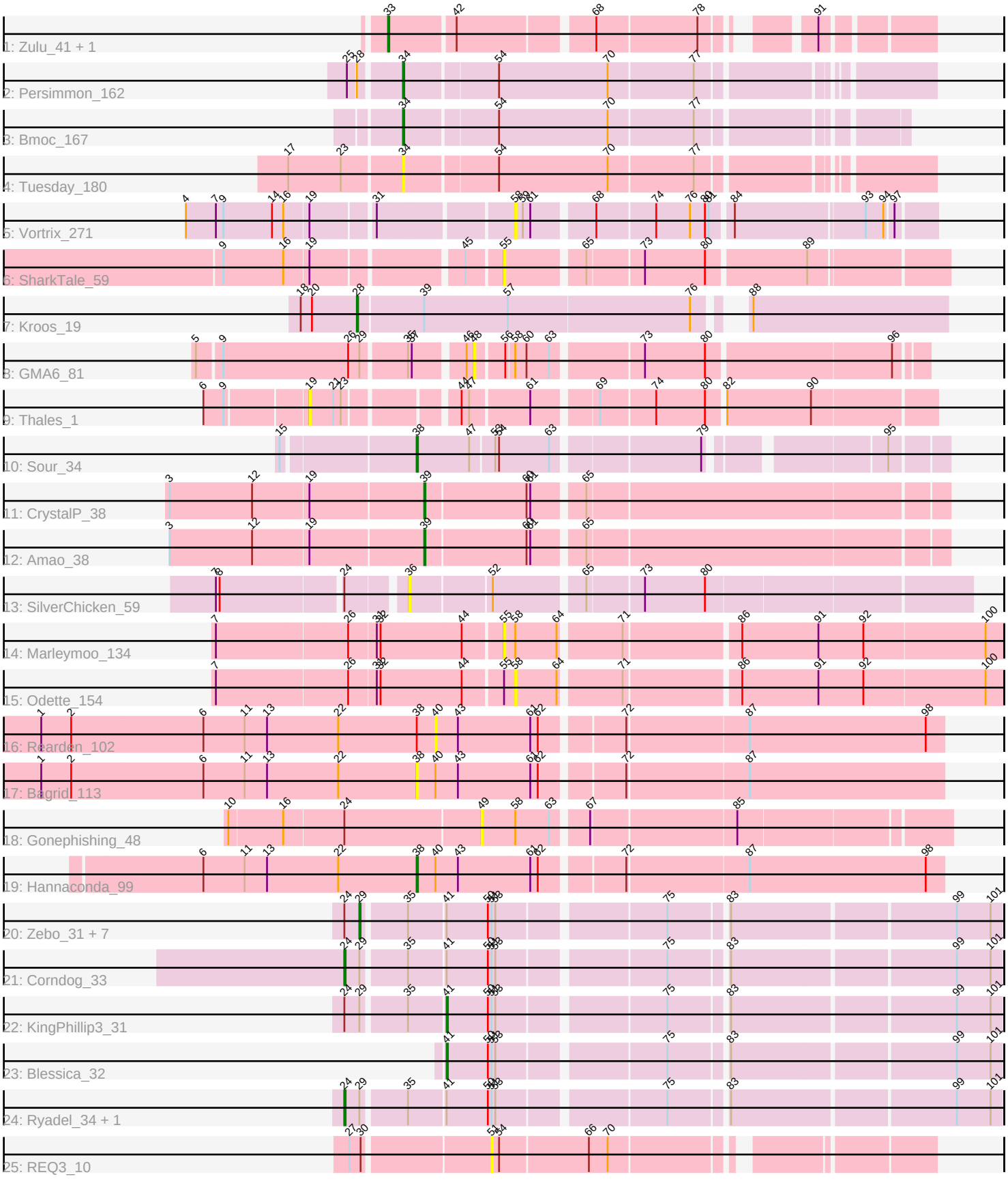
Pham 331064


1: Zulu_41 + 1
2: Persimmon_162
3: Bmoc_167
4: Tuesday_180
5: Vortrix_271
6: SharkTale_59
7: Kroos_19
8: GMA6_81
9: Thales_1
10: Sour_34
11: CrystalP_38
12: Amao_38
13: SilverChicken_59
14: Marleymoo_134
15: Odette_154
16: Rearden_102
17: Bagrid_113
18: Gonephishing_48
19: Hannaconda_99
20: Zebo_31 + 7
21: Corndog_33
22: KingPhillip3_31
23: Blessica_32
24: Ryadel_34 + 1
25: REQ3_10

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 331064 Report

This analysis was run 09/05/26 on database version 662.

Pham number 331064 has 34 members, 12 are drafts.

Phages represented in each track:
• Track 1 : Zulu_41, Tucker_41
• Track 2 : Persimmon_162
• Track 3 : Bmoc_167
• Track 4 : Tuesday_180
• Track 5 : Vortrix_271
• Track 6 : SharkTale_59
• Track 7 : Kroos_19
• Track 8 : GMA6_81
• Track 9 : Thales_1
• Track 10 : Sour_34
• Track 11 : CrystalP_38
• Track 12 : Amao_38
• Track 13 : SilverChicken_59
• Track 14 : Marleymoo_134
• Track 15 : Odette_154
• Track 16 : Rearden_102
• Track 17 : Bagrid_113
• Track 18 : Gonephishing_48
• Track 19 : Hannaconda_99
• Track 20 : Zebo_31, Catdawg_31, YungJamal_34, Idergollasper_31, JangDynasty_31, Famílton_32, FoulBall_31, SchoolBus_31
• Track 21 : Corndog_33
• Track 22 : KingPhillip3_31
• Track 23 : Blessica_32
• Track 24 : Ryadel_34, Winget_32
• Track 25 : REQ3_10

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

The start number called the most often in the published annotations is 29, it was called in 8 of the 22 non-draft genes in the pham.

Genes that call this "Most Annotated" start:

• Catdawg_31, Familton_32, FoulBall_31, Idergollasper_31, JangDynasty_31, SchoolBus_31, YungJamal_34, Zebo_31,

Genes that have the "Most Annotated" start but do not call it:
• Corndog_33, GMA6_81, KingPhillip3_31, Ryadel_34, Winget_32,

Genes that do not have the "Most Annotated" start:
• Amao_38, Bagrid_113, Blessica_32, Bmoc_167, CrystalP_38, Gonephishing_48, Hannaconda_99, Kroos_19, Marleymoo_134, Odette_154, Persimmon_162, REQ3_10, Rearden_102, SharkTale_59, SilverChicken_59, Sour_34, Thales_1, Tucker_41, Tuesday_180, Vortrix_271, Zulu_41,

Summary by start number:

Start 19:
• Found in 5 of 34 (14.7%) of genes in pham
• No Manual Annotations of this start.
• Called 20.0% of time when present
• Phage (with cluster) where this start called: Thales_1 (DQ),

Start 24:
• Found in 14 of 34 (41.2%) of genes in pham
• Manual Annotations of this start: 3 of 22
• Called 21.4% of time when present
• Phage (with cluster) where this start called: Corndog_33 (O), Ryadel_34 (O), Winget_32 (O),

Start 28:
• Found in 2 of 34 (5.9%) of genes in pham
• Manual Annotations of this start: 1 of 22
• Called 50.0% of time when present
• Phage (with cluster) where this start called: Kroos_19 (DE1),

Start 29:
• Found in 13 of 34 (38.2%) of genes in pham
• Manual Annotations of this start: 8 of 22
• Called 61.5% of time when present
• Phage (with cluster) where this start called: Catdawg_31 (O), Familton_32 (O), FoulBall_31 (O), Idergollasper_31 (O), JangDynasty_31 (O), SchoolBus_31 (O), YungJamal_34 (O), Zebo_31 (O),

Start 33:
• Found in 2 of 34 (5.9%) of genes in pham
• Manual Annotations of this start: 2 of 22
• Called 100.0% of time when present
• Phage (with cluster) where this start called: Tucker_41 (A6), Zulu_41 (A6),

Start 34:
• Found in 3 of 34 (8.8%) of genes in pham
• Manual Annotations of this start: 2 of 22
• Called 100.0% of time when present
• Phage (with cluster) where this start called: Bmoc_167 (BE1), Persimmon_162 (BE1), Tuesday_180 (BE2),

Start 36:
• Found in 1 of 34 (2.9%) of genes in pham
• No Manual Annotations of this start.
• Called 100.0% of time when present
• Phage (with cluster) where this start called: SilverChicken_59 (F2),

Start 38:
• Found in 4 of 34 (11.8%) of genes in pham
• Manual Annotations of this start: 2 of 22
• Called 75.0% of time when present
• Phage (with cluster) where this start called: Bagrid_113 (J), Hannaconda_99 (J), Sour_34 (DR),

Start 39:
• Found in 3 of 34 (8.8%) of genes in pham
• Manual Annotations of this start: 2 of 22
• Called 66.7% of time when present
• Phage (with cluster) where this start called: Amao_38 (E), CrystalP_38 (E),

Start 40:
• Found in 3 of 34 (8.8%) of genes in pham
• No Manual Annotations of this start.
• Called 33.3% of time when present
• Phage (with cluster) where this start called: Rearden_102 (J),

Start 41:
• Found in 13 of 34 (38.2%) of genes in pham
• Manual Annotations of this start: 2 of 22
• Called 15.4% of time when present
• Phage (with cluster) where this start called: Blessica_32 (O), KingPhillip3_31 (O),

Start 48:
• Found in 1 of 34 (2.9%) of genes in pham
• No Manual Annotations of this start.
• Called 100.0% of time when present
• Phage (with cluster) where this start called: GMA6_81 (DQ),

Start 49:
• Found in 1 of 34 (2.9%) of genes in pham
• No Manual Annotations of this start.
• Called 100.0% of time when present
• Phage (with cluster) where this start called: Gonephishing_48 (J),

Start 51:
• Found in 14 of 34 (41.2%) of genes in pham
• No Manual Annotations of this start.
• Called 7.1% of time when present
• Phage (with cluster) where this start called: REQ3_10 (singleton),

Start 55:
• Found in 3 of 34 (8.8%) of genes in pham
• No Manual Annotations of this start.

• Called 66.7% of time when present
• Phage (with cluster) where this start called: Marleymoo_134 (J), SharkTale_59 (DC1),

Start 58:
• Found in 5 of 34 (14.7%) of genes in pham
• No Manual Annotations of this start.
• Called 40.0% of time when present
• Phage (with cluster) where this start called: Odette_154 (J), Vortrix_271 (C1),

Summary by clusters:

There are 13 clusters represented in this pham: F2, E, DE1, DC1, J, singleton, O, A6, BE2, C1, BE1, DR, DQ,

Info for manual annotations of cluster A6:
•Start number 33 was manually annotated 2 times for cluster A6.

Info for manual annotations of cluster BE1:
•Start number 34 was manually annotated 2 times for cluster BE1.

Info for manual annotations of cluster DE1:
•Start number 28 was manually annotated 1 time for cluster DE1.

Info for manual annotations of cluster DR:
•Start number 38 was manually annotated 1 time for cluster DR.

Info for manual annotations of cluster E:
•Start number 39 was manually annotated 2 times for cluster E.

Info for manual annotations of cluster J:
•Start number 38 was manually annotated 1 time for cluster J.

Info for manual annotations of cluster O:
•Start number 24 was manually annotated 3 times for cluster O.
•Start number 29 was manually annotated 8 times for cluster O.
•Start number 41 was manually annotated 2 times for cluster O.

Gene Information:

Gene: Amao_38 Start: 33138, Stop: 32746, Start Num: 39
Candidate Starts for Amao_38:
(3, 33333), (12, 33267), (19, 33225), (Start: 39 @33138 has 2 MA's), (60, 33060), (61, 33057), (65, 33021),

Gene: Bagrid_113 Start: 63671, Stop: 64075, Start Num: 38

Candidate Starts for Bagrid_113:
(1, 63371), (2, 63395), (6, 63500), (11, 63533), (13, 63551), (22, 63608), (Start: 38 @63671 has 2 MA's), (40, 63686), (43, 63704), (61, 63761), (62, 63767), (72, 63827), (87, 63920),

Gene: Blessica_32 Start: 14991, Stop: 15401, Start Num: 41
Candidate Starts for Blessica_32:
(Start: 41 @14991 has 2 MA's), (50, 15024), (51, 15027), (53, 15030), (75, 15153), (83, 15195), (99, 15366), (101, 15393),

Gene: Bmoc_167 Start: 91666, Stop: 92031, Start Num: 34
Candidate Starts for Bmoc_167:
(Start: 34 @91666 has 2 MA's), (54, 91735), (70, 91822), (77, 91888),

Gene: Catdawg_31 Start: 14620, Stop: 15090, Start Num: 29
Candidate Starts for Catdawg_31:
(Start: 24 @14608 has 3 MA's), (Start: 29 @14620 has 8 MA's), (35, 14653), (Start: 41 @14680 has 2 MA's), (50, 14713), (51, 14716), (53, 14719), (75, 14842), (83, 14884), (99, 15055), (101, 15082),

Gene: Corndog_33 Start: 15066, Stop: 15548, Start Num: 24
Candidate Starts for Corndog_33:
(Start: 24 @15066 has 3 MA's), (Start: 29 @15078 has 8 MA's), (35, 15111), (Start: 41 @15138 has 2 MA's), (50, 15171), (51, 15174), (53, 15177), (75, 15300), (83, 15342), (99, 15513), (101, 15540),

Gene: CrystalP_38 Start: 33934, Stop: 33542, Start Num: 39
Candidate Starts for CrystalP_38:
(3, 34129), (12, 34063), (19, 34021), (Start: 39 @33934 has 2 MA's), (60, 33856), (61, 33853), (65, 33817),

Gene: Familton_32 Start: 14624, Stop: 15094, Start Num: 29
Candidate Starts for Familton_32:
(Start: 24 @14612 has 3 MA's), (Start: 29 @14624 has 8 MA's), (35, 14657), (Start: 41 @14684 has 2 MA's), (50, 14717), (51, 14720), (53, 14723), (75, 14846), (83, 14888), (99, 15059), (101, 15086),

Gene: FoulBall_31 Start: 14618, Stop: 15088, Start Num: 29
Candidate Starts for FoulBall_31:
(Start: 24 @14606 has 3 MA's), (Start: 29 @14618 has 8 MA's), (35, 14651), (Start: 41 @14678 has 2 MA's), (50, 14711), (51, 14714), (53, 14717), (75, 14840), (83, 14882), (99, 15053), (101, 15080),

Gene: GMA6_81 Start: 64168, Stop: 64497, Start Num: 48
Candidate Starts for GMA6_81:
(5, 63964), (9, 63982), (26, 64081), (Start: 29 @64090 has 8 MA's), (35, 64123), (37, 64126), (46, 64162), (48, 64168), (56, 64189), (58, 64195), (60, 64204), (63, 64222), (73, 64288), (80, 64336), (96, 64474),

Gene: Gonephishing_48 Start: 38804, Stop: 38457, Start Num: 49
Candidate Starts for Gonephishing_48:
(10, 38996), (16, 38954), (Start: 24 @38909 has 3 MA's), (49, 38804), (58, 38777), (63, 38750), (67, 38726), (85, 38615),

Gene: Hannaconda_99 Start: 57411, Stop: 57815, Start Num: 38
Candidate Starts for Hannaconda_99:
(6, 57240), (11, 57273), (13, 57291), (22, 57348), (Start: 38 @57411 has 2 MA's), (40, 57426), (43, 57444), (61, 57501), (62, 57507), (72, 57567), (87, 57660), (98, 57801),

Gene: Idergollasper_31 Start: 14618, Stop: 15088, Start Num: 29
Candidate Starts for Idergollasper_31:
(Start: 24 @14606 has 3 MA's), (Start: 29 @14618 has 8 MA's), (35, 14651), (Start: 41 @14678 has 2 MA's), (50, 14711), (51, 14714), (53, 14717), (75, 14840), (83, 14882), (99, 15053), (101, 15080),

Gene: JangDynasty_31 Start: 14713, Stop: 15183, Start Num: 29
Candidate Starts for JangDynasty_31:
(Start: 24 @14701 has 3 MA's), (Start: 29 @14713 has 8 MA's), (35, 14746), (Start: 41 @14773 has 2 MA's), (50, 14806), (51, 14809), (53, 14812), (75, 14935), (83, 14977), (99, 15148), (101, 15175),

Gene: KingPhillip3_31 Start: 14678, Stop: 15088, Start Num: 41
Candidate Starts for KingPhillip3_31:
(Start: 24 @14606 has 3 MA's), (Start: 29 @14618 has 8 MA's), (35, 14651), (Start: 41 @14678 has 2 MA's), (50, 14711), (51, 14714), (53, 14717), (75, 14840), (83, 14882), (99, 15053), (101, 15080),

Gene: Kroos_19 Start: 14665, Stop: 15102, Start Num: 28
Candidate Starts for Kroos_19:
(18, 14620), (20, 14629), (Start: 28 @14665 has 1 MA's), (Start: 39 @14716 has 2 MA's), (57, 14782), (76, 14926), (88, 14947),

Gene: Marleymoo_134 Start: 76219, Stop: 76599, Start Num: 55
Candidate Starts for Marleymoo_134:
(7, 76000), (26, 76102), (31, 76123), (32, 76126), (44, 76189), (55, 76219), (58, 76228), (64, 76261), (71, 76306), (86, 76393), (91, 76453), (92, 76489), (100, 76585),

Gene: Odette_154 Start: 81698, Stop: 82069, Start Num: 58
Candidate Starts for Odette_154:
(7, 81470), (26, 81572), (31, 81593), (32, 81596), (44, 81659), (55, 81689), (58, 81698), (64, 81731), (71, 81776), (86, 81863), (91, 81923), (92, 81959), (100, 82055),

Gene: Persimmon_162 Start: 90873, Stop: 91259, Start Num: 34
Candidate Starts for Persimmon_162:
(25, 90837), (Start: 28 @90843 has 1 MA's), (Start: 34 @90873 has 2 MA's), (54, 90942), (70, 91029), (77, 91095),

Gene: REQ3_10 Start: 4829, Stop: 5143, Start Num: 51
Candidate Starts for REQ3_10:
(27, 4724), (30, 4733), (51, 4829), (54, 4835), (66, 4904), (70, 4919),

Gene: Rearden_102 Start: 60176, Stop: 60565, Start Num: 40
Candidate Starts for Rearden_102:
(1, 59861), (2, 59885), (6, 59990), (11, 60023), (13, 60041), (22, 60098), (Start: 38 @60161 has 2 MA's), (40, 60176), (43, 60194), (61, 60251), (62, 60257), (72, 60317), (87, 60410), (98, 60551),

Gene: Ryadel_34 Start: 15422, Stop: 15904, Start Num: 24
Candidate Starts for Ryadel_34:
(Start: 24 @15422 has 3 MA's), (Start: 29 @15434 has 8 MA's), (35, 15467), (Start: 41 @15494 has 2 MA's), (50, 15527), (51, 15530), (53, 15533), (75, 15656), (83, 15698), (99, 15869), (101, 15896),

Gene: SchoolBus_31 Start: 14621, Stop: 15091, Start Num: 29
Candidate Starts for SchoolBus_31:

(Start: 24 @14609 has 3 MA's), (Start: 29 @14621 has 8 MA's), (35, 14654), (Start: 41 @14681 has 2 MA's), (50, 14714), (51, 14717), (53, 14720), (75, 14843), (83, 14885), (99, 15056), (101, 15083),

Gene: SharkTale_59 Start: 44261, Stop: 44587, Start Num: 55
Candidate Starts for SharkTale_59:
(9, 44060), (16, 44108), (19, 44126), (45, 44234), (55, 44261), (65, 44318), (73, 44360), (80, 44408), (89, 44483),

Gene: SilverChicken_59 Start: 36550, Stop: 36966, Start Num: 36
Candidate Starts for SilverChicken_59:
(7, 36415), (8, 36418), (Start: 24 @36508 has 3 MA's), (36, 36550), (52, 36610), (65, 36676), (73, 36718), (80, 36766),

Gene: Sour_34 Start: 32659, Stop: 32288, Start Num: 38
Candidate Starts for Sour_34:
(15, 32755), (Start: 38 @32659 has 2 MA's), (47, 32617), (53, 32599), (54, 32596), (63, 32557), (79, 32449), (95, 32329),

Gene: Thales_1 Start: 76, Stop: 522, Start Num: 19
Candidate Starts for Thales_1:
(6, 1), (9, 16), (19, 76), (21, 94), (23, 100), (44, 175), (47, 181), (61, 226), (69, 271), (74, 313), (80, 352), (82, 364), (90, 430),

Gene: Tucker_41 Start: 26756, Stop: 26394, Start Num: 33
Candidate Starts for Tucker_41:
(Start: 33 @26756 has 2 MA's), (42, 26708), (68, 26609), (78, 26531), (91, 26471),

Gene: Tuesday_180 Start: 93091, Stop: 93477, Start Num: 34
Candidate Starts for Tuesday_180:
(17, 93004), (23, 93046), (Start: 34 @93091 has 2 MA's), (54, 93160), (70, 93247), (77, 93313),

Gene: Vortrix_271 Start: 149684, Stop: 149989, Start Num: 58
Candidate Starts for Vortrix_271:
(4, 149444), (7, 149468), (9, 149474), (14, 149513), (16, 149522), (19, 149540), (31, 149585), (58, 149684), (59, 149690), (61, 149696), (68, 149741), (74, 149786), (76, 149813), (80, 149825), (81, 149828), (84, 149843), (93, 149942), (94, 149954), (97, 149960),

Gene: Winget_32 Start: 14875, Stop: 15357, Start Num: 24
Candidate Starts for Winget_32:
(Start: 24 @14875 has 3 MA's), (Start: 29 @14887 has 8 MA's), (35, 14920), (Start: 41 @14947 has 2 MA's), (50, 14980), (51, 14983), (53, 14986), (75, 15109), (83, 15151), (99, 15322), (101, 15349),

Gene: YungJamal_34 Start: 14950, Stop: 15420, Start Num: 29
Candidate Starts for YungJamal_34:
(Start: 24 @14938 has 3 MA's), (Start: 29 @14950 has 8 MA's), (35, 14983), (Start: 41 @15010 has 2 MA's), (50, 15043), (51, 15046), (53, 15049), (75, 15172), (83, 15214), (99, 15385), (101, 15412),

Gene: Zebo_31 Start: 14621, Stop: 15091, Start Num: 29
Candidate Starts for Zebo_31:
(Start: 24 @14609 has 3 MA's), (Start: 29 @14621 has 8 MA's), (35, 14654), (Start: 41 @14681 has 2 MA's), (50, 14714), (51, 14717), (53, 14720), (75, 14843), (83, 14885), (99, 15056), (101, 15083),

Gene: Zulu_41 Start: 26737, Stop: 26375, Start Num: 33

Candidate Starts for Zulu_41:
(Start: 33 @26737 has 2 MA's), (42, 26689), (68, 26590), (78, 26512), (91, 26452),