HW4

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February 3, 2016

1.) After reading in the csv dataframe "treedata," I used an intercept only model to analyze the species cover data, "cover" from the dataframe. I then made a regression model using all of the variables in the dataframe.

```
library(car)
```

```
## Warning: package 'car' was built under R version 3.1.3
```

```
treedata = read.csv(url("http://dmcglinn.github.io/quant_methods/data/treedata.csv"), header = TRUE)
expMod1 = lm(treedata$cover ~ 1)
expMod1
```

```
##
## Call:
## lm(formula = treedata$cover ~ 1)
##
## Coefficients:
## (Intercept)
##       4.006
```

```
Anova(expMod1, type = 3)
```

```
## Anova Table (Type III tests)
##
## Response: treedata$cover
##             Sum Sq   Df F value    Pr(>F)
## (Intercept) 143968    1   32500 < 2.2e-16 ***
## Residuals    39736 8970
## ---
## Signif. codes:  0 '***' 0.001 '**' 0.01 '*' 0.05 '.' 0.1 ' ' 1
```

```
summary(expMod1)
```

```
##
## Call:
## lm(formula = treedata$cover ~ 1)
##
## Residuals:
##    Min     1Q Median     3Q    Max
## -3.006 -2.006 -0.006  1.994  5.994
##
## Coefficients:
##             Estimate Std. Error t value Pr(>|t|)
## (Intercept)  4.00602    0.02222   180.3   <2e-16 ***
## ---
```

1

```
## Signif. codes:  0 '***' 0.001 '**' 0.01 '*' 0.05 '.' 0.1 ' ' 1
##
## Residual standard error: 2.105 on 8970 degrees of freedom
```

```r
expMod2 = lm(cover ~ ., data = treedata)
expMod2
```

```
##
## Call:
## lm(formula = cover ~ ., data = treedata)
##
## Coefficients:
##                (Intercept)          plotIDATBN-01-0303
##                  3.634e+00                   1.214e+00
##         plotIDATBN-01-0304          plotIDATBN-01-0305
##                  1.088e+00                   8.150e-01
##         plotIDATBN-01-0306          plotIDATBN-01-0307
##                  1.740e+00                   3.103e-01
##         plotIDATBN-01-0308          plotIDATBN-01-0309
##                  7.469e-01                   2.478e+00
##         plotIDATBN-01-0311          plotIDATBN-01-0312
##                  1.346e+00                  -9.750e-02
##         plotIDATBN-01-0313          plotIDATBN-01-0314
##                  4.374e-01                  -2.356e-01
##         plotIDATBN-01-0315          plotIDATBN-01-0317
##                  3.829e-01                  -1.448e+00
##         plotIDATBN-01-0318          plotIDATBN-01-0319
##                 -1.433e+00                   1.558e+00
##         plotIDATBN-01-0320          plotIDATBN-01-0321
##                  1.305e+00                   1.679e+00
##         plotIDATBN-01-0322          plotIDATBN-01-0323
##                 -1.311e+00                   4.231e-01
##         plotIDATBN-01-0324          plotIDATBN-01-0401
##                  1.016e-01                   6.891e-01
##         plotIDATBN-01-0402          plotIDATBN-01-0403
##                 -3.389e-01                  -2.745e+00
##         plotIDATBN-01-0404          plotIDATBN-01-0405
##                 -2.800e+00                   3.676e-01
##         plotIDATBN-01-0406          plotIDATBN-01-0407
##                  4.018e+00                   1.103e+00
##         plotIDATBN-01-0408          plotIDATBN-01-0409
##                 -2.819e+00                  -2.753e+00
##         plotIDATBN-01-0410          plotIDATBN-01-0411
##                  2.873e+00                   2.659e+00
##         plotIDATBN-01-0412          plotIDATBN-01-0413
##                 -2.485e+00                   3.216e-01
##         plotIDATBN-01-0414          plotIDATBN-01-0415
##                 -2.551e+00                   7.633e-01
##         plotIDATBN-01-0501          plotIDATBN-01-0503
##                  6.999e-01                  -2.133e-01
##         plotIDATBN-01-0504          plotIDATBN-01-0505
##                  1.767e+00                   1.690e+00
##         plotIDATBN-01-0506          plotIDATBN-01-0507
##                  1.954e+00                  -2.674e+00
```

```
##             plotIDATBN-01-0508         plotIDATBN-01-0512
##                     4.578e+00                 -4.512e-01
##             plotIDATBN-01-0513         plotIDATBN-01-0514
##                     7.786e-01                  3.841e-01
##             plotIDATBN-01-0515         plotIDATBN-01-0516
##                     3.478e-01                  1.113e+00
##             plotIDATBN-01-0518         plotIDATBN-01-0519
##                     1.305e+00                  8.685e-01
##             plotIDATBN-01-0521         plotIDATBN-01-0522
##                    -4.562e-01                 -2.577e+00
##             plotIDATBN-01-0523         plotIDATBN-01-0525
##                    -2.672e+00                  3.244e-02
##             plotIDATBN-01-0526         plotIDATBN-01-0528
##                     1.266e+00                  2.053e+00
##             plotIDATBN-01-0529         plotIDATBN-01-0530
##                     1.317e+00                  1.201e+00
##             plotIDATBN-01-0532         plotIDATBN-01-0533
##                     1.294e+00                  1.589e+00
##             plotIDATBN-01-0534         plotIDATBN-01-0536
##                    -2.618e+00                 -1.745e+00
##             plotIDATBN-01-0541         plotIDATBN-01-0544
##                    -2.800e+00                  1.373e+00
##             plotIDATBN-01-0545         plotIDATBN-01-0546
##                     1.018e+00                  4.830e-01
##             plotIDATBN-01-0547         plotIDATBN-01-0548
##                    -1.879e+00                 -1.879e+00
##             plotIDATBN-01-0549         plotIDATBN-01-0550
##                     2.336e-01                 -1.892e-01
##             plotIDATBN-01-0551         plotIDATBN-01-0555
##                     5.358e-01                 -1.047e-02
##             plotIDATBN-01-0557         plotIDATBN-01-0558
##                    -9.737e-02                  7.771e-01
##             plotIDATBN-01-0559         plotIDATBN-01-0561
##                     2.712e-01                  1.060e-01
##             plotIDATBP-01-0001         plotIDATBP-01-0004
##                     3.374e+00                 -7.343e-02
##             plotIDATBP-01-0005         plotIDATBP-01-0006
##                    -6.257e-01                  4.578e+00
##             plotIDATBP-01-0007         plotIDATBP-01-0008
##                     8.743e-01                  5.887e-01
##             plotIDATBP-01-0010         plotIDATBP-01-0011
##                     1.785e+00                  3.175e-01
##             plotIDATBP-01-0012         plotIDATBP-01-0013
##                     3.874e-01                 -1.622e+00
##             plotIDATBP-01-0015         plotIDATBP-01-0017
##                    -1.512e-01                  3.341e-01
##             plotIDATBP-01-0018         plotIDDELL-02-0042
##                    -6.562e-01                  1.395e-02
##             plotIDDELL-02-0043         plotIDDELL-02-0045
##                    -2.067e-01                 -6.087e-01
##             plotIDDELL-02-0052         plotIDDELL-02-0054
##                     3.324e-01                 -1.173e+00
##             plotIDDELL-02-0055         plotIDDELL-02-0057
##                    -3.683e-02                 -5.025e-01
```

```
##            plotIDDELL-02-0100         plotIDDELL-02-0101
##                  7.157e-01                 -8.051e-01
##            plotIDDELL-02-0105         plotIDDELL-02-0106
##                 -1.061e+00                 -6.134e-01
##            plotIDDELL-02-0108         plotIDDELL-02-0109
##                 -1.039e+00                 -2.945e-01
##            plotIDDELL-02-0110         plotIDDELL-02-0114
##                 -1.180e+00                  1.282e-01
##            plotIDDELL-02-0115         plotIDDELL-02-0116
##                  1.299e-01                  1.284e-01
##            plotIDDELL-02-0127         plotIDDELL-02-0129
##                  2.252e-01                 -1.307e-01
##            plotIDDELL-02-0133         plotIDDELL-02-0142
##                 -4.402e-01                  9.703e-01
##            plotIDDELL-03-0002         plotIDDELL-03-0003
##                 -1.704e+00                 -9.819e-01
##            plotIDDELL-03-0006         plotIDDELL-03-0007
##                 -1.526e+00                  2.919e-01
##            plotIDDELL-03-0008         plotIDDELL-03-0010
##                 -1.649e-01                  1.188e-01
##            plotIDDELL-03-0021         plotIDDELL-03-0025
##                 -1.474e+00                  7.098e-01
##            plotIDDELL-03-0028         plotIDDELL-03-0029
##                 -2.374e-01                  8.429e-01
##            plotIDDELL-03-0114         plotIDDLAP-01-0011
##                  3.061e-01                 -1.416e-03
##            plotIDDLAP-01-0012         plotIDDLAP-01-0013
##                 -3.683e-01                 -1.961e-01
##            plotIDDLAP-01-0014         plotIDDLAP-01-0015
##                 -5.296e-02                 -4.189e-01
##            plotIDDSLM-01-0002         plotIDDSLM-01-0003
##                 -2.428e-01                  4.802e-01
##            plotIDDSLM-01-0004         plotIDDSLM-01-0005
##                  6.205e-01                 -7.379e-03
##            plotIDDSLM-01-0006         plotIDDSLM-01-0007
##                  8.361e-01                  6.593e-01
##            plotIDDSLM-01-0008         plotIDDSLM-01-0009
##                  2.554e-01                 -8.160e-01
##            plotIDDSLM-01-0010         plotIDDSLM-01-0011
##                  5.887e-01                  5.887e-01
##            plotIDDSLM-01-0012         plotIDDSLM-01-0013
##                  7.193e-01                  3.361e-01
##            plotIDDSLM-01-0024         plotIDDSLM-01-0025
##                  3.361e-01                 -3.160e-01
##            plotIDDSLM-01-0027         plotIDDSLM-01-0028
##                  9.220e-01                 -3.449e-01
##            plotIDDSLM-01-0029         plotIDDSLM-01-0037
##                  1.255e+00                  2.117e-01
##            plotIDDSLM-01-0080         plotIDDSLM-01-0081
##                  3.260e-01                  2.554e-01
##            plotIDDSLM-01-0082         plotIDDSLM-01-0083
##                 -3.160e-01                  3.668e-01
##            plotIDDSLM-01-0084         plotIDDSLM-01-0085
##                  1.509e-01                 -2.807e-01
```

```
##           plotIDDSLM-01-0086          plotIDDSLM-01-0087
##                  5.861e-01                 -1.324e-01
##           plotIDDSLM-01-0088          plotIDDSLM-01-0089
##                  1.176e-01                  5.262e-02
##           plotIDDSLM-01-0090          plotIDDSLM-01-0115
##                  6.999e-01                  2.205e-01
##           plotIDDSLM-01-0134          plotIDDSLM-01-0135
##                  5.861e-01                  1.326e+00
##           plotIDDSLM-01-0136          plotIDDSLM-01-0137
##                  1.374e-01                  8.606e-02
##           plotIDDSLM-01-0138          plotIDDSLM-01-0139
##                  5.887e-01                  3.260e-01
##           plotIDDSLM-01-0140          plotIDDSLM-01-0143
##                  6.999e-01                 -7.796e-02
##           plotIDDSLM-01-0185          plotIDDSLM-01-0253
##                 -6.601e-02                  9.220e-01
##           plotIDDSLM-01-0302          plotIDDSLM-01-0303
##                  8.606e-02                 -5.660e-01
##           plotIDDSLM-01-0304          plotIDDSLM-01-0305
##                  4.205e-01                  5.887e-01
##           plotIDDSLM-01-0306          plotIDDSLM-01-0307
##                 -7.785e-01                  3.856e-01
##           plotIDDSLM-01-0308          plotIDDSLM-01-0309
##                  5.262e-02                  9.220e-01
##           plotIDDSLM-01-0310          plotIDDSLM-01-0311
##                  4.205e-01                  5.262e-02
##           plotIDDSLM-01-0313          plotIDDSLM-01-0314
##                  5.861e-01                  1.089e-01
##           plotIDDSLM-01-0320          plotIDDSLM-01-0321
##                  9.051e-01                  1.840e-01
##           plotIDDSLM-01-0322          plotIDDSLM-01-0323
##                 -1.795e-01                  8.226e-01
##           plotIDDSLM-01-0324          plotIDDSLM-01-0325
##                  9.220e-01                 -3.160e-01
##           plotIDDSLM-01-0326          plotIDDSLM-01-0328
##                 -1.639e-01                 -2.807e-01
##           plotIDDSLM-01-0329          plotIDDSLM-01-0330
##                 -1.903e-01                 -4.139e-01
##           plotIDDSLM-01-0340          plotIDDSLM-01-0341
##                  6.176e-01                  3.676e-01
##           plotIDDSLM-01-0342          plotIDDSLM-01-0343
##                  5.726e-01                  3.361e-01
##           plotIDDSLM-01-0345          plotIDDSLM-01-0346
##                  5.861e-01                  2.554e-01
##           plotIDDSLM-01-0347          plotIDFRID-01-0001
##                  2.554e-01                 -3.688e-02
##           plotIDFRID-01-0002          plotIDFRID-01-0003
##                 -5.302e-01                  1.255e+00
##           plotIDFRID-01-0004          plotIDFRID-01-0005
##                  3.647e-01                  2.898e-01
##           plotIDFRID-01-0006          plotIDFRID-01-0007
##                 -9.357e-01                 -4.476e-01
##           plotIDFRID-01-0008          plotIDFRID-01-0009
##                 -2.871e-01                  2.487e-01
```

```
##          plotIDFRID-01-0010         plotIDFRID-01-0011
##                   3.420e-01                  1.578e+00
##          plotIDFRID-01-0013         plotIDFRID-01-0015
##                   1.514e-01                  5.110e-01
##          plotIDFRID-02-0014         plotIDFRID-08-0012
##                   8.476e-01                  3.713e-01
##          plotIDFRID-0T-0001         plotIDFRID-0T-0002
##                   1.298e+00                  4.361e-01
##          plotIDFRID-0T-0003         plotIDFRID-0T-0004
##                   8.812e-01                  3.861e+00
##          plotIDFRID-0T-0005         plotIDFRID-0T-0006
##                   7.566e-01                  2.522e+00
##          plotIDFRID-0T-0007         plotIDFRID-0T-0008
##                   9.548e-01                  1.917e+00
##          plotIDFRID-0T-0009         plotIDFRID-0T-0010
##                   1.062e+00                  1.354e+00
##          plotIDFRID-0T-0011         plotIDFRID-0T-0012
##                   1.111e+00                  3.922e+00
##          plotIDFRID-0T-0013         plotIDFRID-0T-0014
##                   3.589e+00                  2.589e+00
##          plotIDFRID-0T-0015         plotIDFRID-0T-0016
##                   2.922e+00                  3.589e+00
##          plotIDFRID-0T-0017         plotIDFRID-0T-0018
##                   3.922e+00                  3.147e+00
##          plotIDFRID-0T-0019         plotIDFRID-0T-0020
##                   2.073e+00                  1.091e+00
##          plotIDFRID-0T-0021         plotIDFRID-0T-0022
##                   5.936e-01                  1.304e+00
##          plotIDFRID-0T-0023         plotIDFRID-0T-0024
##                   1.017e+00                  9.214e-01
##          plotIDFRID-0T-0025         plotIDFRID-0T-0026
##                   6.885e-01                  2.707e+00
##          plotIDFRID-0T-0027         plotIDFRID-0T-0028
##                   8.801e-01                  1.082e+00
##          plotIDFRID-0T-0029         plotIDFRID-0T-0030
##                   1.443e+00                  7.282e-01
##          plotIDFRID-0T-0031         plotIDFRID-0T-0032
##                  -4.907e-01                  1.681e+00
##          plotIDFRID-0T-0033         plotIDFRID-0T-0034
##                   1.588e+00                  1.265e+00
##          plotIDFRID-0T-0035         plotIDFRID-0T-0036
##                   1.532e+00                  1.937e+00
##          plotIDFRID-0T-0037         plotIDFRID-0T-0038
##                   4.472e-01                  1.742e+00
##          plotIDFRID-0T-0039         plotIDMILL-01-0024
##                   3.943e-01                  7.669e-01
##          plotIDMILL-03-0020         plotIDMILL-04-0005
##                   8.636e-01                  2.493e+00
##          plotIDMILL-07-0024         plotIDMILL-07-0052
##                   1.587e+00                  6.626e-01
##          plotIDMILL-10-0019         plotIDMILL-11-0017
##                   7.172e-01                  3.797e-01
##          plotIDMILL-12-0007         plotIDMILL-17-0010
##                   2.418e-01                  2.788e-02
```

```
##           plotIDMILL-17-0012        plotIDMILL-17-0015
##                   4.915e-01                1.549e+00
##           plotIDMILL-17-0039        plotIDMILL-18-0021
##                   1.462e+00                8.660e-02
##           plotIDMILL-20-0010        plotIDMILL-20-0044
##                   3.797e-02                4.605e-01
##           plotIDMILL-20-0067        plotIDMILL-24-0016
##                  -1.243e-01                9.110e-01
##           plotIDMILL-24-0059        plotIDMILL-25-0044
##                  -3.440e-01                9.910e-01
##           plotIDMILL-27-0033        plotIDMILL-27-0041
##                   2.954e-01                1.297e+00
##           plotIDMILL-27-0061        plotIDMILL-27-0065
##                   1.032e+00                9.791e-02
##           plotIDMILL-27-0110        plotIDMILL-27-0202
##                   6.382e-01                1.171e+00
##           plotIDPITT-01-0001        plotIDPITT-01-0002
##                   1.540e-01                4.472e-01
##           plotIDPITT-01-0003        plotIDPITT-01-0005
##                  -3.460e-01                3.253e-01
##           plotIDPITT-01-0006        plotIDPITT-01-0007
##                   1.366e-01               -6.468e-01
##           plotIDPITT-01-0008        plotIDPITT-01-0009
##                  -1.024e+00                8.790e-01
##           plotIDPITT-01-0010        plotIDPITT-01-0011
##                  -4.951e-01               -8.164e-01
##           plotIDPITT-01-0012        plotIDPITT-01-0014
##                  -7.373e-01                4.946e-01
##           plotIDPITT-01-0015        plotIDPITT-01-0016
##                  -4.332e-01               -3.275e-01
##           plotIDPITT-01-0017        plotIDPITT-01-0018
##                  -7.672e-01               -1.954e-01
##           plotIDPITT-01-0019        plotIDPITT-01-0020
##                  -4.362e-01               -3.907e-01
##           plotIDPITT-01-0021        plotIDPITT-01-0022
##                   7.673e-01                1.155e+00
##           plotIDPITT-01-0023        plotIDPITT-01-0024
##                   3.153e-01               -2.333e-01
##           plotIDPITT-01-0025        plotIDPITT-01-0026
##                  -5.694e-01                1.181e+00
##           plotIDPITT-01-0027        plotIDPITT-01-0028
##                   3.463e-01               -8.310e-02
##           plotIDPITT-01-0029        plotIDPITT-01-0030
##                  -3.915e-01               -1.996e-01
##           plotIDPITT-01-0031        plotIDPITT-01-0032
##                   8.055e-01               -5.618e-01
##           plotIDPITT-01-0033        plotIDPITT-01-0034
##                  -1.727e-01                1.615e+00
##           plotIDPITT-01-0035        plotIDPITT-01-0036
##                   1.167e+00               -5.977e-01
##           plotIDPITT-01-0037        plotIDPITT-01-0038
##                   3.220e-01               -6.458e-01
##           plotIDPITT-01-0039        plotIDPITT-01-0040
##                   7.300e-01               -2.945e-01
```

```
##               plotIDPITT-01-0041              plotIDPITT-01-0042
##                       3.462e-01                      2.801e-01
##               plotIDPITT-01-0043              plotIDPITT-01-0044
##                      -2.401e-01                      1.559e+00
##               plotIDPITT-01-0045              plotIDUFRL-01-0001
##                       4.805e-01                     -7.713e-02
##               plotIDUFRL-01-0002              plotIDUFRL-01-0003
##                       5.470e-01                     -5.805e-02
##               plotIDUFRL-01-0004              plotIDUFRL-01-0005
##                       2.932e-01                      9.254e-01
##               plotIDUFRL-01-0006              plotIDUFRL-01-0007
##                       3.300e-01                      4.630e-01
##               plotIDUFRL-01-0008              plotIDUFRL-01-0009
##                       5.000e-01                     -2.446e-01
##               plotIDUFRL-01-0010              plotIDUFRL-01-0011
##                      -1.055e+00                      1.305e+00
##               plotIDUFRL-01-0012              plotIDUFRL-01-0013
##                       7.399e-01                     -6.075e-01
##               plotIDUFRL-01-0014              plotIDUFRL-01-0015
##                       4.318e-01                     -4.184e-01
##               plotIDUFRL-01-0016              plotIDUFRL-01-0017
##                      -1.932e-01                      3.269e-02
##               plotIDUFRL-01-0018              plotIDUFRL-01-0019
##                      -4.318e-01                     -7.579e-01
##               plotIDUFRL-01-0020              plotIDUFRL-01-0021
##                       1.223e+00                     -4.115e-01
##               plotIDUFRL-01-0022              plotIDUFRL-01-0023
##                       8.272e-01                     -9.290e-02
##               plotIDUFRL-01-0024              plotIDUFRL-01-0025
##                      -6.793e-01                      5.073e-01
##               plotIDUFRL-01-0026              plotIDUFRL-01-0027
##                      -1.760e-01                     -5.089e-01
##               plotIDUFRL-01-0028              plotIDUFRL-01-0029
##                      -2.295e-01                      3.188e-01
##               plotIDUFRL-01-0030              plotIDUFRL-01-0031
##                       6.565e-01                      2.999e-01
##               plotIDUFRL-01-0032              plotIDUFRL-01-0033
##                      -1.354e+00                     -2.598e-01
##               plotIDUFRL-01-0034              plotIDUFRL-01-0035
##                       8.933e-01                      4.659e-01
##               plotIDUFRL-01-0036              plotIDUFRL-01-0037
##                      -2.128e-01                     -1.066e+00
##               plotIDUFRL-01-0038              plotIDUFRL-01-0039
##                      -1.386e+00                     -1.294e+00
##               plotIDUFRL-01-0040              plotIDUFRL-01-0041
##                      -3.978e-01                      8.572e-02
##               plotIDUFRL-01-0042              plotIDUFRL-01-0043
##                      -7.214e-01                     -7.710e-01
##               plotIDUFRL-01-0044              plotIDUFRL-01-0045
##                      -2.521e-01                      4.217e-02
##               plotIDUFRL-01-0046              plotIDUFRL-01-0047
##                       1.536e-01                     -2.675e-01
##               plotIDUFRL-01-0048              plotIDUFRL-01-0049
##                      -4.714e-01                      9.488e-01
```

```
##              plotIDUFRL-01-0050            plotIDUFRL-01-0051
##                     9.451e-02                     1.174e+00
##              plotIDUFRL-01-0052            plotIDUFRL-01-0053
##                     6.130e-01                     7.496e-01
##              plotIDUFRL-01-0054            plotIDUFRL-01-0055
##                     1.066e-01                     8.722e-01
##              plotIDUFRL-01-0056            plotIDUFRL-01-0057
##                    -3.345e-01                     3.581e-01
##              plotIDUFRL-01-0058            plotIDUFRL-01-0059
##                     2.191e-01                     3.028e-01
##              plotIDUFRL-01-0060            plotIDUFRL-01-0061
##                     6.852e-01                     2.671e-01
##              plotIDUFRL-01-0062            plotIDUFRL-01-0063
##                     6.063e-01                     1.277e+00
##              plotIDUFRL-01-0064            plotIDUFRL-01-0065
##                     8.757e-01                     3.334e-01
##              plotIDUFRL-01-0066            plotIDUFRL-01-0067
##                     1.721e+00                     4.806e-01
##              plotIDUFRL-01-0068            plotIDUFRL-01-0069
##                    -4.921e-01                     2.982e-01
##              plotIDUFRL-01-0070            plotIDUFRL-01-0071
##                    -6.131e-01                     6.369e-01
##              plotIDUFRL-01-0072            plotIDUFRL-01-0073
##                     3.586e-01                     3.615e-01
##              plotIDUFRL-01-0074            plotIDUFRL-01-0075
##                    -2.670e-01                    -3.061e-01
##              plotIDUFRL-01-0076            plotIDUFRL-01-0077
##                     6.431e-01                     8.577e-01
##              plotIDUFRL-01-0078            plotIDUFRL-01-0079
##                    -1.796e-01                    -1.093e-01
##              plotIDUFRL-01-0080            plotIDUFRL-01-0081
##                     3.634e-01                     7.253e-02
##              plotIDUFRL-01-0082            plotIDUFRL-01-0083
##                     9.555e-02                     8.020e-01
##              plotIDUFRL-01-0084            plotIDUFRL-01-0085
##                     1.021e-01                     1.029e+00
##              plotIDUFRL-01-0086            plotIDUFRL-01-0087
##                     8.523e-01                    -2.322e-01
##              plotIDUFRL-01-0088            plotIDUFRL-01-0089
##                    -3.475e-01                     3.539e-02
##              plotIDUFRL-01-0090            plotIDUFRL-01-0091
##                     1.561e-01                     7.027e-02
##              plotIDUFRL-01-0092            plotIDUFRL-01-0093
##                    -3.196e-02                    -5.199e-02
##              plotIDUFRL-01-0094            plotIDUFRL-01-0101
##                    -8.335e-01                    -1.007e+00
##              plotIDUFRL-01-0102            plotIDUFRL-01-0103
##                    -1.979e-01                    -8.903e-01
##              plotIDUFRL-01-0104            plotIDUFRL-01-0105
##                    -1.102e+00                     1.551e+00
##              plotIDUFRL-01-0106            plotIDUFRL-01-0154
##                     5.473e-01                     8.548e-02
##              plotIDUFRL-01-0155            plotIDUFRL-01-0156
##                     3.392e-01                     2.744e-01
```

```
##          plotIDUFRL-01-0160          plotIDUFRL-01-0161
##                  1.021e+00                  9.961e-01
##          plotIDUFRL-01-0162          plotIDUFRL-01-0163
##                  8.005e-01                 -5.591e-01
##          plotIDUFRL-01-0164          plotIDUFRL-01-0165
##                  3.169e-01                  2.160e+00
##          plotIDUFRL-01-0166          plotIDUFRL-01-0167
##                  1.047e+00                  3.532e+00
##          plotIDUFRL-01-0168          plotIDUFRL-01-0169
##                  2.919e+00                  1.178e+00
##          plotIDUFRL-02-0001          plotIDUFRL-02-0002
##                 -2.669e-01                  5.479e-02
##          plotIDUFRL-02-0003          plotIDUFRL-02-0004
##                 -2.788e-01                 -6.908e-01
##          plotIDUFRL-02-0005          plotIDUFRL-02-0007
##                 -1.399e+00                 -1.792e+00
##          plotIDUFRL-02-0008          plotIDUFRL-02-0009
##                 -9.774e-01                 -3.735e-01
##          plotIDUFRL-02-0011          plotIDUFRL-02-0014
##                 -8.144e-01                 -1.655e+00
##          plotIDUFRL-02-0015          plotIDUFRL-02-0016
##                 -1.330e+00                 -8.800e-01
##          plotIDUFRL-02-0017          plotIDUFRL-02-0018
##                 -7.441e-01                 -1.620e-01
##          plotIDUFRL-02-0019          plotIDUFRL-02-0030
##                 -1.290e-01                 -4.211e-01
##          plotIDUFRL-02-0031          plotIDUFRL-02-0032
##                 -4.164e-01                 -4.781e-01
##          plotIDUFRL-02-0033          plotIDUFRL-02-0034
##                 -5.481e-01                 -4.226e-01
##          plotIDUFRL-02-0035          plotIDUFRL-02-0036
##                 -5.579e-01                  5.277e-01
##          plotIDUFRL-02-0037          plotIDUFRL-02-0038
##                 -1.658e-01                  1.012e-01
##          plotIDUFRL-02-0039          plotIDUFRL-02-0040
##                 -5.880e-01                  1.062e+00
##          plotIDUFRL-02-0041          plotIDUFRL-02-0042
##                  1.761e+00                  4.773e+00
##          plotIDUFRL-02-0043          plotIDUFRL-02-0044
##                  5.241e+00                  2.898e+00
##          plotIDUFRL-02-0045          plotIDUFRL-02-0046
##                  1.047e+00                  1.570e+00
##          plotIDUFRL-02-0047          plotIDUFRL-02-0048
##                  1.475e+00                  7.220e-01
##          plotIDUFRL-02-0049          plotIDUFRL-02-0050
##                  2.658e+00                  4.025e-01
##          plotIDUFRL-02-0051          plotIDUFRL-02-0052
##                 -2.716e-01                  2.311e+00
##          plotIDUFRL-02-0053          plotIDUFRL-02-0054
##                  1.116e-02                  1.158e+00
##          plotIDUFRL-02-0055          plotIDUFRL-02-0056
##                  2.286e+00                  4.640e-01
##          plotIDUFRL-02-0057          plotIDUFRL-02-0058
##                  1.797e+00                  4.310e-01
```

```
##               plotIDUFRL-02-0059        plotIDUFRL-02-0060
##                        5.019e-01                -1.124e+00
##               plotIDUFRL-02-0061        plotIDUFRL-02-0063
##                       -5.074e-01                -8.733e-01
##               plotIDUFRL-02-0064        plotIDUFRL-02-0100
##                        1.133e-02                 3.533e+00
##               plotIDUFRL-02-0101        plotIDUFRL-02-0102
##                        1.261e+00                 2.639e-01
##               plotIDUFRL-02-0103        plotIDUFRL-02-0104
##                        6.335e-01                -5.250e-01
##               plotIDUFRL-02-0105        plotIDUFRL-02-0106
##                        6.761e-01                 2.897e+00
##               plotIDUFRL-02-0107        plotIDUFRL-02-0108
##                       -2.049e-01                 1.442e+00
##               plotIDUFRL-02-0109        plotIDUFRL-02-0110
##                        5.453e-01                 1.495e-01
##               plotIDUFRL-02-0111        plotIDUFRL-02-0112
##                        5.515e-01                 2.251e-01
##               plotIDUFRL-02-0113        plotIDUFRL-02-0114
##                        1.900e-01                 6.390e-01
##               plotIDUFRL-02-0115        plotIDUFRL-02-0116
##                        1.248e+00                 2.753e-01
##               plotIDUFRL-02-0117        plotIDUFRL-02-0118
##                       -1.012e+00                -1.716e-01
##               plotIDUFRL-02-0119        plotIDUFRL-02-0120
##                        1.697e-01                 2.320e-01
##               plotIDUFRL-02-0121        plotIDUFRL-02-0122
##                        8.067e-01                -3.407e-01
##               plotIDUFRL-02-0123        plotIDUFRL-02-0124
##                        1.342e+00                 9.344e-01
##               plotIDUFRL-02-0125        plotIDUFRL-02-0126
##                        4.970e-01                -2.077e-01
##               plotIDUFRL-02-0127        plotIDUFRL-02-0128
##                        8.980e-01                 1.021e+00
##               plotIDUFRL-02-0129        plotIDUFRL-02-0130
##                        4.000e-01                 9.610e-01
##               plotIDUFRL-02-0131        plotIDUFRL-02-0132
##                        1.306e+00                 2.495e+00
##               plotIDUFRL-02-0133        plotIDUFRL-02-0134
##                       -8.234e-02                 2.495e+00
##               plotIDUFRL-02-0135        plotIDUFRL-02-0136
##                        2.257e+00                 4.447e-01
##               plotIDUFRL-02-0137        plotIDUFRL-02-0138
##                        6.277e-01                 1.863e+00
##               plotIDUFRL-02-0139        plotIDUFRL-02-0140
##                        1.006e+00                 2.961e+00
##               plotIDUFRL-02-0141        plotIDUFRL-02-0142
##                        2.757e+00                -9.691e-03
##               plotIDUFRL-02-0143        plotIDUFRL-02-0144
##                        7.904e-01                 6.509e-01
##               plotIDUFRL-02-0145        plotIDUFRL-02-0146
##                        8.916e-01                 6.698e-01
##               plotIDUFRL-02-0147        plotIDUFRL-02-0148
##                        1.961e+00                 3.604e-01
```

```
##          plotIDUFRL-02-0149          plotIDUFRL-02-0150
##                 9.860e-02                   6.654e-01
##          plotIDUFRL-02-0151          plotIDUFRL-02-0152
##                 1.611e+00                   7.915e-02
##          plotIDUFRL-02-0153          plotIDUFRL-02-0154
##                -4.777e-01                   9.648e-02
##          plotIDUFRL-02-0155          plotIDUFRL-02-0156
##                 7.116e-01                   1.325e-01
##          plotIDUFRL-02-0157          plotIDUFRL-02-0158
##                 1.281e-01                   1.362e-01
##          plotIDUFRL-02-0159          plotIDUFRL-02-0160
##                 3.571e-02                   8.884e-02
##          plotIDUFRL-02-0161          plotIDUFRL-02-0162
##                -1.968e-01                   6.849e-01
##          plotIDUFRL-02-0163          plotIDUFRL-02-0164
##                 7.434e-01                   1.792e-01
##          plotIDUFRL-02-0165          plotIDUFRL-02-0166
##                 2.107e-01                   8.930e-02
##          plotIDUFRL-02-0167          plotIDUFRL-02-0176
##                -3.356e-01                  -1.289e+00
##          plotIDUFRL-02-0177          plotIDUFRL-02-0178
##                -5.391e-01                  -1.045e+00
##          plotIDUFRL-02-0999          plotIDUFRL-03-0001
##                -1.454e+00                   3.179e-01
##          plotIDUFRL-03-0002          plotIDUFRL-03-0003
##                 1.991e+00                   2.813e+00
##          plotIDUFRL-03-0004          plotIDUFRL-03-0005
##                 1.013e+00                   1.020e+00
##          plotIDUFRL-03-0006          plotIDUFRL-03-0007
##                 3.717e+00                   4.491e+00
##          plotIDUFRL-03-0008          plotIDUFRL-03-0009
##                 2.317e+00                   1.510e+00
##          plotIDUFRL-03-0010          plotIDUFRL-03-0011
##                 2.194e+00                   3.257e+00
##          plotIDUFRL-03-0012          plotIDUFRL-03-0013
##                 3.257e+00                   1.306e+00
##          plotIDUFRL-03-0014          plotIDUFRL-03-0015
##                 1.228e+00                   1.284e+00
##          plotIDUFRL-03-0016          plotIDUFRL-03-0017
##                 5.895e-01                   1.085e+00
##          plotIDUFRL-03-0018          plotIDUFRL-03-0019
##                 4.985e-01                   1.370e-01
##          plotIDUFRL-03-0020          plotIDUFRL-03-0021
##                -1.986e-01                  -2.585e-01
##          plotIDUFRL-03-0022          plotIDUFRL-03-0023
##                 1.339e+00                   7.876e-01
##          plotIDUFRL-03-0024          plotIDUFRL-03-0025
##                 1.540e+00                   2.669e+00
##          plotIDUFRL-03-0026          plotIDUFRL-03-0027
##                 1.575e+00                   1.463e+00
##          plotIDUFRL-03-0028          plotIDUFRL-03-0029
##                 2.444e+00                   2.479e+00
##          plotIDUFRL-04-00A1          plotIDUFRL-05-0001
##                 1.966e-02                  -1.641e+00
```

```
##             plotIDUFRL-05-0002       plotIDUFRL-05-0003
##                   -1.140e+00               -4.524e-01
##             plotIDUFRL-05-0131       plotIDUFRL-05-0132
##                    2.213e-01                1.577e-02
##             plotIDUFRL-05-0144       plotIDUFRL-05-0145
##                    5.826e-01                1.396e-01
##             plotIDUFRL-05-0146       plotIDUFRL-05-0147
##                    8.150e-02                7.243e-02
##             plotIDUFRL-05-0148       plotIDUFRL-05-0149
##                    3.601e-01                3.042e-01
##             plotIDUFRL-05-0150       plotIDUFRL-05-0151
##                    4.440e-01                5.957e-01
##             plotIDUFRL-05-0152       plotIDUFRL-05-0153
##                    5.829e-01                5.170e-01
##             plotIDUFRL-05-0157       plotIDUFRL-05-0158
##                    1.163e-01                4.963e-01
##             plotIDUFRL-05-0159       plotIDUFRL-06-0133
##                    2.747e-01                3.648e+00
##             plotIDUFRL-06-0134       plotIDUFRL-06-0135
##                    3.091e+00                2.557e+00
##             plotIDUFRL-06-0136       plotIDUFRL-06-0137
##                    3.528e+00                3.028e+00
##             plotIDUFRL-06-0138       plotIDUFRL-06-0139
##                    1.210e+00                3.779e+00
##             plotIDUFRL-2A-0142       plotIDUFRL-2A-0143
##                    2.287e-01                3.630e-03
##             plotIDULRY-04-0001       plotIDULRY-04-0002
##                   -5.583e-01               -7.195e-01
##             plotIDULRY-04-0003       plotIDULRY-04-0004
##                    7.318e-01                6.510e-01
##             plotIDULRY-04-0005       plotIDULRY-04-0006
##                    1.303e-01               -6.847e-01
##             plotIDULRY-04-0007       plotIDULRY-04-0008
##                   -2.325e-01                3.388e+00
##             plotIDULRY-04-0009       plotIDULRY-04-0010
##                    9.213e-01                1.349e+00
##             plotIDULRY-04-0011       plotIDULRY-04-0012
##                    5.471e-01                2.239e+00
##             plotIDULRY-04-0013       plotIDULRY-04-0014
##                    2.731e+00                9.664e-01
##             plotIDULRY-04-0015       plotIDULRY-04-0016
##                   -5.234e-01                9.869e-01
##             plotIDULRY-04-0017       plotIDULRY-04-0018
##                    3.298e+00                1.133e+00
##             plotIDULRY-04-0019       plotIDULRY-04-0020
##                    1.842e+00                4.541e-01
##             plotIDULRY-04-0021       plotIDULRY-04-0022
##                    3.525e-01                5.634e-02
##             plotIDULRY-04-0023       plotIDULRY-04-0024
##                    2.042e+00                2.589e+00
##             plotIDULRY-04-0025       plotIDULRY-04-0026
##                    2.589e+00                2.589e+00
##             plotIDULRY-04-0027       plotIDULRY-04-0028
##                    6.515e-01                4.018e+00
```

```
##           plotIDULRY-04-0029        plotIDULRY-04-0030
##                  4.863e-01                 2.679e+00
##           plotIDULRY-04-0031        plotIDULRY-04-0032
##                  9.091e-01                 9.405e-01
##           plotIDULRY-04-0033        plotIDULRY-04-0034
##                  2.506e+00                 1.144e+00
##           plotIDULRY-04-0035        plotIDULRY-04-0036
##                  8.082e-01                 1.272e+00
##           plotIDULRY-04-0037        plotIDULRY-04-0038
##                  1.026e+00                 1.264e+00
##           plotIDULRY-04-0039        plotIDULRY-04-0040
##                  1.090e+00                 9.045e-01
##           plotIDULRY-04-0041        plotIDULRY-04-0042
##                  8.093e-01                 4.159e-01
##           plotIDULRY-04-0043        plotIDULRY-04-0044
##                  1.517e+00                 2.043e+00
##           plotIDULRY-04-0045        plotIDULRY-04-0046
##                  1.478e+00                 7.773e-01
##           plotIDULRY-04-0047        plotIDULRY-04-0048
##                  8.908e-01                 1.205e+00
##           plotIDULRY-04-0049        plotIDULRY-04-0050
##                  3.669e+00                 1.052e+00
##           plotIDULRY-04-0051        plotIDULRY-04-0052
##                  1.584e+00                 5.562e-01
##           plotIDULRY-04-0053        plotIDULRY-04-0054
##                  7.390e-01                 3.012e-01
##           plotIDULRY-04-0055        plotIDULRY-04-0056
##                  3.598e-01                 2.298e+00
##           plotIDULRY-04-0057        plotIDULRY-04-0058
##                  1.870e+00                 2.342e+00
##           plotIDULRY-04-0059        plotIDULRY-04-0060
##                  1.782e+00                 9.028e-01
##           plotIDULRY-04-0061        plotIDULRY-04-0063
##                  5.121e+00                 1.062e+00
##           plotIDULRY-04-0064        plotIDULRY-04-0065
##                  8.523e-01                 9.843e-01
##           plotIDULRY-04-0066        plotIDULRY-04-0067
##                  1.613e+00                 5.014e+00
##           plotIDULRY-04-0068        plotIDULRY-04-0069
##                 -2.782e+00                 7.020e-01
##           plotIDULRY-04-0070        plotIDULRY-04-0071
##                  3.700e+00                -1.627e+00
##           plotIDULRY-04-0072        plotIDULRY-04-0073
##                  3.053e+00                -8.324e-01
##           plotIDULRY-04-0075        plotIDULRY-04-0076
##                  3.860e-01                -1.471e-01
##           plotIDULRY-04-0077        plotIDULRY-04-0078
##                  3.233e+00                 1.625e+00
##           plotIDULRY-04-0079        plotIDULRY-04-0080
##                  5.318e-01                 5.370e-01
##           plotIDULRY-04-0082        plotIDULRY-04-0083
##                  4.636e-01                -8.471e-01
##           plotIDULRY-04-0084        plotIDULRY-04-0085
##                  4.875e-01                 1.427e-01
```

```
##         plotIDULRY-04-0086        plotIDULRY-04-0087
##                 2.531e-01                9.430e-01
##         plotIDULRY-04-0088        plotIDULRY-04-0089
##                -4.083e-01                1.355e+00
##         plotIDULRY-04-0090        plotIDULRY-04-0091
##                -6.257e-01               -1.626e+00
##         plotIDULRY-04-0092        plotIDULRY-04-0095
##                 2.374e+00                2.366e+00
##         plotIDULRY-04-0096        plotIDULRY-04-0097
##                -1.634e+00               -2.225e+00
##         plotIDULRY-04-0098        plotIDULRY-04-0099
##                 9.220e-01                2.225e-01
##         plotIDULRY-04-0100        plotIDULRY-04-0101
##                 1.239e+00                2.375e+00
##         plotIDULRY-04-0102        plotIDULRY-04-0103
##                -4.836e-01                6.355e-01
##         plotIDULRY-04-0104        plotIDULRY-04-0106
##                -1.799e-01                8.149e-01
##         plotIDULRY-04-0107        plotIDULRY-04-0108
##                 3.388e+00                1.675e-01
##         plotIDULRY-04-0109        plotIDULRY-04-0110
##                 7.973e-01                2.168e+00
##         plotIDULRY-04-0111        plotIDULRY-04-0112
##                 8.637e-01                6.881e-01
##         plotIDULRY-04-0113        plotIDULRY-04-0114
##                -3.139e+00                1.654e+00
##         plotIDULRY-04-0116        plotIDULRY-04-0117
##                 2.244e+00                2.719e+00
##         plotIDULRY-04-0118        plotIDULRY-04-0119
##                 7.091e-01                6.643e-01
##         plotIDULRY-04-0120        plotIDULRY-04-0121
##                 1.038e+00                6.071e-01
##         plotIDULRY-04-0122        plotIDULRY-04-0123
##                -7.497e-01                2.052e+00
##         plotIDULRY-04-0124        plotIDULRY-04-0125
##                 3.385e-01                1.410e+00
##         plotIDULRY-04-0126        plotIDULRY-04-0127
##                -3.135e-01                8.281e-01
##         plotIDULRY-04-0128        plotIDULRY-04-0129
##                 1.987e+00                3.210e-01
##         plotIDULRY-04-0130        plotIDULRY-04-0131
##                -1.503e-01               -1.117e+00
##         plotIDULRY-04-0132        plotIDULRY-04-0133
##                -5.752e-01                3.242e+00
##         plotIDULRY-04-0134        plotIDULRY-04-0135
##                 1.122e+00               -7.522e-01
##         plotIDULRY-04-0136        plotIDULRY-04-0137
##                 2.766e+00                1.399e+00
##         plotIDULRY-04-0138        plotIDULRY-04-0139
##                -1.424e-01               -1.451e+00
##         plotIDULRY-04-0140        plotIDULRY-04-0142
##                 9.618e-01                2.255e+00
##         plotIDULRY-04-0143        plotIDULRY-04-0144
##                 2.326e+00                1.589e+00
```

```
##           plotIDULRY-04-0145          plotIDULRY-04-0147
##                    2.589e+00                   1.874e+00
##           plotIDULRY-04-0148          plotIDULRY-04-0149
##                    2.148e+00                   3.149e-01
##           plotIDULRY-04-0151          plotIDULRY-04-0152
##                   -9.825e-01                   2.081e+00
##           plotIDULRY-04-0153          plotIDULRY-04-0154
##                   -1.725e+00                   5.382e+00
##           plotIDULRY-04-0155          plotIDULRY-04-0157
##                    2.589e+00                   1.381e+00
##           plotIDULRY-04-0158          plotIDULRY-04-0160
##                    2.922e+00                  -6.387e-01
##           plotIDULRY-05-0200          plotIDULRY-05-0201
##                    7.120e-01                   1.952e+00
##           plotIDULRY-05-0202          plotIDULRY-05-0204
##                    2.162e-01                   2.235e+00
##           plotIDULRY-05-0205          plotIDULRY-05-0206
##                    8.383e-01                   4.059e-01
##           plotIDULRY-05-0207          plotIDULRY-05-0208
##                    3.242e+00                   1.691e+00
##           plotIDULRY-05-0209          plotIDULRY-05-0210
##                    1.984e+00                   2.222e+00
##           plotIDULRY-05-0211          plotIDULRY-05-0212
##                    9.611e-01                   1.305e+00
##           plotIDULRY-05-0213          plotIDULRY-05-0214
##                    5.359e-01                   1.543e+00
##           plotIDULRY-05-0215          plotIDULRY-05-0216
##                    5.332e-01                   8.088e-01
##           plotIDULRY-05-0217          plotIDULRY-05-0218
##                    1.474e+00                   9.456e-01
##           plotIDULRY-05-0219          plotIDULRY-05-0220
##                    1.203e+00                   2.470e+00
##           plotIDULRY-05-0221          plotIDULRY-05-0222
##                    1.927e+00                   1.627e+00
##           plotIDULRY-05-0224          plotIDULRY-05-0225
##                    4.424e-01                   1.742e+00
##           plotIDULRY-05-0226          plotIDULRY-05-0227
##                    5.196e-01                   1.468e+00
##           plotIDULRY-05-0228          plotIDULRY-05-0231
##                    2.001e+00                   1.167e+00
##           plotIDULRY-05-0232          plotIDULRY-05-0234
##                    2.570e+00                   1.632e+00
##           plotIDULRY-05-0235          plotIDULRY-05-0236
##                    1.033e+00                   1.393e+00
##           plotIDULRY-05-0237          plotIDULRY-05-0238
##                    1.889e+00                   2.807e+00
##           plotIDULRY-05-0239          plotIDULRY-05-0240
##                    2.816e+00                   9.051e-01
##           plotIDULRY-05-0241          plotIDULRY-05-0242
##                   -1.253e+00                   2.123e+00
##           plotIDULRY-05-0244          plotIDULRY-05-0245
##                    3.613e-01                   1.233e+00
##           plotIDULRY-05-0246          plotIDULRY-05-0248
##                    3.641e-01                  -2.711e+00
```

```
##             plotIDULRY-05-0249          plotIDULRY-05-0250
##                     2.412e+00                  1.179e-01
##             plotIDULRY-05-0251          plotIDULRY-05-0252
##                     5.018e+00                  1.621e+00
##             plotIDULRY-05-0253          plotIDULRY-05-0254
##                     1.371e+00                  1.874e+00
##             plotIDULRY-05-0255          plotIDULRY-05-0256
##                     1.098e+00                  6.439e-01
##             plotIDULRY-05-0257          plotIDULRY-05-0258
##                     2.434e+00                  1.750e+00
##             plotIDULRY-05-0259          plotIDULRY-05-0260
##                     1.463e+00                  2.537e+00
##             plotIDULRY-05-0261          plotIDULRY-05-0262
##                     1.778e+00                  1.192e+00
##             plotIDULRY-05-0263          plotIDULRY-05-0264
##                     1.300e+00                  6.303e-01
##             plotIDULRY-05-0265          plotIDULRY-05-0266
##                     1.219e+00                  9.097e-01
##             plotIDWHCA-01-0050          plotIDWHCA-01-0051
##                     1.354e-01                  1.215e+00
##             plotIDWHCA-01-0055          plotIDWHCA-01-0056
##                     9.131e-01                 -2.936e-01
##             plotIDWHCA-01-0057          plotIDWHCA-01-0058
##                     3.989e-01                  2.599e-01
##             plotIDWHCA-01-0059          plotIDWHCA-01-0060
##                     3.437e-01                  6.809e-01
##             plotIDWHCA-01-0061          plotIDWHCA-01-0062
##                     3.080e-01                  6.471e-01
##             plotIDWHCA-01-0063          plotIDWHCA-01-0064
##                     1.318e+00                  9.166e-01
##             plotIDWHCA-01-0065          plotIDWHCA-01-0066
##                     3.743e-01                  1.762e+00
##             plotIDWHCA-01-0070          plotIDWHCA-01-0071
##                    -5.722e-01                  6.778e-01
##             plotIDWHCA-01-0072          plotIDWHCA-01-0074
##                     3.995e-01                 -2.261e-01
##             plotIDWHCA-01-0075          plotIDWHCA-02-0040
##                    -2.653e-01                  1.119e+00
##             plotIDWHCA-02-0042          plotIDWHCA-02-0043
##                     1.580e+00                  2.298e+00
##             plotIDWHCA-02-0044          plotIDWHCA-02-0045
##                    -2.157e+00                 -6.466e-01
##             plotIDWHCA-02-0046          plotIDWHCA-02-0047
##                     1.627e+00                  1.532e+00
##             plotIDWHCA-02-0048          plotIDWHCA-02-0049
##                     7.788e-01                  3.152e-01
##             plotIDWHCA-02-0050          plotIDWHCA-02-0052
##                     4.593e-01                  6.407e-01
##             plotIDWHCA-02-0053          plotIDWHCA-02-0054
##                     6.796e-02                 -1.728e-01
##             plotIDWHCA-02-0055          plotIDWHCA-02-0056
##                     3.423e-01                  5.208e-01
##             plotIDWHCA-02-0057          plotIDWHCA-02-0059
##                     7.288e-01                  5.587e-01
```

```
##          plotIDWHCA-02-0100        plotIDWHCA-02-0101
##                 1.408e+00                 7.924e-02
##          plotIDWHCA-02-0102        plotIDWHCA-02-0103
##                 3.047e-01                 6.744e-01
##          plotIDWHCA-02-0104        plotIDWHCA-02-0105
##                -4.842e-01                -1.719e-01
##          plotIDWHCA-02-0106        plotIDWHCA-02-0107
##                 7.558e-01                -1.640e-01
##          plotIDWHCA-02-0108        plotIDWHCA-02-0109
##                -2.095e-01                 2.861e-01
##          plotIDWHCA-02-0110        plotIDWHCA-02-0111
##                 3.904e-01                 5.924e-01
##          plotIDWHCA-02-0112        plotIDWHCA-02-0113
##                 2.660e-01                 2.309e-01
##          plotIDWHCA-02-0114        plotIDWHCA-02-0115
##                 8.799e-01                 1.380e+00
##          plotIDWHCA-02-0116        plotIDWHCA-02-0120
##                 1.946e+00                 2.728e-01
##          plotIDWHCA-02-0121        plotIDWHCA-02-0122
##                 8.475e-01                -2.999e-01
##          plotIDWHCA-02-0124        plotIDWHCA-02-0125
##                 9.753e-01                 5.379e-01
##          plotIDWHCA-02-0126        plotIDWHCA-02-0127
##                -1.668e-01                 9.647e-01
##          plotIDWHCA-02-0128        plotIDWHCA-02-0129
##                 1.062e+00                 5.408e-01
##          plotIDWHCA-02-0130        plotIDWHCA-02-0131
##                 1.002e+00                 1.347e+00
##          plotIDWHCA-02-0132        plotIDWHCA-02-0133
##                 2.798e+00                -3.748e-01
##          plotIDWHCA-02-0134        plotIDWHCA-02-0141
##                 2.298e+00                 2.798e+00
##          plotIDWHCA-02-0142        plotIDWHCA-02-0143
##                 1.390e-01                 8.250e-01
##          plotIDWHCA-02-0144        plotIDWHCA-02-0145
##                 9.964e-01                 4.924e-01
##          plotIDWHCA-02-0146        plotIDWHCA-02-0147
##                 4.157e-01                 2.002e+00
##          plotIDWHCA-02-0148        plotIDWHCA-02-0149
##                 4.013e-01                 1.395e-01
##          plotIDWHCA-02-0150        plotIDWHCA-02-0151
##                 7.063e-01                 1.652e+00
##          plotIDWHCA-02-0161        plotIDWHCA-02-0162
##                -1.559e-01                 7.258e-01
##          plotIDWHCA-02-0163        plotIDWHCA-02-0164
##                 7.842e-01                 2.201e-01
##          plotIDWHCA-03-0002        plotIDWHCA-03-0003
##                 2.141e-01                 5.203e-01
##          plotIDWHCA-03-0004        plotIDWHCA-03-0005
##                 1.054e+00                 1.061e+00
##          plotIDWHCA-03-0006        plotIDWHCA-03-0007
##                 9.578e-01                 1.532e+00
##          plotIDWHCA-03-0008        plotIDWHCA-03-0009
##                 1.929e+00                 1.551e+00
```

```
##              plotIDWHCA-03-0010          plotIDWHCA-03-0011
##                       1.092e+00                   3.298e+00
##              plotIDWHCA-03-0012          plotIDWHCA-03-0013
##                       3.298e+00                   1.306e+00
##              plotIDWHCA-03-0014          plotIDWHCA-03-0015
##                      -1.312e-01                   1.366e+00
##              plotIDWHCA-03-0016          plotIDWHCA-03-0020
##                       6.303e-01                  -1.577e-01
##              plotIDWHCA-03-0021          plotIDWHCA-03-0022
##                      -5.033e-01                   1.380e+00
##              plotIDWHCA-03-0024          plotIDWHCA-03-0025
##                       1.581e+00                   1.265e+00
##              plotIDWHCA-03-0027          plotIDWHCA-03-0028
##                       1.503e+00                   1.514e-01
##              plotIDWHCA-03-0029          plotIDWISR-01-0077
##                       1.854e+00                  -1.634e+00
##              plotIDWISR-01-0079          plotIDWISR-01-0080
##                      -6.336e-01                  -6.336e-01
##              plotIDWISR-01-0081          plotIDWISR-01-0082
##                      -2.618e+00                  -1.634e+00
##              plotIDWISR-01-0083          plotIDWISR-01-0084
##                      -6.257e-01                  -1.634e+00
##              plotIDWISR-01-0087          plotIDWISR-01-0088
##                      -1.907e+00                  -6.257e-01
##              plotIDWISR-01-0090          plotIDWISR-01-0091
##                      -1.618e+00                  -8.835e-01
##              plotIDWISR-01-0092          plotIDWISR-01-0093
##                       2.366e+00                  -2.168e-01
##                 date00-00-1977             date00-00-1978
##                       5.679e-02                   4.087e-02
##                 date00-00-1979             date00-00-1982
##                      -8.356e-01                          NA
##                 date00-00-2001             date05-03-2001
##                       4.330e-02                  -7.514e-01
##                 date05-08-1998             date05-08-2002
##                              NA                          NA
##                 date05-09-2001             date05-09-2002
##                       5.656e-01                          NA
##                 date05-10-2002             date05-11-1999
##                              NA                          NA
##                 date05-15-2001             date05-16-2001
##                      -2.212e+00                   2.339e+00
##                 date05-21-2001             date05-21-2004
##                       1.019e+00                          NA
##                 date05-22-2004             date05-23-2000
##                              NA                  -1.634e-02
##                 date05-23-2004             date05-24-2004
##                              NA                          NA
##                 date05-25-1999             date05-25-2000
##                              NA                   7.201e-01
##                 date05-25-2004             date05-26-1999
##                              NA                          NA
##                 date05-26-2004             date05-27-1998
##                              NA                          NA
```

```
##                     date05-27-1999                     date05-30-2000
##                                NA                          6.220e-01
##                     date05-30-2002                     date05-31-2000
##                        -2.832e-01                         -5.514e-02
##                     date05-31-2001                     date06-01-1998
##                        -2.259e+00                                 NA
##                     date06-02-1998                     date06-02-2000
##                                NA                          2.298e-01
##                     date06-03-1998                     date06-03-2002
##                                NA                         -6.216e-01
##                     date06-04-2002                     date06-07-1998
##                         1.247e+00                                 NA
##                     date06-07-2000                     date06-08-1998
##                        -3.333e-01                                 NA
##                     date06-08-1999                     date06-09-1998
##                                NA                                 NA
##                     date06-10-1998                     date06-10-2002
##                                NA                         -1.126e+00
##                     date06-10-2004                     date06-11-1996
##                                NA                                 NA
##                     date06-11-1998                     date06-11-2004
##                                NA                                 NA
##                     date06-12-1996                     date06-12-1998
##                                NA                                 NA
##                     date06-12-2004                     date06-13-1990
##                                NA                                 NA
##                     date06-13-2004                     date06-14-1990
##                                NA                                 NA
##                     date06-14-2000                     date06-14-2004
##                        -3.190e+00                                 NA
##                     date06-15-1990                     date06-15-1998
##                                NA                                 NA
##                     date06-15-2004                     date06-16-1998
##                                NA                                 NA
##                     date06-16-2004                     date06-17-1998
##                                NA                                 NA
##                     date06-17-2002                     date06-17-2004
##                         1.105e+00                                 NA
##                     date06-18-1996                     date06-18-1998
##                                NA                                 NA
##                     date06-18-2004                     date06-19-1990
##                                NA                                 NA
##                     date06-19-2004                     date06-20-1996
##                                NA                                 NA
##                     date06-21-1999                     date06-22-1998
##                                NA                                 NA
##                     date06-23-1990                     date06-23-1998
##                                NA                                 NA
##                     date06-24-1998                     date06-26-1990
##                                NA                                 NA
##                     date06-26-2001                     date06-27-1990
##                        -1.520e+00                                 NA
##                     date06-27-1999                     date06-27-2000
##                                NA                         -2.038e-01
```

```
##                date06-27-2004                date06-29-1990
##                           NA                           NA
##                date06-29-1998                date06-29-2000
##                           NA                   -9.720e-01
##                date06-30-1998                date07-01-1976
##                           NA                           NA
##                date07-01-1996                date07-01-1998
##                           NA                           NA
##                date07-02-1976                date07-02-1996
##                           NA                           NA
##                date07-02-1998                date07-02-2001
##                           NA                   -1.472e-01
##                date07-06-1999                date07-06-2000
##                           NA                   -1.148e-01
##                date07-06-2004                date07-07-1998
##                           NA                           NA
##                date07-07-2000                date07-07-2004
##                   -1.783e+00                           NA
##                date07-08-1998                date07-08-2004
##                           NA                           NA
##                date07-09-1996                date07-09-1998
##                           NA                           NA
##                date07-09-2001                date07-10-2002
##                   -2.939e+00                    3.392e-01
##                date07-11-2001                date07-13-1996
##                   -3.502e+00                           NA
##                date07-13-1998                date07-13-2000
##                           NA                   -1.168e+00
##                date07-14-1998                date07-15-1996
##                           NA                           NA
##                date07-15-1998                date07-15-2002
##                           NA                   -3.365e-01
##                date07-16-1996                date07-16-1998
##                           NA                           NA
##                date07-16-2002                date07-17-1996
##                    4.186e-01                           NA
##                date07-17-1998                date07-17-2000
##                           NA                    9.730e-01
##                date07-17-2002                date07-18-2000
##                    1.047e+00                    1.185e+00
##                date07-18-2002                date07-19-2000
##                   -5.442e-01                    1.531e-02
##                date07-20-1998                date07-21-1997
##                           NA                           NA
##                date07-21-1998                date07-22-1996
##                           NA                           NA
##                date07-22-1998                date07-22-2002
##                           NA                           NA
##                date07-23-1997                date07-23-1998
##                           NA                           NA
##                date07-23-2002                date07-24-1996
##                           NA                           NA
##                date07-24-1997                date07-24-1998
##                           NA                           NA
```

```
##                date07-24-2002          date07-25-1996
##                           NA                      NA
##                date07-25-1997          date07-25-2000
##                           NA              -2.770e-02
##                date07-25-2002          date07-26-2000
##                           NA              -1.271e+00
##                date07-26-2002          date07-27-1998
##                           NA                      NA
##                date07-27-2000          date07-28-1998
##                    1.337e+00                      NA
##                date07-28-1999          date07-29-1996
##                           NA                      NA
##                date07-29-1998          date07-30-1996
##                           NA                      NA
##                date07-30-1998          date07-31-1998
##                           NA                      NA
##                date07-31-2001          date07-31-2002
##                   -5.572e-02               4.825e-01
##                date08-01-2000          date08-03-1998
##                   -7.959e-01                      NA
##                date08-04-1997          date08-04-1998
##                           NA                      NA
##                date08-04-1999          date08-05-1997
##                           NA                      NA
##                date08-05-1998          date08-05-1999
##                           NA                      NA
##                date08-06-1997          date08-06-1998
##                           NA                      NA
##                date08-06-2001          date08-07-1996
##                    7.802e-01                      NA
##                date08-07-1997          date08-07-1998
##                           NA                      NA
##                date08-08-1996          date08-08-1997
##                           NA                      NA
##                date08-08-2001          date08-09-2000
##                   -1.225e+00              -8.414e-01
##                date08-09-2001          date08-11-1998
##                   -3.485e-01                      NA
##                date08-12-1998          date08-13-1996
##                           NA                      NA
##                date08-13-1998          date08-14-1996
##                           NA                      NA
##                date08-14-1998          date08-14-2000
##                           NA                      NA
##                date08-15-1998          date08-15-2000
##                           NA                      NA
##                date08-16-2000          date08-17-1998
##                           NA                      NA
##                date08-18-1997          date08-18-1998
##                           NA                      NA
##                date08-19-1996          date08-19-1997
##                           NA                      NA
##                date08-19-1998          date08-20-1997
##                           NA                      NA
```

```
##                    date08-20-1998                 date08-21-1997
##                               NA                             NA
##                    date08-21-1998                 date08-22-1998
##                               NA                             NA
##                    date08-23-1998                 date08-25-1999
##                               NA                             NA
##                    date08-26-1996                 date08-26-2002
##                               NA                             NA
##                    date08-27-1996                 date08-27-2001
##                               NA                             NA
##                    date08-27-2002                 date08-28-1996
##                               NA                             NA
##                    date08-28-2001                 date08-28-2002
##                               NA                             NA
##                    date08-29-1996                 date08-29-2000
##                               NA                      2.710e-02
##                    date08-29-2001                 date08-29-2002
##                               NA                             NA
##                    date08-30-2001                 date08-31-2001
##                               NA                             NA
##                    date09-03-1996                 date09-03-1997
##                               NA                             NA
##                    date09-04-1996                 date09-04-1997
##                               NA                             NA
##                    date09-04-1998                 date09-05-1996
##                               NA                             NA
##                    date09-05-1997                 date09-05-1998
##                               NA                             NA
##                    date09-09-1996                 date09-10-1996
##                               NA                             NA
##                    date09-10-1998                 date09-10-2001
##                               NA                     -8.740e-01
##                    date09-11-1998                 date09-11-2001
##                               NA                             NA
##                    date09-15-1997                 date09-16-1997
##                               NA                             NA
##                    date09-17-1997                 date09-18-1997
##                               NA                             NA
##                    date09-18-2000                 date09-19-2000
##                               NA                             NA
##                    date09-20-2000                 date09-21-2000
##                               NA                             NA
##                    date09-22-1997                 date09-22-2000
##                               NA                             NA
##                    date09-23-1997                 date09-24-1997
##                               NA                             NA
##                    date09-24-1998                 date09-25-1997
##                               NA                             NA
##                    date10-06-1998                 date10-13-1998
##                               NA                             NA
##                    date10-19-1998                 date10-29-1998
##                               NA                             NA
##                          plotsize                 spcodeACERNEG
##                               NA                      3.234e-01
```

```
##                 spcodeACERNIG                   spcodeACERRUB
##                     1.464e+00                       1.199e+00
##                 spcodeAILAALT                   spcodeBETUALL
##                     2.669e+00                       3.488e-01
##                 spcodeBETULEN                   spcodeBETUNIG
##                     5.383e-02                      -1.219e+00
##                 spcodeCARYALB                   spcodeCARYCOR
##                    -3.317e-01                      -1.226e+00
##                 spcodeCARYGLA                   spcodeCARYOVT
##                    -5.858e-01                       1.371e-01
##                 spcodeCASTDNT                   spcodeCATASPE
##                    -1.539e+00                      -2.368e+00
##                 spcodeCLADKEN                   spcodeDIOSVIR
##                    -1.057e+00                      -1.690e+00
##                 spcodeFAGUGRA                   spcodeFRAXAME
##                    -2.117e-01                      -9.949e-01
##                 spcodeFRAXPEN                   spcodeJUGLCIN
##                    -5.321e-01                      -1.069e+00
##                 spcodeJUGLNIG                   spcodeJUNIVIR
##                    -7.546e-01                      -1.705e+00
##                 spcodeLIQUSTY                   spcodeLIRITUL
##                     5.378e-01                       3.520e-01
##                 spcodeMAGNACU                   spcodeMAGNFRA
##                    -1.183e+00                      -8.953e-01
##                 spcodeMAGNTRI                   spcodeNYSSSYL
##                    -8.652e-01                      -7.048e-03
##                 spcodePAULTOM                   spcodePICERUB
##                    -1.816e+00                      -1.583e-02
##                 spcodePINUECH                   spcodePINUPUN
##                    -2.451e-01                       1.133e+00
##                 spcodePINURIG                   spcodePINUSTR
##                     7.168e-01                      -4.267e-02
##                 spcodePINUVIR                   spcodePLATOCC
##                     7.142e-01                       8.506e-01
##                 spcodeQUERALB                   spcodeQUERFLC
##                     1.852e-01                       2.427e-01
##                 spcodeQUERIMB                   spcodeQUERMON
##                     5.336e-01                       1.033e+00
##                 spcodeQUERMUE                   spcodeQUERRUB
##                    -7.063e-01                      -4.365e-02
##                 spcodeQUERSTE                   spcodeQUERVEL
##                    -1.233e-01                      -3.082e-01
##                 spcodeROBIPSE                   spcodeSALINIG
##                    -8.623e-01                       2.160e+00
##                 spcodeTILIAME                   spcodeTILIAMEH
##                     9.729e-02                       2.438e-01
##                 spcodeTSUGCAN                   spcodeTSUGCAR
##                     6.083e-01                      -5.835e-01
##                 spcodeULMUALA                   spcodeULMUAME
##                    -5.942e-01                      -1.281e+00
##                 spcodeULMURUB              speciesAcer negundo
##                     1.245e-01                              NA
##             speciesAcer nigrum               speciesAcer rubrum
##                            NA                              NA
```

```
##       speciesAilanthus altissima    speciesBetula alleghaniensis
##                               NA                              NA
##              speciesBetula lenta              speciesBetula nigra
##                               NA                              NA
##               speciesCarya alba          speciesCarya cordiformis
##                               NA                              NA
##              speciesCarya glabra              speciesCarya ovata
##                               NA                              NA
##          speciesCastanea dentata          speciesCatalpa speciosa
##                               NA                              NA
##       speciesCladrastis kentukea     speciesDiospyros virginiana
##                               NA                              NA
##         speciesFagus grandifolia       speciesFraxinus americana
##                               NA                              NA
## speciesFraxinus pennsylvanica         speciesJuglans cinerea
##                               NA                              NA
##            speciesJuglans nigra     speciesJuniperus virginiana
##                               NA                              NA
## speciesLiquidambar styraciflua speciesLiriodendron tulipifera
##                               NA                              NA
##        speciesMagnolia acuminata         speciesMagnolia fraseri
##                               NA                              NA
##         speciesMagnolia tripetala           speciesNyssa sylvatica
##                               NA                              NA
##        speciesPaulownia tomentosa             speciesPicea rubens
##                               NA                              NA
##             speciesPinus echinata            speciesPinus pungens
##                               NA                              NA
##               speciesPinus rigida            speciesPinus strobus
##                               NA                              NA
##            speciesPinus virginiana    speciesPlatanus occidentalis
##                               NA                              NA
##               speciesQuercus alba            speciesQuercus falcata
##                               NA                              NA
##         speciesQuercus imbricaria          speciesQuercus montana
##                               NA                              NA
## speciesQuercus muehlenbergii          speciesQuercus rubra
##                               NA                              NA
##            speciesQuercus stellata          speciesQuercus velutina
##                               NA                              NA
##       speciesRobinia pseudoacacia             speciesSalix nigra
##                               NA                              NA
##           speciesTilia americana         speciesTsuga canadensis
##                               NA                              NA
##          speciesTsuga caroliniana              speciesUlmus alata
##                               NA                              NA
##           speciesUlmus americana              speciesUlmus rubra
##                               NA                              NA
##                             utme                            utmn
##                       -3.851e-14                      -1.290e-13
##                             elev                             tci
##                       -1.301e-13                       2.149e-13
##                       streamdist                     disturbLT-SEL
##                        8.613e-14                       1.890e-11
```

```
##              disturbSETTLE                    disturbVIRGIN
##                 6.148e-12                        1.114e-11
##                    beers
##                 5.321e-12
```

```r
summary(expMod2)
```

```
##
## Call:
## lm(formula = cover ~ ., data = treedata)
##
## Residuals:
##     Min     1Q Median     3Q    Max
## -6.096 -1.197 -0.062  1.144  5.826
##
## Coefficients: (241 not defined because of singularities)
##                          Estimate Std. Error t value Pr(>|t|)
## (Intercept)             3.634e+00  3.717e+03   0.001 0.999220
## plotIDATBN-01-0303      1.214e+00  3.185e+00   0.381 0.703183
## plotIDATBN-01-0304      1.088e+00  3.329e+00   0.327 0.743793
## plotIDATBN-01-0305      8.150e-01  3.595e+00   0.227 0.820659
## plotIDATBN-01-0306      1.740e+00  8.422e+00   0.207 0.836363
## plotIDATBN-01-0307      3.103e-01  8.348e+00   0.037 0.970347
## plotIDATBN-01-0308      7.469e-01  8.394e+00   0.089 0.929096
## plotIDATBN-01-0309      2.478e+00  2.536e+00   0.977 0.328665
## plotIDATBN-01-0311      1.346e+00  2.285e+00   0.589 0.555876
## plotIDATBN-01-0312     -9.750e-02  2.294e+00  -0.043 0.966098
## plotIDATBN-01-0313      4.374e-01  6.066e+00   0.072 0.942519
## plotIDATBN-01-0314     -2.356e-01  7.324e+00  -0.032 0.974342
## plotIDATBN-01-0315      3.829e-01  1.100e+01   0.035 0.972228
## plotIDATBN-01-0317     -1.448e+00  9.952e+00  -0.146 0.884315
## plotIDATBN-01-0318     -1.433e+00  1.173e+01  -0.122 0.902772
## plotIDATBN-01-0319      1.558e+00  9.806e+00   0.159 0.873757
## plotIDATBN-01-0320      1.305e+00  9.769e+00   0.134 0.893764
## plotIDATBN-01-0321      1.679e+00  9.719e+00   0.173 0.862841
## plotIDATBN-01-0322     -1.311e+00  1.089e+01  -0.120 0.904172
## plotIDATBN-01-0323      4.231e-01  7.457e+00   0.057 0.954751
## plotIDATBN-01-0324      1.016e-01  7.452e+00   0.014 0.989120
## plotIDATBN-01-0401      6.891e-01  1.896e+01   0.036 0.971001
## plotIDATBN-01-0402     -3.389e-01  1.856e+01  -0.018 0.985433
## plotIDATBN-01-0403     -2.745e+00  8.916e+00  -0.308 0.758217
## plotIDATBN-01-0404     -2.800e+00  8.585e+00  -0.326 0.744305
## plotIDATBN-01-0405      3.676e-01  8.072e+00   0.046 0.963678
## plotIDATBN-01-0406      4.018e+00  8.026e+00   0.501 0.616671
## plotIDATBN-01-0407      1.103e+00  3.320e+00   0.332 0.739614
## plotIDATBN-01-0408     -2.819e+00  3.499e+00  -0.806 0.420397
## plotIDATBN-01-0409     -2.753e+00  3.919e+00  -0.702 0.482472
## plotIDATBN-01-0410      2.873e+00  1.747e+01   0.164 0.869378
## plotIDATBN-01-0411      2.659e+00  1.787e+01   0.149 0.881687
## plotIDATBN-01-0412     -2.485e+00  1.888e+01  -0.132 0.895282
## plotIDATBN-01-0413      3.216e-01  2.077e+01   0.015 0.987650
## plotIDATBN-01-0414     -2.551e+00  1.993e+01  -0.128 0.898174
## plotIDATBN-01-0415      7.633e-01  1.166e+01   0.065 0.947813
## plotIDATBN-01-0501      6.999e-01  6.999e+00   0.100 0.920355
```

```
## plotIDATBN-01-0503         -2.133e-01  2.222e+01   -0.010 0.992342
## plotIDATBN-01-0504          1.767e+00  1.686e+01    0.105 0.916548
## plotIDATBN-01-0505          1.690e+00  2.217e+01    0.076 0.939237
## plotIDATBN-01-0506          1.954e+00  2.230e+01    0.088 0.930189
## plotIDATBN-01-0507         -2.674e+00  1.105e+01   -0.242 0.808746
## plotIDATBN-01-0508          4.578e+00  1.755e+01    0.261 0.794162
## plotIDATBN-01-0512         -4.512e-01  1.180e+01   -0.038 0.969493
## plotIDATBN-01-0513          7.786e-01  7.632e+00    0.102 0.918745
## plotIDATBN-01-0514          3.841e-01  1.194e+01    0.032 0.974331
## plotIDATBN-01-0515          3.478e-01  1.042e+01    0.033 0.973379
## plotIDATBN-01-0516          1.113e+00  9.795e+00    0.114 0.909527
## plotIDATBN-01-0518          1.305e+00  2.262e+01    0.058 0.953994
## plotIDATBN-01-0519          8.685e-01  9.980e+00    0.087 0.930658
## plotIDATBN-01-0521         -4.562e-01  1.125e+01   -0.041 0.967664
## plotIDATBN-01-0522         -2.577e+00  1.126e+01   -0.229 0.819017
## plotIDATBN-01-0523         -2.672e+00  1.099e+01   -0.243 0.808008
## plotIDATBN-01-0525          3.244e-02  1.165e+01    0.003 0.997778
## plotIDATBN-01-0526          1.266e+00  1.142e+01    0.111 0.911712
## plotIDATBN-01-0528          2.053e+00  1.994e+01    0.103 0.918000
## plotIDATBN-01-0529          1.317e+00  1.994e+01    0.066 0.947354
## plotIDATBN-01-0530          1.201e+00  2.118e+01    0.057 0.954786
## plotIDATBN-01-0532          1.294e+00  2.076e+01    0.062 0.950292
## plotIDATBN-01-0533          1.589e+00  2.098e+01    0.076 0.939635
## plotIDATBN-01-0534         -2.618e+00  2.122e+01   -0.123 0.901823
## plotIDATBN-01-0536         -1.745e+00  7.203e+00   -0.242 0.808636
## plotIDATBN-01-0541         -2.800e+00  6.943e+00   -0.403 0.686754
## plotIDATBN-01-0544          1.373e+00  1.169e+01    0.117 0.906475
## plotIDATBN-01-0545          1.018e+00  1.307e+01    0.078 0.937946
## plotIDATBN-01-0546          4.830e-01  1.325e+01    0.036 0.970923
## plotIDATBN-01-0547         -1.879e+00  1.332e+01   -0.141 0.887794
## plotIDATBN-01-0548         -1.879e+00  1.378e+01   -0.136 0.891512
## plotIDATBN-01-0549          2.336e-01  1.369e+01    0.017 0.986381
## plotIDATBN-01-0550         -1.892e-01  1.181e+01   -0.016 0.987213
## plotIDATBN-01-0551          5.358e-01  1.870e+01    0.029 0.977136
## plotIDATBN-01-0555         -1.047e-02  1.816e+01   -0.001 0.999540
## plotIDATBN-01-0557         -9.737e-02  9.575e+00   -0.010 0.991887
## plotIDATBN-01-0558          7.771e-01  9.062e+00    0.086 0.931658
## plotIDATBN-01-0559          2.712e-01  8.326e+00    0.033 0.974016
## plotIDATBN-01-0561          1.060e-01  4.946e+00    0.021 0.982911
## plotIDATBP-01-0001          3.374e+00  7.142e+00    0.472 0.636607
## plotIDATBP-01-0004         -7.343e-02  6.409e+00   -0.011 0.990860
## plotIDATBP-01-0005         -6.257e-01  7.164e+00   -0.087 0.930402
## plotIDATBP-01-0006          4.578e+00  1.092e+01    0.419 0.675094
## plotIDATBP-01-0007          8.743e-01  1.474e+01    0.059 0.952701
## plotIDATBP-01-0008          5.887e-01  1.432e+01    0.041 0.967202
## plotIDATBP-01-0010          1.785e+00  1.585e+01    0.113 0.910356
## plotIDATBP-01-0011          3.175e-01  2.203e+01    0.014 0.988501
## plotIDATBP-01-0012          3.874e-01  2.705e+01    0.014 0.988575
## plotIDATBP-01-0013         -1.622e+00  3.013e+01   -0.054 0.957059
## plotIDATBP-01-0015         -1.512e-01  2.248e+01   -0.007 0.994632
## plotIDATBP-01-0017          3.341e-01  1.407e+01    0.024 0.981058
## plotIDATBP-01-0018         -6.562e-01  2.823e+00   -0.232 0.816201
## plotIDDELL-02-0042          1.395e-02  8.349e+00    0.002 0.998667
## plotIDDELL-02-0043         -2.067e-01  8.052e+00   -0.026 0.979522
```

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## plotIDDELL-02-0045                 -6.087e-01  6.468e+00  -0.094 0.925033
## plotIDDELL-02-0052                  3.324e-01  6.878e+00   0.048 0.961456
## plotIDDELL-02-0054                 -1.173e+00  8.257e+00  -0.142 0.887049
## plotIDDELL-02-0055                 -3.683e-02  7.891e+00  -0.005 0.996276
## plotIDDELL-02-0057                 -5.025e-01  6.708e+00  -0.075 0.940297
## plotIDDELL-02-0100                  7.157e-01  1.232e+01   0.058 0.953675
## plotIDDELL-02-0101                 -8.051e-01  1.250e+01  -0.064 0.948664
## plotIDDELL-02-0105                 -1.061e+00  1.261e+01  -0.084 0.932961
## plotIDDELL-02-0106                 -6.134e-01  1.259e+01  -0.049 0.961136
## plotIDDELL-02-0108                 -1.039e+00  1.284e+01  -0.081 0.935460
## plotIDDELL-02-0109                 -2.945e-01  1.203e+01  -0.024 0.980471
## plotIDDELL-02-0110                 -1.180e+00  1.224e+01  -0.096 0.923210
## plotIDDELL-02-0114                  1.282e-01  1.188e+01   0.011 0.991391
## plotIDDELL-02-0115                  1.299e-01  1.189e+01   0.011 0.991286
## plotIDDELL-02-0116                  1.284e-01  1.359e+01   0.009 0.992464
## plotIDDELL-02-0127                  2.252e-01  1.411e+01   0.016 0.987263
## plotIDDELL-02-0129                 -1.307e-01  1.298e+01  -0.010 0.991969
## plotIDDELL-02-0133                 -4.402e-01  1.525e+01  -0.029 0.976971
## plotIDDELL-02-0142                  9.703e-01  1.497e+01   0.065 0.948321
## plotIDDELL-03-0002                 -1.704e+00  2.805e+00  -0.607 0.543557
## plotIDDELL-03-0003                 -9.819e-01  2.711e+00  -0.362 0.717181
## plotIDDELL-03-0006                 -1.526e+00  4.090e+00  -0.373 0.709003
## plotIDDELL-03-0007                  2.919e-01  4.009e+00   0.073 0.941967
## plotIDDELL-03-0008                 -1.649e-01  4.155e+00  -0.040 0.968345
## plotIDDELL-03-0010                  1.188e-01  3.722e+00   0.032 0.974543
## plotIDDELL-03-0021                 -1.474e+00  3.616e+00  -0.408 0.683487
## plotIDDELL-03-0025                  7.098e-01  3.629e+00   0.196 0.844930
## plotIDDELL-03-0028                 -2.374e-01  2.933e+00  -0.081 0.935500
## plotIDDELL-03-0029                  8.429e-01  3.216e+00   0.262 0.793224
## plotIDDELL-03-0114                  3.061e-01  3.578e+00   0.086 0.931828
## plotIDDLAP-01-0011                 -1.416e-03  1.372e+01   0.000 0.999918
## plotIDDLAP-01-0012                 -3.683e-01  1.371e+01  -0.027 0.978569
## plotIDDLAP-01-0013                 -1.961e-01  1.528e+01  -0.013 0.989764
## plotIDDLAP-01-0014                 -5.296e-02  1.488e+01  -0.004 0.997160
## plotIDDLAP-01-0015                 -4.189e-01  1.672e+01  -0.025 0.980014
## plotIDDSLM-01-0002                 -2.428e-01  8.281e+00  -0.029 0.976607
## plotIDDSLM-01-0003                  4.802e-01  1.034e+01   0.046 0.962946
## plotIDDSLM-01-0004                  6.205e-01  8.276e+00   0.075 0.940236
## plotIDDSLM-01-0005                 -7.379e-03  5.447e+00  -0.001 0.998919
## plotIDDSLM-01-0006                  8.361e-01  5.662e+00   0.148 0.882615
## plotIDDSLM-01-0007                  6.593e-01  5.547e+00   0.119 0.905396
## plotIDDSLM-01-0008                  2.554e-01  1.052e+01   0.024 0.980634
## plotIDDSLM-01-0009                 -8.160e-01  6.054e+00  -0.135 0.892788
## plotIDDSLM-01-0010                  5.887e-01  5.648e+00   0.104 0.916986
## plotIDDSLM-01-0011                  5.887e-01  8.486e+00   0.069 0.944693
## plotIDDSLM-01-0012                  7.193e-01  6.156e+00   0.117 0.906987
## plotIDDSLM-01-0013                  3.361e-01  1.004e+01   0.033 0.973305
## plotIDDSLM-01-0024                  3.361e-01  1.035e+01   0.032 0.974097
## plotIDDSLM-01-0025                 -3.160e-01  6.484e+00  -0.049 0.961130
## plotIDDSLM-01-0027                  9.220e-01  1.040e+01   0.089 0.929352
## plotIDDSLM-01-0028                 -3.449e-01  6.477e+00  -0.053 0.957532
## plotIDDSLM-01-0029                  1.255e+00  1.016e+01   0.124 0.901707
## plotIDDSLM-01-0037                  2.117e-01  8.215e+00   0.026 0.979446
## plotIDDSLM-01-0080                  3.260e-01  5.887e+00   0.055 0.955845
```

```
## plotIDDSLM-01-0081       2.554e-01  5.654e+00    0.045 0.963977
## plotIDDSLM-01-0082      -3.160e-01  6.063e+00   -0.052 0.958436
## plotIDDSLM-01-0083       3.668e-01  6.239e+00    0.059 0.953124
## plotIDDSLM-01-0084       1.509e-01  6.196e+00    0.024 0.980565
## plotIDDSLM-01-0085      -2.807e-01  6.244e+00   -0.045 0.964143
## plotIDDSLM-01-0086       5.861e-01  1.017e+01    0.058 0.954028
## plotIDDSLM-01-0087      -1.324e-01  6.151e+00   -0.022 0.982827
## plotIDDSLM-01-0088       1.176e-01  6.183e+00    0.019 0.984827
## plotIDDSLM-01-0089       5.262e-02  6.137e+00    0.009 0.993159
## plotIDDSLM-01-0090       6.999e-01  5.956e+00    0.118 0.906454
## plotIDDSLM-01-0115       2.205e-01  1.020e+01    0.022 0.982748
## plotIDDSLM-01-0134       5.861e-01  5.655e+00    0.104 0.917462
## plotIDDSLM-01-0135       1.326e+00  5.459e+00    0.243 0.808094
## plotIDDSLM-01-0136       1.374e-01  1.015e+01    0.014 0.989197
## plotIDDSLM-01-0137       8.606e-02  1.022e+01    0.008 0.993284
## plotIDDSLM-01-0138       5.887e-01  5.533e+00    0.106 0.915275
## plotIDDSLM-01-0139       3.260e-01  5.646e+00    0.058 0.953962
## plotIDDSLM-01-0140       6.999e-01  1.051e+01    0.067 0.946917
## plotIDDSLM-01-0143      -7.796e-02  6.146e+00   -0.013 0.989880
## plotIDDSLM-01-0185      -6.601e-02  6.068e+00   -0.011 0.991322
## plotIDDSLM-01-0253       9.220e-01  5.984e+00    0.154 0.877555
## plotIDDSLM-01-0302       8.606e-02  8.292e+00    0.010 0.991719
## plotIDDSLM-01-0303      -5.660e-01  6.647e+00   -0.085 0.932144
## plotIDDSLM-01-0304       4.205e-01  7.066e+00    0.060 0.952551
## plotIDDSLM-01-0305       5.887e-01  8.434e+00    0.070 0.944353
## plotIDDSLM-01-0306      -7.785e-01  6.442e+00   -0.121 0.903818
## plotIDDSLM-01-0307       3.856e-01  7.140e+00    0.054 0.956934
## plotIDDSLM-01-0308       5.262e-02  6.737e+00    0.008 0.993768
## plotIDDSLM-01-0309       9.220e-01  7.235e+00    0.127 0.898596
## plotIDDSLM-01-0310       4.205e-01  7.128e+00    0.059 0.952961
## plotIDDSLM-01-0311       5.262e-02  6.754e+00    0.008 0.993784
## plotIDDSLM-01-0313       5.861e-01  8.333e+00    0.070 0.943933
## plotIDDSLM-01-0314       1.089e-01  8.336e+00    0.013 0.989577
## plotIDDSLM-01-0320       9.051e-01  6.421e+00    0.141 0.887902
## plotIDDSLM-01-0321       1.840e-01  6.474e+00    0.028 0.977329
## plotIDDSLM-01-0322      -1.795e-01  6.417e+00   -0.028 0.977682
## plotIDDSLM-01-0323       8.226e-01  6.412e+00    0.128 0.897922
## plotIDDSLM-01-0324       9.220e-01  6.554e+00    0.141 0.888131
## plotIDDSLM-01-0325      -3.160e-01  6.604e+00   -0.048 0.961839
## plotIDDSLM-01-0326      -1.639e-01  6.142e+00   -0.027 0.978705
## plotIDDSLM-01-0328      -2.807e-01  6.752e+00   -0.042 0.966840
## plotIDDSLM-01-0329      -1.903e-01  6.407e+00   -0.030 0.976307
## plotIDDSLM-01-0330      -4.139e-01  6.178e+00   -0.067 0.946585
## plotIDDSLM-01-0340       6.176e-01  6.477e+00    0.095 0.924040
## plotIDDSLM-01-0341       3.676e-01  6.397e+00    0.057 0.954180
## plotIDDSLM-01-0342       5.726e-01  6.414e+00    0.089 0.928868
## plotIDDSLM-01-0343       3.361e-01  6.194e+00    0.054 0.956734
## plotIDDSLM-01-0345       5.861e-01  6.141e+00    0.095 0.923973
## plotIDDSLM-01-0346       2.554e-01  6.220e+00    0.041 0.967251
## plotIDDSLM-01-0347       2.554e-01  6.282e+00    0.041 0.967574
## plotIDFRID-01-0001      -3.688e-02  1.104e+01   -0.003 0.997334
## plotIDFRID-01-0002      -5.302e-01  1.105e+01   -0.048 0.961716
## plotIDFRID-01-0003       1.255e+00  6.994e+00    0.179 0.857562
## plotIDFRID-01-0004       3.647e-01  8.590e+00    0.042 0.966138
```

```
## plotIDFRID-01-0005                    2.898e-01  9.714e+00    0.030 0.976201
## plotIDFRID-01-0006                   -9.357e-01  1.253e+01   -0.075 0.940498
## plotIDFRID-01-0007                   -4.476e-01  1.275e+01   -0.035 0.971990
## plotIDFRID-01-0008                   -2.871e-01  7.862e+00   -0.037 0.970877
## plotIDFRID-01-0009                    2.487e-01  1.324e+01    0.019 0.985014
## plotIDFRID-01-0010                    3.420e-01  1.268e+01    0.027 0.978479
## plotIDFRID-01-0011                    1.578e+00  9.918e+00    0.159 0.873560
## plotIDFRID-01-0013                    1.514e-01  1.200e+01    0.013 0.989935
## plotIDFRID-01-0015                    5.110e-01  1.543e+01    0.033 0.973591
## plotIDFRID-02-0014                    8.476e-01  1.547e+01    0.055 0.956316
## plotIDFRID-08-0012                    3.713e-01  1.190e+01    0.031 0.975117
## plotIDFRID-0T-0001                    1.298e+00  1.283e+01    0.101 0.919436
## plotIDFRID-0T-0002                    4.361e-01  1.233e+01    0.035 0.971784
## plotIDFRID-0T-0003                    8.812e-01  1.196e+01    0.074 0.941294
## plotIDFRID-0T-0004                    3.861e+00  1.180e+01    0.327 0.743570
## plotIDFRID-0T-0005                    7.566e-01  1.136e+01    0.067 0.946907
## plotIDFRID-0T-0006                    2.522e+00  7.134e+00    0.354 0.723714
## plotIDFRID-0T-0007                    9.548e-01  7.144e+00    0.134 0.893693
## plotIDFRID-0T-0008                    1.917e+00  7.287e+00    0.263 0.792475
## plotIDFRID-0T-0009                    1.062e+00  7.268e+00    0.146 0.883876
## plotIDFRID-0T-0010                    1.354e+00  7.277e+00    0.186 0.852366
## plotIDFRID-0T-0011                    1.111e+00  7.199e+00    0.154 0.877408
## plotIDFRID-0T-0012                    3.922e+00  7.448e+00    0.527 0.598471
## plotIDFRID-0T-0013                    3.589e+00  7.419e+00    0.484 0.628602
## plotIDFRID-0T-0014                    2.589e+00  7.316e+00    0.354 0.723479
## plotIDFRID-0T-0015                    2.922e+00  7.326e+00    0.399 0.690008
## plotIDFRID-0T-0016                    3.589e+00  7.414e+00    0.484 0.628362
## plotIDFRID-0T-0017                    3.922e+00  7.358e+00    0.533 0.594009
## plotIDFRID-0T-0018                    3.147e+00  7.209e+00    0.437 0.662460
## plotIDFRID-0T-0019                    2.073e+00  7.092e+00    0.292 0.770004
## plotIDFRID-0T-0020                    1.091e+00  1.117e+01    0.098 0.922222
## plotIDFRID-0T-0021                    5.936e-01  1.090e+01    0.054 0.956592
## plotIDFRID-0T-0022                    1.304e+00  1.049e+01    0.124 0.901124
## plotIDFRID-0T-0023                    1.017e+00  1.016e+01    0.100 0.920266
## plotIDFRID-0T-0024                    9.214e-01  9.944e+00    0.093 0.926179
## plotIDFRID-0T-0025                    6.885e-01  7.119e+00    0.097 0.922951
## plotIDFRID-0T-0026                    2.707e+00  7.307e+00    0.370 0.711069
## plotIDFRID-0T-0027                    8.801e-01  7.437e+00    0.118 0.905797
## plotIDFRID-0T-0028                    1.082e+00  7.610e+00    0.142 0.886949
## plotIDFRID-0T-0029                    1.443e+00  9.624e+00    0.150 0.880850
## plotIDFRID-0T-0030                    7.282e-01  9.248e+00    0.079 0.937242
## plotIDFRID-0T-0031                   -4.907e-01  8.999e+00   -0.055 0.956519
## plotIDFRID-0T-0032                    1.681e+00  9.069e+00    0.185 0.852955
## plotIDFRID-0T-0033                    1.588e+00  8.822e+00    0.180 0.857130
## plotIDFRID-0T-0034                    1.265e+00  7.932e+00    0.160 0.873259
## plotIDFRID-0T-0035                    1.532e+00  7.862e+00    0.195 0.845527
## plotIDFRID-0T-0036                    1.937e+00  8.119e+00    0.239 0.811464
## plotIDFRID-0T-0037                    4.472e-01  8.139e+00    0.055 0.956183
## plotIDFRID-0T-0038                    1.742e+00  8.277e+00    0.210 0.833330
## plotIDFRID-0T-0039                    3.943e-01  8.549e+00    0.046 0.963212
## plotIDMILL-01-0024                    7.669e-01  3.131e+01    0.024 0.980456
## plotIDMILL-03-0020                    8.636e-01  2.476e+01    0.035 0.972180
## plotIDMILL-04-0005                    2.493e+00  2.378e+01    0.105 0.916520
## plotIDMILL-07-0024                    1.587e+00  3.007e+00    0.528 0.597754
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## plotIDMILL-07-0052        6.626e-01  9.850e+00   0.067 0.946370
## plotIDMILL-10-0019        7.172e-01  4.057e+00   0.177 0.859661
## plotIDMILL-11-0017        3.797e-01  1.272e+01   0.030 0.976183
## plotIDMILL-12-0007        2.418e-01  1.557e+01   0.016 0.987609
## plotIDMILL-17-0010        2.788e-02  8.954e+00   0.003 0.997516
## plotIDMILL-17-0012        4.915e-01  9.927e+00   0.050 0.960510
## plotIDMILL-17-0015        1.549e+00  7.843e+00   0.198 0.843416
## plotIDMILL-17-0039        1.462e+00  6.833e+00   0.214 0.830597
## plotIDMILL-18-0021        8.660e-02  9.404e+00   0.009 0.992652
## plotIDMILL-20-0010        3.797e-02  9.915e+00   0.004 0.996945
## plotIDMILL-20-0044        4.605e-01  7.360e+00   0.063 0.950115
## plotIDMILL-20-0067       -1.243e-01  9.183e+00  -0.014 0.989202
## plotIDMILL-24-0016        9.110e-01  1.709e+01   0.053 0.957485
## plotIDMILL-24-0059       -3.440e-01  1.855e+01  -0.019 0.985207
## plotIDMILL-25-0044        9.910e-01  2.041e+01   0.049 0.961284
## plotIDMILL-27-0033        2.954e-01  2.127e+01   0.014 0.988919
## plotIDMILL-27-0041        1.297e+00  2.024e+01   0.064 0.948913
## plotIDMILL-27-0061        1.032e+00  2.340e+01   0.044 0.964821
## plotIDMILL-27-0065        9.791e-02  2.292e+01   0.004 0.996592
## plotIDMILL-27-0110        6.382e-01  2.552e+01   0.025 0.980048
## plotIDMILL-27-0202        1.171e+00  2.208e+01   0.053 0.957717
## plotIDPITT-01-0001        1.540e-01  2.270e+01   0.007 0.994586
## plotIDPITT-01-0002        4.472e-01  2.286e+01   0.020 0.984394
## plotIDPITT-01-0003       -3.460e-01  2.313e+01  -0.015 0.988067
## plotIDPITT-01-0005        3.253e-01  2.687e+01   0.012 0.990341
## plotIDPITT-01-0006        1.366e-01  2.416e+01   0.006 0.995490
## plotIDPITT-01-0007       -6.468e-01  2.141e+01  -0.030 0.975896
## plotIDPITT-01-0008       -1.024e+00  2.014e+01  -0.051 0.959436
## plotIDPITT-01-0009        8.790e-01  2.459e+01   0.036 0.971489
## plotIDPITT-01-0010       -4.951e-01  2.809e+01  -0.018 0.985940
## plotIDPITT-01-0011       -8.164e-01  2.035e+01  -0.040 0.968001
## plotIDPITT-01-0012       -7.373e-01  2.128e+01  -0.035 0.972363
## plotIDPITT-01-0014        4.946e-01  2.297e+01   0.022 0.982819
## plotIDPITT-01-0015       -4.332e-01  1.933e+01  -0.022 0.982122
## plotIDPITT-01-0016       -3.275e-01  2.322e+01  -0.014 0.988750
## plotIDPITT-01-0017       -7.672e-01  2.242e+01  -0.034 0.972701
## plotIDPITT-01-0018       -1.954e-01  2.413e+01  -0.008 0.993537
## plotIDPITT-01-0019       -4.362e-01  2.143e+01  -0.020 0.983762
## plotIDPITT-01-0020       -3.907e-01  2.074e+01  -0.019 0.984969
## plotIDPITT-01-0021        7.673e-01  2.203e+01   0.035 0.972214
## plotIDPITT-01-0022        1.155e+00  1.806e+01   0.064 0.949016
## plotIDPITT-01-0023        3.153e-01  2.257e+01   0.014 0.988855
## plotIDPITT-01-0024       -2.333e-01  2.110e+01  -0.011 0.991179
## plotIDPITT-01-0025       -5.694e-01  2.178e+01  -0.026 0.979142
## plotIDPITT-01-0026        1.181e+00  2.673e+01   0.044 0.964772
## plotIDPITT-01-0027        3.463e-01  2.150e+01   0.016 0.987150
## plotIDPITT-01-0028       -8.310e-02  2.182e+01  -0.004 0.996961
## plotIDPITT-01-0029       -3.915e-01  2.363e+01  -0.017 0.986778
## plotIDPITT-01-0030       -1.996e-01  2.192e+01  -0.009 0.992735
## plotIDPITT-01-0031        8.055e-01  1.883e+01   0.043 0.965871
## plotIDPITT-01-0032       -5.618e-01  2.464e+01  -0.023 0.981810
## plotIDPITT-01-0033       -1.727e-01  2.470e+01  -0.007 0.994422
## plotIDPITT-01-0034        1.615e+00  1.851e+01   0.087 0.930464
## plotIDPITT-01-0035        1.167e+00  1.899e+01   0.061 0.951028
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## plotIDPITT-01-0036              -5.977e-01  2.440e+01  -0.024 0.980458
## plotIDPITT-01-0037               3.220e-01  2.343e+01   0.014 0.989033
## plotIDPITT-01-0038              -6.458e-01  1.923e+01  -0.034 0.973219
## plotIDPITT-01-0039               7.300e-01  2.463e+01   0.030 0.976352
## plotIDPITT-01-0040              -2.945e-01  2.462e+01  -0.012 0.990456
## plotIDPITT-01-0041               3.462e-01  2.548e+01   0.014 0.989157
## plotIDPITT-01-0042               2.801e-01  2.588e+01   0.011 0.991363
## plotIDPITT-01-0043              -2.401e-01  2.610e+01  -0.009 0.992660
## plotIDPITT-01-0044               1.559e+00  2.205e+01   0.071 0.943636
## plotIDPITT-01-0045               4.805e-01  1.835e+01   0.026 0.979112
## plotIDUFRL-01-0001              -7.713e-02  1.383e+01  -0.006 0.995552
## plotIDUFRL-01-0002               5.470e-01  1.297e+01   0.042 0.966358
## plotIDUFRL-01-0003              -5.805e-02  1.331e+01  -0.004 0.996520
## plotIDUFRL-01-0004               2.932e-01  1.014e+01   0.029 0.976939
## plotIDUFRL-01-0005               9.254e-01  1.023e+01   0.090 0.927951
## plotIDUFRL-01-0006               3.300e-01  1.051e+01   0.031 0.974957
## plotIDUFRL-01-0007               4.630e-01  1.045e+01   0.044 0.964645
## plotIDUFRL-01-0008               5.000e-01  1.026e+01   0.049 0.961143
## plotIDUFRL-01-0009              -2.446e-01  1.053e+01  -0.023 0.981463
## plotIDUFRL-01-0010              -1.055e+00  1.080e+01  -0.098 0.922148
## plotIDUFRL-01-0011               1.305e+00  1.438e+01   0.091 0.927723
## plotIDUFRL-01-0012               7.399e-01  1.465e+01   0.051 0.959715
## plotIDUFRL-01-0013              -6.075e-01  1.447e+01  -0.042 0.966519
## plotIDUFRL-01-0014               4.318e-01  1.493e+01   0.029 0.976926
## plotIDUFRL-01-0015              -4.184e-01  1.438e+01  -0.029 0.976784
## plotIDUFRL-01-0016              -1.932e-01  1.275e+01  -0.015 0.987910
## plotIDUFRL-01-0017               3.269e-02  1.270e+01   0.003 0.997946
## plotIDUFRL-01-0018              -4.318e-01  1.261e+01  -0.034 0.972681
## plotIDUFRL-01-0019              -7.579e-01  1.287e+01  -0.059 0.953034
## plotIDUFRL-01-0020               1.223e+00  1.304e+01   0.094 0.925277
## plotIDUFRL-01-0021              -4.115e-01  1.070e+01  -0.038 0.969329
## plotIDUFRL-01-0022               8.272e-01  9.273e+00   0.089 0.928918
## plotIDUFRL-01-0023              -9.290e-02  1.750e+01  -0.005 0.995764
## plotIDUFRL-01-0024              -6.793e-01  1.750e+01  -0.039 0.969041
## plotIDUFRL-01-0025               5.073e-01  1.737e+01   0.029 0.976706
## plotIDUFRL-01-0026              -1.760e-01  1.706e+01  -0.010 0.991768
## plotIDUFRL-01-0027              -5.089e-01  3.893e+00  -0.131 0.896000
## plotIDUFRL-01-0028              -2.295e-01  1.500e+01  -0.015 0.987797
## plotIDUFRL-01-0029               3.188e-01  1.458e+01   0.022 0.982559
## plotIDUFRL-01-0030               6.565e-01  1.242e+01   0.053 0.957857
## plotIDUFRL-01-0031               2.999e-01  1.260e+01   0.024 0.981007
## plotIDUFRL-01-0032              -1.354e+00  1.386e+01  -0.098 0.922206
## plotIDUFRL-01-0033              -2.598e-01  1.301e+01  -0.020 0.984073
## plotIDUFRL-01-0034               8.933e-01  1.402e+01   0.064 0.949209
## plotIDUFRL-01-0035               4.659e-01  4.377e+00   0.106 0.915239
## plotIDUFRL-01-0036              -2.128e-01  4.195e+00  -0.051 0.959538
## plotIDUFRL-01-0037              -1.066e+00  1.995e+01  -0.053 0.957392
## plotIDUFRL-01-0038              -1.386e+00  1.997e+01  -0.069 0.944693
## plotIDUFRL-01-0039              -1.294e+00  1.278e+01  -0.101 0.919319
## plotIDUFRL-01-0040              -3.978e-01  1.274e+01  -0.031 0.975102
## plotIDUFRL-01-0041               8.572e-02  1.263e+01   0.007 0.994587
## plotIDUFRL-01-0042              -7.214e-01  1.267e+01  -0.057 0.954590
## plotIDUFRL-01-0043              -7.710e-01  1.246e+01  -0.062 0.950643
## plotIDUFRL-01-0044              -2.521e-01  1.062e+01  -0.024 0.981053
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## plotIDUFRL-01-0045          4.217e-02  1.061e+01    0.004 0.996831
## plotIDUFRL-01-0046          1.536e-01  1.057e+01    0.015 0.988402
## plotIDUFRL-01-0047         -2.675e-01  1.047e+01   -0.026 0.979616
## plotIDUFRL-01-0048         -4.714e-01  1.032e+01   -0.046 0.963571
## plotIDUFRL-01-0049          9.488e-01  9.415e+00    0.101 0.919733
## plotIDUFRL-01-0050          9.451e-02  9.021e+00    0.010 0.991642
## plotIDUFRL-01-0051          1.174e+00  8.894e+00    0.132 0.895014
## plotIDUFRL-01-0052          6.130e-01  8.043e+00    0.076 0.939252
## plotIDUFRL-01-0053          7.496e-01  6.362e+00    0.118 0.906218
## plotIDUFRL-01-0054          1.066e-01  7.091e+00    0.015 0.988003
## plotIDUFRL-01-0055          8.722e-01  6.367e+00    0.137 0.891033
## plotIDUFRL-01-0056         -3.345e-01  6.219e+00   -0.054 0.957108
## plotIDUFRL-01-0057          3.581e-01  6.430e+00    0.056 0.955596
## plotIDUFRL-01-0058          2.191e-01  6.061e+00    0.036 0.971173
## plotIDUFRL-01-0059          3.028e-01  9.498e+00    0.032 0.974567
## plotIDUFRL-01-0060          6.852e-01  9.421e+00    0.073 0.942019
## plotIDUFRL-01-0061          2.671e-01  9.666e+00    0.028 0.977956
## plotIDUFRL-01-0062          6.063e-01  9.471e+00    0.064 0.948964
## plotIDUFRL-01-0063          1.277e+00  9.617e+00    0.133 0.894338
## plotIDUFRL-01-0064          8.757e-01  1.254e+01    0.070 0.944316
## plotIDUFRL-01-0065          3.334e-01  1.236e+01    0.027 0.978485
## plotIDUFRL-01-0066          1.721e+00  1.238e+01    0.139 0.889461
## plotIDUFRL-01-0067          4.806e-01  1.267e+01    0.038 0.969745
## plotIDUFRL-01-0068         -4.921e-01  1.268e+01   -0.039 0.969041
## plotIDUFRL-01-0069          2.982e-01  1.278e+01    0.023 0.981382
## plotIDUFRL-01-0070         -6.131e-01  9.977e+00   -0.061 0.951003
## plotIDUFRL-01-0071          6.369e-01  9.933e+00    0.064 0.948873
## plotIDUFRL-01-0072          3.586e-01  1.006e+01    0.036 0.971559
## plotIDUFRL-01-0073          3.615e-01  1.032e+01    0.035 0.972046
## plotIDUFRL-01-0074         -2.670e-01  9.929e+00   -0.027 0.978548
## plotIDUFRL-01-0075         -3.061e-01  9.980e+00   -0.031 0.975529
## plotIDUFRL-01-0076          6.431e-01  9.890e+00    0.065 0.948161
## plotIDUFRL-01-0077          8.577e-01  1.654e+01    0.052 0.958642
## plotIDUFRL-01-0078         -1.796e-01  1.642e+01   -0.011 0.991271
## plotIDUFRL-01-0079         -1.093e-01  1.638e+01   -0.007 0.994676
## plotIDUFRL-01-0080          3.634e-01  1.616e+01    0.022 0.982053
## plotIDUFRL-01-0081          7.253e-02  1.633e+01    0.004 0.996457
## plotIDUFRL-01-0082          9.555e-02  1.584e+01    0.006 0.995189
## plotIDUFRL-01-0083          8.020e-01  6.173e+00    0.130 0.896633
## plotIDUFRL-01-0084          1.021e-01  6.562e+00    0.016 0.987586
## plotIDUFRL-01-0085          1.029e+00  7.232e+00    0.142 0.886872
## plotIDUFRL-01-0086          8.523e-01  7.185e+00    0.119 0.905580
## plotIDUFRL-01-0087         -2.322e-01  7.017e+00   -0.033 0.973602
## plotIDUFRL-01-0088         -3.475e-01  6.555e+00   -0.053 0.957723
## plotIDUFRL-01-0089          3.539e-02  6.103e+00    0.006 0.995374
## plotIDUFRL-01-0090          1.561e-01  2.066e+01    0.008 0.993972
## plotIDUFRL-01-0091          7.027e-02  2.074e+01    0.003 0.997297
## plotIDUFRL-01-0092         -3.196e-02  2.010e+01   -0.002 0.998732
## plotIDUFRL-01-0093         -5.199e-02  1.081e+01   -0.005 0.996163
## plotIDUFRL-01-0094         -8.335e-01  1.080e+01   -0.077 0.938485
## plotIDUFRL-01-0101         -1.007e+00  1.029e+01   -0.098 0.922036
## plotIDUFRL-01-0102         -1.979e-01  8.577e+00   -0.023 0.981588
## plotIDUFRL-01-0103         -8.903e-01  8.983e+00   -0.099 0.921053
## plotIDUFRL-01-0104         -1.102e+00  1.021e+01   -0.108 0.914006
```

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## plotIDUFRL-01-0105          1.551e+00  8.016e+00   0.194 0.846549
## plotIDUFRL-01-0106          5.473e-01  6.939e+00   0.079 0.937139
## plotIDUFRL-01-0154          8.548e-02  2.475e+00   0.035 0.972456
## plotIDUFRL-01-0155          3.392e-01  2.541e+00   0.134 0.893782
## plotIDUFRL-01-0156          2.744e-01  2.521e+00   0.109 0.913311
## plotIDUFRL-01-0160          1.021e+00  3.974e+00   0.257 0.797335
## plotIDUFRL-01-0161          9.961e-01  4.558e+00   0.219 0.827008
## plotIDUFRL-01-0162          8.005e-01  4.579e+00   0.175 0.861231
## plotIDUFRL-01-0163         -5.591e-01  4.839e+00  -0.116 0.908017
## plotIDUFRL-01-0164          3.169e-01  3.910e+00   0.081 0.935411
## plotIDUFRL-01-0165          2.160e+00  1.805e+01   0.120 0.904757
## plotIDUFRL-01-0166          1.047e+00  2.944e+00   0.356 0.722214
## plotIDUFRL-01-0167          3.532e+00  1.771e+01   0.200 0.841864
## plotIDUFRL-01-0168          2.919e+00  1.755e+01   0.166 0.867916
## plotIDUFRL-01-0169          1.178e+00  1.750e+01   0.067 0.946321
## plotIDUFRL-02-0001         -2.669e-01  8.365e+00  -0.032 0.974542
## plotIDUFRL-02-0002          5.479e-02  8.542e+00   0.006 0.994883
## plotIDUFRL-02-0003         -2.788e-01  8.355e+00  -0.033 0.973378
## plotIDUFRL-02-0004         -6.908e-01  8.406e+00  -0.082 0.934503
## plotIDUFRL-02-0005         -1.399e+00  6.332e+00  -0.221 0.825099
## plotIDUFRL-02-0007         -1.792e+00  5.241e+00  -0.342 0.732450
## plotIDUFRL-02-0008         -9.774e-01  5.954e+00  -0.164 0.869611
## plotIDUFRL-02-0009         -3.735e-01  6.014e+00  -0.062 0.950474
## plotIDUFRL-02-0011         -8.144e-01  5.586e+00  -0.146 0.884084
## plotIDUFRL-02-0014         -1.655e+00  6.040e+00  -0.274 0.784087
## plotIDUFRL-02-0015         -1.330e+00  6.122e+00  -0.217 0.828007
## plotIDUFRL-02-0016         -8.800e-01  5.144e+00  -0.171 0.864155
## plotIDUFRL-02-0017         -7.441e-01  6.039e+00  -0.123 0.901940
## plotIDUFRL-02-0018         -1.620e-01  5.522e+00  -0.029 0.976602
## plotIDUFRL-02-0019         -1.290e-01  5.214e+00  -0.025 0.980256
## plotIDUFRL-02-0030         -4.211e-01  9.408e+00  -0.045 0.964305
## plotIDUFRL-02-0031         -4.164e-01  1.164e+01  -0.036 0.971461
## plotIDUFRL-02-0032         -4.781e-01  1.125e+01  -0.043 0.966087
## plotIDUFRL-02-0033         -5.481e-01  5.781e+00  -0.095 0.924469
## plotIDUFRL-02-0034         -4.226e-01  5.642e+00  -0.075 0.940299
## plotIDUFRL-02-0035         -5.579e-01  5.426e+00  -0.103 0.918100
## plotIDUFRL-02-0036          5.277e-01  3.285e+00   0.161 0.872389
## plotIDUFRL-02-0037         -1.658e-01  7.041e+00  -0.024 0.981214
## plotIDUFRL-02-0038          1.012e-01  4.601e+00   0.022 0.982456
## plotIDUFRL-02-0039         -5.880e-01  5.501e+00  -0.107 0.914875
## plotIDUFRL-02-0040          1.062e+00  7.969e+00   0.133 0.893956
## plotIDUFRL-02-0041          1.761e+00  7.596e+00   0.232 0.816691
## plotIDUFRL-02-0042          4.773e+00  8.403e+00   0.568 0.570084
## plotIDUFRL-02-0043          5.241e+00  8.116e+00   0.646 0.518430
## plotIDUFRL-02-0044          2.898e+00  6.516e+00   0.445 0.656568
## plotIDUFRL-02-0045          1.047e+00  6.480e+00   0.162 0.871699
## plotIDUFRL-02-0046          1.570e+00  6.257e+00   0.251 0.801863
## plotIDUFRL-02-0047          1.475e+00  7.887e+00   0.187 0.851613
## plotIDUFRL-02-0048          7.220e-01  7.563e+00   0.095 0.923947
## plotIDUFRL-02-0049          2.658e+00  6.591e+00   0.403 0.686685
## plotIDUFRL-02-0050          4.025e-01  5.958e+00   0.068 0.946134
## plotIDUFRL-02-0051         -2.716e-01  7.428e+00  -0.037 0.970827
## plotIDUFRL-02-0052          2.311e+00  6.868e+00   0.337 0.736478
## plotIDUFRL-02-0053          1.116e-02  5.769e+00   0.002 0.998456
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## plotIDUFRL-02-0054                 1.158e+00  8.346e+00   0.139 0.889685
## plotIDUFRL-02-0055                 2.286e+00  7.982e+00   0.286 0.774633
## plotIDUFRL-02-0056                 4.640e-01  6.875e+00   0.067 0.946196
## plotIDUFRL-02-0057                 1.797e+00  6.717e+00   0.268 0.789071
## plotIDUFRL-02-0058                 4.310e-01  6.641e+00   0.065 0.948259
## plotIDUFRL-02-0059                 5.019e-01  6.807e+00   0.074 0.941222
## plotIDUFRL-02-0060                -1.124e+00  5.602e+00  -0.201 0.840939
## plotIDUFRL-02-0061                -5.074e-01  4.557e+00  -0.111 0.911342
## plotIDUFRL-02-0063                -8.733e-01  8.026e+00  -0.109 0.913363
## plotIDUFRL-02-0064                 1.133e-02  8.070e+00   0.001 0.998880
## plotIDUFRL-02-0100                 3.533e+00  1.234e+01   0.286 0.774622
## plotIDUFRL-02-0101                 1.261e+00  1.260e+01   0.100 0.920309
## plotIDUFRL-02-0102                 2.639e-01  1.285e+01   0.021 0.983622
## plotIDUFRL-02-0103                 6.335e-01  1.283e+01   0.049 0.960624
## plotIDUFRL-02-0104                -5.250e-01  1.296e+01  -0.041 0.967682
## plotIDUFRL-02-0105                 6.761e-01  1.266e+01   0.053 0.957427
## plotIDUFRL-02-0106                 2.897e+00  1.260e+01   0.230 0.818129
## plotIDUFRL-02-0107                -2.049e-01  1.270e+01  -0.016 0.987127
## plotIDUFRL-02-0108                 1.442e+00  1.284e+01   0.112 0.910562
## plotIDUFRL-02-0109                 5.453e-01  1.204e+01   0.045 0.963894
## plotIDUFRL-02-0110                 1.495e-01  1.224e+01   0.012 0.990255
## plotIDUFRL-02-0111                 5.515e-01  1.223e+01   0.045 0.964040
## plotIDUFRL-02-0112                 2.251e-01  1.240e+01   0.018 0.985515
## plotIDUFRL-02-0113                 1.900e-01  1.192e+01   0.016 0.987279
## plotIDUFRL-02-0114                 6.390e-01  1.192e+01   0.054 0.957252
## plotIDUFRL-02-0115                 1.248e+00  1.196e+01   0.104 0.916840
## plotIDUFRL-02-0116                 2.753e-01  1.363e+01   0.020 0.983890
## plotIDUFRL-02-0117                -1.012e+00  1.387e+01  -0.073 0.941808
## plotIDUFRL-02-0118                -1.716e-01  1.340e+01  -0.013 0.989786
## plotIDUFRL-02-0119                 1.697e-01  1.351e+01   0.013 0.989977
## plotIDUFRL-02-0120                 2.320e-01  1.299e+01   0.018 0.985753
## plotIDUFRL-02-0121                 8.067e-01  1.292e+01   0.062 0.950207
## plotIDUFRL-02-0122                -3.407e-01  1.304e+01  -0.026 0.979158
## plotIDUFRL-02-0123                 1.342e+00  1.291e+01   0.104 0.917242
## plotIDUFRL-02-0124                 9.344e-01  1.314e+01   0.071 0.943297
## plotIDUFRL-02-0125                 4.970e-01  1.305e+01   0.038 0.969626
## plotIDUFRL-02-0126                -2.077e-01  1.426e+01  -0.015 0.988382
## plotIDUFRL-02-0127                 8.980e-01  1.411e+01   0.064 0.949266
## plotIDUFRL-02-0128                 1.021e+00  1.502e+01   0.068 0.945801
## plotIDUFRL-02-0129                 4.000e-01  1.362e+01   0.029 0.976569
## plotIDUFRL-02-0130                 9.610e-01  1.517e+01   0.063 0.949503
## plotIDUFRL-02-0131                 1.306e+00  1.354e+01   0.096 0.923158
## plotIDUFRL-02-0132                 2.495e+00  1.568e+01   0.159 0.873616
## plotIDUFRL-02-0133                -8.234e-02  1.528e+01  -0.005 0.995701
## plotIDUFRL-02-0134                 2.495e+00  1.557e+01   0.160 0.872751
## plotIDUFRL-02-0135                 2.257e+00  1.522e+01   0.148 0.882113
## plotIDUFRL-02-0136                 4.447e-01  1.496e+01   0.030 0.976286
## plotIDUFRL-02-0137                 6.277e-01  1.496e+01   0.042 0.966545
## plotIDUFRL-02-0138                 1.863e+00  1.481e+01   0.126 0.899877
## plotIDUFRL-02-0139                 1.006e+00  1.602e+01   0.063 0.949951
## plotIDUFRL-02-0140                 2.961e+00  1.578e+01   0.188 0.851136
## plotIDUFRL-02-0141                 2.757e+00  1.578e+01   0.175 0.861283
## plotIDUFRL-02-0142                -9.691e-03  1.515e+01  -0.001 0.999490
## plotIDUFRL-02-0143                 7.904e-01  1.454e+01   0.054 0.956658
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## plotIDUFRL-02-0144          6.509e-01  1.433e+01   0.045 0.963769
## plotIDUFRL-02-0145          8.916e-01  1.483e+01   0.060 0.952055
## plotIDUFRL-02-0146          6.698e-01  1.562e+01   0.043 0.965790
## plotIDUFRL-02-0147          1.961e+00  1.580e+01   0.124 0.901256
## plotIDUFRL-02-0148          3.604e-01  1.536e+01   0.023 0.981281
## plotIDUFRL-02-0149          9.860e-02  1.582e+01   0.006 0.995028
## plotIDUFRL-02-0150          6.654e-01  1.545e+01   0.043 0.965644
## plotIDUFRL-02-0151          1.611e+00  1.544e+01   0.104 0.916857
## plotIDUFRL-02-0152          7.915e-02  1.158e+01   0.007 0.994546
## plotIDUFRL-02-0153         -4.777e-01  1.172e+01  -0.041 0.967504
## plotIDUFRL-02-0154          9.648e-02  1.137e+01   0.008 0.993230
## plotIDUFRL-02-0155          7.116e-01  1.146e+01   0.062 0.950489
## plotIDUFRL-02-0156          1.325e-01  1.119e+01   0.012 0.990554
## plotIDUFRL-02-0157          1.281e-01  1.117e+01   0.011 0.990843
## plotIDUFRL-02-0158          1.362e-01  1.162e+01   0.012 0.990649
## plotIDUFRL-02-0159          3.571e-02  1.125e+01   0.003 0.997466
## plotIDUFRL-02-0160          8.884e-02  1.123e+01   0.008 0.993689
## plotIDUFRL-02-0161         -1.968e-01  1.178e+01  -0.017 0.986672
## plotIDUFRL-02-0162          6.849e-01  1.164e+01   0.059 0.953073
## plotIDUFRL-02-0163          7.434e-01  1.159e+01   0.064 0.948850
## plotIDUFRL-02-0164          1.792e-01  1.171e+01   0.015 0.987786
## plotIDUFRL-02-0165          2.107e-01  1.199e+01   0.018 0.985975
## plotIDUFRL-02-0166          8.930e-02  1.213e+01   0.007 0.994124
## plotIDUFRL-02-0167         -3.356e-01  1.232e+01  -0.027 0.978274
## plotIDUFRL-02-0176         -1.289e+00  5.790e+00  -0.223 0.823806
## plotIDUFRL-02-0177         -5.391e-01  4.849e+00  -0.111 0.911474
## plotIDUFRL-02-0178         -1.045e+00  8.955e+00  -0.117 0.907088
## plotIDUFRL-02-0999         -1.454e+00  5.526e+00  -0.263 0.792487
## plotIDUFRL-03-0001          3.179e-01  3.428e+00   0.093 0.926111
## plotIDUFRL-03-0002          1.991e+00  2.862e+00   0.696 0.486616
## plotIDUFRL-03-0003          2.813e+00  2.805e+00   1.003 0.315973
## plotIDUFRL-03-0004          1.013e+00  3.339e+00   0.303 0.761600
## plotIDUFRL-03-0005          1.020e+00  2.693e+00   0.379 0.704815
## plotIDUFRL-03-0006          3.717e+00  4.148e+00   0.896 0.370259
## plotIDUFRL-03-0007          4.491e+00  4.070e+00   1.104 0.269787
## plotIDUFRL-03-0008          2.317e+00  4.221e+00   0.549 0.583072
## plotIDUFRL-03-0009          1.510e+00  4.121e+00   0.366 0.714017
## plotIDUFRL-03-0010          2.194e+00  3.781e+00   0.580 0.561774
## plotIDUFRL-03-0011          3.257e+00  5.099e+00   0.639 0.522977
## plotIDUFRL-03-0012          3.257e+00  5.044e+00   0.646 0.518524
## plotIDUFRL-03-0013          1.306e+00  4.884e+00   0.267 0.789159
## plotIDUFRL-03-0014          1.228e+00  3.606e+00   0.341 0.733457
## plotIDUFRL-03-0015          1.284e+00  4.695e+00   0.273 0.784508
## plotIDUFRL-03-0016          5.895e-01  4.769e+00   0.124 0.901631
## plotIDUFRL-03-0017          1.085e+00  3.263e+00   0.332 0.739572
## plotIDUFRL-03-0018          4.985e-01  3.252e+00   0.153 0.878161
## plotIDUFRL-03-0019          1.370e-01  2.697e+00   0.051 0.959477
## plotIDUFRL-03-0020         -1.986e-01  2.811e+00  -0.071 0.943671
## plotIDUFRL-03-0021         -2.585e-01  3.644e+00  -0.071 0.943454
## plotIDUFRL-03-0022          1.339e+00  4.061e+00   0.330 0.741515
## plotIDUFRL-03-0023          7.876e-01  3.834e+00   0.205 0.837220
## plotIDUFRL-03-0024          1.540e+00  3.702e+00   0.416 0.677353
## plotIDUFRL-03-0025          2.669e+00  3.660e+00   0.729 0.465894
## plotIDUFRL-03-0026          1.575e+00  3.521e+00   0.447 0.654738
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## plotIDUFRL-03-0027          1.463e+00  3.275e+00    0.447 0.655185
## plotIDUFRL-03-0028          2.444e+00  2.982e+00    0.819 0.412560
## plotIDUFRL-03-0029          2.479e+00  3.282e+00    0.755 0.450049
## plotIDUFRL-04-00A1          1.966e-02  1.447e+01    0.001 0.998916
## plotIDUFRL-05-0001         -1.641e+00  5.282e+00   -0.311 0.756081
## plotIDUFRL-05-0002         -1.140e+00  5.126e+00   -0.222 0.823958
## plotIDUFRL-05-0003         -4.524e-01  5.052e+00   -0.090 0.928638
## plotIDUFRL-05-0131          2.213e-01  2.555e+00    0.087 0.930974
## plotIDUFRL-05-0132          1.577e-02  2.521e+00    0.006 0.995009
## plotIDUFRL-05-0144          5.826e-01  1.774e+00    0.328 0.742636
## plotIDUFRL-05-0145          1.396e-01  1.951e+00    0.072 0.942942
## plotIDUFRL-05-0146          8.150e-02  1.772e+00    0.046 0.963312
## plotIDUFRL-05-0147          7.243e-02  1.993e+00    0.036 0.971005
## plotIDUFRL-05-0148          3.601e-01  1.905e+00    0.189 0.850083
## plotIDUFRL-05-0149          3.042e-01  1.803e+00    0.169 0.866008
## plotIDUFRL-05-0150          4.440e-01  1.754e+00    0.253 0.800197
## plotIDUFRL-05-0151          5.957e-01  1.745e+00    0.341 0.732817
## plotIDUFRL-05-0152          5.829e-01  1.795e+00    0.325 0.745373
## plotIDUFRL-05-0153          5.170e-01  2.120e+00    0.244 0.807338
## plotIDUFRL-05-0157          1.163e-01  1.804e+00    0.064 0.948581
## plotIDUFRL-05-0158          4.963e-01  1.728e+00    0.287 0.773989
## plotIDUFRL-05-0159          2.747e-01  1.641e+00    0.167 0.867104
## plotIDUFRL-06-0133          3.648e+00  1.433e+01    0.255 0.798999
## plotIDUFRL-06-0134          3.091e+00  1.456e+01    0.212 0.831913
## plotIDUFRL-06-0135          2.557e+00  1.438e+01    0.178 0.858865
## plotIDUFRL-06-0136          3.528e+00  1.446e+01    0.244 0.807240
## plotIDUFRL-06-0137          3.028e+00  1.477e+01    0.205 0.837539
## plotIDUFRL-06-0138          1.210e+00  1.442e+01    0.084 0.933128
## plotIDUFRL-06-0139          3.779e+00  1.445e+01    0.262 0.793652
## plotIDUFRL-2A-0142          2.287e-01  3.387e+00    0.068 0.946168
## plotIDUFRL-2A-0143          3.630e-03  3.294e+00    0.001 0.999121
## plotIDULRY-04-0001         -5.583e-01  9.569e+00   -0.058 0.953473
## plotIDULRY-04-0002         -7.195e-01  1.307e+01   -0.055 0.956086
## plotIDULRY-04-0003          7.318e-01  1.739e+01    0.042 0.966432
## plotIDULRY-04-0004          6.510e-01  1.886e+01    0.035 0.972464
## plotIDULRY-04-0005          1.303e-01  1.617e+01    0.008 0.993568
## plotIDULRY-04-0006         -6.847e-01  1.647e+01   -0.042 0.966840
## plotIDULRY-04-0007         -2.325e-01  1.175e+01   -0.020 0.984214
## plotIDULRY-04-0008          3.388e+00  1.178e+01    0.288 0.773617
## plotIDULRY-04-0009          9.213e-01  1.590e+01    0.058 0.953808
## plotIDULRY-04-0010          1.349e+00  1.506e+01    0.090 0.928616
## plotIDULRY-04-0011          5.471e-01  1.577e+01    0.035 0.972326
## plotIDULRY-04-0012          2.239e+00  1.591e+01    0.141 0.888052
## plotIDULRY-04-0013          2.731e+00  1.524e+01    0.179 0.857823
## plotIDULRY-04-0014          9.664e-01  1.436e+01    0.067 0.946344
## plotIDULRY-04-0015         -5.234e-01  1.493e+01   -0.035 0.972037
## plotIDULRY-04-0016          9.869e-01  1.493e+01    0.066 0.947308
## plotIDULRY-04-0017          3.298e+00  1.204e+01    0.274 0.784187
## plotIDULRY-04-0018          1.133e+00  1.346e+01    0.084 0.932898
## plotIDULRY-04-0019          1.842e+00  1.346e+01    0.137 0.891184
## plotIDULRY-04-0020          4.541e-01  2.136e+01    0.021 0.983038
## plotIDULRY-04-0021          3.525e-01  1.927e+01    0.018 0.985406
## plotIDULRY-04-0022          5.634e-02  1.860e+01    0.003 0.997583
## plotIDULRY-04-0023          2.042e+00  2.190e+01    0.093 0.925711
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## plotIDULRY-04-0024          2.589e+00  1.455e+01    0.178 0.858770
## plotIDULRY-04-0025          2.589e+00  1.420e+01    0.182 0.855374
## plotIDULRY-04-0026          2.589e+00  1.429e+01    0.181 0.856203
## plotIDULRY-04-0027          6.515e-01  9.753e+00    0.067 0.946739
## plotIDULRY-04-0028          4.018e+00  1.137e+01    0.353 0.723761
## plotIDULRY-04-0029          4.863e-01  1.020e+01    0.048 0.961969
## plotIDULRY-04-0030          2.679e+00  1.066e+01    0.251 0.801599
## plotIDULRY-04-0031          9.091e-01  9.572e+00    0.095 0.924333
## plotIDULRY-04-0032          9.405e-01  9.811e+00    0.096 0.923634
## plotIDULRY-04-0033          2.506e+00  1.045e+01    0.240 0.810416
## plotIDULRY-04-0034          1.144e+00  5.465e+00    0.209 0.834187
## plotIDULRY-04-0035          8.082e-01  5.547e+00    0.146 0.884162
## plotIDULRY-04-0036          1.272e+00  4.163e+00    0.306 0.759954
## plotIDULRY-04-0037          1.026e+00  5.816e+00    0.176 0.860007
## plotIDULRY-04-0038          1.264e+00  5.538e+00    0.228 0.819456
## plotIDULRY-04-0039          1.090e+00  4.203e+00    0.259 0.795293
## plotIDULRY-04-0040          9.045e-01  6.275e+00    0.144 0.885379
## plotIDULRY-04-0041          8.093e-01  6.581e+00    0.123 0.902117
## plotIDULRY-04-0042          4.159e-01  1.234e+01    0.034 0.973118
## plotIDULRY-04-0043          1.517e+00  1.197e+01    0.127 0.899162
## plotIDULRY-04-0044          2.043e+00  1.568e+01    0.130 0.896375
## plotIDULRY-04-0045          1.478e+00  1.503e+01    0.098 0.921683
## plotIDULRY-04-0046          7.773e-01  1.317e+01    0.059 0.952924
## plotIDULRY-04-0047          8.908e-01  1.389e+01    0.064 0.948875
## plotIDULRY-04-0048          1.205e+00  1.423e+01    0.085 0.932497
## plotIDULRY-04-0049          3.669e+00  1.545e+01    0.237 0.812341
## plotIDULRY-04-0050          1.052e+00  1.374e+01    0.077 0.938970
## plotIDULRY-04-0051          1.584e+00  1.105e+01    0.143 0.885935
## plotIDULRY-04-0052          5.562e-01  1.178e+01    0.047 0.962329
## plotIDULRY-04-0053          7.390e-01  1.166e+01    0.063 0.949485
## plotIDULRY-04-0054          3.012e-01  1.118e+01    0.027 0.978505
## plotIDULRY-04-0055          3.598e-01  1.103e+01    0.033 0.973975
## plotIDULRY-04-0056          2.298e+00  1.053e+01    0.218 0.827262
## plotIDULRY-04-0057          1.870e+00  1.025e+01    0.183 0.855175
## plotIDULRY-04-0058          2.342e+00  9.974e+00    0.235 0.814376
## plotIDULRY-04-0059          1.782e+00  7.925e+00    0.225 0.822098
## plotIDULRY-04-0060          9.028e-01  6.410e+00    0.141 0.887997
## plotIDULRY-04-0061          5.121e+00  1.588e+01    0.323 0.747046
## plotIDULRY-04-0063          1.062e+00  1.558e+01    0.068 0.945655
## plotIDULRY-04-0064          8.523e-01  2.021e+01    0.042 0.966359
## plotIDULRY-04-0065          9.843e-01  2.040e+01    0.048 0.961513
## plotIDULRY-04-0066          1.613e+00  2.169e+01    0.074 0.940713
## plotIDULRY-04-0067          5.014e+00  2.149e+01    0.233 0.815510
## plotIDULRY-04-0068         -2.782e+00  2.193e+01   -0.127 0.899068
## plotIDULRY-04-0069          7.020e-01  2.198e+01    0.032 0.974524
## plotIDULRY-04-0070          3.700e+00  1.277e+01    0.290 0.772047
## plotIDULRY-04-0071         -1.627e+00  1.246e+01   -0.131 0.896132
## plotIDULRY-04-0072          3.053e+00  1.272e+01    0.240 0.810353
## plotIDULRY-04-0073         -8.324e-01  1.649e+01   -0.050 0.959749
## plotIDULRY-04-0075          3.860e-01  1.558e+01    0.025 0.980238
## plotIDULRY-04-0076         -1.471e-01  1.276e+01   -0.012 0.990801
## plotIDULRY-04-0077          3.233e+00  1.284e+01    0.252 0.801278
## plotIDULRY-04-0078          1.625e+00  1.213e+01    0.134 0.893406
## plotIDULRY-04-0079          5.318e-01  1.917e+01    0.028 0.977874
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## plotIDULRY-04-0080                     5.370e-01  2.020e+01    0.027 0.978793
## plotIDULRY-04-0082                     4.636e-01  2.219e+01    0.021 0.983328
## plotIDULRY-04-0083                    -8.471e-01  1.725e+01   -0.049 0.960838
## plotIDULRY-04-0084                     4.875e-01  1.739e+01    0.028 0.977639
## plotIDULRY-04-0085                     1.427e-01  2.306e+01    0.006 0.995062
## plotIDULRY-04-0086                     2.531e-01  2.268e+01    0.011 0.991097
## plotIDULRY-04-0087                     9.430e-01  1.695e+01    0.056 0.955639
## plotIDULRY-04-0088                    -4.083e-01  5.332e+00   -0.077 0.938965
## plotIDULRY-04-0089                     1.355e+00  8.585e+00    0.158 0.874602
## plotIDULRY-04-0090                    -6.257e-01  1.405e+01   -0.045 0.964467
## plotIDULRY-04-0091                    -1.626e+00  1.404e+01   -0.116 0.907827
## plotIDULRY-04-0092                     2.374e+00  1.436e+01    0.165 0.868635
## plotIDULRY-04-0095                     2.366e+00  1.440e+01    0.164 0.869460
## plotIDULRY-04-0096                    -1.634e+00  1.472e+01   -0.111 0.911644
## plotIDULRY-04-0097                    -2.225e+00  1.468e+01   -0.152 0.879521
## plotIDULRY-04-0098                     9.220e-01  1.450e+01    0.064 0.949289
## plotIDULRY-04-0099                     2.225e-01  2.096e+01    0.011 0.991529
## plotIDULRY-04-0100                     1.239e+00  2.079e+01    0.060 0.952479
## plotIDULRY-04-0101                     2.375e+00  7.797e+00    0.305 0.760674
## plotIDULRY-04-0102                    -4.836e-01  8.114e+00   -0.060 0.952472
## plotIDULRY-04-0103                     6.355e-01  1.966e+01    0.032 0.974212
## plotIDULRY-04-0104                    -1.799e-01  1.346e+01   -0.013 0.989340
## plotIDULRY-04-0106                     8.149e-01  1.364e+01    0.060 0.952364
## plotIDULRY-04-0107                     3.388e+00  1.160e+01    0.292 0.770294
## plotIDULRY-04-0108                     1.675e-01  1.100e+01    0.015 0.987851
## plotIDULRY-04-0109                     7.973e-01  1.433e+01    0.056 0.955641
## plotIDULRY-04-0110                     2.168e+00  1.448e+01    0.150 0.881042
## plotIDULRY-04-0111                     8.637e-01  1.430e+01    0.060 0.951851
## plotIDULRY-04-0112                     6.881e-01  2.148e+01    0.032 0.974445
## plotIDULRY-04-0113                    -3.139e+00  2.205e+01   -0.142 0.886784
## plotIDULRY-04-0114                     1.654e+00  1.504e+01    0.110 0.912445
## plotIDULRY-04-0116                     2.244e+00  1.096e+01    0.205 0.837829
## plotIDULRY-04-0117                     2.719e+00  1.157e+01    0.235 0.814263
## plotIDULRY-04-0118                     7.091e-01  2.318e+01    0.031 0.975600
## plotIDULRY-04-0119                     6.643e-01  1.174e+01    0.057 0.954870
## plotIDULRY-04-0120                     1.038e+00  1.192e+01    0.087 0.930634
## plotIDULRY-04-0121                     6.071e-01  1.040e+01    0.058 0.953471
## plotIDULRY-04-0122                    -7.497e-01  1.026e+01   -0.073 0.941744
## plotIDULRY-04-0123                     2.052e+00  1.014e+01    0.202 0.839605
## plotIDULRY-04-0124                     3.385e-01  1.198e+01    0.028 0.977463
## plotIDULRY-04-0125                     1.410e+00  1.177e+01    0.120 0.904670
## plotIDULRY-04-0126                    -3.135e-01  1.159e+01   -0.027 0.978422
## plotIDULRY-04-0127                     8.281e-01  1.376e+01    0.060 0.952025
## plotIDULRY-04-0128                     1.987e+00  1.342e+01    0.148 0.882327
## plotIDULRY-04-0129                     3.210e-01  1.337e+01    0.024 0.980848
## plotIDULRY-04-0130                    -1.503e-01  1.897e+01   -0.008 0.993677
## plotIDULRY-04-0131                    -1.117e+00  1.905e+01   -0.059 0.953250
## plotIDULRY-04-0132                    -5.752e-01  1.904e+01   -0.030 0.975905
## plotIDULRY-04-0133                     3.242e+00  1.122e+01    0.289 0.772688
## plotIDULRY-04-0134                     1.122e+00  1.116e+01    0.101 0.919934
## plotIDULRY-04-0135                    -7.522e-01  1.198e+01   -0.063 0.949923
## plotIDULRY-04-0136                     2.766e+00  1.152e+01    0.240 0.810266
## plotIDULRY-04-0137                     1.399e+00  1.171e+01    0.119 0.904912
## plotIDULRY-04-0138                    -1.424e-01  1.710e+01   -0.008 0.993359
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## plotIDULRY-04-0139          -1.451e+00  1.751e+01   -0.083 0.933986
## plotIDULRY-04-0140           9.618e-01  1.638e+01    0.059 0.953177
## plotIDULRY-04-0142           2.255e+00  1.542e+01    0.146 0.883690
## plotIDULRY-04-0143           2.326e+00  1.490e+01    0.156 0.875979
## plotIDULRY-04-0144           1.589e+00  1.464e+01    0.109 0.913573
## plotIDULRY-04-0145           2.589e+00  1.397e+01    0.185 0.852983
## plotIDULRY-04-0147           1.874e+00  1.476e+01    0.127 0.898949
## plotIDULRY-04-0148           2.148e+00  1.430e+01    0.150 0.880611
## plotIDULRY-04-0149           3.149e-01  1.463e+01    0.022 0.982826
## plotIDULRY-04-0151          -9.825e-01  1.308e+01   -0.075 0.940127
## plotIDULRY-04-0152           2.081e+00  1.251e+01    0.166 0.867911
## plotIDULRY-04-0153          -1.725e+00  1.258e+01   -0.137 0.890968
## plotIDULRY-04-0154           5.382e+00  1.357e+01    0.397 0.691556
## plotIDULRY-04-0155           2.589e+00  1.402e+01    0.185 0.853478
## plotIDULRY-04-0157           1.381e+00  1.236e+01    0.112 0.911007
## plotIDULRY-04-0158           2.922e+00  1.461e+01    0.200 0.841514
## plotIDULRY-04-0160          -6.387e-01  1.124e+01   -0.057 0.954704
## plotIDULRY-05-0200           7.120e-01  5.261e+00    0.135 0.892352
## plotIDULRY-05-0201           1.952e+00  4.839e+00    0.404 0.686578
## plotIDULRY-05-0202           2.162e-01  8.603e+00    0.025 0.979948
## plotIDULRY-05-0204           2.235e+00  8.653e+00    0.258 0.796222
## plotIDULRY-05-0205           8.383e-01  8.556e+00    0.098 0.921947
## plotIDULRY-05-0206           4.059e-01  3.406e+00    0.119 0.905142
## plotIDULRY-05-0207           3.242e+00  2.930e+00    1.106 0.268560
## plotIDULRY-05-0208           1.691e+00  8.303e+00    0.204 0.838576
## plotIDULRY-05-0209           1.984e+00  8.085e+00    0.245 0.806139
## plotIDULRY-05-0210           2.222e+00  8.237e+00    0.270 0.787315
## plotIDULRY-05-0211           9.611e-01  5.761e+00    0.167 0.867507
## plotIDULRY-05-0212           1.305e+00  6.959e+00    0.188 0.851213
## plotIDULRY-05-0213           5.359e-01  8.362e+00    0.064 0.948898
## plotIDULRY-05-0214           1.543e+00  8.268e+00    0.187 0.851923
## plotIDULRY-05-0215           5.332e-01  8.710e+00    0.061 0.951186
## plotIDULRY-05-0216           8.088e-01  1.074e+01    0.075 0.939989
## plotIDULRY-05-0217           1.474e+00  1.066e+01    0.138 0.890080
## plotIDULRY-05-0218           9.456e-01  1.081e+01    0.087 0.930289
## plotIDULRY-05-0219           1.203e+00  5.962e+00    0.202 0.840131
## plotIDULRY-05-0220           2.470e+00  6.623e+00    0.373 0.709167
## plotIDULRY-05-0221           1.927e+00  6.735e+00    0.286 0.774838
## plotIDULRY-05-0222           1.627e+00  6.552e+00    0.248 0.803927
## plotIDULRY-05-0224           4.424e-01  8.232e+00    0.054 0.957140
## plotIDULRY-05-0225           1.742e+00  8.090e+00    0.215 0.829522
## plotIDULRY-05-0226           5.196e-01  4.792e+00    0.108 0.913660
## plotIDULRY-05-0227           1.468e+00  4.506e+00    0.326 0.744665
## plotIDULRY-05-0228           2.001e+00  8.252e+00    0.242 0.808408
## plotIDULRY-05-0231           1.167e+00  8.172e+00    0.143 0.886429
## plotIDULRY-05-0232           2.570e+00  7.977e+00    0.322 0.747308
## plotIDULRY-05-0234           1.632e+00  9.759e+00    0.167 0.867210
## plotIDULRY-05-0235           1.033e+00  9.117e+00    0.113 0.909784
## plotIDULRY-05-0236           1.393e+00  5.965e+00    0.234 0.815298
## plotIDULRY-05-0237           1.889e+00  5.287e+00    0.357 0.720946
## plotIDULRY-05-0238           2.807e+00  4.095e+00    0.685 0.493165
## plotIDULRY-05-0239           2.816e+00  5.075e+00    0.555 0.579023
## plotIDULRY-05-0240           9.051e-01  8.015e+00    0.113 0.910097
## plotIDULRY-05-0241          -1.253e+00  3.479e+00   -0.360 0.718774
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## plotIDULRY-05-0242                    2.123e+00  8.549e+00    0.248 0.803861
## plotIDULRY-05-0244                    3.613e-01  8.093e+00    0.045 0.964396
## plotIDULRY-05-0245                    1.233e+00  1.240e+01    0.099 0.920804
## plotIDULRY-05-0246                    3.641e-01  1.267e+01    0.029 0.977071
## plotIDULRY-05-0248                   -2.711e+00  1.590e+01   -0.171 0.864595
## plotIDULRY-05-0249                    2.412e+00  1.841e+01    0.131 0.895719
## plotIDULRY-05-0250                    1.179e-01  1.537e+01    0.008 0.993879
## plotIDULRY-05-0251                    5.018e+00  1.472e+01    0.341 0.733202
## plotIDULRY-05-0252                    1.621e+00  1.359e+01    0.119 0.905051
## plotIDULRY-05-0253                    1.371e+00  1.357e+01    0.101 0.919537
## plotIDULRY-05-0254                    1.874e+00  1.306e+01    0.143 0.885941
## plotIDULRY-05-0255                    1.098e+00  1.267e+01    0.087 0.930984
## plotIDULRY-05-0256                    6.439e-01  1.410e+01    0.046 0.963591
## plotIDULRY-05-0257                    2.434e+00  1.455e+01    0.167 0.867143
## plotIDULRY-05-0258                    1.750e+00  1.580e+01    0.111 0.911787
## plotIDULRY-05-0259                    1.463e+00  1.575e+01    0.093 0.925984
## plotIDULRY-05-0260                    2.537e+00  1.487e+01    0.171 0.864501
## plotIDULRY-05-0261                    1.778e+00  1.077e+01    0.165 0.868856
## plotIDULRY-05-0262                    1.192e+00  1.156e+01    0.103 0.917891
## plotIDULRY-05-0263                    1.300e+00  1.120e+01    0.116 0.907576
## plotIDULRY-05-0264                    6.303e-01  8.473e+00    0.074 0.940696
## plotIDULRY-05-0265                    1.219e+00  8.946e+00    0.136 0.891644
## plotIDULRY-05-0266                    9.097e-01  8.422e+00    0.108 0.913982
## plotIDWHCA-01-0050                    1.354e-01  9.006e+00    0.015 0.988008
## plotIDWHCA-01-0051                    1.215e+00  8.877e+00    0.137 0.891175
## plotIDWHCA-01-0055                    9.131e-01  6.346e+00    0.144 0.885587
## plotIDWHCA-01-0056                   -2.936e-01  6.203e+00   -0.047 0.962248
## plotIDWHCA-01-0057                    3.989e-01  6.409e+00    0.062 0.950370
## plotIDWHCA-01-0058                    2.599e-01  6.038e+00    0.043 0.965665
## plotIDWHCA-01-0059                    3.437e-01  9.484e+00    0.036 0.971092
## plotIDWHCA-01-0060                    6.809e-01  9.404e+00    0.072 0.942281
## plotIDWHCA-01-0061                    3.080e-01  9.653e+00    0.032 0.974549
## plotIDWHCA-01-0062                    6.471e-01  9.457e+00    0.068 0.945448
## plotIDWHCA-01-0063                    1.318e+00  9.603e+00    0.137 0.890822
## plotIDWHCA-01-0064                    9.166e-01  1.253e+01    0.073 0.941676
## plotIDWHCA-01-0065                    3.743e-01  1.235e+01    0.030 0.975828
## plotIDWHCA-01-0066                    1.762e+00  1.237e+01    0.142 0.886758
## plotIDWHCA-01-0070                   -5.722e-01  9.964e+00   -0.057 0.954204
## plotIDWHCA-01-0071                    6.778e-01  9.918e+00    0.068 0.945519
## plotIDWHCA-01-0072                    3.995e-01  1.004e+01    0.040 0.968275
## plotIDWHCA-01-0074                   -2.261e-01  9.916e+00   -0.023 0.981807
## plotIDWHCA-01-0075                   -2.653e-01  9.967e+00   -0.027 0.978766
## plotIDWHCA-02-0040                    1.119e+00  7.941e+00    0.141 0.887932
## plotIDWHCA-02-0042                    1.580e+00  8.368e+00    0.189 0.850276
## plotIDWHCA-02-0043                    2.298e+00  8.105e+00    0.284 0.776799
## plotIDWHCA-02-0044                   -2.157e+00  6.510e+00   -0.331 0.740434
## plotIDWHCA-02-0045                   -6.466e-01  6.468e+00   -0.100 0.920369
## plotIDWHCA-02-0046                    1.627e+00  6.251e+00    0.260 0.794654
## plotIDWHCA-02-0047                    1.532e+00  7.859e+00    0.195 0.845432
## plotIDWHCA-02-0048                    7.788e-01  7.558e+00    0.103 0.917936
## plotIDWHCA-02-0049                    3.152e-01  6.503e+00    0.048 0.961339
## plotIDWHCA-02-0050                    4.593e-01  5.920e+00    0.078 0.938162
## plotIDWHCA-02-0052                    6.407e-01  6.879e+00    0.093 0.925798
## plotIDWHCA-02-0053                    6.796e-02  5.729e+00    0.012 0.990537
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## plotIDWHCA-02-0054          -1.728e-01  8.257e+00  -0.021 0.983302
## plotIDWHCA-02-0055           3.423e-01  7.897e+00   0.043 0.965423
## plotIDWHCA-02-0056           5.208e-01  6.843e+00   0.076 0.939335
## plotIDWHCA-02-0057           7.288e-01  6.720e+00   0.108 0.913646
## plotIDWHCA-02-0059           5.587e-01  6.797e+00   0.082 0.934490
## plotIDWHCA-02-0100           1.408e+00  1.232e+01   0.114 0.909040
## plotIDWHCA-02-0101           7.924e-02  1.250e+01   0.006 0.994944
## plotIDWHCA-02-0102           3.047e-01  1.284e+01   0.024 0.981062
## plotIDWHCA-02-0103           6.744e-01  1.282e+01   0.053 0.958051
## plotIDWHCA-02-0104          -4.842e-01  1.295e+01  -0.037 0.970174
## plotIDWHCA-02-0105          -1.719e-01  1.262e+01  -0.014 0.989128
## plotIDWHCA-02-0106           7.558e-01  1.259e+01   0.060 0.952134
## plotIDWHCA-02-0107          -1.640e-01  1.269e+01  -0.013 0.989686
## plotIDWHCA-02-0108          -2.095e-01  1.284e+01  -0.016 0.986980
## plotIDWHCA-02-0109           2.861e-01  1.204e+01   0.024 0.981033
## plotIDWHCA-02-0110           3.904e-01  1.225e+01   0.032 0.974576
## plotIDWHCA-02-0111           5.924e-01  1.222e+01   0.048 0.961345
## plotIDWHCA-02-0112           2.660e-01  1.239e+01   0.021 0.982871
## plotIDWHCA-02-0113           2.309e-01  1.191e+01   0.019 0.984528
## plotIDWHCA-02-0114           8.799e-01  1.188e+01   0.074 0.940980
## plotIDWHCA-02-0115           1.380e+00  1.189e+01   0.116 0.907621
## plotIDWHCA-02-0116           1.946e+00  1.361e+01   0.143 0.886278
## plotIDWHCA-02-0120           2.728e-01  1.298e+01   0.021 0.983231
## plotIDWHCA-02-0121           8.475e-01  1.291e+01   0.066 0.947645
## plotIDWHCA-02-0122          -2.999e-01  1.303e+01  -0.023 0.981643
## plotIDWHCA-02-0124           9.753e-01  1.313e+01   0.074 0.940773
## plotIDWHCA-02-0125           5.379e-01  1.304e+01   0.041 0.967103
## plotIDWHCA-02-0126          -1.668e-01  1.425e+01  -0.012 0.990663
## plotIDWHCA-02-0127           9.647e-01  1.411e+01   0.068 0.945501
## plotIDWHCA-02-0128           1.062e+00  1.501e+01   0.071 0.943604
## plotIDWHCA-02-0129           5.408e-01  1.299e+01   0.042 0.966781
## plotIDWHCA-02-0130           1.002e+00  1.512e+01   0.066 0.947155
## plotIDWHCA-02-0131           1.347e+00  1.353e+01   0.100 0.920704
## plotIDWHCA-02-0132           2.798e+00  1.553e+01   0.180 0.856991
## plotIDWHCA-02-0133          -3.748e-01  1.526e+01  -0.025 0.980404
## plotIDWHCA-02-0134           2.298e+00  1.561e+01   0.147 0.882945
## plotIDWHCA-02-0141           2.798e+00  1.577e+01   0.177 0.859177
## plotIDWHCA-02-0142           1.390e-01  1.496e+01   0.009 0.992591
## plotIDWHCA-02-0143           8.250e-01  1.453e+01   0.057 0.954714
## plotIDWHCA-02-0144           9.964e-01  1.435e+01   0.069 0.944656
## plotIDWHCA-02-0145           4.924e-01  1.482e+01   0.033 0.973486
## plotIDWHCA-02-0146           4.157e-01  1.562e+01   0.027 0.978772
## plotIDWHCA-02-0147           2.002e+00  1.580e+01   0.127 0.899153
## plotIDWHCA-02-0148           4.013e-01  1.535e+01   0.026 0.979146
## plotIDWHCA-02-0149           1.395e-01  1.579e+01   0.009 0.992955
## plotIDWHCA-02-0150           7.063e-01  1.544e+01   0.046 0.963514
## plotIDWHCA-02-0151           1.652e+00  1.542e+01   0.107 0.914680
## plotIDWHCA-02-0161          -1.559e-01  1.177e+01  -0.013 0.989430
## plotIDWHCA-02-0162           7.258e-01  1.163e+01   0.062 0.950226
## plotIDWHCA-02-0163           7.842e-01  1.158e+01   0.068 0.945987
## plotIDWHCA-02-0164           2.201e-01  1.169e+01   0.019 0.984976
## plotIDWHCA-03-0002           2.141e-01  2.812e+00   0.076 0.939328
## plotIDWHCA-03-0003           5.203e-01  2.740e+00   0.190 0.849411
## plotIDWHCA-03-0004           1.054e+00  3.297e+00   0.320 0.749205
```

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## plotIDWHCA-03-0005      1.061e+00  2.640e+00    0.402 0.687753
## plotIDWHCA-03-0006      9.578e-01  4.114e+00    0.233 0.815904
## plotIDWHCA-03-0007      1.532e+00  4.027e+00    0.381 0.703580
## plotIDWHCA-03-0008      1.929e+00  4.132e+00    0.467 0.640577
## plotIDWHCA-03-0009      1.551e+00  4.087e+00    0.380 0.704305
## plotIDWHCA-03-0010      1.092e+00  3.737e+00    0.292 0.770104
## plotIDWHCA-03-0011      3.298e+00  5.071e+00    0.650 0.515534
## plotIDWHCA-03-0012      3.298e+00  5.017e+00    0.657 0.510984
## plotIDWHCA-03-0013      1.306e+00  4.927e+00    0.265 0.790925
## plotIDWHCA-03-0014     -1.312e-01  3.573e+00   -0.037 0.970719
## plotIDWHCA-03-0015      1.366e+00  4.729e+00    0.289 0.772771
## plotIDWHCA-03-0016      6.303e-01  4.755e+00    0.133 0.894541
## plotIDWHCA-03-0020     -1.577e-01  2.760e+00   -0.057 0.954428
## plotIDWHCA-03-0021     -5.033e-01  3.641e+00   -0.138 0.890041
## plotIDWHCA-03-0022      1.380e+00  4.045e+00    0.341 0.732943
## plotIDWHCA-03-0024      1.581e+00  3.653e+00    0.433 0.665142
## plotIDWHCA-03-0025      1.265e+00  3.629e+00    0.349 0.727357
## plotIDWHCA-03-0027      1.503e+00  3.232e+00    0.465 0.641781
## plotIDWHCA-03-0028      1.514e-01  2.933e+00    0.052 0.958842
## plotIDWHCA-03-0029      1.854e+00  3.249e+00    0.570 0.568407
## plotIDWISR-01-0077     -1.634e+00  1.445e+01   -0.113 0.910006
## plotIDWISR-01-0079     -6.336e-01  1.444e+01   -0.044 0.965007
## plotIDWISR-01-0080     -6.336e-01  1.443e+01   -0.044 0.964967
## plotIDWISR-01-0081     -2.618e+00  1.444e+01   -0.181 0.856101
## plotIDWISR-01-0082     -1.634e+00  1.443e+01   -0.113 0.909870
## plotIDWISR-01-0083     -6.257e-01  1.405e+01   -0.045 0.964486
## plotIDWISR-01-0084     -1.634e+00  1.429e+01   -0.114 0.909003
## plotIDWISR-01-0087     -1.907e+00  3.472e+01   -0.055 0.956188
## plotIDWISR-01-0088     -6.257e-01  7.070e+00   -0.089 0.929475
## plotIDWISR-01-0090     -1.618e+00  1.277e+01   -0.127 0.899217
## plotIDWISR-01-0091     -8.835e-01  1.269e+01   -0.070 0.944501
## plotIDWISR-01-0092      2.366e+00  7.131e+00    0.332 0.740025
## plotIDWISR-01-0093     -2.168e-01  1.273e+01   -0.017 0.986409
## date00-00-1977          5.679e-02  6.771e-01    0.084 0.933152
## date00-00-1978          4.087e-02  5.315e-01    0.077 0.938713
## date00-00-1979         -8.356e-01  8.978e-01   -0.931 0.352031
## date00-00-1982                 NA         NA       NA       NA
## date00-00-2001          4.330e-02  6.224e-01    0.070 0.944529
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## date05-08-2002                 NA         NA       NA       NA
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## date05-11-1999                 NA         NA       NA       NA
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## date05-16-2001          2.339e+00  1.829e+00    1.279 0.201027
## date05-21-2001          1.019e+00  7.490e-01    1.360 0.173883
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## date05-22-2004                 NA         NA       NA       NA
## date05-23-2000         -1.634e-02  8.747e-01   -0.019 0.985094
## date05-23-2004                 NA         NA       NA       NA
## date05-24-2004                 NA         NA       NA       NA
## date05-25-1999                 NA         NA       NA       NA
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## date05-26-2004                                 NA         NA      NA       NA
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## date05-30-2002                          -2.832e-01  9.555e-01  -0.296 0.766942
## date05-31-2000                          -5.514e-02  9.154e-01  -0.060 0.951973
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## date06-04-2002                           1.247e+00  9.126e-01   1.367 0.171758
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## date06-08-1999                                 NA         NA      NA       NA
## date06-09-1998                                 NA         NA      NA       NA
## date06-10-1998                                 NA         NA      NA       NA
## date06-10-2002                          -1.126e+00  1.531e+00  -0.735 0.462293
## date06-10-2004                                 NA         NA      NA       NA
## date06-11-1996                                 NA         NA      NA       NA
## date06-11-1998                                 NA         NA      NA       NA
## date06-11-2004                                 NA         NA      NA       NA
## date06-12-1996                                 NA         NA      NA       NA
## date06-12-1998                                 NA         NA      NA       NA
## date06-12-2004                                 NA         NA      NA       NA
## date06-13-1990                                 NA         NA      NA       NA
## date06-13-2004                                 NA         NA      NA       NA
## date06-14-1990                                 NA         NA      NA       NA
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## date06-14-2004                                 NA         NA      NA       NA
## date06-15-1990                                 NA         NA      NA       NA
## date06-15-1998                                 NA         NA      NA       NA
## date06-15-2004                                 NA         NA      NA       NA
## date06-16-1998                                 NA         NA      NA       NA
## date06-16-2004                                 NA         NA      NA       NA
## date06-17-1998                                 NA         NA      NA       NA
## date06-17-2002                           1.105e+00  9.416e-01   1.173 0.240655
## date06-17-2004                                 NA         NA      NA       NA
## date06-18-1996                                 NA         NA      NA       NA
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## date06-19-1990                                 NA         NA      NA       NA
## date06-19-2004                                 NA         NA      NA       NA
## date06-20-1996                                 NA         NA      NA       NA
## date06-21-1999                                 NA         NA      NA       NA
## date06-22-1998                                 NA         NA      NA       NA
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## date06-23-1998                                 NA         NA      NA       NA
## date06-24-1998                                 NA         NA      NA       NA
```

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## date06-26-1990                               NA        NA       NA        NA
## date06-26-2001                           -1.520e+00  1.124e+00  -1.352 0.176545
## date06-27-1990                               NA        NA       NA        NA
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## date06-27-2004                               NA        NA       NA        NA
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## date07-01-1996                               NA        NA       NA        NA
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## date07-02-1976                               NA        NA       NA        NA
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## date07-06-1999                               NA        NA       NA        NA
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## date07-06-2004                               NA        NA       NA        NA
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## date07-07-2004                               NA        NA       NA        NA
## date07-08-1998                               NA        NA       NA        NA
## date07-08-2004                               NA        NA       NA        NA
## date07-09-1996                               NA        NA       NA        NA
## date07-09-1998                               NA        NA       NA        NA
## date07-09-2001                           -2.939e+00  1.487e+00  -1.976 0.048171 *
## date07-10-2002                            3.392e-01  6.733e-01   0.504 0.614434
## date07-11-2001                           -3.502e+00  1.388e+00  -2.523 0.011668 *
## date07-13-1996                               NA        NA       NA        NA
## date07-13-1998                               NA        NA       NA        NA
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## date07-15-1996                               NA        NA       NA        NA
## date07-15-1998                               NA        NA       NA        NA
## date07-15-2002                           -3.365e-01  9.743e-01  -0.345 0.729785
## date07-16-1996                               NA        NA       NA        NA
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## date07-17-1996                               NA        NA       NA        NA
## date07-17-1998                               NA        NA       NA        NA
## date07-17-2000                            9.730e-01  7.437e-01   1.308 0.190792
## date07-17-2002                            1.047e+00  8.851e-01   1.183 0.237020
## date07-18-2000                            1.185e+00  7.959e-01   1.489 0.136624
## date07-18-2002                           -5.442e-01  8.831e-01  -0.616 0.537780
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## date07-23-1997                               NA        NA       NA        NA
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## date07-23-1998                        NA        NA       NA        NA
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## date07-30-1996                        NA        NA       NA        NA
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## date08-09-2000                 -8.414e-01  7.676e-01   -1.096 0.273045
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## date08-14-2000                        NA        NA       NA        NA
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## date08-15-2000                        NA        NA       NA        NA
## date08-16-2000                        NA        NA       NA        NA
## date08-17-1998                        NA        NA       NA        NA
## date08-18-1997                        NA        NA       NA        NA
```

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## date08-18-1998                           NA        NA       NA        NA
## date08-19-1996                           NA        NA       NA        NA
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## date09-25-1997                           NA        NA       NA        NA
## date10-06-1998                           NA        NA       NA        NA
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## date10-19-1998                          NA        NA       NA        NA
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## spcodeACERNIG               1.464e+00 1.938e+00    0.755 0.450109
## spcodeACERRUB               1.199e+00 2.697e-01    4.446 8.88e-06 ***
## spcodeAILAALT               2.669e+00 1.913e+00    1.395 0.162979
## spcodeBETUALL               3.488e-01 2.557e-01    1.364 0.172551
## spcodeBETULEN               5.383e-02 2.783e-01    0.193 0.846594
## spcodeBETUNIG              -1.219e+00 1.392e+00   -0.876 0.381180
## spcodeCARYALB              -3.317e-01 2.988e-01   -1.110 0.266960
## spcodeCARYCOR              -1.226e+00 3.207e-01   -3.823 0.000133 ***
## spcodeCARYGLA              -5.858e-01 2.876e-01   -2.037 0.041704 *
## spcodeCARYOVT               1.371e-01 5.224e-01    0.262 0.792968
## spcodeCASTDNT              -1.539e+00 2.840e-01   -5.419 6.17e-08 ***
## spcodeCATASPE              -2.368e+00 9.895e-01   -2.393 0.016731 *
## spcodeCLADKEN              -1.057e+00 8.005e-01   -1.320 0.186926
## spcodeDIOSVIR              -1.690e+00 3.824e-01   -4.420 9.99e-06 ***
## spcodeFAGUGRA              -2.117e-01 2.709e-01   -0.782 0.434446
## spcodeFRAXAME              -9.949e-01 2.834e-01   -3.511 0.000449 ***
## spcodeFRAXPEN              -5.321e-01 5.575e-01   -0.955 0.339829
## spcodeJUGLCIN              -1.069e+00 7.744e-01   -1.381 0.167342
## spcodeJUGLNIG              -7.546e-01 4.844e-01   -1.558 0.119350
## spcodeJUNIVIR              -1.705e+00 4.842e-01   -3.521 0.000433 ***
## spcodeLIQUSTY               5.378e-01 3.844e-01    1.399 0.161781
## spcodeLIRITUL               3.520e-01 2.752e-01    1.279 0.200892
## spcodeMAGNACU              -1.183e+00 2.908e-01   -4.068 4.79e-05 ***
## spcodeMAGNFRA              -8.953e-01 2.780e-01   -3.221 0.001285 **
## spcodeMAGNTRI              -8.652e-01 6.680e-01   -1.295 0.195244
## spcodeNYSSSYL              -7.048e-03 2.781e-01   -0.025 0.979782
## spcodePAULTOM              -1.816e+00 1.134e+00   -1.600 0.109528
## spcodePICERUB              -1.583e-02 2.568e-01   -0.062 0.950857
## spcodePINUECH              -2.451e-01 4.577e-01   -0.536 0.592295
## spcodePINUPUN               1.133e+00 3.519e-01    3.221 0.001281 **
## spcodePINURIG               7.168e-01 2.993e-01    2.395 0.016637 *
## spcodePINUSTR              -4.267e-02 2.824e-01   -0.151 0.879882
## spcodePINUVIR               7.142e-01 3.018e-01    2.367 0.017969 *
## spcodePLATOCC               8.506e-01 4.839e-01    1.758 0.078841 .
## spcodeQUERALB               1.852e-01 2.870e-01    0.645 0.518708
## spcodeQUERFLC               2.427e-01 4.424e-01    0.549 0.583240
## spcodeQUERIMB               5.336e-01 9.927e-01    0.538 0.590923
## spcodeQUERMON               1.033e+00 2.808e-01    3.680 0.000235 ***
## spcodeQUERMUE              -7.063e-01 9.900e-01   -0.713 0.475577
## spcodeQUERRUB              -4.365e-02 2.722e-01   -0.160 0.872589
## spcodeQUERSTE              -1.233e-01 6.613e-01   -0.186 0.852115
## spcodeQUERVEL              -3.082e-01 2.909e-01   -1.059 0.289524
## spcodeROBIPSE              -8.623e-01 2.843e-01   -3.033 0.002433 **
## spcodeSALINIG               2.160e+00 7.506e-01    2.878 0.004017 **
## spcodeTILIAME               9.729e-02 3.565e-01    0.273 0.784957
## spcodeTILIAMEH              2.438e-01 3.024e-01    0.806 0.420240
## spcodeTSUGCAN               6.083e-01 2.683e-01    2.267 0.023415 *
## spcodeTSUGCAR              -5.835e-01 1.606e+00   -0.363 0.716378
## spcodeULMUALA              -5.942e-01 7.684e-01   -0.773 0.439367
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## spcodeULMUAME                    -1.281e+00  1.002e+00  -1.278 0.201315
## spcodeULMURUB                     1.245e-01  4.145e-01   0.300 0.763919
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## speciesAcer nigrum                      NA         NA      NA       NA
## speciesAcer rubrum                      NA         NA      NA       NA
## speciesAilanthus altissima              NA         NA      NA       NA
## speciesBetula alleghaniensis            NA         NA      NA       NA
## speciesBetula lenta                     NA         NA      NA       NA
## speciesBetula nigra                     NA         NA      NA       NA
## speciesCarya alba                       NA         NA      NA       NA
## speciesCarya cordiformis                NA         NA      NA       NA
## speciesCarya glabra                     NA         NA      NA       NA
## speciesCarya ovata                      NA         NA      NA       NA
## speciesCastanea dentata                 NA         NA      NA       NA
## speciesCatalpa speciosa                 NA         NA      NA       NA
## speciesCladrastis kentukea              NA         NA      NA       NA
## speciesDiospyros virginiana             NA         NA      NA       NA
## speciesFagus grandifolia                NA         NA      NA       NA
## speciesFraxinus americana               NA         NA      NA       NA
## speciesFraxinus pennsylvanica           NA         NA      NA       NA
## speciesJuglans cinerea                  NA         NA      NA       NA
## speciesJuglans nigra                    NA         NA      NA       NA
## speciesJuniperus virginiana             NA         NA      NA       NA
## speciesLiquidambar styraciflua          NA         NA      NA       NA
## speciesLiriodendron tulipifera          NA         NA      NA       NA
## speciesMagnolia acuminata               NA         NA      NA       NA
## speciesMagnolia fraseri                 NA         NA      NA       NA
## speciesMagnolia tripetala               NA         NA      NA       NA
## speciesNyssa sylvatica                  NA         NA      NA       NA
## speciesPaulownia tomentosa              NA         NA      NA       NA
## speciesPicea rubens                     NA         NA      NA       NA
## speciesPinus echinata                   NA         NA      NA       NA
## speciesPinus pungens                    NA         NA      NA       NA
## speciesPinus rigida                     NA         NA      NA       NA
## speciesPinus strobus                    NA         NA      NA       NA
## speciesPinus virginiana                 NA         NA      NA       NA
## speciesPlatanus occidentalis            NA         NA      NA       NA
## speciesQuercus alba                     NA         NA      NA       NA
## speciesQuercus falcata                  NA         NA      NA       NA
## speciesQuercus imbricaria               NA         NA      NA       NA
## speciesQuercus montana                  NA         NA      NA       NA
## speciesQuercus muehlenbergii            NA         NA      NA       NA
## speciesQuercus rubra                    NA         NA      NA       NA
## speciesQuercus stellata                 NA         NA      NA       NA
## speciesQuercus velutina                 NA         NA      NA       NA
## speciesRobinia pseudoacacia             NA         NA      NA       NA
## speciesSalix nigra                      NA         NA      NA       NA
## speciesTilia americana                  NA         NA      NA       NA
## speciesTsuga canadensis                 NA         NA      NA       NA
## speciesTsuga caroliniana                NA         NA      NA       NA
## speciesUlmus alata                      NA         NA      NA       NA
## speciesUlmus americana                  NA         NA      NA       NA
## speciesUlmus rubra                      NA         NA      NA       NA
## utme                             -3.851e-14  4.507e-04   0.000 1.000000
```

```
## utmn                         -1.290e-13  9.183e-04   0.000 1.000000
## elev                         -1.301e-13  3.502e-03   0.000 1.000000
## tci                           2.149e-13  4.387e-02   0.000 1.000000
## streamdist                    8.613e-14  1.611e-03   0.000 1.000000
## disturbLT-SEL                 1.890e-11  5.041e-01   0.000 1.000000
## disturbSETTLE                 6.148e-12  7.114e-01   0.000 1.000000
## disturbVIRGIN                 1.114e-11  7.541e-01   0.000 1.000000
## beers                         5.321e-12  1.453e-01   0.000 1.000000
## ---
## Signif. codes:  0 '***' 0.001 '**' 0.01 '*' 0.05 '.' 0.1 ' ' 1
##
## Residual standard error: 1.834 on 7911 degrees of freedom
##   (14 observations deleted due to missingness)
## Multiple R-squared:  0.329,  Adjusted R-squared:  0.2404
## F-statistic: 3.712 on 1045 and 7911 DF,  p-value: < 2.2e-16
```

Running an ANOVA test on the expMod1 give us a p-value that is very small ("<2.2e-16") while the summary function gives us an equally small p-vale("<2e-16"). Running an ANOVA test on expMod2 shows us that the variables plotsize, species, elev, disturb, and beers all have p values that show statistical significance. Using the summary function on expMod2 returns a more detailed look at each variable. The summary breaks down each categorical variable by the factors included in that column. After running this model I created two subsets of the data, one for Red Maples and one for Frasier Firs. These subsets were then used to build additional regression models. I then made an intercept only model which gave the same results on the subsets as the entire dataset.

```
Abies = subset(treedata, species == "Abies fraseri")
Abies = Abies[,-c(4,5)]
Acer = subset(treedata, species =="Acer rubrum")
Acer = Acer[,-c(4,5)]
abiesMod1 = lm(cover ~ ., data = Abies)
acerMod1 = lm(cover ~ ., data = Acer)

summary(abiesMod1)
```

```
##
## Call:
## lm(formula = cover ~ ., data = Abies)
##
## Residuals:
##     Min      1Q  Median      3Q     Max
## -0.6667  0.0000  0.0000  0.0000  0.6667
##
## Coefficients: (29 not defined because of singularities)
##                     Estimate Std. Error t value Pr(>|t|)
## (Intercept)        1.000e+00  1.671e+04   0.000 0.999954
## plotIDATBN-01-0532 7.000e+00  1.022e+02   0.068 0.947081
## plotIDATBN-01-0533 2.000e+00  1.031e+02   0.019 0.985005
## plotIDATBN-01-0536 2.000e+00  2.891e+01   0.069 0.946552
## plotIDATBP-01-0001 7.000e+00  1.828e+01   0.383 0.711723
## plotIDATBP-01-0005 3.000e+00  2.923e+01   0.103 0.920771
## plotIDATBP-01-0007 4.000e+00  3.344e+01   0.120 0.907729
## plotIDATBP-01-0008 1.000e+00  3.160e+01   0.032 0.975529
## plotIDDSLM-01-0002 2.000e+00  1.921e+01   0.104 0.919622
```

```
## plotIDDSLM-01-0004  2.000e+00  1.845e+01   0.108 0.916360
## plotIDDSLM-01-0006  2.000e+00  3.179e+01   0.063 0.951385
## plotIDDSLM-01-0008  2.000e+00  1.273e+01   0.157 0.879077
## plotIDDSLM-01-0010  3.000e+00  3.186e+01   0.094 0.927302
## plotIDDSLM-01-0011  2.000e+00  1.525e+01   0.131 0.898890
## plotIDDSLM-01-0013  2.000e+00  7.963e+00   0.251 0.808013
## plotIDDSLM-01-0024  2.000e+00  9.357e+00   0.214 0.836101
## plotIDDSLM-01-0027  2.000e+00  1.342e+01   0.149 0.885231
## plotIDDSLM-01-0029  2.000e+00  8.521e+00   0.235 0.820327
## plotIDDSLM-01-0037  2.000e+00  1.998e+01   0.100 0.922731
## plotIDDSLM-01-0081  2.000e+00  3.198e+01   0.063 0.951662
## plotIDDSLM-01-0086  2.000e+00  9.944e+00   0.201 0.845623
## plotIDDSLM-01-0115  2.000e+00  1.529e+01   0.131 0.899150
## plotIDDSLM-01-0134  6.000e+00  3.188e+01   0.188 0.855380
## plotIDDSLM-01-0136  2.000e+00  1.499e+01   0.133 0.897158
## plotIDDSLM-01-0137  2.000e+00  9.087e+00   0.220 0.831307
## plotIDDSLM-01-0138  3.000e+00  3.233e+01   0.093 0.928340
## plotIDDSLM-01-0143  2.000e+00  2.500e+01   0.080 0.938192
## plotIDDSLM-01-0253  3.000e+00  2.617e+01   0.115 0.911569
## plotIDDSLM-01-0302  2.000e+00  1.877e+01   0.107 0.917765
## plotIDDSLM-01-0304  2.000e+00  2.624e+01   0.076 0.941115
## plotIDDSLM-01-0305  2.000e+00  1.677e+01   0.119 0.907996
## plotIDDSLM-01-0309  4.000e+00  2.053e+01   0.195 0.850388
## plotIDDSLM-01-0310  3.000e+00  2.514e+01   0.119 0.907972
## plotIDDSLM-01-0313  2.000e+00  1.764e+01   0.113 0.912512
## plotIDDSLM-01-0314  2.000e+00  1.795e+01   0.111 0.914044
## plotIDDSLM-01-0322  2.000e+00  3.015e+01   0.066 0.948731
## plotIDDSLM-01-0324  3.000e+00  2.708e+01   0.111 0.914509
## plotIDDSLM-01-0326  2.000e+00  2.934e+01   0.068 0.947324
## plotIDDSLM-01-0330  2.000e+00  2.962e+01   0.068 0.947825
## plotIDDSLM-01-0343  3.000e+00  2.784e+01   0.108 0.916853
## plotIDDSLM-01-0345  2.000e+00  3.010e+01   0.066 0.948653
## plotIDDSLM-01-0346  3.000e+00  2.852e+01   0.105 0.918815
## plotIDDSLM-01-0347  3.000e+00  2.711e+01   0.111 0.914623
## plotIDFRID-01-0003  4.000e+00  2.276e+01   0.176 0.864833
## plotIDFRID-0T-0012  6.000e+00  1.524e+01   0.394 0.704091
## plotIDFRID-0T-0013  6.000e+00  1.644e+01   0.365 0.724630
## plotIDFRID-0T-0014  3.000e+00  1.754e+01   0.171 0.868477
## plotIDFRID-0T-0015  3.000e+00  1.841e+01   0.163 0.874595
## plotIDFRID-0T-0016  5.000e+00  1.978e+01   0.253 0.806792
## plotIDFRID-0T-0017  6.000e+00  2.206e+01   0.272 0.792492
## plotIDPITT-01-0045  1.000e+00  1.107e+02   0.009 0.993012
## plotIDUFRL-04-00A1  3.000e+00  3.008e+01   0.100 0.923010
## plotIDUFRL-06-0133  1.667e+00  3.144e+01   0.053 0.959028
## plotIDUFRL-06-0134  2.000e+00  3.231e+01   0.062 0.952164
## plotIDUFRL-06-0135  2.667e+00  3.249e+01   0.082 0.936602
## plotIDUFRL-06-0136  2.000e+00  3.234e+01   0.062 0.952209
## plotIDUFRL-06-0137  2.000e+00  3.322e+01   0.060 0.953474
## plotIDUFRL-06-0138 -3.165e-12  3.286e+01   0.000 1.000000
## plotIDUFRL-06-0139  1.667e+00  3.006e+01   0.055 0.957150
## plotIDULRY-04-0024  4.000e+00  3.303e+01   0.121 0.906611
## plotIDULRY-04-0025  4.000e+00  3.296e+01   0.121 0.906392
## plotIDULRY-04-0026  7.000e+00  3.436e+01   0.204 0.843633
## plotIDULRY-04-0090  1.000e+00  2.886e+01   0.035 0.973207
```

```
## plotIDULRY-04-0091   1.000e+00  2.899e+01   0.034 0.973328
## plotIDULRY-04-0092   8.000e+00  3.193e+01   0.251 0.808472
## plotIDULRY-04-0095   5.000e+00  3.196e+01   0.156 0.879573
## plotIDULRY-04-0096   1.000e+00  3.069e+01   0.033 0.974804
## plotIDULRY-04-0098   1.000e+00  2.978e+01   0.034 0.974031
## plotIDULRY-04-0114   2.000e+00  3.748e+01   0.053 0.958749
## plotIDULRY-04-0142   3.000e+00  3.256e+01   0.092 0.928852
## plotIDULRY-04-0144   3.000e+00  3.257e+01   0.092 0.928872
## plotIDULRY-04-0145   3.000e+00  2.788e+01   0.108 0.916964
## plotIDULRY-04-0147   6.000e+00  3.409e+01   0.176 0.864651
## plotIDULRY-04-0155   6.000e+00  2.865e+01   0.209 0.839376
## plotIDULRY-04-0157   2.000e+00  2.156e+01   0.093 0.928365
## plotIDULRY-04-0158   4.000e+00  3.043e+01   0.131 0.898653
## plotIDWISR-01-0077   1.000e+00  3.309e+01   0.030 0.976634
## plotIDWISR-01-0079   2.000e+00  3.281e+01   0.061 0.952896
## plotIDWISR-01-0080   2.000e+00  3.246e+01   0.062 0.952387
## plotIDWISR-01-0082   1.000e+00  3.255e+01   0.031 0.976245
## plotIDWISR-01-0083   2.000e+00  2.905e+01   0.069 0.946792
## plotIDWISR-01-0084   1.000e+00  3.109e+01   0.032 0.975128
## plotIDWISR-01-0088   3.000e+00  2.091e+01   0.143 0.889486
## plotIDWISR-01-0092   5.000e+00  1.900e+01   0.263 0.799041
## date00-00-1979       5.000e+00  5.774e-01   8.660 2.46e-05 ***
## date00-00-1982             NA         NA      NA       NA
## date05-11-1999             NA         NA      NA       NA
## date05-15-2001       2.667e+00  6.667e-01   4.000 0.003950 **
## date05-16-2001       6.000e+00  8.165e-01   7.348 8.01e-05 ***
## date05-23-2004             NA         NA      NA       NA
## date06-08-1999             NA         NA      NA       NA
## date06-12-2004             NA         NA      NA       NA
## date06-13-1990             NA         NA      NA       NA
## date06-14-1990             NA         NA      NA       NA
## date06-15-1990             NA         NA      NA       NA
## date06-23-1990             NA         NA      NA       NA
## date06-27-1990             NA         NA      NA       NA
## date07-09-2001       5.000e+00  8.165e-01   6.124 0.000282 ***
## date07-11-2001             NA         NA      NA       NA
## date07-13-1998             NA         NA      NA       NA
## date07-14-1998             NA         NA      NA       NA
## date07-24-2002             NA         NA      NA       NA
## date07-25-2002             NA         NA      NA       NA
## date07-29-1998             NA         NA      NA       NA
## date08-05-1999             NA         NA      NA       NA
## date08-14-1998             NA         NA      NA       NA
## date08-15-1998             NA         NA      NA       NA
## date08-21-1998             NA         NA      NA       NA
## date08-22-1998             NA         NA      NA       NA
## date08-25-1999             NA         NA      NA       NA
## date08-28-2001             NA         NA      NA       NA
## date09-17-1997             NA         NA      NA       NA
## date10-29-1998             NA         NA      NA       NA
## plotsize                   NA         NA      NA       NA
## utme                 6.934e-16  3.757e-03   0.000 1.000000
## utmn                 6.287e-17  4.227e-03   0.000 1.000000
## elev                 2.589e-15  3.906e-02   0.000 1.000000
```

```
## tci                  -4.261e-15  6.229e-01   0.000 1.000000
## streamdist           -3.935e-16  8.493e-03   0.000 1.000000
## disturbLT-SEL               NA         NA    NA       NA
## disturbSETTLE              NA         NA    NA       NA
## disturbVIRGIN              NA         NA    NA       NA
## beers                -2.108e-14  2.384e+00   0.000 1.000000
## ---
## Signif. codes:  0 '***' 0.001 '**' 0.01 '*' 0.05 '.' 0.1 ' ' 1
##
## Residual standard error: 0.5774 on 8 degrees of freedom
## Multiple R-squared:  0.9944, Adjusted R-squared:  0.9293
## F-statistic: 15.27 on 93 and 8 DF,  p-value: 0.0001776
```

summary(acerMod1)

```
##
## Call:
## lm(formula = cover ~ ., data = Acer)
##
## Residuals:
##    Min    1Q Median    3Q    Max
## -2.094  0.000  0.000  0.000  2.094
##
## Coefficients: (152 not defined because of singularities)
##                     Estimate Std. Error t value Pr(>|t|)
## (Intercept)          6.000e+00  4.937e+03   0.001 0.999033
## plotIDATBN-01-0304   1.000e+00  1.105e+00   0.905 0.367429
## plotIDATBN-01-0305  -1.000e+00  2.476e+00  -0.404 0.687209
## plotIDATBN-01-0306   1.000e+00  1.319e+01   0.076 0.939706
## plotIDATBN-01-0307  -1.000e+00  1.309e+01  -0.076 0.939236
## plotIDATBN-01-0308  -2.000e+00  1.310e+01  -0.153 0.878918
## plotIDATBN-01-0312  -4.000e+00  5.696e+00  -0.702 0.484149
## plotIDATBN-01-0313   1.000e+00  8.496e+00   0.118 0.906537
## plotIDATBN-01-0314  -2.000e+00  9.789e+00  -0.204 0.838521
## plotIDATBN-01-0401   1.000e+00  2.208e+01   0.045 0.963964
## plotIDATBN-01-0402   4.612e-11  2.151e+01   0.000 1.000000
## plotIDATBN-01-0407   1.601e-12  1.108e+00   0.000 1.000000
## plotIDATBN-01-0408  -5.000e+00  2.104e+00  -2.376 0.019391 *
## plotIDATBN-01-0409  -5.000e+00  1.495e+00  -3.344 0.001158 **
## plotIDATBN-01-0410   3.903e-11  1.961e+01   0.000 1.000000
## plotIDATBN-01-0412  -5.000e+00  2.177e+01  -0.230 0.818837
## plotIDATBN-01-0414  -5.000e+00  2.337e+01  -0.214 0.831030
## plotIDATBN-01-0415   2.062e-11  1.199e+01   0.000 1.000000
## plotIDATBN-01-0503  -1.000e+00  2.625e+01  -0.038 0.969689
## plotIDATBN-01-0504   3.703e-11  1.883e+01   0.000 1.000000
## plotIDATBN-01-0505  -1.000e+00  2.643e+01  -0.038 0.969890
## plotIDATBN-01-0506   5.703e-11  2.662e+01   0.000 1.000000
## plotIDATBN-01-0512   2.915e-11  1.368e+01   0.000 1.000000
## plotIDATBN-01-0513   1.000e+00  8.382e+00   0.119 0.905277
## plotIDATBN-01-0518   1.000e+00  2.671e+01   0.037 0.970207
## plotIDATBN-01-0519  -1.253e-11  1.164e+01   0.000 1.000000
## plotIDATBN-01-0521  -5.000e+00  1.147e+01  -0.436 0.663952
## plotIDATBN-01-0522  -5.000e+00  1.147e+01  -0.436 0.663735
## plotIDATBN-01-0523  -5.000e+00  1.115e+01  -0.449 0.654738
```

```
## plotIDATBN-01-0525 -2.000e+00  1.222e+01  -0.164 0.870331
## plotIDATBN-01-0529  1.000e+00  2.329e+01   0.043 0.965834
## plotIDATBN-01-0544  2.174e-11  1.204e+01   0.000 1.000000
## plotIDATBN-01-0551  4.550e-11  2.156e+01   0.000 1.000000
## plotIDATBN-01-0557 -2.000e+00  1.472e+01  -0.136 0.892185
## plotIDATBN-01-0558 -2.000e+00  1.407e+01  -0.142 0.887284
## plotIDATBN-01-0561 -3.000e+00  8.222e+00  -0.365 0.715978
## plotIDATBP-01-0011  2.000e+00  2.700e+01   0.074 0.941091
## plotIDATBP-01-0013 -4.000e+00  3.762e+01  -0.106 0.915545
## plotIDATBP-01-0015  1.000e+00  2.654e+01   0.038 0.970019
## plotIDATBP-01-0017 -2.000e+00  1.674e+01  -0.119 0.905151
## plotIDATBP-01-0018 -4.000e+00  3.220e+00  -1.242 0.216979
## plotIDDELL-02-0042 -4.000e+00  1.164e+01  -0.344 0.731734
## plotIDDELL-02-0043 -5.000e+00  1.108e+01  -0.451 0.652705
## plotIDDELL-02-0045 -4.000e+00  9.505e+00  -0.421 0.674774
## plotIDDELL-02-0052  2.000e+00  9.980e+00   0.200 0.841572
## plotIDDELL-02-0054 -4.000e+00  1.154e+01  -0.347 0.729535
## plotIDDELL-02-0055  1.000e+00  1.119e+01   0.089 0.928951
## plotIDDELL-02-0057 -2.031e-11  9.781e+00   0.000 1.000000
## plotIDDELL-02-0100 -3.653e-11  1.739e+01   0.000 1.000000
## plotIDDELL-02-0101 -4.000e+00  1.762e+01  -0.227 0.820889
## plotIDDELL-02-0105 -4.000e+00  1.777e+01  -0.225 0.822336
## plotIDDELL-02-0106 -1.000e+00  1.772e+01  -0.056 0.955110
## plotIDDELL-02-0108 -1.000e+00  1.802e+01  -0.055 0.955855
## plotIDDELL-02-0109  2.000e+00  1.707e+01   0.117 0.906941
## plotIDDELL-02-0110 -3.631e-11  1.731e+01   0.000 1.000000
## plotIDDELL-02-0114  1.000e+00  1.688e+01   0.059 0.952873
## plotIDDELL-02-0115 -3.543e-11  1.690e+01   0.000 1.000000
## plotIDDELL-02-0116 -4.000e+00  1.896e+01  -0.211 0.833322
## plotIDDELL-02-0127  1.000e+00  1.959e+01   0.051 0.959397
## plotIDDELL-02-0129 -3.814e-11  1.815e+01   0.000 1.000000
## plotIDDELL-02-0133 -4.000e+00  2.104e+01  -0.190 0.849574
## plotIDDELL-03-0002 -4.000e+00  1.255e+00  -3.188 0.001909 **
## plotIDDELL-03-0003  2.000e+00  1.326e+00   1.508 0.134666
## plotIDDELL-03-0006 -5.000e+00  3.692e+00  -1.354 0.178657
## plotIDDELL-03-0007 -1.000e+00  3.285e+00  -0.304 0.761445
## plotIDDELL-03-0008 -2.000e+00  3.623e+00  -0.552 0.582182
## plotIDDELL-03-0010 -3.796e-12  2.746e+00   0.000 1.000000
## plotIDDELL-03-0021 -4.000e+00  2.879e+00  -1.389 0.167760
## plotIDDELL-03-0025 -4.000e+00  2.783e+00  -1.437 0.153690
## plotIDDELL-03-0028  4.310e-14  1.050e+00   0.000 1.000000
## plotIDDELL-03-0029 -3.000e+00  1.440e+00  -2.084 0.039702 *
## plotIDDELL-03-0114 -4.319e-12  2.792e+00   0.000 1.000000
## plotIDDLAP-01-0011 -3.000e+00  1.949e+01  -0.154 0.878000
## plotIDDLAP-01-0012 -3.000e+00  1.949e+01  -0.154 0.878000
## plotIDDLAP-01-0013 -1.000e+00  2.133e+01  -0.047 0.962706
## plotIDDLAP-01-0014 -1.000e+00  2.089e+01  -0.048 0.961923
## plotIDDLAP-01-0015 -3.000e+00  2.335e+01  -0.128 0.898043
## plotIDDSLM-01-0028 -2.000e+00  4.988e+00  -0.401 0.689303
## plotIDDSLM-01-0037 -1.000e+00  7.344e+00  -0.136 0.891961
## plotIDDSLM-01-0083 -3.000e+00  4.597e+00  -0.653 0.515465
## plotIDDSLM-01-0136 -2.000e+00  1.036e+01  -0.193 0.847293
## plotIDDSLM-01-0306 -2.000e+00  4.946e+00  -0.404 0.686776
## plotIDDSLM-01-0307 -3.000e+00  5.784e+00  -0.519 0.605153
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## plotIDDSLM-01-0320 -3.000e+00  4.920e+00  -0.610 0.543406
## plotIDFRID-01-0001 -2.000e+00  1.392e+01  -0.144 0.886020
## plotIDFRID-01-0002 -1.000e+00  1.405e+01  -0.071 0.943384
## plotIDFRID-01-0004 -1.171e-11  1.001e+01   0.000 1.000000
## plotIDFRID-01-0005  1.000e+00  1.186e+01   0.084 0.932973
## plotIDFRID-01-0006 -2.624e-11  1.624e+01   0.000 1.000000
## plotIDFRID-01-0007 -1.000e+00  1.649e+01  -0.061 0.951753
## plotIDFRID-01-0009  1.000e+00  1.723e+01   0.058 0.953845
## plotIDFRID-01-0010 -2.000e+00  1.643e+01  -0.122 0.903346
## plotIDFRID-01-0013 -3.000e+00  1.640e+01  -0.183 0.855183
## plotIDFRID-01-0015  1.000e+00  2.111e+01   0.047 0.962310
## plotIDFRID-02-0014  1.000e+00  2.116e+01   0.047 0.962396
## plotIDFRID-08-0012 -2.000e+00  1.628e+01  -0.123 0.902467
## plotIDFRID-0T-0001 -2.628e-11  1.663e+01   0.000 1.000000
## plotIDFRID-0T-0002 -2.476e-11  1.587e+01   0.000 1.000000
## plotIDFRID-0T-0003  2.000e+00  1.534e+01   0.130 0.896508
## plotIDFRID-0T-0005 -2.164e-11  1.440e+01   0.000 1.000000
## plotIDFRID-0T-0006  2.000e+00  5.866e+00   0.341 0.733864
## plotIDFRID-0T-0007  3.000e+00  6.029e+00   0.498 0.619850
## plotIDFRID-0T-0008  2.000e+00  6.271e+00   0.319 0.750440
## plotIDFRID-0T-0009  3.000e+00  6.318e+00   0.475 0.635913
## plotIDFRID-0T-0010  2.000e+00  6.432e+00   0.311 0.756487
## plotIDFRID-0T-0011  2.000e+00  6.317e+00   0.317 0.752203
## plotIDFRID-0T-0018  1.000e+00  5.848e+00   0.171 0.864573
## plotIDFRID-0T-0019  2.000e+00  5.773e+00   0.346 0.729724
## plotIDFRID-0T-0020 -2.083e-11  1.410e+01   0.000 1.000000
## plotIDFRID-0T-0022 -2.000e+00  1.305e+01  -0.153 0.878492
## plotIDFRID-0T-0023 -2.000e+00  1.252e+01  -0.160 0.873425
## plotIDFRID-0T-0024  1.000e+00  1.213e+01   0.082 0.934450
## plotIDFRID-0T-0025  2.000e+00  6.426e+00   0.311 0.756245
## plotIDFRID-0T-0026  2.000e+00  6.795e+00   0.294 0.769116
## plotIDFRID-0T-0027 -2.250e-12  7.150e+00   0.000 1.000000
## plotIDFRID-0T-0028 -4.000e+00  7.540e+00  -0.531 0.596912
## plotIDFRID-0T-0029  2.000e+00  1.161e+01   0.172 0.863553
## plotIDFRID-0T-0030 -2.000e+00  1.105e+01  -0.181 0.856796
## plotIDFRID-0T-0031 -1.336e-11  1.060e+01   0.000 1.000000
## plotIDFRID-0T-0032  1.000e+00  1.063e+01   0.094 0.925211
## plotIDFRID-0T-0033  1.000e+00  1.017e+01   0.098 0.921864
## plotIDFRID-0T-0034  2.000e+00  8.121e+00   0.246 0.805959
## plotIDFRID-0T-0035  1.000e+00  8.151e+00   0.123 0.902602
## plotIDFRID-0T-0036  2.000e+00  8.680e+00   0.230 0.818227
## plotIDFRID-0T-0037  1.000e+00  8.839e+00   0.113 0.910149
## plotIDFRID-0T-0038  2.000e+00  9.178e+00   0.218 0.827944
## plotIDMILL-01-0024 -2.500e+00  3.929e+01  -0.064 0.949396
## plotIDMILL-03-0020 -1.500e+00  3.072e+01  -0.049 0.961157
## plotIDMILL-07-0024 -2.500e+00  4.459e+00  -0.561 0.576277
## plotIDMILL-07-0052 -2.500e+00  1.182e+01  -0.212 0.832911
## plotIDMILL-11-0017 -2.500e+00  1.814e+01  -0.138 0.890654
## plotIDMILL-12-0007 -5.000e-01  2.173e+01  -0.023 0.981689
## plotIDMILL-17-0010 -2.500e+00  1.214e+01  -0.206 0.837275
## plotIDMILL-17-0012 -2.500e+00  1.357e+01  -0.184 0.854173
## plotIDMILL-17-0039 -5.000e-01  7.838e+00  -0.064 0.949260
## plotIDMILL-18-0021 -2.500e+00  1.192e+01  -0.210 0.834265
## plotIDMILL-20-0010 -1.500e+00  1.148e+01  -0.131 0.896328
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## plotIDMILL-20-0044 -2.500e+00  6.242e+00  -0.401 0.689604
## plotIDMILL-24-0016 -2.500e+00  1.960e+01  -0.128 0.898781
## plotIDMILL-24-0059 -2.500e+00  2.163e+01  -0.116 0.908232
## plotIDMILL-25-0044 -1.500e+00  2.410e+01  -0.062 0.950501
## plotIDMILL-27-0041 -2.500e+00  2.367e+01  -0.106 0.916111
## plotIDMILL-27-0065 -2.500e+00  2.739e+01  -0.091 0.927456
## plotIDMILL-27-0110 -5.000e-01  3.077e+01  -0.016 0.987068
## plotIDMILL-27-0202 -2.500e+00  2.601e+01  -0.096 0.923608
## plotIDPITT-01-0001 -4.000e+00  2.693e+01  -0.149 0.882207
## plotIDPITT-01-0002  5.771e-11  2.720e+01   0.000 1.000000
## plotIDPITT-01-0003 -4.000e+00  2.750e+01  -0.145 0.884622
## plotIDPITT-01-0005  1.000e+00  3.258e+01   0.031 0.975572
## plotIDPITT-01-0006  6.182e-11  2.896e+01   0.000 1.000000
## plotIDPITT-01-0007 -4.000e+00  2.525e+01  -0.158 0.874427
## plotIDPITT-01-0008 -4.000e+00  2.347e+01  -0.170 0.864995
## plotIDPITT-01-0009  1.000e+00  2.952e+01   0.034 0.973041
## plotIDPITT-01-0010  1.000e+00  3.424e+01   0.029 0.976759
## plotIDPITT-01-0011  4.964e-11  2.376e+01   0.000 1.000000
## plotIDPITT-01-0012 -5.000e+00  2.501e+01  -0.200 0.841924
## plotIDPITT-01-0014  5.889e-11  2.751e+01   0.000 1.000000
## plotIDPITT-01-0015 -4.000e+00  2.238e+01  -0.179 0.858503
## plotIDPITT-01-0016  5.869e-11  2.764e+01   0.000 1.000000
## plotIDPITT-01-0017 -4.000e+00  2.658e+01  -0.150 0.880692
## plotIDPITT-01-0018  6.154e-11  2.888e+01   0.000 1.000000
## plotIDPITT-01-0019 -4.000e+00  2.511e+01  -0.159 0.873755
## plotIDPITT-01-0020 -4.000e+00  2.419e+01  -0.165 0.868975
## plotIDPITT-01-0021  1.000e+00  2.594e+01   0.039 0.969324
## plotIDPITT-01-0022  1.000e+00  2.046e+01   0.049 0.961122
## plotIDPITT-01-0023 -4.000e+00  2.681e+01  -0.149 0.881678
## plotIDPITT-01-0024  5.226e-11  2.479e+01   0.000 1.000000
## plotIDPITT-01-0025 -4.000e+00  2.571e+01  -0.156 0.876686
## plotIDPITT-01-0026 -4.000e+00  3.266e+01  -0.122 0.902764
## plotIDPITT-01-0027 -2.000e+00  2.528e+01  -0.079 0.937101
## plotIDPITT-01-0028 -4.000e+00  2.571e+01  -0.156 0.876685
## plotIDPITT-01-0029 -4.000e+00  2.818e+01  -0.142 0.887416
## plotIDPITT-01-0030 -4.000e+00  2.581e+01  -0.155 0.877154
## plotIDPITT-01-0032 -4.000e+00  2.956e+01  -0.135 0.892638
## plotIDPITT-01-0033 -2.000e+00  2.965e+01  -0.067 0.946356
## plotIDPITT-01-0036 -2.000e+00  2.924e+01  -0.068 0.945602
## plotIDPITT-01-0037 -4.000e+00  2.809e+01  -0.142 0.887043
## plotIDPITT-01-0038 -4.000e+00  2.210e+01  -0.181 0.856715
## plotIDPITT-01-0039 -1.000e+00  2.970e+01  -0.034 0.973206
## plotIDPITT-01-0040 -4.000e+00  2.954e+01  -0.135 0.892542
## plotIDPITT-01-0041 -1.000e+00  3.073e+01  -0.033 0.974103
## plotIDPITT-01-0042 -2.000e+00  3.127e+01  -0.064 0.949123
## plotIDPITT-01-0043 -1.000e+00  3.156e+01  -0.032 0.974787
## plotIDPITT-01-0044  2.000e+00  2.616e+01   0.076 0.939214
## plotIDPITT-01-0045 -4.000e+00  2.098e+01  -0.191 0.849151
## plotIDUFRL-01-0001 -1.750e+00  1.976e+01  -0.089 0.929614
## plotIDUFRL-01-0002 -1.750e+00  1.867e+01  -0.094 0.925523
## plotIDUFRL-01-0003 -7.500e-01  1.902e+01  -0.039 0.968625
## plotIDUFRL-01-0004 -1.750e+00  1.519e+01  -0.115 0.908508
## plotIDUFRL-01-0005 -1.750e+00  1.525e+01  -0.115 0.908882
## plotIDUFRL-01-0006 -7.500e-01  1.551e+01  -0.048 0.961540
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## plotIDUFRL-01-0007 -7.500e-01  1.545e+01  -0.049 0.961375
## plotIDUFRL-01-0008 -7.500e-01  1.520e+01  -0.049 0.960733
## plotIDUFRL-01-0009 -7.500e-01  1.555e+01  -0.048 0.961632
## plotIDUFRL-01-0010 -2.750e+00  1.599e+01  -0.172 0.863824
## plotIDUFRL-01-0012 -5.750e+00  2.065e+01  -0.278 0.781206
## plotIDUFRL-01-0013 -2.750e+00  2.040e+01  -0.135 0.893059
## plotIDUFRL-01-0014 -1.750e+00  2.099e+01  -0.083 0.933721
## plotIDUFRL-01-0015 -7.500e-01  2.027e+01  -0.037 0.970559
## plotIDUFRL-01-0018 -2.750e+00  1.820e+01  -0.151 0.880191
## plotIDUFRL-01-0019  1.250e+00  1.859e+01   0.067 0.946523
## plotIDUFRL-01-0020  2.500e-01  1.877e+01   0.013 0.989402
## plotIDUFRL-01-0021 -5.750e+00  1.590e+01  -0.362 0.718357
## plotIDUFRL-01-0022 -7.500e-01  1.412e+01  -0.053 0.957734
## plotIDUFRL-01-0023 -2.750e+00  2.441e+01  -0.113 0.910520
## plotIDUFRL-01-0024 -2.750e+00  2.442e+01  -0.113 0.910570
## plotIDUFRL-01-0025 -4.750e+00  2.420e+01  -0.196 0.844772
## plotIDUFRL-01-0026 -2.750e+00  2.377e+01  -0.116 0.908121
## plotIDUFRL-01-0027 -3.750e+00  8.216e+00  -0.456 0.649075
## plotIDUFRL-01-0028 -7.500e-01  2.107e+01  -0.036 0.971678
## plotIDUFRL-01-0029 -7.500e-01  2.052e+01  -0.037 0.970921
## plotIDUFRL-01-0030 -1.750e+00  1.800e+01  -0.097 0.922738
## plotIDUFRL-01-0031 -1.750e+00  1.823e+01  -0.096 0.923711
## plotIDUFRL-01-0032 -2.750e+00  1.980e+01  -0.139 0.889842
## plotIDUFRL-01-0033 -7.500e-01  1.872e+01  -0.040 0.968119
## plotIDUFRL-01-0034 -1.750e+00  2.001e+01  -0.087 0.930489
## plotIDUFRL-01-0035 -4.750e+00  8.730e+00  -0.544 0.587570
## plotIDUFRL-01-0036 -5.750e+00  8.500e+00  -0.676 0.500274
## plotIDUFRL-01-0037 -2.750e+00  2.757e+01  -0.100 0.920746
## plotIDUFRL-01-0038 -2.750e+00  2.760e+01  -0.100 0.920825
## plotIDUFRL-01-0039 -4.750e+00  1.845e+01  -0.257 0.797338
## plotIDUFRL-01-0040 -4.750e+00  1.841e+01  -0.258 0.796944
## plotIDUFRL-01-0041 -1.750e+00  1.825e+01  -0.096 0.923789
## plotIDUFRL-01-0042 -1.750e+00  1.830e+01  -0.096 0.924019
## plotIDUFRL-01-0043 -2.750e+00  1.802e+01  -0.153 0.878981
## plotIDUFRL-01-0044 -1.750e+00  1.583e+01  -0.111 0.912195
## plotIDUFRL-01-0045 -2.750e+00  1.582e+01  -0.174 0.862312
## plotIDUFRL-01-0046 -5.000e-01  1.572e+01  -0.032 0.974694
## plotIDUFRL-01-0047 -2.500e+00  1.559e+01  -0.160 0.872923
## plotIDUFRL-01-0048 -2.500e+00  1.539e+01  -0.162 0.871266
## plotIDUFRL-01-0049 -5.000e-01  1.400e+01  -0.036 0.971577
## plotIDUFRL-01-0050 -5.000e-01  1.352e+01  -0.037 0.970582
## plotIDUFRL-01-0051 -5.000e-01  1.332e+01  -0.038 0.970137
## plotIDUFRL-01-0052 -2.500e+00  1.240e+01  -0.202 0.840654
## plotIDUFRL-01-0053 -5.000e-01  1.030e+01  -0.049 0.961368
## plotIDUFRL-01-0054 -5.000e-01  1.125e+01  -0.044 0.964638
## plotIDUFRL-01-0055 -5.000e-01  1.035e+01  -0.048 0.961550
## plotIDUFRL-01-0056 -5.000e-01  1.017e+01  -0.049 0.960899
## plotIDUFRL-01-0057 -5.000e-01  1.049e+01  -0.048 0.962088
## plotIDUFRL-01-0058 -5.000e-01  9.977e+00  -0.050 0.960129
## plotIDUFRL-01-0059 -5.000e-01  1.407e+01  -0.036 0.971726
## plotIDUFRL-01-0060 -1.500e+00  1.396e+01  -0.107 0.914621
## plotIDUFRL-01-0061 -5.000e-01  1.429e+01  -0.035 0.972149
## plotIDUFRL-01-0062 -5.000e-01  1.406e+01  -0.036 0.971706
## plotIDUFRL-01-0063 -5.000e-01  1.425e+01  -0.035 0.972083
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## plotIDUFRL-01-0064 -5.000e-01  1.783e+01  -0.028 0.977688
## plotIDUFRL-01-0065  5.000e-01  1.764e+01   0.028 0.977448
## plotIDUFRL-01-0066 -5.000e-01  1.765e+01  -0.028 0.977454
## plotIDUFRL-01-0067 -5.000e-01  1.802e+01  -0.028 0.977921
## plotIDUFRL-01-0068 -1.500e+00  1.806e+01  -0.083 0.933959
## plotIDUFRL-01-0069 -5.000e-01  1.819e+01  -0.027 0.978120
## plotIDUFRL-01-0070 -2.500e+00  1.507e+01  -0.166 0.868590
## plotIDUFRL-01-0071 -5.000e-01  1.502e+01  -0.033 0.973519
## plotIDUFRL-01-0072 -1.500e+00  1.519e+01  -0.099 0.921527
## plotIDUFRL-01-0073 -1.500e+00  1.548e+01  -0.097 0.923000
## plotIDUFRL-01-0074 -5.500e+00  1.501e+01  -0.366 0.714845
## plotIDUFRL-01-0075 -5.500e+00  1.509e+01  -0.365 0.716210
## plotIDUFRL-01-0076 -5.000e-01  1.498e+01  -0.033 0.973437
## plotIDUFRL-01-0077 -1.500e+00  2.338e+01  -0.064 0.948965
## plotIDUFRL-01-0078 -1.500e+00  2.323e+01  -0.065 0.948641
## plotIDUFRL-01-0079 -1.500e+00  2.317e+01  -0.065 0.948520
## plotIDUFRL-01-0080 -1.500e+00  2.291e+01  -0.065 0.947932
## plotIDUFRL-01-0081 -2.500e+00  2.313e+01  -0.108 0.914152
## plotIDUFRL-01-0082 -1.500e+00  2.251e+01  -0.067 0.946998
## plotIDUFRL-01-0083 -5.000e-01  1.035e+01  -0.048 0.961578
## plotIDUFRL-01-0084 -5.000e-01  1.080e+01  -0.046 0.963175
## plotIDUFRL-01-0085 -5.000e-01  1.164e+01  -0.043 0.965815
## plotIDUFRL-01-0086 -5.000e-01  1.159e+01  -0.043 0.965665
## plotIDUFRL-01-0087 -1.500e+00  1.139e+01  -0.132 0.895522
## plotIDUFRL-01-0088 -4.500e+00  1.083e+01  -0.415 0.678748
## plotIDUFRL-01-0089  5.000e-01  1.021e+01   0.049 0.961037
## plotIDUFRL-01-0090  1.500e+00  2.853e+01   0.053 0.958180
## plotIDUFRL-01-0091 -1.500e+00  2.865e+01  -0.052 0.958341
## plotIDUFRL-01-0092 -2.500e+00  2.778e+01  -0.090 0.928464
## plotIDUFRL-01-0093 -1.500e+00  1.599e+01  -0.094 0.925456
## plotIDUFRL-01-0094 -2.500e+00  1.599e+01  -0.156 0.876062
## plotIDUFRL-01-0101 -1.500e+00  1.557e+01  -0.096 0.923438
## plotIDUFRL-01-0102  1.500e+00  1.350e+01   0.111 0.911779
## plotIDUFRL-01-0103 -5.000e-01  1.401e+01  -0.036 0.971605
## plotIDUFRL-01-0104 -1.500e+00  1.548e+01  -0.097 0.923003
## plotIDUFRL-01-0105  1.500e+00  1.217e+01   0.123 0.902124
## plotIDUFRL-01-0106  1.500e+00  1.085e+01   0.138 0.890332
## plotIDUFRL-01-0154 -2.500e+00  5.812e+00  -0.430 0.668029
## plotIDUFRL-01-0155 -6.500e+00  5.912e+00  -1.099 0.274188
## plotIDUFRL-01-0160 -5.000e-01  8.182e+00  -0.061 0.951391
## plotIDUFRL-01-0161 -1.500e+00  8.848e+00  -0.170 0.865724
## plotIDUFRL-01-0162  1.500e+00  8.825e+00   0.170 0.865367
## plotIDUFRL-01-0163 -5.500e+00  9.077e+00  -0.606 0.545932
## plotIDUFRL-01-0164  1.500e+00  7.858e+00   0.191 0.848994
## plotIDUFRL-01-0165  5.000e-01  2.544e+01   0.020 0.984358
## plotIDUFRL-01-0166  5.000e-01  6.821e+00   0.073 0.941708
## plotIDUFRL-01-0167  1.500e+00  2.497e+01   0.060 0.952223
## plotIDUFRL-01-0168  1.500e+00  2.476e+01   0.061 0.951815
## plotIDUFRL-01-0169 -3.500e+00  2.465e+01  -0.142 0.887380
## plotIDUFRL-02-0001 -7.500e-01  1.253e+01  -0.060 0.952383
## plotIDUFRL-02-0002  2.250e+00  1.279e+01   0.176 0.860744
## plotIDUFRL-02-0003 -2.750e+00  1.258e+01  -0.219 0.827343
## plotIDUFRL-02-0004 -1.750e+00  1.263e+01  -0.139 0.890111
## plotIDUFRL-02-0005 -4.750e+00  9.987e+00  -0.476 0.635375
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## plotIDUFRL-02-0007 -2.750e+00  8.279e+00  -0.332 0.740448
## plotIDUFRL-02-0008 -1.750e+00  9.483e+00  -0.185 0.853966
## plotIDUFRL-02-0009  1.562e-01  9.556e+00   0.016 0.986987
## plotIDUFRL-02-0011 -5.313e-01  8.762e+00  -0.061 0.951774
## plotIDUFRL-02-0014 -4.844e+00  9.299e+00  -0.521 0.603596
## plotIDUFRL-02-0015 -1.844e+00  9.399e+00  -0.196 0.844874
## plotIDUFRL-02-0016 -4.750e+00  8.035e+00  -0.591 0.555715
## plotIDUFRL-02-0017  2.250e+00  9.297e+00   0.242 0.809265
## plotIDUFRL-02-0018  2.250e+00  8.569e+00   0.263 0.793405
## plotIDUFRL-02-0019 -7.500e-01  8.142e+00  -0.092 0.926792
## plotIDUFRL-02-0030 -1.750e+00  1.384e+01  -0.126 0.899611
## plotIDUFRL-02-0031  1.250e+00  1.661e+01   0.075 0.940154
## plotIDUFRL-02-0032  2.250e+00  1.614e+01   0.139 0.889399
## plotIDUFRL-02-0033 -1.750e+00  8.913e+00  -0.196 0.844737
## plotIDUFRL-02-0034  3.125e-01  8.713e+00   0.036 0.971459
## plotIDUFRL-02-0035 -1.750e+00  8.480e+00  -0.206 0.836916
## plotIDUFRL-02-0036  5.000e-01  5.568e+00   0.090 0.928621
## plotIDUFRL-02-0037 -3.750e+00  1.065e+01  -0.352 0.725428
## plotIDUFRL-02-0038 -2.250e+00  7.556e+00  -0.298 0.766489
## plotIDUFRL-02-0039 -3.500e+00  8.320e+00  -0.421 0.674891
## plotIDUFRL-02-0041 -1.750e+00  1.072e+01  -0.163 0.870673
## plotIDUFRL-02-0044  2.250e+00  9.533e+00   0.236 0.813889
## plotIDUFRL-02-0045 -2.750e+00  9.496e+00  -0.290 0.772712
## plotIDUFRL-02-0046 -7.500e-01  9.193e+00  -0.082 0.935138
## plotIDUFRL-02-0047 -7.500e-01  1.110e+01  -0.068 0.946286
## plotIDUFRL-02-0048  2.500e-01  1.080e+01   0.023 0.981573
## plotIDUFRL-02-0049  2.250e+00  9.655e+00   0.233 0.816211
## plotIDUFRL-02-0050 -1.750e+00  8.886e+00  -0.197 0.844278
## plotIDUFRL-02-0051 -4.750e+00  1.058e+01  -0.449 0.654298
## plotIDUFRL-02-0052  3.250e+00  9.957e+00   0.326 0.744786
## plotIDUFRL-02-0053 -7.500e-01  8.667e+00  -0.087 0.931209
## plotIDUFRL-02-0054 -2.750e+00  1.164e+01  -0.236 0.813656
## plotIDUFRL-02-0055  3.250e+00  1.126e+01   0.289 0.773487
## plotIDUFRL-02-0056  2.500e-01  1.008e+01   0.025 0.980269
## plotIDUFRL-02-0057  2.250e+00  9.753e+00   0.231 0.818007
## plotIDUFRL-02-0058 -7.500e-01  9.855e+00  -0.076 0.939488
## plotIDUFRL-02-0059 -7.500e-01  1.008e+01  -0.074 0.940834
## plotIDUFRL-02-0060 -1.563e+00  8.798e+00  -0.178 0.859396
## plotIDUFRL-02-0061  1.781e+00  7.609e+00   0.234 0.815381
## plotIDUFRL-02-0063 -2.500e+00  1.209e+01  -0.207 0.836644
## plotIDUFRL-02-0064 -2.500e+00  1.222e+01  -0.205 0.838246
## plotIDUFRL-02-0100  2.500e+00  1.741e+01   0.144 0.886095
## plotIDUFRL-02-0101 -5.000e-01  1.773e+01  -0.028 0.977555
## plotIDUFRL-02-0102 -5.000e-01  1.804e+01  -0.028 0.977948
## plotIDUFRL-02-0103  5.000e-01  1.805e+01   0.028 0.977958
## plotIDUFRL-02-0104 -4.500e+00  1.817e+01  -0.248 0.804922
## plotIDUFRL-02-0105 -2.500e+00  1.782e+01  -0.140 0.888739
## plotIDUFRL-02-0106  2.500e+00  1.773e+01   0.141 0.888145
## plotIDUFRL-02-0107 -1.500e+00  1.786e+01  -0.084 0.933252
## plotIDUFRL-02-0108  2.500e+00  1.802e+01   0.139 0.889942
## plotIDUFRL-02-0109  2.500e+00  1.707e+01   0.146 0.883856
## plotIDUFRL-02-0110  2.500e+00  1.730e+01   0.144 0.885419
## plotIDUFRL-02-0111 -2.500e+00  1.729e+01  -0.145 0.885299
## plotIDUFRL-02-0112 -4.500e+00  1.750e+01  -0.257 0.797536
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## plotIDUFRL-02-0113 -4.500e+00  1.692e+01  -0.266 0.790815
## plotIDUFRL-02-0114  2.500e+00  1.692e+01   0.148 0.882824
## plotIDUFRL-02-0115  1.500e+00  1.697e+01   0.088 0.929739
## plotIDUFRL-02-0116 -4.500e+00  1.899e+01  -0.237 0.813148
## plotIDUFRL-02-0117 -4.000e+00  1.929e+01  -0.207 0.836157
## plotIDUFRL-02-0118 -1.500e+00  1.872e+01  -0.080 0.936285
## plotIDUFRL-02-0119 -5.000e-01  1.884e+01  -0.027 0.978882
## plotIDUFRL-02-0120  5.000e-01  1.822e+01   0.027 0.978157
## plotIDUFRL-02-0121 -1.500e+00  1.808e+01  -0.083 0.934027
## plotIDUFRL-02-0122 -5.000e-01  1.826e+01  -0.027 0.978211
## plotIDUFRL-02-0123  5.000e-01  1.805e+01   0.028 0.977950
## plotIDUFRL-02-0124  5.000e-01  1.838e+01   0.027 0.978356
## plotIDUFRL-02-0125 -5.000e-01  1.828e+01  -0.027 0.978238
## plotIDUFRL-02-0126 -5.000e-01  1.981e+01  -0.025 0.979911
## plotIDUFRL-02-0127  2.500e+00  1.959e+01   0.128 0.898719
## plotIDUFRL-02-0128 -5.000e-01  2.076e+01  -0.024 0.980830
## plotIDUFRL-02-0129  2.500e+00  1.901e+01   0.131 0.895652
## plotIDUFRL-02-0136 -1.406e+00  2.073e+01  -0.068 0.946057
## plotIDUFRL-02-0137  5.000e-01  2.073e+01   0.024 0.980806
## plotIDUFRL-02-0138 -4.000e+00  2.049e+01  -0.195 0.845590
## plotIDUFRL-02-0139 -5.000e+00  2.201e+01  -0.227 0.820721
## plotIDUFRL-02-0142 -1.500e+00  2.085e+01  -0.072 0.942791
## plotIDUFRL-02-0144 -2.000e+00  1.978e+01  -0.101 0.919648
## plotIDUFRL-02-0145 -3.000e+00  2.045e+01  -0.147 0.883656
## plotIDUFRL-02-0146 -4.906e+00  2.146e+01  -0.229 0.819632
## plotIDUFRL-02-0148 -5.000e-01  2.120e+01  -0.024 0.981231
## plotIDUFRL-02-0149 -5.500e+00  2.173e+01  -0.253 0.800668
## plotIDUFRL-02-0152  5.937e-01  1.644e+01   0.036 0.971269
## plotIDUFRL-02-0153 -5.000e-01  1.660e+01  -0.030 0.976031
## plotIDUFRL-02-0154  5.000e-01  1.602e+01   0.031 0.975160
## plotIDUFRL-02-0155  5.000e-01  1.617e+01   0.031 0.975391
## plotIDUFRL-02-0156 -5.000e-01  1.575e+01  -0.032 0.974734
## plotIDUFRL-02-0157 -5.000e-01  1.574e+01  -0.032 0.974726
## plotIDUFRL-02-0158  5.000e-01  1.645e+01   0.030 0.975807
## plotIDUFRL-02-0159  2.500e-01  1.587e+01   0.016 0.987466
## plotIDUFRL-02-0160  7.500e-01  1.583e+01   0.047 0.962315
## plotIDUFRL-02-0161 -4.500e+00  1.675e+01  -0.269 0.788710
## plotIDUFRL-02-0162 -5.000e-01  1.624e+01  -0.031 0.975503
## plotIDUFRL-02-0163 -2.500e+00  1.616e+01  -0.155 0.877367
## plotIDUFRL-02-0164  5.000e-01  1.628e+01   0.031 0.975565
## plotIDUFRL-02-0165 -3.500e+00  1.668e+01  -0.210 0.834186
## plotIDUFRL-02-0166  5.000e-01  1.697e+01   0.029 0.976556
## plotIDUFRL-02-0167  5.000e-01  1.723e+01   0.029 0.976900
## plotIDUFRL-02-0176 -2.500e+00  8.666e+00  -0.288 0.773573
## plotIDUFRL-02-0177 -5.000e-01  7.724e+00  -0.065 0.948513
## plotIDUFRL-02-0178  2.500e+00  1.322e+01   0.189 0.850436
## plotIDUFRL-02-0999 -2.750e+00  8.400e+00  -0.327 0.744046
## plotIDUFRL-03-0001 -3.500e+00  2.484e+00  -1.409 0.161832
## plotIDUFRL-03-0002 -2.500e+00  1.349e+00  -1.854 0.066676 .
## plotIDUFRL-03-0003  3.500e+00  1.364e+00   2.566 0.011741 *
## plotIDUFRL-03-0004 -2.500e+00  1.543e+00  -1.620 0.108315
## plotIDUFRL-03-0005 -1.500e+00  1.923e+00  -0.780 0.437214
## plotIDUFRL-03-0007  2.500e+00  3.329e+00   0.751 0.454451
## plotIDUFRL-03-0008  5.000e-01  3.712e+00   0.135 0.893105
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## plotIDUFRL-03-0009  1.500e+00  3.397e+00   0.442 0.659742
## plotIDUFRL-03-0010 -5.000e-01  2.809e+00  -0.178 0.859082
## plotIDUFRL-03-0013  7.500e-01  4.939e+00   0.152 0.879615
## plotIDUFRL-03-0014  2.500e+00  2.822e+00   0.886 0.377800
## plotIDUFRL-03-0015 -7.500e-01  4.840e+00  -0.155 0.877164
## plotIDUFRL-03-0016 -3.500e+00  4.575e+00  -0.765 0.446002
## plotIDUFRL-03-0017 -5.000e-01  2.608e+00  -0.192 0.848366
## plotIDUFRL-03-0018 -2.500e+00  2.619e+00  -0.955 0.342025
## plotIDUFRL-03-0019  5.000e-01  1.685e+00   0.297 0.767294
## plotIDUFRL-03-0020 -5.500e+00  1.829e+00  -3.007 0.003327 **
## plotIDUFRL-03-0021 -3.500e+00  2.877e+00  -1.216 0.226672
## plotIDUFRL-03-0022 -3.500e+00  3.343e+00  -1.047 0.297676
## plotIDUFRL-03-0023 -5.500e+00  3.044e+00  -1.807 0.073738 .
## plotIDUFRL-03-0024 -2.500e+00  2.949e+00  -0.848 0.398634
## plotIDUFRL-03-0025 -5.000e-01  2.814e+00  -0.178 0.859319
## plotIDUFRL-03-0026 -1.500e+00  2.221e+00  -0.676 0.500887
## plotIDUFRL-03-0027 -2.500e+00  1.180e+00  -2.119 0.036549 *
## plotIDUFRL-03-0028  2.500e+00  1.160e+00   2.156 0.033468 *
## plotIDUFRL-05-0001 -4.750e+00  8.526e+00  -0.557 0.578685
## plotIDUFRL-05-0002 -4.750e+00  8.325e+00  -0.571 0.569565
## plotIDUFRL-05-0003 -2.750e+00  8.349e+00  -0.329 0.742561
## plotIDUFRL-05-0131 -4.500e+00  5.804e+00  -0.775 0.439972
## plotIDUFRL-05-0132 -2.000e+00  5.755e+00  -0.348 0.728913
## plotIDUFRL-05-0144 -3.500e+00  4.273e+00  -0.819 0.414712
## plotIDUFRL-05-0145 -3.500e+00  4.531e+00  -0.773 0.441610
## plotIDUFRL-05-0146 -3.500e+00  3.910e+00  -0.895 0.372798
## plotIDUFRL-05-0147 -3.500e+00  4.572e+00  -0.766 0.445700
## plotIDUFRL-05-0148 -2.500e+00  4.475e+00  -0.559 0.577653
## plotIDUFRL-05-0149 -3.500e+00  4.332e+00  -0.808 0.421042
## plotIDUFRL-05-0150 -3.500e+00  3.898e+00  -0.898 0.371384
## plotIDUFRL-05-0151 -5.000e-01  4.005e+00  -0.125 0.900892
## plotIDUFRL-05-0152 -1.500e+00  4.034e+00  -0.372 0.710819
## plotIDUFRL-05-0157 -3.500e+00  4.005e+00  -0.874 0.384226
## plotIDUFRL-05-0158 -3.500e+00  3.912e+00  -0.895 0.373116
## plotIDUFRL-05-0159 -3.500e+00  3.916e+00  -0.894 0.373519
## plotIDUFRL-2A-0142 -3.500e+00  5.585e+00  -0.627 0.532257
## plotIDUFRL-2A-0143 -3.500e+00  5.521e+00  -0.634 0.527551
## plotIDULRY-04-0001 -2.000e+00  1.419e+01  -0.141 0.888171
## plotIDULRY-04-0004  2.000e+00  2.278e+01   0.088 0.930217
## plotIDULRY-04-0005 -2.000e+00  1.888e+01  -0.106 0.915838
## plotIDULRY-04-0006 -5.000e+00  1.942e+01  -0.258 0.797309
## plotIDULRY-04-0009  1.000e+00  1.916e+01   0.052 0.958469
## plotIDULRY-04-0011 -3.000e+00  1.868e+01  -0.161 0.872740
## plotIDULRY-04-0014  3.625e-11  1.697e+01   0.000 1.000000
## plotIDULRY-04-0016  3.792e-11  1.777e+01   0.000 1.000000
## plotIDULRY-04-0018  2.000e+00  1.571e+01   0.127 0.898954
## plotIDULRY-04-0019 -2.000e+00  1.566e+01  -0.128 0.898652
## plotIDULRY-04-0020 -2.000e+00  2.624e+01  -0.076 0.939400
## plotIDULRY-04-0021  2.000e+00  2.337e+01   0.086 0.931981
## plotIDULRY-04-0022  1.000e+00  2.250e+01   0.044 0.964631
## plotIDULRY-04-0023 -1.000e+00  2.706e+01  -0.037 0.970590
## plotIDULRY-04-0031  1.000e+00  1.419e+01   0.070 0.943945
## plotIDULRY-04-0032  1.000e+00  1.447e+01   0.069 0.945052
## plotIDULRY-04-0033  1.000e+00  1.532e+01   0.065 0.948100
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## plotIDULRY-04-0034  1.000e+00  8.415e+00   0.119 0.905640
## plotIDULRY-04-0035  1.000e+00  8.498e+00   0.118 0.906556
## plotIDULRY-04-0036  1.000e+00  6.791e+00   0.147 0.883228
## plotIDULRY-04-0037  1.000e+00  9.450e+00   0.106 0.915935
## plotIDULRY-04-0038 -1.832e-11  9.131e+00   0.000 1.000000
## plotIDULRY-04-0039 -1.000e+00  7.478e+00  -0.134 0.893882
## plotIDULRY-04-0040 -2.051e-11  1.038e+01   0.000 1.000000
## plotIDULRY-04-0041 -2.141e-11  1.066e+01   0.000 1.000000
## plotIDULRY-04-0042  1.000e+00  1.742e+01   0.057 0.954341
## plotIDULRY-04-0044 -4.531e-11  2.161e+01   0.000 1.000000
## plotIDULRY-04-0047  1.000e+00  1.923e+01   0.052 0.958624
## plotIDULRY-04-0048  1.000e+00  1.969e+01   0.051 0.959602
## plotIDULRY-04-0052 -3.445e-11  1.644e+01   0.000 1.000000
## plotIDULRY-04-0054  1.000e+00  1.569e+01   0.064 0.949307
## plotIDULRY-04-0055  1.000e+00  1.543e+01   0.065 0.948446
## plotIDULRY-04-0060 -1.000e+00  9.333e+00  -0.107 0.914886
## plotIDULRY-04-0063  3.981e-11  1.885e+01   0.000 1.000000
## plotIDULRY-04-0064  1.000e+00  2.495e+01   0.040 0.968106
## plotIDULRY-04-0065 -3.000e+00  2.521e+01  -0.119 0.905521
## plotIDULRY-04-0068 -5.000e+00  2.712e+01  -0.184 0.854089
## plotIDULRY-04-0073 -2.000e+00  1.957e+01  -0.102 0.918805
## plotIDULRY-04-0076 -3.000e+00  1.467e+01  -0.205 0.838366
## plotIDULRY-04-0079 -1.000e+00  2.334e+01  -0.043 0.965916
## plotIDULRY-04-0080  5.284e-11  2.464e+01   0.000 1.000000
## plotIDULRY-04-0082 -3.000e+00  2.753e+01  -0.109 0.913437
## plotIDULRY-04-0084 -1.000e+00  2.094e+01  -0.048 0.961998
## plotIDULRY-04-0085 -2.000e+00  2.866e+01  -0.070 0.944508
## plotIDULRY-04-0086 -2.000e+00  2.811e+01  -0.071 0.943418
## plotIDULRY-04-0087  4.363e-11  2.048e+01   0.000 1.000000
## plotIDULRY-04-0088  1.000e+00  8.715e+00   0.115 0.908877
## plotIDULRY-04-0089 -2.678e-11  1.283e+01   0.000 1.000000
## plotIDULRY-04-0097 -5.000e+00  1.715e+01  -0.292 0.771262
## plotIDULRY-04-0099  1.000e+00  2.590e+01   0.039 0.969280
## plotIDULRY-04-0100  1.000e+00  2.566e+01   0.039 0.968996
## plotIDULRY-04-0102 -2.465e-11  1.174e+01   0.000 1.000000
## plotIDULRY-04-0103  5.139e-11  2.407e+01   0.000 1.000000
## plotIDULRY-04-0109  3.623e-11  1.697e+01   0.000 1.000000
## plotIDULRY-04-0110  1.000e+00  1.704e+01   0.059 0.953321
## plotIDULRY-04-0111  2.000e+00  1.694e+01   0.118 0.906266
## plotIDULRY-04-0116  2.584e-11  1.197e+01   0.000 1.000000
## plotIDULRY-04-0118  6.108e-11  2.883e+01   0.000 1.000000
## plotIDULRY-04-0119 -3.308e-11  1.634e+01   0.000 1.000000
## plotIDULRY-04-0120 -1.000e+00  1.656e+01  -0.060 0.951967
## plotIDULRY-04-0122 -4.000e+00  1.418e+01  -0.282 0.778481
## plotIDULRY-04-0124 -3.414e-11  1.660e+01   0.000 1.000000
## plotIDULRY-04-0126  2.000e+00  1.610e+01   0.124 0.901389
## plotIDULRY-04-0127  1.000e+00  1.904e+01   0.053 0.958223
## plotIDULRY-04-0128  1.000e+00  1.852e+01   0.054 0.957042
## plotIDULRY-04-0129  1.000e+00  1.853e+01   0.054 0.957060
## plotIDULRY-04-0130  1.000e+00  2.299e+01   0.044 0.965386
## plotIDULRY-04-0131 -3.000e+00  2.309e+01  -0.130 0.896878
## plotIDULRY-04-0132 -1.000e+00  2.309e+01  -0.043 0.965544
## plotIDULRY-04-0135  1.000e+00  1.351e+01   0.074 0.941160
## plotIDULRY-04-0136  2.755e-11  1.288e+01   0.000 1.000000
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## plotIDULRY-04-0137  1.000e+00  1.316e+01   0.076 0.939598
## plotIDULRY-04-0140  4.208e-11  1.975e+01   0.000 1.000000
## plotIDULRY-04-0152 -1.000e+00  1.402e+01  -0.071 0.943262
## plotIDULRY-04-0153 -3.000e+00  1.407e+01  -0.213 0.831622
## plotIDULRY-05-0200  1.000e+00  8.695e+00   0.115 0.908668
## plotIDULRY-05-0202 -4.000e+00  1.300e+01  -0.308 0.759035
## plotIDULRY-05-0204  1.000e+00  1.305e+01   0.077 0.939092
## plotIDULRY-05-0205 -3.000e+00  1.297e+01  -0.231 0.817498
## plotIDULRY-05-0206 -1.167e-11  6.087e+00   0.000 1.000000
## plotIDULRY-05-0208 -2.616e-11  1.262e+01   0.000 1.000000
## plotIDULRY-05-0209 -2.558e-11  1.239e+01   0.000 1.000000
## plotIDULRY-05-0211 -4.000e+00  8.620e+00  -0.464 0.643636
## plotIDULRY-05-0212 -2.094e-11  1.005e+01   0.000 1.000000
## plotIDULRY-05-0214 -4.000e+00  1.155e+01  -0.346 0.729712
## plotIDULRY-05-0215 -1.000e+00  1.290e+01  -0.078 0.938378
## plotIDULRY-05-0216  1.000e+00  1.552e+01   0.064 0.948745
## plotIDULRY-05-0217  1.000e+00  1.540e+01   0.065 0.948363
## plotIDULRY-05-0218 -3.257e-11  1.559e+01   0.000 1.000000
## plotIDULRY-05-0219 -1.000e+00  9.186e+00  -0.109 0.913527
## plotIDULRY-05-0220  1.000e+00  9.861e+00   0.101 0.919430
## plotIDULRY-05-0222  1.000e+00  9.796e+00   0.102 0.918898
## plotIDULRY-05-0224 -1.000e+00  1.193e+01  -0.084 0.933375
## plotIDULRY-05-0226 -1.528e-11  7.484e+00   0.000 1.000000
## plotIDULRY-05-0227  1.000e+00  7.172e+00   0.139 0.889381
## plotIDULRY-05-0228  1.000e+00  1.151e+01   0.087 0.930922
## plotIDULRY-05-0234  1.000e+00  1.400e+01   0.071 0.943187
## plotIDULRY-05-0237 -1.000e+00  8.092e+00  -0.124 0.901889
## plotIDULRY-05-0238 -1.349e-11  6.819e+00   0.000 1.000000
## plotIDULRY-05-0239 -1.688e-11  8.403e+00   0.000 1.000000
## plotIDULRY-05-0240  1.000e+00  1.217e+01   0.082 0.934694
## plotIDULRY-05-0242 -2.648e-11  1.276e+01   0.000 1.000000
## plotIDULRY-05-0245  1.000e+00  1.762e+01   0.057 0.954853
## plotIDULRY-05-0248 -5.000e+00  2.176e+01  -0.230 0.818718
## plotIDULRY-05-0249 -1.000e+00  2.555e+01  -0.039 0.968852
## plotIDULRY-05-0253 -3.000e+00  1.882e+01  -0.159 0.873657
## plotIDULRY-05-0255 -3.660e-11  1.766e+01   0.000 1.000000
## plotIDULRY-05-0256  2.000e+00  1.951e+01   0.103 0.918553
## plotIDULRY-05-0257 -4.157e-11  2.004e+01   0.000 1.000000
## plotIDULRY-05-0258 -4.489e-11  2.172e+01   0.000 1.000000
## plotIDULRY-05-0259 -2.000e+00  2.167e+01  -0.092 0.926651
## plotIDULRY-05-0260  2.000e+00  2.048e+01   0.098 0.922417
## plotIDULRY-05-0261 -3.103e-11  1.495e+01   0.000 1.000000
## plotIDULRY-05-0262 -2.000e+00  1.599e+01  -0.125 0.900716
## plotIDULRY-05-0263  2.000e+00  1.560e+01   0.128 0.898240
## plotIDULRY-05-0264 -1.000e+00  1.179e+01  -0.085 0.932548
## plotIDULRY-05-0265 -2.597e-11  1.253e+01   0.000 1.000000
## plotIDULRY-05-0266  1.000e+00  1.183e+01   0.085 0.932808
## plotIDWHCA-01-0050 -2.813e-11  1.352e+01   0.000 1.000000
## plotIDWHCA-01-0051 -2.768e-11  1.332e+01   0.000 1.000000
## plotIDWHCA-01-0055 -2.075e-11  1.034e+01   0.000 1.000000
## plotIDWHCA-01-0056 -2.037e-11  1.017e+01   0.000 1.000000
## plotIDWHCA-01-0057 -2.096e-11  1.048e+01   0.000 1.000000
## plotIDWHCA-01-0058 -1.989e-11  9.965e+00   0.000 1.000000
## plotIDWHCA-01-0059 -2.936e-11  1.406e+01   0.000 1.000000
```

```
## plotIDWHCA-01-0060 -1.000e+00  1.395e+01  -0.072 0.942984
## plotIDWHCA-01-0061 -2.980e-11  1.428e+01   0.000 1.000000
## plotIDWHCA-01-0062 -2.928e-11  1.405e+01   0.000 1.000000
## plotIDWHCA-01-0063 -2.979e-11  1.424e+01   0.000 1.000000
## plotIDWHCA-01-0064 -3.755e-11  1.783e+01   0.000 1.000000
## plotIDWHCA-01-0065  1.000e+00  1.764e+01   0.057 0.954899
## plotIDWHCA-01-0066 -3.716e-11  1.764e+01   0.000 1.000000
## plotIDWHCA-01-0070 -2.000e+00  1.506e+01  -0.133 0.894648
## plotIDWHCA-01-0071 -3.091e-11  1.502e+01   0.000 1.000000
## plotIDWHCA-01-0072 -1.000e+00  1.518e+01  -0.066 0.947609
## plotIDWHCA-01-0074 -5.000e+00  1.500e+01  -0.333 0.739648
## plotIDWHCA-01-0075 -5.000e+00  1.508e+01  -0.332 0.740906
## plotIDWHCA-02-0044 -4.000e+00  9.532e+00  -0.420 0.675645
## plotIDWHCA-02-0045 -3.000e+00  9.505e+00  -0.316 0.752940
## plotIDWHCA-02-0046 -1.908e-11  9.192e+00   0.000 1.000000
## plotIDWHCA-02-0047 -2.311e-11  1.108e+01   0.000 1.000000
## plotIDWHCA-02-0048  1.000e+00  1.080e+01   0.093 0.926377
## plotIDWHCA-02-0049 -1.999e-11  9.612e+00   0.000 1.000000
## plotIDWHCA-02-0050 -1.000e+00  8.861e+00  -0.113 0.910368
## plotIDWHCA-02-0052  1.000e+00  9.980e+00   0.100 0.920385
## plotIDWHCA-02-0053 -1.790e-11  8.639e+00   0.000 1.000000
## plotIDWHCA-02-0054 -4.000e+00  1.154e+01  -0.347 0.729535
## plotIDWHCA-02-0055 -2.337e-11  1.119e+01   0.000 1.000000
## plotIDWHCA-02-0056  1.000e+00  1.006e+01   0.099 0.921021
## plotIDWHCA-02-0057 -2.037e-11  9.782e+00   0.000 1.000000
## plotIDWHCA-02-0059 -2.091e-11  1.007e+01   0.000 1.000000
## plotIDWHCA-02-0100 -1.000e+00  1.740e+01  -0.057 0.954271
## plotIDWHCA-02-0101 -2.000e+00  1.762e+01  -0.113 0.909869
## plotIDWHCA-02-0102 -3.782e-11  1.803e+01   0.000 1.000000
## plotIDWHCA-02-0103  1.000e+00  1.805e+01   0.055 0.955919
## plotIDWHCA-02-0104 -4.000e+00  1.817e+01  -0.220 0.826177
## plotIDWHCA-02-0105 -4.000e+00  1.777e+01  -0.225 0.822342
## plotIDWHCA-02-0106 -3.714e-11  1.772e+01   0.000 1.000000
## plotIDWHCA-02-0107 -1.000e+00  1.786e+01  -0.056 0.955458
## plotIDWHCA-02-0108 -1.000e+00  1.802e+01  -0.055 0.955855
## plotIDWHCA-02-0109  1.000e+00  1.707e+01   0.059 0.953390
## plotIDWHCA-02-0110  1.000e+00  1.731e+01   0.058 0.954053
## plotIDWHCA-02-0111 -2.000e+00  1.728e+01  -0.116 0.908095
## plotIDWHCA-02-0112 -4.000e+00  1.749e+01  -0.229 0.819556
## plotIDWHCA-02-0113 -4.000e+00  1.691e+01  -0.237 0.813520
## plotIDWHCA-02-0114 -3.534e-11  1.688e+01   0.000 1.000000
## plotIDWHCA-02-0115 -3.538e-11  1.690e+01   0.000 1.000000
## plotIDWHCA-02-0120  1.000e+00  1.821e+01   0.055 0.956319
## plotIDWHCA-02-0121 -1.000e+00  1.807e+01  -0.055 0.955975
## plotIDWHCA-02-0122 -3.830e-11  1.826e+01   0.000 1.000000
## plotIDWHCA-02-0124  1.000e+00  1.838e+01   0.054 0.956712
## plotIDWHCA-02-0125 -3.845e-11  1.828e+01   0.000 1.000000
## plotIDWHCA-02-0126 -4.171e-11  1.980e+01   0.000 1.000000
## plotIDWHCA-02-0127 -4.127e-11  1.959e+01   0.000 1.000000
## plotIDWHCA-02-0128 -4.370e-11  2.075e+01   0.000 1.000000
## plotIDWHCA-02-0129 -3.813e-11  1.815e+01   0.000 1.000000
## plotIDWHCA-02-0142 -4.000e+00  2.067e+01  -0.194 0.846907
## plotIDWHCA-02-0144 -1.000e+00  1.979e+01  -0.051 0.959797
## plotIDWHCA-02-0145 -3.000e+00  2.044e+01  -0.147 0.883578
```

```
## plotIDWHCA-02-0146 -4.000e+00  2.146e+01  -0.186 0.852542
## plotIDWHCA-02-0148 -4.463e-11  2.120e+01   0.000 1.000000
## plotIDWHCA-02-0149 -5.000e+00  2.170e+01  -0.230 0.818241
## plotIDWHCA-02-0161 -4.000e+00  1.674e+01  -0.239 0.811650
## plotIDWHCA-02-0162 -3.405e-11  1.624e+01   0.000 1.000000
## plotIDWHCA-02-0163 -2.000e+00  1.615e+01  -0.124 0.901710
## plotIDWHCA-02-0164  1.000e+00  1.627e+01   0.061 0.951108
## plotIDWHCA-03-0002 -3.000e+00  1.255e+00  -2.390 0.018700 *
## plotIDWHCA-03-0003  1.000e+00  1.326e+00   0.754 0.452622
## plotIDWHCA-03-0004 -2.000e+00  1.463e+00  -1.367 0.174512
## plotIDWHCA-03-0005 -1.000e+00  1.859e+00  -0.538 0.591833
## plotIDWHCA-03-0007 -4.658e-12  3.286e+00   0.000 1.000000
## plotIDWHCA-03-0008 -1.000e+00  3.623e+00  -0.276 0.783120
## plotIDWHCA-03-0009  2.000e+00  3.362e+00   0.595 0.553264
## plotIDWHCA-03-0010 -1.000e+00  2.747e+00  -0.364 0.716592
## plotIDWHCA-03-0013  1.000e+00  4.969e+00   0.201 0.840895
## plotIDWHCA-03-0014  1.000e+00  2.793e+00   0.358 0.721018
## plotIDWHCA-03-0015 -8.196e-12  4.892e+00   0.000 1.000000
## plotIDWHCA-03-0016 -3.000e+00  4.528e+00  -0.663 0.509118
## plotIDWHCA-03-0020 -5.000e+00  1.762e+00  -2.838 0.005481 **
## plotIDWHCA-03-0021 -5.000e+00  2.893e+00  -1.728 0.087036 .
## plotIDWHCA-03-0022 -3.000e+00  3.288e+00  -0.912 0.363718
## plotIDWHCA-03-0024 -2.000e+00  2.898e+00  -0.690 0.491643
## plotIDWHCA-03-0025 -1.000e+00  2.784e+00  -0.359 0.720177
## plotIDWHCA-03-0027 -2.000e+00  1.072e+00  -1.865 0.065092 .
## plotIDWHCA-03-0028  8.893e-14  1.050e+00   0.000 1.000000
## plotIDWISR-01-0087 -4.000e+00  4.369e+01  -0.092 0.927228
## date00-00-1977      7.500e-01  6.956e-01   1.078 0.283536
## date00-00-1978      5.000e-01  4.919e-01   1.016 0.311826
## date00-00-1979      1.500e+00  4.919e-01   3.049 0.002927 **
## date00-00-1982             NA         NA      NA       NA
## date00-00-2001      3.125e-01  6.149e-01   0.508 0.612390
## date05-03-2001     -5.000e-01  8.520e-01  -0.587 0.558601
## date05-08-1998             NA         NA      NA       NA
## date05-09-2002             NA         NA      NA       NA
## date05-10-2002             NA         NA      NA       NA
## date05-21-2001      1.500e+00  8.520e-01   1.761 0.081332 .
## date05-21-2004             NA         NA      NA       NA
## date05-22-2004             NA         NA      NA       NA
## date05-23-2000     -2.500e-01  9.838e-01  -0.254 0.799918
## date05-24-2004             NA         NA      NA       NA
## date05-25-2000      3.750e+00  9.838e-01   3.812 0.000237 ***
## date05-25-2004             NA         NA      NA       NA
## date05-26-2004             NA         NA      NA       NA
## date05-27-1998             NA         NA      NA       NA
## date05-27-1999             NA         NA      NA       NA
## date05-30-2000      1.500e+00  8.520e-01   1.761 0.081332 .
## date05-31-2000      7.500e-01  9.838e-01   0.762 0.447618
## date05-31-2001     -2.250e+00  9.838e-01  -2.287 0.024276 *
## date06-01-1998             NA         NA      NA       NA
## date06-02-1998             NA         NA      NA       NA
## date06-02-2000             NA         NA      NA       NA
## date06-03-1998             NA         NA      NA       NA
## date06-04-2002      7.500e-01  9.838e-01   0.762 0.447618
```

```
## date06-07-1998                  NA        NA      NA        NA
## date06-07-2000       4.066e-14  6.956e-01   0.000 1.000000
## date06-08-1998                  NA        NA      NA        NA
## date06-10-1998                  NA        NA      NA        NA
## date06-10-2004                  NA        NA      NA        NA
## date06-11-1996                  NA        NA      NA        NA
## date06-11-2004                  NA        NA      NA        NA
## date06-12-1996                  NA        NA      NA        NA
## date06-12-1998                  NA        NA      NA        NA
## date06-12-2004                  NA        NA      NA        NA
## date06-13-2004                  NA        NA      NA        NA
## date06-14-2000      -1.250e+00  9.838e-01  -1.271 0.206786
## date06-14-2004                  NA        NA      NA        NA
## date06-15-1998                  NA        NA      NA        NA
## date06-15-2004                  NA        NA      NA        NA
## date06-16-1998                  NA        NA      NA        NA
## date06-16-2004                  NA        NA      NA        NA
## date06-17-1998                  NA        NA      NA        NA
## date06-17-2002       7.500e-01  9.838e-01   0.762 0.447618
## date06-17-2004                  NA        NA      NA        NA
## date06-18-1996                  NA        NA      NA        NA
## date06-18-1998                  NA        NA      NA        NA
## date06-19-1990                  NA        NA      NA        NA
## date06-19-2004                  NA        NA      NA        NA
## date06-20-1996                  NA        NA      NA        NA
## date06-21-1999                  NA        NA      NA        NA
## date06-22-1998                  NA        NA      NA        NA
## date06-23-1998                  NA        NA      NA        NA
## date06-24-1998                  NA        NA      NA        NA
## date06-27-2000       1.750e+00  9.838e-01   1.779 0.078272 .
## date06-27-2004                  NA        NA      NA        NA
## date06-29-1998                  NA        NA      NA        NA
## date06-29-2000       1.500e+00  8.520e-01   1.761 0.081332 .
## date06-30-1998                  NA        NA      NA        NA
## date07-01-1976                  NA        NA      NA        NA
## date07-01-1996                  NA        NA      NA        NA
## date07-01-1998                  NA        NA      NA        NA
## date07-02-1976                  NA        NA      NA        NA
## date07-02-1996                  NA        NA      NA        NA
## date07-02-1998                  NA        NA      NA        NA
## date07-02-2001       1.500e+00  8.520e-01   1.761 0.081332 .
## date07-06-2000       1.500e+00  8.520e-01   1.761 0.081332 .
## date07-07-1998                  NA        NA      NA        NA
## date07-07-2000      -1.500e+00  8.520e-01  -1.761 0.081332 .
## date07-07-2004                  NA        NA      NA        NA
## date07-08-1998                  NA        NA      NA        NA
## date07-08-2004                  NA        NA      NA        NA
## date07-09-1996                  NA        NA      NA        NA
## date07-09-1998                  NA        NA      NA        NA
## date07-10-2002      -6.250e-02  7.064e-01  -0.088 0.929675
## date07-13-1996                  NA        NA      NA        NA
## date07-13-1998                  NA        NA      NA        NA
## date07-13-2000      -2.500e-01  9.838e-01  -0.254 0.799918
## date07-14-1998                  NA        NA      NA        NA
```

```
## date07-15-1996            NA        NA        NA        NA
## date07-15-1998            NA        NA        NA        NA
## date07-15-2002            NA        NA        NA        NA
## date07-16-1996            NA        NA        NA        NA
## date07-16-1998            NA        NA        NA        NA
## date07-16-2002     6.250e-01  7.378e-01     0.847  0.398957
## date07-17-1996            NA        NA        NA        NA
## date07-17-1998            NA        NA        NA        NA
## date07-17-2000     3.500e+00  8.520e-01     4.108  8.12e-05 ***
## date07-17-2002     1.750e+00  9.838e-01     1.779  0.078272 .
## date07-18-2000     1.500e+00  8.520e-01     1.761  0.081332 .
## date07-18-2002    -1.250e+00  9.838e-01    -1.271  0.206786
## date07-19-2000     5.000e-01  8.520e-01     0.587  0.558601
## date07-20-1998            NA        NA        NA        NA
## date07-21-1997            NA        NA        NA        NA
## date07-21-1998            NA        NA        NA        NA
## date07-22-1996            NA        NA        NA        NA
## date07-22-1998            NA        NA        NA        NA
## date07-22-2002            NA        NA        NA        NA
## date07-23-1997            NA        NA        NA        NA
## date07-23-1998            NA        NA        NA        NA
## date07-23-2002            NA        NA        NA        NA
## date07-24-1996            NA        NA        NA        NA
## date07-24-1997            NA        NA        NA        NA
## date07-24-2002            NA        NA        NA        NA
## date07-25-1996            NA        NA        NA        NA
## date07-25-2000     5.000e-01  6.956e-01     0.719  0.473945
## date07-26-2002            NA        NA        NA        NA
## date07-27-1998            NA        NA        NA        NA
## date07-28-1998            NA        NA        NA        NA
## date07-28-1999            NA        NA        NA        NA
## date07-29-1996            NA        NA        NA        NA
## date07-29-1998            NA        NA        NA        NA
## date07-30-1996            NA        NA        NA        NA
## date07-30-1998            NA        NA        NA        NA
## date07-31-1998            NA        NA        NA        NA
## date07-31-2002     1.500e+00  8.520e-01     1.761  0.081332 .
## date08-01-2000    -1.250e+00  9.838e-01    -1.271  0.206786
## date08-03-1998            NA        NA        NA        NA
## date08-04-1997            NA        NA        NA        NA
## date08-04-1998            NA        NA        NA        NA
## date08-04-1999            NA        NA        NA        NA
## date08-05-1997            NA        NA        NA        NA
## date08-05-1998            NA        NA        NA        NA
## date08-06-1997            NA        NA        NA        NA
## date08-06-1998            NA        NA        NA        NA
## date08-06-2001            NA        NA        NA        NA
## date08-07-1996            NA        NA        NA        NA
## date08-07-1997            NA        NA        NA        NA
## date08-07-1998            NA        NA        NA        NA
## date08-08-1996            NA        NA        NA        NA
## date08-08-1997            NA        NA        NA        NA
## date08-08-2001            NA        NA        NA        NA
## date08-09-2000     5.000e-01  8.520e-01     0.587  0.558601
```

```
## date08-09-2001       5.000e-01  8.520e-01   0.587 0.558601
## date08-11-1998             NA        NA      NA       NA
## date08-12-1998             NA        NA      NA       NA
## date08-13-1996             NA        NA      NA       NA
## date08-13-1998             NA        NA      NA       NA
## date08-14-1996             NA        NA      NA       NA
## date08-15-2000             NA        NA      NA       NA
## date08-16-2000             NA        NA      NA       NA
## date08-17-1998             NA        NA      NA       NA
## date08-18-1997             NA        NA      NA       NA
## date08-19-1996             NA        NA      NA       NA
## date08-19-1997             NA        NA      NA       NA
## date08-20-1997             NA        NA      NA       NA
## date08-21-1998             NA        NA      NA       NA
## date08-22-1998             NA        NA      NA       NA
## date08-26-1996             NA        NA      NA       NA
## date08-26-2002             NA        NA      NA       NA
## date08-27-1996             NA        NA      NA       NA
## date08-27-2001             NA        NA      NA       NA
## date08-28-1996             NA        NA      NA       NA
## date08-28-2002             NA        NA      NA       NA
## date08-29-1996             NA        NA      NA       NA
## date08-29-2000             NA        NA      NA       NA
## date08-29-2001             NA        NA      NA       NA
## date08-29-2002             NA        NA      NA       NA
## date08-30-2001             NA        NA      NA       NA
## date08-31-2001             NA        NA      NA       NA
## date09-03-1996             NA        NA      NA       NA
## date09-03-1997             NA        NA      NA       NA
## date09-04-1996             NA        NA      NA       NA
## date09-04-1997             NA        NA      NA       NA
## date09-04-1998             NA        NA      NA       NA
## date09-05-1996             NA        NA      NA       NA
## date09-05-1998             NA        NA      NA       NA
## date09-10-1996             NA        NA      NA       NA
## date09-10-1998             NA        NA      NA       NA
## date09-10-2001       5.000e-01  8.520e-01   0.587 0.558601
## date09-11-1998             NA        NA      NA       NA
## date09-11-2001             NA        NA      NA       NA
## date09-15-1997             NA        NA      NA       NA
## date09-16-1997             NA        NA      NA       NA
## date09-18-2000             NA        NA      NA       NA
## date09-19-2000             NA        NA      NA       NA
## date09-23-1997             NA        NA      NA       NA
## date09-24-1998             NA        NA      NA       NA
## date09-25-1997             NA        NA      NA       NA
## date10-06-1998             NA        NA      NA       NA
## date10-13-1998             NA        NA      NA       NA
## date10-19-1998             NA        NA      NA       NA
## date10-29-1998             NA        NA      NA       NA
## plotsize                   NA        NA      NA       NA
## utme                 -1.241e-15  5.853e-04   0.000 1.000000
## utmn                 -2.315e-15  1.221e-03   0.000 1.000000
## elev                 -1.140e-15  4.379e-03   0.000 1.000000
```

```
## tci                    2.190e-14  5.463e-02   0.000 1.000000
## streamdist             1.452e-15  2.085e-03   0.000 1.000000
## disturbLT-SEL          4.304e-13  7.105e-01   0.000 1.000000
## disturbSETTLE          1.703e-13  9.533e-01   0.000 1.000000
## disturbVIRGIN          2.813e-13  9.920e-01   0.000 1.000000
## beers                  1.021e-13  1.891e-01   0.000 1.000000
## ---
## Signif. codes:  0 '***' 0.001 '**' 0.01 '*' 0.05 '.' 0.1 ' ' 1
##
## Residual standard error: 0.6956 on 101 degrees of freedom
##   (1 observation deleted due to missingness)
## Multiple R-squared:  0.9852, Adjusted R-squared:  0.884
## F-statistic: 9.737 on 692 and 101 DF,  p-value: < 2.2e-16
```

2.) Using the glm function, I created two models to analyze the Acer dataset and the Abies dataset.

```
acer_glm = glm(cover ~ . , data = Acer, family = "poisson")
abies_glm = glm(cover ~ ., data = Abies, family = "poisson")
```

```
summary(acer_glm)
```

```
##
## Call:
## glm(formula = cover ~ ., family = "poisson", data = Acer)
##
## Deviance Residuals:
##     Min       1Q   Median       3Q      Max
## -0.9222   0.0000   0.0000   0.0000   0.8731
##
## Coefficients: (152 not defined because of singularities)
##                      Estimate Std. Error z value Pr(>|z|)
## (Intercept)          1.792e+00  3.456e+03   0.001    1.000
## plotIDATBN-01-0304   1.542e-01  6.880e-01   0.224    0.823
## plotIDATBN-01-0305  -1.823e-01  1.782e+00  -0.102    0.918
## plotIDATBN-01-0306   1.542e-01  9.216e+00   0.017    0.987
## plotIDATBN-01-0307  -1.823e-01  9.164e+00  -0.020    0.984
## plotIDATBN-01-0308  -4.055e-01  9.169e+00  -0.044    0.965
## plotIDATBN-01-0312  -1.099e+00  4.448e+00  -0.247    0.805
## plotIDATBN-01-0313   1.542e-01  5.946e+00   0.026    0.979
## plotIDATBN-01-0314  -4.055e-01  6.968e+00  -0.058    0.954
## plotIDATBN-01-0401   1.542e-01  1.550e+01   0.010    0.992
## plotIDATBN-01-0402  -6.349e-13  1.518e+01   0.000    1.000
## plotIDATBN-01-0407   9.224e-14  6.731e-01   0.000    1.000
## plotIDATBN-01-0408  -1.792e+00  1.745e+00  -1.027    0.305
## plotIDATBN-01-0409  -1.792e+00  1.393e+00  -1.286    0.198
## plotIDATBN-01-0410  -6.084e-13  1.417e+01   0.000    1.000
## plotIDATBN-01-0412  -1.792e+00  1.536e+01  -0.117    0.907
## plotIDATBN-01-0414  -1.792e+00  1.648e+01  -0.109    0.913
## plotIDATBN-01-0415  -4.702e-13  9.305e+00   0.000    1.000
## plotIDATBN-01-0503  -1.823e-01  1.873e+01  -0.010    0.992
## plotIDATBN-01-0504  -5.944e-13  1.368e+01   0.000    1.000
## plotIDATBN-01-0505  -1.823e-01  1.843e+01  -0.010    0.992
## plotIDATBN-01-0506  -7.535e-13  1.858e+01   0.000    1.000
```

```
## plotIDATBN-01-0512 -2.659e-13  9.560e+00   0.000    1.000
## plotIDATBN-01-0513  1.542e-01  5.869e+00   0.026    0.979
## plotIDATBN-01-0518  1.542e-01  1.897e+01   0.008    0.994
## plotIDATBN-01-0519 -5.762e-14  8.882e+00   0.000    1.000
## plotIDATBN-01-0521 -1.792e+00  9.296e+00  -0.193    0.847
## plotIDATBN-01-0522 -1.792e+00  9.272e+00  -0.193    0.847
## plotIDATBN-01-0523 -1.792e+00  9.055e+00  -0.198    0.843
## plotIDATBN-01-0525 -4.055e-01  8.899e+00  -0.046    0.964
## plotIDATBN-01-0529  1.542e-01  1.632e+01   0.009    0.992
## plotIDATBN-01-0544 -4.645e-13  9.228e+00   0.000    1.000
## plotIDATBN-01-0551 -6.154e-13  1.521e+01   0.000    1.000
## plotIDATBN-01-0557 -4.055e-01  1.027e+01  -0.039    0.969
## plotIDATBN-01-0558 -4.055e-01  9.859e+00  -0.041    0.967
## plotIDATBN-01-0561 -6.931e-01  5.750e+00  -0.121    0.904
## plotIDATBP-01-0011  2.877e-01  1.873e+01   0.015    0.988
## plotIDATBP-01-0013 -1.099e+00  2.599e+01  -0.042    0.966
## plotIDATBP-01-0015  1.542e-01  1.885e+01   0.008    0.993
## plotIDATBP-01-0017 -4.055e-01  1.161e+01  -0.035    0.972
## plotIDATBP-01-0018 -1.099e+00  2.582e+00  -0.426    0.670
## plotIDDELL-02-0042 -1.099e+00  8.204e+00  -0.134    0.893
## plotIDDELL-02-0043 -1.792e+00  7.899e+00  -0.227    0.821
## plotIDDELL-02-0045 -1.099e+00  6.624e+00  -0.166    0.868
## plotIDDELL-02-0052  2.877e-01  6.919e+00   0.042    0.967
## plotIDDELL-02-0054 -1.099e+00  8.137e+00  -0.135    0.893
## plotIDDELL-02-0055  1.542e-01  7.838e+00   0.020    0.984
## plotIDDELL-02-0057  3.802e-13  6.793e+00   0.000    1.000
## plotIDDELL-02-0100  5.243e-13  1.198e+01   0.000    1.000
## plotIDDELL-02-0101 -1.099e+00  1.216e+01  -0.090    0.928
## plotIDDELL-02-0105 -1.099e+00  1.225e+01  -0.090    0.929
## plotIDDELL-02-0106 -1.823e-01  1.221e+01  -0.015    0.988
## plotIDDELL-02-0108 -1.823e-01  1.240e+01  -0.015    0.988
## plotIDDELL-02-0109  2.877e-01  1.173e+01   0.025    0.980
## plotIDDELL-02-0110  5.324e-13  1.191e+01   0.000    1.000
## plotIDDELL-02-0114  1.542e-01  1.161e+01   0.013    0.989
## plotIDDELL-02-0115  5.067e-13  1.162e+01   0.000    1.000
## plotIDDELL-02-0116 -1.099e+00  1.315e+01  -0.084    0.933
## plotIDDELL-02-0127  1.542e-01  1.362e+01   0.011    0.991
## plotIDDELL-02-0129  5.404e-13  1.258e+01   0.000    1.000
## plotIDDELL-02-0133 -1.099e+00  1.476e+01  -0.074    0.941
## plotIDDELL-03-0002 -1.099e+00  9.738e-01  -1.128    0.259
## plotIDDELL-03-0003  2.877e-01  8.391e-01   0.343    0.732
## plotIDDELL-03-0006 -1.792e+00  2.871e+00  -0.624    0.532
## plotIDDELL-03-0007 -1.823e-01  2.452e+00  -0.074    0.941
## plotIDDELL-03-0008 -4.055e-01  2.709e+00  -0.150    0.881
## plotIDDELL-03-0010  1.444e-13  2.008e+00   0.000    1.000
## plotIDDELL-03-0021 -1.099e+00  2.149e+00  -0.511    0.609
## plotIDDELL-03-0025 -1.099e+00  2.078e+00  -0.529    0.597
## plotIDDELL-03-0028  1.230e-13  6.374e-01   0.000    1.000
## plotIDDELL-03-0029 -6.931e-01  1.052e+00  -0.659    0.510
## plotIDDELL-03-0114  1.872e-13  1.957e+00   0.000    1.000
## plotIDDLAP-01-0011 -6.931e-01  1.348e+01  -0.051    0.959
## plotIDDLAP-01-0012 -6.931e-01  1.348e+01  -0.051    0.959
## plotIDDLAP-01-0013 -1.823e-01  1.479e+01  -0.012    0.990
## plotIDDLAP-01-0014 -1.823e-01  1.446e+01  -0.013    0.990
```

```
## plotIDDLAP-01-0015 -6.931e-01  1.608e+01  -0.043   0.966
## plotIDDSLM-01-0028 -4.055e-01  3.474e+00  -0.117   0.907
## plotIDDSLM-01-0037 -1.823e-01  5.317e+00  -0.034   0.973
## plotIDDSLM-01-0083 -6.931e-01  3.311e+00  -0.209   0.834
## plotIDDSLM-01-0136 -4.055e-01  7.171e+00  -0.057   0.955
## plotIDDSLM-01-0306 -4.055e-01  3.493e+00  -0.116   0.908
## plotIDDSLM-01-0307 -6.931e-01  4.539e+00  -0.153   0.879
## plotIDDSLM-01-0320 -6.931e-01  3.466e+00  -0.200   0.841
## plotIDFRID-01-0001 -4.055e-01  1.013e+01  -0.040   0.968
## plotIDFRID-01-0002 -1.823e-01  1.019e+01  -0.018   0.986
## plotIDFRID-01-0004  1.160e-15  7.520e+00   0.000   1.000
## plotIDFRID-01-0005  1.542e-01  8.689e+00   0.018   0.986
## plotIDFRID-01-0006  8.170e-14  1.172e+01   0.000   1.000
## plotIDFRID-01-0007 -1.823e-01  1.180e+01  -0.015   0.988
## plotIDFRID-01-0009  1.542e-01  1.237e+01   0.012   0.990
## plotIDFRID-01-0010 -4.055e-01  1.185e+01  -0.034   0.973
## plotIDFRID-01-0013 -6.931e-01  1.140e+01  -0.061   0.952
## plotIDFRID-01-0015  1.542e-01  1.453e+01   0.011   0.992
## plotIDFRID-02-0014  1.542e-01  1.456e+01   0.011   0.992
## plotIDFRID-08-0012 -4.055e-01  1.133e+01  -0.036   0.971
## plotIDFRID-0T-0001  5.245e-14  1.200e+01   0.000   1.000
## plotIDFRID-0T-0002  4.616e-14  1.150e+01   0.000   1.000
## plotIDFRID-0T-0003  2.877e-01  1.115e+01   0.026   0.979
## plotIDFRID-0T-0005  2.634e-14  1.051e+01   0.000   1.000
## plotIDFRID-0T-0006  2.877e-01  4.673e+00   0.062   0.951
## plotIDFRID-0T-0007  4.055e-01  4.818e+00   0.084   0.933
## plotIDFRID-0T-0008  2.877e-01  4.998e+00   0.058   0.954
## plotIDFRID-0T-0009  4.055e-01  5.053e+00   0.080   0.936
## plotIDFRID-0T-0010  2.877e-01  5.243e+00   0.055   0.956
## plotIDFRID-0T-0011  2.877e-01  5.138e+00   0.056   0.955
## plotIDFRID-0T-0018  1.542e-01  4.521e+00   0.034   0.973
## plotIDFRID-0T-0019  2.877e-01  4.536e+00   0.063   0.949
## plotIDFRID-0T-0020  2.263e-14  1.034e+01   0.000   1.000
## plotIDFRID-0T-0022 -4.055e-01  9.642e+00  -0.042   0.966
## plotIDFRID-0T-0023 -4.055e-01  9.296e+00  -0.044   0.965
## plotIDFRID-0T-0024  1.542e-01  9.041e+00   0.017   0.986
## plotIDFRID-0T-0025  2.877e-01  5.257e+00   0.055   0.956
## plotIDFRID-0T-0026  2.877e-01  5.532e+00   0.052   0.959
## plotIDFRID-0T-0027 -7.212e-14  5.783e+00   0.000   1.000
## plotIDFRID-0T-0028 -1.099e+00  6.087e+00  -0.180   0.857
## plotIDFRID-0T-0029  2.877e-01  8.687e+00   0.033   0.974
## plotIDFRID-0T-0030 -4.055e-01  8.319e+00  -0.049   0.961
## plotIDFRID-0T-0031 -1.740e-14  8.011e+00   0.000   1.000
## plotIDFRID-0T-0032  1.542e-01  8.078e+00   0.019   0.985
## plotIDFRID-0T-0033  1.542e-01  7.793e+00   0.020   0.984
## plotIDFRID-0T-0034  2.877e-01  6.514e+00   0.044   0.965
## plotIDFRID-0T-0035  1.542e-01  6.516e+00   0.024   0.981
## plotIDFRID-0T-0036  2.877e-01  6.838e+00   0.042   0.966
## plotIDFRID-0T-0037  1.542e-01  6.926e+00   0.022   0.982
## plotIDFRID-0T-0038  2.877e-01  7.111e+00   0.040   0.968
## plotIDMILL-01-0024 -4.855e-01  2.720e+01  -0.018   0.986
## plotIDMILL-03-0020 -2.624e-01  2.119e+01  -0.012   0.990
## plotIDMILL-07-0024 -4.855e-01  3.489e+00  -0.139   0.889
## plotIDMILL-07-0052 -4.855e-01  8.265e+00  -0.059   0.953
```

```
## plotIDMILL-11-0017 -4.855e-01  1.246e+01  -0.039  0.969
## plotIDMILL-12-0007 -8.004e-02  1.503e+01  -0.005  0.996
## plotIDMILL-17-0010 -4.855e-01  8.439e+00  -0.058  0.954
## plotIDMILL-17-0012 -4.855e-01  9.446e+00  -0.051  0.959
## plotIDMILL-17-0039 -8.004e-02  5.692e+00  -0.014  0.989
## plotIDMILL-18-0021 -4.855e-01  8.553e+00  -0.057  0.955
## plotIDMILL-20-0010 -2.624e-01  8.828e+00  -0.030  0.976
## plotIDMILL-20-0044 -4.855e-01  5.052e+00  -0.096  0.923
## plotIDMILL-24-0016 -4.855e-01  1.381e+01  -0.035  0.972
## plotIDMILL-24-0059 -4.855e-01  1.510e+01  -0.032  0.974
## plotIDMILL-25-0044 -2.624e-01  1.678e+01  -0.016  0.988
## plotIDMILL-27-0041 -4.855e-01  1.674e+01  -0.029  0.977
## plotIDMILL-27-0065 -4.855e-01  1.919e+01  -0.025  0.980
## plotIDMILL-27-0110 -8.004e-02  2.172e+01  -0.004  0.997
## plotIDMILL-27-0202 -4.855e-01  1.855e+01  -0.026  0.979
## plotIDPITT-01-0001 -1.099e+00  1.915e+01  -0.057  0.954
## plotIDPITT-01-0002 -8.716e-13  1.929e+01   0.000  1.000
## plotIDPITT-01-0003 -1.099e+00  1.958e+01  -0.056  0.955
## plotIDPITT-01-0005  1.542e-01  2.289e+01   0.007  0.995
## plotIDPITT-01-0006 -9.150e-13  2.047e+01   0.000  1.000
## plotIDPITT-01-0007 -1.099e+00  1.789e+01  -0.061  0.951
## plotIDPITT-01-0008 -1.099e+00  1.674e+01  -0.066  0.948
## plotIDPITT-01-0009  1.542e-01  2.088e+01   0.007  0.994
## plotIDPITT-01-0010  1.542e-01  2.399e+01   0.006  0.995
## plotIDPITT-01-0011 -7.786e-13  1.695e+01   0.000  1.000
## plotIDPITT-01-0012 -1.792e+00  1.791e+01  -0.100  0.920
## plotIDPITT-01-0014 -7.889e-13  1.922e+01   0.000  1.000
## plotIDPITT-01-0015 -1.099e+00  1.588e+01  -0.069  0.945
## plotIDPITT-01-0016 -9.004e-13  1.964e+01   0.000  1.000
## plotIDPITT-01-0017 -1.099e+00  1.889e+01  -0.058  0.954
## plotIDPITT-01-0018 -9.352e-13  2.047e+01   0.000  1.000
## plotIDPITT-01-0019 -1.099e+00  1.795e+01  -0.061  0.951
## plotIDPITT-01-0020 -1.099e+00  1.733e+01  -0.063  0.949
## plotIDPITT-01-0021  1.542e-01  1.851e+01   0.008  0.993
## plotIDPITT-01-0022  1.542e-01  1.475e+01   0.010  0.992
## plotIDPITT-01-0023 -1.099e+00  1.904e+01  -0.058  0.954
## plotIDPITT-01-0024 -8.135e-13  1.768e+01   0.000  1.000
## plotIDPITT-01-0025 -1.099e+00  1.833e+01  -0.060  0.952
## plotIDPITT-01-0026 -1.099e+00  2.264e+01  -0.049  0.961
## plotIDPITT-01-0027 -4.055e-01  1.808e+01  -0.022  0.982
## plotIDPITT-01-0028 -1.099e+00  1.839e+01  -0.060  0.952
## plotIDPITT-01-0029 -1.099e+00  2.002e+01  -0.055  0.956
## plotIDPITT-01-0030 -1.099e+00  1.845e+01  -0.060  0.953
## plotIDPITT-01-0032 -1.099e+00  2.094e+01  -0.052  0.958
## plotIDPITT-01-0033 -4.055e-01  2.099e+01  -0.019  0.985
## plotIDPITT-01-0036 -4.055e-01  2.072e+01  -0.020  0.984
## plotIDPITT-01-0037 -1.099e+00  1.968e+01  -0.056  0.955
## plotIDPITT-01-0038 -1.099e+00  1.592e+01  -0.069  0.945
## plotIDPITT-01-0039 -1.823e-01  2.085e+01  -0.009  0.993
## plotIDPITT-01-0040 -1.099e+00  2.093e+01  -0.052  0.958
## plotIDPITT-01-0041 -1.823e-01  2.171e+01  -0.008  0.993
## plotIDPITT-01-0042 -4.055e-01  2.207e+01  -0.018  0.985
## plotIDPITT-01-0043 -1.823e-01  2.227e+01  -0.008  0.993
## plotIDPITT-01-0044  2.877e-01  1.844e+01   0.016  0.988
```

```
## plotIDPITT-01-0045 -1.099e+00  1.505e+01  -0.073   0.942
## plotIDUFRL-01-0001 -3.348e-01  1.365e+01  -0.025   0.980
## plotIDUFRL-01-0002 -3.348e-01  1.290e+01  -0.026   0.979
## plotIDUFRL-01-0003 -1.524e-01  1.318e+01  -0.012   0.991
## plotIDUFRL-01-0004 -3.348e-01  1.051e+01  -0.032   0.975
## plotIDUFRL-01-0005 -3.348e-01  1.055e+01  -0.032   0.975
## plotIDUFRL-01-0006 -1.524e-01  1.072e+01  -0.014   0.989
## plotIDUFRL-01-0007 -1.524e-01  1.067e+01  -0.014   0.989
## plotIDUFRL-01-0008 -1.524e-01  1.052e+01  -0.014   0.988
## plotIDUFRL-01-0009 -1.524e-01  1.075e+01  -0.014   0.989
## plotIDUFRL-01-0010 -5.579e-01  1.109e+01  -0.050   0.960
## plotIDUFRL-01-0012 -1.944e+00  1.433e+01  -0.136   0.892
## plotIDUFRL-01-0013 -5.579e-01  1.416e+01  -0.039   0.969
## plotIDUFRL-01-0014 -3.348e-01  1.458e+01  -0.023   0.982
## plotIDUFRL-01-0015 -1.524e-01  1.408e+01  -0.011   0.991
## plotIDUFRL-01-0018 -5.579e-01  1.264e+01  -0.044   0.965
## plotIDUFRL-01-0019  1.352e-01  1.289e+01   0.010   0.992
## plotIDUFRL-01-0020  1.702e-03  1.301e+01   0.000   1.000
## plotIDUFRL-01-0021 -1.944e+00  1.103e+01  -0.176   0.860
## plotIDUFRL-01-0022 -1.524e-01  9.818e+00  -0.016   0.988
## plotIDUFRL-01-0023 -5.579e-01  1.676e+01  -0.033   0.973
## plotIDUFRL-01-0024 -5.579e-01  1.678e+01  -0.033   0.973
## plotIDUFRL-01-0025 -1.251e+00  1.668e+01  -0.075   0.940
## plotIDUFRL-01-0026 -5.579e-01  1.642e+01  -0.034   0.973
## plotIDUFRL-01-0027 -8.456e-01  6.340e+00  -0.133   0.894
## plotIDUFRL-01-0028 -1.524e-01  1.449e+01  -0.011   0.992
## plotIDUFRL-01-0029 -1.524e-01  1.414e+01  -0.011   0.991
## plotIDUFRL-01-0030 -3.348e-01  1.242e+01  -0.027   0.978
## plotIDUFRL-01-0031 -3.348e-01  1.257e+01  -0.027   0.979
## plotIDUFRL-01-0032 -5.579e-01  1.369e+01  -0.041   0.967
## plotIDUFRL-01-0033 -1.524e-01  1.293e+01  -0.012   0.991
## plotIDUFRL-01-0034 -3.348e-01  1.378e+01  -0.024   0.981
## plotIDUFRL-01-0035 -1.251e+00  6.682e+00  -0.187   0.851
## plotIDUFRL-01-0036 -1.944e+00  6.573e+00  -0.296   0.767
## plotIDUFRL-01-0037 -5.579e-01  1.888e+01  -0.030   0.976
## plotIDUFRL-01-0038 -5.579e-01  1.891e+01  -0.030   0.976
## plotIDUFRL-01-0039 -1.251e+00  1.281e+01  -0.098   0.922
## plotIDUFRL-01-0040 -1.251e+00  1.279e+01  -0.098   0.922
## plotIDUFRL-01-0041 -3.348e-01  1.266e+01  -0.026   0.979
## plotIDUFRL-01-0042 -3.348e-01  1.269e+01  -0.026   0.979
## plotIDUFRL-01-0043 -5.579e-01  1.250e+01  -0.045   0.964
## plotIDUFRL-01-0044 -3.348e-01  1.102e+01  -0.030   0.976
## plotIDUFRL-01-0045 -5.579e-01  1.102e+01  -0.051   0.960
## plotIDUFRL-01-0046 -8.004e-02  1.095e+01  -0.007   0.994
## plotIDUFRL-01-0047 -4.855e-01  1.087e+01  -0.045   0.964
## plotIDUFRL-01-0048 -4.855e-01  1.075e+01  -0.045   0.964
## plotIDUFRL-01-0049 -8.004e-02  9.683e+00  -0.008   0.993
## plotIDUFRL-01-0050 -8.004e-02  9.357e+00  -0.009   0.993
## plotIDUFRL-01-0051 -8.004e-02  9.193e+00  -0.009   0.993
## plotIDUFRL-01-0052 -4.855e-01  8.608e+00  -0.056   0.955
## plotIDUFRL-01-0053 -8.004e-02  7.231e+00  -0.011   0.991
## plotIDUFRL-01-0054 -8.004e-02  7.840e+00  -0.010   0.992
## plotIDUFRL-01-0055 -8.004e-02  7.273e+00  -0.011   0.991
## plotIDUFRL-01-0056 -8.004e-02  7.184e+00  -0.011   0.991
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## plotIDUFRL-01-0057 -8.004e-02  7.386e+00  -0.011    0.991
## plotIDUFRL-01-0058 -8.004e-02  7.061e+00  -0.011    0.991
## plotIDUFRL-01-0059 -8.004e-02  9.670e+00  -0.008    0.993
## plotIDUFRL-01-0060 -2.624e-01  9.596e+00  -0.027    0.978
## plotIDUFRL-01-0061 -8.004e-02  9.796e+00  -0.008    0.993
## plotIDUFRL-01-0062 -8.004e-02  9.662e+00  -0.008    0.993
## plotIDUFRL-01-0063 -8.004e-02  9.855e+00  -0.008    0.994
## plotIDUFRL-01-0064 -8.004e-02  1.228e+01  -0.007    0.995
## plotIDUFRL-01-0065  7.411e-02  1.213e+01   0.006    0.995
## plotIDUFRL-01-0066 -8.004e-02  1.216e+01  -0.007    0.995
## plotIDUFRL-01-0067 -8.004e-02  1.242e+01  -0.006    0.995
## plotIDUFRL-01-0068 -2.624e-01  1.245e+01  -0.021    0.983
## plotIDUFRL-01-0069 -8.004e-02  1.253e+01  -0.006    0.995
## plotIDUFRL-01-0070 -4.855e-01  1.052e+01  -0.046    0.963
## plotIDUFRL-01-0071 -8.004e-02  1.046e+01  -0.008    0.994
## plotIDUFRL-01-0072 -2.624e-01  1.058e+01  -0.025    0.980
## plotIDUFRL-01-0073 -2.624e-01  1.080e+01  -0.024    0.981
## plotIDUFRL-01-0074 -1.872e+00  1.049e+01  -0.179    0.858
## plotIDUFRL-01-0075 -1.872e+00  1.055e+01  -0.177    0.859
## plotIDUFRL-01-0076 -8.004e-02  1.044e+01  -0.008    0.994
## plotIDUFRL-01-0077 -2.624e-01  1.604e+01  -0.016    0.987
## plotIDUFRL-01-0078 -2.624e-01  1.594e+01  -0.016    0.987
## plotIDUFRL-01-0079 -2.624e-01  1.590e+01  -0.016    0.987
## plotIDUFRL-01-0080 -2.624e-01  1.575e+01  -0.017    0.987
## plotIDUFRL-01-0081 -4.855e-01  1.587e+01  -0.031    0.976
## plotIDUFRL-01-0082 -2.624e-01  1.547e+01  -0.017    0.986
## plotIDUFRL-01-0083 -8.004e-02  7.377e+00  -0.011    0.991
## plotIDUFRL-01-0084 -8.004e-02  7.700e+00  -0.010    0.992
## plotIDUFRL-01-0085 -8.004e-02  8.236e+00  -0.010    0.992
## plotIDUFRL-01-0086 -8.004e-02  8.198e+00  -0.010    0.992
## plotIDUFRL-01-0087 -2.624e-01  8.076e+00  -0.032    0.974
## plotIDUFRL-01-0088 -1.179e+00  7.753e+00  -0.152    0.879
## plotIDUFRL-01-0089  7.411e-02  7.236e+00   0.010    0.992
## plotIDUFRL-01-0090  2.076e-01  1.948e+01   0.011    0.991
## plotIDUFRL-01-0091 -2.624e-01  1.953e+01  -0.013    0.989
## plotIDUFRL-01-0092 -4.855e-01  1.903e+01  -0.026    0.980
## plotIDUFRL-01-0093 -2.624e-01  1.108e+01  -0.024    0.981
## plotIDUFRL-01-0094 -4.855e-01  1.112e+01  -0.044    0.965
## plotIDUFRL-01-0101 -2.624e-01  1.081e+01  -0.024    0.981
## plotIDUFRL-01-0102  2.076e-01  9.481e+00   0.022    0.983
## plotIDUFRL-01-0103 -8.004e-02  9.813e+00  -0.008    0.993
## plotIDUFRL-01-0104 -2.624e-01  1.075e+01  -0.024    0.981
## plotIDUFRL-01-0105  4.370e-13  8.370e+00   0.000    1.000
## plotIDUFRL-01-0106  3.935e-13  7.447e+00   0.000    1.000
## plotIDUFRL-01-0154 -5.878e-01  4.446e+00  -0.132    0.895
## plotIDUFRL-01-0155 -2.197e+00  4.577e+00  -0.480    0.631
## plotIDUFRL-01-0160 -2.513e-01  6.208e+00  -0.040    0.968
## plotIDUFRL-01-0161 -4.055e-01  6.594e+00  -0.061    0.951
## plotIDUFRL-01-0162  4.243e-13  6.569e+00   0.000    1.000
## plotIDUFRL-01-0163 -1.504e+00  6.731e+00  -0.223    0.823
## plotIDUFRL-01-0164  3.833e-13  5.850e+00   0.000    1.000
## plotIDUFRL-01-0165 -1.178e-01  1.729e+01  -0.007    0.995
## plotIDUFRL-01-0166 -1.178e-01  5.292e+00  -0.022    0.982
## plotIDUFRL-01-0167  7.361e-13  1.701e+01   0.000    1.000
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## plotIDUFRL-01-0168  7.285e-13  1.689e+01   0.000   1.000
## plotIDUFRL-01-0169 -8.109e-01  1.687e+01  -0.048   0.962
## plotIDUFRL-02-0001 -1.524e-01  8.558e+00  -0.018   0.986
## plotIDUFRL-02-0002  2.530e-01  8.725e+00   0.029   0.977
## plotIDUFRL-02-0003 -5.579e-01  8.589e+00  -0.065   0.948
## plotIDUFRL-02-0004 -3.348e-01  8.631e+00  -0.039   0.969
## plotIDUFRL-02-0005 -1.251e+00  6.913e+00  -0.181   0.856
## plotIDUFRL-02-0007 -5.579e-01  5.697e+00  -0.098   0.922
## plotIDUFRL-02-0008 -3.348e-01  6.514e+00  -0.051   0.959
## plotIDUFRL-02-0009  1.123e-02  6.579e+00   0.002   0.999
## plotIDUFRL-02-0011 -1.030e-01  6.022e+00  -0.017   0.986
## plotIDUFRL-02-0014 -1.455e+00  6.398e+00  -0.227   0.820
## plotIDUFRL-02-0015 -3.565e-01  6.455e+00  -0.055   0.956
## plotIDUFRL-02-0016 -1.251e+00  5.537e+00  -0.226   0.821
## plotIDUFRL-02-0017  2.530e-01  6.365e+00   0.040   0.968
## plotIDUFRL-02-0018  2.530e-01  5.866e+00   0.043   0.966
## plotIDUFRL-02-0019 -1.524e-01  5.576e+00  -0.027   0.978
## plotIDUFRL-02-0030 -3.348e-01  9.489e+00  -0.035   0.972
## plotIDUFRL-02-0031  1.352e-01  1.140e+01   0.012   0.991
## plotIDUFRL-02-0032  2.530e-01  1.107e+01   0.023   0.982
## plotIDUFRL-02-0033 -3.348e-01  6.111e+00  -0.055   0.956
## plotIDUFRL-02-0034  1.667e-02  5.965e+00   0.003   0.998
## plotIDUFRL-02-0035 -3.348e-01  5.812e+00  -0.058   0.954
## plotIDUFRL-02-0036 -1.178e-01  3.778e+00  -0.031   0.975
## plotIDUFRL-02-0037 -9.163e-01  7.302e+00  -0.125   0.900
## plotIDUFRL-02-0038 -5.108e-01  5.231e+00  -0.098   0.922
## plotIDUFRL-02-0039 -8.109e-01  5.755e+00  -0.141   0.888
## plotIDUFRL-02-0041 -3.348e-01  7.526e+00  -0.044   0.965
## plotIDUFRL-02-0044  2.530e-01  6.618e+00   0.038   0.970
## plotIDUFRL-02-0045 -5.579e-01  6.595e+00  -0.085   0.933
## plotIDUFRL-02-0046 -1.524e-01  6.365e+00  -0.024   0.981
## plotIDUFRL-02-0047 -1.524e-01  7.774e+00  -0.020   0.984
## plotIDUFRL-02-0048  1.702e-03  7.521e+00   0.000   1.000
## plotIDUFRL-02-0049  2.530e-01  6.690e+00   0.038   0.970
## plotIDUFRL-02-0050 -3.348e-01  6.175e+00  -0.054   0.957
## plotIDUFRL-02-0051 -1.251e+00  7.413e+00  -0.169   0.866
## plotIDUFRL-02-0052  3.584e-01  6.893e+00   0.052   0.959
## plotIDUFRL-02-0053 -1.524e-01  6.020e+00  -0.025   0.980
## plotIDUFRL-02-0054 -5.579e-01  8.193e+00  -0.068   0.946
## plotIDUFRL-02-0055  3.584e-01  7.914e+00   0.045   0.964
## plotIDUFRL-02-0056  1.702e-03  6.926e+00   0.000   1.000
## plotIDUFRL-02-0057  2.530e-01  6.766e+00   0.037   0.970
## plotIDUFRL-02-0058 -1.524e-01  6.795e+00  -0.022   0.982
## plotIDUFRL-02-0059 -1.524e-01  6.933e+00  -0.022   0.982
## plotIDUFRL-02-0060 -2.837e-01  6.044e+00  -0.047   0.963
## plotIDUFRL-02-0061  2.576e-01  5.254e+00   0.049   0.961
## plotIDUFRL-02-0063 -4.855e-01  8.325e+00  -0.058   0.953
## plotIDUFRL-02-0064 -4.855e-01  8.433e+00  -0.058   0.954
## plotIDUFRL-02-0100  3.254e-01  1.198e+01   0.027   0.978
## plotIDUFRL-02-0101 -8.004e-02  1.222e+01  -0.007   0.995
## plotIDUFRL-02-0102 -8.004e-02  1.245e+01  -0.006   0.995
## plotIDUFRL-02-0103  7.411e-02  1.240e+01   0.006   0.995
## plotIDUFRL-02-0104 -1.179e+00  1.252e+01  -0.094   0.925
## plotIDUFRL-02-0105 -4.855e-01  1.227e+01  -0.040   0.968
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## plotIDUFRL-02-0106  3.254e-01  1.220e+01   0.027   0.979
## plotIDUFRL-02-0107 -2.624e-01  1.229e+01  -0.021   0.983
## plotIDUFRL-02-0108  3.254e-01  1.239e+01   0.026   0.979
## plotIDUFRL-02-0109  3.254e-01  1.173e+01   0.028   0.978
## plotIDUFRL-02-0110  3.254e-01  1.190e+01   0.027   0.978
## plotIDUFRL-02-0111 -4.855e-01  1.189e+01  -0.041   0.967
## plotIDUFRL-02-0112 -1.179e+00  1.205e+01  -0.098   0.922
## plotIDUFRL-02-0113 -1.179e+00  1.165e+01  -0.101   0.919
## plotIDUFRL-02-0114  3.254e-01  1.164e+01   0.028   0.978
## plotIDUFRL-02-0115  2.076e-01  1.167e+01   0.018   0.986
## plotIDUFRL-02-0116 -1.179e+00  1.317e+01  -0.090   0.929
## plotIDUFRL-02-0117 -1.099e+00  1.339e+01  -0.082   0.935
## plotIDUFRL-02-0118 -2.624e-01  1.293e+01  -0.020   0.984
## plotIDUFRL-02-0119 -8.004e-02  1.304e+01  -0.006   0.995
## plotIDUFRL-02-0120  7.411e-02  1.258e+01   0.006   0.995
## plotIDUFRL-02-0121 -2.624e-01  1.247e+01  -0.021   0.983
## plotIDUFRL-02-0122 -8.004e-02  1.262e+01  -0.006   0.995
## plotIDUFRL-02-0123  7.411e-02  1.249e+01   0.006   0.995
## plotIDUFRL-02-0124  7.411e-02  1.269e+01   0.006   0.995
## plotIDUFRL-02-0125 -8.004e-02  1.261e+01  -0.006   0.995
## plotIDUFRL-02-0126 -8.004e-02  1.373e+01  -0.006   0.995
## plotIDUFRL-02-0127  3.254e-01  1.361e+01   0.024   0.981
## plotIDUFRL-02-0128 -8.004e-02  1.438e+01  -0.006   0.996
## plotIDUFRL-02-0129  3.254e-01  1.315e+01   0.025   0.980
## plotIDUFRL-02-0136 -2.480e-01  1.444e+01  -0.017   0.986
## plotIDUFRL-02-0137  7.411e-02  1.444e+01   0.005   0.996
## plotIDUFRL-02-0138 -1.099e+00  1.432e+01  -0.077   0.939
## plotIDUFRL-02-0139 -1.792e+00  1.542e+01  -0.116   0.907
## plotIDUFRL-02-0142 -2.624e-01  1.454e+01  -0.018   0.986
## plotIDUFRL-02-0144 -3.677e-01  1.381e+01  -0.027   0.979
## plotIDUFRL-02-0145 -6.190e-01  1.433e+01  -0.043   0.966
## plotIDUFRL-02-0146 -1.452e+00  1.499e+01  -0.097   0.923
## plotIDUFRL-02-0148 -8.004e-02  1.469e+01  -0.005   0.996
## plotIDUFRL-02-0149 -1.872e+00  1.524e+01  -0.123   0.902
## plotIDUFRL-02-0152  8.852e-02  1.131e+01   0.008   0.994
## plotIDUFRL-02-0153 -8.004e-02  1.143e+01  -0.007   0.994
## plotIDUFRL-02-0154  7.411e-02  1.111e+01   0.007   0.995
## plotIDUFRL-02-0155  7.411e-02  1.118e+01   0.007   0.995
## plotIDUFRL-02-0156 -8.004e-02  1.094e+01  -0.007   0.994
## plotIDUFRL-02-0157 -8.004e-02  1.091e+01  -0.007   0.994
## plotIDUFRL-02-0158  7.411e-02  1.133e+01   0.007   0.995
## plotIDUFRL-02-0159  3.637e-02  1.102e+01   0.003   0.997
## plotIDUFRL-02-0160  1.105e-01  1.100e+01   0.010   0.992
## plotIDUFRL-02-0161 -1.179e+00  1.153e+01  -0.102   0.919
## plotIDUFRL-02-0162 -8.004e-02  1.131e+01  -0.007   0.994
## plotIDUFRL-02-0163 -4.855e-01  1.126e+01  -0.043   0.966
## plotIDUFRL-02-0164  7.411e-02  1.136e+01   0.007   0.995
## plotIDUFRL-02-0165 -7.732e-01  1.165e+01  -0.066   0.947
## plotIDUFRL-02-0166  7.411e-02  1.176e+01   0.006   0.995
## plotIDUFRL-02-0167  7.411e-02  1.193e+01   0.006   0.995
## plotIDUFRL-02-0176 -4.855e-01  5.987e+00  -0.081   0.935
## plotIDUFRL-02-0177 -8.004e-02  5.307e+00  -0.015   0.988
## plotIDUFRL-02-0178  3.254e-01  9.089e+00   0.036   0.971
## plotIDUFRL-02-0999 -5.579e-01  5.803e+00  -0.096   0.923
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## plotIDUFRL-03-0001 -7.732e-01  1.750e+00  -0.442   0.659
## plotIDUFRL-03-0002 -4.855e-01  8.827e-01  -0.550   0.582
## plotIDUFRL-03-0003  4.308e-01  8.344e-01   0.516   0.606
## plotIDUFRL-03-0004 -4.855e-01  1.071e+00  -0.453   0.650
## plotIDUFRL-03-0005 -2.624e-01  1.256e+00  -0.209   0.834
## plotIDUFRL-03-0007  3.254e-01  2.458e+00   0.132   0.895
## plotIDUFRL-03-0008  7.411e-02  2.741e+00   0.027   0.978
## plotIDUFRL-03-0009  2.076e-01  2.493e+00   0.083   0.934
## plotIDUFRL-03-0010 -8.004e-02  2.037e+00  -0.039   0.969
## plotIDUFRL-03-0013  1.133e-01  3.687e+00   0.031   0.975
## plotIDUFRL-03-0014  3.254e-01  1.953e+00   0.167   0.868
## plotIDUFRL-03-0015 -1.278e-01  3.596e+00  -0.036   0.972
## plotIDUFRL-03-0016 -7.732e-01  3.428e+00  -0.226   0.822
## plotIDUFRL-03-0017 -8.004e-02  1.781e+00  -0.045   0.964
## plotIDUFRL-03-0018 -4.855e-01  1.770e+00  -0.274   0.784
## plotIDUFRL-03-0019  7.411e-02  1.069e+00   0.069   0.945
## plotIDUFRL-03-0020 -1.872e+00  1.485e+00  -1.261   0.207
## plotIDUFRL-03-0021 -7.732e-01  2.098e+00  -0.368   0.713
## plotIDUFRL-03-0022 -7.732e-01  2.502e+00  -0.309   0.757
## plotIDUFRL-03-0023 -1.872e+00  2.297e+00  -0.815   0.415
## plotIDUFRL-03-0024 -4.855e-01  2.151e+00  -0.226   0.821
## plotIDUFRL-03-0025 -8.004e-02  2.005e+00  -0.040   0.968
## plotIDUFRL-03-0026 -2.624e-01  1.592e+00  -0.165   0.869
## plotIDUFRL-03-0027 -4.855e-01  7.790e-01  -0.623   0.533
## plotIDUFRL-03-0028  3.254e-01  6.565e-01   0.496   0.620
## plotIDUFRL-05-0001 -1.251e+00  5.907e+00  -0.212   0.832
## plotIDUFRL-05-0002 -1.251e+00  5.761e+00  -0.217   0.828
## plotIDUFRL-05-0003 -5.579e-01  5.787e+00  -0.096   0.923
## plotIDUFRL-05-0131 -1.099e+00  4.436e+00  -0.248   0.804
## plotIDUFRL-05-0132 -4.055e-01  4.383e+00  -0.093   0.926
## plotIDUFRL-05-0144 -8.109e-01  3.317e+00  -0.245   0.807
## plotIDUFRL-05-0145 -8.109e-01  3.454e+00  -0.235   0.814
## plotIDUFRL-05-0146 -8.109e-01  2.929e+00  -0.277   0.782
## plotIDUFRL-05-0147 -8.109e-01  3.461e+00  -0.234   0.815
## plotIDUFRL-05-0148 -5.878e-01  3.371e+00  -0.174   0.862
## plotIDUFRL-05-0149 -8.109e-01  3.304e+00  -0.245   0.806
## plotIDUFRL-05-0150 -8.109e-01  2.925e+00  -0.277   0.782
## plotIDUFRL-05-0151 -2.513e-01  2.992e+00  -0.084   0.933
## plotIDUFRL-05-0152 -4.055e-01  2.995e+00  -0.135   0.892
## plotIDUFRL-05-0157 -8.109e-01  3.010e+00  -0.269   0.788
## plotIDUFRL-05-0158 -8.109e-01  2.943e+00  -0.276   0.783
## plotIDUFRL-05-0159 -8.109e-01  3.013e+00  -0.269   0.788
## plotIDUFRL-2A-0142 -8.109e-01  3.844e+00  -0.211   0.833
## plotIDUFRL-2A-0143 -8.109e-01  3.802e+00  -0.213   0.831
## plotIDULRY-04-0001 -4.055e-01  9.790e+00  -0.041   0.967
## plotIDULRY-04-0004  2.877e-01  1.581e+01   0.018   0.985
## plotIDULRY-04-0005 -4.055e-01  1.297e+01  -0.031   0.975
## plotIDULRY-04-0006 -1.792e+00  1.342e+01  -0.134   0.894
## plotIDULRY-04-0009  1.542e-01  1.329e+01   0.012   0.991
## plotIDULRY-04-0011 -6.931e-01  1.271e+01  -0.055   0.956
## plotIDULRY-04-0014 -3.173e-13  1.170e+01   0.000   1.000
## plotIDULRY-04-0016 -3.220e-13  1.227e+01   0.000   1.000
## plotIDULRY-04-0018  2.877e-01  1.081e+01   0.027   0.979
## plotIDULRY-04-0019 -4.055e-01  1.071e+01  -0.038   0.970
```

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## plotIDULRY-04-0020 -4.055e-01  1.824e+01  -0.022   0.982
## plotIDULRY-04-0021  2.877e-01  1.623e+01   0.018   0.986
## plotIDULRY-04-0022  1.542e-01  1.558e+01   0.010   0.992
## plotIDULRY-04-0023 -1.823e-01  1.883e+01  -0.010   0.992
## plotIDULRY-04-0031  1.542e-01  9.784e+00   0.016   0.987
## plotIDULRY-04-0032  1.542e-01  9.988e+00   0.015   0.988
## plotIDULRY-04-0033  1.542e-01  1.053e+01   0.015   0.988
## plotIDULRY-04-0034  1.542e-01  5.804e+00   0.027   0.979
## plotIDULRY-04-0035  1.542e-01  5.858e+00   0.026   0.979
## plotIDULRY-04-0036  1.542e-01  4.647e+00   0.033   0.974
## plotIDULRY-04-0037  1.542e-01  6.541e+00   0.024   0.981
## plotIDULRY-04-0038  3.916e-13  6.383e+00   0.000   1.000
## plotIDULRY-04-0039 -1.823e-01  5.396e+00  -0.034   0.973
## plotIDULRY-04-0040  4.454e-13  7.318e+00   0.000   1.000
## plotIDULRY-04-0041  4.507e-13  7.473e+00   0.000   1.000
## plotIDULRY-04-0042  1.542e-01  1.199e+01   0.013   0.990
## plotIDULRY-04-0044  7.063e-13  1.511e+01   0.000   1.000
## plotIDULRY-04-0047  1.542e-01  1.342e+01   0.011   0.991
## plotIDULRY-04-0048  1.542e-01  1.375e+01   0.011   0.991
## plotIDULRY-04-0052  5.236e-13  1.147e+01   0.000   1.000
## plotIDULRY-04-0054  1.542e-01  1.092e+01   0.014   0.989
## plotIDULRY-04-0055  1.542e-01  1.076e+01   0.014   0.989
## plotIDULRY-04-0060 -1.823e-01  6.481e+00  -0.028   0.978
## plotIDULRY-04-0063 -3.463e-13  1.310e+01   0.000   1.000
## plotIDULRY-04-0064  1.542e-01  1.732e+01   0.009   0.993
## plotIDULRY-04-0065 -6.931e-01  1.755e+01  -0.039   0.968
## plotIDULRY-04-0068 -1.792e+00  1.887e+01  -0.095   0.924
## plotIDULRY-04-0073 -4.055e-01  1.335e+01  -0.030   0.976
## plotIDULRY-04-0076 -6.931e-01  1.000e+01  -0.069   0.945
## plotIDULRY-04-0079 -1.823e-01  1.616e+01  -0.011   0.991
## plotIDULRY-04-0080 -5.602e-13  1.717e+01   0.000   1.000
## plotIDULRY-04-0082 -6.931e-01  1.915e+01  -0.036   0.971
## plotIDULRY-04-0084 -1.823e-01  1.440e+01  -0.013   0.990
## plotIDULRY-04-0085 -4.055e-01  1.996e+01  -0.020   0.984
## plotIDULRY-04-0086 -4.055e-01  1.954e+01  -0.021   0.983
## plotIDULRY-04-0087 -3.818e-13  1.418e+01   0.000   1.000
## plotIDULRY-04-0088  1.542e-01  5.980e+00   0.026   0.979
## plotIDULRY-04-0089  4.572e-13  8.845e+00   0.000   1.000
## plotIDULRY-04-0097 -1.792e+00  1.157e+01  -0.155   0.877
## plotIDULRY-04-0099  1.542e-01  1.798e+01   0.009   0.993
## plotIDULRY-04-0100  1.542e-01  1.782e+01   0.009   0.993
## plotIDULRY-04-0102  4.555e-13  8.220e+00   0.000   1.000
## plotIDULRY-04-0103 -5.010e-13  1.672e+01   0.000   1.000
## plotIDULRY-04-0109 -3.159e-13  1.174e+01   0.000   1.000
## plotIDULRY-04-0110  1.542e-01  1.179e+01   0.013   0.990
## plotIDULRY-04-0111  2.877e-01  1.170e+01   0.025   0.980
## plotIDULRY-04-0116 -2.425e-13  8.234e+00   0.000   1.000
## plotIDULRY-04-0118 -5.960e-13  2.011e+01   0.000   1.000
## plotIDULRY-04-0119  4.250e-13  1.124e+01   0.000   1.000
## plotIDULRY-04-0120 -1.823e-01  1.139e+01  -0.016   0.987
## plotIDULRY-04-0122 -1.099e+00  9.801e+00  -0.112   0.911
## plotIDULRY-04-0124  4.959e-13  1.153e+01   0.000   1.000
## plotIDULRY-04-0126  2.877e-01  1.118e+01   0.026   0.979
## plotIDULRY-04-0127  1.542e-01  1.304e+01   0.012   0.991
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## plotIDULRY-04-0128  1.542e-01  1.276e+01   0.012   0.990
## plotIDULRY-04-0129  1.542e-01  1.273e+01   0.012   0.990
## plotIDULRY-04-0130  1.542e-01  1.596e+01   0.010   0.992
## plotIDULRY-04-0131 -6.931e-01  1.599e+01  -0.043   0.965
## plotIDULRY-04-0132 -1.823e-01  1.597e+01  -0.011   0.991
## plotIDULRY-04-0135  1.542e-01  9.154e+00   0.017   0.987
## plotIDULRY-04-0136 -2.007e-13  8.830e+00   0.000   1.000
## plotIDULRY-04-0137  1.542e-01  8.916e+00   0.017   0.986
## plotIDULRY-04-0140 -3.678e-13  1.363e+01   0.000   1.000
## plotIDULRY-04-0152 -1.823e-01  9.517e+00  -0.019   0.985
## plotIDULRY-04-0153 -6.931e-01  9.524e+00  -0.073   0.942
## plotIDULRY-05-0200  1.542e-01  6.080e+00   0.025   0.980
## plotIDULRY-05-0202 -1.099e+00  8.991e+00  -0.122   0.903
## plotIDULRY-05-0204  1.542e-01  9.032e+00   0.017   0.986
## plotIDULRY-05-0205 -6.931e-01  8.968e+00  -0.077   0.938
## plotIDULRY-05-0206  3.138e-13  4.359e+00   0.000   1.000
## plotIDULRY-05-0208  4.703e-13  8.731e+00   0.000   1.000
## plotIDULRY-05-0209  4.630e-13  8.595e+00   0.000   1.000
## plotIDULRY-05-0211 -1.099e+00  5.971e+00  -0.184   0.854
## plotIDULRY-05-0212  3.855e-13  6.989e+00   0.000   1.000
## plotIDULRY-05-0214 -1.099e+00  8.190e+00  -0.134   0.893
## plotIDULRY-05-0215 -1.823e-01  8.881e+00  -0.021   0.984
## plotIDULRY-05-0216  1.542e-01  1.065e+01   0.014   0.988
## plotIDULRY-05-0217  1.542e-01  1.053e+01   0.015   0.988
## plotIDULRY-05-0218  4.872e-13  1.064e+01   0.000   1.000
## plotIDULRY-05-0219 -1.823e-01  6.289e+00  -0.029   0.977
## plotIDULRY-05-0220  1.542e-01  6.791e+00   0.023   0.982
## plotIDULRY-05-0222  1.542e-01  6.758e+00   0.023   0.982
## plotIDULRY-05-0224 -1.823e-01  8.329e+00  -0.022   0.983
## plotIDULRY-05-0226  3.276e-13  5.193e+00   0.000   1.000
## plotIDULRY-05-0227  1.542e-01  4.901e+00   0.031   0.975
## plotIDULRY-05-0228  1.542e-01  8.129e+00   0.019   0.985
## plotIDULRY-05-0234  1.542e-01  9.637e+00   0.016   0.987
## plotIDULRY-05-0237 -1.823e-01  5.581e+00  -0.033   0.974
## plotIDULRY-05-0238  2.896e-13  4.712e+00   0.000   1.000
## plotIDULRY-05-0239  3.554e-13  5.830e+00   0.000   1.000
## plotIDULRY-05-0240  1.542e-01  8.396e+00   0.018   0.985
## plotIDULRY-05-0242  4.402e-13  8.697e+00   0.000   1.000
## plotIDULRY-05-0245  1.542e-01  1.210e+01   0.013   0.990
## plotIDULRY-05-0248 -1.792e+00  1.530e+01  -0.117   0.907
## plotIDULRY-05-0249 -1.823e-01  1.754e+01  -0.010   0.992
## plotIDULRY-05-0253 -6.931e-01  1.310e+01  -0.053   0.958
## plotIDULRY-05-0255  5.344e-13  1.227e+01   0.000   1.000
## plotIDULRY-05-0256  2.877e-01  1.363e+01   0.021   0.983
## plotIDULRY-05-0257  6.101e-13  1.394e+01   0.000   1.000
## plotIDULRY-05-0258  6.128e-13  1.512e+01   0.000   1.000
## plotIDULRY-05-0259 -4.055e-01  1.508e+01  -0.027   0.979
## plotIDULRY-05-0260  2.877e-01  1.426e+01   0.020   0.984
## plotIDULRY-05-0261  5.357e-13  1.055e+01   0.000   1.000
## plotIDULRY-05-0262 -4.055e-01  1.114e+01  -0.036   0.971
## plotIDULRY-05-0263  2.877e-01  1.087e+01   0.026   0.979
## plotIDULRY-05-0264 -1.823e-01  8.355e+00  -0.022   0.983
## plotIDULRY-05-0265  4.664e-13  8.819e+00   0.000   1.000
## plotIDULRY-05-0266  1.542e-01  8.341e+00   0.018   0.985
```

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## plotIDWHCA-01-0050   4.857e-13   9.354e+00    0.000    1.000
## plotIDWHCA-01-0051   4.731e-13   9.190e+00    0.000    1.000
## plotIDWHCA-01-0055   4.479e-13   7.269e+00    0.000    1.000
## plotIDWHCA-01-0056   4.439e-13   7.180e+00    0.000    1.000
## plotIDWHCA-01-0057   4.495e-13   7.381e+00    0.000    1.000
## plotIDWHCA-01-0058   4.388e-13   7.055e+00    0.000    1.000
## plotIDWHCA-01-0059   4.934e-13   9.667e+00    0.000    1.000
## plotIDWHCA-01-0060  -1.823e-01   9.592e+00   -0.019    0.985
## plotIDWHCA-01-0061   5.005e-13   9.793e+00    0.000    1.000
## plotIDWHCA-01-0062   4.979e-13   9.658e+00    0.000    1.000
## plotIDWHCA-01-0063   5.139e-13   9.851e+00    0.000    1.000
## plotIDWHCA-01-0064   5.681e-13   1.227e+01    0.000    1.000
## plotIDWHCA-01-0065   1.542e-01   1.213e+01    0.013    0.990
## plotIDWHCA-01-0066   5.588e-13   1.216e+01    0.000    1.000
## plotIDWHCA-01-0070  -4.055e-01   1.051e+01   -0.039    0.969
## plotIDWHCA-01-0071   5.588e-13   1.046e+01    0.000    1.000
## plotIDWHCA-01-0072  -1.823e-01   1.058e+01   -0.017    0.986
## plotIDWHCA-01-0074  -1.792e+00   1.048e+01   -0.171    0.864
## plotIDWHCA-01-0075  -1.792e+00   1.054e+01   -0.170    0.865
## plotIDWHCA-02-0044  -1.099e+00   6.642e+00   -0.165    0.869
## plotIDWHCA-02-0045  -6.931e-01   6.612e+00   -0.105    0.917
## plotIDWHCA-02-0046   3.495e-13   6.366e+00    0.000    1.000
## plotIDWHCA-02-0047   4.168e-13   7.765e+00    0.000    1.000
## plotIDWHCA-02-0048   1.542e-01   7.518e+00    0.021    0.984
## plotIDWHCA-02-0049   3.868e-13   6.668e+00    0.000    1.000
## plotIDWHCA-02-0050  -1.823e-01   6.163e+00   -0.030    0.976
## plotIDWHCA-02-0052   1.542e-01   6.920e+00    0.022    0.982
## plotIDWHCA-02-0053   3.476e-13   6.007e+00    0.000    1.000
## plotIDWHCA-02-0054  -1.099e+00   8.137e+00   -0.135    0.893
## plotIDWHCA-02-0055   4.210e-13   7.840e+00    0.000    1.000
## plotIDWHCA-02-0056   1.542e-01   6.915e+00    0.022    0.982
## plotIDWHCA-02-0057   3.831e-13   6.794e+00    0.000    1.000
## plotIDWHCA-02-0059   3.725e-13   6.926e+00    0.000    1.000
## plotIDWHCA-02-0100  -1.823e-01   1.198e+01   -0.015    0.988
## plotIDWHCA-02-0101  -4.055e-01   1.215e+01   -0.033    0.973
## plotIDWHCA-02-0102   5.360e-13   1.245e+01    0.000    1.000
## plotIDWHCA-02-0103   1.542e-01   1.240e+01    0.012    0.990
## plotIDWHCA-02-0104  -1.099e+00   1.252e+01   -0.088    0.930
## plotIDWHCA-02-0105  -1.099e+00   1.225e+01   -0.090    0.929
## plotIDWHCA-02-0106   5.355e-13   1.221e+01    0.000    1.000
## plotIDWHCA-02-0107  -1.823e-01   1.229e+01   -0.015    0.988
## plotIDWHCA-02-0108  -1.823e-01   1.240e+01   -0.015    0.988
## plotIDWHCA-02-0109   1.542e-01   1.173e+01    0.013    0.990
## plotIDWHCA-02-0110   1.542e-01   1.191e+01    0.013    0.990
## plotIDWHCA-02-0111  -4.055e-01   1.189e+01   -0.034    0.973
## plotIDWHCA-02-0112  -1.099e+00   1.204e+01   -0.091    0.927
## plotIDWHCA-02-0113  -1.099e+00   1.164e+01   -0.094    0.925
## plotIDWHCA-02-0114   5.111e-13   1.161e+01    0.000    1.000
## plotIDWHCA-02-0115   5.107e-13   1.162e+01    0.000    1.000
## plotIDWHCA-02-0120   1.542e-01   1.257e+01    0.012    0.990
## plotIDWHCA-02-0121  -1.823e-01   1.247e+01   -0.015    0.988
## plotIDWHCA-02-0122   5.490e-13   1.262e+01    0.000    1.000
## plotIDWHCA-02-0124   1.542e-01   1.269e+01    0.012    0.990
## plotIDWHCA-02-0125   5.689e-13   1.261e+01    0.000    1.000
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```
## plotIDWHCA-02-0126   6.200e-13  1.373e+01    0.000    1.000
## plotIDWHCA-02-0127   6.148e-13  1.362e+01    0.000    1.000
## plotIDWHCA-02-0128   6.493e-13  1.438e+01    0.000    1.000
## plotIDWHCA-02-0129   5.407e-13  1.258e+01    0.000    1.000
## plotIDWHCA-02-0142  -1.099e+00  1.444e+01   -0.076    0.939
## plotIDWHCA-02-0144  -1.823e-01  1.382e+01   -0.013    0.989
## plotIDWHCA-02-0145  -6.931e-01  1.432e+01   -0.048    0.961
## plotIDWHCA-02-0146  -1.099e+00  1.500e+01   -0.073    0.942
## plotIDWHCA-02-0148   6.665e-13  1.469e+01    0.000    1.000
## plotIDWHCA-02-0149  -1.792e+00  1.522e+01   -0.118    0.906
## plotIDWHCA-02-0161  -1.099e+00  1.152e+01   -0.095    0.924
## plotIDWHCA-02-0162   5.273e-13  1.131e+01    0.000    1.000
## plotIDWHCA-02-0163  -4.055e-01  1.126e+01   -0.036    0.971
## plotIDWHCA-02-0164   1.542e-01  1.135e+01    0.014    0.989
## plotIDWHCA-03-0002  -6.931e-01  8.843e-01   -0.784    0.433
## plotIDWHCA-03-0003   1.542e-01  8.497e-01    0.181    0.856
## plotIDWHCA-03-0004  -4.055e-01  1.033e+00   -0.392    0.695
## plotIDWHCA-03-0005  -1.823e-01  1.223e+00   -0.149    0.882
## plotIDWHCA-03-0007   1.994e-13  2.446e+00    0.000    1.000
## plotIDWHCA-03-0008  -1.823e-01  2.699e+00   -0.068    0.946
## plotIDWHCA-03-0009   2.877e-01  2.477e+00    0.116    0.908
## plotIDWHCA-03-0010  -1.823e-01  2.017e+00   -0.090    0.928
## plotIDWHCA-03-0013   1.542e-01  3.700e+00    0.042    0.967
## plotIDWHCA-03-0014   1.542e-01  1.952e+00    0.079    0.937
## plotIDWHCA-03-0015   2.214e-13  3.626e+00    0.000    1.000
## plotIDWHCA-03-0016  -6.931e-01  3.409e+00   -0.203    0.839
## plotIDWHCA-03-0020  -1.792e+00  1.457e+00   -1.230    0.219
## plotIDWHCA-03-0021  -1.792e+00  2.267e+00   -0.790    0.429
## plotIDWHCA-03-0022  -6.931e-01  2.477e+00   -0.280    0.780
## plotIDWHCA-03-0024  -4.055e-01  2.125e+00   -0.191    0.849
## plotIDWHCA-03-0025  -1.823e-01  2.005e+00   -0.091    0.928
## plotIDWHCA-03-0027  -4.055e-01  7.258e-01   -0.559    0.576
## plotIDWHCA-03-0028   1.229e-13  6.375e-01    0.000    1.000
## plotIDWISR-01-0087  -1.099e+00  2.996e+01   -0.037    0.971
## date00-00-1977       1.524e-01  4.050e-01    0.376    0.707
## date00-00-1978       8.004e-02  2.831e-01    0.283    0.777
## date00-00-1979       4.055e-01  3.727e-01    1.088    0.277
## date00-00-1982              NA         NA       NA       NA
## date00-00-2001       5.101e-02  3.733e-01    0.137    0.891
## date05-03-2001      -5.349e-02  4.627e-01   -0.116    0.908
## date05-08-1998              NA         NA       NA       NA
## date05-09-2002              NA         NA       NA       NA
## date05-10-2002              NA         NA       NA       NA
## date05-21-2001       3.032e-01  5.524e-01    0.549    0.583
## date05-21-2004              NA         NA       NA       NA
## date05-22-2004              NA         NA       NA       NA
## date05-23-2000      -2.987e-02  5.894e-01   -0.051    0.960
## date05-24-2004              NA         NA       NA       NA
## date05-25-2000       1.069e+00  7.170e-01    1.491    0.136
## date05-25-2004              NA         NA       NA       NA
## date05-26-2004              NA         NA       NA       NA
## date05-27-1998              NA         NA       NA       NA
## date05-27-1999              NA         NA       NA       NA
## date05-30-2000       2.342e-01  4.847e-01    0.483    0.629
```

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## date05-31-2000     1.524e-01  5.751e-01   0.265   0.791
## date05-31-2001    -7.638e-01  7.170e-01  -1.065   0.287
## date06-01-1998           NA         NA      NA      NA
## date06-02-1998           NA         NA      NA      NA
## date06-02-2000           NA         NA      NA      NA
## date06-03-1998           NA         NA      NA      NA
## date06-04-2002     1.524e-01  6.034e-01   0.253   0.801
## date06-07-1998           NA         NA      NA      NA
## date06-07-2000     5.935e-03  3.928e-01   0.015   0.988
## date06-08-1998           NA         NA      NA      NA
## date06-10-1998           NA         NA      NA      NA
## date06-10-2004           NA         NA      NA      NA
## date06-11-1996           NA         NA      NA      NA
## date06-11-2004           NA         NA      NA      NA
## date06-12-1996           NA         NA      NA      NA
## date06-12-1998           NA         NA      NA      NA
## date06-12-2004           NA         NA      NA      NA
## date06-13-2004           NA         NA      NA      NA
## date06-14-2000    -9.887e-02  5.395e-01  -0.183   0.855
## date06-14-2004           NA         NA      NA      NA
## date06-15-1998           NA         NA      NA      NA
## date06-15-2004           NA         NA      NA      NA
## date06-16-1998           NA         NA      NA      NA
## date06-16-2004           NA         NA      NA      NA
## date06-17-1998           NA         NA      NA      NA
## date06-17-2002     1.524e-01  8.149e-01   0.187   0.852
## date06-17-2004           NA         NA      NA      NA
## date06-18-1996           NA         NA      NA      NA
## date06-18-1998           NA         NA      NA      NA
## date06-19-1990           NA         NA      NA      NA
## date06-19-2004           NA         NA      NA      NA
## date06-20-1996           NA         NA      NA      NA
## date06-21-1999           NA         NA      NA      NA
## date06-22-1998           NA         NA      NA      NA
## date06-23-1998           NA         NA      NA      NA
## date06-24-1998           NA         NA      NA      NA
## date06-27-2000     3.066e-01  5.646e-01   0.543   0.587
## date06-27-2004           NA         NA      NA      NA
## date06-29-1998           NA         NA      NA      NA
## date06-29-2000     2.342e-01  4.847e-01   0.483   0.629
## date06-30-1998           NA         NA      NA      NA
## date07-01-1976           NA         NA      NA      NA
## date07-01-1996           NA         NA      NA      NA
## date07-01-1998           NA         NA      NA      NA
## date07-02-1976           NA         NA      NA      NA
## date07-02-1996           NA         NA      NA      NA
## date07-02-1998           NA         NA      NA      NA
## date07-02-2001     2.624e-01  5.133e-01   0.511   0.609
## date07-06-2000     7.732e-01  9.111e-01   0.849   0.396
## date07-07-1998           NA         NA      NA      NA
## date07-07-2000    -1.019e+00  8.642e-01  -1.179   0.239
## date07-07-2004           NA         NA      NA      NA
## date07-08-1998           NA         NA      NA      NA
## date07-08-2004           NA         NA      NA      NA
```

```
## date07-09-1996             NA          NA       NA       NA
## date07-09-1998             NA          NA       NA       NA
## date07-10-2002      -2.245e-02   4.003e-01   -0.056    0.955
## date07-13-1996             NA          NA       NA       NA
## date07-13-1998             NA          NA       NA       NA
## date07-13-2000      -1.702e-03   5.646e-01   -0.003    0.998
## date07-14-1998             NA          NA       NA       NA
## date07-15-1996             NA          NA       NA       NA
## date07-15-1998             NA          NA       NA       NA
## date07-15-2002             NA          NA       NA       NA
## date07-16-1996             NA          NA       NA       NA
## date07-16-1998             NA          NA       NA       NA
## date07-16-2002       1.223e-01   4.382e-01    0.279    0.780
## date07-17-1996             NA          NA       NA       NA
## date07-17-1998             NA          NA       NA       NA
## date07-17-2000       6.397e-01   5.259e-01    1.216    0.224
## date07-17-2002       3.348e-01   5.894e-01    0.568    0.570
## date07-18-2000       3.032e-01   5.524e-01    0.549    0.583
## date07-18-2002      -9.887e-02   5.395e-01   -0.183    0.855
## date07-19-2000       8.004e-02   5.293e-01    0.151    0.880
## date07-20-1998             NA          NA       NA       NA
## date07-21-1997             NA          NA       NA       NA
## date07-21-1998             NA          NA       NA       NA
## date07-22-1996             NA          NA       NA       NA
## date07-22-1998             NA          NA       NA       NA
## date07-22-2002             NA          NA       NA       NA
## date07-23-1997             NA          NA       NA       NA
## date07-23-1998             NA          NA       NA       NA
## date07-23-2002             NA          NA       NA       NA
## date07-24-1996             NA          NA       NA       NA
## date07-24-1997             NA          NA       NA       NA
## date07-24-2002             NA          NA       NA       NA
## date07-25-1996             NA          NA       NA       NA
## date07-25-2000       8.004e-02   4.529e-01    0.177    0.860
## date07-26-2002             NA          NA       NA       NA
## date07-27-1998             NA          NA       NA       NA
## date07-28-1998             NA          NA       NA       NA
## date07-28-1999             NA          NA       NA       NA
## date07-29-1996             NA          NA       NA       NA
## date07-29-1998             NA          NA       NA       NA
## date07-30-1996             NA          NA       NA       NA
## date07-30-1998             NA          NA       NA       NA
## date07-31-1998             NA          NA       NA       NA
## date07-31-2002       2.136e-01   4.627e-01    0.462    0.644
## date08-01-2000      -3.584e-01   6.563e-01   -0.546    0.585
## date08-03-1998             NA          NA       NA       NA
## date08-04-1997             NA          NA       NA       NA
## date08-04-1998             NA          NA       NA       NA
## date08-04-1999             NA          NA       NA       NA
## date08-05-1997             NA          NA       NA       NA
## date08-05-1998             NA          NA       NA       NA
## date08-06-1997             NA          NA       NA       NA
## date08-06-1998             NA          NA       NA       NA
## date08-06-2001             NA          NA       NA       NA
```

```
## date08-07-1996          NA        NA        NA        NA
## date08-07-1997          NA        NA        NA        NA
## date08-07-1998          NA        NA        NA        NA
## date08-08-1996          NA        NA        NA        NA
## date08-08-1997          NA        NA        NA        NA
## date08-08-2001          NA        NA        NA        NA
## date08-09-2000   8.004e-02 6.430e-01     0.124     0.901
## date08-09-2001   8.004e-02 4.722e-01     0.170     0.865
## date08-11-1998          NA        NA        NA        NA
## date08-12-1998          NA        NA        NA        NA
## date08-13-1996          NA        NA        NA        NA
## date08-13-1998          NA        NA        NA        NA
## date08-14-1996          NA        NA        NA        NA
## date08-15-2000          NA        NA        NA        NA
## date08-16-2000          NA        NA        NA        NA
## date08-17-1998          NA        NA        NA        NA
## date08-18-1997          NA        NA        NA        NA
## date08-19-1996          NA        NA        NA        NA
## date08-19-1997          NA        NA        NA        NA
## date08-20-1997          NA        NA        NA        NA
## date08-21-1998          NA        NA        NA        NA
## date08-22-1998          NA        NA        NA        NA
## date08-26-1996          NA        NA        NA        NA
## date08-26-2002          NA        NA        NA        NA
## date08-27-1996          NA        NA        NA        NA
## date08-27-2001          NA        NA        NA        NA
## date08-28-1996          NA        NA        NA        NA
## date08-28-2002          NA        NA        NA        NA
## date08-29-1996          NA        NA        NA        NA
## date08-29-2000          NA        NA        NA        NA
## date08-29-2001          NA        NA        NA        NA
## date08-29-2002          NA        NA        NA        NA
## date08-30-2001          NA        NA        NA        NA
## date08-31-2001          NA        NA        NA        NA
## date09-03-1996          NA        NA        NA        NA
## date09-03-1997          NA        NA        NA        NA
## date09-04-1996          NA        NA        NA        NA
## date09-04-1997          NA        NA        NA        NA
## date09-04-1998          NA        NA        NA        NA
## date09-05-1996          NA        NA        NA        NA
## date09-05-1998          NA        NA        NA        NA
## date09-10-1996          NA        NA        NA        NA
## date09-10-1998          NA        NA        NA        NA
## date09-10-2001   8.004e-02 6.430e-01     0.124     0.901
## date09-11-1998          NA        NA        NA        NA
## date09-11-2001          NA        NA        NA        NA
## date09-15-1997          NA        NA        NA        NA
## date09-16-1997          NA        NA        NA        NA
## date09-18-2000          NA        NA        NA        NA
## date09-19-2000          NA        NA        NA        NA
## date09-23-1997          NA        NA        NA        NA
## date09-24-1998          NA        NA        NA        NA
## date09-25-1997          NA        NA        NA        NA
## date10-06-1998          NA        NA        NA        NA
```

```
## date10-13-1998            NA         NA      NA      NA
## date10-19-1998            NA         NA      NA      NA
## date10-29-1998            NA         NA      NA      NA
## plotsize                  NA         NA      NA      NA
## utme               2.065e-17  4.149e-04   0.000   1.000
## utmn               1.240e-17  8.562e-04   0.000   1.000
## elev              -1.251e-16  3.099e-03   0.000   1.000
## tci               -1.317e-15  3.238e-02   0.000   1.000
## streamdist        -8.126e-18  1.353e-03   0.000   1.000
## disturbLT-SEL      1.913e-14  4.797e-01   0.000   1.000
## disturbSETTLE      2.365e-14  6.319e-01   0.000   1.000
## disturbVIRGIN      2.265e-14  5.959e-01   0.000   1.000
## beers             -1.759e-16  1.142e-01   0.000   1.000
##
## (Dispersion parameter for poisson family taken to be 1)
##
##     Null deviance: 721.4614  on 793  degrees of freedom
## Residual deviance:   9.7371  on 101  degrees of freedom
##   (1 observation deleted due to missingness)
## AIC: 4104.8
##
## Number of Fisher Scoring iterations: 4
```

```r
summary(abies_glm)
```

```
##
## Call:
## glm(formula = cover ~ ., family = "poisson", data = Abies)
##
## Deviance Residuals:
##     Min       1Q   Median       3Q      Max
## -0.2241   0.0000   0.0000   0.0000   0.2579
##
## Coefficients: (29 not defined because of singularities)
##                     Estimate Std. Error z value Pr(>|z|)
## (Intercept)       -1.051e-09  1.080e+04   0.000   1.0000
## plotIDATBN-01-0532 2.079e+00  7.007e+01   0.030   0.9763
## plotIDATBN-01-0533 1.099e+00  7.075e+01   0.016   0.9876
## plotIDATBN-01-0536 1.099e+00  1.895e+01   0.058   0.9538
## plotIDATBP-01-0001 2.079e+00  1.196e+01   0.174   0.8620
## plotIDATBP-01-0005 1.386e+00  1.915e+01   0.072   0.9423
## plotIDATBP-01-0007 1.609e+00  2.249e+01   0.072   0.9430
## plotIDATBP-01-0008 6.931e-01  2.110e+01   0.033   0.9738
## plotIDDSLM-01-0002 1.099e+00  1.227e+01   0.090   0.9287
## plotIDDSLM-01-0004 1.099e+00  1.181e+01   0.093   0.9259
## plotIDDSLM-01-0006 1.099e+00  2.201e+01   0.050   0.9602
## plotIDDSLM-01-0008 1.099e+00  8.881e+00   0.124   0.9015
## plotIDDSLM-01-0010 1.386e+00  2.203e+01   0.063   0.9498
## plotIDDSLM-01-0011 1.099e+00  9.771e+00   0.112   0.9105
## plotIDDSLM-01-0013 1.099e+00  5.578e+00   0.197   0.8439
## plotIDDSLM-01-0024 1.099e+00  6.660e+00   0.165   0.8690
## plotIDDSLM-01-0027 1.099e+00  9.244e+00   0.119   0.9054
## plotIDDSLM-01-0029 1.099e+00  6.000e+00   0.183   0.8547
## plotIDDSLM-01-0037 1.099e+00  1.278e+01   0.086   0.9315
```

```
## plotIDDSLM-01-0081  1.099e+00  2.210e+01  0.050  0.9603
## plotIDDSLM-01-0086  1.099e+00  6.964e+00  0.158  0.8747
## plotIDDSLM-01-0115  1.099e+00  1.023e+01  0.107  0.9144
## plotIDDSLM-01-0134  1.946e+00  2.204e+01  0.088  0.9297
## plotIDDSLM-01-0136  1.099e+00  9.988e+00  0.110  0.9124
## plotIDDSLM-01-0137  1.099e+00  6.365e+00  0.173  0.8630
## plotIDDSLM-01-0138  1.386e+00  2.238e+01  0.062  0.9506
## plotIDDSLM-01-0143  1.099e+00  1.715e+01  0.064  0.9489
## plotIDDSLM-01-0253  1.386e+00  1.802e+01  0.077  0.9387
## plotIDDSLM-01-0302  1.099e+00  1.197e+01  0.092  0.9269
## plotIDDSLM-01-0304  1.099e+00  1.684e+01  0.065  0.9480
## plotIDDSLM-01-0305  1.099e+00  1.069e+01  0.103  0.9181
## plotIDDSLM-01-0309  1.609e+00  1.319e+01  0.122  0.9029
## plotIDDSLM-01-0310  1.386e+00  1.612e+01  0.086  0.9315
## plotIDDSLM-01-0313  1.099e+00  1.126e+01  0.098  0.9223
## plotIDDSLM-01-0314  1.099e+00  1.149e+01  0.096  0.9238
## plotIDDSLM-01-0322  1.099e+00  2.003e+01  0.055  0.9563
## plotIDDSLM-01-0324  1.386e+00  1.796e+01  0.077  0.9385
## plotIDDSLM-01-0326  1.099e+00  2.009e+01  0.055  0.9564
## plotIDDSLM-01-0330  1.099e+00  2.020e+01  0.054  0.9566
## plotIDDSLM-01-0343  1.386e+00  1.904e+01  0.073  0.9419
## plotIDDSLM-01-0345  1.099e+00  2.057e+01  0.053  0.9574
## plotIDDSLM-01-0346  1.386e+00  1.946e+01  0.071  0.9432
## plotIDDSLM-01-0347  1.386e+00  1.847e+01  0.075  0.9402
## plotIDFRID-01-0003  1.609e+00  1.482e+01  0.109  0.9135
## plotIDFRID-0T-0012  1.946e+00  9.828e+00  0.198  0.8430
## plotIDFRID-0T-0013  1.946e+00  1.060e+01  0.184  0.8544
## plotIDFRID-0T-0014  1.386e+00  1.129e+01  0.123  0.9022
## plotIDFRID-0T-0015  1.386e+00  1.182e+01  0.117  0.9067
## plotIDFRID-0T-0016  1.792e+00  1.268e+01  0.141  0.8876
## plotIDFRID-0T-0017  1.946e+00  1.407e+01  0.138  0.8900
## plotIDPITT-01-0045  6.931e-01  7.459e+01  0.009  0.9926
## plotIDUFRL-04-00A1  1.386e+00  2.007e+01  0.069  0.9449
## plotIDUFRL-06-0133  1.049e+00  2.097e+01  0.050  0.9601
## plotIDUFRL-06-0134  1.099e+00  2.158e+01  0.051  0.9594
## plotIDUFRL-06-0135  1.192e+00  2.173e+01  0.055  0.9563
## plotIDUFRL-06-0136  1.099e+00  2.160e+01  0.051  0.9594
## plotIDUFRL-06-0137  1.099e+00  2.241e+01  0.049  0.9609
## plotIDUFRL-06-0138  8.109e-01  2.195e+01  0.037  0.9705
## plotIDUFRL-06-0139  1.049e+00  2.006e+01  0.052  0.9583
## plotIDULRY-04-0024  1.609e+00  2.307e+01  0.070  0.9444
## plotIDULRY-04-0025  1.609e+00  2.291e+01  0.070  0.9440
## plotIDULRY-04-0026  2.079e+00  2.394e+01  0.087  0.9308
## plotIDULRY-04-0090  6.931e-01  1.942e+01  0.036  0.9715
## plotIDULRY-04-0091  6.931e-01  1.951e+01  0.036  0.9717
## plotIDULRY-04-0092  2.197e+00  2.137e+01  0.103  0.9181
## plotIDULRY-04-0095  1.792e+00  2.138e+01  0.084  0.9332
## plotIDULRY-04-0096  6.931e-01  2.039e+01  0.034  0.9729
## plotIDULRY-04-0098  6.931e-01  1.959e+01  0.035  0.9718
## plotIDULRY-04-0114  1.099e+00  2.601e+01  0.042  0.9663
## plotIDULRY-04-0142  1.386e+00  2.174e+01  0.064  0.9492
## plotIDULRY-04-0144  1.386e+00  2.280e+01  0.061  0.9515
## plotIDULRY-04-0145  1.386e+00  1.918e+01  0.072  0.9424
## plotIDULRY-04-0147  1.946e+00  2.296e+01  0.085  0.9325
```

```
## plotIDULRY-04-0155   1.946e+00  1.925e+01   0.101   0.9195
## plotIDULRY-04-0157   1.099e+00  1.393e+01   0.079   0.9371
## plotIDULRY-04-0158   1.609e+00  2.031e+01   0.079   0.9368
## plotIDWISR-01-0077   6.931e-01  2.211e+01   0.031   0.9750
## plotIDWISR-01-0079   1.099e+00  2.194e+01   0.050   0.9601
## plotIDWISR-01-0080   1.099e+00  2.171e+01   0.051   0.9596
## plotIDWISR-01-0082   6.931e-01  2.177e+01   0.032   0.9746
## plotIDWISR-01-0083   1.099e+00  1.953e+01   0.056   0.9552
## plotIDWISR-01-0084   6.931e-01  2.087e+01   0.033   0.9735
## plotIDWISR-01-0088   1.386e+00  1.358e+01   0.102   0.9187
## plotIDWISR-01-0092   1.792e+00  1.253e+01   0.143   0.8862
## date00-00-1979       9.808e-01  4.787e-01   2.049   0.0405 *
## date00-00-1982             NA         NA      NA       NA
## date05-11-1999             NA         NA      NA       NA
## date05-15-2001       6.360e-01  5.286e-01   1.203   0.2289
## date05-16-2001       1.099e+00  5.893e-01   1.864   0.0623 .
## date05-23-2004             NA         NA      NA       NA
## date06-08-1999             NA         NA      NA       NA
## date06-12-2004             NA         NA      NA       NA
## date06-13-1990             NA         NA      NA       NA
## date06-14-1990             NA         NA      NA       NA
## date06-15-1990             NA         NA      NA       NA
## date06-23-1990             NA         NA      NA       NA
## date06-27-1990             NA         NA      NA       NA
## date07-09-2001       9.808e-01  5.951e-01   1.648   0.0993 .
## date07-11-2001             NA         NA      NA       NA
## date07-13-1998             NA         NA      NA       NA
## date07-14-1998             NA         NA      NA       NA
## date07-24-2002             NA         NA      NA       NA
## date07-25-2002             NA         NA      NA       NA
## date07-29-1998             NA         NA      NA       NA
## date08-05-1999             NA         NA      NA       NA
## date08-14-1998             NA         NA      NA       NA
## date08-15-1998             NA         NA      NA       NA
## date08-21-1998             NA         NA      NA       NA
## date08-22-1998             NA         NA      NA       NA
## date08-25-1999             NA         NA      NA       NA
## date08-28-2001             NA         NA      NA       NA
## date09-17-1997             NA         NA      NA       NA
## date10-29-1998             NA         NA      NA       NA
## plotsize                   NA         NA      NA       NA
## utme                 4.874e-16  2.570e-03   0.000   1.0000
## utmn                 2.436e-16  2.719e-03   0.000   1.0000
## elev                 1.805e-15  2.491e-02   0.000   1.0000
## tci                 -3.545e-16  3.822e-01   0.000   1.0000
## streamdist          -2.769e-16  5.846e-03   0.000   1.0000
## disturbLT-SEL              NA         NA      NA       NA
## disturbSETTLE             NA         NA      NA       NA
## disturbVIRGIN             NA         NA      NA       NA
## beers                2.909e-15  1.497e+00   0.000   1.0000
## ---
## Signif. codes:  0 '***' 0.001 '**' 0.01 '*' 0.05 '.' 0.1 ' ' 1
##
## (Dispersion parameter for poisson family taken to be 1)
```

```
##
##     Null deviance: 98.82196  on 101  degrees of freedom
## Residual deviance:  0.35731  on   8  degrees of freedom
## AIC: 526.88
##
## Number of Fisher Scoring iterations: 3
```

I then calculated the r squared by creating a function that finds r squared by subtracting residual deviation divided by null deviation from 1.

```
pseudo_r2 = function(glm_mod) {
    1 -  glm_mod$deviance / glm_mod$null.deviance
}

pseudo_r2(acer_glm)
```

```
## [1] 0.9865037
```

```
pseudo_r2(abies_glm)
```

```
## [1] 0.9963843
```

According to the calculated r squared function the abies model has a higher r squared value at .9963 however the acer model also has a high r squared value at .9865. To compare the OLS model with the GLM model I used the anova function to find the sum of squares for the two models.

```
anova(acerMod1, acer_glm)
```

```
## Analysis of Variance Table
##
## Model 1: cover ~ plotID + date + plotsize + utme + utmn + elev + tci +
##     streamdist + disturb + beers
## Model 2: cover ~ plotID + date + plotsize + utme + utmn + elev + tci +
##     streamdist + disturb + beers
##   Res.Df    RSS Df Sum of Sq F Pr(>F)
## 1    101 48.875
## 2    101  9.737  0    39.138
```

```
anova(abiesMod1, abies_glm)
```

```
## Analysis of Variance Table
##
## Model 1: cover ~ plotID + date + plotsize + utme + utmn + elev + tci +
##     streamdist + disturb + beers
## Model 2: cover ~ plotID + date + plotsize + utme + utmn + elev + tci +
##     streamdist + disturb + beers
##   Res.Df     RSS Df Sum of Sq F Pr(>F)
## 1      8 2.66667
## 2      8 0.35731  0    2.3094
```

3.) The analysis performed on the data set was a multi-step process. First I analyzed the dataset as a whole using an intercept only model. This model extrapolates from the intercept and slope and not from other facotrs in the dataset. According to this analysis the factors that best determine coverage in an ordinary linear are plotsize, species, elev, disturb, and beers. This model gave the same p-values as a model that was created using all of the other factors instead of just the intercept. This tells us that while this adds some significant data, it does not neccesarily improve our model for coverage. The next analysis that was performed involved subsetting the data by species type. This was done to see if some factors were more important to modelling different species. Breaking up the data did not effect the Acer model however, the Abies model actually performed slightly worse when using the subsetted data.