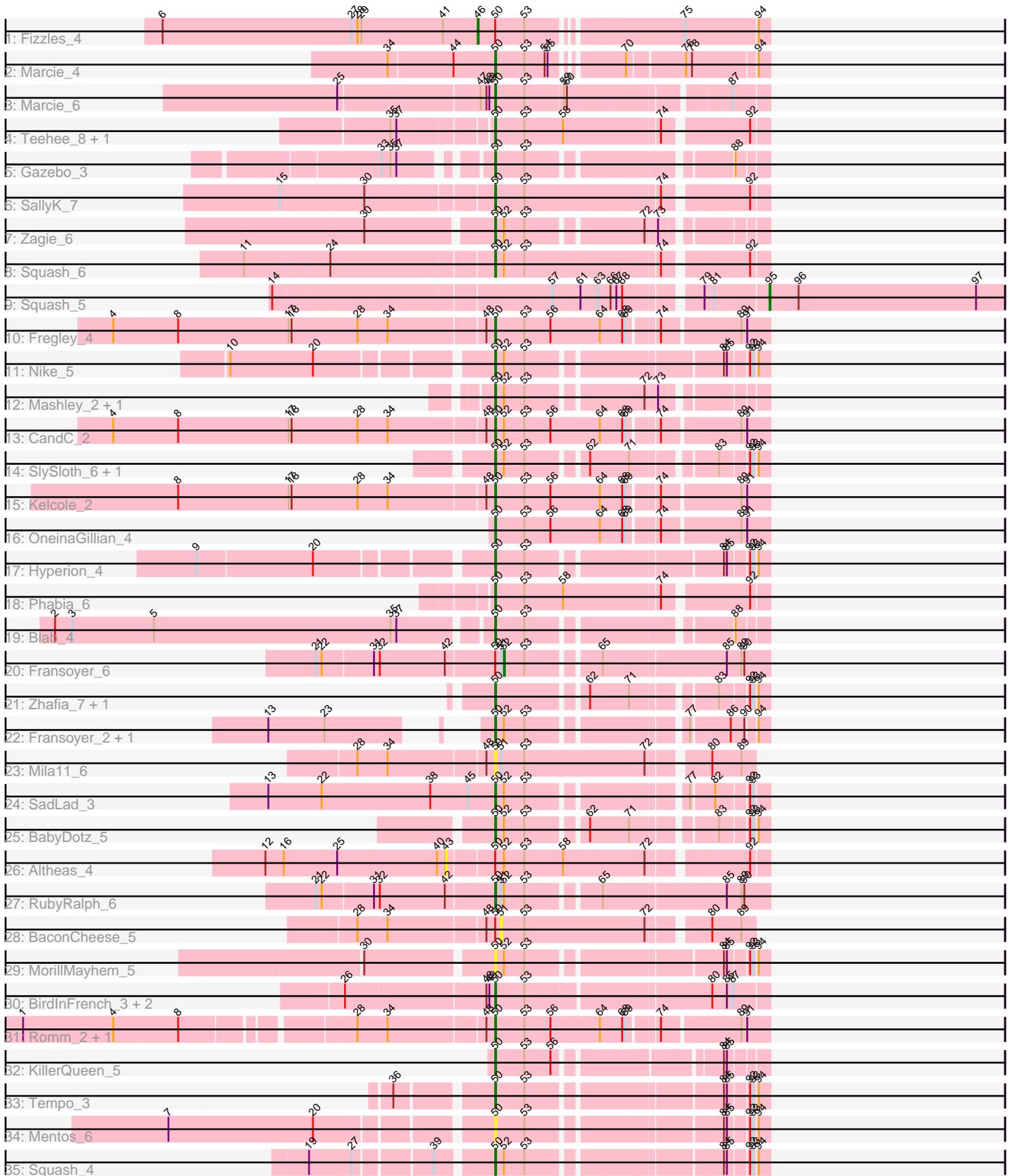


Pham 291305



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 291305 Report

This analysis was run 03/28/26 on database version 641.

Pham number 291305 has 43 members, 7 are drafts.

Phages represented in each track:

- Track 1 : Fizzles\_4
- Track 2 : Marcie\_4
- Track 3 : Marcie\_6
- Track 4 : Teehee\_8, Jehoshaphat\_8
- Track 5 : Gazebo\_3
- Track 6 : SallyK\_7
- Track 7 : Zagie\_6
- Track 8 : Squash\_6
- Track 9 : Squash\_5
- Track 10 : Fregley\_4
- Track 11 : Nike\_5
- Track 12 : Mashley\_2, AluminumJesus\_2
- Track 13 : CandC\_2
- Track 14 : SlySloth\_6, Judebell\_6
- Track 15 : Kelcole\_2
- Track 16 : OneinaGillian\_4
- Track 17 : Hyperion\_4
- Track 18 : Phabia\_6
- Track 19 : Blab\_4
- Track 20 : Fransoyer\_6
- Track 21 : Zhafia\_7, Namago\_4
- Track 22 : Fransoyer\_2, RubyRalph\_2
- Track 23 : Mila11\_6
- Track 24 : SadLad\_3
- Track 25 : BabyDotz\_5
- Track 26 : Altheas\_4
- Track 27 : RubyRalph\_6
- Track 28 : BaconCheese\_5
- Track 29 : MorillMayhem\_5
- Track 30 : BirdInFrench\_3, Wilca\_3, Pepe25\_2
- Track 31 : Romm\_2, RobinRose\_3
- Track 32 : KillerQueen\_5
- Track 33 : Tempo\_3
- Track 34 : Mentos\_6
- Track 35 : Squash\_4

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

The start number called the most often in the published annotations is 50, it was called in 33 of the 36 non-draft genes in the pham.

Genes that call this "Most Annotated" start:

- AluminumJesus\_2, BabyDotz\_5, BirdInFrench\_3, Blab\_4, CandC\_2, Fransoyer\_2, Fregley\_4, Gazebo\_3, Hyperion\_4, Jehoshaphat\_8, Judebell\_6, Kelcole\_2, KillerQueen\_5, Marcie\_4, Marcie\_6, Mashley\_2, Mentos\_6, Mila11\_6, MorillMayhem\_5, Namago\_4, Nike\_5, OneinaGillian\_4, Pepe25\_2, Phabia\_6, RobinRose\_3, Romm\_2, RubyRalph\_2, RubyRalph\_6, SadLad\_3, SallyK\_7, SlySloth\_6, Squash\_4, Squash\_6, Teehee\_8, Tempo\_3, Wilca\_3, Zagie\_6, Zhafia\_7,

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

- Altheas\_4, BaconCheese\_5, Fizzles\_4, Fransoyer\_6,

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

- Squash\_5,

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

Start 43:

- Found in 1 of 43 ( 2.3% ) of genes in pham
- No Manual Annotations of this start.
- Called 100.0% of time when present
- Phage (with cluster) where this start called: Altheas\_4 (EG),

Start 46:

- Found in 1 of 43 ( 2.3% ) of genes in pham
- Manual Annotations of this start: 1 of 36
- Called 100.0% of time when present
- Phage (with cluster) where this start called: Fizzles\_4 (EG),

Start 50:

- Found in 42 of 43 ( 97.7% ) of genes in pham
- Manual Annotations of this start: 33 of 36
- Called 90.5% of time when present
- Phage (with cluster) where this start called: AluminumJesus\_2 (EG), BabyDotz\_5 (EG), BirdInFrench\_3 (EG), Blab\_4 (EG), CandC\_2 (EG), Fransoyer\_2 (EG), Fregley\_4 (EG), Gazebo\_3 (EG), Hyperion\_4 (EG), Jehoshaphat\_8 (EG), Judebell\_6 (EG), Kelcole\_2 (EG), KillerQueen\_5 (EG), Marcie\_4 (EG), Marcie\_6 (EG), Mashley\_2 (EG), Mentos\_6 (EG), Mila11\_6 (EG), MorillMayhem\_5 (EG), Namago\_4 (EG), Nike\_5 (EG), OneinaGillian\_4 (EG), Pepe25\_2 (EG), Phabia\_6 (EG), RobinRose\_3 (EG), Romm\_2 (EG), RubyRalph\_2 (EG), RubyRalph\_6 (EG), SadLad\_3 (EG), SallyK\_7 (EG), SlySloth\_6 (EG), Squash\_4 (EG), Squash\_6 (EG), Teehee\_8 (EG), Tempo\_3 (EG), Wilca\_3 (EG), Zagie\_6 (EG), Zhafia\_7 (EG),

Start 51:

- Found in 4 of 43 ( 9.3% ) of genes in pham
- No Manual Annotations of this start.
- Called 25.0% of time when present
- Phage (with cluster) where this start called: BaconCheese\_5 (EG),

Start 52:

- Found in 17 of 43 ( 39.5% ) of genes in pham
- Manual Annotations of this start: 1 of 36
- Called 5.9% of time when present
- Phage (with cluster) where this start called: Fransoyer\_6 (EG),

Start 95:

- Found in 1 of 43 ( 2.3% ) of genes in pham
- Manual Annotations of this start: 1 of 36
- Called 100.0% of time when present
- Phage (with cluster) where this start called: Squash\_5 (EG),

**Summary by clusters:**

There is one cluster represented in this pham: EG

Info for manual annotations of cluster EG:

- Start number 46 was manually annotated 1 time for cluster EG.
- Start number 50 was manually annotated 33 times for cluster EG.
- Start number 52 was manually annotated 1 time for cluster EG.
- Start number 95 was manually annotated 1 time for cluster EG.

**Gene Information:**

Gene: Altheas\_4 Start: 1637, Stop: 1335, Start Num: 43

Candidate Starts for Altheas\_4:

(12, 1820), (16, 1802), (25, 1748), (40, 1646), (43, 1637), (Start: 50 @1592 has 33 MA's), (Start: 52 @1583 has 1 MA's), (53, 1562), (58, 1523), (72, 1442), (92, 1352),

Gene: AluminumJesus\_2 Start: 1146, Stop: 907, Start Num: 50

Candidate Starts for AluminumJesus\_2:

(Start: 50 @1146 has 33 MA's), (Start: 52 @1137 has 1 MA's), (53, 1116), (72, 1008), (73, 996),

Gene: BabyDotz\_5 Start: 2093, Stop: 1857, Start Num: 50

Candidate Starts for BabyDotz\_5:

(Start: 50 @2093 has 33 MA's), (Start: 52 @2084 has 1 MA's), (53, 2063), (62, 2009), (71, 1970), (83, 1898), (92, 1874), (93, 1871), (94, 1868),

Gene: BaconCheese\_5 Start: 1813, Stop: 1574, Start Num: 51

Candidate Starts for BaconCheese\_5:

(28, 1954), (34, 1924), (48, 1828), (Start: 50 @1819 has 33 MA's), (51, 1813), (53, 1789), (72, 1669), (80, 1618), (89, 1588),

Gene: BirdInFrench\_3 Start: 1383, Stop: 1120, Start Num: 50

Candidate Starts for BirdInFrench\_3:

(26, 1533), (48, 1392), (49, 1389), (Start: 50 @1383 has 33 MA's), (53, 1353), (80, 1176), (85, 1161), (87, 1155),

Gene: Blab\_4 Start: 1367, Stop: 1125, Start Num: 50

Candidate Starts for Blab\_4:

(2, 1802), (3, 1784), (5, 1700), (35, 1457), (37, 1451), (Start: 50 @1367 has 33 MA's), (53, 1337), (88, 1154),

Gene: CandC\_2 Start: 1102, Stop: 839, Start Num: 50

Candidate Starts for CandC\_2:

(4, 1486), (8, 1420), (17, 1306), (18, 1303), (28, 1237), (34, 1207), (48, 1111), (Start: 50 @1102 has 33 MA's), (Start: 52 @1093 has 1 MA's), (53, 1072), (56, 1045), (64, 994), (68, 973), (69, 970), (74, 943), (89, 868), (91, 862),

Gene: Fizzles\_4 Start: 1765, Stop: 1490, Start Num: 46

Candidate Starts for Fizzles\_4:

(6, 2089), (27, 1894), (28, 1888), (29, 1885), (41, 1801), (Start: 46 @1765 has 1 MA's), (Start: 50 @1747 has 33 MA's), (53, 1717), (75, 1573), (94, 1501),

Gene: Fransoyer\_6 Start: 2120, Stop: 1869, Start Num: 52

Candidate Starts for Fransoyer\_6:

(21, 2306), (22, 2300), (31, 2249), (32, 2243), (42, 2177), (Start: 50 @2129 has 33 MA's), (51, 2123), (Start: 52 @2120 has 1 MA's), (53, 2099), (65, 2033), (85, 1913), (89, 1898), (90, 1895),

Gene: Fransoyer\_2 Start: 1080, Stop: 841, Start Num: 50

Candidate Starts for Fransoyer\_2:

(13, 1230), (23, 1173), (Start: 50 @1080 has 33 MA's), (Start: 52 @1071 has 1 MA's), (53, 1050), (77, 909), (86, 873), (90, 861), (94, 852),

Gene: Fregley\_4 Start: 1640, Stop: 1377, Start Num: 50

Candidate Starts for Fregley\_4:

(4, 2024), (8, 1958), (17, 1844), (18, 1841), (28, 1775), (34, 1745), (48, 1649), (Start: 50 @1640 has 33 MA's), (53, 1610), (56, 1583), (64, 1532), (68, 1511), (69, 1508), (74, 1481), (89, 1406), (91, 1400),

Gene: Gazebo\_3 Start: 1551, Stop: 1309, Start Num: 50

Candidate Starts for Gazebo\_3:

(33, 1638), (35, 1629), (37, 1623), (Start: 50 @1551 has 33 MA's), (53, 1521), (88, 1338),

Gene: Hyperion\_4 Start: 1519, Stop: 1271, Start Num: 50

Candidate Starts for Hyperion\_4:

(9, 1795), (20, 1678), (Start: 50 @1519 has 33 MA's), (53, 1489), (84, 1309), (85, 1306), (92, 1288), (93, 1285), (94, 1282),

Gene: Jehoshaphat\_8 Start: 2791, Stop: 2534, Start Num: 50

Candidate Starts for Jehoshaphat\_8:

(35, 2881), (37, 2875), (Start: 50 @2791 has 33 MA's), (53, 2761), (58, 2722), (74, 2629), (92, 2551),

Gene: Judebell\_6 Start: 2078, Stop: 1842, Start Num: 50

Candidate Starts for Judebell\_6:

(Start: 50 @2078 has 33 MA's), (Start: 52 @2069 has 1 MA's), (53, 2048), (62, 1994), (71, 1955), (83, 1883), (92, 1859), (93, 1856), (94, 1853),

Gene: Kelcole\_2 Start: 1102, Stop: 839, Start Num: 50

Candidate Starts for Kelcole\_2:

(8, 1420), (17, 1306), (18, 1303), (28, 1237), (34, 1207), (48, 1111), (Start: 50 @1102 has 33 MA's), (53, 1072), (56, 1045), (64, 994), (68, 973), (69, 970), (74, 943), (89, 868), (91, 862),

Gene: KillerQueen\_5 Start: 1627, Stop: 1382, Start Num: 50

Candidate Starts for KillerQueen\_5:

(Start: 50 @1627 has 33 MA's), (53, 1597), (56, 1570), (84, 1420), (85, 1417),

Gene: Marcie\_4 Start: 1305, Stop: 1057, Start Num: 50

Candidate Starts for Marcie\_4:

(34, 1410), (44, 1347), (Start: 50 @1305 has 33 MA's), (53, 1275), (54, 1254), (55, 1251), (70, 1191), (76, 1137), (78, 1131), (94, 1068),

Gene: Marcie\_6 Start: 1750, Stop: 1493, Start Num: 50

Candidate Starts for Marcie\_6:

(25, 1906), (47, 1765), (48, 1759), (49, 1756), (Start: 50 @1750 has 33 MA's), (53, 1720), (59, 1681), (60, 1678), (87, 1528),

Gene: Mashley\_2 Start: 1146, Stop: 907, Start Num: 50

Candidate Starts for Mashley\_2:

(Start: 50 @1146 has 33 MA's), (Start: 52 @1137 has 1 MA's), (53, 1116), (72, 1008), (73, 996),

Gene: Mentos\_6 Start: 1855, Stop: 1607, Start Num: 50

Candidate Starts for Mentos\_6:

(7, 2161), (20, 2014), (Start: 50 @1855 has 33 MA's), (53, 1825), (84, 1645), (85, 1642), (92, 1624), (93, 1621), (94, 1618),

Gene: Mila11\_6 Start: 1804, Stop: 1559, Start Num: 50

Candidate Starts for Mila11\_6:

(28, 1939), (34, 1909), (48, 1813), (Start: 50 @1804 has 33 MA's), (51, 1798), (53, 1774), (72, 1654), (80, 1603), (89, 1573),

Gene: MorillMayhem\_5 Start: 1824, Stop: 1576, Start Num: 50

Candidate Starts for MorillMayhem\_5:

(30, 1947), (Start: 50 @1824 has 33 MA's), (Start: 52 @1815 has 1 MA's), (53, 1794), (84, 1614), (85, 1611), (92, 1593), (93, 1590), (94, 1587),

Gene: Namago\_4 Start: 1406, Stop: 1170, Start Num: 50

Candidate Starts for Namago\_4:

(Start: 50 @1406 has 33 MA's), (62, 1322), (71, 1283), (83, 1211), (92, 1187), (93, 1184), (94, 1181),

Gene: Nike\_5 Start: 1873, Stop: 1625, Start Num: 50

Candidate Starts for Nike\_5:

(10, 2116), (20, 2032), (Start: 50 @1873 has 33 MA's), (Start: 52 @1864 has 1 MA's), (53, 1843), (84, 1663), (85, 1660), (92, 1642), (93, 1639), (94, 1636),

Gene: OneinaGillian\_4 Start: 1454, Stop: 1191, Start Num: 50

Candidate Starts for OneinaGillian\_4:

(Start: 50 @1454 has 33 MA's), (53, 1424), (56, 1397), (64, 1346), (68, 1325), (69, 1322), (74, 1295), (89, 1220), (91, 1214),

Gene: Pepe25\_2 Start: 1383, Stop: 1120, Start Num: 50

Candidate Starts for Pepe25\_2:

(26, 1533), (48, 1392), (49, 1389), (Start: 50 @1383 has 33 MA's), (53, 1353), (80, 1176), (85, 1161), (87, 1155),

Gene: Phabia\_6 Start: 1993, Stop: 1736, Start Num: 50

Candidate Starts for Phabia\_6:

(Start: 50 @1993 has 33 MA's), (53, 1963), (58, 1924), (74, 1831), (92, 1753),

Gene: RobinRose\_3 Start: 1102, Stop: 839, Start Num: 50

Candidate Starts for RobinRose\_3:

(1, 1555), (4, 1462), (8, 1396), (28, 1237), (34, 1207), (48, 1111), (Start: 50 @1102 has 33 MA's), (53, 1072), (56, 1045), (64, 994), (68, 973), (69, 970), (74, 943), (89, 868), (91, 862),

Gene: Romm\_2 Start: 1102, Stop: 839, Start Num: 50

Candidate Starts for Romm\_2:

(1, 1555), (4, 1462), (8, 1396), (28, 1237), (34, 1207), (48, 1111), (Start: 50 @1102 has 33 MA's), (53, 1072), (56, 1045), (64, 994), (68, 973), (69, 970), (74, 943), (89, 868), (91, 862),

Gene: RubyRalph\_6 Start: 2129, Stop: 1869, Start Num: 50

Candidate Starts for RubyRalph\_6:

(21, 2306), (22, 2300), (31, 2249), (32, 2243), (42, 2177), (Start: 50 @2129 has 33 MA's), (51, 2123), (Start: 52 @2120 has 1 MA's), (53, 2099), (65, 2033), (85, 1913), (89, 1898), (90, 1895),

Gene: RubyRalph\_2 Start: 1080, Stop: 841, Start Num: 50

Candidate Starts for RubyRalph\_2:

(13, 1230), (23, 1173), (Start: 50 @1080 has 33 MA's), (Start: 52 @1071 has 1 MA's), (53, 1050), (77, 909), (86, 873), (90, 861), (94, 852),

Gene: SadLad\_3 Start: 1311, Stop: 1072, Start Num: 50

Candidate Starts for SadLad\_3:

(13, 1542), (22, 1488), (38, 1377), (45, 1338), (Start: 50 @1311 has 33 MA's), (Start: 52 @1302 has 1 MA's), (53, 1281), (77, 1140), (82, 1119), (92, 1089), (93, 1086),

Gene: SallyK\_7 Start: 2695, Stop: 2438, Start Num: 50

Candidate Starts for SallyK\_7:

(15, 2902), (30, 2818), (Start: 50 @2695 has 33 MA's), (53, 2665), (74, 2533), (92, 2455),

Gene: SlySloth\_6 Start: 2096, Stop: 1860, Start Num: 50

Candidate Starts for SlySloth\_6:

(Start: 50 @2096 has 33 MA's), (Start: 52 @2087 has 1 MA's), (53, 2066), (62, 2012), (71, 1973), (83, 1901), (92, 1877), (93, 1874), (94, 1871),

Gene: Squash\_6 Start: 1928, Stop: 1671, Start Num: 50

Candidate Starts for Squash\_6:

(11, 2171), (24, 2087), (Start: 50 @1928 has 33 MA's), (Start: 52 @1919 has 1 MA's), (53, 1898), (74, 1766), (92, 1688),

Gene: Squash\_5 Start: 1671, Stop: 1429, Start Num: 95

Candidate Starts for Squash\_5:

(14, 2142), (57, 1869), (61, 1842), (63, 1824), (66, 1812), (67, 1806), (68, 1800), (79, 1734), (81, 1725), (Start: 95 @1671 has 1 MA's), (96, 1641), (97, 1458),

Gene: Squash\_4 Start: 1432, Stop: 1184, Start Num: 50

Candidate Starts for Squash\_4:

(19, 1597), (27, 1555), (39, 1483), (Start: 50 @1432 has 33 MA's), (Start: 52 @1423 has 1 MA's), (53, 1402), (84, 1222), (85, 1219), (92, 1201), (93, 1198), (94, 1195),

Gene: Teehee\_8 Start: 2791, Stop: 2534, Start Num: 50

Candidate Starts for Teehee\_8:

(35, 2881), (37, 2875), (Start: 50 @2791 has 33 MA's), (53, 2761), (58, 2722), (74, 2629), (92, 2551),

Gene: Tempo\_3 Start: 1126, Stop: 878, Start Num: 50

Candidate Starts for Tempo\_3:

(36, 1210), (Start: 50 @1126 has 33 MA's), (53, 1096), (84, 916), (85, 913), (92, 895), (93, 892), (94, 889),

Gene: Wilca\_3 Start: 1383, Stop: 1120, Start Num: 50

Candidate Starts for Wilca\_3:

(26, 1533), (48, 1392), (49, 1389), (Start: 50 @1383 has 33 MA's), (53, 1353), (80, 1176), (85, 1161), (87, 1155),

Gene: Zagie\_6 Start: 2057, Stop: 1818, Start Num: 50

Candidate Starts for Zagie\_6:

(30, 2180), (Start: 50 @2057 has 33 MA's), (Start: 52 @2048 has 1 MA's), (53, 2027), (72, 1919), (73, 1907),

Gene: Zhafia\_7 Start: 2076, Stop: 1840, Start Num: 50

Candidate Starts for Zhafia\_7:

(Start: 50 @2076 has 33 MA's), (62, 1992), (71, 1953), (83, 1881), (92, 1857), (93, 1854), (94, 1851),