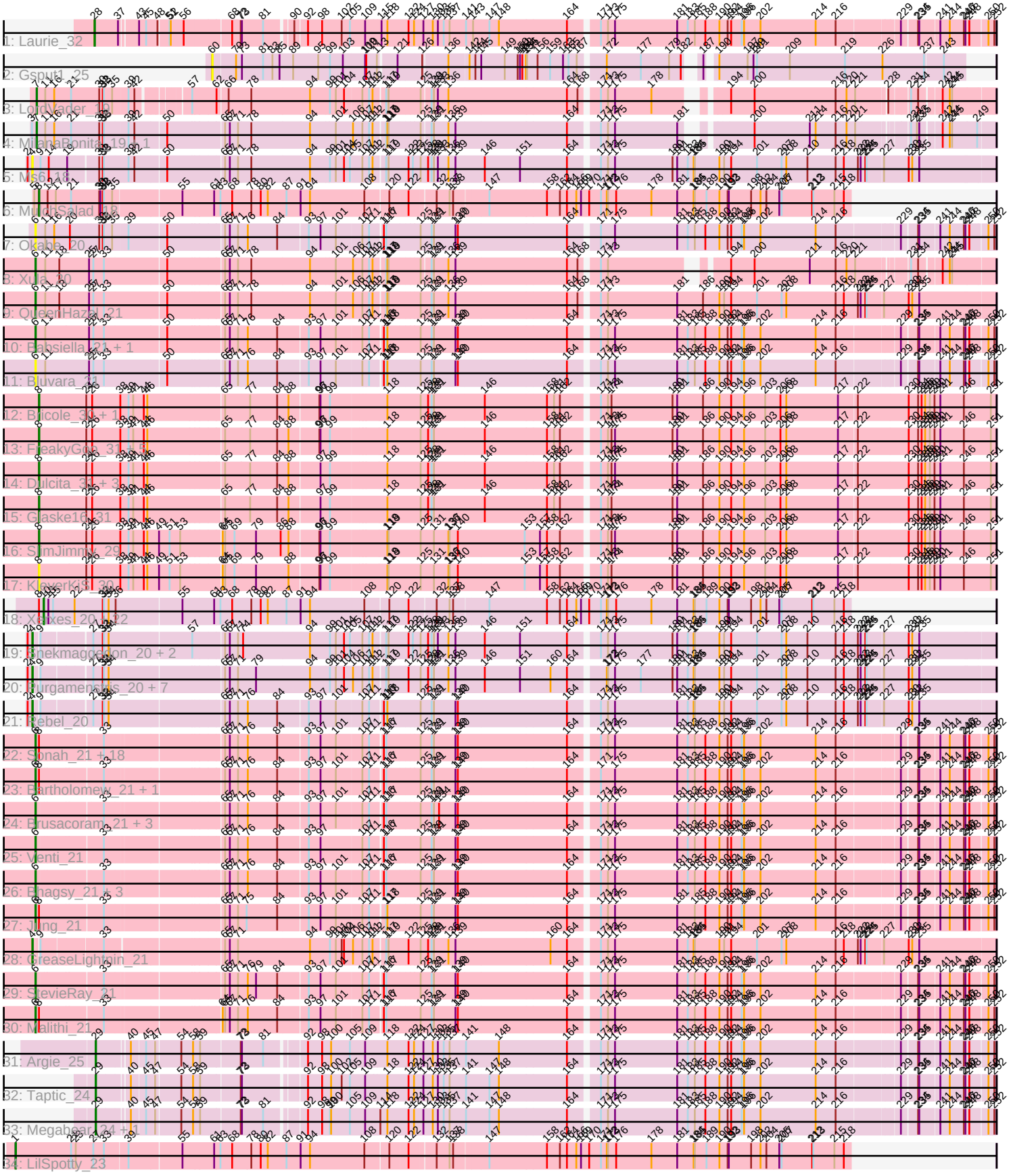
Pham 345578


1: Laurie_32
2: Gsputt_25
3: LordVader_32
4: MilanaBonita_19 + 1
5: Ms6_18
6: MuddSalad_18
7: Okabe_20
8: Xuia_20
9: QueenHazel_21
10: Babsiella_21 + 1
11: Bluvara_21
12: Bricole_32 + 1
13: FreakyGee_31 + 3
14: Dulcita_32 + 3
15: Glaske16_31
16: SlimJimmy_29
17: KleverKid_30
18: Xinixes_20 + 12
19: Shekmaggedon_20 + 2
20: Burgamenaus_20 + 7
21: Rebel_20
22: Sonah_21 + 18
23: Bartholomew_21 + 1
24: Brusacoram_21 + 3
25: Venti_21
26: Bhagsy_21 + 3
27: Jung_21
28: GreaseLightgin_21
29: StevieRay_21
30: Malithi_21
31: Argie_25
32: Taptic_24
33: Megaheart_24 + 1
34: LilSpotty_23

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 345578 Report

This analysis was run 11/14/26 on database version 672.

Pham number 345578 has 102 members, 11 are drafts.

Phages represented in each track:
• Track 1 : Laurie_32
• Track 2 : Gsput1_25
• Track 3 : LordVader_19
• Track 4 : MilanaBonita_19, Akhila_19
• Track 5 : Ms6_18
• Track 6 : MulchSalad_18
• Track 7 : Okabe_20
• Track 8 : Xula_20
• Track 9 : QueenHazel_21
• Track 10 : Babsiella_21, HC_21
• Track 11 : Bluvara_21
• Track 12 : Bricole_30, PegLeg_30
• Track 13 : FreakyGoo_31, LilhomieP_29, TpudiCK_31, IPhane7_30, Bongo_30, TyDawg_30
• Track 14 : Dulcita_31, Izel_31, Diminimus_31, Auspice_30
• Track 15 : Glaske16_31
• Track 16 : SlimJimmy_29
• Track 17 : KleverKiS_30
• Track 18 : Xerxes_20, Parmesanjohn_20, Duplicity_20, Bosection6_20, Cubone_20, Journey_20, Charlie_20, Silvy_20, Smurph_20, Tortoise12_20, Pipsqueaks_20, Tapioca_20, Carcharodon_20, Gex_20, Aggie_20, Magsby_20, Melville_20, EGUnicorn_20, Chewbacca_20, Schnauzer_20, Philonius_20, Tessdabest_19, Silvafighter_20
• Track 19 : Snekmaggedon_20, SpongeBob_20, Jamie19_20
• Track 20 : Purgamenstris_20, Hanako_20, PhancyPhin_20, Nenae_20, Redi_20, Spinach_20, BabeRuth_20, ShrimpFriedEgg_20
• Track 21 : Rebel_20
• Track 22 : Sonah_21, Polkaroo_21, Langerak_21, Necropolis_21, HUHilltop_21, Chubbello_21, Vidya_21, Ksquared_21, FirstPlacePfu_21, Jebeks_21, Etoile_21, Donovan_21, Zilizebeth_21, Kari_21, Phegasus_21, Juniormint_21, Fishburne_21, GaloreK_21, Techage_21
• Track 23 : Bartholomew_21, Bunnies_21
• Track 24 : Brusacoram_21, Mangethe_21, Majeke_21, Thespis_21
• Track 25 : Venti_21
• Track 26 : Bhagsy_21, PeanutPie_21, Camster_21, Arib1_21
• Track 27 : Jung_21
• Track 28 : GreaseLightnin_21

• Track 29 : StevieRay_21
• Track 30 : Malithi_21
• Track 31 : Argie_25
• Track 32 : Taptic_24
• Track 33 : Megabear_24, Cepens_24
• Track 34 : LilSpotty_23

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

The start number called the most often in the published annotations is 6, it was called in 33 of the 91 non-draft genes in the pham.

Genes that call this "Most Annotated" start:
• Arib1_21, Babsiella_21, Bartholomew_21, Bhagsy_21, Bluvara_21, Brusacoram_21, Bunnies_21, Camster_21, Chubbello_21, Donovan_21, Etoile_21, FirstPlacePfu_21, Fishburne_21, GaloreK_21, HC_21, HUHilltop_21, Jebeks_21, Jung_21, Juniormint_21, Kari_21, Ksquared_21, Langerak_21, Majeke_21, Malithi_21, Mangethe_21, Necropolis_21, Okabe_20, PeanutPie_21, Phegasus_21, Polkaroo_21, QueenHazel_21, Sonah_21, StevieRay_21, Techage_21, Thespis_21, Venti_21, Vidya_21, Xula_20, Zilizebeth_21,

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

Genes that do not have the "Most Annotated" start:
• Aggie_20, Akhila_19, Argie_25, Auspice_30, BabeRuth_20, Bongo_30, Bosection6_20, Bricole_30, Carcharodon_20, Cepens_24, Charlie_20, Chewbacca_20, Cubone_20, Diminimus_31, Dulcita_31, Duplicity_20, EGUnicorn_20, FreakyGoo_31, Gex_20, Glaske16_31, GreaseLightnin_21, Gsput1_25, Hanako_20, IPhane7_30, Izel_31, Jamie19_20, Journey_20, KleverKiS_30, Laurie_32, LilSpotty_23, LilhomieP_29, LordVader_19, Magsby_20, Megabear_24, Melville_20, MilanaBonita_19, Ms6_18, MulchSalad_18, Nenae_20, Parmesanjohn_20, PegLeg_30, PhancyPhin_20, Philonius_20, Pipsqueaks_20, Purgamenstris_20, Rebel_20, Redi_20, Schnauzer_20, ShrimpFriedEgg_20, Silvafighter_20, Silvy_20, SlimJimmy_29, Smurph_20, Snekmaggedon_20, Spinach_20, SpongeBob_20, Tapioca_20, Taptic_24, Tessdabest_19, Tortoise12_20, TpudiCK_31, TyDawg_30, Xerxes_20,

Summary by start number:

Start 1:
• Found in 1 of 102 (1.0%) of genes in pham
• Manual Annotations of this start: 1 of 91
• Called 100.0% of time when present
• Phage (with cluster) where this start called: LilSpotty_23 (singleton),

Start 4:
• Found in 14 of 102 (13.7%) of genes in pham
• Manual Annotations of this start: 13 of 91
• Called 100.0% of time when present

• Phage (with cluster) where this start called: BabeRuth_20 (N), GreaseLightnin_21 (P1), Hanako_20 (N), Jamie19_20 (N), Ms6_18 (F1), Nenae_20 (N), PhancyPhin_20 (N), Purgamenstris_20 (N), Rebel_20 (N), Redi_20 (N), ShrimpFriedEgg_20 (N), Snekmaggedon_20 (N), Spinach_20 (N), SpongeBob_20 (N),

Start 6:
• Found in 39 of 102 (38.2%) of genes in pham
• Manual Annotations of this start: 33 of 91
• Called 100.0% of time when present
• Phage (with cluster) where this start called: Arib1_21 (P1), Babsiella_21 (I1), Bartholomew_21 (P1), Bhagsy_21 (P1), Bluvara_21 (I3), Brusacoram_21 (P1), Bunnies_21 (P1), Camster_21 (P1), Chubbello_21 (P1), Donovan_21 (P1), Etoile_21 (P1), FirstPlacePfu_21 (P1), Fishburne_21 (P1), GaloreK_21 (P1), HC_21 (I1), HUHilltop_21 (P1), Jebeks_21 (P1), Jung_21 (P1), Juniormint_21 (P1), Kari_21 (P1), Ksquared_21 (P1), Langerak_21 (P1), Majeke_21 (P1), Malithi_21 (P1), Mangethe_21 (P1), Necropolis_21 (P1), Okabe_20 (F8), PeanutPie_21 (P1), Phegasus_21 (P1), Polkaroo_21 (P1), QueenHazel_21 (I1), Sonah_21 (P1), StevieRay_21 (P1), Techage_21 (P1), Thespis_21 (P1), Venti_21 (P1), Vidya_21 (P1), Xula_20 (I1), Zilizebeth_21 (P1),

Start 7:
• Found in 3 of 102 (2.9%) of genes in pham
• Manual Annotations of this start: 3 of 91
• Called 100.0% of time when present
• Phage (with cluster) where this start called: Akhila_19 (F1), LordVader_19 (F), MilanaBonita_19 (F1),

Start 8:
• Found in 62 of 102 (60.8%) of genes in pham
• Manual Annotations of this start: 14 of 91
• Called 25.8% of time when present
• Phage (with cluster) where this start called: Auspice_30 (M1), Bongo_30 (M1), Bricole_30 (M1), Diminimus_31 (M1), Dulcita_31 (M1), FreakyGoo_31 (M1), Glaske16_31 (M1), IPhane7_30 (M1), Izel_31 (M1), KleverKiS_30 (M1), LilhomieP_29 (M1), MulchSalad_18 (F7), PegLeg_30 (M1), SlimJimmy_29 (M1), TpudiCK_31 (M1), TyDawg_30 (M1),

Start 10:
• Found in 23 of 102 (22.5%) of genes in pham
• Manual Annotations of this start: 22 of 91
• Called 100.0% of time when present
• Phage (with cluster) where this start called: Aggie_20 (N), Bosection6_20 (N), Carcharodon_20 (N), Charlie_20 (N), Chewbacca_20 (N), Cubone_20 (N), Duplicity_20 (N), EGUnicorn_20 (N), Gex_20 (N), Journey_20 (N), Magsby_20 (N), Melville_20 (N), Parmesanjohn_20 (N), Philonius_20 (N), Pipsqueaks_20 (N), Schnauzer_20 (N), Silvafighter_20 (N), Silvy_20 (N), Smurph_20 (N), Tapioca_20 (N), Tessdabest_19 (N), Tortoise12_20 (N), Xerxes_20 (N),

Start 28:
• Found in 1 of 102 (1.0%) of genes in pham
• Manual Annotations of this start: 1 of 91
• Called 100.0% of time when present
• Phage (with cluster) where this start called: Laurie_32 (B2),

Start 29:
• Found in 4 of 102 (3.9%) of genes in pham
• Manual Annotations of this start: 4 of 91
• Called 100.0% of time when present
• Phage (with cluster) where this start called: Argie_25 (W), Cepens_24 (W), Megabear_24 (W), Taptic_24 (W),

Start 60:
• Found in 1 of 102 (1.0%) of genes in pham
• No Manual Annotations of this start.
• Called 100.0% of time when present
• Phage (with cluster) where this start called: Gsput1_25 (CU2),

Summary by clusters:

There are 13 clusters represented in this pham: F1, singleton, P1, B2, F, I1, I3, F7, N, F8, M1, W, CU2,

Info for manual annotations of cluster B2:
•Start number 28 was manually annotated 1 time for cluster B2.

Info for manual annotations of cluster F:
•Start number 7 was manually annotated 1 time for cluster F.

Info for manual annotations of cluster F1:
•Start number 7 was manually annotated 2 times for cluster F1.

Info for manual annotations of cluster F7:
•Start number 8 was manually annotated 1 time for cluster F7.

Info for manual annotations of cluster I1:
•Start number 6 was manually annotated 4 times for cluster I1.

Info for manual annotations of cluster M1:
•Start number 8 was manually annotated 13 times for cluster M1.

Info for manual annotations of cluster N:
•Start number 4 was manually annotated 12 times for cluster N.
•Start number 10 was manually annotated 22 times for cluster N.

Info for manual annotations of cluster P1:
•Start number 4 was manually annotated 1 time for cluster P1.
•Start number 6 was manually annotated 29 times for cluster P1.

Info for manual annotations of cluster W:
•Start number 29 was manually annotated 4 times for cluster W.

Gene Information:

Gene: Aggie_20 Start: 17557, Stop: 19551, Start Num: 10
Candidate Starts for Aggie_20:
(Start: 8 @17545 has 14 MA's), (Start: 10 @17557 has 22 MA's), (13, 17569), (15, 17581), (22, 17635), (32, 17704), (33, 17707), (34, 17716), (36, 17731), (55, 17893), (61, 17971), (63, 17986), (68, 18016), (78, 18064), (80, 18088), (82, 18106), (87, 18154), (91, 18190), (94, 18214), (108, 18349), (120, 18406), (122, 18451), (132, 18511), (137, 18544), (138, 18553), (147, 18634), (158, 18778), (162, 18811), (164, 18829), (166, 18853), (169, 18865), (170, 18886), (171, 18916), (172, 18931), (173, 18934), (176, 18955), (178, 19045), (181, 19111), (184, 19153), (185, 19156), (189, 19186), (190, 19219), (192, 19240), (193, 19243), (198, 19300), (202, 19324), (204, 19339), (205, 19369), (207, 19375), (212, 19453), (213, 19456), (215, 19510), (218, 19534),

Gene: Akhila_19 Start: 18067, Stop: 20265, Start Num: 7
Candidate Starts for Akhila_19:
(3, 18055), (Start: 7 @18067 has 3 MA's), (11, 18088), (16, 18109), (21, 18148), (30, 18217), (32, 18226), (33, 18229), (39, 18280), (42, 18295), (50, 18370), (65, 18505), (67, 18517), (71, 18538), (78, 18571), (94, 18718), (101, 18781), (106, 18820), (107, 18844), (111, 18859), (112, 18868), (117, 18895), (118, 18898), (119, 18901), (125, 18970), (129, 18991), (131, 18997), (136, 19033), (139, 19051), (164, 19327), (171, 19393), (173, 19411), (175, 19429), (181, 19588), (200, 19714), (211, 19855), (214, 19870), (216, 19921), (220, 19948), (221, 19969), (231, 20071), (233, 20086), (235, 20092), (242, 20137), (244, 20155), (245, 20161), (249, 20224),

Gene: Argie_25 Start: 27496, Stop: 29625, Start Num: 29
Candidate Starts for Argie_25:
(Start: 29 @27496 has 4 MA's), (40, 27565), (45, 27598), (47, 27619), (54, 27676), (58, 27706), (59, 27724), (72, 27817), (73, 27820), (81, 27874), (92, 27958), (98, 27994), (100, 28015), (105, 28063), (109, 28102), (118, 28156), (122, 28210), (124, 28222), (127, 28246), (130, 28270), (133, 28282), (135, 28297), (137, 28312), (141, 28354), (148, 28435), (164, 28606), (171, 28672), (173, 28690), (175, 28708), (181, 28867), (183, 28894), (185, 28912), (188, 28939), (190, 28975), (192, 28993), (194, 28999), (195, 29026), (196, 29032), (202, 29074), (214, 29215), (216, 29266), (229, 29410), (234, 29446), (235, 29449), (241, 29497), (244, 29521), (246, 29557), (247, 29560), (248, 29569), (250, 29605), (252, 29620),

Gene: Arib1_21 Start: 19044, Stop: 21305, Start Num: 6
Candidate Starts for Arib1_21:
(Start: 6 @19044 has 33 MA's), (33, 19197), (65, 19470), (67, 19482), (71, 19503), (76, 19527), (84, 19602), (93, 19674), (97, 19704), (101, 19740), (107, 19803), (111, 19818), (116, 19845), (117, 19851), (125, 19926), (129, 19950), (131, 19956), (139, 20010), (140, 20016), (164, 20286), (171, 20352), (173, 20370), (175, 20388), (181, 20547), (183, 20574), (185, 20592), (188, 20619), (190, 20655), (192, 20673), (194, 20679), (195, 20706), (196, 20712), (202, 20754), (214, 20895), (216, 20946), (229, 21090), (234, 21126), (235, 21129), (241, 21177), (244, 21201), (246, 21237), (247, 21240), (248, 21249), (250, 21285), (252, 21300),

Gene: Auspice_30 Start: 24622, Stop: 26973, Start Num: 8
Candidate Starts for Auspice_30:
(Start: 8 @24622 has 14 MA's), (24, 24742), (26, 24757), (38, 24829), (39, 24850), (41, 24862), (44, 24889), (46, 24898), (65, 25084), (77, 25147), (84, 25216), (88, 25243), (97, 25318), (99, 25339), (118, 25474), (125, 25555), (128, 25570), (129, 25579), (131, 25585), (146, 25708), (158, 25864), (161, 25882), (162, 25897), (171, 25981), (173, 25999), (174, 26008), (175, 26017), (180, 26164), (181, 26176), (186, 26242), (190, 26284), (194, 26308), (196, 26341), (203, 26395), (206, 26434), (208, 26446), (217, 26578), (222, 26623), (230, 26749), (234, 26773), (236, 26782), (238, 26791), (239, 26803), (240, 26815), (241, 26830), (246, 26890), (251, 26959),

Gene: BabeRuth_20 Start: 17560, Stop: 19866, Start Num: 4
Candidate Starts for BabeRuth_20:
(2, 17548), (Start: 4 @17560 has 13 MA's), (9, 17572), (27, 17683), (32, 17707), (33, 17710), (34, 17719), (65, 17992), (67, 18004), (71, 18025), (79, 18070), (94, 18205), (99, 18253), (101, 18268), (104, 18289), (106, 18307), (107, 18331), (111, 18346), (112, 18355), (117, 18382), (119, 18388), (122, 18433), (125, 18457), (128, 18469), (129, 18478), (131, 18484), (136, 18520), (139, 18538), (146, 18607), (151, 18697), (160, 18772), (164, 18814), (172, 18895), (173, 18898), (175, 18916), (177, 18982), (180, 19063), (181, 19075), (183, 19102), (184, 19117), (185, 19120), (190, 19183), (191, 19192), (194, 19207), (201, 19273), (207, 19336), (208, 19345), (210, 19399), (216, 19471), (218, 19492), (222, 19528), (223, 19534), (224, 19546), (225, 19549), (227, 19588), (230, 19651), (232, 19660), (235, 19678),

Gene: Babsiella_21 Start: 19025, Stop: 21313, Start Num: 6
Candidate Starts for Babsiella_21:
(Start: 6 @19025 has 33 MA's), (11, 19049), (25, 19160), (27, 19169), (33, 19196), (50, 19343), (65, 19478), (67, 19490), (71, 19511), (76, 19535), (84, 19610), (93, 19682), (97, 19712), (101, 19748), (107, 19811), (111, 19826), (116, 19853), (117, 19859), (118, 19862), (125, 19934), (129, 19958), (131, 19964), (139, 20018), (140, 20024), (164, 20294), (171, 20360), (173, 20378), (175, 20396), (181, 20555), (183, 20582), (185, 20600), (188, 20627), (190, 20663), (192, 20681), (194, 20687), (195, 20714), (196, 20720), (202, 20762), (214, 20903), (216, 20954), (229, 21098), (234, 21134), (235, 21137), (241, 21185), (244, 21209), (246, 21245), (247, 21248), (248, 21257), (250, 21293), (252, 21308),

Gene: Bartholomew_21 Start: 19038, Stop: 21299, Start Num: 6
Candidate Starts for Bartholomew_21:
(Start: 6 @19038 has 33 MA's), (Start: 8 @19047 has 14 MA's), (33, 19191), (65, 19464), (67, 19476), (71, 19497), (76, 19521), (84, 19596), (93, 19668), (97, 19698), (101, 19734), (107, 19797), (111, 19812), (116, 19839), (117, 19845), (125, 19920), (129, 19944), (131, 19950), (139, 20004), (140, 20010), (164, 20280), (171, 20346), (175, 20382), (181, 20541), (183, 20568), (185, 20586), (188, 20613), (190, 20649), (192, 20667), (194, 20673), (195, 20700), (196, 20706), (202, 20748), (214, 20889), (216, 20940), (229, 21084), (234, 21120), (235, 21123), (241, 21171), (244, 21195), (246, 21231), (247, 21234), (248, 21243), (250, 21279), (252, 21294),

Gene: Bhagsy_21 Start: 19045, Stop: 21306, Start Num: 6
Candidate Starts for Bhagsy_21:
(Start: 6 @19045 has 33 MA's), (33, 19198), (65, 19471), (67, 19483), (71, 19504), (76, 19528), (84, 19603), (93, 19675), (97, 19705), (101, 19741), (107, 19804), (111, 19819), (116, 19846), (117, 19852), (125, 19927), (129, 19951), (131, 19957), (139, 20011), (140, 20017), (164, 20287), (171, 20353), (173, 20371), (175, 20389), (181, 20548), (183, 20575), (185, 20593), (188, 20620), (190, 20656), (192, 20674), (194, 20680), (195, 20707), (196, 20713), (202, 20755), (214, 20896), (216, 20947), (229, 21091), (234, 21127), (235, 21130), (241, 21178), (244, 21202), (246, 21238), (247, 21241), (248, 21250), (250, 21286), (252, 21301),

Gene: Bluvara_21 Start: 19092, Stop: 21380, Start Num: 6
Candidate Starts for Bluvara_21:
(Start: 6 @19092 has 33 MA's), (11, 19116), (25, 19227), (27, 19236), (33, 19263), (50, 19410), (65, 19545), (67, 19557), (71, 19578), (76, 19602), (84, 19677), (93, 19749), (97, 19779), (101, 19815), (107, 19878), (111, 19893), (116, 19920), (117, 19926), (118, 19929), (125, 20001), (129, 20025), (131, 20031), (139, 20085), (140, 20091), (164, 20361), (171, 20427), (173, 20445), (175, 20463), (181, 20622), (183, 20649), (185, 20667), (188, 20694), (190, 20730), (192, 20748), (194, 20754), (195, 20781), (196, 20787), (202, 20829), (214, 20970), (216, 21021), (229, 21165), (234, 21201), (235, 21204), (241, 21252), (244, 21276), (246, 21312), (247, 21315), (248, 21324), (250, 21360),

(252, 21375),

Gene: Bongo_30 Start: 24622, Stop: 26973, Start Num: 8
Candidate Starts for Bongo_30:
(Start: 8 @24622 has 14 MA's), (24, 24742), (26, 24757), (38, 24829), (39, 24850), (41, 24862), (44, 24889), (46, 24898), (65, 25084), (77, 25147), (84, 25216), (88, 25243), (96, 25315), (97, 25318), (99, 25339), (118, 25474), (125, 25555), (128, 25570), (129, 25579), (131, 25585), (146, 25708), (158, 25864), (161, 25882), (162, 25897), (171, 25981), (173, 25999), (174, 26008), (175, 26017), (180, 26164), (181, 26176), (186, 26242), (190, 26284), (194, 26308), (196, 26341), (203, 26395), (206, 26434), (208, 26446), (217, 26578), (222, 26623), (230, 26749), (234, 26773), (236, 26782), (238, 26791), (239, 26803), (240, 26815), (241, 26830), (246, 26890), (251, 26959),

Gene: Bosection6_20 Start: 17556, Stop: 19550, Start Num: 10
Candidate Starts for Bosection6_20:
(Start: 8 @17544 has 14 MA's), (Start: 10 @17556 has 22 MA's), (13, 17568), (15, 17580), (22, 17634), (32, 17703), (33, 17706), (34, 17715), (36, 17730), (55, 17892), (61, 17970), (63, 17985), (68, 18015), (78, 18063), (80, 18087), (82, 18105), (87, 18153), (91, 18189), (94, 18213), (108, 18348), (120, 18405), (122, 18450), (132, 18510), (137, 18543), (138, 18552), (147, 18633), (158, 18777), (162, 18810), (164, 18828), (166, 18852), (169, 18864), (170, 18885), (171, 18915), (172, 18930), (173, 18933), (176, 18954), (178, 19044), (181, 19110), (184, 19152), (185, 19155), (189, 19185), (190, 19218), (192, 19239), (193, 19242), (198, 19299), (202, 19323), (204, 19338), (205, 19368), (207, 19374), (212, 19452), (213, 19455), (215, 19509), (218, 19533),

Gene: Bricole_30 Start: 24608, Stop: 26959, Start Num: 8
Candidate Starts for Bricole_30:
(Start: 8 @24608 has 14 MA's), (24, 24728), (26, 24743), (38, 24815), (39, 24836), (41, 24848), (44, 24875), (46, 24884), (65, 25070), (77, 25133), (84, 25202), (88, 25229), (96, 25301), (97, 25304), (99, 25325), (118, 25460), (125, 25541), (128, 25556), (129, 25565), (131, 25571), (146, 25694), (158, 25850), (161, 25868), (162, 25883), (171, 25967), (173, 25985), (174, 25994), (180, 26150), (181, 26162), (186, 26228), (190, 26270), (194, 26294), (196, 26327), (203, 26381), (206, 26420), (208, 26432), (217, 26564), (222, 26609), (230, 26735), (234, 26759), (236, 26768), (238, 26777), (239, 26789), (240, 26801), (241, 26816), (246, 26876), (251, 26945),

Gene: Brusacoram_21 Start: 19038, Stop: 21299, Start Num: 6
Candidate Starts for Brusacoram_21:
(Start: 6 @19038 has 33 MA's), (33, 19191), (65, 19464), (67, 19476), (71, 19497), (76, 19521), (84, 19596), (93, 19668), (97, 19698), (101, 19734), (107, 19797), (111, 19812), (116, 19839), (117, 19845), (125, 19920), (129, 19944), (131, 19950), (134, 19962), (139, 20004), (140, 20010), (164, 20280), (171, 20346), (173, 20364), (175, 20382), (181, 20541), (183, 20568), (185, 20586), (188, 20613), (190, 20649), (192, 20667), (194, 20673), (195, 20700), (196, 20706), (202, 20748), (214, 20889), (216, 20940), (229, 21084), (234, 21120), (235, 21123), (241, 21171), (244, 21195), (246, 21231), (247, 21234), (248, 21243), (250, 21279), (252, 21294),

Gene: Bunnies_21 Start: 19060, Stop: 21321, Start Num: 6
Candidate Starts for Bunnies_21:
(Start: 6 @19060 has 33 MA's), (Start: 8 @19069 has 14 MA's), (33, 19213), (65, 19486), (67, 19498), (71, 19519), (76, 19543), (84, 19618), (93, 19690), (97, 19720), (101, 19756), (107, 19819), (111, 19834), (116, 19861), (117, 19867), (125, 19942), (129, 19966), (131, 19972), (139, 20026), (140, 20032), (164, 20302), (171, 20368), (175, 20404), (181, 20563), (183, 20590), (185, 20608), (188, 20635), (190, 20671), (192, 20689), (194, 20695), (195, 20722), (196, 20728), (202, 20770), (214, 20911), (216, 20962), (229, 21106), (234, 21142), (235, 21145), (241, 21193), (244, 21217), (246, 21253), (247, 21256), (248, 21265), (250, 21301), (252, 21316),

Gene: Camster_21 Start: 19039, Stop: 21300, Start Num: 6
Candidate Starts for Camster_21:
(Start: 6 @19039 has 33 MA's), (33, 19192), (65, 19465), (67, 19477), (71, 19498), (76, 19522), (84, 19597), (93, 19669), (97, 19699), (101, 19735), (107, 19798), (111, 19813), (116, 19840), (117, 19846), (125, 19921), (129, 19945), (131, 19951), (139, 20005), (140, 20011), (164, 20281), (171, 20347), (173, 20365), (175, 20383), (181, 20542), (183, 20569), (185, 20587), (188, 20614), (190, 20650), (192, 20668), (194, 20674), (195, 20701), (196, 20707), (202, 20749), (214, 20890), (216, 20941), (229, 21085), (234, 21121), (235, 21124), (241, 21172), (244, 21196), (246, 21232), (247, 21235), (248, 21244), (250, 21280), (252, 21295),

Gene: Carcharodon_20 Start: 17556, Stop: 19550, Start Num: 10
Candidate Starts for Carcharodon_20:
(Start: 8 @17544 has 14 MA's), (Start: 10 @17556 has 22 MA's), (13, 17568), (15, 17580), (22, 17634), (32, 17703), (33, 17706), (34, 17715), (36, 17730), (55, 17892), (61, 17970), (63, 17985), (68, 18015), (78, 18063), (80, 18087), (82, 18105), (87, 18153), (91, 18189), (94, 18213), (108, 18348), (120, 18405), (122, 18450), (132, 18510), (137, 18543), (138, 18552), (147, 18633), (158, 18777), (162, 18810), (164, 18828), (166, 18852), (169, 18864), (170, 18885), (171, 18915), (172, 18930), (173, 18933), (176, 18954), (178, 19044), (181, 19110), (184, 19152), (185, 19155), (189, 19185), (190, 19218), (192, 19239), (193, 19242), (198, 19299), (202, 19323), (204, 19338), (205, 19368), (207, 19374), (212, 19452), (213, 19455), (215, 19509), (218, 19533),

Gene: Cepens_24 Start: 27217, Stop: 29346, Start Num: 29
Candidate Starts for Cepens_24:
(Start: 29 @27217 has 4 MA's), (40, 27286), (45, 27319), (47, 27340), (54, 27397), (58, 27427), (59, 27445), (72, 27538), (73, 27541), (81, 27595), (92, 27679), (98, 27715), (99, 27733), (100, 27736), (105, 27784), (109, 27823), (114, 27859), (118, 27877), (122, 27931), (124, 27943), (127, 27967), (130, 27991), (133, 28003), (135, 28018), (137, 28033), (141, 28075), (147, 28132), (148, 28156), (164, 28327), (171, 28393), (173, 28411), (175, 28429), (181, 28588), (183, 28615), (185, 28633), (188, 28660), (190, 28696), (192, 28714), (194, 28720), (195, 28747), (196, 28753), (202, 28795), (214, 28936), (216, 28987), (229, 29131), (234, 29167), (235, 29170), (241, 29218), (244, 29242), (246, 29278), (247, 29281), (248, 29290), (250, 29326), (252, 29341),

Gene: Charlie_20 Start: 17556, Stop: 19550, Start Num: 10
Candidate Starts for Charlie_20:
(Start: 8 @17544 has 14 MA's), (Start: 10 @17556 has 22 MA's), (13, 17568), (15, 17580), (22, 17634), (32, 17703), (33, 17706), (34, 17715), (36, 17730), (55, 17892), (61, 17970), (63, 17985), (68, 18015), (78, 18063), (80, 18087), (82, 18105), (87, 18153), (91, 18189), (94, 18213), (108, 18348), (120, 18405), (122, 18450), (132, 18510), (137, 18543), (138, 18552), (147, 18633), (158, 18777), (162, 18810), (164, 18828), (166, 18852), (169, 18864), (170, 18885), (171, 18915), (172, 18930), (173, 18933), (176, 18954), (178, 19044), (181, 19110), (184, 19152), (185, 19155), (189, 19185), (190, 19218), (192, 19239), (193, 19242), (198, 19299), (202, 19323), (204, 19338), (205, 19368), (207, 19374), (212, 19452), (213, 19455), (215, 19509), (218, 19533),

Gene: Chewbacca_20 Start: 17556, Stop: 19550, Start Num: 10
Candidate Starts for Chewbacca_20:
(Start: 8 @17544 has 14 MA's), (Start: 10 @17556 has 22 MA's), (13, 17568), (15, 17580), (22, 17634), (32, 17703), (33, 17706), (34, 17715), (36, 17730), (55, 17892), (61, 17970), (63, 17985), (68, 18015), (78, 18063), (80, 18087), (82, 18105), (87, 18153), (91, 18189), (94, 18213), (108, 18348), (120, 18405), (122, 18450), (132, 18510), (137, 18543), (138, 18552), (147, 18633), (158, 18777), (162, 18810), (164, 18828), (166, 18852), (169, 18864), (170, 18885), (171, 18915), (172, 18930), (173, 18933), (176, 18954), (178, 19044), (181, 19110), (184, 19152), (185, 19155), (189, 19185), (190, 19218), (192, 19239), (193, 19242), (198, 19299), (202, 19323), (204, 19338), (205, 19368), (207, 19374), (212, 19452), (213, 19455), (215, 19509), (218, 19533),

Gene: Chubbello_21 Start: 19037, Stop: 21298, Start Num: 6
Candidate Starts for Chubbello_21:
(Start: 6 @19037 has 33 MA's), (Start: 8 @19046 has 14 MA's), (33, 19190), (65, 19463), (67, 19475), (71, 19496), (76, 19520), (84, 19595), (93, 19667), (97, 19697), (101, 19733), (107, 19796), (111, 19811), (116, 19838), (117, 19844), (125, 19919), (129, 19943), (131, 19949), (139, 20003), (140, 20009), (164, 20279), (171, 20345), (173, 20363), (175, 20381), (181, 20540), (183, 20567), (185, 20585), (188, 20612), (190, 20648), (192, 20666), (194, 20672), (195, 20699), (196, 20705), (202, 20747), (214, 20888), (216, 20939), (229, 21083), (234, 21119), (235, 21122), (241, 21170), (244, 21194), (246, 21230), (247, 21233), (248, 21242), (250, 21278), (252, 21293),

Gene: Cubone_20 Start: 17578, Stop: 19572, Start Num: 10
Candidate Starts for Cubone_20:
(Start: 8 @17566 has 14 MA's), (Start: 10 @17578 has 22 MA's), (13, 17590), (15, 17602), (22, 17656), (32, 17725), (33, 17728), (34, 17737), (36, 17752), (55, 17914), (61, 17992), (63, 18007), (68, 18037), (78, 18085), (80, 18109), (82, 18127), (87, 18175), (91, 18211), (94, 18235), (108, 18370), (120, 18427), (122, 18472), (132, 18532), (137, 18565), (138, 18574), (147, 18655), (158, 18799), (162, 18832), (164, 18850), (166, 18874), (169, 18886), (170, 18907), (171, 18937), (172, 18952), (173, 18955), (176, 18976), (178, 19066), (181, 19132), (184, 19174), (185, 19177), (189, 19207), (190, 19240), (192, 19261), (193, 19264), (198, 19321), (202, 19345), (204, 19360), (205, 19390), (207, 19396), (212, 19474), (213, 19477), (215, 19531), (218, 19555),

Gene: Diminimus_31 Start: 24621, Stop: 26972, Start Num: 8
Candidate Starts for Diminimus_31:
(Start: 8 @24621 has 14 MA's), (24, 24741), (26, 24756), (38, 24828), (39, 24849), (41, 24861), (44, 24888), (46, 24897), (65, 25083), (77, 25146), (84, 25215), (88, 25242), (97, 25317), (99, 25338), (118, 25473), (125, 25554), (128, 25569), (129, 25578), (131, 25584), (146, 25707), (158, 25863), (161, 25881), (162, 25896), (171, 25980), (173, 25998), (174, 26007), (175, 26016), (180, 26163), (181, 26175), (186, 26241), (190, 26283), (194, 26307), (196, 26340), (203, 26394), (206, 26433), (208, 26445), (217, 26577), (222, 26622), (230, 26748), (234, 26772), (236, 26781), (238, 26790), (239, 26802), (240, 26814), (241, 26829), (246, 26889), (251, 26958),

Gene: Donovan_21 Start: 19027, Stop: 21288, Start Num: 6
Candidate Starts for Donovan_21:
(Start: 6 @19027 has 33 MA's), (Start: 8 @19036 has 14 MA's), (33, 19180), (65, 19453), (67, 19465), (71, 19486), (76, 19510), (84, 19585), (93, 19657), (97, 19687), (101, 19723), (107, 19786), (111, 19801), (116, 19828), (117, 19834), (125, 19909), (129, 19933), (131, 19939), (139, 19993), (140, 19999), (164, 20269), (171, 20335), (173, 20353), (175, 20371), (181, 20530), (183, 20557), (185, 20575), (188, 20602), (190, 20638), (192, 20656), (194, 20662), (195, 20689), (196, 20695), (202, 20737), (214, 20878), (216, 20929), (229, 21073), (234, 21109), (235, 21112), (241, 21160), (244, 21184), (246, 21220), (247, 21223), (248, 21232), (250, 21268), (252, 21283),

Gene: Dulcita_31 Start: 24621, Stop: 26972, Start Num: 8
Candidate Starts for Dulcita_31:
(Start: 8 @24621 has 14 MA's), (24, 24741), (26, 24756), (38, 24828), (39, 24849), (41, 24861), (44, 24888), (46, 24897), (65, 25083), (77, 25146), (84, 25215), (88, 25242), (97, 25317), (99, 25338), (118, 25473), (125, 25554), (128, 25569), (129, 25578), (131, 25584), (146, 25707), (158, 25863), (161, 25881), (162, 25896), (171, 25980), (173, 25998), (174, 26007), (175, 26016), (180, 26163), (181, 26175), (186, 26241), (190, 26283), (194, 26307), (196, 26340), (203, 26394), (206, 26433), (208, 26445), (217, 26577), (222, 26622), (230, 26748), (234, 26772), (236, 26781), (238, 26790), (239, 26802), (240, 26814), (241, 26829), (246, 26889), (251, 26958),

Gene: Duplicity_20 Start: 17556, Stop: 19550, Start Num: 10

Candidate Starts for Duplicity_20:
(Start: 8 @17544 has 14 MA's), (Start: 10 @17556 has 22 MA's), (13, 17568), (15, 17580), (22, 17634), (32, 17703), (33, 17706), (34, 17715), (36, 17730), (55, 17892), (61, 17970), (63, 17985), (68, 18015), (78, 18063), (80, 18087), (82, 18105), (87, 18153), (91, 18189), (94, 18213), (108, 18348), (120, 18405), (122, 18450), (132, 18510), (137, 18543), (138, 18552), (147, 18633), (158, 18777), (162, 18810), (164, 18828), (166, 18852), (169, 18864), (170, 18885), (171, 18915), (172, 18930), (173, 18933), (176, 18954), (178, 19044), (181, 19110), (184, 19152), (185, 19155), (189, 19185), (190, 19218), (192, 19239), (193, 19242), (198, 19299), (202, 19323), (204, 19338), (205, 19368), (207, 19374), (212, 19452), (213, 19455), (215, 19509), (218, 19533),

Gene: EGUnicorn_20 Start: 17556, Stop: 19550, Start Num: 10
Candidate Starts for EGUnicorn_20:
(Start: 8 @17544 has 14 MA's), (Start: 10 @17556 has 22 MA's), (13, 17568), (15, 17580), (22, 17634), (32, 17703), (33, 17706), (34, 17715), (36, 17730), (55, 17892), (61, 17970), (63, 17985), (68, 18015), (78, 18063), (80, 18087), (82, 18105), (87, 18153), (91, 18189), (94, 18213), (108, 18348), (120, 18405), (122, 18450), (132, 18510), (137, 18543), (138, 18552), (147, 18633), (158, 18777), (162, 18810), (164, 18828), (166, 18852), (169, 18864), (170, 18885), (171, 18915), (172, 18930), (173, 18933), (176, 18954), (178, 19044), (181, 19110), (184, 19152), (185, 19155), (189, 19185), (190, 19218), (192, 19239), (193, 19242), (198, 19299), (202, 19323), (204, 19338), (205, 19368), (207, 19374), (212, 19452), (213, 19455), (215, 19509), (218, 19533),

Gene: Etoile_21 Start: 19038, Stop: 21299, Start Num: 6
Candidate Starts for Etoile_21:
(Start: 6 @19038 has 33 MA's), (Start: 8 @19047 has 14 MA's), (33, 19191), (65, 19464), (67, 19476), (71, 19497), (76, 19521), (84, 19596), (93, 19668), (97, 19698), (101, 19734), (107, 19797), (111, 19812), (116, 19839), (117, 19845), (125, 19920), (129, 19944), (131, 19950), (139, 20004), (140, 20010), (164, 20280), (171, 20346), (173, 20364), (175, 20382), (181, 20541), (183, 20568), (185, 20586), (188, 20613), (190, 20649), (192, 20667), (194, 20673), (195, 20700), (196, 20706), (202, 20748), (214, 20889), (216, 20940), (229, 21084), (234, 21120), (235, 21123), (241, 21171), (244, 21195), (246, 21231), (247, 21234), (248, 21243), (250, 21279), (252, 21294),

Gene: FirstPlacePfu_21 Start: 19038, Stop: 21299, Start Num: 6
Candidate Starts for FirstPlacePfu_21:
(Start: 6 @19038 has 33 MA's), (Start: 8 @19047 has 14 MA's), (33, 19191), (65, 19464), (67, 19476), (71, 19497), (76, 19521), (84, 19596), (93, 19668), (97, 19698), (101, 19734), (107, 19797), (111, 19812), (116, 19839), (117, 19845), (125, 19920), (129, 19944), (131, 19950), (139, 20004), (140, 20010), (164, 20280), (171, 20346), (173, 20364), (175, 20382), (181, 20541), (183, 20568), (185, 20586), (188, 20613), (190, 20649), (192, 20667), (194, 20673), (195, 20700), (196, 20706), (202, 20748), (214, 20889), (216, 20940), (229, 21084), (234, 21120), (235, 21123), (241, 21171), (244, 21195), (246, 21231), (247, 21234), (248, 21243), (250, 21279), (252, 21294),

Gene: Fishburne_21 Start: 19038, Stop: 21299, Start Num: 6
Candidate Starts for Fishburne_21:
(Start: 6 @19038 has 33 MA's), (Start: 8 @19047 has 14 MA's), (33, 19191), (65, 19464), (67, 19476), (71, 19497), (76, 19521), (84, 19596), (93, 19668), (97, 19698), (101, 19734), (107, 19797), (111, 19812), (116, 19839), (117, 19845), (125, 19920), (129, 19944), (131, 19950), (139, 20004), (140, 20010), (164, 20280), (171, 20346), (173, 20364), (175, 20382), (181, 20541), (183, 20568), (185, 20586), (188, 20613), (190, 20649), (192, 20667), (194, 20673), (195, 20700), (196, 20706), (202, 20748), (214, 20889), (216, 20940), (229, 21084), (234, 21120), (235, 21123), (241, 21171), (244, 21195), (246, 21231), (247, 21234), (248, 21243), (250, 21279), (252, 21294),

Gene: FreakyGoo_31 Start: 24622, Stop: 26973, Start Num: 8
Candidate Starts for FreakyGoo_31:

(Start: 8 @24622 has 14 MA's), (24, 24742), (26, 24757), (38, 24829), (39, 24850), (41, 24862), (44, 24889), (46, 24898), (65, 25084), (77, 25147), (84, 25216), (88, 25243), (96, 25315), (97, 25318), (99, 25339), (118, 25474), (125, 25555), (128, 25570), (129, 25579), (131, 25585), (146, 25708), (158, 25864), (161, 25882), (162, 25897), (171, 25981), (173, 25999), (174, 26008), (175, 26017), (180, 26164), (181, 26176), (186, 26242), (190, 26284), (194, 26308), (196, 26341), (203, 26395), (206, 26434), (208, 26446), (217, 26578), (222, 26623), (230, 26749), (234, 26773), (236, 26782), (238, 26791), (239, 26803), (240, 26815), (241, 26830), (246, 26890), (251, 26959),

Gene: GaloreK_21 Start: 19034, Stop: 21295, Start Num: 6
Candidate Starts for GaloreK_21:
(Start: 6 @19034 has 33 MA's), (Start: 8 @19043 has 14 MA's), (33, 19187), (65, 19460), (67, 19472), (71, 19493), (76, 19517), (84, 19592), (93, 19664), (97, 19694), (101, 19730), (107, 19793), (111, 19808), (116, 19835), (117, 19841), (125, 19916), (129, 19940), (131, 19946), (139, 20000), (140, 20006), (164, 20276), (171, 20342), (173, 20360), (175, 20378), (181, 20537), (183, 20564), (185, 20582), (188, 20609), (190, 20645), (192, 20663), (194, 20669), (195, 20696), (196, 20702), (202, 20744), (214, 20885), (216, 20936), (229, 21080), (234, 21116), (235, 21119), (241, 21167), (244, 21191), (246, 21227), (247, 21230), (248, 21239), (250, 21275), (252, 21290),

Gene: Gex_20 Start: 17552, Stop: 19546, Start Num: 10
Candidate Starts for Gex_20:
(Start: 8 @17540 has 14 MA's), (Start: 10 @17552 has 22 MA's), (13, 17564), (15, 17576), (22, 17630), (32, 17699), (33, 17702), (34, 17711), (36, 17726), (55, 17888), (61, 17966), (63, 17981), (68, 18011), (78, 18059), (80, 18083), (82, 18101), (87, 18149), (91, 18185), (94, 18209), (108, 18344), (120, 18401), (122, 18446), (132, 18506), (137, 18539), (138, 18548), (147, 18629), (158, 18773), (162, 18806), (164, 18824), (166, 18848), (169, 18860), (170, 18881), (171, 18911), (172, 18926), (173, 18929), (176, 18950), (178, 19040), (181, 19106), (184, 19148), (185, 19151), (189, 19181), (190, 19214), (192, 19235), (193, 19238), (198, 19295), (202, 19319), (204, 19334), (205, 19364), (207, 19370), (212, 19448), (213, 19451), (215, 19505), (218, 19529),

Gene: Glaske16_31 Start: 24621, Stop: 26972, Start Num: 8
Candidate Starts for Glaske16_31:
(Start: 8 @24621 has 14 MA's), (24, 24741), (26, 24756), (38, 24828), (39, 24849), (41, 24861), (44, 24888), (46, 24897), (65, 25083), (77, 25146), (84, 25215), (88, 25242), (97, 25317), (99, 25338), (118, 25473), (125, 25554), (128, 25569), (129, 25578), (131, 25584), (146, 25707), (158, 25863), (161, 25881), (162, 25896), (171, 25980), (173, 25998), (174, 26007), (180, 26163), (181, 26175), (186, 26241), (190, 26283), (194, 26307), (196, 26340), (203, 26394), (206, 26433), (208, 26445), (217, 26577), (222, 26622), (230, 26748), (234, 26772), (236, 26781), (238, 26790), (239, 26802), (240, 26814), (241, 26829), (246, 26889), (251, 26958),

Gene: GreaseLightnin_21 Start: 19044, Stop: 21344, Start Num: 4
Candidate Starts for GreaseLightnin_21:
(Start: 4 @19044 has 13 MA's), (9, 19053), (33, 19197), (65, 19470), (67, 19482), (71, 19503), (94, 19683), (99, 19731), (101, 19746), (102, 19761), (104, 19767), (106, 19785), (107, 19809), (111, 19824), (112, 19833), (117, 19860), (119, 19866), (122, 19911), (125, 19935), (128, 19947), (129, 19956), (131, 19962), (136, 19998), (139, 20016), (160, 20250), (164, 20292), (171, 20358), (173, 20376), (175, 20394), (181, 20553), (183, 20580), (184, 20595), (185, 20598), (190, 20661), (191, 20670), (194, 20685), (201, 20751), (207, 20814), (208, 20823), (216, 20949), (218, 20970), (222, 21006), (223, 21012), (224, 21024), (225, 21027), (227, 21066), (230, 21129), (232, 21138), (235, 21156),

Gene: Gsput1_25 Start: 19933, Stop: 21690, Start Num: 60
Candidate Starts for Gsput1_25:

(60, 19933), (70, 19987), (73, 20002), (81, 20056), (83, 20080), (85, 20098), (89, 20131), (95, 20194), (99, 20218), (103, 20248), (109, 20302), (110, 20305), (113, 20332), (121, 20374), (126, 20428), (136, 20488), (142, 20536), (144, 20551), (145, 20566), (149, 20626), (150, 20659), (151, 20665), (152, 20671), (154, 20680), (155, 20683), (156, 20710), (159, 20740), (163, 20773), (165, 20785), (167, 20803), (172, 20860), (177, 20947), (179, 21019), (182, 21049), (187, 21067), (190, 21082), (197, 21148), (199, 21163), (201, 21172), (209, 21256), (219, 21394), (226, 21487), (237, 21592), (243, 21637),

Gene: HC_21 Start: 19081, Stop: 21369, Start Num: 6
Candidate Starts for HC_21:
(Start: 6 @19081 has 33 MA's), (11, 19105), (25, 19216), (27, 19225), (33, 19252), (50, 19399), (65, 19534), (67, 19546), (71, 19567), (76, 19591), (84, 19666), (93, 19738), (97, 19768), (101, 19804), (107, 19867), (111, 19882), (116, 19909), (117, 19915), (118, 19918), (125, 19990), (129, 20014), (131, 20020), (139, 20074), (140, 20080), (164, 20350), (171, 20416), (173, 20434), (175, 20452), (181, 20611), (183, 20638), (185, 20656), (188, 20683), (190, 20719), (192, 20737), (194, 20743), (195, 20770), (196, 20776), (202, 20818), (214, 20959), (216, 21010), (229, 21154), (234, 21190), (235, 21193), (241, 21241), (244, 21265), (246, 21301), (247, 21304), (248, 21313), (250, 21349), (252, 21364),

Gene: HUHilltop_21 Start: 19038, Stop: 21299, Start Num: 6
Candidate Starts for HUHilltop_21:
(Start: 6 @19038 has 33 MA's), (Start: 8 @19047 has 14 MA's), (33, 19191), (65, 19464), (67, 19476), (71, 19497), (76, 19521), (84, 19596), (93, 19668), (97, 19698), (101, 19734), (107, 19797), (111, 19812), (116, 19839), (117, 19845), (125, 19920), (129, 19944), (131, 19950), (139, 20004), (140, 20010), (164, 20280), (171, 20346), (173, 20364), (175, 20382), (181, 20541), (183, 20568), (185, 20586), (188, 20613), (190, 20649), (192, 20667), (194, 20673), (195, 20700), (196, 20706), (202, 20748), (214, 20889), (216, 20940), (229, 21084), (234, 21120), (235, 21123), (241, 21171), (244, 21195), (246, 21231), (247, 21234), (248, 21243), (250, 21279), (252, 21294),

Gene: Hanako_20 Start: 17560, Stop: 19866, Start Num: 4
Candidate Starts for Hanako_20:
(2, 17548), (Start: 4 @17560 has 13 MA's), (9, 17572), (27, 17683), (32, 17707), (33, 17710), (34, 17719), (65, 17992), (67, 18004), (71, 18025), (79, 18070), (94, 18205), (99, 18253), (101, 18268), (104, 18289), (106, 18307), (107, 18331), (111, 18346), (112, 18355), (117, 18382), (119, 18388), (122, 18433), (125, 18457), (128, 18469), (129, 18478), (131, 18484), (136, 18520), (139, 18538), (146, 18607), (151, 18697), (160, 18772), (164, 18814), (172, 18895), (173, 18898), (175, 18916), (177, 18982), (180, 19063), (181, 19075), (183, 19102), (184, 19117), (185, 19120), (190, 19183), (191, 19192), (194, 19207), (201, 19273), (207, 19336), (208, 19345), (210, 19399), (216, 19471), (218, 19492), (222, 19528), (223, 19534), (224, 19546), (225, 19549), (227, 19588), (230, 19651), (232, 19660), (235, 19678),

Gene: IPhane7_30 Start: 24622, Stop: 26973, Start Num: 8
Candidate Starts for IPhane7_30:
(Start: 8 @24622 has 14 MA's), (24, 24742), (26, 24757), (38, 24829), (39, 24850), (41, 24862), (44, 24889), (46, 24898), (65, 25084), (77, 25147), (84, 25216), (88, 25243), (96, 25315), (97, 25318), (99, 25339), (118, 25474), (125, 25555), (128, 25570), (129, 25579), (131, 25585), (146, 25708), (158, 25864), (161, 25882), (162, 25897), (171, 25981), (173, 25999), (174, 26008), (175, 26017), (180, 26164), (181, 26176), (186, 26242), (190, 26284), (194, 26308), (196, 26341), (203, 26395), (206, 26434), (208, 26446), (217, 26578), (222, 26623), (230, 26749), (234, 26773), (236, 26782), (238, 26791), (239, 26803), (240, 26815), (241, 26830), (246, 26890), (251, 26959),

Gene: Izel_31 Start: 24621, Stop: 26972, Start Num: 8
Candidate Starts for Izel_31:

(Start: 8 @24621 has 14 MA's), (24, 24741), (26, 24756), (38, 24828), (39, 24849), (41, 24861), (44, 24888), (46, 24897), (65, 25083), (77, 25146), (84, 25215), (88, 25242), (97, 25317), (99, 25338), (118, 25473), (125, 25554), (128, 25569), (129, 25578), (131, 25584), (146, 25707), (158, 25863), (161, 25881), (162, 25896), (171, 25980), (173, 25998), (174, 26007), (175, 26016), (180, 26163), (181, 26175), (186, 26241), (190, 26283), (194, 26307), (196, 26340), (203, 26394), (206, 26433), (208, 26445), (217, 26577), (222, 26622), (230, 26748), (234, 26772), (236, 26781), (238, 26790), (239, 26802), (240, 26814), (241, 26829), (246, 26889), (251, 26958),

Gene: Jamie19_20 Start: 17560, Stop: 19866, Start Num: 4
Candidate Starts for Jamie19_20:
(2, 17548), (Start: 4 @17560 has 13 MA's), (9, 17572), (27, 17683), (32, 17707), (33, 17710), (34, 17719), (57, 17920), (65, 17992), (67, 18004), (71, 18025), (74, 18037), (94, 18205), (99, 18253), (101, 18268), (104, 18289), (105, 18304), (107, 18331), (111, 18346), (112, 18355), (117, 18382), (119, 18388), (122, 18433), (123, 18442), (125, 18457), (128, 18469), (129, 18478), (131, 18484), (133, 18493), (136, 18520), (139, 18538), (146, 18607), (151, 18697), (164, 18814), (171, 18880), (173, 18898), (175, 18916), (180, 19063), (181, 19075), (183, 19102), (184, 19117), (185, 19120), (190, 19183), (191, 19192), (194, 19207), (201, 19273), (207, 19336), (208, 19345), (210, 19399), (216, 19471), (218, 19492), (222, 19528), (223, 19534), (224, 19546), (225, 19549), (227, 19588), (230, 19651), (232, 19660), (235, 19678),

Gene: Jebeks_21 Start: 19023, Stop: 21284, Start Num: 6
Candidate Starts for Jebeks_21:
(Start: 6 @19023 has 33 MA's), (Start: 8 @19032 has 14 MA's), (33, 19176), (65, 19449), (67, 19461), (71, 19482), (76, 19506), (84, 19581), (93, 19653), (97, 19683), (101, 19719), (107, 19782), (111, 19797), (116, 19824), (117, 19830), (125, 19905), (129, 19929), (131, 19935), (139, 19989), (140, 19995), (164, 20265), (171, 20331), (173, 20349), (175, 20367), (181, 20526), (183, 20553), (185, 20571), (188, 20598), (190, 20634), (192, 20652), (194, 20658), (195, 20685), (196, 20691), (202, 20733), (214, 20874), (216, 20925), (229, 21069), (234, 21105), (235, 21108), (241, 21156), (244, 21180), (246, 21216), (247, 21219), (248, 21228), (250, 21264), (252, 21279),

Gene: Journey_20 Start: 17556, Stop: 19550, Start Num: 10
Candidate Starts for Journey_20:
(Start: 8 @17544 has 14 MA's), (Start: 10 @17556 has 22 MA's), (13, 17568), (15, 17580), (22, 17634), (32, 17703), (33, 17706), (34, 17715), (36, 17730), (55, 17892), (61, 17970), (63, 17985), (68, 18015), (78, 18063), (80, 18087), (82, 18105), (87, 18153), (91, 18189), (94, 18213), (108, 18348), (120, 18405), (122, 18450), (132, 18510), (137, 18543), (138, 18552), (147, 18633), (158, 18777), (162, 18810), (164, 18828), (166, 18852), (169, 18864), (170, 18885), (171, 18915), (172, 18930), (173, 18933), (176, 18954), (178, 19044), (181, 19110), (184, 19152), (185, 19155), (189, 19185), (190, 19218), (192, 19239), (193, 19242), (198, 19299), (202, 19323), (204, 19338), (205, 19368), (207, 19374), (212, 19452), (213, 19455), (215, 19509), (218, 19533),

Gene: Jung_21 Start: 18964, Stop: 21225, Start Num: 6
Candidate Starts for Jung_21:
(Start: 6 @18964 has 33 MA's), (Start: 8 @18973 has 14 MA's), (33, 19117), (65, 19390), (67, 19402), (71, 19423), (75, 19444), (84, 19522), (93, 19594), (97, 19624), (101, 19660), (107, 19723), (111, 19738), (117, 19771), (118, 19774), (125, 19846), (129, 19870), (131, 19876), (139, 19930), (140, 19936), (164, 20206), (171, 20272), (173, 20290), (175, 20308), (181, 20467), (185, 20512), (188, 20539), (190, 20575), (192, 20593), (194, 20599), (195, 20626), (196, 20632), (202, 20674), (214, 20815), (216, 20866), (229, 21010), (234, 21046), (235, 21049), (241, 21097), (244, 21121), (246, 21157), (247, 21160), (248, 21169), (250, 21205), (252, 21220),

Gene: Juniormint_21 Start: 19064, Stop: 21325, Start Num: 6
Candidate Starts for Juniormint_21:

(Start: 6 @19064 has 33 MA's), (Start: 8 @19073 has 14 MA's), (33, 19217), (65, 19490), (67, 19502), (71, 19523), (76, 19547), (84, 19622), (93, 19694), (97, 19724), (101, 19760), (107, 19823), (111, 19838), (116, 19865), (117, 19871), (125, 19946), (129, 19970), (131, 19976), (139, 20030), (140, 20036), (164, 20306), (171, 20372), (173, 20390), (175, 20408), (181, 20567), (183, 20594), (185, 20612), (188, 20639), (190, 20675), (192, 20693), (194, 20699), (195, 20726), (196, 20732), (202, 20774), (214, 20915), (216, 20966), (229, 21110), (234, 21146), (235, 21149), (241, 21197), (244, 21221), (246, 21257), (247, 21260), (248, 21269), (250, 21305), (252, 21320),

Gene: Kari_21 Start: 19038, Stop: 21299, Start Num: 6
Candidate Starts for Kari_21:
(Start: 6 @19038 has 33 MA's), (Start: 8 @19047 has 14 MA's), (33, 19191), (65, 19464), (67, 19476), (71, 19497), (76, 19521), (84, 19596), (93, 19668), (97, 19698), (101, 19734), (107, 19797), (111, 19812), (116, 19839), (117, 19845), (125, 19920), (129, 19944), (131, 19950), (139, 20004), (140, 20010), (164, 20280), (171, 20346), (173, 20364), (175, 20382), (181, 20541), (183, 20568), (185, 20586), (188, 20613), (190, 20649), (192, 20667), (194, 20673), (195, 20700), (196, 20706), (202, 20748), (214, 20889), (216, 20940), (229, 21084), (234, 21120), (235, 21123), (241, 21171), (244, 21195), (246, 21231), (247, 21234), (248, 21243), (250, 21279), (252, 21294),

Gene: KleverKiS_30 Start: 24605, Stop: 26953, Start Num: 8
Candidate Starts for KleverKiS_30:
(Start: 8 @24605 has 14 MA's), (24, 24725), (26, 24740), (38, 24812), (39, 24833), (41, 24845), (44, 24872), (46, 24881), (49, 24911), (51, 24938), (53, 24965), (64, 25061), (65, 25067), (69, 25091), (79, 25145), (88, 25226), (96, 25298), (97, 25301), (99, 25322), (118, 25457), (119, 25460), (125, 25538), (131, 25565), (136, 25601), (137, 25604), (140, 25625), (153, 25790), (157, 25826), (158, 25844), (162, 25877), (171, 25961), (173, 25979), (174, 25988), (180, 26144), (181, 26156), (186, 26222), (190, 26264), (194, 26288), (196, 26321), (203, 26375), (206, 26414), (208, 26426), (217, 26558), (222, 26603), (230, 26729), (234, 26753), (236, 26762), (238, 26771), (239, 26783), (240, 26795), (241, 26810), (246, 26870), (251, 26939),

Gene: Ksquared_21 Start: 19060, Stop: 21321, Start Num: 6
Candidate Starts for Ksquared_21:
(Start: 6 @19060 has 33 MA's), (Start: 8 @19069 has 14 MA's), (33, 19213), (65, 19486), (67, 19498), (71, 19519), (76, 19543), (84, 19618), (93, 19690), (97, 19720), (101, 19756), (107, 19819), (111, 19834), (116, 19861), (117, 19867), (125, 19942), (129, 19966), (131, 19972), (139, 20026), (140, 20032), (164, 20302), (171, 20368), (173, 20386), (175, 20404), (181, 20563), (183, 20590), (185, 20608), (188, 20635), (190, 20671), (192, 20689), (194, 20695), (195, 20722), (196, 20728), (202, 20770), (214, 20911), (216, 20962), (229, 21106), (234, 21142), (235, 21145), (241, 21193), (244, 21217), (246, 21253), (247, 21256), (248, 21265), (250, 21301), (252, 21316),

Gene: Langerak_21 Start: 19022, Stop: 21283, Start Num: 6
Candidate Starts for Langerak_21:
(Start: 6 @19022 has 33 MA's), (Start: 8 @19031 has 14 MA's), (33, 19175), (65, 19448), (67, 19460), (71, 19481), (76, 19505), (84, 19580), (93, 19652), (97, 19682), (101, 19718), (107, 19781), (111, 19796), (116, 19823), (117, 19829), (125, 19904), (129, 19928), (131, 19934), (139, 19988), (140, 19994), (164, 20264), (171, 20330), (173, 20348), (175, 20366), (181, 20525), (183, 20552), (185, 20570), (188, 20597), (190, 20633), (192, 20651), (194, 20657), (195, 20684), (196, 20690), (202, 20732), (214, 20873), (216, 20924), (229, 21068), (234, 21104), (235, 21107), (241, 21155), (244, 21179), (246, 21215), (247, 21218), (248, 21227), (250, 21263), (252, 21278),

Gene: Laurie_32 Start: 29962, Stop: 32097, Start Num: 28
Candidate Starts for Laurie_32:
(Start: 28 @29962 has 1 MA's), (37, 30016), (43, 30055), (45, 30073), (48, 30100), (51, 30124), (52, 30127), (56, 30160), (68, 30268), (72, 30289), (73, 30292), (81, 30346), (90, 30406), (92, 30430), (98,

30466), (102, 30514), (105, 30535), (109, 30574), (115, 30613), (118, 30628), (122, 30682), (124, 30694), (127, 30718), (130, 30742), (133, 30754), (135, 30769), (137, 30784), (141, 30826), (143, 30844), (147, 30883), (148, 30907), (164, 31078), (171, 31144), (173, 31162), (175, 31180), (181, 31339), (183, 31366), (185, 31384), (188, 31411), (190, 31447), (192, 31465), (194, 31471), (195, 31498), (196, 31504), (202, 31546), (214, 31687), (216, 31738), (229, 31882), (234, 31918), (235, 31921), (241, 31969), (244, 31993), (246, 32029), (247, 32032), (248, 32041), (250, 32077), (252, 32092),

Gene: LilSpotty_23 Start: 18458, Stop: 20518, Start Num: 1
Candidate Starts for LilSpotty_23:
(Start: 1 @18458 has 1 MA's), (21, 18599), (23, 18611), (27, 18653), (33, 18680), (39, 18731), (55, 18860), (61, 18938), (63, 18953), (68, 18983), (78, 19031), (80, 19055), (82, 19073), (87, 19121), (91, 19157), (94, 19181), (108, 19316), (120, 19373), (122, 19418), (132, 19478), (137, 19511), (138, 19520), (147, 19601), (158, 19745), (162, 19778), (164, 19796), (166, 19820), (169, 19832), (170, 19853), (171, 19883), (172, 19898), (173, 19901), (176, 19922), (178, 20012), (181, 20078), (184, 20120), (185, 20123), (189, 20153), (190, 20186), (192, 20207), (193, 20210), (198, 20267), (202, 20291), (204, 20306), (205, 20336), (207, 20342), (212, 20420), (213, 20423), (215, 20477), (218, 20501),

Gene: LilhomieP_29 Start: 24622, Stop: 26973, Start Num: 8
Candidate Starts for LilhomieP_29:
(Start: 8 @24622 has 14 MA's), (24, 24742), (26, 24757), (38, 24829), (39, 24850), (41, 24862), (44, 24889), (46, 24898), (65, 25084), (77, 25147), (84, 25216), (88, 25243), (96, 25315), (97, 25318), (99, 25339), (118, 25474), (125, 25555), (128, 25570), (129, 25579), (131, 25585), (146, 25708), (158, 25864), (161, 25882), (162, 25897), (171, 25981), (173, 25999), (174, 26008), (175, 26017), (180, 26164), (181, 26176), (186, 26242), (190, 26284), (194, 26308), (196, 26341), (203, 26395), (206, 26434), (208, 26446), (217, 26578), (222, 26623), (230, 26749), (234, 26773), (236, 26782), (238, 26791), (239, 26803), (240, 26815), (241, 26830), (246, 26890), (251, 26959),

Gene: LordVader_19 Start: 17314, Stop: 19476, Start Num: 7
Candidate Starts for LordVader_19:
(Start: 7 @17314 has 3 MA's), (11, 17335), (16, 17356), (21, 17395), (30, 17464), (32, 17473), (33, 17476), (35, 17494), (39, 17527), (42, 17542), (57, 17644), (62, 17701), (66, 17725), (78, 17782), (94, 17929), (99, 17977), (101, 17992), (104, 18013), (107, 18055), (111, 18070), (112, 18079), (117, 18106), (119, 18112), (125, 18181), (129, 18202), (131, 18208), (133, 18217), (136, 18244), (164, 18538), (168, 18565), (171, 18604), (173, 18622), (175, 18640), (178, 18733), (194, 18865), (200, 18925), (216, 19132), (220, 19159), (221, 19180), (228, 19243), (231, 19282), (234, 19300), (242, 19348), (244, 19366), (245, 19372),

Gene: Magsby_20 Start: 17553, Stop: 19547, Start Num: 10
Candidate Starts for Magsby_20:
(Start: 8 @17541 has 14 MA's), (Start: 10 @17553 has 22 MA's), (13, 17565), (15, 17577), (22, 17631), (32, 17700), (33, 17703), (34, 17712), (36, 17727), (55, 17889), (61, 17967), (63, 17982), (68, 18012), (78, 18060), (80, 18084), (82, 18102), (87, 18150), (91, 18186), (94, 18210), (108, 18345), (120, 18402), (122, 18447), (132, 18507), (137, 18540), (138, 18549), (147, 18630), (158, 18774), (162, 18807), (164, 18825), (166, 18849), (169, 18861), (170, 18882), (171, 18912), (172, 18927), (173, 18930), (176, 18951), (178, 19041), (181, 19107), (184, 19149), (185, 19152), (189, 19182), (190, 19215), (192, 19236), (193, 19239), (198, 19296), (202, 19320), (204, 19335), (205, 19365), (207, 19371), (212, 19449), (213, 19452), (215, 19506), (218, 19530),

Gene: Majeke_21 Start: 19044, Stop: 21305, Start Num: 6
Candidate Starts for Majeke_21:

(Start: 6 @19044 has 33 MA's), (33, 19197), (65, 19470), (67, 19482), (71, 19503), (76, 19527), (84, 19602), (93, 19674), (97, 19704), (101, 19740), (107, 19803), (111, 19818), (116, 19845), (117, 19851), (125, 19926), (129, 19950), (131, 19956), (134, 19968), (139, 20010), (140, 20016), (164, 20286), (171, 20352), (173, 20370), (175, 20388), (181, 20547), (183, 20574), (185, 20592), (188, 20619), (190, 20655), (192, 20673), (194, 20679), (195, 20706), (196, 20712), (202, 20754), (214, 20895), (216, 20946), (229, 21090), (234, 21126), (235, 21129), (241, 21177), (244, 21201), (246, 21237), (247, 21240), (248, 21249), (250, 21285), (252, 21300),

Gene: Malithi_21 Start: 18963, Stop: 21224, Start Num: 6
Candidate Starts for Malithi_21:
(Start: 6 @18963 has 33 MA's), (Start: 8 @18972 has 14 MA's), (33, 19116), (64, 19383), (65, 19389), (67, 19401), (71, 19422), (76, 19446), (84, 19521), (93, 19593), (97, 19623), (101, 19659), (107, 19722), (111, 19737), (116, 19764), (117, 19770), (125, 19845), (129, 19869), (131, 19875), (139, 19929), (140, 19935), (164, 20205), (171, 20271), (173, 20289), (175, 20307), (181, 20466), (183, 20493), (185, 20511), (188, 20538), (190, 20574), (192, 20592), (194, 20598), (195, 20625), (196, 20631), (202, 20673), (214, 20814), (216, 20865), (229, 21009), (234, 21045), (235, 21048), (241, 21096), (244, 21120), (246, 21156), (247, 21159), (248, 21168), (250, 21204), (252, 21219),

Gene: Mangethe_21 Start: 19044, Stop: 21305, Start Num: 6
Candidate Starts for Mangethe_21:
(Start: 6 @19044 has 33 MA's), (33, 19197), (65, 19470), (67, 19482), (71, 19503), (76, 19527), (84, 19602), (93, 19674), (97, 19704), (101, 19740), (107, 19803), (111, 19818), (116, 19845), (117, 19851), (125, 19926), (129, 19950), (131, 19956), (134, 19968), (139, 20010), (140, 20016), (164, 20286), (171, 20352), (173, 20370), (175, 20388), (181, 20547), (183, 20574), (185, 20592), (188, 20619), (190, 20655), (192, 20673), (194, 20679), (195, 20706), (196, 20712), (202, 20754), (214, 20895), (216, 20946), (229, 21090), (234, 21126), (235, 21129), (241, 21177), (244, 21201), (246, 21237), (247, 21240), (248, 21249), (250, 21285), (252, 21300),

Gene: Megabear_24 Start: 27160, Stop: 29289, Start Num: 29
Candidate Starts for Megabear_24:
(Start: 29 @27160 has 4 MA's), (40, 27229), (45, 27262), (47, 27283), (54, 27340), (58, 27370), (59, 27388), (72, 27481), (73, 27484), (81, 27538), (92, 27622), (98, 27658), (99, 27676), (100, 27679), (105, 27727), (109, 27766), (114, 27802), (118, 27820), (122, 27874), (124, 27886), (127, 27910), (130, 27934), (133, 27946), (135, 27961), (137, 27976), (141, 28018), (147, 28075), (148, 28099), (164, 28270), (171, 28336), (173, 28354), (175, 28372), (181, 28531), (183, 28558), (185, 28576), (188, 28603), (190, 28639), (192, 28657), (194, 28663), (195, 28690), (196, 28696), (202, 28738), (214, 28879), (216, 28930), (229, 29074), (234, 29110), (235, 29113), (241, 29161), (244, 29185), (246, 29221), (247, 29224), (248, 29233), (250, 29269), (252, 29284),

Gene: Melville_20 Start: 17556, Stop: 19550, Start Num: 10
Candidate Starts for Melville_20:
(Start: 8 @17544 has 14 MA's), (Start: 10 @17556 has 22 MA's), (13, 17568), (15, 17580), (22, 17634), (32, 17703), (33, 17706), (34, 17715), (36, 17730), (55, 17892), (61, 17970), (63, 17985), (68, 18015), (78, 18063), (80, 18087), (82, 18105), (87, 18153), (91, 18189), (94, 18213), (108, 18348), (120, 18405), (122, 18450), (132, 18510), (137, 18543), (138, 18552), (147, 18633), (158, 18777), (162, 18810), (164, 18828), (166, 18852), (169, 18864), (170, 18885), (171, 18915), (172, 18930), (173, 18933), (176, 18954), (178, 19044), (181, 19110), (184, 19152), (185, 19155), (189, 19185), (190, 19218), (192, 19239), (193, 19242), (198, 19299), (202, 19323), (204, 19338), (205, 19368), (207, 19374), (212, 19452), (213, 19455), (215, 19509), (218, 19533),

Gene: MilanaBonita_19 Start: 18067, Stop: 20265, Start Num: 7
Candidate Starts for MilanaBonita_19:

(3, 18055), (Start: 7 @18067 has 3 MA's), (11, 18088), (16, 18109), (21, 18148), (30, 18217), (32, 18226), (33, 18229), (39, 18280), (42, 18295), (50, 18370), (65, 18505), (67, 18517), (71, 18538), (78, 18571), (94, 18718), (101, 18781), (106, 18820), (107, 18844), (111, 18859), (112, 18868), (117, 18895), (118, 18898), (119, 18901), (125, 18970), (129, 18991), (131, 18997), (136, 19033), (139, 19051), (164, 19327), (171, 19393), (173, 19411), (175, 19429), (181, 19588), (200, 19714), (211, 19855), (214, 19870), (216, 19921), (220, 19948), (221, 19969), (231, 20071), (233, 20086), (235, 20092), (242, 20137), (244, 20155), (245, 20161), (249, 20224),

Gene: Ms6_18 Start: 17407, Stop: 19719, Start Num: 4
Candidate Starts for Ms6_18:
(2, 17395), (Start: 4 @17407 has 13 MA's), (9, 17428), (14, 17449), (19, 17488), (30, 17557), (32, 17566), (33, 17569), (39, 17620), (42, 17635), (50, 17710), (65, 17845), (67, 17857), (71, 17878), (78, 17911), (94, 18058), (99, 18106), (101, 18121), (104, 18142), (105, 18157), (107, 18184), (111, 18199), (112, 18208), (117, 18235), (119, 18241), (122, 18286), (123, 18295), (125, 18310), (128, 18322), (129, 18331), (131, 18337), (133, 18346), (136, 18373), (139, 18391), (146, 18460), (151, 18550), (164, 18667), (171, 18733), (173, 18751), (175, 18769), (180, 18916), (181, 18928), (183, 18955), (184, 18970), (185, 18973), (190, 19036), (191, 19045), (194, 19060), (201, 19126), (207, 19189), (208, 19198), (210, 19252), (216, 19324), (218, 19345), (222, 19381), (223, 19387), (224, 19399), (225, 19402), (227, 19441), (230, 19504), (232, 19513), (235, 19531),

Gene: MulchSalad_18 Start: 17319, Stop: 19319, Start Num: 8
Candidate Starts for MulchSalad_18:
(5, 17307), (Start: 8 @17319 has 14 MA's), (12, 17340), (17, 17361), (21, 17400), (30, 17469), (31, 17472), (32, 17478), (33, 17481), (35, 17499), (55, 17661), (61, 17739), (63, 17754), (68, 17784), (78, 17832), (80, 17856), (82, 17874), (87, 17922), (91, 17958), (94, 17982), (108, 18117), (120, 18174), (122, 18219), (132, 18279), (137, 18312), (138, 18321), (147, 18402), (158, 18546), (162, 18579), (164, 18597), (166, 18621), (169, 18633), (170, 18654), (171, 18684), (172, 18699), (173, 18702), (176, 18723), (178, 18813), (181, 18879), (184, 18921), (185, 18924), (189, 18954), (190, 18987), (192, 19008), (193, 19011), (198, 19068), (202, 19092), (204, 19107), (205, 19137), (207, 19143), (212, 19221), (213, 19224), (215, 19278), (218, 19302),

Gene: Necropolis_21 Start: 19038, Stop: 21299, Start Num: 6
Candidate Starts for Necropolis_21:
(Start: 6 @19038 has 33 MA's), (Start: 8 @19047 has 14 MA's), (33, 19191), (65, 19464), (67, 19476), (71, 19497), (76, 19521), (84, 19596), (93, 19668), (97, 19698), (101, 19734), (107, 19797), (111, 19812), (116, 19839), (117, 19845), (125, 19920), (129, 19944), (131, 19950), (139, 20004), (140, 20010), (164, 20280), (171, 20346), (173, 20364), (175, 20382), (181, 20541), (183, 20568), (185, 20586), (188, 20613), (190, 20649), (192, 20667), (194, 20673), (195, 20700), (196, 20706), (202, 20748), (214, 20889), (216, 20940), (229, 21084), (234, 21120), (235, 21123), (241, 21171), (244, 21195), (246, 21231), (247, 21234), (248, 21243), (250, 21279), (252, 21294),

Gene: Nenae_20 Start: 17560, Stop: 19866, Start Num: 4
Candidate Starts for Nenae_20:
(2, 17548), (Start: 4 @17560 has 13 MA's), (9, 17572), (27, 17683), (32, 17707), (33, 17710), (34, 17719), (65, 17992), (67, 18004), (71, 18025), (79, 18070), (94, 18205), (99, 18253), (101, 18268), (104, 18289), (106, 18307), (107, 18331), (111, 18346), (112, 18355), (117, 18382), (119, 18388), (122, 18433), (125, 18457), (128, 18469), (129, 18478), (131, 18484), (136, 18520), (139, 18538), (146, 18607), (151, 18697), (160, 18772), (164, 18814), (172, 18895), (173, 18898), (175, 18916), (177, 18982), (180, 19063), (181, 19075), (183, 19102), (184, 19117), (185, 19120), (190, 19183), (191, 19192), (194, 19207), (201, 19273), (207, 19336), (208, 19345), (210, 19399), (216, 19471), (218, 19492), (222, 19528), (223, 19534), (224, 19546), (225, 19549), (227, 19588), (230, 19651), (232, 19660), (235, 19678),

Gene: Okabe_20 Start: 18189, Stop: 20462, Start Num: 6
Candidate Starts for Okabe_20:
(Start: 6 @18189 has 33 MA's), (11, 18210), (16, 18231), (20, 18270), (30, 18339), (32, 18348), (33, 18351), (35, 18369), (39, 18402), (50, 18492), (65, 18627), (67, 18639), (71, 18660), (76, 18684), (84, 18759), (93, 18831), (97, 18861), (101, 18897), (107, 18960), (111, 18975), (116, 19002), (117, 19008), (125, 19083), (129, 19107), (131, 19113), (139, 19167), (140, 19173), (164, 19443), (171, 19509), (175, 19545), (181, 19704), (183, 19731), (185, 19749), (188, 19776), (190, 19812), (192, 19830), (194, 19836), (195, 19863), (196, 19869), (202, 19911), (214, 20052), (216, 20103), (229, 20247), (234, 20283), (235, 20286), (241, 20334), (244, 20358), (246, 20394), (247, 20397), (248, 20406), (250, 20442), (252, 20457),

Gene: Parmesanjohn_20 Start: 17556, Stop: 19550, Start Num: 10
Candidate Starts for Parmesanjohn_20:
(Start: 8 @17544 has 14 MA's), (Start: 10 @17556 has 22 MA's), (13, 17568), (15, 17580), (22, 17634), (32, 17703), (33, 17706), (34, 17715), (36, 17730), (55, 17892), (61, 17970), (63, 17985), (68, 18015), (78, 18063), (80, 18087), (82, 18105), (87, 18153), (91, 18189), (94, 18213), (108, 18348), (120, 18405), (122, 18450), (132, 18510), (137, 18543), (138, 18552), (147, 18633), (158, 18777), (162, 18810), (164, 18828), (166, 18852), (169, 18864), (170, 18885), (171, 18915), (172, 18930), (173, 18933), (176, 18954), (178, 19044), (181, 19110), (184, 19152), (185, 19155), (189, 19185), (190, 19218), (192, 19239), (193, 19242), (198, 19299), (202, 19323), (204, 19338), (205, 19368), (207, 19374), (212, 19452), (213, 19455), (215, 19509), (218, 19533),

Gene: PeanutPie_21 Start: 19045, Stop: 21306, Start Num: 6
Candidate Starts for PeanutPie_21:
(Start: 6 @19045 has 33 MA's), (33, 19198), (65, 19471), (67, 19483), (71, 19504), (76, 19528), (84, 19603), (93, 19675), (97, 19705), (101, 19741), (107, 19804), (111, 19819), (116, 19846), (117, 19852), (125, 19927), (129, 19951), (131, 19957), (139, 20011), (140, 20017), (164, 20287), (171, 20353), (173, 20371), (175, 20389), (181, 20548), (183, 20575), (185, 20593), (188, 20620), (190, 20656), (192, 20674), (194, 20680), (195, 20707), (196, 20713), (202, 20755), (214, 20896), (216, 20947), (229, 21091), (234, 21127), (235, 21130), (241, 21178), (244, 21202), (246, 21238), (247, 21241), (248, 21250), (250, 21286), (252, 21301),

Gene: PegLeg_30 Start: 24621, Stop: 26972, Start Num: 8
Candidate Starts for PegLeg_30:
(Start: 8 @24621 has 14 MA's), (24, 24741), (26, 24756), (38, 24828), (39, 24849), (41, 24861), (44, 24888), (46, 24897), (65, 25083), (77, 25146), (84, 25215), (88, 25242), (96, 25314), (97, 25317), (99, 25338), (118, 25473), (125, 25554), (128, 25569), (129, 25578), (131, 25584), (146, 25707), (158, 25863), (161, 25881), (162, 25896), (171, 25980), (173, 25998), (174, 26007), (180, 26163), (181, 26175), (186, 26241), (190, 26283), (194, 26307), (196, 26340), (203, 26394), (206, 26433), (208, 26445), (217, 26577), (222, 26622), (230, 26748), (234, 26772), (236, 26781), (238, 26790), (239, 26802), (240, 26814), (241, 26829), (246, 26889), (251, 26958),

Gene: PhancyPhin_20 Start: 17557, Stop: 19863, Start Num: 4
Candidate Starts for PhancyPhin_20:
(2, 17545), (Start: 4 @17557 has 13 MA's), (9, 17569), (27, 17680), (32, 17704), (33, 17707), (34, 17716), (65, 17989), (67, 18001), (71, 18022), (79, 18067), (94, 18202), (99, 18250), (101, 18265), (104, 18286), (106, 18304), (107, 18328), (111, 18343), (112, 18352), (117, 18379), (119, 18385), (122, 18430), (125, 18454), (128, 18466), (129, 18475), (131, 18481), (136, 18517), (139, 18535), (146, 18604), (151, 18694), (160, 18769), (164, 18811), (172, 18892), (173, 18895), (175, 18913), (177, 18979), (180, 19060), (181, 19072), (183, 19099), (184, 19114), (185, 19117), (190, 19180), (191, 19189), (194, 19204), (201, 19270), (207, 19333), (208, 19342), (210, 19396), (216, 19468), (218, 19489), (222, 19525), (223, 19531), (224, 19543), (225, 19546), (227, 19585), (230, 19648), (232, 19657), (235, 19675),

Gene: Phegasus_21 Start: 19044, Stop: 21305, Start Num: 6
Candidate Starts for Phegasus_21:
(Start: 6 @19044 has 33 MA's), (Start: 8 @19053 has 14 MA's), (33, 19197), (65, 19470), (67, 19482), (71, 19503), (76, 19527), (84, 19602), (93, 19674), (97, 19704), (101, 19740), (107, 19803), (111, 19818), (116, 19845), (117, 19851), (125, 19926), (129, 19950), (131, 19956), (139, 20010), (140, 20016), (164, 20286), (171, 20352), (173, 20370), (175, 20388), (181, 20547), (183, 20574), (185, 20592), (188, 20619), (190, 20655), (192, 20673), (194, 20679), (195, 20706), (196, 20712), (202, 20754), (214, 20895), (216, 20946), (229, 21090), (234, 21126), (235, 21129), (241, 21177), (244, 21201), (246, 21237), (247, 21240), (248, 21249), (250, 21285), (252, 21300),

Gene: Philonius_20 Start: 17556, Stop: 19550, Start Num: 10
Candidate Starts for Philonius_20:
(Start: 8 @17544 has 14 MA's), (Start: 10 @17556 has 22 MA's), (13, 17568), (15, 17580), (22, 17634), (32, 17703), (33, 17706), (34, 17715), (36, 17730), (55, 17892), (61, 17970), (63, 17985), (68, 18015), (78, 18063), (80, 18087), (82, 18105), (87, 18153), (91, 18189), (94, 18213), (108, 18348), (120, 18405), (122, 18450), (132, 18510), (137, 18543), (138, 18552), (147, 18633), (158, 18777), (162, 18810), (164, 18828), (166, 18852), (169, 18864), (170, 18885), (171, 18915), (172, 18930), (173, 18933), (176, 18954), (178, 19044), (181, 19110), (184, 19152), (185, 19155), (189, 19185), (190, 19218), (192, 19239), (193, 19242), (198, 19299), (202, 19323), (204, 19338), (205, 19368), (207, 19374), (212, 19452), (213, 19455), (215, 19509), (218, 19533),

Gene: Pipsqueaks_20 Start: 17556, Stop: 19550, Start Num: 10
Candidate Starts for Pipsqueaks_20:
(Start: 8 @17544 has 14 MA's), (Start: 10 @17556 has 22 MA's), (13, 17568), (15, 17580), (22, 17634), (32, 17703), (33, 17706), (34, 17715), (36, 17730), (55, 17892), (61, 17970), (63, 17985), (68, 18015), (78, 18063), (80, 18087), (82, 18105), (87, 18153), (91, 18189), (94, 18213), (108, 18348), (120, 18405), (122, 18450), (132, 18510), (137, 18543), (138, 18552), (147, 18633), (158, 18777), (162, 18810), (164, 18828), (166, 18852), (169, 18864), (170, 18885), (171, 18915), (172, 18930), (173, 18933), (176, 18954), (178, 19044), (181, 19110), (184, 19152), (185, 19155), (189, 19185), (190, 19218), (192, 19239), (193, 19242), (198, 19299), (202, 19323), (204, 19338), (205, 19368), (207, 19374), (212, 19452), (213, 19455), (215, 19509), (218, 19533),

Gene: Polkaroo_21 Start: 19054, Stop: 21315, Start Num: 6
Candidate Starts for Polkaroo_21:
(Start: 6 @19054 has 33 MA's), (Start: 8 @19063 has 14 MA's), (33, 19207), (65, 19480), (67, 19492), (71, 19513), (76, 19537), (84, 19612), (93, 19684), (97, 19714), (101, 19750), (107, 19813), (111, 19828), (116, 19855), (117, 19861), (125, 19936), (129, 19960), (131, 19966), (139, 20020), (140, 20026), (164, 20296), (171, 20362), (173, 20380), (175, 20398), (181, 20557), (183, 20584), (185, 20602), (188, 20629), (190, 20665), (192, 20683), (194, 20689), (195, 20716), (196, 20722), (202, 20764), (214, 20905), (216, 20956), (229, 21100), (234, 21136), (235, 21139), (241, 21187), (244, 21211), (246, 21247), (247, 21250), (248, 21259), (250, 21295), (252, 21310),

Gene: Purgamenstris_20 Start: 17560, Stop: 19866, Start Num: 4
Candidate Starts for Purgamenstris_20:
(2, 17548), (Start: 4 @17560 has 13 MA's), (9, 17572), (27, 17683), (32, 17707), (33, 17710), (34, 17719), (65, 17992), (67, 18004), (71, 18025), (79, 18070), (94, 18205), (99, 18253), (101, 18268), (104, 18289), (106, 18307), (107, 18331), (111, 18346), (112, 18355), (117, 18382), (119, 18388), (122, 18433), (125, 18457), (128, 18469), (129, 18478), (131, 18484), (136, 18520), (139, 18538), (146, 18607), (151, 18697), (160, 18772), (164, 18814), (172, 18895), (173, 18898), (175, 18916), (177, 18982), (180, 19063), (181, 19075), (183, 19102), (184, 19117), (185, 19120), (190, 19183), (191, 19192), (194, 19207), (201, 19273), (207, 19336), (208, 19345), (210, 19399), (216, 19471), (218, 19492), (222, 19528), (223, 19534), (224, 19546), (225, 19549), (227, 19588), (230, 19651),

(232, 19660), (235, 19678),

Gene: QueenHazel_21 Start: 19085, Stop: 21412, Start Num: 6
Candidate Starts for QueenHazel_21:
(Start: 6 @19085 has 33 MA's), (11, 19109), (18, 19145), (25, 19220), (27, 19229), (33, 19256), (50, 19403), (65, 19538), (67, 19550), (71, 19571), (78, 19604), (94, 19751), (101, 19814), (106, 19853), (107, 19877), (111, 19892), (112, 19901), (117, 19928), (118, 19931), (119, 19934), (125, 20003), (129, 20024), (131, 20030), (136, 20066), (139, 20084), (164, 20360), (168, 20387), (171, 20426), (173, 20444), (181, 20621), (186, 20687), (190, 20729), (191, 20738), (194, 20753), (201, 20819), (207, 20882), (208, 20891), (216, 21017), (218, 21038), (222, 21074), (223, 21080), (224, 21092), (225, 21095), (227, 21134), (230, 21197), (232, 21206), (235, 21224),

Gene: Rebel_20 Start: 17557, Stop: 19857, Start Num: 4
Candidate Starts for Rebel_20:
(2, 17545), (Start: 4 @17557 has 13 MA's), (9, 17569), (27, 17680), (32, 17704), (33, 17707), (34, 17716), (65, 17989), (67, 18001), (71, 18022), (76, 18046), (84, 18121), (93, 18193), (97, 18223), (101, 18259), (107, 18322), (111, 18337), (116, 18364), (117, 18370), (118, 18373), (125, 18445), (129, 18469), (131, 18475), (139, 18529), (140, 18535), (164, 18805), (171, 18871), (173, 18889), (175, 18907), (181, 19066), (183, 19093), (184, 19108), (185, 19111), (190, 19174), (191, 19183), (194, 19198), (201, 19264), (207, 19327), (208, 19336), (210, 19390), (216, 19462), (218, 19483), (222, 19519), (223, 19525), (224, 19537), (225, 19540), (227, 19579), (230, 19642), (232, 19651), (235, 19669),

Gene: Redi_20 Start: 17560, Stop: 19866, Start Num: 4
Candidate Starts for Redi_20:
(2, 17548), (Start: 4 @17560 has 13 MA's), (9, 17572), (27, 17683), (32, 17707), (33, 17710), (34, 17719), (65, 17992), (67, 18004), (71, 18025), (79, 18070), (94, 18205), (99, 18253), (101, 18268), (104, 18289), (106, 18307), (107, 18331), (111, 18346), (112, 18355), (117, 18382), (119, 18388), (122, 18433), (125, 18457), (128, 18469), (129, 18478), (131, 18484), (136, 18520), (139, 18538), (146, 18607), (151, 18697), (160, 18772), (164, 18814), (172, 18895), (173, 18898), (175, 18916), (177, 18982), (180, 19063), (181, 19075), (183, 19102), (184, 19117), (185, 19120), (190, 19183), (191, 19192), (194, 19207), (201, 19273), (207, 19336), (208, 19345), (210, 19399), (216, 19471), (218, 19492), (222, 19528), (223, 19534), (224, 19546), (225, 19549), (227, 19588), (230, 19651), (232, 19660), (235, 19678),

Gene: Schnauzer_20 Start: 17556, Stop: 19550, Start Num: 10
Candidate Starts for Schnauzer_20:
(Start: 8 @17544 has 14 MA's), (Start: 10 @17556 has 22 MA's), (13, 17568), (15, 17580), (22, 17634), (32, 17703), (33, 17706), (34, 17715), (36, 17730), (55, 17892), (61, 17970), (63, 17985), (68, 18015), (78, 18063), (80, 18087), (82, 18105), (87, 18153), (91, 18189), (94, 18213), (108, 18348), (120, 18405), (122, 18450), (132, 18510), (137, 18543), (138, 18552), (147, 18633), (158, 18777), (162, 18810), (164, 18828), (166, 18852), (169, 18864), (170, 18885), (171, 18915), (172, 18930), (173, 18933), (176, 18954), (178, 19044), (181, 19110), (184, 19152), (185, 19155), (189, 19185), (190, 19218), (192, 19239), (193, 19242), (198, 19299), (202, 19323), (204, 19338), (205, 19368), (207, 19374), (212, 19452), (213, 19455), (215, 19509), (218, 19533),

Gene: ShrimpFriedEgg_20 Start: 17560, Stop: 19866, Start Num: 4
Candidate Starts for ShrimpFriedEgg_20:
(2, 17548), (Start: 4 @17560 has 13 MA's), (9, 17572), (27, 17683), (32, 17707), (33, 17710), (34, 17719), (65, 17992), (67, 18004), (71, 18025), (79, 18070), (94, 18205), (99, 18253), (101, 18268), (104, 18289), (106, 18307), (107, 18331), (111, 18346), (112, 18355), (117, 18382), (119, 18388), (122, 18433), (125, 18457), (128, 18469), (129, 18478), (131, 18484), (136, 18520), (139, 18538), (146, 18607), (151, 18697), (160, 18772), (164, 18814), (172, 18895), (173, 18898), (175, 18916),

(177, 18982), (180, 19063), (181, 19075), (183, 19102), (184, 19117), (185, 19120), (190, 19183), (191, 19192), (194, 19207), (201, 19273), (207, 19336), (208, 19345), (210, 19399), (216, 19471), (218, 19492), (222, 19528), (223, 19534), (224, 19546), (225, 19549), (227, 19588), (230, 19651), (232, 19660), (235, 19678),

Gene: Silvafighter_20 Start: 17556, Stop: 19550, Start Num: 10
Candidate Starts for Silvafighter_20:
(Start: 8 @17544 has 14 MA's), (Start: 10 @17556 has 22 MA's), (13, 17568), (15, 17580), (22, 17634), (32, 17703), (33, 17706), (34, 17715), (36, 17730), (55, 17892), (61, 17970), (63, 17985), (68, 18015), (78, 18063), (80, 18087), (82, 18105), (87, 18153), (91, 18189), (94, 18213), (108, 18348), (120, 18405), (122, 18450), (132, 18510), (137, 18543), (138, 18552), (147, 18633), (158, 18777), (162, 18810), (164, 18828), (166, 18852), (169, 18864), (170, 18885), (171, 18915), (172, 18930), (173, 18933), (176, 18954), (178, 19044), (181, 19110), (184, 19152), (185, 19155), (189, 19185), (190, 19218), (192, 19239), (193, 19242), (198, 19299), (202, 19323), (204, 19338), (205, 19368), (207, 19374), (212, 19452), (213, 19455), (215, 19509), (218, 19533),

Gene: Silvy_20 Start: 17557, Stop: 19551, Start Num: 10
Candidate Starts for Silvy_20:
(Start: 8 @17545 has 14 MA's), (Start: 10 @17557 has 22 MA's), (13, 17569), (15, 17581), (22, 17635), (32, 17704), (33, 17707), (34, 17716), (36, 17731), (55, 17893), (61, 17971), (63, 17986), (68, 18016), (78, 18064), (80, 18088), (82, 18106), (87, 18154), (91, 18190), (94, 18214), (108, 18349), (120, 18406), (122, 18451), (132, 18511), (137, 18544), (138, 18553), (147, 18634), (158, 18778), (162, 18811), (164, 18829), (166, 18853), (169, 18865), (170, 18886), (171, 18916), (172, 18931), (173, 18934), (176, 18955), (178, 19045), (181, 19111), (184, 19153), (185, 19156), (189, 19186), (190, 19219), (192, 19240), (193, 19243), (198, 19300), (202, 19324), (204, 19339), (205, 19369), (207, 19375), (212, 19453), (213, 19456), (215, 19510), (218, 19534),

Gene: SlimJimmy_29 Start: 24608, Stop: 26956, Start Num: 8
Candidate Starts for SlimJimmy_29:
(Start: 8 @24608 has 14 MA's), (24, 24728), (26, 24743), (38, 24815), (39, 24836), (41, 24848), (44, 24875), (46, 24884), (49, 24914), (51, 24941), (53, 24968), (64, 25064), (65, 25070), (69, 25094), (79, 25148), (86, 25211), (88, 25229), (96, 25301), (97, 25304), (99, 25325), (118, 25460), (119, 25463), (125, 25541), (131, 25568), (136, 25604), (137, 25607), (140, 25628), (153, 25793), (157, 25829), (158, 25847), (162, 25880), (171, 25964), (173, 25982), (174, 25991), (175, 26000), (180, 26147), (181, 26159), (186, 26225), (190, 26267), (194, 26291), (196, 26324), (203, 26378), (206, 26417), (208, 26429), (217, 26561), (222, 26606), (230, 26732), (234, 26756), (236, 26765), (238, 26774), (239, 26786), (240, 26798), (241, 26813), (246, 26873), (251, 26942),

Gene: Smurph_20 Start: 17556, Stop: 19550, Start Num: 10
Candidate Starts for Smurph_20:
(Start: 8 @17544 has 14 MA's), (Start: 10 @17556 has 22 MA's), (13, 17568), (15, 17580), (22, 17634), (32, 17703), (33, 17706), (34, 17715), (36, 17730), (55, 17892), (61, 17970), (63, 17985), (68, 18015), (78, 18063), (80, 18087), (82, 18105), (87, 18153), (91, 18189), (94, 18213), (108, 18348), (120, 18405), (122, 18450), (132, 18510), (137, 18543), (138, 18552), (147, 18633), (158, 18777), (162, 18810), (164, 18828), (166, 18852), (169, 18864), (170, 18885), (171, 18915), (172, 18930), (173, 18933), (176, 18954), (178, 19044), (181, 19110), (184, 19152), (185, 19155), (189, 19185), (190, 19218), (192, 19239), (193, 19242), (198, 19299), (202, 19323), (204, 19338), (205, 19368), (207, 19374), (212, 19452), (213, 19455), (215, 19509), (218, 19533),

Gene: Snekmaggedon_20 Start: 17560, Stop: 19866, Start Num: 4
Candidate Starts for Snekmaggedon_20:
(2, 17548), (Start: 4 @17560 has 13 MA's), (9, 17572), (27, 17683), (32, 17707), (33, 17710), (34, 17719), (57, 17920), (65, 17992), (67, 18004), (71, 18025), (74, 18037), (94, 18205), (99, 18253), (101,

18268), (104, 18289), (105, 18304), (107, 18331), (111, 18346), (112, 18355), (117, 18382), (119, 18388), (122, 18433), (123, 18442), (125, 18457), (128, 18469), (129, 18478), (131, 18484), (133, 18493), (136, 18520), (139, 18538), (146, 18607), (151, 18697), (164, 18814), (171, 18880), (173, 18898), (175, 18916), (180, 19063), (181, 19075), (183, 19102), (184, 19117), (185, 19120), (190, 19183), (191, 19192), (194, 19207), (201, 19273), (207, 19336), (208, 19345), (210, 19399), (216, 19471), (218, 19492), (222, 19528), (223, 19534), (224, 19546), (225, 19549), (227, 19588), (230, 19651), (232, 19660), (235, 19678),

Gene: Sonah_21 Start: 19028, Stop: 21289, Start Num: 6
Candidate Starts for Sonah_21:
(Start: 6 @19028 has 33 MA's), (Start: 8 @19037 has 14 MA's), (33, 19181), (65, 19454), (67, 19466), (71, 19487), (76, 19511), (84, 19586), (93, 19658), (97, 19688), (101, 19724), (107, 19787), (111, 19802), (116, 19829), (117, 19835), (125, 19910), (129, 19934), (131, 19940), (139, 19994), (140, 20000), (164, 20270), (171, 20336), (173, 20354), (175, 20372), (181, 20531), (183, 20558), (185, 20576), (188, 20603), (190, 20639), (192, 20657), (194, 20663), (195, 20690), (196, 20696), (202, 20738), (214, 20879), (216, 20930), (229, 21074), (234, 21110), (235, 21113), (241, 21161), (244, 21185), (246, 21221), (247, 21224), (248, 21233), (250, 21269), (252, 21284),

Gene: Spinach_20 Start: 17560, Stop: 19866, Start Num: 4
Candidate Starts for Spinach_20:
(2, 17548), (Start: 4 @17560 has 13 MA's), (9, 17572), (27, 17683), (32, 17707), (33, 17710), (34, 17719), (65, 17992), (67, 18004), (71, 18025), (79, 18070), (94, 18205), (99, 18253), (101, 18268), (104, 18289), (106, 18307), (107, 18331), (111, 18346), (112, 18355), (117, 18382), (119, 18388), (122, 18433), (125, 18457), (128, 18469), (129, 18478), (131, 18484), (136, 18520), (139, 18538), (146, 18607), (151, 18697), (160, 18772), (164, 18814), (172, 18895), (173, 18898), (175, 18916), (177, 18982), (180, 19063), (181, 19075), (183, 19102), (184, 19117), (185, 19120), (190, 19183), (191, 19192), (194, 19207), (201, 19273), (207, 19336), (208, 19345), (210, 19399), (216, 19471), (218, 19492), (222, 19528), (223, 19534), (224, 19546), (225, 19549), (227, 19588), (230, 19651), (232, 19660), (235, 19678),

Gene: SpongeBob_20 Start: 17560, Stop: 19866, Start Num: 4
Candidate Starts for SpongeBob_20:
(2, 17548), (Start: 4 @17560 has 13 MA's), (9, 17572), (27, 17683), (32, 17707), (33, 17710), (34, 17719), (57, 17920), (65, 17992), (67, 18004), (71, 18025), (74, 18037), (94, 18205), (99, 18253), (101, 18268), (104, 18289), (105, 18304), (107, 18331), (111, 18346), (112, 18355), (117, 18382), (119, 18388), (122, 18433), (123, 18442), (125, 18457), (128, 18469), (129, 18478), (131, 18484), (133, 18493), (136, 18520), (139, 18538), (146, 18607), (151, 18697), (164, 18814), (171, 18880), (173, 18898), (175, 18916), (180, 19063), (181, 19075), (183, 19102), (184, 19117), (185, 19120), (190, 19183), (191, 19192), (194, 19207), (201, 19273), (207, 19336), (208, 19345), (210, 19399), (216, 19471), (218, 19492), (222, 19528), (223, 19534), (224, 19546), (225, 19549), (227, 19588), (230, 19651), (232, 19660), (235, 19678),

Gene: StevieRay_21 Start: 19029, Stop: 21290, Start Num: 6
Candidate Starts for StevieRay_21:
(Start: 6 @19029 has 33 MA's), (33, 19182), (65, 19455), (67, 19467), (71, 19488), (76, 19512), (79, 19533), (84, 19587), (93, 19659), (97, 19689), (101, 19725), (107, 19788), (111, 19803), (116, 19830), (117, 19836), (125, 19911), (129, 19935), (131, 19941), (139, 19995), (140, 20001), (164, 20271), (171, 20337), (173, 20355), (175, 20373), (181, 20532), (183, 20559), (185, 20577), (188, 20604), (190, 20640), (192, 20658), (194, 20664), (195, 20691), (196, 20697), (202, 20739), (214, 20880), (216, 20931), (229, 21075), (234, 21111), (235, 21114), (241, 21162), (244, 21186), (246, 21222), (247, 21225), (248, 21234), (250, 21270), (252, 21285),

Gene: Tapioca_20 Start: 17556, Stop: 19550, Start Num: 10

Candidate Starts for Tapioca_20:
(Start: 8 @17544 has 14 MA's), (Start: 10 @17556 has 22 MA's), (13, 17568), (15, 17580), (22, 17634), (32, 17703), (33, 17706), (34, 17715), (36, 17730), (55, 17892), (61, 17970), (63, 17985), (68, 18015), (78, 18063), (80, 18087), (82, 18105), (87, 18153), (91, 18189), (94, 18213), (108, 18348), (120, 18405), (122, 18450), (132, 18510), (137, 18543), (138, 18552), (147, 18633), (158, 18777), (162, 18810), (164, 18828), (166, 18852), (169, 18864), (170, 18885), (171, 18915), (172, 18930), (173, 18933), (176, 18954), (178, 19044), (181, 19110), (184, 19152), (185, 19155), (189, 19185), (190, 19218), (192, 19239), (193, 19242), (198, 19299), (202, 19323), (204, 19338), (205, 19368), (207, 19374), (212, 19452), (213, 19455), (215, 19509), (218, 19533),

Gene: Taptic_24 Start: 27160, Stop: 29289, Start Num: 29
Candidate Starts for Taptic_24:
(Start: 29 @27160 has 4 MA's), (40, 27229), (45, 27262), (47, 27283), (54, 27340), (58, 27370), (59, 27388), (72, 27481), (73, 27484), (92, 27622), (98, 27658), (100, 27679), (102, 27706), (105, 27727), (109, 27766), (118, 27820), (122, 27874), (124, 27886), (127, 27910), (130, 27934), (133, 27946), (135, 27961), (137, 27976), (141, 28018), (147, 28075), (148, 28099), (164, 28270), (171, 28336), (173, 28354), (175, 28372), (181, 28531), (183, 28558), (185, 28576), (188, 28603), (190, 28639), (192, 28657), (194, 28663), (195, 28690), (196, 28696), (202, 28738), (214, 28879), (216, 28930), (229, 29074), (234, 29110), (235, 29113), (241, 29161), (244, 29185), (246, 29221), (247, 29224), (248, 29233), (250, 29269), (252, 29284),

Gene: Techage_21 Start: 19029, Stop: 21290, Start Num: 6
Candidate Starts for Techage_21:
(Start: 6 @19029 has 33 MA's), (Start: 8 @19038 has 14 MA's), (33, 19182), (65, 19455), (67, 19467), (71, 19488), (76, 19512), (84, 19587), (93, 19659), (97, 19689), (101, 19725), (107, 19788), (111, 19803), (116, 19830), (117, 19836), (125, 19911), (129, 19935), (131, 19941), (139, 19995), (140, 20001), (164, 20271), (171, 20337), (173, 20355), (175, 20373), (181, 20532), (183, 20559), (185, 20577), (188, 20604), (190, 20640), (192, 20658), (194, 20664), (195, 20691), (196, 20697), (202, 20739), (214, 20880), (216, 20931), (229, 21075), (234, 21111), (235, 21114), (241, 21162), (244, 21186), (246, 21222), (247, 21225), (248, 21234), (250, 21270), (252, 21285),

Gene: Tessdabest_19 Start: 17553, Stop: 19547, Start Num: 10
Candidate Starts for Tessdabest_19:
(Start: 8 @17541 has 14 MA's), (Start: 10 @17553 has 22 MA's), (13, 17565), (15, 17577), (22, 17631), (32, 17700), (33, 17703), (34, 17712), (36, 17727), (55, 17889), (61, 17967), (63, 17982), (68, 18012), (78, 18060), (80, 18084), (82, 18102), (87, 18150), (91, 18186), (94, 18210), (108, 18345), (120, 18402), (122, 18447), (132, 18507), (137, 18540), (138, 18549), (147, 18630), (158, 18774), (162, 18807), (164, 18825), (166, 18849), (169, 18861), (170, 18882), (171, 18912), (172, 18927), (173, 18930), (176, 18951), (178, 19041), (181, 19107), (184, 19149), (185, 19152), (189, 19182), (190, 19215), (192, 19236), (193, 19239), (198, 19296), (202, 19320), (204, 19335), (205, 19365), (207, 19371), (212, 19449), (213, 19452), (215, 19506), (218, 19530),

Gene: Thespis_21 Start: 19038, Stop: 21299, Start Num: 6
Candidate Starts for Thespis_21:
(Start: 6 @19038 has 33 MA's), (33, 19191), (65, 19464), (67, 19476), (71, 19497), (76, 19521), (84, 19596), (93, 19668), (97, 19698), (101, 19734), (107, 19797), (111, 19812), (116, 19839), (117, 19845), (125, 19920), (129, 19944), (131, 19950), (134, 19962), (139, 20004), (140, 20010), (164, 20280), (171, 20346), (173, 20364), (175, 20382), (181, 20541), (183, 20568), (185, 20586), (188, 20613), (190, 20649), (192, 20667), (194, 20673), (195, 20700), (196, 20706), (202, 20748), (214, 20889), (216, 20940), (229, 21084), (234, 21120), (235, 21123), (241, 21171), (244, 21195), (246, 21231), (247, 21234), (248, 21243), (250, 21279), (252, 21294),

Gene: Tortoise12_20 Start: 17556, Stop: 19550, Start Num: 10

Candidate Starts for Tortoise12_20:
(Start: 8 @17544 has 14 MA's), (Start: 10 @17556 has 22 MA's), (13, 17568), (15, 17580), (22, 17634), (32, 17703), (33, 17706), (34, 17715), (36, 17730), (55, 17892), (61, 17970), (63, 17985), (68, 18015), (78, 18063), (80, 18087), (82, 18105), (87, 18153), (91, 18189), (94, 18213), (108, 18348), (120, 18405), (122, 18450), (132, 18510), (137, 18543), (138, 18552), (147, 18633), (158, 18777), (162, 18810), (164, 18828), (166, 18852), (169, 18864), (170, 18885), (171, 18915), (172, 18930), (173, 18933), (176, 18954), (178, 19044), (181, 19110), (184, 19152), (185, 19155), (189, 19185), (190, 19218), (192, 19239), (193, 19242), (198, 19299), (202, 19323), (204, 19338), (205, 19368), (207, 19374), (212, 19452), (213, 19455), (215, 19509), (218, 19533),

Gene: TpudiCK_31 Start: 24621, Stop: 26972, Start Num: 8
Candidate Starts for TpudiCK_31:
(Start: 8 @24621 has 14 MA's), (24, 24741), (26, 24756), (38, 24828), (39, 24849), (41, 24861), (44, 24888), (46, 24897), (65, 25083), (77, 25146), (84, 25215), (88, 25242), (96, 25314), (97, 25317), (99, 25338), (118, 25473), (125, 25554), (128, 25569), (129, 25578), (131, 25584), (146, 25707), (158, 25863), (161, 25881), (162, 25896), (171, 25980), (173, 25998), (174, 26007), (175, 26016), (180, 26163), (181, 26175), (186, 26241), (190, 26283), (194, 26307), (196, 26340), (203, 26394), (206, 26433), (208, 26445), (217, 26577), (222, 26622), (230, 26748), (234, 26772), (236, 26781), (238, 26790), (239, 26802), (240, 26814), (241, 26829), (246, 26889), (251, 26958),

Gene: TyDawg_30 Start: 24622, Stop: 26973, Start Num: 8
Candidate Starts for TyDawg_30:
(Start: 8 @24622 has 14 MA's), (24, 24742), (26, 24757), (38, 24829), (39, 24850), (41, 24862), (44, 24889), (46, 24898), (65, 25084), (77, 25147), (84, 25216), (88, 25243), (96, 25315), (97, 25318), (99, 25339), (118, 25474), (125, 25555), (128, 25570), (129, 25579), (131, 25585), (146, 25708), (158, 25864), (161, 25882), (162, 25897), (171, 25981), (173, 25999), (174, 26008), (175, 26017), (180, 26164), (181, 26176), (186, 26242), (190, 26284), (194, 26308), (196, 26341), (203, 26395), (206, 26434), (208, 26446), (217, 26578), (222, 26623), (230, 26749), (234, 26773), (236, 26782), (238, 26791), (239, 26803), (240, 26815), (241, 26830), (246, 26890), (251, 26959),

Gene: Venti_21 Start: 19038, Stop: 21299, Start Num: 6
Candidate Starts for Venti_21:
(Start: 6 @19038 has 33 MA's), (33, 19191), (65, 19464), (67, 19476), (71, 19497), (76, 19521), (84, 19596), (93, 19668), (97, 19698), (107, 19797), (111, 19812), (116, 19839), (117, 19845), (125, 19920), (129, 19944), (131, 19950), (139, 20004), (140, 20010), (164, 20280), (171, 20346), (173, 20364), (175, 20382), (181, 20541), (183, 20568), (185, 20586), (188, 20613), (190, 20649), (192, 20667), (194, 20673), (195, 20700), (196, 20706), (202, 20748), (214, 20889), (216, 20940), (229, 21084), (234, 21120), (235, 21123), (241, 21171), (244, 21195), (246, 21231), (247, 21234), (248, 21243), (250, 21279), (252, 21294),

Gene: Vidya_21 Start: 19038, Stop: 21299, Start Num: 6
Candidate Starts for Vidya_21:
(Start: 6 @19038 has 33 MA's), (Start: 8 @19047 has 14 MA's), (33, 19191), (65, 19464), (67, 19476), (71, 19497), (76, 19521), (84, 19596), (93, 19668), (97, 19698), (101, 19734), (107, 19797), (111, 19812), (116, 19839), (117, 19845), (125, 19920), (129, 19944), (131, 19950), (139, 20004), (140, 20010), (164, 20280), (171, 20346), (173, 20364), (175, 20382), (181, 20541), (183, 20568), (185, 20586), (188, 20613), (190, 20649), (192, 20667), (194, 20673), (195, 20700), (196, 20706), (202, 20748), (214, 20889), (216, 20940), (229, 21084), (234, 21120), (235, 21123), (241, 21171), (244, 21195), (246, 21231), (247, 21234), (248, 21243), (250, 21279), (252, 21294),

Gene: Xerxes_20 Start: 17553, Stop: 19547, Start Num: 10
Candidate Starts for Xerxes_20:

(Start: 8 @17541 has 14 MA's), (Start: 10 @17553 has 22 MA's), (13, 17565), (15, 17577), (22, 17631), (32, 17700), (33, 17703), (34, 17712), (36, 17727), (55, 17889), (61, 17967), (63, 17982), (68, 18012), (78, 18060), (80, 18084), (82, 18102), (87, 18150), (91, 18186), (94, 18210), (108, 18345), (120, 18402), (122, 18447), (132, 18507), (137, 18540), (138, 18549), (147, 18630), (158, 18774), (162, 18807), (164, 18825), (166, 18849), (169, 18861), (170, 18882), (171, 18912), (172, 18927), (173, 18930), (176, 18951), (178, 19041), (181, 19107), (184, 19149), (185, 19152), (189, 19182), (190, 19215), (192, 19236), (193, 19239), (198, 19296), (202, 19320), (204, 19335), (205, 19365), (207, 19371), (212, 19449), (213, 19452), (215, 19506), (218, 19530),

Gene: Xula_20 Start: 18717, Stop: 20930, Start Num: 6
Candidate Starts for Xula_20:
(Start: 6 @18717 has 33 MA's), (11, 18741), (18, 18777), (25, 18852), (27, 18861), (33, 18888), (50, 19035), (65, 19170), (67, 19182), (71, 19203), (78, 19236), (94, 19383), (101, 19446), (106, 19485), (107, 19509), (111, 19524), (112, 19533), (117, 19560), (118, 19563), (119, 19566), (125, 19635), (129, 19656), (131, 19662), (136, 19698), (139, 19716), (164, 19992), (168, 20019), (171, 20058), (173, 20076), (194, 20319), (200, 20379), (211, 20520), (216, 20586), (220, 20613), (221, 20634), (231, 20736), (234, 20754), (242, 20802), (244, 20820), (245, 20826),

Gene: Zilizebeth_21 Start: 19038, Stop: 21299, Start Num: 6
Candidate Starts for Zilizebeth_21:
(Start: 6 @19038 has 33 MA's), (Start: 8 @19047 has 14 MA's), (33, 19191), (65, 19464), (67, 19476), (71, 19497), (76, 19521), (84, 19596), (93, 19668), (97, 19698), (101, 19734), (107, 19797), (111, 19812), (116, 19839), (117, 19845), (125, 19920), (129, 19944), (131, 19950), (139, 20004), (140, 20010), (164, 20280), (171, 20346), (173, 20364), (175, 20382), (181, 20541), (183, 20568), (185, 20586), (188, 20613), (190, 20649), (192, 20667), (194, 20673), (195, 20700), (196, 20706), (202, 20748), (214, 20889), (216, 20940), (229, 21084), (234, 21120), (235, 21123), (241, 21171), (244, 21195), (246, 21231), (247, 21234), (248, 21243), (250, 21279), (252, 21294),