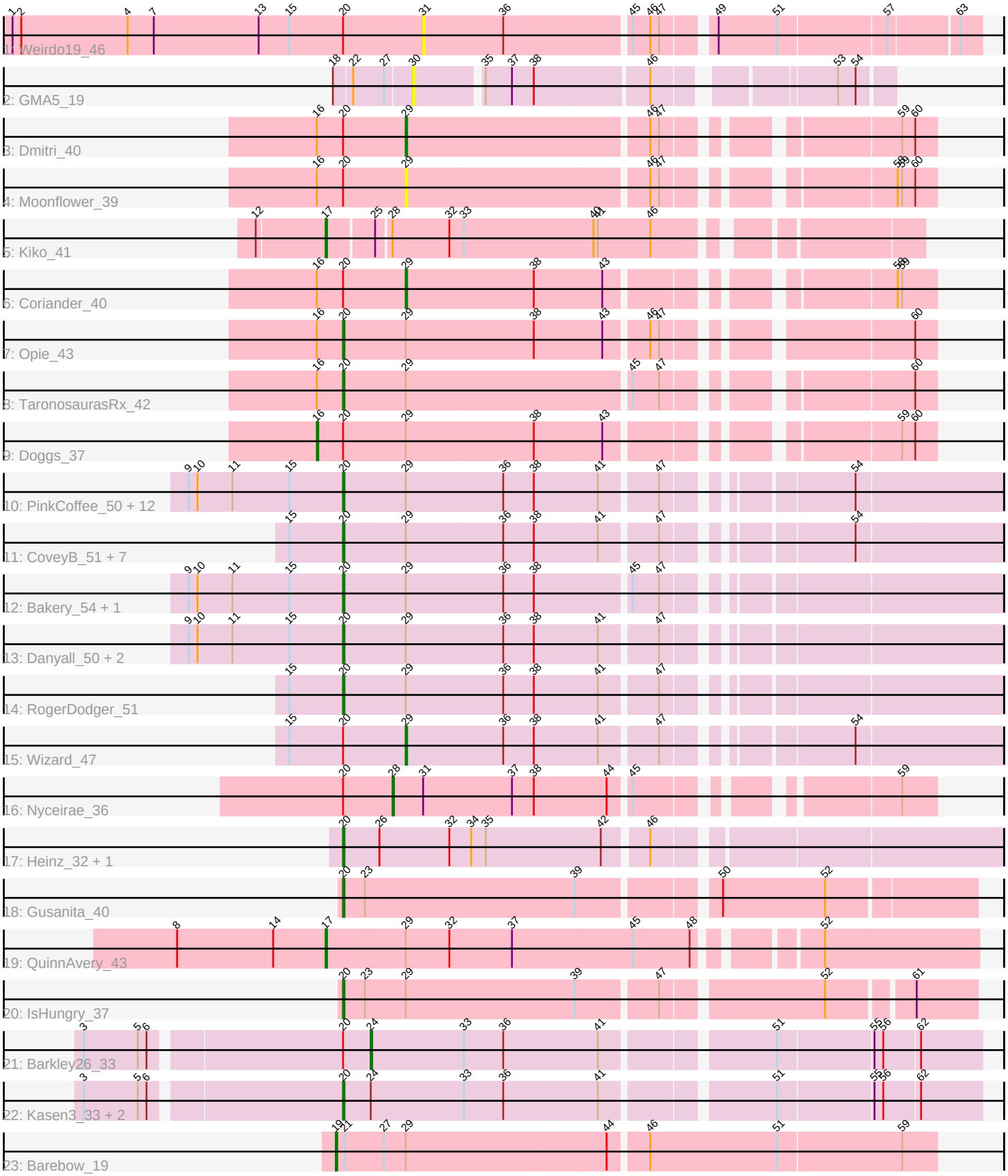
Pham 294835


1: Weirdo19_46
2: GMA5_19
3: Dmitri_40
4: Moonflower_39
5: Kiko_41
6: Coriander_40
7: Opie_43
8: TaronosaurasRx_42
9: Doggs_37
10: PinkCoffee_50 + 12
11: CoveyB_51 + 7
12: Bakery_54 + 1
13: Danyall_50 + 2
14: RogerDodger_51
15: Wizard_47
16: Nyceirae_36
17: Heinz_32 + 1
18: Gusanita_40
19: QuinnAvery_43
20: IsHungry_37
21: Barkley26_33
22: Kasen3_33 + 2
23: Barebow_19

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 294835 Report

This analysis was run 04/18/26 on database version 643.

Pham number 294835 has 48 members, 3 are drafts.

Phages represented in each track:
• Track 1 : Weirdo19_46
• Track 2 : GMA5_19
• Track 3 : Dmitri_40
• Track 4 : Moonflower_39
• Track 5 : Kiko_41
• Track 6 : Coriander_40
• Track 7 : Opie_43
• Track 8 : TaronosaurasRx_42
• Track 9 : Doggs_37
• Track 10 : PinkCoffee_50, Evamon_47, ClamChowder_50, Phlop_47, PullumCavea_47, Fugax_51, Egi03_48, Nubi_48, Togo_47, Barb_50, SmokingBunny_48, Salvador_47, KimmyK_49
• Track 11 : CoveyB_51, VanDeWege_51, Savbucketdawg_48, Halo3_49, Mutzi_48, Jambalaya_48, Valary_50, Gezellig_47
• Track 12 : Bakery_54, Arri_51
• Track 13 : Danyall_50, Portcullis_50, Twister6_50
• Track 14 : RogerDodger_51
• Track 15 : Wizard_47
• Track 16 : Nyceirae_36
• Track 17 : Heinz_32, Hibiscus_33
• Track 18 : Gusanita_40
• Track 19 : QuinnAvery_43
• Track 20 : IsHungry_37
• Track 21 : Barkley26_33
• Track 22 : Kasen3_33, Sizemore_33, Grizzly_33
• Track 23 : Barebow_19

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

The start number called the most often in the published annotations is 20, it was called in 36 of the 45 non-draft genes in the pham.

Genes that call this "Most Annotated" start:

• Arri_51, Bakery_54, Barb_50, ClamChowder_50, CoveyB_51, Danyall_50, Egi03_48, Evamon_47, Fugax_51, Gezellig_47, Grizzly_33, Gusanita_40, Halo3_49, Heinz_32, Hibiscus_33, IsHungry_37, Jambalaya_48, Kasen3_33, KimmyK_49, Mutzi_48, Nubi_48, Opie_43, Phlop_47, PinkCoffee_50, Portcullis_50, PullumCavea_47, RogerDodger_51, Salvador_47, Savbucketdawg_48, Sizemore_33, SmokingBunny_48, TaronosaurasRx_42, Togo_47, Twister6_50, Valary_50, VanDeWege_51,

Genes that have the "Most Annotated" start but do not call it:
• Barkley26_33, Coriander_40, Dmitri_40, Doggs_37, Moonflower_39, Nyceirae_36, Weirdo19_46, Wizard_47,

Genes that do not have the "Most Annotated" start:
• Barebow_19, GMA5_19, Kiko_41, QuinnAvery_43,

Summary by start number:

Start 16:
• Found in 6 of 48 (12.5%) of genes in pham
• Manual Annotations of this start: 1 of 45
• Called 16.7% of time when present
• Phage (with cluster) where this start called: Doggs_37 (DB),

Start 17:
• Found in 2 of 48 (4.2%) of genes in pham
• Manual Annotations of this start: 2 of 45
• Called 100.0% of time when present
• Phage (with cluster) where this start called: Kiko_41 (DB), QuinnAvery_43 (FF),

Start 19:
• Found in 1 of 48 (2.1%) of genes in pham
• Manual Annotations of this start: 1 of 45
• Called 100.0% of time when present
• Phage (with cluster) where this start called: Barebow_19 (singleton),

Start 20:
• Found in 44 of 48 (91.7%) of genes in pham
• Manual Annotations of this start: 36 of 45
• Called 81.8% of time when present
• Phage (with cluster) where this start called: Arri_51 (DC1), Bakery_54 (DC1), Barb_50 (DC1), ClamChowder_50 (DC1), CoveyB_51 (DC1), Danyall_50 (DC1), Egi03_48 (DC1), Evamon_47 (DC1), Fugax_51 (DC1), Gezellig_47 (DC1), Grizzly_33 (G1), Gusanita_40 (FF), Halo3_49 (DC1), Heinz_32 (DY), Hibiscus_33 (DY), IsHungry_37 (FF), Jambalaya_48 (DC1), Kasen3_33 (G1), KimmyK_49 (DC1), Mutzi_48 (DC1), Nubi_48 (DC1), Opie_43 (DB), Phlop_47 (DC1), PinkCoffee_50 (DC1), Portcullis_50 (DC1), PullumCavea_47 (DC1), RogerDodger_51 (DC1), Salvador_47 (DC1), Savbucketdawg_48 (DC1), Sizemore_33 (G1), SmokingBunny_48 (DC1), TaronosaurasRx_42 (DB), Togo_47 (DC1), Twister6_50 (DC1), Valary_50 (DC1), VanDeWege_51 (DC1),

Start 24:
• Found in 4 of 48 (8.3%) of genes in pham
• Manual Annotations of this start: 1 of 45

• Called 25.0% of time when present
• Phage (with cluster) where this start called: Barkley26_33 (G1),

Start 28:
• Found in 2 of 48 (4.2%) of genes in pham
• Manual Annotations of this start: 1 of 45
• Called 50.0% of time when present
• Phage (with cluster) where this start called: Nyceirae_36 (DT),

Start 29:
• Found in 37 of 48 (77.1%) of genes in pham
• Manual Annotations of this start: 3 of 45
• Called 10.8% of time when present
• Phage (with cluster) where this start called: Coriander_40 (DB), Dmitri_40 (DB), Moonflower_39 (DB), Wizard_47 (DC1),

Start 30:
• Found in 1 of 48 (2.1%) of genes in pham
• No Manual Annotations of this start.
• Called 100.0% of time when present
• Phage (with cluster) where this start called: GMA5_19 (CW2),

Start 31:
• Found in 2 of 48 (4.2%) of genes in pham
• No Manual Annotations of this start.
• Called 50.0% of time when present
• Phage (with cluster) where this start called: Weirdo19_46 (AH),

Summary by clusters:

There are 9 clusters represented in this pham: singleton, G1, AH, CW2, DB, FF, DY, DT, DC1,

Info for manual annotations of cluster DB:
•Start number 16 was manually annotated 1 time for cluster DB.
•Start number 17 was manually annotated 1 time for cluster DB.
•Start number 20 was manually annotated 2 times for cluster DB.
•Start number 29 was manually annotated 2 times for cluster DB.

Info for manual annotations of cluster DC1:
•Start number 20 was manually annotated 27 times for cluster DC1.
•Start number 29 was manually annotated 1 time for cluster DC1.

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

Info for manual annotations of cluster DY:
•Start number 20 was manually annotated 2 times for cluster DY.

Info for manual annotations of cluster FF:
•Start number 17 was manually annotated 1 time for cluster FF.

•Start number 20 was manually annotated 2 times for cluster FF.

Info for manual annotations of cluster G1:
•Start number 20 was manually annotated 3 times for cluster G1.
•Start number 24 was manually annotated 1 time for cluster G1.

Gene Information:

Gene: Arri_51 Start: 39948, Stop: 39535, Start Num: 20
Candidate Starts for Arri_51:
(9, 40053), (10, 40047), (11, 40023), (15, 39984), (Start: 20 @39948 has 36 MA's), (Start: 29 @39906 has 3 MA's), (36, 39840), (38, 39819), (45, 39759), (47, 39741),

Gene: Bakery_54 Start: 41089, Stop: 40676, Start Num: 20
Candidate Starts for Bakery_54:
(9, 41194), (10, 41188), (11, 41164), (15, 41125), (Start: 20 @41089 has 36 MA's), (Start: 29 @41047 has 3 MA's), (36, 40981), (38, 40960), (45, 40900), (47, 40882),

Gene: Barb_50 Start: 40067, Stop: 39654, Start Num: 20
Candidate Starts for Barb_50:
(9, 40172), (10, 40166), (11, 40142), (15, 40103), (Start: 20 @40067 has 36 MA's), (Start: 29 @40025 has 3 MA's), (36, 39959), (38, 39938), (41, 39896), (47, 39860), (54, 39752),

Gene: Barebow_19 Start: 15697, Stop: 15296, Start Num: 19
Candidate Starts for Barebow_19:
(Start: 19 @15697 has 1 MA's), (21, 15691), (27, 15664), (Start: 29 @15649 has 3 MA's), (44, 15514), (46, 15490), (51, 15403), (59, 15319),

Gene: Barkley26_33 Start: 29328, Stop: 28936, Start Num: 24
Candidate Starts for Barkley26_33:
(3, 29511), (5, 29475), (6, 29469), (Start: 20 @29346 has 36 MA's), (Start: 24 @29328 has 1 MA's), (33, 29265), (36, 29238), (41, 29175), (51, 29070), (55, 29007), (56, 29001), (62, 28977),

Gene: ClamChowder_50 Start: 40067, Stop: 39654, Start Num: 20
Candidate Starts for ClamChowder_50:
(9, 40172), (10, 40166), (11, 40142), (15, 40103), (Start: 20 @40067 has 36 MA's), (Start: 29 @40025 has 3 MA's), (36, 39959), (38, 39938), (41, 39896), (47, 39860), (54, 39752),

Gene: Coriander_40 Start: 31779, Stop: 31459, Start Num: 29
Candidate Starts for Coriander_40:
(Start: 16 @31839 has 1 MA's), (Start: 20 @31821 has 36 MA's), (Start: 29 @31779 has 3 MA's), (38, 31692), (43, 31647), (58, 31485), (59, 31482),

Gene: CoveyB_51 Start: 39766, Stop: 39353, Start Num: 20
Candidate Starts for CoveyB_51:
(15, 39802), (Start: 20 @39766 has 36 MA's), (Start: 29 @39724 has 3 MA's), (36, 39658), (38, 39637), (41, 39595), (47, 39559), (54, 39451),

Gene: Danyall_50 Start: 39768, Stop: 39355, Start Num: 20
Candidate Starts for Danyall_50:

(9, 39873), (10, 39867), (11, 39843), (15, 39804), (Start: 20 @39768 has 36 MA's), (Start: 29 @39726 has 3 MA's), (36, 39660), (38, 39639), (41, 39597), (47, 39561),

Gene: Dmitri_40 Start: 33369, Stop: 33049, Start Num: 29
Candidate Starts for Dmitri_40:
(Start: 16 @33429 has 1 MA's), (Start: 20 @33411 has 36 MA's), (Start: 29 @33369 has 3 MA's), (46, 33210), (47, 33204), (59, 33072), (60, 33063),

Gene: Doggs_37 Start: 32568, Stop: 32188, Start Num: 16
Candidate Starts for Doggs_37:
(Start: 16 @32568 has 1 MA's), (Start: 20 @32550 has 36 MA's), (Start: 29 @32508 has 3 MA's), (38, 32421), (43, 32376), (59, 32211), (60, 32202),

Gene: Egi03_48 Start: 39548, Stop: 39135, Start Num: 20
Candidate Starts for Egi03_48:
(9, 39653), (10, 39647), (11, 39623), (15, 39584), (Start: 20 @39548 has 36 MA's), (Start: 29 @39506 has 3 MA's), (36, 39440), (38, 39419), (41, 39377), (47, 39341), (54, 39233),

Gene: Evamon_47 Start: 39787, Stop: 39374, Start Num: 20
Candidate Starts for Evamon_47:
(9, 39892), (10, 39886), (11, 39862), (15, 39823), (Start: 20 @39787 has 36 MA's), (Start: 29 @39745 has 3 MA's), (36, 39679), (38, 39658), (41, 39616), (47, 39580), (54, 39472),

Gene: Fugax_51 Start: 40059, Stop: 39646, Start Num: 20
Candidate Starts for Fugax_51:
(9, 40164), (10, 40158), (11, 40134), (15, 40095), (Start: 20 @40059 has 36 MA's), (Start: 29 @40017 has 3 MA's), (36, 39951), (38, 39930), (41, 39888), (47, 39852), (54, 39744),

Gene: GMA5_19 Start: 14633, Stop: 14346, Start Num: 30
Candidate Starts for GMA5_19:
(18, 14684), (22, 14672), (27, 14651), (30, 14633), (35, 14591), (37, 14573), (38, 14558), (46, 14486), (53, 14381), (54, 14369),

Gene: Gezellig_47 Start: 39919, Stop: 39506, Start Num: 20
Candidate Starts for Gezellig_47:
(15, 39955), (Start: 20 @39919 has 36 MA's), (Start: 29 @39877 has 3 MA's), (36, 39811), (38, 39790), (41, 39748), (47, 39712), (54, 39604),

Gene: Grizzly_33 Start: 29324, Stop: 28914, Start Num: 20
Candidate Starts for Grizzly_33:
(3, 29489), (5, 29453), (6, 29447), (Start: 20 @29324 has 36 MA's), (Start: 24 @29306 has 1 MA's), (33, 29243), (36, 29216), (41, 29153), (51, 29048), (55, 28985), (56, 28979), (62, 28955),

Gene: Gusanita_40 Start: 30510, Stop: 30103, Start Num: 20
Candidate Starts for Gusanita_40:
(Start: 20 @30510 has 36 MA's), (23, 30495), (39, 30354), (50, 30270), (52, 30201),

Gene: Halo3_49 Start: 40504, Stop: 40091, Start Num: 20
Candidate Starts for Halo3_49:
(15, 40540), (Start: 20 @40504 has 36 MA's), (Start: 29 @40462 has 3 MA's), (36, 40396), (38, 40375), (41, 40333), (47, 40297), (54, 40189),

Gene: Heinz_32 Start: 25504, Stop: 25082, Start Num: 20

Candidate Starts for Heinz_32:
(Start: 20 @25504 has 36 MA's), (26, 25480), (32, 25432), (34, 25417), (35, 25408), (42, 25330), (46, 25303),

Gene: Hibiscus_33 Start: 25453, Stop: 25031, Start Num: 20
Candidate Starts for Hibiscus_33:
(Start: 20 @25453 has 36 MA's), (26, 25429), (32, 25381), (34, 25366), (35, 25357), (42, 25279), (46, 25252),

Gene: IsHungry_37 Start: 28697, Stop: 28293, Start Num: 20
Candidate Starts for IsHungry_37:
(Start: 20 @28697 has 36 MA's), (23, 28682), (Start: 29 @28655 has 3 MA's), (39, 28541), (47, 28490), (52, 28388), (61, 28334),

Gene: Jambalaya_48 Start: 39566, Stop: 39153, Start Num: 20
Candidate Starts for Jambalaya_48:
(15, 39602), (Start: 20 @39566 has 36 MA's), (Start: 29 @39524 has 3 MA's), (36, 39458), (38, 39437), (41, 39395), (47, 39359), (54, 39251),

Gene: Kasen3_33 Start: 29325, Stop: 28915, Start Num: 20
Candidate Starts for Kasen3_33:
(3, 29490), (5, 29454), (6, 29448), (Start: 20 @29325 has 36 MA's), (Start: 24 @29307 has 1 MA's), (33, 29244), (36, 29217), (41, 29154), (51, 29049), (55, 28986), (56, 28980), (62, 28956),

Gene: Kiko_41 Start: 32143, Stop: 31775, Start Num: 17
Candidate Starts for Kiko_41:
(12, 32188), (Start: 17 @32143 has 2 MA's), (25, 32113), (Start: 28 @32104 has 1 MA's), (32, 32065), (33, 32056), (40, 31969), (41, 31966), (46, 31930),

Gene: KimmyK_49 Start: 40501, Stop: 40088, Start Num: 20
Candidate Starts for KimmyK_49:
(9, 40606), (10, 40600), (11, 40576), (15, 40537), (Start: 20 @40501 has 36 MA's), (Start: 29 @40459 has 3 MA's), (36, 40393), (38, 40372), (41, 40330), (47, 40294), (54, 40186),

Gene: Moonflower_39 Start: 33232, Stop: 32912, Start Num: 29
Candidate Starts for Moonflower_39:
(Start: 16 @33292 has 1 MA's), (Start: 20 @33274 has 36 MA's), (Start: 29 @33232 has 3 MA's), (46, 33073), (47, 33067), (58, 32938), (59, 32935), (60, 32926),

Gene: Mutzi_48 Start: 40895, Stop: 40482, Start Num: 20
Candidate Starts for Mutzi_48:
(15, 40931), (Start: 20 @40895 has 36 MA's), (Start: 29 @40853 has 3 MA's), (36, 40787), (38, 40766), (41, 40724), (47, 40688), (54, 40580),

Gene: Nubi_48 Start: 39892, Stop: 39479, Start Num: 20
Candidate Starts for Nubi_48:
(9, 39997), (10, 39991), (11, 39967), (15, 39928), (Start: 20 @39892 has 36 MA's), (Start: 29 @39850 has 3 MA's), (36, 39784), (38, 39763), (41, 39721), (47, 39685), (54, 39577),

Gene: Nyceirae_36 Start: 30000, Stop: 29677, Start Num: 28
Candidate Starts for Nyceirae_36:
(Start: 20 @30033 has 36 MA's), (Start: 28 @30000 has 1 MA's), (31, 29979), (37, 29919), (38, 29904), (44, 29856), (45, 29844), (59, 29700),

Gene: Opie_43 Start: 33208, Stop: 32843, Start Num: 20
Candidate Starts for Opie_43:
(Start: 16 @33226 has 1 MA's), (Start: 20 @33208 has 36 MA's), (Start: 29 @33166 has 3 MA's), (38, 33079), (43, 33034), (46, 33007), (47, 33001), (60, 32857),

Gene: Phlop_47 Start: 39973, Stop: 39560, Start Num: 20
Candidate Starts for Phlop_47:
(9, 40078), (10, 40072), (11, 40048), (15, 40009), (Start: 20 @39973 has 36 MA's), (Start: 29 @39931 has 3 MA's), (36, 39865), (38, 39844), (41, 39802), (47, 39766), (54, 39658),

Gene: PinkCoffee_50 Start: 40076, Stop: 39663, Start Num: 20
Candidate Starts for PinkCoffee_50:
(9, 40181), (10, 40175), (11, 40151), (15, 40112), (Start: 20 @40076 has 36 MA's), (Start: 29 @40034 has 3 MA's), (36, 39968), (38, 39947), (41, 39905), (47, 39869), (54, 39761),

Gene: Portcullis_50 Start: 39579, Stop: 39166, Start Num: 20
Candidate Starts for Portcullis_50:
(9, 39684), (10, 39678), (11, 39654), (15, 39615), (Start: 20 @39579 has 36 MA's), (Start: 29 @39537 has 3 MA's), (36, 39471), (38, 39450), (41, 39408), (47, 39372),

Gene: PullumCavea_47 Start: 39973, Stop: 39560, Start Num: 20
Candidate Starts for PullumCavea_47:
(9, 40078), (10, 40072), (11, 40048), (15, 40009), (Start: 20 @39973 has 36 MA's), (Start: 29 @39931 has 3 MA's), (36, 39865), (38, 39844), (41, 39802), (47, 39766), (54, 39658),

Gene: QuinnAvery_43 Start: 30914, Stop: 30495, Start Num: 17
Candidate Starts for QuinnAvery_43:
(8, 31016), (14, 30950), (Start: 17 @30914 has 2 MA's), (Start: 29 @30860 has 3 MA's), (32, 30830), (37, 30788), (45, 30707), (48, 30668), (52, 30599),

Gene: RogerDodger_51 Start: 40116, Stop: 39703, Start Num: 20
Candidate Starts for RogerDodger_51:
(15, 40152), (Start: 20 @40116 has 36 MA's), (Start: 29 @40074 has 3 MA's), (36, 40008), (38, 39987), (41, 39945), (47, 39909),

Gene: Salvador_47 Start: 39785, Stop: 39372, Start Num: 20
Candidate Starts for Salvador_47:
(9, 39890), (10, 39884), (11, 39860), (15, 39821), (Start: 20 @39785 has 36 MA's), (Start: 29 @39743 has 3 MA's), (36, 39677), (38, 39656), (41, 39614), (47, 39578), (54, 39470),

Gene: Savbucketdawg_48 Start: 39566, Stop: 39153, Start Num: 20
Candidate Starts for Savbucketdawg_48:
(15, 39602), (Start: 20 @39566 has 36 MA's), (Start: 29 @39524 has 3 MA's), (36, 39458), (38, 39437), (41, 39395), (47, 39359), (54, 39251),

Gene: Sizemore_33 Start: 29325, Stop: 28915, Start Num: 20
Candidate Starts for Sizemore_33:
(3, 29490), (5, 29454), (6, 29448), (Start: 20 @29325 has 36 MA's), (Start: 24 @29307 has 1 MA's), (33, 29244), (36, 29217), (41, 29154), (51, 29049), (55, 28986), (56, 28980), (62, 28956),

Gene: SmokingBunny_48 Start: 39878, Stop: 39465, Start Num: 20
Candidate Starts for SmokingBunny_48:

(9, 39983), (10, 39977), (11, 39953), (15, 39914), (Start: 20 @39878 has 36 MA's), (Start: 29 @39836 has 3 MA's), (36, 39770), (38, 39749), (41, 39707), (47, 39671), (54, 39563),

Gene: TaronosaurasRx_42 Start: 31610, Stop: 31248, Start Num: 20
Candidate Starts for TaronosaurasRx_42:
(Start: 16 @31628 has 1 MA's), (Start: 20 @31610 has 36 MA's), (Start: 29 @31568 has 3 MA's), (45, 31421), (47, 31403), (60, 31262),

Gene: Togo_47 Start: 39878, Stop: 39465, Start Num: 20
Candidate Starts for Togo_47:
(9, 39983), (10, 39977), (11, 39953), (15, 39914), (Start: 20 @39878 has 36 MA's), (Start: 29 @39836 has 3 MA's), (36, 39770), (38, 39749), (41, 39707), (47, 39671), (54, 39563),

Gene: Twister6_50 Start: 39679, Stop: 39266, Start Num: 20
Candidate Starts for Twister6_50:
(9, 39784), (10, 39778), (11, 39754), (15, 39715), (Start: 20 @39679 has 36 MA's), (Start: 29 @39637 has 3 MA's), (36, 39571), (38, 39550), (41, 39508), (47, 39472),

Gene: Valary_50 Start: 40721, Stop: 40308, Start Num: 20
Candidate Starts for Valary_50:
(15, 40757), (Start: 20 @40721 has 36 MA's), (Start: 29 @40679 has 3 MA's), (36, 40613), (38, 40592), (41, 40550), (47, 40514), (54, 40406),

Gene: VanDeWege_51 Start: 40013, Stop: 39600, Start Num: 20
Candidate Starts for VanDeWege_51:
(15, 40049), (Start: 20 @40013 has 36 MA's), (Start: 29 @39971 has 3 MA's), (36, 39905), (38, 39884), (41, 39842), (47, 39806), (54, 39698),

Gene: Weirdo19_46 Start: 34933, Stop: 34580, Start Num: 31
Candidate Starts for Weirdo19_46:
(1, 35212), (2, 35206), (4, 35134), (7, 35116), (13, 35044), (15, 35023), (Start: 20 @34987 has 36 MA's), (31, 34933), (36, 34879), (45, 34798), (46, 34786), (47, 34780), (49, 34750), (51, 34711), (57, 34639), (63, 34594),

Gene: Wizard_47 Start: 39877, Stop: 39506, Start Num: 29
Candidate Starts for Wizard_47:
(15, 39955), (Start: 20 @39919 has 36 MA's), (Start: 29 @39877 has 3 MA's), (36, 39811), (38, 39790), (41, 39748), (47, 39712), (54, 39604),