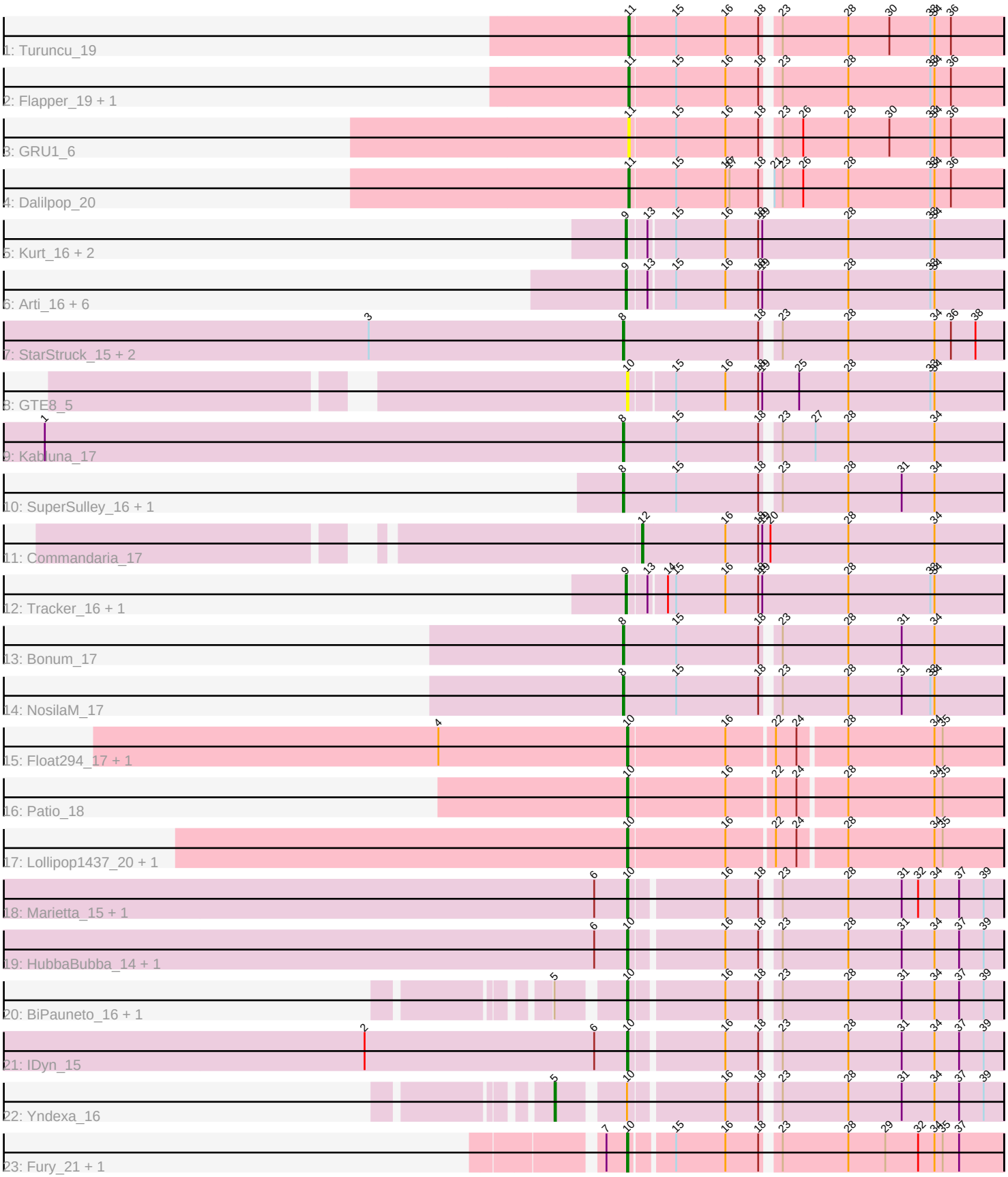
Pham 2121


1: Turuncu_19
2: Flapper_19 + 1
3: GRU1_6
4: Dalilpop_20
5: Kurt_16 + 2
6: Arti_16 + 6
7: StarStruck_15 + 2
8: GTE8_5
9: Kabluna_17
10: SuperSulley_16 + 1
11: Commandaria_17
12: Tracker_16 + 1
13: Bonum_17
14: NosilaM_17
15: Float294_17 + 1
16: Patio_18
17: Lollipop1437_20 + 1
18: Marietta_15 + 1
19: HubbaBubba_14 + 1
20: BiPauneto_16 + 1
21: IDyn_15
22: Yndexa_16
23: Fury_21 + 1

Note: Tracks are now grouped by subcluster and scaled. Switching in subcluster is indicated by changes in track color. Track scale is now set by default to display the region 30 bp upstream of start 1 to 30 bp downstream of the last possible start. If this default region is judged to be packed too tightly with annotated starts, the track will be further scaled to only show that region of the ORF with annotated starts. This action will be indicated by adding "Zoomed" to the title. For starts, yellow indicates the location of called starts comprised solely of Glimmer/GeneMark auto-annotations, green indicates the location of called starts with at least 1 manual gene annotation.

Pham 2121 Report

This analysis was run 04/28/24 on database version 559.

Pham number 2121 has 42 members, 5 are drafts.

Phages represented in each track:
• Track 1 : Turuncu_19
• Track 2 : Flapper_19, GTE5_6
• Track 3 : GRU1_6
• Track 4 : Dalilpop_20
• Track 5 : Kurt_16, Foxboro_17, Emianna_16
• Track 6 : Arti_16, NovumRegina_16, Wheezy_16, KidneyBean_16, GrootJr_18, Jifall16_15, NatB6_16
• Track 7 : StarStruck_15, Outis_15, MerCougar_15
• Track 8 : GTE8_5
• Track 9 : Kabluna_17
• Track 10 : SuperSulley_16, Buggaboo_16
• Track 11 : Commandaria_17
• Track 12 : Tracker_16, Phomeo_15
• Track 13 : Bonum_17
• Track 14 : NosilaM_17
• Track 15 : Float294_17, Skysand_17
• Track 16 : Patio_18
• Track 17 : Lollipop1437_20, Ennea_21
• Track 18 : Marietta_15, WhoseManz_15
• Track 19 : HubbaBubba_14, NadineRae_14
• Track 20 : BiPauneto_16, Sukkupi_16
• Track 21 : IDyn_15
• Track 22 : Yndexa_16
• Track 23 : Fury_21, Pleakley_21

Summary of Final Annotations (See graph section above for start numbers):

The start number called the most often in the published annotations is 10, it was called in 13 of the 37 non-draft genes in the pham.

Genes that call this "Most Annotated" start:
• BiPauneto_16, Ennea_21, Float294_17, Fury_21, GTE8_5, HubbaBubba_14, IDyn_15, Lollipop1437_20, Marietta_15, NadineRae_14, Patio_18, Pleakley_21, Skysand_17, Sukkupi_16, WhoseManz_15,

Genes that have the "Most Annotated" start but do not call it:
• Yndexa_16,

Genes that do not have the "Most Annotated" start:
• Arti_16, Bonum_17, Buggaboo_16, Commandaria_17, Dalilpop_20, Emianna_16, Flapper_19, Foxboro_17, GRU1_6, GTE5_6, GrootJr_18, Jifall16_15, Kabluna_17, KidneyBean_16, Kurt_16, MerCougar_15, NatB6_16, NosilaM_17, NovumRegina_16, Outis_15, Phomeo_15, StarStruck_15, SuperSulley_16, Tracker_16, Turuncu_19, Wheezy_16,

Summary by start number:

Start 5:
• Found in 3 of 42 (7.1%) of genes in pham
• Manual Annotations of this start: 1 of 37
• Called 33.3% of time when present
• Phage (with cluster) where this start called: Yndexa_16 (CR4),

Start 8:
• Found in 8 of 42 (19.0%) of genes in pham
• Manual Annotations of this start: 8 of 37
• Called 100.0% of time when present
• Phage (with cluster) where this start called: Bonum_17 (CR2), Buggaboo_16 (CR2), Kabluna_17 (CR2), MerCougar_15 (CR2), NosilaM_17 (CR2), Outis_15 (CR2), StarStruck_15 (CR2), SuperSulley_16 (CR2),

Start 9:
• Found in 12 of 42 (28.6%) of genes in pham
• Manual Annotations of this start: 11 of 37
• Called 100.0% of time when present
• Phage (with cluster) where this start called: Arti_16 (CR2), Emianna_16 (CR2), Foxboro_17 (CR2), GrootJr_18 (CR2), Jifall16_15 (CR2), KidneyBean_16 (CR2), Kurt_16 (CR2), NatB6_16 (CR2), NovumRegina_16 (CR2), Phomeo_15 (CR2), Tracker_16 (CR2), Wheezy_16 (CR2),

Start 10:
• Found in 16 of 42 (38.1%) of genes in pham
• Manual Annotations of this start: 13 of 37
• Called 93.8% of time when present
• Phage (with cluster) where this start called: BiPauneto_16 (CR4), Ennea_21 (CR3), Float294_17 (CR3), Fury_21 (CR5), GTE8_5 (CR2), HubbaBubba_14 (CR4), IDyn_15 (CR4), Lollipop1437_20 (CR3), Marietta_15 (CR4), NadineRae_14 (CR4), Patio_18 (CR3), Pleakley_21 (CR5), Skysand_17 (CR3), Sukkupi_16 (CR4), WhoseManz_15 (CR4),

Start 11:
• Found in 5 of 42 (11.9%) of genes in pham
• Manual Annotations of this start: 3 of 37
• Called 100.0% of time when present
• Phage (with cluster) where this start called: Dalilpop_20 (CR1), Flapper_19 (CR1), GRU1_6 (CR1), GTE5_6 (CR1), Turuncu_19 (CR1),

Start 12:
• Found in 1 of 42 (2.4%) of genes in pham
• Manual Annotations of this start: 1 of 37
• Called 100.0% of time when present
• Phage (with cluster) where this start called: Commandaria_17 (CR2),

Summary by clusters:

There are 5 clusters represented in this pham: CR2, CR3, CR1, CR4, CR5,

Info for manual annotations of cluster CR1:
•Start number 11 was manually annotated 3 times for cluster CR1.

Info for manual annotations of cluster CR2:
•Start number 8 was manually annotated 8 times for cluster CR2.
•Start number 9 was manually annotated 11 times for cluster CR2.
•Start number 12 was manually annotated 1 time for cluster CR2.

Info for manual annotations of cluster CR3:
•Start number 10 was manually annotated 5 times for cluster CR3.

Info for manual annotations of cluster CR4:
•Start number 5 was manually annotated 1 time for cluster CR4.
•Start number 10 was manually annotated 6 times for cluster CR4.

Info for manual annotations of cluster CR5:
•Start number 10 was manually annotated 2 times for cluster CR5.

Gene Information:

Gene: Arti_16 Start: 8585, Stop: 8854, Start Num: 9
Candidate Starts for Arti_16:
(Start: 9 @8585 has 11 MA's), (13, 8597), (15, 8615), (16, 8651), (18, 8675), (19, 8678), (28, 8741), (33, 8801), (34, 8804),

Gene: BiPauneto_16 Start: 6768, Stop: 7025, Start Num: 10
Candidate Starts for BiPauneto_16:
(Start: 5 @6726 has 1 MA's), (Start: 10 @6768 has 13 MA's), (16, 6831), (18, 6855), (23, 6864), (28, 6912), (31, 6951), (34, 6975), (37, 6993), (39, 7011),

Gene: Bonum_17 Start: 8412, Stop: 8681, Start Num: 8
Candidate Starts for Bonum_17:
(Start: 8 @8412 has 8 MA's), (15, 8451), (18, 8511), (23, 8520), (28, 8568), (31, 8607), (34, 8631),

Gene: Buggaboo_16 Start: 7928, Stop: 8197, Start Num: 8
Candidate Starts for Buggaboo_16:
(Start: 8 @7928 has 8 MA's), (15, 7967), (18, 8027), (23, 8036), (28, 8084), (31, 8123), (34, 8147),

Gene: Commandaria_17 Start: 8256, Stop: 8519, Start Num: 12
Candidate Starts for Commandaria_17:
(Start: 12 @8256 has 1 MA's), (16, 8316), (18, 8340), (19, 8343), (20, 8349), (28, 8406), (34, 8469),

Gene: Dalilpop_20 Start: 9349, Stop: 9612, Start Num: 11
Candidate Starts for Dalilpop_20:
(Start: 11 @9349 has 3 MA's), (15, 9382), (16, 9418), (17, 9421), (18, 9442), (21, 9445), (23, 9451), (26, 9466), (28, 9499), (33, 9559), (34, 9562), (36, 9574),

Gene: Emianna_16 Start: 8557, Stop: 8826, Start Num: 9
Candidate Starts for Emianna_16:
(Start: 9 @8557 has 11 MA's), (13, 8569), (15, 8587), (16, 8623), (18, 8647), (19, 8650), (28, 8713), (33, 8773), (34, 8776),

Gene: Ennea_21 Start: 9698, Stop: 9961, Start Num: 10
Candidate Starts for Ennea_21:
(Start: 10 @9698 has 13 MA's), (16, 9767), (22, 9800), (24, 9815), (28, 9848), (34, 9911), (35, 9917),

Gene: Flapper_19 Start: 8419, Stop: 8682, Start Num: 11
Candidate Starts for Flapper_19:
(Start: 11 @8419 has 3 MA's), (15, 8452), (16, 8488), (18, 8512), (23, 8521), (28, 8569), (33, 8629), (34, 8632), (36, 8644),

Gene: Float294_17 Start: 8247, Stop: 8510, Start Num: 10
Candidate Starts for Float294_17:
(4, 8109), (Start: 10 @8247 has 13 MA's), (16, 8316), (22, 8349), (24, 8364), (28, 8397), (34, 8460), (35, 8466),

Gene: Foxboro_17 Start: 8917, Stop: 9186, Start Num: 9
Candidate Starts for Foxboro_17:
(Start: 9 @8917 has 11 MA's), (13, 8929), (15, 8947), (16, 8983), (18, 9007), (19, 9010), (28, 9073), (33, 9133), (34, 9136),

Gene: Fury_21 Start: 8447, Stop: 8704, Start Num: 10
Candidate Starts for Fury_21:
(7, 8432), (Start: 10 @8447 has 13 MA's), (15, 8474), (16, 8510), (18, 8534), (23, 8543), (28, 8591), (29, 8618), (32, 8642), (34, 8654), (35, 8660), (37, 8672),

Gene: GRU1_6 Start: 1515, Stop: 1778, Start Num: 11
Candidate Starts for GRU1_6:
(Start: 11 @1515 has 3 MA's), (15, 1548), (16, 1584), (18, 1608), (23, 1617), (26, 1632), (28, 1665), (30, 1695), (33, 1725), (34, 1728), (36, 1740),

Gene: GTE5_6 Start: 1516, Stop: 1779, Start Num: 11
Candidate Starts for GTE5_6:
(Start: 11 @1516 has 3 MA's), (15, 1549), (16, 1585), (18, 1609), (23, 1618), (28, 1666), (33, 1726), (34, 1729), (36, 1741),

Gene: GTE8_5 Start: 1435, Stop: 1704, Start Num: 10
Candidate Starts for GTE8_5:
(Start: 10 @1435 has 13 MA's), (15, 1465), (16, 1501), (18, 1525), (19, 1528), (25, 1555), (28, 1591), (33, 1651), (34, 1654),

Gene: GrootJr_18 Start: 8980, Stop: 9249, Start Num: 9
Candidate Starts for GrootJr_18:

(Start: 9 @8980 has 11 MA's), (13, 8992), (15, 9010), (16, 9046), (18, 9070), (19, 9073), (28, 9136), (33, 9196), (34, 9199),

Gene: HubbaBubba_14 Start: 5569, Stop: 5826, Start Num: 10
Candidate Starts for HubbaBubba_14:
(6, 5545), (Start: 10 @5569 has 13 MA's), (16, 5632), (18, 5656), (23, 5665), (28, 5713), (31, 5752), (34, 5776), (37, 5794), (39, 5812),

Gene: IDyn_15 Start: 6960, Stop: 7217, Start Num: 10
Candidate Starts for IDyn_15:
(2, 6768), (6, 6936), (Start: 10 @6960 has 13 MA's), (16, 7023), (18, 7047), (23, 7056), (28, 7104), (31, 7143), (34, 7167), (37, 7185), (39, 7203),

Gene: Jifall16_15 Start: 8041, Stop: 8310, Start Num: 9
Candidate Starts for Jifall16_15:
(Start: 9 @8041 has 11 MA's), (13, 8053), (15, 8071), (16, 8107), (18, 8131), (19, 8134), (28, 8197), (33, 8257), (34, 8260),

Gene: Kabluna_17 Start: 7803, Stop: 8072, Start Num: 8
Candidate Starts for Kabluna_17:
(1, 7380), (Start: 8 @7803 has 8 MA's), (15, 7842), (18, 7902), (23, 7911), (27, 7935), (28, 7959), (34, 8022),

Gene: KidneyBean_16 Start: 8320, Stop: 8589, Start Num: 9
Candidate Starts for KidneyBean_16:
(Start: 9 @8320 has 11 MA's), (13, 8332), (15, 8350), (16, 8386), (18, 8410), (19, 8413), (28, 8476), (33, 8536), (34, 8539),

Gene: Kurt_16 Start: 8557, Stop: 8826, Start Num: 9
Candidate Starts for Kurt_16:
(Start: 9 @8557 has 11 MA's), (13, 8569), (15, 8587), (16, 8623), (18, 8647), (19, 8650), (28, 8713), (33, 8773), (34, 8776),

Gene: Lollipop1437_20 Start: 9686, Stop: 9949, Start Num: 10
Candidate Starts for Lollipop1437_20:
(Start: 10 @9686 has 13 MA's), (16, 9755), (22, 9788), (24, 9803), (28, 9836), (34, 9899), (35, 9905),

Gene: Marietta_15 Start: 6662, Stop: 6919, Start Num: 10
Candidate Starts for Marietta_15:
(6, 6638), (Start: 10 @6662 has 13 MA's), (16, 6725), (18, 6749), (23, 6758), (28, 6806), (31, 6845), (32, 6857), (34, 6869), (37, 6887), (39, 6905),

Gene: MerCougar_15 Start: 7805, Stop: 8074, Start Num: 8
Candidate Starts for MerCougar_15:
(3, 7619), (Start: 8 @7805 has 8 MA's), (18, 7904), (23, 7913), (28, 7961), (34, 8024), (36, 8036), (38, 8054),

Gene: NadineRae_14 Start: 6085, Stop: 6342, Start Num: 10
Candidate Starts for NadineRae_14:
(6, 6061), (Start: 10 @6085 has 13 MA's), (16, 6148), (18, 6172), (23, 6181), (28, 6229), (31, 6268), (34, 6292), (37, 6310), (39, 6328),

Gene: NatB6_16 Start: 8648, Stop: 8917, Start Num: 9

Candidate Starts for NatB6_16:
(Start: 9 @8648 has 11 MA's), (13, 8660), (15, 8678), (16, 8714), (18, 8738), (19, 8741), (28, 8804), (33, 8864), (34, 8867),

Gene: NosilaM_17 Start: 8682, Stop: 8951, Start Num: 8
Candidate Starts for NosilaM_17:
(Start: 8 @8682 has 8 MA's), (15, 8721), (18, 8781), (23, 8790), (28, 8838), (31, 8877), (33, 8898), (34, 8901),

Gene: NovumRegina_16 Start: 8979, Stop: 9248, Start Num: 9
Candidate Starts for NovumRegina_16:
(Start: 9 @8979 has 11 MA's), (13, 8991), (15, 9009), (16, 9045), (18, 9069), (19, 9072), (28, 9135), (33, 9195), (34, 9198),

Gene: Outis_15 Start: 7499, Stop: 7768, Start Num: 8
Candidate Starts for Outis_15:
(3, 7313), (Start: 8 @7499 has 8 MA's), (18, 7598), (23, 7607), (28, 7655), (34, 7718), (36, 7730), (38, 7748),

Gene: Patio_18 Start: 8923, Stop: 9186, Start Num: 10
Candidate Starts for Patio_18:
(Start: 10 @8923 has 13 MA's), (16, 8992), (22, 9025), (24, 9040), (28, 9073), (34, 9136), (35, 9142),

Gene: Phomeo_15 Start: 8210, Stop: 8479, Start Num: 9
Candidate Starts for Phomeo_15:
(Start: 9 @8210 has 11 MA's), (13, 8222), (14, 8234), (15, 8240), (16, 8276), (18, 8300), (19, 8303), (28, 8366), (33, 8426), (34, 8429),

Gene: Pleakley_21 Start: 8447, Stop: 8704, Start Num: 10
Candidate Starts for Pleakley_21:
(7, 8432), (Start: 10 @8447 has 13 MA's), (15, 8474), (16, 8510), (18, 8534), (23, 8543), (28, 8591), (29, 8618), (32, 8642), (34, 8654), (35, 8660), (37, 8672),

Gene: Skysand_17 Start: 8249, Stop: 8512, Start Num: 10
Candidate Starts for Skysand_17:
(4, 8111), (Start: 10 @8249 has 13 MA's), (16, 8318), (22, 8351), (24, 8366), (28, 8399), (34, 8462), (35, 8468),

Gene: StarStruck_15 Start: 7499, Stop: 7768, Start Num: 8
Candidate Starts for StarStruck_15:
(3, 7313), (Start: 8 @7499 has 8 MA's), (18, 7598), (23, 7607), (28, 7655), (34, 7718), (36, 7730), (38, 7748),

Gene: Sukkupi_16 Start: 6659, Stop: 6916, Start Num: 10
Candidate Starts for Sukkupi_16:
(Start: 5 @6617 has 1 MA's), (Start: 10 @6659 has 13 MA's), (16, 6722), (18, 6746), (23, 6755), (28, 6803), (31, 6842), (34, 6866), (37, 6884), (39, 6902),

Gene: SuperSulley_16 Start: 7928, Stop: 8197, Start Num: 8
Candidate Starts for SuperSulley_16:
(Start: 8 @7928 has 8 MA's), (15, 7967), (18, 8027), (23, 8036), (28, 8084), (31, 8123), (34, 8147),

Gene: Tracker_16 Start: 8402, Stop: 8671, Start Num: 9

Candidate Starts for Tracker_16:
(Start: 9 @8402 has 11 MA's), (13, 8414), (14, 8426), (15, 8432), (16, 8468), (18, 8492), (19, 8495), (28, 8558), (33, 8618), (34, 8621),

Gene: Turuncu_19 Start: 7937, Stop: 8200, Start Num: 11
Candidate Starts for Turuncu_19:
(Start: 11 @7937 has 3 MA's), (15, 7970), (16, 8006), (18, 8030), (23, 8039), (28, 8087), (30, 8117), (33, 8147), (34, 8150), (36, 8162),

Gene: Wheezy_16 Start: 8605, Stop: 8874, Start Num: 9
Candidate Starts for Wheezy_16:
(Start: 9 @8605 has 11 MA's), (13, 8617), (15, 8635), (16, 8671), (18, 8695), (19, 8698), (28, 8761), (33, 8821), (34, 8824),

Gene: WhoseManz_15 Start: 6273, Stop: 6530, Start Num: 10
Candidate Starts for WhoseManz_15:
(6, 6249), (Start: 10 @6273 has 13 MA's), (16, 6336), (18, 6360), (23, 6369), (28, 6417), (31, 6456), (32, 6468), (34, 6480), (37, 6498), (39, 6516),

Gene: Yndexa_16 Start: 6617, Stop: 6916, Start Num: 5
Candidate Starts for Yndexa_16:
(Start: 5 @6617 has 1 MA's), (Start: 10 @6659 has 13 MA's), (16, 6722), (18, 6746), (23, 6755), (28, 6803), (31, 6842), (34, 6866), (37, 6884), (39, 6902),