

**Arctic sea-ice proxies: comparisons between
biogeochemical and micropalaeontological reconstructions
in a sediment archive from Arctic Canada**

Journal:	<i>The Holocene</i>
Manuscript ID	HOL-15-0188.R3
Manuscript Type:	Paper
Date Submitted by the Author:	n/a
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Keywords:	IP25, PIP25, biomarkers, biogenic silica, dinoflagellate cysts, sea ice, Northwest Passage, Canada, Arctic, modern analogue technique
Abstract:	Boxcore 99LSSL-001 from the southwest Canadian Arctic Archipelago (68.095°N, 114.186°W), studied by multiproxy approaches (sea-ice diatom biomarker IP25, phytoplankton-based biomarker brassicasterol, biogenic silica, total organic carbon; dinoflagellate cysts = dinocysts, diatoms) and their applications (sea-ice index PBIP25, modern analogue technique transfer functions = MAT), provides a chronologically constrained (210Pb, 137Cs, two 14C dates) palaeoenvironmental archive spanning AD 1625-1999 with which to compare and evaluate proxies frequently used in sea-ice reconstructions. Whereas diatoms are rare, PBIP25, biogenic silica, and qualitative dinocyst approaches show good agreement, suggesting palaeo sea-ice histories based on biomarker and microfossil techniques are robust in this region. These combined approaches show fluctuating long open water to marginal ice zone conditions (AD 1625-1740), followed by high-amplitude oscillations between long open water and extended spring/summer sea ice (AD 1740-1870). Greater ice cover (AD 1870-1970) precedes recent reductions in seasonal sea ice (AD 1970-1999). Dinocyst-based MAT, however, produces a low amplitude signal lacking the nuances of other proxies, with most probable sea-ice reconstructions poorly correlating with biomarker-based histories. Explanations for this disagreement may include limited spatial coverage in the modern dinocyst distribution database for MAT and the broad environmental tolerances of polar dinocysts. Overall, PBIP25 provides the most detailed palaeo sea-ice signal, although its use in a shallow polar archipelago downcore setting poses methodological challenges. This proxy comparison demonstrates the limitations of palaeo sea-ice reconstructions and emphasises the need for calibration studies tying modern microfossil and biogeochemical proxies to

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	directly measured oceanographic parameters, as a springboard for robust quantitative palaeo studies.

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9 **1 Arctic sea-ice proxies: comparisons between biogeochemical and**
10 **2 micropalaeontological reconstructions in a sediment archive from Arctic Canada**
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14 **Abstract**

15 Boxcore 99LSSL-001 from the southwest Canadian Arctic Archipelago (68.095°N,
16 114.186°W), studied by multiproxy approaches (sea-ice diatom biomarker IP₂₅,
17 phytoplankton-based biomarker brassicasterol, biogenic silica, total organic carbon;
18 dinoflagellate cysts = dinocysts, diatoms) and their applications (sea-ice index P_BIP₂₅,
19 modern analogue technique transfer functions = MAT), provides a **chronologically**
20 **constrained** (²¹⁰Pb, ¹³⁷Cs, two ¹⁴C dates) **palaeoenvironmental archive** spanning AD
21 1625-1999 with which to compare and evaluate **proxies frequently used in sea-ice**
22 **reconstructions**. Whereas diatoms are rare, P_BIP₂₅, biogenic silica, and qualitative
23 dinocyst approaches show good agreement, suggesting palaeo sea-ice histories
24 **based on biomarker and microfossil techniques are robust in this region**. These
25 combined approaches show fluctuating long open water to marginal ice zone
26 conditions (AD 1625-1740), followed by high-amplitude oscillations between long
27 open water and extended spring/summer sea ice (AD 1740-1870). Greater ice cover
28 (AD 1870-1970) precedes recent reductions in seasonal sea ice (AD 1970-1999).
29 Dinocyst-based MAT, however, produces a low amplitude signal lacking the nuances
30 of other proxies, with most probable sea-ice reconstructions poorly correlating with
31 biomarker-based histories. Explanations for this disagreement may include limited
32 spatial coverage in the modern dinocyst distribution database for MAT and the
33 broad environmental tolerances of polar dinocysts. Overall, P_BIP₂₅ provides the most
34 detailed palaeo sea-ice signal, although its use in a shallow polar **archipelago**
35 **downcore setting poses methodological challenges**. This proxy comparison

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9 36 demonstrates the limitations of palaeo sea-ice reconstructions and emphasises the
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11 37 need for calibration studies tying modern microfossil and biogeochemical proxies to
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13 38 directly measured oceanographic parameters, as a springboard for robust
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15 39 quantitative palaeo studies.
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21 41 **Keywords:** IP₂₅, PIP₂₅, biomarkers, biogenic silica, dinoflagellate cysts, modern
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9 **44 1. Introduction**

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12 45 Sea ice plays a fundamental role in the Earth's climate system via albedo, ocean
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14 46 circulation and deep-water formation (McPhee et al., 2009; Thomas and Dieckmann,
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16 47 2010; Morison et al., 2012; Vancoppenolle et al., 2013; Vaughan et al., 2013).
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18 48 Indeed, the recent decrease of Arctic sea ice has raised considerable concerns due to
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20 49 its wide-ranging implications for lower latitudes through climate inter-linkages and
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22 50 feedback mechanisms (ACIA, 2005; Collins et al., 2013; Bhatt et al., 2014). However,
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24 51 in order to contextualize modern and recent sea-ice decline, long-term data are
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26 52 needed beyond the time scale of instrumental measurements (post ~1970s). Proxies
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28 53 preserved in marine sediments provide such indirect measurements of sea-ice
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30 54 variability, as inferred from sedimentology (e.g., ice-rafted detritus),
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32 55 micropalaeontology and biogeochemistry (Polyak et al., 2010; de Vernal et al.,
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34 56 2013a). Micropalaeontological approaches to reconstructing palaeo sea-ice histories
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36 57 (de Vernal et al., 2013a) include assemblage analysis of diatoms (Gersonde et al.,
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38 58 2005), ostracods (Cronin et al., 2010), foraminifera (Jennings et al., 2002), and
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40 59 dinoflagellate cysts ("dinocysts"; Matthiessen et al., 2005; de Vernal et al., 2013b).
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42 60 The geochemical signal in some of these groups can also be used to trace sea ice, as
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44 61 demonstrated by $\delta^{18}\text{O}$ in foraminiferal tests (Hillaire-Marcel and de Vernal, 2008).
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46 62 Quantitative reconstructions of environmental parameters (e.g., sea-surface
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48 63 temperature, salinity, sea-ice cover) have been derived from a variety of methods
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50 64 (Birks et al., 2010), including the application of the modern analogue technique
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52 65 (MAT) to dinocysts. MAT reconstructions, based on the premise that similar dinocyst
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9 66 assemblages occur under similar environmental conditions, rely on a reference
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11 67 database that links dinocyst assemblages quantitatively to sea-surface parameters
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13 68 including the seasonal extent of sea-ice cover (de Vernal et al., 2013a, 2013b).
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16 69 A relatively new spring/summer sea-ice proxy is IP₂₅, a C₂₅ mono-unsaturated highly
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18 70 branched isoprenoid alkene biomarker produced by a few sea-ice diatom taxa
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20 71 (mostly *Haslea* spp.) inhabiting brine channels within first year ice (Belt et al., 2007,
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22 72 2012; Brown et al., 2014). Sea-ice melting releases IP₂₅-producing diatoms to the
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24 73 water column, to accumulate in seabed sediments (Belt et al., 2007; Müller et al.,
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26 74 2011). Though diatoms are prone to dissolution and selective preservation (Shemesh
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28 75 et al., 1989; Leventer, 1998; Bidle and Azam, 1999; Ragueneau et al., 2000), IP₂₅
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30 76 preserves well in the sedimentary record, is resistant to degradation, and detectable
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32 77 and stable on scales of thousands to millions of years (Vare et al., 2009; Stein and
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34 78 Fahl, 2013; Knies et al., 2014; Stein et al., 2016). However, reduced IP₂₅
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36 79 concentrations can be equivocally interpreted as indicative of perennial sea ice or
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38 80 open-water conditions (Müller et al., 2011). Therefore, other phytoplankton-based
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40 81 biomarkers (brassicasterol and/or dinosterol produced by open-water diatoms,
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42 82 coccoliths, and dinoflagellates; cf. Volkman et al., 1998, but see Navarro-Rodriguez
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44 83 et al., 2013 and Xiao et al., 2015 for a discussion on brassicasterol and its sources)
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46 84 have been used to validate IP₂₅ based sea-ice reconstructions, in a ratio with sea-ice
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48 85 diatom biomarkers (IP₂₅), known as PIP₂₅ (Müller et al., 2011; Belt and Müller, 2013).
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50 86 A minimal (to zero) IP₂₅ flux with elevated phytoplankton biomarkers is considered
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52 87 indicative of near ice-free spring/summer conditions, whereas the absence of both
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9 88 biomarkers suggests permanent ice cover. The variable presence of both biomarkers
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11 89 reflects changing seasonal sea-ice cover (Müller et al., 2011; Belt and Müller, 2013).
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14 90 Reliable quantitative sea-ice reconstructions are a priority in polar regions such as
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16 91 the Arctic (Polyak et al., 2010; de Vernal et al., 2013a), not only because they
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18 92 provide a long-term context for current sea-ice decline, but also because they offer
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20 93 an extended dataset necessary for accurate model simulations of future and
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22 94 projected climate scenarios (Collins et al., 2013). Such confident application,
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24 95 however, requires a critical appraisal and assessment of correspondence between
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26 96 different sea-ice proxies, such as diatom assemblages, PIP₂₅, and microfossil-based
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28 97 transfer functions using MAT. Here, we assess the agreement between various sea-
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30 98 ice proxies based on biogeochemistry and micropalaeontology, namely IP₂₅ and PIP₂₅
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32 99 (P_BIP₂₅), dinocyst assemblages, and dinocyst-based MAT. Such an appraisal is aided
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34 100 by comparisons with other palaeoenvironmental proxies (biogenic silica, total
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36 101 organic carbon, diatoms). To accomplish this, we use a decadal-scale late Holocene
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38 102 boxcore record from the Northwest Passage (Fig. 1), which has previously been
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40 103 described for sedimentological characteristics and organic-walled microfossils
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42 104 (Pieńkowski et al., 2011). Core 99LSSL-001 (Figs 1, 2) is well dated and represents an
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44 105 ideal archive with which to test palaeoenvironmental interpretations and sea-ice
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46 106 reconstructions derived from differing proxies. The present study represents the
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48 107 first of its kind in the Canadian Arctic Archipelago (CAA) and has direct and
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50 108 important implications for marine geological, palaeoceanographic, and
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9 109 palaeoenvironmental studies from this crucial region at the intersection between
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11 Arctic and Atlantic oceans.

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14 15 16 112 **2. Materials & Methods**

17 18 19 113 **2.1 Study site, core materials & previous analyses**

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22 114 This study is based on boxcore 99LSSL-001 collected from Coronation Gulf at
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24 115 68.095°N, 114.186°W in 211 m water depth (recovered 1999 aboard CCGS *Louis S.*
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26 116 *St-Laurent*). The study site and its environmental setting have been described in
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28 117 detail by Pieńkowski et al. (2011). Based on 30 years of satellite data (AD 1981-2010;
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30 118 Canadian Ice Service, 2011), the area is dominated by landfast first-year ice from
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32 119 early November onwards with a minimal presence of multiyear ice. Spring break-up
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34 120 commences in the west of the Gulf from early to mid July, ice retreating
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36 121 northeastwards to a relatively stable ice margin in southern M'Clintock by late
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38 122 August. As with other Arctic regions, the western CAA has shown considerable
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40 123 interannual variability in sea-ice extent and seasonal duration over the past four
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42 124 decades, superimposed on a long term pattern of sea-ice reduction (Fetterer et al.,
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44 125 2002; Canadian Ice Service, 2011; Vaughan et al., 2013). Oceanographic data are
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46 126 extremely limited for the area. Summer salinities of ~22 are shown in the top 10 m,
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48 127 increasing to ~27 below this depth, and influenced by freshwater input from the
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50 128 nearby Coppermine River. August water temperatures measure ~6°C in the surface
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52 129 layer to ~0°C below 50 m depth (McLaughlin et al., 2009). Arctic Ocean Surface
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9 130 Water enters Coronation Gulf from the Beaufort Sea and Amundsen Gulf via the
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11 131 shallow (20-30 m) Dolphin and Union Strait, en route to Baffin Bay (Ingram and
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13 132 Prinsenber, 1998).

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16 133 The composite 99LSSL-001 record (immediately adjacent push cores 001E and 001F
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18 134 from the same boxcore; correlated to the nearest 0.5cm by lithostratigraphy,
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20 135 Pieńkowski et al., 2011) consists entirely of clayey silt. These materials were
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22 136 refrigerated during transport and subsequent curation at the Geological Survey of
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24 137 Canada – Atlantic (GSC-A), Dartmouth, Nova Scotia. The two push cores were split
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26 138 and described in 2001 and exclusively subsampled for micropalaeontology,
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28 139 biogeochemistry, and geochronology in 2005. Materials used for IP₂₅ and
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30 140 brassicasterol analysis were freeze-dried immediately on subsampling and stored in
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32 141 cool, dry, dark conditions prior to investigation.

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36 142 Stratigraphic, sedimentological, some biogeochemical (total organic carbon = TOC;
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38 143 total inorganic carbon = TIC), and organic-walled microfossil (dinocysts and other
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40 144 non-pollen palynomorphs; pollen and spores) characteristics have been previously
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42 145 described in detail by Pieńkowski et al. (2011). A further suite of TIC/TOC analyses
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44 146 were obtained for additional depths investigated for biomarkers that had not been
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46 147 analysed previously. Dried (60–65°C) and powdered TIC/TOC samples were digested
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48 148 in 10% hydrochloric acid and repeatedly rinsed with deionized water prior to
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50 149 secondary oven-drying (60–65°C) and grinding. A LECO CHN analyser (model #630-
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52 150 100-400) was used on 100 mg subsamples for subsequent TOC measurement with
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9 151 values presented as weight percentages. TOC is here used as a crude indicator of
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11 152 palaeoproductivity (and not directly primary productivity or sea ice), it being a
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13 153 function of autochthonous and allochthonous organic matter sources (marine
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15 154 surface, water column, and benthic sources, along with terrestrial inputs).
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18 155 Additionally, biogeochemical data (TOC, biomarkers) were derived from two surface
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20 156 sediment samples (0-1 cm from boxcores; Fig. 1) in M'Clintock Channel (2011804-
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22 157 003BC; 71.701°N 101.702°W) and Lancaster Sound (2011804-009BC; 74.122°N
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24 158 83.409°W) for comparison with the Coronation Gulf record.
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30 160 **2.2 Geochronology**

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34 161 A revised age-depth model based on previously published (Pieńkowski et al., 2011)
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36 162 ^{14}C , ^{210}Pb and ^{137}Cs for boxcore 99LSSL-001 is used in the present study, superseding
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38 163 that of Pieńkowski et al. (2011). Details of ^{210}Pb , ^{137}Cs , and ^{226}Ra methodology and
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40 164 analyses are presented in Pieńkowski et al. (2011). Note that the lead and caesium
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42 165 chronologies suggests minimal bioturbation and mixing as evidenced by the initial
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44 166 appearance of measurable ^{137}Cs ($>1.5 \text{ Bq kg}^{-1}$) at a ^{210}Pb date of AD 1950. For this
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46 167 study, all existing ^{14}C dates were newly calibrated in Calib 7.1 (Stuiver et al., 2015) in
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48 168 conjunction with the Marine13 calibration curve (Reimer et al., 2013) and a ΔR of
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50 169 335 ± 85 (Coulthard et al., 2010). Based on two rather than three radiocarbon dates
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52 170 (Table 1) and the existing ^{210}Pb and ^{137}Cs chronology, the new age-depth model is a
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9 171 linear one [age AD = $(8. \bar{3} \times \text{core depth}) + 1999$], avoiding the marked inflection seen
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11 172 in the earlier model (Fig. 2). The previously included radiocarbon date UCIAMS-
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13 173 44997 (Table 1, Fig. 2) is here excluded on the grounds that it is based on shell
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15 174 fragments of unknown species affiliation. The likelihood that this sample contains
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17 175 fragments of detrital-feeding bivalve genera (e.g., *Portlandia*, *Yoldiella*) is high in this
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19 176 environmental setting. These are known to demonstrate exaggerated radiocarbon
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21 177 ages (the “Portlandia Effect”), as highlighted by recent studies (England et al., 2012;
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23 178 Pieńkowski et al., 2013, 2014). This is further suggested by the offset of this date
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25 179 from the linear age-depth model that otherwise satisfies all other data points.
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27 180 Consequently, the base of the core at 45 cm is now projected at AD 1625 (as
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29 181 opposed to AD 1450 in Pieńkowski et al., 2011) so that the record spans AD 1999-
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31 182 1625. The age-depth model shows a sedimentation rate of 0.12 cm yr^{-1} , which is
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33 183 used to calculate fluxes of all biogeochemical and micropalaeontological
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35 184 parameters.
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186 **2.3 Biogeochemistry**

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46 187 Biomarker analyses encompassed IP₂₅ and brassicasterol (24-methylcholesta-5,22E-
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48 188 dien-3 β -ol) of both down core (n = 25, sampling interval 1-2 cm) and surface samples
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50 189 (n = 2), with preparation following Belt et al. (2012). Note that brassicasterol
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52 190 (opposed to dinosterol) is adopted in this study as the open water component of
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54 191 PIP₂₅ (thus P₈IP₂₅), as it represents a reliable proxy for open water conditions in the
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9 192 Arctic Ocean, yielding similar results to dinosterol-based P_DIP₂₅ (Müller et al., 2011).
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11 193 Sample preparation comprised the addition of 10 µl of internal standard (9
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13 194 octylheptdec-8-ene and cholesterol-d6) to samples (1 g of freeze-dried sediment)
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15 195 and a blank, followed by addition of 3-4 ml of DCM/Methanol in 2:1, and
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17 196 ultrasonication and centrifugation to separate the supernatant. This procedure was
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19 197 repeated three times in total. The collected supernatant was evaporated under
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21 198 passive flow of nitrogen. Extracted samples were purified by column
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23 199 chromatography using *n*-hexane and methyl acetate: *n*-hexane (20:80 v/v).
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27 200 The extracted sediment samples were purified prior to quantification by gas
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29 201 chromatography–mass spectrometry (GC-MS) using silica column chromatography,
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31 202 along with separation of hydrocarbons and sterols using 6 mL of *n*-hexane and ethyl
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33 203 acetate: *n*-hexane (20:80 v/v), respectively. The hydrocarbon fraction was
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35 204 evaporated to dryness, reconstituted in 250 µL of hexane and analysed by GC-MS
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37 205 (Agilent 6890N GC with 5975C MSD). Sterols consisting of brassicasterol and
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39 206 cholesterol-d6 (internal standard) were silylated with 500 µL BSTFA (60°C, 1h),
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41 207 followed by GC-MS analysis. An Agilent HP-5ms column (30m x 0.25m x 0.25m) was
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43 208 used for both sterols and hydrocarbons with 1 µL of sample splitless injection. A
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45 209 consistent flow of Helium was maintained at a rate of 1 mLmin⁻¹ with oven
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47 210 temperature increasing from 40°C to 300°C at 10°C min⁻¹ for hydrocarbons. For
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49 211 sterols, GC oven was heated from 60°C to 150°C at 15°C min⁻¹, and then at 3°C min⁻¹
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51 212 to 320°C.
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9 213 The IP₂₅ peak was identified by running selected samples with data acquisition
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11 214 achieved by selective ion monitoring (monitoring molecular ion m/z 350 and major
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13 215 IP₂₅ fragments m/z 280 and 266). The mass spectra (Fig. 3) of the biomarker were
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15 216 also compared with published data (Belt et al., 2007). Following identification of IP₂₅
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17 217 peak retention time, based on the mass spectrum from selected ion monitoring,
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19 218 samples were routinely analysed via total ion chromatogram mode. To
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21 219 unambiguously identify the IP₂₅ peak, m/z 350, 280, 266, and 140, characteristic ions
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23 220 were extracted from the total ion chromatogram. Following confirmation IP₂₅ peak,
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25 221 quantification was carried out by the ratio of the integrated peak areas of IP₂₅ and 9
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27 222 octylheptdec-8-ene internal standard from the total ion current, multiplied by the
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29 223 response factor and mass of internal standard and divided by the mass of sediment
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31 224 for each sample. This approach is consistent with that of published Belt et al. (2012).
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33 225 For the sterols, the characteristic mass spectrum peaks of brassicasterol and
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35 226 cholesterol-d6 (for use as internal standard) were determined by analysis of pure
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37 227 standards, with the integrated peak areas from the total ion current used to
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39 228 calculate the response factor. In the samples, brassicasterol peak was identified by
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41 229 extraction of characteristic m/z 470, 380, 341 and 255 ions from the total ion
42
43 230 chromatogram. Quantification of brassicasterol was achieved by taking a ratio of
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45 231 brassicasterol in relation to cholesterol-d6 internal standard peak from the total ion
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47 232 current chromatogram, multiplied by concentration of cholesterol-d6 and the
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49 233 response factor.
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9 234 Paleo-fluxes of IP₂₅ and brassicasterol were calculated from measured
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11 235 concentrations using the total sedimentation rate and water content and volume
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13 236 data of the sediment (equation 1).

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16 237 $Flux_{biomarker} = S_{total} \times C_{biomarker}$ (1)
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19 238 where $Flux_{biomarker}$ is the biomarker flux in $\mu\text{g cm}^{-2} \text{a}^{-1}$, S_{total} is the total sedimentation
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21 239 rate (cm a^{-1}) from the age-depth model and $C_{biomarker}$ is the biomarker concentration
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23 240 ($\mu\text{g per wet cm}^3$ sediment, $\mu\text{g cm}^{-3}$).

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27 241 For comparison with values from surface sediments from the northern North
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29 242 Atlantic (Müller et al., 2011) and those from the CAA (this study), measured IP₂₅ and
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31 243 brassicasterol concentrations were also normalized to TOC ($\mu\text{g g}^{-1}$ OC; TOC values
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33 244 from Pieńkowski et al., 2011 and additional measurements for this study).

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36 245 P_BIP₂₅ was calculated using both normalized to TOC and flux-based IP₂₅ and
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38 246 brassicasterol values, using equation (2), after Müller et al. (2011).

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42 247 $P_BIP_{25} = IP_{25} / (IP_{25} + (\text{brassicasterol} \times c))$ (2)
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45 248 where c = balance factor; the mean TOC-normalized IP₂₅ concentration / mean TOC-
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47 249 normalized brassicasterol concentration (when dealing with TOC-normalized P_BIP₂₅)
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49 250 or mean IP₂₅ flux / mean brassicasterol flux (in the case of flux-based P_BIP₂₅).

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52 251 According to Müller et al. (2011), the ratio of biomarkers produced by open water

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54 252 algae to those generated by sea-ice diatoms can be used to elucidate
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9 253 spring/summer sea-ice environments. A $P_{BIP_{25}}$ of >0.75 denotes extended sea-ice
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11 254 conditions with a lasting spring/summer ice cover, whereas a ratio of 0 signifies
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13 255 year-round ice-free conditions. $P_{BIP_{25}}$ ratios between 0.75 and 0.50 (~ 0.65)
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15 256 characterize the “marginal ice zone” (MIZ; relatively stable spring/summer ice edge),
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17 257 whereas those between 0.50 and 0.10 (~ 0.25) can be interpreted as variable or less
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19 258 sea ice (a short sea-ice season). Xiao et al. (2015), however, consider values 0.40-
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21 259 0.70 to be “indeterminate”.

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25 260 Sediment sample (n = 20, sampling interval 1-2 cm) preparations for biogenic silica
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27 261 (BioSil; SiO_2) included oven-drying ($45^\circ C$) and powdering by pestle and mortar.
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29 262 Measurements were conducted at the Pacific Centre for Isotopic and Geochemical
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31 263 Research (University of British Columbia) following Mortlock and Froelich (1989).
32
33 264 BioSil concentrations (% by dry weight) are also given as fluxes per calendar year
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35 265 ($mg\ cm^{-2}\ a^{-1}$), based on a sedimentation rate of $0.12\ cm\ a^{-1}$ derived from the age-
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37 266 depth model (Fig. 2). Note that BioSil, in this context, is used only as an indirect
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39 267 indicator of primary productivity, being considered a reliable proxy for siliceous
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41 268 microfossil abundance (primarily diatoms in this study) in sediments (Conley and
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43 269 Schelske, 2001) and subject to a variety of complicating factors including significant
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45 270 dissolution within the water column (Ragueneau et al., 2000).
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52 272 **2.4 Micropalaeontology**
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9 273 Preparation of samples for diatom analysis (n = 20; sampling interval 2-4 cm)
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11 274 involved digestion in 10% hydrochloric acid to remove calcareous matter, followed
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13 275 by treatment with 30% H₂O₂ (1-2 hours in a 60°C water bath) to digest organic
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15 276 matter, with repeated rinsing with deionized water between and after acid
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17 277 treatments (Battarbee et al., 2001). Sample dilutions were pipetted onto cover slips
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19 278 and air-dried and subsequently mounted in Naphrax™ (refractive index 1.73).
20
21 279 Identification of diatoms was carried out by high-power microscopy (×1000)
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23 280 following Witkowski et al. (2000) and Caissie (2012). Although it was aimed to count
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25 281 a statistically valid number of diatoms (400), none of the samples investigated
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27 282 contained sufficient diatoms – typically <20 per slide. Consequently, diatoms only
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29 283 contribute peripherally to the palaeoenvironmental assessments in this study.
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33 284 Details of sample preparations for, and taxonomy of, dinocyst assemblages (n = 30;
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35 285 sample interval 0.5-2 cm) have been previously published (Pieńkowski et al., 2011).
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37 286 Briefly, preparation followed standard protocols (known volumes and weights of
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39 287 samples sieved at 10 µm followed by digestion in 10% HCl and 49% HF followed by
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41 288 sieving at 10 µm; Marret and Zonneveld 2003) with a minimum of 300 dinocysts
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43 289 counted from each sample. Taxonomy followed Head et al. (2001), Kunz-Pirrung et
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45 290 al. (2001) and Marret and Zonneveld (2003). Dinocyst data were used for
46
47 291 quantitative reconstructions of sea-surface temperatures (SST), salinities (SSS), and
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49 292 sea ice, based on MAT (Guiot and de Vernal, 2007, 2011), which compares fossil
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51 293 dinocyst data with a modern distribution reference database (n = 1492 sites; de
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53 294 Vernal et al., 2013c). MAT was chosen over techniques such as WA-PLS, as it has
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9 295 been the main quantitative approach to palaeoceanographic reconstructions in the
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11 296 region (e.g., Ledu et al., 2010). Dinocyst taxa were grouped according to de Vernal et
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13 297 al. (2013c) prior to running MAT transfer functions in the software 'R', using the
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15 298 Word Ocean Atlas as a reference for modern sea-surface conditions (Guiot, 2011; de
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17 299 Vernal et al., 2013c). Dinocyst data for the 'R' program were log-transformed in
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19 300 order to account for less abundant species in the assemblages, prior to statistical
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21 301 analysis for quantitative reconstructions. Five analogues were used for the
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23 302 reconstructions presented here, based on the previous trials of Guiot and de Vernal
24
25 303 (2011), with an accuracy of $\pm 1.14^{\circ}\text{C}$ for winter sea-surface temperatures (SST),
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27 304 $\pm 1.62^{\circ}\text{C}$ for summer SST, ± 2.08 for winter sea-surface salinities (SSS), ± 2.28 for
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29 305 summer SSS, ± 1.42 months for sea-ice cover (SIC), $\pm 1.11/10$ for sea-ice
30
31 306 concentration, and $\pm 56.75 \text{ g cm}^{-3} \text{ yr}^{-1}$ for primary productivity. The calibration of the
32
33 307 modern database of $n = 1492$ sites has demonstrated no correlation between the
34
35 308 different abiotic parameters (Guiot and de Vernal, 2011), suggesting that the
36
37 309 reconstructed parameters are independent of each other. Although biogeographical
38
39 310 studies have demonstrated that (abiotic) oceanographic parameters are the main
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41 311 drivers for dinocyst distributions (e.g., Marret and Zonneveld, 2003), it should be
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43 312 noted that other additional (possibly biological) factors may also play a role.
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48 313 Note that no quantitative assessment of foraminifera was undertaken, as
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50 314 reconnaissance for radiocarbon dating showed extremely low to absent
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52 315 foraminiferal faunas, apart from those used for dating.
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12 317 **3. Results & Palaeoenvironmental Interpretations**

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15 318 **3.1 Biogeochemistry**

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18 319 Total organic carbon (TOC) fluxes ranges from 0.16 to 1.32 mg cm⁻² a⁻¹ (mean 0.58
19 320 mg cm⁻² a⁻¹; Fig. 4). Relative to the mean, fluxes are low prior to AD 1840. 20th
20 321 century values show greater, with marked high to low fluctuations. BioSil fluxes
21 322 range from 0.58 to 3.54 mg cm⁻² a⁻¹ (mean 2.20 mg cm⁻² a⁻¹; Fig. 4), demonstrating a
22 323 similar pattern to that seen in the TOC record. Prior to AD 1840 values remain below
23 324 the mean, followed by an interval of high but variable BioSil fluxes in the 20th
24 325 century.

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27 326 Temporal variations in brassicasterol (Fig. 4) are overshadowed by two prominent
28 327 spikes in flux ca. AD 1850 (1.03 µg cm⁻² a⁻¹) and ca. AD 1985 (0.85 µg cm⁻² a⁻¹). When
29 328 the record is examined without these excursions, patterns are similar to TOC and
30 329 biogenic silica fluxes, with relatively low, though fluctuating, values (0.01-0.06 µg
31 330 cm⁻² a⁻¹) until AD 1900, and higher fluxes in the AD 1930s and 1940s (0.11-0.12 µg
32 331 cm⁻² a⁻¹). The sea-ice diatom biomarker IP₂₅ (Fig. 4) also show two prominent peaks
33 332 in flux: one in the AD 1850s (0.05 µg cm⁻² a⁻¹) and another in the AD 1960s (0.08 µg
34 333 cm⁻² a⁻¹). Similar to the brassicasterol flux, these high points somewhat obscure the
35 334 rest of the record. IP₂₅ fluxes are generally low (though fluctuating; 0.001-0.014 µg
36 335 cm⁻² a⁻¹) until AD 1840, followed by relatively high values to the core top (0.009-

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9 336 0.077 $\mu\text{g cm}^{-2} \text{a}^{-1}$. Absolute (per dry g) and TOC-normalised (per g OC)
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11 concentrations of IP₂₅ and brassicasterol follow the same patterns as seen in
12
13 338 biomarker fluxes (Fig. 4). IP₂₅ absolute concentrations typically vary between 0.012
14
15 339 and 0.208 $\mu\text{g g}^{-1}$, with two major excursions to 0.463 and 0.405 $\mu\text{g g}^{-1}$ (AD 1850s and
16
17 340 1860s respectively). Absolute brassicasterol concentrations generally range between
18
19 341 0.076 and 0.760 $\mu\text{g g}^{-1}$, though again two notable peaks are present (AD 1850s:
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21 342 9.268 $\mu\text{g g}^{-1}$; AD 1980s: 6.958 $\mu\text{g g}^{-1}$). Biomarker concentrations normalised to TOC
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23 343 (Fig. 4) generally lie between 2.0 and 33.0 $\mu\text{g g}^{-1} \text{OC}$ for IP₂₅ and between 12.5 and
24
25 344 123.0 $\mu\text{g g}^{-1} \text{OC}$ for brassicasterol. The two high concentration peaks seen in the
26
27 345 absolute values are also apparent in the TOC-normalised data (IP₂₅: AD 1850s,
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29 346 64.304 $\mu\text{g g}^{-1} \text{OC}$; AD 1960s, 109.961 $\mu\text{g g}^{-1} \text{OC}$. Brassicasterol: AD 1850s, 1288.477
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31 347 $\mu\text{g g}^{-1} \text{OC}$; AD 1980s, 881.074 $\mu\text{g g}^{-1} \text{OC}$).
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36 348 In core 99LSSL-001, flux-based PIP₂₅ (P_BIP₂₅) shows conditions modulating between
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38 349 reduced and extended seasonal sea-ice duration. This cyclicity is superimposed upon
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40 350 longer-term trends more clearly visible in a 3-point running mean of the P_BIP₂₅ data
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42 351 (Fig. 4). Taken together, this illustrates an interval from the start of the record until
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44 352 ca. AD 1740 characterized by an environment fluctuating between longer
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46 353 spring/summer open water conditions and the high-productivity MIZ. Subsequently,
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48 354 the period AD 1740 to 1870 is marked by dramatic swings between the lasting
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50 355 spring/summer ice conditions of the extended seasonal sea-ice zone and a longer
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52 356 spring/summer open water season. The co-occurring high-magnitude peaks in
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54 357 brassicasterol and IP₂₅ in the mid 1850s result in a markedly low P_BIP₂₅ value
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9 358 consistent with reduced sea-ice cover. Notably however, the $P_{BIP_{25}}$ reconstruction
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11 359 suggests no MIZ conditions in this interval, though the 3-point running mean
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13 360 averages the fluctuations to such conditions. Post AD 1870 the $P_{BIP_{25}}$ data suggest
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15 361 more extensive spring/summer ice, with marked oscillations between the MIZ and
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17 362 extended seasonal sea ice. Less to no spring/summer sea ice is implied from AD
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19 363 1970 onwards (Fig. 4).
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26 365 **3.2 Micropalaeontology**

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29 366 Unfortunately, diatoms were too sparse to enable a quantitative analysis of the
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31 367 Coronation Gulf record, even when residues were mounted in high concentration
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33 368 (>40%), though plenty of diatom fragments (girdles in particular) are present
34
35 369 throughout the samples. Nevertheless, the occurring diatoms (though low in species
36
37 370 diversity) are all species affiliated with high latitude environments characterized by
38
39 371 seasonal sea ice. These include the large (>100 μm) centric *Actinocyclus curvatus*,
40
41 372 an indicator of cold, stratified waters which has been previously found on Arctic sea
42
43 373 ice (Hasle and Syvertsen, 1996) and in the MIZ (von Quillfeldt et al., 2003), as well as
44
45 374 *Diploneis smithii*, a generalist and cosmopolitan taxon previously reported from the
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47 375 Russian Arctic (Bauch and Polyakova, 2000). Several species of the MIZ diatom genus
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49 376 *Fragiliaropsis* (von Quillfeldt et al., 2003), for example *F. oceanica*, were present
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51 377 throughout the core. Although abundant *Fragiliaropsis* spp. have been interpreted
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53 378 as indicative of sea ice (e.g., Katsuki and Takahashi, 2005), the low number of diatom
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9 379 specimens found here precludes any such assessment. Notable other siliceous
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11 380 microfossils found in all diatom samples were silicoflagellates (?*Distephanus*
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13 381 *speculum*) which have previously been reported from the Arctic Ocean (Takahashi et
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15 382 al., 2009).

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18 383 Details of dinocyst assemblage results have been presented by Pieńkowski et al.
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20 384 (2011). A total of 14 species and 24 other taxa (morphotypes, species complexes) of
21
22 385 dinocysts are present, with absolute abundances ranging from 1550 to 3990 cysts g⁻¹
23
24 386 (Fig. 5). Assemblages are dominated by the heterotrophs *I. ? cezare* and *E. karaense*,
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26 387 both prominent taxa in polar waters covered by extended seasonal sea ice (Head et
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28 388 al., 2001; Matthiessen et al., 2005; de Vernal et al., 2013b), and the autotrophic and
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30 389 cosmopolitan *Operculodinium centrocarpum* sensu Wall and Dale (1966) [note that
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32 390 various *O. centrocarpum* morphotypes (artic, truncate, cezare) are present at very
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34 391 low relative abundances; together with *O. centrocarpum* sensu Wall and Dale
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36 392 (1966), these forms are grouped as *O. centrocarpum* s.l.], alongside the species
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38 393 complex *Brigantedinium* spp. produced by several heterotrophic species (Zonneveld
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40 394 et al., 2013). Overall, heterotrophic dinocysts (≥40%) are proportionally more
41
42 395 abundant than autotrophic ones throughout the core. The record is characterized by
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44 396 three prominent dinocyst intervals (Fig. 5). From the start of the record until AD
45
46 397 1840, *O. centrocarpum* sensu Wall and Dale (1966) dominates the dinocyst
47
48 398 populations (≥ 25%), alongside the heterotrophs *Brigantedinium* spp., *I. ? cezare*, and
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50 399 *E. karaense*, and elevated abundances of *Spiniferites elongatus/frigidus*.
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55 400 Consequently, the autotrophic proportion is elevated to as much as 40%. Thereafter
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9 401 (AD 1840-1960) the proportions of autotrophs, dominated by *O. centrocarpum*
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11 402 sensu Wall and Dale (1966), are much reduced ($\leq 10\%$), and *I.? cezare* and *E.*
12
13 403 *karaense* become more prominent. From AD 1960 until the core top (AD 1999), the
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15 404 dinocyst assemblages see a dramatic rise in *O. centrocarpum* s.l. (max. 60% relative
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17 405 abundance), a pronounced drop in *I.? cezare*, *E. karaense*, and *I. minutum*. Overall,
18
19 406 these data are interpreted as extended seasonally open water AD 1630-1840,
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21 407 followed by severe sea-ice cover AD 1840-1960, and, finally, reduced sea ice AD
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23 408 1960-1999 (Pieńkowski et al., 2011).
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30 410 **3.3 MAT reconstructions**

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33 411 Dinocyst-based MAT transfer functions (most probable reconstructions; Fig. 6)
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35 412 suggest sea-surface temperatures (SSTs) between -1.0 and -1.5°C in winter
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37 413 throughout the record, whereas summer SSTs vary from a maximum of 6.0°C to a
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39 414 minimum of 1.0°C , with more variation from the summer SST mean (3.6°C) from the
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41 415 base of the record to AD 1790 and generally lower amplitude variations thereafter.
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43 416 Sea-surface salinities (SSS) fluctuate around 22.6 to 33.9 in winter and 20.9 to 32.4
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45 417 in summer, with no clear long-term trends. Most probable sea-ice reconstructions
46
47 418 (Fig. 6) range from 5.1 to 10.1 months per year (mean 7.4 months per year) cover,
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49 419 with concentrations between 4.0/10 and 8.1/10 (mean 5.8/10). Only subtle long-
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51 420 term trends are apparent in both parameters, with 3-point running means
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53 421 suggesting very gradual declines up core. Nevertheless, both reconstructions show
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9 422 pronounced apparent 40 year periodicities post AD 1710, marked by episodic shifts
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11 423 in annual sea-ice cover of around 3 months and concentration of around 3/10. Most
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13 424 probable primary productivity reconstructions range from 76.2 to 157.5 g C m⁻² a⁻¹
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15 425 (mean 133.3 g C m⁻² a⁻¹). A gradual increase in primary productivity is suggested by
16
17 426 the 3-point running mean towards the core top. As with the other parameters, a
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19 427 widely oscillatory signal can be seen in the most probable productivity
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21 428 reconstruction, where declines in productivity correspond with increases in sea-ice
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23 429 cover and concentration.
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27 430 4. Discussion

30 431 4.1 Sea-ice reconstruction comparisons

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33 432 Several lines of evidence were used in 99LSSL-001 to elucidate late Holocene
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35 433 palaeoenvironmental conditions in Coronation Gulf (Pieńkowski et al., 2011),
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37 434 augmented by additional biogeochemical and micropalaeontological data (this
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39 435 study). Collectively, these data permit an examination of various sea-ice proxies
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41 436 from a decadal-resolution Arctic archive, enabling inter-comparison between
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43 437 differing approaches to palaeo sea-ice reconstructions.
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47 438 Biomarker-based P_BIP₂₅ (Fig. 4) suggests four late Holocene spring/summer sea-ice
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49 439 regimes of differing duration in Coronation Gulf (see §3.1): fluctuating long open
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51 440 water to MIZ environments during the early part of the record (AD 1625-1740);
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53 441 followed by high-amplitude oscillations between long open water season and
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9 442 extended sea ice conditions (AD 1740-1870); a shift to greater ice cover marked by
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11 443 swings between MIZ and extended seasonal sea-ice conditions (AD 1870-1970); and
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13 444 finally a recent and pronounced reduction in seasonal sea ice (AD 1970-1999).
14
15 445 Biogeochemical proxies are broadly consistent with this reconstruction. Both BioSil
16
17 446 and TOC fluxes prior to AD 1740 are marginally elevated in comparison to the
18
19 447 preceding AD 1740-1870 interval, corresponding with increased biological
20
21 448 productivity under reduced sea-ice conditions and along the MIZ (Smith and Nelson
22
23 449 1986; Smith et al., 1987; Brierly and Thomas 2002) in the early part of the record.
24
25 450 The fluctuations between long open water season and extended sea ice conditions
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27 451 AD 1740 to 1870 represent swings between two low productivity environments
28
29 452 (compared to the MIZ; Brierly and Thomas 2002), resulting in reduced, but
30
31 453 fluctuating, BioSil and TOC fluxes. Both biogeochemical proxies during AD 1870-1970
32
33 454 show marked fluctuations between high and low values, with negative excursions in
34
35 455 TOC flux broadly corresponding with extended sea ice episodes, as indicated by
36
37 456 P_bIP_{25} . In the uppermost part of the record (AD 1970-1999), BioSil and TOC fluxes
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39 457 rapidly decline to values in keeping with those recorded in present day surface
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41 458 sediments throughout the western CAA, including Dease Strait, Victoria Strait, and
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43 459 central Viscount Melville Sound (Pieńkowski, pers. obs.). This occurs at a time when
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45 460 the P_bIP_{25} record suggests a dramatic shift to less or no spring/summer sea ice, a
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47 461 phenomenon supported by direct satellite observations (Canadian Ice Service,
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49 462 2011).
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9 463 The primary micropalaeontological data – dinocyst assemblages (relative
10 464 abundances; Fig. 5) - agree well with the P_BIP_{25} sea-ice regimes (Fig. 4). The interval
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12 465 prior to AD 1740 is characterized by a high proportion of autotrophs (particularly *O.*
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14 466 *centrocarpum* sensu Wall and Dale (1966)), whose producers require seasonally
15
16 467 open water for photosynthesis (and are generally distributed along the inflow of
17
18 468 relatively warmer waters within an Arctic context; Kunz-Pirrung et al., 2001;
19
20 469 Matthiessen et al., 2005) and a reduced component of heterotrophs found in
21
22 470 regions characterized by extended sea-ice cover (producing dinocysts such as *I.?*
23
24 471 *cezare*; Zonneveld et al., 2013; de Vernal et al., 2013b). In the MIZ interval (AD 1740-
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26 472 1870), the proportion of *O. centrocarpum* s.l. is slightly elevated compared to the
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28 473 previous period, suggesting conditions favourable to primary producers, i.e.
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30 474 abundant light (open water) in conjunction with dissolved nutrients (potentially
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32 475 delivered by the many rivers feeding the gulf; Fig. 1), consistent with the sea-ice
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34 476 conditions suggested by P_BIP_{25} . Further agreement between the qualitative dinocyst
35
36 477 and P_BIP_{25} reconstructions is seen towards the core top. The extended seasonal sea-
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38 478 ice interval (AD 1870-1970) indicated by P_BIP_{25} corresponds directly to a marked
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40 479 decrease in autotrophic dinocysts and a rise in heterotrophic species associated with
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42 480 perennial sea ice (*I.?* *cezare* and *E. karaense*; Head et al., 2001; Zonneveld et al.,
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44 481 2013). Post AD 1970 autotrophic species dramatically increase and henceforth
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46 482 dominate the dinocyst assemblages. In agreement, biomarker reconstructions
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48 483 suggest a rapid return to reduced sea-ice conditions, displaying some of the lowest
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9 484 $P_{BIP_{25}}$ values in the whole record. This is in keeping with the sea-ice decline directly
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11 485 observed by satellite since 1979 (Canadian Ice Service, 2011; Vaughan et al., 2013).
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14 486 Overall, biogeochemical proxies correspond well with qualitative
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16 487 micropalaeontological reconstructions based on dinocysts (the sparse diatom
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18 488 species are those found in polar environments characterized by seasonal sea ice).
19
20 489 Though, aside from 99LSSL-001, late Holocene marine data are presently lacking
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22 490 from this region, these reconstructions broadly agree with palaeoenvironmental
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24 491 data from adjacent islands [see Pieńkowski et al. (2011) for an in-depth discussion
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26 492 on late Holocene regional context]. In particular, both $P_{BIP_{25}}$ and dinocyst
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28 493 assemblage reconstructions for the uppermost samples (late 20th century) agree well
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30 494 with observed sea-ice conditions over the last 30 years (Canadian Ice Service, 2011);
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32 495 conditions broadly equivalent with the “variable to less sea ice zone” of Müller et al.
33
34 496 (2011). However, MAT reconstructions show relatively poor agreement with the
35
36 497 other (biogeochemical and micropalaeontological) proxies, beyond broadly
37
38 498 reconstructing a polar marine environment characterized by seasonal sea-ice cover
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40 499 throughout the late Holocene. Specifically, MAT sea-ice reconstructions vary only
41
42 500 slightly over the covered time period (Fig. 6), with sea-ice cover ranging from 5 to 10
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44 501 months per year and sea-ice concentration between 4/10 and 8/10. Similarly,
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46 502 reconstructed summer sea-surface temperatures vary only marginally throughout
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48 503 the record; reconstructed sea-surface salinities appear the most variable parameter
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50 504 (though these fluctuations are on the scale to be expected for physically dynamic
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52 505 Arctic environments; Michel et al., 2006). Overall, only subtle trends can be
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9 506 discerned from the MAT reconstructions, in contrast to the prominent shifts seen in
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11 507 the other investigated proxies.

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17 509 **4.2 Data precision**

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20 510 Both P_BIP_{25} and MAT reconstructions suggest apparent multi-decadal cycles in
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22 511 seasonal sea-ice variability post AD 1710 (Fig. 7). However, these ostensible
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24 512 oscillations (~40 years) cannot be assumed real given that their apparent
25
26 513 periodicities are less than the chronostratigraphic standard error margins (^{210}Pb :
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28 514 10%, ^{14}C : 1σ). Notably, the apparent cyclicity in both P_BIP_{25} and MAT reconstructions
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30 515 broadly disappear when the chronostratigraphic error margins are accounted for
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32 516 (Fig. 7) suggesting that they are a result of natural noise or minor analytical errors in
33
34 517 the proxy data. Longer term (centennial) trends in sea-ice variability can
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36 518 nevertheless be determined from the P_BIP_{25} record when applying a ^{210}Pb 10% error
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38 519 envelope around the age-depth model (Fig. 7), corresponding closely to the 3-point
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40 520 running mean of P_BIP_{25} sea-ice reconstructions (Fig. 4; see §3.1). MAT sea-ice
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42 521 reconstructions, when treated in the same manner, also broadly approximate their
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44 522 centennial-scale 3-point running mean trends, though variations in estimated sea-ice
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46 523 season and concentrations are notably limited in amplitude and agree poorly with
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48 524 P_BIP_{25} reconstructions.

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9 525 Within the context of the low mid to late Holocene sedimentation rates throughout
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11 526 the CAA channels (typically <0.6 mm/year; Andrews et al., 1991; Pieńkowski et al.,
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13 527 2012, 2013, 2014), 99LSSL-001 represents a relatively high-resolution archive (1.2
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15 528 mm/year sedimentation rate) for an Arctic marine setting. Given the sediment
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17 529 sample volumes needed to generate meaningful multiproxy (micropalaeontological
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19 530 and/or biogeochemical) data, in combination with typical core barrel diameters and
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21 531 the errors associated with dating, even high frequency sampling (1 cm slices at 1cm
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23 532 core intervals) cannot provide sufficient chronostratigraphic resolution to reliably
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25 533 elucidate sub-centennial environmental variability in this polar setting. Therefore,
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27 534 and independent of the uncertainties inherent in reconstructing
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29 535 palaeoenvironmental parameters (Leventer, 1998; Haslett, 2002), such apparent
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31 536 sub-centennial variations in CAA archives cannot be considered meaningful and
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33 537 should be treated with caution. However, using absolute chronologies (and resulting
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35 538 age-depth models) suggestive of decadal precision, nevertheless remains a useful
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37 539 tool when comparing palaeoenvironmental proxy approaches across the same
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39 540 stratigraphic intervals as well as providing histories that can be compared against
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41 541 instrumental and observational (narrative) data sets. A solution to this low precision
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43 542 problem may be offered by settings characterized by exceptionally high annual
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45 543 sedimentation rates, such as Arctic estuaries or marine embayments (Hill et al.,
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47 544 1991; Dale, 2002; Duboc et al., 2014), hitherto markedly undersampled even in
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49 545 comparison with the limited number of marine cores from the CAA.
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9 547 **4.3 Inter-proxy discrepancies**

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11 548 The use of any (palaeo-) environmental proxy carries inherent caveats (Leventer,
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13 549 1998), both peculiar to specific techniques and more broadly applied to all proxies.
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15 550 For example, biogeochemical approaches, such as IP₂₅ in combination with sterols,
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17 551 can suffer from equivocal palaeoenvironmental interpretation if used as a stand-
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19 552 alone proxy (Müller et al., 2011), as well as from issues such as selective and non-
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21 553 uniform depositional and post-depositional degradation (Belt and Müller, 2013) and
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23 554 regional effects (Weckström et al., 2013). Diatoms are prone to dissolution (as
24
25 555 suggested in this study), species-selective preservation, and under-representation of
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27 556 sea-ice species (Shemesh et al., 1989; Leventer, 1998). Dinocysts, the fossilizable
28
29 557 benthic resting stages of planktonic dinoflagellates, are one step removed from the
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31 558 autotrophic and heterotrophic organisms that produced them (Dale and Dale, 2002;
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33 559 Hackett et al., 2004). Notably, different dinoflagellate taxa with different
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35 560 environmental tolerances can produce morphologically similar dinocysts (e.g., the
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37 561 species complex *Brigantedinium* spp.; Zonneveld et al., 2013).
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43 562 Although other proxies such as foraminifera and foraminiferal stable isotopes ($\delta^{18}\text{O}$)
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45 563 have been used for sea-ice reconstruction (e.g., Schell et al., 2008), such methods
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47 564 should be considered carefully in the CAA where mid to late Holocene sediments are
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49 565 marked by poor preservation of biogenic carbonate (Pieńkowski et al., 2012, 2013,
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51 566 2014), abundance of fragile agglutinate taxa (Vilks, 1969; Schröder-Adams et al.,
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53 567 1990), and a mid Holocene transition to exceedingly small (<63 μm) faunas below
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9 568 typical sieving protocols (Scott et al., 2008). The near absence of calcareous
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11 569 foraminifera throughout core 99LSSL-001 despite frequently preserved foraminiferal
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13 570 organic linings (Pieńkowski et al., 2011), testifies to the complexity of using this
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15 571 microfossil group in the CAA.
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18 572 Although any one proxy has its advantages and disadvantages, the good agreement
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20 573 between biomarker and micropalaeontological proxies in the present study implies a
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22 574 high degree of confidence in the reconstructed sea-ice regimes, suggesting
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24 575 considerable fluctuations in environmental conditions over the latest Holocene.
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27 576 Notably, however, MAT reconstructions appear to deviate from the consensus seen
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29 577 in other data.
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32 578 One explanation for this discrepancy may lie in the limited spatial (and
33
34 579 environmental?) coverage of modern dinocyst distributions in the study region. The
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36 580 Northern Hemisphere database of modern dinocyst distributions (n = 1492; de
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38 581 Vernal et al., 2013b) used for MAT does not include Coronation Gulf, having
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40 582 relatively poor coverage of the marine CAA south of Parry Channel. Though there
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42 583 are sites in Dease Strait (n = 1; some 325 km from the coring site) and in the
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44 584 Beaufort Shelf and outer Amundsen Gulf (collectively n = 51; closest site 430 km),
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46 585 none of these show an assemblage structure similar to that found at the Coronation
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48 586 Gulf core top (high proportion of *O. centrocarpum* s.l. and *Brigantedinium* spp.,
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50 587 accompanied by *I. minutum*, *I.? cezare*, and *E. karaense*), though a higher
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52 588 autotrophic component (with abundant *O. centrocarpum* s.l.) was found by Richerol
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9 589 et al. (2008) in the Beaufort Sea. Nevertheless, *O. centrocarpum* s.l. percentages
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11 590 decreased towards the critically shallow (20-30 m deep) Dolphin and Union Strait,
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13 591 which severely limits the eastward inflow of deeper water (Hare, 1994; Ingram and
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15 592 Prinsenber, 1998). Notably, the high proportions of *I. ? cezare* and *E. karaense*, seen
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17 593 during the sea-ice interval in the Coronation Gulf core (accompanied by
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19 594 *Brigantedinium* spp., *I. minutum* and *O. centrocarpum* s.l.) are not apparent in the
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21 595 database. Such lack of modern dinocyst spatial coverage south of Parry Channel
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23 596 within this archipelago setting (oceanographically distinctive from adjacent regions
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25 597 such as Baffin Bay or the Beaufort Sea; Ingram and Prinsenber, 1998) may help
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27 598 explain the poorly nuanced MAT sea ice (and SST) reconstructions seen in 99LSSL-
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29 599 001, with no meaningful modern assemblages to act as reasonable analogues. The
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31 600 closest modern analogues for the Coronation Gulf core are northern Baffin Bay, the
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33 601 Banks Shelf, and the Kara Sea, the Sea of Okhotsk, and Foxe Channel (Table S.1). The
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35 602 validation step of the MAT with n=1492 sites gives a RMSE (root square of the mean
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37 603 squared error) of 1.1, which we adopt as a threshold, with RMSE falling above this
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39 604 value being deemed a poor reconstruction, with those falling above it are
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41 605 considered reliable (Guiot and de Vernal, 2011). The RMSE for most of the
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43 606 reconstructed parameters fall above the threshold (Table S.1), though the RSME for
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45 607 sea-ice concentration close to the threshold (1.12) suggests that the reconstructions
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47 608 of this parameter may not be robust.
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53 609 Another explanation for the apparent low resolution MAT sea-ice reconstructions
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55 610 may lie in the broad environmental tolerances of the dominant dinocyst species
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9 611 present in the Coronation Gulf core. Available CAA data from surface sediments (de
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11 612 Vernal et al., 2013b; Zonneveld et al., 2013) suggest a dominance of opportunistic
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13 613 taxa capable of withstanding wide inter- and intra-seasonal fluctuations in physical
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15 614 parameters, an essential adaptation for Arctic environments. Many of these taxa are
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17 615 produced by heterotrophic dinoflagellates, such as the dinocysts *I. minutum* and
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19 616 *Brigantedinium* spp., which dominate modern (Mudie and Rochon, 2001) and late
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21 617 Quaternary environments, with little variation (Pieńkowski et al., 2012, 2013, 2014).
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23 618 Whilst a high proportion of autotrophs, particularly *O. centrocarpum* s.l., appears
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25 619 unusual within the context of the oceanographically restricted CAA (Mudie and
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27 620 Rochon, 2001; de Vernal et al., 2013b), this taxon is also broad in its environmental
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29 621 preferences (Zonneveld et al., 2013). Collectively, this may contribute to the low
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31 622 amplitude signature of MAT reconstructions. It is interesting to note that MAT
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33 623 reconstructions on available dinocyst palaeodata (~1 to 8 cal ka BP) from a core in
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35 624 Dease Strait – dominated by the species complex *Brigantedinium* spp. (commonly >
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37 625 70%) with lesser *O. centrocarpum* s.l. (mostly <20%) - are almost uniform in their
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39 626 most probable reconstructions of sea-ice cover (though fluctuations are seen in
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41 627 reconstructed SST and SSS) over 7000 cal years (Ledu et al., 2010).
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46 628 The elevated abundance of autotrophic dinocysts seen in Coronation Gulf may be
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48 629 aided by the high nutrient input via the many large rivers flowing into the basin (Fig.
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50 630 1). Similar elevated autotroph assemblages (though far more diverse) are reported
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52 631 farther southeast in Hudson Bay, where Heikkilä et al. (2014) suggest using
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54 632 *Polykrikos* sp. var. arctic morphotype as a sea-ice proxy. Given the low relative
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9 633 abundance of this dinocyst in this study (<10%) and the CAA (Mudie and Rochon,
10 634 2001) in general, however, this may not be a viable option for the southwest CAA.
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12 635 Heikkilä et al. (2014) furthermore highlight the importance of regionality of dinocyst
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14 636 assemblages within surface sediments, another point which argues for an increased
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16 637 spatial coverage in the dinocyst database (de Vernal et al., 2013b) and which may
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18 638 help explain the differences between Coronation Gulf and other CAA channels
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20 639 (Mudie and Rochon, 2001).
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28 641 **4.4 Complexities in biomarker sea-ice reconstructions**

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31 642 Our biomarker data permit an exploration of methodological questions raised when
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33 643 using this technique in a polar archipelago setting. As demonstrated by Müller et al.
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35 644 (2011), PIP₂₅ (combining IP₂₅ and open-water algal biomarkers) represents a more
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37 645 faithful proxy for sea-ice regimes than does IP₂₅ alone, accounting for the absence of
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39 646 IP₂₅ under end-member conditions of zero and multi-year sea ice. However, the way
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41 647 in which the constituent biomarker data are expressed has implications for
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43 648 calculating PIP₂₅ (Müller et al., 2011) and inter-record biomarker comparisons.
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45 649 Calculated **palaeo**-fluxes of IP₂₅ and phytoplankton-specific biomarkers ($\mu\text{g cm}^{-2} \text{a}^{-1}$)
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47 650 provide **useful** values for determining PIP₂₅ in a down-core setting, being
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49 651 independent of sediment physical properties and to a greater extent reflecting
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51 652 production rates in the water column and sea ice. However (and especially beyond
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53 653 the application of ²¹⁰Pb and ¹³⁷Cs as reliable chronometers), calculated fluxes are
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9 654 only as reliable as the age-depth models and sedimentation rates on which they are
10 655 based. Whilst flux-based values are used in this study, chronological imprecisions
11 656 and inaccuracies inherent in age-depth model construction have the potential to
12 657 skew palaeo sea-ice reconstructions and make inter-record comparisons challenging.
13 658 Absolute biomarker concentrations ($\mu\text{g g}^{-1}$; concentrations normalized to g
14 659 sediment) are even more problematic due to the effects differing sediment
15 660 properties (e.g., grain size), sedimentation rates, and diagenetic processes may have
16 661 on measured concentrations (Müller et al., 2013; Xiao et al. 2015). To compensate
17 662 for these factors, Müller et al. (2011) recommend normalizing IP₂₅ and
18 663 phytoplankton-based biomarkers to TOC content ($\mu\text{g g}^{-1}$ OC), an approach which not
19 664 only facilitates inter-comparisons between palaeo records, but also permits
20 665 comparison with “modern” surface sediment values where direct relationships
21 666 between in-ice production, delivery through the water column, and total sediment
22 667 accumulation rates can be complex (Belt et al., 2008; Fahl and Stein, 2012; Belt and
23 668 Müller, 2013). It should be noted, however, that fluxes (or rate of inclusion in
24 669 sediments) of TOC and individual biomarkers should be expected to vary, to some
25 670 small degree, independently of each other (as per Fig. 4), being influenced by a
26 671 range of largely common, but in some cases potentially independent, environmental
27 672 factors (e.g. Ding et al., 2015).

28 673 In this study, P_BIP₂₅ values calculated based on both flux-based and TOC-normalised
29 674 biomarker data are extremely similar (though not identical; offsets ranging from
30 675 0.005-0.016, mean = 0.009) thus providing equivalent palaeo sea-ice reconstructions

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9 676 (Fig. 4). This suggests little error in our age-depth model and sedimentation rate
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11 677 calculations and that, at least in this study, flux-based and TOC-normalised
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13 678 biomarker terms are equally reliable. Biomarker data normalised to TOC from two
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15 679 sites in the CAA (Fig. 1; Lancaster Sound and M'Clintock Channel) show values
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17 680 comparable to core 99LSSL-001 (Table 2). Both Lancaster Sound and M'Clintock
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19 681 Channel samples reconstruct borderline MIZ to variable/less sea-ice regimes (P_BIP_{25}
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21 682 = 0.52) consistent with modern satellite-observed ice conditions (Canadian Ice
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23 683 Service, 2011). This further suggests that biomarker values from the 400-year long
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25 684 Coronation Gulf record are reasonable for this environmental setting. Limited
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27 685 regional palaeo data show broadly similar ranges for IP_{25} fluxes in Victoria and Dease
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29 686 straits, though Barrow Strait fluxes appear higher (Belt et al., 2010). Direct
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31 687 comparisons between our data and those of Belt et al. (2010) are, however,
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33 688 complicated by chronological factors (ΔR selection, potential inclusion of deposit
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35 689 feeding molluscs) inherent in age-depth model and sedimentation rate
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37 690 reconstructions. Whilst our downcore TOC-normalised IP_{25} and brassicasterol values
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39 691 are the same order of magnitude as our modern seabed sediment samples, they
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41 692 stand in contrast to values reported from both the northern North Atlantic (Müller
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43 693 et al., 2011) and the Russian Arctic (Xiao et al., 2013, 2015). The majority of
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45 694 Coronation Gulf downcore TOC-normalised IP_{25} values are higher than the maxima
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47 695 of $8.47 \mu\text{g g}^{-1}$ OC from the fjord coast of east Greenland (Müller et al., 2011) and
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49 696 $11.43 \mu\text{g g}^{-1}$ OC from the northern Laptev Sea (Xiao et al., 2013). Brassicasterol
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51 697 concentrations normalized to TOC, are however broadly range-equivalent to those
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9 698 reported by Müller et al. (2011) and Xiao et al. (2013). The reasons for such disparity
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11 699 are difficult to determine, but could lie in the different oceanographic setting
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13 700 (archipelago shelf sea vs. open ocean). A notable trend in the North Atlantic IP₂₅
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15 701 values is an increase in concentration towards and into the fjords of the east
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17 702 Greenland coast, whilst the shallow and fluvially-influenced Laptev and Kara seas
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19 703 show a much more complex biomarker pattern (Xiao et al., 2013). Weckström et al.
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21 704 (2013) have demonstrated that in regions of mobile ice at the southern limit of
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23 705 seasonal sea-ice, PIP₂₅ values are complicated by the combination of advected
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25 706 allochthonous sea ice (thus IP₂₅) with autochthonous phytoplankton biomarker
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27 707 production. However, whilst some lateral ice transport is to be expected at our
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29 708 study site, the semi-enclosed Arctic archipelago basin setting of Coronation Gulf,
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31 709 characterised by seasonally land-fast first year ice (Fetterer et al., 2002; [Canadian Ice](#)
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33 710 [Service, 2011](#)), is ideally suited for IP₂₅ and brassicasterol sea-ice reconstructions
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35 711 (comparable to Müller et al., 2011, 2012). Fahl and Stein (2012) and Belt and Müller
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37 712 (2013) have noted the link between increasing water depth and decreasing
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39 713 biomarker concentrations in surface sediments, suggesting biogeochemical
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41 714 degradation and scavenging of organic matter by marine organisms as well as
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43 715 dilution during descent through the water column to explain this relationship. These
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45 716 factors may well influence our relatively shallow (~200 m) high IP₂₅ concentration
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47 717 (max. 73.12 µg g⁻¹ OC) record.
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53 718 Ecological and environmental variability may also be an important factor in
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55 719 determining differences in IP₂₅ concentrations under apparently similar sea-ice
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9 720 conditions (Stoynova et al., 2013). Sea-ice diatom communities have been shown to
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11 721 vary widely in species composition and abundance in similar sea-ice habitats in both
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13 722 the Arctic and Antarctic (e.g., Garrison et al., 1987; Moro et al., 2000; von Quillfeldt
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15 723 et al., 2003). Though these studies have not been directly linked to biomarker
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17 724 production, such natural variability may be expected to influence preserved
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19 725 concentrations of sea-ice biomarkers in underlying sediments. As yet, these
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21 726 considerations must remain speculative, but they highlight the pressing need for
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23 727 characterisation and calibration of the biogeochemical signature of surface
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25 728 sediments across the CAA relative to oceanographic, climatological, and
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27 729 environmental parameters.
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31 730 Given the significant concentration differences between IP_{25} and phytoplankton-
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33 731 based biomarkers, Müller et al. (2011) recommend the use of a balance factor c in
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35 732 the calculation of PIP_{25} [Equation (1)] based on mean IP_{25} and phytoplankton-based
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37 733 biomarker concentrations. However, when concentrations are marked by closely
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39 734 clustered values with a few infrequent outliers as in this study, these extreme values
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41 735 can act to skew mean biomarker calculations (and thus balance factor c terms),
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43 736 markedly influencing PIP_{25} results. Where the two high value outliers in both the IP_{25}
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45 737 and phytoplankton-based Coronation Gulf biomarker datasets are excluded from
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47 738 balance factor c calculation, the resulting P_BIP_{25} values are reduced in magnitude,
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49 739 shifting palaeo sea-ice reconstructions towards more reduced sea-ice conditions
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51 740 (Fig. 4). Similar results are seen when the balance factor c is calculated using median
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53 741 rather than mean values. Nevertheless, our P_BIP_{25} sea-ice reconstructions using the
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9 742 full biomarker datasets (including outliers) are in good agreement with other palaeo
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11 743 sea-ice proxies. Xiao et al. (2015) have explored the use of region-specific balance
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13 744 factor terms in correlating surface sediment PIP₂₅ values with modern sea ice
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15 745 distribution with success across the Arctic Ocean. However, given the absence of a
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17 746 database of modern surface sediment values for the CAA and the lack of an
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19 747 independent means to determine time-variance in balance factor *c* within a single
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21 748 core record, using region-specific balance factors in this study was not possible.
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23 749 Consequently, the degree to which IP₂₅ and phytoplankton-based biomarkers should
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25 750 be scaled prior to PIP₂₅ calculation remains equivocal, especially in regard to
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27 751 handling extreme value outliers, as well as the spatio-temporal appropriateness of
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29 752 the balance factor itself (Belt and Müller, 2013; Xiao et al., 2015).
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33 753 The degree to which water column and post-depositional (and post-sampling)
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35 754 degradation has influenced biomarkers in this study is difficult to assess,
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37 755 representing highly complex and largely unquantifiable processes (see Belt and
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39 756 Müller, 2013 for a detailed discussion). Whilst Rontani et al. (2011, 2014) indicate
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41 757 that the highly-branched isoprenoid IP₂₅ is largely unreactive and thus preserved
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43 758 well in sediments, other biomarkers such as brassicasterol may suffer from
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45 759 photodegradation (Rontani et al., 2012; Stein et al., 2016). Biomarkers may be
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47 760 degraded under surface or subsurface oxic conditions, varying dependent upon
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49 761 sedimentary physical, biological, and biogeochemical properties, and at non-linear
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51 762 rates (e.g., Huguet et al., 2008, 2009; Brown, 2011). Further, the post-sampling and
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53 763 storage contamination and degradation of biomarkers and pigments has been noted
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9 764 (Grimault et al., 1988; Ruess and Conley, 2005; Weller, 2007; Cabedo Sanz et al.,
10 765 2016). However, the susceptibility of IP₂₅ and brassicasterol to these processes
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12 766 remains to be determined (Belt and Müller, 2013). We note, however, that IP₂₅ was
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14 767 present in concentrations comparable to our study, in grab, core, and dredge
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16 768 sediments (many oxidised) from the Canadian Arctic, collected by the GSC-A
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18 769 (expeditions 84015 and 91039) in the 1980s and early 1990s (analysed decades later
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20 770 following unknown storage conditions) in the original Belt et al. (2007) study that
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22 771 forms the basis of this method. Though our samples may have potentially been
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24 772 influenced by any or all of the aforementioned factors during deposition, coring, and
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26 773 storage, the strong agreement between P_BIP₂₅ (biomarker-based) sea-ice
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28 774 reconstructions and those based on qualitative micropalaeontology (dinocysts)
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30 775 argues for the appropriateness of the biomarker approach in this setting.
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39 777 **4.5 Correlations between proxies**

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42 778 The biomarker proxies IP₂₅ and P_BIP₂₅ broadly parallel TOC and BioSil throughout the
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44 779 core (Fig. 4). Strong correlations ($R^2 > 0.75$) between TOC and biomarker proxies are
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46 780 evident especially when comparing smoothed (3-point running mean) datasets (Fig.
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48 781 8a, b; Table S2). In particular, the 3-point means of TOC concentration (by weight
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50 782 and %) and TOC flux correlate strongly with 3-point means of both IP₂₅ concentration
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52 783 and flux (R values >0.8; Fig. 8a; Table S2). Direct correlations between TOC
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54 784 concentrations and P_BIP₂₅ (normalized to OC) are weaker (R = 0.57, $R^2 = 0.32$, n = 20;
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9 785 Fig. 8b; Table S2). Correlations between BioSil and biomarkers are weaker, with the
10 786 strongest correlations ($R = 0.68$, $R^2 = 0.46$, $n = 18$) shown between IP_{25} concentration
11 787 (3-point mean) and BioSil concentration and flux (3-point means). Although these
12 788 relationships are potentially related to elevated productivity at the marginal ice zone
13 789 (e.g., Brierly and Thomas, 2002) resulting in the positive correlations between TOC
14 790 and BioSil with IP_{25} and P_8IP_{25} , the complexities of total organic carbon and biogenic
15 791 silica records reflecting multiple sources, pathways, and preservation potentials
16 792 (e.g., Ragueneau et al., 2000) make drawing direct linkages problematic.

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27 793 PIP_{25} has been recognized as a reliable proxy approach for spring/summer sea-ice
28 794 conditions (Müller et al., 2011; Belt and Müller, 2013; Stoyanova et al., 2013, Xiao et
29 795 al., 2015), being based on the ratio of IP_{25} (positively correlating with increased
30 796 spring/summer sea ice) to open water algae biomarkers (e.g., brassicasterol,
31 797 negatively correlating with spring/summer sea-ice conditions). As such, PIP_{25} (and its
32 798 constituent terms) should be expected to correlate with quantitative MAT
33 799 reconstructions. In an extended seasonal sea-ice scenario during spring/summer
34 800 marked by high PIP_{25} ratios (sensu Müller et al., 2011) a longer sea-ice season and
35 801 greater sea-ice concentration would be expected. Conversely, low PIP_{25} periods
36 802 (variable/less spring/summer sea ice) should correspond to shorter seasonal sea ice
37 803 and lower sea-ice concentration.

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51 804 However, in this study, when IP_{25} and P_8IP_{25} are compared to MAT outputs (most
52 805 probable reconstructions) of sea-ice cover (seasonal duration) and concentration,
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9 806 only very weak correlations are evident ($R < 0.5$; Fig. 8c; Table S2). Similarly, the MAT
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11 807 sea-ice indicator *I. ? cesare* (Table S2) only weakly correlates with IP_{25} though
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13 808 correlation with P_BIP_{25} is stronger (Fig. 8d; Table S2). This stands in contrast to the
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15 809 better agreement between biomarkers, biogeochemistry (particularly TOC), and
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17 810 qualitative micropalaeontology. These poor correlations between biomarkers and
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19 811 MAT sea-ice reconstructions are difficult to explain. A lack of regional coverage in
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21 812 the modern dinocyst database (de Vernal et al., 2013b), a strongly regional dinocyst
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23 813 assemblage (sensu Heikkilä et al., 2014) and/or the broad environmental tolerances
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25 814 of many Arctic dinocyst taxa (Zonneveld et al., 2013) may be contributing factors to
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27 815 this apparent disagreement. Nevertheless, such explanations remain speculative
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29 816 until multiproxy surface sediment assays (dinocysts, biogeochemistry, biomarkers)
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31 817 tied to measured physical and chemical oceanographic parameters become
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33 818 available from the western CAA.
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820 4.6 Is there a “best” sea-ice indicator?

821 Given the discrepancies between some of the proxies investigated in the present
822 study, the question arises: what is the best and most faithful sea-ice indicator?
823 Intuitively, the most faithful sea-ice proxies should be those that are intrinsically tied
824 to the sea-ice environment whilst those that are only indirectly influenced by sea ice
825 may be less suited to reconstructing ice histories. IP_{25} is produced by genuinely
826 sympagic organisms and is therefore inherently tied to this environmental

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9 827 parameter (Belt et al., 2012). Nevertheless, as a stand-alone proxy IP₂₅ suffers from
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11 828 equivocal interpretation if phytoplankton-based biomarkers are not included (Müller
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13 829 et al., 2011; Belt and Müller, 2013).
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16 830 Dinocysts are only indirectly influenced by sea ice. Autotrophs such as *O.*
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18 831 *centrocarpum* need seasonally open water for photosynthesis (Kunz-Pirrung et al.,
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20 832 2001; Matthiessen et al., 2005). Conversely, heterotrophs (e.g., *I. minutum*, *I.?*
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22 833 *cezare*) are influenced by biotic factors including prey availability such that their
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24 834 occurrence (and abundance) may be favoured by abundant sea ice and its resident
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26 835 biota (Matthiessen et al., 2005). Melnikov et al. (2002) report several motile
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28 836 dinoflagellate species from the Canada Basin that were found within specific sea-ice
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30 837 environments (e.g., ice-water interface). The relatively high diversity of motile
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32 838 dinoflagellates in the Arctic Ocean (~250 taxa; Matthiessen et al., 2005, and
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34 839 references therein) stands in contrast to the low reported diversity of their cysts in
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36 840 Arctic Ocean surface sediments (Zonneveld et al., 2013), including the CAA (rarely
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38 841 >10 species; Mudie and Rochon, 2001). None of these cyst taxa, however, are known
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40 842 to be truly sympagic. Though genetic studies on sea-ice biota show a diverse and
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42 843 substantial dinoflagellate component (including dinocysts; Stecher et al., 2016), only
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44 844 one dinocyst species, produced by *Polarella glacialis*, a gymnodinoid brine-channel
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46 845 dwelling dinoflagellate, has thus far been reported from within Antarctic fast ice
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48 846 (Stoecker et al., 1993; Montresor et al., 1999, 2003). Though recently found Hudson
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50 847 Bay (Heikkilä et al., 2014, 2015), its small size (<15 µm) in combination with its poor
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9 848 preservation potential (non-dinospirin cell wall), likely limit its use a palaeo sea-ice
10 849 indicator.

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14 850 Marine diatoms frequently dominate sea-ice environments (Brierly and Thomas,
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16 851 2002; Melnikov et al., 2002) and preserve well in regions such as the Southern
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18 852 Ocean (Armand and Leventer, 2010). However, their poor preservation and/or low
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20 853 frequency in western CAA environments (Pieńkowski, pers. obs.) - as suggested in
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22 854 this study – likely limits their use as Holocene palaeoenvironmental indicators
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25 855 (though eastern CAA and Baffin Bay show better preservation; Knudsen et al., 2008).

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27 856 **Nevertheless, diatom production may be estimated by biogeochemical methods**
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29 857 **(e.g., BioSil; Ragueneau et al., 2000; cf. Heikkilä et al., 2014).**

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32 858 In answer to our above question, it is doubtful that a single “best”, universally
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34 859 applicable sea-ice proxy exists. New and existing approaches continue to require
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36 860 testing and calibration for each of the diverse existing and palaeoenvironmental
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38 861 settings they are applied in. Especially in areas marked by complex oceanographic
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40 862 histories influenced by a diversity of environmental drivers, a multi-proxy approach
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42 863 should provide a more nuanced and in-depth insight into those environmental
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44 864 changes than any one single proxy.

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51 866 **5. Conclusions**

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9 867 The present study provides a first evaluation of different palaeo sea-ice
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11 868 reconstruction approaches for the marine channels of the Canadian Arctic. Of all
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13 869 groups examined in this study, biomarker-based approaches ($P_{BIP_{25}}$) appear to
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15 870 provide the most sensitive and nuanced sea-ice information, being supported by
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17 871 broadly accordant biogeochemical (BioSil, TOC) and qualitative
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19 872 micropalaeontological (dinocysts) data, whereas some proxies such as diatoms are
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21 873 exceedingly rare to absent. Dinocyst-based MAT broadly reconstructs a high latitude
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23 874 environment characterised by seasonal sea ice in Coronation Gulf. However, in this
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25 875 study, MAT provides the least nuanced and least variable sea-ice reconstructions,
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27 876 despite their apparent precision. Until the construction of a wider, more spatially
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29 877 and environmentally representative database of dinocyst-oceanographic
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31 878 relationships for the western CAA, MAT-based reconstructions for this region should
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33 879 be interpreted in tandem with other proxies with a closer direct relationship to sea
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35 880 ice. Nevertheless, and aside from the criticisms levelled at MAT approaches (Dale
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37 881 and Dale, 2002; Telford, 2006), the excellent preservation potential of dinocysts in
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39 882 the CAA (compared to other microfossils) argues for their continued development as
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41 883 environmental proxies, including quantitative reconstructions of oceanographic
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43 884 parameters.

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48 885 Lastly, whilst $P_{BIP_{25}}$ is considered a broadly reliable sea-ice proxy in this study,
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50 886 further systematic work across the CAA is needed to clarify the relationships
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52 887 between surface sediment proxies (biomarkers, biogeochemistry,
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54 888 micropalaeontology) and modern oceanographic parameters. Such an approach,
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9 889 combined with robust and standardised geochronological protocols, will enable the
10 890 development of reliable quantitative reconstructions of palaeoenvironmental
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12 891 parameters, including sea ice, in this climatically-sensitive region.
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19 893 **Funding**

20
21
22 894 This research was made possible by a Marie Curie Career Integration Grant awarded
23 895 to A. Pieńkowski (FP7-PEOPLE-2011-CIG 304178 *The Quaternary Environmental*
24 896 *Evolution of the Northwest-Passage*). We also acknowledge the receipt of a
25
26
27 897 MacEwan University Undergraduate Student Research Initiative Fund awarded to N.
28
29 898 Gill. This paper is a contribution to the ArcticNet Phase IV project “Mapping of Arctic
30
31 899 Canada’s Seafloor: Contributions to Global Change Science, Sustainable Resource
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33 900 Development, Safe Navigation of the Northwest Passage, Geohazards and Arctic
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35 901 Sovereignty”.

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44 903 **Acknowledgments**

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46
47 904 We thank the Geological Survey of Canada – Atlantic, in particular Robbie Bennett,
48 905 for access to core materials. Thanks are also extended to the crew of the CCGS
49
50 906 Amundsen and Bob Murphy for surface sediment recovery. Simon Belt (University of
51
52 907 Plymouth) kindly provided the standard needed for IP₂₅ analyses. We are particularly
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9 908 grateful to Juliane Müller (Alfred Wegener Institut) and Anne de Vernal (GEOTOP)
10
11 909 for the fruitful discussions surrounding sea-ice proxies. We extend our thanks to
12
13 910 three anonymous reviewers and the editor Atle Nesje whose valuable detailed
14
15 911 comments greatly improved this manuscript.
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For Peer Review

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43 **List of Figures**

- 44
45 1273 **Fig. 1** Map of locations mentioned in the text, including study area in Coronation
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47 1274 Gulf and core site 99LSSL-001. Surface sediment sampling locations in M'Clintock
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49 1275 Channel (station 2011804-003) and Lancaster Sound (station 2011804-009) are
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51 1276 shown by stars. 1 = Amundsen Gulf, 2 = Beaufort Sea, 3 = M'Clure Strait, 4 = Viscount
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9 1277 Melville Sound, 5 = M'Clintock Channel, 6 = Barrow Strait, 7 = Lancaster Sound, 3-7 =

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11 1278 Parry Channel.

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15 1280 **Fig. 2** Lithostratigraphy, chronostratigraphy, and age-depth model of core 99LSSL-

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17 1281 001. Note that the age-depth model has been revised from Pieńkowski et al. (2011)

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19 1282 and represents a linear extrapolation of ^{210}Pb and ^{137}Cs ages, supported by two

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21 1283 radiocarbon dates (Table 1).

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25 1285 **Fig. 3** Selected GC chromatograms and mass spectra of biomarkers used in the

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27 1286 present study: a) representative portion GC total ion chromatogram of

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29 1287 hydrocarbons, including IP_{25} ; b) representative portion of GC total ion

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31 1288 chromatogram of sterols, including brassicasterol; c) selected mass spectrum of IP_{25} ;

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33 1289 d) selected mass spectrum of brassicasterol.

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37 1291 **Fig. 4** Results of biogeochemical analyses on core 99LSSL-001. Note that fluxes

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39 1292 (where applicable) are based on the revised age-depth model (Fig. 2). Absolute

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41 1293 concentrations of IP_{25} and brassicasterol are shown (in grey) on the same graphs as

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43 1294 concentrations normalized to TOC. Error margins around flux curves are those

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45 1295 calculated based on 10% confidence interval surrounding the ^{210}Pb and ^{137}Cs

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47 1296 chronology. PIP_{25} sea-ice regimes are those of Müller et al. (2011).

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9 1298 **Fig. 5** Results of qualitative dinocyst analyses showing relative abundances of
10 1299 species, as well as % autotrophs, dinocyst flux, and total (absolute) dinocyst
11 1300 abundance.
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17 1302 **Fig. 6** Modern analogue technique transfer function (MAT) reconstructions of
18 1303 dinocyst data from core 99LSSL-001. White lines in MAT plots denote 3-point
19 1304 running means of most probable reconstructions (solid lines). Grey envelopes show
20 1305 minimum and maximum ranges. See Table S1 for raw numerical results of MAT
21 1306 reconstructions. Also shown are limited qualitative dinocyst and biogeochemical
22 1307 data, alongside PIP₂₅ sea-ice indices.
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32 1309 **Fig. 7** Apparent 40 year periodicity in P_BIP₂₅ and MAT sea-ice reconstructions. Note
33 1310 that when the errors in the age model are accounted for (²¹⁰Pb: 10%; ¹⁴C: 68.3%
34 1311 Confidence Interval), much of the apparent periodicity disappears.
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41 1313 **Fig. 8** Selected correlations between a) IP₂₅ concentration (3-point running mean)
42 1314 and % TOC (3-point mean); b) concentration-based (norm.to TOC) P_BIP₂₅ and % TOC
43 1315 (3-point running mean); c) concentration-based (norm.to TOC) P_BIP₂₅ and MAT sea-
44 1316 ice duration; and d) concentration-based (norm. to TOC) P_BIP₂₅ and relative
45 1317 abundance of *I. ? cesare*. For basic correlation data, see Table S2.
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9 1320 **List of Tables**

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11 1321 **Table 1.** Details of radiocarbon dates used in the present study. A ΔR of 335 ± 85 yrs
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13 1322 (Coulthard et al., 2010) was used for date calibration. Note that the date in grey was
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15 1323 excluded from age-depth model construction (Fig. 2).
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19 1325 **Table 2.** Biomarker and TOC data from surface sediment samples in M'Clintock
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21 1326 Channel (station 2011804-003) and Lancaster Sound (station 2011804-009).
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23 1327 Presented biomarker values are based on averages of three analyses. The balance
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25 1328 factor c and the sea-ice index P_BIP_{25} are calculated following Müller et al. (2011).
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32 1331 **Supplementary materials**

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34 1332 **Table S1.** Input and output data for dinocyst-based modern analogue technique
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36 1333 transfer functions (MAT) following the methodology of de Vernal et al. (2013c).
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41 1335 **Table S2.** Correlations (R , R^2) between various sea-ice and palaeoenvironmental
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43 1336 proxies from core 99LSSL-001. Strong positive ($R > 0.75$) and negative ($R < -0.75$) are
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45 1337 shown in red and blue text, respectively.
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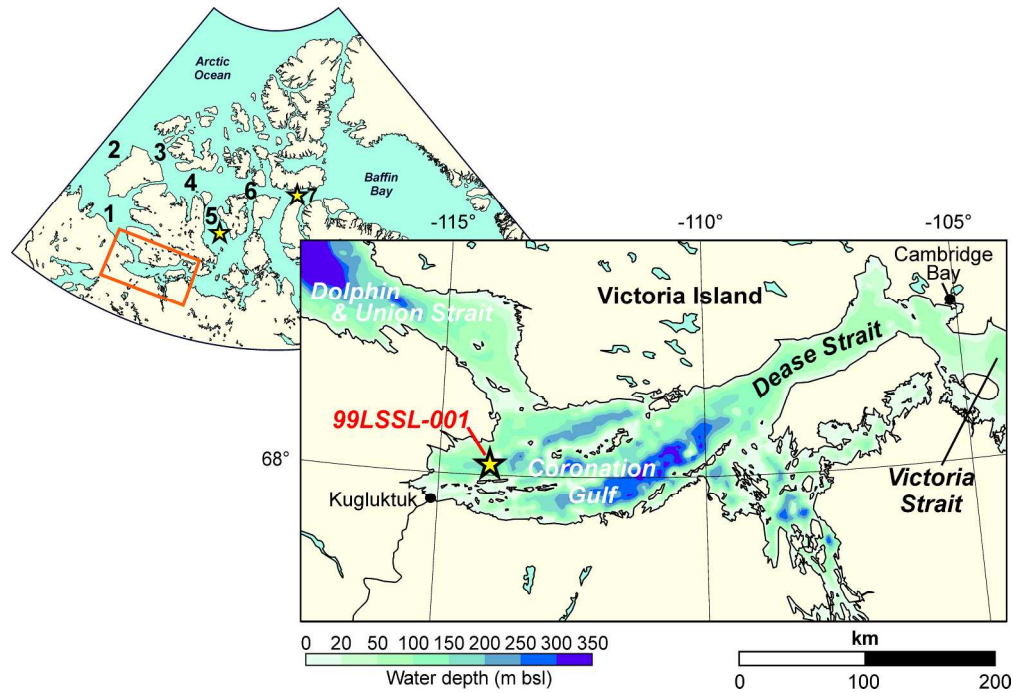


Fig. 1 Map of locations mentioned in the text, including study area in Coronation Gulf and core site 99LSSL-001. Surface sediment sampling locations in M'Clintock Channel (station 2011804-003) and Lancaster Sound (station 2011804-009) are shown by stars. 1 = Amundsen Gulf, 2 = Beaufort Sea, 3 = M'Clure Strait, 4 = Viscount Melville Sound, 5 = M'Clintock Channel, 6 = Barrow Strait, 7 = Lancaster Sound, 3-7 = Parry Channel.

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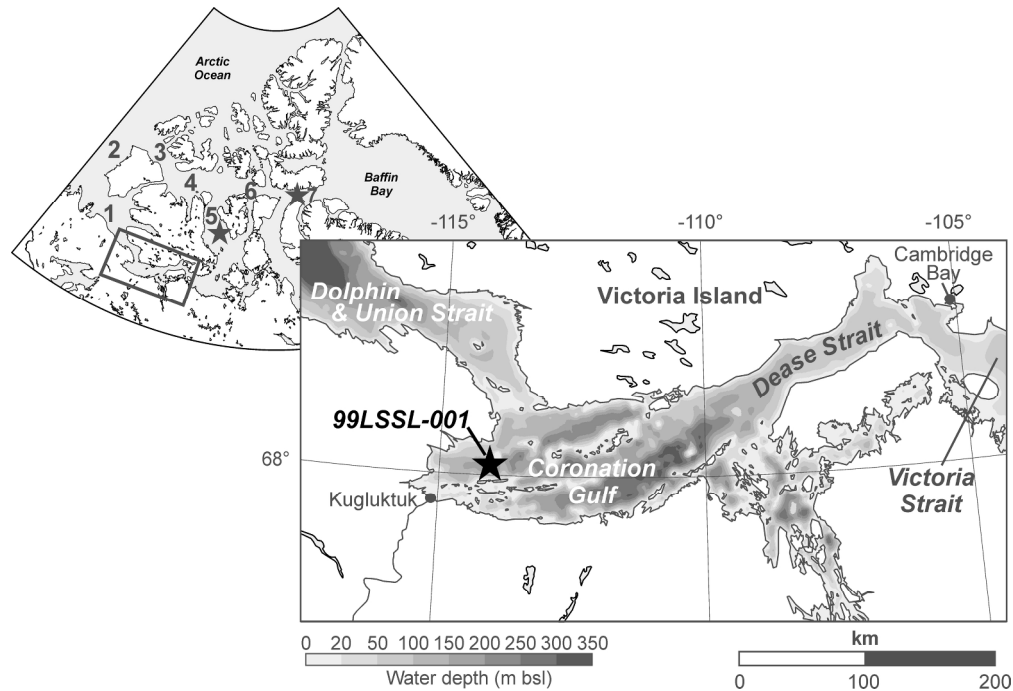


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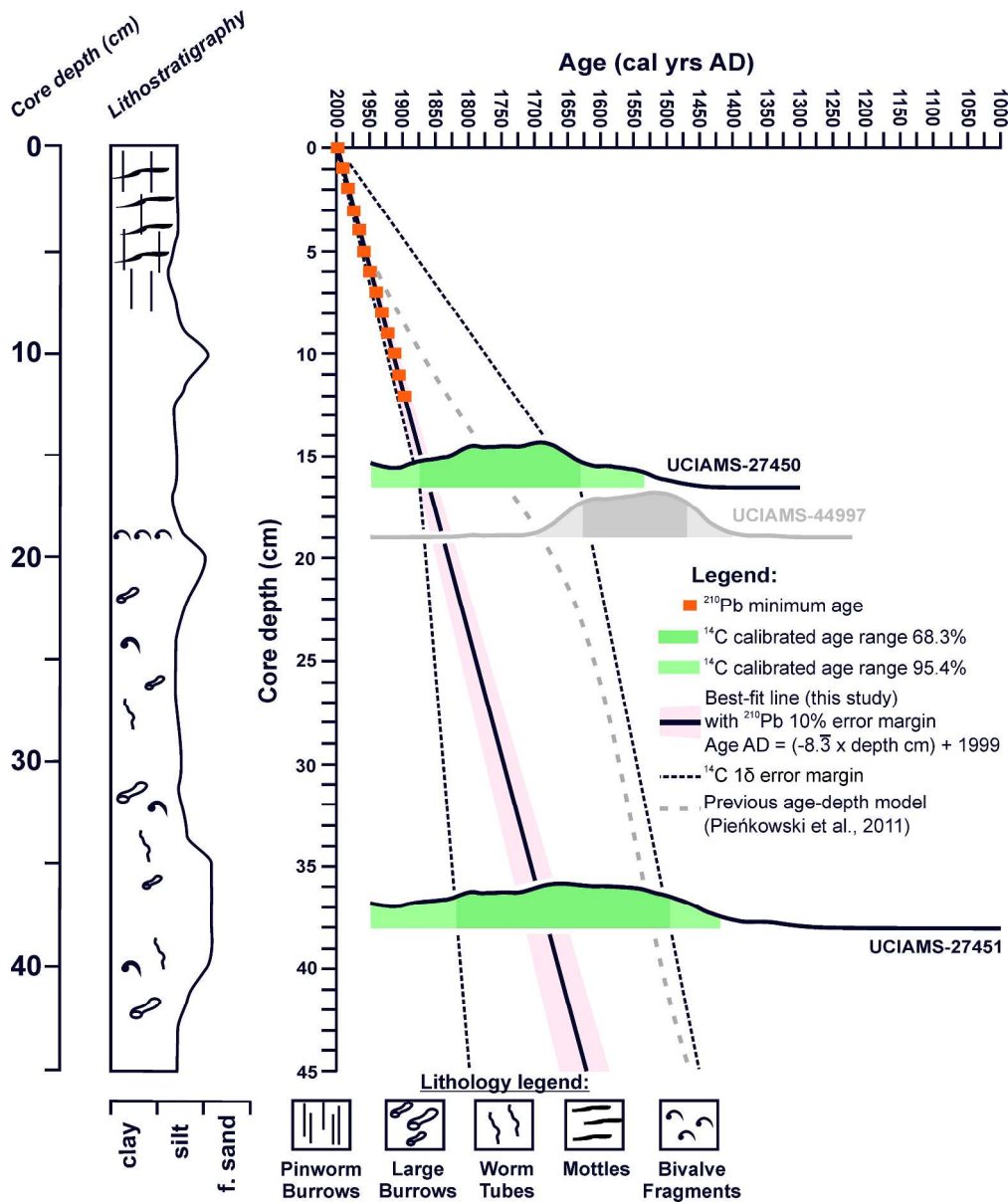


Fig. 2 Lithostratigraphy, chronostratigraphy, and age-depth model of core 99LSSL-001. Note that the age-depth model has been revised from Pieńkowski et al. (2011) and represents a linear extrapolation of ²¹⁰Pb and ¹³⁷Cs ages, supported by two radiocarbon dates (Table 1).

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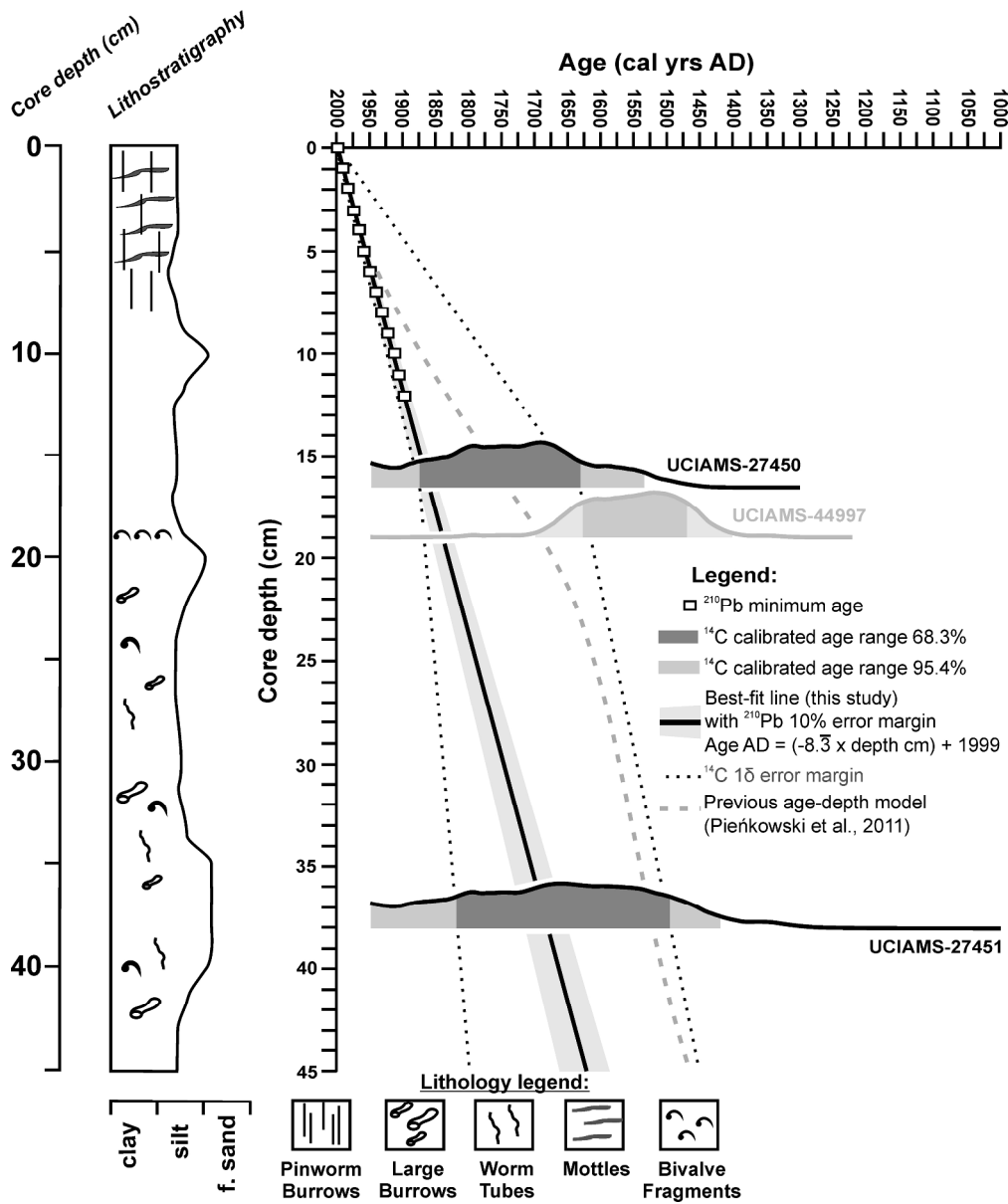


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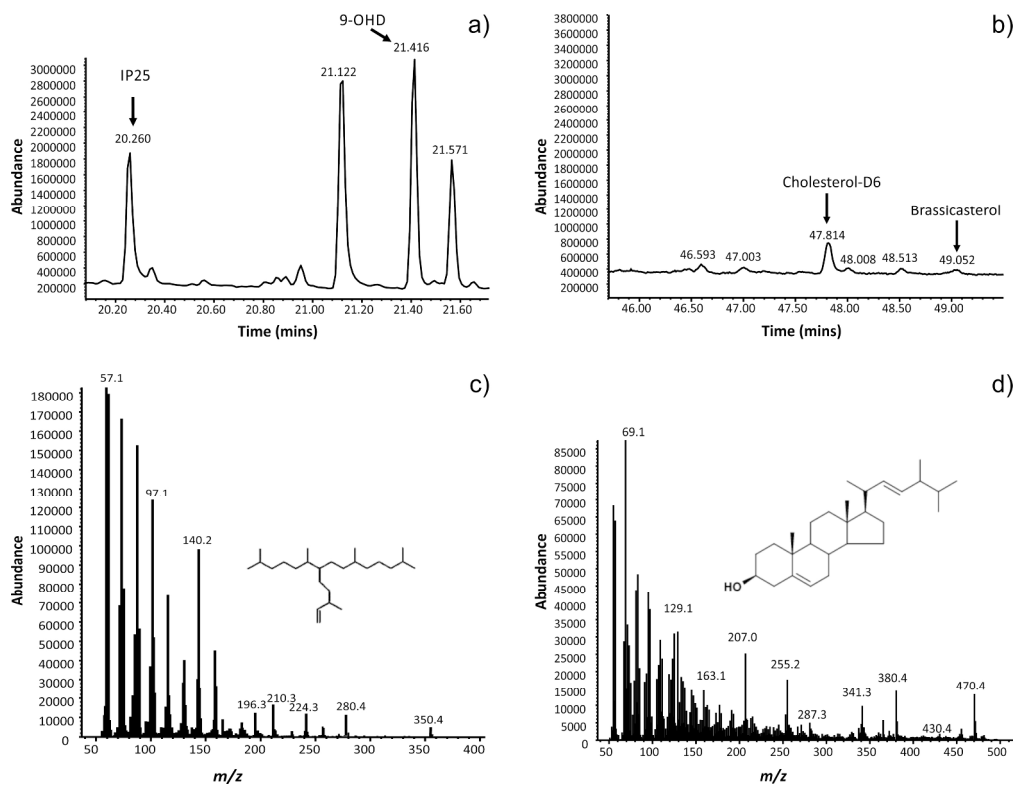


Fig. 3 Selected GC chromatograms and mass spectra of biomarkers used in the present study: a) representative portion GC total ion chromatogram of hydrocarbons, including IP25; b) representative portion of GC total ion chromatogram of sterols, including brassicasterol; c) selected mass spectrum of IP25; d) selected mass spectrum of brassicasterol.

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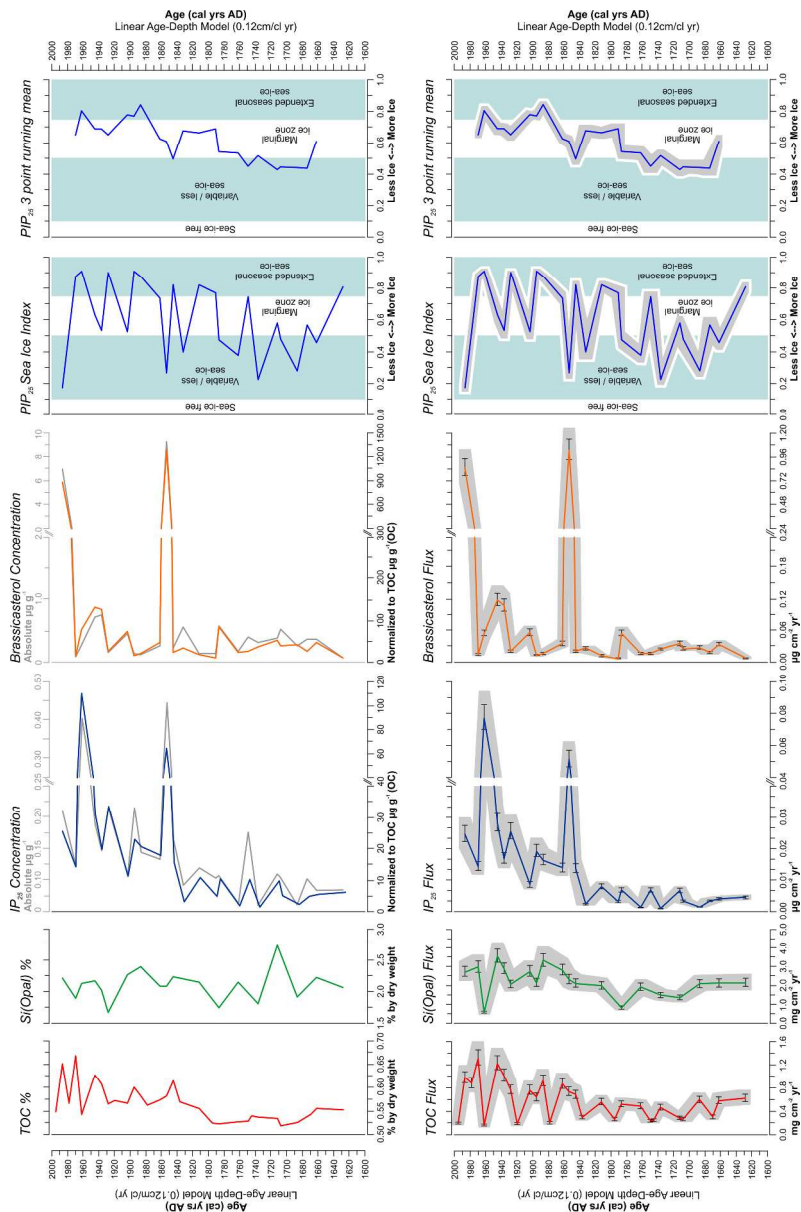


Fig. 4 Results of biogeochemical analyses on core 99LSSL-001. Note that fluxes (where applicable) are based on the revised age-depth model (Fig. 2). Absolute concentrations of IP25 and brassicasterol are shown (in grey) on the same graphs as concentrations normalized to TOC. Error margins around flux curves are those calculated based on 10% confidence interval surrounding the 210Pb and 137Cs chronology. PIP25 sea-ice regimes are those of Müller et al. (2011).

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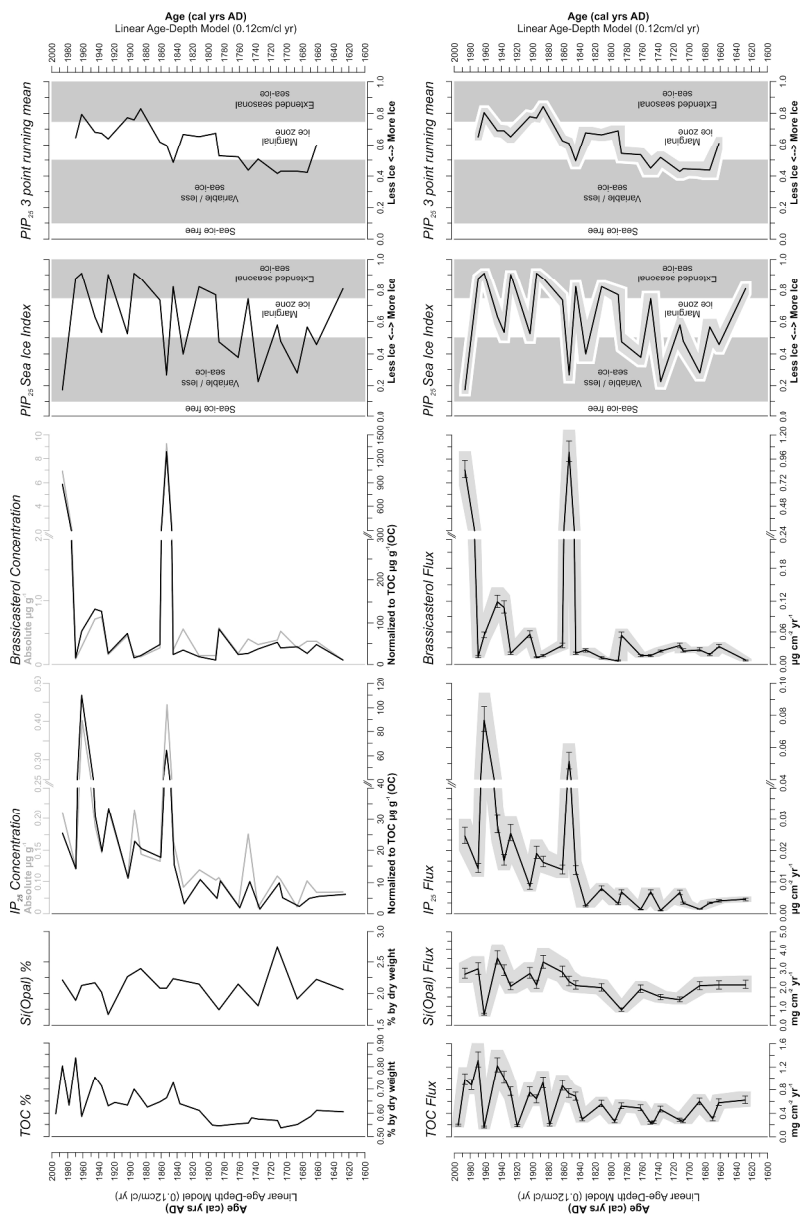


Fig. 4 Results of biogeochemical analyses on core 99LSSL-001. Note that fluxes (where applicable) are based on the revised age-depth model (Fig. 2). Absolute concentrations of IP₂₅ and brassicasterol are shown (in grey) on the same graphs as concentrations normalized to TOC. Error margins around flux curves are those calculated based on 10% confidence interval surrounding the ²¹⁰Pb and ¹³⁷Cs chronology. PIP₂₅ sea-ice regimes are those of Müller et al. (2011).

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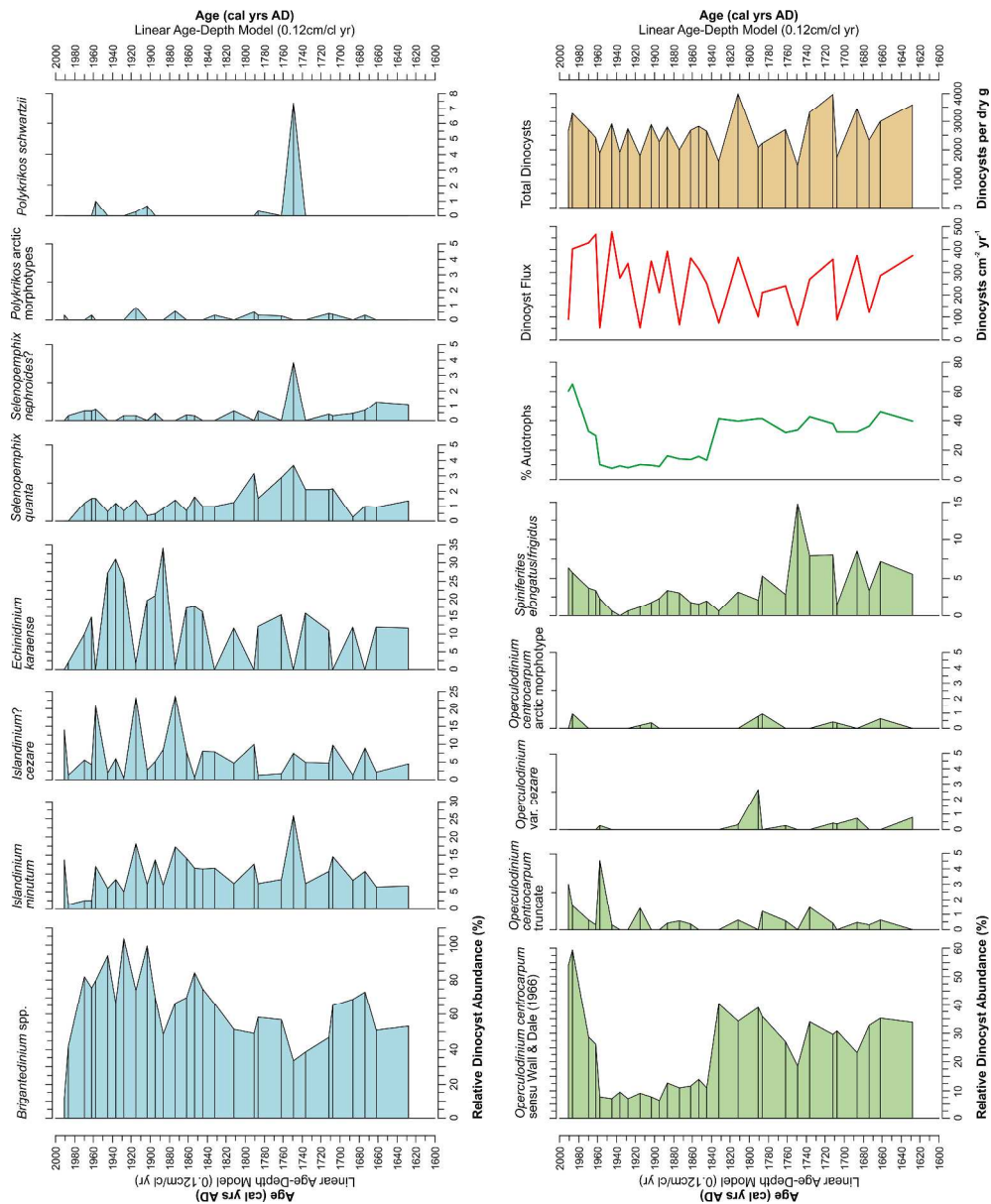


Fig. 5 Results of qualitative dinocyst analyses showing relative abundances of species, as well as % autotrophs, dinocyst flux, and total (absolute) dinocyst abundance.

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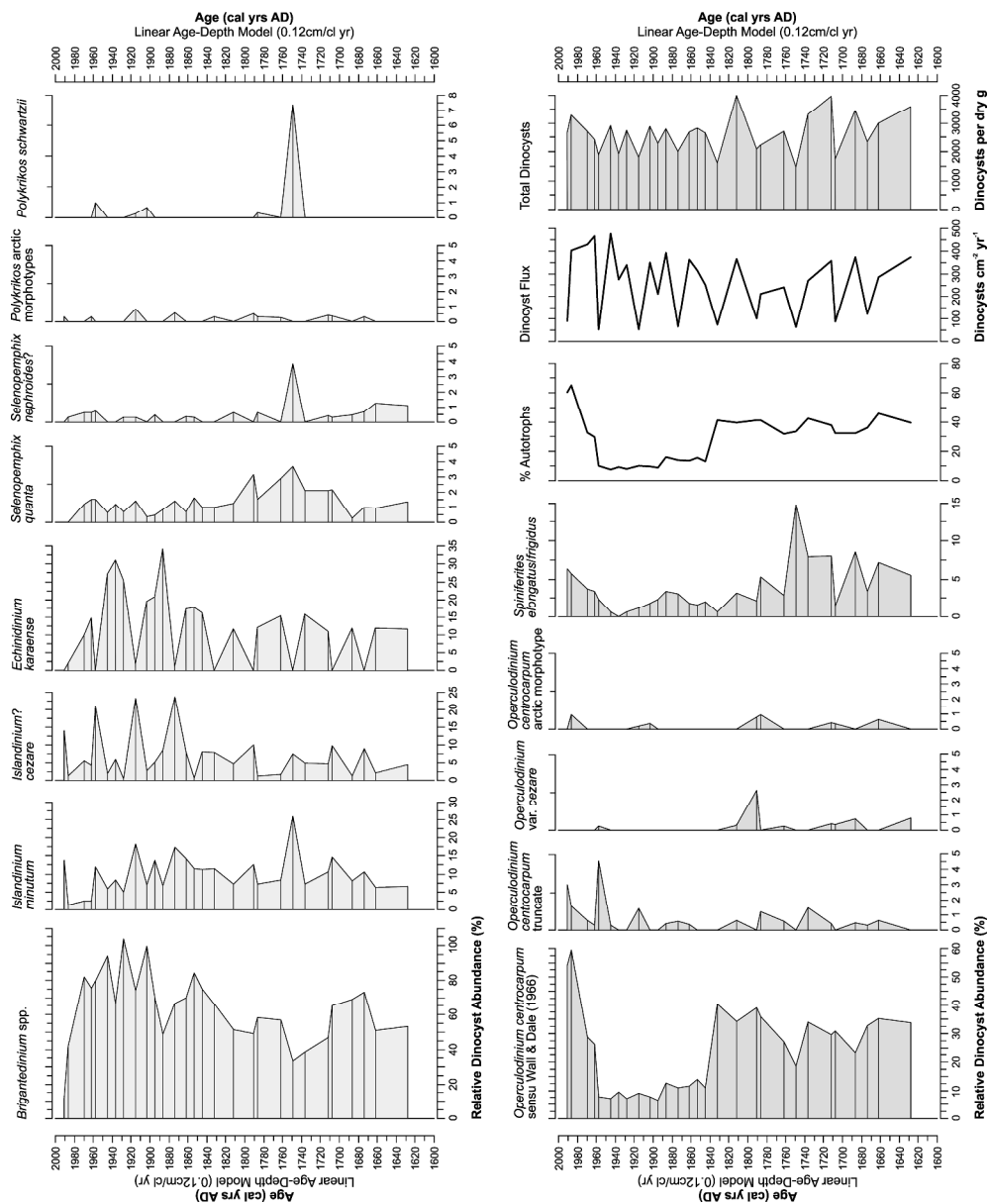


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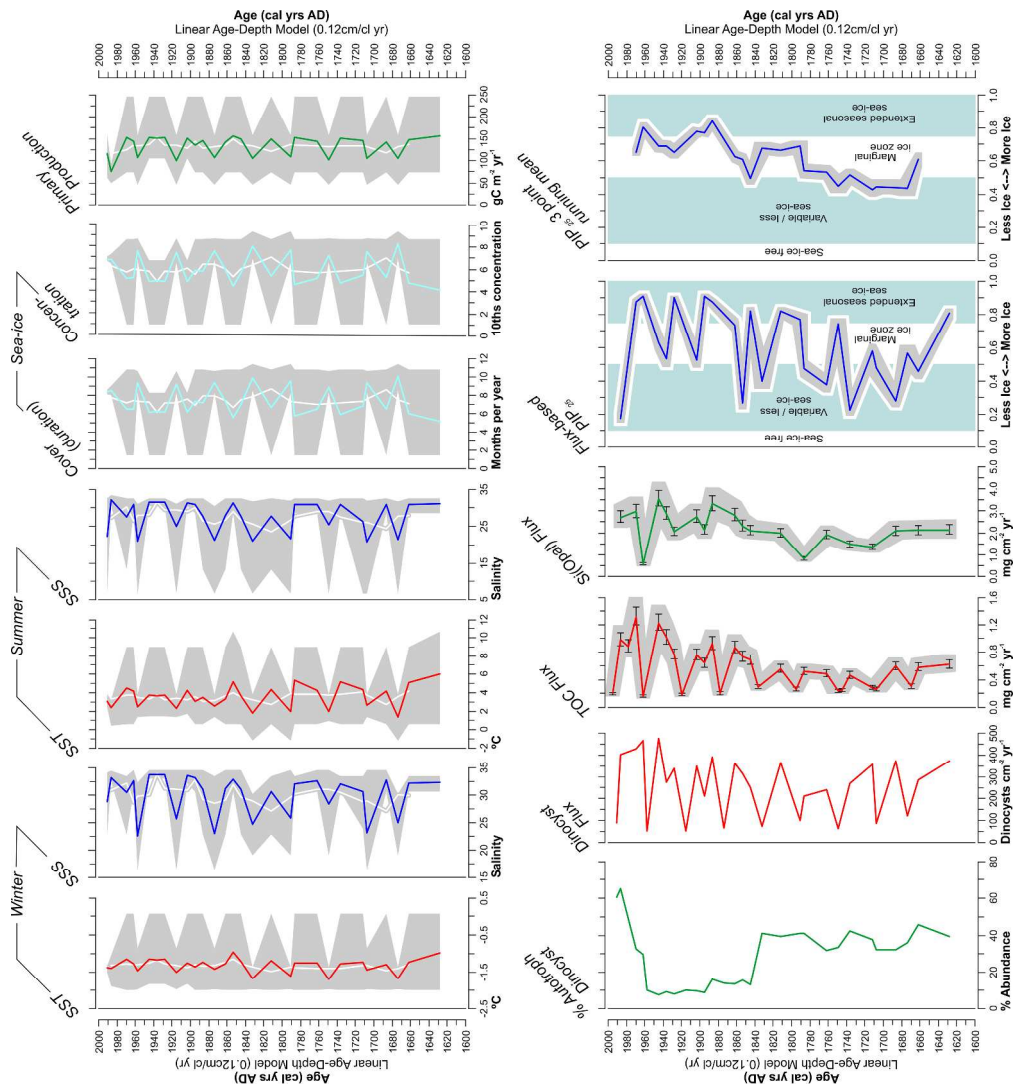


Fig. 6 Modern analogue technique transfer function (MAT) reconstructions of dinocyst data from core 99LSSL-001. White lines in MAT plots denote 3-point running means of most probable reconstructions (solid lines). Grey envelopes show minimum and maximum ranges. See Table S1 for raw numerical results of MAT reconstructions. Also shown are limited qualitative dinocyst and biogeochemical data, alongside PIP25 sea-ice indices.

186x199mm (600 x 600 DPI)

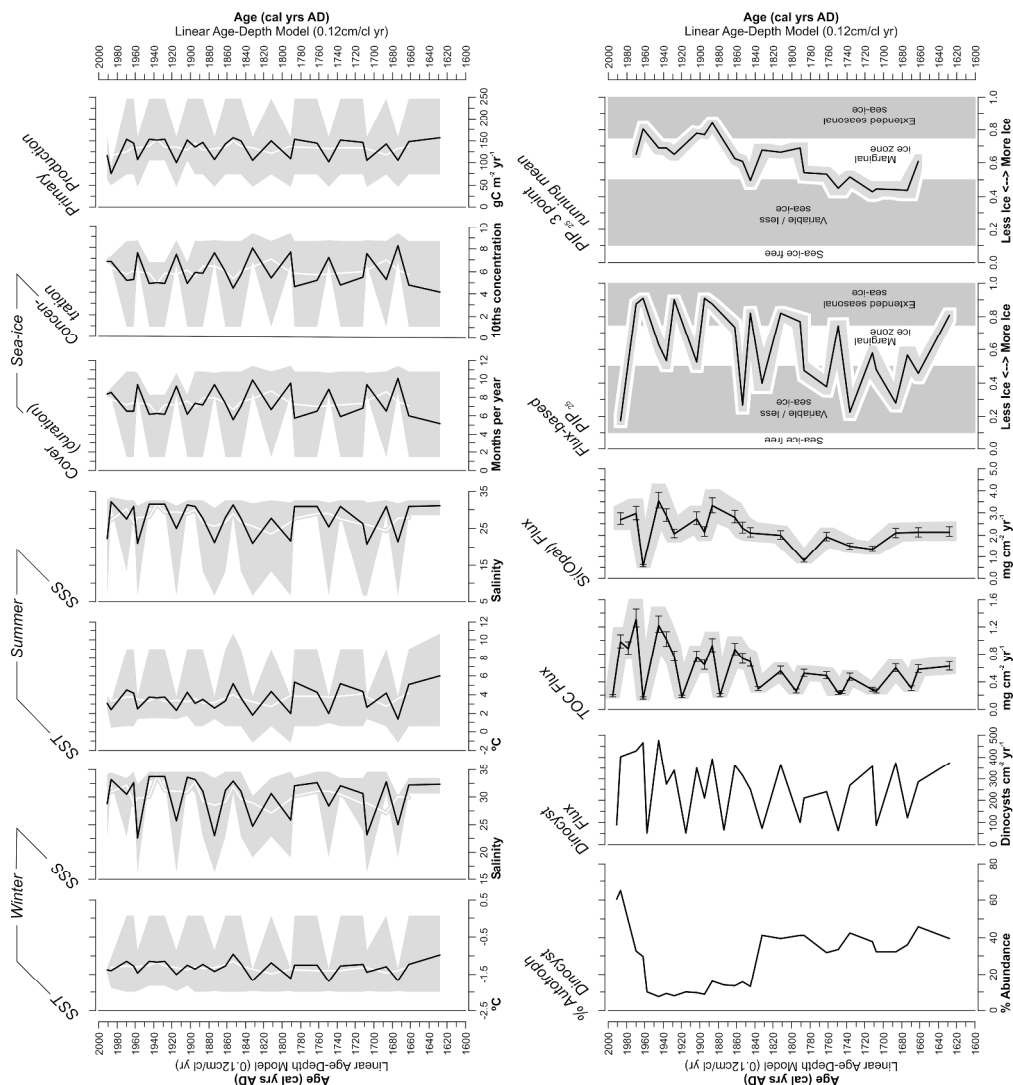


Fig. 6 Modern analogue technique transfer function (MAT) reconstructions of dinocyst data from core 99LSSL-001. White lines in MAT plots denote 3-point running means of most probable reconstructions (solid lines). Grey envelopes show minimum and maximum ranges. See Table S1 for raw numerical results of MAT reconstructions. Also shown are limited qualitative dinocyst and biogeochemical data, alongside PIP25 sea-ice indices.

186x199mm (600 x 600 DPI)

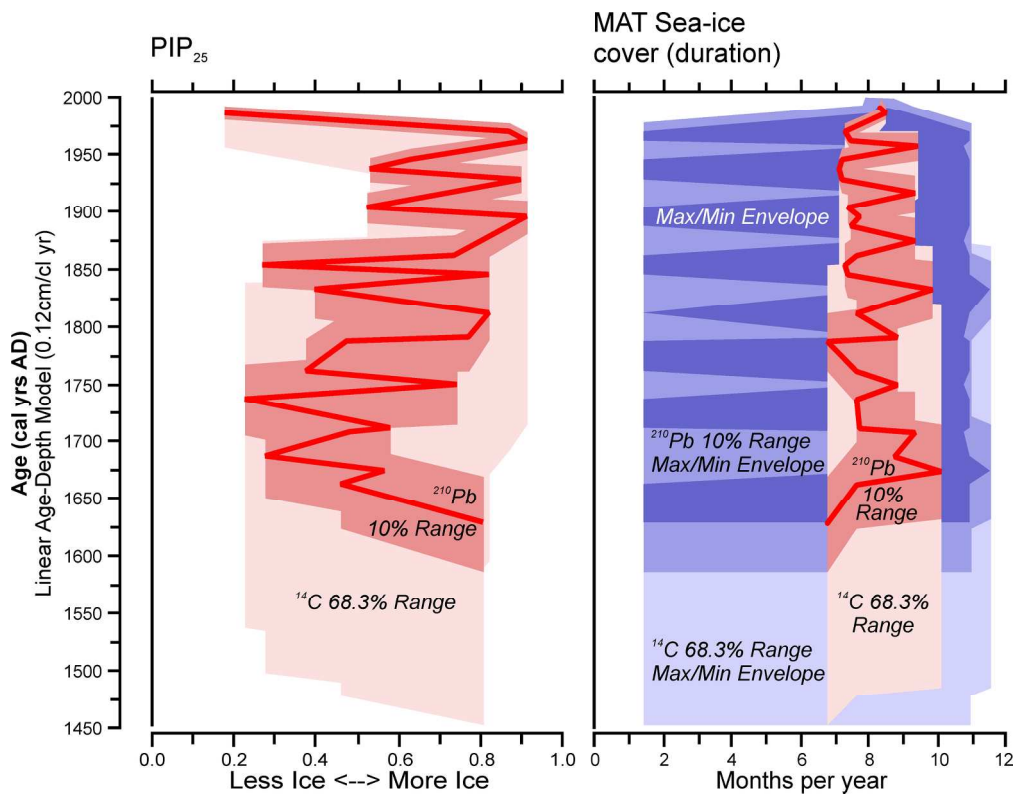


Fig. 7 Apparent 40 year periodicity in PBIP25 and MAT sea-ice reconstructions. Note that when the errors in the age model are accounted for (^{210}Pb : 10%; ^{14}C : 68.3% Confidence Interval), much of the apparent periodicity disappears.

104x81mm (600 x 600 DPI)

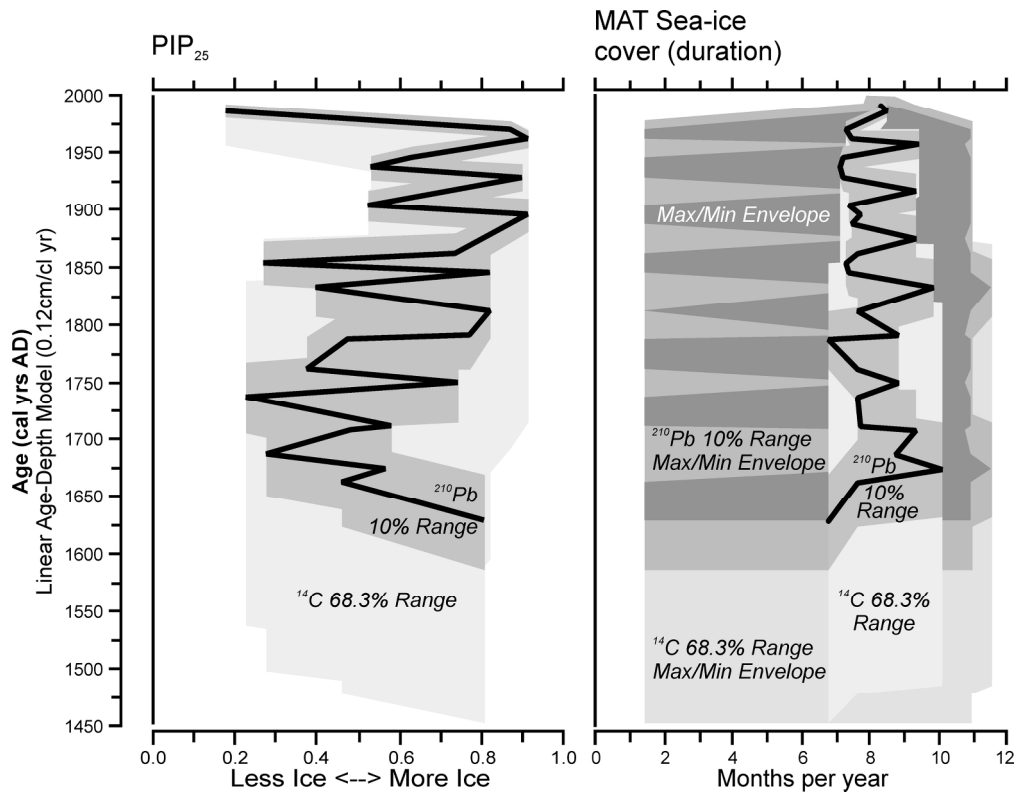


Fig. 7 Apparent 40 year periodicity in PBIP25 and MAT sea-ice reconstructions. Note that when the errors in the age model are accounted for (^{210}Pb : 10%; ^{14}C : 68.3% Confidence Interval), much of the apparent periodicity disappears.

104x81mm (600 x 600 DPI)

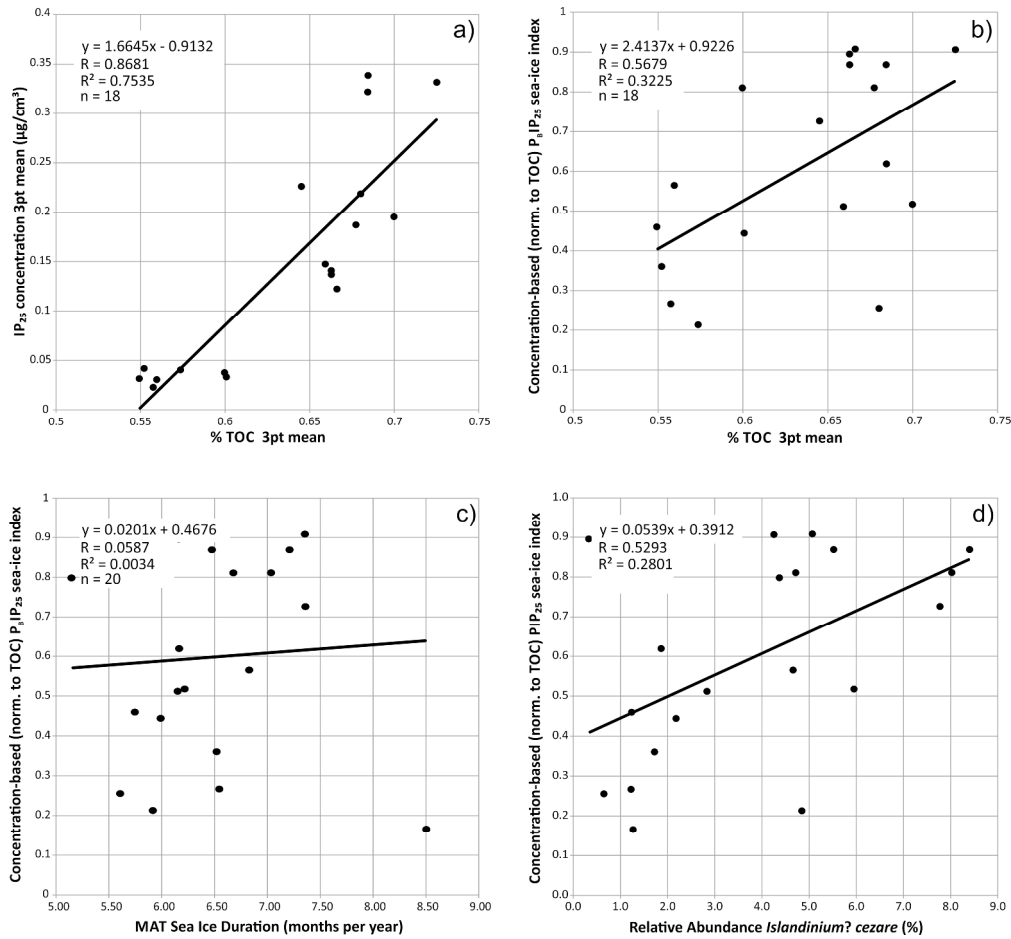


Fig. 8 Selected correlations between a) IP₂₅ concentration (3-point running mean) and % TOC (3-point mean); b) concentration-based (norm.to TOC) PBIP₂₅ and % TOC (3-point running mean); c) concentration-based (norm.to TOC) PBIP₂₅ and MAT sea-ice duration; and d) concentration-based (norm. to TOC) PBIP₂₅ and relative abundance of *I.?* *cezare*. For basic correlation data, see Table S2.

162x150mm (600 x 600 DPI)

Core	Core depth (cm)	Laboratory code	Material dated
99LLSL-001E	15-18	UCIAMS-27450	Mixed benthic foraminifera
99LSSL-001F	19	UCIAMS-44997	Bivalve fragments
99LLSL-001E	36-40	UCIAMS-27451	Mixed benthic foraminifera

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Machine age $\pm 1\sigma$ (¹⁴ C yrs BP)	Calibrated age range CI = 68.3% (cal yrs AD)	Calibrated age range CI = 95.4% (cal yrs AD)
920 \pm 60	1638-1876	1543-1949
1100 \pm 20	1478-1633	1410-1704
990 \pm 150	1498-1819	1423-1949

For Peer Review

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Median probability age
(cal yrs AD)
1739
1555
1663

For Peer Review

Station	TOC (%)	Absolute biomarker concentrations		OC-normalised biomarker concentration	
		IP ₂₅ (µg/g)	Brassicasterol (µg/g)	IP ₂₅ (µg/g OC)	Brassicasterol (µg/g OC)
2011804-003B	1.57	0.44	0.17	27.80	10.85
2011804-009B	2.04	0.40	0.37	19.64	18.21

For Peer Review

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Balance factor c	$P_B IP_{25}$
2.56	0.52
1.08	0.52

For Peer Review

	obsname	ALEX	ACHO	ATAX	BTEP	BSPO	IACU	IPAL	IPAR
1									
2									
3	1	0	0	0	0	0	0	0	0
4	1.5	0	0	0	0	0	0	0	0
5	3.5	0	0	0	0	0	0	0	0
6	4.5	0	0	0	0	0	0	0	0
7	5	0	0	0	0	0	0	0	0
8	6.5	0	0	0	0	0	0	0	0
9	7.5	0	0	0	0	0	0	0	0
10	8.5	0	0	0	0	0	0	0	0
11	10	0	0	0	0	0	0	0	0
12	11.5	0	0	0	0	0	0	0	0
13	12.5	0	0	0	0	0	0	0	0
14	13.5	0	0	0	0	0	0	0	0
15	15	0	0	0	0	0	0	0	0
16	16.5	0	0	0	0	0	0	0	0
17	17.5	0	0	0	0	0	0	0	0
18	18.5	0	0	0	0	0	0	0	0
19	20	0	0	0	0	0	0	0	0
20	22.5	0	0	0	0	0	0	0	0
21	25	0	0	0	0	0	0	0	0
22	25.5	0	0	0	0	0	0	0	0
23	28.5	0	0	0	0	0	0	0	0
24	30	0	0	0	0	0	0	0	0
25	31.5	0	0	0	0	0	0	0	0
26	34.5	0	0	0	0	0	0	0	0
27	35	0	0	0	0	0	0	0	0
28	37.5	0	0	0	0	0	0	0	0
29	39	0	0	0	0	0	0	0	0
30	40.5	0	0	0	0	0	0	0	0
31	44.5	0	0	0	0	0	0	0	0
32									
33									
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	IPAT	ISPH	ISTR	IPLI	IVEL	IJAP	LMAC	NLAB	OCEN
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2									
3		0	0	0	0	0	0	0	579.74
4		0	0	0	0	0	0	0	656.57
5		0	0	0	0	0	0	0	298.14
6		0	0	0	0	0	0	0	272.73
7		0	0	0	0	0	0	0	128.23
8		0	0	0	0	0	0	0	77.67
9		0	0	0	0	0	0	0	100
10		0	0	0	0	0	0	0	75.09
11		0	0	0	0	0	0	0	107.5
12		0	0	0	0	0	0	0	84.56
13		0	0	0	0	0	0	0	68.63
14		0	0	0	0	0	0	0	135.96
15		0	0	0	0	0	0	0	117.21
16		0	0	0	0	0	0	0	126.39
17		0	0	0	0	0	0	0	145.27
18		0	0	0	0	0	0	0	117.44
19		0	0	0	0	0	0	0	402.75
20		0	0	0	0	0	0	0	368.42
21		0	0	0	0	0	0	0	420.73
22		0	0	0	0	0	0	0	386.79
23		0	0	0	0	0	0	0	292.17
24		0	0	0	0	0	0	0	178.08
25		0	0	0	0	0	0	0	370.25
26		0	0	0	0	0	0	0	323.01
27		0	0	0	0	0	0	0	314.42
28		0	0	0	0	0	0	0	257.07
29		0	0	0	0	0	0	0	326.7
30		0	0	0	0	0	0	0	383.61
31		0	0	0	0	0	0	0	361.82
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	OISR	OJAN	PZOH	PRET	SMEM	SDEL	SELO	SRAM	SBEL
1									
2									
3		0	0	0	0	0	64.42	0	0
4		0	0	0	0	0	60.61	0	0
5		0	0	0	0	0	37.27	0	0
6		0	0	0	0	0	34.48	0	0
7		0	0	0	0	0	23.08	0	0
8		0	0	0	0	0	6.47	0	0
9		0	0	0	0	0	0	0	0
10		0	0	0	0	0	6.83	0	0
11		0	0	0	0	0	11.62	0	0
12		0	0	0	0	0	18.38	0	0
13		0	0	0	0	0	24.51	0	0
14		0	0	0	0	0	35.09	0	0
15		0	0	0	0	0	31.45	0	0
16		0	0	0	0	0	18.59	0	0
17		0	0	0	0	0	16.89	0	0
18		0	0	0	0	0	21.35	0	0
19		0	0	0	0	0	6.71	0	0
20		0	0	0	0	0	32.89	0	0
21		0	0	0	0	0	21.3	0	0
22		0	0	0	0	0	53.46	0	0
23		0	0	0	0	0	30.12	0	0
24		0	0	0	0	0	142.47	0	0
25		0	0	0	0	0	82.28	0	0
26		0	0	0	0	0	84.07	0	0
27		0	0	0	0	0	14.62	0	0
28		0	0	0	0	0	89.97	0	0
29		0	0	0	0	0	33.68	0	0
30		0	0	0	0	0	75.41	0	0
31		0	0	0	0	0	56.98	0	0
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	SBEN	SBUL	SLAZ	SMIR	SGRA	SPAC	SSPP	TPEL	PDAL
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3		0	0	0	0	0	0	0	0
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5		0	0	0	0	0	0	0	0
6		0	0	0	0	0	0	0	0
7		0	0	0	0	0	0	3.13	0
8		0	0	0	0	0	0	0	0
9		0	0	0	0	0	0	0	0
10		0	0	0	0	0	0	0	0
11		0	0	0	0	0	0	0	0
12		0	0	0	0	0	0	0	0
13		0	0	0	0	0	0	0	0
14		0	0	0	0	0	0	0	0
15		0	0	0	0	0	0	0	0
16		0	0	0	0	0	0	0	0
17		0	0	0	0	0	0	0	0
18		0	0	0	0	0	0	0	0
19		0	0	0	0	0	0	0	0
20		0	0	0	0	0	0	0	0
21		0	0	0	0	0	0	0	0
22		0	0	0	0	0	0	0	0
23		0	0	0	0	0	0	0	0
24		0	0	0	0	0	0	0	0
25		0	0	0	0	0	0	0	0
26		0	0	0	0	0	0	0	0
27		0	0	0	0	0	0	0	0
28		0	0	0	0	0	0	0	0
29		0	0	0	0	0	0	0	0
30		0	0	0	0	0	0	0	0
31		0	0	0	0	0	0	0	0
32		0	0	0	0	0	0	0	0
33		0	0	0	0	0	0	0	0
34		0	0	0	0	0	0	2.57	0
35		0	0	0	0	0	0	0	0
36		0	0	0	0	0	0	0	0
37		0	0	0	0	0	0	0	0
38		0	0	0	0	0	0	2.85	0
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	IMIN	IMIC	IBRE	EKAR	BSPP	DUBR	PERI	LSPP	SNEP
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3	139	142.39	0	0	67.81	0	0	0	0
4	13.47	13.47	0	20.2	232.32	0	0	0	3.37
5	24.84	55.9	0	99.38	465.84	0	0	0	6.21
6	25.08	43.89	0	150.47	445.14	0	0	0	6.27
7	120.54	210.3	0	0	474.47	0	0	0	7.6
8	61.49	19.42	0	281.55	546.93	0	0	0	0
9	87.5	62.5	0	325	412.5	0	0	0	0
10	51.19	3.41	0	262.8	590.44	0	0	0	3.41
11	185.95	235.34	0	17.84	409.66	0	0	0	2.97
12	73.53	29.41	0	202.21	580.88	0	0	0	0
13	147.06	53.92	0	220.59	470.59	0	0	0	4.9
14	70.18	87.72	0	355.26	307.02	0	0	0	0
15	177.24	242.99	0	11.06	394.51	0	0	0	0
16	148.7	81.78	0	182.16	427.51	0	0	0	3.72
17	118.24	6.76	0	182.43	510.14	0	0	0	3.38
18	121	85.41	0	170.82	473.31	0	0	0	0
19	114.11	77.19	0	0	382.61	0	0	0	0
20	75.66	49.34	0	121.71	328.95	0	0	0	6.58
21	127.82	101.19	0	0	287.59	0	0	0	0
22	72.33	12.58	0	122.64	323.9	0	0	0	6.29
23	87.35	18.07	0	159.64	376.51	0	0	0	0
24	249.32	71.23	0	0	178.08	0	0	0	36.99
25	75.95	50.63	0	164.56	231.01	0	0	0	0
26	110.62	48.67	0	115.04	283.19	0	0	0	4.42
27	146.24	98.71	0	0	391.19	0	0	0	3.07
28	84.83	12.85	0	123.39	421.59	0	0	0	5.14
29	104.41	87.57	0	0	424.37	0	0	0	6.54
30	65.57	22.95	0	124.59	301.64	0	0	0	13.11
31	68.38	45.58	0	119.66	319.09	0	0	0	11.4
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5		0	0	0	0	0	0	0	0
6		12.42	0	0	0	0	0	0	0
7		15.67	0	0	0	0	0	0	0
8		15.39	0	0	0	0	0	0	0
9		6.47	0	0	0	0	0	0	0
10		12.5	0	0	0	0	0	0	0
11		6.83	0	0	0	0	0	0	0
12		14.53	0	0	0	0	0	0	0
13		3.68	0	0	0	0	0	0	0
14		4.9	0	0	0	0	0	0	0
15		8.77	0	0	0	0	0	0	0
16		14.29	0	0	0	0	0	0	0
17		7.43	0	0	0	0	0	0	0
18		16.89	0	0	0	0	0	0	0
19		10.68	0	0	0	0	0	0	0
20		10.07	0	0	0	0	0	0	0
21		13.16	0	0	0	0	0	0	0
22		31.95	0	0	0	0	0	0	0
23		15.72	0	0	0	0	0	0	0
24		30.12	0	0	0	0	0	0	0
25		35.62	0	0	0	0	0	0	0
26		22.15	0	0	0	0	0	0	0
27		22.12	0	0	0	0	0	0	0
28		21.94	0	0	0	0	0	0	0
29		2.57	0	0	0	0	0	0	0
30		10.1	0	0	0	0	0	0	0
31		9.84	0	0	0	0	0	0	0
32		14.25	0	0	0	0	0	0	0
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QCON	PSCH	PARC	PKOF	GYMN	EACU	EGRA	EDEL	ETRA
0	0	6.64	0	0	0	0	0	0
0	0	0	0	0	0	0	0	0
0	0	0	0	0	0	0	0	0
0	0	3.13	0	0	0	0	0	0
0	10.26	10.13	0	0	0	0	0	0
0	0	0	0	0	0	0	0	0
0	0	0	0	0	0	0	0	0
0	0	0	0	0	0	0	0	0
0	2.91	11.69	0	0	0	0	0	0
0	7.35	0	0	0	0	0	0	0
0	0	4.9	0	0	0	0	0	0
0	0	0	0	0	0	0	0	0
0	0	11.25	0	0	0	0	0	0
0	0	3.72	0	0	0	0	0	0
0	0	0	0	0	0	0	0	0
0	0	0	0	0	0	0	0	0
0	0	6.55	0	0	0	0	0	0
0	0	3.29	0	0	0	0	0	0
0	0	9.41	0	0	0	0	0	0
0	3.14	3.14	0	0	0	0	0	0
0	0	6.02	0	0	0	0	0	0
0	71.23	36.99	0	0	0	0	0	0
0	0	3.16	0	0	0	0	0	0
0	0	8.85	0	0	0	0	0	0
0	0	9.81	0	0	0	0	0	0
0	0	0	0	0	0	0	0	0
0	0	6.64	0	0	0	0	0	0
0	0	3.28	0	0	0	0	0	0
0	0	0	0	0	0	0	0	0

	ESPP	CYSA	TVAN	DCHA	
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3		0	0	0	0
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6		0	0	0	0
7		0	0	0	0
8		0	0	0	0
9		0	0	0	0
10		0	0	0	0
11		0	0	0	0
12		0	0	0	0
13		0	0	0	0
14		0	0	0	0
15		0	0	0	0
16		0	0	0	0
17		0	0	0	0
18		0	0	0	0
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22		0	0	0	0
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24		0	0	0	0
25		0	0	0	0
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28		0	0	0	0
29		0	0	0	0
30		0	0	0	0
31		0	0	0	0
32		0	0	0	0
33		0	0	0	0
34		0	0	0	0
35		0	0	0	0
36		0	0	0	0
37		0	0	0	0
38		0	0	0	0
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For Peer Review

depth	TFEV	TFEV_i	TFEV_s	SFEV	SFEV_i	SFEV_s	THIV	THIV 3pt
1	-1.23285	-1.42	-0.98	29.04913	24.59	33.69	-1.38001	0
1.5	-1.24852	-2.1	-0.89	33.14352	32.49	34.08	-1.39697	-1.31015
3.5	-1.11443	-1.99	0.05	30.97691	24.59	33.17	-1.15348	-1.27263
4.5	-1.23227	-1.99	0.05	32.45756	31.04	33.17	-1.26743	-1.29454
5	-1.32537	-1.94	-0.85	24.24327	18.89	33.59	-1.46271	-1.29448
6.5	-1.11642	-1.79	0.05	33.11944	32.63	34.26	-1.15329	-1.26237
7.5	-1.13281	-1.79	0.05	33.14058	32.63	34.26	-1.17111	-1.16071
8.5	-1.12158	-1.79	0.05	33.12005	32.63	34.26	-1.15772	-1.28132
10	-1.40512	-1.94	-0.85	26.32733	18.89	33.17	-1.51512	-1.30757
11.5	-1.21181	-1.79	0.05	32.79089	32.35	33.17	-1.24987	-1.37734
12.5	-1.33703	-1.99	0.05	32.55773	31.04	33.17	-1.36703	-1.28659
13.5	-1.21332	-1.99	0.05	31.13724	24.59	33.17	-1.24287	-1.34431
15	-1.30228	-1.94	-0.85	24.40668	18.89	33.17	-1.42304	-1.31593
16.5	-1.24895	-1.99	0.05	31.27637	24.59	33.17	-1.28189	-1.22407
17.5	-0.91631	-1.99	0.05	32.63767	31.04	33.17	-0.96727	-1.15016
18.5	-1.1725	-1.99	0.05	31.18493	24.59	33.17	-1.20132	-1.27841
20	-1.56107	-1.94	-0.98	25.31557	20.8	29.27	-1.66663	-1.35539
22.5	-1.15811	-1.99	0.05	31.06941	24.59	33.17	-1.19823	-1.49515
25	-1.50656	-1.94	-0.98	26.4354	20.8	33.73	-1.6206	-1.35814
25.5	-1.21177	-1.99	0.05	32.30214	31.04	33.17	-1.25559	-1.37456
28.5	-1.21461	-1.99	0.05	32.44889	31.04	33.17	-1.2475	-1.39731
30	-1.51077	-1.94	-0.98	29.28377	20.8	33.73	-1.68883	-1.40162
31.5	-1.22617	-1.99	0.05	32.28159	31.04	33.17	-1.26852	-1.39811
34.5	-1.13957	-1.99	0.05	30.98509	24.84	33.17	-1.23697	-1.31401
35	-1.31747	-1.94	-0.85	24.45441	18.89	33.73	-1.43654	-1.32397
37.5	-1.26116	-1.99	0.05	32.4619	31.04	33.17	-1.29841	-1.4682
39	-1.57166	-1.94	-0.98	25.63809	20.8	29.27	-1.66965	-1.40079
40.5	-1.19269	-1.99	0.05	32.37675	31.04	33.17	-1.2343	-1.29152
44.5	-0.89972	-1.99	0.05	32.51188	31.04	33.17	-0.97061	0

	THIV_i	THIV_s	SHIV	SHIV 3pt	SHIV_i	SHIV_s	TAUG	TAUG_i	TAUG_s
1									
2									
3	-1.49	-1.3	28.87683	0	22.93	34.18	3.653569	3.07	5.16
4	-1.88	-1.04	33.36118	30.95214	32.49	34.46	3.009082	0.85	3.8
5	-2	0.09	30.61841	32.24815	22.93	33.46	6.029219	1.67	10.72
6	-2	0.09	32.76485	28.67752	30.64	34.63	5.398909	1.67	10.72
7	-1.97	-0.85	22.6493	29.75372	16.43	32.33	2.659598	0.25	5.16
8	-1.82	0.09	33.84699	30.12157	33.02	34.63	4.507766	1.67	10.72
9	-1.82	0.09	33.8684	33.86026	33.02	34.63	4.413337	1.67	10.72
10	-1.82	0.09	33.86539	31.18358	33.02	34.63	4.511617	1.67	10.72
11	-1.97	-0.85	25.81694	31.11165	16.43	34.63	2.065428	0.25	3.55
12	-1.82	0.09	33.65261	30.90012	32.2	34.63	5.076265	1.67	10.72
13	-2	0.09	33.23081	32.68762	30.64	34.63	4.092703	1.67	10.72
14	-2	0.09	31.17944	29.17707	22.93	34.63	4.861485	1.67	10.72
15	-1.97	-0.85	23.12095	28.55381	16.43	33.46	2.589026	0.25	5.16
16	-2	0.09	31.36103	29.15118	22.93	34.63	4.625505	1.67	10.72
17	-2	0.09	32.97157	31.85044	30.64	34.63	6.386396	1.67	12.08
18	-2	0.09	31.21873	29.66367	22.93	34.63	5.007669	1.67	10.72
19	-1.97	-1.35	24.80072	28.91747	19.15	30.17	2.416353	-0.12	5.16
20	-2	0.09	30.73297	27.13278	22.93	33.46	5.807981	1.67	10.72
21	-1.97	-1.35	25.86465	29.60883	19.15	34.57	2.759376	-0.12	5.16
22	-2	0.09	32.22886	30.27496	30.64	33.46	6.685661	1.67	10.72
23	-2	0.09	32.73136	31.1232	30.64	34.63	5.460334	1.67	10.72
24	-1.97	-1.35	28.40937	31.11504	19.15	34.57	2.336232	1.24	3.55
25	-2	0.09	32.20439	30.45116	30.64	33.46	6.521329	1.67	10.72
26	-2	0.09	30.73973	28.73424	23.84	33.46	5.422059	1.67	10.72
27	-1.97	-0.85	23.2586	28.94285	16.43	34.57	2.821709	0.25	5.16
28	-2	0.09	32.83022	27.05486	30.64	34.63	5.364921	1.67	10.72
29	-1.97	-1.35	25.07577	30.08388	19.15	30.17	2.260103	-0.12	5.16
30	-2	0.09	32.34565	29.95734	30.64	33.46	6.439919	1.67	10.72
31	-2	0.09	32.45061	0	30.64	33.46	7.345495	1.67	12.08
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	SAUG	SAUG_i	SAUG_s	TETE	TETE 3pt	TETE_i	TETE_s	SETE	SETE 3pt
1									
2									
3	21.96079	7.08	32.66	3.103792	0	2.45	3.85	22.24697	0
4	32.70179	31.79	33.71	2.432786	3.353982	0.51	3.23	32.35001	27.41797
5	27.41325	11.07	32.73	4.525368	3.719026	0.62	8.97	27.65692	30.32352
6	31.123	29.43	32.73	4.198925	3.744715	0.62	8.97	30.96362	26.58417
7	19.84382	7.08	31.14	2.509852	3.496444	1.4	3.85	21.13197	27.92818
8	31.68689	30.61	32.73	3.780556	3.32934	1.45	8.97	31.68895	28.17316
9	31.69802	30.61	32.73	3.697612	3.751384	1.45	8.97	31.69855	31.69802
10	31.70349	30.61	32.73	3.775984	3.255809	1.45	8.97	31.70657	29.49929
11	24.30342	7.08	31.2	2.293831	3.447196	1.4	3.85	25.09275	29.43453
12	31.47071	30.61	32.73	4.271774	3.214652	1.73	8.97	31.50426	29.16036
13	31.03322	29.43	32.73	3.078349	3.615112	0.62	8.97	30.88407	30.06717
14	27.5975	11.07	32.73	3.495212	3.040059	0.62	8.97	27.81319	26.62911
15	19.97901	7.08	30.61	2.546615	3.121621	1.4	3.85	21.19007	25.68403
16	27.87225	11.07	32.73	3.323036	3.670814	0.62	8.97	28.04882	26.8568
17	31.44344	29.43	32.73	5.142792	4.039304	0.62	10.7	31.33151	29.09604
18	27.68338	11.07	32.73	3.652084	3.535775	0.62	8.97	27.90779	26.78307
19	19.29852	7.08	28.54	1.81245	3.26086	-1.19	3.85	21.10991	25.62003
20	27.65668	11.07	32.73	4.318048	2.69403	0.62	8.97	27.84239	23.52041
21	20.4624	7.08	31.86	1.951592	3.873842	-1.19	3.85	21.60893	26.83523
22	31.19655	29.43	32.73	5.351888	3.841805	0.62	8.97	31.05436	27.87165
23	31.12236	29.43	32.73	4.221934	3.845184	0.62	8.97	30.95164	29.17804
24	25.52478	7.08	31.86	1.961729	3.783522	0.97	3.85	25.52811	29.15327
25	31.14428	29.43	32.73	5.166902	3.826801	0.62	8.97	30.98005	27.63277
26	26.66263	7.08	32.73	4.351772	4.057372	0.62	8.97	26.39014	26.08816
27	19.67115	7.08	31.86	2.653444	3.734568	1.4	3.85	20.89429	26.094
28	31.1379	29.43	32.73	4.19849	2.7326	0.62	8.97	30.99757	24.48924
29	19.81343	7.08	28.54	1.345867	3.548718	-1.19	3.85	21.57585	27.84168
30	31.12592	29.43	32.73	5.101797	4.144803	0.62	8.97	30.9516	27.93065
31	31.39513	29.43	32.73	5.986746	0	0.62	10.7	31.26449	0
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	SETE_i	SETE_s	GLACE	GLACE 3pt	GLACE_i	GLACE_s	ICON1953	ICON1953 3pt	ICON1953_
1									
2									
3	6.67	32.64	8.385645	0	8.16	8.68	6.754436	0	6.6
4	30.82	33.44	8.503819	7.78825	8.12	9.1	6.752706	6.203121941	6.41
5	13.24	32.75	6.475287	7.172168	1.42	10.88	5.102224	5.653905364	0.94
6	28.56	32.75	6.537397	7.467805	1.42	10.88	5.106786	5.923473285	0.94
7	6.67	31.19	9.390731	7.364677	8.3	10.74	7.561409	5.823410206	6.77
8	30.56	32.75	6.165902	7.258131	1.42	8.34	4.802035	5.735164526	0.94
9	30.56	32.75	6.21776	6.181845	1.42	8.34	4.842049	4.813071928	0.94
10	30.56	32.75	6.161875	7.210207	1.42	8.34	4.795132	5.674095782	0.94
11	6.67	31.27	9.250988	7.188231	8.32	10.74	7.385107	5.654972574	6.49
12	30.56	32.75	6.151831	7.586024	1.42	8.34	4.784679	5.980521879	0.94
13	28.56	32.75	7.355255	6.905617	1.42	10.88	5.77178	5.415281559	0.94
14	13.24	32.75	7.209767	7.976671	1.42	10.88	5.689386	6.329188598	0.94
15	6.67	30.56	9.364991	7.978209	8.32	10.74	7.526401	6.343026575	6.7
16	13.24	32.75	7.359868	7.444144	1.42	10.88	5.813294	5.897878439	0.94
17	28.56	32.75	5.607573	6.667416	1.42	10.88	4.353941	5.238758752	0.94
18	13.24	32.75	7.034807	7.501015	1.42	10.88	5.549042	5.947732578	0.94
19	6.67	31.85	9.860664	7.858119	8.56	11.52	7.940215	6.251795186	6.86
20	13.24	32.75	6.678886	8.682958	1.42	10.88	5.266129	6.941936625	0.94
21	6.67	32.03	9.509322	7.311411	8.34	11.52	7.619466	5.788456008	6.49
22	28.56	32.75	5.746023	7.25834	1.42	10.88	4.479773	5.730670698	0.94
23	28.56	32.75	6.519673	7.033835	1.42	10.88	5.092773	5.556653271	0.94
24	6.67	32.03	8.835808	7.090635	8.3	10.74	7.097414	5.602796044	6.49
25	28.56	32.75	5.916422	7.193649	1.42	10.88	4.618201	5.6972063	0.94
26	6.67	32.75	6.828717	7.363864	1.42	10.88	5.376004	5.821812033	0.94
27	6.67	32.03	9.346451	7.573675	8.34	10.74	7.471231	5.985526178	6.49
28	28.56	32.75	6.545857	8.661102	1.42	10.88	5.109344	6.906388481	0.94
29	6.67	31.85	10.091	7.542561	8.56	11.52	8.138591	5.966612482	6.86
30	28.56	32.75	5.990828	7.076409	1.42	10.88	4.651903	5.592513601	0.94
31	28.56	32.75	5.147401	0	1.42	10.88	3.987047	0	0.94
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ICON1953	modisan	modisan 3pt	modisan_i	modisan_s	depth	Age (AD)
7.02	116.8629	0	62.76	159.67	1	1990.667
7.23	76.22731	115.5800784	50.05	94.11	1.5	1986.5
8.59	153.65	124.589226	74.28	247.44	3.5	1969.833
8.59	143.8903	134.707501	74.28	247.44	4.5	1961.5
8.64	106.5821	134.5937692	46.72	159.67	5	1957.334
6.7	153.3088	137.3069712	105.88	247.44	6.5	1944.834
6.7	152.0299	152.9434086	105.88	247.44	7.5	1936.5
6.7	153.4915	135.145563	105.88	247.44	8.5	1928.167
8.64	99.91529	135.1393846	46.72	159.67	10	1915.667
6.7	152.0114	128.9364161	105.88	247.44	11.5	1903.167
8.59	134.8825	144.321721	74.28	247.44	12.5	1894.834
8.59	146.0712	129.2970003	74.28	247.44	13.5	1886.5
8.64	106.9372	131.6912869	46.72	159.67	15	1874.001
8.59	142.0654	135.5155892	74.28	247.44	16.5	1861.501
8.59	157.5441	149.5721876	74.28	247.44	17.5	1853.167
8.59	149.107	137.44855	74.28	247.44	18.5	1844.834
9.32	105.6945	134.6482856	46.72	159.67	20	1832.334
8.59	149.1433	121.2234401	74.28	247.44	22.5	1811.501
9.32	108.8325	136.9959785	46.72	159.67	25	1790.668
8.59	153.0121	135.5417309	74.28	247.44	25.5	1786.501
8.59	144.7806	133.4373141	74.28	247.44	28.5	1761.501
8.64	102.5193	132.6713932	46.72	159.67	30	1749.001
8.59	150.7143	133.2210412	74.28	247.44	31.5	1736.501
8.59	146.4295	134.5448661	74.28	247.44	34.5	1711.501
8.64	106.4907	132.0149027	46.72	159.67	35	1707.335
8.59	143.1245	118.3940938	74.28	247.44	37.5	1686.501
9.32	105.5671	132.4412313	46.72	159.67	39	1674.001
8.59	148.6321	137.0452156	74.28	247.44	40.5	1661.501
8.59	156.9364	0	74.28	247.44	44.5	1628.168

1
2 TRANSFER FUNCTION : Modern analogues technique (MAT)

3 -----
4 max number of analogues = 5
5 distance option (0=euclidian /1=chord /2=log /3=canberra) = 2
6 Weights used for each taxon =
7

8
9 Threshold adopted (1st quartile of random distances) = 1.085563

10 Threshold adopted (1st quartile of random distances) = 1.149295

11 In the verification step, r2p (or reduction of error) compares the predictionsto thecalibration period climatology

12 In the verification step, CE (or coefficient of efficiency) compares the predictionsto the verification period climatol
13
14

15 Dependent Variable : TFEV

16 -----
17
18 R2 = 0.9752112 -- RMSE = 1.156156 calculated on 1492 observations
19 the estimated climate is put in the MAT\$fclim matrix(reconstruction, lowerbar, upperbar)
20

21 Dependent Variable : SFEV

22 -----
23
24 R2 = 0.6959604 -- RMSE = 2.071524 calculated on 1492 observations
25 the estimated climate is put in the MAT\$fclim matrix(reconstruction, lowerbar, upperbar)
26

27 Dependent Variable : THIV

28 -----
29
30 R2 = 0.9762782 -- RMSE = 1.136372 calculated on 1492 observations
31 the estimated climate is put in the MAT\$fclim matrix(reconstruction, lowerbar, upperbar)
32

33 Dependent Variable : SHIV

34 -----
35
36 R2 = 0.6985841 -- RMSE = 2.081878 calculated on 1492 observations
37 the estimated climate is put in the MAT\$fclim matrix(reconstruction, lowerbar, upperbar)
38

39 Dependent Variable : TAUG

40 -----
41
42 R2 = 0.9541532 -- RMSE = 1.751285 calculated on 1492 observations
43 the estimated climate is put in the MAT\$fclim matrix(reconstruction, lowerbar, upperbar)
44

45 Dependent Variable : SAUG

46 -----
47
48 R2 = 0.7292792 -- RMSE = 2.332264 calculated on 1492 observations
49 the estimated climate is put in the MAT\$fclim matrix(reconstruction, lowerbar, upperbar)
50

51 Dependent Variable : TETE

52 -----
53
54 R2 = 0.9603289 -- RMSE = 1.621634 calculated on 1492 observations
55 the estimated climate is put in the MAT\$fclim matrix(reconstruction, lowerbar, upperbar)
56

57 Dependent Variable : SETE
58
59
60

 R2 = 0.725894 -- RMSE = 2.281338 calculated on 1492 observations
 the estimated climate is put in the MAT\$fclim matrix(reconstruction, lowerbar, upperbar)

Dependent Variable : GLACE

R2 = 0.8614681 -- RMSE = 1.423128 calculated on 1492 observations
 the estimated climate is put in the MAT\$fclim matrix(reconstruction, lowerbar, upperbar)

Dependent Variable : ICON1953

R2 = 0.8643278 -- RMSE = 1.11875 calculated on 1492 observations
 the estimated climate is put in the MAT\$fclim matrix(reconstruction, lowerbar, upperbar)

Dependent Variable : modisan

R2 = 0.8161225 -- RMSE = 56.59746 calculated on 1492 observations
 the estimated climate is put in the MAT\$fclim matrix(reconstruction, lowerbar, upperbar)

List MAT

MAT\$analist contains the list of the analogues for each extrapolation sample

MAT\$anadist contains the list of the analogue distance for each extrapolation sample

\$title

[1] "Transfer function estimates by MAT method"

\$rmse

TFEV	SFEV	THIV	SHIV	TAUG	SAUG	TETE	SETE
1.156156	2.071524	1.136372	2.081878	1.751285	2.332264	1.621634	2.281338
GLACE	ICON1953	modisan					
1.423128	1.118750	56.597460					

\$r2

TFEV	SFEV	THIV	SHIV	TAUG	SAUG	TETE	SETE
0.9752112	0.6959604	0.9762782	0.6985841	0.9541532	0.7292792	0.9603289	0.7258940
GLACE	ICON1953	modisan					
0.8614681	0.8643278	0.8161225					

\$rmsep

TFEV	SFEV	THIV	SHIV	TAUG	SAUG	TETE	SETE
NA	NA	NA	NA	NA	NA	NA	NA
GLACE	ICON1953	modisan					
NA	NA	NA					

\$r2p

TFEV	SFEV	THIV	SHIV	TAUG	SAUG	TETE	SETE
NA	NA	NA	NA	NA	NA	NA	NA
GLACE	ICON1953	modisan					

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2 NA NA NA
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4 \$CE
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6 TFEV SFEV THIV SHIV TAUG SAUG TETE SETE
7 NA NA NA NA NA NA NA NA
8 GLACE ICON1953 modisan
9 NA NA NA
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12 \$clim
13 TFEV TFEV_i TFEV_s SFEV SFEV_i
14 E003 -0.6510981599 5.289018e-01 4.910982e-01 30.21491 2.144909e+00
15 E004 -0.7385632356 4.414368e-01 2.785632e-01 29.49351 1.343508e+00
16 E005 -0.2786229286 9.013771e-01 1.468623e+00 29.38620 1.316197e+00
17 E006 -0.7269397079 6.830603e-01 2.269397e-01 28.79797 1.747972e+00
18 E007 -0.7934524936 6.165475e-01 2.734525e-01 29.07414 2.024141e+00
19 E008 -0.6677824187 7.422176e-01 1.677824e-01 28.63402 1.584016e+00
20 E010 -0.4196441074 1.010356e+00 6.096441e-01 30.36162 2.211621e+00
21 E012 -0.4796080304 7.003920e-01 1.669608e+00 29.68059 1.530588e+00
22 E013 -0.7302194045 4.497806e-01 2.602194e-01 29.04844 1.998444e+00
23 E014 -0.8262155026 6.437845e-01 2.762155e-01 30.40532 3.355323e+00
24 E015 -0.6186480608 7.913519e-01 1.186481e-01 28.18866 1.138665e+00
25 E016 -0.9992565898 3.707434e-01 5.392566e-01 30.41677 2.266775e+00
26 E017 -0.7080398969 4.719601e-01 8.980399e-01 29.95530 2.905304e+00
27 E018 -0.6395042459 5.404958e-01 1.395042e-01 28.65438 1.084381e+00
28 E019 -0.8013613764 3.786386e-01 3.413614e-01 29.76591 1.615913e+00
29 E020 -0.5933810234 1.066190e-01 1.333810e-01 28.53756 1.487558e+00
30 E021 -0.8875384773 2.924615e-01 2.875385e-01 30.72884 1.638839e+00
31 E022 -0.5745230445 4.654770e-01 4.145230e-01 29.56651 2.516509e+00
32 G023 -0.8686712460 6.013288e-01 7.286712e-01 30.19583 3.145826e+00
33 G024 -0.5976008829 3.723991e-01 6.676009e-01 31.27602 2.760225e-01
34 G025 -0.6830525029 7.469475e-01 5.430525e-01 31.30357 3.035749e-01
35 G026 -0.6260817978 5.539182e-01 6.360818e-01 31.32288 7.628806e-01
36 G027 -0.3629919079 4.970081e-01 4.329919e-01 31.42789 2.978896e-01
37 G028 -0.4558204821 4.841795e-01 5.258205e-01 31.58783 3.878339e-01
38 G029 -0.6951686164 4.848314e-01 7.651686e-01 31.14048 5.804753e-01
39 G030 -0.3365737127 5.234263e-01 4.065737e-01 31.49989 3.698887e-01
40 G031 -0.6188513904 3.511486e-01 4.388514e-01 31.20822 2.082221e-01
41 G032 -0.6390412850 5.409587e-01 4.590413e-01 31.13490 5.749037e-01
42 G033 0.1251168556 1.051169e-01 1.048831e-01 31.63208 4.620802e-01
43 G034 0.0383931015 1.183931e-01 1.916069e-01 31.54587 3.758653e-01
44 G035 0.1191759429 1.991759e-01 1.108241e-01 31.84660 3.966021e-01
45 G037 -0.4028035069 2.071965e-01 1.728035e-01 32.23583 1.958350e-01
46 G038 -0.3278296599 1.621703e-01 1.678297e-01 32.26391 1.239127e-01
47 G039 -0.5836322274 4.563678e-01 4.236322e-01 30.62754 3.577543e+00
48 G040 -0.3344349309 2.755651e-01 1.744349e-01 32.29092 1.509158e-01
49 G041 -0.4689183904 1.410816e-01 8.891839e-02 32.31363 3.363192e-02
50 G042 -0.4404440526 1.695559e-01 2.804441e-01 32.27114 1.311358e-01
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2 G043 -0.3334064714 1.165935e-01 3.634065e-01 32.26970 3.797028e-01
3 G044 -0.3396527848 1.303472e-01 1.796528e-01 32.30348 1.634781e-01
4 G045 -0.3906291153 4.693709e-01 3.706291e-01 31.90319 6.231936e-01
5 G046 -0.3795740345 2.304260e-01 2.195740e-01 32.27680 1.368048e-01
6 G047 -0.3472250181 1.227750e-01 1.872250e-01 32.28947 1.494743e-01
7 G048 -0.3906032279 2.193968e-01 2.306032e-01 32.29320 1.532003e-01
8 G049 -0.3851476101 2.248524e-01 2.251476e-01 32.30053 1.605334e-01
9 G050 -0.4464911655 4.135088e-01 4.564912e-01 31.94831 6.883122e-01
10 G051 0.2908932268 9.308932e-01 1.559107e+00 32.98888 1.168884e+00
11 G052 -0.2538616660 6.361383e-01 3.038617e-01 31.76385 3.138530e-01
12 G053 -0.1571741882 7.028258e-01 3.871742e-01 31.79533 3.453268e-01
13 G054 -0.1502576278 7.397424e-01 3.700258e+00 32.28765 5.976519e-01
14 G055 -0.5838402109 2.761598e-01 3.238402e-01 32.00765 5.176514e-01
15 G056 -0.6120841765 2.779158e-01 8.420842e-01 31.96769 5.176922e-01
16 G057 0.7132635354 1.573264e+00 2.836736e+00 33.23444 1.124444e+00
17 G058 -0.2314993600 1.168501e+00 6.014994e-01 31.29701 6.870076e-01
18 G059 -0.6035114928 5.764885e-01 6.135115e-01 31.36496 8.049581e-01
19 G060 -0.3255765215 3.144235e-01 4.055765e-01 32.02660 5.365992e-01
20 G061 -0.4170016092 2.229984e-01 6.470016e-01 32.10344 6.534422e-01
21 G062 -0.6455709374 3.444291e-01 7.155709e-01 31.21478 5.247822e-01
22 G063 -0.3093981125 5.506019e-01 3.793981e-01 31.58785 2.678539e-01
23 G064 -0.5709480681 2.890519e-01 2.509481e-01 32.19540 1.254030e-01
24 G065 -0.2079247306 6.820753e-01 4.379247e-01 31.74682 4.168221e-01
25 G066 0.0009871084 4.709871e-01 2.290129e-01 31.84644 3.964364e-01
26 G067 -0.4574752407 4.025248e-01 6.474752e-01 29.45646 2.406457e+00
27 G068 -0.4527803450 4.872197e-01 5.227803e-01 31.47653 3.465300e-01
28 G069 -0.4202249141 2.797751e-01 6.102249e-01 28.94332 9.733220e-01
29 G070 -0.6548981498 5.251019e-01 1.848981e-01 29.00146 8.514606e-01
30 G071 -0.5906217048 4.493783e-01 3.106217e-01 31.92521 1.365213e+00
31 G072 -0.6398858636 9.001141e-01 6.098859e-01 31.88918 7.991760e-01
32 G073 0.0546019167 1.346019e-01 1.753981e-01 31.69818 2.481805e-01
33 A074 0.2339560405 3.439560e-01 6.760440e-01 31.57755 2.475542e-01
34 G075 0.2377264307 2.077264e-01 6.722736e-01 31.67525 6.525083e-02
35 G076 0.1425800405 1.125800e-01 2.374200e-01 31.77273 1.527277e-01
36 G077 1.0567350120 1.136735e+00 2.873265e+00 31.95410 5.041013e-01
37 G078 0.7931493120 8.131493e-01 9.668507e-01 31.82707 2.370726e-01
38 G079 2.0908070422 2.120807e+00 3.339193e+00 32.94846 1.488464e+00
39 B080 -0.3110242611 1.408976e+00 4.961024e+00 34.39823 1.138232e+00
40 B081 -0.2268075758 1.493192e+00 4.876808e+00 33.80666 1.316656e+00
41 B082 -1.3883190305 3.316810e-01 6.583190e-01 34.56910 1.309104e+00
42 L087 2.5155813073 3.825581e+00 1.374419e+00 34.53356 1.323560e+00
43 L088 1.2598146794 1.519815e+00 1.530185e+00 34.19932 4.893176e-01
44 L089 0.9708214768 2.280821e+00 1.819179e+00 34.01977 8.097701e-01
45 L090 4.2923064275 1.502306e+00 1.327694e+00 34.83226 2.822587e-01
46 L091 4.6563775414 1.456378e+00 2.573622e+00 34.90392 1.239173e-01
47 L092 3.8924000181 2.652400e+00 2.737600e+00 34.70711 1.271111e-01
48 L093 4.6685525770 2.308553e+00 2.501447e+00 35.04121 2.612059e-01
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2 L094 3.4701425043 2.701425e-01 4.198575e-01 34.78802 1.802184e-02
3 A099 3.9563951808 1.166395e+00 1.083605e+00 34.80824 2.582423e-01
4 A100 4.2380597671 2.738060e+00 2.131940e+00 34.84860 8.285979e-01
5 A103 4.2580832312 9.580832e-01 1.471917e+00 34.87515 9.515340e-02
6 A104 4.7987677627 2.008768e+00 2.471232e+00 34.91320 3.632003e-01
7 A105 2.4958654878 2.755865e+00 1.024135e+00 34.50452 6.445220e-01
8 A106 4.1541691444 1.364169e+00 2.475831e+00 34.88470 3.346975e-01
9 A107 3.7247885840 9.347886e-01 1.315211e+00 34.80158 2.515798e-01
10 A108 6.3893916022 1.319392e+00 2.406084e-01 35.07549 1.554901e-01
11 A109 6.3613437860 1.321344e+00 2.686562e-01 35.04484 1.248351e-01
12 A110 6.3789345530 1.338935e+00 2.510654e-01 35.04679 1.267853e-01
13 A111 5.7293803225 2.429380e+00 9.006197e-01 35.02359 1.835863e-01
14 A113 9.6620916152 2.352092e+00 1.477908e+00 35.30644 1.264396e-01
15 A114 9.8289894974 1.678989e+00 1.311011e+00 35.32445 1.544485e-01
16 A115 9.6317486694 6.617487e-01 1.098251e+00 35.30249 4.248672e-02
17 A116 10.0419576080 1.071958e+00 1.098042e+00 35.32369 8.369132e-02
18 A118 8.7350780487 1.425078e+00 1.994922e+00 35.22967 5.967137e-02
19 A119 8.8744999474 2.924500e+00 2.265500e+00 35.17617 4.661677e-01
20 A120 8.3960923482 1.766092e+00 8.439077e-01 35.21178 1.217807e-01
21 A121 9.7171257539 7.471258e-01 1.422874e+00 35.34278 1.027845e-01
22 A122 8.0230322703 1.633032e+00 2.446968e+00 35.14520 2.252042e-01
23 A123 9.5317167333 1.381717e+00 1.198283e+00 35.28587 1.158748e-01
24 A124 6.7723144097 2.162314e+00 4.387686e+00 35.09383 2.738299e-01
25 A125 7.9836315295 3.333632e+00 1.706368e+00 35.20980 2.798030e-01
26 A126 10.0224845478 1.052485e+00 1.137515e+00 35.34296 1.029636e-01
27 A127 8.5047052373 2.644705e+00 1.475295e+00 35.18039 3.303893e-01
28 A128 9.9228756248 1.772876e+00 1.217124e+00 35.31207 1.420669e-01
29 A129 6.9032956517 1.863296e+00 5.367043e-01 35.20433 2.343316e-01
30 H130 -1.5492978434 2.807022e-01 1.492978e-01 32.01077 5.007680e-01
31 H131 -1.4967021289 3.332979e-01 9.670213e-02 31.98717 1.267166e+00
32 H132 -1.2430206448 5.169794e-01 7.230206e-01 32.28247 8.424662e-01
33 H133 -1.4152914754 3.470852e-02 1.529148e-02 31.55571 8.357134e-01
34 H134 -1.4000000000 0.000000e+00 0.000000e+00 32.32247 1.182470e+00
35 H135 -1.4455893300 1.044107e-01 4.558933e-02 31.21991 6.099054e-01
36 H136 -1.4000000000 0.000000e+00 0.000000e+00 32.40428 1.264284e+00
37 H137 -1.1885288301 5.114712e-01 3.838529e+00 32.55732 2.607320e+00
38 H138 -1.4358925551 2.641074e-01 3.589256e-02 32.30773 1.987735e+00
39 H139 -1.4658390916 3.241609e-01 6.583909e-02 33.04448 4.744832e-01
40 H140 -1.6606508333 1.793492e-01 2.606508e-01 32.83869 8.286851e-01
41 H141 -1.1123709547 4.476290e-01 3.323710e-01 22.94413 8.314125e+00
42 H142 -1.0854865908 3.145134e-01 3.154866e-01 23.45859 9.018588e+00
43 H143 -0.8757610065 5.242390e-01 7.457610e-01 31.81514 1.835144e+00
44 H144 -1.4628257580 2.971742e-01 6.282576e-02 33.20701 1.527010e+00
45 H145 -1.4616119436 2.983881e-01 6.161194e-02 32.63797 3.467969e+00
46 H146 -1.1380709947 4.519290e-01 6.580710e-01 25.88389 1.144389e+01
47 H147 -0.9458023967 6.841976e-01 3.758024e-01 24.88252 1.044252e+01
48 H148 -0.8779433516 7.520566e-01 3.979434e-01 23.50214 9.062138e+00
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 2 A149 6.5698993341 2.298993e-01 6.601007e-01 35.15741 9.740888e-02
 3 A150 7.6756726990 4.456727e-01 1.064327e+00 35.19928 1.992846e-01
 4 L151 1.9172876678 3.057288e+00 3.942712e+00 34.57823 3.682326e-01
 5 L152 3.2589706313 2.298971e+00 3.111029e+00 34.76298 5.529790e-01
 6 L153 4.2522007760 2.052201e+00 2.657799e+00 34.93005 1.500474e-01
 7 A154 9.5825761473 8.425761e-01 1.147424e+00 35.27648 1.164833e-01
 8 A155 9.8485820842 7.485821e-01 2.191418e+00 35.35237 1.123700e-01
 9 A156 7.1169109980 2.076911e+00 1.663089e+00 35.12074 1.507356e-01
 10 S158 -0.6750902860 7.249097e-01 4.150903e-01 34.17419 1.234195e+00
 11 S159 -0.5762078489 1.523792e+00 1.236208e+00 34.10291 5.329083e-01
 12 S160 -0.1421296824 1.597870e+00 9.421297e-01 32.08344 1.223437e+00
 13 L162 1.6654628698 2.865463e+00 5.174537e+00 34.62194 7.619421e-01
 14 L163 0.8001382279 1.870138e+00 4.259862e+00 33.98792 2.779238e-01
 15 L164 1.6689479719 1.338948e+00 1.651052e+00 34.17334 5.833448e-01
 16 A168 4.4482334532 2.218233e+00 1.281767e+00 34.95506 1.950562e-01
 17 A171 5.8780666886 2.468067e+00 1.561933e+00 34.95953 1.795271e-01
 18 A173 5.5160427558 2.106043e+00 1.823957e+00 34.97257 1.925670e-01
 19 A174 4.5057387343 2.375739e+00 1.864261e+00 34.97146 1.914603e-01
 20 A175 7.0215812954 1.071581e+00 2.958419e+00 35.04555 3.355458e-01
 21 L178 1.6992995405 1.959300e+00 4.210700e+00 34.38124 6.712413e-01
 22 A179 15.4070216915 3.770217e-01 6.929783e-01 36.19502 1.250174e-01
 23 A180 14.5700000000 0.000000e+00 0.000000e+00 37.31000 0.000000e+00
 24 A181 9.4061329943 2.096133e+00 1.753867e+00 35.33431 1.543092e-01
 25 A182 9.7027153812 7.327154e-01 1.457285e+00 35.36733 1.073327e-01
 26 A183 NA NA NA NA NA
 27 A184 15.2604959052 2.304959e-01 2.495041e-01 36.17222 1.022225e-01
 28 N185 5.5887179905 1.628718e+00 1.261282e+00 34.91605 5.560516e-01
 29 N186 6.2541512731 9.941513e-01 5.958487e-01 34.68748 8.774808e-01
 30 N189 0.4645484143 1.204548e+00 1.665452e+00 34.82707 1.870715e-01
 31 N190 0.2851100373 8.951100e-01 8.348900e-01 34.80271 9.271485e-02
 32 N191 -0.0865470566 1.293453e+00 1.206547e+00 34.80794 9.793582e-02
 33 N192 0.9300086942 1.030009e+00 9.199913e-01 34.71447 7.447489e-02
 34 N193 0.8232541679 1.233254e+00 9.767458e-01 34.71912 6.912256e-02
 35 N194 0.9613045977 1.571305e+00 1.398695e+00 34.86750 1.574992e-01
 36 N195 1.4218601469 2.541860e+00 3.558140e+00 34.87224 1.122395e-01
 37 N196 2.8176761454 3.557676e+00 3.602324e+00 34.94127 3.012734e-01
 38 N197 3.4152581333 1.595258e+00 3.024742e+00 34.99538 1.153804e-01
 39 N198 7.4973178542 5.173179e-01 1.242682e+00 34.99674 3.367351e-01
 40 N200 1.9663174650 1.526317e+00 4.473683e+00 34.95579 8.578820e-02
 41 N206 7.0338229475 4.038229e-01 3.261771e-01 34.81361 2.336074e-01
 42 N207 6.4542798049 2.564280e+00 7.757202e-01 34.97070 3.907025e-01
 43 N208 6.5844262341 2.074426e+00 6.455738e-01 35.14160 8.159927e-02
 44 N209 5.2054742927 3.405474e+00 1.234526e+00 35.09919 2.891853e-01
 45 N210 2.9403270701 2.270327e+00 3.499673e+00 34.92525 2.852451e-01
 46 N211 4.5446127720 4.214613e+00 1.855387e+00 34.57321 2.132084e-01
 47 N212 4.5124966451 5.752497e+00 1.887503e+00 34.49328 5.132815e-01
 48 N213 6.5784138227 2.384138e-01 6.515862e-01 35.12680 5.467977e-01
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2	N214	6.1527478931	3.952748e+00	7.572521e-01	35.16432	3.043237e-01	
3	N215	4.9531402806	1.693140e+00	1.326860e+00	35.12958	2.958120e-02	
4	N216	6.4251501600	1.251502e-01	4.848498e-01	35.18593	7.592957e-02	
5	N217	7.0495239379	4.195239e-01	3.404761e-01	34.92202	3.420233e-01	
6	N218	7.1036350648	4.736351e-01	2.863649e-01	34.91086	3.308576e-01	
7	N219	7.2589971282	6.289971e-01	1.481003e+00	34.89770	3.177026e-01	
8	N220	7.0895118245	4.595118e-01	3.004882e-01	34.90801	3.280103e-01	
9	N221	7.1315532218	5.015532e-01	2.584468e-01	34.90184	3.218382e-01	
10	N222	6.9584678220	6.584678e-01	4.015322e-01	35.01152	3.515200e-01	
11	N223	6.9126905486	6.126905e-01	4.473095e-01	34.99587	3.858683e-01	
12	N224	2.0897974890	3.209797e+00	1.590203e+00	34.89969	1.396948e-01	
13	N225	6.2991224165	4.899122e+00	2.440878e+00	35.05631	1.363122e-01	
14	N226	7.1532591326	4.232591e-01	2.367409e-01	34.90262	2.926197e-01	
15	N227	4.0450728040	3.375073e+00	3.224927e+00	34.90651	2.065113e-01	
16	N228	2.0566124418	1.526612e+00	6.833876e-01	34.80099	9.098694e-02	
17	N229	2.0198080003	1.259808e+00	6.101920e-01	34.77292	7.291578e-02	
18	N230	2.9399461690	1.179946e+00	3.970054e+00	34.86602	7.601916e-02	
19	N231	0.8168696487	1.226870e+00	1.033130e+00	34.73841	6.840660e-02	
20	N232	2.3059086030	1.775909e+00	4.604091e+00	34.84607	1.360698e-01	
21	N233	1.5915654461	1.691565e+00	8.684346e-01	34.78502	1.150159e-01	
22	N234	4.7722761712	2.972276e+00	2.137724e+00	35.00962	2.296196e-01	
23	N235	3.8599182330	1.729918e+00	2.560082e+00	35.04097	6.096958e-02	
24	N236	1.0990282457	1.019028e+00	7.209718e-01	34.88384	1.138380e-01	
25	N237	4.4741954506	2.244195e+00	1.925805e+00	34.78334	4.233357e-01	
26	N238	6.2503414238	2.320341e+00	5.996586e-01	34.73158	1.851581e+00	
27	N239	6.8224861472	1.824861e-01	4.751385e-02	35.11573	3.572562e-02	
28	N240	6.6557350406	2.535735e+00	2.142650e-01	34.93707	2.377075e+00	
29	N241	6.7956759947	3.956760e-01	5.432401e-02	35.04270	6.826971e-01	
30	N242	4.3323324843	1.992332e+00	2.517668e+00	34.76917	4.091735e-01	
31	N245	6.7002239857	3.002240e-01	1.697760e-01	34.85581	4.958051e-01	
32	N246	6.9424228739	1.824229e-01	3.175771e-01	35.10454	2.453614e-02	
33	N248	6.0434729669	1.923473e+00	8.065270e-01	34.49345	1.933451e+00	
34	N249	6.4738034635	1.213803e+00	3.961965e-01	34.74104	9.310439e-01	
35	B256	-1.1888057155	7.211943e-01	2.138806e+00	26.05697	1.935697e+01	
36	B257	-1.4495468371	6.504532e-01	6.495468e-01	31.93086	5.540864e+00	
37	A258	4.3802246362	2.290225e+00	5.369775e+00	32.63302	7.030152e-01	
38	A259	5.5247634741	3.404763e+00	5.205237e+00	32.91526	9.752610e-01	
39	A260	3.5557323327	1.465732e+00	6.044268e+00	32.34140	4.114033e-01	
40	A261	-0.0242519949	1.015748e+00	2.144252e+00	31.35165	3.201651e+00	
41	A262	3.4069492426	1.286949e+00	5.073051e+00	32.32366	3.836584e-01	
42	A263	4.3857960407	2.265796e+00	4.094204e+00	32.87486	9.348552e-01	
43	A264	15.4293431289	3.993431e-01	6.706569e-01	36.19883	1.288295e-01	
44	A265	15.4729888844	3.029889e-01	6.270111e-01	36.22426	5.426057e-02	
45	A266	15.4753247271	4.453247e-01	6.246753e-01	36.20722	1.372247e-01	
46	N268	6.8239134309	1.839134e-01	4.608657e-02	35.12309	3.086297e-03	
47	N269	6.8440771361	2.040771e-01	4.159229e-01	35.10949	2.949482e-02	
48	K275	5.8220642080	1.702064e+00	1.027936e+00	34.30479	1.744791e+00	
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2 K277 3.9611252046 7.711252e-01 3.788748e-01 32.47973 6.697333e-01
3 J280 5.3207267124 1.030727e+00 5.492733e-01 35.08020 7.020207e-02
4 J281 4.8316277022 3.011628e+00 1.588372e+00 35.07504 1.950437e-01
5 J282 0.6078740105 1.727874e+00 1.212126e+00 34.87897 1.189723e-01
6 J283 -0.7117606948 5.382393e-01 1.751761e+00 34.69330 5.033012e-01
7 J284 -1.0409444019 7.790556e-01 1.370944e+00 34.03575 7.557476e-01
8 J285 0.9945675695 2.904568e+00 2.725432e+00 34.87889 8.488891e-01
9 J286 1.5950290387 1.065029e+00 3.414971e+00 34.90276 3.627603e-01
10 J287 0.3463645059 1.726365e+00 5.736355e-01 34.79924 4.292397e-01
11 J288 0.2831345724 1.663135e+00 5.468654e-01 34.79636 4.263628e-01
12 J289 -1.8235909345 2.564091e-01 2.035909e-01 31.64101 5.251007e+00
13 J290 -1.7907586930 1.692413e-01 2.107587e-01 27.85986 7.479862e+00
14 J291 -1.7431554065 2.168446e-01 3.131554e-01 25.94579 5.565790e+00
15 J292 -1.7732326457 1.867674e-01 3.432326e-01 30.09337 9.713373e+00
16 J293 -1.7193133829 2.406866e-01 2.893134e-01 30.49779 1.011779e+01
17 J297 -0.4847583881 1.405242e+00 1.314758e+00 34.59307 3.230657e-01
18 J298 4.9027321997 3.082732e+00 1.537268e+00 35.06228 1.822782e-01
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20 J300 2.9093952651 1.869395e+00 3.510605e+00 34.95560 9.560173e-02
21 J301 4.0749678071 8.149678e-01 1.195032e+00 35.09700 7.699743e-02
22 J303 5.4319690660 9.219691e-01 8.480309e-01 35.11279 1.027907e-01
23 J304 1.0248887806 1.914889e+00 3.145111e+00 34.77739 5.873917e-01
24 J305 4.5760990499 1.316099e+00 1.703901e+00 35.11864 1.864247e-02
25 J306 4.9529104827 1.692910e+00 6.470895e-01 35.10319 9.319490e-02
26 J307 4.6410910315 1.381091e+00 9.589090e-01 35.09962 8.961593e-02
27 J308 4.8232352805 1.563235e+00 7.567647e-01 35.11070 1.006955e-01
28 J309 4.4821131544 2.782113e+00 1.117887e+00 35.08506 1.050577e-01
29 J310 4.8347698584 1.574770e+00 7.652301e-01 35.13187 3.187013e-02
30 J311 4.6928097866 1.432810e+00 9.071902e-01 35.12406 2.405507e-02
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35 J316 1.4249402132 1.844940e+00 3.585060e+00 34.93461 9.460688e-02
36 J317 0.9165676023 1.066568e+00 5.034324e-01 34.74218 2.521766e-01
37 J318 1.4082049385 2.298205e+00 2.311795e+00 34.78431 5.943096e-01
38 J319 -0.7838651109 4.661349e-01 3.138651e-01 34.68201 4.920090e-01
39 J320 -0.9142939595 6.357060e-01 4.942940e-01 34.67674 4.867370e-01
40 J321 0.3774404338 8.574404e-01 6.625596e-01 34.84440 6.440278e-02
41 J322 4.9966899642 1.736690e+00 1.373310e+00 35.13754 3.754306e-02
42 J323 4.0890098211 2.389010e+00 2.280990e+00 35.10127 1.212724e-01
43 J324 5.5417982292 1.031798e+00 1.298202e+00 35.10670 9.669734e-02
44 J325 5.0583489402 1.798349e+00 1.761651e+00 35.05437 1.443675e-01
45 J326 3.8968565039 2.076857e+00 2.383143e+00 35.03531 1.553098e-01
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2 J330 -0.3572913123 1.462709e+00 1.777291e+00 34.53383 3.238316e-01
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7 J335 -1.4598443468 3.601557e-01 1.269844e+00 34.09538 8.153777e-01
8 J336 0.1209020916 1.520902e+00 1.379098e+00 34.86449 2.244912e-01
9 J337 0.2567453739 8.667454e-01 7.832546e-01 34.83247 1.224688e-01
10 J338 -0.6754409468 1.174559e+00 1.475441e+00 34.80264 7.263702e-02
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12 J340 3.0004764284 2.650476e+00 2.429524e+00 34.99595 1.359479e-01
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18 J346 -1.8309242912 2.490757e-01 2.109243e-01 32.99492 3.624916e+00
19 J347 -0.7572093186 7.927907e-01 2.272093e-01 34.67074 4.807408e-01
20 J348 -1.5565367663 4.034632e-01 5.265368e-01 28.69092 8.310918e+00
21 J349 0.0644339891 1.464434e+00 1.435566e+00 34.58329 3.132925e-01
22 J350 0.7425513990 8.925514e-01 7.574486e-01 34.79531 3.053118e-01
23 J351 -0.5021970493 7.478030e-01 1.622197e+00 34.65709 4.670850e-01
24 J352 1.0012360754 1.891236e+00 2.718764e+00 34.79826 6.082579e-01
25 J353 1.4678461390 9.378461e-01 1.272154e+00 34.75067 5.067012e-02
26 J354 -0.2270550559 1.662945e+00 8.370551e-01 34.80671 2.967114e-01
27 J355 -0.4018695220 1.448130e+00 1.321870e+00 34.86483 1.348343e-01
28 J356 -0.3652471004 1.484753e+00 1.285247e+00 34.88275 1.527466e-01
29 J357 -0.2875806467 1.602419e+00 9.875806e-01 34.74148 3.714846e-01
30 J358 -0.4047931083 1.485207e+00 1.094793e+00 34.66081 3.908145e-01
31 J359 -0.6510842249 1.238916e+00 1.531084e+00 34.62247 3.524673e-01
32 J360 1.0259574337 2.815957e+00 1.604043e+00 34.24268 3.472675e+00
33 J361 0.1138040517 1.963804e+00 1.306196e+00 34.68843 3.084331e-01
34 J362 -0.2124302405 6.975698e-01 1.092430e+00 34.62314 2.431428e-01
35 J363 -0.9696386065 9.203614e-01 7.796386e-01 34.51031 2.403084e-01
36 J365 -0.9927881898 8.572118e-01 7.327882e-01 34.47053 2.605283e-01
37 J366 -0.8025176920 1.087482e+00 1.632518e+00 34.58981 3.198125e-01
38 J367 -0.1750385911 1.224961e+00 8.750386e-01 34.78092 4.109169e-01
39 J368 -0.2707468231 5.992532e-01 9.707468e-01 34.54250 2.725031e-01
40 J369 0.6030895109 9.930895e-01 8.769105e-01 34.86505 1.850464e-01
41 Y372 -1.6297892953 4.502107e-01 7.097893e-01 33.35819 4.181927e-01
42 Y373 -1.8771762321 2.028238e-01 1.771762e-01 33.25839 1.728388e+00
43 Y374 -1.7035675960 3.764324e-01 6.735676e-01 32.19940 2.839396e+00
44 Y375 -1.3081271191 7.218729e-01 1.648127e+00 32.68974 1.159745e+00
45 Y376 -1.7381980546 5.180195e-02 1.181981e-01 32.68188 3.311883e+00
46 Y377 -1.8019361341 1.580639e-01 2.919361e-01 28.41798 8.037980e+00
47 Z379 -1.7774700701 2.252993e-02 2.747007e-02 34.53524 2.352397e-01
48 Z380 -1.2928867274 4.271133e-01 7.328867e-01 31.86670 2.846703e+00
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 2 Z381 -1.7054677655 1.345322e-01 3.054678e-01 34.03132 2.291319e+00
 3 Z382 -1.6850055023 4.149945e-01 6.450055e-01 34.37385 2.438467e-01
 4 Z383 -1.7786392837 6.136072e-02 2.863928e-02 34.48929 1.892864e-01
 5 Z384 -1.3755391385 4.244609e-01 4.455391e-01 33.72337 2.333371e+00
 6 Z385 -0.8344084311 9.655916e-01 3.484408e+00 34.53974 2.397371e-01
 7 Z386 -1.7827866218 1.721338e-02 3.278662e-02 34.54010 2.401006e-01
 8 Z387 -1.7629456581 3.705434e-02 1.294566e-02 34.50886 2.088558e-01
 9 Z388 -1.7703790892 2.962091e-02 2.037909e-02 34.42276 2.527641e-01
 10 Z389 -1.2010742842 5.889257e-01 6.410743e-01 34.57346 2.734621e-01
 11 Z390 -1.1912806394 6.087194e-01 1.411281e+00 34.59197 8.197473e-02
 12 Z391 -1.7625649470 2.743505e-02 1.256495e-02 34.52425 5.425190e-02
 13 Z392 -1.1587014914 6.312985e-01 3.008701e+00 32.79646 8.616457e+00
 14 Z393 -1.7697175767 3.028242e-02 1.971758e-02 34.49830 1.982953e-01
 15 Z394 -1.7615363254 2.846367e-02 1.153633e-02 34.46992 1.699199e-01
 16 Z395 -1.7006792665 8.932073e-02 3.006793e-01 34.24951 1.139512e+00
 17 Z396 -1.6920950257 9.790497e-02 2.920950e-01 34.21403 1.104032e+00
 18 Z397 -1.5626496351 1.973504e-01 1.002650e+00 34.46801 1.680074e-01
 19 N398 6.7029904119 9.729904e-01 7.370096e-01 35.06403 1.040297e-01
 20 N399 6.0323650939 4.242365e+00 1.237635e+00 35.01658 2.765795e-01
 21 N400 5.0666325557 6.036633e+00 2.373367e+00 34.48614 3.486143e+00
 22 N401 5.5607867022 2.530787e+00 1.779213e+00 35.07699 2.869853e-01
 23 N402 6.8234361532 9.334362e-01 6.165638e-01 35.10896 9.896306e-02
 24 A405 15.2781959540 5.881960e-01 8.218040e-01 36.24096 2.009624e-01
 25 A406 14.8905917073 1.370592e+00 1.209408e+00 36.10527 2.852671e-01
 26 A407 14.1119351561 5.919352e-01 5.780648e-01 35.93130 1.113040e-01
 27 A408 13.9299051607 4.199052e-01 7.600948e-01 35.91005 9.004775e-02
 28 A409 14.2923216286 7.723216e-01 8.976784e-01 36.09602 2.760178e-01
 29 A410 14.1530157090 1.953016e+00 5.069843e-01 36.72169 1.121692e+00
 30 A411 NA NA NA NA NA
 31 A412 11.4537569883 2.353757e+00 7.462430e-01 35.61822 3.782192e-01
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 34 A415 5.0652960035 1.725296e+00 2.124704e+00 34.88659 1.965867e-01
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 36 A417 6.8943750493 3.004375e+00 7.256250e-01 35.17850 3.985002e-01
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 42 A423 2.6780497320 2.698050e+00 2.291950e+00 32.25534 6.653436e-01
 43 A424 3.3394665951 1.219467e+00 2.040533e+00 32.34980 4.098021e-01
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 47 A428 4.4899987502 8.899988e-01 5.700012e-01 32.85090 6.909010e-01
 48 Z432 -0.7988115669 7.511884e-01 6.688116e-01 32.07952 2.079523e+00
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2	Z435	-1.2249541391	3.350459e-01	7.049541e-01	32.19071	1.580713e+00
3	Z436	-1.7895608087	1.404392e-01	3.195608e-01	32.47504	4.250429e-01
4	Z438	-1.6035260557	2.764739e-01	1.535261e-01	32.44186	1.721858e+00
5	Z439	-1.4795970196	4.204030e-01	9.195970e-01	33.10265	1.302646e+00
6	Z459	-1.7561758402	1.738242e-01	4.561758e-01	26.09038	2.540381e+00
7	Z462	-1.9347465622	1.152534e-01	6.347466e-01	12.45274	4.712740e+00
8	Z466	-1.8071696073	2.428304e-01	5.071696e-01	16.35396	8.613964e+00
9	Z467	-1.1131363903	3.068636e-01	2.631364e-01	23.81073	4.920733e+00
10	Z470	-1.6127592966	4.372407e-01	3.127593e-01	18.77484	1.103484e+01
11	Z471	-1.6960393640	3.239606e-01	3.960394e-01	16.44956	7.699557e+00
12	Z472	-1.9065800375	1.434200e-01	6.065800e-01	13.68305	5.943046e+00
13	Z473	-1.8544543421	1.955457e-01	8.244543e-01	24.79940	1.270940e+01
14	Z474	-1.7564822322	2.635178e-01	3.264822e-01	21.79222	1.304222e+01
15	Z477	-1.9098334148	1.401666e-01	1.198334e-01	22.85985	1.076985e+01
16	Z480	-1.9324416197	8.755838e-02	1.124416e-01	16.89249	8.142486e+00
17	Z482	-1.8235445212	2.264555e-01	5.235445e-01	13.75295	6.012945e+00
18	Z483	-1.8500954519	1.999045e-01	5.500955e-01	11.84525	4.105249e+00
19	Z492	-1.6660297886	3.839702e-01	3.660298e-01	24.16370	1.642370e+01
20	Z493	-1.9751116281	4.488837e-02	9.451116e-01	16.33879	1.708793e+00
21	Z494	-1.9782273625	7.177264e-02	9.482274e-01	15.61609	3.526087e+00
22	Z495	-1.2179131992	6.020868e-01	3.679132e-01	25.56096	6.670958e+00
23	Z496	-1.5089616007	5.410384e-01	4.089616e-01	23.05450	1.531450e+01
24	Z497	-1.4035340480	3.364660e-01	4.235340e-01	26.77981	3.599812e+00
25	Z498	-1.3487510043	6.112490e-01	4.987510e-01	22.42290	3.532898e+00
26	Z499	-1.9429371115	2.706289e-02	3.293711e-02	24.35048	3.980478e+00
27	Z500	-1.9407150050	2.928500e-02	4.071500e-02	23.77832	3.408324e+00
28	Z501	-1.6431813051	4.068187e-01	7.931813e-01	19.51710	1.177710e+01
29	Z502	-1.6039093172	3.060907e-01	2.553909e+00	27.60298	2.090298e+01
30	Z503	-1.7678314422	1.421686e-01	7.878314e-01	29.24233	4.402332e+00
31	Z504	-1.7135262015	2.464738e-01	6.135262e-01	22.28306	2.653062e+00
32	Z505	-1.9269914769	4.300852e-02	2.699148e-02	24.91029	4.540293e+00
33	Z506	-1.9419059426	2.809406e-02	3.190594e-02	23.95560	3.585596e+00
34	Z507	-1.6796634624	1.303365e-01	9.966346e-02	29.29833	5.538332e+00
35	Z508	-1.6542328743	3.057671e-01	5.542329e-01	23.04344	3.413436e+00
36	Z509	-1.9443573804	2.564262e-02	3.435738e-02	23.45757	3.087573e+00
37	Z510	-1.8618248786	9.817512e-02	4.318249e-01	25.06869	3.398688e+00
38	Z511	-1.8953426366	7.465736e-02	4.653426e-01	24.39216	2.722157e+00
39	Z512	-1.9544543153	1.554568e-02	1.445432e-02	22.52617	2.156169e+00
40	Z513	-1.9317772757	3.822272e-02	2.177728e-02	24.46380	4.093803e+00
41	Z514	-1.9518564154	1.814358e-02	4.185642e-02	23.21946	2.849463e+00
42	Z515	-1.9345212722	3.547873e-02	3.452127e-02	24.71553	1.805525e+00
43	Z516	-1.9241885258	3.581147e-02	2.418853e-02	26.46379	3.353789e+00
44	Z517	-1.7424707152	3.075293e-01	4.424707e-01	17.05990	9.319904e+00
45	Z518	-1.4215395323	5.384605e-01	5.715395e-01	22.83985	3.949852e+00
46	Z519	-1.6697204815	3.802795e-01	5.697205e-01	17.12726	9.387260e+00
47	Z520	-1.8966952050	8.330479e-02	1.766952e-01	23.55875	6.408745e+00
48	Z521	-1.9345640251	2.543597e-02	2.456403e-02	25.49464	5.124639e+00
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2 Z522 -1.3151604191 6.448396e-01 4.651604e-01 22.16213 3.272133e+00
3 Z523 -1.3739582789 5.660417e-01 5.239583e-01 22.48793 3.597930e+00
4 Z530 -1.1957072227 7.642928e-01 3.457072e-01 21.67249 2.782493e+00
5 Z531 -1.2247602781 7.352397e-01 3.747603e-01 22.53462 3.644619e+00
6 A532 1.3203183887 2.290318e+00 1.309682e+00 33.52588 2.525881e+00
7 A533 2.1454860596 3.235486e+00 4.764514e+00 34.40986 1.349856e+00
8 A534 0.0369485808 1.926949e+00 2.753051e+00 34.20137 6.113662e-01
9 Z535 1.8781247841 3.638125e+00 2.841875e+00 29.81960 5.639598e+00
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12 Z538 0.3655129555 2.125513e+00 2.284487e+00 34.13195 1.561954e+00
13 Z539 0.8197561354 2.579756e+00 1.830244e+00 30.32912 6.209119e+00
14 Z540 -0.8984755232 9.015245e-01 2.758476e+00 31.25233 6.762331e+00
15 Z541 -0.4715161500 1.218484e+00 2.951516e+00 32.60160 2.481598e+00
16 Z542 0.0895763311 1.889576e+00 2.390424e+00 33.95648 3.186481e+00
17 Z543 -1.7470700557 2.129299e-01 1.870701e-01 27.15830 6.778299e+00
18 Z546 -1.6761687341 3.738313e-01 8.261687e-01 23.15233 1.541233e+01
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20 Z548 -0.2962718552 1.493728e+00 1.056272e+00 34.15413 2.394126e+00
21 Z549 -1.4646223869 3.253776e-01 6.946224e-01 27.65853 1.321853e+01
22 Z550 -0.0004092123 1.279591e+00 2.230409e+00 33.34159 1.271590e+00
23 Z551 5.1672550046 2.372550e-01 3.527450e-01 35.02871 6.871101e-02
24 Z552 0.4452775083 1.845278e+00 1.324722e+00 34.03151 2.231511e+00
25 Z553 -0.1789649239 1.511035e+00 2.658965e+00 32.93384 1.613838e+00
26 Z554 -1.2339867488 6.660133e-01 1.253987e+00 32.99312 1.153119e+00
27 Z555 -1.3460080206 5.539920e-01 1.886008e+00 34.37303 1.093029e+00
28 Z556 -0.8755151289 6.444849e-01 1.235515e+00 32.54226 2.222263e+00
29 Z557 -1.9045966806 1.954033e-01 1.545967e-01 34.30754 1.775395e-01
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43 Y572 -1.7738012105 1.561988e-01 1.538012e-01 27.18779 4.797793e+00
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10 Z591 -1.2513985837 7.986014e-01 2.613986e-01 14.33733 6.597327e+00
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14 Z597 -1.2908726034 5.491274e-01 4.408726e-01 23.62237 4.732369e+00
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16 Z599 -1.6262546462 3.037454e-01 1.962546e-01 30.53398 6.773979e+00
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20 Z604 8.0640414912 1.914041e+00 6.859585e-01 30.55350 5.113504e+00
21 Z605 8.2750071107 2.075007e+00 9.549929e-01 30.53526 6.485259e+00
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24 N608 3.4298639495 6.098639e-01 1.050136e+00 31.48720 4.672041e-01
25 N609 3.8515911109 1.481591e+00 4.578409e+00 30.75939 1.349389e+00
26 N610 3.3073207375 9.373207e-01 1.172679e+00 30.99447 1.584474e+00
27 N611 3.0755548875 8.455549e-01 1.064445e+00 30.67260 1.262598e+00
28 N612 2.8873254802 5.173255e-01 5.326745e-01 30.84052 1.430523e+00
29 N613 6.4125719049 1.722572e+00 2.027428e+00 31.70522 1.745215e+00
30 N614 4.4072600076 1.217260e+00 1.092740e+00 32.75598 9.459841e-01
31 N615 3.6552591878 1.285259e+00 1.044741e+00 31.66675 2.256746e+00
32 N616 4.3529427667 1.532943e+00 5.970572e-01 32.56223 1.372226e+00
33 N620 5.4507194712 2.630719e+00 2.989281e+00 30.60922 6.492170e-01
34 N622 4.5865688318 1.396569e+00 4.034312e-01 32.90112 1.091116e+00
35 N623 3.7422159731 9.222160e-01 1.207784e+00 32.06553 8.755264e-01
36 N626 4.1806634560 1.360663e+00 7.693365e-01 32.27707 1.237073e+00
37 N628 4.7418757194 5.418757e-01 2.481243e-01 32.97100 5.009971e-01
38 N629 4.3791658474 1.559166e+00 6.108342e-01 32.65182 1.461818e+00
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40 N631 4.8206404715 6.206405e-01 3.293595e-01 33.03546 5.654573e-01
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42 N633 3.5594255868 7.394256e-01 1.120574e+00 32.01613 8.261268e-01
43 N634 4.3903912505 1.200391e+00 5.996087e-01 32.70238 8.923791e-01
44 N635 4.7862210735 5.862211e-01 2.037789e-01 33.01298 5.429790e-01
45 N636 4.8966836702 6.966837e-01 6.033163e-01 33.21828 7.482801e-01
46 N637 4.7775212098 5.775212e-01 2.124788e-01 33.01916 5.491566e-01
47 N638 4.7534428735 5.534429e-01 7.465571e-01 32.98002 5.100217e-01
48 C645 7.7063586995 3.666359e+00 1.893641e+00 33.48410 1.044102e+00
49 C646 1.8299105642 2.469911e+00 4.570089e+00 32.84746 1.357457e+00
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3 C650 3.3066517238 2.916652e+00 6.443348e+00 32.13976 1.159761e+00
4 C651 4.7037141058 4.313714e+00 4.856286e+00 32.57151 1.591507e+00
5 C652 6.1536123867 3.513612e+00 3.926388e+00 33.36108 1.251081e+00
6 C653 5.7868931117 7.968931e-01 6.131069e-01 33.88113 1.491131e+00
7 C654 3.1630915014 2.783092e+00 3.686908e+00 32.83262 1.002624e+00
8 C655 3.3470450979 2.967045e+00 5.922955e+00 32.51069 9.006869e-01
9 C656 3.8467244569 3.466724e+00 5.423276e+00 32.58396 7.539550e-01
10 C657 1.4993460046 1.449346e+00 1.700654e+00 32.05237 4.323745e-01
11 C658 4.7676418265 1.567642e+00 1.632358e+00 33.96789 1.867894e+00
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13 C660 1.4517823196 1.921782e+00 3.908218e+00 31.98955 6.595483e-01
14 C661 4.8518115622 1.791812e+00 4.418188e+00 32.61531 7.553145e-01
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19 C666 4.8343083494 4.814308e+00 2.035692e+00 33.69476 2.524759e+00
20 C667 5.3686288509 1.378629e+00 1.031371e+00 33.43833 9.983258e-01
21 C668 6.4951551195 1.575155e+00 3.194845e+00 34.09542 1.705423e+00
22 C669 4.4565984479 4.696598e+00 4.813402e+00 32.35735 1.467346e+00
23 C670 0.4127068250 4.270683e-02 7.729317e-02 30.98123 1.123200e-02
24 C671 0.3202651478 5.602651e-01 2.197349e-01 30.97177 8.177191e-02
25 C672 0.4037208526 3.372085e-02 1.362791e-01 30.98203 1.203037e-02
26 C673 0.4370107742 6.701077e-02 1.029892e-01 30.98548 1.548311e-02
27 C674 0.1327600862 1.802760e+00 4.072399e-01 31.13983 1.598270e-01
28 C675 0.4247410310 5.474103e-02 1.152590e-01 30.98470 1.470227e-02
29 C676 -0.3378650305 1.382135e+00 8.778650e-01 31.69388 7.238760e-01
30 C677 2.9977420985 4.037742e+00 6.172258e+00 31.60685 3.456851e+00
31 A682 2.7246720944 3.494672e+00 1.995328e+00 31.13563 7.215629e+00
32 A683 1.6585989925 2.268599e+00 3.061401e+00 32.51536 6.953635e-01
33 A685 3.1300350883 3.990035e+00 3.309965e+00 33.17906 1.459059e+00
34 Y686 -1.7455668871 2.144331e-01 1.255669e-01 31.22486 8.114864e+00
35 Y687 -1.6101980473 1.998020e-01 1.801980e-01 29.77908 6.019076e+00
36 Y688 -1.7604573633 1.995426e-01 1.404574e-01 29.53995 9.159949e+00
37 Y689 -1.7394133071 2.205867e-01 3.394133e-01 24.97275 4.592749e+00
38 Y690 -1.7738065442 3.061935e-01 3.438065e-01 31.89386 5.503865e+00
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43 Y695 -1.7587672306 1.712328e-01 3.287672e-01 31.01770 7.257695e+00
44 Y696 -1.1670478049 9.329522e-01 2.117048e+00 27.54196 2.084196e+01
45 Y697 -1.5450027287 1.749973e-01 3.850027e-01 34.42456 1.374563e+00
46 A698 11.0812167352 1.981217e+00 1.008783e+00 35.53323 2.932303e-01
47 A699 8.0187930765 6.448793e+00 3.141207e+00 35.24059 2.405889e-01
48 A701 7.1697709542 2.879771e+00 2.440229e+00 35.17441 1.044135e-01
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5 Z706 -1.8113162163 2.386838e-01 7.813162e-01 24.17797 1.208797e+01
6 Z707 -1.6730315707 1.169684e-01 5.303157e-02 30.70291 1.332912e+00
7 Z708 -1.8915877593 1.584122e-01 8.615878e-01 16.82674 4.736738e+00
8 Z710 -1.6719272964 2.880727e-01 2.719273e-01 28.01113 7.631126e+00
9 Z714 -1.6636950159 2.963050e-01 2.636950e-01 29.52223 6.412230e+00
10 Z716 -1.8047121676 2.952878e-01 2.447122e-01 32.69149 3.414898e-01
11 Z717 -1.8062036612 2.937963e-01 2.462037e-01 32.69671 3.467063e-01
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15 Z722 -1.8852683860 2.147316e-01 3.252684e-01 33.14377 7.937686e-01
16 Z723 -1.8350986399 2.649014e-01 2.750986e-01 32.69743 3.474338e-01
17 Z726 -1.7881668933 3.118331e-01 3.881669e-01 33.13374 8.437399e-01
18 Z727 -1.8471427764 2.528572e-01 2.871428e-01 33.42517 1.075168e+00
19 Z728 -1.9102906334 1.897094e-01 3.502906e-01 33.32957 9.795657e-01
20 Z729 -1.8982251335 2.017749e-01 3.382251e-01 28.98614 2.023614e+01
21 Z730 -1.1558545338 9.441455e-01 3.058545e-01 23.33219 4.442191e+00
22 Z731 -2.0559726520 4.402735e-02 2.659727e-01 33.43774 1.087741e+00
23 Z732 -1.4931374487 4.668626e-01 6.431374e-01 25.58917 6.699166e+00
24 Z733 -1.8545167396 2.454833e-01 4.545167e-01 32.97686 6.868570e-01
25 Z735 -1.9381359388 3.186406e-02 3.813594e-02 25.00237 4.632373e+00
26 Z736 -0.9544506947 7.355493e-01 2.804451e+00 29.77351 5.593511e+00
27 Z737 -1.6115043012 1.084957e-01 2.115043e-01 30.34599 6.059881e-01
28 Z738 -0.6248147023 1.275185e+00 2.474815e+00 31.50529 7.325292e+00
29 Z739 -1.3753769883 3.146230e-01 8.253770e-01 31.64657 1.526568e+00
30 Z740 -1.6565752031 4.434248e-01 9.765752e-01 32.67600 2.676001e+00
31 Z743 -1.5753901640 3.846098e-01 7.253902e-01 24.78763 5.897632e+00
32 Z746 -1.9162682770 1.837317e-01 3.562683e-01 23.94119 1.620119e+01
33 O747 -0.5054918538 1.184508e+00 1.865492e+00 32.13707 7.470666e-01
34 O748 -1.1612593745 5.287406e-01 6.112594e-01 32.28377 8.937680e-01
35 O749 -1.4113626248 4.886374e-01 4.813626e-01 32.33665 4.166465e-01
36 O750 -1.2750402951 4.149597e-01 7.250403e-01 32.30725 9.872522e-01
37 O754 -1.5994370237 1.905630e-01 8.943702e-02 31.79512 8.451208e-01
38 O755 -1.1712235296 3.087765e-01 6.412235e-01 32.31426 4.942600e-01
39 O756 -1.5379944346 3.020056e-01 6.579944e-01 32.49225 2.172246e+00
40 O757 -1.2973209683 4.026790e-01 5.473210e-01 31.77003 3.800313e-01
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24 P1153 6.7110715761 5.710716e-01 2.028928e+00 26.33351 2.533509e+00
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35 P1209 6.3292696120 2.792696e-01 2.507304e-01 27.24491 4.124908e+00
36 P1210 6.4921329112 3.421329e-01 4.678671e-01 27.95560 3.145600e+00
37 P1211 4.3395237118 5.689524e+00 4.100476e+00 30.02289 1.272891e+00
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 16 P1285 18.6473918256 1.773918e-01 1.626082e-01 35.22065 1.064918e-02
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 30 P1303 26.0370450042 4.270450e-01 5.629550e-01 33.95986 6.098566e-01
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 37 P1310 26.3265489123 6.465489e-01 1.013451e+00 33.93710 4.471041e-01
 38 P1311 25.9482165845 2.682166e-01 3.217834e-01 34.08333 2.233273e-01
 39 P1312 26.6676023638 7.676024e-01 9.623976e-01 33.80342 3.434154e-01
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12 H1337 -1.2264359029 3.335641e-01 6.564359e-01 28.25075 1.362075e+01
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23 G1349 -0.8673835024 1.726165e-01 6.673835e-01 31.10915 2.019147e+00
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25 G1351 -0.9026266317 2.773734e-01 7.026266e-01 31.43995 8.799456e-01
26 G1352 -0.3118504447 1.348150e+00 1.411850e+00 30.87733 3.732843e-02
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30 G1356 0.1190607017 1.779061e+00 6.809393e-01 31.30714 4.671423e-01
31 G1357 -0.2417825585 1.418217e+00 1.041783e+00 31.09010 2.501013e-01
32 G1358 -0.0773442267 1.582656e+00 8.773442e-01 31.38622 5.462235e-01
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34 G1360 -0.6919186956 9.680813e-01 1.791919e+00 30.84338 1.633798e-01
35 G1361 -0.4170865293 1.242913e+00 1.517087e+00 31.01760 3.375979e-01
36 G1362 -0.3706074638 1.289393e+00 1.470607e+00 30.83796 1.579592e-01
37 G1363 -0.9142377165 7.457623e-01 9.542377e-01 30.82697 1.469683e-01
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2 A1375 0.7706734656 1.570673e+00 7.093265e-01 34.95036 3.403627e-01
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9 A1383 -0.7694745463 1.080525e+00 1.289475e+00 34.74473 1.347343e-01
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19 Z1393 4.9488077556 3.388078e-01 2.811922e-01 34.90718 1.471771e-01
20 Z1394 4.9667625629 3.567626e-01 2.632374e-01 34.90142 1.414175e-01
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22 Z1396 6.5508893411 6.608893e-01 2.991107e-01 34.94851 5.885088e-01
23 Z1397 5.4121660597 4.421661e-01 1.457834e+00 34.92397 3.239667e-01
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25 Z1399 4.7937082270 1.603708e+00 5.362918e-01 34.91785 3.178503e-01
26 Z1400 4.7407733583 2.510773e+00 1.149227e+00 34.95346 2.734612e-01
27 Z1401 4.3372994042 2.657299e+00 1.092701e+00 34.97112 3.611168e-01
28 Z1402 4.8460235980 3.760236e-01 4.639764e-01 34.96932 3.593248e-01
29 Z1403 1.9091672299 3.349167e+00 3.400833e+00 34.61944 1.449440e+00
30 Z1404 4.0902397550 3.700240e+00 1.219760e+00 34.94443 3.344312e-01
31 Z1405 4.1654602562 3.695460e+00 1.144540e+00 35.03483 5.483338e-02
32 Z1406 3.9025554469 5.032555e+00 1.407445e+00 34.89623 8.262280e-01
33 Z1407 0.3911111907 1.931111e+00 2.188889e+00 33.42971 2.339711e+00
34 Z1408 -0.4713908162 1.068609e+00 1.781391e+00 32.98957 1.899568e+00
35 Z1409 0.5570811809 2.247081e+00 4.752919e+00 34.88914 3.591449e-01
36 Z1410 4.6690481644 2.989048e+00 7.609518e-01 34.94866 2.686608e-01
37 Z1411 2.5608706502 3.840871e+00 2.749129e+00 34.97759 3.975928e-01
38 Z1412 2.7309450633 2.020945e+00 2.059055e+00 34.98785 2.878478e-01
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42 Z1416 -1.1582996131 6.817004e-01 1.518300e+00 33.82089 6.508856e-01
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44 Z1418 -0.8332079267 1.036792e+00 1.373208e+00 34.37391 9.739084e-01
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48 Z1422 5.1486876093 5.386876e-01 6.013124e-01 34.98479 1.647852e-01
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34 B1503 -0.8915682172 5.984318e-01 1.431568e+00 33.68775 5.177522e-01
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43 B1512 -1.2626420025 5.273580e-01 9.126420e-01 33.69630 1.066301e+00
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22 B1539 -1.3530770837 2.069229e-01 1.930771e-01 32.87004 2.140037e+00
23 B1540 -1.4450982465 2.149018e-01 2.850982e-01 32.11560 1.835598e+00
24 B1541 -1.5093874491 1.806126e-01 3.493874e-01 33.86684 5.268374e-01
25 B1542 -1.2969187948 2.630812e-01 1.166919e+00 31.88705 1.167053e+00
26 B1543 -1.6995830378 2.041696e-02 3.958304e-02 33.82478 3.544778e+00
27 B1544 -1.2043036164 3.556964e-01 3.543036e-01 29.18006 1.029006e+01
28 B1545 -1.1431206698 4.468793e-01 6.131207e-01 34.18168 9.016762e-01
29 B1546 -1.4226911871 2.673088e-01 6.226912e-01 34.18259 1.012592e+00
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33 B1550 0.6050346590 1.495035e+00 1.064965e+00 34.82367 6.336693e-01
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41 A1559 1.7383824485 1.268382e+00 3.441618e+00 35.00791 1.779094e-01
42 A1560 0.3180780372 1.118078e+00 1.691922e+00 34.84051 2.305070e-01
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44 A1562 0.8503362722 2.440336e+00 1.159664e+00 34.48426 1.204258e+00
45 A1563 1.4841168398 1.014117e+00 8.258832e-01 34.93220 1.222033e-01
46 A1564 0.6565820774 2.556582e+00 1.023418e+00 34.71167 3.916739e-01
47 A1565 -0.4034529991 9.765470e-01 1.233453e+00 34.57397 9.839705e-01
48 P1567 5.5071468699 4.167147e+00 2.962853e+00 32.47559 7.955921e-01
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4 P1570 2.5890786759 3.629079e+00 2.630921e+00 32.72976 1.049764e+00
5 P1571 4.2358408830 2.715841e+00 1.424159e+00 32.78691 2.169067e-01
6 P1572 3.6343631873 2.114363e+00 2.025637e+00 32.88890 3.188989e-01
7 O1575 1.1938227939 1.203823e+00 1.536177e+00 33.12267 1.626737e-01
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9 O1577 2.6898329144 5.898329e-01 5.301671e-01 33.19067 1.306679e-01
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13 O1581 -1.4929188587 4.470811e-01 9.729189e-01 33.05453 8.645335e-01
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15 O1583 1.2266910127 1.656691e+00 2.073309e+00 33.01528 7.527513e-02
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21 P1597 11.5897461619 1.259746e+00 9.502538e-01 33.19943 5.494287e-01
22 P1598 11.5939442894 1.263944e+00 1.456056e+00 32.80875 1.587547e-01
23 P1602 -1.4645658563 2.554341e-01 4.245659e-01 32.65411 3.241147e-01
24 R1603 -1.6931071363 4.068929e-01 7.631071e-01 32.75223 7.122311e-01
25 R1604 -1.3779037094 2.720963e-01 8.279037e-01 32.66296 3.329622e-01
26 R1605 -1.3765810666 3.434189e-01 8.265811e-01 32.78853 4.585254e-01
27 R1606 0.9648399521 2.484840e+00 2.435160e+00 33.09082 2.808188e-01
28 R1607 -1.2712608117 4.487392e-01 7.212608e-01 33.00814 2.398143e+00
29 R1608 0.6269507733 2.346951e+00 8.923049e+00 32.78059 4.005881e-01
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32 O1611 -1.2326626058 1.573374e-01 3.226626e-01 32.51979 1.079795e+00
33 O1612 -1.3554108525 2.345891e-01 4.454109e-01 32.12324 1.403243e+00
34 O1613 -1.3128793334 2.771207e-01 4.028793e-01 32.66166 1.221655e+00
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38 R1617 -1.4754209871 2.445790e-01 9.454210e-01 31.99981 9.098053e-01
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40 R1619 -1.4912848394 2.287152e-01 9.612848e-01 32.61130 5.713047e-01
41 R1620 -1.5136385563 3.863614e-01 7.136386e-01 32.37800 1.288000e+00
42 R1621 -1.1047285666 5.652714e-01 1.034729e+00 32.18801 1.098009e+00
43 R1622 -0.9262043196 1.173796e+00 1.266204e+00 33.32746 7.674591e-01
44 R1623 -1.4275485152 2.924515e-01 8.975485e-01 31.89763 8.076266e-01
45 R1624 -0.7413797006 9.786203e-01 1.081380e+00 32.85544 1.765442e+00
46 R1625 -0.9097757464 9.602243e-01 9.597757e-01 32.66882 2.208823e+00
47 R1626 -1.2723386217 6.876614e-01 1.502339e+00 30.58691 7.476910e+00
48 R1627 -0.7919555414 1.138044e+00 2.071956e+00 32.48006 3.110057e+00
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2 R1628 -0.6808265994 1.079173e+00 1.480827e+00 32.30165 1.441647e+00
3 R1629 -1.5256682027 5.743318e-01 9.956682e-01 33.20254 8.725353e-01
4 R1630 4.0545394125 5.284539e+00 5.495461e+00 33.43351 1.113508e+00
5 R1631 -1.5445957410 1.754043e-01 1.884596e+00 32.43792 1.347916e+00
6 R1632 -0.5872282669 9.527717e-01 1.687228e+00 31.20851 3.485077e-01
7 R1633 -1.6271169631 1.628830e-01 8.711696e-02 31.67789 5.878899e-01
8 R1634 -1.6644211484 2.355789e-01 1.244211e-01 31.56578 4.757810e-01
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10 Z1636 -1.7032698949 1.367301e-01 3.032699e-01 32.43689 6.968876e-01
11 Z1637 -1.7966743815 2.033256e-01 3.166744e-01 32.23561 1.505609e+00
12 Z1638 -1.4674577000 3.425423e-01 9.374577e-01 32.20695 4.369457e-01
13 Z1639 -1.6377073265 1.722927e-01 2.177073e-01 31.88661 1.446608e+00
14 Z1640 -1.7361906501 1.438093e-01 2.861907e-01 31.88871 1.168714e+00
15 Z1641 0.0081653673 1.548165e+00 3.041835e+00 33.02378 1.933779e+00
16 Z1642 -1.2786654819 4.113345e-01 7.486655e-01 32.04524 7.252407e-01
17 Z1643 -1.6429321527 1.770678e-01 2.229322e-01 32.09823 1.658226e+00
18 Z1644 -1.6764462876 2.435537e-01 3.264463e-01 31.63213 2.882130e+00
19 O1645 -1.5348037141 2.751963e-01 7.348037e-01 32.10322 1.663223e+00
20 O1646 -1.7080889559 8.191104e-02 1.980890e-01 31.98047 4.704659e-01
21 O1647 -1.5837341431 2.962659e-01 2.337341e-01 31.54620 2.796203e+00
22 O1648 -1.3410197197 3.189803e-01 9.910197e-01 31.92232 3.172317e+00
23 Z1649 -1.6552468378 2.047532e-01 1.852468e-01 32.02362 1.073616e+00
24 O1650 -1.5714315823 2.185684e-01 2.314316e-01 31.92725 9.772524e-01
25 O1651 -1.1380030232 2.619970e-01 5.480030e-01 31.92415 1.314150e+00
26 O1652 0.4446448251 2.034645e+00 8.005355e+00 31.56211 1.652113e+00
27 O1653 -1.6290489783 2.109510e-01 1.490490e-01 31.92066 9.706562e-01
28 O1654 0.9681396594 2.808140e+00 7.461860e+00 31.89219 2.122186e+00
29 O1655 -1.2200932639 5.599067e-01 8.500933e-01 31.87949 1.694937e-01
30 O1656 1.7737485324 3.353749e+00 6.656251e+00 31.61401 1.844010e+00
31 O1657 -0.5069939237 1.333006e+00 1.476994e+00 32.17098 4.009766e-01
32 O1658 1.7356924808 3.255692e+00 6.694308e+00 31.54776 1.777759e+00
33 R1659 -1.5517176531 1.182823e-01 1.517177e-01 31.66844 7.184421e-01
34 Z1660 -1.5954342749 3.645657e-01 7.454343e-01 25.58204 6.692041e+00
35 Z1661 -1.5392257474 4.607743e-01 1.019226e+00 31.26154 1.331536e+00
36 Z1662 -1.6588298663 3.411701e-01 2.088299e-01 31.29830 5.783000e-01
37 P1663 7.7267729924 3.136773e+00 8.232270e-01 31.12574 1.225738e+00
38 P1664 0.2039624278 1.383962e+00 3.646038e+00 31.80408 1.244077e+00
39 P1665 4.3609390262 5.500939e+00 4.089061e+00 31.31364 1.403638e+00
40 Z1666 -1.4831149613 3.568850e-01 1.133115e+00 32.69776 9.577594e-01
41 Z1667 -1.5546777963 2.853222e-01 5.546778e-01 32.07500 1.635002e+00
42 Z1668 -1.7029263718 1.670736e-01 2.829264e-01 31.66521 1.225214e+00
43 Z1669 -1.6637561870 1.762438e-01 2.637562e-01 31.95235 4.423455e-01
44 Z1670 -1.6346664009 1.753336e-01 1.846664e-01 31.49012 7.701182e-01
45 Z1671 -1.3669907840 5.630092e-01 5.669908e-01 32.73376 2.003764e+00
46 Z1672 -1.7715874636 1.584125e-01 3.715875e-01 32.14014 6.301364e-01
47 Z1673 -1.6004459836 2.795540e-01 2.504460e-01 31.74355 2.993550e+00
48 Z1674 -1.6704596361 2.095404e-01 2.204596e-01 32.10729 1.387289e+00
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4 Z1677 -1.2837447739 7.162552e-01 7.637448e-01 31.54981 1.089807e+00
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6 Z1679 -1.4490795146 5.509205e-01 6.490795e-01 30.75054 8.205388e-01
7 Z1680 -1.1687833674 6.212166e-01 3.687834e-01 31.53030 1.600303e+00
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9 Z1682 -1.8256376241 4.436238e-02 6.563762e-02 31.85220 1.402195e+00
10 Z1683 -1.5028502560 3.771497e-01 1.152850e+00 32.11953 1.679529e+00
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12 Z1685 -1.5630628292 3.169372e-01 8.830628e-01 31.52623 1.526230e+00
13 Z1686 -1.7305169272 1.194831e-01 2.605169e-01 32.31426 5.742631e-01
14 Z1687 -1.2327567101 6.272433e-01 7.127567e-01 32.03618 1.586182e+00
15 Z1688 -1.6569946151 2.230054e-01 2.569946e-01 32.34842 5.484179e-01
16 Z1689 -1.6764203326 1.635797e-01 3.364203e-01 32.19876 4.287645e-01
17 Z1690 -1.8106488071 4.935119e-02 1.106488e-01 32.71018 7.101796e-01
18 Z1691 -1.5597076042 2.802924e-01 1.597076e-01 32.56792 7.679216e-01
19 Z1692 -1.6927242969 1.672757e-01 2.127243e-01 32.55469 5.446927e-01
20 Z1693 -1.7717602840 1.682397e-01 3.717603e-01 32.29904 2.890352e-01
21 Z1694 -1.7582499521 1.017500e-01 2.182500e-01 32.34902 8.390195e-01
22 Z1695 -1.6194393078 1.905607e-01 2.194393e-01 32.18506 3.850640e-01
23 Z1696 0.3155262865 2.175526e+00 8.114474e+00 31.94759 2.177590e+00
24 Z1697 -1.6813729568 1.086270e-01 2.013730e-01 32.16859 6.585937e-01
25 Z1698 -1.5586874855 3.013125e-01 2.086875e-01 31.52021 2.770210e+00
26 Z1699 -1.6282154660 1.817845e-01 2.282155e-01 32.84439 1.334389e+00
27 Z1700 -1.5245563637 1.554436e-01 5.645564e-01 31.11195 2.091946e+00
28 Z1701 -1.6415685533 7.843145e-02 9.156855e-02 30.56014 1.540135e+00
29 Z1702 -0.1286730771 1.271327e+00 2.778673e+00 27.43979 3.729788e+00
30 Z1703 -0.6133185521 1.016681e+00 3.263319e+00 29.96020 5.490204e+00
31 Z1705 -0.0799479041 1.610052e+00 1.489948e+00 34.68953 4.195334e-01
32 P1706 8.3919835431 1.991984e+00 2.068016e+00 29.30835 4.508345e+00
33 Z1707 -1.6406249455 2.393751e-01 1.906249e-01 31.50647 7.864674e-01
34 L1708 -1.4444602664 3.755397e-01 4.446027e-02 30.81743 2.206743e+01
35 L1709 -1.4529651256 3.470349e-01 5.296513e-02 31.48747 7.937468e+00
36 L1710 -1.4190206938 3.009793e-01 1.902069e-02 33.09119 5.361194e+00
37 L1711 -1.4000000000 2.220446e-16 -2.220446e-16 33.41575 2.457475e-01
38 L1712 -1.4230063661 2.969936e-01 2.300637e-02 33.02020 5.290199e+00
39 L1713 -1.0431639519 3.568360e-01 4.331640e-01 31.87434 2.784338e+00
40 L1714 -1.4000000000 0.000000e+00 0.000000e+00 33.43000 0.000000e+00
41 L1715 -1.4000000000 -2.220446e-16 2.220446e-16 33.43000 0.000000e+00
42 L1716 -1.4000000000 0.000000e+00 0.000000e+00 33.43000 7.105427e-15
43 L1717 -1.4000000000 0.000000e+00 0.000000e+00 33.43000 -7.105427e-15
44 L1718 -1.4000000000 0.000000e+00 0.000000e+00 33.43000 -7.105427e-15
45 L1719 -1.4000000000 0.000000e+00 0.000000e+00 33.43000 0.000000e+00
46 L1720 -1.4000000000 -2.220446e-16 2.220446e-16 33.43000 0.000000e+00
47 SFEV_s THIV THIV_i THIV_s SHIV
48 E003 1.925091e+00 -0.627149317 3.828507e-01 3.471493e-01 30.745918
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2	E004	1.956492e+00	-0.675801468	4.141985e-01	3.258015e-01	30.215744			
3	E005	2.063803e+00	-0.239395587	6.906044e-01	1.079396e+00	30.176685			
4	E006	2.652028e+00	-0.525953895	6.040461e-01	3.459539e-01	30.338459			
5	E007	2.375859e+00	-0.584444574	5.455554e-01	4.044446e-01	30.362095			
6	E008	2.815984e+00	-0.513032413	6.169676e-01	3.330324e-01	30.249556			
7	E010	1.548379e+00	-0.498369957	6.316300e-01	2.583700e-01	30.717349			
8	E012	1.769412e+00	-0.406183929	5.238161e-01	1.246184e+00	30.088546			
9	E013	2.401556e+00	-0.547341357	3.826586e-01	3.673414e-01	30.127601			
10	E014	1.274677e+00	-0.807260168	3.727398e-01	6.272602e-01	30.869781			
11	E015	3.261335e+00	-0.353105432	7.768946e-01	1.731054e-01	30.438410			
12	E016	1.033225e+00	-0.824919741	2.650803e-01	4.749197e-01	30.309295			
13	E017	1.954696e+00	-0.601574204	3.284258e-01	4.215742e-01	30.316435			
14	E018	2.795619e+00	-0.445796718	4.842033e-01	2.157967e-01	30.296133			
15	E019	1.684087e+00	-0.732276204	3.577238e-01	3.822762e-01	30.244681			
16	E020	5.524416e-01	-0.460448965	1.595510e-01	2.804490e-01	30.037889			
17	E021	9.511606e-01	-0.749388843	4.306112e-01	4.193888e-01	30.850314			
18	E022	2.573491e+00	-0.480883189	6.991168e-01	3.008832e-01	30.598550			
19	G023	1.274174e+00	-0.694682738	4.653173e-01	5.146827e-01	30.629497			
20	G024	5.439775e-01	-0.465963050	1.740370e-01	2.759630e-01	31.285831			
21	G025	1.664251e-01	-0.547966442	5.820336e-01	3.079664e-01	31.169827			
22	G026	4.571194e-01	-0.579053687	5.209463e-01	2.790537e-01	31.346281			
23	G027	3.921104e-01	-0.383993280	1.560067e-01	1.939933e-01	31.410576			
24	G028	2.321661e-01	-0.573591314	5.264087e-01	3.835913e-01	31.512348			
25	G029	6.795247e-01	-0.468502677	2.214973e-01	2.785027e-01	31.194182			
26	G030	3.201113e-01	-0.377968979	1.620310e-01	1.879690e-01	31.464361			
27	G031	1.617779e-01	-0.485491051	1.545089e-01	1.854911e-01	31.231458			
28	G032	2.350963e-01	-0.447044256	2.429557e-01	1.470443e-01	31.189062			
29	G033	2.879198e-01	0.222379671	1.723797e-01	1.376203e-01	31.662331			
30	G034	3.741347e-01	0.059200354	2.492004e-01	1.007996e-01	31.644117			
31	G035	7.339791e-02	0.155298316	3.452983e-01	2.047017e-01	31.691019			
32	G037	1.141650e-01	-0.433354723	8.664528e-02	9.335472e-02	32.001778			
33	G038	9.608727e-02	-0.376436344	1.035637e-01	7.643634e-02	32.073699			
34	G039	1.512457e+00	-0.643810251	5.361897e-01	4.638103e-01	31.437331			
35	G040	6.908419e-02	-0.353390726	1.666093e-01	2.033907e-01	32.039435			
36	G041	4.636808e-02	-0.440417842	8.958216e-02	1.404178e-01	32.018719			
37	G042	5.886425e-02	-0.480423584	4.957642e-02	1.904236e-01	31.913190			
38	G043	8.029723e-02	-0.309382354	2.206176e-01	3.093824e-01	32.029613			
39	G044	5.652187e-02	-0.333526470	1.864735e-01	2.035265e-01	32.091198			
40	G045	4.568064e-01	-0.266563916	2.434361e-01	2.965639e-01	31.734299			
41	G046	5.319525e-02	-0.410191417	1.198086e-01	1.201914e-01	32.033888			
42	G047	7.052574e-02	-0.405269702	1.247303e-01	2.552697e-01	32.000635			
43	G048	6.679974e-02	-0.402317819	1.176822e-01	2.523178e-01	32.012716			
44	G049	5.946663e-02	-0.410112788	1.198872e-01	2.601128e-01	32.048960			
45	G050	4.516878e-01	-0.212030063	1.179699e-01	2.420301e-01	31.769166			
46	G051	1.851116e+00	0.441388905	9.013889e-01	1.438611e+00	32.701838			
47	G052	4.861470e-01	-0.034653256	4.053467e-01	2.146533e-01	31.662806			
48	G053	3.146732e-01	0.088068395	6.806839e-02	1.319316e-01	31.690358			
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2 G054 2.202348e+00 0.097256232 5.372562e-01 3.442744e+00 31.982673
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13 G065 5.031779e-01 0.075110806 5.151108e-01 2.948892e-01 31.664537
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17 G069 2.966678e+00 -0.370378686 1.596213e-01 1.303787e-01 30.278875
18 G070 2.448539e+00 -0.513178306 4.168217e-01 2.031783e-01 30.068676
19 G071 4.747869e-01 -0.376004498 7.839955e-01 4.060045e-01 31.761969
20 G072 5.108240e-01 -0.310398178 8.596018e-01 7.103982e-01 31.675357
21 G073 2.218195e-01 0.101249280 1.012493e-01 2.587507e-01 31.655696
22 A074 8.244576e-02 0.355576247 1.755762e-01 4.544238e-01 31.717086
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24 G076 1.172723e-01 0.209418085 2.094181e-01 2.805819e-01 31.739493
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26 G078 6.229274e-01 0.788118980 4.181190e-01 5.718810e-01 31.924761
27 G079 2.161536e+00 2.184361756 2.004362e+00 3.445638e+00 32.996039
28 B080 9.417678e-01 -0.479831824 1.250168e+00 5.149832e+00 34.413505
29 B081 1.533344e+00 -0.536890059 1.193110e+00 5.206890e+00 33.809350
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31 L087 2.464402e-01 3.303238626 1.623239e+00 5.767614e-01 34.542501
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4 A114 1.655515e-01 9.927120997 1.737121e+00 1.412879e+00 35.308661
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6 A115 4.751328e-02 9.586068820 5.860688e-01 8.439312e-01 35.344526
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9 A119 3.138323e-01 8.959279974 2.869280e+00 2.380720e+00 35.226019
10 A120 8.821927e-02 8.430466483 1.920466e+00 9.295335e-01 35.183159
11 A121 1.572155e-01 9.796258799 7.962588e-01 1.553741e+00 35.368052
12 A122 1.747958e-01 8.144234732 1.634235e+00 2.325765e+00 35.156314
13 A123 7.412518e-02 9.467369178 1.277369e+00 9.626308e-01 35.307409
14 A124 3.861701e-01 6.735469017 2.175469e+00 4.284531e+00 35.086758
15 A125 1.501970e-01 8.041594889 3.371595e+00 1.788405e+00 35.212395
16 A126 1.370364e-01 9.986758300 9.867583e-01 1.033242e+00 35.366194
17 A127 1.696107e-01 8.600568714 2.350569e+00 1.269431e+00 35.219114
18 A128 1.879331e-01 9.881244752 1.691245e+00 1.468755e+00 35.387540
19 A129 9.566843e-02 7.233140287 2.313140e+00 6.068597e-01 35.207448
20 H130 1.499232e+00 -1.607229249 2.127708e-01 1.072292e-01 32.281167
21 H131 1.522834e+00 -1.561586689 2.584133e-01 1.015867e-01 32.193793
22 H132 1.657534e+00 -1.338425832 4.615742e-01 6.884258e-01 32.817954
23 H133 1.174287e+00 -1.525262833 1.747372e-01 6.526283e-02 31.121481
24 H134 4.975298e-01 -1.500000000 0.000000e+00 0.000000e+00 32.425621
25 H135 1.180095e+00 -1.523960712 6.603929e-02 2.396071e-02 30.853130
26 H136 1.145716e+00 -1.500000000 2.220446e-16 -2.220446e-16 32.504912
27 H137 1.982680e+00 -1.263125743 4.368743e-01 3.863126e+00 32.539945
28 H138 6.022654e-01 -1.527351747 1.726483e-01 2.735175e-02 32.243941
29 H139 1.215517e+00 -1.554021819 2.659782e-01 5.402182e-02 33.449737
30 H140 1.601315e+00 -1.633757176 1.962428e-01 2.337572e-01 32.444333
31 H141 9.625875e+00 -1.155749230 4.042508e-01 3.657492e-01 23.153248
32 H142 1.098141e+01 -1.140556104 3.594439e-01 3.605561e-01 23.631014
33 H143 6.948556e-01 -0.975761007 5.242390e-01 7.457610e-01 31.201121
34 H144 1.302990e+00 -1.545374159 2.146258e-01 4.537416e-02 33.401950
35 H145 1.872031e+00 -1.544497515 2.155025e-01 4.449751e-02 32.907318
36 H146 6.356110e+00 -1.325265656 2.747343e-01 3.252657e-01 27.329515
37 H147 6.797479e+00 -1.208923848 3.010762e-01 1.889238e-01 26.362490
38 H148 6.447862e+00 -1.167592928 4.324071e-01 1.675929e-01 25.237211
39 A149 5.259112e-02 6.662169197 2.721692e-01 7.678308e-01 35.182357
40 A150 1.307154e-01 7.826370463 3.963705e-01 9.136295e-01 35.250126
41 L151 2.017674e-01 1.925555520 3.125556e+00 3.784444e+00 34.542085
42 L152 4.470210e-01 3.677641556 2.257642e+00 2.802358e+00 34.784422
43 L153 2.799526e-01 4.263430816 2.143431e+00 2.636569e+00 34.935595
44 A154 7.351668e-02 9.514258225 7.742582e-01 9.157418e-01 35.381427
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46 A156 1.692644e-01 7.043840657 2.123841e+00 1.736159e+00 35.154100
47 S158 5.058053e-01 -0.515543689 9.844563e-01 1.555544e+00 34.192196
48 S159 8.170917e-01 -1.087709910 7.922901e-01 1.517710e+00 33.936230
49 S160 1.726563e+00 -1.024623129 7.153769e-01 7.546231e-01 31.234272
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2 L162 4.880579e-01 2.124555868 2.974556e+00 4.625444e+00 34.652186
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4 L164 7.366552e-01 1.267290706 2.567291e+00 2.402709e+00 34.135388
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6 A168 1.549438e-01 4.707215922 1.227216e+00 9.727841e-01 34.941734
7 A171 2.004729e-01 6.118321157 2.628321e+00 1.481679e+00 34.960886
8 A173 1.574330e-01 5.508077495 2.018077e+00 1.971923e+00 34.990566
9 A174 2.385397e-01 4.682158658 2.612159e+00 2.087841e+00 34.973101
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14 A181 1.456908e-01 9.416482718 2.176483e+00 1.603517e+00 35.350232
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16 A183 NA NA NA NA NA
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21 N189 1.629285e-01 0.5744412877 1.264413e+00 1.495587e+00 34.792948
22 N190 5.728515e-02 0.155252518 8.052525e-01 9.647475e-01 34.788639
23 N191 9.206418e-02 -0.135527981 1.064472e+00 1.255528e+00 34.794839
24 N192 1.255251e-01 0.759912625 9.499126e-01 1.120087e+00 34.742840
25 N193 9.087744e-02 0.844525164 1.054525e+00 9.954748e-01 34.722159
26 N194 1.125008e-01 1.001167402 1.651167e+00 1.448833e+00 34.852267
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30 N198 1.732649e-01 7.607299461 4.972995e-01 1.132701e+00 35.097922
31 N200 2.142118e-01 2.023084479 1.553084e+00 4.506916e+00 34.934044
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37 N211 1.367916e-01 4.546030070 3.976030e+00 1.813970e+00 34.514471
38 N212 4.667185e-01 4.486434449 5.726434e+00 1.873566e+00 34.411557
39 N213 8.320234e-02 6.658991817 2.289918e-01 7.710082e-01 35.137032
40 N214 4.567625e-02 6.204395194 4.084395e+00 6.956048e-01 35.161556
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46 N220 2.619897e-01 7.208063720 4.180637e-01 3.219363e-01 34.960317
47 N221 2.681618e-01 7.276443161 4.864432e-01 2.535568e-01 34.982326
48 N222 1.884800e-01 7.072339031 6.923390e-01 4.576610e-01 35.077833
49 N223 2.041317e-01 7.027305241 6.473052e-01 5.026948e-01 35.045710
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2	N225	1.036878e-01	7.040087537	2.760088e+00	1.699912e+00	35.125569	
3	N226	2.673803e-01	7.276744742	4.367447e-01	2.532553e-01	34.975819	
4	N227	2.034887e-01	4.221165073	3.641165e+00	3.258835e+00	34.953708	
5	N228	3.901306e-02	2.096925042	1.686925e+00	9.830750e-01	34.789981	
6	N229	6.708422e-02	2.074823119	1.474823e+00	9.351769e-01	34.762097	
7	N230	2.839808e-01	3.109973530	1.309974e+00	3.790026e+00	34.864411	
8	N231	1.015934e-01	0.813270063	1.023270e+00	1.066730e+00	34.758165	
9	N232	3.039302e-01	2.316564151	1.906564e+00	4.583436e+00	34.840854	
10	N233	3.498407e-02	1.597381788	1.787382e+00	9.026182e-01	34.797462	
11	N234	2.003804e-01	4.897716815	3.057717e+00	2.002283e+00	35.019904	
12	N235	6.903042e-02	3.814938387	1.744938e+00	2.575062e+00	35.043310	
13	N236	1.161620e-01	1.030053871	9.600539e-01	7.799461e-01	34.852032	
14	N237	3.266643e-01	4.847805884	9.278059e-01	1.512194e+00	34.743981	
15	N238	3.884193e-01	6.229796275	2.269796e+00	4.902037e-01	34.701623	
16	N239	1.427438e-02	6.704226131	1.542261e-01	5.577387e-02	35.111774	
17	N240	1.829252e-01	6.568986779	2.098987e+00	1.910132e-01	34.944414	
18	N241	7.730291e-02	6.679378069	3.193781e-01	4.062193e-02	35.032864	
19	N242	3.508265e-01	4.388967643	1.988968e+00	2.331032e+00	34.735203	
20	N245	2.641949e-01	6.603941387	2.739414e-01	1.560586e-01	34.819783	
21	N246	1.546386e-02	6.914217720	2.442177e-01	5.657823e-01	35.126945	
22	N248	7.165490e-01	6.103927887	1.633928e+00	6.160721e-01	34.500196	
23	N249	3.789561e-01	6.401487613	1.041488e+00	3.585124e-01	34.726092	
24	B256	6.573030e+00	-1.427833759	4.621662e-01	1.387834e+00	31.287255	
25	B257	2.889136e+00	-1.456395284	4.236047e-01	5.563953e-01	32.047684	
26	A258	1.466985e+00	4.268484921	2.148485e+00	4.971515e+00	32.491057	
27	A259	1.544739e+00	5.379323358	3.229323e+00	5.180677e+00	32.780900	
28	A260	1.718597e+00	3.440114869	1.320115e+00	5.679885e+00	32.230116	
29	A261	1.588349e+00	0.006678188	1.186678e+00	2.143322e+00	31.532439	
30	A262	1.476342e+00	3.427152684	1.277153e+00	5.302847e+00	32.225451	
31	A263	2.245145e+00	4.340393215	2.190393e+00	4.389607e+00	32.832378	
32	A264	1.311705e-01	15.665391686	3.953917e-01	8.146083e-01	36.182798	
33	A265	1.057394e-01	15.701263151	3.312632e-01	7.787368e-01	36.213755	
34	A266	1.227753e-01	15.721379511	4.513795e-01	7.586205e-01	36.190572	
35	N268	6.913703e-03	6.702003767	1.520038e-01	5.799623e-02	35.119648	
36	N269	2.050518e-02	6.787760305	2.377603e-01	6.922397e-01	35.120724	
37	K275	8.252093e-01	5.752979829	1.412980e+00	9.670202e-01	34.208613	
38	K277	4.002667e-01	4.097207454	5.972075e-01	3.727925e-01	32.329772	
39	J280	6.979793e-02	5.022094819	9.720948e-01	5.179052e-01	35.052626	
40	J281	5.495626e-02	4.787072100	2.977072e+00	1.602928e+00	35.070978	
41	J282	1.210277e-01	0.595167631	1.545168e+00	1.214832e+00	34.862305	
42	J283	1.666988e-01	-0.753070357	9.869296e-01	1.293070e+00	34.665600	
43	J284	8.142524e-01	-1.209559021	6.104410e-01	1.189559e+00	33.907938	
44	J285	1.811109e-01	1.106638700	3.056639e+00	2.423361e+00	34.609823	
45	J286	2.172397e-01	1.719019338	2.219019e+00	3.410981e+00	34.910287	
46	J287	1.207603e-01	-0.582264501	4.377355e-01	3.922645e-01	34.703090	
47	J288	2.636372e-01	-0.294214455	7.257855e-01	1.644214e+00	34.769271	
48	J289	2.328993e+00	-1.733908470	2.360915e-01	3.339085e-01	31.944175	
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2 J290 5.720138e+00 -1.432369880 4.276301e-01 4.323699e-01 28.057794
3 J291 6.814210e+00 -1.303255460 4.967445e-01 3.032555e-01 26.766526
4 J292 3.846627e+00 -1.595799565 2.642004e-01 5.957996e-01 30.532929
5 J293 3.472212e+00 -1.556826344 3.031737e-01 5.568263e-01 31.127146
6 J297 4.669343e-01 -0.672296254 1.107704e+00 2.022296e+00 34.504776
7 J298 1.077218e-01 4.926809100 3.116809e+00 1.603191e+00 35.062767
8 J299 1.344330e-01 5.225856651 1.555857e+00 1.254143e+00 35.113698
9 J300 1.543983e-01 2.886309920 2.486310e+00 3.503690e+00 34.945527
10 J301 4.300257e-02 3.926702116 4.167021e-01 7.932979e-01 35.083766
11 J303 2.720930e-02 5.157171365 1.087171e+00 1.222829e+00 35.089924
12 J304 3.326083e-01 1.012487107 2.752487e+00 3.067513e+00 34.753152
13 J305 2.135753e-02 4.346818750 8.368188e-01 2.033181e+00 35.108159
14 J306 3.680510e-02 4.690026525 1.180027e+00 8.199735e-01 35.069510
15 J307 4.038407e-02 4.431778027 9.217780e-01 1.078222e+00 35.068867
16 J308 3.930449e-02 4.367678485 8.576785e-01 1.142322e+00 35.067437
17 J309 6.494226e-02 4.161571744 2.381572e+00 1.348428e+00 35.051731
18 J310 1.812987e-02 4.345649209 8.356492e-01 8.143508e-01 35.097721
19 J311 2.594493e-02 4.285677167 7.756772e-01 8.743228e-01 35.098819
20 J312 3.379147e-02 4.308739807 7.987398e-01 8.512602e-01 35.096240
21 J313 9.485680e-02 4.310252852 2.500253e+00 2.079747e+00 35.043372
22 J314 1.283940e-01 -0.341175992 1.018824e+00 1.461176e+00 34.692988
23 J315 1.255770e-01 0.354625147 9.346251e-01 1.625375e+00 34.699767
24 J316 1.853931e-01 1.158629062 1.738629e+00 3.971371e+00 34.862111
25 J317 1.778234e-01 0.654911586 1.094912e+00 1.325088e+00 34.672360
26 J318 2.556904e-01 1.125302482 2.865302e+00 2.544698e+00 34.788582
27 J319 1.979910e-01 -0.907167881 8.328321e-01 4.671679e-01 34.667825
28 J320 2.032630e-01 -1.153126392 5.868736e-01 5.731264e-01 34.666316
29 J321 7.559722e-02 0.118393462 9.183935e-01 4.216065e-01 34.805717
30 J322 7.245694e-02 4.891907201 1.381907e+00 1.588093e+00 35.122638
31 J323 1.087276e-01 4.173926553 2.393927e+00 2.306073e+00 35.099583
32 J324 3.330266e-02 5.219042831 1.149043e+00 1.530957e+00 35.076490
33 J325 7.563255e-02 5.055104755 1.545105e+00 1.674895e+00 35.058807
34 J326 9.469022e-02 3.848278085 2.038278e+00 2.531722e+00 35.018928
35 J327 9.410709e-02 0.210839247 8.608392e-01 9.191608e-01 34.802078
36 J328 3.057278e-01 0.546486197 1.746486e+00 1.433514e+00 34.737850
37 J329 1.850571e-01 0.377641874 1.277642e+00 3.152358e+00 34.830389
38 J330 3.861684e-01 -0.361053067 1.418947e+00 2.341053e+00 34.498480
39 J331 1.666364e-01 -0.537516811 4.824832e-01 3.475168e-01 34.714029
40 J332 1.642404e-01 -0.958861188 4.011388e-01 3.788612e-01 34.677770
41 J333 4.381124e-01 -1.585444732 2.345553e-01 7.554447e-01 34.195464
42 J334 5.438442e-01 -1.340524385 4.794756e-01 7.805244e-01 34.148952
43 J335 4.946223e-01 -1.254790002 5.652100e-01 6.947900e-01 34.169105
44 J336 2.155088e-01 -0.153961603 1.266038e+00 1.553962e+00 34.802482
45 J337 6.753115e-02 0.033841376 6.838414e-01 4.861586e-01 34.796111
46 J338 1.273630e-01 -0.818494927 1.031505e+00 1.288495e+00 34.788344
47 J339 2.847321e-01 0.983699282 2.463699e+00 5.546301e+00 34.876183
48 J340 1.240521e-01 3.056730195 2.656730e+00 2.573270e+00 34.971709
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2	J341	1.956094e-01	-0.857172364	8.828276e-01	4.171724e-01	34.674777
3	J342	1.383645e-01	-0.910859945	8.291401e-01	1.420860e+00	34.729515
4	J343	6.229282e-02	-0.745278943	2.147211e-01	3.052789e-01	34.780025
5	J344	3.630175e-01	-1.320771820	5.292282e-01	7.607718e-01	34.342413
6	J345	1.660194e-01	-1.458072920	5.119271e-01	8.980729e-01	34.032741
7	J346	1.215084e+00	-1.762227585	2.077724e-01	3.622276e-01	33.289703
8	J347	1.792592e-01	-0.949497765	7.905022e-01	5.094978e-01	34.655734
9	J348	4.889082e+00	-1.355706245	3.042938e-01	3.557062e-01	29.275684
10	J349	4.967075e-01	-0.072899771	1.747100e+00	2.052900e+00	34.537434
11	J350	2.846882e-01	0.622646637	1.382647e+00	1.357353e+00	34.730440
12	J351	1.929150e-01	-0.709013608	1.030986e+00	1.829014e+00	34.648583
13	J352	2.417421e-01	0.521871640	2.261872e+00	3.008128e+00	34.763450
14	J353	6.932988e-02	1.457493596	1.047494e+00	1.622506e+00	34.744598
15	J354	1.132886e-01	-0.642284796	5.877152e-01	4.922848e-01	34.708911
16	J355	6.516566e-02	-0.771815831	1.078184e+00	7.318158e-01	34.776808
17	J356	1.172534e-01	-0.849817088	1.000183e+00	8.098171e-01	34.758216
18	J357	1.885154e-01	-0.865320366	3.646796e-01	2.953204e-01	34.624465
19	J358	1.791855e-01	-0.565321170	1.214679e+00	2.685321e+00	34.626062
20	J359	2.975327e-01	-1.061869001	7.181310e-01	1.001869e+00	34.559762
21	J360	5.773246e-01	1.005183739	2.825184e+00	2.004816e+00	34.347395
22	J361	2.315669e-01	-0.320215753	1.529784e+00	2.300216e+00	34.585838
23	J362	2.968572e-01	-0.914918517	9.050815e-01	8.549185e-01	34.428085
24	J363	2.196916e-01	-1.304520133	5.454799e-01	4.745201e-01	34.421133
25	J365	2.994717e-01	-1.281824397	5.681756e-01	7.218244e-01	34.339630
26	J366	4.701875e-01	-0.929804084	8.501959e-01	2.279804e+00	34.477215
27	J367	1.390831e-01	-0.760951229	6.590488e-01	6.109512e-01	34.745597
28	J368	2.274969e-01	-1.055551258	7.244487e-01	2.255513e-01	34.385074
29	J369	1.449536e-01	-0.091105057	4.488949e-01	1.211105e+00	34.769526
30	Y372	6.118073e-01	-1.514502424	4.554976e-01	9.845024e-01	33.388175
31	Y373	9.716121e-01	-1.819482353	1.505176e-01	8.948235e-02	33.569070
32	Y374	2.030604e+00	-1.680304325	2.896957e-01	4.903043e-01	32.719739
33	Y375	1.540255e+00	-1.238900504	6.010995e-01	1.628901e+00	33.492794
34	Y376	1.288117e+00	-1.696925011	9.307499e-02	2.969250e-01	32.824785
35	Y377	5.102020e+00	-1.500371362	3.596286e-01	5.003714e-01	28.525303
36	Z379	8.476026e-02	-1.798065762	5.193424e-02	4.806576e-02	34.253879
37	Z380	2.803297e+00	-1.602471415	1.475286e-01	9.247142e-02	31.096059
38	Z381	6.786814e-01	-1.624523742	2.254763e-01	8.745237e-01	34.007586
39	Z382	3.461533e-01	-1.792413876	5.758612e-02	1.224139e-01	34.247980
40	Z383	1.307136e-01	-1.796395228	5.360477e-02	4.639523e-02	34.291212
41	Z384	9.966288e-01	-1.652029440	1.979706e-01	4.520294e-01	33.549229
42	Z385	1.002629e-01	-1.056272749	7.937273e-01	3.656273e+00	34.243268
43	Z386	7.989936e-02	-1.810379402	3.962060e-02	6.037940e-02	34.216485
44	Z387	1.111442e-01	-1.816422480	3.357752e-02	6.642248e-02	34.235854
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46	Z389	9.653787e-02	-1.753480134	9.651987e-02	9.348013e-02	34.256461
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 5 Z395 3.704880e-01 -1.738997193 1.110028e-01 2.389972e-01 34.141363
 6 Z396 4.059679e-01 -1.722772466 1.272275e-01 2.227725e-01 34.187376
 7 Z397 1.719926e-01 -1.752772320 7.227680e-03 2.772320e-03 34.397710
 8 N398 9.597028e-02 6.674525784 1.194526e+00 8.054742e-01 35.063492
 9 N399 9.342050e-02 6.144811319 4.364811e+00 1.335189e+00 35.056168
 10 N400 6.838574e-01 5.142396040 5.782396e+00 2.287604e+00 34.487946
 11 N401 1.330147e-01 5.649668950 1.599669e+00 1.720331e+00 35.069397
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 13 A405 3.690376e-01 15.519878383 7.198784e-01 9.601216e-01 36.231379
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4	Z477	9.770154e+00	-1.943160866	1.268391e-01	1.231609e-01	22.985973
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7	Z482	1.142705e+01	-1.863879749	1.961203e-01	5.138797e-01	12.020730
8	Z483	1.333475e+01	-1.892692309	1.673077e-01	5.426923e-01	10.052552
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15	Z497	7.190188e+00	-1.599332470	1.806675e-01	2.493325e-01	26.677773
16	Z498	6.947102e+00	-1.228037365	5.519626e-01	3.780374e-01	21.812222
17	Z499	4.919522e+00	-1.957413287	4.258671e-02	6.741329e-02	23.986903
18	Z500	4.611676e+00	-1.962484927	3.751507e-02	6.248493e-02	22.973307
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21	Z503	3.387668e+00	-1.794325597	9.567440e-02	4.443256e-01	30.054522
22	Z504	2.446938e+00	-1.799646322	2.003537e-01	6.896463e-01	21.570963
23	Z505	3.479707e+00	-1.944798322	5.520168e-02	4.479832e-02	24.018130
24	Z506	5.314404e+00	-1.959688055	4.031194e-02	6.968806e-02	23.303704
25	Z507	2.931668e+00	-1.496320831	3.036792e-01	4.963208e-01	30.491081
26	Z508	4.676564e+00	-1.733259027	2.667410e-01	6.232590e-01	22.394860
27	Z509	2.472427e+00	-1.967702343	3.229766e-02	3.770234e-02	22.648085
28	Z510	1.991312e+00	-1.875937463	1.040625e-01	4.359375e-01	24.277403
29	Z511	1.537843e+00	-1.910364176	7.963582e-02	4.703642e-01	23.657219
30	Z512	6.838305e-01	-1.978539826	2.146017e-02	1.853983e-02	21.512326
31	Z513	2.596197e+00	-1.954691744	4.530826e-02	2.469174e-02	23.572228
32	Z514	2.710537e+00	-1.974750298	2.524970e-02	4.475030e-02	22.537971
33	Z515	3.674475e+00	-1.951408235	3.859176e-02	5.140824e-02	24.017149
34	Z516	2.806211e+00	-1.927016395	5.298360e-02	3.701640e-02	26.382496
35	Z517	1.653010e+01	-1.816907925	2.430921e-01	4.669079e-01	15.407338
36	Z518	3.590148e+00	-1.565657972	4.143420e-01	7.156580e-01	22.236546
37	Z519	9.302740e+00	-1.615418905	4.445811e-01	6.154189e-01	16.093656
38	Z520	5.941255e+00	-1.892629111	1.373709e-01	2.526291e-01	23.425694
39	Z521	3.775361e+00	-1.940799601	5.920040e-02	5.079960e-02	25.203092
40	Z522	4.267867e+00	-1.324122979	6.758770e-01	4.741230e-01	20.963925
41	Z523	5.302070e+00	-1.447680459	5.223195e-01	5.976805e-01	21.274988
42	Z530	1.191751e+01	-1.038099440	7.319006e-01	1.880994e-01	20.140291
43	Z531	2.305381e+00	-1.410930374	5.890696e-01	5.609304e-01	21.400827
44	A532	1.264119e+00	1.301548047	1.941548e+00	1.708452e+00	33.476351
45	A533	7.401436e-01	2.113898710	3.403899e+00	4.786101e+00	34.416725
46	A534	5.886338e-01	-0.039795481	1.460205e+00	2.649795e+00	33.994758
47	Z535	4.720402e+00	1.706698144	3.466698e+00	2.843302e+00	30.386239
48	Z536	3.018915e+00	-1.615989051	1.540109e-01	1.159891e-01	31.907381
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50	Z538	4.080465e-01	0.317800152	2.077800e+00	2.282200e+00	34.113513
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2 Z539 4.440881e+00 0.630910659 2.390911e+00 1.969089e+00 31.077108
3 Z540 3.367669e+00 -0.960204652 8.797953e-01 2.540205e+00 31.016792
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5 Z542 8.135192e-01 0.063955324 1.893955e+00 2.476045e+00 33.960136
6 Z543 6.431701e+00 -1.376611174 4.033888e-01 3.766112e-01 26.789076
7 Z546 1.043767e+01 -1.417638912 6.423611e-01 5.676389e-01 22.317363
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14 Z553 1.776162e+00 -0.203328024 1.446672e+00 2.743328e+00 32.920083
15 Z554 1.516881e+00 -1.245359727 5.146403e-01 1.165360e+00 32.964323
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19 Z558 7.483402e-01 -0.931506118 1.018494e+00 2.511506e+00 33.976928
20 Z559 2.915054e-01 0.177923490 2.127923e+00 1.402077e+00 34.375261
21 Z560 8.316889e-01 0.135180667 1.905181e+00 1.524819e+00 33.985509
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23 Z562 5.206625e-01 -1.414106338 6.158937e-01 1.524106e+00 33.421920
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25 Z564 1.896244e+00 -1.534175458 5.582454e-02 3.417546e-02 30.396544
26 Y566 6.752281e+00 -1.229233520 6.307665e-01 2.292335e-01 27.432363
27 Y567 6.696666e+00 -1.659278194 1.407218e-01 2.592782e-01 27.665279
28 Y568 3.878376e+00 -1.397872582 4.621274e-01 3.978726e-01 30.864137
29 Y569 6.518455e+00 -1.701922418 3.580776e-01 3.519224e-01 26.845793
30 Y570 3.093287e+00 -1.786429500 1.935705e-01 4.264295e-01 30.239399
31 Y571 3.818827e+00 -1.678345412 1.816546e-01 3.783454e-01 30.664937
32 Y572 6.182207e+00 -1.429923705 4.300763e-01 4.299237e-01 27.876887
33 Y573 1.015023e+01 -1.742797701 3.172023e-01 8.927977e-01 22.551306
34 Y574 3.633305e+00 -1.435444940 6.145551e-01 4.354449e-01 29.986732
35 Y575 2.746699e+00 -1.643747490 3.362525e-01 2.837475e-01 30.508938
36 Y576 4.489382e+00 -1.559519435 3.004806e-01 5.595194e-01 29.960934
37 Y577 2.243945e+00 -1.706065355 1.539346e-01 4.060654e-01 32.856137
38 Y578 2.526247e+00 -1.655573046 3.244270e-01 2.555730e-01 30.855897
39 Y579 1.128318e+00 -1.395971528 4.040285e-01 7.459715e-01 33.367834
40 Y580 1.708428e+00 -1.519080902 3.009191e-01 6.490809e-01 33.763689
41 Z584 6.396024e+00 -1.583027895 3.869721e-01 7.330279e-01 20.011149
42 Z585 4.496698e+00 -1.358116028 6.118840e-01 5.081160e-01 20.364314
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47 Z595 3.596506e+00 -1.699816875 3.001831e-01 8.498169e-01 24.371564
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2 Z597 1.737631e+00 -1.447947294 3.520527e-01 5.979473e-01 23.126648
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7 Z603 8.110732e-01 8.979900644 4.899006e-01 7.600994e-01 31.554557
8 Z604 1.746496e+00 8.182218977 1.402219e+00 5.777810e-01 30.527338
9 Z605 1.684741e+00 8.509154530 1.659155e+00 1.290845e+00 30.615971
10 Z606 5.019539e-01 6.000232539 3.350233e+00 2.169767e+00 32.712350
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13 N609 1.050611e+00 3.828844297 1.328844e+00 4.401156e+00 30.013394
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15 N611 1.907402e+00 3.136330124 6.363301e-01 1.073670e+00 30.115969
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26 P865 6.591054e-01 9.006051306 6.860513e-01 1.213949e+00 31.902055
27 P866 7.197684e-01 9.023730063 8.537301e-01 1.056270e+00 31.558234
28 P867 7.887437e-01 9.429548346 1.439548e+00 1.050452e+00 31.957123
29 P868 5.558950e-01 9.092062115 6.020621e-01 9.879379e-01 31.914579
30 P869 9.807441e-01 7.796003734 2.736004e+00 9.639963e-01 31.169290
31 P870 1.774714e+00 9.013536720 1.023537e+00 7.264633e-01 30.414983
32 P871 5.972264e-01 9.364858288 8.748583e-01 7.151417e-01 31.981184
33 P872 1.855927e-01 8.971493344 1.391493e+00 1.188507e+00 32.559275
34 P873 9.955975e-02 10.341587713 1.761588e+00 6.684123e-01 32.614874
35 P874 2.787940e-01 8.814663270 8.246633e-01 9.853367e-01 32.110348
36 P875 7.405012e-01 8.348618121 2.918618e+00 1.391382e+00 32.009066
37 P876 3.456195e+00 8.612107723 1.702108e+00 1.047892e+00 28.518656
38 P877 1.958219e-01 9.667839119 1.097839e+00 4.121609e-01 32.327971
39 P878 1.744770e-01 10.252022060 5.920221e-01 8.579779e-01 32.505070
40 P879 9.238040e-01 8.926803049 1.286803e+00 1.073197e+00 31.510398
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42 P881 1.575953e-01 10.715312077 9.153121e-01 3.946879e-01 32.617083
43 P882 7.883154e-02 10.719528623 6.495286e-01 3.904714e-01 32.640844
44 P883 2.535541e-01 10.354629949 2.174630e+00 1.175370e+00 32.626291
45 P884 1.405226e-01 11.139844873 5.598449e-01 6.101551e-01 32.756433
46 P885 1.658413e-01 11.127684110 7.976841e-01 1.492316e+00 32.744614
47 P886 1.703420e-01 11.093043602 1.233044e+00 6.569564e-01 32.768614
48 P888 8.416728e-02 10.189250562 1.699251e+00 9.207494e-01 32.553587
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2 P889 6.578173e-01 9.524958541 1.224959e+00 5.450415e-01 32.089895
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4 P891 2.329419e-01 9.944958164 1.184958e+00 1.165042e+00 32.423129
5 P892 1.851635e-01 10.686782896 8.267829e-01 1.063217e+00 32.702241
6 P893 1.774470e-01 9.406758399 3.976758e+00 1.703242e+00 32.525688
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8 P895 1.343124e-01 11.426912597 1.096913e+00 1.193087e+00 32.763704
9 P896 1.944081e-01 9.147105601 1.447106e+00 1.162894e+00 32.550324
10 P897 1.461200e-01 10.391219051 1.901219e+00 7.187809e-01 32.597399
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12 P899 4.513750e-01 4.856106482 4.936106e+00 4.873894e+00 31.955486
13 P901 9.438948e-01 4.955886933 6.425887e+00 3.474113e+00 31.663772
14 P903 4.567706e-02 10.234533601 5.745336e-01 4.254664e-01 32.566288
15 P904 1.690851e+00 8.523834211 1.523834e+00 1.066166e+00 30.567797
16 C905 1.423852e-01 9.743045766 6.330458e-01 4.969542e-01 34.035371
17 C906 3.379661e-01 10.104430381 4.544304e-01 6.955696e-01 34.117685
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19 C908 2.452680e-01 9.495452256 3.854523e-01 7.945477e-01 33.989093
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22 C911 4.426785e-01 9.767932713 6.379327e-01 1.402067e+00 34.073038
23 C912 1.988145e-01 7.272564909 1.792565e+00 3.057435e+00 34.912061
24 C913 4.464660e-01 8.049575924 5.899576e+00 1.320424e+00 33.650659
25 C914 5.255829e-01 8.121256963 6.251257e+00 2.438743e+00 34.195021
26 C915 1.041075e+00 7.820852148 3.000852e+00 1.549148e+00 34.013797
27 C916 1.831851e-01 9.405933600 6.059336e-01 9.240664e-01 34.046717
28 C917 2.984580e-01 9.462889398 3.828894e-01 1.097111e+00 34.066884
29 C918 8.819617e-01 6.846444383 4.696444e+00 3.393556e+00 33.242606
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31 C920 5.482088e-02 9.456815244 3.368152e-01 2.231848e-01 33.975161
32 C921 6.540830e-02 9.654285925 4.342859e-01 9.057141e-01 34.025185
33 C922 3.942641e-01 9.669496213 5.494962e-01 1.130504e+00 34.048542
34 C923 8.656086e-02 9.627303614 5.173036e-01 2.726964e-01 33.991422
35 C924 8.841805e-02 9.687767083 4.477671e-01 3.422329e-01 34.000234
36 C925 1.760959e-01 9.969221931 3.192219e-01 3.207781e-01 34.067142
37 C926 1.966348e-01 9.926080144 2.760801e-01 3.639199e-01 34.058144
38 C927 1.995180e-01 9.808728211 5.687282e-01 4.812718e-01 34.047205
39 C928 3.781397e-01 10.156278351 5.062784e-01 1.013722e+00 34.138448
40 C929 4.231943e-01 10.065019557 4.150196e-01 1.104980e+00 34.107137
41 C930 5.376721e-01 9.349673778 1.009674e+00 1.450326e+00 33.986886
42 C931 4.180303e-01 9.922896538 8.428965e-01 1.247103e+00 34.095737
43 C932 3.097974e-01 10.339415307 6.894153e-01 8.305847e-01 34.198065
44 C933 5.280531e-01 10.080468552 1.000469e+00 1.169531e+00 34.168385
45 C934 1.058338e-01 9.393706422 3.137064e-01 2.562936e-01 34.001832
46 A935 2.748440e-01 3.162538047 1.382538e+00 4.317462e+00 34.819742
47 A936 3.035937e-01 1.544004633 1.754005e+00 3.415995e+00 34.701058
48 A937 1.945759e-01 1.478547851 2.968548e+00 3.111452e+00 34.830591
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2	A938	6.422900e-01	0.853842924	1.313843e+00	1.066157e+00	34.098644	
3	A939	6.731729e-01	0.606543754	2.366544e+00	2.473456e+00	34.212145	
4	A940	1.610093e-02	2.414773532	1.247735e-01	2.252265e-01	34.748540	
5	A941	6.746923e-03	2.428925060	9.892506e-02	1.710749e-01	34.758969	
6	A942	2.114276e-02	2.322000198	6.420002e-01	3.079998e-01	34.747402	
7	A943	2.855393e-02	2.168121279	4.881213e-01	4.618787e-01	34.739618	
8	A944	2.168114e-02	2.100330584	4.203306e-01	2.996694e-01	34.753550	
9	A945	9.380059e-01	2.500250732	2.330251e+00	4.979749e+00	34.097008	
10	A946	3.000015e-01	0.613668829	1.253669e+00	4.216331e+00	34.725766	
11	A947	9.228789e-02	0.227827272	8.678273e-01	8.621727e-01	34.682637	
12	A948	7.611584e-02	1.255787847	1.465788e+00	2.064212e+00	34.723124	
13	A949	8.012992e-02	0.536783843	7.567838e-01	6.132162e-01	34.617678	
14	A950	2.163921e-01	0.802573001	1.442573e+00	3.607427e+00	34.756906	
15	A951	1.839491e-01	-0.543587113	8.164129e-01	1.663587e+00	34.682754	
16	A952	2.845183e-01	0.620272278	1.260272e+00	2.709728e+00	34.455059	
17	A953	1.307104e-01	0.272269075	5.322691e-01	3.777309e-01	34.691508	
18	A954	1.043925e-01	0.776500691	9.865007e-01	9.034993e-01	34.632330	
19	A955	2.023473e-02	2.084028127	9.340281e-01	5.459719e-01	34.743667	
20	A956	1.251569e+00	0.692930596	1.152931e+00	1.087069e+00	33.404030	
21	A957	1.883024e-02	2.388575473	9.857547e-02	6.142453e-02	34.765119	
22	A958	1.393399e-02	2.198495526	5.184955e-01	2.515045e-01	34.765631	
23	A959	2.143921e-02	2.499937595	1.699376e-01	1.400624e-01	34.737106	
24	A960	9.488076e-03	2.336654002	3.866540e-01	3.033460e-01	34.760517	
25	A961	3.061797e-02	5.932614781	7.126148e-01	3.173852e-01	35.061592	
26	A962	1.516595e-01	5.264419906	1.144420e+00	1.155580e+00	34.939244	
27	A963	8.692857e-02	5.640208635	1.060209e+00	6.097914e-01	35.010586	
28	A964	7.688853e-02	5.729024363	1.149024e+00	5.209756e-01	35.033190	
29	A965	7.739651e-02	5.816864398	1.236864e+00	4.331356e-01	35.032306	
30	A966	7.822633e-02	5.700943651	1.120944e+00	5.390563e-01	35.018477	
31	A967	5.771113e-02	5.814744143	1.694744e+00	6.052559e-01	35.044809	
32	A968	1.659105e-01	3.414119010	8.141190e-01	1.805881e+00	34.784277	
33	A969	1.274147e-01	5.062066271	2.462066e+00	1.187934e+00	34.954858	
34	A970	1.867487e-01	3.871567383	1.271567e+00	2.028433e+00	34.831972	
35	A971	7.281895e-02	5.754161286	1.174161e+00	4.958387e-01	35.023741	
36	A972	9.813031e-02	5.298888326	2.698888e+00	9.511117e-01	34.982923	
37	A973	6.962671e-02	6.147163620	2.471636e-01	4.928364e-01	35.089931	
38	A974	2.299303e-01	3.277792718	9.477927e-01	2.622207e+00	34.792327	
39	A975	1.720166e-01	3.182909172	7.229092e-01	2.207091e+00	34.767792	
40	A976	1.720484e-01	2.813775842	4.837758e-01	2.406224e+00	34.752281	
41	A977	6.973684e-02	0.885297266	8.652973e-01	7.947027e-01	34.701519	
42	A978	2.304033e-01	3.364447903	9.044479e-01	2.535552e+00	34.805022	
43	A979	1.520810e-02	2.639233043	3.092330e-01	7.007670e-01	34.736163	
44	A980	1.472897e-02	2.448885931	1.588859e-01	1.911141e-01	34.748434	
45	A981	1.311826e-02	2.518880695	1.188807e-01	1.211193e-01	34.734279	
46	A982	1.733518e-02	2.679547232	3.495472e-01	6.604528e-01	34.731205	
47	A983	1.709631e-01	0.339290708	5.492907e-01	1.500709e+00	34.632690	
48	A984	9.457477e-02	1.941249418	2.581249e+00	3.438751e+00	34.923059	
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2 A985 2.577132e-01 -0.503532935 7.264671e-01 1.153533e+00 34.618790
3 A986 5.439982e-02 9.042959174 2.029592e-01 9.704083e-02 34.940778
4 A987 6.129423e-02 8.996426644 1.764266e-01 1.435734e-01 34.904065
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7 A990 4.785148e-02 9.023483638 2.034836e-01 1.165164e-01 34.942614
8 A991 4.980310e-02 9.023832826 2.038328e-01 1.161672e-01 34.933895
9 A992 6.539563e-02 8.984019154 1.640192e-01 1.559808e-01 34.901362
10 F994 8.885936e-01 -1.006128702 1.073871e+00 7.761287e-01 31.331606
11 F995 1.892961e+00 -1.438280838 2.317192e-01 1.582808e-01 32.016836
12 F996 2.654381e+00 -1.605811724 1.141883e-01 3.658117e-01 32.765138
13 F997 2.506972e+00 -1.676721683 4.327832e-02 6.672168e-02 31.172956
14 F998 1.320912e+00 -0.838406825 6.715932e-01 6.084068e-01 30.264775
15 F999 1.897436e+00 -1.578142410 1.118576e-01 7.814241e-02 31.191125
16 F1000 6.664883e-01 -1.393142682 3.768573e-01 8.431427e-01 32.312574
17 F1001 2.209655e+00 -1.674840950 4.515905e-02 6.484095e-02 31.066528
18 F1002 2.739310e+00 -1.619119323 7.088068e-02 1.091193e-01 32.003359
19 F1004 2.149058e+00 -0.741076136 1.078924e+00 2.401076e+00 31.926688
20 M1005 4.054863e-01 15.065294389 1.545294e+00 6.447056e-01 36.202953
21 M1008 5.480688e-01 14.658129651 6.181297e-01 2.918703e-01 37.292470
22 M1009 4.447734e-01 14.772835632 2.128356e-01 1.771644e-01 37.049447
23 M1010 2.874451e-01 14.451212811 2.612128e-01 2.487872e-01 37.469300
24 M1011 6.208177e-01 14.698584434 1.178584e+00 2.514156e-01 36.799722
25 M1012 4.236212e-01 14.829886007 2.598860e-01 1.201140e-01 36.993812
26 M1013 3.450166e-01 14.497495979 2.674960e-01 7.250402e-02 37.106089
27 M1016 0.000000e+00 14.830000000 0.000000e+00 0.000000e+00 36.870000
28 M1017 5.073463e-01 14.315280226 2.652802e-01 3.447198e-01 37.427094
29 M1018 7.105427e-15 14.830000000 -1.776357e-15 1.776357e-15 36.870000
30 M1019 2.664909e-01 14.225091340 1.850913e-01 3.349087e-01 37.638658
31 M1020 0.000000e+00 14.827231213 7.231213e-03 2.768787e-03 36.870000
32 M1021 5.393254e-01 14.490895697 4.008957e-01 4.391043e-01 37.377754
33 M1022 1.911452e-01 14.785559985 1.655600e-01 4.444002e-02 36.912748
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35 M1024 6.226535e-01 14.409071993 3.190720e-01 1.609280e-01 37.299342
36 M1025 6.175606e-01 14.551335577 4.613356e-01 1.786644e-01 37.301010
37 M1026 8.474513e-01 14.705077070 6.650771e-01 7.349229e-01 37.070736
38 M1027 2.878043e-01 14.259323717 1.693237e-01 1.306763e-01 37.637606
39 M1028 2.085505e-01 14.250923651 2.009237e-01 4.490763e-01 37.718813
40 M1029 2.313449e-01 14.213743168 1.637432e-01 4.862568e-01 37.754609
41 M1030 2.587589e-01 14.315657353 1.056574e-01 2.743426e-01 37.230333
42 M1031 2.493972e-01 14.269357613 1.693576e-01 1.206424e-01 37.584844
43 M1032 7.004000e-01 14.505032332 4.150323e-01 1.949677e-01 37.222119
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45 M1034 1.636167e-01 14.565554375 1.455544e-01 3.444562e-02 37.428593
46 M1035 2.390026e-01 14.253867312 6.386731e-02 1.261327e-01 37.600664
47 M1036 7.868602e-01 14.477806404 4.378064e-01 9.219360e-02 37.147808
48 M1037 3.792624e-01 14.395253223 3.052532e-01 3.347468e-01 37.575735
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2	M1038	1.933092e-01	14.242165995	5.216599e-02	1.378340e-01	37.632406
3	M1039	9.598068e-01	13.655270767	1.475271e+00	1.274729e+00	36.948591
4	M1040	2.373271e-01	14.200304712	1.003047e-01	1.696953e-01	37.774083
5						
6	M1041	2.763904e-01	14.234483144	4.448314e-02	8.551686e-02	37.734719
7	M1042	5.813900e-01	14.467945278	2.779453e-01	1.120547e-01	37.214383
8	M1043	6.060295e-01	14.377441943	3.374419e-01	1.925581e-01	37.330830
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10	M1044	5.549360e-01	14.471191857	2.811919e-01	9.880814e-02	37.194314
11	M1045	4.336607e-01	14.421628108	3.716281e-01	3.083719e-01	37.513531
12	M1046	2.846163e-01	14.538203448	1.882034e-01	1.617966e-01	37.426733
13	M1047	2.782196e-02	14.596233098	6.233098e-03	3.766902e-03	37.472618
14	M1048	3.778677e-01	14.600946851	4.094685e-02	9.905315e-02	37.254077
15	M1049	6.475873e-01	14.450388152	4.003882e-01	1.196118e-01	37.265392
16	M1050	1.547830e-01	14.326002246	1.360022e-01	6.399775e-02	37.546107
17						
18	M1051	3.153364e-01	14.426318225	2.163182e-01	3.036818e-01	37.471247
19	M1052	1.734844e-01	14.204423434	1.544234e-01	1.855766e-01	37.723961
20						
21	M1053	5.967418e-01	14.448627975	3.986280e-01	1.313720e-01	37.272082
22	M1054	4.411341e-01	14.264926681	2.149267e-01	3.050733e-01	37.550920
23	M1055	4.538071e-01	14.553846374	1.438464e-01	1.461536e-01	37.307099
24	M1056	8.403111e-02	14.245373391	3.537339e-02	1.046266e-01	37.640974
25	M1057	1.531082e-01	14.266529152	6.652915e-02	1.134708e-01	37.617554
26						
27	M1058	4.165756e-01	14.667977797	7.797780e-02	6.202220e-02	37.289996
28	M1059	6.837690e-01	14.741471187	3.314712e-01	1.885288e-01	37.175556
29	M1060	4.838638e-02	14.199832841	9.832841e-03	1.016716e-02	37.743361
30	M1061	1.742933e-01	14.526428002	1.164280e-01	7.357200e-02	37.461560
31	M1062	4.474148e-01	14.498185495	4.081855e-01	4.318145e-01	37.479575
32						
33	M1063	1.290246e-01	14.236795576	4.679558e-02	1.432044e-01	37.660760
34	M1064	9.404394e-01	14.815036256	1.265036e+00	8.949637e-01	36.640535
35	M1066	3.289183e-01	14.237628541	1.876285e-01	1.523715e-01	37.464324
36						
37	M1067	1.131142e-01	14.478749624	7.874962e-02	2.212504e-01	37.520353
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39	M1069	3.156303e-01	14.439628602	3.896286e-01	2.603714e-01	37.531589
40	M1070	2.347414e-01	14.567851553	1.578516e-01	1.621484e-01	37.372281
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43	M1072	5.246341e-01	14.555186739	5.051867e-01	1.748133e-01	37.364467
44	M1073	1.147970e-01	14.340763301	1.307633e-01	1.092367e-01	37.394523
45	M1074	4.128144e-01	14.542498339	4.924983e-01	1.575017e-01	37.437661
46	M1075	3.609521e-01	14.601156785	1.611568e-01	1.288432e-01	37.221303
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48	M1076	4.473893e-01	14.466656624	2.666566e-01	2.333434e-01	37.403250
49	M1077	2.432723e-01	14.534281977	9.428198e-02	6.571802e-02	37.425815
50	M1078	3.262850e-01	14.381465761	1.914658e-01	5.485342e-01	37.481343
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54	M1081	3.842661e-01	14.530366032	4.803660e-01	1.996340e-01	37.495605
55	M1082	2.099431e-01	14.509308688	1.593087e-01	1.906913e-01	37.404879
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35 P1222 1.862662e+00 5.525644972 7.005645e+00 2.704355e+00 30.151038
36 P1223 9.467081e-01 2.250075071 3.940075e+00 6.019925e+00 30.934121
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35 P1467 6.351735e-01 26.245916656 5.075917e+00 1.214083e+00 34.286961
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47 P1479 4.839180e-01 25.476234991 3.976235e+00 2.133765e+00 34.240822
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13 B1492 2.422336e+00 -1.754315490 1.256845e-01 1.043155e-01 33.374864
14 B1493 3.687961e-01 0.038921634 1.398922e+00 1.361078e+00 34.700542
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17 B1497 1.588099e+00 -1.293580209 7.864198e-01 8.635802e-01 32.718913
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19 O1656 7.459903e-01 1.432194461 3.132194e+00 6.717806e+00 31.570584
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21 O1658 4.922414e-01 1.562546338 2.422546e+00 6.587454e+00 31.474371
22 R1659 7.915579e-01 -1.636020738 8.397926e-02 1.360207e-01 31.498934
23 Z1660 6.647959e+00 -1.563629639 4.163704e-01 7.136296e-01 25.663204
24 Z1661 2.678464e+00 -1.604396951 4.656030e-01 9.543970e-01 31.240574
25 Z1662 1.161700e+00 -1.712445897 3.575541e-01 2.024459e-01 30.816661
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28 P1665 1.186362e+00 4.496296493 5.636296e+00 3.773704e+00 30.964681
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32 Z1669 4.176545e-01 -1.695840708 1.341593e-01 1.958407e-01 31.899954
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34 Z1671 2.086236e+00 -1.406684647 4.233154e-01 5.066846e-01 32.544586
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6 Z1690 7.798204e-01 -1.782674399 4.732560e-02 9.267440e-02 32.442820
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15 Z1699 1.415611e+00 -1.652038297 1.379617e-01 2.520383e-01 32.527761
16 Z1700 3.558054e+00 -1.548503875 1.114961e-01 3.850388e-02 30.482761
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18 Z1702 7.100212e+00 -0.459994010 1.040006e+00 3.059994e+00 28.886486
19 Z1703 4.579796e+00 -0.667703466 8.522965e-01 3.267703e+00 29.538293
20 Z1705 3.904666e-01 -0.423938314 1.396062e+00 1.963938e+00 34.540173
21 P1706 3.211655e+00 8.674569493 1.674569e+00 2.045431e+00 29.496356
22 Z1707 9.235326e-01 -1.639235338 1.807647e-01 1.792353e-01 31.252051
23 L1708 2.612570e+00 -1.568811367 3.111886e-01 6.881137e-02 30.064388
24 L1709 1.942532e+00 -1.557729719 1.922703e-01 5.772972e-02 31.032614
25 L1710 3.388061e-01 -1.538972239 1.010278e-01 3.897224e-02 32.487277
26 L1711 1.425250e-02 -1.508238390 4.176161e-02 8.238390e-03 32.788920
27 L1712 4.098009e-01 -1.519713451 1.202865e-01 1.971345e-02 32.432225
28 L1713 1.555662e+00 -0.868066332 6.319337e-01 6.680663e-01 31.655352
29 L1714 0.000000e+00 -0.849358843 6.506412e-01 6.493588e-01 32.549556
30 L1715 0.000000e+00 -0.747230508 7.527695e-01 5.472305e-01 32.478852
31 L1716 -7.105427e-15 -0.969640584 5.303594e-01 7.696406e-01 32.632828
32 L1717 7.105427e-15 -1.271858273 2.781417e-01 1.071858e+00 32.806947
33 L1718 7.105427e-15 -1.095775526 4.042245e-01 8.957755e-01 32.720152
34 L1719 0.000000e+00 -1.183921545 4.060785e-01 9.839215e-01 32.775498
35 L1720 0.000000e+00 -0.987389965 5.126100e-01 7.873900e-01 32.645116
36 SHIV_i SHIV_s TAUG TAUG_i TAUG_s
37 E003 7.259180e-01 1.234082e+00 10.69788864 2.277889e+00 4.222111e+00
38 E004 1.957440e-01 7.242560e-01 9.66235601 1.212356e+00 2.857644e+00
39 E005 1.566854e-01 2.233146e-01 10.52321158 2.103212e+00 5.296788e+00
40 E006 3.184586e-01 2.015414e-01 9.28086923 8.608692e-01 2.199131e+00
41 E007 3.420948e-01 1.779052e-01 9.44636324 1.026363e+00 2.033637e+00
42 E008 2.295556e-01 2.904444e-01 9.06540632 6.454063e-01 2.414594e+00
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7 E022 1.008550e+00 1.381450e+00 10.14397409 1.743974e+00 4.936026e+00
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11 G026 4.862810e-01 3.337190e-01 14.12862106 1.108621e+00 1.011379e+00
12 G027 2.105757e-01 3.194243e-01 13.99936205 6.193620e-01 5.706380e-01
13 G028 2.923479e-01 2.176521e-01 14.45870121 1.078701e+00 6.812988e-01
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17 G032 3.290615e-01 2.109385e-01 13.63172220 6.117222e-01 6.082778e-01
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18 B081 1.319350e+00 1.530650e+00 4.27228406 1.802284e+00 5.197716e+00
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15 H137 4.699945e+00 1.990055e+00 7.38977848 7.519778e+00 1.810222e+00
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17 H139 8.597375e-01 1.180263e+00 6.79435253 4.424353e+00 2.615647e+00
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20 H142 9.081014e+00 1.092899e+01 7.72410285 2.644103e+00 1.195897e+00
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23 H145 2.917318e+00 1.602682e+00 5.23276511 4.652765e+00 3.687235e+00
24 H146 8.549515e+00 4.710485e+00 6.88436012 1.354360e+00 1.145640e+00
25 H147 7.582490e+00 5.677510e+00 6.79948976 6.929490e+00 1.770510e+00
26 H148 6.457211e+00 4.152789e+00 6.31345695 6.443457e+00 1.726543e+00
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30 L152 5.744223e-01 4.155777e-01 7.91559619 1.615596e+00 3.494404e+00
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37 S160 2.064272e+00 2.455728e+00 10.10744128 1.087744e+01 7.202559e+00
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13 N193 7.215854e-02 9.784146e-02 6.57832943 2.018329e+00 1.391671e+00
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19 N200 1.140444e-01 2.259556e-01 7.76543528 2.395435e+00 3.724565e+00
20 N206 2.923659e-01 2.776341e-01 13.50539119 8.453912e-01 4.646088e-01
21 N207 4.322383e-01 1.677617e-01 11.76972086 3.759721e+00 2.200279e+00
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25 N211 2.444711e-01 1.955289e-01 10.13171662 5.421717e+00 4.008283e+00
26 N212 5.315571e-01 4.884429e-01 10.73964544 6.129645e+00 3.410355e+00
27 N213 5.370322e-01 6.296785e-02 11.86007651 5.500765e-01 2.109923e+00
28 N214 3.315555e-01 3.844447e-02 11.22523353 2.835234e+00 7.347665e-01
29 N215 2.790623e-02 6.209377e-02 9.05458130 1.054581e+00 1.735419e+00
30 N216 4.553503e-02 1.446497e-02 11.45958048 1.895805e-01 5.004195e-01
31 N217 3.633355e-01 2.366645e-01 13.14333628 1.183336e+00 8.266637e-01
32 N218 3.767176e-01 2.232824e-01 13.24037127 8.103713e-01 7.296287e-01
33 N219 3.571214e-01 3.528786e-01 13.10335238 9.033524e-01 8.666476e-01
34 N220 3.603168e-01 2.396832e-01 13.21286877 7.828688e-01 7.571312e-01
35 N221 3.823263e-01 2.176737e-01 13.30443224 8.744322e-01 6.655678e-01
36 N222 3.278328e-01 1.121672e-01 12.67838804 1.378388e+00 1.241612e+00
37 N223 4.357099e-01 1.442901e-01 12.72930857 1.429309e+00 1.230691e+00
38 N224 1.068334e-01 7.316662e-02 8.43784796 3.447848e+00 1.732152e+00
39 N225 2.055688e-01 1.844312e-01 11.11260394 5.062604e+00 2.377396e+00
40 N226 3.658190e-01 2.241810e-01 13.31195838 8.819584e-01 6.480416e-01
41 N227 2.537078e-01 2.162922e-01 9.28436782 4.184368e+00 3.375632e+00
42 N228 7.998068e-02 3.001932e-02 7.13678044 2.196780e+00 9.832196e-01
43 N229 9.209668e-02 5.790332e-02 7.48741066 2.257411e+00 6.725893e-01
44 N230 7.441104e-02 3.055890e-01 8.52856206 8.385621e-01 3.431438e+00
45 N231 6.816502e-02 6.183498e-02 7.55825255 8.282526e-01 6.017474e-01
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49 N235 7.331043e-02 9.668957e-02 9.07726369 1.147264e+00 2.192736e+00
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4 N238 2.041623e+00 4.483771e-01 14.07978262 2.529783e+00 3.790217e+00
5 N239 4.177373e-02 1.822627e-02 13.72466726 8.466726e-02 3.753327e-01
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18 A261 2.222439e+00 1.557561e+00 12.16188879 5.151889e+00 4.998111e+00
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25 N269 5.072432e-02 6.927568e-02 13.59118323 1.351183e+00 5.088168e-01
26 K275 1.488613e+00 9.113867e-01 14.45390898 7.939090e-01 1.476091e+00
27 K277 5.497719e-01 3.902281e-01 16.13256007 1.332560e+00 1.737440e+00
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29 J281 2.509783e-01 9.902172e-02 9.52245981 1.592460e+00 1.747540e+00
30 J282 6.230506e-02 9.769494e-02 6.73450142 1.744501e+00 1.605499e+00
31 J283 3.956003e-01 1.143997e-01 3.34890343 3.548903e+00 3.331097e+00
32 J284 8.079381e-01 8.020619e-01 2.96072687 2.680727e+00 1.969273e+00
33 J285 1.979823e+00 4.601775e-01 4.56942779 3.459428e+00 2.440572e+00
34 J286 2.202872e-01 2.097128e-01 4.81240492 3.862405e+00 5.027595e+00
35 J287 1.430902e-01 9.690978e-02 3.35871157 1.548712e+00 1.341288e+00
36 J288 2.092709e-01 2.107291e-01 4.23615471 8.261547e-01 1.143845e+00
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38 J290 7.897794e+00 5.532206e+00 0.53272100 1.162721e+00 1.507279e+00
39 J291 6.606526e+00 8.353474e+00 1.66820029 1.008200e+00 6.717997e-01
40 J292 1.037293e+01 4.587071e+00 0.61866592 1.488666e+00 1.701334e+00
41 J293 1.096715e+01 3.992854e+00 0.74252162 1.412522e+00 1.577478e+00
42 J297 2.847758e-01 4.752242e-01 1.38319416 1.843194e+00 3.996806e+00
43 J298 2.427666e-01 1.072334e-01 10.06705560 1.727056e+00 1.422944e+00
44 J299 1.136982e-01 8.630183e-02 10.24040885 8.804089e-01 1.169591e+00
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47 J303 1.399240e-01 8.007596e-02 9.60505080 1.195051e+00 1.184949e+00
48 J304 4.831517e-01 3.068483e-01 5.18481267 5.384813e+00 3.125187e+00
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3 J306 1.195097e-01 5.049026e-02 9.14595250 1.145953e+00 1.174047e+00
4 J307 1.188668e-01 3.113316e-02 8.81801302 8.880130e-01 1.501987e+00
5 J308 1.174365e-01 5.256350e-02 8.93863787 9.386379e-01 1.381362e+00
6 J309 1.017310e-01 4.826904e-02 8.98602426 9.860243e-01 1.333976e+00
7 J310 1.772122e-02 2.227878e-02 8.79845620 7.984562e-01 6.015438e-01
8 J311 1.881915e-02 2.118085e-02 8.68970841 7.597084e-01 7.102916e-01
9 J312 1.624002e-02 2.375998e-02 8.41797790 8.279779e-01 9.820221e-01
10 J313 2.233717e-01 1.266283e-01 9.15390708 2.143907e+00 2.116093e+00
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12 J315 2.097665e-01 1.202335e-01 4.73018298 2.540183e+00 1.639817e+00
13 J316 9.211077e-02 2.578892e-01 6.67464202 1.484642e+00 3.165358e+00
14 J317 1.823598e-01 1.076402e-01 4.22464818 2.034648e+00 2.245352e+00
15 J318 5.185822e-01 2.814178e-01 5.80831337 6.008313e+00 3.971687e+00
16 J319 3.978246e-01 1.821754e-01 2.66970849 2.869708e+00 2.100292e+00
17 J320 3.963158e-01 1.836842e-01 2.91645212 3.116452e+00 2.383548e+00
18 J321 3.571679e-02 8.428321e-02 4.16509504 2.475095e+00 2.304905e+00
19 J322 3.263831e-02 7.736169e-02 9.39094930 1.390949e+00 2.019051e+00
20 J323 1.195825e-01 1.004175e-01 9.15044283 1.150443e+00 2.259557e+00
21 J324 1.264899e-01 4.351009e-02 9.81394996 1.403950e+00 2.046050e+00
22 J325 1.088075e-01 7.119251e-02 9.98933536 1.989335e+00 1.710665e+00
23 J326 1.989279e-01 1.510721e-01 8.78929999 8.593000e-01 2.000700e+00
24 J327 8.207786e-02 8.792214e-02 5.93513915 1.595139e+00 1.214861e+00
25 J328 2.478503e-01 3.021497e-01 4.75629181 2.566292e+00 1.713708e+00
26 J329 1.703892e-01 2.396108e-01 4.79172108 2.621721e+00 2.218279e+00
27 J330 2.884804e-01 3.315196e-01 2.27881056 1.778811e+00 2.311189e+00
28 J331 4.402899e-02 8.597101e-02 3.99658670 2.186587e+00 2.683413e+00
29 J332 2.877698e-01 1.222302e-01 5.10717108 2.217171e+00 1.572829e+00
30 J333 4.254640e-01 2.645360e-01 0.46548610 1.115486e+00 5.645139e-01
31 J334 3.789523e-01 3.110477e-01 0.52998976 1.179990e+00 7.900102e-01
32 J335 3.991046e-01 2.908954e-01 0.46140011 1.111400e+00 8.585999e-01
33 J336 2.124822e-01 2.375178e-01 4.22014797 1.230148e+00 1.849852e+00
34 J337 7.611090e-02 7.388910e-02 6.25936954 1.069370e+00 1.490630e+00
35 J338 5.834421e-02 4.165579e-02 4.29321184 2.103212e+00 1.756788e+00
36 J339 1.661834e-01 2.838166e-01 7.15952986 2.169530e+00 4.330470e+00
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38 J341 4.047769e-01 1.752231e-01 3.34051705 3.540517e+00 1.849483e+00
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40 J343 1.200251e-01 6.997492e-02 3.48661983 1.316620e+00 1.703380e+00
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44 J347 3.857340e-01 1.242660e-01 3.55753081 3.757531e+00 1.742469e+00
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48 J351 3.785826e-01 1.814174e-01 3.07661714 3.276617e+00 2.593383e+00
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2 J352 4.934504e-01 3.065496e-01 4.81109460 5.011095e+00 2.198905e+00
3 J353 7.459813e-02 7.540187e-02 6.63711242 1.697112e+00 1.522888e+00
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5 J355 1.068080e-01 5.319201e-02 3.64971573 1.839716e+00 9.402843e-01
6 J356 8.821563e-02 7.178437e-02 3.64974319 1.839743e+00 9.402568e-01
7 J357 1.044650e-01 1.755350e-01 3.82163220 4.281632e+00 7.483678e-01
8 J358 4.060621e-01 4.439379e-01 3.53855872 3.998559e+00 1.491441e+00
9 J359 3.397624e-01 2.702376e-01 1.78398456 2.243985e+00 2.806015e+00
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11 J361 4.258382e-01 1.941618e-01 2.44092541 1.730925e+00 1.539075e+00
12 J362 2.680852e-01 3.519148e-01 1.14611180 8.761118e-01 1.843888e+00
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15 J366 2.572148e-01 5.027852e-01 0.94559898 1.405599e+00 4.434401e+00
16 J367 1.855975e-01 8.440250e-02 3.82386792 1.333868e+00 8.761321e-01
17 J368 1.650735e-01 1.749265e-01 1.05825159 7.882516e-01 2.351748e+00
18 J369 7.952611e-02 6.047389e-02 4.21466638 1.724666e+00 1.535334e+00
19 Y372 3.881753e-01 5.418247e-01 1.13384408 1.803844e+00 5.876156e+00
20 Y373 6.990697e-01 1.190930e+00 0.07501603 8.450160e-01 2.334984e+00
21 Y374 3.359739e+00 2.040261e+00 0.47630405 1.386304e+00 3.023696e+00
22 Y375 1.232794e+00 1.267206e+00 5.24851749 5.038517e+00 5.561483e+00
23 Y376 2.504785e+00 1.105215e+00 -0.03225209 8.377479e-01 2.402252e+00
24 Y377 8.365303e+00 5.024697e+00 0.35461702 1.264617e+00 1.685383e+00
25 Z379 1.738793e-01 2.561207e-01 5.75974835 4.697484e-01 3.202516e-01
26 Z380 3.256059e+00 3.193941e+00 2.69779620 4.037796e+00 4.762204e+00
27 Z381 2.017586e+00 5.924142e-01 5.84781842 1.927818e+00 6.521816e-01
28 Z382 9.798043e-02 1.720196e-01 5.74577912 7.457791e-01 2.942209e-01
29 Z383 1.412117e-01 1.787883e-01 5.62875603 7.287560e-01 1.021244e+00
30 Z384 2.029229e+00 8.607714e-01 6.70963406 9.496341e-01 2.020366e+00
31 Z385 1.632684e-01 2.867316e-01 6.61969160 1.329692e+00 2.580308e+00
32 Z386 1.364855e-01 2.535145e-01 5.88061270 5.906127e-01 3.293873e-01
33 Z387 1.558539e-01 2.341461e-01 6.12117291 8.311729e-01 5.288271e-01
34 Z388 9.019496e-02 2.198050e-01 6.03112380 7.411238e-01 6.188762e-01
35 Z389 1.764613e-01 2.535387e-01 6.26986063 9.798606e-01 1.190139e+00
36 Z390 2.667009e-01 2.932991e-01 6.17852914 1.858529e+00 1.981471e+00
37 Z391 2.432894e-01 1.867106e-01 5.81286171 4.728617e-01 8.371383e-01
38 Z392 7.259405e+00 1.660595e+00 6.28848617 9.484862e-01 3.461514e+00
39 Z393 2.102964e-01 2.197036e-01 5.51714264 5.871426e-01 6.928574e-01
40 Z394 2.097037e-01 2.202963e-01 5.72531924 4.353192e-01 9.246808e-01
41 Z395 6.413634e-01 3.686366e-01 4.39518088 3.815181e+00 1.444819e+00
42 Z396 6.873756e-01 3.226244e-01 4.62118219 4.041182e+00 1.248818e+00
43 Z397 1.977100e-01 1.122900e-01 5.76757922 4.775792e-01 1.692421e+00
44 N398 9.349242e-02 1.265076e-01 10.91315158 2.783152e+00 1.556848e+00
45 N399 3.561682e-01 1.338318e-01 10.51658743 5.256587e+00 1.963413e+00
46 N400 3.457946e+00 7.120543e-01 11.06137151 5.801372e+00 1.888628e+00
47 N401 1.493974e-01 1.306026e-01 10.47486751 1.824868e+00 2.805132e+00
48 N402 1.158937e-01 3.410632e-02 12.58215292 2.872153e+00 1.517847e+00
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2 A405 2.213788e-01 3.786212e-01 20.81256678 2.202567e+00 1.627433e+00
3 A406 2.161690e-01 2.138310e-01 20.24934327 1.689343e+00 2.190657e+00
4 A407 6.071130e-02 5.928870e-02 19.59715134 1.037151e+00 1.012849e+00
5 A408 8.435499e-02 1.056450e-01 19.21669460 1.096695e+00 1.393305e+00
6 A409 2.217505e-01 4.682495e-01 20.11488947 1.554889e+00 2.105111e+00
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8 A411 NA NA NA NA NA
9 A412 2.936484e-01 1.263516e-01 17.72327930 4.253279e+00 1.376721e+00
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12 A415 2.387944e-01 2.612056e-01 9.60912937 2.869129e+00 2.690871e+00
13 A416 4.617350e-01 1.482650e-01 8.39164897 3.116490e-01 1.068351e+00
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17 A420 7.387719e-01 6.512281e-01 17.38826717 2.428267e+00 9.217328e-01
18 A421 5.429537e+00 1.990463e+00 13.92510270 4.155103e+00 3.944897e+00
19 A422 5.895644e+00 1.624356e+00 14.64347207 5.793472e+00 3.726528e+00
20 A423 5.924259e-01 7.775741e-01 16.87903169 1.799032e+00 1.670968e+00
21 A424 6.175431e-01 1.412457e+00 17.90784017 7.478402e-01 1.282160e+00
22 A425 7.884722e-01 2.221528e+00 16.24249565 2.522496e+00 1.627504e+00
23 A426 2.796156e+00 1.363844e+00 11.98429898 8.064299e+00 6.565701e+00
24 A427 1.143699e+00 1.186301e+00 18.17742687 3.097427e+00 5.802573e+00
25 A428 6.103745e-01 2.496255e-01 17.86793733 7.879373e-01 6.820627e-01
26 Z432 2.114588e+00 7.454125e-01 4.95959399 1.749594e+00 1.370406e+00
27 Z435 2.114562e+00 1.765438e+00 3.80026514 1.260265e+00 3.449735e+00
28 Z436 3.446867e-01 7.553133e-01 6.17493157 1.364932e+00 2.405068e+00
29 Z438 1.501435e+00 3.068565e+00 5.71174087 4.021741e+00 2.868259e+00
30 Z439 1.835858e+00 1.474142e+00 6.79878352 1.588784e+00 1.631216e+00
31 Z459 2.540891e+00 6.999109e+00 0.89526171 1.475262e+00 3.134738e+00
32 Z462 4.564081e+00 1.234592e+01 4.12529653 1.305297e+00 1.724703e+00
33 Z466 9.078545e+00 1.105145e+01 3.81505958 2.315060e+00 2.034940e+00
34 Z467 6.415423e+00 3.584577e+00 2.32070595 4.110706e+00 2.149294e+00
35 Z470 1.091143e+01 9.898570e+00 4.84017995 3.590180e+00 1.009820e+00
36 Z471 7.401955e+00 1.783805e+01 4.65035150 2.720351e+00 1.199649e+00
37 Z472 5.913196e+00 1.099680e+01 3.84972541 1.029725e+00 2.000275e+00
38 Z473 1.483257e+01 9.607428e+00 2.86702535 3.170254e-01 1.612975e+00
39 Z474 1.395482e+01 8.885184e+00 1.49624654 2.216247e+00 3.253753e+00
40 Z477 1.279597e+01 1.164403e+01 3.16668027 7.866803e-01 1.313320e+00
41 Z480 8.585550e+00 1.420445e+01 2.95417309 4.034173e+00 1.795827e+00
42 Z482 5.790730e+00 1.111927e+01 4.55599509 1.735995e+00 1.294005e+00
43 Z483 3.822552e+00 1.308745e+01 4.71831251 5.083125e-01 1.131687e+00
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45 Z493 1.838659e+00 1.951134e+01 3.01574516 4.657452e-01 1.114255e+00
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47 Z495 7.428612e+00 8.621388e+00 0.63468401 1.294684e+00 1.325316e+00
48 Z496 1.548667e+01 1.061333e+01 1.24804153 3.038042e+00 3.221958e+00

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7 Z502 6.083420e+00 4.656580e+00 0.95182454 1.071825e+00 2.168175e+00
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24 N638 4.682990e-01 4.917010e-01 13.69723916 7.672392e-01 8.927608e-01
25 C645 9.811844e-01 5.188156e-01 22.21873767 3.878738e+00 2.211262e+00
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19 Y693 2.368104e+00 2.431896e+00 1.98644538 2.476445e+00 8.935546e-01
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25 A699 2.898689e-01 2.401311e-01 13.07234077 4.932341e+00 3.797659e+00
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27 A703 7.720610e-01 6.679390e-01 16.15112332 1.671123e+00 6.288767e-01
28 A704 1.057684e+00 1.362316e+00 15.57568660 9.365687e+00 3.254313e+00
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30 Z706 1.441303e+01 1.002697e+01 3.23784952 6.878495e-01 1.242150e+00
31 Z707 1.607900e+00 2.702100e+00 2.62673268 2.167327e-01 2.532673e-01
32 Z708 4.765137e+00 1.769486e+01 3.86450476 1.004505e+00 6.154952e-01
33 Z710 8.469196e+00 4.830804e+00 1.21110900 8.211090e-01 4.588910e-01
34 Z714 7.368183e+00 3.961817e+00 1.77445975 2.494460e+00 1.045540e+00
35 Z716 2.126283e+00 1.737169e-01 2.24029929 2.220299e+00 1.397007e-01
36 Z717 2.113990e+00 1.860098e-01 2.32374564 2.303746e+00 1.562544e-01
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38 Z720 7.341309e+00 5.768691e+00 0.84003117 1.750031e+00 1.409969e+00
39 Z721 2.101539e-01 2.089846e+00 0.36722995 3.472299e-01 2.012770e+00
40 Z722 1.097137e-01 1.802863e-01 0.44617411 4.261741e-01 1.483826e+00
41 Z723 4.118619e-01 1.888138e+00 0.62339273 5.033927e-01 1.856607e+00
42 Z726 5.041229e-01 1.795877e+00 1.12018467 1.100185e+00 1.359815e+00
43 Z727 3.665128e-01 1.933487e+00 1.25687891 1.056879e+00 1.223121e+00
44 Z728 5.818232e-01 1.718177e+00 0.79722056 7.772206e-01 1.682779e+00
45 Z729 2.063722e+01 4.602779e+00 1.28927782 1.179278e+00 3.460722e+00
46 Z730 5.227590e+00 1.067241e+01 0.54570628 1.205706e+00 3.004294e+00
47 Z731 2.233209e-01 1.926679e+00 0.54906523 5.290652e-01 1.930935e+00
48 Z732 9.105363e+00 9.094637e+00 1.03509213 1.755092e+00 2.054908e+00
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4 Z736 5.161061e+00 1.838939e+00 6.42764677 3.277647e+00 3.322353e+00
5 Z737 1.596653e+00 3.203347e+00 0.71840111 2.038401e+00 4.491599e+00
6 Z738 5.883390e+00 3.306610e+00 7.10304978 7.613050e+00 2.646950e+00
7 Z739 2.461036e+00 8.689642e-01 6.72668966 3.576690e+00 2.043310e+00
8 Z740 2.980214e+00 8.197857e-01 1.30884942 1.198849e+00 3.711151e+00
9 Z743 7.827519e+00 5.912481e+00 0.64546401 1.725464e+00 4.314536e+00
10 Z746 1.644762e+01 9.942377e+00 2.18289595 2.072896e+00 2.567104e+00
11 O747 6.174437e-01 3.825563e-01 8.73890024 1.858900e+00 8.310998e-01
12 O748 7.919453e-01 4.580547e-01 8.34804144 1.468041e+00 7.519586e-01
13 O749 9.555261e-01 4.644739e-01 7.65405356 2.384054e+00 1.115946e+00
14 O750 9.534952e-01 4.565048e-01 8.16348416 1.383484e+00 5.665158e-01
15 O754 1.071423e+00 9.285772e-01 5.48468247 2.894682e+00 2.945318e+00
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17 O756 2.689716e+00 2.100284e+00 6.69245131 1.842451e+00 2.557549e+00
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21 O760 5.608467e-01 4.291533e-01 8.56652177 1.976522e+00 8.134782e-01
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33 O772 1.360749e-01 2.439251e-01 9.73984194 2.798419e-01 5.101581e-01
34 O773 7.379689e-01 7.920311e-01 8.23678239 1.456782e+00 8.932176e-01
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16 Z804 2.115715e+00 2.134285e+00 2.01942524 2.719425e+00 8.605748e-01
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18 Z807 9.857782e-01 2.442218e-01 4.49484887 4.534849e+00 2.005151e+00
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22 A812 2.816055e-01 9.083945e-01 14.79617216 2.926172e+00 1.383828e+00
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25 A815 1.348340e-01 1.451660e-01 15.76196375 8.019637e-01 4.180363e-01
26 A816 2.454312e-01 2.045688e-01 9.73209319 4.352093e+00 5.707907e+00
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31 A821 3.198712e-01 1.000129e+00 15.01798348 3.147983e+00 8.820165e-01
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19 P869 1.759290e+00 1.220710e+00 14.01634983 1.056350e+00 1.693650e+00
20 P870 7.304983e+00 1.975017e+00 14.54178561 1.221786e+00 1.358214e+00
21 P871 8.911836e-01 5.788164e-01 14.49654123 1.056541e+00 1.403459e+00
22 P872 5.927508e-02 1.707249e-01 16.81221890 9.522189e-01 2.277811e-01
23 P873 2.248737e-01 9.512627e-02 16.71735681 8.773568e-01 5.426432e-01
24 P874 3.403484e-01 2.796516e-01 14.99382314 1.673823e+00 1.766177e+00
25 P875 9.190655e-01 5.709345e-01 14.90441464 2.484415e+00 9.955854e-01
26 P876 5.408656e+00 3.931344e+00 14.37159332 1.931593e+00 1.028407e+00
27 P877 5.079707e-01 2.320293e-01 14.70426520 1.264265e+00 2.055735e+00
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31 P881 3.370833e-01 1.029167e-01 15.56773972 1.667740e+00 1.192260e+00
32 P882 7.084361e-02 5.915639e-02 15.13465072 1.884651e+00 1.335349e+00
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37 P888 2.835867e-01 1.364133e-01 14.97555521 1.725555e+00 1.494445e+00
38 P889 1.219895e+00 4.901053e-01 15.47682075 1.256821e+00 1.283179e+00
39 P890 1.219588e+00 7.204119e-01 13.87089006 1.830890e+00 2.029110e+00
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45 P896 1.003238e-01 1.796762e-01 16.71727631 8.272763e-01 6.027237e-01
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5 C905 7.537133e-02 1.446287e-01 24.76162789 3.316279e-01 1.183721e-01
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13 C913 1.850659e+00 4.593413e-01 23.20625092 6.046251e+00 1.513749e+00
14 C914 2.750207e-01 5.649793e-01 21.10785973 1.568786e+01 3.712140e+00
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16 C916 1.267173e-01 1.132827e-01 24.48662134 3.366213e-01 4.933787e-01
17 C917 1.068844e-01 2.331156e-01 24.42615162 2.261516e-01 3.938484e-01
18 C918 1.442606e+00 9.373945e-01 21.87447197 4.714472e+00 2.945528e+00
19 C919 1.805056e-01 3.994944e-01 24.84030224 1.203022e-01 1.096978e-01
20 C920 3.516054e-02 2.483946e-02 24.64670295 3.767029e-01 2.832971e-01
21 C921 3.518531e-02 8.481469e-02 24.69943787 5.494379e-01 8.305621e-01
22 C922 1.085421e-01 3.014579e-01 24.67250328 5.225033e-01 3.374967e-01
23 C923 3.142223e-02 6.857777e-02 24.76041783 3.304178e-01 1.195822e-01
24 C924 3.023413e-02 4.976587e-02 24.75942479 2.994248e-01 8.057521e-02
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26 C926 8.814417e-02 1.218558e-01 24.84643993 3.643993e-02 7.356007e-02
27 C927 7.720493e-02 1.327951e-01 24.77249304 3.124930e-01 1.475070e-01
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29 C929 1.371372e-01 3.628628e-01 24.84362941 3.362941e-02 1.063706e-01
30 C930 2.368857e-01 3.631143e-01 24.70466611 4.446661e-01 3.053339e-01
31 C931 1.257370e-01 3.742630e-01 24.75063588 4.906359e-01 1.993641e-01
32 C932 2.280651e-01 2.719349e-01 24.87624786 6.624786e-02 7.375214e-02
33 C933 1.983849e-01 4.416151e-01 24.81096697 5.509670e-01 2.590330e-01
34 C934 3.183236e-02 1.081676e-01 24.50923310 3.092331e-01 3.007669e-01
35 A935 1.197416e-01 3.402584e-01 7.47155133 2.211551e+00 5.008449e+00
36 A936 3.810578e-01 3.089422e-01 7.17017629 2.460176e+00 2.859824e+00
37 A937 1.705907e-01 2.194093e-01 6.06712207 2.967122e+00 2.202878e+00
38 A938 2.488644e+00 6.813561e-01 8.36801676 2.358017e+00 6.971983e+00
39 A939 2.172145e+00 6.078554e-01 6.74134909 1.511349e+00 1.378651e+00
40 A940 5.853999e-02 3.146001e-02 6.84772321 8.177232e-01 9.522768e-01
41 A941 6.896899e-02 2.103101e-02 7.44687421 9.368742e-01 4.131258e-01
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43 A943 3.961800e-02 4.038200e-02 6.62416636 1.364166e+00 1.235834e+00
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23 M1020 0.000000e+00 0.000000e+00 25.06511881 1.511881e-02 1.488119e-02
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9 H1111 1.095862e+00 2.241380e-01 7.25592197 1.285922e+00 1.824078e+00
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14 H1116 6.911282e+00 4.438718e+00 0.74052664 1.610527e+00 1.579473e+00
15 H1117 1.655441e+00 1.914559e+00 5.96780112 2.937801e+00 3.122199e+00
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17 H1119 8.738306e-01 1.826169e+00 7.45488743 3.494887e+00 4.075113e+00
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19 P1121 2.577519e-01 3.022481e-01 15.57723284 9.723284e-02 1.727672e-01
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24 P1126 4.616705e-01 1.228330e+00 15.31093349 1.290933e+00 4.390665e-01
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42 P1146 2.195777e-01 2.104223e-01 15.48500698 8.500698e-02 7.499302e-02
43 P1147 1.297192e+00 2.512808e+00 14.57379425 2.133794e+00 1.086206e+00
44 P1148 7.103474e-01 1.019653e+00 15.60601419 4.760142e-01 4.839858e-01
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47 P1151 2.510041e+00 3.659959e+00 14.02582662 2.655827e+00 1.604173e+00
48 P1152 2.486148e+00 1.153852e+00 13.25734768 8.873477e-01 9.726523e-01
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7 P1158 1.677686e+00 4.462314e+00 14.81814904 2.578149e+00 9.118510e-01
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11 E1162 1.576084e+00 3.639162e-01 13.84553088 5.375531e+00 1.284469e+00
12 P1163 1.182093e-01 2.617907e-01 15.04552284 1.035523e+00 1.174477e+00
13 P1164 1.703897e-01 1.396103e-01 12.52464364 4.946436e-01 7.853564e-01
14 P1165 2.442703e-01 2.157297e-01 12.79299297 7.629930e-01 1.037007e+00
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19 P1170 1.263727e-01 1.036273e-01 17.27154586 4.815459e-01 4.284541e-01
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17 F1262 1.462315e+00 1.347685e+00 4.80486426 1.514864e+00 1.045136e+00
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36 H1336 9.297880e+00 3.962120e+00 8.14570313 1.045703e+00 4.242969e-01
37 H1337 1.381917e+01 3.900828e+00 8.31524625 1.215246e+00 6.047538e-01
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45 H1345 2.463457e+00 1.626543e+00 7.24359279 2.093593e+00 6.506407e+00
46 G1347 1.643732e+00 2.962682e-01 14.11863639 5.648636e+00 1.011364e+00
47 G1348 1.486983e+00 4.530171e-01 13.50073914 5.030739e+00 1.629261e+00
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42 B1534 2.320708e+00 1.629292e+00 2.41417457 5.241746e-01 4.658254e-01
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6 B1545 1.002041e+00 3.479593e-01 2.06674126 1.636741e+00 1.943259e+00
7 B1546 8.415082e-01 1.268492e+00 3.70457710 2.014577e+00 3.375423e+00
8 B1547 1.423679e+00 8.363207e-01 7.77897990 4.108980e+00 8.561020e+00
9 B1548 2.236088e+00 1.103912e+00 5.32336438 3.043364e+00 3.256636e+00
10 B1549 7.685324e-01 7.014676e-01 4.80350495 1.133505e+00 2.276495e+00
11 B1550 4.979878e-01 2.420122e-01 3.85653195 4.056532e+00 2.073468e+00
12 A1551 2.869846e-01 1.930154e-01 5.78352475 3.235247e-01 2.664753e-01
13 A1552 5.434812e-01 3.065188e-01 5.75311332 5.953113e+00 4.086887e+00
14 A1553 1.509487e-01 1.390513e-01 5.07041957 4.120420e+00 1.609580e+00
15 A1554 6.586551e-02 1.441345e-01 4.15929970 3.209300e+00 1.590700e+00
16 A1555 2.014878e-01 1.385122e-01 3.60385765 2.653858e+00 2.146142e+00
17 A1556 8.553389e-02 1.844661e-01 5.67254254 4.722543e+00 5.597457e+00
18 A1558 2.210748e-01 1.889252e-01 3.72460834 2.774608e+00 1.685392e+00
19 A1559 1.581956e-01 7.180439e-02 6.46890003 1.058900e+00 2.811100e+00
20 A1560 2.580577e-01 1.619423e-01 1.79809267 1.188093e+00 2.751907e+00
21 A1561 2.551008e+00 7.189917e-01 9.55640084 2.876401e+00 5.233599e+00
22 A1562 1.384351e+00 4.056488e-01 3.68172078 2.731721e+00 2.068279e+00
23 A1563 1.672836e-01 1.427164e-01 5.97392498 3.739250e-01 7.060750e-01
24 A1564 1.279368e+00 6.106322e-01 3.87474811 3.914748e+00 2.805252e+00
25 A1565 1.494822e+00 5.951776e-01 3.57001900 2.600019e+00 1.909981e+00
26 P1567 7.297343e-01 6.302657e-01 13.38872993 2.378730e+00 2.361270e+00
27 P1568 9.194043e-01 7.305957e-01 12.14083936 1.670839e+00 1.979161e+00
28 P1569 6.840336e-01 9.259664e-01 14.19266552 3.722666e+00 2.327334e+00
29 P1570 1.041188e+00 5.388121e-01 12.13016242 1.630162e+00 1.199838e+00
30 P1571 2.440346e-01 5.359654e-01 11.67945961 1.979460e+00 1.020540e+00
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33 O1576 1.798432e-01 1.101568e-01 10.26007267 6.600727e-01 7.499273e-01
34 O1577 1.230694e-01 6.693062e-02 8.52808969 7.680897e-01 6.519103e-01
35 O1578 2.451274e-01 2.248726e-01 9.62224384 6.222438e-01 2.457756e+00
36 O1579 4.592536e+00 2.627464e+00 3.20685923 3.626859e+00 5.973141e+00
37 O1580 3.753883e+00 2.076117e+00 2.58373045 4.037305e-01 2.962695e-01
38 O1581 1.214104e+00 1.265896e+00 4.95423291 3.224233e+00 3.045767e+00
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44 P1593 8.386072e-01 8.413928e-01 20.43697495 2.146975e+00 2.133025e+00
45 P1596 7.417248e-01 9.482752e-01 19.52453109 2.444531e+00 2.585469e+00
46 P1597 5.355589e-01 1.304441e+00 18.90479166 1.824792e+00 3.665208e+00
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48 P1602 3.455666e-01 4.144334e-01 12.23765371 2.267654e+00 1.362346e+00
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4 R1605 4.504898e-01 3.195102e-01 12.49703163 2.527032e+00 1.102968e+00
5 R1606 1.562451e-01 1.337549e-01 8.79387914 5.623879e+00 3.286121e+00
6 R1607 2.310245e+00 2.409755e+00 9.51758381 7.857584e+00 3.622416e+00
7 R1608 5.161087e-01 3.138913e-01 11.70946607 4.319466e+00 4.810534e+00
8 R1609 6.229646e-01 1.657035e+00 8.41953557 5.109536e+00 3.420464e+00
9 R1610 4.898095e-01 3.301905e-01 12.73420084 5.344201e+00 3.785799e+00
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12 O1613 1.171452e+00 1.558548e+00 4.99484544 2.094845e+00 3.895155e+00
13 R1614 3.429563e-01 4.170437e-01 12.38807476 2.418075e+00 1.071925e+00
14 R1615 3.711527e-01 3.988473e-01 11.79613231 1.826132e+00 1.343868e+00
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16 R1617 8.635266e-01 9.764734e-01 11.55873881 8.987388e-01 8.812612e-01
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25 R1626 7.861872e+00 2.788128e+00 2.48339795 3.203398e+00 6.636602e+00
26 R1627 2.332827e+00 9.371726e-01 4.30521331 4.935213e+00 6.414787e+00
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30 R1631 1.333696e+00 9.463044e-01 11.90492260 2.464923e+00 5.350774e-01
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2 O1650 1.181472e+00 6.285277e-01 5.28912360 2.699124e+00 3.360876e+00
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6 O1654 2.795041e+00 1.084959e+00 9.93093649 2.380936e+00 4.199064e+00
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8 O1656 2.560584e+00 8.794158e-01 10.20799490 1.417995e+00 3.922005e+00
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20 Z1668 1.733100e+00 1.656900e+00 3.30044141 2.950441e+00 3.159559e+00
21 Z1669 3.399542e-01 4.700458e-01 7.10094461 1.990945e+00 4.429055e+00
22 Z1670 1.501192e+00 1.048808e+00 5.15086439 2.870864e+00 1.179136e+00
23 Z1671 7.145859e-01 1.265414e+00 4.95007608 4.360076e+00 3.999924e+00
24 Z1672 5.116150e-01 7.883850e-01 5.94776536 1.137765e+00 1.972235e+00
25 Z1673 1.569753e+00 2.510247e+00 5.89208956 3.612090e+00 2.687910e+00
26 Z1674 3.968827e+00 1.581173e+00 6.47116826 1.481168e+00 2.108832e+00
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28 Z1676 7.595896e-01 2.220410e+00 4.09855311 2.428553e+00 1.901447e+00
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34 Z1682 1.597742e+00 9.522577e-01 4.56899809 4.218998e+00 3.351002e+00
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39 Z1687 1.583865e+00 2.056135e+00 2.72144545 2.371445e+00 2.798555e+00
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43 Z1691 1.311686e+00 1.128314e+00 5.96653869 9.765387e-01 1.153461e+00
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 5 Z1700 2.642761e+00 3.807239e+00 1.70700545 3.047005e+00 4.212995e+00
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 7 Z1702 2.816486e+00 5.643514e+00 8.39801650 3.680165e-01 8.019835e-01
 8 Z1703 3.088293e+00 4.991707e+00 3.75210453 5.092105e+00 5.447895e+00
 9 Z1705 3.801733e-01 5.398267e-01 2.97202259 2.472023e+00 2.627977e+00
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 11 Z1707 1.362051e+00 1.617949e+00 5.87217558 9.421756e-01 4.578244e-01
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 14 L1710 4.157277e+00 2.627233e-01 4.50194992 3.471950e+00 1.038050e+00
 15 L1711 3.892029e-02 6.710797e-01 4.51495416 2.844954e+00 1.915046e+00
 16 L1712 4.102225e+00 3.177754e-01 4.57595168 3.545952e+00 1.854048e+00
 17 L1713 1.665352e+00 1.344648e+00 10.13338163 4.613382e+00 4.946618e+00
 18 L1714 4.495561e-01 4.504439e-01 6.20519635 6.851963e-01 6.948037e-01
 19 L1715 3.788519e-01 5.211481e-01 6.06481318 6.248132e-01 7.951868e-01
 20 L1716 5.328281e-01 3.671719e-01 6.30661778 8.666178e-01 5.933822e-01
 21 L1717 7.069468e-01 1.930532e-01 6.40582912 1.265829e+00 4.941709e-01
 22 L1718 6.201523e-01 2.798477e-01 6.45262770 9.326277e-01 4.473723e-01
 23 L1719 6.754981e-01 2.245019e-01 6.22854316 2.558543e+00 6.714568e-01
 24 L1720 5.451161e-01 3.548839e-01 6.32366585 8.836658e-01 5.763342e-01
 25 SAUG SAUG_i SAUG_s TETE TETE_i TETE_s
 26 E003 27.87071 1.340712e+00 1.489288e+00 9.87232203 1.67232203 2.9076 7797
 27 E004 27.54598 2.359760e-01 3.940240e-01 9.23216902 1.07216902 1.9578 3098
 28 E005 27.22580 6.958017e-01 4.141983e-01 10.00598187 1.84598187 4.3840 1813
 29 E006 25.93182 4.991824e+00 1.788176e+00 8.83964857 0.63964857 1.3903 5143
 30 E007 26.29092 5.350919e+00 1.429081e+00 8.94537993 0.74537993 1.2846 2007
 31 E008 25.79224 4.852245e+00 1.927755e+00 8.77728012 0.56728012 1.4527 1988
 32 E010 28.58430 1.164301e+00 1.515699e+00 11.03105727 2.83105727 3.4189 4273
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 34 E013 25.99063 5.130632e+00 1.669368e+00 8.93810351 0.73810351 1.2418 9649
 35 E014 27.44360 6.503596e+00 1.706404e+00 10.81067709 2.61067709 1.9693 2291
 36 E015 25.36574 4.425744e+00 2.354256e+00 8.51484396 0.31484396 1.7151 5604
 37 E016 27.55112 2.411200e-01 3.888800e-01 9.68494540 1.52494540 1.5050 5460
 38 E017 26.99232 6.052318e+00 3.107682e+00 9.88838012 1.68838012 4.5616 1988
 39 E018 26.23849 1.998494e+00 1.401506e+00 8.65740824 0.45740824 1.5225 9176
 40 E019 27.60671 2.967065e-01 3.332935e-01 9.41412386 1.25412386 1.7758 7614
 41 E020 26.62039 5.680388e+00 1.039612e+00 8.49374423 0.33374423 0.1462 5577
 42 E021 28.56973 1.159730e+00 5.802697e-01 11.26885879 3.06885879 1.1611 4121
 43 E022 26.70119 5.761194e+00 2.658806e+00 9.23665759 1.03665759 3.1633 4241
 44 G023 26.90005 6.040051e+00 2.649949e+00 10.14812050 1.52812050 3.3818 7950
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 47 G026 29.17388 5.538835e-01 7.261165e-01 12.88065016 0.82065016 1.4593 4984
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4 G030 29.35952 5.595243e-01 5.404757e-01 13.06255663 0.83255663 1.2774 4337
5 G031 28.93518 3.751798e-01 4.548202e-01 12.25375492 0.38375492 0.4162 4508
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14 H147 25.02030 1.890304e+00 3.479696e+00 6.17910685 6.54910685 2.6608 9315
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25 S159 32.66150 1.681501e+00 2.078499e+00 1.66621307 2.57621307 2.6037 8693
26 S160 29.37223 1.442225e+00 2.197775e+00 9.45289857 10.36289857 6.8971 143
27 L162 33.56270 2.392700e+00 1.367300e+00 6.87206453 4.33206453 4.4579 3547
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27 J290 31.28263 8.026322e-01 6.373678e-01 0.16991002 0.76991002 1.0800 8998
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25 Z471 19.98129 9.381294e+00 9.968706e+00 3.28839001 2.11839001 1.0316 999
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29 Z477 26.58102 8.381022e+00 4.618978e+00 1.86086789 0.72086789 0.5491 3211
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18 Z530 23.89432 1.370432e+01 7.725681e+00 0.49002396 1.48002396 3.4699 7604
19 Z531 18.72450 1.164450e+01 1.063550e+01 2.40444160 2.48444160 1.4455 5840
20 A532 32.24697 3.686972e+00 2.333028e+00 9.15365506 4.14365506 5.1863 4494
21 A533 33.93251 2.492510e+00 1.147490e+00 7.16745337 4.23745337 3.9025 4663
22 A534 32.21479 9.147916e-01 1.195208e+00 3.69899975 3.81899975 3.4410 25
23 Z535 26.83486 6.434861e+00 7.515139e+00 9.80599558 5.13599558 7.7640 442
24 Z536 27.40648 3.906484e+00 1.303516e+00 5.88717801 3.04717801 1.8728 2199
25 Z537 24.45105 6.681051e+00 3.508949e+00 4.25622418 1.52622418 0.9437 7582
26 Z538 31.09159 3.761591e+00 3.258409e+00 7.19735956 1.88735956 1.6326 4044
27 Z539 28.32400 7.144002e+00 6.275998e+00 7.27989095 2.60989095 1.7701 905
28 Z540 27.85593 6.675930e+00 3.414070e+00 5.58257977 5.95257977 3.4674 2023
29 Z541 30.49509 2.615089e+00 4.114911e+00 6.40618530 3.56618530 2.5038 1470
30 Z542 32.21694 2.546939e+00 2.393061e+00 6.08188085 2.99188085 1.9681 1915
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33 Z547 27.48795 7.687946e+00 4.032054e+00 4.11467632 1.79467632 1.4253 2368
34 Z548 32.98828 3.318276e+00 1.461724e+00 4.94044447 1.30044447 2.2095 5553
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36 Z550 31.91528 1.415276e+00 2.884724e+00 9.49915649 6.86915649 3.9708 4351
37 Z551 34.77482 1.348186e-01 1.051814e-01 8.71488470 0.22488470 0.2751 1530
38 Z552 33.17088 5.290876e+00 1.449124e+00 7.10463026 2.27463026 0.7553 6974
39 Z553 32.36211 9.821135e-01 2.247886e+00 7.72345450 0.87345450 0.3365 4550
40 Z554 30.93100 2.221002e+00 1.778998e+00 7.47623520 2.80623520 6.4537 6480
41 Z555 32.79452 1.754518e+00 1.035482e+00 2.84455935 3.17455935 1.8654 4065
42 Z556 27.24531 1.064531e+01 5.464691e+00 4.32802592 3.76802592 3.5919 7408
43 Z557 31.37735 2.747352e+00 1.882648e+00 4.77304473 0.55304473 0.7269 5527
44 Z558 33.21437 9.643679e-01 1.085632e+00 3.91461085 4.24461085 1.5353 8915
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3 Z564 29.70504 1.315044e+00 2.334956e+00 1.62446245 2.90446245 4.9355 3755
4 Y566 31.15211 2.133211e+01 9.178868e-01 0.76976036 1.33976036 3.1902 3964
5 Y567 28.80509 9.815095e+00 3.424905e+00 0.45389891 1.63389891 1.1861 109
6 Y568 31.02811 2.120811e+01 1.091888e+00 1.27820536 1.84820536 2.6817 9464
7 Y569 27.22377 1.662377e+01 4.646234e+00 1.60316252 1.37316252 2.7168 3748
8 Y570 30.35414 1.928414e+01 1.945861e+00 1.56743557 1.64743557 1.3925 6443
9 Y571 28.40410 1.858410e+01 3.665896e+00 1.08365158 2.26365158 2.8763 4842
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11 Y573 28.25310 3.383101e+00 2.756899e+00 0.56688067 1.34688067 0.8531 1933
12 Y574 31.11261 1.392605e+00 1.117395e+00 0.83371018 0.80371018 0.5962 8982
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14 Y576 29.73365 1.991365e+01 2.386352e+00 1.45665441 2.02665441 2.5033 4559
15 Y577 31.50862 2.168862e+01 6.113789e-01 1.76615971 2.33615971 2.1938 4029
16 Y578 32.07658 2.716576e+00 3.634241e-01 1.86546873 1.94546873 0.2245 3127
17 Y579 29.69772 8.727724e+00 2.692276e+00 2.57842352 0.61842352 2.2615 7648
18 Y580 32.12635 1.763514e-01 3.136486e-01 2.22111651 0.28111651 0.5588 8349
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20 Z585 20.02166 1.294166e+01 8.038341e+00 2.11750211 3.10750211 1.8424 9789
21 Z586 23.23915 3.469147e+00 8.620853e+00 2.42434251 1.72434251 1.3156 5749
22 Z590 13.21434 3.474339e+00 1.057566e+01 3.63459178 2.46459178 0.6854 822
23 Z591 12.51760 3.537597e+00 1.312240e+01 4.32026798 2.44026798 0.5397 3202
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26 Z596 26.07140 1.588140e+01 3.288597e+00 0.95079948 1.03079948 3.0092 52
27 Z597 15.15088 6.200883e+00 1.358912e+01 2.28006194 1.82006194 1.1599 3806
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31 Z602 27.48179 8.441786e+00 4.518214e+00 14.68609655 0.57609655 0.6939 345
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34 Z605 29.36893 1.032893e+01 2.641073e+00 14.72760348 0.91760348 1.5223 9652
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36 N607 28.03824 2.588244e+00 2.501756e+00 15.08023633 1.36023633 0.7597 6367
37 N608 27.96774 2.517743e+00 2.782257e+00 15.12161596 0.69161596 0.7183 8404
38 N609 28.11183 2.661831e+00 2.128169e+00 15.03901466 1.40901466 0.7909 8534
39 N610 28.18174 2.731740e+00 2.568260e+00 15.45783405 1.02783405 0.3821 6595
40 N611 28.51827 1.758268e+00 2.021732e+00 15.54282957 1.82282957 0.2971 7043
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43 N614 29.70244 4.032444e+00 1.717556e+00 13.52793144 0.96793144 1.1520 6856
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48 N623 28.71111 3.261107e+00 3.108893e+00 13.92286160 1.13286160 0.7571 3840
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5 N630 30.48750 4.817496e+00 1.292504e+00 12.82983388 0.26983388 0.8201 6612
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7 N632 29.25073 3.580731e+00 2.529269e+00 13.24161468 0.57161468 0.4083 8532
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9 N634 30.24022 4.570220e+00 1.579780e+00 13.28339763 0.61339763 1.3966 237
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11 N636 30.27199 4.601992e+00 1.508008e+00 12.96117468 0.40117468 0.6888 2532
12 N637 29.78508 4.115077e+00 1.994923e+00 13.06565836 0.39565836 0.5843 4164
13 N638 29.78988 4.119885e+00 1.630115e+00 12.96048828 0.40048828 0.6895 1172
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17 C650 31.27156 1.581556e+00 1.878444e+00 17.47528439 1.81528439 5.9747 1561
18 C651 31.29220 1.602202e+00 1.757798e+00 19.08220603 3.47220603 4.1677 9397
19 C652 32.39064 1.280644e+00 2.549356e+00 16.90030636 6.19030636 6.8496 9364
20 C653 33.01428 1.584280e+00 2.015720e+00 14.07578845 4.74578845 4.7342 1155
21 C654 32.28275 1.482748e+00 2.727252e+00 15.25721047 1.90721047 2.5327 8953
22 C655 32.04849 1.248488e+00 1.401512e+00 16.14799887 3.11799887 6.7120 113
23 C656 31.94267 1.142674e+00 1.507326e+00 17.34400491 2.75400491 5.5159 9509
24 C657 31.45619 1.016189e+00 5.138110e-01 15.14094578 1.40094578 1.1890 5422
25 C658 33.42999 1.989992e+00 1.540008e+00 12.92458379 4.56458379 4.6054 1621
26 C659 31.87539 1.435391e+00 1.034609e+00 16.73974462 2.45974462 1.0502 5538
27 C660 31.09124 6.512443e-01 8.787557e-01 15.18252688 1.84252688 2.6074 7312
28 C661 32.23162 8.416158e-01 1.218384e+00 17.75751178 1.70751178 5.1024 8822
29 C662 31.74548 1.475477e+00 1.124523e+00 14.35287891 1.30287891 2.5571 2109
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31 C664 30.92757 7.475670e-01 4.324330e-01 15.71470645 1.18470645 1.4652 9355
32 C665 31.97195 1.531948e+00 1.478052e+00 17.92298937 3.64298937 4.9370 1063
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35 C668 33.50011 2.070107e+00 1.699893e+00 14.75574617 3.84574617 2.9242 5383
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37 C670 29.69068 1.067784e-02 1.932216e-02 15.66806086 0.11806086 0.0619 3914
38 C671 29.62023 2.602297e-01 7.977031e-02 15.67002012 0.23002012 0.2799 7988
39 C672 29.68194 2.193524e-02 8.064756e-03 15.66166693 0.22166693 0.0683 3307
40 C673 29.68809 2.808989e-02 2.191011e-02 15.63137156 0.19137156 0.0986 2844
41 C674 29.43978 1.439783e+00 2.602173e-01 14.78327499 5.03327499 0.9467 2501
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43 C676 30.62613 9.661295e-01 1.563870e+00 13.74096365 2.73096365 1.9890 3635
44 C677 30.64522 3.325224e+00 2.724776e+00 15.33691125 7.52691125 7.4530 8875
45 A682 29.37443 9.364426e+00 2.235574e+00 14.21932479 5.09932479 3.3506 7521
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4 Y689 31.44877 2.448771e+00 4.212291e-01 0.52781627 0.51781627 0.7121 8373
5 Y690 31.56198 1.241982e+00 5.180181e-01 0.01619556 1.19619556 1.8438 444
6 Y691 30.69752 5.967517e+00 1.602483e+00 1.27774900 2.49774900 0.7122 5100
7 Y692 32.24433 2.943341e-01 1.956659e-01 2.15148022 0.32148022 0.6285 1978
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9 Y694 31.83575 1.515746e+00 1.114254e+00 1.38789922 2.36789922 1.5321 78
10 Y695 31.30758 8.275829e-01 8.124171e-01 0.49409654 1.06409654 1.4559 346
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12 Y697 31.80332 6.233176e-01 7.866824e-01 2.07987025 0.70987025 0.8601 2975
13 A698 35.48792 3.579243e-01 1.620757e-01 16.07655941 3.24655941 2.0034 4059
14 A699 35.18303 3.330291e-01 2.369709e-01 12.34370578 5.07370578 3.8962 9422
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16 A703 31.61178 1.081784e+00 5.682156e-01 14.80461246 1.75461246 0.7153 8754
17 A704 31.52347 1.033470e+00 1.286530e+00 14.33274459 8.81274459 3.4572 5541
18 Z705 28.68616 1.048616e+01 3.803843e+00 2.20588753 1.06588753 0.3841 1247
19 Z706 28.01266 9.812660e+00 4.937340e+00 2.05412872 0.91412872 0.8658 7128
20 Z707 32.25250 9.224961e-01 2.175039e-01 1.93584495 0.36584495 0.4041 5505
21 Z708 25.31470 7.114700e+00 7.635300e+00 2.24683207 1.10683207 0.6731 6793
22 Z710 29.08353 3.323533e+00 2.536467e+00 1.00007431 0.68007431 0.7299 2569
23 Z714 31.35716 1.997164e+00 1.082836e+00 1.51994828 1.59994828 0.5200 5172
24 Z716 31.19232 7.123151e-01 6.976849e-01 1.69074753 1.76074753 0.1192 5247
25 Z717 31.18894 7.089448e-01 7.010552e-01 1.72882603 1.79882603 0.1311 7397
26 Z718 31.09236 6.123597e-01 7.976403e-01 1.03647412 1.10647412 0.8235 2588
27 Z720 31.21158 2.211580e+00 1.018420e+00 0.48788179 1.46788179 0.9421 1821
28 Z721 30.06269 5.026887e-01 1.827311e+00 0.20032755 0.27032755 1.6096 7245
29 Z722 30.78795 1.067953e+00 1.102047e+00 0.29869937 0.36869937 1.0713 63
30 Z723 31.14227 1.582274e+00 5.677262e-01 0.46784470 0.45784470 1.3921 5530
31 Z726 30.96954 4.895376e-01 9.204624e-01 0.85340087 0.92340087 1.0065 9913
32 Z727 30.63712 1.571226e-01 1.072877e+00 0.76495102 0.58495102 1.0950 4898
33 Z728 31.44442 9.644153e-01 4.455847e-01 0.53241452 0.60241452 1.3275 8548
34 Z729 28.90206 5.882059e+00 2.807941e+00 0.95817170 0.94817170 2.7818 2830
35 Z730 23.22443 1.614443e+01 5.515569e+00 1.98418252 3.20418252 1.8658 1748
36 Z731 31.44085 9.108491e-01 4.491509e-01 0.28467724 0.35467724 1.5753 2276
37 Z732 25.01830 1.606830e+01 6.181702e+00 1.78345016 1.86345016 1.6365 4984
38 Z733 29.31065 5.100652e+00 2.579348e+00 1.06790911 1.13790911 0.7920 9089
39 Z735 28.64577 2.485768e+00 8.542316e-01 -1.04853908 0.42146092 0.9685 3908
40 Z736 26.58481 6.184813e+00 1.805187e+00 6.02191671 3.18191671 3.0780 8329
41 Z737 28.45010 5.700965e-01 4.399035e-01 0.40878316 1.71878316 4.4212 1684
42 Z738 28.68986 8.289864e+00 5.910136e+00 6.92658631 6.59658631 2.1734 1369
43 Z739 27.93977 1.033977e+01 3.710229e+00 6.26810372 3.42810372 2.6418 9628
44 Z740 27.54051 1.263051e+01 4.169493e+00 1.00136237 0.99136237 2.9286 3763
45 Z743 24.73857 1.460857e+01 4.621427e+00 1.34762151 2.50762151 2.9423 7849
46 Z746 26.58126 6.811257e+00 3.368743e+00 1.39023024 1.38023024 2.3497 6976
47 O747 31.69223 6.422270e-01 6.477730e-01 7.86204085 1.06204085 0.4479 5915
48 O748 31.74159 4.015888e-01 5.984112e-01 7.66634783 0.86634783 0.6636 5217
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4 0754 27.65311 7.423108e+00 3.816892e+00 5.41903088 2.25903088 2.0709 6912
5 0755 31.92823 3.782307e-01 5.117693e-01 7.71244226 0.16244226 0.2075 5774
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7 0757 30.99346 2.843460e+00 8.365396e-01 7.64210721 0.84210721 1.2678 9279
8 0758 31.57257 1.925719e-01 1.157428e+00 7.27330975 0.42330975 0.9566 9025
9 0759 29.54113 1.294113e+01 5.078868e+00 6.58981640 2.89981640 1.2401 8360
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11 0761 31.61278 1.927822e-01 5.672178e-01 7.61321357 0.12321357 0.4467 8643
12 0762 31.75362 4.136175e-01 5.863825e-01 7.91239011 1.11239011 0.9776 989
13 0763 31.69211 6.421147e-01 1.217885e+00 7.84869462 1.14869462 0.6913 538
14 0764 31.28145 2.681451e+00 1.628549e+00 8.68192123 1.84192123 5.2980 7877
15 0765 31.72027 6.702716e-01 4.397284e-01 8.20202196 0.30202196 0.2679 7804
16 0766 32.04318 1.431761e-01 1.968239e-01 8.31697712 0.64697712 0.4130 2288
17 0767 31.74606 8.260605e-01 5.939395e-01 8.30853800 0.46853800 0.5814 6200
18 0768 32.01296 4.029571e-01 2.270429e-01 8.13591024 0.46591024 0.3340 8976
19 0769 31.99819 3.581907e-01 2.418093e-01 8.18623832 0.51623832 0.7037 6168
20 0770 32.09596 1.559552e-01 6.404485e-02 8.46185795 0.35185795 0.2981 4205
21 0771 31.90568 2.956828e-01 2.543172e-01 8.40210419 0.29210419 0.4878 9581
22 0772 31.92064 2.806441e-01 3.193559e-01 8.62422251 0.52422251 0.2657 7749
23 0773 31.71625 7.862498e-01 5.737502e-01 7.47729207 1.20729207 1.2927 793
24 0774 31.50378 5.837823e-01 6.562177e-01 7.70282642 0.86282642 0.7671 7358
25 0775 31.50597 2.905972e+00 1.404028e+00 8.51129627 1.67129627 5.4687 373
26 0776 30.42318 3.353178e+00 1.916822e+00 7.25920336 2.92920336 1.6507 9664
27 0777 32.14377 3.137716e-01 5.862284e-01 7.98908722 0.35908722 0.5509 1278
28 0778 31.64886 6.788584e-01 1.261142e+00 7.36422129 0.66422129 0.8457 7871
29 0779 31.82857 6.185732e-01 5.114268e-01 7.71886621 0.87886621 0.8211 3379
30 0780 32.16636 4.563579e-01 7.436421e-01 7.97669830 0.30669830 0.6633 170
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33 0783 32.14785 5.078538e-01 7.621462e-01 8.39504417 0.34504417 0.4949 5583
34 0784 32.27588 3.758752e-01 4.541248e-01 7.90123797 0.27123797 0.3287 6203
35 0785 31.82366 6.136613e-01 3.363387e-01 7.86898208 1.02898208 0.6710 1792
36 0786 31.84888 2.388784e-01 2.911216e-01 8.21183071 1.37183071 0.6781 6929
37 0787 31.88130 2.413043e-01 2.786957e-01 8.42351963 0.75351963 0.4664 8037
38 0788 31.37737 2.377371e+00 6.826290e-01 9.01026663 1.18026663 4.7697 3337
39 0789 32.12048 2.204759e-01 1.195241e-01 8.15091072 0.48091072 0.3190 8928
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43 0793 31.84344 2.034353e-01 2.165647e-01 8.44461316 0.61461316 0.4453 8684
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4 Z801 16.70400 7.754005e+00 1.128600e+01 2.01439092 2.79439092 1.9456 908
5 Z804 31.91745 1.087450e+00 6.825495e-01 1.33612236 2.61612236 1.0038 7764
6 Z806 30.84763 1.847626e+00 1.752374e+00 0.98230672 1.58230672 1.1476 9328
7 Z807 31.68161 1.471613e+00 5.683866e-01 3.86123877 4.19123877 1.6187 6123
8 Z808 32.41446 1.194461e+00 1.255539e+00 4.87369438 0.70369438 0.6263 562
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25 P830 32.47394 4.939426e-01 3.660574e-01 16.27883256 1.17883256 0.8511 6744
26 P831 32.19983 7.198284e-01 7.301716e-01 13.60396549 1.87396549 0.9660 3451
27 P832 28.92871 6.678707e+00 3.941293e+00 13.92956878 1.51956878 0.9804 3122
28 P836 32.48952 8.595181e-01 3.004819e-01 16.78104494 0.49104494 0.2289 5506
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31 P840 25.56886 6.408859e+00 7.301141e+00 14.32969499 0.51969499 0.9903 501
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48 P861 32.40505 3.950452e-01 4.449548e-01 13.44742906 3.17742906 1.8625 7094
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2	P863	31.90360	1.635982e-01	1.564018e-01	15.09518931	2.43518931	1.2848	1069		
3	P864	32.39735	1.973499e-01	1.526501e-01	13.89730106	1.70730106	1.8226	9894		
4	P865	31.84176	1.191760e+00	6.282402e-01	14.31390251	1.34390251	1.0360	9749		
5	P866	31.48996	2.689958e+00	1.380042e+00	14.02594071	0.91594071	1.4540	5929		
6	P867	31.70971	9.697077e-01	1.160292e+00	15.14270670	1.47270670	1.6472	9330		
7	P868	32.04224	7.922421e-01	8.277579e-01	14.29042931	0.48042931	1.4095	7069		
8	P869	30.98326	1.913262e+00	1.076738e+00	13.76350604	1.01350604	1.4464	9396		
9	P870	30.24470	7.754705e+00	1.815295e+00	14.43249178	1.32249178	1.2675	822		
10	P871	32.10657	8.565724e-01	7.634276e-01	14.51825473	0.57825473	1.1817	4527		
11	P872	32.23876	2.587636e-01	3.512364e-01	16.24548981	0.91548981	0.4545	1019		
12	P873	31.92574	6.573817e-02	9.426183e-02	16.12901661	0.89901661	0.5409	8339		
13	P874	31.94757	1.275704e-01	1.124296e-01	14.67672363	1.56672363	1.5732	7637		
14	P875	31.83986	5.898610e-01	6.501390e-01	14.70677136	2.35677136	0.9932	2864		
15	P876	27.98822	7.308219e+00	4.021781e+00	14.27188584	1.86188584	1.2081	1416		
16	P877	32.21645	5.264525e-01	6.535475e-01	14.78577315	1.11577315	1.4642	2685		
17	P878	32.51346	8.234566e-01	5.565434e-01	14.28043773	1.69043773	1.1995	6227		
18	P879	31.88740	1.337405e+00	7.225951e-01	13.88070501	1.47070501	0.8792	9499		
19	P880	32.40645	4.264508e-01	1.835492e-01	16.07539731	0.83539731	0.6246	269		
20	P881	32.32200	5.020014e-01	4.879986e-01	15.39418991	1.23418991	1.1558	1009		
21	P882	32.43022	5.702176e-01	4.997824e-01	15.03133139	1.59133139	1.0486	6861		
22	P883	32.16742	3.074224e-01	6.725776e-01	16.25546947	1.02546947	0.8745	3053		
23	P884	32.38975	1.369752e+00	4.602476e-01	17.30975426	0.29975426	0.3502	4574		
24	P885	32.55285	1.532854e+00	4.371458e-01	17.27461724	0.39461724	0.8253	8276		
25	P886	32.64795	1.017955e+00	3.420452e-01	17.17321569	0.76321569	0.4367	8431		
26	P888	32.40912	3.991154e-01	5.208846e-01	14.81064713	1.37064713	1.2693	5287		
27	P889	32.08937	2.693732e-01	5.206268e-01	15.27502537	0.70502537	0.9749	7463		
28	P890	32.03375	7.837474e-01	4.562526e-01	12.70807990	3.68807990	2.9919	2010		
29	P891	32.37135	5.513521e-01	4.386479e-01	14.70856720	0.89856720	1.5414	3280		
30	P892	32.47127	8.412660e-01	5.187340e-01	16.99048280	0.58048280	0.6195	1720		
31	P893	32.04735	1.307355e+00	7.626455e-01	14.59498237	2.24498237	2.1950	1763		
32	P894	32.18476	2.747576e-01	6.552424e-01	16.29219352	1.06219352	0.8378	648		
33	P895	32.67798	7.679848e-01	2.820152e-01	17.26432407	0.59432407	0.8356	7593		
34	P896	32.34108	3.610834e-01	2.489166e-01	16.16186566	0.85186566	0.5381	3434		
35	P897	32.33247	4.724735e-01	4.775265e-01	15.28152600	1.12152600	1.2684	7400		
36	P898	31.63902	2.699022e+00	1.210978e+00	11.61443899	1.38443899	1.4155	6101		
37	P899	30.86944	1.929436e+00	1.290564e+00	13.97677124	1.65677124	2.4032	2876		
38	P901	31.48813	2.128129e+00	6.718710e-01	11.02509537	3.35509537	2.0849	463		
39	P903	32.35542	6.654192e-01	5.745808e-01	14.95191844	1.51191844	1.1280	8156		
40	P904	30.16060	8.990597e+00	1.869403e+00	13.80210037	1.39210037	0.4578	9963		
41	C905	32.56233	4.123251e-01	5.476749e-01	23.67750854	0.32750854	0.1624	9146		
42	C906	32.60133	3.513349e-01	5.486651e-01	23.78461470	0.08461470	0.2253	8530		
43	C907	32.81843	5.684267e-01	3.315733e-01	23.53932830	0.30932830	0.1906	7170		
44	C908	32.68459	4.345908e-01	3.954092e-01	23.53951966	0.30951966	0.3604	8034		
45	C909	32.82194	5.719438e-01	3.280562e-01	23.47351103	0.25351103	0.2264	8897		
46	C910	32.73266	5.826575e-01	3.773425e-01	23.54631540	0.32631540	0.2936	8460		
47	C911	32.83176	5.817616e-01	6.682384e-01	23.63412967	0.36412967	0.3958	7033		
48	C912	34.46060	1.960597e+00	6.394028e-01	14.18491948	5.06491948	9.8050	8052		

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2 C913 32.78537 1.785370e+00 8.246298e-01 22.14967587 5.67967587 1.3003 2413
3 C914 33.21246 7.524606e-01 4.975394e-01 20.09276141 15.08276141 3.7072 3859
4 C915 33.21008 1.470077e+00 1.939923e+00 19.84888048 8.72888048 3.4311 1952
5 C916 32.99682 5.368241e-01 6.131759e-01 23.35193272 0.30193272 0.6380 6728
6 C917 33.20934 1.693420e-01 4.006580e-01 23.38135698 0.25135698 0.4186 4302
7 C918 32.35075 1.350749e+00 7.992514e-01 20.92752025 4.45752025 2.8024 7975
8 C919 32.48680 3.367953e-01 1.013205e+00 23.71985860 0.43985860 0.3101 4140
9 C920 32.57715 4.971542e-01 5.728458e-01 23.59150745 0.36150745 0.3184 9255
10 C921 32.76896 8.089582e-01 8.410418e-01 23.65945802 0.60945802 0.8705 4198
11 C922 32.65189 5.818881e-01 7.781119e-01 23.63406115 0.58406115 0.3759 3885
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13 C924 32.49088 2.408817e-01 6.591183e-01 23.67153876 0.22153876 0.0784 6124
14 C925 32.53062 2.806197e-01 5.793803e-01 23.76814099 0.06814099 0.1318 5901
15 C926 32.45122 3.012217e-01 6.587783e-01 23.77025072 0.07025072 0.1297 4928
16 C927 32.63403 3.840280e-01 5.159720e-01 23.69962997 0.24962997 0.2003 7003
17 C928 32.65117 5.011744e-01 8.488256e-01 23.81517996 0.11517996 0.2148 2004
18 C929 32.65144 4.014354e-01 8.485646e-01 23.77437640 0.07437640 0.2556 2360
19 C930 32.57264 3.026368e-01 4.673632e-01 23.46732698 0.32732698 0.5426 7302
20 C931 32.65906 5.090614e-01 8.409386e-01 23.70691072 0.48691072 0.3230 8928
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22 C933 32.66667 5.166708e-01 4.633292e-01 23.76193667 0.54193667 0.3480 6333
23 C934 32.85102 6.010216e-01 7.589784e-01 23.44172028 0.31172028 0.2582 7972
24 A935 33.97222 5.322245e-01 8.477755e-01 6.91448528 2.48448528 4.5855 1472
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26 A937 34.12145 2.141449e+00 8.285510e-01 5.17714615 2.86714615 2.3928 5385
27 A938 33.31615 3.426153e+00 1.363847e+00 7.58336789 3.08336789 6.7566 3211
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30 A941 33.83890 3.788995e-01 1.111005e-01 7.32232792 0.87232792 0.3876 7208
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34 A945 33.13589 2.605890e+00 1.684110e+00 8.40026114 3.39026114 4.9397 3886
35 A946 34.22145 3.514506e-01 6.385494e-01 4.77064157 0.86064157 2.6893 5843
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37 A948 34.40433 4.043332e-01 3.556668e-01 6.92130419 0.63130419 0.9286 9581
38 A949 34.11167 6.916676e-01 3.083324e-01 5.05253870 1.42253870 1.0574 6130
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40 A951 32.98605 1.216053e+00 1.303947e+00 3.12675551 0.95675551 0.6932 4449
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42 A953 34.02561 3.356120e-01 5.643880e-01 4.16425480 0.52425480 1.0757 4520
43 A954 34.07423 6.542267e-01 6.057733e-01 5.22334566 1.59334566 1.0666 5434
44 A955 33.76887 3.288673e-01 2.611327e-01 5.41311688 0.91311688 0.7868 8312
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47 A958 33.95943 8.943401e-02 1.405660e-01 6.77899311 0.85899311 0.9310 689
48 A959 33.69748 2.574778e-01 2.525222e-01 6.28451647 0.94451647 1.4254 8353
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11 A969 34.57482 1.114820e+00 4.751795e-01 9.07943560 2.62943560 1.5005 6440
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5	M1063	37.68032	3.032311e-02	1.296769e-01	24.22790692	0.33790692	0.0920 9308
6	M1064	36.58640	9.363983e-01	8.436017e-01	21.71332300	3.99332300	2.8466 7700
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12	M1071	37.37637	2.463737e-01	6.136263e-01	24.85866854	0.71866854	0.1713 3146
13	M1072	37.37225	5.022549e-01	6.077451e-01	24.35911474	0.38911474	0.4808 8526
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16	M1075	37.41005	2.400483e-01	2.399517e-01	24.53753269	0.44753269	0.4524 6731
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19	M1078	37.57089	8.408869e-01	4.491131e-01	23.83759313	1.28759313	0.4824 687
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21	M1080	37.37573	2.357297e-01	9.427027e-02	24.87649470	0.27649470	0.1535 530
22	M1081	37.30158	4.315836e-01	6.784164e-01	24.52358143	0.55358143	0.3164 1857
23	M1082	37.09092	2.209233e-01	3.790767e-01	24.42749302	0.45749302	0.4525 698
24	M1083	37.32022	1.802242e-01	6.797758e-01	24.52259806	0.49259806	0.1874 194
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26	M1089	37.70889	2.788923e-01	3.111077e-01	24.16856276	0.27856276	0.2014 3724
27	M1090	37.69983	2.698294e-01	3.301706e-01	24.18139212	0.29139212	0.1886 788
28	M1091	37.71536	3.053632e-01	3.046368e-01	24.39537163	0.48537163	0.6146 2837
29	M1092	37.81897	1.689660e-01	2.010340e-01	24.30914110	0.41914110	0.8708 5890
30	Q1093	36.23100	1.809968e-01	3.190032e-01	19.67599920	0.83599920	0.9540 80
31	Q1094	36.26972	2.197202e-01	2.802798e-01	19.73449775	0.89449775	0.8955 225
32	Q1095	36.21274	1.627384e-01	1.972616e-01	19.92312789	1.08312789	1.8268 7211
33	Q1097	36.28886	2.388648e-01	2.611352e-01	19.87347222	1.03347222	0.7565 2778
34	Q1098	36.27912	2.291184e-01	2.908816e-01	20.03770611	1.19770611	1.2022 9389
35	Q1099	36.31567	1.056735e-01	2.343265e-01	20.08780184	0.55780184	1.5421 9816
36	Q1100	36.31824	2.682417e-01	2.317583e-01	20.35373767	1.51373767	0.9062 6233
37	Q1101	36.25146	2.014629e-01	2.785371e-01	19.83610740	0.99610740	1.2038 9260
38	Q1102	36.26456	2.145650e-01	2.854350e-01	19.95030369	1.11030369	1.3096 9631
39	Q1104	36.32333	2.733263e-01	2.066737e-01	20.38520242	1.54520242	1.2447 9758
40	Q1105	36.27328	2.232773e-01	2.967227e-01	20.12224874	1.28224874	1.6277 5126
41	Q1106	36.21597	1.659728e-01	1.240272e-01	20.23455779	1.39455779	1.0254 4221
42	Q1107	36.25913	2.091302e-01	2.708698e-01	20.05174312	1.21174312	0.9882 5688
43	H1109	26.23228	2.932278e+00	2.157722e+00	7.56387958	1.00387958	0.4961 2042
44	H1110	26.42219	3.522186e+00	1.687814e+00	6.16194152	3.43194152	2.5380 5848
45	H1111	28.60632	1.263207e-01	2.836793e-01	6.25780123	0.68780123	0.6521 9877
46	H1112	28.74596	2.659601e-01	1.440399e-01	6.41806886	0.84806886	0.4919 3114
47	H1113	28.72293	2.429276e-01	1.670724e-01	6.20404056	0.63404056	0.7059 5944
48	H1114	28.63245	1.524525e-01	2.375475e-01	6.42009032	0.19009032	0.4899 968
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36 P1296 NA NA NA NA NA NA
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19 H1330 31.72149 1.401486e+00 1.468514e+00 -0.02483330 0.95516670 1.2848 3330
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23 H1334 29.65985 6.499850e+00 4.940150e+00 5.35143587 2.51143587 2.5085 6413
24 H1335 26.00569 2.845692e+00 5.424308e+00 6.86490956 2.86490956 1.9750 9044
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30 H1341 29.86803 1.288034e+00 1.561966e+00 7.21576794 0.51576794 0.6842 3206
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32 H1343 27.26780 6.427804e+00 3.412196e+00 3.92191336 0.63191336 1.7180 8664
33 H1344 28.06912 1.809120e+00 2.610880e+00 4.92379026 1.46379026 0.9162 974
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36 G1348 28.80139 1.391388e+00 6.186116e-01 11.62234544 3.42234544 1.7776 5456
37 G1349 28.81727 1.407270e+00 6.027300e-01 11.65078756 3.45078756 1.7492 1244
38 G1350 27.14858 6.208579e+00 2.211421e+00 10.21250111 1.95250111 2.5674 9889
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6 G1365 28.96941 1.769409e+00 3.230591e+00 12.90750224 7.88750224 4.2324 9776
7 G1366 32.55212 2.202119e+00 2.067881e+00 9.15621509 3.70621509 3.0037 8491
8 G1367 31.41358 2.463577e+00 2.686423e+00 10.38011327 5.37011327 3.9598 8673
9 G1368 29.11424 1.642447e-01 3.575528e-02 12.40869733 0.02869733 0.0513 267
10 G1369 28.66065 1.260651e+00 4.893489e-01 11.38570736 3.12570736 0.9942 9264
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12 H1371 23.91939 8.393910e-01 8.706090e-01 6.10600391 0.65600391 0.6339 9609
13 A1372 32.18986 4.189859e+00 2.120141e+00 4.87046142 4.36046142 4.8795 3858
14 A1373 33.79525 1.425250e+00 1.034750e+00 4.13368008 3.06368008 3.9763 1992
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16 A1375 34.29107 1.901067e+00 5.289328e-01 4.36248162 2.78248162 1.2175 1838
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22 A1381 32.85983 1.949834e+00 1.450166e+00 2.40265436 1.89265436 2.5273 4564
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24 A1384 32.94554 1.415544e+00 7.244561e-01 2.17282477 1.62282477 1.7471 7523
25 A1385 32.29627 1.236266e+00 1.353734e+00 2.05839438 2.08839438 2.3916 562
26 A1386 31.95395 1.633954e+00 6.460458e-01 0.73245213 1.81245213 1.6075 4787
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19 B1521 30.74075 3.650751e+00 1.319249e+00 2.31707736 0.91707736 0.9129 2264
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22 B1524 32.60326 5.532580e-01 1.236742e+00 2.31812868 1.63812868 0.8418 7132
23 B1525 32.01883 8.388296e-01 5.211704e-01 2.01769370 0.48769370 0.8523 630
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25 B1527 32.22378 6.437827e-01 4.562173e-01 2.62870018 1.22870018 0.6012 9982
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37 B1540 27.97733 8.547335e+00 4.712665e+00 2.72774247 0.92774247 0.5622 5753
38 B1541 32.08254 2.825382e-01 4.274618e-01 2.13996629 0.47996629 0.8000 3371
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9 A1560 32.93547 5.654731e-01 1.264527e+00 1.82365759 0.75365759 1.9863 4241
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15 P1567 31.67936 2.739359e+00 9.706408e-01 12.52257227 4.01257227 2.8274 2773
16 P1568 31.82667 2.886665e+00 1.023335e+00 11.66199950 1.43199950 1.3680 50
17 P1569 31.84352 1.343515e+00 9.264849e-01 13.43152931 3.20152931 2.9484 7069
18 P1570 32.00384 3.063842e+00 8.461579e-01 11.56468836 1.29468836 0.7553 1164
19 P1571 32.65695 1.269489e-01 1.830511e-01 11.35877802 2.21877802 0.8912 2198
20 P1572 32.71631 1.863112e-01 1.336888e-01 11.19461028 0.96461028 1.0553 8972
21 O1575 32.80809 3.080950e-01 3.119050e-01 9.15137160 0.81137160 1.5486 2840
22 O1576 32.74057 9.057088e-02 1.094291e-01 9.06408403 1.69408403 1.2059 1597
23 O1577 32.90895 1.789504e-01 2.110496e-01 8.47830241 0.24830241 0.1216 9759
24 O1578 32.75700 2.569976e-01 8.300237e-02 8.84772441 0.50772441 1.8522 7559
25 O1579 32.33193 2.619269e-01 2.680731e-01 2.61108743 3.69108743 5.6989 1257
26 O1580 32.17346 8.434640e-01 4.265360e-01 1.87420288 0.45420288 0.4657 9712
27 O1581 31.54249 5.824922e-01 8.575078e-01 4.27075256 2.82075256 2.9692 4744
28 O1582 32.10974 1.789742e+00 7.002583e-01 3.75024591 4.83024591 4.6797 5409
29 O1583 32.67508 1.750769e-01 1.349231e-01 9.23411825 1.00411825 1.4658 8175
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31 P1590 32.58331 1.333068e-01 2.566932e-01 14.10535041 2.63535041 1.8846 4959
32 P1591 32.56889 9.889145e-02 2.011085e-01 15.14512881 4.11512881 1.5548 7119
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34 P1596 33.28760 6.975964e-01 7.024036e-01 18.17537319 1.29537319 3.0846 2681
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39 R1604 32.10239 8.923905e-01 5.176095e-01 10.50902053 1.48902053 1.2909 7947
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42 R1607 31.34964 4.219638e+00 1.270362e+00 7.90962644 6.53962644 3.8903 7356
43 R1608 31.70795 3.137948e+00 9.120519e-01 10.49056395 4.65056395 5.8894 3605
44 R1609 31.28354 3.283538e+00 1.226462e+00 8.66579559 5.72579559 1.9042 441
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13 R1625 30.55446 3.414465e+00 2.175535e+00 5.49610783 4.86610783 4.2338 9217
14 R1626 31.10598 1.745980e+00 1.574020e+00 2.47421338 3.07421338 6.5957 8662
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24 Z1636 30.09870 1.478699e+00 1.421301e+00 6.09673874 2.31673874 3.9432 6126
25 Z1637 29.61154 1.731541e+00 1.368459e+00 5.87269799 3.36269799 1.5473 201
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28 Z1640 27.39526 6.425256e+00 4.094744e+00 3.98654978 1.66654978 0.9534 5022
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43 O1655 31.35033 2.203342e-01 2.896658e-01 7.00940210 1.82940210 0.5305 9790
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4 P1663 30.39682 1.596817e+00 1.543183e+00 13.44546853 0.64546853 0.4245 3147
5 P1664 29.05290 3.622901e+00 1.467099e+00 12.32474416 0.26474416 0.1552 5584
6 P1665 30.35568 1.365684e+00 1.944316e+00 11.31986216 3.26986216 2.4601 3784
7 Z1666 28.55431 3.324311e+00 3.785689e+00 3.60867580 2.85867580 4.6113 2420
8 Z1667 29.93519 3.865188e+00 1.674812e+00 4.32985321 2.78985321 2.5001 4679
9 Z1668 27.10214 9.052140e+00 4.487860e+00 2.99980914 2.59980914 3.1001 9086
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11 Z1670 25.41464 5.614643e+00 6.105357e+00 4.36144519 2.04144519 0.9085 5481
12 Z1671 30.51057 5.280573e+00 2.179427e+00 4.10795068 3.35795068 3.5220 4932
13 Z1672 30.91831 5.983079e-01 6.016921e-01 5.08153620 1.20153620 2.3384 6380
14 Z1673 28.99571 9.275712e+00 2.864288e+00 5.38117316 3.28117316 2.0888 2684
15 Z1674 28.46828 8.598279e+00 3.021721e+00 5.46240500 1.29240500 1.9975 9500
16 Z1675 29.54475 2.404750e+00 1.765250e+00 3.05096320 2.65096320 4.3690 3680
17 Z1676 26.88748 5.477484e+00 4.472516e+00 3.48831653 2.51831653 2.0516 8347
18 Z1677 28.81025 1.860247e+00 3.199753e+00 2.11560329 1.48560329 2.8743 9671
19 Z1678 29.82463 2.684626e+00 2.575374e+00 1.05975217 0.65975217 0.8002 4783
20 Z1679 28.85458 1.714580e+00 2.505420e+00 1.44854926 1.08854926 2.7414 5074
21 Z1680 27.70690 7.546899e+00 4.693101e+00 1.18712865 0.82712865 0.6628 7135
22 O1681 29.36183 3.591828e+00 4.458172e+00 8.45860884 5.20860884 1.6613 9116
23 Z1682 30.97650 1.576497e+00 6.135033e-01 4.04081537 3.64081537 3.3791 8463
24 Z1683 28.96831 1.091831e+01 3.371693e+00 5.53621195 1.41621195 2.6837 8805
25 Z1684 25.81870 1.066870e+01 5.671304e+00 3.90390271 1.58390271 1.0360 9729
26 Z1685 25.67800 1.052800e+01 5.841996e+00 4.20932967 1.88932967 0.7306 7033
27 Z1686 29.95423 3.004231e+00 1.565769e+00 4.78050024 2.46050024 2.6794 9976
28 Z1687 29.90734 2.767335e+00 2.102665e+00 2.20402388 1.80402388 2.7859 7612
29 Z1688 29.74610 1.786097e+00 1.773903e+00 4.28397366 2.01397366 0.9360 2634
30 Z1689 31.29805 9.080452e-01 2.219548e-01 6.79734086 1.57734086 0.6926 5914
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32 Z1691 28.29477 4.147748e-01 1.245225e+00 5.45651373 1.35651373 1.9434 8627
33 Z1692 29.44174 1.561741e+00 2.078259e+00 4.64731591 1.17731591 1.6426 8409
34 Z1693 29.67479 1.614792e+00 1.845208e+00 5.12359172 1.65359172 2.2764 828
35 Z1694 30.72156 2.231561e+00 7.984393e-01 5.53479292 1.83479292 1.8852 708
36 Z1695 28.09806 1.658064e+00 8.119358e-01 3.86123682 1.47123682 1.0387 6318
37 Z1696 30.25618 1.656177e+00 1.203823e+00 7.42792360 2.70792360 6.5520 7640
38 Z1697 30.16382 2.283824e+00 1.356176e+00 6.04923077 1.84923077 1.3707 6923
39 Z1698 26.74604 7.026037e+00 5.603963e+00 5.10421734 3.00421734 3.3557 8266
40 Z1699 29.39567 1.515667e+00 1.584333e+00 4.98313415 1.98313415 2.4368 6585
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42 Z1701 29.67884 1.178840e+00 2.361160e+00 0.87488633 2.15488633 3.1251 1367
43 Z1702 26.19067 3.110665e+00 8.159335e+00 7.38267639 0.87267639 1.4573 2361
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45 Z1705 32.18240 3.652402e+00 2.217598e+00 2.89981638 2.34981638 2.0701 8362
46 P1706 28.38525 7.215247e+00 4.684753e+00 13.49605945 1.08605945 1.0739 4055
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48 L1708 26.78134 3.761335e+00 4.618665e+00 4.91728870 1.17728870 1.0227 1130
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 4 L1711 28.98697 4.116974e+00 2.643026e+00 4.26341776 2.53341776 1.6765 8224
 5 L1712 28.22697 3.916968e+00 3.403032e+00 4.26318989 4.32318989 1.6768 1011
 6 L1713 28.83769 1.437693e+00 5.123070e-01 8.83903015 3.69903015 3.9409 6985
 7 L1714 29.30285 1.128515e-01 1.571485e-01 5.40680361 0.27680361 0.3231 9639
 8 L1715 28.86610 1.156103e+00 5.938972e-01 5.39466615 0.35466615 0.4853 3385
 9 L1716 29.02273 1.312733e+00 4.372666e-01 5.46489319 0.42489319 0.4151 681
 10 L1717 28.63094 9.209426e-01 7.190574e-01 5.53528174 0.79528174 0.3447 1826
 11 L1718 29.12418 1.414182e+00 3.358177e-01 5.54918707 0.41918707 0.3308 1293
 12 L1719 28.92371 1.213714e+00 2.856286e+00 5.38294272 2.35294272 0.4970 5728
 13 L1720 28.93423 1.224233e+00 4.157668e-01 5.50125904 0.46125904 0.3787 4096
 14 SETE SETE_i SETE_s GLACE GLACE_i
 15 E003 27.40303 2.813034e+00 2.496966e+00 3.269562789 3.195628e-01
 16 E004 27.38208 3.620764e-01 1.227924e+00 3.430308920 5.030892e-02
 17 E005 26.73066 2.140660e+00 6.393402e-01 3.349504249 3.995042e-01
 18 E006 25.36793 3.037927e+00 1.872073e+00 3.181764511 4.117645e-01
 19 E007 25.54756 3.217557e+00 1.692443e+00 3.199022220 4.290222e-01
 20 E008 25.56234 3.232344e+00 1.677656e+00 3.220521398 4.505214e-01
 21 E010 28.35642 1.246419e+00 1.843581e+00 3.105370565 6.153706e-01
 22 E012 27.18565 1.656467e-01 1.843533e-01 3.434802942 2.480294e-02
 23 E013 26.04528 3.725281e+00 1.224719e+00 3.335859923 4.358599e-01
 24 E014 27.70561 5.375612e+00 1.724388e+00 3.239684888 3.396849e-01
 25 E015 24.30338 1.973377e+00 2.866623e+00 2.961540640 1.915406e-01
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 27 E017 26.92147 4.591470e+00 3.278530e+00 3.274774898 7.847749e-01
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 42 G032 28.97222 4.022176e-01 3.577824e-01 2.980763547 2.107635e-01
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15 G053 30.56424 4.242429e-01 1.025757e+00 2.194623738 1.934624e+00
16 G054 30.89381 5.138064e-01 3.416194e+00 2.569944947 2.569945e+00
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3 J328 34.06133 1.331328e+00 8.086722e-01 1.963776234 1.963776e+00
4 J329 33.47804 1.758042e+00 1.541958e+00 2.174224542 2.154225e+00
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6 J331 33.96399 7.539893e-01 6.860107e-01 1.515661860 1.315662e+00
7 J332 33.96011 2.360114e+00 6.898856e-01 1.376263256 1.176263e+00
8 J333 31.98126 1.741263e+00 9.187365e-01 8.447259904 1.147260e+00
9 J334 31.67755 1.437548e+00 7.224518e-01 7.944029802 6.440298e-01
10 J335 31.80436 1.564363e+00 5.956369e-01 8.356216012 1.056216e+00
11 J336 34.11412 1.514124e+00 7.558764e-01 2.478793250 2.478793e+00
12 J337 34.71399 7.398769e-02 7.601231e-02 0.484084496 4.840845e-01
13 J338 33.97554 1.215544e+00 5.644560e-01 2.411579680 2.351580e+00
14 J339 34.61258 5.325793e-01 4.074207e-01 0.910196975 9.101970e-01
15 J340 34.95105 1.610491e-01 1.389509e-01 0.242736596 2.427366e-01
16 J341 33.17408 1.454077e+00 1.465923e+00 2.750791536 2.550792e+00
17 J342 33.29285 1.572849e+00 1.527151e+00 3.824706021 3.164706e+00
18 J343 32.57113 1.871133e+00 2.068867e+00 3.095296836 2.895297e+00
19 J344 32.32579 5.457912e-01 4.342088e-01 7.584534101 1.524534e+00
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21 J346 31.23586 9.958627e-01 1.104137e+00 8.514462167 1.214462e+00
22 J347 31.98335 1.283352e+00 2.096648e+00 3.879929716 1.459930e+00
23 J348 31.26333 1.823326e+00 1.546674e+00 8.919028745 1.139029e+00
24 J349 33.37430 8.643013e-01 1.495699e+00 4.322741638 4.322742e+00
25 J350 33.87142 1.141419e+00 9.985814e-01 2.523761245 2.523761e+00
26 J351 32.95777 2.257773e+00 1.682227e+00 3.434071919 3.234072e+00
27 J352 34.23034 2.430336e+00 7.896644e-01 1.410378078 1.390378e+00
28 J353 34.31204 3.920359e-01 4.879641e-01 0.298628755 2.986288e-01
29 J354 33.91933 1.519334e+00 4.406663e-01 3.667226288 3.227226e+00
30 J355 33.85183 1.091833e+00 5.781668e-01 2.736572928 1.056573e+00
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46 Y374 31.33476 1.664755e+00 1.975245e+00 9.973693240 1.853693e+00
47 Y375 32.39630 5.862995e-01 9.137005e-01 5.489536327 4.089536e+00
48 Y376 31.08367 5.636740e-01 9.463260e-01 10.652102516 2.872103e+00
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6 Z382 31.48574 6.157435e-01 1.264257e+00 4.799780346 1.239780e+00
7 Z383 31.09407 1.784070e+00 1.665930e+00 5.759728568 1.299729e+00
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28 A406 36.06890 3.189018e-01 2.610982e-01 0.000000000 0.000000e+00
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8 Z439 30.89974 3.209744e+00 1.650256e+00 5.806117906 2.526118e+00
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21 Z483 22.17382 9.523817e+00 4.016183e+00 9.629474270 8.294743e-01
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26 Z496 27.72943 1.606943e+01 3.880571e+00 9.898594849 1.618595e+00
27 Z497 20.78571 1.183571e+01 1.029429e+01 10.065801349 1.505801e+00
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34 Z504 27.74222 1.519222e+01 3.807780e+00 10.513316622 1.953317e+00
35 Z505 32.36694 1.216935e+00 1.133065e+00 11.738585592 3.785856e-01
36 Z506 32.02367 6.336707e-01 1.476329e+00 11.531767831 1.717678e-01
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38 Z508 27.81316 1.526316e+01 3.736842e+00 10.463891440 1.903891e+00
39 Z509 32.17512 1.525123e+00 1.324877e+00 11.449056596 6.490566e-01
40 Z510 32.92090 2.270903e+00 6.690968e-01 11.648230230 8.482302e-01
41 Z511 32.37670 1.026696e+00 1.123304e+00 11.519096930 6.390969e-01
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48 Z518 22.12690 1.046690e+01 9.313095e+00 9.857730791 1.297731e+00
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6 Z523 23.60185 1.693185e+01 5.498155e+00 10.569672691 2.009673e+00
7 Z530 27.84556 1.618556e+01 3.764441e+00 10.394354872 2.114355e+00
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17 Z540 28.34974 6.739740e+00 4.240260e+00 5.201349797 5.201350e+00
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26 Z551 34.81250 1.224954e-01 1.075046e-01 0.000000000 0.000000e+00
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29 Z554 31.14318 1.443182e+00 1.396818e+00 4.575764286 2.345764e+00
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36 Z561 32.07600 2.456003e+00 1.563997e+00 5.687783468 2.287783e+00
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38 Z563 28.31850 3.548500e+00 1.681500e+00 9.517978745 2.717979e+00
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4 Y577 31.42229 2.306229e+01 6.877111e-01 7.889927941 1.699279e-01
5 Y578 32.11955 1.469554e+00 2.504461e-01 7.846796677 2.067967e-01
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9 Z585 22.28232 1.561232e+01 9.267680e+00 9.959565820 1.399566e+00
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19 Z601 20.66563 1.171563e+01 8.434366e+00 9.854075954 1.294076e+00
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26 N608 27.56547 2.615475e+00 2.504525e+00 0.000000000 0.000000e+00
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29 N611 28.23492 1.784918e+00 1.695082e+00 0.000000000 0.000000e+00
30 N612 26.89340 1.943404e+00 3.256596e+00 0.000000000 0.000000e+00
31 N613 28.93619 1.066187e+00 3.233813e+00 0.000000000 0.000000e+00
32 N614 29.24463 1.764634e+00 1.325366e+00 0.000000000 0.000000e+00
33 N615 29.51415 3.064146e+00 1.785854e+00 0.000000000 0.000000e+00
34 N616 28.91659 3.966585e+00 2.383415e+00 0.000000000 0.000000e+00
35 N620 27.81144 2.861438e+00 1.018562e+00 0.000000000 0.000000e+00
36 N622 30.05363 2.183630e+00 1.436370e+00 0.000000000 0.000000e+00
37 N623 28.01901 3.069012e+00 3.280988e+00 0.000000000 0.000000e+00
38 N626 28.38700 3.436995e+00 2.143005e+00 0.000000000 0.000000e+00
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42 N631 28.83038 2.280381e+00 2.659619e+00 0.000000000 0.000000e+00
43 N632 28.76166 1.281665e+00 2.728335e+00 0.000000000 0.000000e+00
44 N633 28.88199 3.931992e+00 1.268008e+00 0.000000000 0.000000e+00
45 N634 30.24148 2.761483e+00 1.248517e+00 0.000000000 0.000000e+00
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47 N636 29.90378 2.423777e+00 1.586223e+00 0.000000000 0.000000e+00
48 N637 29.15294 2.602941e+00 2.337059e+00 0.000000000 0.000000e+00
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4 C646 31.28085 1.690846e+00 1.739154e+00 1.521270927 1.521271e+00
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6 C650 31.43727 1.557270e+00 1.842730e+00 0.007203461 7.203461e-03
7 C651 31.50975 1.629749e+00 1.750251e+00 0.015937813 1.593781e-02
8 C652 32.65074 1.330742e+00 2.319258e+00 0.000000000 0.000000e+00
9 C653 33.57052 1.710519e+00 1.509481e+00 0.000000000 0.000000e+00
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11 C655 32.10078 1.200784e+00 1.519216e+00 0.042438884 4.243888e-02
12 C656 32.05612 1.156118e+00 1.563882e+00 0.035988595 3.598860e-02
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14 C658 33.61477 1.974766e+00 1.365234e+00 0.000000000 0.000000e+00
15 C659 31.99878 1.628783e+00 1.481217e+00 0.436039634 4.360396e-01
16 C660 31.09456 7.245631e-01 9.154369e-01 1.308521409 1.308521e+00
17 C661 32.33036 6.903611e-01 1.289639e+00 0.000000000 0.000000e+00
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42 Y691 30.68424 5.954238e+00 1.605762e+00 8.571107902 9.311079e-01
43 Y692 32.22013 3.301254e-01 3.098746e-01 7.962478583 3.224786e-01
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10 Z708 24.90877 5.258773e+00 7.901227e+00 10.167433365 2.067433e+00
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23 Z729 29.03828 6.968277e+00 2.201723e+00 10.857430139 1.377430e+00
24 Z730 24.05726 1.738726e+01 5.042738e+00 10.617553731 2.057554e+00
25 Z731 31.53294 7.029350e-01 3.970650e-01 10.890404376 2.550404e+00
26 Z732 26.10503 1.715503e+01 5.164973e+00 9.833962086 1.493962e+00
27 Z733 29.30287 5.092875e+00 2.627125e+00 9.320561219 1.000561e+00
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32 Z739 28.27166 7.871662e+00 3.498338e+00 7.025097752 2.805098e+00
33 Z740 28.08896 1.026896e+01 3.151043e+00 10.387435837 2.087436e+00
34 Z743 26.70067 1.509067e+01 5.039328e+00 10.565634388 1.765634e+00
35 Z746 27.24258 5.172578e+00 3.167422e+00 10.513082328 1.033082e+00
36 O747 31.77785 5.378550e-01 5.221450e-01 2.538311298 1.818311e+00
37 O748 31.82310 4.431046e-01 4.768954e-01 3.957614851 6.776149e-01
38 O749 30.05877 2.858775e+00 1.801225e+00 6.005905860 2.725906e+00
39 O750 31.61003 2.000299e-01 2.499701e-01 4.085420230 8.054202e-01
40 O754 28.08826 6.558256e+00 3.431744e+00 6.924843586 4.684844e+00
41 O755 31.96217 3.021687e-01 6.978313e-01 3.268627512 1.228628e+00
42 O756 29.57961 1.002961e+01 3.100387e+00 5.865228652 3.765229e+00
43 O757 30.92842 3.358419e+00 1.081581e+00 3.470582850 1.230583e+00
44 O758 31.62029 2.102915e-01 1.059708e+00 3.746016118 1.646016e+00
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6 O767 31.81760 6.976008e-01 4.823992e-01 2.300095698 2.180096e+00
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9 O770 31.99369 2.936950e-01 1.063050e-01 0.558785295 5.587853e-01
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15 O776 30.42951 2.859515e+00 1.870485e+00 4.256702250 3.536702e+00
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18 O779 31.90610 4.961027e-01 4.838973e-01 2.712052625 6.120526e-01
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20 O781 31.82464 4.446350e-01 6.753650e-01 2.909027963 2.189028e+00
21 O782 32.00526 5.952605e-01 6.747395e-01 2.741088036 6.410880e-01
22 O783 32.17058 2.805844e-01 3.294156e-01 1.485683838 1.365684e+00
23 O784 32.07887 5.588719e-01 6.011281e-01 2.826502561 7.265026e-01
24 O785 31.81298 4.029762e-01 2.870238e-01 2.035536210 1.855536e+00
25 O786 31.84634 2.363420e-01 2.536580e-01 0.857720690 7.377207e-01
26 O787 31.85209 3.320873e-01 2.479127e-01 1.183079595 1.063080e+00
27 O788 31.16714 3.407137e+00 8.528632e-01 0.905259918 9.052599e-01
28 O789 31.87090 3.509022e-01 2.790978e-01 1.765968965 1.585969e+00
29 O790 31.84950 1.594976e-01 3.005024e-01 1.472827735 1.352828e+00
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31 O792 31.30794 3.327945e+00 9.420552e-01 0.737050144 7.370501e-01
32 O793 31.90079 2.407922e-01 1.192078e-01 1.059620384 1.019620e+00
33 O794 32.32880 3.487999e-01 7.512001e-01 0.078497473 7.849747e-02
34 O795 32.22565 3.656533e-01 1.943467e-01 0.000000000 0.000000e+00
35 Z796 24.90365 6.903646e+00 5.316354e+00 8.273153288 1.493153e+00
36 Z797 28.49430 8.094296e+00 4.055704e+00 5.844233417 2.564233e+00
37 Z798 27.70024 4.470240e+00 2.519760e+00 8.215291574 1.435292e+00
38 Z799 25.42289 2.882888e+00 3.717112e+00 8.590263828 7.702638e-01
39 Z800 27.85715 1.530715e+01 3.582849e+00 10.712241847 2.152242e+00
40 Z801 18.55724 9.607242e+00 1.288276e+01 9.852610584 1.292611e+00
41 Z804 31.84910 1.029095e+00 6.109046e-01 8.584056216 9.440562e-01
42 Z806 30.84903 1.179032e+00 1.610968e+00 8.804702262 1.164702e+00
43 Z807 32.24688 6.568804e-01 5.131196e-01 6.321195368 2.761195e+00
44 Z808 32.76228 1.172281e+00 8.777192e-01 5.239184214 1.839184e+00
45 Z809 27.43987 7.889871e+00 4.950129e+00 7.675352703 2.475353e+00
46 Z810 32.98046 1.170462e+00 1.419538e+00 3.127850916 1.907851e+00
47 A812 31.35151 6.815082e-01 2.384918e-01 0.457370528 4.073705e-01
48 A813 30.37384 2.338442e-01 2.961558e-01 2.151341884 1.561342e+00
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3 A815 31.09466 4.246595e-01 4.953405e-01 0.222076144 1.420761e-01
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7 A819 31.31630 6.262997e-01 2.037003e-01 0.069836862 6.983686e-02
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9 A821 31.25220 5.622005e-01 3.077995e-01 0.341116264 2.611163e-01
10 A822 30.56168 1.281677e+00 6.383230e-01 0.568612313 4.886123e-01
11 A823 30.52967 1.249668e+00 1.020332e+00 1.298548033 1.218548e+00
12 A824 29.88331 1.673307e+00 2.286693e+00 5.073319018 5.073319e+00
13 P829 32.39058 3.305813e-01 2.294187e-01 0.000000000 0.000000e+00
14 P830 32.48080 3.407959e-01 3.692041e-01 0.000000000 0.000000e+00
15 P831 31.96913 1.129130e+00 9.108702e-01 0.000000000 0.000000e+00
16 P832 29.01802 6.578020e+00 3.401980e+00 0.000000000 0.000000e+00
17 P836 32.52996 4.699553e-01 1.800447e-01 0.000000000 0.000000e+00
18 P837 32.52064 4.606355e-01 2.193645e-01 0.000000000 0.000000e+00
19 P838 32.41178 2.717817e-01 1.682183e-01 0.000000000 0.000000e+00
20 P840 25.39736 6.947358e+00 7.022642e+00 0.000000000 0.000000e+00
21 P841 30.91808 3.158079e+00 1.161921e+00 1.194433723 1.194434e+00
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34 P857 32.34052 2.005247e-01 2.294753e-01 0.000000000 0.000000e+00
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37 P861 32.37304 4.230443e-01 4.869557e-01 0.000000000 0.000000e+00
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40 P865 31.68873 1.548731e+00 6.612690e-01 0.000000000 0.000000e+00
41 P866 31.08640 3.486396e+00 1.333604e+00 0.000000000 0.000000e+00
42 P867 31.78608 6.160848e-01 6.339152e-01 0.000000000 0.000000e+00
43 P868 31.90161 7.316077e-01 5.183923e-01 0.000000000 0.000000e+00
44 P869 30.57854 2.598541e+00 1.521459e+00 0.000000000 0.000000e+00
45 P870 30.46790 6.097898e+00 1.632102e+00 0.000000000 0.000000e+00
46 P871 31.89262 7.226229e-01 5.273771e-01 0.000000000 0.000000e+00
47 P872 32.30630 1.662971e-01 2.837029e-01 0.000000000 0.000000e+00
48 P873 32.11313 2.231271e-01 9.687292e-02 0.000000000 0.000000e+00
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4 P876 28.35031 8.060310e+00 3.609690e+00 0.000000000 0.000000e+00
5 P877 31.95105 5.510469e-01 4.689531e-01 0.000000000 0.000000e+00
6 P878 32.29634 8.963381e-01 9.136619e-01 0.000000000 0.000000e+00
7 P879 31.65486 1.224861e+00 4.951390e-01 0.000000000 0.000000e+00
8 P880 32.46389 3.238912e-01 1.261088e-01 0.000000000 0.000000e+00
9 P881 32.39371 5.537136e-01 4.362864e-01 0.000000000 0.000000e+00
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5 H1326 30.95173 3.391733e+00 3.408267e+00 3.963306944 3.943307e+00
6 H1328 28.24452 1.164523e+00 1.625477e+00 6.264653566 6.264654e+00
7 H1329 32.14744 2.027436e+00 1.162564e+00 5.460764582 4.240765e+00
8 H1330 31.66941 1.249407e+00 1.640593e+00 10.360419471 2.040419e+00
9 H1331 32.63654 2.336538e+00 1.713462e+00 3.795015912 2.575016e+00
10 H1332 29.81995 5.609948e+00 3.490052e+00 10.273794442 1.973794e+00
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14 H1336 25.46165 7.951654e+00 2.098346e+00 6.508772022 3.687720e-01
15 H1337 26.21747 5.127468e+00 2.392532e+00 6.712332938 5.723329e-01
16 H1338 26.53412 9.741157e-01 1.025884e+00 6.526030542 3.260305e-01
17 H1339 21.63510 4.125104e+00 5.934896e+00 6.227448580 8.744858e-02
18 H1340 25.62885 4.968847e+00 3.251153e+00 5.739221864 5.739222e+00
19 H1341 29.92705 1.787052e+00 1.522948e+00 5.156087964 3.456088e+00
20 H1342 27.42797 5.897966e+00 2.692034e+00 8.413768566 1.053769e+00
21 H1343 27.94643 4.386433e+00 2.173567e+00 8.077632639 7.576326e-01
22 H1344 28.12833 1.048326e+00 1.991674e+00 7.469051143 1.090511e-01
23 H1345 28.17997 1.099971e+00 1.690029e+00 6.644255496 6.644255e+00
24 G1347 29.91972 2.629721e+00 1.610279e+00 3.161066956 1.310670e-01
25 G1348 29.20168 1.911679e+00 2.328321e+00 3.188371272 1.583713e-01
26 G1349 29.54510 2.255097e+00 1.984903e+00 3.190904413 1.609044e-01
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38 Z1409 33.46607 1.336075e+00 1.403925e+00 3.142756227 3.142756e+00
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3 A1565 33.11136 1.551358e+00 1.678642e+00 3.255059624 2.735060e+00
4 P1567 31.70112 2.461116e+00 9.788841e-01 0.000000000 0.000000e+00
5 P1568 31.81153 2.571529e+00 1.178471e+00 0.000000000 0.000000e+00
6 P1569 31.91987 1.359871e+00 1.070129e+00 0.399076809 3.990768e-01
7 P1570 32.06212 2.822117e+00 7.978827e-01 0.413949390 4.139494e-01
8 P1571 32.62263 3.426279e-01 3.673721e-01 0.000000000 0.000000e+00
9 P1572 32.71838 4.383830e-01 2.716170e-01 0.000000000 0.000000e+00
10 O1575 32.84658 1.765778e-01 1.534222e-01 0.711622846 7.116228e-01
11 O1576 32.81573 1.357266e-01 1.742734e-01 0.348994652 3.489947e-01
12 O1577 32.91894 1.489428e-01 8.105719e-02 0.000000000 0.000000e+00
13 O1578 32.83482 1.648246e-01 1.351754e-01 0.275279243 2.752792e-01
14 O1579 31.97483 1.454828e+00 7.051721e-01 6.788233592 6.008234e+00
15 O1580 32.01603 6.460340e-01 4.439660e-01 7.777963521 1.379635e-01
16 O1581 31.60372 4.037241e-01 6.962759e-01 7.280829463 5.608295e-01
17 O1582 31.78271 1.402707e+00 9.972928e-01 5.600643337 5.600643e+00
18 O1583 32.73187 6.187288e-02 4.812712e-02 0.921269035 9.212690e-01
19 P1585 31.73937 3.359370e+00 1.250630e+00 1.090209591 1.090210e+00
20 P1590 32.60540 2.954008e-01 2.345992e-01 0.000000000 0.000000e+00
21 P1591 32.58501 1.150078e-01 1.749922e-01 0.000000000 0.000000e+00
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24 P1597 33.07296 4.529593e-01 8.470407e-01 0.000000000 0.000000e+00
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28 R1604 32.07874 5.887377e-01 5.412623e-01 1.613666708 2.136667e-01
29 R1605 32.25468 4.646839e-01 2.853161e-01 1.673014761 2.730148e-01
30 R1606 32.11386 2.663860e+00 6.661402e-01 2.228724119 2.228724e+00
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32 R1608 31.60578 3.945779e+00 1.014221e+00 2.590634598 2.590635e+00
33 R1609 31.14453 3.074527e+00 1.315473e+00 2.950667253 1.550667e+00
34 R1610 31.51219 3.852189e+00 1.107811e+00 2.417076409 2.417076e+00
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36 O1612 30.49814 7.268145e+00 2.141855e+00 6.516018206 2.296018e+00
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38 R1614 32.20127 4.112725e-01 4.187275e-01 1.656666412 2.566664e-01
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42 R1618 30.61391 3.123907e+00 1.956093e+00 2.455957129 5.959571e-01
43 R1619 31.36054 3.290538e+00 1.209462e+00 1.878494941 1.849494e-02
44 R1620 29.28458 2.544580e+00 2.845420e+00 2.653175655 7.931757e-01
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4 R1627 31.74639 1.366387e+00 1.003613e+00 6.681270449 5.901270e+00
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7 R1630 32.98198 1.321975e+00 1.688025e+00 0.644821593 6.448216e-01
8 R1631 31.46778 3.977783e+00 1.322217e+00 1.818678269 4.186783e-01
9 R1632 28.81351 4.835124e-01 7.764876e-01 3.709031517 6.090315e-01
10 R1633 28.73649 1.246491e+00 3.273509e+00 3.701010223 1.821010e+00
11 R1634 28.31669 1.576691e+00 3.153309e+00 2.926337661 1.066338e+00
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13 Z1636 30.29111 1.331112e+00 1.238888e+00 7.299365486 5.793655e-01
14 Z1637 29.78025 1.720250e+00 1.369750e+00 7.975643526 1.035644e+00
15 Z1638 30.67563 2.045626e+00 1.984374e+00 4.858223831 2.818224e+00
16 Z1639 28.46152 4.661517e+00 3.068483e+00 8.381815807 1.661816e+00
17 Z1640 28.28391 6.723913e+00 3.206087e+00 8.567478074 1.467478e+00
18 Z1641 32.03738 3.707375e+00 2.072625e+00 3.248132962 3.148133e+00
19 Z1642 31.85008 4.400766e-01 8.099234e-01 3.098968531 1.058969e+00
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21 Z1644 29.17582 9.295816e+00 2.354184e+00 6.887058464 2.667058e+00
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23 O1646 30.92437 2.294371e+00 6.056290e-01 6.231986517 3.991987e+00
24 O1647 26.19866 6.648656e+00 5.311344e+00 8.100517801 5.860518e+00
25 O1648 27.66232 7.782316e+00 5.157684e+00 6.644803866 4.604804e+00
26 Z1649 29.33185 7.801850e+00 2.198150e+00 6.093798321 3.853798e+00
27 O1650 28.15428 6.624281e+00 3.415719e+00 7.928403442 3.708403e+00
28 O1651 29.62403 2.544034e+00 2.385966e+00 5.562159842 3.482160e+00
29 O1652 30.38052 2.620525e+00 1.919475e+00 3.031926817 3.031927e+00
30 O1653 29.36352 7.833522e+00 2.936478e+00 4.917418250 3.517418e+00
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33 O1656 31.27311 3.913105e+00 1.026895e+00 0.955340575 9.553406e-01
34 O1657 31.50348 1.293476e+00 6.365245e-01 2.356126786 2.176127e+00
35 O1658 31.18994 3.829939e+00 9.000607e-01 0.789981691 7.899817e-01
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37 Z1660 30.95022 2.570217e+00 1.419783e+00 9.035670715 1.395671e+00
38 Z1661 29.90091 1.190906e+00 2.039094e+00 9.904132651 2.344133e+00
39 Z1662 25.02421 4.144214e+00 4.535786e+00 9.293557231 4.335572e-01
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48 Z1671 31.00758 3.107578e+00 1.662422e+00 6.365773803 3.085774e+00
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8 Z1678 30.62851 1.258509e+00 1.671491e+00 9.301609689 2.241610e+00
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13 Z1683 29.27123 9.521234e+00 3.548766e+00 7.072888330 5.032888e+00
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16 Z1686 30.41806 2.298056e+00 1.111944e+00 7.357278447 3.137278e+00
17 Z1687 30.40402 1.034022e+00 1.535978e+00 9.201477439 2.001477e+00
18 Z1688 29.65678 1.796781e+00 1.873219e+00 8.138825433 1.418825e+00
19 Z1689 31.34624 9.062380e-01 2.237620e-01 4.889072961 2.649073e+00
20 Z1690 29.51830 1.518304e+00 1.121696e+00 7.982237906 7.622379e-01
21 Z1691 29.18548 1.325481e+00 1.044519e+00 8.003346692 8.033467e-01
22 Z1692 29.27411 1.424115e+00 2.255885e+00 7.880067766 1.160068e+00
23 Z1693 29.72582 1.665816e+00 1.804184e+00 7.813214477 1.093214e+00
24 Z1694 30.58411 2.734110e+00 9.458897e-01 7.143962140 4.239621e-01
25 Z1695 28.40915 5.591531e-01 1.380847e+00 8.296159293 1.076159e+00
26 Z1696 30.17980 2.819802e+00 1.340198e+00 4.854682897 4.854683e+00
27 Z1697 30.42757 1.797573e+00 1.102427e+00 7.248125340 5.281253e-01
28 Z1698 26.59360 6.713604e+00 5.706396e+00 7.036204417 4.796204e+00
29 Z1699 29.99095 8.009479e-01 1.159052e+00 7.393226108 4.532261e-01
30 Z1700 29.02326 1.023264e+00 2.046736e+00 9.568024640 6.008025e+00
31 Z1701 28.86760 7.675977e-01 1.132402e+00 10.668149512 2.668150e+00
32 Z1702 27.61132 2.051318e+00 6.748682e+00 5.190894936 5.170895e+00
33 Z1703 28.98692 3.236917e+00 5.373083e+00 8.073511882 8.053512e+00
34 Z1705 33.27733 1.117329e+00 1.092671e+00 4.864179067 4.504179e+00
35 P1706 28.38763 6.977632e+00 4.822368e+00 0.000000000 0.000000e+00
36 Z1707 26.41493 5.534927e+00 5.115073e+00 7.926214819 1.206215e+00
37 L1708 27.49945 5.429452e+00 3.990548e+00 6.644539606 3.645396e-01
38 L1709 29.61207 2.062066e+00 2.037934e+00 7.252636840 9.726368e-01
39 L1710 29.21950 1.999496e+00 2.430504e+00 6.555850336 2.758503e-01
40 L1711 29.61772 3.217722e+00 2.032278e+00 6.454260511 1.742605e-01
41 L1712 29.03364 2.633640e+00 2.616360e+00 6.640769897 3.607699e-01
42 L1713 28.92122 1.801225e+00 9.687750e-01 4.286579886 1.136580e+00
43 L1714 29.43909 5.890895e-01 7.209105e-01 5.799901360 9.990136e-02
44 L1715 28.85454 7.545436e-01 1.035456e+00 5.874810823 1.748108e-01
45 L1716 29.21280 1.112797e+00 9.472033e-01 5.874930293 1.749303e-01
46 L1717 29.03656 9.365603e-01 8.534397e-01 6.024452895 3.244529e-01
47 L1718 29.36583 1.265833e+00 5.241667e-01 5.888463264 1.884633e-01
48 L1719 29.14945 1.049445e+00 2.820555e+00 6.029874774 3.298748e-01
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3 GLACE_s ICON1953 ICON1953_i ICON1953_s modisan modisan_i
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5 E003 1.904372e-01 2.591307345 0.251307345 0.158692655 473.59023 1.38840 2.00E+02
6 E004 7.969108e-02 2.720313960 0.040313960 0.069686040 519.41907 8.39590 7.00E+01
7 E005 1.104958e-01 2.657119637 0.317119637 0.092880363 519.83178 7.98417 8.00E+01
8 E006 4.082355e-01 2.526471534 0.326471534 0.323528466 541.66665 1.48366 5.00E+01
9 E007 3.909778e-01 2.539908578 0.339908578 0.310091422 541.38534 1.45553 4.00E+01
10 E008 3.694786e-01 2.558007394 0.358007394 0.291992606 538.64057 1.18105 7.00E+01
11 E010 4.346294e-01 2.461855396 0.491855396 0.348144604 425.86450 1.62624 5.00E+02
12 E012 7.519706e-02 2.723072431 0.023072431 0.066927569 518.82071 7.88307 1.00E+01
13 E013 2.041401e-01 2.645758053 0.345758053 0.164241947 533.53403 6.70403 4.00E+00
14 E014 2.203151e-01 2.565738316 0.265738316 0.174261684 457.75111 9.16811 1.00E+01
15 E015 6.284594e-01 2.350090635 0.150090635 0.499909365 552.88985 2.60598 5.00E+01
16 E016 4.291591e-02 2.708465684 0.028465684 0.041534316 519.21418 8.37541 8.00E+01
17 E017 2.652251e-01 2.596341812 0.626341812 0.213658188 497.74097 2.34501 0.00E+00
18 E018 4.169748e-01 2.415527366 0.215527366 0.334472634 545.40270 1.85727 0.00E+00
19 E019 7.527766e-02 2.723763198 0.043763198 0.066236802 511.03427 7.55742 7.00E+01
20 E020 1.570630e-01 2.682920731 0.382920731 0.127079269 535.31263 8.48262 5.00E+00
21 E021 2.444513e-01 2.509619641 0.129619641 0.190380359 420.26296 5.21129 6.00E+01
22 E022 1.447515e-01 2.584600461 0.284600461 0.115399539 493.28060 1.58530 6.00E+02
23 G023 2.419490e-01 2.594719853 0.354719853 0.195280147 493.69211 1.83052 1.00E+02
24 G024 1.330459e-01 2.351015059 0.321015059 0.108984941 361.69222 7.91622 2.00E+01
25 G025 4.641444e-01 2.401191462 0.201191462 0.368808538 381.38545 7.07454 5.00E+01
26 G026 2.713325e-01 2.304951769 0.294951769 0.215048231 349.44136 3.88013 6.00E+01
27 G027 1.671207e-01 2.269132743 0.239132743 0.130867257 336.19741 5.36674 1.00E+01
28 G028 2.787645e-01 2.298433341 0.288433341 0.221566659 345.87076 6.33407 6.00E+01
29 G029 1.413272e-01 2.345546773 0.315546773 0.114453227 365.24668 8.27166 8.00E+01
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31 G031 1.108866e-01 2.369959556 0.169959556 0.090040444 367.19788 5.65578 8.00E+01
32 G032 4.923645e-02 2.363033809 0.163033809 0.036966191 360.79082 5.01508 2.00E+01
33 G033 4.542210e-01 1.486136189 1.286136189 0.363863811 290.15606 2.69160 6.00E+01
34 G034 4.335319e-01 1.682773821 0.322773821 0.347226179 303.55663 4.03166 3.00E+01
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37 G038 1.728445e-01 2.626143913 0.146143913 0.143856087 292.22559 4.02955 9.00E+01
38 G039 2.131347e-01 2.515696448 0.215696448 0.164303552 405.98581 7.12358 1.00E+01
39 G040 1.239929e-01 2.585427904 0.105427904 0.094572096 277.07103 2.51410 3.00E+01
40 G041 1.649126e-01 2.611448710 0.131448710 0.138551290 262.02062 1.00906 2.00E+01
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42 G043 2.917174e-01 2.511764777 0.621764777 0.238235223 268.45909 1.65290 9.00E+01
43 G044 1.515032e-01 2.622953940 0.142953940 0.127046060 276.43724 2.45072 4.00E+01
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45 G046 1.381459e-01 2.632174069 0.152174069 0.117825931 278.73432 2.68043 2.00E+01
46 G047 1.829443e-01 2.597070624 0.117070624 0.152929376 270.86592 1.89359 2.00E+01
47 G048 1.317206e-01 2.580154551 0.100154551 0.099845449 271.80178 1.98717 8.00E+01
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2 G051 1.047503e+00 1.443533594 1.443533594 0.836466406 252.04709 4.72570 9.00E+01
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4 G053 8.853763e-01 1.737912691 1.537912691 0.702087309 277.82793 2.48279 3.00E+01
5 G054 4.600551e-01 2.039173138 2.039173138 0.360826862 254.42791 3.67791 3.00E+00
6 G055 2.505119e-01 2.242711110 0.172711110 0.197288890 269.03365 1.71036 5.00E+01
7 G056 3.025400e-01 2.157723201 0.307723201 0.242276799 264.48649 1.14864 9.00E+01
8 G057 1.132811e+00 1.630209711 1.630209711 0.809790289 250.31214 1.65321 4.00E+01
9 G058 5.697245e+00 1.319281403 1.289281403 4.520718597 246.75190 1.51731 9.00E+02
10 G059 4.623497e-01 2.399902919 0.389902919 0.370097081 343.48213 9.15521 3.00E+01
11 G060 1.780443e-01 2.055051096 0.405051096 0.144948904 277.10728 1.23772 8.00E+01
12 G061 1.730441e-01 2.137882728 0.287882728 0.142117272 265.22435 1.32943 5.00E+01
13 G062 3.552583e-01 2.397583750 0.367583750 0.282416250 375.07916 9.25491 6.00E+01
14 G063 1.963879e-01 2.285958337 0.255958337 0.154041663 305.86526 5.28652 6.00E+01
15 G064 2.624248e-01 2.232562103 0.162562103 0.207437897 260.52483 8.59482 5.00E+00
16 G065 9.538903e-01 1.645018855 1.445018855 0.754981145 266.40040 1.44704 0.00E+00
17 G066 2.193192e-01 1.901268305 0.211268305 0.168731695 282.66677 1.94267 7.00E+01
18 G067 4.766672e-01 2.405002425 0.435002425 0.384997575 454.28174 1.91041 7.00E+02
19 G068 2.562209e-01 2.317736881 0.287736881 0.202263119 342.58782 6.00578 2.00E+01
20 G069 3.077927e-01 2.561775056 0.591775056 0.248224944 495.34060 2.32100 6.00E+02
21 G070 1.385437e-01 2.697065455 0.097065455 0.112934545 536.83897 1.00089 7.00E+01
22 G071 3.062638e-01 2.579237912 0.179237912 0.250762088 302.54858 4.95485 8.00E+01
23 G072 1.662372e+00 2.311978450 2.141978450 1.058021550 266.59028 1.46602 8.00E+01
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25 A074 1.501858e+00 0.561044300 0.521044300 1.188955700 272.28936 1.12693 6.00E+01
26 G075 1.412382e+00 0.774492044 0.734492044 1.115507956 275.52880 1.45088 0.00E+00
27 G076 1.798507e+00 0.465101382 0.425101382 1.424898618 275.33983 1.43198 3.00E+01
28 G077 2.188755e+00 0.276781979 0.276781979 1.733218021 304.32116 4.33011 6.00E+01
29 G078 3.968298e-01 0.151325592 0.111325592 0.318674408 274.94320 3.65320 1.00E+00
30 G079 1.407280e-01 0.049339713 0.049339713 0.120660287 245.03930 7.65993 0.00E+00
31 B080 1.552791e+00 5.938977393 5.938977393 1.281022607 85.78490 4.57649 0.00E+00
32 B081 1.554383e+00 6.017045033 6.017045033 1.212954967 86.38897 3.63389 7.00E+01
33 B082 3.041526e-01 6.871551547 0.381551547 0.348448453 56.99777 1.69777 7.00E+01
34 L087 5.855477e+00 1.013505986 0.973505986 4.576494014 167.53507 7.41150 7.00E+01
35 L088 1.504028e+00 0.557764621 0.497764621 1.112235379 179.34795 3.10379 5.00E+01
36 L089 4.751176e+00 1.882205448 1.592205448 3.707794552 165.63538 7.22153 8.00E+01
37 L090 1.792985e+00 1.039728227 1.039728227 1.410271773 182.75319 1.67831 9.00E+01
38 L091 2.805676e-01 0.092480140 0.092480140 0.207519860 205.99467 4.64746 7.00E+01
39 L092 4.007090e-01 0.174510544 0.174510544 0.395489456 220.56777 6.10477 7.00E+01
40 L093 3.237893e-01 0.057158030 0.057158030 0.242841970 204.58602 3.45560 2.00E+01
41 L094 1.109481e+00 0.411770076 0.391770076 0.998229924 163.89641 1.25164 1.00E+01
42 A099 2.031397e-01 0.177853611 0.137853611 0.182146389 176.61237 2.52323 7.00E+01
43 A100 2.143899e+00 0.463822171 0.463822171 1.656177829 182.56132 4.11013 2.00E+01
44 A103 2.403544e-01 0.185802202 0.185802202 0.344197798 173.64191 2.22619 1.00E+01
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46 A105 1.588591e+00 0.997783906 0.937783906 1.122216094 170.74840 2.92884 0.00E+00
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48 A107 2.324170e-01 0.149029193 0.129029193 0.210970807 179.07325 1.31032 5.00E+01
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2 A108 0.000000e+00 0.000000000 0.000000000 0.000000000 195.36414 4.81413 7.00E+00
3 A109 3.375638e-01 0.040202689 0.040202689 0.319797311 196.71455 6.16455 5.00E+00
4 A110 3.401609e-01 0.037742324 0.037742324 0.322257676 196.48156 5.93156 5.00E+00
5 A111 2.824439e-01 0.092575404 0.092575404 0.267424596 185.14824 1.91782 4.00E+01
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18 A126 0.000000e+00 0.000000000 0.000000000 0.000000000 278.67986 5.61998 6.00E+01
19 A127 0.000000e+00 0.000000000 0.000000000 0.000000000 255.99442 5.12344 2.00E+01
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21 A129 3.290863e-01 0.048234000 0.048234000 0.311766000 226.72794 3.57179 4.00E+01
22 H130 2.128734e+00 6.031627258 0.541627258 1.758372742 129.27277 2.04927 7.00E+01
23 H131 1.955401e+00 6.179889233 0.419889233 1.610110767 127.72454 1.89445 4.00E+01
24 H132 4.765596e-01 6.133498112 0.253498112 0.506501888 105.69585 1.07658 5.00E+01
25 H133 1.630562e+00 6.612604567 1.092604567 1.117395433 115.55426 2.84042 6.00E+01
26 H134 1.603539e-01 5.934146247 0.294146247 0.125853753 89.82491 1.61749 1.00E+01
27 H135 1.519795e+00 6.786144624 0.956144624 1.253855376 128.65910 3.83591 0.00E+00
28 H136 1.512290e-01 5.944620382 0.074620382 0.115379618 80.48698 1.36369 8.00E+01
29 H137 4.722485e+00 5.472502292 5.462502292 3.787497708 81.84663 5.09166 3.00E+01
30 H138 1.776024e+00 5.805629589 4.035629589 1.314370411 93.80263 3.86226 3.00E+01
31 H139 4.250390e-01 5.758630126 0.268630126 0.301369874 109.51366 3.70836 6.00E+01
32 H140 1.332200e+00 6.344742940 0.964742940 1.055257060 103.76582 3.78258 2.00E+01
33 H141 6.336263e-01 5.216880011 0.176880011 0.423119989 213.99697 7.08869 7.00E+01
34 H142 9.416511e-01 5.270641786 0.230641786 0.729358214 198.88097 1.32941 0.00E+00
35 H143 5.355276e-01 6.638981581 1.148981581 0.401018419 109.97725 4.11172 5.00E+01
36 H144 5.121800e-01 5.550891652 0.970891652 0.449108348 120.87086 5.49308 6.00E+01
37 H145 4.442222e-01 5.579539441 0.999539441 0.420460559 121.29787 5.38978 7.00E+01
38 H146 4.335965e-01 5.123637663 0.223637663 0.326362337 200.75862 5.81286 2.00E+01
39 H147 4.383235e+00 5.737912313 0.797912313 3.522087687 149.61729 1.18687 3.00E+02
40 H148 4.415081e+00 5.736441188 0.796441188 3.523558812 153.07617 1.22146 2.00E+02
41 A149 0.000000e+00 0.000000000 0.000000000 0.000000000 234.81151 1.51915 1.00E+01
42 A150 0.000000e+00 0.000000000 0.000000000 0.000000000 251.94525 2.91552 5.00E+01
43 L151 9.657245e-01 0.486530666 0.486530666 0.873469334 200.44840 4.78084 0.00E+00
44 L152 2.276118e-01 0.155530160 0.155530160 0.354469840 167.75507 1.63750 7.00E+01
45 L153 2.836435e-01 0.090655153 0.090655153 0.209344847 203.39720 5.20172 0.00E+00
46 A154 0.000000e+00 0.000000000 0.000000000 0.000000000 273.40983 5.09298 3.00E+01
47 A155 0.000000e+00 0.000000000 0.000000000 0.000000000 243.87677 2.27067 7.00E+01
48 A156 2.969809e-01 0.078649651 0.078649651 0.281350349 225.56962 3.50196 2.00E+01
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2 S158 4.840210e+00 1.972015067 1.812015067 3.607984933 150.35185 3.52018 5.00E+01
3 S159 4.071213e+00 5.843352103 2.913352103 3.146647897 115.26523 4.66152 3.00E+01
4 S160 6.294250e+00 4.068818027 3.758818027 4.921181973 274.52641 2.05876 4.00E+02
5 L162 4.183339e+00 1.018379779 1.018379779 3.241620221 183.06362 2.01236 2.00E+01
6 L163 3.600262e+00 2.101031059 1.811031059 2.528968941 159.17865 2.74886 5.00E+01
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8 A168 2.108988e-01 0.203480899 0.203480899 0.326519101 204.63973 5.16697 3.00E+01
9 A171 3.162669e-01 0.066288998 0.066288998 0.233711002 232.64353 8.12635 3.00E+01
10 A173 3.073647e-01 0.073874034 0.073874034 0.226125966 220.81936 6.94393 6.00E+01
11 A174 2.502103e-01 0.112342240 0.112342240 0.187657760 203.63584 2.94258 4.00E+01
12 A175 0.000000e+00 0.000000000 0.000000000 0.000000000 264.78284 3.25228 4.00E+01
13 L178 1.298739e+00 0.782117594 0.782117594 0.887882406 204.93158 5.66215 8.00E+01
14 A179 0.000000e+00 0.000000000 0.000000000 0.000000000 289.61181 2.03901 8.00E+02
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17 A182 0.000000e+00 0.000000000 0.000000000 0.000000000 281.34328 5.88632 8.00E+01
18 A183 NA NA NA NA NA NA
19 A184 0.000000e+00 0.000000000 0.000000000 0.000000000 322.91775 1.23717 7.00E+02
20 N185 0.000000e+00 0.000000000 0.000000000 0.000000000 242.96533 4.57053 3.00E+01
21 N186 0.000000e+00 0.000000000 0.000000000 0.000000000 286.12274 6.05927 4.00E+01
22 N189 2.826230e+00 2.259510394 2.259510394 2.260489606 155.60510 2.40051 0.00E+00
23 N190 4.009167e+00 1.307753555 1.197753555 3.212246445 157.63180 1.38618 0.00E+00
24 N191 3.881064e+00 1.429564760 1.429564760 3.090435240 151.98655 8.21655 1.00E+00
25 N192 3.930813e-01 0.197251408 0.197251408 0.372748592 197.86269 2.86926 9.00E+01
26 N193 8.035425e-01 0.553237349 0.553237349 0.876762651 211.12714 3.02171 4.00E+01
27 N194 1.135046e+00 0.320126923 0.320126923 0.949873077 166.66524 1.66452 4.00E+01
28 N195 1.846108e+00 0.407384856 0.407384856 1.502615144 173.60334 4.97133 4.00E+01
29 N196 3.522897e+00 0.585563509 0.585563509 2.884436491 182.17636 1.87163 6.00E+01
30 N197 0.000000e+00 0.000000000 0.000000000 0.000000000 191.66985 2.16398 5.00E+01
31 N198 0.000000e+00 0.000000000 0.000000000 0.000000000 283.64187 1.99618 7.00E+01
32 N200 1.133800e+00 0.325615277 0.325615277 0.944384723 177.56761 2.75476 1.00E+01
33 N206 0.000000e+00 0.000000000 0.000000000 0.000000000 291.83050 1.72605 0.00E+00
34 N207 6.530223e-02 0.014697767 0.014697767 0.065302233 249.70281 9.83228 1.00E+01
35 N208 0.000000e+00 0.000000000 0.000000000 0.000000000 243.32153 7.33615 3.00E+01
36 N209 0.000000e+00 0.000000000 0.000000000 0.000000000 230.06313 1.01231 3.00E+01
37 N210 4.344832e-01 0.154887108 0.154887108 0.415112892 196.48155 2.64515 5.00E+01
38 N211 2.878792e+00 0.533831566 0.533831566 2.556168434 270.51410 3.66841 0.00E+00
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40 N213 0.000000e+00 0.000000000 0.000000000 0.000000000 242.78909 1.72590 9.00E+01
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48 N221 0.000000e+00 0.000000000 0.000000000 0.000000000 287.42602 2.37460 2.00E+01
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2 N222 0.000000e+00 0.000000000 0.000000000 0.000000000 272.37335 3.76933 5.00E+01
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4 N224 1.905330e+00 0.341387672 0.341387672 1.568612328 182.65834 5.87683 4.00E+01
5 N225 2.669491e-01 0.084549798 0.084549798 0.425450202 245.13230 8.69123 0.00E+00
6 N226 0.000000e+00 0.000000000 0.000000000 0.000000000 287.15133 2.34713 3.00E+01
7 N227 9.836930e-01 0.380003946 0.380003946 1.049996054 245.99840 6.80084 0.00E+00
8 N228 1.034622e+00 0.314547581 0.314547581 1.115452419 231.75865 2.69686 5.00E+01
9 N229 4.622813e-01 0.135497984 0.135497984 0.434502016 234.53064 2.97406 4.00E+01
10 N230 1.627610e-02 0.003723902 0.003723902 0.016276098 229.83463 2.50446 3.00E+01
11 N231 4.692537e-01 0.126522745 0.126522745 0.443477255 192.58064 2.34106 4.00E+01
12 N232 5.239372e-01 0.072259618 0.072259618 0.497740382 221.47198 1.66819 8.00E+01
13 N233 1.770884e-02 0.006841055 0.006841055 0.023158945 207.42689 4.14568 9.00E+01
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15 N235 0.000000e+00 0.000000000 0.000000000 0.000000000 185.30170 1.52717 0.00E+00
16 N236 5.212736e-01 0.143827280 0.143827280 0.436172720 171.13013 9.70012 6.00E+00
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18 N238 0.000000e+00 0.000000000 0.000000000 0.000000000 289.13720 3.48072 0.00E+00
19 N239 0.000000e+00 0.000000000 0.000000000 0.000000000 267.49322 9.95321 6.00E+00
20 N240 0.000000e+00 0.000000000 0.000000000 0.000000000 276.23187 1.86918 7.00E+01
21 N241 0.000000e+00 0.000000000 0.000000000 0.000000000 272.81529 1.52752 9.00E+01
22 N242 1.407765e-01 0.115760790 0.115760790 0.164239210 254.68896 7.06389 6.00E+01
23 N245 0.000000e+00 0.000000000 0.000000000 0.000000000 294.42440 2.39444 0.00E+00
24 N246 0.000000e+00 0.000000000 0.000000000 0.000000000 266.23155 8.69155 2.00E+00
25 N248 0.000000e+00 0.000000000 0.000000000 0.000000000 287.79977 6.22697 7.00E+01
26 N249 0.000000e+00 0.000000000 0.000000000 0.000000000 296.89579 2.64157 9.00E+01
27 B256 2.981771e+00 6.721251904 0.791251904 2.598748096 95.82172 2.42917 2.00E+01
28 B257 2.204970e+00 6.077456153 1.927456153 1.542543847 108.74998 4.18999 8.00E+01
29 A258 0.000000e+00 0.000000000 0.000000000 0.000000000 322.90937 3.41993 7.00E+01
30 A259 0.000000e+00 0.000000000 0.000000000 0.000000000 317.54693 2.88369 3.00E+01
31 A260 0.000000e+00 0.000000000 0.000000000 0.000000000 298.15593 9.44593 1.00E+00
32 A261 1.416423e+00 2.061532741 2.061532741 0.848467259 340.65480 1.98184 8.00E+02
33 A262 0.000000e+00 0.000000000 0.000000000 0.000000000 320.51093 3.18009 3.00E+01
34 A263 0.000000e+00 0.000000000 0.000000000 0.000000000 297.03438 2.65543 8.00E+01
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38 N268 0.000000e+00 0.000000000 0.000000000 0.000000000 268.62544 1.10854 4.00E+01
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40 K275 0.000000e+00 0.000000000 0.000000000 0.000000000 315.61112 5.80711 2.00E+01
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42 J280 0.000000e+00 0.000000000 0.000000000 0.000000000 208.39719 3.06871 9.00E+01
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44 J282 1.428086e+00 0.742312544 0.742312544 1.167687456 156.66389 3.27738 9.00E+01
45 J283 3.044941e+00 2.462796999 2.292796999 2.607203001 143.50398 1.62939 8.00E+01
46 J284 4.017156e+00 4.838084534 1.348084534 2.611915466 135.29162 2.16416 2.00E+01
47 J285 7.184952e+00 2.034762599 2.024762599 5.525237401 140.33843 4.93284 3.00E+01
48 J286 3.256226e+00 1.939535443 1.939535443 3.050464557 148.03325 1.76032 5.00E+01
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2	J287	1.364183e+00	2.515433365	1.895433365	1.184566635	146.99977	1.65697	7.00E+01		
3	J288	2.186969e+00	1.705019489	1.235019489	1.994980511	146.48735	1.39573	5.00E+01		
4	J289	1.477940e+00	7.892982788	1.742982788	1.027017212	88.16518	3.70251	8.00E+01		
5	J290	2.242576e+00	7.282004907	1.132004907	1.637995093	101.39308	5.02530	8.00E+01		
6	J291	4.216012e-01	6.162524807	0.232524807	0.207475193	125.48766	2.21976	6.00E+01		
7	J292	1.806367e+00	7.078834305	0.928834305	1.801165695	101.88692	3.31069	2.00E+01		
8	J293	1.790724e+00	7.471734613	1.321734613	1.428265387	96.45271	3.48127	1.00E+01		
9	J297	2.593633e+00	5.886411341	4.686411341	1.623588659	131.43896	1.54489	6.00E+01		
10	J298	0.000000e+00	0.000000000	0.000000000	0.000000000	207.66795	3.03179	5.00E+01		
11	J299	0.000000e+00	0.000000000	0.000000000	0.000000000	202.49073	2.47807	3.00E+01		
12	J300	2.759990e-01	0.081772749	0.081772749	0.268227251	179.89070	1.89707	0.00E+00		
13	J301	0.000000e+00	0.002863582	0.002863582	0.007136418	178.16380	8.20379	7.00E+00		
14	J303	0.000000e+00	0.000000000	0.000000000	0.000000000	208.37347	3.84134	7.00E+01		
15	J304	3.950490e+00	1.753973384	1.753973384	3.316026616	162.56574	2.13657	4.00E+01		
16	J305	0.000000e+00	0.001451041	0.001451041	0.008548959	183.02648	1.30664	8.00E+01		
17	J306	0.000000e+00	0.001666805	0.001666805	0.008333195	202.77285	3.28128	5.00E+01		
18	J307	0.000000e+00	0.001922422	0.001922422	0.008077578	194.66366	2.47036	6.00E+01		
19	J308	0.000000e+00	0.001666299	0.001666299	0.008333701	194.36207	2.44020	7.00E+01		
20	J309	0.000000e+00	0.001836976	0.001836976	0.008163024	199.51545	2.53054	5.00E+01		
21	J310	0.000000e+00	0.001986113	0.001986113	0.008013887	188.47010	1.85101	0.00E+00		
22	J311	0.000000e+00	0.002279831	0.002279831	0.007720169	187.61737	1.75873	7.00E+01		
23	J312	2.302957e-01	0.144715660	0.144715660	0.365284340	181.20669	1.26866	9.00E+01		
24	J313	1.568292e-02	0.002158538	0.002158538	0.007841462	194.23429	1.81842	9.00E+01		
25	J314	3.055384e+00	2.068182648	1.898182648	2.451817352	150.24802	9.24802	2.00E+00		
26	J315	2.576423e+00	1.395062735	1.225062735	2.074937265	152.33528	2.28352	8.00E+01		
27	J316	2.890762e-01	0.327514915	0.327514915	0.252485085	163.35771	1.95877	1.00E+01		
28	J317	1.657480e+00	2.014074235	1.664074235	1.685925765	145.77357	1.62735	7.00E+01		
29	J318	4.271848e+00	1.486707424	1.486707424	3.583292576	158.39854	2.67985	4.00E+01		
30	J319	2.145378e+00	3.200695181	0.950695181	1.869304819	138.23550	1.10255	0.00E+00		
31	J320	2.745246e+00	2.726342757	2.556342757	2.343657243	134.75935	1.03493	5.00E+01		
32	J321	5.037894e+00	2.767463443	2.657463443	3.572536557	154.24243	1.87024	3.00E+01		
33	J322	0.000000e+00	0.002322763	0.002322763	0.007677237	198.08189	2.81218	9.00E+01		
34	J323	0.000000e+00	0.001975726	0.001975726	0.008024274	185.18743	1.52274	3.00E+01		
35	J324	0.000000e+00	0.000000000	0.000000000	0.000000000	206.42150	3.64615	0.00E+00		
36	J325	0.000000e+00	0.001825797	0.001825797	0.008174203	206.21637	3.06163	7.00E+01		
37	J326	0.000000e+00	0.000000000	0.000000000	0.000000000	184.37364	1.59336	4.00E+01		
38	J327	2.007738e+00	0.731356740	0.631356740	1.568643260	164.10594	1.09259	4.00E+01		
39	J328	3.636224e+00	1.636670931	1.606670931	2.883329069	149.40025	1.99002	5.00E+01		
40	J329	1.825775e+00	1.776272231	1.766272231	1.573727769	151.46562	1.98656	2.00E+01		
41	J330	4.331904e+00	4.330310456	2.520310456	2.919689544	130.46348	5.59348	4.00E+00		
42	J331	1.124338e+00	1.499514237	1.329514237	1.160485763	160.52800	6.98800	3.00E+00		
43	J332	4.043737e+00	1.138847080	0.968847080	3.121152920	153.14455	1.21445	5.00E+01		
44	J333	1.432740e+00	6.254084627	0.674084627	0.995915373	125.60769	1.73376	9.00E+01		
45	J334	1.935970e+00	5.963560661	0.383560661	0.896439339	121.40530	1.31353	0.00E+00		
46	J335	2.503784e+00	6.240464804	0.660464804	1.819535196	124.77079	1.65007	9.00E+01		
47	J336	1.761207e+00	2.195928547	2.165928547	1.504071453	144.85809	1.99880	9.00E+01		
48	J337	1.015916e+00	0.419496424	0.419496424	0.850503576	158.84002	1.50700	2.00E+01		
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2 J338 3.648420e+00 2.076276697 1.966276697 2.993723303 152.96866 2.80986 6.00E+01
3 J339 1.509803e+00 0.744525236 0.744525236 1.165474764 162.56160 3.86716 0.00E+00
4 J340 4.172634e-01 0.218922681 0.218922681 0.361077319 181.95162 2.05616 2.00E+01
5 J341 3.309208e+00 2.268685013 2.098685013 2.801314987 141.71034 1.01103 4.00E+01
6 J342 2.235294e+00 3.180042511 2.600042511 1.889957489 139.44024 1.50302 4.00E+01
7 J343 9.047032e-01 2.527272365 2.357272365 0.822727635 136.78473 9.57472 6.00E+00
8 J344 2.295466e+00 5.738392348 0.668392348 1.121607652 128.67683 7.17683 0.00E+00
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10 J346 2.705538e+00 6.570017077 0.990017077 2.309982923 110.88105 3.16010 5.00E+01
11 J347 2.180070e+00 3.159930688 1.289930688 1.910069312 134.19106 9.78106 0.00E+00
12 J348 2.580971e+00 7.014692547 0.864692547 1.905307453 99.67542 4.85354 2.00E+01
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14 J350 3.076239e+00 2.154133804 2.124133804 2.365866196 153.38207 2.38820 7.00E+01
15 J351 2.625928e+00 2.828700998 2.658700998 2.241299002 141.80168 1.45916 8.00E+01
16 J352 4.649622e+00 1.188417372 1.178417372 3.881582628 158.22815 1.70281 5.00E+01
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18 J354 7.152774e+00 3.024255035 2.554255035 4.485744965 133.73713 1.77471 3.00E+01
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20 J356 3.285635e+00 2.436981650 0.786981650 2.633018350 152.50285 2.76328 5.00E+01
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22 J358 6.737049e+00 3.325633946 1.675633946 4.184366054 158.40780 4.24178 0.00E+00
23 J359 3.573351e+00 5.384252203 3.574252203 2.125747797 129.63119 1.36411 9.00E+01
24 J360 7.323395e+00 1.161672346 1.161672346 5.828327654 202.01108 1.29911 1.00E+02
25 J361 1.393071e+00 4.068582194 0.968582194 1.001417806 134.41628 4.91628 1.00E+00
26 J362 1.924019e+00 6.145626670 2.445626670 1.304373330 134.46924 3.53923 7.00E+00
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32 J369 3.114517e+00 2.247366621 2.107366621 2.272633379 142.25850 1.18285 0.00E+00
33 Y372 1.782561e+00 7.527729695 4.617729695 1.392270305 76.98826 4.04982 6.00E+01
34 Y373 9.520695e-01 8.249794461 2.149794461 0.740205539 77.52941 4.10394 1.00E+01
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37 Y376 8.078975e-01 8.184534377 2.034534377 0.805465623 65.45025 2.89602 5.00E+01
38 Y377 2.004937e+00 7.621548014 1.471548014 1.508451986 99.27879 3.36787 9.00E+01
39 Z379 1.531117e+00 4.471335510 0.241335510 1.248664490 182.51331 1.78933 1.00E+01
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41 Z381 2.835030e+00 3.734654093 1.054654093 2.475345907 145.22289 9.83288 6.00E+00
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2 Z389 1.491904e+00 3.438390554 0.838390554 1.141609446 168.58568 2.72756 8.00E+01
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9 Z396 1.132319e+00 4.975707276 0.745707276 1.024292724 155.47002 8.80700 2.00E+01
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11 N398 1.962611e-01 0.096590119 0.096590119 0.433409881 239.66434 6.08243 4.00E+01
12 N399 1.123230e+00 0.271364625 0.271364625 1.158635375 262.09099 8.32509 9.00E+01
13 N400 2.395801e+00 0.635188373 0.635188373 1.824811627 285.79573 5.20157 3.00E+01
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27 A416 3.487326e-01 0.138900565 0.138900565 0.341099435 204.84444 3.35844 4.00E+01
28 A417 6.957872e-02 0.010421279 0.010421279 0.069578721 225.03031 7.36503 1.00E+01
29 A418 5.393578e-02 0.030206084 0.030206084 0.049793916 187.08938 3.57093 8.00E+01
30 A419 2.519470e+00 0.605034017 0.605034017 1.994965983 391.53646 1.97156 5.00E+02
31 A420 2.186113e-01 0.031837445 0.031837445 0.168162555 370.77303 9.47530 3.00E+01
32 A421 1.615798e+00 0.796990229 0.796990229 1.273009771 288.90948 9.45294 8.00E+01
33 A422 1.382456e+00 0.246563480 0.246563480 1.073436520 396.44181 1.61391 8.00E+02
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41 Z435 3.000855e-01 6.431985609 0.591985609 0.208014391 95.60847 5.66847 1.00E+00
42 Z436 1.020471e+00 5.450038098 2.250038098 0.889961902 154.21327 6.60932 7.00E+01
43 Z438 1.451592e+00 5.972874947 2.772874947 1.207125053 153.14193 4.96319 3.00E+01
44 Z439 2.953882e+00 4.571399985 1.971399985 2.468600015 146.96237 7.81023 7.00E+01
45 Z459 1.780593e+00 7.295328539 1.145328539 1.584671461 123.70722 5.49272 2.00E+01
46 Z462 4.834472e-01 7.906261503 0.766261503 0.373738497 60.17700 1.30970 0.00E+00
47 Z466 6.054775e-01 7.847939929 0.707939929 0.432060071 69.45415 2.23741 5.00E+01
48 Z467 2.657187e+00 7.338968902 0.478968902 2.091031098 152.73665 6.31666 5.00E+01
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2 Z470 1.132486e+00 7.407110526 1.257110526 0.872889474 111.57384 6.44938 4.00E+01
3 Z471 8.518380e-01 7.660153499 0.520153499 0.619846501 83.22443 3.61444 3.00E+01
4 Z472 4.346035e-01 7.960966894 0.820966894 0.319033106 58.89605 1.18160 5.00E+01
5 Z473 1.207988e+00 7.191971696 0.781971696 1.088028304 74.09756 2.70175 6.00E+01
6 Z474 5.178017e-01 8.366829731 0.646829731 0.343170269 51.20080 4.12079 9.00E+00
7 Z477 1.162209e+00 7.402812420 0.912812420 1.117187580 82.08165 3.50016 5.00E+01
8 Z480 1.349140e+00 8.267345000 0.547345000 1.052655000 51.65763 4.57762 7.00E+00
9 Z482 7.337644e-01 7.741826083 0.601826083 0.538173917 68.88271 2.18027 1.00E+01
10 Z483 4.505257e-01 7.801310930 0.661310930 0.378689070 60.38177 1.33017 7.00E+01
11 Z492 1.392653e+00 7.038187314 0.888187314 1.111812686 111.91151 6.48315 1.00E+01
12 Z493 3.379766e-01 8.151848731 1.741848731 0.368151269 51.51713 4.43713 2.00E+00
13 Z494 6.489213e-01 7.902656569 1.492656569 0.617343431 52.95945 5.87944 7.00E+00
14 Z495 1.029224e+00 8.260223044 1.490223044 0.729776956 73.20366 3.21236 6.00E+01
15 Z496 9.814052e-01 7.905221434 1.535221434 0.804778566 101.17833 5.40983 3.00E+01
16 Z497 1.374199e+00 8.076386217 1.216386217 1.183613783 125.24259 6.36025 9.00E+01
17 Z498 1.783011e+00 7.598149125 1.498149125 1.391850875 105.14156 4.53815 6.00E+01
18 Z499 3.920654e-01 9.240262815 0.120262815 0.289737185 68.89643 4.17264 3.00E+01
19 Z500 4.254514e-01 9.219439610 0.509439610 0.360560390 67.38930 4.02193 0.00E+00
20 Z501 1.454715e+00 8.233333251 1.863333251 1.196666749 98.94053 5.18605 3.00E+01
21 Z502 1.471512e+00 8.071364853 2.141364853 1.248635147 85.91264 1.43826 4.00E+01
22 Z503 1.212676e+00 8.288874538 2.358874538 1.031125462 86.85555 1.53255 5.00E+01
23 Z504 8.466834e-01 8.456947404 1.596947404 0.663052596 112.71073 5.21707 3.00E+01
24 Z505 1.414144e-01 9.443351369 0.323351369 0.136648631 45.27026 1.81002 6.00E+01
25 Z506 3.282322e-01 9.283770374 0.163770374 0.246229626 46.65811 1.94881 1.00E+01
26 Z507 8.074972e-02 6.063511984 0.133511984 0.086488016 114.81724 2.82672 4.00E+01
27 Z508 8.961086e-01 8.398975709 1.538975709 0.721024291 94.39790 3.38579 0.00E+00
28 Z509 4.109434e-01 9.211191170 0.501191170 0.318808830 64.94975 3.77797 5.00E+01
29 Z510 2.917698e-01 9.379021817 0.669021817 0.260978183 49.15875 2.19887 5.00E+01
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32 Z513 2.491506e-01 9.402676174 0.282676174 0.237323826 43.69953 1.65295 3.00E+01
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35 Z516 3.878506e-01 9.269363591 0.559363591 0.310636409 70.08628 4.29162 8.00E+01
36 Z517 6.484456e-01 7.720580046 0.580580046 0.429419954 75.52461 2.84446 1.00E+01
37 Z518 1.922269e+00 7.932631617 1.072631617 1.497368383 143.47026 3.48302 6.00E+01
38 Z519 1.610554e+00 7.849523081 1.479523081 1.270476919 95.38329 4.83032 9.00E+01
39 Z520 1.044666e+00 8.512008065 0.652008065 0.807991935 55.97329 8.89329 4.00E+00
40 Z521 3.341388e-01 9.291168256 0.171168256 0.238831744 54.35223 1.16022 3.00E+01
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47 A534 6.371029e+00 3.242581583 2.952581583 4.267418417 157.70500 4.25550 0.00E+00
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2 Z536 3.370536e+00 5.770930765 1.540930765 2.609069235 172.92595 3.70259 5.00E+01
3 Z537 1.147152e+00 6.279735762 0.569735762 0.840264238 169.97774 1.02577 7.00E+02
4 Z538 4.090965e+00 2.347904595 2.347904595 3.292095405 197.26337 5.41533 7.00E+01
5 Z539 3.833405e+00 1.887782497 1.887782497 3.052217503 199.05438 5.64243 8.00E+01
6 Z540 6.358650e+00 4.097238292 4.097238292 5.162761708 159.95886 1.29028 9.00E+02
7 Z541 5.052596e+00 4.426337934 4.416337934 3.953662066 161.39905 9.25390 5.00E+01
8 Z542 5.227415e+00 2.784212776 2.774212776 4.205787224 179.77780 1.07677 8.00E+02
9 Z543 1.264187e+00 7.032184335 0.882184335 1.117815665 112.08585 2.61958 5.00E+01
10 Z546 1.228883e+00 8.003896231 1.633896231 0.986103769 77.66016 3.65801 6.00E+01
11 Z547 1.269730e+00 6.761914468 1.381914468 1.028085532 158.99459 2.30945 9.00E+01
12 Z548 5.241237e+00 2.243369798 1.763369798 4.116630202 174.31259 7.92225 9.00E+01
13 Z549 2.354470e+00 7.407411317 2.367411317 1.852588683 92.13545 7.60554 5.00E+01
14 Z550 5.383787e+00 2.594326768 2.084326768 4.205673232 197.64774 1.36267 7.00E+02
15 Z551 0.000000e+00 0.000000000 0.000000000 0.000000000 225.96777 2.52577 7.00E+01
16 Z552 6.691780e+00 1.692531676 1.652531676 5.347468324 173.01901 1.04159 0.00E+00
17 Z553 1.775861e+00 2.233227236 2.223227236 1.326772764 184.37604 4.24060 4.00E+01
18 Z554 2.144236e+00 3.561088436 1.791088436 1.818911564 184.27445 4.83744 5.00E+01
19 Z555 3.888647e+00 4.943834289 2.473834289 3.126165711 117.33012 2.81101 2.00E+01
20 Z556 4.453073e+00 4.322024578 3.862024578 3.697975422 207.61360 1.29633 6.00E+02
21 Z557 1.178731e+00 4.599086328 1.199086328 1.120913672 131.87190 2.46319 0.00E+00
22 Z558 5.552411e+00 3.632320635 3.192320635 4.437679365 130.88343 4.16634 3.00E+01
23 Z559 5.853106e+00 3.155750539 2.715750539 4.404249461 130.59013 3.95801 3.00E+01
24 Z560 3.609822e+00 2.261776277 2.261776277 2.638223723 195.79179 8.85517 9.00E+01
25 Z561 1.552217e+00 4.372625580 1.532625580 1.347374420 131.81002 2.45700 2.00E+01
26 Z562 3.436163e+00 5.273032100 4.813032100 2.796967900 116.08722 3.08172 2.00E+01
27 Z563 2.422021e+00 7.602321125 2.152321125 2.057678875 78.93059 6.28505 9.00E+01
28 Z564 1.840796e+00 8.098758846 2.458758846 1.561241154 60.52677 4.25267 7.00E+01
29 Y566 3.255173e+00 6.268544534 0.118544534 2.611455466 129.14103 6.03610 3.00E+01
30 Y567 1.092937e+00 7.411637095 1.261637095 0.668362905 94.21129 4.71312 9.00E+01
31 Y568 3.099296e+00 6.326063035 0.396063035 2.553936965 119.00775 5.02277 5.00E+01
32 Y569 2.128588e+00 7.297795644 1.147795644 1.672204356 99.11535 5.80353 5.00E+01
33 Y570 2.346568e+00 6.655510425 0.725510425 2.054489575 110.33277 2.37827 7.00E+01
34 Y571 2.113204e+00 6.996195696 0.846195696 1.883804304 112.56586 4.37858 6.00E+01
35 Y572 2.487235e+00 6.947998063 0.797998063 1.932001937 102.31882 5.52388 2.00E+01
36 Y573 1.090249e+00 8.550802481 0.460802481 0.879197519 76.96121 3.58812 1.00E+01
37 Y574 2.585502e+00 7.304990179 1.154990179 2.095009821 104.01904 6.29390 4.00E+01
38 Y575 2.784637e+00 6.329633432 0.399633432 2.380366568 118.35920 9.71920 5.00E+00
39 Y576 3.210405e+00 6.295318333 0.365318333 2.584681667 119.49368 5.07136 8.00E+01
40 Y577 3.330072e+00 6.120080739 0.190080739 2.759919261 110.12508 4.13450 8.00E+01
41 Y578 2.953203e+00 6.212660590 0.282660590 2.497339410 106.19766 1.96476 6.00E+01
42 Y579 1.191002e+00 6.723612310 0.793612310 1.066387690 107.86737 4.51073 7.00E+01
43 Y580 7.502386e-01 6.228055245 0.298055245 0.811944755 90.63997 2.24299 7.00E+01
44 Z584 7.183665e-01 8.532300243 0.442300243 0.457699757 67.42843 2.07084 3.00E+01
45 Z585 9.204342e-01 8.006763788 1.146763788 0.703236212 97.19285 5.04728 5.00E+01
46 Z586 6.882816e-01 7.764518964 1.614518964 0.515481036 50.99362 3.91361 6.00E+00
47 Z590 8.510741e-01 7.644467066 0.504467066 0.635532934 128.86687 8.17868 7.00E+01
48 Z591 8.727492e-01 7.265934514 0.175934514 0.614065486 131.57648 8.44964 8.00E+01
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2 Z593 5.766397e-01 8.982133879 0.702133879 0.447866121 92.23952 4.51595 2.00E+01
3 Z595 1.273390e+00 8.247371179 0.667371179 1.012628821 78.63975 3.15597 5.00E+01
4 Z596 6.755771e-01 8.596848933 1.546848933 0.523151067 96.87463 3.63346 3.00E+01
5 Z597 1.903746e+00 7.624062379 0.764062379 1.365937621 123.12994 7.60499 4.00E+01
6 Z598 2.627488e+00 6.433160611 0.503160611 2.276839389 105.19658 1.86465 8.00E+01
7 Z599 2.915440e+00 6.466020593 0.536020593 2.413979407 113.44464 4.46646 4.00E+01
8 Z601 8.859240e-01 7.947783158 1.087783158 0.692216842 93.66696 4.69469 6.00E+01
9 Z602 0.000000e+00 0.000000000 0.000000000 0.000000000 493.14416 1.08734 2.00E+02
10 Z603 0.000000e+00 0.000000000 0.000000000 0.000000000 499.88684 1.15476 8.00E+02
11 Z604 0.000000e+00 0.000000000 0.000000000 0.000000000 488.34559 1.03935 6.00E+02
12 Z605 0.000000e+00 0.000000000 0.000000000 0.000000000 444.18729 1.95537 3.00E+02
13 Z606 0.000000e+00 0.000000000 0.000000000 0.000000000 184.99385 9.63852 2.00E-01
14 N607 0.000000e+00 0.000000000 0.000000000 0.000000000 416.57303 3.02930 3.00E+01
15 N608 0.000000e+00 0.000000000 0.000000000 0.000000000 411.43196 8.73195 8.00E+00
16 N609 0.000000e+00 0.000000000 0.000000000 0.000000000 433.91047 3.18004 7.00E+01
17 N610 0.000000e+00 0.000000000 0.000000000 0.000000000 417.53614 1.48361 4.00E+01
18 N611 0.000000e+00 0.000000000 0.000000000 0.000000000 422.31939 3.60393 9.00E+01
19 N612 0.000000e+00 0.000000000 0.000000000 0.000000000 425.28082 2.31708 2.00E+01
20 N613 0.000000e+00 0.000000000 0.000000000 0.000000000 482.51367 9.62336 7.00E+01
21 N614 0.000000e+00 0.000000000 0.000000000 0.000000000 392.37184 6.09184 1.00E+00
22 N615 0.000000e+00 0.000000000 0.000000000 0.000000000 409.62979 2.33497 9.00E+01
23 N616 0.000000e+00 0.000000000 0.000000000 0.000000000 394.05240 7.77239 6.00E+00
24 N620 0.000000e+00 0.000000000 0.000000000 0.000000000 456.14529 5.34452 9.00E+01
25 N622 0.000000e+00 0.000000000 0.000000000 0.000000000 389.01952 2.73951 8.00E+00
26 N623 0.000000e+00 0.000000000 0.000000000 0.000000000 403.25525 1.69752 5.00E+01
27 N626 0.000000e+00 0.000000000 0.000000000 0.000000000 396.54520 1.02652 0.00E+00
28 N628 0.000000e+00 0.000000000 0.000000000 0.000000000 388.35490 2.07489 7.00E+00
29 N629 0.000000e+00 0.000000000 0.000000000 0.000000000 394.28894 8.00894 0.00E+00
30 N630 0.000000e+00 0.000000000 0.000000000 0.000000000 388.13907 1.85906 9.00E+00
31 N631 0.000000e+00 0.000000000 0.000000000 0.000000000 388.08353 1.80353 4.00E+00
32 N632 0.000000e+00 0.000000000 0.000000000 0.000000000 388.89447 2.61446 5.00E+00
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34 N634 0.000000e+00 0.000000000 0.000000000 0.000000000 391.53592 5.25591 7.00E+00
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39 C645 0.000000e+00 0.000000000 0.000000000 0.000000000 327.52691 3.73369 1.00E+01
40 C646 1.248729e+00 1.206899178 1.206899178 0.993100822 302.44988 3.77198 8.00E+01
41 C648 4.022623e-02 0.007819016 0.007819016 0.032180984 307.31834 3.60283 4.00E+01
42 C650 3.279654e-02 0.005402596 0.005402596 0.024597404 308.44716 1.97371 6.00E+01
43 C651 2.406219e-02 0.011953360 0.011953360 0.018046640 382.60030 6.60403 0.00E+00
44 C652 0.000000e+00 0.000000000 0.000000000 0.000000000 328.89500 9.47050 0.00E+00
45 C653 0.000000e+00 0.000000000 0.000000000 0.000000000 283.56258 4.88825 8.00E+01
46 C654 1.446209e-01 0.027517052 0.027517052 0.112482948 272.05172 1.45117 2.00E+01
47 C655 1.375611e-01 0.033205740 0.033205740 0.106794260 314.76125 4.34712 5.00E+01
48 C656 1.440114e-01 0.027991130 0.027991130 0.112008870 292.50489 2.12148 9.00E+01
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2	C657	1.755118e+00	0.359156181	0.359156181	1.390843819	277.01249	1.59924	9.00E+01	
3	C658	0.000000e+00	0.000000000	0.000000000	0.000000000	267.09418	6.69241	8.00E+01	
4	C659	1.773960e+00	0.345280253	0.345280253	1.404719747	291.14235	1.17623	5.00E+01	
5	C660	1.311479e+00	1.033786997	1.033786997	1.036213003	276.83120	1.21012	0.00E+00	
6	C661	0.000000e+00	0.000000000	0.000000000	0.000000000	329.05134	3.66613	4.00E+01	
7	C662	1.841598e+00	0.386375037	0.386375037	1.463624963	296.71911	3.34791	1.00E+01	
8	C663	0.000000e+00	0.000000000	0.000000000	0.000000000	315.44309	2.67330	9.00E+01	
9	C664	1.719089e+00	0.649316014	0.649316014	1.360683986	320.09602	3.71860	2.00E+01	
10	C665	1.816496e+00	0.311598283	0.311598283	1.438401717	298.25125	1.88712	5.00E+01	
11	C666	1.435412e+00	0.225022945	0.225022945	1.134977055	283.74067	7.88306	7.00E+01	
12	C667	0.000000e+00	0.000000000	0.000000000	0.000000000	337.70396	4.75139	6.00E+01	
13	C668	0.000000e+00	0.000000000	0.000000000	0.000000000	295.39920	6.07192	0.00E+00	
14	C669	2.362691e+00	0.385803813	0.385803813	1.874196187	324.67207	8.11207	4.00E+00	
15	C670	0.000000e+00	0.030000000	0.000000000	0.000000000	316.56000	0.00000	0.00E+00	
16	C671	2.287902e+00	0.444739467	0.444739467	1.815260533	317.84973	1.28973	3.00E+00	
17	C672	5.483851e-03	0.025887112	0.025887112	0.004112888	316.56000	0.00000	0.00E+00	
18	C673	5.084893e-03	0.026186330	0.026186330	0.003813670	316.56000	0.00000	0.00E+00	
19	C674	1.581264e+00	0.239923002	0.239923002	1.280076998	301.49152	8.93715	2.00E+01	
20	C675	7.238452e-03	0.024571161	0.024571161	0.005428839	316.56000	0.00000	0.00E+00	
21	C676	1.082091e+00	0.536312392	0.536312392	0.743687608	266.00492	1.19054	9.00E+02	
22	C677	2.044018e+00	1.003328623	1.003328623	1.616671377	369.10576	7.89157	6.00E+01	
23	A682	9.927056e-01	0.182580718	0.182580718	0.797419282	320.26358	1.25883	6.00E+02	
24	A683	2.030498e+00	1.052058884	1.052058884	1.607941116	333.76759	6.57475	9.00E+01	
25	A685	2.394712e+00	0.541806819	0.541806819	1.898193181	260.63003	3.46600	3.00E+01	
26	Y686	2.931115e+00	6.109663527	0.179663527	2.600336473	110.68640	2.41364	0.00E+00	
27	Y687	3.243093e-01	6.186313570	0.256313570	0.183686430	119.37394	1.60839	4.00E+01	
28	Y688	2.737410e+00	6.711194036	0.781194036	2.258805964	95.10416	5.40241	6.00E+01	
29	Y689	1.477186e+00	6.944655156	0.794655156	0.825344844	121.07994	2.96399	4.00E+01	
30	Y690	1.441499e+00	7.577275119	1.427275119	1.302724881	84.96768	4.84776	8.00E+01	
31	Y691	2.868892e+00	6.900115736	0.800115736	2.359884264	106.99911	2.90191	1.00E+01	
32	Y692	7.375214e-01	6.351715344	0.421715344	0.688284656	99.62780	3.14178	0.00E+00	
33	Y693	3.294306e+00	6.850085567	0.750085567	2.829914433	107.87838	4.27783	8.00E+01	
34	Y694	2.408094e+00	6.973022264	0.823022264	1.906977736	102.63582	2.33558	2.00E+01	
35	Y695	1.866242e+00	7.353773891	1.423773891	1.526226109	97.50975	2.87297	5.00E+01	
36	Y696	3.995378e-01	6.545986719	0.445986719	0.364013281	96.62584	3.55158	4.00E+01	
37	Y697	3.224212e-01	6.674053935	0.184053935	0.205946065	97.97842	3.11484	2.00E+01	
38	A698	0.000000e+00	0.000000000	0.000000000	0.000000000	270.71308	4.95430	8.00E+01	
39	A699	0.000000e+00	0.000000000	0.000000000	0.000000000	254.43753	8.02275	3.00E+01	
40	A701	0.000000e+00	0.000000000	0.000000000	0.000000000	257.32405	7.96140	5.00E+01	
41	A703	4.759634e-01	0.090319640	0.090319640	0.379680360	280.16308	8.87307	8.00E+00	
42	A704	4.473980e+00	0.726563925	0.726563925	3.503436075	265.31668	9.19566	8.00E+01	
43	Z705	1.516897e+00	7.188994717	0.698994717	1.331005283	80.67798	3.35979	8.00E+01	
44	Z706	1.266397e+00	7.321542835	0.911542835	1.198457165	73.79786	2.67178	6.00E+01	
45	Z707	6.253065e-01	6.141614970	0.041614970	0.348385030	117.34080	2.52208	0.00E+00	
46	Z708	3.125666e-01	8.240792443	1.830792443	0.279207557	53.21705	6.13705	0.00E+00	
47	Z710	1.850742e+00	7.646139410	1.276139410	1.403860590	99.61508	5.85350	8.00E+01	
48	Z714	2.373319e+00	6.714353147	0.784353147	1.995646853	111.26863	5.38863	4.00E+00	

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2 Z716 2.746792e+00 6.657628306 0.167628306 2.312371694 118.72166 7.76416 6.00E+01
3 Z717 2.731766e+00 6.670502520 0.180502520 2.299497480 118.58864 7.75086 4.00E+01
4 Z718 1.739382e+00 7.473640345 0.983640345 1.426359655 110.01440 1.05644 0.00E+00
5 Z720 2.101124e+00 7.136976919 0.986976919 1.743023081 111.55354 3.22735 4.00E+01
6 Z721 4.618281e-01 9.009449116 2.519449116 0.390550884 83.57952 1.02495 2.00E+01
7 Z722 7.778062e-01 8.782037257 2.012037257 0.617962743 70.31590 2.92359 0.00E+00
8 Z723 4.587874e-01 8.591779301 2.101779301 0.378220699 60.10276 1.90227 6.00E+01
9 Z726 1.702992e+00 7.564029120 1.074029120 1.335970880 106.52023 7.07022 9.00E+00
10 Z727 1.543446e+00 7.793085218 1.303085218 1.176914782 101.99739 6.09173 9.00E+01
11 Z728 1.296920e+00 7.948116252 1.458116252 1.021883748 102.54783 6.14678 3.00E+01
12 Z729 9.225699e-01 8.679591408 0.959591408 0.720408592 65.86660 2.47866 0.00E+00
13 Z730 8.224463e-01 8.472968852 1.612968852 0.787031148 86.18269 2.64226 9.00E+01
14 Z731 3.895956e-01 8.653617397 2.163617397 0.316382603 99.20097 5.81209 7.00E+01
15 Z732 1.526038e+00 7.829695068 1.339695068 1.160304932 107.89223 3.63622 3.00E+01
16 Z733 1.859439e+00 7.374711492 0.884711492 1.525288508 103.73070 2.70607 0.00E+00
17 Z735 4.785848e-01 9.192703104 0.482703104 0.387296896 78.69164 3.59416 4.00E+01
18 Z736 3.738788e+00 5.472976985 5.462976985 2.907023015 167.23870 3.13387 0.00E+00
19 Z737 7.968929e-01 8.936407854 1.896407854 0.693592146 30.07760 1.39976 0.00E+00
20 Z738 5.644091e+00 4.405074401 4.395074401 4.624925599 164.66571 1.29355 7.00E+02
21 Z739 3.594902e+00 5.472808572 2.222808572 2.907191428 183.61235 4.77123 5.00E+01
22 Z740 1.392564e+00 8.329346421 1.559346421 1.070653579 136.40614 9.53261 4.00E+01
23 Z743 9.543656e-01 8.493099470 1.353099470 0.826900530 96.80305 2.72630 5.00E+01
24 Z746 1.266918e+00 8.423464731 0.703464731 0.976535269 66.75649 1.96764 9.00E+01
25 O747 1.641689e+00 1.947661656 1.347661656 1.182338344 211.15710 4.30171 0.00E+00
26 O748 7.823851e-01 3.006705348 0.496705348 0.553294652 174.89201 3.29220 1.00E+01
27 O749 2.554094e+00 4.736740625 2.226740625 2.223259375 148.93703 5.21770 3.00E+01
28 O750 5.745798e-01 3.074957573 0.564957573 0.375042427 167.58296 2.56129 6.00E+01
29 O754 4.515156e+00 5.466867688 3.776867688 3.623132312 171.20433 3.81943 3.00E+01
30 O755 1.471372e+00 2.494348829 0.904348829 1.065651171 182.75623 2.84162 3.00E+01
31 O756 3.154771e+00 4.538256335 2.878256335 2.581743665 198.14742 9.09074 2.00E+01
32 O757 3.349417e+00 2.657279583 0.967279583 2.702720417 221.83384 3.64638 4.00E+01
33 O758 9.939839e-01 2.764729631 1.104729631 0.795270369 191.74347 3.34234 7.00E+01
34 O759 3.919219e+00 3.984702175 3.944702175 3.135297825 204.69623 6.87962 3.00E+01
35 O760 4.222699e-01 2.377294608 0.607294608 0.222705392 196.06205 2.79220 5.00E+01
36 O761 5.777525e-01 3.178411368 0.668411368 0.381588632 160.99872 6.65871 7.00E+00
37 O762 1.984974e+00 1.683597220 1.523597220 1.446402780 219.07762 2.93576 2.00E+01
38 O763 9.471553e-01 1.958461485 0.638461485 0.641538515 219.83441 1.94944 1.00E+01
39 O764 1.210351e+00 1.729355432 1.729355432 0.840644568 268.76130 6.84213 0.00E+00
40 O765 8.932806e-01 1.106956448 0.906956448 0.633043552 240.31221 2.59022 1.00E+01
41 O766 2.305100e+00 0.826880173 0.746880173 1.703119827 242.88033 4.03503 3.00E+01
42 O767 1.259904e+00 1.774404909 1.614404909 0.955595091 214.76461 5.07246 1.00E+01
43 O768 1.639424e+00 1.305071451 1.105071451 1.224928549 226.61146 2.40814 6.00E+01
44 O769 2.504082e+00 0.673745050 0.593745050 1.856254950 246.17784 4.36478 4.00E+01
45 O770 1.761215e+00 0.464130794 0.454130794 1.275869206 244.45516 3.00451 6.00E+01
46 O771 1.688253e+00 0.515843805 0.515843805 1.224156195 248.10224 2.81222 4.00E+01
47 O772 1.600944e+00 0.598488783 0.438488783 1.141511217 243.79721 2.38172 1.00E+01
48 O773 3.929553e+00 2.536590361 2.526590361 3.233409639 212.76418 4.22441 8.00E+01
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2 O774 1.334647e+00 1.661276632 1.061276632 0.908723368 241.80204 2.24120 4.00E+01
3 O775 3.418559e-01 1.522653433 1.522653433 0.247346567 260.95035 6.06103 5.00E+01
4 O776 3.163298e+00 3.315849736 2.715849736 2.634150264 182.78426 1.24614 3.00E+02
5 O777 6.416989e-01 2.060818850 0.400818850 0.469181150 202.89939 1.31793 9.00E+01
6 O778 8.097458e-01 2.066313974 0.436313974 0.533686026 229.90071 2.95607 1.00E+01
7 O779 8.079474e-01 2.049687932 0.389687932 0.520312068 217.68642 2.79664 2.00E+01
8 O780 5.707793e-01 2.104532298 0.444532298 0.425467702 199.95089 1.02308 9.00E+01
9 O781 1.270972e+00 2.227944670 1.627944670 0.902055330 196.50759 3.24675 9.00E+01
10 O782 1.478912e+00 2.091028666 0.431028666 1.158971334 193.26555 3.89255 5.00E+01
11 O783 7.543162e-01 1.180708722 1.020708722 0.509291278 215.76981 2.60498 1.00E+01
12 O784 4.934974e-01 2.180031098 0.520031098 0.349968902 200.05291 1.03329 1.00E+01
13 O785 1.484464e+00 1.537322068 1.337322068 1.032677932 236.77831 1.82083 1.00E+01
14 O786 1.462279e+00 0.694562807 0.534562807 1.075437193 249.31882 3.49088 2.00E+01
15 O787 2.136920e+00 0.937442982 0.777442982 1.592557018 239.89231 3.73623 1.00E+01
16 O788 1.334740e+00 0.719874837 0.719874837 0.970125163 286.92155 8.43915 5.00E+01
17 O789 1.554031e+00 1.359684612 1.159684612 1.170315388 224.61016 2.20801 6.00E+01
18 O790 8.471723e-01 1.138084690 0.978084690 0.601915310 230.20286 1.57928 6.00E+01
19 O791 2.420622e+00 0.737220152 0.577220152 1.792779848 245.38435 4.28543 5.00E+01
20 O792 1.502950e+00 0.585368636 0.585368636 1.104631364 292.68207 9.01520 7.00E+01
21 O793 1.180380e+00 0.835830942 0.755830942 0.854169058 237.43387 3.49038 7.00E+01
22 O794 2.815025e-01 0.083639132 0.083639132 0.256360868 262.04290 1.32929 0.00E+00
23 O795 0.000000e+00 0.004618135 0.004618135 0.005381865 327.51923 6.89692 3.00E+01
24 Z796 1.346847e+00 6.706739219 1.186739219 1.073260781 192.53602 1.02236 0.00E+00
25 Z797 3.175767e+00 4.589056633 1.989056633 2.530943367 205.90656 6.39365 6.00E+01
26 Z798 6.447084e-01 6.630135164 1.110135164 0.549864836 108.71843 3.42084 3.00E+01
27 Z799 3.497362e-01 6.947843686 0.487843686 0.252156314 155.25338 8.07433 8.00E+01
28 Z800 1.067758e+00 8.602099081 1.742099081 0.827900919 93.68759 3.31475 9.00E+01
29 Z801 1.927389e+00 7.961008450 1.101008450 1.468991550 104.86564 5.77856 4.00E+01
30 Z804 3.075944e+00 6.779296255 0.679296255 2.350703745 101.62761 3.60276 1.00E+01
31 Z806 2.695298e+00 7.030308676 0.930308676 1.889691324 98.14161 4.70016 1.00E+01
32 Z807 3.738805e+00 4.817866121 2.137866121 3.252133879 117.43715 2.82171 5.00E+01
33 Z808 1.340816e+00 3.979348042 1.299348042 0.920651958 122.99644 1.57564 4.00E+01
34 Z809 1.944647e+00 6.074859423 1.924859423 1.705140577 201.49496 9.82049 6.00E+01
35 Z810 4.992149e+00 2.752284882 1.592284882 3.657715118 140.28635 4.61763 5.00E+01
36 A812 7.626295e-01 0.362663069 0.322663069 0.617336931 259.93862 6.55586 2.00E+01
37 A813 9.286581e-01 1.704773181 1.234773181 0.735226819 281.15504 2.81550 4.00E+01
38 A814 1.194841e-01 0.107481384 0.107481384 0.092518616 276.53572 5.15724 6.00E-01
39 A815 3.679239e-01 0.175844527 0.115844527 0.294155473 277.32232 1.55231 8.00E+00
40 A816 3.893176e+00 3.603028060 3.403028060 3.256971940 209.05198 7.31519 8.00E+01
41 A817 2.626748e+00 0.718980862 0.658980862 2.011019138 253.17091 8.91309 1.00E+01
42 A818 3.185055e-01 0.215369761 0.155369761 0.254630239 277.88208 2.11207 7.00E+00
43 A819 1.301631e-01 0.056803147 0.056803147 0.113196853 299.94330 3.89233 0.00E+00
44 A820 1.077640e-01 0.119872245 0.079872245 0.080127755 274.93430 1.39143 0.00E+00
45 A821 8.788837e-01 0.272093411 0.212093411 0.707906589 263.50278 6.91227 8.00E+01
46 A822 2.281388e+00 0.458306990 0.398306990 1.801693010 288.13221 1.20922 1.00E+01
47 A823 1.851452e+00 1.034142227 0.974142227 1.465857773 284.48370 9.01037 0.00E+00
48 A824 3.826681e+00 4.075949723 4.075949723 3.084050277 248.85290 1.45232 9.00E+02
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2 P829 0.000000e+00 0.000000000 0.000000000 0.000000000 199.66788 1.36678 8.00E+01
3 P830 0.000000e+00 0.000000000 0.000000000 0.000000000 188.86373 4.83373 0.00E+00
4 P831 0.000000e+00 0.000000000 0.000000000 0.000000000 381.75123 1.02671 2.00E+02
5 P832 0.000000e+00 0.000000000 0.000000000 0.000000000 504.78539 4.78953 9.00E+01
6 P836 0.000000e+00 0.000000000 0.000000000 0.000000000 196.11971 1.01197 1.00E+01
7 P837 0.000000e+00 0.000000000 0.000000000 0.000000000 196.60262 1.25726 2.00E+01
8 P838 0.000000e+00 0.000000000 0.000000000 0.000000000 190.10333 2.52332 9.00E+00
9 P840 0.000000e+00 0.000000000 0.000000000 0.000000000 576.32900 9.25890 0.00E+00
10 P841 2.365566e+00 0.936071697 0.936071697 1.793928303 274.89574 1.10855 7.00E+02
11 P843 1.095173e+00 1.706240640 1.706240640 0.823759360 254.14122 8.60012 2.00E+01
12 P844 0.000000e+00 0.000000000 0.000000000 0.000000000 224.24389 4.66138 9.00E+01
13 P846 0.000000e+00 0.000000000 0.000000000 0.000000000 188.05670 4.02670 3.00E+00
14 P848 0.000000e+00 0.000000000 0.000000000 0.000000000 185.60024 8.93023 7.00E+00
15 P849 0.000000e+00 0.000000000 0.000000000 0.000000000 189.14805 5.11805 4.00E+00
16 P850 0.000000e+00 0.000000000 0.000000000 0.000000000 311.90997 8.92499 7.00E+01
17 P851 0.000000e+00 0.000000000 0.000000000 0.000000000 295.38558 9.46455 8.00E+01
18 P852 0.000000e+00 0.000000000 0.000000000 0.000000000 329.80365 8.11536 5.00E+01
19 P853 0.000000e+00 0.000000000 0.000000000 0.000000000 188.76840 4.73839 8.00E+00
20 P854 0.000000e+00 0.000000000 0.000000000 0.000000000 188.26807 4.23806 6.00E+00
21 P855 0.000000e+00 0.000000000 0.000000000 0.000000000 248.00523 6.39352 3.00E+01
22 P856 0.000000e+00 0.000000000 0.000000000 0.000000000 213.60492 2.95749 2.00E+01
23 P857 0.000000e+00 0.000000000 0.000000000 0.000000000 184.01378 7.34378 0.00E+00
24 P858 0.000000e+00 0.000000000 0.000000000 0.000000000 241.86480 5.77948 0.00E+00
25 P860 0.000000e+00 0.000000000 0.000000000 0.000000000 264.87383 8.72438 3.00E+01
26 P861 0.000000e+00 0.000000000 0.000000000 0.000000000 220.62414 4.29941 4.00E+01
27 P863 0.000000e+00 0.000000000 0.000000000 0.000000000 254.75430 3.20943 0.00E+00
28 P864 0.000000e+00 0.000000000 0.000000000 0.000000000 183.96281 6.33280 7.00E+00
29 P865 0.000000e+00 0.000000000 0.000000000 0.000000000 440.40960 1.10499 6.00E+02
30 P866 0.000000e+00 0.000000000 0.000000000 0.000000000 492.19325 1.47473 2.00E+02
31 P867 0.000000e+00 0.000000000 0.000000000 0.000000000 355.07173 1.54331 7.00E+02
32 P868 0.000000e+00 0.000000000 0.000000000 0.000000000 458.05273 1.13332 7.00E+02
33 P869 0.000000e+00 0.000000000 0.000000000 0.000000000 448.45912 2.25799 1.00E+02
34 P870 0.000000e+00 0.000000000 0.000000000 0.000000000 395.58366 1.72923 7.00E+02
35 P871 0.000000e+00 0.000000000 0.000000000 0.000000000 430.06553 8.53455 3.00E+01
36 P872 0.000000e+00 0.000000000 0.000000000 0.000000000 188.65434 4.62434 1.00E+00
37 P873 0.000000e+00 0.000000000 0.000000000 0.000000000 245.91053 8.19052 9.00E+00
38 P874 0.000000e+00 0.000000000 0.000000000 0.000000000 343.43074 1.20770 7.00E+02
39 P875 0.000000e+00 0.000000000 0.000000000 0.000000000 334.33317 1.50263 2.00E+02
40 P876 0.000000e+00 0.000000000 0.000000000 0.000000000 549.56026 9.26702 6.00E+01
41 P877 0.000000e+00 0.000000000 0.000000000 0.000000000 410.78740 1.62137 4.00E+02
42 P878 0.000000e+00 0.000000000 0.000000000 0.000000000 437.74291 1.48982 9.00E+02
43 P879 0.000000e+00 0.000000000 0.000000000 0.000000000 435.32778 9.06077 8.00E+01
44 P880 0.000000e+00 0.000000000 0.000000000 0.000000000 186.98778 1.03177 8.00E+01
45 P881 0.000000e+00 0.000000000 0.000000000 0.000000000 283.12991 3.44799 1.00E+01
46 P882 0.000000e+00 0.000000000 0.000000000 0.000000000 311.37310 6.82531 0.00E+00
47 P883 0.000000e+00 0.000000000 0.000000000 0.000000000 236.12065 4.18906 5.00E+01
48 P884 0.000000e+00 0.000000000 0.000000000 0.000000000 196.68422 9.45421 6.00E+00

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2	P885	0.000000e+00	0.0000000000	0.0000000000	0.0000000000	202.14962	7.91961	8.00E+00
3	P886	0.000000e+00	0.0000000000	0.0000000000	0.0000000000	204.44383	1.02138	3.00E+01
4	P888	0.000000e+00	0.0000000000	0.0000000000	0.0000000000	314.96518	7.18451	8.00E+01
5	P889	0.000000e+00	0.0000000000	0.0000000000	0.0000000000	377.05125	1.33931	2.00E+02
6	P890	1.619620e+00	0.228228293	0.228228293	0.971771707	271.42319	8.73531	9.00E+01
7	P891	0.000000e+00	0.0000000000	0.0000000000	0.0000000000	431.79999	1.83150	0.00E+00
8	P892	0.000000e+00	0.0000000000	0.0000000000	0.0000000000	206.91113	1.52511	3.00E+01
9	P893	0.000000e+00	0.0000000000	0.0000000000	0.0000000000	262.30445	7.82344	5.00E+01
10	P894	0.000000e+00	0.0000000000	0.0000000000	0.0000000000	234.85458	4.06245	8.00E+01
11	P895	0.000000e+00	0.0000000000	0.0000000000	0.0000000000	206.85996	1.26299	6.00E+01
12	P896	0.000000e+00	0.0000000000	0.0000000000	0.0000000000	187.39180	3.36180	1.00E+00
13	P897	0.000000e+00	0.0000000000	0.0000000000	0.0000000000	282.73624	3.26062	4.00E+01
14	P898	0.000000e+00	0.0000000000	0.0000000000	0.0000000000	231.66785	4.75978	5.00E+01
15	P899	2.159471e+00	0.690148686	0.690148686	1.709851314	277.61195	2.70119	5.00E+01
16	P901	2.667667e+00	0.509494468	0.509494468	2.020505532	318.97158	1.16441	6.00E+02
17	P903	0.000000e+00	0.0000000000	0.0000000000	0.0000000000	390.53684	1.47416	8.00E+02
18	P904	0.000000e+00	0.0000000000	0.0000000000	0.0000000000	527.14518	1.42735	2.00E+02
19	C905	0.000000e+00	0.0000000000	0.0000000000	0.0000000000	356.32791	9.47914	3.00E-01
20	C906	0.000000e+00	0.0000000000	0.0000000000	0.0000000000	356.53000	-5.68434	2.00E-14
21	C907	0.000000e+00	0.0000000000	0.0000000000	0.0000000000	355.95696	5.76960	6.00E-01
22	C908	0.000000e+00	0.0000000000	0.0000000000	0.0000000000	355.98373	6.03732	4.00E-01
23	C909	0.000000e+00	0.0000000000	0.0000000000	0.0000000000	355.75723	3.77227	9.00E-01
24	C910	0.000000e+00	0.0000000000	0.0000000000	0.0000000000	356.02632	6.46319	4.00E-01
25	C911	0.000000e+00	0.0000000000	0.0000000000	0.0000000000	345.12542	4.49354	2.00E+01
26	C912	0.000000e+00	0.0000000000	0.0000000000	0.0000000000	275.11717	4.33371	7.00E+01
27	C913	0.000000e+00	0.0000000000	0.0000000000	0.0000000000	336.98897	4.82789	7.00E+01
28	C914	1.101387e+00	0.254639299	0.254639299	1.175360701	326.60799	9.78279	9.00E+01
29	C915	0.000000e+00	0.0000000000	0.0000000000	0.0000000000	369.19862	1.14868	6.00E+02
30	C916	0.000000e+00	0.0000000000	0.0000000000	0.0000000000	346.31566	1.49456	6.00E+01
31	C917	0.000000e+00	0.0000000000	0.0000000000	0.0000000000	350.55245	1.91824	5.00E+01
32	C918	0.000000e+00	0.0000000000	0.0000000000	0.0000000000	330.88756	4.21775	6.00E+01
33	C919	0.000000e+00	0.0000000000	0.0000000000	0.0000000000	346.86578	4.66757	8.00E+01
34	C920	0.000000e+00	0.0000000000	0.0000000000	0.0000000000	356.03689	6.56885	5.00E-01
35	C921	0.000000e+00	0.0000000000	0.0000000000	0.0000000000	354.54282	2.31728	2.00E+01
36	C922	0.000000e+00	0.0000000000	0.0000000000	0.0000000000	351.16730	1.97973	0.00E+00
37	C923	0.000000e+00	0.0000000000	0.0000000000	0.0000000000	356.32595	9.45945	9.00E-01
38	C924	0.000000e+00	0.0000000000	0.0000000000	0.0000000000	356.32285	9.42845	7.00E-01
39	C925	0.000000e+00	0.0000000000	0.0000000000	0.0000000000	356.53000	0.00000	0.00E+00
40	C926	0.000000e+00	0.0000000000	0.0000000000	0.0000000000	356.53000	-5.68434	2.00E-14
41	C927	0.000000e+00	0.0000000000	0.0000000000	0.0000000000	356.32281	9.42806	9.00E-01
42	C928	0.000000e+00	0.0000000000	0.0000000000	0.0000000000	343.66643	4.34764	3.00E+01
43	C929	0.000000e+00	0.0000000000	0.0000000000	0.0000000000	345.35690	4.51669	0.00E+00
44	C930	0.000000e+00	0.0000000000	0.0000000000	0.0000000000	356.32665	9.46647	7.00E-01
45	C931	0.000000e+00	0.0000000000	0.0000000000	0.0000000000	344.95459	4.47645	9.00E+01
46	C932	0.000000e+00	0.0000000000	0.0000000000	0.0000000000	336.58027	3.63902	7.00E+01
47	C933	0.000000e+00	0.0000000000	0.0000000000	0.0000000000	356.37174	9.91744	7.00E-01
48	C934	0.000000e+00	0.0000000000	0.0000000000	0.0000000000	351.41493	2.00449	3.00E+01
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2 A935 9.654644e-01 0.409075397 0.409075397 1.020924603 252.02371 1.82437 1.00E+01
3 A936 2.615674e+00 0.781749448 0.781749448 2.308250552 212.23007 3.13200 7.00E+01
4 A937 7.165444e+00 1.291941383 1.291941383 5.588058617 191.23424 1.19394 2.00E+02
5 A938 1.825459e+00 0.625754486 0.515754486 1.404245514 236.35818 5.54481 8.00E+01
6 A939 4.015026e+00 1.957517866 1.957517866 3.232482134 214.00354 4.93835 4.00E+01
7 A940 3.542367e-02 0.234309434 0.074309434 0.045690566 239.62791 1.49791 2.00E+00
8 A941 7.746155e-02 0.181821260 0.021821260 0.098178740 239.52178 1.39177 6.00E+00
9 A942 5.233966e-02 0.214548011 0.054548011 0.065451989 239.65559 1.52559 2.00E+00
10 A943 9.471283e-01 0.428302060 0.268302060 1.001697940 238.32672 4.54671 9.00E+00
11 A944 7.847297e-01 0.603668233 0.443668233 0.826331767 236.50195 7.72195 0.00E+00
12 A945 1.632845e+00 0.883881293 0.883881293 1.186118707 255.74546 2.69654 6.00E+01
13 A946 6.813238e-01 0.678406443 0.678406443 0.751593557 207.44074 3.82707 4.00E+01
14 A947 6.471586e-01 0.713621882 0.683621882 0.716378118 210.80087 4.16308 7.00E+01
15 A948 5.617891e-02 0.090113392 0.090113392 0.069886608 213.83681 4.46668 1.00E+01
16 A949 2.411414e+00 0.967440634 0.657440634 2.122559366 210.56949 1.50194 9.00E+01
17 A950 4.522953e-01 0.954311917 0.644311917 0.475688083 203.78028 4.88802 8.00E+01
18 A951 1.646756e+00 3.212479938 2.592479938 1.307520062 146.82281 1.52228 1.00E+01
19 A952 5.371464e+00 1.572976682 1.262976682 4.017023318 202.49460 1.09074 6.00E+02
20 A953 3.959438e-01 0.978856462 0.668856462 0.451143538 210.49506 5.55950 6.00E+01
21 A954 2.516017e+00 0.879677611 0.769677611 2.210322389 218.20719 3.72971 9.00E+01
22 A955 7.915075e-01 0.587341118 0.307341118 0.842658882 233.25907 1.93990 7.00E+01
23 A956 9.474841e-01 1.474364606 1.314364606 0.595635394 253.80199 3.13619 9.00E+01
24 A957 5.227887e-02 0.214568044 0.054568044 0.065431956 239.17458 1.04457 8.00E+00
25 A958 5.348641e-02 0.212418701 0.052418701 0.067581299 239.13912 1.00912 2.00E+00
26 A959 3.093652e-02 0.240393835 0.080393835 0.039606165 240.08739 1.95738 8.00E+00
27 A960 5.607368e-02 0.209695739 0.049695739 0.070304261 239.04098 9.10984 3.00E-01
28 A961 0.000000e+00 0.000000000 0.000000000 0.000000000 261.61205 4.03820 5.00E+01
29 A962 1.767459e-01 0.139686211 0.139686211 0.390313789 216.84403 3.80040 3.00E+01
30 A963 0.000000e+00 0.000000000 0.000000000 0.000000000 274.58294 5.33529 4.00E+01
31 A964 0.000000e+00 0.000000000 0.000000000 0.000000000 270.73248 4.95024 8.00E+01
32 A965 1.885779e-01 0.113557061 0.113557061 0.416442939 243.08930 6.42493 0.00E+00
33 A966 1.958369e-01 0.097526922 0.097526922 0.432473078 263.89526 8.50552 6.00E+01
34 A967 0.000000e+00 0.000000000 0.000000000 0.000000000 225.41324 4.65732 4.00E+01
35 A968 9.719260e-01 0.909400755 0.909400755 1.020599245 252.72570 1.80057 0.00E+00
36 A969 1.326529e-01 0.195989037 0.195989037 0.334010963 238.98715 1.77571 5.00E+01
37 A970 1.343880e+00 0.516589470 0.516589470 1.413410530 260.17518 1.63451 8.00E+01
38 A971 1.970872e-01 0.094765657 0.094765657 0.435234343 256.47930 7.76393 0.00E+00
39 A972 2.035240e-01 0.042555302 0.042555302 0.237444698 268.59155 4.73615 5.00E+01
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44 A977 1.297643e-01 0.448601490 0.288601490 0.121398510 213.94732 1.83973 2.00E+01
45 A978 1.167226e+00 0.700850370 0.700850370 1.229149630 253.00619 1.82861 9.00E+01
46 A979 1.370683e+00 0.492477249 0.332477249 1.437522751 245.31630 7.18629 6.00E+00
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14 F995 5.328186e+00 3.576428069 2.416428069 4.443571931 183.93178 1.05951 8.00E+02
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17 F998 2.084400e-01 7.075102773 0.135102773 0.104897227 203.27014 9.80901 4.00E+01
18 F999 8.355136e-01 6.450571899 0.610571899 0.729428101 132.79282 5.53128 2.00E+01
19 F1000 4.168673e+00 5.046648641 1.796648641 3.333351359 153.07033 1.71703 3.00E+01
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21 F1002 1.916590e+00 6.310733491 3.110733491 1.709266509 161.22167 8.32416 7.00E+01
22 F1004 5.592941e+00 4.736128726 4.476128726 4.523871274 178.25919 1.47329 2.00E+02
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27 M1011 0.000000e+00 0.000000000 0.000000000 0.000000000 230.14195 2.24819 5.00E+01
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21 H1109 5.482382e-01 5.272483319 0.232483319 0.367516681 201.07429 5.79642 9.00E+01
22 H1110 4.910604e-01 5.586836002 0.396836002 0.413163998 152.17983 8.62398 3.00E+01
23 H1111 9.086422e-02 5.934428332 0.294428332 0.075571668 85.87010 1.22201 0.00E+00
24 H1112 1.345237e-01 5.957740049 0.317740049 0.102259951 89.37099 1.57209 9.00E+01
25 H1113 1.803472e-01 5.925384611 0.285384611 0.134615389 87.02826 1.33782 6.00E+01
26 H1114 1.629636e-01 5.935463158 0.295463158 0.124536842 90.88715 1.72371 5.00E+01
27 H1115 8.976181e-01 7.316624816 0.376624816 0.723375184 164.34530 4.49953 0.00E+00
28 H1116 1.561917e+00 7.294095063 1.144095063 1.585904937 104.50679 3.57267 9.00E+01
29 H1117 3.196161e+00 5.224456898 3.634456898 2.505543102 130.28904 4.31390 4.00E+01
30 H1118 3.313724e-01 6.261945754 0.331945754 0.378054246 117.41709 1.41270 9.00E+01
31 H1119 3.719954e-01 5.532205315 0.152205315 0.347794685 131.99230 2.32123 0.00E+00
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33 P1121 0.000000e+00 0.000000000 0.000000000 0.000000000 586.21000 0.00000 0.00E+00
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48 P1137 0.000000e+00 0.000000000 0.000000000 0.000000000 586.21000 0.00000 0.00E+00
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2 P1186 0.000000e+00 0.000000000 0.000000000 0.000000000 577.92739 4.09173 9.00E+01
3 P1187 0.000000e+00 0.000000000 0.000000000 0.000000000 126.16000 0.00000 0.00E+00
4 P1188 0.000000e+00 0.000000000 0.000000000 0.000000000 119.64000 0.00000 0.00E+00
5 P1189 0.000000e+00 0.000000000 0.000000000 0.000000000 577.92949 4.09194 9.00E+01
6 P1190 0.000000e+00 0.000000000 0.000000000 0.000000000 578.78731 4.17773 1.00E+01
7 P1191 0.000000e+00 0.000000000 0.000000000 0.000000000 577.06070 4.00507 0.00E+00
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9 P1193 0.000000e+00 0.000000000 0.000000000 0.000000000 582.68155 4.56715 5.00E+01
10 P1194 0.000000e+00 0.000000000 0.000000000 0.000000000 487.78938 2.26593 8.00E+01
11 P1195 0.000000e+00 0.000000000 0.000000000 0.000000000 465.13000 5.68434 2.00E-14
12 P1196 0.000000e+00 0.000000000 0.000000000 0.000000000 465.13000 5.68434 2.00E-14
13 P1197 0.000000e+00 0.000000000 0.000000000 0.000000000 465.13000 -5.68434 2.00E-14
14 P1198 0.000000e+00 0.000000000 0.000000000 0.000000000 465.13000 5.68434 2.00E-14
15 P1199 0.000000e+00 0.000000000 0.000000000 0.000000000 485.98952 2.08595 2.00E+01
16 P1200 0.000000e+00 0.000000000 0.000000000 0.000000000 465.13000 5.68434 2.00E-14
17 P1201 0.000000e+00 0.000000000 0.000000000 0.000000000 465.13000 0.00000 0.00E+00
18 P1202 0.000000e+00 0.000000000 0.000000000 0.000000000 465.13000 0.00000 0.00E+00
19 P1203 0.000000e+00 0.000000000 0.000000000 0.000000000 391.76715 3.63371 5.00E+01
20 P1204 0.000000e+00 0.000000000 0.000000000 0.000000000 391.36209 3.59320 9.00E+01
21 P1205 0.000000e+00 0.000000000 0.000000000 0.000000000 378.67914 2.32491 4.00E+01
22 P1206 0.000000e+00 0.000000000 0.000000000 0.000000000 396.30870 2.48387 0.00E+00
23 P1207 0.000000e+00 0.000000000 0.000000000 0.000000000 395.11337 3.96833 7.00E+01
24 P1208 1.689654e+00 0.305896020 0.305896020 1.324103980 398.28171 2.38361 7.00E+02
25 P1209 0.000000e+00 0.000000000 0.000000000 0.000000000 346.76397 1.86844 0.00E+00
26 P1210 0.000000e+00 0.000000000 0.000000000 0.000000000 346.23563 1.86315 6.00E+02
27 P1211 6.527874e+00 2.519668274 2.519668274 5.260331726 220.09462 1.63164 6.00E+02
28 P1212 5.773737e+00 0.922591599 0.922591599 4.567408401 290.92396 1.55024 0.00E+00
29 P1213 0.000000e+00 0.000000000 0.000000000 0.000000000 323.44556 1.63525 6.00E+02
30 P1214 0.000000e+00 0.000000000 0.000000000 0.000000000 586.21000 0.00000 0.00E+00
31 P1215 5.791773e+00 0.743133720 0.743133720 4.636866280 468.35814 3.32458 1.00E+02
32 P1216 0.000000e+00 0.000000000 0.000000000 0.000000000 521.64000 -1.13686 8.00E-13
33 P1217 5.711819e+00 0.807145126 0.807145126 4.572854874 463.76859 3.27868 6.00E+02
34 P1218 0.000000e+00 0.000000000 0.000000000 0.000000000 521.64000 0.00000 0.00E+00
35 P1219 4.032433e+00 2.798521614 2.798521614 3.311478386 272.65357 1.36753 6.00E+02
36 P1220 1.664177e+00 0.344507779 0.344507779 1.315492221 452.75505 2.63035 0.00E+00
37 P1221 5.842053e+00 1.405825864 1.405825864 4.704174136 402.92822 2.67028 2.00E+02
38 P1222 2.384018e+00 0.714733512 0.714733512 1.815266488 429.33979 2.39619 8.00E+02
39 P1223 1.836460e+00 1.264325676 1.264325676 1.305674324 332.92855 1.14358 6.00E+02
40 P1224 5.709651e+00 1.402626140 1.402626140 4.607373860 374.00654 3.00356 5.00E+02
41 P1225 1.009285e+00 0.966825155 0.966825155 0.723174845 279.47532 8.97553 2.00E+01
42 P1226 0.000000e+00 0.000000000 0.000000000 0.000000000 521.64000 0.00000 0.00E+00
43 P1227 0.000000e+00 0.000000000 0.000000000 0.000000000 521.64000 0.00000 0.00E+00
44 P1228 2.276861e+00 0.807633932 0.807633932 1.722366068 366.21929 1.76499 3.00E+02
45 F1229 2.115747e+00 6.792182957 2.642182957 1.647817043 120.26974 5.14097 4.00E+01
46 F1230 1.634755e-01 6.398920792 0.298920792 0.091079208 104.01963 1.18996 3.00E+01
47 F1231 5.859765e-01 6.005481365 0.515481365 0.364518635 119.01722 1.57272 2.00E+01
48 F1232 6.639889e-01 6.918097145 1.148097145 0.481902855 123.78542 4.58054 2.00E+01
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 2 F1233 3.149216e-01 6.991909448 0.051909448 0.208090552 114.34609 2.40460 9.00E+01
 3 F1234 1.068562e+00 7.059356746 0.119356746 0.670643254 132.25032 4.51003 2.00E+01
 4 F1235 8.501053e-01 7.198853843 0.258853843 0.531146157 118.93071 3.17807 1.00E+01
 5 F1236 9.177099e-01 7.295475964 0.335475964 0.744524036 159.21995 5.77199 5.00E+01
 6 F1237 9.983471e-01 7.110590608 0.170590608 0.619409392 112.52849 2.53784 9.00E+01
 7 F1238 1.920446e-01 7.024150478 0.084150478 0.155849522 150.17095 4.86709 5.00E+01
 8 F1239 9.748955e-02 7.116254043 0.156254043 0.083745957 143.05666 7.41966 6.00E+01
 9 F1240 1.361219e-01 7.099080171 0.139080171 0.100919829 124.66635 5.58063 5.00E+01
 10 F1241 8.800394e-01 7.169265523 0.229265523 0.560734477 107.01329 3.81532 9.00E+01
 11 F1242 9.618022e-02 7.134286908 0.174286908 0.045713092 154.45502 5.29550 2.00E+01
 12 F1243 8.621840e-01 7.198649941 0.238649941 0.531350059 109.20822 2.20582 2.00E+01
 13 F1244 9.678889e-01 7.121421520 0.181421520 0.608578480 100.30015 1.31501 5.00E+01
 14 F1245 9.877109e-01 7.104718593 0.164718593 0.625281407 96.34963 2.74896 3.00E+01
 15 F1246 1.202159e+00 6.827679888 1.247679888 0.962320112 133.49678 4.07367 8.00E+01
 16 F1247 7.093595e-01 7.422146878 0.462146878 0.617853122 154.65239 5.31523 9.00E+01
 17 F1248 1.274859e-01 7.104396061 0.164396061 0.095603939 160.01650 5.85165 0.00E+00
 18 F1249 5.564531e-01 7.573613138 0.413613138 0.466386862 188.24496 5.69349 6.00E+01
 19 F1250 9.384122e-01 7.143886973 0.203886973 0.586113027 124.02631 3.68763 1.00E+01
 20 F1251 2.264783e-01 6.984396845 0.044396845 0.195603155 120.10920 2.98092 0.00E+00
 21 F1252 1.765998e-01 7.085225042 0.145225042 0.114774958 135.16235 4.48623 5.00E+01
 22 F1253 7.746781e-01 7.266911252 0.306911252 0.513088748 148.76819 6.38381 9.00E+01
 23 F1254 5.482301e-01 7.287766043 0.347766043 0.492233957 234.50440 1.44204 4.00E+02
 24 F1255 9.129243e-01 7.299634504 0.359634504 0.740365496 159.02291 3.96729 1.00E+01
 25 F1256 1.008808e+00 7.230321463 0.290321463 0.809678537 139.92256 3.47425 6.00E+01
 26 F1257 9.528745e-01 7.121992037 0.181992037 0.608007963 169.24717 8.20971 7.00E+01
 27 F1258 7.960675e-01 7.258256645 0.318256645 0.471743355 144.32805 5.93980 5.00E+01
 28 F1259 3.744675e-01 7.659825447 0.499825447 0.380174553 159.90319 7.49731 9.00E+01
 29 F1260 4.548397e-01 7.658770036 0.698770036 0.381229964 194.49192 1.09561 9.00E+02
 30 F1261 8.943369e-01 7.001746848 1.261746848 0.788253152 261.81506 1.21925 1.00E+02
 31 F1262 7.732743e-01 7.242517138 0.302517138 0.487482862 188.76428 1.03834 3.00E+02
 32 F1263 6.330958e-01 7.541514282 0.381514282 0.498485718 199.06362 6.60536 2.00E+01
 33 F1264 3.925057e-01 6.858183648 1.058183648 0.321816352 153.34901 6.30490 1.00E+01
 34 F1265 8.005761e-01 7.409758719 0.469758719 0.630241281 185.35105 9.50510 5.00E+01
 35 P1266 0.000000e+00 0.000000000 0.000000000 0.000000000 196.31489 4.77348 9.00E+01
 36 P1267 0.000000e+00 0.000000000 0.000000000 0.000000000 354.72894 2.57189 4.00E+01
 37 P1268 0.000000e+00 0.000000000 0.000000000 0.000000000 305.26000 0.00000 0.00E+00
 38 P1269 0.000000e+00 0.000000000 0.000000000 0.000000000 321.44251 9.16325 1.00E+01
 39 P1270 0.000000e+00 0.000000000 0.000000000 0.000000000 218.00182 2.07018 2.00E+01
 40 P1271 0.000000e+00 0.000000000 0.000000000 0.000000000 307.23534 1.84753 4.00E+01
 41 P1272 0.000000e+00 0.000000000 0.000000000 0.000000000 333.09543 1.08585 4.00E+02
 42 P1273 0.000000e+00 0.000000000 0.000000000 0.000000000 226.25213 2.48221 3.00E+01
 43 P1274 0.000000e+00 0.000000000 0.000000000 0.000000000 222.53635 2.60563 5.00E+01
 44 P1275 NA NA NA NA NA NA
 45 P1276 0.000000e+00 0.000000000 0.000000000 0.000000000 200.38517 5.18051 7.00E+01
 46 P1277 0.000000e+00 0.000000000 0.000000000 0.000000000 372.80478 6.47247 8.00E+01
 47 P1278 0.000000e+00 0.000000000 0.000000000 0.000000000 378.82727 7.07472 7.00E+01
 48 P1279 0.000000e+00 0.000000000 0.000000000 0.000000000 369.21688 6.11368 8.00E+01
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2	P1280	0.000000e+00	0.0000000000	0.0000000000	0.0000000000	392.42175	8.43417	5.00E+01
3	P1281	0.000000e+00	0.0000000000	0.0000000000	0.0000000000	377.36211	6.92821	1.00E+01
4	P1282	0.000000e+00	0.0000000000	0.0000000000	0.0000000000	348.40244	4.03224	4.00E+01
5	P1283	0.000000e+00	0.0000000000	0.0000000000	0.0000000000	398.78787	9.07078	7.00E+01
6	P1284	0.000000e+00	0.0000000000	0.0000000000	0.0000000000	357.20056	4.91205	6.00E+01
7	P1285	0.000000e+00	0.0000000000	0.0000000000	0.0000000000	350.14719	4.20671	9.00E+01
8	P1286	0.000000e+00	0.0000000000	0.0000000000	0.0000000000	446.37910	1.38299	1.00E+02
9	P1287	0.000000e+00	0.0000000000	0.0000000000	0.0000000000	368.60536	6.05253	6.00E+01
10	P1288	0.000000e+00	0.0000000000	0.0000000000	0.0000000000	354.58726	4.65072	6.00E+01
11	P1291	0.000000e+00	0.0000000000	0.0000000000	0.0000000000	373.13615	1.84326	1.00E+02
12	P1292	0.000000e+00	0.0000000000	0.0000000000	0.0000000000	358.92129	5.08412	9.00E+01
13	P1294	NA	NA	NA	NA	NA	NA	NA
14	P1296	NA	NA	NA	NA	NA	NA	NA
15								
16	P1297	0.000000e+00	0.0000000000	0.0000000000	0.0000000000	323.77400	1.04594	0.00E+00
17	P1298	0.000000e+00	0.0000000000	0.0000000000	0.0000000000	325.71995	1.06540	0.00E+00
18	P1299	0.000000e+00	0.0000000000	0.0000000000	0.0000000000	297.85990	7.86799	0.00E+00
19	P1300	0.000000e+00	0.0000000000	0.0000000000	0.0000000000	325.54330	1.06363	3.00E+02
20	P1301	0.000000e+00	0.0000000000	0.0000000000	0.0000000000	346.95048	1.95048	0.00E+00
21	P1302	0.000000e+00	0.0000000000	0.0000000000	0.0000000000	331.75052	1.12570	5.00E+02
22	P1303	0.000000e+00	0.0000000000	0.0000000000	0.0000000000	320.07612	1.00896	1.00E+02
23	P1304	0.000000e+00	0.0000000000	0.0000000000	0.0000000000	377.73333	1.00793	3.00E+02
24	P1305	0.000000e+00	0.0000000000	0.0000000000	0.0000000000	347.75190	2.75189	7.00E+00
25	P1306	0.000000e+00	0.0000000000	0.0000000000	0.0000000000	295.73251	8.95525	1.00E+01
26	P1307	0.000000e+00	0.0000000000	0.0000000000	0.0000000000	333.83387	1.14653	9.00E+02
27	P1308	0.000000e+00	0.0000000000	0.0000000000	0.0000000000	290.21180	8.40318	0.00E+00
28	P1309	0.000000e+00	0.0000000000	0.0000000000	0.0000000000	347.97475	2.97474	9.00E+00
29	P1310	0.000000e+00	0.0000000000	0.0000000000	0.0000000000	302.25387	8.30738	7.00E+01
30	P1311	0.000000e+00	0.0000000000	0.0000000000	0.0000000000	353.98434	8.98433	6.00E+00
31	P1312	0.000000e+00	0.0000000000	0.0000000000	0.0000000000	262.20288	7.16228	8.00E+01
32	P1314	0.000000e+00	0.0000000000	0.0000000000	0.0000000000	298.98758	7.98075	8.00E+01
33	P1315	0.000000e+00	0.0000000000	0.0000000000	0.0000000000	309.00476	8.98247	6.00E+01
34	P1316	0.000000e+00	0.0000000000	0.0000000000	0.0000000000	239.70331	2.05233	1.00E+01
35	P1317	0.000000e+00	0.0000000000	0.0000000000	0.0000000000	216.95565	1.07756	5.00E+01
36	P1318	0.000000e+00	0.0000000000	0.0000000000	0.0000000000	257.83704	3.86570	4.00E+01
37	P1319	0.000000e+00	0.0000000000	0.0000000000	0.0000000000	240.71208	2.15320	8.00E+01
38	P1320	0.000000e+00	0.0000000000	0.0000000000	0.0000000000	274.46055	5.52805	5.00E+01
39	P1322	0.000000e+00	0.0000000000	0.0000000000	0.0000000000	269.80568	5.06256	8.00E+01
40	P1324	0.000000e+00	0.0000000000	0.0000000000	0.0000000000	300.55717	8.13771	7.00E+01
41	H1325	4.699647e+00	5.480772005	0.540772005	3.779227995	137.14871	1.06218	7.00E+02
42	H1326	2.856693e+00	3.045006911	3.035006911	2.314993089	189.10556	2.83855	6.00E+01
43	H1328	1.295346e+00	5.010690641	5.010690641	1.049309359	149.86421	7.56042	1.00E+01
44	H1329	2.219235e+00	4.192931837	3.212931837	2.017068163	136.73964	2.94996	4.00E+01
45	H1330	1.139581e+00	8.178873098	1.478873098	0.741126902	80.90296	2.97629	6.00E+01
46	H1331	4.804984e+00	3.036278663	1.836278663	3.873721337	182.66910	1.01429	1.00E+02
47	H1332	9.062056e-01	8.188903534	1.418903534	0.711096466	91.12112	1.44511	2.00E+01
48	H1333	3.741953e+00	6.119543834	4.379543834	2.970456166	140.37891	6.28989	1.00E+01
49	H1334	3.960829e+00	5.281193854	5.021193854	3.098806146	150.26679	1.43667	9.00E+01
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2 H1335 1.164400e+00 4.900638805 2.300638805 0.969361195 163.00284 8.55228 4.00E+01
3 H1336 3.112280e-01 5.178995579 0.238995579 0.291004421 176.82261 3.41926 1.00E+01
4 H1337 3.676671e-01 5.357478455 0.417478455 0.282521545 177.07269 3.44426 9.00E+01
5 H1338 3.139695e-01 5.206771081 0.266771081 0.283228919 166.12454 2.34945 4.00E+01
6 H1339 5.925514e-01 5.030881858 0.090881858 0.329118142 197.81394 5.51839 4.00E+01
7 H1340 1.720778e+00 4.617873773 4.607873773 1.382126227 177.65116 1.11711 2.00E+02
8 H1341 2.403912e+00 4.082034429 2.762034429 1.977965571 135.18018 8.00001 8.00E+01
9 H1342 3.026231e+00 6.732525006 0.892525006 2.357474994 125.82616 5.21761 6.00E+01
10 H1343 8.223674e-01 6.498896066 0.628896066 0.681103934 122.70839 4.84483 9.00E+01
11 H1344 2.109489e-01 5.976283103 0.136283103 0.233716897 89.85146 1.62014 6.00E+01
12 H1345 8.357445e-01 5.324474226 5.324474226 0.685525774 124.96561 5.13156 1.00E+01
13 G1347 2.489330e-01 2.507462961 0.107462961 0.192537039 395.18500 1.90350 0.00E+00
14 G1348 2.216287e-01 2.528214970 0.128214970 0.171785030 405.65964 9.50196 4.00E+01
15 G1349 2.190956e-01 2.530656911 0.130656911 0.169343089 406.28902 9.56490 2.00E+01
16 G1350 1.618348e-01 2.554857002 0.254857002 0.125142998 424.55737 8.98073 7.00E+01
17 G1351 4.912627e-02 2.459732092 0.079732092 0.040267908 367.61888 5.69788 8.00E+01
18 G1352 4.221538e-01 2.917203904 0.457203904 0.332796096 411.62150 2.79615 0.00E+00
19 G1353 9.180491e-02 2.425529047 0.045529047 0.074470953 355.02629 1.02026 3.00E+02
20 G1354 1.671467e-01 2.363154259 0.353154259 0.136845741 347.30716 9.43071 6.00E+01
21 G1355 8.577464e-01 2.522622007 2.252622007 0.607377993 307.78804 1.81828 0.00E+00
22 G1356 2.980151e-01 2.958434101 0.258434101 0.171565899 354.65286 2.12182 9.00E+02
23 G1357 2.367611e-01 2.943413074 0.323413074 0.186586926 398.33333 6.35833 3.00E+01
24 G1358 2.788360e-01 2.953912771 0.253912771 0.176087229 342.79697 2.00327 0.00E+00
25 G1359 4.425448e-01 2.900273454 0.440273454 0.349726546 410.34284 7.55928 4.00E+01
26 G1360 5.755537e-01 2.796707191 0.336707191 0.453292809 405.43696 2.17769 6.00E+01
27 G1361 4.143284e-01 2.740922250 0.280922250 0.329077750 393.83378 5.90837 8.00E+01
28 G1362 5.587288e-01 2.809102099 0.349102099 0.440897901 406.94581 2.32858 1.00E+01
29 G1363 3.658460e-01 2.962442501 0.362442501 0.287557499 420.58083 3.69208 3.00E+01
30 G1364 4.115351e-01 2.926664567 0.466664567 0.323335433 419.46191 3.58019 1.00E+01
31 G1365 2.984017e-01 2.804442829 0.344442829 0.265557171 326.64922 1.59659 2.00E+02
32 G1366 1.778599e+00 1.527697601 1.487697601 1.492302399 215.70814 6.87581 4.00E+01
33 G1367 1.057919e+00 1.619623262 1.459623262 0.760376738 282.89233 5.41123 3.00E+01
34 G1368 2.490435e-02 2.480076523 0.100076523 0.019923477 374.82177 6.67176 8.00E+00
35 G1369 2.163678e-01 2.571591944 0.071591944 0.168408056 431.43427 5.52842 7.00E+01
36 H1370 5.205493e-01 5.520285648 0.940285648 0.479714352 153.26995 8.73299 5.00E+01
37 H1371 3.258571e-01 5.173021444 0.233021444 0.276978556 172.11407 2.94840 7.00E+01
38 A1372 4.317751e+00 3.420671316 2.480671316 3.489328684 151.66383 7.04238 3.00E+01
39 A1373 2.214170e+00 1.660253509 1.660253509 2.039746491 153.79080 2.38008 0.00E+00
40 A1374 3.368513e+00 4.038560575 3.928560575 2.301439425 142.19804 1.72380 4.00E+01
41 A1375 1.251106e+00 1.025685952 0.885685952 1.224314048 144.16932 1.82993 2.00E+01
42 A1376 1.218431e+00 1.406989980 1.406989980 1.253010020 149.90665 2.49466 5.00E+01
43 A1377 3.898632e+00 3.879193907 3.719193907 3.030806093 134.14641 5.29064 1.00E+01
44 A1378 7.215452e+00 2.571332518 2.411332518 4.878667482 136.13992 1.11799 2.00E+01
45 A1379 2.145229e+00 2.995857944 2.885857944 1.994142056 146.55660 2.15966 0.00E+00
46 A1380 2.073123e+00 3.244146879 2.044146879 1.745853121 144.71947 1.31894 7.00E+01
47 A1381 3.989957e+00 3.977016233 2.777016233 2.932983767 134.36278 5.31227 8.00E+01
48 A1383 4.824570e+00 4.372523221 4.212523221 3.077476779 140.49863 9.56863 3.00E+00
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4 A1386 2.134989e+00 7.313086234 1.213086234 1.566913766 89.29425 5.28042 5.00E+01
5 A1387 5.751508e+00 2.161242290 1.691242290 4.178757710 151.04244 1.85124 4.00E+01
6 A1388 1.216468e+00 4.114020632 2.304020632 0.955979368 134.64758 9.77757 5.00E+00
7 A1389 4.881992e+00 4.238438784 1.988438784 3.211561216 148.13804 2.31780 4.00E+01
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15 Z1397 1.511604e-02 0.012209910 0.012209910 0.037790090 223.90953 5.42295 3.00E+01
16 Z1398 1.688321e-02 0.007791982 0.007791982 0.042208018 231.47688 6.17968 8.00E+01
17 Z1399 0.000000e+00 0.000000000 0.000000000 0.000000000 229.90296 3.26429 6.00E+01
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19 Z1401 2.515601e-01 0.112580194 0.112580194 0.397419806 194.84754 4.18775 4.00E+01
20 Z1402 3.190177e-02 0.014171905 0.014171905 0.055828095 217.54079 3.15007 9.00E+01
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25 Z1407 2.150183e+00 2.169707886 1.659707886 1.200292114 190.47821 3.46282 1.00E+01
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37 Z1419 3.007962e+00 4.254561901 0.894561901 2.535438099 141.29924 7.84492 4.00E+01
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6 B1482 1.008322e+00 2.329987102 2.329987102 0.800012898 346.93740 1.11887 4.00E+02
7 B1483 5.064087e+00 3.824009563 3.364009563 4.195990437 176.80024 9.88202 4.00E+01
8 B1484 1.668753e+00 2.255766986 1.795766986 1.114233014 212.78263 5.44826 3.00E+01
9 B1485 3.699888e+00 4.673136528 1.653136528 3.106863472 205.93688 9.86968 8.00E+01
10 B1486 7.499268e-01 2.596122516 0.196122516 0.313877484 361.59276 2.19122 8.00E+02
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12 B1488 3.792475e+00 3.449785913 3.449785913 2.770214087 181.34778 1.08247 8.00E+02
13 B1489 4.831923e+00 2.176017746 2.176017746 3.743982254 205.77337 1.32673 4.00E+02
14 B1490 2.495368e+00 4.573396949 4.003396949 2.076603051 153.21501 7.11150 1.00E+01
15 B1491 1.747837e-01 0.220570760 0.220570760 0.289429240 197.51910 4.45491 0.00E+00
16 B1492 5.560224e-01 7.363422727 1.433422727 0.656577273 123.15315 4.51731 5.00E+01
17 B1493 5.674040e+00 4.284706096 4.254706096 4.125293904 144.95024 2.89602 4.00E+01
18 B1495 5.290674e+00 4.796284166 3.536284166 3.613715834 133.76164 7.10016 4.00E+01
19 B1496 2.961842e-01 6.202696816 0.272696816 0.167303184 119.23422 1.59442 2.00E+01
20 B1497 4.653425e+00 4.663298763 3.143298763 3.776701237 140.53552 6.25555 2.00E+01
21 B1498 3.007011e+00 5.447288771 1.747288771 1.412711229 122.51719 3.03971 9.00E+01
22 B1499 3.737102e+00 6.183845779 0.083845779 2.736154221 110.18119 5.90411 9.00E+01
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25 B1502 1.514494e+00 6.443894738 0.683894738 1.346105262 105.76536 4.30053 6.00E+01
26 B1503 1.572958e+00 3.768104064 1.298104064 1.101895936 141.57461 2.79246 1.00E+01
27 B1504 3.963852e+00 3.918576257 3.918576257 3.221423743 130.26622 8.00062 2.00E+01
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31 B1508 1.315081e+00 5.824922920 4.884922920 1.055077080 113.23793 4.64079 3.00E+01
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35 B1512 1.447008e+00 5.728952192 4.138952192 1.151047808 116.73282 2.26228 2.00E+01
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37 B1514 1.676476e+00 5.818490095 5.818490095 1.371509905 92.16418 4.19041 8.00E+01
38 B1515 3.073521e+00 4.202827619 4.052827619 2.397172381 105.69786 4.45878 6.00E+01
39 B1516 3.673410e-01 6.640594948 0.150594948 0.239405052 96.62496 3.04549 6.00E+01
40 B1517 4.027611e+00 4.690171999 2.160171999 2.929828001 133.91327 7.10632 7.00E+01
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43 B1520 5.889892e-01 6.780568838 0.290568838 0.449431162 60.63111 1.05811 1.00E+01
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48 B1525 3.518714e-01 6.590033492 0.100033492 0.289966508 87.60158 2.48415 8.00E+01
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6 B1531 3.270926e-02 0.012758800 0.012758800 0.057241200 241.56731 1.16573 1.00E+01
7 B1532 1.835223e+00 5.700471294 5.700471294 1.519528706 92.05320 5.20332 0.00E+00
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12 B1537 2.498938e+00 7.132667010 1.032667010 1.837332990 91.31761 5.02376 1.00E+01
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19 B1544 2.095211e+00 6.760463080 0.660463080 1.649536920 98.81828 3.90582 8.00E+01
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22 B1547 2.328321e+00 3.066101202 2.106101202 1.733898798 180.48646 6.68364 6.00E+01
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24 B1549 2.106029e+00 3.314912640 0.844912640 1.485087360 149.69283 3.60428 3.00E+01
25 B1550 4.062081e+00 1.826581702 1.806581702 3.243418298 142.85512 1.24251 2.00E+01
26 A1551 6.366971e-01 0.741393521 0.591393521 0.518606479 160.03642 1.08864 2.00E+01
27 A1552 4.700215e+00 1.162864014 1.162864014 3.907135986 163.50574 2.23057 4.00E+01
28 A1553 4.102629e+00 1.149970094 1.129970094 3.840029906 149.93557 9.82557 5.00E+00
29 A1554 3.671784e+00 1.518123146 1.378123146 3.471876854 147.30331 1.47733 1.00E+01
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31 A1556 3.722256e+00 1.474830341 1.474830341 3.515169659 156.45013 1.80901 3.00E+01
32 A1558 2.883573e+00 2.139757748 1.549757748 2.850242252 144.52467 1.86546 7.00E+01
33 A1559 7.922995e-01 0.526437298 0.526437298 0.673562702 158.56683 2.02068 3.00E+01
34 A1560 2.180891e+00 2.926523678 1.726523678 2.063476322 138.80407 1.38440 7.00E+01
35 A1561 2.102176e+00 0.465117499 0.465117499 1.604882501 219.63338 6.66633 8.00E+01
36 A1562 6.618893e+00 3.796065506 3.356065506 4.613934494 142.98548 2.93354 8.00E+01
37 A1563 6.845427e-01 0.660140871 0.220140871 0.599859129 151.79018 7.60018 4.00E+00
38 A1564 6.368074e+00 3.937917319 3.497917319 4.472082681 145.29982 5.60798 2.00E+01
39 A1565 7.024940e+00 2.629615412 2.009615412 4.820384588 146.83985 1.59098 5.00E+01
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41 P1568 0.000000e+00 0.000000000 0.000000000 0.000000000 225.87124 4.18012 4.00E+01
42 P1569 1.830923e+00 0.316756032 0.316756032 1.453243968 250.83776 6.27977 6.00E+01
43 P1570 1.786051e+00 0.252132810 0.252132810 1.087867190 206.84395 2.92139 5.00E+01
44 P1571 0.000000e+00 0.000000000 0.000000000 0.000000000 182.77092 1.90609 2.00E+01
45 P1572 0.000000e+00 0.000000000 0.000000000 0.000000000 181.17607 1.74660 7.00E+01
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47 O1576 1.371005e+00 0.223194254 0.223194254 0.876805746 198.37777 1.05177 7.00E+01
48 O1577 0.000000e+00 0.000000000 0.000000000 0.000000000 219.95820 4.83282 0.00E+00
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2 O1578 1.144721e+00 0.192721506 0.192721506 0.747278494 222.07724 3.75872 4.00E+01
3 O1579 4.631766e+00 5.321550733 4.661550733 3.468449267 119.43839 8.29483 9.00E+01
4 O1580 5.620365e-01 6.176865390 0.076865390 0.313134610 116.30137 1.54313 7.00E+01
5 O1581 8.191705e-01 5.864113305 0.484113305 0.675886695 125.87720 1.94572 0.00E+00
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8 P1585 2.529790e+00 0.820395316 0.820395316 1.799604684 246.23766 5.81976 6.00E+01
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20 R1607 4.756429e+00 3.013750488 1.853750488 3.866249512 175.59382 7.19738 2.00E+01
21 R1608 4.889365e+00 1.836846054 1.836846054 4.173153946 190.78514 1.17135 1.00E+02
22 R1609 5.269333e+00 2.348235377 1.188235377 4.251764623 176.87199 8.69319 9.00E+01
23 R1610 5.062924e+00 1.786799454 1.786799454 4.223200546 200.69839 1.27048 4.00E+02
24 O1611 2.441415e+00 4.590233580 1.390233580 2.199766420 131.50179 6.53317 9.00E+01
25 O1612 2.343982e+00 5.176494964 1.926494964 2.003505036 137.01225 7.08422 5.00E+01
26 O1613 1.373605e+00 5.527040014 2.277040014 1.262959986 108.88395 4.61239 5.00E+01
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30 R1617 1.334691e+00 1.764247392 0.564247392 0.855752608 214.30880 6.73588 0.00E+00
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37 R1624 4.396249e-01 1.271696281 0.331696281 1.038303719 232.97203 8.60220 3.00E+01
38 R1625 4.777186e+00 4.536538595 3.596538595 3.893461405 157.03187 1.09951 9.00E+02
39 R1626 3.625667e+00 6.230158120 5.340158120 2.689841880 121.70271 7.05627 1.00E+01
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42 R1629 4.798699e+00 2.914482494 1.754482494 3.995517506 161.35928 8.01192 8.00E+01
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44 R1631 5.413217e-01 1.332239895 0.392239895 0.977760105 167.46882 2.05188 2.00E+01
45 R1632 9.509685e-01 2.821343534 0.361343534 0.548656466 334.78594 8.11059 4.00E+01
46 R1633 4.018990e+00 2.888858170 1.368858170 3.041141830 221.82875 1.18538 7.00E+02
47 R1634 1.733662e+00 2.245925632 0.965925632 1.124074368 233.32302 8.63730 2.00E+01
48 Z1635 2.379359e+00 5.721012655 2.591012655 2.098987345 124.59597 4.66159 7.00E+01
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2 Z1636 1.040635e+00 5.863255112 0.483255112 0.996744888 120.45474 3.99147 4.00E+01
3 Z1637 2.244356e+00 6.380694423 0.890694423 1.839305577 119.93685 4.19568 5.00E+01
4 Z1638 3.341776e+00 3.828246548 2.238246548 2.781753452 165.25732 7.24973 2.00E+01
5 Z1639 1.278184e+00 6.758300481 1.378300481 1.031699519 130.61650 3.78565 0.00E+00
6 Z1640 1.092522e+00 6.939603160 1.199603160 0.850396840 144.04325 5.12832 5.00E+01
7 Z1641 1.411867e+00 2.677231563 2.517231563 1.022768437 194.20870 5.90887 0.00E+00
8 Z1642 1.121031e+00 2.341388320 0.751388320 0.908611680 192.82725 3.84872 5.00E+01
9 Z1643 1.064656e+00 6.577897047 1.197897047 0.822102953 119.94924 3.94092 4.00E+01
10 Z1644 2.732942e+00 5.510143501 2.310143501 2.269856499 173.92694 8.58069 4.00E+01
11 O1645 3.504641e+00 5.196474804 3.506474804 2.843525196 179.03495 4.31349 5.00E+01
12 O1646 1.968013e+00 4.966818285 3.276818285 1.643181715 150.11602 1.71060 2.00E+01
13 O1647 1.759482e+00 6.524562380 4.834562380 1.495437620 206.03636 1.28056 4.00E+02
14 O1648 4.795196e+00 5.243348553 3.653348553 3.846651447 188.11828 8.46082 8.00E+01
15 Z1649 5.346202e+00 4.788690735 3.098690735 4.301309265 181.55021 2.08302 1.00E+01
16 O1650 3.511597e+00 6.312319480 3.112319480 2.777680520 148.69301 1.56830 1.00E+01
17 O1651 2.117840e+00 4.427043919 2.797043919 1.782956081 151.77633 7.42963 3.00E+01
18 O1652 5.868073e+00 2.377020060 2.377020060 4.782979940 264.93433 1.13834 3.00E+02
19 O1653 6.522582e+00 3.886430063 2.726430063 5.203569937 180.76338 4.48633 8.00E+01
20 O1654 5.955333e+00 1.336550557 1.336550557 4.773449443 277.71008 1.41810 1.00E+02
21 O1655 3.072417e+00 2.727960642 1.667960642 2.542039358 203.96812 6.80681 2.00E+01
22 O1656 2.364659e+00 0.746774319 0.746774319 1.783225681 278.25093 1.07180 9.00E+02
23 O1657 5.243873e+00 1.901401807 1.701401807 4.208598193 229.91253 9.40125 3.00E+01
24 O1658 1.290018e+00 0.638314062 0.638314062 0.991685938 288.05052 4.89105 2.00E+01
25 R1659 4.163286e+00 5.801288588 4.281288588 3.288711412 168.36847 3.29784 7.00E+01
26 Z1660 1.764329e+00 7.182294202 1.252294202 1.527705798 101.42389 4.16638 9.00E+01
27 Z1661 1.375867e+00 7.985134462 1.695134462 1.054865538 90.91308 1.29330 8.00E+01
28 Z1662 9.264428e-01 7.500596186 0.340596186 0.719403814 139.12825 6.11482 5.00E+01
29 P1663 0.000000e+00 0.000000000 0.000000000 0.000000000 400.61907 1.28189 1.00E+02
30 P1664 9.024299e-01 2.051137036 2.051137036 0.718862964 305.74156 5.38115 6.00E+01
31 P1665 2.552829e+00 0.781075960 0.781075960 1.948924040 352.18139 1.88141 4.00E+02
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33 Z1667 8.768751e-01 6.488500346 0.998500346 0.671499654 139.13175 4.63717 5.00E+01
34 Z1668 1.455775e+00 7.607880436 1.867880436 1.112119564 142.54519 6.45651 9.00E+01
35 Z1669 5.256081e-01 5.826905392 0.336905392 0.513094608 116.27591 2.35159 1.00E+01
36 Z1670 1.003361e+00 7.004675691 1.624675691 0.785324309 150.45673 1.74467 3.00E+01
37 Z1671 3.174226e+00 5.173564781 2.663564781 2.646435219 148.06809 7.00880 9.00E+01
38 Z1672 3.264271e-01 5.631100094 0.251100094 0.248899906 152.91865 4.41386 5.00E+01
39 Z1673 3.672718e+00 4.662944711 2.972944711 3.117055289 185.51340 7.82734 0.00E+00
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41 Z1675 1.699571e+00 7.352648863 1.862648863 1.367351137 99.52291 5.24429 1.00E+01
42 Z1676 1.228115e+00 7.538573492 1.248573492 0.901426508 122.71748 4.47374 8.00E+01
43 Z1677 8.751970e-01 7.776050361 1.236050361 0.653949639 91.16957 4.40895 7.00E+01
44 Z1678 1.578390e+00 7.409484391 1.919484391 1.310515609 86.32023 3.92402 3.00E+01
45 Z1679 1.098004e+00 8.203626112 1.913626112 0.836373888 78.79022 3.17102 2.00E+01
46 Z1680 1.922690e+00 7.461552587 1.971552587 1.578447413 88.70138 4.16213 8.00E+01
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48 Z1682 2.934003e+00 6.416323687 0.926323687 2.303676313 148.79248 7.08124 8.00E+01
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2 Z1683 2.887112e+00 5.724444365 4.134444365 2.315555635 194.25975 4.31097 5.00E+01
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5 Z1686 2.302722e+00 5.892369108 2.692369108 1.897630892 163.59315 3.05831 5.00E+01
6 Z1687 1.678523e+00 7.410233237 1.650233237 1.309766763 94.69665 4.76166 5.00E+01
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8 Z1689 2.330927e+00 3.850894589 2.160894589 1.919105411 168.14269 3.22426 9.00E+01
9 Z1690 1.237762e+00 6.396341058 0.626341058 1.003658942 139.50933 4.67493 3.00E+01
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15 Z1696 2.365317e+00 3.876965138 3.876965138 1.893034862 223.05266 1.30292 7.00E+02
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17 Z1698 2.583796e+00 5.656185851 3.966185851 2.123814149 184.67223 5.33622 3.00E+01
18 Z1699 9.467739e-01 5.902730231 0.412730231 0.957269769 111.61788 3.10778 8.00E+01
19 Z1700 2.371975e+00 7.612539332 4.932539332 2.047460668 57.13526 4.10552 6.00E+01
20 Z1701 1.271850e+00 8.554017602 2.194017602 1.105982398 43.69016 2.76101 6.00E+01
21 Z1702 1.629105e+00 4.120417218 4.110417218 1.239582782 167.89010 2.52601 0.00E+00
22 Z1703 3.866488e+00 6.482978303 6.472978303 3.177021697 92.55053 7.45505 3.00E+01
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26 L1708 2.835460e+00 5.019392536 0.359392536 2.700607464 125.27949 7.81994 9.00E+01
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28 L1710 3.924150e+00 4.923089661 0.263089661 3.556910339 126.36731 7.92873 1.00E+01
29 L1711 1.865739e+00 4.857672957 0.197672957 1.842327043 128.53530 2.26553 0.00E+00
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34 L1716 4.050697e-01 4.284389451 0.094389451 0.375610549 147.45819 1.59981 9.00E+01
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2 G062 6.038084e+01
3 G063 6.228474e+01
4 G064 7.495175e+00
5 G065 1.650960e+01
6 G066 4.071323e+01
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13 G073 2.948363e+01
14 A074 1.062064e+01
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16 G076 1.381017e+01
17 G077 1.145888e+02
18 G078 1.236799e+00
19 G079 3.842070e+01
20 B080 1.677151e+02
21 B081 1.671110e+02
22 B082 1.140223e+01
23 L087 7.059493e+01
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48 A120 2.141488e+01
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3 A122 7.500341e+01
4 A123 6.917275e+01
5 A124 5.133342e+01
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48 A175 3.794716e+01
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8	A184	1.891723e+02
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4 P899 3.886805e+01
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28 \$fclim

29 TFEV TFEV_i TFEV_s SFEV SFEV_i SFEV_s THIV

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31 1.5 -1.2485247 0.8514753 0.3585247 33.14352 0.6535198 0.9364802 -1.396972 1
32 3.5 -1.1144305 0.8755695 1.1644305 30.97691 6.3869057 2.1930943 -1.153479 8
33 4.5 -1.2322708 0.7577292 1.2822708 32.45756 1.4175572 0.7124428 -1.267432 3
34 5 -1.3253657 0.6146343 0.4753657 24.24327 5.3532733 9.3467267 -1.462710 8
35 6.5 -1.1164222 0.6735778 1.1664222 33.11944 0.4894393 1.1405607 -1.153289 7
36 7.5 -1.1328132 0.6571868 1.1828132 33.14058 0.5105827 1.1194173 -1.171111 6
37 8.5 -1.1215766 0.6684234 1.1715766 33.12005 0.4900542 1.1399458 -1.157719 8
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39 11.5 -1.2118091 0.5781909 1.2618091 32.79089 0.4408940 0.3791060 -1.249865 5
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47 22.5 -1.1581143 0.8318857 1.2081143 31.06941 6.4794143 2.1005857 -1.198227 3

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 17 4.5 0.7325677 1.35743232 32.76485 2.1248542 1.8651458 5.398909 3.7289094
 18 5 0.5072892 0.61271080 22.64930 6.2192992 9.6807008 2.659598 2.4095979
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 23 15 0.8264006 1.1135994 106.93725 60.21725 52.73275
 24 16.5 4.8732935 2.7767065 142.06541 67.78541 105.37459
 25 17.5 3.4139412 4.2360588 157.54412 83.26412 89.89588
 26 18.5 4.6090416 3.0409584 149.10704 74.82704 98.33296
 27 20 1.0802150 1.3797850 105.69449 58.97449 53.97551
 28 22.5 4.3261290 3.3238710 149.14332 74.86332 98.29668
 29 25 1.1294659 1.7005341 108.83251 62.11251 50.83749
 30 25.5 3.5397731 4.1102269 153.01211 78.73211 94.42789
 31 28.5 4.1527731 3.4972269 144.78058 70.50058 102.65942
 32 30 0.6074136 1.5425864 102.51925 55.79925 57.15075
 33 31.5 3.6782015 3.9717985 150.71435 76.43435 96.72565
 34 34.5 4.4360039 3.2139961 146.42952 72.14952 101.01048
 35 0.9812308 1.1687692 106.49073 59.77073 53.17927
 36 37.5 4.1693439 3.4806561 143.12445 68.84445 104.31555
 37 39 1.2785908 1.1814092 105.56710 58.84710 54.10290
 38 40.5 3.7119028 3.9380972 148.63214 74.35214 98.80786
 39 44.5 3.0470472 4.6029528 156.93641 82.65641 90.50359
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54 [1] 0.1726193 0.4445585 0.5251872 0.5966699 0.3525825 0.3227578 0.3824788

55 [8] 0.3758145 0.3327181 0.3991396 0.3542480 0.4910302 0.2675494 0.3786488

56 [15] 0.3562133 0.3596472 0.2060163 0.5229841 0.2832148 0.5689413 0.4663919

57 [22] 0.7874890 0.5450754 0.5296140 0.2573100 0.5405625 0.2724265 0.6016131

58 [29] 0.5925891
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[1] 0.2592048 0.5046338 0.7331884 0.7645121 0.4742063 0.5942596 0.7087453
[8] 0.6701582 0.4099367 0.6028307 0.5814014 0.6833676 0.3347884 0.6015090
[15] 0.6393671 0.5718329 0.2912493 0.6940413 0.3859887 0.6631690 0.6940648
[22] 0.8628507 0.7018006 0.7030771 0.3670697 0.6034318 0.3655512 0.7339519
[29] 0.7200651

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1 464 1299 473 1312 462
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4.5 1399 922 367 562 1385
5 464 417 473 415 574
6.5 1399 922 562 561 920
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10 922 464 417 561 415
11.5 562 1399 922 561 1385
12.5 922 1399 367 561 562
13.5 1399 922 367 473 562
15 464 417 922 473 415
16.5 922 1399 367 561 473
17.5 1399 922 562 367 1398
18.5 1399 922 367 473 562
20 464 417 473 396 394
22.5 1399 367 922 1385 473
25 464 417 473 1332 394
25.5 1399 1385 367 922 1384
28.5 1399 367 922 561 1385
30 464 574 576 417 1332
31.5 367 1399 922 1385 1384
34.5 367 1399 922 464 1385
35 464 417 473 415 1332
37.5 562 1399 1385 922 367
39 464 473 417 394 395
40.5 367 1399 922 1385 1386
44.5 1399 1385 367 922 1398

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1 0.1726193 0.2219440 0.2219891 0.2303242 0.2592048
1.5 0.4445585 0.4488294 0.4721234 0.4775907 0.5046338
3.5 0.5251872 0.6455819 0.6630776 0.6886695 0.7331884
4.5 0.5966699 0.6560904 0.6653005 0.7626770 0.7645121
5 0.3525825 0.3647682 0.4070611 0.4177396 0.4742063

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2 6.5 0.3227578 0.4028244 0.5339236 0.5751213 0.5942596
3 7.5 0.3824788 0.4782833 0.5643988 0.6042191 0.7087453
4 8.5 0.3758145 0.5058277 0.5809585 0.6644349 0.6701582
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6 10 0.3327181 0.3471282 0.3517076 0.3585745 0.4099367
7 11.5 0.3991396 0.4068820 0.4362486 0.4993716 0.6028307
8 12.5 0.3542480 0.4445091 0.4974766 0.5322869 0.5814014
9 13.5 0.4910302 0.5494194 0.6153010 0.6833634 0.6833676
10 15 0.2675494 0.2821186 0.3235524 0.3284806 0.3347884
11 16.5 0.3786488 0.4303793 0.4860977 0.5357437 0.6015090
12 17.5 0.3562133 0.5280965 0.5957303 0.6143269 0.6393671
13 18.5 0.3596472 0.4237835 0.5277059 0.5465346 0.5718329
14 20 0.2060163 0.2655940 0.2749559 0.2872135 0.2912493
15 22.5 0.5229841 0.5415135 0.5538219 0.6928222 0.6940413
16 25 0.2832148 0.3510752 0.3672420 0.3766638 0.3859887
17 25.5 0.5689413 0.5917479 0.6012845 0.6524267 0.6631690
18 28.5 0.4663919 0.5257590 0.5509101 0.6776228 0.6940648
19 30 0.7874890 0.8222788 0.8428875 0.8607874 0.8628507
20 31.5 0.5450754 0.5724614 0.6369443 0.6504575 0.7018006
21 34.5 0.5296140 0.6090549 0.6161549 0.6867091 0.7030771
22 35 0.2573100 0.3116020 0.3455497 0.3605652 0.3670697
23 37.5 0.5405625 0.5458059 0.5639670 0.5886472 0.6034318
24 39 0.2724265 0.3144487 0.3339777 0.3358694 0.3655512
25 40.5 0.6016131 0.6238330 0.6563023 0.6984245 0.7339519
26 44.5 0.5925891 0.6571296 0.6785445 0.7162560 0.7200651
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35 1 "Z584" "B1510" "Z598" "B1523" "Y579"
36 1.5 "B1524" "Z810" "B1527" "B082" "Y696"
37 3.5 "R1626" "H1120" "Z435" "Z598" "O1612"
38 4.5 "R1626" "H1120" "Z435" "Z714" "O1612"
39 5 "Z584" "Z531" "Z598" "Z523" "Z730"
40 6.5 "R1626" "H1120" "Z714" "Z710" "H1118"
41 7.5 "R1626" "H1120" "Z710" "H1118" "Z714"
42 8.5 "R1626" "H1120" "Z714" "H1118" "Z710"
43 10 "H1120" "Z584" "Z531" "Z710" "Z523"
44 11.5 "Z714" "R1626" "H1120" "Z710" "O1612"
45 12.5 "H1120" "R1626" "Z435" "Z710" "Z714"
46 13.5 "R1626" "H1120" "Z435" "Z598" "Z714"
47 15 "Z584" "Z531" "H1120" "Z598" "Z523"
48 16.5 "H1120" "R1626" "Z435" "Z710" "Z598"
49 17.5 "R1626" "H1120" "Z714" "Z435" "R1625"
50 18.5 "R1626" "H1120" "Z435" "Z598" "Z714"
51 20 "Z584" "Z531" "Z598" "Z504" "Z502"
52 22.5 "R1626" "Z435" "H1120" "O1612" "Z598"
53 25 "Z584" "Z531" "Z598" "B1544" "Z502"
54 25.5 "R1626" "O1612" "Z435" "H1120" "O1611"
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3 30 "Z584" "Z730" "Z732" "Z531" "B1544"
4 31.5 "Z435" "R1626" "H1120" "O1612" "O1611"
5 34.5 "Z435" "R1626" "H1120" "Z584" "O1612"
6 35 "Z584" "Z531" "Z598" "Z523" "B1544"
7 37.5 "Z714" "R1626" "O1612" "H1120" "Z435"
8 39 "Z584" "Z598" "Z531" "Z502" "Z503"
9 40.5 "Z435" "R1626" "H1120" "O1612" "O1613"
10 44.5 "R1626" "O1612" "Z435" "H1120" "R1625"

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60**Biogenic Silica %**

Median Sample Depth (cm)	Median Depth Age (cal yrs AD)	%Si(opal)
1.5	1986.5	2.217524979
3.5	1969.833333	1.891418364
4.5	1961.5	2.130563215
6.5	1944.833333	2.174044097
7.5	1936.5	2.02186101
8.5	1928.166667	1.674013954
11.5	1903.166667	2.26100586
12.5	1894.833333	2.326227183
13.5	1886.5	2.391448506
16.5	1861.5	2.087082333
17.5	1853.166667	2.087082333
18.5	1844.833333	2.239265419
22.5	1811.5	2.152303656
25.5	1786.5	1.744913156
28.5	1761.5	2.154213773
31.5	1736.5	1.809539569
34.5	1711.5	2.735851492
37.5	1686.5	1.917250258
40.5	1661.5	2.218840186
44.5	1628.166667	2.068045222

Selected Dinocysts Relative Abundance (%)

Median Sample Depth (cm)	Median Depth Age (cal yrs AD)	<i>Brigantidium</i> spp.
1.5	1986.5	20
3.5	1969.833333	36.19631902
4.5	1961.5	32.21884498
6.5	1944.833333	41.61490683
7.5	1936.5	27.38095238
8.5	1928.166667	46.53465347
11.5	1903.166667	43.61702128
12.5	1894.833333	25.80645161
13.5	1886.5	19.32773109
16.5	1861.5	29.32862191
17.5	1853.166667	35.17915309
18.5	1844.833333	30.76923077
22.5	1811.5	19.81132075
25.5	1786.5	26.625387
28.5	1761.5	21.26436782
31.5	1736.5	16.36363636
34.5	1711.5	19.49152542
37.5	1686.5	28.67647059
40.5	1661.5	22.11838006
44.5	1628.166667	22.67759563

Dinocyst Fluxes (indivs / cm³ / cal yr)

Median Sample Depth (cm)	Median Depth Age (cal yrs AD)	Total Dinocysts Flux
1.5	1986.50	402.1529754
3.5	1969.83	428.2931099
4.5	1961.50	466.361806
6.5	1944.83	476.1688355
7.5	1936.50	273.9463469
8.5	1928.17	337.8349217
11.5	1903.17	348.1721507
12.5	1894.83	210.9325157
13.5	1886.50	391.7493985
16.5	1861.50	363.4480259
17.5	1853.17	314.6694415
18.5	1844.83	251.122187
22.5	1811.50	365.7605714
25.5	1786.50	212.2922993
28.5	1761.50	240.1597715
31.5	1736.50	269.436169
34.5	1711.50	356.2715
37.5	1686.50	373.0535773
40.5	1661.50	285.4024786
44.5	1628.17	372.2258526

Total Organic Carbon TOC

Median Sample Depth (cm)	Median Depth Age (cal yrs AD)	TOC (%) by wt
0.5	1994.83	0.5952
1.5	1986.50	0.8047
2.5	1978.17	0.6323
3.5	1969.83	0.8369
4.5	1961.50	0.5839
6.5	1944.83	0.7548
7.5	1936.50	0.7149
8.5	1928.17	0.6299
9.5	1919.83	0.6435
11.5	1903.17	0.6341
12.5	1894.83	0.7001
13.5	1886.50	0.6642
14.5	1878.17	0.6242
16.5	1861.50	0.6465
17.5	1853.17	0.66475
18.5	1844.83	0.7292
19.5	1836.50	0.6381
22.5	1811.50	0.6117
24.5	1794.83	0.5493
25.5	1786.50	0.5451
28.5	1761.50	0.5533

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2	30.0	1749.00	0.5579
3	30.5	1744.83	0.5784
4	31.5	1736.50	0.5732
5	34.5	1711.50	0.5693
6	35.0	1707.33	0.5362
7	37.5	1686.50	0.5511
8	39.5	1669.83	0.5852
9	40.5	1661.50	0.6117
10	44.5	1628.17	0.6053
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IP₂₅ & Brassicasterol

Median Sample Depth (cm)	Median Depth Age (cal yrs AD)	IP ₂₅ conc. (µg/g)	
18	1.5	1986.50	0.200587619
19	3.5	1969.83	0.090929207
20	4.5	1961.50	0.405260952
21	6.5	1944.83	0.172128764
22	7.5	1936.50	0.118340594
23	8.5	1928.17	0.207000739
24	11.5	1903.17	0.071127916
25	12.5	1894.83	0.208410278
26	13.5	1886.50	0.116807276
27	16.5	1861.50	0.103046177
28	17.5	1853.17	0.462518063
29	18.5	1844.83	0.144394315
30	20.0	1832.33	0.051245741
31	22.5	1811.50	0.086634568
32	25.0	1790.67	0.06638801
33	25.5	1786.50	0.071889105
34	28.5	1761.50	0.015066687
35	30.0	1749.00	0.160045416
36	31.5	1736.50	0.012304751
37	34.5	1711.50	0.074230811
38	35.0	1707.33	0.066502507
39	37.5	1686.50	0.013846299
40	39.0	1674.00	0.065495899
41	40.5	1661.50	0.042079168
42	44.5	1628.17	0.043485416
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P_BIP₂₅

Median Sample Depth (cm)	Median Depth Age (cal yrs AD)	P _B IP ₂₅ norm to OC mean-c	
55	1.5	1986.50	0.165614293
56	3.5	1969.83	0.868434806
57	4.5	1961.50	0.906167677
58	6.5	1944.83	0.618716088
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2	7.5	1936.50	0.517444706
3	8.5	1928.17	0.895054188
4	11.5	1903.17	0.511847196
5	12.5	1894.83	0.907708887
6	13.5	1886.50	0.868551767
7	16.5	1861.50	0.72612425
8	17.5	1853.17	0.255733315
9	18.5	1844.83	0.810883215
10	20.0	1832.33	0.383487414
11	22.5	1811.50	0.810696878
12	25.0	1790.67	0.76187285
13	25.5	1786.50	0.459617299
14	28.5	1761.50	0.360528987
15	30.0	1749.00	0.732894652
16	31.5	1736.50	0.213229622
17	34.5	1711.50	0.564967827
18	35.0	1707.33	0.464857555
19	37.5	1686.50	0.26708068
20	39.0	1674.00	0.552716436
21	40.5	1661.50	0.444090277
22	44.5	1628.17	0.798073653
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MAT Output

	Median Sample Depth (cm)	Median Depth Age (cal yrs AD)	SST Feb
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34	1.5	1986.50	-1.248524692
35	3.5	1969.83	-1.114430513
36	4.5	1961.50	-1.232270831
37	6.5	1944.83	-1.116422205
38	7.5	1936.50	-1.132813243
39	8.5	1928.17	-1.121576625
40	11.5	1903.17	-1.21180908
41	12.5	1894.83	-1.337034298
42	13.5	1886.50	-1.213317772
43	16.5	1861.50	-1.24895275
44	17.5	1853.17	-0.916310988
45	18.5	1844.83	-1.17249749
46	22.5	1811.50	-1.158114264
47	25.5	1786.50	-1.211767339
48	28.5	1761.50	-1.214605676
49	31.5	1736.50	-1.226174038
50	34.5	1711.50	-1.139567632
51	37.5	1686.50	-1.261156363
52	40.5	1661.50	-1.192693618
53	44.5	1628.17	-0.899724126
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%Si(opal) 3pt mean	Conc. Si(opal) (mg/g)	Conc. Si(opal) (mg/g)	Conc. Si(opal) (mg/g) 3pt mean
	0	22.17524979	0
2.079835519		18.91418364	20.79835519
2.065341892		21.30563215	20.65341892
2.108822774		21.74044097	21.08822774
1.956639687		20.2186101	19.56639687
1.985626942		16.74013954	19.85626942
2.087082333		22.6100586	20.87082333
2.326227183		23.26227183	23.26227183
2.268252674		23.91448506	22.68252674
2.188537724		20.87082333	21.88537724
2.137810028		20.87082333	21.37810028
2.159550469		22.39265419	21.59550469
2.045494077		21.52303656	20.45494077
2.017143528		17.44913156	20.17143528
1.902888833		21.54213773	19.02888833
2.233201612		18.09539569	22.33201612
2.154213773		27.35851492	21.54213773
2.290647312		19.17250258	22.90647312
2.068045222		22.18840186	20.68045222
0		20.68045222	0

<i>Islandinium minutum</i>	<i>Islandinium ? cezare</i>	<i>Echinidinium karaense</i>
1.26984127	1.26984127	1.904761905
2.45398773	5.521472393	9.81595092
2.431610942	4.255319149	14.58966565
5.900621118	1.863354037	27.01863354
8.333333333	5.952380952	30.95238095
4.95049505	0.330033003	25.41254125
7.092198582	2.836879433	19.5035461
13.82488479	5.069124424	20.73732719
6.722689076	8.403361345	34.03361345
14.13427562	7.77385159	17.31448763
11.40065147	0.651465798	17.58957655
11.37123746	8.026755853	16.05351171
7.232704403	4.716981132	11.63522013
7.120743034	1.238390093	12.07430341
8.333333333	1.724137931	15.22988506
7.272727273	4.848484848	15.75757576
10.59322034	4.661016949	11.01694915
8.088235294	1.225490196	11.76470588
6.230529595	2.180685358	11.83800623
6.557377049	4.371584699	11.47540984

	<i>Brigantedinium</i> spp.	<i>Islandinium minutum</i>	<i>Islandinium ? cezare</i>
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5	80.43059508	5.10670445	5.10670445
6	155.0263404	10.51026037	23.64808582
7	150.2563873	11.3401047	19.84518323
8	198.1572172	28.09691886	8.87271122
9	75.00911879	22.82886224	16.30633017
10	157.2103101	16.72450107	1.114966738
11	151.862321	24.69306033	9.877224133
12	54.43419759	29.16117728	10.69243167
13	75.7162703	26.33609402	32.92011752
14	106.5942973	51.37074571	28.25391014
15	110.6980446	35.8743663	2.049963788
16	77.26836524	28.5557002	20.15696485
17	72.462	26.45438095	17.25285714
18	56.52364625	15.11678911	2.629006802
19	51.06845715	20.01331429	4.140685715
20	44.08955492	19.59535774	13.06357183
21	69.44275001	37.740625	16.605875
22	106.9785994	30.17345111	4.571735016
23	63.12640492	17.78208589	6.223730062
24	84.41187368	24.40825263	16.27216842
25			
26			
27			
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29			
30			
31			
32			

	TOC (%) 3pt mean	TOC (mg/g)	TOC (mg/g) 3pt mean
33			
34		0	5.952
35		0.6774	8.047
36		0.757966667	6.323
37		0.684366667	8.369
38		0.7252	5.839
39		0.684533333	7.548
40		0.699866667	7.149
41		0.662766667	6.299
42		0.635833333	6.435
43		0.659233333	6.341
44		0.666133333	7.001
45		0.662833333	6.642
46		0.644966667	6.242
47		0.64515	6.465
48		0.68015	6.6475
49		0.67735	7.292
50		0.659666667	6.381
51		0.5997	6.117
52		0.5687	5.493
53		0.549233333	5.451
54		0.5521	5.533
55			
56			
57			
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59			
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1			
2	0.5632	5.579	5.632
3	0.569833333	5.784	5.698333333
4	0.573633333	5.732	5.736333333
5	0.559566667	5.693	5.595666667
6			
7	0.5522	5.362	5.522
8	0.5575	5.511	5.575
9	0.582666667	5.852	5.826666667
10	0.600733333	6.117	6.007333333
11			
12	0	6.053	0
13			
14			
15			
16			

IP ₂₅ conc. (ug/g) 3pt mean	IP ₂₅ conc. (µg/g OC)	IP ₂₅ conc. (ug/g OC) 3pt mean	
17			
18	0	25.40061935	0
19	0.232259259	14.26538635	49.87571151
20	0.222772974	109.9611288	51.72822428
21	0.231910103	30.95815767	53.51474192
22	0.165823365	19.62493927	28.0287972
23	0.132156416	33.50329465	21.47252548
24	0.162179644	11.28934252	22.5228756
25	0.132115157	22.77598963	18.16290873
26	0.142754577	20.42339404	20.35915234
27	0.227457172	17.87807334	34.20173992
28	0.236652852	64.30375239	32.57275794
29	0.21938604	15.53644808	27.65475174
30			
31	0.094091542	3.12405476	9.829823276
32	0.06808944	10.82896699	6.256206235
33	0.074970561	4.815596957	8.698308887
34	0.051114601	10.45036272	5.757690722
35	0.082333736	2.007112494	7.552871122
36			
37	0.062472284	10.20113816	4.555510356
38	0.082193659	1.458280418	7.141519325
39	0.05101269	9.765139401	5.441943837
40	0.051526539	5.102411691	5.711119779
41	0.048614902	2.265808243	4.068475211
42	0.040473789	4.837205698	4.188923545
43	0.050353494	5.463756692	5.503204562
44			
45	0	6.208651297	0
46			
47			
48			
49			
50			
51			
52			

P _B IP ₂₅ norm to OC, mean-c 3pt mean	P _B IP ₂₅ norm to OC median-c	P _B IP ₂₅ norm to OC, median-c 3pt mean	
53			
54			
55	0	0.089771008	0
56	0.646738925	0.766345592	0.561219958
57	0.797772857	0.827543273	0.680090466
58	0.680776157	0.446382531	0.540509563
59			
60			

1			
2	0.677071661	0.347602885	0.534354979
3	0.641448697	0.80907952	0.499740293
4	0.771536757	0.342538475	0.660583938
5	0.762702617	0.830133818	0.646400401
6	0.834128301	0.766528911	0.721713787
7	0.616803111	0.568478631	0.493613532
8	0.59758026	0.145833053	0.464958161
9	0.483367981	0.680562798	0.35416586
10	0.668355836	0.236101731	0.53232107
11	0.652019047	0.680298681	0.510087444
12	0.677395676	0.613861919	0.530410631
13	0.527339712	0.297071292	0.376589377
14	0.517680313	0.218834919	0.364260481
15	0.435551087	0.576875232	0.304797528
16	0.503697367	0.118682433	0.362587704
17	0.414351668	0.392205447	0.270793384
18	0.432302021	0.301492273	0.282335381
19	0.428218224	0.153308424	0.27840834
20	0.421295798	0.380424323	0.272626933
21	0.598293455	0.284148051	0.442390467
22	0	0.662599026	0
23			
24			
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	SST Feb 3pt mean	SST Feb min	SST Feb min 3pt mean	
33				
34		0	-2.1	0
35	-1.198408678		-1.99	-2.026666667
36	-1.154374516		-1.99	-1.923333333
37	-1.160502093		-1.79	-1.856666667
38	-1.123604025		-1.79	-1.79
39	-1.155399649		-1.79	-1.79
40	-1.223473334		-1.79	-1.856666667
41	-1.254053716		-1.99	-1.923333333
42	-1.26643494		-1.99	-1.99
43	-1.126193837		-1.99	-1.99
44	-1.112587076		-1.99	-1.99
45	-1.082307581		-1.99	-1.99
46	-1.180793031		-1.99	-1.99
47	-1.194829093		-1.99	-1.99
48	-1.217515684		-1.99	-1.99
49	-1.193449115		-1.99	-1.99
50	-1.208966011		-1.99	-1.99
51	-1.197805871		-1.99	-1.99
52	-1.117858036		-1.99	-1.99
53	0		-1.99	0
54				
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Conc. Si(opal) (mg/cm ³)	Conc. Si(opal) (mg/cm ³) 3pt mean
22.59657953	0
24.83369265	17.42665557
4.849694517	19.7323225
29.51358034	19.44448269
23.9701732	23.51677527
17.06657226	21.26411021
22.75558516	19.2067072
17.79796418	22.77541267
27.77268865	22.99347061
23.40975899	23.49042085
19.28881492	20.08928346
17.56927648	17.77153505
16.45651375	13.64172562
6.89938662	13.07805975
15.87827888	11.69007657
12.2925642	13.14204537
11.25529304	13.61266784
17.29014628	15.38959979
17.62336007	17.59532225
17.87246042	0

<i>Islandinium cezare</i> s.l.	<i>Operculodinium centrocarpum</i> sensu Wall & Dale (1966)
3.174603175	59.36507937
15.33742331	28.83435583
18.8449848	26.13981763
28.88198758	7.142857143
36.9047619	9.523809524
25.74257426	7.260726073
22.34042553	7.80141844
25.80645161	6.451612903
42.43697479	12.60504202
25.08833922	11.66077739
18.24104235	14.00651466
24.08026756	11.0367893
16.35220126	34.27672956
13.3126935	35.91331269
16.95402299	27.01149425
20.60606061	33.93939394
15.6779661	29.66101695
12.99019608	23.28431373
14.01869159	35.20249221
15.84699454	33.87978142

<i>Echinidinium karaense</i>	<i>Islandinium cezare</i> s.l.
7.660056674	12.76676112
42.04104146	65.68912728
68.04062823	87.88581146
128.6543127	137.5270239
84.79291689	101.0992471
85.85243884	86.96740558
67.90591591	77.78314005
43.74176592	54.43419759
133.326476	166.2465935
62.92916349	91.18307363
55.34902229	57.39898608
40.31392969	60.47089454
42.55704762	59.80990476
25.63281632	28.26182312
36.57605715	40.71674287
42.45660844	55.52018027
39.25025	55.85612501
43.88865616	48.46039117
33.78596319	40.00969326
42.7144421	58.98661052

TOC (mg/cm ³)	TOC (mg/cm ³) 3pt mean
1.6588224	0
8.199893	5.743742672
7.372512617	8.853541217
10.98821803	6.563277675
1.329102375	7.521351298
10.24673349	6.683777604
8.47549695	8.381353645
6.4218305	5.480575817
1.5444	4.782681161
6.381812982	4.427559361
5.3564651	6.483951361
7.713576	4.916795833
1.6803464	5.548463217
7.25146725	5.025144383
6.1436195	6.372129983
5.7213032	4.782377233
2.482209	4.293523467
4.6770582	3.1103998
2.1719322	3.7227876
4.3193724	3.523189413
4.07826364	3.46050948

1		
2	1.9838924	2.70631548
3	2.0567904	2.644848346
4	3.893862239	2.764250946
5	2.3421002	2.81396308
6	2.2059268	3.17265234
7	4.96993002	3.235030407
8	2.5292344	4.119217614
9	4.858488421	4.20628216
10	5.23112366	0
11		
12		
13		
14		
15		

16	IP ₂₅ conc. (µg/cm ³)	IP ₂₅ conc (ug/cm ³) 3pt mean	
17			
18	0.204398784		0
19	0.119387018		0.321949611
20	0.642063031		0.331707408
21	0.233672174		0.338677965
22	0.140298691		0.195002706
23	0.211037253		0.140973888
24	0.071585721		0.147359226
25	0.159454703		0.122230869
26	0.135652183		0.13689621
27	0.115581744		0.22623104
28	0.427459194		0.218777573
29	0.113291779		0.186895189
30	0.019934593		0.066489055
31	0.066240791		0.037475068
32	0.026249819		0.049818512
33	0.056964927		0.031440033
34	0.011105353		0.04166081
35	0.05691215		0.025458789
36	0.008358863		0.040287984
37	0.055592939		0.030436978
38	0.027359131		0.03181298
39	0.012486869		0.022717776
40	0.028307328		0.024738666
41	0.0334218		0.033103365
42	0.037580966		0
43			
44			
45			
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49			
50			
51			
52			
53	P _B IP ₂₅ norm to OC	P _B IP ₂₅ norm to OC, mean-c no extremes	
54	mean-c no extremes	3pt mean	
55	0.092126692		0
56	0.771408961		0.565035863
57	0.831571936		0.685471771
58	0.453434416		0.546366237
59			
60			

1		
2	0.354092359	0.540323015
3	0.813442269	0.505506202
4	0.348983977	0.665513447
5	0.834114095	0.651562521
6	0.771589491	0.727052674
7	0.575454434	0.498820766
8	0.149418371	0.470532665
9	0.686725191	0.359140997
10	0.241279429	0.538156147
11	0.686463822	0.516112322
12	0.620593715	0.536704382
13	0.303055608	0.38246473
14	0.223744867	0.370205049
15	0.583814672	0.30975163
16	0.121695351	0.368176116
17	0.399018324	0.27608012
18	0.307526685	0.287862915
19	0.157043735	0.283911111
20	0.387162913	0.278062027
21	0.289979431	0.448693911
22	0.668939388	0
23		
24		
25		
26		
27		
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SST Feb max

SST Feb max 3pt mean

33		
34	-0.89	0
35	0.05	-0.263333333
36	0.05	0.05
37	0.05	0.05
38	0.05	0.05
39	0.05	0.05
40	0.05	0.05
41	0.05	0.05
42	0.05	0.05
43	0.05	0.05
44	0.05	0.05
45	0.05	0.05
46	0.05	0.05
47	0.05	0.05
48	0.05	0.05
49	0.05	0.05
50	0.05	0.05
51	0.05	0.05
52	0.05	0.05
53	0.05	0.05
54	0.05	0.05
55	0.05	0.05
56	0.05	0.05
57	0.05	0.05
58	0.05	0
59		
60		

1	Median Si(Opal) Flux	Median Si(Opal) Flux 3pt mean
2	(mg/cm ² /cal yr)	
3		
4	2.711589544	0
5	2.980043118	2.091198668
6		
7	0.581963342	2.3678787
8	3.541629641	2.333337923
9	2.876420784	2.822013032
10	2.047988672	2.551693225
11	2.73067022	2.304804864
12	2.135755702	2.73304952
13	3.332722638	2.759216473
14	2.809171078	2.818850502
15	2.31465779	2.410714015
16	2.108313178	2.132584206
17	1.97478165	1.637007074
18	0.827926394	1.56936717
19	1.905393466	1.402809188
20	1.475107704	1.577045445
21	1.350635165	1.633520141
22	2.074817554	1.846751975
23	2.114803208	2.111438671
24	2.14469525	0
25		
26		
27		
28		
29		
30		
31		

32	<i>Spiniferites elongatus/frigidus</i>	Concentration (#dinos/g)	% Autotroph
33	5.714285714	3288.787827	65.07936508
34	3.680981595	2718.354806	32.51533742
35	3.343465046	2453.00721	29.78723404
36	0.621118012	2922.982216	7.763975155
37	0	1925.59253	9.523809524
38	0.660066007	2761.442878	7.920792079
39	1.773049645	2882.879329	9.574468085
40	2.304147465	2297.439504	8.755760369
41	3.361344538	2811.060552	15.96638655
42	1.766784452	2700.248338	13.42756184
43	1.628664495	2837.313727	15.63517915
44	2.006688963	2667.199709	13.04347826
45	3.144654088	3986.404345	39.3081761
46	5.263157895	2232.587701	41.17647059
47	2.873563218	2715.216026	31.6091954
48	7.878787879	3305.219055	42.42424242
49	8.050847458	3964.280787	37.71186441
50	8.578431373	3447.228727	32.10784314
51	7.165109034	2994.427502	45.79439252
52	5.464480874	3589.227402	39.61748634
53			
54			
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56			
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	<i>Operculodinium centrocarpum</i>	<i>Spiniferites elongatus/frigidus</i>	Autotroph:Heterotroph
1			
2			
3			
4			
5	238.738433	22.98017002	2.535714286
6	123.4955593	15.76539055	0.5
7	121.9061256	15.59264397	0.45
8	34.01205968	2.957570407	0.090909091
9	26.09012827	0	0.108108108
10	24.52926824	2.229933476	0.088560886
11	27.16236637	6.173265083	0.114285714
12	13.6085494	4.860196214	0.10106383
13	49.38017628	13.16804701	0.205263158
14	42.38086521	6.421343213	0.167381974
15	44.07422145	5.124909471	0.18972332
16	27.71582666	5.039241212	0.158536585
17	125.3707619	11.50190476	0.695652174
18	76.24119726	11.17327891	0.782122905
19	64.87074287	6.901142859	0.5
20	91.4450028	21.22830422	0.838150289
21	105.67375	28.682875	0.681481481
22	86.86296531	32.00214511	0.529182879
23	100.4687853	20.44939878	0.909638554
24	126.1093053	20.34021052	0.72195122
25			
26			
27			
28			
29			
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31			
32	TOC Flux		
33	(mg/cm ² /cal yr)	TOC Flux 3pt mean	
34	0.199058688	0	
35	0.98398716	0.689249121	
36	0.884701514	1.062424946	
37	1.318586164	0.787593321	
38	0.159492285	0.902562156	
39	1.229608018	0.802053312	
40	1.017059634	1.005762437	
41	0.77061966	0.657669098	
42	0.185328	0.573921739	
43	0.765817558	0.531307123	
44	0.642775812	0.778074163	
45	0.92562912	0.5900155	
46	0.201641568	0.665815586	
47	0.87017607	0.603017326	
48	0.73723434	0.764655598	
49	0.686556384	0.573885268	
50	0.29786508	0.515222816	
51	0.561246984	0.373247976	
52	0.260631864	0.446734512	
53	0.518324688	0.42278273	
54	0.489391637	0.415261138	
55			
56			
57			
58			
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60			

1			
2	0.238067088	0.324757858	
3	0.246814848	0.317381802	
4	0.467263469	0.331710114	
5	0.281052024	0.33767557	
6	0.264711216	0.380718281	
7	0.596391602	0.388203649	
8	0.303508128	0.494306114	
9	0.58301861	0.504753859	
10	0.627734839	0	
11			
12			
13			
14			
15	Median IP_{25} Flux		
16	($\mu\text{g}/\text{cm}_2/\text{cal yr}$)	IP_{25} Flux 3pt mean	Brassicasterol conc. ($\mu\text{g}/\text{g}$)
17			
18	0.024527854	0	6.95780582
19	0.014326442	0.038633953	0.09484323
20	0.077047564	0.039804889	0.28892013
21	0.028040661	0.040641356	0.73031406
22	0.016835843	0.023400325	0.75982927
23	0.02532447	0.016916867	0.16710399
24	0.008590287	0.017683107	0.46704065
25	0.019134564	0.014667704	0.14589203
26	0.016278262	0.016427545	0.12171051
27	0.013869809	0.027147725	0.26759233
28	0.051295103	0.026253309	9.26763902
29	0.013595014	0.022427423	0.23185742
30	0.002392151	0.007978687	0.56721506
31	0.007948895	0.004497008	0.13928028
32	0.003149978	0.005978221	0.1428615
33	0.006835791	0.003772804	0.58192537
34	0.001332642	0.004999297	0.18399142
35	0.006829458	0.003055055	0.40159048
36	0.001003064	0.004834558	0.31258809
37	0.006671153	0.003652437	0.39353286
38	0.003283096	0.003817558	0.52709229
39	0.001498424	0.002726133	0.2616053
40	0.003396879	0.00296864	0.36491676
41	0.004010616	0.003972404	0.36265969
42	0.004509716	0	0.07575177
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53	Flux-based $P_B IP_{25}$	Flux-based $P_B IP_{25}$, mean-c	Flux-based $P_B IP_{25}$
54	mean-c	3pt mean	median-c
55	0.174477551	0	0.08623649
56	0.875447063	0.653766224	0.107747775
57	0.91137406	0.806746975	0.295412798
58	0.633419803	0.692633535	0.596517732
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2	0.533106742	0.689112087	0.62448436
3	0.900809715	0.653813826	0.136936586
4	0.527525021	0.780390905	0.467774845
5	0.91283798	0.771973895	0.092563917
6	0.875558683	0.842277877	0.120528429
7	0.738436969	0.627288937	0.268505965
8	0.267871157	0.6088788	0.972081373
9	0.820328275	0.495547378	0.16184281
10	0.398442702	0.679640052	0.364862108
11	0.82014918	0.663890847	0.101585015
12	0.773080658	0.689494228	0.061020846
13	0.475252847	0.541155745	0.494201503
14	0.375133731	0.531798819	0.274494263
15	0.74500988	0.448033589	0.147199381
16	0.223957156	0.51643514	0.511938946
17	0.580338385	0.428269465	0.329011636
18	0.480512854	0.446802014	0.312011086
19	0.279554804	0.442752225	0.477826039
20	0.568189016	0.43579691	0.21218863
21	0.459646908	0.611947637	0.388353739
22	0.808006987	0	0.066243365
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33	SSS Feb	SSS Feb 3pt mean	SSS Feb min
34	33.14351978	0	32.49
35	30.97690571	32.19266089	24.59
36	32.45755718	32.18463405	31.04
37	33.11943925	32.90585972	32.63
38	33.14058274	33.12669207	32.63
39	33.12005422	33.017177	32.63
40	32.79089404	32.82289391	32.35
41	32.55773348	32.16195506	31.04
42	31.13723766	31.65711428	24.59
43	31.27637169	31.68375935	24.59
44	32.6376687	31.69965729	31.04
45	31.18493148	31.63067149	24.59
46	31.0694143	31.51882943	24.59
47	32.30214251	31.94014817	31.04
48	32.44888769	32.34420731	31.04
49	32.28159175	31.90518829	31.04
50	30.98508545	31.90952477	24.84
51	32.46189712	31.94124443	31.04
52	32.37675074	32.45017516	31.04
53	32.51187762	0	31.04
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7.763975155
9.523809524
7.920792079
9.574468085
8.755760369
15.96638655
13.42756184
15.63517915
13.04347826
39.3081761
41.17647059
31.6091954
42.42424242
37.71186441
32.10784314
45.79439252
39.61748634

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Brassicasterol conc. (ug/g) 3pt mean	Brassicasterol conc. (ug/g OC)
0	881.0742053
2.447189727	14.87943596
0.37135914	78.39389285
0.593021153	131.3503757
0.552415773	126.0058178
0.46465797	27.0459625
0.260012223	74.12816488
0.244881063	15.9437212
0.17839829	21.28070946
3.21898062	46.42613101
3.255696257	1288.477169
3.3555705	24.94724791
0.312784253	34.57869587
0.283118947	17.40946577
0.288022383	10.36276593
0.302926097	84.59322383
0.38916909	24.51046374
0.299389997	25.59698417
0.369237143	37.0459423
0.41107108	51.76965212
0.394076817	40.44121002
0.384538117	42.8090894
0.32972725	26.95096099
0.267776073	47.08943688
0	10.81549557
Flux-based P _B IP ₂₅ , median-c 3pt mean	Flux-based P _B IP ₂₅ mean-c no extremes
0	0.087194033
0.163132354	0.760575418
0.333226102	0.82293521
0.50547163	0.438500243

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2	0.452646226	0.340392399
3	0.40973193	0.804094895
4	0.232425116	0.335379037
5	0.22695573	0.825580385
6	0.16053277	0.760761851
7	0.453705256	0.560623628
8	0.467476716	0.141897637
9	0.49959543	0.673576532
10	0.209429978	0.23038738
11	0.175822656	0.673309412
12	0.218935788	0.606260848
13	0.276572204	0.290442355
14	0.305298382	0.213421719
15	0.311210863	0.569057208
16	0.329383321	0.115380727
17	0.384320556	0.3846152
18	0.372949587	0.294806059
19	0.334008585	0.149206518
20	0.359456136	0.372922182
21	0.222261912	0.277693565
22	0	0.655418804
23		
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SSS Feb min 3pt mean

SSS Feb max

33		
34	0	34.08
35	29.37333333	33.17
36	29.42	33.17
37	32.1	34.26
38	32.63	34.26
39	32.53666667	34.26
40	32.00666667	33.17
41	29.32666667	33.17
42	26.74	33.17
43	26.74	33.17
44	26.74	33.17
45	26.74	33.17
46	26.74	33.17
47	26.74	33.17
48	26.74	33.17
49	26.74	33.17
50	28.89	33.17
51	31.04	33.17
52	28.97333333	33.17
53	28.97333333	33.17
54	28.97333333	33.17
55	31.04	33.17
56	0	33.17
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Brassicasterol conc. (ug/g OC) 3pt mean	Brassicasterol conc. ($\mu\text{g}/\text{cm}^3$)
0	7.09000413
324.7825114	0.124526
74.87456816	0.45774194
111.9166954	0.991432636
94.80071865	0.900815591
75.72664838	0.170362518
39.03928286	0.470046693
37.11753185	0.111621992
27.88352056	0.141346472
452.0613365	0.300144937
453.283516	8.565151982
449.334371	0.181915332
25.64513651	0.220646658
20.78364252	0.106493702
37.45515184	0.056487437
39.82215117	0.461117663
44.90022391	0.135616396
29.05113007	0.142805575
38.1375262	0.212347341
43.08560148	0.29472463
45.00665051	0.216845768
36.73375347	0.235920892
38.94982909	0.157717024
28.28529781	0.288046085
0	0.065466195
Flux-based $P_{BIP_{25}}$, mean-c, no extremes	
3pt mean	
0	
0.556901554	
0.674003624	
0.533942617	

1
2 0.527662513
3 0.493288777
4 0.655018106
5 0.640573758
6 0.715655288
7 0.487761039
8 0.458699266
9 0.348620516
10 0.525757775
11 0.503319213
12 0.523337538
13 0.370041641
14 0.357640427
15 0.299286551
16 0.356351045
17 0.264933996
18 0.276209259
19 0.272311586
20 0.266607422
21 0.43534485
22 0
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SSS Feb max 3pt mean

SST Winter

33 0 -1.396972071
34 33.47333333 -1.153479781
35 33.53333333 -1.267432322
36 33.89666667 -1.153289718
37 34.26 -1.17111116
38 33.89666667 -1.157719784
39 33.53333333 -1.249865459
40 33.17 -1.367026965
41 33.17 -1.242871308
42 33.17 -1.281886305
43 33.17 -0.967274888
44 33.17 -1.201323051
45 33.17 -1.198227276
46 33.17 -1.255593947
47 33.17 -1.247497177
48 33.17 -1.268519475
49 33.17 -1.236972493
50 33.17 -1.298409772
51 33.17 -1.234296556
52 0 -0.970605723
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	Median Brassicasterol Flux		
Brassicasterol conc. ($\mu\text{g}/\text{cm}^3$) 3pt mean)	($\mu\text{g}/\text{cm}^2/\text{cal yr}$)		Brassicasterol flux 3pt mean
0	0.850800496		0
2.557424023	0.01494312		0.306890883
0.524566859	0.054929033		0.062948023
0.783330056	0.118971916		0.093999607
0.687536915	0.108097871		0.08250443
0.513741601	0.020443502		0.061648992
0.250677068	0.056405603		0.030081248
0.241005053	0.013394639		0.028920606
0.184371134	0.016961577		0.022124536
3.002214464	0.036017392		0.360265736
3.015737417	1.027818238		0.36188849
2.989237991	0.02182984		0.358708559
0.169685231	0.026477599		0.020362228
0.127875933	0.012779244		0.015345112
0.208032934	0.006778492		0.024963952
0.217740499	0.05533412		0.02612886
0.246513211	0.016273968		0.029581585
0.163589771	0.017136669		0.019630772
0.216625848	0.025481681		0.025995102
0.241305913	0.035366956		0.02895671
0.249163763	0.026021492		0.029899652
0.203494561	0.028310507		0.024419347
0.227228	0.018926043		0.02726736
0.170409768	0.03456553		0.020449172
0	0.007855943		0

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SST Winter 3pt mean	SST Winter min	SST Winter min 3pt mean	
	0	-1.88	0
	-1.272628058	-2	-1.96
	-1.191400607	-2	-1.94
	-1.19727788	-1.82	-1.88
	-1.160707034	-1.82	-1.82
	-1.192898948	-1.82	-1.82
	-1.258204069	-1.82	-1.88
	-1.28658791	-2	-1.94
	-1.297261526	-2	-2
	-1.164010833	-2	-2
	-1.150161415	-2	-2
	-1.122275072	-2	-2
	-1.218381425	-2	-2
	-1.2337728	-2	-2
	-1.257203533	-2	-2
	-1.250996382	-2	-2
	-1.267967247	-2	-2
	-1.256559607	-2	-2
	-1.167770684	-2	-2
	0	-2	0

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SST Winter max	SST Winter max 3pt mean	SSS Winter	SSS Winter 3pt mean	SSS Winter min
-1.04	0	33.361185	0	32.49
0.09	-0.286666667	30.618406	32.24814841	22.93
0.09	0.09	32.764854	32.41008462	30.64
0.09	0.09	33.846993	33.49341708	33.02
0.09	0.09	33.868404	33.86026358	33.02
0.09	0.09	33.865394	33.79547048	33.02
0.09	0.09	33.652614	33.5829405	32.2
0.09	0.09	33.230814	32.68762407	30.64
0.09	0.09	31.179444	31.92376144	22.93
0.09	0.09	31.361026	31.83734702	22.93
0.09	0.09	32.97157	31.85044187	30.64
0.09	0.09	31.218729	31.64109136	22.93
0.09	0.09	30.732975	31.39352055	22.93
0.09	0.09	32.228858	31.8977322	30.64
0.09	0.09	32.731364	32.38820526	30.64
0.09	0.09	32.204394	31.891829	30.64
0.09	0.09	30.739729	31.92477943	23.84
0.09	0.09	32.830215	31.9718662	30.64
0.09	0.09	32.345654	32.54216034	30.64
0.09	0	32.450612	0	30.64

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For Peer Review

SSSWinter min 3pt mean	SSS Winter max	SSS Winter max 3pt mean	SST Aug	SST Aug 3pt mean
0	34.46	0	3.009081975	0
28.68666667	33.46	34.18333333	6.029219151	4.812403499
28.86333333	34.63	34.24	5.398909372	5.311964991
32.22666667	34.63	34.63	4.507766449	4.773337649
33.02	34.63	34.63	4.413337125	4.477573571
32.74666667	34.63	34.63	4.511617138	4.667072986
31.95333333	34.63	34.63	5.076264694	4.560194874
28.59	34.63	34.63	4.092702789	4.676817428
25.5	34.63	34.63	4.8614848	4.526564201
25.5	34.63	34.63	4.625505012	5.291128467
25.5	34.63	34.63	6.386395589	5.339856504
25.5	34.63	34.24	5.007668911	5.734015207
25.5	33.46	33.85	5.807981122	5.833770362
28.07	33.46	33.85	6.685661052	5.984658776
30.64	34.63	33.85	5.460334153	6.222441447
28.37333333	33.46	33.85	6.521329135	5.801240627
28.37333333	33.46	33.85	5.422058593	5.769436368
28.37333333	34.63	33.85	5.364921375	5.742299614
30.64	33.46	33.85	6.439918875	6.383445188
0	33.46	0	7.345495315	0

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SST Aug min	SST Aug min 3pt mean	SST Aug max	SST Aug max 3pt mean	SSS Aug
0.85	0	3.8	0	32.70179015
1.67	1.396666667	10.72	8.413333333	27.41324945
1.67	1.67	10.72	10.72	31.12299841
1.67	1.67	10.72	10.72	31.68689171
1.67	1.67	10.72	10.72	31.69802221
1.67	1.67	10.72	10.72	31.70348614
1.67	1.67	10.72	10.72	31.4707112
1.67	1.67	10.72	10.72	31.03321831
1.67	1.67	10.72	10.72	27.59749513
1.67	1.67	10.72	11.17333333	27.87225145
1.67	1.67	12.08	11.17333333	31.44343649
1.67	1.67	10.72	11.17333333	27.68337747
1.67	1.67	10.72	10.72	27.65668318
1.67	1.67	10.72	10.72	31.1965487
1.67	1.67	10.72	10.72	31.12235519
1.67	1.67	10.72	10.72	31.14428135
1.67	1.67	10.72	10.72	26.66262768
1.67	1.67	10.72	10.72	31.13789897
1.67	1.67	10.72	11.17333333	31.12592168
1.67	0	12.08	0	31.39512944

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For Peer Review

SSS Aug 3pt mean	SSS Aug min	SS Aug min	3pt mean	SSS Aug max	SSS Aug max	3pt mean	SST Summer
0	31.79		0	33.71		0	2.432785922
30.41267934	11.07		24.09666667	32.73		33.05666667	4.525367765
30.07437986	29.43		23.70333333	32.73		32.73	4.198924646
31.50263744	30.61		30.21666667	32.73		32.73	3.780555919
31.69613335	30.61		30.61	32.73		32.73	3.697612161
31.62407318	30.61		30.61	32.73		32.73	3.775983883
31.40247189	30.61		30.21666667	32.73		32.73	4.271774307
30.03380821	29.43		23.70333333	32.73		32.73	3.078349196
28.83432163	11.07		17.19	32.73		32.73	3.495211614
28.97106102	11.07		17.19	32.73		32.73	3.323035821
28.99968847	29.43		17.19	32.73		32.73	5.142791608
28.92783238	11.07		17.19	32.73		32.73	3.652083536
28.84553645	11.07		17.19	32.73		32.73	4.318047771
29.99186236	29.43		23.31	32.73		32.73	5.351887775
31.15439508	29.43		29.43	32.73		32.73	4.221933948
29.64308808	29.43		21.98	32.73		32.73	5.166901546
29.64826934	7.08		21.98	32.73		32.73	4.351771539
29.64214945	29.43		21.98	32.73		32.73	4.198490281
31.21965003	29.43		29.43	32.73		32.73	5.101796772
0	29.43		0	32.73		0	5.986745888

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SST Summer 3pt mean	SST Summer min	SST Summer min 3pt mean	SST Summer max
0	0.51	0	3.23
3.719026111	0.62	0.583333333	8.97
4.168282777	0.62	0.896666667	8.97
3.892364242	1.45	1.173333333	8.97
3.751383988	1.45	1.45	8.97
3.91512345	1.45	1.543333333	8.97
3.708702462	1.73	1.266666667	8.97
3.615111706	0.62	0.99	8.97
3.298865544	0.62	0.62	8.97
3.987013014	0.62	0.62	8.97
4.039303655	0.62	0.62	10.7
4.370974305	0.62	0.62	8.97
4.440673028	0.62	0.62	8.97
4.630623165	0.62	0.62	8.97
4.913574423	0.62	0.62	8.97
4.580202345	0.62	0.62	8.97
4.572387789	0.62	0.62	8.97
4.550686197	0.62	0.62	8.97
5.095677647	0.62	0.62	8.97
0	0.62	0	10.7

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SST Summer max 3pt mean	SSS Summer	SSS Summer 3pt mean	SSS Summer min
0	32.35000831	0	30.82
7.056666667	27.65691708	30.32351561	13.24
8.97	30.96362144	30.10316283	28.56
8.97	31.68894998	31.45037388	30.56
8.97	31.69855023	31.69802183	30.56
8.97	31.70656528	31.63645758	30.56
8.97	31.50425723	31.36496536	30.56
8.97	30.88407357	30.06717384	28.56
8.97	27.81319072	28.91536082	13.24
9.546666667	28.04881818	29.06450496	13.24
9.546666667	31.33150597	29.09603881	28.56
9.546666667	27.90779229	29.02723086	13.24
8.97	27.84239433	28.9348505	13.24
8.97	31.05436488	29.94946799	28.56
8.97	30.95164477	30.99535158	28.56
8.97	30.9800451	29.44060986	28.56
8.97	26.3901397	29.4559196	6.67
8.97	30.99757399	29.44643889	28.56
9.546666667	30.95160297	31.07122263	28.56
0	31.26449094	0	28.56

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For Peer Review

SSS Summer min 3pt mean	SSS Summer max	SSS Summer max 3pt mean	Ice Duration
0	33.44	0	8.503819039
24.20666667	32.75	32.98	6.475286803
24.12	32.75	32.75	6.537397302
29.89333333	32.75	32.75	6.165901559
30.56	32.75	32.75	6.217759788
30.56	32.75	32.75	6.161874755
29.89333333	32.75	32.75	6.151830824
24.12	32.75	32.75	7.355254619
18.34666667	32.75	32.75	7.209766877
18.34666667	32.75	32.75	7.359868085
18.34666667	32.75	32.75	5.607573338
18.34666667	32.75	32.75	7.034806806
18.34666667	32.75	32.75	6.678886335
23.45333333	32.75	32.75	5.746023137
28.56	32.75	32.75	6.519673451
21.26333333	32.75	32.75	5.916422379
21.26333333	32.75	32.75	6.828717159
21.26333333	32.75	32.75	6.545856712
28.56	32.75	32.75	5.990827909
0	32.75	0	5.147401325

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Ice Duration 3pt mean	Ice Duration min	Ice Duration min 3pt mean	Ice Duration max
0	8.12	0	9.1
7.172167715	1.42	3.653333333	10.88
6.392861888	1.42	1.42	10.88
6.30701955	1.42	1.42	8.34
6.181845367	1.42	1.42	8.34
6.177155122	1.42	1.42	8.34
6.556320066	1.42	1.42	8.34
6.90561744	1.42	1.42	10.88
7.308296527	1.42	1.42	10.88
6.7257361	1.42	1.42	10.88
6.667416077	1.42	1.42	10.88
6.44042216	1.42	1.42	10.88
6.486572093	1.42	1.42	10.88
6.314860975	1.42	1.42	10.88
6.060706323	1.42	1.42	10.88
6.42160433	1.42	1.42	10.88
6.430332083	1.42	1.42	10.88
6.455133927	1.42	1.42	10.88
5.894695315	1.42	1.42	10.88
0	1.42	0	10.88

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Ice Duration max 3pt mean	Ice Cover	Ice Cover 3pt mean	Ice Cover min	Ice Cover min 3pt mean
0	6.752705696	0	6.41	0
10.28666667	5.10222424	5.653905364	0.94	2.763333333
10.03333333	5.106786155	5.003681799	0.94	0.94
9.186666667	4.802035002	4.916956758	0.94	0.94
8.34	4.842049118	4.813071928	0.94	0.94
8.34	4.795131665	4.80728676	0.94	0.94
9.186666667	4.784679496	5.117196913	0.94	0.94
10.03333333	5.771779578	5.415281559	0.94	0.94
10.88	5.689385602	5.758152896	0.94	0.94
10.88	5.813293508	5.285540102	0.94	0.94
10.88	4.353941194	5.238758752	0.94	0.94
10.88	5.549041554	5.056370589	0.94	0.94
10.88	5.266129019	5.098314569	0.94	0.94
10.88	4.479773133	4.946225081	0.94	0.94
10.88	5.092773089	4.730249225	0.94	0.94
10.88	4.618201451	5.0289928	0.94	0.94
10.88	5.376003858	5.034516398	0.94	0.94
10.88	5.109343885	5.045750179	0.94	0.94
10.88	4.651902793	4.582764639	0.94	0.94
0	3.987047239	0	0.94	0

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Ice Cover max	Ice Cover max 3pt mean	Productivity	Productivity 3pt mean	Productivity min
7.23	0	76.22731435	0	50.05
8.59	8.136666667	153.650026	124.589226	74.28
8.59	7.96	143.8903378	150.2830649	74.28
6.7	7.33	153.3088308	149.7430374	105.88
6.7	6.7	152.0299437	152.9434086	105.88
6.7	6.7	153.4914512	152.5109345	105.88
6.7	7.33	152.0114086	146.7951351	105.88
8.59	7.96	134.8825456	144.321721	74.28
8.59	8.59	146.0712088	141.0063866	74.28
8.59	8.59	142.0654055	148.5602433	74.28
8.59	8.59	157.5441156	149.5721876	74.28
8.59	8.59	149.1070418	151.9314932	74.28
8.59	8.59	149.1433222	150.420824	74.28
8.59	8.59	153.012108	148.9786699	74.28
8.59	8.59	144.7805794	149.5023443	74.28
8.59	8.59	150.7143454	147.3081494	74.28
8.59	8.59	146.4295234	146.7561079	74.28
8.59	8.59	143.124455	146.0620402	74.28
8.59	8.59	148.6321422	149.5643349	74.28
8.59	0	156.9364077	0	74.28

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Prod min 3pt mean	Productivity max	Prod max 3pt mean
0	94.11	0
66.20333333	247.44	196.33
84.81333333	247.44	247.44
95.34666667	247.44	247.44
105.88	247.44	247.44
105.88	247.44	247.44
95.34666667	247.44	247.44
84.81333333	247.44	247.44
74.28	247.44	247.44
74.28	247.44	247.44
74.28	247.44	247.44
74.28	247.44	247.44
74.28	247.44	247.44
74.28	247.44	247.44
74.28	247.44	247.44
74.28	247.44	247.44
74.28	247.44	247.44
74.28	247.44	247.44
74.28	247.44	247.44
74.28	247.44	247.44
74.28	247.44	247.44
74.28	247.44	247.44
0	247.44	0

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60**Biogenic Silica %**

Median Sample Depth (cm)	Median Depth Age (cal yrs AD)	%Si(opal)
1.5	1986.5	2.217524979
3.5	1969.833333	1.891418364
4.5	1961.5	2.130563215
6.5	1944.833333	2.174044097
7.5	1936.5	2.02186101
8.5	1928.166667	1.674013954
11.5	1903.166667	2.26100586
12.5	1894.833333	2.326227183
13.5	1886.5	2.391448506
16.5	1861.5	2.087082333
17.5	1853.166667	2.087082333
18.5	1844.833333	2.239265419
22.5	1811.5	2.152303656
25.5	1786.5	1.744913156
28.5	1761.5	2.154213773
31.5	1736.5	1.809539569
34.5	1711.5	2.735851492
37.5	1686.5	1.917250258
40.5	1661.5	2.218840186
44.5	1628.166667	2.068045222

Selected Dinocysts Relative Abundance (%)

Median Sample Depth (cm)	Median Depth Age (cal yrs AD)	<i>Brigantedinium</i> spp.
1.5	1986.5	20
3.5	1969.833333	36.19631902
4.5	1961.5	32.21884498
6.5	1944.833333	41.61490683
7.5	1936.5	27.38095238
8.5	1928.166667	46.53465347
11.5	1903.166667	43.61702128
12.5	1894.833333	25.80645161
13.5	1886.5	19.32773109
16.5	1861.5	29.32862191
17.5	1853.166667	35.17915309
18.5	1844.833333	30.76923077
22.5	1811.5	19.81132075
25.5	1786.5	26.625387
28.5	1761.5	21.26436782
31.5	1736.5	16.36363636
34.5	1711.5	19.49152542
37.5	1686.5	28.67647059
40.5	1661.5	22.11838006
44.5	1628.166667	22.67759563

Dinocyst Fluxes (indivs / cm³ / cal yr)

Median Sample Depth (cm)	Median Depth Age (cal yrs AD)	Total Dinocysts Flux
1.5	1986.50	402.1529754
3.5	1969.83	428.2931099
4.5	1961.50	466.361806
6.5	1944.83	476.1688355
7.5	1936.50	273.9463469
8.5	1928.17	337.8349217
11.5	1903.17	348.1721507
12.5	1894.83	210.9325157
13.5	1886.50	391.7493985
16.5	1861.50	363.4480259
17.5	1853.17	314.6694415
18.5	1844.83	251.122187
22.5	1811.50	365.7605714
25.5	1786.50	212.2922993
28.5	1761.50	240.1597715
31.5	1736.50	269.436169
34.5	1711.50	356.2715
37.5	1686.50	373.0535773
40.5	1661.50	285.4024786
44.5	1628.17	372.2258526

Total Organic Carbon TOC

Median Sample Depth (cm)	Median Depth Age (cal yrs AD)	TOC (%) by wt
1.5	1986.50	0.8047
3.5	1969.83	0.8369
4.5	1961.50	0.5839
6.5	1944.83	0.7548
7.5	1936.50	0.7149
8.5	1928.17	0.6299
11.5	1903.17	0.6341
12.5	1894.83	0.7001
13.5	1886.50	0.6642
16.5	1861.50	0.6465
17.5	1853.17	0.66475
18.5	1844.83	0.7292
22.5	1811.50	0.6117
25.5	1786.50	0.5451
28.5	1761.50	0.5533
31.5	1736.50	0.5732
34.5	1711.50	0.5693
37.5	1686.50	0.5511
40.5	1661.50	0.6117
44.5	1628.17	0.6053

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60**IP₂₅ & Brassicasterol**

Median Sample Depth (cm)	Median Depth Age (cal yrs AD)	IP ₂₅ conc. (µg/g)
1.5	1986.50	0.200587619
3.5	1969.83	0.090929207
4.5	1961.50	0.405260952
6.5	1944.83	0.172128764
7.5	1936.50	0.118340594
8.5	1928.17	0.207000739
11.5	1903.17	0.071127916
12.5	1894.83	0.208410278
13.5	1886.50	0.116807276
16.5	1861.50	0.103046177
17.5	1853.17	0.462518063
18.5	1844.83	0.144394315
22.5	1811.50	0.086634568
25.5	1786.50	0.071889105
28.5	1761.50	0.015066687
31.5	1736.50	0.012304751
34.5	1711.50	0.074230811
37.5	1686.50	0.013846299
40.5	1661.50	0.042079168
44.5	1628.17	0.043485416

P_BIP₂₅

Median Sample Depth (cm)	Median Depth Age (cal yrs AD)	P _B IP ₂₅ norm to OC mean-c
1.5	1986.50	0.165614293
3.5	1969.83	0.868434806
4.5	1961.50	0.906167677
6.5	1944.83	0.618716088
7.5	1936.50	0.517444706
8.5	1928.17	0.895054188
11.5	1903.17	0.511847196
12.5	1894.83	0.907708887
13.5	1886.50	0.868551767
16.5	1861.50	0.72612425
17.5	1853.17	0.255733315
18.5	1844.83	0.810883215
22.5	1811.50	0.810696878
25.5	1786.50	0.459617299
28.5	1761.50	0.360528987
31.5	1736.50	0.213229622
34.5	1711.50	0.564967827
37.5	1686.50	0.26708068
40.5	1661.50	0.444090277

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MAT Output

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7 Median Sample Depth (cm) Median Depth Age (cal yrs AD) SST Feb
8 1.5 1986.50 -1.248524692
9 3.5 1969.83 -1.114430513
10 4.5 1961.50 -1.232270831
11 6.5 1944.83 -1.116422205
12 7.5 1936.50 -1.132813243
13 8.5 1928.17 -1.121576625
14 11.5 1903.17 -1.21180908
15 12.5 1894.83 -1.337034298
16 13.5 1886.50 -1.213317772
17 16.5 1861.50 -1.24895275
18 17.5 1853.17 -0.916310988
19 18.5 1844.83 -1.17249749
20 22.5 1811.50 -1.158114264
21 25.5 1786.50 -1.211767339
22 28.5 1761.50 -1.214605676
23 31.5 1736.50 -1.226174038
24 34.5 1711.50 -1.139567632
25 37.5 1686.50 -1.261156363
26 40.5 1661.50 -1.192693618
27 44.5 1628.17 -0.899724126
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	%Si(opal) 3pt mean	Conc. Si(opal) (mg/g)	Conc. Si(opal) (mg/g) 3pt mean
1			
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4		0	22.17524979
5			0
6	2.079835519	18.91418364	20.79835519
7	2.065341892	21.30563215	20.65341892
8	2.108822774	21.74044097	21.08822774
9	1.956639687	20.2186101	19.56639687
10	1.985626942	16.74013954	19.85626942
11	2.087082333	22.6100586	20.87082333
12	2.326227183	23.26227183	23.26227183
13	2.268252674	23.91448506	22.68252674
14	2.188537724	20.87082333	21.88537724
15	2.137810028	20.87082333	21.37810028
16	2.159550469	22.39265419	21.59550469
17	2.045494077	21.52303656	20.45494077
18	2.017143528	17.44913156	20.17143528
19	1.902888833	21.54213773	19.02888833
20	2.233201612	18.09539569	22.33201612
21	2.154213773	27.35851492	21.54213773
22	2.290647312	19.17250258	22.90647312
23	2.068045222	22.18840186	20.68045222
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26	0	20.68045222	0
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	<i>Islandinium minutum</i>	<i>Islandinium ? cezare</i>	<i>Echinidinium karaense</i>
32			
33	1.26984127	1.26984127	1.904761905
34	2.45398773	5.521472393	9.81595092
35	2.431610942	4.255319149	14.58966565
36	5.900621118	1.863354037	27.01863354
37	8.333333333	5.952380952	30.95238095
38	4.95049505	0.330033003	25.41254125
39	7.092198582	2.836879433	19.5035461
40	13.82488479	5.069124424	20.73732719
41	6.722689076	8.403361345	34.03361345
42	14.13427562	7.77385159	17.31448763
43	11.40065147	0.651465798	17.58957655
44	11.37123746	8.026755853	16.05351171
45	7.232704403	4.716981132	11.63522013
46	7.120743034	1.238390093	12.07430341
47	8.333333333	1.724137931	15.22988506
48	7.272727273	4.848484848	15.75757576
49	10.59322034	4.661016949	11.01694915
50	8.088235294	1.225490196	11.76470588
51	6.230529595	2.180685358	11.83800623
52	6.557377049	4.371584699	11.47540984
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	<i>Brigantedinium</i> spp.	<i>Islandinium minutum</i>	<i>Islandinium ? cezare</i>
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5	80.43059508	5.10670445	5.10670445
6	155.0263404	10.51026037	23.64808582
7	150.2563873	11.3401047	19.84518323
8	198.1572172	28.09691886	8.87271122
9	75.00911879	22.82886224	16.30633017
10	157.2103101	16.72450107	1.114966738
11	151.862321	24.69306033	9.877224133
12	54.43419759	29.16117728	10.69243167
13	75.7162703	26.33609402	32.92011752
14	106.5942973	51.37074571	28.25391014
15	110.6980446	35.8743663	2.049963788
16	77.26836524	28.5557002	20.15696485
17	72.462	26.45438095	17.25285714
18	56.52364625	15.11678911	2.629006802
19	51.06845715	20.01331429	4.140685715
20	44.08955492	19.59535774	13.06357183
21	69.44275001	37.740625	16.605875
22	106.9785994	30.17345111	4.571735016
23	63.12640492	17.78208589	6.223730062
24	84.41187368	24.40825263	16.27216842
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33	TOC (%) 3pt mean	TOC (mg/g)	TOC (mg/g) 3pt mean
34	0.6774	8.047	6.774
35	0.684366667	8.369	6.843666667
36	0.7252	5.839	7.252
37	0.684533333	7.548	6.845333333
38	0.699866667	7.149	6.998666667
39	0.662766667	6.299	6.627666667
40	0.659233333	6.341	6.592333333
41	0.666133333	7.001	6.661333333
42	0.662833333	6.642	6.628333333
43	0.64515	6.465	6.4515
44	0.68015	6.6475	6.8015
45	0.67735	7.292	6.7735
46	0.5997	6.117	5.997
47	0.549233333	5.451	5.492333333
48	0.5521	5.533	5.521
49	0.573633333	5.732	5.736333333
50	0.559566667	5.693	5.595666667
51	0.5575	5.511	5.575
52	0.600733333	6.117	6.007333333
53	0	6.053	0
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IP ₂₅ conc. (ug/g) 3pt mean	IP ₂₅ conc. (µg/g OC)	IP ₂₅ conc. (ug/g OC) 3pt mean
0	25.40061935	0
0.232259259	14.26538635	49.87571151
0.222772974	109.9611288	51.72822428
0.231910103	30.95815767	53.51474192
0.165823365	19.62493927	28.0287972
0.132156416	33.50329465	21.47252548
0.162179644	11.28934252	22.5228756
0.132115157	22.77598963	18.16290873
0.142754577	20.42339404	20.35915234
0.227457172	17.87807334	34.20173992
0.236652852	64.30375239	32.57275794
0.21938604	15.53644808	27.65475174
0.06808944	10.82896699	6.256206235
0.051114601	10.45036272	5.757690722
0.082333736	2.007112494	7.552871122
0.082193659	1.458280418	7.141519325
0.05101269	9.765139401	5.441943837
0.048614902	2.265808243	4.068475211
0.050353494	5.463756692	5.503204562
0	6.208651297	0

P _B IP ₂₅ norm to OC, mean-c 3pt mean	P _B IP ₂₅ norm to OC median-c	P _B IP ₂₅ norm to OC, median-c 3pt mean
0	0.089771008	0
0.646738925	0.766345592	0.561219958
0.797772857	0.827543273	0.680090466
0.680776157	0.446382531	0.540509563
0.677071661	0.347602885	0.534354979
0.641448697	0.80907952	0.499740293
0.771536757	0.342538475	0.660583938
0.762702617	0.830133818	0.646400401
0.834128301	0.766528911	0.721713787
0.616803111	0.568478631	0.493613532
0.59758026	0.145833053	0.464958161
0.483367981	0.680562798	0.35416586
0.652019047	0.680298681	0.510087444
0.527339712	0.297071292	0.376589377
0.517680313	0.218834919	0.364260481
0.503697367	0.118682433	0.362587704
0.414351668	0.392205447	0.270793384
0.428218224	0.153308424	0.27840834
0.598293455	0.284148051	0.442390467

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SST Feb 3pt mean	SST Feb min	SST Feb min 3pt mean	
	0	-2.1	0
-1.198408678		-1.99	-2.026666667
-1.154374516		-1.99	-1.923333333
-1.160502093		-1.79	-1.856666667
-1.123604025		-1.79	-1.79
-1.155399649		-1.79	-1.79
-1.223473334		-1.79	-1.856666667
-1.254053716		-1.99	-1.923333333
-1.26643494		-1.99	-1.99
-1.126193837		-1.99	-1.99
-1.112587076		-1.99	-1.99
-1.082307581		-1.99	-1.99
-1.180793031		-1.99	-1.99
-1.194829093		-1.99	-1.99
-1.217515684		-1.99	-1.99
-1.193449115		-1.99	-1.99
-1.208966011		-1.99	-1.99
-1.197805871		-1.99	-1.99
-1.117858036		-1.99	-1.99
	0	-1.99	0

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Conc. Si(opal) (mg/cm ³)	Conc. Si(opal) (mg/cm ³) 3pt mean
22.59657953	0
24.83369265	17.42665557
4.849694517	19.7323225
29.51358034	19.44448269
23.9701732	23.51677527
17.06657226	21.26411021
22.75558516	19.2067072
17.79796418	22.77541267
27.77268865	22.99347061
23.40975899	23.49042085
19.28881492	20.08928346
17.56927648	17.77153505
16.45651375	13.64172562
6.89938662	13.07805975
15.87827888	11.69007657
12.2925642	13.14204537
11.25529304	13.61266784
17.29014628	15.38959979
17.62336007	17.59532225
17.87246042	0

<i>Islandinium cezare</i> s.l.	<i>Operculodinium centrocarpum</i> sensu Wall & Dale (1966)
3.174603175	59.36507937
15.33742331	28.83435583
18.8449848	26.13981763
28.88198758	7.142857143
36.9047619	9.523809524
25.74257426	7.260726073
22.34042553	7.80141844
25.80645161	6.451612903
42.43697479	12.60504202
25.08833922	11.66077739
18.24104235	14.00651466
24.08026756	11.0367893
16.35220126	34.27672956
13.3126935	35.91331269
16.95402299	27.01149425
20.60606061	33.93939394
15.6779661	29.66101695
12.99019608	23.28431373
14.01869159	35.20249221
15.84699454	33.87978142

<i>Echinidinium karaense</i>	<i>Islandinium cezare</i> s.l.
7.660056674	12.76676112
42.04104146	65.68912728
68.04062823	87.88581146
128.6543127	137.5270239
84.79291689	101.0992471
85.85243884	86.96740558
67.90591591	77.78314005
43.74176592	54.43419759
133.326476	166.2465935
62.92916349	91.18307363
55.34902229	57.39898608
40.31392969	60.47089454
42.55704762	59.80990476
25.63281632	28.26182312
36.57605715	40.71674287
42.45660844	55.52018027
39.25025	55.85612501
43.88865616	48.46039117
33.78596319	40.00969326
42.7144421	58.98661052

TOC (mg/cm ³)	TOC (mg/cm ³) 3pt mean
8.199893	5.743742672
10.98821803	6.563277675
1.329102375	7.521351298
10.24673349	6.683777604
8.47549695	8.381353645
6.4218305	5.480575817
6.381812982	4.427559361
5.3564651	6.483951361
7.713576	4.916795833
7.25146725	5.025144383
6.1436195	6.372129983
5.7213032	4.782377233
4.6770582	3.1103998
4.3193724	3.523189413
4.07826364	3.46050948
3.893862239	2.764250946
2.3421002	2.81396308
4.96993002	3.235030407
4.858488421	4.20628216
5.23112366	0

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IP ₂₅ conc. (µg/cm ³)	IP ₂₅ conc (ug/cm ³) 3pt mean	
0.204398784		0
0.119387018		0.321949611
0.642063031		0.331707408
0.233672174		0.338677965
0.140298691		0.195002706
0.211037253		0.140973888
0.071585721		0.147359226
0.159454703		0.122230869
0.135652183		0.13689621
0.115581744		0.22623104
0.427459194		0.218777573
0.113291779		0.186895189
0.066240791		0.037475068
0.056964927		0.031440033
0.011105353		0.04166081
0.008358863		0.040287984
0.055592939		0.030436978
0.012486869		0.022717776
0.0334218		0.033103365
0.037580966		0

P _B IP ₂₅ norm to OC mean-c no extremes	P _B IP ₂₅ norm to OC, mean-c no extremes 3pt mean	
0.092126692		0
0.771408961		0.565035863
0.831571936		0.685471771
0.453434416		0.546366237
0.354092359		0.540323015
0.813442269		0.505506202
0.348983977		0.665513447
0.834114095		0.651562521
0.771589491		0.727052674
0.575454434		0.498820766
0.149418371		0.470532665
0.686725191		0.359140997
0.686463822		0.516112322
0.303055608		0.38246473
0.223744867		0.370205049
0.121695351		0.368176116
0.399018324		0.27608012
0.157043735		0.283911111
0.289979431		0.448693911

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SST Feb max

SST Feb max 3pt mean

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1	Median Si(Opal) Flux	Median Si(Opal) Flux 3pt mean
2	(mg/cm ² /cal yr)	
3		
4	2.711589544	0
5	2.980043118	2.091198668
6		
7	0.581963342	2.3678787
8	3.541629641	2.333337923
9	2.876420784	2.822013032
10	2.047988672	2.551693225
11	2.73067022	2.304804864
12	2.135755702	2.73304952
13	3.332722638	2.759216473
14	2.809171078	2.818850502
15	2.31465779	2.410714015
16	2.108313178	2.132584206
17	1.97478165	1.637007074
18	0.827926394	1.56936717
19	1.905393466	1.402809188
20	1.475107704	1.577045445
21	1.350635165	1.633520141
22	2.074817554	1.846751975
23	2.114803208	2.111438671
24	2.14469525	0
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32	<i>Spiniferites elongatus/frigidus</i>	Concentration (#dinos/g)	% Autotroph
33	5.714285714	3288.787827	65.07936508
34	3.680981595	2718.354806	32.51533742
35	3.343465046	2453.00721	29.78723404
36	0.621118012	2922.982216	7.763975155
37	0	1925.59253	9.523809524
38	0.660066007	2761.442878	7.920792079
39	1.773049645	2882.879329	9.574468085
40	2.304147465	2297.439504	8.755760369
41	3.361344538	2811.060552	15.96638655
42	1.766784452	2700.248338	13.42756184
43	1.628664495	2837.313727	15.63517915
44	2.006688963	2667.199709	13.04347826
45	3.144654088	3986.404345	39.3081761
46	5.263157895	2232.587701	41.17647059
47	2.873563218	2715.216026	31.6091954
48	7.878787879	3305.219055	42.42424242
49	8.050847458	3964.280787	37.71186441
50	8.578431373	3447.228727	32.10784314
51	7.165109034	2994.427502	45.79439252
52	5.464480874	3589.227402	39.61748634
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	<i>Operculodinium centrocarpum</i>	<i>Spiniferites elongatus/frigidus</i>	Autotroph:Heterotroph
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5	238.738433	22.98017002	2.535714286
6	123.4955593	15.76539055	0.5
7	121.9061256	15.59264397	0.45
8	34.01205968	2.957570407	0.090909091
9	26.09012827	0	0.108108108
10	24.52926824	2.229933476	0.088560886
11	27.16236637	6.173265083	0.114285714
12	13.6085494	4.860196214	0.10106383
13	49.38017628	13.16804701	0.205263158
14	42.38086521	6.421343213	0.167381974
15	44.07422145	5.124909471	0.18972332
16	27.71582666	5.039241212	0.158536585
17	125.3707619	11.50190476	0.695652174
18	76.24119726	11.17327891	0.782122905
19	64.87074287	6.901142859	0.5
20	91.4450028	21.22830422	0.838150289
21	105.67375	28.682875	0.681481481
22	86.86296531	32.00214511	0.529182879
23	100.4687853	20.44939878	0.909638554
24	126.1093053	20.34021052	0.72195122
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32	TOC Flux	TOC Flux 3pt mean	
33	(mg/cm ² /cal yr)		
34	0.98398716	0.689249121	
35	1.318586164	0.787593321	
36	0.159492285	0.902562156	
37	1.229608018	0.802053312	
38	1.017059634	1.005762437	
39	0.77061966	0.657669098	
40	0.765817558	0.531307123	
41	0.642775812	0.778074163	
42	0.92562912	0.5900155	
43	0.87017607	0.603017326	
44	0.73723434	0.764655598	
45	0.686556384	0.573885268	
46	0.561246984	0.373247976	
47	0.518324688	0.42278273	
48	0.489391637	0.415261138	
49	0.467263469	0.331710114	
50	0.281052024	0.33767557	
51	0.596391602	0.388203649	
52	0.58301861	0.504753859	
53	0.627734839	0	
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3	Median IP_{25} Flux			
4	($\mu\text{g}/\text{cm}_2/\text{cal yr}$)	IP_{25} Flux 3pt mean	Brassicasterol conc. ($\mu\text{g}/\text{g}$)	
5				
6	0.024527854		0	6.95780582
7	0.014326442	0.038633953		0.09484323
8	0.077047564	0.039804889		0.28892013
9	0.028040661	0.040641356		0.73031406
10	0.016835843	0.023400325		0.75982927
11	0.02532447	0.016916867		0.16710399
12	0.008590287	0.017683107		0.46704065
13	0.019134564	0.014667704		0.14589203
14	0.016278262	0.016427545		0.12171051
15	0.013869809	0.027147725		0.26759233
16	0.051295103	0.026253309		9.26763902
17	0.013595014	0.022427423		0.23185742
18	0.007948895	0.004497008		0.13928028
19	0.006835791	0.003772804		0.58192537
20	0.001332642	0.004999297		0.18399142
21	0.001003064	0.004834558		0.31258809
22	0.006671153	0.003652437		0.39353286
23	0.001498424	0.002726133		0.2616053
24	0.004010616	0.003972404		0.36265969
25	0.004509716		0	0.07575177
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33	Flux-based P_BIP_{25}	Flux-based P_BIP_{25} , mean-c	Flux-based P_BIP_{25}	
34	mean-c	3pt mean	median-c	
35				
36	0.174477551		0	0.08623649
37	0.875447063	0.653766224		0.107747775
38	0.91137406	0.806746975		0.295412798
39	0.633419803	0.692633535		0.596517732
40	0.533106742	0.689112087		0.62448436
41	0.900809715	0.653813826		0.136936586
42	0.527525021	0.780390905		0.467774845
43	0.91283798	0.771973895		0.092563917
44	0.875558683	0.842277877		0.120528429
45	0.738436969	0.627288937		0.268505965
46	0.267871157	0.6088788		0.972081373
47	0.820328275	0.495547378		0.16184281
48	0.82014918	0.663890847		0.101585015
49	0.475252847	0.541155745		0.494201503
50	0.375133731	0.531798819		0.274494263
51	0.223957156	0.51643514		0.511938946
52	0.580338385	0.428269465		0.329011636
53	0.279554804	0.442752225		0.477826039
54	0.459646908	0.611947637		0.388353739
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	0.808006987	0	0.066243365
SSS Feb	SSS Feb 3pt mean	SSS Feb min	
	33.14351978	0	32.49
	30.97690571	32.19266089	24.59
	32.45755718	32.18463405	31.04
	33.11943925	32.90585972	32.63
	33.14058274	33.12669207	32.63
	33.12005422	33.017177	32.63
	32.79089404	32.82289391	32.35
	32.55773348	32.16195506	31.04
	31.13723766	31.65711428	24.59
	31.27637169	31.68375935	24.59
	32.6376687	31.69965729	31.04
	31.18493148	31.63067149	24.59
	31.0694143	31.51882943	24.59
	32.30214251	31.94014817	31.04
	32.44888769	32.34420731	31.04
	32.28159175	31.90518829	31.04
	30.98508545	31.90952477	24.84
	32.46189712	31.94124443	31.04
	32.37675074	32.45017516	31.04
	32.51187762	0	31.04

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For Peer Review

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13.42756184
15.63517915
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41.17647059
31.6091954
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Brassicasterol conc. ($\mu\text{g/g}$) 3pt mean	Brassicasterol conc. ($\mu\text{g/g}$ OC)
0	881.0742053
2.447189727	14.87943596
0.37135914	78.39389285
0.593021153	131.3503757
0.552415773	126.0058178
0.46465797	27.0459625
0.260012223	74.12816488
0.244881063	15.9437212
0.17839829	21.28070946
3.21898062	46.42613101
3.255696257	1288.477169
3.3555705	24.94724791
0.283118947	17.40946577
0.302926097	84.59322383
0.38916909	24.51046374
0.369237143	37.0459423
0.41107108	51.76965212
0.384538117	42.8090894
0.267776073	47.08943688
0	10.81549557
Flux-based $P_{\text{B}}IP_{25}$, median-c 3pt mean	Flux-based $P_{\text{B}}IP_{25}$ mean-c no extremes
0	0.087194033
0.163132354	0.760575418
0.333226102	0.82293521
0.50547163	0.438500243
0.452646226	0.340392399
0.40973193	0.804094895
0.232425116	0.335379037
0.22695573	0.825580385
0.16053277	0.760761851
0.453705256	0.560623628
0.467476716	0.141897637
0.49959543	0.673576532
0.175822656	0.673309412
0.276572204	0.290442355
0.305298382	0.213421719
0.329383321	0.115380727
0.384320556	0.3846152
0.334008585	0.149206518
0.222261912	0.277693565

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SSS Feb min 3pt mean

SSS Feb max

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29.37333333 33.17
29.42 33.17
32.1 34.26
32.63 34.26
32.53666667 34.26
32.00666667 33.17
29.32666667 33.17
26.74 33.17
26.74 33.17
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26.74 33.17
26.74 33.17
28.89 33.17
31.04 33.17
28.97333333 33.17
28.97333333 33.17
28.97333333 33.17
31.04 33.17
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Brassicasterol conc. (ug/g OC) 3pt mean	Brassicasterol conc. ($\mu\text{g}/\text{cm}^3$)
0	7.09000413
324.7825114	0.124526
74.87456816	0.45774194
111.9166954	0.991432636
94.80071865	0.900815591
75.72664838	0.170362518
39.03928286	0.470046693
37.11753185	0.111621992
27.88352056	0.141346472
452.0613365	0.300144937
453.283516	8.565151982
449.334371	0.181915332
20.78364252	0.106493702
39.82215117	0.461117663
44.90022391	0.135616396
38.1375262	0.212347341
43.08560148	0.29472463
36.73375347	0.235920892
28.28529781	0.288046085
0	0.065466195
Flux-based $P_{\text{BIP}_{25}}$, mean-c, no extremes	
3pt mean	
0	
0.556901554	
0.674003624	
0.533942617	
0.527662513	
0.493288777	
0.655018106	
0.640573758	
0.715655288	
0.487761039	
0.458699266	
0.348620516	
0.503319213	
0.370041641	
0.357640427	
0.356351045	
0.264933996	
0.272311586	
0.43534485	

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SSS Feb max 3pt mean

SST Winter

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-1.396972071

33.47333333

-1.153479781

33.53333333

-1.267432322

33.89666667

-1.153289718

34.26

-1.17111116

33.89666667

-1.157719784

33.53333333

-1.249865459

33.17

-1.367026965

33.17

-1.242871308

33.17

-1.281886305

33.17

-0.967274888

33.17

-1.201323051

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-1.198227276

33.17

-1.255593947

33.17

-1.247497177

33.17

-1.268519475

33.17

-1.236972493

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-1.298409772

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-1.234296556

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		Median Brassicasterol Flux	
Brassicasterol conc. ($\mu\text{g}/\text{cm}^3$) 3pt mean)	($\mu\text{g}/\text{cm}^2/\text{cal yr}$)	Brassicasterol flux 3pt mean	
0	0.850800496	0	0
2.557424023	0.01494312	0.306890883	
0.524566859	0.054929033	0.062948023	
0.783330056	0.118971916	0.093999607	
0.687536915	0.108097871	0.08250443	
0.513741601	0.020443502	0.061648992	
0.250677068	0.056405603	0.030081248	
0.241005053	0.013394639	0.028920606	
0.184371134	0.016961577	0.022124536	
3.002214464	0.036017392	0.360265736	
3.015737417	1.027818238	0.36188849	
2.989237991	0.02182984	0.358708559	
0.127875933	0.012779244	0.015345112	
0.217740499	0.05533412	0.02612886	
0.246513211	0.016273968	0.029581585	
0.216625848	0.025481681	0.025995102	
0.241305913	0.035366956	0.02895671	
0.203494561	0.028310507	0.024419347	
0.170409768	0.03456553	0.020449172	
0	0.007855943	0	0

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SST Winter 3pt mean	SST Winter min	SST Winter min 3pt mean	
	0	-1.88	0
	-1.272628058	-2	-1.96
	-1.191400607	-2	-1.94
	-1.19727788	-1.82	-1.88
	-1.160707034	-1.82	-1.82
	-1.192898948	-1.82	-1.82
	-1.258204069	-1.82	-1.88
	-1.28658791	-2	-1.94
	-1.297261526	-2	-2
	-1.164010833	-2	-2
	-1.150161415	-2	-2
	-1.122275072	-2	-2
	-1.218381425	-2	-2
	-1.2337728	-2	-2
	-1.257203533	-2	-2
	-1.250996382	-2	-2
	-1.267967247	-2	-2
	-1.256559607	-2	-2
	-1.167770684	-2	-2
	0	-2	0

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For Peer Review

	SST Winter max	SST Winter max 3pt mean	SSS Winter	SSS Winter 3pt mean	SSS Winter min
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8	-1.04	0	33.361185	0	32.49
9	0.09	-0.286666667	30.618406	32.24814841	22.93
10	0.09	0.09	32.764854	32.41008462	30.64
11	0.09	0.09	33.846993	33.49341708	33.02
12	0.09	0.09	33.868404	33.86026358	33.02
13	0.09	0.09	33.865394	33.79547048	33.02
14	0.09	0.09	33.652614	33.5829405	32.2
15	0.09	0.09	33.230814	32.68762407	30.64
16	0.09	0.09	31.179444	31.92376144	22.93
17	0.09	0.09	31.361026	31.83734702	22.93
18	0.09	0.09	32.97157	31.85044187	30.64
19	0.09	0.09	31.218729	31.64109136	22.93
20	0.09	0.09	30.732975	31.39352055	22.93
21	0.09	0.09	32.228858	31.8977322	30.64
22	0.09	0.09	32.731364	32.38820526	30.64
23	0.09	0.09	32.204394	31.891829	30.64
24	0.09	0.09	30.739729	31.92477943	23.84
25	0.09	0.09	32.830215	31.9718662	30.64
26	0.09	0.09	32.345654	32.54216034	30.64
27	0.09	0	32.450612	0	30.64
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For Peer Review

	SSSWinter min 3pt mean	SSS Winter max	SSS Winter max 3pt mean	SST Aug	SST Aug 3pt mean
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7					
8	0	34.46	0	3.009081975	0
9	28.68666667	33.46	34.18333333	6.029219151	4.812403499
10	28.86333333	34.63	34.24	5.398909372	5.311964991
11	32.22666667	34.63	34.63	4.507766449	4.773337649
12	33.02	34.63	34.63	4.413337125	4.477573571
13	32.74666667	34.63	34.63	4.511617138	4.667072986
14	31.95333333	34.63	34.63	5.076264694	4.560194874
15	28.59	34.63	34.63	4.092702789	4.676817428
16	25.5	34.63	34.63	4.8614848	4.526564201
17	25.5	34.63	34.63	4.625505012	5.291128467
18	25.5	34.63	34.63	6.386395589	5.339856504
19	25.5	34.63	34.24	5.007668911	5.734015207
20	25.5	33.46	33.85	5.807981122	5.833770362
21	28.07	33.46	33.85	6.685661052	5.984658776
22	30.64	34.63	33.85	5.460334153	6.222441447
23	28.37333333	33.46	33.85	6.521329135	5.801240627
24	28.37333333	33.46	33.85	5.422058593	5.769436368
25	28.37333333	34.63	33.85	5.364921375	5.742299614
26	30.64	33.46	33.85	6.439918875	6.383445188
27	0	33.46	0	7.345495315	0
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For Peer Review

	SST Aug min	SST Aug min 3pt mean	SST Aug max	SST Aug max 3pt mean	SSS Aug
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8	0.85	0	3.8	0	32.70179015
9	1.67	1.396666667	10.72	8.413333333	27.41324945
10	1.67	1.67	10.72	10.72	31.12299841
11	1.67	1.67	10.72	10.72	31.68689171
12	1.67	1.67	10.72	10.72	31.69802221
13	1.67	1.67	10.72	10.72	31.70348614
14	1.67	1.67	10.72	10.72	31.4707112
15	1.67	1.67	10.72	10.72	31.03321831
16	1.67	1.67	10.72	10.72	27.59749513
17	1.67	1.67	10.72	10.72	27.87225145
18	1.67	1.67	10.72	11.17333333	31.44343649
19	1.67	1.67	12.08	11.17333333	27.68337747
20	1.67	1.67	10.72	11.17333333	27.65668318
21	1.67	1.67	10.72	10.72	31.1965487
22	1.67	1.67	10.72	10.72	31.12235519
23	1.67	1.67	10.72	10.72	31.14428135
24	1.67	1.67	10.72	10.72	26.66262768
25	1.67	1.67	10.72	10.72	31.13789897
26	1.67	1.67	10.72	10.72	31.12592168
27	1.67	1.67	10.72	11.17333333	31.12592168
28	1.67	1.67	10.72	11.17333333	31.12592168
29	1.67	1.67	10.72	11.17333333	31.12592168
30	1.67	1.67	10.72	11.17333333	31.12592168
31	1.67	1.67	10.72	11.17333333	31.12592168
32	1.67	0	12.08	0	31.39512944
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For Peer Review

	SSS Aug 3pt mean	SSS Aug min	SS Aug min 3pt mean	SSS Aug max	SSS Aug max 3pt mean	SST Summer
8	0	31.79	0	33.71	0	2.432785922
9	30.41267934	11.07	24.09666667	32.73	33.05666667	4.525367765
10	30.07437986	29.43	23.70333333	32.73	32.73	4.198924646
11	31.50263744	30.61	30.21666667	32.73	32.73	3.780555919
12	31.69613335	30.61	30.61	32.73	32.73	3.697612161
13	31.62407318	30.61	30.61	32.73	32.73	3.775983883
14	31.40247189	30.61	30.21666667	32.73	32.73	4.271774307
15	30.03380821	29.43	23.70333333	32.73	32.73	3.078349196
16	28.83432163	11.07	17.19	32.73	32.73	3.495211614
17	28.97106102	11.07	17.19	32.73	32.73	3.323035821
18	28.99968847	29.43	17.19	32.73	32.73	5.142791608
19	28.92783238	11.07	17.19	32.73	32.73	3.652083536
20	28.84553645	11.07	17.19	32.73	32.73	4.318047771
21	29.99186236	29.43	23.31	32.73	32.73	5.351887775
22	31.15439508	29.43	29.43	32.73	32.73	4.221933948
23	29.64308808	29.43	21.98	32.73	32.73	5.166901546
24	29.64826934	7.08	21.98	32.73	32.73	4.351771539
25	29.64214945	29.43	21.98	32.73	32.73	4.198490281
26	31.21965003	29.43	29.43	32.73	32.73	5.101796772
27	0	29.43	0	32.73	0	5.986745888

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For Peer Review

	SST Summer 3pt mean	SST Summer min	SST Summer min 3pt mean	SST Summer max
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8	0	0.51	0	3.23
9	3.719026111	0.62	0.5833333333	8.97
10	4.168282777	0.62	0.8966666667	8.97
11	3.892364242	1.45	1.1733333333	8.97
12	3.751383988	1.45	1.45	8.97
13	3.91512345	1.45	1.5433333333	8.97
14	3.708702462	1.73	1.2666666667	8.97
15	3.615111706	0.62	0.99	8.97
16	3.298865544	0.62	0.62	8.97
17	3.987013014	0.62	0.62	8.97
18	4.039303655	0.62	0.62	10.7
19	4.370974305	0.62	0.62	8.97
20	4.440673028	0.62	0.62	8.97
21	4.630623165	0.62	0.62	8.97
22	4.913574423	0.62	0.62	8.97
23	4.580202345	0.62	0.62	8.97
24	4.572387789	0.62	0.62	8.97
25	4.550686197	0.62	0.62	8.97
26	5.095677647	0.62	0.62	8.97
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32	0	0.62	0	10.7
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For Peer Review

	SST Summer max 3pt mean	SSS Summer	SSS Summer 3pt mean	SSS Summer min
8		0 32.35000831	0	30.82
9	7.056666667	27.65691708	30.32351561	13.24
10	8.97	30.96362144	30.10316283	28.56
11	8.97	31.68894998	31.45037388	30.56
12	8.97	31.69855023	31.69802183	30.56
13	8.97	31.70656528	31.63645758	30.56
14	8.97	31.50425723	31.36496536	30.56
15	8.97	30.88407357	30.06717384	28.56
16	8.97	27.81319072	28.91536082	13.24
17	9.546666667	28.04881818	29.06450496	13.24
18	9.546666667	31.33150597	29.09603881	28.56
19	9.546666667	27.90779229	29.02723086	13.24
20	8.97	27.84239433	28.9348505	13.24
21	8.97	31.05436488	29.94946799	28.56
22	8.97	30.95164477	30.99535158	28.56
23	8.97	30.9800451	29.44060986	28.56
24	8.97	26.3901397	29.4559196	6.67
25	8.97	30.99757399	29.44643889	28.56
26	9.546666667	30.95160297	31.07122263	28.56
27	0	31.26449094	0	28.56

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For Peer Review

	SSS Summer min 3pt mean	SSS Summer max	SSS Summer max 3pt mean	Ice Duration
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8	0	33.44	0	8.503819039
9	24.20666667	32.75	32.98	6.475286803
10	24.12	32.75	32.75	6.537397302
11	29.89333333	32.75	32.75	6.165901559
12	30.56	32.75	32.75	6.217759788
13	30.56	32.75	32.75	6.161874755
14	29.89333333	32.75	32.75	6.151830824
15	24.12	32.75	32.75	7.355254619
16	18.34666667	32.75	32.75	7.209766877
17	18.34666667	32.75	32.75	7.359868085
18	18.34666667	32.75	32.75	5.607573338
19	18.34666667	32.75	32.75	7.034806806
20	18.34666667	32.75	32.75	6.678886335
21	23.45333333	32.75	32.75	5.746023137
22	28.56	32.75	32.75	6.519673451
23	21.26333333	32.75	32.75	5.916422379
24	21.26333333	32.75	32.75	6.828717159
25	21.26333333	32.75	32.75	6.545856712
26	28.56	32.75	32.75	5.990827909
27	0	32.75	0	5.147401325
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For Peer Review

	Ice Duration 3pt mean	Ice Duration min	Ice Duration min 3pt mean	Ice Duration max
8	0	8.12	0	9.1
9	7.172167715	1.42	3.653333333	10.88
10	6.392861888	1.42	1.42	10.88
11	6.30701955	1.42	1.42	8.34
12	6.181845367	1.42	1.42	8.34
13	6.177155122	1.42	1.42	8.34
14	6.556320066	1.42	1.42	8.34
15	6.90561744	1.42	1.42	10.88
16	7.308296527	1.42	1.42	10.88
17	6.7257361	1.42	1.42	10.88
18	6.667416077	1.42	1.42	10.88
19	6.44042216	1.42	1.42	10.88
20	6.486572093	1.42	1.42	10.88
21	6.314860975	1.42	1.42	10.88
22	6.060706323	1.42	1.42	10.88
23	6.42160433	1.42	1.42	10.88
24	6.430332083	1.42	1.42	10.88
25	6.455133927	1.42	1.42	10.88
26	5.894695315	1.42	1.42	10.88
27	0	1.42	0	10.88

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For Peer Review

	Ice Duration max 3pt mean	Ice Cover	Ice Cover 3pt mean	Ice Cover min	Ice Cover min 3pt mean
8	0	6.752705696	0	6.41	0
9	10.28666667	5.10222424	5.653905364	0.94	2.763333333
10	10.03333333	5.106786155	5.003681799	0.94	0.94
11	9.186666667	4.802035002	4.916956758	0.94	0.94
12	8.34	4.842049118	4.813071928	0.94	0.94
13	8.34	4.795131665	4.80728676	0.94	0.94
14	9.186666667	4.784679496	5.117196913	0.94	0.94
15	10.03333333	5.771779578	5.415281559	0.94	0.94
16	10.88	5.689385602	5.758152896	0.94	0.94
17	10.88	5.813293508	5.285540102	0.94	0.94
18	10.88	4.353941194	5.238758752	0.94	0.94
19	10.88	5.549041554	5.056370589	0.94	0.94
20	10.88	5.266129019	5.098314569	0.94	0.94
21	10.88	4.479773133	4.946225081	0.94	0.94
22	10.88	5.092773089	4.730249225	0.94	0.94
23	10.88	4.618201451	5.0289928	0.94	0.94
24	10.88	5.376003858	5.034516398	0.94	0.94
25	10.88	5.109343885	5.045750179	0.94	0.94
26	10.88	4.651902793	4.582764639	0.94	0.94
27	0	3.987047239	0	0.94	0

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For Peer Review

	Ice Cover max	Ice Cover max 3pt mean	Productivity	Productivity 3pt mean	Productivity min	
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8	7.23		0	76.22731435	0	50.05
9	8.59	8.136666667	153.650026	124.589226	74.28	
10	8.59	7.96	143.8903378	150.2830649	74.28	
11	6.7	7.33	153.3088308	149.7430374	105.88	
12	6.7	6.7	152.0299437	152.9434086	105.88	
13	6.7	6.7	153.4914512	152.5109345	105.88	
14	6.7	7.33	152.0114086	146.7951351	105.88	
15	8.59	7.96	134.8825456	144.321721	74.28	
16	8.59	8.59	146.0712088	141.0063866	74.28	
17	8.59	8.59	142.0654055	148.5602433	74.28	
18	8.59	8.59	157.5441156	149.5721876	74.28	
19	8.59	8.59	149.1070418	151.9314932	74.28	
20	8.59	8.59	149.1433222	150.420824	74.28	
21	8.59	8.59	153.012108	148.9786699	74.28	
22	8.59	8.59	144.7805794	149.5023443	74.28	
23	8.59	8.59	150.7143454	147.3081494	74.28	
24	8.59	8.59	146.4295234	146.7561079	74.28	
25	8.59	8.59	143.124455	146.0620402	74.28	
26	8.59	8.59	148.6321422	149.5643349	74.28	
27	8.59	0	156.9364077	0	74.28	
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Prod min 3pt mean	Productivity max	Prod max 3pt mean
0	94.11	0
66.20333333	247.44	196.33
84.81333333	247.44	247.44
95.34666667	247.44	247.44
105.88	247.44	247.44
105.88	247.44	247.44
95.34666667	247.44	247.44
84.81333333	247.44	247.44
74.28	247.44	247.44
74.28	247.44	247.44
74.28	247.44	247.44
74.28	247.44	247.44
74.28	247.44	247.44
74.28	247.44	247.44
74.28	247.44	247.44
74.28	247.44	247.44
74.28	247.44	247.44
74.28	247.44	247.44
74.28	247.44	247.44
0	247.44	0

			%
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3			Brigantedinium spp.
4			C27:C46
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6		%Si(opal)	C3:C22 -0.3175762495
7		%Si(opal) 3pt mean	D4:D21 -0.2229002463
8		Conc. Si(opal) (mg/g)	E3:E22 -0.3175762495
9		Conc. Si(opal) (mg/g) 3pt mean	F4:F21 -0.2229002463
10		Conc. Si(opal) (mg/cm ³)	G3:G22 0.2578193385
11		Conc. Si(opal) (mg/cm ³) 3pt mean	H4:H21 0.4107900734
12	Median Si(Opal) Flux	(mg/cm ² /cal yr)	I3:I22 0.2578193385
13		Median Si(Opal) Flux 3pt mean	J4:J21 0.4107900734
14		% Brigantedinium spp.	C27:C46
15		% Islandinium minutum	D27:D46
16		% Islandinium? cezare	E27:E46
17		% Echinidinium karaense	F27:F46
18		% Islandinium cezare s.l.	G27:G46
19		% Operculodinium centrocarpum sensu Wall	H27:H46
20		% Spiniferites elongatus/frigidus	I27:I46
21		Concentration (#dinos/g)	J27:J46
22		% Autotroph	K47:K46
23	Total Dinocysts Flux		C52:C71
24	Flux Brigantedinium spp.		D52:D71
25	Flux Islandinium minutum		E52:E71
26	Flux Islandinium? cezare		F52:F71
27	Flux Echinidinium karaense		G52:G71
28	Flux Islandinium cezare s.l.		H52:H71
29	Flux Operculodinium centrocarpum sensu Wall		I52:I71
30	Flux Spiniferites elongatus/frigidus		J52:J71
31	Autotroph:Heterotroph		K52:K71
32	TOC (%) by wt		C76:C95
33	TOC (%) 3pt mean		D77:D94
34	TOC (mg/g)		E76:E95
35	TOC (mg/g) 3pt mean		F77:F94
36	TOC (mg/cm ³)		G76:G95
37	TOC (mg/cm ³) 3pt mean		H77:H94
38	TOC Flux (mg/cm ² /cal yr)		I76:I95
39	TOC Flux 3pt mean		J77:J94
40	IP25 conc. (µg/g)		C100:C119
41	IP25 conc. (ug/g) 3pt mean		D101:D118
42	IP25 conc. (µg/g OC)		E100:E119
43	IP25 conc. (ug/g OC) 3pt mean		F101:F118
44	IP25 conc. (µg/cm ³)		G100:G119
45	IP25 conc (ug/cm ³) 3pt mean		H101:H118
46	Median IP25 Flux	(µg/cm ² /cal yr)	I100:I119
47		IP25 Flux 3pt mean	J101:J118
48		Brassicasterol conc. (µg/g)	K100:K119
49		Brassicasterol conc. (ug/g) 3pt mean	L101:L118
50		Brassicasterol conc. (µg/g OC)	M100:M119
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2		Brassicasterol conc. (ug/g OC) 3pt mean	N101:N118
3		Brassicasterol conc. (µg/cm ³)	O100:O119
4		Brassicasterol conc. (ug/cm ³) 3pt mean)	P101:P118
5	Median Brassicasterol Flux	(µg/cm ² /cal yr)	Q100:Q119
6		Brassicasterol flux 3pt mean	R101:R118
7			
8		PIP25 norm to OC mean-c	C125:C144
9		PIP25 norm to OC mean-c 3pt mean	D126:D143
10		PIP25 norm to OC median-c	E125:E144
11		PIP25 norm to OC median-c 3pt mean	F126:F143
12		PIP25 norm to OC mean-c no extremes	G125:G144
13		PIP25 norm to OC mean-c no ext 3pt mean	H126:H143
14		Flux-based PIP25 mean-c	I125:I144
15		Flux-based PIP25 mean-c 3pt mean	J126:J143
16		Flux-based PIP25 median-c	K125:K144
17		Flux-based PIP25 median-c 3pt mean	L126:L143
18		Flux-based PIP25 mean-c no extremes	M125:M144
19		Flux-based PIP25 mean-c no ext 3pt moving mean	N126:N143
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	%	%	%	%	%	%
	Islandinium minutum D27:D46	Islandinium? cezare E27:E46	Echinidinium ka F27:F46	Islandinium cez G27:G46	Operculodinium α H27:H46	Spiniferites elonga I27:I46
5	0.2882839841	0.3401302038	0.0085330455	0.1047577960	-0.0386631369	0.0868802115
6	0.4217290270	0.3630325820	0.0356370849	0.1469685484	-0.1873650771	0.3509468536
8	0.2882839841	0.3401302038	0.0085330455	0.1047577960	-0.0386631369	0.0868802115
9	0.4217290270	0.3630325820	0.0356370849	0.1469685484	-0.1873650771	0.3509468536
10	0.0093754612	0.2153823583	0.4351662560	0.4444670067	-0.3551601710	-0.4369192368
11	0.1862388792	0.3455742133	0.6973635325	0.7245217447	-0.7889596026	-0.6298303077
12	0.0093754612	0.2153823583	0.4351662560	0.4444670067	-0.3551601710	-0.4369192368
14	0.1862388792	0.3455742133	0.6973635325	0.7245217447	-0.7889596026	-0.6298303077



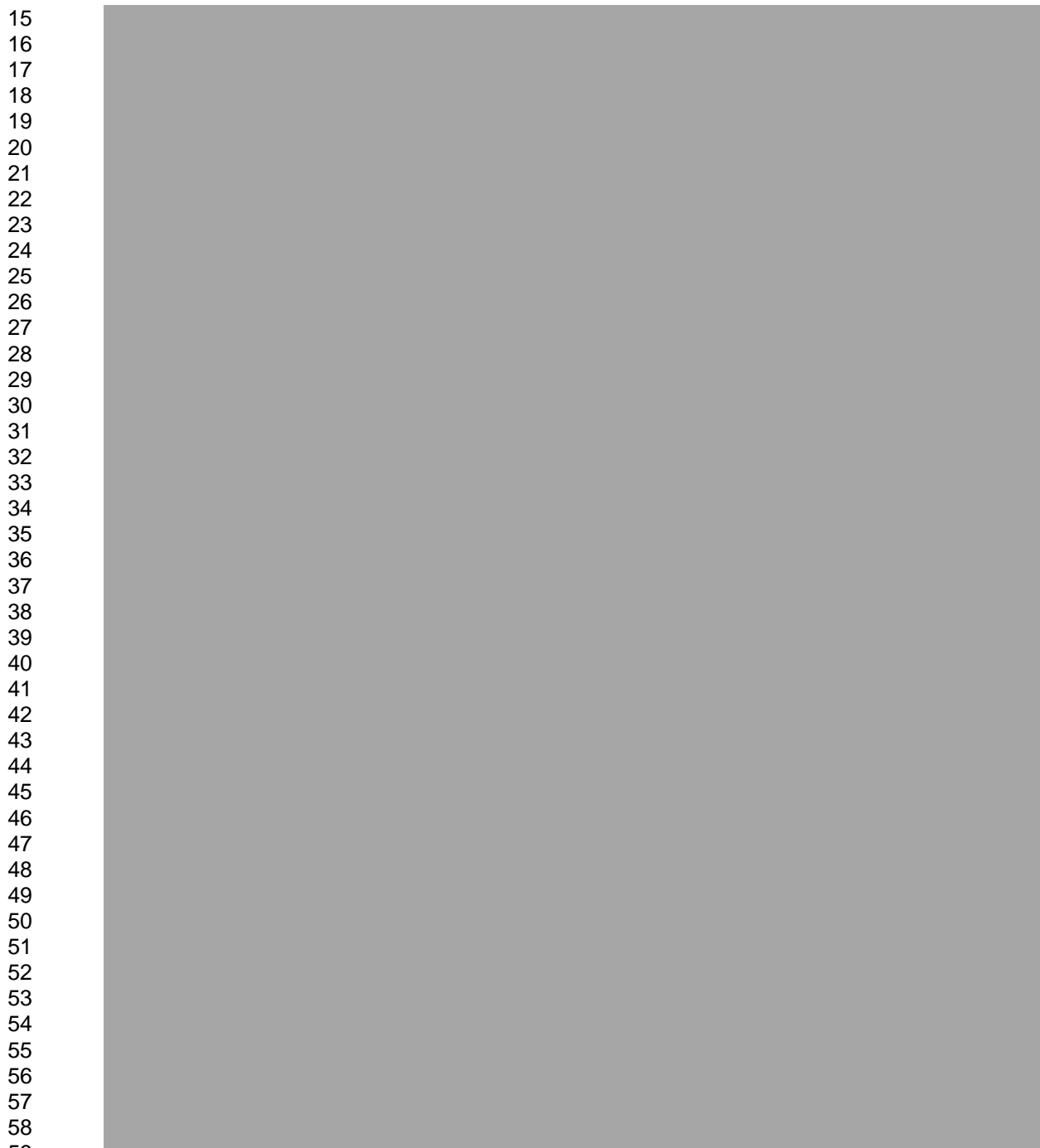
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	Concentration (% Autotroph)		Total	Flux	Flux
	J27:J46	K47:K46	Dinocysts Flux	Brigantidium spp.	Islandinium minutum
			C52:C71	D52:D71	E52:E71
5	0.2986988492	-0.0158999135	-0.3175762495	0.2882839841	0.3401302038
6	0.2294895114	-0.1038130775	-0.2229002463	0.4217290270	0.3630325820
7	0.2986988492	-0.0158999135	-0.3175762495	0.2882839841	0.3401302038
8	0.2294895114	-0.1038130775	-0.2229002463	0.4217290270	0.3630325820
9	-0.0758458305	-0.3858458146	0.2578193385	0.0093754612	0.2153823583
10	-0.5370061741	-0.7870750658	0.4107900734	0.1862388792	0.3455742133
11	-0.0758458305	-0.3858458146	0.2578193385	0.0093754612	0.2153823583
12	-0.5370061741	-0.7870750658	0.4107900734	0.1862388792	0.3455742133

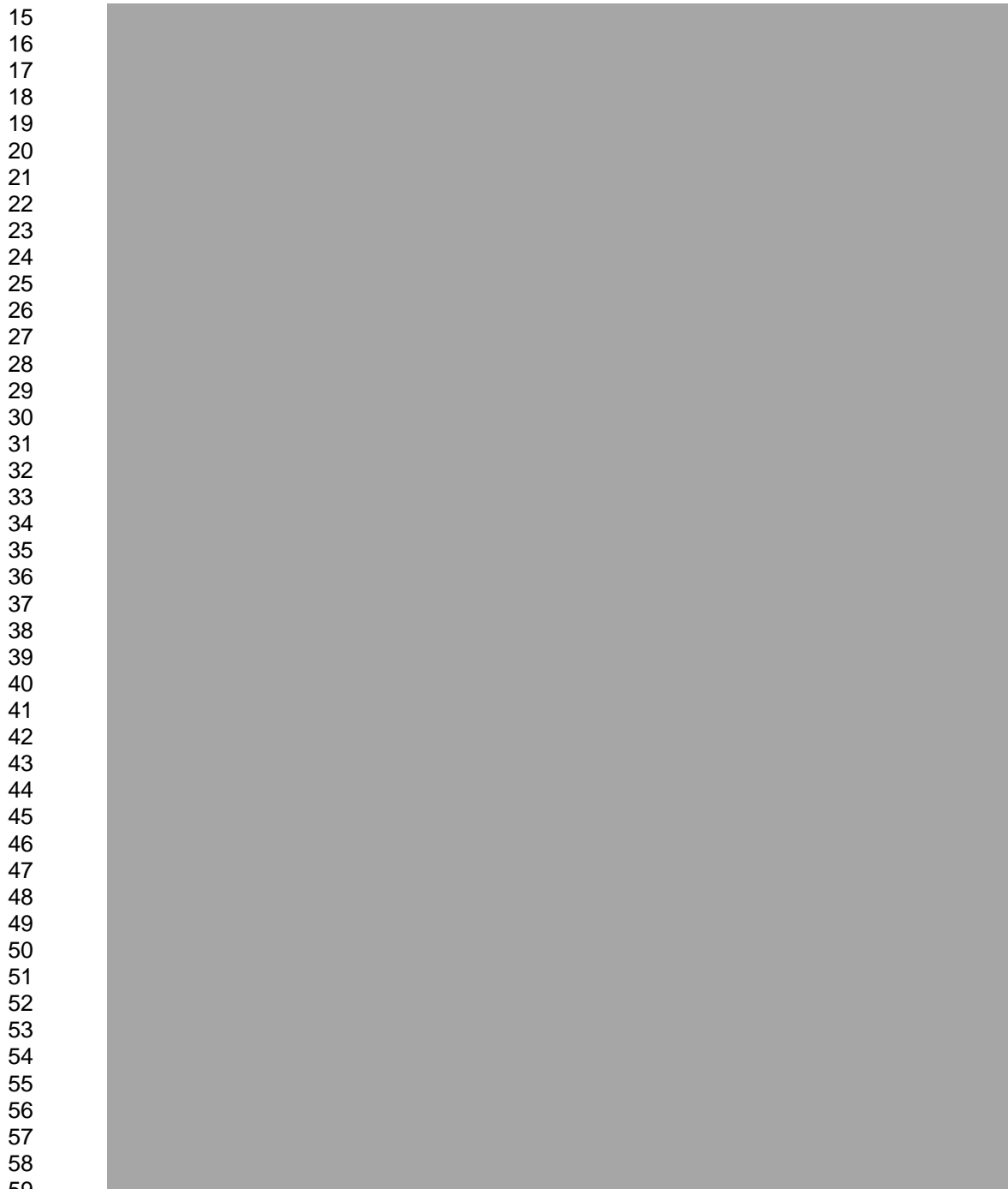


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Peer Review

Flux	Flux	Flux	Flux	Flux
Islandinium? cezare	Echinidinium ka	Islandinium ceza	Operculodinium	Spiniferites elonga
F52:F71	G52:G71	H52:H71	I52:I71	J52:J71
0.0085330455	0.1047577960	-0.0386631369	0.0868802115	0.2986988492
0.0356370849	0.1469685484	-0.1873650771	0.3509468536	0.2294895114
0.0085330455	0.1047577960	-0.0386631369	0.0868802115	0.2986988492
0.0356370849	0.1469685484	-0.1873650771	0.3509468536	0.2294895114
0.4351662560	0.4444670067	-0.3551601710	-0.4369192368	-0.0758458305
0.6973635325	0.7245217447	-0.7889596026	-0.6298303077	-0.5370061741
0.4351662560	0.4444670067	-0.3551601710	-0.4369192368	-0.0758458305
0.6973635325	0.7245217447	-0.7889596026	-0.6298303077	-0.5370061741



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Autotroph:Heterotroph K52:K71	TOC (%) by wt C76:C95	TOC (%) 3pt mean D77:D94	TOC (mg/g) E76:E95	TOC (mg/g) 3pt mean F77:F94
-0.0158999135	0.0735868379	0.0299863164	0.0735868379	0.0299863164
-0.1038130775	0.0685230922	-0.0030312317	0.0685230922	-0.0030312317
-0.0158999135	0.0735868379	0.0299863164	0.0735868379	0.0299863164
-0.1038130775	0.0685230922	-0.0030312317	0.0685230922	-0.0030312317
-0.3858458146	0.6862943567	0.4110688836	0.6862943567	0.4110688836
-0.7870750658	0.5256647429	0.7918107998	0.5256647429	0.7918107998
-0.3858458146	0.6862943567	0.4110688836	0.6862943567	0.4110688836
-0.7870750658	0.5256647429	0.7918107998	0.5256647429	0.7918107998
	0.2823744935	0.5663095301	0.2823744935	0.5663095301
	-0.2174962901	-0.1497380866	-0.2174962901	-0.1497380866
	0.2229903881	0.3080797872	0.2229903881	0.3080797872
	0.0820239647	0.5094717301	0.0820239647	0.5094717301
	0.1359268649	0.5470165020	0.1359268649	0.5470165020
	-0.0897008234	-0.6476072112	-0.0897008234	-0.6476072112
	-0.4253039856	-0.7249009758	-0.4253039856	-0.7249009758
	-0.2431248060	-0.5086498633	-0.2431248060	-0.5086498633
	-0.1637532577	-0.6913651893	-0.1637532577	-0.6913651893
	0.3021477878	0.4052461223	0.3021477878	0.4052461223
	0.3545330540	0.5817000546	0.3545330540	0.5817000546
	-0.1968303239	-0.0681237431	-0.1968303239	-0.0681237431
	0.2299864560	0.3586905041	0.2299864560	0.3586905041
	0.1503674720	0.5480034260	0.1503674720	0.5480034260
	0.1911532846	0.5806555803	0.1911532846	0.5806555803
	0.1015332958	-0.3592347245	0.1015332958	-0.3592347245
	-0.2958523144	-0.5731848822	-0.2958523144	-0.5731848822
	0.1166352353	-0.7151739678	0.1166352353	-0.7151739678

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Peer Review

	TOC Flux				
	TOC (mg/cm3) G76:G95	TOC (mg/cm3) 3pt mean H77:H94	(mg/cm2/cal yr) I76:I95	TOC Flux 3pt mean J77:J94	IP25 conc. (µg/g) C100:C119
1					
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5	-0.1654105811	-0.0805439587	-0.1654105811	-0.0805439587	0.0401176834
6	-0.0147418490	-0.1388396679	#N/A	-0.1388396679	0.0099249011
7					
8	-0.1654105811	-0.0805439587	-0.1654105811	-0.0805439587	0.0401176834
9	-0.0147418490	-0.1388396679	-0.0147418490	-0.1388396679	0.0099249011
10	0.8887872250	0.3461806944	0.8887872250	0.3461806944	-0.0866196549
11	0.4789780437	0.7526466723	0.4789780437	0.7526466723	0.4662845387
12	0.8887872250	0.3461806944	0.8887872250	0.3461806944	-0.0866196549
13	0.4789780437	0.7526466723	0.4789780437	0.7526466723	0.4662845387
14	0.3867323632	0.4948306054	0.3867323632	0.4948306054	0.3824780255
15	-0.1804051298	-0.1445073114	-0.1804051298	-0.1445073114	-0.0371093163
16	0.1080250278	0.1335414612	0.1080250278	0.1335414612	-0.1609509415
17	0.3102127766	0.5025548333	0.3102127766	0.5025548333	0.1303066241
18	0.3038299883	0.4853600328	0.3038299883	0.4853600328	0.0686324158
19	-0.2376731689	-0.5639181269	-0.2376731689	-0.5639181269	-0.2188115390
20	-0.4602930384	-0.6857486050	-0.4602930384	-0.6857486050	-0.4417286663
21	-0.2499145284	-0.6873876818	-0.2499145284	-0.6873876818	-0.3056453048
22	-0.2955096800	-0.6139984719	-0.2955096800	-0.6139984719	-0.2771147988
23	0.3041061486	0.2764932734	0.3041061486	0.2764932734	0.2458891691
24	0.4393907663	0.4867425313	0.4393907663	0.4867425313	0.3759117295
25	-0.0494002539	-0.1432670078	-0.0494002539	-0.1432670078	-0.0269190493
26	0.1663901671	0.1707157006	0.1663901671	0.1707157006	-0.0921398744
27	0.3891981952	0.4700439456	0.3891981952	0.4700439456	0.1901688374
28	0.3863292581	0.4614759030	0.3863292581	0.4614759030	0.1449159830
29	-0.1052261568	-0.3470036237	-0.1052261568	-0.3470036237	-0.0574596573
30	-0.3620118464	-0.5667415890	-0.3620118464	-0.5667415890	-0.3343940191
31	-0.0664137670	-0.6371205915	-0.0664137670	-0.6371205915	-0.1205274515
32					0.2561561223
33					0.6721643521
34					0.2561561223
35					0.6721643521
36					-0.0199536138
37					0.6412961827
38					-0.0199536138
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IP25 conc. (ug/g) 3pt mean D101:D118	IP25 conc. (ug/g OC) E100:E119	IP25 conc. (ug/g OC) 3pt mean F101:F118	IP25 conc. (ug/cm3) G100:G119
-0.0209070654	0.0008592729	-0.0608323926	0.0073064469
0.0556706572	-0.0788032481	0.1953996549	-0.0656399212
-0.0209070654	0.0008592729	-0.2464353258	0.0073064469
0.0210481980	-0.0788032481	-0.2550685728	-0.0656399212
0.4461096485	-0.2412903931	-0.2250590542	-0.1507791143
0.6219338139	0.3888526306	0.3715447051	0.4326124429
0.4461096485	-0.2412903931	-0.3672305086	-0.1507791143
0.6219338139	0.3888526306	-0.5277662764	0.4326124429
0.5882269345	0.3571503705	0.6109341706	0.3843376301
0.0016233039	-0.2214363580	-0.2722717245	-0.2265140679
0.3038635221	-0.0988846706	0.1907419061	-0.1085674050
0.3225978030	0.1210599117	0.2783578155	0.1330983475
0.3810017472	0.0782425808	0.3060072874	0.0860662227
-0.5949629020	-0.1583597024	-0.4506402838	-0.1676500517
-0.6946296672	-0.3495264422	-0.5967468214	-0.3924248906
-0.4416381670	-0.3133512822	-0.4150154098	-0.3265875692
-0.6498631469	-0.2062011401	-0.5103036917	-0.2231908498
0.4287397897	0.4073211124	0.6211311752	0.4256113898
0.6228551296	0.4567835092	0.7584032414	0.4859048191
0.1460819976	-0.1411488993	-0.0619174331	-0.1444106730
0.3740002122	0.0391315095	0.3421577933	0.0260593393
0.4351941276	0.2572304520	0.4933267105	0.2732926327
0.4849338061	0.2374238983	0.5278636442	0.2483264837
-0.3422385404	0.0221246233	-0.1408009435	0.0260800006
-0.5573912786	-0.2147265472	-0.4255990861	-0.2494644129
-0.6926934103	-0.1337063629	-0.5557300954	-0.1125776033
0.7156210415	0.0876463308	0.6952220754	0.1931174933
0.8639083754	0.6491867349	0.8468337146	0.6995847620
0.7156210415	0.0876463308	0.6952220754	0.1931174933
0.8639083754	0.6491867349	0.8468337146	0.6995847620
0.5304278969	-0.1713467703	0.5223950707	-0.0708880510
0.7471422560	0.6250449130	0.7994843119	0.6776543037
0.5304278969	-0.1713467703	0.5223950707	-0.0708880510
0.7471422560	0.6250449130	0.7994843119	0.6776543037

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Peer Review

	Median IP25 Flux			
	IP25 conc (ug/cm3) 3pt mean	($\mu\text{g}/\text{cm}^2/\text{cal yr}$)	IP25 Flux 3pt mean	Brassicasterol conc. ($\mu\text{g}/\text{g}$)
	H101:H118	I100:I119	J101:J118	K100:K119
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Brassicasterol conc. (ug/g) 3pt mean L101:L118	Brassicasterol conc. (µg/g OC) M100:M119
-0.0650449789	0.0300153986
0.1092631921	0.0106343711
-0.0650449789	0.0300153986
0.1092631921	0.0106343711
0.2439692856	0.1297614882
0.2424589564	0.1479271378
0.2439692856	0.1297614882
0.2424589564	0.1479271378
0.2524249867	0.0657643703
0.3869344171	-0.0352908458
0.3030375511	-0.4120219690
-0.1562818451	-0.2016552286
-0.0412480709	-0.2952333596
-0.2454264816	0.2029138630
-0.3045455173	-0.0915346044
-0.1472426916	0.0177663186
-0.2769781500	0.1502032754
0.0239857346	0.0723666676
0.1583982218	0.0491864742
0.4285279667	-0.0205964663
0.2633696723	-0.3767161977
-0.1377178933	-0.1725071634
-0.0515097726	-0.2478343553
-0.1758611549	0.2534841494
-0.2648843191	-0.0408271448
-0.3195392265	0.3558043319
0.4782612968	0.2907206729
0.3496639191	0.2211288705
0.4782612968	0.2907206729
0.3496639191	0.2211288705
0.3329365041	0.1633479449
0.2321586815	0.2524117158
0.3329365041	0.1633479449
0.2321586815	0.2524117158

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Brassicasterol conc. ($\mu\text{g/g OC}$) 3pt mean N101:N118	Brassicasterol conc. ($\mu\text{g/cm}^3$) O100:O119
-0.0714197145	0.0418051808
0.0928375726	0.0100148890
-0.0714197145	0.0418051808
0.0928375726	0.0100148890
0.2663619359	0.1550770915
0.3019045994	0.1594821323
0.2663619359	0.1550770915
0.3019045994	0.1594821323
0.2998336616	0.0412203302
0.3743105284	-0.0831473535
0.2960311925	-0.4083168581
-0.0986751515	-0.2317414637
0.0072843677	-0.3206456405
-0.2983832565	0.2530407175
-0.3624959630	-0.0760763527
-0.1980761377	0.0322368902
-0.3333174652	0.1956489548
0.0557561380	0.0961860141
0.2090732168	0.0431849920
0.4279054999	-0.0669230453
0.2647056951	-0.3716079429
-0.0754461360	-0.1929443822
0.0039434050	-0.2646203467
-0.2169486587	0.3132477356
-0.3163626586	-0.0162542366
-0.3744344195	0.4273719234
0.5024009928	0.3360508436
0.4098372433	0.2348103683
0.5024009928	0.3360508436
0.4098372433	0.2348103683
0.3588545689	0.1933380230
0.2999668401	0.2659343595
0.3588545689	0.1933380230
0.2999668401	0.2659343595

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Peer Review

	Median Brassicasterol Flux		
	Brassicasterol conc. (ug/cm3) 3pt mean) P101:P118	($\mu\text{g}/\text{cm}^2/\text{cal yr}$) Q100:Q119	Brassicasterol flux 3pt mean R101:R118
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Peer Review

	PIP25 norm to OC mean-c C125:C144	PIP25 norm to OC mean-c 3pt mean D126:D143	PIP25 norm to OC median-c E125:E144	PIP25 norm to OC median-c 3pt mean F126:F143
1				
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4				
5	0.1065340402	0.1047760299	0.0730415560	0.1110731518
6	0.0436739770	0.0163378105	0.0895066259	0.0547701501
7				
8	0.1065340402	0.1047760299	0.0730415560	0.1110731518
9	0.0436739770	0.0163378105	0.0895066259	0.0547701501
10	0.0651594873	0.3620050225	0.0445650943	0.3792185467
11	0.4746412302	0.6763413735	0.4714785077	0.6806465057
12	0.0651594873	0.3620050225	0.0445650943	0.3792185467
13	0.4746412302	0.6763413735	0.4714785077	0.6806465057
14				
15	0.2626223512	0.2929298624	0.2481676107	0.3115391501
16	0.0371536790	-0.2670200731	-0.0033702307	-0.2641441978
17	0.5292657703	0.2333745488	0.5099901588	0.2810595846
18				
19	0.3358456118	0.5715234584	0.3091974060	0.5381235173
20	0.4468242876	0.5779150935	0.4178663469	0.5636629206
21	-0.4266814999	-0.4463440174	-0.3917954704	-0.4511953576
22	-0.4360483581	-0.5747848230	-0.4144534624	-0.5684332911
23	-0.1754196942	-0.4173155576	-0.1745881735	-0.4138276285
24	-0.4467937441	-0.4814110853	-0.4143323281	-0.4876481679
25				
26	0.2282823832	0.3439497972	0.2387112354	0.3683818364
27	0.2904226189	0.3688140342	0.2828979813	0.3923312365
28	0.0811392008	-0.2011276288	0.0249847280	-0.1929344141
29	0.5786425586	0.3504374003	0.5621684869	0.4028976917
30	0.3846281374	0.6058690181	0.3582122955	0.5842226036
31	0.4865165719	0.6296492928	0.4589856010	0.6245079305
32				
33	-0.2745433777	-0.2407010760	-0.2276220486	-0.2239944556
34	-0.3377200620	-0.4763741242	-0.3084219752	-0.4575575002
35	-0.4950594483	-0.4891278313	-0.4477962529	-0.5024618779
36	0.1884256268	0.3744822192	0.2100807288	0.4287573150
37	0.5678773787	0.7042655631	0.5735877770	0.7292456258
38				
39	0.1884256268	0.3744822192	0.2100807288	0.4287573150
40	0.5678773787	0.7042655631	0.5735877770	0.7292456258
41	0.0817208793	0.3073241472	0.0720585016	0.3391912976
42	0.4072127508	0.6125757767	0.4105008550	0.6206708140
43				
44	0.0817208793	0.3073241472	0.0720585016	0.3391912976
45	0.4072127508	0.6125757767	0.4105008550	0.6206708140



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Peer Review

	PIP25 norm to OC mean-c no extremes G125:G144	PIP25 norm to OC mean-c no ext 3pt mean H126:H143	Flux-based PIP25 mean-c I125:I144	Flux-based PIP25 mean-c 3pt mean J126:J143
1				
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4				
5	0.0744242422	0.1108340081	0.1093213291	0.1041866406
6	0.0879365510	0.0534383720	0.0389316276	0.0123923318
7				
8	0.0744242422	0.1108340081	0.1093213291	0.1041866406
9	0.0879365510	0.0534383720	0.0389316276	0.0123923318
10	0.0456254046	0.3786784262	0.0663799200	0.3600076491
11	0.4716973814	0.6806139481	0.4746180987	0.6755026317
12	0.0456254046	0.3786784262	0.0663799200	0.3600076491
13	0.4716973814	0.6806139481	0.4746180987	0.6755026317
14	0.2486630703	0.3106677613	0.2640582123	0.2915085223
15	-0.0017773774	-0.2642219959	0.0408549749	-0.2672286686
16	0.5111546087	0.2795688889	0.5299866835	0.2280783794
17	0.3101703179	0.5393731167	0.3384018304	0.5745980572
18	0.4190553114	0.5642895249	0.4492795228	0.5789384720
19	-0.3931084293	-0.4509135611	-0.4299581821	-0.4460716644
20	-0.4153955086	-0.5687647205	-0.4377153029	-0.5751252063
21	-0.1743417140	-0.4139279503	-0.1761389337	-0.4176857056
22	-0.4155824147	-0.4873482137	-0.4497606996	-0.4809225406
23	0.2385931368	0.3675896554	0.2265513326	0.3411665502
24	0.2832676886	0.3913849607	0.2908469172	0.3665922316
25	0.0273481725	-0.1931432259	0.0858548889	-0.2020667648
26	0.5632570464	0.4012849778	0.5790182615	0.3445007614
27	0.3593044430	0.5850820763	0.3868287181	0.6076627192
28	0.4602268679	0.6248376541	0.4885580595	0.6296507870
29	-0.2292861774	-0.2244505616	-0.2792418329	-0.2427251409
30	-0.3095673002	-0.4583363368	-0.3403467656	-0.4779860483
31	-0.4495713417	-0.5019200665	-0.4995620207	-0.4879069486
32	0.2095328617	0.4269018217	0.1856376604	0.3687497859
33	0.5735257494	0.7285120098	0.5668899498	0.7012494680
34	0.2095328617	0.4269018217	0.1856376604	0.3687497859
35	0.5735257494	0.7285120098	0.5668899498	0.7012494680
36	0.0726733677	0.3381023614	0.0819788499	0.3039117895
37	0.4103381381	0.6204770647	0.4069245210	0.6113857822
38	0.0726733677	0.3381023614	0.0819788499	0.3039117895
39	0.4103381381	0.6204770647	0.4069245210	0.6113857822
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Peer Review

	Flux-based PIP25 median-c K125:K144	Flux-based PIP25 median-c 3pt mean L126:L143	Flux-based PIP25 mean-c no extremes M125:M144	Flux-based PIP25 mean-c no ext 3pt mean N126:N143
1				
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5	-0.1524572734	-0.0655067786	0.0714959934	0.1113389056
6	-0.0885014486	-0.0919529014	0.0912348699	0.0562379484
7	-0.1524572734	-0.0655067786	0.0714959934	0.1113389056
8	-0.0885014486	-0.0919529014	0.0912348699	0.0562379484
9	-0.0147071632	0.0551771547	0.0433578043	0.3798103103
10	-0.0207502484	0.2108299728	0.4712278350	0.6806723765
11	-0.0147071632	0.0551771547	0.0433578043	0.3798103103
12	-0.0207502484	0.2108299728	0.4712278350	0.6806723765
13	0.2398848819	0.3348978535	0.2476246939	0.3125275850
14	0.2135244258	0.3548051369	-0.0051469273	-0.2640655054
15	-0.3789727022	-0.0819266603	0.5086505131	0.2826836567
16	0.2165405461	0.2195353574	0.3081217118	0.5367402740
17	0.0821693970	0.1673737356	0.4165368566	0.5629610079
18	-0.2403939781	-0.4395897131	-0.3903387167	-0.4515207725
19	-0.0789790832	-0.3253377933	-0.4133956039	-0.5680562255
20	-0.2010942485	-0.1581725658	-0.1748932036	-0.4137204679
21	-0.2232117954	-0.4441040803	-0.4129426975	-0.4879901358
22	-0.1264573471	0.0097732949	0.2388155668	0.3692533547
23	0.1345110639	0.2414909556	0.2824811283	0.3933934813
24	0.2433371592	0.4314080576	0.0223334341	-0.1927154914
25	-0.4012204030	-0.1747511058	0.5609101804	0.4046526675
26	0.1665098941	0.1913153355	0.3569911942	0.5832684412
27	0.0458439515	0.1225990790	0.4575873521	0.6241324225
28	-0.3350127752	-0.4530298743	-0.2257850061	-0.2235058202
29	-0.1623990635	-0.3210075788	-0.3071470332	-0.4566846567
30	-0.2489583315	-0.4235215531	-0.4458249405	-0.5030696607
31	-0.1798291526	0.0977278772	0.2106631219	0.4308020972
32	-0.0087984976	0.2323465796	0.5736429795	0.7300428269
33	-0.1798291526	0.0977278772	0.2106631219	0.4308020972
34	-0.0087984976	0.2323465796	0.5736429795	0.7300428269
35	-0.0055042070	0.0734521201	0.0713498181	0.3403928487
36	0.1453261338	0.2757220393	0.4106886344	0.6208789819
37	-0.0055042070	0.0734521201	0.0713498181	0.3403928487
38	0.1453261338	0.2757220393	0.4106886344	0.6208789819
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Peer Review

	SST Feb C149:C168	SST Feb 3pt mean D150:D167	SST Feb min E149:E168	SST Feb min 3pt mean F150:F167	SST Feb max G149:G168
1					
2					
3					
4					
5	-0.1005697081	-0.2175291265	-0.1913095665	-0.1693843490	-0.1002861570
6	-0.3445507736	-0.2997659013	-0.3816023125	-0.3426430403	0.0000000000
7					
8	-0.1005697081	-0.2175291265	-0.1913095665	-0.1693843490	-0.1002861570
9	-0.3445507736	-0.2997659013	-0.3816023125	-0.3426430403	0.0000000000
10	0.1278552739	-0.0225209561	0.3298417217	0.2309837476	-0.1574866672
11	0.0293066146	0.1685679339	0.3852534600	0.5015340074	0.0000000000
12	0.1278552739	-0.0225209561	0.3298417217	0.2309837476	-0.1574866672
13	0.0293066146	0.1685679339	0.3852534600	0.5015340074	0.0000000000
14	0.2002324315	0.2535825536	0.6919115207	0.5848759502	0.2224881003
15	-0.0579528896	0.1043838374	-0.0180077778	-0.1691490937	0.4277903195
16	-0.1619847082	-0.0213467322	-0.1412751517	-0.2214985584	0.2408979749
17	0.0177591854	-0.0964446308	0.6757055669	0.6443944965	0.4521916838
18					
19	-0.0306890366	-0.0917820052	0.5541322858	0.4973276020	0.4667423996
20	-0.0247343447	-0.0839285621	-0.6732292988	-0.6246277696	-0.6132339253
21					
22	-0.1538082899	-0.2493603787	-0.5911708668	-0.5939595509	-0.1742073399
23	0.2245073332	-0.1568662743	-0.3102535197	-0.3845449009	-0.1584101719
24	-0.0506195836	-0.1072252491	-0.6859737787	-0.6395507954	-0.5501952744
25	0.1874696338	-0.0170368748	0.0798278675	0.0863195084	-0.1962264344
26	0.2205158107	0.1544526577	0.5556652217	0.4467650643	0.0897075701
27	0.1007224275	0.1417218407	0.0726525139	-0.1514629452	0.4251463367
28	-0.0796314549	-0.0935792362	-0.1505293485	-0.2509935116	0.2050339502
29	0.1015370470	-0.1030536427	0.6349039048	0.5284029494	0.3625915570
30	0.0696802376	-0.1161716773	0.5235387519	0.4004826575	0.3725649590
31	0.0161252669	-0.0865651403	-0.6292289947	-0.5654834750	-0.6985275509
32	-0.0930808631	-0.2595214237	-0.5813336795	-0.5577537095	-0.2650297129
33	-0.1302334823	-0.0939378611	-0.5981528717	-0.5887673162	-0.8570893169
34	0.0757202342	0.1863376291	0.0722560957	0.1804758108	-0.4328950328
35	0.2630690747	0.3088980987	0.3919912960	0.4714636649	0.0000000000
36	0.0757202342	0.1863376291	0.0722560957	0.1804758108	-0.4328950328
37	0.2630690747	0.3088980987	0.3919912960	0.4714636649	0.0000000000
38	0.1559190614	0.0680770431	0.3247459052	0.2498310251	-0.2220680879
39	0.2511655539	0.2888253343	0.4055737510	0.5309905289	0.0000000000
40	0.1559190614	0.0680770431	0.3247459052	0.2498310251	-0.2220680879
41	0.2511655539	0.2888253343	0.4055737510	0.5309905289	0.0000000000
42	0.2408540830	0.3254330947	-0.0005844116	0.2082242955	-0.1321368334
43	0.3605112187	0.3895766717	0.2383523099	0.2109874541	0.0000000000
44	0.1218009949	0.2692549733	0.0305380110	0.2253575027	-0.0342970834
45	0.2991138511	0.2945168489	0.2963610016	0.2750502034	0.0000000000
46	0.1462201077	0.2890582725	0.0398948967	0.2437570168	-0.0941519494
47	0.3070635150	0.3091473019	0.3030799210	0.2877139488	0.0000000000
48	0.1462201077	0.2890582725	0.0398948967	0.2437570168	-0.0941519494
49	0.3070635150	0.3091473019	0.3030799210	0.2877139488	0.0000000000
50	0.3508585606	0.3376522371	-0.2670383927	-0.0960060876	-0.5663466978
51	0.4394957674	0.5921496148	-0.2321793592	-0.3153330371	0.0000000000
52	0.3725503479	0.3443715496	-0.2370120168	-0.0745333279	-0.5237499997
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2	0.4510668076	0.6091751132	-0.1786022566	-0.2533711789	0.0000000000
3	0.3308548242	0.3492570581	-0.2569229980	-0.0638479515	-0.6064814126
4	0.4585655858	0.5896247268	-0.1675956237	-0.2494640015	0.0000000000
5	0.3308548242	0.3492570581	-0.2569229980	-0.0638479515	-0.6064814126
6	0.4585655858	0.5896247268	#N/A	-0.2494640015	#N/A
7	0.0237115254	-0.0929957779	0.1798839545	0.1800903608	0.3974627798
8	-0.1119979638	-0.2521793368	0.3246937862	0.4145267571	0.0000000000
9	-0.0002916564	-0.1169190535	0.1219031982	0.1565006077	0.3404935827
10	-0.1073717187	-0.2660094256	0.2921157920	0.3701181963	0.0000000000
11	0.0008248916	-0.1158503397	0.1240198156	0.1572431896	0.3425898867
12	-0.1073296143	-0.2653833427	0.2930471680	0.3714870324	0.0000000000
13	0.0255223807	-0.0911359707	0.1854493216	0.1825683442	0.4030424987
14	-0.1129898432	-0.2510514246	0.3283820382	0.4193612063	0.0000000000
15	0.2774542521	0.3466149001	0.3221418105	0.1479597827	0.2395285412
16	0.3821664944	0.6742667336	0.3306526782	0.3427527691	0.0000000000
17	-0.0015569150	-0.1181240569	0.1195628724	0.1556958367	0.3381683302
18	-0.1074405711	-0.2667184912	0.2911170388	0.3686341168	0.0000000000
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	SST Feb max 3pt mean H150:H167	SSS Feb I149:I168	SSS Feb 3pt mean J150:J167	SSS Feb min K149:K168	SSS Feb min 3pt mean L150:L167
1					
2					
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5	0.2179947250	-0.3362105237	-0.2068716647	-0.3598663250	-0.1980660584
6	0.0760359496	-0.2772743959	-0.4975788521	-0.2686982382	-0.5110074195
7					
8	0.2179947250	-0.3362105237	-0.2068716647	-0.3598663250	-0.1980660584
9	0.0760359496	-0.2772743959	-0.4975788521	-0.2686982382	-0.5110074195
10	-0.2520961767	0.0402629013	0.2612434054	-0.0933511014	0.1178534748
11	0.0429433475	0.2081590198	0.2813399808	0.0616408079	0.0717539235
12	-0.2520961767	0.0402629013	0.2612434054	-0.0933511014	0.1178534748
13	0.0429433475	0.2081590198	0.2813399808	0.0616408079	0.0717539235
14	-0.2019572861	0.3342844442	0.5541248376	0.2701079157	0.4299618238
15	0.4181216449	-0.2554215585	-0.3740099477	-0.2762787800	-0.4103629806
16	-0.1509959791	-0.6710174216	-0.3917169734	-0.7145294048	-0.4784117700
17	0.2826623473	0.1548818119	0.4298083500	0.0786885815	0.2751779465
18	0.2010139432	-0.0555829286	0.2540489680	-0.1350631613	0.0901914342
19	-0.1933716207	-0.0521057011	-0.3775733777	0.0215161245	-0.1947660214
20	-0.0110502911	-0.2001556662	-0.3916153762	-0.0656713901	-0.1996736471
21	0.0694070506	-0.3113946050	-0.3918054172	-0.2778816400	-0.2864725369
22	-0.1504996270	-0.0805369213	-0.3832786334	0.0088174131	-0.1900857174
23	-0.3005098835	-0.0669126284	0.0781994287	-0.1281625048	0.0113268567
24	-0.3074100336	0.2240868144	0.4547836742	0.1555325005	0.3462516009
25	0.3628152053	-0.3479544145	-0.3770089743	-0.3997917131	-0.4478975589
26	-0.2786939820	-0.7048014359	-0.3827255946	-0.7492889921	-0.4743662461
27	0.1437799922	0.0865836549	0.3615964660	0.0020699745	0.2131573745
28	0.0527806233	-0.1016082431	0.2177145514	-0.1876116443	0.0619048075
29	-0.3731007538	-0.0652541883	-0.3665610078	-0.0344280180	-0.2318355378
30	-0.1129949983	-0.2250568177	-0.3834215867	-0.1246694790	-0.2204570265
31	-0.0898348085	0.1220073779	-0.3367403793	0.1414045768	-0.1417183953
32	-0.6042912302	0.0123956081	0.2098239546	-0.1161684838	0.0492316739
33	-0.2115217225	0.1673324229	0.2995775928	0.0403546409	0.0942445507
34	-0.6042912302	0.0123956081	0.2098239546	-0.1161684838	0.0492316739
35	-0.2115217225	0.1673324229	0.2995775928	0.0403546409	0.0942445507
36	-0.5186793464	0.0879948057	0.3315078830	-0.0355591027	0.1831505667
37	-0.2308650362	0.3678327278	0.4560037462	0.2536391256	0.2784808148
38	-0.5186793464	0.0879948057	0.3315078830	-0.0355591027	0.1831505667
39	-0.2308650362	0.3678327278	0.4560037462	0.2536391256	0.2784808148
40	0.0869085670	0.2484622022	-0.0242729803	0.1752179750	-0.1599145988
41	-0.3086726360	0.0213552438	0.0985687319	-0.1018457958	-0.0931703816
42	0.0765933166	0.2200603356	0.0417114902	0.1798970260	-0.0583609413
43	-0.4088719793	0.0895206631	0.2479668403	-0.0104476614	0.0888556711
44	0.0402368651	0.2452250964	0.0617466752	0.1892808722	-0.0537952396
45	-0.4007020322	0.0889943770	0.2464762503	-0.0166212675	0.0789095427
46	0.0402368651	0.2452250964	0.0617466752	0.1892808722	-0.0537952396
47	-0.4007020322	0.0889943770	0.2464762503	-0.0166212675	0.0789095427
48	0.0855941847	0.3159856681	-0.1816941949	0.2538215921	-0.2648943606
49	-0.3148201642	-0.3532553357	-0.3786326549	-0.4345988109	-0.5041275705
50	0.0890056215	0.3232288926	-0.1628686114	0.2614296273	-0.2497405913
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2	-0.2958800038	-0.3020698102	-0.3289052943	-0.3931531828	-0.4673093474
3	0.0843191864	0.3378436686	-0.1523839691	0.2692665909	-0.2426325460
4	-0.3713311567	-0.3137525735	-0.3038988398	-0.4036666007	-0.4438753682
5	0.0843191864	0.3378436686	-0.1523839691	0.2692665909	-0.2426325460
6	-0.3713311567	#N/A	-0.3038988398	#N/A	-0.4438753682
7					
8	-0.2619754808	-0.3946325153	-0.0087909515	-0.4446942654	-0.1196116900
9	-0.0547797042	0.1808212701	0.2794682901	0.1143653359	0.1443513935
10	-0.2742854887	-0.3730674023	-0.0403181740	-0.4235910608	-0.1474430950
11	-0.1370058760	0.1180609424	0.2424518089	0.0527971040	0.1036622257
12	-0.2739385280	-0.3742648020	-0.0394322518	-0.4248473783	-0.1467710447
13	-0.1340896502	0.1201092473	0.2434674307	0.0547868229	0.1047519168
14	-0.2605552635	-0.3957784369	-0.0051537265	-0.4455926250	-0.1161296787
15	-0.0464231184	0.1874797488	0.2837568043	0.1209486867	0.1491613678
16	0.2647323810	0.3790365120	0.1783769195	0.4064073221	0.1542770439
17	0.3543246987	0.3119771628	0.1790506365	0.2052969983	0.0897658030
18	-0.2746566584	-0.3716938685	-0.0412665987	-0.4221445189	-0.1481464093
19	-0.1402294722	0.1158217761	0.2413689817	0.0506243465	0.1025034922
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	SSS Feb max M149:M168	SSS Feb max 3pt mean N150:N167	SST Winter O149:O168	SST Winter 3pt mean P150:P167	SST Winter min Q149:Q168
1					
2					
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4					
5	-0.2163006639	-0.2637059659	-0.1800564769	-0.1787240296	-0.1361666850
6	-0.3885110420	-0.4713165651	-0.3584307792	-0.3151820377	-0.3816023125
7					
8	-0.2163006639	-0.2637059659	-0.1800564769	-0.1787240296	-0.1361666850
9	-0.3885110420	-0.4713165651	-0.3584307792	-0.3151820377	-0.3816023125
10	0.4000245025	0.3385148341	0.1351451828	0.0027409947	0.4486540475
11	0.3867337866	0.4466667837	0.0987049673	0.2679324071	0.3852534600
12	0.4000245025	0.3385148341	0.1351451828	0.0027409947	0.4486540475
13	0.3867337866	0.4466667837	0.0987049673	0.2679324071	0.3852534600
14	0.3649204397	0.5715136962	0.2892162467	0.2795874672	0.5832482654
15					
16	-0.3374534666	-0.3915960782	0.0294231366	0.1633976927	-0.2958660234
17	-0.2935616563	-0.1241475634	-0.0905238073	-0.0122666771	-0.30444463359
18	0.3545610248	0.5730783702	0.1714607558	0.0404570871	0.4175111742
19	0.2280286579	0.4654741529	0.1249787530	0.0317457385	0.2803037700
20	-0.1304582263	-0.4675154676	-0.2119582132	-0.2040607672	-0.3106547409
21					
22	-0.4240637363	-0.5747733872	-0.2640092422	-0.3866131252	-0.5086134730
23	-0.2124746031	-0.4116325741	0.1004817693	-0.2406852777	-0.2235630666
24	-0.1941056744	-0.5092219573	-0.2277468582	-0.2327998103	-0.3648598820
25	0.2241245502	0.2888661091	0.1277583705	-0.0528768378	0.2109391300
26	0.3836153614	0.5559623257	0.2629445746	0.1490559565	0.5259953302
27	-0.2597644472	-0.2818142199	0.1667537124	0.1804443544	-0.1988598239
28	-0.2834662740	-0.0811083895	-0.0251610034	-0.0970965105	-0.2909563589
29	0.3773410444	0.5516639218	0.2223220218	0.0005136856	0.4326281060
30	0.2621040171	0.4664352904	0.1902909757	-0.0254774910	0.3091138446
31					
32	-0.0325921539	-0.3325513929	-0.1885846890	-0.2223728375	-0.2091889154
33	-0.3489136047	-0.4839546022	-0.2280087159	-0.4068305338	-0.4394779450
34	0.1002471128	-0.4876998658	-0.3558825455	-0.2142523390	-0.0738764699
35	0.4442389483	0.4055091772	0.0186955127	0.1633653931	0.3561919780
36	0.3742223873	0.5556953368	0.3432712199	0.3739384989	0.3919912960
37	0.4442389483	0.4055091772	0.0186955127	0.1633653931	0.3561919780
38	0.3742223873	0.5556953368	0.3432712199	0.3739384989	0.3919912960
39	0.5124750887	0.4707301154	0.1551752941	0.0547816986	0.4851056904
40	0.5027024800	0.6714496738	0.3216565713	0.3418031727	0.4055737510
41	0.5124750887	0.4707301154	0.1551752941	0.0547816986	0.4851056904
42	0.5027024800	0.6714496738	0.3216565713	0.3418031727	0.4055737510
43					
44	0.1715028275	0.1781028678	0.2265323907	0.4007055183	0.0849268662
45	0.2219669221	0.3625253397	0.4367333443	0.4224698561	0.2383523099
46	0.1160831269	0.2446859976	0.1330547819	0.3326279372	0.0543018537
47	0.3287825330	0.4969233502	0.3618792306	0.3043291302	0.2963610016
48	0.1800953443	0.2783868196	0.1468359515	0.3522418674	0.1028851570
49	0.3343458348	0.5046101697	0.3719312891	0.3226740274	0.3030799210
50	0.1800953443	0.2783868196	0.1468359515	0.3522418674	0.1028851570
51	0.3343458348	0.5046101697	0.3719312891	0.3226740274	0.3030799210
52	0.1795216378	-0.0957988206	0.2060311016	0.3563710290	0.0859461193
53	-0.1671844329	-0.1652819395	0.4751984923	0.5473619788	-0.2321793592
54	0.1774349164	-0.0691822396	0.2377253412	0.3655662216	0.0899316150
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2	-0.1102527868	-0.1039504756	0.4913685192	0.5749226392	-0.1786022566
3	0.2221622775	-0.0547604596	0.1793927353	0.3710022771	0.1225605103
4	-0.0978251282	-0.0729970368	0.5005355742	0.5463194397	-0.1675956237
5	0.2221622775	-0.0547604596	0.1793927353	0.3710022771	0.1225605103
6	#N/A	-0.0729970368	#N/A	0.5463194397	#N/A
7					
8	-0.0654101532	0.1856153585	0.1348065167	-0.0337905942	-0.0682255910
9	0.1741148875	0.3577026536	-0.0316564752	-0.1215482971	0.3246937862
10	-0.0655560776	0.1544102532	0.1036089995	-0.0614090815	-0.0922901147
11	0.1292204875	0.3333553468	-0.0283304873	-0.1482055036	0.2921157920
12	-0.0655385291	0.1555230485	0.1049723814	-0.0602077353	-0.0914223822
13	0.1306785919	0.3340782615	-0.0282136203	-0.1470975570	0.2930471680
14	-0.0655491776	0.1886227377	0.1373779451	-0.0315726276	-0.0659878705
15	0.1788271859	0.3603205438	-0.0325860149	-0.1191891987	0.3283820382
16	0.0947518903	0.1869261994	0.3179474618	0.3433746878	0.1835456180
17	0.4959802153	0.3546056084	0.3773021955	0.6906812752	0.3306526782
18	-0.0655722785	0.1531846856	0.1020714567	-0.0627603629	-0.0932447768
19	0.1276296496	0.3325786361	-0.0284852655	-0.1494501220	0.2911170388
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	SST Winter min 3pt mean R150:R167	SST Winter max S149:S168	SST Winter max 3pt mean T150:T167	SSS Winter U149:U168	SSS Winter 3pt mean V150:V167
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6	-0.2340427566	-0.1002861570	0.2179947250	-0.2697801448	-0.1525554064
7	-0.3758004918	-0.0451042052	0.0760359496	-0.2200129442	-0.3829947618
8	-0.2340427566	-0.1002861570	0.2179947250	-0.2697801448	-0.1525554064
9	-0.3758004918	-0.0451042052	0.0760359496	-0.2200129442	-0.3829947618
10	0.3070695954	-0.1574866672	-0.2520961767	0.1257269232	0.3424426383
11	0.5088012491	-0.1177601781	0.0429433475	0.3278848304	0.4487360490
12	0.3070695954	-0.1574866672	-0.2520961767	0.1257269232	0.3424426383
13	0.5088012491	-0.1177601781	0.0429433475	0.3278848304	0.4487360490
14	0.6607823281	0.2224881003	-0.2019572861	0.4449376992	0.6137088760
15	-0.2873419371	0.4277903195	0.4181216449	-0.1552401827	-0.2746906443
16	-0.1893838260	0.2408979749	-0.1509959791	-0.5912208026	-0.3084124777
17	0.5928685428	0.4521916838	0.2826623473	0.2988114522	0.5649207882
18	0.4621463143	0.4667423996	0.2010139432	0.0938702862	0.3996281018
19	-0.5962519827	-0.6132339253	-0.1933716207	-0.2454515160	-0.5522084727
20	-0.6132162338	-0.1742073399	-0.0110502911	-0.3354003146	-0.5064095262
21	-0.4174958779	-0.1584101719	0.0694070506	-0.3867648619	-0.4358338260
22	-0.6232033530	-0.5501952744	-0.1504996270	-0.2735704068	-0.5557108374
23	0.1699480546	-0.1962264344	-0.3005098835	-0.0589687922	0.0947463405
24	0.5457198148	0.0897075701	-0.3074100336	0.3037173370	0.4912185595
25	-0.2541973167	0.4251463367	0.3628152053	-0.2397370412	-0.2693655441
26	-0.1858167047	0.2050339502	-0.2786939820	-0.6373385890	-0.3082045337
27	0.5096965673	0.3625915570	0.1437799922	0.2146434729	0.4750851317
28	0.4013388109	0.3725649590	0.0527806233	0.0287222405	0.3380289043
29	-0.4868099051	-0.6985275509	-0.3731007538	-0.2289384690	-0.5106107245
30	-0.5483814133	-0.2650297129	-0.1129949983	-0.3439680577	-0.4815005950
31	-0.5867513049	-0.8570893169	-0.0898348085	-0.0395839375	-0.5073429303
32	0.3489012551	-0.4328950328	-0.6042912302	0.0498053352	0.2685542410
33	0.5456875330	-0.1805772416	-0.2115217225	0.2617732800	0.4197666744
34	0.3489012551	-0.4328950328	-0.6042912302	0.0498053352	0.2685542410
35	0.5456875330	-0.1805772416	-0.2115217225	0.2617732800	0.4197666744
36	0.3979450948	-0.2220680879	-0.5186793464	0.1353665824	0.3759583577
37	0.6126158412	-0.1895806514	-0.2308650362	0.4266682330	0.5315196704
38	0.3979450948	-0.2220680879	-0.5186793464	0.1353665824	0.3759583577
39	0.6126158412	-0.1895806514	-0.2308650362	0.4266682330	0.5315196704
40	0.1927594821	-0.1321368334	0.0869085670	0.2827065008	0.0753246988
41	0.3014622994	-0.3023303635	-0.3086726360	0.1085275142	0.1958975276
42	0.2132932521	-0.0342970834	0.0765933166	0.2469741132	0.1045531708
43	0.3947288663	-0.1421287135	-0.4088719793	0.1505548267	0.3023373916
44	0.2421079161	-0.0941519494	0.0402368651	0.2741712741	0.1312583455
45	0.4056803760	-0.1565375106	-0.4007020322	0.1546646325	0.3080226838
46	0.2421079161	-0.0941519494	0.0402368651	0.2741712741	0.1312583455
47	0.4056803760	-0.1565375106	-0.4007020322	0.1546646325	0.3080226838
48	-0.1224969783	-0.5663466978	0.0855941847	0.2591706784	-0.1333611892
49	-0.2428969973	-0.4545271546	-0.3148201642	-0.3170620625	-0.3369278084
50	-0.1011338889	-0.5237499997	0.0890056215	0.2711154798	-0.1137968210
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2	-0.1836852350	-0.4616547456	-0.2958800038	-0.2608878517	-0.2796950120
3	-0.0887950575	-0.6064814126	0.0843191864	0.2813279420	-0.1022041250
4	-0.1594452521	-0.4428486374	-0.3713311567	-0.2735144833	-0.2592664312
5	-0.0887950575	-0.6064814126	0.0843191864	0.2813279420	-0.1022041250
6	-0.1594452521	#N/A	-0.3713311567	#N/A	-0.2592664312
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8	0.2569160485	0.3974627798	-0.2619754808	-0.2984894577	0.0876014294
9	0.4446855144	0.0412914742	-0.0547797042	0.2622383039	0.4083346794
10	0.2357375740	0.3404935827	-0.2742854887	-0.2826937746	0.0596834264
11	0.4206154587	0.0375824116	-0.1370058760	0.2055222942	0.3747140269
12	0.2364150993	0.3425898867	-0.2739385280	-0.2836653701	0.0604777544
13	0.4212552614	0.0374438102	-0.1340896502	0.2073255348	0.3756361747
14	0.2591067306	0.4030424987	-0.2605552635	-0.2991243116	0.0907746793
15	0.4474649900	0.0422924910	-0.0464231184	0.2683613392	0.4122095293
16	0.0826650531	0.2395285412	0.2647323810	0.3792566531	0.1577549697
17	0.2607728886	-0.2742744902	0.3543246987	0.3400847305	0.2007361489
18	0.2350020111	0.3381683302	-0.2746566584	-0.2815713730	0.0588325423
19	0.4199383385	0.0377668962	-0.1402294722	0.2035573285	0.3737315772
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	SSS Winter min W149:W168	SSSWinter min 3pt mean X150:X167	SSS Winter max Y149:Y168	SSS Winter max 3pt mean Z150:Z167	SST Aug AA149:AA168
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5	-0.3476704145	-0.2009502327	0.0768048579	0.0520629846	-0.2631701503
6	-0.2802898997	-0.5038361953	0.0977822477	0.1277106265	-0.1483139753
7	-0.3476704145	-0.2009502327	0.0768048579	0.0520629846	-0.2631701503
8	-0.2802898997	-0.5038361953	0.0977822477	0.1277106265	-0.1483139753
9	-0.0851194568	0.1206667426	0.3521742387	0.6124772494	-0.4251884754
10	0.0682681311	0.0800556314	0.6205218307	0.9022594659	-0.6662929051
11	-0.0851194568	0.1206667426	0.3521742387	0.6124772494	-0.4251884754
12	0.0682681311	0.0800556314	0.6205218307	0.9022594659	-0.6662929051
13	0.2801635933	0.4317334871	0.4434885518	0.5960608507	-0.1819440615
14	-0.2758706017	-0.4099453335	0.2009401307	0.1963224519	0.0033568524
15	-0.7153472611	-0.4700069991	-0.0104378086	0.1966271737	-0.0834049430
16	0.0958369642	0.2891096469	0.5051047183	0.7588157392	-0.2562292162
17	-0.1202088434	0.1051435112	0.4414365631	0.7312584173	-0.2492926994
18	0.0094976315	-0.2040308436	-0.6006351196	-0.9125063387	0.2253680408
19	-0.0747224925	-0.2007035432	-0.6006410207	-0.7969744918	0.3945337861
20	-0.2724191238	-0.2797695868	-0.4755165972	-0.5071015333	0.2390674860
21	-0.0037390546	-0.1991962382	-0.6353877609	-0.9305776555	0.2767362358
22	-0.1175368052	0.0247750557	0.0828105498	0.2095217322	-0.1653379456
23	0.1684378193	0.3536463396	0.3402154289	0.4918169649	-0.1953702401
24	-0.3912326334	-0.4376486820	0.2045250673	0.2816361511	0.0003472653
25	-0.7492604311	-0.4654243576	-0.0443046303	0.2073246808	-0.0447744331
26	0.0212138324	0.2289047886	0.4573390372	0.6920066684	-0.2436723024
27	-0.1706709403	0.0782258409	0.3933325365	0.6676398126	-0.2268578900
28	-0.0424566807	-0.2341847405	-0.4588297316	-0.7539177244	0.0563200547
29	-0.1301108556	-0.2163024460	-0.4986812018	-0.7075876330	0.2744440766
30	0.1337021444	-0.1505604183	-0.3513315368	-0.9197264141	-0.1061671214
31	-0.1085444174	0.0513994542	0.2167714479	0.5655869812	-0.5060004685
32	0.0450837039	0.1026439173	0.5182749680	0.7895014083	-0.4816849871
33	-0.1085444174	0.0513994542	0.2167714479	0.5655869812	-0.5060004685
34	0.0450837039	0.1026439173	0.5182749680	0.7895014083	-0.4816849871
35	-0.0265324646	0.1862613820	0.2196762497	0.5634443218	-0.3720902768
36	0.2623293361	0.2867133342	0.4933711191	0.7146316544	-0.4589124024
37	-0.0265324646	0.1862613820	0.2196762497	0.5634443218	-0.3720902768
38	0.2623293361	0.2867133342	0.4933711191	0.7146316544	-0.4589124024
39	0.1757287138	-0.1541460267	0.4504500769	0.5117950477	-0.2136663695
40	-0.1015568376	-0.0868652073	0.5121162762	0.7164671086	-0.3459814130
41	0.1794097493	-0.0510457172	0.3996427472	0.3730547869	-0.1399811642
42	-0.0044243946	0.0960448479	0.3891118843	0.6065540216	-0.3190542877
43	0.1900394759	-0.0460583381	0.4318743681	0.4340472160	-0.1976352555
44	-0.0105532638	0.0865607655	0.4099081223	0.6347957151	-0.3381413736
45	0.1900394759	-0.0460583381	0.4318743681	0.4340472160	-0.1976352555
46	-0.0105532638	0.0865607655	0.4099081223	0.6347957151	-0.3381413736
47	0.2487259661	-0.2624166508	0.2145769409	0.2656514296	-0.1431897799
48	-0.4415655794	-0.5030721866	0.1755321448	0.2760935871	0.0459295898
49	0.2566679974	-0.2466439783	0.2308374032	0.2817131300	-0.1253491005
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2	-0.3987557125	-0.4653203661	0.2267730270	0.3404709188	0.0001744155
3	0.2650557450	-0.2392795712	0.2334056642	0.2952804736	-0.1872788809
4	-0.4089042912	-0.4421159765	0.2022979713	0.3436945839	0.0032131155
5	0.2650557450	-0.2392795712	0.2334056642	0.2952804736	-0.1872788809
6	#N/A	-0.4421159765	#N/A	0.3436945839	#N/A
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8	-0.4384163312	-0.1216166263	0.0395773465	0.3922382589	-0.0670963591
9	0.1063872058	0.1392893693	0.3665894387	0.6657263321	-0.4102592844
10	-0.4197608296	-0.1492928601	0.0633060731	0.3847656262	-0.0934737722
11	0.0439928024	0.0985148486	0.3552952743	0.6745183919	-0.4050438187
12	-0.4209203730	-0.1486183085	0.0622888135	0.3851562285	-0.0925091651
13	0.0460012023	0.0996076852	0.3555943205	0.6742851158	-0.4050240333
14	-0.4391014384	-0.1181729883	0.0376070326	0.3925950023	-0.0643907791
15	0.1130744025	0.1441040807	0.3679747225	0.6645394054	-0.4112220791
16	0.4108742202	0.1658596065	0.1535667897	0.1018066731	0.2283917808
17	0.2294356284	0.1114119056	0.4406594100	0.3077934238	-0.2925824158
18	-0.4184219931	-0.1499997164	0.0644506633	0.3843234335	-0.0945472707
19	0.0418007992	0.0973527722	0.3549765029	0.6747707836	-0.4050907646
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SST Aug 3pt mean AB150:AB167	SST Aug min AC149:AC168	SST Aug min 3pt mean AD150:AD167	SST Aug max AE149:AE168	SST Aug max 3pt mean AF150:AF167
0.0003712583	-0.1002861570	0.2179947250	-0.1086883517	0.2297488307
-0.1391196464	0.0000000000	0.0760359496	0.0482690467	0.1042373605
0.0003712583	-0.1002861570	0.2179947250	-0.1086883517	0.2297488307
-0.1391196464	0.0000000000	0.0760359496	0.0482690467	0.1042373605
-0.5947414551	-0.1574866672	-0.2520961767	-0.1459842031	-0.1925376641
-0.7719730990	0.0000000000	0.0429433475	0.1260230948	0.1126587788
-0.5947414551	-0.1574866672	-0.2520961767	-0.1459842031	-0.1925376641
-0.7719730990	0.0000000000	0.0429433475	0.1260230948	0.1126587788
-0.5503341898	0.2224881003	-0.2019572861	0.2175539927	-0.1762399433
0.0923739557	0.4277903195	0.4181216449	0.4409623797	0.5303103324
-0.2379343816	0.2408979749	-0.1509959791	0.1817213072	-0.0886611341
-0.7320937240	0.4521916838	0.2826623473	0.4028286919	0.2010186582
-0.7208605330	0.4667423996	0.2010139432	0.4063901525	0.1489130863
0.7678209557	-0.6132339253	-0.1933716207	-0.5734234972	-0.2085004882
0.6376659450	-0.1742073399	-0.0110502911	-0.1722420128	-0.0375334004
0.4046928480	-0.1584101719	0.0694070506	-0.1033145238	0.0403398252
0.7888262325	-0.5501952744	-0.1504996270	-0.5174518204	-0.1635391978
-0.3442042523	-0.1962264344	-0.3005098835	-0.1786110596	-0.3333191938
-0.5354770248	0.0897075701	-0.3074100336	0.0860113112	-0.3142222501
-0.0211660918	0.4251463367	0.3628152053	0.4531171422	0.4744847773
-0.2976241209	0.2050339502	-0.2786939820	0.1571827948	-0.2345079950
-0.7062520510	0.3625915570	0.1437799922	0.3231060829	0.0626536262
-0.7043604033	0.3725649590	0.0527806233	0.3255403298	-0.0071968396
0.5356119095	-0.6985275509	-0.3731007538	-0.6494208440	-0.3939850045
0.4978567197	-0.2650297129	-0.1129949983	-0.2500585219	-0.1483162373
0.7888075223	-0.8570893169	-0.0898348085	-0.8217419522	-0.1049008673
-0.6096368945	-0.4328950328	-0.6042912302	-0.4247735605	-0.5027839023
-0.7306816973	0.0000000000	-0.2115217225	0.1932478636	-0.1443662253
-0.6096368945	-0.4328950328	-0.6042912302	-0.4247735605	-0.5027839023
-0.7306816973	0.0000000000	-0.2115217225	0.1932478636	-0.1443662253
-0.6175641286	-0.2220680879	-0.5186793464	-0.2191832088	-0.4588085784
-0.6791856957	0.0000000000	-0.2308650362	0.2028830185	-0.1975495552
-0.6175641286	-0.2220680879	-0.5186793464	-0.2191832088	-0.4588085784
-0.6791856957	0.0000000000	-0.2308650362	0.2028830185	-0.1975495552
-0.3133735768	-0.1321368334	0.0869085670	-0.0378109380	0.1555471039
-0.5648377743	0.0000000000	-0.3086726360	0.3235440763	-0.1773432560
-0.2573386956	-0.0342970834	0.0765933166	0.0144604819	0.0923428941
-0.5688351715	0.0000000000	-0.4088719793	0.1521015051	-0.3421202153
-0.3100933887	-0.0941519494	0.0402368651	-0.0381295328	0.0666487033
-0.5896888828	0.0000000000	-0.4007020322	0.1675213290	-0.3280790032
-0.3100933887	-0.0941519494	0.0402368651	-0.0381295328	0.0666487033
-0.5896888828	0.0000000000	-0.4007020322	0.1675213290	-0.3280790032
-0.0064272894	-0.5663466978	0.0855941847	-0.4077520106	0.2210915468
-0.0086567861	0.0000000000	-0.3148201642	0.4864201091	-0.0492854185
-0.0234777552	-0.5237499997	0.0890056215	-0.3630272902	0.2208894130

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2	-0.0625146816	0.0000000000	-0.2958800038	0.4940478242	-0.0342916475
3	-0.0369873737	-0.6064814126	0.0843191864	-0.4526586863	0.2167661028
4	-0.0960245718	0.0000000000	-0.3713311567	0.4739221417	-0.1138183840
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6	-0.0369873737	-0.6064814126	0.0843191864	-0.4526586863	0.2167661028
7	-0.0960245718	#N/A	-0.3713311567	#N/A	-0.1138183840
8	-0.4769597196	0.3974627798	-0.2619754808	0.3519993706	-0.2751550019
9	-0.7034365582	0.0000000000	-0.0547797042	-0.0441887864	-0.1148303314
10					
11	-0.4769051085	0.3404935827	-0.2742854887	0.3002038344	-0.2910738132
12	-0.7285981991	0.0000000000	-0.1370058760	-0.0402194688	-0.1869857194
13	-0.4769915011	0.3425898867	-0.2739385280	0.3021346823	-0.2905206672
14	-0.7276748746	0.0000000000	-0.1340896502	-0.0400711422	-0.1843517041
15	-0.4766610697	0.4030424987	-0.2605552635	0.3570366502	-0.2735465595
16	-0.7008015387	0.0000000000	-0.0464231184	-0.0452600419	-0.1076363282
17	0.0611850303	0.2395285412	0.2647323810	0.2969292966	0.3085128874
18	-0.0383031975	0.0000000000	0.3543246987	0.2935195975	0.4438197989
19					
20	-0.4768036850	0.3381683302	-0.2746566584	0.2980585197	-0.2916822096
21	-0.7296274179	0.0000000000	-0.1402294722	-0.0404168983	-0.1899072530
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	SSS Aug	SSS Aug 3pt mean	SSS Aug min	SS Aug min 3pt mean	SSS Aug max
	AG149:AG168	AH150:AH167	AI149:AI168	AJ150:AJ167	AK149:AK168
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5	-0.4049121419	-0.2140914277	-0.4130847063	-0.1851200866	0.1002861570
6	-0.2469158034	-0.5810974486	-0.2285502940	-0.5500583469	0.0000000000
7					
8	-0.4049121419	-0.2140914277	-0.4130847063	-0.1851200866	0.1002861570
9	-0.2469158034	-0.5810974486	-0.2285502940	-0.5500583469	0.0000000000
10	-0.0722479607	0.1686442309	-0.1290173438	0.1044523443	0.1574866672
11	0.0806203515	0.0927713304	0.0396562923	0.0271870789	0.0000000000
12	-0.0722479607	0.1686442309	-0.1290173438	0.1044523443	0.1574866672
13	0.0806203515	0.0927713304	0.0396562923	0.0271870789	0.0000000000
14	0.2174807145	0.4584179330	0.2202385151	0.3984770337	-0.2224881003
15	-0.2923469088	-0.4205434943	-0.2667296470	-0.4174071349	-0.4277903195
16	-0.6993560168	-0.4763310840	-0.6985977456	-0.5011685914	-0.2408979749
17	0.0136093623	0.2599598795	0.0335267380	0.2209674351	-0.4521916838
18	-0.1879853285	0.0774436840	-0.1702440414	0.0351770927	-0.4667423996
19	0.0962232908	-0.1904186601	0.0581761328	-0.1379118385	0.6132339253
20	-0.0616249891	-0.2668874189	-0.0349045978	-0.1856048794	0.1742073399
21	-0.2796405886	-0.3501459416	-0.3006188921	-0.3067667112	0.1584101719
22	0.0746290027	-0.1958104314	0.0481972593	-0.1351968559	0.5501952744
23	-0.1257023066	-0.0015029357	-0.1671004379	-0.0282757587	0.1962264344
24	0.1130472765	0.3600837490	0.1009104247	0.3084284708	-0.0897075701
25	-0.4218995438	-0.4695065365	-0.4184238712	-0.4811418130	-0.4251463367
26	-0.7321526353	-0.4657182236	-0.7376541540	-0.4955033513	-0.2050339502
27	-0.0562560379	0.1988806717	-0.0516118121	0.1598044138	-0.3625915570
28	-0.2348706760	0.0515828334	-0.2321536268	0.0090543782	-0.3725649590
29	0.0424147429	-0.2372247337	-0.0136892196	-0.2020798037	0.6985275509
30	-0.1167618291	-0.2951191342	-0.1077823627	-0.2246689393	0.2650297129
31	0.2267308211	-0.1524604618	0.1544603231	-0.0892814753	0.8570893169
32	-0.0734783308	0.1193589510	-0.1438005114	0.0341566277	0.4328950328
33	0.0553347093	0.1335401922	0.0226679360	0.0553468166	0.0000000000
34	-0.0734783308	0.1193589510	-0.1438005114	0.0341566277	0.4328950328
35	0.0553347093	0.1335401922	0.0226679360	0.0553468166	0.0000000000
36	-0.0069947994	0.2521275662	-0.0669517737	0.1686919784	0.2220680879
37	0.2608823978	0.3210219847	0.2341210030	0.2473651275	0.0000000000
38	-0.0069947994	0.2521275662	-0.0669517737	0.1686919784	0.2220680879
39	0.2608823978	0.3210219847	0.2341210030	0.2473651275	0.0000000000
40	0.2070892248	-0.1397346267	0.1787341585	-0.1832992572	0.1321368334
41	-0.0634336498	-0.0313091657	-0.1032704932	-0.1158187265	0.0000000000
42	0.1945849754	-0.0539710198	0.1871417365	-0.0803991979	0.0342970834
43	0.0018449141	0.1402096338	-0.0261197449	0.0665509792	0.0000000000
44	0.2096411412	-0.0431063680	0.1922959207	-0.0776561316	0.0941519494
45	-0.0026847359	0.1310287582	-0.0325032666	0.0544204167	0.0000000000
46	0.2096411412	-0.0431063680	0.1922959207	-0.0776561316	0.0941519494
47	-0.0026847359	0.1310287582	-0.0325032666	0.0544204167	0.0000000000
48	0.3359704708	-0.2273372534	0.2596953557	-0.2665861041	0.5663466978
49	-0.3631088432	-0.4242214173	-0.3993521844	-0.4999766295	0.0000000000
50	0.3396304077	-0.2127363051	0.2670446426	-0.2529870303	0.5237499997
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2	-0.3224816775	-0.3867557084	-0.3624190418	-0.4663468909	0.0000000000
3	0.3527193749	-0.2048540072	0.2715657587	-0.2467051937	0.6064814126
4	-0.3360329592	-0.3600089742	-0.3738531638	-0.4428594245	0.0000000000
5	0.3527193749	-0.2048540072	0.2715657587	-0.2467051937	0.6064814126
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7	#N/A	-0.3600089742	#N/A	-0.4428594245	#N/A
8	-0.4711744587	-0.0932624605	-0.4475024314	-0.1314804461	-0.3974627798
9	0.1314312454	0.1768013196	0.1224862901	0.1449269218	0.0000000000
10	-0.4389369361	-0.1263623047	-0.4177415258	-0.1617461254	-0.3404935827
11	0.0695597068	0.1380509236	0.0628153663	0.1027786236	0.0000000000
12	-0.4405688932	-0.1254797825	-0.4193319417	-0.1610060058	-0.3425898867
13	0.0716234306	0.1391105801	0.0647856782	0.1039341050	0.0000000000
14	-0.4732164317	-0.0892978819	-0.4491733970	-0.1276961439	-0.4030424987
15	0.1379100657	0.1813317699	0.1287804388	0.1498645562	0.0000000000
16	0.3666590507	0.1446835241	0.3881959537	0.1329987817	-0.2395285412
17	0.1980613597	0.0682467760	0.1426067397	0.0291964213	0.0000000000
18	-0.4370785494	-0.1273012368	-0.4159240618	-0.1625230688	-0.3381683302
19	0.0672973783	0.1369205527	0.0606579641	0.1015450606	0.0000000000
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	SSS Aug max 3pt mean AL150:AL167	SST Summer AM149:AM168	SST Summer 3pt mean AN150:AN167	SST Summer min AO149:AO168	SST Summer min 3pt mean AP150:AP167
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6	-0.2179947250	-0.2944183718	-0.0672660087	-0.1416748606	-0.1846593937
7	-0.0760359496	-0.2554110354	-0.2713629305	-0.3581381142	-0.3248630553
8	-0.2179947250	-0.2944183718	-0.0672660087	-0.1416748606	-0.1846593937
9	-0.0760359496	-0.2554110354	-0.2713629305	-0.3581381142	-0.3248630553
10	0.2520961767	-0.4182437662	-0.6025061373	0.3801718810	0.2493407312
11	-0.0429433475	-0.6401412872	-0.7790395007	0.3630795316	0.5124528680
12	0.2520961767	-0.4182437662	-0.6025061373	0.3801718810	0.2493407312
13	-0.0429433475	-0.6401412872	-0.7790395007	0.3630795316	0.5124528680
14	0.2019572861	-0.0900378666	-0.4402354047	0.6958015484	0.6291829054
15	-0.4181216449	-0.0563130437	-0.0028327744	-0.1107446454	-0.1861813831
16	0.1509959791	-0.2314726665	-0.3824809614	-0.2025172107	-0.2221354306
17	-0.2826623473	-0.2276400627	-0.6876598188	0.5777562691	0.6180291775
18	-0.2010139432	-0.2664737512	-0.7277195095	0.4504404035	0.4738918479
19	0.1933716207	0.2143517998	0.7325440548	-0.5701166377	-0.6367898762
20	0.0110502911	0.3716747202	0.6201470374	-0.5684979366	-0.6018567352
21	-0.0694070506	0.2276522253	0.3766079630	-0.2721450176	-0.3928511530
22	0.1504996270	0.2612330831	0.7584449703	-0.5954754534	-0.6523859876
23	0.3005098835	-0.1533980333	-0.3448256872	0.1235273875	0.0869641786
24	0.3074100336	-0.1212514842	-0.4505036535	0.5709801162	0.4762929130
25	-0.3628152053	-0.0517022467	-0.1177884775	-0.0144884741	-0.1828954823
26	0.2786939820	-0.1913163043	-0.4497316089	-0.2018944978	-0.2483008486
27	-0.1437799922	-0.2165525159	-0.6788479859	0.5570374720	0.5008232753
28	-0.0527806233	-0.2399195478	-0.7207380369	0.4416762375	0.3768000518
29	0.3731007538	0.0455636629	0.4911200862	-0.5044595705	-0.5651844920
30	0.1129949983	0.2517253111	0.4762697528	-0.5381945735	-0.5616386069
31	0.0898348085	-0.0860502701	0.7743324426	-0.4339592501	-0.6042659430
32	0.6042912302	-0.5121156946	-0.6312658801	0.1521983588	0.2301493442
33	0.2115217225	-0.4567600254	-0.7314188336	0.3747434969	0.4906908820
34	0.6042912302	-0.5121156946	-0.6312658801	0.1521983588	0.2301493442
35	0.2115217225	-0.4567600254	-0.7314188336	0.3747434969	0.4906908820
36	0.5186793464	-0.3548363739	-0.6075596522	0.3686990634	0.2858753983
37	0.2308650362	-0.3896424998	-0.6331192752	0.3558825806	0.5392434801
38	0.5186793464	-0.3548363739	-0.6075596522	0.3686990634	0.2858753983
39	0.2308650362	-0.3896424998	-0.6331192752	0.3558825806	0.5392434801
40	-0.0869085670	-0.1876522833	-0.3591041757	0.0064947100	0.2023716542
41	0.3086726360	-0.3606491452	-0.6167952525	0.2294032929	0.2276166716
42	-0.0765933166	-0.1204845800	-0.2766336031	0.0206091671	0.2083743101
43	0.4088719793	-0.3042673920	-0.5749359381	0.2706791206	0.2914361942
44	-0.0402368651	-0.1734658192	-0.3307257750	0.0400701922	0.2293558495
45	0.4007020322	-0.3243433423	-0.5981051189	0.2773370295	0.3040628648
46	-0.0402368651	-0.1734658192	-0.3307257750	0.0400701922	0.2293558495
47	0.4007020322	-0.3243433423	-0.5981051189	0.2773370295	0.3040628648
48	-0.0855941847	-0.0866381344	-0.0690355454	-0.1532583651	-0.1121148120
49	0.3148201642	-0.0676363044	-0.1368119227	-0.2369802057	-0.3014507817
50	-0.0890056215	-0.0667706233	-0.0824802953	-0.1321514496	-0.0924418668
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2	0.2958800038	-0.1002122924	-0.1829524150	-0.1873548803	-0.2422040689
3	-0.0843191864	-0.1268361884	-0.0945235524	-0.1351319256	-0.0818243838
4	0.3713311567	-0.0987181999	-0.2131864394	-0.1773618545	-0.2319660332
5	-0.0843191864	-0.1268361884	-0.0945235524	-0.1351319256	-0.0818243838
6	0.3713311567	#N/A	-0.2131864394	#N/A	-0.2319660332
7					
8	0.2619754808	-0.1528121708	-0.5403965750	0.0800153714	0.2268447947
9	0.0547797042	-0.4034892479	-0.7299780330	0.3478623551	0.4427096269
10	0.2742854887	-0.1841402899	-0.5468167660	0.0294733251	0.2072816615
11	0.1370058760	-0.4126039345	-0.7675328581	0.3205204286	0.4073041751
12	0.2739385280	-0.1830523635	-0.5467515548	0.0313075723	0.2078701328
13	0.1340896502	-0.4121642907	-0.7662768539	0.3212539712	0.4083346639
14	0.2605552635	-0.1495060018	-0.5392808077	0.0848630613	0.2289488392
15	0.0464231184	-0.4028304685	-0.7258689821	0.3510599122	0.4466788080
16	-0.2647323810	0.3294462119	0.1273813376	0.2867951677	0.0915596015
17	-0.3543246987	-0.1784082367	0.0379215296	0.2663927025	0.2791152323
18	0.2746566584	-0.1853430627	-0.5468729811	0.0274474913	0.2066482328
19	0.1402294722	-0.4131033276	-0.7689162759	0.3197413336	0.4061960969
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SST Summer max AQ149:AQ168	SST Summer max 3pt mean AR150:AR167	SSS Summer AS149:AS168	SSS Summer 3pt mean AT150:AT167	SSS Summer min AU149:AU168
-0.1101694763	0.2272555185	-0.4378567605	-0.2169308739	-0.4491250411
0.0482690467	0.1132705516	-0.2554962297	-0.5974139151	-0.2409422617
-0.1101694763	0.2272555185	-0.4378567605	-0.2169308739	-0.4491250411
0.0482690467	0.1132705516	-0.2554962297	-0.5974139151	-0.2409422617
-0.1370351358	-0.1595979506	-0.0298204435	0.2007482388	-0.0761912924
0.1260230948	0.1398608574	0.1186041550	0.1634414689	0.0826591241
-0.1370351358	-0.1595979506	-0.0298204435	0.2007482388	-0.0761912924
0.1260230948	0.1398608574	0.1186041550	0.1634414689	0.0826591241
0.2100773389	-0.1588891176	0.2602305506	0.5026631807	0.2599817820
0.4369312190	0.5623608839	-0.2950299848	-0.4073841512	-0.2791557818
0.1490489322	-0.0579768185	-0.6792986984	-0.4511472014	-0.6751989106
0.3696753421	0.1579778326	0.0557668891	0.3120769049	0.0733094150
0.3678782039	0.1207535114	-0.1451578665	0.1313858675	-0.1285507070
-0.5408498838	-0.2082209293	0.0522022719	-0.2535904530	0.0218009498
-0.1672543462	-0.0480435608	-0.1161573599	-0.3545994564	-0.0947071769
-0.0744420984	0.0260652002	-0.3120026343	-0.3996901002	-0.3351010881
-0.4895846688	-0.1638413366	0.0273122156	-0.2657592526	0.0067942532
-0.1659616348	-0.3367051969	-0.1167963586	0.0059252533	-0.1529570525
0.0822174951	-0.3066947992	0.1478980465	0.3898109004	0.1360190418
0.4559041605	0.5081798767	-0.4196569027	-0.4573875946	-0.4252223404
0.1305229725	-0.2069910653	-0.7115730774	-0.4419275461	-0.7131109162
0.2965659676	0.0244906629	-0.0149010902	0.2427364606	-0.0109148482
0.2953241725	-0.0336133276	-0.1930874988	0.0967391241	-0.1899503250
-0.6106004680	-0.3900327920	0.0044027316	-0.2893665529	-0.0417851665
-0.2370007326	-0.1590332977	-0.1683971476	-0.3774543358	-0.1629042643
-0.7854800829	-0.1080734870	0.1853378115	-0.2232448346	0.1259266579
-0.4109013655	-0.4407774349	-0.0440575114	0.1645681909	-0.1013164819
0.1932478636	-0.1096680367	0.0996745960	0.2078766014	0.0711242254
-0.4109013655	-0.4407774349	-0.0440575114	0.1645681909	-0.1013164819
0.1932478636	-0.1096680367	0.0996745960	0.2078766014	0.0711242254
-0.2126519550	-0.4167855634	0.0395091543	0.2861622959	-0.0090171351
0.2028830185	-0.1761057498	0.2921125658	0.3831805221	0.2685882563
-0.2126519550	-0.4167855634	0.0395091543	0.2861622959	-0.0090171351
0.2028830185	-0.1761057498	0.2921125658	0.3831805221	0.2685882563
0.0083544375	0.1808298391	0.2105683960	-0.0816409831	0.1807811035
0.3235440763	-0.1130138807	-0.0194898980	0.0314229350	-0.0567909288
0.0375251643	0.0962411626	0.1966221785	-0.0075301157	0.1877895592
0.1521015051	-0.3009585666	0.0385905481	0.1902242127	0.0134482676
-0.0103428075	0.0761491510	0.2139570391	0.0069606206	0.1964454383
0.1675213290	-0.2847794167	0.0354742523	0.1839736392	0.0085131288
-0.0103428075	0.0761491510	0.2139570391	0.0069606206	0.1964454383
0.1675213290	-0.2847794167	0.0354742523	0.1839736392	0.0085131288
-0.3220505316	0.2738893364	0.3213937697	-0.2050070781	0.2480101554
0.4864201091	0.0703926590	-0.3368221273	-0.3906305392	-0.3748773488
-0.2773544826	0.2720878653	0.3265868450	-0.1891324412	0.2559945457

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2	0.4940478242	0.0831287069	-0.2943083664	-0.3481827414	-0.3356593781
3	-0.3681933859	0.2683533571	0.3385901126	-0.1803602402	0.2615278665
4	0.4739221417	0.0044619361	-0.3059294353	-0.3218982919	-0.3450132248
5	-0.3681933859	0.2683533571	0.3385901126	-0.1803602402	0.2615278665
6	#N/A	0.0044619361	#N/A	-0.3218982919	#N/A
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8	0.3219113528	-0.2717699715	-0.4396574570	-0.0334898751	-0.4163626150
9	-0.0441887864	-0.1376637387	0.1696303509	0.2423601612	0.1686037184
10	0.2738154083	-0.2887580500	-0.4085975813	-0.0683614981	-0.3867856367
11	-0.0402194688	-0.2029191277	0.1091709396	0.2027314866	0.1097232592
12	0.2756214985	-0.2881318418	-0.4101659624	-0.0673890692	-0.3883437985
13	-0.0400711422	-0.2004990280	0.11111965353	0.2038460330	0.1116808323
14	0.3265699784	-0.2701318989	-0.4416326971	-0.0294173210	-0.4180771664
15	-0.0452600419	-0.1312281291	0.1759361272	0.2469216008	0.1747787619
16	0.3175103751	0.3176085568	0.3660278388	0.1335989994	0.3761027510
17	0.2935195975	0.4686890798	0.1979150920	0.0865564433	0.1398579826
18	0.2718068385	-0.2894514497	-0.4068119865	-0.0694026663	-0.3850067947
19	-0.0404168983	-0.2056082637	0.1069494059	0.2015377285	0.1075782384
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SSS Summer min 3pt mean AV150:AV167	SSS Summer max AW149:AW168	SSS Summer max 3pt mean AX150:AX167	Ice Duration AY149:AY168
-0.1947146678	0.1002861570	-0.2179947250	0.4187568153
-0.5760652980	#DIV/0!	-0.0760359496	0.4654850291
-0.1947146678	0.1002861570	-0.2179947250	0.4187568153
-0.5760652980	#DIV/0!	-0.0760359496	0.4654850291
0.1462469277	0.1574866672	0.2520961767	0.2344121682
0.1061300086	#DIV/0!	-0.0429433475	0.3162713571
0.1462469277	0.1574866672	0.2520961767	0.2344121682
0.1061300086	#DIV/0!	-0.0429433475	0.3162713571
0.4525555895	-0.2224881003	0.2019572861	-0.2445576764
-0.4141960267	-0.4277903195	-0.4181216449	0.0253368978
-0.4735879880	-0.2408979749	0.1509959791	0.3058029451
0.2805279886	-0.4521916838	-0.2826623473	-0.1386103376
0.0964414399	-0.4667423996	-0.2010139432	-0.0345224744
-0.2064460777	0.6132339253	0.1933716207	0.1510914194
-0.2877301643	0.1742073399	0.0110502911	-0.0159674264
-0.3684953998	0.1584101719	-0.0694070506	0.0151430792
-0.2125294041	0.5501952744	0.1504996270	0.1183319099
-0.0158260136	0.1962264344	0.3005098835	0.1361552244
0.3476992468	-0.0897075701	0.3074100336	-0.1355157134
-0.4788909093	-0.4251463367	-0.3628152053	0.0110821725
-0.4669752510	-0.2050339502	0.2786939820	0.2863757828
0.2115076190	-0.3625915570	-0.1437799922	-0.1089453031
0.0624190938	-0.3725649590	-0.0527806233	-0.0239619911
-0.2570396701	0.6985275509	0.3731007538	0.2846310408
-0.3200644498	0.2650297129	0.1129949983	0.0909794897
-0.1681354385	0.8570893169	0.0898348085	0.3846876060
0.0941034375	0.4328950328	0.6042912302	0.4203198010
0.1422383116	#DIV/0!	0.2115217225	0.1325741443
0.0941034375	0.4328950328	0.6042912302	0.4203198010
0.1422383116	#DIV/0!	0.2115217225	0.1325741443
0.2177708919	0.2220680879	0.5186793464	0.1691399576
0.3230878969	#DIV/0!	0.2308650362	0.0074193911
0.2177708919	0.2220680879	0.5186793464	0.1691399576
0.3230878969	#DIV/0!	0.2308650362	0.0074193911
-0.1216548243	0.1321368334	-0.0869085670	0.0712701820
-0.0420376951	#DIV/0!	0.3086726360	0.1261157133
-0.0302704457	0.0342970834	-0.0765933166	0.0161496220
0.1295510254	#DIV/0!	0.4088719793	0.0523223062
-0.0228816936	0.0941519494	-0.0402368651	0.0552266071
0.1204488077	#DIV/0!	0.4007020322	0.0647938473
-0.0228816936	0.0941519494	-0.0402368651	0.0552266071
0.1204488077	#DIV/0!	0.4007020322	0.0647938473
-0.2461950195	0.5663466978	-0.0855941847	0.1344140380
-0.4638594244	#DIV/0!	0.3148201642	0.1371291909
-0.2310311123	0.5237499997	-0.0890056215	0.0989481091

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2	-0.4244662916	#DIV/0!	0.2958800038	0.1282775127
3	-0.2236106914	0.6064814126	-0.0843191864	0.1678199376
4	-0.4001398241	#DIV/0!	0.3713311567	0.1243786714
5	-0.2236106914	0.6064814126	-0.0843191864	0.1678199376
6	-0.4001398241	#N/A	0.3713311567	#N/A
7	-0.0603254653	-0.3974627798	0.2619754808	0.0587224791
8	0.2235770397	#DIV/0!	0.0547797042	0.1821880624
9	-0.0927842300	-0.3404935827	0.2742854887	0.1021732698
10	0.1810227584	#DIV/0!	0.1370058760	0.2177652589
11	-0.0919364641	-0.3425898867	0.2739385280	0.1006834218
12	0.1822185530	#DIV/0!	0.1340896502	0.2164814101
13	-0.0563980756	-0.4030424987	0.2605552635	0.0541671075
14	0.2284905290	#DIV/0!	0.0464231184	0.1787106441
15	0.1169576271	-0.2395285412	-0.2647323810	-0.4855227528
16	0.0425714550	#DIV/0!	-0.3543246987	-0.1236675078
17	-0.0936833187	-0.3381683302	0.2746566584	0.1038152328
18	0.1797417275	#DIV/0!	0.1402294722	0.2191839061
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	Ice Duration 3pt mean AZ150:AZ167	Ice Duration min BA149:BA168	Ice Duration min 3pt mean BB150:BB167	Ice Duration max BC149:BC168
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5	0.1837321407	0.1002861570	-0.2179947250	0.1337360496
6	0.5901246364	0.0000000000	-0.0760359496	0.3816023125
7	0.1837321407	0.1002861570	-0.2179947250	0.1337360496
8	0.5901246364	0.0000000000	-0.0760359496	0.3816023125
9	0.3916786734	0.1574866672	0.2520961767	-0.4494633513
10	0.3639965702	0.0000000000	-0.0429433475	-0.3852534600
11	0.3916786734	0.1574866672	0.2520961767	-0.4494633513
12	0.3639965702	0.0000000000	-0.0429433475	-0.3852534600
13	-0.0106317881	-0.2224881003	0.2019572861	-0.5765793591
14	0.1064620719	-0.4277903195	-0.4181216449	0.3022540900
15	0.5404352562	-0.2408979749	0.1509959791	0.3074178083
16	0.1760474806	-0.4521916838	-0.2826623473	-0.4074433654
17	0.3271707866	-0.4667423996	-0.2010139432	-0.2705959153
18	-0.2402614763	0.6132339253	0.1933716207	0.2981616026
19	-0.1043129209	0.1742073399	0.0110502911	0.5031559711
20	-0.0253230060	0.1584101719	-0.0694070506	0.2196851952
21	-0.2486566489	0.5501952744	0.1504996270	0.3532599267
22	0.2830079399	0.1962264344	0.3005098835	-0.2135277937
23	0.1064034400	-0.0897075701	0.3074100336	-0.5219860489
24	0.2023082180	-0.4251463367	-0.3628152053	0.2056405165
25	0.6321757219	-0.2050339502	0.2786939820	0.2933409181
26	0.2533801220	-0.3625915570	-0.1437799922	-0.4241109775
27	0.3930217631	-0.3725649590	-0.0527806233	-0.3009772273
28	-0.0314743627	0.6985275509	0.3731007538	0.1956149521
29	0.0187435282	0.2650297129	0.1129949983	0.4326929190
30	-0.3019430920	0.8570893169	0.0898348085	0.0580511967
31	0.4622852989	0.4328950328	0.6042912302	-0.3623984194
32	0.3261838537	0.0000000000	0.2115217225	-0.3919912960
33	0.4622852989	0.4328950328	0.6042912302	-0.3623984194
34	0.3261838537	0.0000000000	0.2115217225	-0.3919912960
35	0.3878212492	0.2220680879	0.5186793464	-0.4869166603
36	0.1755112593	0.0000000000	0.2308650362	-0.4055737510
37	0.3878212492	0.2220680879	0.5186793464	-0.4869166603
38	0.1755112593	0.0000000000	0.2308650362	-0.4055737510
39	0.1511328604	0.1321368334	-0.0869085670	-0.0869293591
40	0.3826346888	0.0000000000	0.3086726360	-0.2383523099
41	0.0624644904	0.0342970834	-0.0765933166	-0.0546751615
42	0.3077289703	0.0000000000	0.4088719793	-0.2963610016
43	0.0976066427	0.0941519494	-0.0402368651	-0.1041196315
44	0.3197918291	0.0000000000	0.4007020322	-0.3030799210
45	0.0976066427	0.0941519494	-0.0402368651	-0.1041196315
46	0.3197918291	0.0000000000	0.4007020322	-0.3030799210
47	0.0760041042	0.5663466978	-0.0855941847	-0.0957913065
48	0.2944077326	0.0000000000	0.3148201642	0.2321793592
49	0.0712536443	0.5237499997	-0.0890056215	-0.0989888728
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2	0.2883040309	0.0000000000	0.2958800038	0.1786022566
3	0.0740313224	0.6064814126	-0.0843191864	-0.1329648080
4	0.3196091181	0.0000000000	0.3713311567	0.1675956237
5	0.0740313224	0.6064814126	-0.0843191864	-0.1329648080
6	0.3196091181	#N/A	0.3713311567	#N/A
7	0.4272210758	-0.3974627798	0.2619754808	0.0750990502
8	0.4102032871	0.0000000000	0.0547797042	-0.3246937862
9	0.4592596355	-0.3404935827	0.2742854887	0.0980247363
10	0.4865188669	0.0000000000	0.1370058760	-0.2921157920
11	0.4583257657	-0.3425898867	0.2739385280	0.0971988291
12	0.4839978458	0.0000000000	0.1340896502	-0.2930471680
13	0.4235244381	-0.4030424987	0.2605552635	0.0729723293
14	0.4020196396	0.0000000000	0.0464231184	-0.3283820382
15	-0.3047600114	-0.2395285412	-0.2647323810	-0.1783834028
16	-0.3759154108	0.0000000000	-0.3543246987	-0.3306526782
17	0.4602672064	-0.3381683302	0.2746566584	0.0989330407
18	0.4892840533	0.0000000000	0.1402294722	-0.2911170388
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Ice Duration max 3pt mean BD150:BD167	Ice Cover BE149:BE168	Ice Cover 3pt mean BF150:BF167	Ice Cover min BG149:BG168	Ice Cover min 3pt mean BH150:BH167
0.2356870278	0.4179174227	0.1823540122	0.1002861570	-0.2179947250
0.3763847630	0.4641673612	0.5856775922	0.0000000000	-0.0760359496
0.2356870278	0.4179174227	0.1823540122	0.1002861570	-0.2179947250
0.3763847630	0.4641673612	0.5856775922	0.0000000000	-0.0760359496
-0.3089724154	0.2343005210	0.3763009980	0.1574866672	0.2520961767
-0.5084976257	0.3017810448	0.3452442218	0.0000000000	-0.0429433475
-0.3089724154	0.2343005210	0.3763009980	0.1574866672	0.2520961767
-0.5084976257	0.3017810448	0.3452442218	0.0000000000	-0.0429433475
-0.6623218635	-0.2530349335	-0.0272703830	-0.2224881003	0.2019572861
0.2904898017	0.0233166752	0.1118844158	-0.4277903195	-0.4181216449
0.1882577567	0.3174072305	0.5479026711	-0.2408979749	0.1509959791
-0.5907692701	-0.1477668808	0.1548345148	-0.4521916838	-0.2826623473
-0.4606549085	-0.0392610479	0.3108551289	-0.4667423996	-0.2010139432
0.5948228234	0.1615523539	-0.2190493161	0.6132339253	0.1933716207
0.6131557360	-0.0107633177	-0.0966325728	0.1742073399	0.0110502911
0.4180319337	0.0259441716	-0.0154192725	0.1584101719	-0.0694070506
0.6220968674	0.1280268973	-0.2293821592	0.5501952744	0.1504996270
-0.1722091322	0.1403421405	0.2771996007	0.1962264344	0.3005098835
-0.5480464046	-0.1399845035	0.0916404589	-0.0897075701	0.3074100336
0.2569289798	0.0125127670	0.2058191720	-0.4251463367	-0.3628152053
0.1837323278	0.3000074407	0.6387684886	-0.2050339502	0.2786939820
-0.5086363526	-0.1147662492	0.2340788759	-0.3625915570	-0.1437799922
-0.4009574453	-0.0256643533	0.3777053034	-0.3725649590	-0.0527806233
0.4840281540	0.2948839794	-0.0133384318	0.6985275509	0.3731007538
0.5475536069	0.0967763198	0.0243578405	0.2650297129	0.1129949983
0.5860986828	0.3905077104	-0.2844152771	0.8570893169	0.0898348085
-0.3534482868	0.4247281657	0.4556176262	0.4328950328	0.6042912302
-0.5472946273	0.1264205620	0.3153151706	0.0000000000	0.2115217225
-0.3534482868	0.4247281657	0.4556176262	0.4328950328	0.6042912302
-0.5472946273	0.1264205620	0.3153151706	0.0000000000	0.2115217225
-0.4018515337	0.1727175294	0.3756516205	0.2220680879	0.5186793464
-0.6143705241	-0.0044555423	0.1621900947	0.0000000000	0.2308650362
-0.4018515337	0.1727175294	0.3756516205	0.2220680879	0.5186793464
-0.6143705241	-0.0044555423	0.1621900947	0.0000000000	0.2308650362
-0.1921144137	0.0661299371	0.1522145973	0.1321368334	-0.0869085670
-0.3037894337	0.1286413435	0.3807075972	0.0000000000	0.3086726360
-0.2127263345	0.0099392594	0.0628126978	0.0342970834	-0.0765933166
-0.3978112523	0.0530105640	0.3023241543	0.0000000000	0.4088719793
-0.2418148511	0.0492467665	0.0971793945	0.0941519494	-0.0402368651
-0.4087018594	0.0652821466	0.3141628303	0.0000000000	0.4007020322
-0.2418148511	0.0492467665	0.0971793945	0.0941519494	-0.0402368651
-0.4087018594	0.0652821466	0.3141628303	0.0000000000	0.4007020322
0.1231437092	0.1349041585	0.0825939265	0.5663466978	-0.0855941847
0.2405436356	0.1538630970	0.3109637319	0.0000000000	0.3148201642
0.1018054364	0.0990540413	0.0773311089	0.5237499997	-0.0890056215

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0.1814718255	0.1434023423	0.3032726851	0.0000000000	0.2958800038
0.0894309895	0.1679532904	0.0798020255	0.6064814126	-0.0843191864
0.1566648115	0.1403257168	0.3339425510	0.0000000000	0.3713311567
0.0894309895	0.1679532904	0.0798020255	0.6064814126	-0.0843191864
0.1566648115	#N/A	0.3339425510	#N/A	0.3713311567
-0.2588911640	0.0634117505	0.4253292704	-0.3974627798	0.2619754808
-0.4451128084	0.1716411683	0.3937881479	0.0000000000	0.0547797042
-0.2378042829	0.1065952226	0.4575347577	-0.3404935827	0.2742854887
-0.4216588537	0.2093290854	0.4707372610	0.0000000000	0.1370058760
-0.2384792296	0.1051296147	0.4566050386	-0.3425898867	0.2739385280
-0.4222767981	0.2079817616	0.4682050948	0.0000000000	0.1340896502
-0.2610712696	0.0588483901	0.4215947230	-0.4030424987	0.2605552635
-0.4478296823	0.1679257858	0.3855197128	0.0000000000	0.0464231184
-0.0806816656	-0.4928667620	-0.3079182282	-0.2395285412	-0.2647323810
-0.2581237595	-0.1295510551	-0.3747414471	0.0000000000	-0.3543246987
-0.2370714782	0.1082086707	0.4585364645	-0.3381683302	0.2746566584
-0.4210058970	0.2108164840	0.4735132554	0.0000000000	0.1402294722

	Ice Cover max BI149:BI168	Ice Cover max 3pt mean BJ150:BJ167	Productivity BK149:BK168	Productivity 3pt mean BL150:BL167	Productivity min BM149:BM168
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4					
5	0.1323897576	0.2365868454	-0.2164612825	0.0072598189	-0.1932038517
6	0.3816023125	0.3766974675	-0.4844102384	-0.2658341304	-0.3816023125
7					
8	0.1323897576	0.2365868454	-0.2164612825	0.0072598189	-0.1932038517
9	0.3816023125	0.3766974675	-0.4844102384	-0.2658341304	-0.3816023125
10	-0.4498474052	-0.3100128513	-0.1011329853	-0.3027532682	0.2984857278
11	-0.3852534600	-0.5083182003	-0.1287049168	0.0074333282	0.3852534600
12	-0.4498474052	-0.3100128513	-0.1011329853	-0.3027532682	0.2984857278
13	-0.3852534600	-0.5083182003	-0.1287049168	0.0074333282	0.3852534600
14	-0.5728583040	-0.6631537487	0.3133389651	-0.0155266179	0.6840691004
15	0.3057073734	0.2922163151	0.2834387273	0.2906554841	0.0276314472
16	0.3090024545	0.1876331167	0.1289316482	-0.2506170590	-0.1096696769
17	-0.4018860005	-0.5895990218	0.4279341582	0.1942417266	0.6926636422
18	-0.2652531361	-0.4598225338	0.4133858209	0.0913853487	0.5780896284
19	0.2912924330	0.5940215020	-0.5443083295	-0.1635288646	-0.7071745658
20	0.5001067745	0.6131076814	-0.2071973617	-0.1845625964	-0.5828054757
21	0.2175364797	0.4183170853	-0.1163792089	-0.0287523854	-0.3128825529
22	0.3468719287	0.6214725834	-0.4979772536	-0.1560800519	-0.7127393100
23	-0.2149153492	-0.1734501444	-0.1357745626	-0.2977999853	0.0556705372
24	-0.5197261954	-0.5493144594	0.1817735949	-0.1727263799	0.5400438970
25	0.2093210192	0.2584271021	0.3228845864	0.2216451565	0.1139322070
26	0.2946065090	0.1825800667	0.1213162634	-0.3904323932	-0.1222653600
27	-0.4193992549	-0.5080402770	0.3713582598	0.0498859128	0.6443100597
28	-0.2964895473	-0.4007377931	0.3591531172	-0.0601367707	0.5390048394
29	0.1881681881	0.4824846378	-0.6324800924	-0.3360532859	-0.6740935673
30	0.4289270791	0.5470845805	-0.2925372906	-0.2851864530	-0.5829285755
31	0.0493914463	0.5857252021	-0.7947615912	-0.0996487632	-0.6610325683
32	-0.3657445849	-0.3559437933	-0.3585061025	-0.4831460749	0.0236391230
33	-0.3919912960	-0.5481664815	0.1376946910	-0.0907590248	0.3919912960
34	-0.3657445849	-0.3559437933	-0.3585061025	-0.4831460749	0.0236391230
35	-0.3919912960	-0.5481664815	0.1376946910	-0.0907590248	0.3919912960
36	-0.4878434905	-0.4039931091	-0.1087365857	-0.4462174536	0.2868518636
37	-0.4055737510	-0.6153220413	0.0995712207	-0.0755717733	0.4055737510
38	-0.4878434905	-0.4039931091	-0.1087365857	-0.4462174536	0.2868518636
39	-0.4055737510	-0.6153220413	0.0995712207	-0.0755717733	0.4055737510
40	-0.0880128901	-0.1917545632	-0.1021899195	0.1710483759	-0.0144047698
41	-0.2383523099	-0.3050636597	0.2083110803	-0.1712548094	0.2383523099
42	-0.0548721548	-0.2124090253	-0.0351979835	0.1661639358	0.0255688668
43	-0.2963610016	-0.3994991273	0.2053329377	-0.2542227698	0.2963610016
44	-0.1047810269	-0.2416476505	-0.0815559633	0.1371431434	0.0282321917
45	-0.3030799210	-0.4103559343	0.2043605163	-0.2456825564	0.3030799210
46	-0.1047810269	-0.2416476505	-0.0815559633	0.1371431434	0.0282321917
47	-0.3030799210	-0.4103559343	0.2043605163	-0.2456825564	0.3030799210
48	-0.1011615483	0.1234968970	-0.4338725448	0.1274160692	-0.3143612602
49	0.2321793592	0.2392418818	0.2114174705	-0.1552164629	-0.2321793592
50	-0.1039279118	0.1021728035	-0.3897888732	0.1348310398	-0.2812232576
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2	0.1786022566	0.1802485618	0.2203992380	-0.1297368509	-0.1786022566
3	-0.1386359026	0.0897790408	-0.4741356596	0.1328570877	-0.3089070993
4	0.1675956237	0.1551298861	0.2382657737	-0.1966600983	-0.1675956237
5	-0.1386359026	0.0897790408	-0.4741356596	0.1328570877	-0.3089070993
6					
7	#N/A	0.1551298861	#N/A	-0.1966600983	#N/A
8	0.0788472387	-0.2599726161	0.3184791046	-0.2374313608	0.2134340029
9	-0.3246937862	-0.4453374151	-0.0952560801	-0.1498802938	0.3246937862
10	0.1011473045	-0.2389366816	0.2562335174	-0.2612781935	0.1520943162
11	-0.2921157920	-0.4222233047	-0.0962413421	-0.2349496401	0.2921157920
12	0.1003443719	-0.2396101919	0.2585736337	-0.2604632552	0.1543352942
13	-0.2930471680	-0.4228291969	-0.0961045183	-0.2319379282	0.2930471680
14	0.0767814814	-0.2621468450	0.3244557776	-0.2349987797	0.2193334605
15	-0.3283820382	-0.4480197496	-0.0954504881	-0.1412165042	0.3283820382
16	-0.1755378620	-0.0795874954	0.3398972000	0.3229392894	0.3327359375
17	-0.3306526782	-0.2566587072	0.2225667780	0.5594130333	0.3306526782
18	0.1020301456	-0.2382054133	0.2536321819	-0.2621728516	0.1496157121
19	-0.2911170388	-0.4215836701	-0.0964022802	-0.2382784498	0.2911170388
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	Prod min 3pt mean	Productivity max	Prod max 3pt mean
	BN150:BN167	BO149:BO168	BP150:BP167
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5	-0.1572910799	-0.1002861570	0.2179947250
6	-0.3347303820	#DIV/0!	0.0760359496
7			
8	-0.1572910799	-0.1002861570	0.2179947250
9	-0.3347303820	#DIV/0!	0.0760359496
10	0.2165413489	-0.1574866672	-0.2520961767
11	0.4969470091	#DIV/0!	0.0429433475
12	0.2165413489	-0.1574866672	-0.2520961767
13	0.4969470091	#DIV/0!	0.0429433475
14			
15	0.5680965197	0.2224881003	-0.2019572861
16	-0.1479828739	0.4277903195	0.4181216449
17	-0.2254604962	0.2408979749	-0.1509959791
18	0.6488177232	0.4521916838	0.2826623473
19	0.4999641162	0.4667423996	0.2010139432
20	-0.6252590885	-0.6132339253	-0.1933716207
21	-0.5867219397	-0.1742073399	-0.0110502911
22			
23	-0.3763869284	-0.1584101719	0.0694070506
24	-0.6380433801	-0.5501952744	-0.1504996270
25			
26	0.0715663295	-0.1962264344	-0.3005098835
27	0.4270026747	0.0897075701	-0.3074100336
28	-0.1330353789	0.4251463367	0.3628152053
29	-0.2603624272	0.2050339502	-0.2786939820
30	0.5280389459	0.3625915570	0.1437799922
31	0.3976584002	0.3725649590	0.0527806233
32	-0.5750363403	-0.6985275509	-0.3731007538
33	-0.5556111527	-0.2650297129	-0.1129949983
34	-0.5851703354	-0.8570893169	-0.0898348085
35	0.1507189815	-0.4328950328	-0.6042912302
36	0.4557281344	#DIV/0!	-0.2115217225
37	0.1507189815	-0.4328950328	-0.6042912302
38	0.4557281344	#DIV/0!	-0.2115217225
39	0.2230531703	-0.2220680879	-0.5186793464
40	0.5136021727	#DIV/0!	-0.2308650362
41	0.2230531703	-0.2220680879	-0.5186793464
42	0.5136021727	#DIV/0!	-0.2308650362
43			
44	0.2094527375	-0.1321368334	0.0869085670
45	0.1942397731	#DIV/0!	-0.3086726360
46	0.2258949045	-0.0342970834	0.0765933166
47	0.2529236723	#DIV/0!	-0.4088719793
48	0.2424058772	-0.0941519494	0.0402368651
49	0.2657929382	#DIV/0!	-0.4007020322
50			
51	0.2424058772	-0.0941519494	0.0402368651
52	0.2657929382	#DIV/0!	-0.4007020322
53			
54	-0.0908734076	-0.5663466978	0.0855941847
55	-0.3255020361	#DIV/0!	-0.3148201642
56	-0.0695257054	-0.5237499997	0.0890056215
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2	-0.2634885240	#DIV/0!	-0.2958800038
3	-0.0591920857	-0.6064814126	0.0843191864
4	-0.2630540614	#DIV/0!	-0.3713311567
5	-0.0591920857	-0.6064814126	0.0843191864
6	-0.2630540614	#N/A	-0.3713311567
7			
8	0.1658630177	0.3974627798	-0.2619754808
9	0.4066415172	#DIV/0!	-0.0547797042
10	0.1420223428	0.3404935827	-0.2742854887
11	0.3590824961	#DIV/0!	-0.1370058760
12	0.1427709848	0.3425898867	-0.2739385280
13	0.3605657521	#DIV/0!	-0.1340896502
14	0.1683731239	0.4030424987	-0.2605552635
15	0.4117919599	#DIV/0!	-0.0464231184
16	0.1580379579	0.2395285412	0.2647323810
17	0.3543560957	#DIV/0!	0.3543246987
18	0.1412112243	0.3381683302	-0.2746566584
19	0.3574715586	#DIV/0!	-0.1402294722
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2		%
3		Brigantedinium spp.
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5		
6		%Si(opal) 0.100854674
7		%Si(opal) 3pt mean 0.04968452
8		Conc. Si(opal) (mg/g) 0.100854674
9		Conc. Si(opal) (mg/g) 3pt mean 0.04968452
10		Conc. Si(opal) (mg/cm ³) 0.066470811
11		Conc. Si(opal) (mg/cm ³) 3pt mean 0.168748484
12		
13	Median Si(Opal) Flux (mg/cm ² /cal yr)	0.066470811
14	Median Si(Opal) Flux 3pt mean	0.168748484
15	% Brigantedinium spp.	
16	% Islandinium minutum	
17	% Islandinium? cezare	
18	% Echinidinium karaense	
19	% Islandinium cezare s.l.	
20	% Operculodinium centrocarpum sensu Wall & Dale (1966)	
21	% Spiniferites elongatus/frigidus	
22	Concentration (#dinos/g)	
23	% Autotroph	
24		
25	Total Dinocysts Flux	
26	Flux Brigantedinium spp.	
27	Flux Islandinium minutum	
28	Flux Islandinium? cezare	
29	Flux Echinidinium karaense	
30	Flux Islandinium cezare s.l.	
31	Flux Operculodinium centrocarpum sensu Wall & Dale (1966)	
32	Flux Spiniferites elongatus/frigidus	
33	Autotroph:Heterotroph	
34	TOC (%) by wt	
35	TOC (%) 3pt mean	
36	TOC (mg/g)	
37	TOC (mg/g) 3pt mean	
38	TOC (mg/cm ³)	
39	TOC (mg/cm ³) 3pt mean	
40		
41	TOC Flux (mg/cm ² /cal yr)	
42	TOC Flux 3pt mean	
43	IP25 conc. (µg/g)	
44	IP25 conc. (µg/g) 3pt mean	
45	IP25 conc. (µg/g OC)	
46	IP25 conc. (µg/g OC) 3pt mean	
47	IP25 conc. (µg/cm ³)	
48	IP25 conc (µg/cm ³) 3pt mean	
49		
50	Median IP25 Flux (µg/cm ² /cal yr)	
51	IP25 Flux 3pt mean	
52	Brassicasterol conc. (µg/g)	
53	Brassicasterol conc. (µg/g) 3pt mean	
54	Brassicasterol conc. (µg/g OC)	
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Brassicasterol conc. (ug/g OC) 3pt mean
 Brassicasterol conc. (µg/cm3)
 Brassicasterol conc. (ug/cm3) 3pt mean)
 Median Brassicasterol Flux (µg/cm2/cal yr)
 Brassicasterol flux 3pt mean
 PIP25 norm to OC mean-c
 PIP25 norm to OC mean-c 3pt mean
 PIP25 norm to OC median-c
 PIP25 norm to OC median-c 3pt mean
 PIP25 norm to OC mean-c no extremes
 PIP25 norm to OC mean-c no ext 3pt mean
 Flux-based PIP25 mean-c
 Flux-based PIP25 mean-c 3pt mean
 Flux-based PIP25 median-c
 Flux-based PIP25 median-c 3pt mean
 Flux-based PIP25 mean-c no extremes
 Flux-based PIP25 mean-c no ext 3pt moving mean



	%	%	%	%	%	%
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3	Islandinium minutum	Islandinium?	cezare	Echinidinium	Islandinium ce	Operculodinium α Spiniferites elonga
4						
5	0.083107655	0.115688556	7.2813E-05	0.010974196	0.001494838	0.007548171
6	0.177855372	0.131792656	0.00127	0.021599754	0.035105672	0.123163694
7	0.083107655	0.115688556	7.2813E-05	0.010974196	0.001494838	0.007548171
8	0.177855372	0.131792656	0.00127	0.021599754	0.035105672	0.123163694
9	8.78993E-05	0.04638956	0.18936967	0.19755092	0.126138747	0.190898419
10	0.03468492	0.119421537	0.4863159	0.524931759	0.622457255	0.396686216
11	8.78993E-05	0.04638956	0.18936967	0.19755092	0.126138747	0.190898419
12	0.03468492	0.119421537	0.4863159	0.524931759	0.622457255	0.396686216
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Peer Review

			Total	Flux	Flux	Flux
	Concent % Autotroph	Dinocysts	Flux	Brigantedinium spp.	Islandinium minutum	Islandinium? cezare
5	0.0892	0.00025281	0.100854674	0.083107655	0.115688556	7.28129E-05
6	0.0527	0.01077716	0.04968452	0.177855372	0.131792656	0.001270002
8	0.0892	0.00025281	0.100854674	0.083107655	0.115688556	7.28129E-05
9	0.0527	0.01077716	0.04968452	0.177855372	0.131792656	0.001270002
10	0.0058	0.14887699	0.066470811	8.78993E-05	0.04638956	0.18936967
11	0.2884	0.61948716	0.168748484	0.03468492	0.119421537	0.486315897
12	0.0058	0.14887699	0.066470811	8.78993E-05	0.04638956	0.18936967
13	0.2884	0.61948716	0.168748484	0.03468492	0.119421537	0.486315897

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Peer Review

	Flux	Flux	Flux	Flux	
1					
2	Flux	Flux	Flux	Flux	
3	Echinidinium	Islandinium	Operculodinium	centrocarpum sensu Wall & Dale (1966)	Spiniferites elonga
4					
5	0.0109742	0.001494838		0.007548171	0.089221002
6	0.02159975	0.035105672		0.123163694	0.052665436
7	0.0109742	0.001494838		0.007548171	0.089221002
8	0.02159975	0.035105672		0.123163694	0.052665436
9	0.19755092	0.126138747		0.190898419	0.00575259
10	0.52493176	0.622457255		0.396686216	0.288375631
11	0.19755092	0.126138747		0.190898419	0.00575259
12	0.52493176	0.622457255		0.396686216	0.288375631
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Autotroph:Heterotroph	TOC (%) by wt	TOC (%) 3pt mean	TOC (mg/g)	TOC (mg/g) 3pt mean	TOC (mg/cm ³)	
	0.000252807	0.005415023	0.000899179	0.005415	0.000899179	0.02736066
	0.010777155	0.004695414	9.18837E-06	0.0046954	9.18837E-06	0.000217322
	0.000252807	0.005415023	0.000899179	0.005415	0.000899179	0.02736066
	0.010777155	0.004695414	9.18837E-06	0.0046954	9.18837E-06	0.000217322
	0.148876993	0.470999944	0.168977627	0.4709999	0.168977627	0.789942731
	0.619487159	0.276323422	0.626964343	0.2763234	0.626964343	0.229419966
	0.148876993	0.470999944	0.168977627	0.4709999	0.168977627	0.789942731
	0.619487159	0.276323422	0.626964343	0.2763234	0.626964343	0.229419966
		0.079735355	0.320706484	0.0797354	0.320706484	0.149561921
		0.047304636	0.022421495	0.0473046	0.022421495	0.032546011
		0.049724713	0.094913155	0.0497247	0.094913155	0.011669407
		0.006727931	0.259561444	0.0067279	0.259561444	0.096231967
		0.018476113	0.299227053	0.0184761	0.299227053	0.092312662
		0.008046238	0.4193951	0.0080462	0.4193951	0.056488535
		0.18088348	0.525481425	0.1808835	0.525481425	0.211869681
		0.059109671	0.258724683	0.0591097	0.258724683	0.062457272
		0.026815129	0.477985825	0.0268151	0.477985825	0.087325971
		0.091293286	0.16422442	0.0912933	0.16422442	0.09248055
		0.125693686	0.338374954	0.1256937	0.338374954	0.193064245
		0.038742176	0.004640844	0.0387422	0.004640844	0.002440385
		0.05289377	0.128658878	0.0528938	0.128658878	0.027685688
		0.022610377	0.300307755	0.0226104	0.300307755	0.151475235
		0.036539578	0.337160903	0.0365396	0.337160903	0.149250296
		0.01030901	0.129049587	0.010309	0.129049587	0.011072544
		0.087528592	0.328540909	0.0875286	0.328540909	0.131052577
		0.013603778	0.511473804	0.0136038	0.511473804	0.004410788

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TOC Flux					
TOC (mg/cm3) 3pt mean	(mg/cm2/cal yr)	TOC Flux 3pt mean	IP25 conc. (µg/g)	IP25 conc. (ug/g) 3pt mean	
0.006487329	0.02736066	0.006487329	0.001609429		0.000437105
0.019276453	#N/A	0.019276453	9.85037E-05		0.003099222
0.006487329	0.02736066	0.006487329	0.001609429		0.000437105
0.019276453	0.000217322	0.019276453	9.85037E-05		0.000443027
0.119841073	0.789942731	0.119841073	0.007502965		0.199013818
0.566477013	0.229419966	0.566477013	0.217421271		0.386801669
0.119841073	0.789942731	0.119841073	0.007502965		0.199013818
0.566477013	0.229419966	0.566477013	0.217421271		0.386801669
0.244857328	0.149561921	0.244857328	0.14628944		0.346010927
0.020882363	0.032546011	0.020882363	0.001377101		2.63512E-06
0.017833322	0.011669407	0.017833322	0.025905206		0.09233304
0.25256136	0.096231967	0.25256136	0.016979816		0.104069342
0.235574361	0.092312662	0.235574361	0.004710408		0.145162331
0.318003654	0.056488535	0.318003654	0.04787849		0.353980855
0.470251149	0.211869681	0.470251149	0.195124215		0.482510375
0.472501825	0.062457272	0.472501825	0.093419052		0.195044271
0.376994124	0.087325971	0.376994124	0.076792612		0.42232211
0.07644853	0.09248055	0.07644853	0.060461483		0.183817807
0.236918292	0.193064245	0.236918292	0.141309628		0.387948513
0.020525436	0.002440385	0.020525436	0.000724635		0.02133995
0.02914385	0.027685688	0.02914385	0.008489756		0.139876159
0.220941311	0.151475235	0.220941311	0.036164187		0.189393929
0.212960009	0.149250296	0.212960009	0.021000642		0.235160796
0.120411515	0.011072544	0.120411515	0.003301612		0.117127219
0.321196029	0.131052577	0.321196029	0.11181936		0.310685037
0.405922648	0.004410788	0.405922648	0.014526867		0.479824161
			0.065615959		0.512113475
			0.451804916		0.746337681
			0.065615959		0.512113475
			0.451804916		0.746337681
			0.000398147		0.281353754
			0.411260794		0.558221551
			0.000398147		0.281353754
			0.411260794		0.558221551

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IP25 conc. ($\mu\text{g/g OC}$)	IP25 conc. ($\mu\text{g/g OC}$) 3pt mean	IP25 conc. ($\mu\text{g/cm}^3$)	IP25 conc ($\mu\text{g/cm}^3$) 3pt mean
7.3835E-07	0.00370058	5.33842E-05	0.003138632
0.006209952	0.038181025	0.004308599	0.039651702
7.3835E-07	0.06073037	5.33842E-05	0.056772574
0.006209952	0.065059977	0.004308599	0.063440515
0.058221054	0.050651578	0.022734341	0.052579868
0.151206368	0.138045468	0.187153526	0.131303743
0.058221054	0.134858246	0.022734341	0.143983114
0.151206368	0.278537243	0.187153526	0.299435052
0.127556387	0.373240561	0.147715414	0.374315142
0.049034061	0.074131892	0.051308623	0.0603471
0.009778178	0.036382475	0.011786881	0.045254631
0.014655502	0.077483073	0.01771517	0.091339225
0.006121901	0.09364046	0.007407395	0.111581299
0.025077795	0.203076665	0.02810654	0.229659778
0.122168734	0.356106769	0.153997295	0.382892912
0.098189026	0.17223779	0.10665944	0.189471037
0.04251891	0.260409858	0.049814155	0.290073408
0.165910489	0.385803937	0.181145055	0.360771407
0.208651174	0.575175477	0.236103493	0.554361441
0.019923012	0.003833769	0.020854442	0.001976128
0.001531275	0.117071956	0.000679089	0.125343685
0.066167505	0.243371243	0.074688863	0.24898098
0.056370107	0.278640027	0.061666043	0.287337445
0.000489499	0.019824906	0.000680166	0.029181867
0.04610749	0.181134582	0.062232493	0.200508042
0.017877391	0.308835939	0.012673717	0.340460002
0.007681879	0.483333734	0.037294366	0.505239568
0.421443417	0.71712734	0.489418839	0.753528321
0.007681879	0.483333734	0.037294366	0.505239568
0.421443417	0.71712734	0.489418839	0.753528321
0.029359716	0.27289661	0.005025116	0.285069633
0.390681143	0.639175165	0.459215355	0.669942526
0.029359716	0.27289661	0.005025116	0.285069633
0.390681143	0.639175165	0.459215355	0.669942526

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Peer Review

	Median IP25 Flux ($\mu\text{g}/\text{cm}^2/\text{cal yr}$)	IP25 Flux 3pt mean	Brassicasterol conc. ($\mu\text{g}/\text{g}$)	Brassicasterol conc. ($\mu\text{g}/\text{g}$) 3pt mean
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5	5.33842E-05	0.003138632	0.001396469	0.004230849
6	0.004308599	0.039651702	0.000411051	0.011938445
7				
8	5.33842E-05	0.056772574	0.001396469	0.004230849
9	0.004308599	0.063440515	0.000411051	0.011938445
10	0.022734341	0.052579868	0.017436052	0.059521012
11	0.187153526	0.131303743	0.017359162	0.058786346
12	0.022734341	0.143983114	0.017436052	0.059521012
13	0.187153526	0.299435052	0.017359162	0.058786346
14	0.147715414	0.374315142	0.001263379	0.063718374
15	0.051308623	0.0603471	0.002219942	0.149718243
16	0.011786881	0.045254631	0.168062441	0.091831757
17	0.01771517	0.091339225	0.054318179	0.024424015
18	0.007407395	0.111581299	0.103861953	0.001701403
19	0.02810654	0.229659778	0.057948559	0.060234158
20	0.153997295	0.382892912	0.004228907	0.092747972
21	0.10665944	0.189471037	0.00151499	0.02168041
22	0.049814155	0.290073408	0.035159165	0.076716896
23	0.181145055	0.360771407	0.003722022	0.000575315
24	0.236103493	0.554361441	0.000398963	0.025089997
25	0.020854442	0.001976128	0.001671334	0.183636218
26	0.000679089	0.125343685	0.144432119	0.069363584
27	0.074688863	0.24898098	0.042832641	0.018966218
28	0.061666043	0.287337445	0.077925044	0.002653257
29	0.000680166	0.029181867	0.083143429	0.030927146
30	0.062232493	0.200508042	0.000258504	0.070163702
31	0.012673717	0.340460002	0.16125319	0.102105317
32	0.037294366	0.505239568	0.091844126	0.228733868
33	0.489418839	0.753528321	0.039346537	0.122264856
34	0.037294366	0.505239568	0.091844126	0.228733868
35	0.489418839	0.753528321	0.039346537	0.122264856
36	0.005025116	0.285069633	0.027691214	0.110846716
37	0.459215355	0.669942526	0.050992319	0.053897653
38	0.005025116	0.285069633	0.027691214	0.110846716
39	0.459215355	0.669942526	0.050992319	0.053897653
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Brassicasterol conc. ($\mu\text{g/g OC}$)	Brassicasterol conc. ($\mu\text{g/g OC}$) 3pt mean	Brassicasterol conc. ($\mu\text{g/cm}^3$)
0.000900924	0.005100776	0.001747673
0.00011309	0.008618815	0.000100298
0.000900924	0.005100776	0.001747673
0.00011309	0.008618815	0.000100298
0.016838044	0.070948681	0.024048904
0.021882438	0.091146387	0.025434551
0.016838044	0.070948681	0.024048904
0.021882438	0.091146387	0.025434551
0.004324952	0.089900225	0.001699116
0.001245444	0.140108372	0.006913482
0.169762103	0.087634467	0.166722657
0.040664831	0.009736786	0.053704106
0.087162737	5.3062E-05	0.102813627
0.041174036	0.089032568	0.064029605
0.008378584	0.131403323	0.005787611
0.000315642	0.039234156	0.001039217
0.022561024	0.111100533	0.038278514
0.005236935	0.003108747	0.009251749
0.002419309	0.04371161	0.001864944
0.000424214	0.183103117	0.004478694
0.141915094	0.070069105	0.138092463
0.029758721	0.005692119	0.037227535
0.061421868	1.55504E-05	0.070023928
0.064254214	0.047066721	0.098124144
0.001666856	0.100085332	0.0002642
0.126596723	0.140201135	0.182646761
0.08451851	0.252406758	0.11293017
0.048897977	0.167966566	0.055135909
0.08451851	0.252406758	0.11293017
0.048897977	0.167966566	0.055135909
0.026682551	0.128776602	0.037379591
0.063711674	0.089980105	0.070721084
0.026682551	0.128776602	0.037379591
0.063711674	0.089980105	0.070721084

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Peer Review

	Median Brassicasterol Flux		
	Brassicasterol conc. (ug/cm3) 3pt mean)	($\mu\text{g}/\text{cm}^2/\text{cal yr}$)	Brassicasterol flux 3pt mean
1			
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6	0.007821499	0.001747673	0.007821499
7	0.00623858	0.000100298	0.00623858
8	0.007821499	0.001747673	0.007821499
9	0.00623858	0.000100298	0.00623858
10	0.084604067	0.024048904	0.084604067
11	0.094808571	0.025434551	0.094808571
12	0.084604067	0.024048904	0.084604067
13	0.094808571	0.025434551	0.094808571
14	0.102128149	0.001699116	0.102128149
15	0.103089573	0.006913482	0.103089573
16	0.09278531	0.166722657	0.09278531
17	0.010455515	0.053704106	0.010455515
18	4.70895E-05	0.102813627	4.70895E-05
19	0.082916402	0.064029605	0.082916402
20	0.135747393	0.005787611	0.135747393
21	0.043821551	0.001039217	0.043821551
22	0.10658569	0.038278514	0.10658569
23	0.008089512	0.009251749	0.008089512
24	0.058670549	0.001864944	0.058670549
25	0.145167426	0.004478694	0.145167426
26	0.081887885	0.138092463	0.081887885
27	0.004558198	0.037227535	0.004558198
28	0.000278597	0.070023928	0.000278597
29	0.035216136	0.098124144	0.035216136
30	0.097172169	0.0002642	0.097172169
31	0.137799711	0.182646761	0.137799711
32	0.305986557	0.11293017	0.305986557
33	0.191313457	0.055135909	0.191313457
34	0.305986557	0.11293017	0.305986557
35	0.191313457	0.055135909	0.191313457
36	0.163219265	0.037379591	0.163219265
37	0.110620674	0.070721084	0.110620674
38	0.163219265	0.037379591	0.163219265
39	0.110620674	0.070721084	0.110620674
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Peer Review

	PIP25 norm to OC mean-c	PIP25 norm to OC mean-c 3pt mean	PIP25 norm to OC median-c	PIP25 norm to OC median-c 3pt mean
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4				
5	0.011349502	0.010978016	0.005335069	0.012337245
6	0.001907416	0.000266924	0.008011436	0.002999769
7	0.011349502	0.010978016	0.005335069	0.012337245
8	0.001907416	0.000266924	0.008011436	0.002999769
9	0.004245759	0.131047636	0.001986048	0.143806706
10	0.225284297	0.457437653	0.222291983	0.463279666
11	0.004245759	0.131047636	0.001986048	0.143806706
12	0.225284297	0.457437653	0.222291983	0.463279666
13	0.068970499	0.085807904	0.061587163	0.097056642
14	0.001380396	0.071299719	1.13585E-05	0.069772157
15	0.280122256	0.05446368	0.260089962	0.07899449
16	0.112792275	0.326639064	0.095603036	0.28957692
17	0.199651944	0.333985855	0.174612284	0.317715888
18	0.182057102	0.199222982	0.153503691	0.203577251
19	0.190138171	0.330377593	0.171771672	0.323116406
20	0.030772069	0.174152275	0.03048103	0.171253306
21	0.19962465	0.231756633	0.171671278	0.237800736
22	0.052112847	0.118301463	0.056983054	0.135705177
23	0.084345298	0.136023792	0.080031268	0.153923799
24	0.00658357	0.040452323	0.000624237	0.037223688
25	0.334827211	0.122806372	0.316033408	0.16232655
26	0.147938804	0.367077267	0.128316049	0.341316051
27	0.236698375	0.396458232	0.210667782	0.390010155
28	0.075374066	0.057937008	0.051811797	0.050173516
29	0.11405484	0.226932306	0.095124115	0.209358866
30	0.245083857	0.239246035	0.200521484	0.252467939
31	0.035504217	0.140236932	0.044133913	0.183832835
32	0.322484717	0.495989983	0.329002938	0.531799183
33	0.035504217	0.140236932	0.044133913	0.183832835
34	0.322484717	0.495989983	0.329002938	0.531799183
35	0.006678302	0.094448131	0.005192428	0.115050736
36	0.165822224	0.375249082	0.168510952	0.385232259
37	0.006678302	0.094448131	0.005192428	0.115050736
38	0.165822224	0.375249082	0.168510952	0.385232259
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Peer Review

	PIP25 norm to OC mean-c no extremes	PIP25 norm to OC mean-c no ext 3pt mean	Flux-based PIP25 mean-c	Flux-based PIP25 mean-c 3pt mean
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5	0.005538968	0.012284177	0.011951153	0.010854856
6	0.007732837	0.002855566	0.001515672	0.00015357
7	0.005538968	0.012284177	0.011951153	0.010854856
8	0.007732837	0.002855566	0.001515672	0.00015357
9	0.002081678	0.14339735	0.004406294	0.129605507
10	0.22249842	0.463235346	0.22526234	0.456303805
11	0.002081678	0.14339735	0.004406294	0.129605507
12	0.22249842	0.463235346	0.22526234	0.456303805
13	0.061833323	0.096514458	0.06972674	0.084977219
14	3.15907E-06	0.069813263	0.001669129	0.071411161
15	0.261279034	0.078158764	0.280885885	0.052019747
16	0.096205626	0.290923359	0.114515799	0.330162927
17	0.175607354	0.318422668	0.20185209	0.335169754
18	0.154534237	0.20332304	0.184864038	0.19897993
19	0.172553429	0.323493307	0.191594686	0.330769003
20	0.030395033	0.171336348	0.031024924	0.174461349
21	0.172708743	0.237508281	0.202284687	0.23128649
22	0.056926685	0.135122155	0.051325506	0.116394615
23	0.080240583	0.153182187	0.084591929	0.134389864
24	0.000747923	0.037304306	0.007371062	0.040830977
25	0.3172585	0.161029633	0.335262147	0.118680775
26	0.129099683	0.342321036	0.149636457	0.36925398
27	0.21180877	0.390422094	0.238688977	0.396460114
28	0.052572151	0.050378055	0.077976001	0.058915494
29	0.095831913	0.210072198	0.115835921	0.228470662
30	0.202114391	0.251923753	0.249562213	0.238053191
31	0.04390402	0.182245165	0.034461341	0.135976405
32	0.328931785	0.530729748	0.321364215	0.491750816
33	0.04390402	0.182245165	0.034461341	0.135976405
34	0.328931785	0.530729748	0.321364215	0.491750816
35	0.005281418	0.114313207	0.006720532	0.092362376
36	0.168377388	0.384991788	0.165587566	0.373792575
37	0.005281418	0.114313207	0.006720532	0.092362376
38	0.168377388	0.384991788	0.165587566	0.373792575
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Peer Review

	Flux-based PIP25 median-c	Flux-based PIP25 median-c 3pt mean	Flux-based PIP25 mean-c no extremes	Flux-based PIP25 mean-c no ext 3pt mean	SST Feb
1					
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4					
5	0.02324322	0.004291138	0.005111677	0.012396352	0.0101
6	0.007832506	0.008455336	0.008323801	0.003162707	0.1187
7	0.02324322	0.004291138	0.005111677	0.012396352	0.0101
8	0.007832506	0.008455336	0.008323801	0.003162707	0.1187
9	0.000216301	0.003044518	0.001879899	0.144255872	0.0163
10	0.000430573	0.044449277	0.222055672	0.463314884	0.0009
11	0.000216301	0.003044518	0.001879899	0.144255872	0.0163
12	0.000430573	0.044449277	0.222055672	0.463314884	0.0009
13	0.057544757	0.112156572	0.061317989	0.097673491	0.0401
14	0.04559268	0.125886685	2.64909E-05	0.069730591	0.0034
15	0.143620309	0.006711978	0.258725344	0.07991005	0.0262
16	0.046889808	0.048195773	0.094938989	0.288090122	0.0003
17	0.00675181	0.028013967	0.173502953	0.316925096	0.0009
18	0.057789265	0.193239116	0.152364314	0.203871008	0.0006
19	0.006237696	0.10584468	0.170895925	0.322687875	0.0237
20	0.040438897	0.025018561	0.030587633	0.171164626	0.0504
21	0.049823506	0.197228434	0.170521671	0.238134373	0.0026
22	0.015991461	9.55173E-05	0.057032875	0.13634804	0.0351
23	0.018093226	0.058317882	0.079795588	0.154758431	0.0486
24	0.059212973	0.186112912	0.000498782	0.037139261	0.0101
25	0.160977812	0.030537949	0.31462023	0.163743781	0.0063
26	0.027725545	0.036601558	0.127442713	0.340202074	0.0103
27	0.002101668	0.015030534	0.209386185	0.389541281	0.0049
28	0.11223356	0.205236067	0.050978869	0.049954852	0.0003
29	0.026373456	0.103045866	0.0943393	0.208560876	0.0087
30	0.061980251	0.179370506	0.198759878	0.253079084	0.017
31	0.032338524	0.009550738	0.044378951	0.185590447	0.0057
32	7.74136E-05	0.053984933	0.329066268	0.532962529	0.0692
33	0.032338524	0.009550738	0.044378951	0.185590447	0.0057
34	7.74136E-05	0.053984933	0.329066268	0.532962529	0.0692
35	3.02963E-05	0.005395214	0.005090797	0.115867291	0.0243
36	0.021119685	0.076022643	0.168665154	0.38549071	0.0631
37	3.02963E-05	0.005395214	0.005090797	0.115867291	0.0243
38	0.021119685	0.076022643	0.168665154	0.38549071	0.0631
39					0.058
40					0.13
41					0.0148
42					0.0895
43					0.0214
44					0.0943
45					0.0214
46					0.0943
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Peer Review

	SST Feb 3pt mean	SST Feb min	SST Feb min 3pt mean	SST Feb max	SST Feb max 3pt mean	SSS Feb
1						
2						
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4						
5	0.047318921	0.0365994	0.028691058	0.01005731	0.0475217	0.113
6	0.089859596	0.1456203	0.117404253	1.9992E-29	0.005781466	0.0769
7	0.047318921	0.0365994	0.028691058	0.01005731	0.0475217	0.113
8	0.089859596	0.1456203	0.117404253	1.2178E-31	0.005781466	0.0769
9	0.000507193	0.1087956	0.053353492	0.02480205	0.063552482	0.0016
10	0.028415148	0.1484202	0.251536361	4.267E-32	0.001844131	0.0433
11	0.000507193	0.1087956	0.053353492	0.02480205	0.063552482	0.0016
12	0.028415148	0.1484202	0.251536361	1.2161E-30	0.001844131	0.0433
13	0.064304111	0.4787416	0.342079877	0.04950095	0.040786745	0.1117
14	0.010895986	0.0003243	0.028611416	0.18300456	0.17482571	0.0652
15	0.000455683	0.0199587	0.049061611	0.05803183	0.022799786	0.4503
16	0.009301567	0.456578	0.415244267	0.20447732	0.079898003	0.024
17	0.008423936	0.3070626	0.247334744	0.21784847	0.040406605	0.0031
18	0.007044004	0.4532377	0.390159851	0.37605585	0.037392584	0.0027
19	0.062180598	0.349483	0.352787948	0.0303482	0.000122109	0.0401
20	0.024607028	0.0962572	0.147874781	0.02509378	0.004817339	0.097
21	0.011497254	0.47056	0.40902522	0.30271484	0.022650138	0.0065
22	0.000290255	0.0063725	0.007451058	0.03850481	0.09030619	0.0045
23	0.023855623	0.3087638	0.199599023	0.00804745	0.094500929	0.0502
24	0.02008508	0.0052784	0.022941024	0.18074941	0.131634873	0.1211
25	0.008757073	0.0226591	0.062997743	0.04203892	0.077670336	0.4967
26	0.010620053	0.403103	0.279209677	0.13147264	0.020672686	0.0075
27	0.013495859	0.2740928	0.160386359	0.13880465	0.002785794	0.0103
28	0.007493524	0.3959291	0.319771561	0.48794074	0.139204172	0.0043
29	0.067351369	0.3379488	0.3110892	0.07024075	0.01276787	0.0507
30	0.008824322	0.3577869	0.346646953	0.7346021	0.008070293	0.0149
31	0.034721712	0.0052209	0.032571518	0.18739811	0.365167891	0.0002
32	0.095418035	0.1536572	0.222277987	1.2146E-32	0.044741439	0.028
33	0.034721712	0.0052209	0.032571518	0.18739811	0.365167891	0.0002
34	0.095418035	0.1536572	0.222277987	6.2967E-31	0.044741439	0.028
35	0.004634484	0.1054599	0.062415541	0.04931424	0.269028264	0.0077
36	0.083420074	0.1644901	0.281950942	5.7677E-31	0.053298665	0.1353
37	0.004634484	0.1054599	0.062415541	0.04931424	0.269028264	0.0077
38	0.083420074	0.1644901	0.281950942	2.9114E-32	0.053298665	0.1353
39	0.105906699	3.415E-07	0.043357357	0.01746014	0.007553099	0.0617
40	0.151769983	0.0568118	0.044515706	0	0.095278796	0.0005
41	0.072498241	0.0009326	0.050786004	0.00117629	0.005866536	0.0484
42	0.086740174	0.0878298	0.075652614	8.4003E-32	0.167176295	0.008
43	0.083554685	0.0015916	0.059417483	0.00886459	0.001619005	0.0601
44	0.095572054	0.0918574	0.082779316	1.3958E-31	0.160562119	0.0079
45	0.083554685	0.0015916	0.059417483	0.00886459	0.001619005	0.0601
46	0.095572054	0.0918574	0.082779316	4.0831E-32	0.160562119	0.0079
47	0.114009033	0.0713095	0.009217169	0.32074858	0.007326364	0.0998
48	0.350641166	0.0539073	0.099434924	9.4392E-33	0.099111736	0.1248
49	0.118591764	0.0561747	0.005555217	0.27431406	0.007922001	0.1045
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2	0.371094319	0.0318988	0.064196954	2.268E-34	0.087544977	0.0912
3	0.121980493	0.0660094	0.004076561	0.3678197	0.007109725	0.1141
4	0.347657318	0.0280883	0.062232288	5.4765E-33	0.137886828	0.0984
5	0.121980493	0.0660094	0.004076561	0.3678197	0.007109725	0.1141
6	0.347657318	#N/A	0.062232288	#N/A	0.137886828	#N/A
7	0.008648215	0.0323582	0.032432538	0.15797666	0.068631153	0.1557
8	0.063594418	0.1054261	0.171832432	0	0.003000816	0.0327
9	0.013670065	0.0148604	0.02449244	0.11593588	0.075232529	0.1392
10	0.070761015	0.0853316	0.136987479	1.0741E-31	0.01877061	0.0139
11	0.013421301	0.0153809	0.024725421	0.11736783	0.075042317	0.1401
12	0.070428319	0.0858766	0.138002615	5.4913E-32	0.017980034	0.0144
13	0.008305765	0.0343915	0.0333312	0.16244326	0.067889045	0.1566
14	0.063026818	0.1078348	0.175863821	1.3221E-31	0.002155106	0.0351
15	0.120141889	0.1037753	0.021892097	0.05737392	0.070083234	0.1437
16	0.454635628	0.1093312	0.117479461	2.5074E-31	0.125545992	0.0973
17	0.013953293	0.0142953	0.024241194	0.11435782	0.07543628	0.1382
18	0.071138754	0.0847491	0.135891112	1.9696E-32	0.019664305	0.0134
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	SSS Feb 3pt mean	SSS Feb min	SSS Feb min 3pt mean	SSS Feb max	SSS Feb max 3pt mean	SST Winter
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5	0.042795886	0.1295038	0.039230163	0.04678598	0.069540836	0.0324203
6	0.247584714	0.0721987	0.261128583	0.15094083	0.222139305	0.1284726
7	0.042795886	0.1295038	0.039230163	0.04678598	0.069540836	0.0324203
8	0.247584714	0.0721987	0.261128583	0.15094083	0.222139305	0.1284726
9	0.068248117	0.0087144	0.013889442	0.1600196	0.114592293	0.0182642
10	0.079152185	0.0037996	0.005148626	0.14956302	0.199511216	0.0097427
11	0.068248117	0.0087144	0.013889442	0.1600196	0.114592293	0.0182642
12	0.079152185	0.0037996	0.005148626	0.14956302	0.199511216	0.0097427
13	0.307054336	0.0729583	0.18486717	0.13316693	0.326627905	0.083646
14	0.139883441	0.07633	0.168397776	0.11387484	0.153347488	0.0008657
15	0.153442187	0.5105523	0.228877822	0.08617845	0.015412618	0.0081946
16	0.184735218	0.0061919	0.075722902	0.12571352	0.328418818	0.0293988
17	0.064540878	0.0182421	0.008134495	0.05199707	0.216666187	0.0156197
18	0.142561656	0.0004629	0.037933803	0.01701935	0.218570712	0.0449263
19	0.153362603	0.0043127	0.039869565	0.17983005	0.330364447	0.0697009
20	0.153511485	0.0772182	0.082066514	0.04514546	0.169441376	0.0100966
21	0.146902511	7.775E-05	0.03613258	0.03767701	0.259307002	0.0518686
22	0.006115151	0.0164256	0.000128298	0.05023181	0.083443629	0.0163222
23	0.20682819	0.0241904	0.119890171	0.14716075	0.309094108	0.0691398
24	0.142135767	0.1598334	0.200612223	0.06747757	0.079419255	0.0278068
25	0.146478881	0.561434	0.225023335	0.08035313	0.006578571	0.0006331
26	0.130752004	4.285E-06	0.045436066	0.14238626	0.304333083	0.0494271
27	0.047399626	0.0351981	0.003832205	0.06869852	0.21756188	0.0362107
28	0.134366972	0.0011853	0.053747717	0.00106225	0.110590429	0.0355642
29	0.147012113	0.0155425	0.048601301	0.1217407	0.234212057	0.051988
30	0.113394083	0.0199953	0.020084104	0.01004948	0.237851159	0.1266524
31	0.044026092	0.0134951	0.002423758	0.19734824	0.164437693	0.0003495
32	0.089746734	0.0016285	0.008882035	0.1400424	0.308797307	0.1178351
33	0.044026092	0.0134951	0.002423758	0.19734824	0.164437693	0.0003495
34	0.089746734	0.0016285	0.008882035	0.1400424	0.308797307	0.1178351
35	0.109897477	0.0012644	0.03354413	0.26263072	0.221586842	0.0240794
36	0.207939417	0.0643328	0.077551564	0.25270978	0.450844664	0.1034629
37	0.109897477	0.0012644	0.03354413	0.26263072	0.221586842	0.0240794
38	0.207939417	0.0643328	0.077551564	0.25270978	0.450844664	0.1034629
39	0.000589178	0.0307013	0.025572679	0.02941322	0.031720632	0.0513169
40	0.009715795	0.0103726	0.00868072	0.04926931	0.131424622	0.190736
41	0.001739848	0.0323629	0.003405999	0.01347529	0.059871237	0.0177036
42	0.061487554	0.0001092	0.00789533	0.10809795	0.246932816	0.1309566
43	0.003812652	0.0358272	0.002893928	0.03243433	0.077499221	0.0215608
44	0.060750542	0.0002763	0.006226716	0.11178714	0.254631423	0.1383329
45	0.003812652	0.0358272	0.002893928	0.03243433	0.077499221	0.0215608
46	0.060750542	0.0002763	0.006226716	0.11178714	0.254631423	0.1383329
47	0.03301278	0.0644254	0.070169022	0.03222802	0.009177414	0.0424488
48	0.143362687	0.1888761	0.254144607	0.02795063	0.02731812	0.2258136
49	0.026526185	0.0683455	0.062370363	0.03148315	0.004786182	0.0565133
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2	0.108178693	0.1545694	0.218378026	0.01215568	0.010805701	0.241443
3	0.023220874	0.0725045	0.058870552	0.04935608	0.002998708	0.0321818
4	0.092354505	0.1629467	0.197025343	0.00956976	0.005328567	0.2505359
5	0.023220874	0.0725045	0.058870552	0.04935608	0.002998708	0.0321818
6	0.092354505	#N/A	0.197025343	#N/A	0.005328567	#N/A
7	7.72808E-05	0.197753	0.014306956	0.00427849	0.034453061	0.0181728
8	0.078102525	0.0130794	0.020837325	0.03031599	0.127951188	0.0010021
9	0.001625555	0.1794294	0.021739466	0.0042976	0.023842526	0.0107348
10	0.05878288	0.0027875	0.010745857	0.01669793	0.111125787	0.0008026
11	0.001554902	0.1804953	0.02154174	0.0042953	0.024187419	0.0110192
12	0.05927639	0.0030016	0.010972964	0.01707689	0.111608285	0.000796
13	2.65609E-05	0.1985528	0.013486102	0.00429669	0.035578537	0.0188727
14	0.080517924	0.0146286	0.022249114	0.03197916	0.129830894	0.0010618
15	0.031818325	0.1651669	0.023801406	0.00897792	0.034941404	0.1010906
16	0.03205913	0.0421469	0.008057899	0.24599637	0.125745138	0.1423569
17	0.001702932	0.178206	0.021947359	0.00429972	0.023465548	0.0104186
18	0.058258985	0.0025628	0.010506966	0.01628933	0.110608549	0.0008114
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	SST Winter 3pt mean	SST Winter min	SST Winter min 3pt mean	SST Winter max	SST Winter max 3pt mean
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5	0.031942279	0.018541366	0.054776012	0.010057313	0.0475217
6	0.099339717	0.145620325	0.14122601	0.002034389	0.005781466
7	0.031942279	0.018541366	0.054776012	0.010057313	0.0475217
8	0.099339717	0.145620325	0.14122601	0.002034389	0.005781466
9	7.51305E-06	0.201290454	0.094291736	0.02480205	0.063552482
10	0.071787775	0.148420228	0.258878711	0.01386746	0.001844131
11	7.51305E-06	0.201290454	0.094291736	0.02480205	0.063552482
12	0.071787775	0.148420228	0.258878711	0.01386746	0.001844131
13	0.078169152	0.340178539	0.436633285	0.049500955	0.040786745
14	0.026698806	0.087536704	0.082565389	0.183004557	0.17482571
15	0.000150471	0.092687571	0.035866234	0.058031834	0.022799786
16	0.001636776	0.174315581	0.351493109	0.204477319	0.079898003
17	0.001007792	0.078570203	0.213579216	0.217848468	0.040406605
18	0.041640797	0.096506368	0.355516427	0.376055847	0.037392584
19	0.149469709	0.258687665	0.376034149	0.030348197	0.000122109
20	0.057929403	0.049980445	0.174302808	0.025093783	0.004817339
21	0.054195752	0.133122734	0.388382419	0.30271484	0.022650138
22	0.00279596	0.044495317	0.028882341	0.038504814	0.09030619
23	0.022217678	0.276671087	0.297810116	0.008047448	0.094500929
24	0.032560165	0.03954523	0.064616276	0.180749408	0.131634873
25	0.009427732	0.084655603	0.034527848	0.042038921	0.077670336
26	2.63873E-07	0.187167078	0.259790591	0.131472637	0.020672686
27	0.000649103	0.095551369	0.161072841	0.138804649	0.002785794
28	0.049449679	0.043760002	0.236983884	0.487940739	0.139204172
29	0.165511083	0.193140864	0.300722174	0.070240749	0.01276787
30	0.045904065	0.005457733	0.344277094	0.734602097	0.008070293
31	0.026688252	0.126872725	0.121732086	0.187398109	0.365167891
32	0.139830001	0.153657176	0.297774884	0.03260814	0.044741439
33	0.026688252	0.126872725	0.121732086	0.187398109	0.365167891
34	0.139830001	0.153657176	0.297774884	0.03260814	0.044741439
35	0.003001035	0.235327531	0.158360298	0.049314236	0.269028264
36	0.116829409	0.164490067	0.375298169	0.035940823	0.053298665
37	0.003001035	0.235327531	0.158360298	0.049314236	0.269028264
38	0.116829409	0.164490067	0.375298169	0.035940823	0.053298665
39	0.160564912	0.007212573	0.037156218	0.017460143	0.007553099
40	0.178480779	0.056811824	0.090879518	0.091403649	0.095278796
41	0.110641345	0.002948691	0.045494011	0.00117629	0.005866536
42	0.092616219	0.087829843	0.155810878	0.020200571	0.167176295
43	0.124074333	0.010585356	0.058616243	0.00886459	0.001619005
44	0.104118528	0.091857439	0.164576568	0.024503992	0.160562119
45	0.124074333	0.010585356	0.058616243	0.00886459	0.001619005
46	0.104118528	0.091857439	0.164576568	0.024503992	0.160562119
47	0.12700031	0.007386735	0.01500551	0.320748582	0.007326364
48	0.299605136	0.053907255	0.058998951	0.206594934	0.099111736
49	0.133638662	0.008087695	0.010228063	0.274314062	0.007922001
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2	0.330536041	0.031898766	0.033740266	0.213125104	0.087544977
3	0.13764269	0.015021079	0.007884562	0.367819704	0.007109725
4	0.29846493	0.028088293	0.025422788	0.196114916	0.137886828
5	0.13764269	0.015021079	0.007884562	0.367819704	0.007109725
6	0.29846493	#N/A	0.025422788	#N/A	0.137886828
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8	0.001141804	0.004654731	0.066005856	0.157976661	0.068631153
9	0.014773989	0.105426055	0.197745207	0.001704986	0.003000816
10	0.003771075	0.008517465	0.055572204	0.11593588	0.075232529
11	0.021964871	0.085331636	0.176917364	0.001412438	0.01877061
12	0.003624971	0.008358052	0.055892099	0.11736783	0.075042317
13	0.021637691	0.085876643	0.177455995	0.001402039	0.017980034
14	0.000996831	0.004354399	0.067136298	0.162443256	0.067889045
15	0.014206065	0.107834763	0.200224917	0.001788655	0.002155106
16	0.117906176	0.033688994	0.006833511	0.057373922	0.070083234
17	0.477040624	0.109331194	0.068002499	0.075226496	0.125545992
18	0.003938863	0.008694588	0.055225945	0.11435782	0.07543628
19	0.022335339	0.08474913	0.176348208	0.001426338	0.019664305
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	SSS Winter	SSS Winter 3pt mean	SSS Winter min	SSS Winter min 3pt mean	SSS Winter max
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5	0.0727813	0.023273152	0.120874717	0.040380996	0.005898986
6	0.0484057	0.146684988	0.078562428	0.253850912	0.009561368
7	0.0727813	0.023273152	0.120874717	0.040380996	0.005898986
8	0.0484057	0.146684988	0.078562428	0.253850912	0.009561368
9	0.0158073	0.117266961	0.007245322	0.014560463	0.124026694
10	0.1075085	0.201364042	0.004660538	0.006408904	0.385047342
11	0.0158073	0.117266961	0.007245322	0.014560463	0.124026694
12	0.1075085	0.201364042	0.004660538	0.006408904	0.385047342
13	0.1979696	0.376638584	0.078491639	0.186393804	0.196682096
14	0.0240995	0.07545495	0.076104589	0.168055176	0.040376936
15	0.349542	0.095118256	0.511721704	0.220906579	0.000108948
16	0.0892883	0.319135497	0.009184724	0.083584388	0.255130776
17	0.0088116	0.15970262	0.014450166	0.011055158	0.194866239
18	0.0602464	0.304934197	9.0205E-05	0.041628585	0.360762547
19	0.1124934	0.256450608	0.005583451	0.040281912	0.360769636
20	0.1495871	0.189951124	0.074212179	0.078271022	0.226116034
21	0.0748408	0.308814535	1.39805E-05	0.039679141	0.403717607
22	0.0034773	0.008976869	0.013814901	0.000613803	0.006857587
23	0.0922442	0.241295673	0.028371299	0.125065734	0.115746538
24	0.0574738	0.072557796	0.153062973	0.191536369	0.041830503
25	0.4062005	0.094990035	0.561391194	0.216619833	0.0019629
26	0.0460718	0.225705882	0.000450027	0.052397402	0.209158995
27	0.000825	0.11426354	0.02912857	0.006119282	0.154710484
28	0.0524128	0.260723312	0.00180257	0.054842493	0.210524723
29	0.118314	0.231842823	0.016928835	0.046786748	0.248682941
30	0.0015669	0.257396849	0.017876263	0.02266844	0.123433849
31	0.0024806	0.07212138	0.011781891	0.002641904	0.046989861
32	0.0685253	0.176204061	0.00203254	0.010535774	0.268608942
33	0.0024806	0.07212138	0.011781891	0.002641904	0.046989861
34	0.0685253	0.176204061	0.00203254	0.010535774	0.268608942
35	0.0183241	0.141344687	0.000703972	0.034693302	0.048257655
36	0.1820458	0.28251316	0.068816681	0.082204536	0.243415061
37	0.0183241	0.141344687	0.000703972	0.034693302	0.048257655
38	0.1820458	0.28251316	0.068816681	0.082204536	0.243415061
39	0.079923	0.00567381	0.030880581	0.023760998	0.202905272
40	0.0117782	0.038375841	0.010313791	0.007545564	0.26226308
41	0.0609962	0.010931366	0.032187858	0.002605665	0.159714325
42	0.0226668	0.091407898	1.95753E-05	0.009224613	0.151408059
43	0.0751699	0.017228753	0.036115002	0.002121371	0.18651547
44	0.0239211	0.094877974	0.000111371	0.007492766	0.168024669
45	0.0751699	0.017228753	0.036115002	0.002121371	0.18651547
46	0.0239211	0.094877974	0.000111371	0.007492766	0.168024669
47	0.0671694	0.017785207	0.061864606	0.068862499	0.046043264
48	0.1005284	0.113520348	0.194980161	0.253081625	0.030811534
49	0.0735036	0.012949716	0.065878461	0.060833252	0.053285907
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2	0.0680625	0.0782293	0.159006118	0.216523043	0.051426006
3	0.0791454	0.010445683	0.070254548	0.057254713	0.054478204
4	0.0748102	0.067219082	0.167202719	0.195466537	0.040924469
5	0.0791454	0.010445683	0.070254548	0.057254713	0.054478204
6	#N/A	0.067219082	#N/A	0.195466537	#N/A
7	0.089096	0.00767401	0.192208879	0.014790604	0.001566366
8	0.0687689	0.16673721	0.011318238	0.019401528	0.134387817
9	0.0799158	0.003562111	0.176199154	0.022288358	0.004007659
10	0.0422394	0.140410602	0.001935367	0.009705175	0.126234732
11	0.080466	0.003657559	0.17717396	0.022087402	0.003879896
12	0.0429839	0.141102536	0.002116111	0.009921691	0.126447321
13	0.0894754	0.008240042	0.192810073	0.013964855	0.001414289
14	0.0720178	0.169916696	0.01278582	0.020765986	0.135405396
15	0.1438356	0.02488663	0.168817625	0.027509409	0.023582759
16	0.1156576	0.040295001	0.052640708	0.012412613	0.194180716
17	0.0792824	0.003461268	0.175076964	0.022499915	0.004153888
18	0.0414356	0.139675292	0.001747307	0.009477562	0.126008318
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	SSS Winter max 3pt mean	SST Aug	SST Aug 3pt mean	SST Aug min	SST Aug min 3pt mean	SST Aug max
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5	0.002710554	0.0693	1.37833E-07	0.01005731	0.0475217	0.01181316
6	0.016310004	0.022	0.019354276	1.9992E-29	0.005781466	0.0023299
7	0.002710554	0.0693	1.37833E-07	0.01005731	0.0475217	0.01181316
8	0.016310004	0.022	0.019354276	1.2178E-31	0.005781466	0.0023299
9	0.375128381	0.1808	0.353717398	0.02480205	0.063552482	0.02131139
10	0.814072144	0.4439	0.595942466	5.4004E-32	0.001844131	0.01588182
11	0.375128381	0.1808	0.353717398	0.02480205	0.063552482	0.02131139
12	0.814072144	0.4439	0.595942466	1.1964E-30	0.001844131	0.01588182
13	0.355288538	0.0331	0.30286772	0.04950095	0.040786745	0.04732974
14	0.038542505	1E-05	0.008532948	0.18300456	0.17482571	0.19444782
15	0.038662245	0.007	0.05661277	0.05803183	0.022799786	0.03302263
16	0.575801326	0.0657	0.535961221	0.20447732	0.079898003	0.16227096
17	0.534738873	0.0621	0.519639908	0.21784847	0.040406605	0.16515296
18	0.832667818	0.0508	0.58954902	0.37605585	0.037392584	0.32881451
19	0.635168341	0.1557	0.406617857	0.0303482	0.000122109	0.02966731
20	0.257151965	0.0572	0.163776301	0.02509378	0.004817339	0.01067389
21	0.865974773	0.0766	0.622246825	0.30271484	0.022650138	0.26775639
22	0.043899356	0.0273	0.118476567	0.03850481	0.09030619	0.03190191
23	0.241883927	0.0382	0.286735644	0.00804745	0.094500929	0.00739795
24	0.079318922	1E-07	0.000448003	0.18074941	0.131634873	0.20531514
25	0.042983523	0.002	0.088580117	0.04203892	0.077670336	0.02470643
26	0.478873229	0.0594	0.498791959	0.13147264	0.020672686	0.10439754
27	0.445742919	0.0515	0.496123578	0.13880465	0.002785794	0.10597651
28	0.568391935	0.0032	0.286880118	0.48794074	0.139204172	0.42174743
29	0.500680258	0.0753	0.247861313	0.07024075	0.01276787	0.06252926
30	0.845896677	0.0113	0.622217307	0.7346021	0.008070293	0.67525984
31	0.319888633	0.256	0.371657143	0.18739811	0.365167891	0.18043258
32	0.623312474	0.232	0.533895743	5.3984E-33	0.044741439	0.03734474
33	0.319888633	0.256	0.371657143	0.18739811	0.365167891	0.18043258
34	0.623312474	0.232	0.533895743	6.2967E-31	0.044741439	0.03734474
35	0.317469504	0.1385	0.381385453	0.04931424	0.269028264	0.04804128
36	0.510698402	0.2106	0.461293209	5.252E-31	0.053298665	0.04116152
37	0.317469504	0.1385	0.381385453	0.04931424	0.269028264	0.04804128
38	0.510698402	0.2106	0.461293209	7.7959E-32	0.053298665	0.04116152
39	0.261934171	0.0457	0.098202999	0.01746014	0.007553099	0.00142967
40	0.513325118	0.1197	0.319041711	8.2328E-34	0.095278796	0.10468077
41	0.139169874	0.0196	0.066223204	0.00117629	0.005866536	0.00020911
42	0.367907781	0.1018	0.323573452	1.2549E-31	0.167176295	0.02313487
43	0.188396986	0.0391	0.09615791	0.00886459	0.001619005	0.00145386
44	0.4029656	0.1143	0.347732979	1.1241E-31	0.160562119	0.0280634
45	0.188396986	0.0391	0.09615791	0.00886459	0.001619005	0.00145386
46	0.4029656	0.1143	0.347732979	3.5946E-32	0.160562119	0.0280634
47	0.070570682	0.0205	4.131E-05	0.32074858	0.007326364	0.1662617
48	0.076227669	0.0021	7.49399E-05	1.6781E-32	0.099111736	0.23660452
49	0.079362288	0.0157	0.000551205	0.27431406	0.007922001	0.13178881
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2	0.115920447	3E-08	0.003908085	1.12E-33	0.087544977	0.24408325
3	0.087190558	0.0351	0.001368066	0.3678197	0.007109725	0.20489989
4	0.118125967	1E-05	0.009220718	1.4402E-33	0.137886828	0.2246022
5	0.087190558	0.0351	0.001368066	0.3678197	0.007109725	0.20489989
6	0.118125967	#N/A	0.009220718	#N/A	0.137886828	#N/A
7	0.153850852	0.0045	0.227490574	0.15797666	0.068631153	0.12390356
8	0.443191549	0.1683	0.494822991	7.2814E-33	0.003000816	0.00195265
9	0.148044587	0.0087	0.227438483	0.11593588	0.075232529	0.09012234
10	0.454975061	0.1641	0.530855336	8.7929E-32	0.01877061	0.00161761
11	0.14834532	0.0086	0.227520892	0.11736783	0.075042317	0.09128537
12	0.454660417	0.164	0.529510723	6.6444E-32	0.017980034	0.0016057
13	0.154130836	0.0041	0.227205775	0.16244326	0.067889045	0.12747517
14	0.441612621	0.1691	0.491122797	1.1991E-31	0.002155106	0.00204847
15	0.010364599	0.0522	0.003743608	0.05737392	0.070083234	0.08816701
16	0.094736792	0.0856	0.001467135	2.7383E-31	0.125545992	0.08615375
17	0.147704502	0.0089	0.227341754	0.11435782	0.07543628	0.08883888
18	0.45531561	0.1641	0.532356169	2.9787E-33	0.019664305	0.00163353
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SST Aug max 3pt mean	SSS Aug	SSS Aug 3pt mean	SSS Aug min	SS Aug min 3pt mean	SSS Aug max
0.052784525	0.164	0.045835139	0.170639	0.034269446	0.01005731
0.010865427	0.061	0.337674245	0.0522352	0.302564185	1.9992E-29
0.052784525	0.164	0.045835139	0.170639	0.034269446	0.01005731
0.010865427	0.061	0.337674245	0.0522352	0.302564185	1.2178E-31
0.037070752	0.0052	0.028440877	0.0166455	0.010910292	0.02480205
0.012692	0.0065	0.00860652	0.0015726	0.000739137	4.267E-32
0.037070752	0.0052	0.028440877	0.0166455	0.010910292	0.02480205
0.012692	0.0065	0.00860652	0.0015726	0.000739137	1.2161E-30
0.031060518	0.0473	0.210147001	0.048505	0.158783946	0.04950095
0.281229049	0.0855	0.176856831	0.0711447	0.174228716	0.18300456
0.007860797	0.4891	0.226891302	0.4880388	0.251169957	0.05803183
0.040408501	0.0002	0.067579139	0.001124	0.048826607	0.20447732
0.022175107	0.0353	0.005997524	0.028983	0.001237428	0.21784847
0.043472454	0.0093	0.036259266	0.0033845	0.019019675	0.37605585
0.001408756	0.0038	0.071228894	0.0012183	0.034449171	0.0303482
0.001627301	0.0782	0.12260218	0.0903717	0.094105815	0.02509378
0.026745069	0.0056	0.038341725	0.002323	0.01827819	0.30271484
0.111101685	0.0158	2.25882E-06	0.0279226	0.000799519	0.03850481
0.098735622	0.0128	0.129660306	0.0101829	0.095128122	0.00804745
0.225135804	0.178	0.220436388	0.1750785	0.231497444	0.18074941
0.054994	0.536	0.216893464	0.5441337	0.245523571	0.04203892
0.003925477	0.0032	0.039553522	0.0026638	0.025537451	0.13147264
5.17945E-05	0.0552	0.002660789	0.0538953	8.19818E-05	0.13880465
0.155224184	0.0018	0.056275574	0.0001874	0.040836247	0.48794074
0.021997706	0.0136	0.087095303	0.011617	0.050476132	0.07024075
0.011004192	0.0514	0.023244192	0.023858	0.007971182	0.7346021
0.252791652	0.0054	0.014246559	0.0206786	0.001166675	0.18739811
0.020841607	0.0031	0.017832983	0.0005138	0.00306327	1.2146E-32
0.252791652	0.0054	0.014246559	0.0206786	0.001166675	0.18739811
0.020841607	0.0031	0.017832983	0.0005138	0.00306327	6.2967E-31
0.210505312	5E-05	0.06356831	0.0044825	0.028456984	0.04931424
0.039025827	0.0681	0.103055115	0.0548126	0.061189506	5.7677E-31
0.210505312	5E-05	0.06356831	0.0044825	0.028456984	0.04931424
0.039025827	0.0681	0.103055115	0.0548126	0.061189506	2.9114E-32
0.024194902	0.0429	0.019525766	0.0319459	0.033598618	0.01746014
0.03145063	0.004	0.000980264	0.0106648	0.013413977	0
0.00852721	0.0379	0.002912871	0.035022	0.006464031	0.00117629
0.117046242	3E-06	0.019658741	0.0006822	0.004429033	8.4003E-32
0.00444205	0.0439	0.001858159	0.0369777	0.006030475	0.00886459
0.107635832	7E-06	0.017168535	0.0010565	0.002961582	1.3958E-31
0.00444205	0.0439	0.001858159	0.0369777	0.006030475	0.00886459
0.107635832	7E-06	0.017168535	0.0010565	0.002961582	4.0831E-32
0.048881472	0.1129	0.051682227	0.0674417	0.071068151	0.32074858
0.002429052	0.1318	0.179963811	0.1594822	0.24997663	9.4392E-33
0.048792133	0.1153	0.045256735	0.0713128	0.064002438	0.27431406

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2	0.001175917	0.104	0.149579978	0.1313476	0.217479423	2.268E-34
3	0.046987543	0.1244	0.041965164	0.073748	0.060863453	0.3678197
4	0.012954625	0.1129	0.129606462	0.1397662	0.19612447	5.4765E-33
5	0.046987543	0.1244	0.041965164	0.073748	0.060863453	0.3678197
6	0.012954625	#N/A	0.129606462	#N/A	0.19612447	#N/A
7	0.075710275	0.222	0.008697887	0.2002584	0.017287108	0.15797666
8	0.013186005	0.0173	0.031258707	0.0150029	0.021003813	0
9	0.084723965	0.1927	0.015967432	0.174508	0.026161809	0.11593588
10	0.034963659	0.0048	0.019058058	0.0039458	0.010563445	1.0741E-31
11	0.084402258	0.1941	0.015745176	0.1758393	0.025922934	0.11736783
12	0.033985551	0.0051	0.019351754	0.0041972	0.010802298	5.4913E-32
13	0.07482772	0.2239	0.007974112	0.2017567	0.016306305	0.16244326
14	0.011585579	0.019	0.032881211	0.0165844	0.022459385	1.3221E-31
15	0.095180202	0.1344	0.020933322	0.1506961	0.017688676	0.05737392
16	0.196976014	0.0392	0.004657622	0.0203367	0.000852431	2.5074E-31
17	0.085078511	0.191	0.016205605	0.1729928	0.026413748	0.11435782
18	0.036064765	0.0045	0.018747238	0.0036794	0.010311399	1.9696E-32
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SSS Aug max 3pt mean	SST Summer	SST Summer 3pt mean	SST Summer min	SST Summer min 3pt mean
0.0475217	0.08668218	0.004524716	0.020071766	0.034099092
0.005781466	0.0652348	0.07363784	0.128262909	0.105536005
0.0475217	0.08668218	0.004524716	0.020071766	0.034099092
0.005781466	0.0652348	0.07363784	0.128262909	0.105536005
0.063552482	0.17492785	0.363013646	0.144530659	0.0621708
0.001844131	0.40978087	0.606902544	0.131826746	0.262607942
0.063552482	0.17492785	0.363013646	0.144530659	0.0621708
0.001844131	0.40978087	0.606902544	0.131826746	0.262607942
0.040786745	0.00810682	0.193807212	0.484139795	0.395871128
0.17482571	0.00317116	8.02461E-06	0.012264376	0.034663507
0.022799786	0.0535796	0.146291686	0.041013221	0.04934415
0.079898003	0.05182	0.472876026	0.333802306	0.381960064
0.040406605	0.07100826	0.529575685	0.202896557	0.224573484
0.037392584	0.04594669	0.536620792	0.325032981	0.405501346
0.000122109	0.1381421	0.384582348	0.323189904	0.36223153
0.004817339	0.05182554	0.141833558	0.074062911	0.154332028
0.022650138	0.06824272	0.575238773	0.354591016	0.425607477
0.09030619	0.02353096	0.118904755	0.015259015	0.007562768
0.094500929	0.01470192	0.202953542	0.326018293	0.226854939
0.131634873	0.00267312	0.013874125	0.000209916	0.033450757
0.077670336	0.03660193	0.20225852	0.040761388	0.061653311
0.020672686	0.04689499	0.460834588	0.310290745	0.250823953
0.002785794	0.05756139	0.519463318	0.195077899	0.141978279
0.139204172	0.00207605	0.241198939	0.254479458	0.31943351
0.01276787	0.06336563	0.226832877	0.289653399	0.315437925
0.008070293	0.00740465	0.599590732	0.188320631	0.36513733
0.365167891	0.26226248	0.398496611	0.02316434	0.052968721
0.044741439	0.20862972	0.53497351	0.140432688	0.240777542
0.365167891	0.26226248	0.398496611	0.02316434	0.052968721
0.044741439	0.20862972	0.53497351	0.140432688	0.240777542
0.269028264	0.12590885	0.369128731	0.135938999	0.081724743
0.053298665	0.15182128	0.400840017	0.126652411	0.290783531
0.269028264	0.12590885	0.369128731	0.135938999	0.081724743
0.053298665	0.15182128	0.400840017	0.126652411	0.290783531
0.007553099	0.03521338	0.128955809	4.21813E-05	0.040954286
0.095278796	0.13006781	0.380436383	0.052625871	0.051809349
0.005866536	0.01451653	0.07652615	0.000424738	0.043419853
0.167176295	0.09257865	0.330551333	0.073267186	0.084935055
0.001619005	0.03009039	0.109379538	0.00160562	0.052604106
0.160562119	0.1051986	0.357729733	0.076915828	0.092454226
0.001619005	0.03009039	0.109379538	0.00160562	0.052604106
0.160562119	0.1051986	0.357729733	0.076915828	0.092454226
0.007326364	0.00750617	0.004765907	0.023488126	0.012569731
0.099111736	0.00457467	0.018717502	0.056159618	0.090872574
0.007922001	0.00445832	0.006802999	0.017464006	0.008545499

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2	0.087544977	0.0100425	0.033471586	0.035101851	0.058662811
3	0.007109725	0.01608742	0.008934702	0.018260637	0.00669523
4	0.137886828	0.00974528	0.045448458	0.031457227	0.053808241
5	0.007109725	0.01608742	0.008934702	0.018260637	0.00669523
6	0.137886828	#N/A	0.045448458	#N/A	0.053808241
7					
8	0.068631153	0.02335156	0.292028458	0.00640246	0.051458561
9	0.003000816	0.16280357	0.532867929	0.121008218	0.195991814
10	0.075232529	0.03390765	0.299008576	0.000868677	0.042965687
11	0.01877061	0.17024201	0.589106688	0.102733345	0.165896691
12					
13	0.075042317	0.03350817	0.298937263	0.000980164	0.043209992
14	0.017980034	0.1698794	0.587180217	0.103204114	0.166737198
15	0.067889045	0.02235204	0.29082379	0.007201739	0.052417571
16	0.002155106	0.16227239	0.526885779	0.123243062	0.199521957
17	0.070083234	0.10853481	0.016226005	0.082251468	0.008383161
18	0.125545992	0.0318295	0.001438042	0.070965072	0.077905313
19					
20	0.07543628	0.03435205	0.299070058	0.000753365	0.042703492
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22	0.019664305	0.17065436	0.591232239	0.10223452	0.164995269
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SST Summer max	SST Summer max 3pt mean	SSS Summer	SSS Summer 3pt mean	SSS Summer min
0.012137313	0.051645071	0.19171854	0.047059004	0.201713303
0.002329901	0.012830218	0.06527832	0.356903386	0.058053173
0.012137313	0.051645071	0.19171854	0.047059004	0.201713303
0.002329901	0.012830218	0.06527832	0.356903386	0.058053173
0.018778628	0.025471506	0.00088926	0.040299855	0.005805113
0.01588182	0.019561059	0.01406695	0.026713114	0.006832531
0.018778628	0.025471506	0.00088926	0.040299855	0.005805113
0.01588182	0.019561059	0.01406695	0.026713114	0.006832531
0.044132488	0.025245752	0.06771994	0.252670273	0.067590527
0.19090889	0.316249764	0.08704269	0.165961847	0.07792795
0.022215584	0.003361311	0.46144672	0.203533797	0.455893569
0.136659859	0.024956996	0.00310995	0.097391995	0.00537427
0.135334373	0.014581411	0.02107081	0.017262246	0.016525284
0.292518597	0.043355955	0.00272508	0.064308118	0.000475281
0.027974016	0.002308184	0.01349253	0.125740774	0.008969449
0.005541626	0.000679395	0.09734564	0.159752176	0.112292739
0.239693148	0.026843984	0.00074596	0.07062798	4.61619E-05
0.027543264	0.11337039	0.01364139	3.51086E-05	0.02339586
0.006759716	0.0940617	0.02187383	0.151952538	0.01850118
0.207848604	0.258246787	0.17611192	0.209203412	0.180814039
0.017036246	0.042845301	0.50633624	0.195299956	0.508527179
0.087951373	0.000599793	0.00022204	0.058920989	0.000119134
0.087216367	0.001129856	0.03728278	0.009358458	0.036081126
0.372832932	0.152125579	1.9384E-05	0.083733002	0.001746
0.056169347	0.02529159	0.0283576	0.142471776	0.026537799
0.616978961	0.011679879	0.0343501	0.049838256	0.015857523
0.168839932	0.194284747	0.00194106	0.027082689	0.01026503
0.037344737	0.012027078	0.00993503	0.043212681	0.005058655
0.168839932	0.194284747	0.00194106	0.027082689	0.01026503
0.037344737	0.012027078	0.00993503	0.043212681	0.005058655
0.045220854	0.173710206	0.00156097	0.08188886	8.13087E-05
0.041161519	0.031013235	0.08532975	0.146827312	0.072139651
0.045220854	0.173710206	0.00156097	0.08188886	8.13087E-05
0.041161519	0.031013235	0.08532975	0.146827312	0.072139651
6.97966E-05	0.032699431	0.04433905	0.00666525	0.032681807
0.104680769	0.012772137	0.00037986	0.000987401	0.00322521
0.001408138	0.009262361	0.03866028	5.67026E-05	0.035264919
0.023134868	0.090576059	0.00148923	0.036185251	0.000180856
0.000106974	0.005798693	0.04577761	4.84502E-05	0.03859081
0.028063396	0.081099316	0.00125842	0.0338463	7.24734E-05
0.000106974	0.005798693	0.04577761	4.84502E-05	0.03859081
0.028063396	0.081099316	0.00125842	0.0338463	7.24734E-05
0.103716545	0.075015369	0.10329396	0.042027902	0.061509037
0.236604523	0.004955126	0.11344915	0.152592218	0.140533027
0.076925509	0.074031806	0.10665897	0.03577108	0.065533207

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2	0.244083253	0.006910382	0.08661741	0.121231221	0.112667218
3	0.135566369	0.072013524	0.11464326	0.032529816	0.068396825
4	0.224602196	1.99089E-05	0.09359282	0.10361851	0.119034125
5	0.135566369	0.072013524	0.11464326	0.032529816	0.068396825
6	#N/A	1.99089E-05	#N/A	0.10361851	#N/A
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8	0.103626919	0.073858917	0.19329868	0.001121572	0.173357827
9	0.001952649	0.018951305	0.02877446	0.058738448	0.028427214
10	0.074974878	0.083381211	0.16695198	0.004673294	0.149603129
11	0.001617606	0.041176172	0.01191829	0.041100056	0.012039194
12	0.07596721	0.083019958	0.16823612	0.004541287	0.150810906
13	0.001605696	0.04019986	0.01236467	0.041553205	0.012472608
14	0.106647951	0.072971243	0.19503944	0.000865379	0.174788517
15	0.002048471	0.017220822	0.03095352	0.060970277	0.030547616
16	0.100812838	0.100875195	0.13397638	0.017848693	0.141453279
17	0.086153754	0.219669454	0.03917038	0.007492018	0.019560255
18	0.073878957	0.083782142	0.16549599	0.00481673	0.148230232
19	0.001633526	0.042274758	0.01143818	0.040617456	0.011573077
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SSS Summer min 3pt mean	SSS Summer max	SSS Summer max 3pt mean	Ice Duration
0.037913802	0.010057313	0.0475217	0.17535727
0.331851228	#DIV/0!	0.005781466	0.21667631
0.037913802	0.010057313	0.0475217	0.17535727
0.331851228	#DIV/0!	0.005781466	0.21667631
0.021388164	0.02480205	0.063552482	0.05494906
0.011263579	#DIV/0!	0.001844131	0.10002757
0.021388164	0.02480205	0.063552482	0.05494906
0.011263579	#DIV/0!	0.001844131	0.10002757
0.204806562	0.049500955	0.040786745	0.05980846
0.171558349	0.183004557	0.17482571	0.00064196
0.224285582	0.058031834	0.022799786	0.09351544
0.078695952	0.204477319	0.079898003	0.01921283
0.009300951	0.217848468	0.040406605	0.0011918
0.042619983	0.376055847	0.037392584	0.02282862
0.082788647	0.030348197	0.000122109	0.00025496
0.13578886	0.025093783	0.004817339	0.00022931
0.045168748	0.30271484	0.022650138	0.01400244
0.000250463	0.038504814	0.09030619	0.01853825
0.120894766	0.008047448	0.094500929	0.01836451
0.229336503	0.180749408	0.131634873	0.00012281
0.218065885	0.042038921	0.077670336	0.08201109
0.044735473	0.131472637	0.020672686	0.01186908
0.003896143	0.138804649	0.002785794	0.00057418
0.066069392	0.487940739	0.139204172	0.08101483
0.102441252	0.070240749	0.01276787	0.00827727
0.028269526	0.734602097	0.008070293	0.14798455
0.008855457	0.187398109	0.365167891	0.17666874
0.020231737	#DIV/0!	0.044741439	0.0175759
0.008855457	0.187398109	0.365167891	0.17666874
0.020231737	#DIV/0!	0.044741439	0.0175759
0.047424161	0.049314236	0.269028264	0.02860833
0.104385789	#DIV/0!	0.053298665	5.5047E-05
0.047424161	0.049314236	0.269028264	0.02860833
0.104385789	#DIV/0!	0.053298665	5.5047E-05
0.014799896	0.017460143	0.007553099	0.00507944
0.001767168	#DIV/0!	0.095278796	0.01590517
0.0009163	0.00117629	0.005866536	0.00026081
0.016783468	#DIV/0!	0.167176295	0.00273762
0.000523572	0.00886459	0.001619005	0.00304998
0.014507915	#DIV/0!	0.160562119	0.00419824
0.000523572	0.00886459	0.001619005	0.00304998
0.014507915	#DIV/0!	0.160562119	0.00419824
0.060611988	0.320748582	0.007326364	0.01806713
0.215165566	#DIV/0!	0.099111736	0.01880441
0.053375375	0.274314062	0.007922001	0.00979073

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2	0.180171633	#DIV/0!	0.087544977	0.01645512
3	0.050001741	0.367819704	0.007109725	0.02816353
4	0.160111879	#DIV/0!	0.137886828	0.01547005
5	0.050001741	0.367819704	0.007109725	0.02816353
6	0.160111879	#N/A	0.137886828	#N/A
7	0.003639162	0.157976661	0.068631153	0.00344833
8	0.049986693	#DIV/0!	0.003000816	0.03319249
9	0.008608913	0.11593588	0.075232529	0.01043938
10	0.032769239	#DIV/0!	0.01877061	0.04742171
11	0.008452313	0.11736783	0.075042317	0.01013715
12	0.033203601	#DIV/0!	0.017980034	0.0468642
13	0.003180743	0.162443256	0.067889045	0.00293408
14	0.052207922	#DIV/0!	0.002155106	0.03193749
15	0.013679087	0.057373922	0.070083234	0.23573234
16	0.001812329	#DIV/0!	0.125545992	0.01529365
17	0.008776564	0.11435782	0.07543628	0.0107776
18	0.032307089	#DIV/0!	0.019664305	0.04804158
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Ice Duration 3pt mean	Ice Duration min	Ice Duration min 3pt mean	Ice Duration max
0.0337575	0.010057313	0.0475217	0.017885331
0.348247086	1.99919E-29	0.005781466	0.145620325
0.0337575	0.010057313	0.0475217	0.017885331
0.348247086	1.21783E-31	0.005781466	0.145620325
0.153412183	0.02480205	0.063552482	0.202017304
0.132493503	5.40044E-32	0.001844131	0.148420228
0.153412183	0.02480205	0.063552482	0.202017304
0.132493503	1.19641E-30	0.001844131	0.148420228
0.000113035	0.049500955	0.040786745	0.332443757
0.011334173	0.183004557	0.17482571	0.091357535
0.292070266	0.058031834	0.022799786	0.094505709
0.030992715	0.204477319	0.079898003	0.166010096
0.107040724	0.217848468	0.040406605	0.073222149
0.057725577	0.376055847	0.037392584	0.088900341
0.010881185	0.030348197	0.000122109	0.253165931
0.000641255	0.025093783	0.004817339	0.048261585
0.061830129	0.30271484	0.022650138	0.124792576
0.080093494	0.038504814	0.09030619	0.045594119
0.011321692	0.008047448	0.094500929	0.272469435
0.040928615	0.180749408	0.131634873	0.042288022
0.399646143	0.042038921	0.077670336	0.086048894
0.064201486	0.131472637	0.020672686	0.179870121
0.154466106	0.138804649	0.002785794	0.090587291
0.000990636	0.487940739	0.139204172	0.03826521
0.00035132	0.070240749	0.01276787	0.187223162
0.091169631	0.734602097	0.008070293	0.003369941
0.213707698	0.187398109	0.365167891	0.131332614
0.106395906	5.39838E-33	0.044741439	0.153657176
0.213707698	0.187398109	0.365167891	0.131332614
0.106395906	6.29668E-31	0.044741439	0.153657176
0.150405321	0.049314236	0.269028264	0.237087834
0.030804202	5.25203E-31	0.053298665	0.164490067
0.150405321	0.049314236	0.269028264	0.237087834
0.030804202	7.79591E-32	0.053298665	0.164490067
0.022841142	0.017460143	0.007553099	0.007556713
0.146409305	8.23282E-34	0.095278796	0.056811824
0.003901813	0.00117629	0.005866536	0.002989373
0.094697119	1.25486E-31	0.167176295	0.087829843
0.009527057	0.00886459	0.001619005	0.010840898
0.102266814	1.12414E-31	0.160562119	0.091857439
0.009527057	0.00886459	0.001619005	0.010840898
0.102266814	3.59458E-32	0.160562119	0.091857439
0.005776624	0.320748582	0.007326364	0.009175974
0.086675913	1.67809E-32	0.099111736	0.053907255
0.005077082	0.274314062	0.007922001	0.009798797

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2	0.083119214	1.11999E-33	0.087544977	0.031898766
3	0.005480637	0.367819704	0.007109725	0.01767964
4	0.102149988	1.44024E-33	0.137886828	0.028088293
5	0.005480637	0.367819704	0.007109725	0.01767964
6	0.102149988	#N/A	0.137886828	#N/A
7				
8	0.00344833	0.157976661	0.068631153	0.005639867
9	0.168266737	7.28141E-33	0.003000816	0.105426055
10				
11	0.210919413	0.11593588	0.075232529	0.009608849
12	0.236700608	8.79291E-32	0.01877061	0.085331636
13	0.210062507	0.11736783	0.075042317	0.009447612
14	0.234253915	6.64443E-32	0.017980034	0.085876643
15	0.17937295	0.162443256	0.067889045	0.005324961
16	0.161619791	1.19914E-31	0.002155106	0.107834763
17	0.092878665	0.057373922	0.070083234	0.031820638
18	0.141312396	2.73835E-31	0.125545992	0.109331194
19	0.211845901	0.11435782	0.07543628	0.009787747
20	0.239398885	2.97874E-33	0.019664305	0.08474913
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	Ice Duration max 3pt mean	Ice Cover	Ice Cover 3pt mean	Ice Cover min	Ice Cover min 3pt mean
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6	0.055548375	0.174655	0.033252986	0.010057313	0.0475217
7	0.14166549	0.215451	0.343018242	1.99919E-29	0.005781466
8	0.055548375	0.174655	0.033252986	0.010057313	0.0475217
9	0.14166549	0.215451	0.343018242	1.21783E-31	0.005781466
10	0.095463953	0.054897	0.141602441	0.02480205	0.063552482
11	0.258569835	0.091072	0.119193573	4.26702E-32	0.001844131
12	0.095463953	0.054897	0.141602441	0.02480205	0.063552482
13	0.258569835	0.091072	0.119193573	1.2161E-30	0.001844131
14	0.438670251	0.064027	0.000743674	0.049500955	0.040786745
15	0.084384325	0.000544	0.012518123	0.183004557	0.17482571
16	0.035440983	0.100747	0.300197337	0.058031834	0.022799786
17	0.349008331	0.021835	0.023973727	0.204477319	0.079898003
18	0.212202945	0.001541	0.096630911	0.217848468	0.040406605
19	0.353814191	0.026099	0.047982603	0.376055847	0.037392584
20	0.375959957	0.000116	0.009337854	0.030348197	0.000122109
21	0.174750698	0.000673	0.000237754	0.025093783	0.004817339
22	0.387004512	0.016391	0.052616175	0.30271484	0.022650138
23	0.029655985	0.019696	0.076839619	0.038504814	0.09030619
24	0.300354862	0.019596	0.008397974	0.008047448	0.094500929
25	0.066012501	0.000157	0.042361532	0.180749408	0.131634873
26	0.033757568	0.090004	0.408025182	0.042038921	0.077670336
27	0.258710939	0.013171	0.05479292	0.131472637	0.020672686
28	0.160766873	0.000659	0.142661296	0.138804649	0.002785794
29	0.234283254	0.086957	0.000177914	0.487940739	0.139204172
30	0.299814952	0.009366	0.000593304	0.070240749	0.01276787
31	0.343511666	0.152496	0.08089205	0.734602097	0.008070293
32	0.124925691	0.180394	0.207587421	0.187398109	0.365167891
33	0.299531409	0.015982	0.099423657	1.21464E-32	0.044741439
34	0.124925691	0.180394	0.207587421	0.187398109	0.365167891
35	0.299531409	0.015982	0.099423657	6.29668E-31	0.044741439
36	0.161484655	0.029831	0.14111414	0.049314236	0.269028264
37	0.377451141	1.99E-05	0.026305627	5.76773E-31	0.053298665
38	0.161484655	0.029831	0.14111414	0.049314236	0.269028264
39	0.377451141	1.99E-05	0.026305627	2.91144E-32	0.053298665
40	0.036907948	0.004373	0.023169284	0.017460143	0.007553099
41	0.09228802	0.016549	0.144938275	0	0.095278796
42	0.045252493	9.88E-05	0.003945435	0.00117629	0.005866536
43	0.158253792	0.00281	0.091399894	8.40033E-32	0.167176295
44	0.058474422	0.002425	0.009443835	0.00886459	0.001619005
45	0.16703721	0.004262	0.098698284	1.39576E-31	0.160562119
46	0.058474422	0.002425	0.009443835	0.00886459	0.001619005
47	0.16703721	0.004262	0.098698284	4.08311E-32	0.160562119
48	0.015164373	0.018199	0.006821757	0.320748582	0.007326364
49	0.057861241	0.023674	0.096698443	9.43923E-33	0.099111736
50	0.010364347	0.009812	0.0059801	0.274314062	0.007922001
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2	0.032932023	0.020564	0.091974322	2.26798E-34	0.087544977
3	0.007997902	0.028208	0.006368363	0.367819704	0.007109725
4	0.024543863	0.019691	0.111517627	5.47652E-33	0.137886828
5	0.007997902	0.028208	0.006368363	0.367819704	0.007109725
6	0.024543863	#N/A	0.111517627	#N/A	0.137886828
7					
8	0.067024635	0.004021	0.180904988	0.157976661	0.068631153
9	0.198125412	0.029461	0.155069105	0	0.003000816
10					
11	0.056550877	0.011363	0.209338055	0.11593588	0.075232529
12	0.177796189	0.043819	0.221593569	1.07415E-31	0.01877061
13	0.056872343	0.011052	0.208488161	0.11736783	0.075042317
14	0.178317694	0.043256	0.219216011	5.49126E-32	0.017980034
15	0.068158208	0.003463	0.17774211	0.162443256	0.067889045
16					
17	0.200551424	0.028199	0.148625449	1.32206E-31	0.002155106
18	0.006509531	0.242918	0.094813635	0.057373922	0.070083234
19	0.066627875	0.016783	0.140431152	2.50737E-31	0.125545992
20	0.056202886	0.011709	0.210255689	0.11435782	0.07543628
21					
22	0.177245965	0.044444	0.224214803	1.96962E-32	0.019664305
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	Ice Cover max	Ice Cover max 3pt mean	Productivity	Productivity 3pt mean	Productivity min
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5	0.017527048	0.055973335	0.04685549	5.2705E-05	0.037327728
6	0.145620325	0.141900982	0.23465328	0.070667785	0.145620325
7	0.017527048	0.055973335	0.04685549	5.2705E-05	0.037327728
8	0.145620325	0.141900982	0.23465328	0.070667785	0.145620325
9	0.202362688	0.096107968	0.01022788	0.091659541	0.08909373
10	0.148420228	0.258387393	0.01656496	5.52544E-05	0.148420228
11	0.202362688	0.096107968	0.01022788	0.091659541	0.08909373
12	0.148420228	0.258387393	0.01656496	5.52544E-05	0.148420228
13	0.328166636	0.439772894	0.09818131	0.000241076	0.467950534
14	0.093456998	0.085390375	0.08033751	0.08448061	0.000763497
15	0.095482517	0.035206186	0.01662337	0.06280891	0.012027438
16	0.161512357	0.347627006	0.18312764	0.037729848	0.479782921
17	0.070359226	0.211436763	0.17088784	0.008351282	0.334187618
18	0.084851282	0.352861545	0.29627156	0.02674169	0.500095867
19	0.250106786	0.375901029	0.04293075	0.034063352	0.339662222
20	0.04732212	0.174989184	0.01354412	0.0008267	0.097895492
21	0.120320135	0.386228172	0.24798135	0.024360983	0.507997324
22	0.046188607	0.030084953	0.01843473	0.088684831	0.003099209
23	0.270115318	0.301746375	0.03304164	0.029834402	0.291647411
24	0.043815289	0.066784567	0.10425446	0.049126575	0.012980548
25	0.086792995	0.033335481	0.01471764	0.152437454	0.014948818
26	0.175895735	0.258104923	0.13790696	0.002488604	0.415135453
27	0.087906052	0.160590779	0.12899096	0.003616431	0.290526217
28	0.035407267	0.232791426	0.40003107	0.112931811	0.454402137
29	0.183978439	0.299301538	0.08557807	0.081331313	0.339805724
30	0.002439515	0.343074012	0.63164599	0.009929876	0.436964056
31	0.133769101	0.126695984	0.12852663	0.23343013	0.000558808
32	0.153657176	0.300486491	0.01895983	0.008237201	0.153657176
33	0.133769101	0.126695984	0.12852663	0.23343013	0.000558808
34	0.153657176	0.300486491	0.01895983	0.008237201	0.153657176
35	0.237991271	0.163210432	0.01182365	0.199110016	0.082283992
36	0.164490067	0.378621215	0.00991443	0.005711093	0.164490067
37	0.237991271	0.163210432	0.01182365	0.199110016	0.082283992
38	0.164490067	0.378621215	0.00991443	0.005711093	0.164490067
39	0.007746269	0.036769813	0.01044278	0.029257547	0.000207497
40	0.056811824	0.093063836	0.04339351	0.02932821	0.056811824
41	0.003010953	0.045117594	0.0012389	0.027610454	0.000653767
42	0.087829843	0.159599553	0.04216162	0.064629217	0.087829843
43	0.010979064	0.058393587	0.00665138	0.018808242	0.000797057
44	0.091857439	0.168391993	0.04176322	0.060359919	0.091857439
45	0.010979064	0.058393587	0.00665138	0.018808242	0.000797057
46	0.091857439	0.168391993	0.04176322	0.060359919	0.091857439
47	0.010233659	0.015251484	0.18824539	0.016234855	0.098823002
48	0.053907255	0.057236678	0.04469735	0.02409215	0.053907255
49	0.010801011	0.010439282	0.15193537	0.018179409	0.079086521
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2	0.031898766	0.032489544	0.04857582	0.01683165	0.031898766
3	0.019219913	0.008060276	0.22480462	0.017651006	0.095423596
4	0.028088293	0.024065282	0.05677058	0.038675194	0.028088293
5	0.019219913	0.008060276	0.22480462	0.017651006	0.095423596
6					
7	#N/A	0.024065282	#N/A	0.038675194	#N/A
8	0.006216887	0.067585761	0.10142894	0.056373651	0.045554074
9	0.105426055	0.198325413	0.00907372	0.022464102	0.105426055
10	0.010230777	0.057090738	0.06565562	0.068266294	0.023132681
11	0.085331636	0.178272519	0.0092624	0.055201333	0.085331636
12	0.010068993	0.057413044	0.06686032	0.067841107	0.023819383
13	0.085876643	0.17878453	0.00923608	0.053795203	0.085876643
14	0.005895396	0.068720968	0.10527155	0.055224426	0.048107167
15	0.107834763	0.200721696	0.0091108	0.019942101	0.107834763
16	0.030813541	0.006334169	0.11553011	0.104289785	0.110713204
17	0.109331194	0.065873692	0.04953597	0.312942942	0.109331194
18	0.010410151	0.056741819	0.06432928	0.068734604	0.022384861
19	0.08474913	0.177732791	0.0092934	0.05677662	0.08474913
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	Prod min 3pt mean	Productivity max	Prod max 3pt mean
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6	0.024740484	0.010057313	0.0475217
7	0.112044429	#DIV/0!	0.005781466
8	0.024740484	0.010057313	0.0475217
9	0.112044429	#DIV/0!	0.005781466
10	0.046890156	0.02480205	0.063552482
11	0.24695633	#DIV/0!	0.001844131
12	0.046890156	0.02480205	0.063552482
13	0.24695633	#DIV/0!	0.001844131
14	0.322733656	0.049500955	0.040786745
15	0.021898931	0.183004557	0.17482571
16	0.050832435	0.058031834	0.022799786
17	0.420964438	0.204477319	0.079898003
18	0.249964118	0.217848468	0.040406605
19	0.390948928	0.376055847	0.037392584
20	0.344242635	0.030348197	0.000122109
21	0.14166712	0.025093783	0.004817339
22	0.407099355	0.30271484	0.022650138
23	0.00512174	0.038504814	0.09030619
24	0.182331284	0.008047448	0.094500929
25	0.017698412	0.180749408	0.131634873
26	0.067788593	0.042038921	0.077670336
27	0.278825128	0.131472637	0.020672686
28	0.158132203	0.138804649	0.002785794
29	0.330666793	0.487940739	0.139204172
30	0.308703753	0.070240749	0.01276787
31	0.342424321	0.734602097	0.008070293
32	0.022716211	0.187398109	0.365167891
33	0.207688133	#DIV/0!	0.044741439
34	0.022716211	0.187398109	0.365167891
35	0.207688133	#DIV/0!	0.044741439
36	0.049752717	0.049314236	0.269028264
37	0.263787192	#DIV/0!	0.053298665
38	0.049752717	0.049314236	0.269028264
39	0.263787192	#DIV/0!	0.053298665
40	0.043870449	0.017460143	0.007553099
41	0.037729089	#DIV/0!	0.095278796
42	0.051028508	0.00117629	0.005866536
43	0.063970384	#DIV/0!	0.167176295
44	0.058760609	0.00886459	0.001619005
45	0.070645886	#DIV/0!	0.160562119
46	0.058760609	0.00886459	0.001619005
47	0.070645886	#DIV/0!	0.160562119
48	0.008257976	0.320748582	0.007326364
49	0.105951576	#DIV/0!	0.099111736
50	0.004833824	0.274314062	0.007922001
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2	0.069426202	#DIV/0!	0.087544977
3	0.003503703	0.367819704	0.007109725
4	0.069197439	#DIV/0!	0.137886828
5	0.003503703	0.367819704	0.007109725
6	0.069197439	#N/A	0.137886828
7	0.027510541	0.157976661	0.068631153
8	0.165357324	#DIV/0!	0.003000816
9	0.020170346	0.11593588	0.075232529
10	0.128940239	#DIV/0!	0.01877061
11	0.020383554	0.11736783	0.075042317
12	0.130007662	#DIV/0!	0.017980034
13	0.028349509	0.162443256	0.067889045
14	0.169572618	#DIV/0!	0.002155106
15	0.024975996	0.057373922	0.070083234
16	0.125568243	#DIV/0!	0.125545992
17	0.01994061	0.11435782	0.07543628
18	0.127785915	#DIV/0!	0.019664305
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2	R	R ²	
3	0.902259466	0.814072144	Median Si(Opal) Flux 3pt mean
4	0.902259466	0.814072144	Conc. Si(opal) (mg/cm ³) 3pt mean
5	0.888787225	0.789942731	Conc. Si(opal) (mg/cm ³)
6	0.888787225	0.789942731	Conc. Si(opal) (mg/cm ³)
7	0.888787225	0.789942731	Median Si(Opal) Flux (mg/cm ² /cal yr)
8	0.888787225	0.789942731	Median Si(Opal) Flux (mg/cm ² /cal yr)
9	0.888787225	0.789942731	Median Si(Opal) Flux (mg/cm ² /cal yr)
10	0.868060091	0.753528321	TOC (mg/g) 3pt mean
11	0.868060091	0.753528321	TOC (%) 3pt mean
12	0.868060091	0.753528321	TOC (mg/g) 3pt mean
13	0.868060091	0.753528321	TOC (%) 3pt mean
14	0.868060091	0.753528321	TOC (%) 3pt mean
15	0.863908375	0.746337681	TOC (mg/g) 3pt mean
16	0.863908375	0.746337681	TOC (%) 3pt mean
17	0.857089317	0.734602097	Autotroph:Heterotroph
18	0.857089317	0.734602097	Autotroph:Heterotroph
19	0.857089317	0.734602097	Autotroph:Heterotroph
20	0.857089317	0.734602097	Autotroph:Heterotroph
21	0.857089317	0.734602097	Autotroph:Heterotroph
22	0.846833715	0.71712734	TOC (mg/g) 3pt mean
23	0.846833715	0.71712734	TOC (%) 3pt mean
24	0.818500169	0.669942526	TOC Flux 3pt mean
25	0.818500169	0.669942526	TOC (mg/cm ³) 3pt mean
26	0.818500169	0.669942526	TOC (mg/cm ³) 3pt mean
27	0.818500169	0.669942526	TOC (mg/cm ³) 3pt mean
28	0.818500169	0.669942526	TOC Flux 3pt mean
29	0.799484312	0.639175165	TOC (mg/cm ³) 3pt mean
30	0.799484312	0.639175165	TOC Flux 3pt mean
31	0.791810800	0.626964343	Median Si(Opal) Flux 3pt mean
32	0.791810800	0.626964343	Median Si(Opal) Flux 3pt mean
33	0.791810800	0.626964343	Conc. Si(opal) (mg/cm ³) 3pt mean
34	0.791810800	0.626964343	Conc. Si(opal) (mg/cm ³) 3pt mean
35	0.791810800	0.626964343	Conc. Si(opal) (mg/cm ³) 3pt mean
36	0.789501408	0.623312474	TOC (mg/g) 3pt mean
37	0.789501408	0.623312474	TOC (%) 3pt mean
38	0.788826232	0.622246825	% Autotroph
39	0.788807522	0.622217307	Autotroph:Heterotroph
40	0.774332443	0.599590732	Autotroph:Heterotroph
41	0.767820956	0.58954902	% Operculodinium centrocarpum sensu Wall & Dale (1966)
42	0.758815739	0.575801326	% Echinidinium karaense
43	0.758444970	0.575238773	% Autotroph
44	0.758403241	0.575175477	Flux Brigantedinium spp.
45	0.752646672	0.566477013	Median Si(Opal) Flux 3pt mean
46	0.752646672	0.566477013	Median Si(Opal) Flux 3pt mean
47	0.752646672	0.566477013	Conc. Si(opal) (mg/cm ³) 3pt mean
48	0.752646672	0.566477013	Conc. Si(opal) (mg/cm ³) 3pt mean
49	0.747142256	0.558221551	TOC Flux 3pt mean
50	0.747142256	0.558221551	TOC (mg/cm ³) 3pt mean
51	0.744554525	0.554361441	Flux Brigantedinium spp.
52	0.744554525	0.554361441	Flux Brigantedinium spp.
53	-0.749260431	0.561391194	Flux Islandinium? cezare
54	-0.749288992	0.561433994	Flux Islandinium? cezare
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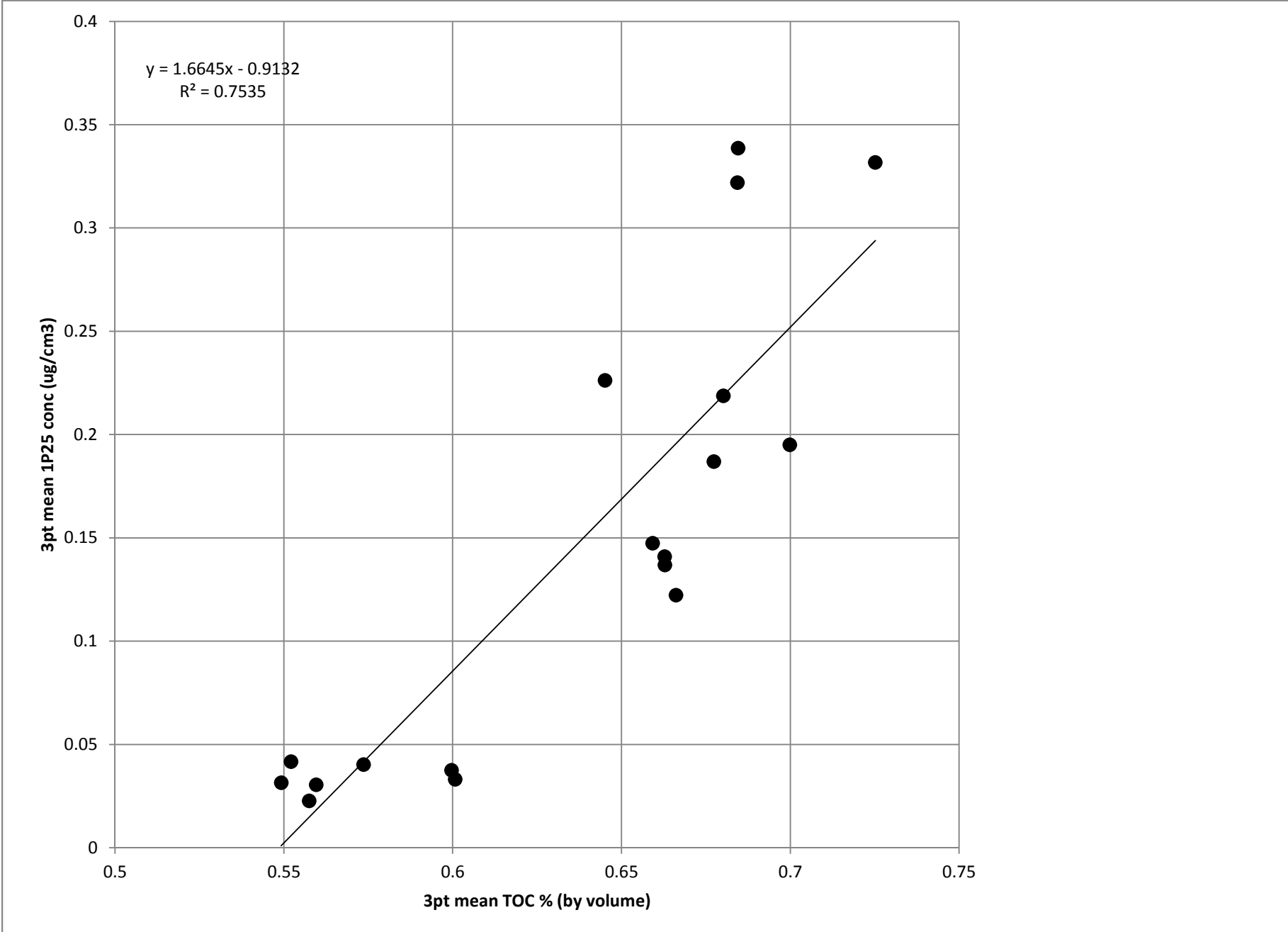
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2	-0.753917724	0.568391935	Flux Operculodinium centrocarpum sensu Wall & Dale (1966)
3	-0.766276854	0.587180217	PIP25 norm to OC mean-c no ext 3pt mean
4	-0.767532858	0.589106688	PIP25 norm to OC median-c 3pt mean
5	-0.768916276	0.591232239	Flux-based PIP25 mean-c no ext 3pt moving mean
6	-0.771973099	0.595942466	Conc. Si(opal) (mg/cm3) 3pt mean
7	-0.771973099	0.595942466	Median Si(Opal) Flux 3pt mean
8	-0.779039501	0.606902544	Median Si(Opal) Flux 3pt mean
9	-0.779039501	0.606902544	Conc. Si(opal) (mg/cm3) 3pt mean
10	-0.779039501	0.606902544	Conc. Si(opal) (mg/cm3) 3pt mean
11	-0.785480083	0.616978961	Autotroph:Heterotroph
12	-0.787075066	0.619487159	Conc. Si(opal) (mg/cm3) 3pt mean
13	-0.787075066	0.619487159	Conc. Si(opal) (mg/cm3) 3pt mean
14	-0.787075066	0.619487159	Median Si(Opal) Flux 3pt mean
15	-0.787075066	0.619487159	Median Si(Opal) Flux 3pt mean
16	-0.787075066	0.619487159	Median Si(Opal) Flux 3pt mean
17	-0.788959603	0.622457255	Conc. Si(opal) (mg/cm3) 3pt mean
18	-0.788959603	0.622457255	Conc. Si(opal) (mg/cm3) 3pt mean
19	-0.788959603	0.622457255	Median Si(Opal) Flux 3pt mean
20	-0.788959603	0.622457255	Median Si(Opal) Flux 3pt mean
21	-0.788959603	0.622457255	Median Si(Opal) Flux 3pt mean
22	-0.794761591	0.631645987	Autotroph:Heterotroph
23	-0.796974492	0.635168341	% Spiniferites elongatus/frigidus
24	-0.821741952	0.675259836	Autotroph:Heterotroph
25	-0.857089317	0.734602097	Autotroph:Heterotroph
26	-0.857089317	0.734602097	Autotroph:Heterotroph
27	-0.857089317	0.734602097	Autotroph:Heterotroph
28	-0.857089317	0.734602097	Autotroph:Heterotroph
29	-0.857089317	0.734602097	Autotroph:Heterotroph
30	-0.857089317	0.734602097	Autotroph:Heterotroph
31	-0.912506339	0.832667818	% Operculodinium centrocarpum sensu Wall & Dale (1966)
32	-0.919726414	0.845896677	Autotroph:Heterotroph
33	-0.930577655	0.865974773	% Autotroph
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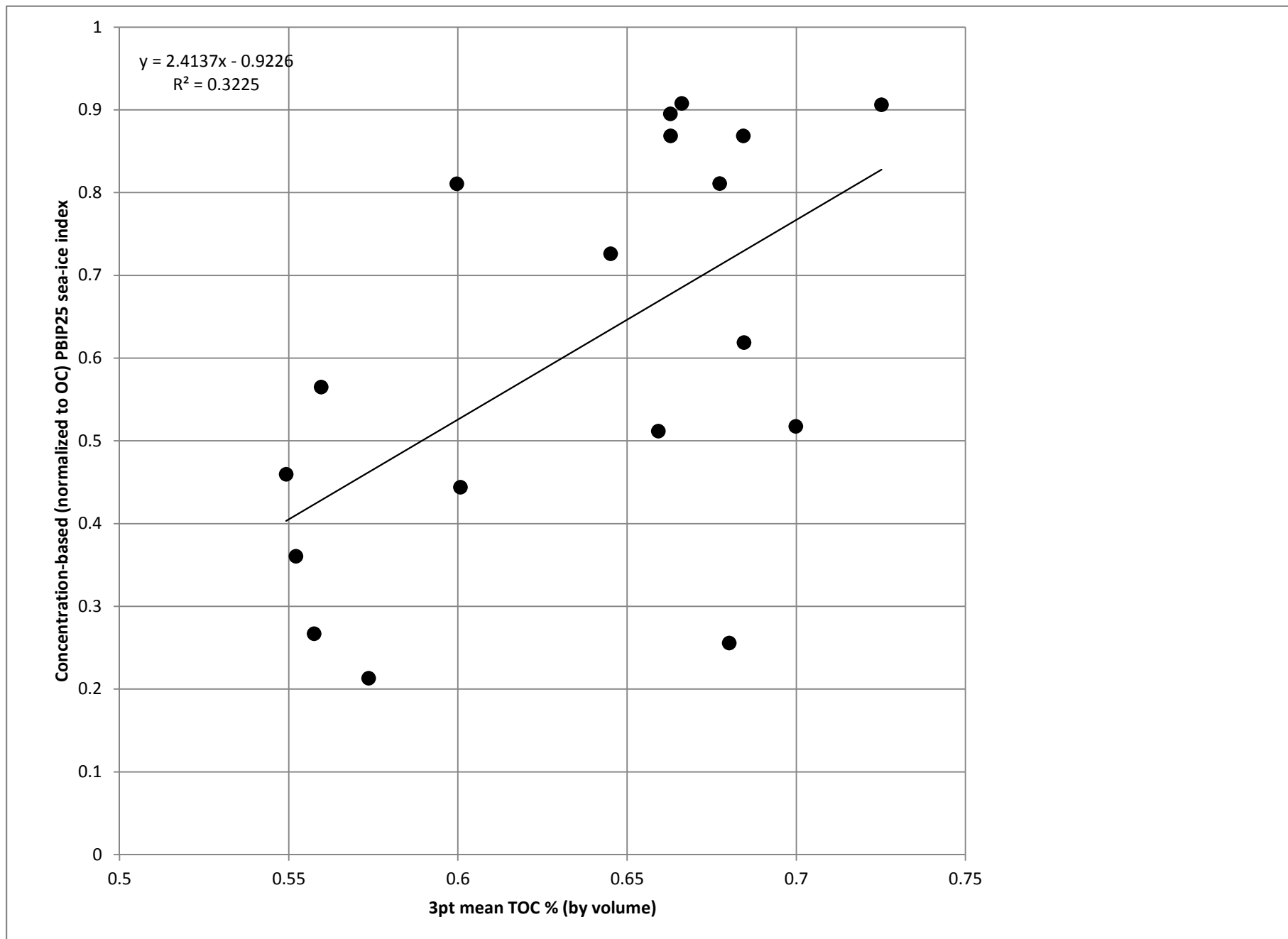
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3 SSS Winter max 3pt mean
4 SSS Winter max 3pt mean
5 Flux TOC (mg/cm²/cal yr)
6 TOC (mg/cm³)
7 TOC flux (mg/cm²/cal yr)
8 TOC (mg/cm³)
9 IP25 Flux 3pt mean
10 IP25 Flux 3pt mean
11 IP25 conc (ug/cm³) 3pt mean
12 IP25 conc (ug/cm³) 3pt mean
13 IP25 conc. (ug/g) 3pt mean
14 IP25 conc. (ug/g) 3pt mean
15 SSS Aug max
16 Ice Duration min
17 Ice Cover min
18 SSS Summer max
19 IP25 conc. (ug/g OC) 3pt mean
20 IP25 conc. (ug/g OC) 3pt mean
21 IP25 Flux 3pt mean
22 IP25 Flux 3pt mean
23 IP25 conc (ug/cm³) 3pt mean
24 IP25 conc (ug/cm³) 3pt mean
25 IP25 conc. (ug/g OC) 3pt mean
26 IP25 conc. (ug/g OC) 3pt mean
27 TOC (%) 3pt mean
28 TOC (mg/g) 3pt mean
29 TOC (%) 3pt mean
30 TOC (mg/g) 3pt mean
31 SSS Winter max 3pt mean
32 SSS Winter max 3pt mean
33 SST Aug 3pt mean
34 SST Aug 3pt mean
35 SST Summer 3pt mean
36 SST Aug 3pt mean
37 SSS Winter max 3pt mean
38 SST Summer 3pt mean
39 IP25 conc. (ug/g OC) 3pt mean
40 TOC (mg/cm³) 3pt mean
41 TOC Flux 3pt mean
42 TOC (mg/cm³) 3pt mean
43 TOC Flux 3pt mean
44 IP25 conc. (ug/g) 3pt mean
45 IP25 conc. (ug/g) 3pt mean
46 IP25 conc (ug/cm³) 3pt mean
47 IP25 Flux 3pt mean
48 SSS Winter min
49 SSS Feb min
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For Peer Review

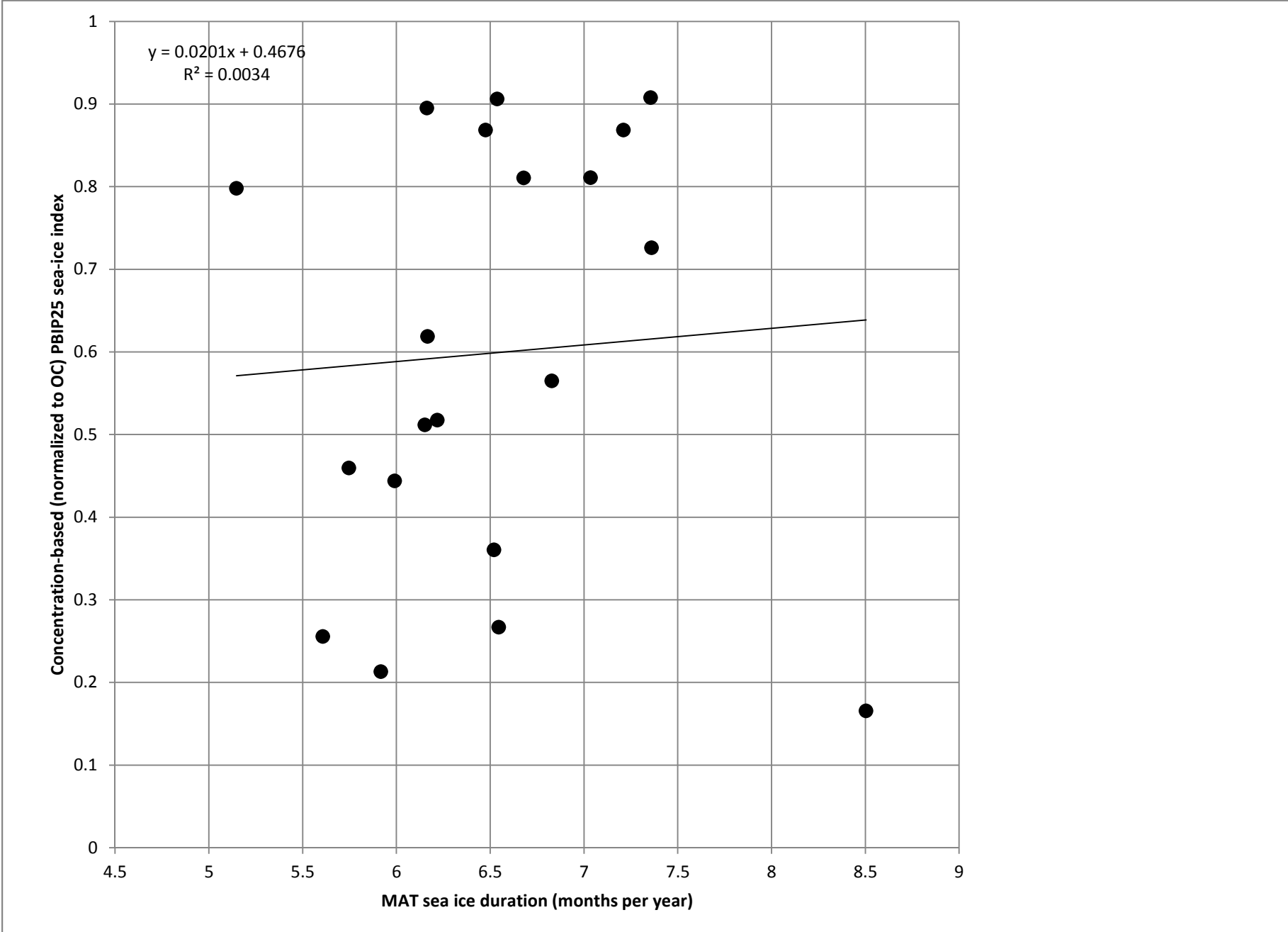
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2 SSS Winter max 3pt mean
3 SST Summer 3pt mean
4 SST Summer 3pt mean
5 SST Summer 3pt mean
6 SST Aug 3pt mean
7 SST Aug 3pt mean
8 SST Summer 3pt mean
9 SST Summer 3pt mean
10 SST Summer 3pt mean
11 SST Summer max
12 % Autotroph
13 Flux Autotroph:Heterotroph
14 % Autotroph
15 Flux Autotroph:Heterotroph
16 Operculodinium centrocarpum sensu Wall & Dale (1966)
17 Flux Islandinium cezare s.l.
18 % Operculodinium centrocarpum sensu Wall & Dale (1966)
19 Flux Islandinium cezare s.l.
20 Productivity
21 SSS Winter max 3pt mean
22 SST Aug max
23 Productivity max
24 SST Feb max
25 SST Aug min
26 SST Winter max
27 SSS Winter max 3pt mean
28 SSS Winter max 3pt mean
29 SSS Winter max 3pt mean
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