

# Impacts of Hurricane Irma on Florida Bay Islands, Everglades National Park

## Estuaries and Coasts

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| Supplemental Table 1: Elevation and Location Data 2018 Stations |           |            |             |                |                 |                    |                     |                   |                  |                       |               |                                                               |                                                               |  |  |  |
|-----------------------------------------------------------------|-----------|------------|-------------|----------------|-----------------|--------------------|---------------------|-------------------|------------------|-----------------------|---------------|---------------------------------------------------------------|---------------------------------------------------------------|--|--|--|
| UTM 17N / NAD83(2011)                                           |           |            |             |                |                 |                    |                     |                   |                  |                       |               |                                                               |                                                               |  |  |  |
| Station                                                         | Date      | Easting    | Northing    | Latitude - DMS | Longitude - DMS | Latitude - Decimal | Longitude - Decimal | Ellipsoid Ht. (m) | GEOID12A Ht. (m) | NAVD88 (m) (GEOID12A) | Horz. SD (mm) | Vert. SD (mm)                                                 | Notes                                                         |  |  |  |
| BAP1                                                            | 1/29/2018 | 531713.894 | 2768063.163 | 25 1 40.0914   | 80 41 08.3412   | 25.02780           | -80.68565           | -23.7046          | -23.470          | -0.215                | 6             | 13                                                            | STATUS:FIXED                                                  |  |  |  |
| BAP2                                                            | 1/29/2018 | 531780.416 | 2768162.937 | 25 1 43.3301   | 80 41 05.9592   | 25.02870           | -80.68499           | -23.7913          | -23.473          | -0.301                | 9             | 20                                                            | STATUS:FIXED                                                  |  |  |  |
| BAP3                                                            | 1/29/2018 | 531657.872 | 2767945.557 | 25 1 36.2719   | 80 41 10.3499   | 25.02674           | -80.68621           | -23.4550          | -23.467          | 0.012 3954            | 2382          | STATUS:DGPS; Data unreliable, RTK couldn't fix in tree canopy |                                                               |  |  |  |
| BAP4                                                            | 1/29/2018 | 531563.199 | 2768014.500 | 25 1 38.5206   | 80 41 13.7225   | 25.02737           | -80.68715           | -23.5085          | -23.466          | -0.043                | 6             | 16                                                            | STATUS:FIXED                                                  |  |  |  |
| BAP5                                                            | 1/29/2018 | 531799.785 | 2767892.309 | 25 1 34.5302   | 80 41 05.2906   | 25.02626           | -80.68480           | -23.2195          | -23.470          | 0.251                 | 8             | 13                                                            | STATUS:FIXED                                                  |  |  |  |
| RUSP2                                                           | 1/30/2018 | 536267.775 | 2774146.412 | 25 4 57.4959   | 80 38 25.2687   | 25.08264           | -80.64035           | -23.5013          | -23.673          | 0.172                 | 8             | 14                                                            | STATUS:FIXED                                                  |  |  |  |
| RUSP3                                                           | 1/30/2018 | 535674.904 | 2773338.154 | 25 4 31.2695   | 80 38 46.5090   | 25.07535           | -80.64625           | -23.8669          | -23.646          | -0.221                | 8             | 15                                                            | STATUS:FIXED                                                  |  |  |  |
| RUSP4                                                           | 1/30/2018 | 535631.915 | 2773285.742 | 25 4 29.5692   | 80 38 48.0484   | 25.07488           | -80.64668           | -23.5808          | -23.644          | 0.063                 | 7             | 15                                                            | STATUS:FIXED                                                  |  |  |  |
| JFP1                                                            | 1/31/2018 | 521341.885 | 2772677.115 | 25 4 10.7400   | 80 47 18.1896   | 25.06965           | -80.78839           | -23.480           | -23.232          | -0.287                | 6             | 10                                                            | Grafnet v8.7, subtracted height of board from elevation, G128 |  |  |  |
| WRP1                                                            | 2/1/2018  | 526751.577 | 2772602.058 | 25 4 8.0022    | 80 44 05.0944   | 25.06889           | -80.73475           | -23.6371          | -23.384          | -0.253 58             | 98            | STATUS:FLOAT; High error - position not fixed                 |                                                               |  |  |  |
| WRP3                                                            | 2/1/2018  | 526760.451 | 2772922.304 | 25 4 18.4133   | 80 44 04.7552   | 25.07178           | -80.73465           | -23.5769          | -23.388          | -0.189                | 7             | 14                                                            | STATUS:FIXED                                                  |  |  |  |
| WRP5                                                            | 2/1/2018  | 526683.578 | 2772611.729 | 25 4 8.3210    | 80 44 07.5209   | 25.06898           | -80.73542           | -23.3841          | -23.382          | -0.002                | 9             | 19                                                            | STATUS:FIXED                                                  |  |  |  |

**Supplemental Table 2: Elevation and Location Data 2014 Stations**

| UTM 17N / NAD83(2011) |         |             |            |          |    |           |        |                   |         |                  |                       |         |          |                                      |
|-----------------------|---------|-------------|------------|----------|----|-----------|--------|-------------------|---------|------------------|-----------------------|---------|----------|--------------------------------------|
| Station               | Date    | Northing    | Easting    | Latitude |    | Longitude |        | Ellipsoid Ht. (m) |         | GEOID12A Ht. (m) | NAVD88 (m) (GEOID12A) | SD (mm) | RMS (mm) | Notes                                |
| KMLB                  | n/a     | 2745742.561 | 518778.304 | 24       | 49 | 35.17929  | 080 48 | 51.01292          | -22.186 | -22.911          | 0.724                 |         |          | Base established at Keys Marine Lab* |
| BAP1                  | 4/14/14 | 2768069.300 | 531701.985 | 25       | 01 | 40.29180  | 080 41 | 08.76567          | -23.707 | -23.470          | -0.238                | 1.2     | 20.8     | Grafnet v8.4                         |
| BAP2                  | 4/14/14 | 2768162.536 | 531780.513 | 25       | 01 | 43.31707  | 080 41 | 05.95582          | -23.828 | -23.473          | -0.356                | 1.3     | 21.2     | Grafnet v8.4                         |
| WRP1                  | 4/15/14 | 2772602.816 | 526753.044 | 25       | 04 | 08.02679  | 080 44 | 05.04194          | -23.578 | -23.384          | -0.194                | 1.7     | 40.7     | Grafnet v8.4                         |
| WRP2                  | 4/15/14 | 2772401.631 | 526941.498 | 25       | 04 | 01.47394  | 080 43 | 58.32927          | -23.561 | -23.387          | -0.174                | 4.1     | 9.1      | Grafnet v8.4                         |
| WRP3                  | 4/15/14 | 2772922.377 | 526760.388 | 25       | 04 | 18.41567  | 080 44 | 04.75741          | -23.410 | -23.388          | -0.022                | 1.7     | 24.8     | Grafnet v8.4                         |
| WRP4                  | 4/15/14 | 2772940.653 | 526756.196 | 25       | 04 | 19.01012  | 080 44 | 04.90574          | -23.312 | -23.388          | 0.076                 | 6.3     | 10.5     | Grafnet v8.4                         |
| JFP1                  | 4/16/14 | 2772678.887 | 521347.303 | 25       | 04 | 10.80989  | 080 47 | 17.99608          | -23.463 | -23.233          | -0.231                | 1.2     | 15.7     | Grafnet v8.4                         |
| JFP2                  | 4/16/14 | 2772604.066 | 521378.734 | 25       | 04 | 08.37577  | 080 47 | 16.87832          | -23.678 | -23.233          | -0.446                | 4.8     | 21.1     | Grafnet v8.4                         |
| JFP3                  | 4/16/14 | 2772464.074 | 521273.689 | 25       | 04 | 03.82976  | 080 47 | 20.63571          | -23.700 | -23.229          | -0.472                | 5.2     | 17.9     | Grafnet v8.4                         |
| RUP1                  | 4/17/14 | 2774082.606 | 536350.250 | 25       | 04 | 55.41433  | 080 38 | 22.33056          | -24.026 | -23.674          | -0.352                | 2.6     | 17.9     | Grafnet v8.4                         |
| RUP2                  | 4/17/14 | 2774146.690 | 536268.372 | 25       | 04 | 57.50484  | 080 38 | 25.24736          | -23.111 | -23.673          | 0.561                 | 2.4     | 28.0     | Grafnet v8.4                         |
| RUP3                  | 4/17/14 | 2773337.905 | 535674.865 | 25       | 04 | 31.26140  | 080 38 | 46.51035          | -23.907 | -23.646          | -0.262                | 3.3     | 16.3     | Grafnet v8.4                         |

\*Keys Marine Lab located on Long Key, FL

**Supplemental Table 3: Loss on Ignition (LOI) and Bulk Density Data**

| GLW0118 BAP-3A       |        |       |                        | GLW0118 RUSP4A       |        |       |                        |
|----------------------|--------|-------|------------------------|----------------------|--------|-------|------------------------|
| Sample<br>Depth (cm) | LOI    | % LOI | Bulk Density<br>(g/cc) | Sample<br>Depth (cm) | LOI    | % LOI | Bulk Density<br>(g/cc) |
| 0-1                  | n/a    | n/a   | n/a                    | 0-1                  | n/a    | n/a   | n/a                    |
| 1-2                  | 0.2167 | 21.67 | 0.50                   | 1-2                  | n/a    | n/a   | n/a                    |
| 2-3                  | 0.2679 | 26.79 | 0.68                   | 2-3                  | 0.1000 | 10.00 | 0.42                   |
| 3-4                  | 0.2602 | 26.02 | 0.61                   | 3-4                  | 0.1727 | 17.27 | 0.80                   |
| 4-5                  | 0.3060 | 30.60 | 0.95                   | 4-5                  | 0.1329 | 13.29 | 0.47                   |
| 5-6                  | 0.2622 | 26.22 | 0.63                   | 5-6                  | 0.0637 | 6.37  | 0.77                   |
| 6-7                  | 0.2907 | 29.07 | 0.79                   | 6-7                  | 0.0832 | 8.32  | 0.90                   |
| 7-8                  | 0.2715 | 27.15 | 0.70                   | 7-8                  | 0.1136 | 11.36 | 1.14                   |
| 8-9                  | 0.4092 | 40.92 | 1.06                   | 8-9                  | 0.1084 | 10.84 | 1.27                   |
| 9-10                 | 0.2897 | 28.97 | 0.92                   | 9-10                 | 0.0916 | 9.16  | 1.24                   |
| 10-11                | 0.3655 | 36.55 | 0.73                   | 10-11                | 0.1061 | 10.61 | 1.27                   |
| 11-12                | 0.2228 | 22.28 | 0.76                   | 11-12                | 0.0997 | 9.97  | 1.02                   |
| 12-13                | 0.2541 | 25.41 | 0.80                   | 12-13                | 0.0874 | 8.74  | 0.49                   |
| 13-14                | 0.2470 | 24.70 | 0.68                   | 13-14                | 0.0910 | 9.10  | 1.15                   |
| 14-15                | 0.3553 | 35.53 | 0.87                   | 14-15                | 0.0808 | 8.08  | 0.92                   |
| 15-16                | 0.3086 | 30.86 | 0.80                   | 15-16                | 0.0850 | 8.50  | 1.08                   |
| 16-17                | 0.4367 | 43.67 | 1.21                   | 16-17                | 0.0742 | 7.42  | 0.70                   |
| 17-18                | 0.3419 | 34.19 | 0.84                   | 17-18                | 0.0701 | 7.01  | 0.64                   |
| 18-19                | 0.4089 | 40.89 | 0.82                   | 18-19                | 0.0508 | 5.08  | 0.62                   |
| 19-20                | 0.4247 | 42.47 | 0.92                   | 19-20                | 0.0554 | 5.54  | 0.51                   |
| 20-21                | 0.3960 | 39.60 | 0.98                   | 20-21                | 0.0892 | 8.92  | 0.87                   |
| 21-22                | 0.4384 | 43.84 | 0.98                   | 21-22                | 0.0828 | 8.28  | 1.12                   |
| 22-23                | 0.4115 | 41.15 | 0.96                   | 22-23                | 0.0653 | 6.53  | 0.91                   |
| 23-24                | 0.4249 | 42.49 | 1.04                   | 23-24                | 0.0617 | 6.17  | 0.92                   |
| 24-25                | 0.4261 | 42.61 | 0.86                   | 24-25                | 0.0819 | 8.19  | 1.01                   |
| 25-26                | 0.4120 | 41.20 | 1.02                   | 25-26                | 0.0635 | 6.35  | 1.02                   |
| 26-27                | 0.3894 | 38.94 | 1.01                   | 26-27                | 0.0823 | 8.23  | 1.10                   |
| 27-28                | 0.4846 | 48.46 | 1.08                   | 27-28                | 0.0989 | 9.89  | 0.97                   |
| 28-29                | 0.4076 | 40.76 | 1.00                   | 28-29                | 0.0888 | 8.88  | 1.23                   |
| 29-30                | 0.4842 | 48.42 | 1.19                   | 29-30                | 0.0818 | 8.18  | 0.91                   |
| 30-31                | 0.4467 | 44.67 | 1.17                   | 30-31                | 0.0770 | 7.70  | 0.83                   |
| 31-32                | 0.4963 | 49.63 | 1.10                   | 31-32                | 0.0710 | 7.10  | 1.24                   |
| 32-33                | 0.6418 | 64.18 | 1.21                   | 32-33                | 0.0973 | 9.73  | 1.03                   |
| 33-34                | 0.5151 | 51.51 | 1.04                   | 33-34                | 0.1038 | 10.38 | 1.24                   |
| 34-35                | 0.5852 | 58.52 | 1.31                   | 34-35                | 0.1032 | 10.32 | 1.42                   |
| 35-36                | 0.8328 | 83.28 | 1.27                   | 35-36                | 0.1015 | 10.15 | 1.38                   |
| 36-37                | 0.6805 | 68.05 | 1.43                   | 36-37                | 0.0922 | 9.22  | 1.56                   |
| 37-38                | 0.6116 | 61.16 | 1.17                   | 37-38                | 0.1023 | 10.23 | 1.64                   |
| 38-39                | 0.7441 | 74.41 | 1.42                   | 38-39                | 0.1103 | 11.03 | 1.37                   |
| 39-40                | 0.6126 | 61.26 | 1.32                   | 39-40                | 0.1082 | 10.82 | 1.22                   |
| 40-41                | 0.6036 | 60.36 | 1.35                   | 40-41                | 0.1067 | 10.67 | 1.12                   |

|       |        |       |      |
|-------|--------|-------|------|
| 41-42 | 3.7288 | ---   | 1.25 |
| 42-43 | 0.6263 | 62.63 | 1.29 |
| 43-44 | 0.6462 | 64.62 | 1.42 |
| 44-45 | 0.6635 | 66.35 | 1.32 |
| 45-46 | 0.5192 | 51.92 | 1.17 |
| 46-47 | 0.3939 | 39.39 | 1.09 |
| 47-48 | 0.5858 | 58.58 | 1.04 |
| 48-49 | 0.7068 | 70.68 | 1.18 |
| 49-50 | 0.6937 | 69.37 | 1.21 |

|       |        |       |      |
|-------|--------|-------|------|
| 41-42 | 0.1052 | 10.52 | 1.55 |
| 42-43 | 0.0998 | 9.98  | 1.17 |
| 43-44 | 0.0910 | 9.10  | 1.37 |
| 44-45 | 0.0946 | 9.46  | 1.32 |
| 45-46 | 0.1104 | 11.04 | 1.26 |
| 46-47 | 0.1037 | 10.37 | 1.28 |
| 47-48 | 0.0879 | 8.79  | 1.27 |
| 48-49 | 0.0747 | 7.47  | 1.19 |
| 49-50 | 0.0806 | 8.06  | 1.36 |

Supplemental Table 4: Pb-210 Data and Age Model Results

| Continuous Rate of Supply (CRS) Age Model Results |            |                 |                                        |                     |                   |                               |                                |                              |                               |                                             |                                                    |                        | Constant Flux Constant Sedimentation (CFCs) Age Model Results |                                               |                       |                                  |                        |                                  |                                           |                                                     |                |          |
|---------------------------------------------------|------------|-----------------|----------------------------------------|---------------------|-------------------|-------------------------------|--------------------------------|------------------------------|-------------------------------|---------------------------------------------|----------------------------------------------------|------------------------|---------------------------------------------------------------|-----------------------------------------------|-----------------------|----------------------------------|------------------------|----------------------------------|-------------------------------------------|-----------------------------------------------------|----------------|----------|
| Core ID                                           | Depth (cm) | Mean Depth (cm) | *Dry Bulk Density (g/cm <sup>3</sup> ) | *Organic Matter (%) | Sample Weight (g) | Total Pb-210 Activity (dpm/g) | Total Pb-210 Error +/- (dpm/g) | Est. Ra-226 Activity (dpm/g) | Est. Ra-226 Error (+/- dpm/g) | #Cumulative Mass Depth (g/cm <sup>2</sup> ) | Excess Pb-210 Activity Flux (dpm/cm <sup>2</sup> ) | Accretion Rate (cm/yr) | Accumulation Rate (g/cm <sup>2</sup> /yr)                     | Accum. Rate (g/cm <sup>2</sup> /yr) Std. Dev. | Ave. Year of Interval | Ave. Years of Interval Std. Dev. | Accretion Rate (cm/yr) | Accretion Rate Error (+/- cm/yr) | Accumulation Rate (g/cm <sup>2</sup> /yr) | Accumulation Rate Error (+/- g/cm <sup>2</sup> /yr) | r <sup>2</sup> |          |
| GLW018 RUSP 48+4C                                 | 1-2        | 1.5             | --                                     | --                  | 0.5774            | 4.232649054                   | 0.214352534                    | 2.39                         | 0.42                          | 0.4239                                      | 1.625038814                                        | 1.46401                | 0.310362951                                                   | 0.041821074                                   | 2017.399187           | 4.052452479                      | 9-20 cm                | 0.2366134                        | 0.082864143                               | 0.158899336                                         | 0.020827055    | 0.91015  |
| GLW018 RUSP 48+4C                                 | 2-3        | 2.5             | 0.4239                                 | 10                  | 1.667             | 4.913715193                   | 0.135707048                    | 2.39                         | 0.42                          | 0.8478                                      | 1.069626778                                        | 1.30542                | 0.454820427                                                   | 0.083817771                                   | 2016.250133           | 4.068770728                      |                        |                                  |                                           |                                                     |                |          |
| GLW018 RUSP 48+4C                                 | 3-4        | 3.5             | 0.7967                                 | 17.27254            | 1.109             | 5.439025653                   | 0.160175128                    | 2.39                         | 0.42                          | 1.6445                                      | 2.429676591                                        | 0.884726               | 0.395213932                                                   | 0.077174031                                   | 2014.672559           | 4.083293908                      |                        |                                  |                                           |                                                     |                |          |
| GLW018 RUSP 48+4C                                 | 4-5        | 4.5             | 0.4694                                 | 13.20451            | 1.1198            | 5.693020752                   | 0.163350674                    | 2.39                         | 0.42                          | 2.1139                                      | 1.550519761                                        | 0.82992                | 0.312261202                                                   | 0.046717005                                   | 2012.800774           | 4.109683647                      |                        |                                  |                                           |                                                     |                |          |
| GLW018 RUSP 48+4C                                 | 5-6        | 5.5             | 0.7667                                 | 6.372724            | 1.6334            | 5.165846505                   | 0.141538118                    | 2.39                         | 0.42                          | 2.8806                                      | 2.128255699                                        | 0.730789               | 0.350927715                                                   | 0.061101308                                   | 2010.96471            | 4.132984882                      | 1-20cm                 | 0.4599177                        | 0.177971256                               | 0.393799424                                         | 0.033486384    | 0.716163 |
| GLW018 RUSP 48+4C                                 | 6-7        | 6.5             | 0.9021                                 | 8.318051            | 2.6149            | 5.714866127                   | 0.1433969                      | 2.39                         | 0.42                          | 3.7807                                      | 2.39222864                                         | 0.605546               | 0.269000583                                                   | 0.048707929                                   | 2008.197335           | 4.177396893                      |                        |                                  |                                           |                                                     |                |          |
| GLW018 RUSP 48+4C                                 | 7-8        | 7.5             | 1.1380                                 | 11.37595            | 4.148             | 5.646276748                   | 0.126980776                    | 2.39                         | 0.42                          | 4.9196                                      | 3.709130511                                        | 0.491525               | 0.242586158                                                   | 0.038339375                                   | 2006.171163           | 4.268414636                      |                        |                                  |                                           |                                                     |                |          |
| GLW018 RUSP 48+4C                                 | 8-9        | 8.5             | 1.2699                                 | 10.83769            | 4.305             | 5.365572702                   | 0.124192992                    | 2.39                         | 0.42                          | 6.1895                                      | 3.778879775                                        | 0.411188               | 0.226329904                                                   | 0.039650626                                   | 1999.000697           | 4.38518732                       |                        |                                  |                                           |                                                     |                |          |
| GLW018 RUSP 48+4C                                 | 9-10       | 9.5             | 1.2423                                 | 9.544551            | 4.1603            | 6.080080778                   | 0.144702716                    | 2.39                         | 0.42                          | 7.4318                                      | 4.584209712                                        | 0.239214               | 0.1477135234                                                  | 0.023480955                                   | 1991.950608           | 4.624560877                      |                        |                                  |                                           |                                                     |                |          |
| GLW018 RUSP 48+4C                                 | 10-11      | 10.5            | 1.2658                                 | 10.60889            | 4.175             | 5.75393989                    | 0.138544485                    | 2.39                         | 0.42                          | 8.6976                                      | 4.258075113                                        | 0.268494               | 0.120560924                                                   | 0.022272791                                   | 1982.409906           | 5.082033637                      |                        |                                  |                                           |                                                     |                |          |
| GLW018 RUSP 48+4C                                 | 11-12      | 11.5            | 1.0219                                 | 9.967038            | 4.056             | 4.74488774                    | 0.122913107                    | 2.39                         | 0.42                          | 9.7195                                      | 2.406493973                                        | 0.244878               | 0.128161124                                                   | 0.031257913                                   | 1973.105585           | 5.555307888                      |                        |                                  |                                           |                                                     |                |          |
| GLW018 RUSP 48+4C                                 | 12-13      | 12.5            | 0.4911                                 | 8.75842             | 4.0543            | 4.103880707                   | 0.094508766                    | 2.39                         | 0.42                          | 10.2196                                     | 0.841688615                                        | 0.248389               | 0.146589013                                                   | 0.044002093                                   | 1967.421582           | 5.795291602                      |                        |                                  |                                           |                                                     |                |          |
| GLW018 RUSP 48+4C                                 | 13-14      | 13.5            | 1.1498                                 | 9.100088            | 4.3037            | 4.034815476                   | 0.09542215                     | 2.39                         | 0.42                          | 11.3604                                     | 1.891208834                                        | 0.227788               | 0.126874851                                                   | 0.043263553                                   | 1961.183277           | 5.965730372                      |                        |                                  |                                           |                                                     |                |          |
| GLW018 RUSP 48+4C                                 | 14-15      | 14.5            | 0.2332                                 | 8.084712            | 4.3629            | 3.761041274                   | 0.090311217                    | 2.39                         | 0.42                          | 12.2836                                     | 1.284209384                                        | 0.216117               | 0.11447801                                                    | 0.045464326                                   | 1952.567977           | 6.147392983                      |                        |                                  |                                           |                                                     |                |          |
| GLW018 RUSP 48+4C                                 | 15-16      | 15.5            | 1.0802                                 | 8.498507            | 2.8946            | 4.05830434                    | 0.10571236                     | 2.39                         | 0.42                          | 13.3638                                     | 1.802454595                                        | 0.18575                | 0.066632058                                                   | 0.027178954                                   | 1940.229621           | 6.604223375                      |                        |                                  |                                           |                                                     |                |          |
| GLW018 RUSP 48+4C                                 | 16-17      | 16.5            | 0.701                                  | 7.4191              | 2.9508            | 3.531325277                   | 0.094737704                    | 2.39                         | 0.42                          | 14.0648                                     | 0.815355937                                        | 0.173748               | 0.060547672                                                   | 0.032877807                                   | 1926.092093           | 7.098750073                      |                        |                                  |                                           |                                                     |                |          |
| GLW018 RUSP 48+4C                                 | 17-18      | 17.5            | 0.6373                                 | 7.088368            | 3.0971            | 3.58722154                    | 0.088532009                    | 2.39                         | 0.42                          | 14.7021                                     | 0.764628268                                        | 0.156612               | 0.058196612                                                   | 0.021580146                                   | 1911.701396           | 7.457153385                      |                        |                                  |                                           |                                                     |                |          |
| GLW018 RUSP 48+4C                                 | 18-19      | 18.5            | 0.6216                                 | 5.079301            | 3.3833            | 3.195528135                   | 0.090732211                    | 2.39                         | 0.42                          | 15.3237                                     | 0.625036288                                        | 0.133515               | 0.024055965                                                   | 0.021006934                                   | 1889.469654           | 7.822934751                      |                        |                                  |                                           |                                                     |                |          |
| GLW018 RUSP 48+4C                                 | 19-20      | 19.5            | 0.5125                                 | 5.541369            | 4.3171            | 3.195528135                   | 0.088636847                    | 2.39                         | 0.42                          | 16.0482                                     | 0.464242526                                        | --                     | 0.00779625                                                    | 0.013673254                                   | --                    | --                               |                        |                                  |                                           |                                                     |                |          |

\*Data from core GLW018 RUSP 4A, provided by Miriam Jones

#RSD and SD values for 2 item used as estimates for 1.2cm

Est. unsupported Pb-210 activity is averaged Ra-226 activity +/- Std Dev from core GLW014 RUSP 3C

| Core ID          | Depth (cm) | Mean Depth (cm) | *Dry Bulk Density (g/cm <sup>3</sup> ) | Organic Matter (%) | Sample Weight (g) | Total Pb-210 Activity (dpm/g) | Total Pb-210 Error +/- (dpm/g) | Est. Ra-226 Activity (dpm/g) | Est. Ra-226 Error (+/- dpm/g) | Continuous Rate of Supply (CRS) Age Model Results |                                                    |                        |                                           |                                               |                       |                                  | Constant Flux Constant Sedimentation (CFCs) Age Model Results |                                  |                                           |                                                     |                |      |
|------------------|------------|-----------------|----------------------------------------|--------------------|-------------------|-------------------------------|--------------------------------|------------------------------|-------------------------------|---------------------------------------------------|----------------------------------------------------|------------------------|-------------------------------------------|-----------------------------------------------|-----------------------|----------------------------------|---------------------------------------------------------------|----------------------------------|-------------------------------------------|-----------------------------------------------------|----------------|------|
|                  |            |                 |                                        |                    |                   |                               |                                |                              |                               | Cumulative Mass Depth (g/cm <sup>2</sup> )        | Excess Pb-210 Activity Flux (dpm/cm <sup>2</sup> ) | Accretion Rate (cm/yr) | Accumulation Rate (g/cm <sup>2</sup> /yr) | Accum. Rate (g/cm <sup>2</sup> /yr) Std. Dev. | Ave. Year of Interval | Ave. Years of Interval Std. Dev. | Accretion Rate (cm/yr)                                        | Accretion Rate Error (+/- cm/yr) | Accumulation Rate (g/cm <sup>2</sup> /yr) | Accumulation Rate Error (+/- g/cm <sup>2</sup> /yr) | r <sup>2</sup> |      |
| GLW018 BAF 3A+3B | 1-2        | 1.5             | --                                     | --                 | 0.19              | 16.97                         | 0.61                           | 1.43                         | 0.05                          | 0.50                                              | 7.77                                               | 0.42                   | 0.11                                      | 0.005                                         | 2015.7                | 1.08                             | 1-16 cm                                                       | 0.14                             | 0.03                                      | 0.11                                                | 0.01           | 0.93 |
| GLW018 BAF 3A+3B | 2-3        | 2.5             | 0.42                                   | 10.00              | 0.56              | 11.56                         | 0.33                           | 1.43                         | 0.05                          | 1.18                                              | 6.85                                               | 0.31                   | 0.14                                      | 0.006                                         | 2010.1                | 1.11                             |                                                               |                                  |                                           |                                                     |                |      |
| GLW018 BAF 3A+3B | 3-4        | 3.5             | 0.80                                   | 17.27              | 0.83              | 10.39                         | 0.28                           | 1.43                         | 0.05                          | 1.78                                              | 5.44                                               | 0.29                   | 0.14                                      | 0.006                                         | 2006.3                | 1.14                             |                                                               |                                  |                                           |                                                     |                |      |
| GLW018 BAF 3A+3B | 4-5        | 4.5             | 0.47                                   | 13.29              | 0.68              | 10.43                         | 0.30                           | 1.43                         | 0.05                          | 2.73                                              | 9.51                                               | 0.27                   | 0.11                                      | 0.006                                         | 1999.9                | 1.19                             |                                                               |                                  |                                           |                                                     |                |      |
| GLW018 BAF 3A+3B | 5-6        | 5.5             | 0.77                                   | 6.37               | 0.96              | 7.96                          | 0.23                           | 1.43                         | 0.05                          | 3.36                                              | 4.10                                               | 0.22                   | 0.13                                      | 0.007                                         | 1993.2                | 1.26                             |                                                               |                                  |                                           |                                                     |                |      |
| GLW018 BAF 3A+3B | 6-7        | 6.5             | 0.80                                   | 8.32               | 0.73              | 7.98                          | 0.24                           | 1.43                         | 0.05                          | 4.15                                              | 5.18                                               | 0.20                   | 0.10                                      | 0.006                                         | 1986.8                | 1.30                             |                                                               |                                  |                                           |                                                     |                |      |
| GLW018 BAF 3A+3B | 7-8        | 7.5             | 1.14                                   | 11.36              | 0.96              | 5.98                          | 0.18                           | 1.43                         | 0.05                          | 4.85                                              | 3.17                                               | 0.20                   | 0.12                                      | 0.008                                         | 1980.0                | 1.42                             |                                                               |                                  |                                           |                                                     |                |      |
| GLW018 BAF 3A+3B | 8-9        | 8.5             | 1.27                                   | 10.84              | 0.63              | 6.04                          | 0.21                           | 1.43                         | 0.05                          | 5.90                                              | 4.88                                               | 0.17                   | 0.09                                      | 0.007                                         | 1971.2                | 1.56                             |                                                               |                                  |                                           |                                                     |                |      |
| GLW018 BAF 3A+3B | 9-10       | 9.5             | 1.24                                   | 9.16               | 0.49              | 5.68                          | 0.21                           | 1.43                         | 0.05                          | 6.62                                              | 3.89                                               | 0.15                   | 0.07                                      | 0.007                                         | 1956.3                | 1.62                             |                                                               |                                  |                                           |                                                     |                |      |
| GLW018 BAF 3A+3B | 10-11      | 10.5            | 1.27                                   | 10.61              | 0.48              | 6.45                          | 0.18                           | 1.43                         | 0.05                          | 7.58                                              | 2.21                                               | 0.14                   | 0.06                                      | 0.008                                         | 1946.3                | 2.15                             |                                                               |                                  |                                           |                                                     |                |      |
| GLW018 BAF 3A+3B | 11-12      | 11.5            | 1.02                                   | 9.97               | 0.67              | 3.39                          | 0.13                           | 1.43                         | 0.05                          | 8.11                                              | 1.48                                               | 0.13                   | 0.07                                      | 0.011                                         | 1933.6                | 2.54                             |                                                               |                                  |                                           |                                                     |                |      |
| GLW018 BAF 3A+3B | 12-13      | 12.5            | 0.49                                   | 8.74               | 0.68              | 2.98                          | 0.12                           | 1.43                         | 0.05                          | 9.11                                              | 1.24                                               | 0.12                   | 0.06                                      | 0.012                                         | 1920.6                | 3.11                             |                                                               |                                  |                                           |                                                     |                |      |
| GLW018 BAF 3A+3B | 13-14      | 13.5            | 1.15                                   | 9.10               | 1.10              | 2.51                          | 0.09                           | 1.43                         | 0.05                          | 9.79                                              | 0.74                                               | 0.12                   | 0.05                                      | 0.015                                         | 1906.7                | 3.92                             |                                                               |                                  |                                           |                                                     |                |      |
| GLW018 BAF 3A+3B | 14-15      | 14.5            | 0.82                                   | 8.08               | 2.29              | 1.89                          | 0.06                           | 1.43                         | 0.05                          | 10.66                                             | 0.40                                               | 0.12                   | 0.08                                      | 0.034                                         | 1894.9                | 4.68                             |                                                               |                                  |                                           |                                                     |                |      |
| GLW018 BAF 3A+3B | 15-16      | 15.5            | 1.08                                   | 8.50               | 3.80              | 2.06                          | 0.06                           | 1.43                         | 0.05                          | 11.46                                             | 0.51                                               | 0.11                   | 0.04                                      | 0.021                                         | 1878.9                | 5.38                             |                                                               |                                  |                                           |                                                     |                |      |
| GLW018 BAF 3A+3B | 16-17      | 16.5            | 0.70                                   | 7.42               | 4.58              | 1.71                          | 0.05                           | 1.43                         | 0.05                          | 12.67                                             | 0.34                                               | 0.09                   | 0.04                                      | 0.043                                         | 1852.3                | 11.00                            |                                                               |                                  |                                           |                                                     |                |      |
| GLW018 BAF 3A+3B | 17-18      | 17.5            | 0.64                                   | 7.01               | 4.52              | 1.57                          | 0.05                           | 1.43                         | 0.05                          | 13.50                                             | 0.12                                               | 0.08                   | 0.03                                      | 0.067                                         | 1822.2                | 19.41                            |                                                               |                                  |                                           |                                                     |                |      |
| GLW018 BAF 3A+3B | 18-19      | 18.5            | 0.62                                   | 5.08               | 4.56              | 1.52                          | 0.05                           | 1.43                         | 0.05                          | 14.32                                             | 0.08                                               | --                     | --                                        | 0.083                                         | --                    | --                               |                                                               |                                  |                                           |                                                     |                |      |
| GLW018 BAF 3A+3B | 19-20      | 19.5            | 0.51                                   | 5.54               | 4.60              | 1.43                          | 0.05                           | 1.43                         | 0.05                          | 15.25                                             | 0.00                                               | --                     | --                                        | --                                            | --                    | --                               |                                                               |                                  |                                           |                                                     |                |      |

Not enough material for replicate analyses

\*Data from core GLW018 BAF 3A, provided by Miriam Jones, USGS Eastern Geology and Paleoscience Science Center

Supported Pb-210 activity is estimated from measured Pb-210 activity at 19-20 cm.

Single decay best fit curve of excess Pb-210 data (1-15cm)

\*Calc. Excess + 4.9201 \* exp[(7.1981 - cm) / 5.3182] r<sup>2</sup> = 0.97

Years BP = ln(A<sub>0</sub> / calc. excess) / 0.03114

Accretion Rate = Depth / Years BP