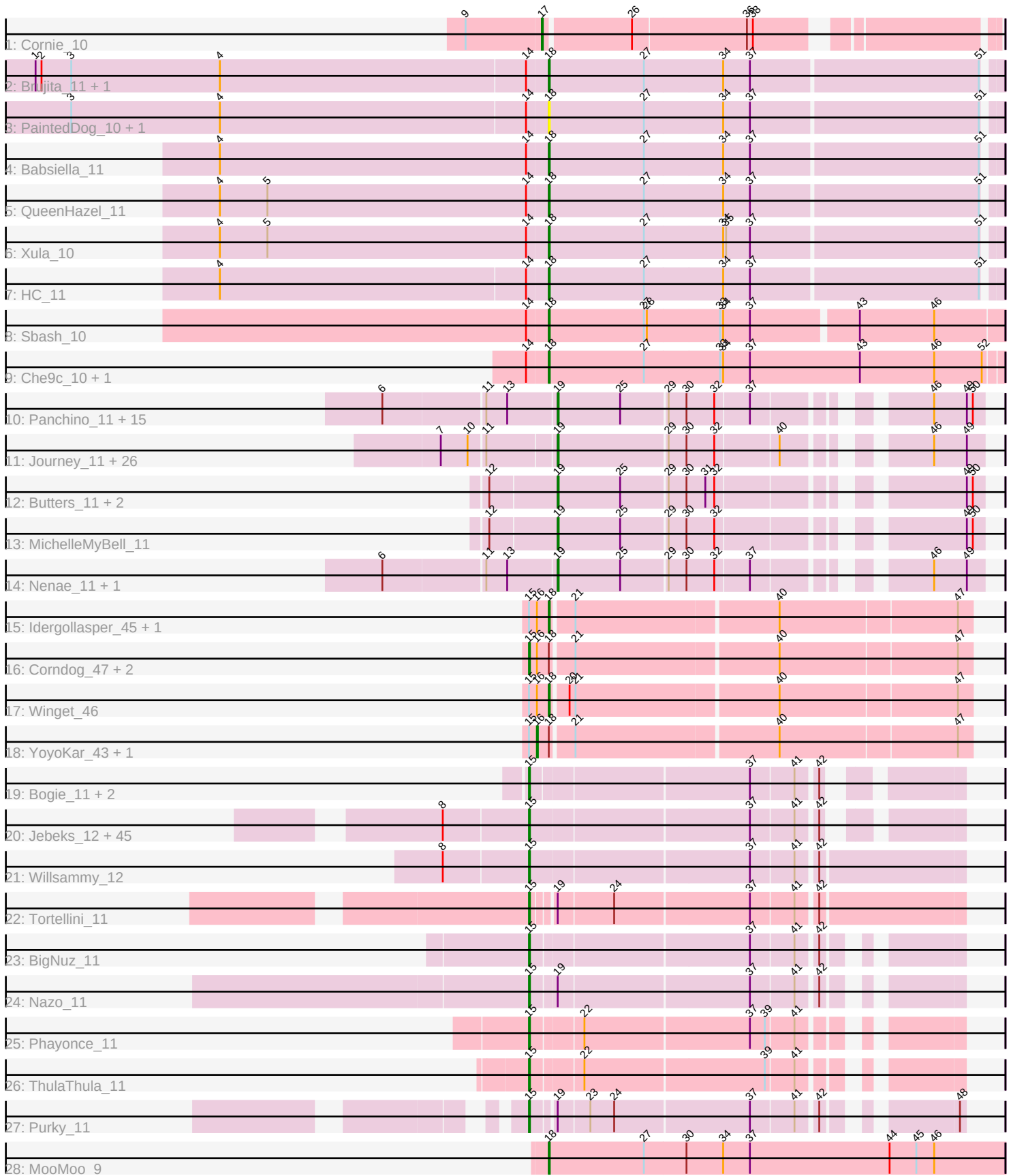


Pham 280211



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 280211 Report

This analysis was run 02/07/26 on database version 634.

Pham number 280211 has 126 members, 14 are drafts.

Phages represented in each track:

- Track 1 : Cornie_10
- Track 2 : Brujita_11, Island3_11
- Track 3 : PaintedDog_10, Bluvara_11
- Track 4 : Babsiella_11
- Track 5 : QueenHazel_11
- Track 6 : Xula_10
- Track 7 : HC_11
- Track 8 : Sbash_10
- Track 9 : Che9c_10, Stuck_10
- Track 10 : Panchino_11, Raymond7_11, Hanako_11, PhancyPhin_11, Snekmaggedon_11, Phrann_11, Shweta_11, SkinnyPete_11, ShrimpFriedEgg_11, Spinach_11, Jamie19_11, Impisi_11, Rebel_11, BabeRuth_11, SpongeBob_11, Redi_11
- Track 11 : Journey_11, Andies_11, Smurph_11, Silvafighter_11, Duplicity_11, Tapioca_11, Gex_11, Aggie_11, Xerxes_11, Chewbacca_11, Tortoise12_11, Philonius_11, Pipsqueaks_11, Cubone_10, Carcharodon_11, Fulbright_11, Bosection6_11, Charlie_11, ParmesanJohn_11, EGUnicorn_11, Melville_11, Xeno_11, Schnauzer_11, Silvy_11, Phloss_11, Magsby_11, Scitech_11
- Track 12 : Butters_11, Kevin1_11, Rubeelu_11
- Track 13 : MichelleMyBell_11
- Track 14 : Nenae_11, Purgamenstris_11
- Track 15 : Idergollasper_45, KingPhillip3_44
- Track 16 : Corndog_47, Catdawg_45, Bora_42
- Track 17 : Winget_46
- Track 18 : YoyoKar_43, Zakhe101_45
- Track 19 : Bogie_11, Shipwreck_11, Pygmy_11
- Track 20 : Jebeks_12, Etoile_12, GaloreK_12, StressBall_12, KilKor_12, Chubbello_12, Langerak_12, Phalm_12, Donovan_12, Polkaroo_12, Mangethe_12, Sonah_12, Majeke_12, HUHilltop_12, Megiddo_12, Kari_12, Fishburne_12, BronnyJr_12, Zilizebeth_12, Necropolis_12, Ksquared_12, Techage_12, Camster_12, Bunnies_12, Bartholomew_12, Arib1_12, Bhagsy_12, Dynamo_12, PeanutPie_12, Gavriela_12, CactusJack_12, Malithi_12, Thespis_12, Vidya_12, Glaske_12, Phegasus_12, Venti_12, Brusacoram_12, Xavia_12, GreaseLightnin_12, FirstPlacePfu_12, Jung_12, Phineas_12, StevieRay_12, Atcoo_12, Juniormint_12
- Track 21 : Willsammy_12
- Track 22 : Tortellini_11
- Track 23 : BigNuz_11

- Track 24 : Nazo_11
- Track 25 : Phayonce_11
- Track 26 : ThulaThula_11
- Track 27 : Purky_11
- Track 28 : MooMoo_9

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

The start number called the most often in the published annotations is 15, it was called in 53 of the 112 non-draft genes in the pham.

Genes that call this "Most Annotated" start:

- Arib1_12, Atcoo_12, Bartholomew_12, Bhagsy_12, BigNuz_11, Bogie_11, Bora_42, BronnyJr_12, Brusacoram_12, Bunnies_12, CactusJack_12, Camster_12, Catdawg_45, Chubbello_12, Corndog_47, Donovan_12, Dynamo_12, Etoile_12, FirstPlacePfu_12, Fishburne_12, GaloreK_12, Gavriela_12, Glaske_12, GreaseLightnin_12, HUHilltop_12, Jebeks_12, Jung_12, Juniormint_12, Kari_12, KilKor_12, Ksquared_12, Langerak_12, Majeke_12, Malithi_12, Mangethe_12, Megiddo_12, Nazo_11, Necropolis_12, PeanutPie_12, Phalm_12, Phayonce_11, Phegasus_12, Phineas_12, Polkaroo_12, Purky_11, Pygmy_11, Shipwreck_11, Sonah_12, StevieRay_12, StressBall_12, Techage_12, Thespis_12, ThulaThula_11, Tortellini_11, Venti_12, Vidya_12, Willsammy_12, Xavia_12, Zilizebeth_12,

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

- Idergollasper_45, KingPhillip3_44, Winget_46, YoyoKar_43, Zakhe101_45,

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

- Aggie_11, Andies_11, BabeRuth_11, Babsiella_11, Bluvava_11, Bosection6_11, Brujita_11, Butters_11, Carcharodon_11, Charlie_11, Che9c_10, Chewbacca_11, Cornie_10, Cubone_10, Duplicity_11, EGUnicorn_11, Fulbright_11, Gex_11, HC_11, Hanako_11, Impisi_11, Island3_11, Jamie19_11, Journey_11, Kevin1_11, Magsby_11, Melville_11, MichelleMyBell_11, MooMoo_9, Nenae_11, PaintedDog_10, Panchino_11, ParmesanJohn_11, PhancyPhin_11, Philonius_11, Phloss_11, Phrann_11, Pipsqueaks_11, Purgamenstris_11, QueenHazel_11, Raymond7_11, Rebel_11, Redi_11, Rubeelu_11, Sbash_10, Schnauzer_11, Scitech_11, ShrimpFriedEgg_11, Shweta_11, Silvafighter_11, Silvy_11, SkinnyPete_11, Smurph_11, Snekmaggon_11, Spinach_11, SpongeBob_11, Stuck_10, Tapioca_11, Tortoise12_11, Xeno_11, Xerxes_11, Xula_10,

Summary by start number:

Start 15:

- Found in 64 of 126 (50.8%) of genes in pham
- Manual Annotations of this start: 53 of 112
- Called 92.2% of time when present
- Phage (with cluster) where this start called: Arib1_12 (P1), Atcoo_12 (P1), Bartholomew_12 (P1), Bhagsy_12 (P1), BigNuz_11 (P4), Bogie_11 (P1), Bora_42 (O), BronnyJr_12 (P1), Brusacoram_12 (P1), Bunnies_12 (P1), CactusJack_12 (P1), Camster_12 (P1), Catdawg_45 (O), Chubbello_12 (P1), Corndog_47 (O), Donovan_12 (P1), Dynamo_12 (P1), Etoile_12 (P1), FirstPlacePfu_12 (P1),

Fishburne_12 (P1), GaloreK_12 (P1), Gavriela_12 (P1), Glaske_12 (P1), GreaseLightnin_12 (P1), HUHilltop_12 (P1), Jebeks_12 (P1), Jung_12 (P1), Juniormint_12 (P1), Kari_12 (P1), KilKor_12 (P1), Ksquared_12 (P1), Langerak_12 (P1), Majeke_12 (P1), Malithi_12 (P1), Mangethe_12 (P1), Megiddo_12 (P1), Nazo_11 (P4), Necropolis_12 (P1), PeanutPie_12 (P1), Phalm_12 (P1), Phayonce_11 (P5), Phegasus_12 (P1), Phineas_12 (P1), Polkaroo_12 (P1), Purky_11 (P6), Pygmy_11 (P1), Shipwreck_11 (P1), Sonah_12 (P1), StevieRay_12 (P1), StressBall_12 (P1), Techage_12 (P1), Thespis_12 (P1), ThulaThula_11 (P5), Tortellini_11 (P2), Venti_12 (P1), Vidya_12 (P1), Willsammy_12 (P1), Xavia_12 (P3), Zilizebeth_12 (P1),

Start 16:

- Found in 8 of 126 (6.3%) of genes in pham
- Manual Annotations of this start: 1 of 112
- Called 25.0% of time when present
- Phage (with cluster) where this start called: YoyoKar_43 (O), Zakhe101_45 (O),

Start 17:

- Found in 1 of 126 (0.8%) of genes in pham
- Manual Annotations of this start: 1 of 112
- Called 100.0% of time when present
- Phage (with cluster) where this start called: Cornie_10 (F5),

Start 18:

- Found in 20 of 126 (15.9%) of genes in pham
- Manual Annotations of this start: 11 of 112
- Called 75.0% of time when present
- Phage (with cluster) where this start called: Babsiella_11 (I1), Bluvara_11 (UNK), Brujita_11 (I1), Che9c_10 (I2), HC_11 (I1), Idergollasper_45 (O), Island3_11 (I1), KingPhillip3_44 (O), MooMoo_9 (singleton), PaintedDog_10 (I1), QueenHazel_11 (I1), Sbash_10 (I2), Stuck_10 (I2), Winget_46 (O), Xula_10 (I1),

Start 19:

- Found in 52 of 126 (41.3%) of genes in pham
- Manual Annotations of this start: 46 of 112
- Called 94.2% of time when present
- Phage (with cluster) where this start called: Aggie_11 (N), Andies_11 (N), BabeRuth_11 (N), Bosection6_11 (N), Butters_11 (N), Carcharodon_11 (N), Charlie_11 (N), Chewbacca_11 (N), Cubone_10 (N), Duplicity_11 (N), EGUnicorn_11 (N), Fulbright_11 (N), Gex_11 (N), Hanako_11 (N), Impisi_11 (N), Jamie19_11 (N), Journey_11 (N), Kevin1_11 (N), Magsby_11 (N), Melville_11 (N), MichelleMyBell_11 (N), Neniae_11 (N), Panchino_11 (N), Parmesanjohn_11 (N), PhancyPhin_11 (N), Philonius_11 (N), Phloss_11 (N), Phrann_11 (N), Pipsqueaks_11 (N), Purgamenstris_11 (N), Raymond7_11 (N), Rebel_11 (N), Redi_11 (N), Rubeelu_11 (N), Schnauzer_11 (N), Scitech_11 (N), ShrimpFriedEgg_11 (N), Shweta_11 (N), Silvafighter_11 (N), Silvy_11 (N), SkinnyPete_11 (N), Smurph_11 (N), Snekmaggon_11 (N), Spinach_11 (N), SpongeBob_11 (N), Tapioca_11 (N), Tortoise12_11 (N), Xeno_11 (N), Xerxes_11 (N),

Summary by clusters:

There are 13 clusters represented in this pham: P2, P3, singleton, P1, P6, F5, P4, P5, I1, I2, O, N, UNK,

Info for manual annotations of cluster F5:

- Start number 17 was manually annotated 1 time for cluster F5.

Info for manual annotations of cluster I1:

- Start number 18 was manually annotated 6 times for cluster I1.

Info for manual annotations of cluster I2:

- Start number 18 was manually annotated 2 times for cluster I2.

Info for manual annotations of cluster N:

- Start number 19 was manually annotated 46 times for cluster N.

Info for manual annotations of cluster O:

- Start number 15 was manually annotated 3 times for cluster O.
- Start number 16 was manually annotated 1 time for cluster O.
- Start number 18 was manually annotated 2 times for cluster O.

Info for manual annotations of cluster P1:

- Start number 15 was manually annotated 43 times for cluster P1.

Info for manual annotations of cluster P2:

- Start number 15 was manually annotated 1 time for cluster P2.

Info for manual annotations of cluster P3:

- Start number 15 was manually annotated 1 time for cluster P3.

Info for manual annotations of cluster P4:

- Start number 15 was manually annotated 2 times for cluster P4.

Info for manual annotations of cluster P5:

- Start number 15 was manually annotated 2 times for cluster P5.

Info for manual annotations of cluster P6:

- Start number 15 was manually annotated 1 time for cluster P6.

Gene Information:

Gene: Aggie_11 Start: 6975, Stop: 7346, Start Num: 19

Candidate Starts for Aggie_11:

(7, 6867), (10, 6894), (11, 6909), (Start: 19 @6975 has 46 MA's), (29, 7083), (30, 7101), (32, 7128), (40, 7188), (46, 7296), (49, 7329),

Gene: Andies_11 Start: 6975, Stop: 7346, Start Num: 19

Candidate Starts for Andies_11:

(7, 6867), (10, 6894), (11, 6909), (Start: 19 @6975 has 46 MA's), (29, 7083), (30, 7101), (32, 7128), (40, 7188), (46, 7296), (49, 7329),

Gene: Arib1_12 Start: 7913, Stop: 8290, Start Num: 15

Candidate Starts for Arib1_12:

(8, 7829), (Start: 15 @7913 has 53 MA's), (37, 8126), (41, 8168), (42, 8186),

Gene: Atcoo_12 Start: 7900, Stop: 8313, Start Num: 15

Candidate Starts for Atcoo_12:

(8, 7816), (Start: 15 @7900 has 53 MA's), (37, 8113), (41, 8155), (42, 8173),

Gene: BabeRuth_11 Start: 7020, Stop: 7391, Start Num: 19

Candidate Starts for BabeRuth_11:

(6, 6852), (11, 6951), (13, 6972), (Start: 19 @7020 has 46 MA's), (25, 7083), (29, 7128), (30, 7146),
(32, 7173), (37, 7206), (46, 7341), (49, 7374), (50, 7380),

Gene: Babsiella_11 Start: 7921, Stop: 8361, Start Num: 18

Candidate Starts for Babsiella_11:

(4, 7591), (14, 7900), (Start: 18 @7921 has 11 MA's), (27, 8017), (34, 8095), (37, 8122), (51, 8347),

Gene: Bartholomew_12 Start: 7932, Stop: 8309, Start Num: 15

Candidate Starts for Bartholomew_12:

(8, 7848), (Start: 15 @7932 has 53 MA's), (37, 8145), (41, 8187), (42, 8205),

Gene: Bhagsy_12 Start: 7903, Stop: 8316, Start Num: 15

Candidate Starts for Bhagsy_12:

(8, 7819), (Start: 15 @7903 has 53 MA's), (37, 8116), (41, 8158), (42, 8176),

Gene: BigNuz_11 Start: 7647, Stop: 8021, Start Num: 15

Candidate Starts for BigNuz_11:

(Start: 15 @7647 has 53 MA's), (37, 7857), (41, 7899), (42, 7917),

Gene: Bluvara_11 Start: 7919, Stop: 8359, Start Num: 18

Candidate Starts for Bluvara_11:

(3, 7442), (4, 7592), (14, 7898), (Start: 18 @7919 has 11 MA's), (27, 8015), (34, 8093), (37, 8120), (51, 8345),

Gene: Bogie_11 Start: 7652, Stop: 8026, Start Num: 15

Candidate Starts for Bogie_11:

(Start: 15 @7652 has 53 MA's), (37, 7862), (41, 7904), (42, 7922),

Gene: Bora_42 Start: 22320, Stop: 22745, Start Num: 15

Candidate Starts for Bora_42:

(Start: 15 @22320 has 53 MA's), (Start: 16 @22326 has 1 MA's), (Start: 18 @22338 has 11 MA's), (21, 22359), (40, 22557), (47, 22731),

Gene: Bosection6_11 Start: 6975, Stop: 7346, Start Num: 19

Candidate Starts for Bosection6_11:

(7, 6867), (10, 6894), (11, 6909), (Start: 19 @6975 has 46 MA's), (29, 7083), (30, 7101), (32, 7128),
(40, 7188), (46, 7296), (49, 7329),

Gene: BronnyJr_12 Start: 7916, Stop: 8293, Start Num: 15

Candidate Starts for BronnyJr_12:

(8, 7832), (Start: 15 @7916 has 53 MA's), (37, 8129), (41, 8171), (42, 8189),

Gene: Brujita_11 Start: 7922, Stop: 8362, Start Num: 18

Candidate Starts for Brujita_11:

(1, 7409), (2, 7415), (3, 7445), (4, 7595), (14, 7901), (Start: 18 @7922 has 11 MA's), (27, 8018), (34, 8096), (37, 8123), (51, 8348),

Gene: Brusacoram_12 Start: 7899, Stop: 8312, Start Num: 15

Candidate Starts for Brusacoram_12:

(8, 7815), (Start: 15 @7899 has 53 MA's), (37, 8112), (41, 8154), (42, 8172),

Gene: Bunnies_12 Start: 7912, Stop: 8325, Start Num: 15

Candidate Starts for Bunnies_12:

(8, 7828), (Start: 15 @7912 has 53 MA's), (37, 8125), (41, 8167), (42, 8185),

Gene: Butters_11 Start: 6995, Stop: 7366, Start Num: 19

Candidate Starts for Butters_11:

(12, 6929), (Start: 19 @6995 has 46 MA's), (25, 7058), (29, 7103), (30, 7121), (31, 7139), (32, 7148), (49, 7349), (50, 7355),

Gene: CactusJack_12 Start: 7899, Stop: 8312, Start Num: 15

Candidate Starts for CactusJack_12:

(8, 7815), (Start: 15 @7899 has 53 MA's), (37, 8112), (41, 8154), (42, 8172),

Gene: Camster_12 Start: 7932, Stop: 8309, Start Num: 15

Candidate Starts for Camster_12:

(8, 7848), (Start: 15 @7932 has 53 MA's), (37, 8145), (41, 8187), (42, 8205),

Gene: Carcharodon_11 Start: 6975, Stop: 7346, Start Num: 19

Candidate Starts for Carcharodon_11:

(7, 6867), (10, 6894), (11, 6909), (Start: 19 @6975 has 46 MA's), (29, 7083), (30, 7101), (32, 7128), (40, 7188), (46, 7296), (49, 7329),

Gene: Catdawg_45 Start: 22959, Stop: 23384, Start Num: 15

Candidate Starts for Catdawg_45:

(Start: 15 @22959 has 53 MA's), (Start: 16 @22965 has 1 MA's), (Start: 18 @22977 has 11 MA's), (21, 22998), (40, 23196), (47, 23370),

Gene: Charlie_11 Start: 6975, Stop: 7346, Start Num: 19

Candidate Starts for Charlie_11:

(7, 6867), (10, 6894), (11, 6909), (Start: 19 @6975 has 46 MA's), (29, 7083), (30, 7101), (32, 7128), (40, 7188), (46, 7296), (49, 7329),

Gene: Che9c_10 Start: 7526, Stop: 7978, Start Num: 18

Candidate Starts for Che9c_10:

(14, 7505), (Start: 18 @7526 has 11 MA's), (27, 7622), (33, 7697), (34, 7700), (37, 7727), (43, 7838), (46, 7913), (52, 7961),

Gene: Chewbacca_11 Start: 6975, Stop: 7346, Start Num: 19

Candidate Starts for Chewbacca_11:

(7, 6867), (10, 6894), (11, 6909), (Start: 19 @6975 has 46 MA's), (29, 7083), (30, 7101), (32, 7128), (40, 7188), (46, 7296), (49, 7329),

Gene: Chubbello_12 Start: 7931, Stop: 8308, Start Num: 15

Candidate Starts for Chubbello_12:

(8, 7847), (Start: 15 @7931 has 53 MA's), (37, 8144), (41, 8186), (42, 8204),

Gene: Corndog_47 Start: 23417, Stop: 23842, Start Num: 15

Candidate Starts for Corndog_47:

(Start: 15 @23417 has 53 MA's), (Start: 16 @23423 has 1 MA's), (Start: 18 @23435 has 11 MA's), (21, 23456), (40, 23654), (47, 23828),

Gene: Cornie_10 Start: 7003, Stop: 7410, Start Num: 17

Candidate Starts for Cornie_10:

(9, 6928), (Start: 17 @7003 has 1 MA's), (26, 7087), (36, 7198), (38, 7204),

Gene: Cubone_10 Start: 6999, Stop: 7370, Start Num: 19

Candidate Starts for Cubone_10:

(7, 6891), (10, 6918), (11, 6933), (Start: 19 @6999 has 46 MA's), (29, 7107), (30, 7125), (32, 7152), (40, 7212), (46, 7320), (49, 7353),

Gene: Donovan_12 Start: 7914, Stop: 8291, Start Num: 15

Candidate Starts for Donovan_12:

(8, 7830), (Start: 15 @7914 has 53 MA's), (37, 8127), (41, 8169), (42, 8187),

Gene: Duplicity_11 Start: 6975, Stop: 7346, Start Num: 19

Candidate Starts for Duplicity_11:

(7, 6867), (10, 6894), (11, 6909), (Start: 19 @6975 has 46 MA's), (29, 7083), (30, 7101), (32, 7128), (40, 7188), (46, 7296), (49, 7329),

Gene: Dynamo_12 Start: 7932, Stop: 8309, Start Num: 15

Candidate Starts for Dynamo_12:

(8, 7848), (Start: 15 @7932 has 53 MA's), (37, 8145), (41, 8187), (42, 8205),

Gene: EGUunicorn_11 Start: 6975, Stop: 7346, Start Num: 19

Candidate Starts for EGUunicorn_11:

(7, 6867), (10, 6894), (11, 6909), (Start: 19 @6975 has 46 MA's), (29, 7083), (30, 7101), (32, 7128), (40, 7188), (46, 7296), (49, 7329),

Gene: Etoile_12 Start: 7932, Stop: 8309, Start Num: 15

Candidate Starts for Etoile_12:

(8, 7848), (Start: 15 @7932 has 53 MA's), (37, 8145), (41, 8187), (42, 8205),

Gene: FirstPlacePfu_12 Start: 7932, Stop: 8309, Start Num: 15

Candidate Starts for FirstPlacePfu_12:

(8, 7848), (Start: 15 @7932 has 53 MA's), (37, 8145), (41, 8187), (42, 8205),

Gene: Fishburne_12 Start: 7932, Stop: 8309, Start Num: 15

Candidate Starts for Fishburne_12:

(8, 7848), (Start: 15 @7932 has 53 MA's), (37, 8145), (41, 8187), (42, 8205),

Gene: Fulbright_11 Start: 6975, Stop: 7346, Start Num: 19

Candidate Starts for Fulbright_11:

(7, 6867), (10, 6894), (11, 6909), (Start: 19 @6975 has 46 MA's), (29, 7083), (30, 7101), (32, 7128), (40, 7188), (46, 7296), (49, 7329),

Gene: GaloreK_12 Start: 7920, Stop: 8297, Start Num: 15

Candidate Starts for GaloreK_12:

(8, 7836), (Start: 15 @7920 has 53 MA's), (37, 8133), (41, 8175), (42, 8193),

Gene: Gavriela_12 Start: 7899, Stop: 8312, Start Num: 15

Candidate Starts for Gavriela_12:

(8, 7815), (Start: 15 @7899 has 53 MA's), (37, 8112), (41, 8154), (42, 8172),

Gene: Gex_11 Start: 6975, Stop: 7346, Start Num: 19

Candidate Starts for Gex_11:

(7, 6867), (10, 6894), (11, 6909), (Start: 19 @6975 has 46 MA's), (29, 7083), (30, 7101), (32, 7128), (40, 7188), (46, 7296), (49, 7329),

Gene: Glaske_12 Start: 7899, Stop: 8312, Start Num: 15

Candidate Starts for Glaske_12:

(8, 7815), (Start: 15 @7899 has 53 MA's), (37, 8112), (41, 8154), (42, 8172),

Gene: GreaseLightnin_12 Start: 7932, Stop: 8309, Start Num: 15

Candidate Starts for GreaseLightnin_12:

(8, 7848), (Start: 15 @7932 has 53 MA's), (37, 8145), (41, 8187), (42, 8205),

Gene: HC_11 Start: 7921, Stop: 8361, Start Num: 18

Candidate Starts for HC_11:

(4, 7594), (14, 7900), (Start: 18 @7921 has 11 MA's), (27, 8017), (34, 8095), (37, 8122), (51, 8347),

Gene: HUHilltop_12 Start: 7932, Stop: 8309, Start Num: 15

Candidate Starts for HUHilltop_12:

(8, 7848), (Start: 15 @7932 has 53 MA's), (37, 8145), (41, 8187), (42, 8205),

Gene: Hanako_11 Start: 7020, Stop: 7391, Start Num: 19

Candidate Starts for Hanako_11:

(6, 6852), (11, 6951), (13, 6972), (Start: 19 @7020 has 46 MA's), (25, 7083), (29, 7128), (30, 7146), (32, 7173), (37, 7206), (46, 7341), (49, 7374), (50, 7380),

Gene: Idergollasper_45 Start: 22975, Stop: 23382, Start Num: 18

Candidate Starts for Idergollasper_45:

(Start: 15 @22957 has 53 MA's), (Start: 16 @22963 has 1 MA's), (Start: 18 @22975 has 11 MA's), (21, 22996), (40, 23194), (47, 23368),

Gene: Impisi_11 Start: 7020, Stop: 7391, Start Num: 19

Candidate Starts for Impisi_11:

(6, 6852), (11, 6951), (13, 6972), (Start: 19 @7020 has 46 MA's), (25, 7083), (29, 7128), (30, 7146), (32, 7173), (37, 7206), (46, 7341), (49, 7374), (50, 7380),

Gene: Island3_11 Start: 7922, Stop: 8362, Start Num: 18

Candidate Starts for Island3_11:

(1, 7409), (2, 7415), (3, 7445), (4, 7595), (14, 7901), (Start: 18 @7922 has 11 MA's), (27, 8018), (34, 8096), (37, 8123), (51, 8348),

Gene: Jamie19_11 Start: 7020, Stop: 7391, Start Num: 19

Candidate Starts for Jamie19_11:

(6, 6852), (11, 6951), (13, 6972), (Start: 19 @7020 has 46 MA's), (25, 7083), (29, 7128), (30, 7146), (32, 7173), (37, 7206), (46, 7341), (49, 7374), (50, 7380),

Gene: Jebeks_12 Start: 7913, Stop: 8290, Start Num: 15

Candidate Starts for Jebeks_12:

(8, 7829), (Start: 15 @7913 has 53 MA's), (37, 8126), (41, 8168), (42, 8186),

Gene: Journey_11 Start: 6975, Stop: 7346, Start Num: 19

Candidate Starts for Journey_11:

(7, 6867), (10, 6894), (11, 6909), (Start: 19 @6975 has 46 MA's), (29, 7083), (30, 7101), (32, 7128), (40, 7188), (46, 7296), (49, 7329),

Gene: Jung_12 Start: 7923, Stop: 8336, Start Num: 15

Candidate Starts for Jung_12:

(8, 7839), (Start: 15 @7923 has 53 MA's), (37, 8136), (41, 8178), (42, 8196),

Gene: Juniormint_12 Start: 7916, Stop: 8329, Start Num: 15

Candidate Starts for Juniormint_12:

(8, 7832), (Start: 15 @7916 has 53 MA's), (37, 8129), (41, 8171), (42, 8189),

Gene: Kari_12 Start: 7932, Stop: 8309, Start Num: 15

Candidate Starts for Kari_12:

(8, 7848), (Start: 15 @7932 has 53 MA's), (37, 8145), (41, 8187), (42, 8205),

Gene: Kevin1_11 Start: 6995, Stop: 7366, Start Num: 19

Candidate Starts for Kevin1_11:

(12, 6929), (Start: 19 @6995 has 46 MA's), (25, 7058), (29, 7103), (30, 7121), (31, 7139), (32, 7148), (49, 7349), (50, 7355),

Gene: KilKor_12 Start: 7899, Stop: 8312, Start Num: 15

Candidate Starts for KilKor_12:

(8, 7815), (Start: 15 @7899 has 53 MA's), (37, 8112), (41, 8154), (42, 8172),

Gene: KingPhillip3_44 Start: 22975, Stop: 23382, Start Num: 18

Candidate Starts for KingPhillip3_44:

(Start: 15 @22957 has 53 MA's), (Start: 16 @22963 has 1 MA's), (Start: 18 @22975 has 11 MA's), (21, 22996), (40, 23194), (47, 23368),

Gene: Ksquared_12 Start: 7912, Stop: 8325, Start Num: 15

Candidate Starts for Ksquared_12:

(8, 7828), (Start: 15 @7912 has 53 MA's), (37, 8125), (41, 8167), (42, 8185),

Gene: Langerak_12 Start: 7913, Stop: 8290, Start Num: 15

Candidate Starts for Langerak_12:

(8, 7829), (Start: 15 @7913 has 53 MA's), (37, 8126), (41, 8168), (42, 8186),

Gene: Magsby_11 Start: 6975, Stop: 7346, Start Num: 19

Candidate Starts for Magsby_11:

(7, 6867), (10, 6894), (11, 6909), (Start: 19 @6975 has 46 MA's), (29, 7083), (30, 7101), (32, 7128), (40, 7188), (46, 7296), (49, 7329),

Gene: Majeke_12 Start: 7913, Stop: 8290, Start Num: 15

Candidate Starts for Majeke_12:

(8, 7829), (Start: 15 @7913 has 53 MA's), (37, 8126), (41, 8168), (42, 8186),

Gene: Malithi_12 Start: 7935, Stop: 8348, Start Num: 15

Candidate Starts for Malithi_12:

(8, 7851), (Start: 15 @7935 has 53 MA's), (37, 8148), (41, 8190), (42, 8208),

Gene: Mangethe_12 Start: 7913, Stop: 8290, Start Num: 15
Candidate Starts for Mangethe_12:
(8, 7829), (Start: 15 @7913 has 53 MA's), (37, 8126), (41, 8168), (42, 8186),

Gene: Megiddo_12 Start: 7899, Stop: 8312, Start Num: 15
Candidate Starts for Megiddo_12:
(8, 7815), (Start: 15 @7899 has 53 MA's), (37, 8112), (41, 8154), (42, 8172),

Gene: Melville_11 Start: 6975, Stop: 7346, Start Num: 19
Candidate Starts for Melville_11:
(7, 6867), (10, 6894), (11, 6909), (Start: 19 @6975 has 46 MA's), (29, 7083), (30, 7101), (32, 7128),
(40, 7188), (46, 7296), (49, 7329),

Gene: MichelleMyBell_11 Start: 7015, Stop: 7386, Start Num: 19
Candidate Starts for MichelleMyBell_11:
(12, 6949), (Start: 19 @7015 has 46 MA's), (25, 7078), (29, 7123), (30, 7141), (32, 7168), (49, 7369),
(50, 7375),

Gene: MooMoo_9 Start: 6202, Stop: 6660, Start Num: 18
Candidate Starts for MooMoo_9:
(Start: 18 @6202 has 11 MA's), (27, 6298), (30, 6340), (34, 6376), (37, 6403), (44, 6544), (45, 6571),
(46, 6589),

Gene: Nazo_11 Start: 7647, Stop: 8021, Start Num: 15
Candidate Starts for Nazo_11:
(Start: 15 @7647 has 53 MA's), (Start: 19 @7671 has 46 MA's), (37, 7857), (41, 7899), (42, 7917),

Gene: Necropolis_12 Start: 7932, Stop: 8309, Start Num: 15
Candidate Starts for Necropolis_12:
(8, 7848), (Start: 15 @7932 has 53 MA's), (37, 8145), (41, 8187), (42, 8205),

Gene: Nenae_11 Start: 7020, Stop: 7391, Start Num: 19
Candidate Starts for Nenae_11:
(6, 6852), (11, 6951), (13, 6972), (Start: 19 @7020 has 46 MA's), (25, 7083), (29, 7128), (30, 7146),
(32, 7173), (37, 7206), (46, 7341), (49, 7374),

Gene: PaintedDog_10 Start: 7468, Stop: 7908, Start Num: 18
Candidate Starts for PaintedDog_10:
(3, 6991), (4, 7141), (14, 7447), (Start: 18 @7468 has 11 MA's), (27, 7564), (34, 7642), (37, 7669), (51,
7894),

Gene: Panchino_11 Start: 6996, Stop: 7367, Start Num: 19
Candidate Starts for Panchino_11:
(6, 6828), (11, 6927), (13, 6948), (Start: 19 @6996 has 46 MA's), (25, 7059), (29, 7104), (30, 7122),
(32, 7149), (37, 7182), (46, 7317), (49, 7350), (50, 7356),

Gene: Parmesanjohn_11 Start: 6975, Stop: 7346, Start Num: 19
Candidate Starts for Parmesanjohn_11:
(7, 6867), (10, 6894), (11, 6909), (Start: 19 @6975 has 46 MA's), (29, 7083), (30, 7101), (32, 7128),
(40, 7188), (46, 7296), (49, 7329),

Gene: PeanutPie_12 Start: 7903, Stop: 8316, Start Num: 15
Candidate Starts for PeanutPie_12:

(8, 7819), (Start: 15 @7903 has 53 MA's), (37, 8116), (41, 8158), (42, 8176),

Gene: Phalm_12 Start: 7899, Stop: 8312, Start Num: 15

Candidate Starts for Phalm_12:

(8, 7815), (Start: 15 @7899 has 53 MA's), (37, 8112), (41, 8154), (42, 8172),

Gene: PhancyPhin_11 Start: 7020, Stop: 7391, Start Num: 19

Candidate Starts for PhancyPhin_11:

(6, 6852), (11, 6951), (13, 6972), (Start: 19 @7020 has 46 MA's), (25, 7083), (29, 7128), (30, 7146), (32, 7173), (37, 7206), (46, 7341), (49, 7374), (50, 7380),

Gene: Phayonce_11 Start: 7601, Stop: 7975, Start Num: 15

Candidate Starts for Phayonce_11:

(Start: 15 @7601 has 53 MA's), (22, 7649), (37, 7811), (39, 7826), (41, 7853),

Gene: Phegasus_12 Start: 7913, Stop: 8290, Start Num: 15

Candidate Starts for Phegasus_12:

(8, 7829), (Start: 15 @7913 has 53 MA's), (37, 8126), (41, 8168), (42, 8186),

Gene: Philonius_11 Start: 6975, Stop: 7346, Start Num: 19

Candidate Starts for Philonius_11:

(7, 6867), (10, 6894), (11, 6909), (Start: 19 @6975 has 46 MA's), (29, 7083), (30, 7101), (32, 7128), (40, 7188), (46, 7296), (49, 7329),

Gene: Phineas_12 Start: 7920, Stop: 8297, Start Num: 15

Candidate Starts for Phineas_12:

(8, 7836), (Start: 15 @7920 has 53 MA's), (37, 8133), (41, 8175), (42, 8193),

Gene: Phloss_11 Start: 6975, Stop: 7346, Start Num: 19

Candidate Starts for Phloss_11:

(7, 6867), (10, 6894), (11, 6909), (Start: 19 @6975 has 46 MA's), (29, 7083), (30, 7101), (32, 7128), (40, 7188), (46, 7296), (49, 7329),

Gene: Phrann_11 Start: 7020, Stop: 7391, Start Num: 19

Candidate Starts for Phrann_11:

(6, 6852), (11, 6951), (13, 6972), (Start: 19 @7020 has 46 MA's), (25, 7083), (29, 7128), (30, 7146), (32, 7173), (37, 7206), (46, 7341), (49, 7374), (50, 7380),

Gene: Pipsqueaks_11 Start: 6975, Stop: 7346, Start Num: 19

Candidate Starts for Pipsqueaks_11:

(7, 6867), (10, 6894), (11, 6909), (Start: 19 @6975 has 46 MA's), (29, 7083), (30, 7101), (32, 7128), (40, 7188), (46, 7296), (49, 7329),

Gene: Polkaroo_12 Start: 7912, Stop: 8325, Start Num: 15

Candidate Starts for Polkaroo_12:

(8, 7828), (Start: 15 @7912 has 53 MA's), (37, 8125), (41, 8167), (42, 8185),

Gene: Purgamenstris_11 Start: 7020, Stop: 7391, Start Num: 19

Candidate Starts for Purgamenstris_11:

(6, 6852), (11, 6951), (13, 6972), (Start: 19 @7020 has 46 MA's), (25, 7083), (29, 7128), (30, 7146), (32, 7173), (37, 7206), (46, 7341), (49, 7374),

Gene: Purky_11 Start: 7613, Stop: 7984, Start Num: 15

Candidate Starts for Purky_11:

(Start: 15 @7613 has 53 MA's), (Start: 19 @7634 has 46 MA's), (23, 7664), (24, 7688), (37, 7820), (41, 7862), (42, 7880), (48, 7979),

Gene: Pygmy_11 Start: 7652, Stop: 8026, Start Num: 15

Candidate Starts for Pygmy_11:

(Start: 15 @7652 has 53 MA's), (37, 7862), (41, 7904), (42, 7922),

Gene: QueenHazel_11 Start: 7927, Stop: 8367, Start Num: 18

Candidate Starts for QueenHazel_11:

(4, 7597), (5, 7645), (14, 7906), (Start: 18 @7927 has 11 MA's), (27, 8023), (34, 8101), (37, 8128), (51, 8353),

Gene: Raymond7_11 Start: 7020, Stop: 7391, Start Num: 19

Candidate Starts for Raymond7_11:

(6, 6852), (11, 6951), (13, 6972), (Start: 19 @7020 has 46 MA's), (25, 7083), (29, 7128), (30, 7146), (32, 7173), (37, 7206), (46, 7341), (49, 7374), (50, 7380),

Gene: Rebel_11 Start: 7020, Stop: 7391, Start Num: 19

Candidate Starts for Rebel_11:

(6, 6852), (11, 6951), (13, 6972), (Start: 19 @7020 has 46 MA's), (25, 7083), (29, 7128), (30, 7146), (32, 7173), (37, 7206), (46, 7341), (49, 7374), (50, 7380),

Gene: Redi_11 Start: 7020, Stop: 7391, Start Num: 19

Candidate Starts for Redi_11:

(6, 6852), (11, 6951), (13, 6972), (Start: 19 @7020 has 46 MA's), (25, 7083), (29, 7128), (30, 7146), (32, 7173), (37, 7206), (46, 7341), (49, 7374), (50, 7380),

Gene: Rubeelu_11 Start: 6995, Stop: 7366, Start Num: 19

Candidate Starts for Rubeelu_11:

(12, 6929), (Start: 19 @6995 has 46 MA's), (25, 7058), (29, 7103), (30, 7121), (31, 7139), (32, 7148), (49, 7349), (50, 7355),

Gene: Sbash_10 Start: 7504, Stop: 7950, Start Num: 18

Candidate Starts for Sbash_10:

(14, 7483), (Start: 18 @7504 has 11 MA's), (27, 7600), (28, 7603), (33, 7675), (34, 7678), (37, 7705), (43, 7807), (46, 7882),

Gene: Schnauzer_11 Start: 6975, Stop: 7346, Start Num: 19

Candidate Starts for Schnauzer_11:

(7, 6867), (10, 6894), (11, 6909), (Start: 19 @6975 has 46 MA's), (29, 7083), (30, 7101), (32, 7128), (40, 7188), (46, 7296), (49, 7329),

Gene: Scitech_11 Start: 6975, Stop: 7346, Start Num: 19

Candidate Starts for Scitech_11:

(7, 6867), (10, 6894), (11, 6909), (Start: 19 @6975 has 46 MA's), (29, 7083), (30, 7101), (32, 7128), (40, 7188), (46, 7296), (49, 7329),

Gene: Shipwreck_11 Start: 7630, Stop: 8004, Start Num: 15

Candidate Starts for Shipwreck_11:

(Start: 15 @7630 has 53 MA's), (37, 7840), (41, 7882), (42, 7900),

Gene: ShrimpFriedEgg_11 Start: 7020, Stop: 7391, Start Num: 19

Candidate Starts for ShrimpFriedEgg_11:

(6, 6852), (11, 6951), (13, 6972), (Start: 19 @7020 has 46 MA's), (25, 7083), (29, 7128), (30, 7146), (32, 7173), (37, 7206), (46, 7341), (49, 7374), (50, 7380),

Gene: Shweta_11 Start: 7020, Stop: 7391, Start Num: 19

Candidate Starts for Shweta_11:

(6, 6852), (11, 6951), (13, 6972), (Start: 19 @7020 has 46 MA's), (25, 7083), (29, 7128), (30, 7146), (32, 7173), (37, 7206), (46, 7341), (49, 7374), (50, 7380),

Gene: Silvafighter_11 Start: 6975, Stop: 7346, Start Num: 19

Candidate Starts for Silvafighter_11:

(7, 6867), (10, 6894), (11, 6909), (Start: 19 @6975 has 46 MA's), (29, 7083), (30, 7101), (32, 7128), (40, 7188), (46, 7296), (49, 7329),

Gene: Silvy_11 Start: 6975, Stop: 7346, Start Num: 19

Candidate Starts for Silvy_11:

(7, 6867), (10, 6894), (11, 6909), (Start: 19 @6975 has 46 MA's), (29, 7083), (30, 7101), (32, 7128), (40, 7188), (46, 7296), (49, 7329),

Gene: SkinnyPete_11 Start: 7020, Stop: 7391, Start Num: 19

Candidate Starts for SkinnyPete_11:

(6, 6852), (11, 6951), (13, 6972), (Start: 19 @7020 has 46 MA's), (25, 7083), (29, 7128), (30, 7146), (32, 7173), (37, 7206), (46, 7341), (49, 7374), (50, 7380),

Gene: Smurph_11 Start: 6975, Stop: 7346, Start Num: 19

Candidate Starts for Smurph_11:

(7, 6867), (10, 6894), (11, 6909), (Start: 19 @6975 has 46 MA's), (29, 7083), (30, 7101), (32, 7128), (40, 7188), (46, 7296), (49, 7329),

Gene: Snekmaggedon_11 Start: 7020, Stop: 7391, Start Num: 19

Candidate Starts for Snekmaggedon_11:

(6, 6852), (11, 6951), (13, 6972), (Start: 19 @7020 has 46 MA's), (25, 7083), (29, 7128), (30, 7146), (32, 7173), (37, 7206), (46, 7341), (49, 7374), (50, 7380),

Gene: Sonah_12 Start: 7915, Stop: 8292, Start Num: 15

Candidate Starts for Sonah_12:

(8, 7831), (Start: 15 @7915 has 53 MA's), (37, 8128), (41, 8170), (42, 8188),

Gene: Spinach_11 Start: 7020, Stop: 7391, Start Num: 19

Candidate Starts for Spinach_11:

(6, 6852), (11, 6951), (13, 6972), (Start: 19 @7020 has 46 MA's), (25, 7083), (29, 7128), (30, 7146), (32, 7173), (37, 7206), (46, 7341), (49, 7374), (50, 7380),

Gene: SpongeBob_11 Start: 7020, Stop: 7391, Start Num: 19

Candidate Starts for SpongeBob_11:

(6, 6852), (11, 6951), (13, 6972), (Start: 19 @7020 has 46 MA's), (25, 7083), (29, 7128), (30, 7146), (32, 7173), (37, 7206), (46, 7341), (49, 7374), (50, 7380),

Gene: StevieRay_12 Start: 7923, Stop: 8300, Start Num: 15

Candidate Starts for StevieRay_12:

(8, 7839), (Start: 15 @7923 has 53 MA's), (37, 8136), (41, 8178), (42, 8196),

Gene: StressBall_12 Start: 7899, Stop: 8312, Start Num: 15

Candidate Starts for StressBall_12:

(8, 7815), (Start: 15 @7899 has 53 MA's), (37, 8112), (41, 8154), (42, 8172),

Gene: Stuck_10 Start: 7516, Stop: 7968, Start Num: 18

Candidate Starts for Stuck_10:

(14, 7495), (Start: 18 @7516 has 11 MA's), (27, 7612), (33, 7687), (34, 7690), (37, 7717), (43, 7828), (46, 7903), (52, 7951),

Gene: Tapioca_11 Start: 6975, Stop: 7346, Start Num: 19

Candidate Starts for Tapioca_11:

(7, 6867), (10, 6894), (11, 6909), (Start: 19 @6975 has 46 MA's), (29, 7083), (30, 7101), (32, 7128), (40, 7188), (46, 7296), (49, 7329),

Gene: Techage_12 Start: 7916, Stop: 8293, Start Num: 15

Candidate Starts for Techage_12:

(8, 7832), (Start: 15 @7916 has 53 MA's), (37, 8129), (41, 8171), (42, 8189),

Gene: Thespis_12 Start: 7899, Stop: 8312, Start Num: 15

Candidate Starts for Thespis_12:

(8, 7815), (Start: 15 @7899 has 53 MA's), (37, 8112), (41, 8154), (42, 8172),

Gene: ThulaThula_11 Start: 7607, Stop: 7981, Start Num: 15

Candidate Starts for ThulaThula_11:

(Start: 15 @7607 has 53 MA's), (22, 7655), (39, 7832), (41, 7859),

Gene: Tortellini_11 Start: 7594, Stop: 7998, Start Num: 15

Candidate Starts for Tortellini_11:

(Start: 15 @7594 has 53 MA's), (Start: 19 @7612 has 46 MA's), (24, 7666), (37, 7798), (41, 7840), (42, 7858),

Gene: Tortoise12_11 Start: 6975, Stop: 7346, Start Num: 19

Candidate Starts for Tortoise12_11:

(7, 6867), (10, 6894), (11, 6909), (Start: 19 @6975 has 46 MA's), (29, 7083), (30, 7101), (32, 7128), (40, 7188), (46, 7296), (49, 7329),

Gene: Venti_12 Start: 7932, Stop: 8309, Start Num: 15

Candidate Starts for Venti_12:

(8, 7848), (Start: 15 @7932 has 53 MA's), (37, 8145), (41, 8187), (42, 8205),

Gene: Vidya_12 Start: 7932, Stop: 8309, Start Num: 15

Candidate Starts for Vidya_12:

(8, 7848), (Start: 15 @7932 has 53 MA's), (37, 8145), (41, 8187), (42, 8205),

Gene: Willsammy_12 Start: 7902, Stop: 8315, Start Num: 15

Candidate Starts for Willsammy_12:

(8, 7818), (Start: 15 @7902 has 53 MA's), (37, 8115), (41, 8157), (42, 8175),

Gene: Winget_46 Start: 23244, Stop: 23651, Start Num: 18

Candidate Starts for Winget_46:

(Start: 15 @23226 has 53 MA's), (Start: 16 @23232 has 1 MA's), (Start: 18 @23244 has 11 MA's), (20, 23259), (21, 23265), (40, 23463), (47, 23637),

Gene: Xavia_12 Start: 7936, Stop: 8313, Start Num: 15

Candidate Starts for Xavia_12:

(8, 7852), (Start: 15 @7936 has 53 MA's), (37, 8149), (41, 8191), (42, 8209),

Gene: Xeno_11 Start: 6975, Stop: 7346, Start Num: 19

Candidate Starts for Xeno_11:

(7, 6867), (10, 6894), (11, 6909), (Start: 19 @6975 has 46 MA's), (29, 7083), (30, 7101), (32, 7128),
(40, 7188), (46, 7296), (49, 7329),

Gene: Xerxes_11 Start: 6975, Stop: 7346, Start Num: 19

Candidate Starts for Xerxes_11:

(7, 6867), (10, 6894), (11, 6909), (Start: 19 @6975 has 46 MA's), (29, 7083), (30, 7101), (32, 7128),
(40, 7188), (46, 7296), (49, 7329),

Gene: Xula_10 Start: 7556, Stop: 7996, Start Num: 18

Candidate Starts for Xula_10:

(4, 7226), (5, 7274), (14, 7535), (Start: 18 @7556 has 11 MA's), (27, 7652), (34, 7730), (35, 7733), (37, 7757), (51, 7982),

Gene: YoyoKar_43 Start: 22516, Stop: 22935, Start Num: 16

Candidate Starts for YoyoKar_43:

(Start: 15 @22510 has 53 MA's), (Start: 16 @22516 has 1 MA's), (Start: 18 @22528 has 11 MA's), (21, 22549), (40, 22747), (47, 22921),

Gene: Zakhe101_45 Start: 22682, Stop: 23101, Start Num: 16

Candidate Starts for Zakhe101_45:

(Start: 15 @22676 has 53 MA's), (Start: 16 @22682 has 1 MA's), (Start: 18 @22694 has 11 MA's), (21, 22715), (40, 22913), (47, 23087),

Gene: Zilizebeth_12 Start: 7932, Stop: 8309, Start Num: 15

Candidate Starts for Zilizebeth_12:

(8, 7848), (Start: 15 @7932 has 53 MA's), (37, 8145), (41, 8187), (42, 8205),