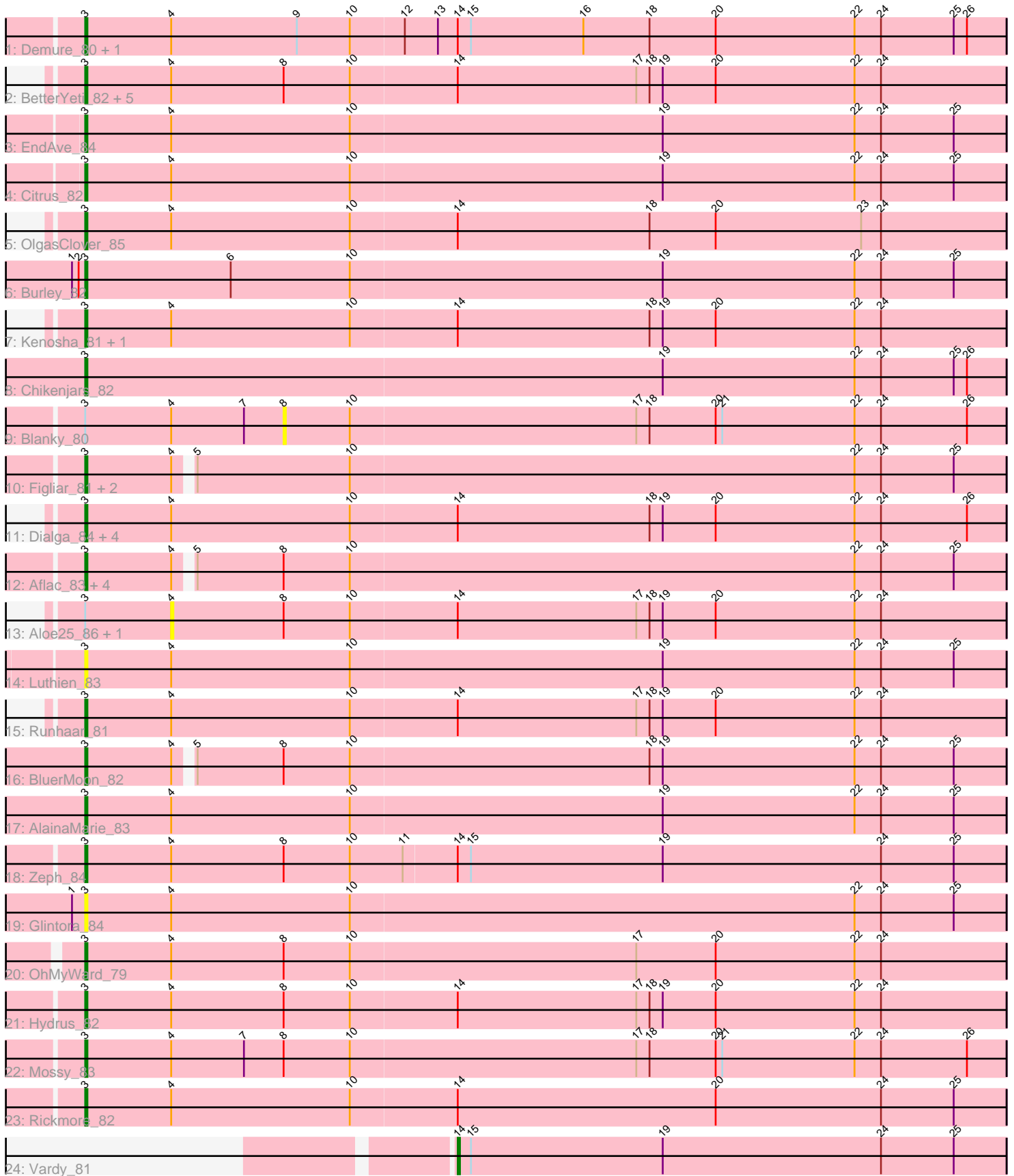


Pham 303487



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 303487 Report

This analysis was run 06/08/26 on database version 649.

Pham number 303487 has 42 members, 10 are drafts.

Phages represented in each track:

- Track 1 : Demure\_80, Arataki\_81
- Track 2 : BetterYeti\_82, Crocheter\_83, Madvan\_82, Untouchable\_84, Gusicorn\_84, ShaggyRogers\_82
- Track 3 : EndAve\_84
- Track 4 : Citrus\_82
- Track 5 : OlgasClover\_85
- Track 6 : Burley\_82
- Track 7 : Kenosha\_81, Phepper\_83
- Track 8 : Chikenjars\_82
- Track 9 : Blanky\_80
- Track 10 : Figliar\_81, Jodelie19\_81, MajinBuu\_83
- Track 11 : Dialga\_84, ArtetaBall\_82, Nadmeg\_82, CWormy\_81, Nithya\_81
- Track 12 : Aflac\_83, Eddiemania\_83, Duffington\_83, TenaciousP\_83, Tonaltzin\_87
- Track 13 : Aloe25\_86, PestoPenguin\_87
- Track 14 : Luthien\_83
- Track 15 : Runhaar\_81
- Track 16 : BluerMoon\_82
- Track 17 : AlainaMarie\_83
- Track 18 : Zeph\_84
- Track 19 : Glintora\_84
- Track 20 : OhMyWard\_79
- Track 21 : Hydrus\_82
- Track 22 : Mossy\_83
- Track 23 : Rickmore\_82
- Track 24 : Vardy\_81

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

The start number called the most often in the published annotations is 3, it was called in 31 of the 32 non-draft genes in the pham.

Genes that call this "Most Annotated" start:

- Aflac\_83, AlainaMarie\_83, Arataki\_81, ArtetaBall\_82, BetterYeti\_82, BluerMoon\_82, Burley\_82, CWormy\_81, Chikenjars\_82, Citrus\_82, Crocheter\_83, Demure\_80,

Dialga\_84, Duffington\_83, Eddiemania\_83, EndAve\_84, Figliar\_81, Glintora\_84, Gusicorn\_84, Hydrus\_82, Jodelie19\_81, Kenosha\_81, Luthien\_83, Madvan\_82, MajinBuu\_83, Mossy\_83, Nadmeg\_82, Nithya\_81, OhMyWard\_79, OlgasClover\_85, Phepper\_83, Rickmore\_82, Runhaar\_81, ShaggyRogers\_82, TenaciousP\_83, Tonaltzin\_87, Untouchable\_84, Zeph\_84,

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

- Aloe25\_86, Blanky\_80, PestoPenguin\_87,

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

- Vardy\_81,

### Summary by start number:

Start 3:

- Found in 41 of 42 ( 97.6% ) of genes in pham
- Manual Annotations of this start: 31 of 32
- Called 92.7% of time when present
- Phage (with cluster) where this start called: Aflac\_83 (DJ), AlainaMarie\_83 (DJ), Arataki\_81 (DJ), ArtetaBall\_82 (DJ), BetterYeti\_82 (DJ), BluerMoon\_82 (DJ), Burley\_82 (DJ), CWormy\_81 (DJ), Chikenjars\_82 (DJ), Citrus\_82 (DJ), Crocheter\_83 (DJ), Demure\_80 (DJ), Dialga\_84 (DJ), Duffington\_83 (DJ), Eddiemania\_83 (DJ), EndAve\_84 (DJ), Figliar\_81 (DJ), Glintora\_84 (DJ), Gusicorn\_84 (DJ), Hydrus\_82 (DJ), Jodelie19\_81 (DJ), Kenosha\_81 (DJ), Luthien\_83 (DJ), Madvan\_82 (DJ), MajinBuu\_83 (DJ), Mossy\_83 (DJ), Nadmeg\_82 (DJ), Nithya\_81 (DJ), OhMyWard\_79 (DJ), OlgasClover\_85 (DJ), Phepper\_83 (DJ), Rickmore\_82 (DJ), Runhaar\_81 (DJ), ShaggyRogers\_82 (DJ), TenaciousP\_83 (DJ), Tonaltzin\_87 (DJ), Untouchable\_84 (DJ), Zeph\_84 (DJ),

Start 4:

- Found in 39 of 42 ( 92.9% ) of genes in pham
- No Manual Annotations of this start.
- Called 5.1% of time when present
- Phage (with cluster) where this start called: Aloe25\_86 (DJ), PestoPenguin\_87 (DJ),

Start 8:

- Found in 19 of 42 ( 45.2% ) of genes in pham
- No Manual Annotations of this start.
- Called 5.3% of time when present
- Phage (with cluster) where this start called: Blanky\_80 (DJ),

Start 14:

- Found in 23 of 42 ( 54.8% ) of genes in pham
- Manual Annotations of this start: 1 of 32
- Called 4.3% of time when present
- Phage (with cluster) where this start called: Vardy\_81 (DJ),

### Summary by clusters:

There is one cluster represented in this pham: DJ

Info for manual annotations of cluster DJ:

- Start number 3 was manually annotated 31 times for cluster DJ.

- Start number 14 was manually annotated 1 time for cluster DJ.

**Gene Information:**

Gene: Aflac\_83 Start: 53564, Stop: 53974, Start Num: 3

Candidate Starts for Aflac\_83:

(Start: 3 @53564 has 31 MA's), (4, 53603), (5, 53609), (8, 53648), (10, 53678), (22, 53906), (24, 53918), (25, 53951),

Gene: AlainaMarie\_83 Start: 53618, Stop: 54034, Start Num: 3

Candidate Starts for AlainaMarie\_83:

(Start: 3 @53618 has 31 MA's), (4, 53657), (10, 53738), (19, 53879), (22, 53966), (24, 53978), (25, 54011),

Gene: Aloe25\_86 Start: 53058, Stop: 53435, Start Num: 4

Candidate Starts for Aloe25\_86:

(Start: 3 @53019 has 31 MA's), (4, 53058), (8, 53109), (10, 53139), (Start: 14 @53187 has 1 MA's), (17, 53268), (18, 53274), (19, 53280), (20, 53304), (22, 53367), (24, 53379),

Gene: Arataki\_81 Start: 52635, Stop: 53051, Start Num: 3

Candidate Starts for Arataki\_81:

(Start: 3 @52635 has 31 MA's), (4, 52674), (9, 52731), (10, 52755), (12, 52779), (13, 52794), (Start: 14 @52803 has 1 MA's), (15, 52809), (16, 52860), (18, 52890), (20, 52920), (22, 52983), (24, 52995), (25, 53028), (26, 53034),

Gene: ArtetaBall\_82 Start: 53195, Stop: 53611, Start Num: 3

Candidate Starts for ArtetaBall\_82:

(Start: 3 @53195 has 31 MA's), (4, 53234), (10, 53315), (Start: 14 @53363 has 1 MA's), (18, 53450), (19, 53456), (20, 53480), (22, 53543), (24, 53555), (26, 53594),

Gene: BetterYeti\_82 Start: 53018, Stop: 53434, Start Num: 3

Candidate Starts for BetterYeti\_82:

(Start: 3 @53018 has 31 MA's), (4, 53057), (8, 53108), (10, 53138), (Start: 14 @53186 has 1 MA's), (17, 53267), (18, 53273), (19, 53279), (20, 53303), (22, 53366), (24, 53378),

Gene: Blanky\_80 Start: 54170, Stop: 54496, Start Num: 8

Candidate Starts for Blanky\_80:

(Start: 3 @54080 has 31 MA's), (4, 54119), (7, 54152), (8, 54170), (10, 54200), (17, 54329), (18, 54335), (20, 54365), (21, 54368), (22, 54428), (24, 54440), (26, 54479),

Gene: BluerMoon\_82 Start: 53519, Stop: 53929, Start Num: 3

Candidate Starts for BluerMoon\_82:

(Start: 3 @53519 has 31 MA's), (4, 53558), (5, 53564), (8, 53603), (10, 53633), (18, 53768), (19, 53774), (22, 53861), (24, 53873), (25, 53906),

Gene: Burley\_82 Start: 52649, Stop: 53065, Start Num: 3

Candidate Starts for Burley\_82:

(1, 52643), (2, 52646), (Start: 3 @52649 has 31 MA's), (6, 52715), (10, 52769), (19, 52910), (22, 52997), (24, 53009), (25, 53042),

Gene: CWormy\_81 Start: 52622, Stop: 53038, Start Num: 3

Candidate Starts for CWormy\_81:

(Start: 3 @52622 has 31 MA's), (4, 52661), (10, 52742), (Start: 14 @52790 has 1 MA's), (18, 52877), (19, 52883), (20, 52907), (22, 52970), (24, 52982), (26, 53021),

Gene: Chikenjars\_82 Start: 53605, Stop: 54021, Start Num: 3

Candidate Starts for Chikenjars\_82:

(Start: 3 @53605 has 31 MA's), (19, 53866), (22, 53953), (24, 53965), (25, 53998), (26, 54004),

Gene: Citrus\_82 Start: 53631, Stop: 54047, Start Num: 3

Candidate Starts for Citrus\_82:

(Start: 3 @53631 has 31 MA's), (4, 53670), (10, 53751), (19, 53892), (22, 53979), (24, 53991), (25, 54024),

Gene: Crocheter\_83 Start: 53112, Stop: 53528, Start Num: 3

Candidate Starts for Crocheter\_83:

(Start: 3 @53112 has 31 MA's), (4, 53151), (8, 53202), (10, 53232), (Start: 14 @53280 has 1 MA's), (17, 53361), (18, 53367), (19, 53373), (20, 53397), (22, 53460), (24, 53472),

Gene: Demure\_80 Start: 53045, Stop: 53461, Start Num: 3

Candidate Starts for Demure\_80:

(Start: 3 @53045 has 31 MA's), (4, 53084), (9, 53141), (10, 53165), (12, 53189), (13, 53204), (Start: 14 @53213 has 1 MA's), (15, 53219), (16, 53270), (18, 53300), (20, 53330), (22, 53393), (24, 53405), (25, 53438), (26, 53444),

Gene: Dialga\_84 Start: 53214, Stop: 53630, Start Num: 3

Candidate Starts for Dialga\_84:

(Start: 3 @53214 has 31 MA's), (4, 53253), (10, 53334), (Start: 14 @53382 has 1 MA's), (18, 53469), (19, 53475), (20, 53499), (22, 53562), (24, 53574), (26, 53613),

Gene: Duffington\_83 Start: 53566, Stop: 53976, Start Num: 3

Candidate Starts for Duffington\_83:

(Start: 3 @53566 has 31 MA's), (4, 53605), (5, 53611), (8, 53650), (10, 53680), (22, 53908), (24, 53920), (25, 53953),

Gene: Eddiemania\_83 Start: 53685, Stop: 54095, Start Num: 3

Candidate Starts for Eddiemania\_83:

(Start: 3 @53685 has 31 MA's), (4, 53724), (5, 53730), (8, 53769), (10, 53799), (22, 54027), (24, 54039), (25, 54072),

Gene: EndAve\_84 Start: 53553, Stop: 53969, Start Num: 3

Candidate Starts for EndAve\_84:

(Start: 3 @53553 has 31 MA's), (4, 53592), (10, 53673), (19, 53814), (22, 53901), (24, 53913), (25, 53946),

Gene: Figliar\_81 Start: 53371, Stop: 53781, Start Num: 3

Candidate Starts for Figliar\_81:

(Start: 3 @53371 has 31 MA's), (4, 53410), (5, 53416), (10, 53485), (22, 53713), (24, 53725), (25, 53758),

Gene: Glintora\_84 Start: 53741, Stop: 54157, Start Num: 3

Candidate Starts for Glintora\_84:

(1, 53735), (Start: 3 @53741 has 31 MA's), (4, 53780), (10, 53861), (22, 54089), (24, 54101), (25, 54134),

Gene: Gusicorn\_84 Start: 53019, Stop: 53435, Start Num: 3

Candidate Starts for Gusicorn\_84:

(Start: 3 @53019 has 31 MA's), (4, 53058), (8, 53109), (10, 53139), (Start: 14 @53187 has 1 MA's), (17, 53268), (18, 53274), (19, 53280), (20, 53304), (22, 53367), (24, 53379),

Gene: Hydrus\_82 Start: 53381, Stop: 53797, Start Num: 3

Candidate Starts for Hydrus\_82:

(Start: 3 @53381 has 31 MA's), (4, 53420), (8, 53471), (10, 53501), (Start: 14 @53549 has 1 MA's), (17, 53630), (18, 53636), (19, 53642), (20, 53666), (22, 53729), (24, 53741),

Gene: Jodelie19\_81 Start: 54538, Stop: 54948, Start Num: 3

Candidate Starts for Jodelie19\_81:

(Start: 3 @54538 has 31 MA's), (4, 54577), (5, 54583), (10, 54652), (22, 54880), (24, 54892), (25, 54925),

Gene: Kenosha\_81 Start: 53250, Stop: 53666, Start Num: 3

Candidate Starts for Kenosha\_81:

(Start: 3 @53250 has 31 MA's), (4, 53289), (10, 53370), (Start: 14 @53418 has 1 MA's), (18, 53505), (19, 53511), (20, 53535), (22, 53598), (24, 53610),

Gene: Luthien\_83 Start: 53557, Stop: 53973, Start Num: 3

Candidate Starts for Luthien\_83:

(Start: 3 @53557 has 31 MA's), (4, 53596), (10, 53677), (19, 53818), (22, 53905), (24, 53917), (25, 53950),

Gene: Madvan\_82 Start: 52707, Stop: 53123, Start Num: 3

Candidate Starts for Madvan\_82:

(Start: 3 @52707 has 31 MA's), (4, 52746), (8, 52797), (10, 52827), (Start: 14 @52875 has 1 MA's), (17, 52956), (18, 52962), (19, 52968), (20, 52992), (22, 53055), (24, 53067),

Gene: MajinBuu\_83 Start: 53747, Stop: 54157, Start Num: 3

Candidate Starts for MajinBuu\_83:

(Start: 3 @53747 has 31 MA's), (4, 53786), (5, 53792), (10, 53861), (22, 54089), (24, 54101), (25, 54134),

Gene: Mossy\_83 Start: 54302, Stop: 54718, Start Num: 3

Candidate Starts for Mossy\_83:

(Start: 3 @54302 has 31 MA's), (4, 54341), (7, 54374), (8, 54392), (10, 54422), (17, 54551), (18, 54557), (20, 54587), (21, 54590), (22, 54650), (24, 54662), (26, 54701),

Gene: Nadmeg\_82 Start: 53710, Stop: 54126, Start Num: 3

Candidate Starts for Nadmeg\_82:

(Start: 3 @53710 has 31 MA's), (4, 53749), (10, 53830), (Start: 14 @53878 has 1 MA's), (18, 53965), (19, 53971), (20, 53995), (22, 54058), (24, 54070), (26, 54109),

Gene: Nithya\_81 Start: 53103, Stop: 53519, Start Num: 3

Candidate Starts for Nithya\_81:

(Start: 3 @53103 has 31 MA's), (4, 53142), (10, 53223), (Start: 14 @53271 has 1 MA's), (18, 53358), (19, 53364), (20, 53388), (22, 53451), (24, 53463), (26, 53502),

Gene: OhMyWard\_79 Start: 54058, Stop: 54474, Start Num: 3

Candidate Starts for OhMyWard\_79:

(Start: 3 @54058 has 31 MA's), (4, 54097), (8, 54148), (10, 54178), (17, 54307), (20, 54343), (22, 54406), (24, 54418),

Gene: OlgasClover\_85 Start: 54446, Stop: 54862, Start Num: 3

Candidate Starts for OlgasClover\_85:

(Start: 3 @54446 has 31 MA's), (4, 54485), (10, 54566), (Start: 14 @54614 has 1 MA's), (18, 54701), (20, 54731), (23, 54797), (24, 54806),

Gene: PestoPenguin\_87 Start: 53058, Stop: 53435, Start Num: 4

Candidate Starts for PestoPenguin\_87:

(Start: 3 @53019 has 31 MA's), (4, 53058), (8, 53109), (10, 53139), (Start: 14 @53187 has 1 MA's), (17, 53268), (18, 53274), (19, 53280), (20, 53304), (22, 53367), (24, 53379),

Gene: Phepper\_83 Start: 52949, Stop: 53365, Start Num: 3

Candidate Starts for Phepper\_83:

(Start: 3 @52949 has 31 MA's), (4, 52988), (10, 53069), (Start: 14 @53117 has 1 MA's), (18, 53204), (19, 53210), (20, 53234), (22, 53297), (24, 53309),

Gene: Rickmore\_82 Start: 52469, Stop: 52885, Start Num: 3

Candidate Starts for Rickmore\_82:

(Start: 3 @52469 has 31 MA's), (4, 52508), (10, 52589), (Start: 14 @52637 has 1 MA's), (20, 52754), (24, 52829), (25, 52862),

Gene: Runhaar\_81 Start: 52758, Stop: 53174, Start Num: 3

Candidate Starts for Runhaar\_81:

(Start: 3 @52758 has 31 MA's), (4, 52797), (10, 52878), (Start: 14 @52926 has 1 MA's), (17, 53007), (18, 53013), (19, 53019), (20, 53043), (22, 53106), (24, 53118),

Gene: ShaggyRogers\_82 Start: 52761, Stop: 53177, Start Num: 3

Candidate Starts for ShaggyRogers\_82:

(Start: 3 @52761 has 31 MA's), (4, 52800), (8, 52851), (10, 52881), (Start: 14 @52929 has 1 MA's), (17, 53010), (18, 53016), (19, 53022), (20, 53046), (22, 53109), (24, 53121),

Gene: TenaciousP\_83 Start: 54500, Stop: 54910, Start Num: 3

Candidate Starts for TenaciousP\_83:

(Start: 3 @54500 has 31 MA's), (4, 54539), (5, 54545), (8, 54584), (10, 54614), (22, 54842), (24, 54854), (25, 54887),

Gene: Tonaltzin\_87 Start: 53332, Stop: 53742, Start Num: 3

Candidate Starts for Tonaltzin\_87:

(Start: 3 @53332 has 31 MA's), (4, 53371), (5, 53377), (8, 53416), (10, 53446), (22, 53674), (24, 53686), (25, 53719),

Gene: Untouchable\_84 Start: 53946, Stop: 54362, Start Num: 3

Candidate Starts for Untouchable\_84:

(Start: 3 @53946 has 31 MA's), (4, 53985), (8, 54036), (10, 54066), (Start: 14 @54114 has 1 MA's), (17, 54195), (18, 54201), (19, 54207), (20, 54231), (22, 54294), (24, 54306),

Gene: Vardy\_81 Start: 52636, Stop: 52884, Start Num: 14

Candidate Starts for Vardy\_81:

(Start: 14 @52636 has 1 MA's), (15, 52642), (19, 52729), (24, 52828), (25, 52861),

Gene: Zeph\_84 Start: 53754, Stop: 54170, Start Num: 3

Candidate Starts for Zeph\_84:

(Start: 3 @53754 has 31 MA's), (4, 53793), (8, 53844), (10, 53874), (11, 53898), (Start: 14 @53922 has 1 MA's), (15, 53928), (19, 54015), (24, 54114), (25, 54147),