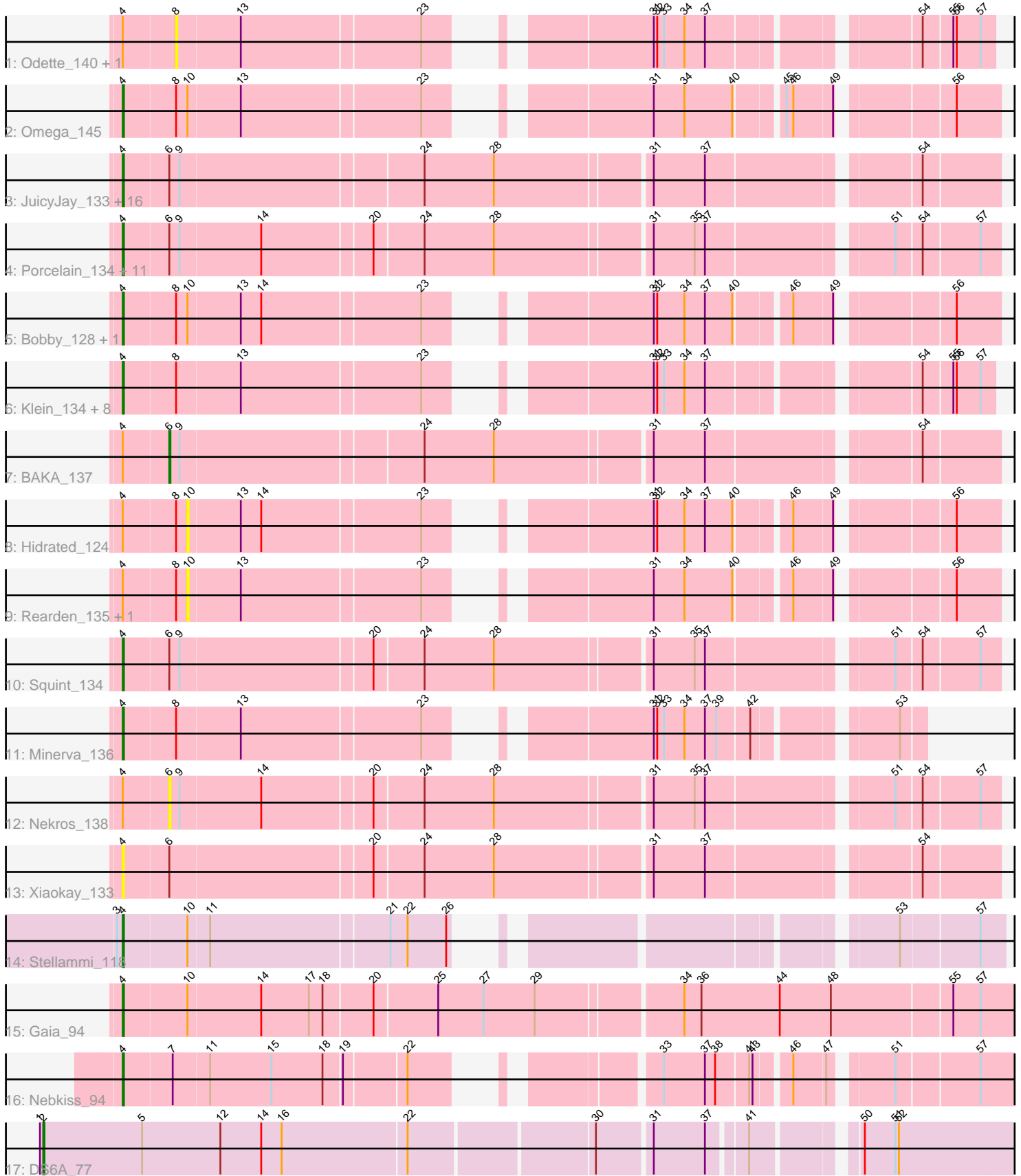


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Note: Tracks are now grouped by subcluster and scaled. Switching in subcluster is indicated by changes in track color. Track scale is now set by default to display the region 30 bp upstream of start 1 to 30 bp downstream of the last possible start. 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 308698 Report

This analysis was run 06/27/26 on database version 652.

Pham number 308698 has 55 members, 11 are drafts.

Phages represented in each track:

- Track 1 : Odette\_140, Bagrid\_137
- Track 2 : Omega\_145
- Track 3 : JuicyJay\_133, Redno2\_129, EricMillard\_129, Thibault\_121, Dallas\_138, Phoebus\_137, ThreeRngTarjay\_132, Constella\_131, Halley\_139, NihilNomen\_139, Beem\_139, HokkenD\_129, Bombitas\_125, Optimus\_128, Hughesyang\_136, Yeet\_130, Ejimix\_130
- Track 4 : Porcelain\_134, Hannaconda\_129, Courthouse\_133, Nibley\_133, Lucky2013\_130, Shaboozey\_137, Superphikiman\_135, BronnyJames\_134, MiaZeal\_137, LittleE\_140, Ariel\_137, KashFlow\_134
- Track 5 : Bobby\_128, Marleymoo\_121
- Track 6 : Klein\_134, Dove\_122, Duke13\_132, Pound\_124, Schatzie\_132, Kalah2\_127, DmpstrDiver\_137, Wanda\_136, Zelink\_131
- Track 7 : BAKA\_137
- Track 8 : Hidrated\_124
- Track 9 : Rearden\_135, Gonephishing\_131
- Track 10 : Squint\_134
- Track 11 : Minerva\_136
- Track 12 : Nekros\_138
- Track 13 : Xiaokay\_133
- Track 14 : Stellammi\_118
- Track 15 : Gaia\_94
- Track 16 : Nebkiss\_94
- Track 17 : DS6A\_77

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

The start number called the most often in the published annotations is 4, it was called in 42 of the 44 non-draft genes in the pham.

Genes that call this "Most Annotated" start:

- Ariel\_137, Beem\_139, Bobby\_128, Bombitas\_125, BronnyJames\_134, Constella\_131, Courthouse\_133, Dallas\_138, DmpstrDiver\_137, Dove\_122, Duke13\_132, Ejimix\_130, EricMillard\_129, Gaia\_94, Halley\_139, Hannaconda\_129, HokkenD\_129, Hughesyang\_136, JuicyJay\_133, Kalah2\_127, KashFlow\_134,

Klein\_134, LittleE\_140, Lucky2013\_130, Marleymoo\_121, MiaZeal\_137, Minerva\_136, Nebkiss\_94, Nibley\_133, NihilNomen\_139, Omega\_145, Optimus\_128, Phoebus\_137, Porcelain\_134, Pound\_124, Redno2\_129, Schatzie\_132, Shaboozey\_137, Squint\_134, Stellammi\_118, Superphikiman\_135, Thibault\_121, ThreeRngTarjay\_132, Wanda\_136, Xiaokay\_133, Yeet\_130, Zelink\_131,

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

- BAKA\_137, Bagrid\_137, Gonephishing\_131, Hidrated\_124, Nekros\_138, Odette\_140, Rearden\_135,

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

- DS6A\_77,

### Summary by start number:

Start 2:

- Found in 1 of 55 ( 1.8% ) of genes in pham
- Manual Annotations of this start: 1 of 44
- Called 100.0% of time when present
- Phage (with cluster) where this start called: DS6A\_77 (singleton),

Start 4:

- Found in 54 of 55 ( 98.2% ) of genes in pham
- Manual Annotations of this start: 42 of 44
- Called 87.0% of time when present
- Phage (with cluster) where this start called: Ariel\_137 (J), Beem\_139 (J), Bobby\_128 (J), Bombitas\_125 (J), BronnyJames\_134 (J), Constella\_131 (J), Courthouse\_133 (J), Dallas\_138 (J), DmpstrDiver\_137 (J), Dove\_122 (J), Duke13\_132 (J), Ejimix\_130 (J), EricMillard\_129 (J), Gaia\_94 (X), Halley\_139 (J), Hannaconda\_129 (J), HokkenD\_129 (J), Hughesyang\_136 (J), JuicyJay\_133 (J), Kalah2\_127 (J), KashFlow\_134 (J), Klein\_134 (J), LittleE\_140 (J), Lucky2013\_130 (J), Marleymoo\_121 (J), MiaZeal\_137 (J), Minerva\_136 (J), Nebkiss\_94 (X), Nibley\_133 (J), NihilNomen\_139 (J), Omega\_145 (J), Optimus\_128 (J), Phoebus\_137 (J), Porcelain\_134 (J), Pound\_124 (J), Redno2\_129 (J), Schatzie\_132 (J), Shaboozey\_137 (J), Squint\_134 (J), Stellammi\_118 (UNK), Superphikiman\_135 (J), Thibault\_121 (J), ThreeRngTarjay\_132 (J), Wanda\_136 (J), Xiaokay\_133 (J), Yeet\_130 (J), Zelink\_131 (J),

Start 6:

- Found in 33 of 55 ( 60.0% ) of genes in pham
- Manual Annotations of this start: 1 of 44
- Called 6.1% of time when present
- Phage (with cluster) where this start called: BAKA\_137 (J), Nekros\_138 (J),

Start 8:

- Found in 18 of 55 ( 32.7% ) of genes in pham
- No Manual Annotations of this start.
- Called 11.1% of time when present
- Phage (with cluster) where this start called: Bagrid\_137 (J), Odette\_140 (J),

Start 10:

- Found in 8 of 55 ( 14.5% ) of genes in pham
- No Manual Annotations of this start.

- Called 37.5% of time when present
- Phage (with cluster) where this start called: Gonephishing\_131 (J), Hidrated\_124 (J), Rearden\_135 (J),

### **Summary by clusters:**

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

Info for manual annotations of cluster J:

- Start number 4 was manually annotated 39 times for cluster J.
- Start number 6 was manually annotated 1 time for cluster J.

Info for manual annotations of cluster UNK:

- Start number 4 was manually annotated 1 time for cluster UNK.

Info for manual annotations of cluster X:

- Start number 4 was manually annotated 2 times for cluster X.

### **Gene Information:**

Gene: Ariel\_137 Start: 71246, Stop: 71965, Start Num: 4

Candidate Starts for Ariel\_137:

(Start: 4 @71246 has 42 MA's), (Start: 6 @71285 has 1 MA's), (9, 71294), (14, 71363), (20, 71456), (24, 71498), (28, 71558), (31, 71687), (35, 71723), (37, 71732), (51, 71879), (54, 71900), (57, 71948),

Gene: BAKA\_137 Start: 73847, Stop: 74527, Start Num: 6

Candidate Starts for BAKA\_137:

(Start: 4 @73808 has 42 MA's), (Start: 6 @73847 has 1 MA's), (9, 73856), (24, 74060), (28, 74120), (31, 74249), (37, 74294), (54, 74462),

Gene: Bagrid\_137 Start: 73967, Stop: 74575, Start Num: 8

Candidate Starts for Bagrid\_137:

(Start: 4 @73922 has 42 MA's), (8, 73967), (13, 74021), (23, 74174), (31, 74312), (32, 74315), (33, 74321), (34, 74339), (37, 74357), (54, 74516), (55, 74540), (56, 74543), (57, 74564),

Gene: Beem\_139 Start: 75406, Stop: 76125, Start Num: 4

Candidate Starts for Beem\_139:

(Start: 4 @75406 has 42 MA's), (Start: 6 @75445 has 1 MA's), (9, 75454), (24, 75658), (28, 75718), (31, 75847), (37, 75892), (54, 76060),

Gene: Bobby\_128 Start: 75505, Stop: 76164, Start Num: 4

Candidate Starts for Bobby\_128:

(Start: 4 @75505 has 42 MA's), (8, 75550), (10, 75559), (13, 75604), (14, 75622), (23, 75757), (31, 75895), (32, 75898), (34, 75922), (37, 75940), (40, 75964), (46, 76006), (49, 76039), (56, 76126),

Gene: Bombitas\_125 Start: 72817, Stop: 73536, Start Num: 4

Candidate Starts for Bombitas\_125:

(Start: 4 @72817 has 42 MA's), (Start: 6 @72856 has 1 MA's), (9, 72865), (24, 73069), (28, 73129), (31, 73258), (37, 73303), (54, 73471),

Gene: BronnyJames\_134 Start: 72514, Stop: 73233, Start Num: 4

Candidate Starts for BronnyJames\_134:

(Start: 4 @72514 has 42 MA's), (Start: 6 @72553 has 1 MA's), (9, 72562), (14, 72631), (20, 72724), (24, 72766), (28, 72826), (31, 72955), (35, 72991), (37, 73000), (51, 73147), (54, 73168), (57, 73216),

Gene: Constella\_131 Start: 74059, Stop: 74778, Start Num: 4

Candidate Starts for Constella\_131:

(Start: 4 @74059 has 42 MA's), (Start: 6 @74098 has 1 MA's), (9, 74107), (24, 74311), (28, 74371), (31, 74500), (37, 74545), (54, 74713),

Gene: Courthouse\_133 Start: 71104, Stop: 71823, Start Num: 4

Candidate Starts for Courthouse\_133:

(Start: 4 @71104 has 42 MA's), (Start: 6 @71143 has 1 MA's), (9, 71152), (14, 71221), (20, 71314), (24, 71356), (28, 71416), (31, 71545), (35, 71581), (37, 71590), (51, 71737), (54, 71758), (57, 71806),

Gene: DS6A\_77 Start: 50506, Stop: 51303, Start Num: 2

Candidate Starts for DS6A\_77:

(1, 50503), (Start: 2 @50506 has 1 MA's), (5, 50593), (12, 50662), (14, 50698), (16, 50716), (22, 50824), (30, 50977), (31, 51022), (37, 51067), (41, 51097), (50, 51175), (51, 51202), (52, 51205),

Gene: Dallas\_138 Start: 74873, Stop: 75592, Start Num: 4

Candidate Starts for Dallas\_138:

(Start: 4 @74873 has 42 MA's), (Start: 6 @74912 has 1 MA's), (9, 74921), (24, 75125), (28, 75185), (31, 75314), (37, 75359), (54, 75527),

Gene: DmpstrDiver\_137 Start: 74211, Stop: 74864, Start Num: 4

Candidate Starts for DmpstrDiver\_137:

(Start: 4 @74211 has 42 MA's), (8, 74256), (13, 74310), (23, 74463), (31, 74601), (32, 74604), (33, 74610), (34, 74628), (37, 74646), (54, 74805), (55, 74829), (56, 74832), (57, 74853),

Gene: Dove\_122 Start: 69810, Stop: 70463, Start Num: 4

Candidate Starts for Dove\_122:

(Start: 4 @69810 has 42 MA's), (8, 69855), (13, 69909), (23, 70062), (31, 70200), (32, 70203), (33, 70209), (34, 70227), (37, 70245), (54, 70404), (55, 70428), (56, 70431), (57, 70452),

Gene: Duke13\_132 Start: 71512, Stop: 72165, Start Num: 4

Candidate Starts for Duke13\_132:

(Start: 4 @71512 has 42 MA's), (8, 71557), (13, 71611), (23, 71764), (31, 71902), (32, 71905), (33, 71911), (34, 71929), (37, 71947), (54, 72106), (55, 72130), (56, 72133), (57, 72154),

Gene: Ejimix\_130 Start: 74941, Stop: 75660, Start Num: 4

Candidate Starts for Ejimix\_130:

(Start: 4 @74941 has 42 MA's), (Start: 6 @74980 has 1 MA's), (9, 74989), (24, 75193), (28, 75253), (31, 75382), (37, 75427), (54, 75595),

Gene: EricMillard\_129 Start: 73445, Stop: 74164, Start Num: 4

Candidate Starts for EricMillard\_129:

(Start: 4 @73445 has 42 MA's), (Start: 6 @73484 has 1 MA's), (9, 73493), (24, 73697), (28, 73757), (31, 73886), (37, 73931), (54, 74099),

Gene: Gaia\_94 Start: 56162, Stop: 56917, Start Num: 4

Candidate Starts for Gaia\_94:

(Start: 4 @56162 has 42 MA's), (10, 56216), (14, 56279), (17, 56321), (18, 56333), (20, 56375), (25, 56429), (27, 56468), (29, 56513), (34, 56633), (36, 56648), (44, 56717), (48, 56762), (55, 56864), (57,

56888),

Gene: Gonephishing\_131 Start: 71346, Stop: 71951, Start Num: 10

Candidate Starts for Gonephishing\_131:

(Start: 4 @71292 has 42 MA's), (8, 71337), (10, 71346), (13, 71391), (23, 71544), (31, 71682), (34, 71709), (40, 71751), (46, 71793), (49, 71826), (56, 71913),

Gene: Halley\_139 Start: 75257, Stop: 75976, Start Num: 4

Candidate Starts for Halley\_139:

(Start: 4 @75257 has 42 MA's), (Start: 6 @75296 has 1 MA's), (9, 75305), (24, 75509), (28, 75569), (31, 75698), (37, 75743), (54, 75911),

Gene: Hannaconda\_129 Start: 71259, Stop: 71978, Start Num: 4

Candidate Starts for Hannaconda\_129:

(Start: 4 @71259 has 42 MA's), (Start: 6 @71298 has 1 MA's), (9, 71307), (14, 71376), (20, 71469), (24, 71511), (28, 71571), (31, 71700), (35, 71736), (37, 71745), (51, 71892), (54, 71913), (57, 71961),

Gene: Hidrated\_124 Start: 73892, Stop: 74497, Start Num: 10

Candidate Starts for Hidrated\_124:

(Start: 4 @73838 has 42 MA's), (8, 73883), (10, 73892), (13, 73937), (14, 73955), (23, 74090), (31, 74228), (32, 74231), (34, 74255), (37, 74273), (40, 74297), (46, 74339), (49, 74372), (56, 74459),

Gene: HokkenD\_129 Start: 74141, Stop: 74860, Start Num: 4

Candidate Starts for HokkenD\_129:

(Start: 4 @74141 has 42 MA's), (Start: 6 @74180 has 1 MA's), (9, 74189), (24, 74393), (28, 74453), (31, 74582), (37, 74627), (54, 74795),

Gene: Hughesyang\_136 Start: 75027, Stop: 75746, Start Num: 4

Candidate Starts for Hughesyang\_136:

(Start: 4 @75027 has 42 MA's), (Start: 6 @75066 has 1 MA's), (9, 75075), (24, 75279), (28, 75339), (31, 75468), (37, 75513), (54, 75681),

Gene: JuicyJay\_133 Start: 76542, Stop: 77261, Start Num: 4

Candidate Starts for JuicyJay\_133:

(Start: 4 @76542 has 42 MA's), (Start: 6 @76581 has 1 MA's), (9, 76590), (24, 76794), (28, 76854), (31, 76983), (37, 77028), (54, 77196),

Gene: Kalah2\_127 Start: 73567, Stop: 74220, Start Num: 4

Candidate Starts for Kalah2\_127:

(Start: 4 @73567 has 42 MA's), (8, 73612), (13, 73666), (23, 73819), (31, 73957), (32, 73960), (33, 73966), (34, 73984), (37, 74002), (54, 74161), (55, 74185), (56, 74188), (57, 74209),

Gene: KashFlow\_134 Start: 72837, Stop: 73556, Start Num: 4

Candidate Starts for KashFlow\_134:

(Start: 4 @72837 has 42 MA's), (Start: 6 @72876 has 1 MA's), (9, 72885), (14, 72954), (20, 73047), (24, 73089), (28, 73149), (31, 73278), (35, 73314), (37, 73323), (51, 73470), (54, 73491), (57, 73539),

Gene: Klein\_134 Start: 72169, Stop: 72822, Start Num: 4

Candidate Starts for Klein\_134:

(Start: 4 @72169 has 42 MA's), (8, 72214), (13, 72268), (23, 72421), (31, 72559), (32, 72562), (33, 72568), (34, 72586), (37, 72604), (54, 72763), (55, 72787), (56, 72790), (57, 72811),

Gene: LittleE\_140 Start: 74088, Stop: 74807, Start Num: 4

Candidate Starts for LittleE\_140:

(Start: 4 @74088 has 42 MA's), (Start: 6 @74127 has 1 MA's), (9, 74136), (14, 74205), (20, 74298), (24, 74340), (28, 74400), (31, 74529), (35, 74565), (37, 74574), (51, 74721), (54, 74742), (57, 74790),

Gene: Lucky2013\_130 Start: 70965, Stop: 71684, Start Num: 4

Candidate Starts for Lucky2013\_130:

(Start: 4 @70965 has 42 MA's), (Start: 6 @71004 has 1 MA's), (9, 71013), (14, 71082), (20, 71175), (24, 71217), (28, 71277), (31, 71406), (35, 71442), (37, 71451), (51, 71598), (54, 71619), (57, 71667),

Gene: Marleymoo\_121 Start: 71251, Stop: 71910, Start Num: 4

Candidate Starts for Marleymoo\_121:

(Start: 4 @71251 has 42 MA's), (8, 71296), (10, 71305), (13, 71350), (14, 71368), (23, 71503), (31, 71641), (32, 71644), (34, 71668), (37, 71686), (40, 71710), (46, 71752), (49, 71785), (56, 71872),

Gene: MiaZeal\_137 Start: 72104, Stop: 72823, Start Num: 4

Candidate Starts for MiaZeal\_137:

(Start: 4 @72104 has 42 MA's), (Start: 6 @72143 has 1 MA's), (9, 72152), (14, 72221), (20, 72314), (24, 72356), (28, 72416), (31, 72545), (35, 72581), (37, 72590), (51, 72737), (54, 72758), (57, 72806),

Gene: Minerva\_136 Start: 73619, Stop: 74215, Start Num: 4

Candidate Starts for Minerva\_136:

(Start: 4 @73619 has 42 MA's), (8, 73664), (13, 73718), (23, 73871), (31, 74009), (32, 74012), (33, 74018), (34, 74036), (37, 74054), (39, 74063), (42, 74090), (53, 74195),

Gene: Nebkiss\_94 Start: 55185, Stop: 55841, Start Num: 4

Candidate Starts for Nebkiss\_94:

(Start: 4 @55185 has 42 MA's), (7, 55227), (11, 55257), (15, 55311), (18, 55356), (19, 55371), (22, 55422), (33, 55569), (37, 55605), (38, 55614), (41, 55641), (43, 55644), (46, 55671), (47, 55698), (51, 55743), (57, 55812),

Gene: Nekros\_138 Start: 75451, Stop: 76131, Start Num: 6

Candidate Starts for Nekros\_138:

(Start: 4 @75412 has 42 MA's), (Start: 6 @75451 has 1 MA's), (9, 75460), (14, 75529), (20, 75622), (24, 75664), (28, 75724), (31, 75853), (35, 75889), (37, 75898), (51, 76045), (54, 76066), (57, 76114),

Gene: Nibley\_133 Start: 72091, Stop: 72810, Start Num: 4

Candidate Starts for Nibley\_133:

(Start: 4 @72091 has 42 MA's), (Start: 6 @72130 has 1 MA's), (9, 72139), (14, 72208), (20, 72301), (24, 72343), (28, 72403), (31, 72532), (35, 72568), (37, 72577), (51, 72724), (54, 72745), (57, 72793),

Gene: NihilNomen\_139 Start: 74487, Stop: 75206, Start Num: 4

Candidate Starts for NihilNomen\_139:

(Start: 4 @74487 has 42 MA's), (Start: 6 @74526 has 1 MA's), (9, 74535), (24, 74739), (28, 74799), (31, 74928), (37, 74973), (54, 75141),

Gene: Odette\_140 Start: 76094, Stop: 76702, Start Num: 8

Candidate Starts for Odette\_140:

(Start: 4 @76049 has 42 MA's), (8, 76094), (13, 76148), (23, 76301), (31, 76439), (32, 76442), (33, 76448), (34, 76466), (37, 76484), (54, 76643), (55, 76667), (56, 76670), (57, 76691),

Gene: Omega\_145 Start: 75633, Stop: 76292, Start Num: 4

Candidate Starts for Omega\_145:

(Start: 4 @75633 has 42 MA's), (8, 75678), (10, 75687), (13, 75732), (23, 75885), (31, 76023), (34, 76050), (40, 76092), (45, 76128), (46, 76134), (49, 76167), (56, 76254),

Gene: Optimus\_128 Start: 71767, Stop: 72486, Start Num: 4

Candidate Starts for Optimus\_128:

(Start: 4 @71767 has 42 MA's), (Start: 6 @71806 has 1 MA's), (9, 71815), (24, 72019), (28, 72079), (31, 72208), (37, 72253), (54, 72421),

Gene: Phoebus\_137 Start: 76381, Stop: 77100, Start Num: 4

Candidate Starts for Phoebus\_137:

(Start: 4 @76381 has 42 MA's), (Start: 6 @76420 has 1 MA's), (9, 76429), (24, 76633), (28, 76693), (31, 76822), (37, 76867), (54, 77035),

Gene: Porcelain\_134 Start: 71911, Stop: 72630, Start Num: 4

Candidate Starts for Porcelain\_134:

(Start: 4 @71911 has 42 MA's), (Start: 6 @71950 has 1 MA's), (9, 71959), (14, 72028), (20, 72121), (24, 72163), (28, 72223), (31, 72352), (35, 72388), (37, 72397), (51, 72544), (54, 72565), (57, 72613),

Gene: Pound\_124 Start: 72498, Stop: 73151, Start Num: 4

Candidate Starts for Pound\_124:

(Start: 4 @72498 has 42 MA's), (8, 72543), (13, 72597), (23, 72750), (31, 72888), (32, 72891), (33, 72897), (34, 72915), (37, 72933), (54, 73092), (55, 73116), (56, 73119), (57, 73140),

Gene: Rearden\_135 Start: 72904, Stop: 73509, Start Num: 10

Candidate Starts for Rearden\_135:

(Start: 4 @72850 has 42 MA's), (8, 72895), (10, 72904), (13, 72949), (23, 73102), (31, 73240), (34, 73267), (40, 73309), (46, 73351), (49, 73384), (56, 73471),

Gene: Redno2\_129 Start: 71769, Stop: 72488, Start Num: 4

Candidate Starts for Redno2\_129:

(Start: 4 @71769 has 42 MA's), (Start: 6 @71808 has 1 MA's), (9, 71817), (24, 72021), (28, 72081), (31, 72210), (37, 72255), (54, 72423),

Gene: Schatzie\_132 Start: 74468, Stop: 75121, Start Num: 4

Candidate Starts for Schatzie\_132:

(Start: 4 @74468 has 42 MA's), (8, 74513), (13, 74567), (23, 74720), (31, 74858), (32, 74861), (33, 74867), (34, 74885), (37, 74903), (54, 75062), (55, 75086), (56, 75089), (57, 75110),

Gene: Shaboozey\_137 Start: 72535, Stop: 73254, Start Num: 4

Candidate Starts for Shaboozey\_137:

(Start: 4 @72535 has 42 MA's), (Start: 6 @72574 has 1 MA's), (9, 72583), (14, 72652), (20, 72745), (24, 72787), (28, 72847), (31, 72976), (35, 73012), (37, 73021), (51, 73168), (54, 73189), (57, 73237),

Gene: Squint\_134 Start: 72170, Stop: 72889, Start Num: 4

Candidate Starts for Squint\_134:

(Start: 4 @72170 has 42 MA's), (Start: 6 @72209 has 1 MA's), (9, 72218), (20, 72380), (24, 72422), (28, 72482), (31, 72611), (35, 72647), (37, 72656), (51, 72803), (54, 72824), (57, 72872),

Gene: Stellammi\_118 Start: 58447, Stop: 59103, Start Num: 4

Candidate Starts for Stellammi\_118:

(3, 58444), (Start: 4 @58447 has 42 MA's), (10, 58501), (11, 58519), (21, 58672), (22, 58687), (26, 58720), (53, 59017), (57, 59083),

Gene: Superphikiman\_135 Start: 71386, Stop: 72105, Start Num: 4  
Candidate Starts for Superphikiman\_135:  
(Start: 4 @71386 has 42 MA's), (Start: 6 @71425 has 1 MA's), (9, 71434), (14, 71503), (20, 71596),  
(24, 71638), (28, 71698), (31, 71827), (35, 71863), (37, 71872), (51, 72019), (54, 72040), (57, 72088),

Gene: Thibault\_121 Start: 71691, Stop: 72410, Start Num: 4  
Candidate Starts for Thibault\_121:  
(Start: 4 @71691 has 42 MA's), (Start: 6 @71730 has 1 MA's), (9, 71739), (24, 71943), (28, 72003),  
(31, 72132), (37, 72177), (54, 72345),

Gene: ThreeRngTarjay\_132 Start: 74972, Stop: 75691, Start Num: 4  
Candidate Starts for ThreeRngTarjay\_132:  
(Start: 4 @74972 has 42 MA's), (Start: 6 @75011 has 1 MA's), (9, 75020), (24, 75224), (28, 75284),  
(31, 75413), (37, 75458), (54, 75626),

Gene: Wanda\_136 Start: 72098, Stop: 72751, Start Num: 4  
Candidate Starts for Wanda\_136:  
(Start: 4 @72098 has 42 MA's), (8, 72143), (13, 72197), (23, 72350), (31, 72488), (32, 72491), (33,  
72497), (34, 72515), (37, 72533), (54, 72692), (55, 72716), (56, 72719), (57, 72740),

Gene: Xiaokay\_133 Start: 74505, Stop: 75224, Start Num: 4  
Candidate Starts for Xiaokay\_133:  
(Start: 4 @74505 has 42 MA's), (Start: 6 @74544 has 1 MA's), (20, 74715), (24, 74757), (28, 74817),  
(31, 74946), (37, 74991), (54, 75159),

Gene: Yeet\_130 Start: 74170, Stop: 74889, Start Num: 4  
Candidate Starts for Yeet\_130:  
(Start: 4 @74170 has 42 MA's), (Start: 6 @74209 has 1 MA's), (9, 74218), (24, 74422), (28, 74482),  
(31, 74611), (37, 74656), (54, 74824),

Gene: Zelink\_131 Start: 74910, Stop: 75563, Start Num: 4  
Candidate Starts for Zelink\_131:  
(Start: 4 @74910 has 42 MA's), (8, 74955), (13, 75009), (23, 75162), (31, 75300), (32, 75303), (33,  
75309), (34, 75327), (37, 75345), (54, 75504), (55, 75528), (56, 75531), (57, 75552),