

1. NewKitty_19	03	02	102	118	136	158	176	194	212	230	248	266	284	302	320	338	356	374	392	410	428	446	464	482
2. GumGum_19	03	02	102	118	136	158	176	194	212	230	248	266	284	302	320	338	356	374	392	410	428	446	464	482
3. Sashimi_19	03	02	102	118	136	158	176	194	212	230	248	266	284	302	320	338	356	374	392	410	428	446	464	482
4. Globish_19	03	02	102	118	136	158	176	194	212	230	248	266	284	302	320	338	356	374	392	410	428	446	464	482
5. Shukran_19	03	02	102	118	136	158	176	194	212	230	248	266	284	302	320	338	356	374	392	410	428	446	464	482
6. MapleVibe_19	03	02	102	118	136	158	176	194	212	230	248	266	284	302	320	338	356	374	392	410	428	446	464	482
7. CosmicBro_19	03	02	102	118	136	158	176	194	212	230	248	266	284	302	320	338	356	374	392	410	428	446	464	482
8. WaterMagn_19	03	02	102	118	136	158	176	194	212	230	248	266	284	302	320	338	356	374	392	410	428	446	464	482
9. Hestia_19	03	02	102	118	136	158	176	194	212	230	248	266	284	302	320	338	356	374	392	410	428	446	464	482
10. Murphy_19	03	02	102	118	136	158	176	194	212	230	248	266	284	302	320	338	356	374	392	410	428	446	464	482
11. Mira_19	03	02	102	118	136	158	176	194	212	230	248	266	284	302	320	338	356	374	392	410	428	446	464	482
12. Thayne_19	03	02	102	118	136	158	176	194	212	230	248	266	284	302	320	338	356	374	392	410	428	446	464	482
13. Anekin_19	03	02	102	118	136	158	176	194	212	230	248	266	284	302	320	338	356	374	392	410	428	446	464	482
14. Lasker_19	03	02	102	118	136	158	176	194	212	230	248	266	284	302	320	338	356	374	392	410	428	446	464	482
15. Hillester_19	03	02	102	118	136	158	176	194	212	230	248	266	284	302	320	338	356	374	392	410	428	446	464	482
16. Kabloow_19	03	02	102	118	136	158	176	194	212	230	248	266	284	302	320	338	356	374	392	410	428	446	464	482
17. JakeTr_19	03	02	102	118	136	158	176	194	212	230	248	266	284	302	320	338	356	374	392	410	428	446	464	482
18. Phrank_19	03	02	102	118	136	158	176	194	212	230	248	266	284	302	320	338	356	374	392	410	428	446	464	482
19. Crescen_19	03	02	102	118	136	158	176	194	212	230	248	266	284	302	320	338	356	374	392	410	428	446	464	482
20. Ding_19	03	02	102	118	136	158	176	194	212	230	248	266	284	302	320	338	356	374	392	410	428	446	464	482
21. EvePick_19	03	02	102	118	136	158	176	194	212	230	248	266	284	302	320	338	356	374	392	410	428	446	464	482
22. BenchScr_19	03	02	102	118	136	158	176	194	212	230	248	266	284	302	320	338	356	374	392	410	428	446	464	482
23. Seanorse_19	03	02	102	118	136	158	176	194	212	230	248	266	284	302	320	338	356	374	392	410	428	446	464	482
24. SpicyFra_19	03	02	102	118	136	158	176	194	212	230	248	266	284	302	320	338	356	374	392	410	428	446	464	482
25. Isoide_19	03	02	102	118	136	158	176	194	212	230	248	266	284	302	320	338	356	374	392	410	428	446	464	482
26. Faja_19	03	02	102	118	136	158	176	194	212	230	248	266	284	302	320	338	356	374	392	410	428	446	464	482
27. Bhageatr_19	03	02	102	118	136	158	176	194	212	230	248	266	284	302	320	338	356	374	392	410	428	446	464	482
28. LeBrun_19	03	02	102	118	136	158	176	194	212	230	248	266	284	302	320	338	356	374	392	410	428	446	464	482
29. Sairap_19	03	02	102	118	136	158	176	194	212	230	248	266	284	302	320	338	356	374	392	410	428	446	464	482
30. Persiste_19	03	02	102	118	136	158	176	194	212	230	248	266	284	302	320	338	356	374	392	410	428	446	464	482
31. YoungHar_19	03	02	102	118	136	158	176	194	212	230	248	266	284	302	320	338	356	374	392	410	428	446	464	482
32. Raphaela_19	03	02	102	118	136	158	176	194	212	230	248	266	284	302	320	338	356	374	392	410	428	446	464	482
33. Midnight_19	03	02	102	118	136	158	176	194	212	230	248	266	284	302	320	338	356	374	392	410	428	446	464	482
34. Windest_19	03	02	102	118	136	158	176	194	212	230	248	266	284	302	320	338	356	374	392	410	428	446	464	482
35. SonDevv_19	03	02	102	118	136	158	176	194	212	230	248	266	284	302	320	338	356	374	392	410	428	446	464	482
36. PeggyLeg_19	03	02	102	118	136	158	176	194	212	230	248	266	284	302	320	338	356	374	392	410	428	446	464	482
37. KayMone_19	03	02	102	118	136	158	176	194	212	230	248	266	284	302	320	338	356	374	392	410	428	446	464	482
38. NikkiHot_19	03	02	102	118	136	158	176	194	212	230	248	266	284	302	320	338	356	374	392	410	428	446	464	482
39. NidoQ_19	03	02	102	118	136	158	176	194	212	230	248	266	284	302	320	338	356	374	392	410	428	446	464	482
40. Bridgette_19	03	02	102	118	136	158	176	194	212	230	248	266	284	302	320	338	356	374	392	410	428	446	464	482
41. Eileen_19	03	02	102	118	136	158	176	194	212	230	248	266	284	302	320	338	356	374	392	410	428	446	464	482
42. GlobiWar_19	03	02	102	118	136	158	176	194	212	230	248	266	284	302	320	338	356	374	392	410	428	446	464	482
43. Karthana_19	03	02	102	118	136	158	176	194	212	230	248	266	284	302	320	338	356	374	392	410	428	446	464	482
44. LittleKon_19	03	02	102	118	136	158	176	194	212	230	248	266	284	302	320	338	356	374	392	410	428	446	464	482
45. Constance_19	03	02	102	118	136	158	176	194	212	230	248	266	284	302	320	338	356	374	392	410	428	446	464	482
46. Henrique_19	03	02	102	118	136	158	176	194	212	230	248	266	284	302	320	338	356	374	392	410	428	446	464	482
47. FosterFra_19	03	02	102	118	136	158	176	194	212	230	248	266	284	302	320	338	356	374	392	410	428	446	464	482
48. Judy_19	03	02	102	118	136	158	176	194	212	230	248	266	284	302	320	338	356	374	392	410	428	446	464	482
49. HotPotato_19	03	02	102	118	136	158	176	194	212	230	248	266	284	302	320	338	356	374	392	410	428	446	464	482
50. Pucara_19	03	02	102	118	136	158	176	194	212	230	248	266	284	302	320	338	356	374	392	410	428	446	464	482

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 291093 Report

This analysis was run 03/28/26 on database version 641.

Pham number 291093 has 79 members, 31 are drafts.

Phages represented in each track:

- Track 1 : NewKitty_20, AdaS_19, Vopal_20, Sporco_20, MUWow_18, Sakai_19, CookieBear_19, Richie_19, JellyBread_19, Auxilium_19, Gorpy_19
- Track 2 : GumGum_19
- Track 3 : Sashimi_20
- Track 4 : Globfish_19
- Track 5 : Shukran_19
- Track 6 : Mapleville_19, Lawnathon_19, BillyTP_19
- Track 7 : CosmicBrownie_19
- Track 8 : MaterMagnus_19, Aikyam_19
- Track 9 : Hestia_19
- Track 10 : MurphyJoseph_19
- Track 11 : Tiff81_20, Nyilah_18
- Track 12 : ThayneTheZag_19
- Track 13 : Anekin_18, DarwinJr_22
- Track 14 : Lasker_19, BlueShadow_19, BasketStar_19
- Track 15 : Hillester_19, RadFad_19
- Track 16 : Kabloowy_19
- Track 17 : JakeTheSnake_19
- Track 18 : Phrank15_18
- Track 19 : Crescenzo_19
- Track 20 : Ding_19
- Track 21 : EvePickles_19
- Track 22 : BenchScraper_19
- Track 23 : Seahorse_20
- Track 24 : SpicyFrank_19
- Track 25 : Isolde_19
- Track 26 : Faja_19
- Track 27 : Bhageatrice_21
- Track 28 : LeBruni_20
- Track 29 : Satrap_19
- Track 30 : Persistence_18
- Track 31 : YoungHarleezy_19
- Track 32 : Raphaella_19
- Track 33 : MidnightRain_19
- Track 34 : Windest_20
- Track 35 : SonDevVon_18
- Track 36 : PeggyLeg03_18

- Track 37 : KayMoney_18, ChuckDuck_18
- Track 38 : NikkiHotWheels_18
- Track 39 : NidoQ_18
- Track 40 : Bridgette_18
- Track 41 : Eileen_18, Peas_18
- Track 42 : GlobiWarming_18
- Track 43 : Karkharias_18
- Track 44 : LittleRon_18
- Track 45 : Constance_18
- Track 46 : Henrique_18
- Track 47 : FosterFrank_18
- Track 48 : Judy_19
- Track 49 : HotPotato_18
- Track 50 : Pucara_18
- Track 51 : LilyBell_18
- Track 52 : DreamEater_18
- Track 53 : GUPitcher_17
- Track 54 : PetriParty_17
- Track 55 : TripleJ_18
- Track 56 : Kukla_17
- Track 57 : Pitbull_16
- Track 58 : Hum25_17
- Track 59 : Footloose_17

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

The start number called the most often in the published annotations is 24, it was called in 40 of the 48 non-draft genes in the pham.

Genes that call this "Most Annotated" start:

- AdaS_19, Aikyam_19, Anekin_18, Auxilium_19, BasketStar_19, BenchScraper_19, Bhageatrice_21, BillyTP_19, BlueShadow_19, Bridgette_18, ChuckDuck_18, Constance_18, CookieBear_19, CosmicBrownie_19, DarwinJr_22, Ding_19, Eileen_18, FosterFrank_18, Globfish_19, GlobiWarming_18, Gorpy_19, GumGum_19, Henrique_18, Hestia_19, Hillester_19, HotPotato_18, Isolde_19, JakeTheSnake_19, JellyBread_19, Judy_19, Kabloowy_19, Karkharias_18, KayMoney_18, Lasker_19, Lawnathon_19, LeBruni_20, LilyBell_18, LittleRon_18, MUWow_18, Mapleville_19, MaterMagnus_19, MidnightRain_19, MurphyJoseph_19, NewKitty_20, NidoQ_18, Nyilah_18, Peas_18, PeggyLeg03_18, Persistence_18, Phrank15_18, Pucara_18, RadFad_19, Raphaella_19, Richie_19, Sakai_19, Seahorse_20, Shukran_19, SpicyFrank_19, Sporco_20, ThayneTheZag_19, Tiff81_20, Vopal_20, Windest_20, YoungHarleezy_19,

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

- Crescenzo_19, Footloose_17, NikkiHotWheels_18, Satrap_19, SonDevVon_18,

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

- DreamEater_18, EvePickles_19, Faja_19, GUPitcher_17, Hum25_17, Kukla_17, PetriParty_17, Pitbull_16, Sashimi_20, TripleJ_18,

Summary by start number:

Start 7:

- Found in 4 of 79 (5.1%) of genes in pham
- Manual Annotations of this start: 1 of 48
- Called 100.0% of time when present
- Phage (with cluster) where this start called: DreamEater_18 (FJ), GUPitcher_17 (FJ), PetriParty_17 (FJ), TripleJ_18 (FJ),

Start 16:

- Found in 2 of 79 (2.5%) of genes in pham
- Manual Annotations of this start: 2 of 48
- Called 100.0% of time when present
- Phage (with cluster) where this start called: Faja_19 (AY), Sashimi_20 (AY),

Start 18:

- Found in 2 of 79 (2.5%) of genes in pham
- Manual Annotations of this start: 2 of 48
- Called 100.0% of time when present
- Phage (with cluster) where this start called: EvePickles_19 (AY), Kukla_17 (FJ),

Start 19:

- Found in 2 of 79 (2.5%) of genes in pham
- Manual Annotations of this start: 2 of 48
- Called 100.0% of time when present
- Phage (with cluster) where this start called: Hum25_17 (FQ), Pitbull_16 (FQ),

Start 21:

- Found in 2 of 79 (2.5%) of genes in pham
- Manual Annotations of this start: 1 of 48
- Called 50.0% of time when present
- Phage (with cluster) where this start called: Footloose_17 (singleton),

Start 24:

- Found in 69 of 79 (87.3%) of genes in pham
- Manual Annotations of this start: 40 of 48
- Called 92.8% of time when present
- Phage (with cluster) where this start called: AdaS_19 (AY), Aikyam_19 (AY), Anekin_18 (AY), Auxilium_19 (AY), BasketStar_19 (AY), BenchScraper_19 (AY), Bhageatrice_21 (AY), BillyTP_19 (AY), BlueShadow_19 (AY), Bridgette_18 (FA), ChuckDuck_18 (FA), Constance_18 (FA), CookieBear_19 (AY), CosmicBrownie_19 (AY), DarwinJr_22 (AY), Ding_19 (AY), Eileen_18 (FA), FosterFrank_18 (FA), Globfish_19 (AY), GlobiWarming_18 (FA), Gorpy_19 (AY), GumGum_19 (AY), Henrique_18 (FA), Hestia_19 (AY), Hillester_19 (AY), HotPotato_18 (FA), Isolde_19 (AY), JakeTheSnake_19 (AY), JellyBread_19 (AY), Judy_19 (FA), Kabloowy_19 (AY), Karkharias_18 (FA), KayMoney_18 (FA), Lasker_19 (AY), Lawnathon_19 (AY), LeBruni_20 (AY), LilyBell_18 (FA), LittleRon_18 (FA), MUWow_18 (AY), Mapleville_19 (AY), MaterMagnus_19 (AY), MidnightRain_19 (AY), MurphyJoseph_19 (AY), NewKitty_20 (AY), NidoQ_18 (FA), Nyilah_18 (AY), Peas_18 (FA), PeggyLeg03_18 (FA), Persistence_18 (AY), Phrank15_18 (AY), Pucara_18 (FA), RadFad_19 (AY), Raphaella_19 (AY), Richie_19 (AY), Sakai_19 (AY), Seahorse_20 (AY), Shukran_19 (AY), SpicyFrank_19 (AY), Sporco_20 (AY), ThayneTheZag_19 (AY), Tiff81_20 (AY), Vopal_20 (AY), Windest_20 (AY),

YoungHarleezy_19 (AY),

Start 29:

- Found in 32 of 79 (40.5%) of genes in pham
- No Manual Annotations of this start.
- Called 3.1% of time when present
- Phage (with cluster) where this start called: SonDevVon_18 (AY),

Start 31:

- Found in 9 of 79 (11.4%) of genes in pham
- No Manual Annotations of this start.
- Called 11.1% of time when present
- Phage (with cluster) where this start called: NikkiHotWheels_18 (FA),

Start 36:

- Found in 67 of 79 (84.8%) of genes in pham
- No Manual Annotations of this start.
- Called 3.0% of time when present
- Phage (with cluster) where this start called: Crescenzo_19 (AY), Satrap_19 (AY),

Summary by clusters:

There are 5 clusters represented in this pham: AY, FA, FJ, singleton, FQ,

Info for manual annotations of cluster AY:

- Start number 16 was manually annotated 2 times for cluster AY.
- Start number 18 was manually annotated 1 time for cluster AY.
- Start number 24 was manually annotated 30 times for cluster AY.

Info for manual annotations of cluster FA:

- Start number 24 was manually annotated 10 times for cluster FA.

Info for manual annotations of cluster FJ:

- Start number 7 was manually annotated 1 time for cluster FJ.
- Start number 18 was manually annotated 1 time for cluster FJ.

Info for manual annotations of cluster FQ:

- Start number 19 was manually annotated 2 times for cluster FQ.

Gene Information:

Gene: AdaS_19 Start: 10843, Stop: 14784, Start Num: 24

Candidate Starts for AdaS_19:

(Start: 24 @10843 has 40 MA's), (29, 10882), (34, 10945), (36, 10978), (39, 11002), (41, 11008), (42, 11020), (47, 11044), (48, 11056), (49, 11074), (51, 11116), (63, 11281), (85, 11548), (87, 11554), (92, 11593), (102, 11686), (118, 11854), (123, 11899), (136, 11995), (153, 12070), (158, 12100), (166, 12187), (168, 12199), (176, 12268), (177, 12304), (181, 12334), (186, 12370), (193, 12418), (195, 12430), (200, 12460), (206, 12517), (207, 12526), (209, 12571), (210, 12574), (213, 12619), (215, 12628), (224, 12712), (225, 12721), (227, 12733), (229, 12754), (234, 12793), (235, 12805), (246, 12880), (251, 12904), (265, 13012), (268, 13051), (287, 13141), (289, 13156), (303, 13258), (307, 13288), (314, 13339), (317, 13360), (323, 13408), (324, 13411), (341, 13495), (342, 13498), (350,

13576), (363, 13651), (364, 13660), (368, 13675), (389, 13795), (394, 13834), (399, 13852), (406, 13951), (410, 14044), (415, 14158), (416, 14176), (420, 14215), (421, 14257), (426, 14320), (427, 14332), (430, 14368), (432, 14410), (435, 14431), (441, 14527), (448, 14581), (469, 14734),

Gene: Aikyam_19 Start: 10844, Stop: 14785, Start Num: 24

Candidate Starts for Aikyam_19:

(Start: 24 @10844 has 40 MA's), (29, 10883), (34, 10946), (36, 10979), (39, 11003), (41, 11009), (42, 11021), (47, 11045), (48, 11057), (49, 11075), (51, 11117), (63, 11282), (85, 11549), (87, 11555), (92, 11594), (102, 11687), (118, 11855), (123, 11900), (136, 11996), (153, 12071), (158, 12101), (166, 12188), (168, 12200), (176, 12269), (177, 12305), (181, 12335), (186, 12371), (193, 12419), (195, 12431), (200, 12461), (206, 12518), (207, 12527), (209, 12572), (210, 12575), (215, 12629), (224, 12713), (225, 12722), (227, 12734), (229, 12755), (235, 12806), (251, 12905), (265, 13013), (268, 13052), (287, 13142), (289, 13157), (303, 13259), (307, 13289), (314, 13340), (317, 13361), (323, 13409), (324, 13412), (341, 13496), (342, 13499), (350, 13577), (363, 13652), (364, 13661), (368, 13676), (389, 13796), (394, 13835), (399, 13853), (406, 13952), (410, 14045), (415, 14159), (416, 14177), (420, 14216), (421, 14258), (426, 14321), (427, 14333), (430, 14369), (432, 14411), (435, 14432), (441, 14528), (448, 14582), (460, 14672), (469, 14735),

Gene: Anekin_18 Start: 10911, Stop: 14747, Start Num: 24

Candidate Starts for Anekin_18:

(Start: 24 @10911 has 40 MA's), (31, 10971), (36, 11046), (39, 11070), (41, 11076), (46, 11106), (47, 11112), (49, 11142), (51, 11184), (65, 11388), (70, 11439), (85, 11616), (86, 11619), (89, 11628), (92, 11661), (118, 11922), (130, 12012), (133, 12033), (134, 12042), (137, 12066), (145, 12108), (150, 12129), (155, 12150), (167, 12261), (170, 12279), (175, 12327), (177, 12372), (178, 12381), (185, 12429), (191, 12474), (206, 12582), (215, 12693), (219, 12741), (224, 12777), (227, 12798), (235, 12870), (260, 13017), (264, 13050), (282, 13116), (283, 13122), (285, 13125), (295, 13176), (308, 13260), (314, 13299), (317, 13320), (350, 13539), (353, 13560), (359, 13587), (361, 13605), (363, 13614), (412, 14040), (413, 14070), (415, 14121), (420, 14178), (421, 14220), (426, 14283), (427, 14295), (432, 14373), (435, 14394), (439, 14478), (446, 14532), (448, 14544), (458, 14628), (460, 14634),

Gene: Auxilium_19 Start: 10843, Stop: 14784, Start Num: 24

Candidate Starts for Auxilium_19:

(Start: 24 @10843 has 40 MA's), (29, 10882), (34, 10945), (36, 10978), (39, 11002), (41, 11008), (42, 11020), (47, 11044), (48, 11056), (49, 11074), (51, 11116), (63, 11281), (85, 11548), (87, 11554), (92, 11593), (102, 11686), (118, 11854), (123, 11899), (136, 11995), (153, 12070), (158, 12100), (166, 12187), (168, 12199), (176, 12268), (177, 12304), (181, 12334), (186, 12370), (193, 12418), (195, 12430), (200, 12460), (206, 12517), (207, 12526), (209, 12571), (210, 12574), (213, 12619), (215, 12628), (224, 12712), (225, 12721), (227, 12733), (229, 12754), (234, 12793), (235, 12805), (246, 12880), (251, 12904), (265, 13012), (268, 13051), (287, 13141), (289, 13156), (303, 13258), (307, 13288), (314, 13339), (317, 13360), (323, 13408), (324, 13411), (341, 13495), (342, 13498), (350, 13576), (363, 13651), (364, 13660), (368, 13675), (389, 13795), (394, 13834), (399, 13852), (406, 13951), (410, 14044), (415, 14158), (416, 14176), (420, 14215), (421, 14257), (426, 14320), (427, 14332), (430, 14368), (432, 14410), (435, 14431), (441, 14527), (448, 14581), (469, 14734),

Gene: BasketStar_19 Start: 10897, Stop: 14838, Start Num: 24

Candidate Starts for BasketStar_19:

(Start: 24 @10897 has 40 MA's), (29, 10936), (34, 10999), (36, 11032), (39, 11056), (41, 11062), (42, 11074), (47, 11098), (48, 11110), (49, 11128), (51, 11170), (63, 11335), (85, 11602), (87, 11608), (92, 11647), (102, 11740), (118, 11908), (123, 11953), (136, 12049), (153, 12124), (158, 12154), (166, 12241), (168, 12253), (176, 12322), (177, 12358), (181, 12388), (186, 12424), (193, 12472), (195, 12484), (200, 12514), (206, 12571), (207, 12580), (209, 12625), (210, 12628), (213, 12673), (215, 12682), (224, 12766), (225, 12775), (227, 12787), (229, 12808), (234, 12847), (235, 12859), (246,

12934), (251, 12958), (265, 13066), (268, 13105), (287, 13195), (289, 13210), (303, 13312), (307, 13342), (314, 13393), (317, 13414), (323, 13462), (324, 13465), (341, 13549), (342, 13552), (350, 13630), (363, 13705), (364, 13714), (368, 13729), (394, 13888), (399, 13906), (406, 14005), (410, 14098), (415, 14212), (416, 14230), (420, 14269), (421, 14311), (426, 14374), (427, 14386), (430, 14422), (432, 14464), (435, 14485), (441, 14581), (448, 14635), (460, 14725), (469, 14788),

Gene: BenchScraper_19 Start: 10858, Stop: 14799, Start Num: 24

Candidate Starts for BenchScraper_19:

(Start: 24 @10858 has 40 MA's), (29, 10897), (34, 10960), (36, 10993), (39, 11017), (41, 11023), (42, 11035), (47, 11059), (48, 11071), (49, 11089), (51, 11131), (63, 11296), (85, 11563), (87, 11569), (92, 11608), (102, 11701), (118, 11869), (123, 11914), (136, 12010), (153, 12085), (166, 12202), (168, 12214), (176, 12283), (177, 12319), (181, 12349), (186, 12385), (193, 12433), (195, 12445), (200, 12475), (206, 12532), (207, 12541), (209, 12586), (210, 12589), (215, 12643), (224, 12727), (225, 12736), (227, 12748), (229, 12769), (235, 12820), (251, 12919), (265, 13027), (268, 13066), (287, 13156), (289, 13171), (303, 13273), (307, 13303), (314, 13354), (317, 13375), (323, 13423), (324, 13426), (341, 13510), (342, 13513), (350, 13591), (363, 13666), (364, 13675), (368, 13690), (389, 13810), (394, 13849), (399, 13867), (406, 13966), (410, 14059), (415, 14173), (416, 14191), (420, 14230), (421, 14272), (426, 14335), (427, 14347), (430, 14383), (432, 14425), (435, 14446), (441, 14542), (448, 14596), (460, 14686), (469, 14749),

Gene: Bhageatrice_21 Start: 12043, Stop: 16074, Start Num: 24

Candidate Starts for Bhageatrice_21:

(Start: 24 @12043 has 40 MA's), (36, 12178), (49, 12274), (51, 12316), (57, 12415), (62, 12463), (68, 12559), (70, 12571), (77, 12643), (85, 12748), (91, 12790), (92, 12793), (98, 12865), (110, 12955), (126, 13120), (133, 13165), (136, 13195), (146, 13243), (167, 13393), (171, 13426), (180, 13543), (190, 13606), (200, 13663), (206, 13714), (210, 13771), (215, 13825), (224, 13909), (248, 14098), (264, 14200), (293, 14374), (296, 14392), (301, 14437), (305, 14455), (312, 14512), (340, 14770), (350, 14866), (361, 14932), (363, 14941), (369, 14968), (381, 15028), (399, 15142), (406, 15241), (410, 15334), (415, 15448), (416, 15466), (420, 15505), (421, 15547), (426, 15610), (427, 15622), (430, 15658), (432, 15700), (434, 15715), (435, 15721), (439, 15805), (441, 15817), (448, 15871), (460, 15961), (469, 16024),

Gene: BillyTP_19 Start: 10765, Stop: 14568, Start Num: 24

Candidate Starts for BillyTP_19:

(Start: 24 @10765 has 40 MA's), (36, 10900), (39, 10924), (41, 10930), (47, 10966), (48, 10978), (49, 10996), (50, 11005), (51, 11038), (52, 11044), (56, 11122), (63, 11203), (65, 11242), (72, 11326), (73, 11335), (74, 11341), (77, 11365), (78, 11374), (86, 11473), (88, 11479), (96, 11566), (101, 11599), (103, 11635), (122, 11818), (128, 11854), (130, 11866), (136, 11917), (155, 12004), (162, 12091), (177, 12232), (186, 12301), (187, 12310), (194, 12358), (197, 12379), (198, 12382), (208, 12454), (211, 12517), (219, 12601), (224, 12616), (234, 12655), (240, 12712), (281, 12907), (290, 12952), (299, 13015), (314, 13117), (317, 13138), (350, 13360), (361, 13426), (363, 13435), (377, 13501), (392, 13597), (399, 13636), (404, 13702), (410, 13828), (415, 13942), (416, 13960), (419, 13990), (420, 13999), (421, 14041), (426, 14104), (427, 14116), (430, 14152), (432, 14194), (435, 14215), (436, 14227), (446, 14353), (448, 14365), (458, 14449), (460, 14455), (471, 14548),

Gene: BlueShadow_19 Start: 10843, Stop: 14784, Start Num: 24

Candidate Starts for BlueShadow_19:

(Start: 24 @10843 has 40 MA's), (29, 10882), (34, 10945), (36, 10978), (39, 11002), (41, 11008), (42, 11020), (47, 11044), (48, 11056), (49, 11074), (51, 11116), (63, 11281), (85, 11548), (87, 11554), (92, 11593), (102, 11686), (118, 11854), (123, 11899), (136, 11995), (153, 12070), (158, 12100), (166, 12187), (168, 12199), (176, 12268), (177, 12304), (181, 12334), (186, 12370), (193, 12418), (195, 12430), (200, 12460), (206, 12517), (207, 12526), (209, 12571), (210, 12574), (213, 12619), (215, 12628), (224, 12712), (225, 12721), (227, 12733), (229, 12754), (234, 12793), (235, 12805), (246,

12880), (251, 12904), (265, 13012), (268, 13051), (287, 13141), (289, 13156), (303, 13258), (307, 13288), (314, 13339), (317, 13360), (323, 13408), (324, 13411), (341, 13495), (342, 13498), (350, 13576), (363, 13651), (364, 13660), (368, 13675), (394, 13834), (399, 13852), (406, 13951), (410, 14044), (415, 14158), (416, 14176), (420, 14215), (421, 14257), (426, 14320), (427, 14332), (430, 14368), (432, 14410), (435, 14431), (441, 14527), (448, 14581), (460, 14671), (469, 14734),

Gene: Bridgette_18 Start: 10928, Stop: 14845, Start Num: 24

Candidate Starts for Bridgette_18:

(Start: 24 @10928 has 40 MA's), (36, 11063), (39, 11087), (41, 11093), (47, 11129), (48, 11141), (49, 11159), (50, 11168), (51, 11201), (52, 11207), (56, 11285), (63, 11366), (65, 11405), (72, 11489), (74, 11504), (77, 11528), (78, 11537), (88, 11642), (95, 11723), (96, 11729), (98, 11750), (102, 11792), (105, 11819), (113, 11909), (122, 12002), (130, 12050), (155, 12188), (162, 12275), (165, 12284), (186, 12485), (187, 12494), (194, 12542), (197, 12563), (198, 12566), (208, 12638), (211, 12701), (235, 12851), (256, 12977), (288, 13115), (296, 13166), (297, 13178), (299, 13199), (313, 13289), (331, 13424), (341, 13463), (345, 13499), (350, 13541), (353, 13562), (356, 13580), (363, 13616), (364, 13625), (368, 13640), (389, 13853), (405, 14003), (406, 14009), (410, 14102), (415, 14216), (416, 14234), (419, 14264), (420, 14273), (421, 14315), (426, 14378), (427, 14390), (432, 14468), (435, 14489), (436, 14501), (446, 14627), (448, 14639), (459, 14726), (462, 14744),

Gene: ChuckDuck_18 Start: 10884, Stop: 14687, Start Num: 24

Candidate Starts for ChuckDuck_18:

(Start: 24 @10884 has 40 MA's), (36, 11019), (39, 11043), (40, 11046), (41, 11049), (47, 11085), (48, 11097), (49, 11115), (50, 11124), (51, 11157), (52, 11163), (56, 11241), (63, 11322), (65, 11361), (72, 11445), (73, 11454), (74, 11460), (77, 11484), (78, 11493), (86, 11592), (88, 11598), (96, 11685), (101, 11718), (103, 11754), (122, 11937), (128, 11973), (130, 11985), (136, 12036), (155, 12123), (162, 12210), (165, 12219), (177, 12351), (186, 12420), (187, 12429), (194, 12477), (197, 12498), (198, 12501), (208, 12573), (211, 12636), (219, 12720), (224, 12735), (234, 12774), (240, 12831), (247, 12864), (281, 13026), (290, 13071), (299, 13134), (314, 13236), (317, 13257), (350, 13479), (363, 13554), (377, 13620), (392, 13716), (399, 13755), (404, 13821), (410, 13947), (415, 14061), (416, 14079), (419, 14109), (420, 14118), (421, 14160), (426, 14223), (427, 14235), (430, 14271), (432, 14313), (435, 14334), (444, 14451), (448, 14484), (449, 14493), (458, 14568), (460, 14574),

Gene: Constance_18 Start: 10931, Stop: 14827, Start Num: 24

Candidate Starts for Constance_18:

(Start: 24 @10931 has 40 MA's), (36, 11066), (39, 11090), (41, 11096), (47, 11132), (48, 11144), (49, 11162), (50, 11171), (51, 11204), (52, 11210), (56, 11288), (63, 11369), (65, 11408), (72, 11492), (77, 11531), (78, 11540), (88, 11645), (95, 11726), (96, 11732), (101, 11765), (105, 11801), (130, 12032), (155, 12170), (165, 12266), (186, 12467), (187, 12476), (194, 12524), (197, 12545), (198, 12548), (208, 12620), (224, 12782), (235, 12833), (256, 12959), (288, 13097), (297, 13160), (299, 13181), (313, 13271), (331, 13406), (341, 13445), (345, 13481), (350, 13523), (356, 13562), (360, 13586), (363, 13598), (364, 13607), (368, 13622), (388, 13826), (389, 13835), (404, 13958), (405, 13985), (406, 13991), (407, 14012), (410, 14084), (415, 14198), (419, 14246), (420, 14255), (421, 14297), (426, 14360), (427, 14372), (430, 14408), (432, 14450), (435, 14471), (436, 14483), (441, 14567), (448, 14621), (457, 14702), (459, 14708), (461, 14723), (462, 14726), (466, 14762),

Gene: CookieBear_19 Start: 10843, Stop: 14784, Start Num: 24

Candidate Starts for CookieBear_19:

(Start: 24 @10843 has 40 MA's), (29, 10882), (34, 10945), (36, 10978), (39, 11002), (41, 11008), (42, 11020), (47, 11044), (48, 11056), (49, 11074), (51, 11116), (63, 11281), (85, 11548), (87, 11554), (92, 11593), (102, 11686), (118, 11854), (123, 11899), (136, 11995), (153, 12070), (158, 12100), (166, 12187), (168, 12199), (176, 12268), (177, 12304), (181, 12334), (186, 12370), (193, 12418), (195, 12430), (200, 12460), (206, 12517), (207, 12526), (209, 12571), (210, 12574), (213, 12619), (215, 12628), (224, 12712), (225, 12721), (227, 12733), (229, 12754), (234, 12793), (235, 12805), (246,

12880), (251, 12904), (265, 13012), (268, 13051), (287, 13141), (289, 13156), (303, 13258), (307, 13288), (314, 13339), (317, 13360), (323, 13408), (324, 13411), (341, 13495), (342, 13498), (350, 13576), (363, 13651), (364, 13660), (368, 13675), (389, 13795), (394, 13834), (399, 13852), (406, 13951), (410, 14044), (415, 14158), (416, 14176), (420, 14215), (421, 14257), (426, 14320), (427, 14332), (430, 14368), (432, 14410), (435, 14431), (441, 14527), (448, 14581), (469, 14734),

Gene: CosmicBrownie_19 Start: 10849, Stop: 14742, Start Num: 24

Candidate Starts for CosmicBrownie_19:

(15, 10756), (Start: 24 @10849 has 40 MA's), (36, 10984), (39, 11008), (47, 11050), (48, 11062), (49, 11080), (50, 11089), (51, 11122), (52, 11128), (56, 11206), (63, 11287), (65, 11326), (72, 11410), (74, 11425), (78, 11458), (88, 11563), (96, 11650), (101, 11683), (103, 11719), (122, 11902), (130, 11950), (136, 12001), (137, 12004), (155, 12088), (162, 12175), (165, 12184), (186, 12385), (187, 12394), (194, 12442), (197, 12463), (198, 12466), (208, 12538), (216, 12658), (224, 12700), (235, 12751), (256, 12877), (288, 13015), (297, 13078), (299, 13099), (313, 13189), (331, 13324), (341, 13363), (345, 13399), (350, 13441), (353, 13462), (356, 13480), (360, 13504), (363, 13516), (364, 13525), (368, 13540), (388, 13744), (389, 13753), (404, 13876), (405, 13903), (406, 13909), (410, 14002), (415, 14116), (419, 14164), (420, 14173), (421, 14215), (426, 14278), (427, 14290), (430, 14326), (432, 14368), (433, 14371), (434, 14383), (435, 14389), (436, 14401), (441, 14485), (448, 14539), (449, 14548), (460, 14629), (470, 14692),

Gene: Crescenzo_19 Start: 10974, Stop: 14675, Start Num: 36

Candidate Starts for Crescenzo_19:

(Start: 24 @10839 has 40 MA's), (31, 10899), (36, 10974), (39, 10998), (41, 11004), (46, 11034), (47, 11040), (49, 11070), (51, 11112), (65, 11316), (70, 11367), (85, 11544), (86, 11547), (89, 11556), (92, 11589), (118, 11850), (130, 11940), (133, 11961), (134, 11970), (137, 11994), (145, 12036), (150, 12057), (155, 12078), (167, 12189), (170, 12207), (175, 12255), (177, 12300), (178, 12309), (185, 12357), (191, 12402), (206, 12510), (215, 12621), (219, 12669), (224, 12705), (227, 12726), (235, 12798), (260, 12945), (264, 12978), (282, 13044), (283, 13050), (285, 13053), (295, 13104), (308, 13188), (314, 13227), (317, 13248), (350, 13467), (353, 13488), (359, 13515), (361, 13533), (363, 13542), (412, 13968), (413, 13998), (415, 14049), (420, 14106), (421, 14148), (426, 14211), (427, 14223), (432, 14301), (435, 14322), (439, 14406), (446, 14460), (448, 14472), (458, 14556), (460, 14562),

Gene: DarwinJr_22 Start: 12143, Stop: 15979, Start Num: 24

Candidate Starts for DarwinJr_22:

(Start: 24 @12143 has 40 MA's), (31, 12203), (36, 12278), (39, 12302), (41, 12308), (46, 12338), (47, 12344), (49, 12374), (51, 12416), (65, 12620), (70, 12671), (85, 12848), (86, 12851), (89, 12860), (92, 12893), (118, 13154), (130, 13244), (133, 13265), (134, 13274), (137, 13298), (145, 13340), (150, 13361), (155, 13382), (167, 13493), (170, 13511), (175, 13559), (177, 13604), (178, 13613), (185, 13661), (191, 13706), (206, 13814), (215, 13925), (219, 13973), (224, 14009), (227, 14030), (235, 14102), (260, 14249), (264, 14282), (282, 14348), (283, 14354), (285, 14357), (295, 14408), (308, 14492), (314, 14531), (317, 14552), (350, 14771), (353, 14792), (359, 14819), (361, 14837), (363, 14846), (412, 15272), (413, 15302), (415, 15353), (420, 15410), (421, 15452), (426, 15515), (427, 15527), (432, 15605), (435, 15626), (439, 15710), (446, 15764), (448, 15776), (458, 15860), (460, 15866),

Gene: Ding_19 Start: 10834, Stop: 14847, Start Num: 24

Candidate Starts for Ding_19:

(Start: 24 @10834 has 40 MA's), (36, 10969), (37, 10978), (41, 10999), (49, 11065), (50, 11074), (51, 11107), (56, 11191), (61, 11248), (62, 11254), (68, 11350), (72, 11395), (83, 11506), (85, 11539), (91, 11581), (92, 11584), (98, 11656), (126, 11911), (133, 11956), (136, 11986), (146, 12034), (160, 12133), (167, 12184), (171, 12217), (190, 12397), (200, 12454), (206, 12505), (210, 12562), (215, 12616), (224, 12700), (232, 12772), (239, 12829), (253, 12910), (264, 12991), (291, 13153), (293,

13165), (296, 13183), (312, 13303), (330, 13489), (334, 13519), (335, 13525), (337, 13546), (338, 13555), (350, 13651), (356, 13690), (361, 13717), (362, 13720), (363, 13726), (364, 13735), (373, 13780), (410, 14107), (415, 14221), (420, 14278), (421, 14320), (426, 14383), (427, 14395), (430, 14431), (432, 14473), (435, 14494), (436, 14506), (439, 14578), (441, 14590), (444, 14611), (448, 14644), (452, 14677), (469, 14797),

Gene: DreamEater_18 Start: 11120, Stop: 15454, Start Num: 7

Candidate Starts for DreamEater_18:

(6, 11108), (Start: 7 @11120 has 1 MA's), (9, 11180), (11, 11243), (12, 11255), (13, 11297), (23, 11393), (27, 11423), (33, 11507), (49, 11645), (51, 11687), (61, 11828), (65, 11891), (79, 12026), (85, 12119), (102, 12278), (110, 12347), (112, 12374), (117, 12434), (133, 12557), (170, 12803), (178, 12905), (184, 12944), (186, 12962), (188, 12974), (196, 13040), (224, 13298), (227, 13319), (237, 13412), (246, 13466), (251, 13490), (255, 13529), (261, 13562), (269, 13589), (271, 13592), (284, 13652), (287, 13664), (291, 13697), (296, 13727), (297, 13739), (304, 13787), (307, 13811), (317, 13883), (340, 14015), (356, 14147), (374, 14270), (382, 14369), (386, 14393), (387, 14417), (393, 14468), (399, 14486), (406, 14582), (412, 14708), (414, 14750), (417, 14810), (424, 14909), (428, 14978), (432, 15041), (435, 15062), (438, 15125), (445, 15188), (450, 15233), (463, 15323), (473, 15434),

Gene: Eileen_18 Start: 10892, Stop: 14788, Start Num: 24

Candidate Starts for Eileen_18:

(Start: 24 @10892 has 40 MA's), (36, 11027), (39, 11051), (41, 11057), (47, 11093), (48, 11105), (49, 11123), (50, 11132), (51, 11165), (52, 11171), (56, 11249), (63, 11330), (65, 11369), (72, 11453), (74, 11468), (78, 11501), (88, 11606), (96, 11693), (101, 11726), (103, 11762), (122, 11945), (130, 11993), (136, 12044), (137, 12047), (143, 12083), (144, 12086), (155, 12131), (162, 12218), (177, 12359), (186, 12428), (187, 12437), (194, 12485), (197, 12506), (198, 12509), (208, 12581), (211, 12644), (224, 12743), (235, 12794), (256, 12920), (288, 13058), (296, 13109), (297, 13121), (299, 13142), (313, 13232), (331, 13367), (341, 13406), (345, 13442), (350, 13484), (353, 13505), (356, 13523), (360, 13547), (363, 13559), (364, 13568), (368, 13583), (389, 13796), (405, 13946), (406, 13952), (410, 14045), (415, 14159), (416, 14177), (419, 14207), (420, 14216), (421, 14258), (426, 14321), (427, 14333), (430, 14369), (432, 14411), (435, 14432), (436, 14444), (446, 14570), (448, 14582), (459, 14669), (462, 14687),

Gene: EvePickles_19 Start: 11006, Stop: 15145, Start Num: 18

Candidate Starts for EvePickles_19:

(17, 10994), (Start: 18 @11006 has 2 MA's), (20, 11024), (27, 11066), (34, 11150), (49, 11279), (51, 11321), (57, 11420), (63, 11486), (67, 11555), (68, 11564), (73, 11618), (77, 11648), (82, 11693), (85, 11753), (86, 11756), (92, 11798), (100, 11882), (105, 11918), (133, 12170), (139, 12221), (142, 12233), (155, 12287), (165, 12383), (166, 12392), (174, 12458), (182, 12545), (192, 12617), (199, 12659), (207, 12710), (217, 12851), (224, 12896), (231, 12953), (251, 13088), (252, 13094), (257, 13136), (259, 13148), (263, 13187), (268, 13235), (287, 13325), (289, 13340), (294, 13373), (303, 13442), (307, 13472), (310, 13487), (314, 13523), (317, 13544), (320, 13568), (325, 13601), (328, 13637), (329, 13640), (343, 13694), (356, 13808), (359, 13817), (361, 13835), (371, 13898), (383, 14054), (385, 14060), (399, 14168), (409, 14330), (412, 14393), (414, 14435), (418, 14513), (421, 14573), (422, 14582), (424, 14594), (425, 14618), (428, 14663), (430, 14684), (432, 14726), (435, 14747), (438, 14810), (440, 14843), (448, 14900), (453, 14939), (456, 14969), (463, 15014), (472, 15113), (474, 15131),

Gene: Faja_19 Start: 10995, Stop: 15041, Start Num: 16

Candidate Starts for Faja_19:

(Start: 16 @10995 has 2 MA's), (25, 11055), (33, 11130), (35, 11142), (38, 11193), (42, 11214), (43, 11217), (45, 11226), (49, 11268), (51, 11310), (53, 11319), (57, 11409), (62, 11457), (63, 11475), (64, 11481), (65, 11514), (68, 11553), (73, 11607), (74, 11613), (81, 11670), (85, 11742), (92, 11787), (93,

11796), (99, 11865), (100, 11871), (102, 11880), (105, 11907), (110, 11949), (114, 12003), (129, 12135), (130, 12138), (133, 12159), (136, 12189), (139, 12210), (142, 12222), (155, 12276), (161, 12345), (170, 12405), (176, 12462), (178, 12507), (186, 12564), (189, 12585), (206, 12711), (208, 12723), (214, 12819), (215, 12822), (219, 12870), (227, 12927), (240, 13044), (251, 13098), (259, 13158), (265, 13206), (268, 13245), (273, 13257), (289, 13350), (295, 13389), (298, 13413), (299, 13431), (300, 13434), (303, 13452), (309, 13494), (314, 13533), (317, 13554), (320, 13578), (333, 13668), (353, 13794), (356, 13812), (365, 13860), (366, 13863), (379, 13920), (385, 13962), (399, 14070), (402, 14103), (412, 14295), (414, 14337), (418, 14415), (421, 14475), (424, 14496), (430, 14586), (432, 14628), (435, 14649), (438, 14712), (445, 14775), (450, 14820), (463, 14910), (472, 15009), (474, 15027),

Gene: Footloose_17 Start: 10035, Stop: 12830, Start Num: 21

Candidate Starts for Footloose_17:

(Start: 21 @10035 has 1 MA's), (Start: 24 @10056 has 40 MA's), (26, 10068), (32, 10116), (41, 10218), (51, 10326), (53, 10335), (55, 10371), (56, 10410), (67, 10560), (69, 10578), (70, 10581), (71, 10605), (72, 10614), (84, 10749), (85, 10758), (87, 10764), (89, 10770), (94, 10818), (98, 10875), (102, 10896), (105, 10923), (111, 10968), (113, 11013), (118, 11064), (119, 11067), (125, 11118), (130, 11154), (138, 11220), (140, 11232), (141, 11235), (150, 11271), (151, 11274), (157, 11304), (159, 11319), (160, 11352), (165, 11388), (166, 11397), (174, 11454), (179, 11529), (183, 11556), (202, 11664), (204, 11667), (205, 11685), (212, 11784), (215, 11805), (216, 11826), (223, 11886), (224, 11889), (230, 11934), (232, 11961), (235, 11982), (236, 11994), (237, 12003), (244, 12057), (246, 12066), (254, 12099), (257, 12132), (258, 12138), (272, 12225), (276, 12246), (277, 12261), (279, 12267), (286, 12297), (288, 12309), (297, 12375), (299, 12396), (306, 12432), (307, 12447), (309, 12456), (310, 12459), (316, 12504), (322, 12564), (327, 12606), (339, 12639), (346, 12696), (347, 12702), (349, 12723), (350, 12729), (351, 12732), (354, 12759), (355, 12762),

Gene: FosterFrank_18 Start: 10889, Stop: 14785, Start Num: 24

Candidate Starts for FosterFrank_18:

(Start: 24 @10889 has 40 MA's), (36, 11024), (39, 11048), (41, 11054), (47, 11090), (48, 11102), (49, 11120), (50, 11129), (51, 11162), (52, 11168), (56, 11246), (63, 11327), (65, 11366), (72, 11450), (77, 11489), (78, 11498), (88, 11603), (95, 11684), (96, 11690), (101, 11723), (105, 11759), (130, 11990), (144, 12083), (155, 12128), (165, 12224), (186, 12425), (187, 12434), (194, 12482), (197, 12503), (198, 12506), (208, 12578), (224, 12740), (256, 12917), (288, 13055), (297, 13118), (299, 13139), (313, 13229), (331, 13364), (341, 13403), (345, 13439), (350, 13481), (356, 13520), (360, 13544), (363, 13556), (364, 13565), (368, 13580), (389, 13793), (404, 13916), (405, 13943), (406, 13949), (410, 14042), (415, 14156), (419, 14204), (420, 14213), (421, 14255), (426, 14318), (427, 14330), (430, 14366), (432, 14408), (435, 14429), (436, 14441), (437, 14483), (441, 14525), (448, 14579), (457, 14660), (459, 14666), (461, 14681), (462, 14684), (466, 14720),

Gene: GUPitcher_17 Start: 10438, Stop: 14796, Start Num: 7

Candidate Starts for GUPitcher_17:

(6, 10426), (Start: 7 @10438 has 1 MA's), (8, 10456), (9, 10498), (10, 10540), (12, 10573), (22, 10708), (34, 10834), (35, 10837), (38, 10888), (42, 10909), (44, 10915), (45, 10921), (49, 10963), (50, 10972), (51, 11005), (67, 11239), (68, 11248), (73, 11302), (74, 11308), (85, 11437), (92, 11482), (100, 11566), (105, 11602), (108, 11629), (122, 11785), (142, 11917), (161, 12040), (165, 12067), (174, 12142), (182, 12229), (207, 12394), (208, 12397), (235, 12673), (251, 12772), (263, 12871), (268, 12919), (282, 12988), (289, 13024), (294, 13057), (303, 13126), (309, 13168), (310, 13171), (314, 13207), (317, 13228), (326, 13312), (329, 13321), (332, 13336), (353, 13462), (356, 13480), (359, 13489), (366, 13531), (382, 13702), (385, 13711), (399, 13819), (412, 14044), (414, 14086), (417, 14146), (421, 14224), (424, 14245), (428, 14314), (430, 14335), (432, 14377), (435, 14398), (438, 14461), (442, 14500), (448, 14551), (463, 14665), (472, 14764), (474, 14782),

Gene: Globfish_19 Start: 10916, Stop: 14857, Start Num: 24

Candidate Starts for Globfish_19:

(Start: 24 @10916 has 40 MA's), (29, 10955), (34, 11018), (36, 11051), (39, 11075), (41, 11081), (47, 11117), (48, 11129), (49, 11147), (51, 11189), (63, 11354), (64, 11360), (82, 11561), (85, 11621), (92, 11666), (102, 11759), (118, 11927), (123, 11972), (148, 12128), (153, 12143), (166, 12260), (168, 12272), (175, 12332), (176, 12341), (181, 12407), (186, 12443), (193, 12491), (195, 12503), (200, 12533), (203, 12557), (206, 12590), (210, 12647), (215, 12701), (224, 12785), (225, 12794), (227, 12806), (232, 12857), (235, 12878), (251, 12977), (265, 13085), (268, 13124), (287, 13214), (289, 13229), (303, 13331), (307, 13361), (309, 13373), (314, 13412), (317, 13433), (323, 13481), (324, 13484), (341, 13568), (342, 13571), (350, 13649), (363, 13724), (364, 13733), (368, 13748), (399, 13925), (410, 14117), (415, 14231), (416, 14249), (420, 14288), (421, 14330), (426, 14393), (427, 14405), (430, 14441), (432, 14483), (435, 14504), (448, 14654), (455, 14720), (460, 14744), (466, 14792), (469, 14807),

Gene: GlobiWarming_18 Start: 10885, Stop: 14781, Start Num: 24

Candidate Starts for GlobiWarming_18:

(1, 10477), (2, 10486), (3, 10507), (5, 10558), (Start: 24 @10885 has 40 MA's), (36, 11020), (39, 11044), (41, 11050), (47, 11086), (48, 11098), (49, 11116), (50, 11125), (51, 11158), (52, 11164), (56, 11242), (63, 11323), (65, 11362), (72, 11446), (74, 11461), (78, 11494), (88, 11599), (96, 11686), (98, 11707), (101, 11719), (103, 11755), (122, 11938), (130, 11986), (136, 12037), (155, 12124), (162, 12211), (165, 12220), (186, 12421), (187, 12430), (194, 12478), (197, 12499), (198, 12502), (208, 12574), (211, 12637), (224, 12736), (235, 12787), (256, 12913), (288, 13051), (296, 13102), (297, 13114), (299, 13135), (313, 13225), (331, 13360), (341, 13399), (345, 13435), (350, 13477), (353, 13498), (356, 13516), (360, 13540), (363, 13552), (364, 13561), (368, 13576), (389, 13789), (405, 13939), (406, 13945), (410, 14038), (415, 14152), (416, 14170), (419, 14200), (420, 14209), (421, 14251), (426, 14314), (427, 14326), (430, 14362), (432, 14404), (435, 14425), (436, 14437), (446, 14563), (448, 14575), (459, 14662), (462, 14680),

Gene: Gorpy_19 Start: 10852, Stop: 14793, Start Num: 24

Candidate Starts for Gorpy_19:

(Start: 24 @10852 has 40 MA's), (29, 10891), (34, 10954), (36, 10987), (39, 11011), (41, 11017), (42, 11029), (47, 11053), (48, 11065), (49, 11083), (51, 11125), (63, 11290), (85, 11557), (87, 11563), (92, 11602), (102, 11695), (118, 11863), (123, 11908), (136, 12004), (153, 12079), (158, 12109), (166, 12196), (168, 12208), (176, 12277), (177, 12313), (181, 12343), (186, 12379), (193, 12427), (195, 12439), (200, 12469), (206, 12526), (207, 12535), (209, 12580), (210, 12583), (213, 12628), (215, 12637), (224, 12721), (225, 12730), (227, 12742), (229, 12763), (234, 12802), (235, 12814), (246, 12889), (251, 12913), (265, 13021), (268, 13060), (287, 13150), (289, 13165), (303, 13267), (307, 13297), (314, 13348), (317, 13369), (323, 13417), (324, 13420), (341, 13504), (342, 13507), (350, 13585), (363, 13660), (364, 13669), (368, 13684), (389, 13804), (394, 13843), (399, 13861), (406, 13960), (410, 14053), (415, 14167), (416, 14185), (420, 14224), (421, 14266), (426, 14329), (427, 14341), (430, 14377), (432, 14419), (435, 14440), (441, 14536), (448, 14590), (469, 14743),

Gene: GumGum_19 Start: 10840, Stop: 14733, Start Num: 24

Candidate Starts for GumGum_19:

(15, 10747), (Start: 24 @10840 has 40 MA's), (36, 10975), (39, 10999), (47, 11041), (48, 11053), (49, 11071), (50, 11080), (51, 11113), (52, 11119), (56, 11197), (63, 11278), (65, 11317), (72, 11401), (74, 11416), (78, 11449), (88, 11554), (96, 11641), (101, 11674), (103, 11710), (122, 11893), (130, 11941), (136, 11992), (137, 11995), (155, 12079), (162, 12166), (165, 12175), (186, 12376), (187, 12385), (194, 12433), (197, 12454), (198, 12457), (208, 12529), (216, 12649), (224, 12691), (235, 12742), (256, 12868), (288, 13006), (297, 13069), (299, 13090), (313, 13180), (331, 13315), (341, 13354), (345, 13390), (350, 13432), (353, 13453), (356, 13471), (360, 13495), (363, 13507), (364, 13516), (368, 13531), (388, 13735), (389, 13744), (404, 13867), (405, 13894), (406, 13900), (410, 13993), (415, 14107), (416, 14125), (420, 14164), (421, 14206), (426, 14269), (427, 14281), (429, 14314), (430, 14317), (432, 14359), (434, 14374), (435, 14380), (441, 14476), (448, 14530), (449, 14539),

(460, 14620), (470, 14683),

Gene: Henrique_18 Start: 10889, Stop: 14806, Start Num: 24

Candidate Starts for Henrique_18:

(Start: 24 @10889 has 40 MA's), (36, 11024), (39, 11048), (41, 11054), (47, 11090), (48, 11102), (49, 11120), (50, 11129), (51, 11162), (52, 11168), (56, 11246), (63, 11327), (65, 11366), (72, 11450), (74, 11465), (77, 11489), (78, 11498), (88, 11603), (95, 11684), (96, 11690), (98, 11711), (102, 11753), (105, 11780), (113, 11870), (122, 11963), (130, 12011), (155, 12149), (162, 12236), (165, 12245), (186, 12446), (187, 12455), (194, 12503), (197, 12524), (198, 12527), (208, 12599), (211, 12662), (235, 12812), (256, 12938), (288, 13076), (296, 13127), (297, 13139), (299, 13160), (313, 13250), (331, 13385), (341, 13424), (345, 13460), (350, 13502), (353, 13523), (356, 13541), (363, 13577), (364, 13586), (368, 13601), (389, 13814), (405, 13964), (406, 13970), (410, 14063), (415, 14177), (416, 14195), (419, 14225), (420, 14234), (421, 14276), (426, 14339), (427, 14351), (430, 14387), (432, 14429), (435, 14450), (436, 14462), (446, 14588), (448, 14600), (459, 14687), (462, 14705),

Gene: Hestia_19 Start: 10985, Stop: 14962, Start Num: 24

Candidate Starts for Hestia_19:

(Start: 24 @10985 has 40 MA's), (36, 11120), (39, 11144), (41, 11150), (45, 11174), (49, 11216), (51, 11258), (58, 11372), (85, 11690), (91, 11732), (92, 11735), (130, 12086), (133, 12107), (137, 12140), (154, 12221), (155, 12224), (158, 12242), (162, 12311), (164, 12317), (169, 12350), (198, 12590), (206, 12653), (215, 12764), (219, 12812), (220, 12815), (224, 12848), (225, 12857), (227, 12869), (229, 12890), (235, 12941), (247, 13019), (274, 13127), (284, 13181), (291, 13226), (307, 13340), (314, 13391), (317, 13412), (341, 13553), (350, 13631), (360, 13694), (363, 13706), (368, 13730), (375, 13802), (391, 13934), (395, 13961), (396, 13964), (398, 13973), (399, 13991), (401, 14030), (406, 14129), (410, 14222), (415, 14336), (416, 14354), (420, 14393), (421, 14435), (426, 14498), (427, 14510), (429, 14543), (430, 14546), (432, 14588), (434, 14603), (435, 14609), (441, 14705), (448, 14759), (449, 14768), (460, 14849), (469, 14912),

Gene: Hillester_19 Start: 10843, Stop: 14784, Start Num: 24

Candidate Starts for Hillester_19:

(Start: 24 @10843 has 40 MA's), (29, 10882), (34, 10945), (36, 10978), (39, 11002), (41, 11008), (42, 11020), (47, 11044), (48, 11056), (49, 11074), (51, 11116), (63, 11281), (85, 11548), (87, 11554), (92, 11593), (102, 11686), (118, 11854), (123, 11899), (136, 11995), (153, 12070), (158, 12100), (166, 12187), (168, 12199), (176, 12268), (177, 12304), (181, 12334), (186, 12370), (193, 12418), (195, 12430), (200, 12460), (206, 12517), (207, 12526), (209, 12571), (210, 12574), (215, 12628), (224, 12712), (225, 12721), (227, 12733), (229, 12754), (235, 12805), (238, 12832), (251, 12904), (265, 13012), (268, 13051), (287, 13141), (289, 13156), (303, 13258), (307, 13288), (314, 13339), (317, 13360), (323, 13408), (324, 13411), (341, 13495), (342, 13498), (350, 13576), (363, 13651), (364, 13660), (368, 13675), (394, 13834), (399, 13852), (406, 13951), (410, 14044), (415, 14158), (416, 14176), (420, 14215), (421, 14257), (426, 14320), (427, 14332), (430, 14368), (432, 14410), (435, 14431), (441, 14527), (448, 14581), (460, 14671), (469, 14734),

Gene: HotPotato_18 Start: 10893, Stop: 14789, Start Num: 24

Candidate Starts for HotPotato_18:

(Start: 24 @10893 has 40 MA's), (36, 11028), (39, 11052), (41, 11058), (47, 11094), (48, 11106), (49, 11124), (50, 11133), (51, 11166), (52, 11172), (56, 11250), (63, 11331), (65, 11370), (72, 11454), (74, 11469), (77, 11493), (78, 11502), (88, 11607), (96, 11694), (98, 11715), (101, 11727), (103, 11763), (122, 11946), (130, 11994), (136, 12045), (137, 12048), (144, 12087), (155, 12132), (162, 12219), (165, 12228), (167, 12240), (186, 12429), (187, 12438), (194, 12486), (197, 12507), (198, 12510), (208, 12582), (224, 12744), (235, 12795), (256, 12921), (288, 13059), (296, 13110), (297, 13122), (299, 13143), (313, 13233), (331, 13368), (341, 13407), (345, 13443), (350, 13485), (353, 13506), (356, 13524), (363, 13560), (364, 13569), (368, 13584), (389, 13797), (405, 13947), (406, 13953), (410, 14046), (415, 14160), (416, 14178), (419, 14208), (420, 14217), (421, 14259), (426, 14322),

(427, 14334), (432, 14412), (435, 14433), (436, 14445), (446, 14571), (448, 14583), (459, 14670), (462, 14688),

Gene: Hum25_17 Start: 9592, Stop: 12558, Start Num: 19

Candidate Starts for Hum25_17:

(Start: 19 @9592 has 2 MA's), (28, 9652), (40, 9796), (43, 9814), (49, 9865), (50, 9874), (51, 9907), (56, 9991), (62, 10054), (63, 10072), (65, 10111), (70, 10162), (73, 10204), (77, 10234), (80, 10252), (85, 10339), (90, 10366), (92, 10384), (108, 10531), (110, 10546), (111, 10549), (117, 10633), (124, 10693), (129, 10732), (130, 10735), (135, 10774), (136, 10786), (146, 10834), (152, 10858), (163, 10963), (167, 10984), (172, 11020), (174, 11041), (176, 11062), (186, 11173), (195, 11233), (197, 11242), (200, 11251), (205, 11293), (207, 11314), (208, 11317), (216, 11437), (227, 11500), (235, 11551), (238, 11578), (240, 11596), (242, 11605), (243, 11608), (246, 11626), (247, 11629), (250, 11644), (251, 11650), (259, 11689), (291, 11815), (297, 11857), (309, 11941), (310, 11944), (311, 11962), (314, 11980), (317, 12001), (323, 12049), (324, 12052), (331, 12100), (352, 12238), (384, 12433), (399, 12535),

Gene: Isolde_19 Start: 10834, Stop: 14619, Start Num: 24

Candidate Starts for Isolde_19:

(Start: 24 @10834 has 40 MA's), (36, 10969), (39, 10993), (41, 10999), (47, 11035), (48, 11047), (49, 11065), (51, 11107), (67, 11341), (72, 11395), (73, 11404), (74, 11410), (75, 11416), (78, 11443), (85, 11539), (92, 11584), (100, 11668), (103, 11704), (106, 11710), (121, 11881), (124, 11896), (127, 11923), (141, 12019), (144, 12031), (147, 12040), (149, 12052), (156, 12085), (176, 12262), (187, 12382), (194, 12430), (196, 12448), (201, 12472), (208, 12526), (219, 12673), (224, 12688), (246, 12814), (252, 12844), (260, 12886), (280, 12970), (288, 13003), (297, 13066), (311, 13171), (325, 13270), (344, 13369), (353, 13444), (359, 13471), (368, 13522), (369, 13525), (399, 13687), (406, 13786), (410, 13879), (415, 13993), (416, 14011), (419, 14041), (420, 14050), (421, 14092), (426, 14155), (427, 14167), (430, 14203), (432, 14245), (435, 14266), (439, 14350), (441, 14362), (448, 14416), (458, 14500), (460, 14506),

Gene: JakeTheSnake_19 Start: 10846, Stop: 14685, Start Num: 24

Candidate Starts for JakeTheSnake_19:

(Start: 21 @10825 has 1 MA's), (Start: 24 @10846 has 40 MA's), (31, 10906), (36, 10981), (39, 11005), (41, 11011), (43, 11026), (49, 11077), (51, 11119), (57, 11218), (59, 11236), (66, 11338), (76, 11443), (77, 11446), (85, 11551), (89, 11563), (92, 11596), (98, 11668), (101, 11680), (127, 11932), (130, 11947), (131, 11956), (152, 12070), (171, 12229), (180, 12346), (200, 12466), (210, 12574), (215, 12628), (224, 12712), (227, 12733), (235, 12805), (242, 12859), (260, 12952), (264, 12985), (278, 13036), (283, 13057), (285, 13060), (295, 13111), (308, 13195), (314, 13234), (317, 13255), (328, 13348), (331, 13360), (341, 13402), (349, 13471), (350, 13477), (359, 13525), (363, 13552), (364, 13561), (399, 13753), (406, 13852), (410, 13945), (412, 13978), (413, 14008), (415, 14059), (420, 14116), (421, 14158), (426, 14221), (427, 14233), (432, 14311), (435, 14332), (439, 14416), (446, 14470), (448, 14482), (458, 14566), (460, 14572),

Gene: JellyBread_19 Start: 10836, Stop: 14777, Start Num: 24

Candidate Starts for JellyBread_19:

(Start: 24 @10836 has 40 MA's), (29, 10875), (34, 10938), (36, 10971), (39, 10995), (41, 11001), (42, 11013), (47, 11037), (48, 11049), (49, 11067), (51, 11109), (63, 11274), (85, 11541), (87, 11547), (92, 11586), (102, 11679), (118, 11847), (123, 11892), (136, 11988), (153, 12063), (158, 12093), (166, 12180), (168, 12192), (176, 12261), (177, 12297), (181, 12327), (186, 12363), (193, 12411), (195, 12423), (200, 12453), (206, 12510), (207, 12519), (209, 12564), (210, 12567), (213, 12612), (215, 12621), (224, 12705), (225, 12714), (227, 12726), (229, 12747), (234, 12786), (235, 12798), (246, 12873), (251, 12897), (265, 13005), (268, 13044), (287, 13134), (289, 13149), (303, 13251), (307, 13281), (314, 13332), (317, 13353), (323, 13401), (324, 13404), (341, 13488), (342, 13491), (350, 13569), (363, 13644), (364, 13653), (368, 13668), (389, 13788), (394, 13827), (399, 13845), (406,

13944), (410, 14037), (415, 14151), (416, 14169), (420, 14208), (421, 14250), (426, 14313), (427, 14325), (430, 14361), (432, 14403), (435, 14424), (441, 14520), (448, 14574), (469, 14727),

Gene: Judy_19 Start: 11202, Stop: 15098, Start Num: 24

Candidate Starts for Judy_19:

(Start: 24 @11202 has 40 MA's), (36, 11337), (39, 11361), (41, 11367), (47, 11403), (48, 11415), (49, 11433), (50, 11442), (51, 11475), (52, 11481), (56, 11559), (63, 11640), (65, 11679), (72, 11763), (77, 11802), (78, 11811), (88, 11916), (95, 11997), (96, 12003), (101, 12036), (105, 12072), (130, 12303), (144, 12396), (155, 12441), (165, 12537), (186, 12738), (187, 12747), (194, 12795), (197, 12816), (198, 12819), (208, 12891), (224, 13053), (235, 13104), (256, 13230), (288, 13368), (297, 13431), (299, 13452), (313, 13542), (331, 13677), (341, 13716), (345, 13752), (350, 13794), (356, 13833), (360, 13857), (363, 13869), (364, 13878), (368, 13893), (388, 14097), (389, 14106), (404, 14229), (405, 14256), (406, 14262), (407, 14283), (410, 14355), (415, 14469), (419, 14517), (420, 14526), (421, 14568), (426, 14631), (427, 14643), (430, 14679), (432, 14721), (435, 14742), (436, 14754), (441, 14838), (448, 14892), (457, 14973), (459, 14979), (461, 14994), (462, 14997), (466, 15033),

Gene: Kabloowy_19 Start: 10969, Stop: 14973, Start Num: 24

Candidate Starts for Kabloowy_19:

(Start: 24 @10969 has 40 MA's), (29, 11008), (39, 11128), (41, 11134), (49, 11200), (51, 11242), (53, 11251), (56, 11326), (57, 11341), (59, 11359), (61, 11383), (69, 11494), (77, 11569), (85, 11674), (92, 11719), (102, 11833), (105, 11860), (115, 11974), (130, 12091), (133, 12112), (137, 12145), (141, 12172), (149, 12205), (152, 12214), (154, 12226), (162, 12316), (165, 12325), (181, 12481), (185, 12508), (186, 12517), (188, 12529), (193, 12565), (197, 12598), (198, 12601), (200, 12607), (206, 12664), (221, 12844), (224, 12859), (225, 12868), (227, 12880), (229, 12901), (235, 12952), (241, 13000), (247, 13030), (267, 13105), (275, 13141), (284, 13192), (291, 13237), (307, 13351), (314, 13402), (317, 13423), (341, 13564), (350, 13642), (360, 13705), (363, 13717), (368, 13741), (375, 13813), (391, 13945), (395, 13972), (396, 13975), (398, 13984), (399, 14002), (401, 14041), (406, 14140), (410, 14233), (415, 14347), (416, 14365), (420, 14404), (421, 14446), (426, 14509), (427, 14521), (429, 14554), (430, 14557), (432, 14599), (434, 14614), (435, 14620), (441, 14716), (448, 14770), (449, 14779), (451, 14794), (454, 14827), (469, 14923),

Gene: Karkharias_18 Start: 10889, Stop: 14785, Start Num: 24

Candidate Starts for Karkharias_18:

(Start: 24 @10889 has 40 MA's), (36, 11024), (39, 11048), (41, 11054), (47, 11090), (48, 11102), (49, 11120), (50, 11129), (51, 11162), (52, 11168), (56, 11246), (63, 11327), (65, 11366), (72, 11450), (74, 11465), (78, 11498), (88, 11603), (96, 11690), (101, 11723), (103, 11759), (122, 11942), (130, 11990), (136, 12041), (137, 12044), (155, 12128), (162, 12215), (165, 12224), (186, 12425), (187, 12434), (194, 12482), (197, 12503), (198, 12506), (208, 12578), (211, 12641), (235, 12791), (256, 12917), (288, 13055), (296, 13106), (297, 13118), (299, 13139), (313, 13229), (331, 13364), (341, 13403), (345, 13439), (350, 13481), (353, 13502), (356, 13520), (363, 13556), (368, 13580), (389, 13793), (405, 13943), (406, 13949), (410, 14042), (415, 14156), (416, 14174), (419, 14204), (420, 14213), (421, 14255), (426, 14318), (427, 14330), (432, 14408), (435, 14429), (436, 14441), (446, 14567), (448, 14579), (459, 14666), (462, 14684),

Gene: KayMoney_18 Start: 10886, Stop: 14689, Start Num: 24

Candidate Starts for KayMoney_18:

(Start: 24 @10886 has 40 MA's), (36, 11021), (39, 11045), (40, 11048), (41, 11051), (47, 11087), (48, 11099), (49, 11117), (50, 11126), (51, 11159), (52, 11165), (56, 11243), (63, 11324), (65, 11363), (72, 11447), (73, 11456), (74, 11462), (77, 11486), (78, 11495), (86, 11594), (88, 11600), (96, 11687), (101, 11720), (103, 11756), (122, 11939), (128, 11975), (130, 11987), (136, 12038), (155, 12125), (162, 12212), (165, 12221), (177, 12353), (186, 12422), (187, 12431), (194, 12479), (197, 12500), (198, 12503), (208, 12575), (211, 12638), (219, 12722), (224, 12737), (234, 12776), (240, 12833), (247, 12866), (281, 13028), (290, 13073), (299, 13136), (314, 13238), (317, 13259), (350, 13481), (363,

13556), (377, 13622), (392, 13718), (399, 13757), (404, 13823), (410, 13949), (415, 14063), (416, 14081), (419, 14111), (420, 14120), (421, 14162), (426, 14225), (427, 14237), (430, 14273), (432, 14315), (435, 14336), (444, 14453), (448, 14486), (449, 14495), (458, 14570), (460, 14576),

Gene: Kukla_17 Start: 10473, Stop: 14528, Start Num: 18

Candidate Starts for Kukla_17:

(14, 10419), (17, 10461), (Start: 18 @10473 has 2 MA's), (20, 10491), (27, 10533), (30, 10563), (35, 10620), (42, 10692), (44, 10698), (45, 10704), (49, 10746), (51, 10788), (56, 10872), (63, 10953), (67, 11022), (68, 11031), (74, 11091), (79, 11127), (85, 11220), (89, 11232), (92, 11265), (97, 11325), (101, 11352), (105, 11385), (127, 11601), (132, 11634), (139, 11688), (142, 11700), (161, 11823), (174, 11925), (182, 12012), (207, 12177), (233, 12438), (246, 12531), (251, 12555), (291, 12762), (302, 12840), (304, 12852), (307, 12876), (311, 12909), (317, 12948), (348, 13173), (359, 13230), (366, 13272), (379, 13410), (383, 13446), (385, 13452), (399, 13560), (412, 13785), (414, 13827), (418, 13905), (421, 13965), (424, 13986), (430, 14076), (432, 14118), (435, 14139), (438, 14202), (445, 14265), (447, 14283), (448, 14292), (450, 14310), (463, 14400), (472, 14496), (474, 14514),

Gene: Lasker_19 Start: 10851, Stop: 14792, Start Num: 24

Candidate Starts for Lasker_19:

(Start: 24 @10851 has 40 MA's), (29, 10890), (34, 10953), (36, 10986), (39, 11010), (41, 11016), (42, 11028), (47, 11052), (48, 11064), (49, 11082), (51, 11124), (63, 11289), (85, 11556), (87, 11562), (92, 11601), (102, 11694), (118, 11862), (123, 11907), (136, 12003), (153, 12078), (158, 12108), (166, 12195), (168, 12207), (176, 12276), (177, 12312), (181, 12342), (186, 12378), (193, 12426), (195, 12438), (200, 12468), (206, 12525), (207, 12534), (209, 12579), (210, 12582), (213, 12627), (215, 12636), (224, 12720), (225, 12729), (227, 12741), (229, 12762), (234, 12801), (235, 12813), (246, 12888), (251, 12912), (265, 13020), (268, 13059), (287, 13149), (289, 13164), (303, 13266), (307, 13296), (314, 13347), (317, 13368), (323, 13416), (324, 13419), (341, 13503), (342, 13506), (350, 13584), (363, 13659), (364, 13668), (368, 13683), (394, 13842), (399, 13860), (406, 13959), (410, 14052), (415, 14166), (416, 14184), (420, 14223), (421, 14265), (426, 14328), (427, 14340), (430, 14376), (432, 14418), (435, 14439), (441, 14535), (448, 14589), (460, 14679), (469, 14742),

Gene: Lawnathon_19 Start: 10910, Stop: 14713, Start Num: 24

Candidate Starts for Lawnathon_19:

(Start: 24 @10910 has 40 MA's), (36, 11045), (39, 11069), (41, 11075), (47, 11111), (48, 11123), (49, 11141), (50, 11150), (51, 11183), (52, 11189), (56, 11267), (63, 11348), (65, 11387), (72, 11471), (73, 11480), (74, 11486), (77, 11510), (78, 11519), (86, 11618), (88, 11624), (96, 11711), (101, 11744), (103, 11780), (122, 11963), (128, 11999), (130, 12011), (136, 12062), (155, 12149), (162, 12236), (177, 12377), (186, 12446), (187, 12455), (194, 12503), (197, 12524), (198, 12527), (208, 12599), (211, 12662), (219, 12746), (224, 12761), (234, 12800), (240, 12857), (281, 13052), (290, 13097), (299, 13160), (314, 13262), (317, 13283), (350, 13505), (361, 13571), (363, 13580), (377, 13646), (392, 13742), (399, 13781), (404, 13847), (410, 13973), (415, 14087), (416, 14105), (419, 14135), (420, 14144), (421, 14186), (426, 14249), (427, 14261), (430, 14297), (432, 14339), (435, 14360), (436, 14372), (446, 14498), (448, 14510), (458, 14594), (460, 14600), (471, 14693),

Gene: LeBruni_20 Start: 10784, Stop: 14581, Start Num: 24

Candidate Starts for LeBruni_20:

(Start: 24 @10784 has 40 MA's), (29, 10823), (36, 10919), (39, 10943), (41, 10949), (47, 10985), (48, 10997), (49, 11015), (51, 11057), (52, 11063), (56, 11141), (63, 11222), (65, 11261), (68, 11300), (72, 11345), (73, 11354), (74, 11360), (78, 11393), (86, 11492), (88, 11498), (95, 11579), (96, 11585), (101, 11618), (103, 11654), (122, 11837), (130, 11885), (155, 12023), (162, 12110), (186, 12320), (187, 12329), (194, 12377), (197, 12398), (198, 12401), (208, 12473), (211, 12536), (219, 12620), (224, 12635), (235, 12686), (249, 12776), (256, 12812), (280, 12917), (288, 12950), (297, 13013), (299, 13034), (311, 13118), (341, 13295), (345, 13331), (350, 13373), (361, 13439), (363, 13448), (389, 13592), (399, 13649), (410, 13841), (413, 13904), (415, 13955), (416, 13973), (420, 14012), (421,

14054), (426, 14117), (427, 14129), (430, 14165), (432, 14207), (433, 14210), (434, 14222), (435, 14228), (448, 14378), (460, 14468), (470, 14531),

Gene: LilyBell_18 Start: 10905, Stop: 14801, Start Num: 24

Candidate Starts for LilyBell_18:

(Start: 24 @10905 has 40 MA's), (36, 11040), (39, 11064), (41, 11070), (47, 11106), (48, 11118), (49, 11136), (50, 11145), (51, 11178), (52, 11184), (56, 11262), (63, 11343), (65, 11382), (72, 11466), (77, 11505), (78, 11514), (88, 11619), (95, 11700), (96, 11706), (101, 11739), (105, 11775), (130, 12006), (144, 12099), (155, 12144), (165, 12240), (186, 12441), (187, 12450), (194, 12498), (197, 12519), (198, 12522), (208, 12594), (224, 12756), (256, 12933), (288, 13071), (297, 13134), (299, 13155), (313, 13245), (319, 13302), (331, 13380), (341, 13419), (345, 13455), (350, 13497), (356, 13536), (360, 13560), (363, 13572), (364, 13581), (368, 13596), (370, 13614), (388, 13800), (389, 13809), (404, 13932), (405, 13959), (406, 13965), (410, 14058), (415, 14172), (419, 14220), (420, 14229), (421, 14271), (426, 14334), (427, 14346), (430, 14382), (432, 14424), (435, 14445), (436, 14457), (441, 14541), (448, 14595), (457, 14676), (459, 14682), (461, 14697), (462, 14700), (466, 14736),

Gene: LittleRon_18 Start: 10859, Stop: 14659, Start Num: 24

Candidate Starts for LittleRon_18:

(Start: 24 @10859 has 40 MA's), (36, 10994), (39, 11018), (41, 11024), (47, 11060), (48, 11072), (49, 11090), (50, 11099), (51, 11132), (52, 11138), (56, 11216), (63, 11297), (65, 11336), (67, 11366), (72, 11420), (74, 11435), (78, 11468), (88, 11573), (96, 11660), (101, 11693), (103, 11729), (118, 11870), (130, 11960), (144, 12053), (155, 12098), (165, 12194), (186, 12395), (187, 12404), (194, 12452), (197, 12473), (198, 12476), (208, 12548), (224, 12710), (235, 12761), (240, 12806), (256, 12887), (288, 13025), (296, 13076), (297, 13088), (299, 13109), (331, 13334), (345, 13406), (350, 13448), (361, 13514), (363, 13523), (368, 13547), (369, 13550), (387, 13655), (393, 13706), (399, 13724), (407, 13844), (410, 13916), (415, 14030), (419, 14078), (420, 14087), (421, 14129), (426, 14192), (427, 14204), (430, 14240), (432, 14282), (435, 14303), (436, 14315), (441, 14399), (448, 14453), (457, 14534), (459, 14540), (461, 14555), (462, 14558), (466, 14594),

Gene: MUWow_18 Start: 10936, Stop: 14877, Start Num: 24

Candidate Starts for MUWow_18:

(Start: 24 @10936 has 40 MA's), (29, 10975), (34, 11038), (36, 11071), (39, 11095), (41, 11101), (42, 11113), (47, 11137), (48, 11149), (49, 11167), (51, 11209), (63, 11374), (85, 11641), (87, 11647), (92, 11686), (102, 11779), (118, 11947), (123, 11992), (136, 12088), (153, 12163), (158, 12193), (166, 12280), (168, 12292), (176, 12361), (177, 12397), (181, 12427), (186, 12463), (193, 12511), (195, 12523), (200, 12553), (206, 12610), (207, 12619), (209, 12664), (210, 12667), (213, 12712), (215, 12721), (224, 12805), (225, 12814), (227, 12826), (229, 12847), (234, 12886), (235, 12898), (246, 12973), (251, 12997), (265, 13105), (268, 13144), (287, 13234), (289, 13249), (303, 13351), (307, 13381), (314, 13432), (317, 13453), (323, 13501), (324, 13504), (341, 13588), (342, 13591), (350, 13669), (363, 13744), (364, 13753), (368, 13768), (389, 13888), (394, 13927), (399, 13945), (406, 14044), (410, 14137), (415, 14251), (416, 14269), (420, 14308), (421, 14350), (426, 14413), (427, 14425), (430, 14461), (432, 14503), (435, 14524), (441, 14620), (448, 14674), (469, 14827),

Gene: Mapleville_19 Start: 10980, Stop: 14783, Start Num: 24

Candidate Starts for Mapleville_19:

(Start: 24 @10980 has 40 MA's), (36, 11115), (39, 11139), (41, 11145), (47, 11181), (48, 11193), (49, 11211), (50, 11220), (51, 11253), (52, 11259), (56, 11337), (63, 11418), (65, 11457), (72, 11541), (73, 11550), (74, 11556), (77, 11580), (78, 11589), (86, 11688), (88, 11694), (96, 11781), (101, 11814), (103, 11850), (122, 12033), (128, 12069), (130, 12081), (136, 12132), (155, 12219), (162, 12306), (177, 12447), (186, 12516), (187, 12525), (194, 12573), (197, 12594), (198, 12597), (208, 12669), (211, 12732), (219, 12816), (224, 12831), (234, 12870), (240, 12927), (281, 13122), (290, 13167), (299, 13230), (314, 13332), (317, 13353), (350, 13575), (361, 13641), (363, 13650), (377, 13716), (392, 13812), (399, 13851), (404, 13917), (410, 14043), (415, 14157), (416, 14175), (419, 14205),

(420, 14214), (421, 14256), (426, 14319), (427, 14331), (430, 14367), (432, 14409), (435, 14430), (436, 14442), (446, 14568), (448, 14580), (458, 14664), (460, 14670), (471, 14763),

Gene: MaterMagnus_19 Start: 10844, Stop: 14785, Start Num: 24

Candidate Starts for MaterMagnus_19:

(Start: 24 @10844 has 40 MA's), (29, 10883), (34, 10946), (36, 10979), (39, 11003), (41, 11009), (42, 11021), (47, 11045), (48, 11057), (49, 11075), (51, 11117), (63, 11282), (85, 11549), (87, 11555), (92, 11594), (102, 11687), (118, 11855), (123, 11900), (136, 11996), (153, 12071), (158, 12101), (166, 12188), (168, 12200), (176, 12269), (177, 12305), (181, 12335), (186, 12371), (193, 12419), (195, 12431), (200, 12461), (206, 12518), (207, 12527), (209, 12572), (210, 12575), (215, 12629), (224, 12713), (225, 12722), (227, 12734), (229, 12755), (235, 12806), (251, 12905), (265, 13013), (268, 13052), (287, 13142), (289, 13157), (303, 13259), (307, 13289), (314, 13340), (317, 13361), (323, 13409), (324, 13412), (341, 13496), (342, 13499), (350, 13577), (363, 13652), (364, 13661), (368, 13676), (389, 13796), (394, 13835), (399, 13853), (406, 13952), (410, 14045), (415, 14159), (416, 14177), (420, 14216), (421, 14258), (426, 14321), (427, 14333), (430, 14369), (432, 14411), (435, 14432), (441, 14528), (448, 14582), (460, 14672), (469, 14735),

Gene: MidnightRain_19 Start: 10842, Stop: 14783, Start Num: 24

Candidate Starts for MidnightRain_19:

(Start: 24 @10842 has 40 MA's), (29, 10881), (34, 10944), (36, 10977), (39, 11001), (41, 11007), (42, 11019), (47, 11043), (48, 11055), (49, 11073), (51, 11115), (63, 11280), (85, 11547), (87, 11553), (92, 11592), (102, 11685), (118, 11853), (123, 11898), (136, 11994), (153, 12069), (158, 12099), (166, 12186), (168, 12198), (176, 12267), (177, 12303), (181, 12333), (186, 12369), (193, 12417), (195, 12429), (200, 12459), (206, 12516), (207, 12525), (209, 12570), (210, 12573), (213, 12618), (215, 12627), (224, 12711), (225, 12720), (227, 12732), (229, 12753), (234, 12792), (235, 12804), (246, 12879), (251, 12903), (265, 13011), (268, 13050), (287, 13140), (289, 13155), (303, 13257), (307, 13287), (314, 13338), (317, 13359), (323, 13407), (324, 13410), (341, 13494), (342, 13497), (350, 13575), (363, 13650), (364, 13659), (368, 13674), (394, 13833), (399, 13851), (406, 13950), (410, 14043), (415, 14157), (416, 14175), (420, 14214), (421, 14256), (426, 14319), (427, 14331), (430, 14367), (432, 14409), (435, 14430), (441, 14526), (448, 14580), (460, 14670), (469, 14733),

Gene: MurphyJoseph_19 Start: 10843, Stop: 14868, Start Num: 24

Candidate Starts for MurphyJoseph_19:

(Start: 24 @10843 has 40 MA's), (36, 10978), (49, 11074), (50, 11083), (51, 11116), (56, 11200), (68, 11359), (70, 11371), (77, 11443), (85, 11548), (91, 11590), (92, 11593), (107, 11722), (110, 11755), (120, 11866), (126, 11920), (146, 12043), (167, 12193), (171, 12226), (180, 12343), (190, 12406), (200, 12463), (206, 12514), (210, 12571), (215, 12625), (224, 12709), (245, 12880), (264, 13000), (292, 13171), (293, 13174), (296, 13192), (312, 13312), (315, 13336), (336, 13543), (340, 13570), (350, 13663), (351, 13666), (358, 13708), (359, 13711), (361, 13729), (364, 13747), (373, 13792), (389, 13870), (399, 13927), (406, 14026), (410, 14119), (412, 14152), (413, 14182), (415, 14233), (416, 14251), (420, 14290), (421, 14332), (423, 14350), (427, 14407), (430, 14443), (432, 14485), (433, 14488), (435, 14506), (448, 14656), (464, 14770), (467, 14803),

Gene: NewKitty_20 Start: 11073, Stop: 15014, Start Num: 24

Candidate Starts for NewKitty_20:

(Start: 24 @11073 has 40 MA's), (29, 11112), (34, 11175), (36, 11208), (39, 11232), (41, 11238), (42, 11250), (47, 11274), (48, 11286), (49, 11304), (51, 11346), (63, 11511), (85, 11778), (87, 11784), (92, 11823), (102, 11916), (118, 12084), (123, 12129), (136, 12225), (153, 12300), (158, 12330), (166, 12417), (168, 12429), (176, 12498), (177, 12534), (181, 12564), (186, 12600), (193, 12648), (195, 12660), (200, 12690), (206, 12747), (207, 12756), (209, 12801), (210, 12804), (213, 12849), (215, 12858), (224, 12942), (225, 12951), (227, 12963), (229, 12984), (234, 13023), (235, 13035), (246, 13110), (251, 13134), (265, 13242), (268, 13281), (287, 13371), (289, 13386), (303, 13488), (307, 13518), (314, 13569), (317, 13590), (323, 13638), (324, 13641), (341, 13725), (342, 13728), (350,

13806), (363, 13881), (364, 13890), (368, 13905), (389, 14025), (394, 14064), (399, 14082), (406, 14181), (410, 14274), (415, 14388), (416, 14406), (420, 14445), (421, 14487), (426, 14550), (427, 14562), (430, 14598), (432, 14640), (435, 14661), (441, 14757), (448, 14811), (469, 14964),

Gene: NidoQ_18 Start: 10948, Stop: 14841, Start Num: 24

Candidate Starts for NidoQ_18:

(Start: 24 @10948 has 40 MA's), (36, 11083), (39, 11107), (41, 11113), (47, 11149), (48, 11161), (49, 11179), (50, 11188), (51, 11221), (52, 11227), (56, 11305), (63, 11386), (65, 11425), (72, 11509), (77, 11548), (78, 11557), (88, 11662), (95, 11743), (96, 11749), (101, 11782), (105, 11818), (130, 12049), (155, 12187), (165, 12283), (186, 12484), (187, 12493), (194, 12541), (197, 12562), (198, 12565), (208, 12637), (224, 12799), (235, 12850), (256, 12976), (288, 13114), (297, 13177), (299, 13198), (313, 13288), (331, 13423), (341, 13462), (345, 13498), (350, 13540), (356, 13579), (360, 13603), (363, 13615), (364, 13624), (368, 13639), (388, 13843), (389, 13852), (404, 13975), (405, 14002), (406, 14008), (407, 14029), (410, 14101), (415, 14215), (419, 14263), (420, 14272), (421, 14314), (426, 14377), (427, 14389), (430, 14425), (431, 14434), (432, 14467), (434, 14482), (435, 14488), (436, 14500), (446, 14626), (448, 14638), (458, 14722), (460, 14728),

Gene: NikkiHotWheels_18 Start: 10948, Stop: 14802, Start Num: 31

Candidate Starts for NikkiHotWheels_18:

(Start: 24 @10888 has 40 MA's), (31, 10948), (36, 11023), (39, 11047), (41, 11053), (47, 11089), (48, 11101), (49, 11119), (50, 11128), (51, 11161), (52, 11167), (56, 11245), (63, 11326), (65, 11365), (72, 11449), (77, 11488), (78, 11497), (88, 11602), (95, 11683), (96, 11689), (98, 11710), (102, 11752), (105, 11779), (109, 11812), (113, 11869), (122, 11962), (130, 12010), (136, 12061), (155, 12148), (162, 12235), (165, 12244), (186, 12445), (187, 12454), (194, 12502), (197, 12523), (198, 12526), (208, 12598), (224, 12760), (235, 12811), (256, 12937), (288, 13075), (296, 13126), (297, 13138), (299, 13159), (313, 13249), (331, 13384), (341, 13423), (345, 13459), (350, 13501), (353, 13522), (356, 13540), (360, 13564), (363, 13576), (364, 13585), (368, 13600), (389, 13813), (405, 13963), (406, 13969), (410, 14062), (415, 14176), (416, 14194), (419, 14224), (420, 14233), (421, 14275), (426, 14338), (427, 14350), (430, 14386), (432, 14428), (434, 14443), (435, 14449), (436, 14461), (446, 14587), (448, 14599), (458, 14683), (460, 14689),

Gene: Nyilah_18 Start: 10881, Stop: 14774, Start Num: 24

Candidate Starts for Nyilah_18:

(15, 10788), (Start: 24 @10881 has 40 MA's), (36, 11016), (39, 11040), (42, 11058), (47, 11082), (48, 11094), (49, 11112), (50, 11121), (51, 11154), (52, 11160), (56, 11238), (63, 11319), (65, 11358), (72, 11442), (74, 11457), (78, 11490), (88, 11595), (96, 11682), (101, 11715), (103, 11751), (122, 11934), (130, 11982), (136, 12033), (137, 12036), (155, 12120), (162, 12207), (165, 12216), (186, 12417), (187, 12426), (194, 12474), (197, 12495), (198, 12498), (208, 12570), (216, 12690), (224, 12732), (235, 12783), (256, 12909), (288, 13047), (297, 13110), (299, 13131), (313, 13221), (331, 13356), (341, 13395), (345, 13431), (350, 13473), (353, 13494), (356, 13512), (360, 13536), (363, 13548), (364, 13557), (368, 13572), (388, 13776), (389, 13785), (404, 13908), (405, 13935), (406, 13941), (410, 14034), (415, 14148), (419, 14196), (420, 14205), (421, 14247), (426, 14310), (427, 14322), (430, 14358), (432, 14400), (434, 14415), (435, 14421), (436, 14433), (441, 14517), (448, 14571), (449, 14580), (460, 14661), (470, 14724),

Gene: Peas_18 Start: 10892, Stop: 14788, Start Num: 24

Candidate Starts for Peas_18:

(Start: 24 @10892 has 40 MA's), (36, 11027), (39, 11051), (41, 11057), (47, 11093), (48, 11105), (49, 11123), (50, 11132), (51, 11165), (52, 11171), (56, 11249), (63, 11330), (65, 11369), (72, 11453), (74, 11468), (78, 11501), (88, 11606), (96, 11693), (101, 11726), (103, 11762), (122, 11945), (130, 11993), (136, 12044), (137, 12047), (143, 12083), (144, 12086), (155, 12131), (162, 12218), (177, 12359), (186, 12428), (187, 12437), (194, 12485), (197, 12506), (198, 12509), (208, 12581), (211, 12644), (224, 12743), (235, 12794), (256, 12920), (288, 13058), (296, 13109), (297, 13121), (299, 13142),

(313, 13232), (331, 13367), (341, 13406), (345, 13442), (350, 13484), (353, 13505), (356, 13523), (360, 13547), (363, 13559), (364, 13568), (368, 13583), (389, 13796), (405, 13946), (406, 13952), (410, 14045), (415, 14159), (416, 14177), (419, 14207), (420, 14216), (421, 14258), (426, 14321), (427, 14333), (430, 14369), (432, 14411), (435, 14432), (436, 14444), (446, 14570), (448, 14582), (459, 14669), (462, 14687),

Gene: PeggyLeg03_18 Start: 10931, Stop: 14827, Start Num: 24

Candidate Starts for PeggyLeg03_18:

(Start: 24 @10931 has 40 MA's), (36, 11066), (39, 11090), (41, 11096), (47, 11132), (48, 11144), (49, 11162), (50, 11171), (51, 11204), (52, 11210), (56, 11288), (63, 11369), (65, 11408), (72, 11492), (77, 11531), (78, 11540), (88, 11645), (95, 11726), (96, 11732), (101, 11765), (105, 11801), (130, 12032), (155, 12170), (165, 12266), (186, 12467), (187, 12476), (194, 12524), (197, 12545), (198, 12548), (208, 12620), (218, 12761), (224, 12782), (235, 12833), (256, 12959), (288, 13097), (297, 13160), (299, 13181), (313, 13271), (331, 13406), (341, 13445), (345, 13481), (350, 13523), (356, 13562), (360, 13586), (361, 13589), (363, 13598), (364, 13607), (368, 13622), (388, 13826), (389, 13835), (404, 13958), (405, 13985), (406, 13991), (407, 14012), (410, 14084), (415, 14198), (419, 14246), (420, 14255), (421, 14297), (426, 14360), (427, 14372), (430, 14408), (432, 14450), (435, 14471), (436, 14483), (441, 14567), (448, 14621), (457, 14702), (459, 14708), (461, 14723), (462, 14726), (466, 14762),

Gene: Persistence_18 Start: 10866, Stop: 14705, Start Num: 24

Candidate Starts for Persistence_18:

(Start: 24 @10866 has 40 MA's), (36, 11001), (39, 11025), (41, 11031), (46, 11061), (47, 11067), (49, 11097), (51, 11139), (65, 11343), (68, 11382), (70, 11394), (74, 11442), (85, 11571), (89, 11583), (92, 11616), (105, 11736), (118, 11877), (123, 11922), (130, 11967), (133, 11988), (134, 11997), (137, 12021), (145, 12063), (153, 12093), (155, 12105), (161, 12174), (167, 12216), (177, 12327), (178, 12336), (185, 12384), (191, 12429), (198, 12474), (206, 12537), (215, 12648), (219, 12696), (227, 12753), (235, 12825), (246, 12900), (249, 12915), (260, 12972), (264, 13005), (283, 13077), (285, 13080), (308, 13215), (314, 13254), (317, 13275), (328, 13368), (341, 13422), (349, 13491), (350, 13497), (359, 13545), (363, 13572), (364, 13581), (410, 13965), (411, 13992), (412, 13998), (413, 14028), (415, 14079), (420, 14136), (421, 14178), (426, 14241), (427, 14253), (431, 14298), (432, 14331), (435, 14352), (441, 14448), (448, 14502), (465, 14634),

Gene: PetriParty_17 Start: 11046, Stop: 15431, Start Num: 7

Candidate Starts for PetriParty_17:

(4, 10968), (Start: 7 @11046 has 1 MA's), (9, 11106), (11, 11169), (12, 11181), (13, 11223), (22, 11316), (33, 11433), (49, 11571), (50, 11580), (51, 11613), (54, 11640), (63, 11778), (65, 11817), (68, 11856), (72, 11901), (73, 11910), (74, 11916), (77, 11940), (85, 12045), (92, 12090), (96, 12141), (104, 12201), (108, 12237), (110, 12252), (114, 12306), (130, 12441), (133, 12462), (139, 12513), (141, 12522), (142, 12525), (154, 12576), (155, 12579), (161, 12648), (164, 12672), (165, 12675), (177, 12801), (178, 12810), (184, 12849), (186, 12867), (188, 12879), (205, 13002), (206, 13014), (207, 13023), (208, 13026), (215, 13125), (221, 13194), (222, 13203), (226, 13227), (227, 13230), (251, 13401), (259, 13461), (268, 13548), (273, 13560), (287, 13638), (289, 13653), (294, 13686), (303, 13755), (309, 13797), (310, 13800), (314, 13836), (317, 13857), (333, 13971), (356, 14115), (359, 14124), (365, 14163), (366, 14166), (372, 14205), (382, 14337), (385, 14346), (399, 14454), (412, 14679), (414, 14721), (417, 14781), (421, 14859), (424, 14880), (428, 14949), (430, 14970), (432, 15012), (435, 15033), (438, 15096), (442, 15135), (448, 15186), (456, 15255), (463, 15300), (474, 15417),

Gene: Phrank15_18 Start: 10912, Stop: 14718, Start Num: 24

Candidate Starts for Phrank15_18:

(15, 10822), (Start: 24 @10912 has 40 MA's), (29, 10951), (36, 11047), (39, 11071), (41, 11077), (42, 11089), (43, 11092), (45, 11101), (47, 11113), (48, 11125), (49, 11143), (50, 11152), (51, 11185), (52,

11191), (56, 11269), (63, 11350), (65, 11389), (73, 11482), (74, 11488), (78, 11521), (88, 11626), (96, 11713), (101, 11746), (103, 11782), (116, 11908), (118, 11923), (122, 11965), (143, 12103), (155, 12151), (173, 12307), (177, 12379), (186, 12448), (187, 12457), (194, 12505), (197, 12526), (198, 12529), (200, 12535), (208, 12601), (211, 12664), (224, 12763), (227, 12772), (235, 12814), (242, 12868), (256, 12940), (264, 12994), (288, 13078), (296, 13129), (297, 13141), (299, 13162), (311, 13246), (318, 13297), (341, 13423), (350, 13501), (356, 13540), (361, 13567), (363, 13576), (368, 13600), (369, 13603), (399, 13777), (410, 13969), (412, 14002), (415, 14083), (416, 14101), (420, 14140), (421, 14182), (426, 14245), (427, 14257), (430, 14293), (432, 14335), (435, 14356), (436, 14368), (441, 14452), (448, 14506), (457, 14581), (459, 14587), (461, 14602), (462, 14605),

Gene: Pitbull_16 Start: 9222, Stop: 12188, Start Num: 19

Candidate Starts for Pitbull_16:

(Start: 19 @9222 has 2 MA's), (28, 9282), (40, 9426), (43, 9444), (49, 9495), (50, 9504), (51, 9537), (56, 9621), (62, 9684), (63, 9702), (65, 9741), (70, 9792), (73, 9834), (77, 9864), (80, 9882), (85, 9969), (90, 9996), (92, 10014), (108, 10161), (110, 10176), (111, 10179), (117, 10263), (124, 10323), (129, 10362), (130, 10365), (135, 10404), (136, 10416), (146, 10464), (152, 10488), (163, 10593), (167, 10614), (172, 10650), (174, 10671), (176, 10692), (186, 10803), (195, 10863), (197, 10872), (200, 10881), (207, 10944), (208, 10947), (216, 11067), (227, 11130), (235, 11181), (238, 11208), (240, 11226), (242, 11235), (243, 11238), (246, 11256), (247, 11259), (249, 11271), (250, 11274), (251, 11280), (259, 11319), (291, 11445), (297, 11487), (310, 11574), (311, 11592), (314, 11610), (317, 11631), (323, 11679), (324, 11682), (331, 11730), (352, 11868), (384, 12063), (399, 12165),

Gene: Pucara_18 Start: 10892, Stop: 14788, Start Num: 24

Candidate Starts for Pucara_18:

(Start: 24 @10892 has 40 MA's), (31, 10952), (36, 11027), (39, 11051), (41, 11057), (47, 11093), (48, 11105), (49, 11123), (50, 11132), (51, 11165), (52, 11171), (56, 11249), (63, 11330), (65, 11369), (72, 11453), (74, 11468), (77, 11492), (78, 11501), (88, 11606), (96, 11693), (101, 11726), (103, 11762), (122, 11945), (130, 11993), (136, 12044), (137, 12047), (144, 12086), (155, 12131), (162, 12218), (165, 12227), (186, 12428), (187, 12437), (194, 12485), (197, 12506), (198, 12509), (208, 12581), (211, 12644), (235, 12794), (256, 12920), (288, 13058), (296, 13109), (297, 13121), (299, 13142), (313, 13232), (331, 13367), (341, 13406), (345, 13442), (350, 13484), (353, 13505), (356, 13523), (363, 13559), (368, 13583), (389, 13796), (405, 13946), (406, 13952), (410, 14045), (415, 14159), (416, 14177), (419, 14207), (420, 14216), (421, 14258), (426, 14321), (427, 14333), (432, 14411), (435, 14432), (436, 14444), (444, 14549), (446, 14570), (448, 14582), (459, 14669), (462, 14687),

Gene: RadFad_19 Start: 10843, Stop: 14784, Start Num: 24

Candidate Starts for RadFad_19:

(Start: 24 @10843 has 40 MA's), (29, 10882), (34, 10945), (36, 10978), (39, 11002), (41, 11008), (42, 11020), (47, 11044), (48, 11056), (49, 11074), (51, 11116), (63, 11281), (85, 11548), (87, 11554), (92, 11593), (102, 11686), (118, 11854), (123, 11899), (136, 11995), (153, 12070), (158, 12100), (166, 12187), (168, 12199), (176, 12268), (177, 12304), (181, 12334), (186, 12370), (193, 12418), (195, 12430), (200, 12460), (206, 12517), (207, 12526), (209, 12571), (210, 12574), (215, 12628), (224, 12712), (225, 12721), (227, 12733), (229, 12754), (235, 12805), (238, 12832), (251, 12904), (265, 13012), (268, 13051), (287, 13141), (289, 13156), (303, 13258), (307, 13288), (314, 13339), (317, 13360), (323, 13408), (324, 13411), (341, 13495), (342, 13498), (350, 13576), (363, 13651), (364, 13660), (368, 13675), (394, 13834), (399, 13852), (406, 13951), (410, 14044), (415, 14158), (416, 14176), (420, 14215), (421, 14257), (426, 14320), (427, 14332), (430, 14368), (432, 14410), (435, 14431), (441, 14527), (448, 14581), (460, 14671), (469, 14734),

Gene: Raphaella_19 Start: 10843, Stop: 14784, Start Num: 24

Candidate Starts for Raphaella_19:

(Start: 24 @10843 has 40 MA's), (29, 10882), (34, 10945), (36, 10978), (39, 11002), (41, 11008), (42, 11020), (47, 11044), (48, 11056), (49, 11074), (51, 11116), (63, 11281), (85, 11548), (87, 11554), (92,

11593), (102, 11686), (118, 11854), (123, 11899), (136, 11995), (153, 12070), (158, 12100), (166, 12187), (168, 12199), (176, 12268), (177, 12304), (181, 12334), (186, 12370), (193, 12418), (195, 12430), (200, 12460), (206, 12517), (207, 12526), (209, 12571), (210, 12574), (213, 12619), (215, 12628), (224, 12712), (225, 12721), (227, 12733), (229, 12754), (234, 12793), (235, 12805), (246, 12880), (251, 12904), (265, 13012), (268, 13051), (287, 13141), (289, 13156), (303, 13258), (307, 13288), (314, 13339), (317, 13360), (323, 13408), (324, 13411), (341, 13495), (342, 13498), (350, 13576), (363, 13651), (364, 13660), (368, 13675), (394, 13834), (399, 13852), (406, 13951), (410, 14044), (415, 14158), (416, 14176), (420, 14215), (421, 14257), (426, 14320), (427, 14332), (430, 14368), (432, 14410), (435, 14431), (441, 14527), (448, 14581), (469, 14734),

Gene: Richie_19 Start: 10858, Stop: 14799, Start Num: 24

Candidate Starts for Richie_19:

(Start: 24 @10858 has 40 MA's), (29, 10897), (34, 10960), (36, 10993), (39, 11017), (41, 11023), (42, 11035), (47, 11059), (48, 11071), (49, 11089), (51, 11131), (63, 11296), (85, 11563), (87, 11569), (92, 11608), (102, 11701), (118, 11869), (123, 11914), (136, 12010), (153, 12085), (158, 12115), (166, 12202), (168, 12214), (176, 12283), (177, 12319), (181, 12349), (186, 12385), (193, 12433), (195, 12445), (200, 12475), (206, 12532), (207, 12541), (209, 12586), (210, 12589), (213, 12634), (215, 12643), (224, 12727), (225, 12736), (227, 12748), (229, 12769), (234, 12808), (235, 12820), (246, 12895), (251, 12919), (265, 13027), (268, 13066), (287, 13156), (289, 13171), (303, 13273), (307, 13303), (314, 13354), (317, 13375), (323, 13423), (324, 13426), (341, 13510), (342, 13513), (350, 13591), (363, 13666), (364, 13675), (368, 13690), (389, 13810), (394, 13849), (399, 13867), (406, 13966), (410, 14059), (415, 14173), (416, 14191), (420, 14230), (421, 14272), (426, 14335), (427, 14347), (430, 14383), (432, 14425), (435, 14446), (441, 14542), (448, 14596), (469, 14749),

Gene: Sakai_19 Start: 10852, Stop: 14793, Start Num: 24

Candidate Starts for Sakai_19:

(Start: 24 @10852 has 40 MA's), (29, 10891), (34, 10954), (36, 10987), (39, 11011), (41, 11017), (42, 11029), (47, 11053), (48, 11065), (49, 11083), (51, 11125), (63, 11290), (85, 11557), (87, 11563), (92, 11602), (102, 11695), (118, 11863), (123, 11908), (136, 12004), (153, 12079), (158, 12109), (166, 12196), (168, 12208), (176, 12277), (177, 12313), (181, 12343), (186, 12379), (193, 12427), (195, 12439), (200, 12469), (206, 12526), (207, 12535), (209, 12580), (210, 12583), (213, 12628), (215, 12637), (224, 12721), (225, 12730), (227, 12742), (229, 12763), (234, 12802), (235, 12814), (246, 12889), (251, 12913), (265, 13021), (268, 13060), (287, 13150), (289, 13165), (303, 13267), (307, 13297), (314, 13348), (317, 13369), (323, 13417), (324, 13420), (341, 13504), (342, 13507), (350, 13585), (363, 13660), (364, 13669), (368, 13684), (389, 13804), (394, 13843), (399, 13861), (406, 13960), (410, 14053), (415, 14167), (416, 14185), (420, 14224), (421, 14266), (426, 14329), (427, 14341), (430, 14377), (432, 14419), (435, 14440), (441, 14536), (448, 14590), (469, 14743),

Gene: Sashimi_20 Start: 11112, Stop: 15146, Start Num: 16

Candidate Starts for Sashimi_20:

(Start: 16 @11112 has 2 MA's), (25, 11172), (33, 11247), (35, 11259), (38, 11310), (42, 11331), (43, 11334), (45, 11343), (49, 11385), (51, 11427), (57, 11526), (63, 11592), (64, 11598), (65, 11631), (68, 11670), (73, 11724), (74, 11730), (81, 11787), (85, 11859), (92, 11904), (93, 11913), (99, 11982), (100, 11988), (102, 11997), (105, 12024), (110, 12066), (114, 12120), (127, 12240), (130, 12255), (139, 12327), (147, 12357), (155, 12393), (170, 12522), (176, 12579), (178, 12624), (186, 12681), (189, 12702), (197, 12762), (206, 12828), (208, 12840), (209, 12882), (214, 12936), (215, 12939), (219, 12987), (227, 13044), (228, 13056), (240, 13161), (251, 13215), (259, 13275), (262, 13296), (265, 13323), (268, 13362), (289, 13467), (295, 13506), (298, 13530), (300, 13551), (303, 13569), (309, 13611), (314, 13650), (317, 13671), (320, 13695), (333, 13785), (353, 13911), (356, 13929), (359, 13938), (364, 13974), (389, 14118), (399, 14175), (412, 14400), (414, 14442), (421, 14580), (424, 14601), (430, 14691), (432, 14733), (435, 14754), (438, 14817), (445, 14880), (450, 14925), (463, 15015), (472, 15114), (474, 15132),

Gene: Satrap_19 Start: 10893, Stop: 14705, Start Num: 36

Candidate Starts for Satrap_19:

(Start: 24 @10758 has 40 MA's), (29, 10797), (31, 10818), (36, 10893), (39, 10917), (41, 10923), (43, 10938), (45, 10947), (49, 10989), (50, 10998), (51, 11031), (65, 11235), (70, 11286), (72, 11319), (85, 11463), (89, 11475), (92, 11508), (118, 11769), (120, 11781), (134, 11889), (137, 11913), (145, 11955), (150, 11976), (155, 11997), (167, 12108), (170, 12126), (178, 12228), (185, 12276), (206, 12429), (220, 12591), (224, 12624), (225, 12633), (227, 12645), (235, 12717), (237, 12738), (246, 12792), (264, 12897), (283, 12969), (285, 12972), (308, 13107), (314, 13146), (317, 13167), (350, 13386), (357, 13428), (358, 13431), (359, 13434), (364, 13470), (367, 13479), (376, 13593), (380, 13623), (392, 13734), (406, 13872), (410, 13965), (415, 14079), (416, 14097), (420, 14136), (421, 14178), (423, 14196), (427, 14253), (430, 14289), (432, 14331), (435, 14352), (436, 14364), (448, 14502), (458, 14586), (460, 14592), (466, 14640), (468, 14652),

Gene: Seahorse_20 Start: 11096, Stop: 15148, Start Num: 24

Candidate Starts for Seahorse_20:

(Start: 24 @11096 has 40 MA's), (36, 11231), (49, 11327), (51, 11369), (56, 11453), (68, 11612), (70, 11624), (77, 11696), (85, 11801), (91, 11843), (92, 11846), (110, 12008), (120, 12119), (126, 12173), (133, 12218), (136, 12248), (146, 12296), (159, 12362), (167, 12446), (171, 12479), (180, 12596), (190, 12659), (200, 12716), (206, 12767), (210, 12824), (215, 12878), (224, 12962), (264, 13253), (292, 13424), (293, 13427), (296, 13445), (312, 13565), (315, 13589), (330, 13751), (342, 13853), (350, 13931), (361, 13997), (363, 14006), (364, 14015), (387, 14138), (399, 14207), (406, 14306), (409, 14369), (410, 14399), (413, 14462), (415, 14513), (416, 14531), (420, 14570), (421, 14612), (426, 14675), (427, 14687), (430, 14723), (432, 14765), (433, 14768), (435, 14786), (448, 14936), (464, 15050), (467, 15083),

Gene: Shukran_19 Start: 10758, Stop: 14705, Start Num: 24

Candidate Starts for Shukran_19:

(Start: 24 @10758 has 40 MA's), (29, 10797), (31, 10818), (36, 10893), (39, 10917), (41, 10923), (43, 10938), (45, 10947), (49, 10989), (50, 10998), (51, 11031), (65, 11235), (70, 11286), (72, 11319), (85, 11463), (89, 11475), (92, 11508), (118, 11769), (120, 11781), (134, 11889), (137, 11913), (145, 11955), (150, 11976), (155, 11997), (167, 12108), (170, 12126), (178, 12228), (185, 12276), (206, 12429), (220, 12591), (224, 12624), (225, 12633), (227, 12645), (235, 12717), (237, 12738), (246, 12792), (264, 12897), (283, 12969), (285, 12972), (308, 13107), (314, 13146), (317, 13167), (350, 13386), (357, 13428), (358, 13431), (359, 13434), (364, 13470), (367, 13479), (376, 13593), (380, 13623), (392, 13734), (406, 13872), (410, 13965), (415, 14079), (416, 14097), (420, 14136), (421, 14178), (423, 14196), (427, 14253), (430, 14289), (432, 14331), (435, 14352), (436, 14364), (448, 14502), (458, 14586), (460, 14592), (466, 14640), (468, 14652),

Gene: SonDevVon_18 Start: 10884, Stop: 14786, Start Num: 29

Candidate Starts for SonDevVon_18:

(Start: 24 @10845 has 40 MA's), (29, 10884), (34, 10947), (36, 10980), (39, 11004), (41, 11010), (42, 11022), (47, 11046), (48, 11058), (49, 11076), (51, 11118), (63, 11283), (85, 11550), (87, 11556), (92, 11595), (102, 11688), (118, 11856), (123, 11901), (136, 11997), (153, 12072), (158, 12102), (166, 12189), (168, 12201), (176, 12270), (177, 12306), (181, 12336), (186, 12372), (193, 12420), (195, 12432), (200, 12462), (206, 12519), (207, 12528), (209, 12573), (210, 12576), (213, 12621), (215, 12630), (224, 12714), (225, 12723), (227, 12735), (229, 12756), (234, 12795), (235, 12807), (246, 12882), (251, 12906), (265, 13014), (268, 13053), (287, 13143), (289, 13158), (303, 13260), (307, 13290), (314, 13341), (317, 13362), (323, 13410), (324, 13413), (341, 13497), (342, 13500), (350, 13578), (363, 13653), (364, 13662), (368, 13677), (389, 13797), (394, 13836), (399, 13854), (406, 13953), (410, 14046), (415, 14160), (416, 14178), (419, 14208), (420, 14217), (421, 14259), (426, 14322), (427, 14334), (430, 14370), (432, 14412), (435, 14433), (436, 14445), (446, 14571), (448, 14583), (460, 14673), (469, 14736),

Gene: SpicyFrank_19 Start: 10920, Stop: 14861, Start Num: 24

Candidate Starts for SpicyFrank_19:

(Start: 24 @10920 has 40 MA's), (29, 10959), (34, 11022), (36, 11055), (39, 11079), (41, 11085), (47, 11121), (48, 11133), (49, 11151), (51, 11193), (60, 11322), (85, 11625), (92, 11670), (102, 11763), (118, 11931), (123, 11976), (153, 12147), (166, 12264), (168, 12276), (175, 12336), (176, 12345), (181, 12411), (186, 12447), (193, 12495), (195, 12507), (200, 12537), (206, 12594), (210, 12651), (215, 12705), (216, 12726), (224, 12789), (225, 12798), (227, 12810), (232, 12861), (235, 12882), (251, 12981), (265, 13089), (268, 13128), (287, 13218), (289, 13233), (303, 13335), (307, 13365), (314, 13416), (317, 13437), (323, 13485), (324, 13488), (341, 13572), (342, 13575), (350, 13653), (363, 13728), (368, 13752), (399, 13929), (406, 14028), (410, 14121), (415, 14235), (416, 14253), (420, 14292), (421, 14334), (426, 14397), (427, 14409), (430, 14445), (432, 14487), (434, 14502), (435, 14508), (448, 14658), (460, 14748), (466, 14796), (469, 14811),

Gene: Sporco_20 Start: 10900, Stop: 14841, Start Num: 24

Candidate Starts for Sporco_20:

(Start: 24 @10900 has 40 MA's), (29, 10939), (34, 11002), (36, 11035), (39, 11059), (41, 11065), (42, 11077), (47, 11101), (48, 11113), (49, 11131), (51, 11173), (63, 11338), (85, 11605), (87, 11611), (92, 11650), (102, 11743), (118, 11911), (123, 11956), (136, 12052), (153, 12127), (158, 12157), (166, 12244), (168, 12256), (176, 12325), (177, 12361), (181, 12391), (186, 12427), (193, 12475), (195, 12487), (200, 12517), (206, 12574), (207, 12583), (209, 12628), (210, 12631), (213, 12676), (215, 12685), (224, 12769), (225, 12778), (227, 12790), (229, 12811), (234, 12850), (235, 12862), (246, 12937), (251, 12961), (265, 13069), (268, 13108), (287, 13198), (289, 13213), (303, 13315), (307, 13345), (314, 13396), (317, 13417), (323, 13465), (324, 13468), (341, 13552), (342, 13555), (350, 13633), (363, 13708), (364, 13717), (368, 13732), (389, 13852), (394, 13891), (399, 13909), (406, 14008), (410, 14101), (415, 14215), (416, 14233), (420, 14272), (421, 14314), (426, 14377), (427, 14389), (430, 14425), (432, 14467), (435, 14488), (441, 14584), (448, 14638), (469, 14791),

Gene: ThayneTheZag_19 Start: 10917, Stop: 14951, Start Num: 24

Candidate Starts for ThayneTheZag_19:

(Start: 24 @10917 has 40 MA's), (29, 10956), (34, 11019), (36, 11052), (39, 11076), (41, 11082), (45, 11106), (48, 11130), (49, 11148), (51, 11190), (63, 11355), (64, 11361), (85, 11622), (92, 11667), (110, 11829), (118, 11928), (129, 12015), (153, 12144), (166, 12261), (168, 12273), (175, 12333), (181, 12408), (186, 12444), (193, 12492), (195, 12504), (200, 12534), (206, 12591), (210, 12648), (215, 12702), (224, 12786), (225, 12795), (227, 12807), (232, 12858), (235, 12879), (251, 12978), (266, 13110), (268, 13125), (287, 13215), (289, 13230), (300, 13314), (301, 13323), (303, 13332), (314, 13413), (317, 13434), (321, 13476), (328, 13527), (329, 13530), (340, 13557), (359, 13707), (361, 13725), (364, 13743), (367, 13752), (378, 13833), (390, 13926), (397, 13959), (400, 14010), (403, 14076), (407, 14139), (408, 14157), (410, 14211), (412, 14244), (415, 14325), (416, 14343), (420, 14382), (421, 14424), (426, 14487), (427, 14499), (432, 14577), (435, 14598), (439, 14682), (443, 14712), (444, 14715), (448, 14748), (449, 14757), (458, 14832), (460, 14838),

Gene: Tiff81_20 Start: 10986, Stop: 14879, Start Num: 24

Candidate Starts for Tiff81_20:

(15, 10893), (Start: 24 @10986 has 40 MA's), (36, 11121), (39, 11145), (42, 11163), (47, 11187), (48, 11199), (49, 11217), (50, 11226), (51, 11259), (52, 11265), (56, 11343), (63, 11424), (65, 11463), (72, 11547), (74, 11562), (78, 11595), (88, 11700), (96, 11787), (101, 11820), (103, 11856), (122, 12039), (130, 12087), (136, 12138), (137, 12141), (155, 12225), (162, 12312), (165, 12321), (186, 12522), (187, 12531), (194, 12579), (197, 12600), (198, 12603), (208, 12675), (216, 12795), (224, 12837), (235, 12888), (256, 13014), (288, 13152), (297, 13215), (299, 13236), (313, 13326), (331, 13461), (341, 13500), (345, 13536), (350, 13578), (353, 13599), (356, 13617), (360, 13641), (363, 13653), (364, 13662), (368, 13677), (388, 13881), (389, 13890), (404, 14013), (405, 14040), (406, 14046), (410, 14139), (415, 14253), (419, 14301), (420, 14310), (421, 14352), (426, 14415), (427, 14427), (430, 14463), (432, 14505), (434, 14520), (435, 14526), (436, 14538), (441, 14622), (448, 14676),

(449, 14685), (460, 14766), (470, 14829),

Gene: TripleJ_18 Start: 11061, Stop: 15446, Start Num: 7

Candidate Starts for TripleJ_18:

(4, 10983), (Start: 7 @11061 has 1 MA's), (9, 11121), (11, 11184), (12, 11196), (13, 11238), (22, 11331), (33, 11448), (49, 11586), (50, 11595), (51, 11628), (57, 11727), (63, 11793), (65, 11832), (68, 11871), (72, 11916), (73, 11925), (74, 11931), (77, 11955), (85, 12060), (92, 12105), (96, 12156), (104, 12216), (108, 12252), (110, 12267), (114, 12321), (133, 12477), (139, 12528), (155, 12594), (177, 12816), (178, 12825), (184, 12864), (186, 12882), (188, 12894), (189, 12903), (197, 12963), (205, 13017), (206, 13029), (207, 13038), (215, 13140), (221, 13209), (226, 13242), (227, 13245), (259, 13476), (268, 13563), (270, 13569), (273, 13575), (289, 13668), (294, 13701), (303, 13770), (310, 13815), (314, 13851), (317, 13872), (333, 13986), (348, 14082), (353, 14112), (356, 14130), (359, 14139), (366, 14181), (382, 14352), (385, 14361), (393, 14451), (399, 14469), (412, 14694), (414, 14736), (417, 14796), (421, 14874), (424, 14895), (428, 14964), (430, 14985), (432, 15027), (435, 15048), (438, 15111), (442, 15150), (448, 15201), (453, 15240), (463, 15315), (472, 15414), (474, 15432),

Gene: Vopal_20 Start: 10915, Stop: 14856, Start Num: 24

Candidate Starts for Vopal_20:

(Start: 24 @10915 has 40 MA's), (29, 10954), (34, 11017), (36, 11050), (39, 11074), (41, 11080), (42, 11092), (47, 11116), (48, 11128), (49, 11146), (51, 11188), (63, 11353), (85, 11620), (87, 11626), (92, 11665), (102, 11758), (118, 11926), (123, 11971), (136, 12067), (153, 12142), (158, 12172), (166, 12259), (168, 12271), (176, 12340), (177, 12376), (181, 12406), (186, 12442), (193, 12490), (195, 12502), (200, 12532), (206, 12589), (207, 12598), (209, 12643), (210, 12646), (213, 12691), (215, 12700), (224, 12784), (225, 12793), (227, 12805), (229, 12826), (234, 12865), (235, 12877), (246, 12952), (251, 12976), (265, 13084), (268, 13123), (287, 13213), (289, 13228), (303, 13330), (307, 13360), (314, 13411), (317, 13432), (323, 13480), (324, 13483), (341, 13567), (342, 13570), (350, 13648), (363, 13723), (364, 13732), (368, 13747), (389, 13867), (394, 13906), (399, 13924), (406, 14023), (410, 14116), (415, 14230), (416, 14248), (420, 14287), (421, 14329), (426, 14392), (427, 14404), (430, 14440), (432, 14482), (435, 14503), (441, 14599), (448, 14653), (469, 14806),

Gene: Windest_20 Start: 10899, Stop: 14840, Start Num: 24

Candidate Starts for Windest_20:

(Start: 24 @10899 has 40 MA's), (29, 10938), (34, 11001), (36, 11034), (39, 11058), (41, 11064), (42, 11076), (47, 11100), (48, 11112), (49, 11130), (51, 11172), (63, 11337), (85, 11604), (87, 11610), (92, 11649), (102, 11742), (118, 11910), (123, 11955), (136, 12051), (153, 12126), (158, 12156), (166, 12243), (168, 12255), (176, 12324), (177, 12360), (181, 12390), (186, 12426), (193, 12474), (195, 12486), (200, 12516), (206, 12573), (207, 12582), (209, 12627), (210, 12630), (213, 12675), (215, 12684), (224, 12768), (225, 12777), (227, 12789), (229, 12810), (234, 12849), (235, 12861), (246, 12936), (251, 12960), (265, 13068), (268, 13107), (287, 13197), (289, 13212), (303, 13314), (307, 13344), (314, 13395), (317, 13416), (323, 13464), (324, 13467), (341, 13551), (342, 13554), (350, 13632), (363, 13707), (364, 13716), (368, 13731), (389, 13851), (394, 13890), (399, 13908), (406, 14007), (410, 14100), (415, 14214), (416, 14232), (420, 14271), (421, 14313), (426, 14376), (427, 14388), (430, 14424), (432, 14466), (435, 14487), (441, 14583), (448, 14637), (460, 14727), (469, 14790),

Gene: YoungHarleezy_19 Start: 10856, Stop: 14797, Start Num: 24

Candidate Starts for YoungHarleezy_19:

(Start: 24 @10856 has 40 MA's), (29, 10895), (31, 10916), (34, 10958), (36, 10991), (39, 11015), (41, 11021), (42, 11033), (48, 11069), (49, 11087), (51, 11129), (63, 11294), (85, 11561), (87, 11567), (92, 11606), (102, 11699), (118, 11867), (123, 11912), (136, 12008), (153, 12083), (158, 12113), (166, 12200), (168, 12212), (176, 12281), (177, 12317), (181, 12347), (186, 12383), (193, 12431), (195, 12443), (200, 12473), (206, 12530), (207, 12539), (209, 12584), (210, 12587), (213, 12632), (215,

12641), (224, 12725), (225, 12734), (227, 12746), (229, 12767), (234, 12806), (235, 12818), (246, 12893), (251, 12917), (265, 13025), (268, 13064), (287, 13154), (289, 13169), (303, 13271), (307, 13301), (314, 13352), (317, 13373), (323, 13421), (324, 13424), (341, 13508), (342, 13511), (350, 13589), (363, 13664), (364, 13673), (368, 13688), (389, 13808), (394, 13847), (399, 13865), (406, 13964), (410, 14057), (415, 14171), (416, 14189), (420, 14228), (421, 14270), (426, 14333), (427, 14345), (430, 14381), (432, 14423), (435, 14444), (441, 14540), (448, 14594), (469, 14747),