

RAINFALL AT Chester Hawarden Bridge

Lat.

Lon.

County of

Cheshire Flint

Rain Gauge, by

Observer Meteorological Council

Dec - 1.

Diameter ..				8							
Height ..				10							
Altitude ..				20							
Year ..	1900	1901	1902	1903	1904	1905	1906	1907	1908	1909	MEANS.
January ..	(1.60)	.97	2.15	1.83	.59	3.77	1.00	1.51	1.25		
February ..	(1.10)	1.06	1.15	2.92	.76	2.18	1.24	1.38	.77		
March ..	1.34	1.03	2.68	1.29	2.38	1.58	1.46	2.82	2.51		
April ..	1.12	.94	1.29	.50	1.57	.69	1.03	3.55	1.81		
May ..	.86	3.06	2.31	1.82	.57	1.80	2.63	2.52	1.06		
June ..	1.89	1.05	1.19	1.07	4.40	1.01	2.82	1.87	2.52		
July ..	2.61	1.00	3.34	1.42	1.94	.80	2.65	2.45	1.63		
August ..	2.10	3.01	3.04	3.93	4.22	2.63	2.15	2.85	2.48		
September ..	1.02	.62	3.38	1.79	1.19	1.19	.32	3.90	2.10		
October ..	1.18	3.31	7.78	1.07	1.71	3.47	4.49	1.98	2.75		
November ..	(2.85)	1.44	2.45	1.27	2.95	1.67	2.05	1.75	.88		
December ..	1.81	1.75	1.23	2.45	.57	2.47	1.69	1.31	4.17		
TOTALS ..	(28.20)	(9.48)	19.24	31.99	21.36	22.85	23.26	23.52	27.89	23.93	(241.72)

$$1900 + \text{wt } 1901 - \text{Hawarden G.C.R.} \times \frac{100}{107}$$

RAINFALL at Hawarden Bridge

County of Flint

Observer

J. E. Griffiths Esq.

1912 1914

River Basin Dee

Meteorological Office
38 Stile

Rain Gauge, by

Diameter ...	9							8				
Height	1.0							1.3				
Altitude ...	15	22			15			15	22			
Year ...	1910	1911	1912	1913	1914	1915	1916	1917	1918	1919	MEANS. 1912-1914 TOTALES	
January ...	1.59	.29	4.02	3.04	1.28	2.38	.58	2.02	1.39	2.48	6.47	
February ...	1.54	1.00	1.04	.77	1.99	2.06	2.66	1.21	1.46	1.37	6.70	
March50	.64	2.54	3.37	2.01	.85	1.95	2.26	.54	4.94	7.69	
April	2.03	.36	.24	2.55	.53	.98	1.18	1.14	1.28	1.33	4.93	
May	1.20	1.51	1.77	2.37	1.49	1.63	3.59	2.71	3.31	.59	10.18	
June	2.26	2.62	2.85	1.43	2.95	.65	.94	1.61	2.78	1.45	6.78	
July	2.59	.60	2.30	2.34	4.93	2.35	1.14	.86	2.96	1.50	6.26	
August	2.26	2.16	5.04	2.73	1.61	3.37	1.86	6.38	1.84	3.61	13.69	
September ..	.13	3.18	.79	1.47	1.56	1.00	1.94	.71	5.37	2.01	9.83	
October ...	1.96	2.10	2.79	3.11	1.50	1.77	3.60	3.82	1.40	3.75	12.57	
November ...	3.61	1.66	1.52	1.90	3.51	3.05	2.19	1.53	1.80	2.14	7.64	
December ...	2.73	3.41	1.57	2.11	8.61	4.04	1.99	.99	4.00	4.38	11.16	
TOTALS ...	22.40	19.53	26.47	27.19	31.87	24.13	23.18	25.24	28.13	29.35	105.90	

1912 Churnaby 300 ft high 150 yds NE

✓ 1912

1913 Blewbury Woods 200 yds S.

Date.	Lat. N.	Long. W.	Railway Station.	Distance.	Direction.	Church.	Distance.	Direction.
1912	53.12.	3.1.	Shotton	1/2 m 1.7 m	E S W S	Shotton Hawarden	1/2 m 3 m	E S W S

RAINFALL at Hawarden Bridge.

County of Flint.

Observer G. L. Lill Esq.

River Basin see - 1

R. Hawarden (1922)
for J. Summers & Co. Ltd. (1923)Hawarden Rain Gauge, by
(1929) 24.5.

Diameter ...	8"	1920	1921	1922	1923	1924	1925	1926	1927	1928	1929	MAYNARD 1930.	1920-20 Totals
Height	1.3												
Altitude ...	22												
Year	1920	1921	1922	1923	1924	1925	1926	1927	1928	1929			
January ...	2.73	3.19	4.07	1.64	2.19	1.89	2.61	2.28	3.34	1.29	3.65		28.91
February ...	2.53	2.28	2.34	3.39	3.35	4.21	2.31	1.53	2.01	.73	0.36		19.84
March	3.65	1.05	2.06	1.73	1.65	1.72	1.56	3.14	1.81	1.22	3.37		17.96
April.....	2.99	.91	2.12	1.85	1.74	1.87	.69	1.55	0.92	.82	2.59		19.05
May	2.09	1.41	.37	2.94	4.71	2.06	2.97	1.26	2.09	1.44	1.31		22.65
June	2.76	.27	1.30	2.25	2.00	.04	1.44	4.28	3.83	1.72	1.54		19.43
July	4.72	.60	3.32	2.62	6.18	2.10	3.93	2.37	0.98	3.59	3.95		34.36
August	1.68	2.92	2.68	2.65	3.18	4.01	2.74	5.35	2.83	2.56	3.53		34.13
September...	2.44	.74	2.50	2.77	3.00	2.97	3.30	4.20	1.67	1.43	3.12		28.14
October....	2.16	2.64	.55	3.59	3.63	3.37	2.23	1.61	3.35	3.45	4.07		30.65
November...	.48	2.68	1.21	2.62	1.99	3.57	4.29	3.24	3.49	4.49	3.31		31.37
December...	2.10	2.78	3.64	4.10	2.94	2.06	.85	1.54	2.11	4.21	3.88		30.21
TOTALS...	81.13	19.47	26.16	29.15	32.56	28.87	27.92	32.35	28.46	25.95	34.68		367.0

1920 Chemical works 70' - 30 yrs. old.

1922 > > soft soil 200 yrs. N.E.

1929. Sheds 30' high, 60 yds. long.

Laboratory 35' " 75 " S.S.W.

Gauge moved 24. 10. 29. *

96.1.

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

Date.	Lat. N.	Long. W.	Railway Station.	Distance from gauge	Direction	Parish Church.	Distance from gauge	Direction
1920	53° 12'	3° 17' W.	Shotton	1 mile	S.	Hawarden	3 miles	S
1922			C. H. W. R. S.	1/2 "	S	Shotton	1/2 mi	S
1925			SHOTTON	1 "	S.S.W.	- do -	1/2 mi	S
1929	* 53° 1' 30' 1'		Hawarden Br. N.L.	1/4 m.	W.	- do -	1/4 m.	S.S.W.

RAINFALL at Hawarden Bridge M.W.R.

County of Flint Observer T. Summers & Sons

River Basin 1-Dee

Type of Gauge Snodron

Annual Average 24.3 in. based on 35 years obs. un-weighted. Period of average 1931-1942 Ref. A.W.S.

Diameter	8						8"				
Height	1.3		1.0				1.0				
Altitude	22		17				17'				
Year	1931	1932	1933	1934	1935	1936	1937	1938	1939	1940	1931-40 Means Total
January	2.29	2.17	1.47	1.33	1.35	5.82	2.59	3.36	4.81	1.99	2718
February	2.20	.05	3.09	.15	2.38	2.22	4.44	.45	2.51	2.74	2023
March	.26	1.89	1.84	1.96	1.86	2.26	2.11	.64	1.78	2.28	1588
April	2.56	3.10	.90	2.01	2.26	1.67	3.12	.17	2.04	2.30	2003
May	2.80	3.80	1.15	1.40	1.62	1.12	2.52	2.54	1.72	2.50	2107
June	5.00	.47	1.33	.92	2.74	4.07	1.41	2.67	1.99	1.05	2165
July	2.08	3.57	1.33	.71	1.31	1.96	1.33	2.62	5.36	3.50	2377
August	5.94	1.01	1.02	2.05	.98	1.21	1.29	3.57	1.50	.47	1904
September	2.82	1.98	.65	1.55	4.94	3.29	2.06	1.03	0.70	3.00	2202
October	1.18	4.50	3.44	3.22	3.69	1.28	2.59	3.19	3.96	3.51	3056
November	4.09	2.87	1.46	2.04	4.06	2.47	1.62	3.44	4.41	5.51	3197
December	1.38	.87	.56	4.45	3.70	2.45	2.57	3.28	1.76	2.28	2330
TOTALS	32.60	26.28	18.24	21.79	29.79	29.72	27.65	26.96	32.54	31.13	27670 ✓

1936. Inspection in July gauge found to be 15" - lowered to 12".

1937. Gauge + other instruments moved to new site - approx 16 yards E.N.E.

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		Parish Church	Distance from gauge
				Direction	from gauge		

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

Station No. 4279 M.W.R.

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RAINFALL at Hawarden Bridge

County of Flint

Observer J. Summers & Sons

River Basin 1 - Dee

Type of Gauge Surveyor M.O.

Annual Average 24.3 in. based on 25 years obs. un-weighted. Period of average 1881-1915 Ref. A.W.S.

File No.

Diameter	8			549	218				85"	
Height	1	0				3			1' 0"	
Altitude	17					41			17	
Year	1941	1942	1943	1944	1945	1946	1947	1948	1949	1950
January	3.64	(3.02)	4.16	3.16	2.46	2.73	1.80	6.17	2.36	0.54
February	3.11	1.26	1.75	1.30	1.85	3.80	1.19	1.26	1.10	5.20
March	2.76	2.01	0.91	0.75	0.67	0.83	4.56	0.85	2.10	0.98
April	1.15	1.11	0.96	0.96	1.40	0.59	2.12	1.50	2.40	3.43
May	1.82	2.79	2.34	1.54	3.40	2.37	3.14	0.76	2.28	0.98
June	0.46	0.12	2.93	1.24	1.97	2.99	2.20	3.40	0.58	1.32
July	1.50	2.66	2.95	1.84	3.17	1.80	3.03	1.56	3.41	1.82
August	3.06	2.29	2.06	2.03	2.31	3.97	0.25	2.31	1.63	5.56
September	0.34	1.30	4.77	1.16	0.93	2.36	1.76	1.33	1.14	4.19
October	3.25	2.18	3.42	4.54	4.03	0.72	0.61	1.81	3.87	2.08
November	2.89	0.68	3.15	5.19	0.20	4.49	3.66	1.42	3.78	3.73
December	1.13	3.07	1.17	1.81	2.60	3.10	2.31	2.83	3.63	2.87
TOTALS	25.11	22.49	30.57	28.52	24.99	29.75	26.63	25.20	38.38	32.70
	D	D	D	D	D	D	D	D	D	D

42 Jan adj.
1950. Imported Sep. New gauge recommended. Plant site sheltered.
New gauge installed Dec. 1950. 6 ft. north of old gauge.

40004

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. 4279

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RAINFALL at Hawarden Bridge

County of Flintshire

Observer J. Summers & Sons

River Basin 1 - Dee

H.O.

Annual Average 24.3 in. based on 35 years obs. un-weighted. Period of average 1881-1915 Ref. Av. W.S.
 27.47" " " 6 " " 1951-1956 1916-1950 P
 File No.

Diameter	8"			549	218					5"
Height	1' 0"				3					1' 0"
Altitude	17'				51					17'
Year	1951	1952	1953	1954	1955	1956	1957	1958	1959	1960
January	1.91	3.11	0.59	1.90	1.96	3.30 8.38	1.36	3.03	4.81	4.81
February	2.60	1.21	1.43	2.23	2.18	0.30	2.10	4.36	0.11	2.13
March	4.79	0.93	0.76	1.78	2.02	1.32	1.56	1.39	1.31	2.01
April	1.39	1.60	2.39	0.61	1.04	1.83	0.45	0.23	3.26	1.24
May	3.23	1.93	1.95	2.14	2.32	0.44	1.20	1.72	1.59	1.84
June	0.99	1.44	1.63	4.08	2.81	1.41	1.27	4.71	2.32	0.89
July	1.27	1.72	2.47	2.99	0.31	4.34	4.03	3.45	2.22	2.31
August	4.14	1.41	2.28	2.80	1.02	6.05	3.93	2.71	1.76	4.27
September	2.06	3.67	3.00	2.04	1.89	2.35	6.60	4.38	2.28	3.11
October	0.96	4.10	1.28	4.33	1.41	2.10	1.68	2.11	2.36	4.74
November	6.05	1.84	1.98	5.86	1.73	0.95	1.48	1.94	4.15	4.59
December	3.40	3.71	1.08	2.71	3.11	2.88	1.67	2.81	4.46	2.94
TOTALS	32.79	26.67	26.84	33.47	21.80	27.27	27.33	32.84	27.83	34.93
	D	D	D	D	D	D	D	D	D	D

1950 Inspected Sept. Present site sheltered. New gauge installed Dec. 1950.
 6' North of old gauge.

1955 Inspected by Mr. H. D. Hoyle 13/7/55 - Satisfactory.

1958 T. Handling 26/7/58, gauge to be raised, auto car damaged by weight, to be replaced. satisfactorily replaced. G. was moved a few feet 2 or 3 years ago.
 Site open to E & S
 1960 gauge raised to 12'

Position of Station on Ordnance One-Inch map : No. of Map National Grid Reference 33/322693

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 36

Record D, or d	1910-19 D	1920-30 D	1931-40 D	1941-50 D	1951-60 D
	1911 D	1912-19 D	D	D	D