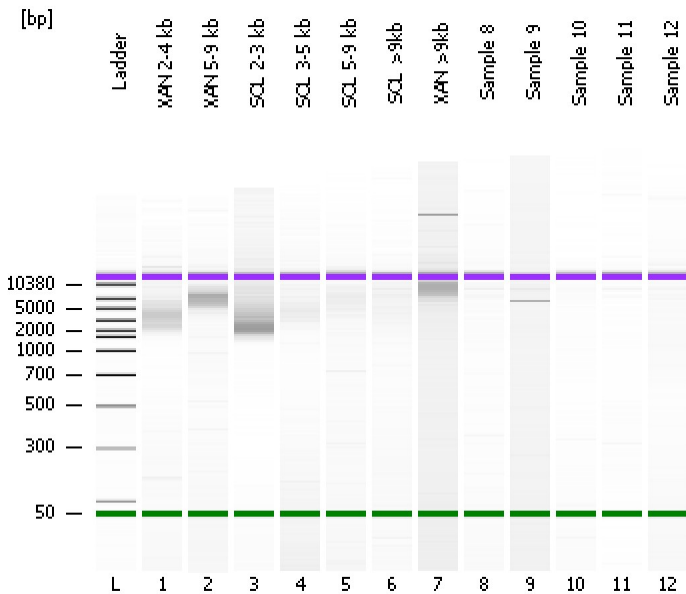


Assay Class: DNA 12000
Data Path: C:\... bioanalyzer\2100 expert\data\2017-01-23\2017-01-23_001.xad

Created: 1/23/2017 9:59:21 AM
Modified: 1/23/2017 10:34:23 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\DNA 12000 Series II.xsy

Assay Class: DNA 12000

Version: 2.4

Assay Comments: DNA Analysis 100 -12000 bp

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Chip Information:

Chip Lot #:

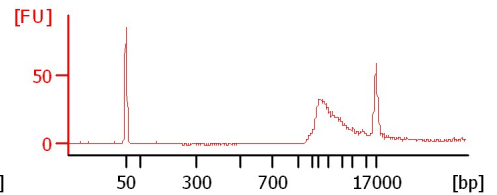
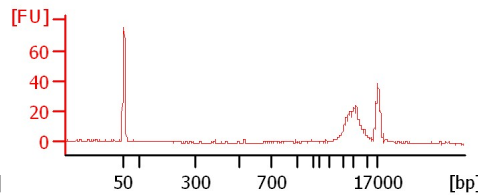
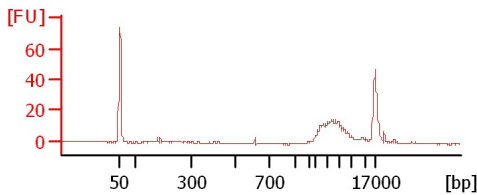
Reagent Kit Lot #:

Chip Comments:

XAN 2-4 kb

XAN 5-9 kb

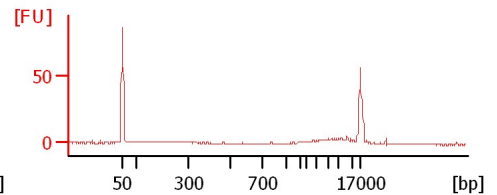
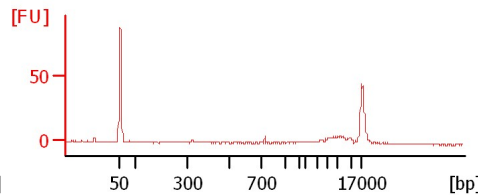
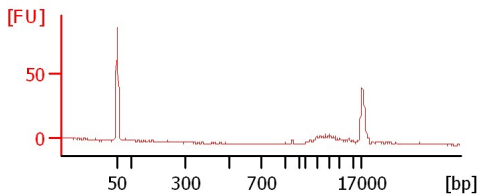
SOL 2-3 kb



SOL 3-5 kb

SOL 5-9 kb

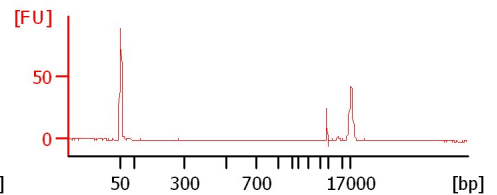
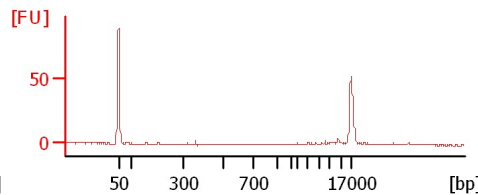
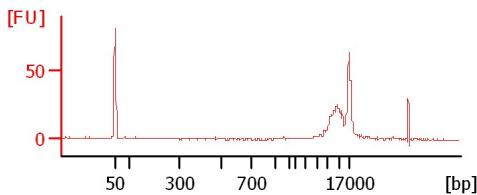
SOL >9kb



XAN >9kb

Sample 8

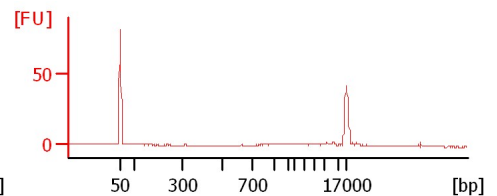
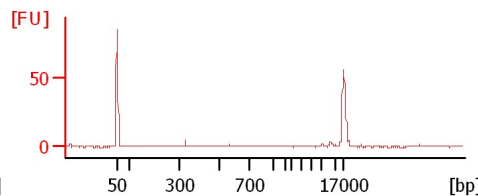
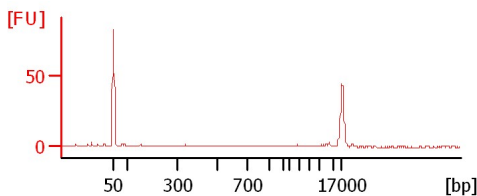
Sample 9



Sample 10

Sample 11

Sample 12



Assay Class: DNA 12000
Data Path: C:\... bioanalyzer\2100 expert\data\2017-01-23\2017-01-23_001.xad

Created: 1/23/2017 9:59:21 AM
Modified: 1/23/2017 10:34:23 AM

Electrophoresis File Run Summary (Chip Summary)

Sample Name	Sample Comment	Rest. Digest	Status	Observation	Result Label	Result Color
XAN 2-4 kb		<input type="checkbox"/>	✓			
XAN 5-9 kb		<input type="checkbox"/>	✓			
SOL 2-3 kb		<input type="checkbox"/>	✓			
SOL 3-5 kb		<input type="checkbox"/>	✓			
SOL 5-9 kb		<input type="checkbox"/>	✓			
SOL >9kb		<input type="checkbox"/>	✓			
XAN >9kb		<input type="checkbox"/>	✓			
Sample 8		<input type="checkbox"/>	✓			
Sample 9		<input type="checkbox"/>	✓			
Sample 10		<input type="checkbox"/>	✓			
Sample 11		<input type="checkbox"/>	✓			
Sample 12		<input type="checkbox"/>	✓			
Ladder		<input type="checkbox"/>	✓			

Chip Lot #

Reagent Kit Lot #

Chip Comments :

Assay Class: DNA 12000
Data Path: C:\... bioanalyzer\2100 expert\data\2017-01-23\2017-01-23_001.xad

Created: 1/23/2017 9:59:21 AM
Modified: 1/23/2017 10:34:23 AM

Electrophoresis Assay Details

General Analysis Settings

Number of Available Sample and Ladder Wells (Max.) : 13
Minimum Visible Range [s] : 20
Maximum Visible Range [s] : 99
Start Analysis Time Range [s] : 20
End Analysis Time Range [s] : 98.95
Ladder Concentration [ng/μl] : 44
Uses Standard Area for Ladder Fragments
Lower Marker Concentration [ng/μl] : 8.3
Upper Marker Concentration [ng/μl] : 4.2
Used Upper Marker for Quantitation
This is a Qualitative Assay Only
Standard Curve Fit is Point to Point
Show Data Aligned to Lower and Upper Marker

Integrator Settings

Integration Start Time [s] : 20
Integration End Time [s] : 98.95
Slope Threshold : 0.8
Height Threshold [FU] : 20
Area Threshold : 0.1
Width Threshold [s] : 0.5
Baseline Plateau [s] : 0.5

Filter Settings

Filter Width [s] : 0.5
Polynomial Order : 4

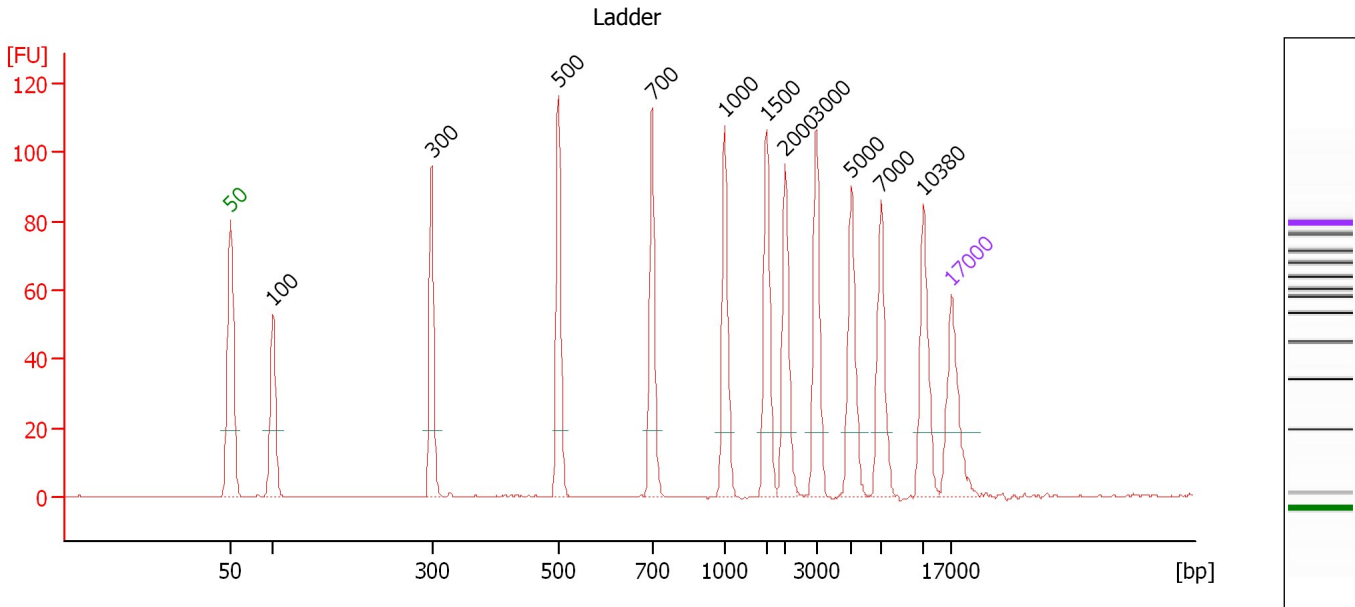
Ladder

Ladder Peak	Size	Area
1	50	120
2	100	48
3	300	61
4	500	77
5	700	81
6	1000	86
7	1500	92
8	2000	92
9	3000	96
10	5000	100
11	7000	98
12	10380	102
13	17000	110

Assay Class: DNA 12000
 Data Path: C:\... bioanalyzer\2100 expert\data\2017-01-23\2017-01-23_001.xad

Created: 1/23/2017 9:59:21 AM
 Modified: 1/23/2017 10:34:23 AM

Electropherogram Summary



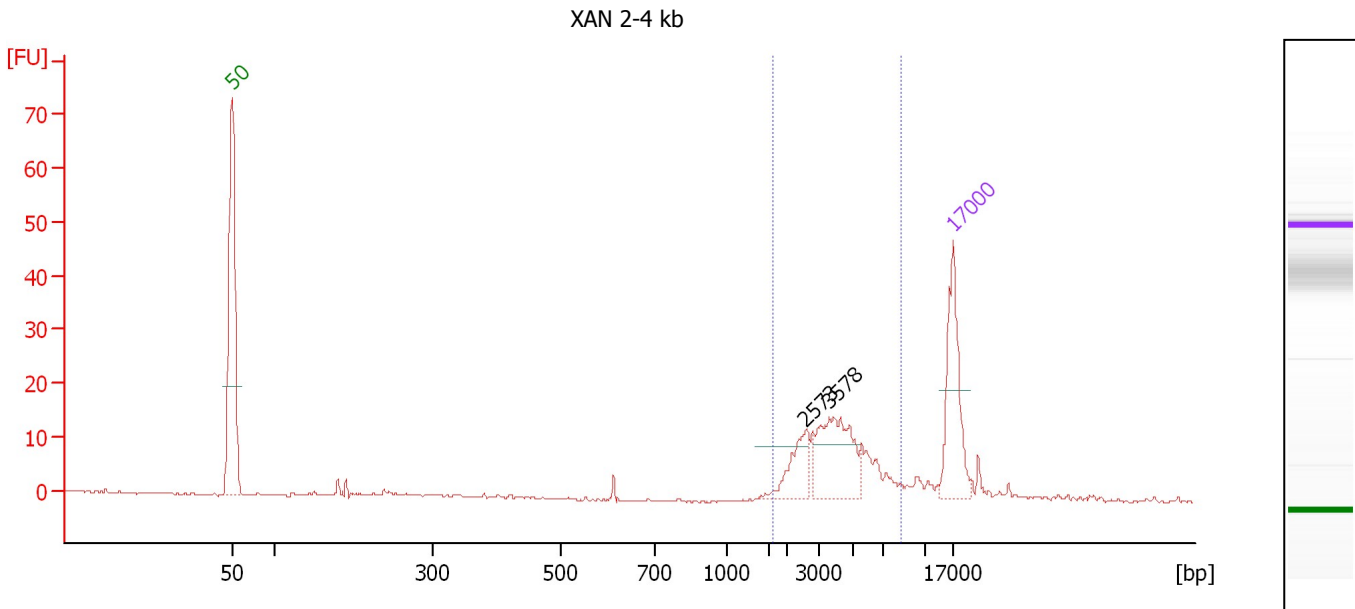
Peak table for Ladder

Peak	Size [bp]	Conc. [ng/μl]	Molarity [nmol/l]	Observations
1	50	8.30	251.5	Lower Marker
2	100	4.00	60.6	Ladder Peak
3	300	4.00	20.2	Ladder Peak
4	500	4.00	12.1	Ladder Peak
5	700	4.00	8.7	Ladder Peak
6	1,000	4.00	6.1	Ladder Peak
7	1,500	4.00	4.0	Ladder Peak
8	2,000	4.00	3.0	Ladder Peak
9	3,000	4.00	2.0	Ladder Peak
10	5,000	4.00	1.2	Ladder Peak
11	7,000	4.00	0.9	Ladder Peak
12	10,380	4.00	0.6	Ladder Peak
13	17,000	4.20	0.4	Upper Marker

Assay Class: DNA 12000
 Data Path: C:\... bioanalyzer\2100 expert\data\2017-01-23\2017-01-23_001.xad

Created: 1/23/2017 9:59:21 AM
 Modified: 1/23/2017 10:34:23 AM

Electropherogram Summary Continued ...



Setpoint Deviations for sample 1 : XAN 2-4 kb

Height Threshold [FU] : 10

Overall Results for sample 1 : XAN 2-4 kb

Number of peaks found: 2 Area 1: 79.3

Peak table for sample 1 : XAN 2-4 kb

Peak	Size [bp]	Conc. [ng/μl]	Molarity [nmol/l]	Observations
1	50	8.30	251.5	Lower Marker
2	2,573	2.06	1.2	
3	3,578	4.43	1.9	
4	17,000	4.20	0.4	Upper Marker

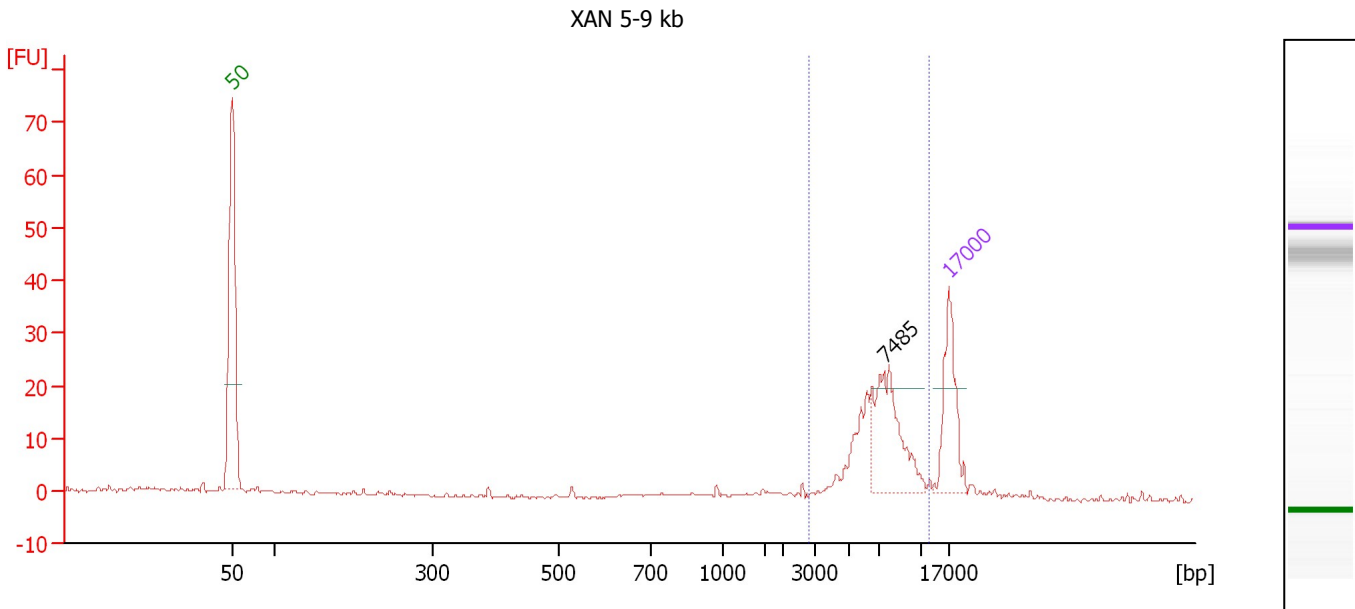
Region table for sample 1 : XAN 2-4 kb

From [bp]	To [bp]	Average Size [bp]	Conc. [ng/μl]	Area	% of Total	Size distribution in CV [%]	Color
1,611	8,315	4,061	8.11	79.3	78	37.8	Blue

Assay Class: DNA 12000
 Data Path: C:\... bioanalyzer\2100 expert\data\2017-01-23\2017-01-23_001.xad

Created: 1/23/2017 9:59:21 AM
 Modified: 1/23/2017 10:34:23 AM

Electropherogram Summary Continued ...



Overall Results for sample 2 : XAN 5-9 kb

Number of peaks found: 1 Area 1: 82.2

Peak table for sample 2 : XAN 5-9 kb

Peak	Size [bp]	Conc. [ng/μl]	Molarity [nmol/l]	Observations
1	50	8.30	251.5	Lower Marker
2	7,485	6.02	1.2	
3	17,000	4.20	0.4	Upper Marker

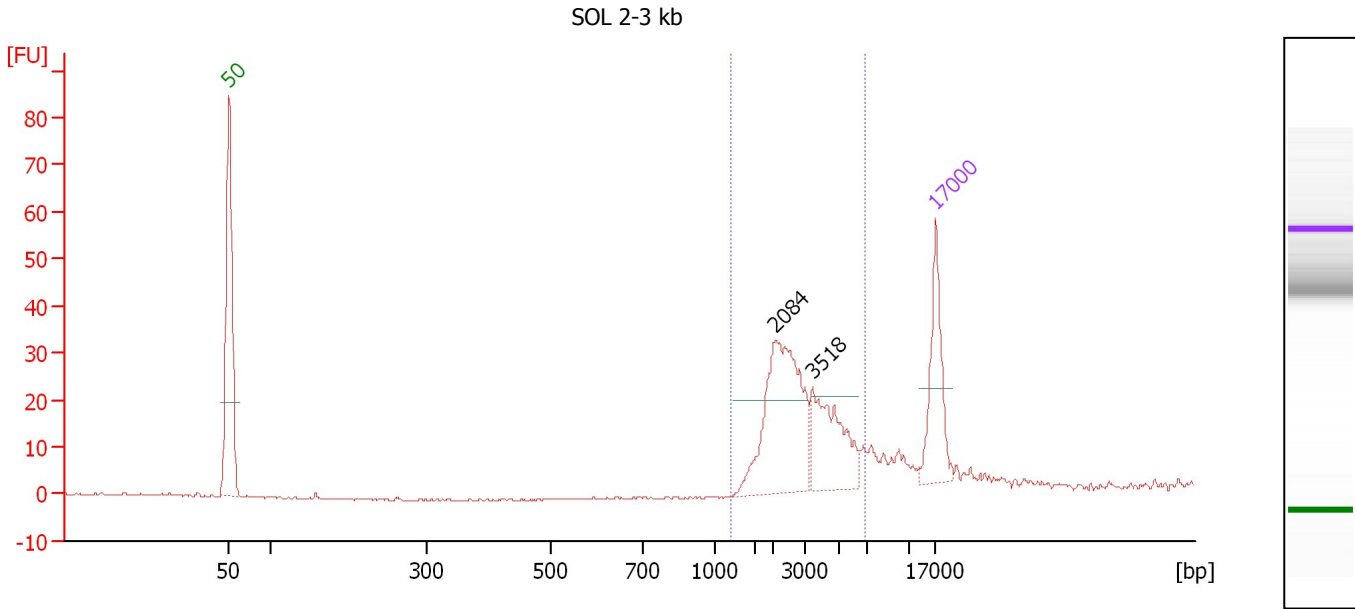
Region table for sample 2 : XAN 5-9 kb

From [bp]	To [bp]	Average Size [bp]	Conc. [ng/μl]	Area	% of Total	Size distribution in CV [%]	Color
2,835	12,124	7,086	9.99	82.2	83	22.1	Blue

Assay Class: DNA 12000
 Data Path: C:\... bioanalyzer\2100 expert\data\2017-01-23\2017-01-23_001.xad

Created: 1/23/2017 9:59:21 AM
 Modified: 1/23/2017 10:34:23 AM

Electropherogram Summary Continued ...



Overall Results for sample 3 : SOL 2-3 kb

Number of peaks found: 2 Area 1: 142.5

Peak table for sample 3 : SOL 2-3 kb

Peak	Size [bp]	Conc. [ng/μl]	Molarity [nmol/l]	Observations
1	50	8.30	251.5	Lower Marker
2	2,084	9.68	7.0	
3	3,518	4.84	2.1	
4	17,000	4.20	0.4	Upper Marker

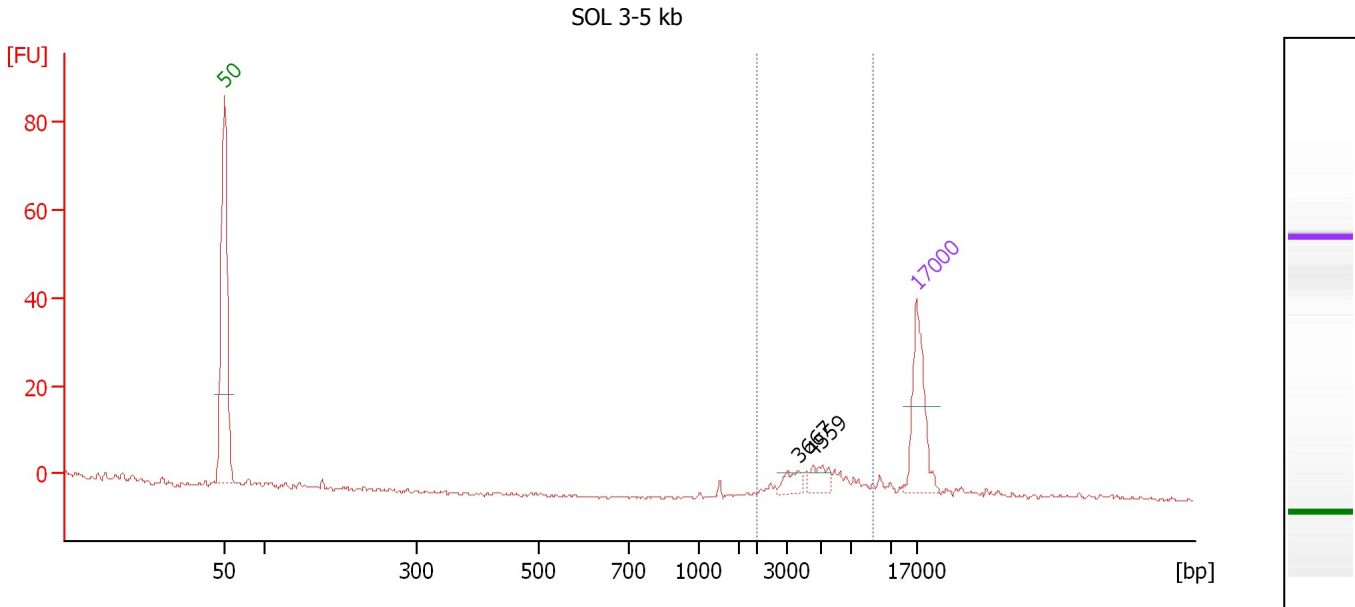
Region table for sample 3 : SOL 2-3 kb

From [bp]	To [bp]	Average Size [bp]	Conc. [ng/μl]	Area	% of Total	Size distribution in CV [%]	Color
1,195	6,815	3,202	13.73	142.5	83	41.4	Blue

Assay Class: DNA 12000
 Data Path: C:\... bioanalyzer\2100 expert\data\2017-01-23\2017-01-23_001.xad

Created: 1/23/2017 9:59:21 AM
 Modified: 1/23/2017 10:34:23 AM

Electropherogram Summary Continued ...



Setpoint Deviations for sample 4 : SOL 3-5 kb

Height Threshold [FU] : 5

Overall Results for sample 4 : SOL 3-5 kb

Number of peaks found: 2 Area 1: 26.9

Peak table for sample 4 : SOL 3-5 kb

Peak	Size [bp]	Conc. [ng/μl]	Molarity [nmol/l]	Observations
1	50	8.30	251.5	Lower Marker
2	3,667	0.81	0.3	
3	4,559	0.99	0.3	
4	17,000	4.20	0.4	Upper Marker

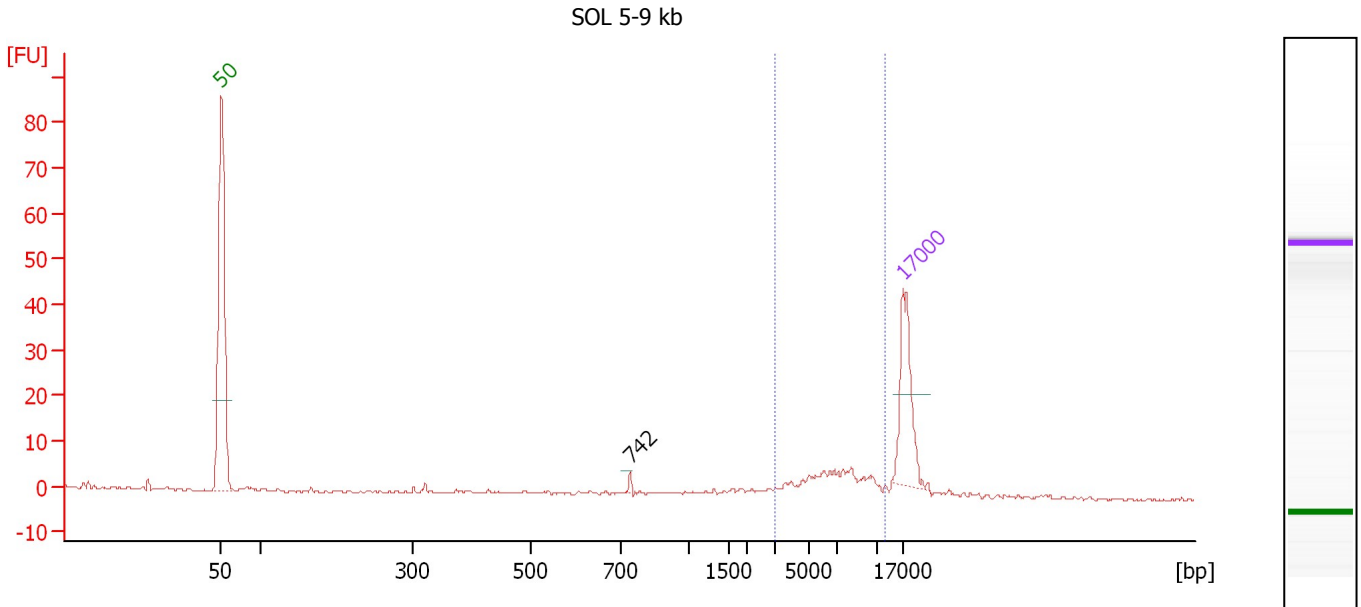
Region table for sample 4 : SOL 3-5 kb

From [bp]	To [bp]	Average Size [bp]	Conc. [ng/μl]	Area	% of Total	Size distribution in CV [%]	Color
2,009	8,837	5,001	2.90	26.9	64	31.9	Blue

Assay Class: DNA 12000
 Data Path: C:\... bioanalyzer\2100 expert\data\2017-01-23\2017-01-23_001.xad

Created: 1/23/2017 9:59:21 AM
 Modified: 1/23/2017 10:34:23 AM

Electropherogram Summary Continued ...



Setpoint Deviations for sample 5 : SOL 5-9 kb

Height Threshold [FU] : 5

Overall Results for sample 5 : SOL 5-9 kb

Number of peaks found: 1 Area 1: 28.7

Peak table for sample 5 : SOL 5-9 kb

Peak	Size [bp]	Conc. [ng/μl]	Molarity [nmol/l]	Observations
1	50	8.30	251.5	Lower Marker
2	742	0.14	0.3	
3	17,000	4.20	0.4	Upper Marker

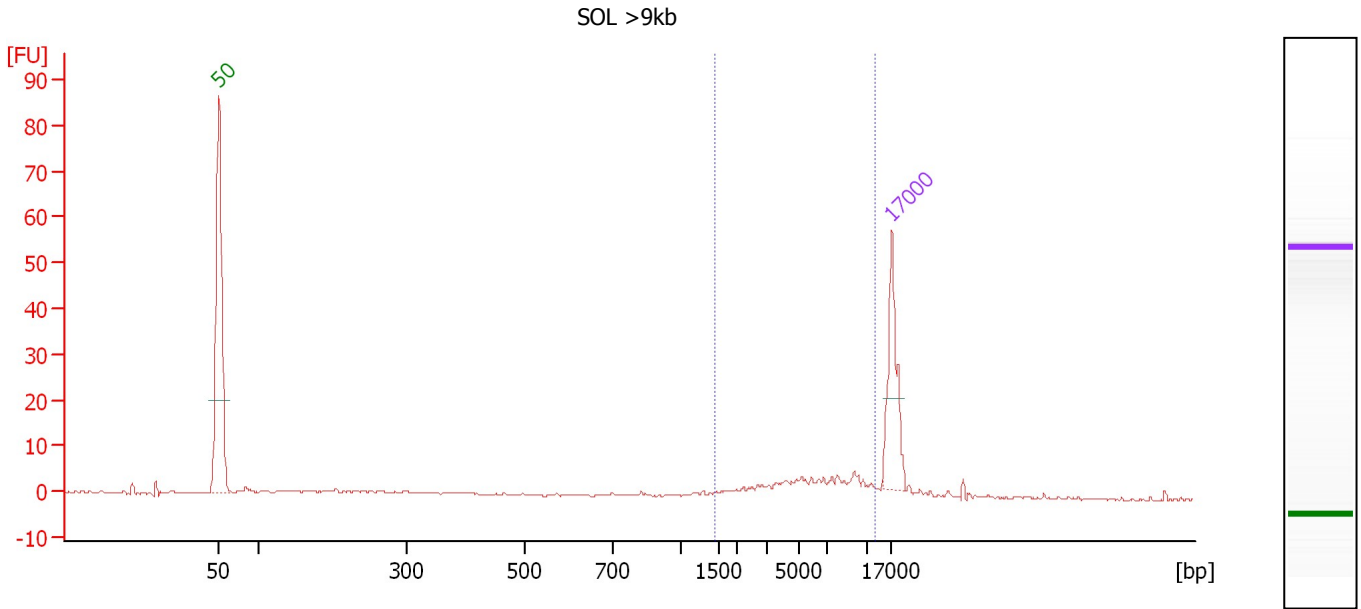
Region table for sample 5 : SOL 5-9 kb

From [bp]	To [bp]	Average Size [bp]	Conc. [ng/μl]	Area	% of Total	Size distribution in CV [%]	Color
2,963	12,346	6,896	3.23	28.7	63	30.0	Blue

Assay Class: DNA 12000
 Data Path: C:\... bioanalyzer\2100 expert\data\2017-01-23\2017-01-23_001.xad

Created: 1/23/2017 9:59:21 AM
 Modified: 1/23/2017 10:34:23 AM

Electropherogram Summary Continued ...



Overall Results for sample 6 : SOL >9kb

Number of peaks found: 0 Area 1: 30.2

Peak table for sample 6 : SOL >9kb

Peak	Size [bp]	Conc. [ng/μl]	Molarity [nmol/l]	Observations
1	50	8.30	251.5	Lower Marker
2	17,000	4.20	0.4	Upper Marker

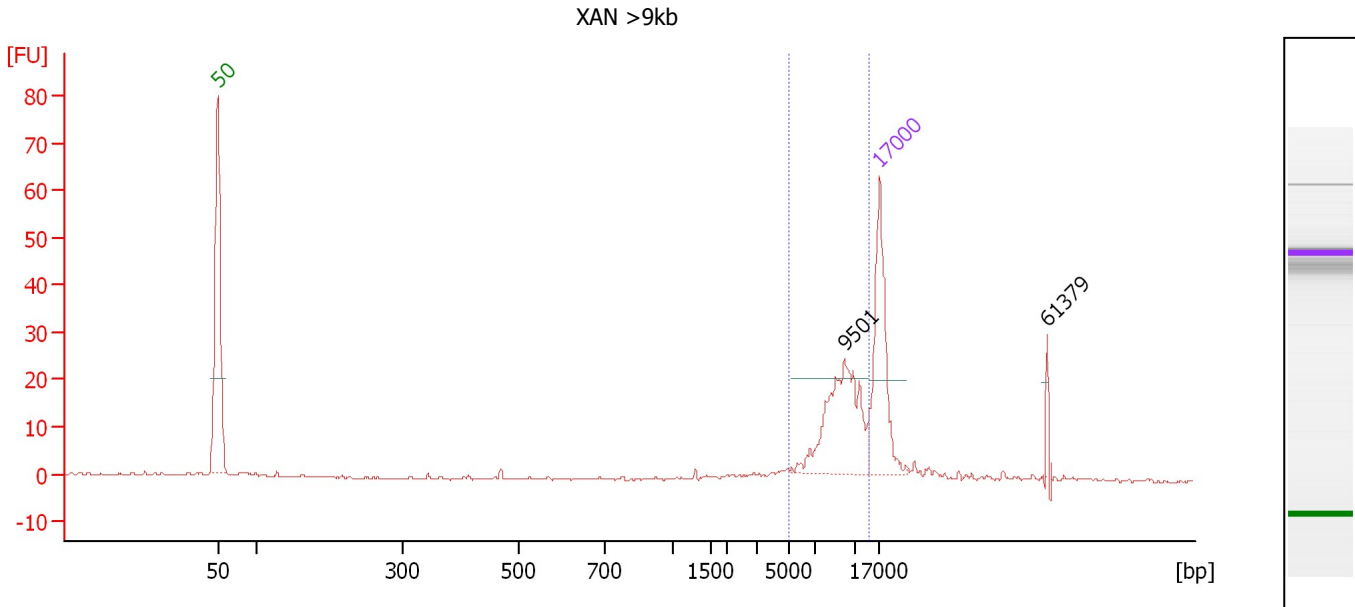
Region table for sample 6 : SOL >9kb

From [bp]	To [bp]	Average Size [bp]	Conc. [ng/μl]	Area	% of Total	Size distribution in CV [%]	Color
1,433	12,447	6,067	3.46	30.2	66	45.1	Blue

Assay Class: DNA 12000
 Data Path: C:\... bioanalyzer\2100 expert\data\2017-01-23\2017-01-23_001.xad

Created: 1/23/2017 9:59:21 AM
 Modified: 1/23/2017 10:34:23 AM

Electropherogram Summary Continued ...



Overall Results for sample 7 : XAN >9kb

Number of peaks found: 1 Area 1: 69.7

Peak table for sample 7 : XAN >9kb

Peak	Size [bp]	Conc. [ng/µl]	Molarity [nmol/l]	Observations
1	50	8.30	251.5	Lower Marker
2	9,501	5.03	0.8	
3	17,000	4.20	0.4	Upper Marker
4	61,379	0.00	0.0	

Region table for sample 7 : XAN >9kb

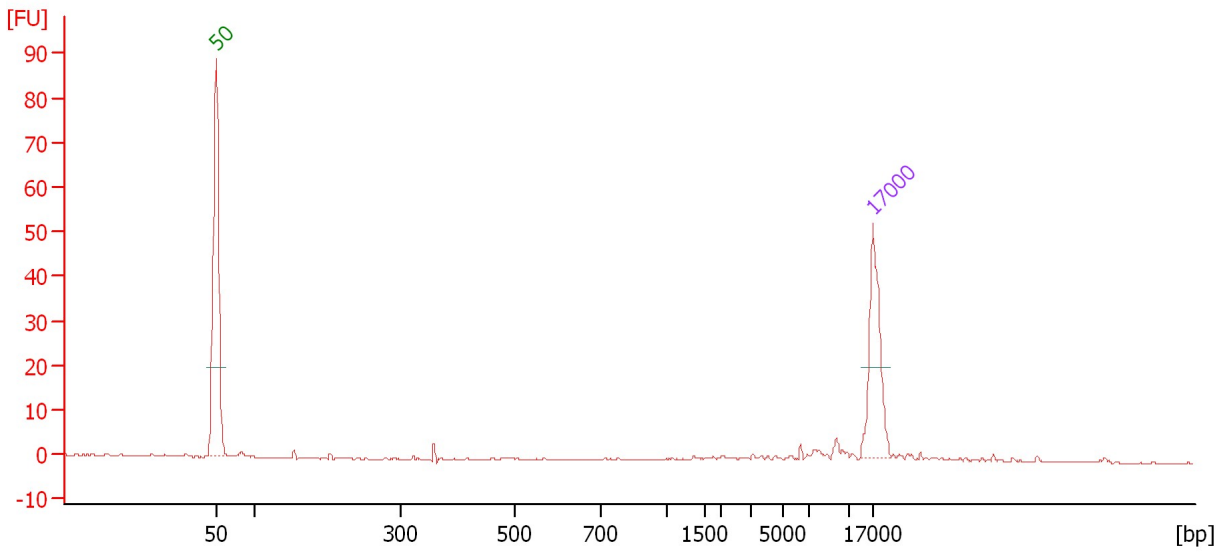
From [bp]	To [bp]	Average Size [bp]	Conc. [ng/µl]	Area	% of Total	Size distribution in CV [%]	Color
5,008	14,060	9,266	5.56	69.7	75	19.4	Blue

Assay Class: DNA 12000
Data Path: C:\... bioanalyzer\2100 expert\data\2017-01-23\2017-01-23_001.xad

Created: 1/23/2017 9:59:21 AM
Modified: 1/23/2017 10:34:23 AM

Electropherogram Summary Continued ...

Sample 8



Overall Results for sample 8 : Sample 8

Number of peaks found: 0

Peak table for sample 8 : Sample 8

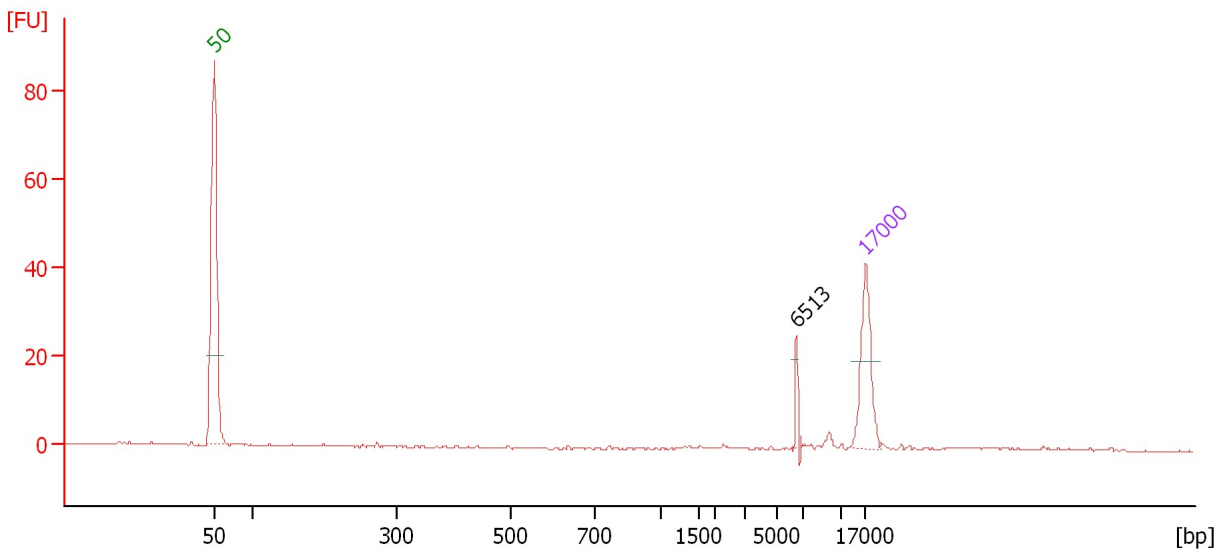
Peak	Size [bp]	Conc. [ng/μl]	Molarity [nmol/l]	Observations
1	50	8.30	251.5	Lower Marker
2	17,000	4.20	0.4	Upper Marker

Assay Class: DNA 12000
Data Path: C:\... bioanalyzer\2100 expert\data\2017-01-23\2017-01-23_001.xad

Created: 1/23/2017 9:59:21 AM
Modified: 1/23/2017 10:34:23 AM

Electropherogram Summary Continued ...

Sample 9



Overall Results for sample 9 : Sample 9

Number of peaks found: 1

Peak table for sample 9 : Sample 9

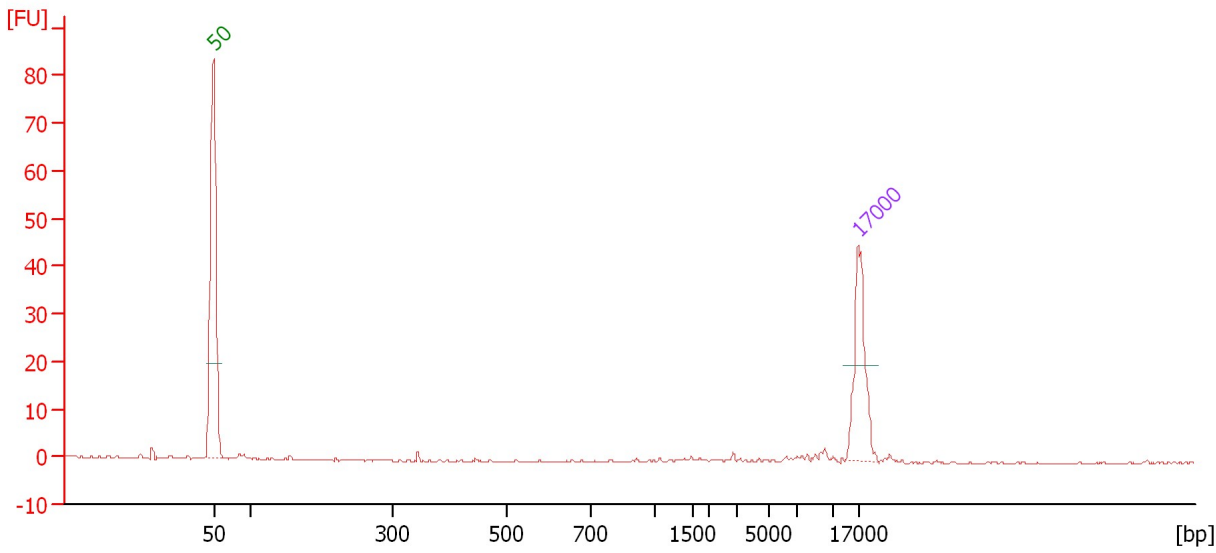
Peak	Size [bp]	Conc. [ng/μl]	Molarity [nmol/l]	Observations
1	50	8.30	251.5	Lower Marker
2	6,513	0.68	0.2	
3	17,000	4.20	0.4	Upper Marker

Assay Class: DNA 12000
 Data Path: C:\... bioanalyzer\2100 expert\data\2017-01-23\2017-01-23_001.xad

Created: 1/23/2017 9:59:21 AM
 Modified: 1/23/2017 10:34:23 AM

Electropherogram Summary Continued ...

Sample 10



Overall Results for sample 10 : Sample 10

Number of peaks found: 0

Peak table for sample 10 : Sample 10

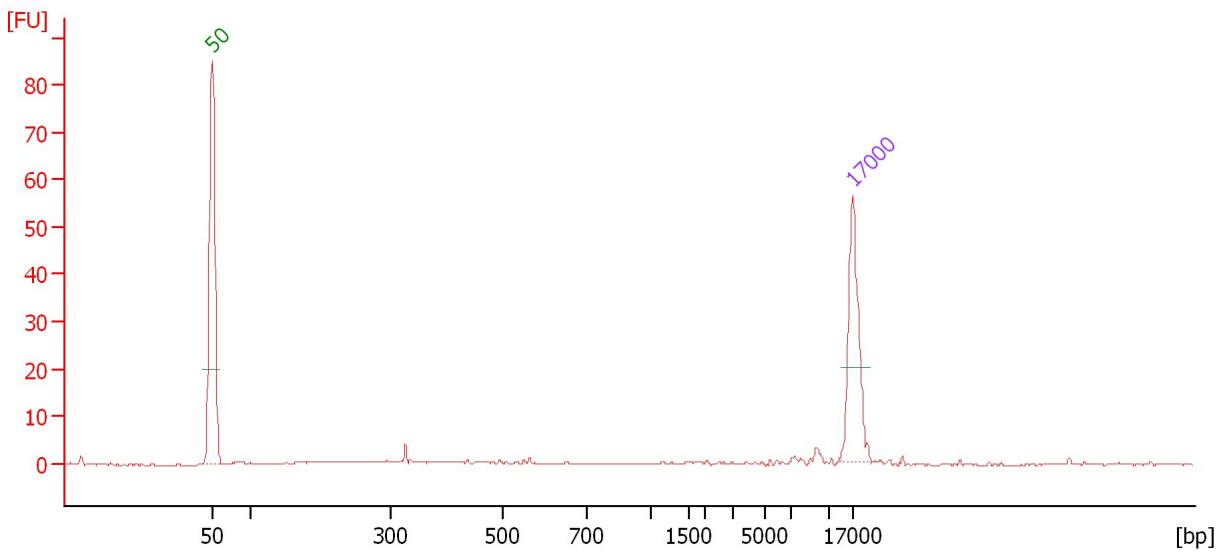
Peak	Size [bp]	Conc. [ng/μl]	Molarity [nmol/l]	Observations
1	50	8.30	251.5	Lower Marker
2	17,000	4.20	0.4	Upper Marker

Assay Class: DNA 12000
Data Path: C:\... bioanalyzer\2100 expert\data\2017-01-23\2017-01-23_001.xad

Created: 1/23/2017 9:59:21 AM
Modified: 1/23/2017 10:34:23 AM

Electropherogram Summary Continued ...

Sample 11



Overall Results for sample 11 : Sample 11

Number of peaks found: 0

Peak table for sample 11 : Sample 11

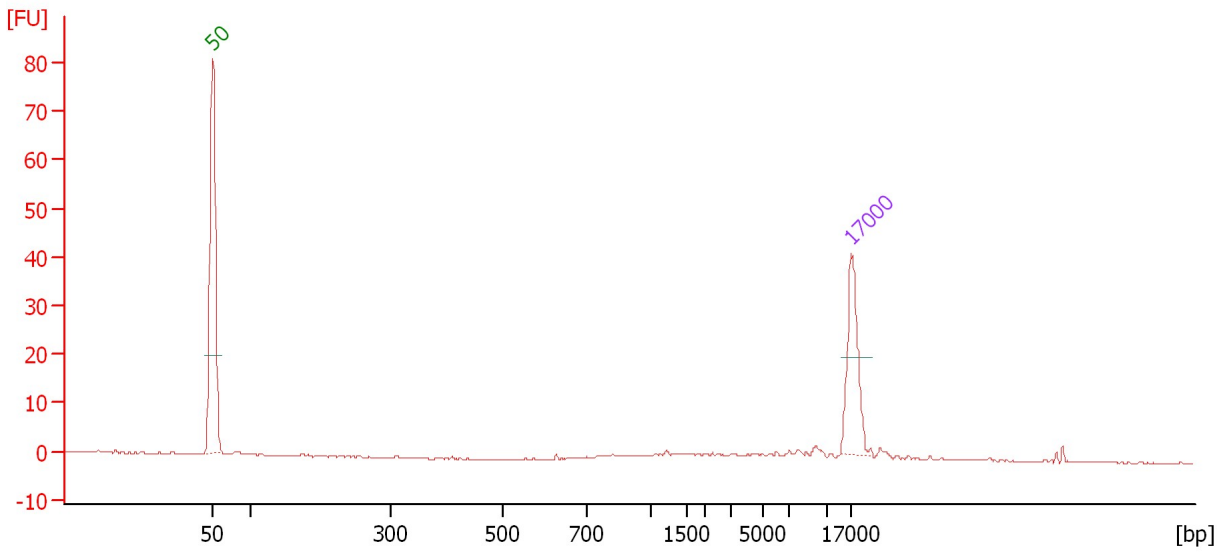
Peak	Size [bp]	Conc. [ng/μl]	Molarity [nmol/l]	Observations
1	50	8.30	251.5	Lower Marker
2	17,000	4.20	0.4	Upper Marker

Assay Class: DNA 12000
Data Path: C:\... bioanalyzer\2100 expert\data\2017-01-23\2017-01-23_001.xad

Created: 1/23/2017 9:59:21 AM
Modified: 1/23/2017 10:34:23 AM

Electropherogram Summary Continued ...

Sample 12



Overall Results for sample 12 : Sample 12

Number of peaks found: 0

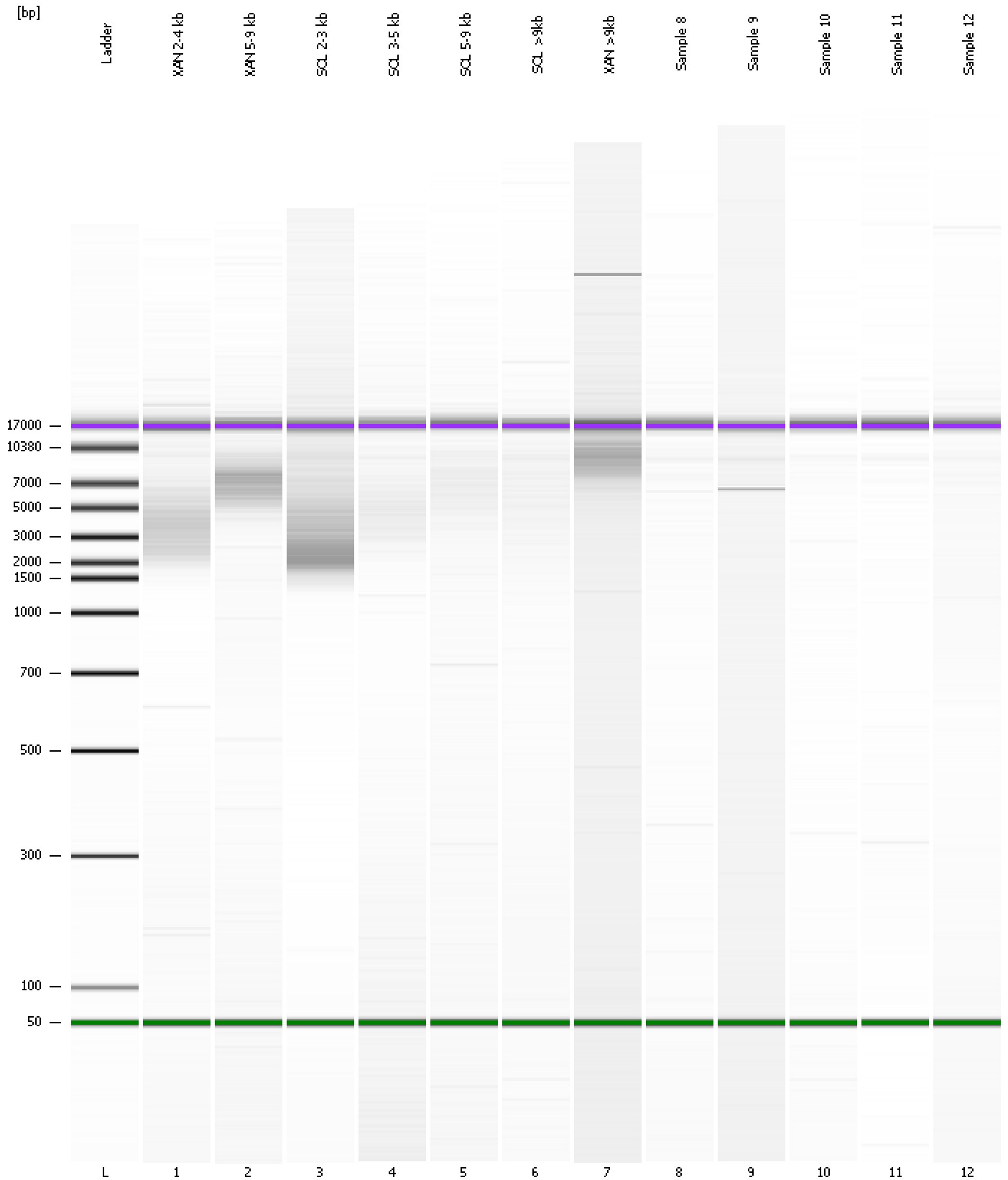
Peak table for sample 12 : Sample 12

Peak	Size [bp]	Conc. [ng/μl]	Molarity [nmol/l]	Observations
1	50	8.30	251.5	Lower Marker
2	17,000	4.20	0.4	Upper Marker

Assay Class: DNA 12000
Data Path: C:\... bioanalyzer\2100 expert\data\2017-01-23\2017-01-23_001.xad

Created: 1/23/2017 9:59:21 AM
Modified: 1/23/2017 10:34:23 AM

Gel Image



Assay Class: DNA 12000
 Data Path: C:\... bioanalyzer\2100 expert\data\2017-01-23\2017-01-23_001.xad

Created: 1/23/2017 9:59:21 AM
 Modified: 1/23/2017 10:34:23 AM

Run Logbook

Description	Number	Source	Category	Sub Category	Time	Time Zone	User	Host
Run ended on port 1 (Number of wells acquired: 13)		Instrument	Run		1/23/2017 10:34:22 AM	(GMT --08:00) Pacific Standard Time	UC Davis	D8XSMGH1
Run started on port 1 (File: C:\Program Files\Agilent\2100 bioanalyzer\2100 expert\data\2017-01-23\2017-01-23_001.xad)		Instrument	Run		1/23/2017 9:59:27 AM	(GMT --08:00) Pacific Standard Time	UC Davis	D8XSMGH1
Product Number : G2938B		Instrument	Run		1/23/2017 9:59:27 AM	(GMT --08:00) Pacific Standard Time	UC Davis	D8XSMGH1
Name :		Instrument	Run		1/23/2017 9:59:27 AM	(GMT --08:00) Pacific Standard Time	UC Davis	D8XSMGH1
Vendor : Agilent Technologies		Instrument	Run		1/23/2017 9:59:27 AM	(GMT --08:00) Pacific Standard Time	UC Davis	D8XSMGH1
Serial# : DE13701086		Instrument	Run		1/23/2017 9:59:27 AM	(GMT --08:00) Pacific Standard Time	UC Davis	D8XSMGH1
Firmware : C.01.069		Instrument	Run		1/23/2017 9:59:27 AM	(GMT --08:00) Pacific Standard Time	UC Davis	D8XSMGH1
Cartridge : Electrode		Instrument	Run		1/23/2017 9:59:27 AM	(GMT --08:00) Pacific Standard Time	UC Davis	D8XSMGH1