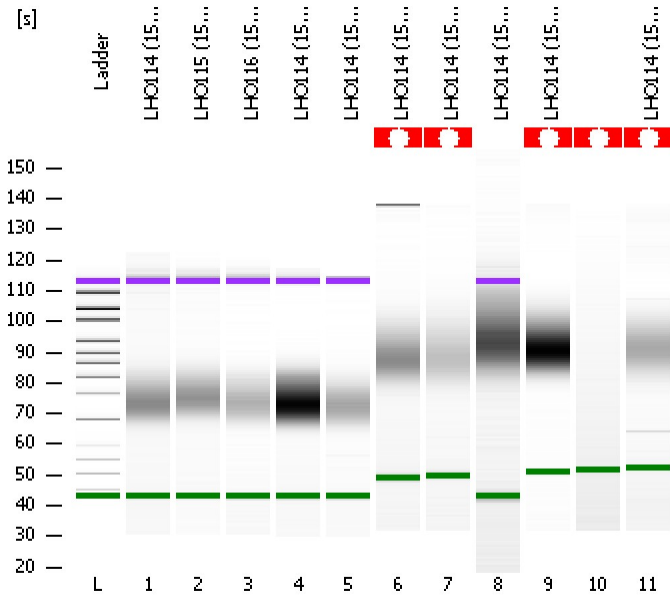


Assay Class: High Sensitivity DNA Assay  
Data Path: C:\...ents and Settings\Bioanalyzer\2015-01-20\2015-01-20\_003.xad

Created: 1/20/2015 12:16:46 PM  
Modified: 1/20/2015 2:02:11 PM

### Electrophoresis File Run Summary



#### Instrument Information:

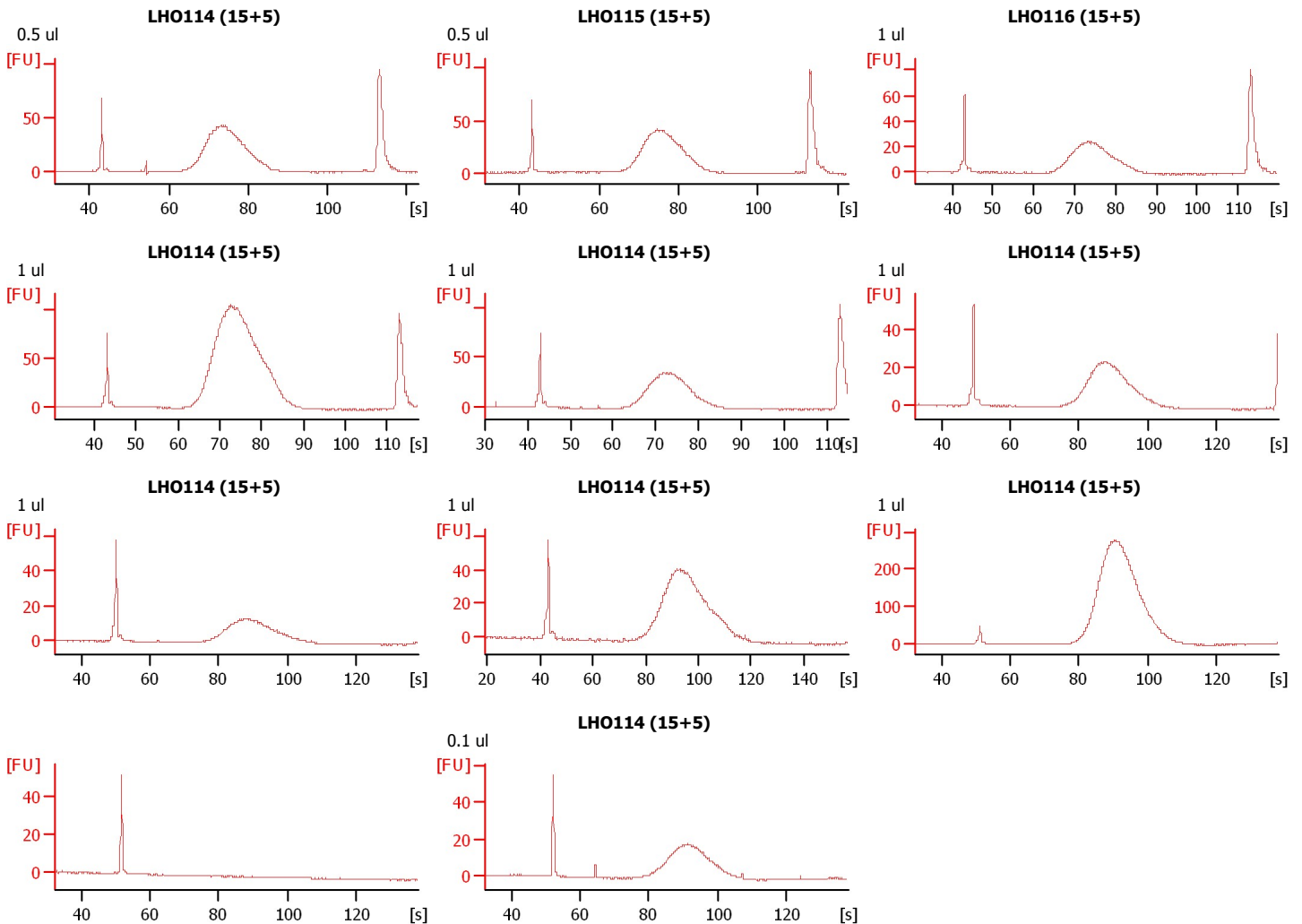
Instrument Name: DE13701086      Firmware: C.01.069  
Serial#: DE13701086      Type: G2938B

#### 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:\...ents and Settings\Bioanalyzer\2015-01-20\2015-01-20\_003.xad

Created: 1/20/2015 12:16:46 PM  
Modified: 1/20/2015 2:02:11 PM

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

Sample Name	Sample Comment	Rest. Digest	Status	Observation	Result Label	Result Color
LHO114 (15+5)	0.5 ul	<input type="checkbox"/>	✓			
LHO115 (15+5)	0.5 ul	<input type="checkbox"/>	✓			
LHO116 (15+5)	1 ul	<input type="checkbox"/>	✓			
LHO114 (15+5)	1 ul	<input type="checkbox"/>	✓			
LHO114 (15+5)	1 ul	<input type="checkbox"/>	✓			
LHO114 (15+5)	1 ul	<input type="checkbox"/>	✓			
LHO114 (15+5)	1 ul	<input type="checkbox"/>	✓			
LHO114 (15+5)	1 ul	<input type="checkbox"/>	✓			
LHO114 (15+5)	1 ul	<input type="checkbox"/>	✓			
LHO114 (15+5)	1 ul	<input type="checkbox"/>	✓			
LHO114 (15+5)	0.1 ul	<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\2015-01-20\2015-01-20\_003.xad

Created: 1/20/2015 12:16:46 PM  
Modified: 1/20/2015 2:02:11 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

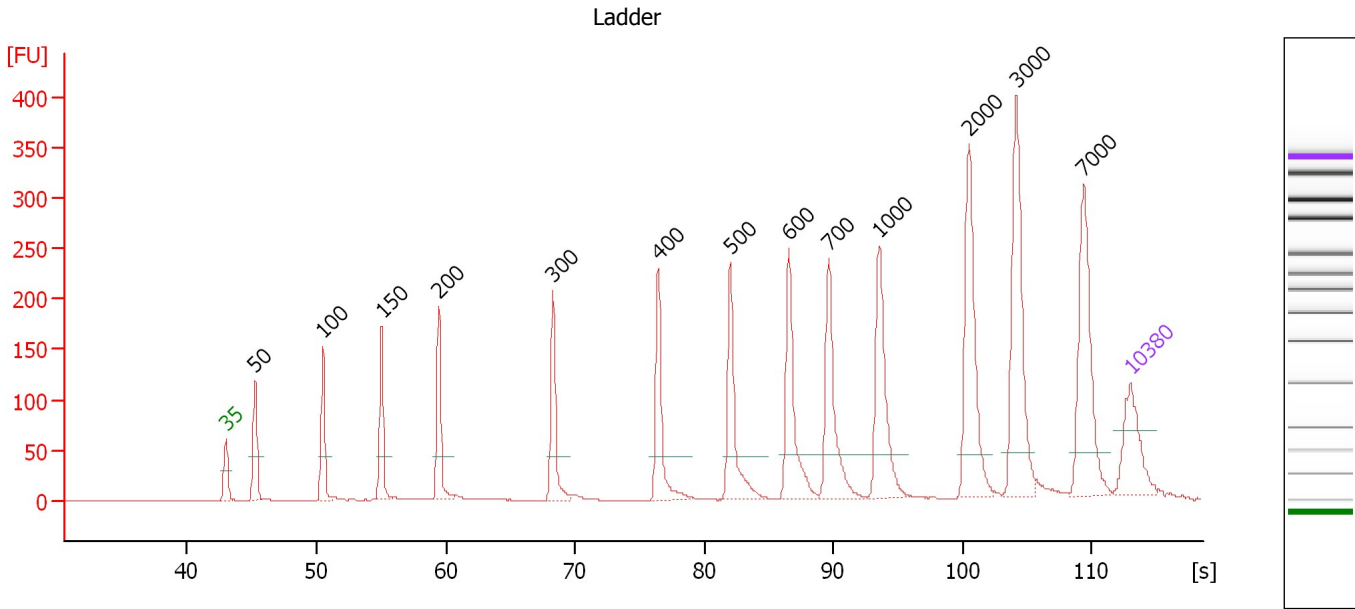
**Ladder**

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:\...ents and Settings\Bioanalyzer\2015-01-20\2015-01-20\_003.xad

Created: 1/20/2015 12:16:46 PM  
 Modified: 1/20/2015 2:02:11 PM

**Electropherogram Summary**



**Overall Results for Ladder**

Noise: 0.2

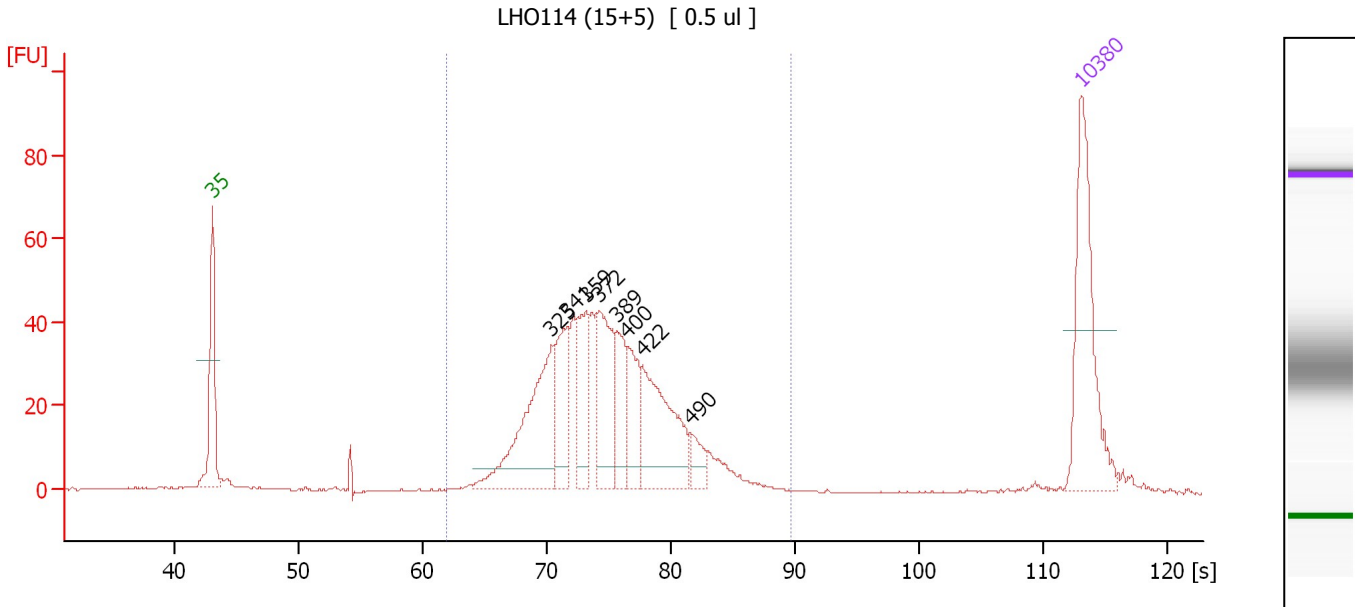
**Peak table for Ladder**

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	45.24
3	100	150.00	2,272.7	Ladder Peak	50.52
4	150	150.00	1,515.2	Ladder Peak	55.05
5	200	150.00	1,136.4	Ladder Peak	59.50
6	300	150.00	757.6	Ladder Peak	68.31
7	400	150.00	568.2	Ladder Peak	76.46
8	500	150.00	454.5	Ladder Peak	82.07
9	600	150.00	378.8	Ladder Peak	86.56
10	700	150.00	324.7	Ladder Peak	89.64
11	1,000	150.00	227.3	Ladder Peak	93.59
12	2,000	150.00	113.6	Ladder Peak	100.49
13	3,000	150.00	75.8	Ladder Peak	104.19
14	7,000	150.00	32.5	Ladder Peak	109.43
15	10,380	75.00	10.9	Upper Marker	113.00

Assay Class: High Sensitivity DNA Assay  
 Data Path: C:\...ents and Settings\Bioanalyzer\2015-01-20\2015-01-20\_003.xad

Created: 1/20/2015 12:16:46 PM  
 Modified: 1/20/2015 2:02:11 PM

**Electropherogram Summary Continued ...**



**Overall Results for sample 1 : LHO114 (15+5)**

Number of peaks found: 8                      Corr. Area 1: 688.0  
 Noise: 0.2

**Peak table for sample 1 : LHO114 (15+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	325	116.17	542.3		70.32
3	341	51.77	230.3		71.61
4	359	51.26	216.6		73.09
5	372	68.21	277.9		74.17
6	389	40.06	156.1		75.55
7	400	37.16	140.8		76.46
8	422	86.54	311.0		77.68
9	490	14.96	46.2		81.53
10	10,380	75.00	10.9	Upper Marker	113.00

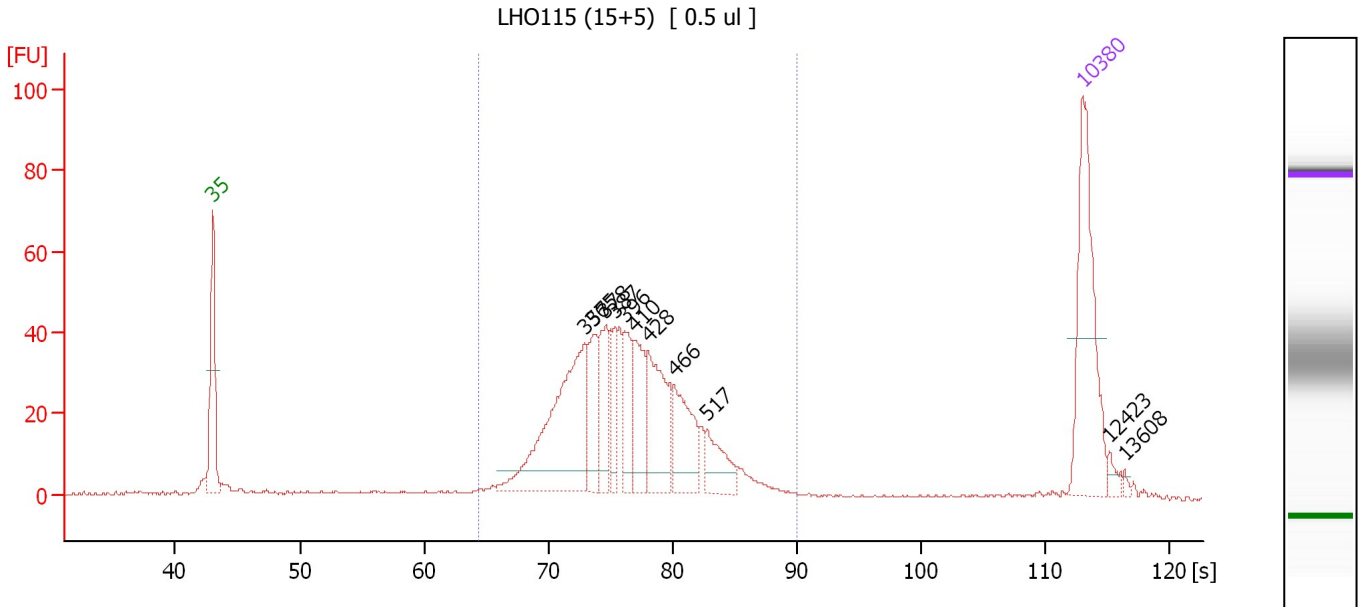
**Region table for sample 1 : LHO114 (15+5)**

From [bp]	Average Size [bp]	To [bp]	Corr. Area	% of Total	Size distribution in CV [%]	Conc. [pg/μl]	Molarity [pmol/l]	Color
227	384	699	688.0	95	17.6	567.85	2,325.7	Blue

Assay Class: High Sensitivity DNA Assay  
 Data Path: C:\...ents and Settings\Bioanalyzer\2015-01-20\2015-01-20\_003.xad

Created: 1/20/2015 12:16:46 PM  
 Modified: 1/20/2015 2:02:11 PM

**Electropherogram Summary Continued ...**



**Overall Results for sample 2 : LHO115 (15+5)**

Number of peaks found: 11                      Corr. Area 1: 660.7  
 Noise: 0.3

**Peak table for sample 2 : LHO115 (15+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	357	141.45	600.6		72.94
3	365	38.90	161.3		73.64
4	378	39.72	159.4		74.63
5	387	27.45	107.6		75.36
6	396	31.57	120.8		76.14
7	410	40.70	150.5		77.01
8	428	65.65	232.3		78.04
9	466	48.02	156.2		80.16
10	517	27.58	80.8		82.84
11	10,380	75.00	10.9	Upper Marker	113.00
12	12,423	0.00	0.0		115.16
13	13,608	0.00	0.0		116.41

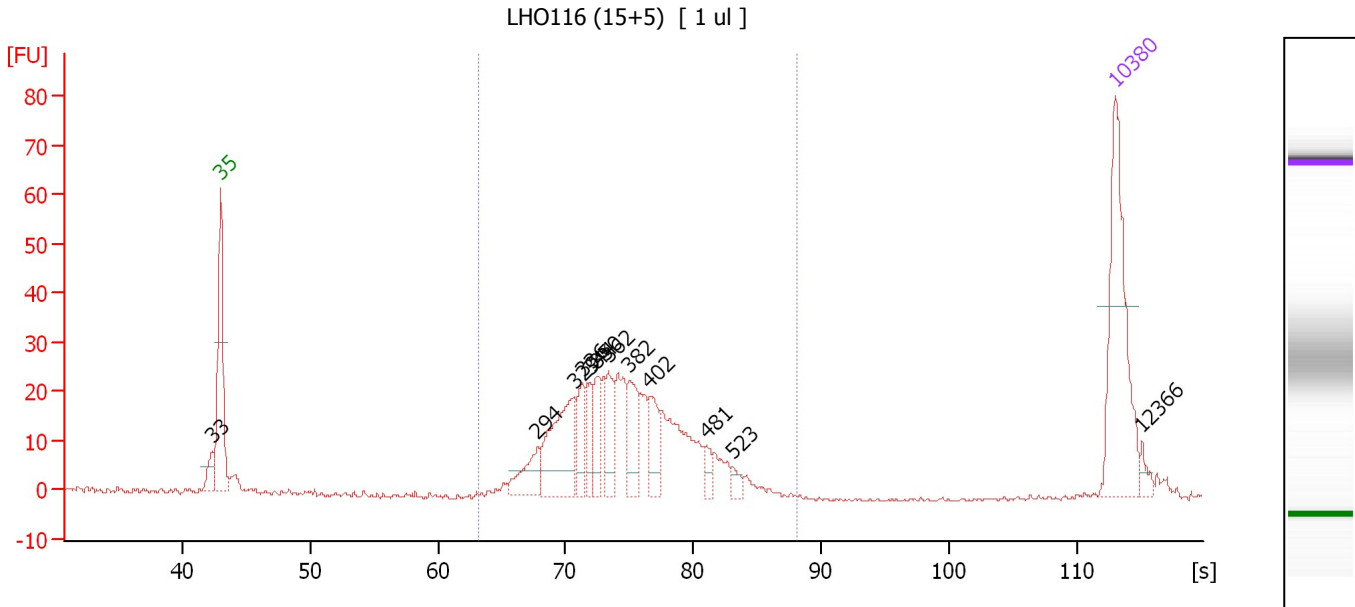
**Region table for sample 2 : LHO115 (15+5)**

From [bp]	Average Size [bp]	To [bp]	Corr. Area	% of Total	Size distribution in CV [%]	Conc. [pg/μl]	Molarity [pmol/l]	Color
256	408	732	660.7	92	17.7	543.31	2,097.4	Blue

Assay Class: High Sensitivity DNA Assay  
 Data Path: C:\...ents and Settings\Bioanalyzer\2015-01-20\2015-01-20\_003.xad

Created: 1/20/2015 12:16:46 PM  
 Modified: 1/20/2015 2:02:11 PM

**Electropherogram Summary Continued ...**



**Overall Results for sample 3 : LHO116 (15+5)**

Number of peaks found: 12                      Corr. Area 1: 378.2  
 Noise: 0.3

**Peak table for sample 3 : LHO116 (15+5)**

Peak	Size [bp]	Conc. [pg/μl]	Molarity [pmol/l]	Observations	Aligned Migration Time [s]
1	33	0.00	0.0		42.33
2	35	125.00	5,411.3	Lower Marker	43.00
3	294	26.24	135.2		67.79
4	329	70.88	326.8		70.65
5	336	25.27	113.8		71.28
6	344	19.88	87.6		71.91
7	350	23.61	102.1		72.41
8	362	25.06	105.0		73.34
9	382	31.90	126.6		74.97
10	402	23.97	90.4		76.57
11	481	9.35	29.5		80.98
12	523	6.51	18.9		83.08
13	10,380	75.00	10.9	Upper Marker	113.00
14	12,366	0.00	0.0		115.10

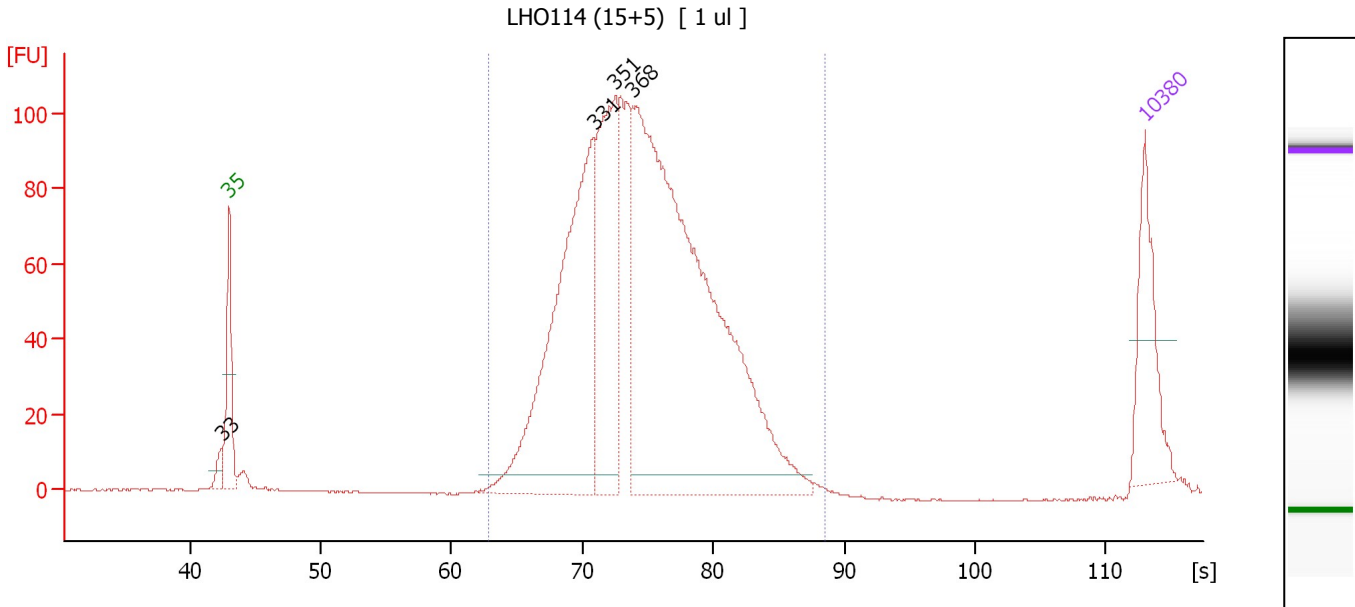
**Region table for sample 3 : LHO116 (15+5)**

From [bp]	Average Size [bp]	To [bp]	Corr. Area	% of Total	Size distribution in CV [%]	Conc. [pg/μl]	Molarity [pmol/l]	Color
242	382	651	378.2	93	16.3	399.92	1,637.9	Blue

Assay Class: High Sensitivity DNA Assay  
 Data Path: C:\...ents and Settings\Bioanalyzer\2015-01-20\2015-01-20\_003.xad

Created: 1/20/2015 12:16:46 PM  
 Modified: 1/20/2015 2:02:11 PM

**Electropherogram Summary Continued ...**



**Overall Results for sample 4 : LHO114 (15+5)**

Number of peaks found: 4                      Corr. Area 1: 1,793.8  
 Noise: 0.2

**Peak table for sample 4 : LHO114 (15+5)**

Peak	Size [bp]	Conc. [pg/μl]	Molarity [pmol/l]	Observations	Aligned Migration Time [s]
1	33	0.00	0.0		42.43
2	35	125.00	5,411.3	Lower Marker	43.00
3	331	470.05	2,148.8		70.88
4	351	239.23	1,032.4		72.48
5	368	893.39	3,681.0		73.83
6	10,380	75.00	10.9	Upper Marker	113.00

**Region table for sample 4 : LHO114 (15+5)**

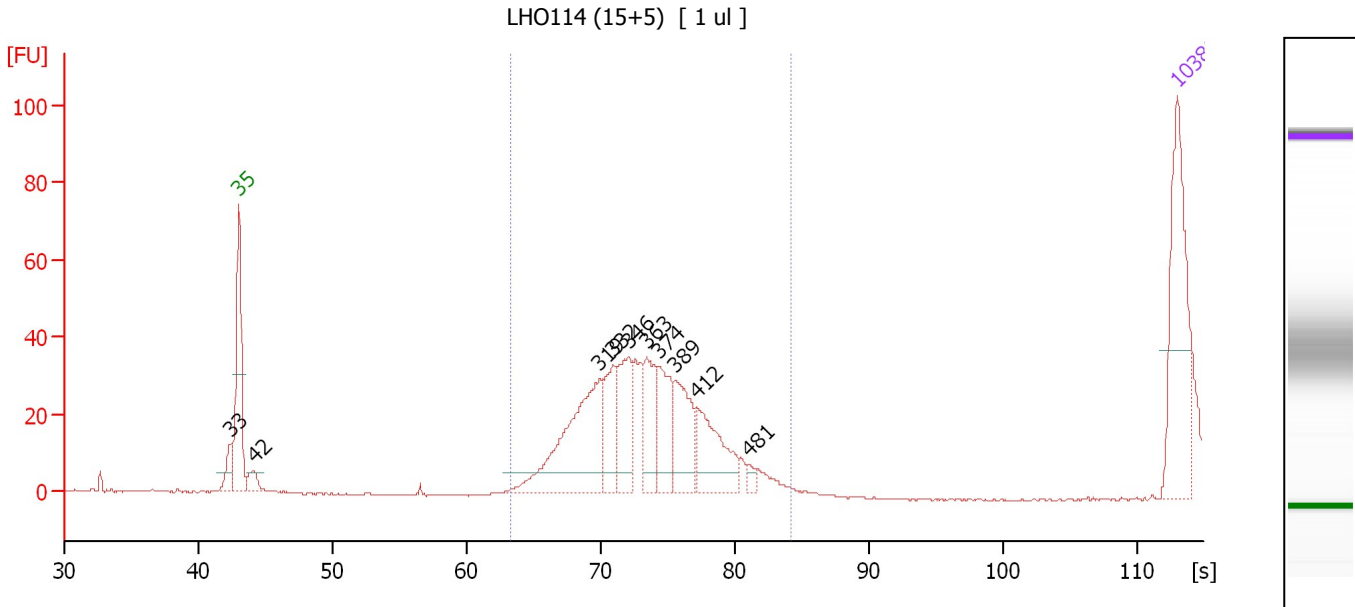
From [bp]	Average Size [bp]	To [bp]	Corr. Area	% of Total	Size distribution in CV [%]	Conc. [pg/μl]	Molarity [pmol/l]	Color
237	382	666	1,793.8	98	18.0	1,671.24	6,900.6	Blue



Assay Class: High Sensitivity DNA Assay  
 Data Path: C:\...ents and Settings\Bioanalyzer\2015-01-20\2015-01-20\_003.xad

Created: 1/20/2015 12:16:46 PM  
 Modified: 1/20/2015 2:02:11 PM

**Electropherogram Summary Continued ...**



**Overall Results for sample 5 : LHO114 (15+5)**

Number of peaks found: 10                      Corr. Area 1: 218.4  
 Noise: 0.2

**Peak table for sample 5 : LHO114 (15+5)**

Peak	Size [bp]	Conc. [pg/μl]	Molarity [pmol/l]	Observations	Aligned Migration Time [s]
1	33	0.00	0.0		42.44
2	35	125.00	5,411.3	Lower Marker	43.00
3	42	14.42	514.2		44.12
4	319	132.52	628.9		69.89
5	332	42.04	191.8		70.93
6	346	54.88	240.1		72.09
7	363	45.37	189.4		73.45
8	374	45.30	183.3		74.37
9	389	51.11	199.3		75.54
10	412	57.35	210.9		77.14
11	481	4.66	14.7		80.99
12	10,380	75.00	10.9	Upper Marker	113.00

**Region table for sample 5 : LHO114 (15+5)**

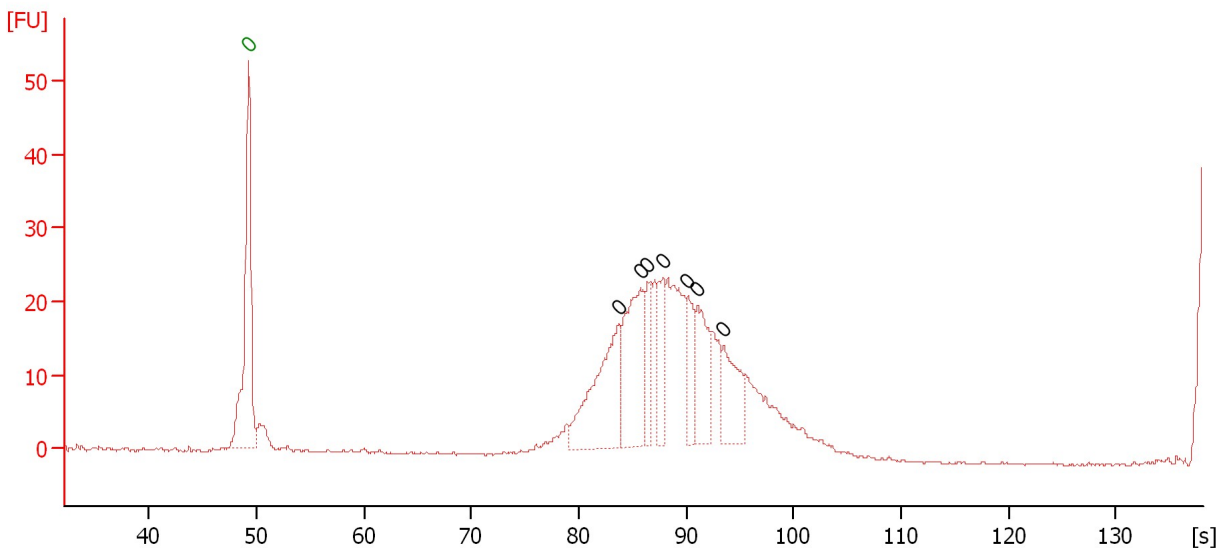
From [bp]	Average Size [bp]	To [bp]	Corr. Area	% of Total	Size distribution in CV [%]	Conc. [pg/μl]	Molarity [pmol/l]	Color
244	352	547	218.4	94	9.0	198.52	859.7	Blue

Assay Class: High Sensitivity DNA Assay  
 Data Path: C:\...ents and Settings\Bioanalyzer\2015-01-20\2015-01-20\_003.xad

Created: 1/20/2015 12:16:46 PM  
 Modified: 1/20/2015 2:02:11 PM

**Electropherogram Summary Continued ...**

LHO114 (15+5) [ 1 ul ]



**Overall Results for sample 6 : LHO114 (15+5)**

Number of peaks found: 7                      Noise: 0.2

**Peak table for sample 6 : LHO114 (15+5)**

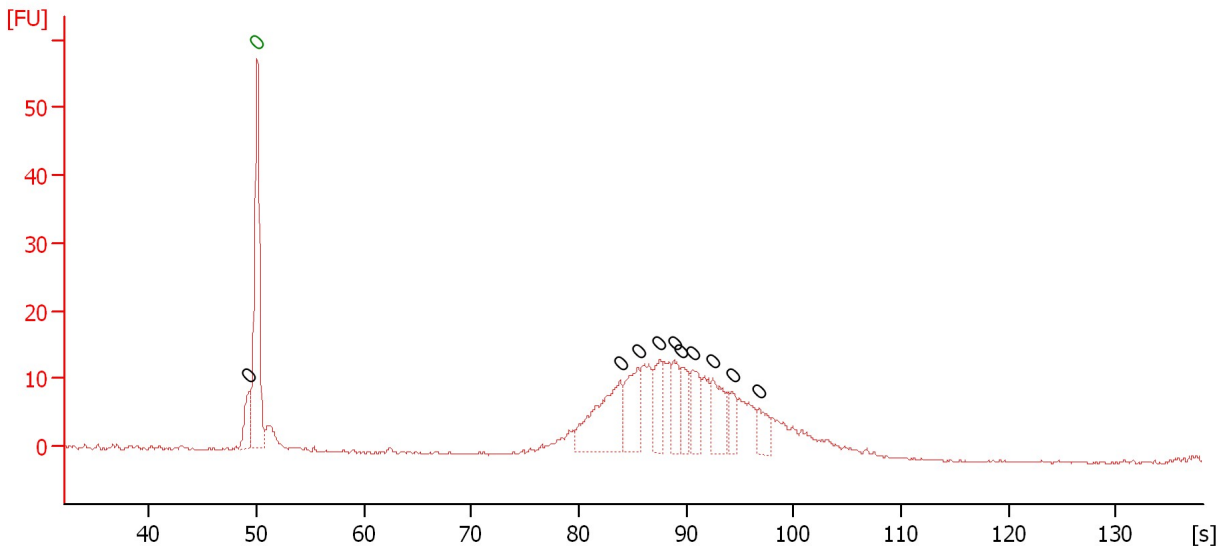
Peak	Size [bp]	Conc. [pg/μl]	Molarity [pmol/l]	Observations	Aligned Migration Time [s]
1	0	0.00	0.0	Lower Marker	49.25
2	0	0.00	0.0		83.75
3	0	0.00	0.0		85.80
4	0	0.00	0.0		86.40
5	0	0.00	0.0		87.90
6	0	0.00	0.0		90.15
7	0	0.00	0.0		91.05
8	0	0.00	0.0		93.50

Assay Class: High Sensitivity DNA Assay  
 Data Path: C:\...ents and Settings\Bioanalyzer\2015-01-20\2015-01-20\_003.xad

Created: 1/20/2015 12:16:46 PM  
 Modified: 1/20/2015 2:02:11 PM

**Electropherogram Summary Continued ...**

LHO114 (15+5) [ 1 ul ]



**Overall Results for sample 7 : LHO114 (15+5)**

Number of peaks found: 10                      Noise: 0.2

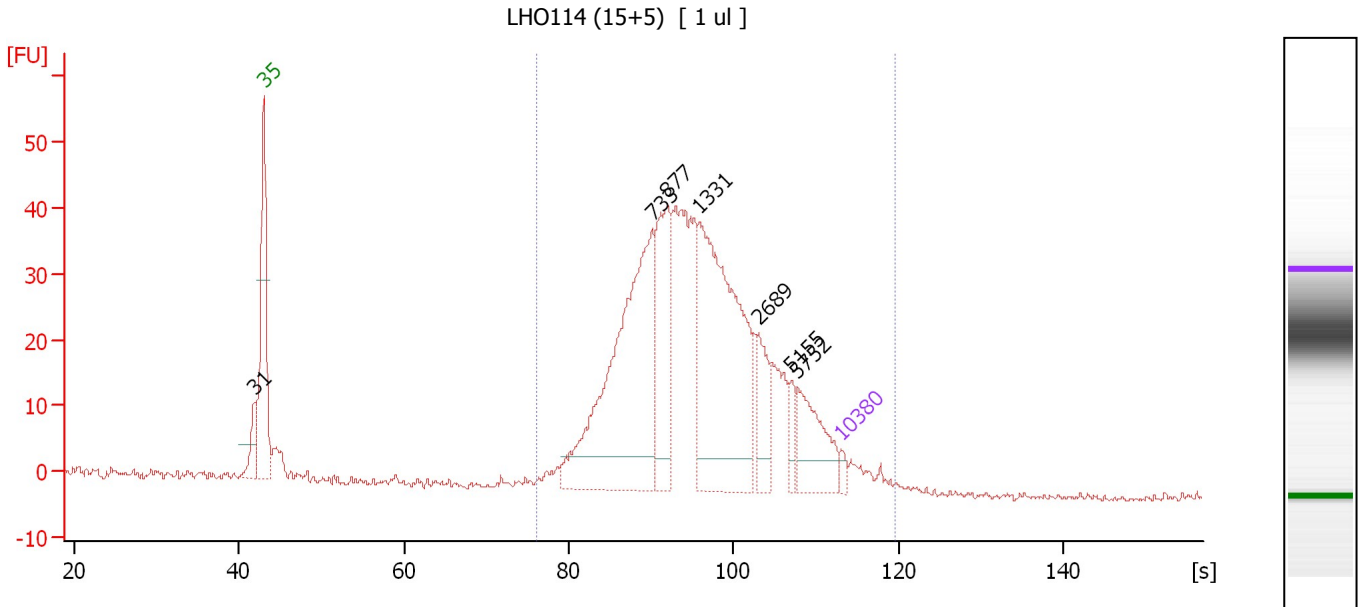
**Peak table for sample 7 : LHO114 (15+5)**

Peak	Size [bp]	Conc. [pg/μl]	Molarity [pmol/l]	Observations	Aligned Migration Time [s]
1	0	0.00	0.0		49.30
2	0	0.00	0.0	Lower Marker	50.05
3	0	0.00	0.0		83.85
4	0	0.00	0.0		85.50
5	0	0.00	0.0		87.50
6	0	0.00	0.0		88.85
7	0	0.00	0.0		89.55
8	0	0.00	0.0		90.65
9	0	0.00	0.0		92.45
10	0	0.00	0.0		94.30
11	0	0.00	0.0		96.75

Assay Class: High Sensitivity DNA Assay  
 Data Path: C:\...ents and Settings\Bioanalyzer\2015-01-20\2015-01-20\_003.xad

Created: 1/20/2015 12:16:46 PM  
 Modified: 1/20/2015 2:02:11 PM

**Electropherogram Summary Continued ...**



**Overall Results for sample 8 : LHO114 (15+5)**

Number of peaks found: 7                      Corr. Area 1: 683.2  
 Noise: 0.5

**Peak table for sample 8 : LHO114 (15+5)**

Peak	Size [bp]	Conc. [pg/μl]	Molarity [pmol/l]	Observations	Aligned Migration Time [s]
1	31	0.00	0.0		41.89
2	35	125.00	5,411.3	Lower Marker	43.00
3	733	4,285.51	8,853.1		90.08
4	877	1,506.51	2,603.0		91.97
5	1,331	3,425.75	3,898.6		95.87
6	2,689	470.87	265.3		103.04
7	5,155	189.06	55.6		107.01
8	5,752	769.72	202.8		107.79
9	10,380	75.00	10.9	Upper Marker	113.00

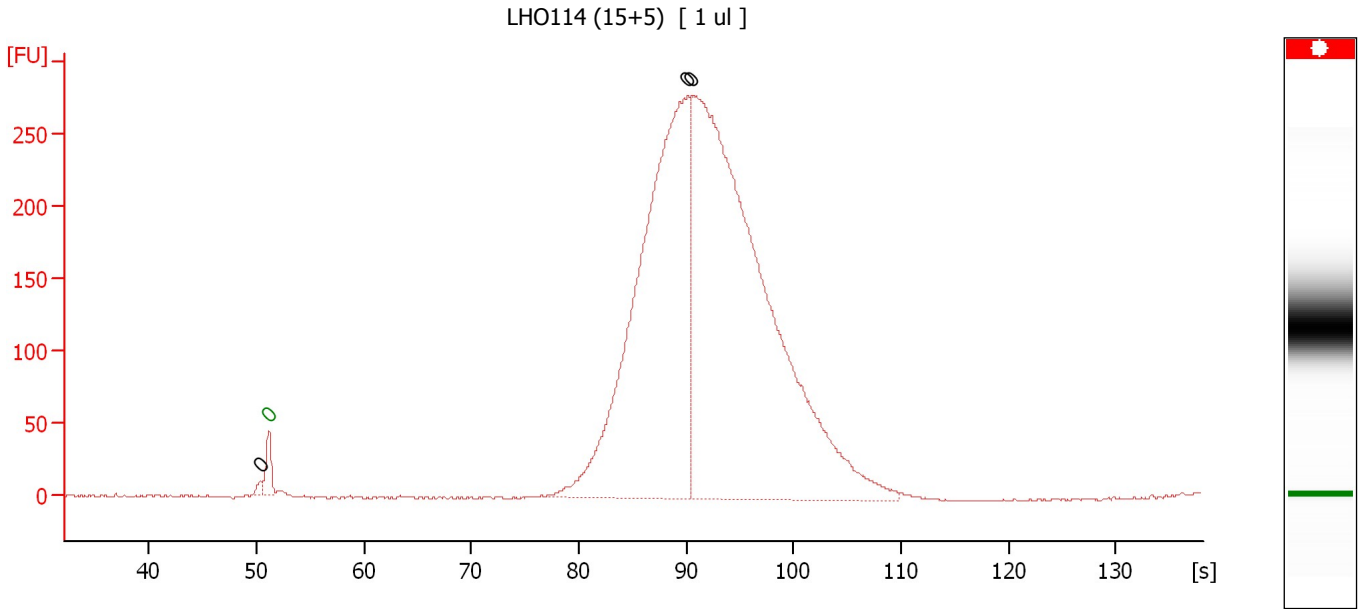
**Region table for sample 8 : LHO114 (15+5)**

From [bp]	Average Size [bp]	To [bp]	Corr. Area	% of Total	Size distribution in CV [%]	Conc. [pg/μl]	Molarity [pmol/l]	Color
397	2,125	16,562	683.2	96	100.0	13,324.75	19,836.4	Blue

Assay Class: High Sensitivity DNA Assay  
 Data Path: C:\...ents and Settings\Bioanalyzer\2015-01-20\2015-01-20\_003.xad

Created: 1/20/2015 12:16:46 PM  
 Modified: 1/20/2015 2:02:11 PM

**Electropherogram Summary Continued ...**



**Overall Results for sample 9 : LHO114 (15+5)**

Number of peaks found: 3                      Noise: 0.5

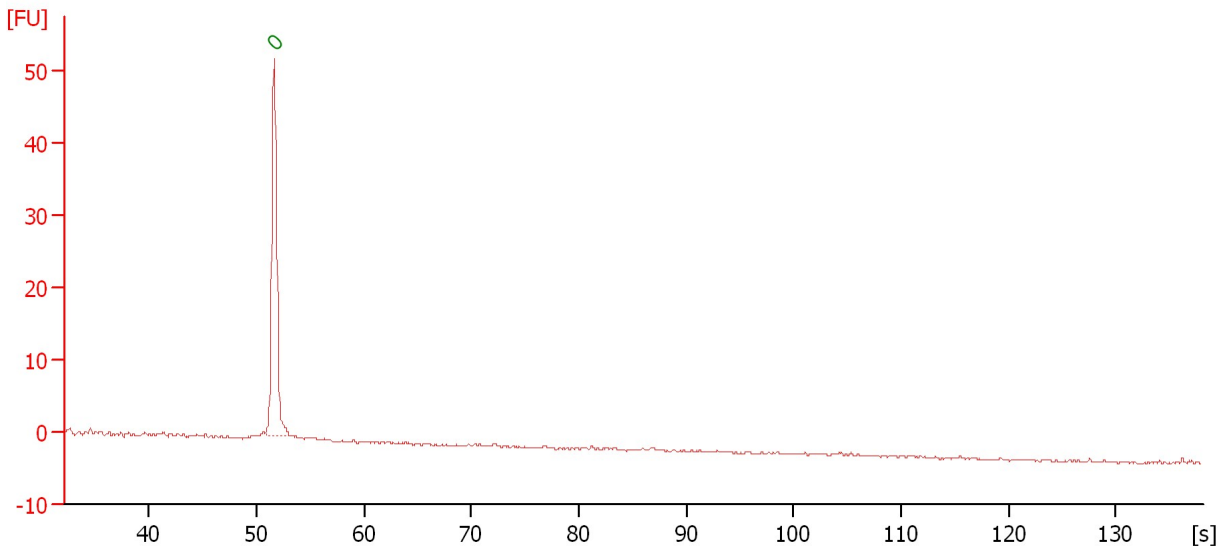
**Peak table for sample 9 : LHO114 (15+5)**

Peak	Size [bp]	Conc. [pg/μl]	Molarity [pmol/l]	Observations	Aligned Migration Time [s]
1	0	0.00	0.0		50.35
2	0	0.00	0.0	Lower Marker	51.15
3	0	0.00	0.0		90.15
4	0	0.00	0.0		90.50

Assay Class: High Sensitivity DNA Assay  
Data Path: C:\...ents and Settings\Bioanalyzer\2015-01-20\2015-01-20\_003.xad

Created: 1/20/2015 12:16:46 PM  
Modified: 1/20/2015 2:02:11 PM

**Electropherogram Summary Continued ...**



**Overall Results for sample 10 :**

Number of peaks found: 0                      Noise: 0.1

**Peak table for sample 10 :**

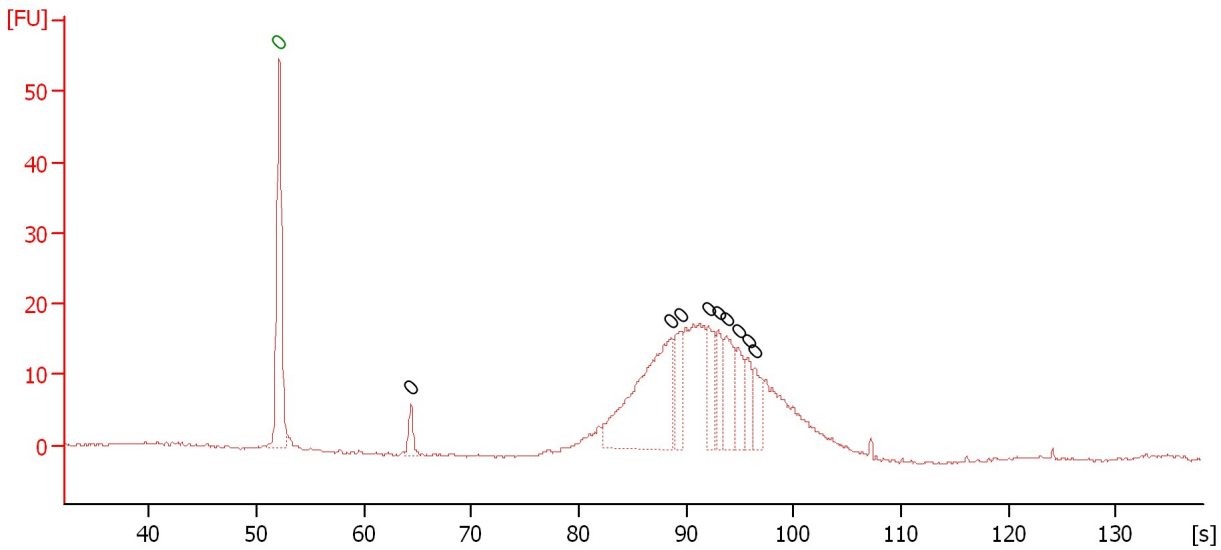
Peak	Size [bp]	Conc. [pg/μl]	Molarity [pmol/l]	Observations	Aligned Migration Time [s]
1	0	0.00	0.0	Lower Marker	51.65

Assay Class: High Sensitivity DNA Assay  
Data Path: C:\...ents and Settings\Bioanalyzer\2015-01-20\2015-01-20\_003.xad

Created: 1/20/2015 12:16:46 PM  
Modified: 1/20/2015 2:02:11 PM

**Electropherogram Summary Continued ...**

LHO114 (15+5) [ 0.1 ul ]



**Overall Results for sample 11 : LHO114 (15+5)**

Number of peaks found: 9 Noise: 0.2

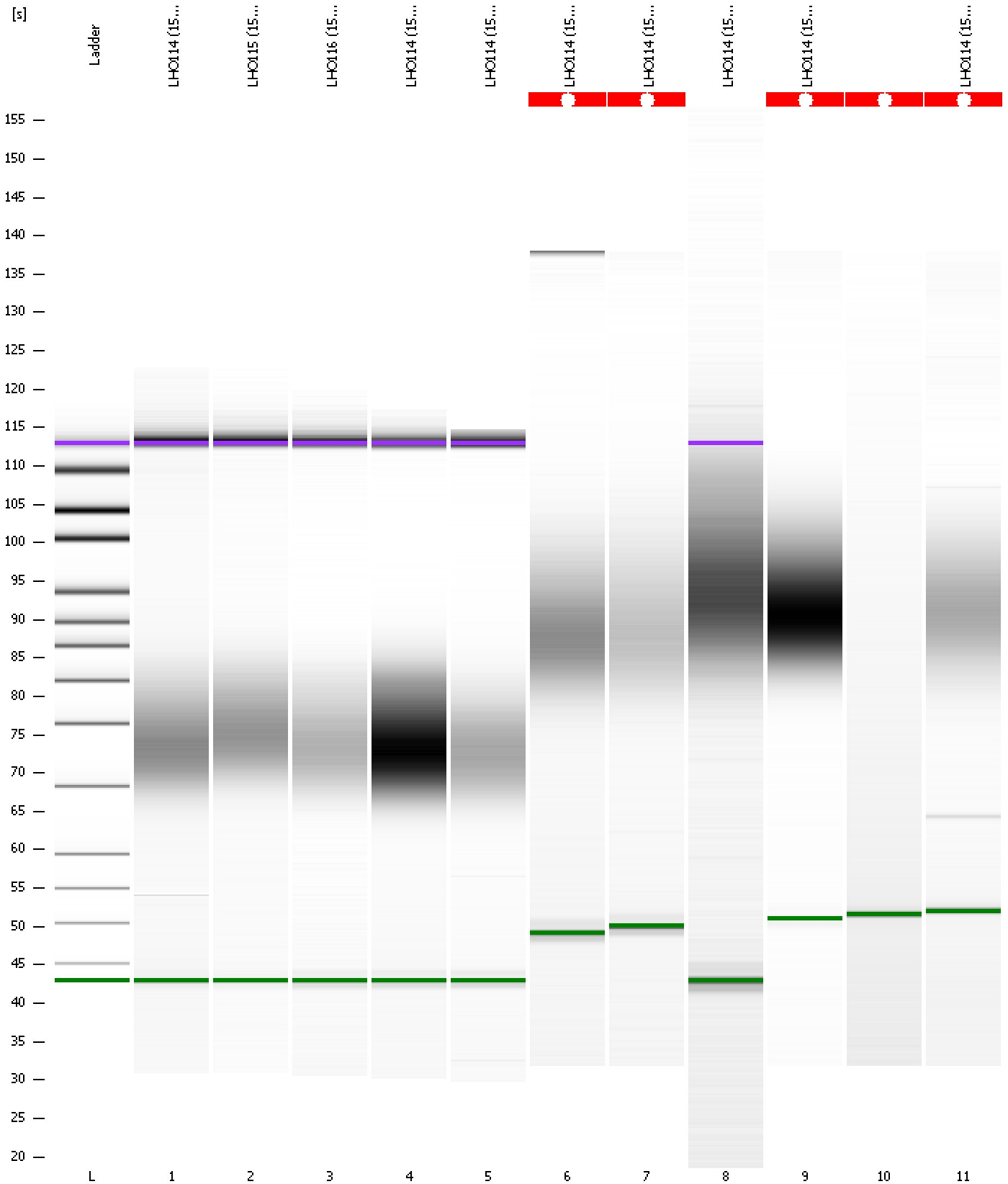
**Peak table for sample 11 : LHO114 (15+5)**

Peak	Size [bp]	Conc. [pg/μl]	Molarity [pmol/l]	Observations	Aligned Migration Time [s]
1	0	0.00	0.0	Lower Marker	52.10
2	0	0.00	0.0		64.35
3	0	0.00	0.0		88.60
4	0	0.00	0.0		89.45
5	0	0.00	0.0		92.10
6	0	0.00	0.0		92.95
7	0	0.00	0.0		93.75
8	0	0.00	0.0		94.90
9	0	0.00	0.0		95.75
10	0	0.00	0.0		96.40

Assay Class: High Sensitivity DNA Assay  
Data Path: C:\...ents and Settings\Bioanalyzer\2015-01-20\2015-01-20\_003.xad

Created: 1/20/2015 12:16:46 PM  
Modified: 1/20/2015 2:02:11 PM

**Gel Image**





Assay Class: High Sensitivity DNA Assay  
 Data Path: C:\...ents and Settings\Bioanalyzer\2015-01-20\2015-01-20\_003.xad

Created: 1/20/2015 12:16:46 PM  
 Modified: 1/20/2015 2:02:11 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		1/20/2015 12:58:03 PM	(GMT --08:00) Pacific Standard Time	UC Davis	D8XSMGH1
Run started on port 1 (File: C:\Documents and Settings\Bioanalyzer\2015-01-20\2015-01-20_003.xad)		Instrument	Run		1/20/2015 12:16:51 PM	(GMT --08:00) Pacific Standard Time	UC Davis	D8XSMGH1
Product Number : G2938B		Instrument	Run		1/20/2015 12:16:51 PM	(GMT --08:00) Pacific Standard Time	UC Davis	D8XSMGH1
Name :		Instrument	Run		1/20/2015 12:16:51 PM	(GMT --08:00) Pacific Standard Time	UC Davis	D8XSMGH1
Vendor : Agilent Technologies		Instrument	Run		1/20/2015 12:16:51 PM	(GMT --08:00) Pacific Standard Time	UC Davis	D8XSMGH1
Serial# : DE13701086		Instrument	Run		1/20/2015 12:16:51 PM	(GMT --08:00) Pacific Standard Time	UC Davis	D8XSMGH1
Firmware : C.01.069		Instrument	Run		1/20/2015 12:16:51 PM	(GMT --08:00) Pacific Standard Time	UC Davis	D8XSMGH1
Cartridge : Electrode		Instrument	Run		1/20/2015 12:16:51 PM	(GMT --08:00) Pacific Standard Time	UC Davis	D8XSMGH1