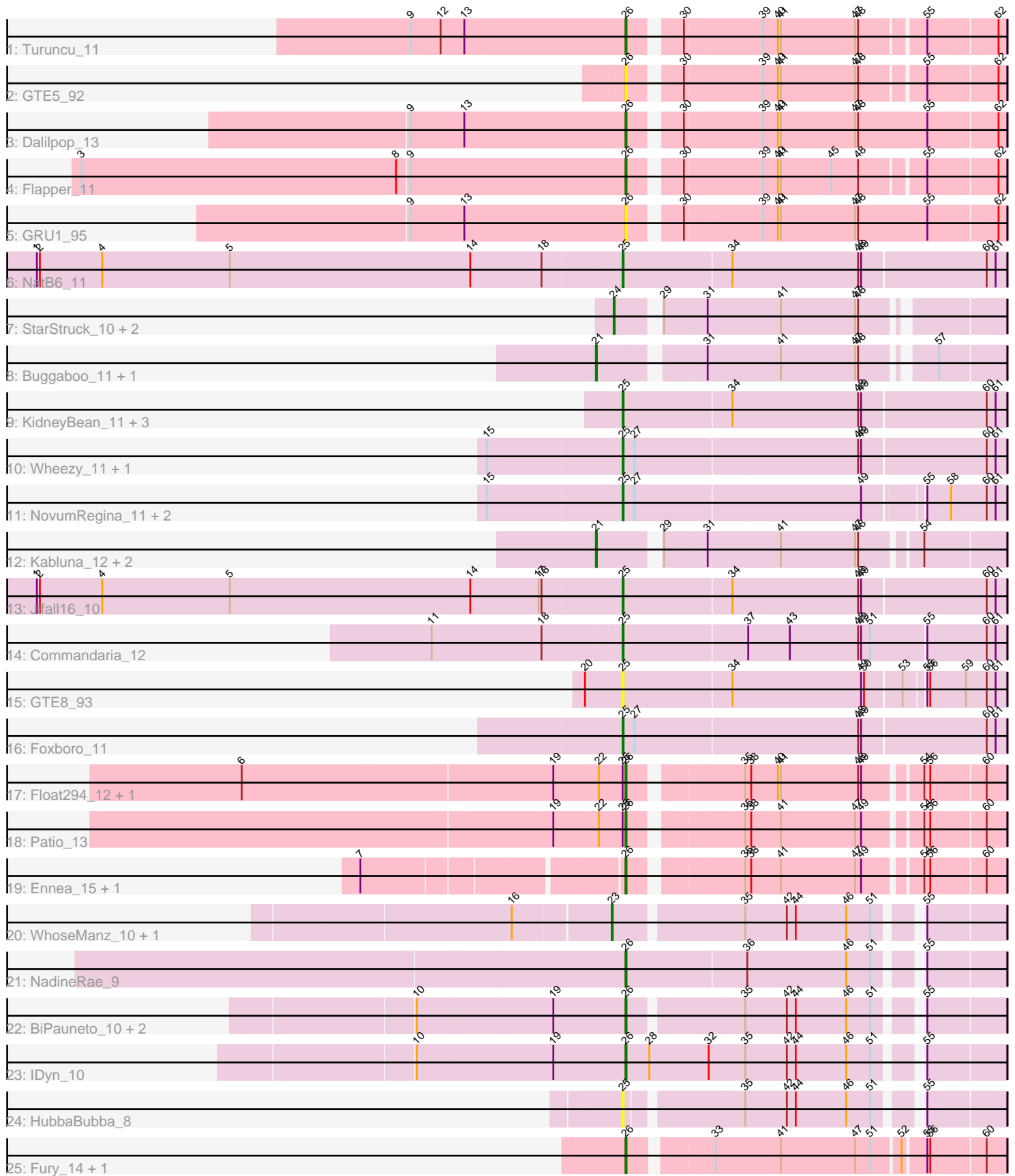


# Pham 2119



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 2119 Report

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

Pham number 2119 has 42 members, 5 are drafts.

Phages represented in each track:

- Track 1 : Turuncu\_11
- Track 2 : GTE5\_92
- Track 3 : Dalilpop\_13
- Track 4 : Flapper\_11
- Track 5 : GRU1\_95
- Track 6 : NatB6\_11
- Track 7 : StarStruck\_10, Outis\_10, MerCougar\_10
- Track 8 : Buggaboo\_11, SuperSulley\_11
- Track 9 : KidneyBean\_11, Phomeo\_10, Kurt\_11, Emianna\_11
- Track 10 : Wheezy\_11, Tracker\_11
- Track 11 : NovumRegina\_11, GrootJr\_13, Arti\_11
- Track 12 : Kabluna\_12, Bonum\_12, NosilaM\_12
- Track 13 : Jifall16\_10
- Track 14 : Commandaria\_12
- Track 15 : GTE8\_93
- Track 16 : Foxboro\_11
- Track 17 : Float294\_12, Skysand\_12
- Track 18 : Patio\_13
- Track 19 : Ennea\_15, Lollipop1437\_14
- Track 20 : WhoseManz\_10, Marietta\_10
- Track 21 : NadineRae\_9
- Track 22 : BiPauneto\_10, Sukkupi\_10, Yndexa\_10
- Track 23 : IDyn\_10
- Track 24 : HubbaBubba\_8
- Track 25 : Fury\_14, Pleakley\_14

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

The start number called the most often in the published annotations is 26, it was called in 15 of the 37 non-draft genes in the pham.

Genes that call this "Most Annotated" start:

- BiPauneto\_10, Dalilpop\_13, Ennea\_15, Flapper\_11, Float294\_12, Fury\_14, GRU1\_95, GTE5\_92, IDyn\_10, Lollipop1437\_14, NadineRae\_9, Patio\_13,

Pleakley\_14, Skysand\_12, Sukkupi\_10, Turuncu\_11, Yndexa\_10,

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

- 

Genes that do not have the "Most Annotated" start:

- Arti\_11, Bonum\_12, Buggaboo\_11, Commandaria\_12, Emianna\_11, Foxboro\_11, GTE8\_93, GrootJr\_13, HubbaBubba\_8, Jifall16\_10, Kabluna\_12, KidneyBean\_11, Kurt\_11, Marietta\_10, MerCougar\_10, NatB6\_11, NosilaM\_12, NovumRegina\_11, Outis\_10, Phomeo\_10, StarStruck\_10, SuperSulley\_11, Tracker\_11, Wheezy\_11, WhoseManz\_10,

### **Summary by start number:**

Start 21:

- Found in 5 of 42 ( 11.9% ) of genes in pham
- Manual Annotations of this start: 5 of 37
- Called 100.0% of time when present
- Phage (with cluster) where this start called: Bonum\_12 (CR2), Buggaboo\_11 (CR2), Kabluna\_12 (CR2), NosilaM\_12 (CR2), SuperSulley\_11 (CR2),

Start 23:

- Found in 2 of 42 ( 4.8% ) of genes in pham
- Manual Annotations of this start: 2 of 37
- Called 100.0% of time when present
- Phage (with cluster) where this start called: Marietta\_10 (CR4), WhoseManz\_10 (CR4),

Start 24:

- Found in 3 of 42 ( 7.1% ) 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: MerCougar\_10 (CR2), Outis\_10 (CR2), StarStruck\_10 (CR2),

Start 25:

- Found in 18 of 42 ( 42.9% ) of genes in pham
- Manual Annotations of this start: 12 of 37
- Called 83.3% of time when present
- Phage (with cluster) where this start called: Arti\_11 (CR2), Commandaria\_12 (CR2), Emianna\_11 (CR2), Foxboro\_11 (CR2), GTE8\_93 (CR2), GrootJr\_13 (CR2), HubbaBubba\_8 (CR4), Jifall16\_10 (CR2), KidneyBean\_11 (CR2), Kurt\_11 (CR2), NatB6\_11 (CR2), NovumRegina\_11 (CR2), Phomeo\_10 (CR2), Tracker\_11 (CR2), Wheezy\_11 (CR2),

Start 26:

- Found in 17 of 42 ( 40.5% ) of genes in pham
- Manual Annotations of this start: 15 of 37
- Called 100.0% of time when present
- Phage (with cluster) where this start called: BiPauneto\_10 (CR4), Dalilpop\_13 (CR1), Ennea\_15 (CR3), Flapper\_11 (CR1), Float294\_12 (CR3), Fury\_14 (CR5), GRU1\_95 (CR1), GTE5\_92 (CR1), IDyn\_10 (CR4), Lollipop1437\_14 (CR3), NadineRae\_9 (CR4), Patio\_13 (CR3), Pleakley\_14 (CR5), Skysand\_12 (CR3),

Sukkupi\_10 (CR4), Turuncu\_11 (CR1), Yndexa\_10 (CR4),

### **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 26 was manually annotated 3 times for cluster CR1.

Info for manual annotations of cluster CR2:

- Start number 21 was manually annotated 5 times for cluster CR2.
- Start number 24 was manually annotated 3 times for cluster CR2.
- Start number 25 was manually annotated 12 times for cluster CR2.

Info for manual annotations of cluster CR3:

- Start number 26 was manually annotated 5 times for cluster CR3.

Info for manual annotations of cluster CR4:

- Start number 23 was manually annotated 2 times for cluster CR4.
- Start number 26 was manually annotated 5 times for cluster CR4.

Info for manual annotations of cluster CR5:

- Start number 26 was manually annotated 2 times for cluster CR5.

### **Gene Information:**

Gene: Arti\_11 Start: 6658, Stop: 7029, Start Num: 25

Candidate Starts for Arti\_11:

(15, 6523), (Start: 25 @6658 has 12 MA's), (27, 6670), (49, 6895), (55, 6949), (58, 6973), (60, 7009), (61, 7018),

Gene: BiPauneto\_10 Start: 4850, Stop: 5194, Start Num: 26

Candidate Starts for BiPauneto\_10:

(10, 4643), (19, 4778), (Start: 26 @4850 has 15 MA's), (35, 4958), (42, 5000), (44, 5009), (46, 5060), (51, 5084), (55, 5117),

Gene: Bonum\_12 Start: 6536, Stop: 6913, Start Num: 21

Candidate Starts for Bonum\_12:

(Start: 21 @6536 has 5 MA's), (29, 6587), (31, 6629), (41, 6701), (47, 6776), (48, 6779), (54, 6833),

Gene: Buggaboo\_11 Start: 6055, Stop: 6423, Start Num: 21

Candidate Starts for Buggaboo\_11:

(Start: 21 @6055 has 5 MA's), (31, 6148), (41, 6220), (47, 6295), (48, 6298), (57, 6358),

Gene: Commandaria\_12 Start: 6379, Stop: 6759, Start Num: 25

Candidate Starts for Commandaria\_12:

(11, 6190), (18, 6301), (Start: 25 @6379 has 12 MA's), (37, 6502), (43, 6544), (48, 6613), (49, 6616), (51, 6625), (55, 6679), (60, 6739), (61, 6748),

Gene: Dalilpop\_13 Start: 7218, Stop: 7577, Start Num: 26

Candidate Starts for Dalilpop\_13:

(9, 7002), (13, 7056), (Start: 26 @7218 has 15 MA's), (30, 7260), (39, 7335), (40, 7350), (41, 7353), (47, 7428), (48, 7431), (55, 7500), (62, 7569),

Gene: Emianna\_11 Start: 6609, Stop: 6989, Start Num: 25

Candidate Starts for Emianna\_11:

(Start: 25 @6609 has 12 MA's), (34, 6717), (48, 6843), (49, 6846), (60, 6969), (61, 6978),

Gene: Ennea\_15 Start: 7760, Stop: 8107, Start Num: 26

Candidate Starts for Ennea\_15:

(7, 7514), (Start: 26 @7760 has 15 MA's), (35, 7859), (38, 7865), (41, 7895), (47, 7970), (49, 7976), (54, 8027), (56, 8033), (60, 8087),

Gene: Flapper\_11 Start: 6055, Stop: 6405, Start Num: 26

Candidate Starts for Flapper\_11:

(3, 5509), (8, 5827), (9, 5839), (Start: 26 @6055 has 15 MA's), (30, 6097), (39, 6172), (40, 6187), (41, 6190), (45, 6241), (48, 6268), (55, 6328), (62, 6397),

Gene: Float294\_12 Start: 6596, Stop: 6943, Start Num: 26

Candidate Starts for Float294\_12:

(6, 6215), (19, 6524), (22, 6569), (Start: 25 @6593 has 12 MA's), (Start: 26 @6596 has 15 MA's), (35, 6695), (38, 6701), (40, 6728), (41, 6731), (48, 6809), (49, 6812), (54, 6863), (56, 6869), (60, 6923),

Gene: Foxboro\_11 Start: 6634, Stop: 7014, Start Num: 25

Candidate Starts for Foxboro\_11:

(Start: 25 @6634 has 12 MA's), (27, 6646), (48, 6868), (49, 6871), (60, 6994), (61, 7003),

Gene: Fury\_14 Start: 6339, Stop: 6692, Start Num: 26

Candidate Starts for Fury\_14:

(Start: 26 @6339 has 15 MA's), (33, 6411), (41, 6477), (47, 6552), (51, 6567), (52, 6594), (55, 6615), (56, 6618), (60, 6672),

Gene: GRU1\_95 Start: 65150, Stop: 65509, Start Num: 26

Candidate Starts for GRU1\_95:

(9, 64934), (13, 64988), (Start: 26 @65150 has 15 MA's), (30, 65192), (39, 65267), (40, 65282), (41, 65285), (47, 65360), (48, 65363), (55, 65432), (62, 65501),

Gene: GTE5\_92 Start: 65218, Stop: 65568, Start Num: 26

Candidate Starts for GTE5\_92:

(Start: 26 @65218 has 15 MA's), (30, 65260), (39, 65335), (40, 65350), (41, 65353), (47, 65428), (48, 65431), (55, 65491), (62, 65560),

Gene: GTE8\_93 Start: 66938, Stop: 67309, Start Num: 25

Candidate Starts for GTE8\_93:

(20, 66902), (Start: 25 @66938 has 12 MA's), (34, 67046), (49, 67175), (50, 67178), (53, 67211), (55, 67229), (56, 67232), (59, 67268), (60, 67289), (61, 67298),

Gene: GrootJr\_13 Start: 7053, Stop: 7424, Start Num: 25

Candidate Starts for GrootJr\_13:

(15, 6918), (Start: 25 @7053 has 12 MA's), (27, 7065), (49, 7290), (55, 7344), (58, 7368), (60, 7404), (61, 7413),

Gene: HubbaBubba\_8 Start: 3785, Stop: 4129, Start Num: 25

Candidate Starts for HubbaBubba\_8:

(Start: 25 @3785 has 12 MA's), (35, 3893), (42, 3935), (44, 3944), (46, 3995), (51, 4019), (55, 4052),

Gene: IDyn\_10 Start: 5164, Stop: 5520, Start Num: 26

Candidate Starts for IDyn\_10:

(10, 4957), (19, 5092), (Start: 26 @5164 has 15 MA's), (28, 5188), (32, 5248), (35, 5284), (42, 5326), (44, 5335), (46, 5386), (51, 5410), (55, 5443),

Gene: Jifall16\_10 Start: 6084, Stop: 6464, Start Num: 25

Candidate Starts for Jifall16\_10:

(1, 5505), (2, 5508), (4, 5571), (5, 5700), (14, 5943), (17, 6012), (18, 6015), (Start: 25 @6084 has 12 MA's), (34, 6192), (48, 6318), (49, 6321), (60, 6444), (61, 6453),

Gene: Kabluna\_12 Start: 5927, Stop: 6304, Start Num: 21

Candidate Starts for Kabluna\_12:

(Start: 21 @5927 has 5 MA's), (29, 5978), (31, 6020), (41, 6092), (47, 6167), (48, 6170), (54, 6224),

Gene: KidneyBean\_11 Start: 6426, Stop: 6806, Start Num: 25

Candidate Starts for KidneyBean\_11:

(Start: 25 @6426 has 12 MA's), (34, 6534), (48, 6660), (49, 6663), (60, 6786), (61, 6795),

Gene: Kurt\_11 Start: 6609, Stop: 6989, Start Num: 25

Candidate Starts for Kurt\_11:

(Start: 25 @6609 has 12 MA's), (34, 6717), (48, 6843), (49, 6846), (60, 6969), (61, 6978),

Gene: Lollipop1437\_14 Start: 7748, Stop: 8095, Start Num: 26

Candidate Starts for Lollipop1437\_14:

(7, 7502), (Start: 26 @7748 has 15 MA's), (35, 7847), (38, 7853), (41, 7883), (47, 7958), (49, 7964), (54, 8015), (56, 8021), (60, 8075),

Gene: Marietta\_10 Start: 4866, Stop: 5222, Start Num: 23

Candidate Starts for Marietta\_10:

(16, 4773), (Start: 23 @4866 has 2 MA's), (35, 4986), (42, 5028), (44, 5037), (46, 5088), (51, 5112), (55, 5145),

Gene: MerCougar\_10 Start: 5965, Stop: 6315, Start Num: 24

Candidate Starts for MerCougar\_10:

(Start: 24 @5965 has 3 MA's), (29, 5998), (31, 6040), (41, 6112), (47, 6187), (48, 6190),

Gene: NadineRae\_9 Start: 4292, Stop: 4645, Start Num: 26

Candidate Starts for NadineRae\_9:

(Start: 26 @4292 has 15 MA's), (36, 4412), (46, 4511), (51, 4535), (55, 4568),

Gene: NatB6\_11 Start: 6691, Stop: 7071, Start Num: 25

Candidate Starts for NatB6\_11:

(1, 6112), (2, 6115), (4, 6178), (5, 6307), (14, 6550), (18, 6622), (Start: 25 @6691 has 12 MA's), (34, 6799), (48, 6925), (49, 6928), (60, 7051), (61, 7060),

Gene: NosilaM\_12 Start: 6815, Stop: 7183, Start Num: 21

Candidate Starts for NosilaM\_12:

(Start: 21 @6815 has 5 MA's), (29, 6866), (31, 6908), (41, 6980), (47, 7055), (48, 7058), (54, 7103),

Gene: NovumRegina\_11 Start: 7052, Stop: 7423, Start Num: 25

Candidate Starts for NovumRegina\_11:

(15, 6917), (Start: 25 @7052 has 12 MA's), (27, 7064), (49, 7289), (55, 7343), (58, 7367), (60, 7403), (61, 7412),

Gene: Outis\_10 Start: 5659, Stop: 6009, Start Num: 24

Candidate Starts for Outis\_10:

(Start: 24 @5659 has 3 MA's), (29, 5692), (31, 5734), (41, 5806), (47, 5881), (48, 5884),

Gene: Patio\_13 Start: 7272, Stop: 7619, Start Num: 26

Candidate Starts for Patio\_13:

(19, 7200), (22, 7245), (Start: 25 @7269 has 12 MA's), (Start: 26 @7272 has 15 MA's), (35, 7371), (38, 7377), (41, 7407), (47, 7482), (49, 7488), (54, 7539), (56, 7545), (60, 7599),

Gene: Phomeo\_10 Start: 6262, Stop: 6642, Start Num: 25

Candidate Starts for Phomeo\_10:

(Start: 25 @6262 has 12 MA's), (34, 6370), (48, 6496), (49, 6499), (60, 6622), (61, 6631),

Gene: Pleakley\_14 Start: 6339, Stop: 6692, Start Num: 26

Candidate Starts for Pleakley\_14:

(Start: 26 @6339 has 15 MA's), (33, 6411), (41, 6477), (47, 6552), (51, 6567), (52, 6594), (55, 6615), (56, 6618), (60, 6672),

Gene: Skysand\_12 Start: 6598, Stop: 6945, Start Num: 26

Candidate Starts for Skysand\_12:

(6, 6217), (19, 6526), (22, 6571), (Start: 25 @6595 has 12 MA's), (Start: 26 @6598 has 15 MA's), (35, 6697), (38, 6703), (40, 6730), (41, 6733), (48, 6811), (49, 6814), (54, 6865), (56, 6871), (60, 6925),

Gene: StarStruck\_10 Start: 5659, Stop: 6009, Start Num: 24

Candidate Starts for StarStruck\_10:

(Start: 24 @5659 has 3 MA's), (29, 5692), (31, 5734), (41, 5806), (47, 5881), (48, 5884),

Gene: Sukkupi\_10 Start: 4741, Stop: 5085, Start Num: 26

Candidate Starts for Sukkupi\_10:

(10, 4534), (19, 4669), (Start: 26 @4741 has 15 MA's), (35, 4849), (42, 4891), (44, 4900), (46, 4951), (51, 4975), (55, 5008),

Gene: SuperSulley\_11 Start: 6055, Stop: 6423, Start Num: 21

Candidate Starts for SuperSulley\_11:

(Start: 21 @6055 has 5 MA's), (31, 6148), (41, 6220), (47, 6295), (48, 6298), (57, 6358),

Gene: Tracker\_11 Start: 6412, Stop: 6792, Start Num: 25

Candidate Starts for Tracker\_11:

(15, 6277), (Start: 25 @6412 has 12 MA's), (27, 6424), (48, 6646), (49, 6649), (60, 6772), (61, 6781),

Gene: Turuncu\_11 Start: 5573, Stop: 5923, Start Num: 26

Candidate Starts for Turuncu\_11:

(9, 5357), (12, 5387), (13, 5411), (Start: 26 @5573 has 15 MA's), (30, 5615), (39, 5690), (40, 5705), (41, 5708), (47, 5783), (48, 5786), (55, 5846), (62, 5915),

Gene: Wheezy\_11 Start: 6670, Stop: 7050, Start Num: 25

Candidate Starts for Wheezy\_11:

(15, 6535), (Start: 25 @6670 has 12 MA's), (27, 6682), (48, 6904), (49, 6907), (60, 7030), (61, 7039),

Gene: WhoseManz\_10 Start: 4477, Stop: 4833, Start Num: 23

Candidate Starts for WhoseManz\_10:

(16, 4384), (Start: 23 @4477 has 2 MA's), (35, 4597), (42, 4639), (44, 4648), (46, 4699), (51, 4723), (55, 4756),

Gene: Yndexa\_10 Start: 4741, Stop: 5085, Start Num: 26

Candidate Starts for Yndexa\_10:

(10, 4534), (19, 4669), (Start: 26 @4741 has 15 MA's), (35, 4849), (42, 4891), (44, 4900), (46, 4951), (51, 4975), (55, 5008),