

RAINFALL AT Haslingden Calf Hey

Lat.

Long.

County of Lancashire

Rain Gauge, by

Observer

J. Rigby Esq

Irwell 3

Diameter	8										
Height	10										
Altitude	800										
Year	1890	1891	1892	1893	1894	1895	1896	1897	1898	1899	MEANS.
January	8.45	3.59	4.52	2.28	4.77	4.67	2.85	2.30	4.48	9.15	4.674
February	.86	.52	3.49	7.12	7.29	.89	3.02	4.05	4.48	2.64	3.436
March	5.67	1.68	1.30	2.22	4.62	5.13	8.09	5.56	2.95	4.05	4.127
April	1.54	2.34	1.57	.64	2.05	2.69	2.46	4.34	2.78	5.54	2.595
May	2.75	3.81	3.93	2.26	3.68	1.20	.69	2.62	3.85	4.26	2.905
June	4.01	1.86	3.78	2.46	2.90	2.30	3.75	4.15	3.66	2.01	2.088
July	3.11	4.14	2.77	4.01	4.63	6.54	2.58	2.33	1.35	2.64	3.410
August	6.21	10.47	5.64	3.44	6.14	5.06	3.94	6.25	6.26	1.52	5.493
September	2.90	3.84	4.67	6.04	.39	1.64	9.82	5.67	1.68	9.48	4.613
October	4.75	6.29	5.80	5.19	4.64	5.36	6.86	2.80	6.08	3.76	5.148
November	12.09	5.73	3.06	4.47	4.75	4.27	1.84	6.10	4.51	3.20	5.002
December	.16	11.58	3.57	5.63	5.11	6.13	7.35	7.32	6.73	4.44	5.802
TOTALS	52.48	55.85	44.10	45.76	50.97	45.88	52.95	53.49	48.76	52.69	50.293

1890

# RAINFALL AT Haslingden Calf Hey

Lat. ....

Long. ....

County of Lancashire South

Rain Gauge, by .....

Observer .....

R. B. Rigby Esq.

Iwell 3

Gartwright Esq.

Diameter .....			8								
Height .....			10								
Altitude .....			800								
Year .....	1900	1901	1902	1903	1904	1905	1906	1907	1908	1909	MEANS.
January .....	8.13	3.72	5.01	5.06	5.44	2.59	7.32	2.41	4.78	3.20	47.66
February .....	4.12	2.32	2.26	5.22	6.45	3.60	4.95	2.76	4.61	3.30	38.59
March .....	.85	6.08	3.84	7.11	3.08	4.31	4.41	4.39	4.21	3.73	42.01
April .....	3.54	3.27	2.67	2.69	3.94	4.27	2.36	2.44	2.94	4.20	32.32
May .....	2.03	1.38	3.20	3.55	3.17	.78	4.86	4.74	3.47	2.86	30.04
June .....	3.59	2.30	1.54	1.83	1.82	3.39	1.52	9.12	2.06	3.40	30.57
July .....	2.49	1.81	4.26	4.90	1.93	2.75	2.47	3.42	6.04	6.78	36.85
August .....	5.90	3.01	3.55	6.19	5.37	4.88	5.08	5.37	4.93	3.48	47.76
September .....	2.39	1.91	2.24	5.88	2.08	3.24	1.66	1.13	4.98	3.26	28.77
October .....	7.54	4.49	5.62	11.19	3.05	4.60	8.01	4.68	2.82	7.98	59.48
November .....	4.91	7.63	3.13	4.05	4.66	5.77	5.38	3.74	3.92	2.29	45.48
December .....	7.45	5.41	5.24	3.86	3.67	1.36	5.80	5.72	4.10	7.92	50.03
TOTALS .....	52.94	41.93	42.87	61.53	43.66	41.54	53.32	49.92	48.36	52.40	48.84 36.8

Period totals 1901-1902 add 2.28 counts below  $\frac{1}{2}$  48956

1902 Anomalous taken from P. R. no dip to be found.

These figures do not agree with M.L. in bundle  
of papers of Mr W. Scheme

1901-42 Daily values supplied for Bury Water Scheme do not  
agree with these <sup>above</sup> values - for details see Bury papers 1903

1956 Haslingden Station 3 miles E

1909 Helmshore 2 . E

+ Inspected

# RAINFALL AT Haslingden Calf Hey

Lat. ....

Lon. ....

County of

Lancashire

Rain Gauge, by

Observer R. B. Rigby Esq.

Inwell 3

Gard &amp; Light Eq.

Diameter ..	8									
Height ..	1.0									
Altitude ..	800									
Year ..	1900	1901	1902	1903	1904	1905	1906	1907	1908	MEAN.
January ..	8.13	3.29	4.52							
February ..	4.42	2.14	2.13							
March ..	-85	4.50	3.65							
April ..	3.54	2.97	2.59							
May ..	2.03	1.34	3.36							
June ..	3.59	2.06	1.41							
July ..	2.49	1.86	3.81							
August ..	5.90	2.57	3.31							
September ..	2.39	1.76	2.05							
October ..	7.54	3.80	5.02							
November ..	4.91	6.60	2.88							
December ..	7.45	5.41	4.75							
TOTALS ..	52.94	38.30	39.48							

1901 & 1902 These figures are the means of two gauges. See previous sheet for corrected yearly totals.

t 19.VI.02 H.R.M.

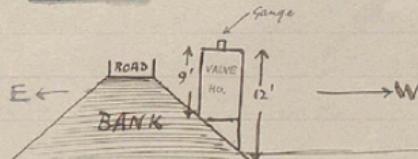


Roof of valve house

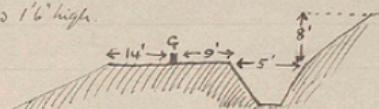


Glaisher's body dented

High level



Low level Glaisher 9. hole in funnel & also bottom of outer case copper may round. Rain slightly deformed. 1' 3" above ground.  
low wood paling 6' sq. and 1' 6" high.



## RAINFALL at Haddington Colf Hey No. 1

County of South Lancashire

Observer J. Woodhead Smith Esq. C.E.

River Basin Mersey Inwell 3

Rain Gauge, by

Diameter ...	8'										
Height .....	1 - 0										
Altitude ...	800 ft										
Year ...	1910	1911	1912	1913	1914	1915	1916	1917	1918	1919	MEANS Total 15
January ...	7.27	2.44	5.02	5.82	4.38	8.26	4.74	3.82	4.87	7.15	20.58
February ...	6.39	6.47	2.36	2.49	4.78	7.68	5.43	1.53	6.16	1.14	14.26
March .....	1.43	2.74	8.20	7.50	6.70	2.43	2.22	2.98	2.35	7.87	15.42
April .....	4.89	3.78	1.29	6.95	2.18	2.60	4.32	2.73	1.33	2.86	11.24
May .....	4.17	2.20	2.79	4.77	2.86	1.85	2.72	1.76	3.03	2.29	9.80
June .....	2.93	4.78	7.65	3.69	2.23	1.95	3.43	3.37	2.35	2.03	11.18
July .....	6.10	.54	5.33	1.89	5.93	4.26	2.88	2.47	4.36	2.12	11.63
August .....	7.93	3.20	9.01	2.48	3.78	5.12	3.14	8.50	4.29	4.83	20.76
September ..	.75	4.62	2.80	2.22	6.69	.91	3.25	3.16	14.59	3.21	24.21
October ...	3.99	4.36	6.09	2.48	3.26	2.21	9.71	10.52	4.55	3.08	27.86
November ...	7.43	5.93	4.68	7.26	7.55	2.53	3.89	4.71	3.15	4.59	16.34
December ...	5.33	8.70	6.14	4.21	8.58	10.11	4.15	3.76	9.44	10.98	28.33
TOTALS ...	58.61	49.89	61.36	51.26	58.92	50.01	49.88	49.31	60.47	52.15	211.81

+ Inspected

Date.	Lat. N.	Long.	Railway Station.	Distance.	Direction.	Church.	Distance.	Direction.
			Haddington					

RAINFALL at Hawthorn Colliery No 2County of South Lancashire Observer J. Woodhead Smith Esq. C.E.River Basin Mersey Jewell 3

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

Diameter ...	8									
Height .....	10									
Altitude ...	800 ft									
Year ...	1910	1911	1912	1913	1914	1915	1916	1917	1918	MEANS.
January ...	6.31	2.08	4.41	4.69	3.52	6.99	4.31	3.62	4.45	6.40
February ...	5.62	5.55	2.09	2.14	3.98	6.42	5.32	1.43	6.69	1.17
March .....	1.23	2.36	7.17	6.54	5.61	1.74	2.15	3.03	2.23	7.20
April .....	4.24	3.81	1.07	5.94	1.79	2.05	3.97	2.38	1.34	3.13
May .....	3.59	1.99	2.44	4.04	2.46	1.57	2.69	1.72	2.89	2.08
June.....	2.61	4.25	6.69	3.16	1.81	1.75	3.23	3.30	2.21	1.91
July .....	5.51	.45	4.92	1.22	5.00	3.76	2.97	2.32	4.26	1.98
August.....	7.28	2.95	8.00	2.06	3.11	4.35	2.92	8.13	4.02	4.48
September ..	.67	4.25	2.48	1.96	5.01	.76	2.81	2.94	14.16	2.65
October ...	3.49	3.89	5.52	2.07	2.70	1.92	8.47	9.82	4.85	3.16
November ...	6.64	5.03	3.96	5.95	6.18	1.81	3.64	5.53	3.42	4.20
December ...	4.62	7.66	5.35	3.36	7.19	8.26	3.96	3.40	9.92	9.59
TOTALS ...	51.81	43.47	54.05	43.13	48.36	41.41	46.44	47.62	60.14	47.96

Rejected from Survey. 4<sup>th</sup> low.

Date.	Lat. N.	Long.	Railway Station.	Distance.	Direction.	Church.	Distance.	Direction.

2918  
20

RAINFALL at Hasslingden Calf Hey N° 1

County of S. Lancashire

Observer J. Woodhead Smith Esq C.E.

River Basin Mersey-Irwell 3

Bury Ws Engt.

(1923) Glaisher Rain Gauge, by

T.A. Rodwee C.E (1930)

~~Reprinted from page 418~~

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

*Reference No.*

Date.	Lat. N.	Long.	Railway Station.	Distance from gauge	Direction	Parish Church.	Distance from gauge	Direction
1925			Holme Rose					

2919  
20

RAINFALL at Haslingden Calf Hey N: 2

County of Lancashire

Observer J. Woodhead Smith Esq C.E.

River Basin Mersey-Irwell 3

Buny Wui Eng

(1925) Glashen Rain Gauge, by \_\_\_\_\_

J.A. Radwege C.E. (1930)

Rejected from Survey 4" low

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

*Reference No.* \_\_\_\_\_

Date.	Lat. N.	Long.	Railway Station.	Distance from gauge	Direction	Parish Church.	Distance from gauge	Direction
1925			Holmshore					

## RAINFALL at Haslingden (Colt Hey) No. 1.

County of South Lancashire Observer Jury Water Board.

River Basin Mersey - Irwell - 3. Irwell Valley Water Bd.

Type of Gauge Glaisher (1921) Standard

Annual Average 50.9 in. based on 25 years obs. un-weighted. Period of average 1881-1912 Ref 58782/30.

Diameter	8.						5.					
Height	1.0.											
Altitude	900.											
Year	1931	1932	1933	1934	1935	1936	1937	1938	1939	1940	Means	
January	8.57	5.56	3.98	5.43	3.53	6.89	4.90	7.23	6.76	4.75	Totals	57.60
February	7.25	2.24	4.32	4.9	8.84	3.44	7.76	2.46	5.98	3.02		43.79
March	6.9	4.21	3.21	3.71	1.52	4.14	2.54	2.66	3.52	3.62		27.82
April	4.64	4.16	2.39	3.59	4.63	1.41	4.62	1.12	3.11	3.70		33.27
May	3.00	5.17	2.85	5.11	1.60	6.7	2.00	4.95	1.44	1.00		22.34
June	7.00	1.49	2.62	3.19	4.57	4.60	2.17	5.74	4.71	1.29		37.38
July	4.70	4.71	4.34	2.66	2.35	3.20	2.60	6.11	10.40	5.75		48.82
August	7.81	1.54	3.90	5.82	2.01	4.16	3.60	3.42	3.44	3.53		38.93
September	4.65	5.78	1.15	4.97	9.00	5.70	2.33	2.69	1.44	5.73		43.47
October	3.72	9.73	5.53	8.84	11.69	6.10	2.76	10.61	2.95	6.21		71.14
November	9.36	3.89	3.14	2.74	6.00	6.57	1.91	9.37	8.99	9.85		61.82
December	2.62	2.91	1.04	8.94	5.39	7.67	4.07	6.76	4.06	6.92		50.28
TOTALS	63.61	49.39	38.47	55.49	61.13	56.55	41.15	66.12	57.70	55.27		506.68
	D	D	D	D	D	D	D	D	D	D		444

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
1926			Haslingden					

2919  
31

## RAINFALL at Haslingden (Calf Hey) No. 2

County of South Lancashire

Observer Bury Water Board

River Basin Mersey - Insel-3

Lancaster Valley Water Board (1935)

Type of Gauge Clayton Standard 1930

Annual Average 50.5 in. based on 10 years obs. un-weighted. Period of average 1931-1945

Ref Prob 255

58782/30.

Diameter	8.				5						Means
Height	1.0.										
Altitude	800.										
Year	1931	1932	1933	1934	1935	1936	1937	1938	1939	1940	Means
January	7.26	5.19	3.69	4.71	2.71	6.44	4.46	6.67	6.59	4.52	
February	6.06	2.26	3.69	1.53	7.20	3.45	7.52	2.35	5.69	2.87	
March	6.64	3.55	2.92	3.29	1.27	3.75	2.37	2.63	3.59	3.41	
April	4.09	3.62	2.10	3.25	4.49	1.44	4.46	1.13	3.13	3.87	
May	3.05	4.99	2.86	4.82	1.61	7.2	1.99	4.74	1.93	9.5	
June	6.87	1.42	2.23	2.97	4.44	4.62	2.06	5.60	4.39	1.32	
July	5.12	4.30	3.89	2.32	2.03	5.12	2.57	5.95	9.97	5.75	
August	6.72	1.40	3.29	4.80	1.75	3.93	3.37	3.25	3.63	3.65	
September	4.69	4.82	1.26	4.80	8.44	5.87	2.22	2.72	1.42	5.56	
October	3.01	8.35	4.95	7.54	9.93	6.57	2.55	12.68	2.77	5.89	
November	9.39	8.64	3.02	2.76	5.68	6.93	1.78	9.17	8.63	9.59	
December	2.78	2.68	1.92	7.76	5.13	6.88	3.61	6.46	3.91	6.80	
TOTALS	59.18	44.12	34.82	48.95	48.95	54.68	55.72	38.96	63.35	55.65	54.18
	2	2	2	2	2	2	2	2	2	2	2

1936. now printed.

1937 n.p. low.

1938 N.P. low.

1939 N.P. low.

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
			Helmshore				

BRITISH RAINFALL ORGANIZATION, EXHIBITION ROAD, LONDON, S.W.7.

Station No. 2918

## RAINFALL at Haulingden (Half Hey) N° 1

41

County of South Lancashire Observer Irwell Valley Water Bd.

River Basin Mersey Irwell 3

Type of Gauge Snowdon

Annual Average 50.8 in. based on 35 years obs. un-weighted. Period of average 1881-1915 Ref. 2

File No. 58782/30

Diameter	5"		560	923							
Height	1' 0"			1							
Altitude	800'			41							
Year	1941	1942	1943	1944	1945	1946	1947	1948	1949	1950	Means
January	2.41	8.59	8.68	7.74	5.18	6.47	5.84	12.07	3.90	5.31	Totals 66.19
February	7.81	2.79	4.14	3.11	7.28	7.58	1.98	3.74	4.00	6.94	49.37
March	4.21	4.45	1.87	1.17	1.94	1.42	9.10	2.66	2.68	3.73	33.23
April	2.35	3.08	3.75	3.53	2.99	1.76	5.26	2.70	5.36	4.05	34.83
May	3.68	4.18	4.42	3.51	4.84	2.07	3.20	2.95	3.82	2.95	35.62
June	.61	1.20	3.20	3.74	7.11	4.44	3.56	8.32	1.34	2.83	36.35
July	4.50	6.94	4.34	4.54	3.61	5.19	4.15	3.56	2.78	5.59	45.20
August	7.71	6.81	8.55	4.63	3.67	8.64	.28	6.15	3.92	8.99	59.35
September	1.82	4.02	5.97	6.97	4.32	9.09	4.80	4.25	2.53	10.63	54.40
October	5.97	9.18	4.39	7.15	7.40	1.65	1.43	3.45	6.51	4.32	51.45
November	4.06	1.71	5.10	9.29	7.3	9.88	7.50	3.28	9.03	8.28	58.86
December	3.81	5.87	3.73	6.66	4.69	6.23	4.48	6.16	8.73	4.15	54.57
TOTALS	49.00	58.82	58.14	62.04	53.76	64.42	51.58	59.29	54.60	67.77	579.42 480

511.65-

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			Helmshore	2 m		Haulingden	3 1/2 m

BRITISH RAINFALL ORGANIZATION

Station No. 2919

## RAINFALL at Haslingden (Galf Hey) N° 2

41

County of South Lancashire Observer Irwell Valley Water Bd.

River Basin Mersey - Irwell: 3

Type of Gauge Standard

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

File No. 58782/30

Diameter	5"										
Height	1' 0"										
Altitude	800'										
Year	1941	1942	1943	1944	1945	1946	1947	1948	1949	1950	Means
January	2.89										
February	7.11										
March	4.06										
April	2.42										
May	3.56										
June	.59										
July	4.52										
August	7.41										
September	1.82										
October	5.66										
November	3.95										
December	3.85										
TOTALS	47.84 D.W.										

1941 up g. awaiting inspection

Site of gauge not satisfactory Termination reported.

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

Station No. 2918

51

RAINFALL at Bashleyden (Bog Hey) B.C.L.County of C. LancashireObserver Swindell Valley Water Bd.River Basin Mersey-Towle-3Type of Gauge Ordnance

Annual Average 50.9 in. based on 35 years obs. up-weighted. Period of average 1881-1915 Ref. S  
57.28 " " " " 1916-1950 File No. 58482/30 P

Diameter ...	5"				560	923					
Height ...	11' 0"					1					
Altitude ...	800'					51					
Year ...	1951	1952	1953	1954	1955	1956	1957	1958	1959	1960	Means Total
January	6.02	6.62	2.43	6.09	3.35	7.01	5.16	6.27	3.98	8.31	55.23
February	5.08	1.99	2.46	4.80	2.80	1.38	4.48	8.86	1.08	5.80	38.73
March	6.39	3.08	3.09	4.09	2.44	2.04	4.91	3.01	2.85	1.59	33.48
April	3.44	4.55	4.53	1.17	3.95	2.91	1.72	1.84	4.17	4.01	31.29
May	2.39	3.28	2.96	3.61	5.41	2.40	2.41	5.37	1.07	3.40	32.30
June	1.72	4.75	3.68	4.16	4.06	3.16	2.41	4.96	4.02	1.85	34.77
July	4.65	3.24	6.20	7.62	1.36	7.37	8.33	4.51	5.31	10.34	58.93
August	6.18	6.44	6.20	7.96	1.80	14.45	8.47	5.10	.65	6.27	63.52
September	4.45	5.56	6.24	7.19	5.65	4.56	8.70	6.04	.50	3.82	52.71
October	1.23	6.60	2.66	10.89	3.88	4.17	8.26	6.27	6.87	5.31	56.14
November	10.76	3.36	7.14	9.14	3.40	2.69	2.85	2.42	6.57	9.89	58.22
December	12.58	5.39	2.71	8.94	4.66	6.18	6.77	5.56	11.84	7.20	74.83
TOTALS ...	64.89	54.86	50.30	75.64	45.46	58.32	63.47	60.21	48.91	67.79	590.15
	D	D	D	D	D	D	D	D	D	D	

Inspected July 1956 - in Deeks. Gauge has no rim. Measure cert. tapes. Site of NE, regarded as reasonable. 1956 High but except.

Position of Station on Ordnance One-Inch map : No. of Map ..... National Grid Reference 34/750222

Date.	Lat. N.	Long.	Railway Station.	Distance from gauge	Direction	Parish Church.	Distance from gauge
1954			Helmsdale			Helmsdale	

Summary of Earlier Records from 10-year Sheets :

1916-1950, P - accepted

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