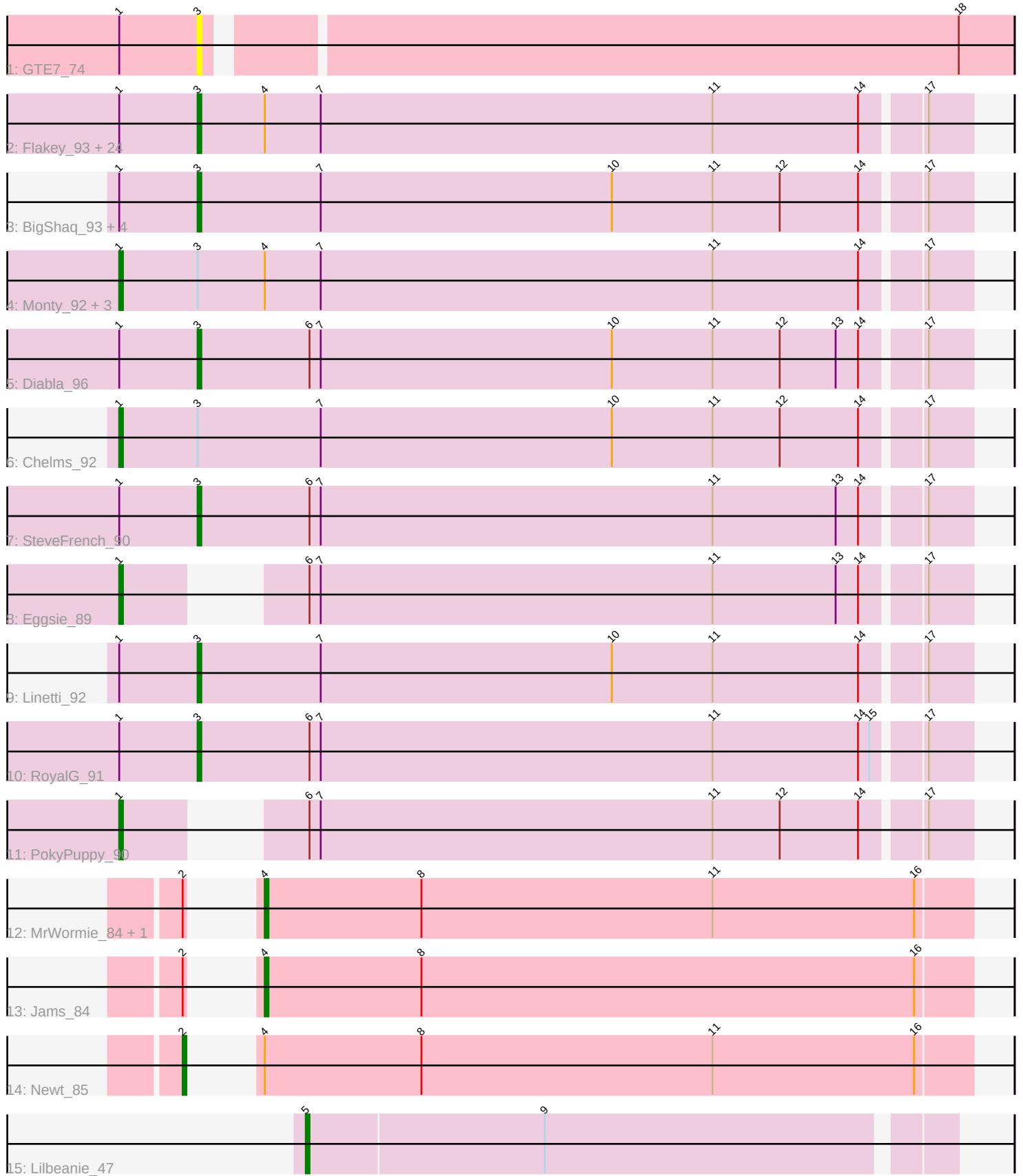


# Pham 280561



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 280561 Report

This analysis was run 02/07/26 on database version 634.

Pham number 280561 has 47 members, 6 are drafts.

Phages represented in each track:

- Track 1 : GTE7\_74
- Track 2 : Flakey\_93, Hotorobo\_94, Worcestershire\_91, Gorko\_91, Sam12\_91, Breezic\_93, FelixAlejandro\_95, BirksAndSocks\_95, Ekhein\_94, John316\_95, CathyBurgh\_92, Boneham\_94, Msay19\_96, BillyBobJr\_96, RemRem\_95, Poland\_96, GourdThymes\_92, Jellybones\_93, Barbochs\_89, Lizzo\_92, Sombrero\_93, Squibbles\_92, Kelzog\_94, Butterball\_93, CinnamonToast\_96
- Track 3 : BigShaq\_93, Dakiti\_94, BenoitCattle\_94, PierreThree\_92, Crete\_93
- Track 4 : Monty\_92, Adgers\_95, Exiguo\_91, Beaver\_95
- Track 5 : Diabla\_96
- Track 6 : Chelms\_92
- Track 7 : SteveFrench\_90
- Track 8 : Eggsie\_89
- Track 9 : Linetti\_92
- Track 10 : RoyalG\_91
- Track 11 : PokyPuppy\_90
- Track 12 : MrWormie\_84, Luker\_85
- Track 13 : Jams\_84
- Track 14 : Newt\_85
- Track 15 : Lilbeanie\_47

### ***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 29 of the 41 non-draft genes in the pham.

Genes that call this "Most Annotated" start:

- Barbochs\_89, BenoitCattle\_94, BigShaq\_93, BillyBobJr\_96, BirksAndSocks\_95, Boneham\_94, Breezic\_93, Butterball\_93, CathyBurgh\_92, CinnamonToast\_96, Crete\_93, Dakiti\_94, Diabla\_96, Ekhein\_94, FelixAlejandro\_95, Flakey\_93, GTE7\_74, Gorko\_91, GourdThymes\_92, Hotorobo\_94, Jellybones\_93, John316\_95, Kelzog\_94, Linetti\_92, Lizzo\_92, Msay19\_96, PierreThree\_92, Poland\_96, RemRem\_95, RoyalG\_91, Sam12\_91, Sombrero\_93, Squibbles\_92, SteveFrench\_90, Worcestershire\_91,

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

- Adgers\_95, Beaver\_95, Chelms\_92, Exiguo\_91, Monty\_92,

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

- Eggsie\_89, Jams\_84, Lilbeanie\_47, Luker\_85, MrWormie\_84, Newt\_85, PokyPuppy\_90,

### **Summary by start number:**

Start 1:

- Found in 42 of 47 ( 89.4% ) of genes in pham
- Manual Annotations of this start: 7 of 41
- Called 16.7% of time when present
- Phage (with cluster) where this start called: Adgers\_95 (CS2), Beaver\_95 (CS2), Chelms\_92 (CS2), Eggsie\_89 (CS2), Exiguo\_91 (CS2), Monty\_92 (CS2), PokyPuppy\_90 (CS2),

Start 2:

- Found in 4 of 47 ( 8.5% ) of genes in pham
- Manual Annotations of this start: 1 of 41
- Called 25.0% of time when present
- Phage (with cluster) where this start called: Newt\_85 (CS3),

Start 3:

- Found in 40 of 47 ( 85.1% ) of genes in pham
- Manual Annotations of this start: 29 of 41
- Called 87.5% of time when present
- Phage (with cluster) where this start called: Barbochs\_89 (CS2), BenoitCattle\_94 (CS2), BigShaq\_93 (CS2), BillyBobJr\_96 (CS2), BirksAndSocks\_95 (CS2), Boneham\_94 (CS2), Breezic\_93 (CS2), Butterball\_93 (CS2), CathyBurgh\_92 (CS2), CinnamonToast\_96 (CS2), Crete\_93 (CS2), Dakiti\_94 (CS2), Diabla\_96 (CS2), Ekhein\_94 (CS2), FelixAlejandro\_95 (CS2), Flakey\_93 (CS2), GTE7\_74 (CS1), Gorko\_91 (CS2), GourdThymes\_92 (CS2), Hotorobo\_94 (CS2), Jellybones\_93 (CS2), John316\_95 (CS2), Kelzog\_94 (CS2), Linetti\_92 (CS2), Lizzo\_92 (CS2), Msay19\_96 (CS2), PierreThree\_92 (CS2), Poland\_96 (CS2), RemRem\_95 (CS2), RoyalG\_91 (CS2), Sam12\_91 (CS2), Sombrero\_93 (CS2), Squibbles\_92 (CS2), SteveFrench\_90 (CS2), Worcestershire\_91 (CS2),

Start 4:

- Found in 33 of 47 ( 70.2% ) of genes in pham
- Manual Annotations of this start: 3 of 41
- Called 9.1% of time when present
- Phage (with cluster) where this start called: Jams\_84 (CS3), Luker\_85 (CS3), MrWormie\_84 (CS3),

Start 5:

- Found in 1 of 47 ( 2.1% ) of genes in pham
- Manual Annotations of this start: 1 of 41
- Called 100.0% of time when present
- Phage (with cluster) where this start called: Lilbeanie\_47 (DE5),

### **Summary by clusters:**

There are 4 clusters represented in this pham: CS1, DE5, CS3, CS2,

Info for manual annotations of cluster CS2:

- Start number 1 was manually annotated 7 times for cluster CS2.
- Start number 3 was manually annotated 29 times for cluster CS2.

Info for manual annotations of cluster CS3:

- Start number 2 was manually annotated 1 time for cluster CS3.
- Start number 4 was manually annotated 3 times for cluster CS3.

Info for manual annotations of cluster DE5:

- Start number 5 was manually annotated 1 time for cluster DE5.

### **Gene Information:**

Gene: Adgers\_95 Start: 68940, Stop: 68716, Start Num: 1

Candidate Starts for Adgers\_95:

(Start: 1 @68940 has 7 MA's), (Start: 3 @68919 has 29 MA's), (Start: 4 @68901 has 3 MA's), (7, 68886), (11, 68781), (14, 68742), (17, 68727),

Gene: Barbochs\_89 Start: 68089, Stop: 67886, Start Num: 3

Candidate Starts for Barbochs\_89:

(Start: 1 @68110 has 7 MA's), (Start: 3 @68089 has 29 MA's), (Start: 4 @68071 has 3 MA's), (7, 68056), (11, 67951), (14, 67912), (17, 67897),

Gene: Beaver\_95 Start: 70281, Stop: 70057, Start Num: 1

Candidate Starts for Beaver\_95:

(Start: 1 @70281 has 7 MA's), (Start: 3 @70260 has 29 MA's), (Start: 4 @70242 has 3 MA's), (7, 70227), (11, 70122), (14, 70083), (17, 70068),

Gene: BenoitCattle\_94 Start: 69655, Stop: 69452, Start Num: 3

Candidate Starts for BenoitCattle\_94:

(Start: 1 @69676 has 7 MA's), (Start: 3 @69655 has 29 MA's), (7, 69622), (10, 69544), (11, 69517), (12, 69499), (14, 69478), (17, 69463),

Gene: BigShaq\_93 Start: 69245, Stop: 69042, Start Num: 3

Candidate Starts for BigShaq\_93:

(Start: 1 @69266 has 7 MA's), (Start: 3 @69245 has 29 MA's), (7, 69212), (10, 69134), (11, 69107), (12, 69089), (14, 69068), (17, 69053),

Gene: BillyBobJr\_96 Start: 70367, Stop: 70164, Start Num: 3

Candidate Starts for BillyBobJr\_96:

(Start: 1 @70388 has 7 MA's), (Start: 3 @70367 has 29 MA's), (Start: 4 @70349 has 3 MA's), (7, 70334), (11, 70229), (14, 70190), (17, 70175),

Gene: BirksAndSocks\_95 Start: 69874, Stop: 69671, Start Num: 3

Candidate Starts for BirksAndSocks\_95:

(Start: 1 @69895 has 7 MA's), (Start: 3 @69874 has 29 MA's), (Start: 4 @69856 has 3 MA's), (7, 69841), (11, 69736), (14, 69697), (17, 69682),

Gene: Boneham\_94 Start: 69799, Stop: 69596, Start Num: 3

Candidate Starts for Boneham\_94:

(Start: 1 @69820 has 7 MA's), (Start: 3 @69799 has 29 MA's), (Start: 4 @69781 has 3 MA's), (7, 69766), (11, 69661), (14, 69622), (17, 69607),

Gene: Breezic\_93 Start: 68790, Stop: 68587, Start Num: 3

Candidate Starts for Breezic\_93:

(Start: 1 @68811 has 7 MA's), (Start: 3 @68790 has 29 MA's), (Start: 4 @68772 has 3 MA's), (7, 68757), (11, 68652), (14, 68613), (17, 68598),

Gene: Butterball\_93 Start: 69804, Stop: 69601, Start Num: 3

Candidate Starts for Butterball\_93:

(Start: 1 @69825 has 7 MA's), (Start: 3 @69804 has 29 MA's), (Start: 4 @69786 has 3 MA's), (7, 69771), (11, 69666), (14, 69627), (17, 69612),

Gene: CathyBurgh\_92 Start: 68820, Stop: 68617, Start Num: 3

Candidate Starts for CathyBurgh\_92:

(Start: 1 @68841 has 7 MA's), (Start: 3 @68820 has 29 MA's), (Start: 4 @68802 has 3 MA's), (7, 68787), (11, 68682), (14, 68643), (17, 68628),

Gene: Chelms\_92 Start: 69413, Stop: 69189, Start Num: 1

Candidate Starts for Chelms\_92:

(Start: 1 @69413 has 7 MA's), (Start: 3 @69392 has 29 MA's), (7, 69359), (10, 69281), (11, 69254), (12, 69236), (14, 69215), (17, 69200),

Gene: CinnamonToast\_96 Start: 70367, Stop: 70164, Start Num: 3

Candidate Starts for CinnamonToast\_96:

(Start: 1 @70388 has 7 MA's), (Start: 3 @70367 has 29 MA's), (Start: 4 @70349 has 3 MA's), (7, 70334), (11, 70229), (14, 70190), (17, 70175),

Gene: Crete\_93 Start: 69428, Stop: 69225, Start Num: 3

Candidate Starts for Crete\_93:

(Start: 1 @69449 has 7 MA's), (Start: 3 @69428 has 29 MA's), (7, 69395), (10, 69317), (11, 69290), (12, 69272), (14, 69251), (17, 69236),

Gene: Dakiti\_94 Start: 70335, Stop: 70132, Start Num: 3

Candidate Starts for Dakiti\_94:

(Start: 1 @70356 has 7 MA's), (Start: 3 @70335 has 29 MA's), (7, 70302), (10, 70224), (11, 70197), (12, 70179), (14, 70158), (17, 70143),

Gene: Diabla\_96 Start: 69788, Stop: 69585, Start Num: 3

Candidate Starts for Diabla\_96:

(Start: 1 @69809 has 7 MA's), (Start: 3 @69788 has 29 MA's), (6, 69758), (7, 69755), (10, 69677), (11, 69650), (12, 69632), (13, 69617), (14, 69611), (17, 69596),

Gene: Eggsie\_89 Start: 67365, Stop: 67162, Start Num: 1

Candidate Starts for Eggsie\_89:

(Start: 1 @67365 has 7 MA's), (6, 67335), (7, 67332), (11, 67227), (13, 67194), (14, 67188), (17, 67173),

Gene: Ekhein\_94 Start: 68834, Stop: 68631, Start Num: 3

Candidate Starts for Ekhein\_94:

(Start: 1 @68855 has 7 MA's), (Start: 3 @68834 has 29 MA's), (Start: 4 @68816 has 3 MA's), (7, 68801), (11, 68696), (14, 68657), (17, 68642),

Gene: Exiguo\_91 Start: 68280, Stop: 68056, Start Num: 1

Candidate Starts for Exiguo\_91:

(Start: 1 @68280 has 7 MA's), (Start: 3 @68259 has 29 MA's), (Start: 4 @68241 has 3 MA's), (7, 68226), (11, 68121), (14, 68082), (17, 68067),

Gene: FelixAlejandro\_95 Start: 70317, Stop: 70114, Start Num: 3

Candidate Starts for FelixAlejandro\_95:

(Start: 1 @70338 has 7 MA's), (Start: 3 @70317 has 29 MA's), (Start: 4 @70299 has 3 MA's), (7, 70284), (11, 70179), (14, 70140), (17, 70125),

Gene: Flakey\_93 Start: 69731, Stop: 69528, Start Num: 3

Candidate Starts for Flakey\_93:

(Start: 1 @69752 has 7 MA's), (Start: 3 @69731 has 29 MA's), (Start: 4 @69713 has 3 MA's), (7, 69698), (11, 69593), (14, 69554), (17, 69539),

Gene: GTE7\_74 Start: 60706, Stop: 60497, Start Num: 3

Candidate Starts for GTE7\_74:

(Start: 1 @60727 has 7 MA's), (Start: 3 @60706 has 29 MA's), (18, 60511),

Gene: Gorko\_91 Start: 68003, Stop: 67800, Start Num: 3

Candidate Starts for Gorko\_91:

(Start: 1 @68024 has 7 MA's), (Start: 3 @68003 has 29 MA's), (Start: 4 @67985 has 3 MA's), (7, 67970), (11, 67865), (14, 67826), (17, 67811),

Gene: GourdThymes\_92 Start: 68847, Stop: 68644, Start Num: 3

Candidate Starts for GourdThymes\_92:

(Start: 1 @68868 has 7 MA's), (Start: 3 @68847 has 29 MA's), (Start: 4 @68829 has 3 MA's), (7, 68814), (11, 68709), (14, 68670), (17, 68655),

Gene: Hotorobo\_94 Start: 69708, Stop: 69505, Start Num: 3

Candidate Starts for Hotorobo\_94:

(Start: 1 @69729 has 7 MA's), (Start: 3 @69708 has 29 MA's), (Start: 4 @69690 has 3 MA's), (7, 69675), (11, 69570), (14, 69531), (17, 69516),

Gene: Jams\_84 Start: 66446, Stop: 66258, Start Num: 4

Candidate Starts for Jams\_84:

(Start: 2 @66449 has 1 MA's), (Start: 4 @66446 has 3 MA's), (8, 66404), (16, 66272),

Gene: Jellybones\_93 Start: 70005, Stop: 69802, Start Num: 3

Candidate Starts for Jellybones\_93:

(Start: 1 @70026 has 7 MA's), (Start: 3 @70005 has 29 MA's), (Start: 4 @69987 has 3 MA's), (7, 69972), (11, 69867), (14, 69828), (17, 69813),

Gene: John316\_95 Start: 69961, Stop: 69758, Start Num: 3

Candidate Starts for John316\_95:

(Start: 1 @69982 has 7 MA's), (Start: 3 @69961 has 29 MA's), (Start: 4 @69943 has 3 MA's), (7, 69928), (11, 69823), (14, 69784), (17, 69769),

Gene: Kelzog\_94 Start: 69234, Stop: 69031, Start Num: 3

Candidate Starts for Kelzog\_94:

(Start: 1 @69255 has 7 MA's), (Start: 3 @69234 has 29 MA's), (Start: 4 @69216 has 3 MA's), (7, 69201), (11, 69096), (14, 69057), (17, 69042),

Gene: Lilbeanie\_47 Start: 36676, Stop: 36843, Start Num: 5

Candidate Starts for Lilbeanie\_47:

(Start: 5 @36676 has 1 MA's), (9, 36739),

Gene: Linetti\_92 Start: 70352, Stop: 70149, Start Num: 3

Candidate Starts for Linetti\_92:

(Start: 1 @70373 has 7 MA's), (Start: 3 @70352 has 29 MA's), (7, 70319), (10, 70241), (11, 70214), (14, 70175), (17, 70160),

Gene: Lizzo\_92 Start: 68820, Stop: 68617, Start Num: 3

Candidate Starts for Lizzo\_92:

(Start: 1 @68841 has 7 MA's), (Start: 3 @68820 has 29 MA's), (Start: 4 @68802 has 3 MA's), (7, 68787), (11, 68682), (14, 68643), (17, 68628),

Gene: Luker\_85 Start: 67464, Stop: 67276, Start Num: 4

Candidate Starts for Luker\_85:

(Start: 2 @67467 has 1 MA's), (Start: 4 @67464 has 3 MA's), (8, 67422), (11, 67344), (16, 67290),

Gene: Monty\_92 Start: 68543, Stop: 68319, Start Num: 1

Candidate Starts for Monty\_92:

(Start: 1 @68543 has 7 MA's), (Start: 3 @68522 has 29 MA's), (Start: 4 @68504 has 3 MA's), (7, 68489), (11, 68384), (14, 68345), (17, 68330),

Gene: MrWormie\_84 Start: 66149, Stop: 65961, Start Num: 4

Candidate Starts for MrWormie\_84:

(Start: 2 @66152 has 1 MA's), (Start: 4 @66149 has 3 MA's), (8, 66107), (11, 66029), (16, 65975),

Gene: Msay19\_96 Start: 70600, Stop: 70397, Start Num: 3

Candidate Starts for Msay19\_96:

(Start: 1 @70621 has 7 MA's), (Start: 3 @70600 has 29 MA's), (Start: 4 @70582 has 3 MA's), (7, 70567), (11, 70462), (14, 70423), (17, 70408),

Gene: Newt\_85 Start: 67481, Stop: 67290, Start Num: 2

Candidate Starts for Newt\_85:

(Start: 2 @67481 has 1 MA's), (Start: 4 @67478 has 3 MA's), (8, 67436), (11, 67358), (16, 67304),

Gene: PierreThree\_92 Start: 69966, Stop: 69763, Start Num: 3

Candidate Starts for PierreThree\_92:

(Start: 1 @69987 has 7 MA's), (Start: 3 @69966 has 29 MA's), (7, 69933), (10, 69855), (11, 69828), (12, 69810), (14, 69789), (17, 69774),

Gene: PokyPuppy\_90 Start: 69257, Stop: 69054, Start Num: 1

Candidate Starts for PokyPuppy\_90:

(Start: 1 @69257 has 7 MA's), (6, 69227), (7, 69224), (11, 69119), (12, 69101), (14, 69080), (17, 69065),

Gene: Poland\_96 Start: 70582, Stop: 70379, Start Num: 3

Candidate Starts for Poland\_96:

(Start: 1 @70603 has 7 MA's), (Start: 3 @70582 has 29 MA's), (Start: 4 @70564 has 3 MA's), (7, 70549), (11, 70444), (14, 70405), (17, 70390),

Gene: RemRem\_95 Start: 68817, Stop: 68614, Start Num: 3

Candidate Starts for RemRem\_95:

(Start: 1 @68838 has 7 MA's), (Start: 3 @68817 has 29 MA's), (Start: 4 @68799 has 3 MA's), (7, 68784), (11, 68679), (14, 68640), (17, 68625),

Gene: RoyalG\_91 Start: 68535, Stop: 68332, Start Num: 3

Candidate Starts for RoyalG\_91:

(Start: 1 @68556 has 7 MA's), (Start: 3 @68535 has 29 MA's), (6, 68505), (7, 68502), (11, 68397), (14, 68358), (15, 68355), (17, 68343),

Gene: Sam12\_91 Start: 68256, Stop: 68053, Start Num: 3

Candidate Starts for Sam12\_91:

(Start: 1 @68277 has 7 MA's), (Start: 3 @68256 has 29 MA's), (Start: 4 @68238 has 3 MA's), (7, 68223), (11, 68118), (14, 68079), (17, 68064),

Gene: Sombrero\_93 Start: 68884, Stop: 68681, Start Num: 3

Candidate Starts for Sombrero\_93:

(Start: 1 @68905 has 7 MA's), (Start: 3 @68884 has 29 MA's), (Start: 4 @68866 has 3 MA's), (7, 68851), (11, 68746), (14, 68707), (17, 68692),

Gene: Squibbles\_92 Start: 69337, Stop: 69134, Start Num: 3

Candidate Starts for Squibbles\_92:

(Start: 1 @69358 has 7 MA's), (Start: 3 @69337 has 29 MA's), (Start: 4 @69319 has 3 MA's), (7, 69304), (11, 69199), (14, 69160), (17, 69145),

Gene: SteveFrench\_90 Start: 68775, Stop: 68572, Start Num: 3

Candidate Starts for SteveFrench\_90:

(Start: 1 @68796 has 7 MA's), (Start: 3 @68775 has 29 MA's), (6, 68745), (7, 68742), (11, 68637), (13, 68604), (14, 68598), (17, 68583),

Gene: Worcestershire\_91 Start: 68242, Stop: 68039, Start Num: 3

Candidate Starts for Worcestershire\_91:

(Start: 1 @68263 has 7 MA's), (Start: 3 @68242 has 29 MA's), (Start: 4 @68224 has 3 MA's), (7, 68209), (11, 68104), (14, 68065), (17, 68050),