

RAINFALL AT Rochdale Norden FiltersLat.  $53^{\circ}38'34''$ Long.  $2^{\circ}12'58''$  County of Lancashire

Rain Gauge, by

Observer

Mersey Dwell 3

J. Diggle Esq. C.E.

Diameter ....	5									5		
Height ....	1 8									1 8		
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	
March .....				.97	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.....				6.07	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	No. Received	41.62	

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

Annual values rejected from survey (3%.)

## RAINFALL AT Rochdale Norden Dene Filters

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
March ....	.67	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	45.676 123

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Hus

1906 Rochdale Station

1909 Wadsworth Station 3 1/2 mi SE

Annual values rejected from Survey (3 low)

RAINFALL at Rochdale Norden FilterCounty of South Lancashire

Observer

J. P. Diggle Esq. C.

Fleg... in Middleton 18

River Basin Mersey - IrwellRain Gauge, by Arnold & Sons  
Manchester

Diameter ...	5												
Height .....	1.8												
Altitude ...	761												
Year ...	1910	1911	1912	1913	1914	1915	1916	1917	1918	1919			MEANS. TOTALS
January ...	1.86	4.50	4.58	3.89	7.79	3.95	3.42	3.85	5.30	16.52			
February ...	6.04	2.06	1.74	2.66	5.70	5.15	1.35	7.23	1.07	14.80			
March .....	2.41	6.13	5.18	5.90	1.70	2.28	2.71	2.39	6.08	13.46			
April .....	2.99	1.21	4.82	1.78	2.18	3.87	1.84	1.09	2.69	8.99			
May .....	2.23	2.93	3.67	3.23	2.02	2.90	2.60	3.08	2.17	10.75			
June .....	4.02	6.40	2.94	2.72	1.18	3.23	2.15	1.68	1.84	8.90			
July .....	.47	4.62	1.03	5.47	5.95	2.65	2.72	3.92	2.26	11.55			
August .....	2.71	6.84	2.51	3.89	5.97	3.71	7.25	3.75	4.19	18.90			
September ..	4.71	1.84	1.82	4.38	.75	3.00	2.74	13.04	2.43	21.21			
October ...	3.89	5.71	1.81	2.89	1.88	9.15	9.95	4.55	2.79	26.44			
November ..	4.85	3.87	5.57	6.48	2.38	3.52	4.30	2.97	4.16	14.95			
December ...	7.82	5.81	3.13	6.55	8.45	3.49	2.68	10.76	8.74	25.67			
TOTALS ...	43.50	51.92	38.81	49.84	45.95	46.40	43.71	58.31	43.72	192.14			

1913 Wall 5' 6" high 20 yards

Repealed from survey 3" law.

Date.	Lat. N.	Long.	Railway Station.	Distance.	Direction.	Church.	Distance.	Direction.
			Wardleworth	3 m	SE	Norden	1 m	NE

2894  
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## RAINFALL at Rochdale Norden Filters

County of Lancashire

Observer J. S. Diggle Esq. G.E. (Engt)

## River Basin Mersey-Irwell 3

Heywood & Middleton Water Bd.

Rain Gauge, by Amusing Brown

J. Fontenelle (Secretary)

Rain Gauge, by Amherstong Bros  
manchester J. Fontenelle (Secretary)

No objects near range.

Rejected from survey. 3<sup>rd</sup> cor.

*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
			Wardleworth	3 mi	S E	Norden	1 mi	N E.

## RAINFALL at Rochdale (Norden Filters)

County of South Lancashire

Observer Heywood Water Board

River Basin Mersey Irwell - 3

Type of Gauge Standard

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

Ref

8/6/16/28

Diameter	55										
Height	1.0										10 <sup>b</sup>
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	3.15	4.31	6.29	6.04	2.15	
February	6.42	2.22	4.21	.63	7.23	2.85	6.23	2.40	6.01	2.66	
March	.52	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	2.79	.84	2.19	3.06	
May	3.15	5.63	1.77	3.82	1.30	1.17	2.43	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	6.60	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	

Inspected 17.9.37. S. on grass between filter beds above reservoir on level ground but ground falling away to S.E. at some distance. Good exposure to N.E. but too open to S.W. Recommended for be surrounded by a turf wall. There is evaporation tank in rather more exposed site being some 20 yds further S.W. 1940 No shelter near to 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 from gauge	Parish Church.	Distance from gauge
1931			Wardleworth	44m.		Norden	1m.

Station No. 2894

## RAINFALL at Rockdale (Norden Yards)

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County of South Lancashire Observer Heywood Water Board  
 River Basin Mersey - Irwell - 3 A 1950  
 Type of Gauge Standard Howard 1950

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

File No. 815115/28

Diameter	5"		561	796						
Height	10"			1		102 <sup>1/2</sup>				
Altitude	761'			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	1.91	3.96	2.84	6.48	7.10	1.03	3.82	4.03	5.81
March	5.15	3.71	1.47	8.41	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	2.64	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	40.58	51.54	55.09	47.97	57.23	40.61	49.52	48.74	58.25

1941 Waterman's House 80 yds. E. of gauge

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

1947 July 1st?

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
1941			Wardleworth	4 m.	S	Norden	1 m.	E

Station No. 2994

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## RAINFALL at Hockdale (Hadon Hills)

County of St. Lancashire

Observer Seywood & Middleton Water Bd.

River Basin. Mersey-Trwell - 3.

*(Signature)*

Type of Gauge Hornady

*Howard*

*Annual Average* 7.7 in. based on 30 years obs. un-weighted. *Period of average* 1881 - 1915 *Ref.* 1605

File No. 815115/28

Diameter	5'		561	796						
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	2.24	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					

10951 House 50' high at 30° E.

1951 House 50 mgs at 50 L.  
Inspired June 1956 W. Dells. <sup>inner</sup> Gangplank, painted white. Site of SW.  
Recomm more below dam., rechoose paint.

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

Date.	Lat. N.	Long.	Railway Station.	Distance from gauge	Direction	Parish Church.	Distance from gauge.	Direction
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 ✓mt-13	✓ ✓mtd24	✓	✓	✓	