The meteorological observations of mr Treat from Oct. 1. 1805. to Dec. 30.1807 at the post on the Arkansa, about 20. miles in a direct line, above the mouth of the river, Lat. 34° 21′. reduced to an average for each month. the river is there 150 yards wide.

| | Thermometer | | | Barometer | | rain | |
|---|---|---|---|---|---|---|---|
| | Maximum | Mean | Minimum | Maximum | Minimum | fall in Inches | Days Rain |
| Jan. | 74½ | 33⅞ | 13 | 30.38 | 30.17 | 3.335 | 7 |
| Feb. | 78 | 48 | 3. | 31.37 | 30.11 | 3.587 | 3.to4. |
| Mar. | 87 | 49. | 23. | 31.15 | 30.03 | 1.0645 | 4. |
| Apr. | 90½ | 67. | 29. | 30.93 | 29.87 | 7.478 | 5.to8. |
| May | 97. | 72½ | 42. | 30.85 | 29.93 | 5.282 | 5.to6. |
| June | 99½ | 80⅜ | 62. | 31.72 | 30.06 | 2.5045 | 4. |
| July | 100¾ | 81½ | 58½ | 30.45 | 30.06 | 3.771 | 4. |
| Aug. | 100⅓ | 79⅜ | 56. | 30.48 | 30. | 4.55 | 3.to6. |
| Sep. | 101⅔ | 76½ | 47. | 30.53 | 30.04 | .756 | 1.to2 |
| Oct. | 93. | 61½ | 24½ | 31.19 | 30.01 | .95 | 2.to4. |
| Nov. | 82. | 51.8 | .20 | 31.17 | 29.88 | 3.492 | 4.to8. |
| Dec. | 76 | 58.57 | 20. | 31.27 | 30.09 | 6.397 | 4.to7 |
| average of year | | | | | | 42.56 | |

1809. Dec. 13. at 9. a.m. the temperature of the outward air being at sun rise 30°. I found that of the cellar under the chamber at 8. a.m. 47½

| | | outward air | Chamber Cellar |
|---|---|---|---|
| Dec. 13. | 8. a.m. | 30° | 47½ |
| 16. | 8. a.m. | 19 | 45. |
| 1840 Jan. 22. | 7.30 am | 11 | 40 |

1810. Jan. 21. the thermometer in the Green house is — 4⅜ Reaumur = 21.3 Farenheit in my bedroom it was 37°    in the open air 9¾.°

22. bedroom 35°. green house 19½  outer air 5½.° began to fill the Ice house.

23. bedroom 32½  green house 20¾  outer air 11.°

1814. Aug. 16. outward air being 87° that of the inner room of the Brewhouse was 77°. filling the Ice house. 4. waggons with horses or mules

2. carts of 2. horses & 2. oxen each

1. do. 1. mule. 2 horses, 2 oxen

1. do. 2. horses

8. in all.

Jan. 22. they brought only 20. loads.

23. _ _ _ _ _ 43

24. _ _ _ _ _ 43
                    ——
                    106

} the horse teams brought about 6. loads a day each those with oxen about 5. there were some interrup- tions of bringing wood, breaking &c

} these 106. loads, some of which were very light filled the house to the mark of 17.f.

1811. Nov. 13. the batteau brings about 3½ hhds. of stone from the canal 150 to 300 yds. doing it every half hour, to 40. having 9. men to load and unload.

a judicious writer in the Aurora of 1812. Apr. 11 says that to make the water in a canal flow 1. mile an hour, it must have a descent of 18.9. in a mile.