**Appendix B: Supplementary Data**

**Table 5.***δ34S results of solid bitumen from different depth intervals of one well in the HHA (SCL HZ GOLDCK 5-24-68-5, public database of the Alberta Energy Regulator-AER).*

|  |  |
| --- | --- |
| **Depth (m)** | **δ34S Solid Bitumen**  **(‰ V-CDT)** |
| 2239 | -3.8 |
| 2243 | -5.2 |
| 2247 | -6.7 |
| 2277 | 10.2 |
| 2295 | 7.8 |
| 2301 | 7.3 |
| 2312 | 2.9 |
| 2319 | 5.6 |
| 2334 | 7.1 |
| 2343 | 8.3 |
| 2345 | 5.2 |
| 2349 | 7.7 |
| 2361 | 7.4 |
| 2365 | 0.3 |
| 2368 | -0.7 |
| 2371 | 0 |
| 2374 | -1.3 |
| 2377 | 4 |
| 2382 | -0.7 |
| 2386 | 1.2 |
| 2388 | 1 |
| 2390 | 3 |
| 2396 | 4 |
| 2399 | 2.5 |