

# RAINFALL AT Hartlepool (Hart Res.)

Lat. ....

Lon. ....

 County of Durham

Rain Gauge, by .....

 Observer Hartlepool Gas & Water Co.

Diameter.....												
Height.....												
Altitude.....												
Year.....	1860	1861	1862	1863	1864	1865	1866	1867	1868	1869	MEANS.	
January.....								2.40		1.19		
February.....								.58		2.37		
March.....								1.16		1.53		
April.....								1.69		1.29		
May.....								2.87		2.86		
June.....								1.49		1.27		
July.....								3.59		.63		
August.....								2.73		1.58		
September.....								1.95		3.28		
October.....								1.13		2.61		
November.....								.78		2.90		
December.....								2.07		2.80		
TOTALS.....								22.44	N.R.	24.31		

Using an average of 23 ins. 1869 record seems reasonable on % map. (Rainfall Atlas)

map for 1867 not available but relation of '67 to '69 seems reasonable.

H. Housell 17.3.49

RAINFALL AT *Hartlepool Hart Reservoir*

Lat.....

Lon.....

County of.....

*Durham*

Rain Gauge, by.....

Observer.....

*Thos. Semark Esq. C.E.*

Diameter .....	8											
Height .....	9		7		9							
Altitude .....	164				164 <sup>+</sup>							
YEAR .....	1870	1871	1872	1873	1874	1875	1876	1877	1878	1879	MEANS.	
January.....	1.27	.72	1.81	1.03	1.47	2.50	.74	2.80	1.45	1.07	1.486	
February.....	1.08	1.62	1.81	1.64	.70	.72	2.16	1.57	.72	1.80	1.382	
March.....	1.33	.56	2.88	1.47	1.16	.44	2.34	1.98	.88	1.10	1.414	
April.....	.34	2.72	2.73	1.41	.77	.83	2.51	3.23	1.85	1.81	1.820	
May.....	1.46	1.53	2.24	2.62	3.12	.88	1.37	2.40	2.49	1.36	1.947	
June.....	2.45	3.04	2.90	1.56	.96	1.50	2.12	1.45	3.43	2.91	2.232	
July.....	.46	4.13	3.36	2.34	.91	3.35	2.74	1.96	.36	3.41	2.302	
August.....	2.39	1.05	2.90	1.65	1.74	3.34	2.45	5.01	5.52	3.97	3.002	
September.....	.95	4.80	5.44	1.41	1.96	2.23	3.70	2.30	1.26	.91	2.496	
October.....	3.88	2.17	4.34	2.34	1.86	3.35	1.61	2.74	1.70	.52	2.451	
November.....	3.05	1.61	4.95	1.73	2.08	6.39	2.34	1.27	5.45	2.00	3.087	
December.....	4.29	1.73	3.16	.29	3.59	1.51	5.49	1.74	2.89	.85	2.554	
TOTALS.....	22.95	25.68	38.52	19.49	20.32	27.04	29.57	28.45	28.00	21.71	26.173	

1871 by placed on the top of the embankment level with adjacent ground in an exposed situation

# 3527 80

## RAINFALL AT Hartlepool Hart-Reservoir

Lat. ....

Lon. ....

County of Durham

Rain Gauge, by .....

Observer, F. Fenwick, Esq., C.E.

Year 1

Diameter ....	8											
Height .....	0.9											
Altitude ....	164											
Year .....	1880	1881	1882	1883	1884	1885	1886	1887	1888	1889	MEANS.	
January .....	.28	.79	.62	1.32	2.30	1.43	2.55	1.31	.47	1.31	1.238	
February .....	1.11	2.72	.18	.91	1.08	.95	.63	.75	.91	.88	1.012	
March .....	.76	1.68	1.39	1.61	1.66	1.47	1.95	1.62	3.60	2.27	1.801	
April .....	2.48	1.27	3.86	1.06	1.47	1.53	1.87	.92	1.51	1.52	1.749	
May .....	1.27	1.36	2.20	1.38	.73	3.29	2.77	1.76	.43	1.87	1.706	
June .....	1.51	1.38	2.88	2.53	.58	2.02	.72	.33	1.64	.21	1.380	
July .....	4.43	2.73	2.43	4.95	3.58	.68	5.70	1.02	7.43	2.43	3.538	
August .....	2.19	5.59	2.10	1.35	1.12	2.77	1.80	2.22	2.28	3.36	2.487	
September .....	3.62	2.96	1.73	4.04	1.14	1.95	1.51	4.50	1.26	.85	2.356	
October .....	4.20	2.44	3.61	1.94	1.52	3.70	2.35	2.83	.41	4.21	2.721	
November .....	2.16	1.33	3.13	.73	1.18	1.27	2.77	2.85	2.18	1.21	1.881	
December .....	3.22	2.21	3.21	1.60	1.53	.97	3.39	3.29	.59	1.46	2.149	
TOTALS ....	27.23	26.46	27.43	23.42	17.91	22.03	28.01	23.40	22.71	21.58	24.018	

N.B., annual values rejected from Survey Map, 1929.

# RAINFALL AT *Hartlepool Hart Reservoir*

Lat. \_\_\_\_\_

Lon. \_\_\_\_\_

County of *Durham*

Rain Gauge, by \_\_\_\_\_

Observer *J. Fenwick Esq. C.E.*

*Feet*

Diameter ....	8										
Height .....	0 9										
Altitude ....	164										
Year .....	1890	1891	1892	1893	1894	1895	1896	1897	1898	1899	MEANS.
January ....	1.41	1.18	1.02	1.16	1.12	3.32	.81	1.78	.92	2.75	1.547
February ....	1.16	.06	1.29	1.55	2.14	1.05	.32	1.40	.80	1.28	1.105
March .....	1.35	1.70	1.21	.36	.77	1.65	1.76	2.24	1.29	1.53	1.386
April .....	.56	1.17	1.27	.30	.83	1.37	.60	1.31	2.01	2.01	1.143
May .....	2.39	1.73	1.68	1.73	2.09	.55	.88	.86	2.27	3.53	1.766
June .....	2.43	.65	2.99	.87	3.56	3.10	2.60	2.50	1.82	1.25	2.179
July .....	2.20	3.64	1.60	2.35	1.92	6.02	2.30	.77	.79	1.82	2.341
August .....	6.07	3.11	3.03	1.72	3.14	2.60	1.38	3.17	2.20	.21	2.663
September ....	1.27	1.82	1.79	1.61	1.06	.81	2.55	2.29	.45	2.60	1.625
October .....	2.08	1.38	6.22	.90	4.03	4.40	5.38	1.43	3.66	2.21	3.169
November ....	2.77	1.40	.97	1.83	.66	1.46	1.32	2.15	1.62	1.32	1.550
December ....	2.79	1.99	1.10	1.46	1.26	1.92	3.16	1.28	1.25	2.73	1.894
TOTALS ....	26.48	<sup>?</sup> 19.83	24.17	15.86	22.58	28.25	23.01	21.18	19.08	23.24	22.368 <sup>?</sup>

1891 "I cannot guarantee the accuracy of this statement, ten"  
"months of it having been made out by a man new to"  
"the work." J.F.

N. 15. annual values rejected from Survey Map, 1929



# RAINFALL AT *Hartlepool Hart Reservoir*

Lat. *54° 42' 7" N*

Lon. *1° 14' 57" W*

County of *Durham*

Rain Gauge, by *Casella*

Observer

*T. Fenwick Esq. Ch.*

*Secy*

*No. 4-1.*

*J. Power Esq. Ch.*

Diameter ..	8					10	□					
Height ....	0 9			1 2		1 0						
Altitude ..	164					172	✕					
Year ....	1900	1901	1902	1903	1904	1905	1906	1907	1908	1909	MEANS.	
January ..	2.22	1.39	.77	2.23	1.44	.28	2.73	.56	.85	.60	1.307	
February ..	5.26	1.91	1.17	.75	2.23	.39	.81	.95	.88	1.42	1.577	
March ....	1.41	1.57	.43	1.53	.97	1.52	.69	.71	3.04	3.67	1.554	
April .....	.81	.89	1.30	1.28	1.16	2.04	.88	1.54	1.72	2.59	1.416	
May .....	1.06	2.06	2.05	2.56	2.29	.79	2.97	2.98	2.22	1.53	2.051	
June .....	3.33	1.34	2.40	2.42	1.11	.55	.75	3.69	.54	1.89	1.802	
July .....	1.51	3.04	2.13	3.66	1.24	.92	.54	1.18	2.88	2.64	1.974	
August ....	5.15	2.40	1.72	1.80	2.08	3.49	2.73	2.02	1.23	4.86	2.743	
September..	.67	.97	.62	2.61	1.19	1.88	.32	.48	2.05	2.00	1.279	
October....	6.46	1.93	2.03	6.49	.60	2.66	4.67	4.19	1.20	2.60	3.283	
November..	2.49	4.00	1.26	1.58	1.91	4.31	2.21	2.07	1.38	1.22	2.243	
December..	2.47	2.76	2.00	1.70	1.84	.41	1.63	3.15	.84	2.81	1.961	
TOTALS ..	32.84	24.26	17.88	28.61	18.06	19.24	20.88	23.52	18.83	27.83	22.195	

1900 February Snow estimated

1904 Too small - not picked

1905 Hart Church 1 mile NW

West Hartlepool Station 2 1/2 miles N.E.

1906 Hart Station 1 1/4 N

1909 Corrected for windy day

*N.B. Annual values rejected from Survey Map. 1929.*

RAINFALL at Hartlepool Hart ReservoirCounty of DurhamObserver J. Bowley C.E.A.W. Branson Esq. C.E.River Basin Tees & C 1Square Rain Gauge, by Corbett

Diameter ...	10											
Height .....	1.0											
Altitude ...	172 ft											
Year ...	1910	1911	1912	1913	1914	1915	1916	1917	1918	1919	1910-19 MEANS. Totals	
January ...	1.95	.98	2.26	2.83	1.30	2.18	.64	3.19	1.77	2.65	8.28	
February ...	1.70	1.12	1.47	.52	.90	2.26	2.43	.80	1.28	1.59	6.10	
March .....	.33	1.88	1.74	1.46	1.55	1.46	3.25	1.78	1.07	2.24	8.39	
April .....	2.13	1.09	.15	2.80	.29	.88	1.38	1.73	1.27	1.25	5.63	
May .....	2.22	.68	2.10	1.55	1.42	1.63	2.34	1.37	1.57	.80	6.08	
June .....	1.72	3.96	4.57	1.53	3.57	.60	1.65	1.90	.30	.95	4.60	
July .....	2.76	1.04	2.83	.55	4.05	2.71	2.73	.79	4.25	1.11	8.88	
August .....	2.80	2.84	3.65	1.40	.89	3.06	2.99	5.10	1.12	1.84	11.10	
September ..	.42	1.77	1.29	1.77	1.87	1.58	2.25	.84	4.68	.78	8.55	
October ...	2.57	2.44	2.92	2.97	1.88	1.25	2.17	1.83	1.55	4.73	10.28	
November ..	2.34	3.40	1.96	1.58	2.99	1.93	2.29	1.46	.65	3.16	7.56	
December ...	1.56	2.32	1.12	1.38	3.32	5.77	2.35	1.78	2.90	2.12	9.15	
TOTALS ...	22.50	23.52	26.06	20.34	24.03	25.21	26.50	22.57	22.41	23.82	94.60	

1910 Corrected for wrong day.  
 1911 "  
 1912 "

N.B. Annual values rejected from Survey Map. 1929.

Date.	Lat. N.	Long.	Railway Station.	Distance.	Direction.	Church.	Distance.	Direction.
1911	54.42° N	1.14° W	Hart	1 1/2 mi	N	Hart	1 mi	N.W.

RAINFALL at Hartlepool Hart ReservoirCounty of DurhamObserver Ch. W. Byrnes Esq. G.C.River Basin Tees & C. 1J.R. Bradshaw Esq.Square Rain Gauge, by Carels

Diameter ...	10											
Height .....	10											
Altitude ...	172											
Year .....	1920	1921	1922	1923	1924	1925	1926	1927	1928	1929	1930. MEANS.	1920-30 Total
January ...	2.56	3.16	1.46	.94	1.53	.98	1.46	0.81	2.34	2.81	2.95	21.00
February ...	.74	.16	1.84	2.44	1.18	2.08	1.39	0.66	.95	.77	1.27	13.48
March .....	2.09	.56	1.31	1.33	.94	1.19	.30	1.13	1.40	.16	0.68	13.09
April .....	2.67	.81	1.21	1.29	1.52	2.39	.64	1.25	.76	1.23	1.87 <del>1.23</del>	15.64
May .....	2.65	1.28	.76	2.52	4.76	2.11	1.47	1.31	1.02	1.27	1.23 <del>1.96</del>	20.38
June .....	.68	.37	1.13	.72	1.53	.08	2.52	2.65	4.60	1.75	.96 <del>4.86</del>	16.99
July .....	4.57	1.25	3.38	1.98	3.89	1.62	2.59	3.65	1.02	2.16	4.86 <del>3.74</del>	30.97
August .....	1.19	4.16	2.14	2.59	2.04	3.32	1.84	5.32	2.32	1.87	3.14 <del>2.14</del>	30.43
September...	1.13	.43	3.36	1.37	2.00	2.38	1.68	2.61	.67	.97	2.76	19.36
October .....	2.38	1.38	1.20	1.75	3.04	1.46	2.31	1.26	2.68	1.95	1.64	21.05
November...	.48	2.30	.60	3.82	.65	1.95	3.11	3.20	2.06	2.70	3.06	23.93
December...	3.04	1.02	3.04	2.02	2.23	2.62	.59	2.18	1.24	2.42	1.72	22.12
TOTALS...	24.18	16.88	21.43	22.77	25.81	22.18	19.90	26.03	21.06	20.06	28.14	248.44

1929. Rainfall entered to-day & reading up to 20<sup>th</sup> Sept; after that date credited to previous day.

N.B. Annual values rejected from Survey book. 1929

Position of Station on reduced Ordnance Survey Map, 2 miles to 1 inch Series

No. of Map

Reference No.

Date.	Lat. N.	Long. W.	Railway Station.	Distance from gauge	Direction	Parish Church.	Distance from gauge	Direction
1920	54° 42'	1° 14' 57"	Hart	1 1/4 mi	N	Hart	1 mi	NW



RAINFALL at Hartlepool (Hart Reservoir)County of DurhamObserver J. R. Bradshaw, Esq.River Basin Tees & C. - 1Type of Gauge M.O.

Annual Average.....in. based on.....years obs. un-weighted. Period of average.....Ref.....

917819/29.

Diameter .....	10"											
Height .....	1.0.											
Altitude .....	172.											
Year .....	1931	1932	1933	1934	1935	1936	1937	1938	1939	1940	Means	Totals
January .....	1.72	.86	2.35	.71	1.60	3.10	1.34	1.99	3.47	2.24	19.28	
February .....	1.03	.94	2.20	.64	2.16	1.77	1.99	.96	.58	1.52	13.79	
March .....	1.09	2.27	1.40	1.23	.62	1.06	2.22	.07	1.59	1.76	13.81	
April .....	2.82	.85	.89	2.20	2.85	.92	2.15	.19	1.26	1.35	15.48	
May .....	2.39	4.98	1.59	.81	.54	1.59	2.53	2.70	1.46	.87	19.46	
June .....	3.23	1.41	1.11	2.46	2.34	3.44	1.02	2.43	1.75	.81	20.00	
July .....	2.97	2.35	1.61	1.88	.49	3.62	1.14	2.45	1.81	6.13	24.45	
August .....	2.45	<sup>2.35</sup> <del>1.83</del>	.20	2.82	1.47	1.64	1.59	1.95	2.02	1.30	17.79	
September .....	3.55	<sup>1.83</sup> <del>2.37</del>	1.96	1.09	4.56	2.27	1.43	1.63	1.39	1.43	21.14	
October .....	1.18	<sup>2.37</sup> <del>.98</del>	3.83	2.34	3.73	1.23	1.27	2.58	3.52	2.81	24.86	
November .....	1.99	.98	3.06	1.88	3.35	1.91	1.94	1.68	2.20	2.98	21.97	
December .....	.83	.89	1.11	3.19	2.74	1.06	4.30	2.68	.90	2.40	20.10	
TOTALS .....	25.25	22.08	21.31	21.25	26.45	23.61	22.92	21.31	21.95	25.60	231.73	✓
	D	D	D	D	D	D	D	D	D	D	D	

1935. House 30' high 40 yards N.

1937 Exposed high level ground.

Rejected from survey as 2" too low. Circ. sent 7/10/33.

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 from gauge	Parish Church.	Distance from gauge	Direction from gauge
1931.			Hart.	1 1/2 m	N.	Hart.	1 m	N. W.



Station No. T.F. 3527RAINFALL at Hartlepool (Hart Reservoir)

41

County of DurhamObserver J. R. Broadland Esq.River Basin Tees & C. - 1F. J. Webster Esq. (1949)Type of Gauge Cusella 10" Square H.O. (1905)Adam Hays Esq. (1951)Annual Average        in. based on        years obs. un-weighted. Period of average        Ref       File No. 917819/19

Diameter	<u>8"</u> <u>10"</u>			<u>026</u>	<u>302</u>			<u>8"</u>					
Height	<u>1' 0"</u>				<u>1</u>								
Altitude	<u>172'</u>				<u>41</u>								
Year	1941	1942	1943	1944	1945	1946	1947	1948	1949	1950	<u>1941-50</u> <u>Means</u> <u>1941-50</u>		
January	<u>2.45</u>	<u>2.84</u>	<u>2.44</u>	<u>1.01</u>	<u>3.70</u>	<u>.99</u>	<u>1.28</u>	<u>5.96</u>	<u>.55</u>	<u>1.47</u>	<u>22.69</u>		
February	<u>5.89</u>	<u>1.64</u>	<u>.34</u>	<u>1.34</u>	<u>1.39</u>	<u>.40</u>	<u>1.60</u>	<u>.95</u>	<u>.29</u>	<u>2.13</u>	<u>15.97</u>		
March	<u>1.60</u>	<u>1.00</u>	<u>.57</u>	<u>.36</u>	<u>.26</u>	<u>.98</u>	<u>3.25</u>	<u>.72</u>	<u>1.03</u>	<u>.48</u>	<u>10.25</u>		
April	<u>.70</u>	<u>.65</u>	<u>.63</u>	<u>2.13</u>	<u>1.58</u>	<u>2.16</u>	<u>2.45</u>	<u>1.34</u>	<u>1.63</u>	<u>1.70</u>	<u>14.97</u>		
May	<u>1.32</u>	<u>1.32</u>	<u>2.22</u>	<u>1.29</u>	<u>2.34</u>	<u>2.04</u>	<u>2.04</u>	<u>1.15</u>	<u>.74</u>	<u>2.20</u>	<u>16.66</u>		
June	<u>.76</u>	<u>.96</u>	<u>1.47</u>	<u>2.12</u>	<u>1.85</u>	<u>2.92</u>	<u>1.98</u>	<u>3.21</u>	<u>.54</u>	<u>1.14</u>	<u>16.95</u>		
July	<u>.93</u>	<u>4.11</u>	<u>1.05</u>	<u>3.00</u>	<u>1.88</u>	<u>3.38</u>	<u>2.32</u>	<u>1.05</u>	<u>1.46</u>	<u>2.98</u>	<u>22.16</u>		
August	<u>2.55</u>	<u>1.87</u>	<u>4.12</u>	<u>1.62</u>	<u>2.59</u>	<u>3.33</u>	<u>.40</u>	<u>4.39</u>	<u>1.73</u>	<u>4.31</u>	<u>26.91</u>		
September	<u>.87</u>	<u>2.52</u>	<u>3.43</u>	<u>4.79</u>	<u>1.13</u>	<u>3.66</u>	<u>1.79</u>	<u>1.56</u>	<u>.58</u>	<u>2.01</u>	<u>22.34</u>		
October	<u>3.31</u>	<u>2.20</u>	<u>1.17</u>	<u>2.29</u>	<u>3.83</u>	<u>1.29</u>	<u>.56</u>	<u>1.31</u>	<u>2.14</u>	<u>.98</u>	<u>19.13</u>		
November	<u>2.36</u>	<u>1.25</u>	<u>2.65</u>	<u>4.17</u>	<u>1.16</u>	<u>4.12</u>	<u>1.87</u>	<u>1.13</u>	<u>2.04</u>	<u>5.67</u>	<u>26.42</u>		
December	<u>.22</u>	<u>1.71</u>	<u>1.03</u>	<u>.91</u>	<u>.80</u>	<u>1.99</u>	<u>1.38</u>	<u>1.19</u>	<u>1.89</u>	<u>2.31</u>	<u>13.43</u>		
TOTALS	<u>22.96</u>	<u>22.07</u>	<u>21.12</u>	<u>25.03</u>	<u>22.51</u>	<u>27.26</u>	<u>20.92</u>	<u>23.96</u>	<u>14.67</u>	<u>27.38</u>	<u>227.88</u>		

1941: Exposed high level ground.

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

Date.	Lat. N.	Long.	Railway Station.	Distance from gauge	Direction from gauge	Parish Church.	Distance from gauge	Direction from gauge
1941			Hart. L.N.E.R.	1 1/2 miles	N.	Hart	1 mile	N.W.

BRITISH RAINFALL ORGANIZATION

