

RAINFALL AT

Rochdale Naylor Filters

Lat. $53^{\circ}38'34''$

Lon. $2^{\circ}12'58''$

County of *Lancashire*

Rain Gauge, by

Observer

J. Diggle Esq C.E.

Messrs. Inwell & Co

Diameter		5						5			
Height		18						18			
Altitude		761						761			
Year	1890	1891	1892	1893	1894	1895	1896	1897	1898	1899	MEANS.
January			4.36	1.41	4.35	3.84	2.54	1.79		7.39	
February			3.16	5.97	6.78	.42	2.62	3.46		1.85	
March97	1.35	4.59	4.28	6.49	4.99		2.97	
April		2.53	1.43	.86	1.93	2.61	2.17	3.23		4.30	
May		3.52	5.01	2.39	4.03	1.22	.51	1.96		3.32	
June		2.26	3.77	3.35	3.80	2.52	3.41	4.44		1.73	
July		4.33	4.32	4.84	4.19	6.54	2.63	2.01		1.95	
August		9.45	6.27	3.67	5.32	6.22	3.44	5.60		1.53	
September....		4.31	5.61	5.34	.52	2.31	8.96	5.33		8.07	
October		6.08	6.41	4.71	5.22	4.71	6.37	2.71		3.93	
November		4.72	3.94	4.10	3.78	4.03	1.67	5.65		1.68	
December		9.16	3.13	4.68	5.05	4.76	6.36	6.20		2.90	
TOTALS			48.38	42.67	49.56	43.46	47.17	47.37	<i>Not Received</i>	41.62	

Gauge at E end of the Lower Reservoir Bank between two filters near Waterworks House

Annual values reported from survey (3' bar)

RAINFALL AT Rochdale Naylor Dean Filter

Lat.

Lon.

 County of Lancashire South

Rain Gauge, by

 Observer J. Diggle Esq C.E.
Inwell 3

Diameter ..	5										
Height	1.8										
Altitude ..	761 ft										
Year	1900	1901	1902	1903	1904	1905	1906	1907	1908	1909	MEANS.
January ..	6.00	3.16	3.57	4.18	4.29	2.54	6.46	2.36	4.68	2.92	4.016
February ..	3.88	1.61	1.72	4.25	3.92	2.61	4.53	2.93	3.92	3.24	3.261
March67	4.04	2.97	5.40	2.83	4.01	3.78	4.28	3.47	3.49	3.494
April	3.19	3.32	2.63	2.64	3.08	3.87	2.18	2.60	2.73	4.19	3.043
May	1.67	1.34	3.70	4.04	2.99	.69	4.09	4.03	3.43	3.01	2.899
June	5.08	2.32	1.36	2.15	1.44	3.53	1.73	8.17	2.54	2.85	3.117
July	2.92	2.59	3.13	4.88	2.10	3.50	2.37	3.59	5.80	7.36	3.824
August	5.86	3.27	3.87	6.67	5.65	5.18	4.65	5.12	4.43	3.53	4.823
September ..	1.80	1.94	2.62	5.49	1.68	2.86	1.60	1.40	4.30	3.58	2.727
October	6.99	4.01	5.46	10.82	3.04	3.88	7.74	5.08	2.23	7.02	5.627
November ..	4.69	6.86	3.33	3.93	4.48	4.83	5.17	3.61	3.45	1.80	4.215
December ..	6.39	6.77	3.84	2.69	3.79	1.05	5.13	4.77	3.85	8.02	4.630
TOTALS ..	49.14	41.23	38.20	57.14	39.29	38.55	49.43	47.94	44.83	51.01	45.676

1906 Rochdale Station

1909 Wandleworth Station 3 1/2 m SE

Annual values rejected from Survey (3' low)

RAINFALL at Rochdale Naden FillersCounty of LancashireObserver J. H. Diggle Esq. C.E. (Engl.)River Basin Mersay-Twells

Heywood & Middleton Water Bd

Rain Gauge, by Amalting ManchesterJ. Entwistle (Secy & Manager)

Diameter ...	5"										
Height	1 8										
Altitude ...	761							760-74			
Year	1920	1921	1922	1923	1924	1925	1926	1927	1928	1929	1930. MEANS.
January ...	5.08	7.97	4.63	4.26	4.00	3.99	5.74	5.39	13.76	2.67	6.74
February ...	4.59	4.6	5.77	6.74	1.18	7.80	4.84	2.39	6.09	1.19	5.4
March	4.15	4.13	4.10	2.31	1.91	1.88	2.59	5.50	3.20	1.76	3.33
April	5.87	1.78	3.08	4.40	1.90	2.67	2.04	3.82	1.31	1.62	3.09
May	5.61	2.93	1.84	4.34	5.59	5.49	5.02	2.42	1.50	3.68	2.20
June	2.92	2.9	2.93	9.7	2.65	10	3.04	4.88	8.46	1.63	2.02
July	9.08	2.15	5.47	4.87	6.00	2.38	2.19	3.93	2.48	3.46	7.21
August	2.95	7.40	4.78	6.24	7.47	4.89	5.32	7.90	7.29	6.99	8.93
September...	2.97	1.76	4.53	5.42	4.66	4.28	4.98	7.02	0.70	2.34	4.85
October	1.47	3.95	5.9	6.87	5.82	5.98	4.59	5.28	6.33	4.09	7.07
November...	2.31	3.42	4.01	8.39	3.13	2.31	6.93	6.16	8.04	9.30	7.12
December...	4.10	7.51	5.60	5.27	5.55	3.51	2.05	1.61	3.55	8.63	4.10
TOTALS...	57.10	43.77	47.63	60.88	49.86	46.28	49.33	56.20	62.80	50.38	57.20
	D	D	D	D	D	D	D	D	D	D	D

No objects near gauge

Rejected from survey, 3rd class.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 from gauge	Parish Church.	Distance from gauge	Direction from gauge
			Wardleworth	3 mi	SE	Norden	1 mi	NE

RAINFALL at Rochdale (Naden Filters)County of South LancashireObserver Heywood Water BoardRiver Basin Mersey Trwell-3Type of Gauge LondonAnnual Average.....in. based on.....years obs. un-weighted. Period of average.....Ref.....
815/15/28.

Diameter	5.										
Height	1.0.									10 $\frac{1}{2}$	
Altitude	761.										
Year	1931	1932	1933	1934	1935	1936	1937	1938	1939	1940	Means
January	6.83	6.55	2.92	4.31	2.46	5.15	4.31	6.29	6.04	2.15	
February	6.42	2.2	4.21	.63	7.23	2.85	6.33	2.40	6.01	2.66	
March52	3.19	3.32	2.82	1.93	3.29	1.77	1.45	3.00	3.53	
April	4.14	4.73	2.22	2.68	4.00	1.28	3.79	.84	2.19	3.06	
May	3.15	5.63	1.77	3.82	1.30	1.17	2.42	3.93	1.62	1.00	
June	6.77	.92	2.13	3.13	3.85	4.40	2.81	5.50	4.32	.99	
July	5.36	5.18	3.35	2.67	2.32	5.58	2.82	5.21	6.84	4.55	
August	5.73	1.40	2.21	4.28	2.10	3.48	2.98	4.72	3.24	2.69	
September	3.87	6.47	2.02	4.13	8.95	6.46	2.16	1.75	1.68	5.67	
October	3.03	9.00	5.46	6.85	10.63	6.62	2.23	12.08	2.37	5.38	
November	10.76	3.75	2.26	2.28	5.64	6.46	2.16	6.50	8.23	8.98	
December	2.77	2.50	.80	7.06	4.62	4.63	3.14	5.83	4.30	6.48	
TOTALS	59.35	49.54	32.67	44.66	55.03	51.37	36.93	56.50	49.84	47.14	
	D.	D.	D.	D.	D.	D.	D.	D.	D.	D.	

Inspected 17.9.37. f. on grass between filter beds above reservoir on level ground but ground falling away to S.W. at some distance. Good exposure to N+E. but too open to S.W. Recommended f. be surrounded by a turf wall. There is evaporative tank in rather more exposed site being some 20 yds further S.W. 1940 No defects near to gauge.

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

No. of Map.....

Reference No.....

Date.	Lat. N.	Long.	Railway Station.	Distance Direction from gauge	Parish Church.	Distance Direction from gauge
1931			Wardleworth	4.7m.	horden	1m.

Station No. 2894

RAINFALL at Rockdale (Naden Hill)

41

County of. South Lancashire

Observer Heywood Water Board

River Basin Mersey - 2nd - 3

Type of Gauge. Standard Howard 1950

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

File No. 8.15.15/28

Diameter	5"			561	796						
Height	1'0"				1		10 1/2"				
Altitude	761'	X			21						
Year	1941	1942	1943	1944	1945	1946	1947	1948	1949	1950	Means
January	1.56	6.96	6.78	7.18	4.04	5.55	3.92	10.53	3.22	3.83	
February	6.14	1.31	3.96	2.84	6.48	7.10	1.03	3.82	4.03	5.81	
March	5.15	3.71	1.47	.84	1.65	1.46	6.05	1.88	2.15	2.90	
April	2.33	2.72	3.20	3.43	2.64	1.38	3.87	2.41	4.78	4.16	
May	2.99	4.22	3.36	3.46	4.88	1.45	2.38	1.85	4.22	2.10	
June	.54	.87	4.41	3.40	5.51	4.46	3.07	6.17	.46	3.22	
July	3.65	5.92	3.52	4.44	3.73	5.24	4.11	2.75	2.67	5.91	
August	7.51	5.58	8.16	3.90	4.50	7.81	.30	5.89	4.11	7.54	
September	.98	3.00	5.87	5.87	3.40	9.36	2.62	3.66	2.08	9.17	
October	6.09	8.15	3.94	5.52	7.00	1.13	1.01	3.71	5.60	2.96	
November	3.40	1.58	4.19	8.78	.67	8.11	7.93	2.83	7.05	6.82	
December	3.46	4.96	2.68	5.43	3.47	4.18	4.32	4.02	8.37	3.83	
TOTALS	43.78 D	40.58 D	51.54 D	55.03 D	47.97 D	57.23 D	40.61 D	49.52 D	48.74 D	58.25 D	

1941 Watermans House 60 yds. E. of gauge

1943 Waterman's House 50' high 50 yds E of gauge

1947 July 41?

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

No. 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			Wardleworth	4 m.	S	Norden	1 m.	E

BRITISH RAINFALL ORGANIZATION

Station No. 2894RAINFALL at Rochdale (under Fallow)

51

County of LancashireObserver Heywood & Middleton Water Bd.River Basin Mussey-Twedd - 3Type of Gauge HowardAnnual Average 46.7 in. based on 22 years obs. un-weighted. Period of average 1881 - 1915 Ref. 1105File No. 8.15.115/28

Diameter ...	5'			56 1	79 6						
Height ...	0' 10 1/2				1						
Altitude ...	761'				51						
Year ...	1951	1952	1953	1954	1955	1956	1957	1958	1959	1960	Means
January ...	5.33	5.75	2.20	5.18	3.40						
February ...	3.16	1.59	2.29	3.95	2.58						
March ...	5.80	3.16	2.52	3.43	2.13						
April ...	3.04	3.95	3.70	.97	3.00						
May ...	1.70	2.20	2.43	3.40	4.49						
June ...	2.26	4.75	3.45	4.37	3.88						
July ...	3.52	3.07	7.94	6.85	2.22						
August ...	5.31	5.83	6.85	7.16	1.12						
September ...	3.77	3.99	4.63	5.91	3.75						
October ...	1.26	5.54	2.23	9.95	2.86						
November ...	9.51	2.90	5.96	6.80	2.56						
December ...	9.32	5.12	2.22	8.36	7.53						
TOTALS ...	53.98	47.85	46.42	66.33	39.52						
	D	D	D	D	D						

1951 House 50' high at 30° E.

Inspected June 1956 W. D. L. Gauge found, painted white. Site of S.W.

Recommendation below dam, re-paint.

Position of Station on Ordnance One-Inch map :

No. of Map.....

National Grid Reference 54/357.664

Date.	Lat. N.	Long.	Railway Station.	Distance from gauge	Parish Church.	Distance from gauge.
1951			Wardleworth	4 m. S.	norden	1 m. E

Summary of Earlier Records from 10-year Sheets :

Record D, or d	1910-19	1920-30	1931-40	1941-50	1951-60
	c1911	✓	✓	✓	
	✓ but - 13	✓ but d 24	✓	✓	