

- 1278' 11" - 1279' 10" Conglomerate with fragments rather finer than below.  
British Geological Survey Two quarter inch bands of dark silty material half inch apart at 1279 4'. Very uneven top.
- 1279' 10" - 1280' 11" Conglomerate with fragments up to 1" across and angular pods of quartz, some finer grained bands dipping at 10°. Scattered larger fragments.
- 1280' 11" - 1281' 1 $\frac{1}{2}$ " Conglomerate with fragments up to 1" across and angular pods of quartz in matrix of light grey clay possibly incorporated shale. Base of Carboniferous sequence at 1281' 1 $\frac{1}{2}$ .

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1281<sup>1</sup> 12<sup>1</sup> - 2649<sup>1</sup> 3WEARDALE GRANITE1281<sup>1</sup> 12<sup>1</sup> - 1291<sup>1</sup> 6

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Pale grey-green mottled white quartz-microcline-albite-muscovite-granite with foliation dipping at 3°. Upper 5' has darker green groundmass than rest. At 1285' and 1289' crush zones, dip 15°.

1291<sup>1</sup> 6 - 1291<sup>1</sup> 9

Pegmatite without mica.

1291<sup>1</sup> 9 - 1299<sup>1</sup> 3

Dark foliated granite.

1299<sup>1</sup> 3 - 1299<sup>1</sup> 5

Pegmatite dip 30° thin dark parting in centre.

1299<sup>1</sup> 5 - 1299<sup>1</sup> 8

Granite.

1299<sup>1</sup> 8 - 1299<sup>1</sup> 9

Pegmatite with quartz centre.

1299<sup>1</sup> 9 - 1306<sup>1</sup> 10

Granite, foliation dip 15°.

1306<sup>1</sup> 10 - 1307<sup>1</sup> 3

Pegmatite dip 15° oblique to foliation which cuts it.

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1307<sup>1</sup> 3 - 1309<sup>1</sup> 8

Granite.

1309<sup>1</sup> 8 - 1309<sup>1</sup> 10

Pegmatite, flat.

1309<sup>1</sup> 10 - 1310<sup>1</sup> 6

Granite.

1310<sup>1</sup> 6 - 1312<sup>1</sup>

Pegmatite. Top dips 5°, feldspars up to 2", some augen-like.

1312<sup>1</sup> - 1325<sup>1</sup> 5

Granite; at 1317<sup>1</sup> 4 impersistent stringer of galena up to 1" thick; at 1325<sup>1</sup> 5 quartz, tourmaline, feldspar, vein dip 45°. Joints at 1347<sup>1</sup> (45°), 1349<sup>1</sup> (60°), 1321<sup>1</sup> 6<sup>1</sup> (45°).

1325<sup>1</sup> 5 - 1331<sup>1</sup>

Granite with three thin pegmatites, dip 5°.

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Thin fluorite vein, in unaltered granite.

1331<sup>1</sup> - 1336<sup>1</sup>

Granite.

1339<sup>1</sup> 9 - 1340<sup>1</sup>

Pegmatite, quartz, feldspar, dip 20°.

1340<sup>1</sup> - 1345<sup>1</sup> 2

Granite, with occasional vertical and oblique strings of small cavities.

1345<sup>1</sup> 2 - 1345<sup>1</sup> 8

Aplite, nearly flat.

1345<sup>1</sup> 8 - 1346<sup>1</sup> 6

Pegmatite, cut by siderite veinlets dip 75°.

1346<sup>1</sup> 6 - 1348<sup>1</sup> 3

Granite.

1348<sup>1</sup> 3 - 1349<sup>1</sup> 9

Pegmatite.

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Quartz-pyrrhotite-pyrite-marcasite vein with calcite, ankerite, fluorite, quartz, and traces of galena. Adjacent granite altered.

1360<sup>1</sup> - 1361<sup>1</sup>

Granite.

1361<sup>1</sup> - 1366<sup>1</sup>

Altered and darker granite with 1½" vein of quartz, fluorite, pyrrhotite, pyrite, reddened with hematite at margin.

1366<sup>1</sup> - 1374<sup>1</sup> 10½

Granite with thin red veinlets and ½" pyrite veinlet at 1374<sup>1</sup> 4". Joints at 1368<sup>1</sup> 6<sup>1</sup> (50°) and 1371<sup>1</sup> (45°).

1374<sup>1</sup> 10½ - 1376<sup>1</sup>

Irregular pegmatite.

|                           |   |             |  |                           |
|---------------------------|---|-------------|--|---------------------------|
| 1376'                     | - | 1378'       | Granite.   |                           |
| British Geological Survey |   | 1378' 6"    | Aplite.  | British Geological Survey |
|                           |   | - 1379'     | Granite.   |                           |
|                           |   | 1379'       | Granite.   |                           |
|                           |   | - 1381' 2"  | Aplite with pegmatite margins.   |                           |
|                           |   | 1383' 2"    | Granite, foliation dip 10-15°.   |                           |
|                           |   | - 1385'     | Pegmatite.   |                           |
|                           |   | 1385' 3"    | Granite.   |                           |
|                           |   | - 1389' 7½" | Pegmatite, dip 20°.  |                           |
|                           |   | 1389' 7½"   | Slightly darker granite.   |                           |
| British Geological Survey |   | 1393' 6"    | Augen of feldspar in granite.  | British Geological Survey |
|                           |   | - 1394'     |  |                           |
|                           |   | 1394'       | Granite, a few crystals of chalcopyrite. Joint at 1397' (60°).                   |                           |
|                           |   | - 1399'     | Quartz band, dip 40°.  |                           |
|                           |   | 1399' 3"    | Granite, many joints dip 80°.  |                           |
|                           |   | - 1409'     | Granite.   |                           |
|                           |   | 1409' 3"    | Pegmatite.   |                           |
|                           |   | - 1411' 5"  | Granite.   |                           |
|                           |   | 1411' 5"    | Pegmatite, flat.   |                           |
| British Geological Survey |   | 1412' 6"    | Granite.   | British Geological Survey |
|                           |   | - 1417' 6"  | Coarse pegmatite vein with mica $\frac{3}{4}$ " across, little pyrite.           |                           |
|                           |   | 1418' 6"    | Granite; at 1422' crush (45°).   |                           |
|                           |   | - 1422'     | Granite cut by steep quartz vein $2\frac{1}{2}$ " thick.                         |                           |
|                           |   | 1430'       | Granite.   |                           |
|                           |   | - 1436'     | Pegmatite, irregular.  |                           |
|                           |   | 1437'       | Granite.   |                           |
|                           |   | - 1440' 4"  | Coarse pegmatite with mica.  |                           |
| British Geological Survey |   | 1443' 10"   | Aplite, veneer of galena on joint at 1446' (62" rock bit drilling).              | British Geological Survey |
|                           |   | - 1453'     |  |                           |
|                           |   | 1453'       | Pegmatite.   |                           |
|                           |   | - 1457'     | Granite; at 1459' molybdenite crystals in granite.                               |                           |
|                           |   | 1457'       |  |                           |
|                           |   | - 1460' 6"  | Granite; at 1460' 6" pegmatite veinlet, dip 70°.                                 |                           |
|                           |   | 1460' 6"    |  |                           |
|                           |   | - 1480'     | Granite, foliation dip 20°.  |                           |
|                           |   | 1480'       | Pale green altered granite with $1\frac{1}{2}$ " quartz-purple fluorite veinlet. |                           |

|                           |   |                           |  |
|---------------------------|---|---------------------------|--|
| 1482'6"                   | - | 1509'                     | Granite, joints at 1485' (50°); at 1509' veinlet with tourmaline (45°).  |
| British Geological Survey |   | British Geological Survey | British Geological Survey  |
| 1509                      | - | 1512'4"                   | Granite.   |
| 1512'4"                   | - | 1514'7"                   | Aplite, dip 45°-50°.   |
| 1514'7"                   | - | 1524'8"                   | Granite with traces of calcite, fluorite, chalcopyrite. 1524'8" veinlet of deep purple fluorite.   |
| 1524'8"                   | - | 1527'11"                  | Granite.   |
| 1527'11"                  | - | 1530'7"                   | Aplite with pale purple fluorite veinlet (bottom 11" rock bit drilling).   |
| 1530'7"                   | - | 1531'3"                   | Granite.   |
| 1531'3"                   | - | 1532'10"                  | Aplite. Dip 10° at top, 40° at bottom.   |
| British Geological Survey |   | British Geological Survey | British Geological Survey  |
| 1532'10"                  | - | 1535'1"                   | Aplite, enclosing granite band, dip 20°.   |
| 1535'1"                   | - | 1536'5"                   | Granite.   |
| 1536'5"                   | - | 1547'2"                   | Aplite with some large feldspars, dip of base 70° to 80°.  |
| 1547'2"                   | - | 1558'2"                   | Granite, foliation dip 15-20°.   |
| 1558'2"                   | - | 1568'5"                   | Pale green granite with thin veinlets up to 1", dip 60-70°, containing green fluorite with pyrite, pyrrhotite and quartz.  |
| 1568'5"                   | - | 1575'                     | Granite.   |
| 1575                      | - | 1577'6"                   | Granite, dark purple fluorite coating on joint.  |
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| 1577'6"                   | - | 1577'9"                   | Pegmatite.   |
| 1577'9"                   | - | 1579'6"                   | Granite.   |
| 1579'6"                   | - | 1582'                     | Irregular pegmatite.   |
| 1582'                     | - | 1585'4"                   | Granite.   |
| 1585'4"                   | - | 1643'9"                   | Granite, pale and altered, $\frac{1}{2}$ " veinlets with quartz, green fluorite, traces of galena. (Rock bit drilling 39 1").  |
| 1643'9"                   | - | 1651'8"                   | Pale altered granite with strong complex development of veinlets of redbrown quartz, fluorite, pyrite, calcite.  |
| British Geological Survey |   | British Geological Survey | British Geological Survey  |
| 1651'8"                   | - | 1653'4"                   | Granite.   |
| 1653'4"                   | - | 1672'9"                   | Granite, altered, becoming darker; cut by occasional redbrown quartz veinlets dip 50-70° and some flat; up to $3\frac{1}{2}$ " thick but usually less than $1\frac{1}{2}$ ". Below 1655' a veinlet with pale green fluorite, quartz and stringers of galena. |
| 1672'9"                   | - | 1675'8"                   | Granite. Foliation, dip 15°.   |
| 1675'8"                   | - | 1708'6"                   | Pale granite, veined by quartz and subsidiary purple and green fluorite, some pyrite and chalcopyrite, little epidote. (13'8" rock bit drilling from 1680'7").   |

|           |   |           |  |
|-----------|---|-----------|--|
| 1708'6"   | - | 1746'2"   | Pale granite with occasional thin quartz veinlets, one 10" wide at 1736'2". Thin quartz veinlets with fluorite, pyrite, pyrrhotite.                    |
| 1746'2"   | - | 1815'8"   | Granite, much broken up, with patches of chlorite and some tourmaline at 1769' (33' rock bit drilling).  |
| 1815'8"   | - | 1820'     | Granite.   |
| 1820'     | - | 1825'     | Granite with 5' aplite band, dip 65°.  |
| 1825'     | - | 1871'     | Granite with tendency to break into thin horizontal layers owing to jointing. (Rock bit drilling 24'1").   |
| 1871'     | - | 1872'     | Aplite, dip 70-80°.  |
| 1872'     | - | 1891'     | Granite, with horizontal joints. (Rock bit drilling 4'11").  |
| 1891'     | - | 1903'2"   | Granite, traces of ore minerals at 1895'-1898'6". Joints at 1901'-1902' (45°).   |
| 1903'2"   | - | 1933'     | Aplite, micaeous, dip at top 70-80°. (Rock bit drilling 13'1").  |
| 1933'     | - | 1944'3"   | Granite, some horizontal joints.   |
| 1944'3"   | - | 1954'     | Aplite.  |
| 1954'     | - | 1978'     | Granite, foliation dip 30°.  |
| 1978'     | - | 1978 1/2' | Pegmatite, irregular.  |
| 1978 1/2' | - | 1980'     | Veinlets with quartz, siderite, sulphides, dip 60-80°.   |
| 1980'     | - | 1984'     | Granite, small veinlets.   |
| 1984'     | - | 1986'8"   | Quartz vein 1 1/2" in granite.   |
| 1986'8"   | - | 1999'9"   | Granite, with horizontal joints, 1' to 2' apart. Quartz-pyrite vein at 1996'10".   |
| 1999'9"   | - | 2004'     | Granite, at 2001' joint (30°). Quartz-pyrite vein at 2002'5", 3" thick.  |
| 2004'     | - | 2004'2"   | Pegmatite.   |
| 2004'2"   | - | 2005'8"   | Granite with vertical fractures.   |
| 2005'8"   | - | 2016'2"   | Granite; joints at 2008' (50°), 2011' (45°), 2013' (50°), foliation dip 15°.   |
| 2016'2"   | - | 2016'7"   | Pegmatite with thick muscovite wads.   |
| 2016'7"   | - | 2032'7"   | Somewhat darker granite with a few pegmatite and aplite veinlets up to 1 1/2"; foliation dip 30°. Joints at 2018'1/2" (50°), 2021' (30°), 2028' (80°). |
| 2032'7"   | - | 2038'6"   | Pale green granite beneath joint (45°) at 2032'9", grading down to normal granite. Joint 2033'6" (40°), 2036-7' (horizontal).                          |
| 2038'6"   | - | 2039'3"   | Pegmatite, coarse, with occasional thick muscovite plates and a dark mineral. Dip, top and base, 20°.  |

|                           |          |          |  |   |
|---------------------------|----------|----------|--|---|
| 2039'3"                   | -        | 2039'11" | Granite.   |   |
| British Geological Survey | 2039'11" | -        | 2041'2"  | Pegmatitic, similar to previous one, dip at top 10°, base 30°.  |
| 2041'2"                   | -        | 2061'1"  | Granite, biotite becoming visible as additional constituent. Joints at 2048' (45°), 2050'6" (50°), 2052' (40°, slickensided down dip), 2054' (35-40°, brown coating), 2058' (45°), 2265'6" (45°).        |   |
| 2061'1"                   | -        | 2067'8"  | Aplite with pegmatitic top and bottom; base dip 45°.   |   |
| 2067'8"                   | -        | 2094'1"  | Darker granite with horizontal joints near top and base. Near vertical veinlets, 5/8". 2084'-2087'2" and 2089'2"-2090'10" of dark purple fluorite and hematite. Horizontal joints pass through veinlets. |   |
| 2094'1"                   | -        | 2109'11" | Granite broken up and altered, numerous low-dipping joints.  |   |
| British Geological Survey | 2109'11" | -        | 2110'3"  | Aplite with coarse feldspar at top, dip 5-10°.  |
| 2110'3"                   | -        | 2135'    | Dark granite, solid, 2" quartz vein at 2113'10" (20°), at 2118'1" cavity with quartz, calcite, pyrite; 3" pegmatite at 2120'7", en echelon aplite veinlets 2130 -2135'.                                  |   |
| 2135'                     | -        | 2138'8"  | Granite with veinlet of deep purple fluorite, hematite, pyrite (70°).  |   |
| 2138'8"                   | -        | 2150'    | Granite, joints at 2143' (45°), 2148-9' (55°).   |   |
| 2150'                     | -        | 2150'8"  | Pegmatite, flat.   |   |
| 2150'8"                   | -        | 2157'    | Granite with biotite, foliation near horizontal.   |   |
| British Geological Survey | 2157'    | -        | 2180'  | Dark granite, 2180' irregular pegmatite clot.   |
| 2180'                     | -        | 2185'    | Granite.   |   |
| 2185'                     | -        | 2185'2"  | Pegmatite.   |   |
| 2185'2"                   | -        | 2190'1"  | Granite.   |   |
| 2190'1"                   | -        | 2190'3"  | Pegmatite.   |   |
| 2190'3"                   | -        | 2200'    | Granite, joints widely spaced, horizontal.   |   |
| 2200'                     | -        | 2201'8"  | Dark coarse granite, pegmatite clots at base with tourmaline.  |   |
| 2201'8"                   | -        | 2209'10" | Dark granite.  |   |
| British Geological Survey | 2209'10" | -        | 2234'6"  | Granite slightly lighter, finer grained. Joints at 2210' (45°). Purple fluorite patch at 2222'7" with chalcopyrite. |
| 2234'6"                   | -        | 2267'11" | Granite, with minor variations in colour and texture. Joints at 2257' (50°), 2259' (30°). Horizontal joints at 1-3 intervals.  |   |
| 2267'11"                  | -        | 2269'9"  | Coarse pegmatite, large pink feldspars, finely micaceous groundmass, thick micas. Cavities with quartz. Dip at top 5°, base 15°. Horizontal joints.  |   |

|          |            |   |                           |
|----------|------------|---|---------------------------|
| 2269'9"  | - 2271'4"  | Pale granite with some chlorite.<br>British Geological Survey   |                           |
| 2271'4"  | - 2272'1"  | Pegmatite.<br>British Geological Survey   |                           |
| 2272'1"  | - 2278'    | Pale granite with chlorite, joint with slickensides.  |                           |
| 2278'    | - 2282'3"  | Normal granite, junction with plae granite dips 40°.  |                           |
| 2282'3"  | - 2282'8"  | Pegmatite.  |                           |
| 2282'8"  | - 2297'7"  | Pale granite, somewhat altered.   |                           |
| 2297'7"  | - 2320'9"  | Granite, many horizontal joints; at 2300'5", tourmaline; at 2315' quartz-tourmaline vein (35°).   |                           |
| 2320'9"  | - 2321'6"  | Aplitic with tourmaline (35°)   |                           |
| 2321'6"  | - 2333'11" | Granite; joints at 2323'6" (45°), 2331' (45°), 2332'3" (45°).<br>British Geological Survey  | British Geological Survey |
| 2333'11" | - 2335'2"  | Aplitic, with pegmatite margins, flat.  |                           |
| 2335'2"  | - 2336'6"  | Granite.  |                           |
| 2336'6"  | - 2344'11" | Quartz vein with little fluorite in altered granite (60°).  |                           |
| 2344'11" | - 2396'1"  | Normal biotite-bearing granite, rare aplitic and hematite veinlets. Many joints at 2345'-75' (45°); 2375'-2377'6" (horizontal), 2381'-2383' (45°, 60°).   |                           |
| 2396'1"  | - 2470'6"  | Paler granite, becoming darker. Pyrite at 2403'5". (Rock bit drilling 6'7"). Pegmatite veinlets rare.   |                           |
| 2470'6"  | - 2572'6"  | Biotite-bearing granite, some diagonal joints with traces of chloritic alteration.<br>2572'6" coarse biotite schist enclosed in granite.<br>(Rock bit drilling 23').<br>British Geological Survey | British Geological Survey |
| 2572'6"  | - 2599'    | Biotite-bearing granite, numerous horizontal joints, foliation still apparent but less obvious than near top.   |                           |
| 2599'    | - 2600'    | Granite, pyrrhotite veneer on joint.  |                           |
| 2600'    | - 2605'8"  | Granite, horizontal joints.<br>2605'8" pegmatite, 3/4".   |                           |
| 2605'8"  | - 2649'3"  | Granite, with a few thin pegmatite and aplitic veinlets.  |                           |

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