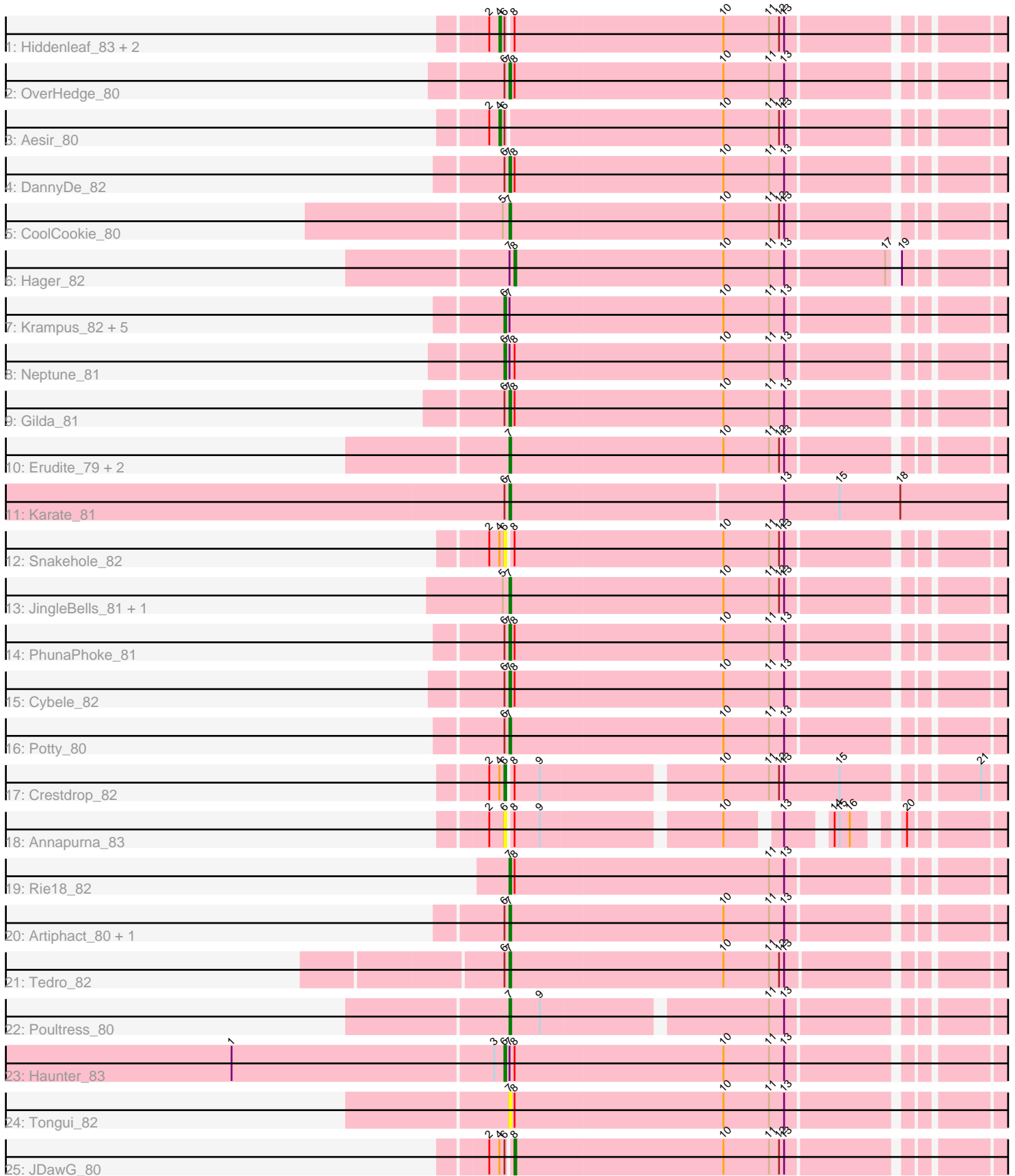


# Zoomed Pham 216360



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 216360 Report

This analysis was run 02/22/25 on database version 588.

Pham number 216360 has 36 members, 5 are drafts.

Phages represented in each track:

- Track 1 : Hiddenleaf\_83, Chivey\_83, FreddieHg\_83
- Track 2 : OverHedge\_80
- Track 3 : Aesir\_80
- Track 4 : DannyDe\_82
- Track 5 : CoolCookie\_80
- Track 6 : Hager\_82
- Track 7 : Krampus\_82, Rachella\_82, Kate\_82, NarutoRun\_81, Anakin\_81, AnnaSerena\_82
- Track 8 : Neptune\_81
- Track 9 : Gilda\_81
- Track 10 : Erudite\_79, MortySmith\_78, Dauntless\_79
- Track 11 : Karate\_81
- Track 12 : Snakehole\_82
- Track 13 : JingleBells\_81, SilentWarrior\_82
- Track 14 : PhunaPhoke\_81
- Track 15 : Cybele\_82
- Track 16 : Potty\_80
- Track 17 : Crestdrop\_82
- Track 18 : Annapurna\_83
- Track 19 : Rie18\_82
- Track 20 : Artiphact\_80, Pharpay\_80
- Track 21 : Tedro\_82
- Track 22 : Poultruss\_80
- Track 23 : Haunter\_83
- Track 24 : Tongui\_82
- Track 25 : JDawG\_80

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

The start number called the most often in the published annotations is 7, it was called in 16 of the 31 non-draft genes in the pham.

Genes that call this "Most Annotated" start:

- Artiphact\_80, CoolCookie\_80, Cybele\_82, DannyDe\_82, Dauntless\_79, Erudite\_79, Gilda\_81, JingleBells\_81, Karate\_81, MortySmith\_78, OverHedge\_80, Pharpay\_80, PhunaPhoke\_81, Potty\_80, Poultruss\_80, Rie18\_82, SilentWarrior\_82, Tedro\_82, Tongui\_82,

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

- Anakin\_81, AnnaSerena\_82, Hager\_82, Haunter\_83, Kate\_82, Krampus\_82, NarutoRun\_81, Neptune\_81, Rachella\_82,

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

- Aesir\_80, Annapurna\_83, Chivey\_83, Crestdrop\_82, FreddieHg\_83, Hiddenleaf\_83, JDawG\_80, Snakehole\_82,

### Summary by start number:

Start 4:

- Found in 7 of 36 ( 19.4% ) of genes in pham
- Manual Annotations of this start: 4 of 31
- Called 57.1% of time when present
- Phage (with cluster) where this start called: Aesir\_80 (EF), Chivey\_83 (EF), FreddieHg\_83 (EF), Hiddenleaf\_83 (EF),

Start 6:

- Found in 26 of 36 ( 72.2% ) of genes in pham
- Manual Annotations of this start: 9 of 31
- Called 42.3% of time when present
- Phage (with cluster) where this start called: Anakin\_81 (EF), AnnaSerena\_82 (EF), Annapurna\_83 (EF), Crestdrop\_82 (EF), Haunter\_83 (EF), Kate\_82 (EF), Krampus\_82 (EF), NarutoRun\_81 (EF), Neptune\_81 (EF), Rachella\_82 (EF), Snakehole\_82 (EF),

Start 7:

- Found in 28 of 36 ( 77.8% ) of genes in pham
- Manual Annotations of this start: 16 of 31
- Called 67.9% of time when present
- Phage (with cluster) where this start called: Artiphact\_80 (EF), CoolCookie\_80 (EF), Cybele\_82 (EF), DannyDe\_82 (EF), Dauntless\_79 (EF), Erudite\_79 (EF), Gilda\_81 (EF), JingleBells\_81 (EF), Karate\_81 (EF), MortySmith\_78 (EF), OverHedge\_80 (EF), Pharpay\_80 (EF), PhunaPhoke\_81 (EF), Potty\_80 (EF), Poultruss\_80 (EF), Rie18\_82 (EF), SilentWarrior\_82 (EF), Tedro\_82 (EF), Tongui\_82 (EF),

Start 8:

- Found in 17 of 36 ( 47.2% ) of genes in pham
- Manual Annotations of this start: 2 of 31
- Called 11.8% of time when present
- Phage (with cluster) where this start called: Hager\_82 (EF), JDawG\_80 (EF),

### Summary by clusters:

There is one cluster represented in this pham: EF

Info for manual annotations of cluster EF:

- Start number 4 was manually annotated 4 times for cluster EF.

- Start number 6 was manually annotated 9 times for cluster EF.
- Start number 7 was manually annotated 16 times for cluster EF.
- Start number 8 was manually annotated 2 times for cluster EF.

### **Gene Information:**

Gene: Aesir\_80 Start: 54421, Stop: 55284, Start Num: 4

Candidate Starts for Aesir\_80:

(2, 54415), (Start: 4 @54421 has 4 MA's), (Start: 6 @54424 has 9 MA's), (10, 54550), (11, 54577), (12, 54583), (13, 54586), (24, 54853), (26, 54892), (27, 54904), (28, 54952), (29, 54970), (30, 55003), (32, 55021), (33, 55039), (39, 55195),

Gene: Anakin\_81 Start: 54801, Stop: 55664, Start Num: 6

Candidate Starts for Anakin\_81:

(Start: 6 @54801 has 9 MA's), (Start: 7 @54804 has 16 MA's), (10, 54930), (11, 54957), (13, 54966), (26, 55272), (27, 55284), (28, 55332), (29, 55350), (30, 55383), (41, 55596),

Gene: AnnaSerena\_82 Start: 54835, Stop: 55698, Start Num: 6

Candidate Starts for AnnaSerena\_82:

(Start: 6 @54835 has 9 MA's), (Start: 7 @54838 has 16 MA's), (10, 54964), (11, 54991), (13, 55000), (26, 55306), (27, 55318), (28, 55366), (29, 55384), (30, 55417), (41, 55630),

Gene: Annapurna\_83 Start: 54423, Stop: 55247, Start Num: 6

Candidate Starts for Annapurna\_83:

(2, 54414), (Start: 6 @54423 has 9 MA's), (Start: 8 @54426 has 2 MA's), (9, 54441), (10, 54540), (13, 54567), (14, 54588), (15, 54591), (16, 54597), (20, 54615), (24, 54816), (26, 54855), (27, 54867), (28, 54915), (29, 54933), (30, 54966), (32, 54984), (33, 55002), (39, 55158),

Gene: Artiphact\_80 Start: 54828, Stop: 55688, Start Num: 7

Candidate Starts for Artiphact\_80:

(Start: 6 @54825 has 9 MA's), (Start: 7 @54828 has 16 MA's), (10, 54954), (11, 54981), (13, 54990), (24, 55257), (26, 55296), (27, 55308), (28, 55356), (29, 55374), (30, 55407), (41, 55620),

Gene: Chivey\_83 Start: 54223, Stop: 55083, Start Num: 4

Candidate Starts for Chivey\_83:

(2, 54217), (Start: 4 @54223 has 4 MA's), (Start: 6 @54226 has 9 MA's), (Start: 8 @54229 has 2 MA's), (10, 54352), (11, 54379), (12, 54385), (13, 54388), (24, 54652), (26, 54691), (27, 54703), (28, 54751), (29, 54769), (30, 54802), (32, 54820), (33, 54838), (39, 54994),

Gene: CoolCookie\_80 Start: 54925, Stop: 55782, Start Num: 7

Candidate Starts for CoolCookie\_80:

(5, 54922), (Start: 7 @54925 has 16 MA's), (10, 55051), (11, 55078), (12, 55084), (13, 55087), (24, 55351), (26, 55390), (27, 55402), (28, 55450), (30, 55501), (32, 55519), (33, 55537), (39, 55693),

Gene: Crestdrop\_82 Start: 54745, Stop: 55608, Start Num: 6

Candidate Starts for Crestdrop\_82:

(2, 54736), (Start: 4 @54742 has 4 MA's), (Start: 6 @54745 has 9 MA's), (Start: 8 @54748 has 2 MA's), (9, 54763), (10, 54862), (11, 54889), (12, 54895), (13, 54898), (15, 54931), (21, 55000), (24, 55165), (26, 55204), (27, 55216), (28, 55264), (29, 55282), (30, 55315), (32, 55333), (33, 55351), (35, 55477), (37, 55498), (40, 55531),

Gene: Cybele\_82 Start: 54825, Stop: 55685, Start Num: 7

Candidate Starts for Cybele\_82:

(Start: 6 @54822 has 9 MA's), (Start: 7 @54825 has 16 MA's), (Start: 8 @54828 has 2 MA's), (10, 54951), (11, 54978), (13, 54987), (24, 55254), (26, 55293), (27, 55305), (28, 55353), (29, 55371), (30, 55404), (41, 55617),

Gene: DannyDe\_82 Start: 54249, Stop: 55088, Start Num: 7

Candidate Starts for DannyDe\_82:

(Start: 6 @54246 has 9 MA's), (Start: 7 @54249 has 16 MA's), (Start: 8 @54252 has 2 MA's), (10, 54375), (11, 54402), (13, 54411), (24, 54657), (26, 54696), (27, 54708), (28, 54756), (29, 54774), (30, 54807), (32, 54825), (33, 54843), (40, 55014), (41, 55020), (44, 55047),

Gene: Dauntless\_79 Start: 54128, Stop: 54988, Start Num: 7

Candidate Starts for Dauntless\_79:

(Start: 7 @54128 has 16 MA's), (10, 54254), (11, 54281), (12, 54287), (13, 54290), (24, 54557), (26, 54596), (27, 54608), (28, 54656), (29, 54674), (30, 54707), (32, 54725), (33, 54743), (39, 54899),

Gene: Erudite\_79 Start: 54128, Stop: 54988, Start Num: 7

Candidate Starts for Erudite\_79:

(Start: 7 @54128 has 16 MA's), (10, 54254), (11, 54281), (12, 54287), (13, 54290), (24, 54557), (26, 54596), (27, 54608), (28, 54656), (29, 54674), (30, 54707), (32, 54725), (33, 54743), (39, 54899),

Gene: FreddieHg\_83 Start: 54240, Stop: 55100, Start Num: 4

Candidate Starts for FreddieHg\_83:

(2, 54234), (Start: 4 @54240 has 4 MA's), (Start: 6 @54243 has 9 MA's), (Start: 8 @54246 has 2 MA's), (10, 54369), (11, 54396), (12, 54402), (13, 54405), (24, 54669), (26, 54708), (27, 54720), (28, 54768), (29, 54786), (30, 54819), (32, 54837), (33, 54855), (39, 55011),

Gene: Gilda\_81 Start: 54832, Stop: 55692, Start Num: 7

Candidate Starts for Gilda\_81:

(Start: 6 @54829 has 9 MA's), (Start: 7 @54832 has 16 MA's), (Start: 8 @54835 has 2 MA's), (10, 54958), (11, 54985), (13, 54994), (23, 55237), (26, 55300), (27, 55312), (28, 55360), (29, 55378), (30, 55411), (41, 55624),

Gene: Hager\_82 Start: 53963, Stop: 54835, Start Num: 8

Candidate Starts for Hager\_82:

(Start: 7 @53960 has 16 MA's), (Start: 8 @53963 has 2 MA's), (10, 54086), (11, 54113), (13, 54122), (17, 54179), (19, 54182), (24, 54386), (26, 54425), (27, 54437), (28, 54485), (29, 54503), (30, 54536), (31, 54551), (35, 54698), (40, 54752), (43, 54764),

Gene: Haunter\_83 Start: 54202, Stop: 55065, Start Num: 6

Candidate Starts for Haunter\_83:

(1, 54043), (3, 54196), (Start: 6 @54202 has 9 MA's), (Start: 7 @54205 has 16 MA's), (Start: 8 @54208 has 2 MA's), (10, 54331), (11, 54358), (13, 54367), (26, 54673), (27, 54685), (28, 54733), (29, 54751), (30, 54784), (41, 54997),

Gene: Hiddenleaf\_83 Start: 54223, Stop: 55083, Start Num: 4

Candidate Starts for Hiddenleaf\_83:

(2, 54217), (Start: 4 @54223 has 4 MA's), (Start: 6 @54226 has 9 MA's), (Start: 8 @54229 has 2 MA's), (10, 54352), (11, 54379), (12, 54385), (13, 54388), (24, 54652), (26, 54691), (27, 54703), (28, 54751), (29, 54769), (30, 54802), (32, 54820), (33, 54838), (39, 54994),

Gene: JDawG\_80 Start: 54422, Stop: 55276, Start Num: 8

Candidate Starts for JDawG\_80:

(2, 54410), (Start: 4 @54416 has 4 MA's), (Start: 6 @54419 has 9 MA's), (Start: 8 @54422 has 2 MA's), (10, 54545), (11, 54572), (12, 54578), (13, 54581), (24, 54845), (26, 54884), (27, 54896), (28, 54944), (29, 54962), (30, 54995), (32, 55013), (33, 55031), (39, 55187),

Gene: JingleBells\_81 Start: 54352, Stop: 55215, Start Num: 7

Candidate Starts for JingleBells\_81:

(5, 54349), (Start: 7 @54352 has 16 MA's), (10, 54478), (11, 54505), (12, 54511), (13, 54514), (24, 54778), (26, 54817), (27, 54829), (28, 54877), (29, 54895), (30, 54928), (32, 54946), (33, 54964), (37, 55105), (40, 55138),

Gene: Karate\_81 Start: 54532, Stop: 55410, Start Num: 7

Candidate Starts for Karate\_81:

(Start: 6 @54529 has 9 MA's), (Start: 7 @54532 has 16 MA's), (13, 54691), (15, 54724), (18, 54760), (22, 54895), (24, 54979), (25, 55003), (26, 55018), (27, 55030), (28, 55078), (29, 55096), (30, 55129), (32, 55147), (33, 55165), (34, 55252), (38, 55321),

Gene: Kate\_82 Start: 54746, Stop: 55609, Start Num: 6

Candidate Starts for Kate\_82:

(Start: 6 @54746 has 9 MA's), (Start: 7 @54749 has 16 MA's), (10, 54875), (11, 54902), (13, 54911), (26, 55217), (27, 55229), (28, 55277), (29, 55295), (30, 55328), (41, 55541),

Gene: Krampus\_82 Start: 54836, Stop: 55699, Start Num: 6

Candidate Starts for Krampus\_82:

(Start: 6 @54836 has 9 MA's), (Start: 7 @54839 has 16 MA's), (10, 54965), (11, 54992), (13, 55001), (26, 55307), (27, 55319), (28, 55367), (29, 55385), (30, 55418), (41, 55631),

Gene: MortySmith\_78 Start: 53602, Stop: 54462, Start Num: 7

Candidate Starts for MortySmith\_78:

(Start: 7 @53602 has 16 MA's), (10, 53728), (11, 53755), (12, 53761), (13, 53764), (24, 54031), (26, 54070), (27, 54082), (28, 54130), (29, 54148), (30, 54181), (32, 54199), (33, 54217), (39, 54373),

Gene: NarutoRun\_81 Start: 54801, Stop: 55664, Start Num: 6

Candidate Starts for NarutoRun\_81:

(Start: 6 @54801 has 9 MA's), (Start: 7 @54804 has 16 MA's), (10, 54930), (11, 54957), (13, 54966), (26, 55272), (27, 55284), (28, 55332), (29, 55350), (30, 55383), (41, 55596),

Gene: Neptune\_81 Start: 54822, Stop: 55685, Start Num: 6

Candidate Starts for Neptune\_81:

(Start: 6 @54822 has 9 MA's), (Start: 7 @54825 has 16 MA's), (Start: 8 @54828 has 2 MA's), (10, 54951), (11, 54978), (13, 54987), (24, 55254), (26, 55293), (27, 55305), (28, 55353), (29, 55371), (30, 55404), (41, 55617),

Gene: OverHedge\_80 Start: 54691, Stop: 55551, Start Num: 7

Candidate Starts for OverHedge\_80:

(Start: 6 @54688 has 9 MA's), (Start: 7 @54691 has 16 MA's), (Start: 8 @54694 has 2 MA's), (10, 54817), (11, 54844), (13, 54853), (23, 55096), (26, 55159), (27, 55171), (28, 55219), (29, 55237), (30, 55270), (41, 55483),

Gene: Pharpay\_80 Start: 54849, Stop: 55709, Start Num: 7

Candidate Starts for Pharpay\_80:

(Start: 6 @54846 has 9 MA's), (Start: 7 @54849 has 16 MA's), (10, 54975), (11, 55002), (13, 55011), (24, 55278), (26, 55317), (27, 55329), (28, 55377), (29, 55395), (30, 55428), (41, 55641),

Gene: PhunaPhoke\_81 Start: 54819, Stop: 55679, Start Num: 7

Candidate Starts for PhunaPhoke\_81:

(Start: 6 @54816 has 9 MA's), (Start: 7 @54819 has 16 MA's), (Start: 8 @54822 has 2 MA's), (10, 54945), (11, 54972), (13, 54981), (23, 55224), (26, 55287), (27, 55299), (28, 55347), (29, 55365), (30, 55398), (41, 55611),

Gene: Potty\_80 Start: 54749, Stop: 55609, Start Num: 7

Candidate Starts for Potty\_80:

(Start: 6 @54746 has 9 MA's), (Start: 7 @54749 has 16 MA's), (10, 54875), (11, 54902), (13, 54911), (23, 55154), (26, 55217), (27, 55229), (28, 55277), (29, 55295), (30, 55328), (41, 55541),

Gene: Poultress\_80 Start: 54704, Stop: 55555, Start Num: 7

Candidate Starts for Poultress\_80:

(Start: 7 @54704 has 16 MA's), (9, 54722), (11, 54848), (13, 54857), (24, 55124), (26, 55163), (27, 55175), (28, 55223), (29, 55241), (41, 55487),

Gene: Rachella\_82 Start: 54827, Stop: 55690, Start Num: 6

Candidate Starts for Rachella\_82:

(Start: 6 @54827 has 9 MA's), (Start: 7 @54830 has 16 MA's), (10, 54956), (11, 54983), (13, 54992), (26, 55298), (27, 55310), (28, 55358), (29, 55376), (30, 55409), (41, 55622),

Gene: Rie18\_82 Start: 54561, Stop: 55439, Start Num: 7

Candidate Starts for Rie18\_82:

(Start: 7 @54561 has 16 MA's), (Start: 8 @54564 has 2 MA's), (11, 54714), (13, 54723), (24, 54990), (26, 55029), (27, 55041), (28, 55089), (29, 55107), (30, 55140), (31, 55155), (35, 55302), (37, 55323), (40, 55356), (43, 55368),

Gene: SilentWarrior\_82 Start: 54213, Stop: 55076, Start Num: 7

Candidate Starts for SilentWarrior\_82:

(5, 54210), (Start: 7 @54213 has 16 MA's), (10, 54339), (11, 54366), (12, 54372), (13, 54375), (24, 54639), (26, 54678), (27, 54690), (28, 54738), (29, 54756), (30, 54789), (32, 54807), (33, 54825), (37, 54966), (40, 54999),

Gene: Snakehole\_82 Start: 54175, Stop: 55032, Start Num: 6

Candidate Starts for Snakehole\_82:

(2, 54166), (Start: 4 @54172 has 4 MA's), (Start: 6 @54175 has 9 MA's), (Start: 8 @54178 has 2 MA's), (10, 54301), (11, 54328), (12, 54334), (13, 54337), (24, 54601), (26, 54640), (27, 54652), (28, 54700), (29, 54718), (30, 54751), (32, 54769), (33, 54787), (39, 54943),

Gene: Tedro\_82 Start: 54322, Stop: 55179, Start Num: 7

Candidate Starts for Tedro\_82:

(Start: 6 @54319 has 9 MA's), (Start: 7 @54322 has 16 MA's), (10, 54448), (11, 54475), (12, 54481), (13, 54484), (24, 54748), (26, 54787), (27, 54799), (28, 54847), (29, 54865), (30, 54898), (34, 55021), (38, 55090),

Gene: Tongui\_82 Start: 54343, Stop: 55221, Start Num: 7

Candidate Starts for Tongui\_82:

(Start: 7 @54343 has 16 MA's), (Start: 8 @54346 has 2 MA's), (10, 54469), (11, 54496), (13, 54505), (22, 54688), (24, 54772), (26, 54811), (27, 54823), (28, 54871), (35, 55084), (36, 55096), (37, 55105), (40, 55138), (42, 55147), (43, 55150),