

# QC Report

Updated: 2021-01-20 22:09:42

## Experiment: 0115\_runthrough

Pipeline Version: 819706c4888195c7c1912b6bd420c43bbf1d78b3

### Run info

name	value
runID	210115_MN01398_0051_A000H3FH2F
instrumentID	MN01398
chemistry	MiniSeq High
reagent_SerialNumber	ML2134344-REAGT
reagent_PartNumber	15073541
reagent_LotNumber	20493508
flowCell_SerialNumber	000H3FH2F
flowCell_PartNumber	15073184
flowCell_LotNumber	20500979

### Sequencer metrics

totReads	totReadsPassedQC	phiX	clusterPF	tot_phiX	clustDensity	clustDensity_perLane
23,850,191	21,188,392	0 %	77.8 %	0	181.1 K/mm <sup>2</sup>	181.1

### Alignment summary

	num_reads	num_matched	perc_match
RPP30	20,890,439	1,538,755	7%
S2	25,125	4,062	16%
S2_spike	159	19	12%
S2_spike_001	45,254	1,239	3%
S2_spike_002	188,778	37,564	20%
S2_spike_003	15,147	588	4%
S2_spike_004	23,453	2,815	12%
S2_spike_006	24	2	8%
S2_spike_007	13	1	8%
no_align	2,661,799	82,554	3%

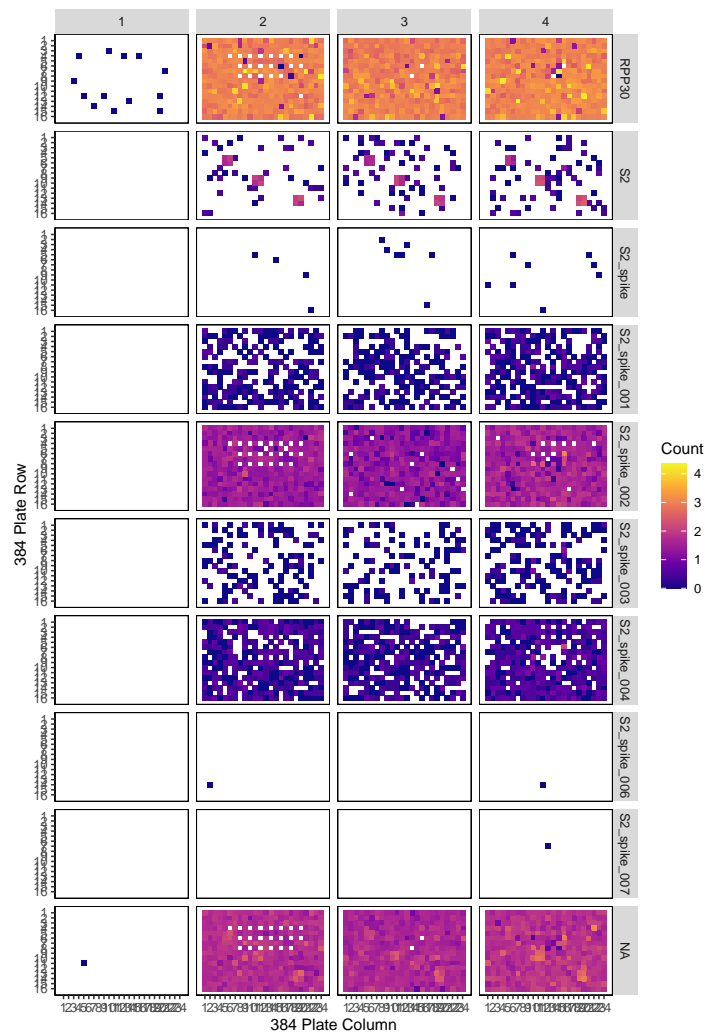
### Sample Classification

classification	total
COVID_neg	1
failed: low RPP30	1
failed: low S2	1122
failed: low S2 & RPP30	22

## Plate Map Plot



384 Index Plot

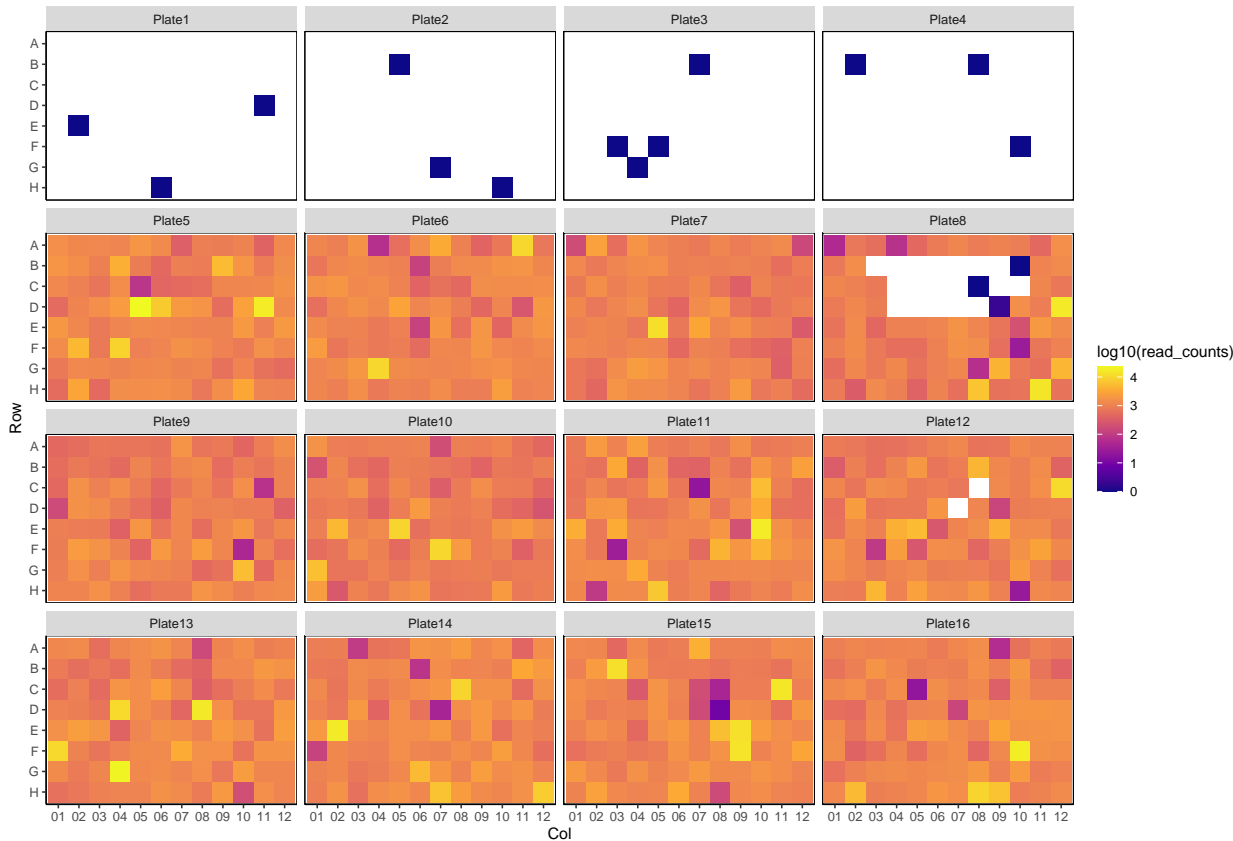


# Sample Categorization

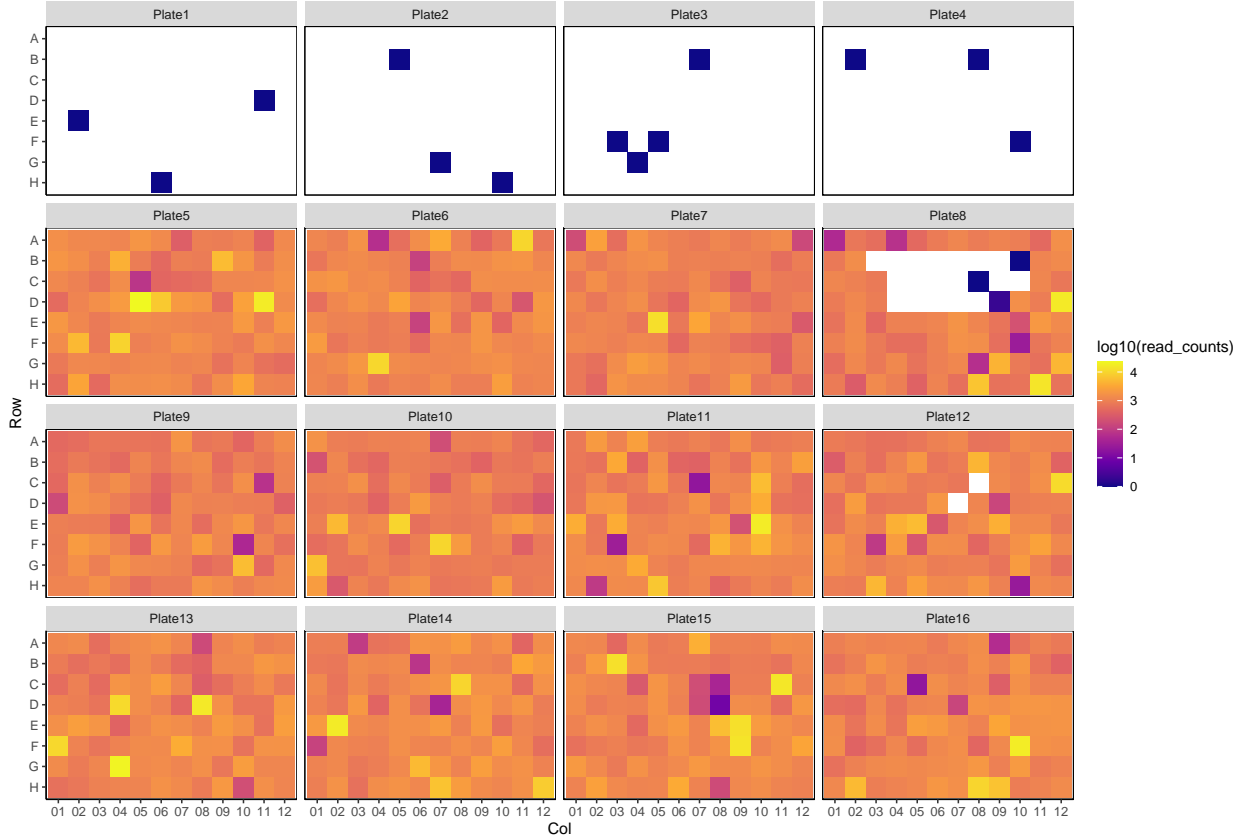
Classifies samples as COVID positive/negative, or failure type. Table at end of document.



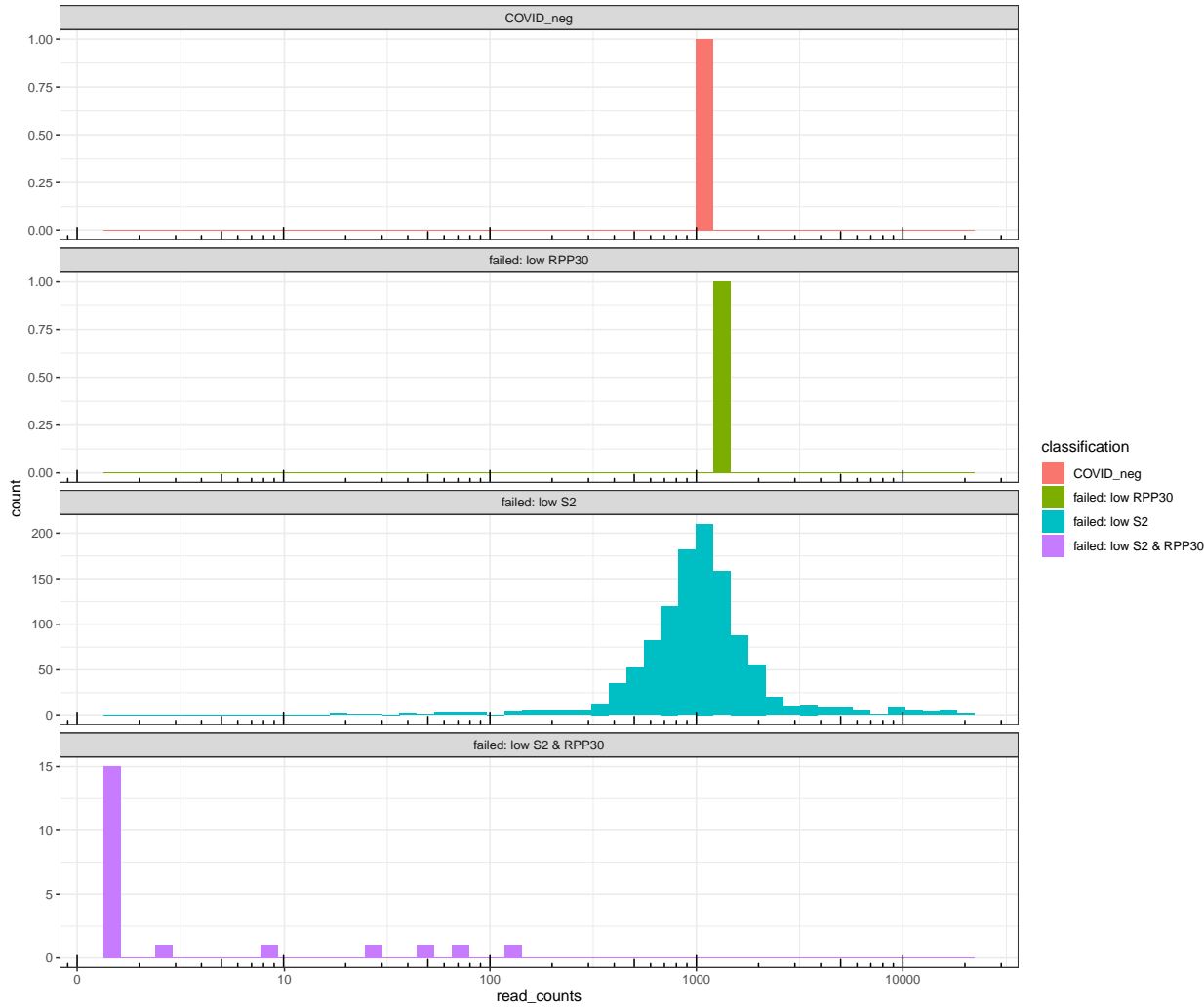
Read Counts per Well



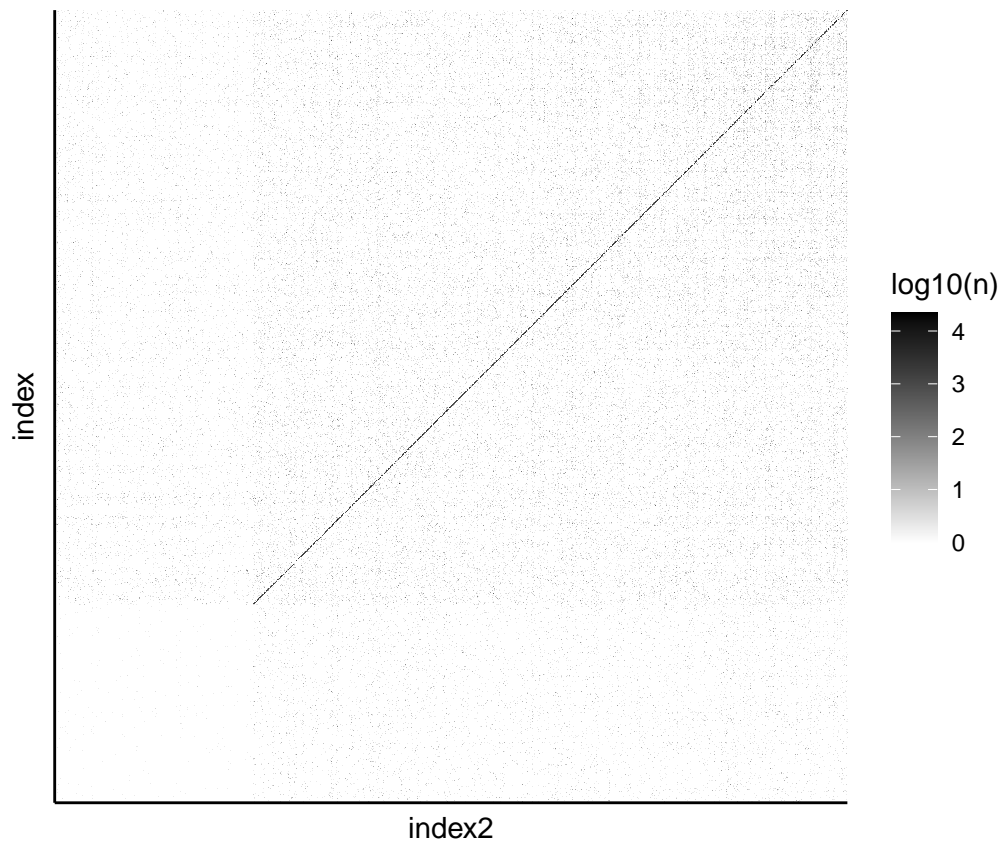
Read Counts per Well



# Classification vs Read Counts per Well

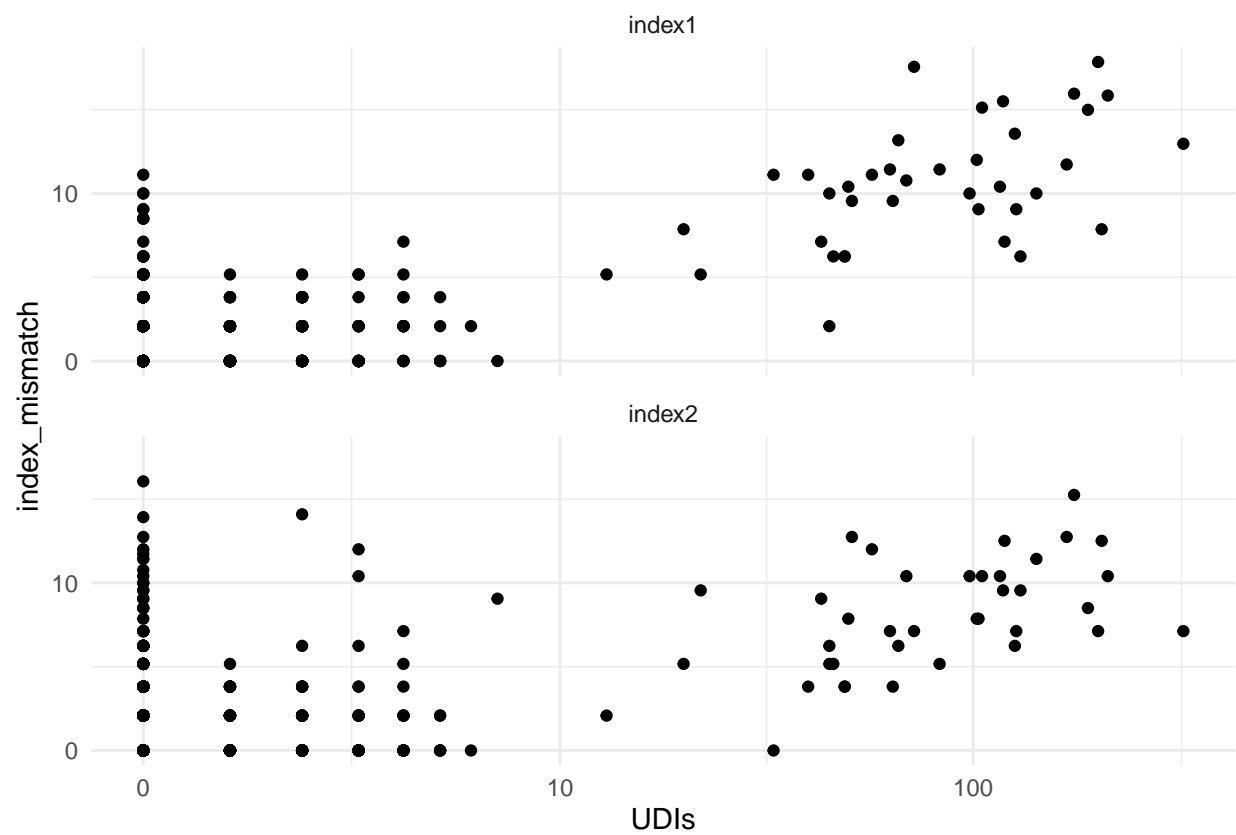


## Index Swapping

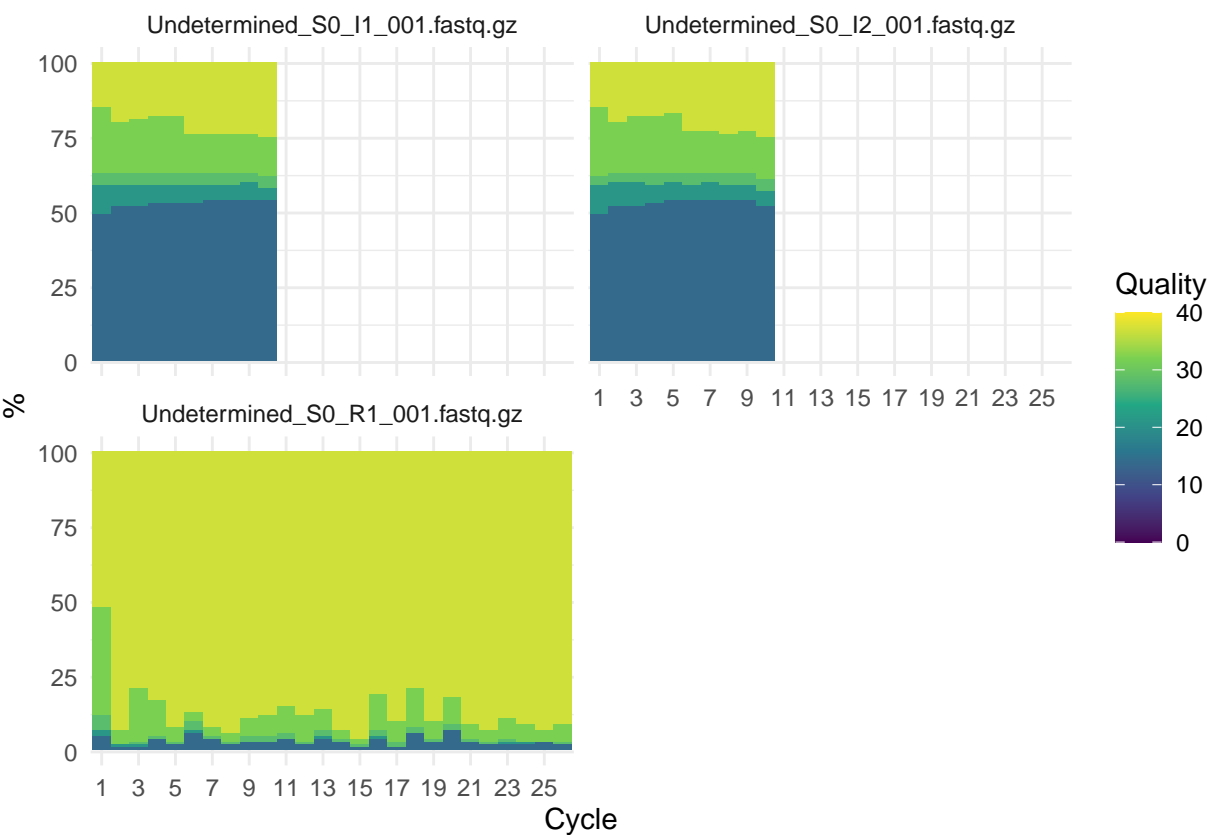




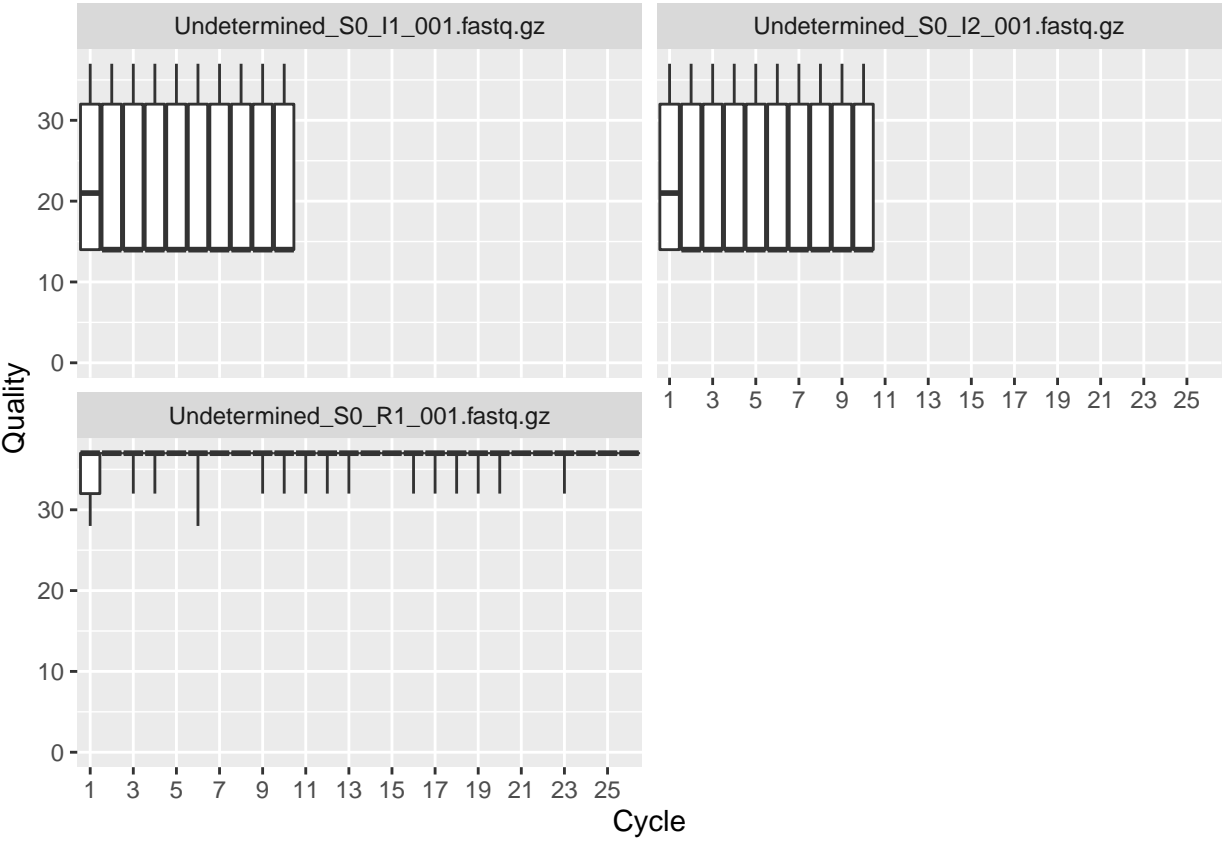
Swap events for S2



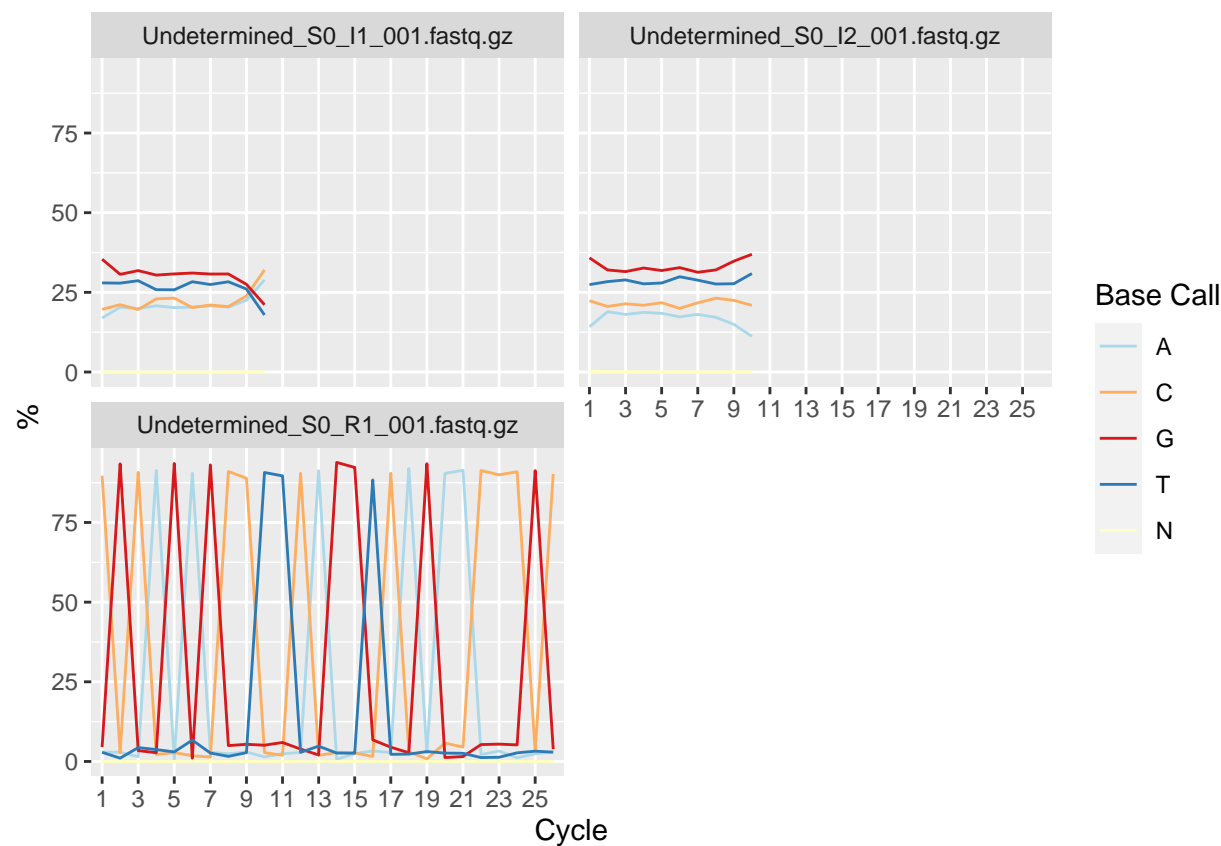
Cycle-specific Quality Distribution



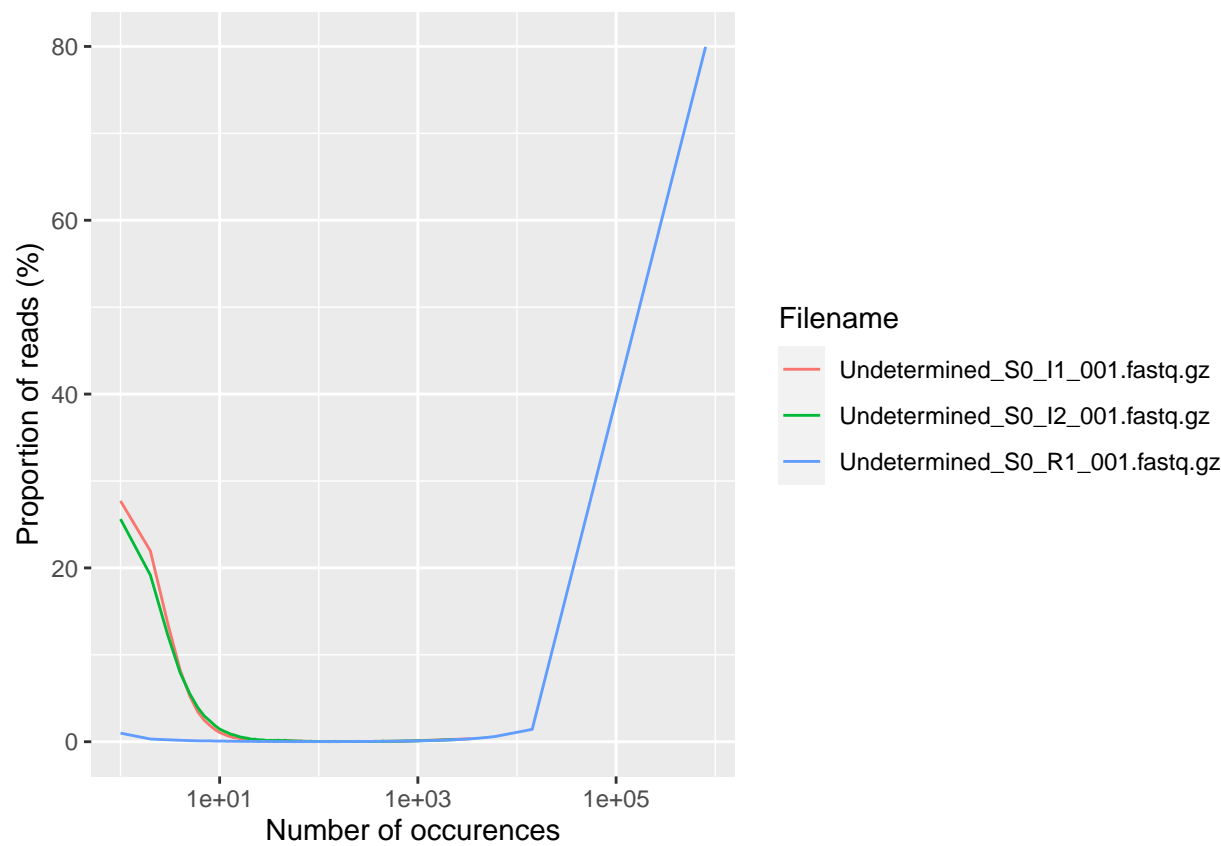
Sequence quality per base/cycle



Base calls per cycle



Read frequency plot



# COVID Positive Samples

pm_384	row_384	col_384	Plate_ID	Sample_Well	S2_spike	S2	RPP30	s2_vs_spike	classification	Col	Row
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## Inconclusive Samples (retest)

pm_384	row_384	col_384	Plate_ID	Sample_Well	S2_spike	S2	RPP30	classification	Col	Row
1	7	21	Plate1	D11	0	0	1	failed: low S2 & RPP30	11	D
1	9	3	Plate1	E02	0	0	1	failed: low S2 & RPP30	02	E
1	11	5	Plate1	F03	0	0	0	failed: low S2 & RPP30	03	F
1	15	11	Plate1	H06	0	0	1	failed: low S2 & RPP30	06	H
1	3	10	Plate2	B05	0	0	1	failed: low S2 & RPP30	05	B
1	13	14	Plate2	G07	0	0	1	failed: low S2 & RPP30	07	G
1	15	20	Plate2	H10	0	0	1	failed: low S2 & RPP30	10	H
1	4	13	Plate3	B07	0	0	1	failed: low S2 & RPP30	07	B
1	12	5	Plate3	F03	0	0	1	failed: low S2 & RPP30	03	F
1	12	9	Plate3	F05	0	0	1	failed: low S2 & RPP30	05	F
1	14	7	Plate3	G04	0	0	1	failed: low S2 & RPP30	04	G
1	4	4	Plate4	B02	0	0	1	failed: low S2 & RPP30	02	B
1	4	16	Plate4	B08	0	0	1	failed: low S2 & RPP30	08	B
1	12	20	Plate4	F10	0	0	1	failed: low S2 & RPP30	10	F
2	1	1	Plate5	A01	57	5	1401	failed: low S2	01	A
2	1	3	Plate5	A02	35	0	1151	failed: low S2	02	A
2	1	5	Plate5	A03	31	0	1135	failed: low S2	03	A
2	1	7	Plate5	A04	48	0	1011	failed: low S2	04	A
2	1	9	Plate5	A05	51	0	1705	failed: low S2	05	A
2	1	11	Plate5	A06	61	0	1179	failed: low S2	06	A
2	1	13	Plate5	A07	49	0	281	failed: low S2	07	A
2	1	15	Plate5	A08	17	0	879	failed: low S2	08	A
2	1	17	Plate5	A09	24	0	812	failed: low S2	09	A
2	1	19	Plate5	A10	26	0	989	failed: low S2	10	A
2	1	21	Plate5	A11	31	0	354	failed: low S2	11	A
2	1	23	Plate5	A12	72	0	1152	failed: low S2	12	A
2	3	1	Plate5	B01	28	0	1752	failed: low S2	01	B
2	3	3	Plate5	B02	22	0	1403	failed: low S2	02	B
2	3	5	Plate5	B03	16	0	908	failed: low S2	03	B
2	3	7	Plate5	B04	73	0	3702	failed: low S2	04	B
2	3	9	Plate5	B05	41	0	791	failed: low S2	05	B
2	3	11	Plate5	B06	14	0	450	failed: low S2	06	B
2	3	13	Plate5	B07	13	0	876	failed: low S2	07	B
2	3	15	Plate5	B08	17	0	795	failed: low S2	08	B
2	3	17	Plate5	B09	64	5	4996	failed: low S2	09	B
2	3	19	Plate5	B10	31	0	1726	failed: low S2	10	B
2	3	21	Plate5	B11	5	0	801	failed: low S2	11	B
2	3	23	Plate5	B12	59	0	1348	failed: low S2	12	B
2	5	1	Plate5	C01	55	0	1115	failed: low S2	01	C
2	5	3	Plate5	C02	48	0	893	failed: low S2	02	C
2	5	5	Plate5	C03	8	51	592	failed: low S2	03	C
2	5	7	Plate5	C04	24	2	1353	failed: low S2	04	C
2	5	9	Plate5	C05	72	0	6	failed: low S2 & RPP30	05	C
2	5	11	Plate5	C06	11	0	423	failed: low S2	06	C
2	5	13	Plate5	C07	0	0	482	failed: low S2	07	C
2	5	15	Plate5	C08	3	0	545	failed: low S2	08	C
2	5	17	Plate5	C09	0	0	1104	failed: low S2	09	C
2	5	19	Plate5	C10	31	0	1086	failed: low S2	10	C
2	5	21	Plate5	C11	29	0	1098	failed: low S2	11	C
2	5	23	Plate5	C12	62	0	1474	failed: low S2	12	C
2	7	1	Plate5	D01	32	0	470	failed: low S2	01	D
2	7	3	Plate5	D02	29	0	1017	failed: low S2	02	D
2	7	5	Plate5	D03	75	0	1365	failed: low S2	03	D
2	7	7	Plate5	D04	25	0	2087	failed: low S2	04	D
2	7	9	Plate5	D05	15	0	22202	failed: low S2	05	D
2	7	11	Plate5	D06	45	0	6781	failed: low S2	06	D
2	7	13	Plate5	D07	54	0	1949	failed: low S2	07	D
2	7	15	Plate5	D08	41	0	1652	failed: low S2	08	D
2	7	17	Plate5	D09	14	5	501	failed: low S2	09	D
2	7	19	Plate5	D10	28	0	2551	failed: low S2	10	D
2	7	21	Plate5	D11	32	0	16007	failed: low S2	11	D
2	7	23	Plate5	D12	32	0	1248	failed: low S2	12	D
2	9	1	Plate5	E01	43	0	1804	failed: low S2	01	E
2	9	3	Plate5	E02	29	0	1110	failed: low S2	02	E
2	9	5	Plate5	E03	28	0	746	failed: low S2	03	E
2	9	7	Plate5	E04	31	0	1042	failed: low S2	04	E
2	9	9	Plate5	E05	104	1	1184	failed: low S2	05	E
2	9	11	Plate5	E06	24	118	1029	failed: low S2	06	E
2	9	13	Plate5	E07	22	0	1090	failed: low S2	07	E
2	9	15	Plate5	E08	20	0	964	failed: low S2	08	E
2	9	17	Plate5	E09	37	0	981	failed: low S2	09	E
2	9	19	Plate5	E10	28	0	1968	failed: low S2	10	E
2	9	21	Plate5	E11	73	0	835	failed: low S2	11	E
2	9	23	Plate5	E12	36	0	1894	failed: low S2	12	E
2	11	1	Plate5	F01	41	0	1289	failed: low S2	01	F
2	11	3	Plate5	F02	19	0	4603	failed: low S2	02	F
2	11	5	Plate5	F03	53	0	701	failed: low S2	03	F
2	11	7	Plate5	F04	58	0	8736	failed: low S2	04	F
2	11	9	Plate5	F05	8	0	902	failed: low S2	05	F
2	11	11	Plate5	F06	36	3	1035	failed: low S2	06	F
2	11	13	Plate5	F07	16	0	1559	failed: low S2	07	F
2	11	15	Plate5	F08	25	0	1291	failed: low S2	08	F
2	11	17	Plate5	F09	32	0	960	failed: low S2	09	F
2	11	19	Plate5	F10	18	0	783	failed: low S2	10	F
2	11	21	Plate5	F11	33	0	1475	failed: low S2	11	F
2	11	23	Plate5	F12	24	2	1103	failed: low S2	12	F
2	13	1	Plate5	G01	28	0	727	failed: low S2	01	G
2	13	3	Plate5	G02	48	0	1122	failed: low S2	02	G

pm_384	row_384	col_384	Plate_ID	Sample_Well	S2_spike	S2	RPP30	classification	Col	Row
2	13	5	Plate5	G03	17	0	1118	failed: low S2	03	G
2	13	7	Plate5	G04	28	0	972	failed: low S2	04	G
2	13	9	Plate5	G05	33	0	1157	failed: low S2	05	G
2	13	11	Plate5	G06	46	0	1152	failed: low S2	06	G
2	13	13	Plate5	G07	26	0	978	failed: low S2	07	G
2	13	15	Plate5	G08	18	0	1088	failed: low S2	08	G
2	13	17	Plate5	G09	13	0	587	failed: low S2	09	G
2	13	19	Plate5	G10	20	105	932	failed: low S2	10	G
2	13	21	Plate5	G11	30	0	569	failed: low S2	11	G
2	13	23	Plate5	G12	9	0	495	failed: low S2	12	G
2	15	1	Plate5	H01	39	0	465	failed: low S2	01	H
2	15	3	Plate5	H02	60	0	2729	failed: low S2	02	H
2	15	5	Plate5	H03	3	0	482	failed: low S2	03	H
2	15	7	Plate5	H04	25	0	1385	failed: low S2	04	H
2	15	9	Plate5	H05	21	0	1359	failed: low S2	05	H
2	15	11	Plate5	H06	34	0	1435	failed: low S2	06	H
2	15	13	Plate5	H07	51	0	1254	failed: low S2	07	H
2	15	15	Plate5	H08	24	0	683	failed: low S2	08	H
2	15	17	Plate5	H09	32	0	1321	failed: low S2	09	H
2	15	19	Plate5	H10	31	0	2956	failed: low S2	10	H
2	15	21	Plate5	H11	18	0	1024	failed: low S2	11	H
2	15	23	Plate5	H12	31	0	955	failed: low S2	12	H
2	1	2	Plate6	A01	28	0	1066	failed: low S2	01	A
2	1	4	Plate6	A02	45	0	845	failed: low S2	02	A
2	1	6	Plate6	A03	73	0	1521	failed: low S2	03	A
2	1	8	Plate6	A04	21	1	42	failed: low S2	04	A
2	1	10	Plate6	A05	37	0	516	failed: low S2	05	A
2	1	12	Plate6	A06	35	0	1327	failed: low S2	06	A
2	1	14	Plate6	A07	99	0	3172	failed: low S2	07	A
2	1	16	Plate6	A08	35	2	928	failed: low S2	08	A
2	1	18	Plate6	A09	15	0	390	failed: low S2	09	A
2	1	20	Plate6	A10	30	2	699	failed: low S2	10	A
2	1	22	Plate6	A11	24	0	9312	failed: low S2	11	A
2	1	24	Plate6	A12	24	0	670	failed: low S2	12	A
2	3	2	Plate6	B01	19	0	667	failed: low S2	01	B
2	3	4	Plate6	B02	61	1	1096	failed: low S2	02	B
2	3	6	Plate6	B03	32	0	1275	failed: low S2	03	B
2	3	8	Plate6	B04	31	0	1043	failed: low S2	04	B
2	3	10	Plate6	B05	39	0	920	failed: low S2	05	B
2	3	12	Plate6	B06	39	2	77	failed: low S2	06	B
2	3	14	Plate6	B07	39	0	819	failed: low S2	07	B
2	3	16	Plate6	B08	21	0	1260	failed: low S2	08	B
2	3	18	Plate6	B09	36	2	1223	failed: low S2	09	B
2	3	20	Plate6	B10	23	0	1584	failed: low S2	10	B
2	3	22	Plate6	B11	102	0	1592	failed: low S2	11	B
2	3	24	Plate6	B12	74	0	1042	failed: low S2	12	B
2	5	2	Plate6	C01	55	0	1570	failed: low S2	01	C
2	5	4	Plate6	C02	42	0	1793	failed: low S2	02	C
2	5	6	Plate6	C03	63	98	1067	failed: low S2	03	C
2	5	8	Plate6	C04	17	0	1300	failed: low S2	04	C
2	5	10	Plate6	C05	31	0	958	failed: low S2	05	C
2	5	12	Plate6	C06	14	0	393	failed: low S2	06	C
2	5	14	Plate6	C07	39	0	569	failed: low S2	07	C
2	5	16	Plate6	C08	52	0	397	failed: low S2	08	C
2	5	18	Plate6	C09	47	0	1361	failed: low S2	09	C
2	5	20	Plate6	C10	26	0	1304	failed: low S2	10	C
2	5	22	Plate6	C11	45	0	1288	failed: low S2	11	C
2	5	24	Plate6	C12	38	0	1319	failed: low S2	12	C
2	7	2	Plate6	D01	10	0	548	failed: low S2	01	D
2	7	4	Plate6	D02	29	3	1112	failed: low S2	02	D
2	7	6	Plate6	D03	88	0	1470	failed: low S2	03	D
2	7	8	Plate6	D04	28	0	1170	failed: low S2	04	D
2	7	10	Plate6	D05	42	0	2687	failed: low S2	05	D
2	7	12	Plate6	D06	71	0	1009	failed: low S2	06	D
2	7	14	Plate6	D07	61	0	1301	failed: low S2	07	D
2	7	16	Plate6	D08	26	0	845	failed: low S2	08	D
2	7	18	Plate6	D09	15	0	432	failed: low S2	09	D
2	7	20	Plate6	D10	42	0	1032	failed: low S2	10	D
2	7	22	Plate6	D11	111	0	135	failed: low S2	11	D
2	7	24	Plate6	D12	50	1	1834	failed: low S2	12	D
2	9	2	Plate6	E01	45	1	1200	failed: low S2	01	E
2	9	4	Plate6	E02	28	5	933	failed: low S2	02	E
2	9	6	Plate6	E03	21	0	1000	failed: low S2	03	E
2	9	8	Plate6	E04	15	0	752	failed: low S2	04	E
2	9	10	Plate6	E05	29	0	886	failed: low S2	05	E
2	9	12	Plate6	E06	25	63	34	failed: low S2	06	E
2	9	14	Plate6	E07	50	0	1753	failed: low S2	07	E
2	9	16	Plate6	E08	17	0	550	failed: low S2	08	E
2	9	18	Plate6	E09	61	1	1682	failed: low S2	09	E
2	9	20	Plate6	E10	19	0	402	failed: low S2	10	E
2	9	22	Plate6	E11	41	0	1223	failed: low S2	11	E
2	9	24	Plate6	E12	9	0	1749	failed: low S2	12	E
2	11	2	Plate6	F01	36	0	2078	failed: low S2	01	F
2	11	4	Plate6	F02	9	0	684	failed: low S2	02	F
2	11	6	Plate6	F03	24	0	889	failed: low S2	03	F
2	11	8	Plate6	F04	34	0	741	failed: low S2	04	F
2	11	10	Plate6	F05	13	2	856	failed: low S2	05	F
2	11	12	Plate6	F06	31	0	467	failed: low S2	06	F
2	11	14	Plate6	F07	27	0	1118	failed: low S2	07	F
2	11	16	Plate6	F08	33	0	1082	failed: low S2	08	F
2	11	18	Plate6	F09	68	0	1673	failed: low S2	09	F
2	11	20	Plate6	F10	25	0	1140	failed: low S2	10	F
2	11	22	Plate6	F11	31	3	1024	failed: low S2	11	F
2	11	24	Plate6	F12	36	2	1214	failed: low S2	12	F
2	13	2	Plate6	G01	35	0	1046	failed: low S2	01	G
2	13	4	Plate6	G02	19	0	1274	failed: low S2	02	G
2	13	6	Plate6	G03	19	0	1879	failed: low S2	03	G
2	13	8	Plate6	G04	115	0	9391	failed: low S2	04	G
2	13	10	Plate6	G05	67	0	1227	failed: low S2	05	G
2	13	12	Plate6	G06	30	2	1105	failed: low S2	06	G
2	13	14	Plate6	G07	49	0	1015	failed: low S2	07	G
2	13	16	Plate6	G08	26	0	1101	failed: low S2	08	G
2	13	18	Plate6	G09	40	0	1331	failed: low S2	09	G
2	13	20	Plate6	G10	62	175	1289	failed: low S2	10	G
2	13	22	Plate6	G11	21	0	1128	failed: low S2	11	G
2	13	24	Plate6	G12	25	4	1078	failed: low S2	12	G

pm_384	row_384	col_384	Plate_ID	Sample_Well	S2_spike	S2	RPP30	classification	Col	Row
2	15	2	Plate6	H01	38	0	1080	failed: low S2	01	H
2	15	4	Plate6	H02	38	0	864	failed: low S2	02	H
2	15	6	Plate6	H03	44	0	1384	failed: low S2	03	H
2	15	8	Plate6	H04	35	0	721	failed: low S2	04	H
2	15	10	Plate6	H05	25	0	982	failed: low S2	05	H
2	15	12	Plate6	H06	29	0	907	failed: low S2	06	H
2	15	14	Plate6	H07	68	0	1254	failed: low S2	07	H
2	15	16	Plate6	H08	33	0	826	failed: low S2	08	H
2	15	18	Plate6	H09	13	0	848	failed: low S2	09	H
2	15	20	Plate6	H10	34	0	2287	failed: low S2	10	H
2	15	22	Plate6	H11	23	0	952	failed: low S2	11	H
2	15	24	Plate6	H12	22	0	1061	failed: low S2	12	H
2	2	1	Plate7	A01	26	0	148	failed: low S2	01	A
2	2	3	Plate7	A02	22	4	2438	failed: low S2	02	A
2	2	5	Plate7	A03	53	0	494	failed: low S2	03	A
2	2	7	Plate7	A04	26	0	1648	failed: low S2	04	A
2	2	9	Plate7	A05	36	0	1044	failed: low S2	05	A
2	2	11	Plate7	A06	35	0	848	failed: low S2	06	A
2	2	13	Plate7	A07	29	0	736	failed: low S2	07	A
2	2	15	Plate7	A08	36	0	1075	failed: low S2	08	A
2	2	17	Plate7	A09	42	0	787	failed: low S2	09	A
2	2	19	Plate7	A10	32	0	998	failed: low S2	10	A
2	2	21	Plate7	A11	24	0	1267	failed: low S2	11	A
2	2	23	Plate7	A12	41	0	111	failed: low S2	12	A
2	4	1	Plate7	B01	11	1	1154	failed: low S2	01	B
2	4	3	Plate7	B02	13	0	748	failed: low S2	02	B
2	4	5	Plate7	B03	23	0	1040	failed: low S2	03	B
2	4	7	Plate7	B04	84	0	1265	failed: low S2	04	B
2	4	9	Plate7	B05	40	0	1401	failed: low S2	05	B
2	4	11	Plate7	B06	46	0	849	failed: low S2	06	B
2	4	13	Plate7	B07	30	0	929	failed: low S2	07	B
2	4	15	Plate7	B08	50	0	837	failed: low S2	08	B
2	4	17	Plate7	B09	25	0	941	failed: low S2	09	B
2	4	19	Plate7	B10	25	0	863	failed: low S2	10	B
2	4	21	Plate7	B11	28	0	518	failed: low S2	11	B
2	4	23	Plate7	B12	12	0	835	failed: low S2	12	B
2	6	1	Plate7	C01	38	0	701	failed: low S2	01	C
2	6	3	Plate7	C02	46	0	1391	failed: low S2	02	C
2	6	5	Plate7	C03	36	45	827	failed: low S2	03	C
2	6	7	Plate7	C04	65	0	1093	failed: low S2	04	C
2	6	9	Plate7	C05	85	0	751	failed: low S2	05	C
2	6	11	Plate7	C06	60	0	727	failed: low S2	06	C
2	6	13	Plate7	C07	21	0	1165	failed: low S2	07	C
2	6	15	Plate7	C08	34	0	615	failed: low S2	08	C
2	6	17	Plate7	C09	14	0	336	failed: low S2	09	C
2	6	19	Plate7	C10	55	0	954	failed: low S2	10	C
2	6	21	Plate7	C11	37	0	724	failed: low S2	11	C
2	6	23	Plate7	C12	19	0	715	failed: low S2	12	C
2	8	1	Plate7	D01	37	0	1153	failed: low S2	01	D
2	8	3	Plate7	D02	16	2	687	failed: low S2	02	D
2	8	5	Plate7	D03	59	1	1006	failed: low S2	03	D
2	8	7	Plate7	D04	40	2	1364	failed: low S2	04	D
2	8	9	Plate7	D05	24	0	635	failed: low S2	05	D
2	8	11	Plate7	D06	33	0	390	failed: low S2	06	D
2	8	13	Plate7	D07	52	4	1282	failed: low S2	07	D
2	8	15	Plate7	D08	33	0	1744	failed: low S2	08	D
2	8	17	Plate7	D09	50	0	618	failed: low S2	09	D
2	8	19	Plate7	D10	15	0	470	failed: low S2	10	D
2	8	21	Plate7	D11	29	0	734	failed: low S2	11	D
2	8	23	Plate7	D12	27	0	925	failed: low S2	12	D
2	10	1	Plate7	E01	42	0	869	failed: low S2	01	E
2	10	3	Plate7	E02	18	0	1074	failed: low S2	02	E
2	10	5	Plate7	E03	35	0	972	failed: low S2	03	E
2	10	7	Plate7	E04	16	0	692	failed: low S2	04	E
2	10	9	Plate7	E05	204	0	11375	failed: low S2	05	E
2	10	11	Plate7	E06	20	57	645	failed: low S2	06	E
2	10	13	Plate7	E07	24	0	2923	failed: low S2	07	E
2	10	15	Plate7	E08	47	0	1063	failed: low S2	08	E
2	10	17	Plate7	E09	31	0	1449	failed: low S2	09	E
2	10	19	Plate7	E10	20	0	911	failed: low S2	10	E
2	10	21	Plate7	E11	25	1	826	failed: low S2	11	E
2	10	23	Plate7	E12	48	0	231	failed: low S2	12	E
2	12	1	Plate7	F01	42	0	1135	failed: low S2	01	F
2	12	3	Plate7	F02	24	0	1039	failed: low S2	02	F
2	12	5	Plate7	F03	42	0	869	failed: low S2	03	F
2	12	7	Plate7	F04	35	0	1091	failed: low S2	04	F
2	12	9	Plate7	F05	54	0	1034	failed: low S2	05	F
2	12	11	Plate7	F06	15	0	444	failed: low S2	06	F
2	12	13	Plate7	F07	19	0	950	failed: low S2	07	F
2	12	15	Plate7	F08	33	0	866	failed: low S2	08	F
2	12	17	Plate7	F09	16	0	541	failed: low S2	09	F
2	12	19	Plate7	F10	16	0	433	failed: low S2	10	F
2	12	21	Plate7	F11	8	0	350	failed: low S2	11	F
2	12	23	Plate7	F12	38	0	907	failed: low S2	12	F
2	14	1	Plate7	G01	17	0	718	failed: low S2	01	G
2	14	3	Plate7	G02	21	0	551	failed: low S2	02	G
2	14	5	Plate7	G03	26	0	1312	failed: low S2	03	G
2	14	7	Plate7	G04	45	0	2201	failed: low S2	04	G
2	14	9	Plate7	G05	49	0	1703	failed: low S2	05	G
2	14	11	Plate7	G06	41	1	1008	failed: low S2	06	G
2	14	13	Plate7	G07	21	0	1233	failed: low S2	07	G
2	14	15	Plate7	G08	43	0	939	failed: low S2	08	G
2	14	17	Plate7	G09	25	0	1136	failed: low S2	09	G
2	14	19	Plate7	G10	32	102	946	failed: low S2	10	G
2	14	21	Plate7	G11	10	0	321	failed: low S2	11	G
2	14	23	Plate7	G12	31	0	861	failed: low S2	12	G
2	16	1	Plate7	H01	45	3	685	failed: low S2	01	H
2	16	3	Plate7	H02	79	0	360	failed: low S2	02	H
2	16	5	Plate7	H03	31	0	1641	failed: low S2	03	H
2	16	7	Plate7	H04	43	0	1259	failed: low S2	04	H
2	16	9	Plate7	H05	50	0	1242	failed: low S2	05	H
2	16	11	Plate7	H06	75	0	967	failed: low S2	06	H
2	16	13	Plate7	H07	7	0	636	failed: low S2	07	H
2	16	15	Plate7	H08	36	0	913	failed: low S2	08	H
2	16	17	Plate7	H09	29	0	2029	failed: low S2	09	H
2	16	19	Plate7	H10	21	0	678	failed: low S2	10	H



pm_384	row_384	col_384	Plate_ID	Sample_Well	S2_spike	S2	RPP30	classification	Col	Row
2	16	21	Plate7	H11	14	0	892	failed: low S2	11	H
2	16	23	Plate7	H12	43	0	467	failed: low S2	12	H
2	2	2	Plate8	A01	42	0	9	failed: low S2 & RPP30	01	A
2	2	4	Plate8	A02	36	0	666	failed: low S2	02	A
2	2	6	Plate8	A03	11	1	525	failed: low S2	03	A
2	2	8	Plate8	A04	28	0	41	failed: low S2	04	A
2	2	10	Plate8	A05	4	0	461	failed: low S2	05	A
2	2	12	Plate8	A06	24	0	766	failed: low S2	06	A
2	2	14	Plate8	A07	29	0	1076	failed: low S2	07	A
2	2	16	Plate8	A08	13	0	813	failed: low S2	08	A
2	2	18	Plate8	A09	56	0	968	failed: low S2	09	A
2	2	20	Plate8	A10	15	0	849	failed: low S2	10	A
2	2	22	Plate8	A11	32	3	431	failed: low S2	11	A
2	2	24	Plate8	A12	71	0	1373	failed: low S2	12	A
2	4	2	Plate8	B01	59	0	697	failed: low S2	01	B
2	4	4	Plate8	B02	59	0	1336	failed: low S2	02	B
2	4	20	Plate8	B10	0	0	1	failed: low S2 & RPP30	10	B
2	4	22	Plate8	B11	36	0	1016	failed: low S2	11	B
2	4	24	Plate8	B12	44	0	1206	failed: low S2	12	B
2	6	2	Plate8	C01	16	0	1088	failed: low S2	01	C
2	6	4	Plate8	C02	37	0	928	failed: low S2	02	C
2	6	6	Plate8	C03	24	69	668	failed: low S2	03	C
2	6	16	Plate8	C08	0	0	1	failed: low S2 & RPP30	08	C
2	6	22	Plate8	C11	34	0	1061	failed: low S2	11	C
2	6	24	Plate8	C12	47	0	664	failed: low S2	12	C
2	8	2	Plate8	D01	25	0	768	failed: low S2	01	D
2	8	4	Plate8	D02	30	0	1124	failed: low S2	02	D
2	8	6	Plate8	D03	20	0	818	failed: low S2	03	D
2	8	18	Plate8	D09	0	0	2	failed: low S2 & RPP30	09	D
2	8	20	Plate8	D10	36	0	1438	failed: low S2	10	D
2	8	22	Plate8	D11	48	0	793	failed: low S2	11	D
2	8	24	Plate8	D12	39	0	15101	failed: low S2	12	D
2	10	2	Plate8	E01	17	0	615	failed: low S2	01	E
2	10	4	Plate8	E02	68	0	1190	failed: low S2	02	E
2	10	6	Plate8	E03	13	0	424	failed: low S2	03	E
2	10	8	Plate8	E04	56	0	888	failed: low S2	04	E
2	10	10	Plate8	E05	18	0	947	failed: low S2	05	E
2	10	12	Plate8	E06	20	126	923	failed: low S2	06	E
2	10	14	Plate8	E07	30	0	1607	failed: low S2	07	E
2	10	16	Plate8	E08	19	0	1056	failed: low S2	08	E
2	10	18	Plate8	E09	28	0	608	failed: low S2	09	E
2	10	20	Plate8	E10	41	0	169	failed: low S2	10	E
2	10	22	Plate8	E11	35	0	1902	failed: low S2	11	E
2	10	24	Plate8	E12	26	0	1240	failed: low S2	12	E
2	12	2	Plate8	F01	17	0	915	failed: low S2	01	F
2	12	4	Plate8	F02	79	3	1216	failed: low S2	02	F
2	12	6	Plate8	F03	37	0	744	failed: low S2	03	F
2	12	8	Plate8	F04	12	0	526	failed: low S2	04	F
2	12	10	Plate8	F05	23	0	515	failed: low S2	05	F
2	12	12	Plate8	F06	50	0	906	failed: low S2	06	F
2	12	14	Plate8	F07	47	0	1489	failed: low S2	07	F
2	12	16	Plate8	F08	55	0	1343	failed: low S2	08	F
2	12	18	Plate8	F09	30	0	529	failed: low S2	09	F
2	12	20	Plate8	F10	27	0	0	failed: low S2 & RPP30	10	F
2	12	22	Plate8	F11	9	0	667	failed: low S2	11	F
2	12	24	Plate8	F12	14	0	975	failed: low S2	12	F
2	14	2	Plate8	G01	22	0	505	failed: low S2	01	G
2	14	4	Plate8	G02	34	0	1118	failed: low S2	02	G
2	14	6	Plate8	G03	35	0	715	failed: low S2	03	G
2	14	8	Plate8	G04	50	0	1134	failed: low S2	04	G
2	14	10	Plate8	G05	12	0	613	failed: low S2	05	G
2	14	12	Plate8	G06	14	0	895	failed: low S2	06	G
2	14	14	Plate8	G07	4	0	1146	failed: low S2	07	G
2	14	16	Plate8	G08	47	0	17	failed: low S2	08	G
2	14	18	Plate8	G09	28	0	4019	failed: low S2	09	G
2	14	20	Plate8	G10	20	45	694	failed: low S2	10	G
2	14	22	Plate8	G11	27	0	544	failed: low S2	11	G
2	14	24	Plate8	G12	82	0	4291	failed: low S2	12	G
2	16	2	Plate8	H01	22	2	775	failed: low S2	01	H
2	16	4	Plate8	H02	24	0	282	failed: low S2	02	H
2	16	6	Plate8	H03	44	0	1190	failed: low S2	03	H
2	16	8	Plate8	H04	46	0	855	failed: low S2	04	H
2	16	10	Plate8	H05	24	0	349	failed: low S2	05	H
2	16	12	Plate8	H06	93	0	918	failed: low S2	06	H
2	16	14	Plate8	H07	22	0	547	failed: low S2	07	H
2	16	16	Plate8	H08	18	0	6209	failed: low S2	08	H
2	16	18	Plate8	H09	29	0	576	failed: low S2	09	H
2	16	20	Plate8	H10	14	0	623	failed: low S2	10	H
2	16	22	Plate8	H11	12	0	13557	failed: low S2	11	H
2	16	24	Plate8	H12	41	0	581	failed: low S2	12	H
3	1	1	Plate9	A01	27	1	438	failed: low S2	01	A
3	1	3	Plate9	A02	3	0	522	failed: low S2	02	A
3	1	5	Plate9	A03	35	0	645	failed: low S2	03	A
3	1	7	Plate9	A04	48	1	609	failed: low S2	04	A
3	1	9	Plate9	A05	18	0	633	failed: low S2	05	A
3	1	11	Plate9	A06	17	0	587	failed: low S2	06	A
3	1	13	Plate9	A07	32	0	1694	failed: low S2	07	A
3	1	15	Plate9	A08	13	4	638	failed: low S2	08	A
3	1	17	Plate9	A09	6	0	743	failed: low S2	09	A
3	1	19	Plate9	A10	31	0	390	failed: low S2	10	A
3	1	21	Plate9	A11	13	0	838	failed: low S2	11	A
3	1	23	Plate9	A12	25	0	1353	failed: low S2	12	A
3	3	1	Plate9	B01	32	0	493	failed: low S2	01	B
3	3	3	Plate9	B02	10	0	753	failed: low S2	02	B
3	3	5	Plate9	B03	6	0	626	failed: low S2	03	B
3	3	7	Plate9	B04	23	0	453	failed: low S2	04	B
3	3	9	Plate9	B05	23	0	1019	failed: low S2	05	B
3	3	11	Plate9	B06	27	0	652	failed: low S2	06	B
3	3	13	Plate9	B07	40	0	1057	failed: low S2	07	B
3	3	15	Plate9	B08	25	0	1277	failed: low S2	08	B
3	3	17	Plate9	B09	15	2	500	failed: low S2	09	B
3	3	19	Plate9	B10	15	0	842	failed: low S2	10	B
3	3	21	Plate9	B11	14	1	656	failed: low S2	11	B
3	3	23	Plate9	B12	34	0	979	failed: low S2	12	B
3	5	1	Plate9	C01	43	0	412	failed: low S2	01	C
3	5	3	Plate9	C02	59	2	1439	failed: low S2	02	C

pm_384	row_384	col_384	Plate_ID	Sample_Well	S2_spike	S2	RPP30	classification	Col	Row
3	5	5	Plate9	C03	28	43	871	failed: low S2	03	C
3	5	7	Plate9	C04	35	0	1359	failed: low S2	04	C
3	5	9	Plate9	C05	32	2	777	failed: low S2	05	C
3	5	11	Plate9	C06	24	0	407	failed: low S2	06	C
3	5	13	Plate9	C07	15	0	738	failed: low S2	07	C
3	5	15	Plate9	C08	23	0	1097	failed: low S2	08	C
3	5	17	Plate9	C09	24	0	633	failed: low S2	09	C
3	5	19	Plate9	C10	12	0	1446	failed: low S2	10	C
3	5	21	Plate9	C11	28	0	42	failed: low S2	11	C
3	5	23	Plate9	C12	13	0	956	failed: low S2	12	C
3	7	1	Plate9	D01	37	4	119	failed: low S2	01	D
3	7	3	Plate9	D02	51	0	1484	failed: low S2	02	D
3	7	5	Plate9	D03	13	0	1300	failed: low S2	03	D
3	7	7	Plate9	D04	39	0	830	failed: low S2	04	D
3	7	9	Plate9	D05	10	0	542	failed: low S2	05	D
3	7	11	Plate9	D06	13	0	342	failed: low S2	06	D
3	7	13	Plate9	D07	26	0	1158	failed: low S2	07	D
3	7	15	Plate9	D08	32	4	908	failed: low S2	08	D
3	7	17	Plate9	D09	38	0	929	failed: low S2	09	D
3	7	19	Plate9	D10	9	1	857	failed: low S2	10	D
3	7	21	Plate9	D11	23	0	818	failed: low S2	11	D
3	7	23	Plate9	D12	10	1	346	failed: low S2	12	D
3	9	1	Plate9	E01	44	2	853	failed: low S2	01	E
3	9	3	Plate9	E02	5	0	816	failed: low S2	02	E
3	9	5	Plate9	E03	10	0	784	failed: low S2	03	E
3	9	7	Plate9	E04	21	2	339	failed: low S2	04	E
3	9	9	Plate9	E05	18	0	1765	failed: low S2	05	E
3	9	11	Plate9	E06	35	116	491	failed: low S2	06	E
3	9	13	Plate9	E07	37	3	1116	failed: low S2	07	E
3	9	15	Plate9	E08	11	0	517	failed: low S2	08	E
3	9	17	Plate9	E09	42	0	1139	failed: low S2	09	E
3	9	19	Plate9	E10	16	2	1824	failed: low S2	10	E
3	9	21	Plate9	E11	19	0	677	failed: low S2	11	E
3	9	23	Plate9	E12	21	0	1134	failed: low S2	12	E
3	11	1	Plate9	F01	36	0	797	failed: low S2	01	F
3	11	3	Plate9	F02	39	0	2075	failed: low S2	02	F
3	11	5	Plate9	F03	18	0	1583	failed: low S2	03	F
3	11	7	Plate9	F04	25	0	982	failed: low S2	04	F
3	11	9	Plate9	F05	30	0	373	failed: low S2	05	F
3	11	11	Plate9	F06	28	0	1905	failed: low S2	06	F
3	11	13	Plate9	F07	24	0	1039	failed: low S2	07	F
3	11	15	Plate9	F08	32	0	2185	failed: low S2	08	F
3	11	17	Plate9	F09	40	0	1061	failed: low S2	09	F
3	11	19	Plate9	F10	34	0	14	failed: low S2	10	F
3	11	21	Plate9	F11	6	0	1082	failed: low S2	11	F
3	11	23	Plate9	F12	0	0	570	failed: low S2	12	F
3	13	1	Plate9	G01	23	0	870	failed: low S2	01	G
3	13	3	Plate9	G02	29	0	1501	failed: low S2	02	G
3	13	5	Plate9	G03	19	0	876	failed: low S2	03	G
3	13	7	Plate9	G04	26	0	1706	failed: low S2	04	G
3	13	9	Plate9	G05	33	0	1144	failed: low S2	05	G
3	13	11	Plate9	G06	21	0	1099	failed: low S2	06	G
3	13	13	Plate9	G07	19	2	944	failed: low S2	07	G
3	13	15	Plate9	G08	5	0	462	failed: low S2	08	G
3	13	17	Plate9	G09	5	0	603	failed: low S2	09	G
3	13	19	Plate9	G10	17	83	5015	failed: low S2	10	G
3	13	21	Plate9	G11	20	0	444	failed: low S2	11	G
3	13	23	Plate9	G12	17	0	1203	failed: low S2	12	G
3	15	1	Plate9	H01	19	0	1031	failed: low S2	01	H
3	15	3	Plate9	H02	34	0	1023	failed: low S2	02	H
3	15	5	Plate9	H03	15	0	1509	failed: low S2	03	H
3	15	7	Plate9	H04	22	0	939	failed: low S2	04	H
3	15	9	Plate9	H05	17	0	521	failed: low S2	05	H
3	15	11	Plate9	H06	38	0	727	failed: low S2	06	H
3	15	13	Plate9	H07	41	0	740	failed: low S2	07	H
3	15	15	Plate9	H08	23	0	1699	failed: low S2	08	H
3	15	17	Plate9	H09	12	0	1325	failed: low S2	09	H
3	15	19	Plate9	H10	21	0	869	failed: low S2	10	H
3	15	21	Plate9	H11	16	0	1148	failed: low S2	11	H
3	15	23	Plate9	H12	27	0	1211	failed: low S2	12	H
3	1	2	Plate10	A01	13	0	1580	failed: low S2	01	A
3	1	4	Plate10	A02	21	2	835	failed: low S2	02	A
3	1	6	Plate10	A03	35	3	779	failed: low S2	03	A
3	1	8	Plate10	A04	47	0	911	failed: low S2	04	A
3	1	10	Plate10	A05	17	0	900	failed: low S2	05	A
3	1	12	Plate10	A06	3	0	1009	failed: low S2	06	A
3	1	14	Plate10	A07	12	0	168	failed: low S2	07	A
3	1	16	Plate10	A08	16	0	868	failed: low S2	08	A
3	1	18	Plate10	A09	14	0	829	failed: low S2	09	A
3	1	20	Plate10	A10	47	0	1004	failed: low S2	10	A
3	1	22	Plate10	A11	36	0	583	failed: low S2	11	A
3	1	24	Plate10	A12	9	0	428	failed: low S2	12	A
3	3	2	Plate10	B01	33	0	186	failed: low S2	01	B
3	3	4	Plate10	B02	11	0	1106	failed: low S2	02	B
3	3	6	Plate10	B03	0	0	568	failed: low S2	03	B
3	3	8	Plate10	B04	3	0	438	failed: low S2	04	B
3	3	10	Plate10	B05	10	0	886	failed: low S2	05	B
3	3	12	Plate10	B06	18	0	817	failed: low S2	06	B
3	3	14	Plate10	B07	7	0	697	failed: low S2	07	B
3	3	16	Plate10	B08	9	0	583	failed: low S2	08	B
3	3	18	Plate10	B09	6	0	391	failed: low S2	09	B
3	3	20	Plate10	B10	52	0	673	failed: low S2	10	B
3	3	22	Plate10	B11	29	0	612	failed: low S2	11	B
3	3	24	Plate10	B12	27	0	845	failed: low S2	12	B
3	5	2	Plate10	C01	31	0	922	failed: low S2	01	C
3	5	4	Plate10	C02	25	0	964	failed: low S2	02	C
3	5	6	Plate10	C03	25	49	1425	failed: low S2	03	C
3	5	8	Plate10	C04	12	0	525	failed: low S2	04	C
3	5	10	Plate10	C05	50	0	1138	failed: low S2	05	C
3	5	12	Plate10	C06	26	0	771	failed: low S2	06	C
3	5	14	Plate10	C07	27	1	294	failed: low S2	07	C
3	5	16	Plate10	C08	28	3	765	failed: low S2	08	C
3	5	18	Plate10	C09	17	0	1359	failed: low S2	09	C
3	5	20	Plate10	C10	21	0	790	failed: low S2	10	C
3	5	22	Plate10	C11	17	0	770	failed: low S2	11	C
3	5	24	Plate10	C12	13	0	423	failed: low S2	12	C

pm_384	row_384	col_384	Plate_ID	Sample_Well	S2_spike	S2	RPP30	classification	Col	Row
3	7	2	Plate10	D01	3	0	747	failed: low S2	01	D
3	7	4	Plate10	D02	34	0	814	failed: low S2	02	D
3	7	6	Plate10	D03	44	0	674	failed: low S2	03	D
3	7	8	Plate10	D04	13	4	371	failed: low S2	04	D
3	7	10	Plate10	D05	44	0	801	failed: low S2	05	D
3	7	12	Plate10	D06	58	0	2012	failed: low S2	06	D
3	7	14	Plate10	D07	22	0	902	failed: low S2	07	D
3	7	16	Plate10	D08	9	0	777	failed: low S2	08	D
3	7	18	Plate10	D09	10	0	933	failed: low S2	09	D
3	7	20	Plate10	D10	20	0	504	failed: low S2	10	D
3	7	22	Plate10	D11	14	3	401	failed: low S2	11	D
3	7	24	Plate10	D12	66	0	162	failed: low S2	12	D
3	9	2	Plate10	E01	20	0	878	failed: low S2	01	E
3	9	4	Plate10	E02	76	0	4620	failed: low S2	02	E
3	9	6	Plate10	E03	16	0	992	failed: low S2	03	E
3	9	8	Plate10	E04	35	0	1229	failed: low S2	04	E
3	9	10	Plate10	E05	106	0	9030	failed: low S2	05	E
3	9	12	Plate10	E06	23	49	505	failed: low S2	06	E
3	9	14	Plate10	E07	12	0	802	failed: low S2	07	E
3	9	16	Plate10	E08	24	0	695	failed: low S2	08	E
3	9	18	Plate10	E09	32	0	774	failed: low S2	09	E
3	9	20	Plate10	E10	28	0	1514	failed: low S2	10	E
3	9	22	Plate10	E11	0	0	2124	failed: low S2	11	E
3	9	24	Plate10	E12	33	0	1237	failed: low S2	12	E
3	11	2	Plate10	F01	37	0	485	failed: low S2	01	F
3	11	4	Plate10	F02	6	0	664	failed: low S2	02	F
3	11	6	Plate10	F03	69	0	1277	failed: low S2	03	F
3	11	8	Plate10	F04	4	0	924	failed: low S2	04	F
3	11	10	Plate10	F05	24	2	458	failed: low S2	05	F
3	11	12	Plate10	F06	24	0	855	failed: low S2	06	F
3	11	14	Plate10	F07	51	1	9312	failed: low S2	07	F
3	11	16	Plate10	F08	17	1	2028	failed: low S2	08	F
3	11	18	Plate10	F09	18	0	788	failed: low S2	09	F
3	11	20	Plate10	F10	23	2	990	failed: low S2	10	F
3	11	22	Plate10	F11	8	0	355	failed: low S2	11	F
3	11	24	Plate10	F12	19	0	718	failed: low S2	12	F
3	13	2	Plate10	G01	56	0	5500	failed: low S2	01	G
3	13	4	Plate10	G02	19	0	646	failed: low S2	02	G
3	13	6	Plate10	G03	30	0	622	failed: low S2	03	G
3	13	8	Plate10	G04	29	0	962	failed: low S2	04	G
3	13	10	Plate10	G05	25	0	693	failed: low S2	05	G
3	13	12	Plate10	G06	0	0	991	failed: low S2	06	G
3	13	14	Plate10	G07	19	0	730	failed: low S2	07	G
3	13	16	Plate10	G08	25	0	793	failed: low S2	08	G
3	13	18	Plate10	G09	45	0	833	failed: low S2	09	G
3	13	20	Plate10	G10	21	72	625	failed: low S2	10	G
3	13	22	Plate10	G11	30	1	776	failed: low S2	11	G
3	13	24	Plate10	G12	1	0	821	failed: low S2	12	G
3	15	2	Plate10	H01	47	0	2149	failed: low S2	01	H
3	15	4	Plate10	H02	36	0	237	failed: low S2	02	H
3	15	6	Plate10	H03	22	0	999	failed: low S2	03	H
3	15	8	Plate10	H04	9	0	718	failed: low S2	04	H
3	15	10	Plate10	H05	26	2	1230	failed: low S2	05	H
3	15	12	Plate10	H06	27	1	1558	failed: low S2	06	H
3	15	14	Plate10	H07	20	0	645	failed: low S2	07	H
3	15	16	Plate10	H08	2	0	694	failed: low S2	08	H
3	15	18	Plate10	H09	19	0	753	failed: low S2	09	H
3	15	20	Plate10	H10	36	2	2095	failed: low S2	10	H
3	15	22	Plate10	H11	11	0	770	failed: low S2	11	H
3	15	24	Plate10	H12	41	0	838	failed: low S2	12	H
3	2	1	Plate11	A01	7	0	740	failed: low S2	01	A
3	2	3	Plate11	A02	68	0	2011	failed: low S2	02	A
3	2	5	Plate11	A03	50	0	976	failed: low S2	03	A
3	2	7	Plate11	A04	40	3	2354	failed: low S2	04	A
3	2	9	Plate11	A05	14	0	848	failed: low S2	05	A
3	2	11	Plate11	A06	25	3	730	failed: low S2	06	A
3	2	13	Plate11	A07	48	0	906	failed: low S2	07	A
3	2	15	Plate11	A08	5	0	692	failed: low S2	08	A
3	2	17	Plate11	A09	1	0	1423	failed: low S2	09	A
3	2	19	Plate11	A10	14	0	702	failed: low S2	10	A
3	2	21	Plate11	A11	14	0	782	failed: low S2	11	A
3	2	23	Plate11	A12	38	0	863	failed: low S2	12	A
3	4	1	Plate11	B01	10	0	721	failed: low S2	01	B
3	4	3	Plate11	B02	12	0	603	failed: low S2	02	B
3	4	5	Plate11	B03	43	3	3102	failed: low S2	03	B
3	4	7	Plate11	B04	23	0	368	failed: low S2	04	B
3	4	9	Plate11	B05	23	1	1481	failed: low S2	05	B
3	4	11	Plate11	B06	26	0	386	failed: low S2	06	B
3	4	13	Plate11	B07	21	2	355	failed: low S2	07	B
3	4	15	Plate11	B08	16	0	969	failed: low S2	08	B
3	4	17	Plate11	B09	18	0	581	failed: low S2	09	B
3	4	19	Plate11	B10	68	0	1775	failed: low S2	10	B
3	4	21	Plate11	B11	13	0	1044	failed: low S2	11	B
3	4	23	Plate11	B12	27	0	2416	failed: low S2	12	B
3	6	1	Plate11	C01	20	0	645	failed: low S2	01	C
3	6	3	Plate11	C02	30	0	1038	failed: low S2	02	C
3	6	5	Plate11	C03	19	33	589	failed: low S2	03	C
3	6	7	Plate11	C04	7	0	821	failed: low S2	04	C
3	6	9	Plate11	C05	48	0	1831	failed: low S2	05	C
3	6	11	Plate11	C06	32	0	696	failed: low S2	06	C
3	6	13	Plate11	C07	10	0	10	failed: low S2	07	C
3	6	15	Plate11	C08	10	0	1124	failed: low S2	08	C
3	6	17	Plate11	C09	21	0	1009	failed: low S2	09	C
3	6	19	Plate11	C10	13	0	5095	failed: low S2	10	C
3	6	21	Plate11	C11	18	0	890	failed: low S2	11	C
3	6	23	Plate11	C12	12	0	526	failed: low S2	12	C
3	8	1	Plate11	D01	11	0	691	failed: low S2	01	D
3	8	3	Plate11	D02	26	4	1857	failed: low S2	02	D
3	8	5	Plate11	D03	31	0	1924	failed: low S2	03	D
3	8	7	Plate11	D04	9	0	642	failed: low S2	04	D
3	8	9	Plate11	D05	9	0	670	failed: low S2	05	D
3	8	11	Plate11	D06	26	0	936	failed: low S2	06	D
3	8	13	Plate11	D07	31	0	1519	failed: low S2	07	D
3	8	15	Plate11	D08	19	0	665	failed: low S2	08	D
3	8	17	Plate11	D09	23	0	1434	failed: low S2	09	D
3	8	19	Plate11	D10	37	0	3388	failed: low S2	10	D

pm_384	row_384	col_384	Plate_ID	Sample_Well	S2_spike	S2	RPP30	classification	Col	Row
3	8	21	Plate11	D11	34	0	565	failed: low S2	11	D
3	8	23	Plate11	D12	4	0	557	failed: low S2	12	D
3	10	1	Plate11	E01	59	1	3497	failed: low S2	01	E
3	10	3	Plate11	E02	24	0	714	failed: low S2	02	E
3	10	5	Plate11	E03	29	0	3395	failed: low S2	03	E
3	10	7	Plate11	E04	28	0	1009	failed: low S2	04	E
3	10	9	Plate11	E05	23	0	898	failed: low S2	05	E
3	10	11	Plate11	E06	44	119	1052	failed: low S2	06	E
3	10	13	Plate11	E07	28	0	1116	failed: low S2	07	E
3	10	15	Plate11	E08	15	5	1801	failed: low S2	08	E
3	10	17	Plate11	E09	38	0	167	failed: low S2	09	E
3	10	19	Plate11	E10	2	0	15970	failed: low S2	10	E
3	10	21	Plate11	E11	48	0	1485	failed: low S2	11	E
3	10	23	Plate11	E12	36	0	987	failed: low S2	12	E
3	12	1	Plate11	F01	23	0	1357	failed: low S2	01	F
3	12	3	Plate11	F02	29	0	740	failed: low S2	02	F
3	12	5	Plate11	F03	9	0	21	failed: low S2	03	F
3	12	7	Plate11	F04	22	0	999	failed: low S2	04	F
3	12	9	Plate11	F05	1	0	1283	failed: low S2	05	F
3	12	11	Plate11	F06	12	0	1183	failed: low S2	06	F
3	12	13	Plate11	F07	27	0	448	failed: low S2	07	F
3	12	15	Plate11	F08	50	0	4002	failed: low S2	08	F
3	12	17	Plate11	F09	33	0	1800	failed: low S2	09	F
3	12	19	Plate11	F10	47	0	4115	failed: low S2	10	F
3	12	21	Plate11	F11	29	0	1714	failed: low S2	11	F
3	12	23	Plate11	F12	65	0	1259	failed: low S2	12	F
3	14	1	Plate11	G01	22	0	1327	failed: low S2	01	G
3	14	3	Plate11	G02	21	0	1401	failed: low S2	02	G
3	14	5	Plate11	G03	43	0	1333	failed: low S2	03	G
3	14	7	Plate11	G04	37	4	3259	failed: low S2	04	G
3	14	9	Plate11	G05	20	0	987	failed: low S2	05	G
3	14	11	Plate11	G06	31	0	785	failed: low S2	06	G
3	14	13	Plate11	G07	32	0	1098	failed: low S2	07	G
3	14	15	Plate11	G08	8	0	1142	failed: low S2	08	G
3	14	17	Plate11	G09	37	0	1183	failed: low S2	09	G
3	14	19	Plate11	G10	12	130	1065	failed: low S2	10	G
3	14	21	Plate11	G11	5	0	1091	failed: low S2	11	G
3	14	23	Plate11	G12	19	0	1057	failed: low S2	12	G
3	16	1	Plate11	H01	27	0	1164	failed: low S2	01	H
3	16	3	Plate11	H02	27	0	62	failed: low S2	02	H
3	16	5	Plate11	H03	29	0	1277	failed: low S2	03	H
3	16	7	Plate11	H04	6	0	1252	failed: low S2	04	H
3	16	9	Plate11	H05	41	0	6536	failed: low S2	05	H
3	16	11	Plate11	H06	26	0	853	failed: low S2	06	H
3	16	13	Plate11	H07	2	0	1065	failed: low S2	07	H
3	16	15	Plate11	H08	0	0	414	failed: low S2	08	H
3	16	17	Plate11	H09	19	0	734	failed: low S2	09	H
3	16	19	Plate11	H10	29	0	1015	failed: low S2	10	H
3	16	21	Plate11	H11	18	0	802	failed: low S2	11	H
3	16	23	Plate11	H12	25	0	1363	failed: low S2	12	H
3	2	2	Plate12	A01	25	0	771	failed: low S2	01	A
3	2	4	Plate12	A02	19	1	686	failed: low S2	02	A
3	2	6	Plate12	A03	7	0	567	failed: low S2	03	A
3	2	8	Plate12	A04	45	3	535	failed: low S2	04	A
3	2	10	Plate12	A05	14	0	687	failed: low S2	05	A
3	2	12	Plate12	A06	34	1	906	failed: low S2	06	A
3	2	14	Plate12	A07	5	1	1123	failed: low S2	07	A
3	2	16	Plate12	A08	24	0	597	failed: low S2	08	A
3	2	18	Plate12	A09	10	0	637	failed: low S2	09	A
3	2	20	Plate12	A10	37	0	1190	failed: low S2	10	A
3	2	22	Plate12	A11	36	0	961	failed: low S2	11	A
3	2	24	Plate12	A12	21	0	962	failed: low S2	12	A
3	4	2	Plate12	B01	23	0	287	failed: low S2	01	B
3	4	4	Plate12	B02	16	1	877	failed: low S2	02	B
3	4	6	Plate12	B03	15	0	541	failed: low S2	03	B
3	4	8	Plate12	B04	30	0	988	failed: low S2	04	B
3	4	10	Plate12	B05	40	4	1824	failed: low S2	05	B
3	4	12	Plate12	B06	10	0	644	failed: low S2	06	B
3	4	14	Plate12	B07	21	0	829	failed: low S2	07	B
3	4	16	Plate12	B08	14	0	4236	failed: low S2	08	B
3	4	18	Plate12	B09	64	0	1080	failed: low S2	09	B
3	4	20	Plate12	B10	20	0	878	failed: low S2	10	B
3	4	22	Plate12	B11	26	1	1302	failed: low S2	11	B
3	4	24	Plate12	B12	13	0	375	failed: low S2	12	B
3	6	2	Plate12	C01	0	0	1113	failed: low S2	01	C
3	6	4	Plate12	C02	17	0	656	failed: low S2	02	C
3	6	6	Plate12	C03	54	50	1295	failed: low S2	03	C
3	6	8	Plate12	C04	33	0	1194	failed: low S2	04	C
3	6	10	Plate12	C05	97	0	672	failed: low S2	05	C
3	6	12	Plate12	C06	19	1	821	failed: low S2	06	C
3	6	14	Plate12	C07	3	0	702	failed: low S2	07	C
3	6	18	Plate12	C09	14	0	1184	failed: low S2	09	C
3	6	20	Plate12	C10	10	0	916	failed: low S2	10	C
3	6	22	Plate12	C11	16	3	1422	failed: low S2	11	C
3	6	24	Plate12	C12	102	0	10553	failed: low S2	12	C
3	8	2	Plate12	D01	5	0	554	failed: low S2	01	D
3	8	4	Plate12	D02	32	0	2151	failed: low S2	02	D
3	8	6	Plate12	D03	24	3	616	failed: low S2	03	D
3	8	8	Plate12	D04	16	0	709	failed: low S2	04	D
3	8	10	Plate12	D05	24	0	697	failed: low S2	05	D
3	8	12	Plate12	D06	64	0	1746	failed: low S2	06	D
3	8	16	Plate12	D08	35	0	1055	failed: low S2	08	D
3	8	18	Plate12	D09	39	0	98	failed: low S2	09	D
3	8	20	Plate12	D10	2	0	833	failed: low S2	10	D
3	8	22	Plate12	D11	36	0	897	failed: low S2	11	D
3	8	24	Plate12	D12	16	0	942	failed: low S2	12	D
3	10	2	Plate12	E01	9	0	614	failed: low S2	01	E
3	10	4	Plate12	E02	10	1	1291	failed: low S2	02	E
3	10	6	Plate12	E03	27	0	915	failed: low S2	03	E
3	10	8	Plate12	E04	40	0	3722	failed: low S2	04	E
3	10	10	Plate12	E05	49	0	4959	failed: low S2	05	E
3	10	12	Plate12	E06	11	46	200	failed: low S2	06	E
3	10	14	Plate12	E07	17	0	1029	failed: low S2	07	E
3	10	16	Plate12	E08	38	0	1359	failed: low S2	08	E
3	10	18	Plate12	E09	85	0	3600	failed: low S2	09	E
3	10	20	Plate12	E10	34	0	1227	failed: low S2	10	E

pm_384	row_384	col_384	Plate_ID	Sample_Well	S2_spike	S2	RPP30	classification	Col	Row
3	10	22	Plate12	E11	40	0	1211	failed: low S2	11	E
3	10	24	Plate12	E12	42	0	673	failed: low S2	12	E
3	12	2	Plate12	F01	31	0	1695	failed: low S2	01	F
3	12	4	Plate12	F02	19	1	1025	failed: low S2	02	F
3	12	6	Plate12	F03	20	0	70	failed: low S2	03	F
3	12	8	Plate12	F04	64	0	2111	failed: low S2	04	F
3	12	10	Plate12	F05	1	1	249	failed: low S2	05	F
3	12	12	Plate12	F06	14	1	1375	failed: low S2	06	F
3	12	14	Plate12	F07	38	0	1298	failed: low S2	07	F
3	12	16	Plate12	F08	14	1	415	failed: low S2	08	F
3	12	18	Plate12	F09	4	0	863	failed: low S2	09	F
3	12	20	Plate12	F10	89	0	1460	failed: low S2	10	F
3	12	22	Plate12	F11	11	0	2630	failed: low S2	11	F
3	12	24	Plate12	F12	33	0	1147	failed: low S2	12	F
3	14	2	Plate12	G01	1	0	1448	failed: low S2	01	G
3	14	4	Plate12	G02	16	0	1077	failed: low S2	02	G
3	14	6	Plate12	G03	24	0	807	failed: low S2	03	G
3	14	8	Plate12	G04	48	0	1056	failed: low S2	04	G
3	14	10	Plate12	G05	50	0	1215	failed: low S2	05	G
3	14	12	Plate12	G06	28	0	804	failed: low S2	06	G
3	14	14	Plate12	G07	35	0	890	failed: low S2	07	G
3	14	16	Plate12	G08	30	0	881	failed: low S2	08	G
3	14	18	Plate12	G09	35	0	615	failed: low S2	09	G
3	14	20	Plate12	G10	50	103	1991	failed: low S2	10	G
3	14	22	Plate12	G11	14	0	963	failed: low S2	11	G
3	14	24	Plate12	G12	33	0	535	failed: low S2	12	G
3	16	2	Plate12	H01	25	0	843	failed: low S2	01	H
3	16	4	Plate12	H02	60	0	750	failed: low S2	02	H
3	16	6	Plate12	H03	63	0	4437	failed: low S2	03	H
3	16	8	Plate12	H04	20	0	962	failed: low S2	04	H
3	16	10	Plate12	H05	12	0	2462	failed: low S2	05	H
3	16	12	Plate12	H06	61	13	1194	failed: low S2	06	H
3	16	14	Plate12	H07	3	0	1196	failed: low S2	07	H
3	16	16	Plate12	H08	78	1	1732	failed: low S2	08	H
3	16	18	Plate12	H09	43	0	901	failed: low S2	09	H
3	16	20	Plate12	H10	9	0	15	failed: low S2	10	H
3	16	22	Plate12	H11	68	0	1165	failed: low S2	11	H
3	16	24	Plate12	H12	15	0	1046	failed: low S2	12	H
4	1	1	Plate13	A01	33	0	1108	failed: low S2	01	A
4	1	3	Plate13	A02	63	0	1224	failed: low S2	02	A
4	1	5	Plate13	A03	47	0	495	failed: low S2	03	A
4	1	7	Plate13	A04	39	0	1063	failed: low S2	04	A
4	1	9	Plate13	A05	57	3	1265	failed: low S2	05	A
4	1	11	Plate13	A06	19	0	1567	failed: low S2	06	A
4	1	13	Plate13	A07	23	0	1063	failed: low S2	07	A
4	1	15	Plate13	A08	59	1	97	failed: low S2	08	A
4	1	17	Plate13	A09	35	2	1015	failed: low S2	09	A
4	1	19	Plate13	A10	44	0	1319	failed: low S2	10	A
4	1	21	Plate13	A11	22	0	859	failed: low S2	11	A
4	1	23	Plate13	A12	48	0	974	failed: low S2	12	A
4	3	1	Plate13	B01	44	0	754	failed: low S2	01	B
4	3	3	Plate13	B02	0	0	549	failed: low S2	02	B
4	3	5	Plate13	B03	27	1	701	failed: low S2	03	B
4	3	7	Plate13	B04	64	0	479	failed: low S2	04	B
4	3	9	Plate13	B05	68	0	1217	failed: low S2	05	B
4	3	11	Plate13	B06	91	0	783	failed: low S2	06	B
4	3	13	Plate13	B07	13	0	481	failed: low S2	07	B
4	3	15	Plate13	B08	8	1	387	failed: low S2	08	B
4	3	17	Plate13	B09	70	2	1105	failed: low S2	09	B
4	3	19	Plate13	B10	49	0	1119	failed: low S2	10	B
4	3	21	Plate13	B11	49	0	1847	failed: low S2	11	B
4	3	23	Plate13	B12	91	0	1531	failed: low S2	12	B
4	5	1	Plate13	C01	32	0	496	failed: low S2	01	C
4	5	3	Plate13	C02	48	0	867	failed: low S2	02	C
4	5	5	Plate13	C03	25	66	401	failed: low S2	03	C
4	5	7	Plate13	C04	27	0	1700	failed: low S2	04	C
4	5	9	Plate13	C05	120	0	1269	failed: low S2	05	C
4	5	11	Plate13	C06	89	0	2185	failed: low S2	06	C
4	5	13	Plate13	C07	26	0	1084	failed: low S2	07	C
4	5	15	Plate13	C08	45	0	274	failed: low S2	08	C
4	5	17	Plate13	C09	50	0	486	failed: low S2	09	C
4	5	19	Plate13	C10	39	0	827	failed: low S2	10	C
4	5	21	Plate13	C11	34	0	1276	failed: low S2	11	C
4	5	23	Plate13	C12	12	0	735	failed: low S2	12	C
4	7	1	Plate13	D01	37	0	948	failed: low S2	01	D
4	7	3	Plate13	D02	33	1	845	failed: low S2	02	D
4	7	5	Plate13	D03	17	0	620	failed: low S2	03	D
4	7	7	Plate13	D04	52	0	10342	failed: low S2	04	D
4	7	9	Plate13	D05	23	0	1341	failed: low S2	05	D
4	7	11	Plate13	D06	16	4	982	failed: low S2	06	D
4	7	13	Plate13	D07	1	0	433	failed: low S2	07	D
4	7	15	Plate13	D08	6	0	14812	failed: low S2	08	D
4	7	17	Plate13	D09	17	3	1505	failed: low S2	09	D
4	7	19	Plate13	D10	68	0	571	failed: low S2	10	D
4	7	21	Plate13	D11	16	1	634	failed: low S2	11	D
4	7	23	Plate13	D12	26	2	1939	failed: low S2	12	D
4	9	1	Plate13	E01	14	0	1476	failed: low S2	01	E
4	9	3	Plate13	E02	36	0	2305	failed: low S2	02	E
4	9	5	Plate13	E03	68	0	1668	failed: low S2	03	E
4	9	7	Plate13	E04	70	1	316	failed: low S2	04	E
4	9	9	Plate13	E05	33	0	1045	failed: low S2	05	E
4	9	11	Plate13	E06	48	168	1336	failed: low S2	06	E
4	9	13	Plate13	E07	59	5	1291	failed: low S2	07	E
4	9	15	Plate13	E08	2	1	987	failed: low S2	08	E
4	9	17	Plate13	E09	46	0	2015	failed: low S2	09	E
4	9	19	Plate13	E10	42	0	1468	failed: low S2	10	E
4	9	21	Plate13	E11	73	0	527	failed: low S2	11	E
4	9	23	Plate13	E12	93	0	2206	failed: low S2	12	E
4	11	1	Plate13	F01	82	0	9806	failed: low S2	01	F
4	11	3	Plate13	F02	53	0	943	failed: low S2	02	F
4	11	5	Plate13	F03	12	0	657	failed: low S2	03	F
4	11	7	Plate13	F04	27	0	963	failed: low S2	04	F
4	11	9	Plate13	F05	52	0	1254	failed: low S2	05	F
4	11	11	Plate13	F06	95	0	1154	failed: low S2	06	F
4	11	13	Plate13	F07	102	2	3381	failed: low S2	07	F
4	11	15	Plate13	F08	73	0	1414	failed: low S2	08	F

pm_384	row_384	col_384	Plate_ID	Sample_Well	S2_spike	S2	RPP30	classification	Col	Row
4	11	17	Plate13	F09	33	0	1497	failed: low S2	09	F
4	11	19	Plate13	F10	37	0	581	failed: low S2	10	F
4	11	21	Plate13	F11	24	0	1579	failed: low S2	11	F
4	11	23	Plate13	F12	41	0	1581	failed: low S2	12	F
4	13	1	Plate13	G01	37	0	1259	failed: low S2	01	G
4	13	3	Plate13	G02	19	0	775	failed: low S2	02	G
4	13	5	Plate13	G03	45	0	1046	failed: low S2	03	G
4	13	7	Plate13	G04	6	0	19770	failed: low S2	04	G
4	13	9	Plate13	G05	94	0	1119	failed: low S2	05	G
4	13	11	Plate13	G06	74	0	1257	failed: low S2	06	G
4	13	13	Plate13	G07	63	0	997	failed: low S2	07	G
4	13	15	Plate13	G08	39	1	1411	failed: low S2	08	G
4	13	17	Plate13	G09	0	0	703	failed: low S2	09	G
4	13	19	Plate13	G10	55	142	2054	failed: low S2	10	G
4	13	21	Plate13	G11	31	0	1078	failed: low S2	11	G
4	13	23	Plate13	G12	15	0	1097	failed: low S2	12	G
4	15	1	Plate13	H01	31	0	552	failed: low S2	01	H
4	15	3	Plate13	H02	30	1	669	failed: low S2	02	H
4	15	5	Plate13	H03	25	0	912	failed: low S2	03	H
4	15	7	Plate13	H04	23	0	1004	failed: low S2	04	H
4	15	9	Plate13	H05	24	1	1016	failed: low S2	05	H
4	15	11	Plate13	H06	20	0	1525	failed: low S2	06	H
4	15	13	Plate13	H07	26	0	1218	failed: low S2	07	H
4	15	15	Plate13	H08	57	0	740	failed: low S2	08	H
4	15	17	Plate13	H09	15	0	1945	failed: low S2	09	H
4	15	19	Plate13	H10	71	0	115	failed: low S2	10	H
4	15	21	Plate13	H11	37	0	1434	failed: low S2	11	H
4	15	23	Plate13	H12	47	0	1017	failed: low S2	12	H
4	1	2	Plate14	A01	19	0	837	failed: low S2	01	A
4	1	4	Plate14	A02	50	0	827	failed: low S2	02	A
4	1	6	Plate14	A03	81	0	15	failed: low S2	03	A
4	1	8	Plate14	A04	23	0	599	failed: low S2	04	A
4	1	10	Plate14	A05	26	0	653	failed: low S2	05	A
4	1	12	Plate14	A06	81	0	1612	failed: low S2	06	A
4	1	14	Plate14	A07	40	0	1515	failed: low S2	07	A
4	1	16	Plate14	A08	36	0	2117	failed: low S2	08	A
4	1	18	Plate14	A09	24	0	1106	failed: low S2	09	A
4	1	20	Plate14	A10	49	0	1475	failed: low S2	10	A
4	1	22	Plate14	A11	21	0	394	failed: low S2	11	A
4	1	24	Plate14	A12	81	0	1298	failed: low S2	12	A
4	3	2	Plate14	B01	34	0	711	failed: low S2	01	B
4	3	4	Plate14	B02	22	0	681	failed: low S2	02	B
4	3	6	Plate14	B03	42	1	1232	failed: low S2	03	B
4	3	8	Plate14	B04	67	0	1069	failed: low S2	04	B
4	3	10	Plate14	B05	34	0	1232	failed: low S2	05	B
4	3	12	Plate14	B06	51	0	25	failed: low S2	06	B
4	3	14	Plate14	B07	38	0	1331	failed: low S2	07	B
4	3	16	Plate14	B08	13	2	1039	failed: low S2	08	B
4	3	18	Plate14	B09	34	0	1049	failed: low S2	09	B
4	3	20	Plate14	B10	16	0	873	failed: low S2	10	B
4	3	22	Plate14	B11	51	0	2958	failed: low S2	11	B
4	3	24	Plate14	B12	29	0	2012	failed: low S2	12	B
4	5	2	Plate14	C01	36	0	1163	failed: low S2	01	C
4	5	4	Plate14	C02	18	0	629	failed: low S2	02	C
4	5	6	Plate14	C03	22	22	1155	failed: low S2	03	C
4	5	8	Plate14	C04	33	0	771	failed: low S2	04	C
4	5	10	Plate14	C05	30	0	1086	failed: low S2	05	C
4	5	12	Plate14	C06	29	0	1415	failed: low S2	06	C
4	5	14	Plate14	C07	79	1	1695	failed: low S2	07	C
4	5	16	Plate14	C08	57	0	9068	failed: low S2	08	C
4	5	18	Plate14	C09	66	0	1479	failed: low S2	09	C
4	5	20	Plate14	C10	45	0	1526	failed: low S2	10	C
4	5	22	Plate14	C11	21	1	487	failed: low S2	11	C
4	5	24	Plate14	C12	36	0	1502	failed: low S2	12	C
4	7	2	Plate14	D01	40	0	952	failed: low S2	01	D
4	7	4	Plate14	D02	25	1	668	failed: low S2	02	D
4	7	6	Plate14	D03	51	1	1884	failed: low S2	03	D
4	7	8	Plate14	D04	33	0	367	failed: low S2	04	D
4	7	10	Plate14	D05	44	0	1412	failed: low S2	05	D
4	7	12	Plate14	D06	27	0	605	failed: low S2	06	D
4	7	14	Plate14	D07	8	0	32	failed: low S2	07	D
4	7	16	Plate14	D08	158	20	1177	failed: low S2	08	D
4	7	18	Plate14	D09	23	0	1931	failed: low S2	09	D
4	7	20	Plate14	D10	54	0	1164	failed: low S2	10	D
4	7	22	Plate14	D11	13	0	1764	failed: low S2	11	D
4	7	24	Plate14	D12	20	0	811	failed: low S2	12	D
4	9	2	Plate14	E01	30	3	1932	failed: low S2	01	E
4	9	4	Plate14	E02	158	0	15730	failed: low S2	02	E
4	9	6	Plate14	E03	24	0	1232	failed: low S2	03	E
4	9	8	Plate14	E04	19	0	1095	failed: low S2	04	E
4	9	10	Plate14	E05	36	0	1406	failed: low S2	05	E
4	9	12	Plate14	E06	16	127	1301	failed: low S2	06	E
4	9	14	Plate14	E07	42	4	1927	failed: low S2	07	E
4	9	16	Plate14	E08	28	0	917	failed: low S2	08	E
4	9	18	Plate14	E09	79	4	1885	failed: low S2	09	E
4	9	20	Plate14	E10	12	0	559	failed: low S2	10	E
4	9	22	Plate14	E11	35	0	1024	failed: low S2	11	E
4	9	24	Plate14	E12	58	0	830	failed: low S2	12	E
4	11	2	Plate14	F01	36	0	88	failed: low S2	01	F
4	11	4	Plate14	F02	22	0	1163	failed: low S2	02	F
4	11	6	Plate14	F03	21	0	972	failed: low S2	03	F
4	11	8	Plate14	F04	44	0	877	failed: low S2	04	F
4	11	10	Plate14	F05	26	0	1435	failed: low S2	05	F
4	11	12	Plate14	F06	52	0	1023	failed: low S2	06	F
4	11	14	Plate14	F07	8	0	1009	failed: low S2	07	F
4	11	16	Plate14	F08	56	0	1366	failed: low S2	08	F
4	11	18	Plate14	F09	44	0	1053	failed: low S2	09	F
4	11	20	Plate14	F10	56	0	2277	failed: low S2	10	F
4	11	22	Plate14	F11	21	0	1127	failed: low S2	11	F
4	11	24	Plate14	F12	54	0	494	failed: low S2	12	F
4	13	2	Plate14	G01	72	1	942	failed: low S2	01	G
4	13	4	Plate14	G02	36	2	1151	failed: low S2	02	G
4	13	6	Plate14	G03	7	0	715	failed: low S2	03	G
4	13	8	Plate14	G04	28	2	827	failed: low S2	04	G
4	13	10	Plate14	G05	32	4	1180	failed: low S2	05	G
4	13	12	Plate14	G06	71	0	4730	failed: low S2	06	G

pm_384	row_384	col_384	Plate_ID	Sample_Well	S2_spike	S2	RPP30	classification	Col	Row
4	13	14	Plate14	G07	50	0	1792	failed: low S2	07	G
4	13	16	Plate14	G08	59	0	945	failed: low S2	08	G
4	13	18	Plate14	G09	37	0	2271	failed: low S2	09	G
4	13	20	Plate14	G10	20	200	1131	failed: low S2	10	G
4	13	22	Plate14	G11	55	0	1514	failed: low S2	11	G
4	13	24	Plate14	G12	33	0	944	failed: low S2	12	G
4	15	2	Plate14	H01	27	0	865	failed: low S2	01	H
4	15	4	Plate14	H02	57	0	1542	failed: low S2	02	H
4	15	6	Plate14	H03	85	0	503	failed: low S2	03	H
4	15	8	Plate14	H04	96	0	1281	failed: low S2	04	H
4	15	10	Plate14	H05	83	0	1535	failed: low S2	05	H
4	15	12	Plate14	H06	27	0	1106	failed: low S2	06	H
4	15	14	Plate14	H07	200	3	5792	failed: low S2	07	H
4	15	16	Plate14	H08	76	0	2145	failed: low S2	08	H
4	15	18	Plate14	H09	75	0	1218	failed: low S2	09	H
4	15	20	Plate14	H10	44	0	1054	failed: low S2	10	H
4	15	22	Plate14	H11	71	2	1437	failed: low S2	11	H
4	15	24	Plate14	H12	83	2	7239	failed: low S2	12	H
4	2	1	Plate15	A01	81	0	1089	failed: low S2	01	A
4	2	3	Plate15	A02	54	2	1062	failed: low S2	02	A
4	2	5	Plate15	A03	13	0	447	failed: low S2	03	A
4	2	7	Plate15	A04	83	0	1189	failed: low S2	04	A
4	2	9	Plate15	A05	20	0	745	failed: low S2	05	A
4	2	11	Plate15	A06	53	0	816	failed: low S2	06	A
4	2	13	Plate15	A07	54	0	3665	failed: low S2	07	A
4	2	15	Plate15	A08	29	0	921	failed: low S2	08	A
4	2	17	Plate15	A09	58	2	902	failed: low S2	09	A
4	2	19	Plate15	A10	37	0	869	failed: low S2	10	A
4	2	21	Plate15	A11	57	0	1261	failed: low S2	11	A
4	2	23	Plate15	A12	9	0	1249	failed: low S2	12	A
4	4	1	Plate15	B01	69	0	844	failed: low S2	01	B
4	4	3	Plate15	B02	87	0	2009	failed: low S2	02	B
4	4	5	Plate15	B03	58	0	11976	failed: low S2	03	B
4	4	7	Plate15	B04	83	0	1550	failed: low S2	04	B
4	4	9	Plate15	B05	38	0	768	failed: low S2	05	B
4	4	11	Plate15	B06	77	0	710	failed: low S2	06	B
4	4	13	Plate15	B07	58	0	749	failed: low S2	07	B
4	4	15	Plate15	B08	38	0	601	failed: low S2	08	B
4	4	17	Plate15	B09	33	0	794	failed: low S2	09	B
4	4	19	Plate15	B10	42	0	748	failed: low S2	10	B
4	4	21	Plate15	B11	34	0	584	failed: low S2	11	B
4	4	23	Plate15	B12	33	0	1103	failed: low S2	12	B
4	6	1	Plate15	C01	18	0	1430	failed: low S2	01	C
4	6	3	Plate15	C02	30	0	1125	failed: low S2	02	C
4	6	5	Plate15	C03	36	64	931	failed: low S2	03	C
4	6	7	Plate15	C04	5	0	269	failed: low S2	04	C
4	6	9	Plate15	C05	33	2	1688	failed: low S2	05	C
4	6	11	Plate15	C06	31	0	1004	failed: low S2	06	C
4	6	13	Plate15	C07	30	0	147	failed: low S2	07	C
4	6	15	Plate15	C08	25	0	17	failed: low S2	08	C
4	6	17	Plate15	C09	26	0	818	failed: low S2	09	C
4	6	19	Plate15	C10	34	1	817	failed: low S2	10	C
4	6	21	Plate15	C11	118	0	14067	failed: low S2	11	C
4	6	23	Plate15	C12	5	1	951	failed: low S2	12	C
4	8	1	Plate15	D01	50	0	1270	failed: low S2	01	D
4	8	3	Plate15	D02	42	0	742	failed: low S2	02	D
4	8	5	Plate15	D03	16	0	975	failed: low S2	03	D
4	8	7	Plate15	D04	13	0	918	failed: low S2	04	D
4	8	9	Plate15	D05	53	0	1593	failed: low S2	05	D
4	8	11	Plate15	D06	24	0	934	failed: low S2	06	D
4	8	13	Plate15	D07	3	1	164	failed: low S2	07	D
4	8	15	Plate15	D08	6	2	1	failed: low S2 & RPP30	08	D
4	8	17	Plate15	D09	37	2	1341	failed: low S2	09	D
4	8	19	Plate15	D10	53	0	1241	failed: low S2	10	D
4	8	21	Plate15	D11	52	0	491	failed: low S2	11	D
4	8	23	Plate15	D12	64	7	1786	failed: low S2	12	D
4	10	1	Plate15	E01	35	0	947	failed: low S2	01	E
4	10	3	Plate15	E02	73	0	1403	failed: low S2	02	E
4	10	5	Plate15	E03	9	1	1130	failed: low S2	03	E
4	10	7	Plate15	E04	60	0	409	failed: low S2	04	E
4	10	9	Plate15	E05	54	0	1453	failed: low S2	05	E
4	10	11	Plate15	E06	21	204	1750	failed: low S2	06	E
4	10	13	Plate15	E07	11	2	1010	failed: low S2	07	E
4	10	15	Plate15	E08	63	2	5159	failed: low S2	08	E
4	10	17	Plate15	E09	134	0	11772	failed: low S2	09	E
4	10	19	Plate15	E10	33	2	2079	failed: low S2	10	E
4	10	21	Plate15	E11	73	0	1397	failed: low S2	11	E
4	10	23	Plate15	E12	24	0	1133	failed: low S2	12	E
4	12	1	Plate15	F01	33	0	564	failed: low S2	01	F
4	12	3	Plate15	F02	22	0	770	failed: low S2	02	F
4	12	5	Plate15	F03	13	0	922	failed: low S2	03	F
4	12	7	Plate15	F04	32	0	686	failed: low S2	04	F
4	12	9	Plate15	F05	26	0	799	failed: low S2	05	F
4	12	11	Plate15	F06	53	0	1534	failed: low S2	06	F
4	12	13	Plate15	F07	25	0	997	failed: low S2	07	F
4	12	15	Plate15	F08	59	1	1559	failed: low S2	08	F
4	12	17	Plate15	F09	61	0	13146	failed: low S2	09	F
4	12	19	Plate15	F10	51	0	975	failed: low S2	10	F
4	12	21	Plate15	F11	20	0	1340	failed: low S2	11	F
4	12	23	Plate15	F12	49	0	2787	failed: low S2	12	F
4	14	1	Plate15	G01	93	0	1888	failed: low S2	01	G
4	14	3	Plate15	G02	86	0	1145	failed: low S2	02	G
4	14	5	Plate15	G03	12	0	756	failed: low S2	03	G
4	14	7	Plate15	G04	79	0	1488	failed: low S2	04	G
4	14	9	Plate15	G05	38	0	978	failed: low S2	05	G
4	14	11	Plate15	G06	37	0	1197	failed: low S2	06	G
4	14	13	Plate15	G07	84	0	1870	failed: low S2	07	G
4	14	15	Plate15	G08	40	0	1253	failed: low S2	08	G
4	14	17	Plate15	G09	86	0	1157	failed: low S2	09	G
4	14	19	Plate15	G10	81	189	1456	failed: low S2	10	G
4	14	21	Plate15	G11	104	4	1280	failed: low S2	11	G
4	14	23	Plate15	G12	38	2	1000	failed: low S2	12	G
4	16	1	Plate15	H01	54	0	959	failed: low S2	01	H
4	16	3	Plate15	H02	77	0	2443	failed: low S2	02	H
4	16	5	Plate15	H03	78	0	1142	failed: low S2	03	H
4	16	7	Plate15	H04	28	2	1012	failed: low S2	04	H

pm_384	row_384	col_384	Plate_ID	Sample_Well	S2_spike	S2	RPP30	classification	Col	Row
4	16	9	Plate15	H05	42	0	1035	failed: low S2	05	H
4	16	11	Plate15	H06	55	0	3268	failed: low S2	06	H
4	16	13	Plate15	H07	25	0	999	failed: low S2	07	H
4	16	15	Plate15	H08	147	0	17	failed: low S2	08	H
4	16	17	Plate15	H09	48	0	1119	failed: low S2	09	H
4	16	19	Plate15	H10	51	3	1336	failed: low S2	10	H
4	16	21	Plate15	H11	22	0	1020	failed: low S2	11	H
4	16	23	Plate15	H12	72	0	879	failed: low S2	12	H
4	2	2	Plate16	A01	35	0	852	failed: low S2	01	A
4	2	4	Plate16	A02	33	0	1070	failed: low S2	02	A
4	2	6	Plate16	A03	78	0	916	failed: low S2	03	A
4	2	8	Plate16	A04	34	0	1017	failed: low S2	04	A
4	2	10	Plate16	A05	74	0	1005	failed: low S2	05	A
4	2	12	Plate16	A06	27	0	759	failed: low S2	06	A
4	2	14	Plate16	A07	63	0	1075	failed: low S2	07	A
4	2	16	Plate16	A08	66	0	1301	failed: low S2	08	A
4	2	18	Plate16	A09	37	0	21	failed: low S2	09	A
4	2	20	Plate16	A10	19	2	583	failed: low S2	10	A
4	2	22	Plate16	A11	32	0	927	failed: low S2	11	A
4	2	24	Plate16	A12	68	0	680	failed: low S2	12	A
4	4	2	Plate16	B01	52	0	580	failed: low S2	01	B
4	4	4	Plate16	B02	20	0	871	failed: low S2	02	B
4	4	6	Plate16	B03	42	0	1664	failed: low S2	03	B
4	4	8	Plate16	B04	92	0	1134	failed: low S2	04	B
4	4	10	Plate16	B05	6	0	827	failed: low S2	05	B
4	4	12	Plate16	B06	0	0	948	failed: low S2	06	B
4	4	14	Plate16	B07	0	0	878	failed: low S2	07	B
4	4	16	Plate16	B08	0	0	1412	failed: low S2	08	B
4	4	18	Plate16	B09	0	0	941	failed: low S2	09	B
4	4	20	Plate16	B10	45	3	1808	failed: low S2	10	B
4	4	22	Plate16	B11	0	0	635	failed: low S2	11	B
4	4	24	Plate16	B12	35	0	345	failed: low S2	12	B
4	6	2	Plate16	C01	42	0	1159	failed: low S2	01	C
4	6	4	Plate16	C02	14	0	1444	failed: low S2	02	C
4	6	6	Plate16	C03	35	40	765	failed: low S2	03	C
4	6	8	Plate16	C04	19	0	1334	failed: low S2	04	C
4	6	10	Plate16	C05	0	0	20	failed: low S2	05	C
4	6	12	Plate16	C06	0	0	1406	failed: low S2	06	C
4	6	14	Plate16	C07	0	0	1040	failed: low S2	07	C
4	6	16	Plate16	C08	1213	0	0	failed: low RPP30	08	C
4	6	18	Plate16	C09	46	0	284	failed: low S2	09	C
4	6	20	Plate16	C10	44	0	1474	failed: low S2	10	C
4	6	22	Plate16	C11	32	0	925	failed: low S2	11	C
4	6	24	Plate16	C12	56	0	899	failed: low S2	12	C
4	8	2	Plate16	D01	22	0	511	failed: low S2	01	D
4	8	4	Plate16	D02	37	0	465	failed: low S2	02	D
4	8	6	Plate16	D03	60	0	1112	failed: low S2	03	D
4	8	8	Plate16	D04	54	0	557	failed: low S2	04	D
4	8	12	Plate16	D06	268	0	844	failed: low S2	06	D
4	8	14	Plate16	D07	134	0	0	failed: low S2 & RPP30	07	D
4	8	16	Plate16	D08	205	0	1446	failed: low S2	08	D
4	8	18	Plate16	D09	87	0	1389	failed: low S2	09	D
4	8	20	Plate16	D10	86	0	1715	failed: low S2	10	D
4	8	22	Plate16	D11	57	0	1750	failed: low S2	11	D
4	8	24	Plate16	D12	41	0	1642	failed: low S2	12	D
4	10	2	Plate16	E01	66	0	1259	failed: low S2	01	E
4	10	4	Plate16	E02	40	0	612	failed: low S2	02	E
4	10	6	Plate16	E03	31	0	1300	failed: low S2	03	E
4	10	8	Plate16	E04	76	0	595	failed: low S2	04	E
4	10	10	Plate16	E05	129	0	2170	failed: low S2	05	E
4	10	12	Plate16	E06	48	211	1730	failed: low S2	06	E
4	10	14	Plate16	E07	55	0	1264	failed: low S2	07	E
4	10	16	Plate16	E08	40	0	937	failed: low S2	08	E
4	10	18	Plate16	E09	69	0	2801	failed: low S2	09	E
4	10	20	Plate16	E10	123	0	1454	failed: low S2	10	E
4	10	22	Plate16	E11	49	0	1596	failed: low S2	11	E
4	10	24	Plate16	E12	96	0	1604	failed: low S2	12	E
4	12	2	Plate16	F01	39	2	1358	failed: low S2	01	F
4	12	4	Plate16	F02	71	0	317	failed: low S2	02	F
4	12	6	Plate16	F03	5	0	574	failed: low S2	03	F
4	12	8	Plate16	F04	77	0	1033	failed: low S2	04	F
4	12	10	Plate16	F05	28	0	516	failed: low S2	05	F
4	12	12	Plate16	F06	42	0	1142	failed: low S2	06	F
4	12	14	Plate16	F07	22	6	1400	failed: low S2	07	F
4	12	16	Plate16	F08	39	0	388	failed: low S2	08	F
4	12	18	Plate16	F09	73	0	1130	failed: low S2	09	F
4	12	20	Plate16	F10	31	0	16368	failed: low S2	10	F
4	12	22	Plate16	F11	85	1	1461	failed: low S2	11	F
4	12	24	Plate16	F12	38	0	1392	failed: low S2	12	F
4	14	2	Plate16	G01	83	0	511	failed: low S2	01	G
4	14	4	Plate16	G02	93	0	857	failed: low S2	02	G
4	14	6	Plate16	G03	44	0	1165	failed: low S2	03	G
4	14	8	Plate16	G04	33	0	1271	failed: low S2	04	G
4	14	10	Plate16	G05	81	0	1105	failed: low S2	05	G
4	14	12	Plate16	G06	60	0	1227	failed: low S2	06	G
4	14	14	Plate16	G07	52	0	1347	failed: low S2	07	G
4	14	16	Plate16	G08	105	0	1773	failed: low S2	08	G
4	14	18	Plate16	G09	31	0	891	failed: low S2	09	G
4	14	20	Plate16	G10	88	321	1620	failed: low S2	10	G
4	14	22	Plate16	G11	24	0	793	failed: low S2	11	G
4	14	24	Plate16	G12	38	0	957	failed: low S2	12	G
4	16	2	Plate16	H01	66	3	1103	failed: low S2	01	H
4	16	4	Plate16	H02	40	0	4702	failed: low S2	02	H
4	16	6	Plate16	H03	24	4	849	failed: low S2	03	H
4	16	8	Plate16	H04	44	0	971	failed: low S2	04	H
4	16	10	Plate16	H05	99	0	1047	failed: low S2	05	H
4	16	12	Plate16	H06	100	0	1744	failed: low S2	06	H
4	16	14	Plate16	H07	46	0	1396	failed: low S2	07	H
4	16	16	Plate16	H08	105	0	8947	failed: low S2	08	H
4	16	18	Plate16	H09	77	0	5806	failed: low S2	09	H
4	16	20	Plate16	H10	17	0	832	failed: low S2	10	H
4	16	22	Plate16	H11	41	0	957	failed: low S2	11	H
4	16	24	Plate16	H12	37	3	1236	failed: low S2	12	H