# Whiteball Quarry - Summary of Key Elements

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| **Location:** | Adjacent to A38 east of Burlescombe, about 13 Km north-east of Tiverton, Devon. |
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| **Operated by:** | Hanson Aggregates, a subsidiary company of Hanson plc |
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| **O.S. Grid Ref:** | ST 089 187 (quarry office) |
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| **O.S. Map Nos:** | 1:25 000 Explorer Sheet 128, Taunton, Wellington & Ilminster. |
| | 1:50 000 Landranger Sheet 181, Minehead and the Brendon Hills. |
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| **BGS Map No:** | 1:50 000 Sheet 311, Wellington. |
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| **General Geology:** | Red-brown fluvial conglomerates and finer sediments of the Budleigh Salterton Pebble Bed Formation (BSPBF), basal member of the Sherwood Sandstone Group of Triassic age about 240 to 230 million years old. The beds dip gently to the east about 3° and rest on the Aylesbeare Mudstone Group. The overlying Otter Sandstone comprises silty fine and gravelly sands of fluvial and aeolian origin. |
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| **Geodiversity Highlights:** | • Up to 20m of largely unconsolidated conglomerates with beds of sand and silty and clayey sand.<br>• Well rounded pebbles, cobbles and occasional boulders, predominantly quartzite but also including other rock types likely to be locally derived such as sandstones and decalcified remains of limestones.<br>• Abundant sedimentary structures characteristic of fluvial deposits including cross bedding and washout structures<br>• Occasional patches of iron-cemented gravel.<br>• Numerous minor faults occur, recognizable where they cut distinct beds such as the base of the deposit but difficult to recognize within the conglomerate.<br>• Pale-green leached conglomerate at lower contact on Aylesbeare Mudstone.<br>• Near-surface periglacial features.<br>• Quarry faces stand at steep angles. |
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| **Geodiversity Context:** | • Outcrop of the BSPBF extends south-north across Devon from coast to coast.<br>• Extensive river deposit with clasts originating mainly from the south and, in this area, from a variety of local sources resulting from erosion and braided fluvial transport into a large piedmont flood plain in a semi-arid climate.<br>• Periglacial structures within the overburden and upper parts of the BSPBF, comprising small-scale folding and cryoturbation structures (folded to the vertical), were formed during the Pleistocene as a result of frost and ice heaving. |

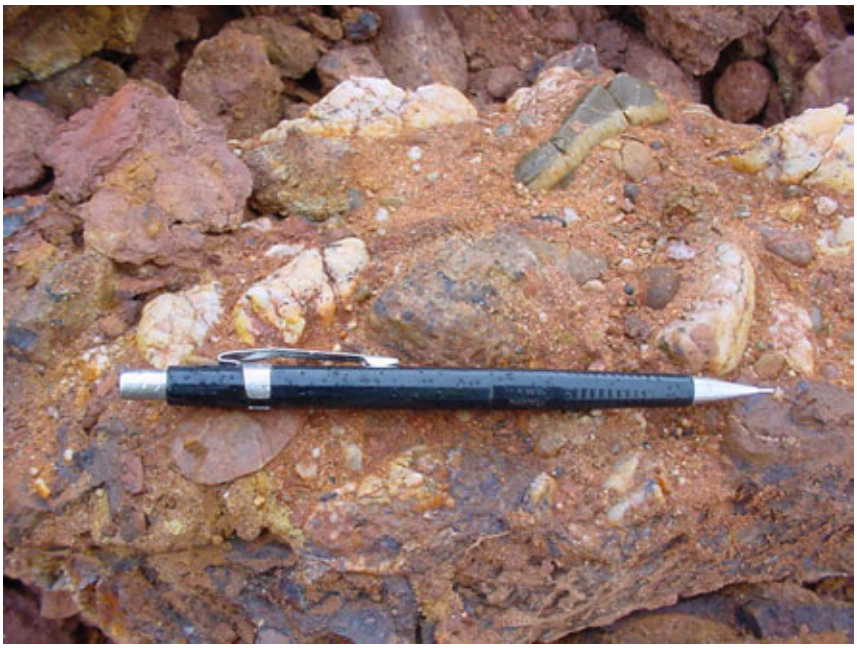
**Loc 12 General View of Rising Base of Deposit**

***Grid Ref ST 07848 16763*** ***Photo WB12a*** ***Facing SE***

Town Farm Pit. General view showing the base of the BSPBF (pale yellow brown in colour) rising away from the observer in the mid ground towards the high face in the background. The base also dips towards the observer and is several metres below the camera viewpoint.

**Loc 20 Detail of Cemented BSPBF**

***Grid Ref ST 08461 18262*** ***Photo WB20k*** ***Facing SE***



Detail of a loose block of iron cemented BSPBF clasts. Note the poorly sorted nature of the deposit and variety of clast types.

**Loc 21 Detail of Fault Pair within the Otter Sandstone Formation**

***Grid Ref ST 08392 18195 Photo WB21d Facing ENE***

East face at Redhill Pit. (Part of the Whiteball Quarry Complex) Photo shows a worked out pit of the Otter Sandstone Formation (of fluvial and aeolian origin) resting on the BSPBF (below the waterline).The pit is currently used for the disposal of silt waste. Note the fault pair either side of the vegetated area in the quarry face. The faults can be seen to displace the pale coloured silty sand horizons in the Otter Sandstone.

**Loc 23 Erosion Surface Within the Otter Sandstone**

***Grid Ref ST 08870 18727 Photo WB23d Facing SW***

South face at Lindley Pit. (Part of the Whiteball Quarry Complex) Photo shows detail of a prominent iron/manganese cemented horizon within the Otter Sandstone. Note that it has sinuous margins and is thought to represent an old surface erosion feature.