**Table S1**

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| --- | --- | --- | --- | --- | --- |
| **Locality** | **Site №** | **Coordinates** | **Elevation****a.s.l. (m)** | **Description** | **Thickness****(m)** |
| **Kurkur Oasis** | 1 | 23⁰ 53’ 08” N 32⁰ 26’ 03” E | 243  | Deposits overlying the Nubia Formation (Coniacian-Santonian), below the Sinn El-Kaddab Scarp. Outcrop is 50-60 m long and 8-10 m wide, with a linear orientation trending NE-SW.  | 4  |
| 2 | 23⁰ 52’ 04” N 32⁰ 22’ 06” E | 272  | Deposits unconformably overlie the Dakhla Shale (Maastrichtian), along the foot-slope of the Sinn El-Kaddab Scarp. They occur in the form of high hillocks or mounds with stromatolitic layers occupy an area ~0.5 km2.  | 8  |
| 3 | 23⁰ 52’06” N 32⁰ 21’ 31.6” E | 320  | Deposits on the foot-slope of the Sin El-Kaddab Scarp overlying the Kurkur Formation (Paleocene-Early Eocene).  | 10 |
| 4 | 23⁰ 52’ 9.7” N 32⁰ 19’ 25” E | 325  | Deposits on the slope of Sinn El-Kaddab Scarp overlying the Kurkur Formation.  | 3  |
| 5 | 23⁰ 52’ 26.5” N 32⁰ 18’ 58”E | 350  | Highly crystalline 40-50 m thick massive outcrop at the top of Sinn El-Kaddab Scarp overlying Kurkur Formation or the lower beds of the Garra Formation (Lower Eocene). Wind abraded surface is dark grey. | 40-50  |
| 6 | 23⁰ 53’ 16.6” N 32⁰ 18’ 55.2”E | 330  | Deposits parallel to inclined laminations bordering floor of Kurkur Oasis.  | 7-8  |
| 7 | 23⁰ 53’ 9.8” N 32⁰ 17’ 27.5” E | 375  | Deposits are unconformable on the Garra Formation (Lower Eocene) within the plateau.  | 6  |
| **Dineigil Oasis** | 1 | 23° 24’ 35” N 31° 37’ 23.8” E | 227  | Phytohermal deposits unconformable resting on the Kurkur Formation along the slope of Sinn El-Kaddab Scarp. | 3-4 |
| **Gebel El-Digm** | 1 and 2 | 23° 24’ 51.3” N 31° 53’ 15.2” E | 310  | Porous deposits unconformably overlying the Dakhla Shale (Maastrichtian). | 50-60 |
| 3 | 23° 25’ 35” N 31° 50’ 25.8” E | 350  | Thin laminated deposits unconformably overlying the Dakhla Shale (Maastrichtian). | 4.5 |
| **Dungul Oasis** | 1 and 2 | 23° 25’ 45” N31° 36’ 26.5” E | 245  | Phytohermal tufa; dark grey to blackish in color, hard, cavernous, wavy laminated at base, rich in vertical mammillated plant casts and chaotic-order branch’s moulds at top. It constitutes small separated bouldary hillocks or mounds atop the thin-bedded limestone of the Kurkur Formation (Paleocene-Lower Eocene). | 6.5 |
| 3 and 4 | 23° 26’ 23.6” N 31° 37’ 23” E | 267  | Thin-bedded tabular tufa; grey, hard, stromatolitic, vuggy, porous with no plant remains, overlying the Kurkur Fm. | 1.5 |
| 5 | 23° 26’ 21” N31° 37’ 51.4” E | 302  | Tufa; grey to yellowish grey in color, massive, hard, vuggy, blocky, no bedding, no plant casts, conglomeratic at the base forming high hillocks on the top surface of the plateau, overlying unconformably the Lower Eocene Garra Formation.  | 23 |
| **Gebel Kalabsha** | 1 | 23° 30’ 45” N 32° 05’ 00” E | 345  | Fractures-filling calcite. |  |