



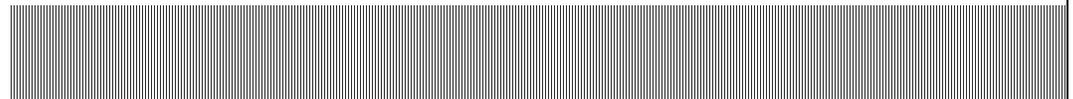
New York State Department of Environmental Conservation
625 Broadway • Albany, NY 12233

WEST SIDE CORPORATION
OPERABLE UNIT No.2

Offsite Plume Delineation and Investigation Report Addendum #4

Work Assignment No. D00443-10.1

January 2010



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Contents

| | |
|--|------------|
| 1. Introduction | 1-1 |
| 1.1. Introduction | 1-1 |
| 2. Water Level Measurements | 2-1 |
| 2.1. Introduction | 2-1 |
| 2.2. Results Summary..... | 2-1 |
| 3. Water Quality Sampling Results | 3-1 |
| 3.1. Introduction | 3-1 |
| 3.2. Results Summary..... | 3-1 |
| 3.2.1. Data Validation | 3-1 |
| 3.3. PCE Plume..... | 3-1 |

List of Figures

| | |
|---|-----|
| Figure 2-1: Intermediate Well Groundwater Elevations..... | 2-2 |
| Figure 3-1: Shallow Well PCE Isoconcentration Contours | 3-5 |
| Figure 3-2: Intermediate Well PCE Isoconcentration Contours | 3-4 |
| Figure 3-3: Deep Well PCE Isoconcentration Contours..... | 3-5 |
| Figure 3-4: PCE Plume Cross-Section..... | 3-5 |

List of Tables

| | |
|---|-----|
| Table 2-1: Depth-To-Water Measurements from Top-of-Casing | 2-1 |
| Table 3-1: Validated York Laboratory Results Summary: 5 th Sampling Event..... | 3-2 |

Appendices

- A. Hydrographs - Groundwater Elevation in Intermediate Depth Monitoring Wells: 5th Monitoring Quarter
- B. NOAA Quality Controlled Climatological Data: July to October 2009
- C. Data Usability Summary Report (DUSR) Narrative – 5th Sampling Event

Data CD Contents

- 1) PDF: Offsite Plume Delineation and Investigation Report Addendum #4
- 2) Fully Validated Data Package – 5th Sampling Event
- 3) Raw Transducer Data – 5th Monitoring Quarter

1. Introduction

1.1. INTRODUCTION

This addendum summarizes the water quality data and water level measurements collected during the 5th quarterly sampling event at the West Side Corporation site, Operable Unit No.2 (OU-2) in Jamaica, Borough of Queens, New York. The purpose of this event was to continue monitoring the migration of PCE in the groundwater from the West Side site. Field investigation activities related to the perchloroethene (PCE) plume delineation are documented in the report titled Offsite Plume Delineation and Investigation Report: West Side Corporation Operable Unit No.2, Malcolm Pirnie Inc., dated February 2009.

The data collected during this sampling event was retrieved from monitoring wells located at Operable Unit No.1 (OU-1) and OU-2 and spans from July 5, 2009 to October 7, 2009. This work was performed under Work Assignment No. D00443-10.1 and follows the 4th monitoring quarter, presented in the October 2009 Offsite Plume Delineation and Investigation Report Addendum #3.

2. Water Level Measurements

2.1. Introduction

Synoptic water level measurements taken from the surveyed top-of-casing, as well as Levellogger® pressure transducer data, were retrieved from existing permanent monitoring wells at OU-1 and OU-2. This data was converted into groundwater elevation to document water level trends and the direction of groundwater movement. Groundwater elevations measured hourly throughout the 4th monitoring quarter were plotted as hydrographs, found in Appendix A.

Depth-to-water measurements taken from the top of monitoring well casings are presented in Table 2-1.

2.2. Results Summary

Hydrographs showing continuous water level monitoring data indicate that groundwater elevation generally decreased since the 3rd monitoring quarter. Meteorological information obtained from NOAA (Appendix B) reports that less precipitation occurred during the 4th monitoring quarter than the 3rd quarter. Hydrographs display a decrease in water table elevation that in some well locations is as much as 8 inches.

A groundwater elevation map (Figure 2-1) based on water level data from transducers installed in intermediate depth monitoring wells indicates that the direction of regional flow is south to southwest. This observation is consistent with observations made during the 4th monitoring quarter, suggesting that seasonal variation in precipitation during the period of July to October 2009 did not change the direction of regional flow in the aquifer.

Groundwater elevation data could not be obtained from MW 24-2 I during this monitoring quarter due to fill material obstructing access to the well location.

Shallow monitoring wells at W-11, W-12 and W-13 were reported as dry by the contractor during this sampling event. An investigation into the cause of this anomaly should be conducted during the next sampling event.

TABLE 2-1

WESTSIDE DTW READINGS - 5th SAMPLING EVENT - OCTOBER 5-7 2009

| Well Designation | Levellogger Serial Number | Date | DTW (S) | DTW (I) | DTW (D) |
|------------------|---------------------------|---------------------------|---------|---------|---------|
| MW 24-2 | 1033544 | Well Cluster Inaccessible | | | |
| MW 24-1 | 1033548 | 10/5/09 | 10.42 | 10.40 | 10.43 |
| MW 24-4 | 1033560 | 10/7/09 | 13.66 | 13.62 | 13.65 |
| MW 24-6 | 1033576 | 10/5/09 | 9.06 | 9.09 | 9.10 |
| MW 24-5 | 1033547 | 10/6/09 | 10.53 | 10.55 | 10.60 |
| MW-6S | N/A | 10/6/09 | 5.38 | N/A | N/A |
| MW-6D | N/A | 10/6/09 | N/A | N/A | 5.52 |
| MW-7S | N/A | 10/6/09 | 7.47 | N/A | N/A |
| MW-7D | N/A | 10/6/09 | N/A | N/A | 7.55 |
| MW-22S | N/A | 10/6/09 | 7.80 | N/A | N/A |
| MW-55D | N/A | 10/6/09 | N/A | N/A | 7.72 |
| MW-3D | N/A | 10/6/09 | N/A | N/A | 6.58 |
| W-01 | 1033561 | 10/5/09 | 8.37 | 8.33 | 8.45 |
| W-02 | 1033549 | 10/5/09 | 8.58 | 8.64 | 8.64 |
| W-03 | 1033550 | 10/6/09 | 6.68 | 6.91 | 6.36 |
| W-04 | 1033557 | 10/6/09 | 7.52 | 7.25 | 7.31 |
| W-05 | N/A | 10/6/09 | 10.40 | N/A | N/A |
| W-06 | 1033546 | 10/7/09 | 9.69 | 9.96 | 9.52 |
| W-07 (DEP Yard) | N/A | 10/5/09 | N/A | 8.14 | N/A |
| W-07 | 1033567 | 10/7/09 | 10.14 | 10.27 | 10.21 |
| W-08 | 1033555 | 10/7/09 | 10.52 | 10.57 | 10.45 |
| W-09 | 1033557 | 10/5/09 | 9.95 | 10.05 | 9.78 |
| W-10 | 1033538 | 10/6/09 | 10.85 | 10.86 | 10.85 |
| W-11 | 1033629 | 10/7/09 | Dry | 12.53 | 12.51 |
| W-12 | 1033573 | 10/7/09 | Dry | 20.22 | 20.20 |
| W-13 | 1033537 | 10/7/09 | Dry | 8.37 | 8.08 |
| W-14 | 1033575 | 10/7/09 | 14.60 | 14.67 | 14.61 |
| W-15 | 1033579 | 10/7/09 | 7.65 | 7.75 | 7.54 |

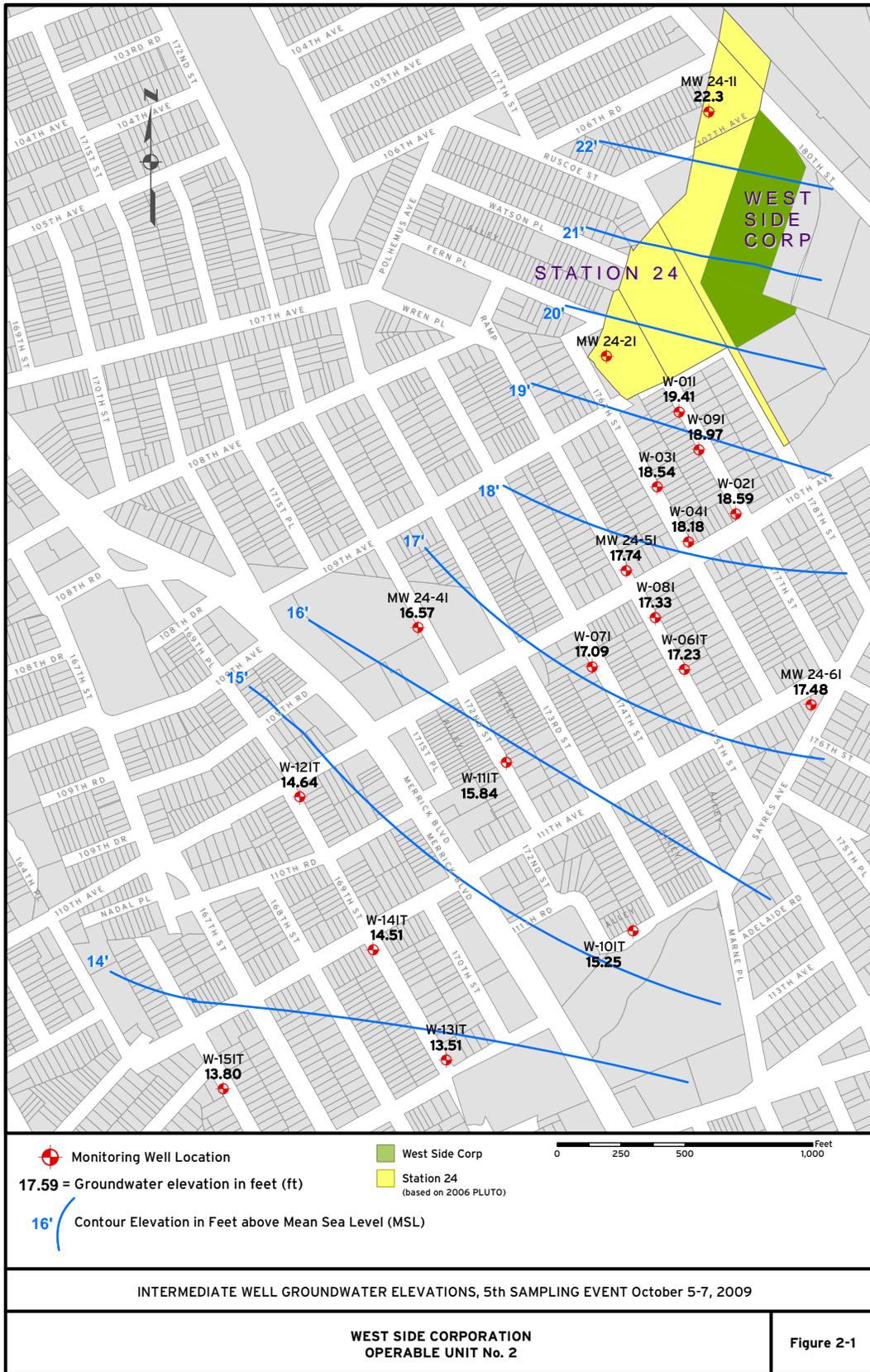


Figure 2-1



3. Water Quality Sampling Results

3.1. INTRODUCTION

Groundwater samples were collected using Passive Diffusion Bag samplers (PDBs) from 64 monitoring wells and analyzed by Phoenix Analytical Laboratories for VOCs by SW-846 EPA Method 8260.

3.2. RESULTS SUMMARY

PCE and other compound concentrations were consistent with the laboratory results obtained from the 4th sampling event. Validated laboratory results for PCE, as well as other detected analytes, are summarized in Table 3-1.

3.2.1. DATA VALIDATION

Laboratory deliverable results were compiled in ASP-B format for data validation. The Data Usability Summary Report (DUSR) can be found in Appendix C. The fully validated data package is presented in the Data CD.

3.3. PCE PLUME

Plan-view PCE isoconcentration maps indicate variation in plume configuration with depth. Figure 3-1 indicates that shallow contamination remains between the OU-1 source area and the vicinity of 173rd Street. The highest concentrations were observed between 174th and 176th Street, where monitoring wells indicated significant shallow groundwater contamination from 160 ppb to 870 ppb. Several other shallow wells indicated PCE concentrations greater than 10 ppb between OU-1 and 173rd Street.

Intermediate depth monitoring wells indicate that the PCE contamination continues to occupy the intermediate zone, extending further south and west of shallow contamination from OU-1. PCE concentrations indicate that the leading edge of the plume in the intermediate zone is still located between 169th and 166th Streets. The highest concentrations in the intermediate zone (~ 40-50 ft bgs) were observed from 174th Street to 172nd Street, where PCE concentrations range from 1700 ppb to 2100 ppb (see Figure 3-2).

Analysis of groundwater samples from deep monitoring wells indicates that contamination is still present to the south-southwest in the deepest interval. This is evidenced by detection of PCE in W-15D at a concentration of 14 ppb (Figure 3-3). PCE was not detected between 166th street and 172nd street. The data indicates that deep zone

contamination remains bounded by 110th Avenue and Sayres Avenue to the northwest and southeast, respectively.

PCE concentrations could not be determined at MW 24-2 due to fill material obstructing access to the well location.

The direction of plume movement as shown in these figures remains consistent with the southwesterly regional flow direction. Groundwater samples from the monitoring wells were consistent in showing that PCE contamination extends deeper into the aquifer with increasing distance from OU-1, with the most widespread contamination in the intermediate zone. Figure 3-4 illustrates this trend, showing a cross-section through the plume. Water quality data obtained from monitoring wells along this cross-section continue to show that shallow and intermediate PCE contamination predominates to the north of 174th Street, while deeper contamination predominates southward to 166th Street.

TABLE 3-1
 WESTSIDE OU-1 OU-2: VALIDATED GROUNDWATER QUALITY DATA SUMMARY
 5th Sampling Event: October 5-7, 2009

| | PCE | TCE | MTBE | Vinyl Chloride | 1-1-1 trichloro ethane | 1-1 dichloro ethane | 1-1 dichloro ethylene | cis 1-2 dichloro ethylene | trans 1-2 dichloro ethene |
|--------------|----------------------------|--------------|------------|----------------|------------------------|---------------------|-----------------------|---------------------------|---------------------------|
| MW 24-1S | 89 | 2 | ND | ND | ND | ND | ND | ND | ND |
| MW 24-1I | 14 | 1.7 | ND | ND | ND | ND | ND | ND | ND |
| MW 24-1D | 170 | 2.6 | ND | ND | 3.8 | 5.7 | 4.5 | ND | ND |
| MW 24-2S | WELL NOT ACCESSIBLE | | | | | | | | |
| MW 24-2I | WELL NOT ACCESSIBLE | | | | | | | | |
| MW 24-2D | WELL NOT ACCESSIBLE | | | | | | | | |
| MW 24-4S | ND | ND | ND | ND | ND | ND | ND | ND | ND |
| MW 24-4I | 6.5 | ND | ND | ND | ND | ND | ND | ND | ND |
| MW 24-4D | ND | ND | 11 | ND | ND | 12 | ND | ND | ND |
| MW 24-5S | 6.3 | ND | ND | ND | ND | ND | ND | ND | ND |
| MW 24-5I DUP | 650 D | 27 | ND | ND | ND | ND | ND | 410 JD | 3.9 J |
| MW 24-5D | 34 D | 4.6 | ND | ND | ND | 4.2 | ND | 8.1 | ND |
| MW 24-6S | 1.8 | ND | ND | ND | ND | ND | ND | 2 | ND |
| MW 24-6I | 19 | 2.6 | ND | ND | ND | ND | ND | 4.1 | ND |
| MW 24-6D | ND | ND | ND | ND | ND | ND | ND | ND | ND |
| W-01S | 20 | 3.5 | ND | 1.5 | ND | ND | ND | 7 | ND |
| W-01I | 120 | 38 | ND | ND | ND | 1.7 | ND | 80 | ND |
| W-01D | ND | 2.3 | ND | ND | ND | ND | ND | 33 D | ND |
| W-02S | 20 | 1 | ND | ND | ND | ND | ND | ND | ND |
| W-02I | 170 | 99 | ND | ND | ND | ND | ND | 160 | 1 |
| W-02D | ND | 3.7 | ND | ND | ND | ND | ND | 42 | ND |
| W-03S | ND | ND | ND | ND | ND | ND | ND | ND | ND |
| W-03I | ND | ND | 1.9 | ND | ND | ND | ND | 2.9 | ND |
| W-03D | ND | ND | ND | ND | ND | ND | ND | 1.1 | ND |
| W-04S | 460 D | 29 J | ND | ND | ND | ND | ND | 22 J | ND |
| W-04I | 300 D | 130 D | ND | ND | ND | ND | ND | 120 D | ND |
| W-04D | 660 D | 72 | ND | 3.9 J | ND | 1.6 J | ND | 53 J | ND |
| W-06S | 7.3 | ND | ND | ND | ND | ND | ND | ND | ND |
| W-06I | 170 | 9.3 | ND | ND | ND | ND | ND | 7.4 | ND |
| W-06D | 79 | 14 | ND | ND | ND | ND | ND | 20 | ND |
| W-07S | 160 | 12 | ND | ND | ND | ND | ND | 7 | ND |
| W-07I | 1700 | 17 | ND | ND | ND | ND | ND | ND | ND |
| W-07D | ND | 5.2 | 1.5 | ND | ND | ND | ND | 110 | ND |
| W-08S | 870 D | 220 D | ND | ND | ND | ND | ND | 160 D | 1.2 J |
| W-08I | 300 D | 110 J | ND | ND | ND | ND | ND | 140 D | 1.1 J |
| W-08D | 370 D | 150 D | ND | ND | ND | 1.1 J | ND | 240 D | 2.2 J |
| W-09S | 64 | 8.6 | ND | 4.2 | ND | ND | ND | 23 | ND |
| W-09I | 410 D | 220 | ND | 1.7 J | ND | ND | ND | 130 | 1.2 J |
| W-09D | 63 JD | 15 | ND | ND | ND | 1.1 J | ND | 48 D | ND |
| W-10S | ND | ND | ND | ND | ND | ND | ND | ND | ND |
| W-10I | 2100 | 130 | 2.9 | ND | ND | ND | 2.1 | 170 | ND |
| W-10D | 73 | 41 | ND | ND | ND | 1.2 | 2.5 | 410 | 1.5 |
| W-11S | ND | ND | ND | ND | ND | ND | ND | ND | ND |
| W-11I | 4.3 | ND | ND | ND | ND | ND | ND | 8.6 | ND |
| W-11D | 390 | 270 | 2 | ND | ND | ND | 2.1 | 970 | 11 |

NOTES:

All values listed in parts-per-billion (PPB)

'ND' denotes 'Non-detect' for that parameter

QUALIFIERS:

J-Analyte positively identified, reported value is an approximate concentration

D-Analyte result of a dilution

TABLE 3-1

WESTSIDE OU-1 OU-2: VALIDATED GROUNDWATER QUALITY DATA SUMMARY
5th Sampling Event: October 5-7, 2009

| WELL NO. | | | | | | | | | |
|----------|-------------|------------|------------|----------------|------------------------|---------------------|-----------------------|---------------------------|-----------------------------|
| | PCE | TCE | MTBE | Vinyl Chloride | 1-1-1 trichloro ethane | 1-1 dichloro ethane | 1-1 dichloro ethylene | cis 1-2 dichloro ethylene | trans 1-2 dichloro ethylene |
| W-12S | ND | ND | ND | ND | ND | ND | ND | ND | ND |
| W-12I | ND | ND | ND | ND | ND | ND | ND | ND | ND |
| W-12D | ND | ND | 1.1 | ND | ND | ND | ND | 1.8 | ND |
| W-13S | 11 | ND | ND | ND | ND | ND | ND | ND | ND |
| W-13I | 13 | 9.9 | ND | ND | 1.5 | 1.1 | ND | 530 D | 2.6 |
| W-13D | ND | ND | ND | ND | ND | ND | ND | 21 | ND |
| W-14S | ND | ND | ND | ND | ND | ND | ND | ND | ND |
| W-14I | 760 | 12 | ND | ND | ND | ND | ND | 21 | ND |
| W-14D | ND | ND | 1.3 | ND | ND | ND | ND | 41 D | 1.1 |
| W-15S | ND | ND | ND | ND | ND | ND | ND | ND | ND |
| W-15I | ND | ND | 7 | ND | ND | ND | ND | ND | ND |
| W-15D | 14 | 2 | ND | ND | ND | ND | ND | 36 D | 1.5 |
| MW-05 | ND | ND | ND | ND | ND | ND | ND | ND | ND |
| MW 22S | 27 J | 4.1 | ND | ND | 1.6 | ND | 1.1 | ND | ND |
| MW 3D | 42 | 9.4 | ND | ND | ND | ND | ND | 1.9 | ND |
| MW 55D | 36 | 3.3 | ND | ND | ND | ND | ND | 7.9 | ND |
| MW 6S | 11 | ND | ND | ND | ND | ND | ND | ND | ND |
| MW 6D | ND | ND | ND | 8 | ND | ND | ND | 320 D | 2.6 |
| MW 7S | 12 | 6.1 | ND | ND | ND | ND | ND | 2.6 | ND |
| MW 77D | ND | 24 | ND | 36 | ND | 2.6 | 1.9 | 990 D | 14 |
| MW-07 | 2.8 | ND | ND | ND | ND | ND | ND | ND | ND |
| MW-08 | 85 | 6 | ND | ND | ND | ND | ND | 10 | ND |

NOTES:

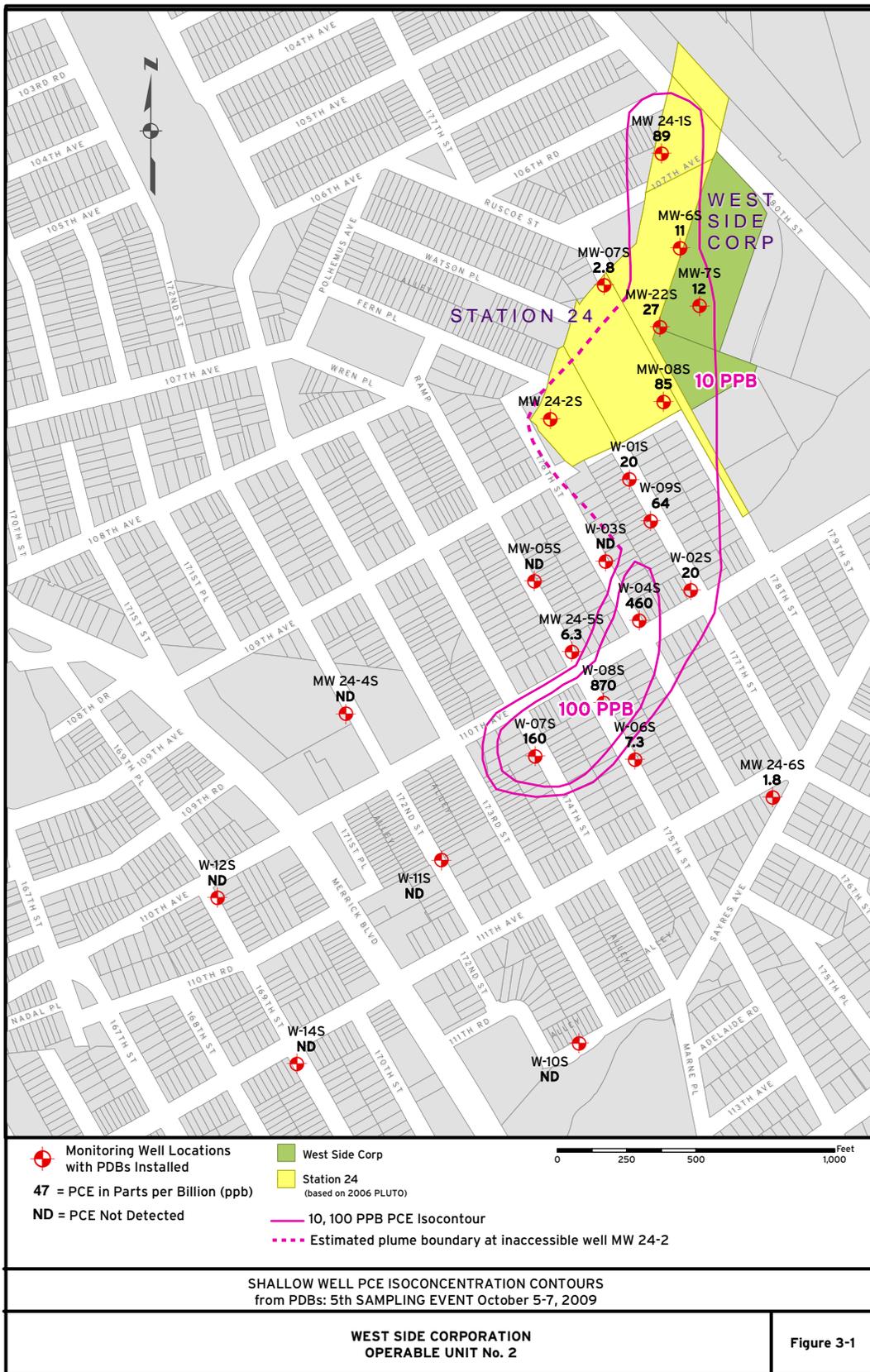
All values listed in parts-per-billion (PPB)

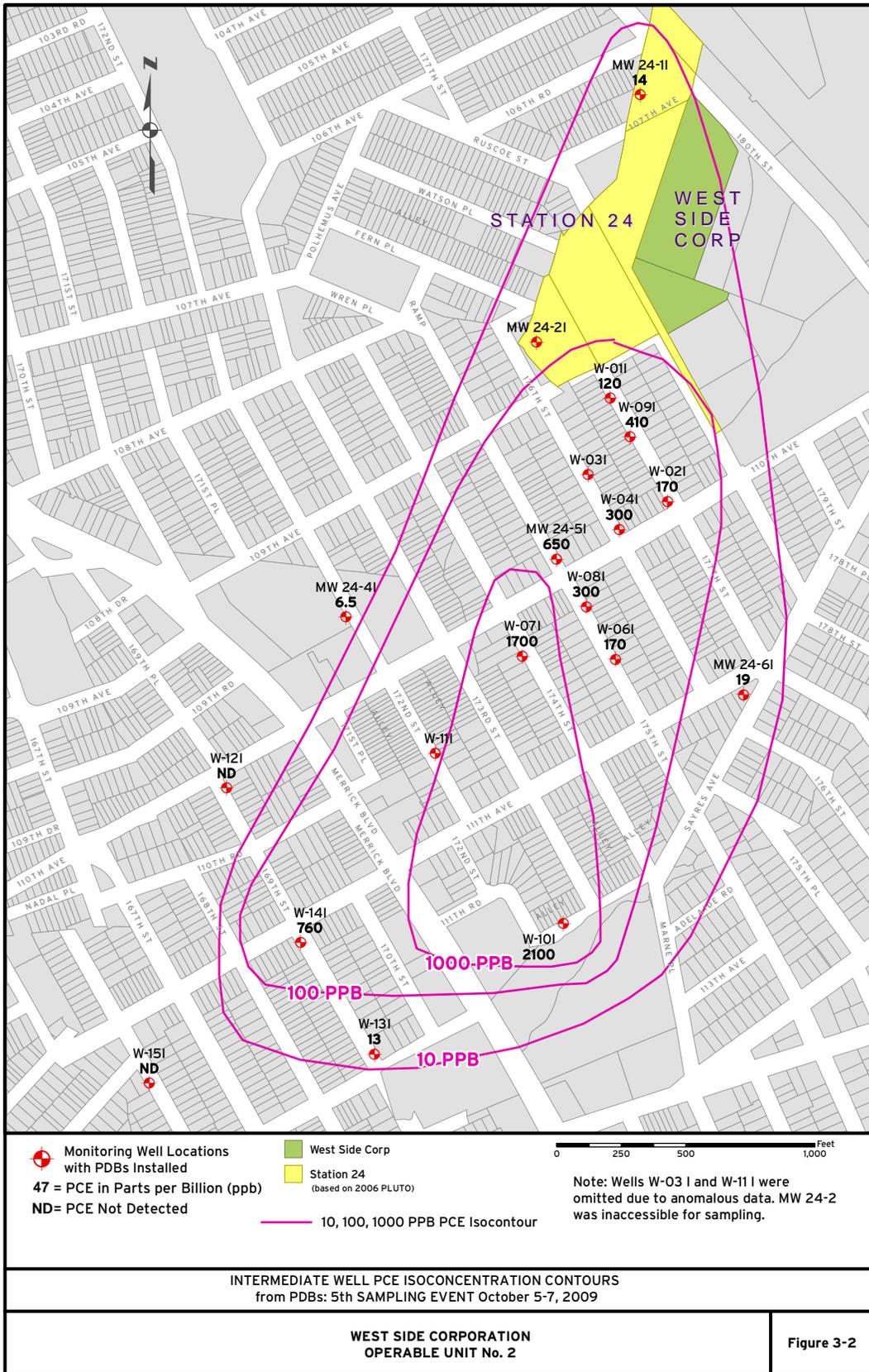
'ND' denotes 'Non-detect' for that parameter

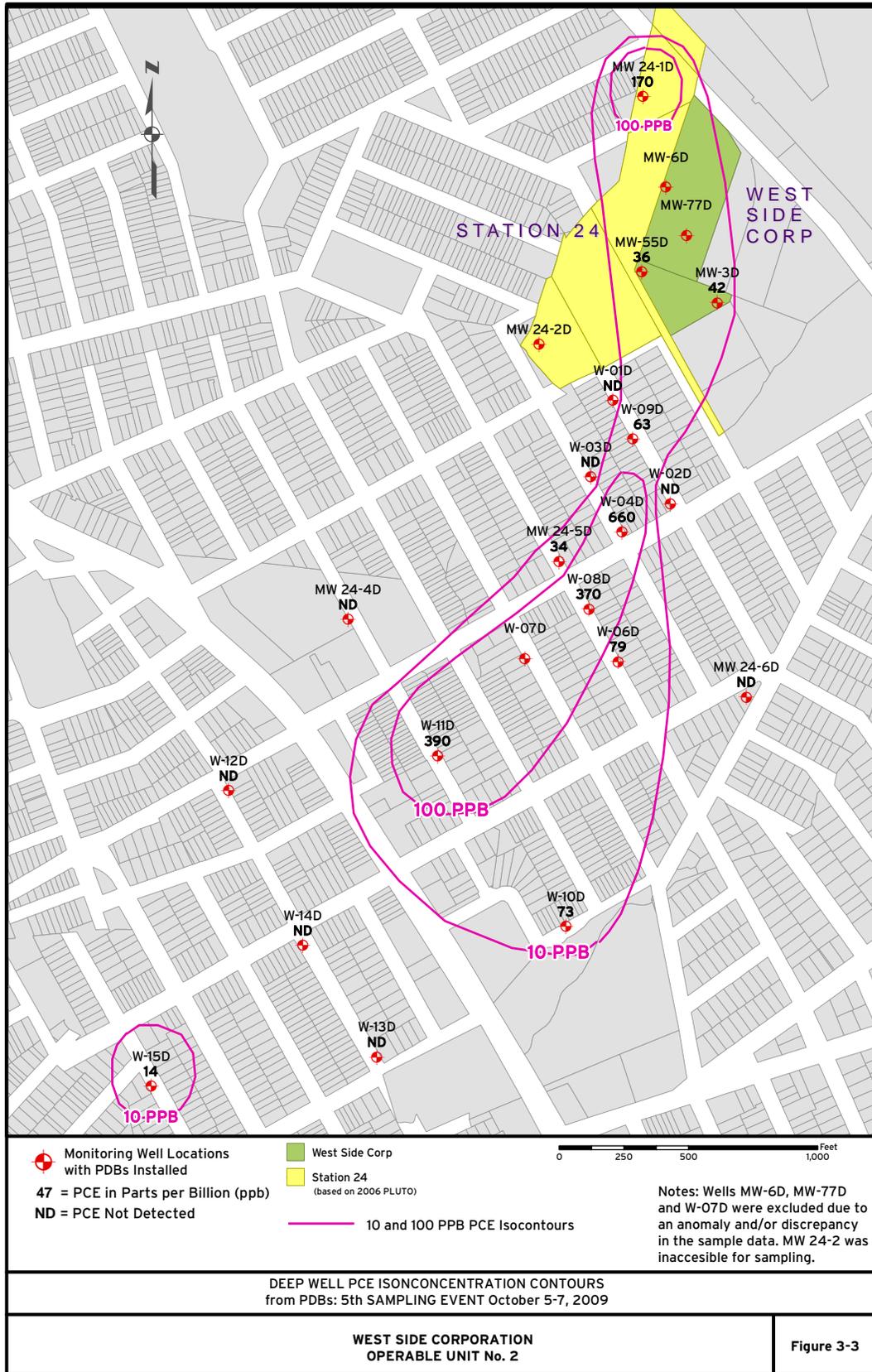
QUALIFIERS:

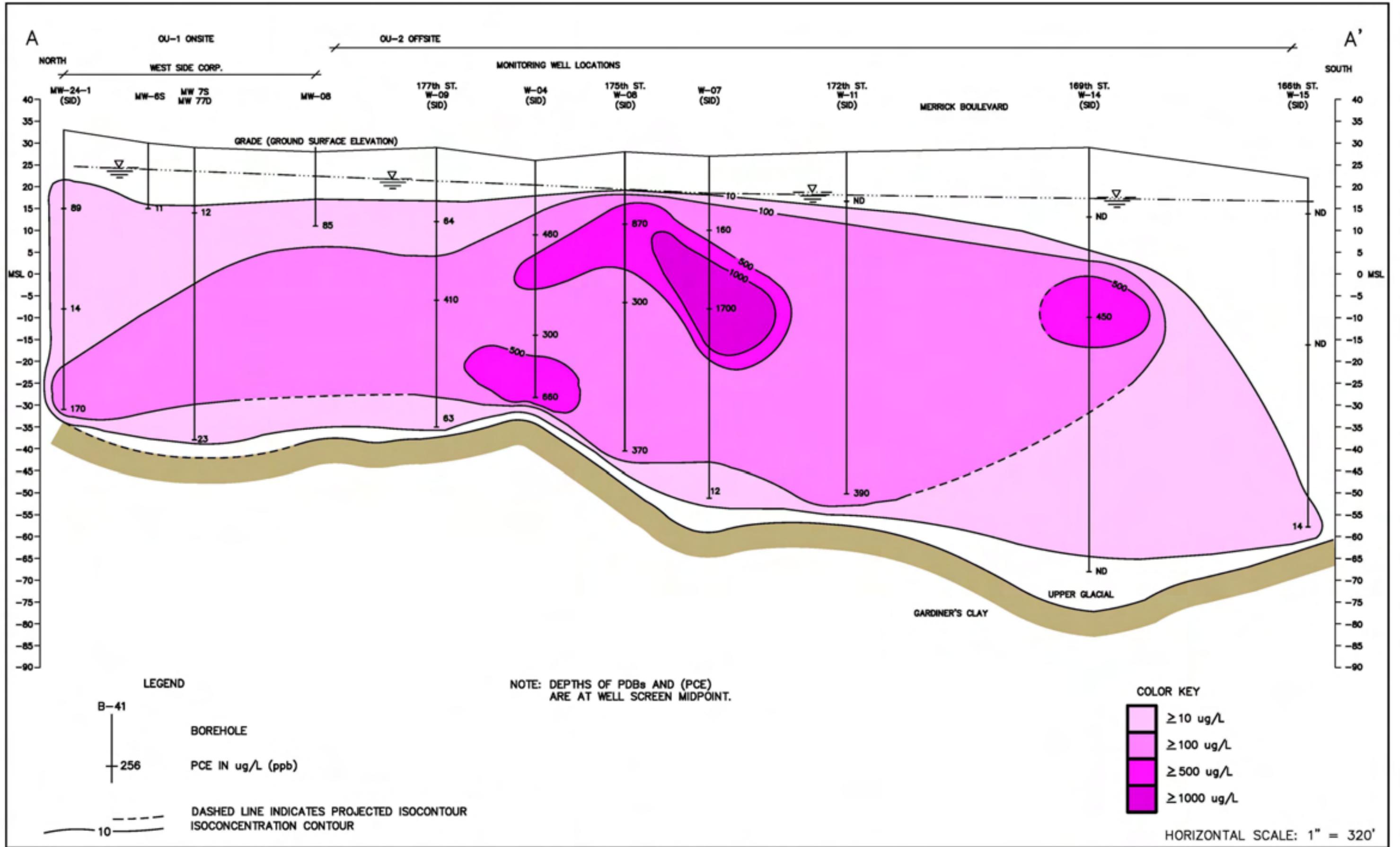
J-Analyte positively identified, reported value is an approximate concentration

D-Analyte result of a dilution

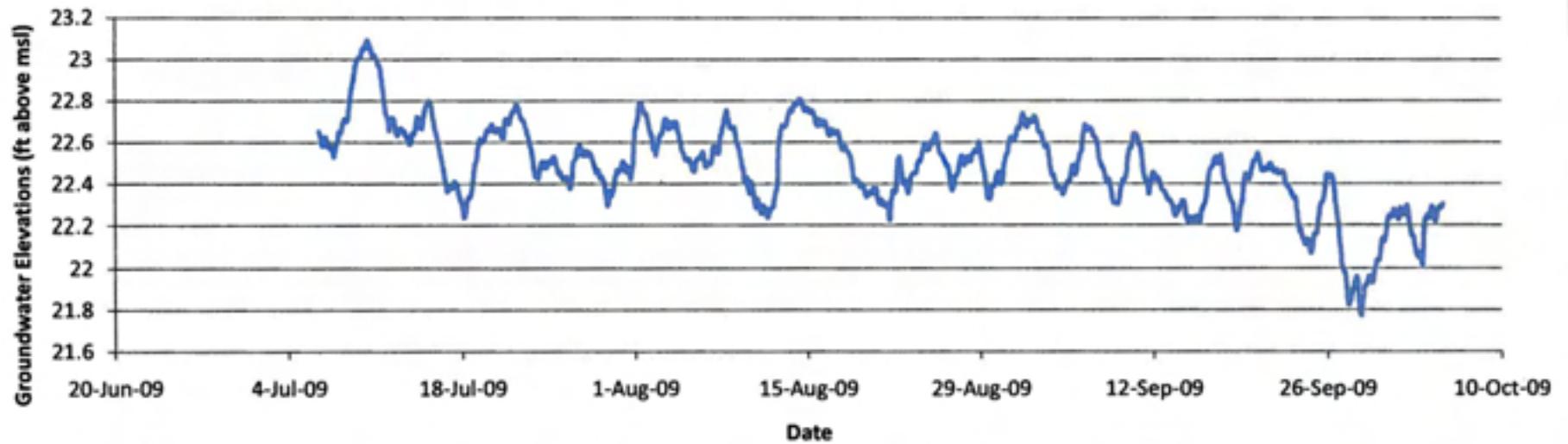






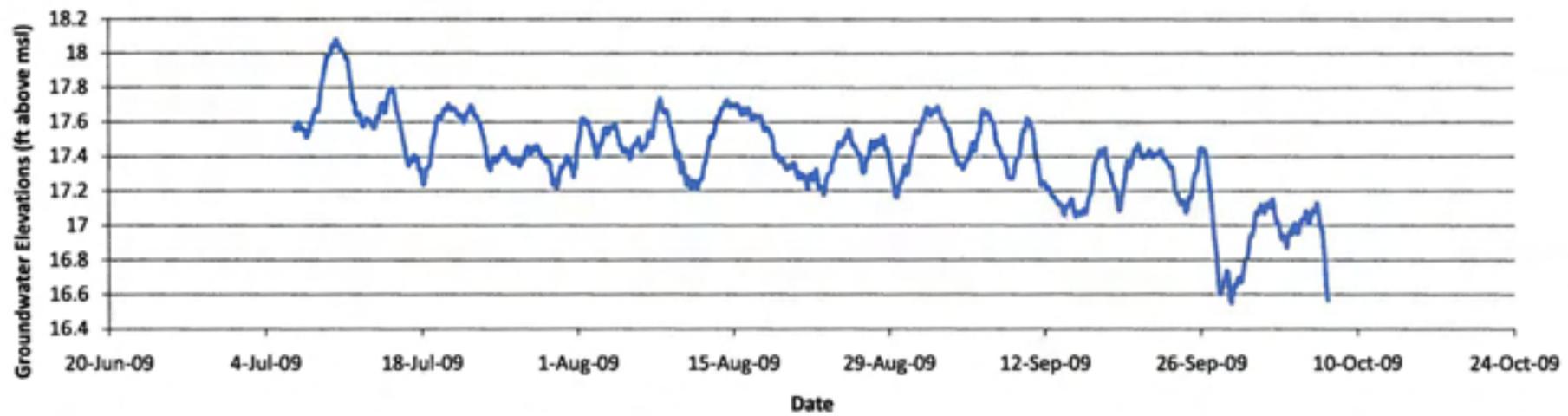


Groundwater Elevation: MW 24-1 I (07.06.09 - 10.05.09)

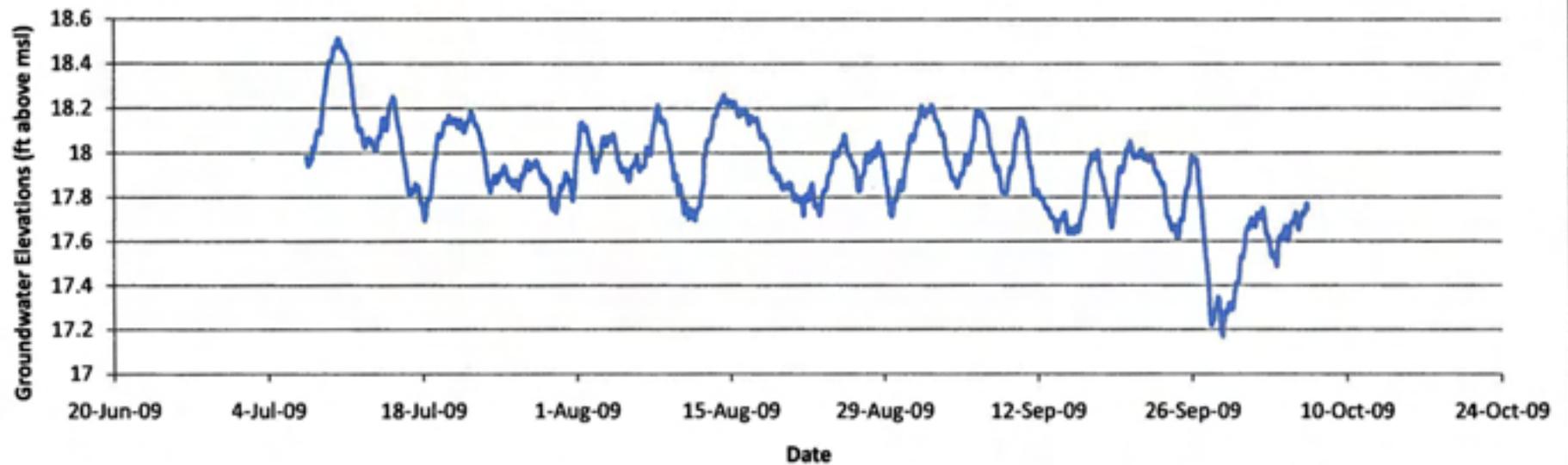


No data was retrieved from this Levelogger on account of the well being inaccessible.

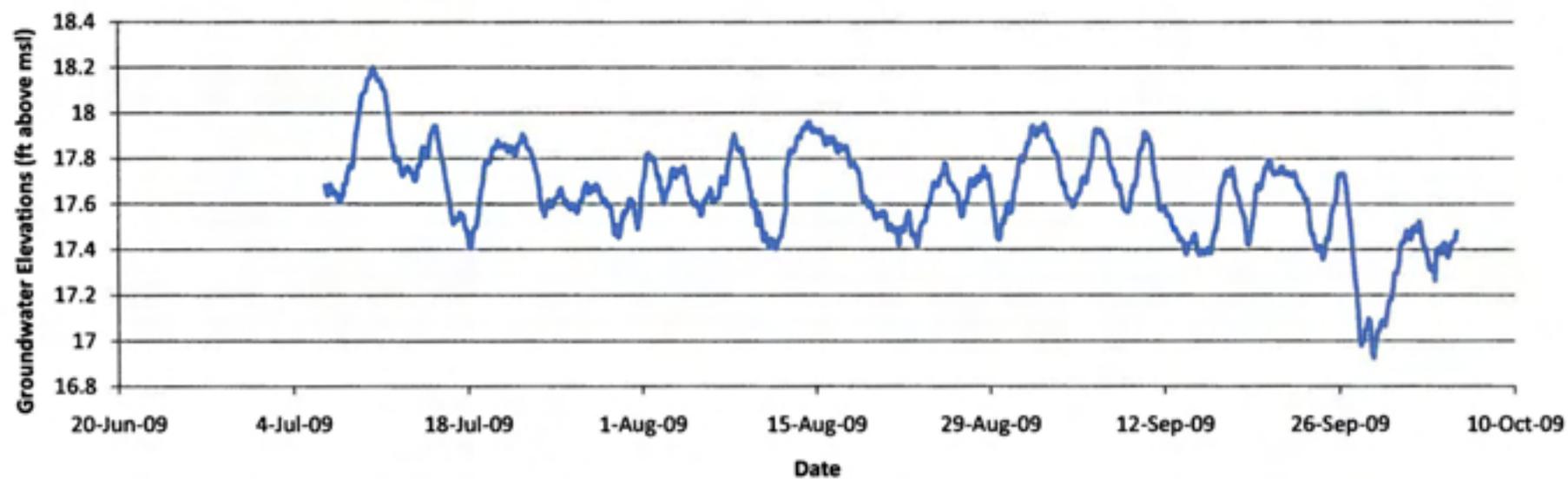
Groundwater Elevation: MW 24-4 | (07.06.09 - 10.07.09)



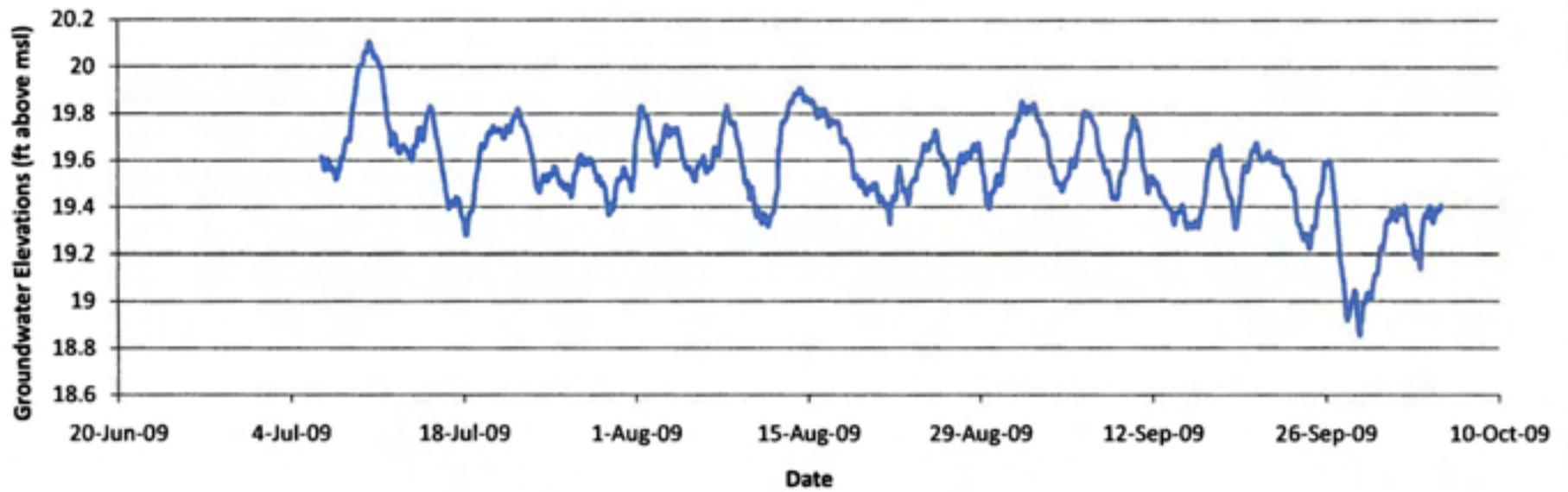
Groundwater Elevation: MW 24-5 I (07.06.09 - 10.05.09)



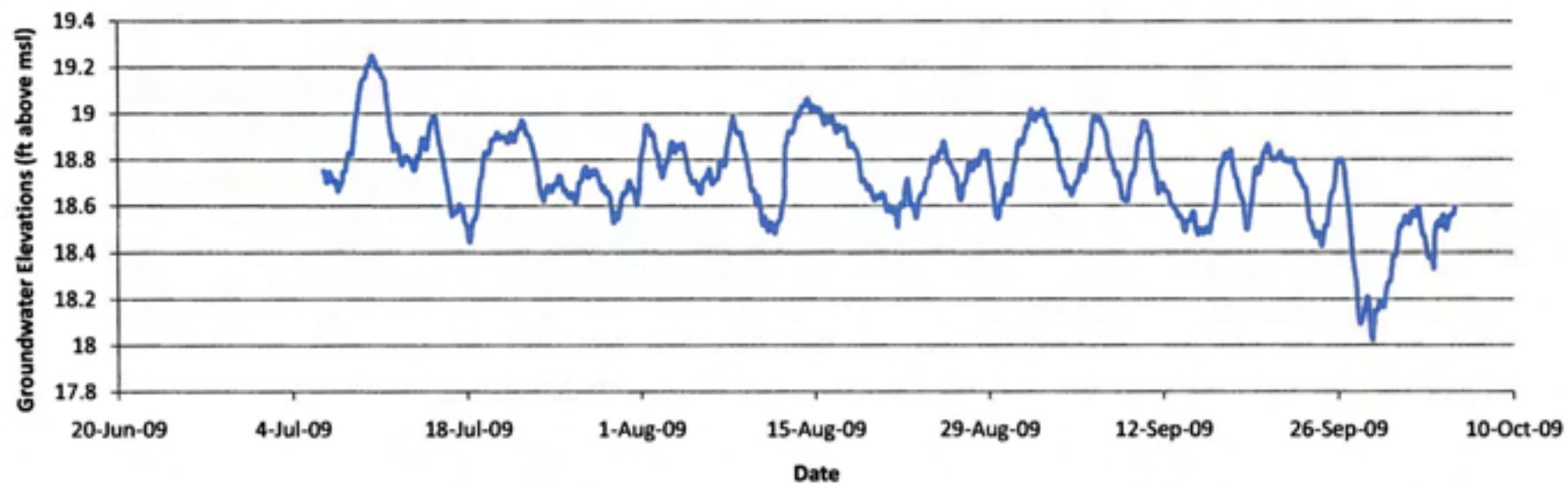
Groundwater Elevation: MW 24-6 I (07.06.09 - 10.05.09)



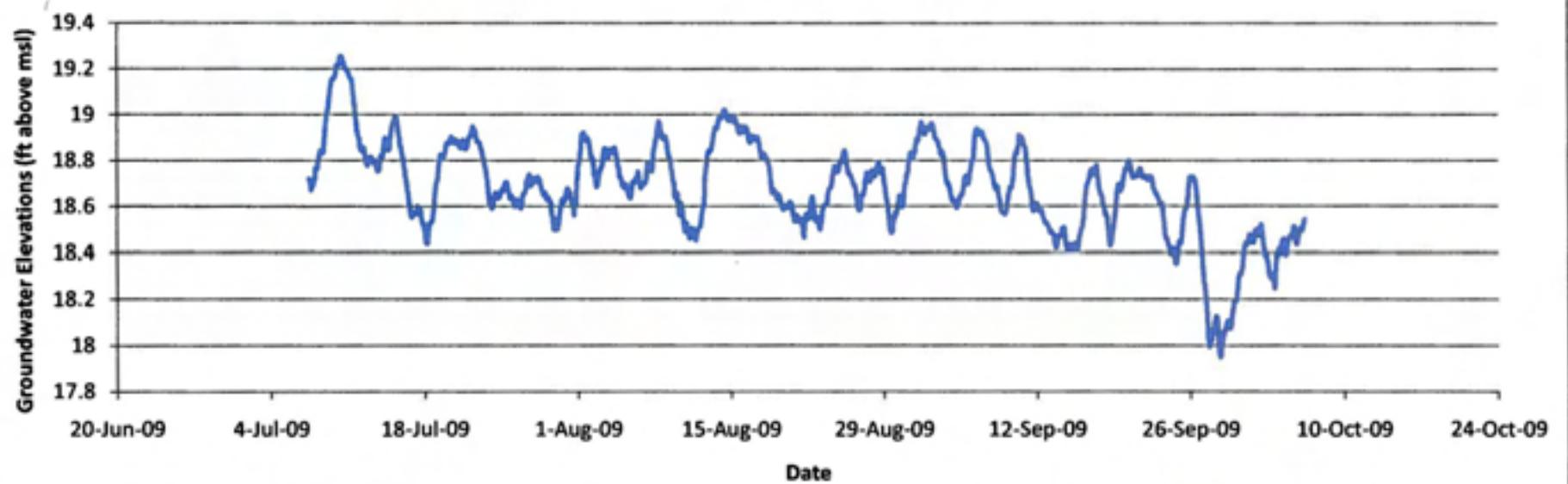
Groundwater Elevation: W-01 I (07.06.09 - 10.05.09)



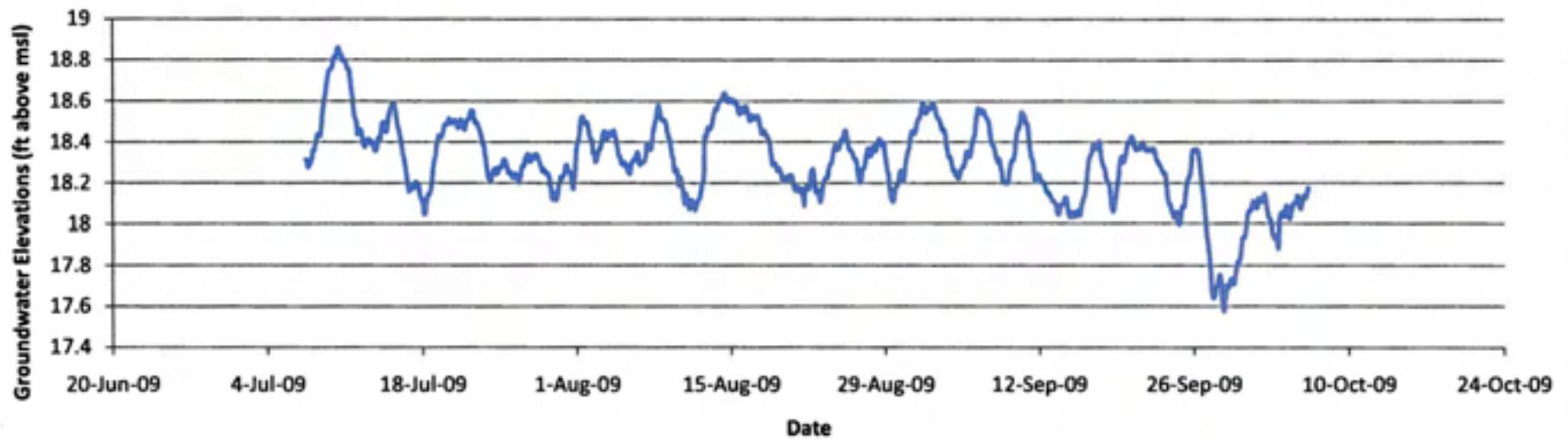
Groundwater Elevation: W-02 I (07.06.09 - 10.05.09)



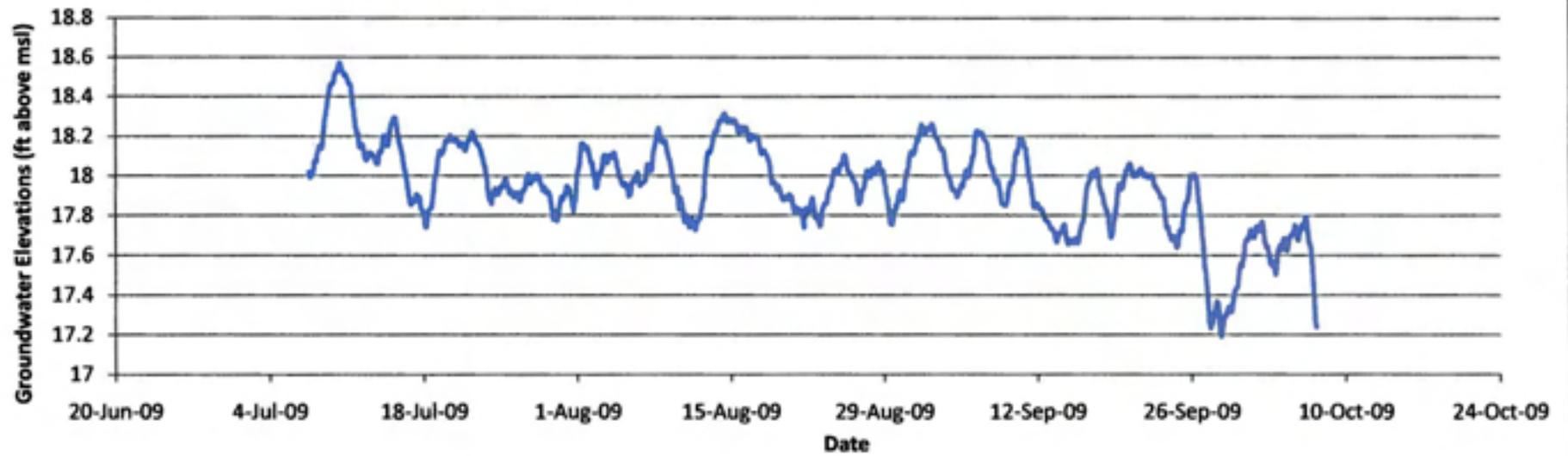
Groundwater Elevation: W-03 I (07.07.09 - 10.06.09)



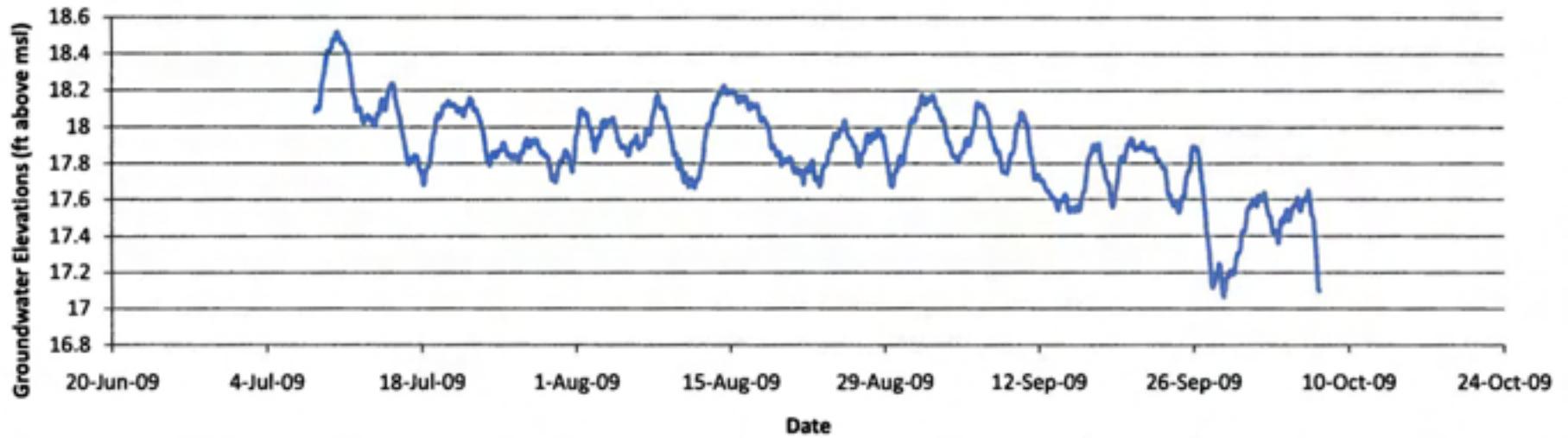
Groundwater Elevation: W-04 I (07.07.09 - 10.06.09)



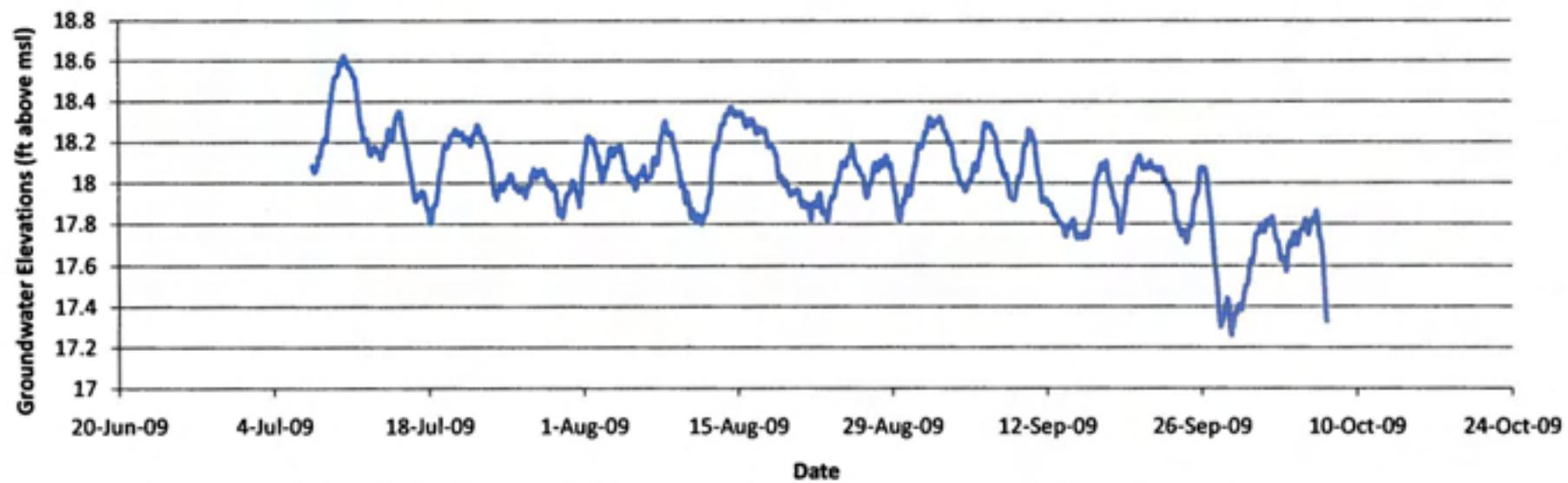
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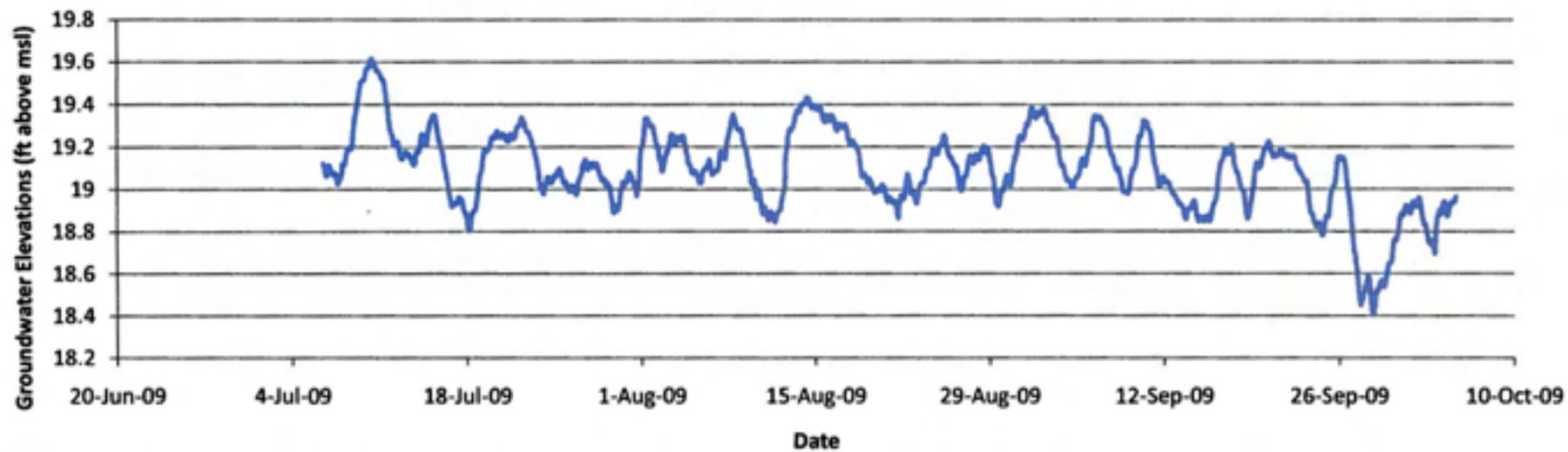
Groundwater Elevation: W-07 I (07.08.09 - 10.07.09)



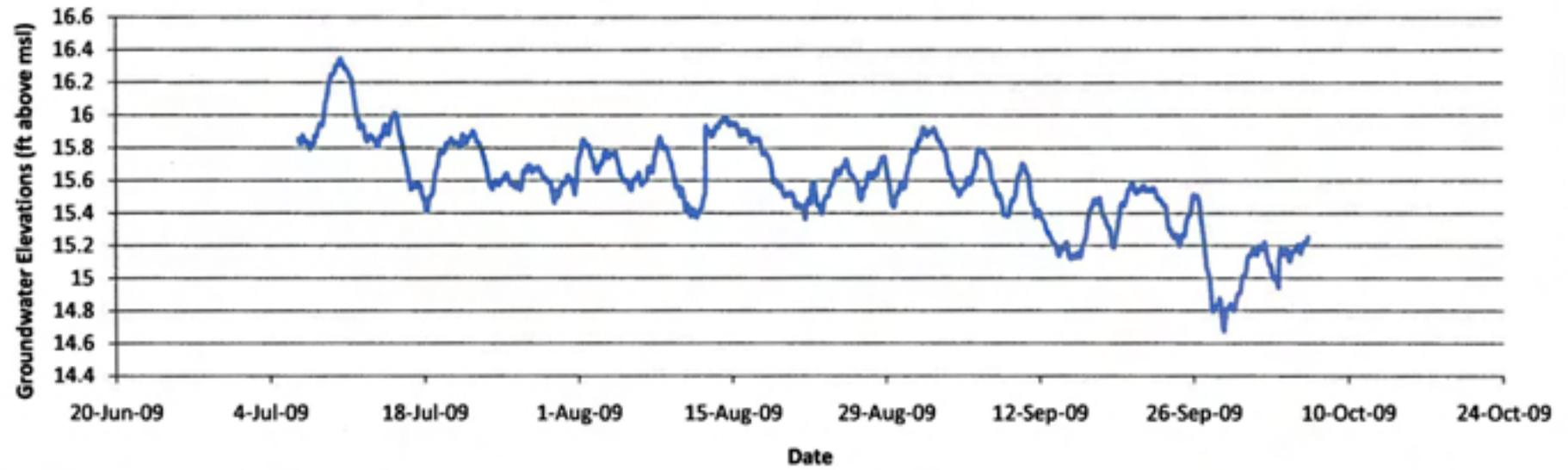
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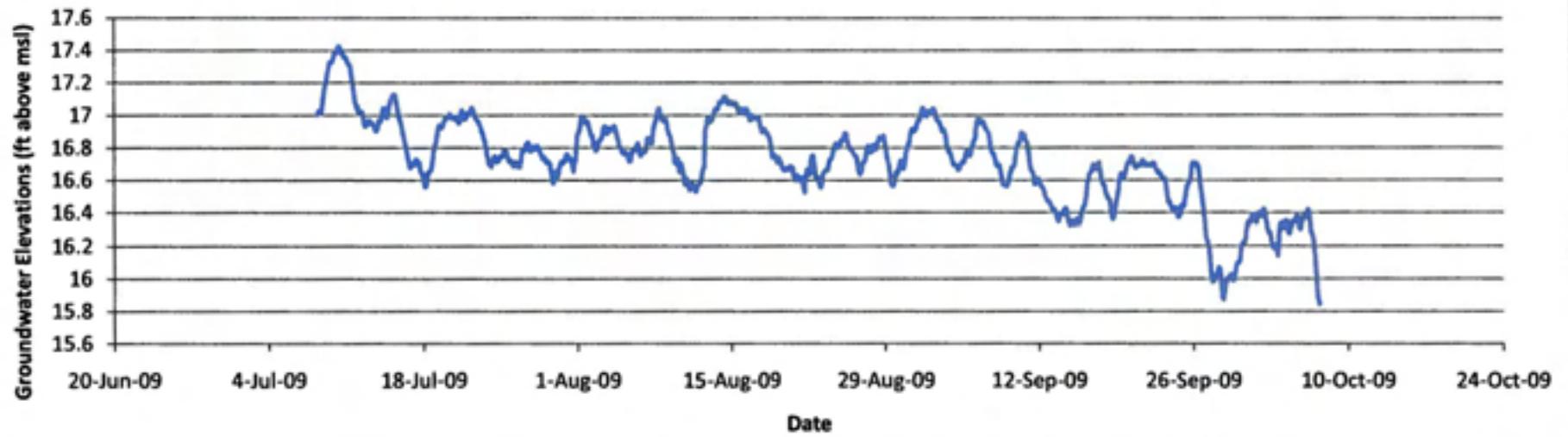
Groundwater Elevation: W-09 I (07.06.09 - 10.05.09)



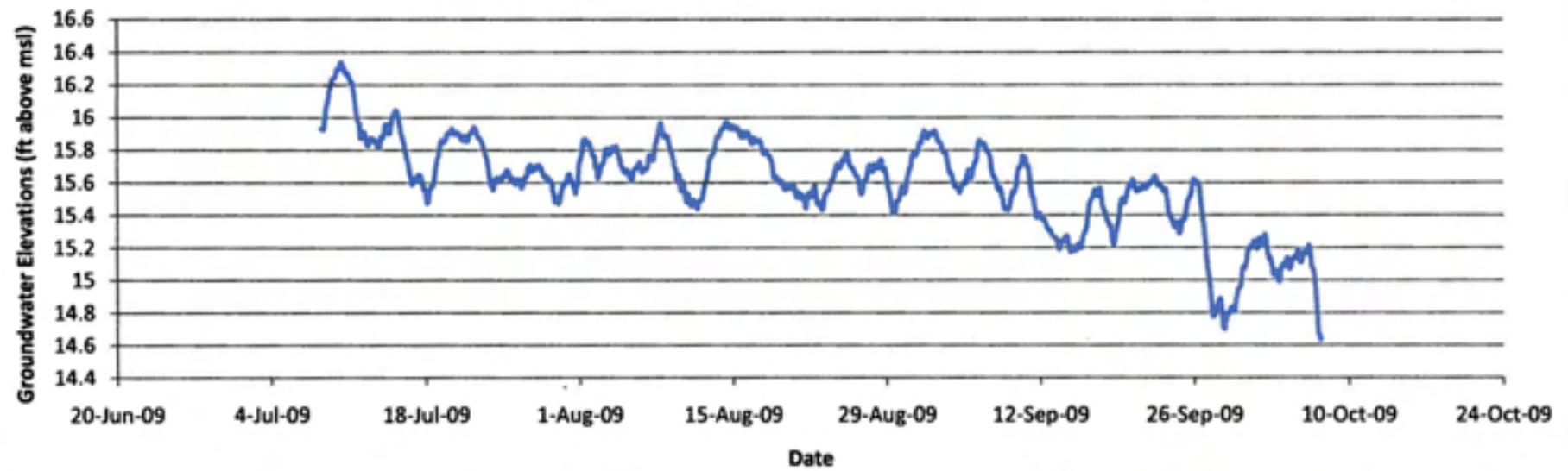
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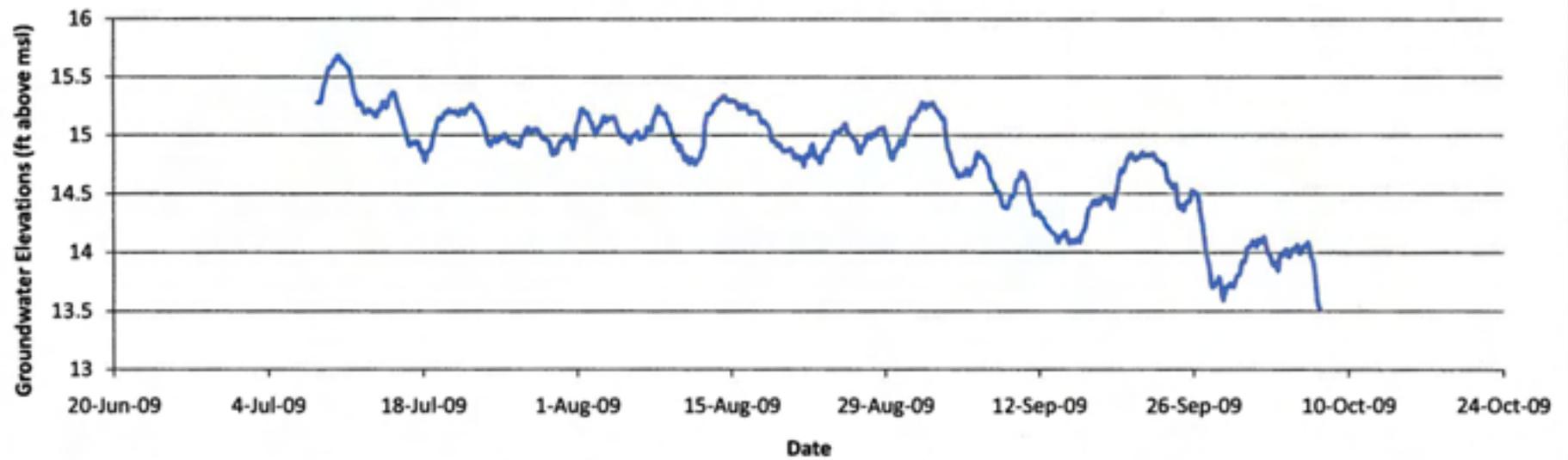
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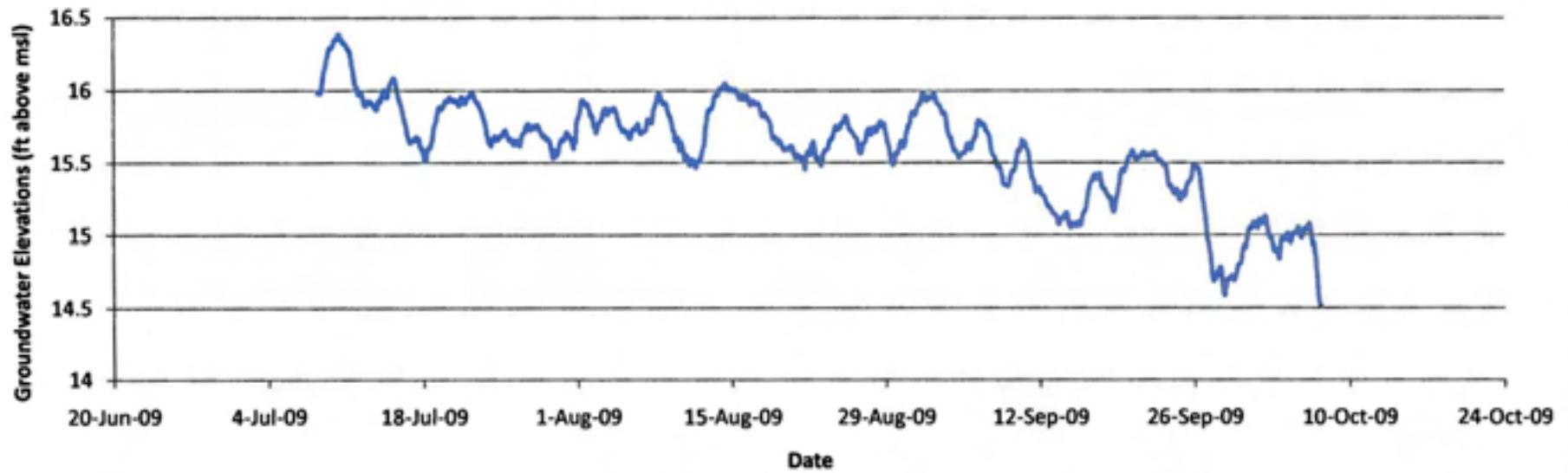
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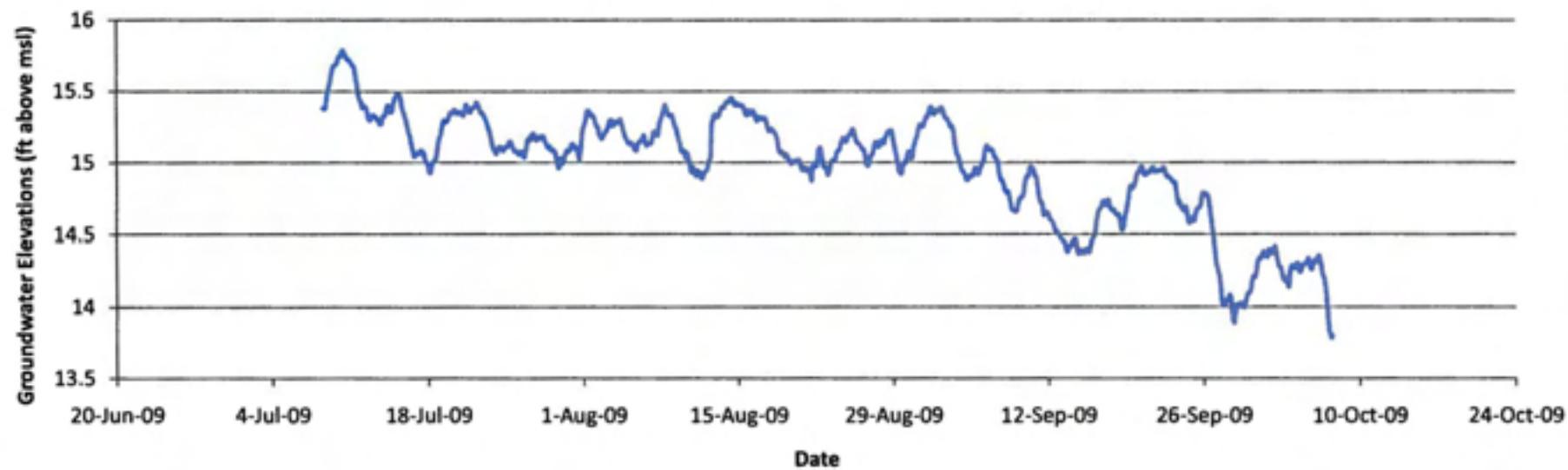
Groundwater Elevation: W-13 IT (07.08.09 - 10.07.09)



Groundwater Elevation: W-14 IT (07.08.09 - 10.07.09)



Groundwater Elevation: W-15 IT (07.08.09 - 10.07.09)



QUALITY CONTROLLED LOCAL CLIMATOLOGICAL DATA

(may be updated)

NOAA, National Climatic Data Center

Month: 07/2009

Station Location: JOHN F KENNEDY INTERNATIONAL AIRPORT (94789)

NEW YORK, NY

Lat. 40.655 Lon. -73.796

Elevation(Ground): 11 ft. above sea level

| Date | Temperature (Fahrenheit) | | | | | | Degree Days Base 65 Degrees | | Sun | | Significant Weather | Snow/Ice on Ground (In) (In) | | | | Precipitation (In) | | Pressure (inches of Hg) | | Wind: Speed=mph Dir=tens of degrees | | | | | | | | | | | | | | | |
|---------------------------------------|--------------------------|------|------|-----------------|--------------|--------------|-----------------------------|---------|-------------|------------|---------------------|------------------------------|-------------|-----------|-------------|--------------------|----------------|-------------------------|---------|-------------------------------------|--------------|-----------------------------|--------------|-----|----|----|--|--|--|--|--|--|--|--|--|
| | Max. | Min. | Avg. | Dep From Normal | Avg. Dew pt. | Avg Wet Bulb | Heating | Cooling | Sunrise LST | Sunset LST | | 1200 UTC | 1800 UTC | 2400 LST | 2400 LST | Avg. Station | Avg. Sea Level | Resultant Speed | Res Dir | Avg. Speed | max 5-second | | max 2-minute | | | | | | | | | | | | |
| | | | | | | | | | | | | Depth | Water Equiv | Snow Fall | Water Equiv | | | | | | Speed | Dir | Speed | Dir | | | | | | | | | | | |
| | 1 | 2 | 3 | 4 | 5 | 6 | 7 | 8 | 9 | 10 | | 11 | 12 | 13 | 14 | 15 | 16 | 17 | 18 | 19 | 20 | 21 | 22 | 23 | 24 | 25 | | | | | | | | | |
| 01 | 81 | 68 | 75 | 2 | 64 | 67 | 0 | 10 | 0428 | 1930 | RA | 0 | M | 0.0 | 0.04 | 29.69 | 29.72 | 4.7 | 11 | 5.8 | 30 | 180 | 23 | 130 | | | | | | | | | | | |
| 02 | 79 | 68 | 74 | 1 | 65 | 68 | 0 | 9 | 0428 | 1930 | TS TSRA RA | 0 | M | 0.0 | 0.02 | 29.73 | 29.76 | 3.1 | 13 | 7.2 | 22 | 310 | 20 | 320 | | | | | | | | | | | |
| 03 | 81 | 68 | 75 | 2 | 60 | 65 | 0 | 10 | 0429 | 1930 | RA | 0 | M | 0.0 | 0.02 | 29.80 | 29.83 | 7.5 | 27 | 9.2 | 25 | 280 | 20 | 280 | | | | | | | | | | | |
| 04 | 83 | 68 | 76 | 3 | 53 | 62 | 0 | 11 | 0429 | 1930 | | 0 | M | 0.0 | 0.00 | 29.82 | 29.85 | 11.8 | 30 | 13.0 | 29 | 270 | 23 | 270 | | | | | | | | | | | |
| 05 | 80 | 64 | 72 | -1 | 53 | 61 | 0 | 7 | 0430 | 1929 | | 0 | M | 0.0 | 0.00 | 29.85 | 29.87 | 5.6 | 24 | 11.4 | 25 | 200 | 21 | 190 | | | | | | | | | | | |
| 06 | 84 | 64 | 74 | 0 | 58 | 64 | 0 | 9 | 0431 | 1929 | | 0 | M | 0.0 | 0.00 | 29.75 | 29.77 | 6.0 | 21 | 7.9 | 24 | 070 | 17 | 180 | | | | | | | | | | | |
| 07 | 80 | 64 | 72 | -3 | 62 | 65 | 0 | 7 | 0431 | 1929 | TS RA GS BR | 0 | M | T | 0.51 | 29.72 | 29.75 | 2.4 | 18 | 7.0 | 36 | 360 | 30 | 330 | | | | | | | | | | | |
| 08 | 81 | 59 | 70 | -5 | 53 | 60 | 0 | 5 | 0432 | 1929 | | 0 | M | 0.0 | 0.00 | 29.85 | 29.89 | 7.5 | 35 | 8.7 | 25 | 350 | 17 | 360 | | | | | | | | | | | |
| 09 | 73 | 62 | 68 | -7 | 55 | 60 | 0 | 3 | 0433 | 1928 | | 0 | M | 0.0 | 0.00 | 30.14 | 30.19 | 6.5 | 07 | 7.3 | 22 | 100 | 16 | 110 | | | | | | | | | | | |
| 10 | 76 | 58* | 67* | -8 | 54 | 60 | 0 | 2 | 0433 | 1928 | | 0 | M | 0.0 | 0.00 | 30.27 | 30.29 | 3.8 | 15 | 6.2 | 17 | 130 | 15 | 160 | | | | | | | | | | | |
| 11 | 76 | 62 | 69 | -6 | 58 | 63 | 0 | 4 | 0434 | 1927 | TSRA RA BR | 0 | M | 0.0 | 0.38 | 30.14 | 30.13 | 12.7 | 19 | 13.7 | 32 | 190 | 26 | 190 | | | | | | | | | | | |
| 12 | 84 | 65 | 75 | 0 | 54 | 63 | 0 | 10 | 0435 | 1927 | | 0 | M | 0.0 | 0.09 | 29.88 | 29.91 | 8.9 | 29 | 12.2 | 30 | 270 | 23 | 260 | | | | | | | | | | | |
| 13 | 77 | 60 | 69 | -6 | 55 | 62 | 0 | 4 | 0435 | 1927 | | 0 | M | 0.0 | 0.00 | 29.90 | 29.92 | 8.2 | 21 | 10.2 | 28s | 190 | 24 | 190 | | | | | | | | | | | |
| 14 | 83 | 64 | 74 | -1 | 47 | 59 | 0 | 9 | 0436 | 1926 | | 0 | M | 0.0 | 0.00 | 29.99 | 30.03 | 7.6 | 31 | 10.1 | 45s | 220 | 24 | 260 | | | | | | | | | | | |
| 15 | 80 | 62 | 71 | -4 | 54 | 62 | 0 | 6 | 0437 | 1925 | | 0 | M | 0.0 | 0.00 | 30.07 | 30.08 | 6.1 | 20 | 9.2 | 24 | 190 | 20 | 180 | | | | | | | | | | | |
| 16 | 82 | 70 | 76 | 1 | 65 | 69 | 0 | 11 | 0438 | 1925 | HZ | 0 | M | 0.0 | T | 29.83 | 29.83 | 9.7 | 20 | 10.2 | 32 | 240 | 22 | 190 | | | | | | | | | | | |
| 17 | 84 | 68 | 76 | 1 | 68 | 71 | 0 | 11 | 0438 | 1924 | BR HZ | 0 | M | 0.0 | T | 29.77 | 29.78 | 6.0 | 14 | 7.0 | 20 | 150 | 15 | 150 | | | | | | | | | | | |
| 18 | 85* | 72 | 79* | 4 | 61 | 67 | 0 | 14 | 0439 | 1924 | BR HZ | 0 | M | 0.0 | 0.00 | 29.75 | 29.80 | 11.4 | 25 | 12.7 | 26 | 240 | 23 | 240 | | | | | | | | | | | |
| 19 | 81 | 67 | 74 | -1 | 55 | 63 | 0 | 9 | 0440 | 1923 | | 0 | M | 0.0 | 0.00 | 30.03 | 30.08 | 8.0 | 22 | 11.1 | 23 | 190 | 20 | 190 | | | | | | | | | | | |
| 20 | 82 | 65 | 74 | -1 | 61 | 66 | 0 | 9 | 0441 | 1922 | | 0 | M | 0.0 | 0.00 | 30.14 | 30.16 | 6.1 | 12 | 7.1 | 17 | 120 | 15 | 130 | | | | | | | | | | | |
| 21 | 72 | 66 | 69 | -6 | 65 | 67 | 0 | 4 | 0442 | 1922 | RA BR | 0 | M | 0.0 | 0.76 | 30.09 | 30.11 | 7.1 | 04 | 7.8 | 23 | 040 | 17 | 040 | | | | | | | | | | | |
| 22 | 80 | 66 | 73 | -2 | 66 | 69 | 0 | 8 | 0443 | 1921 | | 0 | M | 0.0 | T | 30.11 | 30.14 | 4.8 | 20 | 6.6 | 17 | 180 | 15 | 180 | | | | | | | | | | | |
| 23 | 76 | 65 | 71 | -4 | 65 | 67 | 0 | 6 | 0443 | 1920 | RA BR | 0 | M | 0.0 | 0.56 | 29.98 | 29.98 | 8.6 | 08 | 11.5 | 31 | 100 | 23 | 100 | | | | | | | | | | | |
| 24 | 80 | 65 | 73 | -2 | 64 | 67 | 0 | 8 | 0444 | 1919 | | M | M | M | 0.03 | 29.84 | 29.87 | 5.5 | 24 | 11.7 | 23 | 200 | 20 | 190 | | | | | | | | | | | |
| 25 | 82 | 66 | 74 | -1 | 66 | 69 | 0 | 9 | 0445 | 1918 | HZ | 0 | M | 0.0 | T | 29.91 | 29.93 | 9.2 | 18 | 10.8 | 29 | 190 | 23 | 180 | | | | | | | | | | | |
| 26 | 84 | 72 | 78 | 2 | 69 | 72 | 0 | 13 | 0446 | 1917 | TS TSRA RA BR | M | M | M | 0.31 | 29.88 | 29.91 | 7.1 | 19 | 8.6 | 28 | 180 | 23 | 180 | | | | | | | | | | | |
| 27 | M | M | M | M | M | M | M | M | 0447 | 1917 | | M | M | M | M | M | M | M | M | M | M | M | M | M | | | | | | | | | | | |
| 28 | M | M | M | M | M | M | M | M | 0448 | 1916 | | M | M | M | M | M | M | M | M | M | M | M | M | M | | | | | | | | | | | |
| 29 | M | M | M | M | M | M | M | M | 0449 | 1915 | | M | M | M | M | M | M | M | M | M | M | M | M | M | | | | | | | | | | | |
| 30 | M | M | M | M | M | M | M | M | 0450 | 1914 | | M | M | M | M | M | M | M | M | M | M | M | M | M | | | | | | | | | | | |
| 31 | M | M | M | M | M | M | M | M | 0451 | 1913 | | M | M | M | M | M | M | M | M | M | M | M | M | M | | | | | | | | | | | |
| ←-----Monthly Averages Totals-----→ | | | | | | | | | | | | M | M | M | M | M | M | M | M | M | M | ←-----Monthly Average-----→ | | | | | | | | | | | | | |
| ←-----Departure From Normal-----→ | | | | | | | | | | | | M | | | | | | | | | | | | | | | | | | | | | | | |

| | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | |
|-------------|---------|----------------|-----------------|--|-----------------|--|----------------|--|--------------------|--|---|----------------------------|------------------------------------|------------------|--------------------------------|------------------|------------------------------------|-------------------|---------------|--|---------------|--|------------------|--|------------------|--|---------------|--|------------------------------|--|------------------------------|--|-------------------------|--|--|
| Degree Days | Monthly | Season to Date | Total Departure | | Total Departure | | Heating: M M M | | Cooling: M M 147 M | | Greatest 24-hr Precipitation: M Date: M | | Greatest 24-hr Snowfall: M Date: M | | Greatest Snow Depth: M Date: M | | Sea Level Pressure Date Time (LST) | | Maximum M M M | | Minimum M M M | | Min Temp <=32: M | | Min Temp <=0 : M | | Heavy Fog : 0 | | Precipitation >=0.01 inch: M | | Precipitation >=0.10 inch: M | | Snowfall >=1.0 inch : 0 | | |
| | | | | | | | | | | | | Number of Days with -----> | | Max Temp >=90: M | | Max Temp <=32: M | | Thunderstorms : 6 | | | | | | | | | | | | | | | | | |

* EXTREME FOR THE MONTH - LAST OCCURRENCE IF MORE THAN ONE.

Data Versior VER

QUALITY CONTROLLED LOCAL CLIMATOLOGICAL DATA

(final)

NOAA, National Climatic Data Center

Month: 08/2009

Station Location: JOHN F KENNEDY INTERNATIONAL AIRPORT (94789)

NEW YORK, NY

Lat. 40.655 Lon. -73.796

Elevation(Ground): 11 ft. above sea level

| Date | Temperature (Fahrenheit) | | | | | | Degree Days Base 65 Degrees | | Sun | | Significant Weather | Snow/Ice on Ground (In) | | | | Precipitation (In) | | Pressure (inches of Hg) | | Wind: Speed-mph Dir=tens of degrees | | | | | | Date |
|------|--------------------------|------|------|-----------------|--------------|--------------|-----------------------------|---------|-------------|------------|---------------------|-------------------------|-----------------------------------|----------|----------|--------------------|----------------|-------------------------|---------|-------------------------------------|---------------------------|-----|--------------|-----|----|------|
| | Max. | Min. | Avg. | Dep From Normal | Avg. Dew pt. | Avg Wet Bulb | Heating | Cooling | Sunrise LST | Sunset LST | | 1200 UTC | 1800 UTC | 2400 LST | 2400 LST | Avg. Station | Avg. Sea Level | Resultant Speed | Res Dir | Avg. Speed | max 5-second | | max 2-minute | | | |
| | | | | | | | | | | | | | | | | | | | | | Speed | Dir | Speed | Dir | | |
| 1 | 2 | 3 | 4 | 5 | 6 | 7 | 8 | 9 | 10 | 11 | 12 | 13 | 14 | 15 | 16 | 17 | 18 | 19 | 20 | 21 | 22 | 23 | 24 | 25 | 26 | |
| 01 | 81 | 68 | 75 | 0 | 64 | 68 | 0 | 10 | 0452 | 1912 | | 0 | M | 0.0 | 0.00 | 30.03 | 30.06 | 4.4 | 20 | 7.9 | 16 | 190 | 13 | 190 | 01 | |
| 02 | 78 | 71 | 75 | 0 | 69 | 71 | 0 | 10 | 0453 | 1911 | TSRA RA BR | 0 | M | 0.0 | 0.62 | 29.91 | 29.92 | 6.4 | 17 | 8.5 | 26 | 140 | 21 | 140 | 02 | |
| 03 | 83 | 69 | 76 | 1 | 67 | 70 | 0 | 11 | 0454 | 1909 | | 0 | M | 0.0 | 0.00 | 29.93 | 29.97 | 4.5 | 20 | 6.1 | 16 | 180 | 14 | 190 | 03 | |
| 04 | 84 | 70 | 77 | 2 | 66 | 70 | 0 | 12 | 0455 | 1908 | | 0 | M | 0.0 | 0.00 | 29.95 | 29.96 | 8.9 | 20 | 9.8 | 29 | 190 | 23 | 190 | 04 | |
| 05 | 86 | 74 | 80 | 5 | 69 | 72 | 0 | 15 | 0455 | 1907 | BR HZ | 0 | M | 0.0 | T | 29.85 | 29.89 | 3.5 | 23 | 8.1 | 22 | 340 | 17 | 340 | 05 | |
| 06 | 76 | 67 | 72 | -3 | 57 | 63 | 0 | 7 | 0456 | 1906 | | 0 | M | 0.0 | 0.04 | 29.93 | 29.96 | 2.5 | 31 | 7.3 | 18 | 360 | 14 | 360 | 06 | |
| 07 | 83 | 66 | 75 | 0 | 49 | 60 | 0 | 10 | 0457 | 1905 | | 0 | M | 0.0 | 0.00 | 30.01 | 30.06 | 10.4 | 33 | 10.8 | 29 | 340 | 22 | 340 | 07 | |
| 08 | 78 | 63 | 71 | -4 | 52 | 60 | 0 | 6 | 0458 | 1904 | RA | 0 | M | 0.0 | T | 30.18 | 30.21 | 2.2 | 16 | 6.9 | 16 | 220 | 13 | 200 | 08 | |
| 09 | 80 | 71 | 76 | 1 | 67 | 70 | 0 | 11 | 0459 | 1902 | TSRA RA | 0 | M | 0.0 | T | 30.06 | 30.06 | 7.0 | 18 | 8.3 | 20 | 270 | 17 | 270 | 09 | |
| 10 | 92* | 72 | 82 | 7 | 69 | 73 | 0 | 17 | 0500 | 1860 | TSRA | 0 | M | 0.0 | 0.16 | 29.88 | 29.88 | 6.4 | 26 | 10.3 | 37 | 350 | 29 | 340 | 10 | |
| 11 | 90 | 76 | 83* | 8 | 67 | 72 | 0 | 18 | 0501 | 1859 | | 0 | M | 0.0 | 0.00 | 29.80 | 29.83 | 4.0 | 30 | 7.1 | 21 | 320 | 17 | 320 | 11 | |
| 12 | 83 | 71 | 77 | 2 | 67 | 70 | 0 | 12 | 0502 | 1857 | | 0 | M | 0.0 | 0.02 | 29.92 | 29.96 | 7.3 | 07 | 9.0 | 21 | 110 | 18 | 110 | 12 | |
| 13 | 76 | 69 | 73 | -1 | 64 | 67 | 0 | 8 | 0503 | 1856 | | 0 | M | 0.0 | 0.01 | 30.05 | 30.09 | 7.1 | 05 | 7.5 | 21 | 050 | 16 | 050 | 13 | |
| 14 | 82 | 66 | 74 | 0 | 66 | 69 | 0 | 9 | 0504 | 1855 | HZ | 0 | M | 0.0 | 0.00 | 30.15 | 30.18 | 5.9 | 20 | 6.2 | M | M | 17 | 130 | 14 | |
| 15 | 86 | 69 | 78 | 4 | 68 | 71 | 0 | 13 | 0505 | 1853 | BR HZ | 0 | M | 0.0 | 0.00 | 30.14 | 30.17 | 7.9 | 20 | 8.6 | 20 | 190 | 16 | 190 | 15 | |
| 16 | 90 | 71 | 81 | 7 | 69 | 72 | 0 | 16 | 0506 | 1852 | | 0 | M | 0.0 | 0.00 | 30.14 | 30.16 | 7.9 | 20 | 8.5 | 26 | 200 | 15 | 180 | 16 | |
| 17 | 91 | 73 | 82 | 8 | 69 | 73 | 0 | 17 | 0507 | 1850 | BR HZ | 0 | M | 0.0 | 0.00 | 30.12 | 30.14 | 9.0 | 21 | 9.8 | 30 | 220 | 20 | 190 | 17 | |
| 18 | 89 | 71 | 80 | 6 | 69 | 73 | 0 | 15 | 0508 | 1849 | RA | 0 | M | 0.0 | T | 30.03 | 30.05 | 10.5 | 21 | 12.3 | 38 | 300 | 30 | 310 | 18 | |
| 19 | 90 | 73 | 82 | 8 | 71 | 74 | 0 | 17 | 0509 | 1848 | | 0 | M | 0.0 | 0.00 | 29.93 | 29.96 | 10.0 | 22 | 10.4 | 21 | 210 | 18 | 200 | 19 | |
| 20 | 87 | 75 | 81 | 7 | 73 | 75 | 0 | 16 | 0510 | 1846 | HZ | 0 | M | 0.0 | 0.00 | 29.91 | 29.94 | 8.3 | 19 | 8.4 | 25 | 200 | 22 | 180 | 20 | |
| 21 | 88 | 73 | 81 | 7 | 73 | 75 | 0 | 16 | 0511 | 1845 | TS TSRA BR | 0 | M | 0.0 | 0.54 | 29.88 | 29.90 | 11.8 | 19 | 12.7 | 40 | 180 | 32 | 180 | 21 | |
| 22 | 85 | 72 | 79 | 5 | 72 | 74 | 0 | 14 | 0512 | 1843 | TS TSRA RA BR | 0 | M | 0.0 | 0.57 | 29.83 | 29.84 | 4.3 | 14 | 7.0 | 24 | 300 | 20 | 300 | 22 | |
| 23 | 84 | 74 | 79 | 5 | 70 | 73 | 0 | 14 | 0513 | 1842 | RA | 0 | M | 0.0 | 0.01 | 29.80 | 29.84 | 2.1 | 20 | 5.3 | 22 | 190 | 18 | 190 | 23 | |
| 24 | 85 | 71 | 78 | 4 | 64 | 69 | 0 | 13 | 0514 | 1840 | | 0 | M | 0.0 | 0.00 | 29.98 | 30.03 | 4.3 | 36 | 5.9 | 26 | 010 | 14 | 200 | 24 | |
| 25 | 84 | 70 | 77 | 3 | 64 | 69 | 0 | 12 | 0515 | 1839 | | 0 | M | 0.0 | 0.00 | 30.08 | 30.10 | 3.4 | 22 | 8.8 | 30 | 220 | 15 | 210 | 25 | |
| 26 | 89 | 73 | 81 | 8 | 64 | 70 | 0 | 16 | 0516 | 1837 | RA | 0 | M | 0.0 | T | 29.97 | 29.99 | 12.7 | 27 | 14.2 | 28 | 280 | 22 | 260 | 26 | |
| 27 | 77 | 68 | 73 | 0 | 59 | 64 | 0 | 8 | 0517 | 1836 | | 0 | M | 0.0 | T | 30.04 | 30.08 | 1.3 | 02 | 7.6 | 17 | 210 | 15 | 030 | 27 | |
| 28 | 73 | 63 | 68 | -4 | 64 | 66 | 0 | 3 | 0518 | 1834 | RA BR | 0 | M | 0.0 | 1.47 | 30.08 | 30.09 | 4.9 | 09 | 6.6 | 20 | 150 | 16 | 160 | 28 | |
| 29 | 74 | 67 | 71 | -1 | 67 | 69 | 0 | 6 | 0519 | 1833 | RA DZ BR | 0 | M | 0.0 | 0.06 | 29.79 | 29.80 | 6.2 | 09 | 8.4 | 20 | 150 | 15 | 100 | 29 | |
| 30 | 81 | 67 | 74 | 2 | 61 | 66 | 0 | 9 | 0520 | 1831 | BR | 0 | M | 0.0 | T | 29.85 | 29.89 | 3.5 | 29 | 9.0 | 23 | 290 | 18 | 300 | 30 | |
| 31 | 75 | 60* | 68* | -4 | 50 | 57 | 0 | 3 | 0521 | 1829 | | 0 | M | 0.0 | 0.00 | 30.08 | 30.12 | 7.7 | 36 | 8.3 | 21 | 010 | 17 | 360 | 31 | |
| | | | | | | | | | | | | | -----Monthly Averages Totals----- | | | | | | | | | | | | | |
| | | | | | | | | | | | | | M | M | 2.68s | 29.98 | 30.00 | 2.8 | 21 | 8.6 | -----Monthly Average----- | | | | | |
| | | | | | | | | | | | | | <-----Departure From Normal-----> | | | | | | | | | | | | | |
| | | | | | | | | | | | | | -0.96 | | | | | | | | | | | | | |

| | | | | | | | |
|--|--|--|---|--|---|--|--|
| Degree Days Monthly Season to Date Total Departure Total Departure Heating: 0 -4 0 -10 Cooling: 364 64 787 -23 | Greatest 24-hr Precipitation: 1.47 Date: 28-29 Greatest 24-hr Snowfall: M Date: M Greatest Snow Depth: M Date: M | | Sea Level Pressure Date Time (LST) Maximum 30.27 08 0911 Minimum 29.71 29 1526 | | | | |
| | Number of Days with -----> | | Max Temp >=90: 5 Max Temp <=32: 0 Thunderstorms : 7 | | Min Temp <=32: 0 Min Temp <=0 : 0 Heavy Fog : 0 | | Precipitation >=.01 inch: 7s Precipitation >=.10 inch: 0 Snowfall >=1.0 inch : 0 |

* EXTREME FOR THE MONTH - LAST OCCURRENCE IF MORE THAN ONE.

Data Version:

QUALITY CONTROLLED LOCAL CLIMATOLOGICAL DATA

(may be updated)

NOAA, National Climatic Data Center

Month: 09/2009

Station Location: JOHN F KENNEDY INTERNATIONAL AIRPORT (94789)

NEW YORK, NY

Lat. 40.655 Lon. -73.796

Elevation(Ground): 11 ft. above sea level

| Date | Temperature (Fahrenheit) | | | Degree Days Base 65 Degrees | | | Sun | | Significant Weather | Snow/Ice on Ground(In) | | Precipitation (In) | | Pressure(inches of Hg) | | Wind: Speed-mph Dir-tens of degrees | | | | | | Date | | | | | | |
|---|--------------------------|------|------|-----------------------------|--------------|--------------|---------|---------|---------------------|------------------------|------------|--------------------|-------------|------------------------|-------------|-------------------------------------|----------------|-----------------|---------|------------|------------------|------|----------|-----|----|--|--|--|
| | Max. | Min. | Avg. | Dep From Normal | Avg. Dew pt. | Avg Wet Bulb | Heating | Cooling | | Sunrise LST | Sunset LST | 1200 UTC | 1800 UTC | 2400 LST | 2400 LST | Avg. Station | Avg. Sea Level | Resultant Speed | Res Dir | Avg. Speed | max | | | | | | | |
| | | | | | | | | | | | | Depth | Water Equiv | Snow Fall | Water Equiv | | | | | | 5-second | | 2-minute | | | | | |
| 01 | 75 | 57 | 66 | -5 | 49 | 57 | 0 | 1 | 0522 | 1828 | 0 | M | 0.0 | 0.00 | 30.22 | 30.26 | 5.1 | 04 | 7.5 | 22 | 040 | 16 | 070 | 01 | | | | |
| 02 | 75 | 57 | 66 | -5 | 54 | 59 | 0 | 1 | 0523 | 1826 | 0 | M | 0.0 | 0.00 | 30.25 | 30.27 | 2.8 | 12 | 5.1 | 17 | 170 | 14 | 170 | 02 | | | | |
| 03 | 79 | 58 | 69 | -2 | 55 | 60 | 0 | 4 | 0524 | 1825 | 0 | M | 0.0 | 0.00 | 30.13 | 30.14 | 4.7 | 09 | 6.1 | 23 | 040 | 14 | 130 | 03 | | | | |
| 04 | 85 | 60 | 73 | 3 | 58 | 63 | 0 | 8 | 0525 | 1823 | 0 | M | 0.0 | 0.00 | 29.99 | 30.02 | 3.2 | 03 | 7.7 | 23 | 030 | 15 | 200 | 04 | | | | |
| 05 | 86* | 69 | 78* | 8 | 61 | 66 | 0 | 13 | 0526 | 1821 | 0 | M | 0.0 | 0.00 | 30.08 | 30.12 | 2.3 | 01 | 5.4 | 16 | 030 | 13 | 020 | 05 | | | | |
| 06 | 76 | 64 | 70 | 0 | 55 | 61 | 0 | 5 | 0527 | 1820 | 0 | M | 0.0 | 0.00 | 30.28 | 30.32 | 9.6 | 08 | 12.3 | 26 | 130 | 23 | 130 | 06 | | | | |
| 07 | 74 | 59 | 67 | -3 | 55 | 60 | 0 | 2 | 0528 | 1818 | 0 | M | 0.0 | 0.00 | 30.24 | 30.24 | 6.0 | 09 | 7.1 | 21 | 090 | 14 | 140 | 07 | | | | |
| 08 | 75 | 62 | 69 | -1 | 59 | 63 | 0 | 4 | 0529 | 1816 | 0 | M | 0.0 | 0.00 | 30.08 | 30.08 | 0.6 | 13 | 4.3 | 15 | 250 | 9 | 230 | 08 | | | | |
| 09 | 78 | 63 | 71 | 2 | 57 | 62 | 0 | 6 | 0530 | 1815 | 0 | M | 0.0 | T | 30.10 | 30.15 | 9.5 | 05 | 9.9 | 25 | 080 | 20 | 060 | 09 | | | | |
| 10 | 72 | 61 | 67 | -2 | 50 | 57 | 0 | 2 | 0531 | 1813 | RA | M | 0.0 | T | 30.32 | 30.35 | 14.2 | 06 | 14.8 | 30 | 050 | 23 | 060 | 10 | | | | |
| 11 | 67 | 59 | 63 | -6 | 60 | 61 | 2 | 0 | 0532 | 1811 | RA BR | M | 0.0 | 0.94 | 30.09 | 30.08 | 15.5 | 06 | 17.1 | 38 | 050 | 31 | 040 | 11 | | | | |
| 12 | 69 | 64 | 67 | -2 | 61 | 63 | 0 | 2 | 0533 | 1810 | RA BR | M | 0.0 | 0.11 | 29.93 | 29.94 | 4.0 | 10 | 5.3 | 12 | 360 | 10 | 110 | 12 | | | | |
| 13 | 82 | 65 | 74 | 6 | 59 | 65 | 0 | 9 | 0534 | 1808 | 0 | M | 0.0 | 0.00 | 29.85 | 29.88 | 9.4 | 35 | 10.1 | 24 | 330 | 20 | 330 | 13 | | | | |
| 14 | 79 | 62 | 71 | 3 | 56 | 62 | 0 | 6 | 0535 | 1806 | 0 | M | 0.0 | 0.00 | 29.89 | 29.92 | 7.3 | 28 | 8.8 | 22 | 270 | 20 | 270 | 14 | | | | |
| 15 | 82 | 64 | 73 | 5 | 60 | 64 | 0 | 8 | 0535 | 1805 | 0 | M | 0.0 | 0.00 | 29.90 | 29.93 | 4.1 | 29 | 6.8 | 22 | 200 | 17 | 340 | 15 | | | | |
| 16 | 69 | 62 | 66 | -1 | 57 | 60 | 0 | 1 | 0536 | 1803 | RA | M | 0.0 | 0.08 | 30.12 | 30.17 | 10.0 | 06 | 10.5 | 24 | 100 | 20 | 080 | 16 | | | | |
| 17 | 67 | 54 | 61 | -6 | 49 | 55 | 4 | 0 | 0537 | 1801 | 0 | M | 0.0 | 0.01 | 30.21 | 30.22 | 7.6 | 04 | 8.8 | 39 | 080 | 20 | 050 | 17 | | | | |
| 18 | 76 | 54 | 65 | -2 | 53 | 59 | 0 | 0 | 0538 | 1760 | M | M | M | 0.00 | 30.03 | 30.05 | 11.0 | 27 | 13.0 | 29 | 340 | 24 | 230 | 18 | | | | |
| 19 | 71 | 54 | 63 | -3 | 40 | 51 | 2 | 0 | 0539 | 1758 | 0 | M | 0.0 | 0.00 | 30.17 | 30.22 | 7.2 | 36 | 7.8 | 24 | 340 | 21 | 330 | 19 | | | | |
| 20 | 72 | 50 | 61 | -5 | 49 | 55 | 4 | 0 | 0540 | 1756 | 0 | M | 0.0 | 0.00 | 30.29 | 30.32 | 4.2 | 20 | 6.1 | 33s | 210 | 22 | 150 | 20 | | | | |
| 21 | 72 | 55 | 64 | -2 | 57 | 60 | 1 | 0 | 0541 | 1755 | 0 | M | 0.0 | 0.00 | 30.29 | 30.31 | 4.2 | 19 | 5.7 | 16 | 210 | 13 | 150 | 21 | | | | |
| 22 | 73 | 63 | 68 | 3 | 62 | 65 | 0 | 3 | 0542 | 1753 | 0 | M | 0.0 | 0.00 | 30.26 | 30.28 | 4.3 | 18 | 4.4 | 14 | 180 | 12 | 180 | 22 | | | | |
| 23 | 78 | 67 | 73 | 8 | 67 | 69 | 0 | 8 | 0543 | 1751 | 0 | M | 0.0 | 0.00 | 30.12 | 30.13 | 6.5 | 20 | 6.6 | 21 | 190 | 16 | 190 | 23 | | | | |
| 24 | 85 | 65 | 75 | 10 | 61 | 67 | 0 | 10 | 0544 | 1749 | RA BR | M | M | M | 0.03 | 29.98 | 30.01 | 7.9 | 31 | 10.2 | 25 | 320 | 20 | 330 | 24 | | | |
| 25 | 71 | 56 | 64 | 0 | 44 | 54 | 1 | 0 | 0545 | 1748 | 0 | M | 0.0 | 0.00 | 30.16 | 30.21 | 13.0 | 01 | 13.3 | 31 | 010 | 23 | 010 | 25 | | | | |
| 26 | 64 | 54 | 59 | -5 | 46 | 53 | 6 | 0 | 0546 | 1746 | RA BR | 0 | M | 0.0 | 0.07 | 30.25 | 30.24 | 8.6 | 12 | 10.2 | 24 | 140 | 17 | 150 | 26 | | | |
| 27 | 69 | 61 | 65 | 2 | 62 | 63 | 0 | 0 | 0547 | 1744 | RA BR | 0 | M | 0.0 | 1.41 | 29.70 | 29.67 | 4.9 | 20 | 9.9 | 31 | 250 | 25 | 250 | 27 | | | |
| 28 | 72 | 60 | 66 | 3 | 57 | 60 | 0 | 1 | 0548 | 1743 | RA BR | 0 | M | 0.0 | 0.51 | 29.54 | 29.56 | 10.9 | 22 | 14.0 | 44 | 300 | 32 | 180 | 28 | | | |
| 29 | 70 | 57 | 64 | 1 | 46 | 54 | 1 | 0 | 0549 | 1741 | 0 | M | 0.0 | 0.00 | 29.57 | 29.61 | 17.3 | 25 | 17.7 | 35 | 240 | 29 | 250 | 29 | | | | |
| 30 | 62 | 50* | 56* | -7 | 42 | 50 | 9 | 0 | 0550 | 1739 | 0 | M | 0.0 | 0.00 | 29.79 | 29.84 | 13.1 | 31 | 13.6 | 28 | 310 | 22 | 310 | 30 | | | | |
| <p>74.2 59.5 66.9 54.7 59.9 1.0 3.1 <-----Monthly Averages Totals-----></p> | | | | | | | | | | | | | M | M | 3.16 | 30.05 | 30.09 | 1.6 | 02 | 9.3 | <Monthly Average | | | | | | | |
| <p>-0.7 0.0 -0.3 <-----Departure From Normal-----></p> | | | | | | | | | | | | | | | -0.34 | | | | | | | | | | | | | |

| | | | | |
|---|---|--|--|---|
| Degree Days Monthly Season to Date Total Departure Total Departure Heating: 30 -13 30 -23 Cooling: 94 -31 881 -54 | Greatest 24-hr Precipitation: 1.48s Date: 26-27 Greatest 24-hr Snowfall: M Date: M Greatest Snow Depth: M Date: M | | Sea Level Pressure Date Time (LST) Maximum 30.39 10 1313 Minimum 29.45 28 1642 | |
| | Number of Days with -----> | | Max Temp >=90: 0 Max Temp <=32: 0 Thunderstorms : 0 | Min Temp <=32: 0 Min Temp <=0 : 0 Heavy Fog : 0 |

* EXTREME FOR THE MONTH - LAST OCCURRENCE IF MORE THAN ONE.

Data Version: VER2

QUALITY CONTROLLED LOCAL CLIMATOLOGICAL DATA

(may be updated)

NOAA, National Climatic Data Center

Month: 10/2009

Station Location: JOHN F KENNEDY INTERNATIONAL AIRPORT (94789)
NEW YORK, NY
 Lat. 40.655 Lon. -73.796
 Elevation(Ground): 11 ft. above sea level

| Date | Temperature (Fahrenheit) | | | | | | Degree Days Base 65 Degrees | | Sun | | Significant Weather | Snow/Ice on Ground (In) | | | | Precipitation (In) | | Pressure (inches of Hg) | | Wind: Speed=mph Dir=tens of degrees | | | | | | Date |
|------|--------------------------|------|------|-----------------|--------------|--------------|-----------------------------|---------|-------------|------------|---------------------|-------------------------|-------------|-----------|-------------|--------------------|----------------|-------------------------|---------|-------------------------------------|--------------|-----|--------------|-----|-------|------|
| | Max. | Min. | Avg. | Dep From Normal | Avg. Dew pt. | Avg Wet Bulb | Heating | Cooling | Sunrise LST | Sunset LST | | 1200 UTC | 1800 UTC | 2400 LST | 2400 LST | Avg. Station | Avg. Sea Level | Resultant Speed | Res Dir | Avg. Speed | max 5-second | | max 2-minute | | | |
| | | | | | | | | | | | | Depth | Water Equiv | Snow Fall | Water Equiv | | | | | | Speed | Dir | Speed | Dir | Speed | |
| 1 | 2 | 3 | 4 | 5 | 6 | 7 | 8 | 9 | 10 | 11 | 12 | 13 | 14 | 15 | 16 | 17 | 18 | 19 | 20 | 21 | 22 | 23 | 24 | 25 | 26 | |
| 01 | 59 | 49 | 54 | -8 | 39 | 47 | 11 | 0 | 0551 | 1738 | | 0 | M | 0.0 | 0.00 | 29.98 | 30.01 | 9.6 | 29 | 10.1 | 21 | 260 | 17 | 260 | 01 | |
| 02 | 66 | 43 | 55 | -6 | 47 | 52 | 10 | 0 | 0552 | 1736 | RA | 0 | M | 0.0 | T | 29.99 | 30.01 | 9.9 | 14 | 11.1 | 28 | 140 | 21 | 160 | 02 | |
| 03 | 69 | 62 | 66 | 5 | 63 | 64 | 0 | 1 | 0553 | 1735 | RA BR | 0 | M | 0.0 | 1.80 | 29.85 | 29.87 | 7.7 | 18 | 8.2 | 38s | 150 | 16 | 210 | 03 | |
| 04 | 72 | 58 | 65 | 4 | 56 | 60 | 0 | 0 | 0554 | 1733 | BR | 0 | M | 0.0 | 0.00 | 29.85 | 29.88 | 4.7 | 25 | 7.3 | 23 | 290 | 18 | 290 | 04 | |
| 05 | 68 | 54 | 61 | 1 | 42 | 51 | 4 | 0 | 0555 | 1731 | | 0 | M | 0.0 | 0.00 | 29.91 | 29.94 | 12.6 | 30 | 13.2 | 28 | 290 | 23 | 300 | 05 | |
| 06 | 67 | 51 | 59 | -1 | 45 | 53 | 6 | 0 | 0556 | 1730 | RA | 0 | M | 0.0 | T | 29.93 | 29.93 | 6.7 | 23 | 10.9 | 26 | 180 | 21 | 180 | 06 | |
| 07 | 73* | 58 | 66* | 6 | 48 | 56 | 0 | 1 | 0558 | 1728 | RA | 0 | M | 0.0 | 0.08 | 29.59 | 29.62 | 17.2 | 27 | 21.6 | 56 | 290 | 43 | 290 | 07 | |
| 08 | 67 | 54 | 61 | 2 | 39 | 50 | 4 | 0 | 0559 | 1726 | | 0 | M | 0.0 | 0.00 | 29.98 | 30.03 | 11.5 | 31 | 12.3 | 36 | 290 | 25 | 300 | 08 | |
| 09 | 72 | 58 | 65 | 6 | 57 | 60 | 0 | 0 | 0560 | 1725 | RA | 0 | M | 0.0 | T | 29.86 | 29.85 | 7.7 | 19 | 9.5 | 26 | 200 | 22 | 200 | 09 | |
| 10 | 69 | 51 | 60 | 1 | 48 | 55 | 5 | 0 | 0601 | 1723 | BR HZ | 0 | M | 0.0 | T | 29.80 | 29.88 | 10.5 | 32 | 11.9 | 36 | 330 | 29 | 330 | 10 | |
| 11 | 65 | 45 | 55 | -3 | 37 | 47 | 10 | 0 | 0602 | 1722 | | 0 | M | 0.0 | 0.00 | 30.16 | 30.20 | 7.5 | 28 | 10.2 | 25 | 270 | 21 | 270 | 11 | |
| 12 | 53 | 43* | 48* | -10 | 32 | 42 | 17 | 0 | 0603 | 1720 | | 0 | M | 0.0 | 0.00 | 30.32 | 30.34 | 2.6 | 05 | 5.1 | 18 | 030 | 15 | 030 | 12 | |
| 13 | 66 | 46 | 56 | -1 | 41 | 49 | 9 | 0 | 0604 | 1719 | | M | M | M | 0.00 | 30.05 | 30.07 | 10.6 | 32 | 14.1 | 39 | 320 | 32 | 330 | 13 | |
| 14 | M | M | M | M | M | M | M | M | 0605 | 1717 | | M | M | M | M | M | M | M | M | M | M | M | M | M | M | 14 |
| 15 | M | M | M | M | M | M | M | M | 0606 | 1716 | | M | M | M | M | M | M | M | M | M | M | M | M | M | M | 15 |
| 16 | M | M | M | M | M | M | M | M | 0607 | 1714 | | M | M | M | M | M | M | M | M | M | M | M | M | M | M | 16 |
| 17 | M | M | M | M | M | M | M | M | 0608 | 1713 | | M | M | M | M | M | M | M | M | M | M | M | M | M | M | 17 |
| 18 | M | M | M | M | M | M | M | M | 0609 | 1711 | | M | M | M | M | M | M | M | M | M | M | M | M | M | M | 18 |
| 19 | M | M | M | M | M | M | M | M | 0610 | 1710 | | M | M | M | M | M | M | M | M | M | M | M | M | M | M | 19 |
| 20 | M | M | M | M | M | M | M | M | 0611 | 1708 | | M | M | M | M | M | M | M | M | M | M | M | M | M | M | 20 |
| 21 | M | M | M | M | M | M | M | M | 0613 | 1707 | | M | M | M | M | M | M | M | M | M | M | M | M | M | M | 21 |
| 22 | M | M | M | M | M | M | M | M | 0614 | 1705 | | M | M | M | M | M | M | M | M | M | M | M | M | M | M | 22 |
| 23 | M | M | M | M | M | M | M | M | 0615 | 1704 | | M | M | M | M | M | M | M | M | M | M | M | M | M | M | 23 |
| 24 | M | M | M | M | M | M | M | M | 0616 | 1703 | | M | M | M | M | M | M | M | M | M | M | M | M | M | M | 24 |
| 25 | M | M | M | M | M | M | M | M | 0617 | 1701 | | M | M | M | M | M | M | M | M | M | M | M | M | M | M | 25 |
| 26 | M | M | M | M | M | M | M | M | 0618 | 1660 | | M | M | M | M | M | M | M | M | M | M | M | M | M | M | 26 |
| 27 | M | M | M | M | M | M | M | M | 0619 | 1658 | | M | M | M | M | M | M | M | M | M | M | M | M | M | M | 27 |
| 28 | M | M | M | M | M | M | M | M | 0620 | 1657 | | M | M | M | M | M | M | M | M | M | M | M | M | M | M | 28 |
| 29 | M | M | M | M | M | M | M | M | 0622 | 1656 | | M | M | M | M | M | M | M | M | M | M | M | M | M | M | 29 |
| 30 | M | M | M | M | M | M | M | M | 0623 | 1655 | | M | M | M | M | M | M | M | M | M | M | M | M | M | M | 30 |
| 31 | M | M | M | M | M | M | M | M | 0624 | 1653 | | M | M | M | M | M | M | M | M | M | M | M | M | M | M | 31 |

| | | | | | | | | | | | | | | | | | | | | | |
|---------------------------------------|--|--|--|--|--|--|--|--|--|--|---|---|---|---|---|---|---|---|---|---|---|
| ←-----Monthly Averages / Totals-----→ | | | | | | | | | | | M | M | M | M | M | M | M | M | M | M | M |
| ←-----Departure From Normal-----→ | | | | | | | | | | | M | | | | | | | | | | |

| | | | | | | | | | | | |
|---|---|--|--|--|--|--|---|--|--|---|--|
| Degree Days Monthly Season to Date Total Departure Total Departure Heating: M M M Cooling: M M 881 M | Greatest 24-hr Precipitation: M Date: M Greatest 24-hr Snowfall: M Date: M Greatest Snow Depth: M Date: M | | | Sea Level Pressure Date Time (LST) Maximum M M M Minimum M M M | | | | | | | |
| | Number of Days with -----> | | | Max Temp >=90: M Max Temp <=32: M Thunderstorms : 0 | | | Min Temp <=32: M Min Temp <=0 : M Heavy Fog : 0 | | | Precipitation >=.01 inch: M Precipitation >=.10 inch: M Snowfall >=1.0 inch : 0 | |

* EXTREME FOR THE MONTH - LAST OCCURRENCE IF MORE THAN ONE. **Data Version: VER2**