

## RAINFALL AT Duddon Valley, Seathwaite Farm

Lat.

Lon.

County of Lancashire, North

Rain Gauge, by

Observer W.G. Percy Esq. Cr.  
(Barrow-in-Furness UDC)

Duddon 1

| Diameter .....  |              |              |              |              |              |              |              |              |              | 11           |        |       |  |
|-----------------|--------------|--------------|--------------|--------------|--------------|--------------|--------------|--------------|--------------|--------------|--------|-------|--|
| Height .....    |              |              |              |              |              |              |              |              |              | 10           |        |       |  |
| Altitude .....  |              |              |              |              |              |              |              |              |              | 1200         |        |       |  |
| Year .....      | 1900<br>1800 | 1901<br>1801 | 1902<br>1802 | 1903<br>1803 | 1904<br>1804 | 1905<br>1805 | 1906<br>1806 | 1907<br>1807 | 1908<br>1808 | 1909<br>1809 | MEANS. |       |  |
| January .....   |              |              |              |              |              |              |              |              |              |              | 5.56   |       |  |
| February .....  |              |              |              |              |              |              |              |              |              |              | 6.56   |       |  |
| March .....     |              |              |              |              |              |              |              |              |              |              | 3.85   |       |  |
| April .....     |              |              |              |              |              |              |              |              |              |              | 207    | 8.52  |  |
| May .....       |              |              |              |              |              |              |              |              |              |              | 9.19   | 5.71  |  |
| June .....      |              |              |              |              |              |              |              |              |              |              | 4.90   | 4.23  |  |
| July .....      |              |              |              |              |              |              |              |              |              |              | 4.91   | 11.85 |  |
| August .....    |              |              |              |              |              |              |              |              |              |              | 8.31   | 4.82  |  |
| September ..... |              |              |              |              |              |              |              |              |              |              | 10.21  | 4.59  |  |
| October .....   |              |              |              |              |              |              |              |              |              |              | 6.02   | 15.87 |  |
| November .....  |              |              |              |              |              |              |              |              |              |              | 7.05   | 2.16  |  |
| December .....  |              |              |              |              |              |              |              |              |              |              | 8.57   | 10.18 |  |
| TOTALS .....    |              |              |              |              |              |              |              |              |              |              |        | 83.90 |  |

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Duddon Valley,  
RAINFALL at Seathwaite Tarn

County of N Lancashire Observer W C Persley Esq Ch.  
River Basin Duddon &c 1 Thaddeus  
Rain Gauge, by Kennedy

| Diameter ... |       |       |        |       |       |       |       |       |         |       | 11     |  |    |
|--------------|-------|-------|--------|-------|-------|-------|-------|-------|---------|-------|--------|--|----|
| Height ..... |       |       |        |       |       |       |       |       |         |       | 10     |  | 16 |
| Altitude ... |       |       |        |       |       |       |       |       |         |       | 1200   |  |    |
| Year ...     | 1910  | 1911  | 1912   | 1913  | 1914  | 1915  | 1916  | 1917  | 1918    | 1919  | MEANS. |  |    |
| January ...  | 13.20 | 5.99  | 9.75   | 11.38 | 8.73  | 10.82 | 12.20 | 14.83 | (9.10)  | 12.01 | 3814   |  |    |
| February ... | 13.86 | 8.24  | 5.51   | 7.97  | 13.16 | 16.88 | 7.60  | 1.68  | (9.30)  | 2.35  | 20.93  |  |    |
| March .....  | 7.24  | 5.42  | 14.36  | 10.26 | 8.68  | 5.65  | 1.70  | 3.27  | (3.70)  | 6.75  | 15.42  |  |    |
| April .....  | 6.16  | 6.17  | 3.93   | 6.80  | 6.18  | 5.60  | 8.20  | 3.33  | (1.80)  | 5.93  | 19.26  |  |    |
| May .....    | 2.44  | 6.50  | 3.87   | 7.99  | 5.33  | 1.96  | 6.91  | 5.99  | (2.90)  | 2.32  | 1812   |  |    |
| June .....   | 3.46  | 3.51  | 10.42  | 7.66  | 1.98  | 1.45  | 6.76  | 3.85  | (4.00)  | 3.81  | 1842   |  |    |
| July .....   | 8.90  | 3.43  | 3.78   | 2.09  | 6.42  | 11.90 | 6.97  | 3.04  | (7.50)  | 2.39  | 1990   |  |    |
| August ..... | 9.68  | 5.83  | 14.07  | 4.00  | 8.00  | 4.13  | 5.15  | 16.07 | (5.60)  | 7.41  | 3423   |  |    |
| September .. | 4.95  | 8.40  | 4.23   | 4.59  | 5.74  | 3.51  | 6.07  | 9.64  | (16.60) | 8.10  | 4041   |  |    |
| October ...  | 3.73  | 3.87  | 7.40   | 4.22  | 4.16  | 5.46  | 15.24 | 15.00 | (12.00) | 5.15  | 4739   |  |    |
| November ..  | 9.69  | 16.11 | 12.98  | 11.65 | 10.86 | 2.42  | 13.76 | 14.06 | (3.50)  | 5.75  | 3907   |  |    |
| December ... | 14.71 | 19.32 | 9.70   | 8.03  | 14.35 | 12.35 | 8.37  | 7.06  | (14.00) | 19.02 | 4845   |  |    |
| TOTALS ...   | 98.02 | 92.79 | 100.00 | 86.64 | 93.59 | 81.66 | 98.93 | 87.82 | (920)   | 80.99 | 35974  |  |    |

1910-14 recd. vi-16 end. x-18

cpl. from 1916 to Aug. 11/16 of Ure gauge

| Date. | Lat. N. | Long. | Railway Station. | Distance. | Direction. | Church.    | Distance. | Direction. |
|-------|---------|-------|------------------|-----------|------------|------------|-----------|------------|
|       |         |       | Broughton        | 7 mi      | S          | Seathwaite | 1.2 mi    | S          |

## RAINFALL at Duddon Valley Seathwaite Farm

County of N. Lancashire)

Observer F. Chadderton Esq.

River Basin Duddon &amp; C. I.

G. Diamond

Teng &amp; Son Barrow Gas Works.

(1925) Howard Rain Gauge, by Kennedy

| Diameter ... | 11     |       |       |        |        |         |        |        |        |        |        |        |
|--------------|--------|-------|-------|--------|--------|---------|--------|--------|--------|--------|--------|--------|
| Height ..... | 1. 6   |       |       |        |        |         |        |        |        |        |        |        |
| Altitude ... | 1221   |       |       |        |        |         |        |        |        |        |        |        |
| Year .....   | 1920   | 1921  | 1922  | 1923   | 1924   | 1925    | 1926   | 1927   | 1928   | 1929   | Mean   | 1930   |
| January ...  | 12.25  | 14.76 | 8.69  | 8.37   | 8.74   | 10.48   | 12.19  | 10.88  | 18.71  | 5.69   | 15.67  | 12643  |
| February ... | 7.86   | 2.75  | 8.50  | 13.01  | 3.71   | 10.89   | 12.56  | 8.32   | 14.13  | 2.75   | 1.86   | 8584   |
| March .....  | 13.50  | 11.83 | 5.00  | 8.63   | 3.23   | 3.20    | 8.10   | 13.61  | 10.63  | 1.44   | 4.68   | 8418   |
| April.....   | 11.80  | 5.29  | 3.27  | 5.62   | 5.28   | 9.47    | 5.69   | 7.04   | 4.84   | 4.33   | 4.49   | 6715   |
| May .....    | 9.15   | 6.33  | 4.59  | 7.69   | 10.53  | (12.06) | 4.71   | 4.48   | 1.06   | 7.39   | 4.45   | 7244   |
| June .....   | 4.60   | 1.35  | 5.69  | 4.86   | 6.66   | (4.44)  | 6.78   | 7.04   | 10.11  | 5.16   | 4.07   | 5706   |
| July .....   | 11.96  | 3.09  | 10.73 | 6.12   | 9.69   | 3.92    | 8.26   | 7.83   | 13.92  | 9.84   | 6.51   | 9187   |
| August ..... | 6.63   | 13.15 | 7.19  | 12.53  | 9.31   | 9.42    | 8.06   | 8.53   | 13.87  | 11.69  | 15.91  | 12031  |
| September... | 7.91   | 3.21  | 9.48  | 10.94  | 11.17  | 8.10    | 9.89   | 14.97  | 7.24   | 3.93   | 7.66   | 9435   |
| October..... | 3.86   | 5.04  | 3.04  | 12.78  | 9.45   | 13.26   | 7.92   | 7.64   | 12.90  | 12.39  | 19.35  | 10763  |
| November...  | 5.35   | 8.43  | 7.38  | 15.20  | 8.88   | 3.49    | 16.35  | 14.99  | 26.40  | 22.97  | 9.51   | 13895  |
| December...  | 11.21  | 15.88 | 12.05 | 9.43   | 15.66  | 9.03    | 5.16   | 1.91   | 9.23   | 12.37  | 9.96   | 11189  |
| TOTALS...    | 106.08 | 91.11 | 15.61 | 119.22 | 102.31 | 93.26   | 105.67 | 107.21 | 143.10 | 100.35 | 104.12 | 115810 |
|              |        |       |       |        |        |         |        |        |        |        |        |        |

1920 Yarn Farm 13' 10" high 100' E

1925. Month's totals not adjusted to 1st of month.

1925. May &amp; June corrected for date of entry.

Position of Station on reduced Ordnance Survey } No. of Map Reference No.  
Map, 2 miles to 1 inch Series }

| Date. | Lat. N. | Long. | Railway Station. | Distance from gauge | Direction | Parish Church. | Distance from gauge |
|-------|---------|-------|------------------|---------------------|-----------|----------------|---------------------|
| 1920  |         |       | Broughton        | 7 mi S              |           | Seathwaite     | 1/2 mi S            |

## RAINFALL at Duddon Valley (Seathwaite Tarn)

County of North Lancashire

Observer Claude Diamond, Esq.

River Basin Duddon &amp; C - 1.

Type of Gauge Standard.

Annual Average 92.7 in. based on 22 years obs. un-weighted. Period of average 1901-1912 Ref. 5

|           |        |        |       |        |        |        |       |        |       |       |            |
|-----------|--------|--------|-------|--------|--------|--------|-------|--------|-------|-------|------------|
| Diameter  | 11.    |        |       |        | 5"     |        |       |        |       |       |            |
| Height    | 1.6.   |        |       |        | 1.0    |        |       |        |       |       |            |
| Altitude  | 1221.  |        |       |        | 1221   | 1250   |       |        |       |       |            |
| Year      | 1931   | 1932   | 1933  | 1934   | 1935   | 1936   | 1937  | 1938   | 1939  | 1940  | Mean Total |
| January   | 16.73  | 15.22  | 9.40  | 13.82  | 7.45   | 15.19  | 11.70 | 13.00  | 14.23 | 5.75  | 121.9      |
| February  | 12.82  | 2.22   | 9.95  | 1.38   | 14.17  | 4.01   | 15.45 | 5.37   | 13.30 | 5.31  | 81.98      |
| March     | 1.62   | 7.46   | 8.93  | 5.86   | 2.80   | 4.84   | 7.65  | 7.09   | 6.90  | 11.32 | 64.37      |
| April     | 5.52   | 8.39   | 5.33  | 5.45   | 7.04   | 5.11   | 6.17  | 2.32   | 6.40  | 3.55  | 55.28      |
| May       | 5.07   | 7.70   | 4.27  | 7.93   | .93    | 1.96   | 3.56  | 8.27   | 1.36  | 2.25  | 43.20      |
| June      | 13.55  | 4.76   | 3.38  | 3.45   | 7.50   | 5.61   | 8.02  | 10.93  | 7.03  | 1.29  | 65.42      |
| July      | 12.49  | 8.70   | 6.90  | 3.72   | 5.36   | 12.15  | 5.43  | 14.91  | 15.63 | 9.01  | 94.20      |
| August    | 6.63   | 5.81   | 10.12 | 11.56  | 6.35   | 6.32   | 4.91  | 5.94   | 3.75  | 5.76  | 67.15      |
| September | 3.28   | 10.29  | 1.45  | 14.29  | 14.02  | 9.06   | 7.98  | 6.84   | 4.20  | 9.31  | 80.72      |
| October   | 9.21   | 15.86  | 6.28  | 15.87  | 17.16  | 10.29  | 5.17  | 21.46  | 4.77  | 11.03 | 117.10     |
| November  | 21.66  | 7.70   | 4.89  | 3.41   | 10.35  | 10.60  | 4.42  | 13.15  | 15.25 | 13.24 | 109.67     |
| December  | 10.73  | 13.85  | 1.24  | 15.44  | 8.92   | 15.22  | 8.95  | 9.81   | 3.73  | 13.96 | 101.85     |
| TOTALS    | 119.31 | 105.96 | 72.14 | 101.88 | 102.05 | 100.36 | 89.31 | 123.89 | 96.55 | 91.78 | 1003.23    |

1932. Dam 12' high 100' E. Indicated (1921) - Recommended that a standard gauge be set up in site selected and surrounded by a turf wall; the old gauge to be abandoned at the end of the year.

1934. November Dec 28-31 read Estimated value 1.00" appears by observing authority.  
 1935 New standard gauge was brought into use at new site, 210' E of original site, with turf wall  
 1935 Jan 1st 16' high 316' W Old g. discontinued from 31/III  
 1935 Jan 1st 16' high 316' W Old g. discontinued from 31/III  
 1935 "Mar gauge March 1935" and "Turf wall March 1935"  
 1935 "Mar gauge March 1935" and "Turf wall March 1935"

## 3 Turf wall round gauge (footnote BR)

Position of Station on reduced Ordnance Survey Map, } No. of Map..... Reference No.....  
 1 mile to 1 inch Series

| Date. | Lat. N. | Long. | Railway Station. | Distance from gauge | Direction | Parish Church. | Distance from gauge | Direction |
|-------|---------|-------|------------------|---------------------|-----------|----------------|---------------------|-----------|
| 1932. |         |       | Broughton        | 7 m.                | S.        | Seathwaite     | 12 m.               | S.        |

Station No. F.F. 3022

RAINFALL at <sup>§</sup> Duddon Valley (Seathwaite Tarn)

41

County of North Lancashire Observer Claude Diamond Esq.  
 River Basin Duddon & C-1 Engineer Barlow  
 Type of Gauge Snowdon. Water Engineer Barlow

Annual Average 22.7 in. based on 20 years obs. un-weighted. Period of average 1881-1915. Ref. S  
 File No. 11556/31

| Diameter  | 5"         |             |             | 589         | 293         |             |            |             |             |             |                |
|-----------|------------|-------------|-------------|-------------|-------------|-------------|------------|-------------|-------------|-------------|----------------|
| Height    | 1' 0"      |             |             |             | 1           |             |            |             |             |             |                |
| Altitude  | 1221'      |             |             |             | 41          |             |            |             |             |             |                |
| Year      | 1941       | 1942        | 1943        | 1944        | 1945        | 1946        | 1947       | 1948        | 1949        | 1950        | Means<br>Total |
| January   | (4.87)     | 12.01       | 17.20       | 13.40       | 9.05        | 12.11       | 11.22      | 18.31       | 10.55       | 7.75        | 116.47         |
| February  | 13.62      | 3.93        | 7.25        | 5.70        | 10.63       | 9.79        | 2.07       | 7.59        | 6.10        | 12.40       | 79.08          |
| March     | 5.91       | 8.37        | 3.08        | 1.40        | 6.15        | 5.30        | 16.55      | 5.66        | 8.55        | 6.55        | 67.52          |
| April     | 4.91       | 6.11        | 6.00        | 6.20        | 5.97        | 2.79        | 9.47       | 5.15        | 12.20       | 6.45        | 65.25          |
| May       | 6.16       | 7.20        | 7.46        | 3.40        | 6.75        | 1.01        | 5.15       | 4.33        | 4.03        | 4.65        | 52.14          |
| June      | 1.68       | 2.20        | 6.80        | 9.10        | 7.22        | 8.42        | 5.90       | 12.16       | 2.38        | 5.75        | 61.61          |
| July      | 4.40       | 9.25        | 7.15        | 5.47        | 9.53        | 8.43        | 6.52       | 7.31        | 4.74        | 7.70        | 70.50          |
| August    | 11.03      | 10.45       | 15.15       | 8.68        | 3.35        | 8.30        | 2.20       | 10.40       | 6.25        | 11.70       | 85.51          |
| September | 1.61       | 10.25       | 12.70       | 12.75       | 9.10        | 17.79       | 5.87       | 11.15       | 4.91        | 21.10       | 107.21         |
| October   | 13.44      | 15.32       | 11.75       | 9.85        | 10.04       | 1.35        | 2.20       | 9.20        | 13.35       | 9.00        | 95.50          |
| November  | 7.40       | 2.94        | 6.55        | 15.45       | .95         | 17.70       | 13.97      | 7.80        | 12.50       | 7.31        | 92.57          |
| December  | 7.76       | 15.40       | 5.65        | 11.55       | 7.81        | 12.83       | 6.08       | 9.50        | 15.35       | 4.68        | 96.63          |
| TOTALS    | 84.81<br>W | 103.43<br>W | 106.74<br>W | 102.95<br>W | 586.55<br>W | 105.82<br>W | 85.20<br>W | 108.56<br>W | 100.91<br>W | 105.04<br>W | 990.01 ✓       |

1941 Jan. p't adjusted from neighbouring sites.

## § Turf wall round gauge

Position of Station on reduced Ordnance Survey Map, No. of Map..... Reference No.....  
 1 mile to 1 inch Series

| Date. | Lat. N. | Long. | Railway Station. | Distance from gauge | Direction | Parish Church. | Distance from gauge |
|-------|---------|-------|------------------|---------------------|-----------|----------------|---------------------|
| 1941  |         |       | Bartom Central   |                     |           |                |                     |

Station No. 3022

TF 37

51

## RAINFALL at S. Duddon Valley (Leathwaite Farm)

County of N. Lancashire

Observer Water Engineer, Barrow.

River Basin Duddon &amp; C. 1

Type of Gauge Churnton Octant

97.5

17

Annual Average 97.5 in. based on 20 years obs. un-weighted. Period of average 1891-1915 Ref. SP.591  
1916-1950 P  
100.32 - - - 35 " 1916-1950 File No. 111.556/21

| Diameter ... | 5"     |       | 589   | 293    |       |       |                                  |                         |                | 5"     |
|--------------|--------|-------|-------|--------|-------|-------|----------------------------------|-------------------------|----------------|--------|
| Height ...   | 1' 0"  |       |       |        | 1     |       | <td><td><td>1' 2"</td></td></td> | <td><td>1' 2"</td></td> | <td>1' 2"</td> | 1' 2"  |
| Altitude ... | 1221'  |       |       |        | 51    |       | <td><td><td>1240'</td></td></td> | <td><td>1240'</td></td> | <td>1240'</td> | 1240'  |
| Year ...     | 1951   | 1952  | 1953  | 1954   | 1955  | 1956  | 1957                             | 1958                    | 1959           | 1960   |
| January      | 12.75  | 7.72  | 6.89  | 7.97   | 6.37  | 8.07  | 10.57                            | 11.65                   | 5.10           | 14.27  |
| February     | 11.32  | 4.55  | 6.10  | 8.72   | 5.10  | 1.86  | 9.58                             | 11.50                   | 4.90           | 14.15  |
| March        | 9.33   | 7.40  | 1.15  | 7.69   | 3.92  | 3.02  | 7.85                             | 4.35                    | 7.10           | 3.65   |
| April        | 5.30   | 6.07  | 5.96  | 3.21   | 5.93  | 2.02  | 3.10                             | 4.20                    | 7.25           | 6.75   |
| May          | 3.84   | 5.63  | 4.77  | 4.99   | 5.97  | 5.34  | 5.20                             | 6.50                    | 1.85           | 14.75  |
| June         | 2.25   | 7.00  | 3.56  | 11.04  | 7.23  | 4.52  | 4.10                             | 5.70                    | 6.37           | 3.95   |
| July         | 8.00   | 7.90  | 12.54 | 11.15  | 4.01  | 8.10  | 9.25                             | 6.20                    | 6.33           | 15.05  |
| August       | 10.05  | 12.00 | 12.11 | 11.73  | 3.24  | 15.95 | 9.10                             | 8.25                    | 1.65           | 2.25   |
| September    | 13.20  | 7.99  | 15.96 | 13.90  | 7.53  | 7.95  | 13.35                            | 10.25                   | 2.00           | 7.20   |
| October      | 1.63   | 5.99  | 3.27  | 16.25  | 5.95  | 11.05 | 10.40                            | 11.25                   | 10.90          | 6.10   |
| November     | 18.90  | 5.50  | 16.80 | 19.16  | 5.05  | 5.15  | 5.75                             | 3.65                    | 12.20          | 17.35  |
| December     | 18.75  | 10.65 | 8.27  | 14.72  | 12.50 | 11.75 | 11.65                            | 8.85                    | 18.90          | 8.45   |
| TOTALS ...   | 115.32 | 88.40 | 97.38 | 130.53 | 72.80 | 84.78 | 99.90                            | 92.35                   | 84.55          | 109.35 |
|              | w      | w     | w     | w      | w     | w     | w                                | w                       | w              | w      |
|              |        |       |       |        |       |       |                                  |                         |                |        |
|              |        |       |       |        |       |       |                                  |                         |                |        |
|              |        |       |       |        |       |       |                                  |                         |                |        |

Inspected 2.9.60 by H. G. Blunt. Only read on Fridays. One NW to NE alignment reasonable.

Position of Station on Ordnance One-Inch map : No. of Map ..... National Grid Reference SP(3a) 2499814

| Date. | Lat. N. | Long. | Railway Station. | Distance from gauge | Parish Church. | Distance from gauge |
|-------|---------|-------|------------------|---------------------|----------------|---------------------|
|       |         |       |                  |                     |                |                     |
|       |         |       |                  |                     |                |                     |
|       |         |       |                  |                     |                |                     |
|       |         |       |                  |                     |                |                     |

Summary of Earlier Records from 10-year Sheets :

1916-1950, P-accepted

|                | 1910-19   | 1920-30 | 1931-40 | 1941-50 | 1951-60 |
|----------------|-----------|---------|---------|---------|---------|
| Record D, or d | 16-17, 19 | ✓       | ✓       | ✓       | —       |