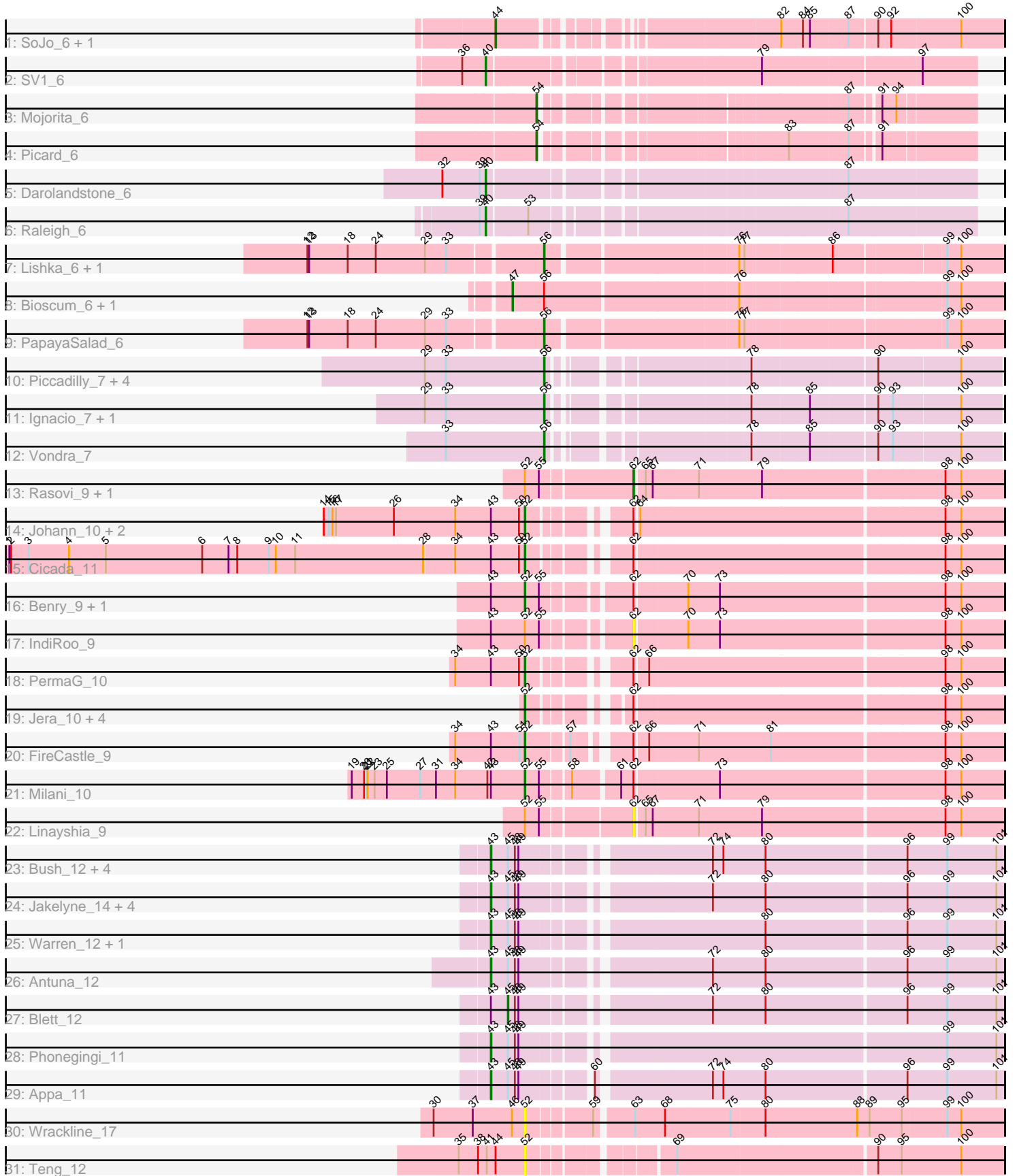


Pham 202976



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 202976 Report

This analysis was run 01/18/25 on database version 583.

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 202976 has 56 members, 14 are drafts.

Phages represented in each track:

- Track 1 : SoJo_6, Tubberson_6
- Track 2 : SV1_6
- Track 3 : Mojourita_6
- Track 4 : Picard_6
- Track 5 : Darolandstone_6
- Track 6 : Raleigh_6
- Track 7 : Lishka_6, Austintatious_6
- Track 8 : Bioscum_6, Ididsumtinwong_6
- Track 9 : PapayaSalad_6
- Track 10 : Piccadilly_7, Eklok_7, AxeJC_7, Cumberbatch_7, Eastland_7
- Track 11 : Ignacio_7, HFrancette_7
- Track 12 : Vondra_7
- Track 13 : Rasovi_9, Htur_9
- Track 14 : Johann_10, Olympi_10, Goodman_10
- Track 15 : Cicada_11
- Track 16 : Benry_9, Sucha_9
- Track 17 : IndiRoo_9
- Track 18 : PermaG_10
- Track 19 : Jera_10, Zanella_9, SBlackberry_9, Typher_11, TurboVicky_9
- Track 20 : FireCastle_9
- Track 21 : Milani_10
- Track 22 : Linayshia_9
- Track 23 : Bush_12, PhillyJawn_12, CookieDog_12, Dropshot_11, Losacky_14
- Track 24 : Jakelyne_14, Guzman_13, MenE_12, Phingu_14, Carrillo_13
- Track 25 : Warren_12, Pickles13_11
- Track 26 : Antuna_12
- Track 27 : Blett_12
- Track 28 : Phonegingi_11
- Track 29 : Appa_11
- Track 30 : Wrackline_17
- Track 31 : Teng_12

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

The start number called the most often in the published annotations is 52, it was called in 13 of the 42 non-draft genes in the pham.

Genes that call this "Most Annotated" start:

- Benry_9, Cicada_11, FireCastle_9, Goodman_10, Jera_10, Johann_10, Milani_10, Olympi_10, PermaG_10, SBlackberry_9, Sucha_9, Teng_12, TurboVicky_9, Typher_11, Wrackline_17, Zanella_9,

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

- Htur_9, IndiRoo_9, Linayshia_9, Rasovi_9,

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

- Antuna_12, Appa_11, Austintatious_6, AxeJC_7, Bioscum_6, Blett_12, Bush_12, Carrillo_13, CookieDog_12, Cumberbatch_7, Darolandstone_6, Dropshot_11, Eastland_7, Eklok_7, Guzman_13, HFrancette_7, Ididsumtinwong_6, Ignacio_7, Jakelyne_14, Lishka_6, Losacky_14, MenE_12, Mojourita_6, PapayaSalad_6, PhillyJawn_12, Phingu_14, Phonegingi_11, Picard_6, Piccadilly_7, Pickles13_11, Raleigh_6, SV1_6, SoJo_6, Tubberson_6, Vondra_7, Warren_12,

Summary by start number:

Start 40:

- Found in 3 of 56 (5.4%) of genes in pham
- Manual Annotations of this start: 3 of 42
- Called 100.0% of time when present
- Phage (with cluster) where this start called: Darolandstone_6 (BC2), Raleigh_6 (BC2), SV1_6 (BC1),

Start 43:

- Found in 26 of 56 (46.4%) of genes in pham
- Manual Annotations of this start: 8 of 42
- Called 57.7% 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_14 (GA), MenE_12 (GA), PhillyJawn_12 (GA), Phingu_14 (GA), Phonegingi_11 (GA), Pickles13_11 (GA), Warren_12 (GA),

Start 44:

- Found in 3 of 56 (5.4%) of genes in pham
- Manual Annotations of this start: 1 of 42
- Called 66.7% of time when present
- Phage (with cluster) where this start called: SoJo_6 (BC1), Tubberson_6 (BC1),

Start 45:

- Found in 16 of 56 (28.6%) of genes in pham
- Manual Annotations of this start: 1 of 42
- Called 6.2% of time when present
- Phage (with cluster) where this start called: Blett_12 (GA),

Start 47:

- Found in 2 of 56 (3.6%) of genes in pham
- Manual Annotations of this start: 2 of 42
- Called 100.0% of time when present
- Phage (with cluster) where this start called: Bioscum_6 (BC3), Ididsumtinwong_6 (BC3),

Start 52:

- Found in 20 of 56 (35.7%) of genes in pham
- Manual Annotations of this start: 13 of 42
- Called 80.0% of time when present
- Phage (with cluster) where this start called: Benry_9 (EJ), Cicada_11 (EJ), FireCastle_9 (EJ), Goodman_10 (EJ), Jera_10 (EJ), Johann_10 (EJ), Milani_10 (EJ), Olympi_10 (EJ), PermaG_10 (EJ), SBlackberry_9 (EJ), Sucha_9 (EJ), Teng_12 (GF), TurboVicky_9 (EJ), Typher_11 (EJ), Wrackline_17 (GF), Zanella_9 (EJ),

Start 54:

- Found in 2 of 56 (3.6%) of genes in pham
- Manual Annotations of this start: 2 of 42
- Called 100.0% of time when present
- Phage (with cluster) where this start called: Mojorita_6 (BC1), Picard_6 (BC1),

Start 56:

- Found in 13 of 56 (23.2%) of genes in pham
- Manual Annotations of this start: 10 of 42
- Called 84.6% of time when present
- Phage (with cluster) where this start called: Austintatious_6 (BC3), AxeJC_7 (BP), Cumberbatch_7 (BP), Eastland_7 (BP), Eklok_7 (BP), HFrancette_7 (BP), Ignacio_7 (BP), Lishka_6 (BC3), PapayaSalad_6 (BC3), Piccadilly_7 (BP), Vondra_7 (BP),

Start 62:

- Found in 18 of 56 (32.1%) of genes in pham
- Manual Annotations of this start: 2 of 42
- Called 22.2% of time when present
- Phage (with cluster) where this start called: Htur_9 (EJ), IndiRoo_9 (EJ), Linayshia_9 (EJ), Rasovi_9 (EJ),

Summary by clusters:

There are 7 clusters represented in this pham: EJ, GF, BP, GA, BC1, BC2, BC3,

Info for manual annotations of cluster BC1:

- Start number 40 was manually annotated 1 time for cluster BC1.
- Start number 44 was manually annotated 1 time for cluster BC1.
- Start number 54 was manually annotated 2 times for cluster BC1.

Info for manual annotations of cluster BC2:

- Start number 40 was manually annotated 2 times for cluster BC2.

Info for manual annotations of cluster BC3:

- Start number 47 was manually annotated 2 times for cluster BC3.
- Start number 56 was manually annotated 2 times for cluster BC3.

Info for manual annotations of cluster BP:

- Start number 56 was manually annotated 8 times for cluster BP.

Info for manual annotations of cluster EJ:

- Start number 52 was manually annotated 13 times for cluster EJ.
- Start number 62 was manually annotated 2 times for cluster EJ.

Info for manual annotations of cluster GA:

- Start number 43 was manually annotated 8 times for cluster GA.
- Start number 45 was manually annotated 1 time for cluster GA.

Gene Information:

Gene: Antuna_12 Start: 6246, Stop: 7052, Start Num: 43

Candidate Starts for Antuna_12:

(Start: 43 @6246 has 8 MA's), (Start: 45 @6273 has 1 MA's), (48, 6285), (49, 6291), (72, 6573), (80, 6663), (96, 6894), (99, 6957), (101, 7041),

Gene: Appa_11 Start: 6111, Stop: 6914, Start Num: 43

Candidate Starts for Appa_11:

(Start: 43 @6111 has 8 MA's), (Start: 45 @6138 has 1 MA's), (48, 6150), (49, 6156), (60, 6258), (72, 6435), (74, 6453), (80, 6525), (96, 6756), (99, 6819), (101, 6903),

Gene: Austintatious_6 Start: 5252, Stop: 5971, Start Num: 56

Candidate Starts for Austintatious_6:

(12, 4865), (13, 4868), (18, 4934), (24, 4982), (29, 5066), (33, 5102), (Start: 56 @5252 has 10 MA's), (76, 5555), (77, 5561), (86, 5702), (99, 5876), (100, 5900),

Gene: AxeJC_7 Start: 5605, Stop: 6279, Start Num: 56

Candidate Starts for AxeJC_7:

(29, 5407), (33, 5443), (Start: 56 @5605 has 10 MA's), (78, 5881), (90, 6079), (100, 6211),

Gene: Benry_9 Start: 6358, Stop: 7122, Start Num: 52

Candidate Starts for Benry_9:

(Start: 43 @6304 has 8 MA's), (Start: 52 @6358 has 13 MA's), (55, 6382), (Start: 62 @6511 has 2 MA's), (70, 6595), (73, 6649), (98, 7021), (100, 7048),

Gene: Bioscum_6 Start: 5214, Stop: 6005, Start Num: 47

Candidate Starts for Bioscum_6:

(Start: 47 @5214 has 2 MA's), (Start: 56 @5268 has 10 MA's), (76, 5583), (99, 5910), (100, 5934),

Gene: Blett_12 Start: 6287, Stop: 7066, Start Num: 45

Candidate Starts for Blett_12:

(Start: 43 @6260 has 8 MA's), (Start: 45 @6287 has 1 MA's), (48, 6299), (49, 6305), (72, 6587), (80, 6677), (96, 6908), (99, 6971), (101, 7055),

Gene: Bush_12 Start: 6255, Stop: 7058, Start Num: 43

Candidate Starts for Bush_12:

(Start: 43 @6255 has 8 MA's), (Start: 45 @6282 has 1 MA's), (48, 6294), (49, 6300), (72, 6579), (74, 6597), (80, 6669), (96, 6900), (99, 6963), (101, 7047),

Gene: Carrillo_13 Start: 6215, Stop: 7021, Start Num: 43

Candidate Starts for Carrillo_13:

(Start: 43 @6215 has 8 MA's), (Start: 45 @6242 has 1 MA's), (48, 6254), (49, 6260), (72, 6542), (80, 6632), (96, 6863), (99, 6926), (101, 7010),

Gene: Cicada_11 Start: 8447, Stop: 9187, Start Num: 52

Candidate Starts for Cicada_11:

(1, 7577), (2, 7580), (3, 7610), (4, 7679), (5, 7742), (6, 7907), (7, 7952), (8, 7967), (9, 8021), (10, 8033), (11, 8066), (28, 8285), (34, 8336), (Start: 43 @8393 has 8 MA's), (50, 8438), (Start: 52 @8447 has 13 MA's), (Start: 62 @8576 has 2 MA's), (98, 9086), (100, 9113),

Gene: CookieDog_12 Start: 6255, Stop: 7058, Start Num: 43

Candidate Starts for CookieDog_12:

(Start: 43 @6255 has 8 MA's), (Start: 45 @6282 has 1 MA's), (48, 6294), (49, 6300), (72, 6579), (74, 6597), (80, 6669), (96, 6900), (99, 6963), (101, 7047),

Gene: Cumberbatch_7 Start: 5592, Stop: 6266, Start Num: 56

Candidate Starts for Cumberbatch_7:

(29, 5394), (33, 5430), (Start: 56 @5592 has 10 MA's), (78, 5868), (90, 6066), (100, 6198),

Gene: Darolandstone_6 Start: 5453, Stop: 6211, Start Num: 40

Candidate Starts for Darolandstone_6:

(32, 5384), (39, 5444), (Start: 40 @5453 has 3 MA's), (87, 5999),

Gene: Dropshot_11 Start: 6111, Stop: 6914, Start Num: 43

Candidate Starts for Dropshot_11:

(Start: 43 @6111 has 8 MA's), (Start: 45 @6138 has 1 MA's), (48, 6150), (49, 6156), (72, 6435), (74, 6453), (80, 6525), (96, 6756), (99, 6819), (101, 6903),

Gene: Eastland_7 Start: 5593, Stop: 6267, Start Num: 56

Candidate Starts for Eastland_7:

(29, 5395), (33, 5431), (Start: 56 @5593 has 10 MA's), (78, 5869), (90, 6067), (100, 6199),

Gene: Eklok_7 Start: 5605, Stop: 6279, Start Num: 56

Candidate Starts for Eklok_7:

(29, 5407), (33, 5443), (Start: 56 @5605 has 10 MA's), (78, 5881), (90, 6079), (100, 6211),

Gene: FireCastle_9 Start: 8109, Stop: 8858, Start Num: 52

Candidate Starts for FireCastle_9:

(34, 7998), (Start: 43 @8055 has 8 MA's), (51, 8100), (Start: 52 @8109 has 13 MA's), (57, 8175), (Start: 62 @8247 has 2 MA's), (66, 8268), (71, 8349), (81, 8472), (98, 8757), (100, 8784),

Gene: Goodman_10 Start: 8356, Stop: 9096, Start Num: 52

Candidate Starts for Goodman_10:

(14, 8020), (15, 8029), (16, 8035), (17, 8041), (26, 8140), (34, 8245), (Start: 43 @8302 has 8 MA's), (50, 8347), (Start: 52 @8356 has 13 MA's), (Start: 62 @8485 has 2 MA's), (64, 8491), (98, 8995), (100, 9022),

Gene: Guzman_13 Start: 6526, Stop: 7329, Start Num: 43

Candidate Starts for Guzman_13:

(Start: 43 @6526 has 8 MA's), (Start: 45 @6553 has 1 MA's), (48, 6565), (49, 6571), (72, 6850), (80, 6940), (96, 7171), (99, 7234), (101, 7318),

Gene: HFrancette_7 Start: 5597, Stop: 6271, Start Num: 56

Candidate Starts for HFrancette_7:

(29, 5399), (33, 5435), (Start: 56 @5597 has 10 MA's), (78, 5873), (85, 5966), (90, 6071), (93, 6095), (100, 6203),

Gene: Htur_9 Start: 8424, Stop: 9035, Start Num: 62

Candidate Starts for Htur_9:

(Start: 52 @8250 has 13 MA's), (55, 8274), (Start: 62 @8424 has 2 MA's), (65, 8439), (67, 8451), (71, 8526), (79, 8634), (98, 8934), (100, 8961),

Gene: Ididsumtinwong_6 Start: 5214, Stop: 6005, Start Num: 47

Candidate Starts for Ididsumtinwong_6:

(Start: 47 @5214 has 2 MA's), (Start: 56 @5268 has 10 MA's), (76, 5583), (99, 5910), (100, 5934),

Gene: Ignacio_7 Start: 5597, Stop: 6271, Start Num: 56

Candidate Starts for Ignacio_7:

(29, 5399), (33, 5435), (Start: 56 @5597 has 10 MA's), (78, 5873), (85, 5966), (90, 6071), (93, 6095), (100, 6203),

Gene: IndiRoo_9 Start: 6513, Stop: 7124, Start Num: 62

Candidate Starts for IndiRoo_9:

(Start: 43 @6306 has 8 MA's), (Start: 52 @6360 has 13 MA's), (55, 6384), (Start: 62 @6513 has 2 MA's), (70, 6597), (73, 6651), (98, 7023), (100, 7050),

Gene: Jakelyne_14 Start: 6259, Stop: 7065, Start Num: 43

Candidate Starts for Jakelyne_14:

(Start: 43 @6259 has 8 MA's), (Start: 45 @6286 has 1 MA's), (48, 6298), (49, 6304), (72, 6586), (80, 6676), (96, 6907), (99, 6970), (101, 7054),

Gene: Jera_10 Start: 7446, Stop: 8177, Start Num: 52

Candidate Starts for Jera_10:

(Start: 52 @7446 has 13 MA's), (Start: 62 @7566 has 2 MA's), (98, 8076), (100, 8103),

Gene: Johann_10 Start: 8356, Stop: 9096, Start Num: 52

Candidate Starts for Johann_10:

(14, 8020), (15, 8029), (16, 8035), (17, 8041), (26, 8140), (34, 8245), (Start: 43 @8302 has 8 MA's), (50, 8347), (Start: 52 @8356 has 13 MA's), (Start: 62 @8485 has 2 MA's), (64, 8491), (98, 8995), (100, 9022),

Gene: Linayshia_9 Start: 8418, Stop: 9029, Start Num: 62

Candidate Starts for Linayshia_9:

(Start: 52 @8250 has 13 MA's), (55, 8274), (Start: 62 @8418 has 2 MA's), (65, 8433), (67, 8445), (71, 8520), (79, 8628), (98, 8928), (100, 8955),

Gene: Lishka_6 Start: 5252, Stop: 5971, Start Num: 56

Candidate Starts for Lishka_6:

(12, 4865), (13, 4868), (18, 4934), (24, 4982), (29, 5066), (33, 5102), (Start: 56 @5252 has 10 MA's), (76, 5555), (77, 5561), (86, 5702), (99, 5876), (100, 5900),

Gene: Losacky_14 Start: 6401, Stop: 7204, Start Num: 43

Candidate Starts for Losacky_14:

(Start: 43 @6401 has 8 MA's), (Start: 45 @6428 has 1 MA's), (48, 6440), (49, 6446), (72, 6725), (74, 6743), (80, 6815), (96, 7046), (99, 7109), (101, 7193),

Gene: MenE_12 Start: 6376, Stop: 7182, Start Num: 43

Candidate Starts for MenE_12:

(Start: 43 @6376 has 8 MA's), (Start: 45 @6403 has 1 MA's), (48, 6415), (49, 6421), (72, 6703), (80, 6793), (96, 7024), (99, 7087), (101, 7171),

Gene: Milani_10 Start: 7008, Stop: 7781, Start Num: 52

Candidate Starts for Milani_10:

(19, 6720), (20, 6741), (21, 6744), (22, 6747), (23, 6759), (25, 6780), (27, 6837), (31, 6864), (34, 6897), (42, 6948), (Start: 43 @6954 has 8 MA's), (Start: 52 @7008 has 13 MA's), (55, 7032), (58, 7077), (61, 7149), (Start: 62 @7170 has 2 MA's), (73, 7308), (98, 7680), (100, 7707),

Gene: Mojorita_6 Start: 5599, Stop: 6231, Start Num: 54

Candidate Starts for Mojorita_6:

(Start: 54 @5599 has 2 MA's), (87, 6040), (91, 6082), (94, 6106),

Gene: Olympi_10 Start: 8347, Stop: 9087, Start Num: 52

Candidate Starts for Olympi_10:

(14, 8011), (15, 8020), (16, 8026), (17, 8032), (26, 8131), (34, 8236), (Start: 43 @8293 has 8 MA's), (50, 8338), (Start: 52 @8347 has 13 MA's), (Start: 62 @8476 has 2 MA's), (64, 8482), (98, 8986), (100, 9013),

Gene: PapayaSalad_6 Start: 5252, Stop: 5977, Start Num: 56

Candidate Starts for PapayaSalad_6:

(12, 4865), (13, 4868), (18, 4934), (24, 4982), (29, 5066), (33, 5102), (Start: 56 @5252 has 10 MA's), (76, 5555), (77, 5561), (99, 5882), (100, 5906),

Gene: PermaG_10 Start: 8378, Stop: 9118, Start Num: 52

Candidate Starts for PermaG_10:

(34, 8267), (Start: 43 @8324 has 8 MA's), (50, 8369), (Start: 52 @8378 has 13 MA's), (Start: 62 @8507 has 2 MA's), (66, 8528), (98, 9017), (100, 9044),

Gene: PhillyJawn_12 Start: 6111, Stop: 6914, Start Num: 43

Candidate Starts for PhillyJawn_12:

(Start: 43 @6111 has 8 MA's), (Start: 45 @6138 has 1 MA's), (48, 6150), (49, 6156), (72, 6435), (74, 6453), (80, 6525), (96, 6756), (99, 6819), (101, 6903),

Gene: Phingu_14 Start: 6266, Stop: 7072, Start Num: 43

Candidate Starts for Phingu_14:

(Start: 43 @6266 has 8 MA's), (Start: 45 @6293 has 1 MA's), (48, 6305), (49, 6311), (72, 6593), (80, 6683), (96, 6914), (99, 6977), (101, 7061),

Gene: Phonegingi_11 Start: 6105, Stop: 6908, Start Num: 43

Candidate Starts for Phonegingi_11:

(Start: 43 @6105 has 8 MA's), (Start: 45 @6132 has 1 MA's), (48, 6144), (49, 6150), (99, 6813), (101, 6897),

Gene: Picard_6 Start: 5599, Stop: 6231, Start Num: 54

Candidate Starts for Picard_6:

(Start: 54 @5599 has 2 MA's), (83, 5941), (87, 6040), (91, 6082),

Gene: Piccadilly_7 Start: 5592, Stop: 6266, Start Num: 56
Candidate Starts for Piccadilly_7:
(29, 5394), (33, 5430), (Start: 56 @5592 has 10 MA's), (78, 5868), (90, 6066), (100, 6198),

Gene: Pickles13_11 Start: 6248, Stop: 7060, Start Num: 43
Candidate Starts for Pickles13_11:
(Start: 43 @6248 has 8 MA's), (Start: 45 @6275 has 1 MA's), (48, 6287), (49, 6293), (80, 6671), (96, 6902), (99, 6965), (101, 7049),

Gene: Raleigh_6 Start: 5425, Stop: 6174, Start Num: 40
Candidate Starts for Raleigh_6:
(39, 5416), (Start: 40 @5425 has 3 MA's), (53, 5488), (87, 5962),

Gene: Rasovi_9 Start: 8424, Stop: 9035, Start Num: 62
Candidate Starts for Rasovi_9:
(Start: 52 @8250 has 13 MA's), (55, 8274), (Start: 62 @8424 has 2 MA's), (65, 8439), (67, 8451), (71, 8526), (79, 8634), (98, 8934), (100, 8961),

Gene: SBlackberry_9 Start: 8205, Stop: 8936, Start Num: 52
Candidate Starts for SBlackberry_9:
(Start: 52 @8205 has 13 MA's), (Start: 62 @8325 has 2 MA's), (98, 8835), (100, 8862),

Gene: SV1_6 Start: 5267, Stop: 6019, Start Num: 40
Candidate Starts for SV1_6:
(36, 5228), (Start: 40 @5267 has 3 MA's), (79, 5675), (97, 5927),

Gene: SoJo_6 Start: 5536, Stop: 6282, Start Num: 44
Candidate Starts for SoJo_6:
(Start: 44 @5536 has 1 MA's), (82, 5926), (84, 5962), (85, 5974), (87, 6037), (90, 6079), (92, 6100), (100, 6211),

Gene: Sucha_9 Start: 6355, Stop: 7119, Start Num: 52
Candidate Starts for Sucha_9:
(Start: 43 @6301 has 8 MA's), (Start: 52 @6355 has 13 MA's), (55, 6379), (Start: 62 @6508 has 2 MA's), (70, 6592), (73, 6646), (98, 7018), (100, 7045),

Gene: Teng_12 Start: 6653, Stop: 7393, Start Num: 52
Candidate Starts for Teng_12:
(35, 6545), (38, 6578), (41, 6593), (Start: 44 @6605 has 1 MA's), (Start: 52 @6653 has 13 MA's), (69, 6854), (90, 7181), (95, 7220), (100, 7322),

Gene: Tubberson_6 Start: 5536, Stop: 6282, Start Num: 44
Candidate Starts for Tubberson_6:
(Start: 44 @5536 has 1 MA's), (82, 5926), (84, 5962), (85, 5974), (87, 6037), (90, 6079), (92, 6100), (100, 6211),

Gene: TurboVicky_9 Start: 8202, Stop: 8933, Start Num: 52
Candidate Starts for TurboVicky_9:
(Start: 52 @8202 has 13 MA's), (Start: 62 @8322 has 2 MA's), (98, 8832), (100, 8859),

Gene: Typher_11 Start: 8332, Stop: 9063, Start Num: 52
Candidate Starts for Typher_11:
(Start: 52 @8332 has 13 MA's), (Start: 62 @8452 has 2 MA's), (98, 8962), (100, 8989),

Gene: Vondra_7 Start: 5594, Stop: 6271, Start Num: 56

Candidate Starts for Vondra_7:

(33, 5432), (Start: 56 @5594 has 10 MA's), (78, 5873), (85, 5966), (90, 6071), (93, 6095), (100, 6203),

Gene: Warren_12 Start: 6290, Stop: 7093, Start Num: 43

Candidate Starts for Warren_12:

(Start: 43 @6290 has 8 MA's), (Start: 45 @6317 has 1 MA's), (48, 6329), (49, 6335), (80, 6704), (96, 6935), (99, 6998), (101, 7082),

Gene: Wrackline_17 Start: 7378, Stop: 8154, Start Num: 52

Candidate Starts for Wrackline_17:

(30, 7231), (37, 7297), (46, 7360), (Start: 52 @7378 has 13 MA's), (59, 7477), (63, 7534), (68, 7585), (75, 7696), (80, 7753), (88, 7909), (89, 7930), (95, 7984), (99, 8059), (100, 8083),

Gene: Zanella_9 Start: 8202, Stop: 8933, Start Num: 52

Candidate Starts for Zanella_9:

(Start: 52 @8202 has 13 MA's), (Start: 62 @8322 has 2 MA's), (98, 8832), (100, 8859),