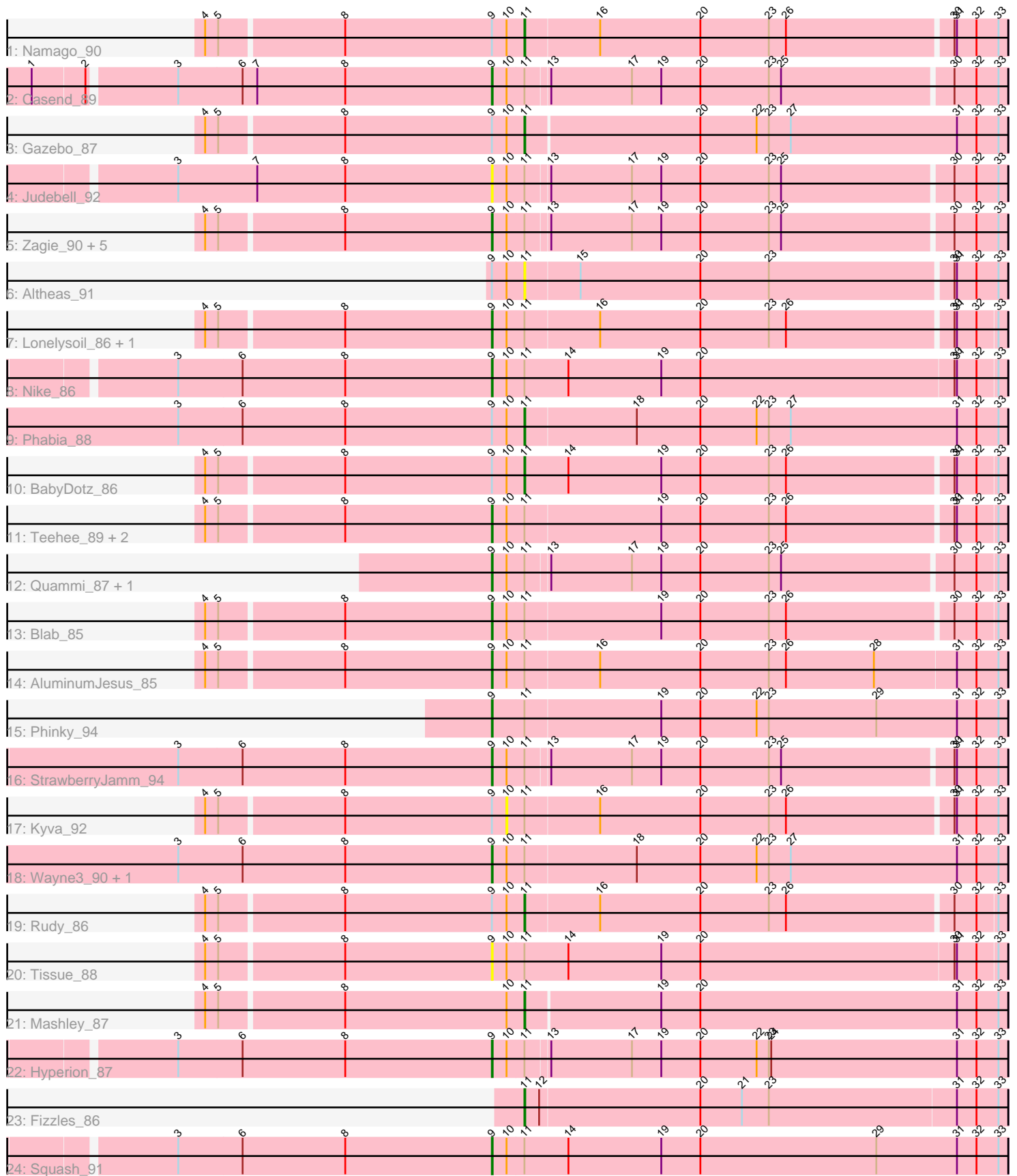


# Pham 86353



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 86353 Report

This analysis was run 04/28/24 on database version 559.

Pham number 86353 has 34 members, 9 are drafts.

Phages represented in each track:

- Track 1 : Namago\_90
- Track 2 : Casend\_89
- Track 3 : Gazebo\_87
- Track 4 : Judebell\_92
- Track 5 : Zagie\_90, Rowlf\_88, DonaldDuck\_90, Llemily\_90, Zhafia\_94, Sillytadpoles\_91
- Track 6 : Altheas\_91
- Track 7 : Lonelysoil\_86, Grassboy\_93
- Track 8 : Nike\_86
- Track 9 : Phabia\_88
- Track 10 : BabyDotz\_86
- Track 11 : Teehee\_89, SallyK\_90, Jehoshaphat\_90
- Track 12 : Quammi\_87, Viceroy\_86
- Track 13 : Blab\_85
- Track 14 : AluminumJesus\_85
- Track 15 : Phinky\_94
- Track 16 : StrawberryJamm\_94
- Track 17 : Kyva\_92
- Track 18 : Wayne3\_90, Wheelie\_88
- Track 19 : Rudy\_86
- Track 20 : Tissue\_88
- Track 21 : Mashley\_87
- Track 22 : Hyperion\_87
- Track 23 : Fizzles\_86
- Track 24 : Squash\_91

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

The start number called the most often in the published annotations is 9, it was called in 18 of the 25 non-draft genes in the pham.

Genes that call this "Most Annotated" start:

- AluminumJesus\_85, Blab\_85, Casend\_89, DonaldDuck\_90, Grassboy\_93, Hyperion\_87, Jehoshaphat\_90, Judebell\_92, Llemily\_90, Lonelysoil\_86, Nike\_86,

Phinky\_94, Quammi\_87, Rowlf\_88, SallyK\_90, Sillytadpoles\_91, Squash\_91, StrawberryJamm\_94, Teehee\_89, Tissue\_88, Viceroy\_86, Wayne3\_90, Wheelie\_88, Zagie\_90, Zhafia\_94,

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

- Altheas\_91, BabyDotz\_86, Gazebo\_87, Kyva\_92, Namago\_90, Phabia\_88, Rudy\_86,

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

- Fizzles\_86, Mashley\_87,

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

Start 9:

- Found in 32 of 34 ( 94.1% ) of genes in pham
- Manual Annotations of this start: 18 of 25
- Called 78.1% of time when present
- Phage (with cluster) where this start called: AluminumJesus\_85 (EG), Blab\_85 (EG), Casend\_89 (EG), DonaldDuck\_90 (EG), Grassboy\_93 (EG), Hyperion\_87 (EG), Jehoshaphat\_90 (EG), Judebell\_92 (EG), Llemily\_90 (EG), Lonelysoil\_86 (EG), Nike\_86 (EG), Phinky\_94 (EG), Quammi\_87 (EG), Rowlf\_88 (EG), SallyK\_90 (EG), Sillytadpoles\_91 (EG), Squash\_91 (EG), StrawberryJamm\_94 (EG), Teehee\_89 (EG), Tissue\_88 (EG), Viceroy\_86 (EG), Wayne3\_90 (EG), Wheelie\_88 (EG), Zagie\_90 (EG), Zhafia\_94 (EG),

Start 10:

- Found in 32 of 34 ( 94.1% ) of genes in pham
- No Manual Annotations of this start.
- Called 3.1% of time when present
- Phage (with cluster) where this start called: Kyva\_92 (EG),

Start 11:

- Found in 34 of 34 ( 100.0% ) of genes in pham
- Manual Annotations of this start: 7 of 25
- Called 23.5% of time when present
- Phage (with cluster) where this start called: Altheas\_91 (EG), BabyDotz\_86 (EG), Fizzles\_86 (EG), Gazebo\_87 (EG), Mashley\_87 (EG), Namago\_90 (EG), Phabia\_88 (EG), Rudy\_86 (EG),

### **Summary by clusters:**

There is one cluster represented in this pham: EG

Info for manual annotations of cluster EG:

- Start number 9 was manually annotated 18 times for cluster EG.
- Start number 11 was manually annotated 7 times for cluster EG.

### **Gene Information:**

Gene: Altheas\_91 Start: 56315, Stop: 55734, Start Num: 11

Candidate Starts for Altheas\_91:

(Start: 9 @56354 has 18 MA's), (10, 56336), (Start: 11 @56315 has 7 MA's), (15, 56249), (20, 56102), (23, 56018), (30, 55799), (31, 55796), (32, 55772), (33, 55745),

Gene: AluminumJesus\_85 Start: 55033, Stop: 54407, Start Num: 9

Candidate Starts for AluminumJesus\_85:

(4, 55375), (5, 55360), (8, 55213), (Start: 9 @55033 has 18 MA's), (10, 55015), (Start: 11 @54994 has 7 MA's), (16, 54904), (20, 54781), (23, 54697), (26, 54676), (28, 54568), (31, 54469), (32, 54445), (33, 54418),

Gene: BabyDotz\_86 Start: 56723, Stop: 56142, Start Num: 11

Candidate Starts for BabyDotz\_86:

(4, 57104), (5, 57089), (8, 56942), (Start: 9 @56762 has 18 MA's), (10, 56744), (Start: 11 @56723 has 7 MA's), (14, 56669), (19, 56555), (20, 56507), (23, 56423), (26, 56402), (30, 56204), (31, 56201), (32, 56177), (33, 56153),

Gene: Blab\_85 Start: 55687, Stop: 55070, Start Num: 9

Candidate Starts for Blab\_85:

(4, 56029), (5, 56014), (8, 55867), (Start: 9 @55687 has 18 MA's), (10, 55669), (Start: 11 @55648 has 7 MA's), (19, 55483), (20, 55435), (23, 55351), (26, 55330), (30, 55132), (32, 55105), (33, 55081),

Gene: Casend\_89 Start: 56289, Stop: 55672, Start Num: 9

Candidate Starts for Casend\_89:

(1, 56835), (2, 56772), (3, 56673), (6, 56595), (7, 56577), (8, 56469), (Start: 9 @56289 has 18 MA's), (10, 56271), (Start: 11 @56250 has 7 MA's), (13, 56223), (17, 56124), (19, 56088), (20, 56040), (23, 55956), (25, 55941), (30, 55737), (32, 55710), (33, 55683),

Gene: DonaldDuck\_90 Start: 55641, Stop: 55024, Start Num: 9

Candidate Starts for DonaldDuck\_90:

(4, 55983), (5, 55968), (8, 55821), (Start: 9 @55641 has 18 MA's), (10, 55623), (Start: 11 @55602 has 7 MA's), (13, 55575), (17, 55476), (19, 55440), (20, 55392), (23, 55308), (25, 55293), (30, 55089), (32, 55062), (33, 55035),

Gene: Fizzles\_86 Start: 55139, Stop: 54552, Start Num: 11

Candidate Starts for Fizzles\_86:

(Start: 11 @55139 has 7 MA's), (12, 55121), (20, 54926), (21, 54875), (23, 54842), (31, 54614), (32, 54590), (33, 54563),

Gene: Gazebo\_87 Start: 55572, Stop: 54985, Start Num: 11

Candidate Starts for Gazebo\_87:

(4, 55953), (5, 55938), (8, 55791), (Start: 9 @55611 has 18 MA's), (10, 55593), (Start: 11 @55572 has 7 MA's), (20, 55362), (22, 55293), (23, 55278), (27, 55251), (31, 55047), (32, 55023), (33, 54996),

Gene: Grassboy\_93 Start: 56536, Stop: 55916, Start Num: 9

Candidate Starts for Grassboy\_93:

(4, 56878), (5, 56863), (8, 56716), (Start: 9 @56536 has 18 MA's), (10, 56518), (Start: 11 @56497 has 7 MA's), (16, 56407), (20, 56284), (23, 56200), (26, 56179), (30, 55981), (31, 55978), (32, 55954), (33, 55927),

Gene: Hyperion\_87 Start: 55730, Stop: 55104, Start Num: 9

Candidate Starts for Hyperion\_87:

(3, 56114), (6, 56036), (8, 55910), (Start: 9 @55730 has 18 MA's), (10, 55712), (Start: 11 @55691 has 7 MA's), (13, 55664), (17, 55565), (19, 55529), (20, 55481), (22, 55412), (23, 55397), (24, 55394), (31, 55166), (32, 55142), (33, 55115),

Gene: Jehoshaphat\_90 Start: 56275, Stop: 55658, Start Num: 9

Candidate Starts for Jehoshaphat\_90:

(4, 56617), (5, 56602), (8, 56455), (Start: 9 @56275 has 18 MA's), (10, 56257), (Start: 11 @56236 has 7 MA's), (19, 56071), (20, 56023), (23, 55939), (26, 55918), (30, 55720), (31, 55717), (32, 55693), (33, 55669),

Gene: Judebell\_92 Start: 55721, Stop: 55104, Start Num: 9

Candidate Starts for Judebell\_92:

(3, 56105), (7, 56009), (8, 55901), (Start: 9 @55721 has 18 MA's), (10, 55703), (Start: 11 @55682 has 7 MA's), (13, 55655), (17, 55556), (19, 55520), (20, 55472), (23, 55388), (25, 55373), (30, 55169), (32, 55142), (33, 55115),

Gene: Kyva\_92 Start: 56542, Stop: 55940, Start Num: 10

Candidate Starts for Kyva\_92:

(4, 56902), (5, 56887), (8, 56740), (Start: 9 @56560 has 18 MA's), (10, 56542), (Start: 11 @56521 has 7 MA's), (16, 56431), (20, 56308), (23, 56224), (26, 56203), (30, 56005), (31, 56002), (32, 55978), (33, 55951),

Gene: Llemily\_90 Start: 55336, Stop: 54719, Start Num: 9

Candidate Starts for Llemily\_90:

(4, 55678), (5, 55663), (8, 55516), (Start: 9 @55336 has 18 MA's), (10, 55318), (Start: 11 @55297 has 7 MA's), (13, 55270), (17, 55171), (19, 55135), (20, 55087), (23, 55003), (25, 54988), (30, 54784), (32, 54757), (33, 54730),

Gene: Lonelysoil\_86 Start: 55090, Stop: 54473, Start Num: 9

Candidate Starts for Lonelysoil\_86:

(4, 55432), (5, 55417), (8, 55270), (Start: 9 @55090 has 18 MA's), (10, 55072), (Start: 11 @55051 has 7 MA's), (16, 54961), (20, 54838), (23, 54754), (26, 54733), (30, 54535), (31, 54532), (32, 54508), (33, 54484),

Gene: Mashley\_87 Start: 55723, Stop: 55136, Start Num: 11

Candidate Starts for Mashley\_87:

(4, 56104), (5, 56089), (8, 55942), (10, 55744), (Start: 11 @55723 has 7 MA's), (19, 55561), (20, 55513), (31, 55198), (32, 55174), (33, 55147),

Gene: Namago\_90 Start: 55783, Stop: 55202, Start Num: 11

Candidate Starts for Namago\_90:

(4, 56164), (5, 56149), (8, 56002), (Start: 9 @55822 has 18 MA's), (10, 55804), (Start: 11 @55783 has 7 MA's), (16, 55693), (20, 55570), (23, 55486), (26, 55465), (30, 55267), (31, 55264), (32, 55240), (33, 55213),

Gene: Nike\_86 Start: 55945, Stop: 55319, Start Num: 9

Candidate Starts for Nike\_86:

(3, 56329), (6, 56251), (8, 56125), (Start: 9 @55945 has 18 MA's), (10, 55927), (Start: 11 @55906 has 7 MA's), (14, 55852), (19, 55738), (20, 55690), (30, 55381), (31, 55378), (32, 55354), (33, 55330),

Gene: Phabia\_88 Start: 55664, Stop: 55074, Start Num: 11

Candidate Starts for Phabia\_88:

(3, 56087), (6, 56009), (8, 55883), (Start: 9 @55703 has 18 MA's), (10, 55685), (Start: 11 @55664 has 7 MA's), (18, 55529), (20, 55451), (22, 55382), (23, 55367), (27, 55340), (31, 55136), (32, 55112), (33, 55085),

Gene: Phinky\_94 Start: 57591, Stop: 56962, Start Num: 9

Candidate Starts for Phinky\_94:

(Start: 9 @57591 has 18 MA's), (Start: 11 @57552 has 7 MA's), (19, 57387), (20, 57339), (22, 57270), (23, 57255), (29, 57123), (31, 57024), (32, 57000), (33, 56973),

Gene: Quammi\_87 Start: 55442, Stop: 54828, Start Num: 9

Candidate Starts for Quammi\_87:

(Start: 9 @55442 has 18 MA's), (10, 55424), (Start: 11 @55403 has 7 MA's), (13, 55376), (17, 55277), (19, 55241), (20, 55193), (23, 55109), (25, 55094), (30, 54890), (32, 54863), (33, 54839),

Gene: Rowlf\_88 Start: 55483, Stop: 54866, Start Num: 9

Candidate Starts for Rowlf\_88:

(4, 55825), (5, 55810), (8, 55663), (Start: 9 @55483 has 18 MA's), (10, 55465), (Start: 11 @55444 has 7 MA's), (13, 55417), (17, 55318), (19, 55282), (20, 55234), (23, 55150), (25, 55135), (30, 54931), (32, 54904), (33, 54877),

Gene: Rudy\_86 Start: 55442, Stop: 54864, Start Num: 11

Candidate Starts for Rudy\_86:

(4, 55823), (5, 55808), (8, 55661), (Start: 9 @55481 has 18 MA's), (10, 55463), (Start: 11 @55442 has 7 MA's), (16, 55352), (20, 55229), (23, 55145), (26, 55124), (30, 54926), (32, 54899), (33, 54875),

Gene: SallyK\_90 Start: 56639, Stop: 56022, Start Num: 9

Candidate Starts for SallyK\_90:

(4, 56981), (5, 56966), (8, 56819), (Start: 9 @56639 has 18 MA's), (10, 56621), (Start: 11 @56600 has 7 MA's), (19, 56435), (20, 56387), (23, 56303), (26, 56282), (30, 56084), (31, 56081), (32, 56057), (33, 56033),

Gene: Sillytadpoles\_91 Start: 55324, Stop: 54707, Start Num: 9

Candidate Starts for Sillytadpoles\_91:

(4, 55666), (5, 55651), (8, 55504), (Start: 9 @55324 has 18 MA's), (10, 55306), (Start: 11 @55285 has 7 MA's), (13, 55258), (17, 55159), (19, 55123), (20, 55075), (23, 54991), (25, 54976), (30, 54772), (32, 54745), (33, 54718),

Gene: Squash\_91 Start: 56332, Stop: 55700, Start Num: 9

Candidate Starts for Squash\_91:

(3, 56716), (6, 56638), (8, 56512), (Start: 9 @56332 has 18 MA's), (10, 56314), (Start: 11 @56293 has 7 MA's), (14, 56239), (19, 56125), (20, 56077), (29, 55861), (31, 55762), (32, 55738), (33, 55711),

Gene: StrawberryJamm\_94 Start: 55626, Stop: 55009, Start Num: 9

Candidate Starts for StrawberryJamm\_94:

(3, 56010), (6, 55932), (8, 55806), (Start: 9 @55626 has 18 MA's), (10, 55608), (Start: 11 @55587 has 7 MA's), (13, 55560), (17, 55461), (19, 55425), (20, 55377), (23, 55293), (25, 55278), (30, 55074), (31, 55071), (32, 55047), (33, 55020),

Gene: Teehee\_89 Start: 56272, Stop: 55655, Start Num: 9

Candidate Starts for Teehee\_89:

(4, 56614), (5, 56599), (8, 56452), (Start: 9 @56272 has 18 MA's), (10, 56254), (Start: 11 @56233 has 7 MA's), (19, 56068), (20, 56020), (23, 55936), (26, 55915), (30, 55717), (31, 55714), (32, 55690), (33, 55666),

Gene: Tissue\_88 Start: 55980, Stop: 55354, Start Num: 9

Candidate Starts for Tissue\_88:

(4, 56322), (5, 56307), (8, 56160), (Start: 9 @55980 has 18 MA's), (10, 55962), (Start: 11 @55941 has 7 MA's), (14, 55887), (19, 55773), (20, 55725), (30, 55416), (31, 55413), (32, 55389), (33, 55365),

Gene: Viceroy\_86 Start: 55263, Stop: 54649, Start Num: 9

Candidate Starts for Viceroy\_86:

(Start: 9 @55263 has 18 MA's), (10, 55245), (Start: 11 @55224 has 7 MA's), (13, 55197), (17, 55098), (19, 55062), (20, 55014), (23, 54930), (25, 54915), (30, 54711), (32, 54684), (33, 54660),

Gene: Wayne3\_90 Start: 56272, Stop: 55643, Start Num: 9

Candidate Starts for Wayne3\_90:

(3, 56656), (6, 56578), (8, 56452), (Start: 9 @56272 has 18 MA's), (10, 56254), (Start: 11 @56233 has 7 MA's), (18, 56098), (20, 56020), (22, 55951), (23, 55936), (27, 55909), (31, 55705), (32, 55681), (33, 55654),

Gene: Wheelie\_88 Start: 55593, Stop: 54964, Start Num: 9

Candidate Starts for Wheelie\_88:

(3, 55977), (6, 55899), (8, 55773), (Start: 9 @55593 has 18 MA's), (10, 55575), (Start: 11 @55554 has 7 MA's), (18, 55419), (20, 55341), (22, 55272), (23, 55257), (27, 55230), (31, 55026), (32, 55002), (33, 54975),

Gene: Zagie\_90 Start: 56084, Stop: 55467, Start Num: 9

Candidate Starts for Zagie\_90:

(4, 56426), (5, 56411), (8, 56264), (Start: 9 @56084 has 18 MA's), (10, 56066), (Start: 11 @56045 has 7 MA's), (13, 56018), (17, 55919), (19, 55883), (20, 55835), (23, 55751), (25, 55736), (30, 55532), (32, 55505), (33, 55478),

Gene: Zhafia\_94 Start: 56118, Stop: 55501, Start Num: 9

Candidate Starts for Zhafia\_94:

(4, 56460), (5, 56445), (8, 56298), (Start: 9 @56118 has 18 MA's), (10, 56100), (Start: 11 @56079 has 7 MA's), (13, 56052), (17, 55953), (19, 55917), (20, 55869), (23, 55785), (25, 55770), (30, 55566), (32, 55539), (33, 55512),