```
>osa-cand001
TCCACCATCGTCGTCGTCGTCGTCGTCGCCACCCCTCTCCCACCATCGTCTCCGCCATCGTTGTCGCCGTCGCCTCGCGCCACCACGGTCGCTGCCGCCTCCGACTTCCCCGTCGCCTCGCGTCGTCGTCGCCGTCGCCCGCCCCCGCCACCATCTCCGGCCCCCCAAACCCTAGCCGCCGCCGCCCGCTCGTTCCGACGGGGATTCGGAGGGGGTCGAAGGGAGGAAGAGGCGGTGGCGGTCGGCGAAGAGGACGACGATGGCGACGGCGGCAGCGGCG
....(((((((((((.((.(((((((((((((((((((((..((.(((.....((.(((((.((.((((.....)).)).)).)))))).)).(((.(((((((..(((((((((....(((.((.((....)).)).)).)))....((.........((((.............))))..........)).....)))))))))..)))))))..))))))..)).)).)))))..)))))))).))))))..)).)))))))))))...((.((....)).)) (-133.7)
TCCACCATCGTCGTCGTCGTCG.......................................................................................................................................................................  1
........CGTCGTCGTCGTCGTCGTCGCC...............................................................................................................................................................  1
.............................ACCCCTCTCCCACCATCGTCTC.........................................................................................................................................  1
.......................................................................TTCCCCGTCGCCTCGCGTCGTCGTCG.....................................................................................  1
.....................................................................................................CGGTCGGCGAAGAGGACGACGA.....................  11
.....................................................................................................TCGGCGAAGAGGACGACGATG..................  3
.....................................................................................................CGGCGAAGAGGACGACGATGG.................  1
.....................................................................................................GCGAAGAGGACGACGATGGCGAC............  1
```

```
>osa-cand002
TAGATGGACTTTCAGCACAAAAGTACATACTCACAAGCACCGAAAGAGCCCTCCCTTGTAACTCTGACATCTTTCGGTGCTTGTGACTATGTATTTTTGT
................(((((((((((((.((((((((((((((((.......................))))))))))))))))).))))))))))))) (-42.8)
.............AGCACAAAAGTACATACTCACAAG.............................................................  2
................CAAAAGTACATACTCACAAGCACC...........................................................  5
...................AAAGTACATACTCACAAGCACCGA.........................................................  21
....................AAGTACATACTCACAAGCACCGA........................................................  1
....................AAGTACATACTCACAAGCACCGAA.......................................................  8
.....................AGTACATACTCACAAGCACCGAAA......................................................  2
......................GTACATACTCACAAGCACCGAAAG.....................................................  1
.......................TACATACTCACAAGCACCGAAAGA....................................................  2
...........................................................GTAACTCTGACATCTTTCGGTGC....................  1
.............................................................CTGACATCTTTCGGTGCTTG..................  1
.......................................................................TTTCGGTGCTTGTGACTATGT........  1
......................................................................TTTCGGTGCTTGTGACTATGTATT.....  3
.......................................................................TCGGTGCTTGTGACTATGTAT......  1
.......................................................................TCGGTGCTTGTGACTATGTATTTT...  1
...........................................................................TGCTTGTGACTATGTATTTTT..  1
```

```
>osa-cand003
TTTAGGTCAACATTTGGTCCAACTTTTCAAACTTTGATCATCAATTATTTCTCAATGCTTAGTTTAAAAAGGAAAAAAATGGTAAGCATAGATTTTCCTTGAAAAGCACTATCATATTTTCTTTATGATTTTATAAACTTATTCTATTATAAAATTGATGGTCAAAATTTCAAAAGTTTG
....(..(((...)))..).(((((((.(((.((((((((((((((.............((((...(((((((((..(((.....)))...)))))))))...))))...((((((.......)))))).......................)))))))))))))).)))).))))))).. (-36.8)
....................AACTTTTCAAACTTTGATCA.......................................................................................................................................  1
....................AACTTTTCAAACTTTGATCATCA....................................................................................................................................  2
....................AACTTTTCAAACTTTGATCATCAA...................................................................................................................................  23
.......................................TCAATTATTTCTCAATGCTTAGTTT..................................................................................................................  1
```

```
>osa-cand004
TGTTCATAGTTAGTATTCTATTGGATTTTCTACCATGCAATTTAAATGCCATGTCATGAGGACAACAATTGGAGACATATTTGGTCTCTCTTACAGGGCATGGGCTGCACAACTGATAGTATAAAAATGATGTTTGAATTGCATGGCAGAGGATTCAGTATCTAAGATGCCATTGCATTC
...................(((((((..(((.(((((((((((((((.(((((((..((((((......((....))......))).)))......)))))))((((((....)).))))...........))))))))))))))).))).))))))))).....((((....)))))). (-56.1)
...............TTCTATTGGATTTTCTACCATGCA.......................................................................................................................21
.................TCTATTGGATTTTCTACCATGCAA.....................................................................................................................12
...................CTATTGGATTTTCTACCATGCAAT....................................................................................................................2
....................TATTGGATTTTCTACCATGCAATT...................................................................................................................16
.....................TTGGATTTTCTACCATGCAATTTA..................................................................................................................2
.......................................................................................................AATTGCATGGCAGAGGATTCAGT.....................1
.......................................................................................................AATTGCATGGCAGAGGATTCAGTA....................23
.......................................................................................................ATTGCATGGCAGAGGATTCAGTAT....................7
.......................................................................................................TTGCATGGCAGAGGATTCAGTAT.....................3
.......................................................................................................TTGCATGGCAGAGGATTCAGTATC....................1
.......................................................................................................TGCATGGCAGAGGATTCAGTATCT.....................2
.......................................................................................................GCATGGCAGAGGATTCAGTATCT.....................1
.......................................................................................................CATGGCAGAGGATTCAGTATCT.....................2
.......................................................................................................CATGGCAGAGGATTCAGTATCTA....................7
.......................................................................................................CATGGCAGAGGATTCAGTATCTAA...................2
```

```
>osa-cand005a
TTAGGGCAAGATTTGGTCAAACTTTTGAAGCCTTGACCATCAATTACTTCTCAGATTCTTAGTTTAAAAACACAAAAAAATGATATGCTTAAGTTTGTCTTGAAAAGTATTATAATAATATCATAAACTTATTAGGTTTATAAACTTATTCTAACATAGAATTGATGGTCAAAGTTCTAAAAGTTTGTCCAAATCTTGTC
....(((((((((((.(((((((((..(((.(((((((((((((.((....(((.....((((((.((((........(((((((..(((((.....)))))...)))))))..(((((.........)))))..))))..))))))...)))).....))))))))))))))..)))..)))))))))..))))))))))))  (-65.1)
.....GCAAGATTTGGTCAAACTTTTGA.......................................................................................................................................................      1
.......AAGATTTGGTCAAACTTTTGAAGC.....................................................................................................................................................      1
................TCAAACTTTTGAAGCCTTGACCAT.............................................................................................................................................      1
...................AACTTTTGAAGCCTTGACCATCAA..........................................................................................................................................      11
```

```
>osa-cand005b
TTAGAGCAAGATTTGGTCAAACTTTTGAAGCCTTGACCATCAATTACTTCTCAGATTCTTAGTTTAAAGACACAAAATAATGATTTGCTTAAGTCTGTCTTGAAAAGTATTATCATAATATCATAAACTTATTAGGTTTATAAACTTATTCTAACATAGAATTGAAGGTTAAAGTTCTAAAAGTTTGTCCGAATCTTGTC
.....((((((((((.(((((((((..(((.((((((.((((((.((....(((.....((((((.............(((((.((((((...((......)).)))))..)))))).......((((((.....)))))))))))...)))).....)))))))).)))))).))).))))))))).))))))))))). (-55.5)
.....GCAAGATTTGGTCAAACTTTTGA.......................................................................................................................................      1
.......AAGATTTGGTCAAACTTTTGAAGC.....................................................................................................................................      1
................TCAAACTTTTGAAGCCTTGACCAT.............................................................................................................................      1
...................AACTTTTGAAGCCTTGACCATCAA..........................................................................................................................      11
```

```
>osa-cand006
TCTGTTTGTACCTGTTGACTGACTCTGGTTCAACAAAACCAATTTTACTTTTGTTGAACTAGAGTGGGTCAACGGGTACCCACAGAGTAATTTGTACCCA
(((((..(((((((((((..(((((((((((((((((.........)))))))))))))))))..)))))))))))..)))))..............  (-50.7)
....TTTGTACCTGTTGACTGACTC.......................................................................  1
........TACCTGTTGACTGACTCTGGTTCA................................................................  8
.........ACCTGTTGACTGACTCTGGTTCAA...............................................................  4
...............TGACTGACTCTGGTTCAACAA...........................................................  1
...............TGACTGACTCTGGTTCAACAAAAC........................................................  2
.....................ACTCTGGTTCAACAAAACCAAT...................................................  2
....................................ACCAATTTTACTTTTGTTGAACTA....................................  1
...............................................TTTTGTTGAACTAGAGTGGGTCAA.........................  1
..............................................TTTGTTGAACTAGAGTGGGTCAAC.........................  2
.....................................................AACTAGAGTGGGTCAACGGGTAC....................  1
.....................................................AACTAGAGTGGGTCAACGGGTACC...................  39
```

```
>osa-cand007
TTAGTTCTCTAGCAGAGCTTGGTTGTACTGTATGATTGTGTCGTGTGTCCCTCATGTGCTTAGGAGCAATGTCTATAGATCAAGAACAATAAGTGATTTAGGCTGAGGAGAATTAAGTGTAATTATGTCTTCCTTAAAATATGGAGAAAGAGAAGTAGCTAGGTACTGGCCTGTTTACTTACAAAGAATATGGAACATTGGCATGCATATATGAGCATGCACAACACCATTTTTATTACTCAAAGATGATGACAACAATTTGATGCGGTATATCTGTTGC
..((((((.....)))))).((.((((((((((((((((((((...((((((...((((....))))..(((((..(((((...........)))))))))).)))).)).................(((((((.........)))....((((((((..(((((....)))))..)))))).....(((.((((....(((((((((.......)))))).)))..)))).)))....)))..)))).)))))).))))))..)))))))))).)).....  (-68)
....................TGGTTGTACTGTATGATTGTG.....................................................................................................................................  66
.........................................TCGTGTGTCCCTCATGTGCTT.....................................................................................................................  3
.......................................................................AGAACAATAAGTGATTTAGGC.....................................................................................  2
.......................................................................AGAACAATAAGTGATTTAGGCTGA...................................................................................  2
.............................................................................TGAGGAGAATTAAGTGTAATT.....................................................................................  1
.....................................................................................ATGTCTTCCTTAAAATATGGA.....................................................................  1
.....................................................................................................ATATGGAACATTGGCATGCAT.....................................................  1
.....................................................................................................................GACAACAATTTGATGCGGTAT.........  1
```

```
>osa-cand008
AACATGTTTTGGGTTTGTCCTAAGTCAAACTTCTTCAAGTTTGACCAAGCTTATAGAAAAACATAGCAACATCTACAGCATCTAATTAGTTTCATTAAGTCCATTGAATATATTTTTATATTATATTTGTTTTGTGTTGGAAATACTGCTGAACTTTTCTATTAAGTTTGTCAAACATGGAGAAGTTTGGCTTAGGACAAACCCATGATGCCTTATAAAG
.....((..((((((((((((((((((((((((((((.(((((((.(((((((((((((((...(((((.......((((((..(((.....................(((((((.........)))))))))..))))))).......)))))...)))))))..))))))))))))))).))))))))))))))))))))))))))))))..)).......... (-81.8)
.............TTTGTCCTAAGTCAAACTTCT.......................................................................................................................................  6
...............TGTCCTAAGTCAAACTTCTTC.....................................................................................................................................  2
................GTCCTAAGTCAAACTTCTTCA....................................................................................................................................  1
....................TAAGTCAAACTTCTTCAAGT..................................................................................................................................  1
....................TAAGTCAAACTTCTTCAAGTT.................................................................................................................................  5
...................................TCAAGTTTGACCAAGCTTATAGA..............................................................................................................  1
.......................................................................................................................CATGGAGAAGTTTGGCTTAGGACA.....................  1
.........................................................................................................................GAGAAGTTTGGCTTAGGACAA.....................  2
.........................................................................................................................GAGAAGTTTGGCTTAGGACAAACC.................  1
.........................................................................................................................AGAAGTTTGGCTTAGGACAAA....................  15
```

```
>osa-cand009
TCTACTACTGTATGTAGTAGAGATACACGCACAGCAAAAAGACATAAAGGAGAAAGAACACTAGGACCTAGAAAAAAACTTTAGCGCTAAAGTTTTTTTTCTGGGTCCTAGTGCTTTTCTTCTTTATATCTTTATATCTTTTTGTTGTGCCTGTATCTCT
..((((((.....)))))).(((((((.(((((((((((((.(((((((((((((..((((((((((((((((((((((((((((((((....)))))).)))))))))))))))))))))).))))))))))))))).).....)))))))))))))).)))))))). (-81.1)
.........GTATGTAGTAGAGATACACGCACA.........................................................................................................  1
.............GTAGTAGAGATACACGCACAGCA.......................................................................................................  1
.............GTAGTAGAGATACACGCACAGCAA......................................................................................................  1
..............TAGTAGAGATACACGCACAGCAA......................................................................................................  2
..............TAGTAGAGATACACGCACAGCAAA.....................................................................................................  4
................GTAGAGATACACGCACAGCAA.......................................................................................................  1
..................AGAGATACACGCACAGCAAAAAGA..................................................................................................  3
....................AGATACACGCACAGCAAAAAGA...................................................................................................  3
....................AGATACACGCACAGCAAAAAGAC..................................................................................................  1
....................AGATACACGCACAGCAAAAAGACA.................................................................................................  114
....................ATACACGCACAGCAAAAAGACATA................................................................................................  2
..............................ACAGCAAAAAGACATAAAGGAGAA......................................................................................  1
...................................CAAAAAGACATAAAGGAGAAAGA...................................................................................  1
.....................................AAAGACATAAAGGAGAAAGAACAC...............................................................................  1
.......................................CATAAAGGAGAAAGAACACTAGGA..............................................................................  1
........................................TAAAGGAGAAAGAACACTAGGA...............................................................................  1
........................................TAAAGGAGAAAGAACACTAGGACC..............................................................................  3
.........................................AAAGGAGAAAGAACACTAGGACCT.............................................................................  1
..........................................AAGGAGAAAGAACACTAGGACC...............................................................................  4
.....................................................................TTTTTTCTGGGTCCTAGTGCT.................................................  1
.............................................................................TCCTAGTGCTTTTCTTCTTTA..................................  5
.................................................................................TTTTCTTCTTTATATCTTTATATC.....................  1
.........................................................................................ATATCTTTTTGTTGTGCCTGTATC...  1
.............................................................................................TATCTTTTTGTTGTGCCTGTATCTC.  1
...............................................................................................ATCTTTTTGTTGTGCCTGTATCTC.  6
.................................................................................................TCTTTTTGTTGTGCCTGTATC...  2
.................................................................................................TCTTTTTGTTGTGCCTGTATCT..  5
.................................................................................................TCTTTTTGTTGTGCCTGTATCTC.  7
.................................................................................................TCTTTTTGTTGTGCCTGTATCTCT  81
...................................................................................................TTTTTGTTGTGCCTGTATCTCT  17
.....................................................................................................TTTTGTTGTGCCTGTATCTCT  1
```

```
>osa-cand010
AATCTAGAACCGGATATGACATATCCTAGTACTATGTTTAGATTCGTAGTATTGAGATGTGTCAAATCCGATCCTAGGTTGGTTTTTTTATGGGACGGAGG
(((((((...(((((.(((((((((..(((((((((........)))))))))..)))))))))).)))))...)))))))).((..(....)..)).....  (-37.5)
AATCTAGAACCGGATATGACA.......................................................................................  2
AATCTAGAACCGGATATGACATAT....................................................................................  58
AATCTAGAACCGGATATGACATATC...................................................................................  2
.ATCTAGAACCGGATATGACATATC...................................................................................  2
..TCTAGAACCGGATATGACATATCC..................................................................................  2
....TAGAACCGGATATGACATATC...................................................................................  1
.....AGAACCGGATATGACATATCCTAG...............................................................................  1
.......AACCGGATATGACATATCCTAGT..............................................................................  4
...............ATGACATATCCTAGTACTATGTTT....................................................................  1
....................ATATCCTAGTACTATGTTTAGATT.................................................................  1
...................................GTTTAGATTCGTAGTATTGAGAT...................................................  1
.............................................GTATTGAGATGTGTCAAATCCGA.........................................  1
.......................................................TGAGATGTGTCAAATCCGATCCT...............................  1
.....................................................ATGTGTCAAATCCGATCCTAGGT...............................  5
.....................................................ATGTGTCAAATCCGATCCTAGGTT..............................  39
.....................................................ATGTGTCAAATCCGATCCTAGGTTG.............................  4
.......................................................TGTGTCAAATCCGATCCTAGG.................................  2
.......................................................TGTGTCAAATCCGATCCTAGGTTG..............................  2
.....................................................GTGTCAAATCCGATCCTAGGTTGG..............................  62
.......................................................TGTCAAATCCGATCCTAGGTTG..............................  1
.......................................................TGTCAAATCCGATCCTAGGTTGG.............................  1
.....................................................TCAAATCCGATCCTAGGTTGG.................................  8
.....................................................CAAATCCGATCCTAGGTTGGT.................................  1
.....................................................CAAATCCGATCCTAGGTTGGTTTT..............................  1
.....................................................GATCCTAGGTTGGTTTTTTATGGG..............................  1
.....................................................TCCTAGGTTGGTTTTTTATGGGA...............................  1
.....................................................TCCTAGGTTGGTTTTTTATGGGAC..............................  1
.....................................................CCTAGGTTGGTTTTTTATGGG.................................  1
.....................................................CTAGGTTGGTTTTTTATGGGA..................................  1
.....................................................CTAGGTTGGTTTTTTATGGGACGG...............................  1
.....................................................TAGGTTGGTTTTTTATGGGAC..................................  3
.....................................................AGGTTGGTTTTTTATGGGACGGAG...............................  1
.....................................................GGTTGGTTTTTTATGGGACGG..................................  1
.....................................................GGTTGGTTTTTTATGGGACGGAGG...............................  2
.....................................................GTTGGTTTTTTATGGGACGGA..................................  1
.....................................................GTTGGTTTTTTATGGGACGGAG.................................  1
.....................................................GTTGGTTTTTTATGGGACGGAGG................................  1
.....................................................TTGGTTTTTTATGGGACGGAG..................................  2
.....................................................GGTTTTTTATGGGACGGAGG...................................  1
```

```
>osa-cand011
TACAAATTTTGTATACACGAATACAAACTTTGCATACACGTATGCAAAGTTTGTATACATGTATGCAAAGTTTGTATACGTATATGCAAATTTTATATAT
...(((.(((((((.(((.(((((((((((((((((.((((((((...)))))))).))))))))))))))))))).))).)))))))).))).......  (-45.2)
.................CGAATACAAACTTTGCATACACGTA.......................................................  1
..................GAATACAAACTTTGCATACACGTA.......................................................  1
...................AATACAAACTTTGCATACACGT........................................................  18
...................AATACAAACTTTGCATACACGTA.......................................................  2
...................AATACAAACTTTGCATACACGTAT......................................................  6
...................AATACAAACTTTGCATACACGTATG.....................................................  1
....................ATACAAACTTTGCATACACGT........................................................  2
....................ATACAAACTTTGCATACACGTA.......................................................  1
....................ATACAAACTTTGCATACACGTAT......................................................  1
....................ATACAAACTTTGCATACACGTATG.....................................................  1
.......................................................ATACATGTATGCAAAGTTTGTA.......................  1
.......................................................TACATGTATGCAAAGTTTGT........................  1
.......................................................TACATGTATGCAAAGTTTGTA.......................  28
```

```
>osa-cand012
GGCGACCAATTACCGCCGTCATCCCTGTCCCTGCAGGCATGGGCGGCCTACAGGGACAGGGATGACGGCAGTAATTGGTCGCCCAGGTAACTAAAGTAGC
(((((((((((.((((((((((((((((((((.((((.......)))).)))))))))))))))))))).))))))))))))).................. (-74.6)
...GACCAATTACCGCCGTCATCCC.......................................................................  2
.....CCAATTACCGCCGTCATCC........................................................................  1
.....CCAATTACCGCCGTCATCCCTG.....................................................................  11
......CAATTACCGCCGTCATCCCTGT....................................................................  3
.......AATTACCGCCGTCATCCCTGTC...................................................................  3
.........TTACCGCCGTCATCCCTGTCC..................................................................  1
..................TCATCCCTGTCCCTGCAGGCAT........................................................  1
...............................................TACAGGGACAGGGATGACGGC.............................  2
..................................................GGGACAGGGATGACGGCAG...........................  1
..................................................GGGACAGGGATGACGGCAGTA.........................  1
.....................................................AGGGATGACGGCAGTAATTGGT.....................  4
....................................................AGGGATGACGGCAGTAATTGGTC.....................  4
.....................................................GGGATGACGGCAGTAATTGGTC.....................  12
.......................................................GATGACGGCAGTAATTGGTCGC...................  4
........................................................TGACGGCAGTAATTGGTCGCCC................  2
```

```
>osa-cand013
CTCTGACGTACTGCCCTCTGATGTGGGTCGCTGACATATGGGCCCGCGAGCTAGGGGCCCACATGTCAGCCACTCAAAGTCAGAGGGCAGTAAGTTAGGA
.((((((.(((((((((((((.(((((.(((((((((.(((((((.........)))))))).))))))))).)))))..)))))))))))))).)))))). (-68.9)
.........ACTGCCCTCTGATGTGGGTCG.......................................................................  1
...................GATGTGGGTCGCTGACATATGGGC.........................................................  1
....................ATGTGGGTCGCTGACATATGGGCC........................................................  15
......................GTGGGTCGCTGACATATGGGCCC.......................................................  1
.............................................................ATGTCAGCCACTCAAAGTCAGAGGG............  1
..............................................................TGTCAGCCACTCAAAGTCAGAGGGC...........  2
```

```
>osa-cand014
ATGGTTGGGGGACGATTTTGTAATCCGATGACAAGATGAGGGACCTTGTATGTACTTTTTCCTAGTAGTAACACCGTATACTCCATTTACTTATATGGGCCAAGTGAATGCCGCGACGCGAGAGACGACAATGAAGAATACTCCATGTATTACGTCCTGGGCCAATATGAACGAATAGTGGGCCGGCCTGGCCTTTACACGCTACATAGATCATGTATCAGAGGATTAAGTTCAATGTAGGTCCCTCATCTTAACATCGAGGTTGGTTTACATCCTCGAACCATAATATGAGATGTAACG
((((((.(((((........((((((((((..(((((((((((((....((.((((..((((.(((((....(((((((...........)))))))).....(((((.(((..((((((.....)).........(((((.....)))))).)))).((((.(((.(((.....))).))).))))...))).)))))..)))))...(((.....)))..)))).))))..)).....)))))))))))))..)))))).)))))).....)))))).)))))).................. (-96.8)
............CGATTTTGTAATCCGATGACAAG.......................................................................................................................................................................... 1
............CGATTTTGTAATCCGATGACAAGA......................................................................................................................................................................... 1
............GATTTTGTAATCCGATGACAAGA.......................................................................................................................................................................... 1
................TTTGTAATCCGATGACAAGATGAG.................................................................................................................................................................... 1
..................TGTAATCCGATGACAAGATGAGGG................................................................................................................................................................... 1
...................GTAATCCGATGACAAGATGAGGG.................................................................................................................................................................... 1
...................GTAATCCGATGACAAGATGAGGGA................................................................................................................................................................... 13
....................TAATCCGATGACAAGATGAGG.................................................................................................................................................................... 1
....................TAATCCGATGACAAGATGAGGG................................................................................................................................................................... 1
....................TAATCCGATGACAAGATGAGGGA.................................................................................................................................................................. 5
....................TAATCCGATGACAAGATGAGGGAC................................................................................................................................................................. 2
.....................AATCCGATGACAAGATGAGGGA.................................................................................................................................................................. 1
.....................ATCCGATGACAAGATGAGGGAC................................................................................................................................................................. 2
.....................ATCCGATGACAAGATGAGGGACC................................................................................................................................................................ 1
.....................ATCCGATGACAAGATGAGGGACCT............................................................................................................................................................... 1
.......................CGATGACAAGATGAGGGACC...................................................................................................................................................................... 1
```

```
>osa-cand015a
TGAATGACACTTTCGGCTCAATAGAAGAGAGAATTTCTTTAAAAAGATTTACTTGGGTGAAGATGCAATATAATAAATTATGGTCAAAAGATTTTGAGCTGATACTAAAGTGAAGATGAAATATAATATATATACTAGTGATGTACTTGGGTGTTGATAAATTTAGAGTTGCATAATTTCTAATTTTTTTACTCTAACATTATGTTTGAACTTTGAAACACGTGATTCTAGGGGTGTTCTTGTCTTTCCCAACAATTTATCTCTCCAATTGAGTCGAAAGTGTCATATAACAAATTATCAGT
...((((((((((((((((((....((((((...((((....)))).....(((((.((((((..(((((..((((((((((..((((..((..(((((((..((.((((((((.......(((((.....((((...))))...))))))......((((((.........))))))..)))))))).))..)))).)))..))))))...)).))))))).))...)))))...)))))))))))).......))))))..))))))))))))))))))............... (-73.2)
.........................................................................................................................................................................................................................AACAATTTATCTCTCCAATTGAGT............................ 1
.........................................................................................................................................................................................................................ATCTCTCCAATTGAGTCGAAAGT..................... 2
.........................................................................................................................................................................................................................ATCTCTCCAATTGAGTCGAAAGTG.................... 20
.........................................................................................................................................................................................................................ATCTCTCCAATTGAGTCGAAAGTGT................... 2
.........................................................................................................................................................................................................................TCTCCAATTGAGTCGAAAGTG.................... 5
```

```
>osa-cand015b
CACTTTCGGCTCAATTGTAAAGATAAATTCTTCAAAAAGACGAGAATGCCCCTAGGGTCAAAAGCTTTTGAGCTCAAGCTTGGTACTAGGGGCATTCTCGCCCTTCTTAAGAATTCATCTCTCCAATTGAGTCGAAAGTGTCCTCTACCAAATTACCAAT
(((((((((((((((...((((.(((((((.((.(((.(((((((((((((((..(((..(((((.......)))))))..)))))))))))))))..))).)))))))))).))))...))))))))))))))))..................... (-72.2)
..CTTTCGGCTCAATTGTAAAGAT.......................................................................................................................  1
.............................CTTCAAAAAGACGAGAATGC.............................................................................................  1
.......................................................................................................................ATCTCTCCAATTGAGTCGAAAGT.....................  2
.......................................................................................................................ATCTCTCCAATTGAGTCGAAAGTG....................  20
.......................................................................................................................ATCTCTCCAATTGAGTCGAAAGTGT...................  2
.....................................................................................................................TCTCCAATTGAGTCGAAAGTG....................  5
```

```
>osa-cand016a
CTCCGCCGCATACGCCAACGAGGAGGCCGGGACCGCCGGATCCGGTGACTCCGGCCTCCTCGCCGGCAGATCCGGCCCCTCTGAGGCGAGGGGGAGCCGG
.............(((..(((((((((((((..(((((....)))))..))))))))))))))..)))....((((((((((.....)))))))..)))))  (-63.6)
...............CAACGAGGAGGCCGGGACC.............................................................  1
................AACGAGGAGGCCGGGACC.............................................................  1
....................AGGAGGCCGGGACCGCCGG.........................................................  2
....................AGGAGGCCGGGACCGCCGGA........................................................  27
....................AGGAGGCCGGGACCGCCGGAT.......................................................  16
....................AGGAGGCCGGGACCGCCGGATC......................................................  2
.......................................ATCCGGTGACTCCGGCCTCCTCG....................................  1
........................................TCCGGTGACTCCGGCCTCCTCGC...................................  3
........................................TCCGGTGACTCCGGCCTCCTCGCC..................................  2
........................................TCCGGTGACTCCGGCCTCCTCGCCG.................................  1
.........................................CCGGTGACTCCGGCCTCCTCG....................................  1
.........................................CCGGTGACTCCGGCCTCCTCGC...................................  2
.........................................CCGGTGACTCCGGCCTCCTCGCC..................................  3
.........................................CCGGTGACTCCGGCCTCCTCGCCG.................................  1
..........................................CGGTGACTCCGGCCTCCTCGC...................................  1
...........................................GGTGACTCCGGCCTCCTCGCC..................................  4
..............................................ACTCCGGCCTCCTCGCCGGCAGA............................  1
```

```
>osa-cand016b
ACCCGCCGGATCTCCTAGTGAGGAGGCCGGGACCGCCGGATCCGGTGACCCCGGTCTCCTCGCCGGCGGATCCGGCGCCCAGACGCCCACCTCCTCCGCT
...(((((((((..(..((((((((((((((..(((((....)))))..)))))))))))))))..)..)))))))))..................... (-62)
....................AGGAGGCCGGGACCGCCGG.............................................................  2
....................AGGAGGCCGGGACCGCCGGA............................................................  27
....................AGGAGGCCGGGACCGCCGGAT...........................................................  16
....................AGGAGGCCGGGACCGCCGGATC..........................................................  2
.......................................TCCGGTGACCCCGGTCTCCTCG.....................................  1
...............................................TGACCCCGGTCTCCTCGCCGG...............................  1
...................................................CGGTCTCCTCGCCGGCGGATC...........................  1
```

```
>osa-cand016c
GCGCCGTCGCCCACCTCCTCAGCTCGCACCGCAACCTCGCCGCCTCTTGCGCTCGTGTGCGCCGTCGTCGCCGCAGCTCCCTCTCCTCTACTGTGCTACCGCCGCCGCTCCCTCCCAATAAGCCGCCGGATCTCCTAGTGAGGAGGCCGGGACCGCCGGATCCGGTGACCCCGGTCTCCT
(((.((.((.............((.((((((((((.............)))))...)))))).))))..)).))).((((((..............)))))...(((..((.(((...........))).)))))...........((((((((((..(((((....)))))..)))))))))))  (-57.4)
.......................................................................................................................AGGAGGCCGGGACCGCCGG.....................        2
.......................................................................................................................AGGAGGCCGGGACCGCCGGA....................        27
.......................................................................................................................AGGAGGCCGGGACCGCCGGAT...................        16
.......................................................................................................................AGGAGGCCGGGACCGCCGGATC..................        2
```

```
>osa-cand017
CATGGTATTGGATGTGACATTTCCTAGTACAACAAATCTGTCAGGAGCTTATCCAGATTTGTTGTATTAGGGAATGTCTCGTCCAATACTAGGTTGGTTT
..(((((((((((.(((((((((((((((((((((((((((((....(((.....)))))))))))))))))))))))))))))).))))))))))))..... (-55.3)
...........ATGTGACATTTCCTAGTACAA.....................................................................  1
...........ATGTGACATTTCCTAGTACAACAA..................................................................  1
............TGTGACATTTCCTAGTACAACA...................................................................  2
............TGTGACATTTCCTAGTACAACAAA..................................................................  2
..............TGACATTTCCTAGTACAACAAATC...............................................................  1
...............GACATTTCCTAGTACAACAAATCT..............................................................  14
................ACATTTCCTAGTACAACAAATC...............................................................  1
................ACATTTCCTAGTACAACAAATCT..............................................................  1
................ACATTTCCTAGTACAACAAATCTG.............................................................  5
.................CATTTCCTAGTACAACAAATCTGT............................................................  1
...................................................TCCAGATTTGTTGTATTAGG...........................  1
...................................................TCCAGATTTGTTGTATTAGGGAAT.......................  1
...................................................CCAGATTTGTTGTATTAGGGAA........................  1
...................................................CCAGATTTGTTGTATTAGGGAATGTCT....................  1
....................................................AGATTTGTTGTATTAGGGAATGTC......................  5
.....................................................GATTTGTTGTATTAGGGAATGTCT.....................  17
......................................................ATTTGTTGTATTAGGGAATGT.......................  1
.......................................................ATTTGTTGTATTAGGGAATGTCTC....................  70
........................................................TTTGTTGTATTAGGGAATGTCT.....................  2
........................................................TTTGTTGTATTAGGGAATGTCTC....................  5
........................................................TTTGTTGTATTAGGGAATGTCTCG...................  5
........................................................TTGTTGTATTAGGGAATGTCT......................  4
.........................................................TGTTGTATTAGGGAATGTCTC.....................  2
..........................................................GTTGTATTAGGGAATGTCTCGTCC................  1
...........................................................TTGTATTAGGGAATGTCTCGTC.................  18
.............................................................TATTAGGGAATGTCTCGTCCA...............  2
..............................................................TTAGGGAATGTCTCGTCCAAT..............  1
...................................................................GGAATGTCTCGTCCAATACTA.........  5
....................................................................GAATGTCTCGTCCAATACTAGGTT.....  1
.....................................................................AATGTCTCGTCCAATACTAGGTTG....  1
```

```
>osa-cand018
TTGCATTGTCGTTTTTGTGTTTTTTGGCATTCTGTAACTTGACCGCCCCTTGCATATATATGCAGCCAGCTGAAATTAGCCTTGGCTGGCATCCTCAAGTTAGAGAATGCCAAAAACACA
...............(((((((((.(((((((((.(((((((.........(((((....)))))(((((..(........)..)))))).....)))))))).))))))))))))))))))) (-51.1)
...................TTTTTTGGCATTCTGTAACTT.......................................................................................        1
...................TTTTTTGGCATTCTGTAACTTG......................................................................................        18
...................TTTTTTGGCATTCTGTAACTTGA.....................................................................................        1
....................TTTTTGGCATTCTGTAACTTG......................................................................................        1
```

```
>osa-cand019
ACATGAAGTTTGAGAGGCGTTTTGCTCAAGACCGCGCAACGATTCCATATGACACCGCATCGTTGTCCATGCCTATCATGTTCATCCAGAGCCCCTGTTGATCTTCAGATAAGAGAAAAGCTCAAAATTAAAGAAGGCTTGTTTATTGATCATGTCAAGGATAGGTATCGACGGCGATGCGCTGGCTATGGCCATGGTTGTGCGGTTCTTGCGCAATAAC
..................((((((.(((((((((((((.((.(((((...((.(((((((..(((.(((((((((((((.(((....(((((.(((........)))....(((.....)))............)))))......))).)))......)))))))))).)))..)))))))..)).)))))))))..))))).))))..))) (-80.4)
...................TTTTGCTCAAGACCGCGCAA.......................................................................................................................................................  1
...................TTTTGCTCAAGACCGCGCAAC......................................................................................................................................................  39
....................TTTGCTCAAGACCGCGCAACG.....................................................................................................................................................  1
.......................TCAAGACCGCGCAACGATTCC...................................................................................................................................................  1
```

```
>osa-cand020
ATTCCTCTAACTTCTCAATAACTTGTGTCACTGACATGTGGACCATCTATCCAATGGGTCCGCATGTTAGTGACTCAAAGTCAGAGGATCCCCGATCACGTGATTTCAGGATGGGGATCTCCCACGCGAGAAAGAGAGAA
....((((...(((((......(((.(((((((((((((((((.............)))))))))))))))))).))).((..(((.((((((.(((...((....)).)))))))))))..)).)..)))))..)))).. (-60.3)
...................AACTTGTGTCACTGACATGTGGA.......................................................................................      3
...................AACTTGTGTCACTGACATGTGGAC......................................................................................      35
...................AACTTGTGTCACTGACATGTGGACC.....................................................................................      1
....................ACTTGTGTCACTGACATGTGGACC.....................................................................................      11
.....................CTTGTGTCACTGACATGTGGACC......................................................................................      1
......................TTGTGTCACTGACATGTGGACCAT.....................................................................................      1
...............................ATGTGGACCATCTATCCAATGGGT...........................................................................      1
.............................................TCTATCCAATGGGTCCGCATGTT...........................................................      1
...............................................................CATGTTAGTGACTCAAAGTCAGA.........................................      1
..................................................................GTTAGTGACTCAAAGTCAGAGGAT.....................................      1
.......................................................................AGTCAGAGGATCCCCGATCACGTG...................................      1
```

```
>osa-cand021
AGGGGTGGCCGCCGCGGGTATTTCTTGACCCACTTTAGTTCAACTAAAATGAACTAAGTTTCACTTTTAGAGAGTCTAAAGTGAAATTTAGTTCATTTAGTAGGACTAGAATGGGCCAAAGAATACCCATGGGTCAACCC
.(((.(((((..(..(((((((..(((.((((.(((((((((.(((((((.(((((((((((((((((((((.((.....)))))))))))))))))))))))))).))))))).)))).))).))))))).))))))).))) (-70.1)
..................TATTTCTTGACCCACTTTAGTT.......................................................................................................     1
.......................CTTGACCCACTTTAGTTCAACTAA.................................................................................................     1
...............................ACTTTAGTTCAACTAAAATGAA.........................................................................................     1
.............................................AAATGAACTAAGTTTCACTTTTAGA.......................................................................     1
.......................................................................................AATTTAGTTCATTTAGTAGGA..................................     1
.......................................................................................ATTTAGTTCATTTAGTAGGACTAG...............................     1
.......................................................................................ATTTAGTAGGACTAGAATGGGCC.......................     1
.......................................................................................ATTTAGTAGGACTAGAATGGGCCA......................     1
.......................................................................................TTTAGTAGGACTAGAATGGGCC........................     1
.......................................................................................TTTAGTAGGACTAGAATGGGCCA.......................     1
.......................................................................................TTTAGTAGGACTAGAATGGGCCAA......................     1
.......................................................................................TTAGTAGGACTAGAATGGGCCA........................     1
.......................................................................................TTAGTAGGACTAGAATGGGCCAA.......................     3
.......................................................................................TTAGTAGGACTAGAATGGGCCAAA......................     18
```

```
>osa-cand022
TCCCTCTGGTCCAAATTAAGTTCACTTTTGTACATGAATTTGGACATAGGTTATATCCAGATTCATGTACAAAAGTGAATTTATTTTGGCACGAAGGTAG
..(((..(..(((((.(((((((((((((((((((((((((((((.(((...))).))))))))))))))))))))))))))).)))))..)..))))... (-50)
..............ATTAAGTTCACTTTTGTACATGAA.......................................................  1
..............TTAAGTTCACTTTTGTACATGAAT......................................................  1
...............TAAGTTCACTTTTGTACATGAATT.....................................................  3
..................AGTTCACTTTTGTACATGAATTTGG..................................................  1
...................GTTCACTTTTGTACATGAATTTGG...................................................  2
....................TTCACTTTTGTACATGAATT......................................................  1
....................TTCACTTTTGTACATGAATTTGG...................................................  1
....................TTCACTTTTGTACATGAATTTGGA..................................................  30
......................ACTTTTGTACATGAATTTGGACA.................................................  1
.......................ACTTTTGTACATGAATTTGGACAT................................................  4
............................TACATGAATTTGGACATAGGT...........................................  1
............................TACATGAATTTGGACATAGGTTATATC.....................................  1
............................ACATGAATTTGGACATAGGTTATAT.......................................  1
.......................................................ATCCAGATTCATGTACAAAAGTGA.................  9
```

```
>osa-cand023
TTTTTGCTAGCACAAGACTTTGACCAACAATTACTCTATTAGGATATAATTTTTGTGACACGAAATTGAATTTGTTAGATTCGTATTCAAAAGCACTTAATTATGATTATGCTTCTGTATCACATAAATAATATCCTAATAGAGCAATTGTGGGTCACAG
.(((((.....)))))...(((((.(((((((.(((((((((((((((.((((.(((((.(((((..((((((.....)))))))..)))..(((((..((((....)))))))))..))).))))).)))).))))))))))))))).)))))).)))))... (-50.4)
...TTGCTAGCACAAGACTTTGACCAA.......................................................................................................  1
...........ACAAGACTTTGACCAACAATTA..................................................................................................  1
...........ACAAGACTTTGACCAACAATTACT................................................................................................  3
.............AAGACTTTGACCAACAATTACTCT..............................................................................................  1
................ACTTTGACCAACAATTACTCTATT...........................................................................................  2
...................TGACCAACAATTACTCTATTAG...........................................................................................  5
...................TGACCAACAATTACTCTATTAGG..........................................................................................  1
...................TGACCAACAATTACTCTATTAGGA.........................................................................................  27
.....................ACCAACAATTACTCTATTAGGAT.......................................................................................  1
.....................ACCAACAATTACTCTATTAGGATA......................................................................................  6
......................AACAATTACTCTATTAGGATA.........................................................................................  1
..........................ATTACTCTATTAGGATATAATT....................................................................................  1
...........................TTACTCTATTAGGATATAATT...................................................................................  1
...............................CTATTAGGATATAATTTTTGTGAC...........................................................................  1
.......................................................................................................TAAATAATATCCTAATAGAGC.....  1
.....................................................................................................TCCTAATAGAGCAATTGTGGG......  1
....................................................................................................TCCTAATAGAGCAATTGTGGGTCA...  1
...................................................................................................CTAATAGAGCAATTGTGGGTCACA.  5
..................................................................................................TAATAGAGCAATTGTGGGTCA...  1
.................................................................................................AATAGAGCAATTGTGGGTCACA.  2
................................................................................................ATAGAGCAATTGTGGGTCACA.  2
```

```
>osa-cand024
CCATTGCTGCCAGCATTTTGATTCTGTGTGTGTGTCTTGGTTGCAAAAACCAAGACATACACACAGAATCAAATAATAACAAAGGTTTCCTAGCCTCAAA
....(((.....)))..((((((((((((((((((((((((.....))))))))))))))))))))))))..........(((((....)))))....  (-48)
..................TGATTCTGTGTGTGTGTCTTGGT.......................................................  1
..................TGATTCTGTGTGTGTGTCTTGGTT......................................................  6
..................TGATTCTGTGTGTGTGTCTTGGTTGC....................................................  1
...................GATTCTGTGTGTGTGTCTTGG........................................................  5
...................GATTCTGTGTGTGTGTCTTGGT.......................................................  34
...................GATTCTGTGTGTGTGTCTTGGTT......................................................  15
...................GATTCTGTGTGTGTGTCTTGGTTG.....................................................  2
....................ATTCTGTGTGTGTGTCTTGGT.......................................................  1
.....................TTCTGTGTGTGTGTCTTGGTT......................................................  1
.....................TCTGTGTGTGTGTCTTGGTT.......................................................  1
..............................................AAACCAAGACATACACACAGAATCA...........................  1
...............................................AACCAAGACATACACACAGAA..............................  1
...............................................AACCAAGACATACACACAGAATC.............................  1
...............................................AACCAAGACATACACACAGAATCA............................  11
...............................................AACCAAGACATACACACAGAATCAA...........................  1
...............................................AACCAAGACATACACACAGAATCAAA..........................  3
................................................ACCAAGACATACACACAGAA...............................  1
................................................ACCAAGACATACACACAGAATC.............................  2
................................................ACCAAGACATACACACAGAATCA............................  13
.................................................CCAAGACATACACACAGAATCA............................  4
....................................................GACATACACACAGAATCA............................  1
```

```
>osa-cand025
AAAAAAAATCAACCTAGTATTGAAGGTAATATTTTCTAGTATAACGAATCTGGACAGGCTGTCCATATTCGTTGTAATAGGAAATGTCACCTTAATACTAGGCTGGTTTTCTTTGGTCGGA
...(((((((.(((((((((((.(((.(((((((((((.(((((((((((.(((((.....)))))).)))))))))).)))))))))).)))))))))))))))).))))))).........  (-53.4)
.AAAAAAATCAACCTAGTATTGA.......................................................................................................   1
.AAAAAAATCAACCTAGTATTGAAGG....................................................................................................   2
..AAAAATCAACCTAGTATTGAAGGT....................................................................................................   2
......ATCAACCTAGTATTGAAGGTAATA................................................................................................   1
.............TAGTATTGAAGGTAATATTTTC...........................................................................................   56
..............AGTATTGAAGGTAATATTTTCT..........................................................................................   1
.........................AATATTTTCTAGTATAACGAATCT.............................................................................   3
...........................TATTTTCTAGTATAACGAATCTGG...........................................................................   1
............................ATTTTCTAGTATAACGAATCTGGA..........................................................................   4
...............................TTCTAGTATAACGAATCTGGA...........................................................................   2
..............................TTCTAGTATAACGAATCTGGACA..........................................................................   1
...............................CTAGTATAACGAATCTGGACA...........................................................................   1
................................TAGTATAACGAATCTGGACAGG........................................................................   1
...............................TAGTATAACGAATCTGGACAGGCT........................................................................   1
................................AGTATAACGAATCTGGACAGGCT.......................................................................   1
...................................................AGGCTGTCCATATTCGTTGTAATA...................................................   1
.......................................................CTGTCCATATTCGTTGTAATAGGA...............................................   2
.............................................................ATTCGTTGTAATAGGAAATGTCAC.........................................   6
...........................................................................AGGAAATGTCACCTTAATACTAGG...........................   1
.............................................................................AAATGTCACCTTAATACTAGG...........................   96
...............................................................................AAATGTCACCTTAATACTAGGCT.......................   1
................................................................................AATGTCACCTTAATACTAGGCTGG.....................   3
.....................................................................................AATACTAGGCTGGTTTTCTTTGGT....................   2
```

```
>osa-cand026
CTTTGTAGTTGACAACTTTTTCATTAAAATAATTTATGGGTCATAATATTTATATTTATATTTGTATTTAGCCCCCTCTCGTGGGTTTTCACTAATCTGAAAATTAATATTGATTATTTCATGCTTTAATAGTTTTAAATGAATGAATGGCTAAGTACAAAATTATAGATCTCGTCGAGCTCTACATCTTTGCTATAGAGCTTGTCTCCATCGGAGGTTGTTTAAAATGTAGATATGAGAATTTGTAAAAATAAATCTAAGACATTATAAGGAATATTTGGACCCATAAGTTATTTTAAT
..(((.....)))).....((((((((((((((((((((..(((((((...(((((((((((((((((((...((..((..(((((((.....)))))))..))...)).....(((((..(((((.....)))))...)))))).))))))))))))).(((((((((((((((((((((....))...)))))))))).((((...)))).................)))))).))))))))).................)))))))))))))..)))))))))))))))))))))) (-76.8)
................TTTTTCATTAAAATAATTTATGGG.......................................................................................................................................................................................4
................TTTTCATTAAAATAATTTATGGGT.......................................................................................................................................................................................1
...................TTCATTAAAATAATTTATGGGTCA.....................................................................................................................................................................................11
...................TCATTAAAATAATTTATGGGT........................................................................................................................................................................................1
.....................ATTAAAATAATTTATGGGTCATA.....................................................................................................................................................................................5
```

```
>osa-cand027
TGTGTTAGATTGGCTTGGAGTGGTGACAACTGGTAGCAGAGCAATGTCATCTCCACTTGCCGGTTGTTCCTGGTATGTCGAGGGATACTGGTGCTGACATTGCTCTGATACCAATTGTCGGCACTCTAGGCCAATCATAC
.......(((((((((((((..(((((.(((((.(((((((((((((((((.((.((((((.....)))))).)).))))...........)))))))))))))).)))))..)))))..))))))))))))))).... (-73.2)
TGTGTTAGATTGGCTTGGAGT.......................................................................................................................  9
...GTTAGATTGGCTTGGAGTGGT....................................................................................................................  88
...GTTAGATTGGCTTGGAGTGGTGAC.................................................................................................................  2
....TTAGATTGGCTTGGAGTGGT....................................................................................................................  45
....TTAGATTGGCTTGGAGTGGTGA..................................................................................................................  1
.........TTGGCTTGGAGTGGTGACAAC..............................................................................................................  3
.........TTGGCTTGGAGTGGTGACAACT.............................................................................................................  1
..............TTGGAGTGGTGACAACTGGTA........................................................................................................  3
..............TGGAGTGGTGACAACTGGTA.........................................................................................................  2
..............TGGAGTGGTGACAACTGGTAG........................................................................................................  5
....................GTGACAACTGGTAGCAGAGCAATG.................................................................................................  1
.......................TGACAACTGGTAGCAGAGCA.................................................................................................  1
.......................TGACAACTGGTAGCAGAGCAA................................................................................................  28
.......................TGACAACTGGTAGCAGAGCAATG..............................................................................................  1
.........................GACAACTGGTAGCAGAGCAAT..............................................................................................  3
.........................GACAACTGGTAGCAGAGCAATG.............................................................................................  2
.........................GACAACTGGTAGCAGAGCAATGTC...........................................................................................  4
..........................ACAACTGGTAGCAGAGCAATG..............................................................................................  1
..........................ACAACTGGTAGCAGAGCAATGTCA...........................................................................................  1
...........................CAACTGGTAGCAGAGCAATGT..............................................................................................  3
...........................CAACTGGTAGCAGAGCAATGTC.............................................................................................  1
............................AACTGGTAGCAGAGCAATGTC.............................................................................................  18
............................AACTGGTAGCAGAGCAATGTCA............................................................................................  1
............................AACTGGTAGCAGAGCAATGTCATC..........................................................................................  28
.............................ACTGGTAGCAGAGCAATGTC.............................................................................................  1
.............................ACTGGTAGCAGAGCAATGTCA............................................................................................  1
.............................ACTGGTAGCAGAGCAATGTCATC..........................................................................................  1
...............................TGGTAGCAGAGCAATGTCATCTCC.......................................................................................  1
.................................TAGCAGAGCAATGTCATCTCC........................................................................................  1
.......................................................................................TACTGGTGCTGACATTGCTCTGAT...............................  1
.........................................................................................TGGTGCTGACATTGCTCTGAT...............................  3
...........................................................................................GCTGACATTGCTCTGATACCAATT.........................  1
.............................................................................................TGACATTGCTCTGATACCAAT..........................  3
.............................................................................................TGACATTGCTCTGATACCAATT..........................  3
.............................................................................................TGACATTGCTCTGATACCAATTGT........................  6
...............................................................................................CATTGCTCTGATACCAATTGTCGG.....................  5
..................................................................................................ATTGCTCTGATACCAATTGTC......................  7
..................................................................................................ATTGCTCTGATACCAATTGTCGG.....................  1
..................................................................................................ATTGCTCTGATACCAATTGTCGGC....................  7
...................................................................................................TTGCTCTGATACCAATTGTCG......................  20
...................................................................................................TTGCTCTGATACCAATTGTCGG.....................  71
....................................................................................................TTGCTCTGATACCAATTGTCGGCA...................  1
.....................................................................................................TGCTCTGATACCAATTGTC.......................  3
.....................................................................................................TGCTCTGATACCAATTGTCG......................  8
.....................................................................................................TGCTCTGATACCAATTGTCGG.....................  2326
.....................................................................................................TGCTCTGATACCAATTGTCGGC....................  1
......................................................................................................GCTCTGATACCAATTGTCGG.....................  4
......................................................................................................GCTCTGATACCAATTGTCGGC....................  2
.......................................................................................................TCTGATACCAATTGTCGGCAC....................  1
.......................................................................................................TCTGATACCAATTGTCGGCACT...................  1
........................................................................................................CTGATACCAATTGTCGGCACTC..................  1
.........................................................................................................TGATACCAATTGTCGGCACTC...................  4
...........................................................................................................TACCAATTGTCGGCACTCTAG...............  1
.............................................................................................................CAATTGTCGGCACTCTAGG...............  1
...............................................................................................................AATTGTCGGCACTCTAGGCCAATC.....  5
```

```
>osa-cand028
TGGAACCCGTCAGAGGTGTTCGAGTCACAGGTCAAGAATGGAACCCGCCAAAGGTGTTCTATTCTCGACCCGTCACAGGTGACTAGATACCTGTGACGGGCCGTTGCCGGATGGCTCACC
.((..(((((((.(((((((..((((((.((((.((((((((((((.....)).)))))))))).)))).......)))))).)))))))..)))))))...(((....))).....  (-57)
.......................................................................AGGTGACTAGATACCTGTGACGGG.....................        58
.......................................................................GGTGACTAGATACCTGTGACGG......................        1
.......................................................................GGTGACTAGATACCTGTGACGGG.....................        1
.......................................................................GGTGACTAGATACCTGTGACGGGC....................        13
.......................................................................GTGACTAGATACCTGTGACGGGC.....................        1
.......................................................................GTGACTAGATACCTGTGACGGGCC....................        1
.......................................................................TGACTAGATACCTGTGACGGGC.....................        2
.......................................................................TGACTAGATACCTGTGACGGGCC....................        1
.......................................................................GACTAGATACCTGTGACGGG.......................        2
```

```
>osa-cand029
TAGGACAAAATTTGGTTAAACTTTTGATATTTGGGCCCATCAATTTTATATTAGAATAAGTACAGAGATCTAATATGTTTATGACATTACATTAGTACTTTTCAAGGCAAATCTACACACACCATGTTTTTTTTAAAAAAACTAAGCATTTGAGACACTATATCGGGTCAAAGTTTCAAAAGTTTAATCAAATCTTGTCCTAAACATCAAATATTATAAC
(((((((.((((((((((((((((((.((((.(((((.(((.....(((((((((.............)))))))))....))).........((((...(((((((((.................(((((((...)))))))...)).)))))))..))))....)))))..)))).)))))))))))))))))).))))))))..................) (-56.8)
.......................................................................................................................................................................................AGTTTAATCAAATCTTGTCCT...................  10
```

```
>osa-cand030
TGCTTAGGTGACATGCGCCATCGCCATGGTTTGAAATTCGGTAATCTTGGCCGCCATCGGCAAGCACGAATCTCACCAAAATATTAGGTTTTTTTATCAAATATTTGTAAATTTGGTAAAAATTTGTTCAAATTCAATCAAAATATGTTAAAAATTCAAATAATTTCGGCAAAAAAAACAAAAAATCACGAAATTTTTGGCAACCACCGAAATTTCTGAGCAACTGAAATTGCAAACCCTGGCCATTCATATTCAGCCC
.(((..((((.....)))).....((((.(((((((.(((((.......(((....))))..((.((((....(((.........)))..((((((((((((........)))))))))))).....))))))..................(((.((((((((.((.....)))))))))))))...)))))).)).)))))).))))...........))).. (-55.4)
TGCTTAGGTGACATGCGCCAT.....................................................................................................................................................................................  1
....................TCGCCATGGTTTGAAATTCGG.................................................................................................................................................................  23
.....................................TAATCTTGGCCGCCATCGGCA...............................................................................................................................................  2
.......................................................................TTAGGTTTTTTTATCAAATA.........................................................................................................  2
.....................................................................................TTTGTAAATTTGGTAAAAATT.............................................................................................  1
.......................................................................................TTGGTAAAAATTTGTTCAAAT...........................................................................................  1
```

```
>osa-cand031
AAAACCGGTACCAATACTATATGTACTGGTTTTTTAAAAGAACTTACACCTATTAATATATTACAGGTGCTGGTTCTTTAAACAACCAGTGCCTACCAAACTGAACCGACACGAGCGAGCCGAGCCGGCCGAGCCGGCCG
.....((((..((.........(((((((((.((((((.(((((..(((((.............)))))..)))))))))))).)))))))))..........)).))))............((.(((((...)))))))) (-44.6)
...ACCGGTACCAATACTATATGTACT.......................................................................................................      1
...................ATATGTACTGGTTTTTTAAAAGAA.......................................................................................      55
....................TATGTACTGGTTTTTTAAAAGAAC......................................................................................      1
.....................ATGTACTGGTTTTTTAAAAGAA.......................................................................................      1
.....................ATGTACTGGTTTTTTAAAAGAACT.....................................................................................      12
......................GTACTGGTTTTTTAAAAGAACTTA.....................................................................................      2
..............................TTTTTTAAAAGAACTTACACC...............................................................................      1
...............................TTTTTAAAAGAACTTACACCTATT............................................................................      1
................................TTTAAAAGAACTTACACCTATTAA...........................................................................      1
....................................AAAAGAACTTACACCTATTAATAT.......................................................................      1
....................................AAAGAACTTACACCTATTAATATAT......................................................................      1
.....................................AGAACTTACACCTATTAATATATT......................................................................      1
.......................................ACTTACACCTATTAATATATTACA.....................................................................      1
.......................................................ATATTACAGGTGCTGGTTCT..........................................................      1
.......................................................................................CCAGTGCCTACCAAACTGAACCGA...............................      2
.......................................................................................CAGTGCCTACCAAACTGAACCGAC...............................      1
.....................................................................................CAAACTGAACCGACACGAGCGAGC.................................      1
....................................................................................AAACTGAACCGACACGAGCGAGCC..................................      1
...................................................................................ACTGAACCGACACGAGCGAGCCGA.................................      2
..................................................................................GAACCGACACGAGCGAGCCGAGCC..............................      1
.................................................................................ACCGACACGAGCGAGCCGAGCCGG...........................      2
```

```
>osa-cand032
AAAATCTGGACTGTTTGGGGGAGCTTCTGACAGCTGCAGTTTCTCTTGTTCTAGGAGAAGCTGCAGCTGTCAGAAGCTCCCCCAAACATGGCCTAAAGCT
.......((..((((((((((((((((((((((((((((((((((...)))))))))))))))))))))))))))))))))))))))))))))...)).......  (-73.9)
......TGGACTGTTTGGGGGAGCTTC.......................................................................  3
................GGGGGAGCTTCTGACAGCTGCAGT.........................................................  1
....................AGCTTCTGACAGCTGCAGTT.........................................................  1
....................AGCTTCTGACAGCTGCAGTTTC.......................................................  1
....................AGCTTCTGACAGCTGCAGTTTCT......................................................  6
....................AGCTTCTGACAGCTGCAGTTTCTC.....................................................  86
....................AGCTTCTGACAGCTGCAGTTTCTCT....................................................  1
...................GCTTCTGACAGCTGCAGTTTCT.........................................................  3
...................GCTTCTGACAGCTGCAGTTTCTCT.......................................................  26
..................CTTCTGACAGCTGCAGTTTCTC..........................................................  7
..................TTCTGACAGCTGCAGTTTCTC...........................................................  4
..................TTCTGACAGCTGCAGTTTCTCT..........................................................  2
..................TTCTGACAGCTGCAGTTTCTCTT.........................................................  1
..................TTCTGACAGCTGCAGTTTCTCTTG........................................................  1
.................TCTGACAGCTGCAGTTTCTCT............................................................  1
.......................TGACAGCTGCAGTTTCTCTTG.......................................................  3
.......................TGACAGCTGCAGTTTCTCTTGTT.....................................................  2
..............................................CTAGGAGAAGCTGCAGCTGTC...............................  1
...........................................GGAGAAGCTGCAGCTGTCAGAAGC...........................  1
..........................................GAGAAGCTGCAGCTGTCAGA...............................  1
...........................................AGAAGCTGCAGCTGTCAGAA...............................  1
...........................................AGAAGCTGCAGCTGTCAGAAGC.............................  2
...........................................AGAAGCTGCAGCTGTCAGAAGCT............................  3
...........................................AGAAGCTGCAGCTGTCAGAAGCTC...........................  149
..........................................GAAGCTGCAGCTGTCAGAAGCT.............................  6
..........................................GAAGCTGCAGCTGTCAGAAGCTC............................  6
..........................................GAAGCTGCAGCTGTCAGAAGCTCC...........................  299
..........................................GAAGCTGCAGCTGTCAGAAGCTCCC..........................  1
...........................................AAGCTGCAGCTGTCAGAA.................................  1
...........................................AAGCTGCAGCTGTCAGAAGCT..............................  3
...........................................AAGCTGCAGCTGTCAGAAGCTC.............................  5
...........................................AAGCTGCAGCTGTCAGAAGCTCC............................  1
...........................................AAGCTGCAGCTGTCAGAAGCTCCC...........................  1
..........................................AGCTGCAGCTGTCAGAAGCTCCCC...........................  2
.........................................GCTGCAGCTGTCAGAAGCTCCCC............................  1
.........................................GCTGCAGCTGTCAGAAGCTCCCCC...........................  2
........................................TGCAGCTGTCAGAAGCTCCCCCA............................  1
```

```
>osa-cand033
CGAATCGAGCCTAAGACAAGTCGAGCTTGAGCAGCTCGTGAGCCTCGAGCTTTTTTTTTTTTGACAACCTCGAGGCTCGCGTGCTCTTCATATAGCGAAA
((..((((((....((....))..))))))..(((.((((((((((((.((.((.......)).)).)))))))))))))..)))..........)).... (-36.6)
..AATCGAGCCTAAGACAAGTCGA.......................................................................   1
.......AGCCTAAGACAAGTCGAGCTTGAG................................................................   1
.......................................................TTGACAACCTCGAGGCTCGCG...................   24
```

```
>osa-cand034
TTAATAAACCTATTTATAGGTCAAATTAGTAAGTAACCCACGAGTCAACCCGCGGGTTACTCACTAATTTTGCCTATAAACGGGTTCGCGGGTTGGCCCG
......((((..(((((((((..(((((((((.(((((((((.((.........)).)))))))))..)))))))))..)))))..((((....)))) (-45.9)
...........ATTTATAGGTCAAATTAGTAAGT.............................................................  1
...........ATTTATAGGTCAAATTAGTAAGTA............................................................  1
.............TATAGGTCAAATTAGTAAGTAACC..........................................................  5
...............................GTAACCCACGAGTCAACCCGCGGG.........................................  1
..............................................AACCCGCGGGTTACTCACTAATTT.........................  1
.......................................................TTACTCACTAATTTTGCCTATA....................  2
.......................................................TTACTCACTAATTTTGCCTATAA...................  1
.......................................................TTACTCACTAATTTTGCCTATAAA..................  14
...........................................................TCACTAATTTTGCCTATAAACGG................  1
..........................................................CACTAATTTTGCCTATAAACGGGT..............  2
...........................................................ACTAATTTTGCCTATAAACGGGTT.............  2
.............................................................ATTTTGCCTATAAACGGGTTCGCG.........  1
```

```
>osa-cand035a
CTCTATACACAATCTTTTCACTTTGGACTAGACAACTTTATCTTTGTTGCACAATAAACCACCATAACTCTTTACGCTAGTGATGTCTAGCGTTCTTTCGATAAAGGTATAGCAAGCATTTAGACATGAAAATTTACTAGCACGTCAGTAACAATTCGCTCAAAGTCATCGAAGAACTGAAGATGTGGTTTGGGGTGCTTCATTGTGCAACAAAGGTAAAGTTACCTAGTCCAAAGTGAAACTTTGACAATAAAATCCCA
.........(((...(((((((((((((((..(((((((((((((((((((((((.((.((((..((((.....((((((((((((((((..(((((....)))))....)).......)))))).......))))))))...(((((.....((((.........))))..)))))......))))...)))).)).))))))))))))))))))))..))))))))))))))))..))).............. (-87)
.........CAATCTTTTCACTTTGGACTA.......................................................................................................................................................................................... 1
.........AATCTTTTCACTTTGGACTAGACA........................................................................................................................................................................................ 3
..........ATCTTTTCACTTTGGACTAGACAA....................................................................................................................................................................................... 1
.............TTTTCACTTTGGACTAGACAACTT.................................................................................................................................................................................... 2
..............TTTCACTTTGGACTAGACAACTTT................................................................................................................................................................................... 1
....................................ATCTTTGTTGCACAATAAACCACC............................................................................................................................................................................ 2
...............................................AATAAACCACCATAACTCTTTACG.............................................................................................................................................................. 2
.....................................................................GTGATGTCTAGCGTTCTTTCGATA.......................................................................................................................... 1
.....................................................................................AAATTTACTAGCACGTCAGTA.......................................................................................... 1
.....................................................................................AATTTACTAGCACGTCAGTAACAA........................................................................................ 1
.....................................................................................AAGTCATCGAAGAACTGAAGATGT........................................................................................ 1
.....................................................................................ATCGAAGAACTGAAGATGTGGTTT........................................................................................ 1
.....................................................................................TTCATTGTGCAACAAAGGTAAAG.......................................................................................... 1
.....................................................................................GTAAAGTTACCTAGTCCAAAGTGA........................................................................................ 1
.....................................................................................TAAAGTTACCTAGTCCAAAGTGA.......................................................................................... 2
.....................................................................................TAAAGTTACCTAGTCCAAAGTGAA......................................................................................... 14
.....................................................................................AAAGTTACCTAGTCCAAAGTG............................................................................................ 1
.....................................................................................AAAGTTACCTAGTCCAAAGTGA.......................................................................................... 52
.....................................................................................AAAGTTACCTAGTCCAAAGTGAAA........................................................................................ 2
.....................................................................................AAGTTACCTAGTCCAAAGTGA............................................................................................ 3
.....................................................................................AAGTTACCTAGTCCAAAGTGAA........................................................................................... 27
```

```
>osa-cand035b
TACACAATCTTTTTACTTTGGACTAGGTAACTTTACTTTTGTTGCATAATGGACGACCACCCTAACTCTTTTCGCTAGTGATGTCTAGCGTCTCTTTCAACAATAACTCTTTTCGCTAGTGATGCCTAGCGTCTCATTCGACAAAGGTATGGCATGTATATAGGTATGAAAATTTGCTGGCATGTCGTTAATAATTTGCTCGAAGTCATCGAAGAACTGAAGGCGTGGTTTAGGGTGGTCCATTGTGTAACAAAGGTAAAGTTACCTAGTCCAAAGTGAAAATACTGGACAAAGGGTAGT
(((......((((((((((((((((((((((((((((((((((((((((((((((((...(((((((((..(....((((((.....)))))))...((((((..............((((((.....))))))).....(((((((((...(((((((((.....(((.........)))).)))))))))).....)))).)))))..............)))))))...)..))))))))))))))))))))))))))))))))))))))))))))))))))))))))))..((.....)).))))..  (-121.3)
.ACACAATCTTTTTACTTTGGACTA.......................................................................................................................................................................  3
...ACAATCTTTTTACTTTGGACTAGG.....................................................................................................................................................................  2
.......TCTTTTTACTTTGGACTAGGTAAC.................................................................................................................................................................  1
............TTACTTTGGACTAGGTAACTTTAC............................................................................................................................................................  1
...........................ACTTTACTTTTGTTGCATAATGGA.............................................................................................................................................  1
...............................ACTTTTGTTGCATAATGGACGACC.........................................................................................................................................  1
...............................TTTTGTTGCATAATGGACGACCAC.........................................................................................................................................  1
..............................................AATGGACGACCACCCTAACTCTTT.........................................................................................................................  1
...........................................................ACTCTTTTCGCTAGTGATGTCTAG...........................................................................................  1
.....................................................................CGTCTCATTCGACAAAGGTATGGC...............................................................................  1
.....................................................................AAGGTATGGCATGTATATAGGTAT...............................................................................  1
.....................................................................TATGAAAATTTGCTGGCATGTCGT...............................................................................  1
.....................................................................TTGCTCGAAGTCATCGAAGAACT.................................................................................  1
.....................................................................GTAAAGTTACCTAGTCCAAAGTGA................................................................................  1
.....................................................................TAAAGTTACCTAGTCCAAAGTGA.................................................................................  2
.....................................................................TAAAGTTACCTAGTCCAAAGTGAA................................................................................  14
.....................................................................AAAGTTACCTAGTCCAAAGTG...................................................................................  1
.....................................................................AAAGTTACCTAGTCCAAAGTGA..................................................................................  52
.....................................................................AAAGTTACCTAGTCCAAAGTGAAA................................................................................  2
.....................................................................AAGTTACCTAGTCCAAAGTGA...................................................................................  3
.....................................................................AAGTTACCTAGTCCAAAGTGAA..................................................................................  27
.....................................................................TACCTAGTCCAAAGTGAAAAT...................................................................................  2
.....................................................................AAAGTGAAAATACTGGACAAAGGG.................................................................................  1
```

```
>osa-cand035c
CCAATCTTTTCACTTTAAAATAGGTAACTTTATCTTTGTTGCATAATAGACTATCACAAACCACATCTGTAGCATGTCAACCACGTTGAGCACATTGGCAACGACATGCCGGCAAACTTTCACACTTATGCACATGCCAGATACCTTTTACCGGTGAAGATGTTAGACATGGCTAGTGAAAAGAGTTAGGGTGATTCATCGTAAAAATAAATAAAATAAAATAAAGTTACCTAGTCCAAAGTGAAAAGATTGAATACATAATGGT
.(((((((((((((....((((((((((((.(((((.........((..(((((...((......((.(((((((.......((..(.....)..))...)))))))..)).((((((..((((...((.((((...((((.((((.......)))).))))...)))))).))))...)))))).)))))))...)).........)))))))))))))))))))....)))))))))))))))..... (-71.6)
.......................................................................................................................................TAAAGTTACCTAGTCCAAAGTGA.......................     2
.......................................................................................................................................TAAAGTTACCTAGTCCAAAGTGAA......................    14
.......................................................................................................................................AAAGTTACCTAGTCCAAAGTG........................     1
.......................................................................................................................................AAAGTTACCTAGTCCAAAGTGA.......................    52
.......................................................................................................................................AAAGTTACCTAGTCCAAAGTGAAA.....................     2
.......................................................................................................................................AAGTTACCTAGTCCAAAGTGA........................     3
.......................................................................................................................................AAGTTACCTAGTCCAAAGTGAA.......................    27
.......................................................................................................................................AGTTACCTAGTCCAAAGTGAAAAG.....................     2
.......................................................................................................................................GTTACCTAGTCCAAAGTGAAAAGA.....................     3
.......................................................................................................................................TACCTAGTCCAAAGTGAAAAGA.......................     2
.......................................................................................................................................ACCTAGTCCAAAGTGAAAAGAT......................     1
.......................................................................................................................................TGAAAAGATTGAATACATAATGGT.....................     1
```

```
>osa-cand035d
CCTGTACACAATCTTTTCATTTTGGACTAGGTAACTTTACCTTTCTTGCGTAATGGACCACTCTAACTCTTTACGTTAGTGATGTCTAGCGTCTCTTTTGACAAAGGTATAGCAAGCATTTAGGTATGAAAATTTGTTGGCATGTCGTTAACAATTTGCTTGAAATCATCGAAAAACTGAAGATGTGGTTTGGGGTGGTTCATTGTGTAACAAAGGTAAAGTTACCTAGTCCAAAGTGAAAAGATTGGACAAATGGTAGT
((......((((((((((((((((((((((((((((((((.((((..((((((((((((((((..(...(((((((.....)))))))..(((((.......((((..((((((((((....))))...(((((..(.....)..)))))..)))))))..))).)))........)))))...)..))))))))))))))..)))).))))))))))))))))))))))))))))))))))))))).....)).... (-108.2)
.....ACACAATCTTTTCATTTTGGACT.....................................................................................................................................................................  1
.............TTTTCATTTTGGACTAGGTAACTT.............................................................................................................................................................  1
.............TTTCATTTTGGACTAGGTAACTTT.............................................................................................................................................................  1
................TCATTTTGGACTAGGTAACTTTAC.........................................................................................................................................................  1
................CATTTTGGACTAGGTAACTTTACC.........................................................................................................................................................  1
...................TTTGGACTAGGTAACTTTACCTTT.......................................................................................................................................................  1
.....................TTGGACTAGGTAACTTTACCTTTC......................................................................................................................................................  1
...........................AGGTAACTTTACCTTTCTTGCGTA..............................................................................................................................................  1
...................................TTTACCTTTCTTGCGTAATGGACC.....................................................................................................................................  1
.....................................................................ATGTCTAGCGTCTCTTTTGACA.......................................................................................  1
.......................................................................TCTCTTTTGACAAAGGTATAGCAA.....................................................................................  1
.....................................................................................TTGTTGGCATGTCGTTAACAATT...................................................................  1
.....................................................................................................GTAAAGTTACCTAGTCCAAAGTGA.....................  1
.....................................................................................................TAAAGTTACCTAGTCCAAAGTGA.....................  2
.....................................................................................................TAAAGTTACCTAGTCCAAAGTGAA....................  14
.....................................................................................................AAAGTTACCTAGTCCAAAGTG.......................  1
.....................................................................................................AAAGTTACCTAGTCCAAAGTGA.....................  52
.....................................................................................................AAAGTTACCTAGTCCAAAGTGAAA....................  2
.....................................................................................................AAGTTACCTAGTCCAAAGTGA......................  3
.....................................................................................................AAGTTACCTAGTCCAAAGTGAA.....................  27
.....................................................................................................AGTTACCTAGTCCAAAGTGAAAAG...................  2
.....................................................................................................GTTACCTAGTCCAAAGTGAAAAGA...................  3
.....................................................................................................TACCTAGTCCAAAGTGAAAAGA....................  2
.....................................................................................................ACCTAGTCCAAAGTGAAAAGAT....................  1
```

```
>osa-cand036
GTATTACTCCCTTCATTTCAAATTACTTGTCGTTCTAGCTTTGTCCTTAAACATGTATATCTTTGACCATCAATTTTTAAAAACTCATATGGTTTAACATCATATGATTTTTTTTTAGATTCACTGACAAATACTTTAATAAATACAACTCATATTTTGAACTATACGGATTTCTAAAAATTGATGGTCAAAGATATACATGCTTGACTTAGGACAAAGCTAGAACAAAAAGTATTTGAG
................(((((((.((((...(((((((((((((((((((.(((((((((((((((((((((((((((((((((.(((..(.(((((((((((....((((((.....((((.......................)))).....)))))).)))))))))).)..))).))))))))))))))))))))))))))))).)))....))))))))))))))))...))))))))))) (-87.1)
...............TTTCAAATTACTTGTCGTTCTAG.....................................................................................................................................................................1
...............TTTCAAATTACTTGTCGTTCTAGC....................................................................................................................................................................3
................TCAAATTACTTGTCGTTCTAG.....................................................................................................................................................................1
...................AAATTACTTGTCGTTCTAGCTTTG..................................................................................................................................................................17
....................AATTACTTGTCGTTCTAGCTTTG...................................................................................................................................................................1
.....................................................................................................................TTTCTAAAAATTGATGGTCAAAGA.............................................1
```

```
>osa-cand037
CAAATTTTACCCTTGGGACACCTTGCAAAGTTTAAATTTGAACAAATTTTGGCTAACTATAAACATTTTGCACAATTTAAAAGTTATCCAAAACTAATTTTTTTTTTTACAAAAAGTTGTTTAGTTTTTTTTTATTTCTGTTATTTGTAACAAGTTTTGATTTTTGCAAAATATTTTAAAGTTCAGCCAAATGTGTTCAAATTTTAATTTTGCAAGGTGT
.........((....))((((((((((((((.(((((((((((...((((((((((((.((((.((((((((.((.(((((((.......((((((((...((((((....)))))))....)))))))).....((((....)))))..)))))))..))).))))))))..))))).))))).)))))))..))))))))))).))))))))))))))))) (-66.9)
...................ACCTTGCAAAGTTTAAATTTGAAC.....................................................................................................................................  13
...................ACCTTGCAAAGTTTAAATTTGAACA....................................................................................................................................  1
.....................TTGCAAAGTTTAAATTTGAACA......................................................................................................................................  1
.....................................................................................................................................TGTTCAAATTTTAATTTTGCAAGG...  1
.....................................................................................................................................TCAAATTTTAATTTTGCAAGGT..  1
.....................................................................................................................................TCAAATTTTAATTTTGCAAGGTGT  12
```

```
>osa-cand038
ATATTTTTTTTCTTGTTAGAACAAAGCTTTGACCAACTATTGCTTTATTACTAATATATCATTTATGTCACACAAAAGCATAATCATAAGAAAGTACTTTTGAATATGAGTCTAATAACATCAACTTTGTGTTGCAAAAAATATATTCTAATGAAGTAATTGTTGGTTAAACCCTTGTTCTAACAAAACAAAATATGCCT
(((((((.(((..(((((((((((...((((((((((.((((((((((((..(((((((..(((.((..(((((((..((((.(((.(((......))).))).))))..((.....)).....)))))))..)).))))))))))).))))))))))))..))))))))))...)))))))))))))))).))))))).... (-56.5)
....................AACAAAGCTTTGACCAACTAT.......................................................................................................................................................      1
....................AACAAAGCTTTGACCAACTATTGC....................................................................................................................................................      7
.......................................................................................................................................................AATTGTTGGTTAAACCCTTGTTCT...................      11
```

```
>osa-cand039
CTCCCTCCAATAATTCTCTCCCCTCTCCTCCTCTTCACCACCACCACCACCACCAGCAGCAGCAGAGAGCACCATCTCCATCCAATAATCCCCATGCTTGCGCACCACTCCCGGCCACATCCCGCGCGAGGAGGAGGAGGAGGAGGAGGGTGTGCTTGATCCGCGCTCCCGCCTGGTTGGTGGTGGTGGGGTGAGGGGGGAGGGATGGGAGGGGAGGCAC
...(((((........((((((.((((..((((((((((.(((((((((((((((((((((.((.((((((((..(((((.(((.....(((((.(((....)))...((((((((........)).)).))))..)).)))))))))))..))))))..)).)))))...).))))..))))))))))))))))))))))..)))))..))))))))))... (-114.9)
.............................CTCTTCACCACCACCACCACCA.......................................................................................................................  21
.............................CTCTTCACCACCACCACCACCACC.....................................................................................................................  1
.............................TCTTCACCACCACCACCACCA.......................................................................................................................  1
.....................................................................................GAGGAGGAGGAGGAGGAGGA.....................................................................  1
.....................................................................................GAGGAGGAGGAGGAGGAGGAGGG...................................................................  1
.....................................................................................GGAGGAGGAGGAGGAGGA.......................................................................  1
.....................................................................................GGAGGAGGAGGAGGAGGAGG.....................................................................  1
.....................................................................................GGAGGAGGAGGAGGAGGAGGG....................................................................  1
.....................................................................................................GTGGTGGTGGGGTGAGGGG.....................................  1
.....................................................................................................GTGGTGGTGGGGTGAGGGGG....................................  1
.....................................................................................................GTGGTGGTGGGGTGAGGGGGG...................................  21
.....................................................................................................TGGGGTGAGGGGGGAGGGATGGG..........  1
```

```
>osa-cand040
CTGTTGGAAATGCAGCAGTAGTAGAACTGTAGAACTAGAACATATATACGTTGTCTCTCGGTGCATGGTTGGTTATAAGTAACAATCTGGAACGGGATGCATAGGGAATTCGAGATGAACGACCATGTCGTGTAGAGGCTCCTGCCGACGCATCACGGCT
((((((.....)))))).((((....(((.........)))....)))...((((((((..((((((((((((....)))).((((.(((................))).)))).....)))))))))..)).)))))).....((((........)))).  (-38.4)
.......................................................................................................................CGACCATGTCGTGTAGAGGCT....................   12
```

```
>osa-cand041
TGTTTGGATTTGATTGACAATGTTGATCCATTAGTCCATTCATTTAATTTGCTCGCCTTTTCTTCCCCTCGTGTGTTCATTTGCTAATTACATTTGTAAAGAGGGGAAAATGAGGTGGCATTACTATTATTTTTTATAAT
((..((((((.(((..((...))..)))....)))))))..)).......(((.((((((...((((((((....((......))...((((....)))).)))))))...)))))))).....................  (-38.9)
........TTTGATTGACAATGTTGATCCATT.............................................................................................................      1
...............................................TGCTCGCCTTTTCTTCCCCTCG.....................................................................      1
...............................................GCTCGCCTTTTCTTCCCCTCG......................................................................      1
...............................................CTCGCCTTTTCTTCCCCTCG......................................................................      1
...............................................TCGCCTTTTCTTCCCCTCGT.......................................................................      1
.....................................................TTTCTTCCCCTCGTGTGTTCATT...............................................................      1
.....................................................................................AAGAGGGGAAAATGAGGTGGCATTACT...............      1
.....................................................................................AGAGGGGAAAATGAGGTGGC......................      1
.....................................................................................AGAGGGGAAAATGAGGTGGCAT....................      1
.....................................................................................GAGGGGAAAATGAGGTGGC......................      1
.....................................................................................GAGGGGAAAATGAGGTGGCA.....................      11
.....................................................................................GAGGGGAAAATGAGGTGGCAT....................      1
```

```
>osa-cand042
ATTCAACTAATCATGTGCCAATGGCTTGTCTTGTTTTGTGTGCCATAAAAAACACTAGGCTCAGTTCGGAATGAGTGTTGGCTTGAATTTTTGATGGCACGCAAAACGAGCCAAGTCATT
...................(((((((((.(((((((((((((((((.(((((...(((((((((.((.....)).)).)))))).))))).))))))))))))))))).))))))))) (-45)
..................CAATGGCTTGTCTTGTTTTGTGTG.......................................................................        13
..................CAATGGCTTGTCTTGTTTTGTGTGCCA....................................................................        1
..................AATGGCTTGTCTTGTTTTGTGT.........................................................................        1
..................AATGGCTTGTCTTGTTTTGTGTG........................................................................        5
..................AATGGCTTGTCTTGTTTTGTGTGC.......................................................................        225
...................ATGGCTTGTCTTGTTTTGTGT.........................................................................        1
...................ATGGCTTGTCTTGTTTTGTGTGC.......................................................................        2
...................ATGGCTTGTCTTGTTTTGTGTGCC......................................................................        2
....................TGGCTTGTCTTGTTTTGTGTGCC......................................................................        1
....................TGGCTTGTCTTGTTTTGTGTGCCA.....................................................................        1
.....................GCTTGTCTTGTTTTGTGTGC........................................................................        1
.....................GCTTGTCTTGTTTTGTGTGCCATAA...................................................................        1
.........................TCTTGTTTTGTGTGCCATAAAA...................................................................        1
...........................CTTGTTTTGTGTGCCATAAAAAAC..............................................................        1
...................................TGTGTGCCATAAAAAACACTAGGC.......................................................        1
.......................................................................................ATTTTTGATGGCACGCAAAACGAG..........        1
.......................................................................................TTTGATGGCACGCAAAACGAGCCA.......        1
.....................................................................................GCACGCAAAACGAGCCAAGTCATT        1
....................................................................................ACGCAAAACGAGCCAAGTCATT        1
```

```
>osa-cand043
AAAGTTGTTTGGCTACTGGTAATCAAGTTAGGAACCATGCAAGTTGTTTATGAGTTGTGCCCTCTGTGCCTAGCGCCATAGATGACTTGCAAGATTTCTAACTTGAGTGCCAGTGTCCAA
........((((..(((((((.(((((((((((...(((((((..((((((.((((..(.....)..)..)))..))))))..)))))))...)))))))))))).)))))))..)))) (-51.4)
.......TTTGGCTACTGGTAATCAAGT.......................................................................................        1
........TTGGCTACTGGTAATCAAGTTAGG...................................................................................        2
...........CTACTGGTAATCAAGTTAGGA...................................................................................        3
....................AATCAAGTTAGGAACCATGCAAG........................................................................        1
....................AATCAAGTTAGGAACCATGCAAGT.......................................................................        67
....................AATCAAGTTAGGAACCATGCAAGTT......................................................................        1
.....................ATCAAGTTAGGAACCATGCAAGTT......................................................................        3
.........................AAGTTAGGAACCATGCAAGTTGTT...................................................................        1
..........................AGTTAGGAACCATGCAAGTTG.....................................................................        1
.........................AGTTAGGAACCATGCAAGTTGTTT...................................................................        1
.......................................................................AGATGACTTGCAAGATTTCTAACT....................        4
.....................................................................ATGACTTGCAAGATTTCTAACTTG.......................        22
...................................................................CTTGCAAGATTTCTAACTTGAGTG...........................        1
..................................................................TTGCAAGATTTCTAACTTGAGTG............................        11
..................................................................TTGCAAGATTTCTAACTTGAGTGC...........................        17
...................................................................TGCAAGATTTCTAACTTGAGT.............................        2
....................................................................CAAGATTTCTAACTTGAGT...............................        1
```

```
>osa-cand044
CCTCCGTCCGAAAATGAACCAACTTTTGTATGTGAATATGGACATAGGCTATGTCTATATTCATTTACAAAAGTTGGTTTATTTTTGGACGGAGGAAGTA
(((((((((((((((((((((((((((((..(((((((((((((...))))))))))))))..))))))))))))))))))))))))))))))..... (-67.1)
.....GTCCGAAAATGAACCAACTTTTGT.......................................................................  1
.........GAAAATGAACCAACTTTTGTATGT...................................................................  1
..........AAAATGAACCAACTTTTGTATGTG..................................................................  4
.............ATGAACCAACTTTTGTATGTG.................................................................  1
..............TGAACCAACTTTTGTATGTGAATA..............................................................  1
................AACCAACTTTTGTATGTGAATA...............................................................  1
...............AACCAACTTTTGTATGTGAATATG..............................................................  11
....................AACTTTTGTATGTGAATATGGA..........................................................  1
....................AACTTTTGTATGTGAATATGGACA........................................................  101
....................ACTTTTGTATGTGAATATGGACAT........................................................  2
.........................TATGTGAATATGGACATAGGC.......................................................  1
...................................................GTCTATATTCATTTACAAAAGTT...........................  1
....................................................TCTATATTCATTTACAAAAGTTGG..........................  2
.....................................................TATTCATTTACAAAAGTTGGTT...........................  2
.....................................................TATTCATTTACAAAAGTTGGTTTA.........................  1
.....................................................TTCATTTACAAAAGTTGGTTTATT.........................  1
.......................................................TTACAAAAGTTGGTTTATTTT...........................  2
.........................................................AAAAGTTGGTTTATTTTTGGA.........................  1
..........................................................AAAGTTGGTTTATTTTTGGAC........................  1
...........................................................AAGTTGGTTTATTTTTGGACG.......................  1
.............................................................TTGGTTTATTTTTGGACGGAG.....................  3
```

```
>osa-cand045
GTAGATACTCCCTCCGTCCCAATATGTAGCAACCTAGGATGGGTCTAATCCCATCCTAGGTTAACATATTGGGATGGAGGTGTAATAATTTGATATTTGT
.....(((..((((((((((((((((...((((((((((((.....)))))))))))))).))))))))))))))))).))).................  (-55.2)
......ACTCCCTCCGTCCCAATATGTAGC.............................................................................  1
............TCCGTCCCAATATGTAGCAACC.........................................................................  1
...........TCCGTCCCAATATGTAGCAACCTA........................................................................  5
..............CGTCCCAATATGTAGCAACCTAGG.....................................................................  1
...............GTCCCAATATGTAGCAACCTAGGA....................................................................  1
................TCCCAATATGTAGCAACCTAGGA.....................................................................  2
................TCCCAATATGTAGCAACCTAGGAT....................................................................  6
.................CCCAATATGTAGCAACCTAGGAT.....................................................................  1
.................CCCAATATGTAGCAACCTAGGATG....................................................................  3
..................CCAATATGTAGCAACCTAGGA......................................................................  2
..................CCAATATGTAGCAACCTAGGAT.....................................................................  2
..................CCAATATGTAGCAACCTAGGATGG....................................................................  1
...................CAATATGTAGCAACCTAGGATG.....................................................................  1
...................CAATATGTAGCAACCTAGGATGG....................................................................  1
...................CAATATGTAGCAACCTAGGATGGG...................................................................  29
....................AATATGTAGCAACCTAGGATG......................................................................  2
....................AATATGTAGCAACCTAGGATGG.....................................................................  1
....................AATATGTAGCAACCTAGGATGGGT...................................................................  27
.....................ATATGTAGCAACCTAGGATGGG....................................................................  2
.....................ATATGTAGCAACCTAGGATGGGT...................................................................  3
.....................ATATGTAGCAACCTAGGATGGGTC..................................................................  3
......................TATGTAGCAACCTAGGATGGG.....................................................................  2
```

```
>osa-cand046
TATACGCCAATAAAAAGAAAATGCTTAACTCGATGAGTTGGAGCGTCCCATTCCTGATACCTCACATGCATATAGCGTAACAACACTGCAACAGTAATCCGCTGATCTTAATATTGGTTATTGCATGTGGAGGTTATGAAAACGATTCATTGAGAGGTAGAGAATTCGTAATTTCAGTAG
..(((................(((((..(((((((((((...(((..((....))..((((((((((((.(((((((.......)))..((((.....))))............)))))))))))).)))))..)))....)))))))))))))))..(((........))).))). (-39.4)
....................AATGCTTAACTCGATGAGTTGG.......................................................................................................................................          1
....................ATGCTTAACTCGATGAGTTGG.......................................................................................................................................         20
```

```
>osa-cand047
TACCCCCTCCGTCCCAAAAAAAAAGTCCAATCCTAGCTACGAACCCGGACACATGCGTGTCTAAGTTCATAGCCAGGGTTTGGCTTTTTTTTGGGACAGAC
.......((.(((((((((((((((.((((((.((((.((((..((((((....)))))).))))).))))).)))))))).))))))))))))))..)). (-51.1)
..............CAAAAAAAAGTCCAATCCTAGCT.............................................................  1
................AAAAAAAGTCCAATCCTAGCT..............................................................  1
................AAAAAAAGTCCAATCCTAGCTA.............................................................  1
................AAAAAAAGTCCAATCCTAGCTACG...........................................................  1
.................AAAAAAGTCCAATCCTAGCTACGA..........................................................  5
..................AAAAAGTCCAATCCTAGCTACGAA.........................................................  4
...................AAAAGTCCAATCCTAGCTACGA..........................................................  2
...................AAAAGTCCAATCCTAGCTACGAAC........................................................  8
...................AAAAGTCCAATCCTAGCTACGAACC.......................................................  6
....................AAAGTCCAATCCTAGCTACGAACC.......................................................  32
.....................AAGTCCAATCCTAGCTACGAACC......................................................  1
.....................AAGTCCAATCCTAGCTACGAACCC.....................................................  2
.........................AATCCTAGCTACGAACCCGGACAC...................................................  3
```

```
>osa-cand048
TCTGAAGGTAAGAGTTGTAGGAAACTGAACTCTTTCTTGTCAGTGACAGTTTCAGGAGCTCAGTTTTCTCCAACATCTTATCTTCGGCGCCTTAATCTTT
.(((((((((((((((.((((((((((.(((((..(((((...)))))....)))))).))))))))))).)))).)))))))))))).............  (-40.2)
.......................................................CTCAGTTTTCTCCAACATCTT.....................   1
.......................................................CTCAGTTTTCTCCAACATCTTA....................   29
```

```
>osa-cand049
TGCAAAGAAACACAAATCAGCACTTCAGCAGTACATCACATCATCATCCTCCTCAGCCTCATCTTCAGCCTCATCCTCCTCCTCAGCCTCATCTTCATCATCAAGTGCTGCTCAAGTGTTGATTTGTGTTTCTTTGCATTATATGGTTTGGAGTTTGGAC
((((((((((((((((((((((((.(((((((((.....................((..........)).................((......)).........)))))))).))))))))))))))))))))))).......(((..(...)..))) (-49.4)
.......................................................................................................................TGATTTGTGTTTCTTTGCATT...................   45
```

```
>osa-cand050
TGTTCCAAGGTTTGTCCTAAGTCAAACATTTGTATCTTTGACCAACAATTTCTAGAAATTCATATAGTTCAACATCATAAAATTAATGTTTTTAAGATGCACCATGAGAAATGTTTTTATAATATACAATTCACATGTTGTTAAACTACACGAATTTCTAGAAACTGATGATCAAAGATAAAAGTGCTTGATTTAGGACAAAGCTAGAACTACAAGTAAT
.((((..((.(((((((((((((((.(((((.(((((((((.((.((.((((((((((((((...(((((...((((.(((((.......)))))).))))((.((((.(((.(((...........))).))).))))).))...)))))...))))))))))))).)).)).)))))))).)))))).))))))))))))))).)).)))).......... (-74.6)
.......................................................................................................................................AATTTCTAGAAACTGATGATCAAA.........................................  4
.......................................................................................................................................................AAAGATAAAAGTGCTTGATTTAGG.......................  1
.....................................................................................................................................................AAGATAAAAGTGCTTGATTTAGGA......................  1
....................................................................................................................................................GATAAAAGTGCTTGATTTAGGACA.....................  16
...................................................................................................................................................AAAAGTGCTTGATTTAGGACA....................  1
```

```
>osa-cand051
ATCAAACCATCACAGAATACGAAGTGCATGGGGAATTTTGTTGGATTGGTCAGGGTAGTCCATGGACGGAACCGACCTAGACACCGAAATTTTCCATGCACTTCGAAATCTGTCATTCTT
...........(((((...((((((((((((..(((((((.((....((((.((...(((....)))....))))))....)).)))))))..))))))))))))...)))))....... (-52)
....................GAAGTGCATGGGGAATTTTGTT.......................................................................................        53
.......................................................AGTCCATGGACGGAACCGACCTAG.......................................        1
.........................................................GTCCATGGACGGAACCGACCTAGACA....................................        1
.........................................................ATGGACGGAACCGACCTAGACACC.....................................        1
.....................................................................................CGAAATTTTCCATGCACTTCGA.............        8
.....................................................................................AAATTTTCCATGCACTTCGAAA...........        1
```

```
>osa-cand052a
TAAGCAGCAACAATTTTCATCAACAAGAAGTTGTATATCTTTTCTCCCGGTCAACGACAATCTTGATAAAGACAAGGTTGCTTCTTGATGGTCGATGATGGGTAGAGATGAAGATGATACAACTTCTTGTTGATGGAAACTATTACTTCTTACCTCTTCT
((((.((.....(((((((((((((((((((((((((((((((((((.(((.((((..((((....)))))(((((.....)))))...)))).)))))))).)))...)))))).))))))))))))))))))))))).....)).)))).........  (-59.1)
..AGCAGCAACAATTTTCATCAACAA.................................................................................................................  2
.......CAACAATTTTCATCAACAAGAAGT.............................................................................................................  1
...........AATTTTCATCAACAAGAAGTTGTA.........................................................................................................  1
.............................AGTTGTATATCTTTTCTCCCGGTC.......................................................................................  1
...................................ATCTTTTCTCCCGGTCAACGACAA.................................................................................  1
.......................................................AACGACAATCTTGATAAAGACAAG.............................................................  1
.....................................................ACGACAATCTTGATAAAGACAAGG...............................................................  1
.............................................................TTGATAAAGACAAGGTTGCTTCTT.......................................................  1
..........................................................AAAGACAAGGTTGCTTCTTGATGG..........................................................  2
...........................................................AAGACAAGGTTGCTTCTTGATGGT.........................................................  1
..........................................................AGACAAGGTTGCTTCTTGATGGTC..........................................................  1
...........................................................CAAGGTTGCTTCTTGATGGTCG...........................................................  1
..........................................................CAAGGTTGCTTCTTGATGGTCGAT..........................................................  1
.........................................................AGGTTGCTTCTTGATGGTCGAT............................................................  1
.......................................................GGTTGCTTCTTGATGGTCGATGAT...........................................................  1
.....................................................TTGCTTCTTGATGGTCGATGATG..............................................................  1
...................................................TTGATGGTCGATGATGGGTAGAGA...............................................................  3
...................................................TGATGGTCGATGATGGGTAGA..................................................................  1
...................................................TGATGGTCGATGATGGGTAGAGAT...............................................................  4
...................................................TGGTCGATGATGGGTAGAGATGAA...............................................................  1
.................................................GATGATGGGTAGAGATGAAGATG...............................................................  1
................................................GATGATGGGTAGAGATGAAGATGA...............................................................  1
...............................................ATGATGGGTAGAGATGAAGATGAT................................................................  2
..............................................TGATGGGTAGAGATGAAGATGATA.................................................................  1
...........................................TGGGTAGAGATGAAGATGATACA.....................................................................  1
..........................................GGGTAGAGATGAAGATGATACAAC.....................................................................  1
.......................................GTAGAGATGAAGATGATACAACT.........................................................................  1
....................................ATGAAGATGATACAACTTCTTGTT...........................................................................  1
...............................GAAGATGATACAACTTCTTGTTGA.................................................................................  1
..............................AAGATGATACAACTTCTTGTTGAT..................................................................................  2
...........................GATGATACAACTTCTTGTTGATGG.....................................................................................  1
..........................ATGATACAACTTCTTGTTGATGG......................................................................................  1
.........................ATGATACAACTTCTTGTTGATGGA.......................................................................................  2
.......................TGATACAACTTCTTGTTGATGGAA........................................................................................  1
....................GATACAACTTCTTGTTGATGGAAA...........................................................................................  4
...................ATACAACTTCTTGTTGATGGAAAC............................................................................................  1
..................TACAACTTCTTGTTGATGGAAA...............................................................................................  1
.................TACAACTTCTTGTTGATGGAAACT..............................................................................................  140
................ACAACTTCTTGTTGATGGAAACT...............................................................................................  1
...........CTTCTTGTTGATGGAAACTATTAC.....................................................................................................  1
```

```
>osa-cand052b
AACAACAACAATTTTCATCAGCAAGAAGTTGTATATATCTTCTCTACCCATATATGACCATCTTAATAAAGGCAAGGTTGTTCCTTATTGGTTGAATATGGATGGAGAAGAAGATTATACAACTTCTTGTTGATGGAAACTATTGCTTCTTCTCTCTTCT
.....(((...((((((((((((((((((((((..(((((((((.((((((..(((((.(((....)))..((((.....))))..))))))..)))))))).)))))))))....))))))))))))))))))))))...))).............. (-61.3)
...........TTTTCATCAGCAAGAAGTTGT.......................................................................................................................  2
...........TTTTCATCAGCAAGAAGTTGTA......................................................................................................................  1
...........TTTTCATCAGCAAGAAGTTGTATA....................................................................................................................  7
.......................................................CATCTTAATAAAGGCAAGGTTGTT.......................................................................  1
.....................................................................................TGGTTGAATATGGATGGAGAAGA...........................................  1
.....................................................................................TTGAATATGGATGGAGAAGAAGAT...........................................  1
.....................................................................................GAATATGGATGGAGAAGAAGATT............................................  1
.....................................................................................AAGATTATACAACTTCTTGTTGAT...........................................  1
.....................................................................................ATACAACTTCTTGTTGATGGAAAC...........................................  1
.....................................................................................TACAACTTCTTGTTGATGGAAA.............................................  1
.....................................................................................TACAACTTCTTGTTGATGGAAACT...........................................  140
.....................................................................................ACAACTTCTTGTTGATGGAAACT............................................  1
```

```
>osa-cand053
AGGAGGGAGATGGGAAGGGAAGCGGCGCCGGTGGCGGGGGAAGCCGCCAGCTGGGGGGAGGGGGAGAGGGGGCGGCGCCGCCGGAGGGGAGGGGGAGGGGAAGCGGCGGCCCTCTAGCCTCCCTCTCGCGGCAGATCCGCCATCGCGCCGCTGACGCCGCCTCTCCCCCCTCCCCCCAGCTGGCCGCCTCCCCCGCCACCGGCGTCGCTTCCCCTCCCCCTCCCCTCCGGCGGCGCTGCG
.((((((.((.((((.((((((((((((((((((((((((.((.((((((((((((((((((((.((((((.(((((..(((((((((((((.((((((..........)))))).))))))).))).)))).....(((....))).......)))))))))))))))))))))))))))))).)).))))))))))))))))))))))))).))))..)))))))).(((....))). (-200.6)
..................GAAGCGGCGCCGGTGGCGGG.......................................................................................................................................................1
..................GAAGCGGCGCCGGTGGCGGGG......................................................................................................................................................39
...................AAGCGGCGCCGGTGGCGGGG......................................................................................................................................................2
...................AAGCGGCGCCGGTGGCGGGGG.....................................................................................................................................................121
....................AGCGGCGCCGGTGGCGGGGG.....................................................................................................................................................1
....................AGCGGCGCCGGTGGCGGGGGA....................................................................................................................................................14
.....................................................................GCGCCGCCGGAGGGGAGGGGG.....................................................................................................1
.......................................................................CCGCCGGAGGGGAGGGGGAGG.....................................................................................2
.......................................................................CCGCCGGAGGGGAGGGGGAGGG.....................................................................................1
.........................................................................CCGGAGGGGAGGGGGAGGGGA.....................................................................1
```

```
>osa-cand054
AGGAAAAAATTCATTTTATGCCACTCTATTCGCAAGTCTTTTGGAATTTGCCAAGGAGCAAATTCTGAAAGTCGCAAGAACTGGGTGGCAGGTTCTGAAAGGCTTGTGAATCGAGTGGCGTATAATGAAATTTCTAAGTG
.(((((...((((((.(((((((((.(((((((((((((..(((..(((((((((.....))))...((((....).)))...)))))..)))..))))))))))))))).))))))))).)))))))).)))))..... (-66)
...............TTATGCCACTCTATTCGCAAG.......................................................................................     10
...............TTATGCCACTCTATTCGCAAGT......................................................................................     1
...............TTATGCCACTCTATTCGCAAGTCT....................................................................................     3
................TATGCCACTCTATTCGCAAGTCTT...................................................................................     1
..................TGCCACTCTATTCGCAAGTCTTT...................................................................................     1
..................TGCCACTCTATTCGCAAGTCTTTT..................................................................................     3
...................GCCACTCTATTCGCAAGTCTTT...................................................................................     1
....................CCACTCTATTCGCAAGTCTTT....................................................................................     1
....................CCACTCTATTCGCAAGTCTTTT...................................................................................     1
....................CCACTCTATTCGCAAGTCTTTTGG.................................................................................     5
....................CCACTCTATTCGCAAGTCTTTTGGA................................................................................     2
.....................ACTCTATTCGCAAGTCTTTTG...................................................................................     1
.....................ACTCTATTCGCAAGTCTTTTGG..................................................................................     5
.....................ACTCTATTCGCAAGTCTTTTGGA.................................................................................     2
.....................ACTCTATTCGCAAGTCTTTTGGAA................................................................................     12
...........................ATTCGCAAGTCTTTTGGAAT..................................................................................     2
...........................ATTCGCAAGTCTTTTGGAATTTGC...............................................................................     3
.......................................................................................GCAGGTTCTGAAAGGCTTGTGAAT..............     1
.......................................................................................AGGTTCTGAAAGGCTTGTGAATCG...............     2
.........................................................................................TGAAAGGCTTGTGAATCGAGTG.......     2
.........................................................................................TGAAAGGCTTGTGAATCGAGTGG......     1
.........................................................................................TGAAAGGCTTGTGAATCGAGTGGC.....     6
.........................................................................................GAAAGGCTTGTGAATCGAGTG........     1
.........................................................................................GAAAGGCTTGTGAATCGAGTGG.......     1
.........................................................................................GAAAGGCTTGTGAATCGAGTGGC......     9
.........................................................................................GAAAGGCTTGTGAATCGAGTGGCG.....     167
..........................................................................................AAAGGCTTGTGAATCGAGTGG.......     1
..........................................................................................AAAGGCTTGTGAATCGAGTGGC......     1
...........................................................................................AAGGCTTGTGAATCGAGTGGC......     2
...........................................................................................AAGGCTTGTGAATCGAGTGGCG.....     2
...........................................................................................AAGGCTTGTGAATCGAGTGGCGT....     4
...........................................................................................AAGGCTTGTGAATCGAGTGGCGTA...     12
..............................................................................................AGGCTTGTGAATCGAGTGGCG.....     1
..............................................................................................AGGCTTGTGAATCGAGTGGCGT....     1
...............................................................................................CTTGTGAATCGAGTGGCG.......     1
...............................................................................................CTTGTGAATCGAGTGGCGTAT.....     3
.................................................................................................TGAATCGAGTGGCGTATAATGAAA.....     1
```

```
>osa-cand055
GTGGACTAGTTTTAAGGAGAAATGTCATTATATGCCACTCAATCCGCATGTTGTGAGAAATTGCCACTTAATTCGTGCACCTTTCAGAATTTGCTGGCGGGGCTGCGAGTTCGTGGCAAATTCTGAAAGGCAGACGAATTGAGTGGCATATAATGAAATTTCTCAGTTTTAGGGGGTGAT
....(((..((..((.(((((((.(((((((((((((((((((.((..(((....((((.(((((((..(((((((((.(((..(((......)))..)))))).)))))))).)))))))).))))).....)))..)).)))))))))))))))))).)))))))..))..)).))).... (-75.4)
.................................ACTCAATCCGCATGTTGTGAGA.......................................................................................................................        1
.........................................................TTGCCACTTAATTCGTGCACCTTT.......................................................................................        1
.......................................................................................................................AGACGAATTGAGTGGCATATAATG.......................        1
.......................................................................................................................AGACGAATTGAGTGGCATATAATGA......................        1
.....................................................................................................................AATTGAGTGGCATATAATGAAATT...................        30
```

```
>osa-cand056
AGACTGGCATGCTTCTTGTTAAATGGAGAGAACGAAAGAGAGATAGGGTCCTCTGCAATACTCACCTGAGCCTATGGCAGCTCCAACTCTCAGATTCACCTCAGTTCTGACTAGAGCGCAACCAAACGGTCCAGCTCCACAAAAAAATGGAGTGGAGTAGGCCAGATCGCTCCAAAAAATTGTACTAGCTGCGCTCCCAACTCCAACTCCAGAGGACCCTATCTCTCTTTCGTTCTCTCCCTTTAACAAGAAGCATGCCG
.....((((((((((((((((((.((((((((((((((((((((((((((((((.....(((....)))....(((.((.........(((((.........)))))...((((((.........((((..(((((((.........)))))))).))))).....(((.(((....)))....))).)))))))....)))))....)))))))))))))))))))))))))))))))).))))))))))))))))))). (-130.8)
....TGGCATGCTTCTTGTTAAATG.....................................................................................................................................................  1
.......CATGCTTCTTGTTAAATGGAG..................................................................................................................................................  2
........ATGCTTCTTGTTAAATGGAGA.................................................................................................................................................  1
.........TGCTTCTTGTTAAATGGAGAGA...............................................................................................................................................  1
...........CTTCTTGTTAAATGGAGAGAA..............................................................................................................................................  1
............TTCTTGTTAAATGGAGAGAAC.............................................................................................................................................  1
...............TTGTTAAATGGAGAGAACGAA.........................................................................................................................................  4
................TGTTAAATGGAGAGAACGAAAGAG.....................................................................................................................................  4
...............TGTTAAATGGAGAGAACGAAAGAGA.....................................................................................................................................  1
................GTTAAATGGAGAGAACGAAAG........................................................................................................................................  1
...............GTTAAATGGAGAGAACGAAAGAGA.....................................................................................................................................  3
.................TTAAATGGAGAGAACGAAAG.........................................................................................................................................  2
.................TTAAATGGAGAGAACGAAAGA........................................................................................................................................  21
.................TTAAATGGAGAGAACGAAAGAG.......................................................................................................................................  1
.................TTAAATGGAGAGAACGAAAGAGAG.....................................................................................................................................  1
..................TAAATGGAGAGAACGAAAGA.........................................................................................................................................  1
..................TAAATGGAGAGAACGAAAGAG........................................................................................................................................  234
..................TAAATGGAGAGAACGAAAGAGA.......................................................................................................................................  1
...................AAATGGAGAGAACGAAAGAGA.......................................................................................................................................  2
...................AAATGGAGAGAACGAAAGAGAGA.....................................................................................................................................  1
...................AATGGAGAGAACGAAAGAGAG........................................................................................................................................  2
...................AATGGAGAGAACGAAAGAGAGA.......................................................................................................................................  2
.........................AGAGAACGAAAGAGAGATAGG....................................................................................................................................  3
...............................AACGAAAGAGAGATAGGGTCC.............................................................................................................................  3
...............................ACGAAAGAGAGATAGGGTCCT............................................................................................................................  1
.....................................AGATAGGGTCCTCTGCAA.........................................................................................................................  1
.....................................AGATAGGGTCCTCTGCAATACTCA...................................................................................................................  1
.....................................................................ATGGAGTGGAGTAGGCCAGAT.....................................................................................  1
.....................................................................................AGGACCCTATCTCTCTTTCGTTCT.....................................................  1
.....................................................................................GGACCCTATCTCTCTTTCGTTCTC.....................................................  1
.....................................................................................TCTTTCGTTCTCTCCCTTTAA.........................................................  2
.....................................................................................TTCGTTCTCTCCCTTTAACAA.........................................................  1
.....................................................................................TCGTTCTCTCCCTTTAACAAG........................................................  3
.....................................................................................TTCTCTCCCTTTAACAAGAAGC......................................................  1
```

```
>osa-cand057
AAAACGGAGGGAGTAATTGATAGTGAGTGATGATGTGACACACTTATATGTTGAGTTTTAAAAGTTAGTGGAGATGTAGGATGTCGCAAAATTGTCAACGATGTAACTTGGTTTGACGATGGAAAGGTATATTCCATATTGTTACATTATCATTCAACTGACTCATGTGTATTTTGAACCCGACTACTGACACAAAGCAAGATTTTTATAAGTAGAGAAA
....(((...(((((..((((((((((((((((((((((((.(((((.....)))))...........((((((.((((.....((.....((((((((((.......)))..)))))))).....)))))))))))..))))))))))))))))).))))..)))....)))))).....)))).(((((.....(((.......)))).....)))))..... (-47)
....................TAGTGAGTGATGATGTGACACACT.......................................................................................................................................  58
....................AGTGAGTGATGATGTGACACACT........................................................................................................................................  4
....................AGTGAGTGATGATGTGACACACTT.......................................................................................................................................  2
.....................TGAGTGATGATGTGACACACT.........................................................................................................................................  2
.......................................................TAAAAGTTAGTGGAGATGTAGGAT.....................................................................................................  1
```

```
>osa-cand058
AACATGCTACTCCCTCTGTCCAAATATGTAGCAACCTAGAATGAGATTAGACCAATCCTAGGACTACGAATCTGAAAATAGAGAATCTAGAAATACTCTATGTACAGATTTGTAGTTCTAGGATGGATCTAATCCCATTCTAGGTTGTTACATATTGGGACGGAGGGAGTACGTTATTCC
...(((.((((((((((((((.((((((((((((((((((((.((((((((((.((((((((((((((((((...((((((.((......)).))))))...))))))))))))))))))))))))))))).))))))).)))))))))))))))))))))).))))))))))))))))))......  (-110.6)
.....................AAATATGTAGCAACCTAGAATGAG.......................................................................................................................................   1
................................AACCTAGAATGAGATTAGACCAAT............................................................................................................................   1
......................................GAATGAGATTAGACCAATCCTAGG......................................................................................................................   1
.............................................ATTAGACCAATCCTAGGACTACGA...............................................................................................................   1
...............................................................................................CTCTATGTACAGATTTGTAGTTCT.............................................................   1
....................................................................................................TGTACAGATTTGTAGTTCTAGGAT........................................................   2
.........................................................................................................AGATTTGTAGTTCTAGGATGGATC...................................................   1
..........................................................................................................GATTTGTAGTTCTAGGATGGATCT..................................................   1
...........................................................................................................ATTTGTAGTTCTAGGATGGATCTA.................................................   1
............................................................................................................TTTGTAGTTCTAGGATGGATC...................................................   1
...............................................................................................................................TCTAATCCCATTCTAGGTTGTTACA............................   1
...................................................................................................................................ATCCCATTCTAGGTTGTTACATAT.........................   1
......................................................................................................................................CCATTCTAGGTTGTTACATATT........................   1
.......................................................................................................................................CATTCTAGGTTGTTACATATTGGG.....................   10
........................................................................................................................................ATTCTAGGTTGTTACATATTGGG.....................   2
........................................................................................................................................ATTCTAGGTTGTTACATATTGGGA....................   20
.........................................................................................................................................TTCTAGGTTGTTACATATTGGGAC...................   18
..........................................................................................................................................TCTAGGTTGTTACATATTGGG.....................   3
..........................................................................................................................................TCTAGGTTGTTACATATTGGGA....................   1
..........................................................................................................................................TCTAGGTTGTTACATATTGGGAC...................   2
..........................................................................................................................................TCTAGGTTGTTACATATTGGGACG..................   18
...........................................................................................................................................CTAGGTTGTTACATATTGGGA....................   1
...........................................................................................................................................CTAGGTTGTTACATATTGGGACGG.................   4
............................................................................................................................................TAGGTTGTTACATATTGGGAC...................   3
............................................................................................................................................TAGGTTGTTACATATTGGGACGGA................   1
.............................................................................................................................................AGGTTGTTACATATTGGGACGGAG...............   1
..............................................................................................................................................GGTTGTTACATATTGGGACGGAGG..............   3
................................................................................................................................................TTGTTACATATTGGGACGG.................   1
.................................................................................................................................................TGTTACATATTGGGACGGAGGGA............   1
```

```
>osa-cand059
CAGCTGACATGGCATGCCATGTGTAGCCACATTGTAAGGGAGTCCTTGTGCACATGGTCAATCTCGCAGAAAGCCCACTGCAATCCAAATCTTCTTCACGATTGTTCCTATTCACCAAATCACCCGTCTTCTCGAATGACCGCCCACCATTTCCCTCTGTTGCTGTTGCTAACATCCATGGCCCAGGGACCCACTTGCAGCGTGGCTACATGTGGCATGC
...........(((((((..(((((((((..(((((((((.(((((((.((.(((((((((.((..((((........))))......(((........))))..............................)).)))))................((((((....)).))))...)))))).))))))))).)))))).)))))))))..))))))))  (-80.2)
.............ATGCCATGTGTAGCCACATTGTAA.....................................................................................................................................  1
..................ATGTGTAGCCACATTGTAAGGG.....................................................................................................................................  1
....................TGTGTAGCCACATTGTAAGG.....................................................................................................................................  1
...................TGTGTAGCCACATTGTAAGGG.....................................................................................................................................  204
....................GTGTAGCCACATTGTAAGGGA....................................................................................................................................  5
....................GTGTAGCCACATTGTAAGGGAGTC.................................................................................................................................  1
.....................TGTAGCCACATTGTAAGGG......................................................................................................................................  1
.....................TGTAGCCACATTGTAAGGGAG....................................................................................................................................  1
......................GTAGCCACATTGTAAGGGAGTCCT................................................................................................................................  1
.......................TAGCCACATTGTAAGGGAGTCCTT...............................................................................................................................  2
.......................................................................................................................................ACTTGCAGCGTGGCTACATGTGGC....  1
.......................................................................................................................CTTGCAGCGTGGCTACATGTG......  14
.......................................................................................................................TTGCAGCGTGGCTACATGTGG.....  5
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```
>osa-cand060
AAGCGTATTTTTAAGATTATAGGGTTGCCACCTTAATGGGAAAGTAAAGCCATCTCTCATGTAAGTAAAATAGAACTTCTCAATTTGGTGCACAATAAATATATTCCCTGATATACAAGAGAGAGGTGGAGAGGAGAGTGACTTGATTATGGGTTCCAAATGTTAATTAGGAGATGAGTAACACACTAGAGCTAACAATGCTAAGCTGCGAGACTGCTTTATAGCTTGTTTGGTGCGAATTCACACTGTAGATGGCCTTACTTTCCCATTAAGGTGACTACCTTATAATCTATAAACAAT
.............((((((((((...(((((((((((((((((((.(((((((..(((((.((((.......(((((((...(((.....)))....((((((....)))))).....)))))))..((.....(((...((.((((...((((.(((....))).)))).....))))))))))....)).....)))))..((.((.((((.(((....)))..)))).)))).....))).)).)))))))..)))))))))))))))))))...)))))))))))))..... (-91.5)
...............ATTATAGGGTTGCCACCTTAATGGG..............................................................................................................................................................  1
...............TTATAGGGTTGCCACCTTAATGGG..............................................................................................................................................................  2
................TATAGGGTTGCCACCTTAATGGGA.............................................................................................................................................................  1
.................ATAGGGTTGCCACCTTAATGG...............................................................................................................................................................  2
..................TAGGGTTGCCACCTTAATGGG...............................................................................................................................................................  44
...................AGGGTTGCCACCTTAATGGGA..............................................................................................................................................................  3
.......................TGCCACCTTAATGGGAAAGTA...........................................................................................................................................................  2
.......................................................................................................................TTTCCCATTAAGGTGACTACC.................................................  1
```

```
>osa-cand061
GCGCGTGAGCAGCAGCTGCTGCTCCCTTTCCTTGCAACGACATTGCCCTGCCAAAGATGCTTCATACACCAACGTCATGGTAAGGAAAGGTAGCAGTAGCTGCTGCTCTCGCGCGATGAG
(((((.(((((((((((((((((.((((((((((...(((.(((....((.......)).........))).)))...)))))))))))).))))))))))))))))).))))).....  (-69.6)
................TGCTGCTCCCTTTCCTTGCAACG.......................................................................................        1
.......................................................................ATGGTAAGGAAAGGTAGCAGTAGC.....................        29
.......................................................................GTAAGGAAAGGTAGCAGTAGCTG.................        1
.......................................................................GTAAGGAAAGGTAGCAGTAGCTGC................        2
.......................................................................TAAGGAAAGGTAGCAGTAGCT...................        1
.......................................................................................TAGCAGTAGCTGCTGCTCTCGCGC......        2
.......................................................................................AGCAGTAGCTGCTGCTCTCGC........        1
```

```
>osa-cand062
CCGAAATGCCTATTTCTGATGTAGGCATGTAAACTTGGTGGACTGAATGATCCTGATGCCTCACAATCCTATACCCGCCTCCGGTATAAACAAATGAAAAGCAATATTCCCCTTCAAAGGGTTTTATCAAGGACAAGCAAATTTGCTTTACTCGAGGAGTATGTAGGTCGCCCACCCAGTTGTGCATGCTTTCTGTGAAT
..(((((....)))))......(((((((((((((.(((((..((..((.((((((((..(((.....((((((.......)))))).....)))............((((....))))...)))).))))))..))...((((..(((((...)))))..))))).....)))))..))))..))))))))).......... (-48)
...............CTGATGTAGGCATGTAAACTTGGT.......................................................................................................................................     1
.................GATGTAGGCATGTAAACTTGGTGG.....................................................................................................................................     1
...................TGTAGGCATGTAAACTTGGT.......................................................................................................................................     1
...................TGTAGGCATGTAAACTTGGTG......................................................................................................................................    47
..............................AAACTTGGTGGACTGAATGATCCT.......................................................................................................................     5
.........................................CTGAATGATCCTGATGCCTCACAA.............................................................................................................     1
.....................................................................CGGTATAAACAAATGAAAAGCAAT.........................................................................     1
...............................................................................ATGAAAAGCAATATTCCCCTT.................................................................     1
.....................................................................................ATATTCCCCTTCAAAGGGTTT.............................................................     1
.........................................................................................TTCAAAGGGTTTTATCAAGGA.......................................................     1
.....................................................................................................CAAATTTGCTTTACTCGAGGAGT.................................     1
.........................................................................................................TCGAGGAGTATGTAGGTCGCCCAC.......................     1
.............................................................................................................TAGGTCGCCCACCCAGTTGTG...............     1
```