

Zoomed Pham 200332

1: CookieBear_14	51	788	94	1012	124	1416	166	193	220	247	274	301	328	355	382	370	374
2: Sashimi_20	51	788	94	1012	124	1416	166	193	220	247	274	301	328	355	382	370	374
3: Globfish_19	51	788	94	1012	124	1416	166	193	220	247	274	301	328	355	382	370	374
4: Shukran_19	51	788	94	1012	124	1416	166	193	220	247	274	301	328	355	382	370	374
5: MaterMagnus_19	54	788	94	1012	124	1416	166	193	220	247	274	301	328	355	382	370	374
6: Hestia_19	52	788	94	1012	124	1416	166	193	220	247	274	301	328	355	382	370	374
7: Tiff81_21	53	788	94	1012	124	1416	166	193	220	247	274	301	328	355	382	370	374
8: ThayneTheZag	59	788	94	1012	124	1416	166	193	220	247	274	301	328	355	382	370	374
9: Anekin_18	51	788	94	1012	124	1416	166	193	220	247	274	301	328	355	382	370	374
10: Hillester_16	52	788	94	1012	124	1416	166	193	220	247	274	301	328	355	382	370	374
11: Phrank15_18	51	788	94	1012	124	1416	166	193	220	247	274	301	328	355	382	370	374
12: BlueShadow_10	52	788	94	1012	124	1416	166	193	220	247	274	301	328	355	382	370	374
13: BillyTP_19	51	788	94	1012	124	1416	166	193	220	247	274	301	328	355	382	370	374
14: EvePickles11	51	788	94	1012	124	1416	166	193	220	247	274	301	328	355	382	370	374
15: Raphaela_19	52	788	94	1012	124	1416	166	193	220	247	274	301	328	355	382	370	374
16: Seahorse_20	55	788	94	1012	124	1416	166	193	220	247	274	301	328	355	382	370	374
17: SpicyFrank_1	88	788	94	1012	124	1416	166	193	220	247	274	301	328	355	382	370	374
18: Isolde_19	53	788	94	1012	124	1416	166	193	220	247	274	301	328	355	382	370	374
19: Faja_19	53	788	94	1012	124	1416	166	193	220	247	274	301	328	355	382	370	374
20: Bhageatrice_11	59	788	94	1012	124	1416	166	193	220	247	274	301	328	355	382	370	374
21: Persistence_1	51	788	94	1012	124	1416	166	193	220	247	274	301	328	355	382	370	374
22: YoungHarlee_13	51	788	94	1012	124	1416	166	193	220	247	274	301	328	355	382	370	374
23: MidnightRain_1	51	788	94	1012	124	1416	166	193	220	247	274	301	328	355	382	370	374
24: BenchScrape_1	51	788	94	1012	124	1416	166	193	220	247	274	301	328	355	382	370	374
25: Windest_20	52	788	94	1012	124	1416	166	193	220	247	274	301	328	355	382	370	374
26: PeggyLeg03_18	52	788	94	1012	124	1416	166	193	220	247	274	301	328	355	382	370	374
27: KayMoney_14+1	52	788	94	1012	124	1416	166	193	220	247	274	301	328	355	382	370	374
28: Bridgette_18	52	788	94	1012	124	1416	166	193	220	247	274	301	328	355	382	370	374
29: Eileen_18+	52	788	94	1012	124	1416	166	193	220	247	274	301	328	355	382	370	374
30: GlobiWarming_18	52	788	94	1012	124	1416	166	193	220	247	274	301	328	355	382	370	374
31: Karkhanas_14	52	788	94	1012	124	1416	166	193	220	247	274	301	328	355	382	370	374
32: Constance_14	52	788	94	1012	124	1416	166	193	220	247	274	301	328	355	382	370	374
33: FosterFrank_18	52	788	94	1012	124	1416	166	193	220	247	274	301	328	355	382	370	374
34: Judy_19	52	788	94	1012	124	1416	166	193	220	247	274	301	328	355	382	370	374
35: HotPotato_15	52	788	94	1012	124	1416	166	193	220	247	274	301	328	355	382	370	374
36: Pucara_18	53	788	94	1012	124	1416	166	193	220	247	274	301	328	355	382	370	374
37: Giffiths_1	53	788	94	1012	124	1416	166	193	220	247	274	301	328	355	382	370	374
38: TripleJ_1	52	788	94	1012	124	1416	166	193	220	247	274	301	328	355	382	370	374
39: Kukia_1	52	788	94	1012	124	1416	166	193	220	247	274	301	328	355	382	370	374
40: Pitbull_16	52	788	94	1012	124	1416	166	193	220	247	274	301	328	355	382	370	374
41: Hum25_17	52	788	94	1012	124	1416	166	193	220	247	274	301	328	355	382	370	374
42: Footloose_11	52	788	94	1012	124	1416	166	193	220	247	274	301	328	355	382	370	374

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 200332 Report

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

Pham number 200332 has 53 members, 22 are drafts.

Phages represented in each track:

- Track 1 : CookieBear_20, AdaS_19, Vopal_20, Sakai_19, Richie_19, Auxilium_19, Gorpy_19
- Track 2 : Sashimi_20
- Track 3 : Globfish_19
- Track 4 : Shukran_19
- Track 5 : MaterMagnus_19, Aikyam_19
- Track 6 : Hestia_19
- Track 7 : Tiff81_21
- Track 8 : ThayneTheZag_19
- Track 9 : Anekin_18
- Track 10 : Hillester_19, RadFad_19
- Track 11 : Phrank15_18
- Track 12 : BlueShadow_20
- Track 13 : BillyTP_19, Lawnathon_19
- Track 14 : EvePickles_19
- Track 15 : Raphaella_19
- Track 16 : Seahorse_20
- Track 17 : SpicyFrank_19
- Track 18 : Isolde_19
- Track 19 : Faja_19
- Track 20 : Bhageatrice_21
- Track 21 : Persistence_18
- Track 22 : YoungHarleezy_19
- Track 23 : MidnightRain_19
- Track 24 : BenchScraper_19
- Track 25 : Windest_20
- Track 26 : PeggyLeg03_18
- Track 27 : KayMoney_18, ChuckDuck_18
- Track 28 : Bridgette_18
- Track 29 : Eileen_18, Peas_18
- Track 30 : GlobiWarming_18
- Track 31 : Karkharias_18
- Track 32 : Constance_18
- Track 33 : FosterFrank_18
- Track 34 : Judy_19
- Track 35 : HotPotato_18
- Track 36 : Pucara_18

- Track 37 : GUPitcher_17
- Track 38 : TripleJ_18
- Track 39 : Kukla_17
- Track 40 : Pitbull_16
- Track 41 : Hum25_17
- Track 42 : 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 24 of the 31 non-draft genes in the pham.

Genes that call this "Most Annotated" start:

- AdaS_19, Aikyam_19, Anekin_18, Auxilium_19, BenchScraper_19, Bhageatrice_21, BillyTP_19, BlueShadow_20, Bridgette_18, ChuckDuck_18, Constance_18, CookieBear_20, Eileen_18, FosterFrank_18, Globfish_19, GlobiWarming_18, Gorpy_19, Hestia_19, Hillester_19, HotPotato_18, Isolde_19, Judy_19, Karkharias_18, KayMoney_18, Lawnathon_19, MaterMagnus_19, MidnightRain_19, Peas_18, PeggyLeg03_18, Persistence_18, Phrank15_18, Pucara_18, RadFad_19, Raphaella_19, Richie_19, Sakai_19, Seahorse_20, Shukran_19, SpicyFrank_19, ThayneTheZag_19, Tiff81_21, Vopal_20, Windest_20, YoungHarleezy_19,

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

-

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

- EvePickles_19, Faja_19, Footloose_17, GUPitcher_17, Hum25_17, Kukla_17, Pitbull_16, Sashimi_20, TripleJ_18,

Summary by start number:

Start 7:

- Found in 2 of 53 (3.8%) of genes in pham
- Manual Annotations of this start: 1 of 31
- Called 100.0% of time when present
- Phage (with cluster) where this start called: GUPitcher_17 (FJ), TripleJ_18 (FJ),

Start 17:

- Found in 4 of 53 (7.5%) of genes in pham
- Manual Annotations of this start: 3 of 31
- Called 100.0% of time when present
- Phage (with cluster) where this start called: EvePickles_19 (AY), Faja_19 (AY), Kukla_17 (FJ), Sashimi_20 (AY),

Start 18:

- Found in 2 of 53 (3.8%) of genes in pham
- Manual Annotations of this start: 2 of 31
- Called 100.0% of time when present
- Phage (with cluster) where this start called: Hum25_17 (FQ), Pitbull_16 (FQ),

Start 20:

- Found in 1 of 53 (1.9%) of genes in pham
- Manual Annotations of this start: 1 of 31
- Called 100.0% of time when present
- Phage (with cluster) where this start called: Footloose_17 (singleton),

Start 24:

- Found in 44 of 53 (83.0%) of genes in pham
- Manual Annotations of this start: 24 of 31
- Called 100.0% of time when present
- Phage (with cluster) where this start called: AdaS_19 (AY), Aikyam_19 (AY), Anekin_18 (AY), Auxilium_19 (AY), BenchScraper_19 (AY), Bhageatrice_21 (AY), BillyTP_19 (AY), BlueShadow_20 (AY), Bridgette_18 (FA), ChuckDuck_18 (FA), Constance_18 (FA), CookieBear_20 (AY), Eileen_18 (FA), FosterFrank_18 (FA), Globfish_19 (AY), GlobiWarming_18 (FA), Gorpy_19 (AY), Hestia_19 (AY), Hillester_19 (AY), HotPotato_18 (FA), Isolde_19 (AY), Judy_19 (FA), Karkharias_18 (FA), KayMoney_18 (FA), Lawnathon_19 (AY), MaterMagnus_19 (AY), MidnightRain_19 (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), ThayneTheZag_19 (AY), Tiff81_21 (AY), Vopal_20 (AY), Windest_20 (AY), YoungHarleezy_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 17 was manually annotated 2 times for cluster AY.
- Start number 24 was manually annotated 15 times for cluster AY.

Info for manual annotations of cluster FA:

- Start number 24 was manually annotated 9 times for cluster FA.

Info for manual annotations of cluster FJ:

- Start number 7 was manually annotated 1 time for cluster FJ.
- Start number 17 was manually annotated 1 time for cluster FJ.

Info for manual annotations of cluster FQ:

- Start number 18 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 24 MA's), (28, 10882), (32, 10945), (34, 10978), (36, 11002), (38, 11008), (39, 11020), (44, 11044), (45, 11056), (46, 11074), (48, 11116), (57, 11281), (76, 11548), (78, 11554), (83, 11593), (94, 11686), (107, 11854), (112, 11899), (124, 11995), (141, 12070), (146, 12100), (154, 12187), (156, 12199), (165, 12268), (166, 12304), (169, 12334), (175, 12370), (180, 12418), (182, 12430), (186, 12460), (194, 12517), (195, 12526), (197, 12571), (198, 12574), (201, 12619), (203, 12628), (211, 12712), (212, 12721), (214, 12733), (216, 12754), (222, 12793), (223, 12805), (231,

12880), (236, 12904), (246, 13012), (248, 13051), (264, 13141), (267, 13156), (283, 13258), (287, 13288), (292, 13339), (294, 13360), (298, 13408), (299, 13411), (312, 13495), (313, 13498), (321, 13576), (333, 13651), (334, 13660), (338, 13675), (356, 13795), (361, 13834), (363, 13852), (370, 13951), (374, 14044), (379, 14158), (380, 14176), (384, 14215), (385, 14257), (390, 14320), (391, 14332), (394, 14368), (396, 14410), (399, 14431), (406, 14527), (412, 14581), (429, 14734),

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

Candidate Starts for Aikyam_19:

(Start: 24 @10844 has 24 MA's), (28, 10883), (32, 10946), (34, 10979), (36, 11003), (38, 11009), (39, 11021), (44, 11045), (45, 11057), (46, 11075), (48, 11117), (57, 11282), (76, 11549), (78, 11555), (83, 11594), (94, 11687), (107, 11855), (112, 11900), (124, 11996), (141, 12071), (146, 12101), (154, 12188), (156, 12200), (165, 12269), (166, 12305), (169, 12335), (175, 12371), (180, 12419), (182, 12431), (186, 12461), (194, 12518), (195, 12527), (197, 12572), (198, 12575), (203, 12629), (211, 12713), (212, 12722), (214, 12734), (216, 12755), (223, 12806), (236, 12905), (246, 13013), (248, 13052), (264, 13142), (267, 13157), (283, 13259), (287, 13289), (292, 13340), (294, 13361), (298, 13409), (299, 13412), (312, 13496), (313, 13499), (321, 13577), (333, 13652), (334, 13661), (338, 13676), (356, 13796), (361, 13835), (363, 13853), (370, 13952), (374, 14045), (379, 14159), (380, 14177), (384, 14216), (385, 14258), (390, 14321), (391, 14333), (394, 14369), (396, 14411), (399, 14432), (406, 14528), (412, 14582), (421, 14672), (429, 14735),

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

Candidate Starts for Anekin_18:

(Start: 24 @10911 has 24 MA's), (30, 10971), (34, 11046), (36, 11070), (38, 11076), (43, 11106), (44, 11112), (46, 11142), (48, 11184), (59, 11388), (63, 11439), (76, 11616), (77, 11619), (80, 11628), (83, 11661), (107, 11922), (119, 12012), (121, 12033), (122, 12042), (125, 12066), (133, 12108), (138, 12129), (143, 12150), (155, 12261), (158, 12279), (164, 12327), (166, 12372), (167, 12381), (174, 12429), (179, 12474), (194, 12582), (203, 12693), (206, 12741), (211, 12777), (214, 12798), (223, 12870), (247, 13017), (252, 13050), (267, 13116), (268, 13122), (269, 13125), (276, 13176), (288, 13260), (292, 13299), (294, 13320), (321, 13539), (324, 13560), (330, 13587), (332, 13605), (333, 13614), (376, 14040), (377, 14070), (379, 14121), (384, 14178), (385, 14220), (390, 14283), (391, 14295), (396, 14373), (399, 14394), (403, 14478), (410, 14532), (412, 14544), (419, 14628), (421, 14634),

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

Candidate Starts for Auxilium_19:

(Start: 24 @10843 has 24 MA's), (28, 10882), (32, 10945), (34, 10978), (36, 11002), (38, 11008), (39, 11020), (44, 11044), (45, 11056), (46, 11074), (48, 11116), (57, 11281), (76, 11548), (78, 11554), (83, 11593), (94, 11686), (107, 11854), (112, 11899), (124, 11995), (141, 12070), (146, 12100), (154, 12187), (156, 12199), (165, 12268), (166, 12304), (169, 12334), (175, 12370), (180, 12418), (182, 12430), (186, 12460), (194, 12517), (195, 12526), (197, 12571), (198, 12574), (201, 12619), (203, 12628), (211, 12712), (212, 12721), (214, 12733), (216, 12754), (222, 12793), (223, 12805), (231, 12880), (236, 12904), (246, 13012), (248, 13051), (264, 13141), (267, 13156), (283, 13258), (287, 13288), (292, 13339), (294, 13360), (298, 13408), (299, 13411), (312, 13495), (313, 13498), (321, 13576), (333, 13651), (334, 13660), (338, 13675), (356, 13795), (361, 13834), (363, 13852), (370, 13951), (374, 14044), (379, 14158), (380, 14176), (384, 14215), (385, 14257), (390, 14320), (391, 14332), (394, 14368), (396, 14410), (399, 14431), (406, 14527), (412, 14581), (429, 14734),

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

Candidate Starts for BenchScraper_19:

(Start: 24 @10858 has 24 MA's), (28, 10897), (32, 10960), (34, 10993), (36, 11017), (38, 11023), (39, 11035), (44, 11059), (45, 11071), (46, 11089), (48, 11131), (57, 11296), (76, 11563), (78, 11569), (83, 11608), (94, 11701), (107, 11869), (112, 11914), (124, 12010), (141, 12085), (154, 12202), (156, 12214), (165, 12283), (166, 12319), (169, 12349), (175, 12385), (180, 12433), (182, 12445), (186,

12475), (194, 12532), (195, 12541), (197, 12586), (198, 12589), (203, 12643), (211, 12727), (212, 12736), (214, 12748), (216, 12769), (223, 12820), (236, 12919), (246, 13027), (248, 13066), (264, 13156), (267, 13171), (283, 13273), (287, 13303), (292, 13354), (294, 13375), (298, 13423), (299, 13426), (312, 13510), (313, 13513), (321, 13591), (333, 13666), (334, 13675), (338, 13690), (356, 13810), (361, 13849), (363, 13867), (370, 13966), (374, 14059), (379, 14173), (380, 14191), (384, 14230), (385, 14272), (390, 14335), (391, 14347), (394, 14383), (396, 14425), (399, 14446), (406, 14542), (412, 14596), (421, 14686), (429, 14749),

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

Candidate Starts for Bhageatrice_21:

(Start: 24 @12043 has 24 MA's), (34, 12178), (46, 12274), (48, 12316), (53, 12415), (56, 12463), (61, 12559), (63, 12571), (69, 12643), (76, 12748), (82, 12790), (83, 12793), (89, 12865), (101, 12955), (115, 13120), (121, 13165), (124, 13195), (134, 13243), (155, 13393), (159, 13426), (170, 13543), (179, 13606), (187, 13663), (194, 13714), (198, 13771), (203, 13825), (211, 13909), (233, 14098), (243, 14200), (262, 14374), (267, 14392), (274, 14437), (278, 14455), (286, 14512), (310, 14770), (321, 14866), (332, 14932), (333, 14941), (339, 14968), (347, 15028), (363, 15142), (370, 15241), (374, 15334), (379, 15448), (380, 15466), (384, 15505), (385, 15547), (390, 15610), (391, 15622), (394, 15658), (396, 15700), (398, 15715), (399, 15721), (403, 15805), (406, 15817), (412, 15871), (421, 15961), (429, 16024),

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

Candidate Starts for BillyTP_19:

(Start: 24 @10765 has 24 MA's), (34, 10900), (36, 10924), (38, 10930), (44, 10966), (45, 10978), (46, 10996), (47, 11005), (48, 11038), (49, 11044), (52, 11122), (57, 11203), (59, 11242), (65, 11326), (66, 11335), (67, 11341), (69, 11365), (70, 11374), (77, 11473), (79, 11479), (87, 11566), (92, 11599), (97, 11635), (111, 11818), (117, 11854), (119, 11866), (124, 11917), (143, 12004), (150, 12091), (166, 12232), (175, 12301), (176, 12310), (181, 12358), (184, 12379), (185, 12382), (196, 12454), (199, 12517), (209, 12601), (211, 12616), (222, 12655), (227, 12712), (260, 12907), (270, 12952), (279, 13015), (292, 13117), (294, 13138), (321, 13360), (332, 13426), (333, 13435), (343, 13501), (360, 13597), (363, 13636), (368, 13702), (374, 13828), (379, 13942), (380, 13960), (383, 13990), (384, 13999), (385, 14041), (390, 14104), (391, 14116), (394, 14152), (396, 14194), (399, 14215), (400, 14227), (410, 14353), (412, 14365), (419, 14449), (421, 14455), (431, 14548),

Gene: BlueShadow_20 Start: 10843, Stop: 14784, Start Num: 24

Candidate Starts for BlueShadow_20:

(Start: 24 @10843 has 24 MA's), (28, 10882), (32, 10945), (34, 10978), (36, 11002), (38, 11008), (39, 11020), (44, 11044), (45, 11056), (46, 11074), (48, 11116), (57, 11281), (76, 11548), (78, 11554), (83, 11593), (94, 11686), (107, 11854), (112, 11899), (124, 11995), (141, 12070), (146, 12100), (154, 12187), (156, 12199), (165, 12268), (166, 12304), (169, 12334), (175, 12370), (180, 12418), (182, 12430), (186, 12460), (194, 12517), (195, 12526), (197, 12571), (198, 12574), (201, 12619), (203, 12628), (211, 12712), (212, 12721), (214, 12733), (216, 12754), (222, 12793), (223, 12805), (231, 12880), (236, 12904), (246, 13012), (248, 13051), (264, 13141), (267, 13156), (283, 13258), (287, 13288), (292, 13339), (294, 13360), (298, 13408), (299, 13411), (312, 13495), (313, 13498), (321, 13576), (333, 13651), (334, 13660), (338, 13675), (361, 13834), (363, 13852), (370, 13951), (374, 14044), (379, 14158), (380, 14176), (384, 14215), (385, 14257), (390, 14320), (391, 14332), (394, 14368), (396, 14410), (399, 14431), (406, 14527), (412, 14581), (421, 14671), (429, 14734),

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

Candidate Starts for Bridgette_18:

(Start: 24 @10928 has 24 MA's), (34, 11063), (36, 11087), (38, 11093), (44, 11129), (45, 11141), (46, 11159), (47, 11168), (48, 11201), (49, 11207), (52, 11285), (57, 11366), (59, 11405), (65, 11489), (67, 11504), (69, 11528), (70, 11537), (79, 11642), (86, 11723), (87, 11729), (89, 11750), (95, 11792), (98, 11819), (103, 11909), (111, 12002), (119, 12050), (143, 12188), (150, 12275), (153, 12284), (175,

12485), (176, 12494), (181, 12542), (184, 12563), (185, 12566), (196, 12638), (199, 12701), (223, 12851), (241, 12977), (266, 13115), (275, 13166), (276, 13178), (279, 13199), (291, 13289), (307, 13424), (312, 13463), (316, 13499), (321, 13541), (324, 13562), (327, 13580), (333, 13616), (334, 13625), (338, 13640), (356, 13853), (369, 14003), (370, 14009), (374, 14102), (379, 14216), (380, 14234), (383, 14264), (384, 14273), (385, 14315), (390, 14378), (391, 14390), (396, 14468), (399, 14489), (400, 14501), (410, 14627), (412, 14639), (420, 14726), (424, 14744),

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

Candidate Starts for ChuckDuck_18:

(Start: 24 @10884 has 24 MA's), (34, 11019), (36, 11043), (37, 11046), (38, 11049), (44, 11085), (45, 11097), (46, 11115), (47, 11124), (48, 11157), (49, 11163), (52, 11241), (57, 11322), (59, 11361), (65, 11445), (66, 11454), (67, 11460), (69, 11484), (70, 11493), (77, 11592), (79, 11598), (87, 11685), (92, 11718), (97, 11754), (111, 11937), (117, 11973), (119, 11985), (124, 12036), (143, 12123), (150, 12210), (153, 12219), (166, 12351), (175, 12420), (176, 12429), (181, 12477), (184, 12498), (185, 12501), (196, 12573), (199, 12636), (209, 12720), (211, 12735), (222, 12774), (227, 12831), (232, 12864), (260, 13026), (270, 13071), (279, 13134), (292, 13236), (294, 13257), (321, 13479), (333, 13554), (343, 13620), (360, 13716), (363, 13755), (368, 13821), (374, 13947), (379, 14061), (380, 14079), (383, 14109), (384, 14118), (385, 14160), (390, 14223), (391, 14235), (394, 14271), (396, 14313), (399, 14334), (408, 14451), (412, 14484), (413, 14493), (419, 14568), (421, 14574),

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

Candidate Starts for Constance_18:

(Start: 24 @10931 has 24 MA's), (34, 11066), (36, 11090), (38, 11096), (44, 11132), (45, 11144), (46, 11162), (47, 11171), (48, 11204), (49, 11210), (52, 11288), (57, 11369), (59, 11408), (65, 11492), (69, 11531), (70, 11540), (79, 11645), (86, 11726), (87, 11732), (92, 11765), (97, 11801), (119, 12032), (143, 12170), (153, 12266), (175, 12467), (176, 12476), (181, 12524), (184, 12545), (185, 12548), (196, 12620), (211, 12782), (223, 12833), (241, 12959), (266, 13097), (276, 13160), (279, 13181), (291, 13271), (307, 13406), (312, 13445), (316, 13481), (321, 13523), (327, 13562), (331, 13586), (333, 13598), (334, 13607), (338, 13622), (353, 13826), (356, 13835), (368, 13958), (369, 13985), (370, 13991), (371, 14012), (374, 14084), (379, 14198), (383, 14246), (384, 14255), (385, 14297), (390, 14360), (391, 14372), (394, 14408), (396, 14450), (399, 14471), (400, 14483), (406, 14567), (412, 14621), (418, 14702), (420, 14708), (423, 14723), (424, 14726), (427, 14762),

Gene: CookieBear_20 Start: 10843, Stop: 14784, Start Num: 24

Candidate Starts for CookieBear_20:

(Start: 24 @10843 has 24 MA's), (28, 10882), (32, 10945), (34, 10978), (36, 11002), (38, 11008), (39, 11020), (44, 11044), (45, 11056), (46, 11074), (48, 11116), (57, 11281), (76, 11548), (78, 11554), (83, 11593), (94, 11686), (107, 11854), (112, 11899), (124, 11995), (141, 12070), (146, 12100), (154, 12187), (156, 12199), (165, 12268), (166, 12304), (169, 12334), (175, 12370), (180, 12418), (182, 12430), (186, 12460), (194, 12517), (195, 12526), (197, 12571), (198, 12574), (201, 12619), (203, 12628), (211, 12712), (212, 12721), (214, 12733), (216, 12754), (222, 12793), (223, 12805), (231, 12880), (236, 12904), (246, 13012), (248, 13051), (264, 13141), (267, 13156), (283, 13258), (287, 13288), (292, 13339), (294, 13360), (298, 13408), (299, 13411), (312, 13495), (313, 13498), (321, 13576), (333, 13651), (334, 13660), (338, 13675), (356, 13795), (361, 13834), (363, 13852), (370, 13951), (374, 14044), (379, 14158), (380, 14176), (384, 14215), (385, 14257), (390, 14320), (391, 14332), (394, 14368), (396, 14410), (399, 14431), (406, 14527), (412, 14581), (429, 14734),

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

Candidate Starts for Eileen_18:

(Start: 24 @10892 has 24 MA's), (34, 11027), (36, 11051), (38, 11057), (44, 11093), (45, 11105), (46, 11123), (47, 11132), (48, 11165), (49, 11171), (52, 11249), (57, 11330), (59, 11369), (65, 11453), (67, 11468), (70, 11501), (79, 11606), (87, 11693), (92, 11726), (97, 11762), (111, 11945), (119, 11993), (124, 12044), (125, 12047), (131, 12083), (132, 12086), (143, 12131), (150, 12218), (166, 12359),

(175, 12428), (176, 12437), (181, 12485), (184, 12506), (185, 12509), (196, 12581), (199, 12644), (211, 12743), (223, 12794), (241, 12920), (266, 13058), (275, 13109), (276, 13121), (279, 13142), (291, 13232), (307, 13367), (312, 13406), (316, 13442), (321, 13484), (324, 13505), (327, 13523), (331, 13547), (333, 13559), (334, 13568), (338, 13583), (356, 13796), (369, 13946), (370, 13952), (374, 14045), (379, 14159), (380, 14177), (383, 14207), (384, 14216), (385, 14258), (390, 14321), (391, 14333), (394, 14369), (396, 14411), (399, 14432), (400, 14444), (410, 14570), (412, 14582), (420, 14669), (424, 14687),

Gene: EvePickles_19 Start: 11006, Stop: 15145, Start Num: 17

Candidate Starts for EvePickles_19:

(16, 10994), (Start: 17 @11006 has 3 MA's), (19, 11024), (25, 11066), (32, 11150), (46, 11279), (48, 11321), (53, 11420), (57, 11486), (60, 11555), (61, 11564), (66, 11618), (69, 11648), (74, 11693), (76, 11753), (77, 11756), (83, 11798), (92, 11882), (97, 11918), (121, 12170), (127, 12221), (130, 12233), (143, 12287), (153, 12383), (154, 12392), (163, 12458), (172, 12545), (180, 12617), (188, 12659), (195, 12710), (205, 12851), (211, 12896), (219, 12953), (236, 13088), (237, 13094), (239, 13136), (240, 13148), (245, 13187), (248, 13235), (264, 13325), (267, 13340), (272, 13373), (283, 13442), (287, 13472), (289, 13487), (292, 13523), (294, 13544), (296, 13568), (301, 13601), (304, 13637), (305, 13640), (314, 13694), (327, 13808), (330, 13817), (332, 13835), (340, 13898), (349, 14054), (350, 14060), (363, 14168), (373, 14330), (376, 14393), (378, 14435), (382, 14513), (385, 14573), (386, 14582), (388, 14594), (389, 14618), (392, 14663), (394, 14684), (396, 14726), (399, 14747), (402, 14810), (404, 14843), (411, 14900), (415, 14939), (416, 14969), (422, 15014), (430, 15113), (432, 15131),

Gene: Faja_19 Start: 10995, Stop: 15041, Start Num: 17

Candidate Starts for Faja_19:

(Start: 17 @10995 has 3 MA's), (25, 11055), (31, 11130), (33, 11142), (35, 11193), (39, 11214), (40, 11217), (42, 11226), (46, 11268), (48, 11310), (50, 11319), (53, 11409), (56, 11457), (57, 11475), (58, 11481), (59, 11514), (61, 11553), (66, 11607), (67, 11613), (73, 11670), (76, 11742), (83, 11787), (84, 11796), (90, 11865), (92, 11871), (94, 11880), (97, 11907), (101, 11949), (104, 12003), (118, 12135), (119, 12138), (121, 12159), (124, 12189), (127, 12210), (130, 12222), (143, 12276), (149, 12345), (158, 12405), (165, 12462), (167, 12507), (175, 12564), (178, 12585), (194, 12711), (196, 12723), (202, 12819), (203, 12822), (206, 12870), (214, 12927), (227, 13044), (236, 13098), (240, 13158), (246, 13206), (248, 13245), (251, 13257), (267, 13350), (273, 13389), (277, 13413), (279, 13431), (280, 13434), (283, 13452), (288, 13494), (292, 13533), (294, 13554), (296, 13578), (309, 13668), (324, 13794), (327, 13812), (335, 13860), (336, 13863), (345, 13920), (350, 13962), (363, 14070), (366, 14103), (376, 14295), (378, 14337), (382, 14415), (385, 14475), (388, 14496), (394, 14586), (396, 14628), (399, 14649), (402, 14712), (408, 14775), (414, 14820), (422, 14910), (430, 15009), (432, 15027),

Gene: Footloose_17 Start: 10035, Stop: 12830, Start Num: 20

Candidate Starts for Footloose_17:

(Start: 20 @10035 has 1 MA's), (23, 10056), (26, 10068), (30, 10116), (38, 10218), (48, 10326), (50, 10335), (51, 10371), (52, 10410), (60, 10560), (62, 10578), (63, 10581), (64, 10605), (65, 10614), (75, 10749), (76, 10758), (78, 10764), (80, 10770), (85, 10818), (89, 10875), (94, 10896), (97, 10923), (102, 10968), (103, 11013), (107, 11064), (108, 11067), (114, 11118), (119, 11154), (126, 11220), (128, 11232), (129, 11235), (138, 11271), (139, 11274), (145, 11304), (147, 11319), (148, 11352), (153, 11388), (154, 11397), (161, 11454), (168, 11529), (171, 11556), (190, 11664), (192, 11667), (193, 11685), (200, 11784), (203, 11805), (204, 11826), (210, 11886), (211, 11889), (217, 11934), (220, 11961), (223, 11982), (224, 11994), (225, 12003), (230, 12057), (231, 12066), (238, 12099), (242, 12132), (243, 12138), (253, 12225), (254, 12246), (255, 12261), (256, 12267), (263, 12297), (265, 12309), (276, 12375), (279, 12396), (285, 12432), (287, 12447), (288, 12456), (289, 12459), (293, 12504), (300, 12564), (306, 12606), (311, 12639), (317, 12696), (318, 12702), (320, 12723), (321, 12729), (322, 12732), (325, 12759), (326, 12762),

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

Candidate Starts for FosterFrank_18:

(Start: 24 @10889 has 24 MA's), (34, 11024), (36, 11048), (38, 11054), (44, 11090), (45, 11102), (46, 11120), (47, 11129), (48, 11162), (49, 11168), (52, 11246), (57, 11327), (59, 11366), (65, 11450), (69, 11489), (70, 11498), (79, 11603), (86, 11684), (87, 11690), (92, 11723), (97, 11759), (119, 11990), (132, 12083), (143, 12128), (153, 12224), (175, 12425), (176, 12434), (181, 12482), (184, 12503), (185, 12506), (196, 12578), (211, 12740), (241, 12917), (266, 13055), (276, 13118), (279, 13139), (291, 13229), (307, 13364), (312, 13403), (316, 13439), (321, 13481), (327, 13520), (331, 13544), (333, 13556), (334, 13565), (338, 13580), (356, 13793), (368, 13916), (369, 13943), (370, 13949), (374, 14042), (379, 14156), (383, 14204), (384, 14213), (385, 14255), (390, 14318), (391, 14330), (394, 14366), (396, 14408), (399, 14429), (400, 14441), (401, 14483), (406, 14525), (412, 14579), (418, 14660), (420, 14666), (423, 14681), (424, 14684), (427, 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), (21, 10708), (32, 10834), (33, 10837), (35, 10888), (39, 10909), (41, 10915), (42, 10921), (46, 10963), (47, 10972), (48, 11005), (60, 11239), (61, 11248), (66, 11302), (67, 11308), (76, 11437), (83, 11482), (92, 11566), (97, 11602), (100, 11629), (111, 11785), (130, 11917), (149, 12040), (153, 12067), (163, 12142), (172, 12229), (195, 12394), (196, 12397), (223, 12673), (236, 12772), (245, 12871), (248, 12919), (258, 12988), (267, 13024), (272, 13057), (283, 13126), (288, 13168), (289, 13171), (292, 13207), (294, 13228), (303, 13312), (305, 13321), (308, 13336), (324, 13462), (327, 13480), (330, 13489), (336, 13531), (348, 13702), (350, 13711), (363, 13819), (376, 14044), (378, 14086), (381, 14146), (385, 14224), (388, 14245), (392, 14314), (394, 14335), (396, 14377), (399, 14398), (402, 14461), (405, 14500), (411, 14551), (422, 14665), (430, 14764), (432, 14782),

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

Candidate Starts for Globfish_19:

(Start: 24 @10916 has 24 MA's), (28, 10955), (32, 11018), (34, 11051), (36, 11075), (38, 11081), (44, 11117), (45, 11129), (46, 11147), (48, 11189), (57, 11354), (58, 11360), (74, 11561), (76, 11621), (83, 11666), (94, 11759), (107, 11927), (112, 11972), (136, 12128), (141, 12143), (154, 12260), (156, 12272), (164, 12332), (165, 12341), (169, 12407), (175, 12443), (180, 12491), (182, 12503), (186, 12533), (191, 12557), (194, 12590), (198, 12647), (203, 12701), (211, 12785), (212, 12794), (214, 12806), (220, 12857), (223, 12878), (236, 12977), (246, 13085), (248, 13124), (264, 13214), (267, 13229), (283, 13331), (287, 13361), (288, 13373), (292, 13412), (294, 13433), (298, 13481), (299, 13484), (312, 13568), (313, 13571), (321, 13649), (333, 13724), (334, 13733), (338, 13748), (363, 13925), (374, 14117), (379, 14231), (380, 14249), (384, 14288), (385, 14330), (390, 14393), (391, 14405), (394, 14441), (396, 14483), (399, 14504), (412, 14654), (417, 14720), (421, 14744), (427, 14792), (429, 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 24 MA's), (34, 11020), (36, 11044), (38, 11050), (44, 11086), (45, 11098), (46, 11116), (47, 11125), (48, 11158), (49, 11164), (52, 11242), (57, 11323), (59, 11362), (65, 11446), (67, 11461), (70, 11494), (79, 11599), (87, 11686), (89, 11707), (92, 11719), (97, 11755), (111, 11938), (119, 11986), (124, 12037), (143, 12124), (150, 12211), (153, 12220), (175, 12421), (176, 12430), (181, 12478), (184, 12499), (185, 12502), (196, 12574), (199, 12637), (211, 12736), (223, 12787), (241, 12913), (266, 13051), (275, 13102), (276, 13114), (279, 13135), (291, 13225), (307, 13360), (312, 13399), (316, 13435), (321, 13477), (324, 13498), (327, 13516), (331, 13540), (333, 13552), (334, 13561), (338, 13576), (356, 13789), (369, 13939), (370, 13945), (374, 14038), (379, 14152), (380, 14170), (383, 14200), (384, 14209), (385, 14251), (390, 14314), (391, 14326), (394, 14362), (396, 14404), (399, 14425), (400, 14437), (410,

14563), (412, 14575), (420, 14662), (424, 14680),

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

Candidate Starts for Gorpy_19:

(Start: 24 @10852 has 24 MA's), (28, 10891), (32, 10954), (34, 10987), (36, 11011), (38, 11017), (39, 11029), (44, 11053), (45, 11065), (46, 11083), (48, 11125), (57, 11290), (76, 11557), (78, 11563), (83, 11602), (94, 11695), (107, 11863), (112, 11908), (124, 12004), (141, 12079), (146, 12109), (154, 12196), (156, 12208), (165, 12277), (166, 12313), (169, 12343), (175, 12379), (180, 12427), (182, 12439), (186, 12469), (194, 12526), (195, 12535), (197, 12580), (198, 12583), (201, 12628), (203, 12637), (211, 12721), (212, 12730), (214, 12742), (216, 12763), (222, 12802), (223, 12814), (231, 12889), (236, 12913), (246, 13021), (248, 13060), (264, 13150), (267, 13165), (283, 13267), (287, 13297), (292, 13348), (294, 13369), (298, 13417), (299, 13420), (312, 13504), (313, 13507), (321, 13585), (333, 13660), (334, 13669), (338, 13684), (356, 13804), (361, 13843), (363, 13861), (370, 13960), (374, 14053), (379, 14167), (380, 14185), (384, 14224), (385, 14266), (390, 14329), (391, 14341), (394, 14377), (396, 14419), (399, 14440), (406, 14536), (412, 14590), (429, 14743),

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

Candidate Starts for Hestia_19:

(Start: 24 @10985 has 24 MA's), (34, 11120), (36, 11144), (38, 11150), (42, 11174), (46, 11216), (48, 11258), (54, 11372), (76, 11690), (82, 11732), (83, 11735), (119, 12086), (121, 12107), (125, 12140), (142, 12221), (143, 12224), (146, 12242), (150, 12311), (152, 12317), (157, 12350), (185, 12590), (194, 12653), (203, 12764), (206, 12812), (207, 12815), (211, 12848), (212, 12857), (214, 12869), (216, 12890), (223, 12941), (232, 13019), (249, 13127), (257, 13181), (271, 13226), (287, 13340), (292, 13391), (294, 13412), (312, 13553), (321, 13631), (331, 13694), (333, 13706), (338, 13730), (341, 13802), (351, 13934), (355, 13961), (357, 13964), (358, 13973), (360, 13991), (363, 14030), (370, 14129), (374, 14222), (379, 14336), (380, 14354), (384, 14393), (385, 14435), (390, 14498), (391, 14510), (393, 14543), (394, 14546), (396, 14588), (398, 14603), (399, 14609), (406, 14705), (412, 14759), (413, 14768), (421, 14849), (429, 14912),

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

Candidate Starts for Hillester_19:

(Start: 24 @10843 has 24 MA's), (28, 10882), (32, 10945), (34, 10978), (36, 11002), (38, 11008), (39, 11020), (44, 11044), (45, 11056), (46, 11074), (48, 11116), (57, 11281), (76, 11548), (78, 11554), (83, 11593), (94, 11686), (107, 11854), (112, 11899), (124, 11995), (141, 12070), (146, 12100), (154, 12187), (156, 12199), (165, 12268), (166, 12304), (169, 12334), (175, 12370), (180, 12418), (182, 12430), (186, 12460), (194, 12517), (195, 12526), (197, 12571), (198, 12574), (203, 12628), (211, 12712), (212, 12721), (214, 12733), (216, 12754), (223, 12805), (226, 12832), (236, 12904), (246, 13012), (248, 13051), (264, 13141), (267, 13156), (283, 13258), (287, 13288), (292, 13339), (294, 13360), (298, 13408), (299, 13411), (312, 13495), (313, 13498), (321, 13576), (333, 13651), (334, 13660), (338, 13675), (361, 13834), (363, 13852), (370, 13951), (374, 14044), (379, 14158), (380, 14176), (384, 14215), (385, 14257), (390, 14320), (391, 14332), (394, 14368), (396, 14410), (399, 14431), (406, 14527), (412, 14581), (421, 14671), (429, 14734),

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

Candidate Starts for HotPotato_18:

(Start: 24 @10893 has 24 MA's), (34, 11028), (36, 11052), (38, 11058), (44, 11094), (45, 11106), (46, 11124), (47, 11133), (48, 11166), (49, 11172), (52, 11250), (57, 11331), (59, 11370), (65, 11454), (67, 11469), (69, 11493), (70, 11502), (79, 11607), (87, 11694), (89, 11715), (92, 11727), (97, 11763), (111, 11946), (119, 11994), (124, 12045), (125, 12048), (132, 12087), (143, 12132), (150, 12219), (153, 12228), (155, 12240), (175, 12429), (176, 12438), (181, 12486), (184, 12507), (185, 12510), (196, 12582), (211, 12744), (223, 12795), (241, 12921), (266, 13059), (275, 13110), (276, 13122), (279, 13143), (291, 13233), (307, 13368), (312, 13407), (316, 13443), (321, 13485), (324, 13506), (327, 13524), (333, 13560), (334, 13569), (338, 13584), (356, 13797), (369, 13947), (370, 13953), (374,

14046), (379, 14160), (380, 14178), (383, 14208), (384, 14217), (385, 14259), (390, 14322), (391, 14334), (396, 14412), (399, 14433), (400, 14445), (410, 14571), (412, 14583), (420, 14670), (424, 14688),

Gene: Hum25_17 Start: 9592, Stop: 12558, Start Num: 18

Candidate Starts for Hum25_17:

(Start: 18 @9592 has 2 MA's), (27, 9652), (37, 9796), (40, 9814), (46, 9865), (47, 9874), (48, 9907), (52, 9991), (56, 10054), (57, 10072), (59, 10111), (63, 10162), (66, 10204), (69, 10234), (72, 10252), (76, 10339), (81, 10366), (83, 10384), (100, 10531), (101, 10546), (102, 10549), (106, 10633), (113, 10693), (118, 10732), (119, 10735), (123, 10774), (124, 10786), (134, 10834), (140, 10858), (151, 10963), (155, 10984), (160, 11020), (162, 11041), (165, 11062), (175, 11173), (182, 11233), (184, 11242), (186, 11251), (193, 11293), (195, 11314), (196, 11317), (204, 11437), (216, 11500), (223, 11551), (226, 11578), (227, 11596), (228, 11605), (229, 11608), (231, 11626), (232, 11629), (235, 11644), (236, 11650), (244, 11689), (271, 11815), (276, 11857), (288, 11941), (289, 11944), (290, 11962), (292, 11980), (294, 12001), (298, 12049), (299, 12052), (307, 12100), (323, 12238), (354, 12433), (365, 12535),

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

Candidate Starts for Isolde_19:

(Start: 24 @10834 has 24 MA's), (34, 10969), (36, 10993), (38, 10999), (44, 11035), (45, 11047), (46, 11065), (48, 11107), (60, 11341), (65, 11395), (66, 11404), (67, 11410), (68, 11416), (70, 11443), (76, 11539), (83, 11584), (91, 11668), (97, 11704), (99, 11710), (110, 11881), (113, 11896), (116, 11923), (129, 12019), (132, 12031), (135, 12040), (137, 12052), (144, 12085), (165, 12262), (176, 12382), (181, 12430), (183, 12448), (189, 12472), (196, 12526), (209, 12673), (211, 12688), (231, 12814), (237, 12844), (247, 12886), (259, 12970), (266, 13003), (276, 13066), (290, 13171), (301, 13270), (315, 13369), (324, 13444), (330, 13471), (338, 13522), (339, 13525), (363, 13687), (370, 13786), (374, 13879), (379, 13993), (380, 14011), (383, 14041), (384, 14050), (385, 14092), (390, 14155), (391, 14167), (394, 14203), (396, 14245), (399, 14266), (403, 14350), (406, 14362), (412, 14416), (419, 14500), (421, 14506),

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

Candidate Starts for Judy_19:

(Start: 24 @11202 has 24 MA's), (34, 11337), (36, 11361), (38, 11367), (44, 11403), (45, 11415), (46, 11433), (47, 11442), (48, 11475), (49, 11481), (52, 11559), (57, 11640), (59, 11679), (65, 11763), (69, 11802), (70, 11811), (79, 11916), (86, 11997), (87, 12003), (92, 12036), (97, 12072), (119, 12303), (132, 12396), (143, 12441), (153, 12537), (175, 12738), (176, 12747), (181, 12795), (184, 12816), (185, 12819), (196, 12891), (211, 13053), (223, 13104), (241, 13230), (266, 13368), (276, 13431), (279, 13452), (291, 13542), (307, 13677), (312, 13716), (316, 13752), (321, 13794), (327, 13833), (331, 13857), (333, 13869), (334, 13878), (338, 13893), (353, 14097), (356, 14106), (368, 14229), (369, 14256), (370, 14262), (371, 14283), (374, 14355), (379, 14469), (383, 14517), (384, 14526), (385, 14568), (390, 14631), (391, 14643), (394, 14679), (396, 14721), (399, 14742), (400, 14754), (406, 14838), (412, 14892), (418, 14973), (420, 14979), (423, 14994), (424, 14997), (427, 15033),

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

Candidate Starts for Karkharias_18:

(Start: 24 @10889 has 24 MA's), (34, 11024), (36, 11048), (38, 11054), (44, 11090), (45, 11102), (46, 11120), (47, 11129), (48, 11162), (49, 11168), (52, 11246), (57, 11327), (59, 11366), (65, 11450), (67, 11465), (70, 11498), (79, 11603), (87, 11690), (92, 11723), (97, 11759), (111, 11942), (119, 11990), (124, 12041), (125, 12044), (143, 12128), (150, 12215), (153, 12224), (175, 12425), (176, 12434), (181, 12482), (184, 12503), (185, 12506), (196, 12578), (199, 12641), (223, 12791), (241, 12917), (266, 13055), (275, 13106), (276, 13118), (279, 13139), (291, 13229), (307, 13364), (312, 13403), (316, 13439), (321, 13481), (324, 13502), (327, 13520), (333, 13556), (338, 13580), (356, 13793), (369, 13943), (370, 13949), (374, 14042), (379, 14156), (380, 14174), (383, 14204), (384, 14213),

(385, 14255), (390, 14318), (391, 14330), (396, 14408), (399, 14429), (400, 14441), (410, 14567), (412, 14579), (420, 14666), (424, 14684),

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

Candidate Starts for KayMoney_18:

(Start: 24 @10886 has 24 MA's), (34, 11021), (36, 11045), (37, 11048), (38, 11051), (44, 11087), (45, 11099), (46, 11117), (47, 11126), (48, 11159), (49, 11165), (52, 11243), (57, 11324), (59, 11363), (65, 11447), (66, 11456), (67, 11462), (69, 11486), (70, 11495), (77, 11594), (79, 11600), (87, 11687), (92, 11720), (97, 11756), (111, 11939), (117, 11975), (119, 11987), (124, 12038), (143, 12125), (150, 12212), (153, 12221), (166, 12353), (175, 12422), (176, 12431), (181, 12479), (184, 12500), (185, 12503), (196, 12575), (199, 12638), (209, 12722), (211, 12737), (222, 12776), (227, 12833), (232, 12866), (260, 13028), (270, 13073), (279, 13136), (292, 13238), (294, 13259), (321, 13481), (333, 13556), (343, 13622), (360, 13718), (363, 13757), (368, 13823), (374, 13949), (379, 14063), (380, 14081), (383, 14111), (384, 14120), (385, 14162), (390, 14225), (391, 14237), (394, 14273), (396, 14315), (399, 14336), (408, 14453), (412, 14486), (413, 14495), (419, 14570), (421, 14576),

Gene: Kukla_17 Start: 10473, Stop: 14528, Start Num: 17

Candidate Starts for Kukla_17:

(14, 10419), (16, 10461), (Start: 17 @10473 has 3 MA's), (19, 10491), (25, 10533), (29, 10563), (33, 10620), (39, 10692), (41, 10698), (42, 10704), (46, 10746), (48, 10788), (52, 10872), (57, 10953), (60, 11022), (61, 11031), (67, 11091), (71, 11127), (76, 11220), (80, 11232), (83, 11265), (88, 11325), (93, 11352), (97, 11385), (116, 11601), (120, 11634), (127, 11688), (130, 11700), (149, 11823), (163, 11925), (172, 12012), (195, 12177), (221, 12438), (231, 12531), (236, 12555), (271, 12762), (282, 12840), (284, 12852), (287, 12876), (290, 12909), (294, 12948), (319, 13173), (330, 13230), (336, 13272), (345, 13410), (349, 13446), (350, 13452), (363, 13560), (376, 13785), (378, 13827), (382, 13905), (385, 13965), (388, 13986), (394, 14076), (396, 14118), (399, 14139), (402, 14202), (408, 14265), (409, 14283), (411, 14292), (414, 14310), (422, 14400), (430, 14496), (432, 14514),

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

Candidate Starts for Lawnathon_19:

(Start: 24 @10910 has 24 MA's), (34, 11045), (36, 11069), (38, 11075), (44, 11111), (45, 11123), (46, 11141), (47, 11150), (48, 11183), (49, 11189), (52, 11267), (57, 11348), (59, 11387), (65, 11471), (66, 11480), (67, 11486), (69, 11510), (70, 11519), (77, 11618), (79, 11624), (87, 11711), (92, 11744), (97, 11780), (111, 11963), (117, 11999), (119, 12011), (124, 12062), (143, 12149), (150, 12236), (166, 12377), (175, 12446), (176, 12455), (181, 12503), (184, 12524), (185, 12527), (196, 12599), (199, 12662), (209, 12746), (211, 12761), (222, 12800), (227, 12857), (260, 13052), (270, 13097), (279, 13160), (292, 13262), (294, 13283), (321, 13505), (332, 13571), (333, 13580), (343, 13646), (360, 13742), (363, 13781), (368, 13847), (374, 13973), (379, 14087), (380, 14105), (383, 14135), (384, 14144), (385, 14186), (390, 14249), (391, 14261), (394, 14297), (396, 14339), (399, 14360), (400, 14372), (410, 14498), (412, 14510), (419, 14594), (421, 14600), (431, 14693),

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

Candidate Starts for MaterMagnus_19:

(Start: 24 @10844 has 24 MA's), (28, 10883), (32, 10946), (34, 10979), (36, 11003), (38, 11009), (39, 11021), (44, 11045), (45, 11057), (46, 11075), (48, 11117), (57, 11282), (76, 11549), (78, 11555), (83, 11594), (94, 11687), (107, 11855), (112, 11900), (124, 11996), (141, 12071), (146, 12101), (154, 12188), (156, 12200), (165, 12269), (166, 12305), (169, 12335), (175, 12371), (180, 12419), (182, 12431), (186, 12461), (194, 12518), (195, 12527), (197, 12572), (198, 12575), (203, 12629), (211, 12713), (212, 12722), (214, 12734), (216, 12755), (223, 12806), (236, 12905), (246, 13013), (248, 13052), (264, 13142), (267, 13157), (283, 13259), (287, 13289), (292, 13340), (294, 13361), (298, 13409), (299, 13412), (312, 13496), (313, 13499), (321, 13577), (333, 13652), (334, 13661), (338, 13676), (356, 13796), (361, 13835), (363, 13853), (370, 13952), (374, 14045), (379, 14159), (380, 14177), (384, 14216), (385, 14258), (390, 14321), (391, 14333), (394, 14369), (396, 14411), (399,

14432), (406, 14528), (412, 14582), (421, 14672), (429, 14735),

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

Candidate Starts for MidnightRain_19:

(Start: 24 @10842 has 24 MA's), (28, 10881), (32, 10944), (34, 10977), (36, 11001), (38, 11007), (39, 11019), (44, 11043), (45, 11055), (46, 11073), (48, 11115), (57, 11280), (76, 11547), (78, 11553), (83, 11592), (94, 11685), (107, 11853), (112, 11898), (124, 11994), (141, 12069), (146, 12099), (154, 12186), (156, 12198), (165, 12267), (166, 12303), (169, 12333), (175, 12369), (180, 12417), (182, 12429), (186, 12459), (194, 12516), (195, 12525), (197, 12570), (198, 12573), (201, 12618), (203, 12627), (211, 12711), (212, 12720), (214, 12732), (216, 12753), (222, 12792), (223, 12804), (231, 12879), (236, 12903), (246, 13011), (248, 13050), (264, 13140), (267, 13155), (283, 13257), (287, 13287), (292, 13338), (294, 13359), (298, 13407), (299, 13410), (312, 13494), (313, 13497), (321, 13575), (333, 13650), (334, 13659), (338, 13674), (361, 13833), (363, 13851), (370, 13950), (374, 14043), (379, 14157), (380, 14175), (384, 14214), (385, 14256), (390, 14319), (391, 14331), (394, 14367), (396, 14409), (399, 14430), (406, 14526), (412, 14580), (421, 14670), (429, 14733),

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

Candidate Starts for Peas_18:

(Start: 24 @10892 has 24 MA's), (34, 11027), (36, 11051), (38, 11057), (44, 11093), (45, 11105), (46, 11123), (47, 11132), (48, 11165), (49, 11171), (52, 11249), (57, 11330), (59, 11369), (65, 11453), (67, 11468), (70, 11501), (79, 11606), (87, 11693), (92, 11726), (97, 11762), (111, 11945), (119, 11993), (124, 12044), (125, 12047), (131, 12083), (132, 12086), (143, 12131), (150, 12218), (166, 12359), (175, 12428), (176, 12437), (181, 12485), (184, 12506), (185, 12509), (196, 12581), (199, 12644), (211, 12743), (223, 12794), (241, 12920), (266, 13058), (275, 13109), (276, 13121), (279, 13142), (291, 13232), (307, 13367), (312, 13406), (316, 13442), (321, 13484), (324, 13505), (327, 13523), (331, 13547), (333, 13559), (334, 13568), (338, 13583), (356, 13796), (369, 13946), (370, 13952), (374, 14045), (379, 14159), (380, 14177), (383, 14207), (384, 14216), (385, 14258), (390, 14321), (391, 14333), (394, 14369), (396, 14411), (399, 14432), (400, 14444), (410, 14570), (412, 14582), (420, 14669), (424, 14687),

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

Candidate Starts for PeggyLeg03_18:

(Start: 24 @10931 has 24 MA's), (34, 11066), (36, 11090), (38, 11096), (44, 11132), (45, 11144), (46, 11162), (47, 11171), (48, 11204), (49, 11210), (52, 11288), (57, 11369), (59, 11408), (65, 11492), (69, 11531), (70, 11540), (79, 11645), (86, 11726), (87, 11732), (92, 11765), (97, 11801), (119, 12032), (143, 12170), (153, 12266), (175, 12467), (176, 12476), (181, 12524), (184, 12545), (185, 12548), (196, 12620), (208, 12761), (211, 12782), (223, 12833), (241, 12959), (266, 13097), (276, 13160), (279, 13181), (291, 13271), (307, 13406), (312, 13445), (316, 13481), (321, 13523), (327, 13562), (331, 13586), (332, 13589), (333, 13598), (334, 13607), (338, 13622), (353, 13826), (356, 13835), (368, 13958), (369, 13985), (370, 13991), (371, 14012), (374, 14084), (379, 14198), (383, 14246), (384, 14255), (385, 14297), (390, 14360), (391, 14372), (394, 14408), (396, 14450), (399, 14471), (400, 14483), (406, 14567), (412, 14621), (418, 14702), (420, 14708), (423, 14723), (424, 14726), (427, 14762),

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

Candidate Starts for Persistence_18:

(Start: 24 @10866 has 24 MA's), (34, 11001), (36, 11025), (38, 11031), (43, 11061), (44, 11067), (46, 11097), (48, 11139), (59, 11343), (61, 11382), (63, 11394), (67, 11442), (76, 11571), (80, 11583), (83, 11616), (97, 11736), (107, 11877), (112, 11922), (119, 11967), (121, 11988), (122, 11997), (125, 12021), (133, 12063), (141, 12093), (143, 12105), (149, 12174), (155, 12216), (166, 12327), (167, 12336), (174, 12384), (179, 12429), (185, 12474), (194, 12537), (203, 12648), (206, 12696), (214, 12753), (223, 12825), (231, 12900), (234, 12915), (247, 12972), (252, 13005), (268, 13077), (269, 13080), (288, 13215), (292, 13254), (294, 13275), (304, 13368), (312, 13422), (320, 13491), (321,

13497), (330, 13545), (333, 13572), (334, 13581), (374, 13965), (375, 13992), (376, 13998), (377, 14028), (379, 14079), (384, 14136), (385, 14178), (390, 14241), (391, 14253), (395, 14298), (396, 14331), (399, 14352), (406, 14448), (412, 14502), (426, 14634),

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

Candidate Starts for Phrank15_18:

(15, 10822), (Start: 24 @10912 has 24 MA's), (28, 10951), (34, 11047), (36, 11071), (38, 11077), (39, 11089), (40, 11092), (42, 11101), (44, 11113), (45, 11125), (46, 11143), (47, 11152), (48, 11185), (49, 11191), (52, 11269), (57, 11350), (59, 11389), (66, 11482), (67, 11488), (70, 11521), (79, 11626), (87, 11713), (92, 11746), (97, 11782), (105, 11908), (107, 11923), (111, 11965), (131, 12103), (143, 12151), (161, 12307), (166, 12379), (175, 12448), (176, 12457), (181, 12505), (184, 12526), (185, 12529), (186, 12535), (196, 12601), (199, 12664), (211, 12763), (218, 12772), (223, 12814), (228, 12868), (241, 12940), (252, 12994), (266, 13078), (275, 13129), (276, 13141), (279, 13162), (290, 13246), (295, 13297), (312, 13423), (321, 13501), (327, 13540), (332, 13567), (333, 13576), (338, 13600), (339, 13603), (363, 13777), (374, 13969), (376, 14002), (379, 14083), (380, 14101), (384, 14140), (385, 14182), (390, 14245), (391, 14257), (394, 14293), (396, 14335), (399, 14356), (400, 14368), (406, 14452), (412, 14506), (418, 14581), (420, 14587), (423, 14602), (424, 14605),

Gene: Pitbull_16 Start: 9222, Stop: 12188, Start Num: 18

Candidate Starts for Pitbull_16:

(Start: 18 @9222 has 2 MA's), (27, 9282), (37, 9426), (40, 9444), (46, 9495), (47, 9504), (48, 9537), (52, 9621), (56, 9684), (57, 9702), (59, 9741), (63, 9792), (66, 9834), (69, 9864), (72, 9882), (76, 9969), (81, 9996), (83, 10014), (100, 10161), (101, 10176), (102, 10179), (106, 10263), (113, 10323), (118, 10362), (119, 10365), (123, 10404), (124, 10416), (134, 10464), (140, 10488), (151, 10593), (155, 10614), (160, 10650), (162, 10671), (165, 10692), (175, 10803), (182, 10863), (184, 10872), (186, 10881), (195, 10944), (196, 10947), (204, 11067), (216, 11130), (223, 11181), (226, 11208), (227, 11226), (228, 11235), (229, 11238), (231, 11256), (232, 11259), (234, 11271), (235, 11274), (236, 11280), (244, 11319), (271, 11445), (276, 11487), (289, 11574), (290, 11592), (292, 11610), (294, 11631), (298, 11679), (299, 11682), (307, 11730), (323, 11868), (354, 12063), (365, 12165),

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

Candidate Starts for Pucara_18:

(Start: 24 @10892 has 24 MA's), (30, 10952), (34, 11027), (36, 11051), (38, 11057), (44, 11093), (45, 11105), (46, 11123), (47, 11132), (48, 11165), (49, 11171), (52, 11249), (57, 11330), (59, 11369), (65, 11453), (67, 11468), (69, 11492), (70, 11501), (79, 11606), (87, 11693), (92, 11726), (97, 11762), (111, 11945), (119, 11993), (124, 12044), (125, 12047), (132, 12086), (143, 12131), (150, 12218), (153, 12227), (175, 12428), (176, 12437), (181, 12485), (184, 12506), (185, 12509), (196, 12581), (199, 12644), (223, 12794), (241, 12920), (266, 13058), (275, 13109), (276, 13121), (279, 13142), (291, 13232), (307, 13367), (312, 13406), (316, 13442), (321, 13484), (324, 13505), (327, 13523), (333, 13559), (338, 13583), (356, 13796), (369, 13946), (370, 13952), (374, 14045), (379, 14159), (380, 14177), (383, 14207), (384, 14216), (385, 14258), (390, 14321), (391, 14333), (396, 14411), (399, 14432), (400, 14444), (408, 14549), (410, 14570), (412, 14582), (420, 14669), (424, 14687),

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

Candidate Starts for RadFad_19:

(Start: 24 @10843 has 24 MA's), (28, 10882), (32, 10945), (34, 10978), (36, 11002), (38, 11008), (39, 11020), (44, 11044), (45, 11056), (46, 11074), (48, 11116), (57, 11281), (76, 11548), (78, 11554), (83, 11593), (94, 11686), (107, 11854), (112, 11899), (124, 11995), (141, 12070), (146, 12100), (154, 12187), (156, 12199), (165, 12268), (166, 12304), (169, 12334), (175, 12370), (180, 12418), (182, 12430), (186, 12460), (194, 12517), (195, 12526), (197, 12571), (198, 12574), (203, 12628), (211, 12712), (212, 12721), (214, 12733), (216, 12754), (223, 12805), (226, 12832), (236, 12904), (246, 13012), (248, 13051), (264, 13141), (267, 13156), (283, 13258), (287, 13288), (292, 13339), (294, 13360), (298, 13408), (299, 13411), (312, 13495), (313, 13498), (321, 13576), (333, 13651), (334,

13660), (338, 13675), (361, 13834), (363, 13852), (370, 13951), (374, 14044), (379, 14158), (380, 14176), (384, 14215), (385, 14257), (390, 14320), (391, 14332), (394, 14368), (396, 14410), (399, 14431), (406, 14527), (412, 14581), (421, 14671), (429, 14734),

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

Candidate Starts for Raphaella_19:

(Start: 24 @10843 has 24 MA's), (28, 10882), (32, 10945), (34, 10978), (36, 11002), (38, 11008), (39, 11020), (44, 11044), (45, 11056), (46, 11074), (48, 11116), (57, 11281), (76, 11548), (78, 11554), (83, 11593), (94, 11686), (107, 11854), (112, 11899), (124, 11995), (141, 12070), (146, 12100), (154, 12187), (156, 12199), (165, 12268), (166, 12304), (169, 12334), (175, 12370), (180, 12418), (182, 12430), (186, 12460), (194, 12517), (195, 12526), (197, 12571), (198, 12574), (201, 12619), (203, 12628), (211, 12712), (212, 12721), (214, 12733), (216, 12754), (222, 12793), (223, 12805), (231, 12880), (236, 12904), (246, 13012), (248, 13051), (264, 13141), (267, 13156), (283, 13258), (287, 13288), (292, 13339), (294, 13360), (298, 13408), (299, 13411), (312, 13495), (313, 13498), (321, 13576), (333, 13651), (334, 13660), (338, 13675), (361, 13834), (363, 13852), (370, 13951), (374, 14044), (379, 14158), (380, 14176), (384, 14215), (385, 14257), (390, 14320), (391, 14332), (394, 14368), (396, 14410), (399, 14431), (406, 14527), (412, 14581), (429, 14734),

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

Candidate Starts for Richie_19:

(Start: 24 @10858 has 24 MA's), (28, 10897), (32, 10960), (34, 10993), (36, 11017), (38, 11023), (39, 11035), (44, 11059), (45, 11071), (46, 11089), (48, 11131), (57, 11296), (76, 11563), (78, 11569), (83, 11608), (94, 11701), (107, 11869), (112, 11914), (124, 12010), (141, 12085), (146, 12115), (154, 12202), (156, 12214), (165, 12283), (166, 12319), (169, 12349), (175, 12385), (180, 12433), (182, 12445), (186, 12475), (194, 12532), (195, 12541), (197, 12586), (198, 12589), (201, 12634), (203, 12643), (211, 12727), (212, 12736), (214, 12748), (216, 12769), (222, 12808), (223, 12820), (231, 12895), (236, 12919), (246, 13027), (248, 13066), (264, 13156), (267, 13171), (283, 13273), (287, 13303), (292, 13354), (294, 13375), (298, 13423), (299, 13426), (312, 13510), (313, 13513), (321, 13591), (333, 13666), (334, 13675), (338, 13690), (356, 13810), (361, 13849), (363, 13867), (370, 13966), (374, 14059), (379, 14173), (380, 14191), (384, 14230), (385, 14272), (390, 14335), (391, 14347), (394, 14383), (396, 14425), (399, 14446), (406, 14542), (412, 14596), (429, 14749),

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

Candidate Starts for Sakai_19:

(Start: 24 @10852 has 24 MA's), (28, 10891), (32, 10954), (34, 10987), (36, 11011), (38, 11017), (39, 11029), (44, 11053), (45, 11065), (46, 11083), (48, 11125), (57, 11290), (76, 11557), (78, 11563), (83, 11602), (94, 11695), (107, 11863), (112, 11908), (124, 12004), (141, 12079), (146, 12109), (154, 12196), (156, 12208), (165, 12277), (166, 12313), (169, 12343), (175, 12379), (180, 12427), (182, 12439), (186, 12469), (194, 12526), (195, 12535), (197, 12580), (198, 12583), (201, 12628), (203, 12637), (211, 12721), (212, 12730), (214, 12742), (216, 12763), (222, 12802), (223, 12814), (231, 12889), (236, 12913), (246, 13021), (248, 13060), (264, 13150), (267, 13165), (283, 13267), (287, 13297), (292, 13348), (294, 13369), (298, 13417), (299, 13420), (312, 13504), (313, 13507), (321, 13585), (333, 13660), (334, 13669), (338, 13684), (356, 13804), (361, 13843), (363, 13861), (370, 13960), (374, 14053), (379, 14167), (380, 14185), (384, 14224), (385, 14266), (390, 14329), (391, 14341), (394, 14377), (396, 14419), (399, 14440), (406, 14536), (412, 14590), (429, 14743),

Gene: Sashimi_20 Start: 11112, Stop: 15146, Start Num: 17

Candidate Starts for Sashimi_20:

(Start: 17 @11112 has 3 MA's), (25, 11172), (31, 11247), (33, 11259), (35, 11310), (39, 11331), (40, 11334), (42, 11343), (46, 11385), (48, 11427), (53, 11526), (57, 11592), (58, 11598), (59, 11631), (61, 11670), (66, 11724), (67, 11730), (73, 11787), (76, 11859), (83, 11904), (84, 11913), (90, 11982), (92, 11988), (94, 11997), (97, 12024), (101, 12066), (104, 12120), (116, 12240), (119, 12255), (127, 12327), (135, 12357), (143, 12393), (158, 12522), (165, 12579), (167, 12624), (175, 12681), (178,

12702), (184, 12762), (194, 12828), (196, 12840), (197, 12882), (202, 12936), (203, 12939), (206, 12987), (214, 13044), (215, 13056), (227, 13161), (236, 13215), (240, 13275), (242, 13296), (246, 13323), (248, 13362), (267, 13467), (273, 13506), (277, 13530), (280, 13551), (283, 13569), (288, 13611), (292, 13650), (294, 13671), (296, 13695), (309, 13785), (324, 13911), (327, 13929), (330, 13938), (334, 13974), (356, 14118), (363, 14175), (376, 14400), (378, 14442), (385, 14580), (388, 14601), (394, 14691), (396, 14733), (399, 14754), (402, 14817), (408, 14880), (414, 14925), (422, 15015), (430, 15114), (432, 15132),

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

Candidate Starts for Seahorse_20:

(Start: 24 @11096 has 24 MA's), (34, 11231), (46, 11327), (48, 11369), (52, 11453), (61, 11612), (63, 11624), (69, 11696), (76, 11801), (82, 11843), (83, 11846), (101, 12008), (109, 12119), (115, 12173), (121, 12218), (124, 12248), (134, 12296), (147, 12362), (155, 12446), (159, 12479), (170, 12596), (179, 12659), (187, 12716), (194, 12767), (198, 12824), (203, 12878), (211, 12962), (243, 13253), (261, 13424), (262, 13427), (267, 13445), (286, 13565), (289, 13589), (302, 13751), (313, 13853), (321, 13931), (332, 13997), (333, 14006), (334, 14015), (352, 14138), (363, 14207), (370, 14306), (373, 14369), (374, 14399), (377, 14462), (379, 14513), (380, 14531), (384, 14570), (385, 14612), (390, 14675), (391, 14687), (394, 14723), (396, 14765), (397, 14768), (399, 14786), (412, 14936), (425, 15050), (427, 15083),

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

Candidate Starts for Shukran_19:

(Start: 24 @10758 has 24 MA's), (28, 10797), (30, 10818), (34, 10893), (36, 10917), (38, 10923), (40, 10938), (42, 10947), (46, 10989), (47, 10998), (48, 11031), (59, 11235), (63, 11286), (65, 11319), (76, 11463), (80, 11475), (83, 11508), (107, 11769), (109, 11781), (122, 11889), (125, 11913), (133, 11955), (138, 11976), (143, 11997), (155, 12108), (158, 12126), (167, 12228), (174, 12276), (194, 12429), (207, 12591), (211, 12624), (212, 12633), (214, 12645), (223, 12717), (225, 12738), (231, 12792), (252, 12897), (268, 12969), (269, 12972), (288, 13107), (292, 13146), (294, 13167), (321, 13386), (328, 13428), (329, 13431), (330, 13434), (334, 13470), (337, 13479), (342, 13593), (346, 13623), (360, 13734), (370, 13872), (374, 13965), (379, 14079), (380, 14097), (384, 14136), (385, 14178), (387, 14196), (391, 14253), (394, 14289), (396, 14331), (399, 14352), (400, 14364), (412, 14502), (419, 14586), (421, 14592), (427, 14640), (428, 14652),

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

Candidate Starts for SpicyFrank_19:

(Start: 24 @10920 has 24 MA's), (28, 10959), (32, 11022), (34, 11055), (36, 11079), (38, 11085), (44, 11121), (45, 11133), (46, 11151), (48, 11193), (55, 11322), (76, 11625), (83, 11670), (94, 11763), (107, 11931), (112, 11976), (141, 12147), (154, 12264), (156, 12276), (164, 12336), (165, 12345), (169, 12411), (175, 12447), (180, 12495), (182, 12507), (186, 12537), (194, 12594), (198, 12651), (203, 12705), (204, 12726), (211, 12789), (212, 12798), (214, 12810), (220, 12861), (223, 12882), (236, 12981), (246, 13089), (248, 13128), (264, 13218), (267, 13233), (283, 13335), (287, 13365), (292, 13416), (294, 13437), (298, 13485), (299, 13488), (312, 13572), (313, 13575), (321, 13653), (333, 13728), (338, 13752), (363, 13929), (370, 14028), (374, 14121), (379, 14235), (380, 14253), (384, 14292), (385, 14334), (390, 14397), (391, 14409), (394, 14445), (396, 14487), (398, 14502), (399, 14508), (412, 14658), (421, 14748), (427, 14796), (429, 14811),

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

Candidate Starts for ThayneTheZag_19:

(Start: 24 @10917 has 24 MA's), (28, 10956), (32, 11019), (34, 11052), (36, 11076), (38, 11082), (42, 11106), (45, 11130), (46, 11148), (48, 11190), (57, 11355), (58, 11361), (76, 11622), (83, 11667), (101, 11829), (107, 11928), (118, 12015), (141, 12144), (154, 12261), (156, 12273), (164, 12333), (169, 12408), (175, 12444), (180, 12492), (182, 12504), (186, 12534), (194, 12591), (198, 12648), (203, 12702), (211, 12786), (212, 12795), (214, 12807), (220, 12858), (223, 12879), (236, 12978), (247,

13110), (248, 13125), (264, 13215), (267, 13230), (280, 13314), (281, 13323), (283, 13332), (292, 13413), (294, 13434), (297, 13476), (304, 13527), (305, 13530), (310, 13557), (330, 13707), (332, 13725), (334, 13743), (337, 13752), (344, 13833), (359, 13926), (362, 13959), (364, 14010), (367, 14076), (371, 14139), (372, 14157), (374, 14211), (376, 14244), (379, 14325), (380, 14343), (384, 14382), (385, 14424), (390, 14487), (391, 14499), (396, 14577), (399, 14598), (403, 14682), (407, 14712), (408, 14715), (412, 14748), (413, 14757), (419, 14832), (421, 14838),

Gene: Tiff81_21 Start: 10986, Stop: 14879, Start Num: 24

Candidate Starts for Tiff81_21:

(15, 10893), (Start: 24 @10986 has 24 MA's), (34, 11121), (36, 11145), (39, 11163), (44, 11187), (45, 11199), (46, 11217), (47, 11226), (48, 11259), (49, 11265), (52, 11343), (57, 11424), (59, 11463), (65, 11547), (67, 11562), (70, 11595), (79, 11700), (87, 11787), (92, 11820), (97, 11856), (111, 12039), (119, 12087), (124, 12138), (125, 12141), (143, 12225), (150, 12312), (153, 12321), (175, 12522), (176, 12531), (181, 12579), (184, 12600), (185, 12603), (196, 12675), (204, 12795), (211, 12837), (223, 12888), (241, 13014), (266, 13152), (276, 13215), (279, 13236), (291, 13326), (307, 13461), (312, 13500), (316, 13536), (321, 13578), (324, 13599), (327, 13617), (331, 13641), (333, 13653), (334, 13662), (338, 13677), (353, 13881), (356, 13890), (368, 14013), (369, 14040), (370, 14046), (374, 14139), (379, 14253), (383, 14301), (384, 14310), (385, 14352), (390, 14415), (391, 14427), (394, 14463), (396, 14505), (398, 14520), (399, 14526), (400, 14538), (406, 14622), (412, 14676), (413, 14685), (421, 14766), (429, 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), (31, 11448), (46, 11586), (47, 11595), (48, 11628), (53, 11727), (57, 11793), (59, 11832), (61, 11871), (65, 11916), (66, 11925), (67, 11931), (69, 11955), (76, 12060), (83, 12105), (87, 12156), (96, 12216), (100, 12252), (101, 12267), (104, 12321), (121, 12477), (127, 12528), (143, 12594), (166, 12816), (167, 12825), (173, 12864), (175, 12882), (177, 12894), (178, 12903), (184, 12963), (193, 13017), (194, 13029), (195, 13038), (203, 13140), (209, 13209), (213, 13242), (214, 13245), (240, 13476), (248, 13563), (250, 13569), (251, 13575), (267, 13668), (272, 13701), (283, 13770), (289, 13815), (292, 13851), (294, 13872), (309, 13986), (319, 14082), (324, 14112), (327, 14130), (330, 14139), (336, 14181), (348, 14352), (350, 14361), (361, 14451), (363, 14469), (376, 14694), (378, 14736), (381, 14796), (385, 14874), (388, 14895), (392, 14964), (394, 14985), (396, 15027), (399, 15048), (402, 15111), (405, 15150), (411, 15201), (415, 15240), (422, 15315), (430, 15414), (432, 15432),

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

Candidate Starts for Vopal_20:

(Start: 24 @10915 has 24 MA's), (28, 10954), (32, 11017), (34, 11050), (36, 11074), (38, 11080), (39, 11092), (44, 11116), (45, 11128), (46, 11146), (48, 11188), (57, 11353), (76, 11620), (78, 11626), (83, 11665), (94, 11758), (107, 11926), (112, 11971), (124, 12067), (141, 12142), (146, 12172), (154, 12259), (156, 12271), (165, 12340), (166, 12376), (169, 12406), (175, 12442), (180, 12490), (182, 12502), (186, 12532), (194, 12589), (195, 12598), (197, 12643), (198, 12646), (201, 12691), (203, 12700), (211, 12784), (212, 12793), (214, 12805), (216, 12826), (222, 12865), (223, 12877), (231, 12952), (236, 12976), (246, 13084), (248, 13123), (264, 13213), (267, 13228), (283, 13330), (287, 13360), (292, 13411), (294, 13432), (298, 13480), (299, 13483), (312, 13567), (313, 13570), (321, 13648), (333, 13723), (334, 13732), (338, 13747), (356, 13867), (361, 13906), (363, 13924), (370, 14023), (374, 14116), (379, 14230), (380, 14248), (384, 14287), (385, 14329), (390, 14392), (391, 14404), (394, 14440), (396, 14482), (399, 14503), (406, 14599), (412, 14653), (429, 14806),

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

Candidate Starts for Windest_20:

(Start: 24 @10899 has 24 MA's), (28, 10938), (32, 11001), (34, 11034), (36, 11058), (38, 11064), (39, 11076), (44, 11100), (45, 11112), (46, 11130), (48, 11172), (57, 11337), (76, 11604), (78, 11610), (83, 11649), (94, 11742), (107, 11910), (112, 11955), (124, 12051), (141, 12126), (146, 12156), (154, 12243), (156, 12255), (165, 12324), (166, 12360), (169, 12390), (175, 12426), (180, 12474), (182, 12486), (186, 12516), (194, 12573), (195, 12582), (197, 12627), (198, 12630), (201, 12675), (203, 12684), (211, 12768), (212, 12777), (214, 12789), (216, 12810), (222, 12849), (223, 12861), (231, 12936), (236, 12960), (246, 13068), (248, 13107), (264, 13197), (267, 13212), (283, 13314), (287, 13344), (292, 13395), (294, 13416), (298, 13464), (299, 13467), (312, 13551), (313, 13554), (321, 13632), (333, 13707), (334, 13716), (338, 13731), (356, 13851), (361, 13890), (363, 13908), (370, 14007), (374, 14100), (379, 14214), (380, 14232), (384, 14271), (385, 14313), (390, 14376), (391, 14388), (394, 14424), (396, 14466), (399, 14487), (406, 14583), (412, 14637), (421, 14727), (429, 14790),

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

Candidate Starts for YoungHarleezy_19:

(Start: 24 @10856 has 24 MA's), (28, 10895), (30, 10916), (32, 10958), (34, 10991), (36, 11015), (38, 11021), (39, 11033), (45, 11069), (46, 11087), (48, 11129), (57, 11294), (76, 11561), (78, 11567), (83, 11606), (94, 11699), (107, 11867), (112, 11912), (124, 12008), (141, 12083), (146, 12113), (154, 12200), (156, 12212), (165, 12281), (166, 12317), (169, 12347), (175, 12383), (180, 12431), (182, 12443), (186, 12473), (194, 12530), (195, 12539), (197, 12584), (198, 12587), (201, 12632), (203, 12641), (211, 12725), (212, 12734), (214, 12746), (216, 12767), (222, 12806), (223, 12818), (231, 12893), (236, 12917), (246, 13025), (248, 13064), (264, 13154), (267, 13169), (283, 13271), (287, 13301), (292, 13352), (294, 13373), (298, 13421), (299, 13424), (312, 13508), (313, 13511), (321, 13589), (333, 13664), (334, 13673), (338, 13688), (356, 13808), (361, 13847), (363, 13865), (370, 13964), (374, 14057), (379, 14171), (380, 14189), (384, 14228), (385, 14270), (390, 14333), (391, 14345), (394, 14381), (396, 14423), (399, 14444), (406, 14540), (412, 14594), (429, 14747),