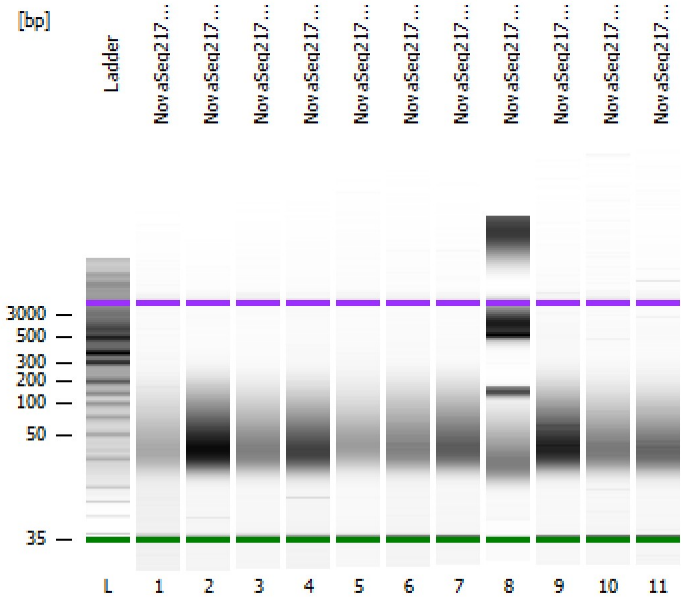


Assay Class: High Sensitivity DNA Assay
Data Path: Z:\...\Bioanalyzer1_High Sensitivity DNA Assay_2020-07-27_001.xad

Created: 7/27/2020 12:33:05 PM
Modified: 7/27/2020 1:14:29 PM

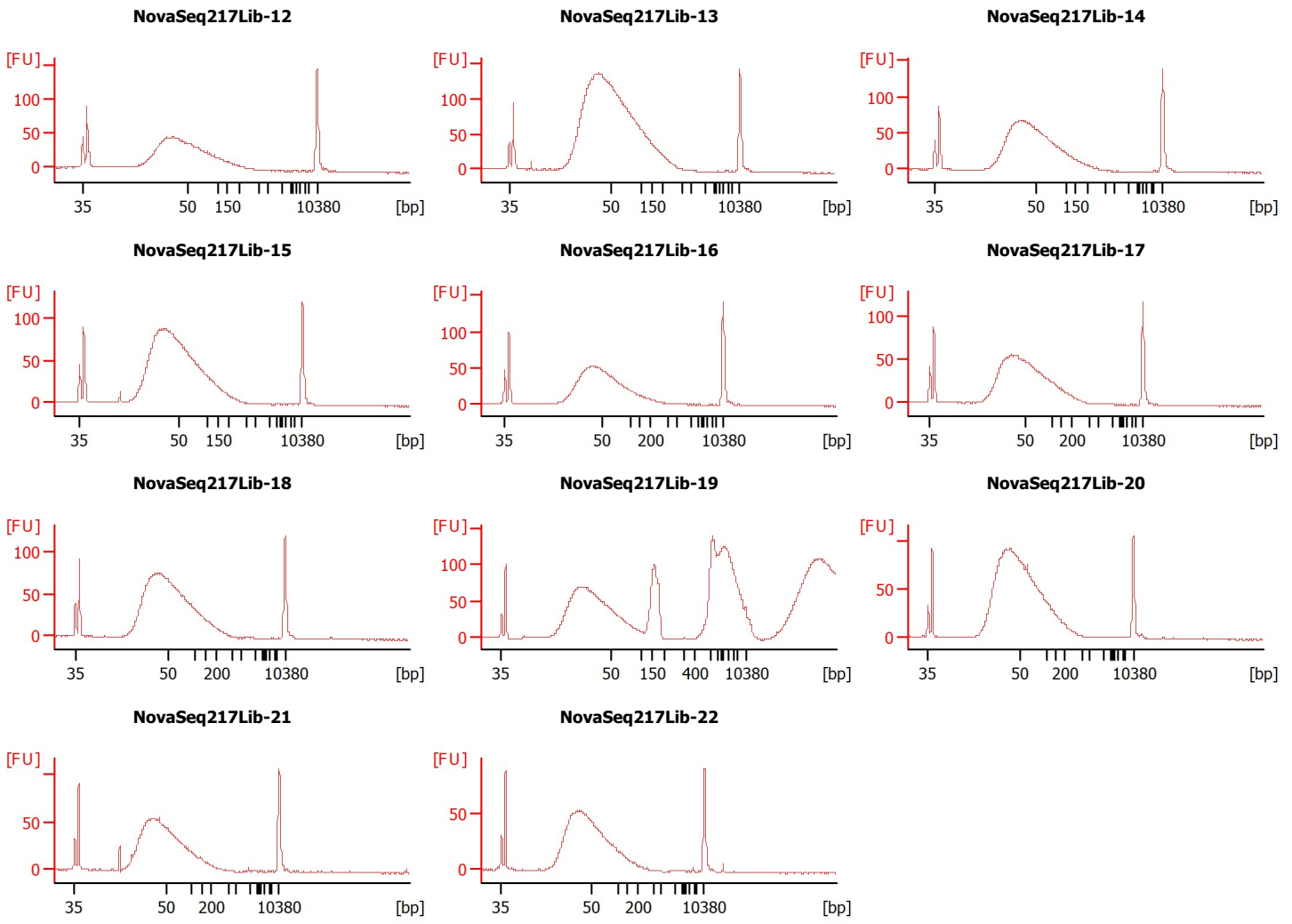
Electrophoresis File Run Summary



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

Assay Information:
Assay Origin Path: C:\Program Files (x86)\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: Z:\...\Bioanalyzer1_High Sensitivity DNA Assay_2020-07-27_001.xad

Created: 7/27/2020 12:33:05 PM
 Modified: 7/27/2020 1:14:29 PM

Electrophoresis File Run Summary (Chip Summary)

Sample Name	Sample Comment	Rest. Digest	Status	Observation	Result Label	Result Color
NovaSeq217Lib-12		<input type="checkbox"/>	✓			
NovaSeq217Lib-13		<input type="checkbox"/>	✓			
NovaSeq217Lib-14		<input type="checkbox"/>	✓			
NovaSeq217Lib-15		<input type="checkbox"/>	✓			
NovaSeq217Lib-16		<input type="checkbox"/>	✓			
NovaSeq217Lib-17		<input type="checkbox"/>	✓			
NovaSeq217Lib-18		<input type="checkbox"/>	✓			
NovaSeq217Lib-19		<input type="checkbox"/>	✓			
NovaSeq217Lib-20		<input type="checkbox"/>	✓			
NovaSeq217Lib-21		<input type="checkbox"/>	✓			
NovaSeq217Lib-22		<input type="checkbox"/>	✓			
Ladder		<input type="checkbox"/>	✓			

Chip Lot #

Reagent Kit Lot #

Chip Comments :

Assay Class: High Sensitivity DNA Assay
 Data Path: Z:\...\Bioanalyzer1_High Sensitivity DNA Assay_2020-07-27_001.xad

Created: 7/27/2020 12:33:05 PM
 Modified: 7/27/2020 1:14:29 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

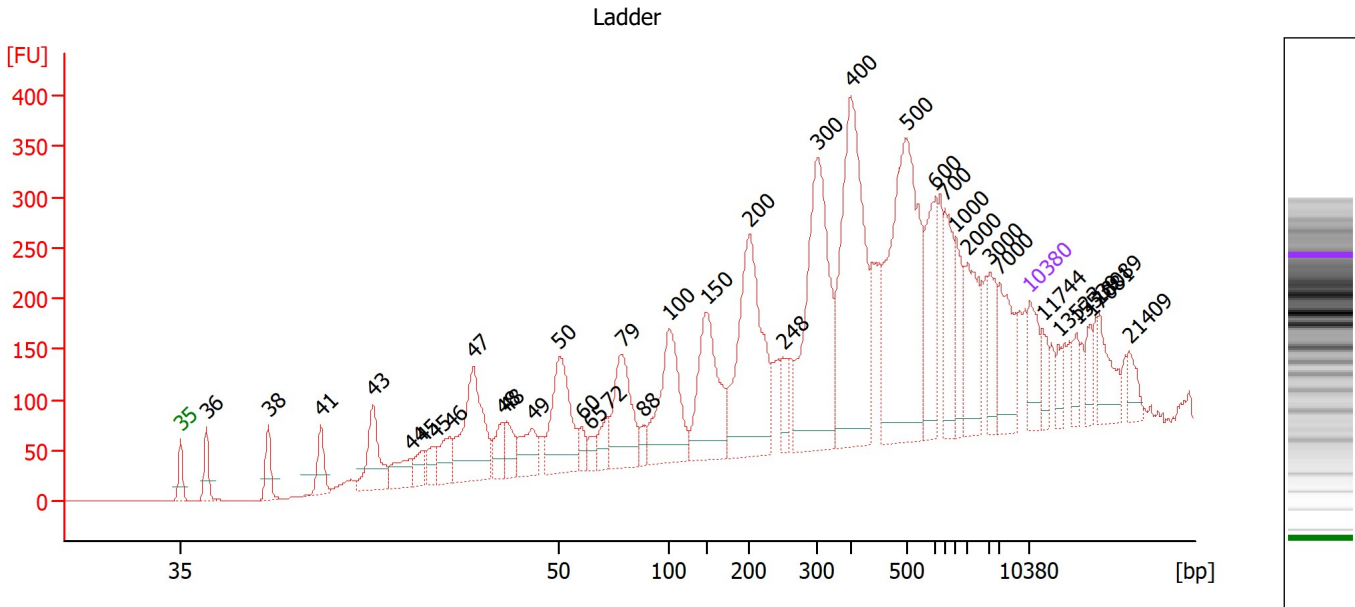
Ladder

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: Z:\...\Bioanalyzer1_High Sensitivity DNA Assay_2020-07-27_001.xad

Created: 7/27/2020 12:33:05 PM
 Modified: 7/27/2020 1:14:29 PM

Electropherogram Summary



Overall Results for Ladder

Noise: 0.3







Peak table for Ladder

Peak	Size [bp]	Conc. [pg/μl]	Molarity [pmol/l]	Observations
1	35	125.00	5,411.3	Lower Marker
2	36	0.00	0.0	
3	38	0.00	0.0	
4	41	0.00	0.0	
5	43	0.00	0.0	
6	44	0.00	0.0	
7	45	0.00	0.0	
8	45	0.00	0.0	
9	46	0.00	0.0	
10	47	0.00	0.0	
11	48	0.00	0.0	
12	48	0.00	0.0	
13	49	0.00	0.0	
14	50	150.00	4,545.5	Ladder Peak
15	60	0.00	0.0	
16	65	0.00	0.0	
17	72	0.00	0.0	
18	79	0.00	0.0	
19	88	0.00	0.0	
20	100	150.00	2,272.7	Ladder Peak
21	150	150.00	1,515.2	Ladder Peak
22	200	150.00	1,136.4	Ladder Peak
23	248	0.00	0.0	
24	300	150.00	757.6	Ladder Peak
25	400	150.00	568.2	Ladder Peak
26	500	150.00	454.5	Ladder Peak
27	600	150.00	378.8	Ladder Peak

Assay Class: High Sensitivity DNA Assay
Data Path: Z:\...\Bioanalyzer1_High Sensitivity DNA Assay_2020-07-27_001.xad

Created: 7/27/2020 12:33:05 PM
Modified: 7/27/2020 1:14:29 PM

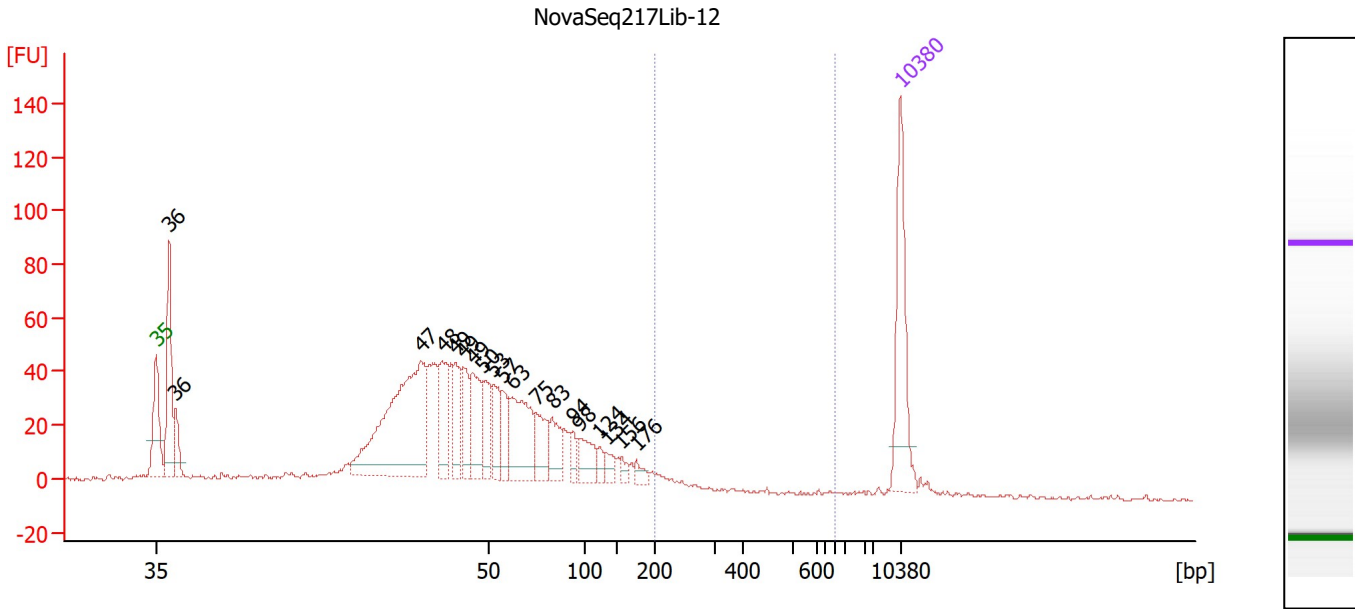
Electropherogram Summary Continued ...**... Peak table for Ladder**

Peak	Size [bp]	Conc. [pg/ μ l]	Molarity [pmol/l]	Observations
28	 700	150.00	324.7	Ladder Peak
29	 1,000	150.00	227.3	Ladder Peak
30	 2,000	150.00	113.6	Ladder Peak
31	 3,000	150.00	75.8	Ladder Peak
32	 7,000	150.00	32.5	Ladder Peak
33	 10,380	75.00	10.9	Upper Marker
34	11,744	0.00	0.0	
35	13,523	0.00	0.0	
36	15,539	0.00	0.0	
37	17,081	0.00	0.0	
38	18,089	0.00	0.0	
39	21,409	0.00	0.0	

Assay Class: High Sensitivity DNA Assay
 Data Path: Z:\...\Bioanalyzer1_High Sensitivity DNA Assay_2020-07-27_001.xad

Created: 7/27/2020 12:33:05 PM
 Modified: 7/27/2020 1:14:29 PM

Electropherogram Summary Continued ...



Overall Results for sample 1 : NovaSeq217Lib-12

Number of peaks found: 19 Corr. Area 1: 22.1
 Noise: 0.7

Peak table for sample 1 : NovaSeq217Lib-12

Peak	Size [bp]	Conc. [pg/μl]	Molarity [pmol/l]	Observations
1	35	125.00	5,411.3	Lower Marker
2	36	133.33	5,677.8	
3	36	38.66	1,633.3	
4	47	341.99	11,034.8	
5	48	83.26	2,632.4	
6	49	49.43	1,543.4	
7	49	50.12	1,553.4	
8	49	76.90	2,363.5	
9	50	53.17	1,618.4	
10	53	46.99	1,350.6	
11	57	38.01	1,002.9	
12	63	110.68	2,663.4	
13	75	50.32	1,018.3	
14	83	44.32	807.3	
15	94	18.16	292.0	
16	98	41.76	648.4	
17	124	12.04	147.2	
18	134	15.99	181.2	
19	156	10.21	99.0	
20	176	11.26	97.0	
21	10,380	75.00	10.9	Upper Marker

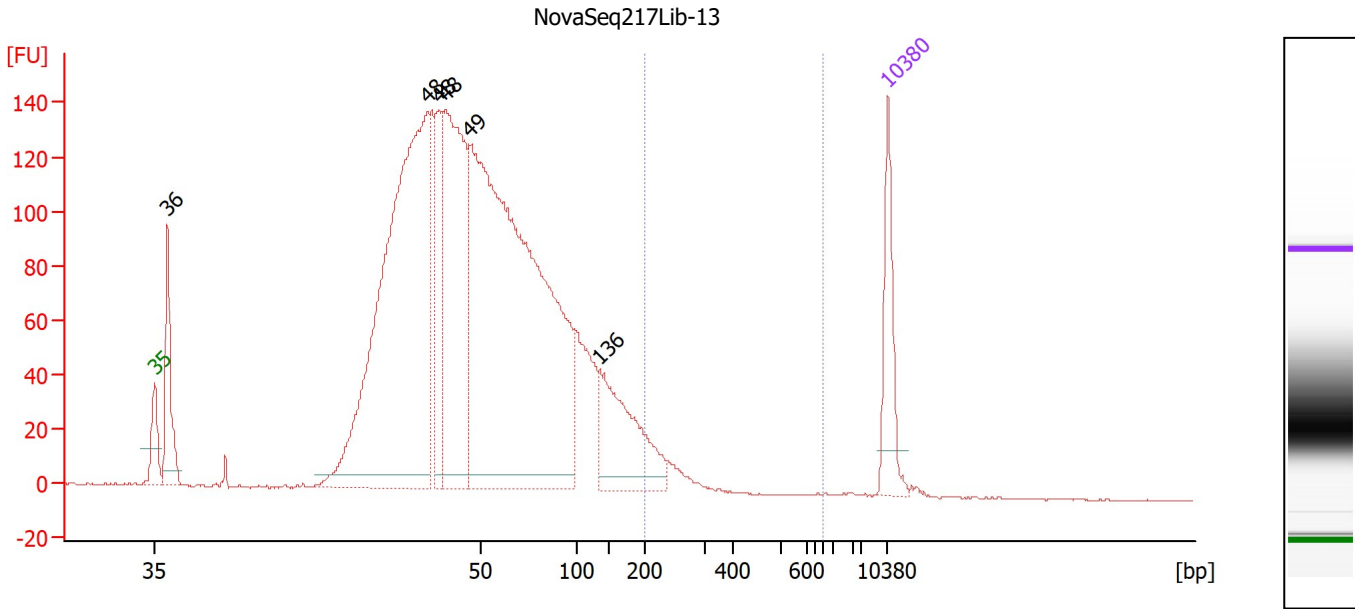
Region table for sample 1 : NovaSeq217Lib-12

From [bp]	To [bp]	Corr. Area	% of Total	Average Size [bp]	Size distribution in CV [%]	Conc. [pg/μl]	Molarity [pmol/l]	Color
200	1,000	22.1	2	272	39.9	22.24	135.8	Blue

Assay Class: High Sensitivity DNA Assay
 Data Path: Z:\...\Bioanalyzer1_High Sensitivity DNA Assay_2020-07-27_001.xad

Created: 7/27/2020 12:33:05 PM
 Modified: 7/27/2020 1:14:29 PM

Electropherogram Summary Continued ...



Overall Results for sample 2 : NovaSeq217Lib-13

Number of peaks found: 6 Corr. Area 1: 69.0
 Noise: 0.3

Peak table for sample 2 : NovaSeq217Lib-13

Peak	Size [bp]	Conc. [pg/μl]	Molarity [pmol/l]	Observations
1	35	125.00	5,411.3	Lower Marker
2	36	171.11	7,284.9	
3	48	1,273.05	40,580.4	
4	48	166.54	5,254.7	
5	48	583.83	18,290.4	
6	49	1,612.60	49,419.0	
7	136	250.10	2,788.9	
8	10,380	75.00	10.9	Upper Marker

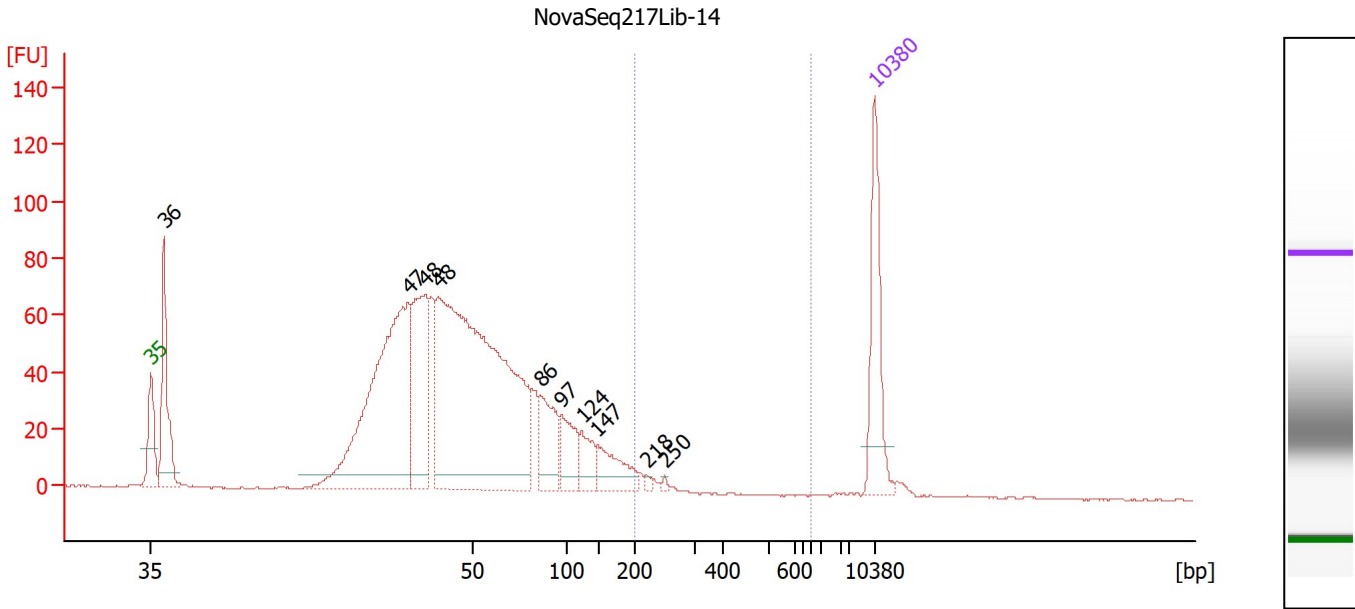
Region table for sample 2 : NovaSeq217Lib-13

From [bp]	To [bp]	Corr. Area	% of Total	Average Size [bp]	Size distribution in CV [%]	Conc. [pg/μl]	Molarity [pmol/l]	Color
200	1,000	69.0	2	246	24.5	70.26	444.8	Blue

Assay Class: High Sensitivity DNA Assay
 Data Path: Z:\...\Bioanalyzer1_High Sensitivity DNA Assay_2020-07-27_001.xad

Created: 7/27/2020 12:33:05 PM
 Modified: 7/27/2020 1:14:29 PM

Electropherogram Summary Continued ...



Overall Results for sample 3 : NovaSeq217Lib-14

Number of peaks found: 10 Corr. Area 1: 24.3
 Noise: 0.3

Peak table for sample 3 : NovaSeq217Lib-14

Peak	Size [bp]	Conc. [pg/μl]	Molarity [pmol/l]	Observations
1	35	125.00	5,411.3	Lower Marker
2	36	161.64	6,875.5	
3	47	510.30	16,469.9	
4	48	208.35	6,609.4	
5	48	848.93	26,612.5	
6	86	85.72	1,518.8	
7	97	62.32	977.2	
8	124	40.33	494.5	
9	147	58.66	604.5	
10	218	3.98	27.7	
11	250	2.39	14.5	
12	10,380	75.00	10.9	Upper Marker

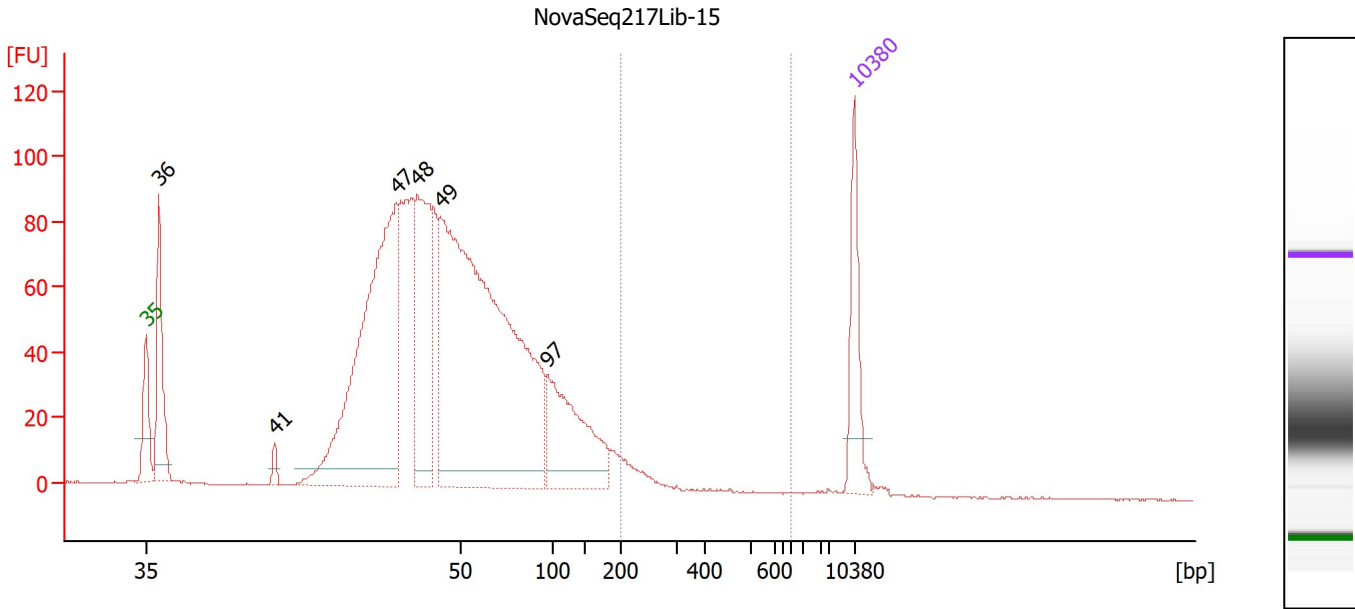
Region table for sample 3 : NovaSeq217Lib-14

From [bp]	To [bp]	Corr. Area	% of Total	Average Size [bp]	Size distribution in CV [%]	Conc. [pg/μl]	Molarity [pmol/l]	Color
200	1,000	24.3	1	245	24.8	23.91	152.8	Blue

Assay Class: High Sensitivity DNA Assay
 Data Path: Z:\...\Bioanalyzer1_High Sensitivity DNA Assay_2020-07-27_001.xad

Created: 7/27/2020 12:33:05 PM
 Modified: 7/27/2020 1:14:29 PM

Electropherogram Summary Continued ...



Overall Results for sample 4 : NovaSeq217Lib-15

Number of peaks found: 6 Corr. Area 1: 36.3
 Noise: 0.3

Peak table for sample 4 : NovaSeq217Lib-15

Peak	Size [bp]	Conc. [pg/μl]	Molarity [pmol/l]	Observations
1	35	125.00	5,411.3	Lower Marker
2	36	207.99	8,850.0	
3	41	16.40	604.6	
4	47	845.07	27,294.3	
5	48	334.32	10,575.2	
6	49	1,356.64	41,936.8	
7	97	273.39	4,274.4	
8	10,380	75.00	10.9	Upper Marker

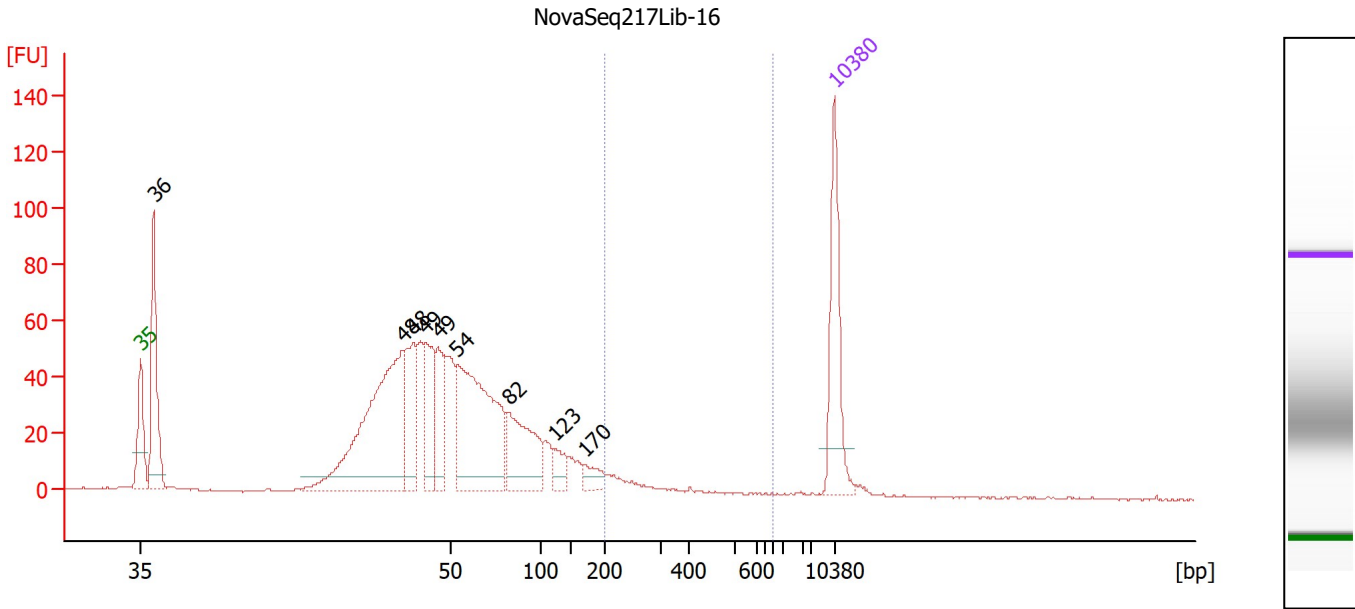
Region table for sample 4 : NovaSeq217Lib-15

From [bp]	To [bp]	Corr. Area	% of Total	Average Size [bp]	Size distribution in CV [%]	Conc. [pg/μl]	Molarity [pmol/l]	Color
200	1,000	36.3	2	268	34.9	45.42	277.3	Blue

Assay Class: High Sensitivity DNA Assay
 Data Path: Z:\...\Bioanalyzer1_High Sensitivity DNA Assay_2020-07-27_001.xad

Created: 7/27/2020 12:33:05 PM
 Modified: 7/27/2020 1:14:29 PM

Electropherogram Summary Continued ...



Overall Results for sample 5 : NovaSeq217Lib-16

Number of peaks found: 9 Corr. Area 1: 39.0
 Noise: 0.3

Peak table for sample 5 : NovaSeq217Lib-16

Peak	Size [bp]	Conc. [pg/μl]	Molarity [pmol/l]	Observations
1	35	125.00	5,411.3	Lower Marker
2	36	175.63	7,470.7	
3	48	377.86	12,004.6	
4	48	98.33	3,090.5	
5	49	96.54	2,998.6	
6	49	77.80	2,386.2	
7	54	287.84	8,066.1	
8	82	124.43	2,291.4	
9	123	24.70	304.2	
10	170	20.07	179.1	
11	10,380	75.00	10.9	Upper Marker

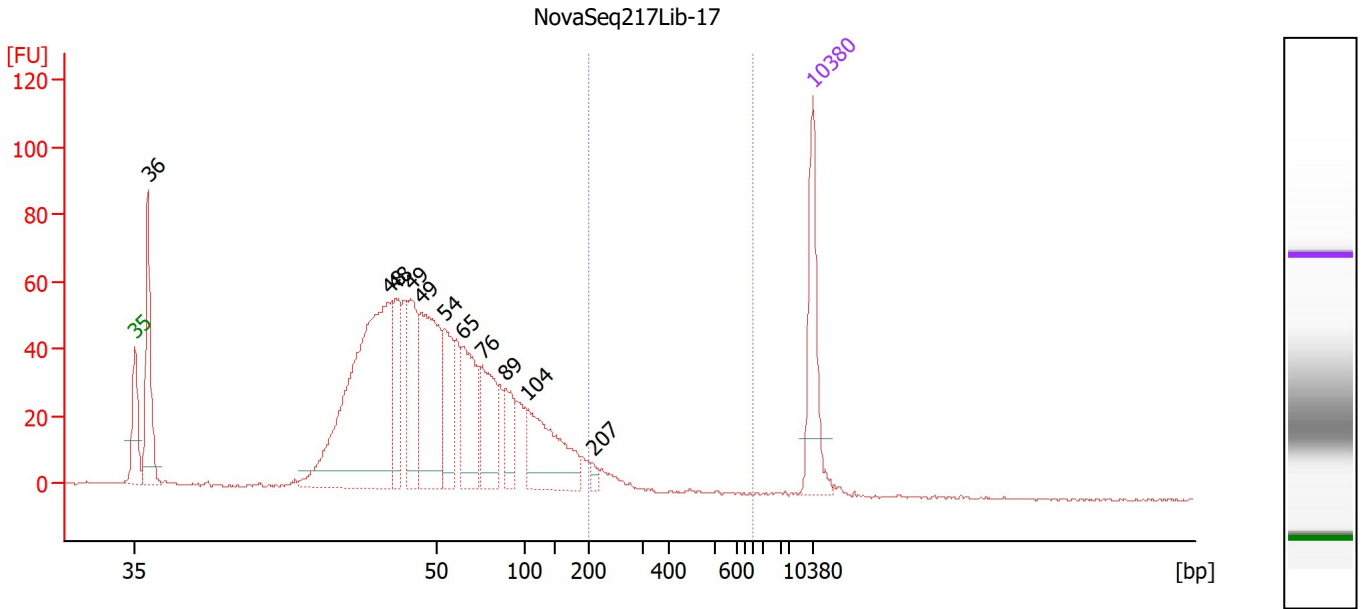
Region table for sample 5 : NovaSeq217Lib-16

From [bp]	To [bp]	Corr. Area	% of Total	Average Size [bp]	Size distribution in CV [%]	Conc. [pg/μl]	Molarity [pmol/l]	Color
200	1,000	39.0	3	309	39.6	35.90	200.0	Blue

Assay Class: High Sensitivity DNA Assay
 Data Path: Z:\...\Bioanalyzer1_High Sensitivity DNA Assay_2020-07-27_001.xad

Created: 7/27/2020 12:33:05 PM
 Modified: 7/27/2020 1:14:29 PM

Electropherogram Summary Continued ...



Overall Results for sample 6 : NovaSeq217Lib-17

Number of peaks found: 11 Corr. Area 1: 30.0
 Noise: 0.3

Peak table for sample 6 : NovaSeq217Lib-17

Peak	Size [bp]	Conc. [pg/μl]	Molarity [pmol/l]	Observations
1	35	125.00	5,411.3	Lower Marker
2	36	182.05	7,740.2	
3	48	576.13	18,337.0	
4	48	108.48	3,428.0	
5	49	128.33	3,993.5	
6	49	231.64	7,134.4	
7	54	107.40	2,990.5	
8	65	134.51	3,147.2	
9	76	110.03	2,202.0	
10	89	56.38	962.1	
11	104	163.72	2,391.7	
12	207	8.69	63.7	
13	10,380	75.00	10.9	Upper Marker

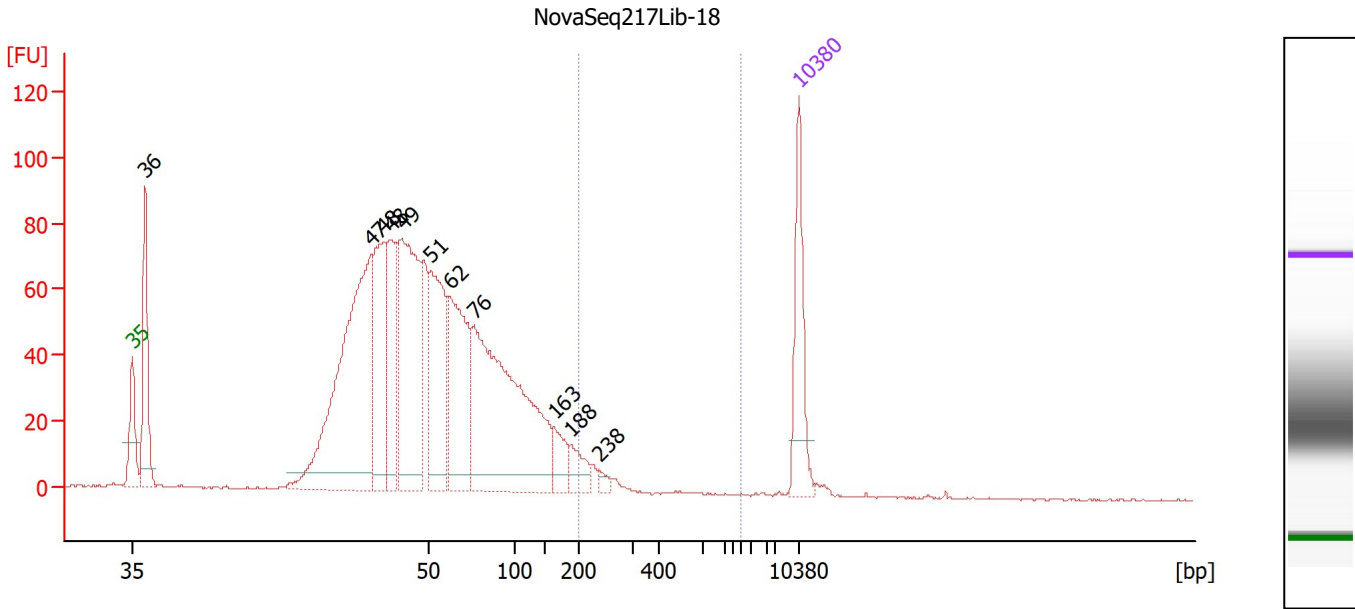
Region table for sample 6 : NovaSeq217Lib-17

From [bp]	To [bp]	Corr. Area	% of Total	Average Size [bp]	Size distribution in CV [%]	Conc. [pg/μl]	Molarity [pmol/l]	Color
200	1,000	30.0	2	256	31.2	35.25	220.5	Blue

Assay Class: High Sensitivity DNA Assay
 Data Path: Z:\...\Bioanalyzer1_High Sensitivity DNA Assay_2020-07-27_001.xad

Created: 7/27/2020 12:33:05 PM
 Modified: 7/27/2020 1:14:29 PM

Electropherogram Summary Continued ...



Overall Results for sample 7 : NovaSeq217Lib-18

Number of peaks found: 11 Corr. Area 1: 36.8
 Noise: 0.3

Peak table for sample 7 : NovaSeq217Lib-18

Peak	Size [bp]	Conc. [pg/μl]	Molarity [pmol/l]	Observations
1	35	125.00	5,411.3	Lower Marker
2	36	180.49	7,671.7	
3	47	601.80	19,367.6	
4	48	219.87	6,988.2	
5	48	150.31	4,737.2	
6	49	377.71	11,772.3	
7	51	243.01	7,255.0	
8	62	255.78	6,263.0	
9	76	538.75	10,771.0	
10	163	45.74	424.8	
11	188	37.46	301.5	
12	238	9.65	61.5	
13	10,380	75.00	10.9	Upper Marker

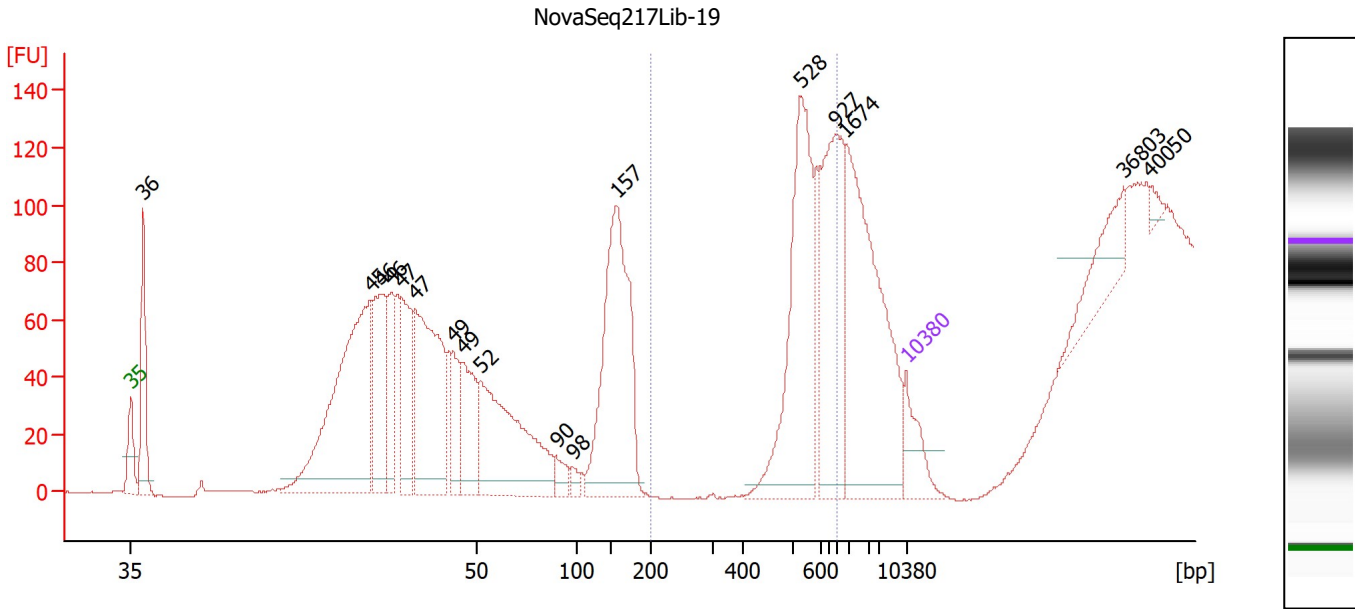
Region table for sample 7 : NovaSeq217Lib-18

From [bp]	To [bp]	Corr. Area	% of Total	Average Size [bp]	Size distribution in CV [%]	Conc. [pg/μl]	Molarity [pmol/l]	Color
200	1,000	36.8	2	243	21.4	44.28	282.6	Blue

Assay Class: High Sensitivity DNA Assay
 Data Path: Z:\...\Bioanalyzer1_High Sensitivity DNA Assay_2020-07-27_001.xad

Created: 7/27/2020 12:33:05 PM
 Modified: 7/27/2020 1:14:29 PM

Electropherogram Summary Continued ...



Overall Results for sample 8 : NovaSeq217Lib-19

Number of peaks found: 17 Corr. Area 1: 254.5
 Noise: 0.3

Peak table for sample 8 : NovaSeq217Lib-19

Peak	Size [bp]	Conc. [pg/μl]	Molarity [pmol/l]	Observations
1	35	125.00	5,411.3	Lower Marker
2	36	308.24	13,135.2	
3	45	1,021.84	34,078.1	
4	46	363.37	12,014.4	
5	46	187.08	6,120.8	
6	47	286.54	9,286.4	
7	47	633.76	20,278.8	
8	49	141.38	4,372.3	
9	49	226.65	6,950.1	
10	52	612.72	17,764.2	
11	90	51.07	862.3	
12	98	26.97	418.3	
13	157	759.38	7,326.6	
14	528	535.20	1,534.8	
15	927	386.42	631.5	
16	1,674	538.90	487.6	
17	10,380	75.00	10.9	Upper Marker
18	36,803	0.00	0.0	
19	40,050	0.00	0.0	

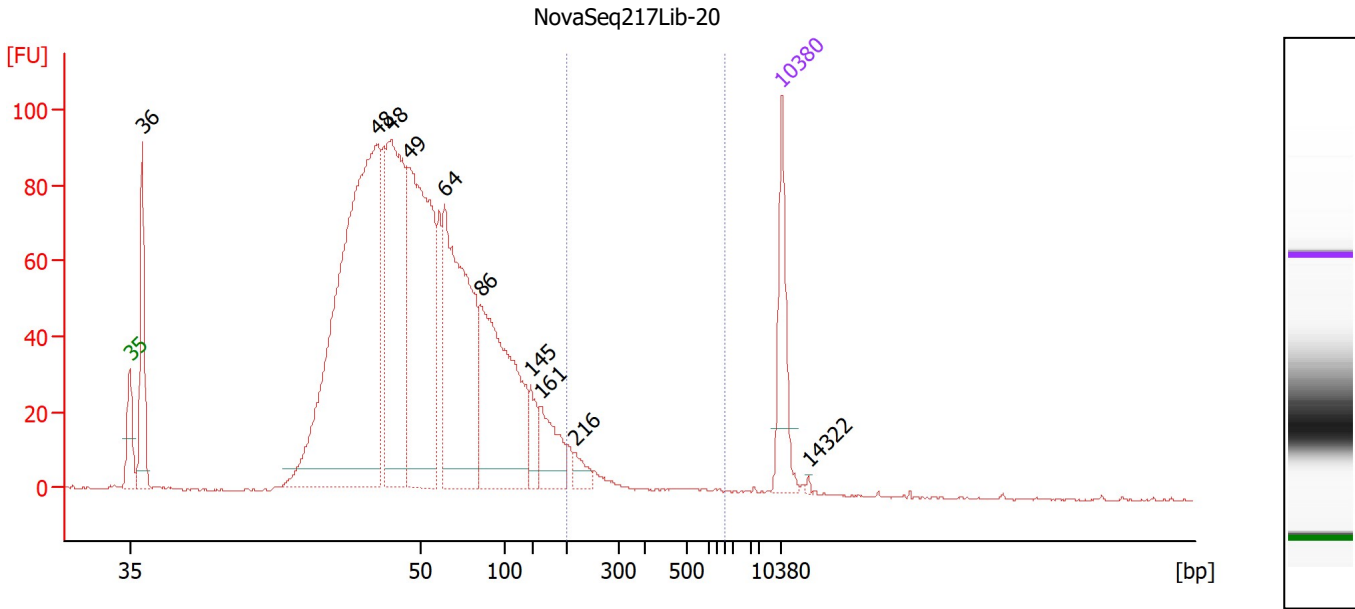
Region table for sample 8 : NovaSeq217Lib-19

From [bp]	To [bp]	Corr. Area	% of Total	Average Size [bp]	Size distribution in CV [%]	Conc. [pg/μl]	Molarity [pmol/l]	Color
200	1,000	254.5	18	622	20.3	388.00	982.3	Blue

Assay Class: High Sensitivity DNA Assay
 Data Path: Z:\...\Bioanalyzer1_High Sensitivity DNA Assay_2020-07-27_001.xad

Created: 7/27/2020 12:33:05 PM
 Modified: 7/27/2020 1:14:29 PM

Electropherogram Summary Continued ...



Overall Results for sample 9 : NovaSeq217Lib-20

Number of peaks found: 10 Corr. Area 1: 54.9
 Noise: 0.3

Peak table for sample 9 : NovaSeq217Lib-20

Peak	Size [bp]	Conc. [pg/μl]	Molarity [pmol/l]	Observations
1	35	125.00	5,411.3	Lower Marker
2	36	200.93	8,543.8	
3	48	1,212.38	38,468.7	
4	48	505.31	15,796.6	
5	49	606.85	18,632.1	
6	64	543.57	12,798.4	
7	86	432.35	7,657.3	
8	145	48.30	504.6	
9	161	90.71	853.8	
10	216	24.26	170.4	
11	10,380	75.00	10.9	Upper Marker
12	14,322	0.00	0.0	

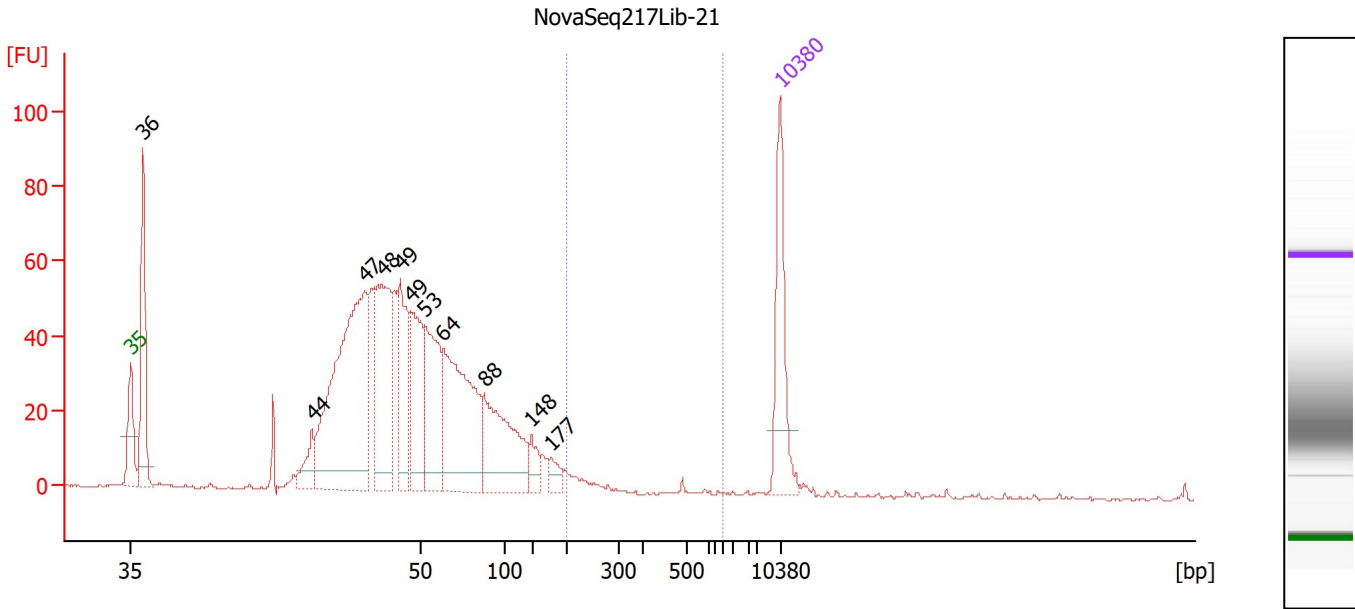
Region table for sample 9 : NovaSeq217Lib-20

From [bp]	To [bp]	Corr. Area	% of Total	Average Size [bp]	Size distribution in CV [%]	Conc. [pg/μl]	Molarity [pmol/l]	Color
200	1,000	54.9	2	305	43.8	77.03	442.2	Blue

Assay Class: High Sensitivity DNA Assay
 Data Path: Z:\...\Bioanalyzer1_High Sensitivity DNA Assay_2020-07-27_001.xad

Created: 7/27/2020 12:33:05 PM
 Modified: 7/27/2020 1:14:29 PM

Electropherogram Summary Continued ...



Overall Results for sample 10 : NovaSeq217Lib-21

Number of peaks found: 11 Corr. Area 1: 16.8
 Noise: 0.4

Peak table for sample 10 : NovaSeq217Lib-21

Peak	Size [bp]	Conc. [pg/μl]	Molarity [pmol/l]	Observations
1	35	125.00	5,411.3	Lower Marker
2	36	177.45	7,544.8	
3	44	44.61	1,522.7	
4	47	474.52	15,258.3	
5	48	218.96	6,911.1	
6	49	136.78	4,231.9	
7	49	143.97	4,407.4	
8	53	164.26	4,717.3	
9	64	266.90	6,364.3	
10	88	180.66	3,111.8	
11	148	28.81	295.6	
12	177	18.29	156.6	
13	10,380	75.00	10.9	Upper Marker

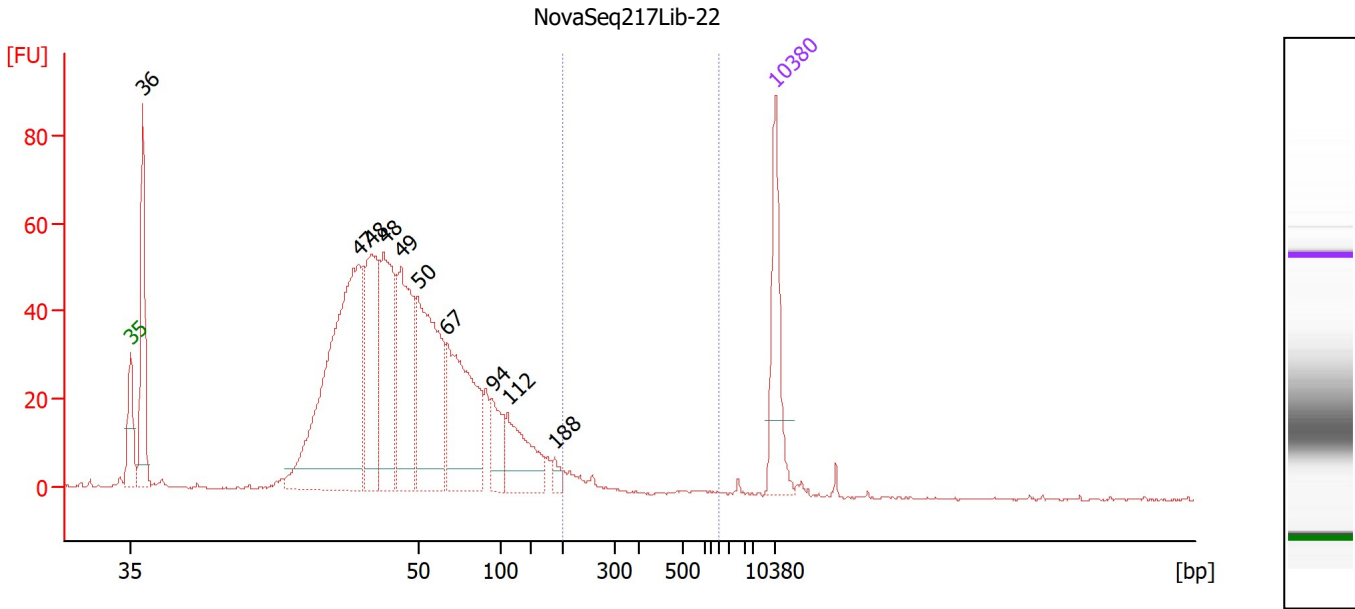
Region table for sample 10 : NovaSeq217Lib-21

From [bp]	To [bp]	Corr. Area	% of Total	Average Size [bp]	Size distribution in CV [%]	Conc. [pg/μl]	Molarity [pmol/l]	Color
200	1,000	16.8	1	274	41.8	21.16	130.3	Blue

Assay Class: High Sensitivity DNA Assay
 Data Path: Z:\...\Bioanalyzer1_High Sensitivity DNA Assay_2020-07-27_001.xad

Created: 7/27/2020 12:33:05 PM
 Modified: 7/27/2020 1:14:29 PM

Electropherogram Summary Continued ...



Overall Results for sample 11 : NovaSeq217Lib-22

Number of peaks found: 10 Corr. Area 1: 15.7
 Noise: 0.2

Peak table for sample 11 : NovaSeq217Lib-22

Peak	Size [bp]	Conc. [pg/μl]	Molarity [pmol/l]	Observations
1	35	125.00	5,411.3	Lower Marker
2	36	206.66	8,785.8	
3	47	624.76	20,205.4	
4	48	235.36	7,496.1	
5	48	234.15	7,358.6	
6	49	234.79	7,245.1	
7	50	303.48	9,197.8	
8	67	265.79	5,996.3	
9	94	71.35	1,146.2	
10	112	113.84	1,546.9	
11	188	14.49	116.6	
12	10,380	75.00	10.9	Upper Marker

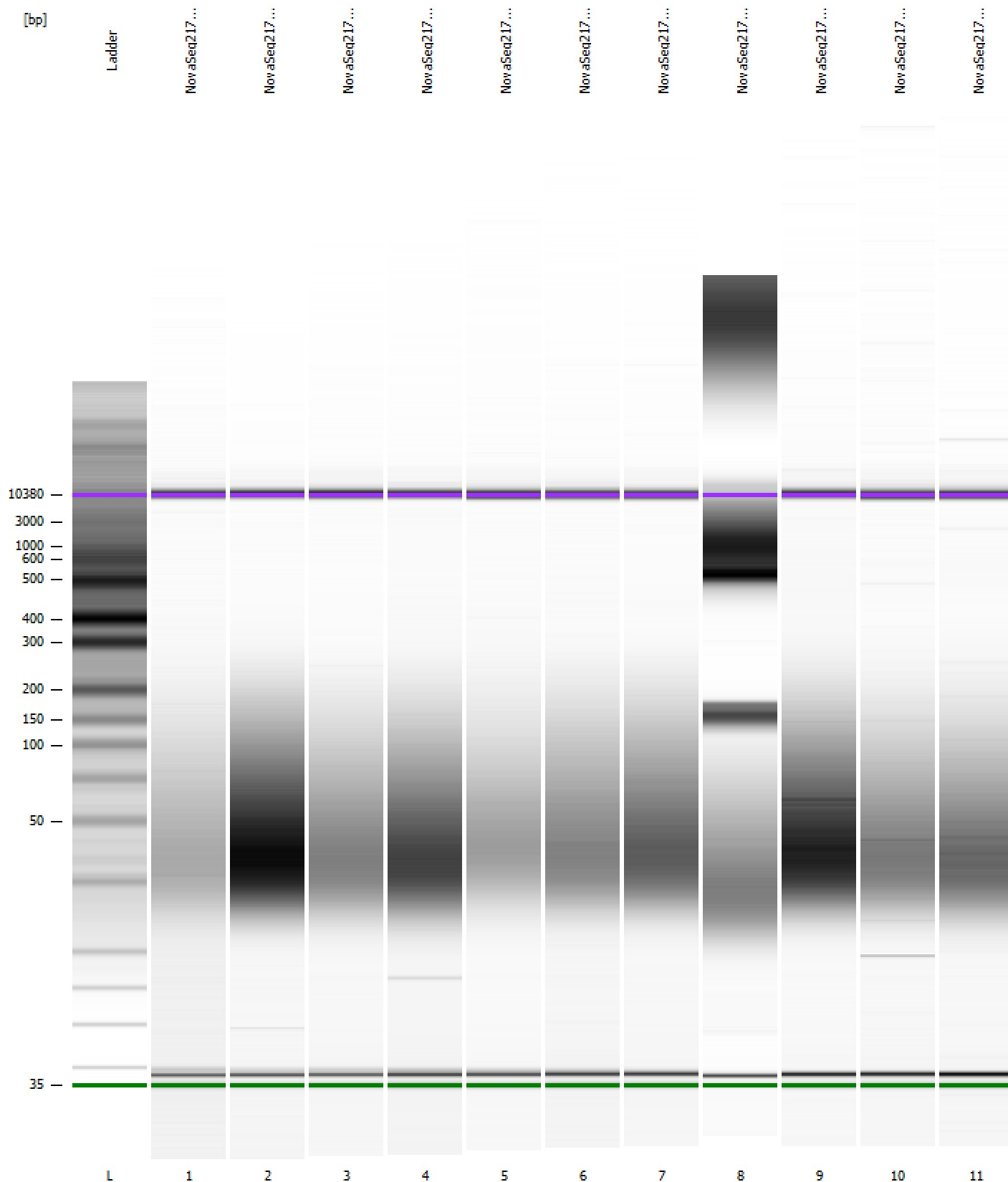
Region table for sample 11 : NovaSeq217Lib-22

From [bp]	To [bp]	Corr. Area	% of Total	Average Size [bp]	Size distribution in CV [%]	Conc. [pg/μl]	Molarity [pmol/l]	Color
200	1,000	15.7	1	254	34.1	23.90	150.9	Blue

Assay Class: High Sensitivity DNA Assay
Data Path: Z:\...\Bioanalyzer1_High Sensitivity DNA Assay_2020-07-27_001.xad

Created: 7/27/2020 12:33:05 PM
Modified: 7/27/2020 1:14:29 PM

Gel Image



Assay Class: High Sensitivity DNA Assay
 Data Path: Z:\...\Bioanalyzer1_High Sensitivity DNA Assay_2020-07-27_001.xad

Created: 7/27/2020 12:33:05 PM
 Modified: 7/27/2020 1:14:29 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		7/27/2020 1:14:26 PM	(GMT --07:00) Pacific Standard Time	sbsuser	DESKTOP-4UNV VOB
Run started on port 1 (File: Z:\XADs\2020-07-27\Bioanalyze r1_High Sensitivity DNA Assay_2020-07-27_001.xad)		Instrument	Run		7/27/2020 12:33:11 PM	(GMT --07:00) Pacific Standard Time	sbsuser	DESKTOP-4UNV VOB
Product Number : G2938C		Instrument	Run		7/27/2020 12:33:11 PM	(GMT --07:00) Pacific Standard Time	sbsuser	DESKTOP-4UNV VOB
Name :		Instrument	Run		7/27/2020 12:33:11 PM	(GMT --07:00) Pacific Standard Time	sbsuser	DESKTOP-4UNV VOB
Vendor : Agilent Technologies		Instrument	Run		7/27/2020 12:33:11 PM	(GMT --07:00) Pacific Standard Time	sbsuser	DESKTOP-4UNV VOB
Serial# : DE34903152		Instrument	Run		7/27/2020 12:33:11 PM	(GMT --07:00) Pacific Standard Time	sbsuser	DESKTOP-4UNV VOB
Firmware : C.01.069		Instrument	Run		7/27/2020 12:33:11 PM	(GMT --07:00) Pacific Standard Time	sbsuser	DESKTOP-4UNV VOB
Cartridge : Electrode		Instrument	Run		7/27/2020 12:33:11 PM	(GMT --07:00) Pacific Standard Time	sbsuser	DESKTOP-4UNV VOB