PromethION 24 (PCA100015) Final report

Dec 18, 23, 3:16 PM UTC-4:00 - Dec 22, 23, 3:18 PM UTC-4:00 · $2023 DEC18_Wegrzyn_HWA_fullength_clean \cdot 2023 DEC18_Wegrzyn_HWA_fullength_clean \cdot 3C$ Protocol run ID: 1b7971fb-bf36-402e-a5a1-030b814af096

Run summary | Run configuration | Sequence output | Run health | Run log

Run summary

DATA OUTPUT		RUN DURATION						
Estimated bases 100.46 Gb Estimated N50 10.5 kb	Reads generated 32.5 M Total data produced (pass / fail) 1.33 TB	Run time 96 hrs 0 mins / 96 hrs 0 mins (est) Elapsed time Run limit Run status FINISHED · Target runtime ha	s been reached					
BASECALLING Reads called 100%	Bases called (min Q score: 10) 89.94 Gb Pass Fail		View unit abbreviations used in this report					
 Run configuration 								
RUN SETUP Flow cell type Flow cell type alias Flow cell ID Kit type	FLO-PRO114M FLO-PRO114M PAU00939 SOK-LSK114	DATA OUTPUT SET FAST5 output FASTQ output FASTQ reads per file BAM output	TINGS Off gzip_compress 4000 On					

∧ RUN SETTINGS

Run limit Active channel selection Pore scan freq. **Reserved pores** Minimum read length Read splitting Basecalling

Modified basecalling Modified base context

Sequence output

READ LENGTHS · OUTLIERS REMOVED

outliers, and excluded to allow focus on the main body of data.

96 hrs On 1.5 hrs On 200 bp On Super-accurate basecalling, 400 bps

The read length graph shows the total number of bases vs the read length. The longest 1% of strands are classified as

On

5mC & 5hmC

▲ SOFTWARE VERSIONS MinKNOW 23.07.12

Bream Configuration Guppy **MinKNOW** Core

Bulk file output

Data location

∧ OUTLIERS

Read

80 - 144

144 - 208

208 - 260

length (kb)

7.7.6

5.7.11

7.1.4

5.7.5

Off

/data/./2023DEC18_Wegrzyn_

HWA_fulllength_clean/2023DE

C18_Wegrzyn_HWA_fulllength

_clean/20231218_1516_3C_P

AU00939_1b7971fb

The longest 1% of strands are classified as outliers, and aggregated into groups to show ir relative amounts.

Aggregated

reads (Mb)

849.24

48.55

1.63

Oxford NANOP

Legend Basecalled — Estimated	Estimated N50 10.5 kb	% Basecalled 100%	thei
21			
18			
15			
(g) 12 sa			
se a			
3			

5 11 17 23 29 35 41 47 53 59 65 71 77 83 89 95 101 107 113 119 125 131 137 143 149 155 161 167 ò Read length (k)

∧ CUMULATIVE OUTPUT

The cumulative output shows the total amount of bases or reads sequenced over time by your device.

Bases



Reads



The quality score is calculated as basecalling is performed on your device. Reads that fall below the minimum value of 10 will be classified as failed reads. You can alter the accepted minimum quality score in MinKNOW.



Troubleshooting

Quality score low

This can be due to the translocation speed being out of the accepted range, which can correlate to low quality scores. If you see that the translocation speed is out of the accepted range in the below graph, please see the Flow Cell

refuelling page linked here for further troubleshooting.

Run health

PORE ACTIVITY

The Pore activity graph shows the performance of your sample as it is being sequenced during a run.

~ Show grouped



Troubleshooting

General

user guide.

Some commonly seen issues are excess pores classified as Recovering, Open Pore, or Free Adapter. To find out what advice is applicable for your run, visit the

PORE SCAN

A Pore scan is performed at configurable time intervals to determine the current status of pores within channels on a Flow Cell. For this run a Pore scan is performed every 1.5 hrs.



Time (Hrs:Mins)

00:03 03:13 06:23 09:33 12:43 15:53 19:03 22:13 25:23 28:33 31:43 34:53 38:03 46:26 49:36 52:46 55:56 59:06 62:16 65:26 68:36 71:47 74:57 78:07 81:17 84:27 87:35 90:45 93:55

High proportion Inactive

refer to the <u>user guide</u> for further support.

Troubleshooting

High proportion Unavailable Possible contaminants in library blocking the pore. Consider using the Flow Cell Wash Kit, and reloading a library.

TRANSLOCATION SPEED

The translocation speed is the rate at which DNA/RNA travels through pores as it is being sequenced. Legend

--- 75% guartile --- 25% guartile Accepted range — Median



▲ TEMPERATURE

If localised to one area of the Flow Cell, this could indicate that an air bubble has

been introduced during the flushing/loading steps. If inactivity is spread across the Flow Cell this could be caused by improper loading of the library, please

The temperature of the Flow Cell over the run time.



Low speed Check that the Flow Cell is within the target temperature range. Note Low-quality and short reads are not included in this graph.

Out of range Check that the Flow Cell is correctly seated and firmly pushed down into the device. Ensure ambient temperature is always within the specified range for your device in the <u>user guide</u>. Air flow should be good but not excessive. Excessive amounts of cool air blowing on the device could prevent it from reaching target temperature.

Run log

SYSTEM MESSAGES

System messages are a record of the events that occurred in the time covered by this report.

None
∧ ● Warnings None
 ∧ i Events Disk space · 18 Dec 23, 20:16
Disk /data has 13685 GB space remaining Waiting for temperature · 18 Dec 23, 20:16
Waiting up to 300 seconds for temperature to stabilise at 34.0°C Starting · 18 Dec 23, 20:18
Starting sequencing procedure Pore scan starting · 18 Dec 23, 20:18
Performing Pore Scan
Pore scan for flow cell PAU00939 has found a total of 7453 pores. 2517 pores available for immediate sequencing
Setting temperature to reach 34.1°C
Pore scan starting · 18 Dec 23, 21:52 Performing Pore Scan
Pore scan result · 18 Dec 23, 21:56 Pore scan for flow cell PAU00939 has found a total of 7180 pores. 2505 pores available for immediate sequencing
Pore scan starting · 18 Dec 23, 23:27 Performing Pore Scan
Pore scan result · 18 Dec 23, 23:31 Pore scan for flow cell PAU00939 has found a total of 6894 pores. 2467 pores available for immediate sequencing
Pore scan starting · 19 Dec 23, 01:02 Performing Pore Scan
Pore scan result · 19 Dec 23, 01:06 Pore scan for flow cell PALI00939 has found a total of 6476 pores, 2350 pores available for immediate sequencing
Pore scan starting · 19 Dec 23, 02:37
Pore scan result · 19 Dec 23, 02:41
Pore scan for flow cell PA000939 has found a total of 6138 pores. 2261 pores available for immediate sequencing Pore scan starting · 19 Dec 23, 04:12
Performing Pore Scan Pore scan result · 19 Dec 23, 04:16
Pore scan for flow cell PAU00939 has found a total of 5815 pores. 2265 pores available for immediate sequencing Pore scan starting · 19 Dec 23, 05:47
Performing Pore Scan Pore scan result · 19 Dec 23, 05:51
Pore scan for flow cell PAU00939 has found a total of 5510 pores. 2179 pores available for immediate sequencing Pore scan starting · 19 Dec 23. 07:22
Performing Pore Scan Pore scan result : 19 Dec 23, 07:26
Pore scan for flow cell PAU00939 has found a total of 5225 pores. 2040 pores available for immediate sequencing
Performing Pore Scan
Pore scan for flow cell PAU00939 has found a total of 4923 pores. 2023 pores available for immediate sequencing
Performing Pore Scan
Pore scan result · 19 Dec 23, 10:36 Pore scan for flow cell PAU00939 has found a total of 4580 pores. 1975 pores available for immediate sequencing
Pore scan starting · 19 Dec 23, 12:07 Performing Pore Scan
Pore scan result · 19 Dec 23, 12:11 Pore scan for flow cell PAU00939 has found a total of 4266 pores. 1757 pores available for immediate sequencing
Pore scan starting · 19 Dec 23, 13:42 Performing Pore Scan
Pore scan result · 19 Dec 23, 13:46 Pore scan for flow cell PAU00939 has found a total of 3961 pores. 1750 pores available for immediate sequencing
Pore scan starting · 19 Dec 23, 15:17 Performing Pore Scan
Pore scan result · 19 Dec 23, 15:21 Pore scan for flow cell PAU00939 has found a total of 3731 pores. 1706 pores available for immediate sequencing
Pore scan starting · 19 Dec 23, 16:52 Performing Pore Scan
Pore scan result · 19 Dec 23, 16:56 Pore scan for flow cell PAU00939 has found a total of 3433 pores. 1529 pores available for immediate sequencing
Pore scan starting · 19 Dec 23, 18:27 Performing Pore Scan
Pore scan result · 19 Dec 23, 18:31 Pore scan for flow cell PAU00939 has found a total of 3240 pores, 1512 pores available for immediate sequencing
Pore scan starting · 19 Dec 23, 20:02 Performing Pore Scan
Pore scan result · 19 Dec 23, 20:06 Pore scan for flow cell PALI00939 has found a total of 3050 pores 1/437 pores available for immediate sequencing
Pore scan starting · 19 Dec 23, 21:37
Pore scan result · 19 Dec 23, 21:41 Pore scan for flow cell PALI00939 has found a total of 2828 nores, 1371 nores available for immediate sequencing
Pore scan starting · 19 Dec 23, 23:12
Performing Pore Scan Pore scan result · 19 Dec 23, 23:16 Pore scan result · 19 Dec 23, 23:16
Pore scan for flow cell PA000939 has found a total of 2624 pores. 1288 pores available for immediate sequencing Pore scan starting · 20 Dec 23, 00:47
Performing Pore Scan Pore scan result · 20 Dec 23, 00:51
Pore scan for flow cell PAU00939 has found a total of 2449 pores. 1252 pores available for immediate sequencing Pore scan starting · 20 Dec 23, 02:22
Performing Pore Scan Pore scan result · 20 Dec 23, 02:26
Pore scan for flow cell PAU00939 has found a total of 2310 pores. 1173 pores available for immediate sequencing Pore scan starting · 20 Dec 23, 03:57
Performing Pore Scan Pore scan result · 20 Dec 23, 04:01
Pore scan for flow cell PAU00939 has found a total of 2124 pores. 1174 pores available for immediate sequencing Pore scan starting · 20 Dec 23, 05:32
Performing Pore Scan Pore scan result · 20 Dec 23, 05:36
Pore scan for flow cell PAU00939 has found a total of 1986 pores. 1010 pores available for immediate sequencing Pore scan starting - 20 Dec 23, 07:07
Performing Pore Scan Pore scan result - 20 Dec 23, 07:11
Pore scan for flow cell PAU00939 has found a total of 1804 pores. 982 pores available for immediate sequencing
Performing Pore Scan
Pore scan for flow cell PAU00939 has found a total of 1678 pores. 935 pores available for immediate sequencing
Pore scan starting - 20 Dec 23, 10:17 Performing Pore Scan
Pore scan result · 20 Dec 23, 10:21 Pore scan for flow cell PAU00939 has found a total of 1549 pores. 835 pores available for immediate sequencing
Pore scan starting - 20 Dec 23, 11:52 Performing Pore Scan
Pore scan result · 20 Dec 23, 11:56

Pore scan for flow cell PAU00939 has found a total of 1484 pores. 855 pores available for immediate sequencing Pore scan starting · 20 Dec 23, 18:40

Performing Pore Scan

Pore scan result · 20 Dec 23, 18:44 Pore scan for flow cell PAU00939 has found a total of 5064 pores. 1845 pores available for immediate sequencing

Performing Pore Scan Pore scan result · 20 Dec 23, 20:19

Pore scan starting · 20 Dec 23, 20:15

Pore scan for flow cell PAU00939 has found a total of 4964 pores. 1830 pores available for immediate sequencing Pore scan starting · 20 Dec 23, 21:50

Performing Pore Scan

Pore scan result · 20 Dec 23, 21:54 Pore scan for flow cell PAU00939 has found a total of 4731 pores. 1798 pores available for immediate sequencing Pore scan starting · 20 Dec 23, 23:25

Performing Pore Scan

Pore scan result · 20 Dec 23, 23:29 Pore scan for flow cell PAU00939 has found a total of 4437 pores. 1759 pores available for immediate sequencing

Pore scan starting · 21 Dec 23, 01:00 Performing Pore Scan

Pore scan result · 21 Dec 23, 01:04

Pore scan for flow cell PAU00939 has found a total of 4174 pores. 1689 pores available for immediate sequencing Pore scan starting · 21 Dec 23, 02:35

Performing Pore Scan

Pore scan result · 21 Dec 23, 02:39 Pore scan for flow cell PAU00939 has found a total of 3882 pores. 1581 pores available for immediate sequencing

Pore scan starting · 21 Dec 23, 04:10

Performing Pore Scan Pore scan result · 21 Dec 23, 04:14

Pore scan for flow cell PAU00939 has found a total of 3610 pores. 1538 pores available for immediate sequencing

Pore scan starting · 21 Dec 23, 05:45

Performing Pore Scan

Pore scan result · 21 Dec 23, 05:49 Pore scan for flow cell PAU00939 has found a total of 3369 pores. 1482 pores available for immediate sequencing Pore scan starting · 21 Dec 23, 07:20

Performing Pore Scan

Pore scan result · 21 Dec 23, 07:24 Pore scan for flow cell PAU00939 has found a total of 3181 pores. 1460 pores available for immediate sequencing Pore scan starting · 21 Dec 23, 08:55

Performing Pore Scan

Pore scan result · 21 Dec 23, 08:59 Pore scan for flow cell PAU00939 has found a total of 2912 pores. 1493 pores available for immediate sequencing Pore scan starting · 21 Dec 23, 10:30

Performing Pore Scan

Pore scan result · 21 Dec 23, 10:34 Pore scan for flow cell PAU00939 has found a total of 2686 pores. 1286 pores available for immediate sequencing Pore scan starting · 21 Dec 23, 12:05

Performing Pore Scan Pore scan result · 21 Dec 23, 12:09

Pore scan for flow cell PAU00939 has found a total of 2537 pores. 1167 pores available for immediate sequencing Pore scan starting · 21 Dec 23, 13:41

Performing Pore Scan Pore scan result · 21 Dec 23, 13:44

Pore scan for flow cell PAU00939 has found a total of 2395 pores. 1289 pores available for immediate sequencing Pore scan starting · 21 Dec 23, 15:16

Performing Pore Scan

Pore scan result · 21 Dec 23, 15:19 Pore scan for flow cell PAU00939 has found a total of 2189 pores. 1031 pores available for immediate sequencing Pore scan starting · 21 Dec 23, 16:51

Performing Pore Scan

Pore scan result · 21 Dec 23, 16:54 Pore scan for flow cell PAU00939 has found a total of 2049 pores. 979 pores available for immediate sequencing Pore scan starting · 21 Dec 23, 18:26

Performing Pore Scan

Pore scan result · 21 Dec 23, 18:30 Pore scan for flow cell PAU00939 has found a total of 1935 pores. 1002 pores available for immediate sequencing Pore scan starting · 21 Dec 23, 20:01

Performing Pore Scan

Pore scan result · 21 Dec 23, 20:05 Pore scan for flow cell PAU00939 has found a total of 1799 pores. 871 pores available for immediate sequencing Pore scan starting · 21 Dec 23, 21:36

Performing Pore Scan

Pore scan result · 21 Dec 23, 21:40 Pore scan for flow cell PAU00939 has found a total of 1618 pores. 751 pores available for immediate sequencing Pore scan starting · 21 Dec 23, 23:11

Performing Pore Scan

Pore scan result · 21 Dec 23, 23:15 Pore scan for flow cell PAU00939 has found a total of 1408 pores. 712 pores available for immediate sequencing

Pore scan starting · 22 Dec 23, 00:46 Performing Pore Scan

Pore scan result · 22 Dec 23, 00:50 Pore scan for flow cell PAU00939 has found a total of 1161 pores. 630 pores available for immediate sequencing

Pore scan starting · 22 Dec 23, 02:21 Performing Pore Scan

Pore scan result · 22 Dec 23, 02:25 Pore scan for flow cell PAU00939 has found a total of 907 pores. 498 pores available for immediate sequencing

Pore scan starting · 22 Dec 23, 03:56 Performing Pore Scan

Pore scan result · 22 Dec 23, 04:00 Pore scan for flow cell PAU00939 has found a total of 816 pores. 473 pores available for immediate sequencing

Pore scan starting · 22 Dec 23, 05:31 Performing Pore Scan

Pore scan result · 22 Dec 23, 05:35 Pore scan for flow cell PAU00939 has found a total of 727 pores. 422 pores available for immediate sequencing Pore scan starting · 22 Dec 23, 07:06

Performing Pore Scan

Pore scan result · 22 Dec 23, 07:10 Pore scan for flow cell PAU00939 has found a total of 711 pores. 424 pores available for immediate sequencing

Pore scan starting · 22 Dec 23, 08:41 Performing Pore Scan

Pore scan result · 22 Dec 23, 08:45 Pore scan for flow cell PAU00939 has found a total of 961 pores. 639 pores available for immediate sequencing

Pore scan starting · 22 Dec 23, 10:15 Performing Pore Scan

Pore scan result · 22 Dec 23, 10:19 Pore scan for flow cell PAU00939 has found a total of 1138 pores. 743 pores available for immediate sequencing Pore scan starting · 22 Dec 23, 11:49

Performing Pore Scan

Pore scan result · 22 Dec 23, 11:53 Pore scan for flow cell PAU00939 has found a total of 686 pores. 353 pores available for immediate sequencing

Pore scan starting · 22 Dec 23, 13:24

Performing Pore Scan Pore scan result · 22 Dec 23, 13:28

Pore scan for flow cell PAU00939 has found a total of 526 pores. 245 pores available for immediate sequencing Pore scan starting · 22 Dec 23, 14:59

Performing Pore Scan Pore scan result · 22 Dec 23, 15:03

Pore scan for flow cell PAU00939 has found a total of 561 pores. 283 pores available for immediate sequencing Pore scan starting · 22 Dec 23, 16:34

Performing Pore Scan

Pore scan result · 22 Dec 23, 16:38 Pore scan for flow cell PAU00939 has found a total of 631 pores. 349 pores available for immediate sequencing

Pore scan starting · 22 Dec 23, 18:09 Performing Pore Scan

Pore scan result · 22 Dec 23, 18:13 Pore scan for flow cell PAU00939 has found a total of 715 pores. 503 pores available for immediate sequencing

Pore scan starting · 22 Dec 23, 19:44 Performing Pore Scan

Pore scan result · 22 Dec 23, 19:47 Pore scan for flow cell PAU00939 has found a total of 568 pores. 288 pores available for immediate sequencing

• UNIT ABBREVIATIONS

Byte	В	Base	b
Kilobyte	KB	Kilobase	kb
Megabyte	MB	Megabase	Mb
Gigabyte	GB	Gigabase	Gb
Terabyte	ТВ	Terabase	Tb

Minutes Hours

mins hrs