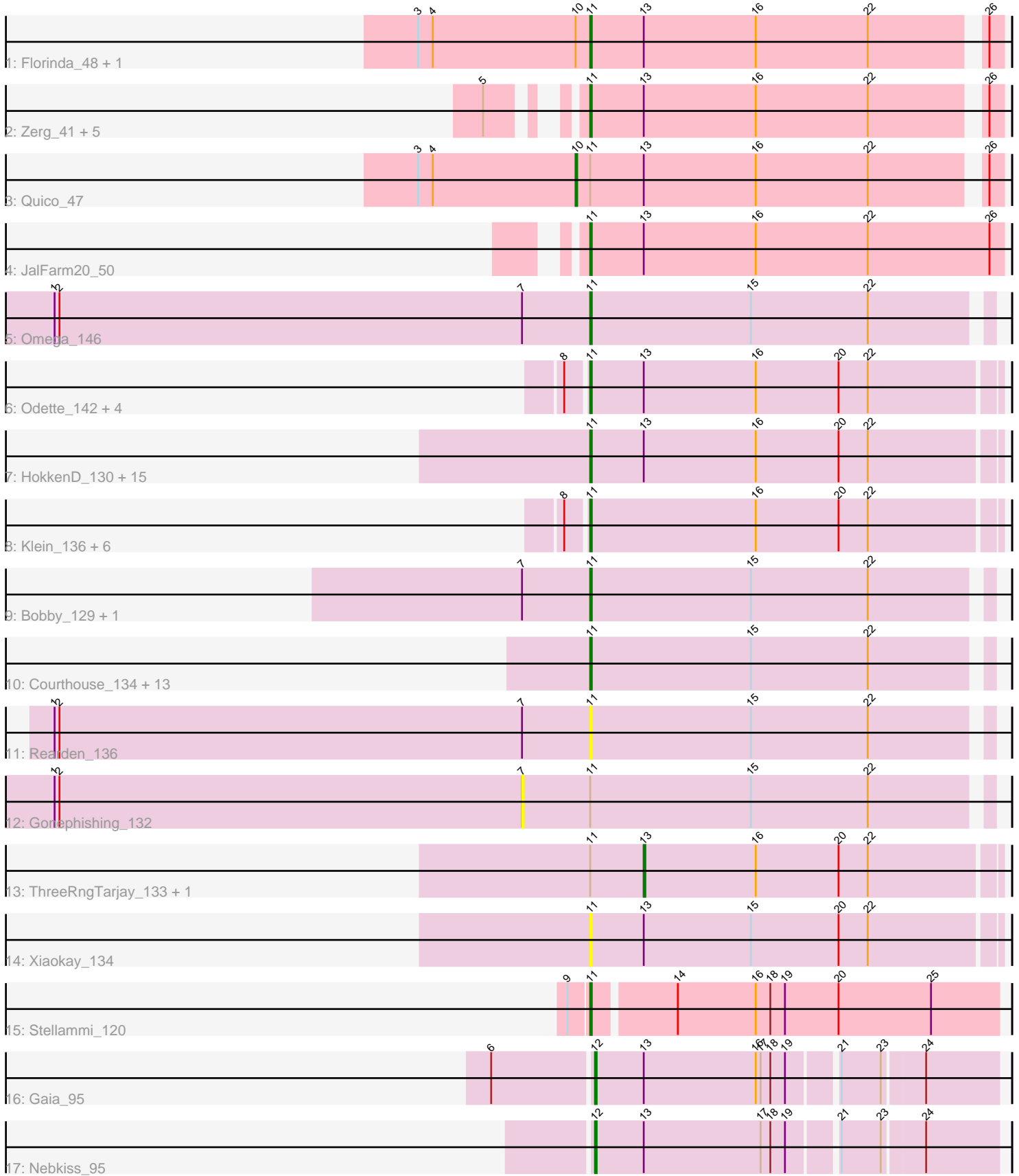


# Pham 301392



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 301392 Report

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

Pham number 301392 has 63 members, 10 are drafts.

Phages represented in each track:

- Track 1 : Florinda\_48, Girafales\_48
- Track 2 : Zerg\_41, Spikelee\_45, RockyHorror\_42, SiSi\_41, DaWorst\_44, Hamulus\_41
- Track 3 : Quico\_47
- Track 4 : JalFarm20\_50
- Track 5 : Omega\_146
- Track 6 : Odette\_142, Dove\_124, Duke13\_134, Schatzie\_134, DmpstrDiver\_139
- Track 7 : HokkenD\_130, Beem\_140, Thibault\_122, EricMillard\_130, Constella\_132, Dallas\_139, Phoebus\_138, Halley\_140, Bombitas\_126, Hughesyang\_137, Redno2\_130, JuicyJay\_134, Yeet\_131, Optimus\_129, Ejimix\_131, NihilNomen\_140
- Track 8 : Klein\_136, Minerva\_138, Pound\_126, Bagrid\_139, Kalah2\_129, Wanda\_138, Zelink\_133
- Track 9 : Bobby\_129, Hidrated\_125
- Track 10 : Courthouse\_134, Porcelain\_135, Lucky2013\_131, Nibley\_134, Nekros\_139, BronnyJames\_135, Squint\_135, LittleE\_141, Hannaconda\_130, MiaZeal\_138, Superphikiman\_136, Ariel\_138, Shaboozey\_138, KashFlow\_135
- Track 11 : Rearden\_136
- Track 12 : Gonephishing\_132
- Track 13 : ThreeRngTarjay\_133, BAKA\_138
- Track 14 : Xiaokay\_134
- Track 15 : Stellammi\_120
- Track 16 : Gaia\_95
- Track 17 : Nebkiss\_95

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

The start number called the most often in the published annotations is 11, it was called in 48 of the 53 non-draft genes in the pham.

Genes that call this "Most Annotated" start:

- Ariel\_138, Bagrid\_139, Beem\_140, Bobby\_129, Bombitas\_126, BronnyJames\_135, Constella\_132, Courthouse\_134, DaWorst\_44, Dallas\_139, DmpstrDiver\_139, Dove\_124, Duke13\_134, Ejimix\_131, EricMillard\_130, Florinda\_48, Girafales\_48, Halley\_140, Hamulus\_41, Hannaconda\_130, Hidrated\_125, HokkenD\_130,

Hughesyang\_137, JalFarm20\_50, JuicyJay\_134, Kalah2\_129, KashFlow\_135, Klein\_136, LittleE\_141, Lucky2013\_131, MiaZeal\_138, Minerva\_138, Nekros\_139, Nibley\_134, NihilNomen\_140, Odette\_142, Omega\_146, Optimus\_129, Phoebus\_138, Porcelain\_135, Pound\_126, Rearden\_136, Redno2\_130, RockyHorror\_42, Schatzie\_134, Shaboozey\_138, SiSi\_41, Spikelee\_45, Squint\_135, Stellammi\_120, Superphikiman\_136, Thibault\_122, Wanda\_138, Xiaokay\_134, Yeet\_131, Zelink\_133, Zerg\_41,

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

- BAKA\_138, Gonephishing\_132, Quico\_47, ThreeRngTarjay\_133,

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

- Gaia\_95, Nebkiss\_95,

### Summary by start number:

Start 7:

- Found in 5 of 63 ( 7.9% ) of genes in pham
- No Manual Annotations of this start.
- Called 20.0% of time when present
- Phage (with cluster) where this start called: Gonephishing\_132 (J),

Start 10:

- Found in 3 of 63 ( 4.8% ) of genes in pham
- Manual Annotations of this start: 1 of 53
- Called 33.3% of time when present
- Phage (with cluster) where this start called: Quico\_47 (F1),

Start 11:

- Found in 61 of 63 ( 96.8% ) of genes in pham
- Manual Annotations of this start: 48 of 53
- Called 93.4% of time when present
- Phage (with cluster) where this start called: Ariel\_138 (J), Bagrid\_139 (J), Beem\_140 (J), Bobby\_129 (J), Bombitas\_126 (J), BronnyJames\_135 (J), Constella\_132 (J), Courthouse\_134 (J), DaWorst\_44 (F1), Dallas\_139 (J), DmpstrDiver\_139 (J), Dove\_124 (J), Duke13\_134 (J), Ejimix\_131 (J), EricMillard\_130 (J), Florinda\_48 (F1), Girafales\_48 (F1), Halley\_140 (J), Hamulus\_41 (F1), Hannaconda\_130 (J), Hidrated\_125 (J), HokkenD\_130 (J), Hughesyang\_137 (J), JalFarm20\_50 (F1), JuicyJay\_134 (J), Kalah2\_129 (J), KashFlow\_135 (J), Klein\_136 (J), LittleE\_141 (J), Lucky2013\_131 (J), MiaZeal\_138 (J), Minerva\_138 (J), Nekros\_139 (J), Nibley\_134 (J), NihilNomen\_140 (J), Odette\_142 (J), Omega\_146 (J), Optimus\_129 (J), Phoebus\_138 (J), Porcelain\_135 (J), Pound\_126 (J), Rearden\_136 (J), Redno2\_130 (J), RockyHorror\_42 (F1), Schatzie\_134 (J), Shaboozey\_138 (J), SiSi\_41 (F1), Spikelee\_45 (F1), Squint\_135 (J), Stellammi\_120 (UNK), Superphikiman\_136 (J), Thibault\_122 (J), Wanda\_138 (J), Xiaokay\_134 (J), Yeet\_131 (J), Zelink\_133 (J), Zerg\_41 (F1),

Start 12:

- Found in 2 of 63 ( 3.2% ) of genes in pham
- Manual Annotations of this start: 2 of 53
- Called 100.0% of time when present
- Phage (with cluster) where this start called: Gaia\_95 (X), Nebkiss\_95 (X),

Start 13:

- Found in 36 of 63 ( 57.1% ) of genes in pham
- Manual Annotations of this start: 2 of 53
- Called 5.6% of time when present
- Phage (with cluster) where this start called: BAKA\_138 (J), ThreeRngTarjay\_133 (J),

### **Summary by clusters:**

There are 4 clusters represented in this pham: F1, UNK, J, X,

Info for manual annotations of cluster F1:

- Start number 10 was manually annotated 1 time for cluster F1.
- Start number 11 was manually annotated 9 times for cluster F1.

Info for manual annotations of cluster J:

- Start number 11 was manually annotated 38 times for cluster J.
- Start number 13 was manually annotated 2 times for cluster J.

Info for manual annotations of cluster UNK:

- Start number 11 was manually annotated 1 time for cluster UNK.

Info for manual annotations of cluster X:

- Start number 12 was manually annotated 2 times for cluster X.

### **Gene Information:**

Gene: Ariel\_138 Start: 71962, Stop: 72201, Start Num: 11

Candidate Starts for Ariel\_138:

(Start: 11 @71962 has 48 MA's), (15, 72061), (22, 72133),

Gene: BAKA\_138 Start: 74557, Stop: 74772, Start Num: 13

Candidate Starts for BAKA\_138:

(Start: 11 @74524 has 48 MA's), (Start: 13 @74557 has 2 MA's), (16, 74626), (20, 74677), (22, 74695),

Gene: Bagrid\_139 Start: 75219, Stop: 75467, Start Num: 11

Candidate Starts for Bagrid\_139:

(8, 75207), (Start: 11 @75219 has 48 MA's), (16, 75321), (20, 75372), (22, 75390),

Gene: Beem\_140 Start: 76122, Stop: 76370, Start Num: 11

Candidate Starts for Beem\_140:

(Start: 11 @76122 has 48 MA's), (Start: 13 @76155 has 2 MA's), (16, 76224), (20, 76275), (22, 76293),

Gene: Bobby\_129 Start: 76161, Stop: 76400, Start Num: 11

Candidate Starts for Bobby\_129:

(7, 76119), (Start: 11 @76161 has 48 MA's), (15, 76260), (22, 76332),

Gene: Bombitas\_126 Start: 73533, Stop: 73781, Start Num: 11

Candidate Starts for Bombitas\_126:

(Start: 11 @73533 has 48 MA's), (Start: 13 @73566 has 2 MA's), (16, 73635), (20, 73686), (22, 73704),

Gene: BronnyJames\_135 Start: 73230, Stop: 73469, Start Num: 11

Candidate Starts for BronnyJames\_135:  
(Start: 11 @73230 has 48 MA's), (15, 73329), (22, 73401),

Gene: Constella\_132 Start: 74775, Stop: 75023, Start Num: 11  
Candidate Starts for Constella\_132:  
(Start: 11 @74775 has 48 MA's), (Start: 13 @74808 has 2 MA's), (16, 74877), (20, 74928), (22, 74946),

Gene: Courthouse\_134 Start: 71820, Stop: 72059, Start Num: 11  
Candidate Starts for Courthouse\_134:  
(Start: 11 @71820 has 48 MA's), (15, 71919), (22, 71991),

Gene: DaWorst\_44 Start: 32262, Stop: 32020, Start Num: 11  
Candidate Starts for DaWorst\_44:  
(5, 32298), (Start: 11 @32262 has 48 MA's), (Start: 13 @32229 has 2 MA's), (16, 32160), (22, 32091),  
(26, 32028),

Gene: Dallas\_139 Start: 75589, Stop: 75837, Start Num: 11  
Candidate Starts for Dallas\_139:  
(Start: 11 @75589 has 48 MA's), (Start: 13 @75622 has 2 MA's), (16, 75691), (20, 75742), (22, 75760),

Gene: DmpstrDiver\_139 Start: 75508, Stop: 75756, Start Num: 11  
Candidate Starts for DmpstrDiver\_139:  
(8, 75496), (Start: 11 @75508 has 48 MA's), (Start: 13 @75541 has 2 MA's), (16, 75610), (20, 75661),  
(22, 75679),

Gene: Dove\_124 Start: 71107, Stop: 71355, Start Num: 11  
Candidate Starts for Dove\_124:  
(8, 71095), (Start: 11 @71107 has 48 MA's), (Start: 13 @71140 has 2 MA's), (16, 71209), (20, 71260),  
(22, 71278),

Gene: Duke13\_134 Start: 72809, Stop: 73057, Start Num: 11  
Candidate Starts for Duke13\_134:  
(8, 72797), (Start: 11 @72809 has 48 MA's), (Start: 13 @72842 has 2 MA's), (16, 72911), (20, 72962),  
(22, 72980),

Gene: Ejimix\_131 Start: 75657, Stop: 75905, Start Num: 11  
Candidate Starts for Ejimix\_131:  
(Start: 11 @75657 has 48 MA's), (Start: 13 @75690 has 2 MA's), (16, 75759), (20, 75810), (22, 75828),

Gene: EricMillard\_130 Start: 74161, Stop: 74409, Start Num: 11  
Candidate Starts for EricMillard\_130:  
(Start: 11 @74161 has 48 MA's), (Start: 13 @74194 has 2 MA's), (16, 74263), (20, 74314), (22, 74332),

Gene: Florinda\_48 Start: 32451, Stop: 32209, Start Num: 11  
Candidate Starts for Florinda\_48:  
(3, 32556), (4, 32547), (Start: 10 @32460 has 1 MA's), (Start: 11 @32451 has 48 MA's), (Start: 13  
@32418 has 2 MA's), (16, 32349), (22, 32280), (26, 32217),

Gene: Gaia\_95 Start: 56901, Stop: 57137, Start Num: 12  
Candidate Starts for Gaia\_95:  
(6, 56841), (Start: 12 @56901 has 2 MA's), (Start: 13 @56931 has 2 MA's), (16, 57000), (17, 57003),  
(18, 57009), (19, 57018), (21, 57045), (23, 57069), (24, 57093),

Gene: Girafales\_48 Start: 32259, Stop: 32017, Start Num: 11  
Candidate Starts for Girafales\_48:  
(3, 32364), (4, 32355), (Start: 10 @32268 has 1 MA's), (Start: 11 @32259 has 48 MA's), (Start: 13 @32226 has 2 MA's), (16, 32157), (22, 32088), (26, 32025),

Gene: Gonephishing\_132 Start: 71906, Stop: 72187, Start Num: 7  
Candidate Starts for Gonephishing\_132:  
(1, 71618), (2, 71621), (7, 71906), (Start: 11 @71948 has 48 MA's), (15, 72047), (22, 72119),

Gene: Halley\_140 Start: 75973, Stop: 76221, Start Num: 11  
Candidate Starts for Halley\_140:  
(Start: 11 @75973 has 48 MA's), (Start: 13 @76006 has 2 MA's), (16, 76075), (20, 76126), (22, 76144),

Gene: Hamulus\_41 Start: 32432, Stop: 32190, Start Num: 11  
Candidate Starts for Hamulus\_41:  
(5, 32468), (Start: 11 @32432 has 48 MA's), (Start: 13 @32399 has 2 MA's), (16, 32330), (22, 32261), (26, 32198),

Gene: Hannaconda\_130 Start: 71975, Stop: 72223, Start Num: 11  
Candidate Starts for Hannaconda\_130:  
(Start: 11 @71975 has 48 MA's), (15, 72074), (22, 72146),

Gene: Hidrated\_125 Start: 74494, Stop: 74733, Start Num: 11  
Candidate Starts for Hidrated\_125:  
(7, 74452), (Start: 11 @74494 has 48 MA's), (15, 74593), (22, 74665),

Gene: HokkenD\_130 Start: 74857, Stop: 75105, Start Num: 11  
Candidate Starts for HokkenD\_130:  
(Start: 11 @74857 has 48 MA's), (Start: 13 @74890 has 2 MA's), (16, 74959), (20, 75010), (22, 75028),

Gene: Hughesyang\_137 Start: 75743, Stop: 75991, Start Num: 11  
Candidate Starts for Hughesyang\_137:  
(Start: 11 @75743 has 48 MA's), (Start: 13 @75776 has 2 MA's), (16, 75845), (20, 75896), (22, 75914),

Gene: JalFarm20\_50 Start: 34050, Stop: 33796, Start Num: 11  
Candidate Starts for JalFarm20\_50:  
(Start: 11 @34050 has 48 MA's), (Start: 13 @34017 has 2 MA's), (16, 33948), (22, 33879), (26, 33804),

Gene: JuicyJay\_134 Start: 77258, Stop: 77506, Start Num: 11  
Candidate Starts for JuicyJay\_134:  
(Start: 11 @77258 has 48 MA's), (Start: 13 @77291 has 2 MA's), (16, 77360), (20, 77411), (22, 77429),

Gene: Kalah2\_129 Start: 74864, Stop: 75112, Start Num: 11  
Candidate Starts for Kalah2\_129:  
(8, 74852), (Start: 11 @74864 has 48 MA's), (16, 74966), (20, 75017), (22, 75035),

Gene: KashFlow\_135 Start: 73553, Stop: 73801, Start Num: 11  
Candidate Starts for KashFlow\_135:  
(Start: 11 @73553 has 48 MA's), (15, 73652), (22, 73724),

Gene: Klein\_136 Start: 73466, Stop: 73714, Start Num: 11  
Candidate Starts for Klein\_136:  
(8, 73454), (Start: 11 @73466 has 48 MA's), (16, 73568), (20, 73619), (22, 73637),

Gene: LittleE\_141 Start: 74804, Stop: 75043, Start Num: 11

Candidate Starts for LittleE\_141:

(Start: 11 @74804 has 48 MA's), (15, 74903), (22, 74975),

Gene: Lucky2013\_131 Start: 71681, Stop: 71929, Start Num: 11

Candidate Starts for Lucky2013\_131:

(Start: 11 @71681 has 48 MA's), (15, 71780), (22, 71852),

Gene: MiaZeal\_138 Start: 72820, Stop: 73068, Start Num: 11

Candidate Starts for MiaZeal\_138:

(Start: 11 @72820 has 48 MA's), (15, 72919), (22, 72991),

Gene: Minerva\_138 Start: 74915, Stop: 75163, Start Num: 11

Candidate Starts for Minerva\_138:

(8, 74903), (Start: 11 @74915 has 48 MA's), (16, 75017), (20, 75068), (22, 75086),

Gene: Nebkiss\_95 Start: 55825, Stop: 56061, Start Num: 12

Candidate Starts for Nebkiss\_95:

(Start: 12 @55825 has 2 MA's), (Start: 13 @55855 has 2 MA's), (17, 55927), (18, 55933), (19, 55942), (21, 55969), (23, 55993), (24, 56017),

Gene: Nekros\_139 Start: 76128, Stop: 76367, Start Num: 11

Candidate Starts for Nekros\_139:

(Start: 11 @76128 has 48 MA's), (15, 76227), (22, 76299),

Gene: Nibley\_134 Start: 72807, Stop: 73046, Start Num: 11

Candidate Starts for Nibley\_134:

(Start: 11 @72807 has 48 MA's), (15, 72906), (22, 72978),

Gene: NihilNomen\_140 Start: 75203, Stop: 75451, Start Num: 11

Candidate Starts for NihilNomen\_140:

(Start: 11 @75203 has 48 MA's), (Start: 13 @75236 has 2 MA's), (16, 75305), (20, 75356), (22, 75374),

Gene: Odette\_142 Start: 77346, Stop: 77594, Start Num: 11

Candidate Starts for Odette\_142:

(8, 77334), (Start: 11 @77346 has 48 MA's), (Start: 13 @77379 has 2 MA's), (16, 77448), (20, 77499), (22, 77517),

Gene: Omega\_146 Start: 76289, Stop: 76528, Start Num: 11

Candidate Starts for Omega\_146:

(1, 75959), (2, 75962), (7, 76247), (Start: 11 @76289 has 48 MA's), (15, 76388), (22, 76460),

Gene: Optimus\_129 Start: 72483, Stop: 72731, Start Num: 11

Candidate Starts for Optimus\_129:

(Start: 11 @72483 has 48 MA's), (Start: 13 @72516 has 2 MA's), (16, 72585), (20, 72636), (22, 72654),

Gene: Phoebus\_138 Start: 77097, Stop: 77345, Start Num: 11

Candidate Starts for Phoebus\_138:

(Start: 11 @77097 has 48 MA's), (Start: 13 @77130 has 2 MA's), (16, 77199), (20, 77250), (22, 77268),

Gene: Porcelain\_135 Start: 72627, Stop: 72875, Start Num: 11

Candidate Starts for Porcelain\_135:

(Start: 11 @72627 has 48 MA's), (15, 72726), (22, 72798),

Gene: Pound\_126 Start: 73795, Stop: 74043, Start Num: 11

Candidate Starts for Pound\_126:

(8, 73783), (Start: 11 @73795 has 48 MA's), (16, 73897), (20, 73948), (22, 73966),

Gene: Quico\_47 Start: 32268, Stop: 32017, Start Num: 10

Candidate Starts for Quico\_47:

(3, 32364), (4, 32355), (Start: 10 @32268 has 1 MA's), (Start: 11 @32259 has 48 MA's), (Start: 13 @32226 has 2 MA's), (16, 32157), (22, 32088), (26, 32025),

Gene: Rearden\_136 Start: 73506, Stop: 73745, Start Num: 11

Candidate Starts for Rearden\_136:

(1, 73176), (2, 73179), (7, 73464), (Start: 11 @73506 has 48 MA's), (15, 73605), (22, 73677),

Gene: Redno2\_130 Start: 72485, Stop: 72733, Start Num: 11

Candidate Starts for Redno2\_130:

(Start: 11 @72485 has 48 MA's), (Start: 13 @72518 has 2 MA's), (16, 72587), (20, 72638), (22, 72656),

Gene: RockyHorror\_42 Start: 31287, Stop: 31045, Start Num: 11

Candidate Starts for RockyHorror\_42:

(5, 31323), (Start: 11 @31287 has 48 MA's), (Start: 13 @31254 has 2 MA's), (16, 31185), (22, 31116), (26, 31053),

Gene: Schatzie\_134 Start: 75765, Stop: 76013, Start Num: 11

Candidate Starts for Schatzie\_134:

(8, 75753), (Start: 11 @75765 has 48 MA's), (Start: 13 @75798 has 2 MA's), (16, 75867), (20, 75918), (22, 75936),

Gene: Shaboozey\_138 Start: 73251, Stop: 73490, Start Num: 11

Candidate Starts for Shaboozey\_138:

(Start: 11 @73251 has 48 MA's), (15, 73350), (22, 73422),

Gene: SiSi\_41 Start: 31421, Stop: 31179, Start Num: 11

Candidate Starts for SiSi\_41:

(5, 31457), (Start: 11 @31421 has 48 MA's), (Start: 13 @31388 has 2 MA's), (16, 31319), (22, 31250), (26, 31187),

Gene: Spikelee\_45 Start: 32427, Stop: 32185, Start Num: 11

Candidate Starts for Spikelee\_45:

(5, 32463), (Start: 11 @32427 has 48 MA's), (Start: 13 @32394 has 2 MA's), (16, 32325), (22, 32256), (26, 32193),

Gene: Squint\_135 Start: 72886, Stop: 73125, Start Num: 11

Candidate Starts for Squint\_135:

(Start: 11 @72886 has 48 MA's), (15, 72985), (22, 73057),

Gene: Stellammi\_120 Start: 59305, Stop: 59550, Start Num: 11

Candidate Starts for Stellammi\_120:

(9, 59293), (Start: 11 @59305 has 48 MA's), (14, 59353), (16, 59401), (18, 59410), (19, 59419), (20, 59452), (25, 59509),

Gene: Superphikiman\_136 Start: 72102, Stop: 72341, Start Num: 11

Candidate Starts for Superphikiman\_136:  
(Start: 11 @72102 has 48 MA's), (15, 72201), (22, 72273),

Gene: Thibault\_122 Start: 72407, Stop: 72655, Start Num: 11  
Candidate Starts for Thibault\_122:  
(Start: 11 @72407 has 48 MA's), (Start: 13 @72440 has 2 MA's), (16, 72509), (20, 72560), (22, 72578),

Gene: ThreeRngTarjay\_133 Start: 75721, Stop: 75936, Start Num: 13  
Candidate Starts for ThreeRngTarjay\_133:  
(Start: 11 @75688 has 48 MA's), (Start: 13 @75721 has 2 MA's), (16, 75790), (20, 75841), (22, 75859),

Gene: Wanda\_138 Start: 73395, Stop: 73643, Start Num: 11  
Candidate Starts for Wanda\_138:  
(8, 73383), (Start: 11 @73395 has 48 MA's), (16, 73497), (20, 73548), (22, 73566),

Gene: Xiaokay\_134 Start: 75221, Stop: 75469, Start Num: 11  
Candidate Starts for Xiaokay\_134:  
(Start: 11 @75221 has 48 MA's), (Start: 13 @75254 has 2 MA's), (15, 75320), (20, 75374), (22, 75392),

Gene: Yeet\_131 Start: 74886, Stop: 75134, Start Num: 11  
Candidate Starts for Yeet\_131:  
(Start: 11 @74886 has 48 MA's), (Start: 13 @74919 has 2 MA's), (16, 74988), (20, 75039), (22, 75057),

Gene: Zelink\_133 Start: 76207, Stop: 76455, Start Num: 11  
Candidate Starts for Zelink\_133:  
(8, 76195), (Start: 11 @76207 has 48 MA's), (16, 76309), (20, 76360), (22, 76378),

Gene: Zerg\_41 Start: 31396, Stop: 31154, Start Num: 11  
Candidate Starts for Zerg\_41:  
(5, 31432), (Start: 11 @31396 has 48 MA's), (Start: 13 @31363 has 2 MA's), (16, 31294), (22, 31225),  
(26, 31162),