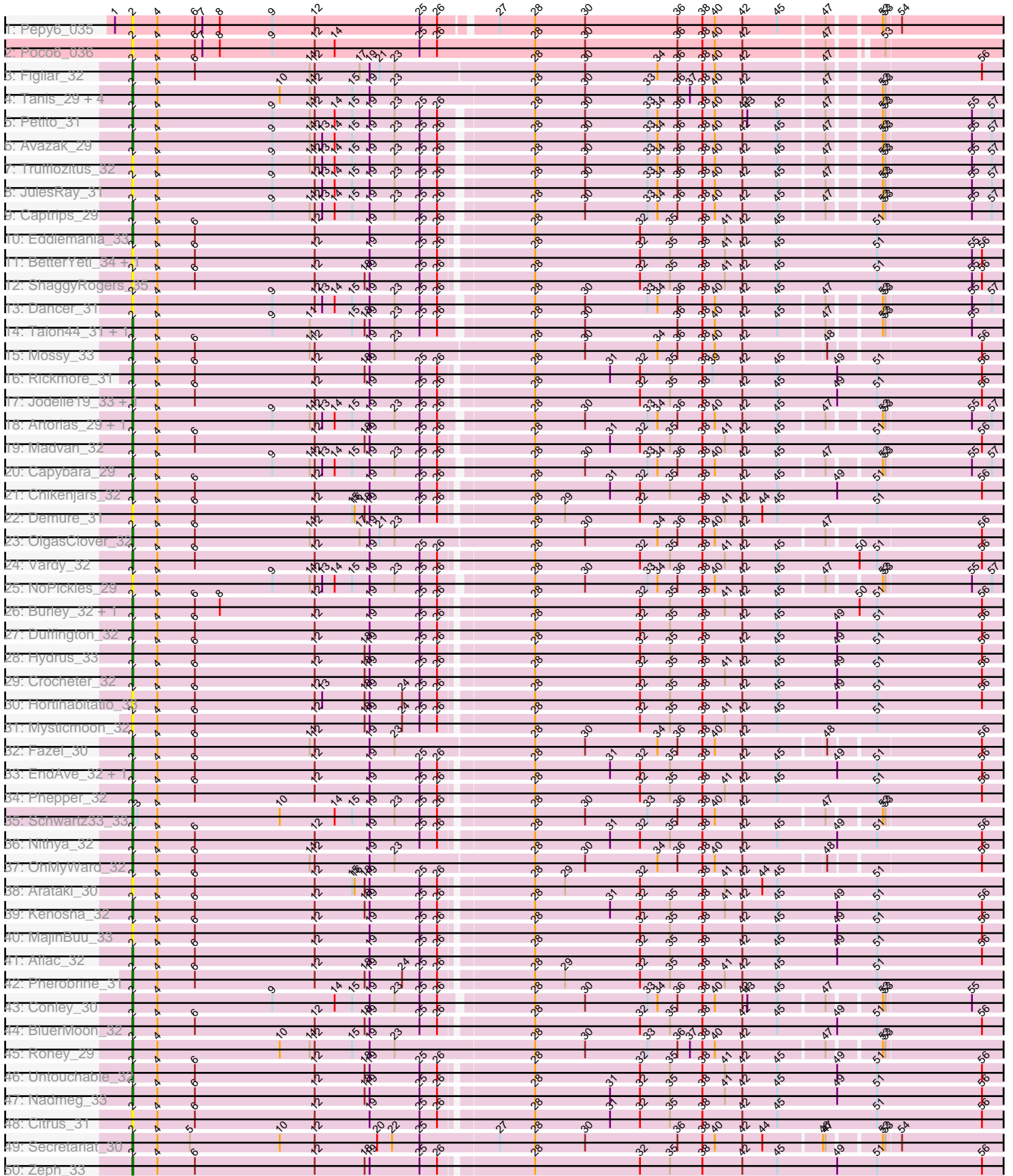


Zoomed Pham 224597



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 224597 Report

This analysis was run 03/28/25 on database version 593.

Pham number 224597 has 60 members, 16 are drafts.

Phages represented in each track:

- Track 1 : Pepy6_035
- Track 2 : Poco6_036
- Track 3 : Figliar_32
- Track 4 : Tanis_29, Gravy_29, Odesza_29, Gill_29, Kerry_29
- Track 5 : Petito_31
- Track 6 : Avazak_29
- Track 7 : Trufflozitus_32
- Track 8 : JulesRay_31
- Track 9 : Captrips_29
- Track 10 : Eddiemania_33
- Track 11 : BetterYeti_34, Gusicorn_35
- Track 12 : ShaggyRogers_35
- Track 13 : Dancer_31
- Track 14 : Talon44_31, Perkunas_31
- Track 15 : Mossy_33
- Track 16 : Rickmore_31
- Track 17 : Jodelie19_33, TenaciousP_33
- Track 18 : Artorias_29, FortCran_29
- Track 19 : Madvan_32
- Track 20 : Capybara_29
- Track 21 : Chikenjars_32
- Track 22 : Demure_31
- Track 23 : OlgasClover_32
- Track 24 : Vardy_32
- Track 25 : NoPickles_29
- Track 26 : Burley_32, Runhaar_32
- Track 27 : Duffington_32
- Track 28 : Hydrus_33
- Track 29 : Crocheter_32
- Track 30 : Hortihabitatio_33
- Track 31 : Mysticmoon_32
- Track 32 : Fazel_30
- Track 33 : EndAve_32, AlainaMarie_32
- Track 34 : Phepper_32
- Track 35 : Schwartz33_33
- Track 36 : Nithya_32
- Track 37 : OhMyWard_32

- Track 38 : Arataki_30
- Track 39 : Kenosha_32
- Track 40 : MajinBuu_33
- Track 41 : Aflac_32
- Track 42 : Pherobrine_31
- Track 43 : Conley_30
- Track 44 : BluerMoon_32
- Track 45 : Roney_29
- Track 46 : Untouchable_32
- Track 47 : Nadmeg_33
- Track 48 : Citrus_31
- Track 49 : Secretariat_30
- Track 50 : Zeph_33

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

The start number called the most often in the published annotations is 2, it was called in 44 of the 44 non-draft genes in the pham.

Genes that call this "Most Annotated" start:

- Aflac_32, AlainaMarie_32, Arataki_30, Artorias_29, Avazak_29, BetterYeti_34, BluerMoon_32, Burley_32, Captrips_29, Capybara_29, Chikenjars_32, Citrus_31, Conley_30, Crocheter_32, Dancer_31, Demure_31, Duffington_32, Eddiemania_33, EndAve_32, Fazel_30, Figliar_32, FortCran_29, Gill_29, Gravy_29, Gusicorn_35, Hortihabitatio_33, Hydrus_33, Jodelie19_33, JulesRay_31, Kenosha_32, Kerry_29, Madvan_32, MajinBuu_33, Mossy_33, Mysticmoon_32, Nadmeg_33, Nithya_32, NoPickles_29, Odesza_29, OhMyWard_32, OlgasClover_32, Pepy6_035, Perkunas_31, Petite_31, Phepper_32, Pherobrine_31, Poco6_036, Rickmore_31, Roney_29, Runhaar_32, Schwartz33_33, Secretariat_30, ShaggyRogers_35, Talon44_31, Tanis_29, TenaciousP_33, Trufflozitus_32, Untouchable_32, Vardy_32, Zeph_33,

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

-

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

-

Summary by start number:

Start 2:

- Found in 60 of 60 (100.0%) of genes in pham
- Manual Annotations of this start: 44 of 44
- Called 100.0% of time when present
- Phage (with cluster) where this start called: Aflac_32 (DJ), AlainaMarie_32 (DJ), Arataki_30 (DJ), Artorias_29 (DJ), Avazak_29 (DJ), BetterYeti_34 (DJ), BluerMoon_32 (DJ), Burley_32 (DJ), Captrips_29 (DJ), Capybara_29 (DJ), Chikenjars_32 (DJ), Citrus_31 (DJ), Conley_30 (DJ), Crocheter_32 (DJ), Dancer_31 (DJ), Demure_31 (DJ), Duffington_32 (DJ), Eddiemania_33 (DJ), EndAve_32 (DJ), Fazel_30 (DJ), Figliar_32 (DJ), FortCran_29 (DJ), Gill_29 (DJ), Gravy_29 (DJ),

Gusicorn_35 (DJ), Hortihabitatio_33 (DJ), Hydrus_33 (DJ), Jodelie19_33 (DJ), JulesRay_31 (DJ), Kenosha_32 (DJ), Kerry_29 (DJ), Madvan_32 (DJ), MajinBuu_33 (DJ), Mossy_33 (DJ), Mysticmoon_32 (DJ), Nadmeg_33 (DJ), Nithya_32 (DJ), NoPickles_29 (DJ), Odesza_29 (DJ), OhMyWard_32 (DJ), OlgasClover_32 (DJ), Pepy6_035 (CC), Perkunas_31 (DJ), Petite_31 (DJ), Phepper_32 (DJ), Pherobrine_31 (DJ), Poco6_036 (CC), Rickmore_31 (DJ), Roney_29 (DJ), Runhaar_32 (DJ), Schwartz33_33 (DJ), Secretariat_30 (DJ), ShaggyRogers_35 (DJ), Talon44_31 (DJ), Tanis_29 (DJ), TenaciousP_33 (DJ), Trufflozitus_32 (DJ), Untouchable_32 (DJ), Vardy_32 (DJ), Zeph_33 (DJ),

Summary by clusters:

There are 2 clusters represented in this pham: CC, DJ,

Info for manual annotations of cluster DJ:

•Start number 2 was manually annotated 44 times for cluster DJ.

Gene Information:

Gene: Aflac_32 Start: 23512, Stop: 28626, Start Num: 2

Candidate Starts for Aflac_32:

(Start: 2 @23512 has 44 MA's), (4, 23542), (6, 23587), (12, 23731), (19, 23797), (25, 23857), (26, 23878), (28, 23980), (32, 24106), (35, 24142), (38, 24181), (42, 24229), (45, 24271), (49, 24343), (51, 24391), (56, 24517), (61, 24592), (62, 24604), (64, 24625), (73, 24730), (74, 24733), (85, 24955), (90, 25021), (97, 25111), (100, 25147), (106, 25198), (107, 25246), (110, 25258), (122, 25402), (126, 25441), (129, 25468), (143, 25630), (145, 25678), (147, 25693), (148, 25699), (151, 25717), (159, 25765), (167, 25831), (174, 25882), (175, 25894), (178, 25912), (183, 25966), (187, 26011), (189, 26032), (190, 26041), (193, 26062), (197, 26083), (203, 26137), (204, 26140), (206, 26149), (209, 26170), (210, 26182), (213, 26203), (215, 26209), (218, 26227), (222, 26263), (226, 26293), (234, 26341), (235, 26353), (236, 26359), (237, 26362), (239, 26374), (240, 26377), (245, 26398), (250, 26434), (255, 26488), (256, 26491), (259, 26512), (260, 26524), (261, 26527), (269, 26575), (273, 26590), (274, 26593), (275, 26602), (277, 26623), (282, 26650), (283, 26653), (288, 26677), (290, 26689), (291, 26710), (292, 26722), (294, 26731), (296, 26743), (299, 26770), (305, 26803), (306, 26809), (308, 26827), (312, 26881), (314, 26896), (320, 26965), (332, 27076), (346, 27187), (348, 27232), (352, 27322), (364, 27466), (367, 27529), (369, 27556), (374, 27628), (375, 27640), (376, 27649), (377, 27703), (380, 27724), (381, 27736), (394, 27898), (399, 27985), (402, 28003), (406, 28033), (408, 28051), (409, 28054), (411, 28066), (414, 28093), (418, 28204), (420, 28267), (421, 28279), (425, 28327), (429, 28381), (432, 28408), (439, 28522), (443, 28612),

Gene: AlainaMarie_32 Start: 23499, Stop: 28610, Start Num: 2

Candidate Starts for AlainaMarie_32:

(Start: 2 @23499 has 44 MA's), (4, 23529), (6, 23574), (12, 23718), (19, 23784), (25, 23844), (26, 23865), (28, 23967), (31, 24057), (32, 24093), (35, 24129), (38, 24168), (42, 24216), (45, 24258), (49, 24330), (51, 24378), (56, 24504), (61, 24579), (62, 24591), (64, 24612), (73, 24717), (74, 24720), (85, 24942), (90, 25008), (91, 25011), (95, 25080), (97, 25098), (106, 25185), (111, 25254), (118, 25356), (119, 25359), (122, 25386), (126, 25425), (129, 25452), (143, 25614), (145, 25662), (148, 25683), (151, 25701), (153, 25716), (159, 25749), (167, 25815), (173, 25863), (174, 25866), (177, 25887), (178, 25896), (183, 25950), (187, 25995), (189, 26016), (190, 26025), (196, 26058), (197, 26067), (199, 26091), (203, 26121), (204, 26124), (206, 26133), (207, 26145), (209, 26154), (210, 26166), (213, 26187), (215, 26193), (222, 26247), (226, 26277), (234, 26325), (235, 26337), (236, 26343),

(237, 26346), (240, 26361), (245, 26382), (250, 26418), (255, 26472), (256, 26475), (258, 26487), (259, 26496), (260, 26508), (261, 26511), (263, 26526), (267, 26553), (269, 26559), (273, 26574), (274, 26577), (275, 26586), (276, 26601), (277, 26607), (280, 26622), (282, 26634), (283, 26637), (290, 26673), (291, 26694), (292, 26706), (294, 26715), (296, 26727), (299, 26754), (303, 26778), (305, 26787), (306, 26793), (308, 26811), (314, 26880), (320, 26949), (337, 27105), (352, 27306), (364, 27450), (367, 27513), (369, 27540), (374, 27612), (375, 27624), (376, 27633), (377, 27687), (380, 27708), (381, 27720), (394, 27882), (399, 27969), (402, 27987), (406, 28017), (408, 28035), (409, 28038), (411, 28050), (414, 28077), (418, 28188), (421, 28263), (425, 28311), (429, 28365), (432, 28392), (439, 28506), (443, 28596),

Gene: Arataki_30 Start: 22605, Stop: 27719, Start Num: 2

Candidate Starts for Arataki_30:

(Start: 2 @22605 has 44 MA's), (4, 22635), (6, 22680), (12, 22824), (15, 22869), (16, 22872), (18, 22884), (19, 22890), (25, 22950), (26, 22971), (28, 23073), (29, 23109), (32, 23199), (38, 23274), (41, 23301), (42, 23322), (44, 23346), (45, 23364), (51, 23484), (58, 23640), (61, 23685), (64, 23718), (73, 23823), (74, 23826), (76, 23892), (78, 23901), (84, 24036), (90, 24114), (97, 24204), (106, 24291), (107, 24339), (115, 24414), (122, 24495), (126, 24534), (129, 24561), (140, 24702), (143, 24723), (147, 24786), (148, 24792), (151, 24810), (152, 24816), (159, 24858), (161, 24870), (162, 24879), (167, 24924), (172, 24966), (174, 24975), (175, 24987), (177, 24996), (178, 25005), (183, 25059), (187, 25104), (189, 25125), (190, 25134), (194, 25158), (195, 25161), (196, 25167), (203, 25230), (204, 25233), (206, 25242), (207, 25254), (208, 25260), (209, 25263), (210, 25275), (213, 25296), (215, 25302), (216, 25305), (219, 25326), (222, 25356), (223, 25371), (226, 25386), (234, 25434), (235, 25446), (236, 25452), (237, 25455), (239, 25467), (240, 25470), (250, 25527), (255, 25581), (259, 25605), (260, 25617), (261, 25620), (268, 25665), (269, 25668), (273, 25683), (274, 25686), (275, 25695), (276, 25710), (277, 25716), (278, 25722), (282, 25743), (283, 25746), (286, 25758), (289, 25773), (290, 25782), (291, 25803), (292, 25815), (296, 25836), (299, 25863), (305, 25896), (306, 25902), (308, 25920), (311, 25950), (314, 25989), (320, 26058), (333, 26181), (343, 26250), (348, 26325), (352, 26415), (364, 26559), (367, 26622), (372, 26688), (374, 26721), (375, 26733), (377, 26796), (380, 26817), (381, 26829), (383, 26850), (394, 26991), (399, 27078), (402, 27096), (406, 27126), (408, 27144), (409, 27147), (411, 27159), (414, 27186), (418, 27297), (421, 27372), (427, 27441), (429, 27474), (431, 27498), (439, 27615), (443, 27705),

Gene: Artorias_29 Start: 20505, Stop: 25607, Start Num: 2

Candidate Starts for Artorias_29:

(Start: 2 @20505 has 44 MA's), (4, 20535), (9, 20673), (11, 20718), (12, 20724), (13, 20733), (14, 20748), (15, 20769), (19, 20790), (23, 20820), (25, 20850), (26, 20871), (28, 20973), (30, 21033), (33, 21108), (34, 21120), (36, 21144), (38, 21174), (40, 21189), (42, 21222), (45, 21264), (47, 21315), (52, 21369), (53, 21372), (55, 21471), (57, 21495), (64, 21591), (73, 21696), (74, 21699), (77, 21768), (78, 21774), (79, 21780), (87, 21957), (92, 22008), (95, 22059), (100, 22113), (101, 22116), (122, 22368), (123, 22371), (130, 22446), (136, 22503), (141, 22587), (143, 22596), (149, 22671), (151, 22683), (153, 22698), (154, 22701), (157, 22722), (164, 22770), (167, 22797), (168, 22818), (171, 22827), (174, 22848), (175, 22860), (177, 22869), (178, 22878), (183, 22932), (184, 22935), (186, 22956), (189, 22998), (192, 23025), (195, 23034), (197, 23049), (198, 23058), (199, 23073), (200, 23085), (201, 23094), (207, 23127), (209, 23136), (221, 23220), (222, 23229), (223, 23244), (224, 23247), (227, 23265), (234, 23307), (237, 23328), (240, 23343), (242, 23349), (248, 23385), (250, 23400), (256, 23457), (258, 23469), (259, 23478), (260, 23490), (262, 23502), (263, 23508), (266, 23529), (269, 23541), (274, 23559), (275, 23568), (276, 23583), (277, 23589), (279, 23601), (288, 23643), (289, 23646), (290, 23655), (291, 23676), (292, 23688), (299, 23736), (300, 23745), (305, 23769), (306, 23775), (308, 23793), (309, 23802), (311, 23823), (315, 23892), (317, 23910), (320, 23931), (339, 24102), (346, 24153), (354, 24297), (358, 24366), (364, 24432), (366, 24483), (375, 24606), (377, 24669), (382, 24717), (383, 24723), (384, 24732), (388, 24780), (393, 24852), (396, 24912), (397, 24933), (398, 24936), (403, 24987), (404, 24996), (406, 25014), (409, 25035), (411, 25047), (416, 25140), (418, 25185), (421, 25260), (422, 25278), (423, 25299), (431, 25386), (438, 25497),

(443, 25593),

Gene: Avazak_29 Start: 20512, Stop: 25614, Start Num: 2

Candidate Starts for Avazak_29:

(Start: 2 @20512 has 44 MA's), (4, 20542), (9, 20680), (11, 20725), (12, 20731), (13, 20740), (14, 20755), (15, 20776), (19, 20797), (23, 20827), (25, 20857), (26, 20878), (28, 20980), (30, 21040), (33, 21115), (34, 21127), (36, 21151), (38, 21181), (40, 21196), (42, 21229), (45, 21271), (47, 21322), (52, 21376), (53, 21379), (55, 21478), (57, 21502), (60, 21538), (64, 21598), (73, 21703), (74, 21706), (77, 21775), (78, 21781), (79, 21787), (87, 21964), (92, 22015), (95, 22066), (100, 22120), (101, 22123), (112, 22255), (115, 22294), (122, 22375), (123, 22378), (130, 22453), (136, 22510), (141, 22594), (143, 22603), (149, 22678), (151, 22690), (153, 22705), (154, 22708), (157, 22729), (164, 22777), (167, 22804), (168, 22825), (171, 22834), (174, 22855), (175, 22867), (177, 22876), (178, 22885), (184, 22942), (186, 22963), (187, 22984), (189, 23005), (192, 23032), (195, 23041), (197, 23056), (198, 23065), (199, 23080), (200, 23092), (201, 23101), (207, 23134), (209, 23143), (221, 23227), (222, 23236), (223, 23251), (227, 23272), (234, 23314), (237, 23335), (240, 23350), (248, 23392), (250, 23407), (256, 23464), (258, 23476), (259, 23485), (260, 23497), (262, 23509), (263, 23515), (266, 23536), (269, 23548), (271, 23557), (274, 23566), (275, 23575), (276, 23590), (277, 23596), (279, 23608), (285, 23632), (288, 23650), (290, 23662), (291, 23683), (292, 23695), (299, 23743), (300, 23752), (305, 23776), (306, 23782), (307, 23785), (308, 23800), (309, 23809), (310, 23812), (311, 23830), (315, 23899), (320, 23938), (339, 24109), (346, 24160), (354, 24304), (358, 24373), (364, 24439), (366, 24490), (375, 24613), (377, 24676), (382, 24724), (383, 24730), (384, 24739), (388, 24787), (393, 24859), (396, 24919), (397, 24940), (398, 24943), (403, 24994), (404, 25003), (406, 25021), (409, 25042), (411, 25054), (416, 25147), (418, 25192), (421, 25267), (422, 25285), (423, 25306), (431, 25393), (438, 25504), (443, 25600),

Gene: BetterYeti_34 Start: 23289, Stop: 28400, Start Num: 2

Candidate Starts for BetterYeti_34:

(Start: 2 @23289 has 44 MA's), (4, 23319), (6, 23364), (12, 23508), (19, 23574), (25, 23634), (26, 23655), (28, 23757), (32, 23883), (35, 23919), (38, 23958), (41, 23985), (42, 24006), (45, 24048), (51, 24168), (55, 24282), (56, 24294), (61, 24369), (64, 24402), (73, 24507), (74, 24510), (95, 24870), (97, 24888), (111, 25044), (118, 25146), (119, 25149), (122, 25176), (126, 25215), (129, 25242), (132, 25263), (134, 25287), (143, 25404), (147, 25467), (148, 25473), (151, 25491), (152, 25497), (156, 25527), (161, 25551), (167, 25605), (169, 25629), (173, 25653), (174, 25656), (177, 25677), (178, 25686), (181, 25731), (183, 25740), (187, 25785), (189, 25806), (190, 25815), (191, 25821), (193, 25836), (195, 25842), (197, 25857), (203, 25911), (204, 25914), (206, 25923), (207, 25935), (209, 25944), (210, 25956), (213, 25977), (215, 25983), (219, 26007), (222, 26037), (223, 26052), (234, 26115), (235, 26127), (236, 26133), (237, 26136), (239, 26148), (240, 26151), (250, 26208), (255, 26262), (256, 26265), (259, 26286), (260, 26298), (261, 26301), (269, 26349), (273, 26364), (274, 26367), (275, 26376), (276, 26391), (277, 26397), (282, 26424), (283, 26427), (285, 26433), (290, 26463), (291, 26484), (292, 26496), (294, 26505), (296, 26517), (299, 26544), (305, 26577), (306, 26583), (308, 26601), (311, 26631), (320, 26739), (329, 26829), (332, 26850), (346, 26961), (348, 27006), (351, 27063), (352, 27096), (364, 27240), (367, 27303), (372, 27369), (374, 27402), (375, 27414), (377, 27477), (380, 27498), (381, 27510), (383, 27531), (394, 27672), (399, 27759), (402, 27777), (406, 27807), (408, 27825), (409, 27828), (410, 27834), (411, 27840), (414, 27867), (418, 27978), (420, 28041), (421, 28053), (427, 28122), (429, 28155), (431, 28179), (439, 28296), (443, 28386),

Gene: BluerMoon_32 Start: 23509, Stop: 28623, Start Num: 2

Candidate Starts for BluerMoon_32:

(Start: 2 @23509 has 44 MA's), (4, 23539), (6, 23584), (12, 23728), (18, 23788), (19, 23794), (25, 23854), (26, 23875), (28, 23977), (32, 24103), (35, 24139), (38, 24178), (42, 24226), (45, 24268), (49, 24340), (51, 24388), (56, 24514), (61, 24589), (62, 24601), (64, 24622), (73, 24727), (74, 24730), (85, 24952), (90, 25018), (97, 25108), (100, 25144), (106, 25195), (107, 25243), (110, 25255), (122,

25399), (126, 25438), (129, 25465), (143, 25627), (145, 25675), (148, 25696), (151, 25714), (159, 25762), (167, 25828), (174, 25879), (175, 25891), (178, 25909), (183, 25963), (187, 26008), (189, 26029), (190, 26038), (193, 26059), (197, 26080), (203, 26134), (204, 26137), (206, 26146), (209, 26167), (210, 26179), (213, 26200), (215, 26206), (218, 26224), (222, 26260), (226, 26290), (234, 26338), (235, 26350), (236, 26356), (237, 26359), (239, 26371), (240, 26374), (245, 26395), (250, 26431), (255, 26485), (256, 26488), (259, 26509), (260, 26521), (261, 26524), (269, 26572), (273, 26587), (274, 26590), (275, 26599), (277, 26620), (282, 26647), (283, 26650), (288, 26674), (290, 26686), (291, 26707), (292, 26719), (294, 26728), (296, 26740), (299, 26767), (305, 26800), (306, 26806), (308, 26824), (312, 26878), (314, 26893), (320, 26962), (332, 27073), (346, 27184), (348, 27229), (352, 27319), (362, 27442), (364, 27463), (367, 27526), (369, 27553), (374, 27625), (375, 27637), (376, 27646), (377, 27700), (380, 27721), (381, 27733), (383, 27754), (394, 27895), (399, 27982), (402, 28000), (406, 28030), (408, 28048), (409, 28051), (411, 28063), (414, 28090), (418, 28201), (421, 28276), (429, 28378), (432, 28405), (439, 28519), (443, 28609),

Gene: Burley_32 Start: 23250, Stop: 28361, Start Num: 2

Candidate Starts for Burley_32:

(Start: 2 @23250 has 44 MA's), (4, 23280), (6, 23325), (8, 23355), (12, 23469), (19, 23535), (25, 23595), (26, 23616), (28, 23718), (32, 23844), (35, 23880), (38, 23919), (41, 23946), (42, 23967), (45, 24009), (50, 24108), (51, 24129), (56, 24255), (61, 24330), (62, 24342), (64, 24363), (73, 24468), (74, 24471), (95, 24831), (106, 24936), (111, 25005), (113, 25026), (118, 25107), (119, 25110), (122, 25137), (126, 25176), (129, 25203), (143, 25365), (145, 25413), (148, 25434), (151, 25452), (159, 25500), (161, 25512), (167, 25566), (174, 25617), (175, 25629), (177, 25638), (178, 25647), (183, 25701), (187, 25746), (188, 25761), (189, 25767), (190, 25776), (191, 25782), (194, 25800), (195, 25803), (196, 25809), (197, 25818), (203, 25872), (204, 25875), (206, 25884), (208, 25902), (209, 25905), (210, 25917), (213, 25938), (215, 25944), (216, 25947), (219, 25968), (222, 25998), (223, 26013), (229, 26046), (231, 26061), (234, 26076), (235, 26088), (236, 26094), (237, 26097), (239, 26109), (240, 26112), (250, 26169), (255, 26223), (256, 26226), (259, 26247), (260, 26259), (261, 26262), (269, 26310), (273, 26325), (274, 26328), (275, 26337), (277, 26358), (282, 26385), (283, 26388), (288, 26412), (290, 26424), (291, 26445), (292, 26457), (296, 26478), (299, 26505), (305, 26538), (306, 26544), (308, 26562), (311, 26592), (314, 26631), (332, 26811), (333, 26823), (343, 26892), (352, 27057), (362, 27180), (364, 27201), (372, 27330), (374, 27363), (375, 27375), (377, 27438), (380, 27459), (381, 27471), (382, 27486), (388, 27549), (394, 27633), (399, 27720), (402, 27738), (406, 27768), (408, 27786), (409, 27789), (410, 27795), (411, 27801), (414, 27828), (418, 27939), (421, 28014), (422, 28032), (429, 28116), (431, 28140), (439, 28257), (443, 28347),

Gene: Captrips_29 Start: 20541, Stop: 25643, Start Num: 2

Candidate Starts for Captrips_29:

(Start: 2 @20541 has 44 MA's), (4, 20571), (9, 20709), (11, 20754), (12, 20760), (13, 20769), (14, 20784), (15, 20805), (19, 20826), (23, 20856), (25, 20886), (26, 20907), (28, 21009), (30, 21069), (33, 21144), (34, 21156), (36, 21180), (38, 21210), (40, 21225), (42, 21258), (45, 21300), (47, 21351), (52, 21405), (53, 21408), (55, 21507), (57, 21531), (64, 21627), (73, 21732), (74, 21735), (77, 21804), (78, 21810), (79, 21816), (87, 21993), (92, 22044), (95, 22095), (100, 22149), (101, 22152), (115, 22323), (122, 22404), (123, 22407), (130, 22482), (136, 22539), (141, 22623), (143, 22632), (147, 22695), (148, 22701), (149, 22707), (151, 22719), (153, 22734), (154, 22737), (157, 22758), (164, 22806), (167, 22833), (168, 22854), (171, 22863), (174, 22884), (175, 22896), (177, 22905), (178, 22914), (183, 22968), (184, 22971), (186, 22992), (189, 23034), (195, 23070), (197, 23085), (198, 23094), (199, 23109), (200, 23121), (201, 23130), (207, 23163), (209, 23172), (221, 23256), (222, 23265), (223, 23280), (224, 23283), (227, 23301), (234, 23343), (237, 23364), (240, 23379), (248, 23421), (250, 23436), (256, 23493), (258, 23505), (259, 23514), (260, 23526), (262, 23538), (263, 23544), (266, 23565), (269, 23577), (274, 23595), (275, 23604), (276, 23619), (277, 23625), (279, 23637), (288, 23679), (289, 23682), (290, 23691), (291, 23712), (292, 23724), (299, 23772), (300, 23781), (305, 23805), (306, 23811), (308, 23829), (309, 23838), (311, 23859), (315, 23928), (320, 23967), (339, 24138), (346, 24189), (354, 24333), (364, 24468), (366, 24519), (375, 24642), (377, 24705),

(382, 24753), (383, 24759), (384, 24768), (388, 24816), (393, 24888), (396, 24948), (397, 24969), (398, 24972), (403, 25023), (404, 25032), (406, 25050), (409, 25071), (411, 25083), (416, 25176), (418, 25221), (421, 25296), (422, 25314), (423, 25335), (431, 25422), (438, 25533), (443, 25629),

Gene: Capybara_29 Start: 20616, Stop: 25718, Start Num: 2

Candidate Starts for Capybara_29:

(Start: 2 @20616 has 44 MA's), (4, 20646), (9, 20784), (11, 20829), (12, 20835), (13, 20844), (14, 20859), (15, 20880), (19, 20901), (23, 20931), (25, 20961), (26, 20982), (28, 21084), (30, 21144), (33, 21219), (34, 21231), (36, 21255), (38, 21285), (40, 21300), (42, 21333), (45, 21375), (47, 21426), (52, 21480), (53, 21483), (55, 21582), (57, 21606), (64, 21702), (73, 21807), (74, 21810), (77, 21879), (78, 21885), (79, 21891), (87, 22068), (92, 22119), (95, 22170), (100, 22224), (101, 22227), (112, 22359), (120, 22461), (122, 22479), (123, 22482), (130, 22557), (136, 22614), (141, 22698), (143, 22707), (151, 22794), (157, 22833), (164, 22881), (167, 22908), (168, 22929), (171, 22938), (174, 22959), (175, 22971), (177, 22980), (178, 22989), (179, 23016), (183, 23043), (184, 23046), (186, 23067), (189, 23109), (192, 23136), (195, 23145), (197, 23160), (198, 23169), (199, 23184), (200, 23196), (201, 23205), (204, 23217), (207, 23238), (209, 23247), (221, 23331), (222, 23340), (223, 23355), (224, 23358), (227, 23376), (229, 23388), (230, 23391), (234, 23418), (237, 23439), (240, 23454), (248, 23496), (250, 23511), (256, 23568), (258, 23580), (259, 23589), (260, 23601), (262, 23613), (263, 23619), (266, 23640), (269, 23652), (274, 23670), (275, 23679), (276, 23694), (277, 23700), (279, 23712), (288, 23754), (289, 23757), (290, 23766), (291, 23787), (292, 23799), (299, 23847), (300, 23856), (305, 23880), (306, 23886), (308, 23904), (309, 23913), (311, 23934), (315, 24003), (317, 24021), (318, 24024), (320, 24042), (334, 24168), (339, 24213), (346, 24264), (354, 24408), (364, 24543), (366, 24594), (372, 24672), (375, 24717), (377, 24780), (379, 24798), (382, 24828), (383, 24834), (388, 24891), (393, 24963), (396, 25023), (397, 25044), (398, 25047), (403, 25098), (404, 25107), (409, 25146), (411, 25158), (416, 25251), (418, 25296), (421, 25371), (423, 25410), (427, 25440), (431, 25497), (438, 25608), (443, 25704),

Gene: Chikenjars_32 Start: 23502, Stop: 28613, Start Num: 2

Candidate Starts for Chikenjars_32:

(Start: 2 @23502 has 44 MA's), (4, 23532), (6, 23577), (12, 23721), (19, 23787), (25, 23847), (26, 23868), (28, 23970), (31, 24060), (32, 24096), (35, 24132), (38, 24171), (42, 24219), (45, 24261), (49, 24333), (51, 24381), (56, 24507), (61, 24582), (64, 24615), (73, 24720), (74, 24723), (85, 24945), (90, 25011), (91, 25014), (95, 25083), (106, 25188), (111, 25257), (118, 25359), (119, 25362), (122, 25389), (126, 25428), (129, 25455), (143, 25617), (145, 25665), (148, 25686), (151, 25704), (159, 25752), (167, 25818), (170, 25845), (171, 25848), (173, 25866), (174, 25869), (177, 25890), (178, 25899), (181, 25944), (183, 25953), (187, 25998), (189, 26019), (190, 26028), (196, 26061), (197, 26070), (199, 26094), (203, 26124), (204, 26127), (206, 26136), (207, 26148), (209, 26157), (210, 26169), (213, 26190), (215, 26196), (222, 26250), (234, 26328), (235, 26340), (236, 26346), (237, 26349), (240, 26364), (245, 26385), (250, 26421), (255, 26475), (256, 26478), (258, 26490), (259, 26499), (260, 26511), (261, 26514), (263, 26529), (267, 26556), (269, 26562), (273, 26577), (274, 26580), (275, 26589), (276, 26604), (277, 26610), (280, 26625), (282, 26637), (283, 26640), (288, 26664), (290, 26676), (291, 26697), (292, 26709), (294, 26718), (296, 26730), (299, 26757), (303, 26781), (305, 26790), (306, 26796), (308, 26814), (314, 26883), (320, 26952), (337, 27108), (352, 27309), (364, 27453), (367, 27516), (369, 27543), (374, 27615), (375, 27627), (376, 27636), (377, 27690), (380, 27711), (381, 27723), (394, 27885), (399, 27972), (402, 27990), (406, 28020), (408, 28038), (409, 28041), (411, 28053), (414, 28080), (418, 28191), (421, 28266), (425, 28314), (429, 28368), (432, 28395), (439, 28509), (443, 28599),

Gene: Citrus_31 Start: 23506, Stop: 28617, Start Num: 2

Candidate Starts for Citrus_31:

(Start: 2 @23506 has 44 MA's), (4, 23536), (6, 23581), (12, 23725), (19, 23791), (25, 23851), (26, 23872), (28, 23974), (31, 24064), (32, 24100), (35, 24136), (38, 24175), (42, 24223), (45, 24265), (51, 24385), (56, 24511), (61, 24586), (62, 24598), (64, 24619), (73, 24724), (74, 24727), (85, 24949), (90,

25015), (91, 25018), (95, 25087), (106, 25192), (111, 25261), (113, 25282), (118, 25363), (119, 25366), (122, 25393), (126, 25432), (129, 25459), (143, 25621), (145, 25669), (148, 25690), (151, 25708), (159, 25756), (167, 25822), (170, 25849), (171, 25852), (173, 25870), (174, 25873), (177, 25894), (178, 25903), (183, 25957), (187, 26002), (189, 26023), (190, 26032), (196, 26065), (197, 26074), (199, 26098), (203, 26128), (204, 26131), (206, 26140), (207, 26152), (209, 26161), (210, 26173), (213, 26194), (215, 26200), (222, 26254), (226, 26284), (234, 26332), (235, 26344), (236, 26350), (237, 26353), (240, 26368), (245, 26389), (250, 26425), (255, 26479), (258, 26494), (259, 26503), (260, 26515), (261, 26518), (263, 26533), (267, 26560), (269, 26566), (273, 26581), (274, 26584), (275, 26593), (276, 26608), (277, 26614), (280, 26629), (282, 26641), (283, 26644), (290, 26680), (291, 26701), (292, 26713), (294, 26722), (296, 26734), (299, 26761), (303, 26785), (305, 26794), (306, 26800), (308, 26818), (314, 26887), (320, 26956), (337, 27112), (352, 27313), (364, 27457), (367, 27520), (369, 27547), (374, 27619), (375, 27631), (376, 27640), (377, 27694), (380, 27715), (381, 27727), (394, 27889), (399, 27976), (402, 27994), (406, 28024), (408, 28042), (409, 28045), (411, 28057), (414, 28084), (418, 28195), (421, 28270), (425, 28318), (429, 28372), (432, 28399), (439, 28513), (443, 28603),

Gene: Conley_30 Start: 21600, Stop: 26687, Start Num: 2

Candidate Starts for Conley_30:

(Start: 2 @21600 has 44 MA's), (4, 21630), (9, 21768), (14, 21843), (15, 21864), (19, 21885), (23, 21915), (25, 21945), (26, 21966), (28, 22068), (30, 22128), (33, 22203), (34, 22215), (36, 22239), (38, 22269), (40, 22284), (42, 22317), (43, 22323), (45, 22359), (47, 22410), (52, 22464), (53, 22467), (55, 22566), (64, 22686), (68, 22740), (71, 22770), (73, 22791), (74, 22794), (77, 22863), (78, 22869), (87, 23052), (96, 23160), (97, 23172), (98, 23184), (100, 23208), (102, 23226), (122, 23463), (123, 23466), (126, 23502), (130, 23541), (132, 23550), (136, 23598), (141, 23682), (143, 23691), (147, 23754), (148, 23760), (149, 23766), (151, 23778), (154, 23796), (161, 23838), (164, 23865), (167, 23892), (168, 23913), (171, 23922), (174, 23943), (175, 23955), (176, 23961), (177, 23964), (178, 23973), (184, 24030), (186, 24051), (189, 24093), (192, 24120), (194, 24126), (197, 24144), (198, 24153), (199, 24168), (200, 24180), (201, 24189), (207, 24222), (209, 24231), (221, 24315), (222, 24324), (223, 24339), (227, 24360), (234, 24402), (235, 24414), (237, 24423), (240, 24438), (248, 24480), (250, 24495), (256, 24552), (258, 24564), (259, 24573), (260, 24585), (262, 24597), (263, 24603), (266, 24624), (269, 24636), (271, 24645), (274, 24654), (275, 24663), (276, 24678), (277, 24684), (279, 24696), (282, 24711), (285, 24720), (288, 24738), (291, 24771), (292, 24783), (299, 24831), (300, 24840), (305, 24864), (306, 24870), (308, 24888), (309, 24897), (310, 24900), (311, 24918), (315, 24987), (320, 25026), (330, 25131), (331, 25134), (332, 25137), (339, 25197), (348, 25293), (349, 25305), (351, 25350), (354, 25392), (364, 25527), (374, 25689), (377, 25764), (383, 25818), (385, 25839), (393, 25947), (396, 26007), (399, 26046), (402, 26064), (403, 26067), (406, 26094), (407, 26100), (409, 26115), (410, 26121), (411, 26127), (412, 26145), (413, 26148), (417, 26253), (418, 26265), (421, 26340), (422, 26358), (423, 26379), (426, 26391), (431, 26466), (435, 26526), (440, 26622), (443, 26673),

Gene: Crocheter_32 Start: 23642, Stop: 28753, Start Num: 2

Candidate Starts for Crocheter_32:

(Start: 2 @23642 has 44 MA's), (4, 23672), (6, 23717), (12, 23861), (18, 23921), (19, 23927), (25, 23987), (26, 24008), (28, 24110), (32, 24236), (35, 24272), (38, 24311), (41, 24338), (42, 24359), (45, 24401), (49, 24473), (51, 24521), (56, 24647), (61, 24722), (62, 24734), (64, 24755), (73, 24860), (74, 24863), (80, 24971), (95, 25223), (106, 25328), (111, 25397), (113, 25418), (118, 25499), (119, 25502), (122, 25529), (126, 25568), (129, 25595), (140, 25736), (143, 25757), (147, 25820), (148, 25826), (151, 25844), (152, 25850), (159, 25892), (161, 25904), (162, 25913), (167, 25958), (172, 26000), (174, 26009), (175, 26021), (177, 26030), (178, 26039), (187, 26138), (189, 26159), (190, 26168), (194, 26192), (195, 26195), (203, 26264), (204, 26267), (206, 26276), (208, 26294), (209, 26297), (210, 26309), (213, 26330), (215, 26336), (216, 26339), (219, 26360), (222, 26390), (223, 26405), (226, 26420), (234, 26468), (235, 26480), (236, 26486), (237, 26489), (239, 26501), (240, 26504), (250, 26561), (255, 26615), (259, 26639), (260, 26651), (261, 26654), (268, 26699), (269,

26702), (273, 26717), (274, 26720), (275, 26729), (276, 26744), (277, 26750), (278, 26756), (282, 26777), (283, 26780), (286, 26792), (289, 26807), (290, 26816), (291, 26837), (292, 26849), (296, 26870), (299, 26897), (305, 26930), (306, 26936), (308, 26954), (311, 26984), (314, 27023), (320, 27092), (332, 27203), (333, 27215), (343, 27284), (348, 27359), (352, 27449), (364, 27593), (367, 27656), (372, 27722), (374, 27755), (375, 27767), (377, 27830), (380, 27851), (381, 27863), (383, 27884), (388, 27941), (394, 28025), (399, 28112), (402, 28130), (406, 28160), (408, 28178), (409, 28181), (410, 28187), (411, 28193), (414, 28220), (418, 28331), (421, 28406), (427, 28475), (429, 28508), (431, 28532), (439, 28649), (443, 28739),

Gene: Dancer_31 Start: 20241, Stop: 25343, Start Num: 2

Candidate Starts for Dancer_31:

(Start: 2 @20241 has 44 MA's), (4, 20271), (9, 20409), (12, 20460), (13, 20469), (14, 20484), (15, 20505), (19, 20526), (23, 20556), (25, 20586), (26, 20607), (28, 20709), (30, 20769), (33, 20844), (34, 20856), (36, 20880), (38, 20910), (40, 20925), (42, 20958), (45, 21000), (47, 21051), (52, 21105), (53, 21108), (55, 21207), (57, 21231), (64, 21327), (71, 21411), (73, 21432), (74, 21435), (77, 21504), (78, 21510), (79, 21516), (87, 21693), (92, 21744), (95, 21795), (100, 21849), (101, 21852), (112, 21984), (115, 22023), (122, 22104), (123, 22107), (130, 22182), (136, 22239), (141, 22323), (143, 22332), (148, 22401), (149, 22407), (151, 22419), (153, 22434), (154, 22437), (157, 22458), (164, 22506), (167, 22533), (168, 22554), (171, 22563), (174, 22584), (175, 22596), (177, 22605), (178, 22614), (183, 22668), (184, 22671), (186, 22692), (189, 22734), (195, 22770), (197, 22785), (198, 22794), (199, 22809), (200, 22821), (201, 22830), (207, 22863), (209, 22872), (221, 22956), (222, 22965), (223, 22980), (227, 23001), (234, 23043), (237, 23064), (240, 23079), (242, 23085), (248, 23121), (250, 23136), (256, 23193), (258, 23205), (259, 23214), (260, 23226), (262, 23238), (263, 23244), (266, 23265), (269, 23277), (274, 23295), (275, 23304), (276, 23319), (277, 23325), (279, 23337), (288, 23379), (289, 23382), (290, 23391), (291, 23412), (292, 23424), (299, 23472), (300, 23481), (305, 23505), (306, 23511), (308, 23529), (309, 23538), (315, 23628), (317, 23646), (318, 23649), (320, 23667), (339, 23838), (346, 23889), (354, 24033), (358, 24102), (364, 24168), (366, 24219), (375, 24342), (377, 24405), (382, 24453), (383, 24459), (384, 24468), (388, 24516), (393, 24588), (396, 24648), (397, 24669), (398, 24672), (403, 24723), (404, 24732), (406, 24750), (409, 24771), (411, 24783), (416, 24876), (418, 24921), (421, 24996), (422, 25014), (423, 25035), (431, 25122), (438, 25233), (443, 25329),

Gene: Demure_31 Start: 22605, Stop: 27719, Start Num: 2

Candidate Starts for Demure_31:

(Start: 2 @22605 has 44 MA's), (4, 22635), (6, 22680), (12, 22824), (15, 22869), (16, 22872), (18, 22884), (19, 22890), (25, 22950), (26, 22971), (28, 23073), (29, 23109), (32, 23199), (38, 23274), (41, 23301), (42, 23322), (44, 23346), (45, 23364), (51, 23484), (58, 23640), (61, 23685), (64, 23718), (73, 23823), (74, 23826), (76, 23892), (78, 23901), (84, 24036), (90, 24114), (97, 24204), (106, 24291), (107, 24339), (115, 24414), (122, 24495), (126, 24534), (129, 24561), (140, 24702), (143, 24723), (147, 24786), (148, 24792), (151, 24810), (152, 24816), (159, 24858), (161, 24870), (162, 24879), (167, 24924), (172, 24966), (174, 24975), (175, 24987), (177, 24996), (178, 25005), (183, 25059), (187, 25104), (189, 25125), (190, 25134), (194, 25158), (195, 25161), (196, 25167), (203, 25230), (204, 25233), (206, 25242), (207, 25254), (208, 25260), (209, 25263), (210, 25275), (213, 25296), (215, 25302), (216, 25305), (219, 25326), (222, 25356), (223, 25371), (226, 25386), (234, 25434), (235, 25446), (236, 25452), (237, 25455), (239, 25467), (240, 25470), (250, 25527), (255, 25581), (259, 25605), (260, 25617), (261, 25620), (268, 25665), (269, 25668), (273, 25683), (274, 25686), (275, 25695), (276, 25710), (277, 25716), (278, 25722), (282, 25743), (283, 25746), (286, 25758), (289, 25773), (290, 25782), (291, 25803), (292, 25815), (296, 25836), (299, 25863), (305, 25896), (306, 25902), (308, 25920), (311, 25950), (314, 25989), (320, 26058), (343, 26250), (348, 26325), (352, 26415), (364, 26559), (367, 26622), (372, 26688), (374, 26721), (375, 26733), (377, 26796), (380, 26817), (381, 26829), (383, 26850), (394, 26991), (399, 27078), (402, 27096), (406, 27126), (408, 27144), (409, 27147), (411, 27159), (414, 27186), (418, 27297), (421, 27372), (427, 27441), (429, 27474), (431, 27498), (439, 27615), (443, 27705),

Gene: Duffington_32 Start: 23487, Stop: 28601, Start Num: 2

Candidate Starts for Duffington_32:

(Start: 2 @23487 has 44 MA's), (4, 23517), (6, 23562), (12, 23706), (19, 23772), (25, 23832), (26, 23853), (28, 23955), (32, 24081), (35, 24117), (38, 24156), (42, 24204), (45, 24246), (49, 24318), (51, 24366), (56, 24492), (61, 24567), (62, 24579), (64, 24600), (73, 24705), (74, 24708), (85, 24930), (90, 24996), (97, 25086), (100, 25122), (106, 25173), (107, 25221), (110, 25233), (122, 25377), (126, 25416), (129, 25443), (143, 25605), (145, 25653), (147, 25668), (148, 25674), (151, 25692), (159, 25740), (167, 25806), (174, 25857), (175, 25869), (178, 25887), (183, 25941), (187, 25986), (189, 26007), (190, 26016), (193, 26037), (197, 26058), (203, 26112), (204, 26115), (206, 26124), (209, 26145), (210, 26157), (213, 26178), (215, 26184), (218, 26202), (222, 26238), (226, 26268), (234, 26316), (235, 26328), (236, 26334), (237, 26337), (239, 26349), (240, 26352), (245, 26373), (250, 26409), (255, 26463), (256, 26466), (259, 26487), (260, 26499), (261, 26502), (269, 26550), (273, 26565), (274, 26568), (275, 26577), (277, 26598), (282, 26625), (283, 26628), (288, 26652), (290, 26664), (291, 26685), (292, 26697), (294, 26706), (296, 26718), (299, 26745), (305, 26778), (306, 26784), (308, 26802), (314, 26871), (320, 26940), (332, 27051), (346, 27162), (348, 27207), (352, 27297), (364, 27441), (367, 27504), (369, 27531), (374, 27603), (375, 27615), (376, 27624), (377, 27678), (380, 27699), (381, 27711), (394, 27873), (399, 27960), (402, 27978), (406, 28008), (408, 28026), (409, 28029), (411, 28041), (414, 28068), (418, 28179), (421, 28254), (425, 28302), (429, 28356), (432, 28383), (439, 28497), (443, 28587),

Gene: Eddiemania_33 Start: 24148, Stop: 29262, Start Num: 2

Candidate Starts for Eddiemania_33:

(Start: 2 @24148 has 44 MA's), (4, 24178), (6, 24223), (12, 24367), (19, 24433), (25, 24493), (26, 24514), (28, 24616), (32, 24742), (35, 24778), (38, 24817), (41, 24844), (42, 24865), (45, 24907), (51, 25027), (61, 25228), (62, 25240), (64, 25261), (71, 25345), (73, 25366), (74, 25369), (80, 25477), (84, 25579), (97, 25747), (100, 25783), (106, 25834), (107, 25882), (122, 26038), (126, 26077), (128, 26095), (129, 26104), (143, 26266), (147, 26329), (148, 26335), (151, 26353), (152, 26359), (159, 26401), (167, 26467), (174, 26518), (175, 26530), (178, 26548), (183, 26602), (187, 26647), (189, 26668), (190, 26677), (193, 26698), (196, 26710), (197, 26719), (199, 26743), (203, 26773), (204, 26776), (206, 26785), (208, 26803), (209, 26806), (210, 26818), (213, 26839), (215, 26845), (216, 26848), (218, 26863), (219, 26869), (222, 26899), (223, 26914), (226, 26929), (233, 26974), (234, 26977), (235, 26989), (236, 26995), (237, 26998), (239, 27010), (240, 27013), (244, 27031), (250, 27070), (255, 27124), (259, 27148), (260, 27160), (261, 27163), (269, 27211), (273, 27226), (274, 27229), (275, 27238), (276, 27253), (277, 27259), (282, 27286), (283, 27289), (286, 27301), (289, 27316), (290, 27325), (291, 27346), (292, 27358), (296, 27379), (299, 27406), (305, 27439), (306, 27445), (308, 27463), (311, 27493), (314, 27532), (333, 27724), (343, 27793), (352, 27958), (364, 28102), (367, 28165), (372, 28231), (374, 28264), (375, 28276), (377, 28339), (380, 28360), (381, 28372), (382, 28387), (388, 28450), (394, 28534), (399, 28621), (402, 28639), (406, 28669), (408, 28687), (410, 28696), (411, 28702), (414, 28729), (418, 28840), (421, 28915), (427, 28984), (429, 29017), (431, 29041), (439, 29158), (443, 29248),

Gene: EndAve_32 Start: 23502, Stop: 28613, Start Num: 2

Candidate Starts for EndAve_32:

(Start: 2 @23502 has 44 MA's), (4, 23532), (6, 23577), (12, 23721), (19, 23787), (25, 23847), (26, 23868), (28, 23970), (31, 24060), (32, 24096), (35, 24132), (38, 24171), (42, 24219), (45, 24261), (49, 24333), (51, 24381), (56, 24507), (61, 24582), (62, 24594), (64, 24615), (73, 24720), (74, 24723), (85, 24945), (90, 25011), (91, 25014), (95, 25083), (97, 25101), (106, 25188), (111, 25257), (118, 25359), (119, 25362), (122, 25389), (126, 25428), (129, 25455), (143, 25617), (145, 25665), (148, 25686), (151, 25704), (153, 25719), (159, 25752), (167, 25818), (173, 25866), (174, 25869), (177, 25890), (178, 25899), (183, 25953), (187, 25998), (189, 26019), (190, 26028), (196, 26061), (197, 26070), (199, 26094), (203, 26124), (204, 26127), (206, 26136), (207, 26148), (209, 26157), (210, 26169), (213, 26190), (215, 26196), (222, 26250), (226, 26280), (234, 26328), (235, 26340), (236, 26346),

(237, 26349), (240, 26364), (245, 26385), (250, 26421), (255, 26475), (256, 26478), (258, 26490), (259, 26499), (260, 26511), (261, 26514), (263, 26529), (267, 26556), (269, 26562), (273, 26577), (274, 26580), (275, 26589), (276, 26604), (277, 26610), (280, 26625), (282, 26637), (283, 26640), (290, 26676), (291, 26697), (292, 26709), (294, 26718), (296, 26730), (299, 26757), (303, 26781), (305, 26790), (306, 26796), (308, 26814), (314, 26883), (320, 26952), (337, 27108), (352, 27309), (364, 27453), (367, 27516), (369, 27543), (374, 27615), (375, 27627), (376, 27636), (377, 27690), (380, 27711), (381, 27723), (394, 27885), (399, 27972), (402, 27990), (406, 28020), (408, 28038), (409, 28041), (411, 28053), (414, 28080), (418, 28191), (421, 28266), (425, 28314), (429, 28368), (432, 28395), (439, 28509), (443, 28599),

Gene: Fazel_30 Start: 22536, Stop: 27638, Start Num: 2

Candidate Starts for Fazel_30:

(Start: 2 @22536 has 44 MA's), (4, 22566), (6, 22611), (11, 22749), (12, 22755), (19, 22821), (23, 22851), (28, 23016), (30, 23076), (34, 23163), (36, 23187), (38, 23217), (40, 23232), (42, 23265), (48, 23358), (56, 23526), (64, 23634), (65, 23646), (69, 23703), (73, 23739), (74, 23742), (77, 23811), (78, 23817), (87, 24000), (88, 24006), (95, 24102), (97, 24120), (111, 24276), (121, 24402), (122, 24411), (143, 24642), (144, 24648), (148, 24711), (151, 24729), (155, 24756), (158, 24774), (167, 24843), (169, 24867), (171, 24873), (174, 24894), (176, 24912), (177, 24915), (183, 24978), (187, 25023), (189, 25044), (192, 25071), (198, 25104), (200, 25131), (203, 25149), (204, 25152), (206, 25161), (207, 25173), (208, 25179), (209, 25182), (210, 25194), (218, 25239), (223, 25290), (229, 25323), (232, 25344), (234, 25353), (235, 25365), (237, 25374), (240, 25389), (242, 25395), (243, 25401), (245, 25410), (246, 25425), (247, 25428), (249, 25437), (250, 25446), (253, 25482), (256, 25503), (259, 25524), (263, 25554), (265, 25569), (266, 25575), (272, 25599), (274, 25605), (275, 25614), (276, 25629), (277, 25635), (285, 25671), (288, 25689), (290, 25701), (291, 25722), (292, 25734), (296, 25755), (297, 25758), (299, 25782), (300, 25791), (305, 25815), (306, 25821), (308, 25839), (309, 25848), (310, 25851), (315, 25938), (319, 25968), (343, 26169), (348, 26244), (351, 26301), (352, 26334), (362, 26457), (374, 26640), (375, 26652), (376, 26661), (377, 26715), (382, 26763), (386, 26814), (389, 26865), (392, 26886), (395, 26934), (396, 26958), (399, 26997), (402, 27015), (408, 27063), (409, 27066), (411, 27078), (418, 27216), (421, 27291), (432, 27420), (434, 27468), (439, 27534), (440, 27573), (443, 27624),

Gene: Figliar_32 Start: 23512, Stop: 28611, Start Num: 2

Candidate Starts for Figliar_32:

(Start: 2 @23512 has 44 MA's), (4, 23542), (6, 23587), (11, 23725), (12, 23731), (17, 23785), (19, 23797), (21, 23809), (23, 23827), (28, 23992), (30, 24052), (34, 24139), (36, 24163), (38, 24193), (40, 24208), (42, 24241), (47, 24334), (56, 24502), (64, 24610), (65, 24622), (66, 24643), (69, 24679), (73, 24715), (74, 24718), (77, 24787), (78, 24793), (81, 24877), (85, 24940), (87, 24976), (91, 25009), (96, 25084), (97, 25096), (100, 25132), (106, 25183), (107, 25231), (110, 25243), (122, 25387), (126, 25426), (129, 25453), (143, 25615), (145, 25663), (148, 25684), (151, 25702), (159, 25750), (167, 25816), (174, 25867), (175, 25879), (178, 25897), (183, 25951), (187, 25996), (189, 26017), (190, 26026), (192, 26044), (193, 26047), (197, 26068), (203, 26122), (204, 26125), (206, 26134), (209, 26155), (210, 26167), (213, 26188), (215, 26194), (218, 26212), (222, 26248), (226, 26278), (234, 26326), (235, 26338), (236, 26344), (237, 26347), (239, 26359), (240, 26362), (245, 26383), (250, 26419), (255, 26473), (256, 26476), (259, 26497), (260, 26509), (261, 26512), (269, 26560), (273, 26575), (274, 26578), (275, 26587), (277, 26608), (282, 26635), (283, 26638), (288, 26662), (290, 26674), (291, 26695), (292, 26707), (294, 26716), (296, 26728), (299, 26755), (305, 26788), (306, 26794), (308, 26812), (312, 26866), (314, 26881), (320, 26950), (332, 27061), (346, 27172), (348, 27217), (352, 27307), (364, 27451), (367, 27514), (369, 27541), (374, 27613), (375, 27625), (376, 27634), (377, 27688), (380, 27709), (381, 27721), (394, 27883), (399, 27970), (402, 27988), (406, 28018), (408, 28036), (409, 28039), (411, 28051), (414, 28078), (418, 28189), (420, 28252), (421, 28264), (425, 28312), (429, 28366), (432, 28393), (439, 28507), (443, 28597),

Gene: FortCran_29 Start: 20505, Stop: 25607, Start Num: 2

Candidate Starts for FortCran_29:

(Start: 2 @20505 has 44 MA's), (4, 20535), (9, 20673), (11, 20718), (12, 20724), (13, 20733), (14, 20748), (15, 20769), (19, 20790), (23, 20820), (25, 20850), (26, 20871), (28, 20973), (30, 21033), (33, 21108), (34, 21120), (36, 21144), (38, 21174), (40, 21189), (42, 21222), (45, 21264), (47, 21315), (52, 21369), (53, 21372), (55, 21471), (57, 21495), (64, 21591), (73, 21696), (74, 21699), (77, 21768), (78, 21774), (79, 21780), (87, 21957), (92, 22008), (95, 22059), (100, 22113), (101, 22116), (122, 22368), (123, 22371), (130, 22446), (136, 22503), (141, 22587), (143, 22596), (149, 22671), (151, 22683), (153, 22698), (154, 22701), (157, 22722), (164, 22770), (167, 22797), (168, 22818), (171, 22827), (174, 22848), (175, 22860), (177, 22869), (178, 22878), (183, 22932), (184, 22935), (186, 22956), (189, 22998), (192, 23025), (195, 23034), (197, 23049), (198, 23058), (199, 23073), (200, 23085), (201, 23094), (207, 23127), (209, 23136), (221, 23220), (222, 23229), (223, 23244), (224, 23247), (227, 23265), (234, 23307), (237, 23328), (240, 23343), (242, 23349), (248, 23385), (250, 23400), (256, 23457), (258, 23469), (259, 23478), (260, 23490), (262, 23502), (263, 23508), (266, 23529), (269, 23541), (274, 23559), (275, 23568), (276, 23583), (277, 23589), (279, 23601), (288, 23643), (289, 23646), (290, 23655), (291, 23676), (292, 23688), (299, 23736), (300, 23745), (305, 23769), (306, 23775), (308, 23793), (309, 23802), (311, 23823), (315, 23892), (317, 23910), (320, 23931), (339, 24102), (346, 24153), (354, 24297), (358, 24366), (364, 24432), (366, 24483), (375, 24606), (377, 24669), (382, 24717), (383, 24723), (384, 24732), (388, 24780), (393, 24852), (396, 24912), (397, 24933), (398, 24936), (403, 24987), (404, 24996), (406, 25014), (409, 25035), (411, 25047), (416, 25140), (418, 25185), (421, 25260), (422, 25278), (423, 25299), (431, 25386), (438, 25497), (443, 25593),

Gene: Gill_29 Start: 20616, Stop: 25730, Start Num: 2

Candidate Starts for Gill_29:

(Start: 2 @20616 has 44 MA's), (4, 20646), (10, 20793), (11, 20829), (12, 20835), (15, 20880), (19, 20901), (23, 20931), (28, 21096), (30, 21156), (33, 21231), (36, 21267), (37, 21282), (38, 21297), (40, 21312), (42, 21345), (47, 21438), (52, 21492), (53, 21495), (64, 21714), (73, 21819), (74, 21822), (77, 21891), (78, 21897), (87, 22080), (92, 22131), (95, 22182), (100, 22236), (101, 22239), (112, 22371), (120, 22473), (122, 22491), (123, 22494), (130, 22569), (136, 22626), (141, 22710), (143, 22719), (151, 22806), (157, 22845), (164, 22893), (167, 22920), (168, 22941), (171, 22950), (174, 22971), (175, 22983), (177, 22992), (178, 23001), (179, 23028), (183, 23055), (184, 23058), (186, 23079), (189, 23121), (192, 23148), (195, 23157), (197, 23172), (198, 23181), (199, 23196), (200, 23208), (201, 23217), (204, 23229), (207, 23250), (209, 23259), (221, 23343), (222, 23352), (223, 23367), (224, 23370), (227, 23388), (229, 23400), (230, 23403), (234, 23430), (237, 23451), (240, 23466), (248, 23508), (250, 23523), (256, 23580), (258, 23592), (259, 23601), (260, 23613), (262, 23625), (263, 23631), (266, 23652), (269, 23664), (274, 23682), (275, 23691), (276, 23706), (277, 23712), (279, 23724), (288, 23766), (289, 23769), (290, 23778), (291, 23799), (292, 23811), (299, 23859), (300, 23868), (305, 23892), (306, 23898), (308, 23916), (309, 23925), (311, 23946), (315, 24015), (317, 24033), (318, 24036), (320, 24054), (334, 24180), (339, 24225), (346, 24276), (354, 24420), (364, 24555), (366, 24606), (372, 24684), (375, 24729), (377, 24792), (379, 24810), (382, 24840), (383, 24846), (388, 24903), (393, 24975), (396, 25035), (397, 25056), (398, 25059), (403, 25110), (404, 25119), (409, 25158), (411, 25170), (416, 25263), (418, 25308), (421, 25383), (423, 25422), (427, 25452), (431, 25509), (438, 25620), (443, 25716),

Gene: Gravy_29 Start: 20616, Stop: 25730, Start Num: 2

Candidate Starts for Gravy_29:

(Start: 2 @20616 has 44 MA's), (4, 20646), (10, 20793), (11, 20829), (12, 20835), (15, 20880), (19, 20901), (23, 20931), (28, 21096), (30, 21156), (33, 21231), (36, 21267), (37, 21282), (38, 21297), (40, 21312), (42, 21345), (47, 21438), (52, 21492), (53, 21495), (64, 21714), (73, 21819), (74, 21822), (77, 21891), (78, 21897), (87, 22080), (92, 22131), (95, 22182), (100, 22236), (101, 22239), (112, 22371), (120, 22473), (122, 22491), (123, 22494), (130, 22569), (136, 22626), (141, 22710), (143, 22719), (151, 22806), (157, 22845), (164, 22893), (167, 22920), (168, 22941), (171, 22950), (174, 22971), (175, 22983), (177, 22992), (178, 23001), (179, 23028), (183, 23055), (184, 23058), (186, 23079),

(189, 23121), (192, 23148), (195, 23157), (197, 23172), (198, 23181), (199, 23196), (200, 23208), (201, 23217), (204, 23229), (207, 23250), (209, 23259), (221, 23343), (222, 23352), (223, 23367), (224, 23370), (227, 23388), (229, 23400), (230, 23403), (234, 23430), (237, 23451), (240, 23466), (248, 23508), (250, 23523), (256, 23580), (258, 23592), (259, 23601), (260, 23613), (262, 23625), (263, 23631), (266, 23652), (269, 23664), (274, 23682), (275, 23691), (276, 23706), (277, 23712), (279, 23724), (288, 23766), (289, 23769), (290, 23778), (291, 23799), (292, 23811), (299, 23859), (300, 23868), (305, 23892), (306, 23898), (308, 23916), (309, 23925), (311, 23946), (315, 24015), (317, 24033), (318, 24036), (320, 24054), (334, 24180), (339, 24225), (346, 24276), (354, 24420), (364, 24555), (366, 24606), (372, 24684), (375, 24729), (377, 24792), (379, 24810), (382, 24840), (383, 24846), (388, 24903), (393, 24975), (396, 25035), (397, 25056), (398, 25059), (403, 25110), (404, 25119), (409, 25158), (411, 25170), (416, 25263), (418, 25308), (421, 25383), (423, 25422), (427, 25452), (431, 25509), (438, 25620), (443, 25716),

Gene: Gusicorn_35 Start: 23289, Stop: 28400, Start Num: 2

Candidate Starts for Gusicorn_35:

(Start: 2 @23289 has 44 MA's), (4, 23319), (6, 23364), (12, 23508), (19, 23574), (25, 23634), (26, 23655), (28, 23757), (32, 23883), (35, 23919), (38, 23958), (41, 23985), (42, 24006), (45, 24048), (51, 24168), (55, 24282), (56, 24294), (61, 24369), (64, 24402), (73, 24507), (74, 24510), (95, 24870), (97, 24888), (111, 25044), (118, 25146), (119, 25149), (122, 25176), (126, 25215), (129, 25242), (132, 25263), (134, 25287), (143, 25404), (147, 25467), (148, 25473), (151, 25491), (152, 25497), (156, 25527), (161, 25551), (167, 25605), (169, 25629), (173, 25653), (174, 25656), (177, 25677), (178, 25686), (181, 25731), (183, 25740), (187, 25785), (189, 25806), (190, 25815), (191, 25821), (193, 25836), (195, 25842), (197, 25857), (203, 25911), (204, 25914), (206, 25923), (207, 25935), (209, 25944), (210, 25956), (213, 25977), (215, 25983), (219, 26007), (222, 26037), (223, 26052), (234, 26115), (235, 26127), (236, 26133), (237, 26136), (239, 26148), (240, 26151), (250, 26208), (255, 26262), (256, 26265), (259, 26286), (260, 26298), (261, 26301), (269, 26349), (273, 26364), (274, 26367), (275, 26376), (276, 26391), (277, 26397), (282, 26424), (283, 26427), (285, 26433), (290, 26463), (291, 26484), (292, 26496), (294, 26505), (296, 26517), (299, 26544), (305, 26577), (306, 26583), (308, 26601), (311, 26631), (320, 26739), (329, 26829), (332, 26850), (346, 26961), (348, 27006), (351, 27063), (352, 27096), (364, 27240), (367, 27303), (372, 27369), (374, 27402), (375, 27414), (377, 27477), (380, 27498), (381, 27510), (383, 27531), (394, 27672), (399, 27759), (402, 27777), (406, 27807), (408, 27825), (409, 27828), (410, 27834), (411, 27840), (414, 27867), (418, 27978), (420, 28041), (421, 28053), (427, 28122), (429, 28155), (431, 28179), (439, 28296), (443, 28386),

Gene: Hortihabitatio_33 Start: 22913, Stop: 28030, Start Num: 2

Candidate Starts for Hortihabitatio_33:

(Start: 2 @22913 has 44 MA's), (4, 22943), (6, 22988), (12, 23132), (13, 23141), (18, 23192), (19, 23198), (24, 23237), (25, 23258), (26, 23279), (28, 23381), (32, 23507), (35, 23543), (38, 23582), (42, 23630), (45, 23672), (49, 23744), (51, 23792), (56, 23918), (59, 23960), (61, 23993), (64, 24026), (67, 24062), (71, 24110), (73, 24131), (74, 24134), (89, 24410), (95, 24494), (121, 24794), (122, 24803), (124, 24833), (132, 24890), (143, 25034), (144, 25040), (148, 25103), (151, 25121), (153, 25136), (158, 25166), (167, 25235), (169, 25259), (171, 25265), (172, 25277), (174, 25286), (175, 25298), (177, 25307), (180, 25352), (183, 25370), (187, 25415), (189, 25436), (192, 25463), (197, 25487), (198, 25496), (199, 25511), (201, 25532), (204, 25544), (206, 25553), (207, 25565), (209, 25574), (211, 25592), (213, 25607), (216, 25616), (219, 25637), (222, 25667), (232, 25736), (234, 25745), (235, 25757), (236, 25763), (237, 25766), (240, 25781), (243, 25793), (246, 25817), (248, 25823), (250, 25838), (252, 25865), (254, 25886), (256, 25895), (259, 25916), (263, 25946), (267, 25973), (268, 25976), (274, 25997), (277, 26027), (278, 26033), (282, 26054), (283, 26057), (285, 26063), (290, 26093), (291, 26114), (292, 26126), (296, 26147), (299, 26174), (300, 26183), (305, 26207), (306, 26213), (307, 26216), (308, 26231), (309, 26240), (310, 26243), (311, 26261), (313, 26297), (315, 26330), (316, 26339), (319, 26360), (320, 26369), (333, 26492), (335, 26504), (339, 26540), (343, 26561), (347, 26612), (352, 26726), (358, 26804), (362, 26849), (374, 27032), (375, 27044),

(377, 27107), (378, 27119), (380, 27128), (381, 27140), (383, 27161), (386, 27206), (396, 27350), (399, 27389), (406, 27437), (408, 27455), (409, 27458), (411, 27470), (418, 27608), (420, 27671), (421, 27683), (422, 27701), (427, 27752), (432, 27812), (434, 27860), (440, 27965), (443, 28016),

Gene: Hydrus_33 Start: 24017, Stop: 29128, Start Num: 2

Candidate Starts for Hydrus_33:

(Start: 2 @24017 has 44 MA's), (4, 24047), (6, 24092), (12, 24236), (18, 24296), (19, 24302), (25, 24362), (26, 24383), (28, 24485), (32, 24611), (35, 24647), (38, 24686), (42, 24734), (45, 24776), (49, 24848), (51, 24896), (56, 25022), (61, 25097), (62, 25109), (64, 25130), (70, 25202), (73, 25235), (74, 25238), (80, 25346), (95, 25598), (106, 25703), (111, 25772), (113, 25793), (118, 25874), (119, 25877), (122, 25904), (126, 25943), (129, 25970), (140, 26111), (143, 26132), (147, 26195), (148, 26201), (151, 26219), (152, 26225), (159, 26267), (161, 26279), (162, 26288), (167, 26333), (172, 26375), (174, 26384), (175, 26396), (177, 26405), (178, 26414), (187, 26513), (189, 26534), (190, 26543), (194, 26567), (195, 26570), (203, 26639), (204, 26642), (206, 26651), (208, 26669), (209, 26672), (210, 26684), (213, 26705), (215, 26711), (216, 26714), (219, 26735), (222, 26765), (223, 26780), (226, 26795), (234, 26843), (235, 26855), (236, 26861), (237, 26864), (239, 26876), (240, 26879), (250, 26936), (255, 26990), (259, 27014), (260, 27026), (261, 27029), (268, 27074), (269, 27077), (273, 27092), (274, 27095), (275, 27104), (276, 27119), (277, 27125), (278, 27131), (282, 27152), (283, 27155), (286, 27167), (289, 27182), (290, 27191), (291, 27212), (292, 27224), (296, 27245), (299, 27272), (305, 27305), (306, 27311), (308, 27329), (311, 27359), (314, 27398), (320, 27467), (332, 27578), (333, 27590), (343, 27659), (348, 27734), (352, 27824), (364, 27968), (367, 28031), (372, 28097), (374, 28130), (375, 28142), (377, 28205), (380, 28226), (381, 28238), (383, 28259), (388, 28316), (394, 28400), (399, 28487), (402, 28505), (406, 28535), (408, 28553), (409, 28556), (410, 28562), (411, 28568), (414, 28595), (418, 28706), (421, 28781), (427, 28850), (429, 28883), (431, 28907), (439, 29024), (443, 29114),

Gene: Jodelie19_33 Start: 24936, Stop: 30050, Start Num: 2

Candidate Starts for Jodelie19_33:

(Start: 2 @24936 has 44 MA's), (4, 24966), (6, 25011), (12, 25155), (19, 25221), (25, 25281), (26, 25302), (28, 25404), (32, 25530), (35, 25566), (38, 25605), (42, 25653), (45, 25695), (49, 25767), (51, 25815), (56, 25941), (61, 26016), (62, 26028), (64, 26049), (73, 26154), (74, 26157), (85, 26379), (90, 26445), (97, 26535), (100, 26571), (106, 26622), (107, 26670), (110, 26682), (122, 26826), (126, 26865), (129, 26892), (143, 27054), (145, 27102), (147, 27117), (148, 27123), (151, 27141), (159, 27189), (167, 27255), (174, 27306), (175, 27318), (178, 27336), (183, 27390), (187, 27435), (189, 27456), (190, 27465), (193, 27486), (197, 27507), (203, 27561), (204, 27564), (206, 27573), (209, 27594), (210, 27606), (213, 27627), (215, 27633), (218, 27651), (222, 27687), (226, 27717), (234, 27765), (235, 27777), (236, 27783), (237, 27786), (239, 27798), (240, 27801), (245, 27822), (250, 27858), (255, 27912), (256, 27915), (258, 27927), (259, 27936), (260, 27948), (261, 27951), (269, 27999), (273, 28014), (274, 28017), (275, 28026), (277, 28047), (282, 28074), (283, 28077), (288, 28101), (290, 28113), (291, 28134), (292, 28146), (294, 28155), (296, 28167), (299, 28194), (300, 28203), (305, 28227), (306, 28233), (308, 28251), (312, 28305), (314, 28320), (320, 28389), (332, 28500), (346, 28611), (348, 28656), (352, 28746), (362, 28869), (364, 28890), (367, 28953), (369, 28980), (374, 29052), (375, 29064), (376, 29073), (377, 29127), (380, 29148), (381, 29160), (394, 29322), (399, 29409), (402, 29427), (406, 29457), (408, 29475), (409, 29478), (411, 29490), (414, 29517), (418, 29628), (421, 29703), (425, 29751), (429, 29805), (432, 29832), (439, 29946), (443, 30036),

Gene: JulesRay_31 Start: 20535, Stop: 25637, Start Num: 2

Candidate Starts for JulesRay_31:

(Start: 2 @20535 has 44 MA's), (4, 20565), (9, 20703), (12, 20754), (13, 20763), (14, 20778), (15, 20799), (19, 20820), (23, 20850), (25, 20880), (26, 20901), (28, 21003), (30, 21063), (33, 21138), (34, 21150), (36, 21174), (38, 21204), (40, 21219), (42, 21252), (45, 21294), (47, 21345), (52, 21399), (53, 21402), (55, 21501), (57, 21525), (64, 21621), (71, 21705), (73, 21726), (74, 21729), (77, 21798), (78,

21804), (79, 21810), (87, 21987), (92, 22038), (95, 22089), (100, 22143), (101, 22146), (112, 22278), (115, 22317), (122, 22398), (123, 22401), (130, 22476), (136, 22533), (141, 22617), (143, 22626), (148, 22695), (149, 22701), (151, 22713), (153, 22728), (154, 22731), (157, 22752), (164, 22800), (167, 22827), (168, 22848), (171, 22857), (174, 22878), (175, 22890), (177, 22899), (178, 22908), (183, 22962), (184, 22965), (186, 22986), (189, 23028), (195, 23064), (197, 23079), (198, 23088), (199, 23103), (200, 23115), (201, 23124), (207, 23157), (209, 23166), (221, 23250), (222, 23259), (223, 23274), (227, 23295), (234, 23337), (237, 23358), (240, 23373), (242, 23379), (248, 23415), (250, 23430), (256, 23487), (258, 23499), (259, 23508), (260, 23520), (262, 23532), (263, 23538), (266, 23559), (269, 23571), (274, 23589), (275, 23598), (276, 23613), (277, 23619), (279, 23631), (288, 23673), (289, 23676), (290, 23685), (291, 23706), (292, 23718), (299, 23766), (300, 23775), (305, 23799), (306, 23805), (308, 23823), (309, 23832), (315, 23922), (317, 23940), (318, 23943), (320, 23961), (339, 24132), (346, 24183), (354, 24327), (364, 24462), (366, 24513), (375, 24636), (377, 24699), (382, 24747), (383, 24753), (384, 24762), (388, 24810), (393, 24882), (396, 24942), (397, 24963), (398, 24966), (403, 25017), (404, 25026), (406, 25044), (409, 25065), (411, 25077), (416, 25170), (418, 25215), (421, 25290), (422, 25308), (423, 25329), (431, 25416), (438, 25527), (443, 25623),

Gene: Kenosha_32 Start: 24052, Stop: 29163, Start Num: 2

Candidate Starts for Kenosha_32:

(Start: 2 @24052 has 44 MA's), (4, 24082), (6, 24127), (12, 24271), (18, 24331), (19, 24337), (25, 24397), (26, 24418), (28, 24520), (31, 24610), (32, 24646), (35, 24682), (38, 24721), (41, 24748), (42, 24769), (45, 24811), (49, 24883), (51, 24931), (56, 25057), (61, 25132), (62, 25144), (64, 25165), (73, 25270), (74, 25273), (80, 25381), (95, 25633), (106, 25738), (111, 25807), (113, 25828), (118, 25909), (119, 25912), (122, 25939), (126, 25978), (129, 26005), (140, 26146), (143, 26167), (147, 26230), (148, 26236), (151, 26254), (152, 26260), (159, 26302), (161, 26314), (162, 26323), (167, 26368), (174, 26419), (175, 26431), (177, 26440), (178, 26449), (187, 26548), (189, 26569), (190, 26578), (194, 26602), (195, 26605), (196, 26611), (203, 26674), (204, 26677), (206, 26686), (207, 26698), (208, 26704), (209, 26707), (210, 26719), (213, 26740), (215, 26746), (216, 26749), (219, 26770), (222, 26800), (223, 26815), (226, 26830), (234, 26878), (235, 26890), (236, 26896), (237, 26899), (239, 26911), (240, 26914), (250, 26971), (255, 27025), (256, 27028), (259, 27049), (260, 27061), (261, 27064), (268, 27109), (269, 27112), (273, 27127), (274, 27130), (275, 27139), (276, 27154), (277, 27160), (278, 27166), (282, 27187), (283, 27190), (286, 27202), (289, 27217), (290, 27226), (291, 27247), (292, 27259), (296, 27280), (299, 27307), (305, 27340), (306, 27346), (308, 27364), (311, 27394), (314, 27433), (333, 27625), (343, 27694), (348, 27769), (352, 27859), (364, 28003), (372, 28132), (374, 28165), (375, 28177), (376, 28186), (377, 28240), (380, 28261), (381, 28273), (382, 28288), (388, 28351), (394, 28435), (399, 28522), (402, 28540), (403, 28543), (406, 28570), (408, 28588), (409, 28591), (410, 28597), (411, 28603), (414, 28630), (418, 28741), (421, 28816), (427, 28885), (429, 28918), (431, 28942), (439, 29059), (443, 29149),

Gene: Kerry_29 Start: 20616, Stop: 25730, Start Num: 2

Candidate Starts for Kerry_29:

(Start: 2 @20616 has 44 MA's), (4, 20646), (10, 20793), (11, 20829), (12, 20835), (15, 20880), (19, 20901), (23, 20931), (28, 21096), (30, 21156), (33, 21231), (36, 21267), (37, 21282), (38, 21297), (40, 21312), (42, 21345), (47, 21438), (52, 21492), (53, 21495), (64, 21714), (73, 21819), (74, 21822), (77, 21891), (78, 21897), (87, 22080), (92, 22131), (95, 22182), (100, 22236), (101, 22239), (112, 22371), (120, 22473), (122, 22491), (123, 22494), (130, 22569), (136, 22626), (141, 22710), (143, 22719), (151, 22806), (157, 22845), (164, 22893), (167, 22920), (168, 22941), (171, 22950), (174, 22971), (175, 22983), (177, 22992), (178, 23001), (179, 23028), (183, 23055), (184, 23058), (186, 23079), (189, 23121), (192, 23148), (195, 23157), (197, 23172), (198, 23181), (199, 23196), (200, 23208), (201, 23217), (204, 23229), (207, 23250), (209, 23259), (221, 23343), (222, 23352), (223, 23367), (224, 23370), (227, 23388), (229, 23400), (230, 23403), (234, 23430), (237, 23451), (240, 23466), (248, 23508), (250, 23523), (256, 23580), (258, 23592), (259, 23601), (260, 23613), (262, 23625), (263, 23631), (266, 23652), (269, 23664), (274, 23682), (275, 23691), (276, 23706), (277, 23712),

(279, 23724), (288, 23766), (289, 23769), (290, 23778), (291, 23799), (292, 23811), (299, 23859), (300, 23868), (305, 23892), (306, 23898), (308, 23916), (309, 23925), (311, 23946), (315, 24015), (317, 24033), (318, 24036), (320, 24054), (334, 24180), (339, 24225), (346, 24276), (354, 24420), (364, 24555), (366, 24606), (372, 24684), (375, 24729), (377, 24792), (379, 24810), (382, 24840), (383, 24846), (388, 24903), (393, 24975), (396, 25035), (397, 25056), (398, 25059), (403, 25110), (404, 25119), (409, 25158), (411, 25170), (416, 25263), (418, 25308), (421, 25383), (423, 25422), (427, 25452), (431, 25509), (438, 25620), (443, 25716),

Gene: Madvan_32 Start: 23284, Stop: 28395, Start Num: 2

Candidate Starts for Madvan_32:

(Start: 2 @23284 has 44 MA's), (4, 23314), (6, 23359), (12, 23503), (18, 23563), (19, 23569), (25, 23629), (26, 23650), (28, 23752), (31, 23842), (32, 23878), (35, 23914), (38, 23953), (41, 23980), (42, 24001), (45, 24043), (51, 24163), (56, 24289), (61, 24364), (62, 24376), (64, 24397), (70, 24469), (73, 24502), (74, 24505), (80, 24613), (95, 24865), (106, 24970), (111, 25039), (118, 25141), (119, 25144), (122, 25171), (126, 25210), (129, 25237), (143, 25399), (145, 25447), (148, 25468), (151, 25486), (159, 25534), (161, 25546), (167, 25600), (174, 25651), (175, 25663), (177, 25672), (178, 25681), (183, 25735), (187, 25780), (188, 25795), (189, 25801), (190, 25810), (191, 25816), (194, 25834), (195, 25837), (196, 25843), (197, 25852), (203, 25906), (204, 25909), (206, 25918), (208, 25936), (209, 25939), (210, 25951), (213, 25972), (215, 25978), (216, 25981), (219, 26002), (222, 26032), (223, 26047), (229, 26080), (234, 26110), (235, 26122), (236, 26128), (237, 26131), (239, 26143), (240, 26146), (250, 26203), (255, 26257), (256, 26260), (259, 26281), (260, 26293), (261, 26296), (268, 26341), (269, 26344), (273, 26359), (274, 26362), (275, 26371), (276, 26386), (277, 26392), (278, 26398), (282, 26419), (283, 26422), (286, 26434), (289, 26449), (290, 26458), (291, 26479), (292, 26491), (296, 26512), (299, 26539), (305, 26572), (306, 26578), (308, 26596), (311, 26626), (314, 26665), (320, 26734), (343, 26926), (348, 27001), (352, 27091), (364, 27235), (367, 27298), (372, 27364), (374, 27397), (375, 27409), (377, 27472), (380, 27493), (381, 27505), (383, 27526), (388, 27583), (394, 27667), (399, 27754), (402, 27772), (406, 27802), (408, 27820), (409, 27823), (410, 27829), (411, 27835), (414, 27862), (418, 27973), (421, 28048), (427, 28117), (429, 28150), (431, 28174), (439, 28291), (443, 28381),

Gene: MajinBuu_33 Start: 23507, Stop: 28621, Start Num: 2

Candidate Starts for MajinBuu_33:

(Start: 2 @23507 has 44 MA's), (4, 23537), (6, 23582), (12, 23726), (19, 23792), (25, 23852), (26, 23873), (28, 23975), (32, 24101), (35, 24137), (38, 24176), (42, 24224), (45, 24266), (49, 24338), (51, 24386), (56, 24512), (61, 24587), (62, 24599), (64, 24620), (73, 24725), (74, 24728), (85, 24950), (90, 25016), (97, 25106), (100, 25142), (106, 25193), (107, 25241), (110, 25253), (122, 25397), (126, 25436), (129, 25463), (143, 25625), (145, 25673), (147, 25688), (148, 25694), (151, 25712), (159, 25760), (167, 25826), (174, 25877), (175, 25889), (178, 25907), (183, 25961), (187, 26006), (189, 26027), (190, 26036), (193, 26057), (197, 26078), (203, 26132), (204, 26135), (206, 26144), (209, 26165), (210, 26177), (213, 26198), (215, 26204), (218, 26222), (222, 26258), (226, 26288), (234, 26336), (235, 26348), (236, 26354), (237, 26357), (239, 26369), (240, 26372), (245, 26393), (250, 26429), (255, 26483), (256, 26486), (259, 26507), (260, 26519), (261, 26522), (269, 26570), (273, 26585), (274, 26588), (275, 26597), (277, 26618), (282, 26645), (283, 26648), (288, 26672), (290, 26684), (291, 26705), (292, 26717), (294, 26726), (296, 26738), (299, 26765), (300, 26774), (305, 26798), (306, 26804), (308, 26822), (312, 26876), (314, 26891), (320, 26960), (326, 27020), (332, 27071), (346, 27182), (348, 27227), (352, 27317), (362, 27440), (364, 27461), (367, 27524), (369, 27551), (374, 27623), (375, 27635), (376, 27644), (377, 27698), (380, 27719), (381, 27731), (394, 27893), (399, 27980), (402, 27998), (406, 28028), (408, 28046), (409, 28049), (411, 28061), (414, 28088), (418, 28199), (421, 28274), (425, 28322), (429, 28376), (432, 28403), (439, 28517), (443, 28607),

Gene: Mossy_33 Start: 24706, Stop: 29808, Start Num: 2

Candidate Starts for Mossy_33:

(Start: 2 @24706 has 44 MA's), (4, 24736), (6, 24781), (11, 24919), (12, 24925), (19, 24991), (23, 25021), (28, 25186), (30, 25246), (34, 25333), (36, 25357), (38, 25387), (40, 25402), (42, 25435), (48, 25528), (56, 25696), (64, 25804), (65, 25816), (69, 25873), (73, 25909), (74, 25912), (77, 25981), (78, 25987), (87, 26170), (88, 26176), (95, 26272), (97, 26290), (111, 26446), (121, 26572), (122, 26581), (140, 26791), (143, 26812), (144, 26818), (148, 26881), (151, 26899), (155, 26926), (158, 26944), (167, 27013), (169, 27037), (171, 27043), (174, 27064), (177, 27085), (183, 27148), (187, 27193), (189, 27214), (192, 27241), (194, 27247), (197, 27265), (198, 27274), (200, 27301), (203, 27319), (204, 27322), (206, 27331), (207, 27343), (208, 27349), (209, 27352), (210, 27364), (223, 27460), (229, 27493), (232, 27514), (233, 27520), (234, 27523), (235, 27535), (237, 27544), (240, 27559), (242, 27565), (243, 27571), (245, 27580), (246, 27595), (247, 27598), (250, 27616), (253, 27652), (256, 27673), (259, 27694), (263, 27724), (265, 27739), (266, 27745), (268, 27754), (270, 27760), (272, 27769), (274, 27775), (275, 27784), (276, 27799), (277, 27805), (281, 27829), (285, 27841), (290, 27871), (291, 27892), (292, 27904), (296, 27925), (297, 27928), (299, 27952), (300, 27961), (305, 27985), (306, 27991), (308, 28009), (309, 28018), (310, 28021), (313, 28075), (315, 28108), (332, 28258), (333, 28270), (335, 28282), (339, 28318), (343, 28339), (348, 28414), (358, 28582), (361, 28612), (363, 28645), (369, 28738), (374, 28810), (375, 28822), (376, 28831), (377, 28885), (382, 28933), (388, 28996), (391, 29047), (394, 29080), (399, 29167), (402, 29185), (406, 29215), (409, 29236), (410, 29242), (411, 29248), (414, 29275), (415, 29302), (418, 29386), (420, 29449), (421, 29461), (430, 29572), (432, 29590), (434, 29638), (443, 29794),

Gene: Mysticmoon_32 Start: 23315, Stop: 28429, Start Num: 2

Candidate Starts for Mysticmoon_32:

(Start: 2 @23315 has 44 MA's), (4, 23345), (6, 23390), (12, 23534), (18, 23594), (19, 23600), (24, 23639), (25, 23660), (26, 23681), (28, 23783), (32, 23909), (35, 23945), (38, 23984), (41, 24011), (42, 24032), (45, 24074), (51, 24194), (61, 24395), (64, 24428), (66, 24461), (71, 24512), (73, 24533), (74, 24536), (78, 24611), (84, 24746), (89, 24812), (91, 24827), (95, 24896), (97, 24914), (99, 24947), (102, 24968), (103, 24977), (106, 25001), (111, 25070), (113, 25091), (115, 25124), (116, 25127), (121, 25196), (122, 25205), (132, 25292), (137, 25352), (139, 25403), (143, 25436), (144, 25442), (148, 25505), (151, 25523), (158, 25568), (167, 25637), (169, 25661), (171, 25667), (174, 25688), (178, 25718), (183, 25772), (184, 25775), (188, 25832), (189, 25838), (194, 25871), (197, 25889), (198, 25898), (199, 25913), (200, 25925), (203, 25943), (204, 25946), (206, 25955), (207, 25967), (208, 25973), (209, 25976), (213, 26009), (217, 26030), (222, 26069), (229, 26117), (231, 26132), (232, 26138), (234, 26147), (235, 26159), (237, 26168), (239, 26180), (240, 26183), (241, 26186), (242, 26189), (243, 26195), (245, 26204), (252, 26267), (254, 26288), (256, 26297), (259, 26318), (266, 26369), (272, 26393), (274, 26399), (276, 26423), (277, 26429), (282, 26456), (283, 26459), (290, 26495), (291, 26516), (292, 26528), (294, 26537), (296, 26549), (299, 26576), (300, 26585), (305, 26609), (306, 26615), (308, 26633), (311, 26663), (314, 26702), (315, 26732), (319, 26762), (333, 26894), (343, 26963), (352, 27128), (362, 27251), (374, 27434), (375, 27446), (376, 27455), (377, 27509), (382, 27557), (389, 27659), (392, 27680), (395, 27728), (399, 27791), (402, 27809), (408, 27857), (409, 27860), (411, 27872), (414, 27899), (418, 28010), (421, 28085), (429, 28187), (432, 28214), (433, 28217), (439, 28325), (440, 28364), (443, 28415),

Gene: Nadmeg_33 Start: 24715, Stop: 29826, Start Num: 2

Candidate Starts for Nadmeg_33:

(Start: 2 @24715 has 44 MA's), (4, 24745), (6, 24790), (12, 24934), (18, 24994), (19, 25000), (25, 25060), (26, 25081), (28, 25183), (31, 25273), (32, 25309), (35, 25345), (38, 25384), (41, 25411), (42, 25432), (45, 25474), (49, 25546), (51, 25594), (56, 25720), (61, 25795), (62, 25807), (64, 25828), (73, 25933), (74, 25936), (80, 26044), (95, 26296), (106, 26401), (111, 26470), (113, 26491), (118, 26572), (119, 26575), (122, 26602), (126, 26641), (129, 26668), (140, 26809), (143, 26830), (147, 26893), (148, 26899), (151, 26917), (152, 26923), (159, 26965), (162, 26986), (167, 27031), (174, 27082), (175, 27094), (177, 27103), (178, 27112), (187, 27211), (189, 27232), (190, 27241), (194, 27265), (195, 27268), (196, 27274), (203, 27337), (204, 27340), (206, 27349), (208, 27367), (209, 27370), (210, 27382), (213, 27403), (215, 27409), (216, 27412), (219, 27433), (222, 27463), (223, 27478),

(226, 27493), (234, 27541), (235, 27553), (236, 27559), (237, 27562), (239, 27574), (240, 27577), (250, 27634), (255, 27688), (259, 27712), (260, 27724), (261, 27727), (268, 27772), (269, 27775), (273, 27790), (274, 27793), (275, 27802), (276, 27817), (277, 27823), (278, 27829), (282, 27850), (283, 27853), (286, 27865), (289, 27880), (290, 27889), (291, 27910), (292, 27922), (296, 27943), (299, 27970), (305, 28003), (306, 28009), (308, 28027), (311, 28057), (314, 28096), (343, 28357), (348, 28432), (352, 28522), (364, 28666), (367, 28729), (372, 28795), (374, 28828), (375, 28840), (377, 28903), (380, 28924), (381, 28936), (383, 28957), (388, 29014), (394, 29098), (399, 29185), (402, 29203), (406, 29233), (408, 29251), (409, 29254), (410, 29260), (411, 29266), (414, 29293), (418, 29404), (421, 29479), (427, 29548), (429, 29581), (431, 29605), (439, 29722), (443, 29812),

Gene: Nithya_32 Start: 23499, Stop: 28610, Start Num: 2

Candidate Starts for Nithya_32:

(Start: 2 @23499 has 44 MA's), (4, 23529), (6, 23574), (12, 23718), (19, 23784), (25, 23844), (26, 23865), (28, 23967), (31, 24057), (32, 24093), (35, 24129), (38, 24168), (42, 24216), (45, 24258), (49, 24330), (51, 24378), (56, 24504), (61, 24579), (62, 24591), (64, 24612), (73, 24717), (74, 24720), (85, 24942), (90, 25008), (91, 25011), (95, 25080), (106, 25185), (111, 25254), (118, 25356), (119, 25359), (122, 25386), (126, 25425), (129, 25452), (143, 25614), (145, 25662), (148, 25683), (151, 25701), (159, 25749), (167, 25815), (170, 25842), (171, 25845), (173, 25863), (174, 25866), (177, 25887), (178, 25896), (183, 25950), (187, 25995), (189, 26016), (190, 26025), (196, 26058), (197, 26067), (199, 26091), (203, 26121), (204, 26124), (206, 26133), (207, 26145), (209, 26154), (210, 26166), (213, 26187), (215, 26193), (222, 26247), (234, 26325), (235, 26337), (236, 26343), (237, 26346), (240, 26361), (245, 26382), (250, 26418), (255, 26472), (256, 26475), (258, 26487), (259, 26496), (260, 26508), (261, 26511), (263, 26526), (267, 26553), (269, 26559), (273, 26574), (274, 26577), (275, 26586), (276, 26601), (277, 26607), (280, 26622), (282, 26634), (283, 26637), (290, 26673), (291, 26694), (292, 26706), (294, 26715), (296, 26727), (299, 26754), (303, 26778), (305, 26787), (306, 26793), (308, 26811), (314, 26880), (320, 26949), (337, 27105), (352, 27306), (364, 27450), (367, 27513), (369, 27540), (374, 27612), (375, 27624), (376, 27633), (377, 27687), (380, 27708), (381, 27720), (394, 27882), (399, 27969), (402, 27987), (406, 28017), (408, 28035), (409, 28038), (411, 28050), (414, 28077), (418, 28188), (421, 28263), (425, 28311), (429, 28365), (432, 28392), (439, 28506), (443, 28596),

Gene: NoPickles_29 Start: 20260, Stop: 25362, Start Num: 2

Candidate Starts for NoPickles_29:

(Start: 2 @20260 has 44 MA's), (4, 20290), (9, 20428), (11, 20473), (12, 20479), (13, 20488), (14, 20503), (15, 20524), (19, 20545), (23, 20575), (25, 20605), (26, 20626), (28, 20728), (30, 20788), (33, 20863), (34, 20875), (36, 20899), (38, 20929), (40, 20944), (42, 20977), (45, 21019), (47, 21070), (52, 21124), (53, 21127), (55, 21226), (57, 21250), (64, 21346), (73, 21451), (74, 21454), (77, 21523), (78, 21529), (79, 21535), (87, 21712), (92, 21763), (95, 21814), (100, 21868), (101, 21871), (115, 22042), (122, 22123), (123, 22126), (130, 22201), (136, 22258), (141, 22342), (143, 22351), (147, 22414), (148, 22420), (149, 22426), (151, 22438), (153, 22453), (154, 22456), (157, 22477), (164, 22525), (167, 22552), (168, 22573), (171, 22582), (174, 22603), (175, 22615), (177, 22624), (178, 22633), (179, 22660), (183, 22687), (184, 22690), (186, 22711), (189, 22753), (192, 22780), (195, 22789), (197, 22804), (198, 22813), (199, 22828), (200, 22840), (201, 22849), (204, 22861), (207, 22882), (209, 22891), (221, 22975), (222, 22984), (223, 22999), (224, 23002), (227, 23020), (229, 23032), (230, 23035), (234, 23062), (237, 23083), (240, 23098), (248, 23140), (250, 23155), (256, 23212), (258, 23224), (259, 23233), (260, 23245), (262, 23257), (263, 23263), (266, 23284), (269, 23296), (274, 23314), (275, 23323), (276, 23338), (277, 23344), (279, 23356), (288, 23398), (289, 23401), (290, 23410), (291, 23431), (292, 23443), (299, 23491), (300, 23500), (305, 23524), (306, 23530), (308, 23548), (309, 23557), (311, 23578), (315, 23647), (317, 23665), (318, 23668), (320, 23686), (334, 23812), (339, 23857), (346, 23908), (354, 24052), (364, 24187), (366, 24238), (372, 24316), (375, 24361), (377, 24424), (379, 24442), (382, 24472), (383, 24478), (388, 24535), (393, 24607), (396, 24667), (397, 24688), (398, 24691), (403, 24742), (404, 24751), (409, 24790), (411, 24802), (416, 24895), (418, 24940), (421, 25015), (423, 25054), (427, 25084), (431, 25141), (438, 25252),

(443, 25348),

Gene: Odesza_29 Start: 20616, Stop: 25730, Start Num: 2

Candidate Starts for Odesza_29:

(Start: 2 @20616 has 44 MA's), (4, 20646), (10, 20793), (11, 20829), (12, 20835), (15, 20880), (19, 20901), (23, 20931), (28, 21096), (30, 21156), (33, 21231), (36, 21267), (37, 21282), (38, 21297), (40, 21312), (42, 21345), (47, 21438), (52, 21492), (53, 21495), (64, 21714), (73, 21819), (74, 21822), (77, 21891), (78, 21897), (87, 22080), (92, 22131), (95, 22182), (100, 22236), (101, 22239), (112, 22371), (120, 22473), (122, 22491), (123, 22494), (130, 22569), (136, 22626), (141, 22710), (143, 22719), (151, 22806), (157, 22845), (164, 22893), (167, 22920), (168, 22941), (171, 22950), (174, 22971), (175, 22983), (177, 22992), (178, 23001), (179, 23028), (183, 23055), (184, 23058), (186, 23079), (189, 23121), (192, 23148), (195, 23157), (197, 23172), (198, 23181), (199, 23196), (200, 23208), (201, 23217), (204, 23229), (207, 23250), (209, 23259), (221, 23343), (222, 23352), (223, 23367), (224, 23370), (227, 23388), (229, 23400), (230, 23403), (234, 23430), (237, 23451), (240, 23466), (248, 23508), (250, 23523), (256, 23580), (258, 23592), (259, 23601), (260, 23613), (262, 23625), (263, 23631), (266, 23652), (269, 23664), (274, 23682), (275, 23691), (276, 23706), (277, 23712), (279, 23724), (288, 23766), (289, 23769), (290, 23778), (291, 23799), (292, 23811), (299, 23859), (300, 23868), (305, 23892), (306, 23898), (308, 23916), (309, 23925), (311, 23946), (315, 24015), (317, 24033), (318, 24036), (320, 24054), (334, 24180), (339, 24225), (346, 24276), (354, 24420), (364, 24555), (366, 24606), (372, 24684), (375, 24729), (377, 24792), (379, 24810), (382, 24840), (383, 24846), (388, 24903), (393, 24975), (396, 25035), (397, 25056), (398, 25059), (403, 25110), (404, 25119), (409, 25158), (411, 25170), (416, 25263), (418, 25308), (421, 25383), (423, 25422), (427, 25452), (431, 25509), (438, 25620), (443, 25716),

Gene: OhMyWard_32 Start: 24046, Stop: 29148, Start Num: 2

Candidate Starts for OhMyWard_32:

(Start: 2 @24046 has 44 MA's), (4, 24076), (6, 24121), (11, 24259), (12, 24265), (19, 24331), (23, 24361), (28, 24526), (30, 24586), (34, 24673), (36, 24697), (38, 24727), (40, 24742), (42, 24775), (48, 24868), (56, 25036), (64, 25144), (65, 25156), (69, 25213), (73, 25249), (74, 25252), (75, 25261), (77, 25321), (78, 25327), (87, 25510), (88, 25516), (95, 25612), (97, 25630), (111, 25786), (121, 25912), (122, 25921), (143, 26152), (144, 26158), (148, 26221), (151, 26239), (155, 26266), (158, 26284), (167, 26353), (169, 26377), (171, 26383), (174, 26404), (176, 26422), (177, 26425), (183, 26488), (187, 26533), (189, 26554), (192, 26581), (198, 26614), (200, 26641), (203, 26659), (204, 26662), (206, 26671), (208, 26689), (209, 26692), (210, 26704), (223, 26800), (229, 26833), (232, 26854), (234, 26863), (235, 26875), (237, 26884), (240, 26899), (242, 26905), (243, 26911), (245, 26920), (246, 26935), (247, 26938), (249, 26947), (250, 26956), (253, 26992), (256, 27013), (259, 27034), (263, 27064), (265, 27079), (266, 27085), (272, 27109), (274, 27115), (275, 27124), (276, 27139), (277, 27145), (285, 27181), (288, 27199), (290, 27211), (291, 27232), (292, 27244), (296, 27265), (297, 27268), (299, 27292), (300, 27301), (305, 27325), (306, 27331), (308, 27349), (309, 27358), (310, 27361), (315, 27448), (319, 27478), (333, 27610), (343, 27679), (352, 27844), (361, 27952), (363, 27985), (369, 28078), (374, 28150), (375, 28162), (376, 28171), (377, 28225), (382, 28273), (388, 28336), (391, 28387), (394, 28420), (399, 28507), (402, 28525), (406, 28555), (409, 28576), (410, 28582), (411, 28588), (414, 28615), (415, 28642), (418, 28726), (420, 28789), (421, 28801), (430, 28912), (432, 28930), (434, 28978), (443, 29134),

Gene: OlgasClover_32 Start: 24235, Stop: 29334, Start Num: 2

Candidate Starts for OlgasClover_32:

(Start: 2 @24235 has 44 MA's), (4, 24265), (6, 24310), (11, 24448), (12, 24454), (17, 24508), (19, 24520), (21, 24532), (23, 24550), (28, 24715), (30, 24775), (34, 24862), (36, 24886), (38, 24916), (40, 24931), (42, 24964), (47, 25057), (56, 25225), (64, 25333), (65, 25345), (69, 25402), (73, 25438), (74, 25441), (77, 25510), (78, 25516), (81, 25600), (85, 25663), (87, 25699), (91, 25732), (96, 25807), (97, 25819), (100, 25855), (106, 25906), (107, 25954), (110, 25966), (122, 26110), (126, 26149), (129, 26176), (143, 26338), (145, 26386), (148, 26407), (151, 26425), (159, 26473), (167, 26539), (174,

26590), (175, 26602), (178, 26620), (183, 26674), (187, 26719), (189, 26740), (190, 26749), (193, 26770), (196, 26782), (197, 26791), (203, 26845), (204, 26848), (206, 26857), (209, 26878), (210, 26890), (213, 26911), (215, 26917), (218, 26935), (222, 26971), (226, 27001), (234, 27049), (235, 27061), (236, 27067), (237, 27070), (239, 27082), (240, 27085), (245, 27106), (250, 27142), (255, 27196), (256, 27199), (259, 27220), (260, 27232), (261, 27235), (269, 27283), (273, 27298), (274, 27301), (275, 27310), (277, 27331), (282, 27358), (283, 27361), (288, 27385), (290, 27397), (291, 27418), (292, 27430), (294, 27439), (296, 27451), (299, 27478), (305, 27511), (306, 27517), (308, 27535), (310, 27547), (312, 27589), (314, 27604), (320, 27673), (332, 27784), (346, 27895), (348, 27940), (352, 28030), (364, 28174), (367, 28237), (369, 28264), (374, 28336), (375, 28348), (376, 28357), (377, 28411), (380, 28432), (381, 28444), (394, 28606), (399, 28693), (402, 28711), (406, 28741), (408, 28759), (409, 28762), (411, 28774), (414, 28801), (418, 28912), (421, 28987), (425, 29035), (429, 29089), (432, 29116), (439, 29230), (443, 29320),

Gene: Pepy6_035 Start: 30017, Stop: 35869, Start Num: 2

Candidate Starts for Pepy6_035:

(1, 29996), (Start: 2 @30017 has 44 MA's), (4, 30047), (6, 30092), (7, 30101), (8, 30122), (9, 30185), (12, 30236), (25, 30362), (26, 30383), (27, 30443), (28, 30485), (30, 30545), (36, 30656), (38, 30686), (40, 30701), (42, 30734), (45, 30776), (47, 30827), (52, 30881), (53, 30884), (54, 30899), (65, 31115), (70, 31175), (72, 31196), (75, 31220), (85, 31433), (87, 31469), (94, 31568), (117, 31826), (122, 31877), (126, 31916), (127, 31919), (131, 31961), (133, 31967), (135, 32012), (138, 32033), (140, 32087), (143, 32108), (155, 32222), (160, 32249), (162, 32264), (163, 32273), (165, 32300), (168, 32330), (169, 32333), (171, 32339), (176, 32378), (178, 32390), (181, 32435), (182, 32438), (187, 32489), (189, 32510), (190, 32519), (193, 32540), (198, 32570), (200, 32597), (201, 32606), (202, 32612), (209, 32648), (210, 32660), (217, 32702), (218, 32705), (220, 32717), (221, 32732), (225, 32768), (228, 32783), (234, 32819), (235, 32831), (241, 32858), (249, 32903), (250, 32912), (251, 32927), (254, 32960), (256, 32969), (257, 32975), (259, 32990), (264, 33023), (267, 33047), (271, 33062), (275, 33080), (280, 33116), (287, 33152), (289, 33158), (291, 33188), (292, 33200), (293, 33206), (296, 33221), (298, 33245), (300, 33257), (301, 33263), (303, 33272), (304, 33275), (311, 33335), (312, 33359), (319, 33434), (328, 33530), (353, 33806), (355, 33824), (356, 33830), (357, 33854), (361, 33908), (368, 34016), (370, 34043), (371, 34058), (373, 34112), (382, 34238), (387, 34298), (409, 34586), (424, 34850), (428, 34898), (435, 35000), (437, 35033), (441, 35132), (442, 35141), (444, 35246), (445, 35264), (446, 35300), (447, 35345), (450, 35627), (451, 35660), (452, 35855),

Gene: Perkunas_31 Start: 21027, Stop: 26129, Start Num: 2

Candidate Starts for Perkunas_31:

(Start: 2 @21027 has 44 MA's), (4, 21057), (9, 21195), (11, 21240), (15, 21291), (18, 21306), (19, 21312), (23, 21342), (25, 21372), (26, 21393), (28, 21495), (30, 21555), (36, 21666), (38, 21696), (40, 21711), (42, 21744), (45, 21786), (47, 21837), (52, 21891), (53, 21894), (55, 21993), (64, 22113), (73, 22218), (74, 22221), (77, 22290), (78, 22296), (84, 22431), (100, 22635), (101, 22638), (120, 22872), (122, 22890), (126, 22929), (129, 22956), (130, 22968), (132, 22977), (141, 23109), (143, 23118), (149, 23193), (151, 23205), (152, 23211), (164, 23292), (166, 23313), (167, 23319), (168, 23340), (171, 23349), (174, 23370), (175, 23382), (177, 23391), (178, 23400), (179, 23427), (183, 23454), (184, 23457), (186, 23478), (189, 23520), (194, 23553), (195, 23556), (197, 23571), (198, 23580), (200, 23607), (201, 23616), (204, 23628), (207, 23649), (209, 23658), (213, 23691), (221, 23742), (222, 23751), (223, 23766), (227, 23787), (230, 23802), (233, 23826), (234, 23829), (235, 23841), (236, 23847), (237, 23850), (248, 23907), (250, 23922), (256, 23979), (258, 23991), (259, 24000), (260, 24012), (262, 24024), (263, 24030), (268, 24060), (269, 24063), (271, 24072), (274, 24081), (275, 24090), (276, 24105), (277, 24111), (279, 24123), (288, 24165), (290, 24177), (291, 24198), (292, 24210), (300, 24267), (305, 24291), (306, 24297), (307, 24300), (308, 24315), (310, 24327), (311, 24345), (315, 24414), (318, 24435), (327, 24522), (339, 24624), (342, 24642), (350, 24756), (351, 24777), (354, 24819), (364, 24954), (375, 25128), (377, 25191), (379, 25209), (382, 25239), (383, 25245), (385, 25266), (393, 25374), (396, 25434), (397, 25455), (398, 25458), (403, 25509),

(404, 25518), (406, 25536), (409, 25557), (411, 25569), (416, 25662), (418, 25707), (420, 25770), (421, 25782), (423, 25821), (427, 25851), (429, 25884), (431, 25908), (435, 25968), (443, 26115),

Gene: *Petito_31* Start: 21794, Stop: 26884, Start Num: 2

Candidate Starts for *Petito_31*:

(Start: 2 @21794 has 44 MA's), (4, 21824), (9, 21962), (11, 22007), (12, 22013), (14, 22037), (15, 22058), (19, 22079), (23, 22109), (25, 22139), (26, 22160), (28, 22262), (30, 22322), (33, 22397), (34, 22409), (36, 22433), (38, 22463), (40, 22478), (42, 22511), (43, 22517), (45, 22553), (47, 22604), (52, 22658), (53, 22661), (55, 22760), (57, 22784), (64, 22880), (68, 22934), (71, 22964), (73, 22985), (74, 22988), (77, 23057), (78, 23063), (85, 23210), (87, 23246), (90, 23276), (95, 23348), (98, 23378), (100, 23402), (122, 23657), (130, 23735), (132, 23744), (136, 23792), (141, 23876), (143, 23885), (147, 23948), (151, 23972), (154, 23990), (157, 24011), (164, 24059), (167, 24086), (171, 24116), (174, 24137), (175, 24149), (177, 24158), (178, 24167), (183, 24221), (184, 24224), (186, 24245), (189, 24287), (192, 24314), (195, 24323), (197, 24338), (198, 24347), (199, 24362), (200, 24374), (201, 24383), (204, 24395), (207, 24416), (209, 24425), (218, 24482), (221, 24509), (222, 24518), (223, 24533), (224, 24536), (227, 24554), (234, 24596), (235, 24608), (237, 24617), (240, 24632), (248, 24674), (250, 24689), (256, 24746), (258, 24758), (259, 24767), (260, 24779), (262, 24791), (263, 24797), (266, 24818), (269, 24830), (271, 24839), (274, 24848), (275, 24857), (276, 24872), (277, 24878), (279, 24890), (285, 24914), (288, 24932), (290, 24944), (291, 24965), (292, 24977), (299, 25025), (300, 25034), (305, 25058), (306, 25064), (307, 25067), (308, 25082), (309, 25091), (310, 25094), (311, 25112), (315, 25181), (318, 25202), (326, 25280), (333, 25343), (336, 25364), (340, 25397), (349, 25499), (351, 25544), (354, 25586), (358, 25655), (364, 25721), (368, 25793), (374, 25883), (377, 25958), (383, 26012), (385, 26033), (388, 26069), (389, 26108), (391, 26120), (393, 26141), (398, 26225), (402, 26258), (406, 26288), (407, 26294), (409, 26309), (411, 26321), (417, 26447), (418, 26459), (421, 26534), (422, 26552), (423, 26573), (426, 26585), (431, 26660), (432, 26663), (443, 26870),

Gene: *Phepper_32* Start: 23282, Stop: 28393, Start Num: 2

Candidate Starts for *Phepper_32*:

(Start: 2 @23282 has 44 MA's), (4, 23312), (6, 23357), (12, 23501), (19, 23567), (25, 23627), (26, 23648), (28, 23750), (32, 23876), (35, 23912), (38, 23951), (41, 23978), (42, 23999), (45, 24041), (51, 24161), (56, 24287), (61, 24362), (64, 24395), (73, 24500), (74, 24503), (95, 24863), (106, 24968), (111, 25037), (113, 25058), (118, 25139), (119, 25142), (122, 25169), (126, 25208), (129, 25235), (143, 25397), (145, 25445), (148, 25466), (151, 25484), (159, 25532), (161, 25544), (167, 25598), (174, 25649), (175, 25661), (177, 25670), (178, 25679), (183, 25733), (187, 25778), (188, 25793), (189, 25799), (190, 25808), (191, 25814), (194, 25832), (195, 25835), (196, 25841), (197, 25850), (203, 25904), (204, 25907), (206, 25916), (208, 25934), (209, 25937), (210, 25949), (213, 25970), (215, 25976), (216, 25979), (219, 26000), (222, 26030), (223, 26045), (229, 26078), (231, 26093), (234, 26108), (235, 26120), (236, 26126), (237, 26129), (239, 26141), (240, 26144), (250, 26201), (255, 26255), (256, 26258), (259, 26279), (260, 26291), (261, 26294), (269, 26342), (273, 26357), (274, 26360), (275, 26369), (277, 26390), (282, 26417), (283, 26420), (288, 26444), (290, 26456), (291, 26477), (292, 26489), (296, 26510), (299, 26537), (305, 26570), (306, 26576), (308, 26594), (311, 26624), (314, 26663), (332, 26843), (333, 26855), (343, 26924), (352, 27089), (362, 27212), (364, 27233), (372, 27362), (374, 27395), (375, 27407), (377, 27470), (380, 27491), (381, 27503), (382, 27518), (388, 27581), (394, 27665), (399, 27752), (402, 27770), (406, 27800), (408, 27818), (409, 27821), (410, 27827), (411, 27833), (414, 27860), (418, 27971), (421, 28046), (422, 28064), (429, 28148), (431, 28172), (439, 28289), (443, 28379),

Gene: *Pherobrine_31* Start: 23313, Stop: 28427, Start Num: 2

Candidate Starts for *Pherobrine_31*:

(Start: 2 @23313 has 44 MA's), (4, 23343), (6, 23388), (12, 23532), (18, 23592), (19, 23598), (24, 23637), (25, 23658), (26, 23679), (28, 23781), (29, 23817), (32, 23907), (35, 23943), (38, 23982), (41, 24009), (42, 24030), (45, 24072), (51, 24192), (61, 24393), (64, 24426), (66, 24459), (71, 24510), (73,

24531), (74, 24534), (78, 24609), (84, 24744), (89, 24810), (91, 24825), (95, 24894), (97, 24912), (99, 24945), (102, 24966), (103, 24975), (106, 24999), (111, 25068), (113, 25089), (115, 25122), (116, 25125), (121, 25194), (122, 25203), (132, 25290), (137, 25350), (139, 25401), (143, 25434), (144, 25440), (148, 25503), (151, 25521), (158, 25566), (167, 25635), (169, 25659), (171, 25665), (174, 25686), (178, 25716), (183, 25770), (184, 25773), (188, 25830), (189, 25836), (194, 25869), (197, 25887), (198, 25896), (199, 25911), (200, 25923), (203, 25941), (204, 25944), (206, 25953), (207, 25965), (208, 25971), (209, 25974), (213, 26007), (217, 26028), (222, 26067), (229, 26115), (231, 26130), (232, 26136), (234, 26145), (235, 26157), (237, 26166), (239, 26178), (240, 26181), (241, 26184), (242, 26187), (243, 26193), (245, 26202), (252, 26265), (254, 26286), (256, 26295), (259, 26316), (266, 26367), (267, 26373), (268, 26376), (272, 26391), (274, 26397), (276, 26421), (277, 26427), (282, 26454), (283, 26457), (290, 26493), (291, 26514), (292, 26526), (294, 26535), (296, 26547), (299, 26574), (300, 26583), (305, 26607), (306, 26613), (308, 26631), (311, 26661), (314, 26700), (315, 26730), (319, 26760), (333, 26892), (343, 26961), (352, 27126), (361, 27234), (363, 27267), (369, 27360), (374, 27432), (375, 27444), (377, 27507), (382, 27555), (389, 27657), (392, 27678), (394, 27702), (395, 27726), (399, 27789), (402, 27807), (408, 27855), (409, 27858), (411, 27870), (414, 27897), (418, 28008), (421, 28083), (429, 28185), (432, 28212), (433, 28215), (439, 28323), (440, 28362), (443, 28413),

Gene: Poco6_036 Start: 32036, Stop: 37891, Start Num: 2

Candidate Starts for Poco6_036:

(Start: 2 @32036 has 44 MA's), (4, 32066), (6, 32111), (7, 32120), (8, 32141), (9, 32204), (12, 32255), (14, 32279), (25, 32381), (26, 32402), (28, 32519), (30, 32579), (36, 32690), (38, 32720), (40, 32735), (42, 32768), (47, 32861), (53, 32909), (63, 33110), (65, 33140), (78, 33311), (82, 33407), (87, 33494), (117, 33851), (122, 33902), (126, 33941), (131, 33986), (135, 34037), (138, 34058), (140, 34112), (143, 34133), (146, 34190), (155, 34247), (160, 34274), (162, 34289), (163, 34298), (165, 34325), (168, 34355), (169, 34358), (171, 34364), (178, 34415), (182, 34463), (187, 34514), (189, 34535), (190, 34544), (193, 34565), (197, 34586), (202, 34637), (204, 34643), (207, 34664), (209, 34673), (210, 34685), (212, 34700), (217, 34727), (218, 34730), (221, 34757), (231, 34829), (234, 34844), (235, 34856), (241, 34883), (249, 34928), (250, 34937), (254, 34985), (256, 34994), (259, 35015), (264, 35048), (266, 35066), (267, 35072), (271, 35087), (272, 35090), (273, 35093), (275, 35105), (287, 35177), (289, 35183), (291, 35213), (292, 35225), (293, 35231), (295, 35240), (296, 35246), (298, 35270), (300, 35282), (301, 35288), (311, 35360), (312, 35384), (318, 35450), (319, 35459), (326, 35528), (328, 35555), (353, 35831), (355, 35849), (357, 35879), (359, 35912), (361, 35933), (368, 36041), (370, 36068), (373, 36137), (375, 36152), (401, 36542), (424, 36872), (428, 36920), (435, 37022), (442, 37163), (444, 37268), (446, 37322), (447, 37367), (448, 37433), (449, 37532), (450, 37649), (451, 37682), (452, 37877),

Gene: Rickmore_31 Start: 21933, Stop: 27044, Start Num: 2

Candidate Starts for Rickmore_31:

(Start: 2 @21933 has 44 MA's), (4, 21963), (6, 22008), (12, 22152), (18, 22212), (19, 22218), (25, 22278), (26, 22299), (28, 22401), (31, 22491), (32, 22527), (35, 22563), (38, 22602), (39, 22614), (42, 22650), (45, 22692), (49, 22764), (51, 22812), (56, 22938), (59, 22980), (61, 23013), (62, 23025), (64, 23046), (73, 23151), (74, 23154), (85, 23376), (89, 23430), (107, 23667), (109, 23676), (113, 23709), (114, 23721), (118, 23790), (119, 23793), (122, 23820), (129, 23886), (143, 24048), (145, 24096), (147, 24111), (148, 24117), (150, 24126), (151, 24135), (167, 24249), (174, 24300), (175, 24312), (177, 24321), (178, 24330), (179, 24357), (187, 24429), (189, 24450), (190, 24459), (195, 24486), (197, 24501), (198, 24510), (203, 24555), (204, 24558), (209, 24588), (210, 24600), (214, 24624), (217, 24642), (218, 24645), (221, 24672), (222, 24681), (224, 24699), (229, 24729), (234, 24759), (235, 24771), (236, 24777), (237, 24780), (240, 24795), (242, 24801), (250, 24852), (255, 24906), (258, 24921), (259, 24930), (260, 24942), (261, 24945), (262, 24954), (268, 24990), (269, 24993), (273, 25008), (274, 25011), (275, 25020), (277, 25041), (282, 25068), (283, 25071), (289, 25098), (290, 25107), (291, 25128), (292, 25140), (296, 25161), (299, 25188), (305, 25221), (306, 25227), (308, 25245), (310, 25257), (311, 25275), (318, 25365), (320, 25383), (321, 25386), (341, 25563),

(345, 25596), (352, 25740), (354, 25749), (362, 25863), (364, 25884), (369, 25974), (374, 26046), (375, 26058), (376, 26067), (377, 26121), (380, 26142), (382, 26169), (383, 26175), (388, 26232), (390, 26274), (399, 26403), (402, 26421), (406, 26451), (409, 26472), (411, 26484), (418, 26622), (421, 26697), (429, 26799), (431, 26823), (432, 26826), (436, 26892), (439, 26940), (443, 27030),

Gene: Roney_29 Start: 20616, Stop: 25730, Start Num: 2

Candidate Starts for Roney_29:

(Start: 2 @20616 has 44 MA's), (4, 20646), (10, 20793), (11, 20829), (12, 20835), (15, 20880), (19, 20901), (23, 20931), (28, 21096), (30, 21156), (33, 21231), (36, 21267), (37, 21282), (38, 21297), (40, 21312), (42, 21345), (47, 21438), (52, 21492), (53, 21495), (64, 21714), (73, 21819), (74, 21822), (77, 21891), (78, 21897), (87, 22080), (92, 22131), (95, 22182), (100, 22236), (101, 22239), (112, 22371), (120, 22473), (122, 22491), (123, 22494), (130, 22569), (136, 22626), (141, 22710), (143, 22719), (151, 22806), (157, 22845), (164, 22893), (167, 22920), (168, 22941), (171, 22950), (174, 22971), (175, 22983), (177, 22992), (178, 23001), (179, 23028), (183, 23055), (184, 23058), (186, 23079), (189, 23121), (192, 23148), (195, 23157), (197, 23172), (198, 23181), (199, 23196), (200, 23208), (201, 23217), (204, 23229), (207, 23250), (209, 23259), (221, 23343), (222, 23352), (223, 23367), (224, 23370), (227, 23388), (229, 23400), (230, 23403), (234, 23430), (237, 23451), (240, 23466), (244, 23484), (248, 23508), (250, 23523), (256, 23580), (258, 23592), (259, 23601), (260, 23613), (262, 23625), (263, 23631), (266, 23652), (269, 23664), (274, 23682), (275, 23691), (276, 23706), (277, 23712), (279, 23724), (288, 23766), (289, 23769), (290, 23778), (291, 23799), (292, 23811), (299, 23859), (300, 23868), (305, 23892), (306, 23898), (308, 23916), (309, 23925), (311, 23946), (315, 24015), (317, 24033), (318, 24036), (320, 24054), (334, 24180), (339, 24225), (346, 24276), (354, 24420), (364, 24555), (366, 24606), (372, 24684), (375, 24729), (377, 24792), (379, 24810), (382, 24840), (383, 24846), (388, 24903), (393, 24975), (396, 25035), (397, 25056), (398, 25059), (403, 25110), (404, 25119), (409, 25158), (411, 25170), (416, 25263), (418, 25308), (421, 25383), (423, 25422), (427, 25452), (431, 25509), (438, 25620), (443, 25716),

Gene: Runhaar_32 Start: 23285, Stop: 28396, Start Num: 2

Candidate Starts for Runhaar_32:

(Start: 2 @23285 has 44 MA's), (4, 23315), (6, 23360), (8, 23390), (12, 23504), (19, 23570), (25, 23630), (26, 23651), (28, 23753), (32, 23879), (35, 23915), (38, 23954), (41, 23981), (42, 24002), (45, 24044), (50, 24143), (51, 24164), (56, 24290), (61, 24365), (62, 24377), (64, 24398), (73, 24503), (74, 24506), (95, 24866), (106, 24971), (111, 25040), (113, 25061), (118, 25142), (119, 25145), (122, 25172), (126, 25211), (129, 25238), (143, 25400), (145, 25448), (148, 25469), (151, 25487), (159, 25535), (161, 25547), (167, 25601), (174, 25652), (175, 25664), (177, 25673), (178, 25682), (183, 25736), (187, 25781), (188, 25796), (189, 25802), (190, 25811), (191, 25817), (194, 25835), (195, 25838), (196, 25844), (197, 25853), (203, 25907), (204, 25910), (206, 25919), (208, 25937), (209, 25940), (210, 25952), (213, 25973), (215, 25979), (216, 25982), (219, 26003), (222, 26033), (223, 26048), (229, 26081), (231, 26096), (234, 26111), (235, 26123), (236, 26129), (237, 26132), (239, 26144), (240, 26147), (250, 26204), (255, 26258), (256, 26261), (259, 26282), (260, 26294), (261, 26297), (269, 26345), (273, 26360), (274, 26363), (275, 26372), (277, 26393), (282, 26420), (283, 26423), (288, 26447), (290, 26459), (291, 26480), (292, 26492), (296, 26513), (299, 26540), (305, 26573), (306, 26579), (308, 26597), (311, 26627), (314, 26666), (332, 26846), (333, 26858), (343, 26927), (352, 27092), (362, 27215), (364, 27236), (372, 27365), (374, 27398), (375, 27410), (377, 27473), (380, 27494), (381, 27506), (382, 27521), (388, 27584), (394, 27668), (399, 27755), (402, 27773), (406, 27803), (408, 27821), (409, 27824), (410, 27830), (411, 27836), (414, 27863), (418, 27974), (421, 28049), (422, 28067), (429, 28151), (431, 28175), (439, 28292), (443, 28382),

Gene: Schwartz33_33 Start: 23640, Stop: 28727, Start Num: 2

Candidate Starts for Schwartz33_33:

(Start: 2 @23640 has 44 MA's), (3, 23646), (4, 23670), (10, 23817), (14, 23883), (15, 23904), (19, 23925), (23, 23955), (25, 23985), (26, 24006), (28, 24108), (30, 24168), (33, 24243), (36, 24279), (38, 24309), (40, 24324), (42, 24357), (47, 24450), (52, 24504), (53, 24507), (61, 24693), (64, 24726), (71,

24810), (73, 24831), (74, 24834), (77, 24903), (78, 24909), (79, 24915), (83, 25032), (84, 25044), (86, 25068), (90, 25122), (91, 25125), (93, 25179), (97, 25212), (122, 25503), (129, 25569), (135, 25635), (141, 25722), (142, 25728), (143, 25731), (147, 25794), (148, 25800), (151, 25818), (161, 25878), (167, 25932), (171, 25962), (175, 25995), (177, 26004), (178, 26013), (183, 26067), (185, 26073), (187, 26112), (189, 26133), (190, 26142), (194, 26166), (195, 26169), (196, 26175), (197, 26184), (199, 26208), (203, 26238), (204, 26241), (205, 26244), (209, 26271), (217, 26325), (222, 26364), (227, 26400), (234, 26442), (236, 26460), (237, 26463), (239, 26475), (240, 26478), (242, 26484), (245, 26499), (246, 26514), (250, 26535), (252, 26562), (256, 26592), (259, 26613), (266, 26664), (274, 26694), (275, 26703), (284, 26757), (290, 26790), (291, 26811), (292, 26823), (296, 26844), (299, 26871), (305, 26904), (306, 26910), (308, 26928), (309, 26937), (310, 26940), (315, 27027), (320, 27066), (321, 27069), (325, 27114), (333, 27189), (341, 27246), (344, 27264), (354, 27432), (356, 27453), (362, 27546), (368, 27639), (371, 27681), (374, 27729), (375, 27741), (377, 27804), (378, 27816), (381, 27837), (382, 27852), (383, 27858), (394, 27999), (400, 28095), (402, 28104), (408, 28152), (409, 28155), (411, 28167), (418, 28305), (421, 28380), (431, 28506), (443, 28713),

Gene: Secretariat_30 Start: 22365, Stop: 27458, Start Num: 2

Candidate Starts for Secretariat_30:

(Start: 2 @22365 has 44 MA's), (4, 22395), (5, 22434), (10, 22542), (12, 22584), (20, 22659), (22, 22677), (25, 22710), (27, 22803), (28, 22845), (30, 22905), (36, 23016), (38, 23046), (40, 23061), (42, 23094), (44, 23118), (46, 23184), (47, 23187), (52, 23241), (53, 23244), (54, 23259), (71, 23547), (73, 23568), (77, 23640), (91, 23862), (93, 23916), (96, 23937), (97, 23949), (105, 24024), (108, 24087), (113, 24126), (114, 24138), (115, 24159), (120, 24222), (122, 24240), (123, 24243), (125, 24276), (137, 24384), (139, 24435), (140, 24447), (141, 24459), (143, 24468), (148, 24537), (149, 24543), (151, 24555), (155, 24582), (159, 24603), (167, 24669), (169, 24693), (171, 24699), (175, 24732), (177, 24741), (178, 24750), (183, 24804), (187, 24849), (189, 24870), (190, 24879), (195, 24906), (197, 24921), (199, 24945), (203, 24975), (204, 24978), (207, 24999), (208, 25005), (209, 25008), (213, 25041), (222, 25101), (232, 25170), (234, 25179), (235, 25191), (236, 25197), (237, 25200), (238, 25206), (245, 25236), (247, 25254), (249, 25263), (250, 25272), (252, 25299), (254, 25320), (256, 25329), (260, 25362), (268, 25410), (274, 25431), (275, 25440), (276, 25455), (277, 25461), (290, 25527), (291, 25548), (292, 25560), (296, 25581), (299, 25608), (300, 25617), (301, 25623), (302, 25629), (306, 25647), (308, 25665), (311, 25695), (317, 25782), (319, 25794), (322, 25815), (323, 25818), (324, 25836), (338, 25971), (340, 25980), (341, 25983), (358, 26238), (360, 26250), (362, 26283), (367, 26367), (374, 26466), (377, 26541), (378, 26553), (380, 26562), (383, 26595), (386, 26640), (399, 26823), (402, 26841), (405, 26865), (409, 26892), (410, 26898), (411, 26904), (418, 27042), (419, 27081), (421, 27117), (422, 27135), (431, 27237), (443, 27444),

Gene: ShaggyRogers_35 Start: 23288, Stop: 28399, Start Num: 2

Candidate Starts for ShaggyRogers_35:

(Start: 2 @23288 has 44 MA's), (4, 23318), (6, 23363), (12, 23507), (18, 23567), (19, 23573), (25, 23633), (26, 23654), (28, 23756), (32, 23882), (35, 23918), (38, 23957), (41, 23984), (42, 24005), (45, 24047), (51, 24167), (55, 24281), (56, 24293), (61, 24368), (62, 24380), (64, 24401), (73, 24506), (74, 24509), (95, 24869), (97, 24887), (111, 25043), (118, 25145), (119, 25148), (122, 25175), (126, 25214), (129, 25241), (132, 25262), (143, 25403), (147, 25466), (148, 25472), (151, 25490), (152, 25496), (159, 25538), (161, 25550), (167, 25604), (169, 25628), (172, 25646), (174, 25655), (175, 25667), (177, 25676), (178, 25685), (181, 25730), (183, 25739), (187, 25784), (189, 25805), (190, 25814), (195, 25841), (197, 25856), (203, 25910), (204, 25913), (206, 25922), (207, 25934), (209, 25943), (210, 25955), (213, 25976), (215, 25982), (219, 26006), (222, 26036), (223, 26051), (234, 26114), (235, 26126), (236, 26132), (237, 26135), (239, 26147), (240, 26150), (250, 26207), (255, 26261), (256, 26264), (259, 26285), (260, 26297), (261, 26300), (269, 26348), (273, 26363), (274, 26366), (275, 26375), (276, 26390), (277, 26396), (282, 26423), (283, 26426), (290, 26462), (291, 26483), (292, 26495), (294, 26504), (296, 26516), (299, 26543), (305, 26576), (306, 26582), (308, 26600), (311, 26630), (320, 26738), (332, 26849), (346, 26960), (348, 27005), (351, 27062), (352, 27095), (364, 27239), (367, 27302), (372, 27368), (374, 27401), (375, 27413), (377, 27476), (380,

27497), (381, 27509), (383, 27530), (394, 27671), (399, 27758), (402, 27776), (406, 27806), (408, 27824), (409, 27827), (410, 27833), (411, 27839), (414, 27866), (418, 27977), (420, 28040), (421, 28052), (427, 28121), (429, 28154), (431, 28178), (439, 28295), (443, 28385),

Gene: Talon44_31 Start: 20700, Stop: 25802, Start Num: 2

Candidate Starts for Talon44_31:

(Start: 2 @20700 has 44 MA's), (4, 20730), (9, 20868), (11, 20913), (15, 20964), (18, 20979), (19, 20985), (23, 21015), (25, 21045), (26, 21066), (28, 21168), (30, 21228), (36, 21339), (38, 21369), (40, 21384), (42, 21417), (45, 21459), (47, 21510), (52, 21564), (53, 21567), (55, 21666), (64, 21786), (73, 21891), (74, 21894), (77, 21963), (78, 21969), (84, 22104), (100, 22308), (101, 22311), (120, 22545), (122, 22563), (126, 22602), (129, 22629), (130, 22641), (132, 22650), (141, 22782), (143, 22791), (149, 22866), (151, 22878), (152, 22884), (164, 22965), (166, 22986), (167, 22992), (168, 23013), (171, 23022), (174, 23043), (175, 23055), (177, 23064), (178, 23073), (179, 23100), (183, 23127), (184, 23130), (186, 23151), (189, 23193), (194, 23226), (195, 23229), (197, 23244), (198, 23253), (200, 23280), (201, 23289), (204, 23301), (207, 23322), (209, 23331), (213, 23364), (221, 23415), (222, 23424), (223, 23439), (227, 23460), (230, 23475), (233, 23499), (234, 23502), (235, 23514), (236, 23520), (237, 23523), (248, 23580), (250, 23595), (256, 23652), (258, 23664), (259, 23673), (260, 23685), (262, 23697), (263, 23703), (268, 23733), (269, 23736), (271, 23745), (274, 23754), (275, 23763), (276, 23778), (277, 23784), (279, 23796), (288, 23838), (290, 23850), (291, 23871), (292, 23883), (300, 23940), (305, 23964), (306, 23970), (307, 23973), (308, 23988), (310, 24000), (311, 24018), (315, 24087), (318, 24108), (327, 24195), (339, 24297), (342, 24315), (350, 24429), (351, 24450), (354, 24492), (364, 24627), (375, 24801), (377, 24864), (379, 24882), (382, 24912), (383, 24918), (385, 24939), (393, 25047), (396, 25107), (397, 25128), (398, 25131), (403, 25182), (404, 25191), (406, 25209), (409, 25230), (411, 25242), (416, 25335), (418, 25380), (420, 25443), (421, 25455), (423, 25494), (427, 25524), (429, 25557), (431, 25581), (435, 25641), (443, 25788),

Gene: Tanis_29 Start: 20466, Stop: 25580, Start Num: 2

Candidate Starts for Tanis_29:

(Start: 2 @20466 has 44 MA's), (4, 20496), (10, 20643), (11, 20679), (12, 20685), (15, 20730), (19, 20751), (23, 20781), (28, 20946), (30, 21006), (33, 21081), (36, 21117), (37, 21132), (38, 21147), (40, 21162), (42, 21195), (47, 21288), (52, 21342), (53, 21345), (64, 21564), (73, 21669), (74, 21672), (77, 21741), (78, 21747), (87, 21930), (92, 21981), (95, 22032), (100, 22086), (101, 22089), (112, 22221), (120, 22323), (122, 22341), (123, 22344), (130, 22419), (136, 22476), (141, 22560), (143, 22569), (151, 22656), (157, 22695), (164, 22743), (167, 22770), (168, 22791), (171, 22800), (174, 22821), (175, 22833), (177, 22842), (178, 22851), (179, 22878), (183, 22905), (184, 22908), (186, 22929), (189, 22971), (192, 22998), (195, 23007), (197, 23022), (198, 23031), (199, 23046), (200, 23058), (201, 23067), (204, 23079), (207, 23100), (209, 23109), (221, 23193), (222, 23202), (223, 23217), (224, 23220), (227, 23238), (229, 23250), (230, 23253), (234, 23280), (237, 23301), (240, 23316), (248, 23358), (250, 23373), (256, 23430), (258, 23442), (259, 23451), (260, 23463), (262, 23475), (263, 23481), (266, 23502), (269, 23514), (274, 23532), (275, 23541), (276, 23556), (277, 23562), (279, 23574), (288, 23616), (289, 23619), (290, 23628), (291, 23649), (292, 23661), (299, 23709), (300, 23718), (305, 23742), (306, 23748), (308, 23766), (309, 23775), (311, 23796), (315, 23865), (317, 23883), (318, 23886), (320, 23904), (334, 24030), (339, 24075), (346, 24126), (354, 24270), (364, 24405), (366, 24456), (372, 24534), (375, 24579), (377, 24642), (379, 24660), (382, 24690), (383, 24696), (388, 24753), (393, 24825), (396, 24885), (397, 24906), (398, 24909), (403, 24960), (404, 24969), (409, 25008), (411, 25020), (416, 25113), (418, 25158), (421, 25233), (423, 25272), (427, 25302), (431, 25359), (438, 25470), (443, 25566),

Gene: TenaciousP_33 Start: 24936, Stop: 30050, Start Num: 2

Candidate Starts for TenaciousP_33:

(Start: 2 @24936 has 44 MA's), (4, 24966), (6, 25011), (12, 25155), (19, 25221), (25, 25281), (26, 25302), (28, 25404), (32, 25530), (35, 25566), (38, 25605), (42, 25653), (45, 25695), (49, 25767), (51, 25815), (56, 25941), (61, 26016), (62, 26028), (64, 26049), (73, 26154), (74, 26157), (85, 26379), (90,

26445), (97, 26535), (100, 26571), (106, 26622), (107, 26670), (110, 26682), (122, 26826), (126, 26865), (129, 26892), (143, 27054), (145, 27102), (147, 27117), (148, 27123), (151, 27141), (159, 27189), (167, 27255), (174, 27306), (175, 27318), (178, 27336), (183, 27390), (187, 27435), (189, 27456), (190, 27465), (193, 27486), (197, 27507), (203, 27561), (204, 27564), (206, 27573), (209, 27594), (210, 27606), (213, 27627), (215, 27633), (218, 27651), (222, 27687), (226, 27717), (234, 27765), (235, 27777), (236, 27783), (237, 27786), (239, 27798), (240, 27801), (245, 27822), (250, 27858), (255, 27912), (256, 27915), (258, 27927), (259, 27936), (260, 27948), (261, 27951), (269, 27999), (273, 28014), (274, 28017), (275, 28026), (277, 28047), (282, 28074), (283, 28077), (288, 28101), (290, 28113), (291, 28134), (292, 28146), (294, 28155), (296, 28167), (299, 28194), (300, 28203), (305, 28227), (306, 28233), (308, 28251), (312, 28305), (314, 28320), (320, 28389), (332, 28500), (346, 28611), (348, 28656), (352, 28746), (362, 28869), (364, 28890), (367, 28953), (369, 28980), (374, 29052), (375, 29064), (376, 29073), (377, 29127), (380, 29148), (381, 29160), (394, 29322), (399, 29409), (402, 29427), (406, 29457), (408, 29475), (409, 29478), (411, 29490), (414, 29517), (418, 29628), (421, 29703), (425, 29751), (429, 29805), (432, 29832), (439, 29946), (443, 30036),

Gene: Trufflozitus_32 Start: 20534, Stop: 25636, Start Num: 2

Candidate Starts for Trufflozitus_32:

(Start: 2 @20534 has 44 MA's), (4, 20564), (9, 20702), (11, 20747), (12, 20753), (13, 20762), (14, 20777), (15, 20798), (19, 20819), (23, 20849), (25, 20879), (26, 20900), (28, 21002), (30, 21062), (33, 21137), (34, 21149), (36, 21173), (38, 21203), (40, 21218), (42, 21251), (45, 21293), (47, 21344), (52, 21398), (53, 21401), (55, 21500), (57, 21524), (60, 21560), (64, 21620), (73, 21725), (74, 21728), (77, 21797), (78, 21803), (79, 21809), (87, 21986), (92, 22037), (95, 22088), (100, 22142), (101, 22145), (104, 22172), (112, 22277), (115, 22316), (122, 22397), (123, 22400), (130, 22475), (132, 22484), (136, 22532), (141, 22616), (143, 22625), (148, 22694), (149, 22700), (151, 22712), (153, 22727), (154, 22730), (157, 22751), (164, 22799), (167, 22826), (168, 22847), (171, 22856), (174, 22877), (175, 22889), (177, 22898), (178, 22907), (183, 22961), (184, 22964), (186, 22985), (189, 23027), (192, 23054), (195, 23063), (197, 23078), (198, 23087), (199, 23102), (200, 23114), (201, 23123), (204, 23135), (207, 23156), (209, 23165), (221, 23249), (222, 23258), (223, 23273), (227, 23294), (234, 23336), (237, 23357), (240, 23372), (248, 23414), (250, 23429), (256, 23486), (258, 23498), (259, 23507), (260, 23519), (262, 23531), (263, 23537), (266, 23558), (267, 23564), (269, 23570), (274, 23588), (275, 23597), (276, 23612), (277, 23618), (279, 23630), (288, 23672), (290, 23684), (291, 23705), (292, 23717), (299, 23765), (300, 23774), (305, 23798), (306, 23804), (307, 23807), (308, 23822), (309, 23831), (310, 23834), (311, 23852), (315, 23921), (320, 23960), (339, 24131), (346, 24182), (354, 24326), (358, 24395), (364, 24461), (366, 24512), (375, 24635), (377, 24698), (382, 24746), (383, 24752), (384, 24761), (388, 24809), (393, 24881), (396, 24941), (397, 24962), (398, 24965), (403, 25016), (404, 25025), (406, 25043), (409, 25064), (411, 25076), (416, 25169), (418, 25214), (421, 25289), (422, 25307), (423, 25328), (431, 25415), (438, 25526), (443, 25622),

Gene: Untouchable_32 Start: 23641, Stop: 28752, Start Num: 2

Candidate Starts for Untouchable_32:

(Start: 2 @23641 has 44 MA's), (4, 23671), (6, 23716), (12, 23860), (18, 23920), (19, 23926), (25, 23986), (26, 24007), (28, 24109), (32, 24235), (35, 24271), (38, 24310), (41, 24337), (42, 24358), (45, 24400), (49, 24472), (51, 24520), (56, 24646), (61, 24721), (62, 24733), (64, 24754), (73, 24859), (74, 24862), (80, 24970), (95, 25222), (106, 25327), (111, 25396), (113, 25417), (118, 25498), (119, 25501), (122, 25528), (126, 25567), (129, 25594), (140, 25735), (143, 25756), (147, 25819), (148, 25825), (151, 25843), (152, 25849), (159, 25891), (161, 25903), (162, 25912), (167, 25957), (172, 25999), (174, 26008), (175, 26020), (177, 26029), (178, 26038), (187, 26137), (189, 26158), (190, 26167), (194, 26191), (195, 26194), (203, 26263), (204, 26266), (206, 26275), (208, 26293), (209, 26296), (210, 26308), (213, 26329), (215, 26335), (216, 26338), (219, 26359), (222, 26389), (223, 26404), (226, 26419), (234, 26467), (235, 26479), (236, 26485), (237, 26488), (239, 26500), (240, 26503), (250, 26560), (255, 26614), (259, 26638), (260, 26650), (261, 26653), (268, 26698), (269, 26701), (273, 26716), (274, 26719), (275, 26728), (276, 26743), (277, 26749), (278, 26755), (282,

26776), (283, 26779), (286, 26791), (289, 26806), (290, 26815), (291, 26836), (292, 26848), (296, 26869), (299, 26896), (305, 26929), (306, 26935), (308, 26953), (311, 26983), (314, 27022), (320, 27091), (332, 27202), (333, 27214), (343, 27283), (348, 27358), (352, 27448), (364, 27592), (365, 27616), (372, 27721), (374, 27754), (375, 27766), (377, 27829), (380, 27850), (381, 27862), (383, 27883), (388, 27940), (394, 28024), (399, 28111), (402, 28129), (406, 28159), (408, 28177), (409, 28180), (410, 28186), (411, 28192), (414, 28219), (418, 28330), (421, 28405), (427, 28474), (429, 28507), (431, 28531), (439, 28648), (443, 28738),

Gene: Vardy_32 Start: 23250, Stop: 28361, Start Num: 2

Candidate Starts for Vardy_32:

(Start: 2 @23250 has 44 MA's), (4, 23280), (6, 23325), (12, 23469), (19, 23535), (25, 23595), (26, 23616), (28, 23718), (32, 23844), (35, 23880), (38, 23919), (41, 23946), (42, 23967), (45, 24009), (50, 24108), (51, 24129), (56, 24255), (61, 24330), (62, 24342), (64, 24363), (73, 24468), (74, 24471), (95, 24831), (106, 24936), (111, 25005), (113, 25026), (118, 25107), (119, 25110), (122, 25137), (126, 25176), (129, 25203), (143, 25365), (145, 25413), (148, 25434), (151, 25452), (159, 25500), (161, 25512), (167, 25566), (174, 25617), (175, 25629), (177, 25638), (178, 25647), (183, 25701), (187, 25746), (188, 25761), (189, 25767), (190, 25776), (191, 25782), (194, 25800), (195, 25803), (196, 25809), (197, 25818), (203, 25872), (204, 25875), (206, 25884), (208, 25902), (209, 25905), (210, 25917), (213, 25938), (215, 25944), (216, 25947), (219, 25968), (222, 25998), (223, 26013), (229, 26046), (231, 26061), (234, 26076), (235, 26088), (236, 26094), (237, 26097), (239, 26109), (240, 26112), (250, 26169), (255, 26223), (256, 26226), (259, 26247), (260, 26259), (261, 26262), (269, 26310), (273, 26325), (274, 26328), (275, 26337), (277, 26358), (282, 26385), (283, 26388), (288, 26412), (290, 26424), (291, 26445), (292, 26457), (296, 26478), (299, 26505), (305, 26538), (306, 26544), (308, 26562), (311, 26592), (314, 26631), (332, 26811), (333, 26823), (343, 26892), (352, 27057), (362, 27180), (364, 27201), (372, 27330), (374, 27363), (375, 27375), (377, 27438), (380, 27459), (381, 27471), (382, 27486), (388, 27549), (394, 27633), (399, 27720), (402, 27738), (406, 27768), (408, 27786), (409, 27789), (410, 27795), (411, 27801), (414, 27828), (418, 27939), (421, 28014), (422, 28032), (429, 28116), (431, 28140), (439, 28257), (443, 28347),

Gene: Zeph_33 Start: 23999, Stop: 29110, Start Num: 2

Candidate Starts for Zeph_33:

(Start: 2 @23999 has 44 MA's), (4, 24029), (6, 24074), (12, 24218), (18, 24278), (19, 24284), (25, 24344), (26, 24365), (28, 24467), (32, 24593), (35, 24629), (38, 24668), (42, 24716), (45, 24758), (49, 24830), (51, 24878), (56, 25004), (61, 25079), (62, 25091), (64, 25112), (70, 25184), (73, 25217), (74, 25220), (80, 25328), (95, 25580), (106, 25685), (111, 25754), (113, 25775), (118, 25856), (119, 25859), (122, 25886), (126, 25925), (129, 25952), (140, 26093), (143, 26114), (147, 26177), (148, 26183), (151, 26201), (152, 26207), (159, 26249), (161, 26261), (162, 26270), (167, 26315), (172, 26357), (174, 26366), (175, 26378), (177, 26387), (178, 26396), (187, 26495), (189, 26516), (190, 26525), (194, 26549), (195, 26552), (203, 26621), (204, 26624), (206, 26633), (208, 26651), (209, 26654), (210, 26666), (213, 26687), (215, 26693), (216, 26696), (219, 26717), (222, 26747), (223, 26762), (226, 26777), (234, 26825), (235, 26837), (236, 26843), (237, 26846), (239, 26858), (240, 26861), (250, 26918), (255, 26972), (259, 26996), (260, 27008), (261, 27011), (268, 27056), (269, 27059), (273, 27074), (274, 27077), (275, 27086), (276, 27101), (277, 27107), (278, 27113), (282, 27134), (283, 27137), (286, 27149), (289, 27164), (290, 27173), (291, 27194), (292, 27206), (296, 27227), (299, 27254), (305, 27287), (306, 27293), (308, 27311), (311, 27341), (314, 27380), (320, 27449), (343, 27641), (348, 27716), (352, 27806), (364, 27950), (367, 28013), (372, 28079), (374, 28112), (375, 28124), (377, 28187), (380, 28208), (381, 28220), (383, 28241), (388, 28298), (394, 28382), (399, 28469), (402, 28487), (406, 28517), (408, 28535), (409, 28538), (410, 28544), (411, 28550), (414, 28577), (418, 28688), (421, 28763), (429, 28865), (431, 28889), (439, 29006), (443, 29096),