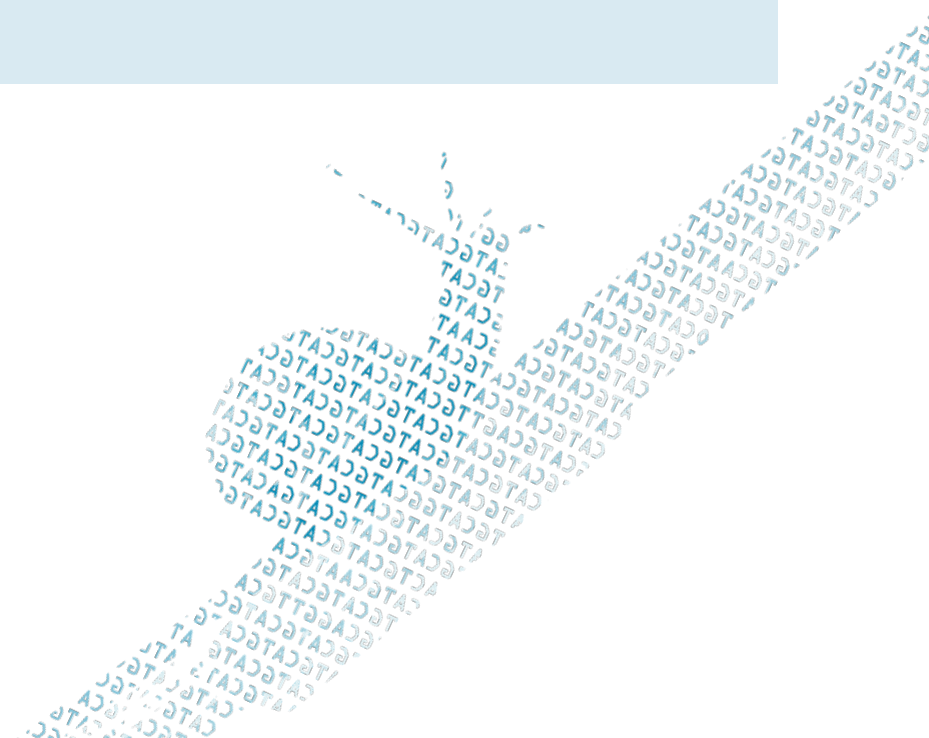




Genetic Diversity: Analysis

Sequence Run Quality Control

Friday, June 21, 2024



Run230620 – loading amount: 18 pM

Cluster density: 1181 K/mm² (optimal 865–965 k/mm²)

Reads Total: 27.66 M (goal 25 M)

Reads PF: 9.44 M (34.1%)

PhiX conc: 7.03% (loaded 10%)

%≥Q30: Total 51.91% (≥70%)

(R1 76.47%, I1 78.85%, I2 84.49%, R2 25.96%)

Run230711 – loading amount: 9 pM

Cluster density: 792 K/mm² (optimal 865–965 k/mm²)

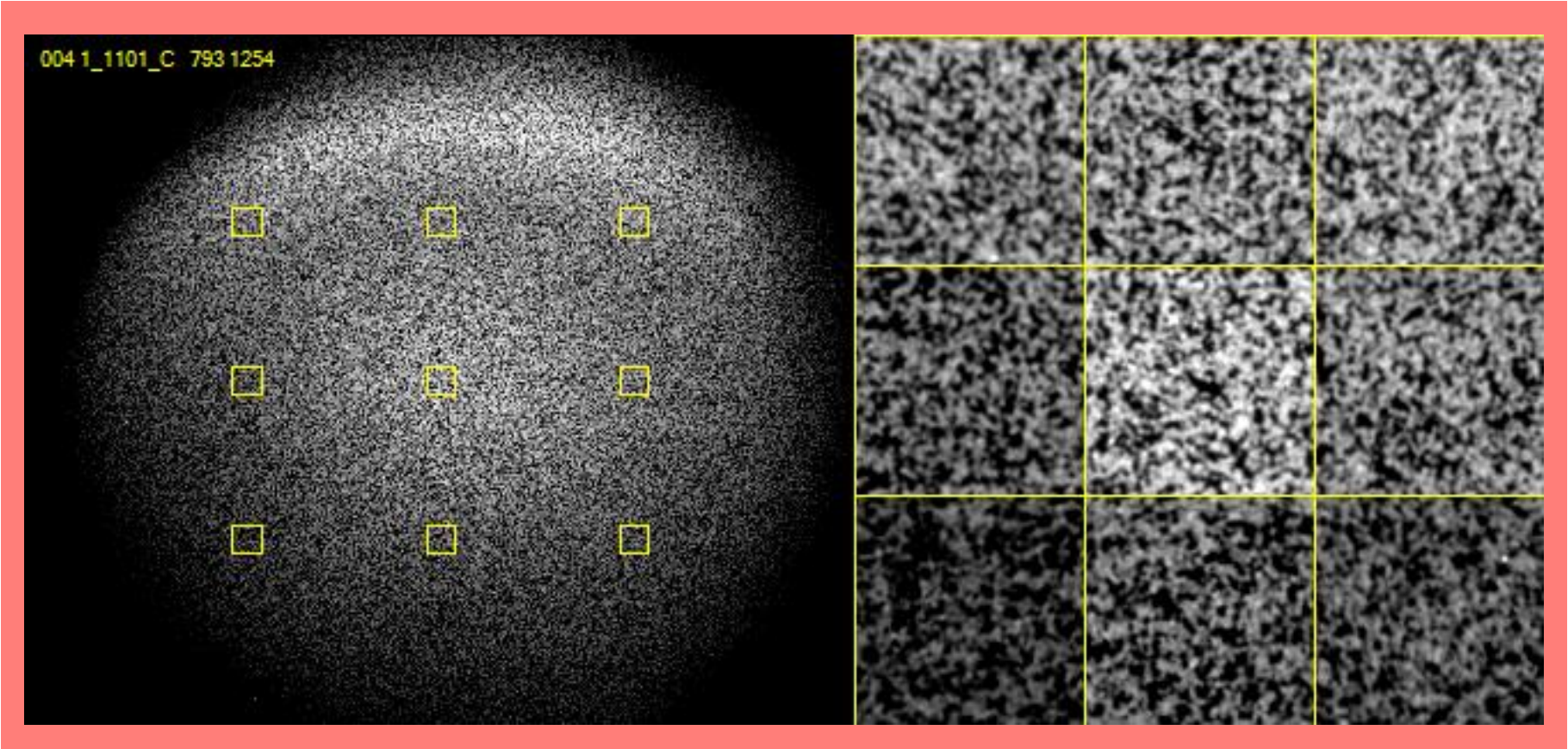
Reads Total: 19.21 M (goal 25 M)

Reads PF: 17.99 M (93.6%)

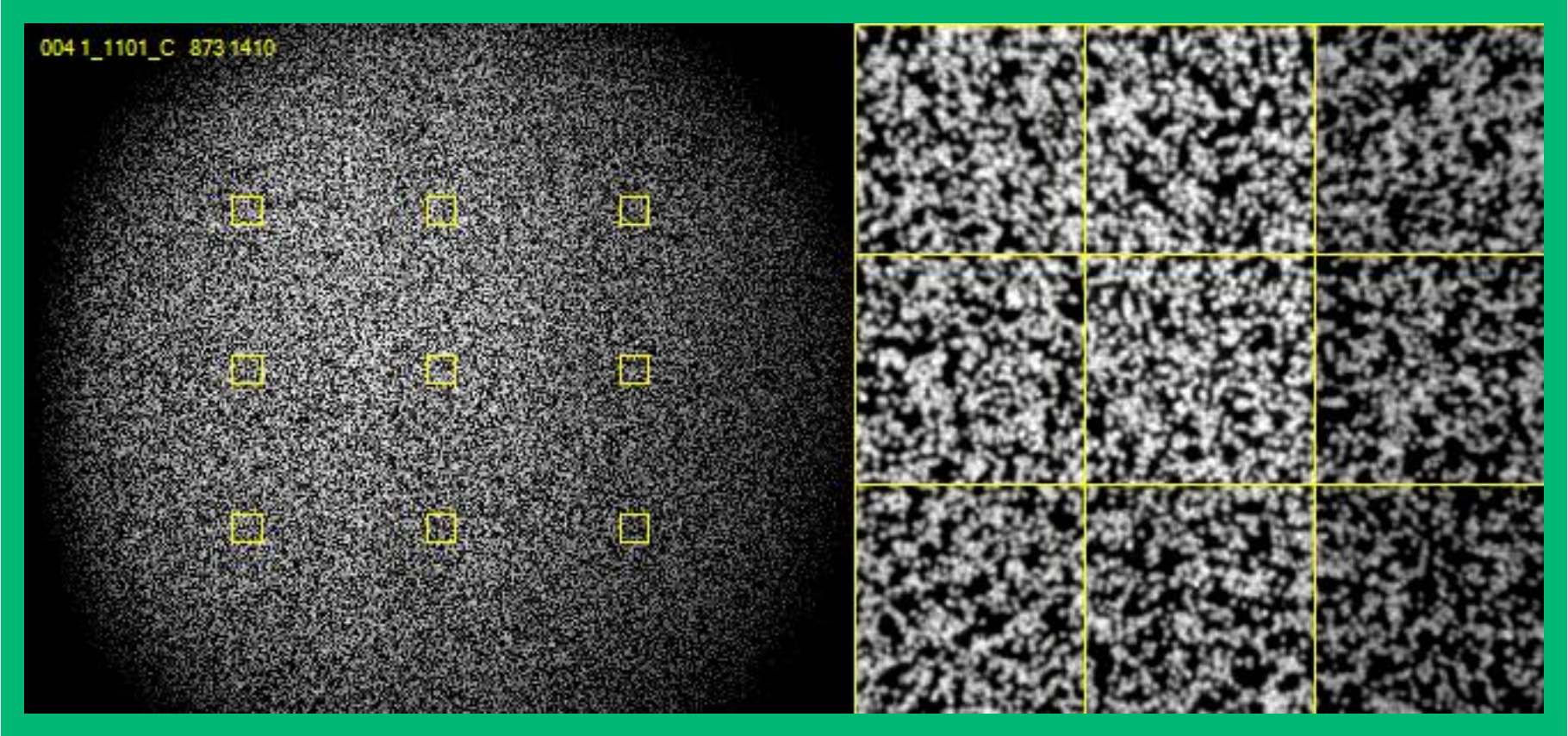
PhiX conc: 9.30% (loaded 10 %)

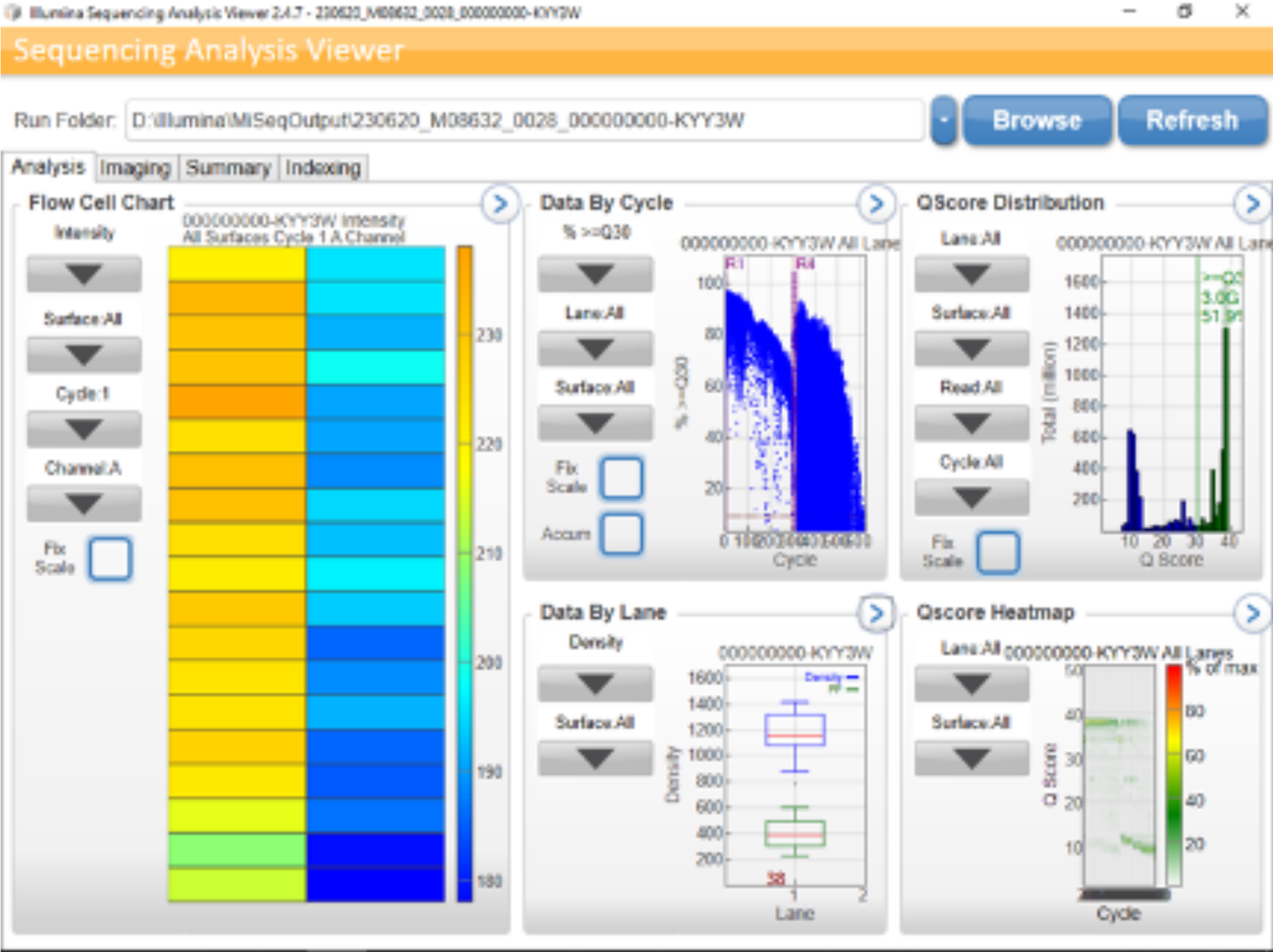
%≥Q30: Total 81.12% (≥70%)

Run230620

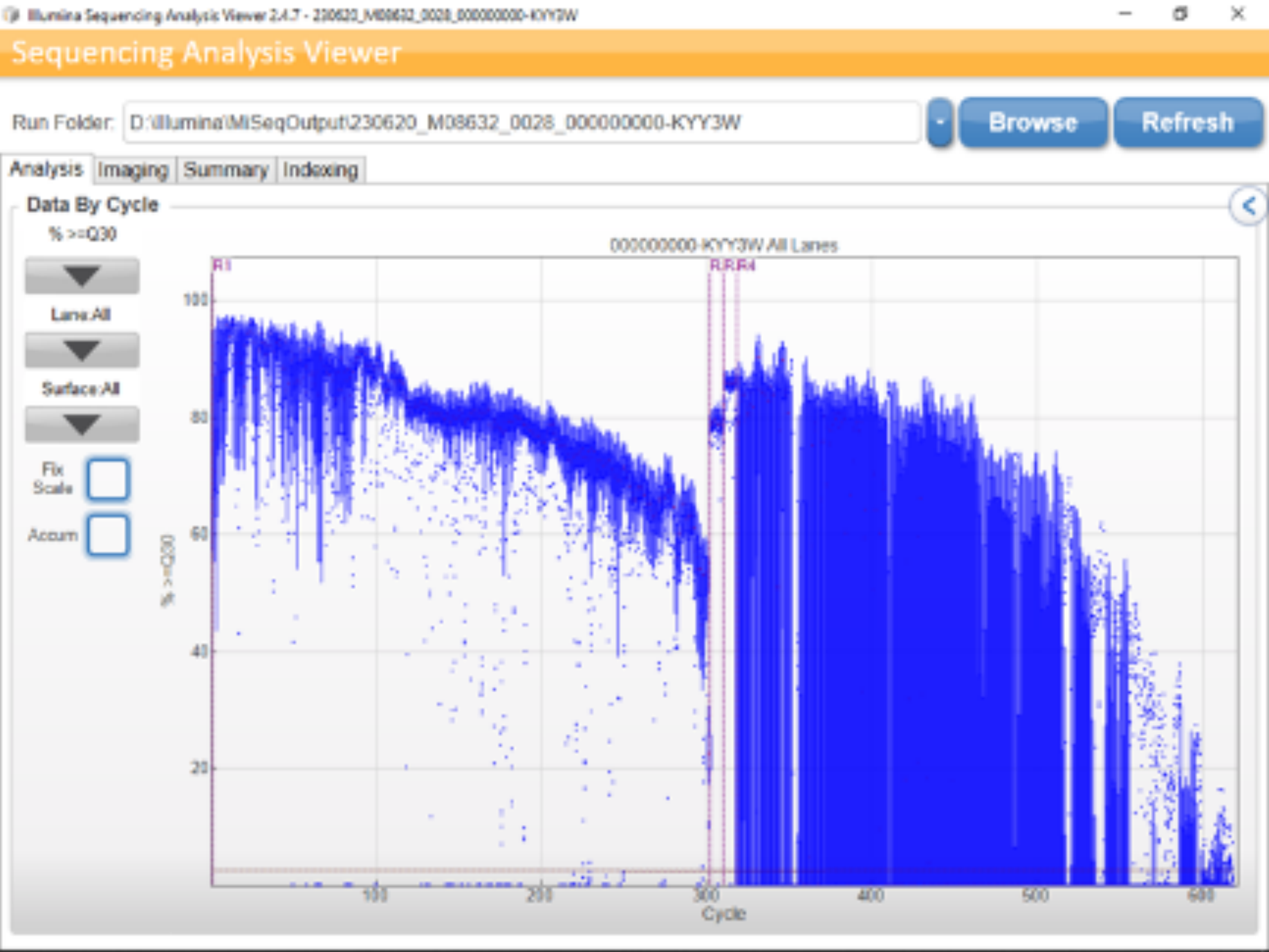


Run230711

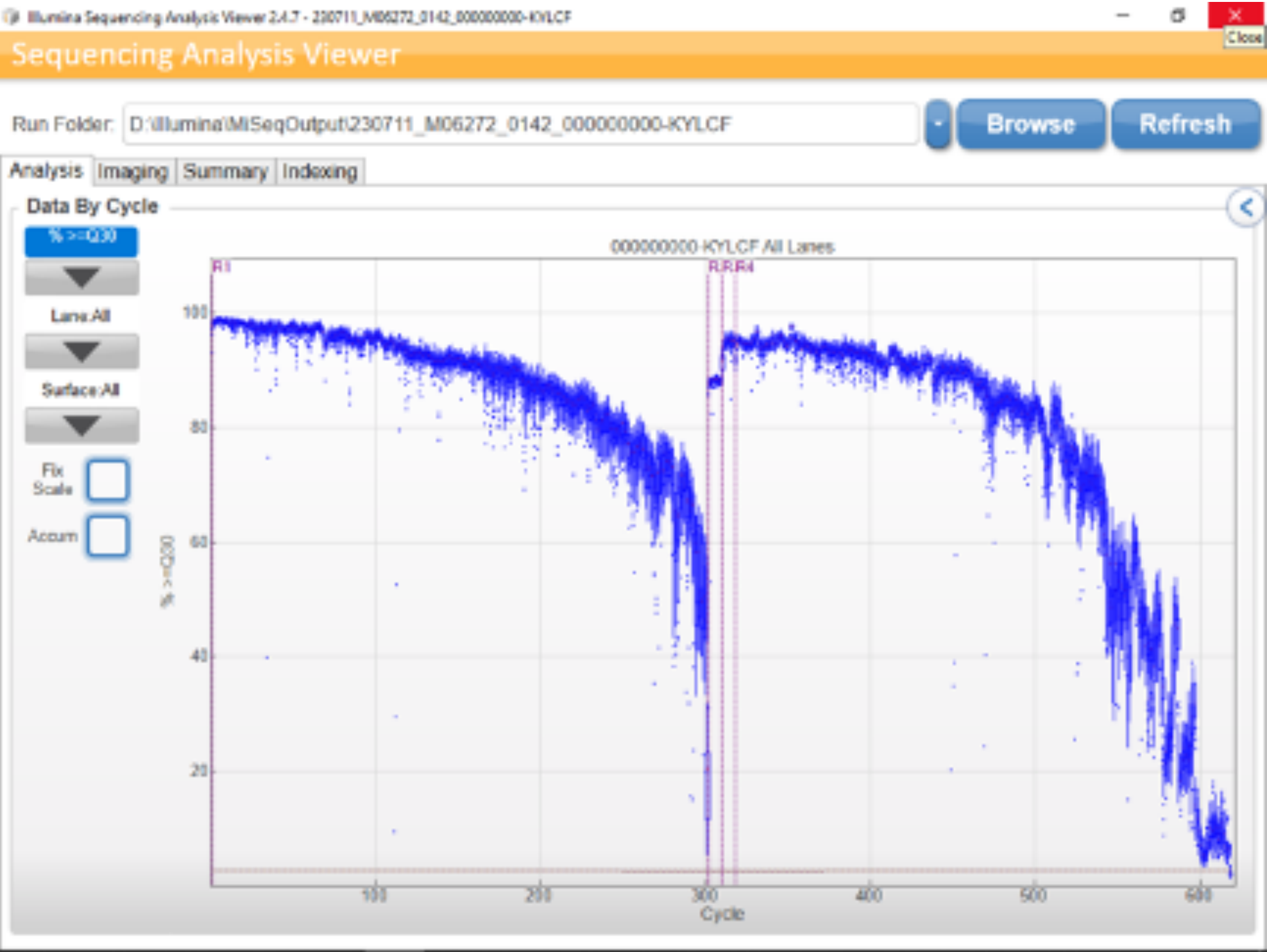




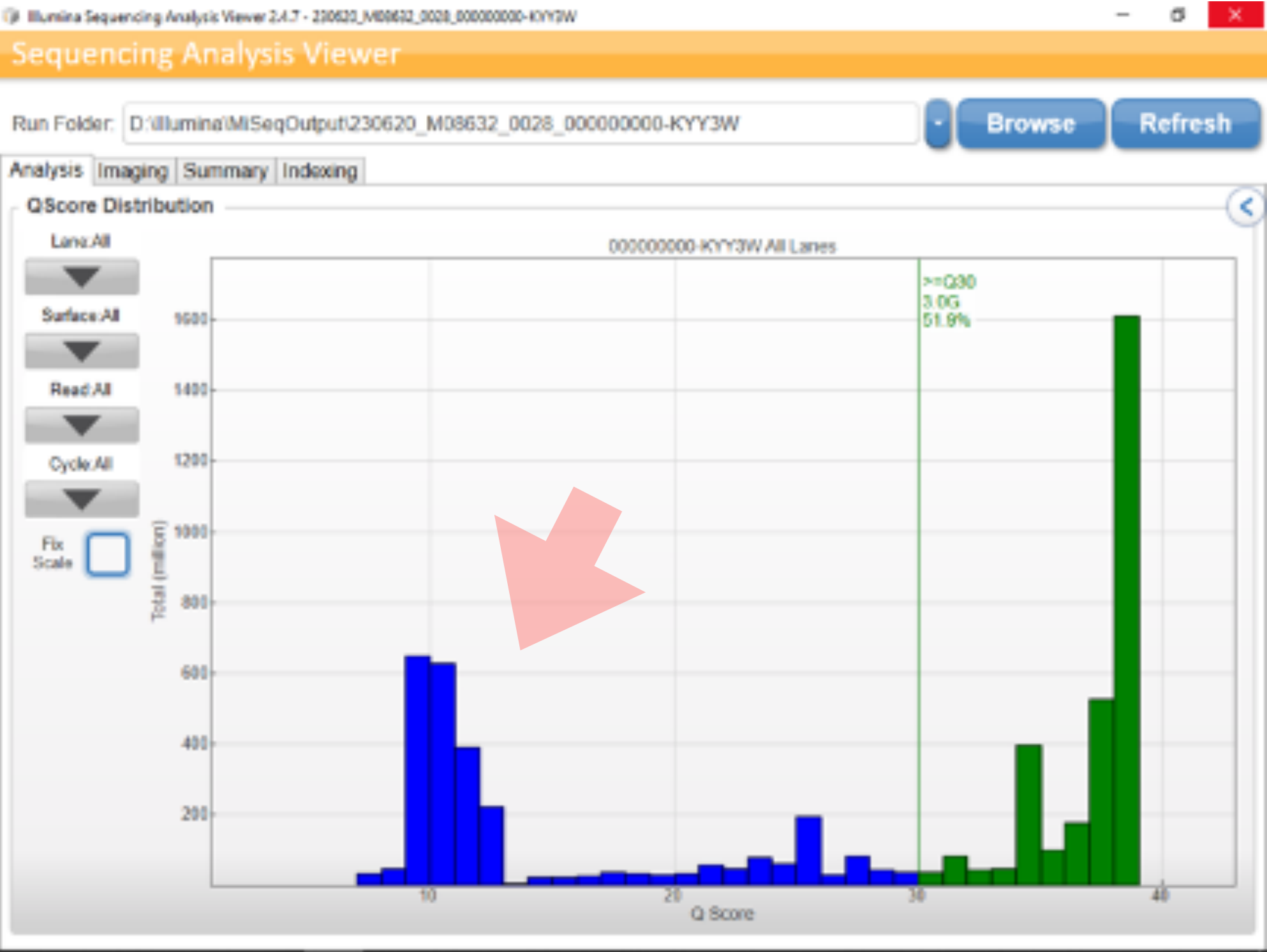
Run230620 – Q30



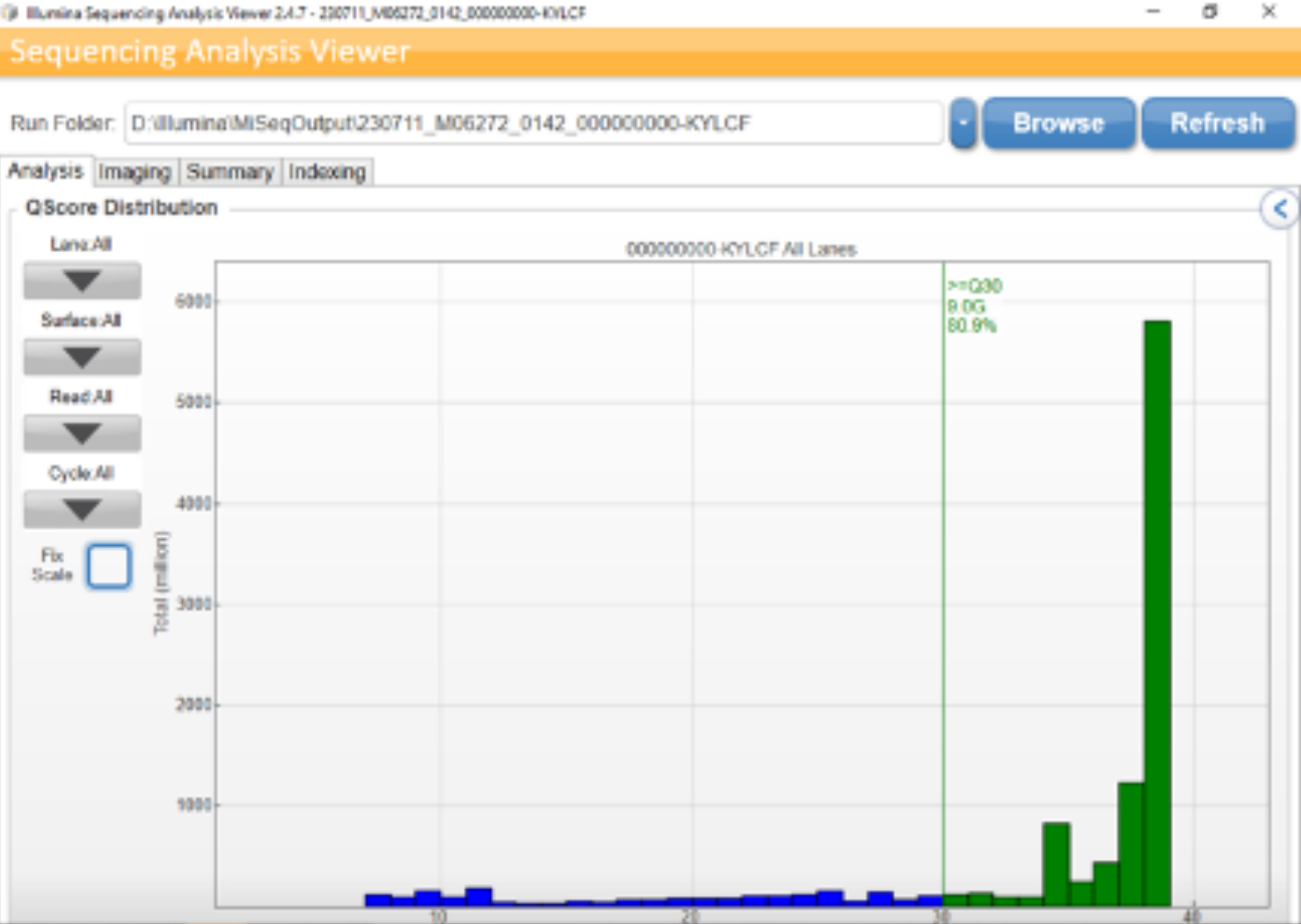
Run230711 – Q30



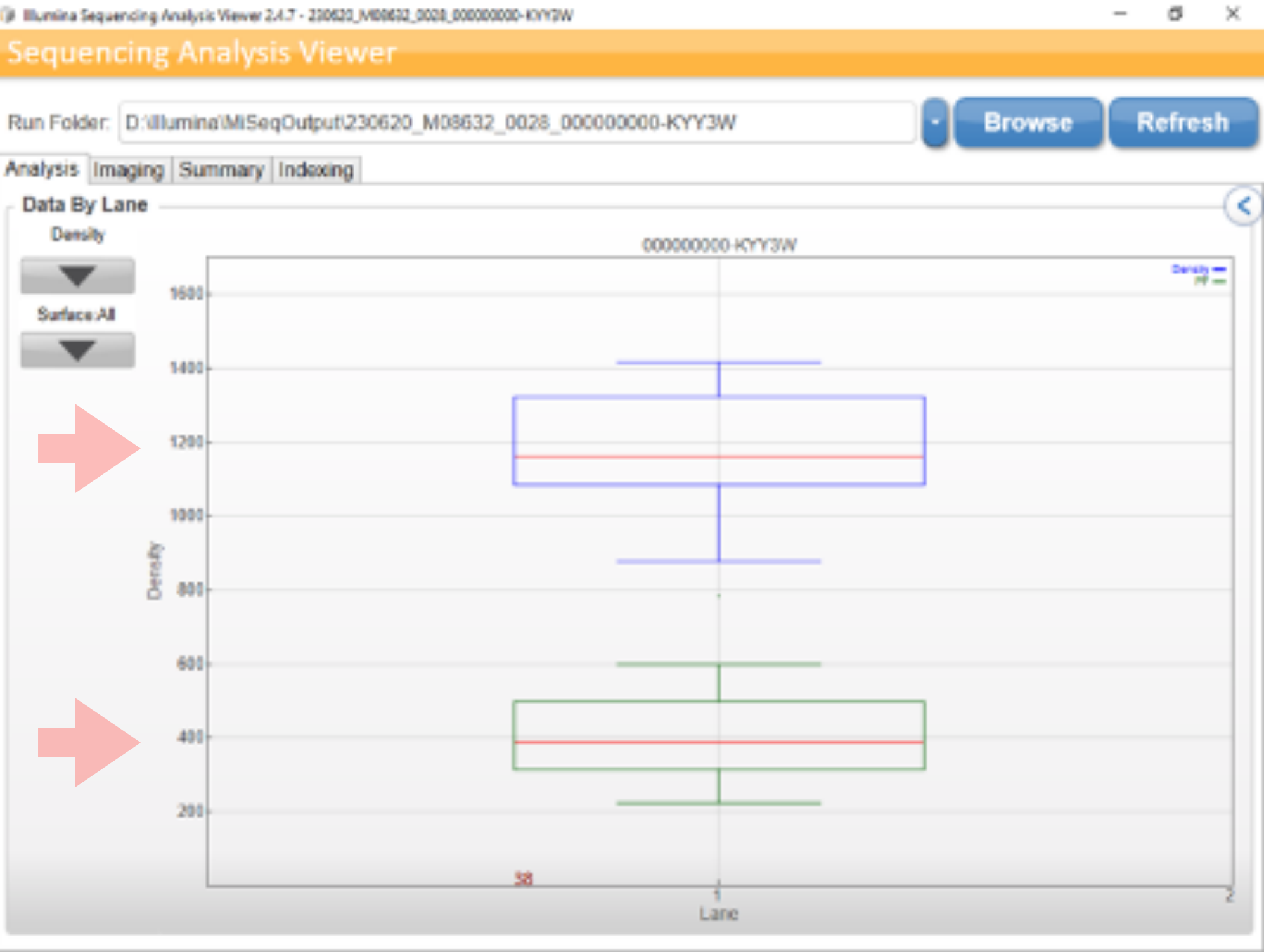
Run230620 - QScore Distribution



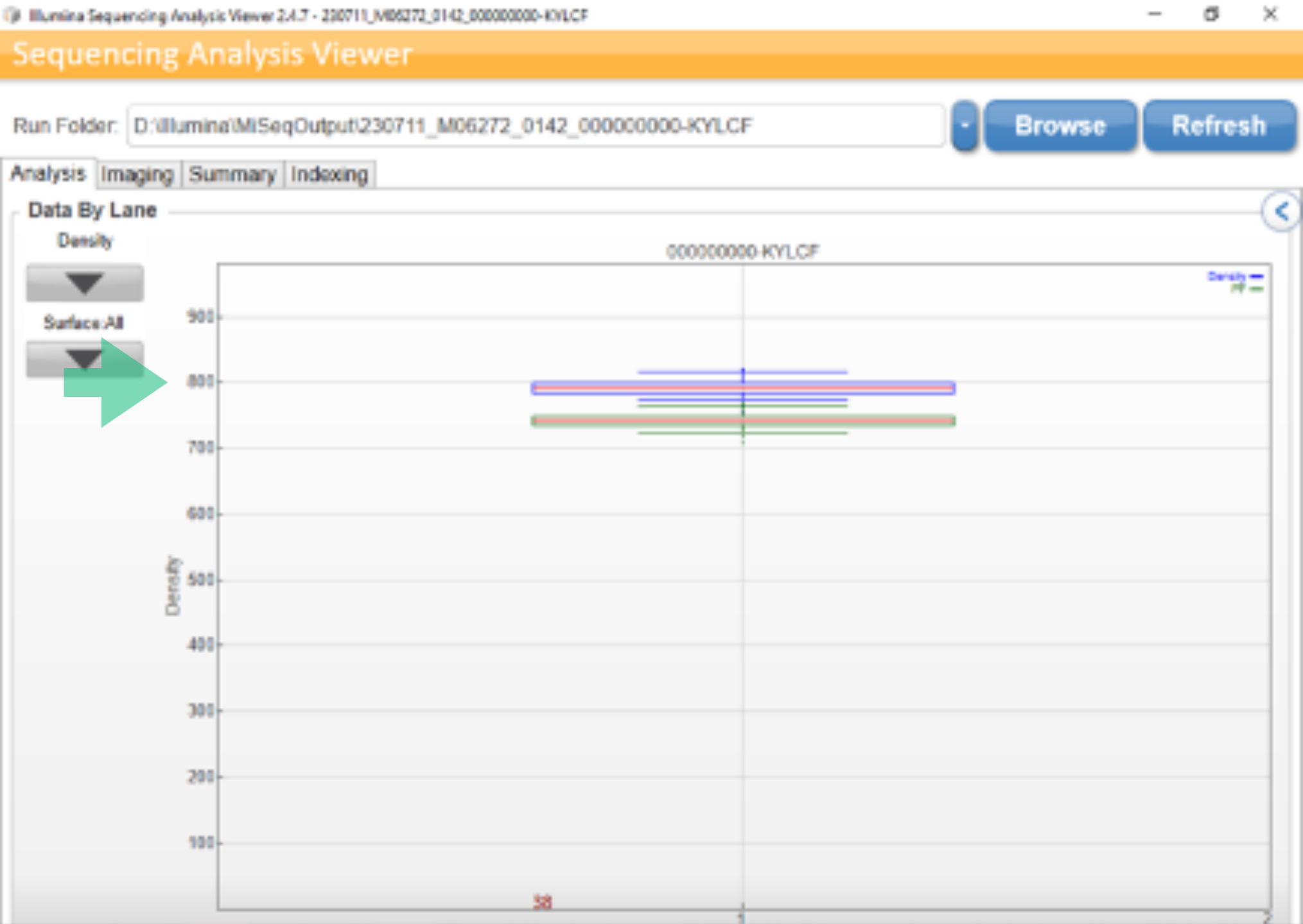
Run230711 – QScore Distribution



Run230620 - Cluster density



Run230711 - Cluster density



Run230620 – Read Length Distribution

→ R1:		
25	0.000217	
50	0.000013	
75	0.000005	
100	0.000004	
125	0.000007	
150	0.000014	
175	0.000052	
200	0.000079	
225	0.000213	
250	0.000279	
275	***** 0.094921	
300	*****	0.904196
→ R2:		
20	***** 0.086106	
40	***** 0.028509	
60	***** 0.074994	
80	***** 0.050966	
100	***** 0.047050	
120	***** 0.116897	
140	***** 0.051966	
160	***** 0.039793	
180	**** 0.021449	
200	***** 0.063603	
220	* 0.005402	
240	**** 0.021862	
260	* 0.007188	
280	***** 0.029907	
300	*****	0.354310

Run230711 – Read Length Distribution

→ R1:

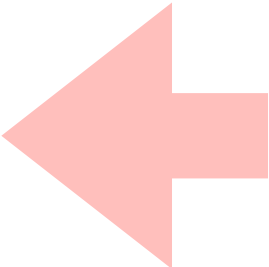
25	0.000538
50	0.000013
75	0.000005
100	0.000007
125	0.000005
150	0.000015
175	0.000046
200	0.000067
225	0.000167
250	0.000247
275	***** 0.080221
300	***** 0.918670

→ R2:

20	0.000518
40	0.000015
60	0.000015
80	0.000007
100	0.000006
120	0.000003
140	0.000005
160	0.000010
180	0.000032
200	0.000028
220	0.000077
240	0.000066
260	0.000154
280	* 0.020992
300	***** 0.978071

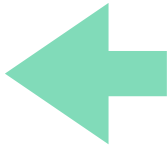
Run230620 – Estimated Error Rate for R1

Length	MaxEE 0.50	MaxEE 1.00	MaxEE 2.00
50	5553172(91.1%)	6052928(99.2%)	6096987(100.0%)
60	5204932(85.3%)	5961572(97.7%)	6093895(99.9%)
70	3469640(56.9%)	4918250(80.6%)	5960727(97.7%)
80	3295796(54.0%)	4771421(78.2%)	5919325(97.1%)
90	2986372(49.0%)	4193497(68.8%)	5286277(86.7%)
100	2889628(47.4%)	4021335(65.9%)	5098413(83.6%)
110	2795101(45.8%)	3923724(64.3%)	5042940(82.7%)
120	2694041(44.2%)	3812190(62.5%)	4969044(81.5%)
130	2590811(42.5%)	3684583(60.4%)	4874543(79.9%)
140	2505169(41.1%)	3575136(58.6%)	4771624(78.2%)
150	2432240(39.9%)	3407686(55.9%)	4461521(73.2%)
160	2377457(39.0%)	3335592(54.7%)	4374635(71.7%)
170	2330189(38.2%)	3272260(53.7%)	4069163(66.7%)
180	2271602(37.2%)	3201983(52.5%)	3986679(65.4%)
190	2228695(36.5%)	3146377(51.6%)	3924257(64.3%)
200	2176349(35.7%)	3082716(50.5%)	3857943(63.3%)
210	2126626(34.9%)	3022528(49.6%)	3797644(62.3%)
220	2066030(33.9%)	2951038(48.4%)	3728953(61.1%)
230	1998253(32.8%)	2878186(47.2%)	3662697(60.1%)
240	1935423(31.7%)	2806860(46.0%)	3596765(59.0%)
250	1865172(30.6%)	2721880(44.6%)	3522904(57.8%)
260	1793373(29.4%)	2640607(43.3%)	3446789(56.5%)
270	1709465(28.0%)	2549258(41.8%)	3362941(55.1%)
280	1643927(27.0%)	2474085(40.6%)	3291272(54.0%)
290	1555334(25.5%)	2375890(39.0%)	3201332(52.5%)
300	1299038(21.3%)	2032938(33.3%)	2776249(45.5%)



Run230711 – Estimated Error Rate for R1

Length	MaxEE 0.50	MaxEE 1.00	MaxEE 2.00
50	12473714 (99.3%)	12546820 (99.9%)	12552464 (99.9%)
60	12402800 (98.8%)	12534381 (99.8%)	12551485 (99.9%)
70	12329191 (98.2%)	12512589 (99.6%)	12549709 (99.9%)
80	12237844 (97.4%)	12483103 (99.4%)	12545715 (99.9%)
90	12128369 (96.6%)	12442455 (99.1%)	12539669 (99.8%)
100	12018851 (95.7%)	12390929 (98.7%)	12530362 (99.8%)
110	11896694 (94.7%)	12326793 (98.1%)	12516386 (99.7%)
120	11743130 (93.5%)	12236011 (97.4%)	12491659 (99.5%)
130	11578534 (92.2%)	12124018 (96.5%)	12453898 (99.2%)
140	11417448 (90.9%)	12004909 (95.6%)	12399904 (98.7%)
150	11274109 (89.8%)	11892844 (94.7%)	12335507 (98.2%)
160	11137060 (88.7%)	11781691 (93.8%)	12264004 (97.6%)
170	10991268 (87.5%)	11668180 (92.9%)	12188468 (97.0%)
180	10828904 (86.2%)	11545783 (91.9%)	12108334 (96.4%)
190	10675417 (85.0%)	11425334 (91.0%)	12023150 (95.7%)
200	10474759 (83.4%)	11278253 (89.8%)	11926370 (95.0%)
210	10275509 (81.8%)	11132131 (88.6%)	11829838 (94.2%)
220	10046593 (80.0%)	10964949 (87.3%)	11718796 (93.3%)
230	9818716 (78.2%)	10798505 (86.0%)	11608272 (92.4%)
240	9544787 (76.0%)	10604080 (84.4%)	11481677 (91.4%)
250	9233246 (73.5%)	10383281 (82.7%)	11340834 (90.3%)
260	8867206 (70.6%)	10122697 (80.6%)	11175850 (89.0%)
270	8440194 (67.2%)	9809505 (78.1%)	10976289 (87.4%)
280	8072583 (64.3%)	9521246 (75.8%)	10782219 (85.8%)
290	7567065 (60.2%)	9128286 (72.7%)	10520426 (83.8%)
300	6290529 (50.1%)	7875957 (62.7%)	9324715 (74.2%)



Run230620 – Estimated Error Rate for R2

Length	MaxEE 0.50	MaxEE 1.00	MaxEE 2.00
50	0 (0.0%)	0 (0.0%)	668546 (11.0%)
60	0 (0.0%)	0 (0.0%)	588720 (9.7%)
70	0 (0.0%)	0 (0.0%)	180412 (3.0%)
80	0 (0.0%)	0 (0.0%)	55377 (0.9%)
90	0 (0.0%)	0 (0.0%)	52023 (0.9%)

Run230711 – Estimated Error Rate for R2

Length	MaxEE 0.50	MaxEE 1.00	MaxEE 2.00
50	11882835(94.6%)	12247197(97.5%)	12487566(99.4%)
60	11745205(93.5%)	12143086(96.7%)	12418578(98.9%)
70	11610856(92.4%)	12056883(96.0%)	12365111(98.5%)
80	11470558(91.3%)	11964465(95.3%)	12309016(98.0%)
90	11338307(90.3%)	11867667(94.5%)	12248462(97.5%)
100	11205392(89.2%)	11776072(93.8%)	12194578(97.1%)
110	11065121(88.1%)	11669306(92.9%)	12123873(96.5%)
120	10936952(87.1%)	11569610(92.1%)	12052710(96.0%)
130	10781673(85.8%)	11456834(91.2%)	11977604(95.4%)
140	10634555(84.7%)	11352004(90.4%)	11908718(94.8%)
150	10475291(83.4%)	11243712(89.5%)	11840864(94.3%)
160	10238531(81.5%)	11088615(88.3%)	11747858(93.5%)
170	10019330(79.8%)	10936462(87.1%)	11654680(92.8%)
180	9763465(77.7%)	10762490(85.7%)	11549153(92.0%)
190	9479770(75.5%)	10578790(84.2%)	11441570(91.1%)
200	9155848(72.9%)	10366192(82.5%)	11315778(90.1%)
210	8684928(69.1%)	10074540(80.2%)	11155176(88.8%)
220	8168955(65.0%)	9720776(77.4%)	10951598(87.2%)
230	7294512(58.1%)	9104728(72.5%)	10602128(84.4%)
240	6240251(49.7%)	8347158(66.5%)	10167708(81.0%)
250	5339518(42.5%)	7665457(61.0%)	9756946(77.7%)
260	4214831(33.6%)	6702756(53.4%)	9134408(72.7%)
270	2966015(23.6%)	5409592(43.1%)	8218777(65.4%)
280	1911052(15.2%)	4104006(32.7%)	7141802(56.9%)
290	778413(6.2%)	2300714(18.3%)	5350031(42.6%)
300	282336(2.2%)	1123834(8.9%)	3568869(28.4%)

