

RAINFALL AT Rochdale Crown WhitworthLat.Lon.County ofLancashireIrwell 3Rain Gauge, byObserverJ.R. Whitworth Esq

Diameter								8			
Height								1 6			
Altitude								816			
Year	1880	1881	1882	1883	1884	1885	1886	1887	1888	1889	MEANS.
January							8.18	2.39	2.58	2.39	
February							1.17	1.55	1.27	4.20	
March							4.20	2.92	3.36	3.49	
April							4.49	2.18	3.07	3.56	
May							5.68	3.01	1.36	2.34	
June							2.80	.76	2.76	1.19	
July							5.08	2.21	8.12	4.88	
August							2.68	1.56	5.81	8.37	
September							5.10	7.73	1.78	4.13	
October							6.62	3.01	2.72	5.23	
November							4.16	3.43	9.29	2.96	
December							8.77	4.34	2.91	4.91	
TOTALS							58.93	35.09	44.98	47.63	

RAINFALL AT Rochdale Crown WhitworthLat. $53^{\circ} 39' 48''$ Long. $2^{\circ} 10' 47''$ County of Lancashire

Rain Gauge, by

Observer

J.R. Ashworth Esq
W. Tomlinson EsqMussey - Irwell 3

Diameter	8				8						
Height	1.76				1.7						
Altitude	816				760						
Year	1890	1891	1892	1893	1894	1895	1896	1897	1898	1899	MEANS.
January	7.53	3.97	5.17	1.47	4.74	4.26	3.21	2.38	4.86	8.93	4.652
February	7.77	4.43	3.32	7.03	7.33	3.32	1.88	3.85	4.70	2.03	3.166
March	5.24	2.50	1.40	2.05	5.56	5.04	8.43	6.20	3.27	3.09	4.278
April	1.82	2.23	1.80	7.78	2.27	3.03	2.35	3.81	2.54	4.99	2.562
May	3.76	4.85	5.12	2.97	4.12	1.01	6.65	2.20	3.60	3.41	3.169
June	3.96	1.65	4.56	3.64	3.85	3.04	3.44	4.68	3.44	.93	3.219
July	4.67	4.54	4.27	4.64	4.81	6.58	3.20	2.18	1.06	2.80	3.876
August	6.70	9.88	6.38	3.84	5.91	6.23	3.34	7.18	7.87	1.57	5.890
September	1.92	4.89	6.13	6.21	5.0	2.35	9.30	5.22	1.29	8.81	4.662
October	5.51	7.38	7.44	5.40	5.74	5.46	6.19	3.23	5.46	4.26	5.609
November	9.02	5.31	3.92	4.61	4.73	4.67	1.79	5.09	4.18	2.27	4.559
December	8.82	11.41	3.75	5.81	5.91	4.84	6.87	8.63	6.28	3.38	5.470
TOTALS	51.72	59.04	53.26	48.45	55.47	46.83	50.65	54.65	48.55	46.47	51.509

RAINFALL AT Rochdale Crown Whitworth

Lat. $55^{\circ} 39' 48''$ Lon. $2^{\circ} 10' 47''$ County of Lancashire Post
Rain Gauge, by Observer T. Tomlinson Esq.

Gravel 3

Diameter ..	8										
Height ..	17										
Altitude ..	760										
Year ..	1900	1901	1902	1903	1904	1905	1906	1907	1908	1909	MEANS.
January ..	7.85	3.41	4.10	5.03	5.07	2.79	7.51	2.84	5.36	3.85	47.61
February ..	3.85	1.71	1.56	5.00	5.20	3.26	4.76	3.12	4.15	3.55	36.16
March ..	.80	4.45	2.87	6.46	2.81	4.65	4.92	4.74	3.83	4.11	3.967
April ..	3.59	3.81	2.76	2.40	3.81	3.49	2.35	2.43	2.32	4.93	31.89
May ..	1.86	1.29	3.48	4.57	2.64	1.27	3.82	4.01	4.65	3.81	3.090
June ..	4.92	2.51	1.38	2.25	2.15	3.17	2.30	10.02	2.26	3.23	34.19
July ..	3.16	2.41	3.06	5.14	2.13	3.87	2.61	3.31	6.11	8.67	39.97
August ..	6.13	3.19	4.25	7.22	5.77	5.40	5.84	5.60	4.47	4.05	51.42
September ..	2.09	1.41	1.92	5.86	1.29	3.85	1.70	1.42	5.01	4.28	28.33
October ..	7.76	4.26	5.40	10.85	3.67	4.39	8.34	5.80	2.26	9.41	62.14
November ..	5.19	7.61	3.37	4.18	4.92	4.64	5.53	4.46	3.75	2.53	46.18
December ..	7.09	7.18	4.79	3.31	3.88	1.90	5.17	5.80	4.28	10.61	54.01
TOTALS ..	54.29	43.24	38.94	62.27	43.34	41.68	54.15	53.58	48.45	62.53	502.47 44.5

D D D D D D

Whitworth Station 20 minutes N
1909 Corrected for wrong day

Hud

RAINFALL at Rochdale Crown WhitworthCounty of South LancashireObserver W. Tomlinson Esq., J. H. Brumfitt Esq.River Basin Mersey Scale 3

Mo. Rain Gauge, by

01 marks missing
 $0.3 \times 0.37 = 30 \cdot 307$ 1.00 101
 $1.6 \times 1.56 = 40 \cdot 456$
 Glass heated by CS 6.1.22

Diameter ...	8										
Height	17										
Altitude ...	760										
Year ...	1910	1911	1912	1913	1914	1915	1916	1917	1918	1919	MEANS.
January ...	7.98	2.79	4.60	4.36	4.00	8.42	4.45	3.65			
February ...	7.15	9.80	2.45	2.09	3.70	6.36	6.25	1.54			
March	1.51	3.96	6.93	6.28	5.86	1.69	2.72	3.00			
April	4.77	3.89	1.40	4.88	1.89	2.47	4.25	2.13			
May	4.06	2.64	3.15	4.01	3.23	2.14	3.34	2.52			
June	4.54	4.78	6.64	3.36	2.81	1.09	3.37	2.25			
July	6.20	6.2	4.94	1.09	5.10	6.12	3.97	3.00			
August	9.37	3.47	5.41	2.03	4.09	5.77	3.81	7.07			
September ..	.45	5.91	2.02	1.98	4.13	.69	3.17	3.29			
October ...	4.67	5.19	6.45	2.28	3.03	2.07	9.51	11.08			
November ..	8.12	7.67	4.08	6.83	6.53	3.16	4.47	6.00			
December ...	6.94	8.18	6.64	3.55	7.43	9.54	3.98	3.05			
TOTALS ...	65.76	58.90	57.76	42.26	51.80	49.54	53.29	49.48			
	7	7	7	7	7	7	7	7			

1910 Corrected for wrong day

Date.	Lat. N.	Long.	Railway Station.	Distance.	Direction.	Church.	Distance.	Direction.
			Whitworth 7 feet	1 m 1 m	N NE	Whitworth	1 1/4 m	SE

RAINFALL at Flockdale Common Res. Whitworth

County of Lancashire

Observer

F H Brunt Esq

River Basin Mersey Drift 3

Snow Tot Rain Gauge, by Carell

Diameter ...										5	
Height										1.5	
Altitude ...										70	
Year ...	1910	1911	1912	1913	1914	1915	1916	1917	1918	1919	MEANS.
January ...									365	4.43	6.55
February ...									1.54	8.70	1.42
March									3.00	2.84	6.78
April									2.13	1.45	2.85
May									3.23	2.52	2.75
June									3.35	2.25	1.97
July									4.03	3.00	4.38
August									3.93	7.97	4.05
September...									3.13	3.29	16.70
October ...									10.02	11.08	4.99
November ..									4.31	6.00	3.21
December...									3.86	3.05	11.56
TOTALS ...									49.48	66.03	49.61
									0	0	0

Totals,
16-19.

19.08

17.91

15.34

10.68

10.80

9.73

14.05

20.41

24.68

28.72

18.40

28.61

218.41

4000

Date.	Lat. N.	Long.	Railway Station.	Distance.	Direction.	Church.	Distance.	Direction.
			7 acil.	1	NE	Whitworth	1/4	SE

RAINFALL at Rochdale Crown Reservoir WhitworthCounty of Lancashire Observer H. A. Braddeck Esq (Eng)River Basin Mersey - Irwell 3

Rochdale 1.5 mi.

In Snowdon Rain Gauge, by Casella
44.95 5.02 5.00 } 12 Insulated 9003Glass -01 -01
13 -128 } 22
30 -297 } 22
50 -500

Diameter ...	5"									5.5	
Height	1	7						10	100		
Altitude ...		760							762		
Year	1920	1921	1922	1923	1924	1925	1926	1927	1928	1929	1920. MEANS.
January ...	5.91	9.25	4.75	5.34	4.53	5.98	6.24	5.82	15.57	2.63	8.65
February ...	5.40	6.8	6.68	7.24	1.68	9.15	5.00	2.24	7.61	1.22	.78
March	4.83	5.05	4.40	2.77	2.03	2.37	3.06	6.75	3.88	1.95	3.61
April	7.33	2.51	4.45	4.90	2.31	4.42	2.38	5.01	1.55	1.99	3.42
May	6.62	3.50	2.05	5.66	4.76	6.22	5.23	2.18	1.81	14.19	2.63
June	2.55	1.47	3.46	1.52	3.02	0.4	3.46	5.86	10.03	2.20	2.55
July	10.81	2.42	6.42	5.28	5.76	2.89	3.20	4.97	3.51	3.41	7.36
August	4.05	7.40	5.88	7.35	8.99	5.16	5.74	7.87	8.92	4.11	9.49
September...	3.04	1.92	5.15	5.85	5.55	4.74	5.24	7.04	8.2	3.02	5.53
October.....	1.72	4.37	9.8	8.10	6.85	6.91	5.48	5.97	6.94	7.64	8.41
November...	3.04	3.52	4.93	9.86	3.66	2.98	7.93	6.17	9.89	11.16	8.88
December...	5.14	8.87	6.79	5.48	6.19	4.56	2.64	1.52	4.11	11.15	4.74
TOTALS...	60.44	49.96	55.94	69.41	51.34	54.92	55.60	61.40	74.67	57.40	65.55

Inspected 25. 5 in level field by field beds below reservoir. Drop of 3 ft. 8 yds S and 12 yds W; hills all round except on south; Tree top: high 10 yds. S.W. 5 in iron pipe end and to be packed to reservoir forepart. A very good exposure + excellent gauge. 6.7.22.

1927. Dec. 27. 4. lowered 7 ins.

VIII/31 Inspected by Dr. Glasspool - see green file.

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
1920	53° 38'	2° 12'	Whitworth	1/2 mi		Whitworth	1 mi

RAINFALL at Rochdale (Crown, Whitworth)County of South LancashireObserver Rochdale Corps. W.W.River Basin Mersey, Irwell &c.

Type of Gauge.

Annual Average 51.5 in. based on 45 years obs. un-weighted. Period of average 1881-1915 Ref. R. 265

666987/26.

Diameter	5.										Means
Height	1.0										
Altitude	762.										
Year	1931	1932	1933	1934	1935	1936	1937	1938	1939	1940	Means
January	8.22	7.52	3.58	5.48	2.88	6.11	5.22	7.48	7.03	2.71	56.23
February	7.92	2.5	4.82	6.8	8.47	3.28	7.35	3.00	6.75	2.90	45.52
March	5.5	3.53	3.87	4.09	2.42	3.66	2.66	1.83	4.47	3.85	30.93
April	4.86	5.43	2.66	3.89	4.69	1.71	4.44	4.99	2.98	3.65	34.80
May	3.36	5.82	2.47	4.89	1.65	1.77	2.89	5.11	1.62	1.02	30.50
June	7.83	1.00	2.84	4.33	4.58	4.61	3.07	6.26	4.48	1.00	40.00
July	6.10	5.35	4.63	3.26	2.97	5.92	3.27	5.80	8.30	6.14	51.74
August	6.46	1.07	2.57	4.94	2.37	4.76	4.63	5.80	3.52	2.80	39.36
September	3.83	7.18	2.02	5.28	9.90	6.27	2.37	1.98	2.05	6.40	47.28
October	3.66	9.94	6.06	7.97	12.91	7.32	2.42	14.47	2.46	5.76	72.97
November	12.00	5.06	2.78	2.67	6.78	8.43	2.07	8.72	9.36	10.42	68.29
December	3.23	3.48	83	7.81	4.69	5.77	3.33	7.00	4.87	6.74	47.75
TOTALS	68.02	56.07	39.13	54.79	64.81	59.71	43.72	68.44	57.79	53.39	565.37
	2.	3	3	3	3	3	3	3	3	3	3

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

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

Station No. 2914

RAINFALL at Rochdale (Crown, Whitcharth.)

41

County of South Lancashire Observer Rochdale Corp. Wash.River Basin Mersey Inwell - 3

Type of Gauge

Annual Average 51.5 in. based on 44 years obs. un-weighted. Period of average 1881 - 1915 Ref. SFile No. 666.987/26

Diameter	5"			561	612							
Height	1' 0"				1							
Altitude	762'				41							
Year	1941	1942	1943	1944	1945	1946	1947	1948	1949	1950	Means	
January	1.63	8.33	7.41	7.65	4.91	6.31	4.45	12.76	3.36	4.16		Totals 50.97
February	6.01	2.20	5.06	3.05	7.16	8.11	2.90	4.39	4.13	6.70		49.71
March	5.37	3.77	1.82	.73	1.88	1.60	9.05	2.10	2.27	3.79		32.38
April	2.92	3.00	3.48	3.77	3.28	1.66	5.39	2.82	5.21	5.44		36.97
May	3.21	4.68	3.72	4.13	5.54	1.38	2.98	1.93	4.44	2.62		34.63
June	.99	.99	4.83	4.13	6.54	4.58	3.76	6.81	.73	3.40		36.54
July	3.68	6.64	4.09	4.76	3.35	5.19	4.74	3.26	2.66	6.49		44.86
August	9.42	6.94	8.75	4.44	5.78	8.99	.36	6.99	4.51	9.12		65.30
September	1.09	3.27	5.76	7.12	3.84	9.27	4.02	4.22	1.68	10.70		50.95
October	6.39	8.26	3.94	6.30	7.99	1.10	1.22	3.97	6.62	3.75		49.54
November	3.54	1.76	5.20	10.02	.67	9.18	8.79	2.89	8.19	7.62		57.86
December	3.33	5.46	3.02	6.35	3.88	4.49	5.25	4.90	7.86	4.30		50.84
TOTALS	47.34	65.30	57.08	62.45	54.82	61.86	52.91	57.04	53.66	68.09		570.55 42.6

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. 2914

51

RAINFALL at Rochdale (Gown, Whitworth)County of C. Lancashire Observer Rochdale GasperRiver Basin Mersey - Irwell - 3

Type of Gauge.

Annual Average 57.5 in. based on 44 years obs. ap-weighted. Period of average 1881-1915 Ref. S
 " " 58.00 " " 39 " 1881-1917-57 " " 1916-50
 File No. 666987/24

Diameter	5"	561612									Means
Height	1' 0"										Total
Altitude	762'				51						
Year	1951	1952	1953	1954	1955	1956	1957	1958	1959	1960	
January	4.16	6.30	2.73	5.33	3.53	8.33	6.26	5.79	4.74	7.29	57.46
February	4.04	1.92	4.12	5.60	2.44	2.01	4.98	8.20	4.88	4.27	38.46
March	5.87	3.38	3.02	3.57	3.27	4.11	6.66	3.20	2.83	1.59	37.50
April	4.17	4.14	4.03	.85	2.90	4.00	.65	1.89	4.26	3.80	30.69
May	2.45	2.30	2.78	3.41	5.35	2.58	1.84	6.85	1.88	2.18	30.62
June	1.92	5.50	3.29	4.41	4.19	5.28	2.42	5.85	3.63	2.11	38.60
July	3.92	2.65	9.63	7.32	4.55	8.92	6.68	5.26	5.03	10.12	64.08
August	5.77	6.10	8.81	11.04	1.35	15.49	8.34	5.48	.50	6.02	68.90
September	4.32	5.03	5.22	6.76	3.87	5.70	7.55	6.83	.49	4.06	49.83
October	1.40	8.72	2.44	11.34	3.26	5.20	9.42	7.14	6.91	6.11	61.94
November	10.62	3.16	7.74	8.95	3.01	2.66	3.28	2.56	5.63	11.22	58.83
December	10.58	5.27	2.27	8.71	8.63	6.99	6.32	5.49	10.00	7.17	70.83
TOTALS	62.22	54.47	56.08	X	77.29	46.35	70.67	64.40	63.54	40.78	65.94
	D	D	D	D	D	D	D	mp	D	ap	

Inspected 20/8/55 Mr. Deeks. Gauge stem missing. Tamper collects catch, minor can leaks. ^{at 17"}
 Measured certified taper. Site appears ok. Recommended gauge repairs. Not a change
 of site recommended.

Gauge repaired & reset 8th March 1956. Engineer confirms previous possibility of excess catch when
 ground was water logged (7-1.5T). 1956 ap high.

1957 ap high.

1958 first

1960 ap high

Position of Station on Ordnance One-Inch map: No. of Map 95 National Grid Reference 36/881185

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 - Rejected

Record D, or d	1910-19	1920-30	1931-40	1941-50	1951-60
	Cimp 1916 ✓	✓	✓	✓	✓