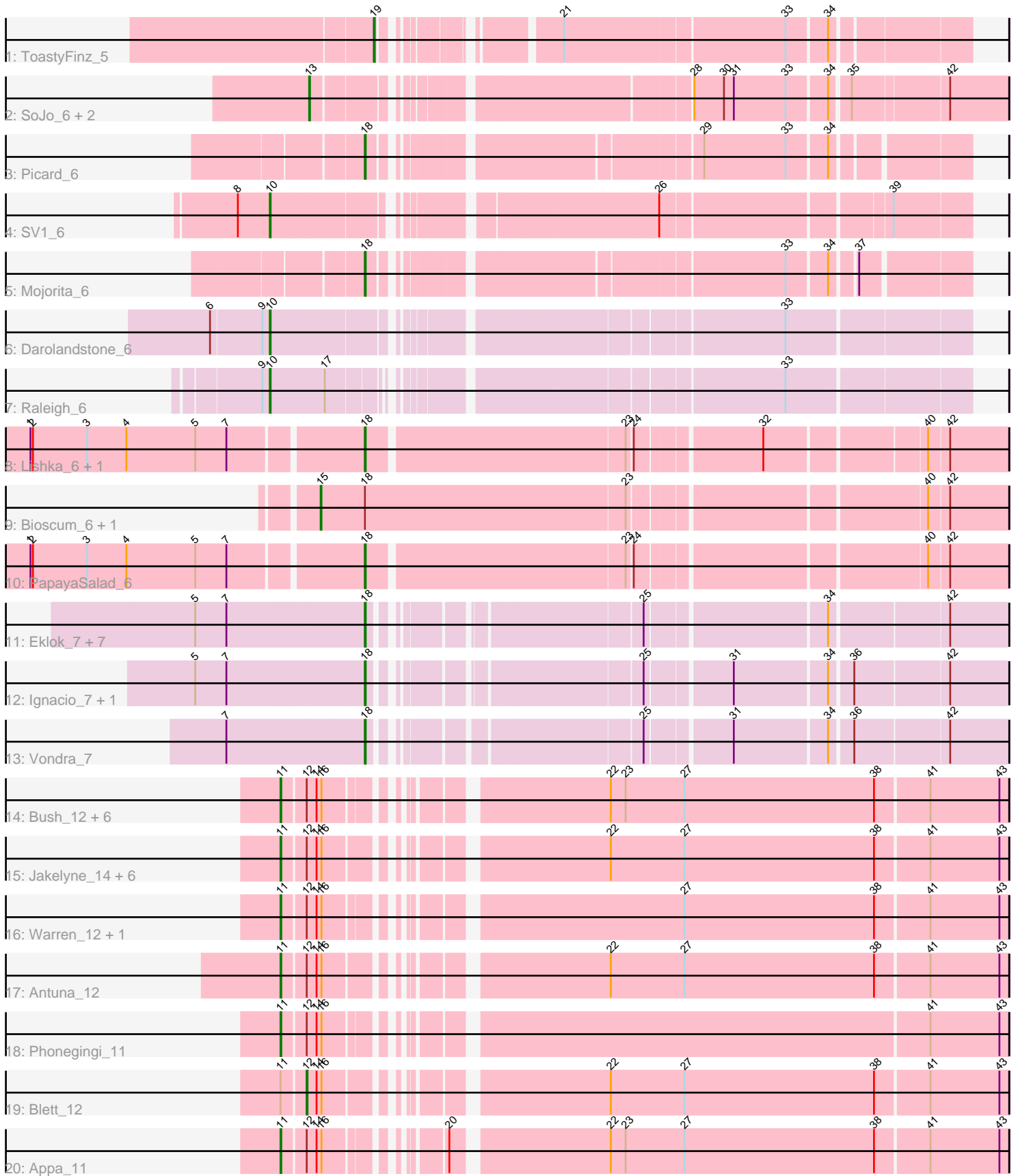


Pham 294845



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 294845 Report

This analysis was run 04/18/26 on database version 643.

WARNING: Pham size does not match number of genes in report. Either unphamerated genes have been added (by you) or starterator has removed genes due to invalid start codon.

Pham number 294845 has 45 members, 10 are drafts.

Phages represented in each track:

- Track 1 : ToastyFinz\_5
- Track 2 : SoJo\_6, Tubberson\_6, DaRealMyers\_6
- Track 3 : Picard\_6
- Track 4 : SV1\_6
- Track 5 : Mojarita\_6
- Track 6 : Darolandstone\_6
- Track 7 : Raleigh\_6
- Track 8 : Lishka\_6, Austintatious\_6
- Track 9 : Bioscum\_6, Ididsumtinwong\_6
- Track 10 : PapayaSalad\_6
- Track 11 : Eklok\_7, Piccadilly\_7, FrumpyGal\_7, Cumberbatch\_7, AxeJC\_7, Eastland\_7, Schlegelian\_7, ArizonaGT\_7
- Track 12 : Ignacio\_7, HFrancette\_7
- Track 13 : Vondra\_7
- Track 14 : Bush\_12, PhillyJawn\_12, CookieDog\_12, Dropshot\_11, NCRodriguez\_13, Winchester007\_27, Losacky\_13
- Track 15 : Jakelyne\_14, Guzman\_13, MenE\_12, Phingu\_14, Mariel\_15, Violeta\_13, Carrillo\_13
- Track 16 : Warren\_12, Pickles13\_11
- Track 17 : Antuna\_12
- Track 18 : Phonegingi\_11
- Track 19 : Blett\_12
- Track 20 : Appa\_11

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

The start number called the most often in the published annotations is 18, it was called in 16 of the 35 non-draft genes in the pham.

Genes that call this "Most Annotated" start:

- ArizonaGT\_7, Austintatious\_6, AxeJC\_7, Cumberbatch\_7, Eastland\_7, Eklok\_7, FrumpyGal\_7, HFrancette\_7, Ignacio\_7, Lishka\_6, Mojarita\_6, PapayaSalad\_6, Picard\_6, Piccadilly\_7, Schlegelian\_7, Vondra\_7,

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

- Bioscum\_6, Ididsumtinwong\_6,

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

- Antuna\_12, Appa\_11, Blett\_12, Bush\_12, Carrillo\_13, CookieDog\_12, DaRealMyers\_6, Darolandstone\_6, Dropshot\_11, Guzman\_13, Jakelyne\_14, Losacky\_13, Mariel\_15, MenE\_12, NCRodriguez\_13, PhillyJawn\_12, Phingu\_14, Phonegingi\_11, Pickles13\_11, Raleigh\_6, SV1\_6, SoJo\_6, ToastyFinz\_5, Tubberson\_6, Violeta\_13, Warren\_12, Winchester007\_27,

### Summary by start number:

Start 10:

- Found in 3 of 45 ( 6.7% ) of genes in pham
- Manual Annotations of this start: 3 of 35
- Called 100.0% of time when present
- Phage (with cluster) where this start called: Darolandstone\_6 (BC2), Raleigh\_6 (BC2), SV1\_6 (BC1),

Start 11:

- Found in 20 of 45 ( 44.4% ) of genes in pham
- Manual Annotations of this start: 10 of 35
- Called 95.0% of time when present
- Phage (with cluster) where this start called: Antuna\_12 (GA), Appa\_11 (GA), Bush\_12 (GA), Carrillo\_13 (GA), CookieDog\_12 (GA), Dropshot\_11 (GA), Guzman\_13 (GA), Jakelyne\_14 (GA), Losacky\_13 (GA), Mariel\_15 (GA), MenE\_12 (GA), NCRodriguez\_13 (GA), PhillyJawn\_12 (GA), Phingu\_14 (GA), Phonegingi\_11 (GA), Pickles13\_11 (GA), Violeta\_13 (GA), Warren\_12 (GA), Winchester007\_27 (GA),

Start 12:

- Found in 20 of 45 ( 44.4% ) of genes in pham
- Manual Annotations of this start: 1 of 35
- Called 5.0% of time when present
- Phage (with cluster) where this start called: Blett\_12 (GA),

Start 13:

- Found in 3 of 45 ( 6.7% ) of genes in pham
- Manual Annotations of this start: 2 of 35
- Called 100.0% of time when present
- Phage (with cluster) where this start called: DaRealMyers\_6 (BC1), SoJo\_6 (BC1), Tubberson\_6 (BC1),

Start 15:

- Found in 2 of 45 ( 4.4% ) of genes in pham
- Manual Annotations of this start: 2 of 35
- Called 100.0% of time when present
- Phage (with cluster) where this start called: Bioscum\_6 (BC3), Ididsumtinwong\_6 (BC3),

Start 18:

- Found in 18 of 45 ( 40.0% ) of genes in pham
- Manual Annotations of this start: 16 of 35
- Called 88.9% of time when present
- Phage (with cluster) where this start called: ArizonaGT\_7 (BP), Austintatious\_6 (BC3), AxeJC\_7 (BP), Cumberbatch\_7 (BP), Eastland\_7 (BP), Eklok\_7 (BP), FrumpyGal\_7 (BP), HFrancette\_7 (BP), Ignacio\_7 (BP), Lishka\_6 (BC3), Mojarita\_6 (BC1), PapayaSalad\_6 (BC3), Picard\_6 (BC1), Piccadilly\_7 (BP), Schlegelian\_7 (BP), Vondra\_7 (BP),

Start 19:

- Found in 1 of 45 ( 2.2% ) of genes in pham
- Manual Annotations of this start: 1 of 35
- Called 100.0% of time when present
- Phage (with cluster) where this start called: ToastyFinz\_5 (BC1),

**Summary by clusters:**

There are 5 clusters represented in this pham: BC2, BP, BC1, GA, BC3,

Info for manual annotations of cluster BC1:

- Start number 10 was manually annotated 1 time for cluster BC1.
- Start number 13 was manually annotated 2 times for cluster BC1.
- Start number 18 was manually annotated 2 times for cluster BC1.
- Start number 19 was manually annotated 1 time for cluster BC1.

Info for manual annotations of cluster BC2:

- Start number 10 was manually annotated 2 times for cluster BC2.

Info for manual annotations of cluster BC3:

- Start number 15 was manually annotated 2 times for cluster BC3.
- Start number 18 was manually annotated 3 times for cluster BC3.

Info for manual annotations of cluster BP:

- Start number 18 was manually annotated 11 times for cluster BP.

Info for manual annotations of cluster GA:

- Start number 11 was manually annotated 10 times for cluster GA.
- Start number 12 was manually annotated 1 time for cluster GA.

**Gene Information:**

Gene: Antuna\_12 Start: 6246, Stop: 7052, Start Num: 11

Candidate Starts for Antuna\_12:

(Start: 11 @6246 has 10 MA's), (Start: 12 @6273 has 1 MA's), (14, 6285), (16, 6291), (22, 6573), (27, 6663), (38, 6894), (41, 6957), (43, 7041),

Gene: Appa\_11 Start: 6111, Stop: 6914, Start Num: 11

Candidate Starts for Appa\_11:

(Start: 11 @6111 has 10 MA's), (Start: 12 @6138 has 1 MA's), (14, 6150), (16, 6156), (20, 6258), (22, 6435), (23, 6453), (27, 6525), (38, 6756), (41, 6819), (43, 6903),

Gene: ArizonaGT\_7 Start: 5592, Stop: 6266, Start Num: 18

Candidate Starts for ArizonaGT\_7:

(5, 5394), (7, 5430), (Start: 18 @5592 has 16 MA's), (25, 5868), (34, 6066), (42, 6198),

Gene: Austintatious\_6 Start: 5252, Stop: 5971, Start Num: 18

Candidate Starts for Austintatious\_6:

(1, 4865), (2, 4868), (3, 4934), (4, 4982), (5, 5066), (7, 5102), (Start: 18 @5252 has 16 MA's), (23, 5555), (24, 5561), (32, 5702), (40, 5876), (42, 5900),

Gene: AxeJC\_7 Start: 5605, Stop: 6279, Start Num: 18

Candidate Starts for AxeJC\_7:

(5, 5407), (7, 5443), (Start: 18 @5605 has 16 MA's), (25, 5881), (34, 6079), (42, 6211),

Gene: Bioscum\_6 Start: 5214, Stop: 6005, Start Num: 15

Candidate Starts for Bioscum\_6:

(Start: 15 @5214 has 2 MA's), (Start: 18 @5268 has 16 MA's), (23, 5583), (40, 5910), (42, 5934),

Gene: Blett\_12 Start: 6287, Stop: 7066, Start Num: 12

Candidate Starts for Blett\_12:

(Start: 11 @6260 has 10 MA's), (Start: 12 @6287 has 1 MA's), (14, 6299), (16, 6305), (22, 6587), (27, 6677), (38, 6908), (41, 6971), (43, 7055),

Gene: Bush\_12 Start: 6255, Stop: 7058, Start Num: 11

Candidate Starts for Bush\_12:

(Start: 11 @6255 has 10 MA's), (Start: 12 @6282 has 1 MA's), (14, 6294), (16, 6300), (22, 6579), (23, 6597), (27, 6669), (38, 6900), (41, 6963), (43, 7047),

Gene: Carrillo\_13 Start: 6215, Stop: 7021, Start Num: 11

Candidate Starts for Carrillo\_13:

(Start: 11 @6215 has 10 MA's), (Start: 12 @6242 has 1 MA's), (14, 6254), (16, 6260), (22, 6542), (27, 6632), (38, 6863), (41, 6926), (43, 7010),

Gene: CookieDog\_12 Start: 6255, Stop: 7058, Start Num: 11

Candidate Starts for CookieDog\_12:

(Start: 11 @6255 has 10 MA's), (Start: 12 @6282 has 1 MA's), (14, 6294), (16, 6300), (22, 6579), (23, 6597), (27, 6669), (38, 6900), (41, 6963), (43, 7047),

Gene: Cumberbatch\_7 Start: 5592, Stop: 6266, Start Num: 18

Candidate Starts for Cumberbatch\_7:

(5, 5394), (7, 5430), (Start: 18 @5592 has 16 MA's), (25, 5868), (34, 6066), (42, 6198),

Gene: DaRealMyers\_6 Start: 5536, Stop: 6282, Start Num: 13

Candidate Starts for DaRealMyers\_6:

(Start: 13 @5536 has 2 MA's), (28, 5926), (30, 5962), (31, 5974), (33, 6037), (34, 6079), (35, 6100), (42, 6211),

Gene: Darolandstone\_6 Start: 5453, Stop: 6211, Start Num: 10

Candidate Starts for Darolandstone\_6:

(6, 5384), (9, 5444), (Start: 10 @5453 has 3 MA's), (33, 5999),

Gene: Dropshot\_11 Start: 6111, Stop: 6914, Start Num: 11

Candidate Starts for Dropshot\_11:

(Start: 11 @6111 has 10 MA's), (Start: 12 @6138 has 1 MA's), (14, 6150), (16, 6156), (22, 6435), (23, 6453), (27, 6525), (38, 6756), (41, 6819), (43, 6903),

Gene: Eastland\_7 Start: 5593, Stop: 6267, Start Num: 18

Candidate Starts for Eastland\_7:

(5, 5395), (7, 5431), (Start: 18 @5593 has 16 MA's), (25, 5869), (34, 6067), (42, 6199),

Gene: Eklok\_7 Start: 5605, Stop: 6279, Start Num: 18

Candidate Starts for Eklok\_7:

(5, 5407), (7, 5443), (Start: 18 @5605 has 16 MA's), (25, 5881), (34, 6079), (42, 6211),

Gene: FrumpyGal\_7 Start: 5593, Stop: 6267, Start Num: 18

Candidate Starts for FrumpyGal\_7:

(5, 5395), (7, 5431), (Start: 18 @5593 has 16 MA's), (25, 5869), (34, 6067), (42, 6199),

Gene: Guzman\_13 Start: 6526, Stop: 7329, Start Num: 11

Candidate Starts for Guzman\_13:

(Start: 11 @6526 has 10 MA's), (Start: 12 @6553 has 1 MA's), (14, 6565), (16, 6571), (22, 6850), (27, 6940), (38, 7171), (41, 7234), (43, 7318),

Gene: HFrancette\_7 Start: 5597, Stop: 6271, Start Num: 18

Candidate Starts for HFrancette\_7:

(5, 5399), (7, 5435), (Start: 18 @5597 has 16 MA's), (25, 5873), (31, 5966), (34, 6071), (36, 6095), (42, 6203),

Gene: Ididsumtinwong\_6 Start: 5214, Stop: 6005, Start Num: 15

Candidate Starts for Ididsumtinwong\_6:

(Start: 15 @5214 has 2 MA's), (Start: 18 @5268 has 16 MA's), (23, 5583), (40, 5910), (42, 5934),

Gene: Ignacio\_7 Start: 5597, Stop: 6271, Start Num: 18

Candidate Starts for Ignacio\_7:

(5, 5399), (7, 5435), (Start: 18 @5597 has 16 MA's), (25, 5873), (31, 5966), (34, 6071), (36, 6095), (42, 6203),

Gene: Jakelyne\_14 Start: 6259, Stop: 7065, Start Num: 11

Candidate Starts for Jakelyne\_14:

(Start: 11 @6259 has 10 MA's), (Start: 12 @6286 has 1 MA's), (14, 6298), (16, 6304), (22, 6586), (27, 6676), (38, 6907), (41, 6970), (43, 7054),

Gene: Lishka\_6 Start: 5252, Stop: 5971, Start Num: 18

Candidate Starts for Lishka\_6:

(1, 4865), (2, 4868), (3, 4934), (4, 4982), (5, 5066), (7, 5102), (Start: 18 @5252 has 16 MA's), (23, 5555), (24, 5561), (32, 5702), (40, 5876), (42, 5900),

Gene: Losacky\_13 Start: 6401, Stop: 7204, Start Num: 11

Candidate Starts for Losacky\_13:

(Start: 11 @6401 has 10 MA's), (Start: 12 @6428 has 1 MA's), (14, 6440), (16, 6446), (22, 6725), (23, 6743), (27, 6815), (38, 7046), (41, 7109), (43, 7193),

Gene: Mariel\_15 Start: 6419, Stop: 7225, Start Num: 11

Candidate Starts for Mariel\_15:

(Start: 11 @6419 has 10 MA's), (Start: 12 @6446 has 1 MA's), (14, 6458), (16, 6464), (22, 6746), (27, 6836), (38, 7067), (41, 7130), (43, 7214),

Gene: MenE\_12 Start: 6376, Stop: 7182, Start Num: 11

Candidate Starts for MenE\_12:

(Start: 11 @6376 has 10 MA's), (Start: 12 @6403 has 1 MA's), (14, 6415), (16, 6421), (22, 6703), (27, 6793), (38, 7024), (41, 7087), (43, 7171),

Gene: Mojorita\_6 Start: 5599, Stop: 6231, Start Num: 18

Candidate Starts for Mojorita\_6:

(Start: 18 @5599 has 16 MA's), (33, 6040), (34, 6082), (37, 6106),

Gene: NCRodriguez\_13 Start: 6379, Stop: 7182, Start Num: 11

Candidate Starts for NCRodriguez\_13:

(Start: 11 @6379 has 10 MA's), (Start: 12 @6406 has 1 MA's), (14, 6418), (16, 6424), (22, 6703), (23, 6721), (27, 6793), (38, 7024), (41, 7087), (43, 7171),

Gene: PapayaSalad\_6 Start: 5252, Stop: 5977, Start Num: 18

Candidate Starts for PapayaSalad\_6:

(1, 4865), (2, 4868), (3, 4934), (4, 4982), (5, 5066), (7, 5102), (Start: 18 @5252 has 16 MA's), (23, 5555), (24, 5561), (40, 5882), (42, 5906),

Gene: PhillyJawn\_12 Start: 6111, Stop: 6914, Start Num: 11

Candidate Starts for PhillyJawn\_12:

(Start: 11 @6111 has 10 MA's), (Start: 12 @6138 has 1 MA's), (14, 6150), (16, 6156), (22, 6435), (23, 6453), (27, 6525), (38, 6756), (41, 6819), (43, 6903),

Gene: Phingu\_14 Start: 6266, Stop: 7072, Start Num: 11

Candidate Starts for Phingu\_14:

(Start: 11 @6266 has 10 MA's), (Start: 12 @6293 has 1 MA's), (14, 6305), (16, 6311), (22, 6593), (27, 6683), (38, 6914), (41, 6977), (43, 7061),

Gene: Phonegingi\_11 Start: 6105, Stop: 6908, Start Num: 11

Candidate Starts for Phonegingi\_11:

(Start: 11 @6105 has 10 MA's), (Start: 12 @6132 has 1 MA's), (14, 6144), (16, 6150), (41, 6813), (43, 6897),

Gene: Picard\_6 Start: 5599, Stop: 6231, Start Num: 18

Candidate Starts for Picard\_6:

(Start: 18 @5599 has 16 MA's), (29, 5941), (33, 6040), (34, 6082),

Gene: Piccadilly\_7 Start: 5592, Stop: 6266, Start Num: 18

Candidate Starts for Piccadilly\_7:

(5, 5394), (7, 5430), (Start: 18 @5592 has 16 MA's), (25, 5868), (34, 6066), (42, 6198),

Gene: Pickles13\_11 Start: 6248, Stop: 7060, Start Num: 11

Candidate Starts for Pickles13\_11:

(Start: 11 @6248 has 10 MA's), (Start: 12 @6275 has 1 MA's), (14, 6287), (16, 6293), (27, 6671), (38, 6902), (41, 6965), (43, 7049),

Gene: Raleigh\_6 Start: 5425, Stop: 6174, Start Num: 10

Candidate Starts for Raleigh\_6:

(9, 5416), (Start: 10 @5425 has 3 MA's), (17, 5488), (33, 5962),

Gene: SV1\_6 Start: 5267, Stop: 6019, Start Num: 10  
Candidate Starts for SV1\_6:  
(8, 5228), (Start: 10 @5267 has 3 MA's), (26, 5675), (39, 5927),

Gene: Schlegelian\_7 Start: 5592, Stop: 6266, Start Num: 18  
Candidate Starts for Schlegelian\_7:  
(5, 5394), (7, 5430), (Start: 18 @5592 has 16 MA's), (25, 5868), (34, 6066), (42, 6198),

Gene: SoJo\_6 Start: 5536, Stop: 6282, Start Num: 13  
Candidate Starts for SoJo\_6:  
(Start: 13 @5536 has 2 MA's), (28, 5926), (30, 5962), (31, 5974), (33, 6037), (34, 6079), (35, 6100),  
(42, 6211),

Gene: ToastyFinz\_5 Start: 5393, Stop: 6004, Start Num: 19  
Candidate Starts for ToastyFinz\_5:  
(Start: 19 @5393 has 1 MA's), (21, 5549), (33, 5807), (34, 5849),

Gene: Tubberson\_6 Start: 5536, Stop: 6282, Start Num: 13  
Candidate Starts for Tubberson\_6:  
(Start: 13 @5536 has 2 MA's), (28, 5926), (30, 5962), (31, 5974), (33, 6037), (34, 6079), (35, 6100),  
(42, 6211),

Gene: Violeta\_13 Start: 6206, Stop: 7012, Start Num: 11  
Candidate Starts for Violeta\_13:  
(Start: 11 @6206 has 10 MA's), (Start: 12 @6233 has 1 MA's), (14, 6245), (16, 6251), (22, 6533), (27,  
6623), (38, 6854), (41, 6917), (43, 7001),

Gene: Vondra\_7 Start: 5594, Stop: 6271, Start Num: 18  
Candidate Starts for Vondra\_7:  
(7, 5432), (Start: 18 @5594 has 16 MA's), (25, 5873), (31, 5966), (34, 6071), (36, 6095), (42, 6203),

Gene: Warren\_12 Start: 6290, Stop: 7093, Start Num: 11  
Candidate Starts for Warren\_12:  
(Start: 11 @6290 has 10 MA's), (Start: 12 @6317 has 1 MA's), (14, 6329), (16, 6335), (27, 6704), (38,  
6935), (41, 6998), (43, 7082),

Gene: Winchester007\_27 Start: 12228, Stop: 13031, Start Num: 11  
Candidate Starts for Winchester007\_27:  
(Start: 11 @12228 has 10 MA's), (Start: 12 @12255 has 1 MA's), (14, 12267), (16, 12273), (22, 12552),  
(23, 12570), (27, 12642), (38, 12873), (41, 12936), (43, 13020),