

Pham 294521



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 294521 Report

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

Pham number 294521 has 139 members, 17 are drafts.

Phages represented in each track:

- Track 1 : LizLemon\_86, Sabella\_86, Godines\_86, Arbitrator\_83, Glass\_88, Qyrzula\_77, Ares\_86, ItsyBitsy1\_83, FrenchFry\_87, MasterPo\_87, Tinciduntolum\_87, Lephleur\_86, Hedgerow\_86, Holeinone\_86, TA17A\_89, Brownie5\_86, Kheth\_86, Blocker23\_86
- Track 2 : Kaleb\_86, Rhinoforte\_86, Allegro\_86, Kolhan\_87, Boyle\_86, Eaglehorse\_87, Calamitous\_87, Faze9\_85, Coffee\_85, Lars\_87, West99\_86, Rosebush\_84
- Track 3 : PrinceCharming\_86, LilSmirk\_86, Opia\_87, Bananafish\_87, Tres\_86
- Track 4 : Phantasmagoria\_85
- Track 5 : Laurie\_85
- Track 6 : Vic9\_00084
- Track 7 : Jackstina\_91, Tydolla\_94, Marley1013\_96, Halfpint\_97, SynergyX\_99, Chandler\_98, RagingRooster\_98, GlenHope\_99, Heathcliff\_98, Baloo\_97, Morty007\_96, Devonte\_96, Deenasa\_99, Yahalom\_96, Daisy\_97, Pipefish\_97, Compostia\_97
- Track 8 : Ben11\_98, Akoma\_99, Yinz\_96, Philly\_97, Mulaychimus\_99, Audrey\_98, Rita1961\_99, Gadget\_97, Glubnar\_98, Bernardo\_95, SwainyDoc\_98, MmasiCarm\_99, Athena\_100, Chentzyk\_100, RomaT\_98, Phaedrus\_93, Gervas\_99, Kamiyu\_98, Marlia\_98
- Track 9 : Corofin\_98, Neos5\_97, OrangeOswald\_97, SlippinJimmy\_101, Phlyer\_98, HarveySr\_95, LestyG\_96, Briakila\_99, Chalmers\_98, Shenandoah\_98, Abinghost\_98, Nozo\_98, ChaChing\_98
- Track 10 : Phayeta\_100
- Track 11 : Casbah\_98, TinyTerror\_99, Kronus\_98, Obutu\_100, Olivio\_98, Mortcellus\_98
- Track 12 : Mysterious\_91, Nehemiah\_91
- Track 13 : Rich\_90, Suigeneris\_93, Serendipitous\_93, Rita130\_91, Donny\_92, EastView9101\_92, Acadian\_92, Reccee\_93
- Track 14 : Phelemich\_89, Reprobate\_91
- Track 15 : SirJeffery\_90
- Track 16 : Bae\_91
- Track 17 : CherryTomatoes\_199, Pupper\_197, SCentae\_196
- Track 18 : Skog\_28
- Track 19 : AnClar\_76, Yago84\_78, Sisko\_79
- Track 20 : AnarQue\_82, CloverMinnie\_80
- Track 21 : Blackpen\_79, FelixTres\_82, Yeshua\_81, CaiB\_81, Wooper\_82, MossRose\_80

- Track 22 : CharlottesWeb\_78, Mariokart\_78
- Track 23 : NHagos\_77, AksarBAT\_81
- Track 24 : Coldpizza\_69
- Track 25 : Evaa\_72
- Track 26 : MakoManhole\_79, TraderJ\_81
- Track 27 : BiggityBass\_79
- Track 28 : Fresco\_81, Axumite\_81, Shatter\_81, Ligma\_81
- Track 29 : LittleMunchkin\_80
- Track 30 : Sour\_75
- Track 31 : BobRoss2024\_59

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

The start number called the most often in the published annotations is 22, it was called in 92 of the 122 non-draft genes in the pham.

Genes that call this "Most Annotated" start:

- Abinghost\_98, Acadian\_92, Akoma\_99, AksarBAT\_81, Allegro\_86, AnClar\_76, Athena\_100, Audrey\_98, Axumite\_81, Baloo\_97, Ben11\_98, Bernardo\_95, BiggityBass\_79, Blackpen\_79, BobRoss2024\_59, Boyle\_86, Briakila\_99, CaiB\_81, Calamitous\_87, Casbah\_98, ChaChing\_98, Chalmers\_98, Chandler\_98, CharlottesWeb\_78, Chentzyk\_100, Coffee\_85, Coldpizza\_69, Compostia\_97, Corofin\_98, Daisy\_97, Deenasa\_99, Devonte\_96, Donny\_92, Eaglehorse\_87, EastView9101\_92, Evaa\_72, Faze9\_85, FelixTres\_82, Fresco\_81, Gadget\_97, Gervas\_99, GlenHope\_99, Glubnar\_98, Halfpint\_97, HarveySr\_95, Heathcliff\_98, Jackstina\_91, Kaleb\_86, Kamiyu\_98, Kolhan\_87, Kronus\_98, Lars\_87, Laurie\_85, LestyG\_96, Ligma\_81, LittleMunchkin\_80, MakoManhole\_79, Mariokart\_78, Marley1013\_96, Marlia\_98, MmasiCarm\_99, Mortcellus\_98, Morty007\_96, MossRose\_80, Mulaychimus\_99, Mysterious\_91, NHagos\_77, Nehemiah\_91, Neos5\_97, Nozo\_98, Obutu\_100, Olivio\_98, OrangeOswald\_97, Phaedrus\_93, Phantasmagoria\_85, Phayeta\_100, Phelemich\_89, Philly\_97, Phlyer\_98, Pipefish\_97, RagingRooster\_98, Reccee\_93, Reprobate\_91, Rhinoforte\_86, Rich\_90, Rita130\_91, Rita1961\_99, RomaT\_98, Rosebush\_84, Serendipitous\_93, Shatter\_81, Shenandoah\_98, SirJeffery\_90, Sisko\_79, SlippinJimmy\_101, Sour\_75, Suigeneris\_93, SwainyDoc\_98, SynergyX\_99, TinyTerror\_99, TraderJ\_81, Tydolla\_94, West99\_86, Wooper\_82, Yago84\_78, Yahalom\_96, Yeshua\_81, Yinz\_96,

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

- AnarQue\_82, Arbiter\_83, Ares\_86, Bae\_91, Bananafish\_87, Blocker23\_86, Brownie5\_86, CloverMinnie\_80, FrenchFry\_87, Glass\_88, Godines\_86, Hedgerow\_86, Holeinone\_86, ItsyBitsy1\_83, Kheth\_86, Lephleur\_86, LilSmirk\_86, LizLemon\_86, MasterPo\_87, Opia\_87, PrinceCharming\_86, Qyrzula\_77, Sabella\_86, TA17A\_89, Tinciduntolum\_87, Tres\_86, Vic9\_00084,

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

- CherryTomatoes\_199, Pupper\_197, SCentae\_196, Skog\_28,

**Summary by start number:**

Start 13:

- Found in 10 of 139 ( 7.2% ) of genes in pham
- Manual Annotations of this start: 2 of 122
- Called 20.0% of time when present
- Phage (with cluster) where this start called: AnarQue\_82 (DR), CloverMinnie\_80 (DR),

Start 17:

- Found in 37 of 139 ( 26.6% ) of genes in pham
- Manual Annotations of this start: 5 of 122
- Called 16.2% of time when present
- Phage (with cluster) where this start called: Bananafish\_87 (B2), LilSmirk\_86 (B2), Opia\_87 (B2), PrinceCharming\_86 (B2), Tres\_86 (B2), Vic9\_00084 (B2),

Start 19:

- Found in 41 of 139 ( 29.5% ) of genes in pham
- Manual Annotations of this start: 18 of 122
- Called 43.9% of time when present
- Phage (with cluster) where this start called: Arbitrator\_83 (B2), Ares\_86 (B2), Blocker23\_86 (B2), Brownie5\_86 (B2), FrenchFry\_87 (B2), Glass\_88 (B2), Godines\_86 (B2), Hedgerow\_86 (B2), Holeinone\_86 (B2), ItsyBitsy1\_83 (B2), Kheth\_86 (B2), Lephleur\_86 (B2), LizLemon\_86 (B2), MasterPo\_87 (B2), Qyrzula\_77 (B2), Sabella\_86 (B2), TA17A\_89 (B2), Tinciduntolum\_87 (B2),

Start 21:

- Found in 2 of 139 ( 1.4% ) of genes in pham
- Manual Annotations of this start: 1 of 122
- Called 50.0% of time when present
- Phage (with cluster) where this start called: Bae\_91 (B5),

Start 22:

- Found in 135 of 139 ( 97.1% ) of genes in pham
- Manual Annotations of this start: 92 of 122
- Called 80.0% of time when present
- Phage (with cluster) where this start called: Abinghost\_98 (B3), Acadian\_92 (B5), Akoma\_99 (B3), AksarBAT\_81 (DR), Allegro\_86 (B2), AnClar\_76 (DR), Athena\_100 (B3), Audrey\_98 (B3), Axumite\_81 (DR), Baloo\_97 (B3), Ben11\_98 (B3), Bernardo\_95 (B3), BiggityBass\_79 (DR), Blackpen\_79 (DR), BobRoss2024\_59 (DR), Boyle\_86 (B2), Briakila\_99 (B3), CaiB\_81 (DR), Calamitous\_87 (B2), Casbah\_98 (B3), ChaChing\_98 (B3), Chalmers\_98 (B3), Chandler\_98 (B3), CharlottesWeb\_78 (DR), Chentzyk\_100 (B3), Coffee\_85 (B2), Coldpizza\_69 (DR), Compostia\_97 (B3), Corofin\_98 (B3), Daisy\_97 (B3), Deenasa\_99 (B3), Devonte\_96 (B3), Donny\_92 (B5), Eaglehorse\_87 (B2), EastView9101\_92 (B5), Evaa\_72 (DR), Faze9\_85 (B2), FelixTres\_82 (DR), Fresco\_81 (DR), Gadget\_97 (B3), Gervas\_99 (B3), GlenHope\_99 (B3), Glubnar\_98 (B3), Halfpint\_97 (B3), HarveySr\_95 (B3), Heathcliff\_98 (B3), Jackstina\_91 (B3), Kaleb\_86 (B2), Kamiyu\_98 (B3), Kolhan\_87 (B2), Kronus\_98 (B3), Lars\_87 (B2), Laurie\_85 (B2), LestyG\_96 (B3), Ligma\_81 (DR), LittleMunchkin\_80 (DR), MakoManhole\_79 (DR), Mariokart\_78 (DR), Marley1013\_96 (B3), Marlia\_98 (B3), MmasiCarm\_99 (B3), Mortcellus\_98 (B3), Morty007\_96 (B3), MossRose\_80 (DR), Mulaychimus\_99 (B3), Mysterious\_91 (B5), NHagos\_77 (DR), Nehemiah\_91 (B5), Neos5\_97 (B3), Nozo\_98 (B3), Obutu\_100 (B3), Olivio\_98 (B3), OrangeOswald\_97 (B3), Phaedrus\_93 (B3), Phantasmagoria\_85 (B2), Phayeta\_100 (B3), Phelemich\_89 (B5), Philly\_97 (B3), Phlyer\_98 (B3), Pipefish\_97 (B3),

RagingRooster\_98 (B3), Reccee\_93 (B5), Reprobate\_91 (B5), Rhinoforte\_86 (B2), Rich\_90 (B5), Rita130\_91 (B5), Rita1961\_99 (B3), RomaT\_98 (B3), Rosebush\_84 (B2), Serendipitous\_93 (B5), Shatter\_81 (DR), Shenandoah\_98 (B3), SirJeffery\_90 (B5), Sisko\_79 (DR), SlippinJimmy\_101 (B3), Sour\_75 (DR), Suigeneris\_93 (B5), SwainyDoc\_98 (B3), SynergyX\_99 (B3), TinyTerror\_99 (B3), TraderJ\_81 (DR), Tydolla\_94 (B3), West99\_86 (B2), Wooper\_82 (DR), Yago84\_78 (DR), Yahalom\_96 (B3), Yeshua\_81 (DR), Yinz\_96 (B3),

Start 23:

- Found in 4 of 139 ( 2.9% ) of genes in pham
- Manual Annotations of this start: 4 of 122
- Called 100.0% of time when present
- Phage (with cluster) where this start called: CherryTomatoes\_199 (DO), Pupper\_197 (DO), SCentae\_196 (DO), Skog\_28 (DO),

### **Summary by clusters:**

There are 5 clusters represented in this pham: DO, B5, DR, B2, B3,

Info for manual annotations of cluster B2:

- Start number 17 was manually annotated 5 times for cluster B2.
- Start number 19 was manually annotated 18 times for cluster B2.
- Start number 22 was manually annotated 14 times for cluster B2.

Info for manual annotations of cluster B3:

- Start number 22 was manually annotated 50 times for cluster B3.

Info for manual annotations of cluster B5:

- Start number 21 was manually annotated 1 time for cluster B5.
- Start number 22 was manually annotated 9 times for cluster B5.

Info for manual annotations of cluster DO:

- Start number 23 was manually annotated 4 times for cluster DO.

Info for manual annotations of cluster DR:

- Start number 13 was manually annotated 2 times for cluster DR.
- Start number 22 was manually annotated 19 times for cluster DR.

### **Gene Information:**

Gene: Abinghost\_98 Start: 67232, Stop: 66996, Start Num: 22

Candidate Starts for Abinghost\_98:

(Start: 22 @67232 has 92 MA's), (31, 67163), (43, 67064),

Gene: Acadian\_92 Start: 67740, Stop: 67471, Start Num: 22

Candidate Starts for Acadian\_92:

(Start: 22 @67740 has 92 MA's), (31, 67665), (33, 67647), (48, 67527),

Gene: Akoma\_99 Start: 67309, Stop: 67073, Start Num: 22

Candidate Starts for Akoma\_99:

(Start: 22 @67309 has 92 MA's), (31, 67240), (40, 67159), (43, 67141),

Gene: AksarBAT\_81 Start: 59268, Stop: 59008, Start Num: 22

Candidate Starts for AksarBAT\_81:

(18, 59316), (Start: 19 @59313 has 18 MA's), (Start: 22 @59268 has 92 MA's), (29, 59211), (31, 59199), (38, 59121),

Gene: Allegro\_86 Start: 65189, Stop: 64932, Start Num: 22

Candidate Starts for Allegro\_86:

(Start: 17 @65234 has 5 MA's), (Start: 19 @65225 has 18 MA's), (Start: 22 @65189 has 92 MA's), (31, 65120),

Gene: AnClar\_76 Start: 59906, Stop: 59643, Start Num: 22

Candidate Starts for AnClar\_76:

(Start: 22 @59906 has 92 MA's), (46, 59702),

Gene: AnarQue\_82 Start: 60514, Stop: 60182, Start Num: 13

Candidate Starts for AnarQue\_82:

(Start: 13 @60514 has 2 MA's), (16, 60511), (20, 60475), (Start: 22 @60439 has 92 MA's), (25, 60415), (31, 60364), (44, 60253), (47, 60229),

Gene: Arbiter\_83 Start: 65266, Stop: 64973, Start Num: 19

Candidate Starts for Arbiter\_83:

(Start: 17 @65275 has 5 MA's), (Start: 19 @65266 has 18 MA's), (Start: 22 @65230 has 92 MA's), (31, 65161),

Gene: Ares\_86 Start: 65225, Stop: 64932, Start Num: 19

Candidate Starts for Ares\_86:

(Start: 17 @65234 has 5 MA's), (Start: 19 @65225 has 18 MA's), (Start: 22 @65189 has 92 MA's), (31, 65120),

Gene: Athena\_100 Start: 68005, Stop: 67769, Start Num: 22

Candidate Starts for Athena\_100:

(Start: 22 @68005 has 92 MA's), (31, 67936), (40, 67855), (43, 67837),

Gene: Audrey\_98 Start: 67259, Stop: 67023, Start Num: 22

Candidate Starts for Audrey\_98:

(Start: 22 @67259 has 92 MA's), (31, 67190), (40, 67109), (43, 67091),

Gene: Axumite\_81 Start: 59787, Stop: 59539, Start Num: 22

Candidate Starts for Axumite\_81:

(5, 59919), (10, 59892), (20, 59823), (Start: 22 @59787 has 92 MA's), (29, 59736), (34, 59694), (42, 59619), (50, 59553),

Gene: Bae\_91 Start: 68280, Stop: 67975, Start Num: 21

Candidate Starts for Bae\_91:

(Start: 19 @68283 has 18 MA's), (Start: 21 @68280 has 1 MA's), (Start: 22 @68244 has 92 MA's), (31, 68169), (33, 68151), (48, 68031),

Gene: Baloo\_97 Start: 67112, Stop: 66876, Start Num: 22

Candidate Starts for Baloo\_97:

(Start: 22 @67112 has 92 MA's), (31, 67043), (35, 66998), (43, 66944),

Gene: Bananafish\_87 Start: 65171, Stop: 64869, Start Num: 17

Candidate Starts for Bananafish\_87:

(Start: 17 @65171 has 5 MA's), (Start: 19 @65162 has 18 MA's), (Start: 22 @65126 has 92 MA's), (31, 65057),

Gene: Ben11\_98 Start: 67489, Stop: 67253, Start Num: 22

Candidate Starts for Ben11\_98:

(Start: 22 @67489 has 92 MA's), (31, 67420), (40, 67339), (43, 67321),

Gene: Bernardo\_95 Start: 66783, Stop: 66547, Start Num: 22

Candidate Starts for Bernardo\_95:

(Start: 22 @66783 has 92 MA's), (31, 66714), (40, 66633), (43, 66615),

Gene: BiggityBass\_79 Start: 61390, Stop: 61115, Start Num: 22

Candidate Starts for BiggityBass\_79:

(Start: 22 @61390 has 92 MA's),

Gene: Blackpen\_79 Start: 58903, Stop: 58646, Start Num: 22

Candidate Starts for Blackpen\_79:

(Start: 13 @58978 has 2 MA's), (16, 58975), (20, 58939), (Start: 22 @58903 has 92 MA's), (25, 58879), (31, 58828), (44, 58717), (47, 58693),

Gene: Blocker23\_86 Start: 65227, Stop: 64934, Start Num: 19

Candidate Starts for Blocker23\_86:

(Start: 17 @65236 has 5 MA's), (Start: 19 @65227 has 18 MA's), (Start: 22 @65191 has 92 MA's), (31, 65122),

Gene: BobRoss2024\_59 Start: 49011, Stop: 48754, Start Num: 22

Candidate Starts for BobRoss2024\_59:

(18, 49053), (Start: 19 @49050 has 18 MA's), (Start: 21 @49047 has 1 MA's), (Start: 22 @49011 has 92 MA's), (29, 48960), (31, 48948), (39, 48852),

Gene: Boyle\_86 Start: 65238, Stop: 64981, Start Num: 22

Candidate Starts for Boyle\_86:

(Start: 17 @65283 has 5 MA's), (Start: 19 @65274 has 18 MA's), (Start: 22 @65238 has 92 MA's), (31, 65169),

Gene: Briakila\_99 Start: 67763, Stop: 67527, Start Num: 22

Candidate Starts for Briakila\_99:

(Start: 22 @67763 has 92 MA's), (31, 67694), (43, 67595),

Gene: Brownie5\_86 Start: 65274, Stop: 64981, Start Num: 19

Candidate Starts for Brownie5\_86:

(Start: 17 @65283 has 5 MA's), (Start: 19 @65274 has 18 MA's), (Start: 22 @65238 has 92 MA's), (31, 65169),

Gene: CaiB\_81 Start: 60237, Stop: 59980, Start Num: 22

Candidate Starts for CaiB\_81:

(Start: 13 @60312 has 2 MA's), (16, 60309), (20, 60273), (Start: 22 @60237 has 92 MA's), (25, 60213), (31, 60162), (44, 60051), (47, 60027),

Gene: Calamitous\_87 Start: 65121, Stop: 64864, Start Num: 22

Candidate Starts for Calamitous\_87:

(Start: 17 @65166 has 5 MA's), (Start: 19 @65157 has 18 MA's), (Start: 22 @65121 has 92 MA's), (31, 65052),

Gene: Casbah\_98 Start: 67574, Stop: 67338, Start Num: 22

Candidate Starts for Casbah\_98:

(Start: 22 @67574 has 92 MA's), (31, 67505), (40, 67424), (43, 67406),

Gene: ChaChing\_98 Start: 67266, Stop: 67036, Start Num: 22

Candidate Starts for ChaChing\_98:

(Start: 22 @67266 has 92 MA's), (31, 67203), (43, 67104),

Gene: Chalmers\_98 Start: 68004, Stop: 67774, Start Num: 22

Candidate Starts for Chalmers\_98:

(Start: 22 @68004 has 92 MA's), (31, 67941), (43, 67842),

Gene: Chandler\_98 Start: 68048, Stop: 67812, Start Num: 22

Candidate Starts for Chandler\_98:

(Start: 22 @68048 has 92 MA's), (31, 67979), (35, 67934), (43, 67880),

Gene: CharlottesWeb\_78 Start: 58743, Stop: 58495, Start Num: 22

Candidate Starts for CharlottesWeb\_78:

(2, 58956), (9, 58851), (15, 58815), (20, 58779), (Start: 22 @58743 has 92 MA's), (29, 58692), (41, 58578), (42, 58575), (50, 58509),

Gene: Chentzyk\_100 Start: 68204, Stop: 67968, Start Num: 22

Candidate Starts for Chentzyk\_100:

(Start: 22 @68204 has 92 MA's), (31, 68135), (40, 68054), (43, 68036),

Gene: CherryTomatoes\_199 Start: 137102, Stop: 137362, Start Num: 23

Candidate Starts for CherryTomatoes\_199:

(11, 136994), (Start: 23 @137102 has 4 MA's), (31, 137171), (42, 137291),

Gene: CloverMinnie\_80 Start: 59790, Stop: 59458, Start Num: 13

Candidate Starts for CloverMinnie\_80:

(Start: 13 @59790 has 2 MA's), (16, 59787), (20, 59751), (Start: 22 @59715 has 92 MA's), (25, 59691), (31, 59640), (44, 59529), (47, 59505),

Gene: Coffee\_85 Start: 65231, Stop: 64974, Start Num: 22

Candidate Starts for Coffee\_85:

(Start: 17 @65276 has 5 MA's), (Start: 19 @65267 has 18 MA's), (Start: 22 @65231 has 92 MA's), (31, 65162),

Gene: Coldpizza\_69 Start: 56370, Stop: 56140, Start Num: 22

Candidate Starts for Coldpizza\_69:

(Start: 22 @56370 has 92 MA's), (30, 56298), (31, 56295),

Gene: Compostia\_97 Start: 67726, Stop: 67490, Start Num: 22

Candidate Starts for Compostia\_97:

(Start: 22 @67726 has 92 MA's), (31, 67657), (35, 67612), (43, 67558),

Gene: Corofin\_98 Start: 67283, Stop: 67047, Start Num: 22

Candidate Starts for Corofin\_98:

(Start: 22 @67283 has 92 MA's), (31, 67214), (43, 67115),

Gene: Daisy\_97 Start: 66832, Stop: 66596, Start Num: 22  
Candidate Starts for Daisy\_97:  
(Start: 22 @66832 has 92 MA's), (31, 66763), (35, 66718), (43, 66664),

Gene: Deenasa\_99 Start: 68486, Stop: 68250, Start Num: 22  
Candidate Starts for Deenasa\_99:  
(Start: 22 @68486 has 92 MA's), (31, 68417), (35, 68372), (43, 68318),

Gene: Devonte\_96 Start: 66898, Stop: 66662, Start Num: 22  
Candidate Starts for Devonte\_96:  
(Start: 22 @66898 has 92 MA's), (31, 66829), (35, 66784), (43, 66730),

Gene: Donny\_92 Start: 67567, Stop: 67298, Start Num: 22  
Candidate Starts for Donny\_92:  
(Start: 22 @67567 has 92 MA's), (31, 67492), (33, 67474), (48, 67354),

Gene: Eaglehorse\_87 Start: 65116, Stop: 64859, Start Num: 22  
Candidate Starts for Eaglehorse\_87:  
(Start: 17 @65161 has 5 MA's), (Start: 19 @65152 has 18 MA's), (Start: 22 @65116 has 92 MA's), (31, 65047),

Gene: EastView9101\_92 Start: 67759, Stop: 67490, Start Num: 22  
Candidate Starts for EastView9101\_92:  
(Start: 22 @67759 has 92 MA's), (31, 67684), (33, 67666), (48, 67546),

Gene: Evaa\_72 Start: 54428, Stop: 54195, Start Num: 22  
Candidate Starts for Evaa\_72:  
(Start: 22 @54428 has 92 MA's), (29, 54377), (31, 54365), (37, 54296),

Gene: Faze9\_85 Start: 65253, Stop: 64996, Start Num: 22  
Candidate Starts for Faze9\_85:  
(Start: 17 @65298 has 5 MA's), (Start: 19 @65289 has 18 MA's), (Start: 22 @65253 has 92 MA's), (31, 65184),

Gene: FelixTres\_82 Start: 59681, Stop: 59424, Start Num: 22  
Candidate Starts for FelixTres\_82:  
(Start: 13 @59756 has 2 MA's), (16, 59753), (20, 59717), (Start: 22 @59681 has 92 MA's), (25, 59657), (31, 59606), (44, 59495), (47, 59471),

Gene: FrenchFry\_87 Start: 65277, Stop: 64984, Start Num: 19  
Candidate Starts for FrenchFry\_87:  
(Start: 17 @65286 has 5 MA's), (Start: 19 @65277 has 18 MA's), (Start: 22 @65241 has 92 MA's), (31, 65172),

Gene: Fresco\_81 Start: 59793, Stop: 59545, Start Num: 22  
Candidate Starts for Fresco\_81:  
(5, 59925), (10, 59898), (20, 59829), (Start: 22 @59793 has 92 MA's), (29, 59742), (34, 59700), (42, 59625), (50, 59559),

Gene: Gadget\_97 Start: 66536, Stop: 66300, Start Num: 22  
Candidate Starts for Gadget\_97:  
(Start: 22 @66536 has 92 MA's), (31, 66467), (40, 66386), (43, 66368),

Gene: Gervas\_99 Start: 67727, Stop: 67491, Start Num: 22  
Candidate Starts for Gervas\_99:  
(Start: 22 @67727 has 92 MA's), (31, 67658), (40, 67577), (43, 67559),

Gene: Glass\_88 Start: 65283, Stop: 64990, Start Num: 19  
Candidate Starts for Glass\_88:  
(Start: 17 @65292 has 5 MA's), (Start: 19 @65283 has 18 MA's), (Start: 22 @65247 has 92 MA's), (31, 65178),

Gene: GlenHope\_99 Start: 67302, Stop: 67066, Start Num: 22  
Candidate Starts for GlenHope\_99:  
(Start: 22 @67302 has 92 MA's), (31, 67233), (35, 67188), (43, 67134),

Gene: Glubnar\_98 Start: 67218, Stop: 66982, Start Num: 22  
Candidate Starts for Glubnar\_98:  
(Start: 22 @67218 has 92 MA's), (31, 67149), (40, 67068), (43, 67050),

Gene: Godines\_86 Start: 65188, Stop: 64895, Start Num: 19  
Candidate Starts for Godines\_86:  
(Start: 17 @65197 has 5 MA's), (Start: 19 @65188 has 18 MA's), (Start: 22 @65152 has 92 MA's), (31, 65083),

Gene: Halfpint\_97 Start: 67047, Stop: 66811, Start Num: 22  
Candidate Starts for Halfpint\_97:  
(Start: 22 @67047 has 92 MA's), (31, 66978), (35, 66933), (43, 66879),

Gene: HarveySr\_95 Start: 66371, Stop: 66135, Start Num: 22  
Candidate Starts for HarveySr\_95:  
(Start: 22 @66371 has 92 MA's), (31, 66302), (43, 66203),

Gene: Heathcliff\_98 Start: 67226, Stop: 66990, Start Num: 22  
Candidate Starts for Heathcliff\_98:  
(Start: 22 @67226 has 92 MA's), (31, 67157), (35, 67112), (43, 67058),

Gene: Hedgerow\_86 Start: 65240, Stop: 64947, Start Num: 19  
Candidate Starts for Hedgerow\_86:  
(Start: 17 @65249 has 5 MA's), (Start: 19 @65240 has 18 MA's), (Start: 22 @65204 has 92 MA's), (31, 65135),

Gene: Holeinone\_86 Start: 65129, Stop: 64836, Start Num: 19  
Candidate Starts for Holeinone\_86:  
(Start: 17 @65138 has 5 MA's), (Start: 19 @65129 has 18 MA's), (Start: 22 @65093 has 92 MA's), (31, 65024),

Gene: ItsyBitsy1\_83 Start: 65356, Stop: 65063, Start Num: 19  
Candidate Starts for ItsyBitsy1\_83:  
(Start: 17 @65365 has 5 MA's), (Start: 19 @65356 has 18 MA's), (Start: 22 @65320 has 92 MA's), (31, 65251),

Gene: Jackstina\_91 Start: 67143, Stop: 66907, Start Num: 22  
Candidate Starts for Jackstina\_91:  
(Start: 22 @67143 has 92 MA's), (31, 67074), (35, 67029), (43, 66975),

Gene: Kaleb\_86 Start: 65250, Stop: 64993, Start Num: 22  
Candidate Starts for Kaleb\_86:  
(Start: 17 @65295 has 5 MA's), (Start: 19 @65286 has 18 MA's), (Start: 22 @65250 has 92 MA's), (31, 65181),

Gene: Kamiyu\_98 Start: 67230, Stop: 66994, Start Num: 22  
Candidate Starts for Kamiyu\_98:  
(Start: 22 @67230 has 92 MA's), (31, 67161), (40, 67080), (43, 67062),

Gene: Kheth\_86 Start: 65192, Stop: 64899, Start Num: 19  
Candidate Starts for Kheth\_86:  
(Start: 17 @65201 has 5 MA's), (Start: 19 @65192 has 18 MA's), (Start: 22 @65156 has 92 MA's), (31, 65087),

Gene: Kolhan\_87 Start: 65143, Stop: 64886, Start Num: 22  
Candidate Starts for Kolhan\_87:  
(Start: 17 @65188 has 5 MA's), (Start: 19 @65179 has 18 MA's), (Start: 22 @65143 has 92 MA's), (31, 65074),

Gene: Kronus\_98 Start: 68315, Stop: 68079, Start Num: 22  
Candidate Starts for Kronus\_98:  
(Start: 22 @68315 has 92 MA's), (31, 68246), (40, 68165), (43, 68147),

Gene: Lars\_87 Start: 65218, Stop: 64961, Start Num: 22  
Candidate Starts for Lars\_87:  
(Start: 17 @65263 has 5 MA's), (Start: 19 @65254 has 18 MA's), (Start: 22 @65218 has 92 MA's), (31, 65149),

Gene: Laurie\_85 Start: 64565, Stop: 64305, Start Num: 22  
Candidate Starts for Laurie\_85:  
(Start: 17 @64610 has 5 MA's), (Start: 19 @64601 has 18 MA's), (Start: 22 @64565 has 92 MA's), (26, 64523), (31, 64493), (42, 64382),

Gene: Lephleur\_86 Start: 65111, Stop: 64818, Start Num: 19  
Candidate Starts for Lephleur\_86:  
(Start: 17 @65120 has 5 MA's), (Start: 19 @65111 has 18 MA's), (Start: 22 @65075 has 92 MA's), (31, 65006),

Gene: LestyG\_96 Start: 66795, Stop: 66565, Start Num: 22  
Candidate Starts for LestyG\_96:  
(Start: 22 @66795 has 92 MA's), (31, 66732), (43, 66633),

Gene: Ligma\_81 Start: 59787, Stop: 59539, Start Num: 22  
Candidate Starts for Ligma\_81:  
(5, 59919), (10, 59892), (20, 59823), (Start: 22 @59787 has 92 MA's), (29, 59736), (34, 59694), (42, 59619), (50, 59553),

Gene: LilSmirk\_86 Start: 65158, Stop: 64856, Start Num: 17  
Candidate Starts for LilSmirk\_86:  
(Start: 17 @65158 has 5 MA's), (Start: 19 @65149 has 18 MA's), (Start: 22 @65113 has 92 MA's), (31, 65044),

Gene: LittleMunchkin\_80 Start: 61488, Stop: 61228, Start Num: 22  
Candidate Starts for LittleMunchkin\_80:  
(Start: 22 @61488 has 92 MA's), (32, 61410), (46, 61287), (50, 61239),

Gene: LizLemon\_86 Start: 65282, Stop: 64989, Start Num: 19  
Candidate Starts for LizLemon\_86:  
(Start: 17 @65291 has 5 MA's), (Start: 19 @65282 has 18 MA's), (Start: 22 @65246 has 92 MA's), (31, 65177),

Gene: MakoManhole\_79 Start: 60210, Stop: 59953, Start Num: 22  
Candidate Starts for MakoManhole\_79:  
(Start: 13 @60285 has 2 MA's), (16, 60282), (20, 60246), (Start: 22 @60210 has 92 MA's), (31, 60135), (44, 60024), (47, 60000),

Gene: Mariokart\_78 Start: 58981, Stop: 58733, Start Num: 22  
Candidate Starts for Mariokart\_78:  
(2, 59194), (9, 59089), (15, 59053), (20, 59017), (Start: 22 @58981 has 92 MA's), (29, 58930), (41, 58816), (42, 58813), (50, 58747),

Gene: Marley1013\_96 Start: 67761, Stop: 67525, Start Num: 22  
Candidate Starts for Marley1013\_96:  
(Start: 22 @67761 has 92 MA's), (31, 67692), (35, 67647), (43, 67593),

Gene: Marlia\_98 Start: 67323, Stop: 67087, Start Num: 22  
Candidate Starts for Marlia\_98:  
(Start: 22 @67323 has 92 MA's), (31, 67254), (40, 67173), (43, 67155),

Gene: MasterPo\_87 Start: 65150, Stop: 64857, Start Num: 19  
Candidate Starts for MasterPo\_87:  
(Start: 17 @65159 has 5 MA's), (Start: 19 @65150 has 18 MA's), (Start: 22 @65114 has 92 MA's), (31, 65045),

Gene: MmasiCarm\_99 Start: 67658, Stop: 67422, Start Num: 22  
Candidate Starts for MmasiCarm\_99:  
(Start: 22 @67658 has 92 MA's), (31, 67589), (40, 67508), (43, 67490),

Gene: Mortcellus\_98 Start: 68396, Stop: 68160, Start Num: 22  
Candidate Starts for Mortcellus\_98:  
(Start: 22 @68396 has 92 MA's), (31, 68327), (40, 68246), (43, 68228),

Gene: Morty007\_96 Start: 68028, Stop: 67792, Start Num: 22  
Candidate Starts for Morty007\_96:  
(Start: 22 @68028 has 92 MA's), (31, 67959), (35, 67914), (43, 67860),

Gene: MossRose\_80 Start: 59689, Stop: 59432, Start Num: 22  
Candidate Starts for MossRose\_80:  
(Start: 13 @59764 has 2 MA's), (16, 59761), (20, 59725), (Start: 22 @59689 has 92 MA's), (25, 59665), (31, 59614), (44, 59503), (47, 59479),

Gene: Mulaychimus\_99 Start: 67837, Stop: 67601, Start Num: 22  
Candidate Starts for Mulaychimus\_99:  
(Start: 22 @67837 has 92 MA's), (31, 67768), (40, 67687), (43, 67669),

Gene: Mysterious\_91 Start: 67652, Stop: 67392, Start Num: 22  
Candidate Starts for Mysterious\_91:  
(Start: 22 @67652 has 92 MA's), (29, 67589), (49, 67421),

Gene: NHagos\_77 Start: 57942, Stop: 57682, Start Num: 22  
Candidate Starts for NHagos\_77:  
(18, 57990), (Start: 19 @57987 has 18 MA's), (Start: 22 @57942 has 92 MA's), (29, 57885), (31, 57873), (38, 57795),

Gene: Nehemiah\_91 Start: 67520, Stop: 67260, Start Num: 22  
Candidate Starts for Nehemiah\_91:  
(Start: 22 @67520 has 92 MA's), (29, 67457), (49, 67289),

Gene: Neos5\_97 Start: 67484, Stop: 67248, Start Num: 22  
Candidate Starts for Neos5\_97:  
(Start: 22 @67484 has 92 MA's), (31, 67415), (43, 67316),

Gene: Nozo\_98 Start: 68037, Stop: 67801, Start Num: 22  
Candidate Starts for Nozo\_98:  
(Start: 22 @68037 has 92 MA's), (31, 67968), (43, 67869),

Gene: Obutu\_100 Start: 67841, Stop: 67605, Start Num: 22  
Candidate Starts for Obutu\_100:  
(Start: 22 @67841 has 92 MA's), (31, 67772), (40, 67691), (43, 67673),

Gene: Olivio\_98 Start: 67477, Stop: 67241, Start Num: 22  
Candidate Starts for Olivio\_98:  
(Start: 22 @67477 has 92 MA's), (31, 67408), (40, 67327), (43, 67309),

Gene: Opia\_87 Start: 65184, Stop: 64882, Start Num: 17  
Candidate Starts for Opia\_87:  
(Start: 17 @65184 has 5 MA's), (Start: 19 @65175 has 18 MA's), (Start: 22 @65139 has 92 MA's), (31, 65070),

Gene: OrangeOswald\_97 Start: 67272, Stop: 67036, Start Num: 22  
Candidate Starts for OrangeOswald\_97:  
(Start: 22 @67272 has 92 MA's), (31, 67203), (43, 67104),

Gene: Phaedrus\_93 Start: 66687, Stop: 66451, Start Num: 22  
Candidate Starts for Phaedrus\_93:  
(Start: 22 @66687 has 92 MA's), (31, 66618), (40, 66537), (43, 66519),

Gene: Phantasmagoria\_85 Start: 65121, Stop: 64864, Start Num: 22  
Candidate Starts for Phantasmagoria\_85:  
(Start: 22 @65121 has 92 MA's), (31, 65052),

Gene: Phayeta\_100 Start: 67522, Stop: 67286, Start Num: 22  
Candidate Starts for Phayeta\_100:  
(4, 67696), (6, 67642), (8, 67633), (12, 67615), (14, 67597), (18, 67564), (Start: 22 @67522 has 92 MA's), (31, 67453), (40, 67372), (43, 67354),

Gene: Phelemich\_89 Start: 67558, Stop: 67298, Start Num: 22  
Candidate Starts for Phelemich\_89:

(Start: 22 @67558 has 92 MA's), (24, 67543), (29, 67495), (49, 67327),

Gene: Philly\_97 Start: 67120, Stop: 66884, Start Num: 22

Candidate Starts for Philly\_97:

(Start: 22 @67120 has 92 MA's), (31, 67051), (40, 66970), (43, 66952),

Gene: Phlyer\_98 Start: 67976, Stop: 67746, Start Num: 22

Candidate Starts for Phlyer\_98:

(Start: 22 @67976 has 92 MA's), (31, 67913), (43, 67814),

Gene: Pipefish\_97 Start: 67656, Stop: 67420, Start Num: 22

Candidate Starts for Pipefish\_97:

(Start: 22 @67656 has 92 MA's), (31, 67587), (35, 67542), (43, 67488),

Gene: PrinceCharming\_86 Start: 65212, Stop: 64910, Start Num: 17

Candidate Starts for PrinceCharming\_86:

(Start: 17 @65212 has 5 MA's), (Start: 19 @65203 has 18 MA's), (Start: 22 @65167 has 92 MA's), (31, 65098),

Gene: Pupper\_197 Start: 136964, Stop: 137224, Start Num: 23

Candidate Starts for Pupper\_197:

(11, 136856), (Start: 23 @136964 has 4 MA's), (31, 137033), (42, 137153),

Gene: Qyrzula\_77 Start: 65297, Stop: 65004, Start Num: 19

Candidate Starts for Qyrzula\_77:

(Start: 17 @65306 has 5 MA's), (Start: 19 @65297 has 18 MA's), (Start: 22 @65261 has 92 MA's), (31, 65192),

Gene: RagingRooster\_98 Start: 67268, Stop: 67032, Start Num: 22

Candidate Starts for RagingRooster\_98:

(Start: 22 @67268 has 92 MA's), (31, 67199), (35, 67154), (43, 67100),

Gene: Reccee\_93 Start: 68010, Stop: 67741, Start Num: 22

Candidate Starts for Reccee\_93:

(Start: 22 @68010 has 92 MA's), (31, 67935), (33, 67917), (48, 67797),

Gene: Reprobate\_91 Start: 67563, Stop: 67303, Start Num: 22

Candidate Starts for Reprobate\_91:

(Start: 22 @67563 has 92 MA's), (24, 67548), (29, 67500), (49, 67332),

Gene: Rhinoforte\_86 Start: 65158, Stop: 64901, Start Num: 22

Candidate Starts for Rhinoforte\_86:

(Start: 17 @65203 has 5 MA's), (Start: 19 @65194 has 18 MA's), (Start: 22 @65158 has 92 MA's), (31, 65089),

Gene: Rich\_90 Start: 67797, Stop: 67528, Start Num: 22

Candidate Starts for Rich\_90:

(Start: 22 @67797 has 92 MA's), (31, 67722), (33, 67704), (48, 67584),

Gene: Rita130\_91 Start: 67713, Stop: 67444, Start Num: 22

Candidate Starts for Rita130\_91:

(Start: 22 @67713 has 92 MA's), (31, 67638), (33, 67620), (48, 67500),

Gene: Rita1961\_99 Start: 67613, Stop: 67377, Start Num: 22  
Candidate Starts for Rita1961\_99:  
(Start: 22 @67613 has 92 MA's), (31, 67544), (40, 67463), (43, 67445),

Gene: RomaT\_98 Start: 67836, Stop: 67600, Start Num: 22  
Candidate Starts for RomaT\_98:  
(Start: 22 @67836 has 92 MA's), (31, 67767), (40, 67686), (43, 67668),

Gene: Rosebush\_84 Start: 65230, Stop: 64973, Start Num: 22  
Candidate Starts for Rosebush\_84:  
(Start: 17 @65275 has 5 MA's), (Start: 19 @65266 has 18 MA's), (Start: 22 @65230 has 92 MA's), (31, 65161),

Gene: SCentae\_196 Start: 137156, Stop: 137416, Start Num: 23  
Candidate Starts for SCentae\_196:  
(11, 137048), (Start: 23 @137156 has 4 MA's), (31, 137225), (42, 137345),

Gene: Sabella\_86 Start: 65102, Stop: 64809, Start Num: 19  
Candidate Starts for Sabella\_86:  
(Start: 17 @65111 has 5 MA's), (Start: 19 @65102 has 18 MA's), (Start: 22 @65066 has 92 MA's), (31, 64997),

Gene: Serendipitous\_93 Start: 67738, Stop: 67469, Start Num: 22  
Candidate Starts for Serendipitous\_93:  
(Start: 22 @67738 has 92 MA's), (31, 67663), (33, 67645), (48, 67525),

Gene: Shatter\_81 Start: 59787, Stop: 59539, Start Num: 22  
Candidate Starts for Shatter\_81:  
(5, 59919), (10, 59892), (20, 59823), (Start: 22 @59787 has 92 MA's), (29, 59736), (34, 59694), (42, 59619), (50, 59553),

Gene: Shenandoah\_98 Start: 67188, Stop: 66952, Start Num: 22  
Candidate Starts for Shenandoah\_98:  
(Start: 22 @67188 has 92 MA's), (31, 67119), (43, 67020),

Gene: SirJeffery\_90 Start: 67796, Stop: 67527, Start Num: 22  
Candidate Starts for SirJeffery\_90:  
(Start: 22 @67796 has 92 MA's), (31, 67721), (33, 67703), (48, 67583),

Gene: Sisko\_79 Start: 60232, Stop: 59969, Start Num: 22  
Candidate Starts for Sisko\_79:  
(Start: 22 @60232 has 92 MA's), (46, 60028),

Gene: Skog\_28 Start: 12845, Stop: 13108, Start Num: 23  
Candidate Starts for Skog\_28:  
(Start: 23 @12845 has 4 MA's), (27, 12893), (31, 12920), (41, 13037),

Gene: SlippinJimmy\_101 Start: 68636, Stop: 68400, Start Num: 22  
Candidate Starts for SlippinJimmy\_101:  
(Start: 22 @68636 has 92 MA's), (31, 68567), (43, 68468),

Gene: Sour\_75 Start: 59915, Stop: 59661, Start Num: 22  
Candidate Starts for Sour\_75:

(1, 60173), (3, 60113), (7, 60035), (9, 60032), (Start: 22 @59915 has 92 MA's), (28, 59858), (30, 59846), (36, 59786), (41, 59744), (42, 59741), (45, 59726), (46, 59723), (50, 59675),

Gene: Suigeneris\_93 Start: 67955, Stop: 67686, Start Num: 22  
Candidate Starts for Suigeneris\_93:  
(Start: 22 @67955 has 92 MA's), (31, 67880), (33, 67862), (48, 67742),

Gene: SwainyDoc\_98 Start: 67702, Stop: 67466, Start Num: 22  
Candidate Starts for SwainyDoc\_98:  
(Start: 22 @67702 has 92 MA's), (31, 67633), (40, 67552), (43, 67534),

Gene: SynergyX\_99 Start: 67578, Stop: 67342, Start Num: 22  
Candidate Starts for SynergyX\_99:  
(Start: 22 @67578 has 92 MA's), (31, 67509), (35, 67464), (43, 67410),

Gene: TA17A\_89 Start: 65109, Stop: 64816, Start Num: 19  
Candidate Starts for TA17A\_89:  
(Start: 17 @65118 has 5 MA's), (Start: 19 @65109 has 18 MA's), (Start: 22 @65073 has 92 MA's), (31, 65004),

Gene: Tinciduntolum\_87 Start: 65273, Stop: 64980, Start Num: 19  
Candidate Starts for Tinciduntolum\_87:  
(Start: 17 @65282 has 5 MA's), (Start: 19 @65273 has 18 MA's), (Start: 22 @65237 has 92 MA's), (31, 65168),

Gene: TinyTerror\_99 Start: 67699, Stop: 67463, Start Num: 22  
Candidate Starts for TinyTerror\_99:  
(Start: 22 @67699 has 92 MA's), (31, 67630), (40, 67549), (43, 67531),

Gene: TraderJ\_81 Start: 59782, Stop: 59525, Start Num: 22  
Candidate Starts for TraderJ\_81:  
(Start: 13 @59857 has 2 MA's), (16, 59854), (20, 59818), (Start: 22 @59782 has 92 MA's), (31, 59707), (44, 59596), (47, 59572),

Gene: Tres\_86 Start: 65135, Stop: 64833, Start Num: 17  
Candidate Starts for Tres\_86:  
(Start: 17 @65135 has 5 MA's), (Start: 19 @65126 has 18 MA's), (Start: 22 @65090 has 92 MA's), (31, 65021),

Gene: Tydolla\_94 Start: 67254, Stop: 67018, Start Num: 22  
Candidate Starts for Tydolla\_94:  
(Start: 22 @67254 has 92 MA's), (31, 67185), (35, 67140), (43, 67086),

Gene: Vic9\_00084 Start: 65670, Stop: 65365, Start Num: 17  
Candidate Starts for Vic9\_00084:  
(Start: 17 @65670 has 5 MA's), (Start: 19 @65661 has 18 MA's), (Start: 22 @65625 has 92 MA's), (26, 65583), (31, 65553), (42, 65442),

Gene: West99\_86 Start: 65260, Stop: 65003, Start Num: 22  
Candidate Starts for West99\_86:  
(Start: 17 @65305 has 5 MA's), (Start: 19 @65296 has 18 MA's), (Start: 22 @65260 has 92 MA's), (31, 65191),

Gene: Wooper\_82 Start: 59772, Stop: 59515, Start Num: 22

Candidate Starts for Wooper\_82:

(Start: 13 @59847 has 2 MA's), (16, 59844), (20, 59808), (Start: 22 @59772 has 92 MA's), (25, 59748), (31, 59697), (44, 59586), (47, 59562),

Gene: Yago84\_78 Start: 59931, Stop: 59668, Start Num: 22

Candidate Starts for Yago84\_78:

(Start: 22 @59931 has 92 MA's), (46, 59727),

Gene: Yahalom\_96 Start: 67079, Stop: 66843, Start Num: 22

Candidate Starts for Yahalom\_96:

(Start: 22 @67079 has 92 MA's), (31, 67010), (35, 66965), (43, 66911),

Gene: Yeshua\_81 Start: 59748, Stop: 59491, Start Num: 22

Candidate Starts for Yeshua\_81:

(Start: 13 @59823 has 2 MA's), (16, 59820), (20, 59784), (Start: 22 @59748 has 92 MA's), (25, 59724), (31, 59673), (44, 59562), (47, 59538),

Gene: Yinz\_96 Start: 66680, Stop: 66444, Start Num: 22

Candidate Starts for Yinz\_96:

(Start: 22 @66680 has 92 MA's), (31, 66611), (40, 66530), (43, 66512),