Supplementary Table 1: Summary of organic residue analysis results on stone bowls and griddle stones from the Aleutian Islands. Blank cells = no analysis, - = compound not present

|  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |
| --- | --- | --- | --- | --- | --- | --- | --- | --- | --- | --- | --- | --- | --- | --- | --- | --- |
| **Site** | **Sample ID** | **Artefact type** | **Date** | **lipids µg/g** | **δ13C (‰)** | **δ15N (‰)** | **%C** | **%N** | **Atomic C:N** | **δ13C16:0 (‰)** | **δ13C18:0 (‰)** | **Fatty acids** | **Dicarboxylic acids** | **APAAs** | **Isoprenoid acids** | **Alkanols** |
| **cal yr BP** |
| Margaret Bay (UNL-48) | UNL48-43 | stone bowl | 3800-3000             | 3399 | -23.69 | 11.61 | 55.49 | 1.84 | 34.41 | -21.51 | -21.01 | C8-24 | C6-18 | C16-C22 | present |   |
| UNL48-44 | stone bowl | 4095 | -23.99 | 11.1 | 51.8 | 2.9 | 20.57 | -22.17 | -21.59 | C12-30 | C8-15 | C16-C22 | present | C26tr |
| UNL48-45 | stone bowl | 1735 | -22.74 | 16.05 | 51.63 | 5.8 | 10.46 | -22.48 | -22.1 | C12-28 | C8-15 | C16-C22 | present |   |
| UNL48-54 | stone bowl | 1256 | -24.38 | 11.98 | 26.8 | 2.64 | 11.29 |   |   | C13-30 | C9-24 | C16-C22 | present | C26tr |
| UNL48-55 | stone bowl | 1768 | -25.33 | 11.75 | 44.07 | 2.66 | 18.51 |   |   | C11- 34 | C7-24 | C16-C22 | present | C26tr |
| UNL48-56 | stone bowl | 3635 | -23.43 | 14.5 | 48.86 | 4.67 | 12.27 | -23.78 | -23.46 | C11-28 | C7-21 | C16-C22 | present |   |
| UNL48-57 | stone bowl | 3144 | -23.75 | 14.59 | 54.14 | 3.88 | 16.29 | -23.44 | -22.9 | C11-30 | C7-21 | C16-C22 | present | C22-C32tr |
| UNL48-59 | stone bowl | 3415 | -23.59 | 13.03 | 46.74 | 3.86 | 14.14 | -22.64 | -22.14 | C10-28 | C7-18 | C16-C22 | present | C26tr |
| UNL48-61 | stone bowl | 674 | -19.18 | 13.79 | 42.02 | 6.66 | 7.24 |   |   | C9-28 | C6-18 | C16-C22 | present |   |
| UNL48-61b | stone bowl | 6124 |   |   |   |   |   |   |   | C10-28 | C6-20 | C16-C22 | present |   |
| UNL48-62 | stone bowl | 134 | -20.57 | 13.55 | 40.62 | 7.04 | 6.79 |   |   | C12-26 | C9-11 | - | - |   |
| UNL48-62b | stone bowl | 694 |   |   |   |   |   |   |   | C9-28 | C6-15 | C16-C22 | present |   |
| UNL48-1001 | stone bowl | 4316 | -23.41 | 16.5 | 47.33 | 4.13 | 13.38 |   |   | C10-28 | C7-20 | C16-C22 | present |   |
| Amaknak Bridge (UNL-50) | UNL50-36 | stone bowl | 3900-2300         | 40 | -15.09 | 15.43 | 47.09 | 9.82 | 5.6 |   |   | C16-22 | - | - | - |   |
| UNL50-37 | stone bowl | 2397 | -23.77 | 10.84 | 55.8 | 3.32 | 19.33 | -22.6 | -22.36 | C11-30 | C7-20 | C16-C22 | present | C26tr |
| UNL50-38 | stone bowl | 1732 | -21.46 | 13.46 | 39.43 | 4.54 | 10.83 |   |   | C10-30 | C7-20 | C16-C22 | present |   |
| UNL50-50 | stone bowl | 1779 | -24.13 | 12.02 | 41.35 | 2.61 | 19.12 | -22.51 | -21.74 | C12-30 | C8-20 | C16-C22 | present | C22-C32tr |
| UNL50-51 | stone bowl | 2854 | -23.77 | 10.12 | 45.26 | 1.76 | 27.64 | -22.29 | -21.8 | C11-30 | C7-24 | C16-C24 | present |   |
| UNL50-52 | stone bowl | 4031 | -23.32 | 11.6 | 59.83 | 1.74 | 38.56 | -21.69 | -21.11 | C11-26 | C8-20 | C16-C22 | present |   |
| UNL50-53 | stone bowl | 2055 | -23.88 | 11.14 | 45.74 | 2.42 | 22.2 | -22.93 | -22.18 | C12-30 | C8-27 | C16-C22 | present | C26tr |
| UNL50-53b | stone bowl | 423 |   |   |   |   |   |   |   | C11-30 | C8-20 | C16-C22 | present |   |
| UNL50-1002 | stone bowl | 2560 | -24.17 | 12.33 | 45.72 | 1.56 | 34.22 |   |   | C10-26 | C7-20 | C16-C22 | present |   |
| Tanaxtaxak (UNL-55) | UNL55-39 | griddle stone | 630-290     | 7342 | -23.69 | 12.34 | 43.17 | 3.5 | 15.08 | -24.35 | -23.34 | C8-24 | C6-20 | C16-C22 | present |   |
| UNL55-40 | griddle stone | 1429 | -24.13 | 13.25 | 36.49 | 3.33 | 12.86 |   |   | C11-30 | C7-18 | C16-C22 | present |   |
| UNL55-41 | griddle stone | 1587 | -24.59 | 11.68 | 33.27 | 3.1 | 12.81 | -23.66 | -23.61 | C12-30 | C8-22 | C16-C22 | present |   |
| UNL55-41c | griddle stone | 8652 |   |   |   |   |   |   |   | C10-24 | C7-20 | C16-C22 | present |   |
| UNL55-42 | lamp | 6645 | -24.64 | 14.01 | 56.33 | 3.41 | 19.41 | -23.86 | -23.47 | C8-24 | C6-20 | C16-C22 | present |   |
| UNL55-58 | stone bowl | MB phase | 1566 | -23.69 | 13.43 | 33.5 | 2.51 | 14.92 |   |   | C9-30 | C6-22 | C16-C22 | present |   |
| Oiled Blade (UNL-318)   | UNL318-47 | griddle stone | 9000-8000   | 3495 | -23.37 | 14.31 | 53.59 | 2.36 | 26.44 | -22.2 | -21.51 | C12-24 | C8-20 | C16-C22 | present |   |
| UNL318-48 | lamp | 1521 | -23.87 | 11.92 | 37.54 | 2.18 | 19.66 |   |   | C12-30 | C8-22 | C16-C22 | present |   |
| UNL318-49 | lamp | 2050 | -23.68 | 12.28 | 38.15 | 1.25 | 34.81 |   |   | C12-26 | C8-15 | C16-C22 | present |   |
| Eiderpoint (UNL-19) | UNL19-60 | stone bowl | - | 2570 | -18.4 | 16.16 | 55.17 | 8.65 | 7.34 |   |   | C12-C25 | C8-20 | C16-C22 | present |   |
|
| Uyagan (AMK-0003)     | AMK3-1030 | griddle stone |   | 6606 | -25.15 | 16.92 | 46.15 | 4.42 | 12.18 | -24.19 | -24.3 | C9-32 | C6-18 | C16-C22 | present | C22-C32tr |
| AMK3-1031 | griddle stone |   | 7265 |  |  |  |  |  | -21.73 | -22.14 | C9-26 | C6-16 | C16-C22 | present |   |
| AMK3-1032 | griddle stone | 309-434 | 3480 | -23.05 | 12.12 | 32.31 | 3.72 | 10.14 | -24.7 | -24.05 | C10-30 | C7-22 | C16-C22 | present | C22-C32tr |
| AMK3-1033 | griddle stone | 319-484 | 2764 | -23.82 | 13.41 | 16.65 | 2.39 | 8.14 | -23.8 | -23.09 | C12-30 | C8-24 | C16-C22 | present |   |
| AMK3-1034 | griddle stone | 321-499 | 1895 |  |  |  |  |  |   |   | C12- 30 | C9-22 | C16-C22 | present | C24-C28tr |