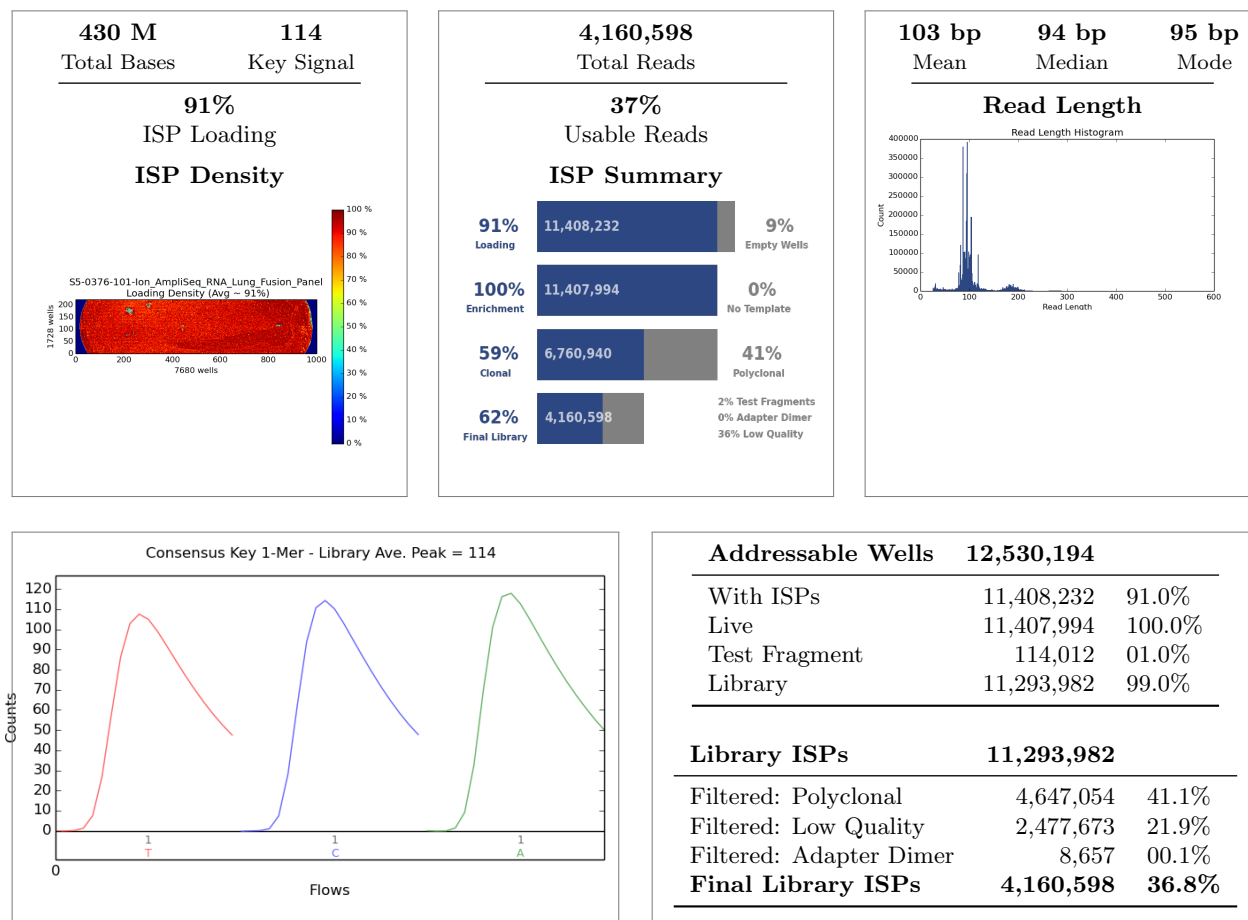


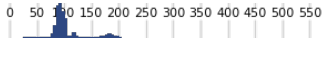








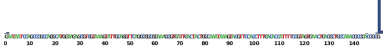
Run Summary



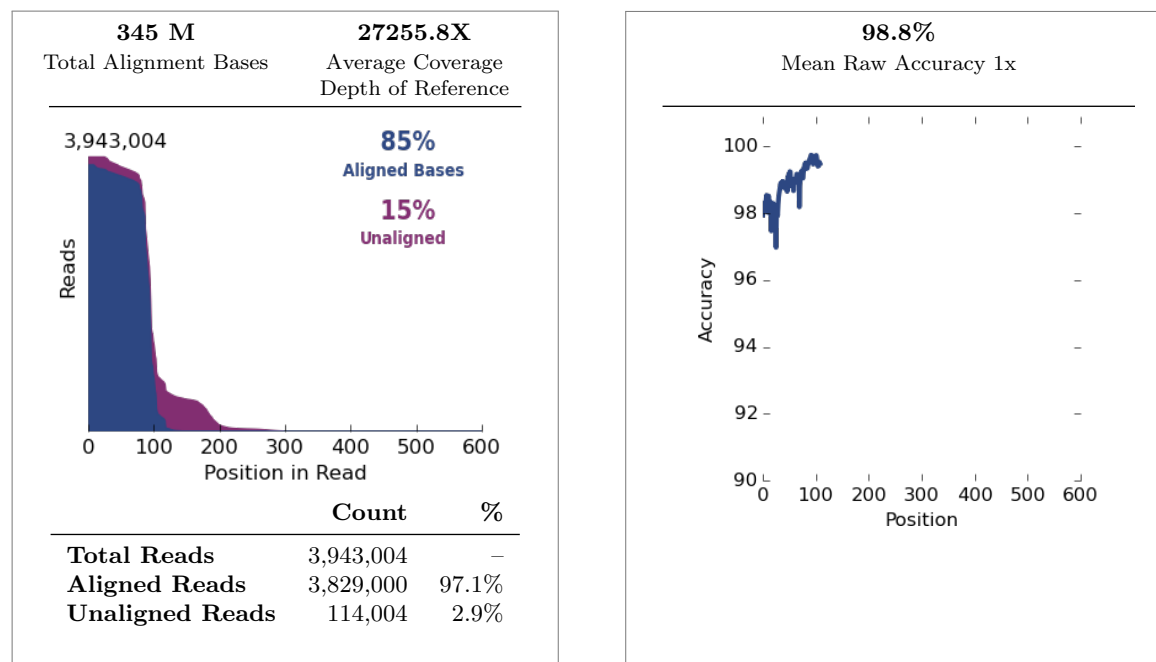
Barcode Name	Sample	Bases	$\geq Q20$	Reads	Mean Read Length	Read Length Histogram
No barcode	none	23,286,386	18,786,252	217,568	107 bp	
IonCode_0117	Fusion18B3385	32,494,711	29,106,231	303,128	107 bp	
IonCode_0118	Fusion18I895	17,704,604	16,210,780	185,939	95 bp	
IonCode_0119	Fusion18B2494	14,676,687	13,507,031	159,090	92 bp	
IonCode_0120	Fusion18I2993	15,485,930	14,069,004	156,947	98 bp	
IonCode_0121	Fusion19B122	32,790,809	29,655,099	302,515	108 bp	
IonCode_0122	Fusion_19_B_2	21,345,329	19,593,380	214,921	99 bp	
IonCode_0123	Fusion_20_F508	25,827,780	23,585,994	217,258	118 bp	

Run Report for Auto_user_S5-0376-101-Ion_AmpliSeq_RNA_Lung_Fusion_Panel_341

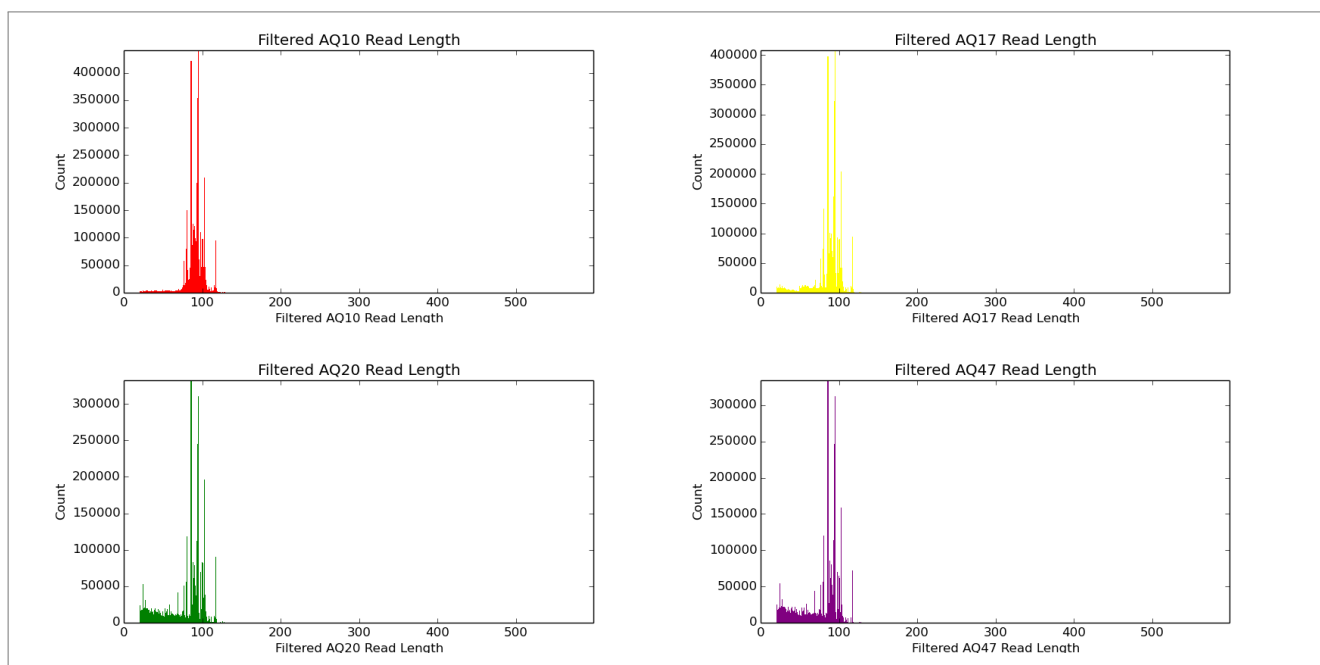
IonCode_0124	Fusion_19_57	29,610,448	27,100,888	262,757	112 bp	
IonCode_0125	Fusion_18_352	58,490,079	52,884,802	500,331	116 bp	
IonCode_0126	Fusion_17_8717	43,291,691	39,337,018	406,457	106 bp	
IonCode_0127	Fusion_15_3258	25,927,547	23,880,014	274,466	94 bp	
IonCode_0128	Fusion_19_571	37,756,521	34,615,439	398,107	94 bp	
IonCode_0129	Fusion_18_127	19,999,745	18,234,791	201,903	99 bp	
IonCode_0130	Fusion_4210	11,318,222	10,272,246	131,172	86 bp	
IonCode_0131	Fusion_17_7995	9,314,877	8,579,374	111,430	83 bp	
IonCode_0132	Fusion_14736	10,891,724	9,941,941	116,583	93 bp	

Test Fragment	Reads	Percent 50AQ17	Read Length Histogram
TF_1	29,667	94	

Alignment Summary (*aligned to SiRe_fusion*)



Alignment Quality			
	AQ17	AQ20	Perfect
Total Number of Bases [Mbp]	301 M	260 M	251 M
Mean Length [bp]	87	80	78
Longest Alignment [bp]	154	154	153
Mean Coverage Depth	23834.5	20551.2	19842.9



coverageAnalysis

Library type: AmpliSeq RNA

Target regions: WG00250_ExtendedLungFusion_Designed

Barcode Name	Sample	Mapped Reads	On Target
IonCode_0117	Fusion_18_B_3385	299,664	99.62%
IonCode_0118	Fusion_18_I_895	180,976	99.25%
IonCode_0119	Fusion_18_B_2494	154,359	97.95%
IonCode_0120	Fusion_18_I_2993	153,463	99.12%
IonCode_0121	Fusion_19_B_122	298,962	99.68%
IonCode_0122	Fusion_19_B_2	210,894	99.09%
IonCode_0123	Fusion_20_F_508	215,587	99.82%
IonCode_0124	Fusion_Pietoso	260,914	99.77%
IonCode_0125	Fusion_Caporaso	491,093	99.58%
IonCode_0126	Fusion_Ponticelli	391,648	99.12%
IonCode_0127	Fusion_Frallicciardi	270,813	98.69%
IonCode_0128	Fusion_Abbate	393,114	99.20%
IonCode_0129	Fusion_Canto	199,035	99.07%
IonCode_0130	Fusion_4210	111,104	93.02%
IonCode_0131	Fusion_17_7995	96,590	91.45%
IonCode_0132	Fusion_14736	100,784	95.17%

1

5

items per page

1 - 16 of 16 items

Analysis Details

Run Name	R_2020_06_16_09_02_48_user_S5-0376-101-Ion_AmpliSeq_RNA_Lung_Fusion_Panel
Run Date	June 16, 2020, 9:04 a.m.
Run Flows	850
Projects	
Sample	Fusion_Abbate, Fusion_14736, Fusion_18_B_3385, Fusion_Canto, Fusion_Ponticelli, Fusion_4210, Fusion_19_B_122, Fusion_Pietoso, Fusion_18_I_2993, Fusion_Frallicciardi, Fusion_Caporaso, Fusion_18_I_895, Fusion_18_B_2494, Fusion_19_B_2, Fusion_20_F_508, Fusion_17_7995
Reference	
Instrument	S5-0376
Operation Mode	Customer mode
Flow Order	TACGTACGTCTGAGCATCGATCGATGTACAGC
Library Key	TCAG
TF Key	ATCG
Chip Barcode	DAGA02297
Chip Check	Passed
Chip Type	520
Chip Data	tiled
Chip Lot Number	Q0RC69
Chip Wafer	23
Barcode Set	IonCode Barcodes 1-32
Analysis Name	Auto_user_S5-0376-101-Ion_AmpliSeq_RNA_Lung_Fusion_Panel_341
Analysis Date	June 16, 2020, 4:02 p.m.
Analysis Flows	0
runID	CF5Q0
BeadFind Args	justBeadFind -args-json /opt/ion/config/args_520_beadfind.json
Analysis Args	Analysis -args-json /opt/ion/config/args_520_analysis.json
Pre-BaseCaller	BaseCaller -trim-qual-cutoff 15 -barcode-filter-minreads 10 -phasing-residual-filter=2.0 -wells-normalization on
Calibration Args	Calibration -num-calibration-regions 1,1
BaseCaller Args	BaseCaller -trim-qual-cutoff 15 -barcode-filter-minreads 10 -phasing-residual-filter=2.0 -num-unfiltered 1000 -barcode-filter-postpone 1 -qual-filter true -qual-filter-slope 0.040 -qual-filter-offset 1.0 -wells-normalization on
Alignment Args	tmap mapall ... stage1 map4
IonStats Args	ionstats alignment
Analysis Parameters	default

Chef Summary

Chef Template Prep Information:

Chef Last Updated	June 16, 2020, 8:43 a.m.
Chef Instrument Name	CHEF00839
Chef Operation Mode	Customer Mode
Sample Position	1
Tip Rack Barcode	48B1400D8
Chip Type 1	520v1
Chip Type 2	S500
Chip Expiration 1	None
Chip Expiration 2	None
Templating Kit Type	Ion 510
amp; Ion 520	amp; Ion 530 Kit-Chef
Chef Flexible Workflow	
Reagent Expiration	200331
Reagent Lot Number	2070211
Reagent Part Number	A34018C
Reagent Cartridge Serial Number	None
Solution Lot Number	2065570
Solution Part Number	A27754C
Templating Protocol Planned	(use instrument default)
Solution Cartridge Serial Number	None
Solution Expiration	200331
Templating Protocol Executed	(use instrument default)
Chef Script Version	905
Chef Package Version	IC.5.12.0
Start Time	June 15, 2020, 12:19 p.m.
Completion Time	June 16, 2020, 8:43 a.m.

S5 Consumables Summary

Chip Type	520v1
Chip Barcode	DAGA02297

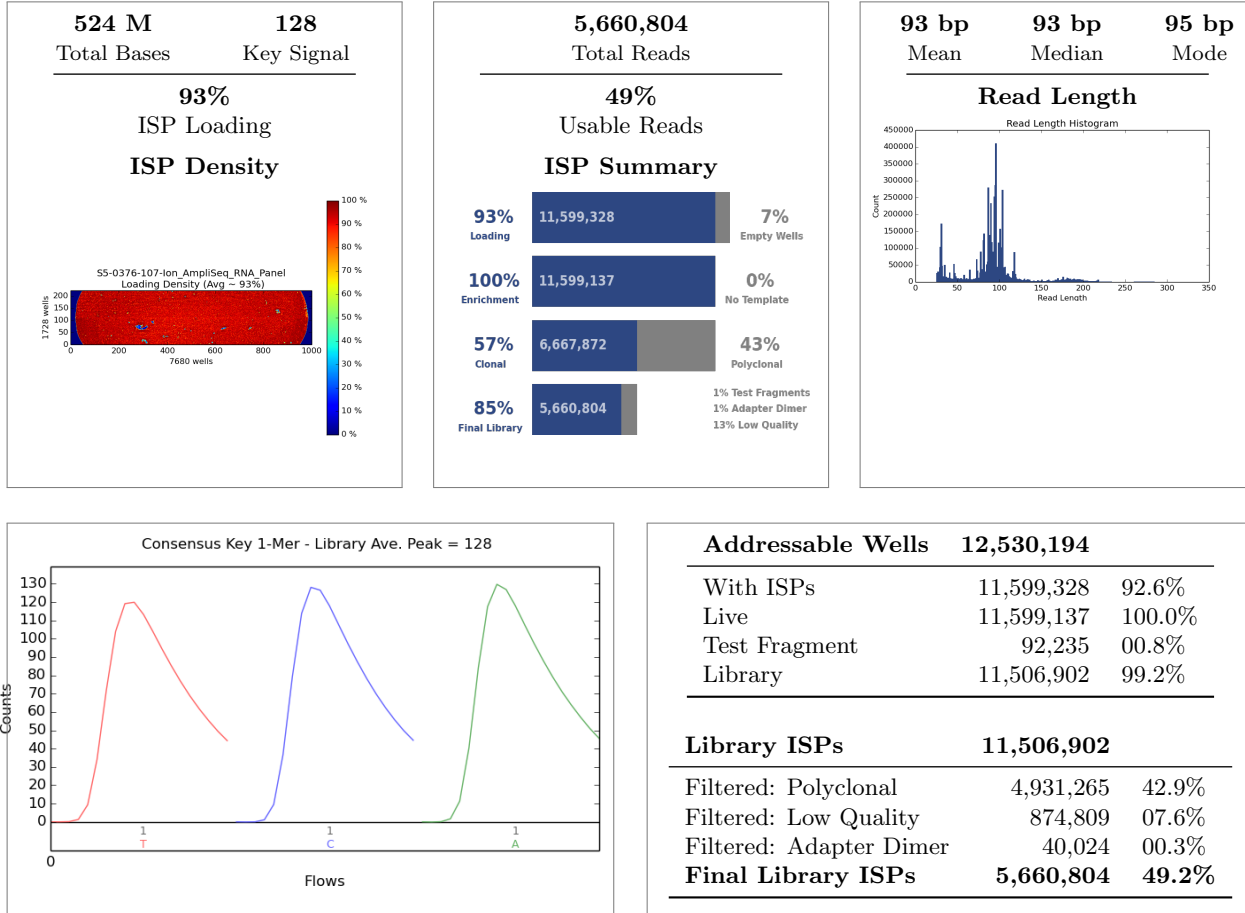
Product Description	Part Number	Lot Number	Exp. Date	Remaining Uses
Ion S5 Cleaning Solution	100031096	2049959	2019/12/31	5
Ion S5 Sequencing Reagent	INS1012841B	2049947	2020/01/31	1
Ion S5 Wash Solution	100031091B	2058327	2020/02/29	1

Software Version

Torrent_Suite	5.12.0
host	tsvm
ion-analysis	5.12.11-1
ion-dbreports	5.12.35-1
ion-gpu	5.12.0-1
ion-pipeline	5.12.11-1
ion-torrentpy	5.12.8-1
ion-torrentr	5.12.10-1
S5 Script	0.1.31
LiveView	2514
DataCollect	3738
OIA	51206
OS	35
Graphics	134
Ion_Chef	IC.5.12.0










Run Report for reanalisi

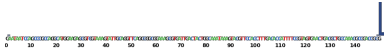
Run Summary



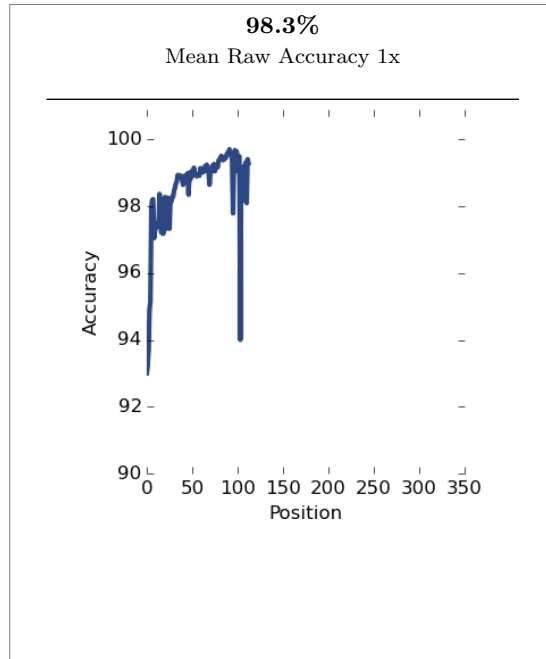
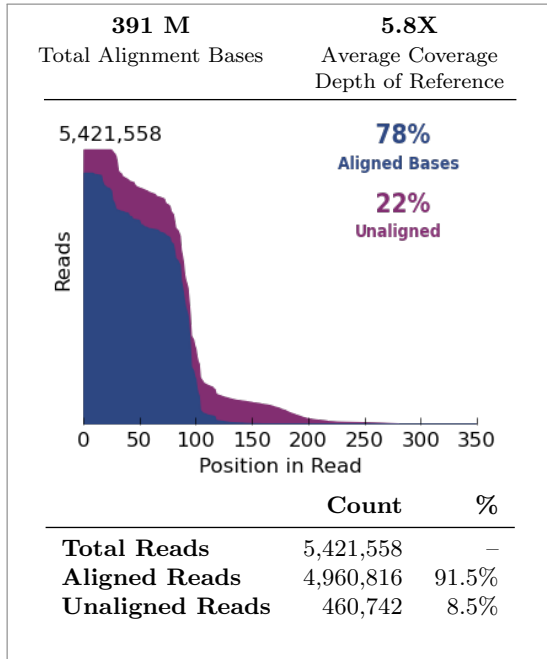
Barcode Name	Sample	Bases	$\geq Q20$	Reads	Mean Read Length	Read Length Histogram
No barcode	none	25,135,011	22,608,959	239,194	105 bp	
IonCode_0117	FUSION16C5752	32,167,326	30,068,815	361,649	88 bp	
IonCode_0118	FUSION13C5007	25,337,140	23,870,898	329,494	76 bp	
IonCode_0119	FUSION11C8597	9,064,261	8,526,987	187,641	48 bp	
IonCode_0120	FUSION11S5960	50,568,773	47,526,040	485,126	104 bp	
IonCode_0121	FUSION18C482	34,894,704	32,707,467	372,192	93 bp	
IonCode_0122	FUSION11C9307	31,313,401	29,344,945	326,568	95 bp	
IonCode_0123	FUSION20C374	50,057,995	46,099,437	390,759	128 bp	

Run Report for reanalisi

IonCode_0124	FUSION15C4638	12,865,682	12,202,244	170,404	75 bp	
IonCode_0125	FUSION13C2416	16,765,306	15,684,592	256,212	65 bp	
IonCode_0126	FUSION14I2731	26,720,082	25,030,441	341,244	78 bp	
IonCode_0127	FUSION10C2977	48,192,941	44,937,245	461,455	104 bp	
IonCode_0128	FUSION20C1459	66,593,968	61,805,458	644,418	103 bp	
IonCode_0129	FUSION15C416B	28,511,208	26,412,449	308,298	92 bp	
IonCode_0130	FUSION17I5356	26,496,025	24,848,973	306,868	86 bp	
IonCode_0131	FUSION18I2137	32,723,835	30,706,310	351,711	93 bp	
IonCode_0132	FUSION14C4583C	7,049,194	6,705,216	127,519	55 bp	

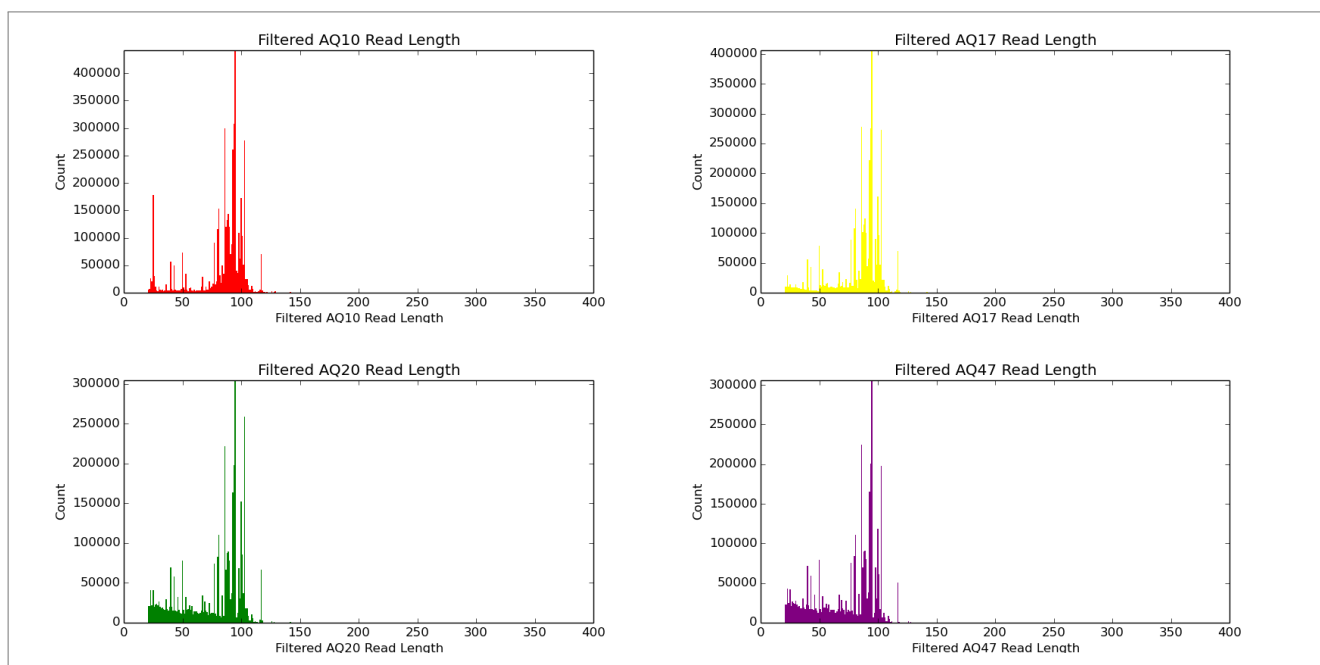
Test Fragment	Reads	Percent 50AQ17	Read Length Histogram
TF_1	29,191	96	

Alignment Summary (*aligned to hg19 AmpliSeq Transcriptome v1.1*)



Alignment Quality			
	AQ17	AQ20	Perfect
Total Number of Bases [Mbp]	327 M	283 M	272 M
Mean Length [bp]	84	77	75
Longest Alignment [bp]	297	297	283
Mean Coverage Depth	4.9	4.2	4.0

Run Report for reanalisi



coverageAnalysis

All barcodes had invalid target regions specified.

Analysis Details

Run Name	R_2020.07.02_13.08.04_user_S5-0376-107-Ion-AmpliSeq-RNA-Panel
Run Date	July 2, 2020, 1:09 p.m.
Run Flows	500
Projects	
Sample	FUSION_13_C.5007A, FUSION_15_C.4638, FUSION_20_C.374B, FUSION_10_C.2977, FUSION_14_I.2731A3, FUSION_20_C.1459D, FUSION_16_C.5752A, FUSION_18_I.2137A1, FUSION_13_C.2416C, FUSION_14_C.4583C, FUSION_15_C.416B, FUSION_11_C.8597, FUSION_11_S.5960, FUSION_11_C.9307B, FUSION_18_C.482B, FUSION_17_I.5356A2
Reference	
Instrument	S5-0376
Operation Mode	Customer mode
Flow Order	TACGTACGTCTGAGCATCGATCGATGTACAGC
Library Key	TCAG
TF Key	ATCG
Chip Barcode	DAGB02050
Chip Check	Passed
Chip Type	520
Chip Data	tiled
Chip Lot Number	Q0SS79
Chip Wafer	18
Barcode Set	IonCode Barcodes 1-32
Analysis Name	reanalisi
Analysis Date	Dec. 22, 2020, 7:20 p.m.
Analysis Flows	0
runID	NDRE0
BeadFind Args	justBeadFind -args-json /opt/ion/config/args_520_beadfind.json
Analysis Args	Analysis -args-json /opt/ion/config/args_520_analysis.json
Pre-BaseCaller	BaseCaller -trim-qual-cutoff 15 -barcode-filter-minreads 10 -phasing-residual-filter=2.0 -wells-normalization on
Calibration Args	Calibration -num-calibration-regions 1,1
BaseCaller Args	BaseCaller -trim-qual-cutoff 15 -barcode-filter-minreads 10 -phasing-residual-filter=2.0 -num-unfiltered 1000 -barcode-filter-postpone 1 -qual-filter true -qual-filter-slope 0.040 -qual-filter-offset 1.0 -wells-normalization on
Alignment Args	tmap mapall ... stage1 map4
IonStats Args	ionstats alignment
Analysis Parameters	default

Chef Summary

Chef Template Prep Information:

Chef Last Updated	July 2, 2020, 8:35 a.m.
Chef Instrument Name	CHEF00839
Chef Operation Mode	Customer Mode
Sample Position	2
Tip Rack Barcode	48B1400DF
Chip Type 1	520v1
Chip Type 2	520v1
Chip Expiration 1	None
Chip Expiration 2	None
Templating Kit Type	Ion 510
amp; Ion 520	amp; Ion 530 Kit-Chef
Chef Flexible Workflow	
Reagent Expiration	200331
Reagent Lot Number	2070211
Reagent Part Number	A34018C
Reagent Cartridge Serial Number	None
Solution Lot Number	2065570
Solution Part Number	A27754C
Templating Protocol Planned	Chef Protocol - 200 bp
Solution Cartridge Serial Number	None
Solution Expiration	200331
Templating Protocol Executed	Chef Protocol - 200 bp
Chef Script Version	905
Chef Package Version	IC.5.12.0
Start Time	July 1, 2020, 3:04 p.m.
Completion Time	July 2, 2020, 8:35 a.m.

S5 Consumables Summary

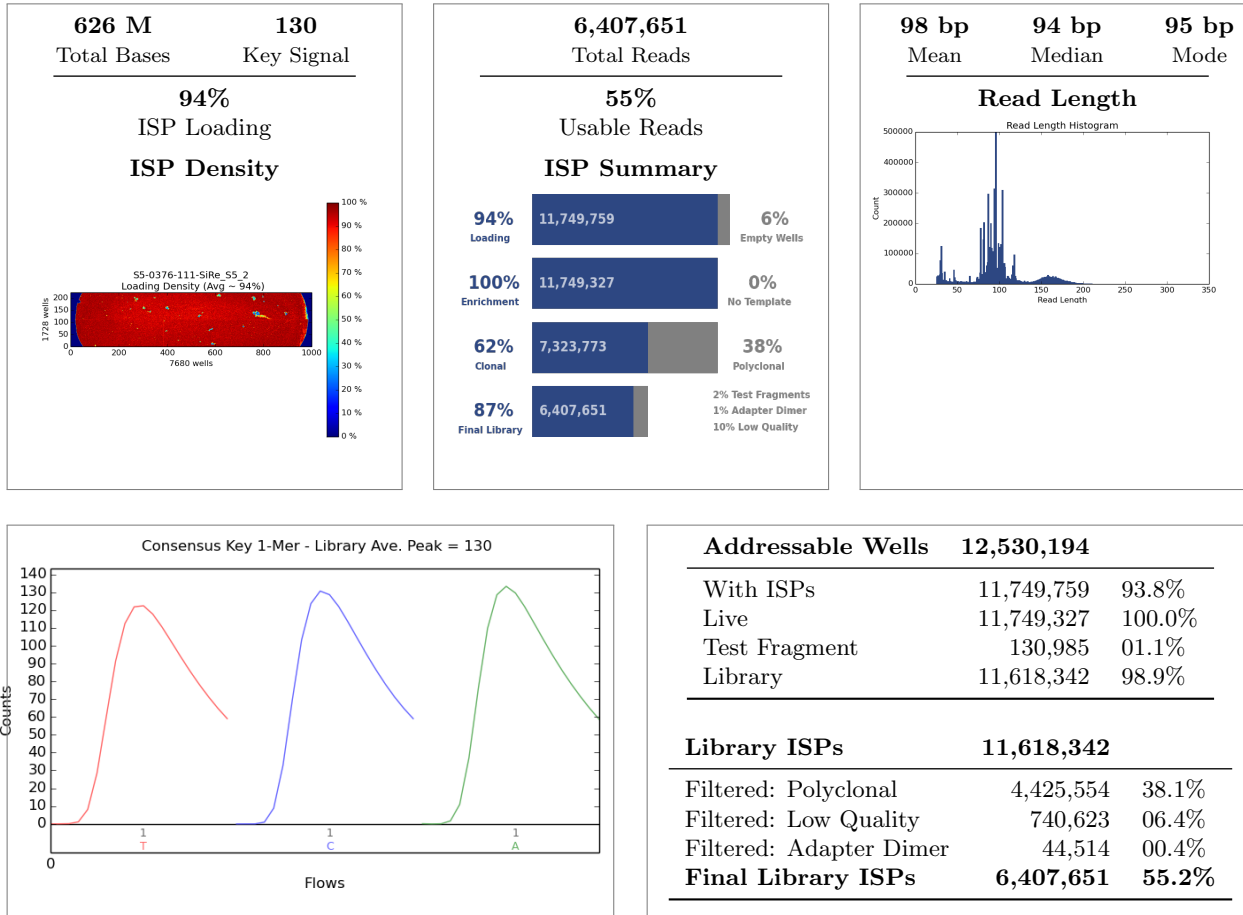
Chip Type	520v1
Chip Barcode	DAGB02050

Product Description	Part Number	Lot Number	Exp. Date	Remaining Uses
Ion S5 Cleaning Solution	100031096	2049959	2019/12/31	2
Ion S5 Sequencing Reagent	INS1012841B	2049947	2020/01/31	1
Ion S5 Wash Solution	100031091B	2044840	2019/12/31	1

Software Version



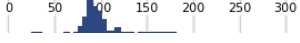






Torrent_Suite	5.12.0
host	tsvm
ion-analysis	5.12.11-1
ion-dbreports	5.12.35-1
ion-gpu	5.12.0-1
ion-pipeline	5.12.11-1
ion-torrentpy	5.12.8-1
ion-torrentr	5.12.10-1
S5 Script	0.1.31
LiveView	2514
DataCollect	3738
OIA	51206
OS	35
Graphics	134
Ion_Chef	IC.5.12.0


Run Summary



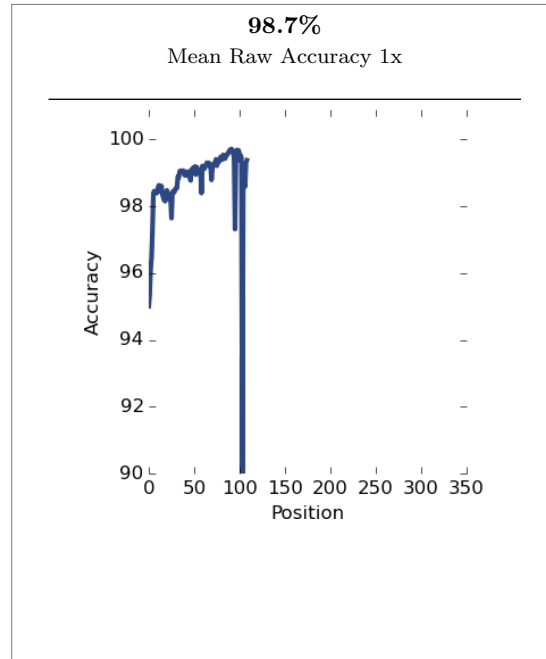
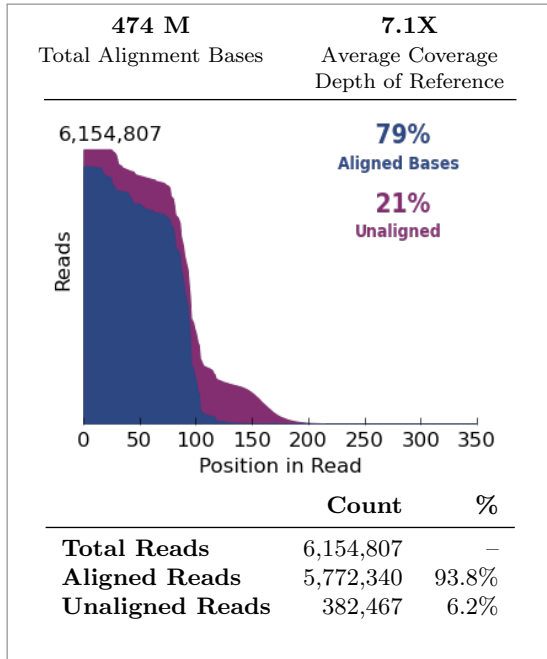
Barcode Name	Sample	Bases	$\geq Q20$	Reads	Mean Read Length	Read Length Histogram
No barcode	none	28,557,791	25,817,138	252,793	112 bp	
IonCode_0117	FUSION16C1355	46,701,436	42,959,196	516,927	90 bp	
IonCode_0118	FUSION17C3735	25,371,461	23,622,657	307,416	82 bp	
IonCode_0119	FUSION19C5303	122,118,381	111,309,073	1,099,371	111 bp	
IonCode_0120	FUSION15C3437	14,111,335	13,142,458	227,636	61 bp	
IonCode_0121	FUSION11I6906	12,274,906	11,484,596	192,366	63 bp	
IonCode_0122	FUSION20I2504	63,355,433	56,456,056	538,211	117 bp	
IonCode_0123	FUSION15C5484	38,299,723	36,259,745	413,877	92 bp	

Run Report for reanalisi_trascri

IonCode_0124	FUSION10I13314	20,047,001	18,895,169	249,408	80 bp	
IonCode_0125	FUSION19I10801	48,487,591	44,064,260	436,924	110 bp	
IonCode_0126	FUSION20I219	39,822,230	36,994,926	418,621	95 bp	
IonCode_0127	FUSION20C803B	48,802,023	44,918,992	502,476	97 bp	
IonCode_0128	FUSION18I9130	19,018,879	18,030,470	221,075	86 bp	
IonCode_0129	FUSION18I304	14,313,847	13,236,148	181,476	78 bp	
IonCode_0130	FUSION19I5879B3	35,860,331	33,544,606	364,420	98 bp	
IonCode_0131	FUSION19I11140	44,831,921	40,532,297	403,814	111 bp	
IonCode_0132	FUSION15I4995	3,782,520	3,558,085	80,789	46 bp	

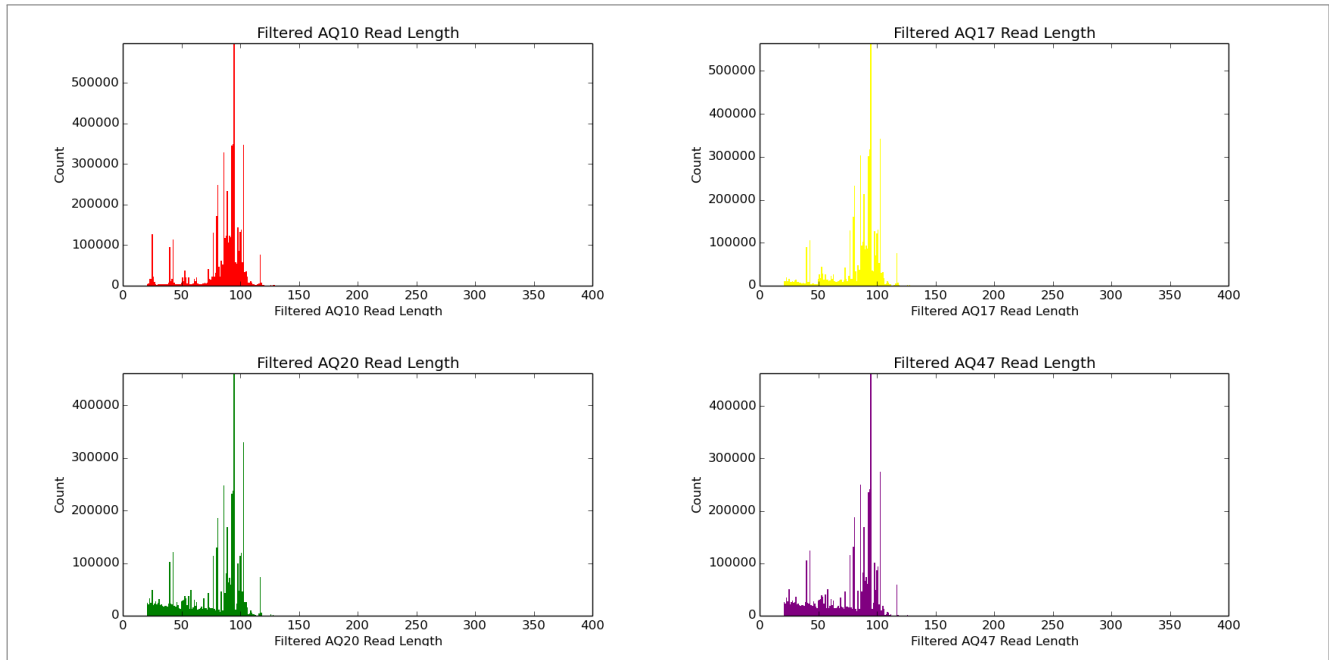
Test Fragment	Reads	Percent 50AQ17	Read Length Histogram
TF_1	60,187	94	

Alignment Summary (*aligned to hg19 AmpliSeq Transcriptome v1.1*)



Alignment Quality			
	AQ17	AQ20	Perfect
Total Number of Bases [Mbp]	413 M	364 M	353 M
Mean Length [bp]	84	78	76
Longest Alignment [bp]	221	209	203
Mean Coverage Depth	6.2	5.4	5.2

Run Report for reanalisi_trascr



coverageAnalysis

All barcodes had invalid target regions specified.

Analysis Details

Run Name	R_2020.07.14.12.38.52_user_S5-0376-111-SiRe_S5_2
Run Date	July 14, 2020, 12:40 p.m.
Run Flows	500
Projects	
Sample	FUSION_16_C_1355B, FUSION_15_I_4995, FUSION_19_C_5303_B, FUSION_18_I_9130_A1, FUSION_20_I_219_A2, FUSION_18_I_304B1, FUSION_19_I_11140B3, FUSION_11_I_6906_B, FUSION_15_C_3437_A, FUSION_19_I_10801A1, FUSION_19_I_5879B3, FUSION_10_I_13314C3, FUSION_15_C_5484B, FUSION_20_C_803B, FUSION_17_C_3735, FUSION_20_I_2504A1
Reference	
Instrument	S5-0376
Operation Mode	Customer mode
Flow Order	TACGTACGTCTGAGCATCGATCGATGTACAGC
Library Key	TCAG
TF Key	ATCG
Chip Barcode	DAGB02071
Chip Check	Passed
Chip Type	520
Chip Data	tiled
Chip Lot Number	Q0SS79
Chip Wafer	18
Barcode Set	IonCode Barcodes 1-32
Analysis Name	reanalisi_trascri
Analysis Date	July 15, 2020, 10:02 a.m.
Analysis Flows	0
runID	B4869
BeadFind Args	justBeadFind -args-json /opt/ion/config/args_520_beadfind.json
Analysis Args	Analysis -args-json /opt/ion/config/args_520_analysis.json
Pre-BaseCaller	BaseCaller -trim-qual-cutoff 15 -barcode-filter-minreads 10 -phasing-residual-filter=2.0 -wells-normalization on
Calibration Args	Calibration -num-calibration-regions 1,1
BaseCaller Args	BaseCaller -trim-qual-cutoff 15 -barcode-filter-minreads 10 -phasing-residual-filter=2.0 -num-unfiltered 1000 -barcode-filter-postpone 1 -qual-filter true -qual-filter-slope 0.040 -qual-filter-offset 1.0 -wells-normalization on
Alignment Args	tmap mapall ... stage1 map4
IonStats Args	ionstats alignment
Analysis Parameters	default

Chef Summary

Chef Template Prep Information:

Chef Last Updated	July 14, 2020, 8:33 a.m.
Chef Instrument Name	CHEF00839
Chef Operation Mode	Customer Mode
Sample Position	2
Tip Rack Barcode	48B140103
Chip Type 1	520v1
Chip Type 2	520v1
Chip Expiration 1	None
Chip Expiration 2	None
Templating Kit Type	Ion 510
amp; Ion 520	amp; Ion 530 Kit-Chef
Chef Flexible Workflow	
Reagent Expiration	200331
Reagent Lot Number	2070211
Reagent Part Number	A34018C
Reagent Cartridge Serial Number	None
Solution Lot Number	2065570
Solution Part Number	A27754C
Templating Protocol Planned	Chef Protocol - 200 bp
Solution Cartridge Serial Number	None
Solution Expiration	200331
Templating Protocol Executed	Chef Protocol - 200 bp
Chef Script Version	905
Chef Package Version	IC.5.12.0
Start Time	July 13, 2020, 1:28 p.m.
Completion Time	July 14, 2020, 8:33 a.m.

S5 Consumables Summary

Chip Type	520v1
Chip Barcode	DAGB02071

Product Description	Part Number	Lot Number	Exp. Date	Remaining Uses
Ion S5 Cleaning Solution	100031096	2049959	2019/12/31	4
Ion S5 Sequencing Reagent	INS1012841B	2049947	2020/01/31	1
Ion S5 Wash Solution	100031091B	2044840	2019/12/31	1

Software Version

Torrent_Suite	5.12.0
host	tsvm
ion-analysis	5.12.11-1
ion-dbreports	5.12.35-1
ion-gpu	5.12.0-1
ion-pipeline	5.12.11-1
ion-torrentpy	5.12.8-1
ion-torrentr	5.12.10-1
S5 Script	0.1.31
LiveView	2514
DataCollect	3738
OIA	51206
OS	35
Graphics	134
Ion_Chef	IC.5.12.0