

Will Head Halifax

John Waterhouse

Painted Reel

✓350

+ Ground 1 ft

+ Sea Level 540 ft

YEAR - -	1870	1871	1872	1873	1874	1875	1876	1877	1878	1879	MEANS.
January - -										3.00	{
February - -										3.00	
March - - -										1.0	
April - - -										3.70	
May - - - -										1.70	
June - - - -										2.70	
July - - - -										5.70	
August - - -										7.70	
September -										3.50	
October - - -										2.40	
November -										2.00	
December -										1.60	
TOTALS -										32.10	

C

Wellhead w. Halijaa

30

John Waterhouse

Printed. N.Y.

4350

+ Ground 1 ft + Sea Level 540 ft

YEAR - -	1830	1831	1832	1833	1834	1835	1836	1837	1838	1839	MEANS.
January - -	1.50	1.50	1.10	.25	6.94	3.30	2.80	3.75	1.15	2.95	2.424
February - -	4.20 3.70	3.20	1.20	4.55	2.45	4.80	2.46	3.50	2.20	2.00	3.006
March - -	1.20	3.50	1.90	1.50	3.05	3.50	2.85	1.20	2.70	3.10	2.458
April - -	3.00	2.10	2.35	3.50	1.37	2.20	2.48	1.30	1.90	.55	2.075
May - -	4.80	1.50	2.20	1.40	74	2.50	.34	1.25	3.70	.28	1.871
June - -	5.10	1.70	5.30	6.10	2.12	1.80	3.65	2.20	3.75	4.65	3.637
July - -	3.90	4.00	1.60	1.45	6.21	.84	2.90	3.25	2.80	4.40	3.135
August - -	2.60	3.60	4.63	3.93	1.65	1.20	1.30	2.00	3.84	3.25	2.802
September -	5.60	3.20	0.54	2.35	2.60	2.94	3.10	2.70	1.10	4.76	2.889
October - -	4.10	4.50	2.73	2.60	1.42	2.79	2.80	5.10	4.70	2.30	3.304
November -	4.50	6.50	3.30	1.50	2.82	2.80	6.10	3.95	2.90	4.75	3.912
December -	2.50	2.70	4.20	5.16	1.25	.50	4.70	4.60	1.50	2.90	3.001
TOTALS -	41.50	38.00	31.05	34.31	32.62	29.17	35.48	34.80	32.24	35.89	34514

Well Head

w. Halifax.

John Waterhouse

Pointed Net

+ Ground 1 pt. + Sea Level 540 ft.

YEAR - -	1840	1841	1842	1843	1844	1845	1846	1847	1848	1849	MEANS.
January - -	5.70	3.50	2.20	4.30	1.80	1.60	3.25	2.10	1.40	5.12	3.097
February - -	1.85	1.10	.90	2.80	3.20	.65	.90	2.12	5.35	1.25	2.012
March - - -	.35	1.70	4.10	1.20	3.75	2.55	2.00	1.50	4.12	1.30	2.257
April - - -	1.05	.82	.40	3.55	.30	1.60	5.50	2.50	1.80	2.12	1.964
May - - - -	4.10	3.35	2.25	3.35	.13	2.95	.05	3.90	1.10	1.60	2.358
June - - - -	2.66	3.70	1.60	2.60	2.30	2.50	2.15	2.10	4.00	1.40	2.509
July - - - -	3.80	2.68	3.05	3.10	2.02	4.00	1.90	.80	1.91	3.90	2.796
August - - -	3.05	3.52	1.05	2.50	3.15	5.60	2.10	1.97	4.60	3.80	3.134
September -	4.60	3.12	2.30	.65	2.25	1.90	.90	2.10	3.82	4.10	2.574
October - -	1.30	5.95	2.25	7.30	2.40	4.30	4.50	3.20	4.60	3.40	3.920
November -	4.50	3.80	3.05	4.00	2.50	1.85	2.30	2.75	1.95	2.40	2.990
December -	.42	3.30	1.90	.35	.20	5.80	1.10	4.40	2.35	2.90	2.272
TOTALS -	33.38	36.54	26.73	35.70	24.00	35.30	27.45	29.44	37.00	33.29	31.883

Well Head

50

n. Halyas

John Waterhouse

London, Feb. 2nd 1859

+ Ground 1 ft + Sea Level 540 feet

YEAR - -	1850	1851	1852	1853	1854	1855	1856	1857	1858	1859	MEANS.
January - -	2.60	2.10	5.52	3.92	3.42	.63	3.43	2.44	1.40	2.35	2.781
February - -	3.35	1.30	4.25	1.30	1.53	1.74	3.40	.90	.20	1.60	1.963
March - - -	.60	2.30	.56	1.43	.94	1.71	.30	3.25	2.20	4.65	1.774
April - - -	2.60	1.00	.50	1.07	.40	.94	3.30	2.75	2.30	3.96	1.962
May - - - -	1.50	1.17	1.15	1.31	1.87	1.47	4.10	1.66	2.10	.41	1.674
June - - - -	1.60	4.17	4.40	4.90	2.60	2.90	2.36	3.55	3.19	2.39	3.206
July - - - -	3.85	3.54	2.10	2.44	2.73	5.15	2.16	2.27	1.00	2.90	2.894
August - - -	4.45	2.56	2.43	1.94	.92	2.26	6.38	5.75	2.35	5.83	3.487
September -	1.20	1.66	2.74	3.20	1.86	.55	3.50	4.20	3.75	3.83	2.649
October - - -	2.30	2.93	5.22	4.25	1.62	6.85	2.45	1.15	3.56	2.93	3.326
November - -	2.75	.80	6.37	2.40	3.51	.96	1.27	1.40	1.47	2.43	2.336
December - -	1.35	1.20	4.88	1.50	5.04	1.60	2.95	1.45	2.16	3.28	2.641
TOTALS - - -	28.15	24.73	40.12	30.46	26.50	26.76	36.60	30.77	26.48	36.56	30.713

C C C C C C C C C C C

Rainfall at Well Head, Halifax

60

John Waterhouse

Diameter of Gauge, 7 in.

Height above Ground, 1 ft. in.

Above Mean Sea Level, 5.27 ft.

Divided glass jar

YEAR - -	1860	1861	1862	1863	1864	1865	1866	1867	1868	1869	MEANS.
January - -							5.20	3.02	3.12	2.93	
February - -							6.00	3.95	5.15	5.96	
March - - -							1.63	2.07	4.83	2.63	
April - - -							2.01	4.30	1.33	1.04	
May - - - -							1.15	3.25	1.08	5.96	
June - - - -						2.95	4.72	1.90	.17	.94	
July - - - -						1.90	5.22	4.13	.50	.69	
August - - -						5.35	5.22	1.93	2.96	2.18	
September -						.43	6.95	3.25	3.62	5.63	
October - -						6.61	2.90	2.94	3.97	2.14	
November -						3.45	6.53	0.6	3.15	4.29	
December -						2.19	6.70	3.20	9.74	5.18	
TOTALS -							54.03	36.48	39.62	40.37	

Read clearly. Just done to following day.
 The difference in these by semi-very slight though
 I have no reason to suspect their accuracy, they are
 not more than 200 ft. apart & the diff. in level is
 only 41 ft.

RAINFALL AT *Halifax Well Head*

Lat.....

Lon.....

County of.....

Yorkshire, W.R.

Rain Gauge, by.....

Observer

J. Wetherburn Esq. D.R.

Diameter	7											
Height	1											
Altitude	π 527											
YEAR	1870	1871	1872	1873	1874	1875	1876	1877	1878	1879	MEANS.	
January.....	3.73	1.26	4.64	4.54								
February	2.42	3.40	2.86	1.20								
March	2.30	1.39	3.61	3.57								
April88	4.13	3.08	.49								
May	1.72	1.97	2.17	2.56								
June.....	1.87	3.35	5.15	1.27								
July	1.77	2.85	3.66	3.56								
August.....	1.50	1.45	4.30	3.70								
September.....	2.06	4.77	5.33	2.87								
October.....	9.79	3.46	4.75	4.34								
November.....	3.30	-.96	6.20	3.37								
December.....	3.68	1.68	3.77	1.23								
TOTALS	34.02	30.67	50.42	32.64								

October the wettest month in 42 years. middle of year generally dry.

The anomalous Rain gauge returns in the two positions of the gauges is very singular, and as soon as I can get the series together I will send you a copy, every cause seems to point out that the 12 in gauge ought to give the most rain, whereas every years register shows that the small 7 in gauge receives the large amount: I feel that the anomaly is not due to an error as I have measured over and over again the area of the receivers and the measuring glass and find always the same results. I think the form of the surface of the ground must produce a larger variation than I thought possible.

RAINFALL AT *Halifax Well Head*

Lat.....

Lon.....

County of.....

Yorkshire W.R.

Rain Gauge, by.....

Observer.....

*J. Waterhouse Esq. B.M.S.**Monthly*

Diameter	1.0										
Height11		1		.11						
Altitude	^h 487		486		487						
YEAR	1870	1871	1872	1873	1874	1875	1876	1877	1878	1879	MEANS.
January.....	3.36	1.00	4.23	3.93	3.50						
February.....	1.77	2.60	3.57	1.80	1.38						
March.....	2.20	1.18	2.57	2.86	4.14						
April.....	.80	3.88	3.60	.31	2.50						
May.....	1.43	1.90	2.05	2.11	2.71						
June.....	1.78	3.28	5.01	1.24	1.21						
July.....	.55	2.77	3.70	2.84	3.65						
August.....	1.30	1.28	4.00	2.47	4.01						
September.....	1.76	4.73	5.05	2.22	3.10						
October.....	^h 2.96	2.98	4.07	5.75	5.35						
November.....	2.74	1.87	5.96	2.31	4.73						
December.....	2.94	1.43	3.40	.72	3.49						
TOTALS.....	29.59	27.90	47.21	25.56	39.77						

The value at 486 for barometer at 487