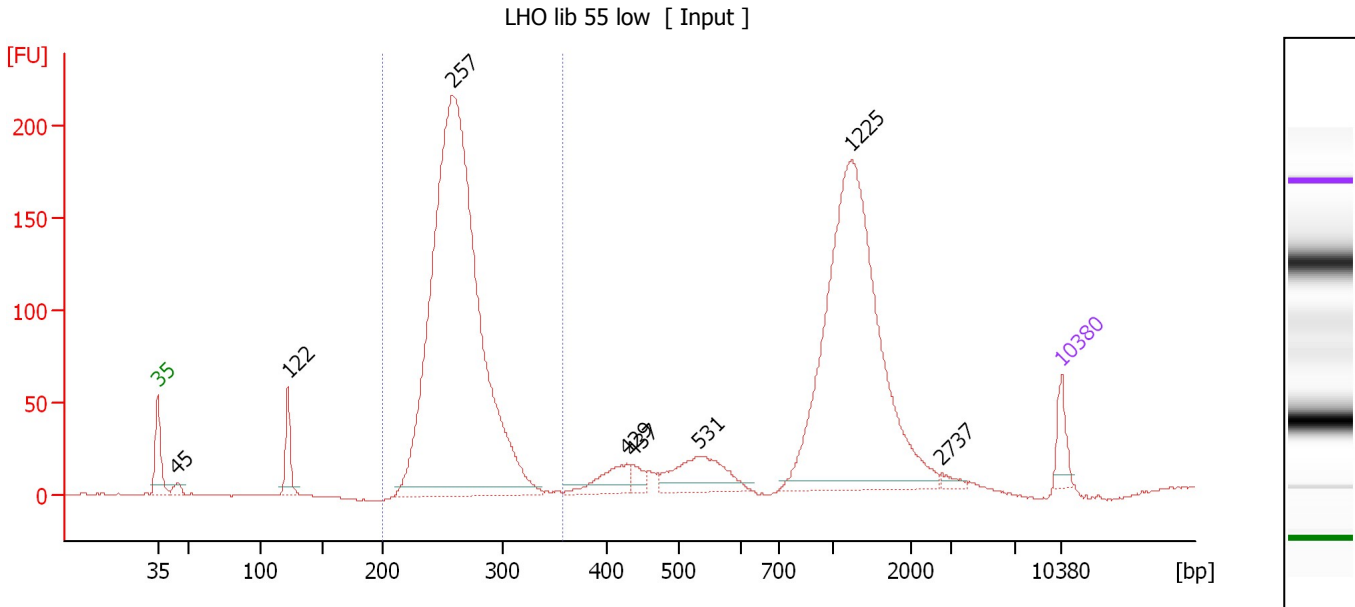
Region table for sample 9 : LHO lib 54 low

From [bp]	To [bp]	Average Size [bp]	Molarity [pmol/l]	Conc. [pg/μl]	Corr. Area	% of Total	Size distribution in CV [%]	Color
212	570	375	24,128.5	5,688.28	4,577.0	93	18.5	Blue

Assay Class: High Sensitivity DNA Assay
 Data Path: C:\...ents and Settings\Bioanalyzer\2013-07-17\2013-07-17_001.xad

Created: 7/17/2013 9:15:56 AM
 Modified: 7/17/2013 10:57:30 AM

Electropherogram Summary Continued ...



Overall Results for sample 10 : LHO lib 55 low

Number of peaks found: 8 Corr. Area 1: 1,362.5
 Noise: 0.4

Peak table for sample 10 : LHO lib 55 low

Peak	Size [bp]	Conc. [pg/μl]	Molarity [pmol/l]	Observations
1	35	125.00	5,411.3	Lower Marker
2	45	37.89	1,278.1	
3	122	170.58	2,114.8	
4	257	4,101.98	24,137.5	
5	429	132.35	467.5	
6	437	51.71	179.2	
7	531	261.48	746.4	
8	1,225	1,797.64	2,223.2	
9	2,737	21.50	11.9	
10	10,380	75.00	10.9	Upper Marker

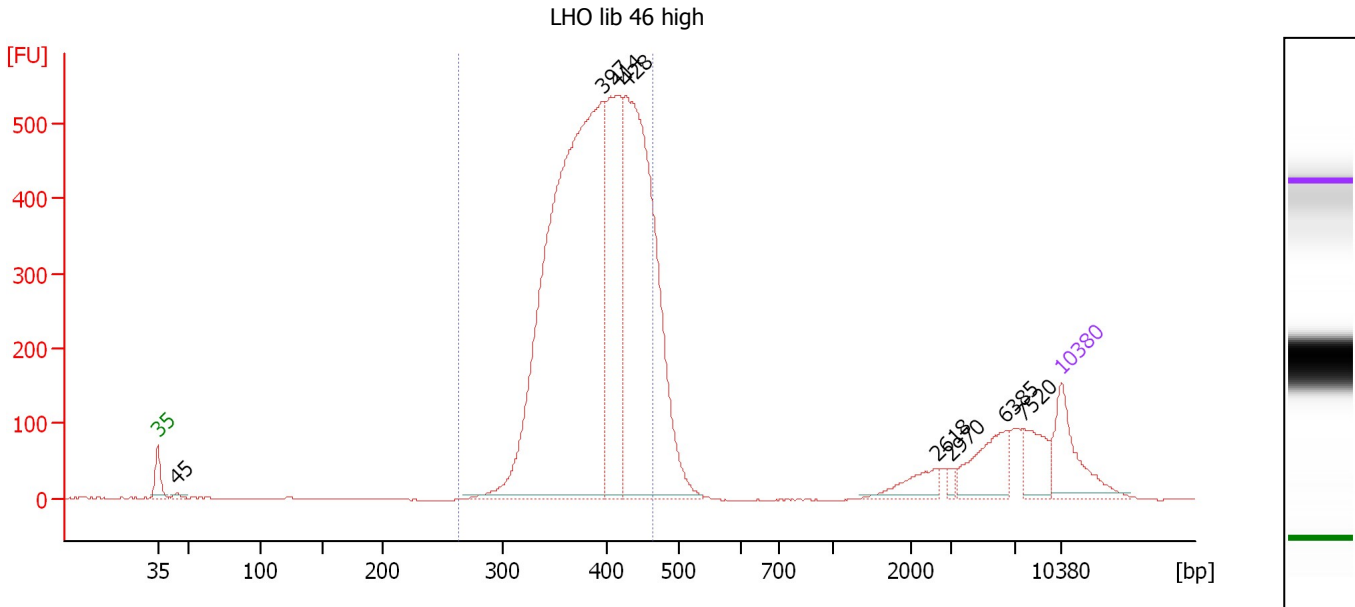
Region table for sample 10 : LHO lib 55 low

From [bp]	To [bp]	Average Size [bp]	Molarity [pmol/l]	Conc. [pg/μl]	Corr. Area	% of Total	Size distribution in CV [%]	Color
200	358	262	22,843.3	3,943.81	1,362.5	55	7.5	Blue

Assay Class: High Sensitivity DNA Assay
 Data Path: C:\...ents and Settings\Bioanalyzer\2013-07-17\2013-07-17_001.xad

Created: 7/17/2013 9:15:56 AM
 Modified: 7/17/2013 10:57:30 AM

Electropherogram Summary Continued ...



Overall Results for sample 11 : LHO lib 46 high

Number of peaks found: 8 Corr. Area 1: 5,875.4
 Noise: 0.4

Peak table for sample 11 : LHO lib 46 high

Peak	Size [bp]	Conc. [pg/μl]	Molarity [pmol/l]	Observations
1	35	125.00	5,411.3	Lower Marker
2	45	5.38	182.5	
3	397	1,314.35	5,011.3	
4	414	355.58	1,302.1	
5	428	761.15	2,695.3	
6	2,618	33.49	19.4	
7	2,970	7.08	3.6	
8	6,385	73.57	17.5	
9	7,520	48.72	9.8	
10	10,380	75.00	10.9	Upper Marker

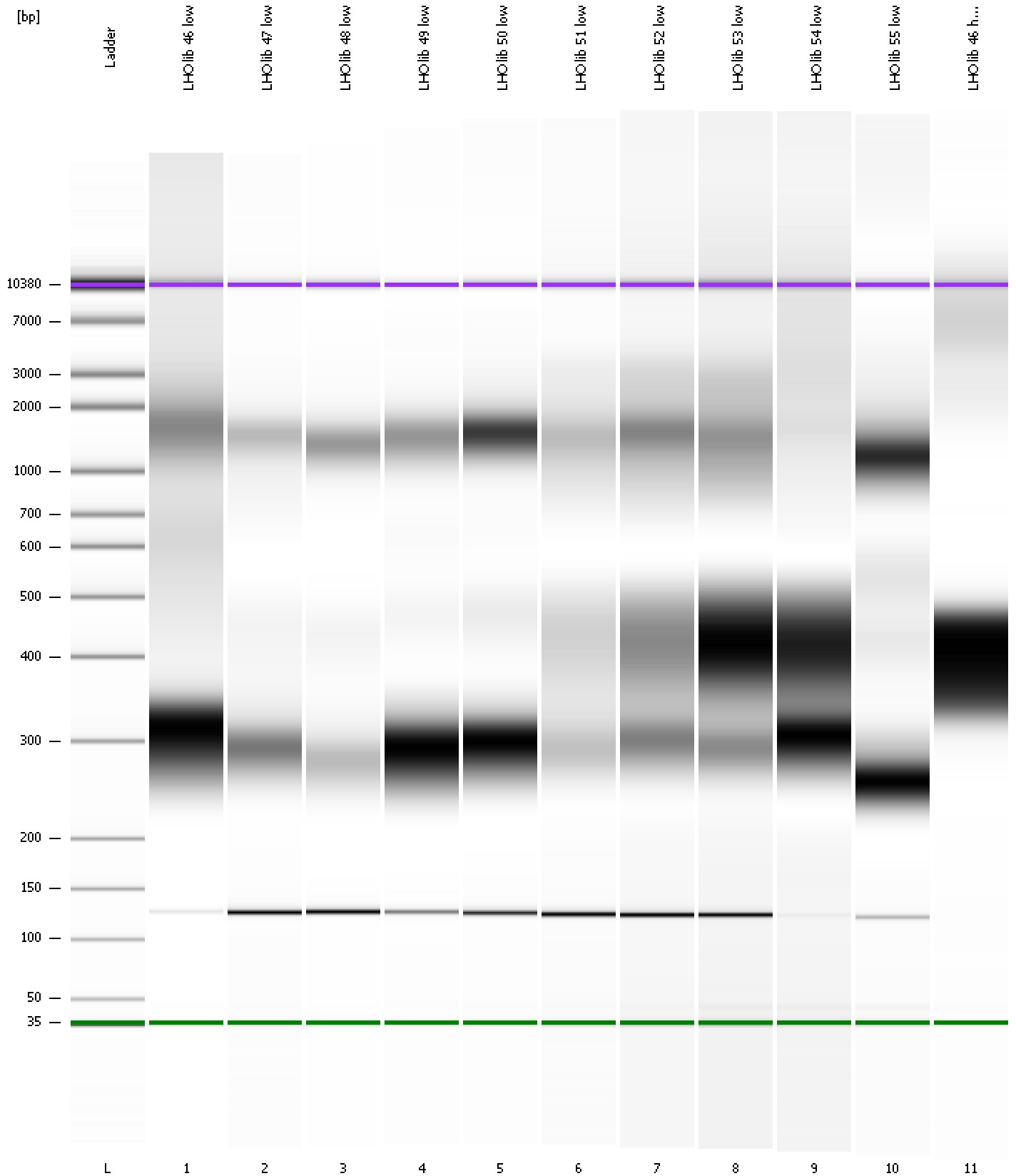
Region table for sample 11 : LHO lib 46 high

From [bp]	To [bp]	Average Size [bp]	Molarity [pmol/l]	Conc. [pg/μl]	Corr. Area	% of Total	Size distribution in CV [%]	Color
262	464	392	8,999.2	2,301.08	5,875.4	83	9.9	Blue

Assay Class: High Sensitivity DNA Assay
Data Path: C:\...ents and Settings\Bioanalyzer\2013-07-17\2013-07-17_001.xad

Created: 7/17/2013 9:15:56 AM
Modified: 7/17/2013 10:57:30 AM

Gel Image



Assay Class: High Sensitivity DNA Assay
 Data Path: C:\...ents and Settings\Bioanalyzer\2013-07-17\2013-07-17_001.xad

Created: 7/17/2013 9:15:56 AM
 Modified: 7/17/2013 10:57:30 AM

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		7/17/2013 9:57:15 AM	(GMT --07:00) Pacific Standard Time	UC Davis	D8XSMGH1
Run started on port 1 (File: C:\Documents and Settings\Bioanalyzer\2013-07-17\2013-07-17_001.xad)		Instrument	Run		7/17/2013 9:16:01 AM	(GMT --07:00) Pacific Standard Time	UC Davis	D8XSMGH1
Product Number : G2938B		Instrument	Run		7/17/2013 9:16:01 AM	(GMT --07:00) Pacific Standard Time	UC Davis	D8XSMGH1
Name :		Instrument	Run		7/17/2013 9:16:01 AM	(GMT --07:00) Pacific Standard Time	UC Davis	D8XSMGH1
Vendor : Agilent Technologies		Instrument	Run		7/17/2013 9:16:01 AM	(GMT --07:00) Pacific Standard Time	UC Davis	D8XSMGH1
Serial# : DE13701086		Instrument	Run		7/17/2013 9:16:01 AM	(GMT --07:00) Pacific Standard Time	UC Davis	D8XSMGH1
Firmware : C.01.069		Instrument	Run		7/17/2013 9:16:01 AM	(GMT --07:00) Pacific Standard Time	UC Davis	D8XSMGH1
Cartridge : Electrode		Instrument	Run		7/17/2013 9:16:01 AM	(GMT --07:00) Pacific Standard Time	UC Davis	D8XSMGH1