

Appendix 2. X-Ray Diffraction Intensities and Percentages of Dominant Minerals in Core LSL-B.

| Depth (cmbf) | Quartz (cps) | Plagioclase (cps) | Calcite (cps) | Dolomite (cps) | Quartz (%) | Plagioclase (%) | Calcite (%) | Dolomite (%) |
|-------------------------|-------------------------|------------------------------|--------------------------|---------------------------|-----------------------|----------------------------|------------------------|-------------------------|
| 101 | 5918 | 1045 | 1563 | 1391 | 59.68 | 10.54 | 15.76 | 14.03 |
| 111 | 6031 | 832 | 1563 | 1211 | 62.58 | 8.63 | 16.22 | 12.57 |
| 121 | 6000 | 982 | 1207 | 1508 | 61.88 | 10.13 | 12.45 | 15.55 |
| 131 | 3992 | 427 | 1797 | 838 | 56.59 | 6.05 | 25.48 | 11.88 |
| 141 | 5498 | 742 | 1985 | 1254 | 58.00 | 7.83 | 20.94 | 13.23 |
| 151 | 4901 | 766 | 1767 | 1116 | 57.32 | 8.96 | 20.67 | 13.05 |
| 161 | 4855 | 646 | 2650 | 1226 | 51.78 | 6.89 | 28.26 | 13.08 |
| 171 | 4770 | 692 | 2358 | 1327 | 52.15 | 7.57 | 25.78 | 14.51 |
| 181 | 1235 | 193 | 3434 | 736 | 22.06 | 3.45 | 61.34 | 13.15 |
| 191 | 1655 | 174 | 3065 | 336 | 31.64 | 3.33 | 58.60 | 6.42 |
| 209 | 2982 | 259 | 2663 | 626 | 45.67 | 3.97 | 40.78 | 9.59 |
| 221 | 2040 | 265 | 3673 | 406 | 31.96 | 4.15 | 57.53 | 6.36 |
| 231 | 3496 | 446 | 2865 | 729 | 46.39 | 5.92 | 38.02 | 9.67 |
| 241 | 7728 | 996 | 2503 | 1327 | 61.56 | 7.93 | 19.94 | 10.57 |
| 251 | 5206 | 699 | 3568 | 936 | 50.01 | 6.72 | 34.28 | 8.99 |
| 261 | 7430 | 1611 | 1085 | 2226 | 60.15 | 13.04 | 8.78 | 18.02 |
| 271 | 7769 | 1463 | 1265 | 2184 | 61.27 | 11.54 | 9.98 | 17.22 |
| 281 | 5551 | 1743 | 1878 | 1517 | 51.93 | 16.31 | 17.57 | 14.19 |
| 291 | 7062 | 1333 | 1608 | 2287 | 57.46 | 10.85 | 13.08 | 18.61 |
| 298 | 7536 | 1111 | 1208 | 2248 | 62.27 | 9.18 | 9.98 | 18.57 |
| 309 | 7973 | 1101 | 1122 | 1958 | 65.60 | 9.06 | 9.23 | 16.11 |
| 321 | 7154 | 1692 | 1540 | 1684 | 59.27 | 14.02 | 12.76 | 13.95 |
| 331 | 6144 | 1557 | 1653 | 1705 | 55.56 | 14.08 | 14.95 | 15.42 |
| 341 | 10411 | 1933 | 1191 | 2850 | 63.54 | 11.80 | 7.27 | 17.39 |
| 351 | 6144 | 1191 | 1596 | 1761 | 57.46 | 11.14 | 14.93 | 16.47 |
| 361 | 5014 | 648 | 2507 | 1429 | 52.24 | 6.75 | 26.12 | 14.89 |
| 371 | 6860 | 1065 | 1434 | 1659 | 62.26 | 9.67 | 13.02 | 15.06 |
| 381 | 5455 | 684 | 1718 | 1587 | 57.76 | 7.24 | 18.19 | 16.80 |
| 391 | 5889 | 867 | 1614 | 1501 | 59.66 | 8.78 | 16.35 | 15.21 |
| 397 | 6499 | 1043 | 1296 | 1603 | 62.25 | 9.99 | 12.41 | 15.35 |
| 410 | 5539 | 1329 | 1684 | 1269 | 56.40 | 13.53 | 17.15 | 12.92 |
| 421 | 5697 | 764 | 1757 | 1651 | 57.73 | 7.74 | 17.80 | 16.73 |
| 431 | 5083 | 833 | 1927 | 1330 | 55.41 | 9.08 | 21.01 | 14.50 |
| 441 | 3699 | 583 | 2548 | 667 | 49.34 | 7.78 | 33.99 | 8.90 |
| 451 | 2785 | 364 | 4360 | 598 | 34.35 | 4.49 | 53.78 | 7.38 |
| 461 | 2202 | 264 | 5640 | 460 | 25.71 | 3.08 | 65.84 | 5.37 |
| 471 | 2833 | 339 | 5051 | 530 | 32.37 | 3.87 | 57.71 | 6.06 |
| 481 | 4272 | 554 | 4791 | 849 | 40.82 | 5.29 | 45.78 | 8.11 |
| 488 | 1842 | 201 | 6390 | 343 | 20.99 | 2.29 | 72.81 | 3.91 |
| 503 | 1809 | 202 | 7528 | 330 | 18.33 | 2.05 | 76.28 | 3.34 |
| 513 | 606 | 186 | 8843 | 161 | 6.19 | 1.90 | 90.27 | 1.64 |
| 523 | 576 | 66 | 8151 | 90 | 6.48 | 0.74 | 91.76 | 1.01 |
| 533 | 876 | 58 | 8013 | 226 | 9.55 | 0.63 | 87.35 | 2.46 |
| 543 | 1139 | 112 | 7212 | 223 | 13.11 | 1.29 | 83.03 | 2.57 |
| 553 | 1251 | 269 | 7056 | 313 | 14.07 | 3.03 | 79.38 | 3.52 |
| 563 | 1257 | 97 | 7261 | 227 | 14.22 | 1.10 | 82.12 | 2.57 |
| 573 | 1307 | 268 | 7699 | 385 | 13.53 | 2.78 | 79.71 | 3.99 |

Appendix 2. X-Ray Diffraction Intensities and Percentages of Dominant Minerals in Core LSL-B.

| Depth (cmblf) | Quartz (cps) | Plagioclase (cps) | Calcite (cps) | Dolomite (cps) | Quartz (%) | Plagioclase (%) | Calcite (%) | Dolomite (%) |
|--------------------------|-------------------------|------------------------------|--------------------------|---------------------------|-----------------------|----------------------------|------------------------|-------------------------|
| 583 | 762 | 0 | 8062 | 216 | 8.43 | 0.00 | 89.18 | 2.39 |
| 603 | 1185 | 184 | 8042 | 208 | 12.32 | 1.91 | 83.61 | 2.16 |
| 610 | 960 | 99 | 7912 | 180 | 10.49 | 1.08 | 86.46 | 1.97 |
| 620 | 1561 | 154 | 8386 | 183 | 15.18 | 1.50 | 81.54 | 1.78 |
| 630 | 1884 | 135 | 7696 | 259 | 18.89 | 1.35 | 77.16 | 2.60 |
| 640 | 4142 | 519 | 4790 | 1218 | 38.82 | 4.87 | 44.90 | 11.42 |
| 650 | 1296 | 165 | 8431 | 231 | 12.80 | 1.63 | 83.29 | 2.28 |
| 660 | 2648 | 367 | 6186 | 706 | 26.73 | 3.70 | 62.44 | 7.13 |
| 670 | 4111 | 626 | 3490 | 1327 | 43.03 | 6.55 | 36.53 | 13.89 |
| 680 | 2385 | 211 | 4147 | 797 | 31.63 | 2.80 | 55.00 | 10.57 |
| 686 | 8128 | 1218 | 885 | 2560 | 63.55 | 9.52 | 6.92 | 20.01 |
| 711 | 4278 | 800 | 3794 | 1273 | 42.17 | 7.89 | 37.40 | 12.55 |
| 721 | 8834 | 1579 | 1145 | 2669 | 62.09 | 11.10 | 8.05 | 18.76 |
| 731 | 8984 | 1524 | 1092 | 2398 | 64.18 | 10.89 | 7.80 | 17.13 |
| 741 | 8327 | 1536 | 1312 | 2938 | 59.00 | 10.88 | 9.30 | 20.82 |
| 751 | 3932 | 527 | 3035 | 1293 | 44.75 | 6.00 | 34.54 | 14.72 |
| 761 | 7494 | 959 | 2912 | 1972 | 56.19 | 7.19 | 21.83 | 14.79 |
| 771 | 9046 | 1386 | 1064 | 2197 | 66.06 | 10.12 | 7.77 | 16.05 |
| 781 | 9417 | 1323 | 963 | 3208 | 63.16 | 8.87 | 6.46 | 21.51 |
| 788 | 8488 | 1562 | 1705 | 2440 | 59.80 | 11.00 | 12.01 | 17.19 |
| 811 | 9235 | 1338 | 1412 | 2682 | 62.96 | 9.12 | 9.63 | 18.29 |
| 821 | 8361 | 3321 | 1413 | 1840 | 55.98 | 22.24 | 9.46 | 12.32 |
| 831 | 10536 | 2838 | 993 | 2488 | 62.51 | 16.84 | 5.89 | 14.76 |
| 841 | 11069 | 1732 | 1532 | 2198 | 66.96 | 10.48 | 9.27 | 13.30 |
| 851 | 12319 | 1910 | 1204 | 3582 | 64.79 | 10.05 | 6.33 | 18.84 |
| 861 | 11424 | 2227 | 1161 | 3653 | 61.87 | 12.06 | 6.29 | 19.78 |
| 871 | 8224 | 1024 | 2062 | 2484 | 59.62 | 7.42 | 14.95 | 18.01 |
| 881 | 10292 | 2039 | 534 | 2898 | 65.29 | 12.94 | 3.39 | 18.39 |
| 906 | 8673 | 1242 | 1014 | 1964 | 67.27 | 9.63 | 7.87 | 15.23 |
| 916 | 8972 | 1091 | 741 | 3054 | 64.74 | 7.87 | 5.35 | 22.04 |
| 926 | 10389 | 7204 | 1379 | 2429 | 48.54 | 33.66 | 6.44 | 11.35 |
| 934 | 12046 | 6394 | 1300 | 1907 | 55.65 | 29.54 | 6.01 | 8.81 |

cmblf = centimeters below lake floor

cps = counts persecond