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Semi-Annual Groundwater Monitoring Report
March and June 2004
Quarterly Sampling Events

Appendices

Prepared by
Connecticut Yankee Atomic Power Company

October 5, 2004

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Appendix A

Procedure 5.3-1

SEP 2 9 2003

June 5, 2003

CONNECTICUT YANKEE ATOMIC POWER COMPANY

DECOMMISSIONING PROCEDURE

CONTROLLED

SAFETY

GROUND WATER LEVEL MEASUREMENT AND SAMPLE COLLECTION IN MONITORING WELLS (RPM 5.3-1)

24265-000-GPP-GGGR-R5300-003 Rev# CY-001

To Be Completed By Preparer

10CFR/ACP 1.2-2.42 and ACP 1.2-2.92 Assessments

10CFR50.59 SCREEN REQUIRED?	X	YES		NO
10CFR50.59 EVALUATION REQUIRED (NO. N/A)		YES	X	NO
10CFR72.48 SCREEN REQUIRED?		YES	X	NO
10CFR72.48 EVALUATION REQUIRED (NO. N/A)		YES	X	NO
PORC/INDEPENDENT REVIEW REQUIRED?		YES	X	NO
OPERATOR REVIEW		YES	X	NO

Preparer: Gary Seckinger Date: 9/22/03

Reviewer Section

Dept. Review: Signature: 9-29-03 Date:

Nuclear Safety Review: Signature: Date:

Approval Section

Dept. Manager Signature / Date 9/29/03

PORC Chairman
Signature: N/A

PORC Mtg. No. N/A	PORC Date: N/A	Effective Date: 9-29-03

1.0 OBJECTIVE

To describe the methods for measurement of ground water levels and collection of representative samples of ground water from monitoring wells.

2.0 REQUISITES

Representative samples of ground water must be collected from monitoring wells and analyzed in order to demonstrate compliance as described in the Ground Water Monitoring Program (GWMP) and to meet the requirements of the License Termination Plan, Revision 1, August, 2002.

3.0 INSTRUCTIONS

3.1 Equipment and Materials

3.1.1 IF performing synoptic, or individual, water level monitoring, THEN OBTAIN the following equipment, as necessary:

- map of well and surface water gauging locations
- key(s) for all well locks
- 9/16", or ½" socket with drive for removing curb box covers
- sampling procedure, field log book and/or forms for documenting data and comments (Attachment A)
- electronic water level meter
- clean cloth or paper towels
- polyethylene sheet
- one gallon of de-ionized or distilled water, or spray bottle containing such
- garbage bag for trash

3.1.2 IF performing water sampling, THEN OBTAIN the following equipment, as necessary:

- map of well and surface water gauging locations
- key(s) for all well locks
- polyethylene sheet
- 9/16", or ½" socket with drive for removing curb box covers
- sampling procedure, field log book and/or forms for documenting data and comments (Attachment B)
- stainless steel, polyethylene or Teflon bailer (one per well)

- variable speed electric drill with pump attachment, peristaltic pump, bladder pump, and/or submersible pump
- portable generator and extension cord and/or 12 VDC car or marine battery
- Air compressor or nitrogen gas (for use with bladder pump)
- nylon string (enough for the total depth of well(s) to be sampled)
- de-ionized or distilled water
- electronic water level meter
- clean cloth or paper towels
- sample bottles – one set per well
- sample labels
- trip blank (water sample issued from the volatile organic compound (VOC) analytical lab) for VOC analysis, if required
- custody seals
- preservatives, if required (see Attachment C)
- containers to hold the purged ground water
- cooler(s) with "blue ice" packs for storing samples, if sample cooling is required
- decontamination supplies(e.g., non-phosphate detergent, tubes, etc.)
- packing materials
- leather work gloves
- zip-lock bags
- latex, and/or nitrile gloves – two pairs per well
- indelible marker (Sharpie or equivalent)
- garbage bag for trash
- roll of aluminum foil
- pump tubing (1/4 to 3/8-inch ID)
- silica tubing (1/8-inch ID;for use with peristaltic pump)
- hose clamps
- 15/16" socket with drive if using 55 gallon drums for containing purge water
- knife or scissors
- measuring container
- individual pH, temperature, conductivity and turbidity meters or an Horiba, or equivalent, combination meter, if necessary
- 0.45 micron ground water filters (one per well if sampling for dissolved metals)
- chain(s)-of-custody
- flow-through-cell for field parameter measurements, if necessary

NOTE

Peristaltic pumps shall not be used when collecting samples for VOCs analysis. Peristaltic pumps also have limited lift capacity and are ineffective where the depth to water exceeds 20 feet.

3.2 Connecticut River Level Determination

NOTE

Because the Connecticut River water level fluctuates with the tides, obtain a water level from the boat dock ramp reference location at the time of synoptic ground water level measurements.

3.2.1 OBTAIN the surface water level of the Connecticut River, by the designated elevation benchmark whenever water level measurements are taken in association with synoptic measurements.

a. Connecticut River benchmark is located on the south side of the boardwalk leading to the dock adjacent to the Information Center.
b. Synoptic water level measurements are recorded on Attachment A.

3.3 Synoptic Measurements of Depth to Ground Water Surface

3.3.1 OBSERVE the area surrounding the well and the well itself and NOTE the existence of any unusual conditions, e.g., ground staining from possible oil or gasoline spills or damage to the well.

3.3.2 IF any unusual condition exists, DO NOT proceed with that well.

- DESCRIBE the condition(s) in the comments section of Attachment A.
- NOTIFY Final Status Survey supervision.

3.3.3 CONTINUE if no unusual conditions exist.

NOTE

Personnel performing sampling should exercise caution to prevent cross-contamination whenever the potential for coming into contact with ground water exists (i.e., well purging, sample collection).

CAUTION

Due to fluctuation of hydraulic gradients, the air inside the well may have become pressurized. Approximately two hours before sampling or ground water level measurements are to take place, loosen the applicable well caps to relieve any built up pressure. Exercise caution when removing well covers.

3.3.4 OPEN the well cover and UNCAP the monitoring well, exercising care not to introduce any foreign material into the well. Note any unusual odors, sounds or difficulty opening the well. If the wellhead is submerged with water, remove standing water from within the curb box to a level below the top of the well. Put removed water into a container if required. Record observations on the Synoptic Water Level Measurement Data Sheet (Attachment A) or Ground Water Monitoring Well Data Log provided in Attachment B, as appropriate.

3.3.5 TURN the electric water level meter on and test the operational status by either placing the end of the probe in clean water or by use of the probe test system.

NOTE

The measurement should be taken at the notch filed on the top of the PVC pipe. The notch may or may not also be marked with an indelible marker.

3.3.6 Slowly LOWER the probe into the well and CONTINUE lowering until the tone sound indicates that contact with the water has been achieved.

3.3.7 REPEAT raising and lowering the probe via the cable using slight movements and keeping your head and face away from the well head, while listening to the indicator, until the water level surface in the well can be determined to the nearest 0.01 feet from the top of the PVC riser.

3.3.8 RECORD the well number, depth to ground water surface, and the start and finish times if synoptic measurements were taken on Attachment A.

3.3.9 As the cable is withdrawn from the well, WIPE down the cable and probe using a clean damp cloth, or paper towel(s).

NOTE

The well shall not be sampled if any liquid, other than water, is present on the water level meter probe. A note of the condition shall be made on Attachment A and the well shall be closed and locked. The probe shall not be used again until it is decontaminated.

3.3.10 PLACE the probe into the probe holder of the meter to prevent it from becoming contaminated. At no time shall the probe and/or cable come in contact with the ground surface.

3.3.11 IF sampling is not to be completed, THEN CLOSE and LOCK the well.

3.3.12 SECURE the area.

3.4 Purging the Ground Water to Prepare for Sample Collection

3.4.1 IF directed by Health Physics, SPREAD a clean, unused polyethylene sheet on the ground and RETAIN the bailer, nylon string, pump, tubing, battery, electronic water level meter and sample bottles, as appropriate, on the sheet during sampling.

3.4.2 MEASURE the depth to ground water surface as described in Section 3.3, and RECORD on Attachment B.

NOTE

The well may be purged using a dedicated bailer, bladder, peristaltic, submersible, or Waterra-style pump. The bailer must be wrapped in plastic prior to use and new string attached.

3.4.3 RECORD the ground water field parameters on Attachment B.

NOTE

The purged water and decontamination fluids generated from wells inside the Industrial Area MUST be disposed of under the direction of the Health Physics or Chemistry. Fluids generated from wells outside the Industrial Area will be either contained for disposal or discharged at the location under the direction of the Health Physics or Chemistry.

3.4.4 LABEL the purge water container(s) with the date, well number and the words "Monitoring Well Purge Water" where required

3.4.5 ARRANGE for transport of purge water container(s) to designated staging area when sampling is completed.

3.4.6 Equipment

Section 3.1.2 details the equipment needed for low flow purging/sampling, as necessary.

3.4.7 Preliminary Site Activities

If the well casing does not have a reference point (usually a V-cut or mark on the well casing), make one. Describe its location and record the date of the mark in the logbook.

A water level measurement must be performed before any purging or sampling activities begin as presented in Section 3.3.

3.4.8 Procedure for Low Flow Purging

The following procedure will be followed during low flow sampling events:

3.4.8.1 Install Pump or Tubing

LOWER pump, safety cable, tubing, electrical lines, and air lines SLOWLY (to minimize disturbance) into the well to the midpoint of the zone to be sampled.

NOTE

If possible, keep the pump or tubing intake at least two feet above the bottom of the well, to minimize mobilization of particulates present in the bottom of the well. Collection of turbidity-free water samples may be especially difficult if there is two feet or less of standing water in the well.

NOTE

When using a peristaltic pump, dedicated tubing shall be lowered to the requisite sample depth and suspended below the well cap at the completion of sampling for future sampling events. Care shall be taken to limit movement of the tubing to minimize mobilization of particulates.

3.4.8.2 Measure Water Level

BEFORE starting pump, MEASURE the water level to verify the water displacement has returned to the approximate initial water table level as presented in Section 3.3. Record data on Attachment B.

3.4.8.3 Purge Well

START the pump at its lowest speed setting and SLOWLY increase the speed until discharge occurs. Check the water level (Section3.3). ADJUST the pump speed so that there is little or no water level drawdown (less than 0.3 feet). If the minimal drawdown achieved exceeds 0.3 feet, but remains stable, continue purging until indicator field parameters stabilize.

MONITOR and RECORD the water level and pumping rate every three to five minutes (or as appropriate) during purging and record on Attachment B.

NOTE

Flow rate ADJUSTMENTS are best made in the first fifteen minutes of pumping to help minimize purging time. During pump start-up, drawdown may exceed the 0.3 feet target and then "recover" as pump flow adjustments are made.

NOTE

Measure the pumping rate by directing the pump discharge into a graduated beaker and timing the rate at which it fills.

NOTE

Do not allow the water level to fall to the pump intake level (if the static water level is above the well screen, avoid lowering the water level into the screen).

3.4.8.4 Low Recharge Wells

IF the recharge rate of the well is lower than extraction rate capabilities of currently manufactured pumps, or bailing, and the well is essentially dewatered during purging, THEN the well should be sampled as soon as the water level has recovered sufficiently to collect the appropriate volume needed for all anticipated sampling. Remove the pump, if used, close and vent the well, periodically monitor the recharge rate of the monitoring well (perhaps several hours, or days) and samples may then be collected even though the indicator field parameters have not stabilized pursuant to Section 3.5.

3.4.8.5 Monitor Indicator Field Parameters

During well purging, MONITOR indicator field parameters (i.e., turbidity, temperature, specific conductance, pH, oxidation-reduction potential (Eh), dissolved oxygen (DO), water level) every three to five minutes (or less frequently, if appropriate). Note: during the early phase of purging, emphasis should be put on minimizing and stabilizing pumping stress, and recording those adjustments. Purging is considered complete and sampling may begin when all the indicator field parameters have stabilized. Stabilization is considered to be achieved when three consecutive readings, taken at three (3) to five (5) minute intervals, are within the following limits:

Turbidity (10% for values greater than 1 NTU);
DO (10%);
Specific conductance (3%);
Temperature (3%)
pH ($\pm$ 0.1 standard unit); and
Oxidation-Reduction potential/ Eh ($\pm$/- 10 mv)

NOTE

If the field parameters are outside of the above limits, CONTACT the ESCS. The ESCS may direct sample collection upon discussion with the field sampling team and/or prior historical knowledge of a specific monitoring well.

3.4.8.6 Flow-Through-Cell

OBTAIN measurements with a flow-through-cell. Transparent flow-through cells are preferred, because they allow field personnel to watch for particulate build-up within the cell. If a flow-through-cell cannot be used, partially fill a container with purge water and submerge field parameter measuring devices into the container. Turbidity measurements may also be measured using a separate meter through a by-pass assembly before the purge water enters the flow-through-cell. Section 3.5.4 illustrates a typical flow-through-cell.

3.5 Collection of Ground Water Samples

NOTE

Samples must be obtained using a new polyethylene bailer, dedicated tubing with peristaltic pump, bladder pump, or a submersible pump. With the exception of the dedicated tubing and peristaltic pump, all pumps will be decontaminated using the steps in Section 3.6 of this procedure.
Not all wells may require sample collection. Sampling needs shall be determined by Final Status Survey supervision at the direction of the client and/or stakeholder(s).

NOTE

Personnel performing sampling shall wear new latex or nitrile gloves while collecting samples and not touch the inside surfaces of sample containers or caps. If caps fall on the ground during sampling, a new sample container or cap must be used.

NOTE

Information regarding typical sample containers, volumes and preservatives are discussed in Attachment C of this procedure. The proper type and amount of sample preservative shall be present in each container prior to filling.

NOTE

Some environmental samples are required to be stored at 4 to 6 degrees Celsius. A plastic cooler with ice packs shall be used as the sample carrier. Care must be taken to ensure the samples are chilled, but not frozen by maintaining separation between ice packs and environmental samples. Radiological ground water samples are not required to be chilled.

NOTE

Please review Attachment D – Low Flow Purging and Sampling Annotations for additional specific information.

3.5.1 SELECT the sample containers to be filled.

3.5.2 UNCAP and fill only one container at a time.

NOTE

Treat all samples and equipment as contaminated until analyses prove otherwise.

3.5.3 IDENTIFY each sample container with the sample identification number, date and time of sample collection, analysis requested and preservatives if any. Fill in the information on the label or container with a water-proof indelible pen <u>before</u> sample collection. Identify the sample as follows:

MWXXX(*)-YYQQ-XXX

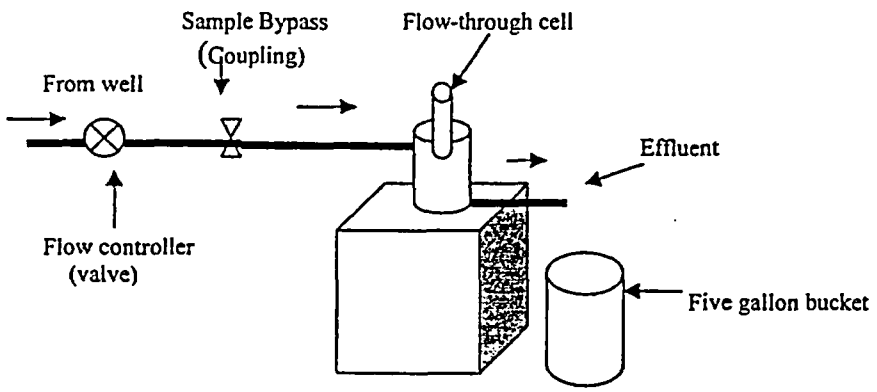
Where: MWXXX indicates monitoring well number where the sample originated.
* indicates a further optional alphanumeric descriptor
YYQQ indicates sample date (year/quarter)
XXX indicates the number of times the well was sampled during the quarter (e.g., each sampling event or group of

samples collected from a well for a given GWSEP would have the same number.

3.5.4 Low Flow Sampling

Water samples for laboratory analyses MUST be collected before water has passed through the flow-through-cell (use a by-pass assembly or disconnect cell to obtain sample). A by-pass assembly must be placed upstream of effluent tube and flow-through cell (refer to figure below) to avoid sample off gassing due to pressure changes.

Typical Flow-Through Cell Plumbing



VOC sample aliquots should be collected before those for other analytical parameters and put directly into pre-preserved sample containers. The VOC vial should be tilted on an angle as it is filled. Fill all sample containers by allowing the pump discharge to flow gently down the inside of the container with minimal turbulence.

3.5.5 Bailer Sampling

3.5.5.1 Slowly LOWER the bailer into the well and allow it to fill.

3.5.5.2 Slowly WITHDRAW the bailer by the nylon string, coiling the string on the plastic sheet, or drape over hand, so it does not come into contact with the ground.

3.5.5.3 WHEN the bailer has been retrieved, EMPTY the bailer such that the contents enter the sample container.

3.5.5.4 REPEAT above steps until desired sample volume is obtained.

3.5.6 Add preservative, as required by analytical methods, to samples immediately after they are collected if the sample containers are not pre-preserved. Check analytical methods (e. g. EPA SW-846, Drinking Water methods, etc.) for additional information on preservation.

3.5.7 Samples of ground water should be collected in the following order, if necessary, after pre-sampling protocols specified in section 3.4.8.5 have been met:

1. Volatile organic compounds (VOCs);
2. Semivolatile organic compounds (SVOCs);
3. Unfiltered inorganic compounds; (metals)
4. Filtered inorganic compound, if required
5. PCBs
6. Pesticides
7. Herbicides
8. Cyanide
9. Radiological constituents

NOTE

If, at any time, a duplicate sample is required, then use one of the extra sets of sample bottles to collect the second sample and label it as a duplicate. The location and designation of the duplicate shall be noted on Attachment B.

3.5.8 Samples collected for Volatile Organic Compounds (VOC) analyses.

NOTE

Samples collected for volatile organic compounds must be devoid of air bubbles and the sample must not be aerated during sample collection.

1. ENSURE the preservative is in the VOC container prior to sampling.

2. Slowly FILL the container from a steady flow of water from the bailer or pump.

3. FILL and CAP the container TURN the container upside down and ENSURE that no bubbles are present in the sample container.

4. TAP the container lightly on your hand to dislodge any bubbles.

5. IF any bubbles are observed, THEN OPEN the container and slowly add more water.

3.5.8.1 Samples collected for other analyses

1. FILL the preserved containers, leaving a small amount of air space, directly from the bailer or pump tubing.

2. ADD preservative, if necessary.

3. CAP the container(s).

3.5.9 INITIATE a Chain-of-Custody form.

a. ENSURE the Chain-of-Custody form remains with the sample.

3.5.10 When all samples for the well have been collected, REMOVE the bailer and/or pump and tubing from the well.

a. PLACE the cap back onto the well and CLOSE the lock and road box, if applicable.
b. Dispose of, or STORE, sampling materials in a separate place.

3.5.11 IF rinsate samples are required to be collected pursuant to the sampling plan, OBTAIN rinsate samples from the pump to demonstrate the efficiency of the decontamination method.

a. PERFORM decontamination of pump as presented in Section 3.6.
b. PUMP de-ionized water through the tubing into appropriate container(s) for analyses using the pump that has been decontaminated.
c. LABEL and MANAGE the rinsate samples per Sections 3.5.1 – 3.5.8, with the exception that they are not processed through the flow-through-cell and are labeled as "rinsate" samples in place of "Well Number".

3.5.12 At the end of the sampling period, BRING the samples to the designated storage location.

a. RELINQUISH samples via the Chain-of-Custody form.

3.5.13 START a new Attachment B for each monitoring well sampled and COMPLETE the sections for the well sampled.

a. FORWARD Attachment B pages to the Environmental Site Closure Supervisor.

b. INCLUDE a copy of the Chain-of-Custody form, blanks and other samples in the shipment of samples to the analytical laboratory.

c. PLACE sample containers into a shipping container, cool to 4°C with ice packs, if necessary. Pad the samples with bubble wrap, styrofoam and/or vermiculite packing as necessary.

3.6 Decontamination

3.6.1 DISPOSE of single-use bailers, tubing and rope/string used for ground water sampling after each use in radwaste trash receptacle, as appropriate.

3.6.2 DECONTAMINATE the field meter and field parameter probes, and measuring beaker before sampling each well.

a. FILL a spray bottle with de-ionized water and alconox soap, or equivalent.
b. SPRAY the probes and measuring container(s) with the soap solution.
c. RINSE the probes and measuring container(s) with de-ionized water from a second spray bottle.
d. COLLECT the rinse water if required
e. STAGE the probes in the equipment storage container.

3.6.3 DECONTAMINATE sampling pump in the field prior to sampling each well following one of these procedures:

Method 1

a. FILL one PVC tube with a mixture of alconox soap, or equivalent, and de-ionized water.
b. FILL a second PVC tube with distilled water.
c. PLACE pump in first tube and set discharge tubing so it flows back into the tube.
d. RUN pump so the solution goes through the pump and back into the PVC tube for several minutes.

e. REMOVE pump from first tube and wipe with clean cloth or paper towel(s).
f. PLACE pump into second tube and repeat steps c and d above.
g. REMOVE pump from second tube and wipe down with clean cloth or paper towel(s).
h. COLLECT the rinse water into container(s), if required
i. PLACE pump in pump stand holder.

Method 2 (For use with bladder pumps)

a. WASH external components of the pump (also wash tubing and air line if not dedicating these to individual wells) with alconox soap solution and rinse with de-ionized water as pump is withdrawn from the well.

b. WIPE external components down with clean cloth or paper towel(s).

c. PUMP a dilute mixture of alconox soap, or equivalent, and de-ionized water through the bladder pump using a peristaltic pump.

d. RUN pump so the solution goes through the pump for several minutes and discharge into waste container.

e. RINSE by pumping a volume of de-ionized water through the pump using the persistaltic pump and discharge into waste container.

f. COLLECT the rinse waters into waste container(s), if required.

g. PLACE pump in pump stand holder.

3.7 Sample Collection and Handling Controls

NOTE

Care must be taken to avoid potential cross contamination of environmental samples and sample containers. Sample containers, coolers, and sampling equipment must never be stored near gasoline, solvents, or other equipment and /or fluids that may present a source of contamination.

3.7.1 Trip Blanks

NOTE

Trip blanks are required for aqueous sampling events for which VOC analyses will be performed. Trip blank samples are used to document potential cross contamination of samples due to container contamination, and/or induction of contamination during sampling and transport of containers from the laboratory into the field and then shipment back to the analytical laboratory.

NOTE

Trip blanks consist of a set of sample bottles filled at the laboratory with laboratory-grade water. These sample bottles accompany the empty sampling containers, supplied by the laboratory, to the site, into the field during the sampling sent, and then back to the laboratory. Trip blanks will be analyzed for volatile organic compounds (VOCs).

a. The specific GWSEP will DETERMINE the number of trip blank samples required for the monitoring event. <u>One trip blank is required for each day VOC sample containers are transported from the site to the analytical laboratory</u>. If no VOC samples are collected on a given day, then a trip blank is not required to be included in the shipping container. Likewise, if multiple samples are collected in a given day and several shipping containers are used, place all VOC samples into one shipping container and then only one trip blank is required.

NOTE

Trip Blank bottles are never to be opened in the field. Trip blank samples should be chilled (e.g. maintained in a cool to 4°C condition) only after the accompanying sample containers have been filled and are prepared for off-site shipment.

3.7.2 Duplicate Samples

Field duplicate samples, if required by the GWSEP, are two separate samples taken from the same source and are used to determine data repeatability based on field conditions.

Duplicate samples are collected by alternately filling the environmental sample container and the duplicate sample container. Duplicate samples should be preserved and handled in the same manner as environmental samples. Duplicate samples shall be analyzed for the same parameters as the associated environmental samples.

NOTE

Selection of duplicate samples shall be biased toward locations that have indicated, or are suspected, of being the most heavily impacted with the analyte(s) of interest and will be detailed within the specific ground water sampling plan for a particular sampling event.

4.0 ATTACHMENTS

4.1 Attachment A – Synoptic Water Level Measurement Data Sheet

4.2 Attachment B – Ground Water Monitoring Well Data Logs

4.3 Attachment C – Typical Sample Containers, Volumes, Preservatives and Holding Times for Various Analyses

4.4 Attachment D – Low Flow Purging and Sampling Annotations

5.0 SUMMARY OF CHANGES

Section/Paragraph	Change	Reason
3.1	Added various pump types	More flexibility
3.4	Added ability to pour sample, decon fluid to ground. Added alternate turbidity measurement method.	If allowed by Chem Waste Permit. More flexibility
ALL		Revised minor typos, title, name changes

ATTACHMENT A – Synoptic Water Level Measurement Data Sheet

Summary of Depth-to-Water Measurements

Monitoring Well Location and Identification	Depth to Water in Feet From TIC
MW-100D	
MW-100S	
MW-101D	
MW-101S	
MW-102D	
MW-102S	
MW-103D	
MW-103S	
MW-104S	
MW-105D	
MW-105S	
MW-106D	
MW-106S	
MW-107D	
MW-107S	
MW-108S	
MW-109D	
MW-109S	
MW-110D	
MW-110S	
MW-114S	
MW-115S	
AST-1	
MW-111S	
MW-112S	
MW-113S	
MW-117S	
MW-13	
TW-1	
EOF-2	
MW-200	
MW-201	
MW-202	
MW-203	
MW-204	
MW-205	
MW-206	
MW-207	
Boat Dock	

TIC: Top of Inner Casing

Date: ______________

Time Started: ______________

Time Finished: ______________

Prepared By: ______________

Field Observations/Comment Section:

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ATTACHMENT B - Ground Water Monitoring Well Data Log

Monitoring Well ID:_____ Date:_____ Static Water Level: _____ Name: _____

Pump Set Depth: _____ All Depths Are Feet Below Top Of Inner Casing (TIC)

TIME (military)	Frequency (cycles/sec)	Discharge Rate (mL/min)	Cum. Purge Volume (gallons)	DTW (feet)	Field Parameters					
					Turbidity (NTU)	DO (mg/L)	Eh (mv)	pH (S.U.)	Specific Conductance (us/cm)	Temperature (degree C)

Instrument Model/Serial Number(s): _____ Calibration Date(s): _____

ATTACHMENT C

Typical Sample Containers, Volumes, Preservatives and Holding Times for Various Analyses

Analytical Suite	Volume/Sample Container	Preservative	Holding Time
Volatile Organic Compounds	(2) 40 ml. glass vial	Acidified to pH <2 with VOC grade Hydrochloric acid (HCL) Keep at 4 °C	14 days
Metals	500 ml polyethylene	Acidified with reagent grade nitric acid (HNO_3) to pH <2	6 months (except Hg which is 28 days)
Cyanide	1 liter, polyethylene	NaOH added to pH >12	14 days
Herbicides	1 liter, amber glass	Keep at 4°C	7 day pre-extraction 40 day post-extraction
Pesticides	1 liter, amber glass	4° C	7 day pre-extraction 40 day post-extraction
PCBs	1 liter, amber glass	4° C	7 day pre-extraction 40 day post-extraction
SVOCs	1 liter, amber glass	4° C	7 day pre-extraction 40 day post-extraction

ATTACHMENT C

Typical Sample Containers, Volumes, and Preservatives for Various Analyses

Radionuclide	Ground Water Concentration Equivalent to 1 mrem/yr(1)	EPA Drinking Water MCL (pCi/l)	Required MDC(2) (pCi/l)	Analysis Category
H-3	26080	20000	400	LSC
C-14	360	2000	200	LSC
Mn-54	968	300	50	Gamma
Fe-55	2616	2000	25	LSC
Co-60	46	100	25	Gamma
Ni-63	1260	50	15	LSC
Nb-94	270	-	50	Gamma
Ag-108m	170	-	50	Gamma
Eu-152	293	60	50	Gamma
Eu-154	202	200	50	Gamma
Eu-155	1300	600	50	Gamma
Sr-90	10	8	2	LSC
Tc-99	1056	900	15	LSC
Cs-134	14	20000	14	Gamma
Cs-137	17	20	15	Gamma
Pu-238	0.60	15	0.50	Alpha
Pu-239	0.54	15	0.50	Alpha
Pu-241	28.40	-	15	LSC
Am-241	0.53	15	0.50	Alpha
Cm-243	0.78	15	0.50	Alpha

Summary	Preservative	Container
Gross Alpha/Beta	Nitric acid pH<2 (5 ml)	1 liter HDPE
Gamma Isotopic	Nitric acid pH<2 (20 ml)	4 liter HDPE
Hard to Detects		
Alpha Isotopic	Nitric acid pH<2 (20 ml)	4 liter HDPE
H-3	None	250 ml glass
C-14	None (no headspace air)	250 ml glass
Fe-55	Nitric acid pH<2 (20 ml)	4 liter HDPE
Ni-63	Nitric acid pH<2 (20 ml)	4 liter HDPE
Sr-90	Nitric acid pH<2 (20 ml)	4 liter HDPE
Tc-99	Nitric acid pH<2 (20 ml)	4 liter HDPE
Pu-241	Nitric acid pH<2 (20 ml)	4 liter HDPE

(1) These values are derived from the LTP Ground Water DCGLs
(2) MDC = Minimum Detectable Concentration to meet the DQO

* For the purpose of attaining analyte sensitivities required to demonstrate compliance with the License Termination Plan (LTP) DCGLs or Water Quality Standards (WQS), a generic DQO is an acceptable approach to ensure quality data since numerous levels of quality assurance are built into analytical laboratory performance and chain of custody requirements.

Attachment D
Low Flow Purging and Sampling Annotations

Purpose of Low Flow Ground Water Sampling

The purpose of low flow (low stress) purging and sampling is to collect ground water samples that are representative of ground water quality under approximate natural flow conditions. The presence and concentration of dissolved organic and inorganic pollutants as well as the pollutants associated with mobile particulates are most accurately revealed through low flow sampling. Low flow sampling techniques minimize stress on the aquifer by utilizing low pumping rates that result in minimal water level drawdowns.

Presence of NAPLs

Check newly constructed wells for the presence of light non-aqueous phase liquids (LNAPLs) or dense non-aqueous phase liquids (DNAPLs) with a product level interface probe before the initial sampling round. Low flow sampling may be an inappropriate method for sampling ground water with non-aqueous phase liquids (NAPLs). Procedures for the collection of LNAPL and DNAPL samples are not addressed in this Procedure.

Measurement and Cleaning of the Flow-Through-Cell

Transparent flow-through cells are preferred, because they allow field personnel to watch for particulate build-up within the cell. This build-up may affect indicator field parameter values measured within the cell and may also cause an under-estimation of turbidity values measured after the cell. If the cell needs to be cleaned during purging operations, continue pumping and disconnect cell for cleaning, then reconnect after cleaning, and continue monitoring activities.

Additional Control of Discharge Flow

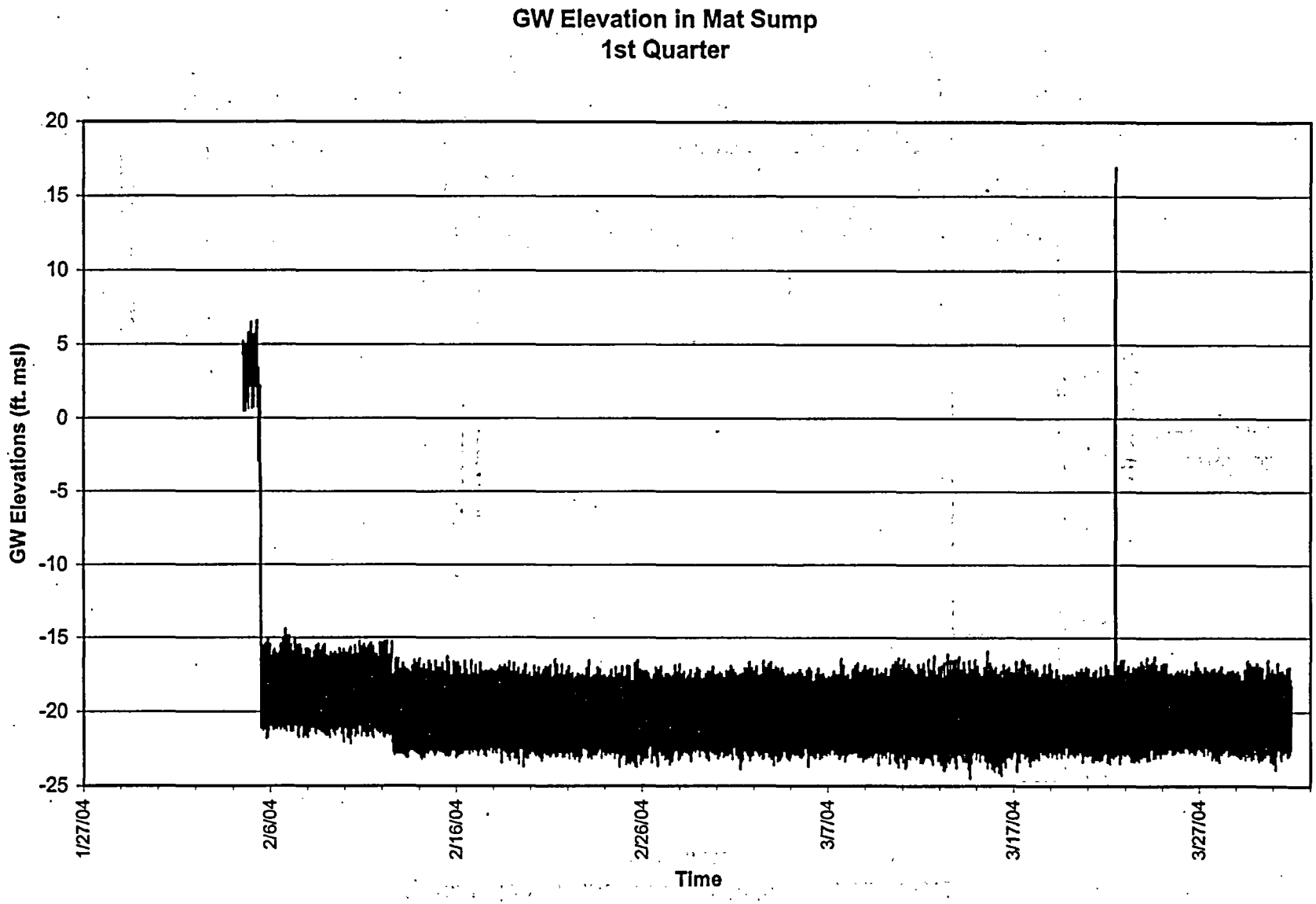
During purging and sampling, the tubing should remain filled with water to minimize possible changes in water chemistry upon contact with the atmosphere. It is recommended that ¼ -inch or 3/8-inch (inside diameter) tubing be used to help insure that the sample tubing remains water filled. If the pump tubing is not completely filled to the sampling point, use one of the following procedures to collect samples: (1) add clamp, connector or valve to constrict sampling end of tubing; (2) insert small diameter tubing into water filled portion of pump tubing allowing the end to protrude beyond the end of the pump tubing, collect sample from small diameter tubing; (3) collect non-VOC samples first, then increase flow rate slightly until the water completely fills the tubing, collect VOC sample and record new drawdown, flow rate and new indicator field parameter values on Attachment B.

6.0 BASIS

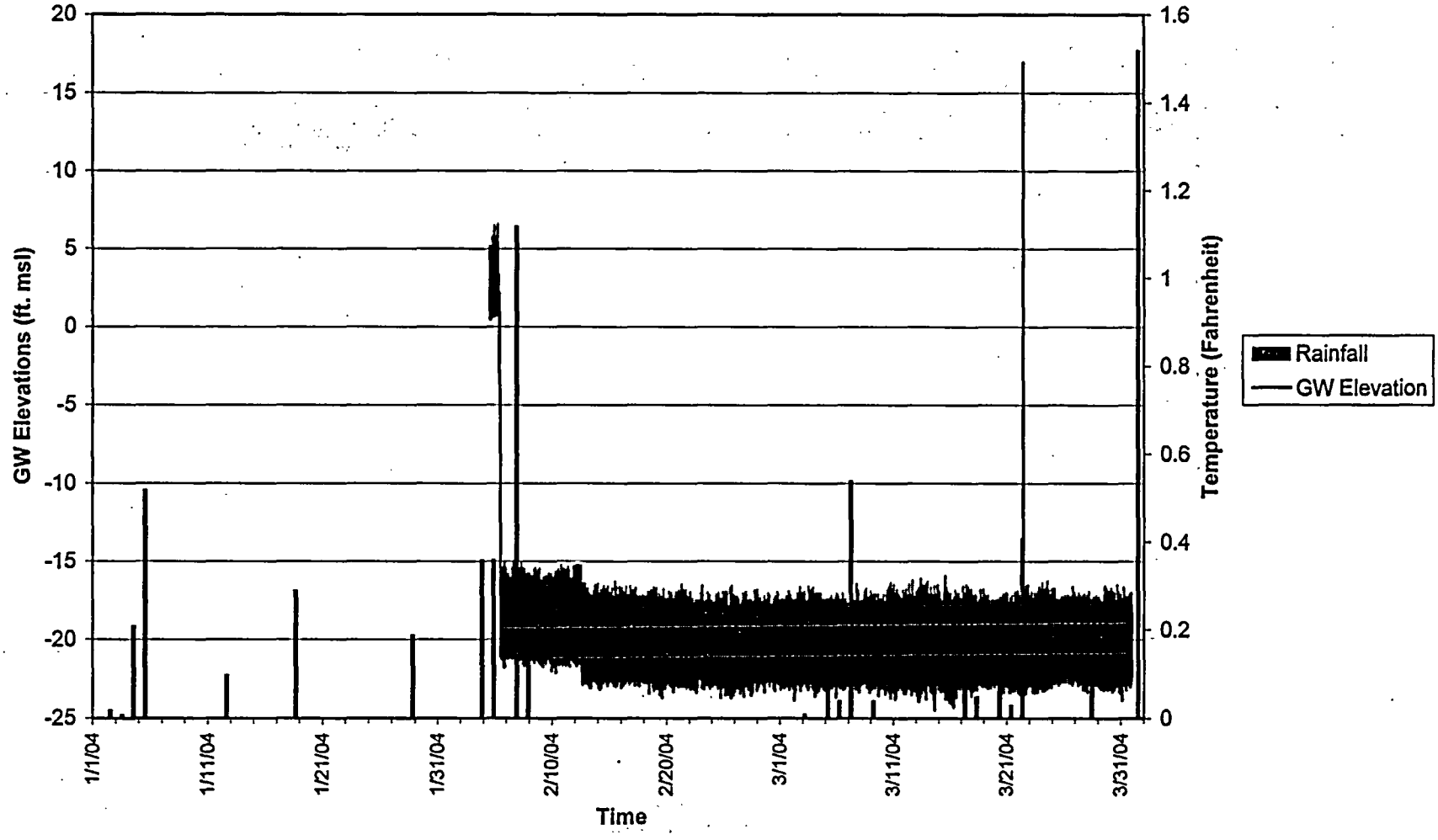
6.1 "Multi-Agency Radiation Survey and Site Investigation Manual (MARSSIM)" (NUREG-1575) recommends that as part of the decommissioning process, a suitable monitoring well network be set up to sample ground water for possible contamination.

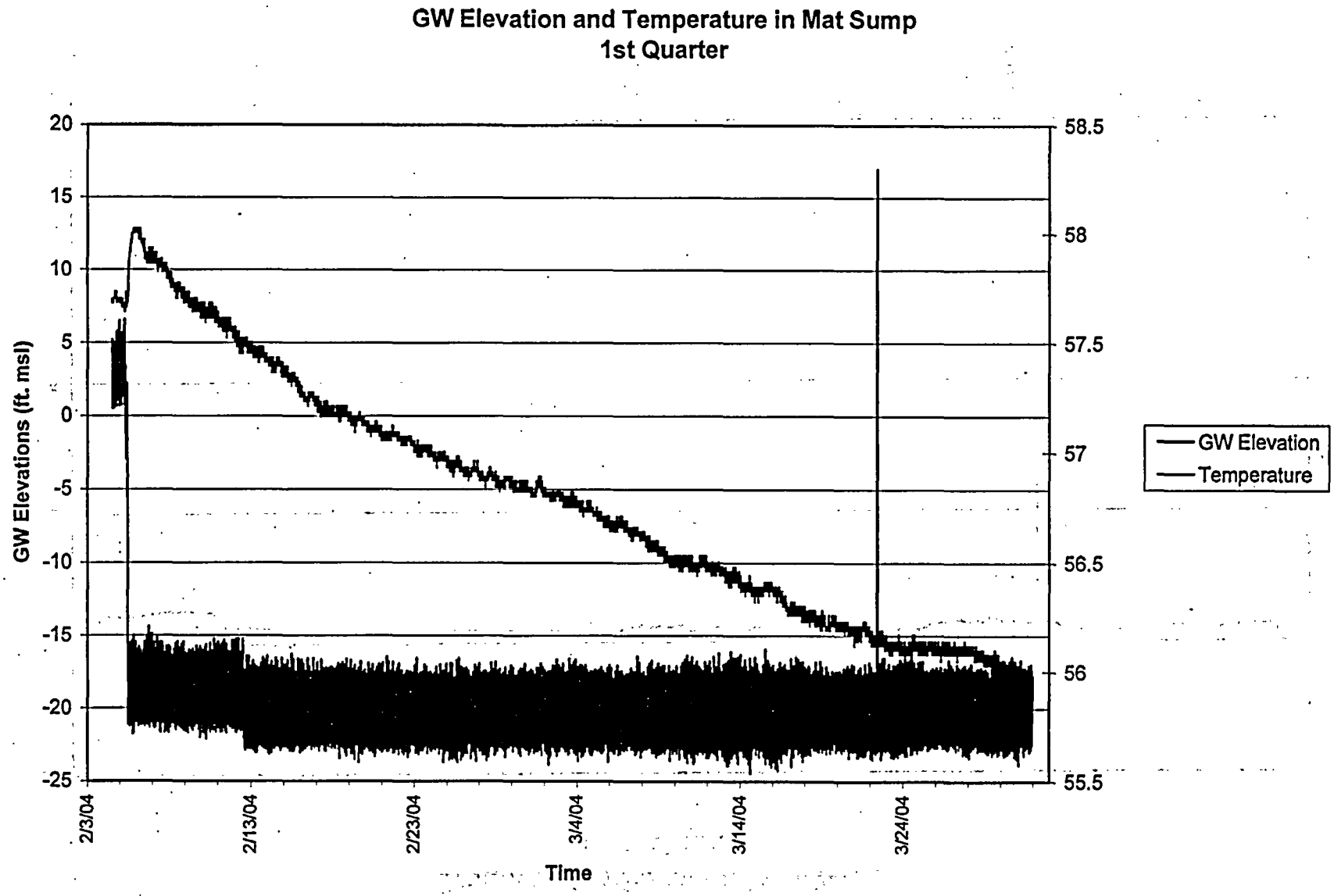
Appendix B

First and Second Quarter Hydrographs

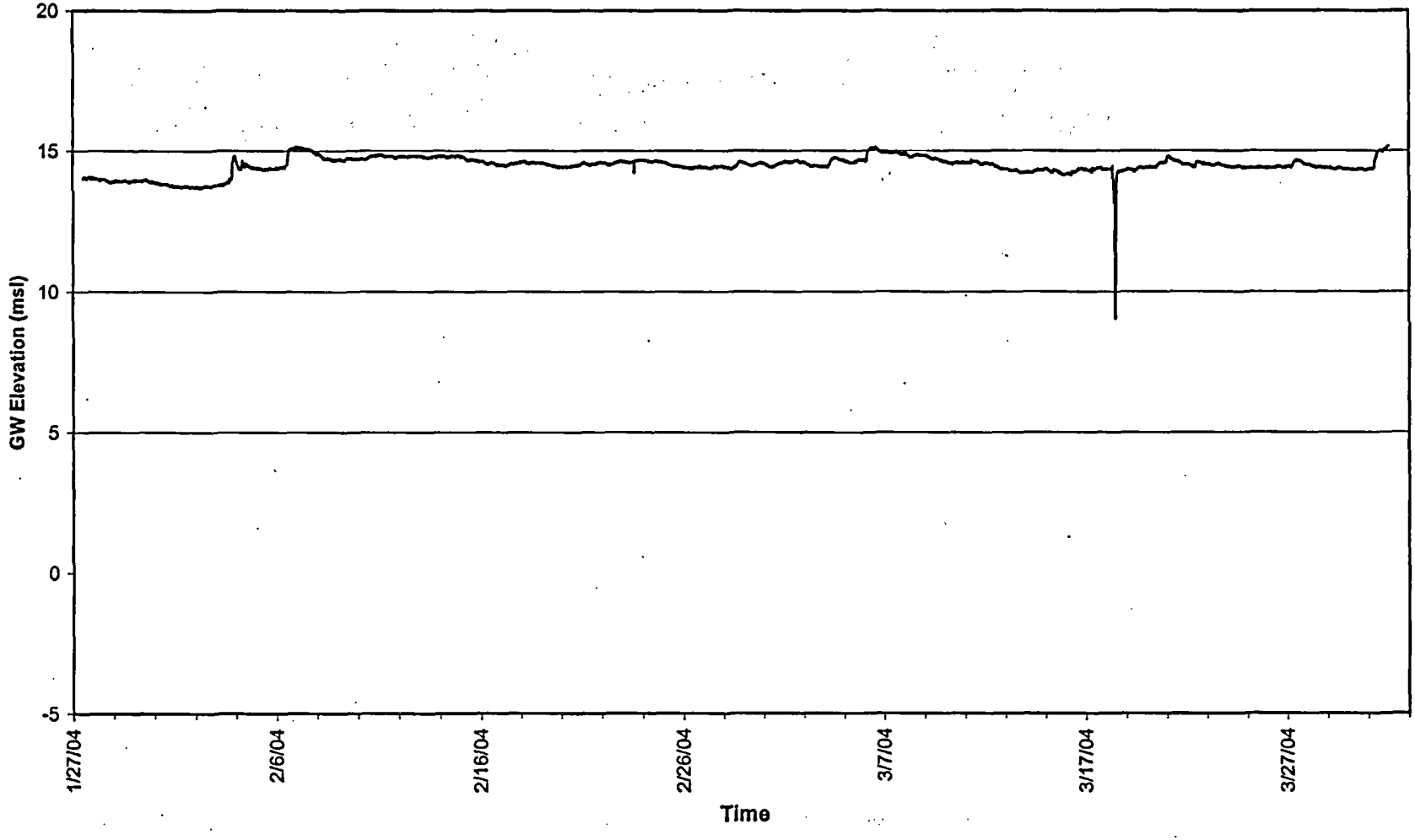

GW Elevation in Mat Sump
1st Quarter
GW Elevations (ft. msl)
20
15
10
5
0
-5
-10
-15
-20
-25
1/27/04
2/6/04
2/16/04
2/26/04
3/7/04
3/17/04
3/27/04
Time

GW Elevation in Mat Sump vs Daily Rainfall Totals
1st Quarter

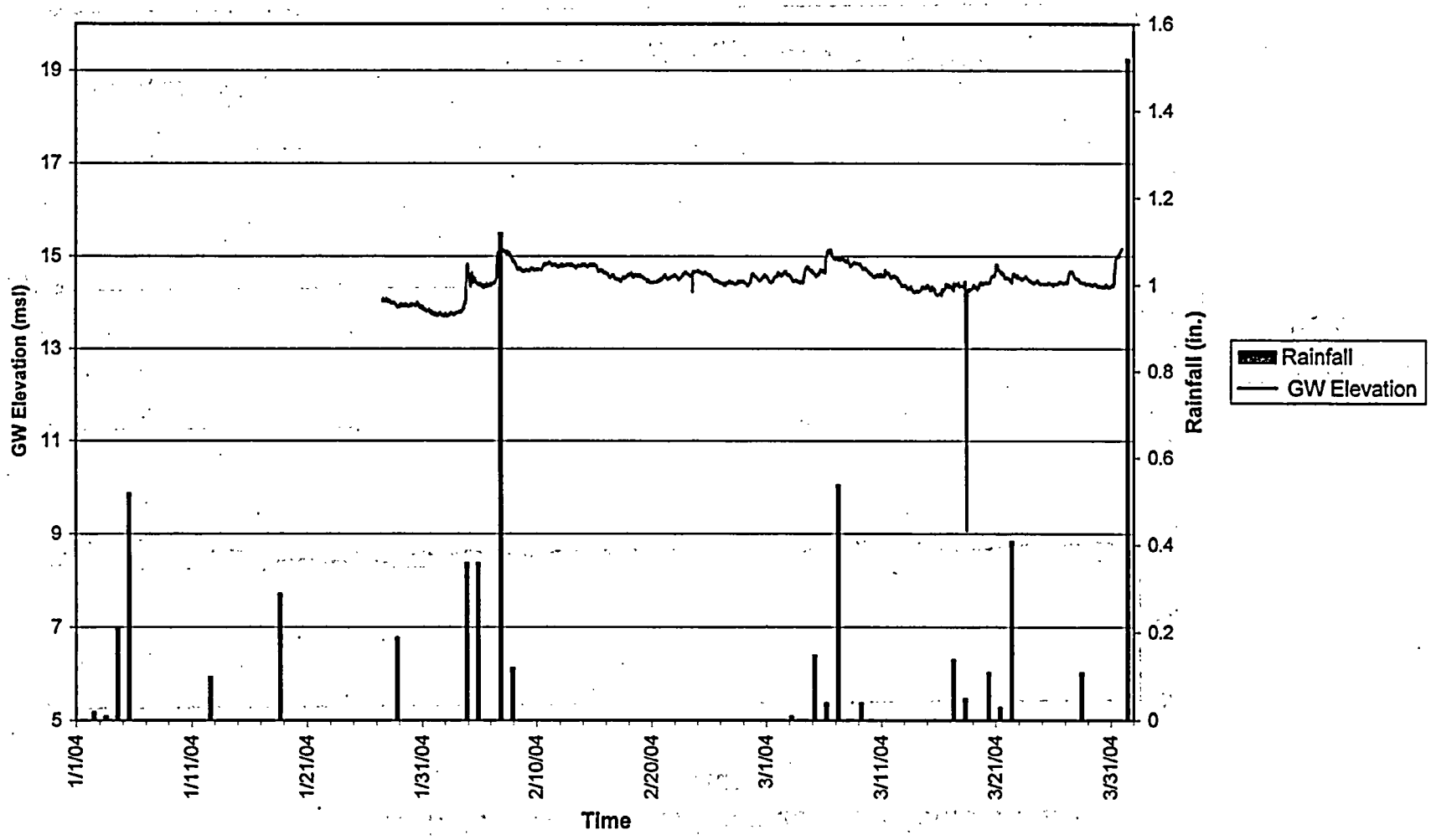



GW Elevation and Temperature in Mat Sump
1st Quarter
GW Elevations (ft. msl)
20
15
10
5
0
-5
-10
-15
-20
-25
58.5
58
57.5
57
56.5
56
55.5
2/3/04
2/13/04
2/23/04
3/4/04
3/14/04
3/24/04
Time
GW Elevation
Temperature

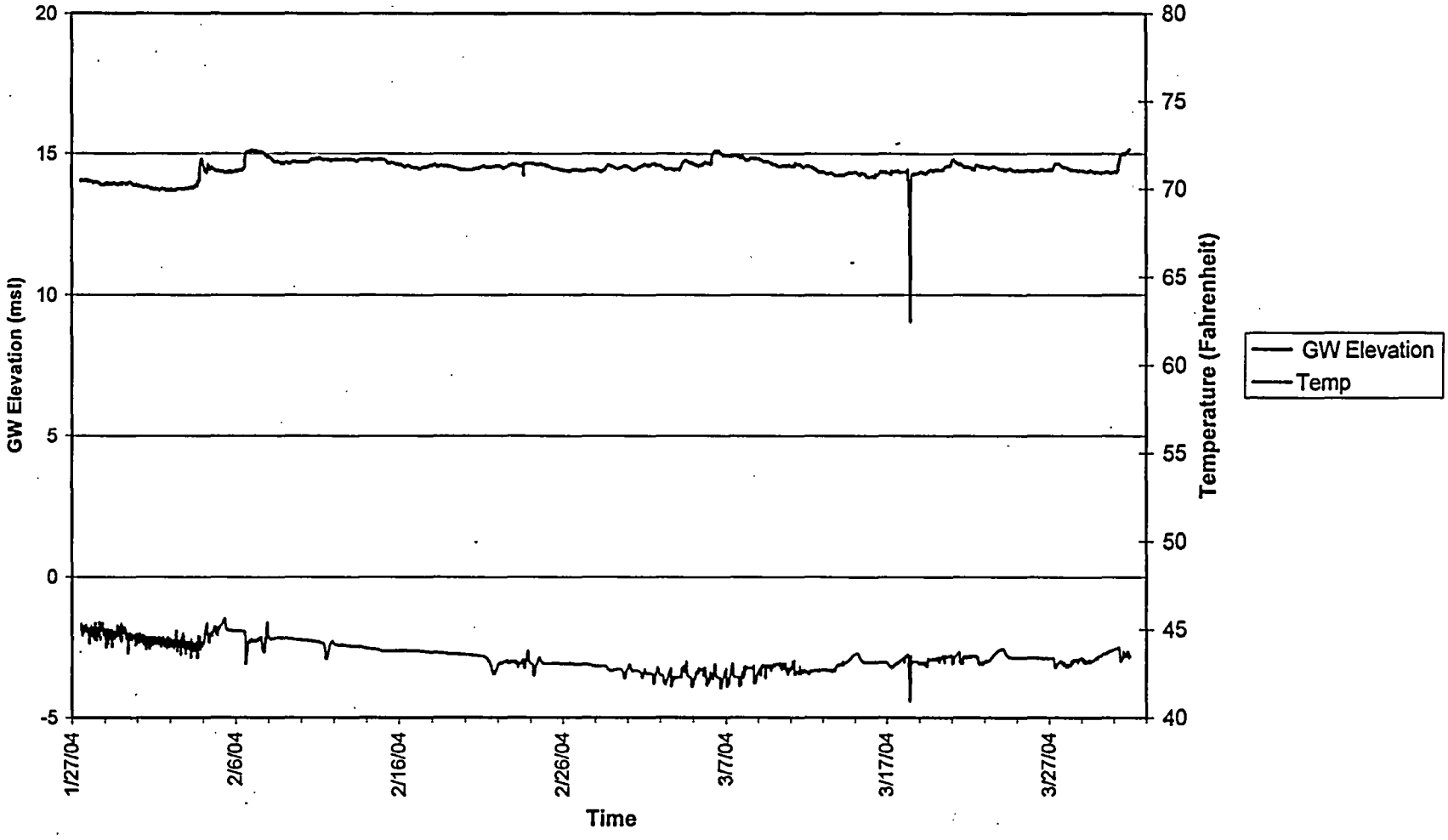
Groundwater Elevation in MW-100S
First Quarter



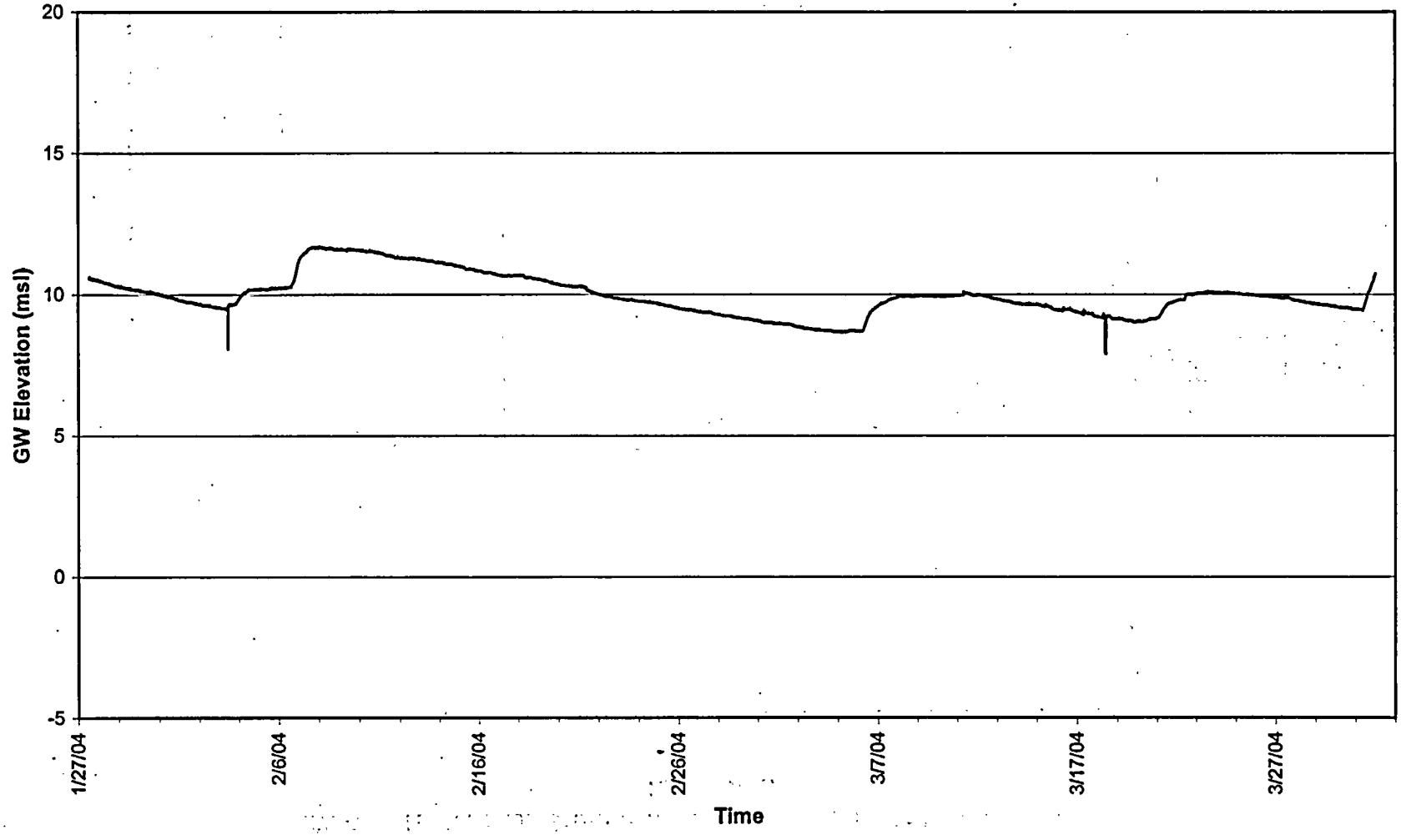
MW-100S Groundwater Elevation and Daily Rainfall Totals
First Quarter



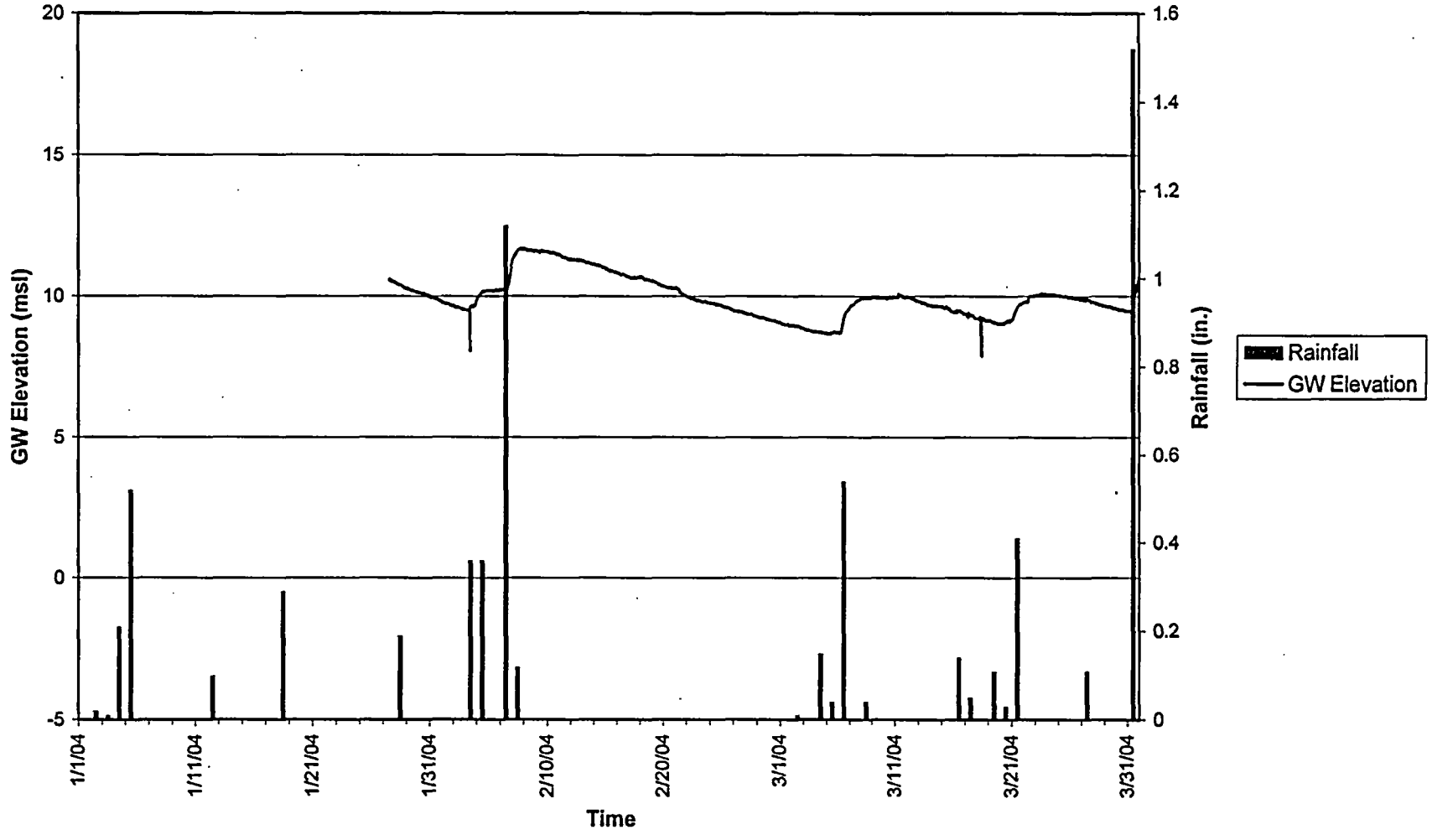
MW-100S Groundwater Elevation and Temperature
1st Quarter

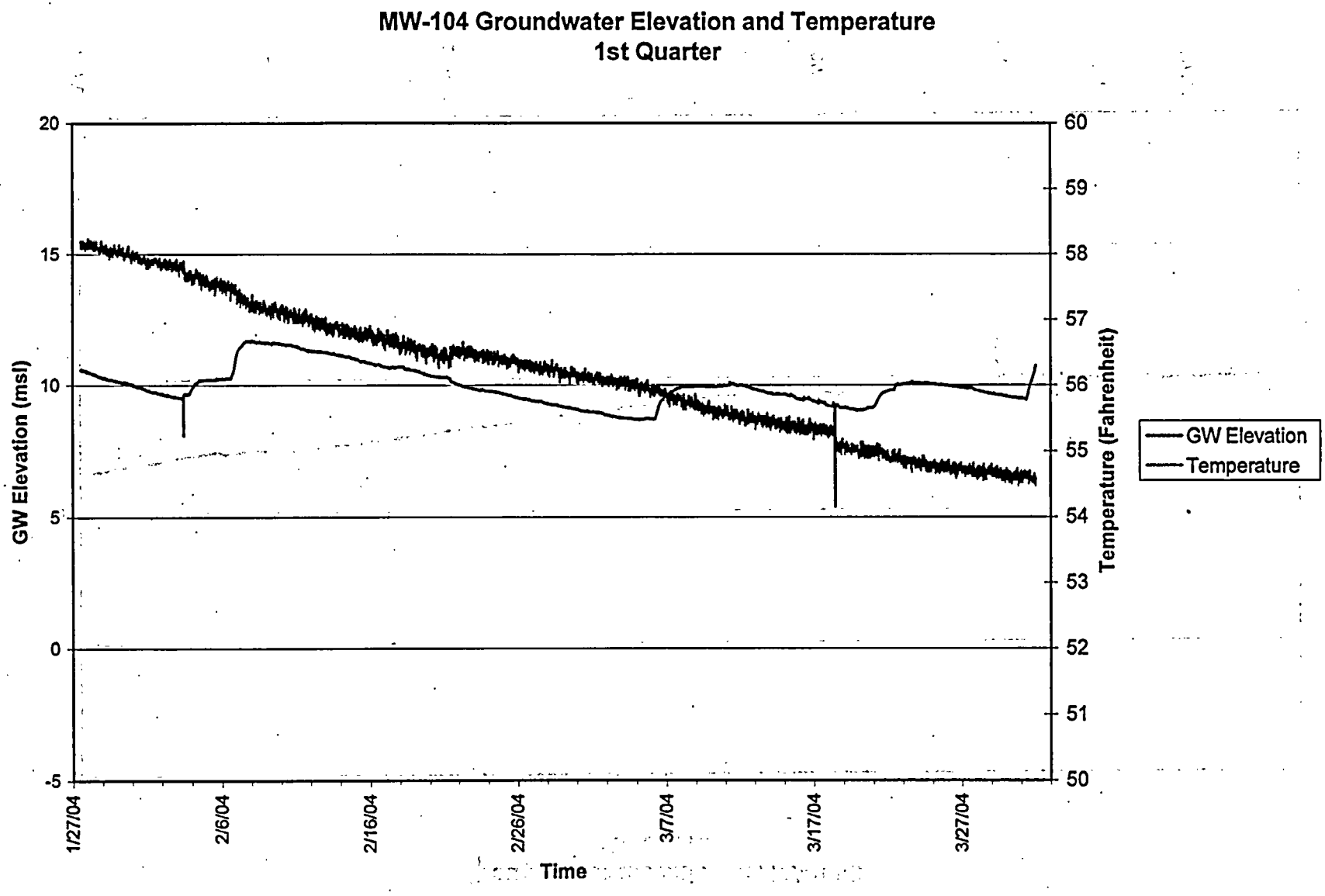


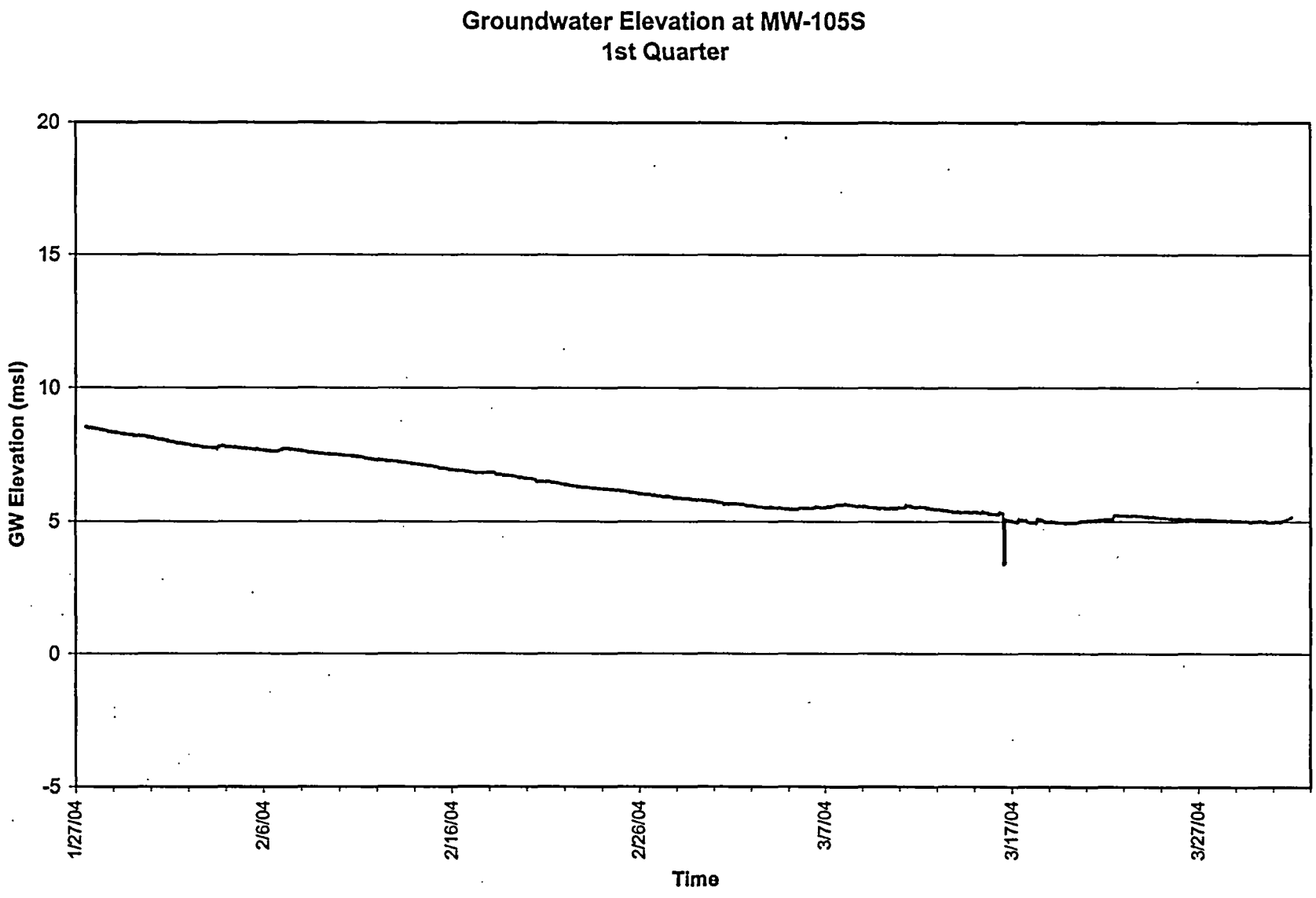
Groundwater Elevation at MW-104
1st Quarter



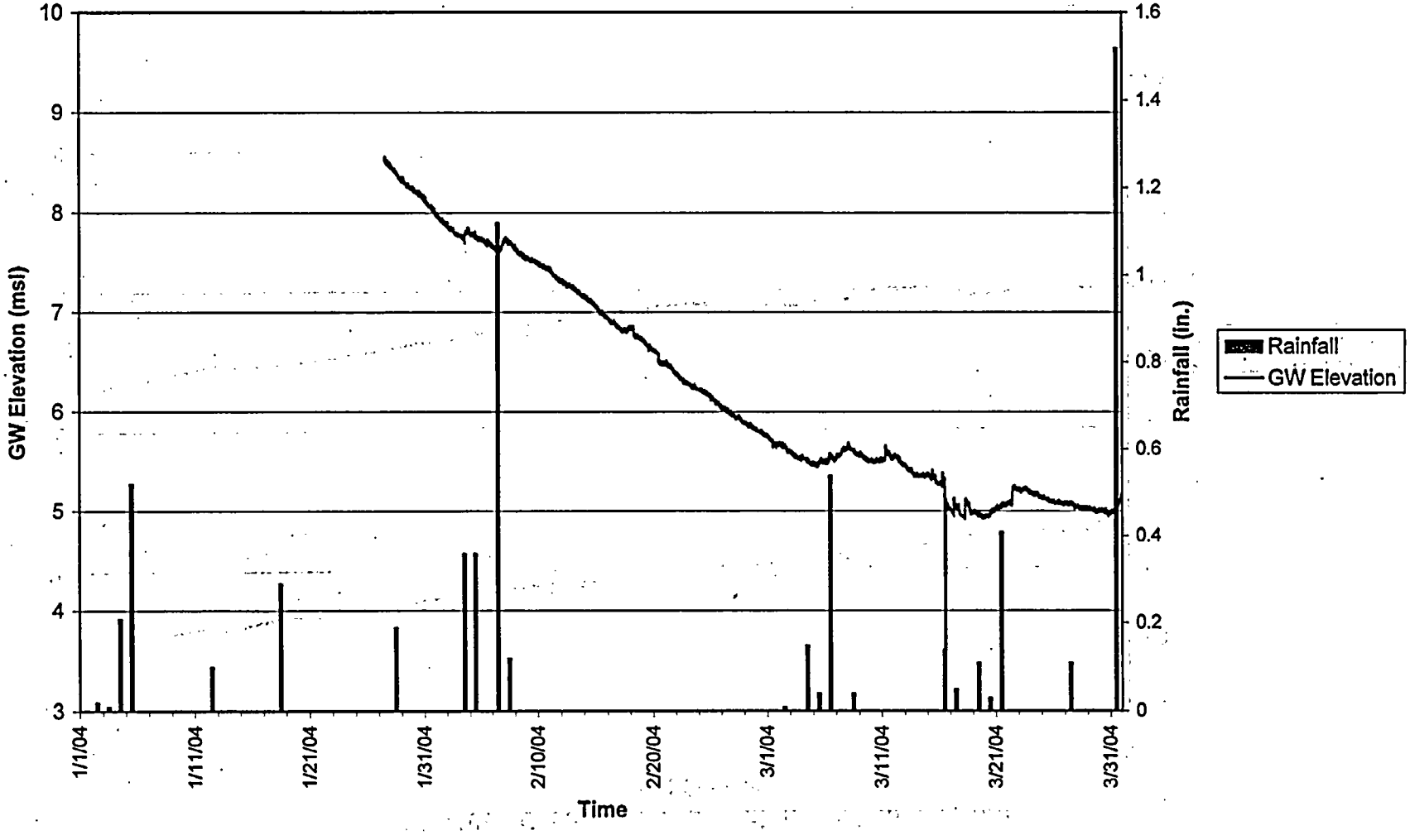
MW-104 1st Quarter Groundwater Elevation and Daily Rainfall Totals
1st Quarter

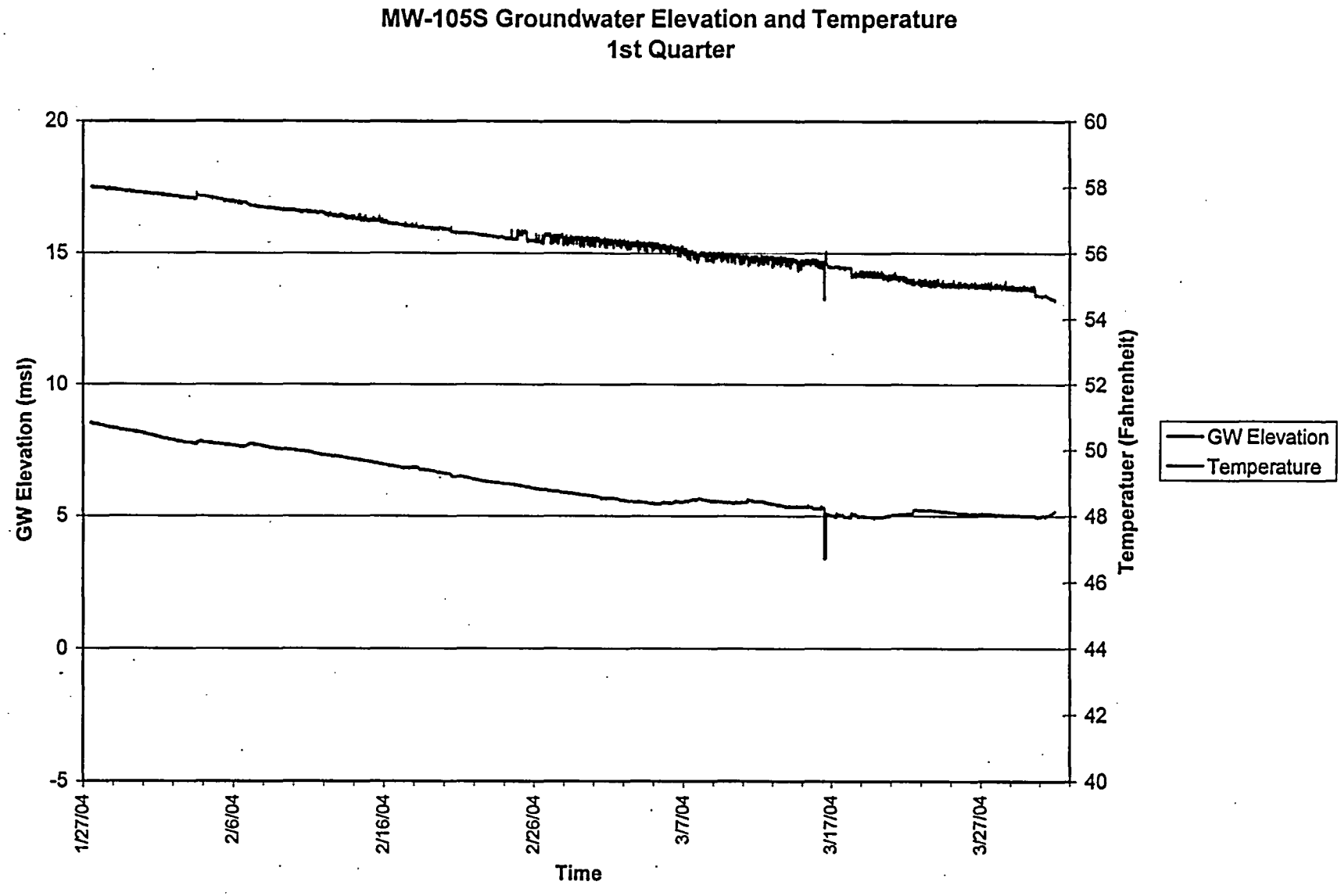


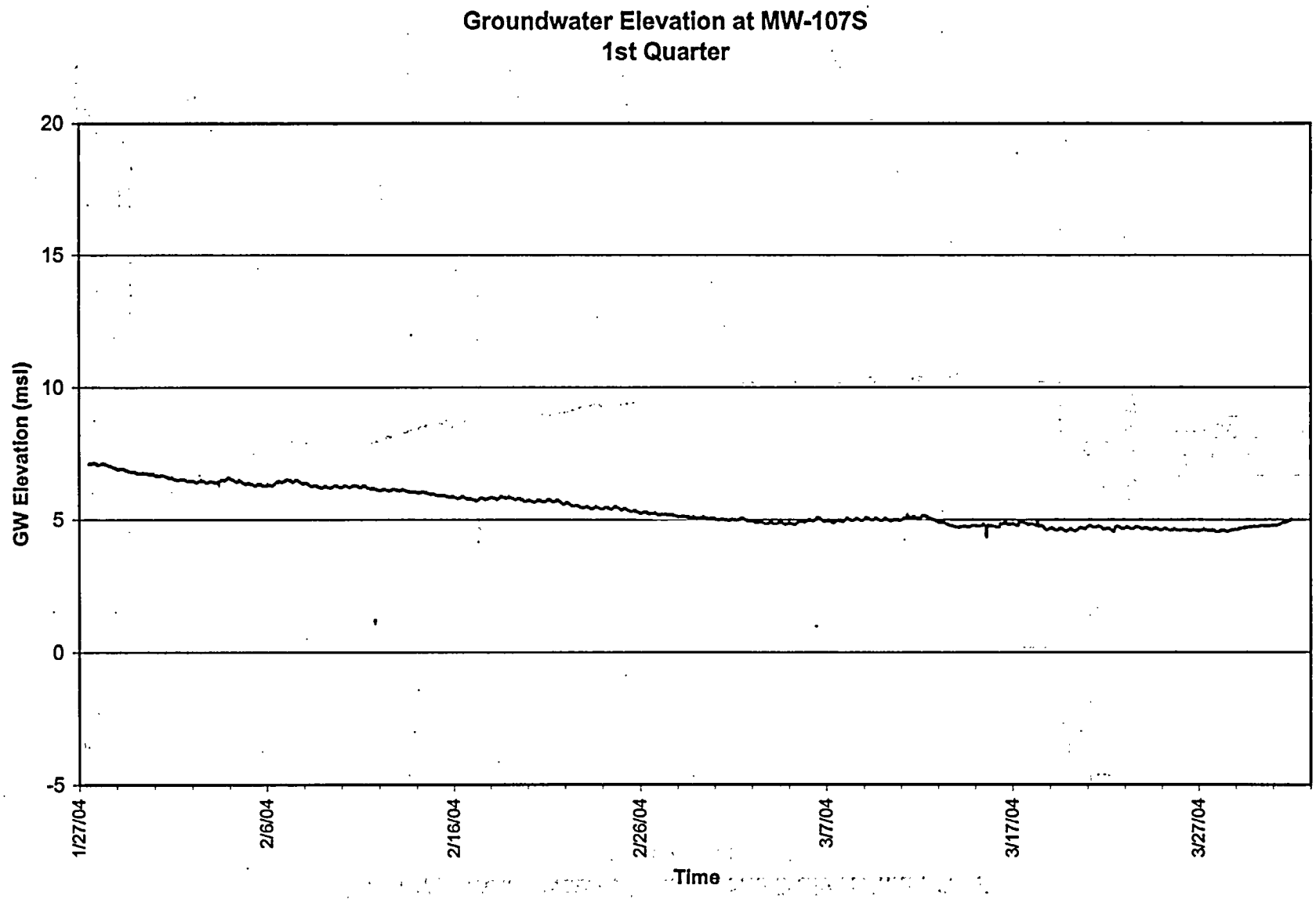

MW-104 Groundwater Elevation and Temperature
1st Quarter
GW Elevation (msl)
Temperature (Fahrenheit)
Time
20
15
10
5
0
-5
60
59
58
57
56
55
54
53
52
51
50
1/27/04
2/6/04
2/16/04
2/26/04
3/7/04
3/17/04
3/27/04
GW Elevation
Temperature


Groundwater Elevation at MW-105S
1st Quarter
GW Elevation (msl)
20
15
10
5
0
-5
1/27/04
2/6/04
2/16/04
2/26/04
3/7/04
3/17/04
3/27/04
Time

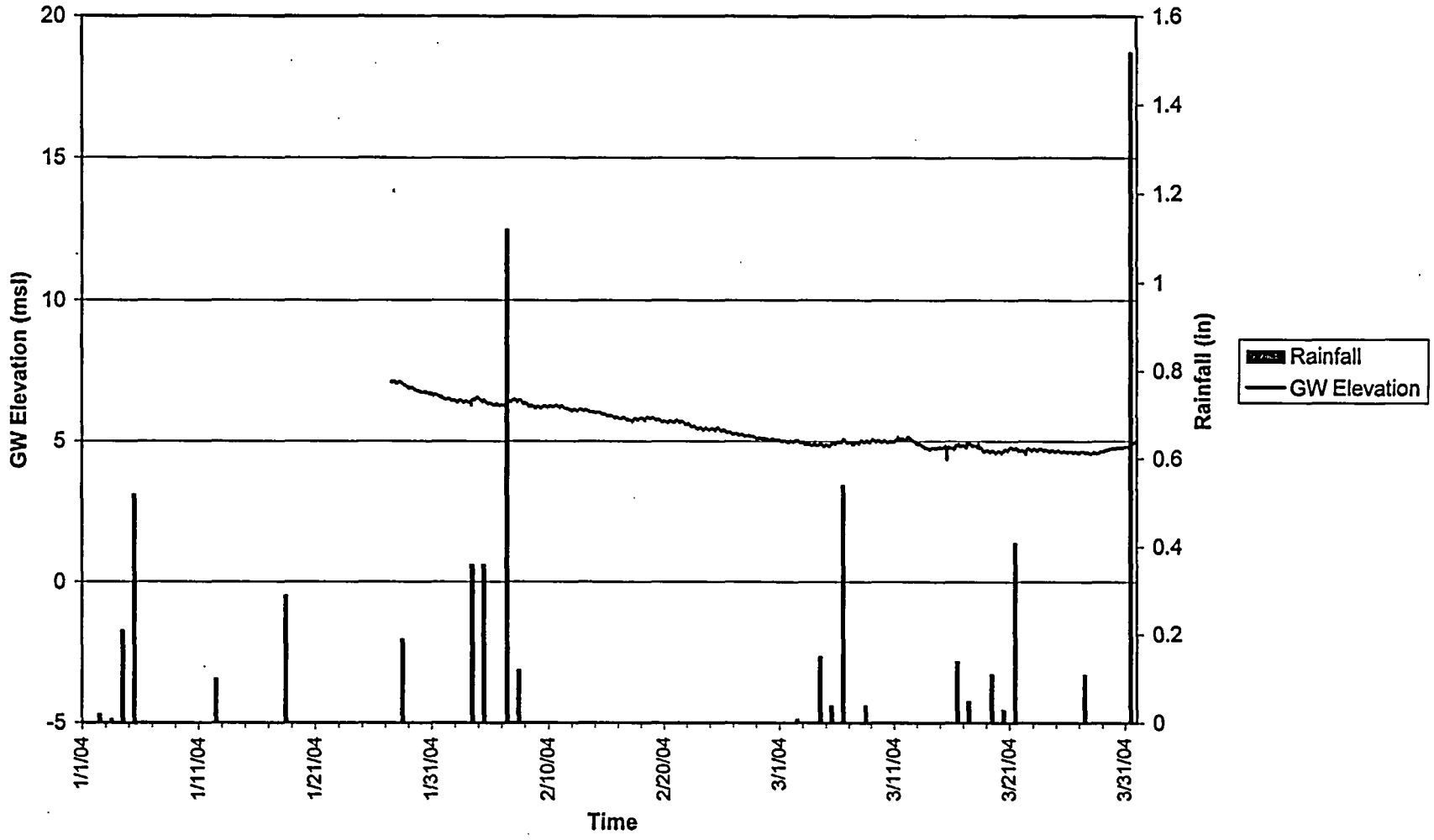
MW-105S Groundwater Elevation and Daily Rainfall Totals
1st Quarter

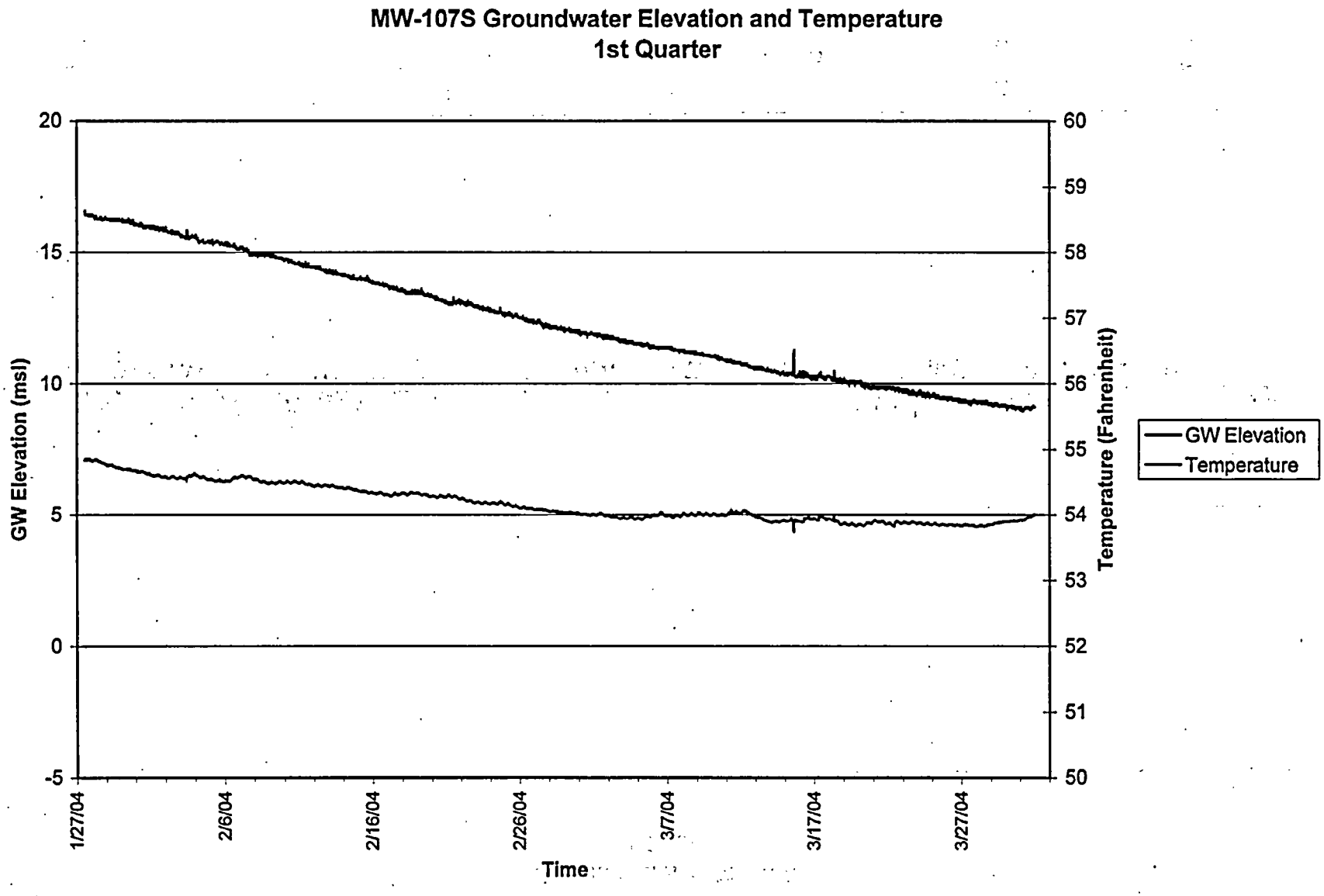



MW-105S Groundwater Elevation and Temperature
1st Quarter
GW Elevation (msl)
Temperatuer (Fahrenheit)
Time
20
15
10
5
0
-5
60
58
56
54
52
50
48
46
44
42
40
1/27/04
2/6/04
2/16/04
2/26/04
3/7/04
3/17/04
3/27/04
GW Elevation
Temperature

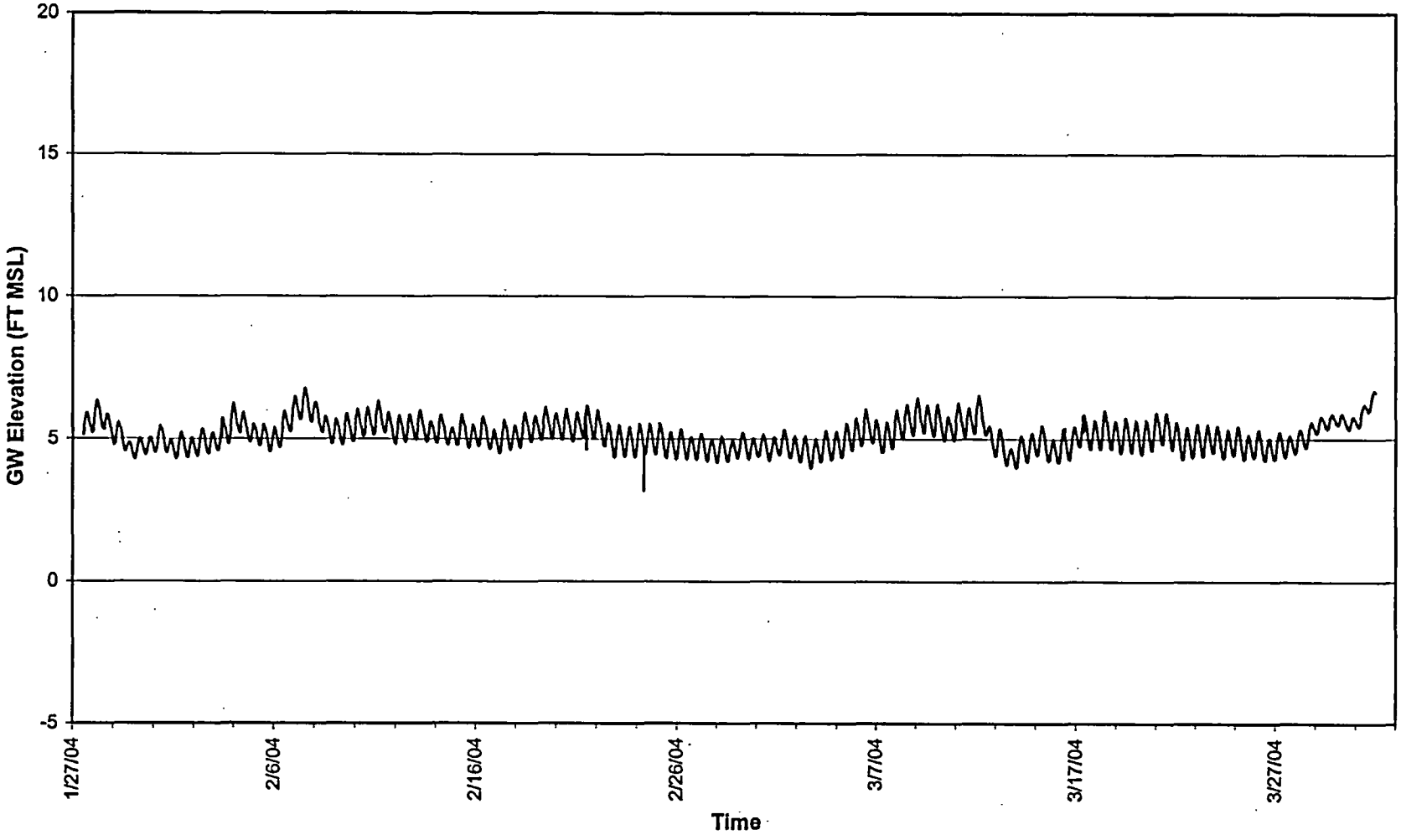

Groundwater Elevation at MW-107S
1st Quarter
GW Elevation (msl)
20
15
10
5
0
-5
1/27/04
2/6/04
2/16/04
2/26/04
3/7/04
3/17/04
3/27/04
Time

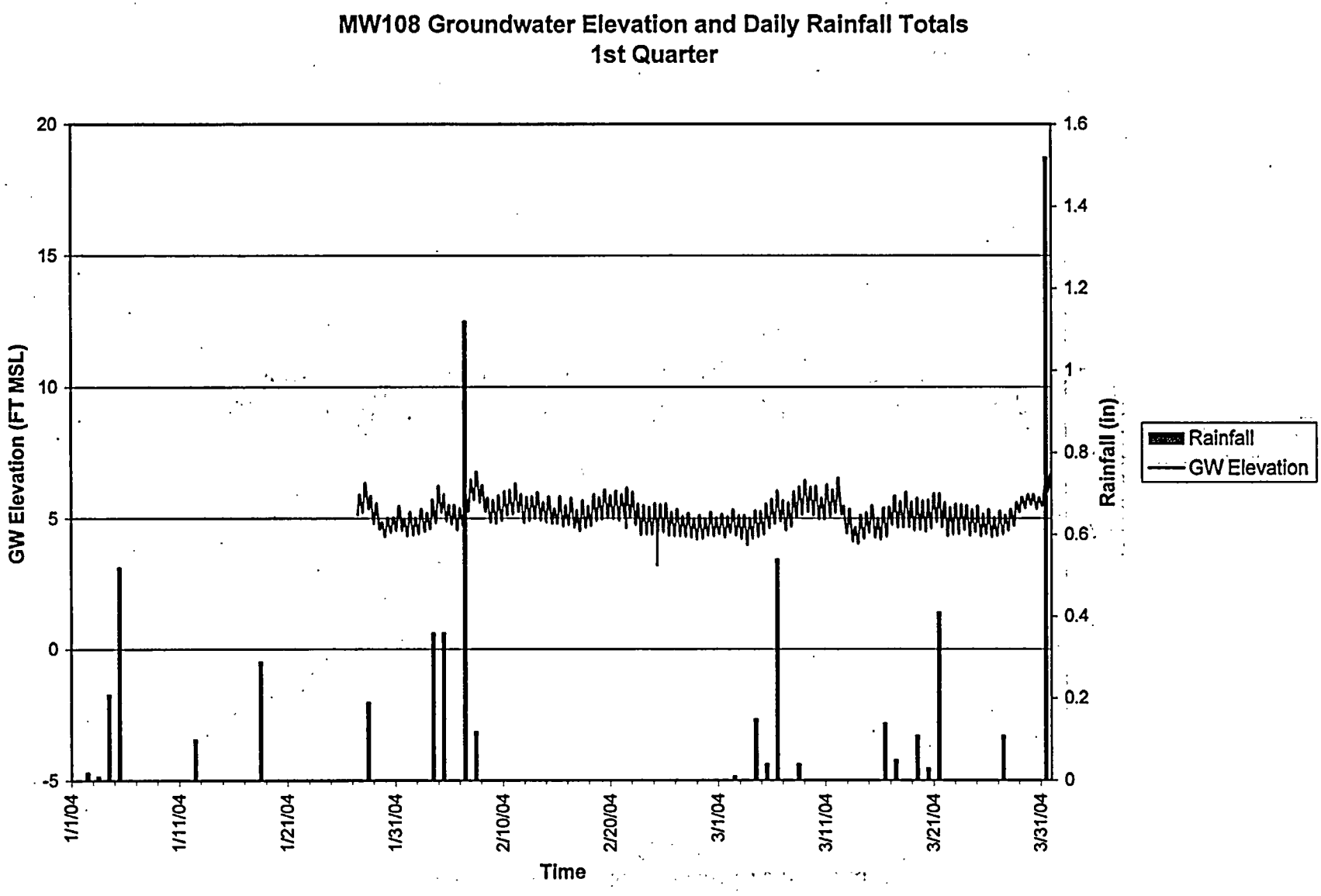
MW-107S Groundwater Elevation and Daily Rainfall Totals
1st Quarter

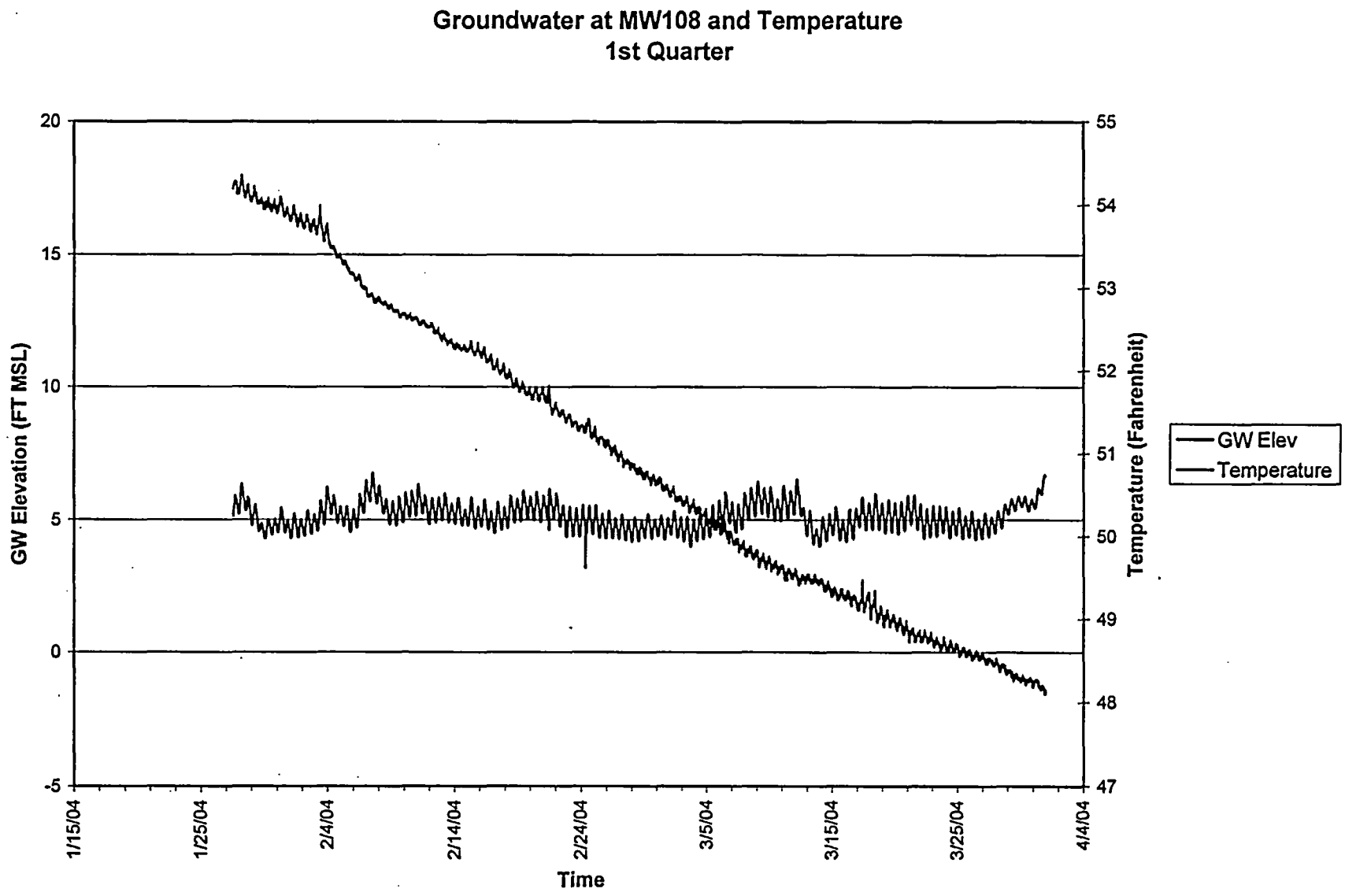


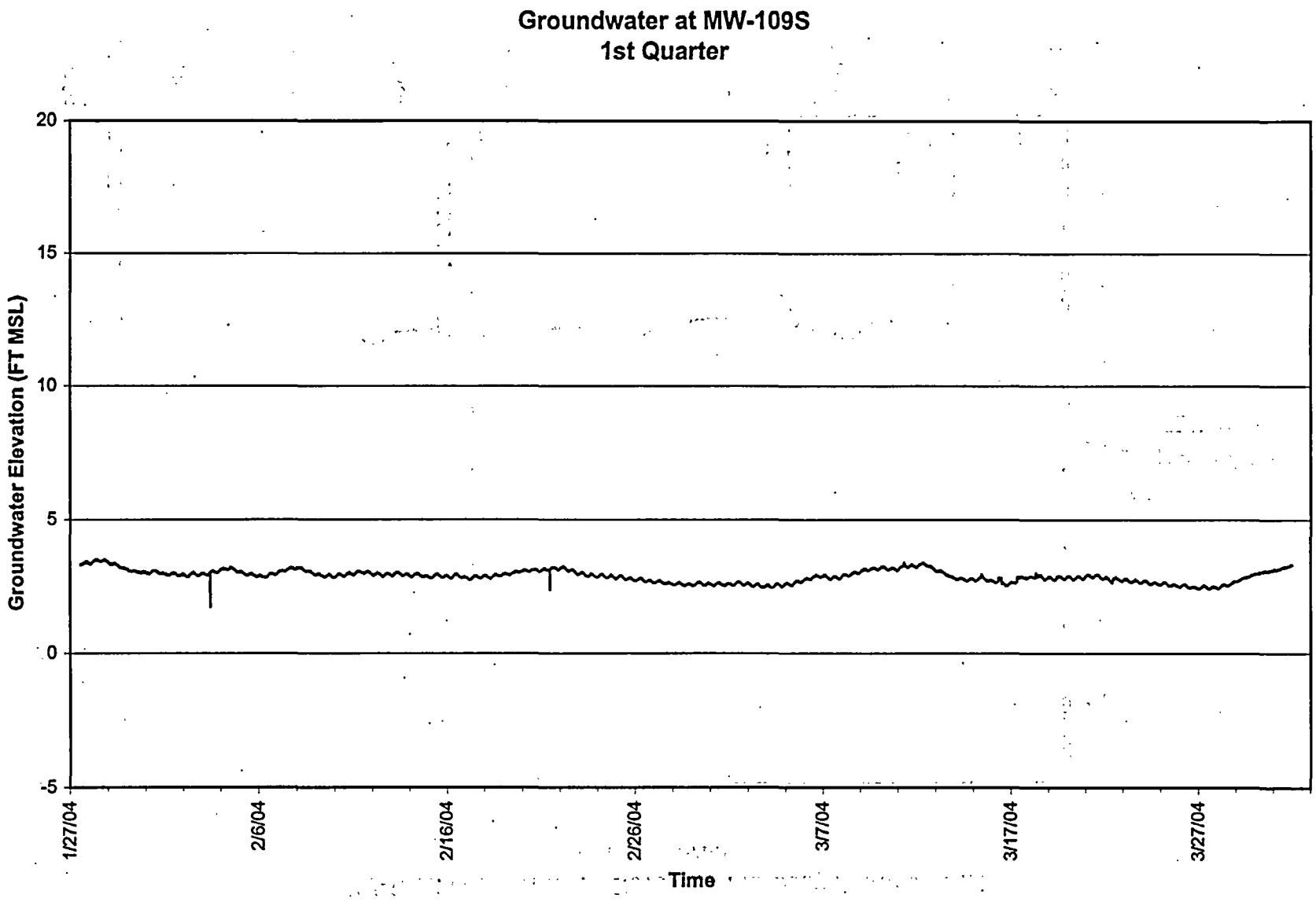

MW-107S Groundwater Elevation and Temperature
1st Quarter
GW Elevation (msl)
Temperature (Fahrenheit)
Time
20
15
10
5
0
-5
60
59
58
57
56
55
54
53
52
51
50
1/27/04
2/6/04
2/16/04
2/26/04
3/7/04
3/17/04
3/27/04
GW Elevation
Temperature

Groundwater at MW108
1st Quarter

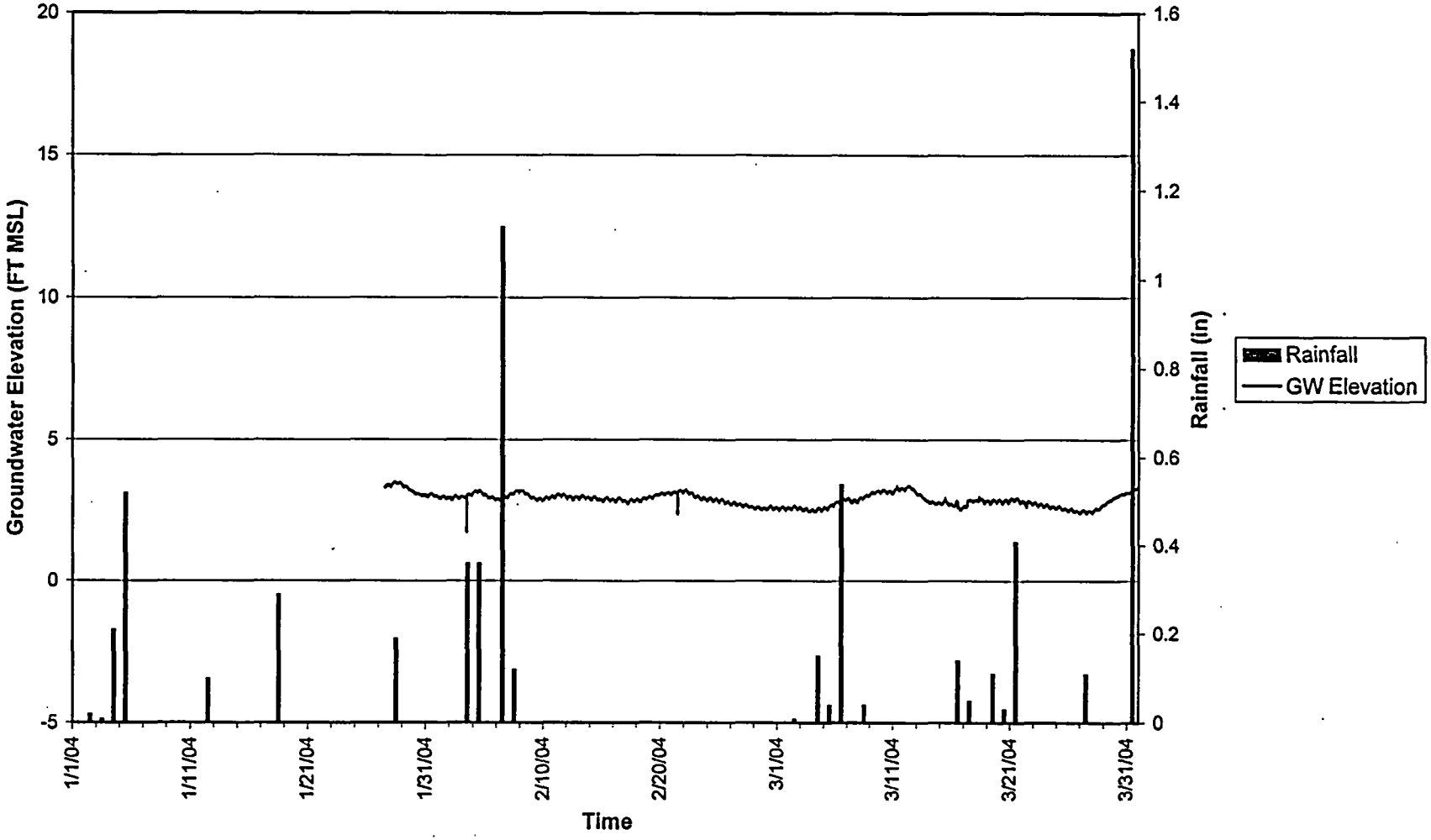


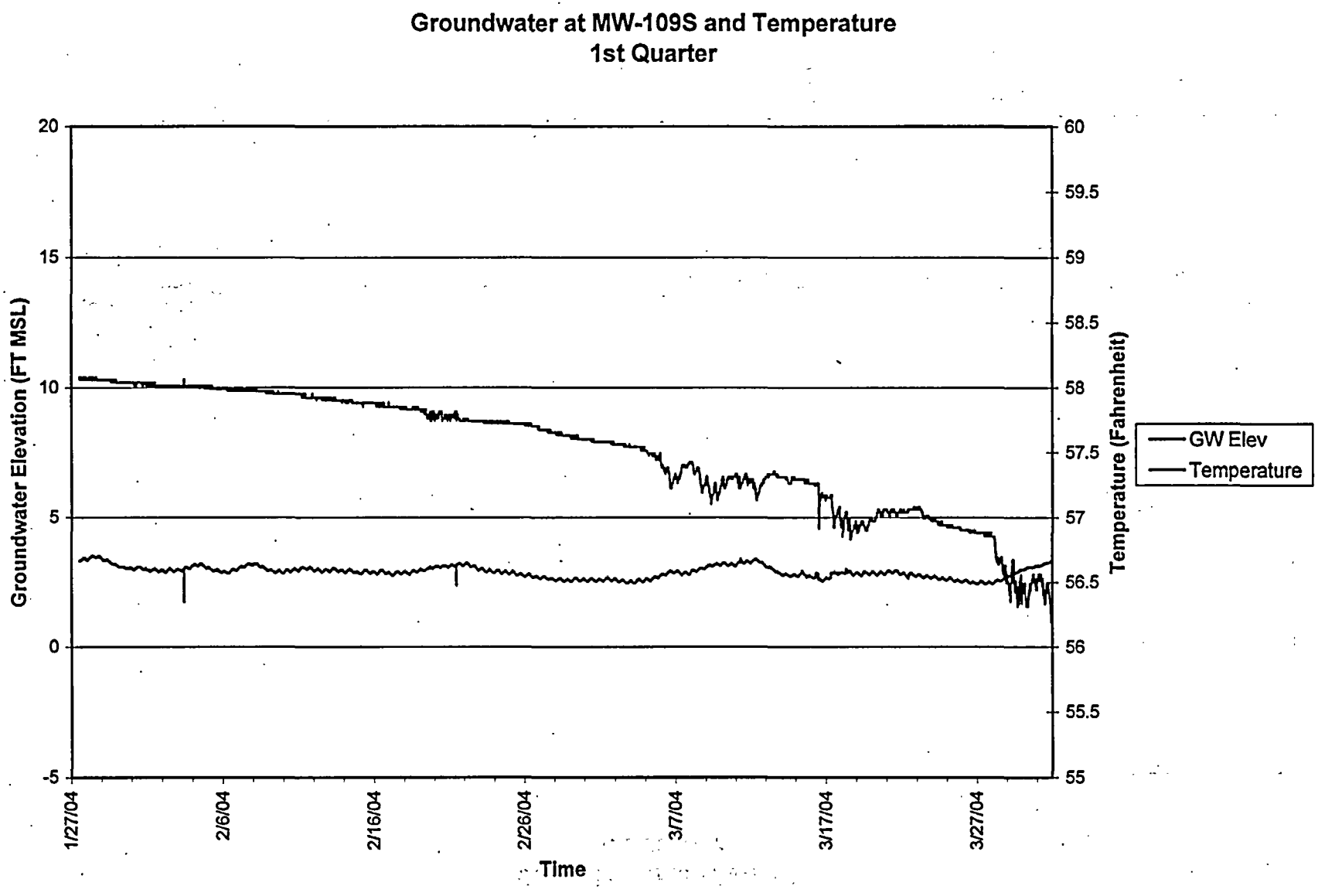

MW108 Groundwater Elevation and Daily Rainfall Totals
1st Quarter
GW Elevation (FT MSL)
Rainfall (in)
Time
Rainfall
GW Elevation
20
15
10
5
0
-5
1.6
1.4
1.2
1
0.8
0.6
0.4
0.2
0
1/1/04
1/11/04
1/21/04
1/31/04
2/10/04
2/20/04
3/1/04
3/11/04
3/21/04
3/31/04

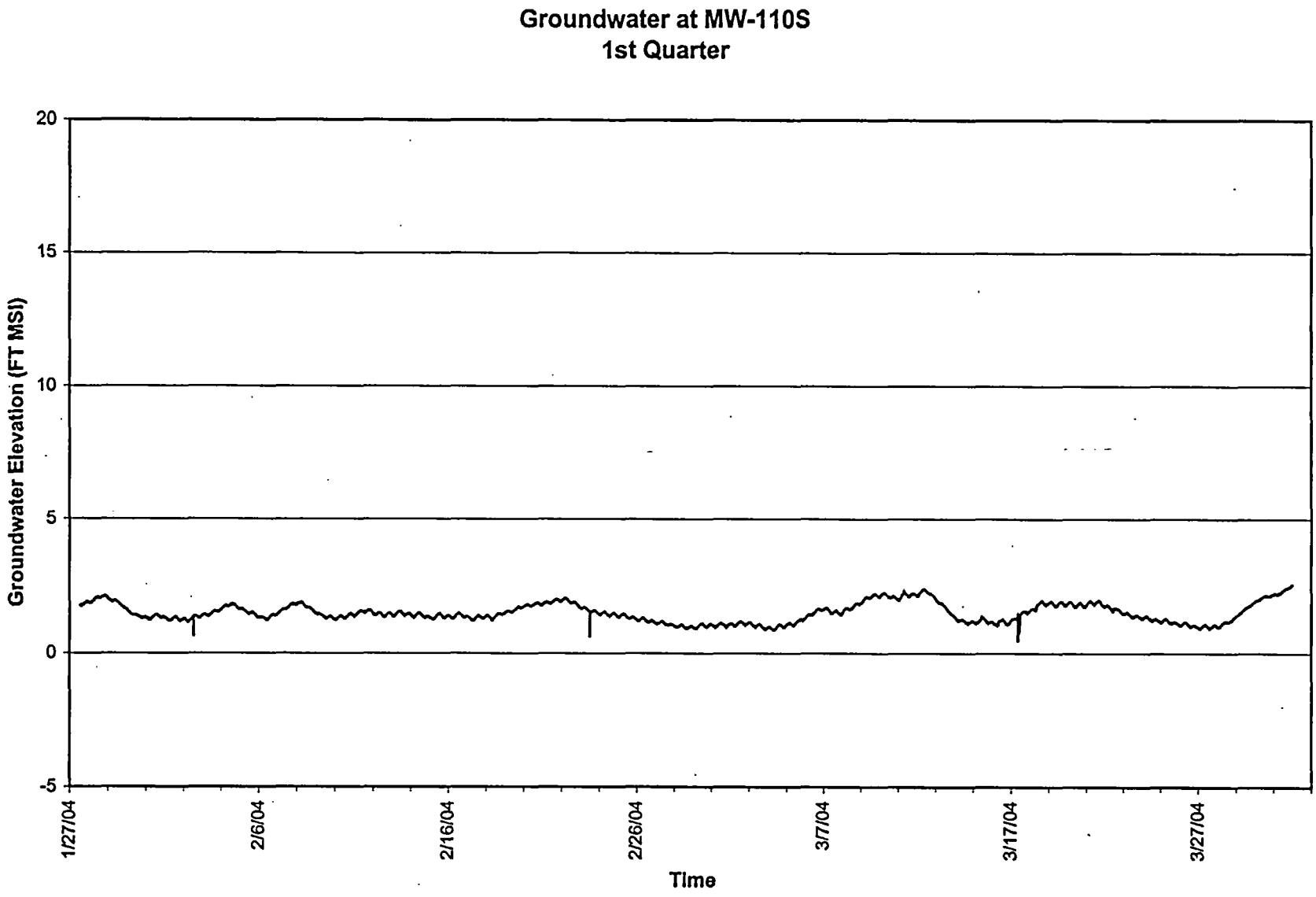

Groundwater at MW108 and Temperature
1st Quarter
GW Elevation (FT MSL)
Temperature (Fahrenheit)
Time
20
15
10
5
0
-5
55
54
53
52
51
50
49
48
47
1/15/04
1/25/04
2/4/04
2/14/04
2/24/04
3/5/04
3/15/04
3/25/04
4/4/04
GW Elev
Temperature


Groundwater at MW-109S
1st Quarter
Groundwater Elevation (FT MSL)
20
15
10
5
0
-5
1/27/04
2/6/04
2/16/04
2/26/04
3/7/04
3/17/04
3/27/04
Time

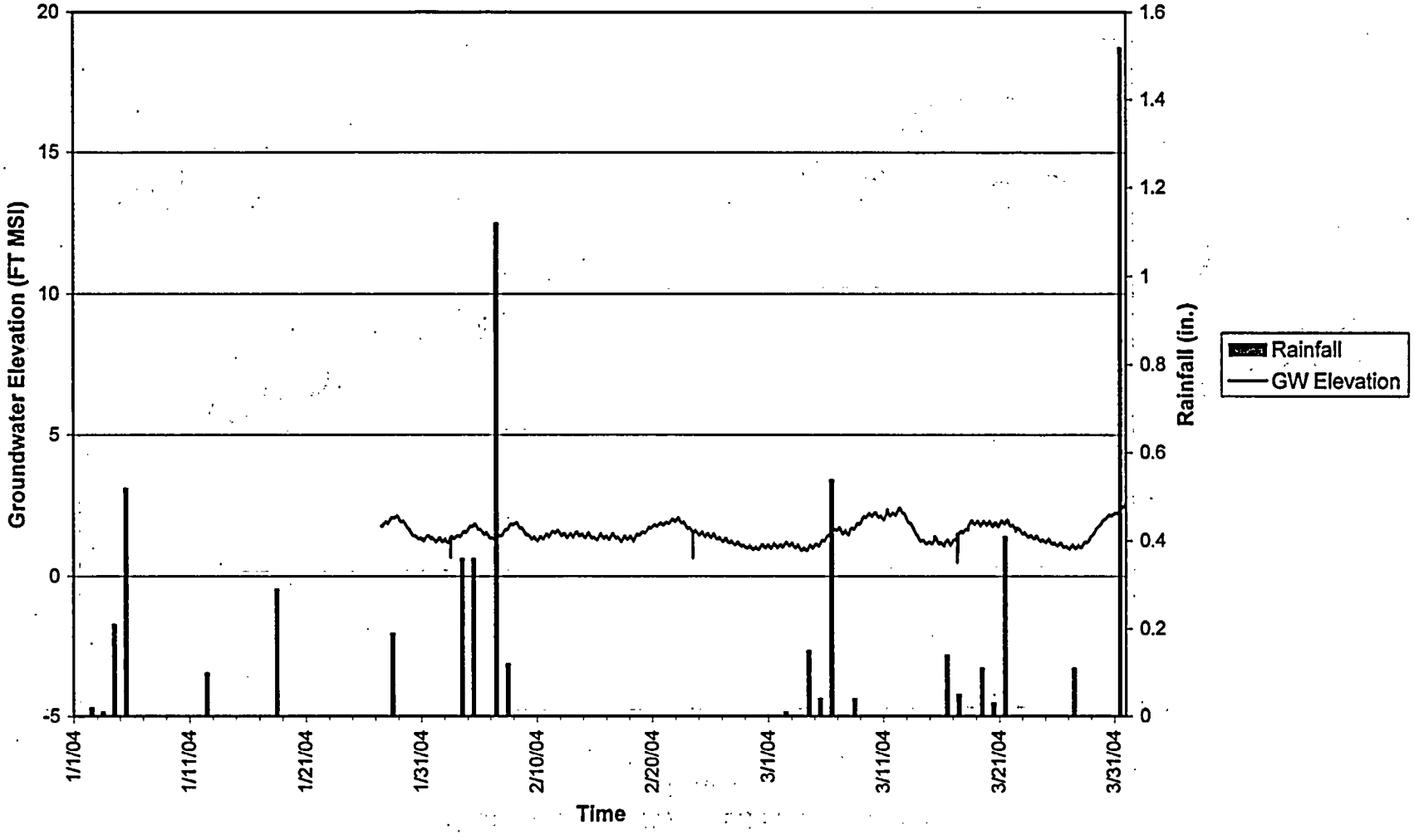
MW-109S Groundwater Elevation and Daily Rainfall Totals
1st Quarter

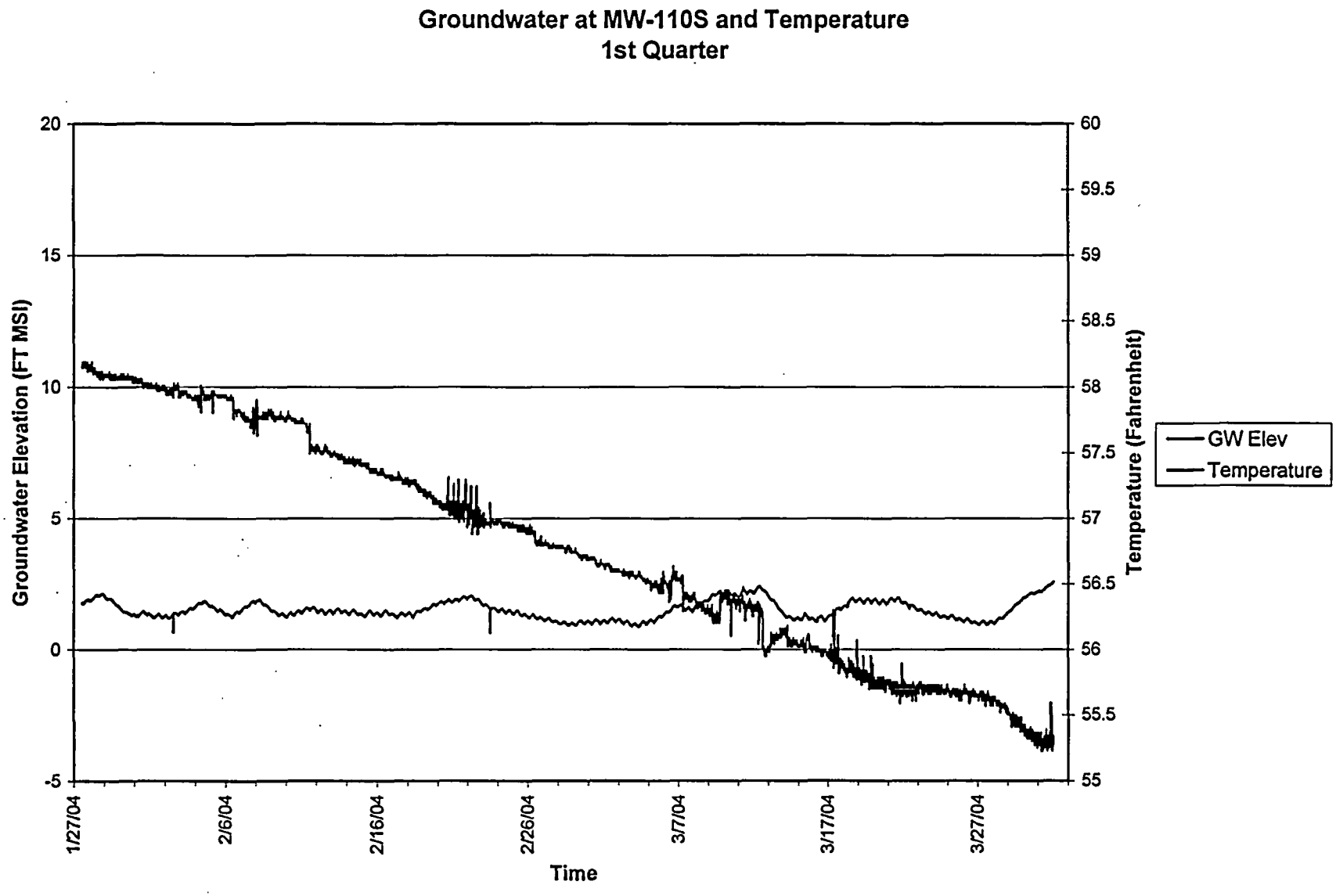


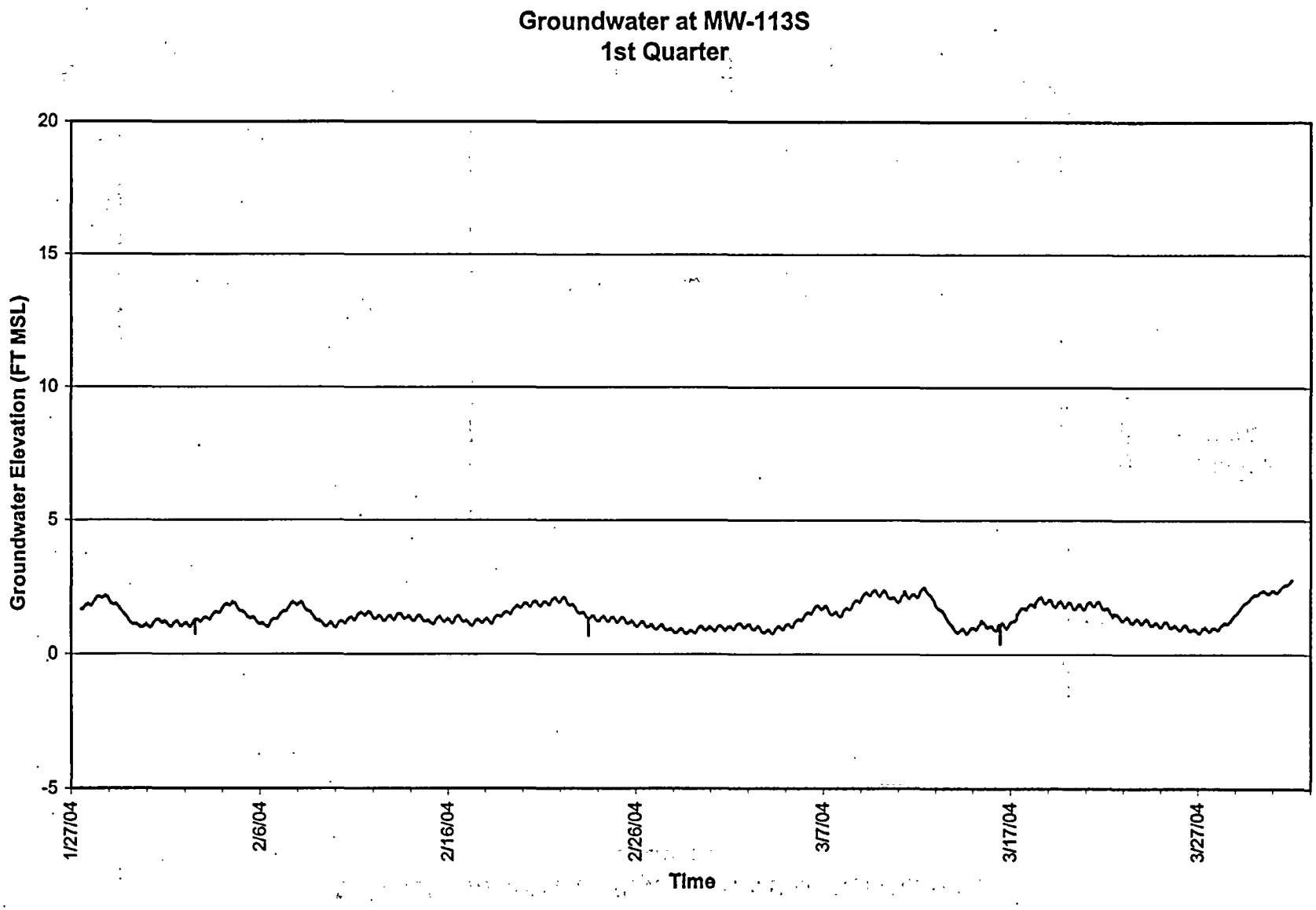

Groundwater at MW-109S and Temperature
1st Quarter
Groundwater Elevation (FT MSL)
20
15
10
5
0
-5
Temperature (Fahrenheit)
60
59.5
59
58.5
58
57.5
57
56.5
56
55.5
55
1/27/04
2/6/04
2/16/04
2/26/04
3/7/04
3/17/04
3/27/04
Time
GW Elev
Temperature


Groundwater at MW-110S
1st Quarter
Groundwater Elevation (FT MSI)
20
15
10
5
0
-5
1/27/04
2/6/04
2/16/04
2/26/04
3/7/04
3/17/04
3/27/04
Time

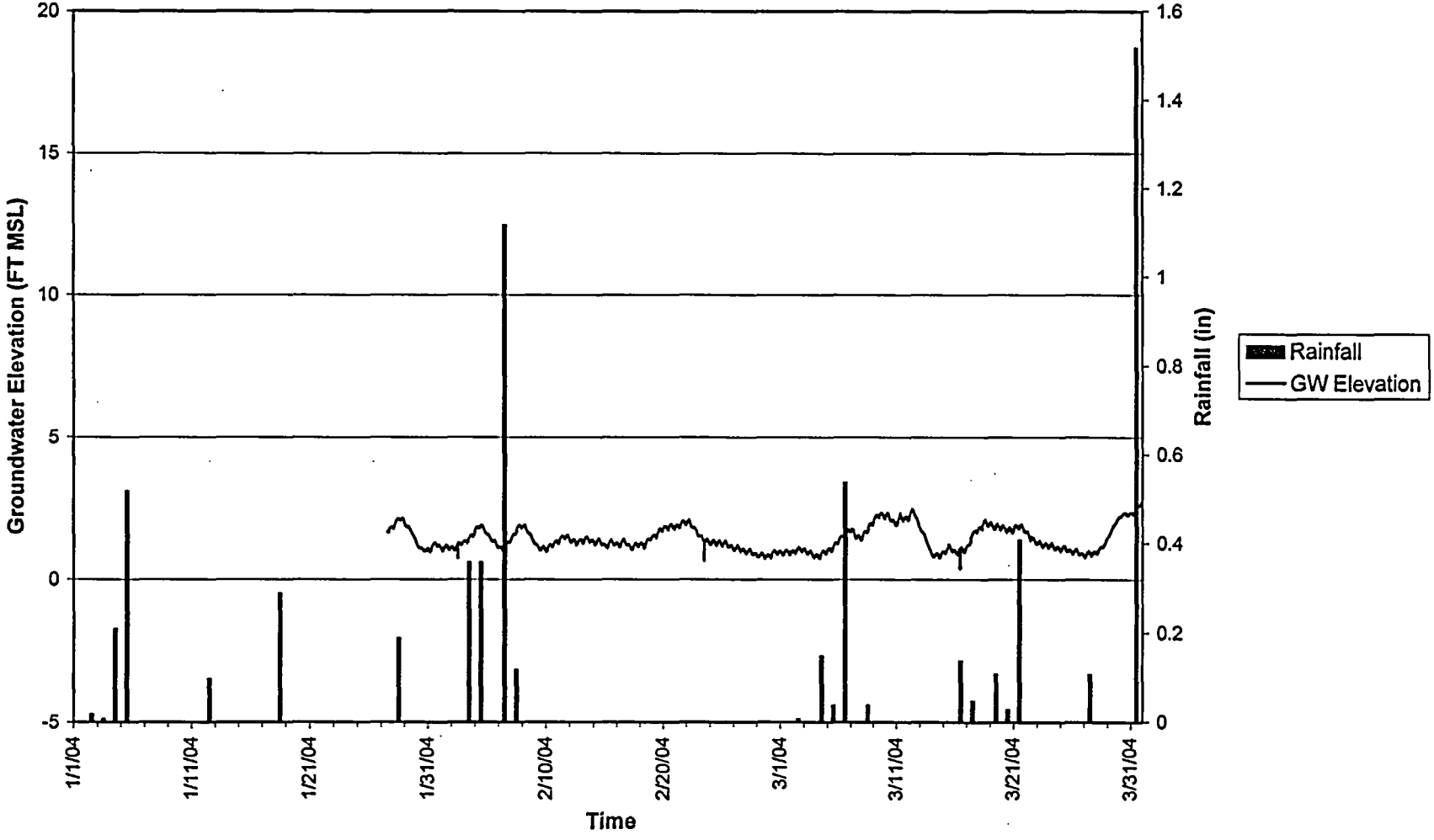
MW-110S Groundwater Elevation and Daily Rainfall Totals
1st Quarter

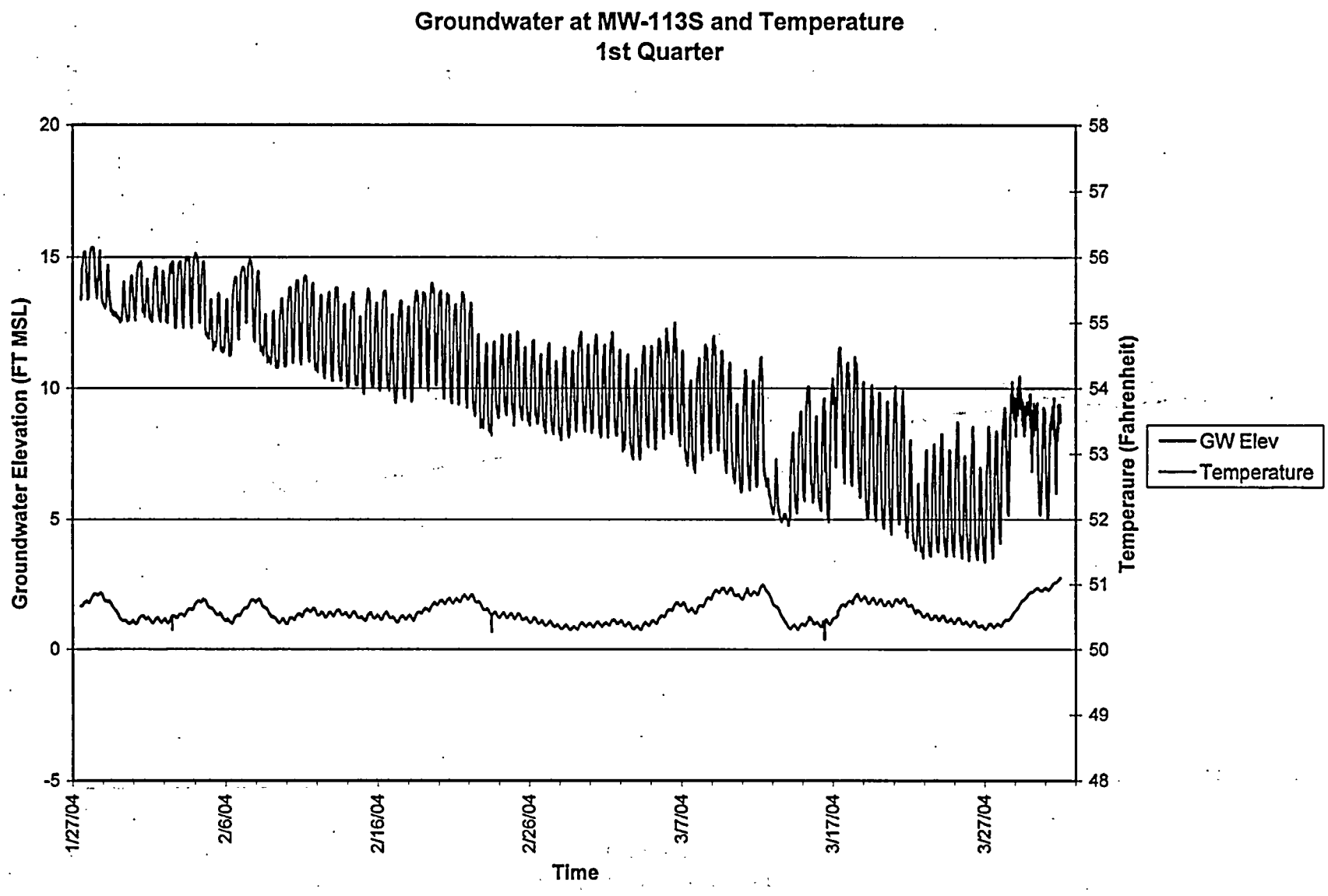


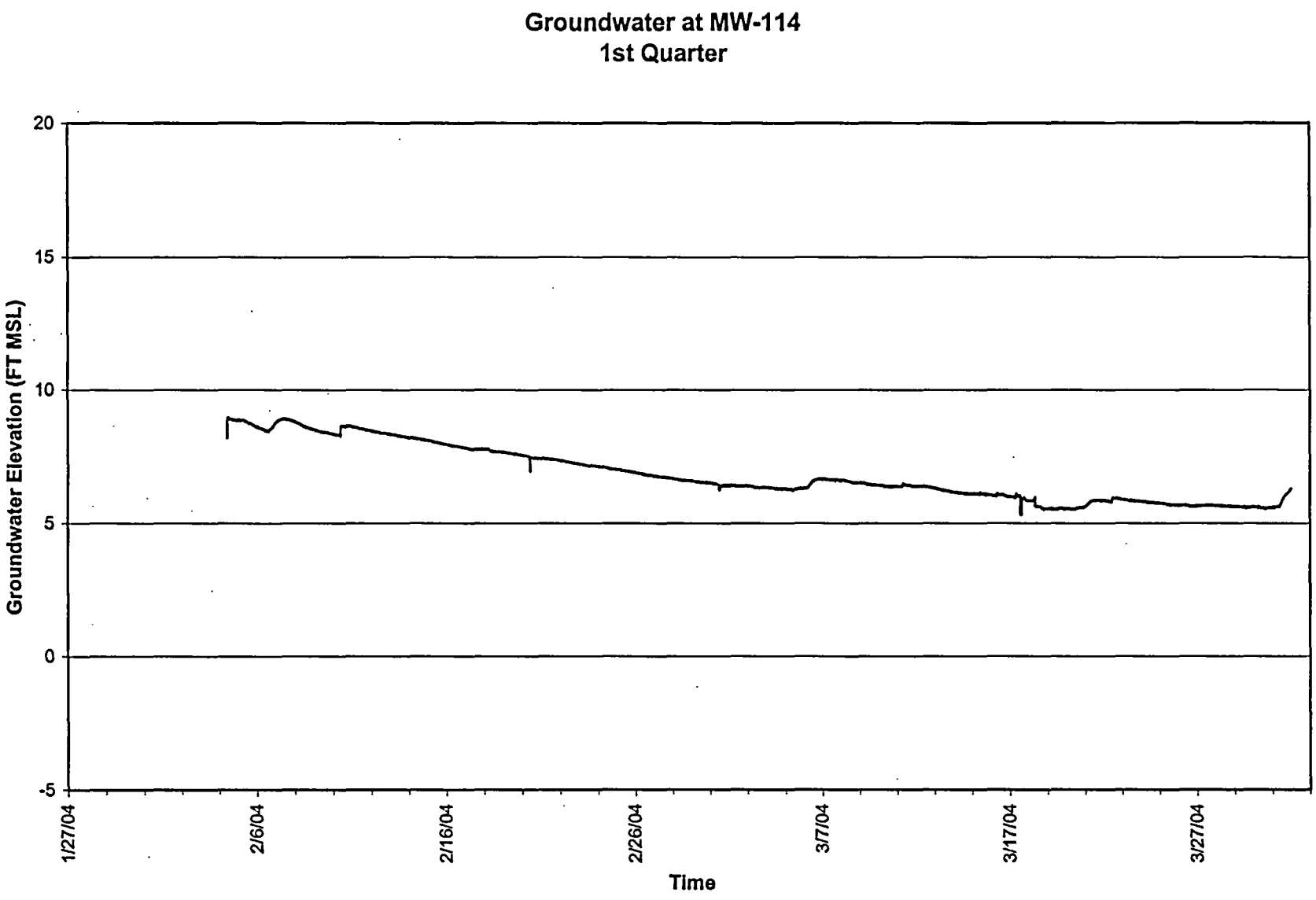

Groundwater at MW-110S and Temperature
1st Quarter
Groundwater Elevation (FT MSI)
Temperature (Fahrenheit)
Time
20
15
10
5
0
-5
60
59.5
59
58.5
58
57.5
57
56.5
56
55.5
55
1/27/04
2/6/04
2/16/04
2/26/04
3/7/04
3/17/04
3/27/04
GW Elev
Temperature


Groundwater at MW-113S
1st Quarter
Groundwater Elevation (FT MSL)
20
15
10
5
0
-5
1/27/04
2/6/04
2/16/04
2/26/04
3/7/04
3/17/04
3/27/04
Time

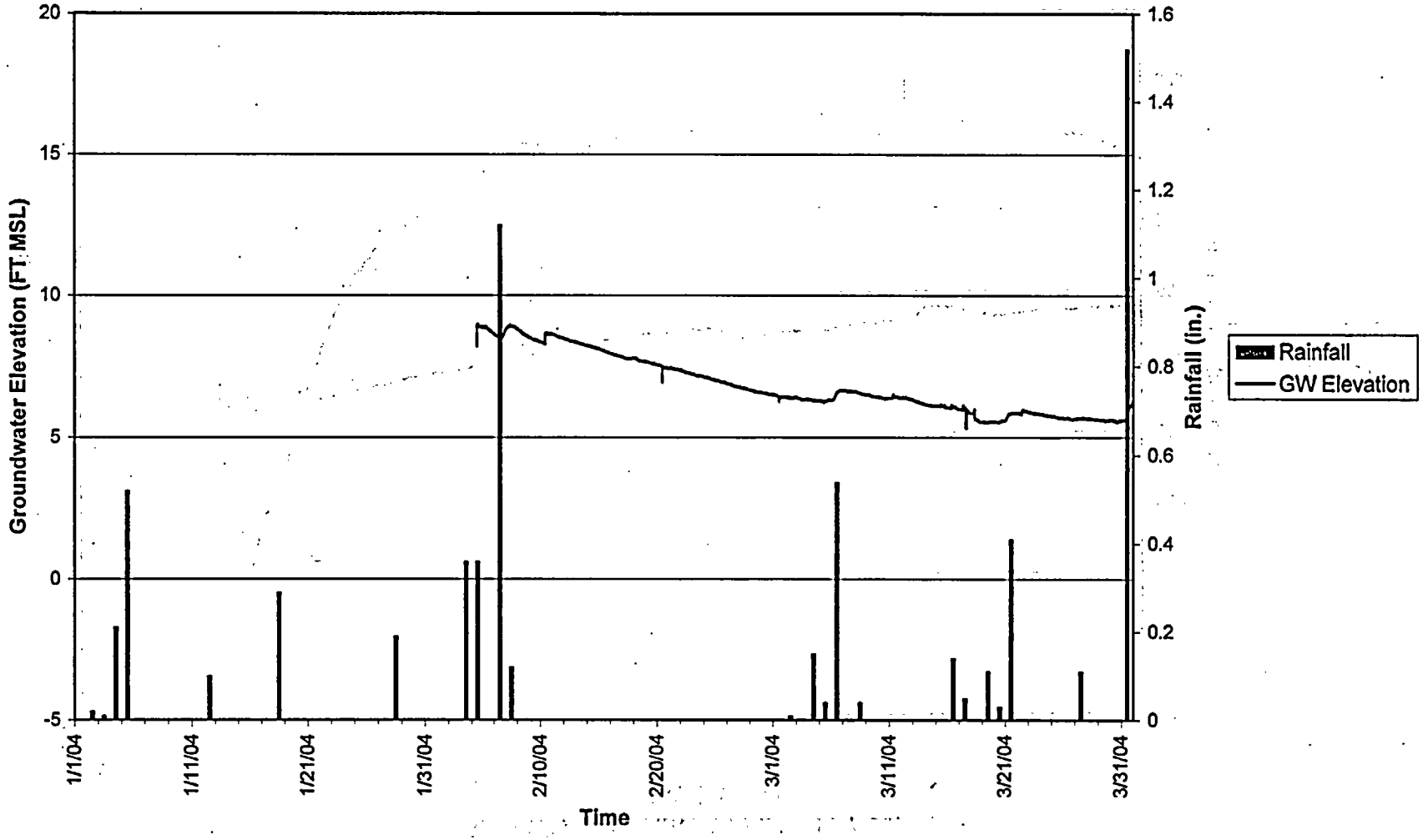
MW-113S Groundwater Elevation and Daily Rainfall Totals
1st Quarter

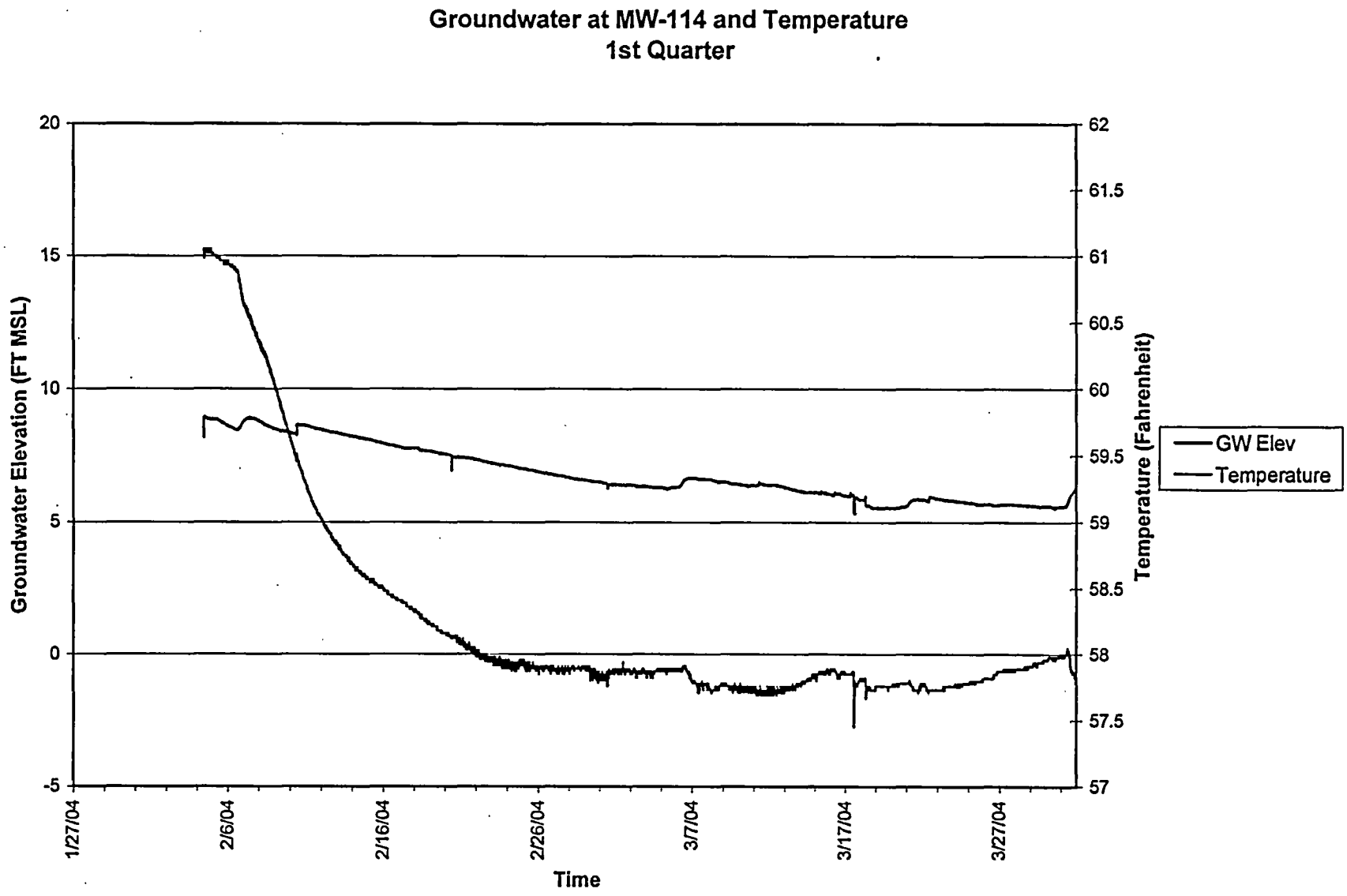


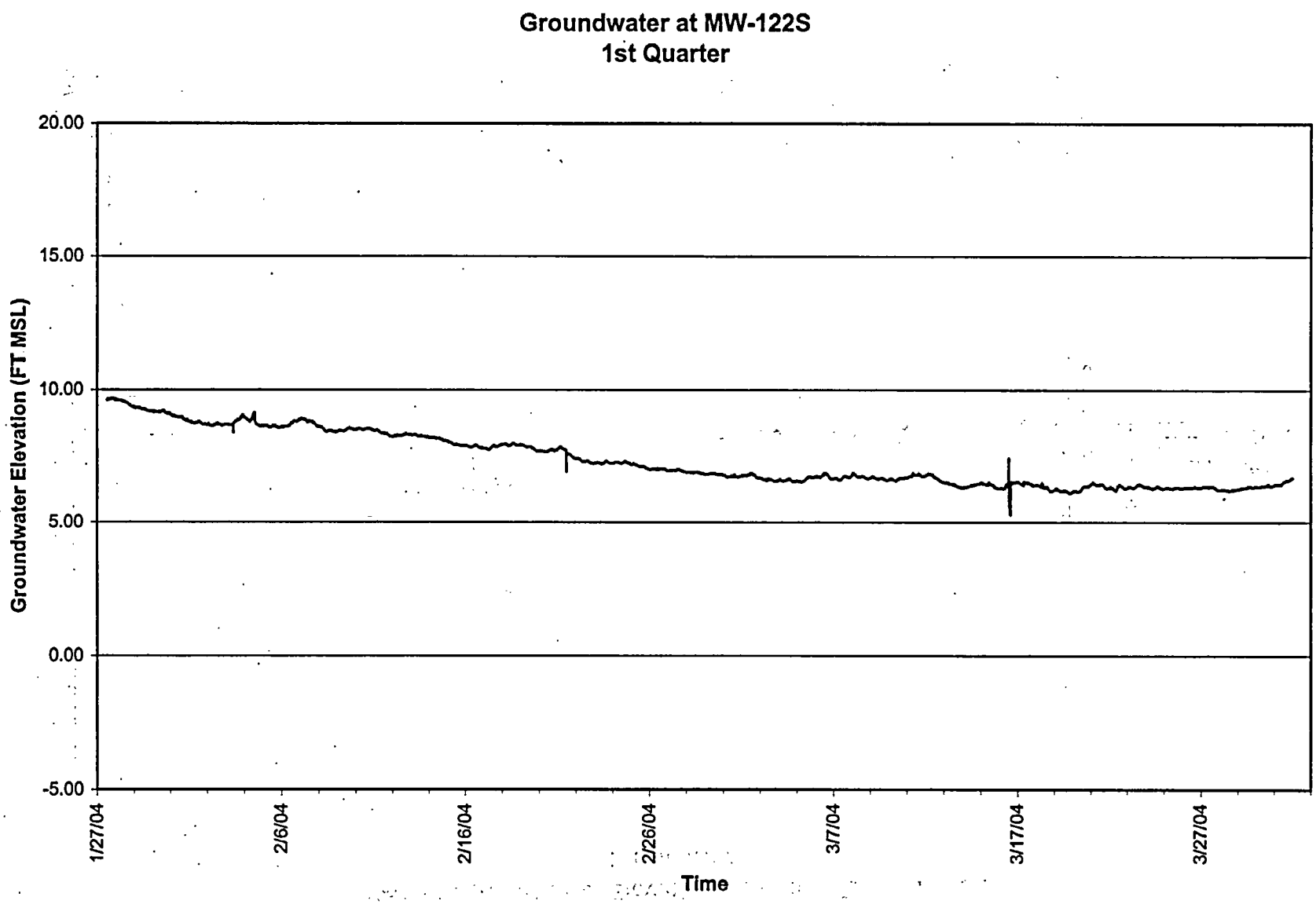

Groundwater at MW-113S and Temperature
1st Quarter
Groundwater Elevation (FT MSL)
Temperaure (Fahrenheit)
Time
20
15
10
5
0
-5
58
57
56
55
54
53
52
51
50
49
48
1/27/04
2/6/04
2/16/04
2/26/04
3/7/04
3/17/04
3/27/04
GW Elev
Temperature


Groundwater at MW-114
1st Quarter
Groundwater Elevation (FT MSL)
20
15
10
5
0
-5
1/27/04
2/6/04
2/16/04
2/26/04
3/7/04
3/17/04
3/27/04
Time

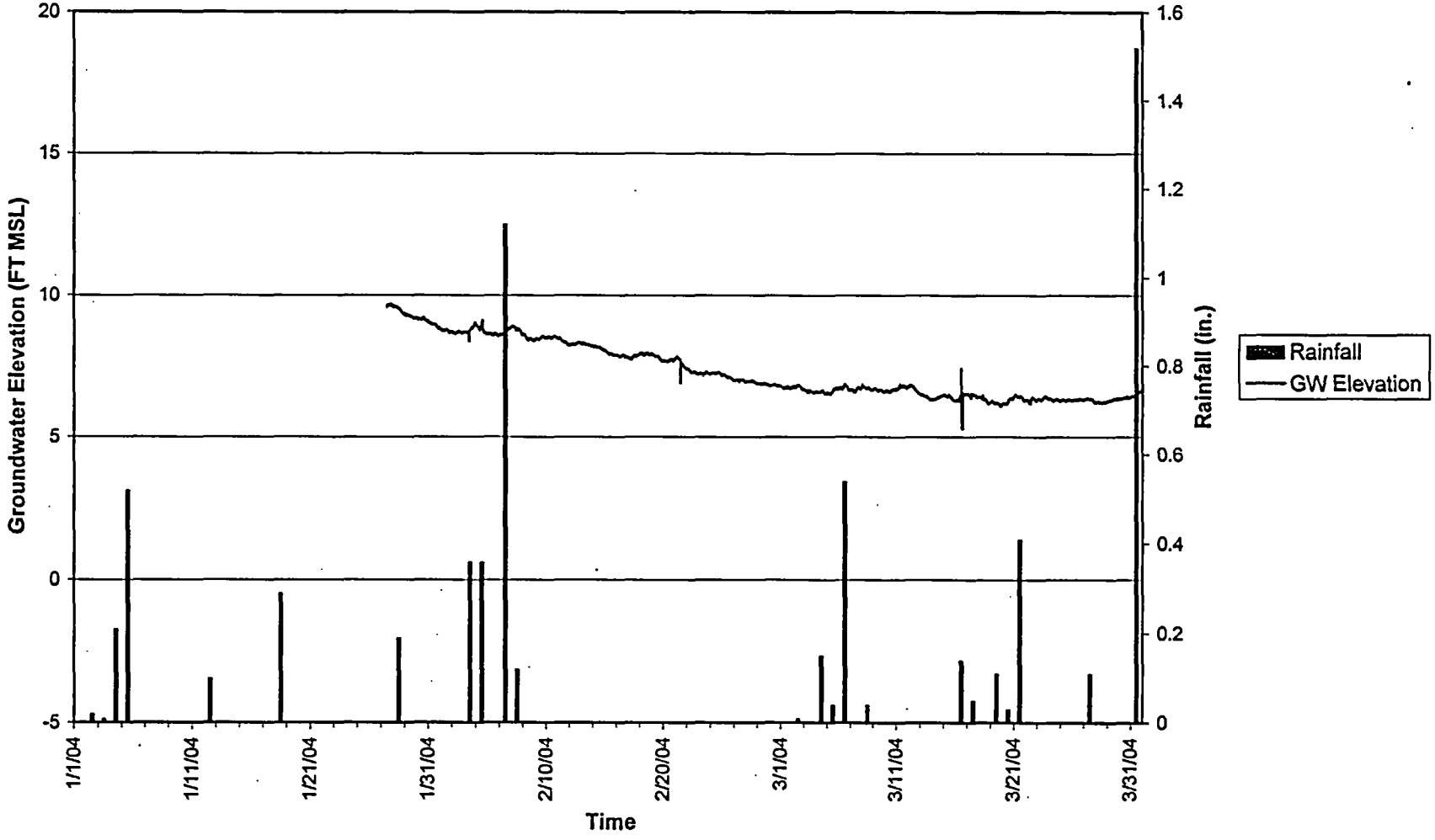
MW-114 Groundwater Elevation and Daily Rainfall Totals
1st Quarter

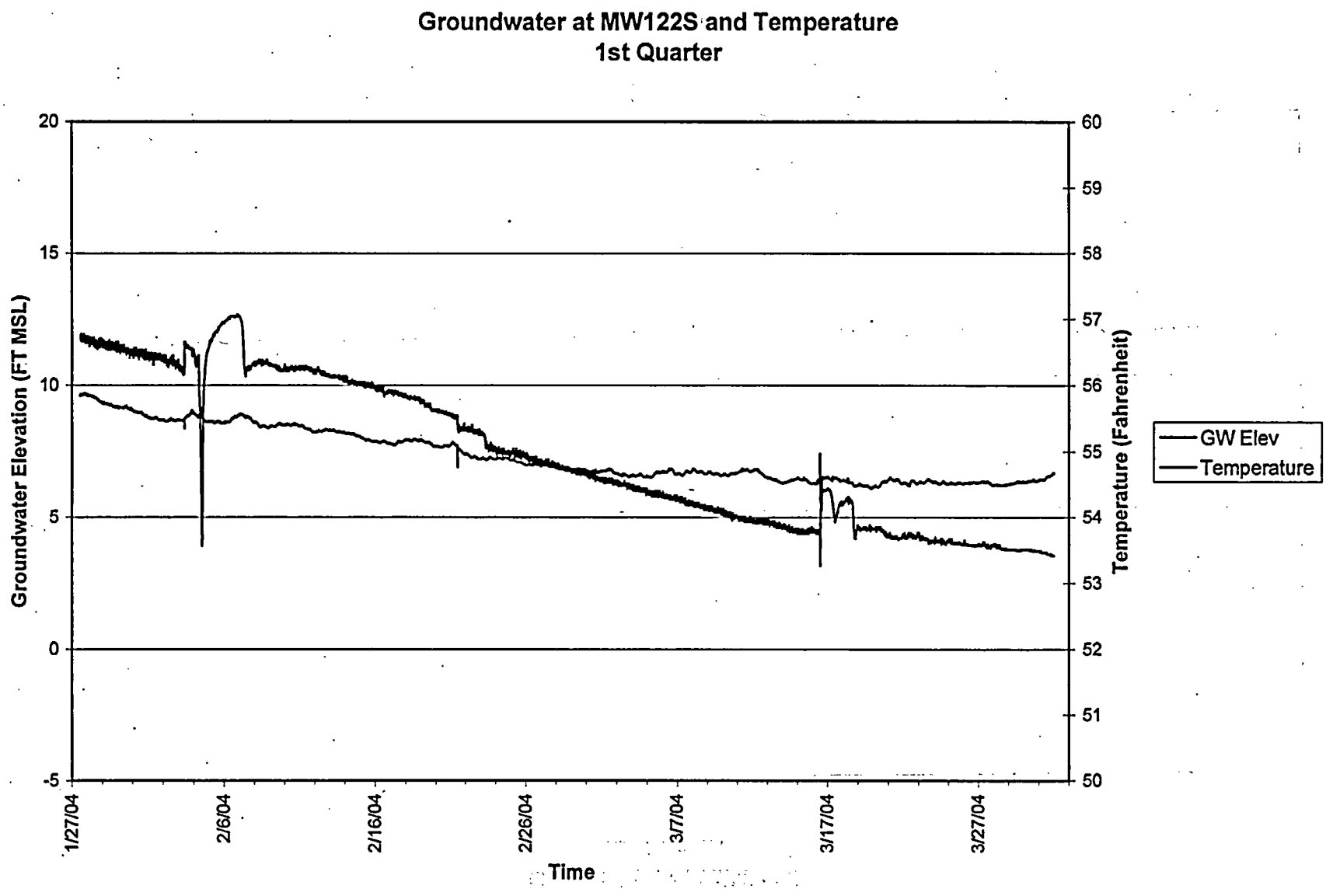


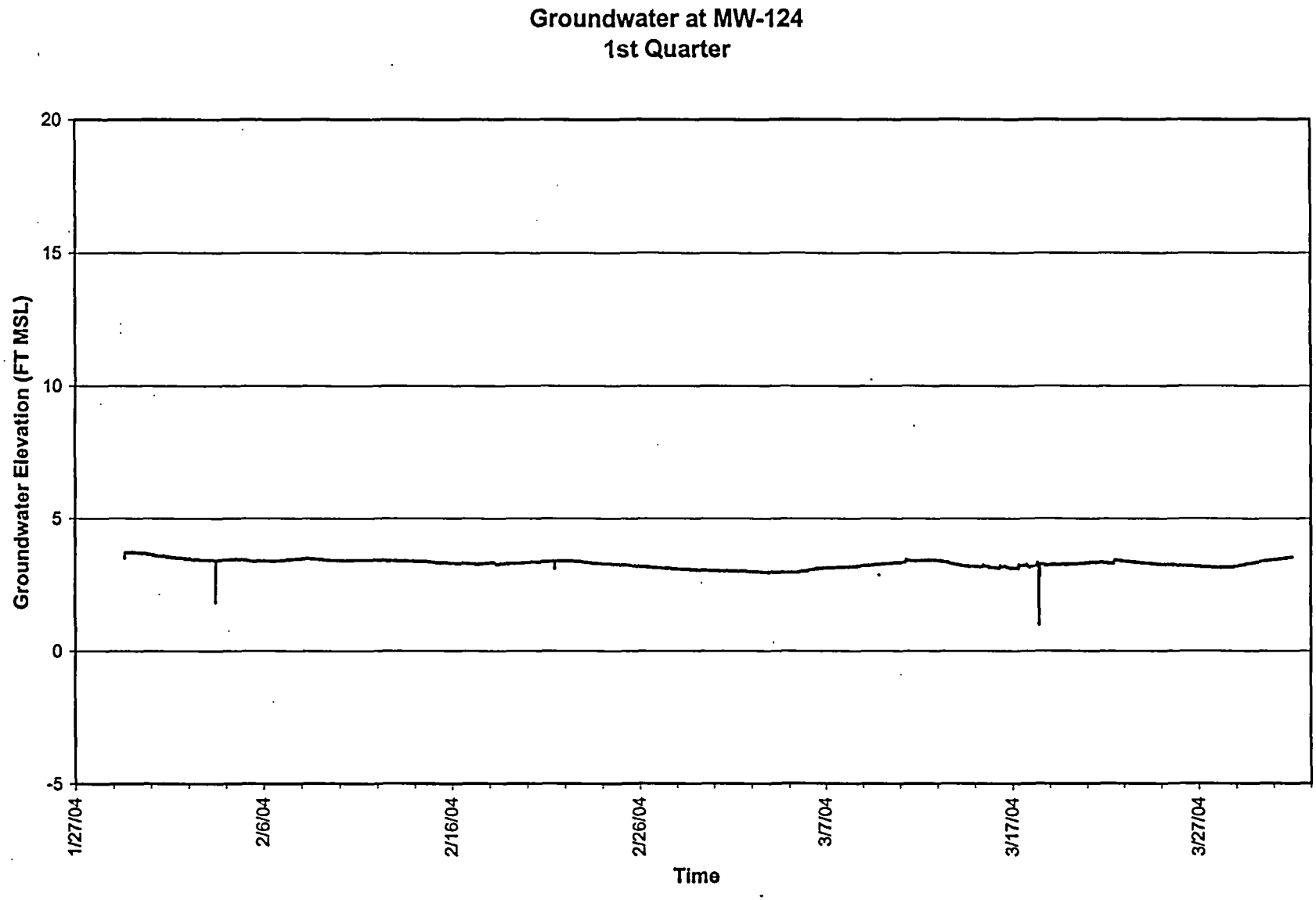

Groundwater at MW-114 and Temperature
1st Quarter
Groundwater Elevation (FT MSL)
20
15
10
5
0
-5
Temperature (Fahrenheit)
62
61.5
61
60.5
60
59.5
59
58.5
58
57.5
57
1/27/04
2/6/04
2/16/04
2/26/04
3/7/04
3/17/04
3/27/04
Time
GW Elev
Temperature

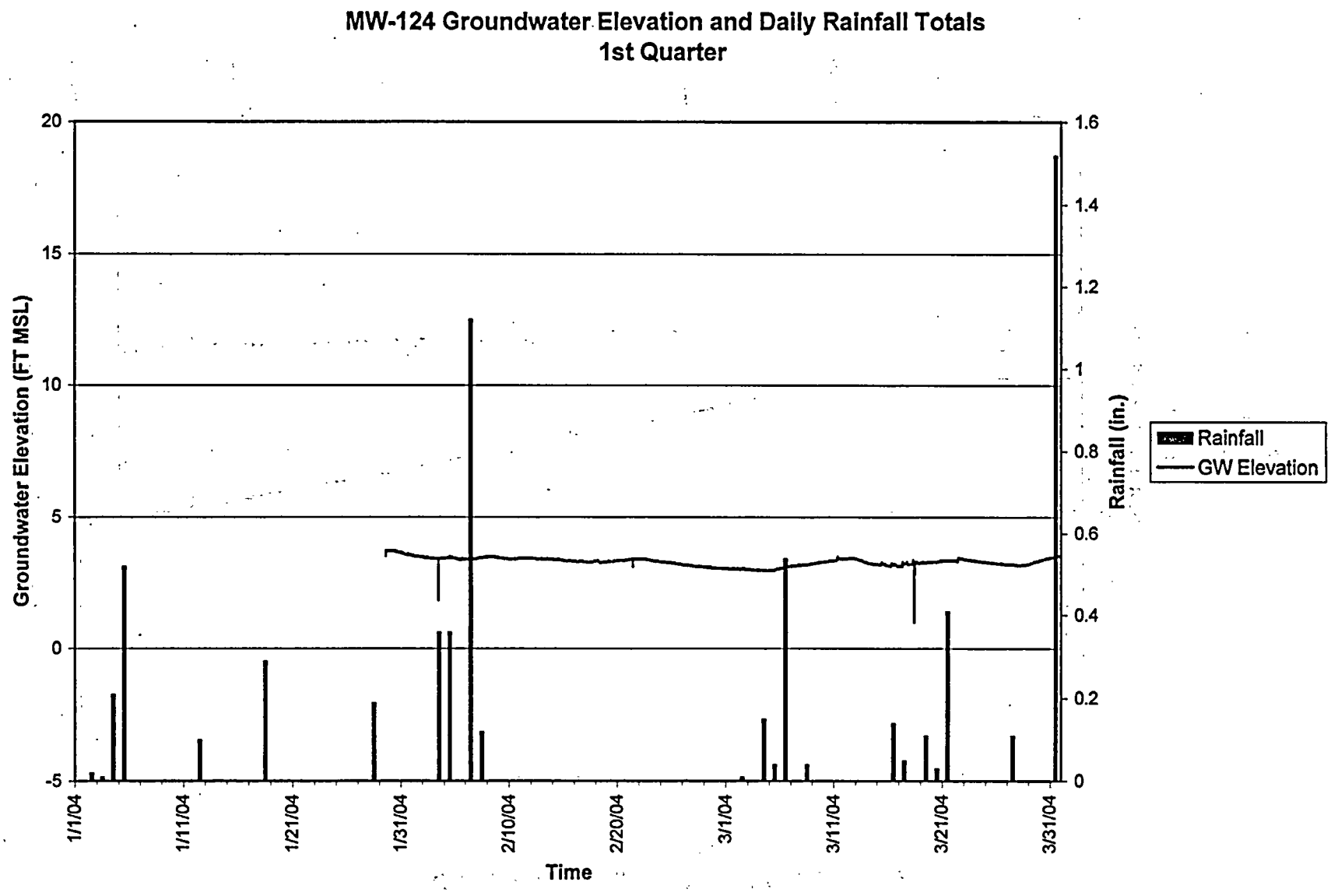

Groundwater at MW-122S
1st Quarter
Groundwater Elevation (FT MSL)
20.00
15.00
10.00
5.00
0.00
-5.00
1/27/04
2/6/04
2/16/04
2/26/04
3/7/04
3/17/04
3/27/04
Time

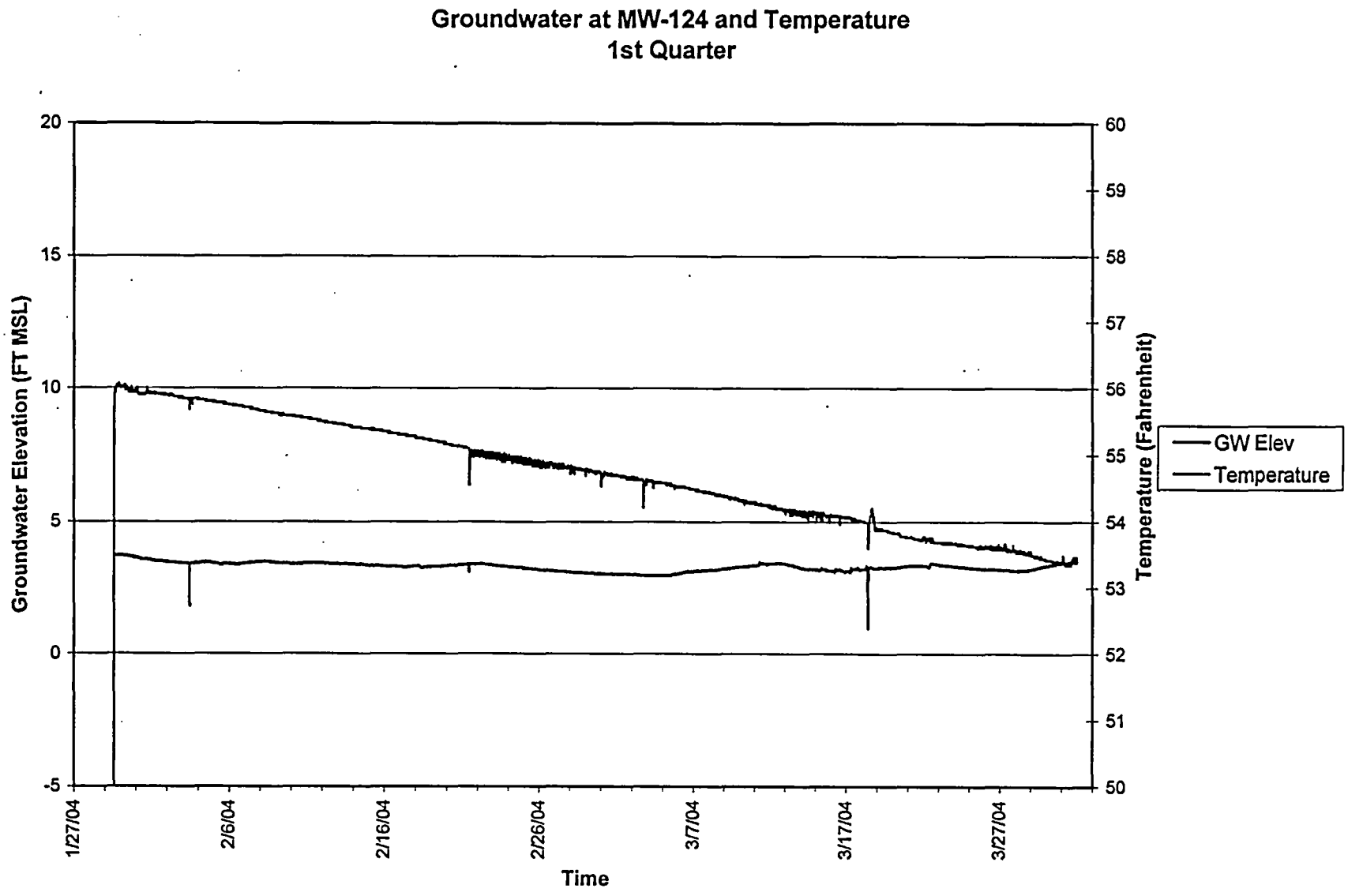
MW-122S Groundwater Elevation and Daily Rainfall Totals
1st Quarter

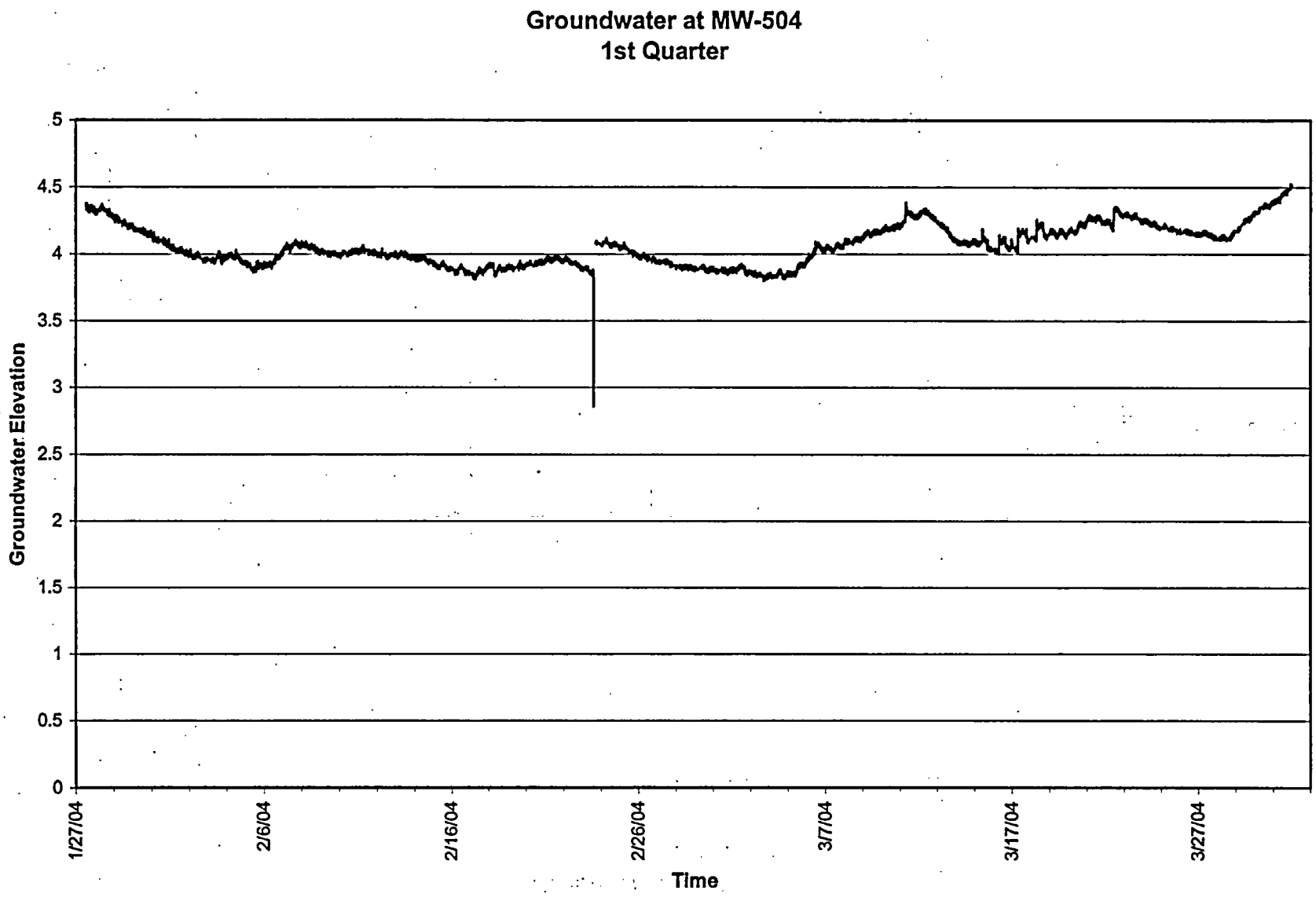


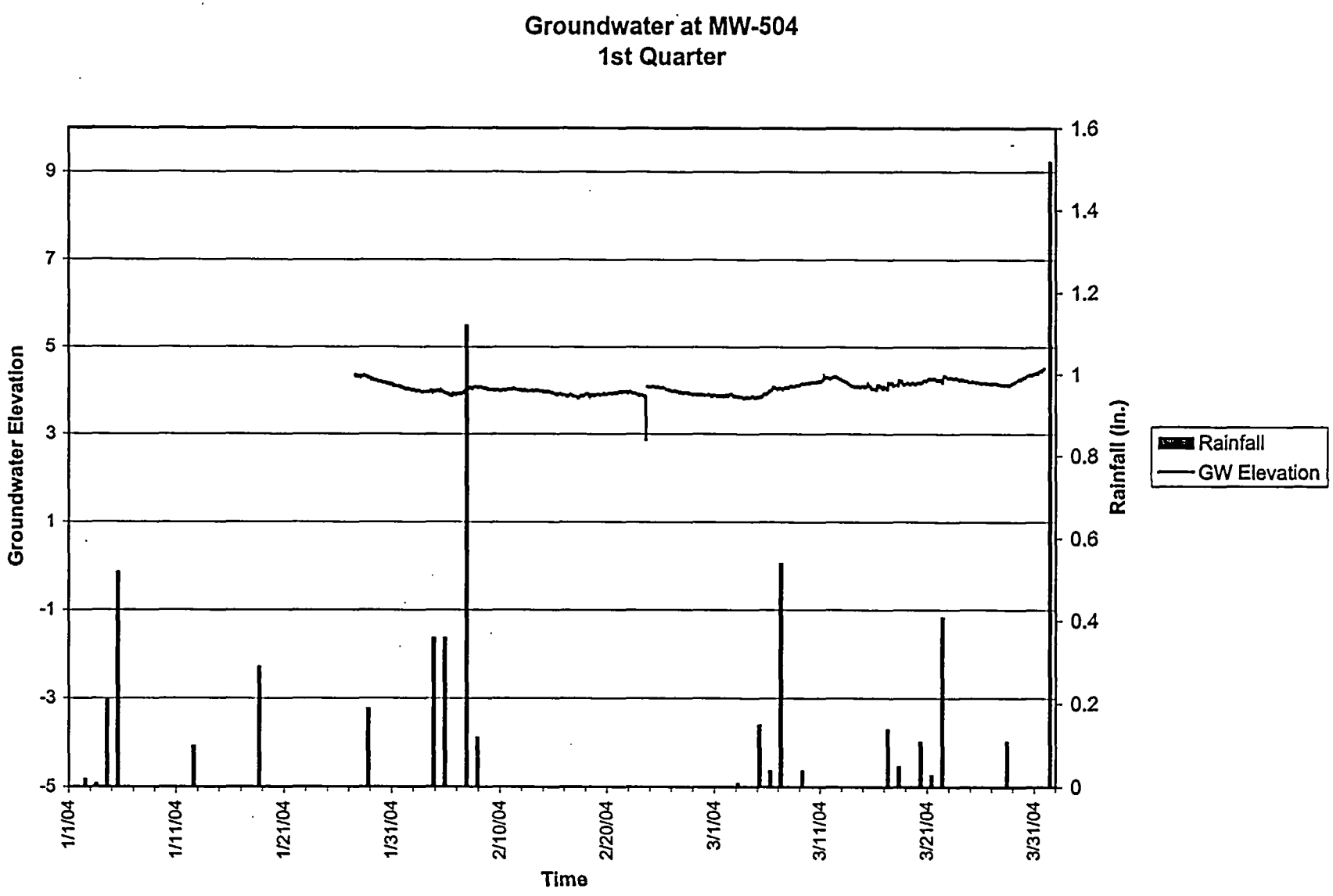

Groundwater at MW122S and Temperature
1st Quarter
Groundwater Elevation (FT MSL)
Temperature (Fahrenheit)
Time
20
15
10
5
0
-5
60
59
58
57
56
55
54
53
52
51
50
1/27/04
2/6/04
2/16/04
2/26/04
3/7/04
3/17/04
3/27/04
GW Elev
Temperature

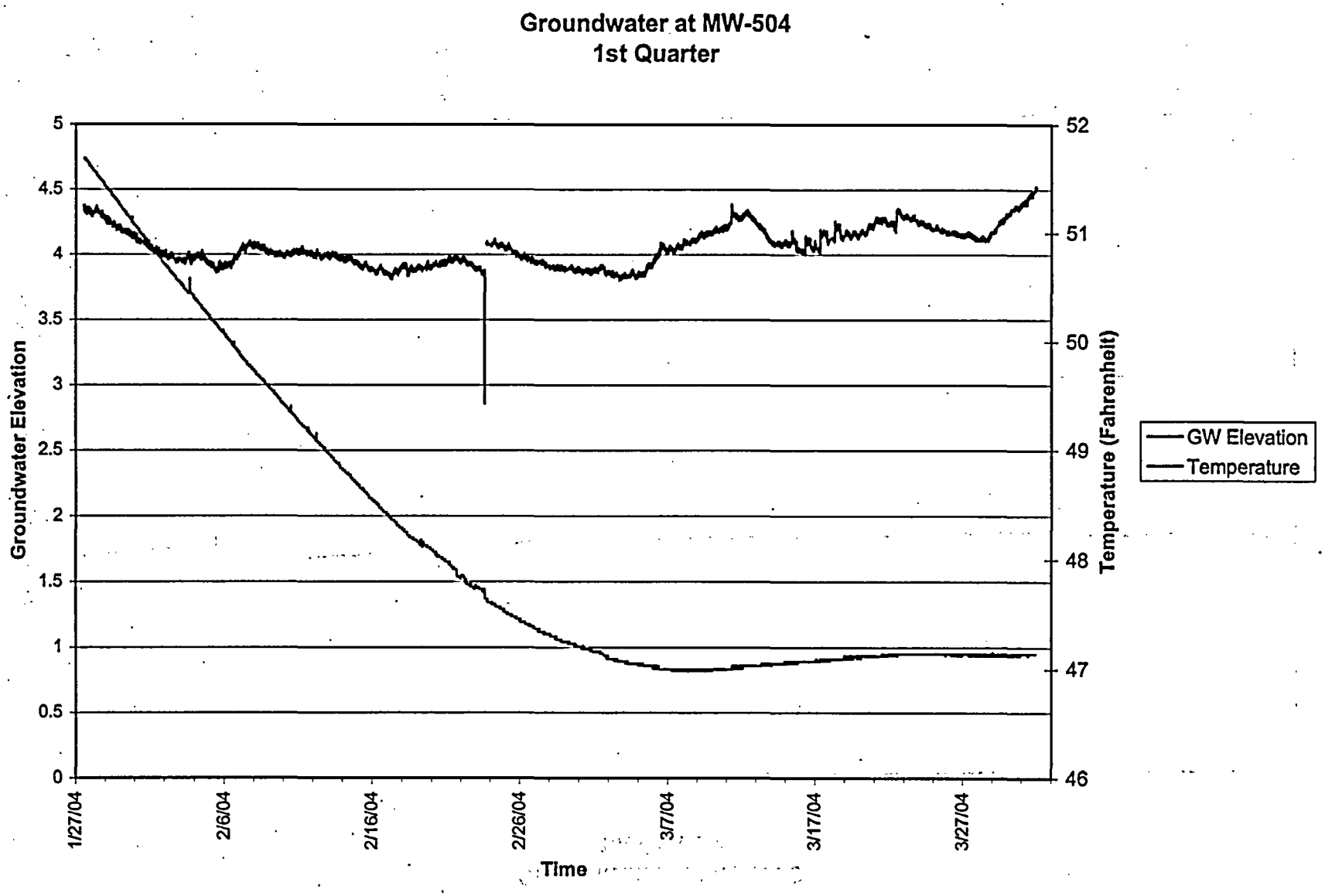

Groundwater at MW-124
1st Quarter
Groundwater Elevation (FT MSL)
20
15
10
5
0
-5
1/27/04
2/6/04
2/16/04
2/26/04
3/7/04
3/17/04
3/27/04
Time

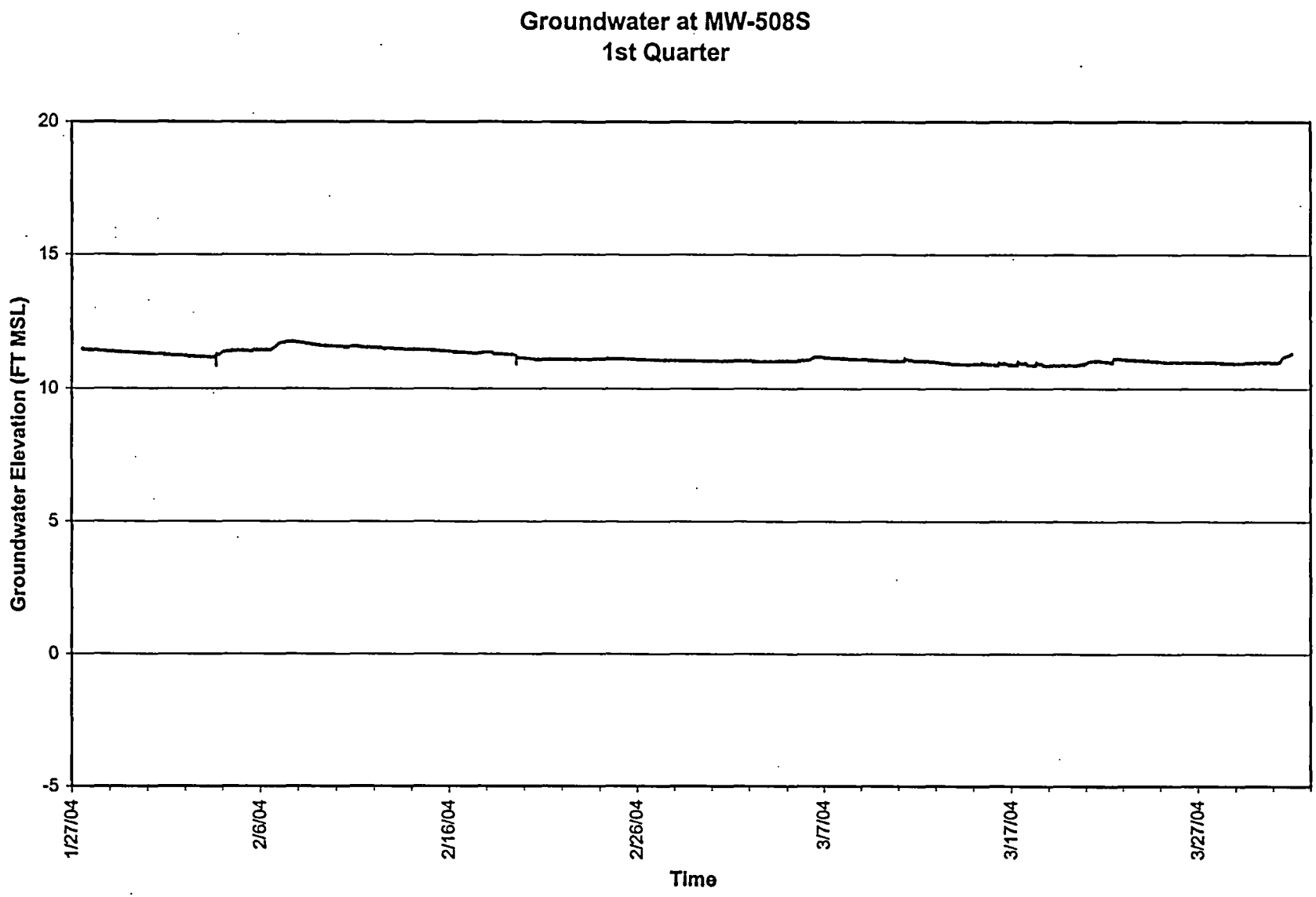

MW-124 Groundwater Elevation and Daily Rainfall Totals
1st Quarter
Groundwater Elevation (FT MSL)
20
15
10
5
0
-5
Rainfall (in.)
1.6
1.4
1.2
1
0.8
0.6
0.4
0.2
0
1/1/04
1/11/04
1/21/04
1/31/04
2/10/04
2/20/04
3/1/04
3/11/04
3/21/04
3/31/04
Time
Rainfall
GW Elevation


Groundwater at MW-124 and Temperature
1st Quarter
Groundwater Elevation (FT MSL)
20
15
10
5
0
-5
Temperature (Fahrenheit)
60
59
58
57
56
55
54
53
52
51
50
1/27/04
2/6/04
2/16/04
2/26/04
3/7/04
3/17/04
3/27/04
Time
GW Elev
Temperature

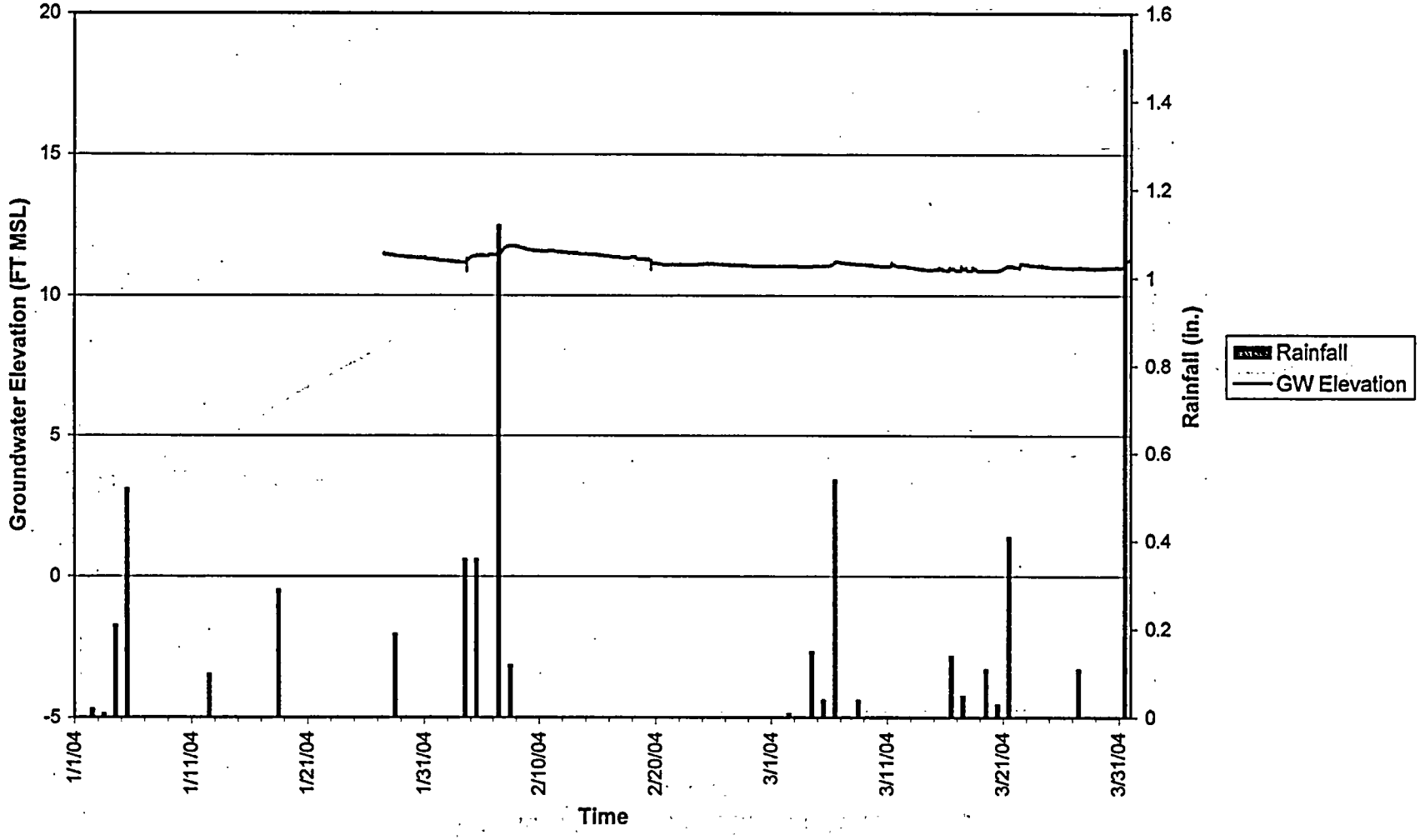

Groundwater at MW-504
1st Quarter
Groundwater Elevation
5
4.5
4
3.5
3
2.5
2
1.5
1
0.5
0
1/27/04
2/6/04
2/16/04
2/26/04
3/7/04
3/17/04
3/27/04
Time

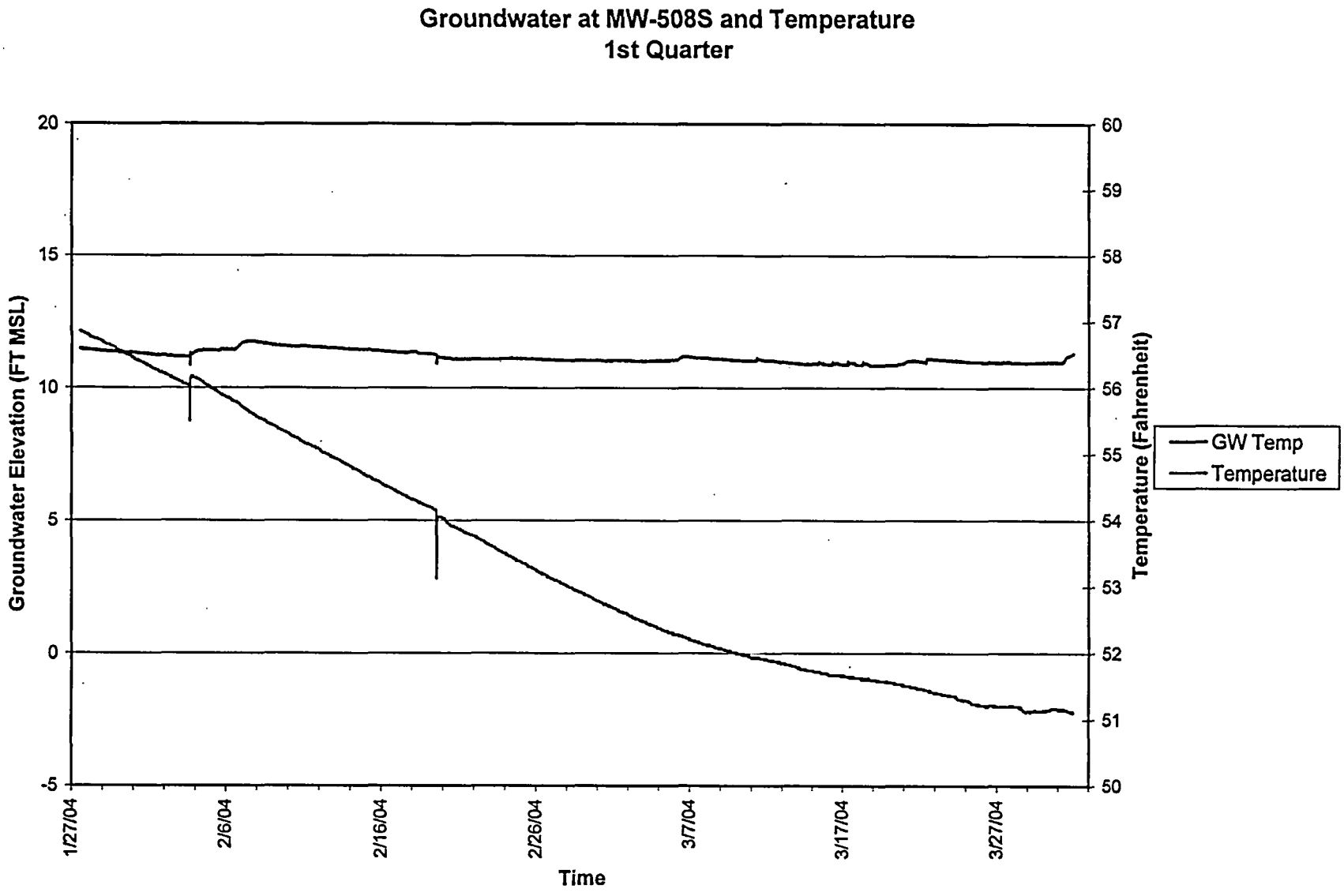

Groundwater at MW-504
1st Quarter
Groundwater Elevation
9
7
5
3
1
-1
-3
-5
Rainfall (In.)
1.6
1.4
1.2
1
0.8
0.6
0.4
0.2
0
1/1/04
1/11/04
1/21/04
1/31/04
2/10/04
2/20/04
3/1/04
3/11/04
3/21/04
3/31/04
Time
Rainfall
GW Elevation

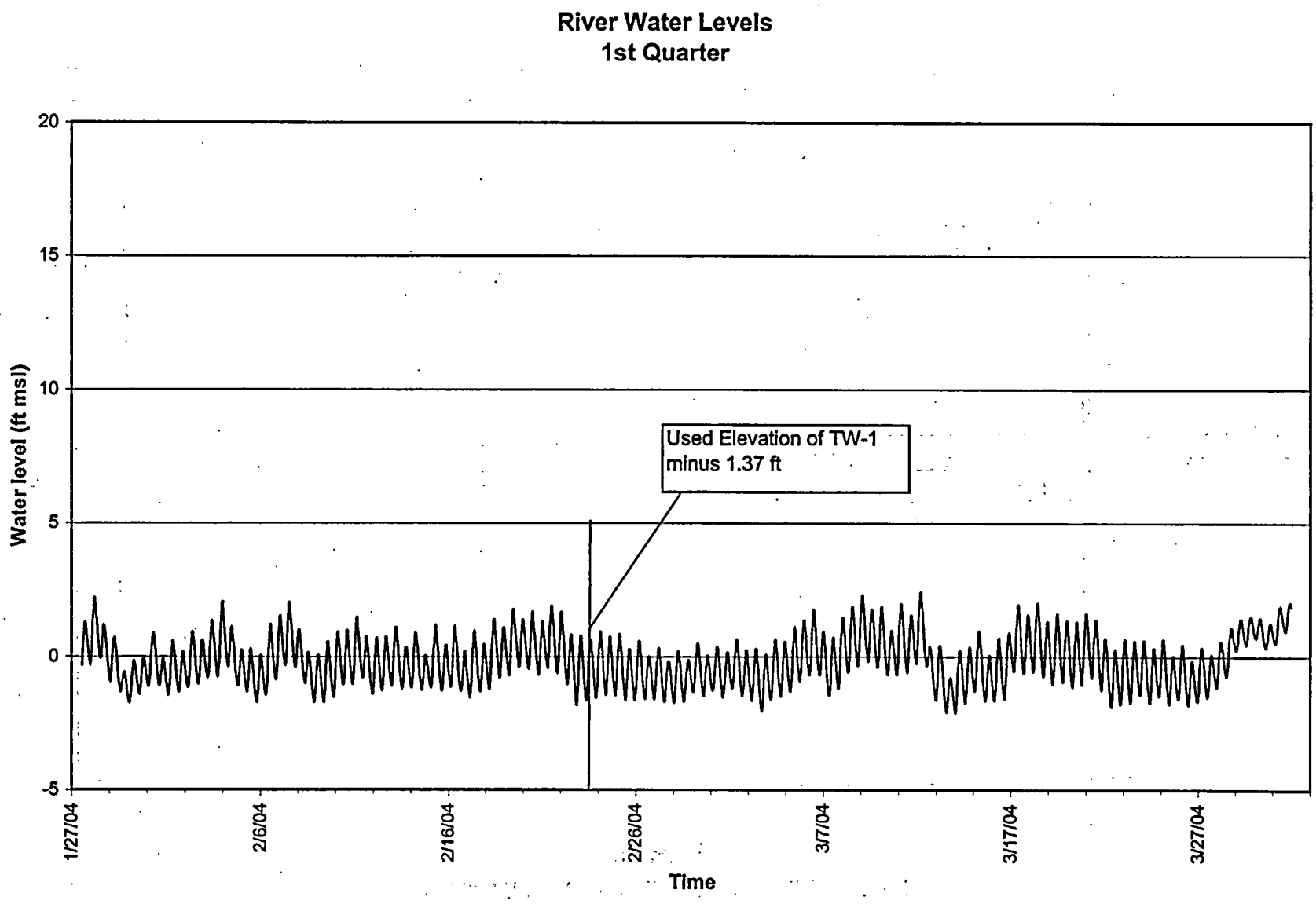

Groundwater at MW-504
1st Quarter
Groundwater Elevation
Temperature (Fahrenheit)
Time
GW Elevation
Temperature
5
4.5
4
3.5
3
2.5
2
1.5
1
0.5
0
52
51
50
49
48
47
46
1/27/04
2/6/04
2/16/04
2/26/04
3/7/04
3/17/04
3/27/04


Groundwater at MW-508S
1st Quarter
Groundwater Elevation (FT MSL)
20
15
10
5
0
-5
1/27/04
2/6/04
2/16/04
2/26/04
3/7/04
3/17/04
3/27/04
Time

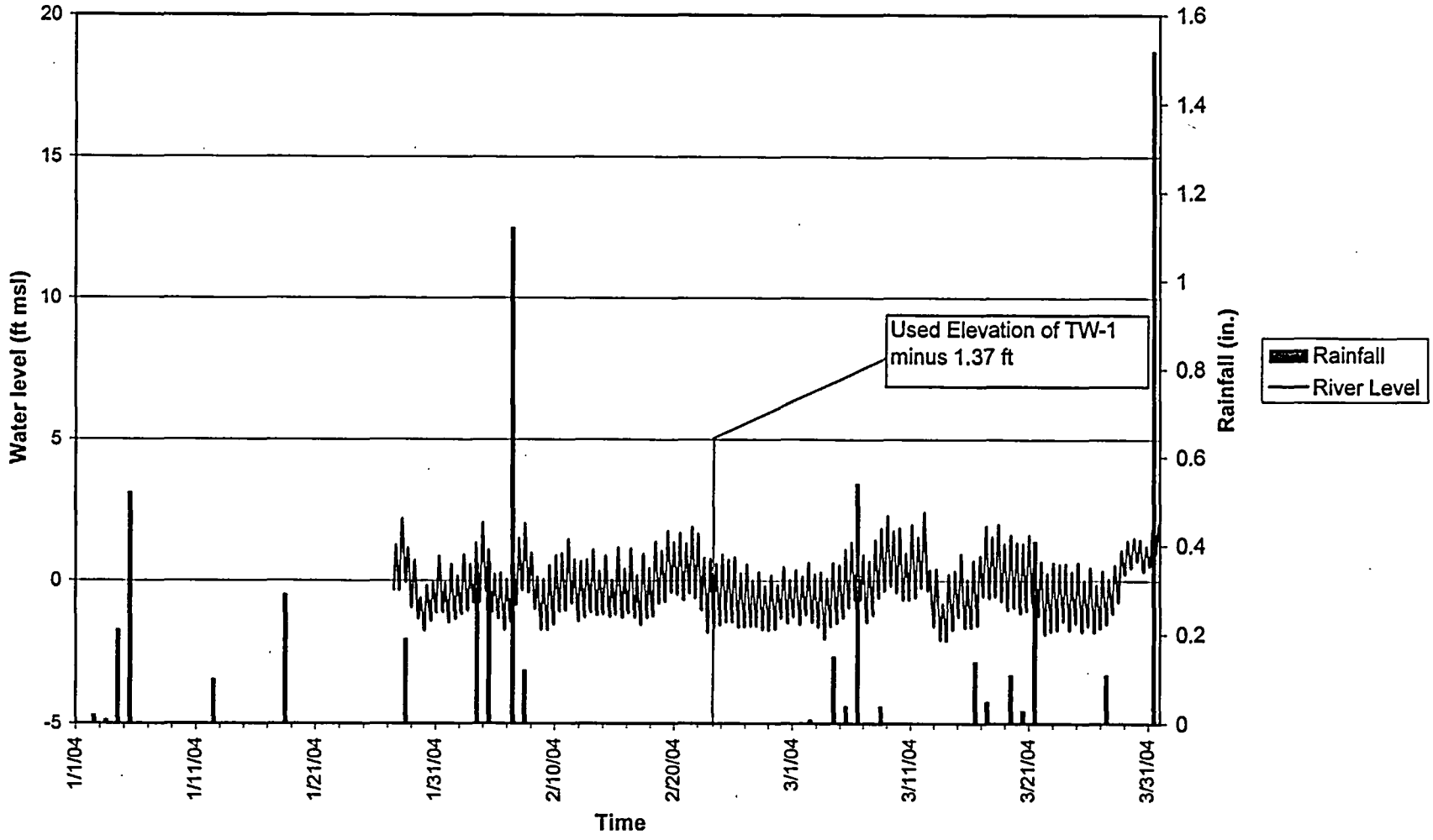
MW-508S Groundwater Elevation and Daily Rainfall Totals
1st Quarter

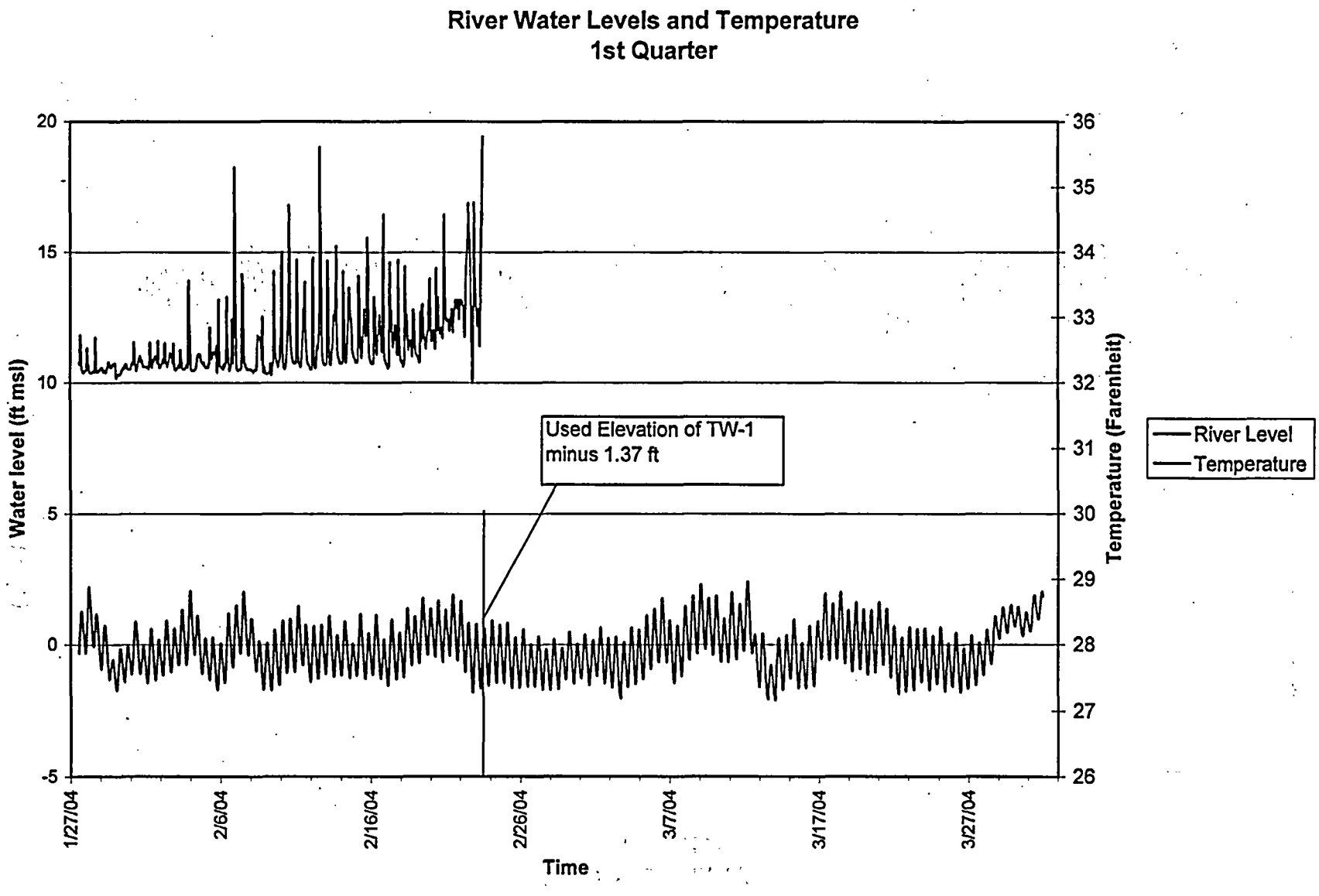


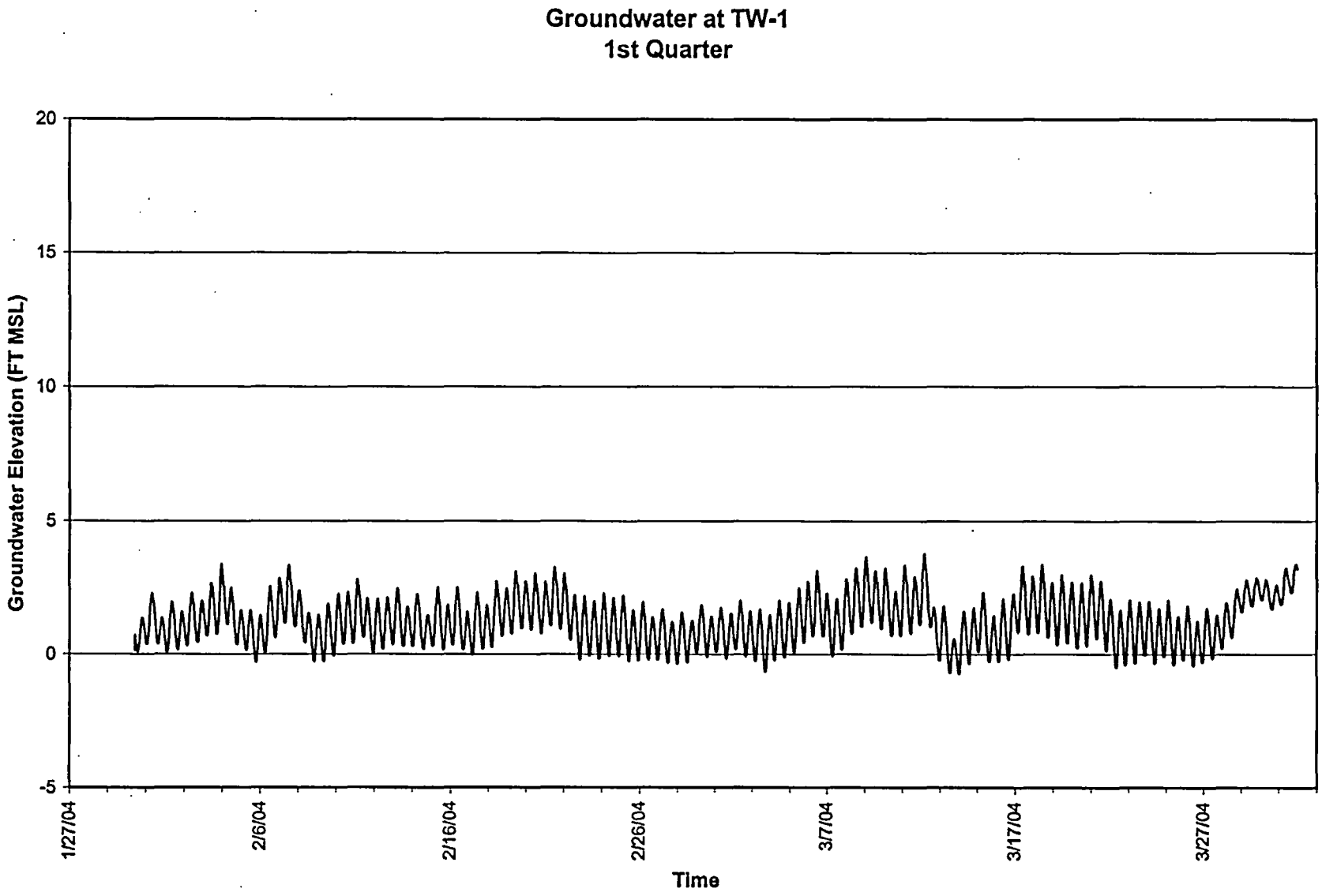

Groundwater at MW-508S and Temperature
1st Quarter
Groundwater Elevation (FT MSL)
20
15
10
5
0
-5
Temperature (Fahrenheit)
60
59
58
57
56
55
54
53
52
51
50
1/27/04
2/6/04
2/16/04
2/26/04
3/7/04
3/17/04
3/27/04
Time
GW Temp
Temperature


River Water Levels
1st Quarter
Water level (ft msl)
20
15
10
5
0
-5
Used Elevation of TW-1
minus 1.37 ft
1/27/04
2/6/04
2/16/04
2/26/04
3/7/04
3/17/04
3/27/04
Time

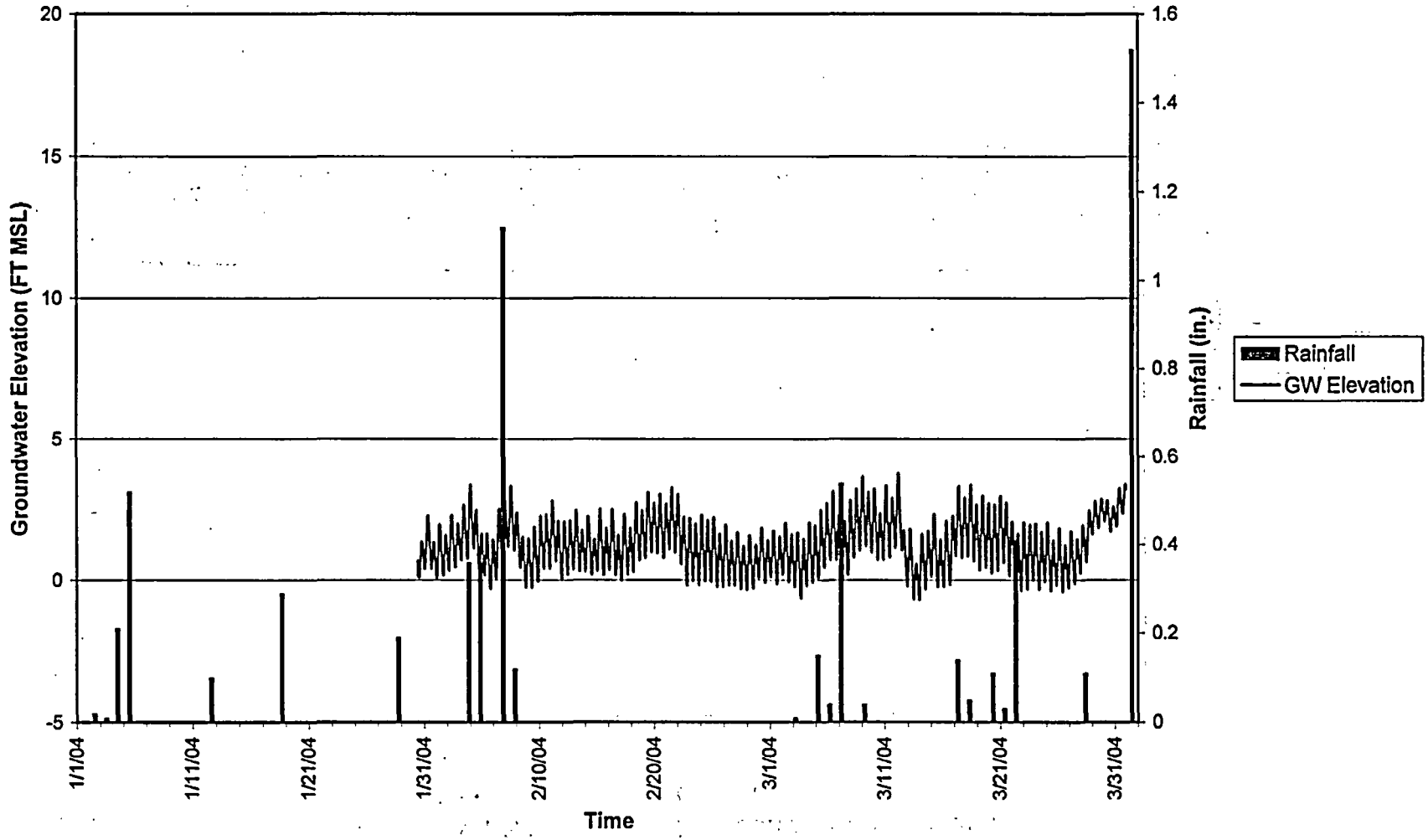
River Water Levels and Daily Rainfall Totals
1st Quarter

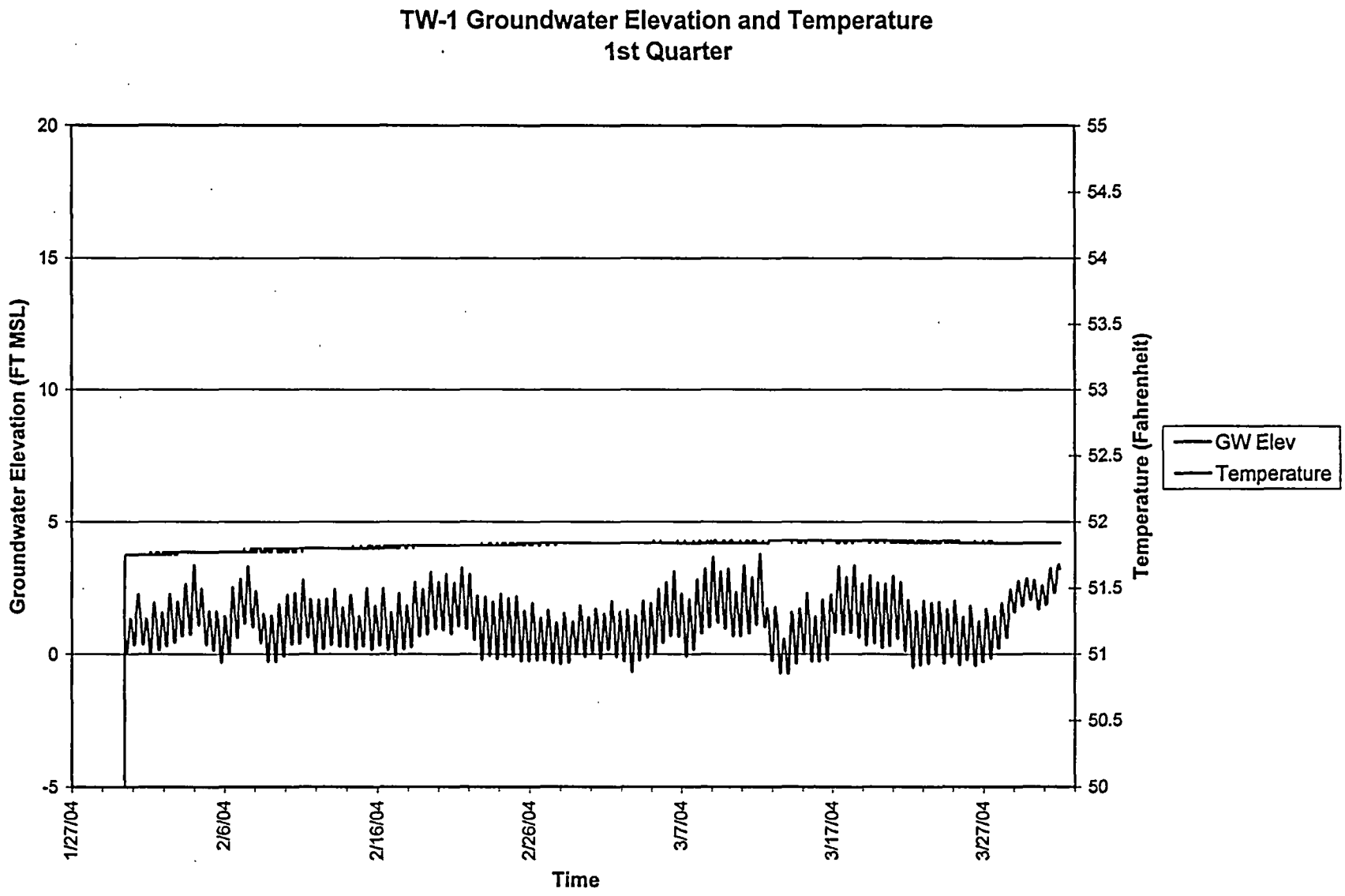


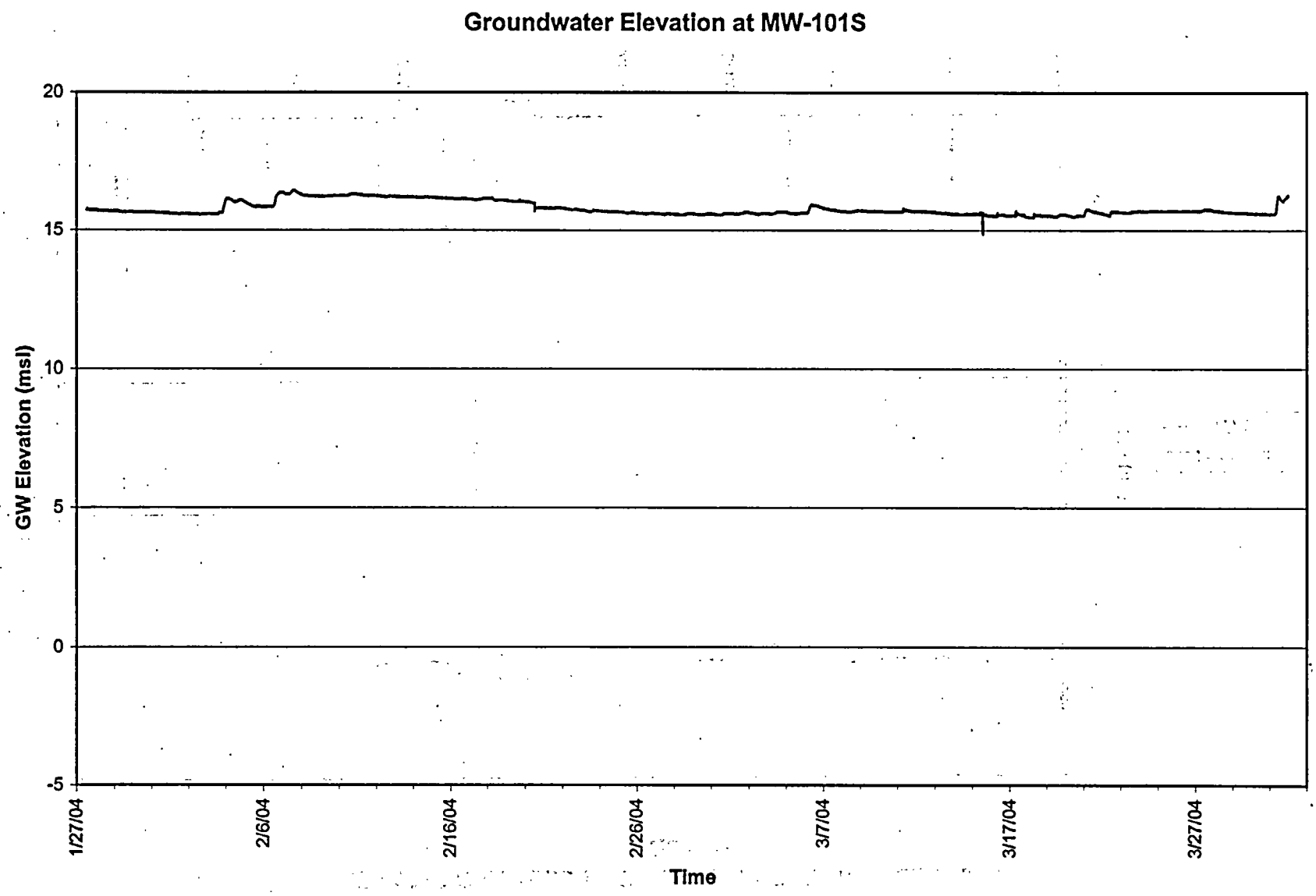

River Water Levels and Temperature
1st Quarter
Water level (ft msl)
Temperature (Farenheit)
Time
Used Elevation of TW-1 minus 1.37 ft
River Level
Temperature
20
15
10
5
0
-5
36
35
34
33
32
31
30
29
28
27
26
1/27/04
2/6/04
2/16/04
2/26/04
3/7/04
3/17/04
3/27/04


Groundwater at TW-1
1st Quarter
Groundwater Elevation (FT MSL)
20
15
10
5
0
-5
1/27/04
2/6/04
2/16/04
2/26/04
3/7/04
3/17/04
3/27/04
Time

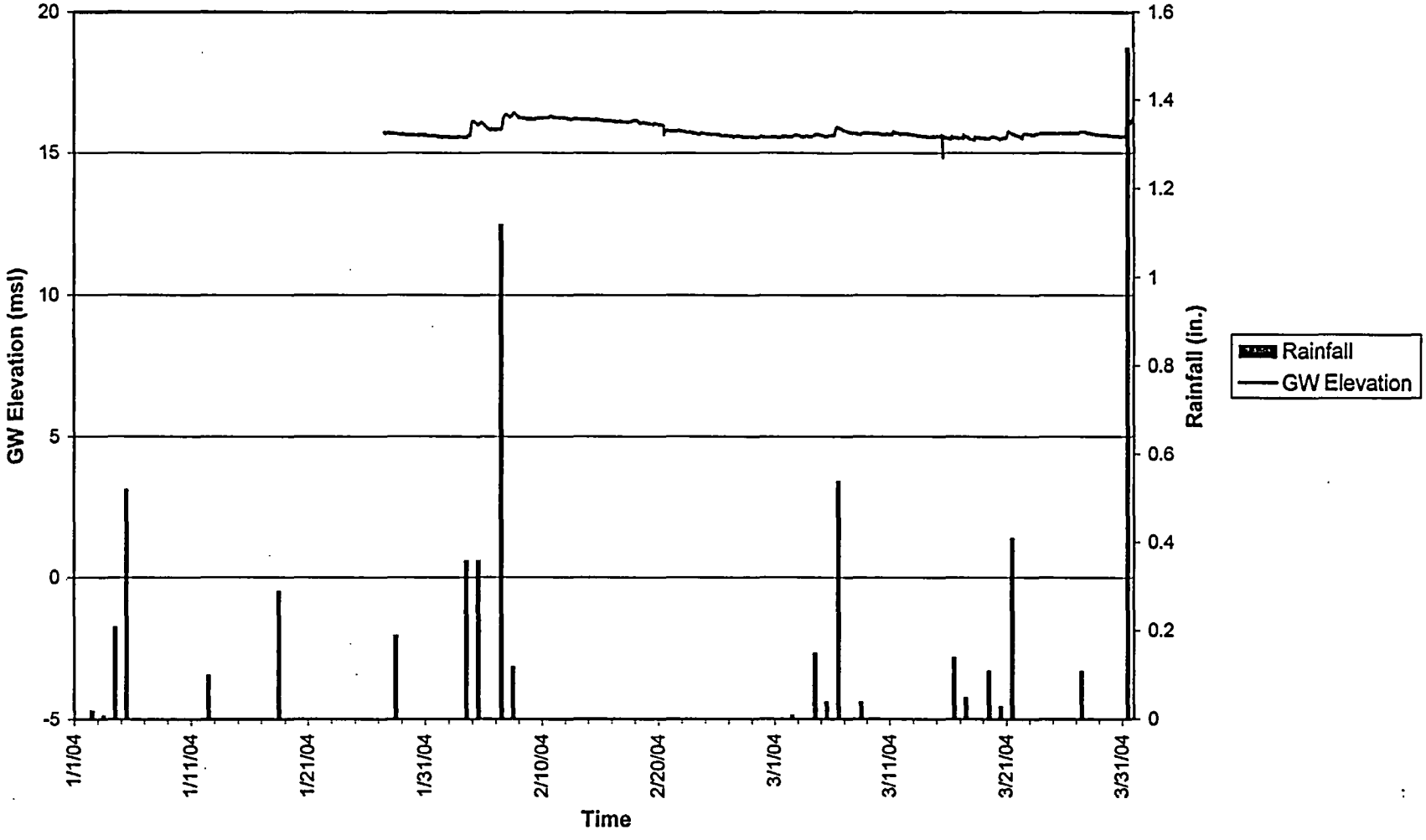
TW-1 Groundwater Elevation and Daily Rainfall Totals
1st Quarter

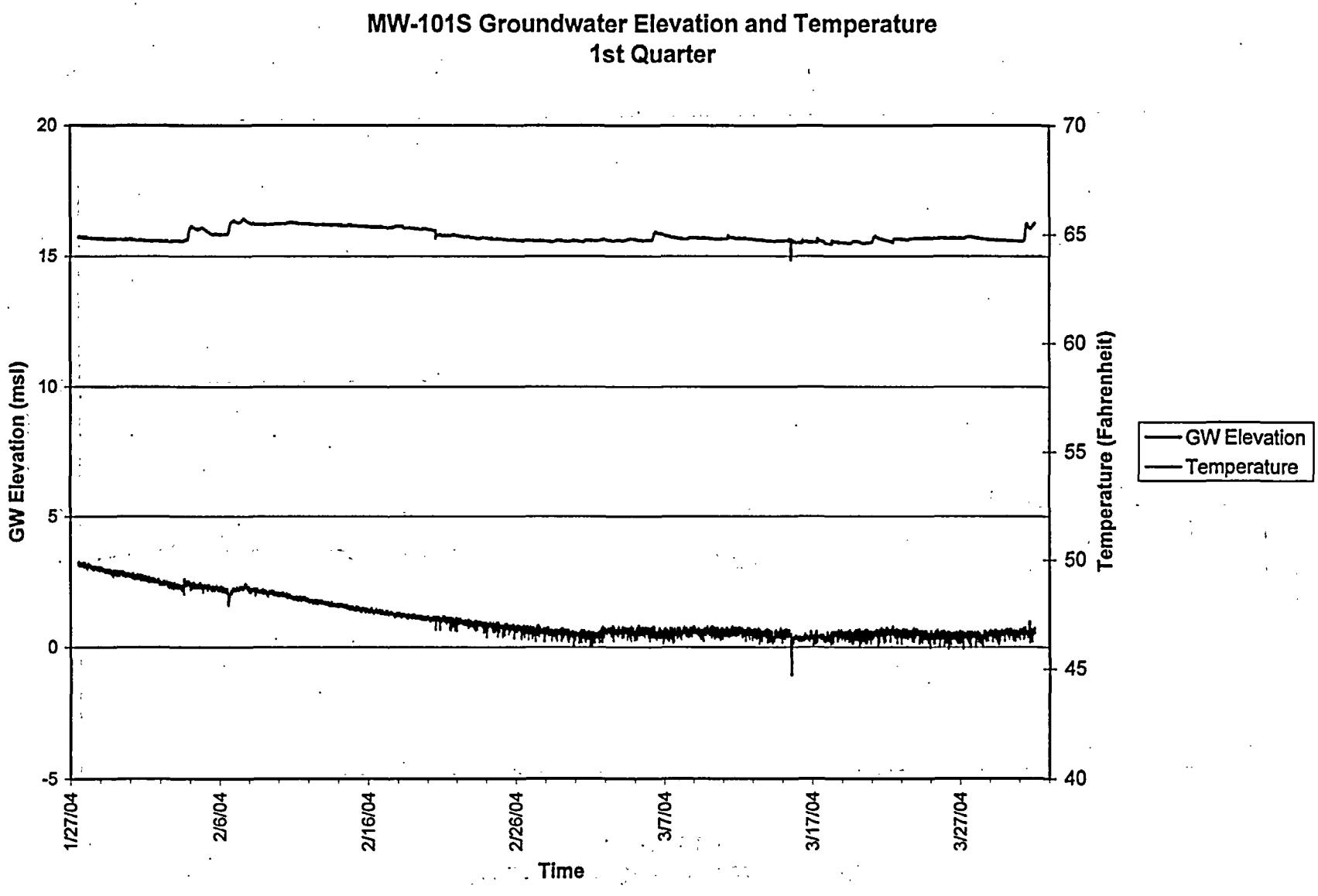


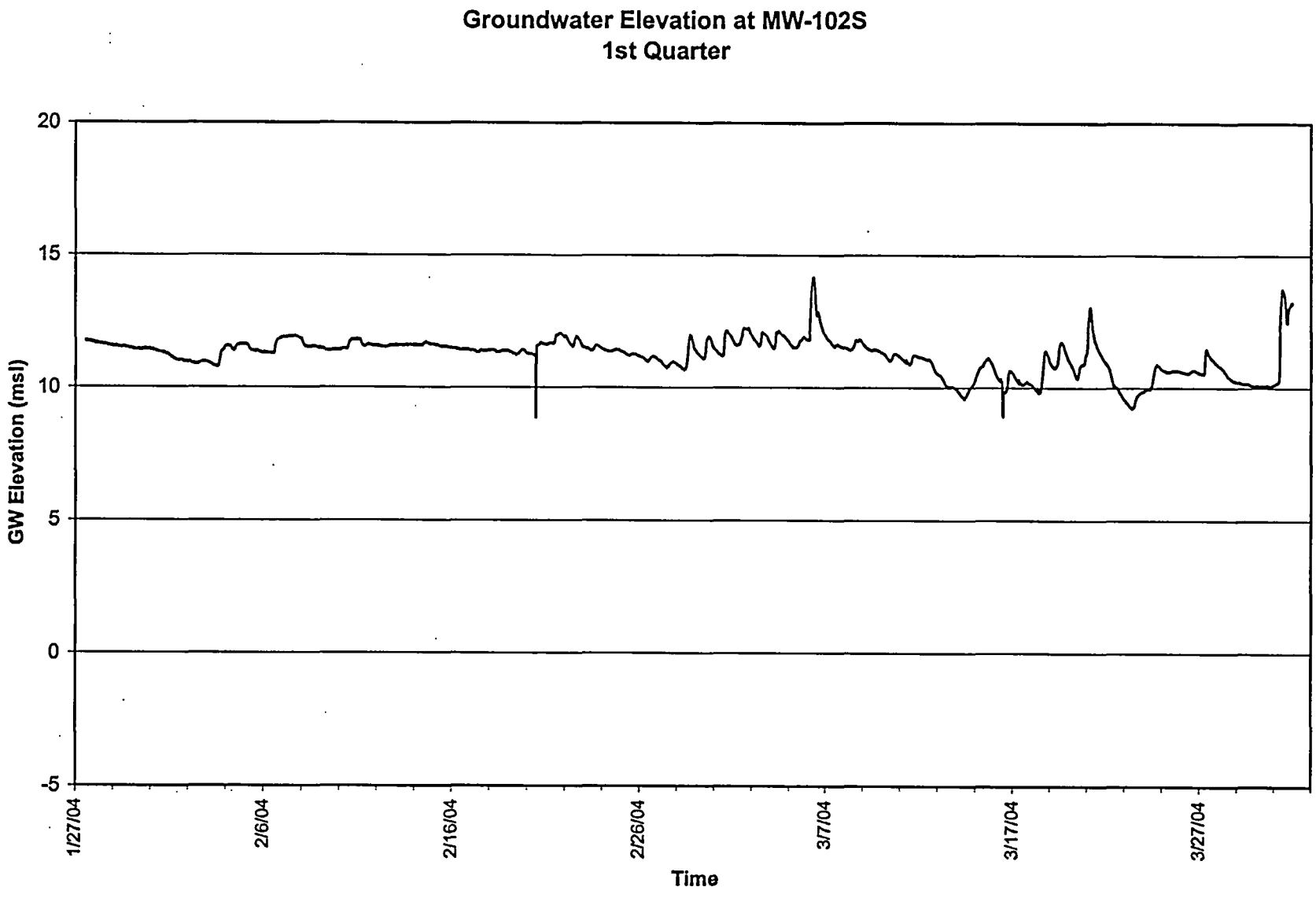

TW-1 Groundwater Elevation and Temperature
1st Quarter
Groundwater Elevation (FT MSL)
20
15
10
5
0
-5
Temperature (Fahrenheit)
55
54.5
54
53.5
53
52.5
52
51.5
51
50.5
50
1/27/04
2/6/04
2/16/04
2/26/04
3/7/04
3/17/04
3/27/04
Time
GW Elev
Temperature


Groundwater Elevation at MW-101S
GW Elevation (msl)
20
15
10
5
0
-5
1/27/04
2/6/04
2/16/04
2/26/04
3/7/04
3/17/04
3/27/04
Time

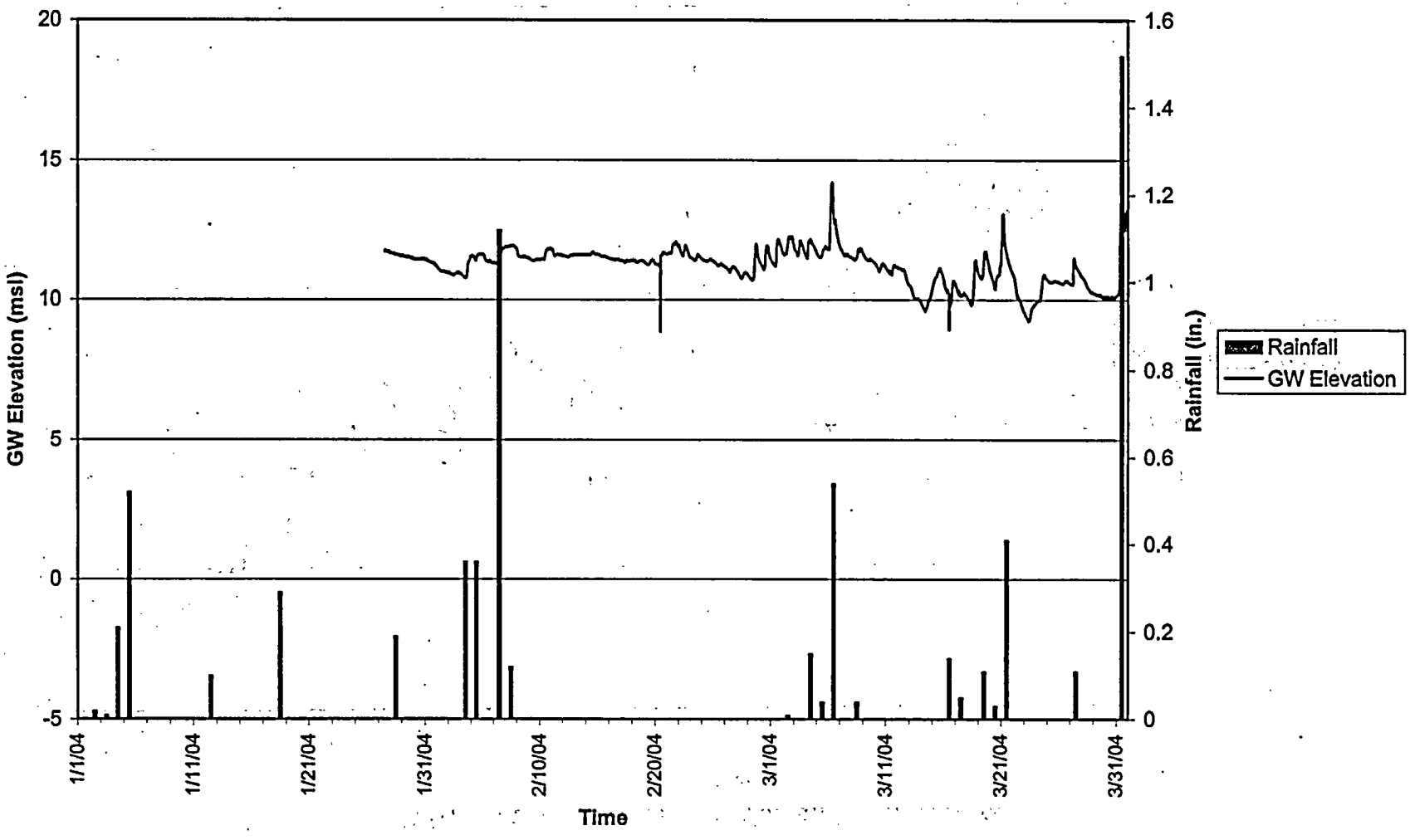
MW 101S Groundwater Elevation and Daily Rainfall Totals
1st Quarter

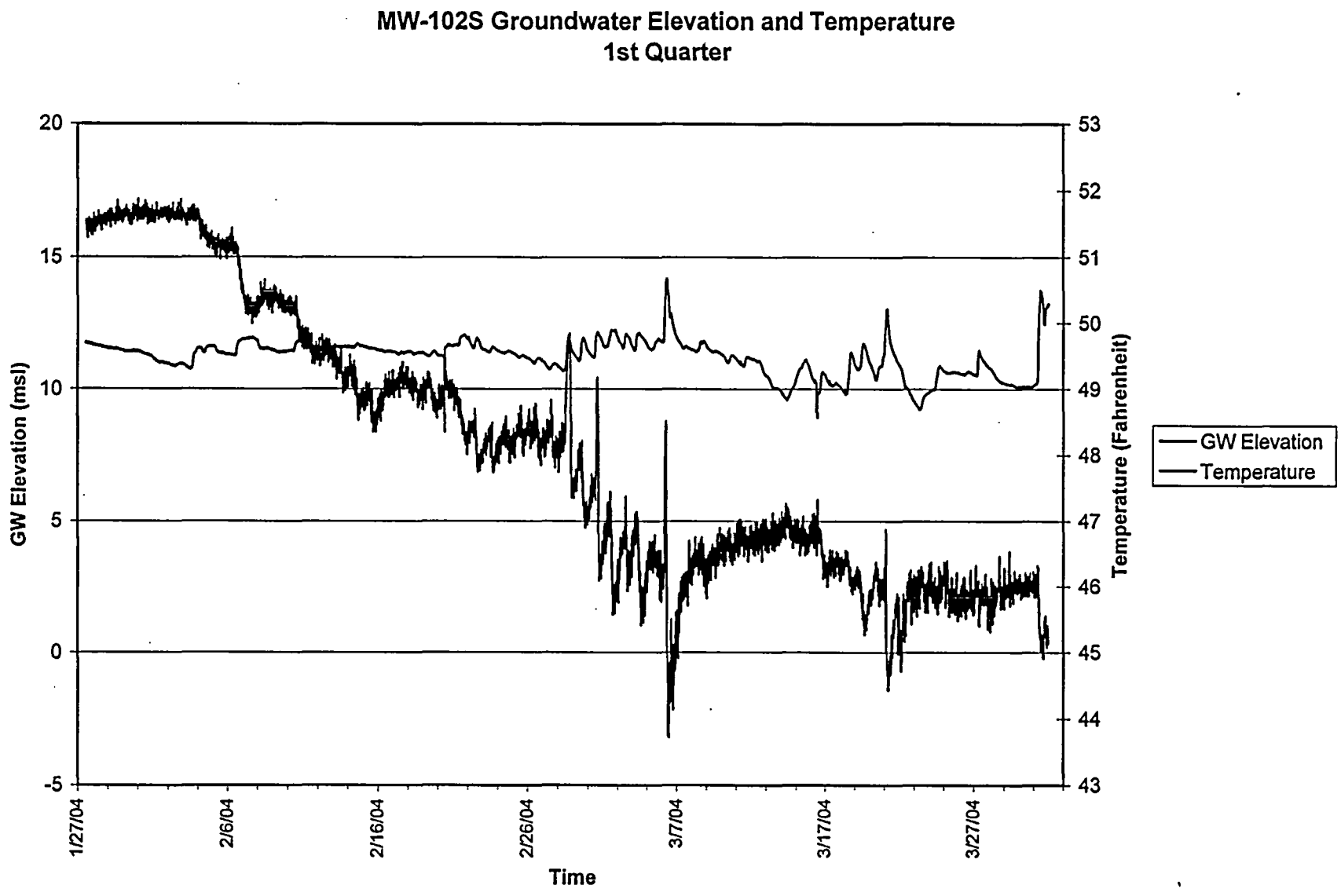


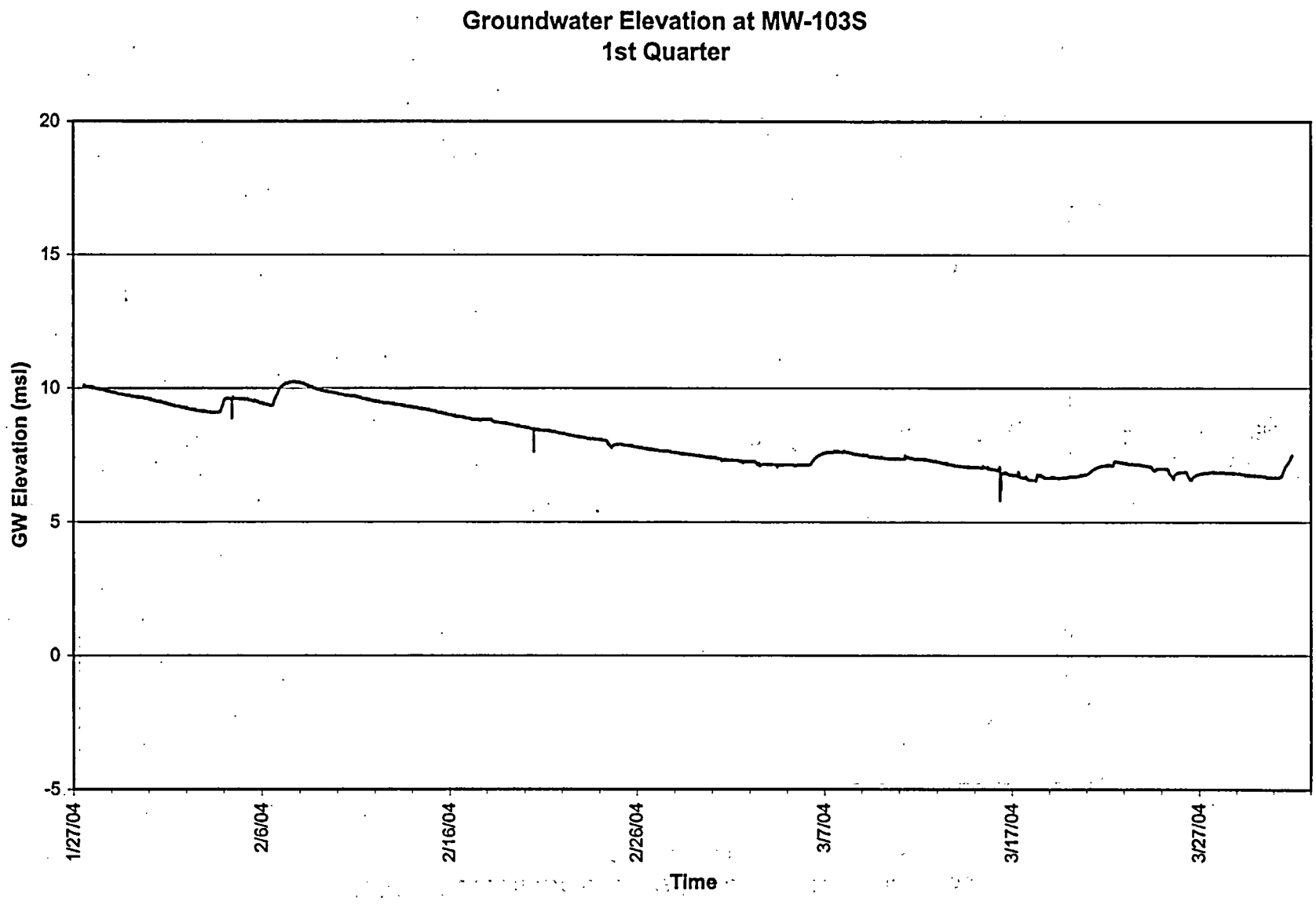

MW-101S Groundwater Elevation and Temperature
1st Quarter
GW Elevation (msl)
Temperature (Fahrenheit)
Time
20
15
10
5
0
-5
70
65
60
55
50
45
40
1/27/04
2/6/04
2/16/04
2/26/04
3/7/04
3/17/04
3/27/04
GW Elevation
Temperature


Groundwater Elevation at MW-102S
1st Quarter
GW Elevation (msl)
20
15
10
5
0
-5
1/27/04
2/6/04
2/16/04
2/26/04
3/7/04
3/17/04
3/27/04
Time

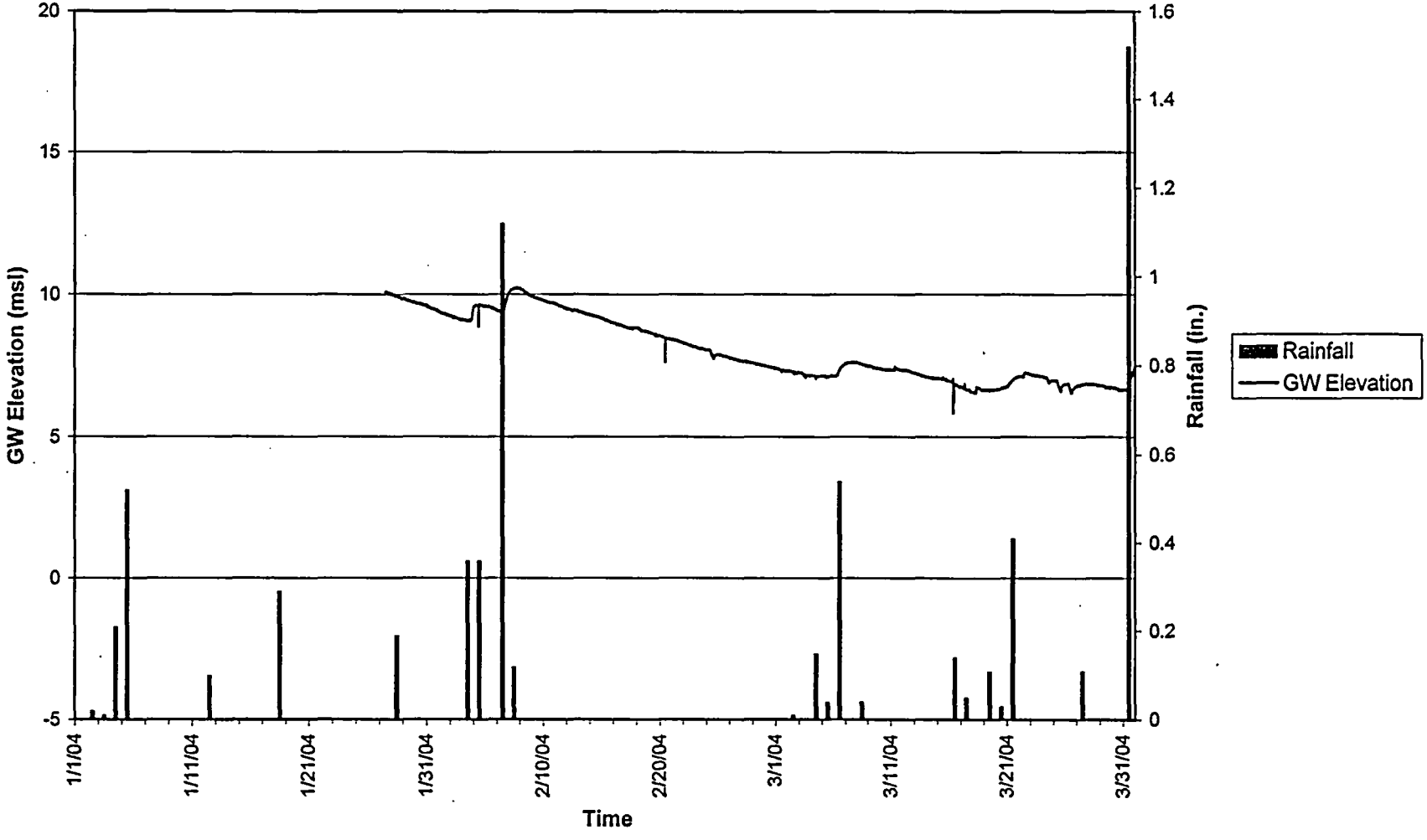
MW-102S Groundwater Elevation and Daily Rainfall Totals
1st Quarter

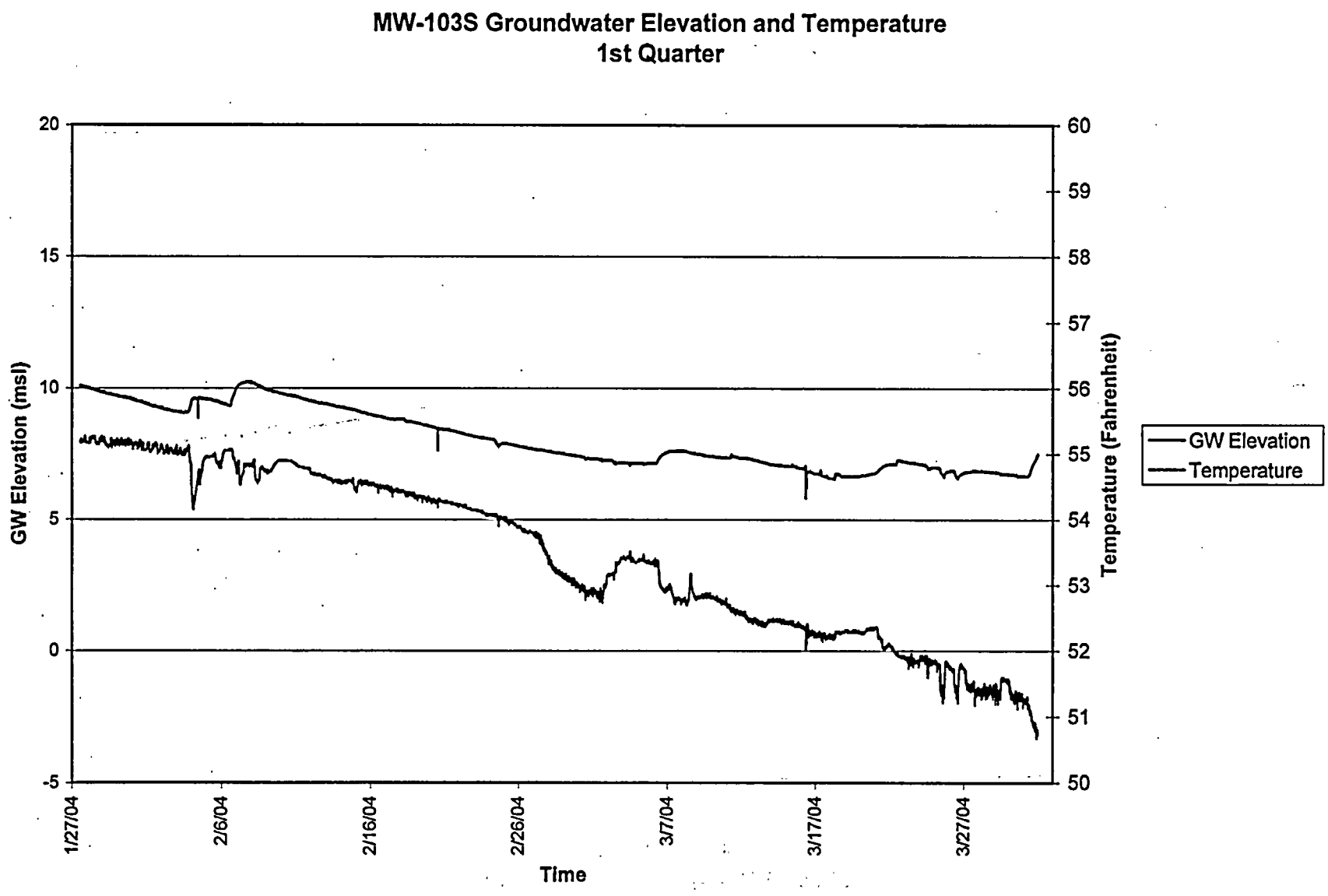



MW-102S Groundwater Elevation and Temperature
1st Quarter
GW Elevation (msl)
Temperature (Fahrenheit)
Time
20
15
10
5
0
-5
53
52
51
50
49
48
47
46
45
44
43
1/27/04
2/6/04
2/16/04
2/26/04
3/7/04
3/17/04
3/27/04
GW Elevation
Temperature

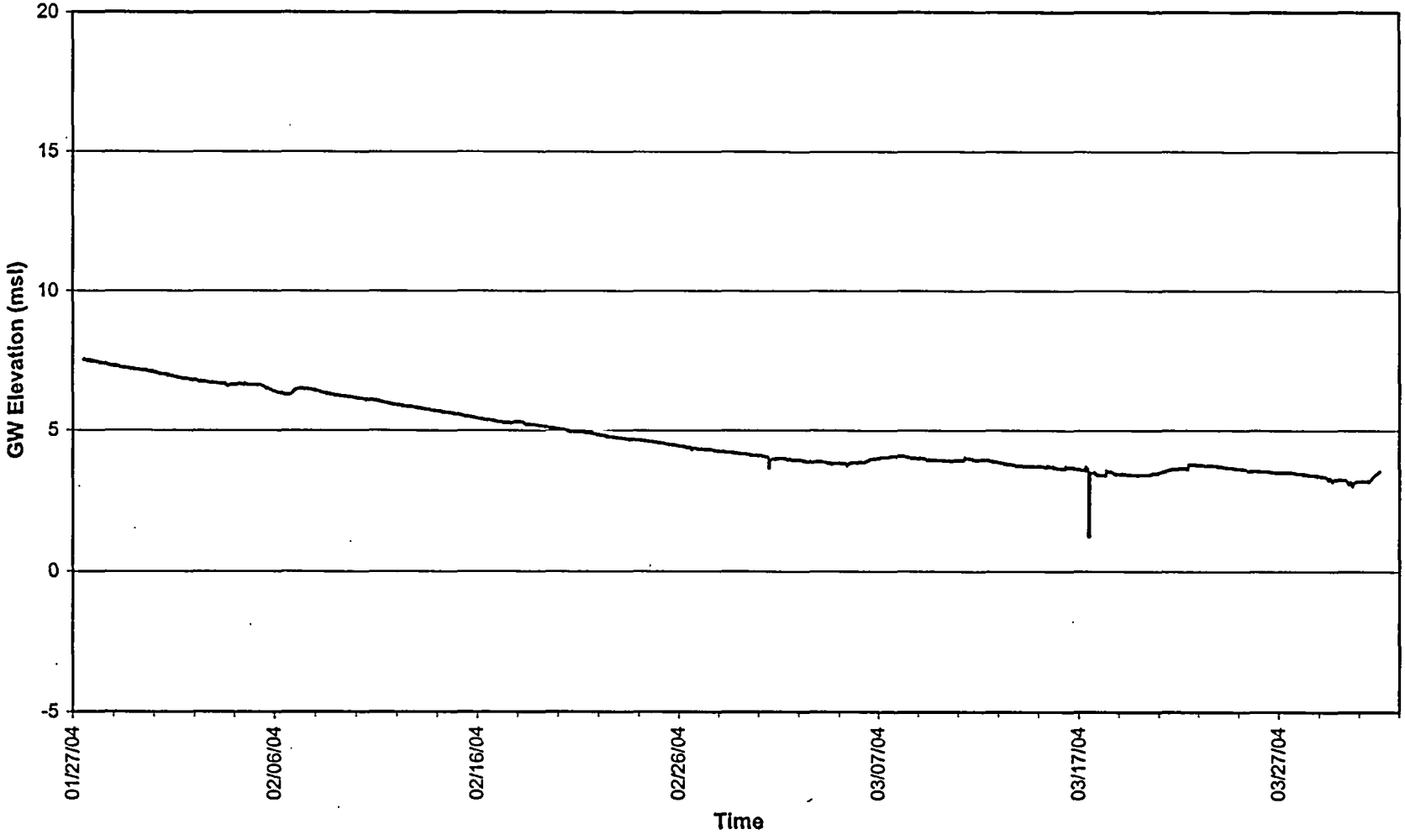

Groundwater Elevation at MW-103S
1st Quarter
GW Elevation (msl)
20
15
10
5
0
-5
1/27/04
2/6/04
2/16/04
2/26/04
3/7/04
3/17/04
3/27/04
Time

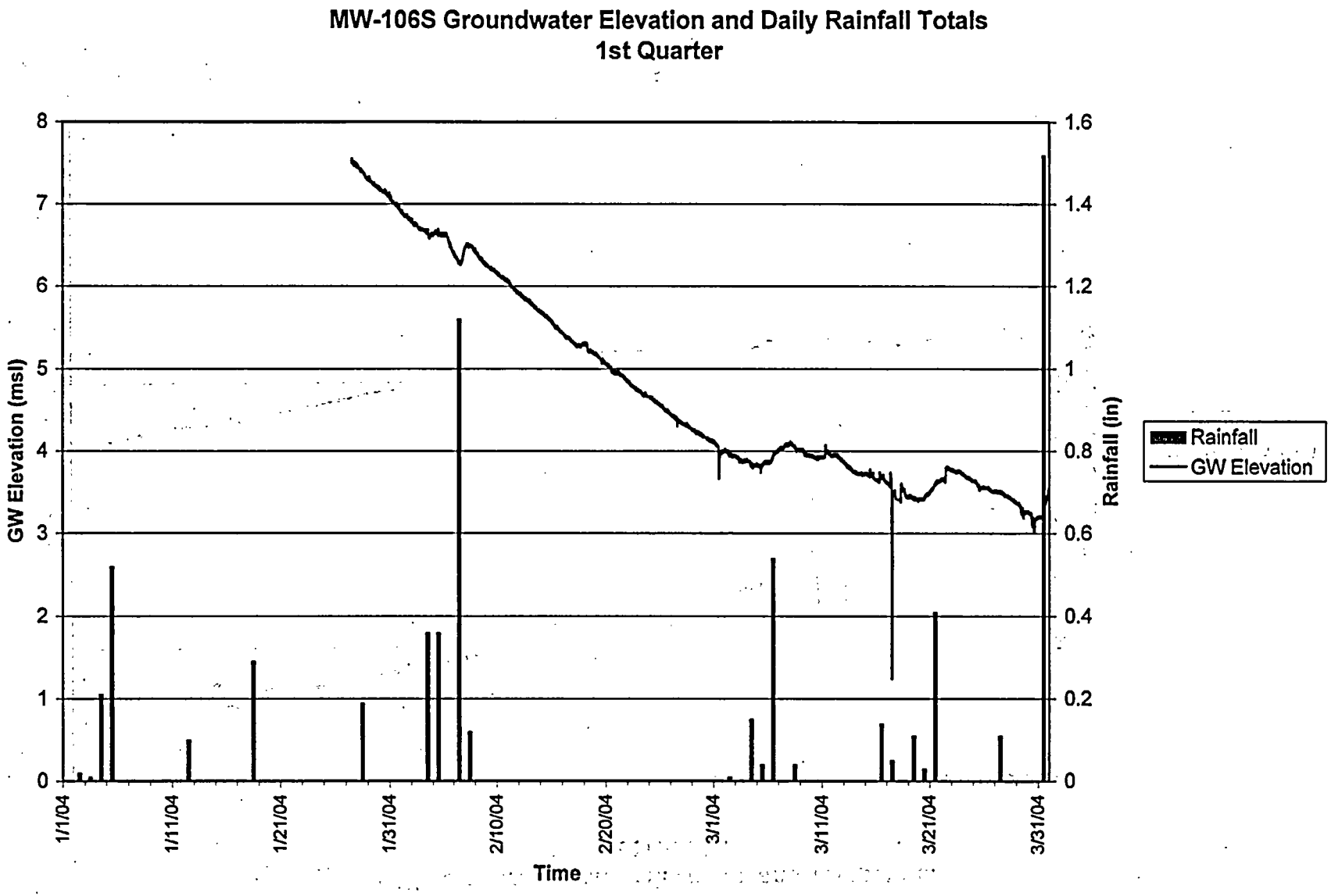
MW-103S Groundwater Elevation and Daily Rainfall Totals
1st Quarter

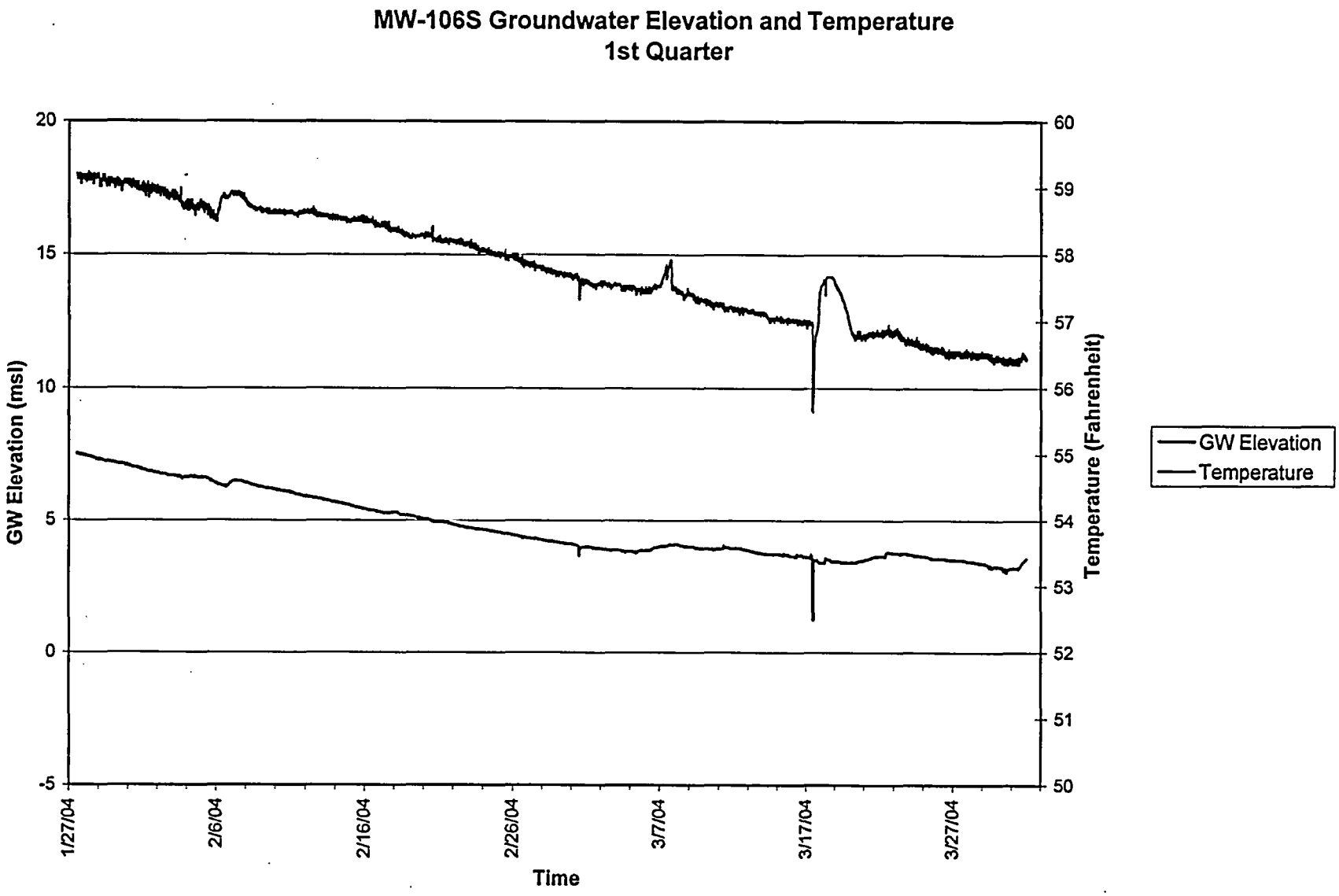


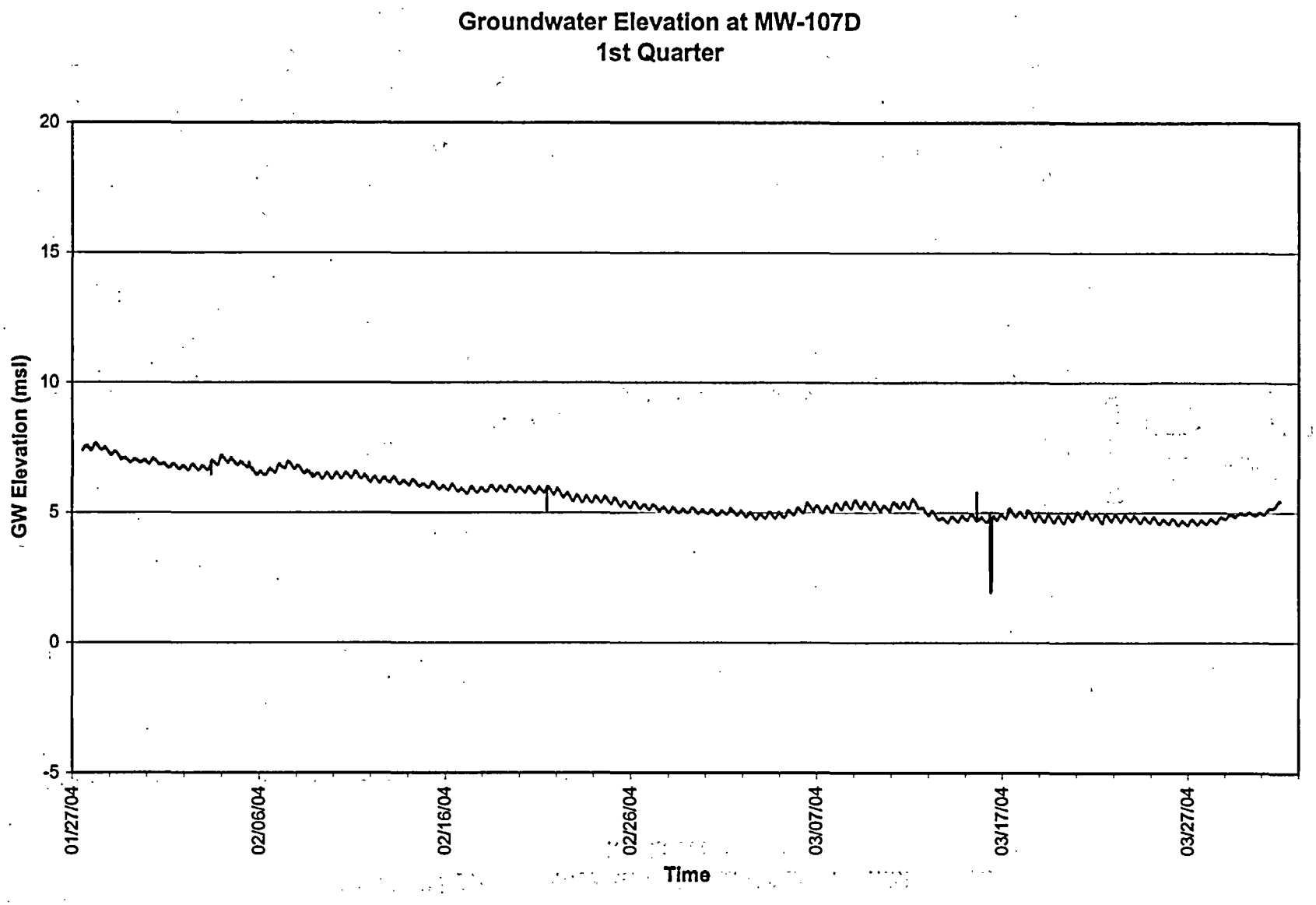

MW-103S Groundwater Elevation and Temperature
1st Quarter
GW Elevation (msl)
Temperature (Fahrenheit)
Time
20
15
10
5
0
-5
60
59
58
57
56
55
54
53
52
51
50
1/27/04
2/6/04
2/16/04
2/26/04
3/7/04
3/17/04
3/27/04
GW Elevation
Temperature

Groundwater Elevation at MW-106S
1st Quarter

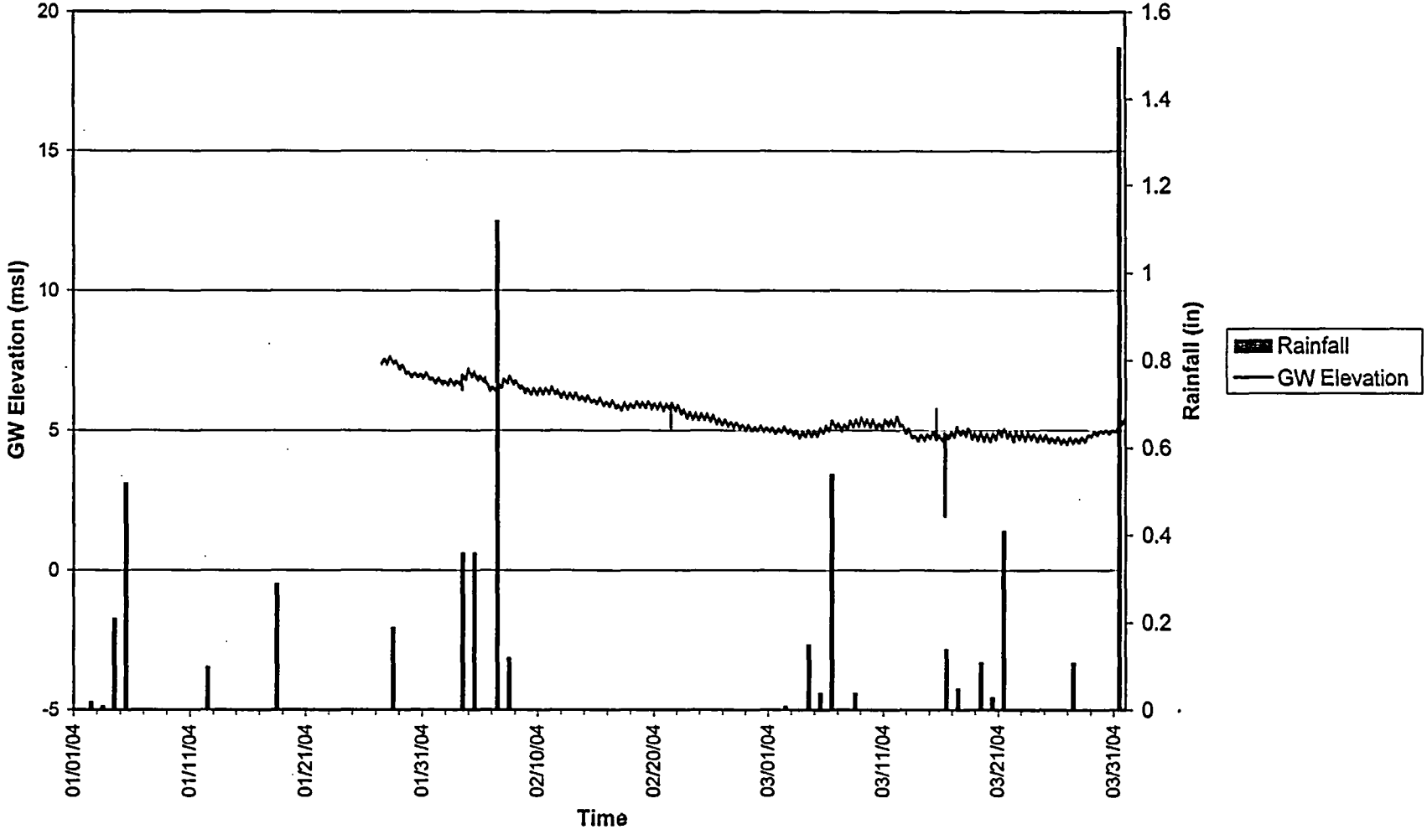



MW-106S Groundwater Elevation and Daily Rainfall Totals
1st Quarter
GW Elevation (msl)
Rainfall (in)
Time
Rainfall
GW Elevation
0
1
2
3
4
5
6
7
8
0
0.2
0.4
0.6
0.8
1
1.2
1.4
1.6
1/1/04
1/11/04
1/21/04
1/31/04
2/10/04
2/20/04
3/1/04
3/11/04
3/21/04
3/31/04

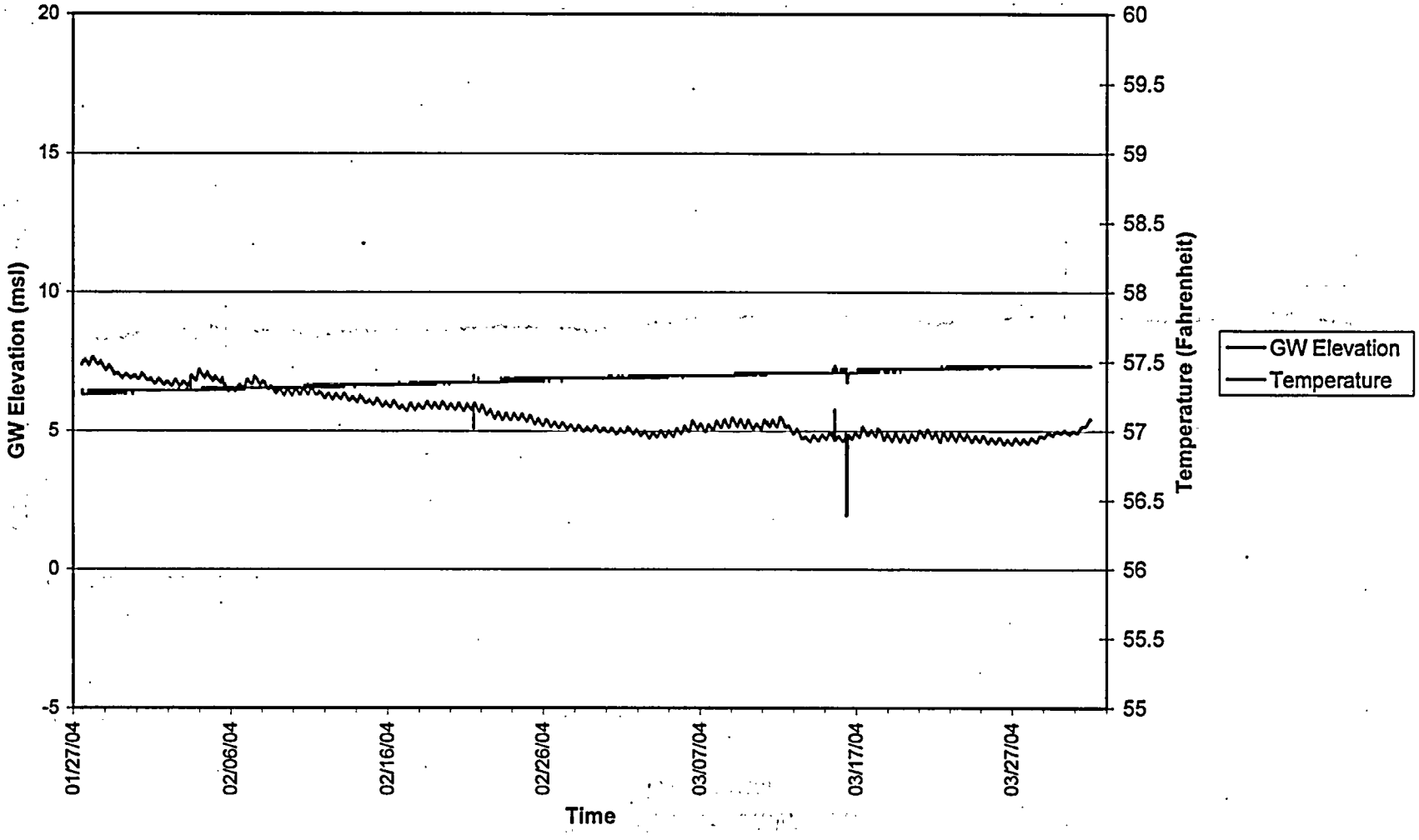

MW-106S Groundwater Elevation and Temperature
1st Quarter
GW Elevation (msl)
Temperature (Fahrenheit)
Time
20
15
10
5
0
-5
60
59
58
57
56
55
54
53
52
51
50
1/27/04
2/6/04
2/16/04
2/26/04
3/7/04
3/17/04
3/27/04
GW Elevation
Temperature

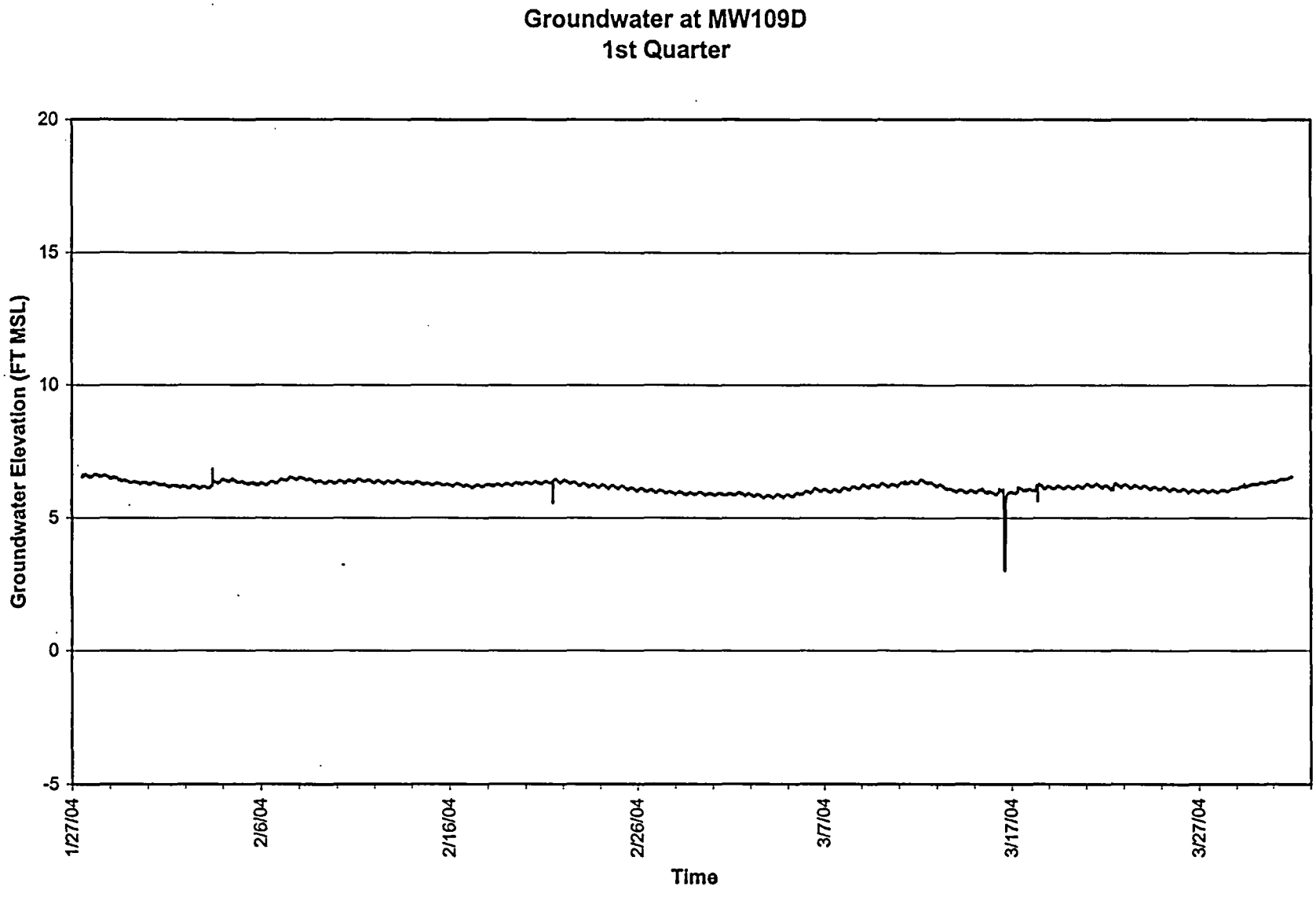

Groundwater Elevation at MW-107D
1st Quarter
GW Elevation (msl)
20
15
10
5
0
-5
01/27/04
02/06/04
02/16/04
02/26/04
03/07/04
03/17/04
03/27/04
Time

MW-107D Groundwater Elevation and Daily Rainfall Totals
1st Quarter

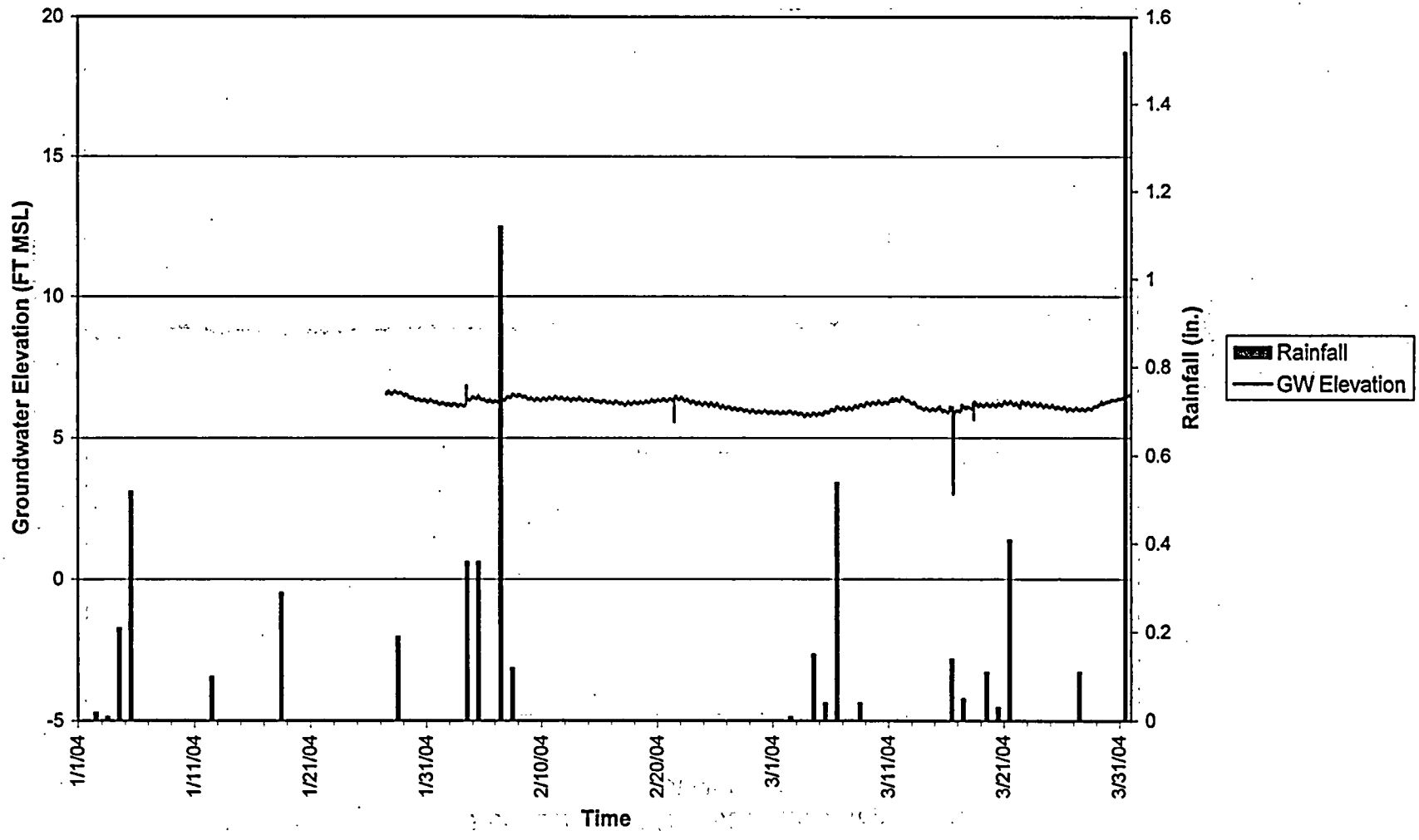


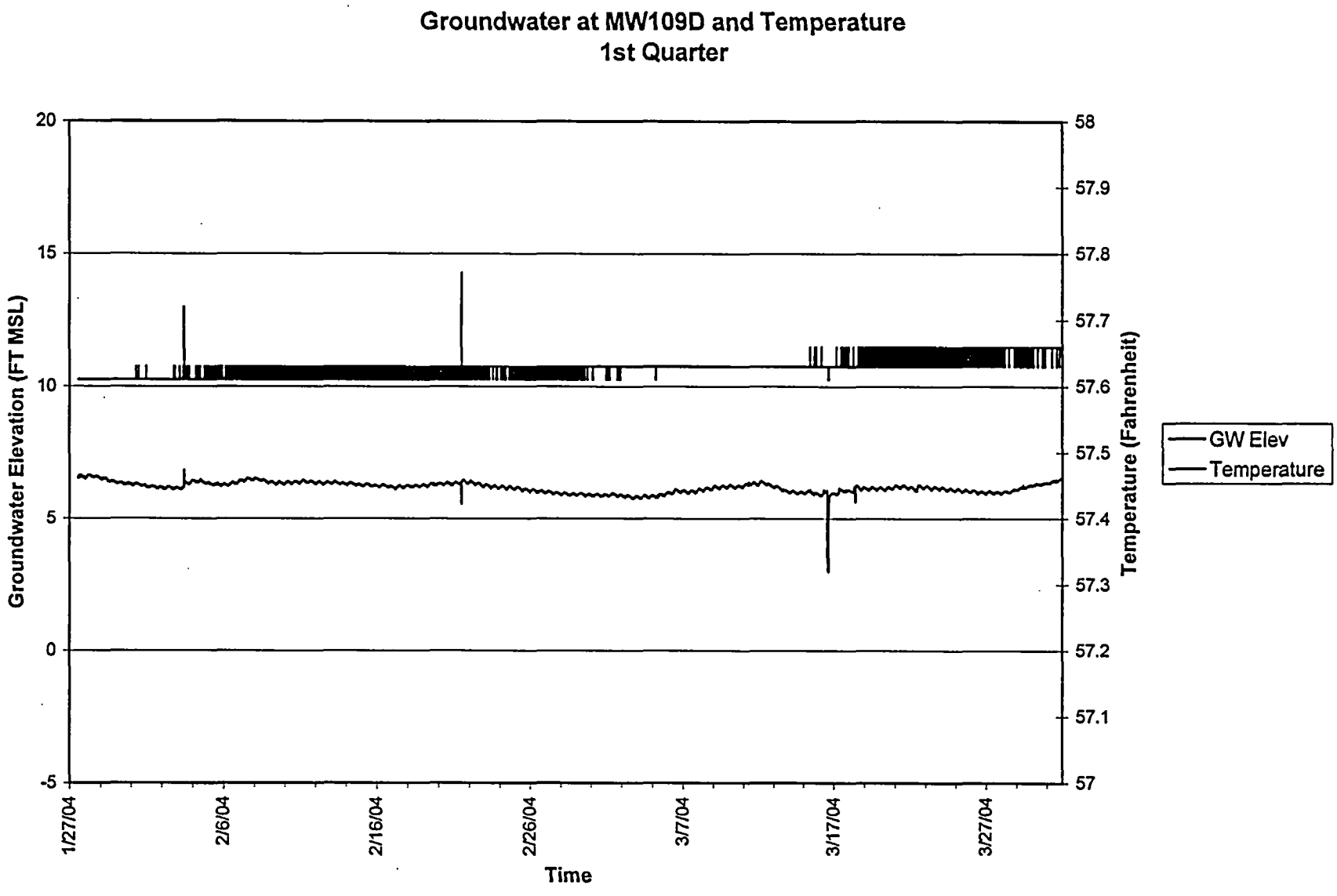
MW-107D Groundwater Elevation and Temperature
1st Quarter

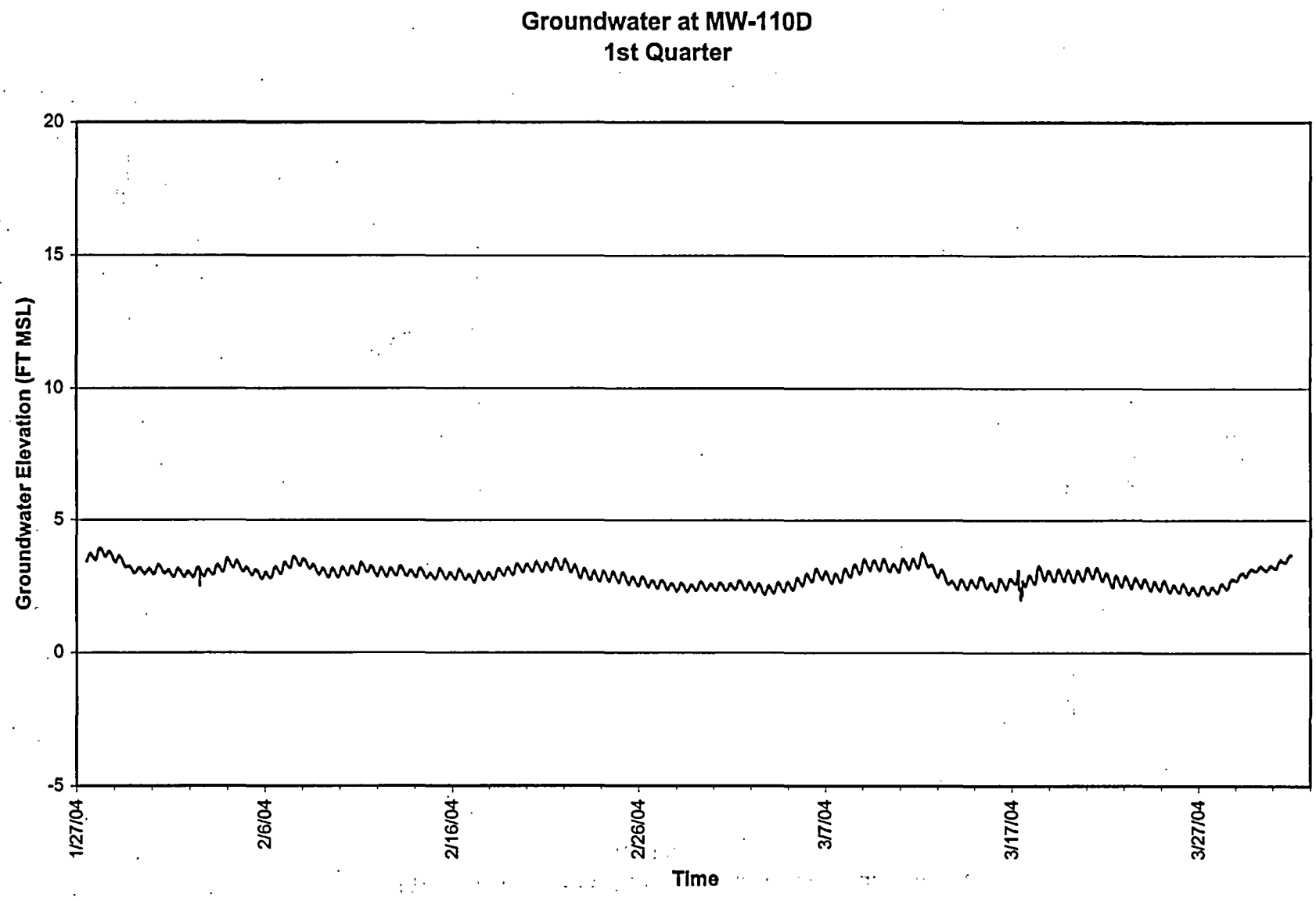



Groundwater at MW109D
1st Quarter
Groundwater Elevation (FT MSL)
20
15
10
5
0
-5
1/27/04
2/6/04
2/16/04
2/26/04
3/7/04
3/17/04
3/27/04
Time

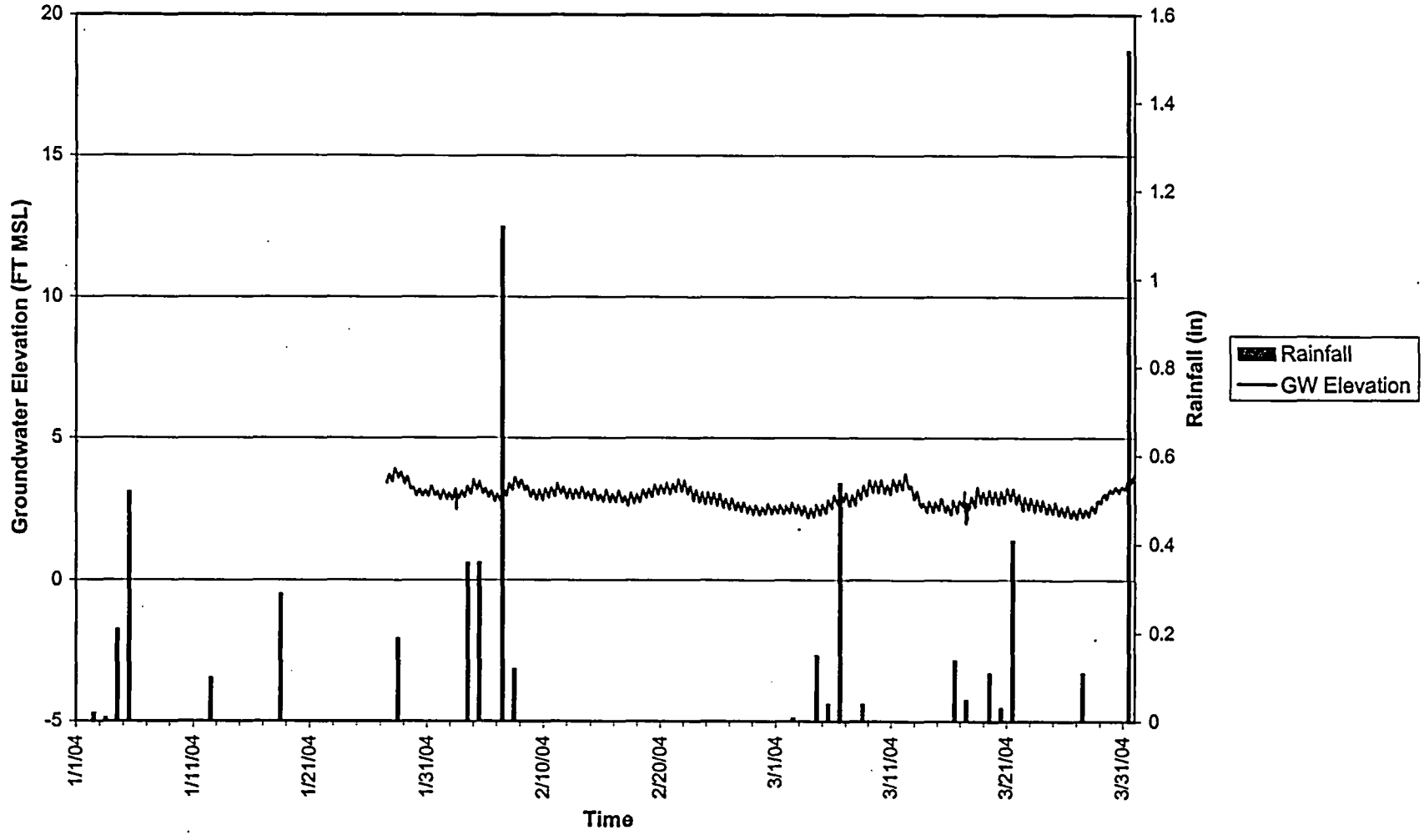
MW-109D Groundwater Elevation and Daily Rainfall Totals
1st Quarter

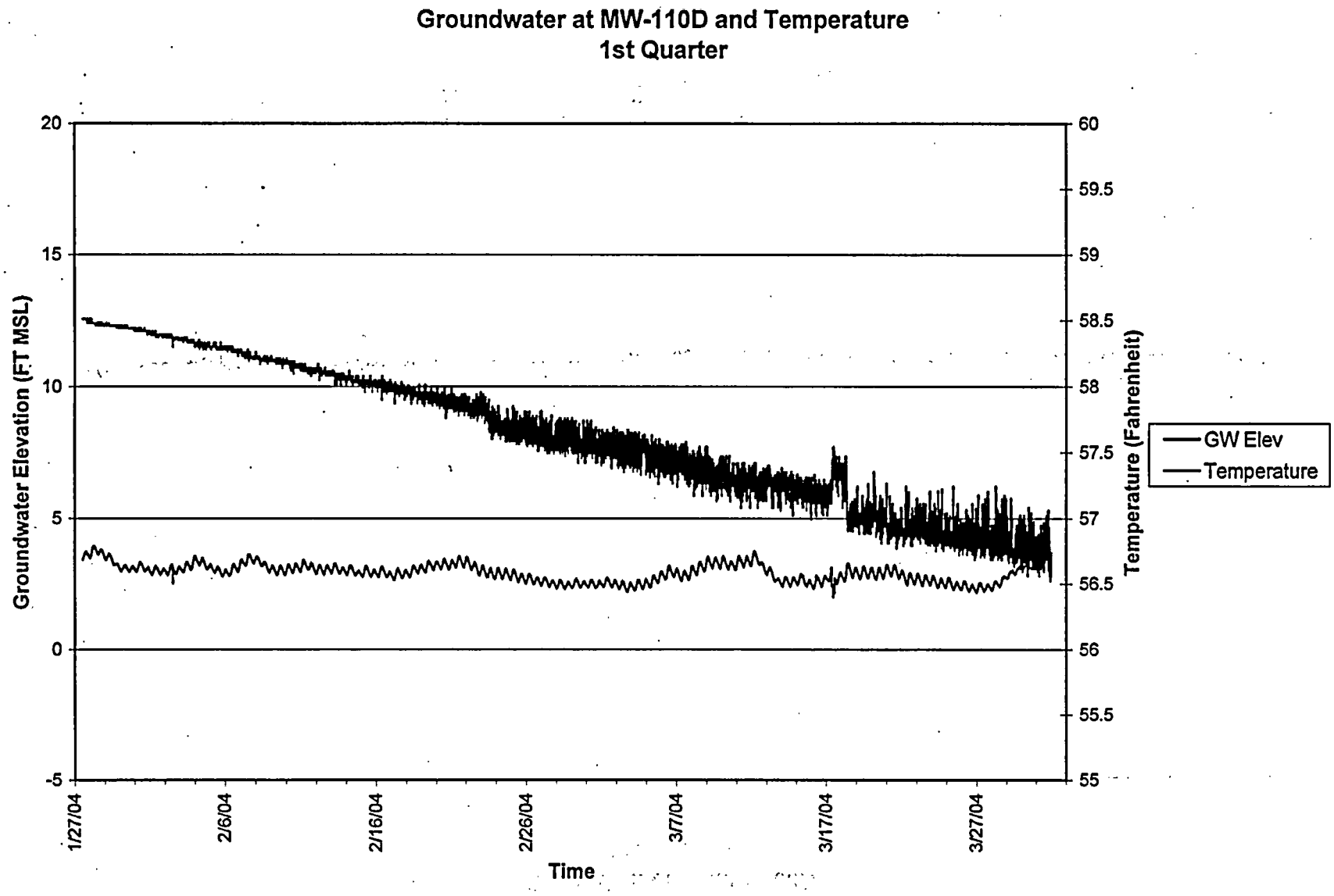


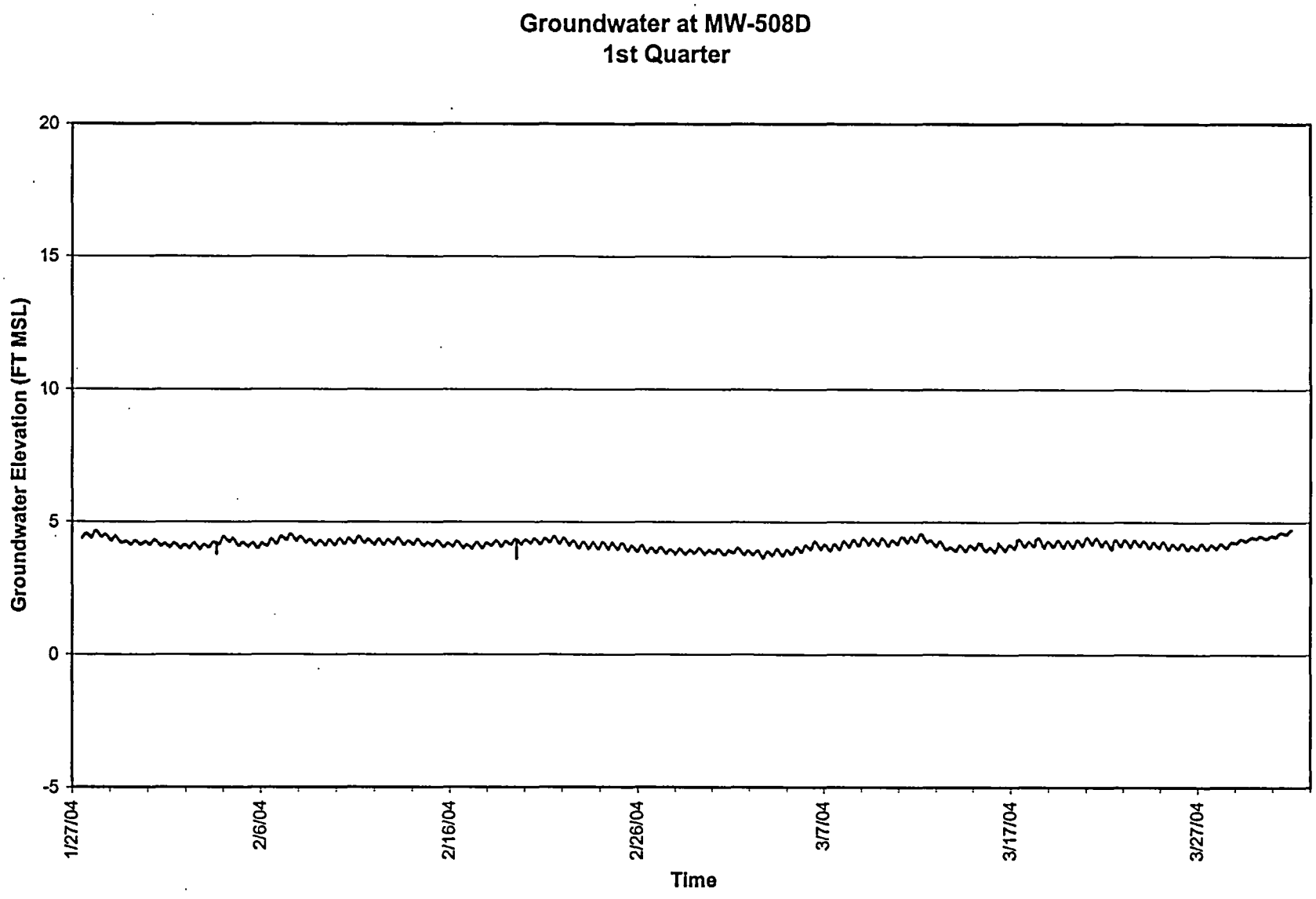

Groundwater at MW109D and Temperature
1st Quarter
Groundwater Elevation (FT MSL)
20
15
10
5
0
-5
Temperature (Fahrenheit)
58
57.9
57.8
57.7
57.6
57.5
57.4
57.3
57.2
57.1
57
1/27/04
2/6/04
2/16/04
2/26/04
3/7/04
3/17/04
3/27/04
Time
GW Elev
Temperature


Groundwater at MW-110D
1st Quarter
Groundwater Elevation (FT MSL)
20
15
10
5
0
-5
1/27/04
2/6/04
2/16/04
2/26/04
3/7/04
3/17/04
3/27/04
Time

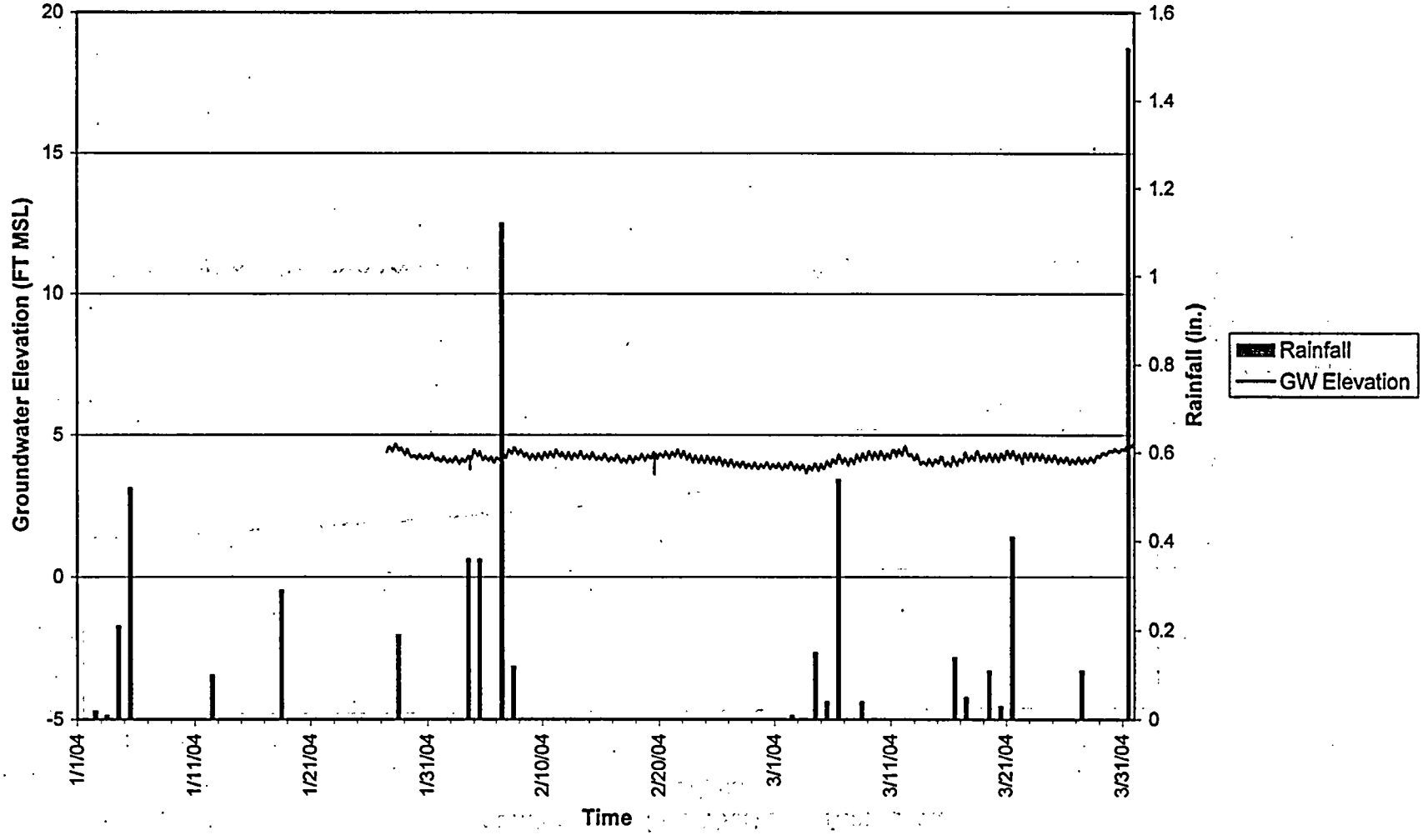
MW-110D Groundwater Elevation and Daily Rainfall Totals
1st Quarter

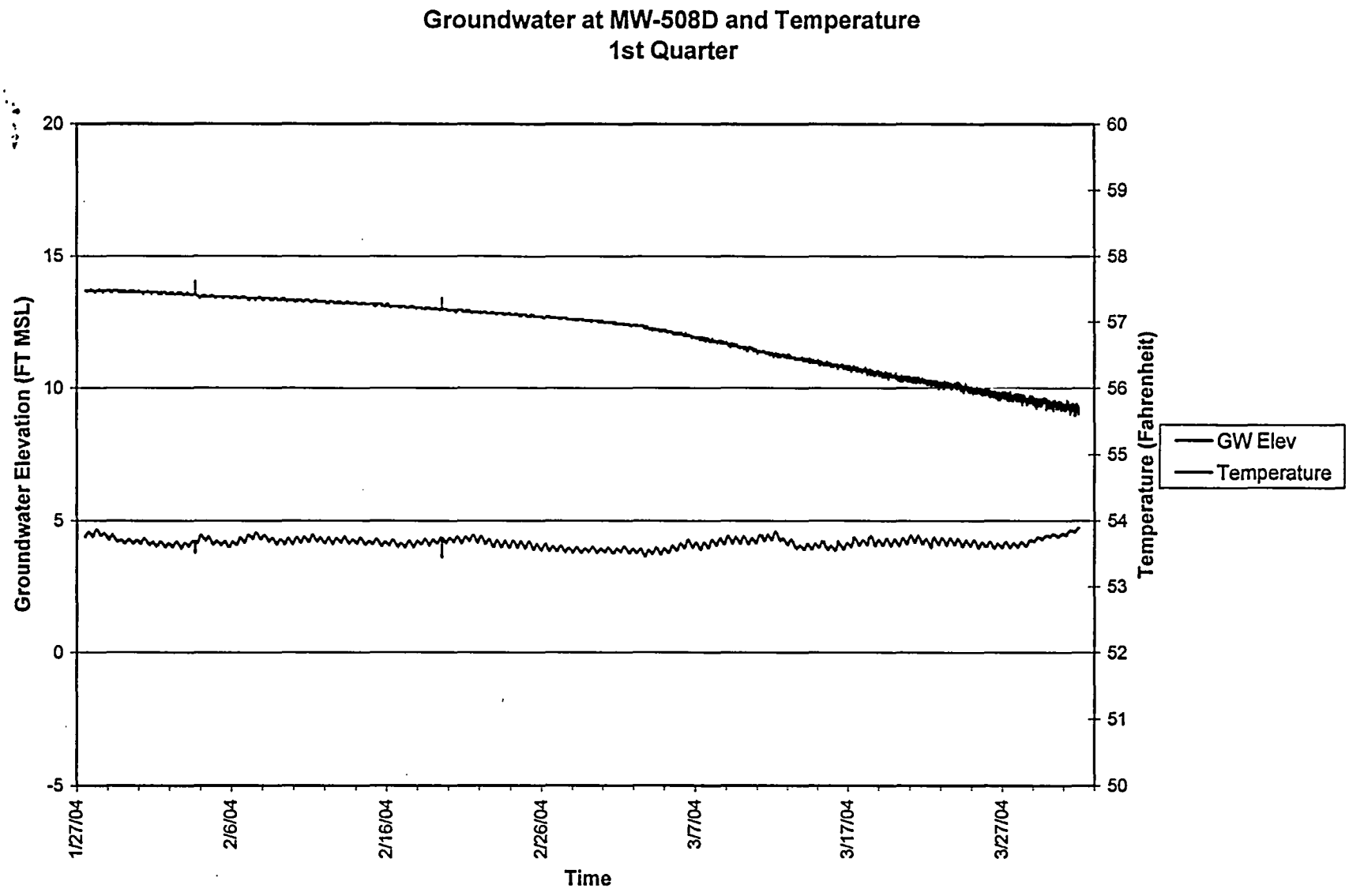



Groundwater at MW-110D and Temperature
1st Quarter
Groundwater Elevation (FT MSL)
Temperature (Fahrenheit)
Time
GW Elev
Temperature
20
15
10
5
0
-5
60
59.5
59
58.5
58
57.5
57
56.5
56
55.5
55
1/27/04
2/6/04
2/16/04
2/26/04
3/7/04
3/17/04
3/27/04

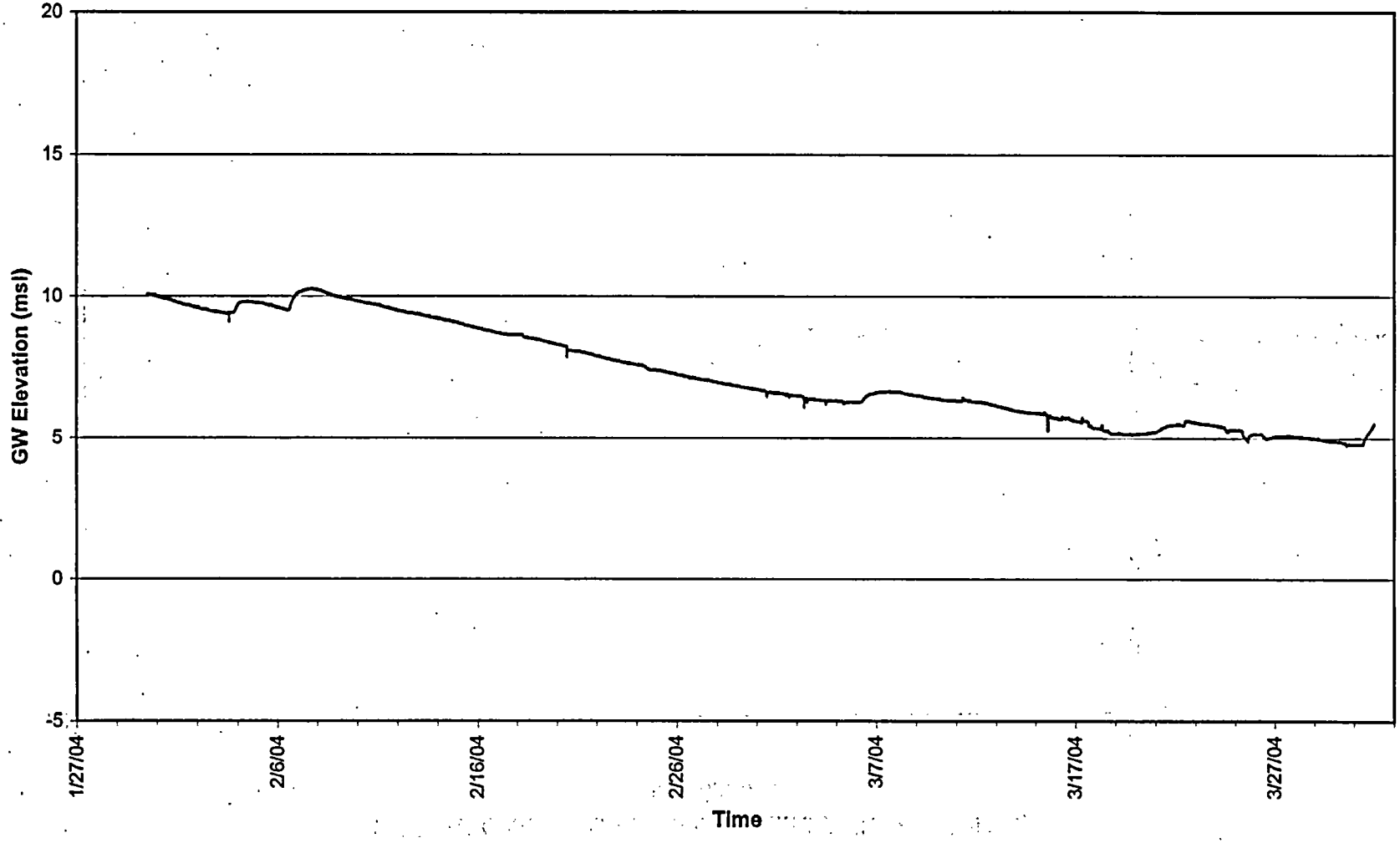

Groundwater at MW-508D
1st Quarter
Groundwater Elevation (FT MSL)
20
15
10
5
0
-5
1/27/04
2/6/04
2/16/04
2/26/04
3/7/04
3/17/04
3/27/04
Time

MW-508D Groundwater Elevation and Daily Rainfall Totals
1st Quarter

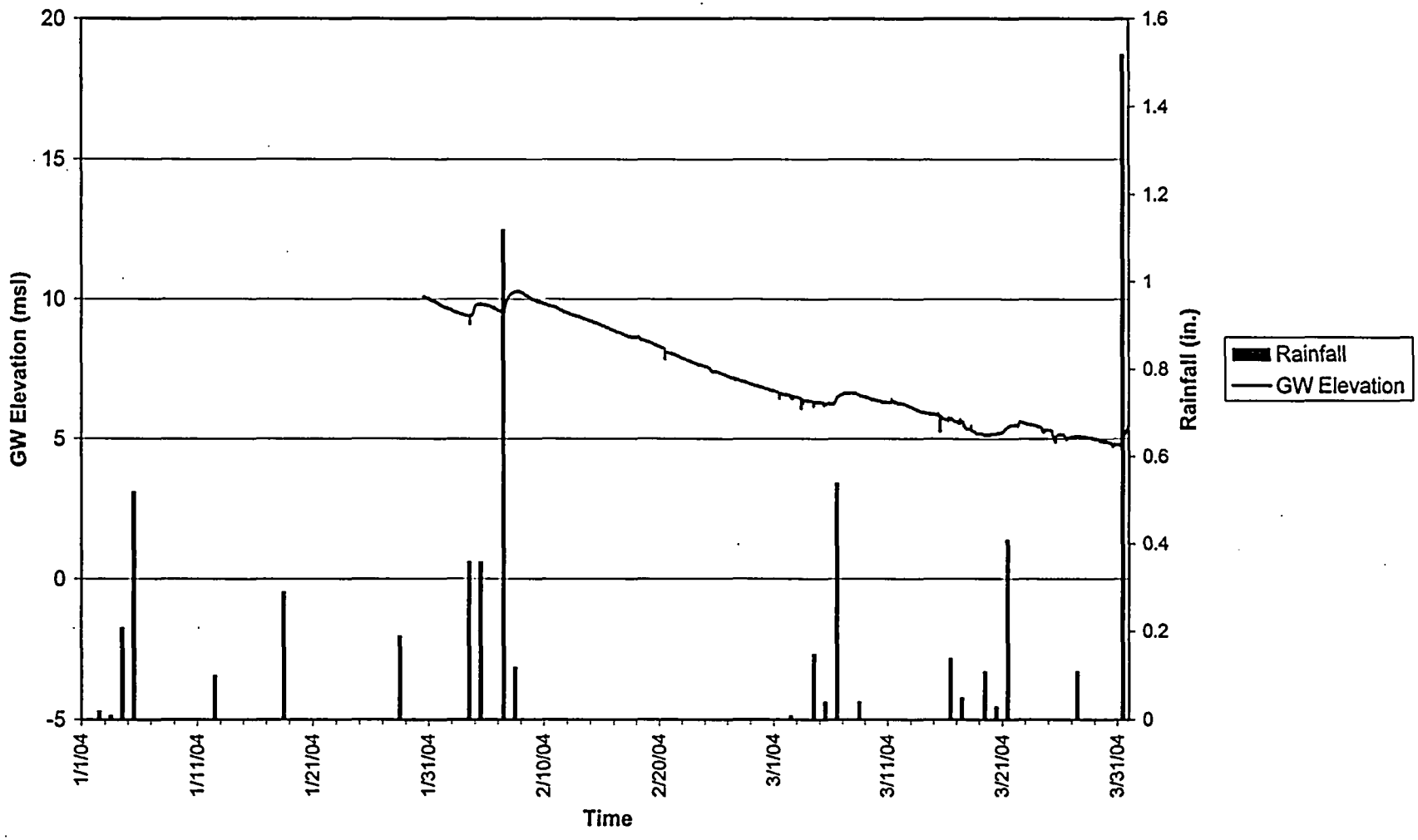


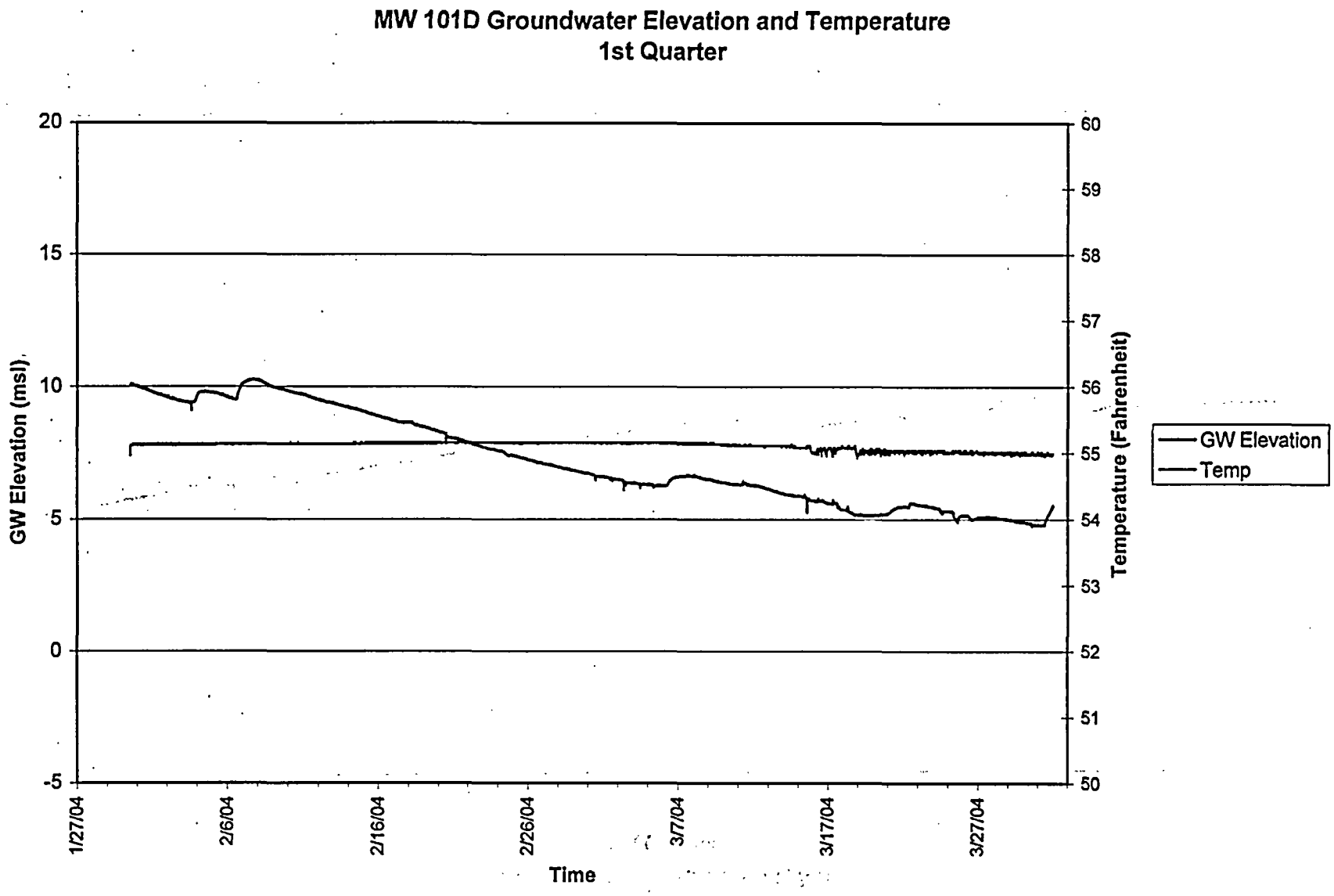

Groundwater at MW-508D and Temperature
1st Quarter
Groundwater Elevation (FT MSL)
Temperature (Fahrenheit)
Time
20
15
10
5
0
-5
60
59
58
57
56
55
54
53
52
51
50
1/27/04
2/6/04
2/16/04
2/26/04
3/7/04
3/17/04
3/27/04
GW Elev
Temperature

Groundwater Elevation at MW 101D
First Quarter

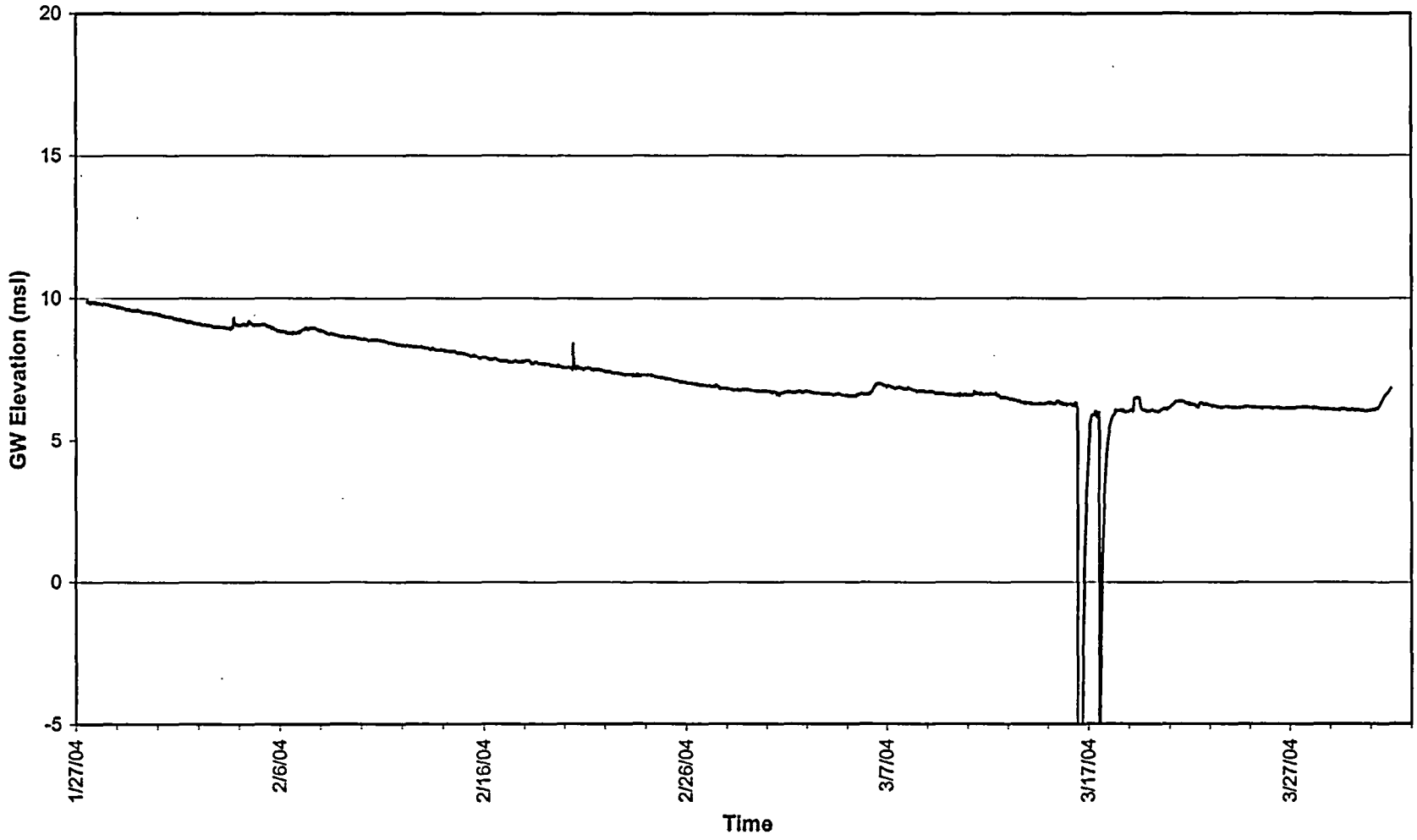


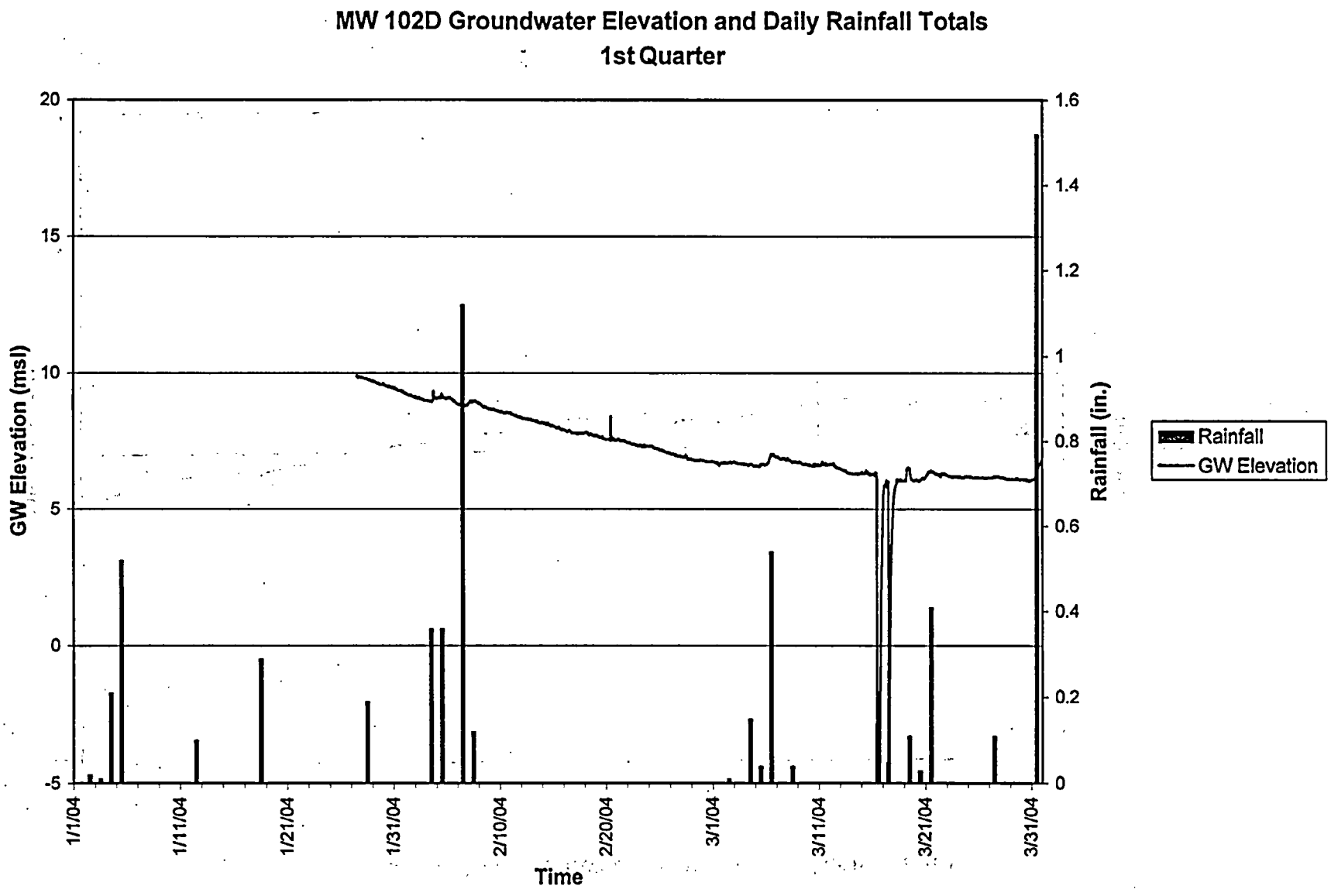
MW 101D Groundwater Elevation and Daily Rainfall Totals
First Quarter



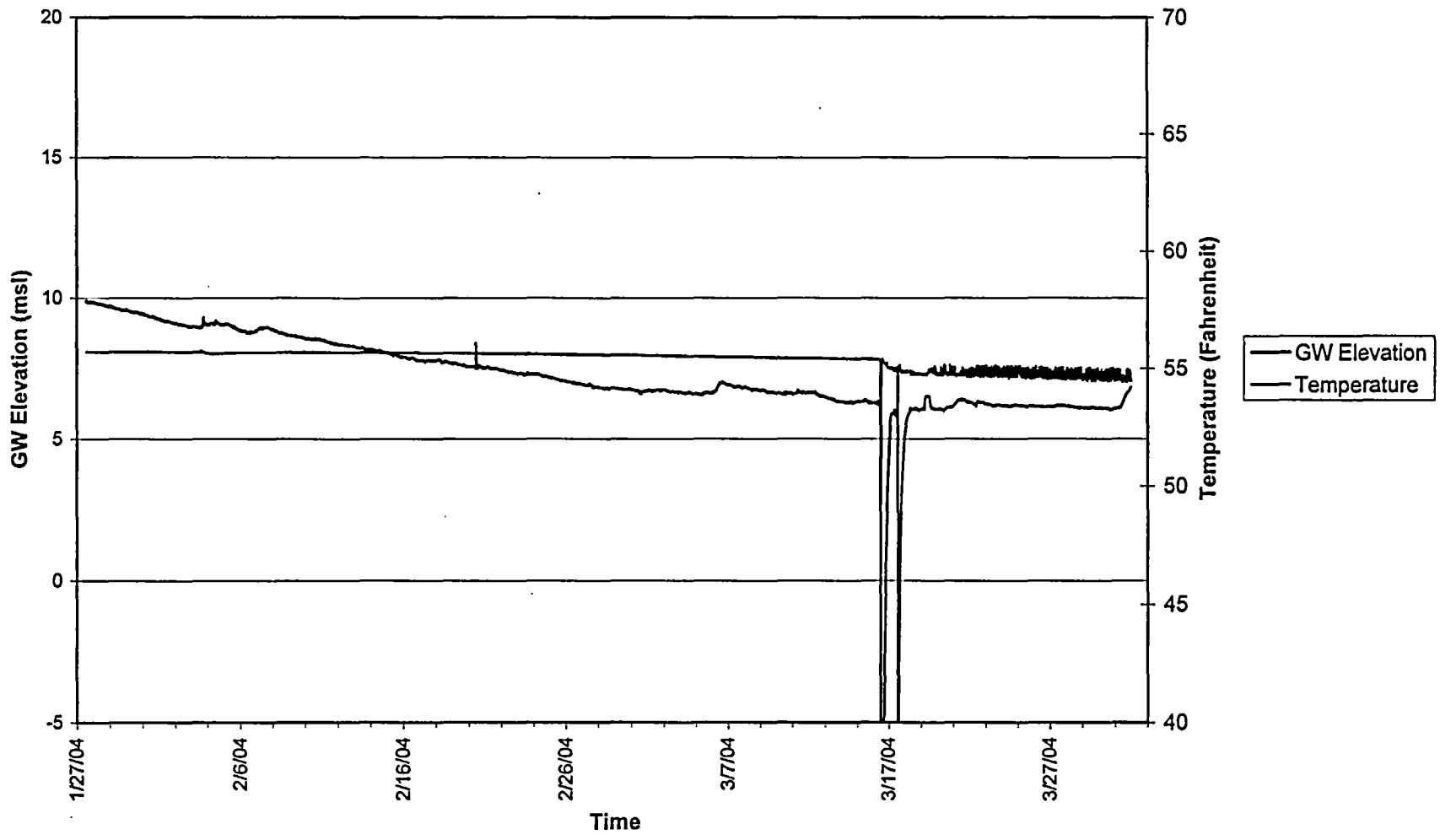

MW 101D Groundwater Elevation and Temperature
1st Quarter
GW Elevation (msl)
Temperature (Fahrenheit)
Time
20
15
10
5
0
-5
60
59
58
57
56
55
54
53
52
51
50
1/27/04
2/6/04
2/16/04
2/26/04
3/7/04
3/17/04
3/27/04
GW Elevation
Temp

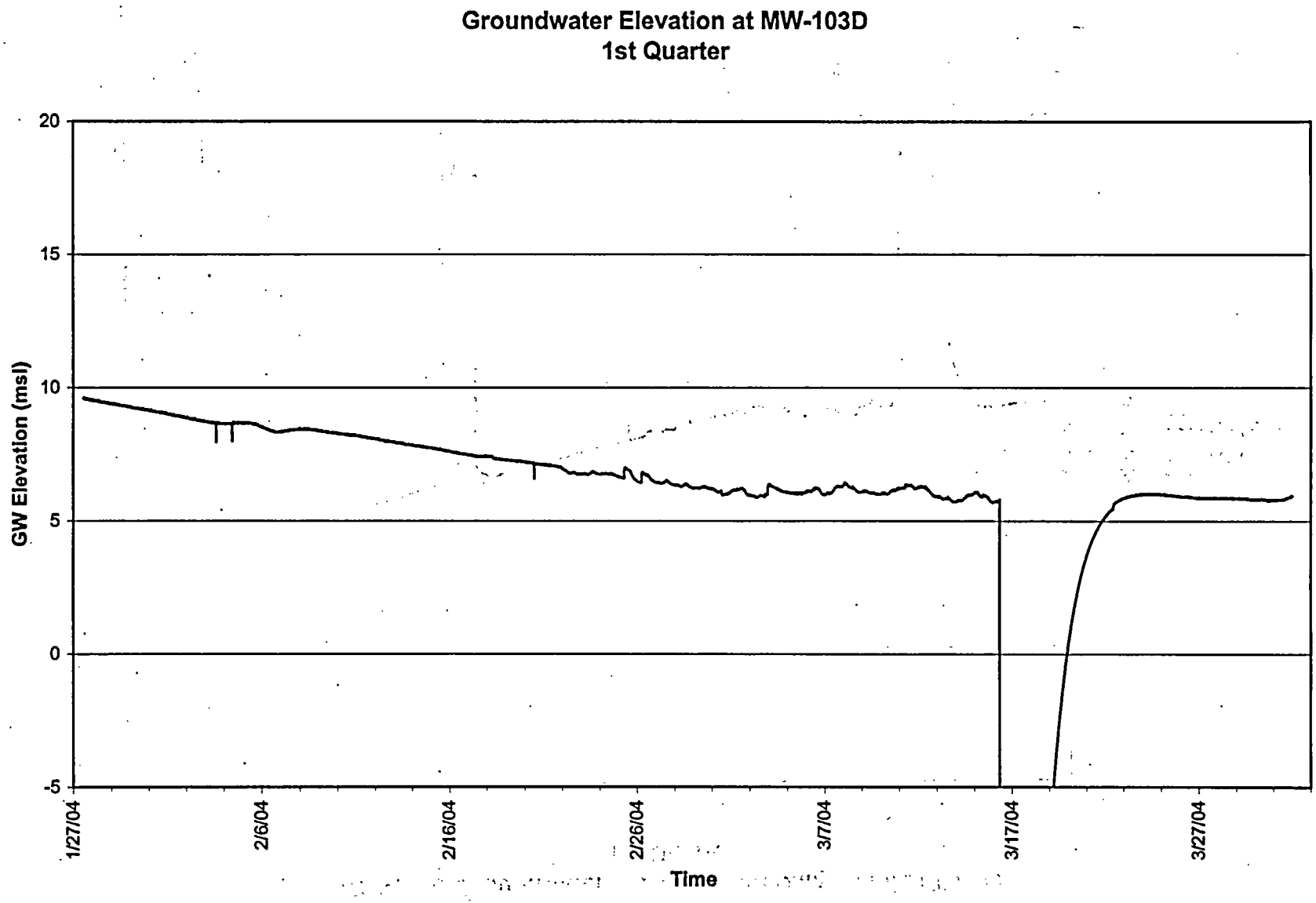
Groundwater Elevation at MW-102D
1st Quarter



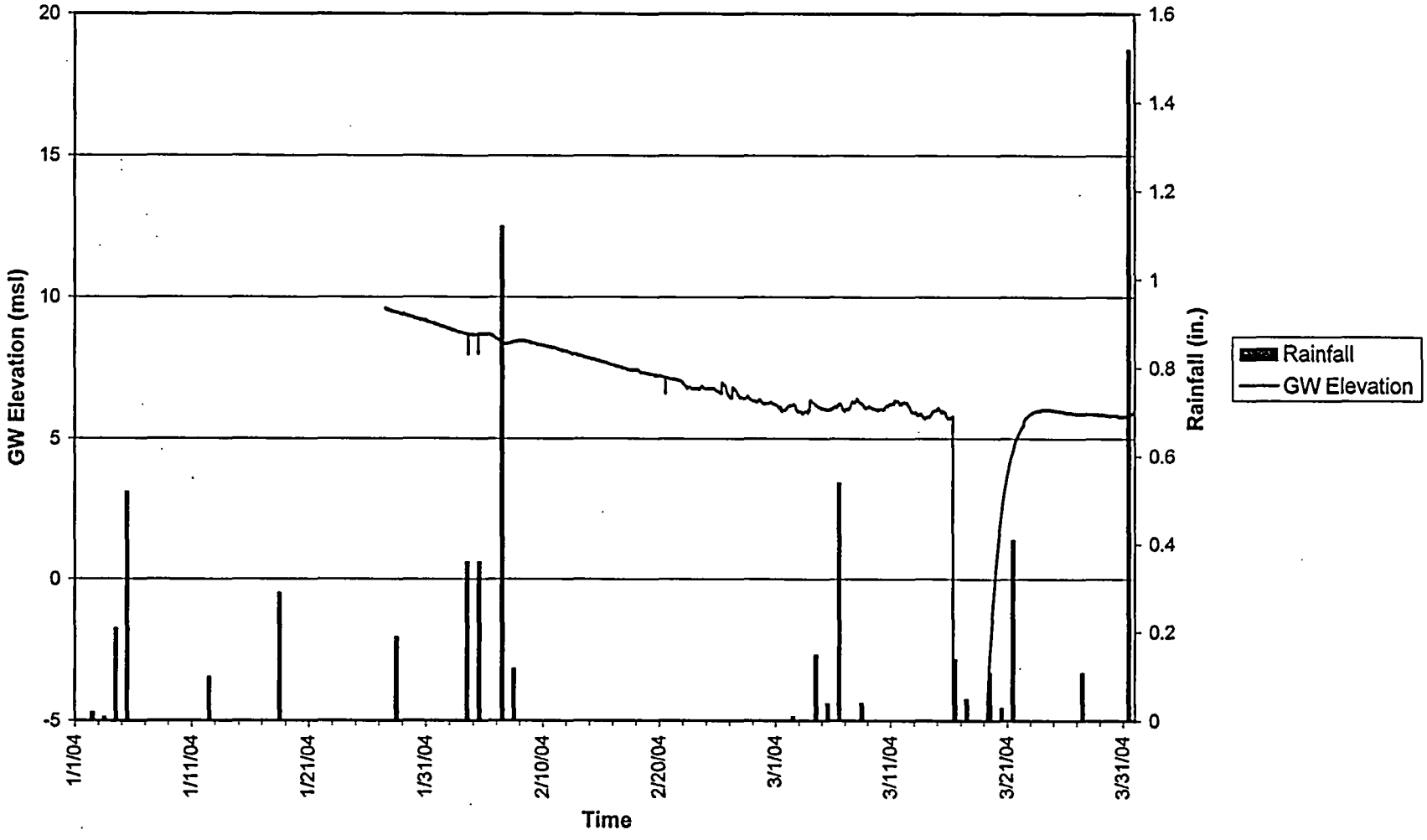

MW 102D Groundwater Elevation and Daily Rainfall Totals
1st Quarter
GW Elevation (msl)
Rainfall (in.)
Time
20
15
10
5
0
-5
1.6
1.4
1.2
1
0.8
0.6
0.4
0.2
0
1/1/04
1/11/04
1/21/04
1/31/04
2/10/04
2/20/04
3/1/04
3/11/04
3/21/04
3/31/04
Rainfall
GW Elevation

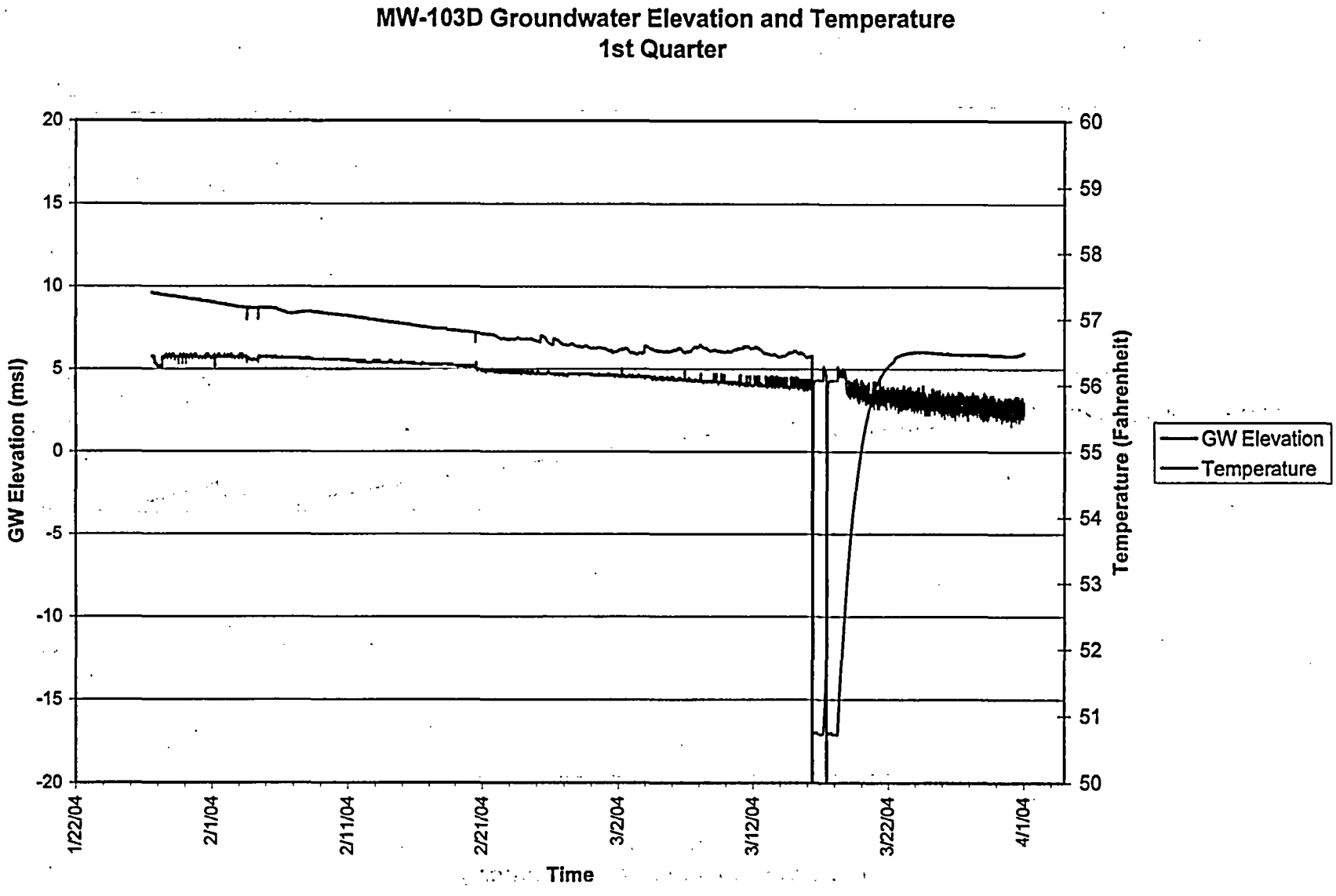
MW-102D Groundwater Elevation and Temperature
1st Quarter



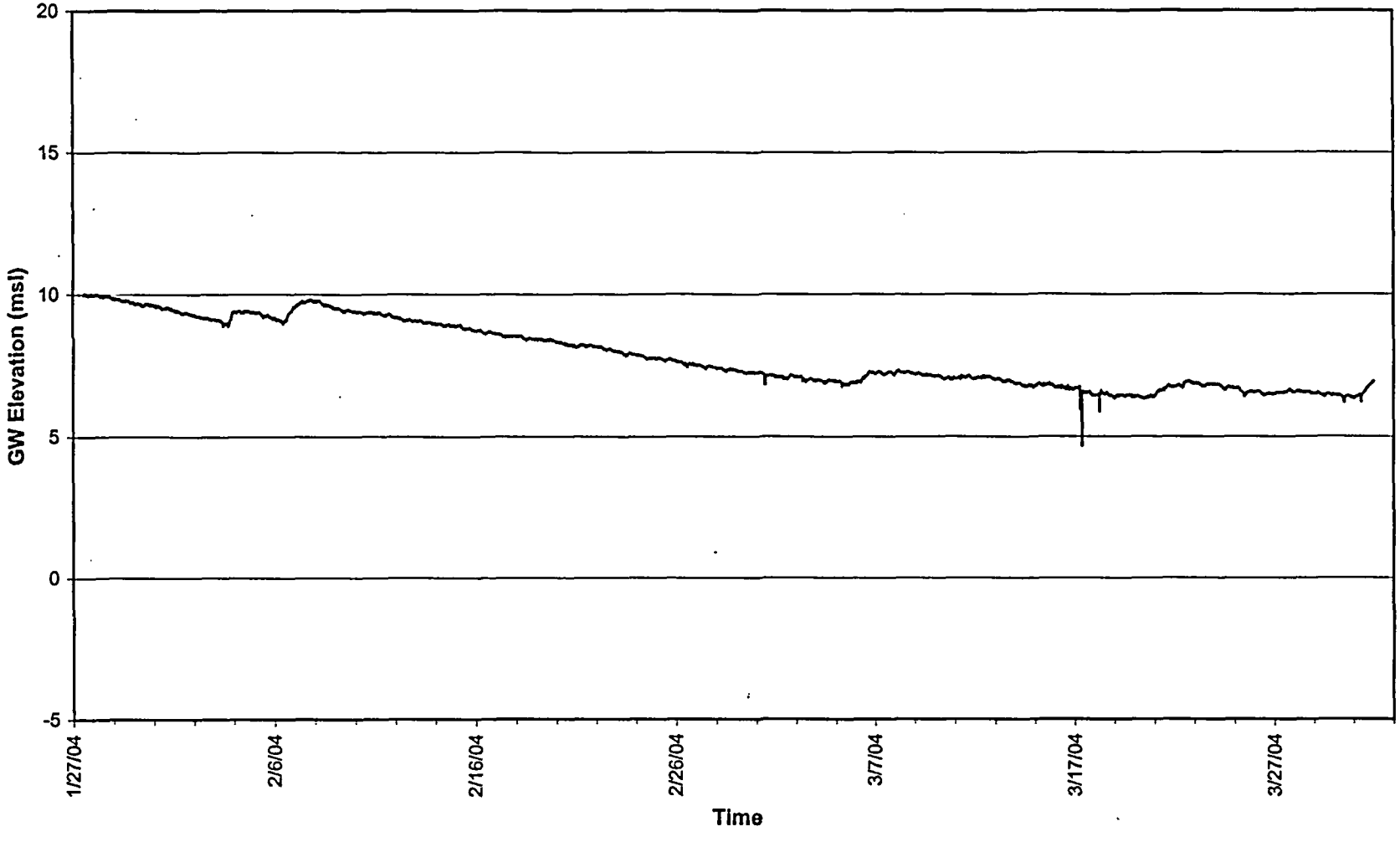

Groundwater Elevation at MW-103D
1st Quarter
GW Elevation (msl)
20
15
10
5
0
-5
1/27/04
2/6/04
2/16/04
2/26/04
3/7/04
3/17/04
3/27/04
Time

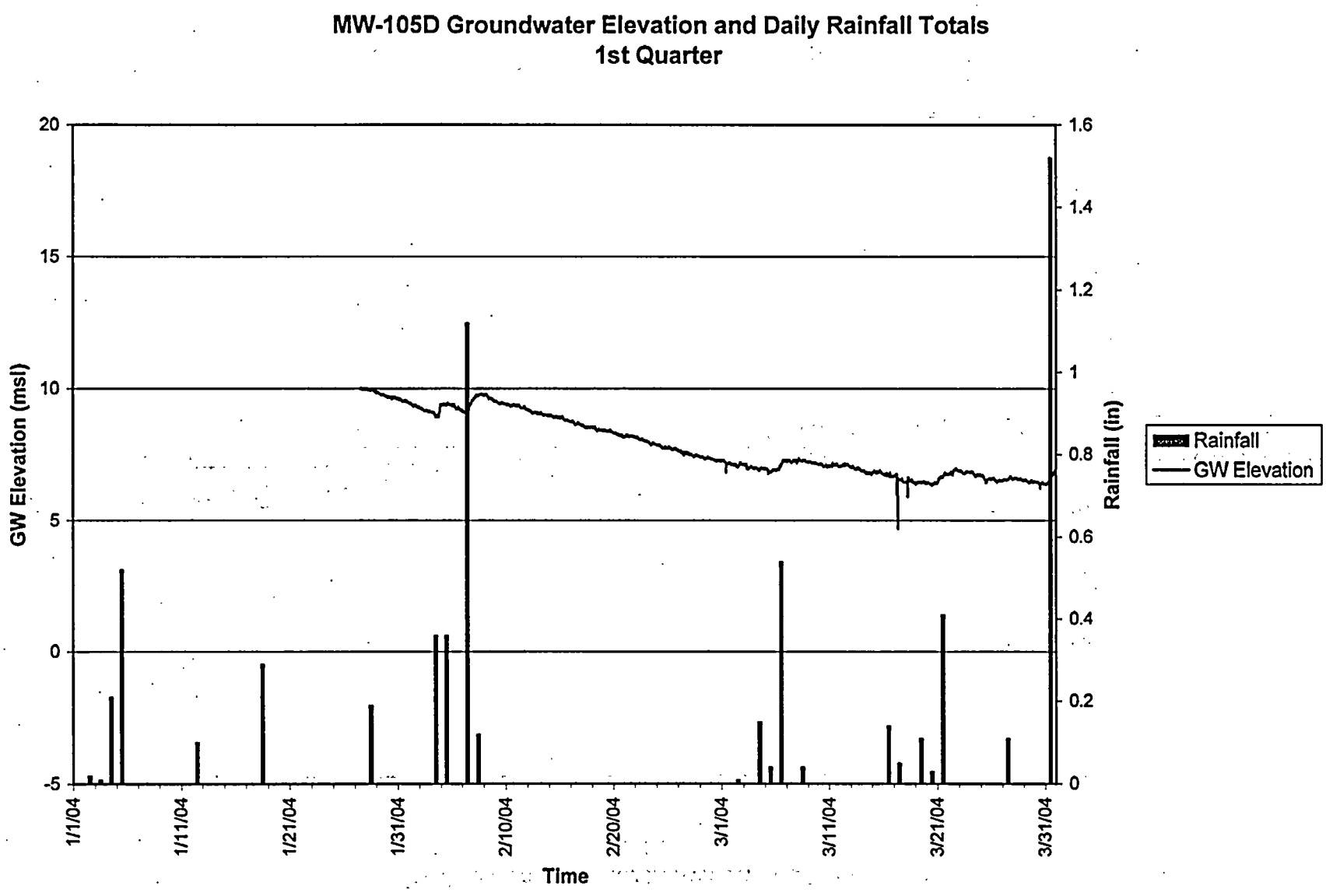
MW-103D Groundwater Elevation and Daily Rainfall Totals
1st Quarter

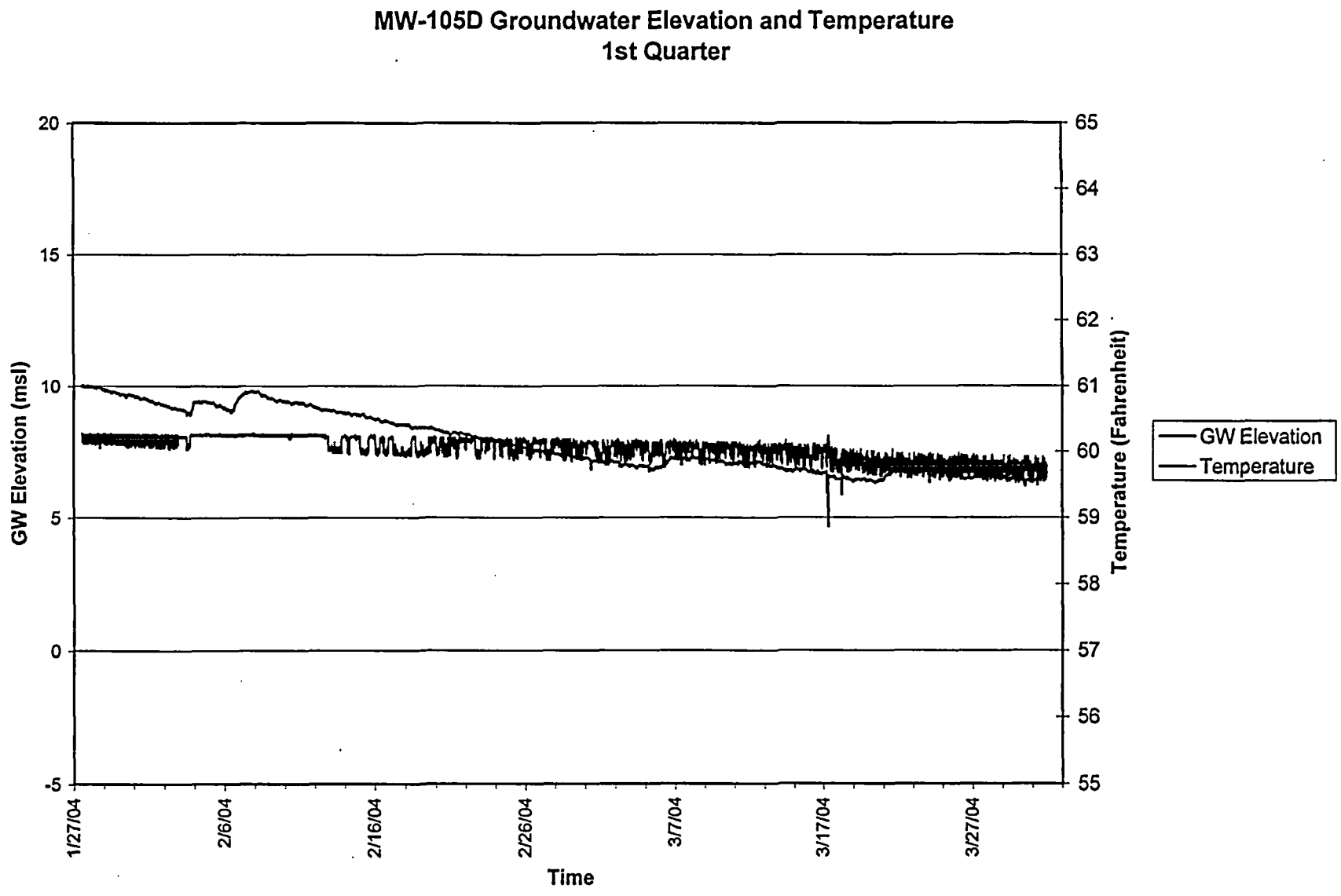



MW-103D Groundwater Elevation and Temperature
1st Quarter
GW Elevation (msl)
Temperature (Fahrenheit)
Time
20
15
10
5
0
-5
-10
-15
-20
60
59
58
57
56
55
54
53
52
51
50
1/22/04
2/1/04
2/11/04
2/21/04
3/2/04
3/12/04
3/22/04
4/1/04
GW Elevation
Temperature

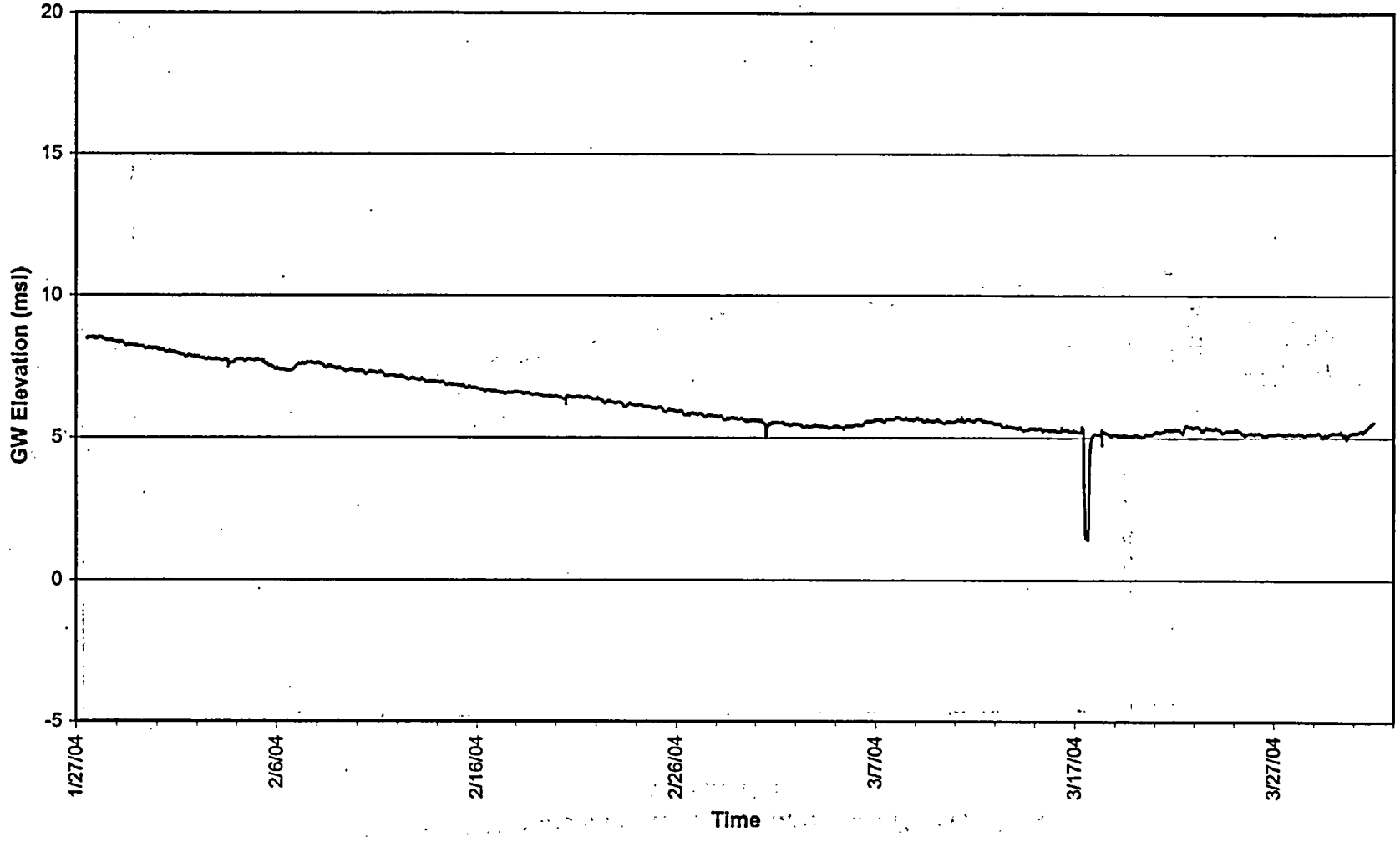
Groundwater Elevation at MW-105D
1st Quarter



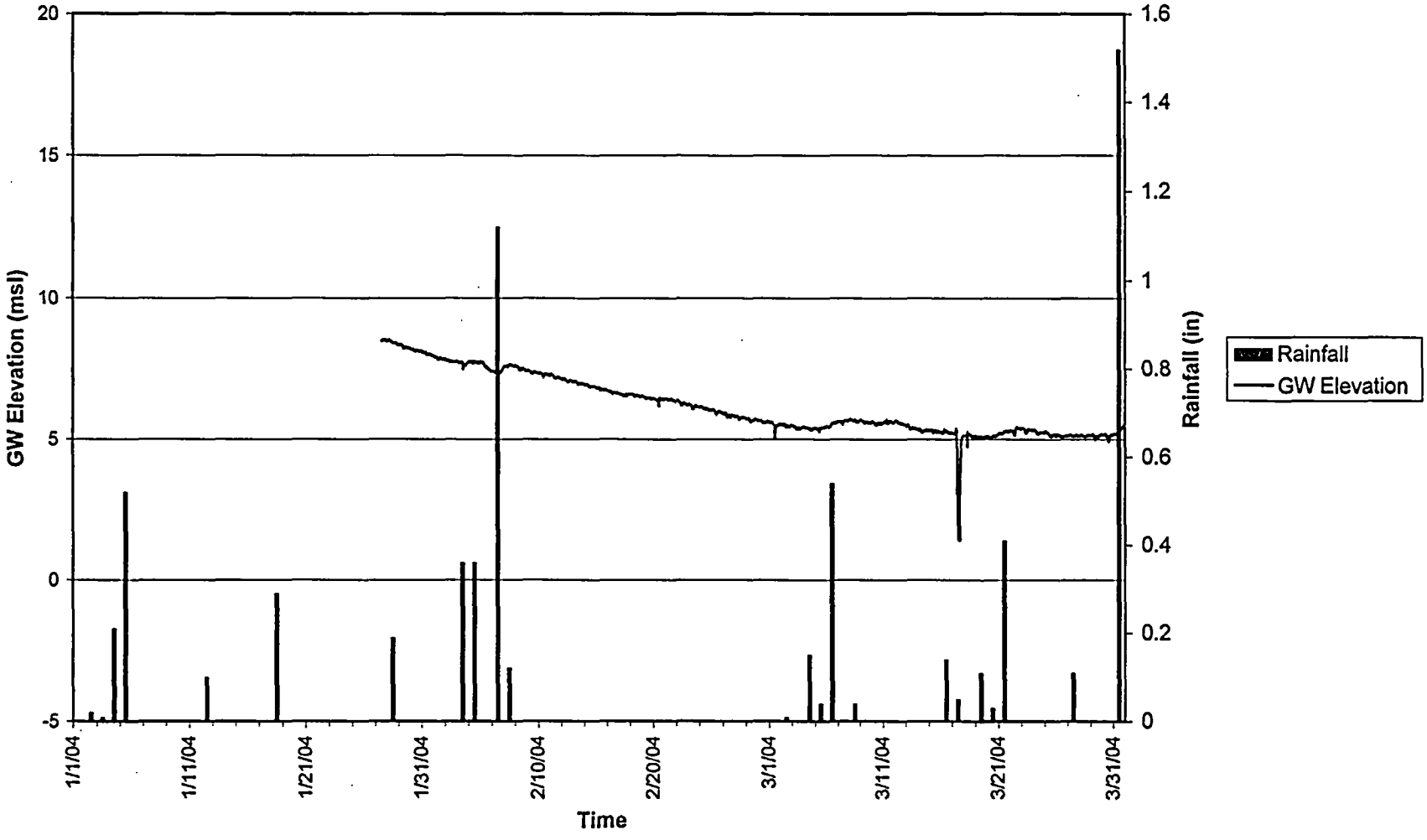

MW-105D Groundwater Elevation and Daily Rainfall Totals
1st Quarter
GW Elevation (msl)
Rainfall (in)
Time
Rainfall
GW Elevation
20
15
10
5
0
-5
1.6
1.4
1.2
1
0.8
0.6
0.4
0.2
0
1/1/04
1/11/04
1/21/04
1/31/04
2/10/04
2/20/04
3/1/04
3/11/04
3/21/04
3/31/04

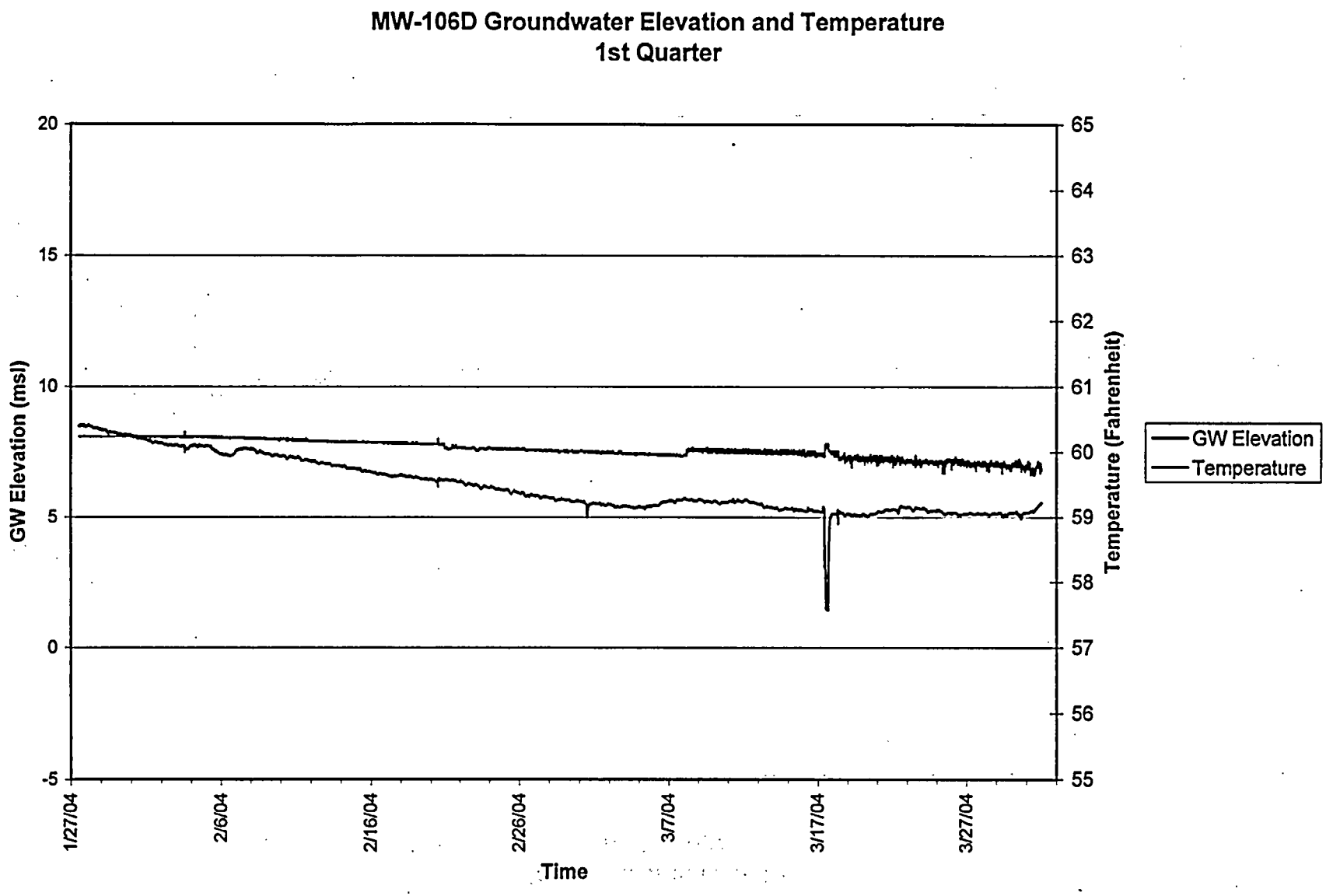

MW-105D Groundwater Elevation and Temperature
1st Quarter
GW Elevation (msl)
Temperature (Fahrenheit)
Time
20
15
10
5
0
-5
65
64
63
62
61
60
59
58
57
56
55
1/27/04
2/6/04
2/16/04
2/26/04
3/7/04
3/17/04
3/27/04
GW Elevation
Temperature

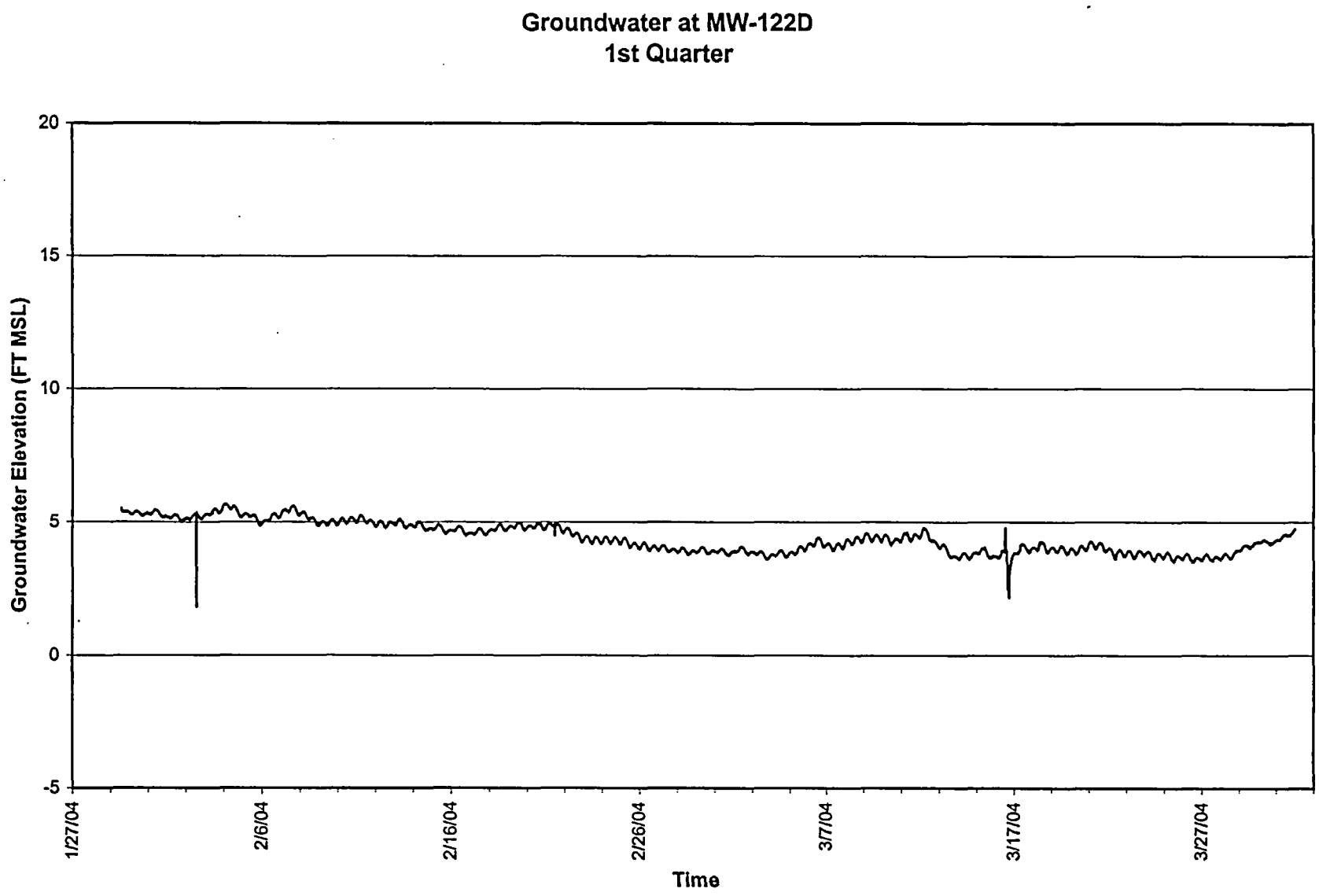
Groundwater Elevation at MW-106D
1st Quarter



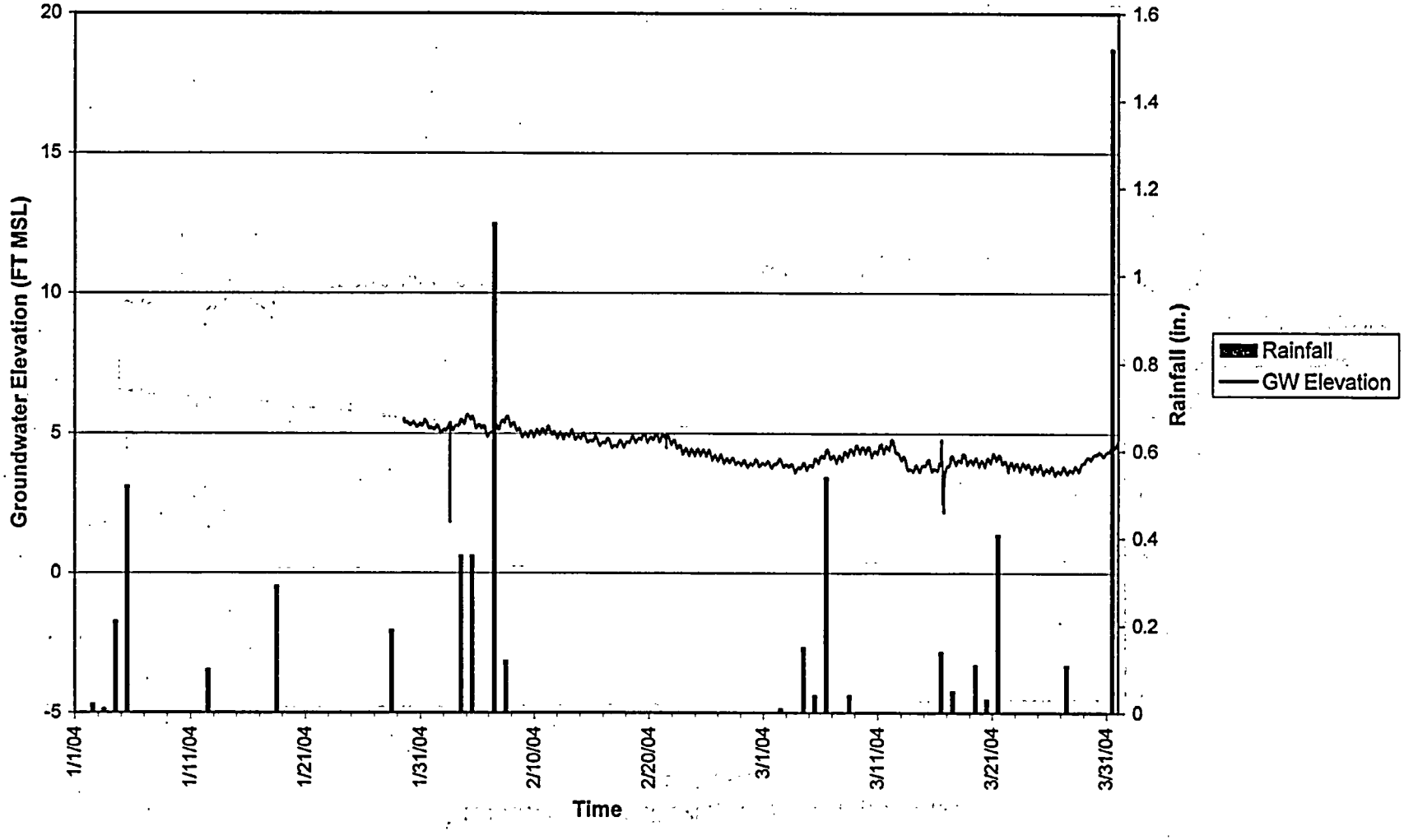
MW-106D Groundwater Elevation and Daily Rainfall Totals
1st Quarter

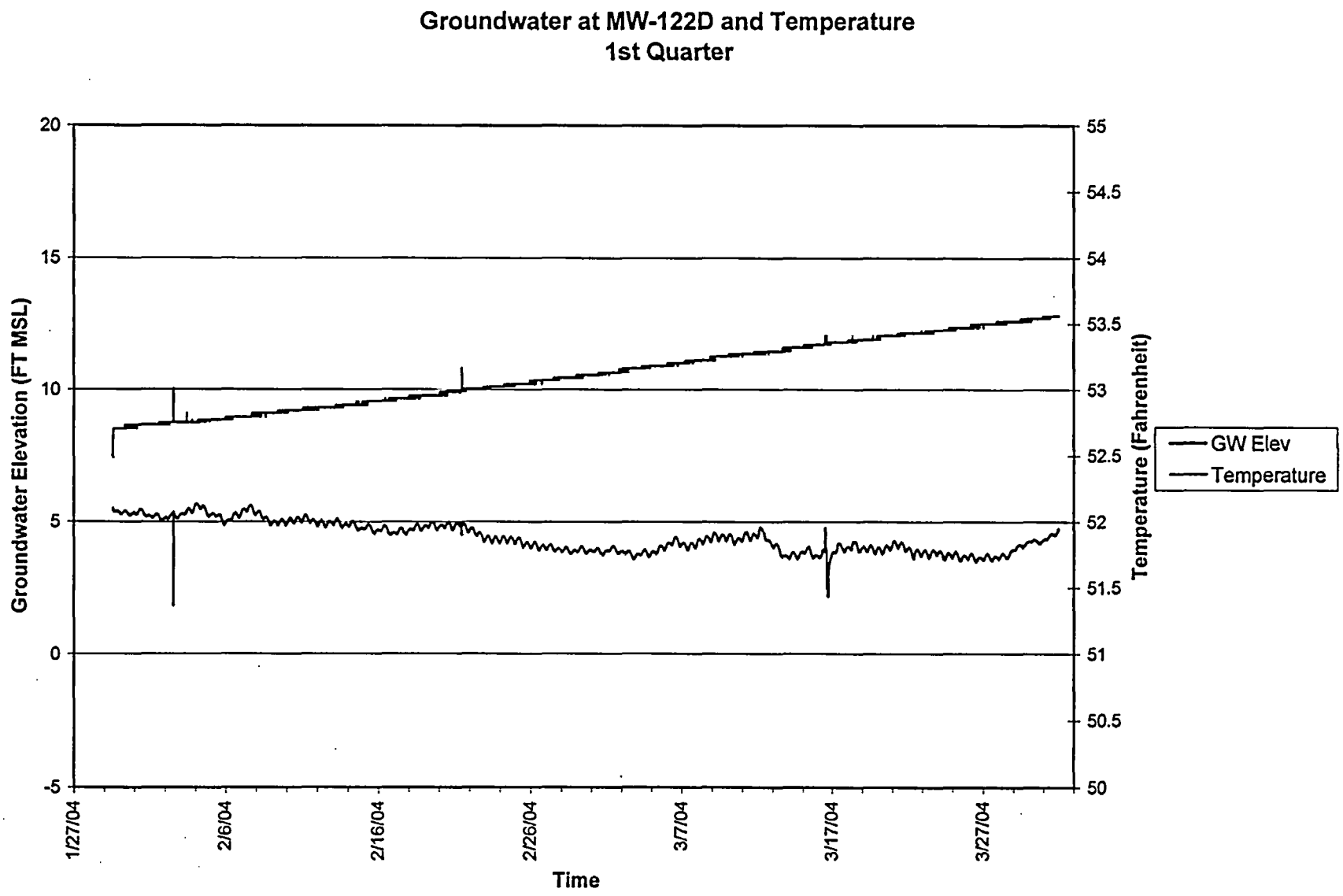



MW-106D Groundwater Elevation and Temperature
1st Quarter
GW Elevation (msl)
Temperature (Fahrenheit)
Time
20
15
10
5
0
-5
65
64
63
62
61
60
59
58
57
56
55
1/27/04
2/6/04
2/16/04
2/26/04
3/7/04
3/17/04
3/27/04
GW Elevation
Temperature

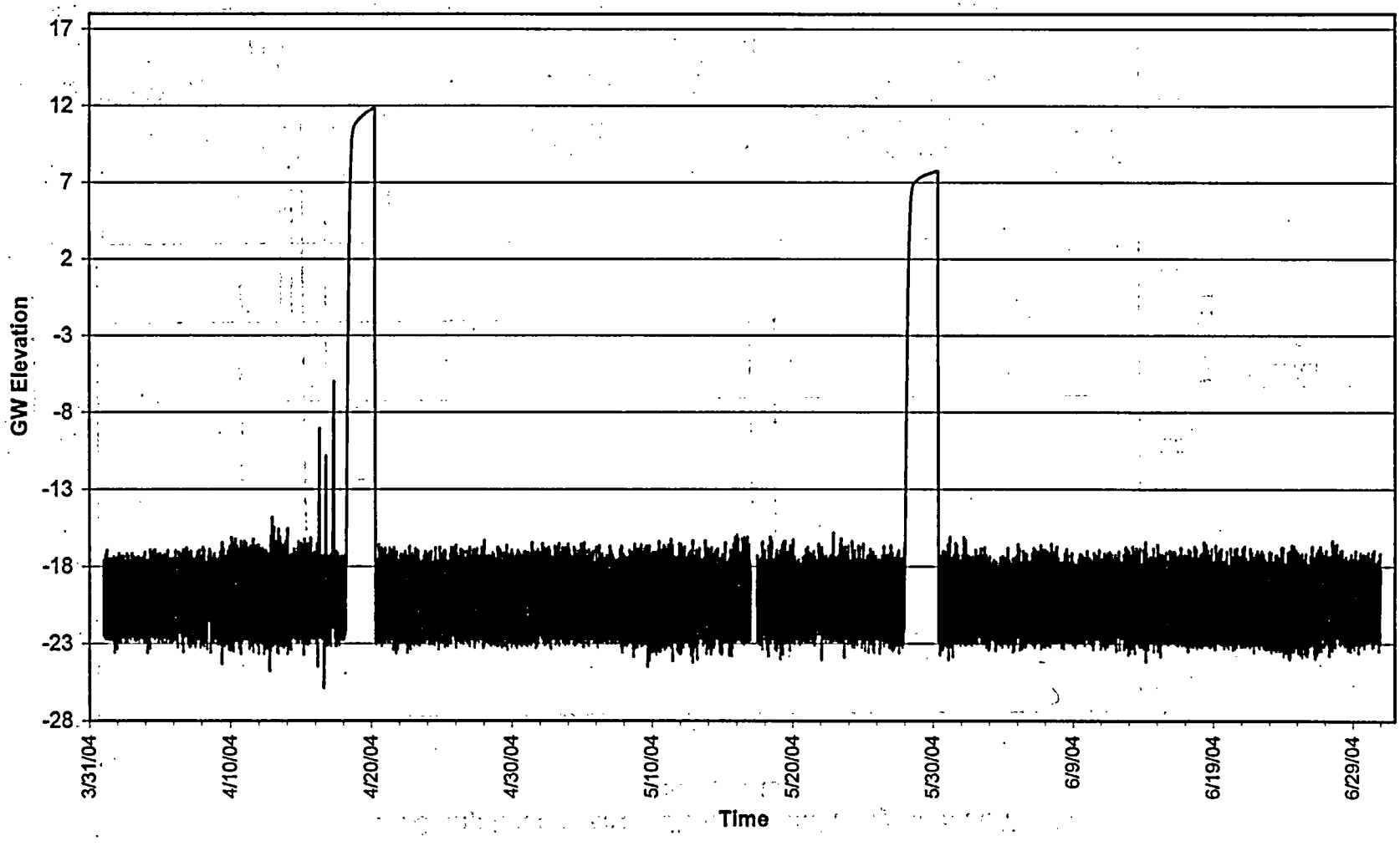

Groundwater at MW-122D
1st Quarter
Groundwater Elevation (FT MSL)
20
15
10
5
0
-5
1/27/04
2/6/04
2/16/04
2/26/04
3/7/04
3/17/04
3/27/04
Time

MW-122D Groundwater Elevation and Daily Rainfall Totals
1st Quarter

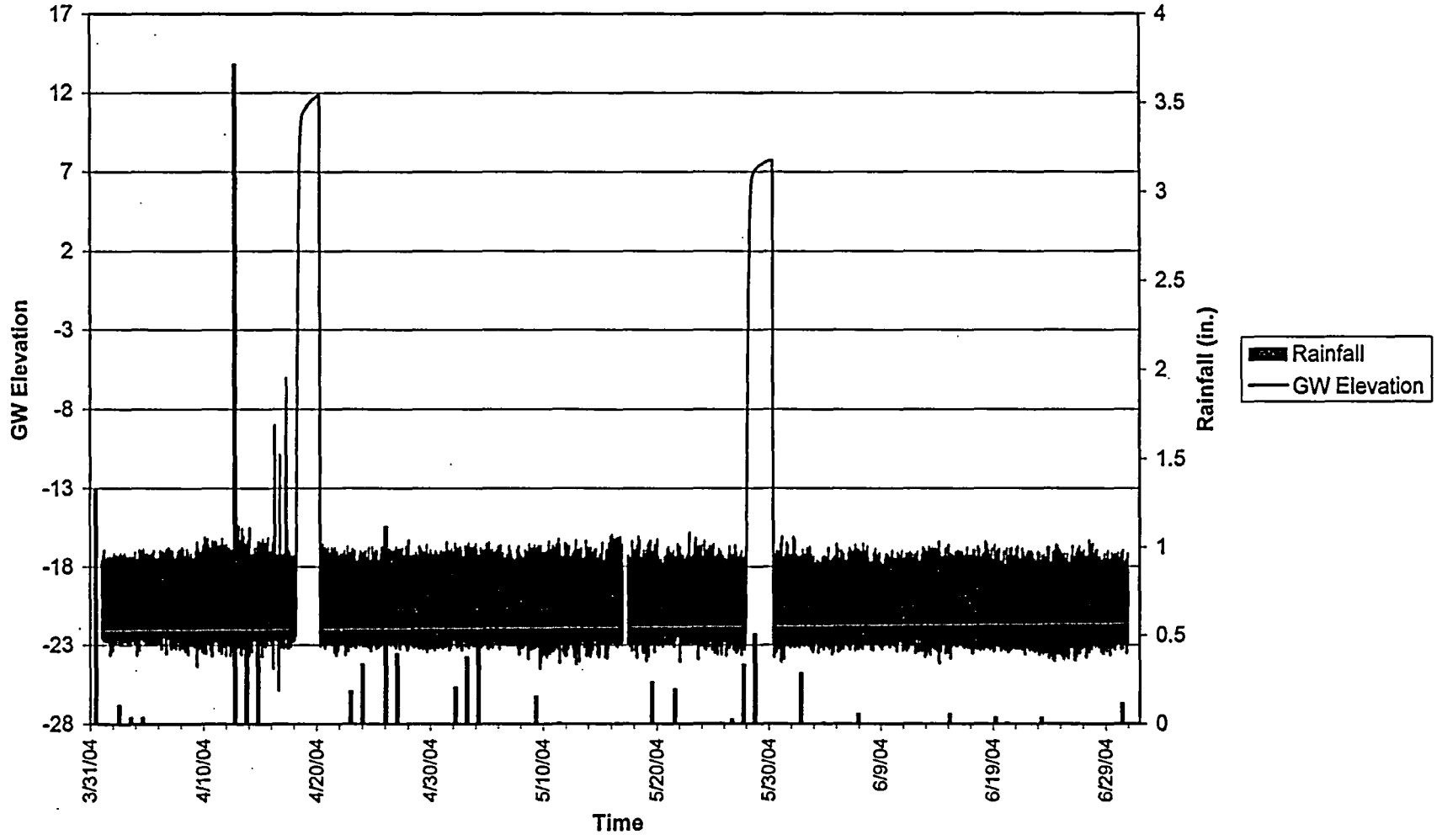


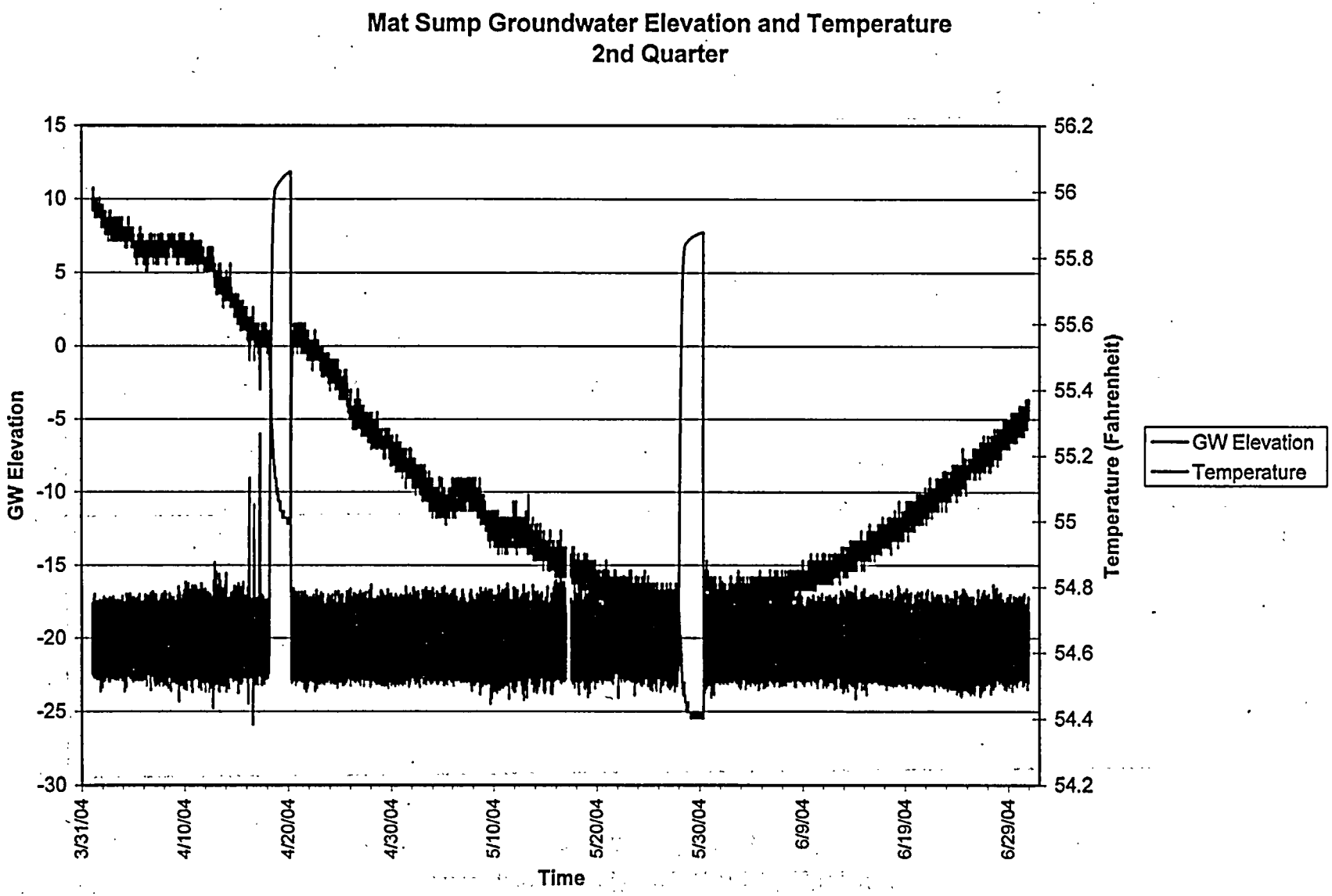

Groundwater at MW-122D and Temperature
1st Quarter
Groundwater Elevation (FT MSL)
Temperature (Fahrenheit)
Time
20
15
10
5
0
-5
55
54.5
54
53.5
53
52.5
52
51.5
51
50.5
50
1/27/04
2/6/04
2/16/04
2/26/04
3/7/04
3/17/04
3/27/04
GW Elev
Temperature

Groundwater Elevation at Mat Sump
2nd Quarter

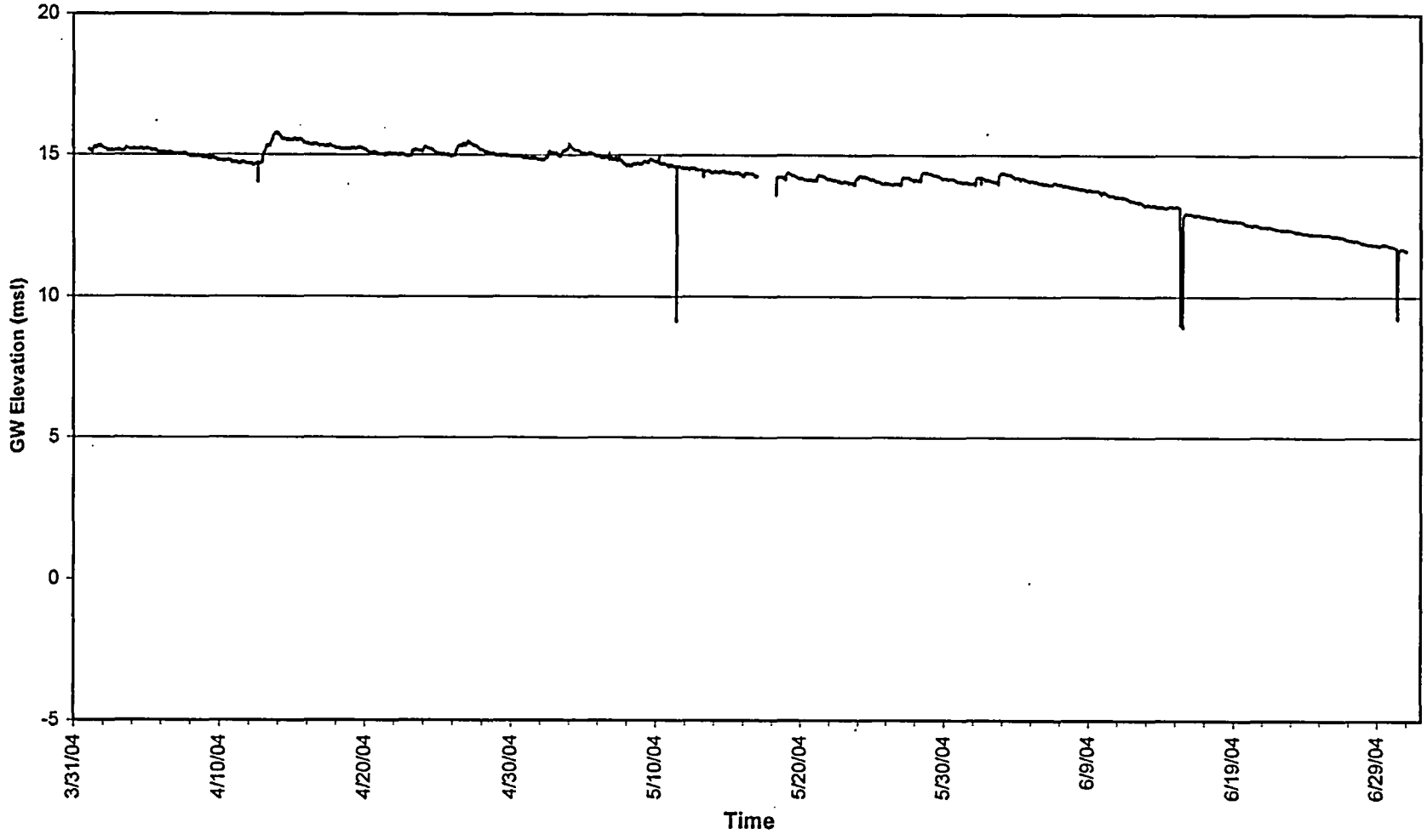


Mat Sump Groundwater Elevation and Daily Rainfall Totals
2nd Quarter

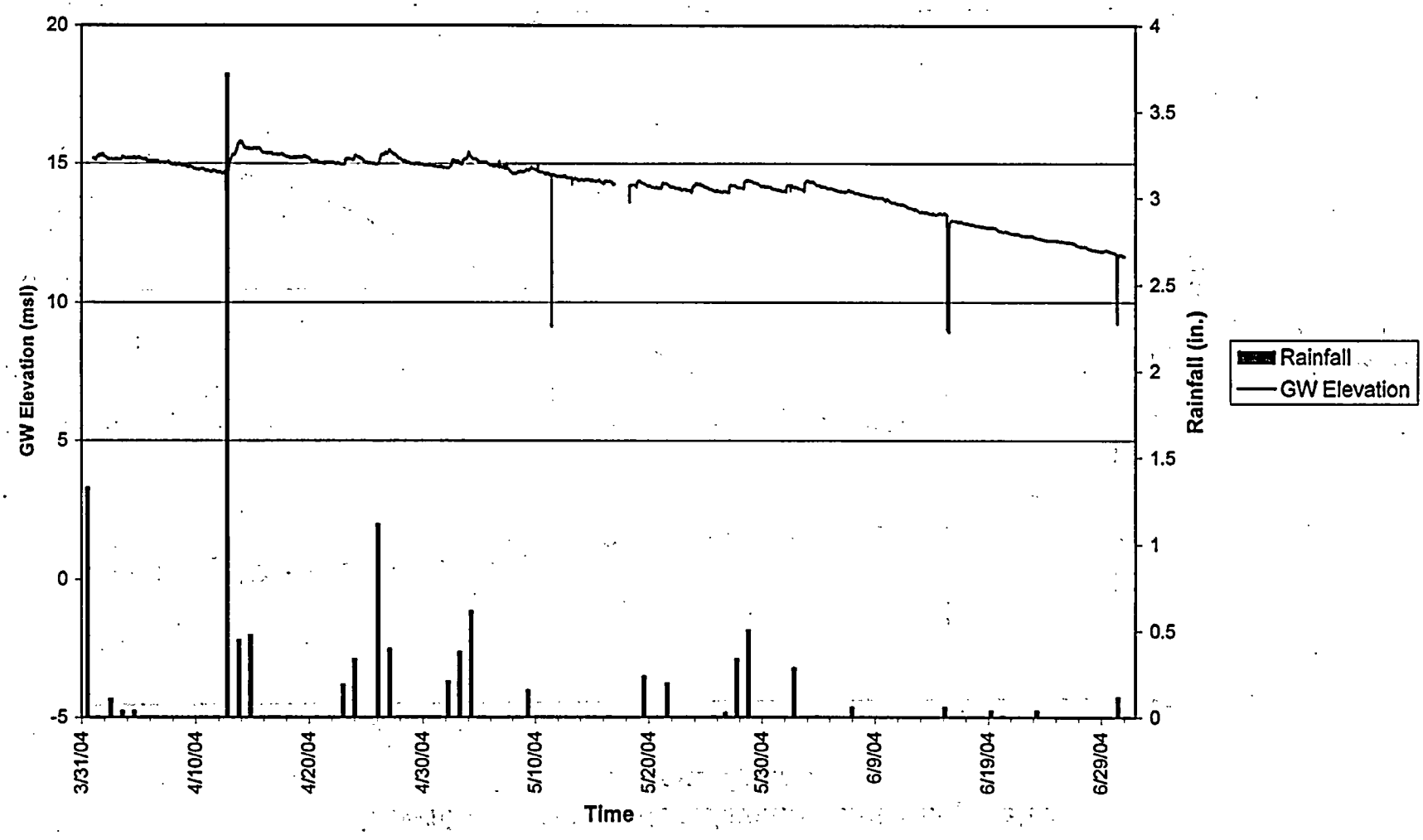



Mat Sump Groundwater Elevation and Temperature
2nd Quarter
GW Elevation
Temperature (Fahrenheit)
Time
15
10
5
0
-5
-10
-15
-20
-25
-30
56.2
56
55.8
55.6
55.4
55.2
55
54.8
54.6
54.4
54.2
3/31/04
4/10/04
4/20/04
4/30/04
5/10/04
5/20/04
5/30/04
6/9/04
6/19/04
6/29/04
GW Elevation
Temperature

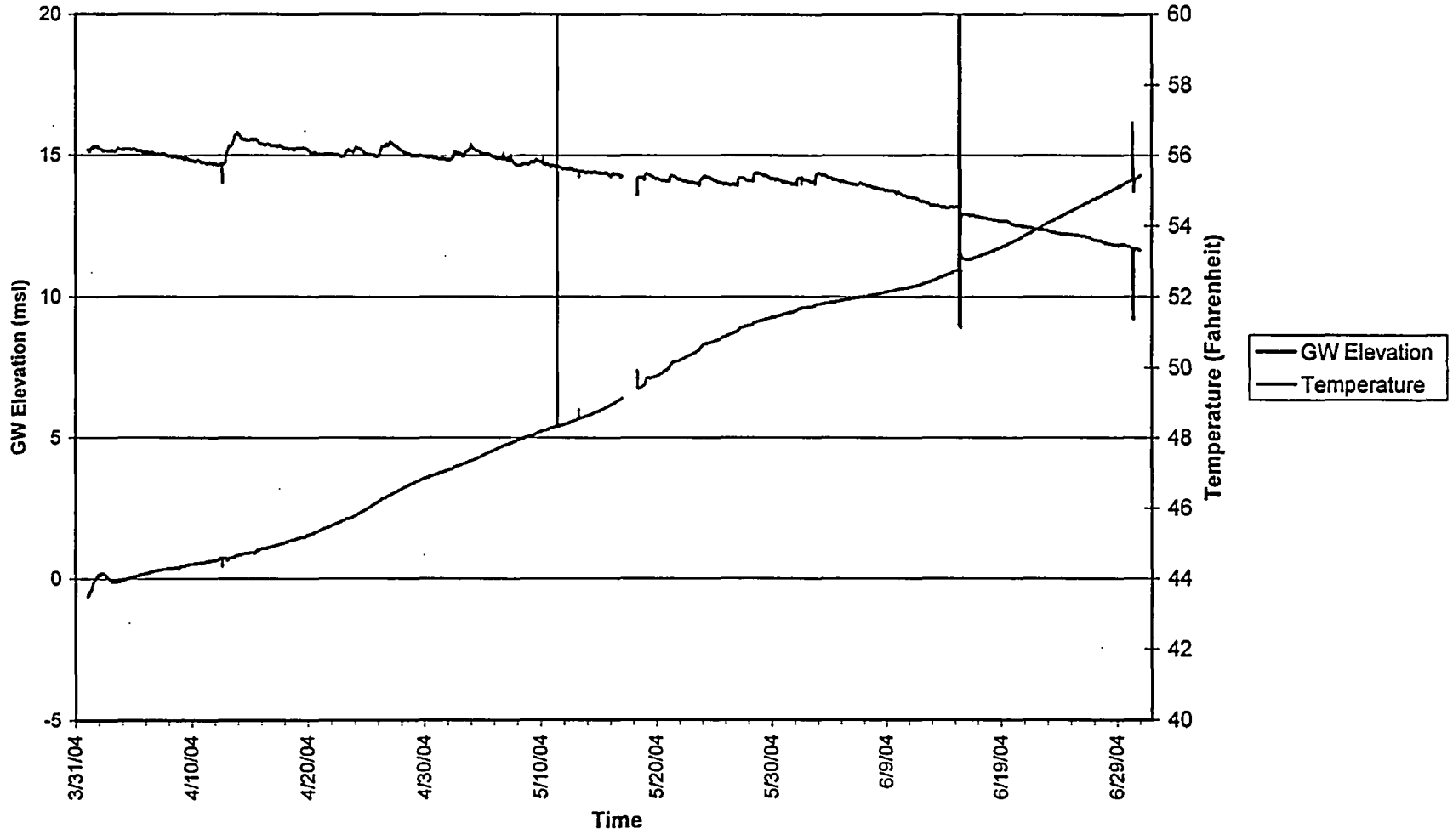
Groundwater Elevation in MW-100S
Second Quarter

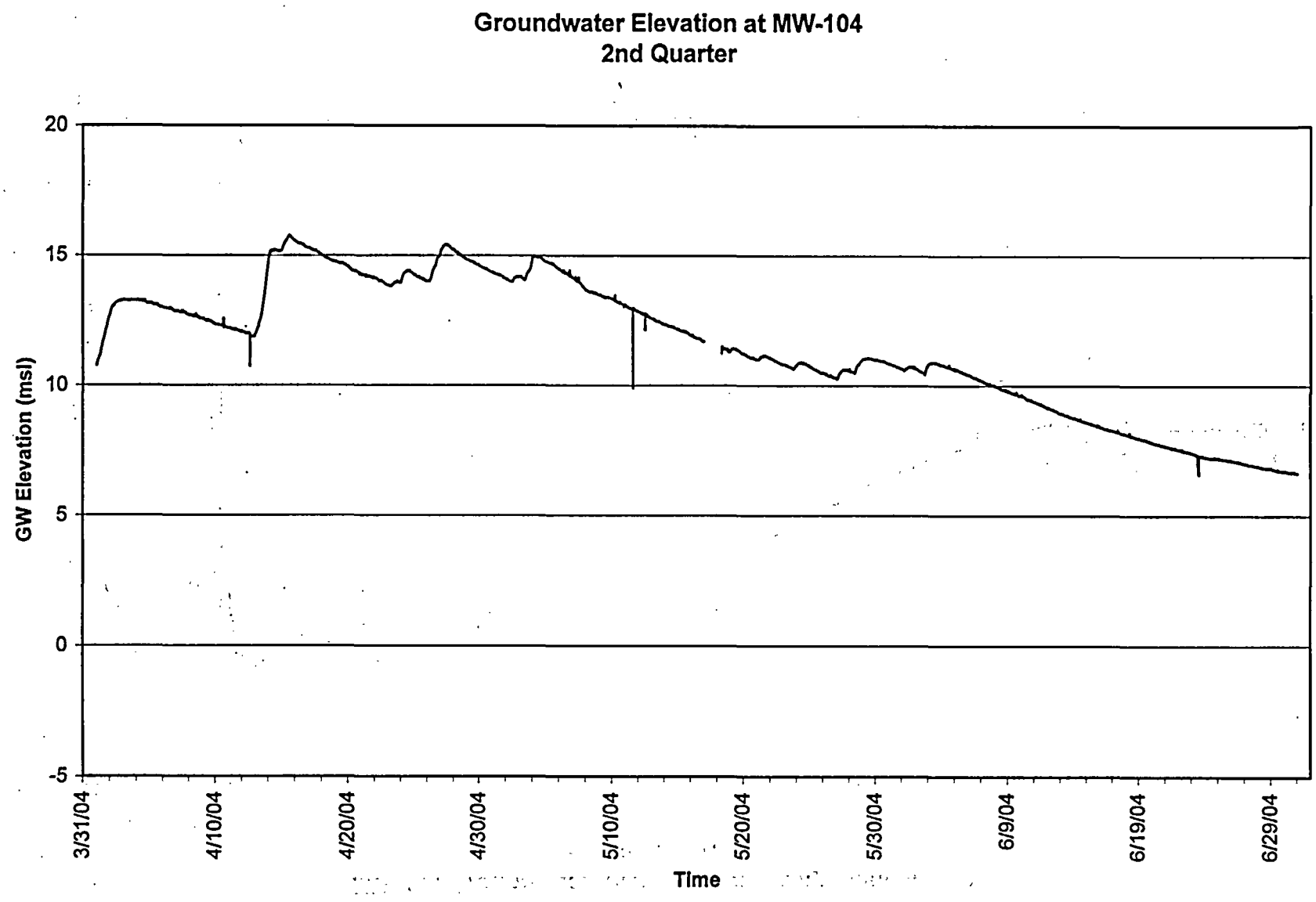


MW-100S Groundwater Elevation and Daily Rainfall Totals
2nd Quarter

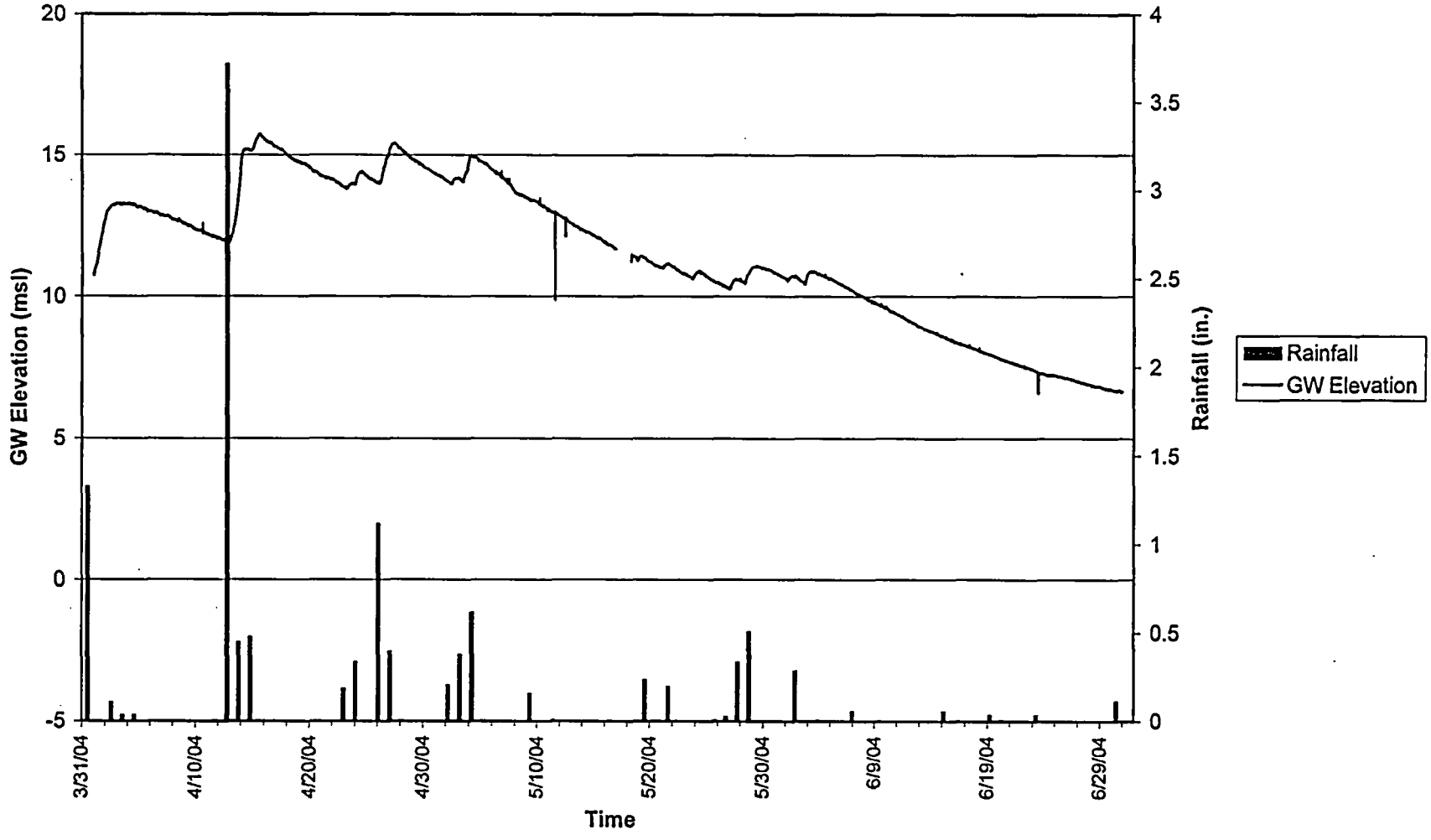


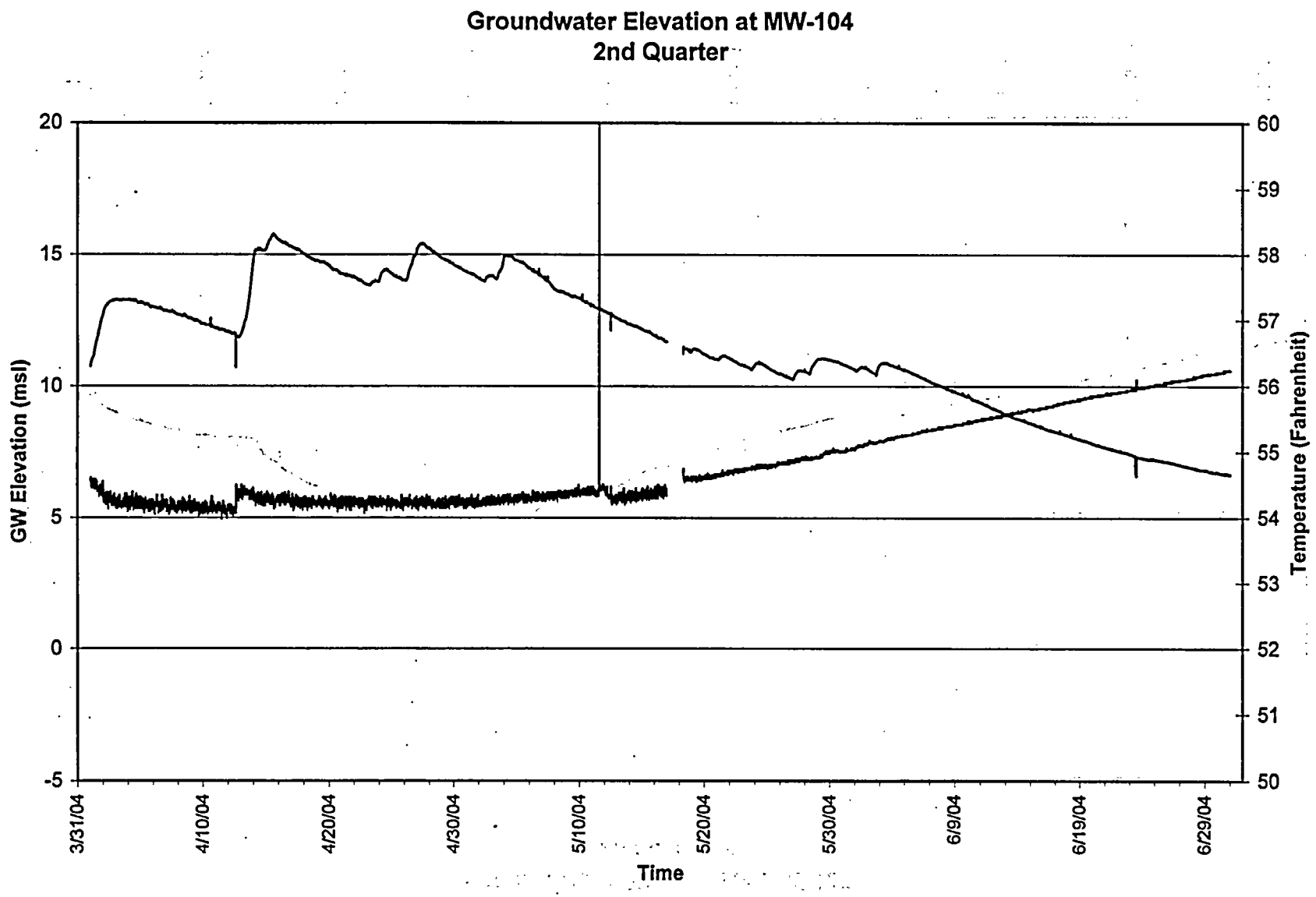
MW-100S Groundwater Elevation and Temperature
Second Quarter



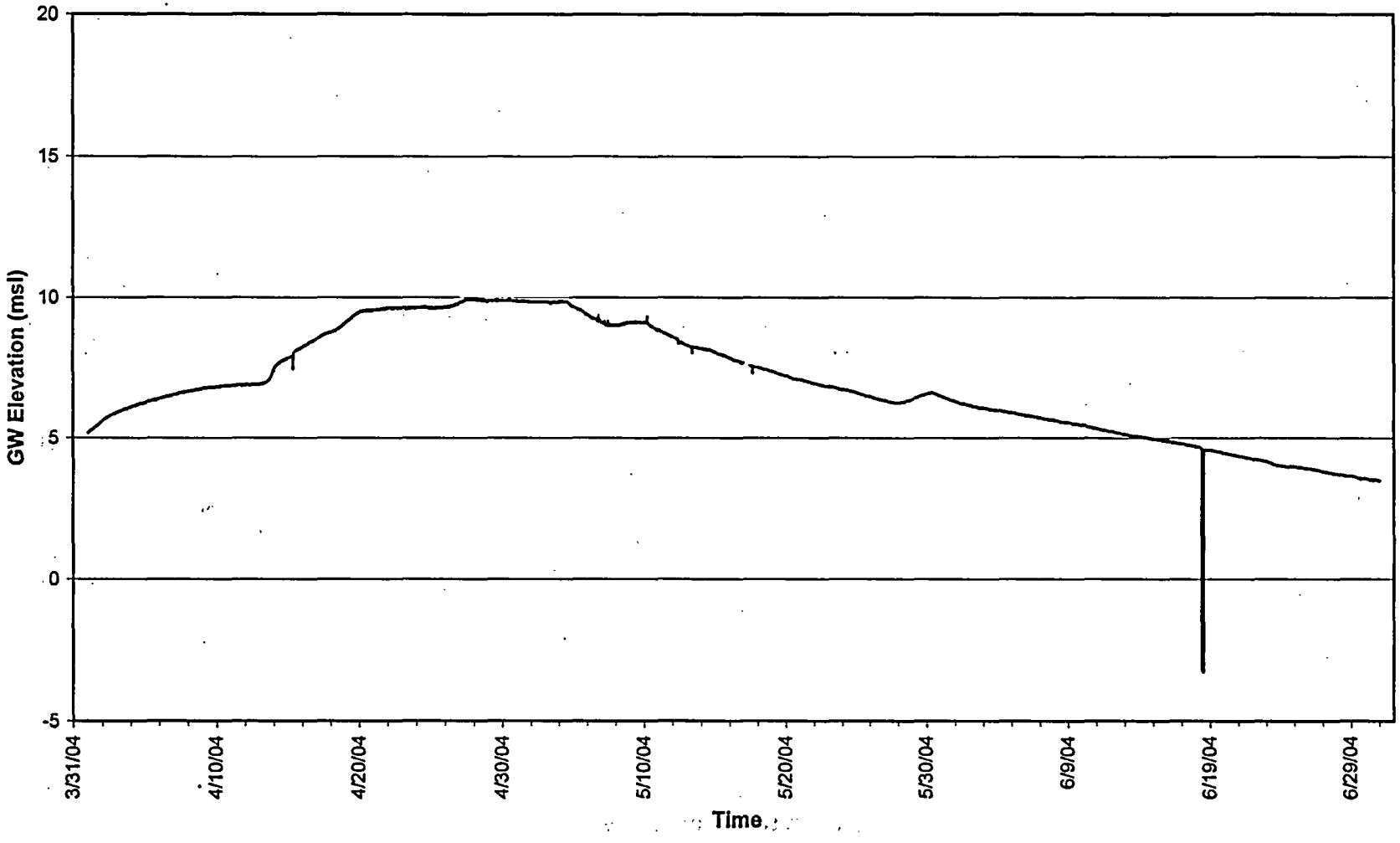

Groundwater Elevation at MW-104
2nd Quarter
GW Elevation (msl)
20
15
10
5
0
-5
3/31/04
4/10/04
4/20/04
4/30/04
5/10/04
5/20/04
5/30/04
6/9/04
6/19/04
6/29/04
Time

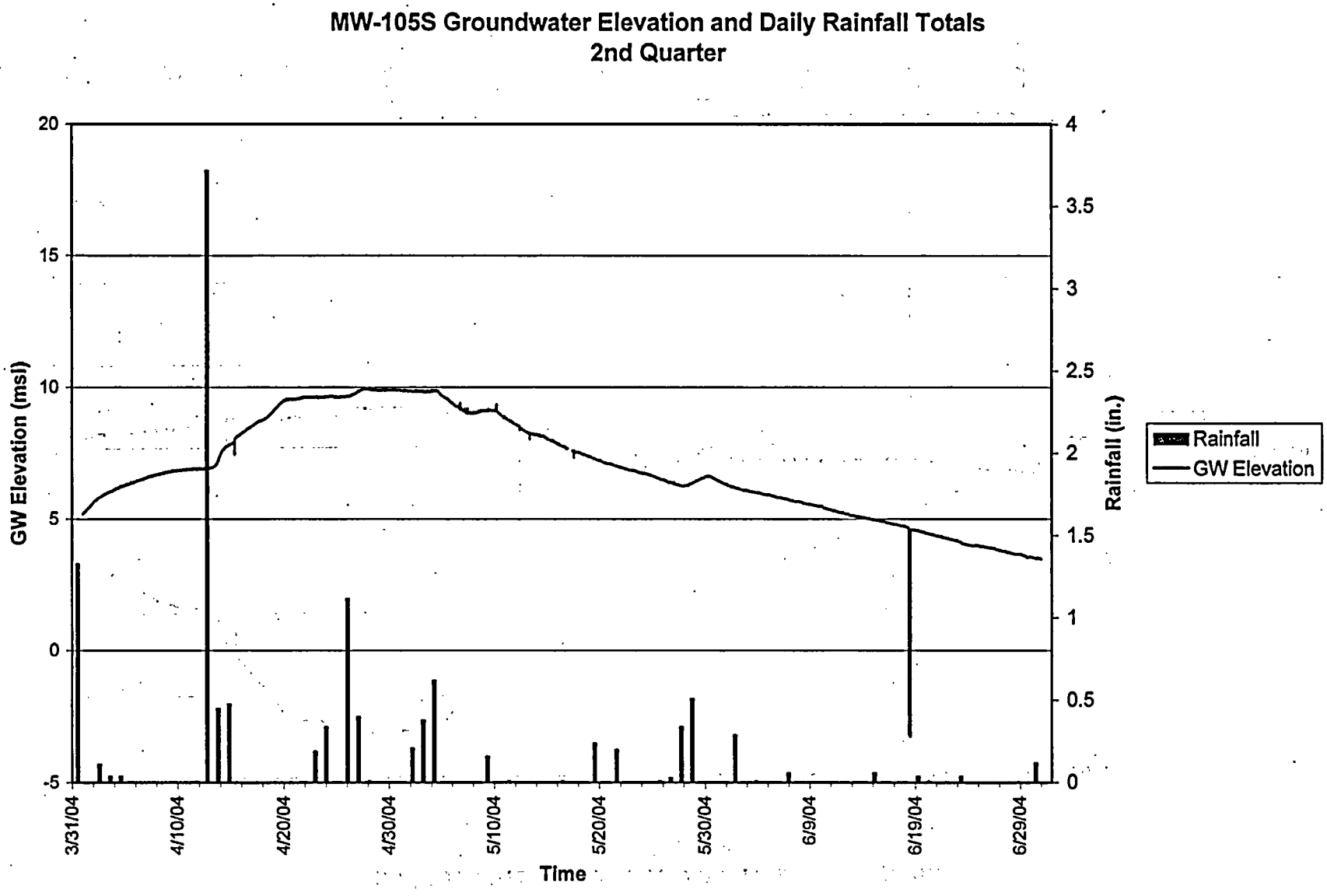
MW-104 Groundwater Elevation and Daily Rainfall Totals
2nd Quarter



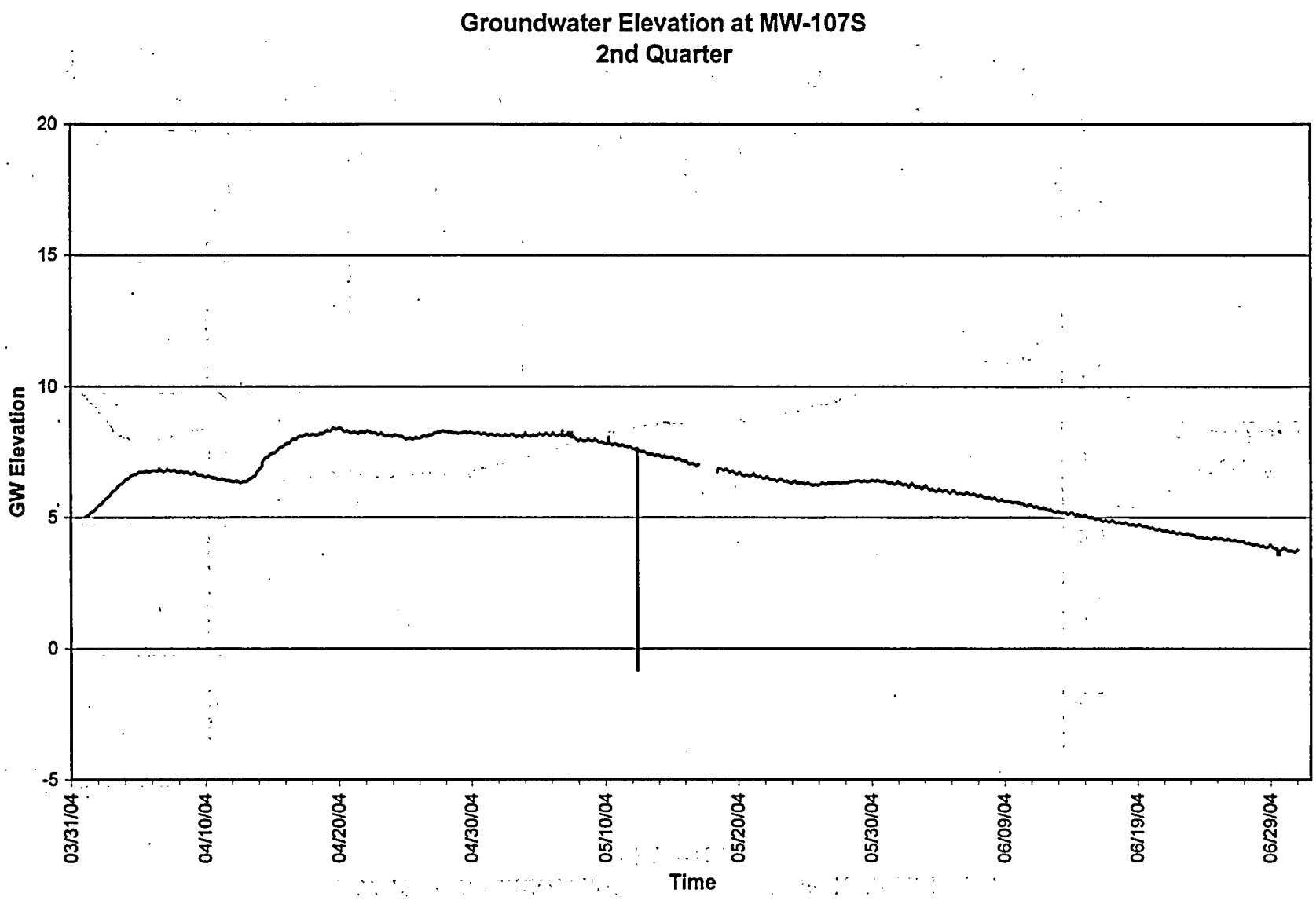

Groundwater Elevation at MW-104
2nd Quarter
GW Elevation (msl)
Temperature (Fahrenheit)
Time
20
15
10
5
0
-5
60
59
58
57
56
55
54
53
52
51
50
3/31/04
4/10/04
4/20/04
4/30/04
5/10/04
5/20/04
5/30/04
6/9/04
6/19/04
6/29/04

Groundwater Elevation at MW-105S
2nd Quarter

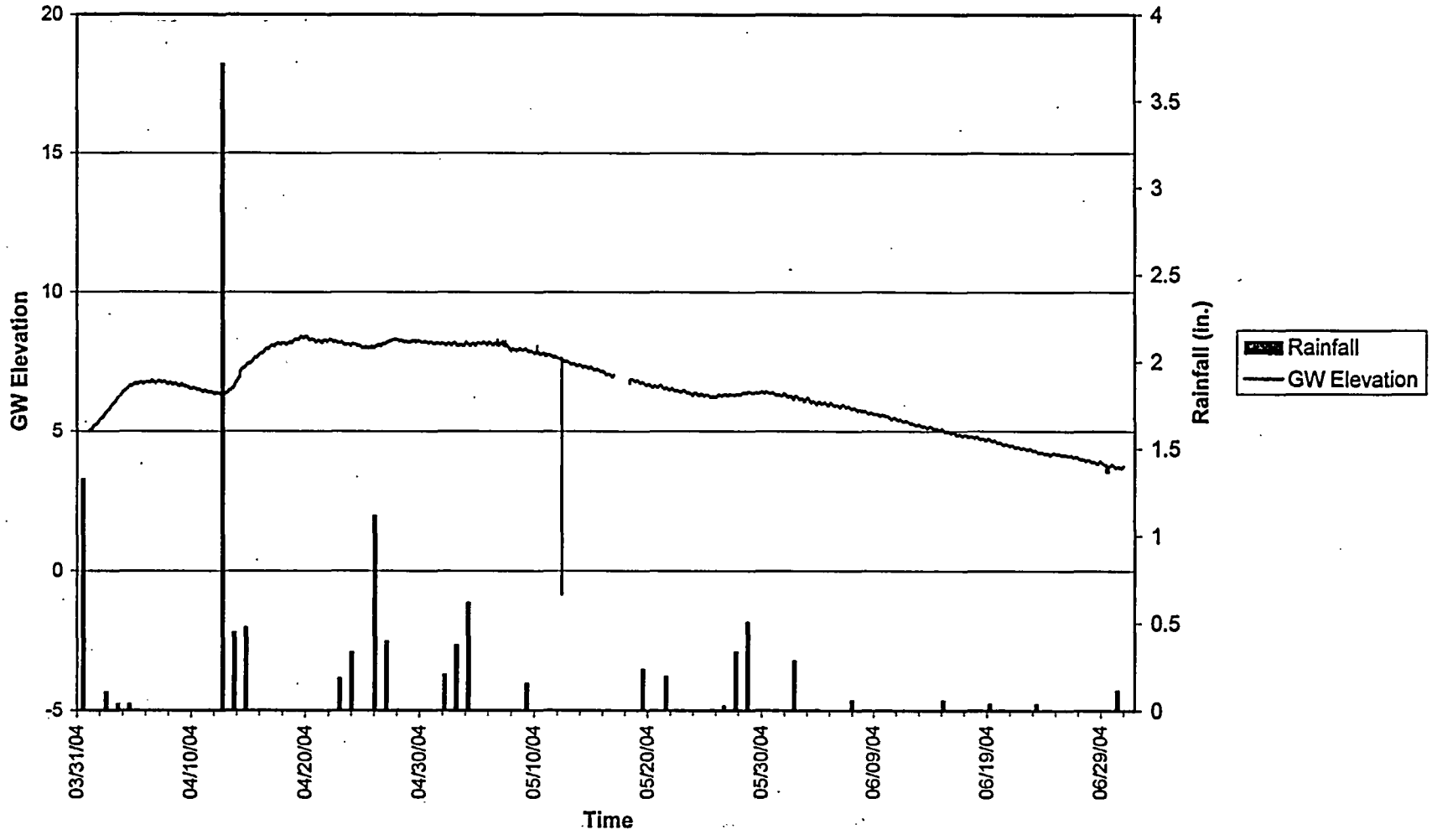


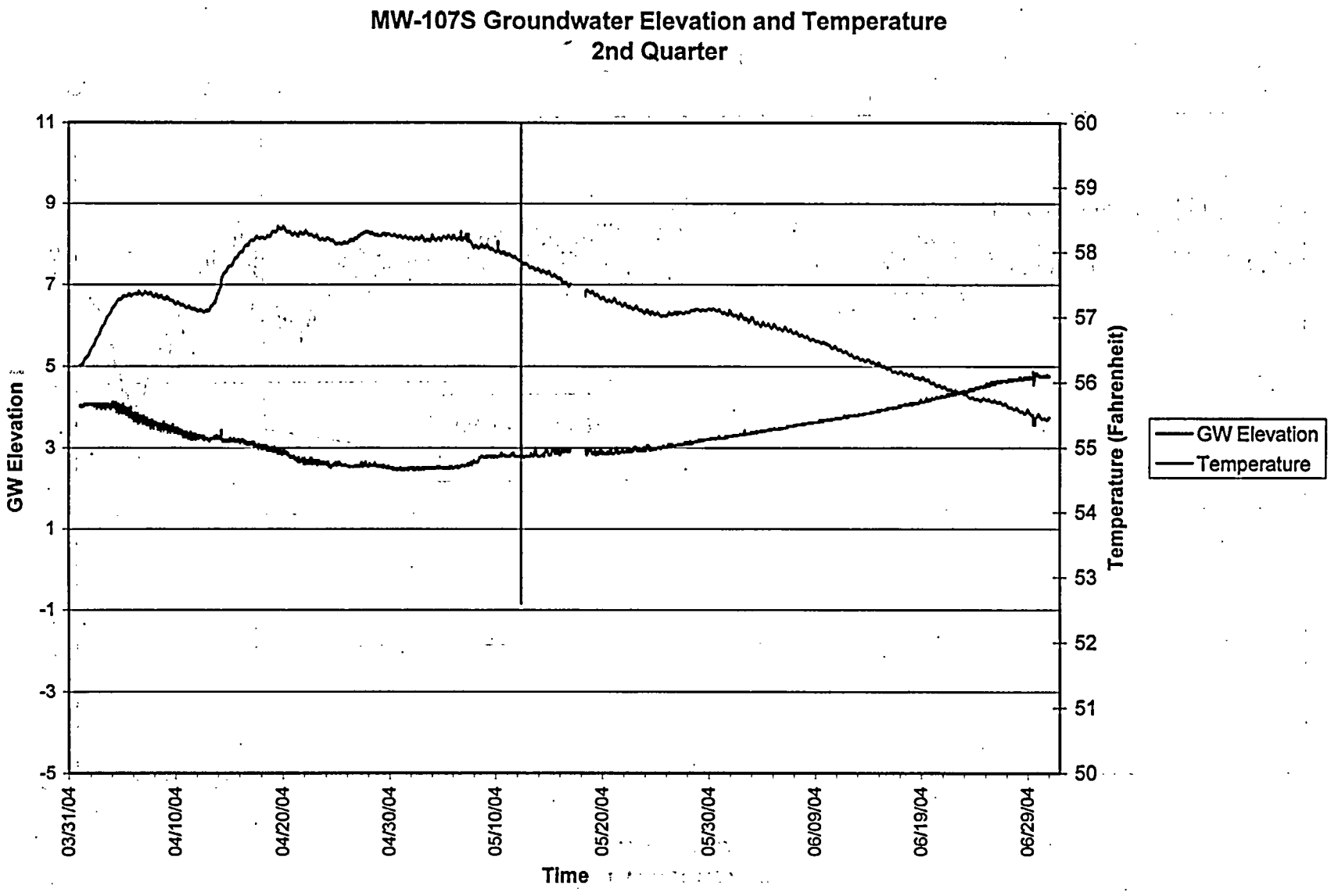

MW-105S Groundwater Elevation and Daily Rainfall Totals
2nd Quarter
GW Elevation (msl)
Rainfall (in.)
Time
20
15
10
5
0
-5
4
3.5
3
2.5
2
1.5
1
0.5
0
3/31/04
4/10/04
4/20/04
4/30/04
5/10/04
5/20/04
5/30/04
6/9/04
6/19/04
6/29/04
Rainfall
GW Elevation

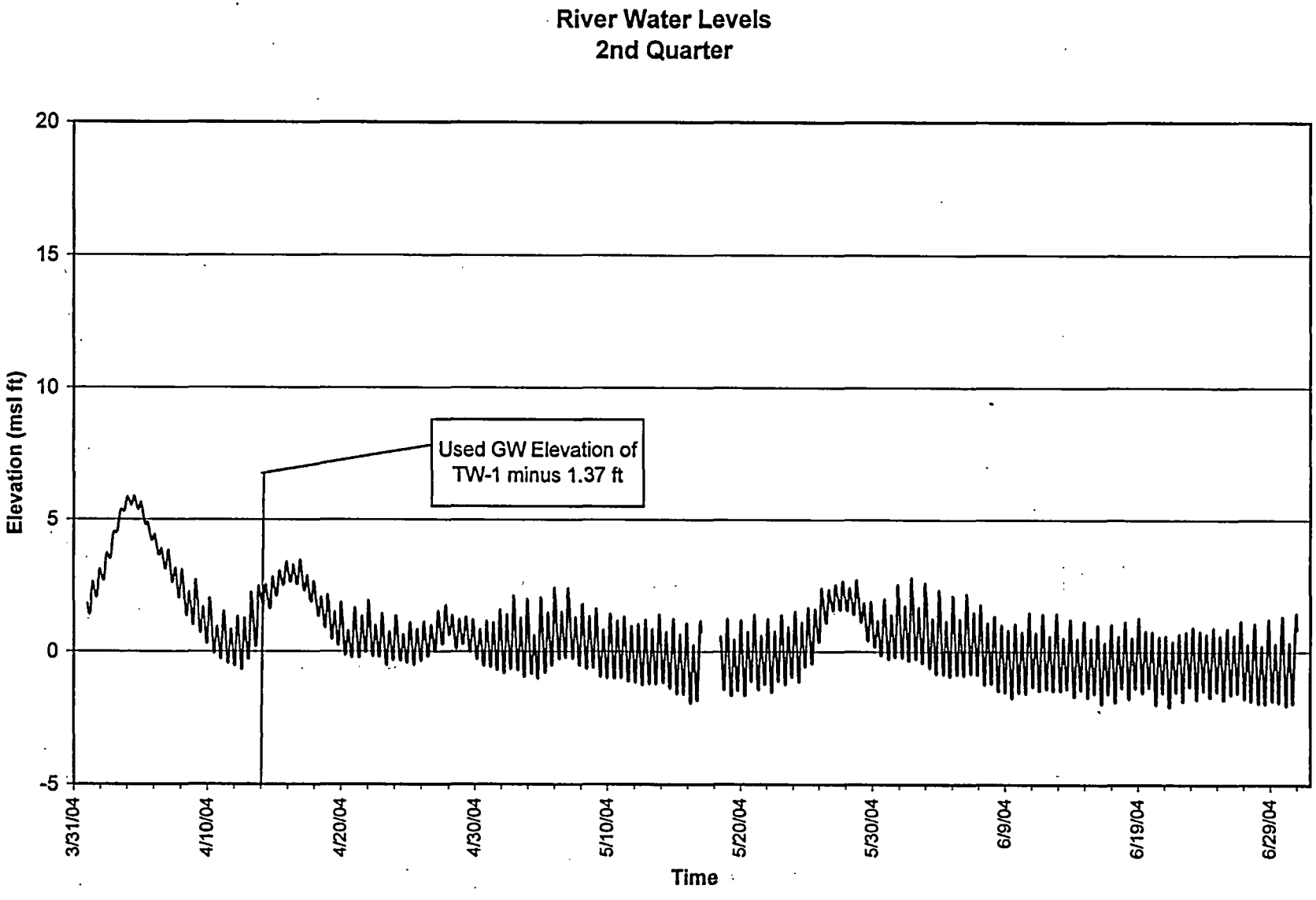
MW-105S Groundwater Elevation and Temperature
2nd Quarter

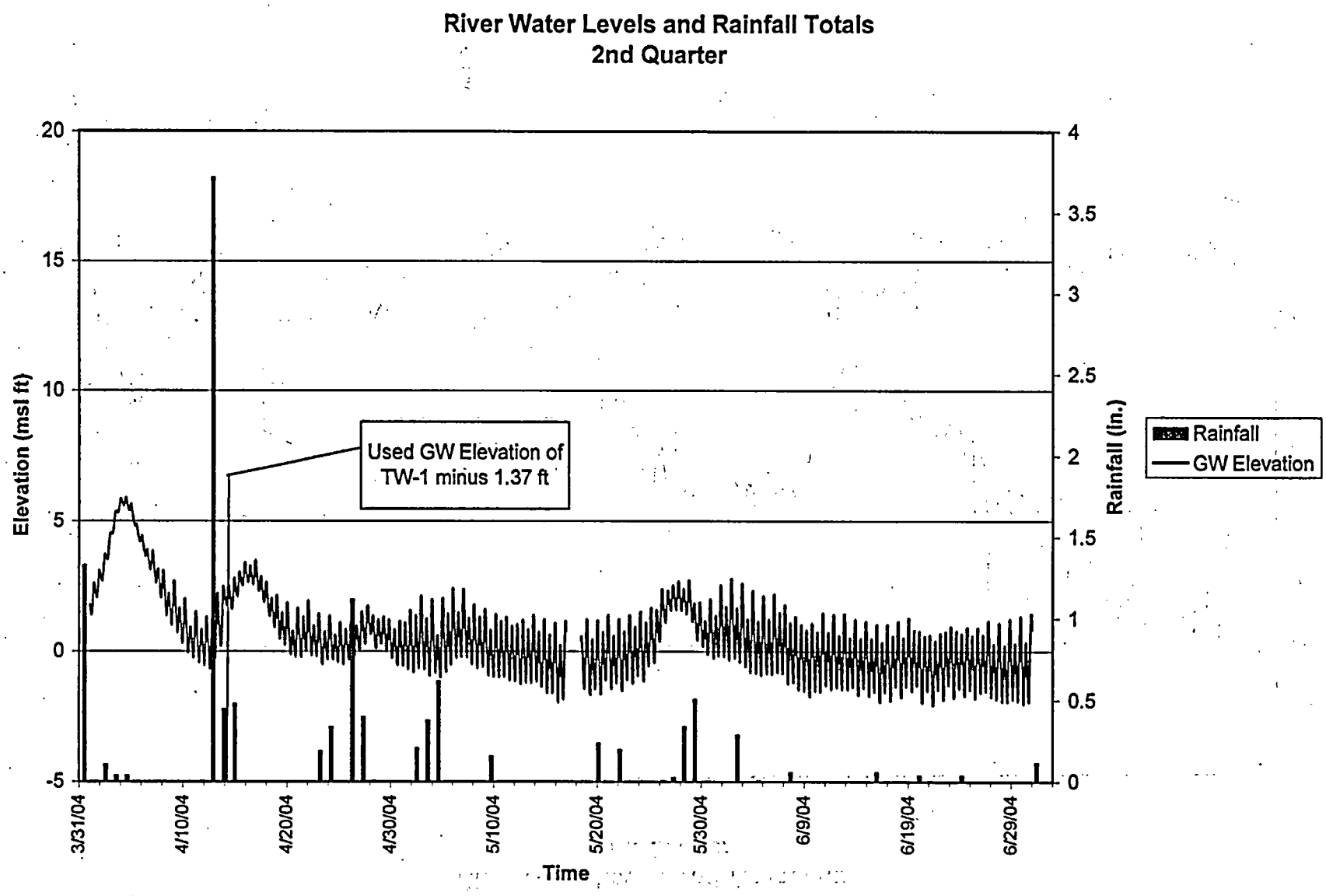

Groundwater Elevation at MW-107S
2nd Quarter
GW Elevation
20
15
10
5
0
-5
03/31/04
04/10/04
04/20/04
04/30/04
05/10/04
05/20/04
05/30/04
06/09/04
06/19/04
06/29/04
Time

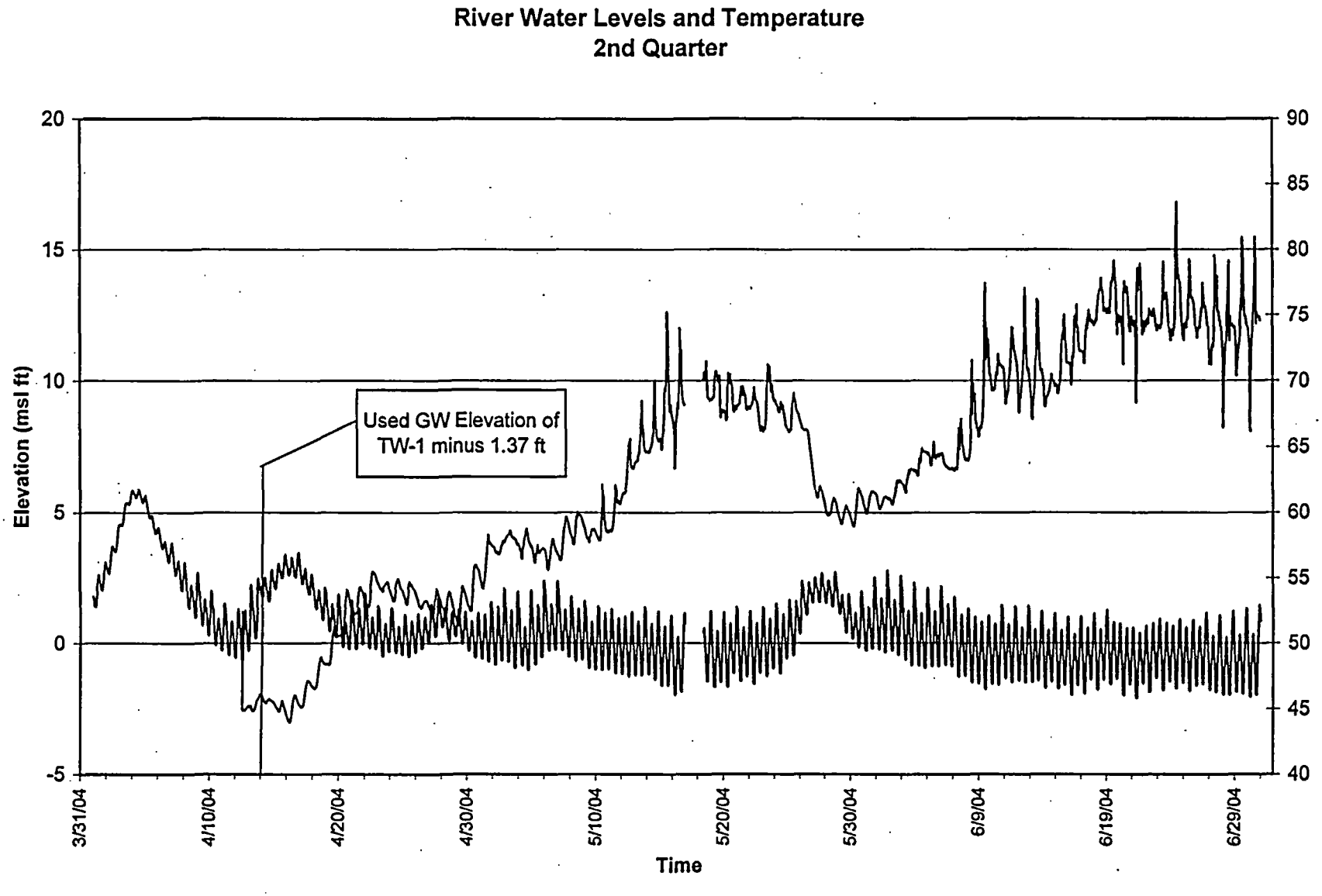
MW-107S Groundwater Elevation and Daily Rainfall Totals
2nd Quarter

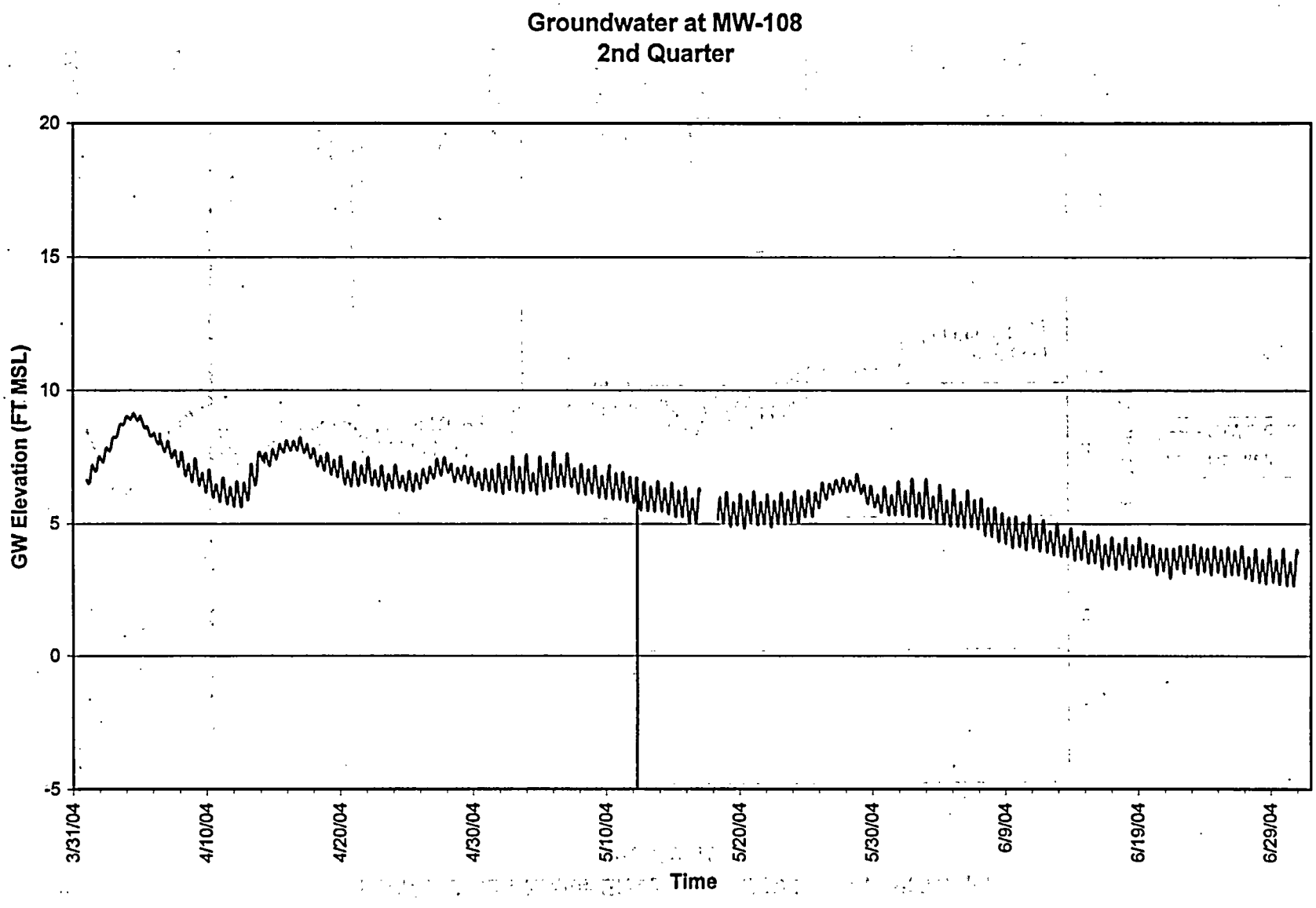



MW-107S Groundwater Elevation and Temperature
2nd Quarter
GW Elevation
Temperature (Fahrenheit)
Time
11
9
7
5
3
1
-1
-3
-5
60
59
58
57
56
55
54
53
52
51
50
03/31/04
04/10/04
04/20/04
04/30/04
05/10/04
05/20/04
05/30/04
06/09/04
06/19/04
06/29/04
GW Elevation
Temperature

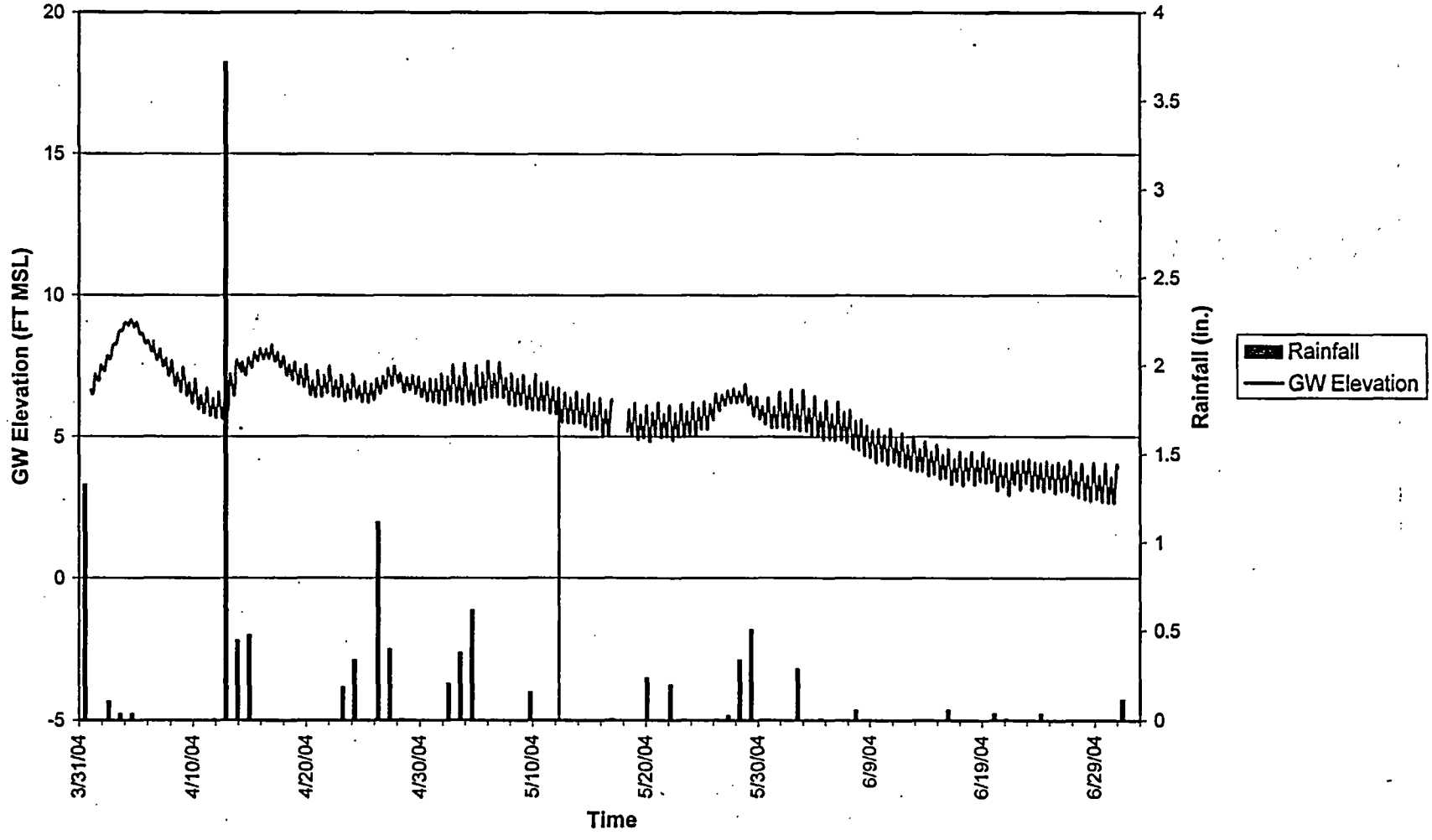

River Water Levels
2nd Quarter
Elevation (msl ft)
20
15
10
5
0
-5
Used GW Elevation of
TW-1 minus 1.37 ft
3/31/04
4/10/04
4/20/04
4/30/04
5/10/04
5/20/04
5/30/04
6/9/04
6/19/04
6/29/04
Time

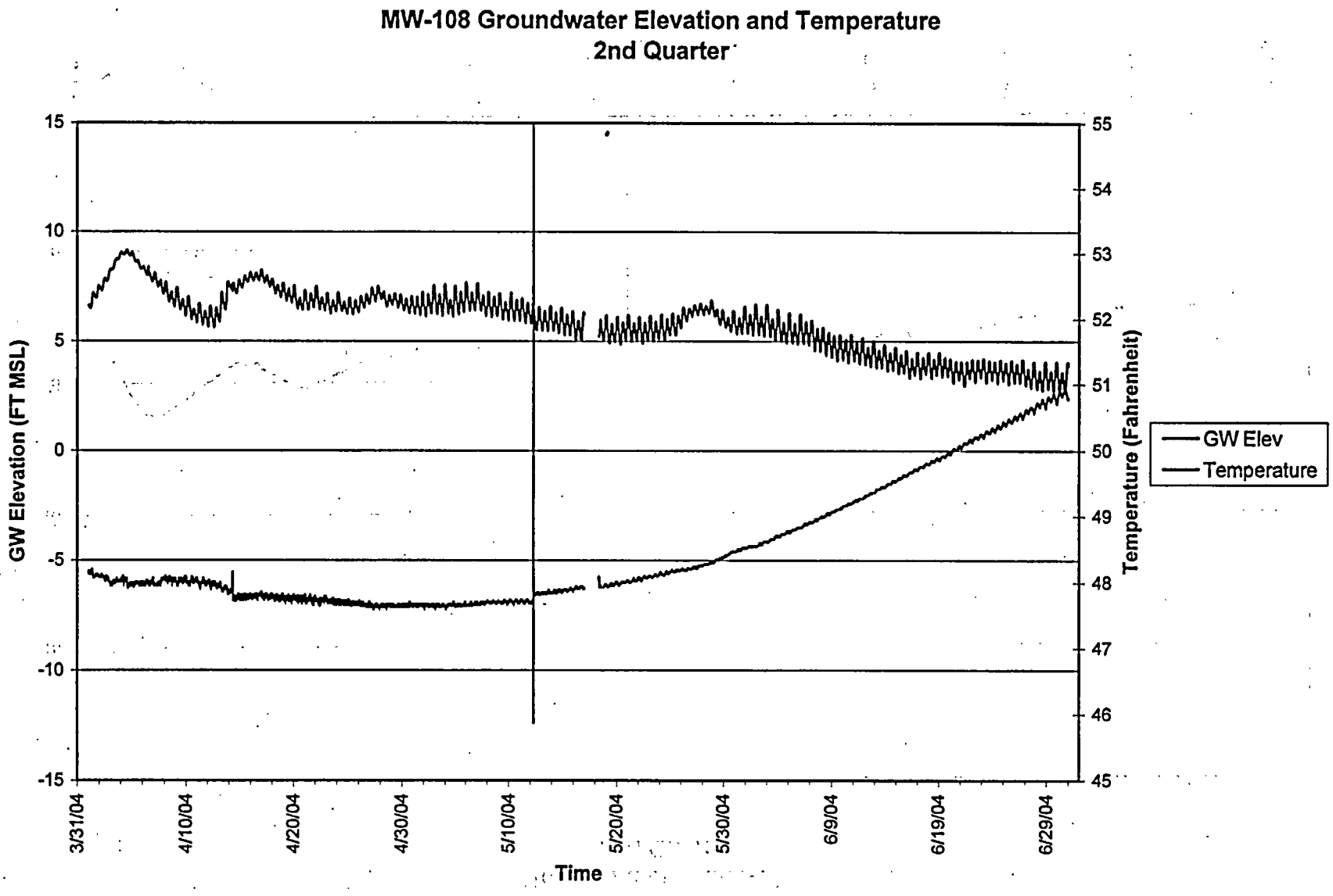

River Water Levels and Rainfall Totals
2nd Quarter
Elevation (msl ft)
20
15
10
5
0
-5
Rainfall (in.)
4
3.5
3
2.5
2
1.5
1
0.5
0
Used GW Elevation of TW-1 minus 1.37 ft
Rainfall
GW Elevation
3/31/04
4/10/04
4/20/04
4/30/04
5/10/04
5/20/04
5/30/04
6/9/04
6/19/04
6/29/04
Time

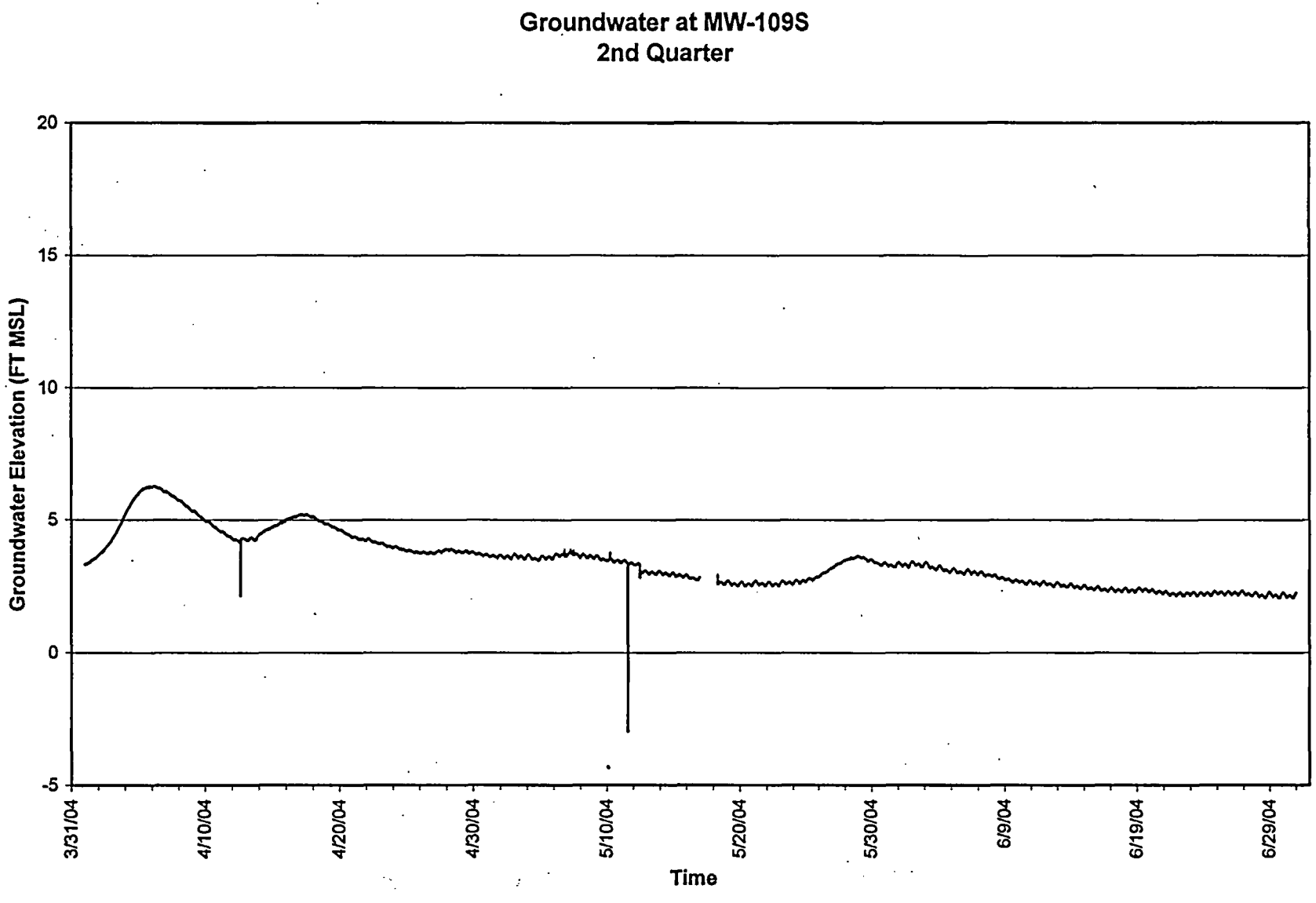

River Water Levels and Temperature
2nd Quarter
Elevation (msl ft)
20
15
10
5
0
-5
90
85
80
75
70
65
60
55
50
45
40
Used GW Elevation of
TW-1 minus 1.37 ft
3/31/04
4/10/04
4/20/04
4/30/04
5/10/04
5/20/04
5/30/04
6/9/04
6/19/04
6/29/04
Time


Groundwater at MW-108
2nd Quarter
GW Elevation (FT MSL)
20
15
10
5
0
-5
3/31/04
4/10/04
4/20/04
4/30/04
5/10/04
5/20/04
5/30/04
6/9/04
6/19/04
6/29/04
Time

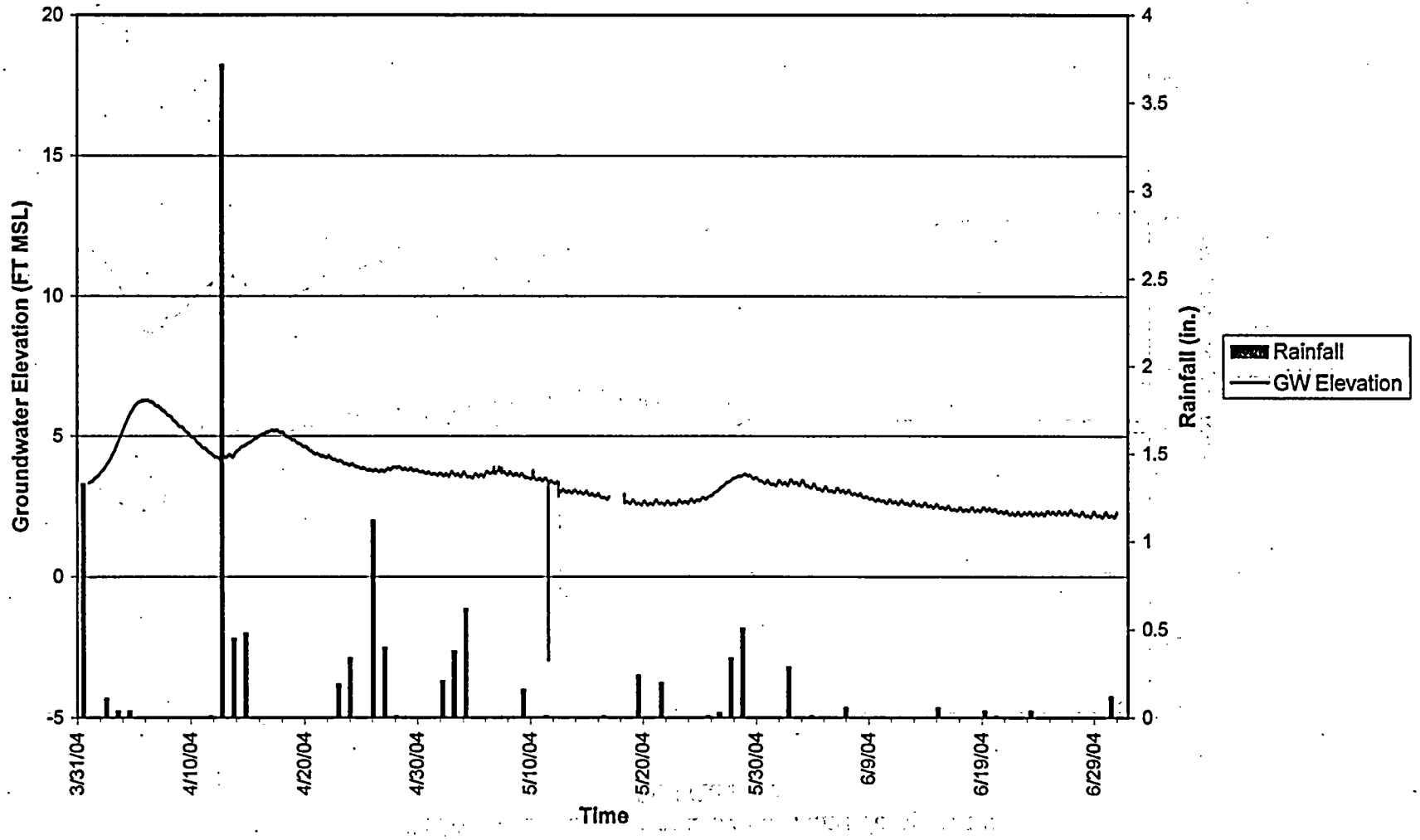
MW-108 Groundwater Elevation and Daily Rainfall Totals
2nd Quarter

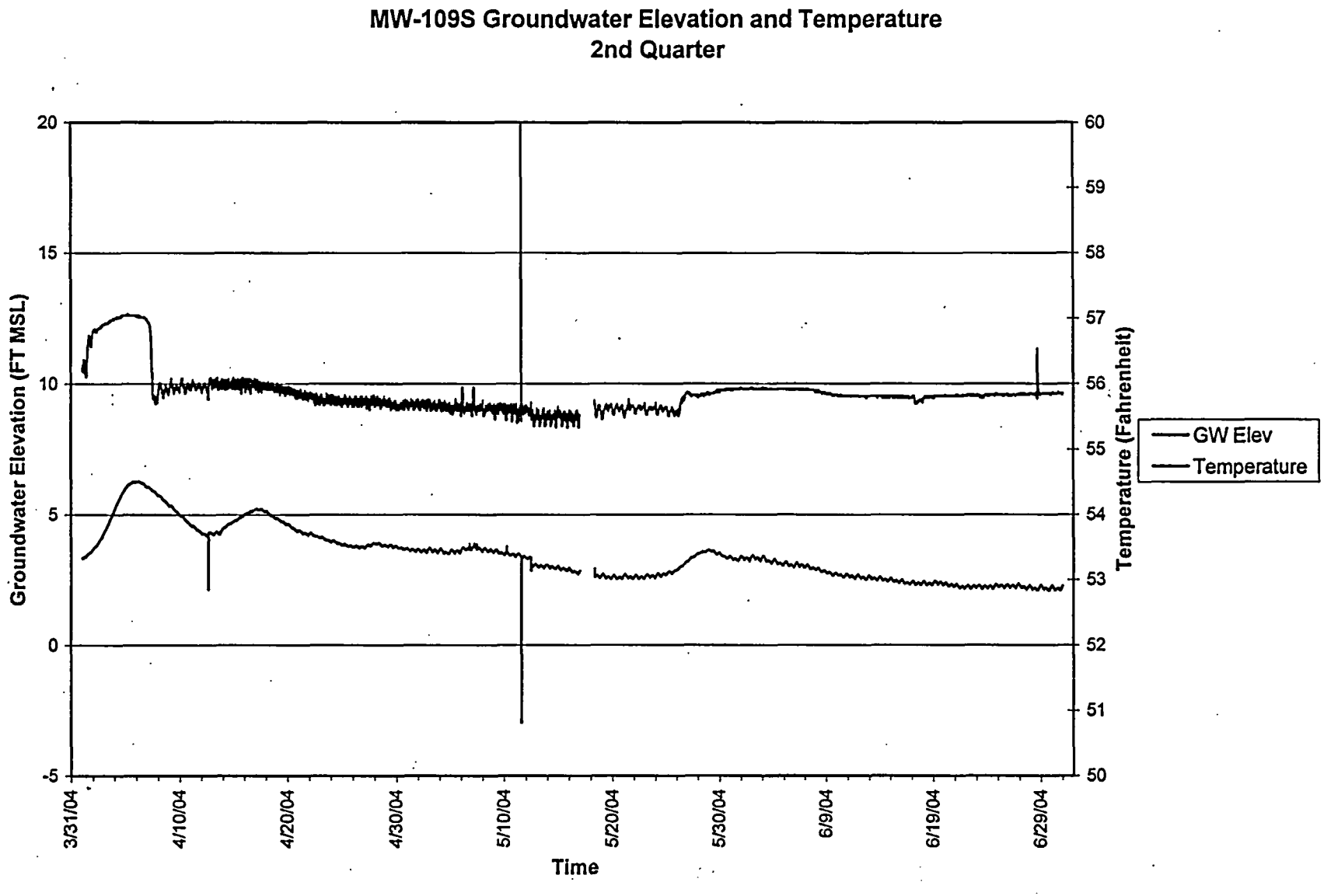


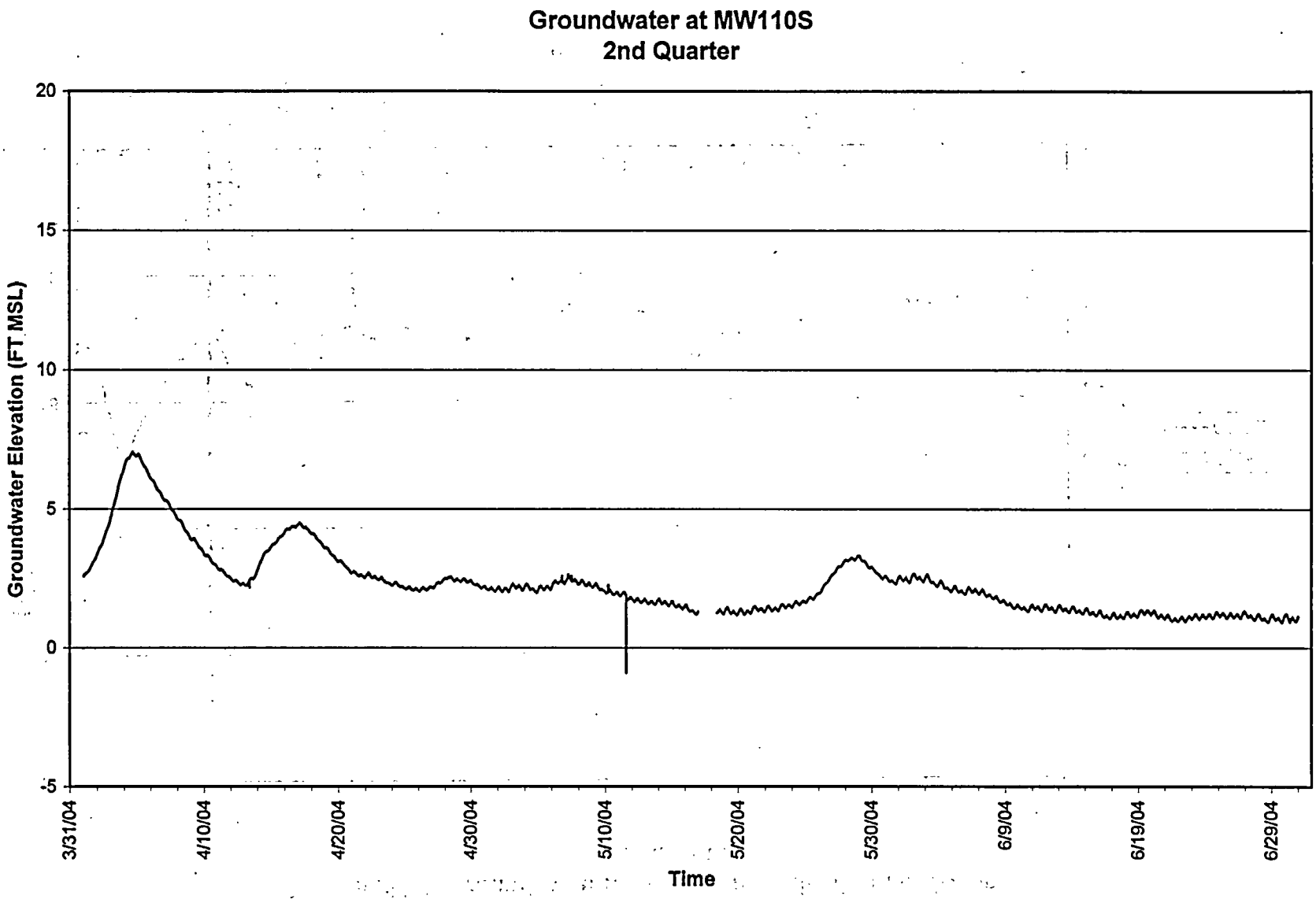

MW-108 Groundwater Elevation and Temperature
2nd Quarter
GW Elevation (FT MSL)
Temperature (Fahrenheit)
Time
15
10
5
0
-5
-10
-15
55
54
53
52
51
50
49
48
47
46
45
3/31/04
4/10/04
4/20/04
4/30/04
5/10/04
5/20/04
5/30/04
6/9/04
6/19/04
6/29/04
GW Elev
Temperature


Groundwater at MW-109S
2nd Quarter
Groundwater Elevation (FT MSL)
20
15
10
5
0
-5
3/31/04
4/10/04
4/20/04
4/30/04
5/10/04
5/20/04
5/30/04
6/9/04
6/19/04
6/29/04
Time

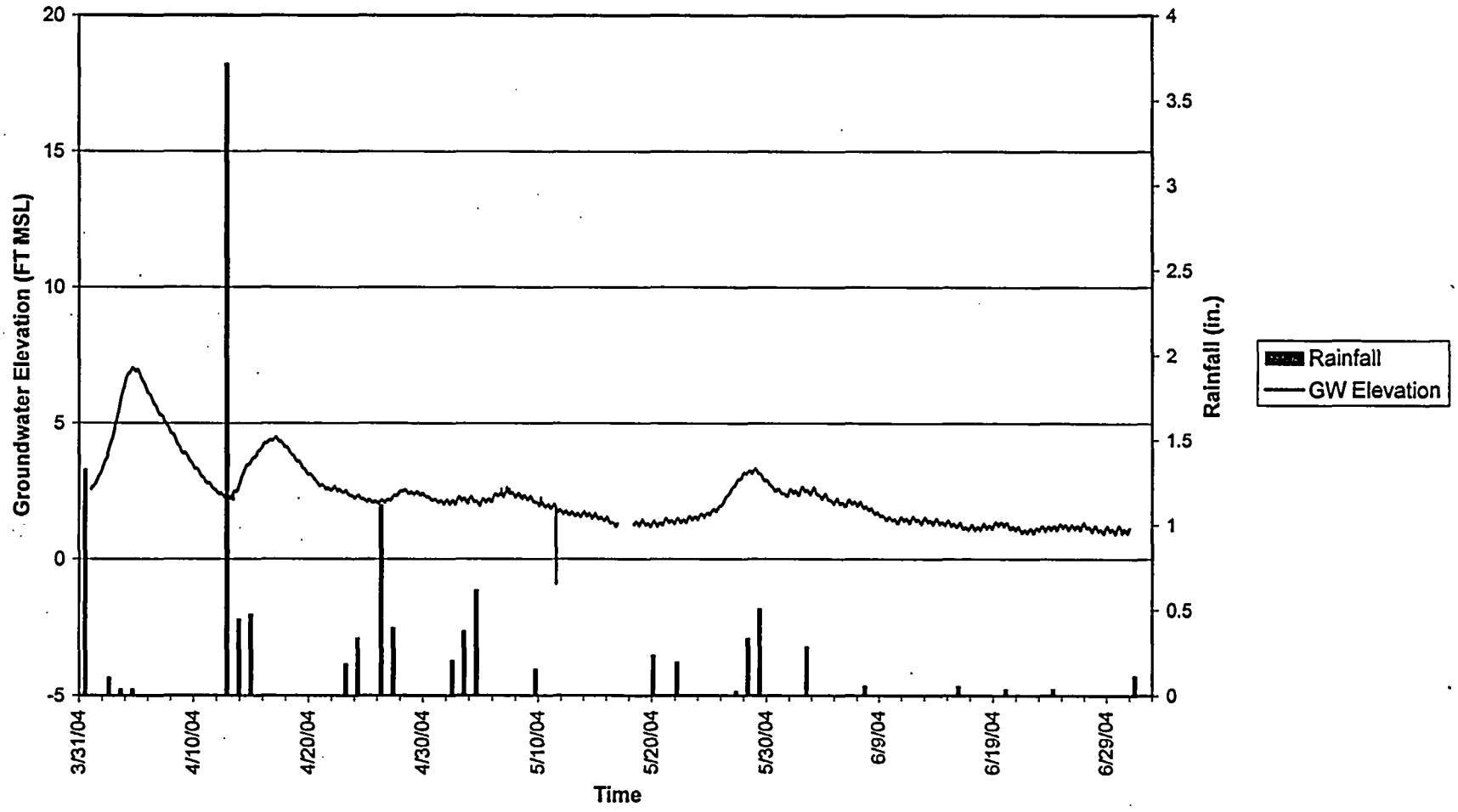
MW-109S Groundwater Elevation and Daily Rainfall Totals
2nd Quarter



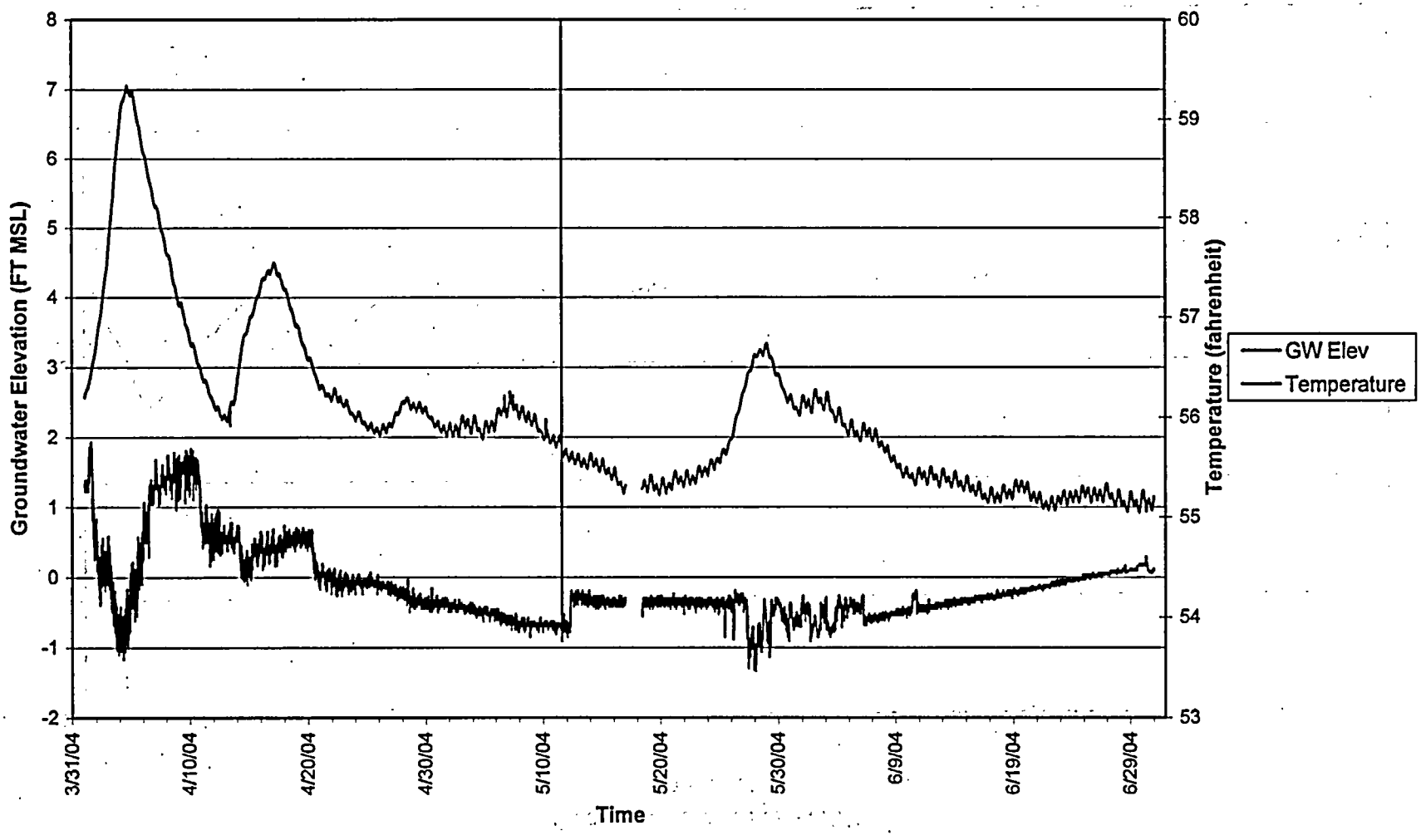

MW-109S Groundwater Elevation and Temperature
2nd Quarter
Groundwater Elevation (FT MSL)
Temperature (Fahrenheit)
Time
20
15
10
5
0
-5
60
59
58
57
56
55
54
53
52
51
50
3/31/04
4/10/04
4/20/04
4/30/04
5/10/04
5/20/04
5/30/04
6/9/04
6/19/04
6/29/04
GW Elev
Temperature

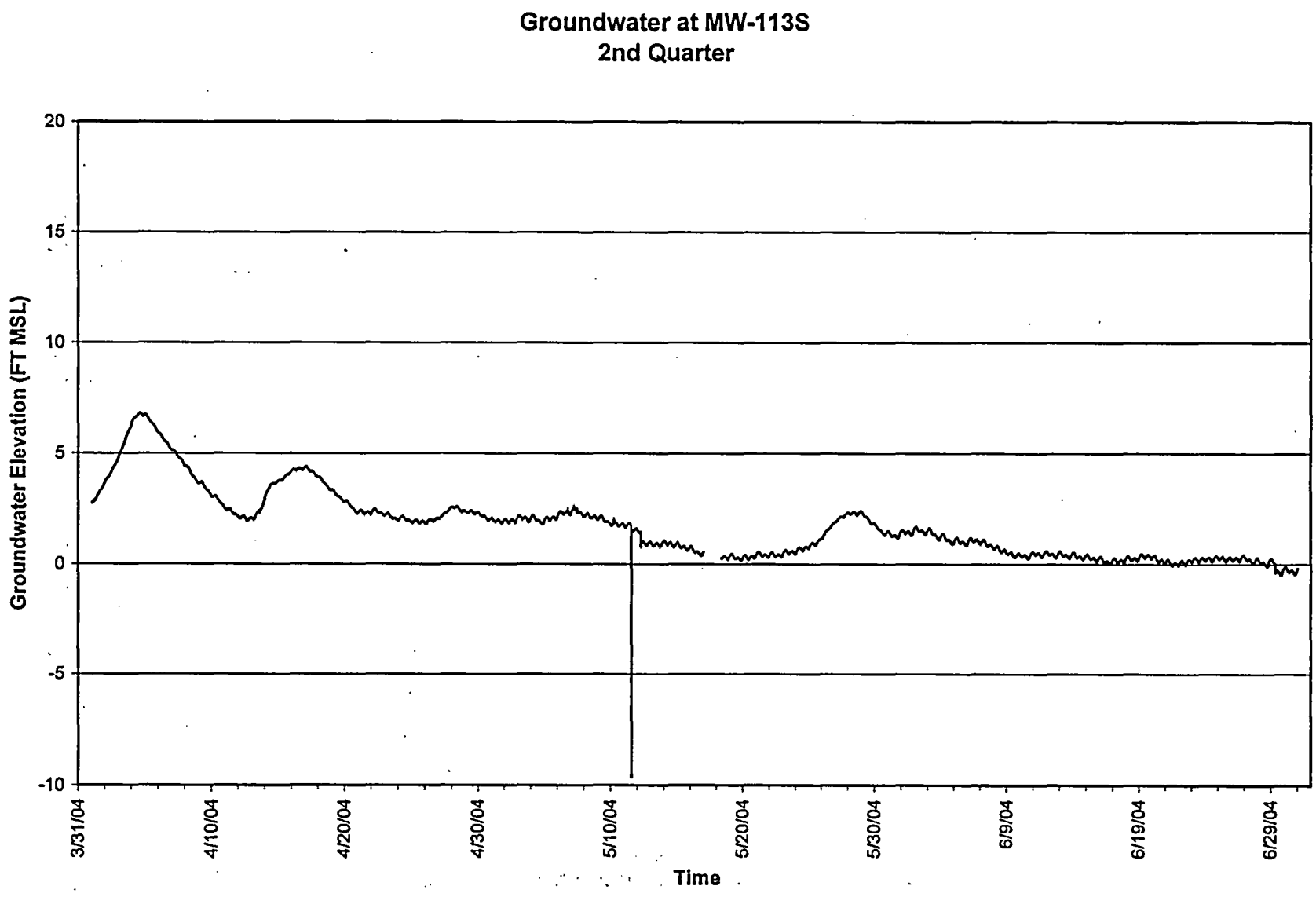

Groundwater at MW110S
2nd Quarter
Groundwater Elevation (FT MSL)
20
15
10
5
0
-5
3/31/04
4/10/04
4/20/04
4/30/04
5/10/04
5/20/04
5/30/04
6/9/04
6/19/04
6/29/04
Time

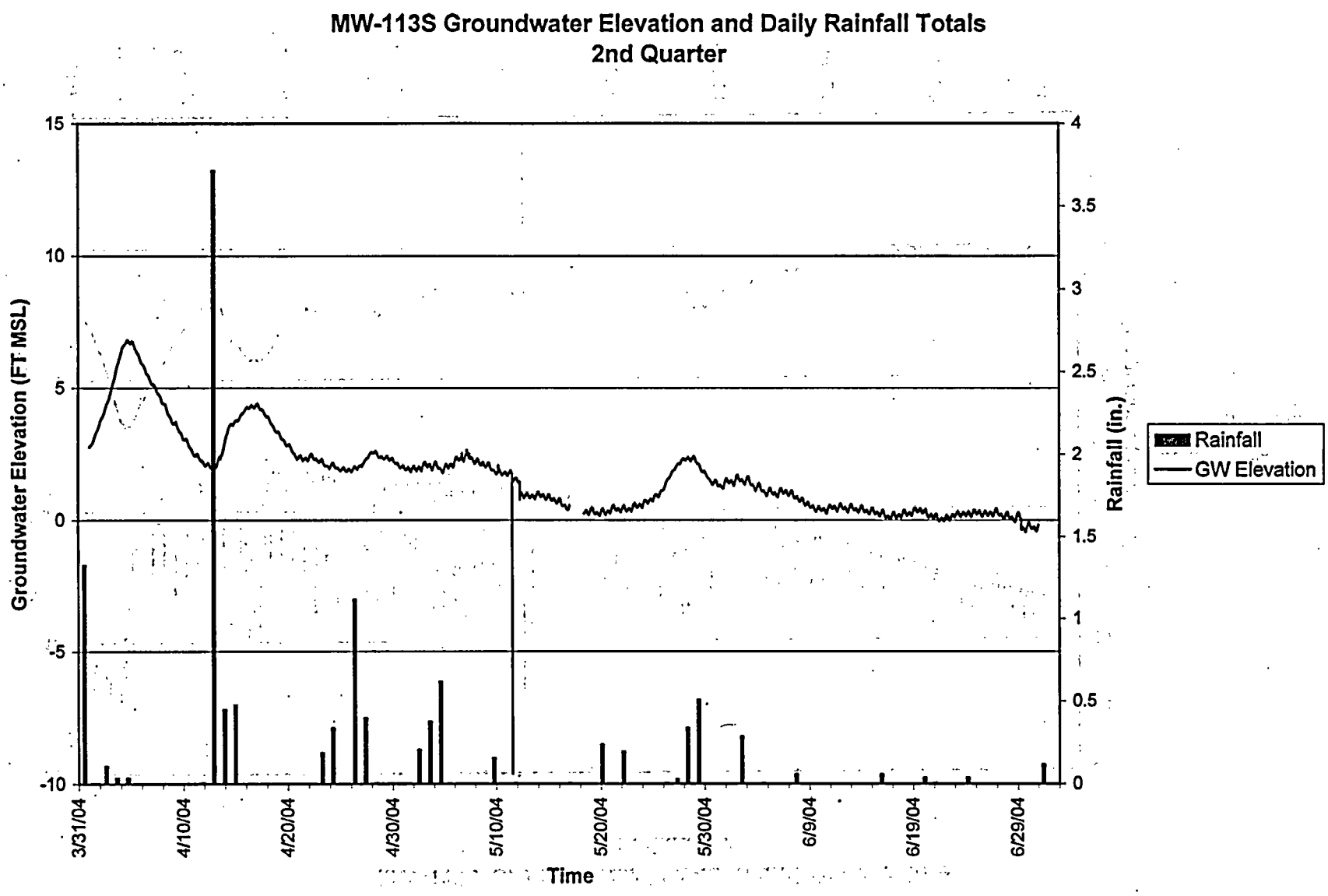
MW110S Groundwater Elevation and Daily Rainfall Totals
2nd Quarter



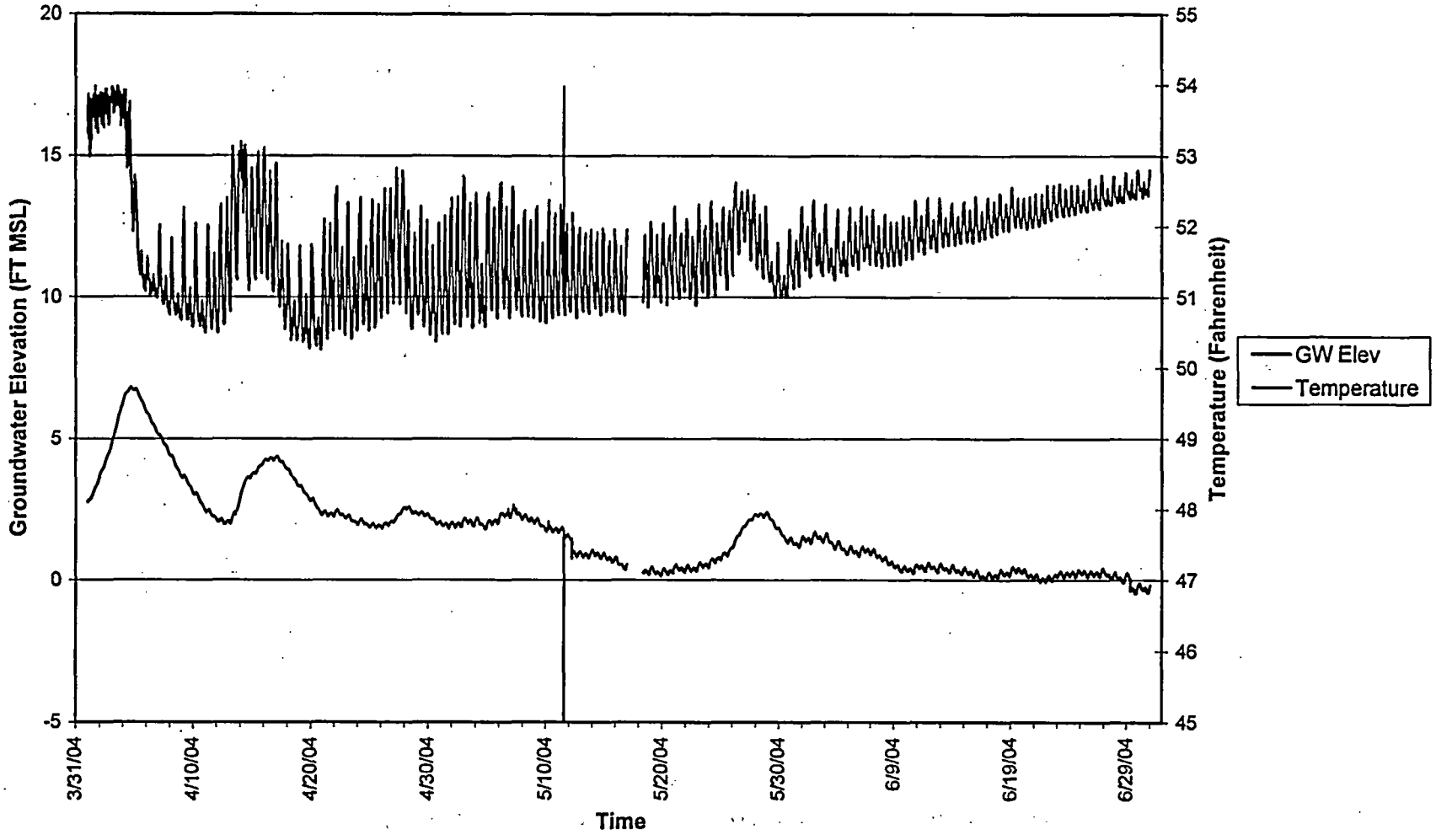
MW110S Groundwater Elevation and Temperature
2nd Quarter

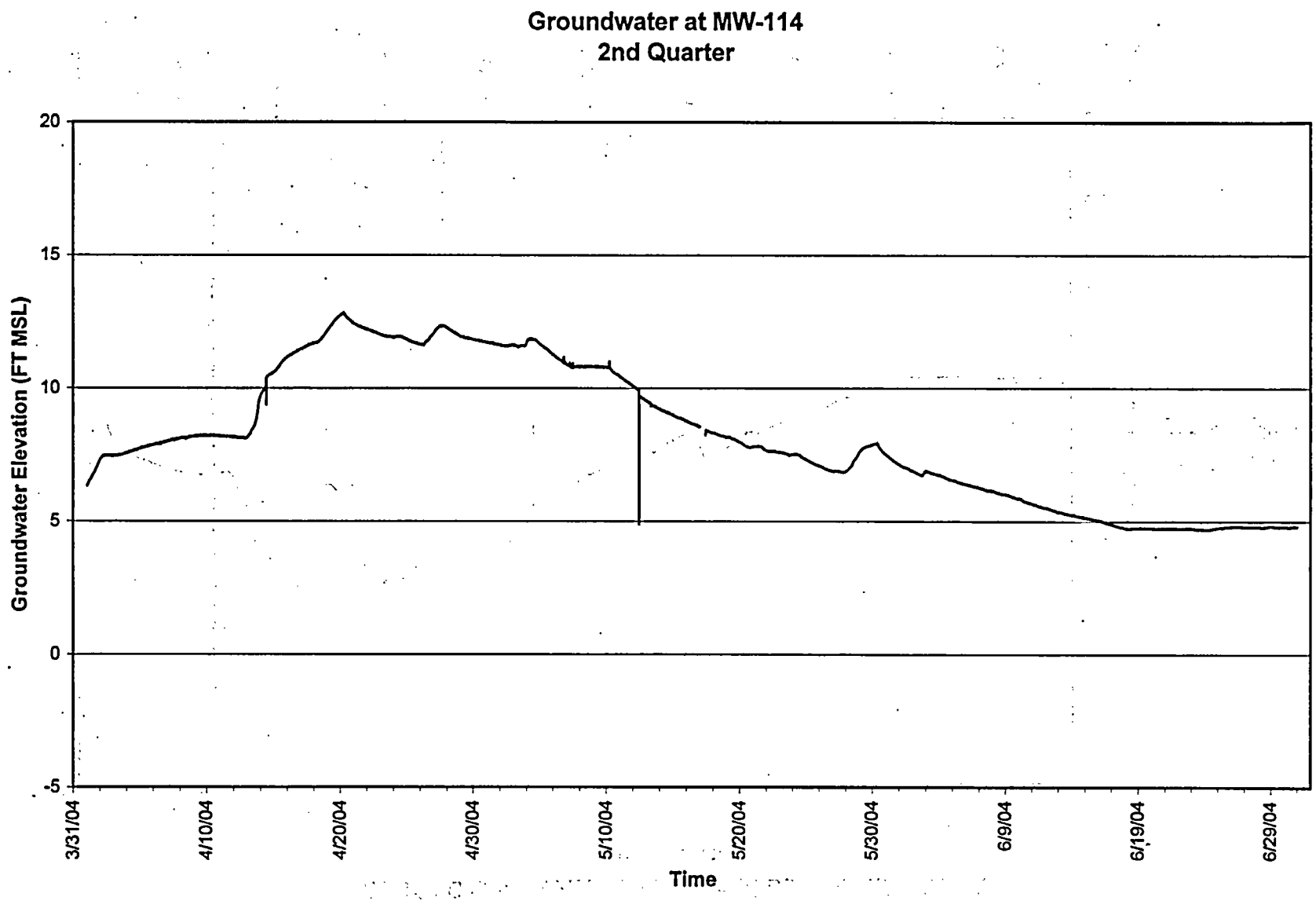



Groundwater at MW-113S
2nd Quarter
Groundwater Elevation (FT MSL)
20
15
10
5
0
-5
-10
3/31/04
4/10/04
4/20/04
4/30/04
5/10/04
5/20/04
5/30/04
6/9/04
6/19/04
6/29/04
Time

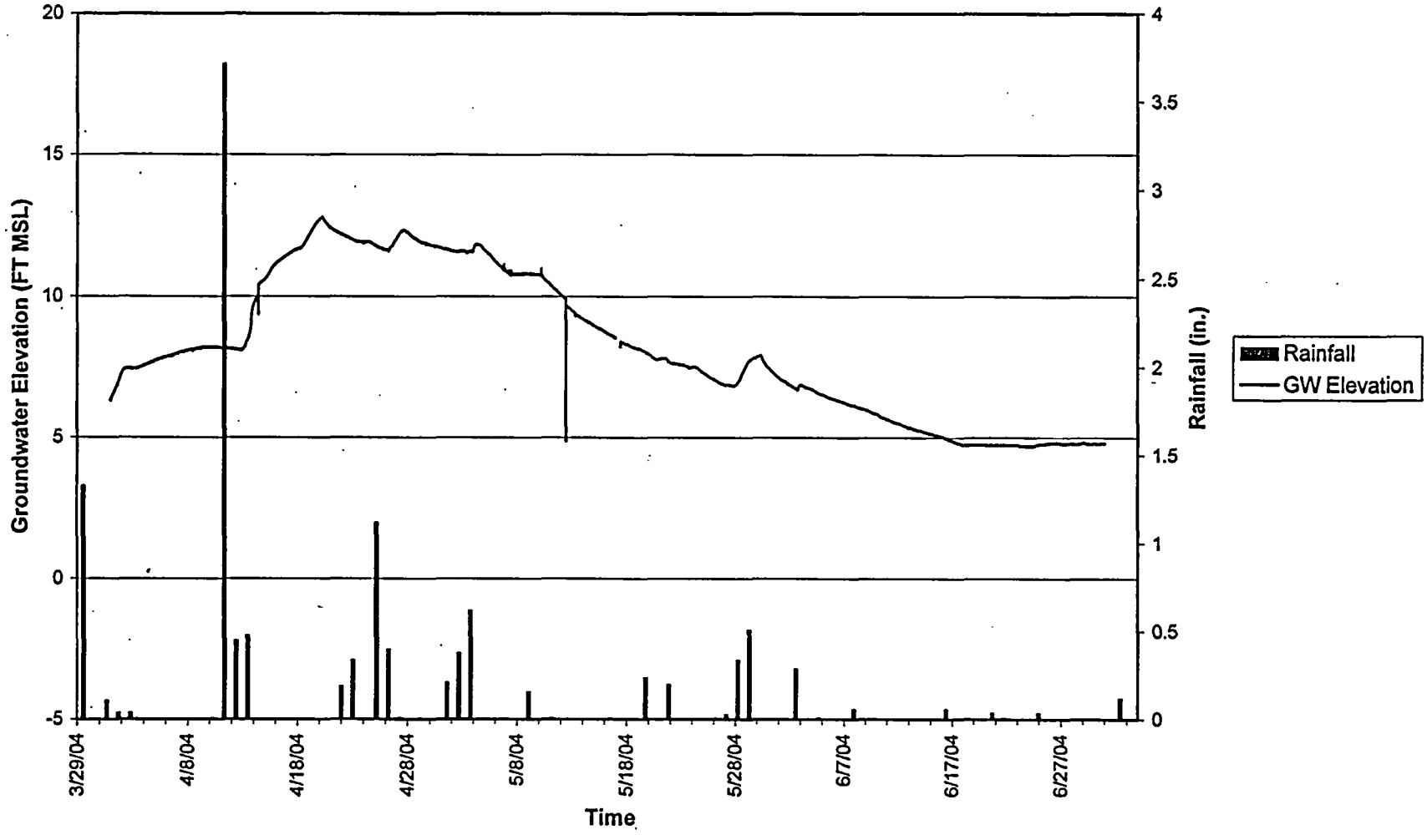

MW-113S Groundwater Elevation and Daily Rainfall Totals
2nd Quarter
Groundwater Elevation (FT MSL)
15
10
5
0
-5
-10
Rainfall (in.)
4
3.5
3
2.5
2
1.5
1
0.5
0
3/31/04
4/10/04
4/20/04
4/30/04
5/10/04
5/20/04
5/30/04
6/9/04
6/19/04
6/29/04
Time
Rainfall
GW Elevation

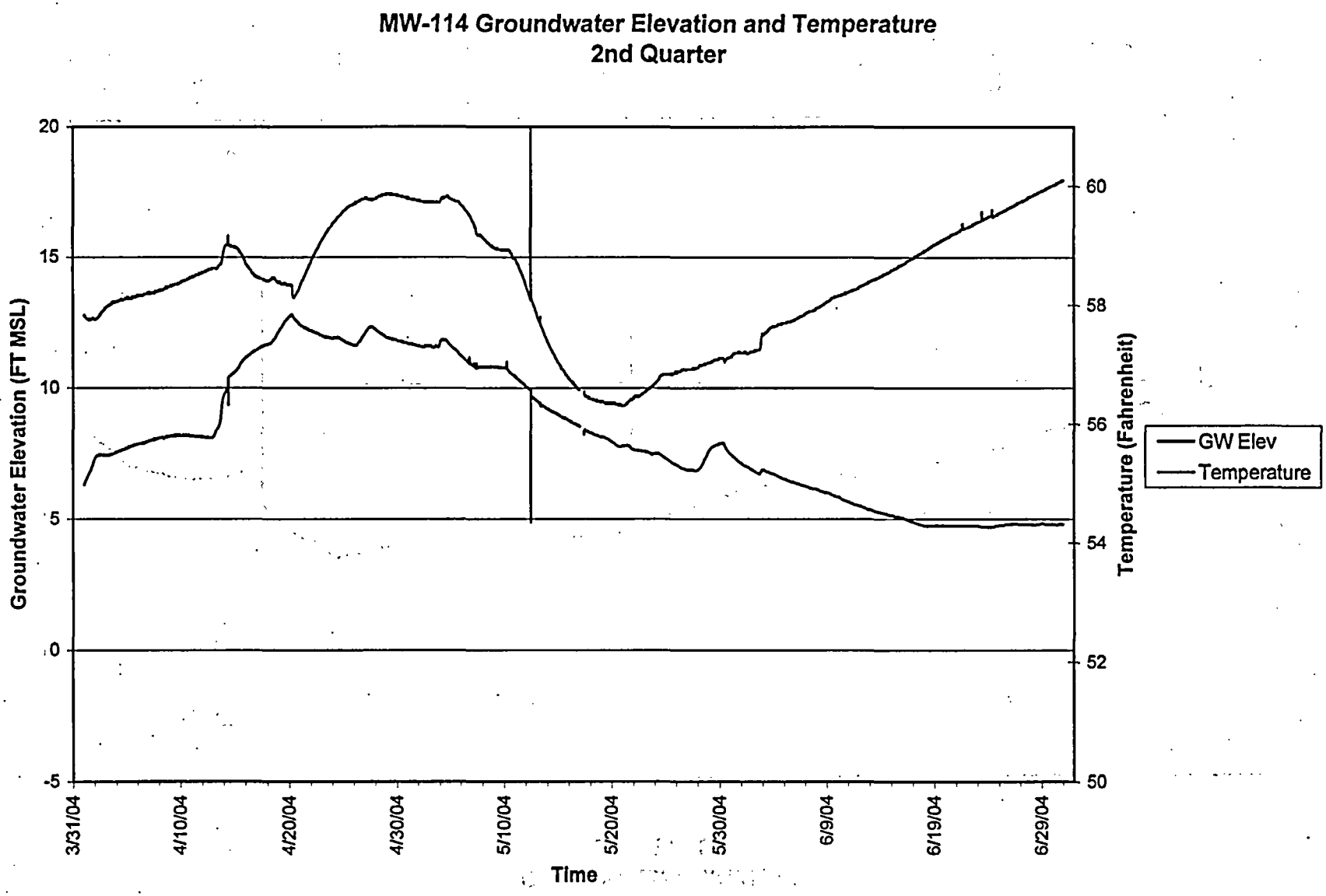
MW-113S Groundwater Elevation and Temperature
2nd Quarter

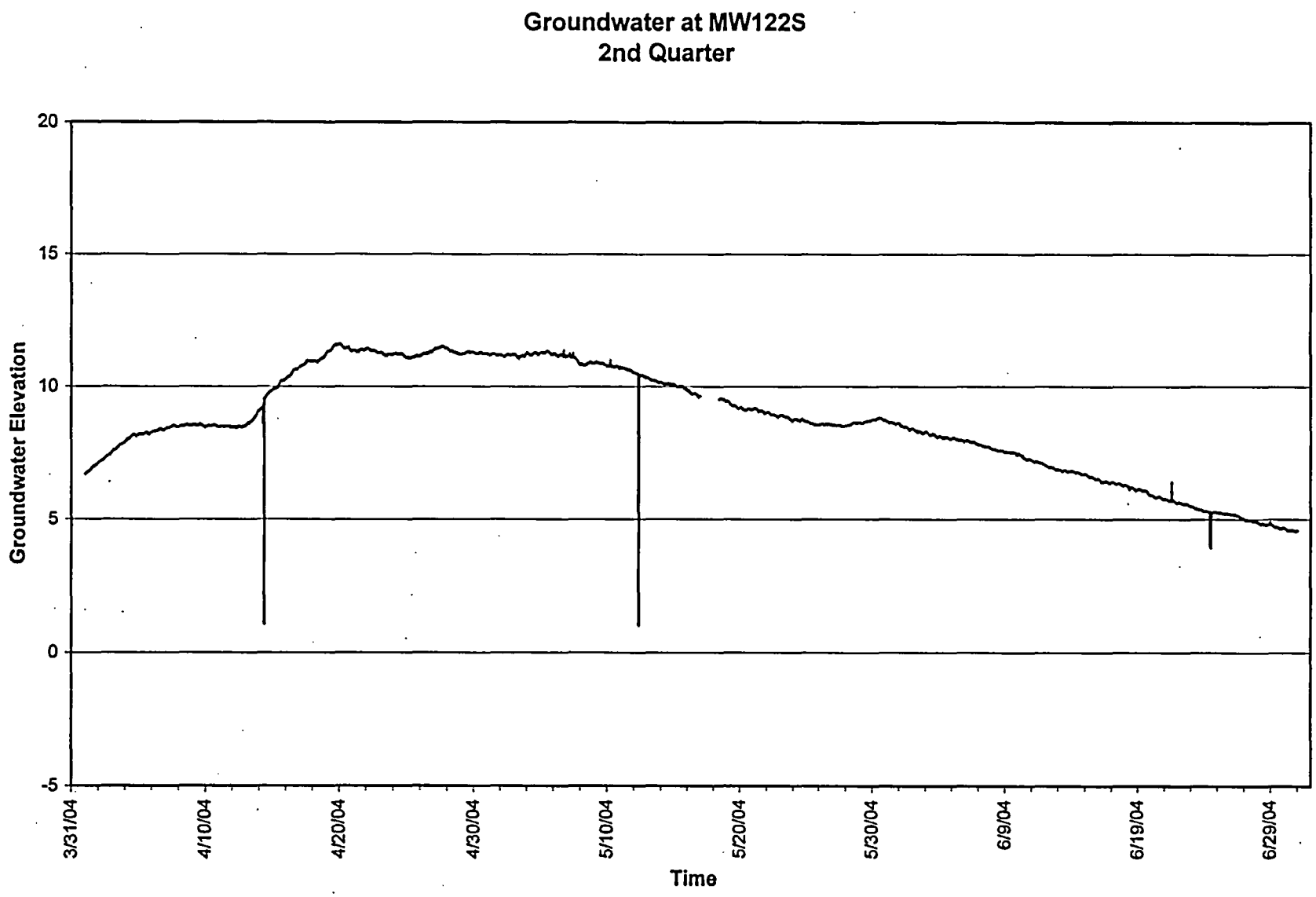



Groundwater at MW-114
2nd Quarter
Groundwater Elevation (FT MSL)
20
15
10
5
0
-5
3/31/04
4/10/04
4/20/04
4/30/04
5/10/04
5/20/04
5/30/04
6/9/04
6/19/04
6/29/04
Time

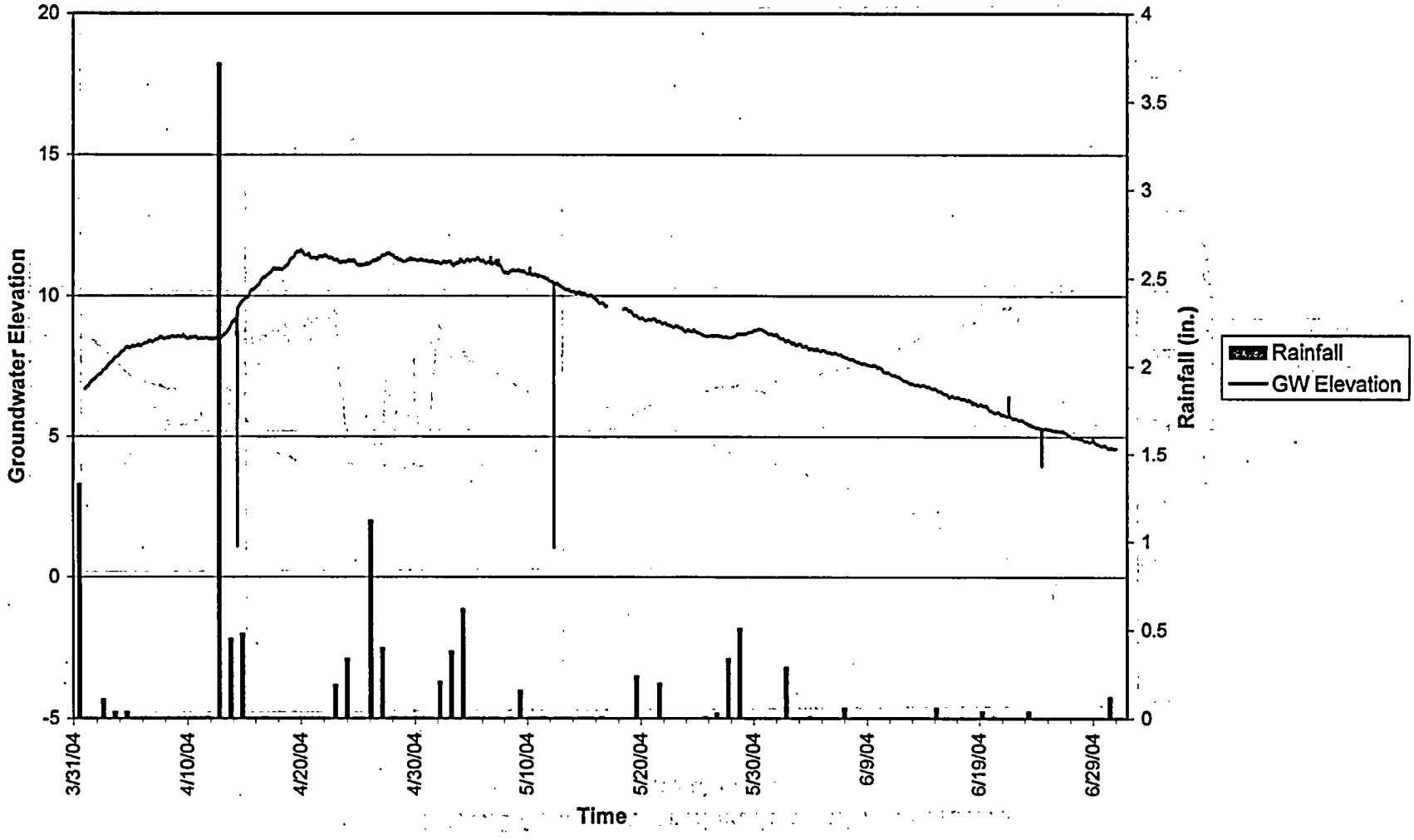
MW-114 Groundwater Elevation and Daily Rainfall Totals
2nd Quarter



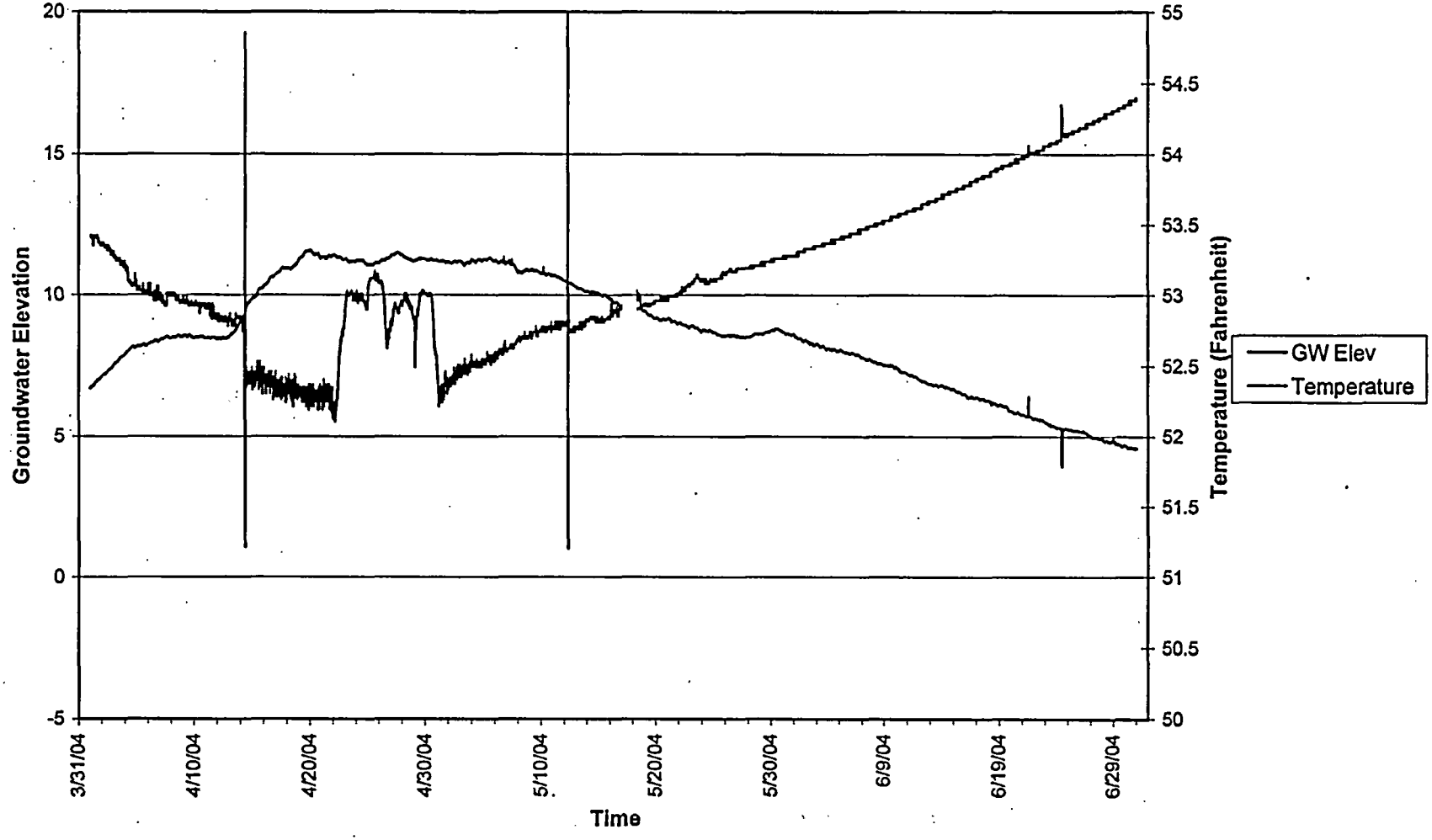

MW-114 Groundwater Elevation and Temperature
2nd Quarter
Groundwater Elevation (FT MSL)
20
15
10
5
0
-5
Temperature (Fahrenheit)
60
58
56
54
52
50
3/31/04
4/10/04
4/20/04
4/30/04
5/10/04
5/20/04
5/30/04
6/9/04
6/19/04
6/29/04
Time
GW Elev
Temperature

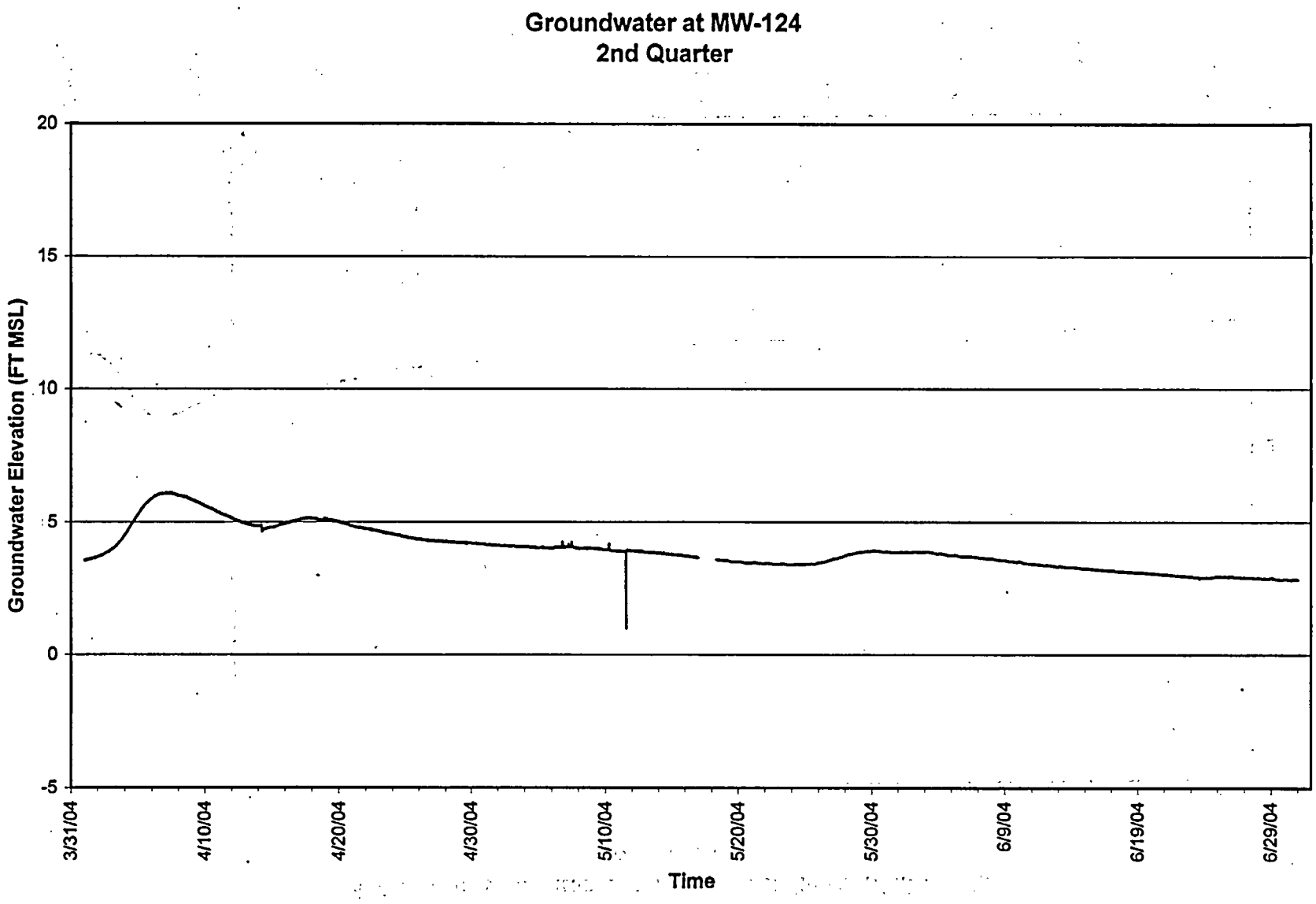

Groundwater at MW122S
2nd Quarter
Groundwater Elevation
20
15
10
5
0
-5
3/31/04
4/10/04
4/20/04
4/30/04
5/10/04
5/20/04
5/30/04
6/9/04
6/19/04
6/29/04
Time

MW122S Groundwater Elevation and Daily Rainfall Totals
2nd Quarter

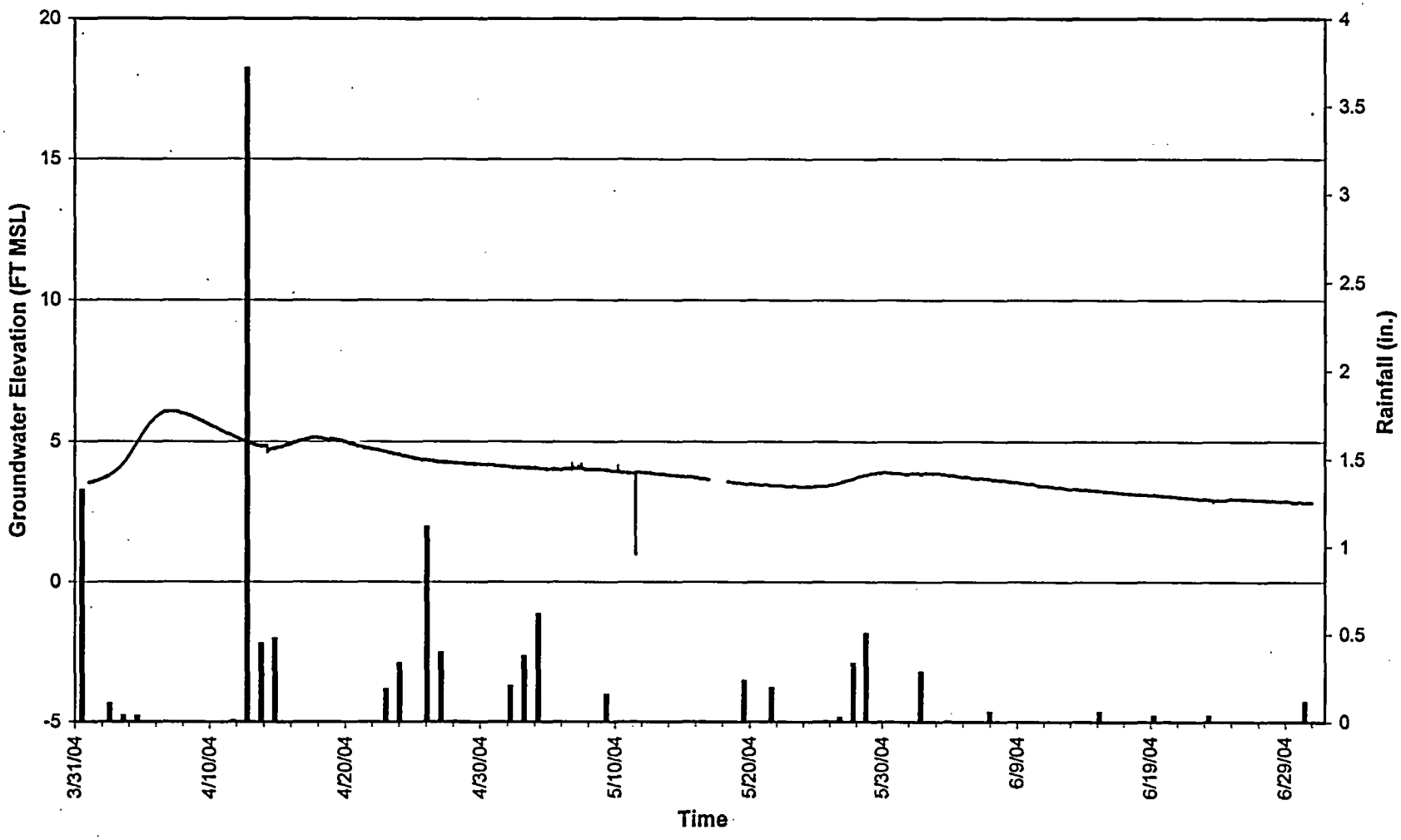


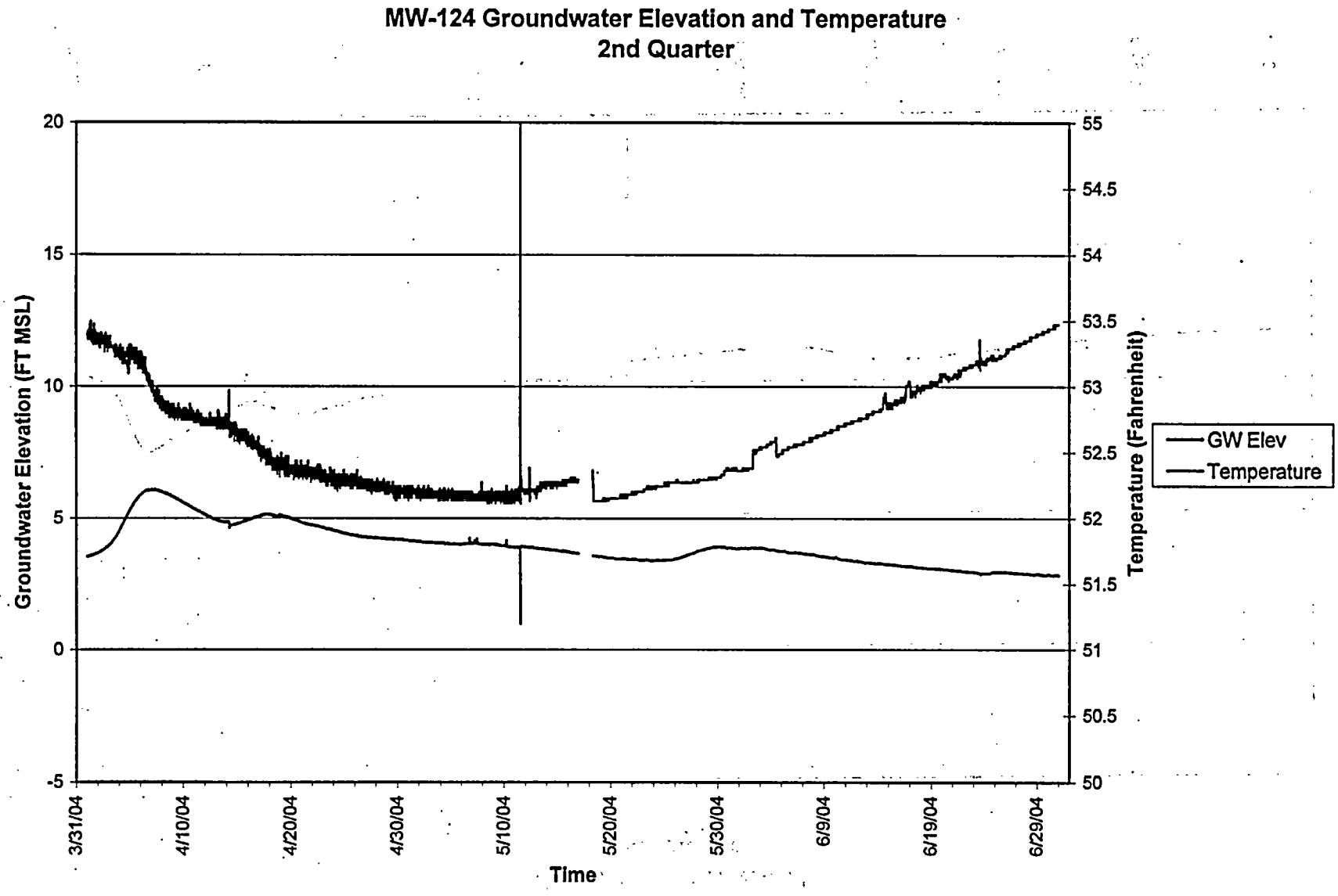
MW122S Groundwater Elevation and Temperature
2nd Quarter

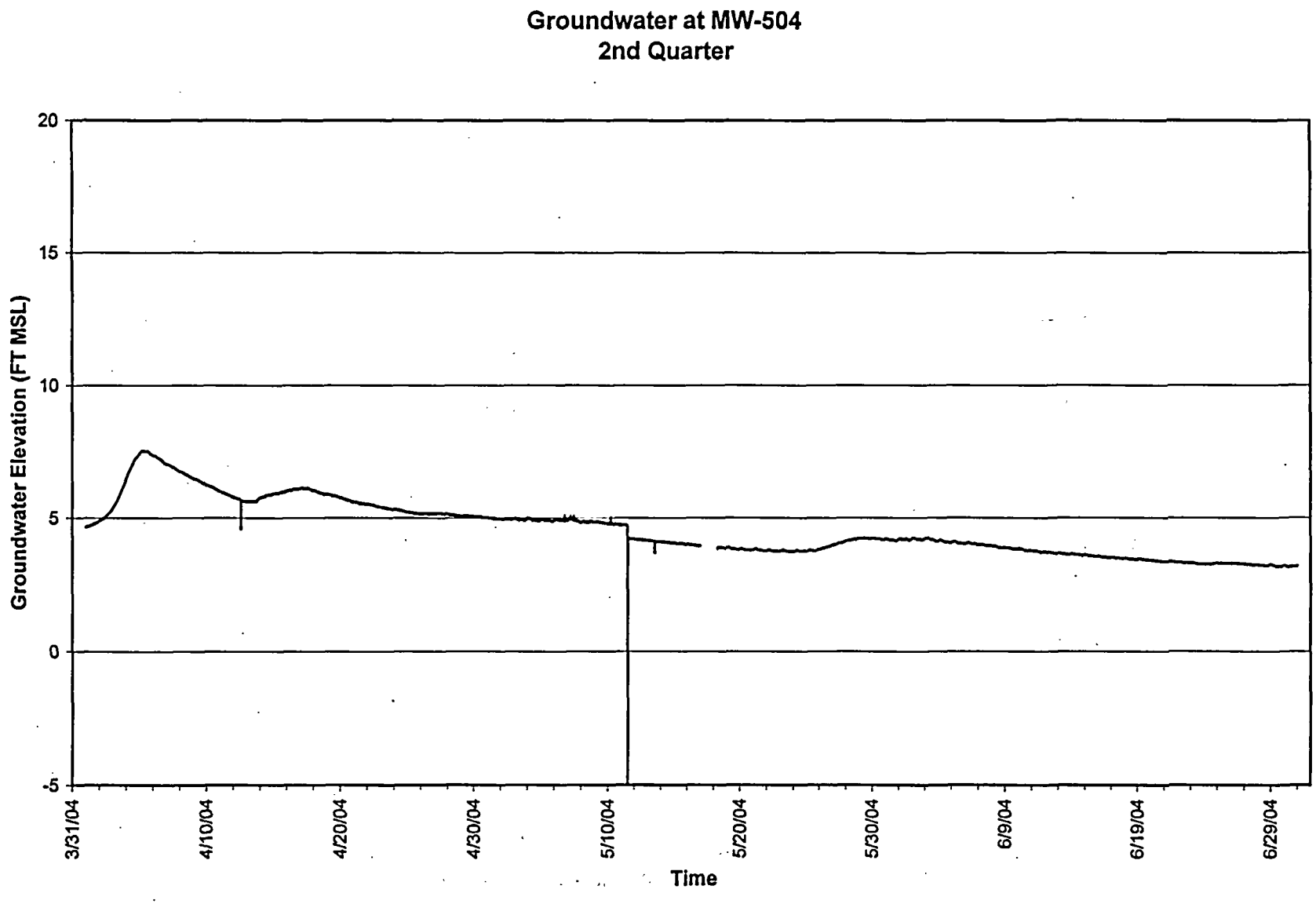


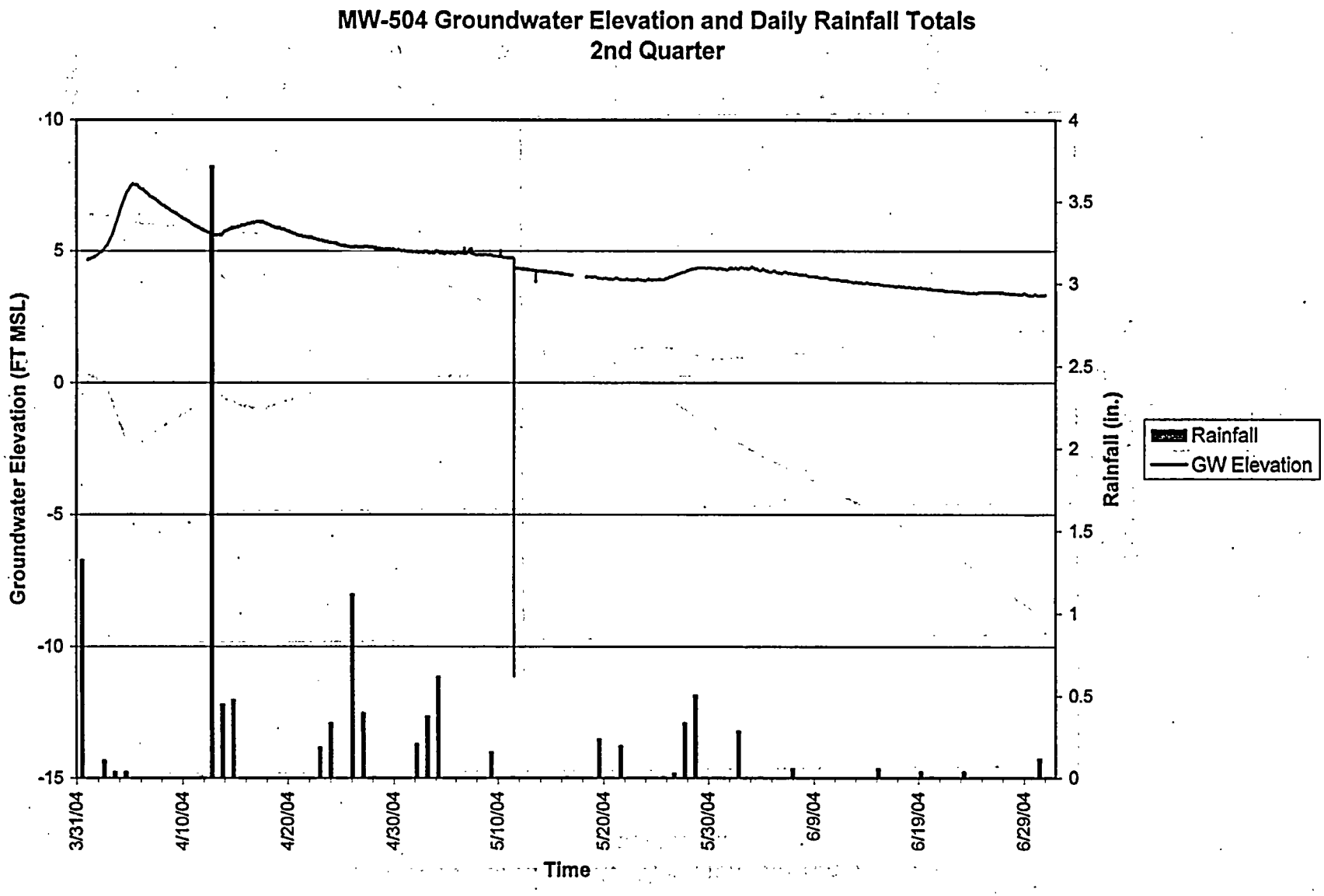

Groundwater at MW-124
2nd Quarter
Groundwater Elevation (FT MSL)
20
15
10
5
0
-5
3/31/04
4/10/04
4/20/04
4/30/04
5/10/04
5/20/04
5/30/04
6/9/04
6/19/04
6/29/04
Time

MW-124 Groundwater Elevation and Daily Rainfall Totals
2nd Quarter

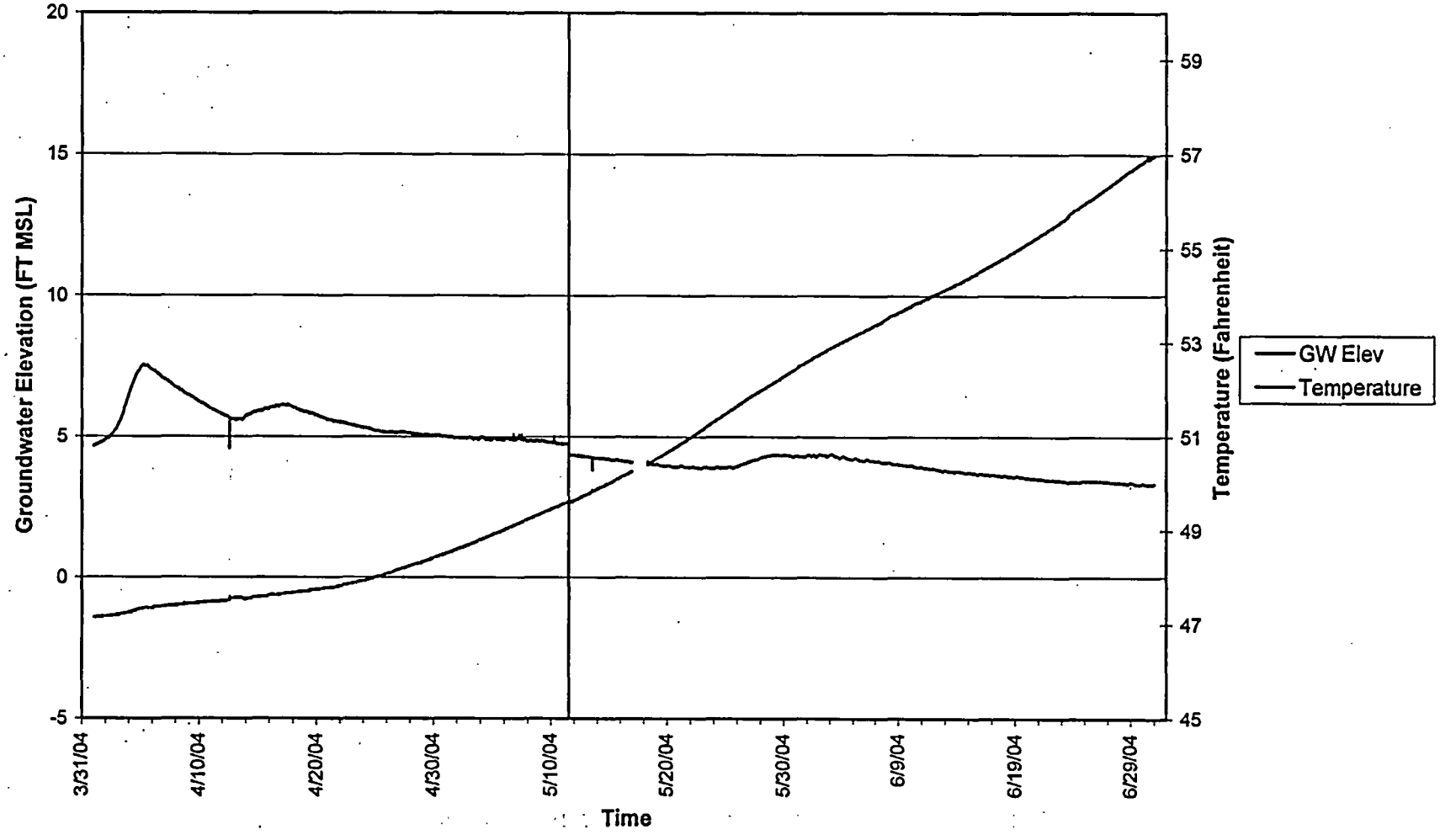


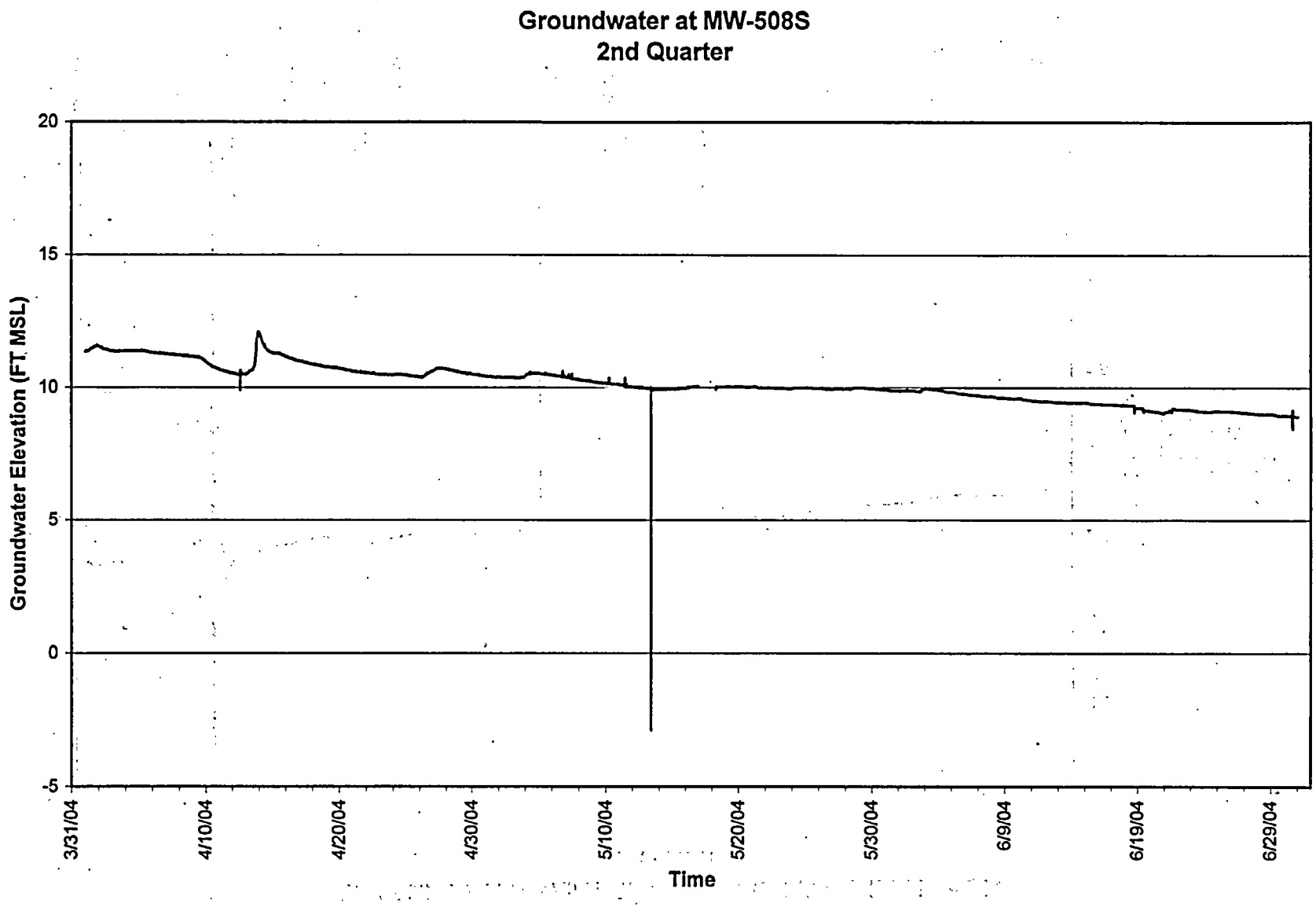

MW-124 Groundwater Elevation and Temperature
2nd Quarter
Groundwater Elevation (FT MSL)
Temperature (Fahrenheit)
Time
20
15
10
5
0
-5
55
54.5
54
53.5
53
52.5
52
51.5
51
50.5
50
3/31/04
4/10/04
4/20/04
4/30/04
5/10/04
5/20/04
5/30/04
6/9/04
6/19/04
6/29/04
GW Elev
Temperature


Groundwater at MW-504
2nd Quarter
Groundwater Elevation (FT MSL)
20
15
10
5
0
-5
3/31/04
4/10/04
4/20/04
4/30/04
5/10/04
5/20/04
5/30/04
6/9/04
6/19/04
6/29/04
Time

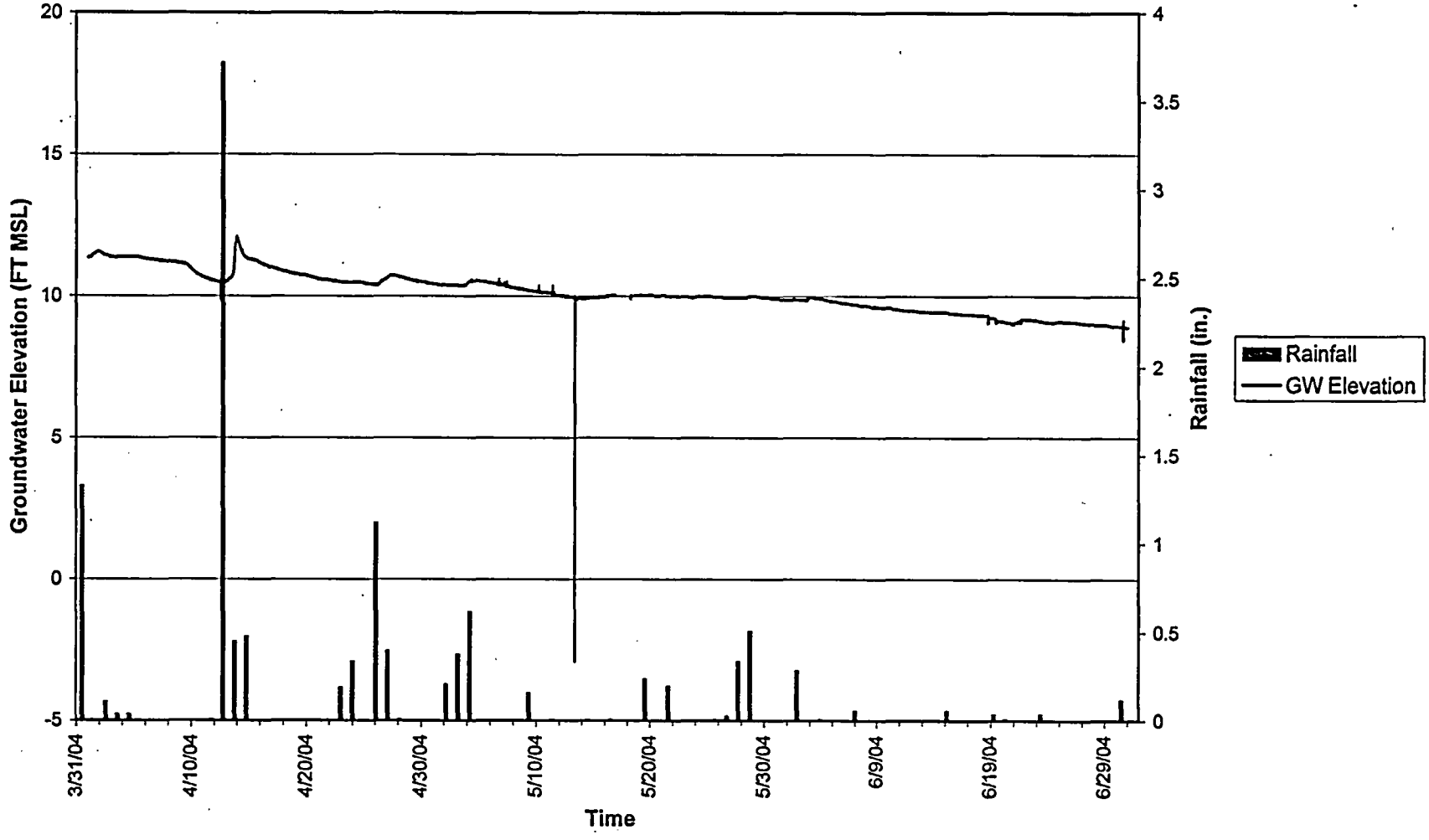

MW-504 Groundwater Elevation and Daily Rainfall Totals
2nd Quarter
Groundwater Elevation (FT MSL)
10
5
0
-5
-10
-15
Rainfall (in.)
4
3.5
3
2.5
2
1.5
1
0.5
0
3/31/04
4/10/04
4/20/04
4/30/04
5/10/04
5/20/04
5/30/04
6/9/04
6/19/04
6/29/04
Time
Rainfall
GW Elevation

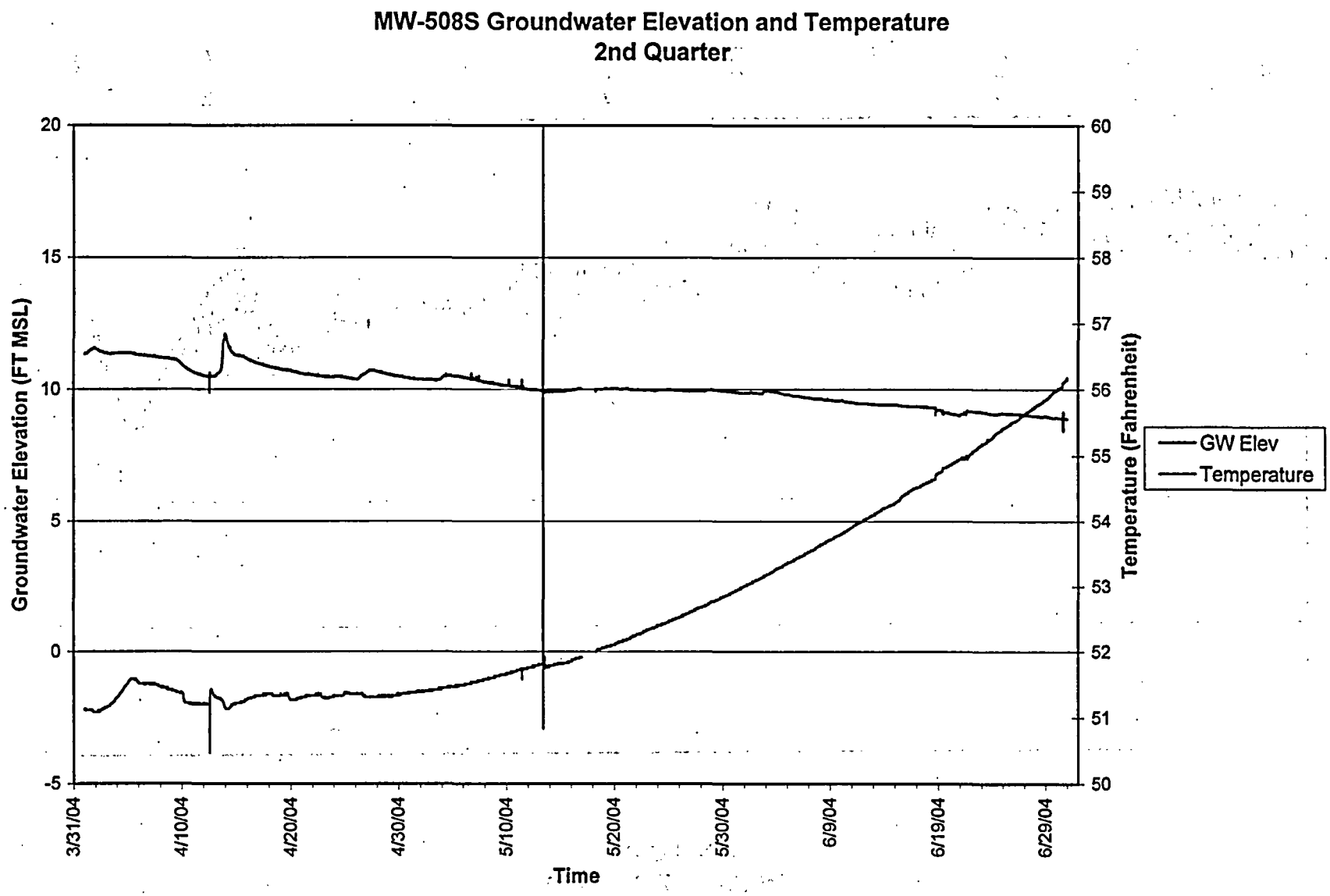
MW-504 Groundwater Elevation and Temperature
2nd Quarter

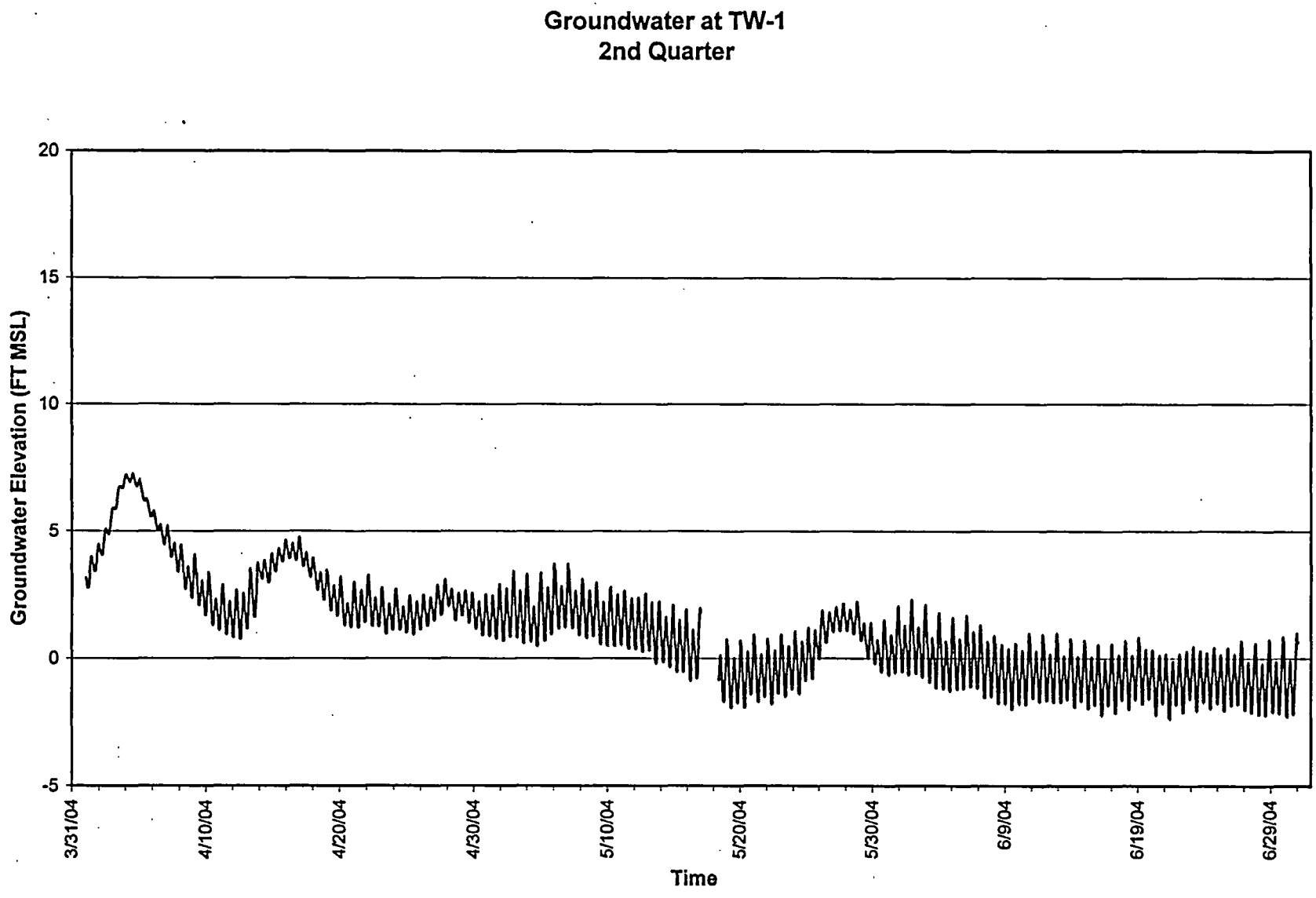



Groundwater at MW-508S
2nd Quarter
Groundwater Elevation (FT MSL)
20
15
10
5
0
-5
3/31/04
4/10/04
4/20/04
4/30/04
5/10/04
5/20/04
5/30/04
6/9/04
6/19/04
6/29/04
Time

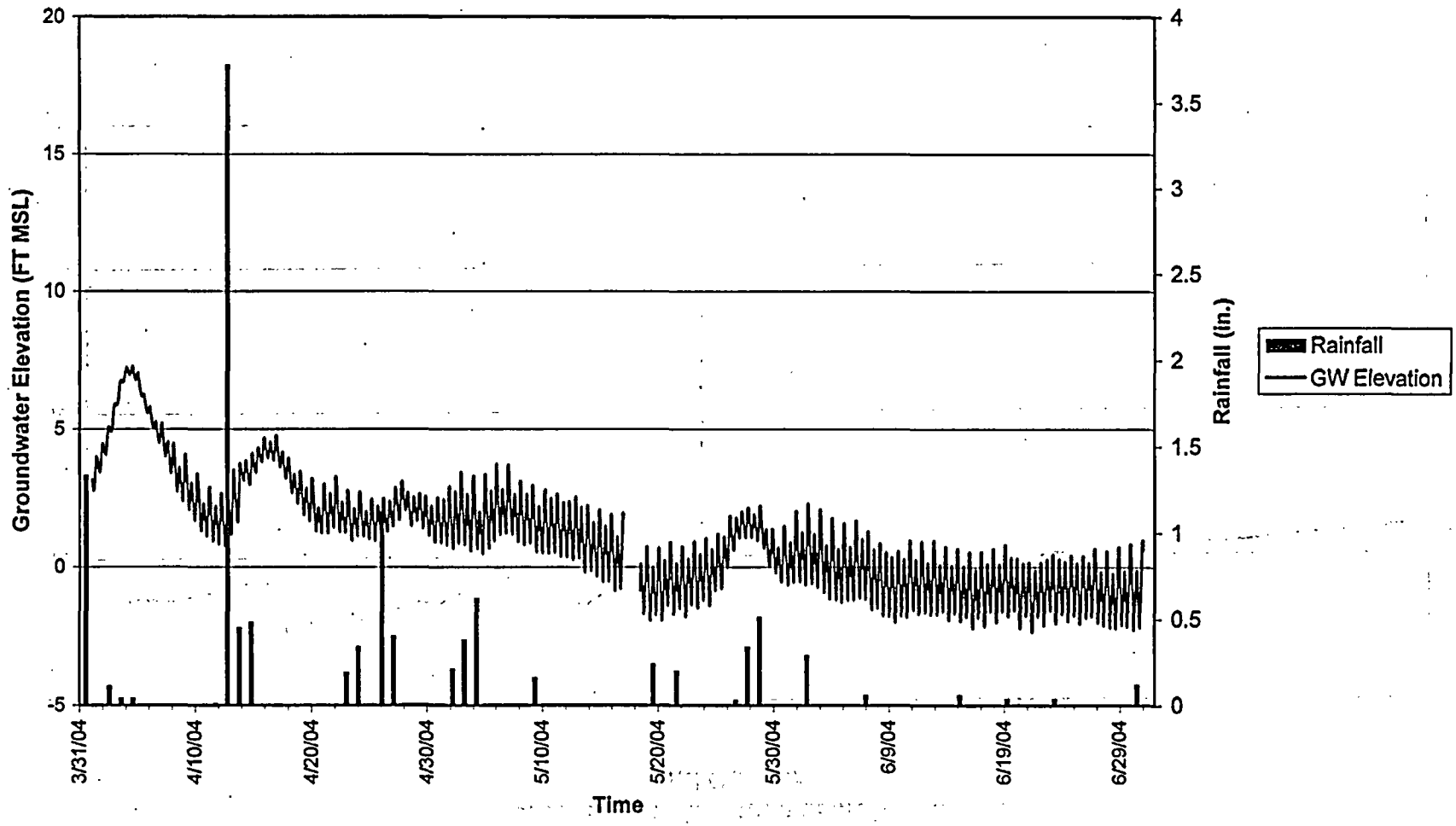
MW-508S Groundwater Elevation and Daily Rainfall Totals
2nd Quarter

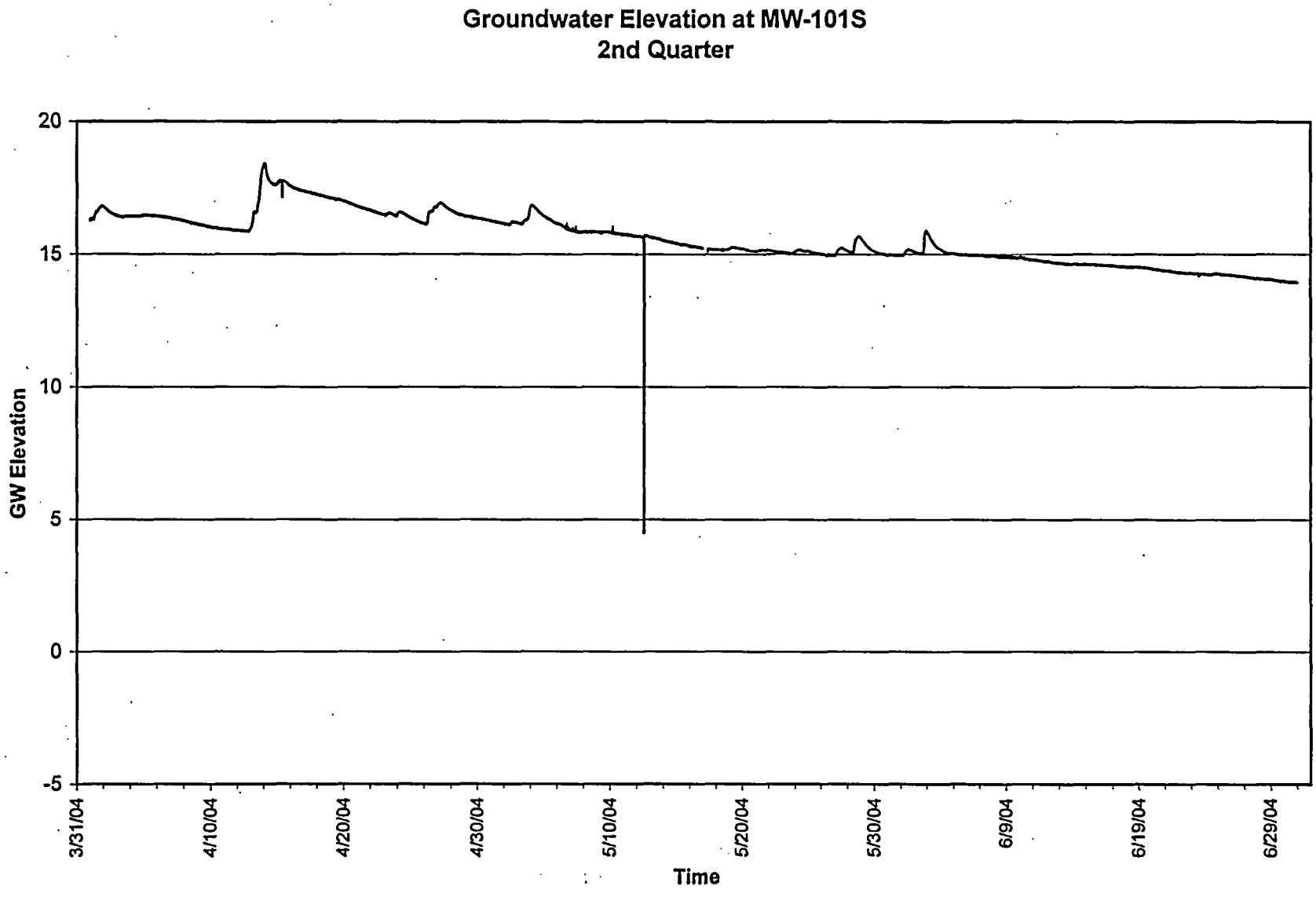



MW-508S Groundwater Elevation and Temperature
2nd Quarter
Groundwater Elevation (FT MSL)
Temperature (Fahrenheit)
Time
GW Elev
Temperature
20
15
10
5
0
-5
60
59
58
57
56
55
54
53
52
51
50
3/31/04
4/10/04
4/20/04
4/30/04
5/10/04
5/20/04
5/30/04
6/9/04
6/19/04
6/29/04

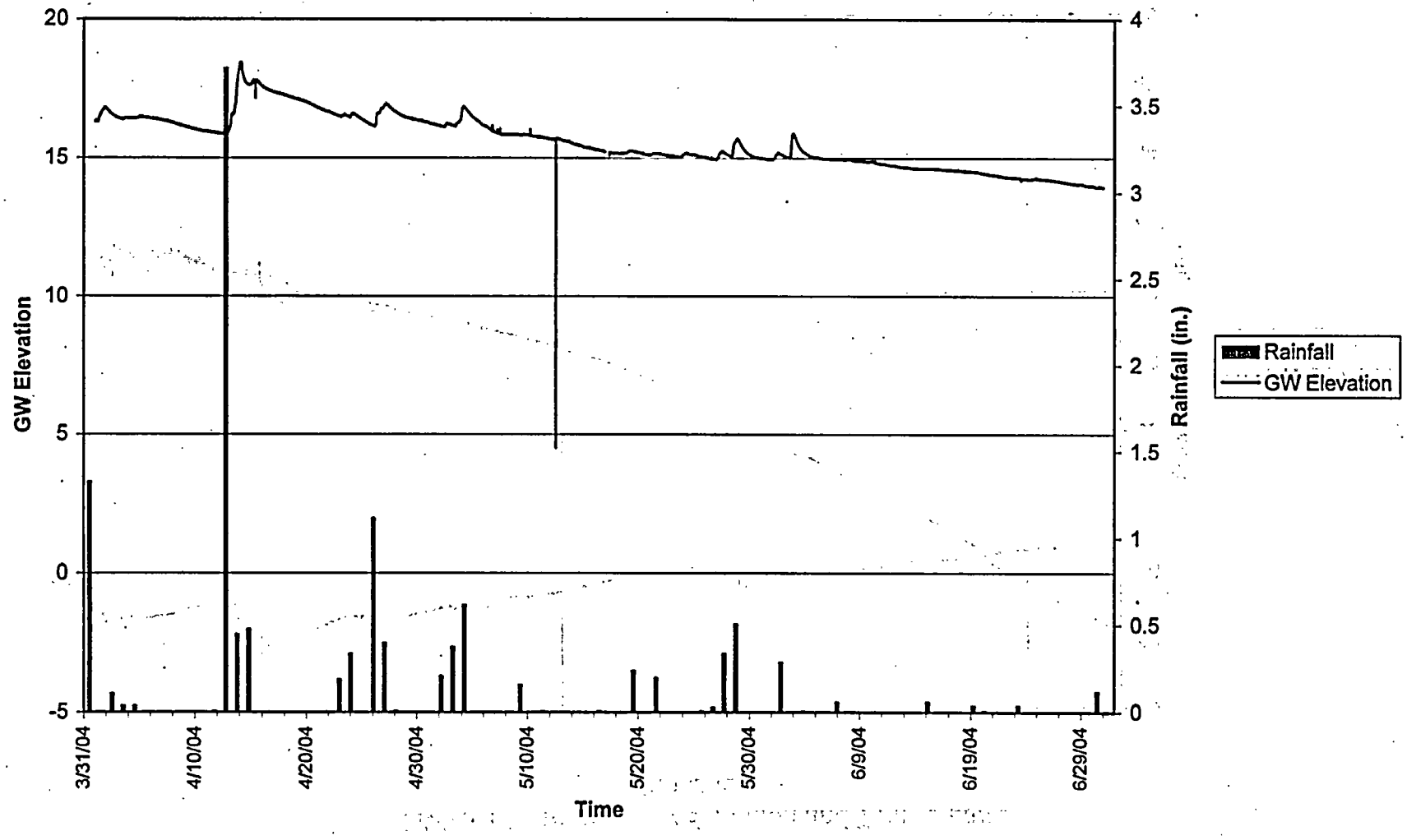

Groundwater at TW-1
2nd Quarter
Groundwater Elevation (FT MSL)
20
15
10
5
0
-5
3/31/04
4/10/04
4/20/04
4/30/04
5/10/04
5/20/04
5/30/04
6/9/04
6/19/04
6/29/04
Time

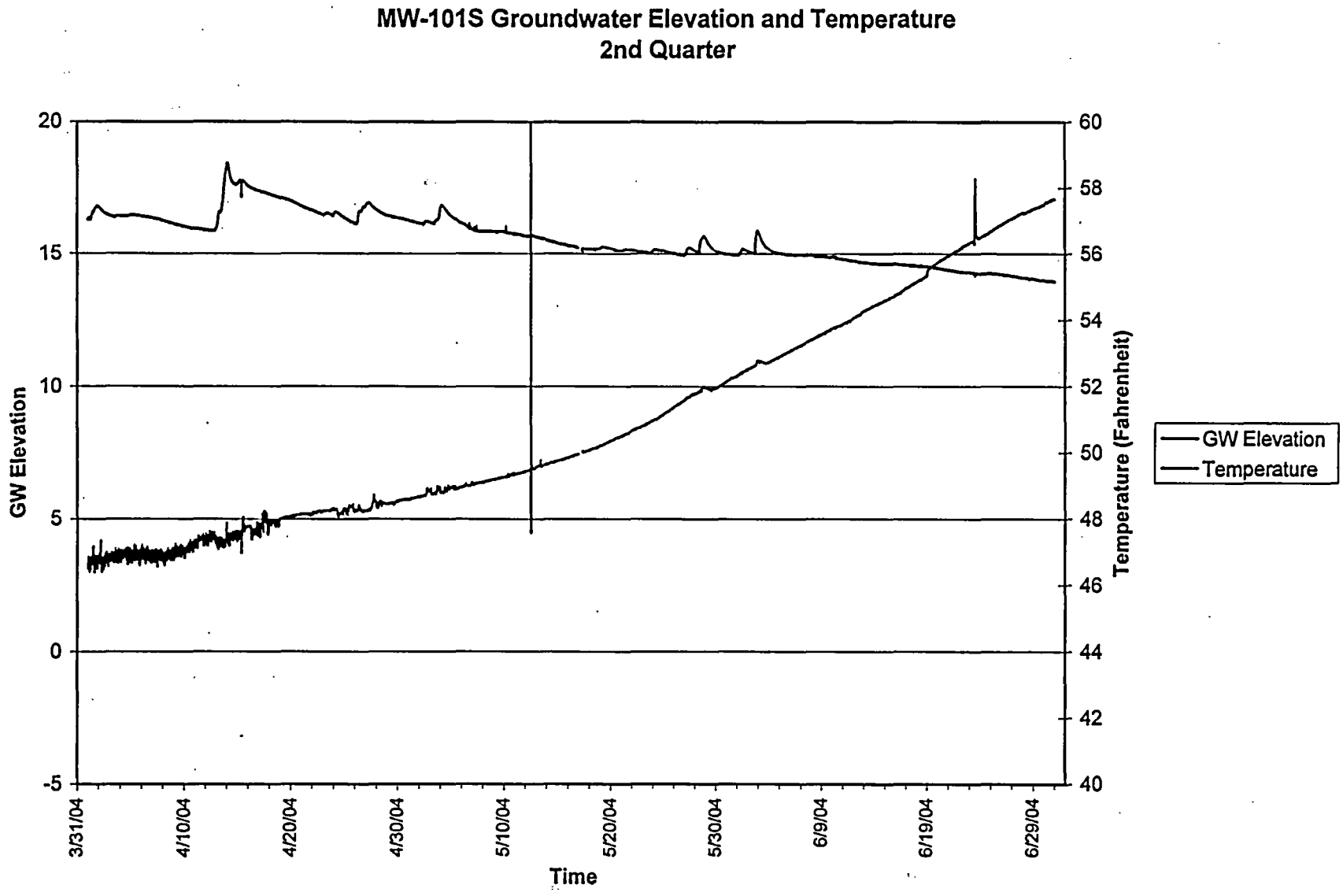
TW-1 Groundwater Elevation and Daily Rainfall Totals
2nd Quarter

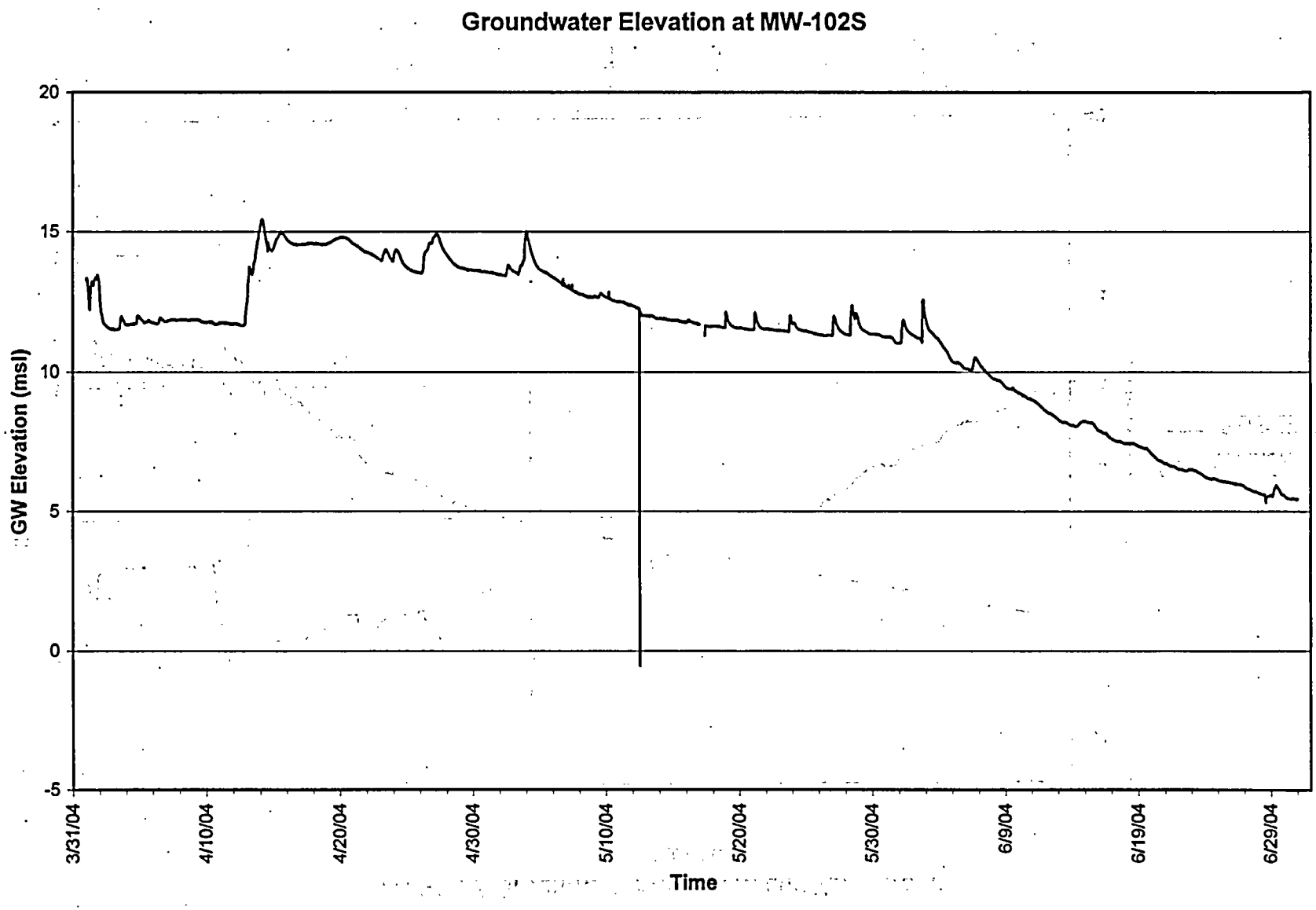



Groundwater Elevation at MW-101S
2nd Quarter
GW Elevation
20
15
10
5
0
-5
3/31/04
4/10/04
4/20/04
4/30/04
5/10/04
5/20/04
5/30/04
6/9/04
6/19/04
6/29/04
Time

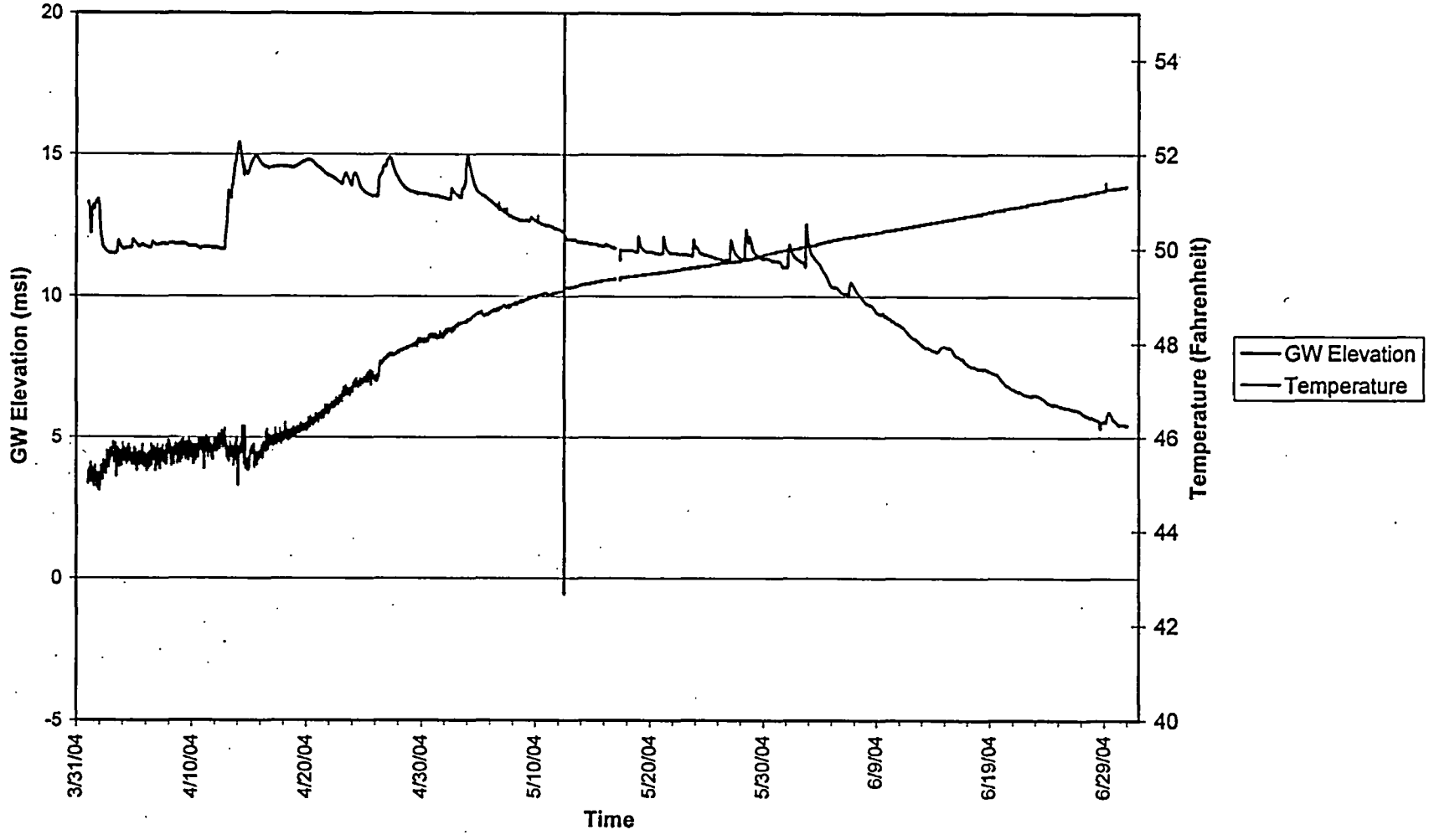
MW-101S Groundwater Elevation and Daily Rainfall Totals
2nd Quarter

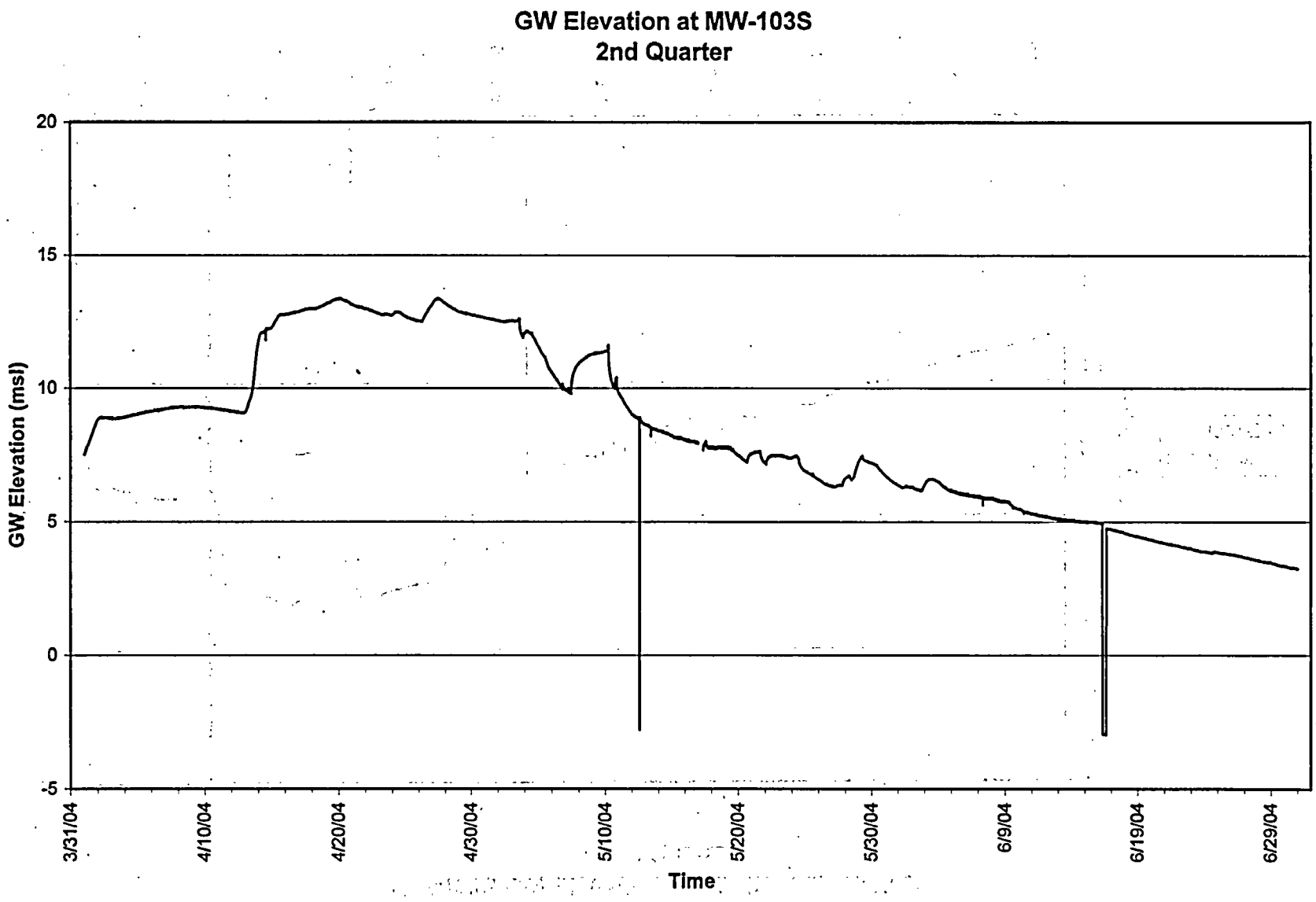


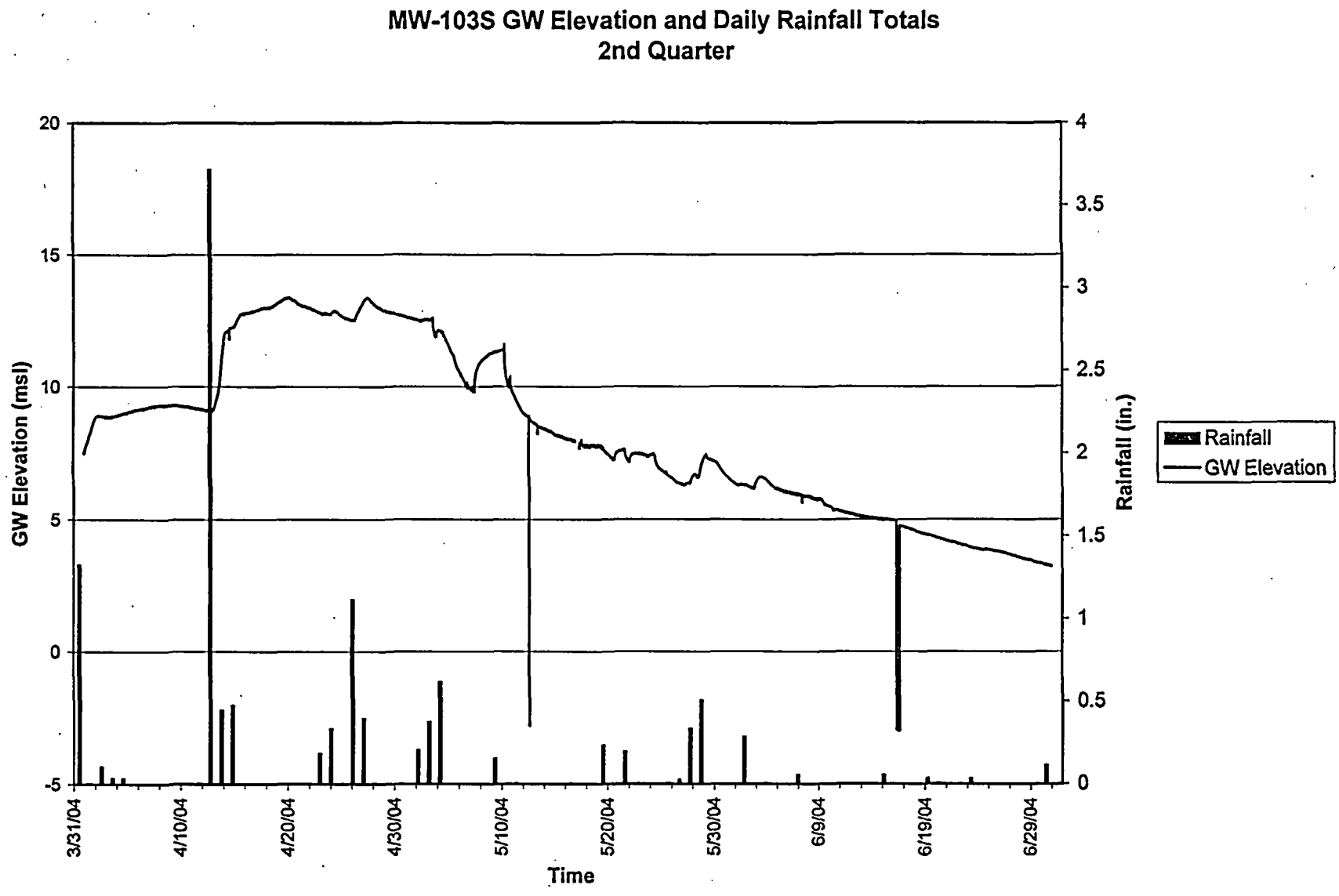

MW-101S Groundwater Elevation and Temperature
2nd Quarter
GW Elevation
Temperature (Fahrenheit)
Time
20
15
10
5
0
-5
60
58
56
54
52
50
48
46
44
42
40
3/31/04
4/10/04
4/20/04
4/30/04
5/10/04
5/20/04
5/30/04
6/9/04
6/19/04
6/29/04
GW Elevation
Temperature

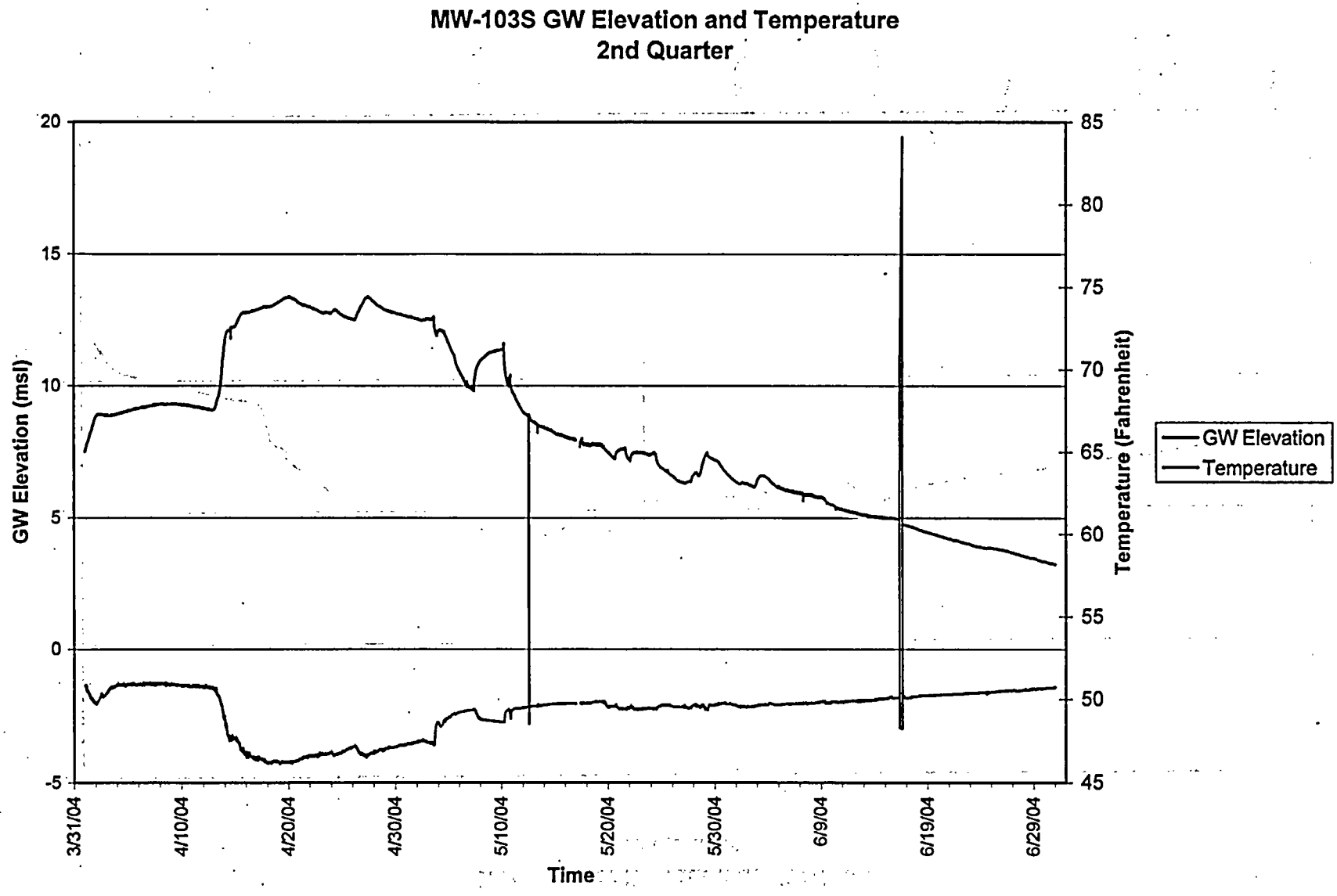

Groundwater Elevation at MW-102S
GW Elevation (msl)
20
15
10
5
0
-5
3/31/04
4/10/04
4/20/04
4/30/04
5/10/04
5/20/04
5/30/04
6/9/04
6/19/04
6/29/04
Time

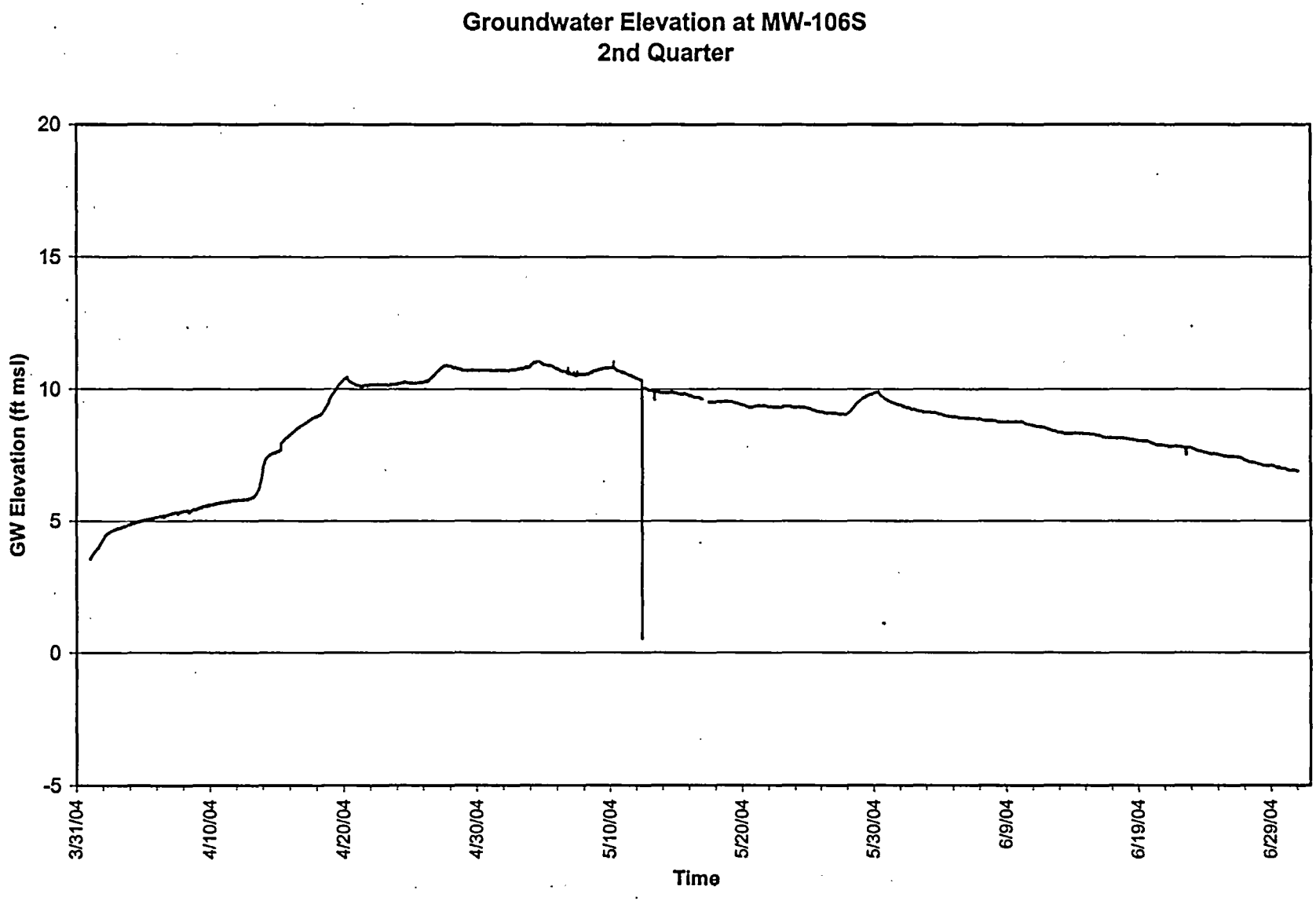
MW-102S Groundwater Elevation and Temperature
2nd Quarter

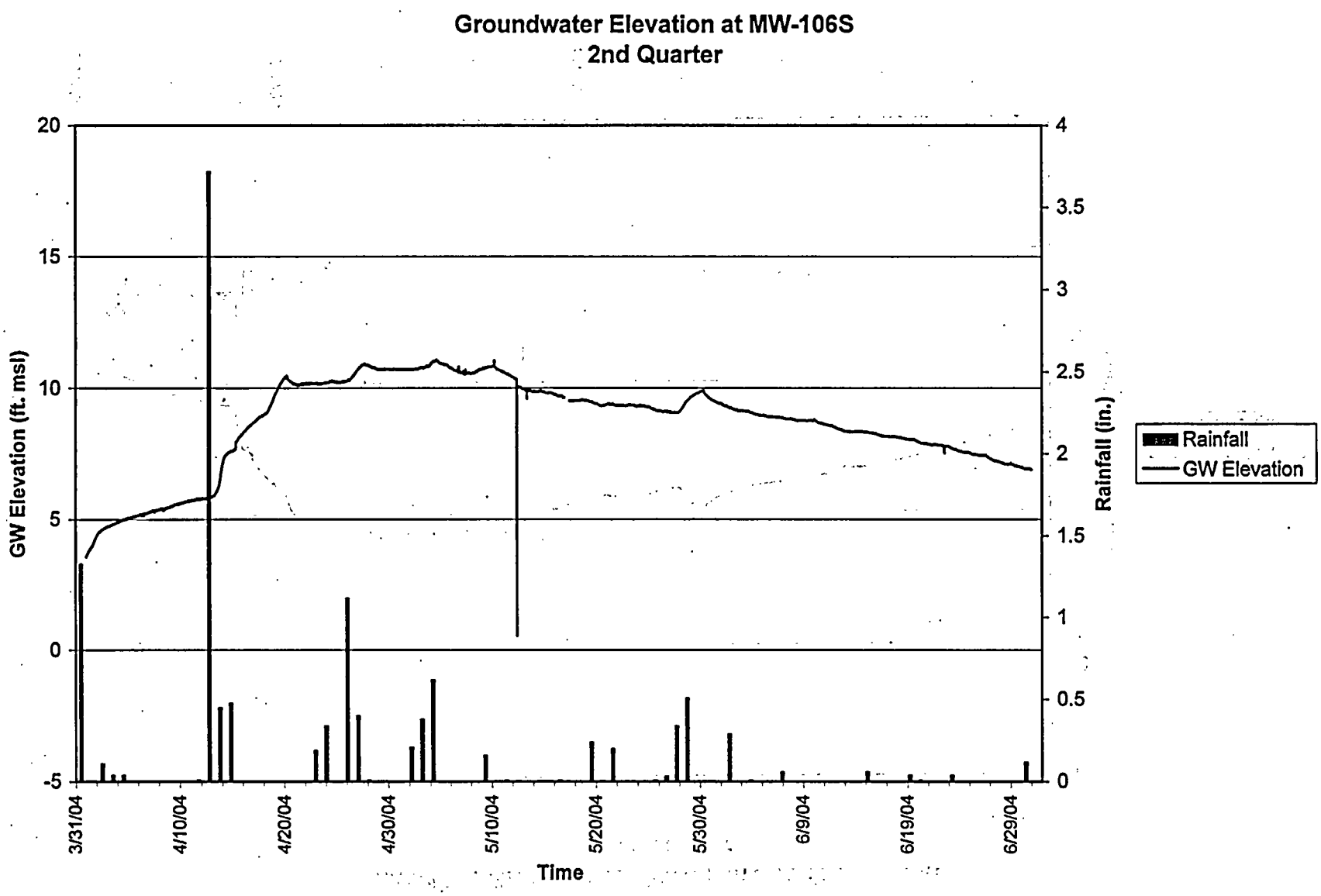



GW Elevation at MW-103S
2nd Quarter
GW Elevation (msl)
20
15
10
5
0
-5
3/31/04
4/10/04
4/20/04
4/30/04
5/10/04
5/20/04
5/30/04
6/9/04
6/19/04
6/29/04
Time

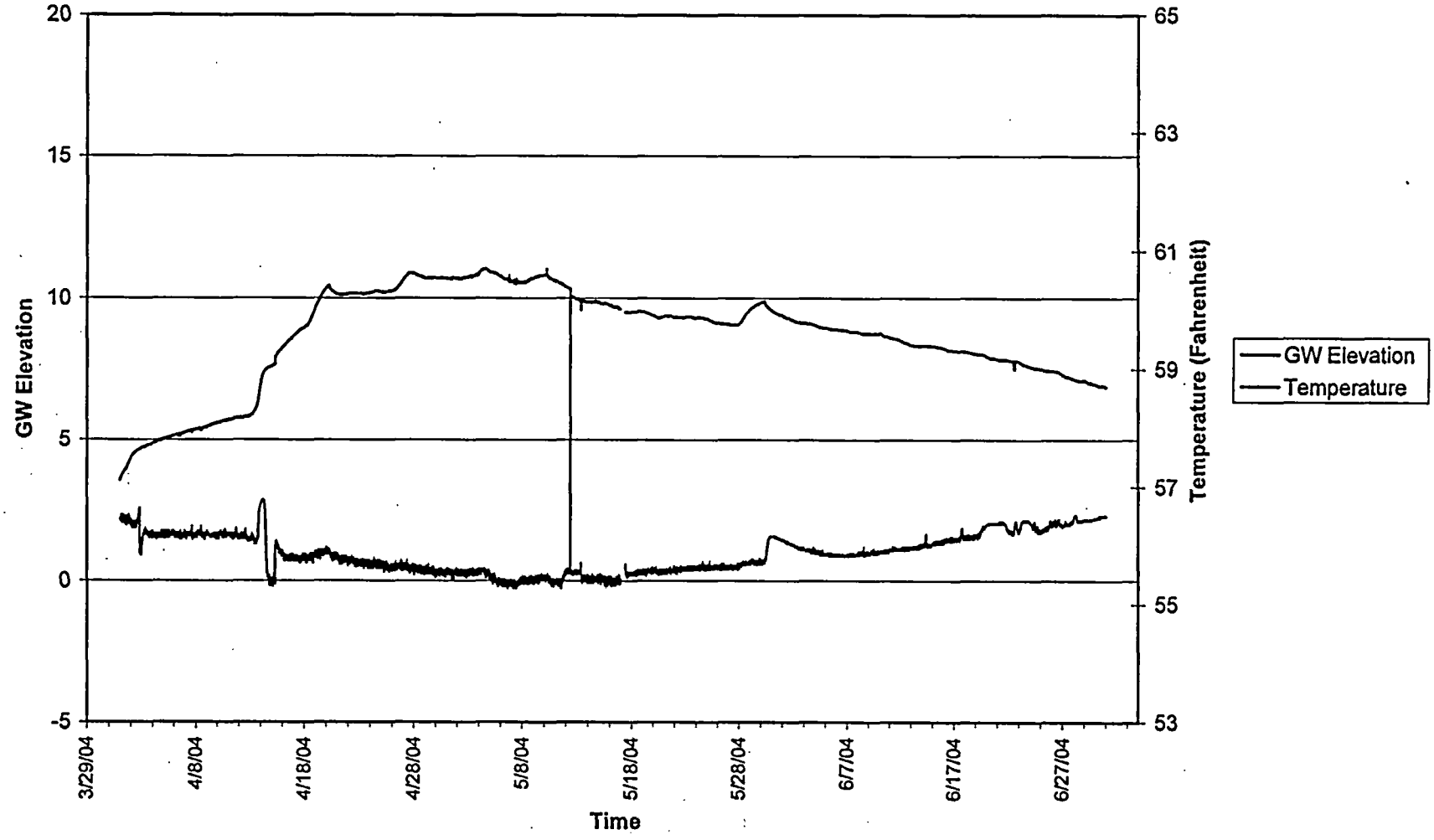

MW-103S GW Elevation and Daily Rainfall Totals
2nd Quarter
GW Elevation (msl)
Rainfall (in.)
Time
Rainfall
GW Elevation
20
15
10
5
0
-5
4
3.5
3
2.5
2
1.5
1
0.5
0
3/31/04
4/10/04
4/20/04
4/30/04
5/10/04
5/20/04
5/30/04
6/9/04
6/19/04
6/29/04

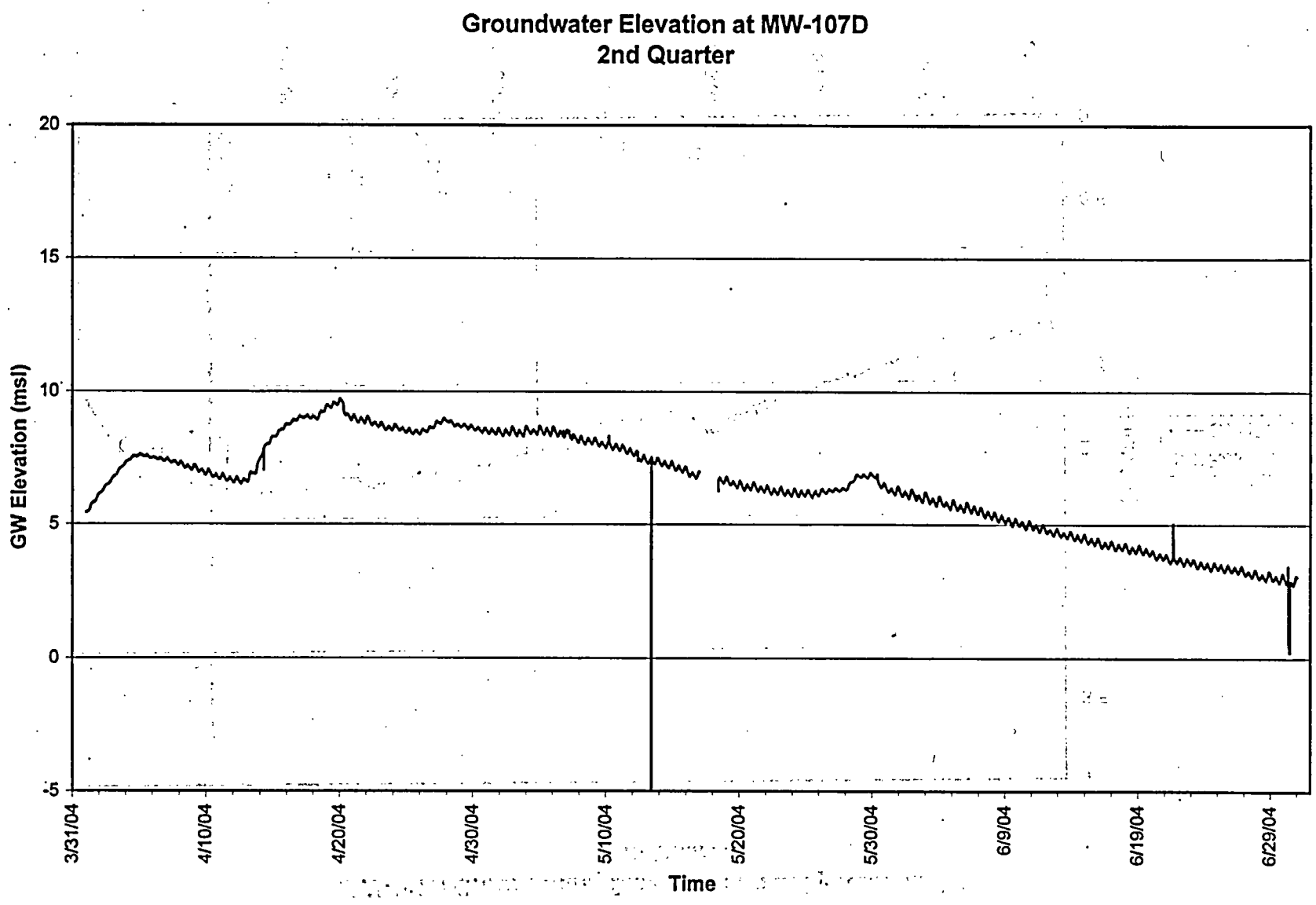

MW-103S GW Elevation and Temperature
2nd Quarter
GW Elevation (msl)
Temperature (Fahrenheit)
Time
20
15
10
5
0
-5
85
80
75
70
65
60
55
50
45
3/31/04
4/10/04
4/20/04
4/30/04
5/10/04
5/20/04
5/30/04
6/9/04
6/19/04
6/29/04
GW Elevation
Temperature


Groundwater Elevation at MW-106S
2nd Quarter
GW Elevation (ft msl)
20
15
10
5
0
-5
3/31/04
4/10/04
4/20/04
4/30/04
5/10/04
5/20/04
5/30/04
6/9/04
6/19/04
6/29/04
Time

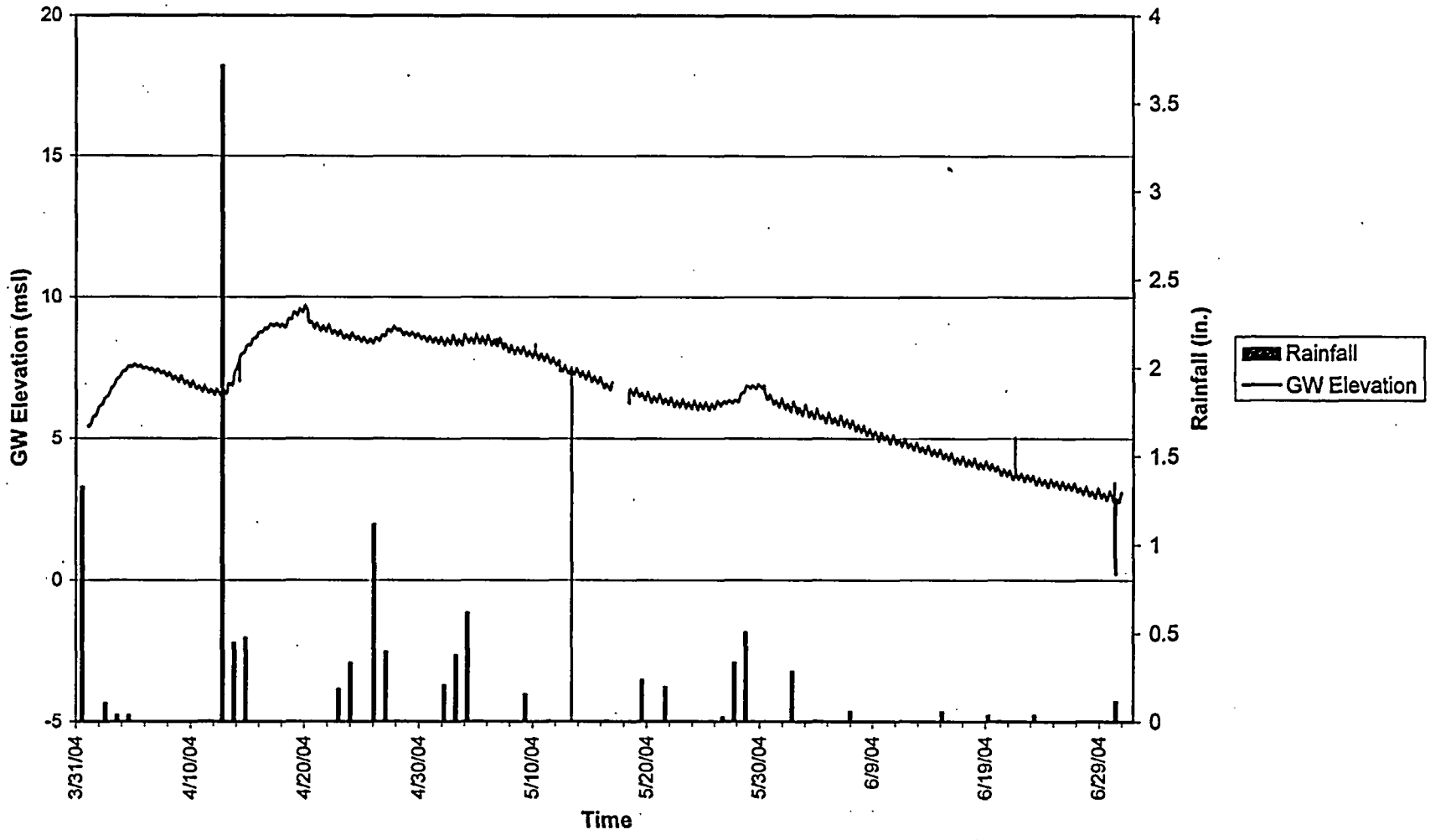

Groundwater Elevation at MW-106S
2nd Quarter
GW Elevation (ft. msl)
Rainfall (in.)
Time
20
15
10
5
0
-5
4
3.5
3
2.5
2
1.5
1
0.5
0
3/31/04
4/10/04
4/20/04
4/30/04
5/10/04
5/20/04
5/30/04
6/9/04
6/19/04
6/29/04
Rainfall
GW Elevation

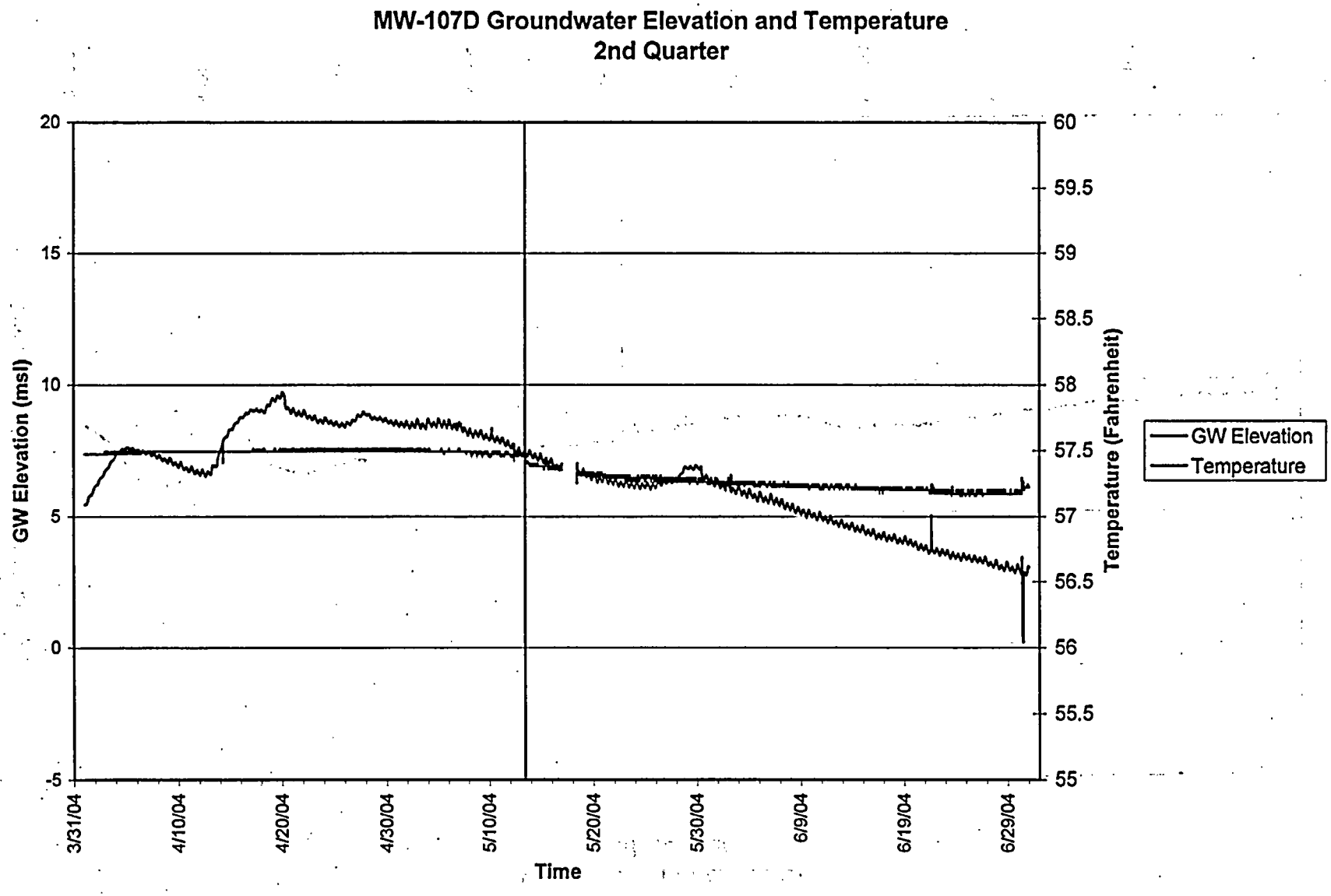
MW-106S Groundwater Elevation and Temperature
2nd Quarter

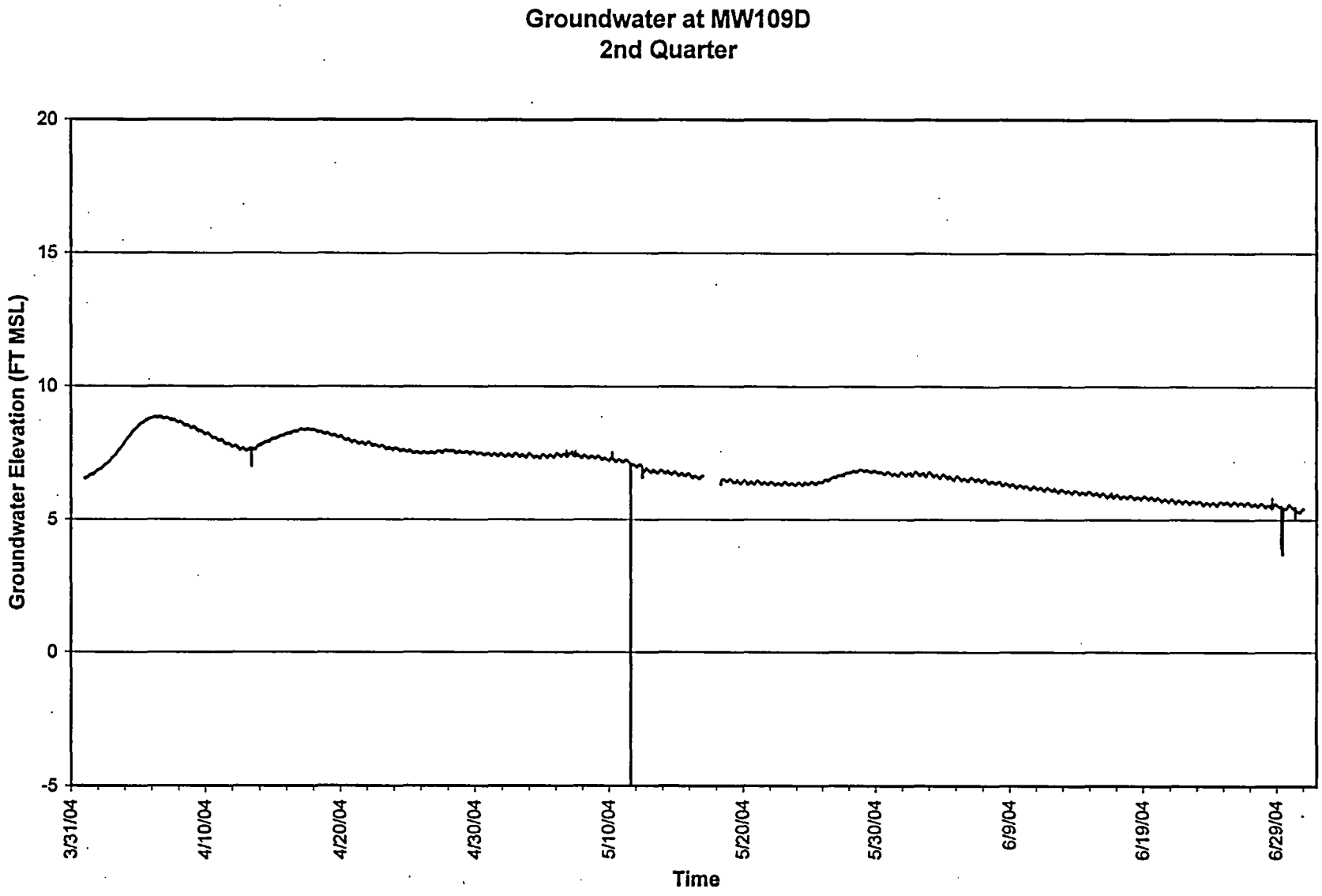


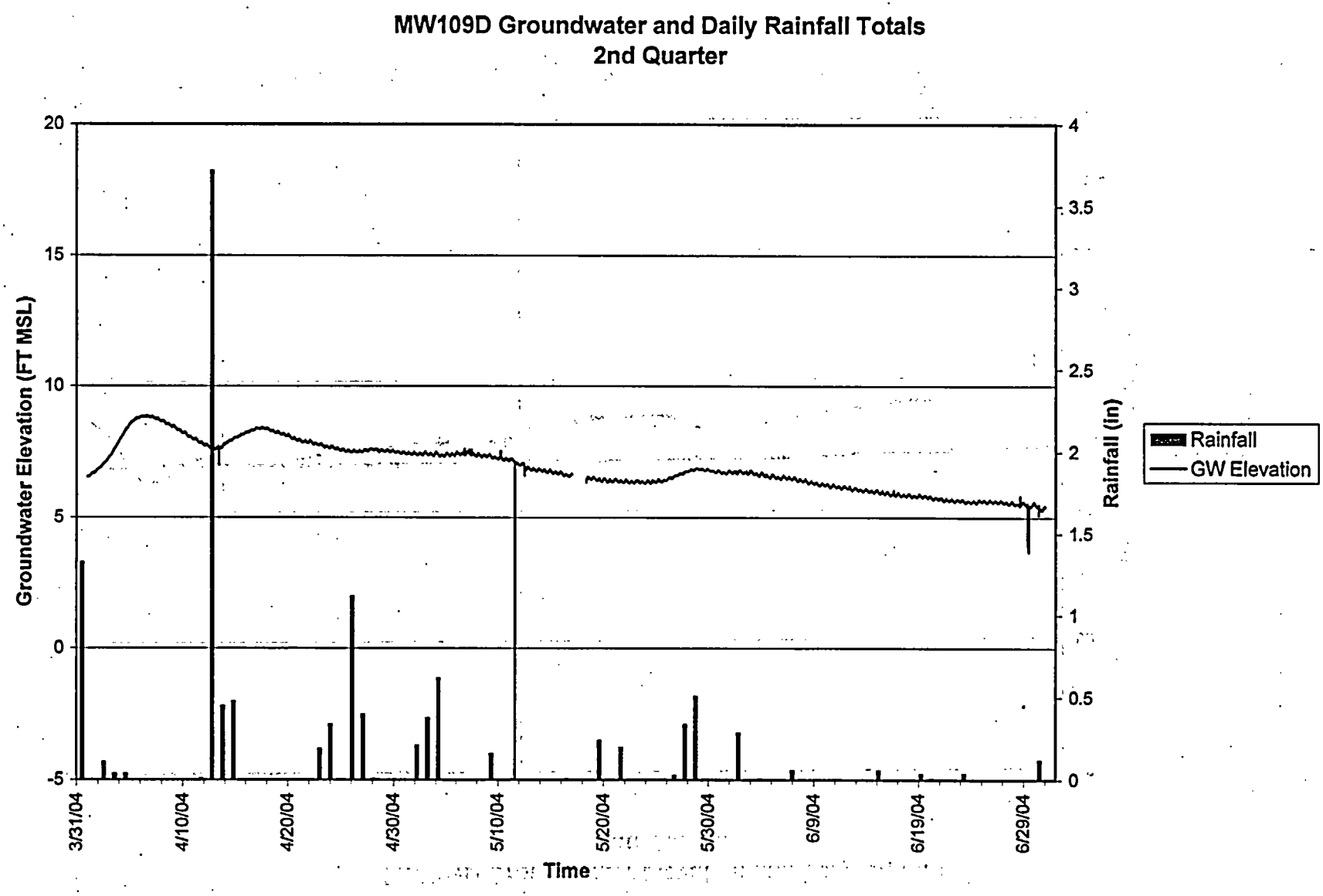

Groundwater Elevation at MW-107D
2nd Quarter
GW Elevation (msl)
20
15
10
5
0
-5
3/31/04
4/10/04
4/20/04
4/30/04
5/10/04
5/20/04
5/30/04
6/9/04
6/19/04
6/29/04
Time

MW-107D Groundwater Elevation and Daily Rainfall Totals
2nd Quarter

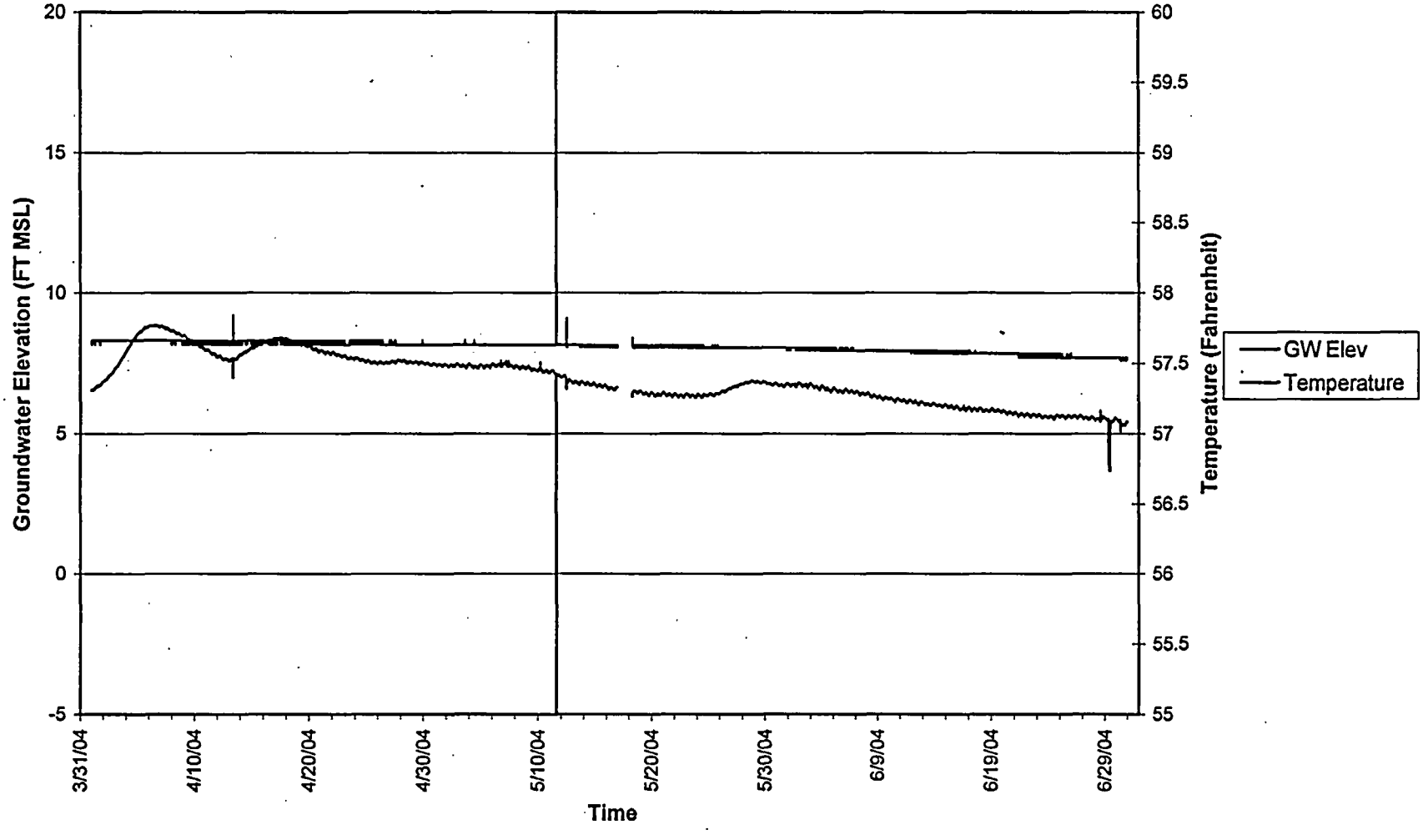


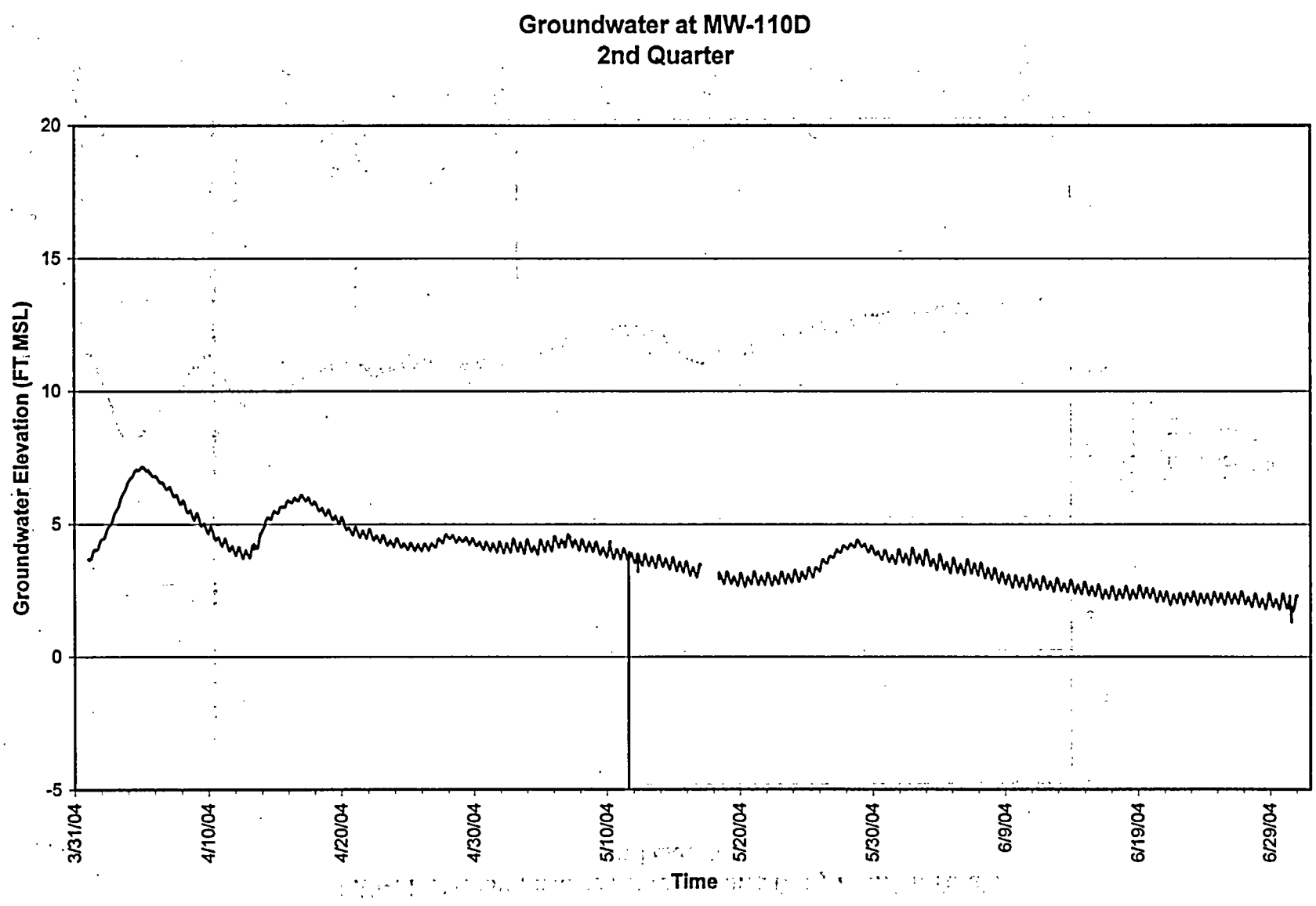

MW-107D Groundwater Elevation and Temperature
2nd Quarter
GW Elevation (msl)
Temperature (Fahrenheit)
Time
20
15
10
5
0
-5
60
59.5
59
58.5
58
57.5
57
56.5
56
55.5
55
3/31/04
4/10/04
4/20/04
4/30/04
5/10/04
5/20/04
5/30/04
6/9/04
6/19/04
6/29/04
GW Elevation
Temperature


Groundwater at MW109D
2nd Quarter
Groundwater Elevation (FT MSL)
20
15
10
5
0
-5
3/31/04
4/10/04
4/20/04
4/30/04
5/10/04
5/20/04
5/30/04
6/9/04
6/19/04
6/29/04
Time

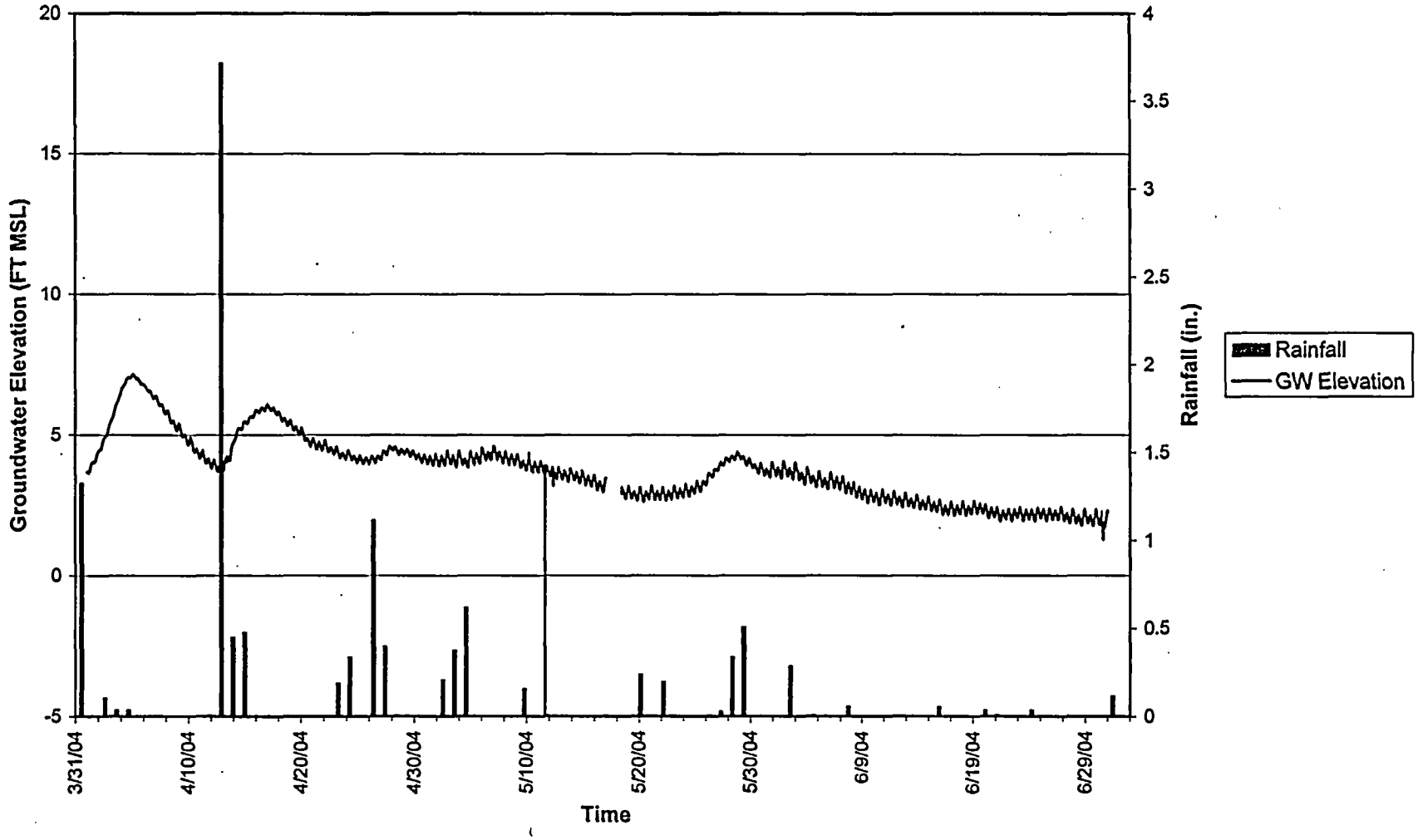

MW109D Groundwater and Daily Rainfall Totals
2nd Quarter
Groundwater Elevation (FT MSL)
20
15
10
5
0
-5
Rainfall (in)
4
3.5
3
2.5
2
1.5
1
0.5
0
3/31/04
4/10/04
4/20/04
4/30/04
5/10/04
5/20/04
5/30/04
6/9/04
6/19/04
6/29/04
Time
Rainfall
GW Elevation

MW109D Groundwater Elevation and Temperature
2nd Quarter

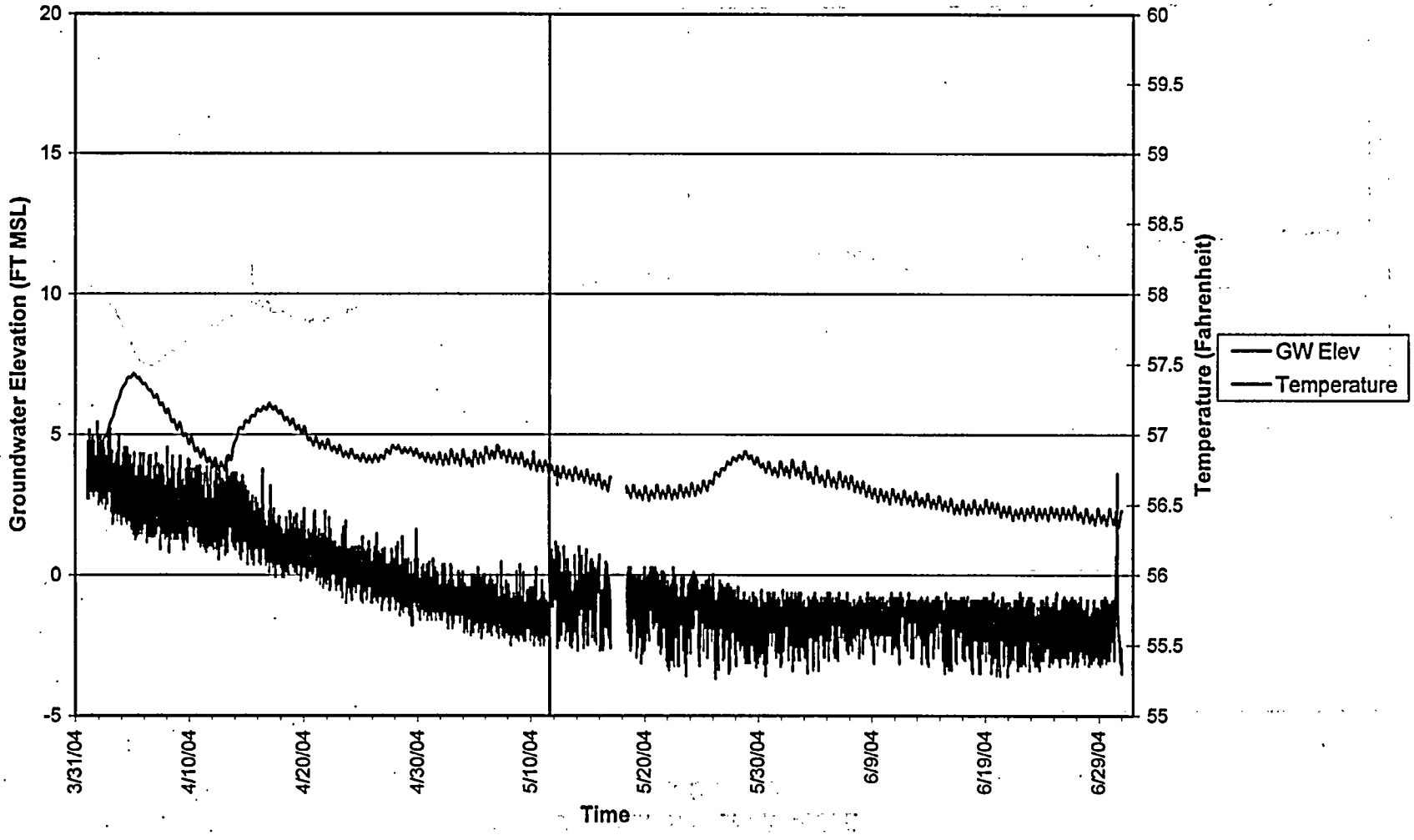



Groundwater at MW-110D
2nd Quarter
Groundwater Elevation (FT, MSL)
20
15
10
5
0
-5
3/31/04
4/10/04
4/20/04
4/30/04
5/10/04
5/20/04
5/30/04
6/9/04
6/19/04
6/29/04
Time

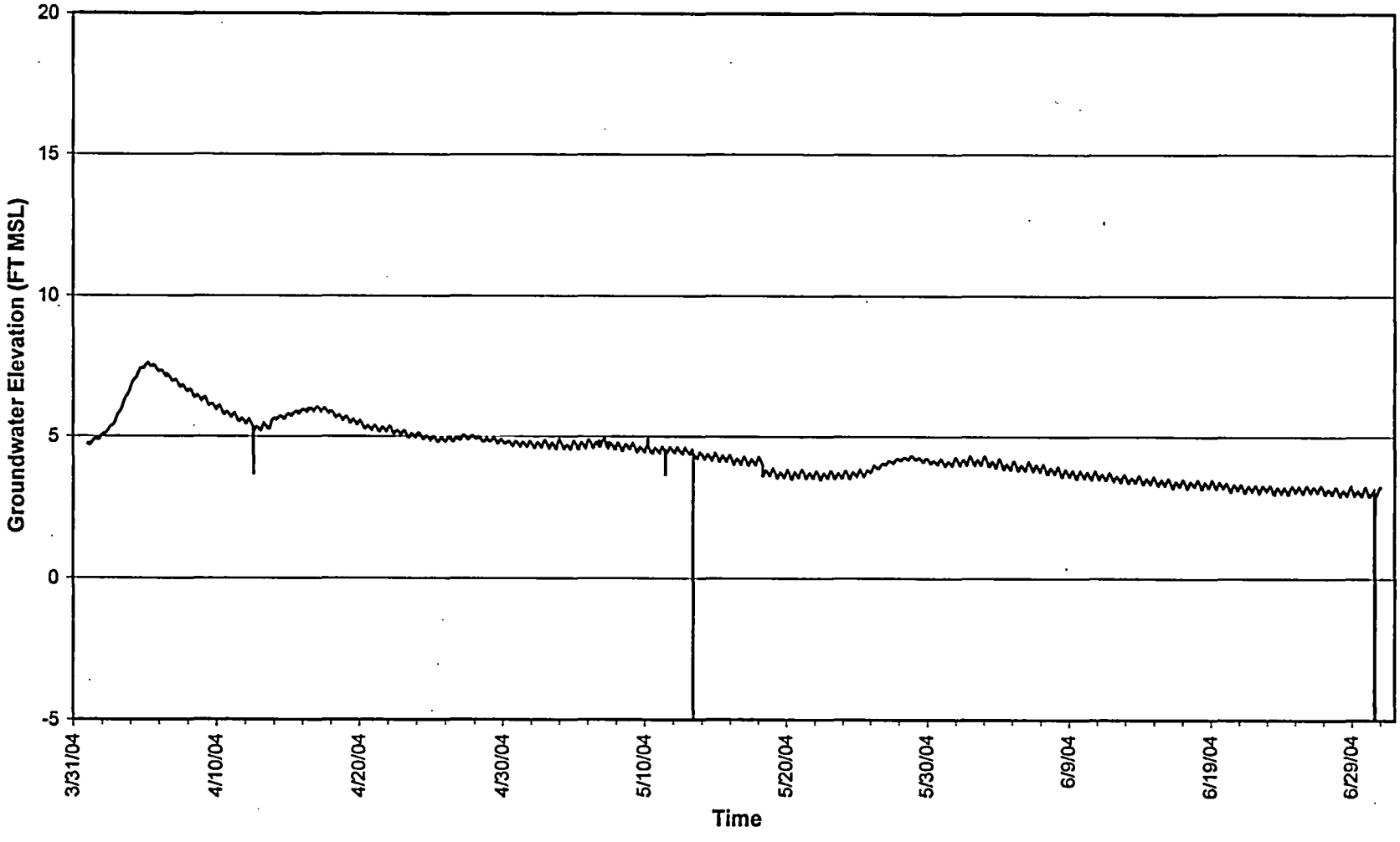
MW-110D Groundwater Elevation and Daily Rainfall Totals
2nd Quarter

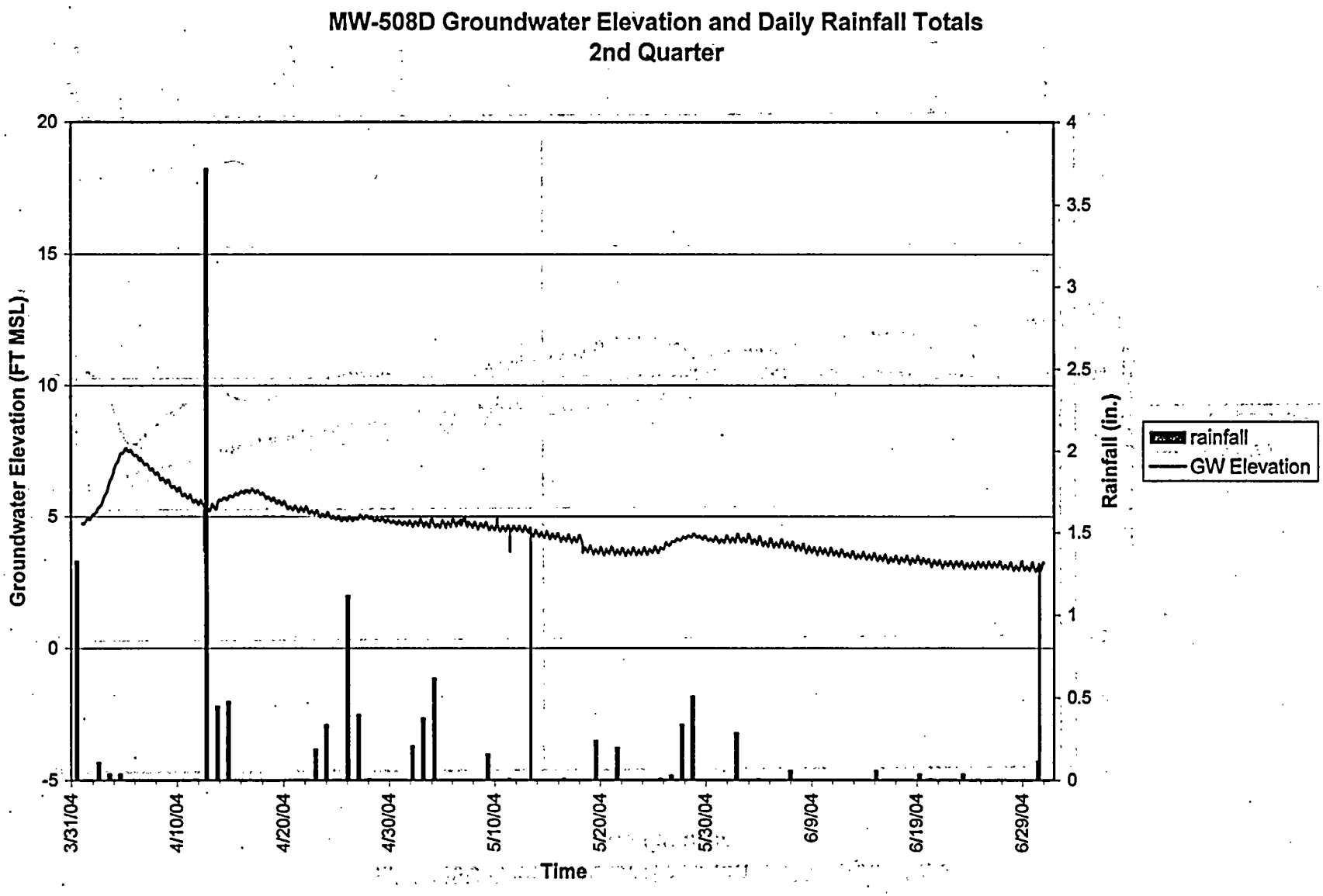


MW-110D Groundwater Elevation and Temperature
2nd Quarter

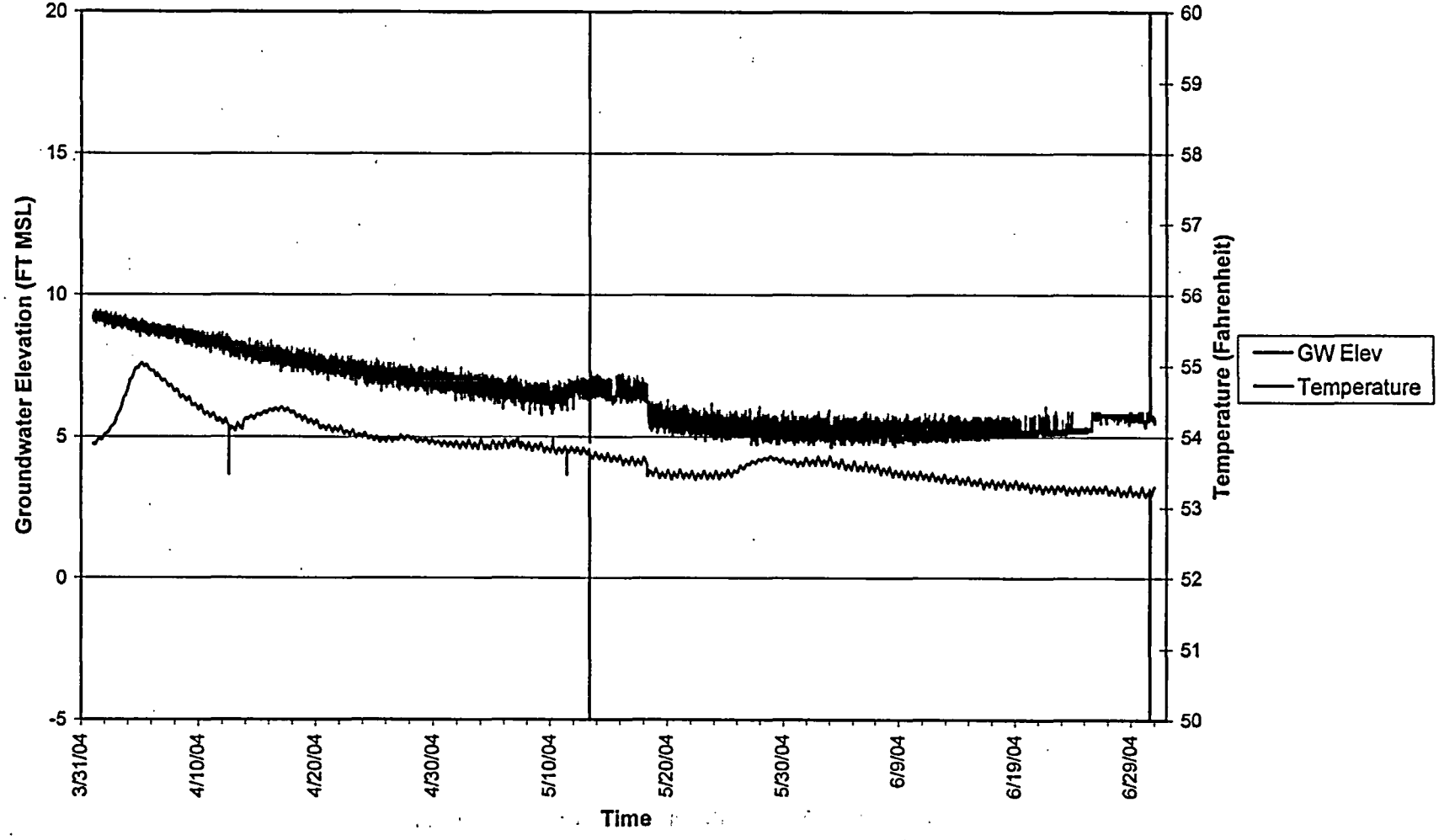


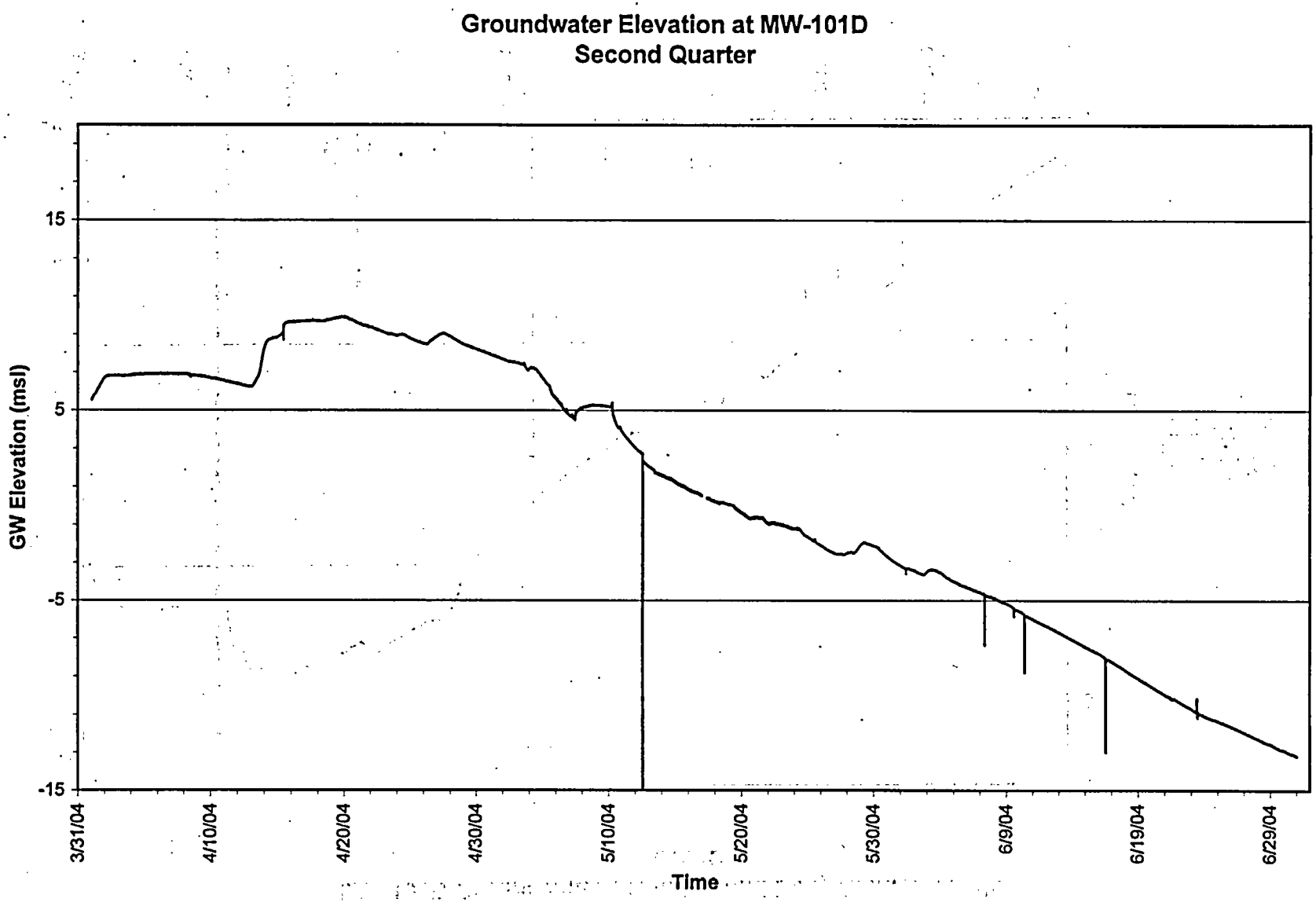
Groundwater at MW-508D
2nd Quarter



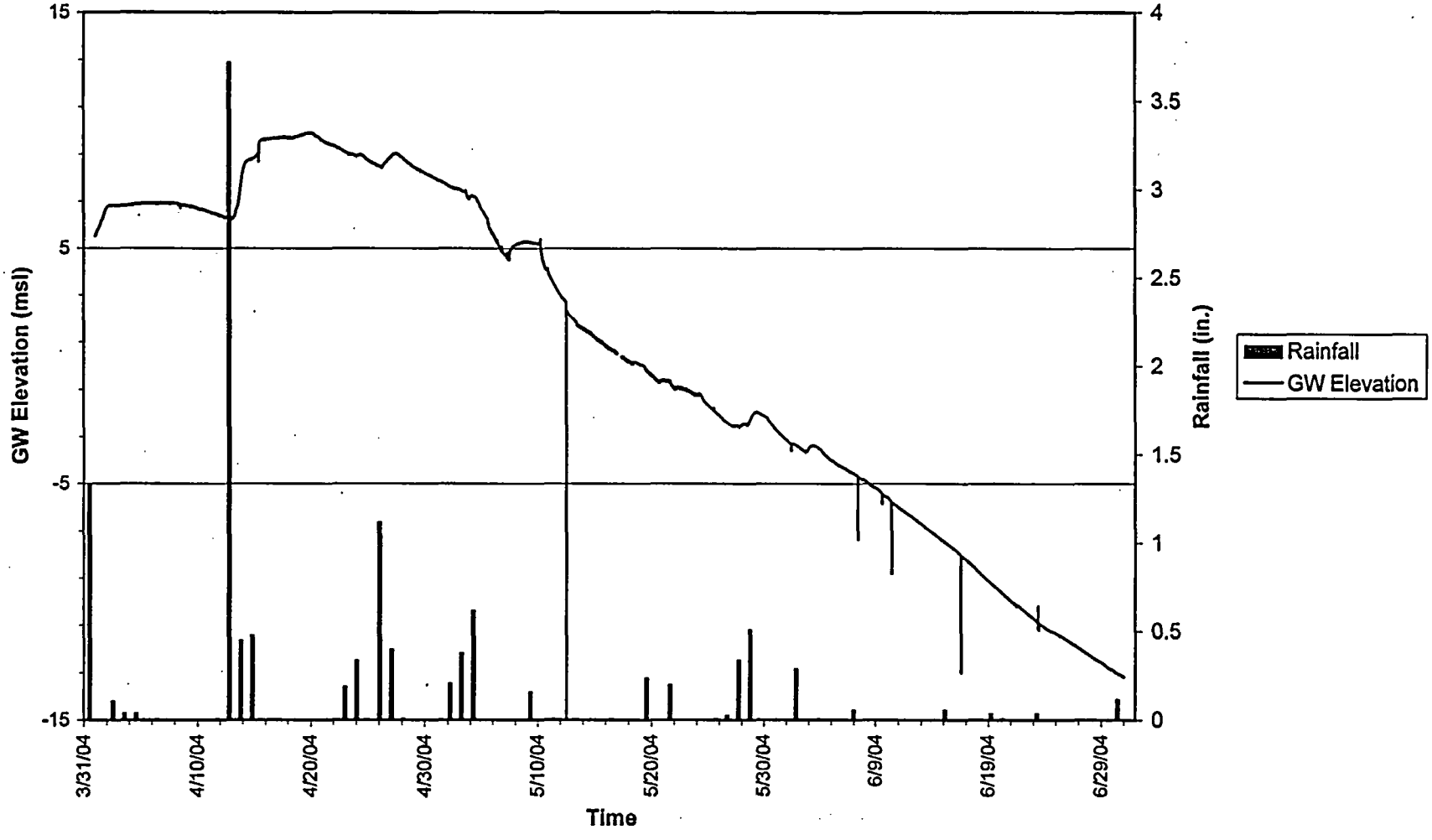

MW-508D Groundwater Elevation and Daily Rainfall Totals
2nd Quarter
Groundwater Elevation (FT MSL)
Rainfall (in.)
Time
rainfall
GW Elevation
20
15
10
5
0
-5
4
3.5
3
2.5
2
1.5
1
0.5
0
3/31/04
4/10/04
4/20/04
4/30/04
5/10/04
5/20/04
5/30/04
6/9/04
6/19/04
6/29/04

MW-508D Groundwater Elevation and Temperature
2nd Quarter

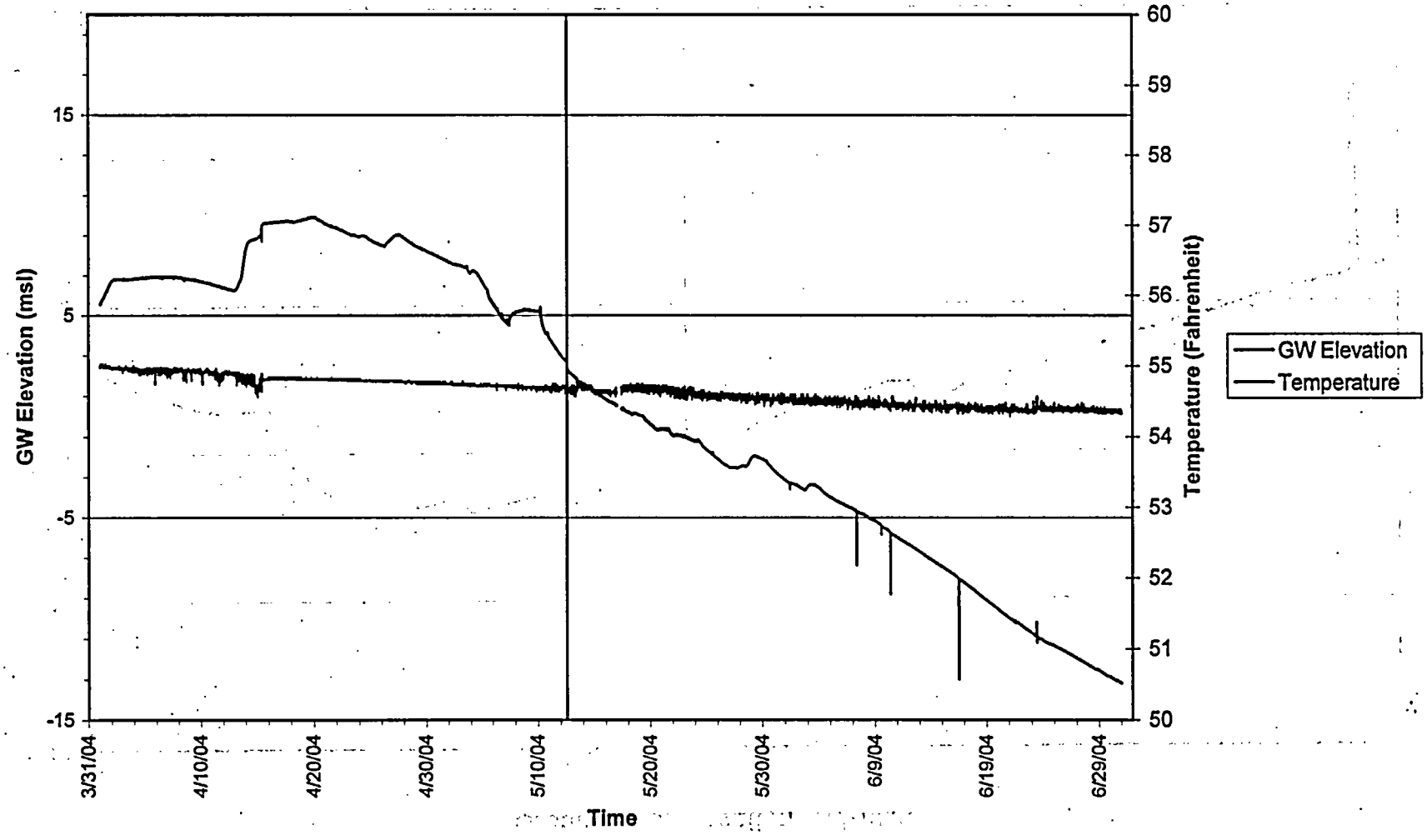


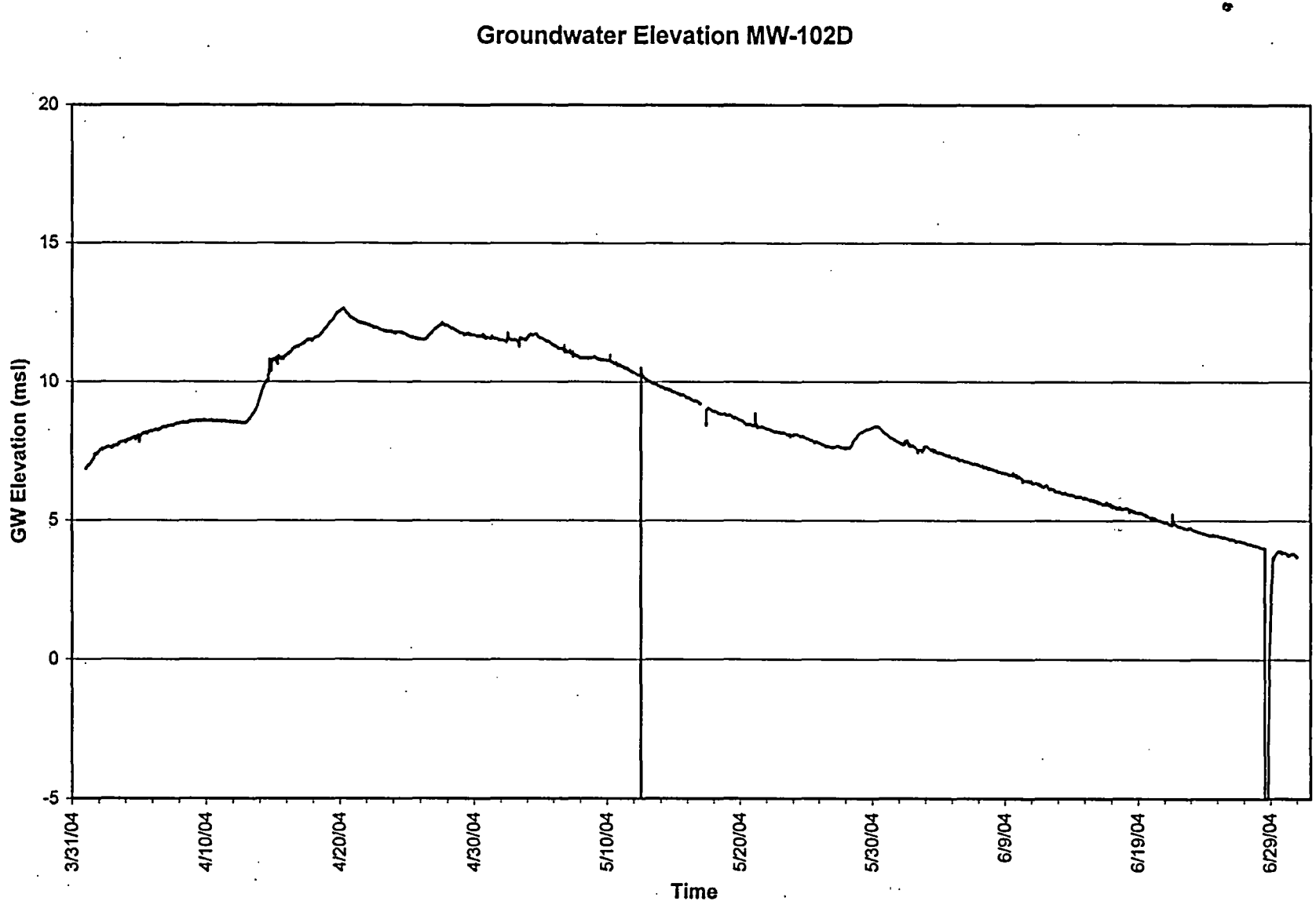

Groundwater Elevation at MW-101D
Second Quarter
GW Elevation (msl)
15
5
-5
-15
3/31/04
4/10/04
4/20/04
4/30/04
5/10/04
5/20/04
5/30/04
6/9/04
6/19/04
6/29/04
Time

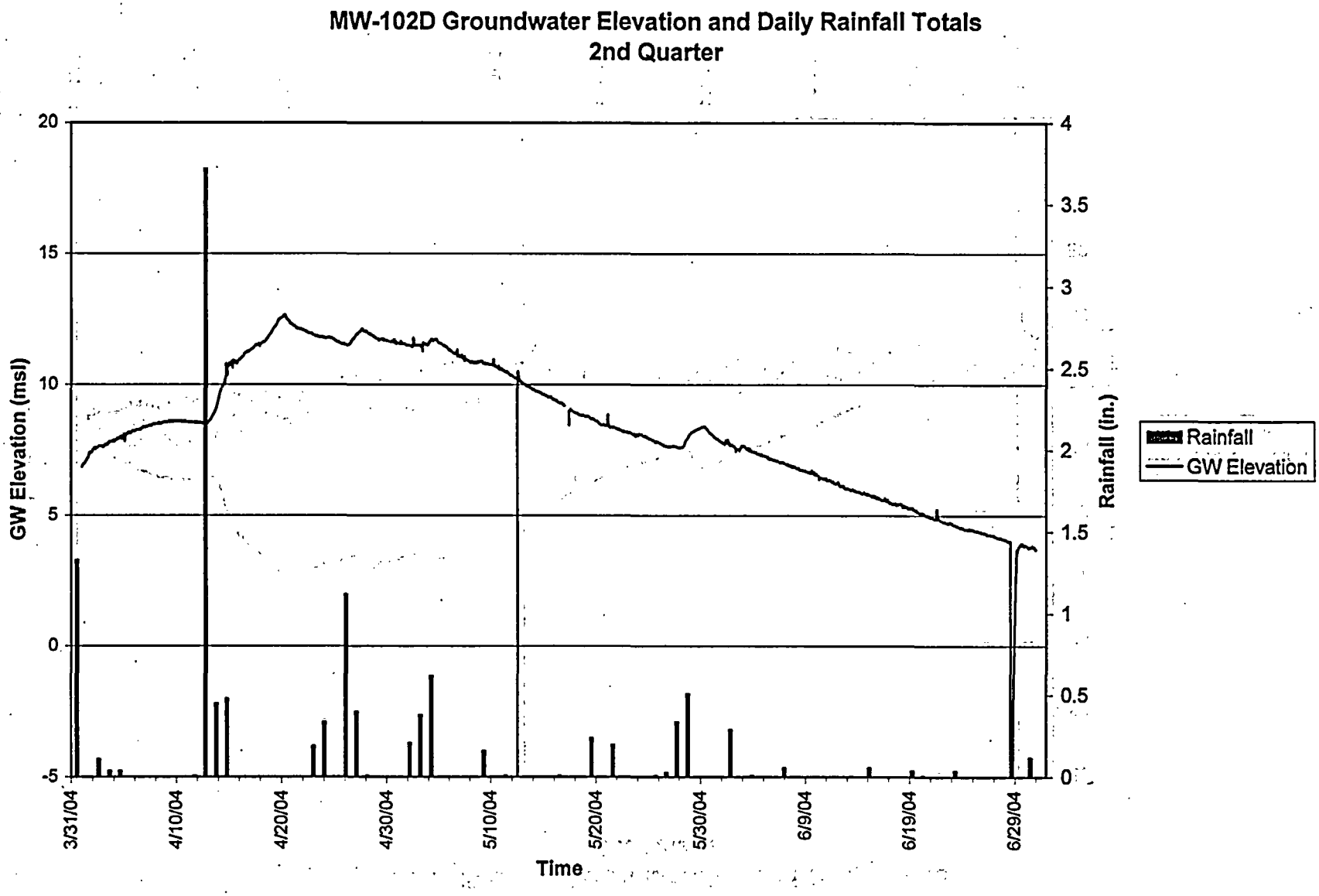
MW-101D Groundwater Elevation and Daily Rainfall Totals
2nd Quarter



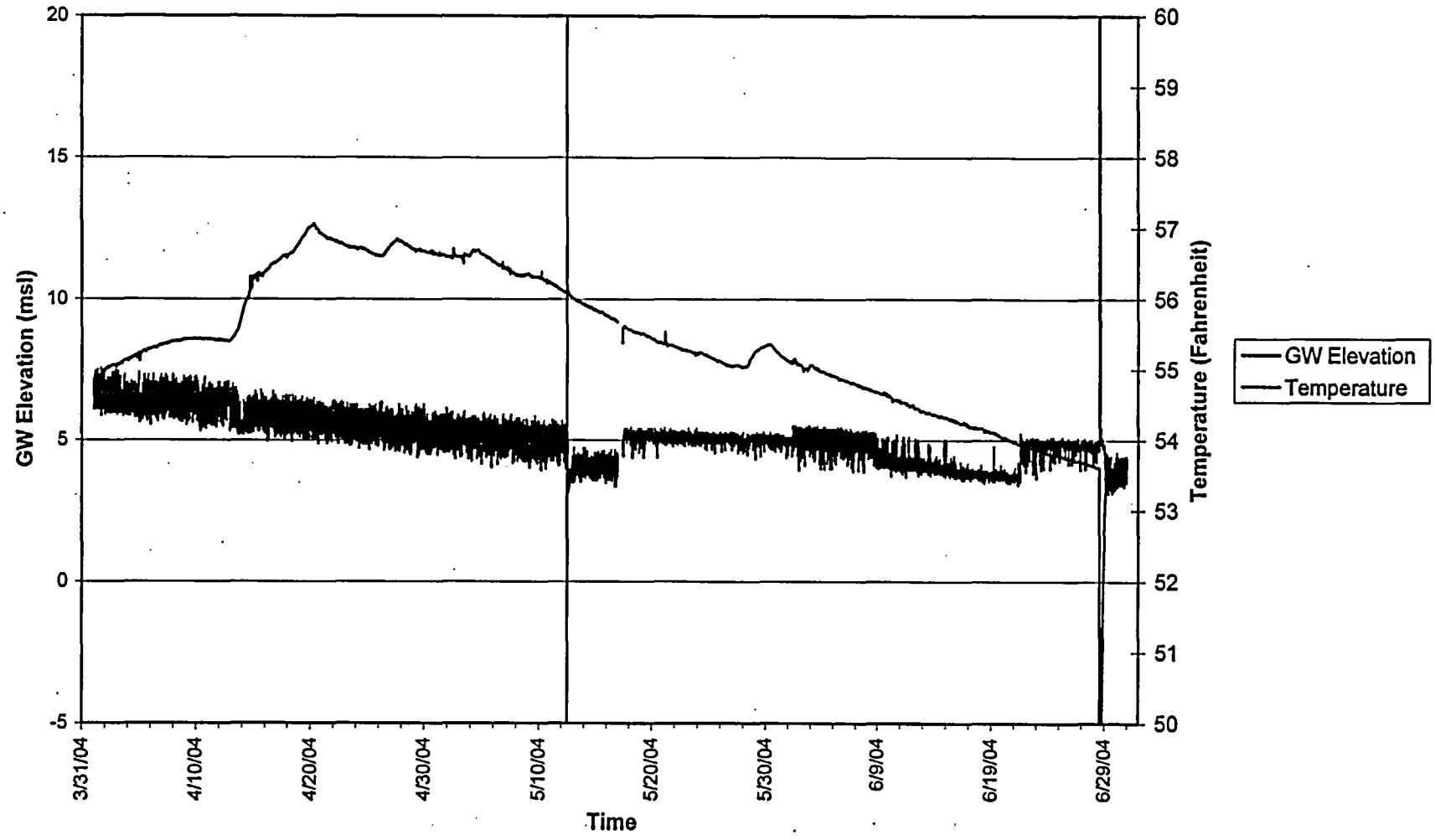
MW-101D Groundwater Elevation and Temperature
2nd Quarter

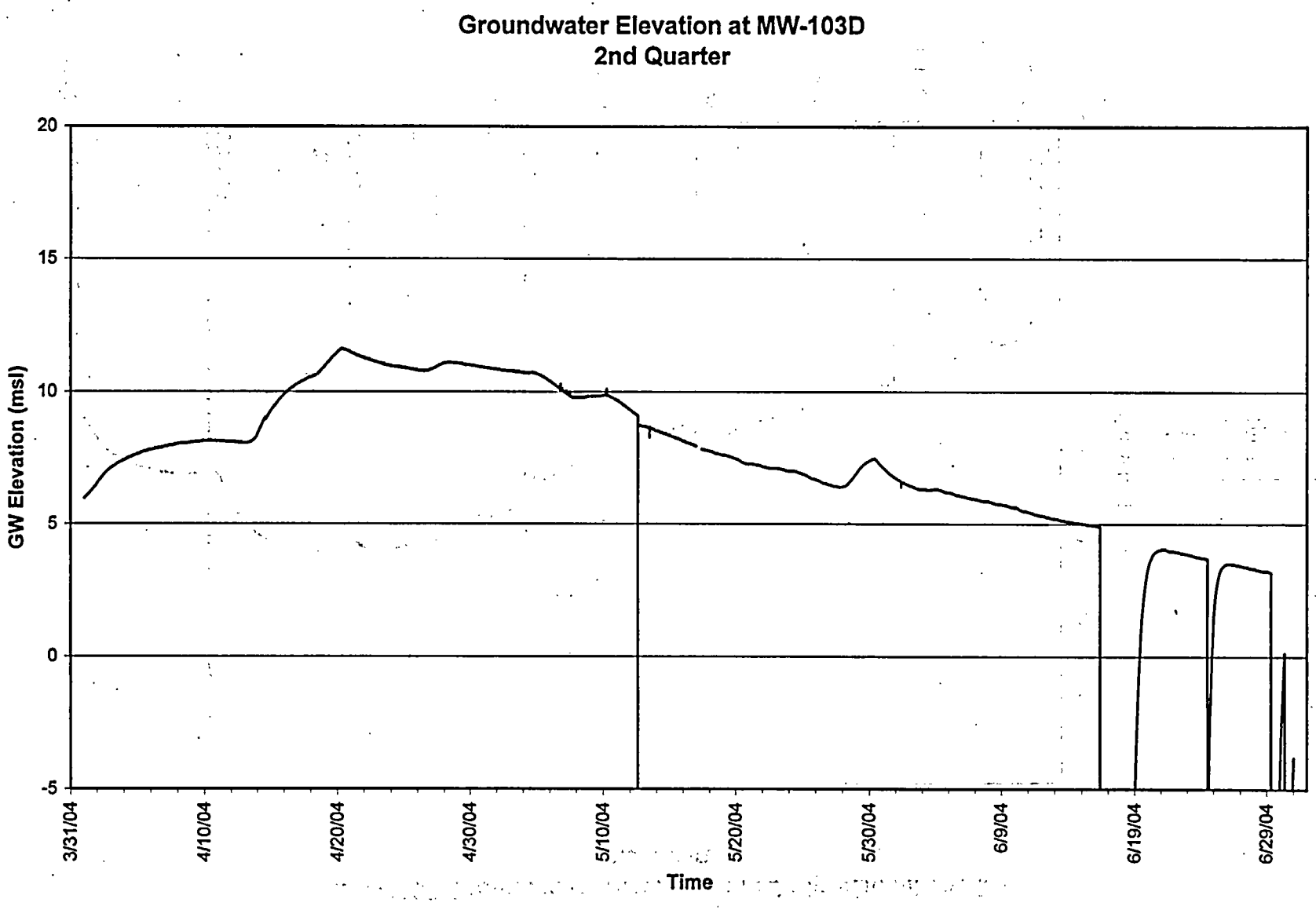



Groundwater Elevation MW-102D
GW Elevation (msl)
20
15
10
5
0
-5
3/31/04
4/10/04
4/20/04
4/30/04
5/10/04
5/20/04
5/30/04
6/9/04
6/19/04
6/29/04
Time

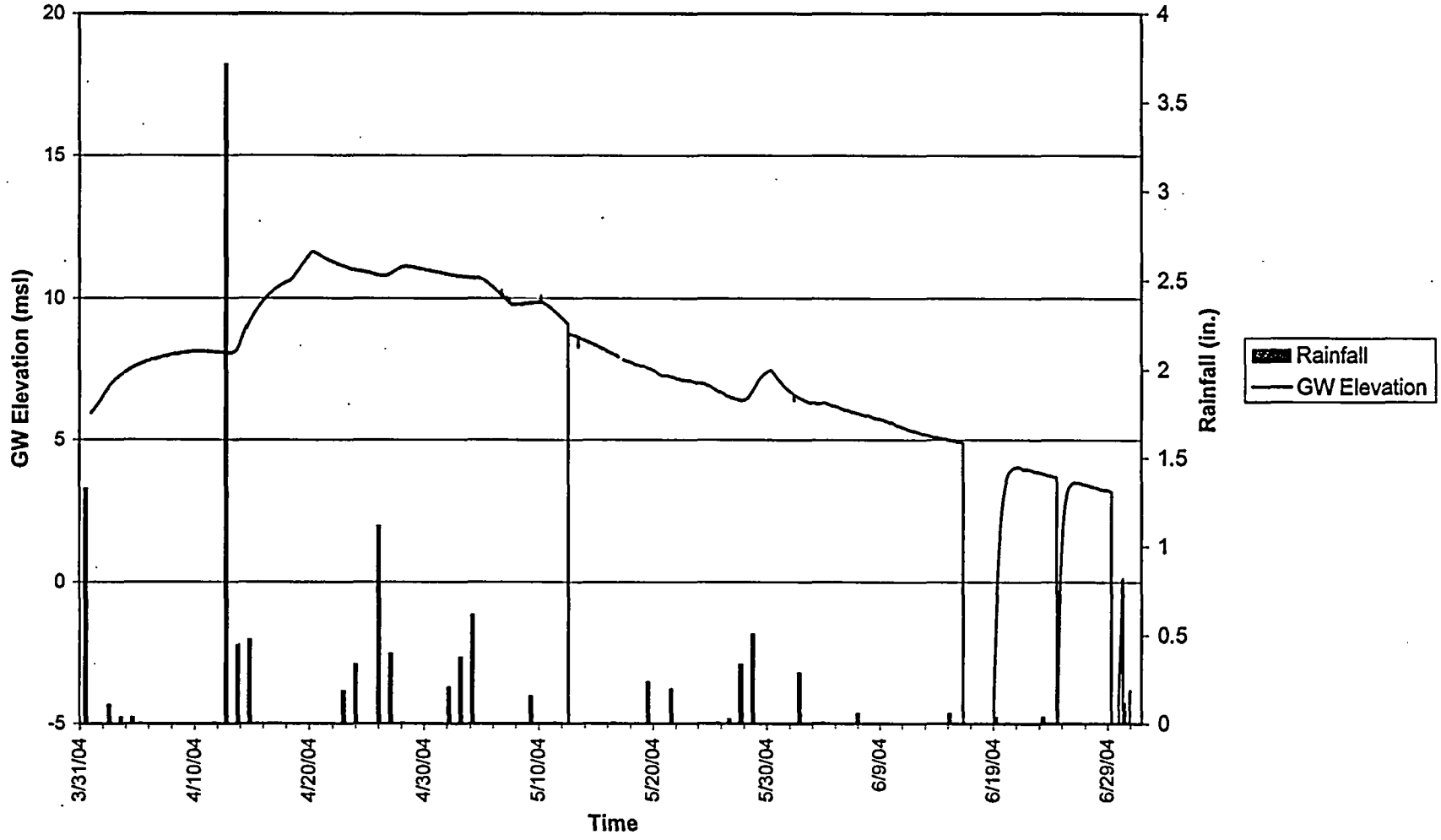

MW-102D Groundwater Elevation and Daily Rainfall Totals
2nd Quarter
GW Elevation (msl)
Rainfall (in.)
Time
20
15
10
5
0
-5
4
3.5
3
2.5
2
1.5
1
0.5
0
3/31/04
4/10/04
4/20/04
4/30/04
5/10/04
5/20/04
5/30/04
6/9/04
6/19/04
6/29/04
Rainfall
GW Elevation

MW-102D Groundwater Elevation and Temperature
2nd Quarter

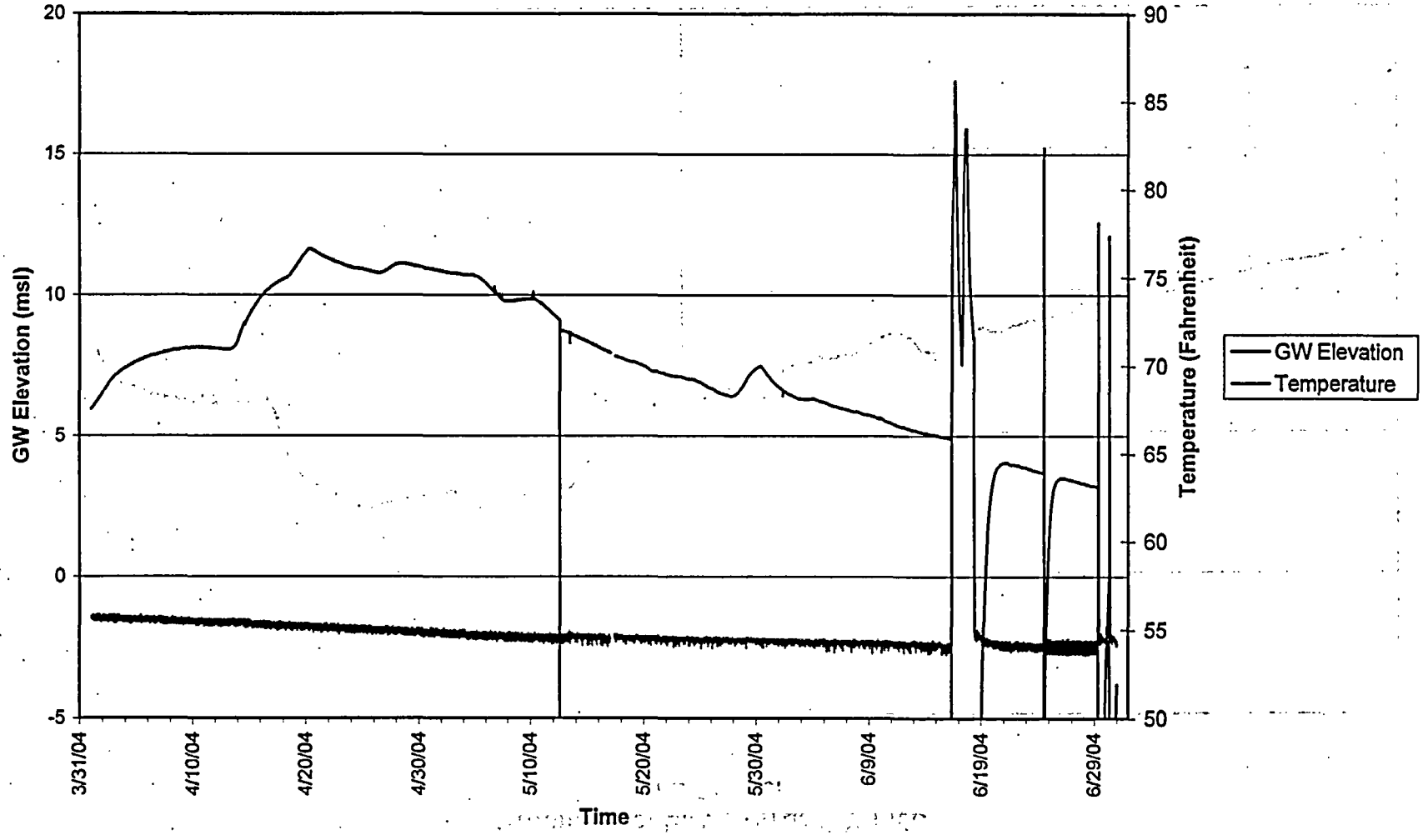



Groundwater Elevation at MW-103D
2nd Quarter
GW Elevation (msl)
20
15
10
5
0
-5
3/31/04
4/10/04
4/20/04
4/30/04
5/10/04
5/20/04
5/30/04
6/9/04
6/19/04
6/29/04
Time

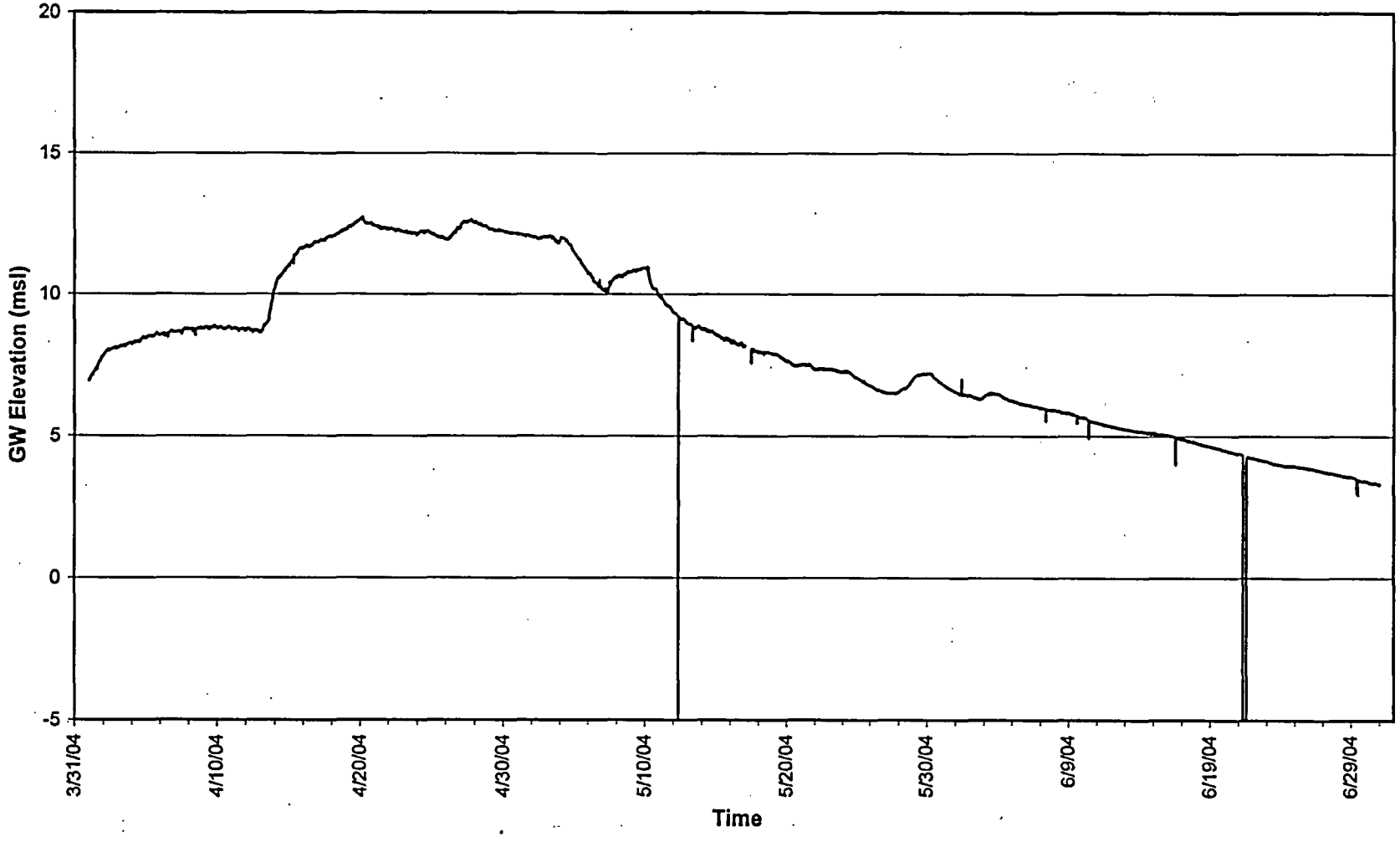
MW-103D Groundwater Elevation and Daily Rainfall Totals
2nd Quarter

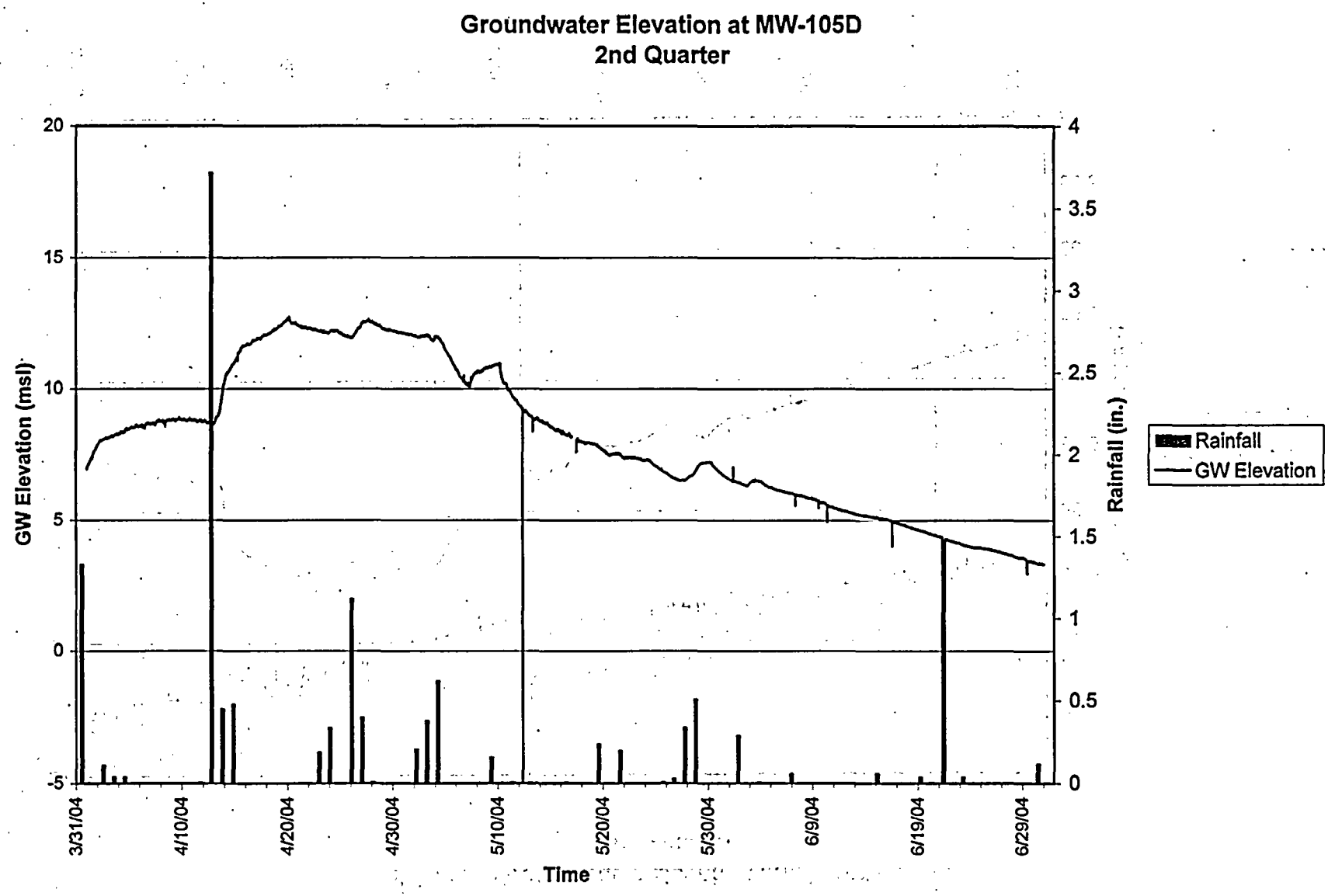


MW-103D Groundwater Elevation and Temperature
2nd Quarter

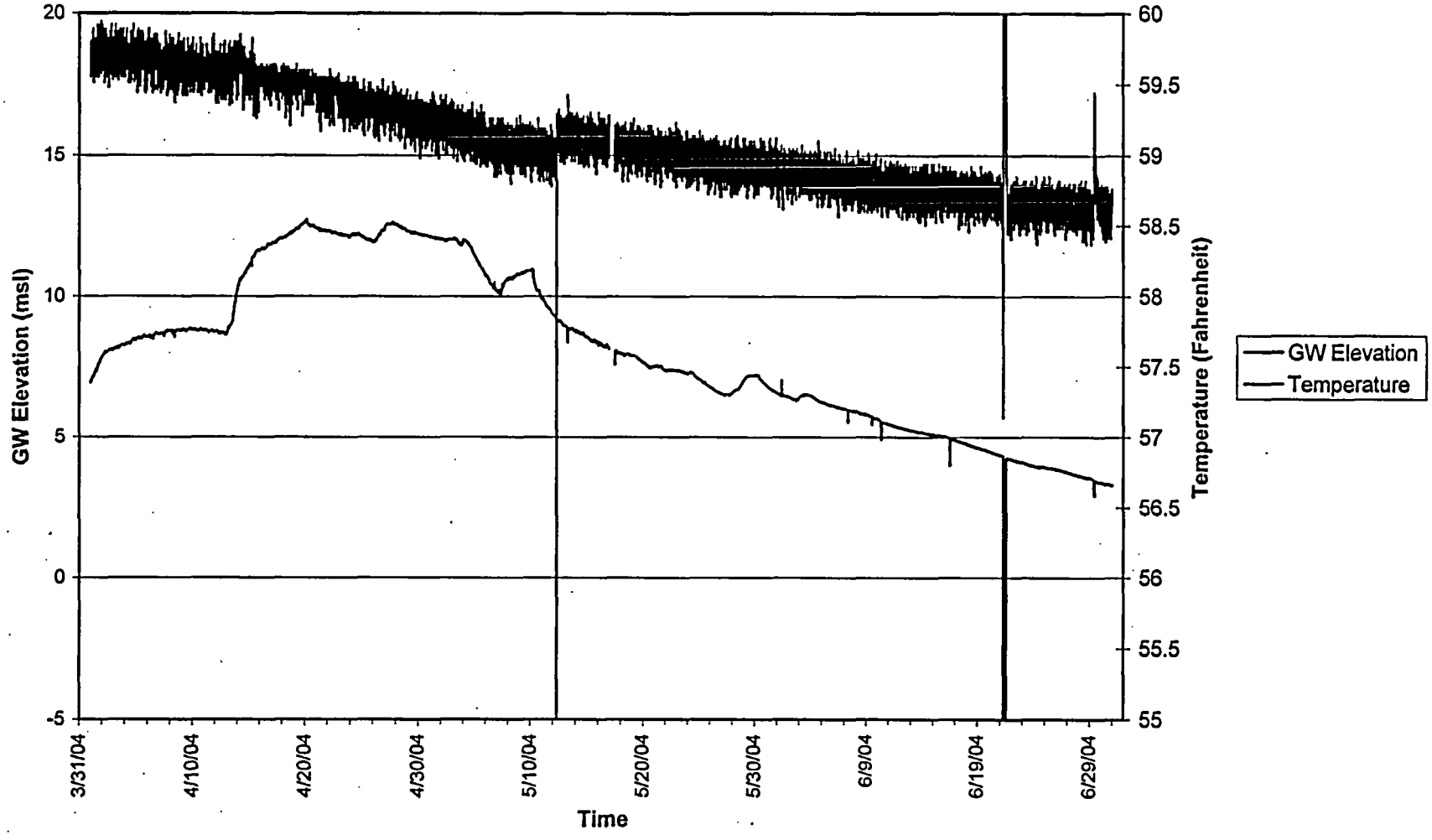


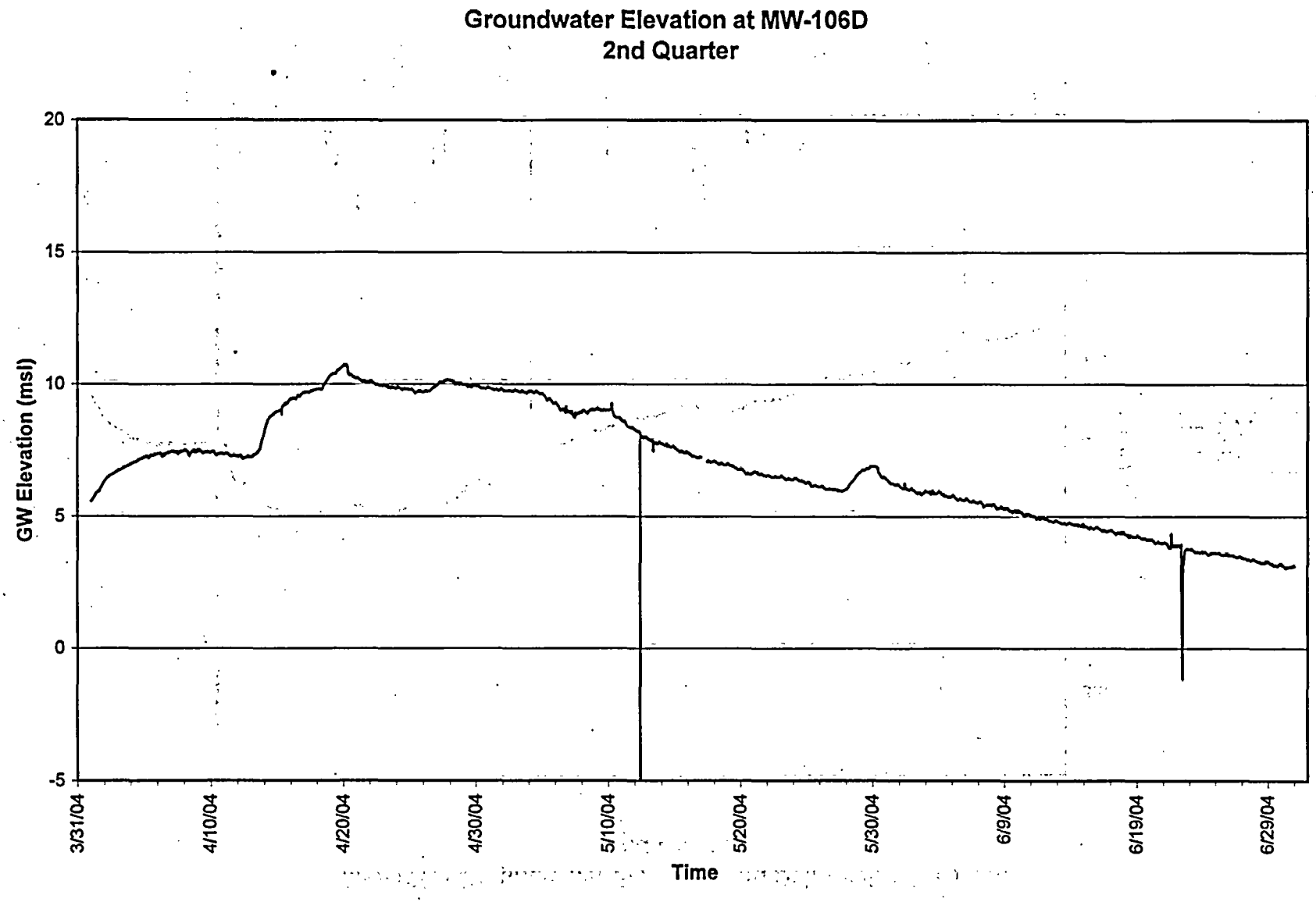
Groundwater Elevation at MW-105D
2nd Quarter



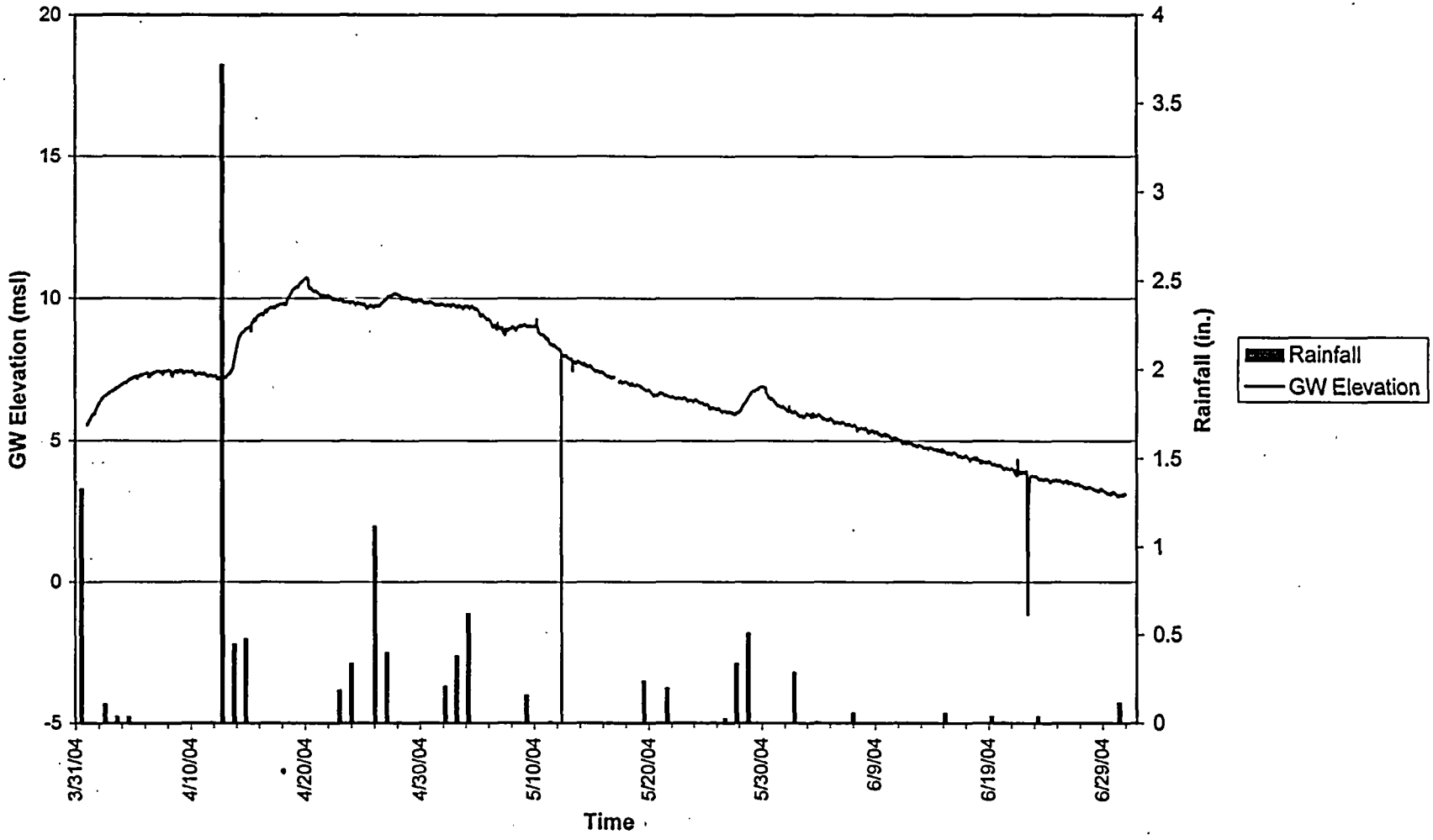

Groundwater Elevation at MW-105D
2nd Quarter
GW Elevation (msl)
Rainfall (in.)
Time
20
15
10
5
0
-5
4
3.5
3
2.5
2
1.5
1
0.5
0
3/31/04
4/10/04
4/20/04
4/30/04
5/10/04
5/20/04
5/30/04
6/9/04
6/19/04
6/29/04
Rainfall
GW Elevation

MW-105D Groundwater Elevation and Temperature
2nd Quarter

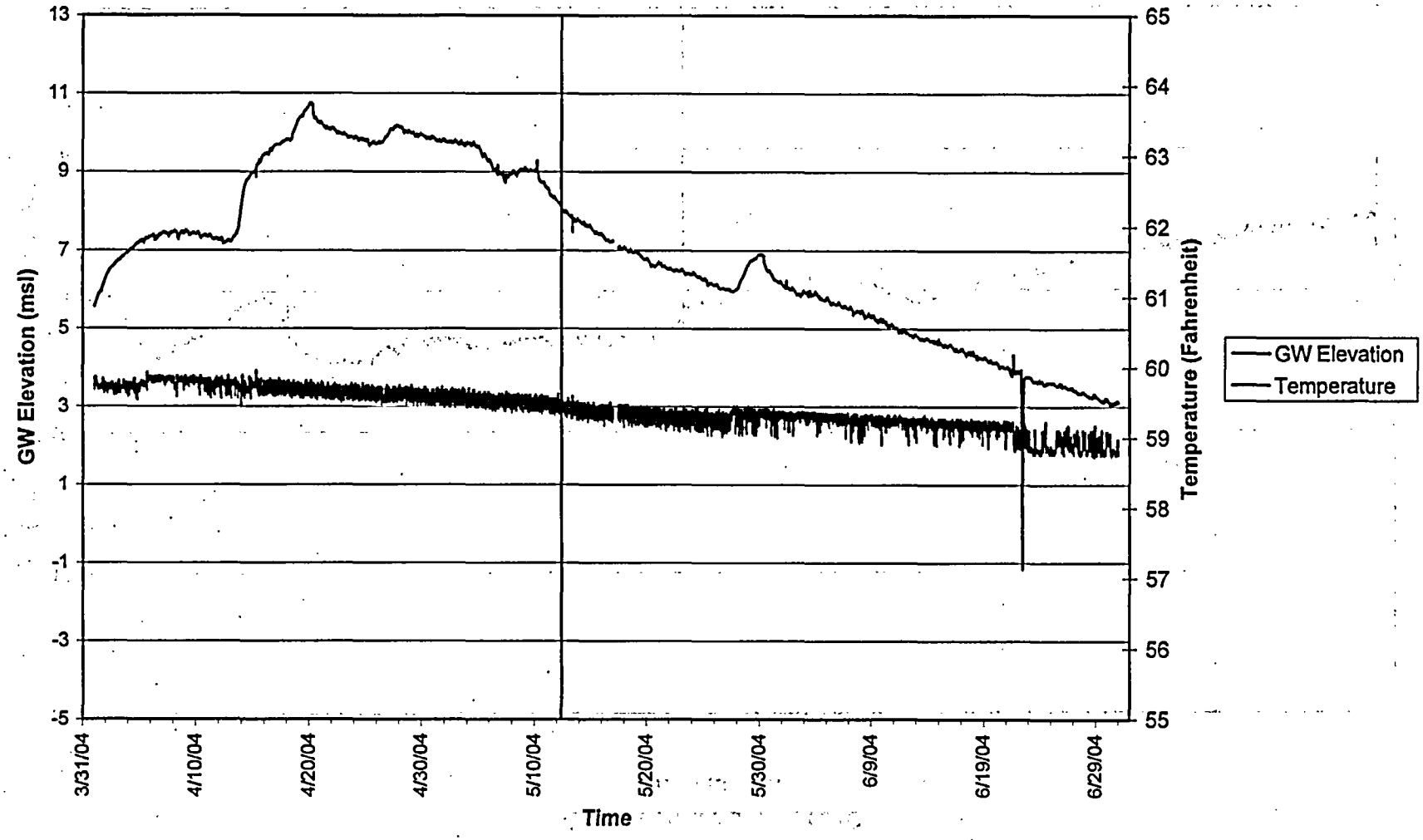


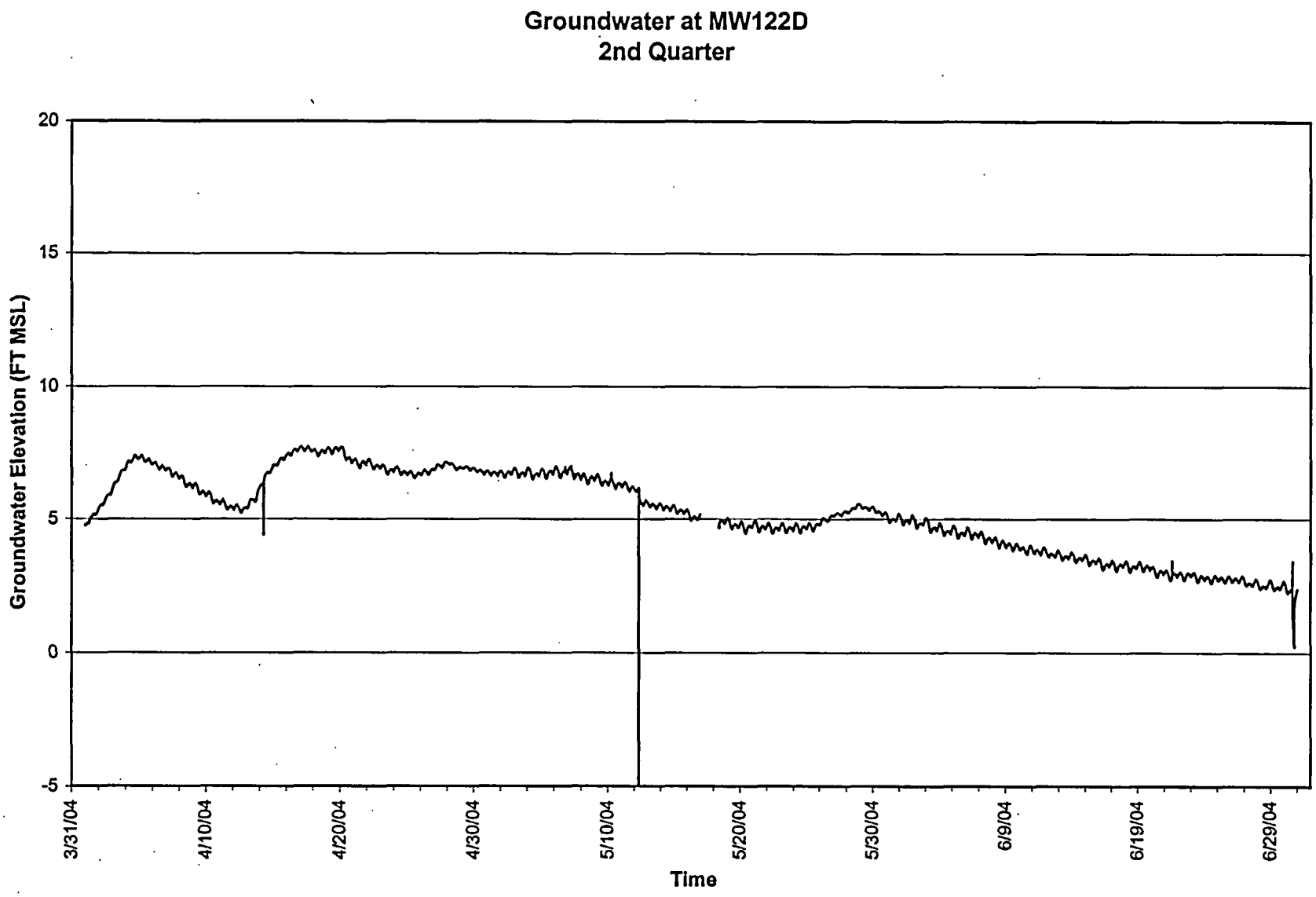

Groundwater Elevation at MW-106D
2nd Quarter
GW Elevation (msl)
20
15
10
5
0
-5
3/31/04
4/10/04
4/20/04
4/30/04
5/10/04
5/20/04
5/30/04
6/9/04
6/19/04
6/29/04
Time

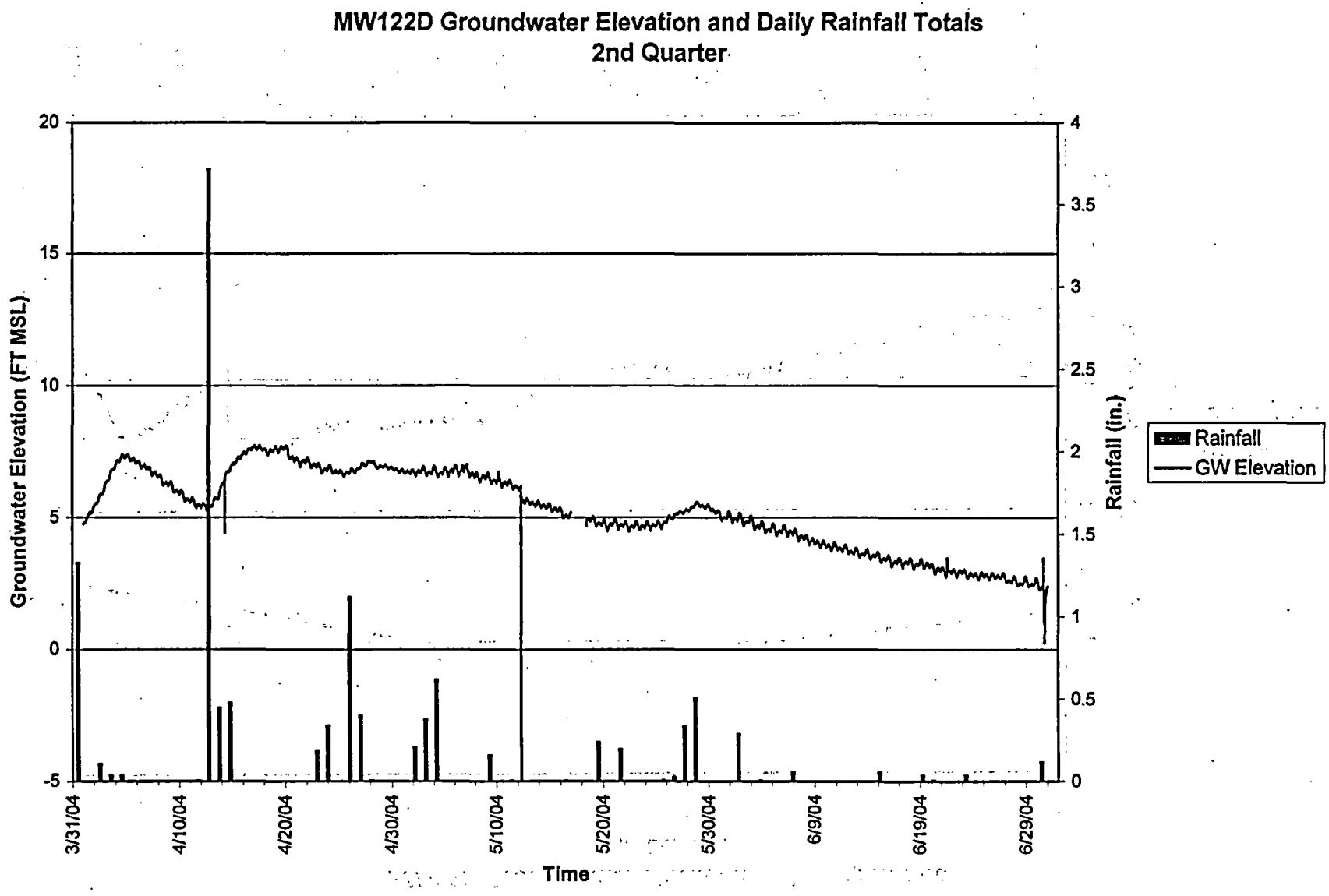
MW-106D Groundwater Elevation and Daily Rainfall Totals
2nd Quarter

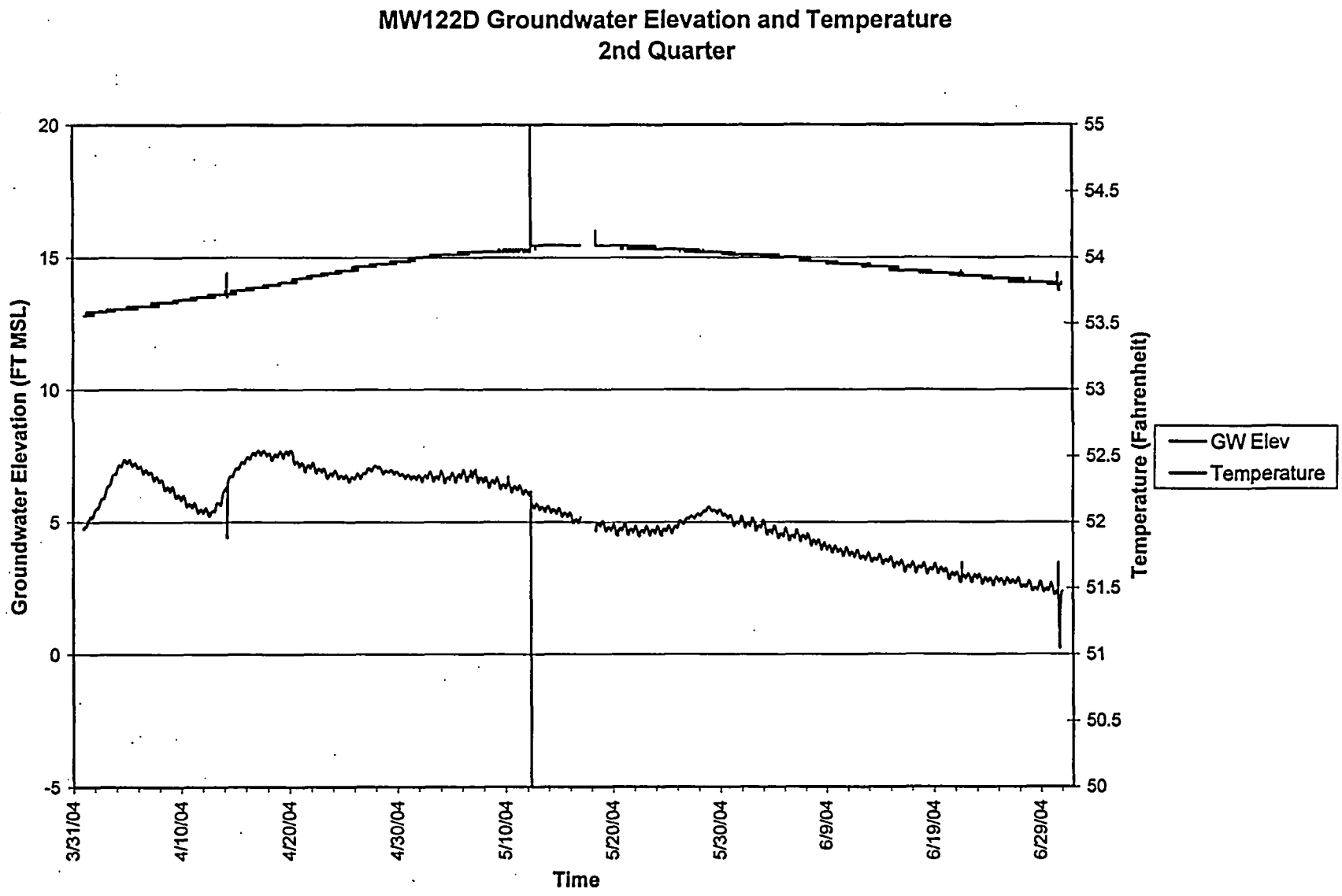


MW-106D Groundwater Elevation and Temperature
2nd Quarter




Groundwater at MW122D
2nd Quarter
Groundwater Elevation (FT MSL)
20
15
10
5
0
-5
3/31/04
4/10/04
4/20/04
4/30/04
5/10/04
5/20/04
5/30/04
6/9/04
6/19/04
6/29/04
Time


MW122D Groundwater Elevation and Daily Rainfall Totals
2nd Quarter
Groundwater Elevation (FT MSL)
Rainfall (in.)
Time
20
15
10
5
0
-5
4
3.5
3
2.5
2
1.5
1
0.5
0
3/31/04
4/10/04
4/20/04
4/30/04
5/10/04
5/20/04
5/30/04
6/9/04
6/19/04
6/29/04
Rainfall
GW Elevation


MW122D Groundwater Elevation and Temperature
2nd Quarter
Groundwater Elevation (FT MSL)
Temperature (Fahrenheit)
Time
20
15
10
5
0
-5
55
54.5
54
53.5
53
52.5
52
51.5
51
50.5
50
3/31/04
4/10/04
4/20/04
4/30/04
5/10/04
5/20/04
5/30/04
6/9/04
6/19/04
6/29/04
GW Elev
Temperature

Appendix C
Field Parameters

ATTACHMENT B - Ground Water Monitoring Well Data Log

Monitoring Well ID: EOF2 Date: 3/10 Static Water Level: 9.62 Name: Dave Lovejoy

Pump Set Depth: 12.5 All Depths Are Feet Below Top Of Inner Casing (TIC)

TIME (military)	Frequency (cycles/sec)	Discharge Rate (mL/min)	Cum. Purge Volume (gallons)	DTW (feet)	Field Parameters					
					Turbidity (NTU)	DO (mg/L)	Eh (mv)	pH (S.U.)	Specific Conductance (us/cm)	Temperature (degree C)
1200		250		9.62						
1210		250		9.80	2.3	5.9	150	7.1	3250	12.0
1215		250		9.78	2.8	5.9	141	7.2	2960	12.2
1220		250		9.78	1.9	5.8	140	7.2	2830	12.1
1225		250		9.78	1.3	5.8	139	7.3	2750	12.1
1230		250	2.0	9.78	1.4	5.8	139	7.3	2710	12.2

Instrument Model/Serial Number(s): Horiba U22 # 01036 La Motte 2020 # 02400 Calibration Date(s): 3/18

ATTACHMENT B - Ground Water Monitoring Well Data Log

Monitoring Well ID: 100D Date: 3/19/04 Static Water Level: 0.90 Name: Dave Lovejoy

Pump Set Depth: 26.7 All Depths Are Feet Below Top Of Inner Casing (TIC)

TIME (military)	Frequency (cycles/sec)	Discharge Rate (mL/min)	Cum. Purge Volume (gallons)	DTW (feet)	Field Parameters					
					Turbidity (NTU)	DO (mg/L)	Eh (mv)	pH (S.U.)	Specific Conductance (us/cm)	Temperature (degree C)
0810		300		0.90						
0820		300		4.83	12	0.2	49	6.2	74	9.0
0830		300		6.50	9.8	0.6	58	6.1	76	9.2
0840		300		8.00	3.5	0.5	50	6.2	66	9.3
0850		250		7.92	1.4	0.5	55	6.3	66	9.0
0900		250		8.13	1.3	0.5	56	6.3	67	9.3
0910		250		8.21	0.4	0.5	57	6.3	67	9.2
0920		250		9.26	0.2	0.5	60	6.4	67	9.2
0930		250		8.34	0.1	0.5	61	6.4	66	9.3
0935		250		—	0.1	0.5	62	6.4	66	9.4
0940		250		8.60	0.1	0.5	62	6.4	66	9.4
0950		250	7.0	8.63	0.1	0.5	63	6.4	67	9.4

Instrument Model/Serial Number(s): Horiba U-22 # 01036 LaMotte 2020 # 1102408 Calibration Date(s): 3/18

ATTACHMENT B - Ground Water Monitoring Well Data Log

Monitoring Well ID: 100S Date: 3/18 Static Water Level: 1.65 Name: David Lovejoy

Pump Set Depth: 7.0 All Depths Are Feet Below Top Of Inner Casing (TIC)

TIME (military)	Frequency (cycles/sec)	Discharge Rate (mL/min)	Cum. Purge Volume (gallons)	DTW (feet)	Field Parameters					
					Turbidity (NTU)	DO (mg/L)	Eh (mv)	pH (S.U.)	Specific Conductance (us/cm)	Temperature (degree C)
1015		300		1.65						
1025		300		4.08	0.5	1.0	142	6.5	2630	5.2
1030		300		4.57	0.8	1.8	146	6.5	2580	5.2
1035		300		4.80	~~0.8~~ 0.6	1.7	148	6.5	2800	5.3
1040		300		5.10	~~1.2~~ 0.5	1.2	146	6.5	2920	5.5
1045		300		5.44	~~0.9~~ 0.2	0.9	144	6.5	2770	5.6
1050		300		5.72	~~1.6~~ 0.5	1.6	143	6.6	2500	5.7
1055		300		5.90	0.1	1.9	141	6.6	2120	5.8
1100		300		5.98	0.1	2.3	142	6.7	1900	5.9
1105		300		6.00	0.1	2.7	143	6.7	1760	5.9
1110		300	4.4	6.10	0.1	3.3	143	6.7	1630	5.9

Instrument Model/Serial Number(s): Horiba U-22 01086 / LaMotte 2020 M102400 Calibration Date(s): 3/18

ATTACHMENT B - Ground Water Monitoring Well Data Log

Monitoring Well ID: MW-101D Date: 3/15/04 Static Water Level: 13.21 Name: RJB

Pump Set Depth: ≈45' All Depths Are Feet Below Top Of Inner Casing (TIC)

TIME (military)	Frequency (cycles/sec)	Discharge Rate (mL/min)	Cum. Purge Volume (gallons)	DTW (feet)	Field Parameters: Turbidity (NTU)	DO (mg/L)	Eh (mv)	pH (S.U.)	Specific Conductance ~~(uS/cm)~~ mS	Temperature (degree C)
1408		225		13.21	Purging	Started				
1413				13.50	4.20	3.6	193	7.8	0.178	12
1418				13.52	2.1	1.8	199	7.8	0.178	12
1423		225		13.53	1.8	1.7	195	7.9	0.178	12
1428				13.53	1.4	1.7	190	8.0	0.178	12
1433		225		13.54	1.2	1.5	187	8.0	0.178	12
1438			1.2	13.54	0.9	1.6	185	8.1	0.178	12
1438	Sampling Started									
1520	Sampling Complete									

Instrument Model/Serial Number(s): Horiba U-22 (M015-07); Lamotte 2020 (M024-07) Calibration Date(s): 3/15/04

ATTACHMENT B - Ground Water Monitoring Well Data Log

Monitoring Well ID: MW-101S Date: 3/15/04 Static Water Level: 5.03 Name: RJB

Pump Set Depth: 21.31 All Depths Are Feet Below Top Of Inner Casing (TIC)

TIME (military)	Frequency (cycles/sec)	Discharge Rate (mL/min)	Cum. Purge Volume (gallons)	DTW (feet)	Field Parameters: Turbidity (NTU)	DO (mg/L)	Eh (mv)	pH (S.U.)	Specific Conductance (µS/cm)	Temperature (degree C)
1311		275		5.03	Purging Started					
1315		275		5.07	5.1	13	290	6.0	0.164	7.7
1320		300		5.08	4.2	13	282	6.6	0.153	7.3
1325		350		5.10	3.1	13	280	6.1	0.136	7.2
1330				5.10	2.7	13	277	6.1	0.128	7.1
1335			1.9	5.10	2.0	12	275	6.1	0.127	7.2
1335		Sampling Started								
1400		Sampling Completed								

Instrument Model/Serial Number(s): Horiba U-22, M015-07; Lamotte 2020 (M024-09) Calibration Date(s): 3/15/04

ATTACHMENT B - Ground Water Monitoring Well Data Log

Monitoring Well ID: 102D Date: 3/17/04 Static Water Level: – Name: BRADLEY B. LAFOREST

Pump Set Depth: BAILER All Depths Are Feet Below Top Of Inner Casing (TIC)

TIME (military)	Frequency (cycles/sec)	Discharge Rate (mL/min)	Cum. Purge Volume (gallons)	DTW (feet)	Field Parameters					
					Turbidity (NTU)	DO (mg/L)	Eh (mv)	pH (S.U.)	Specific Conductance (us/cm)	Temperature (degree C)
1300					15	6.7	170	8.3	601	8

Instrument Model/Serial Number(s): HORIBA U-22 M015-02 Calibration Date(s): 3/17/04
LAMOTTE 2020 M024-11

ATTACHMENT B - Ground Water Monitoring Well Data Log

Monitoring Well ID: MW-102S Date: 3/16/04 Static Water Level: 11.09 Name: RJB

Pump Set Depth: ≈191 All Depths Are Feet Below Top Of Inner Casing (TIC)

TIME (military)	Frequency (cycles/sec)	Discharge Rate (mL/min)	Cum. Purge Volume (gallons)	DTW (feet)	Field Parameters: Turbidity (NTU)	DO (mg/L)	Eh (mv)	pH (S.U.)	Specific Conductance mS (~~us~~/cm) RJB	Temperature (degree C)
1031		175		11.09	Purging	Started				
1036		225		11.19	5.0	13	249	6.3	0.496	7.1
1041				11.22	4.4	12	246	6.3	0.500	7.1
1046				11.24	4.3	11	240	6.4	0.503	7.1
1051		225		11.26	4.1	11	235	6.4	0.502	7.2
1056			2.0	11.27	4.0	10	231	6.5	0.505	7.2
1056	Sampling Started									
1130	Sampling Completed									

Instrument Model/Serial Number(s): Horiba U-22 (M015-07); Lamotte 2020 (M024-09) Calibration Date(s): 3/16/04

ATTACHMENT B - Ground Water Monitoring Well Data Log

Monitoring Well ID: MW-103D Date: 3/17/04 Static Water Level: ~~1.35~~ RP Name: RJB

Pump Set Depth: NA All Depths Are Feet Below Top Of Inner Casing (TIC)

TIME (military)	Frequency (cycles/sec)	Discharge Rate (mL/min)	Cum. Purge Volume (gallons)	DTW (feet)	Field Parameters					
					Turbidity (NTU)	DO (mg/L)	Eh (mv)	pH (S.U.)	Specific Conductance (us/cm)	Temperature (degree C)
930					14	13	206	7.6	380	11
				Bailed						

Instrument Model/Serial Number(s): Horiba U-22 (M05-07); Lamotte 2020 (M024-05) Calibration Date(s): 3/17/04

ATTACHMENT B - Ground Water Monitoring Well Data Log

Monitoring Well ID: MW-103S Date: 3/16/04 Static Water Level: 13.63 Name: RJP

Pump Set Depth: ≈20' All Depths Are Feet Below Top Of Inner Casing (TIC)

TIME (military)	Frequency (cycles/sec)	Discharge Rate (mL/min)	Cum. Purge Volume (gallons)	DTW (feet)	Field Parameters: Turbidity (NTU)	DO (mg/L)	Eh (mv)	pH (S.U.)	Specific Conductance (µS/cm)	Temperature (degree C)
0910		350		13.63	Purging Started			---		
0914				13.63	3.2	12	248	6.0	0.451	11
0919				13.63	1.6	13	245	6.3	0.464	11
0924		375		13.64	1.4	14	246	6.3	0.462	10
0929				13.64	1.2	14	237	6.3	0.463	11
0934				13.64	1.1	14	232	6.4	0.458	11
0935			2.3	13.64	0.9	13	230	6.4	0.460	11
0935	Sampling	Started								
1010	Sampling	Completed								

Instrument Model/Serial Number(s): Horiba U-22 (M015-07); Lamotte 2020 (M024-05) Calibration Date(s): 3/16/04

ATTACHMENT B - Ground Water Monitoring Well Data Log

Monitoring Well ID: MW-104S Date: 3/18/04 Static Water Level: 10.38 Name: RJB

Pump Set Depth: _____ All Depths Are Feet Below Top Of Inner Casing (TIC)

TIME (military)	Frequency (cycles/sec)	Discharge Rate (mL/min)	Cum. Purge Volume (gallons)	DTW (feet)	Field Parameters: Turbidity (NTU)	DO (mg/L)	Eh (mv)	pH (S.U.)	Specific Conductance (us/cm)	Temperature (degree C)
0940		250		10.38	Purging	Started				
0943		↓		11.05	13	11	257	5.9	305	12
0948		225		11.30	11	12	252	6.2	274	11
0953				11.30	11	11	262	6.1	275	11
0958				11.30	9.9	11	262	6.1	270	11
1003		↓	↓	11.31	9.3	11	257	6.2	266	12
1008		225	1.69	11.31	9.1	10	255	6.2	264	12
1008	Sampling	Started								
1110	Sampling	completed								
	S.									

Instrument Model/Serial Number(s): Horiba U-22, Lamotte 2020 Calibration Date(s): 3/18/04

ATTACHMENT B - Ground Water Monitoring Well Data Log

Monitoring Well ID: MW-105D Date: 3/17/04 Static Water Level: 13.72 Name: RJB

Pump Set Depth: ≈ 50' All Depths Are Feet Below Top Of Inner Casing (TIC)

TIME (military)	Frequency (cycles/sec)	Discharge Rate (mL/min)	Cum. Purge Volume (gallons)	DTW (feet)	Field Parameters: Turbidity (NTU)	DO (mg/L)	Eh (mv)	pH (S.U.)	Specific Conductance mS ~~(us~~/cm)	Temperature (degree C)
0835		225		13.72	Purging Starting					
0840		↓	↓	14.07	3.1	10	205	6.9	0.401	14
0850		↓	↓	14.15	2.5	9.3	199	7.5	0.389	14
~~0900~~ 0855		↓	↓	14.17	2.4	8.6	198	7.6	0.388	14
0900		225	↓	14.17	2.2	8.2	197	7.6	0.388	14
0905		↓	1.75	14.18	2.1	7.8	196	7.7	0.387	14
0905	Sampling	Started								
1040	Sampling	Completed								

Instrument Model/Serial Number(s): Horiba U-22 (M015-07); Lamotte 2020 (M024-01) Calibration Date(s): 3/17/04

ATTACHMENT B - Ground Water Monitoring Well Data Log

Monitoring Well ID: MW-105S Date: 3/16/04 Static Water Level: 14.96 Name: [illegible]

Pump Set Depth: _____ All Depths Are Feet Below Top Of Inner Casing (TIC)

TIME (military)	Frequency (cycles/sec)	Discharge Rate (mL/min)	Cum. Purge Volume (gallons)	DTW (feet)	Field Parameters: Turbidity (NTU)	DO (mg/L)	Eh (mv)	pH (S.U.)	Specific Conductance (us/cm)	Temperature (degree C)
1242		250		14.96	Pumping	Started				
1246				15.09	8.0	7.1	217	6.9	0.474	11
1251		↓		15.08	7.2	5.5	211	7.0	0.478	12
1256		250		15.08	5.2	4.5	208	7.0	0.473	12
1301				15.09	4.7	3.3	206	7.0	0.468	12
1306				15.09	3.9	3.6	205	7.0	0.467	12
1311		↓		15.09	2.7	3.0	204	7.1	0.465	12
1316		250		15.09	2.9	3.7	204	7.0	0.466	12
1321		↓	↓	15.09	2.3	3.4	204	7.0	0.462	12
1326		250	2.9	15.09	2.0	3.5	204	7.0	0.461	12
1326	Sampling Started									

Instrument Model/Serial Number(s): Horiba U-22 (M015-07), Lamotte 2020 (M024-04) Calibration Date(s): 3/16/04

ATTACHMENT B - Ground Water Monitoring Well Data Log

Monitoring Well ID: 106D Date: 3/17/04 Static Water Level: 15.42 Name: BRADLEY B. LAFOREST

Pump Set Depth: 49.9 All Depths Are Feet Below Top Of Inner Casing (TIC)

TIME (military)	Frequency (cycles/sec)	Discharge Rate (mL/min)	Cum. Purge Volume (gallons)	DTW (feet)	Field Parameters					
					Turbidity (NTU)	DO (mg/L)	Eh (mv)	pH (S.U.)	Specific Conductance (us/cm)	Temperature (degree C)
1020	START	80								
1045		80		16.91	2.9	6.1	62	9.5	337	12
1105		80		17.04	2.7	5.0	90	9.4	338	12
1200		120		18.85	2.9	7.2	140	9.3	336	13
1205		120		18.86	2.5	5.4	140	9.3	335	13
1210		120		18.88	2.5	4.5	140	9.3	335	13
1215	SAMPLE		2.6							

Instrument Model/Serial Number(s): HORIBA U-22 M015-02 Calibration Date(s): 3/17/04
LAMOTTE 2020 M024-11

ATTACHMENT B - Ground Water Monitoring Well Data Log

Monitoring Well ID: MW-106S Date: 3/17/04 Static Water Level: 15.02 Name: RJB

Pump Set Depth: ≈20 All Depths Are Feet Below Top Of Inner Casing (TIC)

TIME (military)	Frequency (cycles/sec)	Discharge Rate (mL/min)	Cum. Purge Volume (gallons)	DTW (feet)	Field Parameters: Turbidity (NTU)	DO (mg/L)	Eh (mv)	pH (S.U.)	Specific Conductance (us/cm)	Temperature (degree C)
1055		250		15.02	Purging Started					
1059		300		15.16	9.2	3.2	205	6.3	1750	12
1105				15.19	9.0	<0.02	179	6.4	1710	12
1110				15.19	7.1	<0.02	164	6.5	1600	12
1115				15.19	5.2	<0.02	163	6.4	1740	12
1120		300		15.19	4.2	<0.02	161	6.4	1910	12
~~1125~~ 1123				15.19	3.7	<0.02	162	6.4	2000	12
1127		300	2.44	15.19	3.5	<0.02	162	6.4	2130	12
1127	Sampling Started									
1250	Sampling Completed									

Instrument Model/Serial Number(s): Horiba U-22 (M015-07); Lamotte 2020 (M034-09) Calibration Date(s): 3/17/04

ATTACHMENT B - Ground Water Monitoring Well Data Log

Monitoring Well ID: 107D Date: 3/16/04 Static Water Level: 15.75 Name: BRADLEY B. LAFOREST

Pump Set Depth: 95.7 All Depths Are Feet Below Top Of Inner Casing (TIC)

TIME (military)	Frequency (cycles/sec)	Discharge Rate (mL/min)	Cum. Purge Volume (gallons)	DTW (feet)	Field Parameters					
					Turbidity (NTU)	DO (mg/L)	Eh (mv)	pH (S.U.)	Specific Conductance (us/cm)	Temperature (degree C)
0800	-	100	START	15.75	-	-	-	-	-	-
0815		100		18.37	3.0	4.9	180	6.4	171	13
0830		100		18.55	3.3	4.1	170	6.4	167	13
0845		100	18.61 → ~~18.61~~ (A)		3.2	3.9	170	6.3	155	13
0900		100		18.62	2.9	4.2	170	6.3	155	13
0905		100		18.62	2.4	3.6	180	6.3	157	13
0910		100		18.62	2.5	3.5	180	6.3	157	13
0915		100		18.57	2.4	3.7	180	6.3	159	13
0920	SAMPLE		2.0 gal							

Instrument Model/Serial Number(s): HORIBA U-22 M015-02 Calibration Date(s): 3/16/04
LAMOTTE 2020 M024-11

ATTACHMENT B - Ground Water Monitoring Well Data Log

Monitoring Well ID: 107S Date: 3-15-04 Static Water Level: 15.53 Name: BRADLEY LAFOREST

Pump Set Depth: 20.7 All Depths Are Feet Below Top Of Inner Casing (TIC)

TIME (military)	Frequency (cycles/sec)	Discharge Rate (mL/min)	Cum. Purge Volume (gallons)	DTW (feet)	Field Parameters					
					Turbidity (NTU)	DO (mg/L)	Eh (mv)	pH (S.U.)	Specific Conductance (us/cm)	Temperature (degree C)
1340	—	150	START	15.53						
1350	—	150		15.82	3.6	6.7	350	6.0	530	14
1355	—	150		15.82	2.9	2.7	330	6.0	520	14
1400	—	150		15.85	3.0	2.1	320	6.0	503	14
1405	—	150		15.85	2.5	1.8	310	6.0	488	14
1410	—	150		15.85	2.3	1.5	300	6.0	481	13
1420	—	150		15.86	2.1	1.1	290	5.9	466	13
1430	—	150		15.87	2.0	0.5	280	5.9	443	14
1435	—	150		15.87	2.1	0.8	280	5.9	429	14
1440	—	150		15.87	2.0	0.9	280	5.9	412	13
1445	SAMPLE		2.4							

Instrument Model/Serial Number(s): HORIBA U-22 M015-02 Calibration Date(s): 3-15-04
LAMOTTE 2020 M024-11

ATTACHMENT B - Ground Water Monitoring Well Data Log

Monitoring Well ID: 108S Date: 3/17/04 Static Water Level: 7.24 Name: BRADLEY B. LAFOREST

Pump Set Depth: 20.3 All Depths Are Feet Below Top Of Inner Casing (TIC)

TIME (military)	Frequency (cycles/sec)	Discharge Rate (mL/min)	Cum. Purge Volume (gallons)	DTW (feet)	Field Parameters					
					Turbidity (NTU)	DO (mg/L)	Eh (mv)	pH (S.U.)	Specific Conductance (us/cm)	Temperature (degree C)
0850	START	450		7.24	9.8					
0900		450		7.20	9.8	2.0	-45	6.3	115	9
0905		450		7.20	3.6	<0.1	-42	6.3	117	9
0910		450		7.18	2.3	<0.1	-42	6.3	115	9
0915		450		7.18	2.2	<0.1	-42	6.3	115	9
0920		450		7.17	2.1	<0.1	-42	6.3	115	9
0925	STOP		4.2							

Instrument Model/Serial Number(s): HORIBA U-22 M015-02 Calibration Date(s): 3/17/04
LAMOTTE 2020 M024-11

ATTACHMENT B - Ground Water Monitoring Well Data Log

Monitoring Well ID: 109D Date: 3/16 Static Water Level: 17.01 Name: Dave Lovejoy

Pump Set Depth: 50.8 All Depths Are Feet Below Top Of Inner Casing (TIC)

TIME (military)	Frequency (cycles/sec)	Discharge Rate (mL/min)	Cum. Purge Volume (gallons)	DTW (feet)	Field Parameters					
					Turbidity (NTU)	DO (mg/L)	Eh (mv)	pH (S.U.)	Specific Conductance (us/cm)	Temperature (degree C)
1345		115	~~17.01~~	17.01						
1350		115		18.60	9.6	4.0	95	7.3	482	11.7
1355		115		19.10	10.0	1.9	99	7.3	459	12.3
1400		115		19.38	8.0	1.9	88	7.3	498	11.9
1405		115		19.49	5.3	1.9	89	7.4	527	11.9
1410		115		19.60	3.7	1.7	90	7.4	543	11.7
1415		115		19.68	2.1	1.5	90	7.4	549	11.8
1420		115		19.74	1.9	1.4	90	7.4	556	11.9
1425		115		19.80	1.5	1.3	89	7.5	566	11.8
1430		115		19.90	1.1	1.3	90	7.6	562	11.9
1435		115		19.95	DOV ~~1.4~~ 0.7	1.4	90	7.6	568	12.0
1440		115		19.98	DOV ~~1.4~~ 0.6	1.4	91	7.6	567	12.1
1445		115		20.01	0.5	1.5	92	7.6	571	11.9
1450		115	1.67	20.02	0.6	1.6	93	7.7	578	12.0

Instrument Model/Serial Number(s): Horiba U22 01036 / LaMotte 2020 M02408 Calibration Date(s): 3/16

ATTACHMENT B - Ground Water Monitoring Well Data Log

Monitoring Well ID: 109S Date: 3/16/04 Static Water Level: 18.11 Name: Dave Lovejoy

Pump Set Depth: 19.8 All Depths Are Feet Below Top Of Inner Casing (TIC)

TIME (military)	Frequency (cycles/sec)	Discharge Rate (mL/min)	Cum. Purge Volume (gallons)	DTW (feet)	Field Parameters					
					Turbidity (NTU)	DO (mg/L)	Eh (mv)	pH (S.U.)	Specific Conductance (us/cm)	Temperature (degree C)
1150		120		18.11						
1155		120		19.12	31	5.3	154	6.4	644	11.9
1200		120		18.12	13	4.4	157	6.4	633	12.1
1205		120		18.12	7.0	4.1	159	6.4	663	12.0
1210		120		19.12	6.2	2.9	158	6.4	688	11.8
1215		120		18.12	3.0	4.0	160	6.4	706	11.7
1220		120		19.12	1.7	3.8	161	6.4	709	11.7
1225		120		19.12	1.3	3.9	159	6.4	709	11.6
1230		120	1.27	19.12	3.1	3.4	156	6.4	799	11.9

Instrument Model/Serial Number(s): Horiba U-22 01036 LaMotte 2020 11102408 Calibration Date(s): 3/16/04

ATTACHMENT B - Ground Water Monitoring Well Data Log

Monitoring Well ID: 116D Date: 3/17 Static Water Level: 20.02 Name: Dave Lovejoy

Pump Set Depth: 84.2 All Depths Are Feet Below Top Of Inner Casing (TIC)

TIME (military)	Frequency (cycles/sec)	Discharge Rate (mL/min)	Cum. Purge Volume (gallons)	DTW (feet)	Field Parameters					
					Turbidity (NTU)	DO (mg/L)	Eh (mv)	pH (S.U.)	Specific Conductance (us/cm)	Temperature (degree C)
1050		125		20.02						
1100		125		20.46	500	4.6	-65	7.6	318	10.1
1110		125		20.44	320	0.7	-61	7.7	314	9.8
1120		125		20.42	120	0.5	-47	7.6	296	9.1
1130		125		20.44	40	0.4	-33	7.6	290	9.5
1140		125		20.44	14	0.2	-13	7.6	284	9.2
1145		125		20.44	7.3	0.2	-4	7.5	281	9.4
1150		125		20.44	5.0	0.1	6	7.5	281	9.2
1155		125		20.44	4.1	0.1	12	7.5	283	9.2
1200		125	2.3	20.44	2.9	0.1	17	7.5	282	9.1

Instrument Model/Serial Number(s): Horiba U22 #01036 LaMotte 2020 #M02408 Calibration Date(s): 3/17

ATTACHMENT B - Ground Water Monitoring Well Data Log

Monitoring Well ID: 1105 Date: 3/17 Static Water Level: 20.90 Name: Dave Lovejoy

Pump Set Depth: 20.50 All Depths Are Feet Below Top Of Inner Casing (TIC)

TIME (military)	Frequency (cycles/sec)	Discharge Rate (mL/min)	Cum. Purge Volume (gallons)	DTW (feet)	Field Parameters					
					Turbidity (NTU)	DO (mg/L)	Eh (mv)	pH (S.U.)	Specific Conductance (us/cm)	Temperature (degree C)
0840		50	2	20.90						
0850		50		20.92	1.4	6.4	243	5.5	108	9.1
0900		50		20.92	1.5	4.4	231	5.7	100	9.4
0905		50		20.91	0.7	3.8	218	5.9	96	8.7
0910		50		20.90	0.4	3.6	216	5.9	95	8.6
0915		50		20.90	0.3	3.4	212	5.9	98	8.6
0920		50		20.89	0.3	3.3	209	6.0	99	8.7
0925		50		20.89	0.4	3.1	206	6.0	101	8.6
0930		50	1.32	20.89	0.4	3.0	204	6.0	106	8.8

Instrument Model/Serial Number(s): Horiba U-22 #D1036 LaMotte 2020 # M02408 Calibration Date(s): 3/17

ATTACHMENT B - Ground Water Monitoring Well Data Log

Monitoring Well ID: MW111S Date: 3/15/04 Static Water Level: 16.95 Name: Dave Lovejoy

Pump Set Depth: 19.4 ft All Depths Are Feet Below Top Of Inner Casing (TIC)

TIME (military)	Frequency (cycles/sec)	Discharge Rate (mL/min)	Cum. Purge Volume (gallons)	DTW (feet)	Field Parameters					
					Turbidity (NTU)	DO (mg/L)	Eh (mv)	pH (S.U.)	Specific Conductance (us/cm)	Temperature (degree C)
1510	Start purge @	200 ml/min								
1520		200		17.01	10	7.5	248	6.1	174	10.7
1525		200		17.01	8.5	7.1	251	6.0	173	10.7
1530		200		17.02	5.2	7.0	253	6.0	172	10.7
1535		200		17.02	3.0	7.0	255	6.0	171	10.6
1540		200		17.02	2.8	7.0	256	5.9	171	10.6
1545		200	1.85	17.02	2.6	7.0	256	5.9	170	10.6

Instrument Model/Serial Number(s): Horiba U-22 #01036 LaMotte 2020 #1102408 Calibration Date(s): 3/15/04

ATTACHMENT B - Ground Water Monitoring Well Data Log

Monitoring Well ID: 1125 Date: 3/15/04 Static Water Level: 13.16 Name: Dave Lovejoy

Pump Set Depth: 20.3 All Depths Are Feet Below Top Of Inner Casing (TIC)

TIME (military)	Frequency (cycles/sec)	Discharge Rate (mL/min)	Cum. Purge Volume (gallons)	DTW (feet)	Field Parameters					
					Turbidity (NTU)	DO (mg/L)	Eh (mv)	pH (S.U.)	Specific Conductance (us/cm)	Temperature (degree C)
1335	Start purge @ 260 ml/min									
1345		260		13.19	2.1	2.1	229	5.6	76	10.3
1350		260		13.19	1.9	1.4	234	5.5	69	10.3
1355		260		13.20	1.0	1.2	233	5.5	67	10.3
1400		260		13.21	0.9	1.1	233	5.5	66	10.3
1405		260	2.1	13.21	0.9	1.0	234	5.5	64	10.2

Instrument Model/Serial Number(s): Horiba U-22 # 01036 LaMotte 2020 # M02409 Calibration Date(s): 3/15/04

ATTACHMENT B - Ground Water Monitoring Well Data Log

Monitoring Well ID: 1135 Date: 3/16/04 Static Water Level: 12.30 Name: Dave Lovejoy

Pump Set Depth: 21.7 All Depths Are Feet Below Top Of Inner Casing (TIC)

TIME (military)	Frequency (cycles/sec)	Discharge Rate (mL/min)	Cum. Purge Volume (gallons)	DTW (feet)	Field Parameters					
					Turbidity (NTU)	DO (mg/L)	Eh (mv)	pH (S.U.)	Specific Conductance (us/cm)	Temperature (degree C)
1020		200		12.30						
1025		200		12.38	1.2	4.4	156	5.8	421	11.2
1030		200		12.38	1.9	1.3	171	5.8	420	11.2
1035		200		12.38	0.9	0.5	178	5.8	418	11.1
1040		200		12.38	0.7	0.2	186	5.8	425	11.1
1045		200		12.38	0.6	0.2	192	5.8	436	11.1
1050		200	1.58	12.38	0.5	0.1	195	5.8	414	11.0

Instrument Model/Serial Number(s): Horiba U-22 #01036 LaMotte 2020 #1102409 Calibration Date(s): 3/16

ATTACHMENT B - Ground Water Monitoring Well Data Log

Monitoring Well ID: MW-114S Date: 3/17/04 Static Water Level: 15.02 Name: RJB

Pump Set Depth: 2.171 All Depths Are Feet Below Top Of Inner Casing (TIC)

TIME (military)	Frequency (cycles/sec)	Discharge Rate (mL/min)	Cum. Purge Volume (gallons)	DTW (feet)	Field Parameters: Turbidity (NTU)	DO (mg/L)	Eh (mv)	pH (S.U.)	Specific Conductance (us/cm)	Temperature (degree C)
~~1327~~ 1332		200		15.02	Purging Started					
1335		250		15.10	9.5	9.7	140	6.7	1280	11
1340		↓		15.11	7.0	5.3	120	6.7	1350	12
1345		275		15.13	6.9	2.4	116	6.9	1400	13
1350		↓		15.15	5.5	2.1	120	6.9	1430	14
1355		↓		15.15	4.1	1.4	127	6.9	1430	14
1358		275		15.15	4.1	0.74	132	6.9	1430	14
1401		↓	↓	15.15	3.9	1.5	135	6.9	1440	14
1405		↓	2.24	15.15	3.8	1.4	138	6.9	1440	14
1405	Sampling	Started								
1500	Sampling	completed								

Instrument Model/Serial Number(s): ~~Horiba~~ U-27 (M015-07); Lamotte 2020 (~~M015~~ M024-04) Calibration Date(s): 3/17/04

Bechtel

* take xtra tubing to lower intake in well if needed

ATTACHMENT B - Ground Water Monitoring Well Data Log

Monitoring Well ID: MW-115S Date: 3/17/04 Static Water Level: 1800 Name: RJB

Pump Set Depth: 2 16.5' All Depths Are Feet Below Top Of Inner Casing (TIC)

TIME (military)	Frequency (cycles/sec)	Discharge Rate (mL/min)	Cum. Purge Volume (gallons)	DTW (feet)	Field Parameters: Turbidity (NTU)	DO (mg/L)	Eh (mv)	pH (S.U.)	Specific Conductance (us/cm)	Temperature (degree C)
1502		250		16.60	Purging Started					
1507				15.16	23	9.9	185	6.7	1250	13
1512				15.17	12	7.0	182	6.7	1240	13
1517				15.18	4.9	4.9	182	6.6	1220	13
1522				15.19	4.7	4.6	183	6.6	1210	13
1527		250		15.19	4.2	5.7	184	6.6	1210	13
1532				15.19	3.7	5.8	184	6.5	1200	13
1537			2.28	15.20	3.3	6.1	184	6.5	1200	13
1537	Sampling Started									
	Sampling Completed									

Instrument Model/Serial Number(s): Horiba U-22 (M015-07); Lamotte 2020 (M024-08) Calibration Date(s): 3/17/03

ATTACHMENT B - Ground Water Monitoring Well Data Log

Monitoring Well ID: 1175 Date: 3/16/04 Static Water Level: 10.93 Name: Dave Lovejoy

Pump Set Depth: 20' All Depths Are Feet Below Top Of Inner Casing (TIC)

TIME (military)	Frequency (cycles/sec)	Discharge Rate (mL/min)	Cum. Purge Volume (gallons)	DTW (feet)	Field Parameters					
					Turbidity (NTU)	DO (mg/L)	Eh (mv)	pH (S.U.)	Specific Conductance (us/cm)	Temperature (degree C)
0848		125								
0855		125		11.13	4.5	2.0	-80	6.4	732	8.9
0900		125		11.15	5.3	1.6	-85	6.3	724	8.8
0905		125		11.16	4.4	1.5	-89	6.2	720	8.8
0910		125		11.16	5.2	0.6	-94	6.3	722	8.9
0915		125		11.17	3.5	1.6	-99	6.4	722	8.9
0920		125		11.17	3.2	1.2	-100	6.5	715	8.8
0925		125	1.32	11.18	3.5	0.0	-100	6.6	707	8.9

Instrument Model/Serial Number(s): Horiba U-22 # 01036 LaMotte 2020 # M02400 Calibration Date(s): 3/16

ATTACHMENT B - Ground Water Monitoring Well Data Log

Monitoring Well ID: 122D Date: 3/16/04 Static Water Level: 1639 Name: BRADLEY B. LAFOREST

Pump Set Depth: 188 All Depths Are Feet Below Top Of Inner Casing (TIC)

TIME (military)	Frequency (cycles/sec)	Discharge Rate (mL/min)	Cum. Purge Volume (gallons)	DTW (feet)	Field Parameters					
					Turbidity (NTU)	DO (mg/L)	Eh (mv)	pH (S.U.)	Specific Conductance (us/cm)	Temperature (degree C)
1500	START	150		16.39		~~2.6~~		~~9.60~~		
1530		100		17.60	60.8	2.1	-160	9.3	187	10
1535		100		17.60	50.2	0.9	-160	9.4	184	10
1540		100		17.64	56.1	0.5	-160	9.4	195	10
1545		100		17.64	53.2	0.2	-160	9.4	191	10
1550		100		17.64	59.5	<0.1	-160	9.4	186	10
1555	STOP		1.7 gal							

Instrument Model/Serial Number(s): HORIBA U-22 M015-02 Calibration Date(s): 3-16-04
LAMOTTE 2020 M024-11

ATTACHMENT B - Ground Water Monitoring Well Data Log

Monitoring Well ID: 122S Date: 3-16-04 Static Water Level: 12.47 Name: BRADLEY B. LAFOREST

Pump Set Depth: 16 All Depths Are Feet Below Top Of Inner Casing (TIC)

TIME (military)	Frequency (cycles/sec)	Discharge Rate (mL/min)	Cum. Purge Volume (gallons)	DTW (feet)	Field Parameters: Turbidity (NTU)	DO (mg/L)	Eh (mv)	pH (S.U.)	Specific Conductance (us/cm)	Temperature (degree C)
1210	START	100		12.47				6.84		
1230		100		13.76	131	2.3	1	6.6	567	10
1300		100		14.00	83.9	<0.1	6	6.5	570	10
1315		100		14.00	23.8	0.3	2	6.5	587	10
1330		100		14.00	13.6	<0.1	0	6.5	592	10
1335		100		13.99	14.1	<0.1	-2	6.5	602	10
1340		100		13.99	13.79.8	<0.1	-5	6.5	609	11
1345		100		14.01	9.8	<0.1	-5	6.5	611	11
1350		100		14.01	8.9	<0.1	-6	6.5	624	11
1355	SAMPLE		2 Liters							

Instrument Model/Serial Number(s): HORIBA U-22 M015-02 Calibration Date(s): 3/16/04
LAMOTTE 2020 M024-11

ATTACHMENT B - Ground Water Monitoring Well Data Log

Monitoring Well ID: 1235 Date: 3/17 Static Water Level: 14.31 Name: Dave Lovejoy

Pump Set Depth: 28.5 All Depths Are Feet Below Top Of Inner Casing (TIC)

TIME (military)	Frequency (cycles/sec)	Discharge Rate (mL/min)	Cum. Purge Volume (gallons)	DTW (feet)	Field Parameters					
					Turbidity (NTU)	DO (mg/L)	Eh (mv)	pH (S.U.)	Specific Conductance (us/cm)	Temperature (degree C)
1345		200		14.31						
1355		200		14.81	0.2	9.1	136	6.7	859	12.7
1400		200		14.83	0.1	9.0	139	6.7	860	12.6
1405		200		14.82	0.1	9.0	142	6.7	860	12.5
1410		200		14.82	0.1	8.9	144	6.7	860	12.3
1415		200		14.82	0.1	8.7	146	6.7	858	12.2
1420		200	1.85	14.82	0.1	8.5	148	6.7	856	12.4

Instrument Model/Serial Number(s): Horiba U22 # 01036 LaMotte 2020 m02408 Calibration Date(s): 3/17

ATTACHMENT B - Ground Water Monitoring Well Data Log

Monitoring Well ID: 1245 Date: 3-18-04 Static Water Level: 17.51 Name: BRADLEY B. LAFOREST

Pump Set Depth: ~ 20 All Depths Are Feet Below Top Of Inner Casing (TIC)

TIME (military)	Frequency (cycles/sec)	Discharge Rate (mL/min)	Cum. Purge Volume (gallons)	DTW (feet)	Field Parameters					
					Turbidity (NTU)	DO (mg/L)	Eh (mv)	pH (S.U.)	Specific Conductance (us/cm)	Temperature (degree C)
1010	START	250		17.51			(BA)			
1025		250		17.57	5.6	1.9	~~215~~ 220	6.4	416	11
1030		250		17.57	3.5	2.2	(BA) ~~200~~ 220	6.4	409	11
1035		250		17.57	2.8	4.6	230	6.4	411	11
1040		250		17.57	2.3	3.6	240	6.3	406	11
1045	SAMPLE	250	2.0 gal							

Instrument Model/Serial Number(s): HORIBA U-22 M015-02 Calibration Date(s): 3/18/04
LAMOTTE 2020 M024-11

ATTACHMENT B - Ground Water Monitoring Well Data Log

Monitoring Well ID: 125S Date: 3/16/04 Static Water Level: _____ Name: BRADLEY B. LAFOREST

Pump Set Depth: 16.5 All Depths Are Feet Below Top Of Inner Casing (TIC)

TIME (military)	Frequency (cycles/sec)	Discharge Rate (mL/min)	Cum. Purge Volume (gallons)	DTW (feet)	Field Parameters: Turbidity (NTU)	DO (mg/L)	Eh (mv)	pH (S.U.)	Specific Conductance (us/cm)	Temperature (degree C)
1035	START	200	-	~~16.5~~ (AA) → 16.22						
1050		200		16.34	>999	2.4	66	6.7	735	7
1055		200		16.35	>999	1.6	81	6.6	735	7
1105		200		16.35	70	1.5	90	6.7	741	7
1110		200		16.35	9.5	1.6	90	6.7	727	7
1115		200		16.35	6.1	1.6	90	6.7	734	7
1120		200		16.35	4.7	1.6	89	6.7	734	7
1125		200		16.35	4.2	1.5	89	6.7	731	7
1130	SAMPLE		2.6 gal							

Instrument Model/Serial Number(s): HOLIBA U-22 M015-02 Calibration Date(s): 3/16/04
LAMOTTE 2020 M024-11

Bechtel

ORANGE FLOC AT START-UP

SAMPLE COLLECTION CHECKLIST
JUNE 2004

WELL	SAMPLE ID	PUMP	MIX	STND	ALL	Notes	Collecte
F-2	EOF2-0204-001	Peristaltic	X				x
W-1	MW1-0204-001	Peristaltic		X			x
MW-100D	MW100D-0204-001	Peristaltic		X			x
MW-100S	MW100S-0204-001	Peristaltic		X			x
MW-101D	MW101D-0204-001	Peristaltic	X				x
MW-101S	MW101S-0204-001	Peristaltic	X				x
MW-102D	MW102D-0204-001	Bailer	X			Evacuate/recover/ bail	x
MW-102S	MW102S-0204-001	Peristaltic	X				x
MW-103D	MW103D-0204-001	Bailer			X	Evacuate/recover/ bail	x
MW-103S	MW103S-0204-001	Peristaltic			X		x
MW-104S	MW104S-0204-001	Peri/Bail			X		x
MW-105D	MW105D-0204-001	Peristaltic			X		x
MW-105S	MW105S-0204-001	Peristaltic			X		x
MW-105S dup	MW600-0204-001	Peristaltic			X		x
MW-106D	MW106D-0204-001	Peristaltic			X		x
MW-106S	MW106S-0204-001	Peristaltic			X		x
MW-107D	MW107D-0204-001	Peristaltic	X				x
MW-107S	MW107S-0204-001	Peristaltic	X				x
MW-108S	MW108S-0204-001	Peri/Bail	X				x
MW-109D	MW109D-0204-001	Peristaltic	X				x
MW-109S	MW109S-0204-001	Peristaltic	X				x
MW-110D	MW110D-0204-001	Peristaltic	X				x
MW-110S	MW110S-0204-001	Peristaltic	X				x
MW-111S	MW111S-0204-001	Peristaltic	X				x
MW-112S	MW112S-0204-001	Peristaltic	X				x
MW-113S	MW113S-0204-001	Peristaltic	X				x
MW-114S	MW114S-0204-001	Peristaltic	X			Inside Infrared beam	x
W-115S	MW115S-0204-001	Peristaltic	X			Dry	
-117S	MW117S-0204-001	Peristaltic	X				x
W-122D	MW122D-0204-001	Peristaltic	X				x
MW-122S	MW122S-0204-001	Peristaltic	X				x
MW-123S	MW123S-0204-001	Peristaltic	X				x
MW-124S	MW124S-0204-001	Peristaltic	X				x
MW-125S	MW125S-0204-001	Peristaltic	X				x
MW-2	MW2-0204-001	Peristaltic		X			x
MW-3	MW3-0204-001	Peristaltic		X			x
MW-502	MW502-0204-001	Peristaltic		X			x
MW-503	MW503-0204-001	Peristaltic		X			x
MW-504	MW504-0204-001	Peristaltic		X			x
MW-505	MW505-0204-001	Peristaltic		X			x
MW-507D	MW507D-0204-001	Peristaltic		X			x
MW-507S	MW507S-0204-001	Peristaltic		X			x
MW-508D	MW508D-0204-001	Peristaltic		X			x
MW-508S	MW508S-0204-001	Peristaltic		X			x
MW-601 (Rinsate Blank)	MW601-0204-001		X			Not Collected; No reuseable sampling equipment required.	

Prepared by: nmb

ATTACHMENT B - Ground Water Monitoring Well Data Log

Monitoring Well ID: EDF-2 Date: 6-22-04 Static Water Level: 12.14 Name: [illegible]

Pump Set Depth: 14' All Depths Are Feet Below Top Of Inner Casing (TIC)

TIME (military)	Frequency (cycles/sec)	Discharge Rate (mL/min)	Cum. Purge Volume (gallons)	DTW (feet)	Field Parameters: Turbidity (NTU)	DO (mg/L)	Eh (mv)	pH (S.U.)	Specific Conductance ~~(us/cm)~~ ms/cm	Temperature (degree C)
1450	–	250	–	12.18	29	11.30	136	6.70	1.20	17.20
1500	–	250	–	12.23	20	8	137	6.57	1.14	17.46
1510	–	250	–	12.24	14	0.12	120	6.85	0.97	17.66
1520		250	–	12.26	6.9	6.42	104	7.22	0.642	17.63
1530	–	250	–	12.26	2.1	7.01	103	7.28	0.582	17.74
1535	–	250	–	12.26	2.0	7.02	103	7.29	0.580	17.69
1540	Sample			12.26	1.6	7.10	103	7.29	0.577	17.62

Instrument Model/Serial Number(s): _____ Calibration Date(s): 6/24/04

ATTACHMENT B - Ground Water Monitoring Well Data Log

Monitoring Well ID: MW-1 Date: 6/28/04 Static Water Level: 11.30 Name: Tige Cunningham

~~Pump~~ Tubing Set Depth: 33.0' All Depths Are Feet Below Top Of Inner Casing (TIC)

TIME (military)	Frequency (cycles/sec)	Discharge Rate (mL/min)	Cum. Purge Volume (gallons)	DTW (feet)	Field Parameters: Turbidity (NTU)	DO (mg/L)	Eh (mv)	pH (S.U.)	Specific Conductance (us/cm)	Temperature (degree C)
1351 Started purging well										
1405	N/A	.100		12.20	33	2.3	-20	5.9	166	13.7
1420		.100		12.32	13	1.7	-30	5.9	165	13.4
1425		.100		12.37	12	1.0	-40	6.1	167	13.3
1430		.83		12.31	12	0.9	-60	6.2	169	13.2
1440		.83		12.31	7.6	0.8	-90	6.7	176	13.5
1445		.83		12.31	7.6	0.8	-100	6.8	180	13.2
1450		.83		12.36	7.1	0.8	-100	6.8	180	13.1
1455		.83		12.36	6.9	0.8	-110	6.8	186	13.0
1458 Parameters Stabil, collected sample.										

Instrument Model/Serial Number(s): Horiba U-22 SN# 929057 LINE #01127 Calibration Date(s): 6/28/04
La Motte Turbidity meter 2020 #SN#0936-4598

ATTACHMENT B - Ground Water Monitoring Well Data Log

Monitoring Well ID: MW100D Date: 6/23/04 Static Water Level: 4.94 Name: RENE AUBE

Pump Set Depth: 27.00' All Depths Are Feet Below Top Of Inner Casing (TIC)

TIME (military)	Frequency (cycles/sec)	Discharge Rate (mL/min)	Cum. Purge Volume (gallons)	DTW (feet)	Field Parameters: Turbidity (NTU)	DO (mg/L)	Eh (mv)	pH (S.U.)	Specific Conductance (us/cm) ms/cm	Temperature (degree C)
0845	—	125		6.22	12.0	0.47	59	5.81	.103	12.96
0855	—	125		7.04	7.31	0.00	65	5.61	.103	12.80
0905	—	125		7.67	7.94	0.00	48	5.88	.103	12.81
0915	—	125		8.18	6.45	0.00	35	6.11	.103	12.73
0925	—	125		8.59	5.80	0.00	29	6.19	.103	12.58
0935	—	125		9.00	5.45	0.00	27	6.22	.103	12.69
0945	—	125		9.10	5.20	0.00	27	6.22	.103	12.97
0955	—	125		9.22	5.13	0.00	25	6.22	.103	12.84
1005	—	125		9.24	5.10	0.00	24	6.22	.103	12.83
1015	—	125		9.24	5.10	0.00	23	6.22	.103	12.84
1025	—	125		9.24	5.11	0.00	22	6.22	.103	12.82
1026	COLLECT SAMPLES									
			3.54	(TOTAL GALLONS PURGED)						

Instrument Model/Serial Number(s): HORIBA U-22 (PINE 01560) Calibration Date(s): 6/23/04

Bechtel

0815 BEGIN SETUP ACTIVITY
0837 BEGIN PURGING WELL
1025 WELL STABLE
1026 COLLECT SAMPLES
1125 FINNISH @ MW100D

", Socket wrench

ATTACHMENT B - Ground Water Monitoring Well Data Log

Monitoring Well ID: 100S Date: 6/30/04 Static Water Level: 4.62 Name: Lauren A Smith

Pump Set Depth: 0.5 above groundsurface All Depths Are Feet Below Top Of Inner Casing (TIC)

TIME (military)	Frequency (cycles/sec)	Discharge Rate (mL/min)	Cum. Purge Volume (gallons)	DTW (feet)	Field Parameters Turbidity (NTU)	DO (mg/L)	Eh (mv)	pH (S.U.)	Specific Conductance ~~(us/cm)~~ mS/cm	Temperature (degree C)
0850	N/A	125		5.85	42	8.9	220	5.5	0.146	14.5
0900		125		5.73	22	8.3	180	5.7	0.124	14.6
0910		125		5.95	8.8	7.0	180	5.8	0.113	14.6
0920		125		6.22	7.5	6.8	190	5.8	0.104	14.5
0930		125		6.43	5.4	7.0	200	5.8	0.096	14.5
0940		125		6.53	4.8	7.5	210	5.8	0.091	14.4
0945		125		6.63	4.5	7.5	220	5.8	0.089	14.3
0950		125		6.73	4.4	7.8	220	5.9	0.088	14.4
1000	Sampling									

Instrument Model/Serial Number(s): S008-27, 01560, M024-11 Calibration Date(s): 6/30/04

Bechtel 125mL/min is the lowest setting Geopump will go w/o shutting off.

3.78

ATTACHMENT B - Ground Water Monitoring Well Data Log

Monitoring Well ID: MW 101D Date: 6-23-04 Static Water Level: 16.20 Name: Miles VanNoordennen

Pump Set Depth: 45 All Depths Are Feet Below Top Of Inner Casing (TIC)

TIME (military)	Frequency (cycles/sec)	Discharge Rate (mL/min)	Cum. Purge Volume (gallons)	DTW (feet)	Field Parameters: Turbidity (NTU)	DO (mg/L)	Eh (mv)	pH (S.U.)	Specific Conductance ~~(us/cm)~~ mS/cm	Temperature (degree C)
1115	N/A	200		16.20	Starting purge					
1120		150		16.49	14.5	1.86	146	7.32	0.191	15.1
1125				16.41	9.2	1.73	143	7.58	0.189	15.4
1130				16.40	-10.0	1.64	139	7.78	0.188	15.7
1135				16.40	-10.0	1.67	135	7.92	0.186	16.2
1140				16.40	-10.0	1.70	133	7.99	0.188	16.3
1145				16.40	-10.0	1.65	131	8.04	0.187	16.2
1150				16.40	-10.0	1.70	128	8.09	0.186	16.4
1155				16.48	-10.0	1.67	127	8.10	0.186	16.5

Instrument Model/Serial Number(s): Horiba U-22 03960 Calibration Date(s): 6-23-04

ATTACHMENT B - Ground Water Monitoring Well Data Log

Monitoring Well ID: MW101S Date: 6-23-04 Static Water Level: 6.31 Name: Miles van Noordennen

Pump Set Depth: 13 All Depths Are Feet Below Top Of Inner Casing (TIC)

TIME (military)	Frequency (cycles/sec)	Discharge Rate (mL/min)	Cum. Purge Volume (gallons)	DTW (feet)	Field Parameters: Turbidity (NTU)	DO (mg/L)	Eh (mv)	pH (S.U.)	Specific Conductance ~~(us/cm)~~ mS/cm	Temperature (degree C)
1400	N/A	200		6.31	Start Mg purge					
1405				6.36	-10.0	8.26	160	7.50	0.143	12.3
1410				6.39	-10.0	8.08	163	7.26	0.142	12.6
1415				6.40	-10.0	8.06	164	7.13	0.139	12.7
1420				6.40	-10.0	8.07	165	7.07	0.138	12.8
1425				6.40	-10.0	7.99	164	7.02	0.138	12.9
1430				6.40	-10.0	8.01	163	7.01	0.138	12.8

Instrument Model/Serial Number(s): Horiba U22 03960 Calibration Date(s): 6-23-04

ATTACHMENT B - Ground Water Monitoring Well Data Log

Monitoring Well ID: MW102D Date: 7-6-04 Static Water Level: 14.19 Name: Miles VanNoordennen

Pump Set Depth: N/A All Depths Are Feet Below Top Of Inner Casing (TIC)

TIME (military)	Frequency (cycles/sec)	Discharge Rate (mL/min)	Cum. Purge Volume (gallons)	DTW (feet)	Field Parameters: Turbidity (NTU)	DO (mg/L)	Eh (mv)	pH (S.U.)	Specific Conductance ~~(us/cm)~~ mS/cm	Temperature (degree C)
0920	N/A	N/A	N/A	14.19	2.9	5.1	100	7.63	0.411	15.4

Instrument Model/Serial Number(s): Horiba U-22 m015-01, Lamotte 2020 m024-08 Calibration Date(s): 7-6-04

Bechtel

* MW102D bailed dry 6-28-04. Sampled 7-6-04 using bailer.

ATTACHMENT B - Ground Water Monitoring Well Data Log

Monitoring Well ID: mw 102S Date: 6-28-04 Static Water Level: 15.44 Name: Miles VanVoorhees

Pump Set Depth: 18 ft All Depths Are Feet Below Top Of Inner Casing (TIC)

TIME (military)	Frequency (cycles/sec)	Discharge Rate (mL/min)	Cum. Purge Volume (gallons)	DTW (feet)	Field Parameters: Turbidity (NTU)	DO (mg/L)	Eh (mv)	pH (S.U.)	Specific Conductance ~~(us/cm)~~ mS/cm	Temperature (degree C)
1430	N/A	200		15.44	Started Purge					
1440				15.55	2.2	6.26	204	6.16	0.181	13.3
1445				15.49	2.0	5.91	196	6.34	0.167	13.0
1450				15.49	2.3	5.91	193	6.39	0.162	12.9
1455				15.56	2.5	5.87	191	6.42	0.160	
1500				15.62	2.4	5.89	190	6.42	0.160	
1505				15.62	2.0	5.94	189	6.43	0.157	
1510				15.63	1.9	5.97	187	6.44	0.155	
1515				15.64	1.8	5.98	186	6.45	0.154	13.0
1520				15.65	1.8	5.94	184	6.46	0.153	12.8

Instrument Model/Serial Number(s): Horiba U-22 03960, HACH 2100P M024-1 Calibration Date(s): 6-28-04

ATTACHMENT B - Ground Water Monitoring Well Data Log

Monitoring Well ID: ~~MW105~~ MW103D Date: 6-30-04 Static Water Level: 16.99 Name: Miles vanNoordennen

Pump Set Depth: N/A All Depths Are Feet Below Top Of Inner Casing (TIC)

TIME (military)	Frequency (cycles/sec)	Discharge Rate (mL/min)	Cum. Purge Volume (gallons)	DTW (feet)	Field Parameters: Turbidity (NTU)	DO (mg/L)	Eh (mv)	pH (S.U.)	Specific Conductance ~~(us/cm)~~ mS/cm	Temperature (degree C)
0915	N/A	N/A	N/A	21.40	4.1	10.5	220	5.3	0.522	16.5

Instrument Model/Serial Number(s): Horiba U-22 03960, HACH 2100P M024-01 Calibration Date(s): 6-30-04

Bechtel

* well bailed dry 6-29-04 0950. Sampled with bailer 6-30-04 0915.

ATTACHMENT B - Ground Water Monitoring Well Data Log

Monitoring Well ID: mw103S Date: 6-24-04 Static Water Level: 16.67 Name: Miles VanNordennen

Pump Set Depth: 20 All Depths Are Feet Below Top Of Inner Casing (TIC)

TIME (military)	Frequency (cycles/sec)	Discharge Rate (mL/min)	Cum. Purge Volume (gallons)	DTW (feet)	Field Parameters: Turbidity (NTU)	DO (mg/L)	Eh (mv)	pH (S.U.)	Specific Conductance ~~(us/cm)~~ ms/cm	Temperature (degree C)
1335	N/A			16.67	Started purge					
1345		300		16.69	113.0	6.40	151	6.91	0.238	11.6
1350					35.6	6.43	156	6.77	0.238	11.3
1355					10.8	6.83	157	6.74	0.239	11.3
MW ~~13~~ 1400					3.1	6.77	157	6.73	0.239	11.2
1405					-6.1	7.08	158	6.72	0.238	
1410					-10.0	7.01		6.72	0.238	
1415				16.70	-10.0	6.97		6.71	0.238	11.3

Instrument Model/Serial Number(s): Horiba U-22 03960 Calibration Date(s): 6-24-04

ATTACHMENT B - Ground Water Monitoring Well Data Log

Monitoring Well ID: MW-104S Date: 6-23-04 Static Water Level: 12.21 Name: Jason Naiden

Pump Set Depth: 17' All Depths Are Feet Below Top Of Inner Casing (TIC)

TIME (military)	Frequency (cycles/sec)	Discharge Rate (mL/min)	Cum. Purge Volume (gallons)	DTW (feet)	Field Parameters: Turbidity (NTU)	DO (mg/L)	Eh (mv)	pH (S.U.)	Specific Conductance ms/cm ~~(us/cm)~~	Temperature (degree C)
1130	–	–		12.31	7.9	14.78	183	6.68	0.626	17.18
1140	–	–		12.56	38	13.96	194	6.44	0.613	17.02
1150	–	–		12.59	31	13.86	188	6.54	0.604	17.10
1200	–	–		12.61	10	13.78	182	6.65	0.577	17.37
1205	–	–		12.62	3.5	13.72	180	6.67	0.579	17.49
1210	–	–		12.60	1.9	13.66	179	6.68	0.583	17.70
1215	–	–		12.60	1.6	13.74	178	6.69	0.583	17.51
1220	–	–	Sample.							

Instrument Model/Serial Number(s): _____ Calibration Date(s): 6-23-04

ATTACHMENT B - Ground Water Monitoring Well Data Log

Monitoring Well ID: MW105D Date: 6-29-04 Static Water Level: 16.89 Name: Miles VanNoordennen

Pump Set Depth: 50 All Depths Are Feet Below Top Of Inner Casing (TIC)

TIME (military)	Frequency (cycles/sec)	Discharge Rate (mL/min)	Cum. Purge Volume (gallons)	DTW (feet)	Field Parameters: Turbidity (NTU)	DO (mg/L)	Eh (mv)	pH (S.U.)	Specific Conductance ~~(us/cm)~~ mS/cm	Temperature (degree C)
1020	N/A	200		16.89	Started purge					
1030		150		17.16	4.9	8.5	170	6.9	0.537	14.9
1035		150		17.17	4.9	8.5	140	7.1	0.534	15.1
1040		200		17.20	4.4	8.5	130	7.3	0.531	14.8
1045				17.20	4.2	8.3	120	7.4	0.524	14.9
1050				17.21	3.9	8.1	120	7.6	0.519	15.0
1055				17.22	4.0	8.0	110	7.7	0.516	
1100				17.23	3.8	7.9			0.520	
1105				17.24	3.8	7.9			0.517	15.1

Instrument Model/Serial Number(s): Horiba U-22 03960, HACH 2100P M024-01 Calibration Date(s): 6-29-04

ATTACHMENT B - Ground Water Monitoring Well Data Log

Monitoring Well ID: MW105S Date: 6-29-04 Static Water Level: 16.58 Name: Miles vanNoordennen

Pump Set Depth: 20.50 All Depths Are Feet Below Top Of Inner Casing (TIC)

TIME (military)	Frequency (cycles/sec)	Discharge Rate (mL/min)	Cum. Purge Volume (gallons)	DTW (feet)	Field Parameters: Turbidity (NTU)	DO (mg/L)	Eh (mv)	pH (S.U.)	Specific Conductance ~~(us/cm)~~ mS/cm	Temperature (degree C)
1400	N/A	200	—	16.58	Purge	Started				
1410	↓	↓		16.61	6.4	2.0	150	7.0	0.543	14.8
1415	↓	↓		16.60	3.3	1.9	160	6.9	0.541	14.8
1420	↓	↓		16.61	2.9	1.8	↓	↓	0.538	14.7
1425	↓	↓		16.60	2.2	1.7	↓	↓	0.541	14.6
1430	↓	↓		16.60	2.4	1.7	↓	↓	0.539	14.7
1435	↓	↓		16.61	2.0	1.6	↓	↓	0.538	14.6
1440	↓	↓		16.61	1.9	1.6	↓	↓	0.540	14.6

Instrument Model/Serial Number(s): Horiba U-22 039BU, HACH 2100P M024-01 Calibration Date(s): 6-29-04

ATTACHMENT B - Ground Water Monitoring Well Data Log

Monitoring Well ID: MW106D Date: 6-22-04 Static Water Level: 17.68 Name: Miles VanNoordenen

Pump Set Depth: 50 All Depths Are Feet Below Top Of Inner Casing (TIC)

TIME (military)	Frequency (cycles/sec)	Discharge Rate (mL/min)	Cum. Purge Volume (gallons)	DTW (feet)	Field Parameters: Turbidity (NTU)	DO (mg/L)	Eh (mv)	pH (S.U.)	Specific Conductance ~~(us/cm)~~ mS/cm	Temperature (degree C)
0935	N/A	200		17.68	Purging Started					
0945		80		18.20	2.5	5.78	101	8.44	0.380	16.7
0950				18.24	2.2	5.70	95	8.59	0.380	17.0
0955				18.29	2.8	5.01	88	8.82	0.377	17.3
1000				18.37	2.5	5.24	78	9.06	0.372	17.6
1005				18.42	3.2	5.19	73	9.16	0.371	17.6
1010				18.46	3.1	5.15	71	9.22	0.368	17.7
1015				18.49	2.5	4.99	67	9.30	0.366	17.8
1018				18.55	2.7	4.94	64	9.34	0.364	17.9
1021				18.57	2.6	4.91	63	9.36	0.364	18.0
1025				18.62	2.7	4.89	62	9.38	0.363	18.0

Instrument Model/Serial Number(s): Horiba U-22, M 03960; Lamotte 2020, M024-07 Calibration Date(s): 6-22-04

ATTACHMENT B - Ground Water Monitoring Well Data Log

Monitoring Well ID: MW106S Date: 6-22-04 Static Water Level: 16.40 Name: Miles van Noordennen

Pump Set Depth: 20 All Depths Are Feet Below Top Of Inner Casing (TIC)

TIME (military)	Frequency (cycles/sec)	Discharge Rate (mL/min)	Cum. Purge Volume (gallons)	DTW (feet)	Field Parameters: Turbidity (NTU)	DO (mg/L)	Eh (mv)	pH (S.U.)	Specific Conductance ~~(us/cm)~~ mS/cm	Temperature (degree C)
1355	N/A	200		16.40	Purging started					
1400				16.46	2.4	1.50	149	6.72	1.88	15.4
1405				16.49	2.2	1.44	152	6.55	1.86	15.5
1410				16.51	2.2	2.29	157	6.41	1.83	15.4
1415				16.50	2.3	2.20	155	6.35	1.81	15.4
1420				16.49	2.4	1.76	158	6.32	1.78	15.3
1425				16.51	2.5	1.72	157	6.30	1.78	15.4
1430				16.52	2.3	1.75	158	6.29	1.77	15.3
1435				16.52	2.3	1.76	155	6.29	1.77	15.4

Instrument Model/Serial Number(s): Horiba U-22, 03960; LaMotte 2020, M024-07 Calibration Date(s): 6-22-04

ATTACHMENT B - Ground Water Monitoring Well Data Log

Monitoring Well ID: MW-107D Date: 6/30/04 Static Water Level: 17.52' PVC Name: Conan Gill

Pump Set Depth: _____ All Depths Are Feet Below Top Of Inner Casing (TIC)

TIME (military)	Frequency (cycles/sec)	Discharge Rate (mL/min)	Cum. Purge Volume (gallons)	DTW PVC (feet)	10% Turbidity (NTU)	10% DO (mg/L)	10mV Field Parameters 0.2 Eh (mv)	pH (S.U.)	3% Specific Conductance mS (uS/cm)	10% Temperature (degree C)
0925	start	125		17.98	33					
0930		125		19.31	15	6.55	162	6.46	0.184	19.51
0945		125		19.60	10	4.39	142	6.45	0.116	19.25
0950		125		19.71	7.5	3.38	132	6.38	0.108	19.58
0955		125		19.86	6.0	3.38	124	6.35	0.106	19.44
1000		125		19.94	5.0	3.40	115	6.34	0.104	19.27
1005		125		19.96	4.7	3.49	110	6.33	0.104	19.27
1010		125		19.94	4.8	2.64	106	6.32	0.104	19.59
1015		125		19.82	3.1	2.68	102	6.29	0.108	19.32
1020		125		19.80	2.9	2.67	100	6.27	0.108	19.66
1025		125		19.80	3.0	2.66	99	6.28	0.108	19.38
1030	Collect	Samples								

flow rate set as low as possible

Instrument Model/Serial Number(s): Horiba U-22 / m015-01 Calibration Date(s): 6/30/04

ATTACHMENT B - Ground Water Monitoring Well Data Log

Monitoring Well ID: MW-107S Date: 6/29/04 Static Water Level: 16.54' PVC Name: CONAN GILL

Pump Set Depth: _____ All Depths Are Feet Below Top Of Inner Casing (TIC)

TIME (military)	Frequency (cycles/sec)	Discharge Rate (mL/min)	Cum. Purge Volume (gallons)	DTW PVC (feet)	Field Parameters: Turbidity (NTU)	DO (mg/L)	Eh (mv)	pH (S.U.)	Specific Conductance ~~(us/cm)~~ mS/cm (*)	Temperature (degree C)
1225	Begin Purge	175		16.63	4.2					
1232		175		16.77	7	5.79	198	6.09	0.575	19.52
1235		175		16.79	7	4.39	198	5.79	0.727	18.46
1240		175		16.76	4.2	~~4.3~~ 4.29	195	5.75	0.757	17.90
1245		175		16.76	4.0	4.03	195	5.75	0.758	18.30
1250		175		16.76	4.3	3.95	196	5.75	0.756	18.47
1255		175		16.77	4.2	3.68	197	5.75	0.749	18.28
1300		175		16.77	3.9	3.58	198	5.76	0.743	18.37
1305		175		16.77	3.7	3.47	199	5.76	0.737	18.37
1310	Collect	Samples								

Instrument Model/Serial Number(s): Horiba U-22 / M015-01 Calibration Date(s): 6/29/04

ATTACHMENT B - Ground Water Monitoring Well Data Log

Monitoring Well ID: MW ~~[illegible]~~-108S (NS) Date: 6-24-04 Static Water Level: 9.14 Name: Jason Naiden

Pump Set Depth: 21 All Depths Are Feet Below Top Of Inner Casing (TIC)

TIME (military)	Frequency (cycles/sec)	Discharge Rate (mL/min)	Cum. Purge Volume (gallons)	DTW (feet)	Field Parameters: Turbidity (NTU)	DO (mg/L)	Eh (mv)	pH (S.U.)	Specific Conductance ~~(us/cm)~~ mS/cm (NS)	Temperature (degree C)
0835	—	—	—	9.14	22	1.69	-22	6.13	0.128	15.05
0845	—	—	—	9.30	5.1	1.03	-18	5.68	0.115	13.79
0855	—	—	—	9.34	4.6	0.96	-23	5.65	0.111	13.52
0905	—	—	—	9.32	3.0	1.24	-38	5.91	0.109	13.50
0915	—	—	—	9.32	2.1	1.06	-68	6.43	0.109	13.36
0920	—	—	—	9.3	2.9	1.01	-74	6.46	0.109	13.35
0925	—	—	—	9.3	4.7	1.00	-72	6.48	0.109	13.41
0930	sample									

Instrument Model/Serial Number(s): S008-27 Calibration Date(s): 6-24-04

ATTACHMENT B - Ground Water Monitoring Well Data Log

Monitoring Well ID: MW-109D Date: 6/28/04 Static Water Level: 17.49 ~~17.54~~ PVC Name: Conan Gill

Pump Set Depth: _____ All Depths Are Feet Below Top Of Inner Casing (TIC)

TIME (military)	Frequency (cycles/sec)	Discharge Rate (mL/min)	Cum. Purge Volume (gallons)	DTW PVC (feet)	Field Parameters: Turbidity (NTU)	DO (mg/L)	Eh (mv)	pH (S.U.)	Specific Conductance ~~(uS/cm)~~ mS/cm	Temperature (degree C)
0855	Begin	150		18.58	744					
0910		125		18.74	176					
0920		125		18.92	38	5.19	178	7.30	0.394	17.15
0930		125		18.90	19	2.78	162	7.34	0.410	17.28
0935		125		18.98	12	3.36	153	7.35	0.413	17.03
0940		125		18.99	8	2.20	143	7.35	0.414	16.97
0945		125		18.99	8	2.22	137	7.36	0.408	17.01
0950		125		18.99	8	2.31	134	7.37	0.414	16.91
0955	Collect	Samples								

Instrument Model/Serial Number(s): Horiba U-22/M015-01 Calibration Date(s): ~~6/28/04~~ 6/28/04

ATTACHMENT B - Ground Water Monitoring Well Data Log

Monitoring Well ID: MW-109S Date: 6/28/04 Static Water Level: 18.48' PVC Name: Conan Gill

Pump Set Depth: _____ All Depths Are Feet Below Top Of Inner Casing (TIC)

TIME (military)	Frequency (cycles/sec)	Discharge Rate (mL/min)	Cum. Purge Volume (gallons)	DTW (feet)	Field Parameters: Turbidity (NTU) +/- 10%	DO (mg/L) +/- 10%	Eh (mv) +/- 10mV	pH (S.U.) 0-2 units	Specific Conductance ~~(us/cm)~~ mS/cm +/- 3%	Temperature (degree C) +/- 1%
1430	Begin purge	150			47					
1445		150		18.49	16	9.28	291	4.78	0.002	24.17
1450		150		18.49	11	9.16	289	4.83	0.002	23.60
1455		150		18.49	7.8	9.20	288	4.94	0.002	23.31
1500		150		18.49	5.8	9.24	285	4.95	0.002	22.79
1505		150		18.49	5.2	9.18	283	4.98	0.002	22.45
1510		150		18.49	3.3	9.09	283	5.05	0.002	22.35
1515		150		18.49	3.1	8.95	283	5.11	0.002	22.61
1520		150		18.49	3.0	8.87	285	5.13	0.002	22.84
1525	Collect	Samples								

Instrument Model/Serial Number(s): Horiba U-22/M015-01 Calibration Date(s): 6/28/04

ATTACHMENT B - Ground Water Monitoring Well Data Log

Monitoring Well ID: MW 110D Date: 6/30/04 Static Water Level: 20.91 Name: Tige Cunningham

Pump Set Depth: Geo pump All Depths Are Feet Below Top Of Inner Casing (TIC)

TIME (military)	Frequency (cycles/sec)	Discharge Rate (mL/min)	Cum. Purge Volume (gallons)	DTW (feet)	Field Parameters					
					Turbidity (NTU)	DO (mg/L)	Eh (mv)	pH (S.U.)	Specific Conductance (us/cm)	Temperature (degree C)
1227	N/A	75	N/A	21.19	8.9	1.3	32	6.9	322	17.9
1230		70		21.21	9.1	0.7	39	6.9	322	18.1
1240				21.20	8.9	0.9	50	6.9	318	18.2
1245				21.20	8.6	0.7	55	6.9	317	18.3
1250				21.20	9.1	0.7	56	7.0	317	18.6
1255				21.20	6.9	0.7	55	7.0	316	18.5
1300				21.20	7.5	0.8	48	7.2	313	18.5
1305				21.20	7.0	0.7	41	7.2	312	18.5
1310				21.20	7.0	0.7	40	7.4	311	18.5

Instrument Model/Serial Number(s): Horiba U-22 Serial # PINE 01127 Calibration Date(s): 6/30/04
La Motte Turbidity Meter # 0966-4598

ATTACHMENT B - Ground Water Monitoring Well Data Log

Monitoring Well ID: MW110S Date: 6/30/04 Static Water Level: 21.19 Name: Tige Cunningham

Pump Set Depth: Tubing Set ≈ 2' off Bow All Depths Are Feet Below Top Of Inner Casing (TIC)

TIME (military)	Frequency (cycles/sec)	Discharge Rate (mL/min)	Cum. Purge Volume (gallons)	DTW (feet)	Field Parameters: Turbidity (NTU)	DO (mg/L)	Eh (mv)	pH (S.U.)	Specific Conductance (us/cm)	Temperature (degree C)
0840	N/A	100	N/A	21.25	26	4.5	220	5.3	132	16.9
0855				21.26	16	3.4	230	5.4	176	16.3
0900					14	3.4	220	5.5	205	16.4
0905					11	3.1	200	5.9	218	17.9
0910					8.5	2.9		6.0	236	17.7
0915					5.3	2.9			268	17.4
0920					4.6	3.0			299	16.8
0925					4.0	3.2			325	16.6
0930					3.4	3.8			385	16.8
0935					2.7	4.2			422	16.5
0940					2.5	4.5			437	16.7
0945					2.3	4.7			467	16.5
0950					2.4	5.0			490	16.9
0955					2.0	5.1	200	6.0	508	17.2
1000					2.1	5.2	200	6.0	507	17.2
1005					1.9	5.3	200	6.1	508	17.3
1007	Collected sample									

Instrument Model/Serial Number(s): Horiba U22 Serial # Pine 01127 Calibration Date(s): 6/30/04
LaMotte Serial # 0966-4598

ATTACHMENT B - Ground Water Monitoring Well Data Log

Monitoring Well ID: MW-1113 Date: 6/29/04 Static Water Level: 17.17 Name: Lauren Smith

Pump Set Depth: 2.25 All Depths Are Feet Below Top Of Inner Casing (TIC)

TIME (military)	Frequency (cycles/sec)	Discharge Rate (mL/min)	Cum. Purge Volume (gallons)	DTW (feet)	Field Parameters: Turbidity (NTU)	DO (mg/L)	Eh (mv)	pH (S.U.)	Specific Conductance ~~(us/cm)~~ mS/cm (M)	Temperature (degree C)
1440	M/R	100	~~14.18~~	17.18	7.5	8.7	190	6.13	0.170	15.2
1450		100		17.20	4.5	8.2	210	5.8	0.167	14.5
1500		100		17.21	6.1	7.9	210	5.8	0.165	14.9
1510		100		17.23	3.2	8.1	210	5.9	0.162	14.5
1520		100		17.24	4.5	7.8	200	6.0	0.160	14.5
1530		100		17.27	3.5	7.7	190	6.1	0.158	14.7
1540		100		17.28	3.1	7.8	190	6.2	0.154	14.9
1545		100		17.29	3.5	7.8	190	6.2	0.155	14.9
1550		100		17.29	2.1	7.9	180	6.3	0.154	14.7
1555		100		17.29	2.4	7.8	180	6.3	0.152	14.6
1600		100		17.29	2.4	7.8	180	6.3	0.151	14.6
1610	Sampling									

Instrument Model/Serial Number(s): S008-31, 01580, M024-11 Calibration Date(s): 6/29/04

Bechtel

ATTACHMENT B - Ground Water Monitoring Well Data Log

Monitoring Well ID: MW-1125 Date: 6/29/04 Static Water Level: 13.71 Name: Lauren Smith

Pump Set Depth: 2.0 All Depths Are Feet Below Top Of Inner Casing (TIC)

TIME (military)	Frequency (cycles/sec)	Discharge Rate (mL/min)	Cum. Purge Volume (gallons)	DTW (feet)	Field Parameters Turbidity (NTU)	DO (mg/L)	Eh (mv)	pH (S.U.)	Specific Conductance ~~(us/cm)~~ mS/cm	Temperature (degree C)
1150	N/A	100		13.72	2.3	2.0	250	5.3	0.105	14.0
1200		100		13.71	2.6	1.5	280	5.1	0.103	13.1
1210		100		13.71	2.4	1.2	280	5.0	0.103	12.9
1220		100		13.70	2.6	1.2	290	5.1	0.104	12.8
1225		100		13.70	2.4	1.1	290	5.1	0.104	13.1
1235	Sampling									

Instrument Model/Serial Number(s): S008-31, 01580, M024-11 Calibration Date(s): 6/29/04

ATTACHMENT B - Ground Water Monitoring Well Data Log

Monitoring Well ID: MW-1135 Date: 6/29/04 Static Water Level: 12.67 Name: Lauren Smith

Pump Set Depth: 1.5' All Depths Are Feet Below Top Of Inner Casing (TIC)

TIME (military)	Frequency ~~(cycles/sec)~~	Discharge Rate (mL/min)	Cum. Purge Volume (gallons)	DTW (feet)	Field Parameters Turbidity (NTU)	DO (mg/L)	Eh (mv)	pH (S.U.)	Specific Conductance ~~(us/cm)~~ mS/cm	Temperature (degree C)
0910	~~300~~ N/A	100		12.68	5.8	0.0	250	5.65	0.315	15.5
0920		100		12.68	5.9	0.0	250	5.7	0.313	15.3
0930		100		12.68	2.8	0.0	250	5.7	0.312	15.3
0940		100		12.67	3.8	0.0	250	5.7	0.308	15.1
0950		100		12.67	3.9	0.0	250	5.8	0.306	15.2
0955		100		12.67	4.3	0.4	250	5.8	0.303	15.0
1000		100		12.66	4.2	0.4	250	5.8	0.301	14.9
1005		100		12.66	3.2	0.4	250	5.8	0.300	14.9
1010		100		12.66	2.7	0.4	250	5.8	0.300	15.1
1015		100		12.65	2.3	0.4	250	5.8	0.300	15.0
1020		100		12.65	2.5	0.4	250	5.8	0.298	15.2
1030	Sampling									

Instrument Model/Serial Number(s): Geopump: S008-31, Horiba: 01580, turbidity: HACH M024-11 Calibration Date(s): 6/29/04

MW-

ATTACHMENT B - Ground Water Monitoring Well Data Log

Monitoring Well ID: MW 114S Date: 6-24-04 Static Water Level: 16.78 Name: Miles van Noordennen

Pump Set Depth: 17.5 All Depths Are Feet Below Top Of Inner Casing (TIC)

TIME (military)	Frequency (cycles/sec)	Discharge Rate (mL/min)	Cum. Purge Volume (gallons)	DTW (feet)	Field Parameters: Turbidity (NTU)	DO (mg/L)	Eh (mv)	pH (S.U.)	Specific Conductance ~~(us/cm)~~ mS/cm	Temperature (degree C)
0850	N/A			16.78	Started Purge					
0900		~~Q=~~ 100		16.98	31.3	2.22	83	6.51	0.316	16.4
0905				16.98	0.2	1.59	83	6.63	0.313	16.3
0910				16.95	-10.0	1.36	84	6.77	0.313	16.3
0915				16.96		1.33	85	6.83	0.316	16.2
0920				16.97		1.35	83	6.89	0.318	16.1
0925				16.97		1.34	82	6.93	0.319	16.1
0930				16.97		1.37	85	6.95	0.318	16.2
0935				16.97		1.37	85	6.96	0.319	16.2

Instrument Model/Serial Number(s): Horiba U-22 03960 Calibration Date(s): 6-24-04

ATTACHMENT B - Ground Water Monitoring Well Data Log

Monitoring Well ID: MW 117S Date: 7/1/04 Static Water Level: 12.69 Name: Tige Cunningham

Pump Set Depth: Tubing set @ Midscreen All Depths Are Feet Below Top Of Inner Casing (TIC)

TIME (military)	Frequency (cycles/sec)	Discharge Rate (mL/min)	Cum. Purge Volume (gallons)	DTW (feet)	Field Parameters					
					Turbidity (NTU)	DO (mg/L)	Eh (mv)	pH (S.U.)	Specific Conductance (us/cm)	Temperature (degree C)
1155	N/A	175	N/A	12.81	41	6.2	-70	6.2	627	13.5
1200					44	5.9	-60	5.9	625	13.2
1205					46	5.9	-60	5.9	622	13.4
1210					58	5.9	-70	5.9	622	13.2
1215					51	6.0	-80	6.0	626	13.1
1220					48	6.0	-80	6.0	630	13.2
1225					37	6.1	-90	6.1	637	13.2
1230					33	6.5	-100	6.5	632	13.4
1235					29	6.5	-100	6.5	634	13.3
1240					30	6.5	-100	6.5	636	13.3
1245					21	6.5	-100	6.5	640	13.2
1250					21	6.5	-100	6.5	633	13.3
1255					21	6.5	-100	6.5	637	13.4

Instrument Model/Serial Number(s): Horiba U-22 Serial # Pine 01127 Calibration Date(s): 7/1/04
La Motte Serial # 0966-4598

ATTACHMENT B - Ground Water Monitoring Well Data Log

Monitoring Well ID: MW122D Date: 6/30/04 Static Water Level: 17.48 Name: Tige Cunningham

Pump Set Depth: Tubing Set @ 4' off Bow All Depths Are Feet Below Top Of Inner Casing (TIC)

TIME (military)	Frequency (cycles/sec)	Discharge Rate (mL/min)	Cum. Purge Volume (gallons)	DTW (feet)	Field Parameters					
					Turbidity (NTU)	DO (mg/L)	Eh (mv)	pH (S.U.)	Specific Conductance (us/cm)	Temperature (degree C)
1615	N/A	100	N/A	18.20	38	2.4	-90	8.7	181	12.3
1620				18.35	39	1.7	-110	8.7	184	12.4
1625				18.41	37	1.4	-120	8.8	188	12.3
1630				18.46	33	3.4	-130	8.9	186	12.1
1635				18.51	30	2.8	-130	9.0	191	12.0
1640				18.56	28	0.9	-140	9.1	185	16.6
1645				18.59	27	0.9	-140	9.2	185	12.0
1650				18.61	27	1.0	-150	9.3	183	12.6

Instrument Model/Serial Number(s): Horiba U-22 Serial # PINE 01127 Calibration Date(s): 6/30/04
LaMotte Serial # 0966-4598

ATTACHMENT B - Ground Water Monitoring Well Data Log

Monitoring Well ID: MW-122S Date: 6-24-04 Static Water Level: 14.81 Name: Tyson Naiden

Pump Set Depth: 17' All Depths Are Feet Below Top Of Inner Casing (TIC)

TIME (military)	Frequency (cycles/sec)	Discharge Rate (mL/min)	Cum. Purge Volume (gallons)	DTW (feet)	Field Parameters: Turbidity (NTU)	DO (mg/L)	Eh (mv)	pH (S.U.)	Specific Conductance ~~(us/cm)~~ mS/cm (NS)	Temperature (degree C)
1120	–	–	–	14.51	60	1.54	-2	6.10	0.531	18.36
1130	–	–	–	14.64	8.8	Ø	-28	6.11	0.592	18.09
1140	–	–	–	14.80	1.1	Ø	-71	6.22	0.669	17.59
1150	–	–	–	14.82	0.9	11.41	-96	6.74	0.749	18.09
1155	–	–	–	14.86	4.7	11.12	-99	6.77	0.756	18.01
1200	–	–	–	14.81	5.0	11.10	-100	6.79	0.759	18.09
1205	–	–	–	14.81	4.7	11.00	-101	6.79	0.763	
1210	–	–	–	Sample						

Instrument Model/Serial Number(s): 5008-27 / 31277 Calibration Date(s): 6-24-04

ATTACHMENT B - Ground Water Monitoring Well Data Log

Monitoring Well ID: MW-123 Date: 6/23/04 Static Water Level: 15.30 Name: Jason Naiden

Pump Set Depth: ~~30'~~ 38' (NB) All Depths Are Feet Below Top Of Inner Casing (TIC)

TIME (military)	Frequency (cycles/sec)	Discharge Rate (mL/min)	Cum. Purge Volume (gallons)	DTW (feet)	Field Parameters: Turbidity (NTU)	DO (mg/L)	Eh (mv)	pH (S.U.)	Specific Conductance ~~(us/cm)~~ mS/cm (NB)	Temperature (degree C)
0835	NA	250	~~350~~ (NB)	15.36	2.0	10.36	213	6.03	0.793	16.43
0845	NA	250		15.39	8.9	12.19	197	6.41	0.773	15.57
0855	NA	250		15.52	16.1	12.48	188	6.57	0.758	15.56
0805	NA	250		15.54	5.1	12.60	186	6.62	0.752	15.46
0910	NA	250		15.55	4.3	12.66	186	6.62	0.750	15.46
0915	NA	250		15.55	2.6	12.69	186	6.62	0.748	15.37
0920	NA	250		15.55	1.1	12.70	186	6.61	0.747	15.47
								~~6.61~~ (NB)		

Instrument Model/Serial Number(s): 5008-27 Calibration Date(s): 6-23-04

ATTACHMENT B - Ground Water Monitoring Well Data Log

Monitoring Well ID: MW-124S Date: 6/23/04 Static Water Level: 17.82 Name: Jason Najem

Pump Set Depth: 17' All Depths Are Feet Below Top Of Inner Casing (TIC)

TIME (military)	Frequency (cycles/sec)	Discharge Rate (mL/min)	Cum. Purge Volume (gallons)	DTW (feet)	Field Parameters: Turbidity (NTU)	DO (mg/L)	Eh (mv)	pH (S.U.)	Specific Conductance ~~(us/cm)~~ mS/cm	Temperature (degree C)
1510	–	–	–	17.89	13.4	10.12	170	6.77	.449	18.38
1520	–	–	–	17.93	4.3	10.09	189	6.21	.379	18.50
1530	–	–	–	17.96	2.9	10.37	186	6.15	.375	17.38
1540	–	–	–	17.96	6.2	10.32	179	6.29	.371	17.50
1545	–	–	–	17.96	4.1	10.34	182	6.44	.372	17.63
1550	–	–	–	17.91	0.9	10.21	159	6.63	.370	17.62
1555	–	–	–	17.91	0.8	10.24	155	6.65	.370	17.61
1600				17.91	0.6	10.26	153	6.66	.368	17.64
1605	Sample									

Instrument Model/Serial Number(s): _____ Calibration Date(s): _____

ATTACHMENT B - Ground Water Monitoring Well Data Log

Monitoring Well ID: MW-125S Date: 6-22-04 Static Water Level: 16.48' Name: Jason Naidu

Pump Set Depth: 18' All Depths Are Feet Below Top Of Inner Casing (TIC)

TIME (military)	Frequency (cycles/sec)	Discharge Rate (mL/min)	Cum. Purge Volume (gallons)	DTW (feet)	Field Parameters					
					Turbidity (NTU)	DO (mg/L)	Eh (mv)	pH (S.U.)	Specific Conductance (us/cm)	Temperature (degree C)
1445	NA	250	(B) ~~0.50~~	16.50	22	1.40	30	6.78	610	18.50
1455	NA	250	(B) ~~3~~ 0.7	16.58	12.0	1.25	20	6.78	606	18.42
1505	NA	250	1.3	16.60	15.0	0.72	19	6.78	601	18.40
1515	NA	250	2.0	16.62	2.1	1.29	20	6.82	582	18.4
1520	NA	250	2.3	16.62	2.1	1.38	22	6.83	580	18.4
1525	NA	250	2.6	16.62	2.2	1.42	22	6.85	578	18.4
1530	NA	250	3.0							

Instrument Model/Serial Number(s): 5008-27 Calibration Date(s): 6-22-04

ATTACHMENT B - Ground Water Monitoring Well Data Log

Monitoring Well ID: MW-2 Date: 7/1/04 Static Water Level: 14.50' TOC Name: Conn Fill

Pump Set Depth: 9 All Depths Are Feet Below Top Of Inner Casing (TIC)

TIME (military)	Frequency (cycles/sec)	Discharge Rate (mL/min)	Cum. Purge Volume (gallons)	DTW TOC (feet)	Field Parameters: Turbidity (NTU)	DO (mg/L)	Eh (mv)	pH (S.U.)	Specific Conductance ~~(us/cm)~~ mS/cm	Temperature (degree C)
1205	Begin purge	100		14.34	11.5					
1225		100		14.37	7	0.04	104	6.30	0.253	17.44
1230		100		14.36	4.7	0.04	101	6.31	0.253	17.33
1235		100		14.36	3	0.04	99	6.31	0.253	17.54
1240		100		14.36	3	0.04	99	6.30	0.253	17.99
1245		100		14.57	3	0.04	98	6.32	0.253	17.64
1250	Collect	Samples								

Instrument Model/Serial Number(s): Horiba U-22 / M015-01 Calibration Date(s): 7/1/04

ATTACHMENT B - Ground Water Monitoring Well Data Log

Monitoring Well ID: MW3 Date: 6/29/04 Static Water Level: 10.59 Name: Tige Cunningham

Pump Set Depth: Tubing Set @ Midscreen All Depths Are Feet Below Top Of Inner Casing (TIC)

TIME (military)	Frequency (cycles/sec)	Discharge Rate (mL/min)	Cum. Purge Volume (gallons)	DTW (feet)	Field Parameters: Turbidity (NTU)	DO (mg/L)	Eh (mv)	pH (S.U.)	Specific Conductance (us/cm)	Temperature (degree C)
1555	N/A	100	N/A	11.33	150	0.6	-70	6.9	139	13.0
1600	↓	↓	↓	11.41	140	1.5	-40	5.8	135	12.2
1605	↓	↓	↓	11.56	130	1.9	-40	5.7	134	12.1
1610	↓	↓	↓	11.54	190	1.2	-40	5.7	134	12.0
1615	↓	↓	↓	11.51	220	1.2	-40	5.7	134	12.0
1620	↓	↓	↓	11.45	220	0.8	-50	5.8	133	12.0
1630	↓	↓	↓	11.45	210	0.6	-60	6.1	132	12.0
1635	↓	↓	↓	11.55	170	0.5	-70	6.3	131	11.9
1645	↓	↓	↓	11.49	180	0.4	-80	6.4	131	12.0
1650	↓	↓	↓	11.36	180	0.4	-80	6.5	130	12.0
1652 Sample collected										

Instrument Model/Serial Number(s): Horiba V-22 Serial # PINE01127 Calibration Date(s): 6/29/04
La Motte Turbidimeter #0906-4598

ATTACHMENT B - Ground Water Monitoring Well Data Log

Monitoring Well ID: MW502 Date: 6/22/04 Static Water Level: 14.57 Name: RENE AUBE

Pump Set Depth: 25.00' All Depths Are Feet Below Top Of Inner Casing (TIC)

TIME (military)	Frequency (cycles/sec)	Discharge Rate (mL/min)	Cum. Purge Volume (gallons)	DTW (feet)	Field Parameters: Turbidity (NTU)	DO (mg/L)	Eh (mv)	pH (S.U.)	Specific Conductance ~~(us/cm)~~ mS/cm	Temperature (degree C)
1050	—	150		14.57	4.81	0.54	-148	6.76	.464	14.72
1055	—	150		14.57	4.01	0.01	-140	6.65	.457	14.48
1100	—	150		14.57	4.11	0.00	-143	6.68	.456	14.46
1105	—	150		14.57	3.92	0.00	-146	6.77	.454	14.49
1110	—	150		14.57	3.88	0.00	-151	6.88	.453	14.59
1115	—	150		14.57	3.85	0.00	-155	6.97	.451	14.62
1120	—	150		14.57	3.84	0.00	-157	7.01	.450	14.64
1125	—	150		14.57	3.83	0.00	-159	7.02	.450	14.66
1126	COLLECT SAMPLES									
			1,833 (TOTAL GALLONS PURGED)							

Instrument Model/Serial Number(s): HORIBA U-22 (PINE 01560) Calibration Date(s): 6/22/04

Bechtel

1020 BEGIN SETUP ACTIVITY
1039 BEGIN PURGING WELL
1126 COLLECT SAMPLES
1200 FINNISH @ MW502

ATTACHMENT B - Ground Water Monitoring Well Data Log

Monitoring Well ID: MW 503 Date: 6/22/04 Static Water Level: 11.92 Name: RENE AUBE

Pump Set Depth: 30.00' All Depths Are Feet Below Top Of Inner Casing (TIC)

TIME (military)	Frequency (cycles/sec)	Discharge Rate (mL/min)	Cum. Purge Volume (gallons)	DTW (feet)	Field Parameters: Turbidity (NTU)	DO (mg/L)	Eh (mv)	pH (S.U.)	Specific Conductance ~~(us/cm)~~ ms/cm @	Temperature (degree C)
0845	—	150		11.95	3.47	1.09	-78	5.98	.719	14.46
0850	—	150		11.95	2.96	1.07	-82	5.94	.691	14.43
0855	—	150		11.95	2.53	1.05	-88	5.99	.655	14.48
0900	—	150		11.95	2.42	1.03	-98	6.06	.568	14.26
0905	—	150		11.95	2.38	1.01	-103	6.12	.549	14.23
0910	—	150		11.95	2.25	1.00	-106	6.15	.525	14.18
0915	—	150		11.95	2.23	1.00	-106	6.17	.497	14.20
0920	—	150		11.95	2.24	0.98	-106	6.19	.472	14.21
0925	—	150		11.95	2.22	0.96	-106	6.20	.469	14.22
0930	—	150		11.95	2.22	0.94	-106	6.21	.467	14.22
0931	COLLECT SAMPLES									
			2.106	(TOTAL GALLONS PURGED)						

Instrument Model/Serial Number(s): HORIBA U-22 (PINE 01560) Calibration Date(s): 6/22/04

Bechtel

0815 BEGIN SETUP ACTIVITY
0835 BEGIN PURGING WELL
0931 COLLECT SAMPLES
1007 FINNISH @ MW503

ATTACHMENT B - Ground Water Monitoring Well Data Log

Monitoring Well ID: 504 Bedrock Date: 6/30/04 Static Water Level: 13.62 Name: Lauren A Smith

Pump Set Depth: 0.5' from ground surface ~10' from well All Depths Are Feet Below Top Of Inner Casing (TIC)

TIME (military)	Frequency (cycles/sec)	Discharge Rate (mL/min)	Cum. Purge Volume (gallons)	DTW (feet)	Field Parameters: Turbidity (NTU)	DO (mg/L)	Eh (mv)	pH (S.U.)	Specific Conductance ~~(us/cm)~~ mS/cm	Temperature (degree C)
1150	N/A	100		13.85	3.8	0.37	-70	6.4	0.325	20.9
1200		100		13.85	3.4	0.16	-70	6.3	0.323	20.1
1210		100		13.85	3.4	0.17	-80	6.4	0.321	20.5
1215		100		13.85	3.6	0.36	-80	6.5	0.323	20.1
1220		100		13.85	3.2	0.30	-90	6.5	0.319	20.8
1225		100		13.85	2.9	0.29	-90	6.5	0.320	20.9
1230		100		13.85	2.9	0.32	-90	6.6	0.322	20.5
1235				13.85	3.0	0.35	-90	6.6	0.321	20.4
1245	Sampling									

Instrument Model/Serial Number(s): 9008-27, 01560, 11024-11 Calibration Date(s): 6/30/04

ATTACHMENT B - Ground Water Monitoring Well Data Log

Monitoring Well ID: MW505 Date: 6/22/04 Static Water Level: 4.09 Name: RENE AUBE

Pump Set Depth: 21.00' All Depths Are Feet Below Top Of Inner Casing (TIC)

TIME (military)	Frequency (cycles/sec)	Discharge Rate (mL/min)	Cum. Purge Volume (gallons)	DTW (feet)	Field Parameters: Turbidity (NTU)	DO (mg/L)	Eh (mv)	pH (S.U.)	Specific Conductance ~~(us/cm)~~ mS/cm (4)	Temperature (degree C)
1350	–	.235		4.09	20.0	1.08	-120	6.89	.543	12.67
1355	–	.235		4.09	16.4	0.00	-118	6.79	.547	12.40
1400	–	.235		4.09	12.7	0.00	-119	6.81	.548	12.22
1405	–	.235		4.09	8.68	0.00	-122	6.88	.550	12.16
1410	–	.235		4.09	4.76	0.00	-127	6.98	.556	12.03
1415	–	.235		4.09	3.59	0.00	-132	7.09	.555	12.02
1420	–	.235		4.09	3.28	0.00	-136	7.17	.554	12.02
1425	–	.235		4.09	3.12	0.00	-137	7.21	.555	12.02
1430	–	.235		4.09	3.07	0.00	-138	7.24	.556	12.02
1435	–	.235		4.09	3.10	0.00	-139	7.26	.556	12.03
1436	COLLECT	SAMPLES								
			3.055 (TOTAL GALLONS PURGED)							

Instrument Model/Serial Number(s): HORIBA U-22 (PINE 01560) Calibration Date(s): 6/22/04

Bechtel

1320 BEGIN SETUP ACTIVITY
1346 BEGIN PURGING WELL
1436 COLLECT SAMPLES
1520 FINNISH @ MW505

ATTACHMENT B - Ground Water Monitoring Well Data Log

Monitoring Well ID: MW507D Date: 6/23/04 Static Water Level: 14.09 Name: RENE AUBE

Pump Set Depth: 72.00' All Depths Are Feet Below Top Of Inner Casing (TIC)

TIME (military)	Frequency (cycles/sec)	Discharge Rate (mL/min)	Cum. Purge Volume (gallons)	INIT DTW 14.43 (feet)	Field Parameters Turbidity (NTU)	DO (mg/L)	Eh (mv)	pH (S.U.)	Specific Conductance ~~(us/cm)~~ mS/cm	Temperature (degree C)
1320	—	125		15.18	6.49	1.44	-68	7.02	.180	22.13
1330	—	125		15.60	5.15	1.28	-92	7.08	.180	22.34
1340	—	125		15.86	3.81	0.97	-96	7.33	.179	22.24
1350	—	125		16.00	3.77	0.72	-92	7.42	.179	22.47
1400	—	125		16.10	3.83	0.63	-93	7.46	.179	22.42
1410	—	125		16.21	3.73	0.53	-87	7.50	.179	22.18
1420	—	125		16.22	3.70	0.43	-85	7.49	.179	22.20
1423	—	125		16.22	3.70	0.41	-84	7.49	.179	22.20
1426	—	125		16.22	3.68	0.40	-83	7.50	.179	22.19
1427	COLLECT SAMPLES									
			2.43 (TOTAL GALLONS PURGED)							

Instrument Model/Serial Number(s): HORIBA U-22 (PINE 01560) Calibration Date(s): 6/23/04

Bechtel

1250 BEGIN SETUP ACTIVITY
1312 BEGIN PURGING WELL
1426 WELL STABLE
1427 COLLECT SAMPLES
1520 FINNISH @ MW507D

ATTACHMENT B - Ground Water Monitoring Well Data Log

Monitoring Well ID: MW5075 Date: 6/24/04 Static Water Level: 7.68 Name: RENE AUBE

Pump Set Depth: 16.00' All Depths Are Feet Below Top Of Inner Casing (TIC)

TIME (military)	Frequency (cycles/sec)	Discharge Rate (mL/min)	Cum. Purge Volume (gallons)	INIT DTW 7.93 (feet)	Field Parameters Turbidity (NTU)	DO (mg/L)	Eh (mv)	pH (S.U.)	Specific Conductance ~~(us/cm)~~ mS/cm	Temperature (degree C)
0810	–	150		8.17	5.41	0.67	-82	6.53	.423	16.76
0815	–	150		8.18	5.29	0.15	-76	6.40	.421	16.60
0820	–	150		8.19	5.47	0.00	-87	6.43	.417	16.68
0825	–	150		8.20	5.30	0.00	-92	6.51	.422	16.74
0830	–	150		8.20	5.32	0.00	-100	6.59	.426	16.72
0835	–	150		8.20	5.30	0.00	-105	6.64	.428	16.75
0840	–	150		8.20	5.28	0.00	-108	6.66	.429	16.77
0845	–	150		8.20	5.29	0.00	-110	6.67	.430	16.78
0846	COLLECT SAMPLES									
			1.63	(TOTAL GALLONS PURGED)						

Instrument Model/Serial Number(s): HORIBA U-22 (PINE 01560) Calibration Date(s): 6/24/04

Bechtel

0740 BEGIN SETUP ACTIVITY
0804 BEGIN PURGING WELL
0845 WELL STABLE
0846 COLLECT SAMPLES
0920 FINNISH @ MW5075

ATTACHMENT B - Ground Water Monitoring Well Data Log

Monitoring Well ID: MW5080 Date: 6-30-04 Static Water Level: 15.67 Name: Miles van Voorderen

Pump Set Depth: ~~85~~ 80 ft All Depths Are Feet Below Top Of Inner Casing (TIC)

TIME (military)	Frequency (cycles/sec)	Discharge Rate (mL/min)	Cum. Purge Volume (gallons)	DTW (feet)	Field Parameters: Turbidity (NTU)	DO (mg/L)	Eh (mv)	pH (S.U.)	Specific Conductance ~~(us/cm)~~ mS/cm	Temperature (degree C)
1500	N/A	150		15.67	Started purge					
1510				15.69	4.0	8.3	140	7.2	0.125	16.5
1515				15.73	3.8	7.8	130	7.3	0.124	16.7
1520				15.79	3.6	7.7	130	7.3	0.124	16.5
1525				15.80	3.5	~~7.5~~ 7.3	120	7.4	0.125	16.5
1530				15.81	3.3	~~7.4~~ 6.9	120	7.4	0.125	16.4
1535				15.83	2.8	6.9	120	7.4	0.124	16.4
1540				15.85	2.6	6.9	120	7.4	0.124	16.4
1545				15.85	2.6	7.0	120	7.5	0.124	16.4

Instrument Model/Serial Number(s): Horiba U-22 03960, HACH 2100P M024-01 Calibration Date(s): 6-30-04

ATTACHMENT B - Ground Water Monitoring Well Data Log

Monitoring Well ID: 508S Date: 6/30/04 Static Water Level: 7.60 Name: Lauren A Smith

Pump Set Depth: 0.5' above ground surface All Depths Are Feet Below Top Of Inner Casing (TIC)

DTB 20.28
DTW 7.60

TIME (military)	Frequency (cycles/sec)	Discharge Rate (mL/min)	Cum. Purge Volume (gallons)	DTW (feet)	Field Parameters Turbidity (NTU)	DO (mg/L)	Eh (mv)	pH (S.U.)	Specific Conductance ~~(ua/cm)~~ mS/cm	Temperature (degree C)
1505	N/A	100		7.92	4.8	5.9	-40	6.2	0.404	21.5
1515		100		7.92	3.6	5.9	-40	6.3	0.400	21.1
1525		100		7.92	3.6	5.8	-50	6.4	0.400	20.8
1530		100		7.92	3.0	5.8	-60	6.5	0.378	20.7
1535		100		7.92	3.1	5.7	-60	6.5	0.399	20.3
1540		100		7.92	3.1	5.7	-60	6.6	0.399	20.2
1550	Sampling									

Instrument Model/Serial Number(s): S008-27, 01560, MD24-11 Calibration Date(s): 06/30/04

Appendix D

Boron and Radiochemical Laboratory Analytical Data

Appendix D.1
March 2004 Lab Analytical Results Summary

Well ID	Nuclide	Conc. (pCi/L)	2-sigma TPU (pCi/L)	MDC (pCi/L)	Required MDC (pCi/L)	Lab Flag	Aliquot Volume (L)	Analysis Date	Analysis Time
QC Blank	Gross Alpha	0.121	0.505	1.09	3	U	0.15	13-Apr-04	06:33
QC Blank	Gross Alpha	0.119	0.372	0.713	3	U	0.15	20-Apr-04	01:53
QC Blank	Gross Alpha	-0.0321	0.484	1.12	3	U	0.15	22-Apr-04	02:30
MW100D	Gross Alpha	0.187	0.453	0.952	3	U	0.15	22-Apr-04	01:38
MW100S	Gross Alpha	-0.067	1.25	2.8	3	U	0.15	22-Apr-04	02:24
MW101D	Gross Alpha	**6.52**	1.36	1.25	3		0.15	13-Apr-04	02:52
MW101S	Gross Alpha	0.389	0.515	0.977	3	U	0.15	13-Apr-04	02:52
MW102D	Gross Alpha	**11.3**	2.16	2.33	3		0.15	13-Apr-04	02:52
MW102S	Gross Alpha	0.245	0.731	1.5	3	U	0.15	13-Apr-04	02:52
MW103D	Gross Alpha	**5.19**	1.1	1.04	3		0.15	20-Apr-04	01:53
MW103S	Gross Alpha	**1.53**	0.879	1.14	3		0.15	22-Apr-04	01:38
MW104S	Gross Alpha	**1.25**	0.718	0.998	3		0.15	22-Apr-04	01:38
MW105D	Gross Alpha	**2.59**	0.795	0.949	3		0.15	20-Apr-04	01:53
MW105D (Sol.)	Gross Alpha	**2.7**	0.811	0.976	3		0.15	20-Apr-04	01:53
MW105S	Gross Alpha	**1.6**	1.76	1.2	3		0.15	20-Apr-04	01:53
MW105S (Sol.)	Gross Alpha	**2.42**	1.4	0.877	3		0.15	20-Apr-04	01:53
MW106D	Gross Alpha	**2.75**	0.77	0.869	3		0.15	20-Apr-04	01:53
MW106D (Sol.)	Gross Alpha	**1.74**	0.964	1.55	3		0.15	20-Apr-04	01:53
MW106S	Gross Alpha	**1.54**	0.935	1.31	3		0.15	20-Apr-04	01:53
MW106S (Sol.)	Gross Alpha	0.503	1.01	1.85	3	U	0.15	20-Apr-04	01:53
MW107D	Gross Alpha	**1.33**	0.752	1.09	3		0.15	13-Apr-04	01:41
MW107S	Gross Alpha	0.392	0.637	1.28	3	U	0.15	13-Apr-04	01:41
MW108S	Gross Alpha	0.39	0.561	1.11	3	U	0.15	22-Apr-04	02:24
MW109D	Gross Alpha	**6.95**	1.15	0.782	3		0.15	20-Apr-04	01:52
MW109S	Gross Alpha	0.571	0.784	1.37	3	U	0.15	20-Apr-04	01:52
MW110D	Gross Alpha	**7.07**	1.51	1.5	3		0.15	13-Apr-04	01:41
MW110S	Gross Alpha	-0.164	0.562	1.33	3	U	0.15	13-Apr-04	01:41
MW111S	Gross Alpha	**0.731**	0.509	0.678	3		0.15	22-Apr-04	02:30
MW112S	Gross Alpha	0.259	0.466	0.96	3	U	0.15	22-Apr-04	02:30
MW113S	Gross Alpha	0.542	0.963	1.93	3	U	0.15	22-Apr-04	02:30
MW114S	Gross Alpha	0.217	1.07	1.79	3	U	0.15	13-Apr-04	02:34
MW114S Duplicate	Gross Alpha	1.79	1.41	1.91	3	U	0.15	13-Apr-04	01:41
MW114S Duplicate Replicate	Gross Alpha	1.2	1.55	2.85	3	U	0.15	13-Apr-04	06:33
MW115S	Gross Alpha	1.42	1.09	1.67	3	U	0.15	13-Apr-04	01:41
MW117S	Gross Alpha	1.21	1.49	2.97	3	U	0.15	22-Apr-04	02:30
MW122D	Gross Alpha	**6.2**	1.28	1.22	3		0.15	13-Apr-04	02:34
MW122S	Gross Alpha	0.71	0.88	1.58	3	U	0.15	13-Apr-04	01:41
MW123S	Gross Alpha	**4.19**	1.49	1.96	3		0.15	13-Apr-04	02:52
MW124S	Gross Alpha	0.62	0.833	1.61	3	U	0.15	13-Apr-04	02:52
MW125S	Gross Alpha	1.05	0.808	1.22	3	U	0.15	13-Apr-04	01:41
MWEOF2	Gross Alpha	**1.73**	1.05	1.55	3		0.15	22-Apr-04	02:24
QC Dup. Spike (BDS)	Gross Alpha	**39.7**	7.91	4.3	3		0.15	13-Apr-04	04:03
QC Dup. Spike (BDS)	Gross Alpha	**139**	17	5.35	3		0.075	20-Apr-04	08:53
QC Dup. Spike (BDS)	Gross Alpha	**141**	8.48	2.68	3		0.075	22-Apr-04	02:30
MW109S Replicate	Gross Alpha	0.635	0.654	1.06	3	U	0.15	20-Apr-04	01:53
MW113S Replicate	Gross Alpha	0.0947	0.806	1.77	3	U	0.15	22-Apr-04	02:30
QC Spike (BS)	Gross Alpha	**55.2**	6.66	2.11	3		0.15	13-Apr-04	04:03
QC Spike (BS)	Gross Alpha	**79.3**	8	1.95	3		0.15	20-Apr-04	08:53
QC Spike (BS)	Gross Alpha	**65.9**	6.69	1.97	3		0.15	22-Apr-04	12:32
QC Spike (MS)	Gross Alpha	**41.2**	7.89	4.74	3		0.15	13-Apr-04	04:03
QC Spike (MS)	Gross Alpha	**125**	15.8	4.38	3		0.075	20-Apr-04	08:53
QC Spike (MS)	Gross Alpha	**133**	8.34	2.98	3		0.075	22-Apr-04	02:30
QC Blank	Gross Beta	-0.915	0.616	1.46	4	U	0.15	13-Apr-04	06:33
QC Blank	Gross Beta	0.237	0.514	0.946	4	U	0.15	20-Apr-04	01:53
QC Blank	Gross Beta	-0.0634	1.14	2.43	4	U	0.15	22-Apr-04	02:30
MW100D	Gross Beta	1.31	1.21	2.4	4	U	0.15	22-Apr-04	01:38
MW100S	Gross Beta	**4.23**	1.76	3.26	4		0.15	22-Apr-04	02:24
MW101D	Gross Beta	**1.7**	0.858	1.51	4		0.15	13-Apr-04	02:52
MW101S	Gross Beta	**1.87**	0.772	1.3	4		0.15	13-Apr-04	02:52
MW102D	Gross Beta	**6.89**	1.19	1.51	4		0.15	13-Apr-04	02:52
MW102S	Gross Beta	**2.28**	0.837	1.38	4		0.15	13-Apr-04	02:52
MW103D	Gross Beta	**6.06**	0.881	1.08	4		0.15	20-Apr-04	01:53
MW103S	Gross Beta	**27.8**	2.43	2.58	4		0.15	22-Apr-04	01:38
MW104S	Gross Beta	**4.11**	1.46	2.59	4		0.15	22-Apr-04	01:38
MW105D	Gross Beta	**3.56**	0.707	0.946	4		0.15	20-Apr-04	01:53
MW105D (Sol.)	Gross Beta	**3.73**	0.729	0.977	4		0.15	20-Apr-04	01:53
MW105S	Gross Beta	**192**	3.82	1.06	4		0.15	20-Apr-04	01:53
MW105S (Sol.)	Gross Beta	**203**	3.9	1.02	4		0.15	20-Apr-04	01:53
MW106D	Gross Beta	**4.12**	0.697	0.847	4		0.15	20-Apr-04	01:53
MW106D (Sol.)	Gross Beta	**6.21**	0.864	1.04	4		0.15	20-Apr-04	01:53
MW106S	Gross Beta	**13.9**	1.23	1.16	4		0.15	20-Apr-04	01:53
MW106S (Sol.)	Gross Beta	**14.1**	1.32	1.4	4		0.15	20-Apr-04	01:53
MW107D	Gross Beta	**5.79**	0.988	1.15	4		0.15	13-Apr-04	01:41
MW107S	Gross Beta	**1.55**	0.776	1.36	4		0.15	13-Apr-04	01:41
MW108S	Gross Beta	**2.63**	1.2	2.21	4		0.15	22-Apr-04	02:24
MW109D	Gross Beta	**7.6**	0.88	0.892	4		0.15	20-Apr-04	01:52
MW109S	Gross Beta	**9.63**	1.02	1.05	4		0.15	20-Apr-04	01:52
MW110D	Gross Beta	**7.14**	1.17	1.46	4		0.15	13-Apr-04	01:41
MW110S	Gross Beta	**1.88**	0.765	1.27	4		0.15	13-Apr-04	01:41
MW111S	Gross Beta	**4.95**	1.41	2.37	4		0.15	22-Apr-04	02:30
MW112S	Gross Beta	0.778	1.17	2.38	4	U	0.15	22-Apr-04	02:30
MW113S	Gross Beta	**16.3**	2.07	2.73	4		0.15	22-Apr-04	02:30
MW114S	Gross Beta	**18.5**	1.55	1.4	4		0.15	13-Apr-04	02:34

NOTES:
Bold results are greater than 2-sigma TPU and the sample MDC.
Gray results are greater than 2-sigma TPU and less than the sample MDC.
Boron concentration results are in ug/liter.

Appendix D.1
March 2004 Lab Analytical Results Summary

Well ID	Nuclide	Conc. (pCi/L)	2-sigma TPU (pCi/L)	MDC (pCi/L)	Required MDC (pCi/L)	Lab Flag	Aliquot Volume (L)	Analysis Date	Analysis Time
MW114S Duplicate	Gross Beta	16.3	1.68	1.51	4		0.15	13-Apr-04	01:41
MW114S Duplicate Replicate	Gross Beta	20.8	1.85	1.62	4		0.15	13-Apr-04	06:33
MW115S	Gross Beta	8.62	1.29	1.5	4		0.15	13-Apr-04	01:41
MW117S	Gross Beta	5.41	1.8	3.23	4		0.15	22-Apr-04	02:30
MW122D	Gross Beta	6.64	0.977	1.12	4		0.15	13-Apr-04	02:34
MW122S	Gross Beta	6.46	1.17	1.5	4		0.15	13-Apr-04	01:41
MW123S	Gross Beta	14.7	1.54	1.49	4		0.15	13-Apr-04	02:52
MW124S	Gross Beta	5.12	1.05	1.44	4		0.15	13-Apr-04	02:52
MW125S	Gross Beta	8.89	1.24	1.35	4		0.15	13-Apr-04	01:41
MWEOF2	Gross Beta	5.46	1.61	2.73	4		0.15	22-Apr-04	02:24
QC Dup. Spike (BDS)	Gross Beta	264	11.2	2.97	4		0.15	13-Apr-04	04:03
QC Dup. Spike (BDS)	Gross Beta	496	20.9	4.84	4		0.075	20-Apr-04	08:53
QC Dup. Spike (BDS)	Gross Beta	469	12.1	5.17	4		0.075	22-Apr-04	02:30
MW109S Replicate	Gross Beta	8.06	0.964	1.07	4		0.15	20-Apr-04	01:53
MW113S Replicate	Gross Beta	13.7	2.05	3.04	4		0.15	22-Apr-04	02:30
QC Spike (BS)	Gross Beta	204	9.08	2.33	4		0.15	13-Apr-04	04:03
QC Spike (BS)	Gross Beta	237	9.89	2.51	4		0.15	20-Apr-04	08:53
QC Spike (BS)	Gross Beta	235	10.3	4.31	4		0.15	22-Apr-04	12:32
QC Spike (MS)	Gross Beta	274	11.5	3.14	4		0.15	13-Apr-04	04:03
QC Spike (MS)	Gross Beta	502	20.9	5	4		0.075	20-Apr-04	08:53
QC Spike (MS)	Gross Beta	465	12.1	5.68	4		0.075	22-Apr-04	02:30
QC Blank	H-3	-129	163	292	400	U	0	3-Apr-04	12:19
QC Blank	H-3	-31	154	264	400	U	0	5-Apr-04	01:39
MW100D	H-3	61.5	161	262	400	U	0	4-Apr-04	07:31
MW100S	H-3	94.2	167	267	400	U	0	4-Apr-04	08:17
MW101D	H-3	91.3	171	276	400	U	0	3-Apr-04	06:11
MW101S	H-3	-59.9	157	271	400	U	0	3-Apr-04	05:25
MW102D	H-3	4940	411	296	400		0	3-Apr-04	06:57
MW102S	H-3	6740	469	296	400		0	3-Apr-04	08:29
MW103D	H-3	12000	580	259	400		0	4-Apr-04	05:13
MW103S	H-3	1090	228	258	400		0	4-Apr-04	06:45
MW104S	H-3	285	183	269	400		0	4-Apr-04	05:59
MW105D	H-3	953	227	270	400		0	4-Apr-04	02:55
MW105D (Sol.)	H-3	802	213	262	400		0	4-Apr-04	02:09
MW105S	H-3	5520	422	273	400		0	4-Apr-04	03:41
MW105S (Sol.)	H-3	5880	434	275	400		0	4-Apr-04	04:27
MW106D	H-3	1110	243	287	400		0	3-Apr-04	10:47
MW106D (Sol.)	H-3	1000	235	283	400		0	3-Apr-04	11:33
MW106S	H-3	542	202	271	400		0	4-Apr-04	12:37
MW106S (Sol.)	H-3	405	189	265	400		0	4-Apr-04	01:23
MW106S Replicate	H-3	494	194	263	400		0	5-Apr-04	02:25
MW107D	H-3	732	222	288	400		0	2-Apr-04	11:29
MW107S	H-3	225	190	291	400	U	0	3-Apr-04	01:47
MW108S	H-3	0	160	268	400	U	0	4-Apr-04	09:49
MW109D	H-3	4550	393	290	400		0	3-Apr-04	10:01
MW109S	H-3	30.8	169	279	400	U	0	3-Apr-04	09:15
MW110D	H-3	5890	424	275	400		0	3-Apr-04	03:19
MW110S	H-3	2050	287	282	400		0	3-Apr-04	02:33
MW111S	H-3	63.2	165	269	400	U	0	5-Apr-04	12:07
MW112S	H-3	32	165	272	400	U	0	4-Apr-04	11:21
MW113S	H-3	30.6	157	260	400	U	0	5-Apr-04	12:53
MW114S	H-3	1350	260	292	400		0	2-Apr-04	09:11
MW114S Duplicate	H-3	1570	266	284	400		0	2-Apr-04	09:57
MW115S	H-3	5740	432	290	400		0	2-Apr-04	10:43
MW117S	H-3	33.3	171	283	400	U	0	4-Apr-04	10:35
MW122D	H-3	32.9	180	298	400	U	0	2-Apr-04	08:25
MW122D Replicate	H-3	94.5	177	285	400	U	0	3-Apr-04	01:05
MW122S	H-3	750	220	283	400		0	3-Apr-04	01:01
MW123S	H-3	27.5	150	249	400	U	0	3-Apr-04	04:05
MW124S	H-3	1530	263	283	400		0	3-Apr-04	07:43
MW125S	H-3	2350	311	296	400		0	3-Apr-04	12:15
MWEOF2	H-3	62.3	163	265	400	U	0	4-Apr-04	09:03
QC Spike (BS)	H-3	2960	324	279	400		0	3-Apr-04	02:37
QC Spike (BS)	H-3	3350	333	259	400		0	5-Apr-04	03:57
QC Spike (MS)	H-3	3470	325	253	400		0	3-Apr-04	01:50
QC Spike (MS)	H-3	3370	337	263	400		0	5-Apr-04	03:11
QC Blank	Boron	1.84	-	0.54	15	J	0	15-Apr-04	09:57
QC Blank	Boron	3.9	-	0.54	15	J	0	15-Apr-04	11:18
MW100D	Boron	19.9	-	0.54	15		0	15-Apr-04	11:58
MW100S	Boron	212	-	0.54	15		0	16-Apr-04	12:01
MW101D	Boron	49.4	-	0.54	15		0	15-Apr-04	10:47
MW101S	Boron	49	-	0.54	15		0	15-Apr-04	10:44
MW102D	Boron	113	-	0.54	15		0	15-Apr-04	10:54
MW102S	Boron	60.8	-	0.54	15		0	15-Apr-04	11:00
MW103D	Boron	90.9	-	0.54	15		0	15-Apr-04	11:50
MW103S	Boron	85.7	-	0.54	15		0	15-Apr-04	11:55
MW104S	Boron	299	-	0.54	15		0	15-Apr-04	11:53
MW105D	Boron	67.5	-	0.54	15		0	15-Apr-04	11:37
MW105D (Sol.)	Boron	76.5	-	0.54	15		0	15-Apr-04	11:34
MW105S	Boron	735	-	0.54	15		0	15-Apr-04	11:45
MW105S (Sol.)	Boron	767	-	0.54	15		0	15-Apr-04	11:47
MW106D	Boron	74.3	-	0.54	15		0	15-Apr-04	11:08
MW106D (Sol.)	Boron	68.7	-	0.54	15		0	15-Apr-04	11:10

NOTES:
Bold results are greater than 2-sigma TPU and the sample MDC.
Gray results are greater than 2-sigma TPU and less than the sample MDC.
Boron concentration results are in ug/liter.

Appendix D.1
March 2004 Lab Analytical Results Summary

Well ID	Nuclide	Conc. (pCi/L)	2-sigma TPU (pCi/L)	MDC (pCi/L)	Required MDC (pCi/L)	Lab Flag	Aliquot Volume (L)	Analysis Date	Analysis Time
MW106S (Sol.)	Boron	670	-	0.54	15		0	15-Apr-04	11:23
MW106S (Sol.) Replicate	Boron	635	-	0.54	15		0	15-Apr-04	11:26
MW107D	Boron	38	-	0.54	15		0	15-Apr-04	10:20
MW107S	Boron	192	-	0.54	15		0	15-Apr-04	10:33
MW109D	Boron	210	-	0.54	15		0	15-Apr-04	11:05
MW109S	Boron	254	-	0.54	15		0	15-Apr-04	11:02
MW110D	Boron	179	-	0.54	15		0	15-Apr-04	10:39
MW110S	Boron	238	-	0.54	15		0	15-Apr-04	10:36
MW114S	Boron	173	-	0.54	15		0	15-Apr-04	10:13
MW114S Duplicate	Boron	174	-	0.54	15		0	15-Apr-04	10:15
MW115S	Boron	195	-	0.54	15		0	15-Apr-04	10:18
MW122D	Boron	224	-	0.54	15		0	15-Apr-04	10:02
MW122D Replicate	Boron	223	-	0.54	15		0	15-Apr-04	10:05
MW122S	Boron	317	-	0.54	15		0	15-Apr-04	10:31
MW123S	Boron	107	-	0.54	15		0	15-Apr-04	10:41
MW124S	Boron	228	-	0.54	15		0	15-Apr-04	10:57
MW125S	Boron	390	-	0.54	15		0	15-Apr-04	10:28
QC Spike (BS)	Boron	113	-	0.54	15		0	15-Apr-04	09:59
QC Spike (BS)	Boron	112	-	0.54	15		0	15-Apr-04	11:21
QC Spike (MS)	Boron	94	-	0.54	15		0	15-Apr-04	10:07
QC Spike (MS)	Boron	208	-	0.54	15		0	15-Apr-04	11:29
QC Blank	Boron	14.4	-	4.88	15	J	0	15-Apr-04	04:15
MW107D	Boron	30	-	4.88	15	J	0	15-Apr-04	05:16
MW107S	Boron	146	-	4.88	15		0	15-Apr-04	05:32
MW110D	Boron	141	-	4.88	15		0	15-Apr-04	05:44
MW110S	Boron	191	-	4.88	15		0	15-Apr-04	05:38
MW114S	Boron	146	-	4.88	15		0	15-Apr-04	04:46
MW114S Duplicate	Boron	148	-	4.88	15		0	15-Apr-04	04:53
MW115S	Boron	155	-	4.88	15		0	15-Apr-04	04:59
MW122D	Boron	197	-	4.88	15		0	15-Apr-04	04:25
MW122D Replicate	Boron	199	-	4.88	15		0	15-Apr-04	04:36
MW122S	Boron	252	-	4.88	15		0	15-Apr-04	05:27
MW125S	Boron	315	-	4.88	15		0	15-Apr-04	05:21
QC Spike (BS)	Boron	97	-	4.88	15		0	15-Apr-04	04:20
QC Spike (MS)	Boron	94	-	4.88	15		0	15-Apr-04	04:41
QC Blank	C-14	3.31	96.9	166	200	U	0.01	3-Apr-04	04:02
MW103D	C-14	31.3	88.1	150	200	U	0.01	3-Apr-04	12:56
MW103S	C-14	11.9	99.4	170	200	U	0.01	3-Apr-04	03:00
MW104S	C-14	75	89.7	151	200	U	0.01	3-Apr-04	01:58
MW105D	C-14	33.9	89	151	200	U	0.01	3-Apr-04	09:51
MW105D (Sol.)	C-14	16.4	87.7	150	200	U	0.01	3-Apr-04	08:49
MW105S	C-14	83.5	91	152	200	U	0.01	3-Apr-04	10:52
MW105S (Sol.)	C-14	140	92.3	152	200	U	0.01	3-Apr-04	11:54
MW106D	C-14	85.7	90.2	151	200	U	0.01	3-Apr-04	04:41
MW106D (Sol.)	C-14	90.4	90.6	151	200	U	0.01	3-Apr-04	05:43
MW106D Replicate	C-14	126	111	184	200	U	0.01	3-Apr-04	05:04
MW106S	C-14	88.1	90.5	151	200	U	0.01	3-Apr-04	06:45
MW106S (Sol.)	C-14	85.6	90.1	151	200	U	0.01	3-Apr-04	07:47
QC Spike (BS)	C-14	6790	211	163	200		0.01	3-Apr-04	07:07
QC Spike (MS)	C-14	6960	234	190	200		0.01	3-Apr-04	06:05
QC Blank	Mn-54	-0.717	1.16	1.98	50	U	2	1-Apr-04	09:56
QC Blank	Mn-54	-0.885	1.85	3.05	50	U	2	1-Apr-04	09:45
MW100D	Mn-54	0.263	2.02	3.7	50	U	2	1-Apr-04	09:40
MW100S	Mn-54	0.188	1.76	3.28	50	U	2	1-Apr-04	01:57
MW101D	Mn-54	-1.68	2.08	3.49	50	U	2	1-Apr-04	03:24
MW101S	Mn-54	1.78	3.49	4.44	50	U	2	1-Apr-04	02:05
MW102D	Mn-54	-2.12	1.85	2.96	50	U	2	1-Apr-04	06:23
MW102S	Mn-54	-0.35	2.04	3.52	50	U	2	1-Apr-04	06:25
MW103D	Mn-54	-0.296	1.3	2.22	50	U	2	31-Mar-04	08:51
MW103S	Mn-54	-0.6	1.39	2.34	50	U	2	31-Mar-04	11:08
MW104S	Mn-54	-0.902	1.25	2.12	50	U	2	31-Mar-04	09:05
MW105D	Mn-54	-1.24	1.44	2.38	50	U	2	31-Mar-04	08:09
MW105D (Sol.)	Mn-54	0.355	1.13	1.95	50	U	2	31-Mar-04	08:08
MW105S	Mn-54	0.072	1.05	1.86	50	U	2	31-Mar-04	08:36
MW105S (Sol.)	Mn-54	-0.211	1.22	2.11	50	U	2	31-Mar-04	08:49
MW106D	Mn-54	0.427	1.2	2.14	50	U	2	1-Apr-04	09:55
MW106D (Sol.)	Mn-54	0.569	1.47	2.32	50	U	2	1-Apr-04	09:56
MW106S	Mn-54	-0.694	1.11	1.89	50	U	2	31-Mar-04	07:02
MW106S (Sol.)	Mn-54	-0.866	1.59	2.7	50	U	2	31-Mar-04	07:03
MW106S Replicate	Mn-54	-0.652	1.87	3.32	50	U	2	1-Apr-04	09:45
MW107D	Mn-54	-0.117	2.28	4.03	50	U	2	1-Apr-04	02:00
MW107S	Mn-54	-0.106	2.15	3.93	50	U	2	1-Apr-04	02:02
MW108S	Mn-54	0.379	1.78	3.3	50	U	2	1-Apr-04	09:42
MW109D	Mn-54	-0.0433	1.12	1.98	50	U	2	1-Apr-04	09:55
MW109S	Mn-54	-0.927	1.83	3.19	50	U	2	1-Apr-04	06:25
MW110D	Mn-54	-1.97	2.22	3.45	50	U	2	1-Apr-04	02:03
MW110S	Mn-54	0.726	2.11	3.87	50	U	2	1-Apr-04	02:03
MW111S	Mn-54	0.442	1.82	3.35	50	U	2	1-Apr-04	09:44
MW112S	Mn-54	0	0	3.64	50	U	2	1-Apr-04	09:43
MW113S	Mn-54	2.84	2	2.83	50	U	2	1-Apr-04	10:38
MW114S	Mn-54	-0.377	2.35	4.19	50	U	2	1-Apr-04	09:38
MW114S Duplicate	Mn-54	-0.381	2.61	4.71	50	U	2	1-Apr-04	10:36
MW115S	Mn-54	-0.278	1.72	3.05	50	U	2	1-Apr-04	01:58

NOTES:
Bold results are greater than 2-sigma TPU and the sample MDC.
Gray results are greater than 2-sigma TPU and less than the sample MDC.
Boron concentration results are in ug/liter.

Appendix D.1
March 2004 Lab Analytical Results Summary

Well ID	Nuclide	Conc. (pCi/L)	2-sigma TPU (pCi/L)	MDC (pCi/L)	Required MDC (pCi/L)	Lab Flag	Aliquot Volume (L)	Analysis Date	Analysis Time
MW117S	Mn-54	-0.03	2.5	3.89	50	U	2	1-Apr-04	09:42
MW122D	Mn-54	1.18	1.68	3.05	50	U	2	1-Apr-04	09:37
MW122D Replicate	Mn-54	-0.0531	1.24	2.12	50	U	2	1-Apr-04	09:57
MW122S	Mn-54	2.03	1.81	2.2	50	U	2	1-Apr-04	02:01
MW123S	Mn-54	1.78	3.49	4.44	50	U	2	1-Apr-04	02:05
MW124S	Mn-54	-0.218	1.92	3.41	50	U	2	1-Apr-04	06:24
MW125S	Mn-54	-0.228	1.51	2.62	50	U	2	1-Apr-04	02:00
MWEOF2	Mn-54	-0.98	2.23	3.8	50	U	2	1-Apr-04	09:41
QC Spike (BS)	Mn-54	0.822	13.8	20.9	50	U	2	1-Apr-04	06:16
QC Spike (BS)	Mn-54	6.9	12.5	22.7	50	U	2	2-Apr-04	02:20
QC Spike (MS)	Mn-54	-61.7	144	255	50	U	0.05	1-Apr-04	06:15
QC Spike (MS)	Mn-54	-83.4	142	231	50	U	0.05	31-Mar-04	07:01
QC Blank	Fe-55	-17.7	14.8	12.4	25	U	0.55	9-Apr-04	02:37
MW103D	Fe-55	2.59	13.8	11.7	25	U	0.55	8-Apr-04	11:34
MW103S	Fe-55	9.53	12.7	10.1	25	U	0.55	9-Apr-04	01:36
MW104S	Fe-55	-38.4	11.2	10.3	25	U	0.55	9-Apr-04	12:35
MW105D	Fe-55	-43.7	7.97	6.85	25	U	0.55	8-Apr-04	08:31
MW105D (Sol.)	Fe-55	-30.1	9.07	6.99	25	U	0.55	8-Apr-04	07:30
MW105S	Fe-55	-22.9	10.1	7.77	25	U	0.55	8-Apr-04	09:32
MW105S (Sol.)	Fe-55	-45.7	8.91	7.25	25	U	0.55	8-Apr-04	10:33
MW106D	Fe-55	-44.2	9.78	8.78	25	U	0.55	8-Apr-04	03:26
MW106D (Sol.)	Fe-55	-27.2	10.9	8.57	25	U	0.55	8-Apr-04	04:27
MW106D Replicate	Fe-55	-7.54	15.9	14.6	25	U	0.55	9-Apr-04	03:38
MW106S	Fe-55	7.32	11	8.42	25	U	0.55	8-Apr-04	05:28
MW106S (Sol.)	Fe-55	-15.5	11.8	9	25	U	0.55	8-Apr-04	06:29
QC Spike (BS)	Fe-55	48.3	15.6	13.9	25		0.55	7-Apr-04	06:00
QC Spike (MS)	Fe-55	55.3	14	10.1	25		0.55	7-Apr-04	05:00
QC Blank	Co-60	0.78	1.15	2.2	25	U	2	1-Apr-04	09:56
QC Blank	Co-60	0.485	2.06	3.96	25	U	2	1-Apr-04	09:45
MW100D	Co-60	0.0719	1.7	3.37	25	U	2	1-Apr-04	09:40
MW100S	Co-60	0.389	1.9	3.61	25	U	2	1-Apr-04	01:57
MW101D	Co-60	0.858	2.27	4.26	25	U	2	1-Apr-04	03:24
MW101S	Co-60	2.94	4.56	4.15	25	U	2	1-Apr-04	02:05
MW102D	Co-60	0.158	2.13	4.05	25	U	2	1-Apr-04	06:23
MW102S	Co-60	0.367	2.12	4.02	25	U	2	1-Apr-04	06:25
MW103D	Co-60	0.541	1.48	2.74	25	U	2	31-Mar-04	08:51
MW103S	Co-60	1.43	1.55	2.92	25	U	2	31-Mar-04	11:08
MW104S	Co-60	0.247	1.29	2.32	25	U	2	31-Mar-04	09:05
MW105D	Co-60	-0.939	1.42	2.42	25	U	2	31-Mar-04	08:09
MW105D (Sol.)	Co-60	0.728	1.13	2.11	25	U	2	31-Mar-04	08:08
MW105S	Co-60	3.23	2.06	1.93	25		2	31-Mar-04	08:36
MW105S (Sol.)	Co-60	0	2.4	2.27	25		2	31-Mar-04	08:49
MW106D	Co-60	-0.492	1.23	2.13	25	U	2	1-Apr-04	09:55
MW106D (Sol.)	Co-60	0.644	1.45	2.71	25	U	2	1-Apr-04	09:56
MW106S	Co-60	0.423	1.28	2.3	25	U	2	31-Mar-04	07:02
MW106S (Sol.)	Co-60	0.619	1.55	2.81	25	U	2	31-Mar-04	07:03
MW106S Replicate	Co-60	-0.0143	1.74	3.24	25	U	2	1-Apr-04	09:45
MW107D	Co-60	0.831	2.35	4.49	25	U	2	1-Apr-04	02:00
MW107S	Co-60	-0.18	2.3	4.16	25	U	2	1-Apr-04	02:02
MW108S	Co-60	1.74	1.69	3.79	25	U	2	1-Apr-04	09:42
MW109D	Co-60	0.0743	1.22	2.27	25	U	2	1-Apr-04	09:55
MW109S	Co-60	-0.592	1.94	3.41	25	U	2	1-Apr-04	06:25
MW110D	Co-60	-1.34	2.32	3.89	25	U	2	1-Apr-04	02:03
MW110S	Co-60	0.291	2.02	3.86	25	U	2	1-Apr-04	02:03
MW111S	Co-60	0.367	2.24	3.78	25	U	2	1-Apr-04	09:44
MW112S	Co-60	-0.535	2.36	4.17	25	U	2	1-Apr-04	09:43
MW113S	Co-60	-0.406	2.22	3.99	25	U	2	1-Apr-04	10:38
MW114S	Co-60	-3.31	3.38	4.49	25	U	2	1-Apr-04	09:38
MW114S Duplicate	Co-60	-0.885	2.46	4.31	25	U	2	1-Apr-04	10:36
MW115S	Co-60	1.26	1.88	3.83	25	U	2	1-Apr-04	01:58
MW117S	Co-60	-1.42	2.34	4.01	25	U	2	1-Apr-04	09:42
MW122D	Co-60	1.19	1.94	3.93	25	U	2	1-Apr-04	09:37
MW122D Replicate	Co-60	-0.465	1.2	2.07	25	U	2	1-Apr-04	09:57
MW122S	Co-60	-0.493	1.89	3.4	25	U	2	1-Apr-04	02:01
MW123S	Co-60	2.94	4.56	4.15	25	U	2	1-Apr-04	02:05
MW124S	Co-60	-0.654	2.19	3.89	25	U	2	1-Apr-04	06:24
MW125S	Co-60	-0.98	1.5	2.54	25	U	2	1-Apr-04	02:00
MWEOF2	Co-60	0.925	2.2	4.27	25	U	2	1-Apr-04	09:41
QC Spike (BS)	Co-60	804	71.1	22.7	25		2	1-Apr-04	06:16
QC Spike (BS)	Co-60	794	71.3	23.4	25		2	2-Apr-04	02:20
QC Spike (MS)	Co-60	5650	729	301	25		0.05	1-Apr-04	06:15
QC Spike (MS)	Co-60	5810	673	209	25		0.05	31-Mar-04	07:01
QC Blank	Ni-63	-3.26	3.44	6.06	15	U	0.55	6-Apr-04	12:07
MW103D	Ni-63	-5.23	3.59	6.41	15	U	0.55	5-Apr-04	09:46
MW103S	Ni-63	0.483	3.77	6.46	15	U	0.55	5-Apr-04	11:20
MW104S	Ni-63	-3.23	3.24	5.71	15	U	0.55	5-Apr-04	10:33
MW105D	Ni-63	-3.36	5.54	9.67	15	U	0.55	5-Apr-04	07:24
MW105D (Sol.)	Ni-63	-3.33	2.72	4.83	15	U	0.55	5-Apr-04	06:37
MW105S	Ni-63	-1.42	3.17	5.51	15	U	0.55	5-Apr-04	08:11
MW105S (Sol.)	Ni-63	0	3.16	5.42	15	U	0.55	5-Apr-04	08:59
MW106D	Ni-63	-2.08	3.79	6.61	15	U	0.55	5-Apr-04	03:28
MW106D (Sol.)	Ni-63	-0.512	2.56	4.42	15	U	0.55	5-Apr-04	04:15
MW106D Replicate	Ni-63	-3.95	3.64	6.43	15	U	0.55	6-Apr-04	12:55

NOTES:
Bold results are greater than 2-sigma TPU and the sample MDC.
Gray results are greater than 2-sigma TPU and less than the sample MDC.
Boron concentration results are in ug/liter.

Appendix D.1
March 2004 Lab Analytical Results Summary

Well ID	Nuclide	Conc. (pCi/L)	2-sigma TPU (pCi/L)	MDC (pCi/L)	Required MDC (pCi/L)	Lab Flag	Aliquot Volume (L)	Analysis Date	Analysis Time
MW106S	Ni-63	-2.99	3.25	5.72	15	U	0.55	5-Apr-04	05:03
MW106S (Sol.)	Ni-63	-2.16	2.92	5.11	15	U	0.55	5-Apr-04	05:50
QC Spike (BS)	Ni-63	**251**	8.37	6.79	15		0.55	6-Apr-04	02:29
QC Spike (MS)	Ni-63	**205**	6.73	5.41	15		0.55	6-Apr-04	01:42
QC Blank	Sr-90	0.165	0.499	1.17	2	U	0.4	6-Apr-04	02:00
QC Blank	Sr-90	-0.0411	0.262	0.669	2	U	0.4	6-Apr-04	04:49
MW101D	Sr-90	0.166	0.497	1.16	2	U	0.4	6-Apr-04	12:04
MW101S	Sr-90	0.438	0.539	1.2	2	U	0.4	6-Apr-04	12:03
MW102D	Sr-90	-0.213	0.434	1.11	2	U	0.4	6-Apr-04	12:04
MW102S	Sr-90	0.122	0.507	1.2	2	U	0.4	6-Apr-04	12:04
MW103D	Sr-90	-0.0756	0.298	0.815	2	U	0.4	6-Apr-04	02:29
MW103S	Sr-90	**2.27**	0.62	0.786	2		0.4	6-Apr-04	03:34
MW104S	Sr-90	-0.0046	0.258	0.685	2	U	0.4	6-Apr-04	03:34
MW105D	Sr-90	-0.0604	0.299	0.811	2	U	0.4	6-Apr-04	02:29
MW105D (Sol.)	Sr-90	0.118	0.401	0.973	2	U	0.4	6-Apr-04	02:29
MW105S	Sr-90	**91.8**	3.45	0.815	2		0.4	6-Apr-04	02:29
MW105S (Sol.)	Sr-90	**92.4**	3.45	0.822	2		0.4	6-Apr-04	02:29
MW106D	Sr-90	0.325	0.515	1.17	2	U	0.4	6-Apr-04	12:04
MW106D (Sol.)	Sr-90	0.237	0.457	1.05	2	U	0.4	6-Apr-04	02:00
MW106S	Sr-90	1.21	0.7	1.29	2	U	0.4	30-Apr-04	12:48
MW106S (Sol.)	Sr-90	**1.68**	0.642	1	2		0.4	30-Apr-04	12:48
MW106S (Sol.)	Sr-90	**16.5**	1.43	0.72	2	R	0.4	6-Apr-04	02:29
MW106S Replicate	Sr-90	**1.67**	0.422	0.554	2		0.4	6-Apr-04	04:50
MW107D	Sr-90	0.224	0.533	1.23	2	U	0.4	6-Apr-04	12:03
MW107S	Sr-90	0.322	0.599	1.37	2	U	0.4	6-Apr-04	12:03
MW108S	Sr-90	-0.324	0.279	0.887	2	U	0.4	6-Apr-04	03:34
MW109D	Sr-90	0.391	0.457	1.01	2	U	0.4	6-Apr-04	12:04
MW109S	Sr-90	0.181	0.475	1.11	2	U	0.4	6-Apr-04	12:04
MW110D	Sr-90	0.657	0.65	1.42	2	U	0.4	6-Apr-04	12:03
MW110S	Sr-90	-0.753	0.648	1.7	2	U	0.4	6-Apr-04	12:03
MW111S	Sr-90	0.0142	0.307	0.788	2	U	0.4	6-Apr-04	03:34
MW112S	Sr-90	-0.0217	0.291	0.765	2	U	0.4	6-Apr-04	03:34
MW113S	Sr-90	0.373	0.354	0.739	2	U	0.4	6-Apr-04	03:34
MW114S	Sr-90	**3.92**	0.793	1.21	2		0.4	6-Apr-04	12:03
MW114S Duplicate	Sr-90	**3.39**	0.726	1.11	2		0.4	6-Apr-04	12:03
MW115S	Sr-90	**1.64**	0.723	1.42	2		0.4	6-Apr-04	12:03
MW117S	Sr-90	0.196	0.457	1.09	2	U	0.4	6-Apr-04	03:34
MW122D	Sr-90	0.652	0.527	1.14	2	U	0.4	6-Apr-04	12:03
MW122D Replicate	Sr-90	-0.239	0.445	1.15	2	U	0.4	6-Apr-04	02:00
MW122S	Sr-90	0.844	0.544	1.17	2	U	0.4	6-Apr-04	12:03
MW123S	Sr-90	0.866	0.551	1.13	2	U	0.4	6-Apr-04	12:03
MW124S	Sr-90	0.0515	0.469	1.12	2	U	0.4	6-Apr-04	12:04
MW125S	Sr-90	**3.15**	0.786	1.29	2		0.4	6-Apr-04	12:03
QC Spike (BS)	Sr-90	**39.4**	2.55	1.33	2		0.4	6-Apr-04	03:20
QC Spike (BS)	Sr-90	**40.4**	2.29	0.838	2		0.4	6-Apr-04	04:19
QC Spike (MS)	Sr-90	**84.1**	4.41	2.38	2		0.2	6-Apr-04	02:00
QC Spike (MS)	Sr-90	**79.5**	4.58	1.85	2		0.2	6-Apr-04	04:19
QC Blank	Nb-94	-0.575	1.21	1.99	50	U	2	1-Apr-04	09:56
QC Blank	Nb-94	0.504	1.73	3.17	50	U	2	1-Apr-04	09:45
MW100D	Nb-94	-1.1	1.81	3.08	50	U	2	1-Apr-04	09:40
MW100S	Nb-94	0.129	1.88	3.28	50	U	2	1-Apr-04	01:57
MW101D	Nb-94	1.12	2.33	3.68	50	U	2	1-Apr-04	03:24
MW101S	Nb-94	1.87	2.27	4.41	50	U	2	1-Apr-04	02:05
MW102D	Nb-94	0.308	2.09	3.71	50	U	2	1-Apr-04	06:23
MW102S	Nb-94	-1.27	1.9	3.1	50	U	2	1-Apr-04	06:25
MW103D	Nb-94	1.67	1.25	2.34	50	U	2	31-Mar-04	08:51
MW103S	Nb-94	0.615	1.34	2.11	50	U	2	31-Mar-04	11:08
MW104S	Nb-94	-0.494	1.23	2.03	50	U	2	31-Mar-04	09:05
MW105D	Nb-94	-0.799	1.27	2.15	50	U	2	31-Mar-04	08:09
MW105D (Sol.)	Nb-94	0.274	0.985	1.71	50	U	2	31-Mar-04	08:08
MW105S	Nb-94	0.516	0.95	1.66	50	U	2	31-Mar-04	08:36
MW105S (Sol.)	Nb-94	0.278	1.09	1.95	50	U	2	31-Mar-04	08:49
MW106D	Nb-94	1.4	1.03	1.97	50	U	2	1-Apr-04	09:55
MW106D (Sol.)	Nb-94	0.681	1.77	2.31	50	U	2	1-Apr-04	09:56
MW106S	Nb-94	-0.178	1.06	1.78	50	U	2	31-Mar-04	07:02
MW106S (Sol.)	Nb-94	0.855	1.53	2.64	50	U	2	31-Mar-04	07:03
MW106S Replicate	Nb-94	0.112	1.79	3.13	50	U	2	1-Apr-04	09:45
MW107D	Nb-94	0.763	3.89	4.31	50	U	2	1-Apr-04	02:00
MW107S	Nb-94	0.146	1.84	3.26	50	U	2	1-Apr-04	02:02
MW108S	Nb-94	0.498	1.72	3.19	50	U	2	1-Apr-04	09:42
MW109D	Nb-94	0.453	1.05	1.91	50	U	2	1-Apr-04	09:55
MW109S	Nb-94	-1.25	1.86	3.02	50	U	2	1-Apr-04	06:25
MW110D	Nb-94	1.13	1.92	3.57	50	U	2	1-Apr-04	02:03
MW110S	Nb-94	0.432	1.64	3.04	50	U	2	1-Apr-04	02:03
MW111S	Nb-94	1.2	1.57	3.25	50	U	2	1-Apr-04	09:44
MW112S	Nb-94	1.63	1.66	3.26	50	U	2	1-Apr-04	09:43
MW113S	Nb-94	2.78	2.4	3.39	50	U	2	1-Apr-04	10:38
MW114S	Nb-94	-0.732	2.28	4.02	50	U	2	1-Apr-04	09:38
MW114S Duplicate	Nb-94	-0.999	2.46	4.08	50	U	2	1-Apr-04	10:36
MW115S	Nb-94	0.252	1.4	2.59	50	U	2	1-Apr-04	01:58
MW117S	Nb-94	0.259	1.91	3.48	50	U	2	1-Apr-04	09:42
MW122D	Nb-94	1.58	1.68	3.26	50	U	2	1-Apr-04	09:37
MW122D Replicate	Nb-94	0.754	1.07	1.94	50	U	2	1-Apr-04	09:57

NOTES:
Bold results are greater than 2-sigma TPU and the sample MDC.
Gray results are greater than 2-sigma TPU and less than the sample MDC.
Boron concentration results are in ug/liter.

Appendix D.1
March 2004 Lab Analytical Results Summary

Well ID	Nuclide	Conc. (pCi/L)	2-sigma TPU (pCi/L)	MDC (pCi/L)	Required MDC (pCi/L)	Lab Flag	Aliquot Volume (L)	Analysis Date	Analysis Time
MW122S	Nb-94	0.433	1.85	3.34	50	U	2	1-Apr-04	02:01
MW123S	Nb-94	1.87	2.27	4.41	50	U	2	1-Apr-04	02:05
MW124S	Nb-94	0.471	1.81	3.34	50	U	2	1-Apr-04	06:24
MW125S	Nb-94	-0.763	1.21	2.02	50	U	2	1-Apr-04	02:00
MWEOF2	Nb-94	0.918	1.86	3.48	50	U	2	1-Apr-04	09:41
QC Spike (BS)	Nb-94	-5.99	11.1	18.4	50	U	2	1-Apr-04	06:16
QC Spike (BS)	Nb-94	1.14	11	19.5	50	U	2	2-Apr-04	02:20
QC Spike (MS)	Nb-94	-48.9	163	275	50	U	0.05	1-Apr-04	06:15
QC Spike (MS)	Nb-94	112	110	221	50	U	0.05	31-Mar-04	07:01
QC Blank	Tc-99	0.669	6.15	10.5	15	U	0.25	12-Apr-04	06:53
MW103D	Tc-99	0	6.96	11.9	15	U	0.25	12-Apr-04	04:34
MW103S	Tc-99	-3.57	6.25	10.9	15	U	0.25	12-Apr-04	05:39
MW104S	Tc-99	-0.45	6.29	10.8	15	U	0.25	12-Apr-04	05:07
MW105D	Tc-99	-4.95	5.85	10.3	15	U	0.25	12-Apr-04	02:58
MW105D (Sol.)	Tc-99	-2.72	5.81	10.1	15	U	0.25	12-Apr-04	02:25
MW105S	Tc-99	-1.5	5.92	10.2	15	U	0.25	12-Apr-04	03:30
MW105S (Sol.)	Tc-99	-1.86	6.28	10.9	15	U	0.25	12-Apr-04	04:02
MW106D	Tc-99	-2.47	5.82	10.1	15	U	0.25	12-Apr-04	12:16
MW106D (Sol.)	Tc-99	-3.26	5.7	9.94	15	U	0.25	12-Apr-04	12:48
MW106D Replicate	Tc-99	0.71	5.66	9.67	15	U	0.25	12-Apr-04	07:26
MW106S	Tc-99	-0.923	6.45	11.1	15	U	0.25	12-Apr-04	01:21
MW106S (Sol.)	Tc-99	-3.25	5.57	9.71	15	U	0.25	12-Apr-04	01:53
QC Spike (BS)	Tc-99	481	13.7	10.1	15		0.25	12-Apr-04	08:30
QC Spike (MS)	Tc-99	457	13.5	10.2	15		0.25	12-Apr-04	07:58
QC Blank	Ag-108m	0.656	1.08	1.95	50	U	2	1-Apr-04	09:56
QC Blank	Ag-108m	-0.556	1.64	2.89	50	U	2	1-Apr-04	09:45
MW100D	Ag-108m	0.693	2.07	3.63	50	U	2	1-Apr-04	09:40
MW100S	Ag-108m	0.455	1.85	3.31	50	U	2	1-Apr-04	01:57
MW101D	Ag-108m	-0.95	2.1	3.53	50	U	2	1-Apr-04	03:24
MW101S	Ag-108m	0.162	1.96	3.46	50	U	2	1-Apr-04	02:05
MW102D	Ag-108m	0.343	2.08	3.74	50	U	2	1-Apr-04	06:23
MW102S	Ag-108m	-1.45	1.88	3.17	50	U	2	1-Apr-04	06:25
MW103D	Ag-108m	-0.542	1.43	2.32	50	U	2	31-Mar-04	08:51
MW103S	Ag-108m	0.469	1.45	2.47	50	U	2	31-Mar-04	11:08
MW104S	Ag-108m	-0.434	1.29	2.17	50	U	2	31-Mar-04	09:05
MW105D	Ag-108m	-0.429	1.21	2.01	50	U	2	31-Mar-04	08:09
MW105D (Sol.)	Ag-108m	0.839	1.09	1.95	50	U	2	31-Mar-04	08:08
MW105S	Ag-108m	0.291	1.05	1.82	50	U	2	31-Mar-04	08:36
MW105S (Sol.)	Ag-108m	-0.291	1.16	1.9	50	U	2	31-Mar-04	08:49
MW106D	Ag-108m	-0.391	1.08	1.89	50	U	2	1-Apr-04	09:55
MW106D (Sol.)	Ag-108m	1.35	1.51	2.61	50	U	2	1-Apr-04	09:56
MW106S	Ag-108m	-0.689	1.11	1.86	50	U	2	31-Mar-04	07:02
MW106S (Sol.)	Ag-108m	0.106	1.55	2.63	50	U	2	31-Mar-04	07:03
MW106S Replicate	Ag-108m	-1.64	2.21	3.14	50	U	2	1-Apr-04	09:45
MW107D	Ag-108m	-0.964	2.43	4.05	50	U	2	1-Apr-04	02:00
MW107S	Ag-108m	-1.15	1.85	3.13	50	U	2	1-Apr-04	02:02
MW108S	Ag-108m	0.693	1.74	3.29	50	U	2	1-Apr-04	09:42
MW109D	Ag-108m	1.29	1.1	1.97	50	U	2	1-Apr-04	09:55
MW109S	Ag-108m	-0.605	1.78	3.02	50	U	2	1-Apr-04	06:25
MW110D	Ag-108m	-0.224	1.85	3.3	50	U	2	1-Apr-04	02:03
MW110S	Ag-108m	0.273	1.69	3.12	50	U	2	1-Apr-04	02:03
MW111S	Ag-108m	1.84	1.67	3.3	50	U	2	1-Apr-04	09:44
MW112S	Ag-108m	0.403	1.67	3.08	50	U	2	1-Apr-04	09:43
MW113S	Ag-108m	-0.727	1.87	3.23	50	U	2	1-Apr-04	10:38
MW114S	Ag-108m	-0.612	2.2	3.73	50	U	2	1-Apr-04	09:38
MW114S Duplicate	Ag-108m	0.844	3.34	4.71	50	U	2	1-Apr-04	10:36
MW115S	Ag-108m	-0.445	1.6	2.66	50	U	2	1-Apr-04	01:58
MW117S	Ag-108m	0.603	2.27	3.92	50	U	2	1-Apr-04	09:42
MW122D	Ag-108m	-0.724	1.79	3.16	50	U	2	1-Apr-04	09:37
MW122D Replicate	Ag-108m	-0.18	1.05	1.84	50	U	2	1-Apr-04	09:57
MW122S	Ag-108m	-0.0733	1.95	3.28	50	U	2	1-Apr-04	02:01
MW123S	Ag-108m	0.162	1.96	3.46	50	U	2	1-Apr-04	02:05
MW124S	Ag-108m	-0.76	1.76	2.95	50	U	2	1-Apr-04	06:24
MW125S	Ag-108m	0.174	1.5	2.72	50	U	2	1-Apr-04	02:00
MWEOF2	Ag-108m	-2.27	2.15	3.41	50	U	2	1-Apr-04	09:41
QC Spike (BS)	Ag-108m	-0.975	10.7	18.9	50	U	2	1-Apr-04	06:16
QC Spike (BS)	Ag-108m	1.86	12	20.2	50	U	2	2-Apr-04	02:20
QC Spike (MS)	Ag-108m	-28	130	229	50	U	0.05	1-Apr-04	06:15
QC Spike (MS)	Ag-108m	29.2	116	214	50	U	0.05	31-Mar-04	07:01
QC Blank	Cs-134	-1.11	1.33	2.09	14	U	2	1-Apr-04	09:56
QC Blank	Cs-134	1	1.94	3.69	14	U	2	1-Apr-04	09:45
MW100D	Cs-134	0.123	2.25	4.1	14	U	2	1-Apr-04	09:40
MW100S	Cs-134	1.78	2.05	3.91	14	U	2	1-Apr-04	01:57
MW101D	Cs-134	1.26	2.35	4.43	14	U	2	1-Apr-04	03:24
MW101S	Cs-134	-1.04	2.85	4.97	14	U	2	1-Apr-04	02:05
MW102D	Cs-134	-0.206	2.37	4.13	14	U	2	1-Apr-04	06:23
MW102S	Cs-134	0.383	2.24	4.02	14	U	2	1-Apr-04	06:25
MW103D	Cs-134	-0.522	1.56	2.63	14	U	2	31-Mar-04	08:51
MW103S	Cs-134	0.796	1.42	2.55	14	U	2	31-Mar-04	11:08
MW104S	Cs-134	1.55	1.41	2.56	14	U	2	31-Mar-04	09:05
MW105D	Cs-134	-0.29	1.5	2.61	14	U	2	31-Mar-04	08:09
MW105D (Sol.)	Cs-134	0.103	1.22	2.09	14	U	2	31-Mar-04	08:08
MW105S	Cs-134	-0.163	1.17	1.96	14	U	2	31-Mar-04	08:36

NOTES:
Bold results are greater than 2-sigma TPU and the sample MDC.
Gray results are greater than 2-sigma TPU and less than the sample MDC.
Boron concentration results are in ug/liter.

Appendix D.1
March 2004 Lab Analytical Results Summary

Well ID	Nuclide	Conc. (pCi/L)	2-sigma TPU (pCi/L)	MDC (pCi/L)	Required MDC (pCi/L)	Lab Flag	Aliquot Volume (L)	Analysis Date	Analysis Time
MW105S (Sol.)	Cs-134	0.644	1.31	2.39	14	U	2	31-Mar-04	08:49
MW106D	Cs-134	0.415	1.27	2.26	14	U	2	1-Apr-04	09:55
MW106D (Sol.)	Cs-134	-0.14	1.54	2.65	14	U	2	1-Apr-04	09:56
MW106S	Cs-134	-0.309	1.2	1.99	14	U	2	31-Mar-04	07:02
MW106S (Sol.)	Cs-134	-0.156	1.78	3.12	14	U	2	31-Mar-04	07:03
MW106S Replicate	Cs-134	1.29	2.08	3.87	14	U	2	1-Apr-04	09:45
MW107D	Cs-134	1.32	2.54	4.71	14	U	2	1-Apr-04	02:00
MW107S	Cs-134	-1.22	2.2	3.59	14	U	2	1-Apr-04	02:02
MW108S	Cs-134	-1.2	1.95	3.25	14	U	2	1-Apr-04	09:42
MW109D	Cs-134	0.541	1.24	2.26	14	U	2	1-Apr-04	09:55
MW109S	Cs-134	-0.476	1.82	3.1	14	U	2	1-Apr-04	06:25
MW110D	Cs-134	-0.791	2.2	3.72	14	U	2	1-Apr-04	02:03
MW110S	Cs-134	0.739	2.01	3.75	14	U	2	1-Apr-04	02:03
MW111S	Cs-134	3.33	2.4	4	14	U	2	1-Apr-04	09:44
MW112S	Cs-134	1.51	1.88	3.7	14	U	2	1-Apr-04	09:43
MW113S	Cs-134	-0.614	1.95	3.33	14	U	2	1-Apr-04	10:38
MW114S	Cs-134	1.2	2.74	4.72	14	U	2	1-Apr-04	09:38
MW114S Duplicate	Cs-134	2.28	2.86	5.65	14	U	2	1-Apr-04	10:36
MW115S	Cs-134	1.31	1.9	3.65	14	U	2	1-Apr-04	01:58
MW117S	Cs-134	1.65	2.3	4.45	14	U	2	1-Apr-04	09:42
MW122D	Cs-134	0.392	1.84	3.4	14	U	2	1-Apr-04	09:37
MW122D Replicate	Cs-134	0.561	1.16	2.11	14	U	2	1-Apr-04	09:57
MW122S	Cs-134	0.347	1.91	3.49	14	U	2	1-Apr-04	02:01
MW123S	Cs-134	-1.04	2.85	4.97	14	U	2	1-Apr-04	02:05
MW124S	Cs-134	1.46	2.15	4.13	14	U	2	1-Apr-04	06:24
MW125S	Cs-134	-1.01	1.75	2.91	14	U	2	1-Apr-04	02:00
MWEOF2	Cs-134	0.129	2.08	3.78	14	U	2	1-Apr-04	09:41
QC Spike (BS)	Cs-134	13	12.8	23.7	14	U	2	1-Apr-04	06:16
QC Spike (BS)	Cs-134	-8.01	12.5	20.8	14	U	2	2-Apr-04	02:20
QC Spike (MS)	Cs-134	4.25	195	340	14	U	0.05	1-Apr-04	06:15
QC Spike (MS)	Cs-134	-38.1	164	245	14	U	0.05	31-Mar-04	07:01
QC Blank	Cs-137	0.163	1.19	2.07	15	U	2	1-Apr-04	09:56
QC Blank	Cs-137	-0.708	1.98	3.39	15	U	2	1-Apr-04	09:45
MW100D	Cs-137	0.194	1.94	3.59	15	U	2	1-Apr-04	09:40
MW100S	Cs-137	-1.44	1.94	3.13	15	U	2	1-Apr-04	01:57
MW101D	Cs-137	0	3.81	7.09	15		2	1-Apr-04	03:24
MW101S	Cs-137	3.64	5.7	4.31	15	U	2	1-Apr-04	02:05
MW102D	Cs-137	1.24	2.07	3.92	15	U	2	1-Apr-04	06:23
MW102S	Cs-137	-1.27	2.21	3.67	15	U	2	1-Apr-04	06:25
MW103D	Cs-137	1.34	1.48	2.7	15	U	2	31-Mar-04	08:51
MW103S	Cs-137	22.4	3.45	2.63	15		2	31-Mar-04	11:08
MW104S	Cs-137	-0.923	1.3	2.09	15	U	2	31-Mar-04	09:05
MW105D	Cs-137	-0.42	1.43	2.48	15	U	2	31-Mar-04	08:09
MW105D (Sol.)	Cs-137	0.581	1.11	1.96	15	U	2	31-Mar-04	08:08
MW105S	Cs-137	-0.505	1.13	1.86	15	U	2	31-Mar-04	08:36
MW105S (Sol.)	Cs-137	0.752	1.18	2.19	15	U	2	31-Mar-04	08:49
MW106D	Cs-137	0.616	1.24	2.24	15	U	2	1-Apr-04	09:55
MW106D (Sol.)	Cs-137	-0.727	1.39	2.35	15	U	2	1-Apr-04	09:56
MW106S	Cs-137	-0.118	1.17	1.98	15	U	2	31-Mar-04	07:02
MW106S (Sol.)	Cs-137	0	2.96	5.01	15		2	31-Mar-04	07:03
MW106S Replicate	Cs-137	-0.362	1.98	3.39	15	U	2	1-Apr-04	09:45
MW107D	Cs-137	-0.194	2.86	4.4	15	U	2	1-Apr-04	02:00
MW107S	Cs-137	1.4	1.82	3.52	15	U	2	1-Apr-04	02:02
MW108S	Cs-137	1.11	1.48	3.6	15	U	2	1-Apr-04	09:42
MW109D	Cs-137	-0.486	1.17	2.02	15	U	2	1-Apr-04	09:55
MW109S	Cs-137	-0.0667	1.92	3.36	15	U	2	1-Apr-04	06:25
MW110D	Cs-137	-1.19	2.01	3.34	15	U	2	1-Apr-04	02:03
MW110S	Cs-137	0.128	1.88	3.41	15	U	2	1-Apr-04	02:03
MW111S	Cs-137	-2.13	2.27	3.06	15	U	2	1-Apr-04	09:44
MW112S	Cs-137	-0.335	1.98	3.44	15	U	2	1-Apr-04	09:43
MW113S	Cs-137	-0.281	1.8	3.16	15	U	2	1-Apr-04	10:38
MW114S	Cs-137	-0.398	2.28	4.12	15	U	2	1-Apr-04	09:38
MW114S Duplicate	Cs-137	0	4.48	8.75	15		2	1-Apr-04	10:36
MW115S	Cs-137	2.84	1.75	3.6	15	U	2	1-Apr-04	01:58
MW117S	Cs-137	-2.67	2.36	3.76	15	U	2	1-Apr-04	09:42
MW122D	Cs-137	3.19	2.4	4.65	15	U	2	1-Apr-04	09:37
MW122D Replicate	Cs-137	-0.0677	1.19	2.06	15	U	2	1-Apr-04	09:57
MW122S	Cs-137	-1.27	1.97	3.31	15	U	2	1-Apr-04	02:01
MW123S	Cs-137	3.64	5.7	4.31	15	U	2	1-Apr-04	02:05
MW124S	Cs-137	-0.926	1.92	3.32	15	U	2	1-Apr-04	06:24
MW125S	Cs-137	0.849	1.53	2.86	15	U	2	1-Apr-04	02:00
MWEOF2	Cs-137	-2.72	2.18	3.48	15	U	2	1-Apr-04	09:41
QC Spike (BS)	Cs-137	524	47.2	22.7	15		2	1-Apr-04	06:16
QC Spike (BS)	Cs-137	477	49.6	22.8	15		2	2-Apr-04	02:20
QC Spike (MS)	Cs-137	3890	511	316	15		0.05	1-Apr-04	06:15
QC Spike (MS)	Cs-137	3520	477	226	15		0.05	31-Mar-04	07:01
QC Blank	Eu-152	-0.498	3.47	6.06	50	U	2	1-Apr-04	09:56
QC Blank	Eu-152	1.86	5.35	9.35	50	U	2	1-Apr-04	09:45
MW100D	Eu-152	4.07	5.79	10.5	50	U	2	1-Apr-04	09:40
MW100S	Eu-152	-5.6	5.91	9.77	50	U	2	1-Apr-04	01:57
MW101D	Eu-152	-6.26	5.8	9.4	50	U	2	1-Apr-04	03:24
MW101S	Eu-152	-5.64	5.76	9.33	50	U	2	1-Apr-04	02:05
MW102D	Eu-152	-1.01	6.44	11.3	50	U	2	1-Apr-04	06:23

NOTES:
Bold results are greater than 2-sigma TPU and the sample MDC.
Gray results are greater than 2-sigma TPU and less than the sample MDC.
Boron concentration results are in ug/liter.

Appendix D.1
March 2004 Lab Analytical Results Summary

Well ID	Nuclide	Conc. (pCi/L)	2-sigma TPU (pCi/L)	MDC (pCi/L)	Required MDC (pCi/L)	Lab Flag	Aliquot Volume (L)	Analysis Date	Analysis Time
MW102S	Eu-152	-4.96	6.04	9.43	50	U	2	1-Apr-04	06:25
MW103D	Eu-152	-0.26	4.54	7.55	50	U	2	31-Mar-04	08:51
MW103S	Eu-152	1.37	4.29	7.38	50	U	2	31-Mar-04	11:08
MW104S	Eu-152	-0.481	3.84	6.57	50	U	2	31-Mar-04	09:05
MW105D	Eu-152	-1.94	3.44	5.74	50	U	2	31-Mar-04	08:09
MW105D (Sol.)	Eu-152	-1.4	3.07	5.28	50	U	2	31-Mar-04	08:08
MW105S	Eu-152	-0.19	3.22	5.54	50	U	2	31-Mar-04	08:36
MW105S (Sol.)	Eu-152	-0.209	3.57	5.96	50	U	2	31-Mar-04	08:49
MW106D	Eu-152	0.63	3.64	6.14	50	U	2	1-Apr-04	09:55
MW106D (Sol.)	Eu-152	2.53	4.7	7.68	50	U	2	1-Apr-04	09:56
MW106S	Eu-152	1	3.23	5.71	50	U	2	31-Mar-04	07:02
MW106S (Sol.)	Eu-152	5.65	4.6	8.17	50	U	2	31-Mar-04	07:03
MW106S Replicate	Eu-152	-0.292	5.85	10.3	50	U	2	1-Apr-04	09:45
MW107D	Eu-152	-3.35	8.06	13.6	50	U	2	1-Apr-04	02:00
MW107S	Eu-152	-2.15	8.6	9.47	50	U	2	1-Apr-04	02:02
MW108S	Eu-152	-0.765	6.15	10.4	50	U	2	1-Apr-04	09:42
MW109D	Eu-152	-1.58	3.59	5.88	50	U	2	1-Apr-04	09:55
MW109S	Eu-152	-1.73	5.37	9.28	50	U	2	1-Apr-04	06:25
MW110D	Eu-152	6.83	6.95	10.8	50	U	2	1-Apr-04	02:03
MW110S	Eu-152	4.28	5.5	9.96	50	U	2	1-Apr-04	02:03
MW111S	Eu-152	-0.273	5.42	9.21	50	U	2	1-Apr-04	09:44
MW112S	Eu-152	3.51	5.91	11	50	U	2	1-Apr-04	09:43
MW113S	Eu-152	5.93	5.03	9.81	50	U	2	1-Apr-04	10:38
MW114S	Eu-152	3.95	5.89	10.9	50	U	2	1-Apr-04	09:38
MW114S Duplicate	Eu-152	0.965	7.68	13.5	50	U	2	1-Apr-04	10:36
MW115S	Eu-152	-2.52	5.24	8.6	50	U	2	1-Apr-04	01:58
MW117S	Eu-152	3.21	7.2	12.6	50	U	2	1-Apr-04	09:42
MW122D	Eu-152	-2.09	5.34	8.8	50	U	2	1-Apr-04	09:37
MW122D Replicate	Eu-152	2.53	3.46	5.98	50	U	2	1-Apr-04	09:57
MW122S	Eu-152	-1.94	6.3	10.4	50	U	2	1-Apr-04	02:01
MW123S	Eu-152	-5.64	5.76	9.33	50	U	2	1-Apr-04	02:05
MW124S	Eu-152	0.383	5.9	10.4	50	U	2	1-Apr-04	06:24
MW125S	Eu-152	-1.19	4.57	7.61	50	U	2	1-Apr-04	02:00
MWEOF2	Eu-152	-3.83	6.28	10.5	50	U	2	1-Apr-04	09:41
QC Spike (BS)	Eu-152	2.38	32.3	54.1	50	U	2	1-Apr-04	06:16
QC Spike (BS)	Eu-152	14.5	31.8	55	50	U	2	2-Apr-04	02:20
QC Spike (MS)	Eu-152	112	385	709	50	U	0.05	1-Apr-04	06:15
QC Spike (MS)	Eu-152	85.7	294	552	50	U	0.05	31-Mar-04	07:01
QC Blank	Eu-154	1.78	3.28	6.18	50	U	2	1-Apr-04	09:56
QC Blank	Eu-154	-1.47	4.66	8.36	50	U	2	1-Apr-04	09:45
MW100D	Eu-154	1.87	4.85	9.68	50	U	2	1-Apr-04	09:40
MW100S	Eu-154	2.71	5.6	10.9	50	U	2	1-Apr-04	01:57
MW101D	Eu-154	-2.67	5.3	9	50	U	2	1-Apr-04	03:24
MW101S	Eu-154	-1.95	7.52	13.7	50	U	2	1-Apr-04	02:05
MW102D	Eu-154	4.74	6.19	11.9	50	U	2	1-Apr-04	06:23
MW102S	Eu-154	2.18	5.81	10.3	50	U	2	1-Apr-04	06:25
MW103D	Eu-154	0.622	4.42	7.06	50	U	2	31-Mar-04	08:51
MW103S	Eu-154	-2.14	3.96	6.75	50	U	2	31-Mar-04	11:08
MW104S	Eu-154	-0.122	3.49	6.19	50	U	2	31-Mar-04	09:05
MW105D	Eu-154	1.98	4.19	7.82	50	U	2	31-Mar-04	08:09
MW105D (Sol.)	Eu-154	-1.49	3.06	5.19	50	U	2	31-Mar-04	08:08
MW105S	Eu-154	0.154	2.69	4.8	50	U	2	31-Mar-04	08:36
MW105S (Sol.)	Eu-154	2.62	3.47	6.54	50	U	2	31-Mar-04	08:49
MW106D	Eu-154	-0.202	3.34	6.01	50	U	2	1-Apr-04	09:55
MW106D (Sol.)	Eu-154	1.44	3.72	6.95	50	U	2	1-Apr-04	09:56
MW106S	Eu-154	-0.564	3.21	5.57	50	U	2	31-Mar-04	07:02
MW106S (Sol.)	Eu-154	-1.78	4.31	7.28	50	U	2	31-Mar-04	07:03
MW106S Replicate	Eu-154	-2.34	4.41	7.58	50	U	2	1-Apr-04	09:45
MW107D	Eu-154	-1.16	7.54	13.5	50	U	2	1-Apr-04	02:00
MW107S	Eu-154	2.42	5.68	11.2	50	U	2	1-Apr-04	02:02
MW108S	Eu-154	3.24	5.45	11.2	50	U	2	1-Apr-04	09:42
MW109D	Eu-154	1.49	3.28	6.06	50	U	2	1-Apr-04	09:55
MW109S	Eu-154	1.67	4.46	8.09	50	U	2	1-Apr-04	06:25
MW110D	Eu-154	2.85	7.33	11.9	50	U	2	1-Apr-04	02:03
MW110S	Eu-154	0.463	4.23	8.39	50	U	2	1-Apr-04	02:03
MW111S	Eu-154	3.44	5.58	11.3	50	U	2	1-Apr-04	09:44
MW112S	Eu-154	-2.12	5.74	10	50	U	2	1-Apr-04	09:43
MW113S	Eu-154	0.512	4.77	9.21	50	U	2	1-Apr-04	10:38
MW114S	Eu-154	-7.34	7.01	11.3	50	U	2	1-Apr-04	09:38
MW114S Duplicate	Eu-154	-1.54	6.97	12.5	50	U	2	1-Apr-04	10:36
MW115S	Eu-154	2.03	5.22	9.9	50	U	2	1-Apr-04	01:58
MW117S	Eu-154	0.292	4.71	9.27	50	U	2	1-Apr-04	09:42
MW122D	Eu-154	-6.26	5.09	7.72	50	U	2	1-Apr-04	09:37
MW122D Replicate	Eu-154	-2.03	3.24	5.47	50	U	2	1-Apr-04	09:57
MW122S	Eu-154	-1.9	5.3	9.43	50	U	2	1-Apr-04	02:01
MW123S	Eu-154	-1.95	7.52	13.7	50	U	2	1-Apr-04	02:05
MW124S	Eu-154	0.344	5.88	9.68	50	U	2	1-Apr-04	06:24
MW125S	Eu-154	0.205	4.18	7.83	50	U	2	1-Apr-04	02:00
MWEOF2	Eu-154	0.352	5.95	11.1	50	U	2	1-Apr-04	09:41
QC Spike (BS)	Eu-154	3.51	30.3	55.6	50	U	2	1-Apr-04	06:16
QC Spike (BS)	Eu-154	-16.5	32.2	52.9	50	U	2	2-Apr-04	02:20
QC Spike (MS)	Eu-154	82.2	391	765	50	U	0.05	1-Apr-04	06:15
QC Spike (MS)	Eu-154	-178	274	464	50	U	0.05	31-Mar-04	07:01

NOTES:
Bold results are greater than 2-sigma TPU and the sample MDC.
Gray results are greater than 2-sigma TPU and less than the sample MDC.
Boron concentration results are in ug/liter.

Appendix D.1
March 2004 Lab Analytical Results Summary

Well ID	Nuclide	Conc. (pCi/L)	2-sigma TPU (pCi/L)	MDC (pCi/L)	Required MDC (pCi/L)	Lab Flag	Aliquot Volume (L)	Analysis Date	Analysis Time
QC Blank	Eu-155	-0.667	3.62	6.18	50	U	2	1-Apr-04	09:56
QC Blank	Eu-155	-3.73	5.38	9.19	50	U	2	1-Apr-04	09:45
MW100D	Eu-155	-1.56	7.63	13.3	50	U	2	1-Apr-04	09:40
MW100S	Eu-155	-2.38	7.84	13	50	U	2	1-Apr-04	01:57
MW101D	Eu-155	-3.25	7.55	12.3	50	U	2	1-Apr-04	03:24
MW101S	Eu-155	-0.577	5.6	9.35	50	U	2	1-Apr-04	02:05
MW102D	Eu-155	-1.79	9.38	15.5	50	U	2	1-Apr-04	06:23
MW102S	Eu-155	0.836	7.64	12.2	50	U	2	1-Apr-04	06:25
MW103D	Eu-155	-1.36	5.4	9.39	50	U	2	31-Mar-04	08:51
MW103S	Eu-155	1.24	5.64	9.45	50	U	2	31-Mar-04	11:08
MW104S	Eu-155	0.0548	5.67	9.32	50	U	2	31-Mar-04	09:05
MW105D	Eu-155	-0.0801	3.35	5.51	50	U	2	31-Mar-04	08:09
MW105D (Sol.)	Eu-155	0.935	4.19	7.15	50	U	2	31-Mar-04	08:08
MW105S	Eu-155	1.29	4.34	7.27	50	U	2	31-Mar-04	08:36
MW105S (Sol.)	Eu-155	0.946	4.52	7.9	50	U	2	31-Mar-04	08:49
MW106D	Eu-155	-1.42	4.74	8.25	50	U	2	1-Apr-04	09:55
MW106D (Sol.)	Eu-155	-0.296	5.61	9.8	50	U	2	1-Apr-04	09:56
MW106S	Eu-155	0.171	4.2	7.17	50	U	2	31-Mar-04	07:02
MW106S (Sol.)	Eu-155	0.786	5.8	9.54	50	U	2	31-Mar-04	07:03
MW106S Replicate	Eu-155	-4.71	7.59	12.4	50	U	2	1-Apr-04	09:45
MW107D	Eu-155	4	10.3	17.5	50	U	2	1-Apr-04	02:00
MW107S	Eu-155	-1.28	7.24	12.5	50	U	2	1-Apr-04	02:02
MW108S	Eu-155	2.96	7.51	13.7	50	U	2	1-Apr-04	09:42
MW109D	Eu-155	2.67	4.34	7.69	50	U	2	1-Apr-04	09:55
MW109S	Eu-155	-2.31	7.39	12.3	50	U	2	1-Apr-04	06:25
MW110D	Eu-155	-0.703	7.47	13.1	50	U	2	1-Apr-04	02:03
MW110S	Eu-155	5.24	6.81	12.5	50	U	2	1-Apr-04	02:03
MW111S	Eu-155	4.25	7.07	12.8	50	U	2	1-Apr-04	09:44
MW112S	Eu-155	-1.82	7.35	12.6	50	U	2	1-Apr-04	09:43
MW113S	Eu-155	-1.5	6.98	11.9	50	U	2	1-Apr-04	10:38
MW114S	Eu-155	2.14	5.77	9.9	50	U	2	1-Apr-04	09:38
MW114S Duplicate	Eu-155	-5.85	9.33	15.1	50	U	2	1-Apr-04	10:36
MW115S	Eu-155	5.11	6.66	12	50	U	2	1-Apr-04	01:58
MW117S	Eu-155	-4.09	8.64	15	50	U	2	1-Apr-04	09:42
MW122D	Eu-155	-2.88	6.86	11.9	50	U	2	1-Apr-04	09:37
MW122D Replicate	Eu-155	-0.00359	4.29	7.48	50	U	2	1-Apr-04	09:57
MW122S	Eu-155	6.56	7.84	14.2	50	U	2	1-Apr-04	02:01
MW123S	Eu-155	-0.577	5.6	9.35	50	U	2	1-Apr-04	02:05
MW124S	Eu-155	0.216	7.54	12.8	50	U	2	1-Apr-04	06:24
MW125S	Eu-155	1.37	5.9	10.6	50	U	2	1-Apr-04	02:00
MWEOF2	Eu-155	-2.94	8.1	13.5	50	U	2	1-Apr-04	09:41
QC Spike (BS)	Eu-155	-2.52	48.3	83.8	50	U	2	1-Apr-04	06:16
QC Spike (BS)	Eu-155	-17.8	49.8	85.3	50	U	2	2-Apr-04	02:20
QC Spike (MS)	Eu-155	258	467	837	50	U	0.05	1-Apr-04	06:15
QC Spike (MS)	Eu-155	61.1	348	620	50	U	0.05	31-Mar-04	07:01
QC Blank	Pu-238	-0.0297	0.0456	0.158	0.5	U	0.2	5-Apr-04	03:05
MW103D	Pu-238	-0.00014	0.0335	0.103	0.5	U	0.2	5-Apr-04	03:05
MW103S	Pu-238	0	0.0294	0.0407	0.5	U	0.2	5-Apr-04	03:05
MW104S	Pu-238	-0.0271	0.0266	0.125	0.5	U	0.2	5-Apr-04	03:05
MW105D	Pu-238	0.0263	0.0669	0.144	0.5	U	0.2	5-Apr-04	02:32
MW105D (Sol.)	Pu-238	-0.0144	0.0516	0.151	0.5	U	0.2	5-Apr-04	02:32
MW105S	Pu-238	-0.00714	0.014	0.085	0.5	U	0.2	5-Apr-04	02:32
MW105S (Sol.)	Pu-238	0.00695	0.0308	0.0845	0.5	U	0.2	5-Apr-04	03:05
MW106D	Pu-238	0.0439	0.0709	0.137	0.5	U	0.2	5-Apr-04	02:31
MW106D (Sol.)	Pu-238	0.0778	0.0867	0.146	0.5	U	0.2	5-Apr-04	02:31
MW106D Replicate	Pu-238	0	0.0295	0.0408	0.5	U	0.2	5-Apr-04	03:05
MW106S	Pu-238	0.0355	0.0704	0.145	0.5	U	0.2	5-Apr-04	02:32
MW106S (Sol.)	Pu-238	0.0207	0.0879	0.196	0.5	U	0.2	5-Apr-04	02:32
QC Spike (BS)	Pu-238	-0.017	0.0894	0.227	0.5	U	0.2	5-Apr-04	03:30
QC Spike (MS)	Pu-238	0.114	0.0993	0.155	0.5	U	0.2	5-Apr-04	03:30
QC Blank	Pu-239,240	-0.0517	0.0383	0.167	0.5	U	0.2	5-Apr-04	03:05
MW103D	Pu-239,240	0.0138	0.0432	0.103	0.5	U	0.2	5-Apr-04	03:05
MW103S	Pu-239,240	0.00728	0.0489	0.127	0.5	U	0.2	5-Apr-04	03:05
MW104S	Pu-239,240	0.0065	0.0437	0.113	0.5	U	0.2	5-Apr-04	03:05
MW105D	Pu-239,240	0.02	0.0393	0.0804	0.5	U	0.2	5-Apr-04	02:32
MW105D (Sol.)	Pu-239,240	0.014	0.0275	0.038	0.5	U	0.2	5-Apr-04	02:32
MW105S	Pu-239,240	0.007	0.031	0.085	0.5	U	0.2	5-Apr-04	02:32
MW105S (Sol.)	Pu-239,240	-0.00014	0.0338	0.104	0.5	U	0.2	5-Apr-04	03:05
MW106D	Pu-239,240	-0.0153	0.0649	0.178	0.5	U	0.2	5-Apr-04	02:31
MW106D (Sol.)	Pu-239,240	0.0311	0.0574	0.115	0.5	U	0.2	5-Apr-04	02:31
MW106D Replicate	Pu-239,240	0.0225	0.0443	0.0906	0.5	U	0.2	5-Apr-04	03:05
MW106S	Pu-239,240	0	0.0281	0.0389	0.5	U	0.2	5-Apr-04	02:32
MW106S (Sol.)	Pu-239,240	0.0142	0.0444	0.106	0.5	U	0.2	5-Apr-04	02:32
QC Spike (BS)	Pu-239,240	9.4	0.763	0.135	0.5		0.2	5-Apr-04	03:30
QC Spike (MS)	Pu-239,240	11.2	0.784	0.0388	0.5		0.2	5-Apr-04	03:30
QC Blank	Pu-241	2.64	9.13	15.4	15	U	0.2	12-Apr-04	11:36
MW103D	Pu-241	-2.42	7.12	12.1	15	U	0.2	10-Apr-04	06:46
MW103S	Pu-241	16.6	10.6	17.6	15	U	0.2	11-Apr-04	12:58
MW104S	Pu-241	2.29	8.64	14.6	15	U	0.2	10-Apr-04	09:52
MW105D	Pu-241	3.77	7.31	12.3	15	U	0.2	10-Apr-04	07:11
MW105D (Sol.)	Pu-241	-0.093	7.69	13.1	15	U	0.2	10-Apr-04	04:05
MW105S	Pu-241	0.357	7.39	12.5	15	U	0.2	10-Apr-04	10:17
MW105S (Sol.)	Pu-241	-2.24	11.6	19.7	15	U	0.2	10-Apr-04	03:39

NOTES:
Bold results are greater than 2-sigma TPU and the sample MDC.
Gray results are greater than 2-sigma TPU and less than the sample MDC.
Boron concentration results are in ug/liter.

Appendix D.1
March 2004 Lab Analytical Results Summary

Well ID	Nuclide	Conc. (pCi/L)	2-sigma TPU (pCi/L)	MDC (pCi/L)	Required MDC (pCi/L)	Lab Flag	Aliquot Volume (L)	Analysis Date	Analysis Time
MW106D	Pu-241	12.1	8.5	14.2	15	U	0.2	9-Apr-04	03:41
MW106D (Sol.)	Pu-241	-0.301	8.3	14.1	15	U	0.2	9-Apr-04	06:47
MW106D Replicate	Pu-241	1.69	7.81	13.2	15	U	0.2	12-Apr-04	02:42
MW106S	Pu-241	3.58	7.1	12	15	U	0.2	9-Apr-04	09:53
MW106S (Sol.)	Pu-241	3.72	7.93	13.4	15	U	0.2	10-Apr-04	12:59
QC Spike (BS)	Pu-241	361	33.1	40.9	15		0.2	8-Apr-04	01:30
QC Spike (MS)	Pu-241	633	52.4	62.6	15		0.1	8-Apr-04	12:58
QC Blank	Am-241 (gamma)	2.95	7.81	10.2	0.5	U	2	1-Apr-04	09:56
QC Blank	Am-241 (gamma)	10.4	11.8	19	0.5	U	2	1-Apr-04	09:45
MW100D	Am-241 (gamma)	-8.26	12	20.7	0.5	U	2	1-Apr-04	09:40
MW100S	Am-241 (gamma)	0	11	17.6	0.5		2	1-Apr-04	01:57
MW101D	Am-241 (gamma)	4	10.3	15.7	0.5	U	2	1-Apr-04	03:24
MW101S	Am-241 (gamma)	1.45	3.75	6.57	0.5	U	2	1-Apr-04	02:05
MW102D	Am-241 (gamma)	-2.32	20.2	30.5	0.5	U	2	1-Apr-04	06:23
MW102S	Am-241 (gamma)	-3.91	15.1	22.2	0.5	U	2	1-Apr-04	06:25
MW103D	Am-241 (gamma)	1.98	9.02	14.8	0.5	U	2	31-Mar-04	08:51
MW103S	Am-241 (gamma)	-5.66	9.35	14	0.5	U	2	31-Mar-04	11:08
MW104S	Am-241 (gamma)	-0.0809	10.8	18	0.5	U	2	31-Mar-04	09:05
MW105D	Am-241 (gamma)	0.68	2.19	3.73	0.5	U	2	31-Mar-04	08:09
MW105D (Sol.)	Am-241 (gamma)	3.95	9.92	15.6	0.5	U	2	31-Mar-04	08:08
MW105S	Am-241 (gamma)	4.44	8.84	10.9	0.5	U	2	31-Mar-04	08:36
MW105S (Sol.)	Am-241 (gamma)	-1.31	7.8	12.4	0.5	U	2	31-Mar-04	08:49
MW106D	Am-241 (gamma)	-0.531	9.81	16	0.5	U	2	1-Apr-04	09:55
MW106D (Sol.)	Am-241 (gamma)	-8.88	12.5	15.6	0.5	U	2	1-Apr-04	09:56
MW106S	Am-241 (gamma)	2.31	6.48	11.4	0.5	U	2	31-Mar-04	07:02
MW106S (Sol.)	Am-241 (gamma)	3.32	7.25	12.2	0.5	U	2	31-Mar-04	07:03
MW106S Replicate	Am-241 (gamma)	-1.07	11.1	19	0.5	U	2	1-Apr-04	09:45
MW107D	Am-241 (gamma)	16.9	18.5	29.5	0.5	U	2	1-Apr-04	02:00
MW107S	Am-241 (gamma)	-13.2	12.4	17.9	0.5	U	2	1-Apr-04	02:02
MW108S	Am-241 (gamma)	-2.93	16	26.1	0.5	U	2	1-Apr-04	09:42
MW109D	Am-241 (gamma)	-5.23	6.83	11.7	0.5	U	2	1-Apr-04	09:55
MW109S	Am-241 (gamma)	5.15	12.4	19.5	0.5	U	2	1-Apr-04	06:25
MW110D	Am-241 (gamma)	-7.41	16.2	23.4	0.5	U	2	1-Apr-04	02:03
MW110S	Am-241 (gamma)	4.88	10.1	17.3	0.5	U	2	1-Apr-04	02:03
MW111S	Am-241 (gamma)	2.12	11.4	19	0.5	U	2	1-Apr-04	09:44
MW112S	Am-241 (gamma)	0.342	11.1	19.7	0.5	U	2	1-Apr-04	09:43
MW113S	Am-241 (gamma)	0.435	15.2	26.7	0.5	U	2	1-Apr-04	10:38
MW114S	Am-241 (gamma)	3.42	3.72	6.68	0.5	U	2	1-Apr-04	09:38
MW114S Duplicate	Am-241 (gamma)	-3.22	11	18.4	0.5	U	2	1-Apr-04	10:36
MW115S	Am-241 (gamma)	-8.68	11.2	17.1	0.5	U	2	1-Apr-04	01:58
MW117S	Am-241 (gamma)	-17.9	16.5	22.8	0.5	U	2	1-Apr-04	09:42
MW122D	Am-241 (gamma)	-1.14	17.5	28.5	0.5	U	2	1-Apr-04	09:37
MW122D Replicate	Am-241 (gamma)	1.36	7.04	11.5	0.5	U	2	1-Apr-04	09:57
MW122S	Am-241 (gamma)	3.59	13.5	22.4	0.5	U	2	1-Apr-04	02:01
MW123S	Am-241 (gamma)	1.45	3.75	6.57	0.5	U	2	1-Apr-04	02:05
MW124S	Am-241 (gamma)	2.85	11.5	20.3	0.5	U	2	1-Apr-04	06:24
MW125S	Am-241 (gamma)	11.4	12.4	21.3	0.5	U	2	1-Apr-04	02:00
MWEOF2	Am-241 (gamma)	-1.71	14	21.6	0.5	U	2	1-Apr-04	09:41
QC Spike (BS)	Am-241 (gamma)	1240	225	142	0.5		2	1-Apr-04	06:16
QC Spike (BS)	Am-241 (gamma)	1390	223	139	0.5		2	2-Apr-04	02:20
QC Spike (MS)	Am-241 (gamma)	9570	2070	1370	0.5		0.05	1-Apr-04	06:15
QC Spike (MS)	Am-241 (gamma)	10200	2570	1420	0.5		0.05	31-Mar-04	07:01
QC Blank	Am-241	-0.0232	0.115	0.372	0.5	U	0.2	5-Apr-04	12:12
QC Blank	Am-241	0.00122	0.0663	0.221	0.5	U	0.2	5-Apr-04	10:08
QC Blank	Am-241	0.0235	0.0998	0.222	0.5	U	0.2	5-Apr-04	02:31
QC Blank	Am-241	-0.0541	0.112	0.245	0.5	U	0.1	7-Apr-04	05:17
QC Blank	Am-241	-0.0401	0.0834	0.33	0.5	U	0.2	12-Apr-04	10:02
MW100D	Am-241	0.0958	0.119	0.173	0.5	U	0.2	5-Apr-04	10:08
MW100D Replicate	Am-241	-0.0392	0.0344	0.255	0.5	U	0.2	5-Apr-04	10:08
MW100S	Am-241	0.0503	0.0943	0.196	0.5	U	0.2	5-Apr-04	10:08
MW101D	Am-241	0.0267	0.0988	0.26	0.5	U	0.2	6-Apr-04	12:32
MW101S	Am-241	0.0783	0.139	0.298	0.5	U	0.2	5-Apr-04	10:40
MW102D	Am-241	-0.0138	0.0711	0.259	0.5	U	0.2	5-Apr-04	10:40
MW102S	Am-241	0.0619	0.155	0.36	0.5	U	0.2	5-Apr-04	12:12
MW103D	Am-241	-0.0166	0.023	0.121	0.5	U	0.2	5-Apr-04	02:31
MW103S	Am-241	0.0413	0.0585	0.0995	0.5	U	0.2	5-Apr-04	02:31
MW104S	Am-241	0.0229	0.0451	0.0921	0.5	U	0.2	5-Apr-04	02:31
MW105D	Am-241	0.0462	0.0522	0.0417	0.5		0.2	5-Apr-04	02:31
MW105D (Sol.)	Am-241	0.0109	0.0825	0.259	0.5	U	0.2	6-Apr-04	10:03
MW105S	Am-241	0.0379	0.0652	0.129	0.5	U	0.2	5-Apr-04	02:31
MW105S (Sol.)	Am-241	0.0629	0.0616	0.0426	0.5		0.2	5-Apr-04	02:31
MW106D	Am-241	0.071	0.112	0.218	0.5	U	0.2	5-Apr-04	02:31
MW106D (Sol.)	Am-241	0	0.119	0.238	0.5	U	0.1	7-Apr-04	05:17
MW106D Replicate	Am-241	0.034	0.0674	0.139	0.5	U	0.2	5-Apr-04	02:31
MW106S	Am-241	0.0609	0.0878	0.166	0.5	U	0.2	5-Apr-04	02:31
MW106S (Sol.)	Am-241	-0.0251	0.0625	0.188	0.5	U	0.2	5-Apr-04	02:31
MW107D	Am-241	-0.0366	0.0762	0.301	0.5	U	0.2	5-Apr-04	10:09
MW107S	Am-241	0.11	0.178	0.373	0.5	U	0.2	5-Apr-04	10:40
MW108S	Am-241	0.0339	0.0664	0.0919	0.5	U	0.2	5-Apr-04	10:08
MW109D	Am-241	0.0494	0.153	0.373	0.5	U	0.2	5-Apr-04	12:12
MW109S	Am-241	0.0539	0.155	0.369	0.5	U	0.2	5-Apr-04	12:12
MW110D	Am-241	0.00352	0.11	0.311	0.5	U	0.2	5-Apr-04	10:40
MW110S	Am-241	-0.0429	0.104	0.354	0.5	U	0.2	5-Apr-04	10:40

NOTES:
Bold results are greater than 2-sigma TPU and the sample MDC.
Gray results are greater than 2-sigma TPU and less than the sample MDC.
Boron concentration results are in ug/liter.

Appendix D.1
March 2004 Lab Analytical Results Summary

Well ID	Nuclide	Conc. (pCi/L)	2-sigma TPU (pCi/L)	MDC (pCi/L)	Required MDC (pCi/L)	Lab Flag	Aliquot Volume (L)	Analysis Date	Analysis Time
MW111S	Am-241	-0.014	0.0724	0.264	0.5	U	0.2	5-Apr-04	10:08
MW112S	Am-241	0	0.0677	0.0936	0.5	U	0.2	5-Apr-04	10:08
MW113S	Am-241	-0.0131	0.0679	0.248	0.5	U	0.2	5-Apr-04	10:08
MW114S	Am-241	0.0928	0.135	0.259	0.5	U	0.2	5-Apr-04	10:09
MW114S Duplicate	Am-241	0.0467	0.105	0.243	0.5	U	0.2	5-Apr-04	10:09
MW115S	Am-241	-0.0214	0.0242	0.198	0.5	U	0.2	5-Apr-04	10:09
MW117S	Am-241	-0.0415	0.0364	0.27	0.5	U	0.2	5-Apr-04	10:08
MW122D	Am-241	0.0226	0.06	0.148	0.5	U	0.2	5-Apr-04	10:09
MW122D Replicate	Am-241	0.0158	0.0632	0.15	0.5	U	0.2	5-Apr-04	02:31
MW122S	Am-241	0.104	0.156	0.317	0.5	U	0.2	5-Apr-04	10:40
MW123S	Am-241	-0.0642	0.042	0.284	0.5	U	0.2	12-Apr-04	10:02
MW124S	Am-241	-0.0863	0.117	0.486	0.5	U	0.2	5-Apr-04	10:40
MW125S	Am-241	0.0108	0.112	0.307	0.5	U	0.2	5-Apr-04	10:09
MWEOF2	Am-241	0.108	0.143	0.257	0.5	U	0.2	5-Apr-04	10:08
MW106D (Sol.) Replicate	Am-241	0.0444	0.0615	0.0601	0.5	U	0.1	7-Apr-04	06:06
MW123S Replicate	Am-241	0.0465	0.0871	0.181	0.5	U	0.2	12-Apr-04	10:02
QC Spike (BS)	Am-241	**12.8**	1.25	0.446	0.5		0.2	5-Apr-04	12:12
QC Spike (BS)	Am-241	**12.1**	1.16	0.0781	0.5		0.2	5-Apr-04	10:08
QC Spike (BS)	Am-241	**12.7**	0.836	0.201	0.5		0.2	5-Apr-04	02:32
QC Spike (BS)	Am-241	**25.6**	1.45	0.058	0.5		0.1	7-Apr-04	06:06
QC Spike (BS)	Am-241	**13.4**	1.21	0.143	0.5		0.2	12-Apr-04	10:02
QC Spike (MS)	Am-241	**12.8**	0.937	0.299	0.5		0.2	5-Apr-04	02:31
QC Spike (MS)	Am-241	**14.3**	1.35	0.0894	0.5		0.2	5-Apr-04	10:08
QC Spike (MS)	Am-241	**27.2**	1.93	0.5	0.5		0.1	5-Apr-04	02:32
QC Spike (MS)	Am-241	**27.8**	1.44	0.184	0.5		0.1	7-Apr-04	06:06
QC Spike (MS)	Am-241	**14.2**	1.27	0.231	0.5		0.2	12-Apr-04	10:02
QC Blank	Cm-242	-0.0168	0.0232	0.122	0.5	U	0.2	5-Apr-04	02:31
QC Blank	Cm-242	0	0.0267	0.0369	0.5	U	0.1	7-Apr-04	05:17
MW103D	Cm-242	0.0357	0.0495	0.0484	0.5	U	0.2	5-Apr-04	02:31
MW103S	Cm-242	-0.0093	0.047	0.152	0.5	U	0.2	5-Apr-04	02:31
MW104S	Cm-242	-0.0167	0.0232	0.122	0.5	U	0.2	5-Apr-04	02:31
MW105D	Cm-242	0.0167	0.0328	0.0453	0.5	U	0.2	5-Apr-04	02:31
MW105D (Sol.)	Cm-242	-0.0102	0.0199	0.212	0.5	U	0.2	6-Apr-04	10:03
MW105S	Cm-242	0	0.0326	0.0451	0.5	U	0.2	5-Apr-04	02:31
MW105S (Sol.)	Cm-242	0	0.0336	0.0465	0.5	U	0.2	5-Apr-04	02:31
MW106D	Cm-242	-0.0265	0.0514	0.175	0.5	U	0.2	5-Apr-04	02:31
MW106D (Sol.)	Cm-242	0.0157	0.0532	0.115	0.5	U	0.1	7-Apr-04	05:17
MW106D Replicate	Cm-242	0.0149	0.0293	0.0404	0.5	U	0.2	5-Apr-04	02:31
MW106S	Cm-242	0.0165	0.0518	0.123	0.5	U	0.2	5-Apr-04	02:31
MW106S (Sol.)	Cm-242	0.00882	0.0391	0.107	0.5	U	0.2	5-Apr-04	02:31
MW106D (Sol.) Replicate	Cm-242	0	0.0477	0.066	0.5	U	0.1	7-Apr-04	06:06
QC Spike (BS)	Cm-242	-0.00043	0.0604	0.156	0.5	U	0.2	5-Apr-04	02:32
QC Spike (BS)	Cm-242	0.0432	0.0598	0.0585	0.5	U	0.1	7-Apr-04	06:06
QC Spike (MS)	Cm-242	-0.0969	0.0849	0.387	0.5	U	0.1	5-Apr-04	02:32
QC Spike (MS)	Cm-242	0	0.0414	0.0573	0.5	U	0.1	7-Apr-04	06:06
QC Blank	Cm-243,244	-0.0338	0.101	0.259	0.5	U	0.2	5-Apr-04	02:31
QC Blank	Cm-243,244	0.027	0.0837	0.162	0.5	U	0.1	7-Apr-04	05:17
MW103D	Cm-243,244	0.00815	0.0361	0.099	0.5	U	0.2	5-Apr-04	02:31
MW103S	Cm-243,244	0.0157	0.095	0.218	0.5	U	0.2	5-Apr-04	02:31
MW104S	Cm-243,244	0.00759	0.0337	0.0923	0.5	U	0.2	5-Apr-04	02:31
MW105D	Cm-243,244	0	0.0302	0.0417	0.5	U	0.2	5-Apr-04	02:31
MW105D (Sol.)	Cm-243,244	0.0452	0.186	0.46	0.5	U	0.2	6-Apr-04	10:03
MW105S	Cm-243,244	-0.00031	0.052	0.142	0.5	U	0.2	5-Apr-04	02:31
MW105S (Sol.)	Cm-243,244	0	0.0308	0.0426	0.5	U	0.2	5-Apr-04	02:31
MW106D	Cm-243,244	-0.089	0.0652	0.234	0.5	U	0.2	5-Apr-04	02:31
MW106D (Sol.)	Cm-243,244	-0.0286	0.0971	0.215	0.5	U	0.1	7-Apr-04	05:17
MW106D Replicate	Cm-243,244	-0.00804	0.0946	0.225	0.5	U	0.2	5-Apr-04	02:31
MW106S	Cm-243,244	-0.0706	0.0944	0.263	0.5	U	0.2	5-Apr-04	02:31
MW106S (Sol.)	Cm-243,244	-0.0249	0.0281	0.138	0.5	U	0.2	5-Apr-04	02:31
MW106D (Sol.) Replicate	Cm-243,244	0	0.0435	0.0602	0.5	U	0.1	7-Apr-04	06:06
QC Spike (BS)	Cm-243,244	**17.7**	0.986	0.201	0.5		0.2	5-Apr-04	02:32
QC Spike (BS)	Cm-243,244	**33.8**	1.67	0.058	0.5		0.1	7-Apr-04	06:06
QC Spike (MS)	Cm-243,244	**35.9**	2.23	0.714	0.5		0.1	5-Apr-04	02:32
QC Spike (MS)	Cm-243,244	**36.5**	1.65	0.205	0.5		0.1	7-Apr-04	06:06

NOTES:
Bold results are greater than 2-sigma TPU and the sample MDC.
Gray results are greater than 2-sigma TPU and less than the sample MDC.
Boron concentration results are in ug/liter.

GENERAL ENGINEERING LABORATORIES, LLC
a Member of THE GEL GROUP, INC.
Meeting Today's Needs with a Vision for Tomorrow

April 20, 2004

Mr. David Keefer
CYAPCo
Haddam Neck Plant 362 Injun Hollow Road
East Hampton, Connecticut 06424

RE: Quarterly Groundwater PO# 002337
Work Order: 109455
SDG: 04-0732

Dear Mr. Keefer:

General Engineering Laboratories, LLC (GEL) appreciates the opportunity to provide the following analytical results for the sample(s) we received on March 22, 2004. Our policy is to provide high quality, personalized analytical services to enable you to meet your analytical needs on time every time.

This data report has been prepared and reviewed in accordance with GEL's standard operating procedures. We trust that you will find everything in order and to your satisfaction. If you have any questions, please do not hesitate to call me at (843) 556-8171, ext. 4475.

Sincerely,

Sarah Kozlik
Project Manager

Purchase Order: 002337
Enclosures

P.O. Box 30712 • Charleston, SC 29417 • 2040 Savage Road (29407)
Phone (843) 556-8171 • Fax (843) 766-1178 • www.gel.com

CONNECTICUT YANKEE
Project: Quarterly Groundwater
PO# 002337
Work Order: 109455
SDG: 04-0732

109455001	MW122D-0104-001
109455002	MW114S-0104-001
109455003	MW210-0104-001
109455004	MW115S-0104-001
109455005	MW107D-0104-001
109455006	MW125S-0104-001
109455007	MW122S-0104-001
109455008	MW107S-0104-001
109455009	MW110S-0104-001
109455010	MW110D-0104-001
109455011	MW123S-0104-001
109455012	MW101S-0104-001
109455013	MW101D-0104-001
109455014	MW102D-0104-001
109455015	MW124S-0104-001
109455016	MW102S-0104-001
109455017	MW109S-0104-001
109455018	MW109D-0104-001
109455019	MW106D-0104-001
109455020	MW106D-0104-001(FILT)
109455021	MW106S-0104-001
109455022	MW106S-0104-001(FILT)
109455023	MW105D-0104-001(FILT)
109455024	MW105D-0104-001
109455025	MW105S-0104-001
109455026	MW105S-0104-001(FILT)
109455027	MW103D-0104-001
109455028	MW104S-0104-001
109455029	MW103S-0104-001
109455030	MW100D-0104-001
109455031	MW100S-0104-001
109455032	MWEOF2-0104-001
109455033	MW108S-0104-001
109455034	MW117S-0104-001
109455035	MW112S-0104-001
109455036	MW111S-0104-001
109455037	MW113S-0104-001

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CASE NARRATIVE

CASE NARRATIVE
For
CONNECTICUT YANKEE
Project: Quarterly Groundwater
PO# 002337
Work Order: 109455
SDG: 04-0732

April 20, 2004

Laboratory Identification:
General Engineering Laboratories, LLC

Mailing Address:
P.O. Box 30712
Charleston, South Carolina 29417

Express Mail Delivery and Shipping Address:
2040 Savage Road
Charleston, South Carolina 29407

Telephone Number:
(843) 556-8171

Summary:

Sample receipt

The samples for the Quarterly Groundwater Project for work order 109455 arrived at General Engineering Laboratories, LLC, (GEL) in Charleston, South Carolina March 22, 2004 for environmental analysis. All sample containers arrived without any visible signs of tampering or breakage. The chain of custody contained the proper documentation and signatures.

The laboratory received the following groundwater samples:

109455001	MW122D-0104-001	109455014	MW102D-0104-001
109455002	MW114S-0104-001	109455015	MW124S-0104-001
109455003	MW210-0104-001	109455016	MW102S-0104-001
109455004	MW115S-0104-001	109455017	MW109S-0104-001
109455005	MW107D-0104-001	109455018	MW109D-0104-001
109455006	MW125S-0104-001	109455019	MW106D-0104-001
109455007	MW122S-0104-001	109455020	MW106D-0104-001(FILT)
109455008	MW107S-0104-001	109455021	MW106S-0104-001
109455009	MW110S-0104-001	109455022	MW106S-0104-001(FILT)
109455010	MW110D-0104-001	109455023	MW105D-0104-001(FILT)
109455011	MW123S-0104-001	109455024	MW105D-0104-001
109455012	MW101S-0104-001	109455025	MW105S-0104-001
109455013	MW101D-0104-001	109455026	MW105S-0104-001(FILT)

109455027	MW103D-0104-001	109455033	MW108S-0104-001
109455028	MW104S-0104-001	109455034	MW117S-0104-001
109455029	MW103S-0104-001	109455035	MW112S-0104-001
109455030	MW100D-0104-001	109455036	MW111S-0104-001
109455031	MW100S-0104-001	109455037	MW113S-0104-001
109455032	MWEOF2-0104-001		

Items of Note:

There are no items to note.

Case Narrative:

Sample analyses were conducted using methodology as outlined in General Engineering Laboratories (GEL) Standard Operating Procedures. Any technical or administrative problems during analysis, data review, and reduction are listed below by analytical parameter.

Analytical Request:

Eighteen samples were analyzed for MIX, two for STND, and eleven for ALL. In addition five samples were analyzed for PENN and Sr-90 and one sample was analyzed for PENN only.

Internal Chain of Custody:

Custody was maintained for all of these samples.

Data Package:

The enclosed data package contains the following sections: Case Narrative, Chain of Custody, Cooler Receipt Checklist, Laboratory Certifications, and Radiochemistry.

I certify that this data package is in compliance with the SOW, both technically and for completeness, for other than the conditions detailed above. Release of the data contained in this hard copy data package has been authorized by the Laboratory Manager or a designee, as verified by the following signature.

Sarah Kozlik
Project Manager

CHAIN OF CUSTODY

Connecticut Yankee Atomic Power Company

362 Injun Hollow Road, East Hampton, CT 06424
860-267-2556

Chain of Custody Form

No. 2004-000xx

109455%

Project Name: Haddam Neck Decommissioning

Contact Name & Phone:
Rich McGrath 860-267-3573

Analytical Lab (Name, City, State):
General Engineering Lab (GEL), 2040 Savage Rd, Charleston, SC 29407, 843.556.8171 (Sarah Kozlik)

Priority: ☐ 45 D. ☒ 30 D. ☐ 14 D. ☐ 7 D.
Other:

Sample Designation	Date	Time	Media Code	Sample Type Code	Container Size-&Type Code	MIX	STND	ALL	LF	PENN		Comment, Preservation	Lab Sample ID
501 MW122D-0104-001	3/16/04	1555				X						1L, 2-4-L	total 3

Analyses Requested

Lab Use Only

NOTES: PO #: 002337 MSR #: 04-0762 32 ☐ LTP QA ☐ Radwaste QA ☒ Non QA

Requested analyses should be performed on both solid recieved from STL & liquid extracted fractions.

Samples Shipped Via:
☒ Fed Ex
☐ UPS
☐ Hand
☐ Other ____

Bill of Lading #

Internal Container Temp.: 18.4 Deg. C

Custody Sealed? Y ☑ N ☐

Custody Seal Intact? Y ☑ N ☐

1) Relinquished By: [signature] Date/Time 3/17/04/1600	2) Received By [signature] Date/Time 3/22/04 0905
3) Relinquished By Date/Time	4) Received By Date/Time
5) Relinquished By Date/Time	6) Received By Date/Time

Chain of Custody Form

Connecticut Yankee Atomic Power Company
362 Injun Hollow Road, East Hampton, CT 06424
860-267-2556

No. 2004-000xx

109455

Project Name: Haddam Neck Decommissioning

Contact Name & Phone:
Rich McGrath 860-267-3573

Analytical Lab (Name, City, State):
General Engineering Lab (GEL), 2040 Savage Rd, Charleston, SC 29407, 843.556.8171 (Sarah Kozlik)

Priority: ☐ 45 D. ☒ 30 D. ☐ 14 D. ☐ 7 D.
Other:

	Sample Designation	Date	Time	Media Code	Sample Type Code	Container Size-&Type Code	MIX	STND	ALL	LF	PENN		Comment, Preservation	Lab Sample ID
002	MW114S-0104-001	3/17/04	1405	GW	FS	2-4L AG 1-1L AG	X						3 Total	
003	MW210-0104-001	3/17/04	1405	GW	FS	Same	X						Same	
004	MW115S-0104-001	3/17/04	1537	GW	FS	Same	X						Same	

NOTES: PO #: 002337 MSR #: 04-0762 ☐ LTP QA ☐ Radwaste QA ☒ Non QA

Requested analyses should be performed on both solid recieved from STL & liquid extracted fractions.

Samples Shipped Via:
☒ Fed Ex
☐ UPS
☐ Hand
☐ Other ____
Bill of Lading #

Internal Container Temp.: 19 Deg. C
Custody Sealed? Y ☑ N ☐
Custody Seal Intact? Y ☑ N ☐

1) Relinquished By: [signature] Date/Time 3/18/04 1400	2) Received By [signature] Date/Time 3/22/04 0925
3) Relinquished By Date/Time	4) Received By Date/Time
5) Relinquished By Date/Time	6) Received By Date/Time

Connecticut Yankee Atomic Power Company

362 Injun Hollow Road, East Hampton, CT 06424
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Project Name: Haddam Neck Decommissioning

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General Engineering Lab (GEL), 2040 Savage Rd, Charleston, SC 29407, 843.556.8171 (Sarah Kozlik)

Priority: ☐ 45 D. ☒ 30 D. ☐ 14 D. ☐ 7 D.
Other:

Analyses Requested

Lab Use Only

	Sample Designation	Date	Time	Media Code	Sample Type Code	Container Size-&Type Code	MIX	STND	ALL	LF	PENN		Comment, Preservation	Lab Sample ID
305	MW107D-0104-001	3/16/04	0920				X						1L, 2-4L	
306	MW125S-0104-001	3/16/04	1130				X						1L, 2-4L	
307	MW122S-0104-001	3/16/04	1355				X						1L, 2-4L	

NOTES: PO #: 002337 MSR #: 04-07~~62~~ 32 ☐ LTP QA ☐ Radwaste QA ☒ Non QA

Requested analyses should be performed on both solid recieved from STL & liquid extracted fractions.

Samples Shipped Via:
☒ Fed Ex
☐ UPS
☐ Hand
☐ Other _____

Bill of Lading #

Internal Container Temp.: 19.4 Deg. C

Custody Sealed? Y ☑ N ☐

Custody Seal Intact? Y ☑ N ☐

1) Relinquished By: [signature] Date/Time 3/18/04 / 1605	2) Received By [signature] Date/Time 3/22/04 0805
3) Relinquished By Date/Time	4) Received By Date/Time
5) Relinquished By Date/Time	6) Received By Date/Time

Chain of Custody Form

No. 2004-000xx

Connecticut Yankee Atomic Power Company
362 Injun Hollow Road, East Hampton, CT 06424
860-267-2556

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Project Name: Haddam Neck Decommissioning

Contact Name & Phone:
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Analytical Lab (Name, City, State):
General Engineering Lab (GEL), 2040 Savage Rd, Charleston, SC 29407, 843.556.8171 (Sarah Kozlik)

Priority: ☐ 45 D. ☒ 30 D. ☐ 14 D. ☐ 7 D.
Other:

Analyses Requested

Lab Use Only

Sample Designation	Date	Time	Media Code	Sample Type Code	Container Size-&Type Code	MIX	STND	ALL	LF	PENN		Comment, Preservation	Lab Sample ID
MW107S-0104-001	3/15/04	1445				X						2-1 Gallon HNO3, 1L	Tuta 3

NOTES: PO #: 002337 MSR #: 04-0762 ☐ LTP QA ☐ Radwaste QA ☒ Non QA

Requested analyses should be performed on both solid recieved from STL & liquid extracted fractions.

Samples Shipped Via:
☒ Fed Ex
☐ UPS
☐ Hand
☐ Other ____

Bill of Lading #

Internal Container Temp.: 19.4 Deg. C

Custody Sealed? Y ☑ N ☐

Custody Seal Intact? Y ☑ N ☐

1) Relinquished By: Bradley [illegible] Date/Time 3/15/04 1700	2) Received By T. Bower Date/Time 3/22/04 0905
3) Relinquished By Date/Time	4) Received By Date/Time
5) Relinquished By Date/Time	6) Received By Date/Time

Chain of Custody Form

No. 2004-000xx

109455 1/

Connecticut Yankee Atomic Power Company
362 Injun Hollow Road, East Hampton, CT 06424
860-267-2556

Project Name: Haddam Neck Decommissioning

Contact Name & Phone:
Rich McGrath 860-267-3573

Analytical Lab (Name, City, State):
General Engineering Lab (GEL), 2040 Savage Rd, Charleston, SC 29407, 843.556.8171 (Sarah Kozlik)

Priority: ☐ 45 D. ☒ 30 D. ☐ 14 D. ☐ 7 D.
Other:

	Sample Designation	Date	Time	Media Code	Sample Type Code	Container Size-&Type Code	MIX	STND	ALL	LF	PENN		Comment, Preservation	Lab Sample ID
009	MW110S-0104-001	3/17	0930				3						2-4 liter + 1-1 Liter	
010	MW110D-0104-001	3/17	1200				3						" "	
011	MW123S-0104-001	3/17	1420				3						" "	

NOTES: PO #: 002337 MSR #: 04-0762 32 (16) ☐ LTP QA ☐ Radwaste QA ☒ Non QA

Requested analyses should be performed on both solid recieved from STL & liquid extracted fractions.

Samples Shipped Via:
☒ Fed Ex
☐ UPS
☐ Hand
☐ Other ____
Bill of Lading #

Internal Container Temp.: 19.4 Deg. C
Custody Sealed? Y ☑ N ☐
Custody Seal Intact? Y ☐ N ☐

1) Relinquished By: David O. Lovejoy Date/Time 3/17/04/1605	2) Received By: T. Bilow Date/Time 3/22/04 0905
3) Relinquished By Date/Time	4) Received By Date/Time
5) Relinquished By Date/Time	6) Received By Date/Time

Chain of Custody Form

No. 2004-000xx

109455 /.

Connecticut Yankee Atomic Power Company
362 Injun Hollow Road, East Hampton, CT 06424
860-267-2556

Project Name: Haddam Neck Decommissioning

Contact Name & Phone:
Rich McGrath 860-267-3573

Analytical Lab (Name, City, State):
General Engineering Lab (GEL), 2040 Savage Rd, Charleston, SC 29407, 843.556.8171 (Sarah Kozlik)

Priority: ☐ 45 D. ☒ 30 D. ☐ 14 D. ☐ 7 D.
Other:

	Sample Designation	Date	Time	Media Code	Sample Type Code	Container Size-&Type Code	Analyses Requested: MIX	STND	ALL	LF	PENN		Lab Use Only: Comment, Preservation	Lab Sample ID
012	MW401S-0104-001	3/15/04	1335	GW	FS	2-4L P.Ly 1-1L P.Ly	X						4L: NHO3	Take 3
213	MW101D-0104-001	3/15/04	1438	GW	FS	SAME	X						Same	3

NOTES: PO #: 002337 MSR #: 04-07~~62~~ 32 ☐ LTP QA ☐ Radwaste QA ☒ Non QA

Requested analyses should be performed on both solid recieved from STL & liquid extracted fractions.

Samples Shipped Via:
☒ Fed Ex
☐ UPS
☐ Hand
☐ Other ____

Bill of Lading #

Internal Container Temp.: 19.1 Deg. C

Custody Sealed? Y ☑ N ☐

Custody Seal Intact? Y ☐ N ☐

1) Relinquished By:	Date/Time	2) Received By	Date/Time
Richard J Beaton	3/15/04 1645	T. Bolan	3/22/04 0905
3) Relinquished By	Date/Time	4) Received By	Date/Time
5) Relinquished By	Date/Time	6) Received By	Date/Time

Chain of Custody Form

No. 2004-000xx

Connecticut Yankee Atomic Power Company
362 Injun Hollow Road, East Hampton, CT 06424
860-267-2556

109455

Project Name: Haddam Neck Decommissioning

Contact Name & Phone:
Rich McGrath 860-267-3573

Analytical Lab (Name, City, State):
General Engineering Lab (GEL), 2040 Savage Rd, Charleston, SC 29407, 843.556.8171 (Sarah Kozlik)

Priority: ☐ 45 D. ☒ 30 D. ☐ 14 D. ☐ 7 D.
Other:

Sample Designation	Date	Time	Media Code	Sample Type Code	Container Size-&Type Code	MIX	STND	ALL	LF	PENN	Sr-90	Comment, Preservation	Lab Sample ID
038 MW108S-0104-001	3/17/04	0925								x	x	2-4L, 1-4L, 2-1L	Total 3

Lab Use Only:

NOTES: PO #: 002337 MSR #: 04-0762 ☐ LTP QA ☐ Radwaste QA ☒ Non QA

Requested analyses should be performed on both solid recieved from STL & liquid extracted fractions.

Samples Shipped Via:
☒ Fed Ex
☐ UPS
☐ Hand
☐ Other ____
Bill of Lading #

Internal Container Temp.: 19.4 Deg. C
Custody Sealed? Y ☑ N ☐
Custody Seal Intact? Y ☑ N ☐

1) Relinquished By: [signature] Date/Time 3/17/04 1630	2) Received By [signature] Date/Time 3/22/04 0905
3) Relinquished By Date/Time	4) Received By Date/Time
5) Relinquished By Date/Time	6) Received By Date/Time

Connecticut Yankee Atomic Power Company

362 Injun Hollow Road, East Hampton, CT 06424
860-267-2556

Chain of Custody Form

No. 2004-000xx

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Project Name: Haddam Neck Decommissioning

Contact Name & Phone:
Rich McGrath 860-267-3573

Analytical Lab (Name, City, State):
General Engineering Lab (GEL), 2040 Savage Rd, Charleston, SC 29407, 843.556.8171 (Sarah Kozlik)

Priority: ☐ 45 D. ☒ 30 D. ☐ 14 D. ☐ 7 D.
Other:

Sample Designation	Date	Time	Media Code	Sample Type Code	Container Size-&Type Code	MIX	STND	ALL	LF	PENN *	Sr-90 4-Liter Poly	Comment, Preservation	Lab Sample ID
MW117S-0104-001	3/16	0925								2	1	* 1-4 Liter poly w/HNO3 1-1 Liter poly	

NOTES: PO #: 002337 MSR #: 04-0762 ☐ LTP QA ☐ Radwaste QA ☒ Non QA

Requested analyses should be performed on both solid recieved from STL & liquid extracted fractions.

1) Relinquished By:	Date/Time	2) Received By	Date/Time
David O Lovejoy	3/17/04 1610	T. Blow	3/22/04 905
3) Relinquished By	Date/Time	4) Received By	Date/Time
5) Relinquished By	Date/Time	6) Received By	Date/Time

Samples Shipped Via:
☒ Fed Ex
☐ UPS
☐ Hand
☐ Other ____

Bill of Lading #

Internal Container Temp.: 1.4 Deg. C

Custody Sealed? Y ☑ N ☐

Custody Seal Intact? Y ☑ N ☐

Chain of Custody Form

No. 2004-000xx

109455 /.

Connecticut Yankee Atomic Power Company
362 Injun Hollow Road, East Hampton, CT 06424
860-267-2556

Project Name: Haddam Neck Decommissioning

Contact Name & Phone:
Rich McGrath 860-267-3573

Analytical Lab (Name, City, State):
General Engineering Lab (GEL), 2040 Savage Rd, Charleston, SC 29407, 843.556.8171 (Sarah Kozlik)

Priority: ☐ 45 D. ☒ 30 D. ☐ 14 D. ☐ 7 D.
Other:

Sample Designation	Date	Time	Media Code	Sample Type Code	Container Size-&Type Code	MIX	STND	ALL	LF	PENN	Sr-90 4-liter poly w/HNO3	Comment, Preservation	Lab Sample ID
MW112S-0104-001	3/15/04	1405								2	1	1-1 liter poly 1-4 liter poly w/HNO3	Total 3
MW111S-0104-001	3/15/04	1545								2	1	1-1 liter poly 1-4 liter poly w/HNO3	3

Lab Use Only

NOTES: PO #: 002337 MSR #: 04-0762 ☐ LTP QA ☐ Radwaste QA ☒ Non QA

Requested analyses should be performed on both solid recieved from STL & liquid extracted fractions.

Samples Shipped Via:
☒ Fed Ex
☐ UPS
☐ Hand
☐ Other _____
Bill of Lading #

Internal Container Temp.: 19.9 Deg. C
Custody Sealed? Y ☑ N ☐
Custody Seal Intact? Y ☑ N ☐

1) Relinquished By: David Cooper — Date/Time 3/18 1650	2) Received By [signature] 3/22/04 — Date/Time 0905
3) Relinquished By — Date/Time	4) Received By — Date/Time
5) Relinquished By — Date/Time	6) Received By — Date/Time

Chain of Custody Form

No. 2004-000xx

109455%

Connecticut Yankee Atomic Power Company
362 Injun Hollow Road, East Hampton, CT 06424
860-267-2556

Project Name: Haddam Neck Decommissioning

Contact Name & Phone:
Rich McGrath 860-267-3573

Analytical Lab (Name, City, State):
General Engineering Lab (GEL), 2040 Savage Rd, Charleston, SC 29407, 843.556.8171 (Sarah Kozlik)

Priority: ☐ 45 D. ☒ 30 D. ☐ 14 D. ☐ 7 D.
Other:

Sample Designation	Date	Time	Media Code	Sample Type Code	Container Size-&Type Code	MIX	STND	ALL	LF	PENN*	Sr 90 4-Liter poly w/HNO3	Comment, Preservation	Lab Sample ID
036 MW113S-0104-001	3/16/04	1050								2	1	* 1-1 Liter poly 1-4 Liter poly	Total 3
017 MW109S-0104-001	3/16	1230				X							3
018 MW109D-0104-001	3/16	1450				X+						+ 500ml poly (Tritium)	4

Lab Use Only

NOTES: PO #: 002337 MSR #: 04-07623 ☐ LTP QA ☐ Radwaste QA ☒ Non QA

Requested analyses should be performed on both solid recieved from STL & liquid extracted fractions.

Samples Shipped Via:
☒ Fed Ex
☐ UPS
☐ Hand
☐ Other ____
Bill of Lading #

Internal Container Temp.: 19.4 Deg. C

Custody Sealed? Y ☑ N ☐
Custody Seal Intact? Y ☑ N ☐

1) Relinquished By:	Date/Time	2) Received By	Date/Time
David O. Lovejoy	3/16/04 / 1640	I. Bra	3/22/04 - 905
3) Relinquished By	Date/Time	4) Received By	Date/Time
5) Relinquished By	Date/Time	6) Received By	Date/Time

Chain of Custody Form

No. 2004-000xx

Connecticut Yankee Atomic Power Company
362 Injun Hollow Road, East Hampton, CT 06424
860-267-2556

109455

Project Name: Haddam Neck Decommissioning

Contact Name & Phone:
Rich McGrath 860-267-3573

Analytical Lab (Name, City, State):
General Engineering Lab (GEL), 2040 Savage Rd, Charleston, SC 29407, 843.556.8171 (Sarah Kozlik)

Priority: ☐ 45 D. ☒ 30 D. ☐ 14 D. ☐ 7 D.
Other:

Sample Designation	Date	Time	Media Code	Sample Type Code	Container Size-&Type Code	MIX	STND	ALL	LF	PENN		Comment, Preservation	Lab Sample ID
MW100D-0104-001	3/18	0950					2					1-4 liter poly 1-1 liter poly	
MW100S-0104-001	3/18	1110					2					" "	
MW EOF2-0104-001	3/18	1230								2		" "	

Analyses Requested

Lab Use Only

NOTES: PO #: 002337 MSR #: 04-07~~62~~ 32 ☐ LTP QA ☐ Radwaste QA ☒ Non QA

Requested analyses should be performed on both solid recieved from STL & liquid extracted fractions.

Samples Shipped Via:
☒ Fed Ex
☐ UPS
☐ Hand
☐ Other ____
Bill of Lading #

Internal Container Temp.: 18 Deg. C

Custody Sealed? Y ☐ N ☐

Custody Seal Intact? Y ☑ N ☐

1) Relinquished By: David Lovejoy Date/Time: 3/18 1300	2) Received By: T. Bow Date/Time: 3/22/04 0905
3) Relinquished By Date/Time	4) Received By Date/Time
5) Relinquished By Date/Time	6) Received By Date/Time

Chain of Custody Form

No. 2004-000xx

Connecticut Yankee Atomic Power Company
362 Injun Hollow Road, East Hampton, CT 06424
860-267-2556

Project Name: Haddam Neck Decommissioning

Contact Name & Phone:
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Analytical Lab (Name, City, State):
General Engineering Lab (GEL), 2040 Savage Rd, Charleston, SC 29407, 843.556.8171 (Sarah Kozlik)

Priority: ☐ 45 D. ☒ 30 D. ☐ 14 D. ☐ 7 D.
Other:

	Sample Designation	Date	Time	Media Code	Sample Type Code	Container Size- &Type Code	MIX	STND	ALL	LF	PENN		Comment, Preservation	Lab Sample ID
019	MW106D-0104-001	3/17/04	1215						x				3-4L, 1L	4
020	MW106D-0104-001 (FILT)	3/17/04	1215						x				3-4L, 1L	4

Analyses Requested

Lab Use Only

NOTES: PO #: 002337 MSR #: 04-0762 (6) 32 ☐ LTP QA ☐ Radwaste QA ☒ Non QA

Requested analyses should be performed on both solid recieved from STL & liquid extracted fractions.

Samples Shipped Via:
☒ Fed Ex
☐ UPS
☐ Hand
☐ Other ____
Bill of Lading #

Internal Container Temp.: 19.1 Deg. C
Custody Sealed? Y ☑ N ☐
Custody Seal Intact? Y ☑ N ☐

1) Relinquished By:	Date/Time	2) Received By	Date/Time
Brady B. [illegible]	3/17/04 1630	T. [illegible]	3/22/04 0905
3) Relinquished By	Date/Time	4) Received By	Date/Time
5) Relinquished By	Date/Time	6) Received By	Date/Time

Chain of Custody Form

No. 2004-000xx

Connecticut Yankee Atomic Power Company
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860-267-2556

Project Name: Haddam Neck Decommissioning

Contact Name & Phone:
Rich McGrath 860-267-3573

Analytical Lab (Name, City, State):
General Engineering Lab (GEL), 2040 Savage Rd, Charleston, SC 29407; 843.556.8171 (Sarah Kozlik)

Priority: ☐ 45 D. ☒ 30 D. ☐ 14 D. ☐ 7 D.
Other:

Lab Use Only

Sample Designation	Date	Time	Media Code	Sample Type Code	Container Size-&Type Code	MIX	STIND	ALL	LF	PENN		Comment, Preservation	Lab Sample ID
021 MW106S-0104-001	3/17/04	1127	GW	FS	2-4L Poly 1-1L Poly			X				4 Total, HNO3 in 4L	
022 MW106S-0104-001(F/L)	3/17/04	1215	GW	FS	Same			X				Same	

NOTES: PO #: 002337 MSR #: 04-07~~62~~ 32 ☐ LTP QA ☐ Radwaste QA ☒ Non QA

Requested analyses should be performed on both solid recieved from STL & liquid extracted fractions.

Samples Shipped Via:
☒ Fed Ex
☐ UPS
☐ Hand
☐ Other ____

Bill of Lading #

Internal Container Temp.: 19 Deg. C

Custody Sealed? Y ☑ N ☐

Custody Seal Intact? Y ☑ N ☐

1) Relinquished By: Richard McGrath	Date/Time 3/18/04 1400
2) Received By: [illegible]	Date/Time 3/22/04 0985
3) Relinquished By	Date/Time
4) Received By	Date/Time
5) Relinquished By	Date/Time
6) Received By	Date/Time

Chain of Custody Form

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Project Name: Haddam Neck Decommissioning

Contact Name & Phone:
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Analytical Lab (Name, City, State):
General Engineering Lab (GEL), 2040 Savage Rd, Charleston, SC 29407, 843.556.8171 (Sarah Kozlik)

Priority: ☐ 45 D. ☒ 30 D. ☐ 14 D. ☐ 7 D.
Other:

Sample Designation	Date	Time	Media Code	Sample Type Code	Container Size-&Type Code	MIX	STND	ALL	LF	PENN		Comment, Preservation	Lab Sample ID
023 MW105D-0104-001 (Fil)	3/17/04	1000	GW	FS	3-4L Poly 1-1L Poly			X				4 Total · HNO3 in 4L	
024 MW105D-0104-001	3/17/04	0905	GW	FS	Same			X				Same	

Lab Use Only

NOTES: PO #: 002337 MSR #: 04-0762 ~~32~~ ☐ LTP QA ☐ Radwaste QA ☒ Non QA

Requested analyses should be performed on both solid recieved from STL & liquid extracted fractions.

Samples Shipped Via:
☒ Fed Ex
☐ UPS
☐ Hand
☐ Other ____

Bill of Lading #

Internal Container Temp.: 19.1 Deg. C

Custody Sealed? Y ☑ N ☐

Custody Seal Intact? Y ☐ N ☐

1) Relinquished By: [signature] Date/Time 3/18/04 1400	2) Received By [signature] Date/Time 3/18/04 0905
3) Relinquished By Date/Time	4) Received By Date/Time
5) Relinquished By Date/Time	6) Received By Date/Time

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Priority: ☐ 45 D. ☒ 30 D. ☐ 14 D. ☐ 7 D.
Other:

Sample Designation	Date	Time	Media Code	Sample Type Code	Container Size-&Type Code	MIX	STND	ALL	LF	PENN		Comment, Preservation	Lab Sample ID
MW105S-0104-001	3/16/04	1326	GW	FS	3-4L Poly 1-1L Poly			X				4 Total; HNO_3 in 4L	
MW105S-0104-001(Alt)	3/16/04	1415	GW	FS	SAME			X				Same	

Lab Use Only

NOTES: PO #: 002337 MSR #: 04-0762 (32) ☐ LTP QA ☐ Radwaste QA ☒ Non QA

Requested analyses should be performed on both solid recieved from STL & liquid extracted fractions.

Samples Shipped Via:
☒ Fed Ex
☐ UPS
☐ Hand
☐ Other ____
Bill of Lading #

Internal Container Temp.: 19.4 Deg. C

Custody Sealed? Y ☑ N ☐

Custody Seal Intact? Y ☑ N ☐

1) Relinquished By: [signature] Date/Time 3/16/04 1530	2) Received By [signature] 3/22/04 Date/Time 3/22/04 0905
3) Relinquished By Date/Time	4) Received By Date/Time
5) Relinquished By Date/Time	6) Received By Date/Time

Chain of Custody Form

No. 2004-000xx

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860-267-2556

Project Name: Haddam Neck Decommissioning

Contact Name & Phone:
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Analytical Lab (Name, City, State):
General Engineering Lab (GEL), 2040 Savage Rd, Charleston, SC 29407, 843.556.8171 (Sarah Kozlik)

Priority: ☐ 45 D. ☒ 30 D. ☐ 14 D. ☐ 7 D.
Other:

Sample Designation	Date	Time	Media Code	Sample Type Code	Container Size-&Type Code	MIX	STND	ALL	LF	PENN		Comment, Preservation	Lab Sample ID
~~MW103D-0104-001~~	~~12/17~~ RB												
027 026 MW103D-0104-001	3/17/04	0930	GW	FS	3-4L poly 1-1L poly			X				4 Total, HNO_3 in 4-L	
014 MW102D-0104-001	3/17/04	~~1300~~	GW	R	3-4L poly 1-1L poly	X						3 Total, " " "	

Lab Use Only

NOTES: PO #: 002337 MSR #: 04-0762 ☐ LTP QA ☐ Radwaste QA ☒ Non QA

Requested analyses should be performed on both solid recieved from STL & liquid extracted fractions.

Samples Shipped Via:
☒ Fed Ex
☐ UPS
☐ Hand
☐ Other ____

Bill of Lading #

Internal Container Temp.: 9 Deg. C

Custody Sealed? Y ☐ N ☐

Custody Seal Intact? Y ☐ N ☐

1) Relinquished By: [signature] Date/Time 3/18/04 - 1400	2) Received By T. Rhow Date/Time 3/22/04 0905
3) Relinquished By Date/Time	4) Received By Date/Time
5) Relinquished By Date/Time	6) Received By Date/Time

Chain of Custody Form

No. 2004-000xx

Connecticut Yankee Atomic Power Company
362 Injun Hollow Road, East Hampton, CT 06424
860-267-2556

Project Name: Haddam Neck Decommissioning

Contact Name & Phone:
Rich McGrath 860-267-3573

Analytical Lab (Name, City, State):
General Engineering Lab (GEL), 2040 Savage Rd, Charleston, SC 29407, 843.556.8171 (Sarah Kozlik)

Priority: ☐ 45 D. ☒ 30 D. ☐ 14 D. ☐ 7 D.
Other:

Lab Use Only

Sample Designation	Date	Time	Media Code	Sample Type Code	Container Size-&Type Code	MIX	STND	ALL	LF	PENN		Comment, Preservation	Lab Sample ID
015 MW124S-0104-001	3/18/04	1045				X						1L, 2-4L	Total 3
~~027~~ 028 MW104S-0104-001	3/18/04	1038						X					4

NOTES: PO #: 002337 MSR #: 04-07~~02~~ 32 ☐ LTP QA ☐ Radwaste QA ☒ Non QA

Requested analyses should be performed on both solid recieved from STL & liquid extracted fractions.

Samples Shipped Via:
☒ Fed Ex
☐ UPS
☐ Hand
☐ Other ____

Bill of Lading #

Internal Container Temp.: 19.1 Deg. C

Custody Sealed? Y ☑ N ☐

Custody Seal Intact? Y ☑ N ☐

1) Relinquished By: Bradley B. [illegible] Date/Time 3/18/04 1200	2) Received By T. Shaw 3/22/04 Date/Time 0905
3) Relinquished By Date/Time	4) Received By Date/Time
5) Relinquished By Date/Time	6) Received By Date/Time

Chain of Custody Form

No. 2004-000xx

Connecticut Yankee Atomic Power Company
362 Injun Hollow Road, East Hampton, CT 06424
860-267-2556

Project Name: Haddam Neck Decommissioning

Contact Name & Phone:
Rich McGrath 860-267-3573

Analytical Lab (Name, City, State):
General Engineering Lab (GEL), 2040 Savage Rd, Charleston, SC 29407, 843.556.8171 (Sarah Kozlik)

Priority: ☐ 45 D. ☒ 30 D. ☐ 14 D. ☐ 7 D.
Other:

Lab Use Only

Sample Designation	Date	Time	Media Code	Sample Type Code	Container Size-&Type Code	MIX	STND	ALL	LF	PENN		Comment, Preservation	Lab Sample ID
029 MW103S-0104-001	3/16/04	0935	GW	FS	3-4L poly 1-1L RB			X				4 Total ; HNO_3 in 4L	
016 MW102S-0104-001	3/16/04	1056	GW	FS	3-4L poly 1-1L poly	X						3 Total ; HNO_3 in 4L	

NOTES: PO #: 002337 MSR #: 04-07~~62~~ 32 ☐ LTP QA ☐ Radwaste QA ☒ Non QA

Requested analyses should be performed on both solid recieved from STL & liquid extracted fractions.

Samples Shipped Via:
☒ Fed Ex
☐ UPS
☐ Hand
☐ Other ____

Bill of Lading #

Internal Container Temp.: 19.4 Deg. C

Custody Sealed? Y ☐ N ☐

Custody Seal Intact? Y ☐ N ☐

1) Relinquished By: [signature] Date/Time 3/16/04 1253	2) Received By [signature] Date/Time 3/22/04 0905
3) Relinquished By Date/Time	4) Received By Date/Time
5) Relinquished By Date/Time	6) Received By Date/Time

COOLER RECEIPT CHECKLIST

Figure 1. Sample Check-in List

Date/Time Received: 3/22/04 0905

SDG#: 04-0732

Work Order Number:

Shipping Container ID: FedEx 8421 3387 7127 Chain of Custody # 2004-000XX

1. Custody Seals on shipping container intact? Yes [✓] No [ ]
2. Custody Seals dated and signed? Yes [✓] No [ ]
3. Chain-of-Custody record present? Yes [✓] No [ ]
4. Cooler temperature 19.1 °C
5. Vermiculite/packing materials is: Wet [ ] Dry [✓]
6. Number of samples in shipping container: 53
7. Sample holding times exceeded? Yes [✓] No [ ]

8. Samples have:

____tape	✓ hazard labels
____custody seals	____appropriate sample labels

9. Samples are:

✓ in good condition	____leaking
____broken	____have air bubbles

10. Were any anomalies identified in sample receipt? Yes [✓] No [ ]
11. Description of anomalies (include sample numbers): Time on the sample is 1008 not 1038 MW 1045-0104-001

Sample Custodian/Laboratory: T. Blue Date: 3/22/04

Telephoned to: On By

APPENDIX 1

Radioactive Shipment Inventory Sheet

Received By: [illegible] Date Received: 3/22/01

Number of Samples in Shipment: 53, Total Shipment Volume _____ ml/gr

Sample Data Attached (Circle One) YES NO

Rad Tests Pending (Circle One) YES NO

License Category	Isotope	uCi	Remarks
H-3	Tritium		
Z# 2-83			
Z# 84-98			
Z# 99-100			
SNM	U-233		
SNM	U-235		
SNM -Plutonium			

Sample Information:

Client:	Connecticut Yankee	
All Applicable Lab Work Order #'s:		
	Package Exterior	Samples
Maximum Surface Reading (mR/hr): (beta window open)	ok	< 0.001 mr/hr
Maximum Removable Alpha Contamination (pCi/100cm^2): 50cpm>bkg = 50 pCi/100cm^2		NA
Maximum Removable Beta Contamination (pCi/100cm^2): 100cpm>bkg=450pCi/100cm^2	ok	< 50 cpm

License entry completed: _____ Date: _____

Figure 1. Sample Check-in List

Date/Time Received: 3-22-04 0905

SDG#: 04-0732

Work Order Number:

Shipping Container ID: Flex 842 3387 7716 Chain of Custody # 2004-00077X

1. Custody Seals on shipping container intact? Yes [✓] No [ ]
2. Custody Seals dated and signed? Yes [✓] No [ ]
3. Chain-of-Custody record present? Yes [✓] No [ ]
4. Cooler temperature 19.4°C
5. Vermiculite/packing materials is: Wet [ ] Dry [✓]
6. Number of samples in shipping container: 67
7. Sample holding times exceeded? Yes [ ] No [ ]

8. Samples have:

____tape	✓ hazard labels
____custody seals	____appropriate sample labels

9. Samples are:

✓ in good condition	____leaking
____broken	____have air bubbles

10. Were any anomalies identified in sample receipt? Yes [ ] No [✓]
11. Description of anomalies (include sample numbers):

Sample Custodian/Laboratory: [signature] Date: 3/22/04

Telephoned to:_____ On_____ By_____

APPENDIX 1

Radioactive Shipment Inventory Sheet

Received By: Tyrone Blake Date Received: 3-22-04

Number of Samples in Shipment: 67, Total Shipment Volume _____ ml/gr

Sample Data Attached (Circle One) YES NO

Rad Tests Pending (Circle One) YES NO

License Category	Isotope	uCi	Remarks
H-3	Tritium		
Z# 2-83			
Z# 84-98			
Z# 99-100			
SNM	U-233		
SNM	U-235		
SNM -Plutonium			

Sample Information:

Client:	Connecticut Yankee	
All Applicable Lab Work Order #'s:		
	Package Exterior	Samples
Maximum Surface Reading (mR/hr): (beta window open)	ok	<0.01mR/HR
Maximum Removable Alpha Contamination ($pCi/100cm^2$): 50cpm>bkg = 50 $pCi/100cm^2$		ND
Maximum Removable Beta Contamination ($pCi/100cm^2$): 100cpm>bkg=450$pCi/100cm^2$	ok	<50CPM

License entry completed: _____ Date: _____

DATA REVIEW QUALIFIER FLAG DEFINITIONS

General Engineering Laboratories, LLC

DATA QUALIFIERS FOR INORGANIC ANALYSES

Data Qualifiers used on Form 1s or Certificates of Analysis (COA) follow the specifications set forth in the technical specifications of the most current CLP Statement of Work and are defined as follows:

Section	Explanation	Location
E	The qualifier that is used when the percent difference between the parent sample and its serial dilution's concentration exceeds 10%. The sample's concentration must be greater than 50 times the IDL/MDL for ICP or 100 times the absolute value of the preparation blank's concentration for ICP-MS. However, if analyzing ILMO 4.0 (ICP-MS), the parent sample's concentration must be 20 times the CRDL before the "E" flag is applied.	Form 1 and EDD
*	The qualifier that is used to indicate the duplicate sample analysis for an analyte is out of control.	Form 1 and EDD
B	The qualifier is used to indicate that the reported result fell above the IDL/MDL but below the CRDL.	Form 1 and EDD
N	This qualifier is used to indicate that the matrix or pre-digested spike sample recovery for an analyte is not within the specified control limit.	Form 1 and EDD.
U	Analyte analyzed for but not detected above the PQL/CRDL.	COA, Form 1, and EDD
X	Other reporting flag as defined in report narrative.	Form 1 and EDD
**	Laboratory Control Sample (LCS) recovery for an analyte is outside of specified acceptance limit.	QC Summary Report

All surrogate recoveries and acceptance ranges are reported at the bottom of Form 2 or COA.
Any recoveries falling outside the acceptance range will be flagged with a **.
All flags do not apply to QC Summary and Certificate of Analysis packages.

INORGANIC ANALYSIS

Low Level Mercury
Connecticut Yankee Atomic Power Co. (YANK)
SDG 04-0732

Method/Analysis Information

Analytical Batch:	320992, 321017, 321019
Prep Batch:	320990, 321016, 321018
Standard Operating Procedures:	GL-MA-E-013 REV# 9, GL-MA-E-014 REV# 8, GL-MA-E-006 REV# 9
Analytical Method:	SW846 6010B, SW846 6020
Prep Method:	SW846 3005A

Sample Analysis

Sample ID	Client ID
109455001	MW122D-0104-001
109455002	MW114S-0104-001
109455003	MW210-0104-001
109455004	MW115S-0104-001
109455005	MW107D-0104-001
109455006	MW125S-0104-001
109455007	MW122S-0104-001
109455008	MW107S-0104-001
109455009	MW110S-0104-001
109455010	MW110D-0104-001
109455011	MW123S-0104-001
109455012	MW101S-0104-001
109455013	MW101D-0104-001
109455014	MW102D-0104-001
109455015	MW124S-0104-001
109455016	MW102S-0104-001
109455017	MW109S-0104-001
109455018	MW109D-0104-001

109455019	MW106D-0104-001
109455020	MW106D-0104-001(FILT)
109455022	MW106S-0104-001(FILT)
109455023	MW105D-0104-001(FILT)
109455024	MW105D-0104-001
109455025	MW105S-0104-001
109455026	MW105S-0104-001(FILT)
109455027	MW103D-0104-001
109455028	MW104S-0104-001
109455029	MW103S-0104-001
109455030	MW100D-0104-001
109455031	MW100S-0104-001
1200596597	Method Blank (MB) **ICP**
1200596598	Laboratory Control Sample (LCS)
1200596601	109455001(MW122D-0104-001L) Serial Dilution (SD)
1200596599	109455001(MW122D-0104-001D) Sample Duplicate (DUP)
1200596600	109455001(MW122D-0104-001S) Matrix Spike (MS)
1200596664	Method Blank (MB) **ICP-MS**
1200596672	Method Blank (MB) **ICP-MS**
1200596665	Laboratory Control Sample (LCS)
1200596673	Laboratory Control Sample (LCS)
1200596668	109455001(MW122D-0104-001L) Serial Dilution (SD)
1200596676	109455022(MW106S-0104-001(FILT)L) Serial Dilution (SD)
1200596666	109455001(MW122D-0104-001D) Sample Duplicate (DUP)
1200596674	109455022(MW106S-0104-001(FILT)D) Sample Duplicate (DUP)
1200596667	109455001(MW122D-0104-001S) Matrix Spike (MS)
1200596675	109455022(MW106S-0104-001(FILT)S) Matrix Spike (MS)

Preparation/Analytical Method Verification

The SOP stated above has been prepared based on technical research and testing conducted by General Engineering Laboratories, LLC. And with guidance from the regulatory documents listed in this "Method/Analysis Information" section.

System Configuration

The ICP analysis was performed on a Perkin Elmer 4300 Optima radial/axial-viewing

inductively coupled plasma atomic emission spectrometer. The instrument is equipped with a Burgener nebulizer, cyclonic spray chamber, and yttrium or scandium internal standard. Operating conditions for the ICP are set at a power level of 1500 watts. The instrument has a peristaltic pump flow rate of 1.4L/min, argon gas flows of 15 L/min and 0.2 L/min for the torch and auxiliary gases, and a flow setting of 0.65L/min for the nebulizer.

The ICP-MS analysis was performed on a Perkin Elmer ICP-MS ELAN 9000. The instrument is equipped with a cross-flow nebulizer, quadrupole mass spectrometer, and dual mode electron multiplier detector. Internal standards of scandium, germanium, indium, and tantalum were utilized to cover the mass spectrum. Operating conditions are set at 1400W power and combined argon pressures of 3607 kPa for the plasma and auxiliary gases, and 0.85 L/min carrier gas flow, and an initial lens voltage of 5.2.

Calibration Information

Instrument Calibration
All initial calibration requirements have been met for this SDG.

CRDL Requirements
All CRDL standard(s) met the referenced advisory control limits.

ICSA/ICSAB statement
All interference check samples (ICSA and ICSAB) associated with this SDG met the established acceptance criteria.

Continuing Calibration Blank (CCB) Requirements
All continuing calibration blanks (CCB) bracketing this batch met the established acceptance criteria.

Continuing Calibration Verification (CCV) Requirements
All continuing calibration verifications (CCV) bracketing this SDG met the acceptance criteria.

Quality Control (QC) Information

Method Blank (MB) Statement
The MBs analyzed with this SDG met the acceptance criteria.

Laboratory Control Sample (LCS) Recovery
The LCS spike recoveries met the acceptance limits.

Quality Control (QC) Sample Statement
The following samples were selected as the quality control (QC) samples for this SDG: 109455001 (MW122D-0104-001) and 109455022(MW106S-0104-001(FILT)).

Matrix Spike Recovery Statement
The percent recoveries (%R) obtained from the MS analyses are evaluated when the sample concentration is less than four times (4X) the spike concentration added. All applicable elements met the acceptance criteria.

Duplicate Relative Percent Difference (RPD) Statement
The RPD obtained from the designated sample duplicate (DUP) is evaluated based on acceptance criteria of 20% when the sample is >5X the contract required detection limit (RL). In cases where either the sample or duplicate value is less than 5X the RL, a control of RL is used to evaluate the DUP results. All applicable analytes met these requirements.

Serial Dilution % Difference Statement
The serial dilution is used to assess matrix suppression or enhancement. Raw element concentrations that are 25x the IDL for CVAA, 50X the IDL for ICP, and 100X the IDL for ICP-MS analyses are applicable for serial dilution assessment. Boron did not meet the acceptance criteria of less than 10% difference (%D) for either the ICP and ICPMS batches.

Technical Information

Holding Time Specifications
GEL assigns holding times based on the associated methodology, which assigns the date and time from sample collection of sample receipt. Those holding times expressed in hours are calculated in the AlphaLIMS system. Those holding times expressed as days expire at midnight on the day of expiration. All samples in this SDG met the specified holding time.

Preparation/Analytical Method Verification
All procedures were performed as stated in the SOP.

Sample Dilutions
Dilutions are performed to minimize matrix interferences resulting from elevated mineral element concentrations present in soil samples and/or to bring over range target analyte concentrations into the linear calibration range of the instrument. The samples in this SDG did not require dilutions.

Preparation Information
The samples in this SDG were prepared exactly according to the cited SOP.

Miscellaneous Information

Nonconformance Documentation
Nonconformance reports (NCRs) are generated to document procedural anomalies that may deviate from referenced SOP or contractual documents. No NCR was generated with this SDG.

Additional Comments
Additional comments were not required for this SDG.

Certification Statement

Where the analytical method has been performed under NELAP certification, the analysis has met all of the requirements of the NELAC standard unless otherwise noted in the analytical case narrative.

Review Validation

GEL requires all analytical data to be verified by a qualified data validator. In addition, all data designated for CLP or CLP-like packaging will receive a third level validation upon completion of the data package.

The following data validator verified the information presented in this case narrative:

Reviewer: Allison [illegible] **Date:** 4/21/04

RADIOLOGICAL ANALYSIS

Radiochemistry Case Narrative
Connecticut Yankee Atomic Power Co. - (YANK)
SDG: 04-0732

Method/Analysis Information

Product:	**Gross A/B, liquid-ALL,STND,MIX,PENN,LF**
Analytical Method:	EPA 900.0
Analytical Batch Number:	326865

Sample ID	Client ID
109455028	MW104S-0104-001
109455029	MW103S-0104-001
109455030	MW100D-0104-001
109455031	MW100S-0104-001
109455032	MWEOF2-0104-001
109455033	MW108S-0104-001
109455034	MW117S-0104-001
109455035	MW112S-0104-001
109455036	MW111S-0104-001
109455037	MW113S-0104-001
1200610605	Method Blank (MB)
1200610609	Laboratory Control Sample (LCS)
1200610606	109455037(MW113S-0104-001) Sample Duplicate (DUP)
1200610607	109455037(MW113S-0104-001) Matrix Spike (MS)
1200610608	109455037(MW113S-0104-001) Matrix Spike Duplicate (MSD)

SOP Reference
Procedure for preparation, analysis and reporting of analytical data are controlled by General Engineering Laboratories, LLC as Standard Operating Procedure (SOP). The data discussed in this narrative has been analyzed in accordance with GL-RAD-A-001 REV# 8.

Calibration Information:

Calibration Information
All initial and continuing calibration requirements have been met.

Standards Information
Standard solution(s) for these analyses are NIST traceable and used before the expiration date(s).

Sample Geometry
All counting sources were prepared in the same geometry as the calibration standards.

Quality Control (QC) Information:

Blank Information
The blank volume is representative of the sample volume in this batch.

Designated QC
The following sample was used for QC: 109455037 (MW113S-0104-001).

QC Information
All of the QC samples met the required acceptance limits.

Technical Information:

Holding Time
All sample procedures for this sample set were performed within the required holding time.

Preparation Information
All preparation criteria have been met for these analyses.

Sample Re-prep/Re-analysis
Samples 1200610607 (MW113S-0104-001), 1200610608 (MW113S-0104-001) and 1200610609 (LCS) were reprepped due to low/high recovery.

Chemical Recoveries
All chemical recoveries meet the required acceptance limits for this sample set.

Gross Alpha/Beta Preparation Information
High hygroscopic salt content in evaporated samples can cause the sample mass to fluctuate due to moisture absorption. To minimize this interference, the salts are converted to oxides by heating the sample under a flame until a dull red color is obtained. The conversion to oxides stabilizes the sample weight and ensures that proper alpha/beta efficiencies are assigned for each sample. Volatile radioisotopes of carbon, hydrogen, technetium, polonium and cesium may be lost during sample heating.

Miscellaneous Information:

NCR Documentation
Nonconformance reports are generated to document any procedural anomalies that may deviate from referenced SOP or contractual documents. An NCR was not generated for this SDG.

Qualifier information
Manual qualifiers were not required.

Method/Analysis Information

Product:	**Am241 Liquid-STND,MIX,PENN,LF**
Analytical Method:	DOE EML HASL-300, Am-05-RC Modified
Analytical Batch Number:	321612

Sample ID	Client ID
109455001	MW122D-0104-001
109455002	MW114S-0104-001
109455003	MW210-0104-001
109455004	MW115S-0104-001
109455005	MW107D-0104-001
109455006	MW125S-0104-001
109455007	MW122S-0104-001
109455008	MW107S-0104-001
109455009	MW110S-0104-001
109455010	MW110D-0104-001
109455012	MW101S-0104-001
109455013	MW101D-0104-001
109455014	MW102D-0104-001
109455015	MW124S-0104-001
109455016	MW102S-0104-001
109455017	MW109S-0104-001
109455018	MW109D-0104-001
1200598187	Method Blank (MB)

1200598190	Laboratory Control Sample (LCS)
1200598188	109455001(MW122D-0104-001) Sample Duplicate (DUP)
1200598189	109455001(MW122D-0104-001) Matrix Spike (MS)

SOP Reference
Procedure for preparation, analysis and reporting of analytical data are controlled by General Engineering Laboratories, LLC as Standard Operating Procedure (SOP). The data discussed in this narrative has been analyzed in accordance with GL-RAD-A-011 REV# 12.

Calibration Information:

Calibration Information
All initial and continuing calibration requirements have been met.

Standards Information
Standard solution(s) for these analyses are NIST traceable and used before the expiration date(s).

Sample Geometry
All counting sources were prepared in the same geometry as the calibration standards.

Quality Control (QC) Information:

Blank Information
The blank volume is representative of the sample volume in this batch.

Designated QC
The following sample was used for QC: 109455001 (MW122D-0104-001).

QC Information
All of the QC samples met the required acceptance limits.

Technical Information:

Holding Time
All sample procedures for this sample set were performed within the required holding time.

Preparation Information
All preparation criteria have been met for these analyses.

Sample Re-prep/Re-analysis
Sample 109455013 (MW101D-0104-001) was recounted due to a peak shift.

Miscellaneous Information:

NCR Documentation
Nonconformance reports are generated to document any procedural anomalies that may deviate from referenced SOP or contractual documents. An NCR was not generated for this SDG.

Qualifier information
Manual qualifiers were not required.

Method/Analysis Information

Product:	**Am241 Liquid-STND,MIX,PENN,LF**
Analytical Method:	DOE EML HASL-300, Am-05-RC Modified
Analytical Batch Number:	321614

Sample ID	Client ID
109455030	MW100D-0104-001
109455031	MW100S-0104-001
109455032	MWEOF2-0104-001
109455033	MW108S-0104-001
109455034	MW117S-0104-001
109455035	MW112S-0104-001
109455036	MW111S-0104-001
109455037	MW113S-0104-001
1200598195	Method Blank (MB)
1200598198	Laboratory Control Sample (LCS)
1200598196	109455030(MW100D-0104-001) Sample Duplicate (DUP)
1200598197	109455030(MW100D-0104-001) Matrix Spike (MS)

SOP Reference
Procedure for preparation, analysis and reporting of analytical data are controlled by General Engineering Laboratories, LLC as Standard Operating Procedure (SOP). The data discussed in this narrative has been analyzed in accordance with GL-RAD-A-011 REV# 12.

Calibration Information:

Calibration Information
All initial and continuing calibration requirements have been met.

Standards Information
Standard solution(s) for these analyses are NIST traceable and used before the expiration date(s).

Sample Geometry
All counting sources were prepared in the same geometry as the calibration standards.

Quality Control (QC) Information:

Blank Information
The blank volume is representative of the sample volume in this batch.

Designated QC
The following sample was used for QC: 109455030 (MW100D-0104-001).

QC Information
All of the QC samples met the required acceptance limits.

Technical Information:

Holding Time
All sample procedures for this sample set were performed within the required holding time.

Preparation Information
All preparation criteria have been met for these analyses.

Sample Re-prep/Re-analysis
None of the samples in this sample set required reprep or reanalysis.

Miscellaneous Information:

NCR Documentation
Nonconformance reports are generated to document any procedural anomalies that may deviate from referenced SOP or contractual documents. An NCR was not generated for this SDG.

Qualifier information
Manual qualifiers were not required.

Method/Analysis Information

Product:	**Am241,Cm, Liquid-ALL**
Analytical Method:	DOE EML HASL-300, Am-05-RC Modified
Analytical Batch Number:	321615

Sample ID	Client ID
109455019	MW106D-0104-001
109455021	MW106S-0104-001
109455022	MW106S-0104-001(FILT)
109455023	MW105D-0104-001(FILT)
109455024	MW105D-0104-001
109455025	MW105S-0104-001
109455026	MW105S-0104-001(FILT)
109455027	MW103D-0104-001
109455028	MW104S-0104-001
109455029	MW103S-0104-001
1200598199	Method Blank (MB)
1200598202	Laboratory Control Sample (LCS)
1200598200	109455019(MW106D-0104-001) Sample Duplicate (DUP)
1200598201	109455019(MW106D-0104-001) Matrix Spike (MS)

SOP Reference
Procedure for preparation, analysis and reporting of analytical data are controlled by General Engineering Laboratories, LLC as Standard Operating Procedure (SOP). The data discussed in this narrative has been analyzed in accordance with GL-RAD-A-011 REV# 12.

Calibration Information:

Calibration Information
All initial and continuing calibration requirements have been met.

Standards Information
Standard solution(s) for these analyses are NIST traceable and used before the expiration date(s).

Sample Geometry
All counting sources were prepared in the same geometry as the calibration standards.

Quality Control (QC) Information:

Blank Information
The blank volume is representative of the sample volume in this batch.

Designated QC
The following sample was used for QC: 109455019 (MW106D-0104-001).

QC Information
All of the QC samples met the required acceptance limits.

Technical Information:

Holding Time
All sample procedures for this sample set were performed within the required holding time.

Preparation Information
All preparation criteria have been met for these analyses.

Sample Re-prep/Re-analysis
Sample 109455023 (MW105D-0104-001(FILT)) was recounted due to a peak shift.

Miscellaneous Information:

NCR Documentation
Nonconformance reports are generated to document any procedural anomalies that may deviate from referenced SOP or contractual documents. An NCR was not generated for this SDG.

Qualifier information
Manual qualifiers were not required.

Method/Analysis Information

Product:	**Am241,Cm, Liquid-ALL**
Analytical Method:	DOE EML HASL-300, Am-05-RC Modified
Analytical Batch Number:	322618

Sample ID	Client ID
109455020	MW106D-0104-001(FILT)
1200600697	Method Blank (MB)
1200600700	Laboratory Control Sample (LCS)
1200600698	109455020(MW106D-0104-001(FILT)) Sample Duplicate (DUP)
1200600699	109455020(MW106D-0104-001(FILT)) Matrix Spike (MS)

SOP Reference
Procedure for preparation, analysis and reporting of analytical data are controlled by General Engineering Laboratories, LLC as Standard Operating Procedure (SOP). The data discussed in this narrative has been analyzed in accordance with GL-RAD-A-011 REV# 12.

Calibration Information:

Calibration Information
All initial and continuing calibration requirements have been met.

Standards Information
Standard solution(s) for these analyses are NIST traceable and used before the expiration date(s).

Sample Geometry
All counting sources were prepared in the same geometry as the calibration standards.

Quality Control (QC) Information:

Blank Information
The blank volume is representative of the sample volume in this batch.

Designated QC
The following sample was used for QC: 109455020 (MW106D-0104-001(FILT)).

QC Information
All of the QC samples met the required acceptance limits.

Technical Information:

Holding Time
All sample procedures for this sample set were performed within the required holding time.

Preparation Information
All preparation criteria have been met for these analyses.

Sample Re-prep/Re-analysis
Sample 109455020 (MW106D-0104-001(FILT)) was reprepped due to low/high carrier/tracer yield.

Miscellaneous Information:

NCR Documentation
Nonconformance reports are generated to document any procedural anomalies that may deviate from referenced SOP or contractual documents. An NCR was not generated for this SDG.

Qualifier information
Manual qualifiers were not required.

Method/Analysis Information

Product:	**Am241 Liquid-STND,MIX,PENN,LF**
Analytical Method:	DOE EML HASL-300, Am-05-RC Modified
Analytical Batch Number:	322683

Sample ID	Client ID
109455011	MW123S-0104-001
1200600874	Method Blank (MB)
1200600877	Laboratory Control Sample (LCS)
1200600875	109455011(MW123S-0104-001) Sample Duplicate (DUP)
1200600876	109455011(MW123S-0104-001) Matrix Spike (MS)

SOP Reference
Procedure for preparation, analysis and reporting of analytical data are controlled by General Engineering Laboratories, LLC as Standard Operating Procedure (SOP). The data discussed in this narrative has been analyzed in accordance with GL-RAD-A-011 REV# 12.

Calibration Information:

Calibration Information
All initial and continuing calibration requirements have been met.

Standards Information
Standard solution(s) for these analyses are NIST traceable and used before the expiration date(s).

Sample Geometry
All counting sources were prepared in the same geometry as the calibration standards.

Quality Control (QC) Information:

Blank Information
The blank volume is representative of the sample volume in this batch.

Designated QC
The following sample was used for QC: 109455011 (MW123S-0104-001).

QC Information
All of the QC samples met the required acceptance limits.

Technical Information:

Holding Time
All sample procedures for this sample set were performed within the required holding time.

Preparation Information
All preparation criteria have been met for these analyses.

Sample Re-prep/Re-analysis
Samples 109455011 (MW123S-0104-001), 1200600874 (MB), 1200600875 (MW123S-0104-001), 1200600876 (MW123S-0104-001) and 1200600877 (LCS) were reprepped due to low/high carrier/tracer yield.

Miscellaneous Information:

NCR Documentation
Nonconformance reports are generated to document any procedural anomalies that may deviate from referenced SOP or contractual documents. An NCR was not generated for this SDG.

Qualifier information
Manual qualifiers were not required.

Method/Analysis Information

Product:	**Alphaspec Pu, Liquid-ALL**
Analytical Method:	DOE EML HASL-300, Pu-11-RC Modified
Analytical Batch Number:	321618

Sample ID	Client ID
109455019	MW106D-0104-001
109455020	MW106D-0104-001(FILT)
109455021	MW106S-0104-001
109455022	MW106S-0104-001(FILT)
109455023	MW105D-0104-001(FILT)
109455024	MW105D-0104-001
109455025	MW105S-0104-001
109455026	MW105S-0104-001(FILT)
109455027	MW103D-0104-001
109455028	MW104S-0104-001
109455029	MW103S-0104-001
1200598203	Method Blank (MB)
1200598206	Laboratory Control Sample (LCS)
1200598204	109455019(MW106D-0104-001) Sample Duplicate (DUP)
1200598205	109455019(MW106D-0104-001) Matrix Spike (MS)

SOP Reference
Procedure for preparation, analysis and reporting of analytical data are controlled by General Engineering Laboratories, LLC as Standard Operating Procedure (SOP). The data discussed in this narrative has been analyzed in accordance with GL-RAD-A-011 REV# 12.

Calibration Information:

Calibration Information
All initial and continuing calibration requirements have been met.

Standards Information
Standard solution(s) for these analyses are NIST traceable and used before the expiration date(s).

Sample Geometry
All counting sources were prepared in the same geometry as the calibration standards.

Quality Control (QC) Information:

Blank Information
The blank volume is representative of the sample volume in this batch.

Designated QC
The following sample was used for QC: 109455019 (MW106D-0104-001).

QC Information
All of the QC samples met the required acceptance limits.

Technical Information:

Holding Time
All sample procedures for this sample set were performed within the required holding time.

Preparation Information
All preparation criteria have been met for these analyses.

Sample Re-prep/Re-analysis
None of the samples in this sample set required reprep or reanalysis.

Miscellaneous Information:

NCR Documentation
Nonconformance reports are generated to document any procedural anomalies that may deviate from referenced SOP or contractual documents. An NCR was not generated for this SDG.

Qualifier information
Manual qualifiers were not required.

Method/Analysis Information

Product:	**Liquid Scint Pu241, Liquid-ALL**
Analytical Method:	DOE EML HASL-300, Pu-11-RC Modified
Analytical Batch Number:	321621

Sample ID **Client ID**

109455019	MW106D-0104-001
109455020	MW106D-0104-001(FILT)
109455021	MW106S-0104-001
109455022	MW106S-0104-001(FILT)
109455023	MW105D-0104-001(FILT)
109455024	MW105D-0104-001
109455025	MW105S-0104-001
109455026	MW105S-0104-001(FILT)
109455027	MW103D-0104-001
109455028	MW104S-0104-001
109455029	MW103S-0104-001
1200598216	Method Blank (MB)
1200598219	Laboratory Control Sample (LCS)
1200598217	109455019(MW106D-0104-001) Sample Duplicate (DUP)
1200598218	109455019(MW106D-0104-001) Matrix Spike (MS)

SOP Reference
Procedure for preparation, analysis and reporting of analytical data are controlled by General Engineering Laboratories, LLC as Standard Operating Procedure (SOP). The data discussed in this narrative has been analyzed in accordance with GL-RAD-A-035 REV# 4.

Calibration Information:

Calibration Information
All initial and continuing calibration requirements have been met.

Standards Information
Standard solution(s) for these analyses are NIST traceable and used before the expiration date(s).

Sample Geometry
All counting sources were prepared in the same geometry as the calibration standards.

Quality Control (QC) Information:

Blank Information
The blank volume is representative of the sample volume in this batch.

Designated QC
The following sample was used for QC: 109455019 (MW106D-0104-001).

QC Information
All of the QC samples met the required acceptance limits.

Technical Information:

Holding Time
All sample procedures for this sample set were performed within the required holding time.

Preparation Information
All preparation criteria have been met for these analyses.

Sample Re-prep/Re-analysis
Samples 109455019 (MW106D-0104-001), 109455020 (MW106D-0104-001(FILT)), 109455021 (MW106S-0104-001), 109455022 (MW106S-0104-001(FILT)), 109455023 (MW105D-0104-001(FILT)), 109455024 (MW105D-0104-001), 109455025 (MW105S-0104-001), 109455026 (MW105S-0104-001(FILT)), 109455027 (MW103D-0104-001), 109455028 (MW104S-0104-001), 109455029 (MW103S-0104-001), 1200598216 (MB) and

1200598217 (MW106D-0104-001) were recounted due to high MDAs.

Miscellaneous Information:

NCR Documentation
Nonconformance reports are generated to document any procedural anomalies that may deviate from referenced SOP or contractual documents. The following NCR was generated for this SDG:
NCR 104273 was generated due to RDL less than MDA. Samples 109455026 and 109455029 do not meet the required detection limit. The samples were counted for one hundred and eighty minutes. Reporting results.

Qualifier Information
Manual qualifiers were not required.

Method/Analysis Information

Product:	**Gammaspec, Gamma,Liquid-ALL,GAM2,STND,MIX,PENN,LF**
Analytical Method:	EPA 901.1
Analytical Batch Number:	320207

Sample ID	Client ID
109455001	MW122D-0104-001
109455002	MW114S-0104-001
109455003	MW210-0104-001
109455004	MW115S-0104-001
109455005	MW107D-0104-001
109455006	MW125S-0104-001
109455007	MW122S-0104-001
109455008	MW107S-0104-001
109455009	MW110S-0104-001
109455010	MW110D-0104-001
109455011	MW123S-0104-001
109455012	MW101S-0104-001
109455013	MW101D-0104-001
109455014	MW102D-0104-001
109455015	MW124S-0104-001
109455016	MW102S-0104-001
109455017	MW109S-0104-001
109455018	MW109D-0104-001
109455019	MW106D-0104-001
109455020	MW106D-0104-001(FILT)
1200594694	Method Blank (MB)
1200594697	Laboratory Control Sample (LCS)
1200594695	109455001(MW122D-0104-001) Sample Duplicate (DUP)
1200594696	109455001(MW122D-0104-001) Matrix Spike (MS)

SOP Reference
Procedure for preparation, analysis and reporting of analytical data are controlled by General Engineering Laboratories, LLC as Standard Operating Procedure (SOP). The data discussed in this narrative has been analyzed in accordance with GL-RAD-A-013 REV# 9.

Calibration Information:

Calibration Information
All initial and continuing calibration requirements have been met.

Standards Information
Standard solution(s) for these analyses are NIST traceable and used before the expiration date(s).

Sample Geometry
All counting sources were prepared in the same geometry as the calibration standards.

Quality Control (QC) Information:

Blank Information
The blank volume is representative of the sample volume in this batch.

Designated QC
The following sample was used for QC: 109455001 (MW122D-0104-001).

QC Information
All of the QC samples met the required acceptance limits.

Technical Information:

Holding Time
All sample procedures for this sample set were performed within the required holding time.

Preparation Information
All preparation criteria have been met for these analyses.

Sample Re-prep/Re-analysis
None of the samples in this sample set required reprep or reanalysis.

Miscellaneous Information:

NCR Documentation
Nonconformance reports are generated to document any procedural anomalies that may deviate from referenced SOP or contractual documents. An NCR was not generated for this SDG.

Qualifier information

Qualifier	Reason	Analyte	Sample
UI	Data rejected due to low abundance.	Cesium-137	109455003
			109455013

Method/Analysis Information

Product:	**Gammaspec, Gamma,Liquid-ALL,GAM2,STND,MIX,PENN,LF**
Analytical Method:	EPA 901.1
Analytical Batch Number:	320209

Sample ID	Client ID
109455021	MW106S-0104-001
109455022	MW106S-0104-001(FILT)
109455023	MW105D-0104-001(FILT)
109455024	MW105D-0104-001
109455025	MW105S-0104-001
109455026	MW105S-0104-001(FILT)
109455027	MW103D-0104-001
109455028	MW104S-0104-001
109455029	MW103S-0104-001

109455030	MW100D-0104-001
109455031	MW100S-0104-001
109455032	MWEOF2-0104-001
109455033	MW108S-0104-001
109455034	MW117S-0104-001
109455035	MW112S-0104-001
109455036	MW111S-0104-001
109455037	MW113S-0104-001
1200594698	Method Blank (MB)
1200594701	Laboratory Control Sample (LCS)
1200594699	109455021(MW106S-0104-001) Sample Duplicate (DUP)
1200594700	109455021(MW106S-0104-001) Matrix Spike (MS)

SOP Reference
Procedure for preparation, analysis and reporting of analytical data are controlled by General Engineering Laboratories, LLC as Standard Operating Procedure (SOP). The data discussed in this narrative has been analyzed in accordance with GL-RAD-A-013 REV# 10.

Calibration Information:

Calibration Information
All initial and continuing calibration requirements have been met.

Standards Information
Standard solution(s) for these analyses are NIST traceable and used before the expiration date(s).

Sample Geometry
All counting sources were prepared in the same geometry as the calibration standards.

Quality Control (QC) Information:

Blank Information
The blank volume is representative of the sample volume in this batch.

Designated QC
The following sample was used for QC: 109455021 (MW106S-0104-001).

QC Information
All of the QC samples met the required acceptance limits.

Technical Information:

Holding Time
All sample procedures for this sample set were performed within the required holding time.

Preparation Information
All preparation criteria have been met for these analyses.

Sample Re-prep/Re-analysis
None of the samples in this sample set required reprep or reanalysis.

Miscellaneous Information:

NCR Documentation
Nonconformance reports are generated to document any procedural anomalies that may deviate from referenced SOP or contractual documents. An NCR was not generated for this SDG.

Qualifier information

Qualifier	Reason	Analyte	Sample
UI	Data rejected due to low abundance.	Cesium-137	109455022
UI	Data rejected due to no valid peak.	Americium-241	109455031
		Cobalt-60	109455026

Method/Analysis Information

Product: **Gross A/B, liquid-ALL,STND,MIX,PENN,LF**
Analytical Method: EPA 900.0
Analytical Batch Number: 321321

Sample ID	Client ID
109455001	MW122D-0104-001
109455002	MW114S-0104-001
109455003	MW210-0104-001
109455004	MW115S-0104-001
109455005	MW107D-0104-001
109455006	MW125S-0104-001
109455007	MW122S-0104-001
109455008	MW107S-0104-001
109455009	MW110S-0104-001
109455010	MW110D-0104-001
109455011	MW123S-0104-001
109455012	MW101S-0104-001
109455013	MW101D-0104-001
109455014	MW102D-0104-001
109455015	MW124S-0104-001
109455016	MW102S-0104-001
1200597405	Method Blank (MB)
1200597409	Laboratory Control Sample (LCS)
1200597406	109455003(MW210-0104-001) Sample Duplicate (DUP)
1200597407	109455003(MW210-0104-001) Matrix Spike (MS)
1200597408	109455003(MW210-0104-001) Matrix Spike Duplicate (MSD)

SOP Reference
Procedure for preparation, analysis and reporting of analytical data are controlled by General Engineering Laboratories, LLC as Standard Operating Procedure (SOP). The data discussed in this narrative has been analyzed in accordance with GL-RAD-A-001 REV# 8.

Calibration Information:

Calibration Information
All initial and continuing calibration requirements have been met.

Standards Information
Standard solution(s) for these analyses are NIST traceable and used before the expiration date(s).

Sample Geometry
All counting sources were prepared in the same geometry as the calibration standards.

Quality Control (QC) Information:

Blank Information

The blank volume is representative of the sample volume in this batch.

Designated QC
The following sample was used for QC: 109455003 (MW210-0104-001).

QC Information
Samples 1200597407 (MW210-0104-001) and 1200597408 (MW210-0104-001) did not meet the alpha recovery requirement due to the matrix of the sample. The samples are similar in results.

Technical Information:

Holding Time
All sample procedures for this sample set were performed within the required holding time.

Preparation Information
All preparation criteria have been met for these analyses.

Sample Re-prep/Re-analysis
None of the samples in this sample set required reprep or reanalysis.

Chemical Recoveries
All chemical recoveries meet the required acceptance limits for this sample set.

Gross Alpha/Beta Preparation Information
High hygroscopic salt content in evaporated samples can cause the sample mass to fluctuate due to moisture absorption. To minimize this interference, the salts are converted to oxides by heating the sample under a flame until a dull red color is obtained. The conversion to oxides stabilizes the sample weight and ensures that proper alpha/beta efficiencies are assigned for each sample. Volatile radioisotopes of carbon, hydrogen, technetium, polonium and cesium may be lost during sample heating.

Miscellaneous Information:

NCR Documentation
Nonconformance reports are generated to document any procedural anomalies that may deviate from referenced SOP or contractual documents. An NCR was not generated for this SDG.

Qualifier information
Manual qualifiers were not required.

Method/Analysis Information

Product:	**Gross A/B, liquid-ALL,STND,MIX,PENN,LF**
Analytical Method:	EPA 900.0
Analytical Batch Number:	325997

Sample ID	Client ID
109455017	MW109S-0104-001
109455018	MW109D-0104-001
109455019	MW106D-0104-001
109455020	MW106D-0104-001(FILT)
109455021	MW106S-0104-001
109455022	MW106S-0104-001(FILT)
109455023	MW105D-0104-001(FILT)
109455024	MW105D-0104-001
109455025	MW105S-0104-001

109455026	MW105S-0104-001(FILT)
109455027	MW103D-0104-001
1200608572	Method Blank (MB)
1200608576	Laboratory Control Sample (LCS)
1200608573	109455017(MW109S-0104-001) Sample Duplicate (DUP)
1200608574	109455017(MW109S-0104-001) Matrix Spike (MS)
1200608575	109455017(MW109S-0104-001) Matrix Spike Duplicate (MSD)

SOP Reference
Procedure for preparation, analysis and reporting of analytical data are controlled by General Engineering Laboratories, LLC as Standard Operating Procedure (SOP). The data discussed in this narrative has been analyzed in accordance with GL-RAD-A-001 REV# 8.

Calibration Information:

Calibration Information
All initial and continuing calibration requirements have been met.

Standards Information
Standard solution(s) for these analyses are NIST traceable and used before the expiration date(s).

Sample Geometry
All counting sources were prepared in the same geometry as the calibration standards.

Quality Control (QC) Information:

Blank Information
The blank volume is representative of the sample volume in this batch.

Designated QC
The following sample was used for QC: 109455017 (MW109S-0104-001).

QC Information
All of the QC samples met the required acceptance limits.

Technical Information:

Holding Time
All sample procedures for this sample set were performed within the required holding time.

Preparation Information
All preparation criteria have been met for these analyses.

Sample Re-prep/Re-analysis
Samples were reprepped due to low/high recovery.

Chemical Recoveries
All chemical recoveries meet the required acceptance limits for this sample set.

Gross Alpha/Beta Preparation Information
High hygroscopic salt content in evaporated samples can cause the sample mass to fluctuate due to moisture absorption. To minimize this interference, the salts are converted to oxides by heating the sample under a flame until a dull red color is obtained. The conversion to oxides stabilizes the sample weight and ensures that proper alpha/beta efficiencies are assigned for each sample. Volatile radioisotopes of carbon, hydrogen, technetium, polonium and cesium may be lost during sample heating.

Miscellaneous Information:

NCR Documentation
Nonconformance reports are generated to document any procedural anomalies that may deviate from referenced SOP or contractual documents. An NCR was not generated for this SDG.

Qualifier information
Manual qualifiers were not required.

Method/Analysis Information

Product:	**GFPC, Sr90, liquid-ALL,MIX**
Analytical Method:	EPA 905.0 Modified
Analytical Batch Number:	321378

Sample ID	Client ID
109455001	MW122D-0104-001
109455002	MW114S-0104-001
109455003	MW210-0104-001
109455004	MW115S-0104-001
109455005	MW107D-0104-001
109455006	MW125S-0104-001
109455007	MW122S-0104-001
109455008	MW107S-0104-001
109455009	MW110S-0104-001
109455010	MW110D-0104-001
109455011	MW123S-0104-001
109455012	MW101S-0104-001
109455013	MW101D-0104-001
109455014	MW102D-0104-001
109455015	MW124S-0104-001
109455016	MW102S-0104-001
109455017	MW109S-0104-001
109455018	MW109D-0104-001
109455019	MW106D-0104-001
109455020	MW106D-0104-001(FILT)
1200597581	Method Blank (MB)
1200597584	Laboratory Control Sample (LCS)
1200597582	109455001(MW122D-0104-001) Sample Duplicate (DUP)
1200597583	109455001(MW122D-0104-001) Matrix Spike (MS)

SOP Reference
Procedure for preparation, analysis and reporting of analytical data are controlled by General Engineering Laboratories, LLC as Standard Operating Procedure (SOP). The data discussed in this narrative has been analyzed in accordance with GL-RAD-A-004 REV# 8.

Calibration Information:

Calibration Information
All initial and continuing calibration requirements have been met.

Standards Information
Standard solution(s) for these analyses are NIST traceable and used before the expiration date(s).

Sample Geometry

All counting sources were prepared in the same geometry as the calibration standards.

Quality Control (QC) Information:

Blank Information
The blank volume is representative of the sample volume in this batch.

Designated QC
The following sample was used for QC: 109455001 (MW122D-0104-001).

QC Information
All of the QC samples met the required acceptance limits.

Technical Information:

Holding Time
All sample procedures for this sample set were performed within the required holding time.

Preparation Information
All preparation criteria have been met for these analyses.

Sample Re-prep/Re-analysis
None of the samples in this sample set required reprep or reanalysis.

Chemical Recoveries
All chemical recoveries meet the required acceptance limits for this sample set.

Miscellaneous Information:

NCR Documentation
Nonconformance reports are generated to document any procedural anomalies that may deviate from referenced SOP or contractual documents. An NCR was not generated for this SDG.

Additional Comments
Samples 109455002 (MW114S-0104-001), 109455003 (MW210-0104-001), 109455004 (MW115S-0104-001) and 109455006 (MW125S-0104-001) were verified by recounting at least five days from the initial count date.

Qualifier information
Manual qualifiers were not required.

Method/Analysis Information

Product:	**GFPC, Sr90, liquid-ALL,MIX**
Analytical Method:	EPA 905.0 Modified
Analytical Batch Number:	321379

Sample ID	Client ID
109455021	MW106S-0104-001
109455022	MW106S-0104-001(FILT)
109455023	MW105D-0104-001(FILT)
109455024	MW105D-0104-001
109455025	MW105S-0104-001
109455026	MW105S-0104-001(FILT)
109455027	MW103D-0104-001
109455028	MW104S-0104-001

109455029	MW103S-0104-001
109455033	MW108S-0104-001
109455034	MW117S-0104-001
109455035	MW112S-0104-001
109455036	MW111S-0104-001
109455037	MW113S-0104-001
1200597585	Method Blank (MB)
1200597588	Laboratory Control Sample (LCS)
1200597586	109455021(MW106S-0104-001) Sample Duplicate (DUP)
1200597587	109455021(MW106S-0104-001) Matrix Spike (MS)

SOP Reference
Procedure for preparation, analysis and reporting of analytical data are controlled by General Engineering Laboratories, LLC as Standard Operating Procedure (SOP). The data discussed in this narrative has been analyzed in accordance with GL-RAD-A-004 REV# 8.

Calibration Information:

Calibration Information
All initial and continuing calibration requirements have been met.

Standards Information
Standard solution(s) for these analyses are NIST traceable and used before the expiration date(s).

Sample Geometry
All counting sources were prepared in the same geometry as the calibration standards.

Quality Control (QC) Information:

Blank Information
The blank volume is representative of the sample volume in this batch.

Designated QC
The following sample was used for QC: 109455021 (MW106S-0104-001).

QC Information
All of the QC samples met the required acceptance limits.

Technical Information:

Holding Time
All sample procedures for this sample set were performed within the required holding time.

Preparation Information
All preparation criteria have been met for these analyses.

Sample Re-prep/Re-analysis
None of the samples in this sample set required reprep or reanalysis.

Chemical Recoveries
All chemical recoveries meet the required acceptance limits for this sample set.

Miscellaneous Information:

NCR Documentation
Nonconformance reports are generated to document any procedural anomalies that may deviate from referenced

SOP or contractual documents. An NCR was not generated for this SDG.

Additional Comments
Samples 109455021 (MW106S-0104-001), 109455022 (MW106S-0104-001(FILT)), 109455025 (MW105S-0104-001), 109455026 (MW105S-0104-001(FILT)), 109455029 (MW103S-0104-001) and 1200597586 (MW106S-0104-001) were verified by recounting at least five days from the initial count date.

Qualifier information
Manual qualifiers were not required.

Method/Analysis Information

Product:	**Liquid Scint Tc99, Liquid-ALL**
Analytical Method:	DOE EML HASL-300, Tc-02-RC Modified
Analytical Batch Number:	320141

Sample ID	Client ID
109455019	MW106D-0104-001
109455020	MW106D-0104-001(FILT)
109455021	MW106S-0104-001
109455022	MW106S-0104-001(FILT)
109455023	MW105D-0104-001(FILT)
109455024	MW105D-0104-001
109455025	MW105S-0104-001
109455026	MW105S-0104-001(FILT)
109455027	MW103D-0104-001
109455028	MW104S-0104-001
109455029	MW103S-0104-001
1200594515	Method Blank (MB)
1200594518	Laboratory Control Sample (LCS)
1200594516	109455019(MW106D-0104-001) Sample Duplicate (DUP)
1200594517	109455019(MW106D-0104-001) Matrix Spike (MS)

SOP Reference
Procedure for preparation, analysis and reporting of analytical data are controlled by General Engineering Laboratories, LLC as Standard Operating Procedure (SOP). The data discussed in this narrative has been analyzed in accordance with GL-RAD-A-005 REV# 11.

Calibration Information:

Calibration Information
All initial and continuing calibration requirements have been met.

Standards Information
Standard solution(s) for these analyses are NIST traceable and used before the expiration date(s).

Sample Geometry
All counting sources were prepared in the same geometry as the calibration standards.

Quality Control (QC) Information:

Blank Information
The blank volume is representative of the sample volume in this batch.

Designated QC

The following sample was used for QC: 109455019 (MW106D-0104-001).

QC Information
All of the QC samples met the required acceptance limits.

Technical Information:

Holding Time
All sample procedures for this sample set were performed within the required holding time.

Preparation Information
All preparation criteria have been met for these analyses.

Sample Re-prep/Re-analysis
None of the samples in this sample set required reprep or reanalysis.

Miscellaneous Information:

NCR Documentation
Nonconformance reports are generated to document any procedural anomalies that may deviate from referenced SOP or contractual documents. An NCR was not generated for this SDG.

Qualifier information
Manual qualifiers were not required.

Method/Analysis Information

Product:	**Liquid Scint Fe55, Liquid-ALL**
Analytical Method:	DOE RESL Fe-1, Modified
Analytical Batch Number:	320139

Sample ID	Client ID
109455019	MW106D-0104-001
109455020	MW106D-0104-001(FILT)
109455021	MW106S-0104-001
109455022	MW106S-0104-001(FILT)
109455023	MW105D-0104-001(FILT)
109455024	MW105D-0104-001
109455025	MW105S-0104-001
109455026	MW105S-0104-001(FILT)
109455027	MW103D-0104-001
109455028	MW104S-0104-001
109455029	MW103S-0104-001
1200594507	Method Blank (MB)
1200594510	Laboratory Control Sample (LCS)
1200594508	109455019(MW106D-0104-001) Sample Duplicate (DUP)
1200594509	109455019(MW106D-0104-001) Matrix Spike (MS)

SOP Reference
Procedure for preparation, analysis and reporting of analytical data are controlled by General Engineering Laboratories, LLC as Standard Operating Procedure (SOP). The data discussed in this narrative has been analyzed in accordance with GL-RAD-A-040 REV# 2.

Calibration Information:

Calibration Information
All initial and continuing calibration requirements have been met.

Standards Information
Standard solution(s) for these analyses are NIST traceable and used before the expiration date(s).

Sample Geometry
All counting sources were prepared in the same geometry as the calibration standards.

Quality Control (QC) Information:

Blank Information
The blank volume is representative of the sample volume in this batch.

Designated QC
The following sample was used for QC: 109455019 (MW106D-0104-001).

QC Information
All of the QC samples met the required acceptance limits.

Technical Information:

Holding Time
All sample procedures for this sample set were performed within the required holding time.

Preparation Information
All preparation criteria have been met for these analyses.

Sample Re-prep/Re-analysis
Samples 1200594509 (MW106D-0104-001) and 1200594510 (LCS) were recounted due to low/high recovery. Samples 109455019 (MW106D-0104-001), 109455020 (MW106D-0104-001(FILT)), 109455021 (MW106S-0104-001), 109455022 (MW106S-0104-001(FILT)), 109455023 (MW105D-0104-001(FILT)), 109455024 (MW105D-0104-001), 109455025 (MW105S-0104-001), 109455026 (MW105S-0104-001(FILT)), 109455027 (MW103D-0104-001), 109455028 (MW104S-0104-001), 109455029 (MW103S-0104-001), 1200594507 (MB) and 1200594508 (MW106D-0104-001) were recounted due to a negative result greater than three times the error.

Miscellaneous Information:

NCR Documentation
Nonconformance reports are generated to document any procedural anomalies that may deviate from referenced SOP or contractual documents. An NCR was not generated for this SDG.

Qualifier information
Manual qualifiers were not required.

Method/Analysis Information

Product:	**Liquid Scint Ni63, Liquid-ALL**
Analytical Method:	DOE RESL Ni-1, Modified
Analytical Batch Number:	320136

Sample ID	Client ID
109455019	MW106D-0104-001
109455020	MW106D-0104-001(FILT)
109455021	MW106S-0104-001

109455022	MW106S-0104-001(FILT)
109455023	MW105D-0104-001(FILT)
109455024	MW105D-0104-001
109455025	MW105S-0104-001
109455026	MW105S-0104-001(FILT)
109455027	MW103D-0104-001
109455028	MW104S-0104-001
109455029	MW103S-0104-001
1200594496	Method Blank (MB)
1200594499	Laboratory Control Sample (LCS)
1200594497	109455019(MW106D-0104-001) Sample Duplicate (DUP)
1200594498	109455019(MW106D-0104-001) Matrix Spike (MS)

SOP Reference
Procedure for preparation, analysis and reporting of analytical data are controlled by General Engineering Laboratories, LLC as Standard Operating Procedure (SOP). The data discussed in this narrative has been analyzed in accordance with GL-RAD-A-022 REV# 6.

Calibration Information:

Calibration Information
All initial and continuing calibration requirements have been met.

Standards Information
Standard solution(s) for these analyses are NIST traceable and used before the expiration date(s).

Sample Geometry
All counting sources were prepared in the same geometry as the calibration standards.

Quality Control (QC) Information:

Blank Information
The blank volume is representative of the sample volume in this batch.

Designated QC
The following sample was used for QC: 109455019 (MW106D-0104-001).

QC Information
All of the QC samples met the required acceptance limits.

Technical Information:

Holding Time
All sample procedures for this sample set were performed within the required holding time.

Preparation Information
All preparation criteria have been met for these analyses.

Sample Re-prep/Re-analysis
None of the samples in this sample set required reprep or reanalysis.

Miscellaneous Information:

NCR Documentation
Nonconformance reports are generated to document any procedural anomalies that may deviate from referenced SOP or contractual documents. An NCR was not generated for this SDG.

Qualifier information
Manual qualifiers were not required.

Method/Analysis Information

Product:	**LSC, Tritium Dist, Liquid-ALL,STND,MIX,PENN**
Analytical Method:	EPA 906.0 Modified
Analytical Batch Number:	320143

Sample ID	Client ID
109455001	MW122D-0104-001
109455002	MW114S-0104-001
109455003	MW210-0104-001
109455004	MW115S-0104-001
109455005	MW107D-0104-001
109455006	MW125S-0104-001
109455007	MW122S-0104-001
109455008	MW107S-0104-001
109455009	MW110S-0104-001
109455010	MW110D-0104-001
109455011	MW123S-0104-001
109455012	MW101S-0104-001
109455013	MW101D-0104-001
109455014	MW102D-0104-001
109455015	MW124S-0104-001
109455016	MW102S-0104-001
109455017	MW109S-0104-001
109455018	MW109D-0104-001
109455019	MW106D-0104-001
109455020	MW106D-0104-001(FILT)
1200594524	Method Blank (MB)
1200594527	Laboratory Control Sample (LCS)
1200594525	109455001(MW122D-0104-001) Sample Duplicate (DUP)
1200594526	109455001(MW122D-0104-001) Matrix Spike (MS)

SOP Reference
Procedure for preparation, analysis and reporting of analytical data are controlled by General Engineering Laboratories, LLC as Standard Operating Procedure (SOP). The data discussed in this narrative has been analyzed in accordance with GL-RAD-A-002 REV# 9.

Calibration Information:

Calibration Information
All initial and continuing calibration requirements have been met.

Standards Information
Standard solution(s) for these analyses are NIST traceable and used before the expiration date(s).

Sample Geometry
All counting sources were prepared in the same geometry as the calibration standards.

Quality Control (QC) Information:

Blank Information

The blank volume is representative of the sample volume in this batch.

Designated QC
The following sample was used for QC: 109455001 (MW122D-0104-001).

QC Information
All of the QC samples met the required acceptance limits.

Technical Information:

Holding Time
All sample procedures for this sample set were performed within the required holding time.

Preparation Information
All preparation criteria have been met for these analyses.

Sample Re-prep/Re-analysis
None of the samples in this sample set required reprep or reanalysis.

Miscellaneous Information:

NCR Documentation
Nonconformance reports are generated to document any procedural anomalies that may deviate from referenced SOP or contractual documents. An NCR was not generated for this SDG.

Qualifier information
Manual qualifiers were not required.

Method/Analysis Information

Product:	**LSC, Tritium Dist, Liquid-ALL,STND,MIX,PENN**
Analytical Method:	EPA 906.0 Modified
Analytical Batch Number:	320148

Sample ID	Client ID
109455021	MW106S-0104-001
109455022	MW106S-0104-001(FILT)
109455023	MW105D-0104-001(FILT)
109455024	MW105D-0104-001
109455025	MW105S-0104-001
109455026	MW105S-0104-001(FILT)
109455027	MW103D-0104-001
109455028	MW104S-0104-001
109455029	MW103S-0104-001
109455030	MW100D-0104-001
109455031	MW100S-0104-001
109455032	MWEOF2-0104-001
109455033	MW108S-0104-001
109455034	MW117S-0104-001
109455035	MW112S-0104-001
109455036	MW111S-0104-001
109455037	MW113S-0104-001
1200594532	Method Blank (MB)
1200594535	Laboratory Control Sample (LCS)
1200594533	109455021(MW106S-0104-001) Sample Duplicate (DUP)

1200594534 109455021(MW106S-0104-001) Matrix Spike (MS)

SOP Reference
Procedure for preparation, analysis and reporting of analytical data are controlled by General Engineering Laboratories, LLC as Standard Operating Procedure (SOP). The data discussed in this narrative has been analyzed in accordance with GL-RAD-A-002 REV# 9.

Calibration Information:

Calibration Information
All initial and continuing calibration requirements have been met.

Standards Information
Standard solution(s) for these analyses are NIST traceable and used before the expiration date(s).

Sample Geometry
All counting sources were prepared in the same geometry as the calibration standards.

Quality Control (QC) Information:

Blank Information
The blank volume is representative of the sample volume in this batch.

Designated QC
The following sample was used for QC: 109455021 (MW106S-0104-001).

QC Information
All of the QC samples met the required acceptance limits.

Technical Information:

Holding Time
All sample procedures for this sample set were performed within the required holding time.

Preparation Information
All preparation criteria have been met for these analyses.

Sample Re-prep/Re-analysis
None of the samples in this sample set required reprep or reanalysis.

Miscellaneous Information:

NCR Documentation
Nonconformance reports are generated to document any procedural anomalies that may deviate from referenced SOP or contractual documents. An NCR was not generated for this SDG.

Qualifier information
Manual qualifiers were not required.

Method/Analysis Information

Product:	**Liquid Scint C14, Liquid-ALL**
Analytical Method:	EPA EERF C-01 Modified
Analytical Batch Number:	320177

Sample ID	Client ID
109455019	MW106D-0104-001
109455020	MW106D-0104-001(FILT)
109455021	MW106S-0104-001
109455022	MW106S-0104-001(FILT)
109455023	MW105D-0104-001(FILT)
109455024	MW105D-0104-001
109455025	MW105S-0104-001
109455026	MW105S-0104-001(FILT)
109455027	MW103D-0104-001
109455028	MW104S-0104-001
109455029	MW103S-0104-001
1200594614	Method Blank (MB)
1200594617	Laboratory Control Sample (LCS)
1200594615	109455019(MW106D-0104-001) Sample Duplicate (DUP)
1200594616	109455019(MW106D-0104-001) Matrix Spike (MS)

SOP Reference
Procedure for preparation, analysis and reporting of analytical data are controlled by General Engineering Laboratories, LLC as Standard Operating Procedure (SOP). The data discussed in this narrative has been analyzed in accordance with GL-RAD-A-003 REV# 7.

Calibration Information:

Calibration Information
All initial and continuing calibration requirements have been met.

Standards Information
Standard solution(s) for these analyses are NIST traceable and used before the expiration date(s).

Sample Geometry
All counting sources were prepared in the same geometry as the calibration standards.

Quality Control (QC) Information:

Blank Information
The blank volume is representative of the sample volume in this batch.

Designated QC
The following sample was used for QC: 109455019 (MW106D-0104-001).

QC Information
All of the QC samples met the required acceptance limits.

Technical Information:

Holding Time
All sample procedures for this sample set were performed within the required holding time.

Preparation Information
All preparation criteria have been met for these analyses.

Sample Re-prep/Re-analysis
None of the samples in this sample set required reprep or reanalysis.

Miscellaneous Information:

NCR Documentation
Nonconformance reports are generated to document any procedural anomalies that may deviate from referenced SOP or contractual documents. An NCR was not generated for this SDG.

Qualifier information
Manual qualifiers were not required.

Certification Statement
Where the analytical method has been performed under NELAP certification, the analysis has met all of the requirements of the NELAC standard unless otherwise noted in the analytical case narrative.

Review Validation:
GEL requires all analytical data to be verified by a qualified data validator. In addition, all data designated for CLP or CLP-like packaging will receive a third level validation upon completion of the data package.
The following data validator verified the information presented in this case narrative:

Reviewer: [illegible] 4/22/04

General Engineering Laboratories
Form GEL-XXX
Rev. 06/02

NCR Report No.: 104273
Revision No.:

COMPANY - WIDE NONCONFORMANCE REPORT

Mo.Day Yr. 13-APR-04	**Division:** Radiochemistry		**Type:** Process
Instrument Type: LSC	**Quality Criteria:** Specifications		**Client Code:** YANK
Test / Method: DOE EML HASL-300, Pu-11-RC Modified	**Matrix Type:** Liquid	**Batch ID:** 321621	**Sample Numbers:** See Below

Potentially affected work order(s)(SDG): 109455(04-0732)

Application Issues:

RDL less than MDA

Specification and Requirements Nonconformance Description:	**NRG Disposition:**
Samples 109455026 and 109455029 do not meet the required detection limit. The samples were counted for one hundred and eighty minutes.	Reporting results.

Originator's Name:
Kate Gellatly 13-APR-04

Data Validator/Group Leader:
Joseph Jones 13-APR-04

Quality Review:
Lonnie Morris 15-APR-04

Corrective Action:

Director:

Corrective Action ID and Complete Date:

SAMPLE DATA SUMMARY

GENERAL ENGINEERING LABORATORIES, LLC

2040 Savage Road Charleston SC 29407 - (843) 556-8171 - www.gel.com

Certificate of Analysis

Company: CYAPCo
Address: Haddam Neck Plant
362 Injun Hollow Road
East Hampton, Connecticut 06424
Contact: Mr. David Keefer
Project: Quarterly Groundwater PO# 002337

Report Date: April 22, 2004

Client Sample ID: MW122D-0104-001
Sample ID: 109455001
Matrix: Ground Water
Collect Date: 16-MAR-04
Receive Date: 22-MAR-04
Collector: Client

Project: YANK00304
Client ID: YANK001

Parameter	Qualifier	Result	Uncertainty	LC	TPU	MDA	Units	DF	Analyst	Date	Time	Batch	Mtd.
Rad Alpha Spec Analysis													
Am241 Liquid-STND,MIX,PENN,LF													
Americium-241	U	0.0226	+/-0.060	0.0339	+/-0.060	0.148	pCi/L		JS1	04/05/04	1009	321612	1
Rad Gamma Spec Analysis													
Gammaspec, Gamma,Liquid-ALL,GAM2,STND,MIX,PENN,LF													
Americium-241	U	-1.14	+/-17.5	13.5	+/-17.2	28.5	pCi/L		SRB	04/01/04	0937	320207	2
Cesium-134	U	0.392	+/-1.84	1.54	+/-1.80	3.40	pCi/L						
Cesium-137	U	3.19	+/-2.40	2.19	+/-2.36	4.65	pCi/L						
Cobalt-60	U	1.19	+/-1.94	1.76	+/-1.90	3.93	pCi/L						
Europium-152	U	-2.09	+/-5.34	4.12	+/-5.23	8.80	pCi/L						
Europium-154	U	-6.26	+/-5.09	3.30	+/-4.99	7.72	pCi/L						
Europium-155	U	-2.88	+/-6.86	5.66	+/-6.72	11.9	pCi/L						
Manganese-54	U	1.18	+/-1.68	1.38	+/-1.65	3.05	pCi/L						
Niobium-94	U	1.58	+/-1.68	1.51	+/-1.64	3.26	pCi/L						
Silver-108m	U	-0.724	+/-1.79	1.47	+/-1.76	3.16	pCi/L						
Rad Gas Flow Proportional Counting													
GFPC, Sr90, liquid-ALL,MIX													
Strontium-90	U	0.552	+/-0.527	0.537	+/-0.542	1.14	pCi/L		LCA1	04/06/04	1203	321378	3
Gross A/B, liquid-ALL,STND,MIX,PENN,LF													
Alpha		6.20	+/-1.28	0.536	+/-1.38	1.22	pCi/L		ATH1	04/13/04	0234	321321	4
Beta		6.64	+/-0.977	0.529	+/-0.979	1.12	pCi/L						
Rad Liquid Scintillation Analysis													
LSC, Tritium Dist, Liquid-ALL,STND,MIX,PENN													
Tritium	U	32.9	+/-180	149	+/-180	298	pCi/L		CTO1	04/02/04	2025	320143	5

The following Prep Methods were performed

Method	Description	Analyst	Date	Time	Prep Batch
SW846 3005A	ICP-MS 3005 PREP	ARG1	04/14/04	0800	321016
SW846 3005A	ICP-TRACE SW846 3005A	ARG1	04/14/04	0800	320990

The following Analytical Methods were performed

Method	Description
1	DOE EML HASL-300, Am-05-RC Modified
2	EPA 901.1

GENERAL ENGINEERING LABORATORIES, LLC

2040 Savage Road Charleston SC 29407 - (843) 556-8171 - www.gel.com

Certificate of Analysis

Company: CYAPCo
Address: Haddam Neck Plant
362 Injun Hollow Road
East Hampton, Connecticut 06424
Contact: Mr. David Keefer
Project: Quarterly Groundwater PO# 002337

Report Date: April 22, 2004

Client Sample ID: MW122D-0104-001
Sample ID: 109455001

Project: YANK00304
Client ID: YANK001

Parameter	Qualifier	Result	Uncertainty	LC	TPU	MDA	Units	DF	AnalystDate	Time	Batch Mtd.
3	EPA 905.0 Modified										
4	EPA 900.0										
5	EPA 906.0 Modified										

Surrogate/Tracer recovery	Test	Recovery%	Acceptable Limits
Americium-243	Am241 Liquid-STND,MIX,PENN	94	(25%-125%)
Carrier/Tracer Recovery	GFPC, Sr90, liquid-ALL,MIX	97	

Notes:
The Qualifiers in this report are defined as follows:

B Target analyte was detected in the sample as well as the associated blank.
BD Flag for results below the MDC or a flag for low tracer recovery.
E Concentration of the target analyte exceeds the instrument calibration range.
H Analytical holding time exceeded.
J Indicates an estimated value. The result was greater than the detection limit, but less than the reporting limit.
U Indicates the target analyte was analyzed for but not detected above the detection limit.
UI Uncertain identification for gamma spectroscopy.
X Lab-specific qualifier-please see case narrative, data summary package or contact your project manager for details.
h Sample preparation or preservation holding time exceeded.

The above sample is reported on an "as received" basis.

This data report has been prepared and reviewed in accordance with General Engineering Laboratories, LLC standard operating procedures. Please direct any questions to your Project Manager, Sarah Kozlik.

Heather M Cercal
Reviewed by

GENERAL ENGINEERING LABORATORIES, LLC

2040 Savage Road Charleston SC 29407 - (843) 556-8171 - www.gel.com

Certificate of Analysis

Company: CYAPCo
Address: Haddam Neck Plant
362 Injun Hollow Road
East Hampton, Connecticut 06424
Contact: Mr. David Keefer
Project: Quarterly Groundwater PO# 002337

Report Date: April 22, 2004

Client Sample ID: MW114S-0104-001
Sample ID: 109455002
Matrix: Ground Water
Collect Date: 17-MAR-04
Receive Date: 22-MAR-04
Collector: Client

Project: YANK00304
Client ID: YANK001

Parameter	Qualifier	Result	Uncertainty	LC	TPU	MDA	Units	DF	Analyst	Date	Time	Batch	Mtd.
Rad Alpha Spec Analysis													
Am241 Liquid-STND,MIX,PENN,LF													
Americium-241	U	0.0928	+/-0.135	0.0845	+/-0.135	0.259	pCi/L		JS1	04/05/04	1009	321612	1
Rad Gamma Spec Analysis													
Gammaspec, Gamma,Liquid-ALL,GAM2,STND,MIX,PENN,LF													
Americium-241	U	3.42	+/-3.72	3.21	+/-3.65	6.68	pCi/L		SRB	04/01/04	0938	320207	2
Cesium-134	U	1.20	+/-2.74	2.15	+/-2.69	4.72	pCi/L						
Cesium-137	U	-0.398	+/-2.28	1.88	+/-2.23	4.12	pCi/L						
Cobalt-60	U	-3.31	+/-3.38	1.97	+/-3.31	4.49	pCi/L						
Europium-152	U	3.95	+/-5.89	5.11	+/-5.77	10.9	pCi/L						
Europium-154	U	-7.34	+/-7.01	4.92	+/-6.87	11.3	pCi/L						
Europium-155	U	2.14	+/-5.77	4.73	+/-5.66	9.90	pCi/L						
Manganese-54	U	-0.377	+/-2.35	1.91	+/-2.30	4.19	pCi/L						
Niobium-94	U	-0.732	+/-2.28	1.85	+/-2.23	4.02	pCi/L						
Silver-108m	U	-0.612	+/-2.20	1.74	+/-2.16	3.73	pCi/L						
Rad Gas Flow Proportional Counting													
GFPC, Sr90, liquid-ALL,MIX													
Strontium-90		3.92	+/-0.793	0.572	+/-1.18	1.21	pCi/L		LCA1	04/06/04	1203	321378	3
Gross A/B, liquid-ALL,STND,MIX,PENN,LF													
Alpha	U	0.217	+/-1.07	0.805	+/-1.08	1.79	pCi/L		ATH1	04/13/04	0234	321321	4
Beta		18.5	+/-1.55	0.664	+/-1.58	1.40	pCi/L						
Rad Liquid Scintillation Analysis													
LSC, Tritium Dist, Liquid-ALL,STND,MIX,PENN													
Tritium		1350	+/-260	146	+/-261	292	pCi/L		CTO1	04/02/04	2111	320143	5

The following Prep Methods were performed

Method	Description	Analyst	Date	Time	Prep Batch
SW846 3005A	ICP-MS 3005 PREP	ARG1	04/14/04	0800	321016
SW846 3005A	ICP-TRACE SW846 3005A	ARG1	04/14/04	0800	320990

The following Analytical Methods were performed

Method	Description
1	DOE EML HASL-300, Am-05-RC Modified
2	EPA 901.1

GENERAL ENGINEERING LABORATORIES, LLC

2040 Savage Road Charleston SC 29407 - (843) 556-8171 - www.gel.com

Certificate of Analysis

Company: CYAPCo
Address: Haddam Neck Plant
362 Injun Hollow Road
East Hampton, Connecticut 06424
Contact: Mr. David Keefer
Project: Quarterly Groundwater PO# 002337

Report Date: April 22, 2004

Client Sample ID: MW114S-0104-001
Sample ID: 109455002

Project: YANK00304
Client ID: YANK001

Parameter	Qualifier	Result	Uncertainty	LC	TPU	MDA	Units	DF	AnalystDate	Time	Batch Mtd.
3	EPA 905.0 Modified										
4	EPA 900.0										
5	EPA 906.0 Modified										

Surrogate/Tracer recovery	Test	Recovery%	Acceptable Limits
Americium-243	Am241 Liquid-STND,MIX,PENN	84	(25%-125%)
Carrier/Tracer Recovery	GFPC, Sr90, liquid-ALL,MIX	103	

Notes:
The Qualifiers in this report are defined as follows:

B Target analyte was detected in the sample as well as the associated blank.
BD Flag for results below the MDC or a flag for low tracer recovery.
E Concentration of the target analyte exceeds the instrument calibration range.
H Analytical holding time exceeded.
J Indicates an estimated value. The result was greater than the detection limit, but less than the reporting limit.
U Indicates the target analyte was analyzed for but not detected above the detection limit.
UI Uncertain identification for gamma spectroscopy.
X Lab-specific qualifier-please see case narrative, data summary package or contact your project manager for details.
h Sample preparation or preservation holding time exceeded.

The above sample is reported on an "as received" basis.

This data report has been prepared and reviewed in accordance with General Engineering Laboratories, LLC standard operating procedures. Please direct any questions to your Project Manager, Sarah Kozlik.

Reviewed by

GENERAL ENGINEERING LABORATORIES, LLC

2040 Savage Road Charleston SC 29407 - (843) 556-8171 - www.gel.com

Certificate of Analysis

Company: CYAPCo
Address: Haddam Neck Plant
362 Injun Hollow Road
East Hampton, Connecticut 06424
Contact: Mr. David Keefer
Project: Quarterly Groundwater PO# 002337

Report Date: April 22, 2004

Client Sample ID: MW210-0104-001
Sample ID: 109455003
Matrix: Ground Water
Collect Date: 17-MAR-04
Receive Date: 22-MAR-04
Collector: Client

Project: YANK00304
Client ID: YANK001

Parameter	Qualifier	Result	Uncertainty	LC	TPU	MDA	Units	DF	Analyst	Date	Time	Batch	Mtd.
Rad Alpha Spec Analysis													
Am241 Liquid-STND,MIX,PENN,LF													
Americium-241	U	0.0467	+/-0.105	0.072	+/-0.106	0.243	pCi/L		JS1	04/05/04	1009	321612	1
Rad Gamma Spec Analysis													
Gammaspec, Gamma,Liquid-ALL,GAM2,STND,MIX,PENN,LF													
Americium-241	U	-3.22	+/-11.0	8.88	+/-10.8	18.4	pCi/L		SRB	04/01/04	1036	320207	2
Cesium-134	U	2.28	+/-2.86	2.59	+/-2.80	5.65	pCi/L						
Cesium-137	U	0.00	+/-4.48	4.18	+/-4.39	8.75	pCi/L						
	UI												
Cobalt-60	U	-0.885	+/-2.46	1.86	+/-2.41	4.31	pCi/L						
Europium-152	U	0.965	+/-7.68	6.41	+/-7.53	13.5	pCi/L						
Europium-154	U	-1.54	+/-6.97	5.46	+/-6.83	12.5	pCi/L						
Europium-155	U	-5.85	+/-9.33	7.27	+/-9.15	15.1	pCi/L						
Manganese-54	U	-0.381	+/-2.61	2.15	+/-2.56	4.71	pCi/L						
Niobium-94	U	-0.999	+/-2.46	1.86	+/-2.41	4.08	pCi/L						
Silver-108m	U	0.844	+/-3.34	2.21	+/-3.27	4.71	pCi/L						
Rad Gas Flow Proportional Counting													
GFPC, Sr-90, liquid-ALL,MIX													
Strontium-90		3.39	+/-0.726	0.521	+/-1.07	1.11	pCi/L		LCA1	04/06/04	1203	321378	3
Gross A/B, liquid-ALL,STND,MIX,PENN,LF													
Alpha	U	1.79	+/-1.41	0.832	+/-1.48	1.91	pCi/L		ATH1	04/13/04	1341	321321	4
Beta		16.3	+/-1.66	0.707	+/-1.69	1.51	pCi/L						
Rad Liquid Scintillation Analysis													
LSC, Tritium Dist, Liquid-ALL,STND,MIX,PENN													
Tritium		1570	+/-266	142	+/-267	284	pCi/L		CTO1	04/02/04	2157	320143	5

The following Prep Methods were performed

Method	Description	Analyst	Date	Time	Prep Batch
SW846 3005A	ICP-MS 3005 PREP	ARG1	04/14/04	0800	321016
SW846 3005A	ICP-TRACE SW846 3005A	ARG1	04/14/04	0800	320990

The following Analytical Methods were performed

Method	Description
1	DOE EML HASL-300, Am-05-RC Modified

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Certificate of Analysis

Company: CYAPCo
Address: Haddam Neck Plant
362 Injun Hollow Road
East Hampton, Connecticut 06424
Contact: Mr. David Keefer
Project: Quarterly Groundwater PO# 002337

Report Date: April 22, 2004

Client Sample ID: MW210-0104-001
Sample ID: 109455003

Project: YANK00304
Client ID: YANK001

Parameter	Qualifier	Result	Uncertainty	LC	TPU	MDA	Units	DF	AnalystDate	Time	Batch Mtd.
2	EPA 901.1										
3	EPA 905.0 Modified										
4	EPA 900.0										
5	EPA 906.0 Modified										

Surrogate/Tracer recovery	Test	Recovery%	Acceptable Limits
Americium-243	Am241 Liquid-STND,MIX,PENN	75	(25%-125%)
Carrier/Tracer Recovery	GFPC, Sr90, liquid-ALL,MIX	98	

Notes:
The Qualifiers in this report are defined as follows:

B Target analyte was detected in the sample as well as the associated blank.
BD Flag for results below the MDC or a flag for low tracer recovery.
E Concentration of the target analyte exceeds the instrument calibration range.
H Analytical holding time exceeded.
J Indicates an estimated value. The result was greater than the detection limit, but less than the reporting limit.
U Indicates the target analyte was analyzed for but not detected above the detection limit.
UI Uncertain identification for gamma spectroscopy.
X Lab-specific qualifier-please see case narrative, data summary package or contact your project manager for details.
h Sample preparation or preservation holding time exceeded.
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This data report has been prepared and reviewed in accordance with General Engineering Laboratories, LLC standard operating procedures. Please direct any questions to your Project Manager, Sarah Kozlik.

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Certificate of Analysis

Company: CYAPCo
Address: Haddam Neck Plant
362 Injun Hollow Road
East Hampton, Connecticut 06424
Contact: Mr. David Keefer
Project: Quarterly Groundwater PO# 002337

Report Date: April 22, 2004

Client Sample ID: MW115S-0104-001
Sample ID: 109455004
Matrix: Ground Water
Collect Date: 17-MAR-04
Receive Date: 22-MAR-04
Collector: Client

Project: YANK00304
Client ID: YANK001

Parameter	Qualifier	Result	Uncertainty	LC	TPU	MDA	Units	DF	Analyst	Date	Time	Batch	Mtd.
Rad Alpha Spec Analysis													
Am241 Liquid-STND,MIX,PENN,LF													
Americium-241	U	-0.0214	+/-0.0242	0.0587	+/-0.0243	0.198	pCi/L		JS1	04/05/04	1009	321612	1
Rad Gamma Spec Analysis													
Gammaspec, Gamma,Liquid-ALL,GAM2,STND,MIX,PENN,LF													
Americium-241	U	-8.68	+/-11.2	8.20	+/-11.0	17.1	pCi/L		SRB	04/01/04	1358	320207	2
Cesium-134	U	1.31	+/-1.90	1.68	+/-1.86	3.65	pCi/L						
Cesium-137	U	2.84	+/-1.75	1.67	+/-1.72	3.60	pCi/L						
Cobalt-60	U	1.26	+/-1.88	1.72	+/-1.84	3.83	pCi/L						
Europium-152	U	-2.52	+/-5.24	4.05	+/-5.14	8.60	pCi/L						
Europium-154	U	2.03	+/-5.22	4.43	+/-5.12	9.90	pCi/L						
Europium-155	U	5.11	+/-6.66	5.80	+/-6.52	12.0	pCi/L						
Manganese-54	U	-0.278	+/-1.72	1.39	+/-1.69	3.05	pCi/L						
Niobium-94	U	0.252	+/-1.40	1.18	+/-1.37	2.59	pCi/L						
Silver-108m	U	-0.445	+/-1.60	1.23	+/-1.57	2.66	pCi/L						
Rad Gas Flow Proportional Counting													
GFPC, Sr-90, liquid-ALL,MIX													
Strontium-90		1.64	+/-0.723	0.676	+/-0.830	1.42	pCi/L		LCA1	04/06/04	1203	321378	3
Gross A/B, liquid-ALL,STND,MIX,PENN,LF													
Alpha	U	1.42	+/-1.09	0.713	+/-1.11	1.67	pCi/L		ATH1	04/13/04	1341	321321	4
Beta		8.62	+/-1.29	0.704	+/-1.29	1.50	pCi/L						
Rad Liquid Scintillation Analysis													
LSC, Tritium Dist, Liquid-ALL,STND,MIX,PENN													
Tritium		5740	+/-432	145	+/-442	290	pCi/L		CTO1	04/02/04	2243	320143	5

The following Prep Methods were performed

Method	Description	Analyst	Date	Time	Prep Batch
SW846 3005A	ICP-MS 3005 PREP	ARG1	04/14/04	0800	321016
SW846 3005A	ICP-TRACE SW846 3005A	ARG1	04/14/04	0800	320990

The following Analytical Methods were performed

Method	Description
1	DOE EML HASL-300, Am-05-RC Modified
2	EPA 901.1

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East Hampton, Connecticut 06424
Contact: Mr. David Keefer
Project: Quarterly Groundwater PO# 002337

Report Date: April 22, 2004

Client Sample ID: MW115S-0104-001
Sample ID: 109455004

Project: YANK00304
Client ID: YANK001

Parameter	Qualifier	Result	Uncertainty	LC	TPU	MDA	Units	DF	AnalystDate	Time	Batch Mtd.
3	EPA 905.0 Modified										
4	EPA 900.0										
5	EPA 906.0 Modified										

Surrogate/Tracer recovery	Test	Recovery%	Acceptable Limits
Americium-243	Am241 Liquid-STND,MIX,PENN	96	(25%-125%)
Carrier/Tracer Recovery	GFPC, Sr90, liquid-ALL,MIX	91	

Notes:
The Qualifiers in this report are defined as follows :

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E Concentration of the target analyte exceeds the instrument calibration range.
H Analytical holding time exceeded.
J Indicates an estimated value. The result was greater than the detection limit, but less than the reporting limit.
U Indicates the target analyte was analyzed for but not detected above the detection limit.
UI Uncertain identification for gamma spectroscopy.
X Lab-specific qualifier-please see case narrative, data summary package or contact your project manager for details.
h Sample preparation or preservation holding time exceeded.

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Certificate of Analysis

Company: CYAPCo
Address: Haddam Neck Plant
362 Injun Hollow Road
East Hampton, Connecticut 06424
Contact: Mr. David Keefer
Project: Quarterly Groundwater PO# 002337

Report Date: April 22, 2004

Client Sample ID: MW107D-0104-001
Sample ID: 109455005
Matrix: Ground Water
Collect Date: 16-MAR-04
Receive Date: 22-MAR-04
Collector: Client

Project: YANK00304
Client ID: YANK001

Parameter	Qualifier	Result	Uncertainty	LC	TPU	MDA	Units	DF	Analyst	Date	Time	Batch	Mtd.
Rad Alpha Spec Analysis													
Am241 Liquid-STND,MIX,PENN,LF													
Americium-241	U	-0.0366	+/-0.0762	0.108	+/-0.0763	0.301	pCi/L		JS1	04/05/04	1009	321612	1
Rad Gamma Spec Analysis													
Gammaspec, Gamma,Liquid-ALL,GAM2,STND,MIX,PENN,LF													
Americium-241	U	16.9	+/-18.5	14.4	+/-18.1	29.5	pCi/L		SRB	04/01/04	1400	320207	2
Cesium-134	U	1.32	+/-2.54	2.19	+/-2.49	4.71	pCi/L						
Cesium-137	U	-0.194	+/-2.86	2.06	+/-2.80	4.40	pCi/L						
Cobalt-60	U	0.831	+/-2.35	2.04	+/-2.30	4.49	pCi/L						
Europium-152	U	-3.35	+/-8.06	6.50	+/-7.90	13.6	pCi/L						
Europium-154	U	-1.16	+/-7.54	6.17	+/-7.39	13.5	pCi/L						
Europium-155	U	4.00	+/-10.3	8.52	+/-10.1	17.5	pCi/L						
Manganese-54	U	-0.117	+/-2.28	1.87	+/-2.24	4.03	pCi/L						
Niobium-94	U	0.763	+/-3.89	2.03	+/-3.82	4.31	pCi/L						
Silver-108m	U	-0.964	+/-2.43	1.92	+/-2.38	4.05	pCi/L						
Rad Gas Flow Proportional Counting													
GFPC, Sr90, liquid-ALL,MIX													
Strontium-90	U	0.224	+/-0.533	0.580	+/-0.536	1.23	pCi/L		LCA1	04/06/04	1203	321378	3
Gross A/B, liquid-ALL,STND,MIX,PENN,LF													
Alpha		1.33	+/-0.752	0.463	+/-0.770	1.09	pCi/L		ATH1	04/13/04	1341	321321	4
Beta		5.79	+/-0.988	0.534	+/-0.990	1.15	pCi/L						
Rad Liquid Scintillation Analysis													
LSC, Tritium Dist, Liquid-ALL,STND,MIX,PENN													
Tritium		732	+/-222	144	+/-222	288	pCi/L		CTO1	04/02/04	2329	320143	5

The following Prep Methods were performed

Method	Description	Analyst	Date	Time	Prep Batch
SW846 3005A	ICP-MS 3005 PREP	ARG1	04/14/04	0800	321016
SW846 3005A	ICP-TRACE SW846 3005A	ARG1	04/14/04	0800	320990

The following Analytical Methods were performed

Method	Description
1	DOE EML HASL-300, Am-05-RC Modified
2	EPA 901.1

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East Hampton, Connecticut 06424
Contact: Mr. David Keefer
Project: Quarterly Groundwater PO# 002337

Report Date: April 22, 2004

Client Sample ID: MW107D-0104-001
Sample ID: 109455005

Project: YANK00304
Client ID: YANK001

Parameter	Qualifier	Result	Uncertainty	LC	TPU	MDA	Units	DF	AnalystDate	Time	Batch Mtd.
3	EPA 905.0 Modified										
4	EPA 900.0										
5	EPA 906.0 Modified										

Surrogate/Tracer recovery	Test	Recovery%	Acceptable Limits
Americium-243	Am241 Liquid-STND,MIX,PENN	85	(25%-125%)
Carrier/Tracer Recovery	GFPC, Sr90, liquid-ALL,MIX	89	

Notes:
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H Analytical holding time exceeded.
J Indicates an estimated value. The result was greater than the detection limit, but less than the reporting limit.
U Indicates the target analyte was analyzed for but not detected above the detection limit.
UI Uncertain identification for gamma spectroscopy.
X Lab-specific qualifier-please see case narrative, data summary package or contact your project manager for details.
h Sample preparation or preservation holding time exceeded.
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Heather G Carroll

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Certificate of Analysis

Company: CYAPCo
Address: Haddam Neck Plant
362 Injun Hollow Road
East Hampton, Connecticut 06424
Contact: Mr. David Keefer
Project: Quarterly Groundwater PO# 002337

Report Date: April 22, 2004

Client Sample ID: MW125S-0104-001
Sample ID: 109455006
Matrix: Ground Water
Collect Date: 16-MAR-04
Receive Date: 22-MAR-04
Collector: Client

Project: YANK00304
Client ID: YANK001

Parameter	Qualifier	Result	Uncertainty	LC	TPU	MDA	Units	DF	AnalystDate	Time	Batch	Mtd.
Rad Alpha Spec Analysis												
Am241 Liquid-STND,MIX,PENN,LF												
Americium-241	U	0.0108	+/-0.112	0.113	+/-0.112	0.307	pCi/L		JS1 04/05/04	1009	321612	1
Rad Gamma Spec Analysis												
Gammaspec, Gamma,Liquid-ALL,GAM2,STND,MIX,PENN,LF												
Americium-241	U	11.4	+/-12.4	10.2	+/-12.1	21.3	pCi/L		SRB 04/01/04	1400	320207	2
Cesium-134	U	-1.01	+/-1.75	1.34	+/-1.72	2.91	pCi/L					
Cesium-137	U	0.849	+/-1.53	1.33	+/-1.50	2.86	pCi/L					
Cobalt-60	U	-0.98	+/-1.50	1.11	+/-1.47	2.54	pCi/L					
Europium-152	U	-1.19	+/-4.57	3.60	+/-4.48	7.61	pCi/L					
Europium-154	U	0.205	+/-4.18	3.49	+/-4.10	7.83	pCi/L					
Europium-155	U	1.37	+/-5.90	5.08	+/-5.78	10.6	pCi/L					
Manganese-54	U	-0.228	+/-1.51	1.20	+/-1.48	2.62	pCi/L					
Niobium-94	U	-0.763	+/-1.21	0.919	+/-1.18	2.02	pCi/L					
Silver-108m	U	0.174	+/-1.50	1.28	+/-1.47	2.72	pCi/L					
Rad Gas Flow Proportional Counting												
GFPC, Sr90, liquid-ALL,MIX												
Strontium-90		3.15	+/-0.786	0.609	+/-1.11	1.29	pCi/L		LCA1 04/06/04	1203	321378	3
Gross A/B, liquid-ALL,STND,MIX,PENN,LF												
Alpha	U	1.05	+/-0.808	0.499	+/-0.813	1.22	pCi/L		ATH1 04/13/04	1341	321321	4
Beta		8.89	+/-1.24	0.630	+/-1.25	1.35	pCi/L					
Rad Liquid Scintillation Analysis												
LSC, Tritium Dist, Liquid-ALL,STND,MIX,PENN												
Tritium		2350	+/-311	148	+/-313	296	pCi/L		CTO1 04/03/04	0015	320143	5

The following Prep Methods were performed

Method	Description	Analyst	Date	Time	Prep Batch
SW846 3005A	ICP-MS 3005 PREP	ARG1	04/14/04	0800	321016
SW846 3005A	ICP-TRACE SW846 3005A	ARG1	04/14/04	0800	320990

The following Analytical Methods were performed

Method	Description
1	DOE EML HASL-300, Am-05-RC Modified
2	EPA 901.1

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Company: CYAPCo
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362 Injun Hollow Road
East Hampton, Connecticut 06424
Contact: Mr. David Keefer
Project: Quarterly Groundwater PO# 002337

Report Date: April 22, 2004

Client Sample ID: MW125S-0104-001
Sample ID: 109455006

Project: YANK00304
Client ID: YANK001

Parameter	Qualifier	Result	Uncertainty	LC	TPU	MDA	Units	DF	AnalystDate	Time	Batch Mtd.
3	EPA 905.0 Modified										
4	EPA 900.0										
5	EPA 906.0 Modified										

Surrogate/Tracer recovery	Test	Recovery%	Acceptable Limits
Americium-243	Am241 Liquid-STND,MIX,PENN	91	(25%-125%)
Carrier/Tracer Recovery	GFPC, Sr90, liquid-ALL,MIX	92	

Notes:
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E Concentration of the target analyte exceeds the instrument calibration range.
H Analytical holding time exceeded.
J Indicates an estimated value. The result was greater than the detection limit, but less than the reporting limit.
U Indicates the target analyte was analyzed for but not detected above the detection limit.
UI Uncertain identification for gamma spectroscopy.
X Lab-specific qualifier-please see case narrative, data summary package or contact your project manager for details.
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Certificate of Analysis

Company: CYAPCo
Address: Haddam Neck Plant
362 Injun Hollow Road
East Hampton, Connecticut 06424
Contact: Mr. David Keefer
Project: Quarterly Groundwater PO# 002337

Report Date: April 22, 2004

Client Sample ID: MW122S-0104-001
Sample ID: 109455007
Matrix: Ground Water
Collect Date: 16-MAR-04
Receive Date: 22-MAR-04
Collector: Client

Project: YANK00304
Client ID: YANK001

Parameter	Qualifier	Result	Uncertainty	LC	TPU	MDA	Units	DF	Analyst	Date	Time	Batch	Mtd.
Rad Alpha Spec Analysis													
Am241 Liquid-STND,MIX,PENN,LF													
Americium-241	U	0.104	+/-0.156	0.117	+/-0.157	0.317	pCi/L		JS1	04/05/04	1040	321612	1
Rad Gamma Spec Analysis													
Gammaspec, Gamma,Liquid-ALL,GAM2,STND,MIX,PENN,LF													
Americium-241	U	3.59	+/-13.5	10.8	+/-13.2	22.4	pCi/L		SRB	04/01/04	1401	320207	2
Cesium-134	U	0.347	+/-1.91	1.60	+/-1.88	3.49	pCi/L						
Cesium-137	U	-1.27	+/-1.97	1.53	+/-1.93	3.31	pCi/L						
Cobalt-60	U	-0.493	+/-1.89	1.50	+/-1.85	3.40	pCi/L						
Europium-152	U	-1.94	+/-6.30	4.97	+/-6.18	10.4	pCi/L						
Europium-154	U	-1.9	+/-5.30	4.18	+/-5.20	9.43	pCi/L						
Europium-155	U	6.56	+/-7.84	6.89	+/-7.68	14.2	pCi/L						
Manganese-54	U	2.03	+/-1.81	0.962	+/-1.77	2.20	pCi/L						
Niobium-94	U	0.433	+/-1.85	1.56	+/-1.81	3.34	pCi/L						
Silver-108m	U	-0.0733	+/-1.95	1.54	+/-1.91	3.28	pCi/L						
Rad Gas Flow Proportional Counting													
GFPC, Sr90, liquid-ALL,MIX													
Strontium-90	U	0.644	+/-0.544	0.551	+/-0.564	1.17	pCi/L		LCA1	04/06/04	1203	321378	3
Gross A/B, liquid-ALL,STND,MIX,PENN,LF													
Alpha	U	0.710	+/-0.880	0.664	+/-0.884	1.58	pCi/L		ATH1	04/13/04	1341	321321	4
Beta		6.46	+/-1.17	0.702	+/-1.17	1.50	pCi/L						
Rad Liquid Scintillation Analysis													
LSC, Tritium Dist, Liquid-ALL,STND,MIX,PENN													
Tritium		750	+/-220	141	+/-220	283	pCi/L		CTO1	04/03/04	0101	320143	5

The following Prep Methods were performed

Method	Description	Analyst	Date	Time	Prep Batch
SW846 3005A	ICP-MS 3005 PREP	ARG1	04/14/04	0800	321016
SW846 3005A	ICP-TRACE SW846 3005A	ARG1	04/14/04	0800	320990

The following Analytical Methods were performed

Method	Description
1	DOE EML HASL-300, Am-05-RC Modified
2	EPA 901.1

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Address: Haddam Neck Plant
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East Hampton, Connecticut 06424
Contact: Mr. David Keefer
Project: Quarterly Groundwater PO# 002337

Report Date: April 22, 2004

Client Sample ID: MW122S-0104-001
Sample ID: 109455007

Project: YANK00304
Client ID: YANK001

Parameter	Qualifier	Result	Uncertainty	LC	TPU	MDA	Units	DF	AnalystDate	Time	Batch Mtd.
3	EPA 905.0 Modified										
4	EPA 900.0										
5	EPA 906.0 Modified										

Surrogate/Tracer recovery	Test	Recovery%	Acceptable Limits
Americium-243	Am241 Liquid-STND,MIX,PENN	93	(25%-125%)
Carrier/Tracer Recovery	GFPC, Sr90, liquid-ALL,MIX	98	

Notes:
The Qualifiers in this report are defined as follows:

B Target analyte was detected in the sample as well as the associated blank.
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Company : CYAPCo
Address : Haddam Neck Plant
362 Injun Hollow Road
East Hampton, Connecticut 06424
Contact: Mr. David Keefer
Project: Quarterly Groundwater PO# 002337

Report Date: April 22, 2004

Client Sample ID: MW107S-0104-001
Sample ID: 109455008
Matrix: Ground Water
Collect Date: 15-MAR-04
Receive Date: 22-MAR-04
Collector: Client

Project: YANK00304
Client ID: YANK001

Parameter	Qualifier	Result	Uncertainty	LC	TPU	MDA	Units	DF	Analyst	Date	Time	Batch	Mtd.
Rad Alpha Spec Analysis													
Am241 Liquid-STND,MIX,PENN,LF													
Americium-241	U	0.110	+/-0.178	0.143	+/-0.179	0.373	pCi/L		JS1	04/05/04	1040	321612	1
Rad Gamma Spec Analysis													
Gammaspec, Gamma,Liquid-ALL,GAM2,STND,MIX,PENN,LF													
Americium-241	U	-13.2	+/-12.4	8.52	+/-12.1	17.9	pCi/L		SRB	04/01/04	1402	320207	2
Cesium-134	U	-1.22	+/-2.20	1.62	+/-2.16	3.59	pCi/L						
Cesium-137	U	1.40	+/-1.82	1.61	+/-1.78	3.52	pCi/L						
Cobalt-60	U	-0.18	+/-2.30	1.85	+/-2.25	4.16	pCi/L						
Europium-152	U	-2.15	+/-8.60	4.43	+/-8.43	9.47	pCi/L						
Europium-154	U	2.42	+/-5.68	4.96	+/-5.57	11.2	pCi/L						
Europium-155	U	-1.28	+/-7.24	5.97	+/-7.10	12.5	pCi/L						
Manganese-54	U	-0.106	+/-2.15	1.80	+/-2.11	3.93	pCi/L						
Niobium-94	U	0.146	+/-1.84	1.50	+/-1.80	3.26	pCi/L						
Silver-108m	U	-1.15	+/-1.85	1.45	+/-1.81	3.13	pCi/L						
Rad Gas Flow Proportional Counting													
GFPC, Sr-90, liquid-ALL,MIX													
Strontium-90	U	0.322	+/-0.599	0.650	+/-0.604	1.37	pCi/L		LCA1	04/06/04	1203	321378	3
Gross A/B, liquid-ALL,STND,MIX,PENN,LF													
Alpha	U	0.392	+/-0.637	0.533	+/-0.637	1.28	pCi/L		ATH1	04/13/04	1341	321321	4
Beta		1.55	+/-0.776	0.634	+/-0.776	1.36	pCi/L						
Rad Liquid Scintillation Analysis													
LSC, Tritium Dist, Liquid-ALL,STND,MIX,PENN													
Tritium	U	225	+/-190	146	+/-190	291	pCi/L		CTO1	04/03/04	0147	320143	5

The following Prep Methods were performed

Method	Description	Analyst	Date	Time	Prep Batch
SW846 3005A	ICP-MS 3005 PREP	ARG1	04/14/04	0800	321016
SW846 3005A	ICP-TRACE SW846 3005A	ARG1	04/14/04	0800	320990

The following Analytical Methods were performed

Method	Description
1	DOE EML HASL-300, Am-05-RC Modified
2	EPA 901.1

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Certificate of Analysis

Company: CYAPCo
Address: Haddam Neck Plant
362 Injun Hollow Road
East Hampton, Connecticut 06424
Contact: Mr. David Keefer
Project: Quarterly Groundwater PO# 002337

Report Date: April 22, 2004

Client Sample ID: MW107S-0104-001
Sample ID: 109455008

Project: YANK00304
Client ID: YANK001

Parameter	Qualifier	Result	Uncertainty	LC	TPU	MDA	Units	DF	AnalystDate	Time	Batch Mtd.
3	EPA 905.0 Modified										
4	EPA 900.0										
5	EPA 906.0 Modified										

Surrogate/Tracer recovery	Test	Recovery%	Acceptable Limits
Americium-243	Am241 Liquid-STND,MIX,PENN	90	(25%-125%)
Carrier/Tracer Recovery	GFPC, Sr90, liquid-ALL,MIX	91	

Notes:
The Qualifiers in this report are defined as follows:

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E Concentration of the target analyte exceeds the instrument calibration range.
H Analytical holding time exceeded.
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U Indicates the target analyte was analyzed for but not detected above the detection limit.
UI Uncertain identification for gamma spectroscopy.
X Lab-specific qualifier-please see case narrative, data summary package or contact your project manager for details.
h Sample preparation or preservation holding time exceeded.
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Heather T Crow
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Certificate of Analysis

Company: CYAPCo
Address: Haddam Neck Plant
362 Injun Hollow Road
East Hampton, Connecticut 06424
Contact: Mr. David Keefer
Project: Quarterly Groundwater PO# 002337

Report Date: April 22, 2004

Client Sample ID: MW110S-0104-001
Sample ID: 109455009
Matrix: Ground Water
Collect Date: 17-MAR-04
Receive Date: 22-MAR-04
Collector: Client

Project: YANK00304
Client ID: YANK001

Parameter	Qualifier	Result	Uncertainty	LC	TPU	MDA	Units	DF	Analyst	Date	Time	Batch	Mtd.
Rad Alpha Spec Analysis													
Am241 Liquid-STND,MIX,PENN,LF													
Americium-241	U	-0.0429	+/-0.104	0.134	+/-0.104	0.354	pCi/L		JS1	04/05/04	1040	321612	1
Rad Gamma Spec Analysis													
Gammaspec, Gamma,Liquid-ALL,GAM2,STND,MIX,PENN,LF													
Americium-241	U	4.88	+/-10.1	8.21	+/-9.93	17.3	pCi/L		SRB	04/01/04	1403	320207	2
Cesium-134	U	0.739	+/-2.01	1.71	+/-1.97	3.75	pCi/L						
Cesium-137	U	0.128	+/-1.88	1.56	+/-1.84	3.41	pCi/L						
Cobalt-60	U	0.291	+/-2.02	1.71	+/-1.98	3.86	pCi/L						
Europium-152	U	4.28	+/-5.50	4.68	+/-5.39	9.96	pCi/L						
Europium-154	U	0.463	+/-4.23	3.59	+/-4.15	8.39	pCi/L						
Europium-155	U	5.24	+/-6.81	5.98	+/-6.67	12.5	pCi/L						
Manganese-54	U	0.726	+/-2.11	1.78	+/-2.07	3.87	pCi/L						
Niobium-94	U	0.432	+/-1.64	1.39	+/-1.61	3.04	pCi/L						
Silver-108m	U	0.273	+/-1.69	1.45	+/-1.66	3.12	pCi/L						
Rad Gas Flow Proportional Counting													
GFPC, Sr90, liquid-ALL,MIX													
Strontium-90	U	-0.753	+/-0.648	0.810	+/-0.685	1.70	pCi/L		LCA1	04/06/04	1203	321378	3
Gross A/B, liquid-ALL,STND,MIX,PENN,LF													
Alpha	U	-0.164	+/-0.562	0.578	+/-0.562	1.33	pCi/L		ATH1	04/13/04	1341	321321	4
Beta		1.88	+/-0.765	0.592	+/-0.765	1.27	pCi/L						
Rad Liquid Scintillation Analysis													
LSC, Tritium Dist, Liquid-ALL,STND,MIX,PENN													
Tritium		2050	+/-287	141	+/-289	282	pCi/L		CTO1	04/03/04	0233	320143	5

The following Prep Methods were performed

Method	Description	Analyst	Date	Time	Prep Batch
SW846 3005A	ICP-MS 3005 PREP	ARG1	04/14/04	0800	321016
SW846 3005A	ICP-TRACE SW846 3005A	ARG1	04/14/04	0800	320990

The following Analytical Methods were performed

Method	Description
1	DOE EML HASL-300, Am-05-RC Modified
2	EPA 901.1

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Contact: Mr. David Keefer
Project: Quarterly Groundwater PO# 002337

Report Date: April 22, 2004

Client Sample ID: MW110S-0104-001
Sample ID: 109455009

Project: YANK00304
Client ID: YANK001

Parameter	Qualifier	Result	Uncertainty	LC	TPU	MDA	Units	DF	AnalystDate	Time	Batch Mtd.
3	EPA 905.0 Modified										
4	EPA 900.0										
5	EPA 906.0 Modified										

Surrogate/Tracer recovery	Test	Recovery%	Acceptable Limits
Americium-243	Am241 Liquid-STND,MIX,PENN	97	(25%-125%)
Carrier/Tracer Recovery	GFPC, Sr90, liquid-ALL,MIX	76	

Notes:
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UI Uncertain identification for gamma spectroscopy.
X Lab-specific qualifier-please see case narrative, data summary package or contact your project manager for details.
h Sample preparation or preservation holding time exceeded.

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Address: Haddam Neck Plant
362 Injun Hollow Road
East Hampton, Connecticut 06424
Contact: Mr. David Keefer
Project: Quarterly Groundwater PO# 002337

Report Date: April 22, 2004

Client Sample ID: MW110D-0104-001
Sample ID: 109455010
Matrix: Ground Water
Collect Date: 17-MAR-04
Receive Date: 22-MAR-04
Collector: Client

Project: YANK00304
Client ID: YANK001

Parameter	Qualifier	Result	Uncertainty	LC	TPU	MDA	Units	DF	Analyst	Date	Time	Batch	Mtd.
Rad Alpha Spec Analysis													
Am241 Liquid-STND,MIX,PENN,LF													
Americium-241	U	0.00352	+/-0.110	0.116	+/-0.110	0.311	pCi/L		JS1	04/05/04	1040	321612	1
Rad Gamma Spec Analysis													
Gammaspec, Gamma,Liquid-ALL,GAM2,STND,MIX,PENN,LF													
Americium-241	U	-7.41	+/-16.2	11.3	+/-15.9	23.4	pCi/L		SRB	04/01/04	1403	320207	2
Cesium-134	U	-0.791	+/-2.20	1.68	+/-2.16	3.72	pCi/L						
Cesium-137	U	-1.19	+/-2.01	1.52	+/-1.97	3.34	pCi/L						
Cobalt-60	U	-1.34	+/-2.32	1.71	+/-2.27	3.89	pCi/L						
Europium-152	U	8.83	+/-6.95	5.09	+/-6.81	10.8	pCi/L						
Europium-154	U	2.85	+/-7.33	5.29	+/-7.19	11.9	pCi/L						
Europium-155	U	-0.703	+/-7.47	6.28	+/-7.32	13.1	pCi/L						
Manganese-54	U	-1.97	+/-2.22	1.56	+/-2.18	3.45	pCi/L						
Niobium-94	U	1.13	+/-1.92	1.65	+/-1.88	3.57	pCi/L						
Silver-108m	U	-0.224	+/-1.85	1.54	+/-1.82	3.30	pCi/L						
Rad Gas Flow Proportional Counting													
GFPC, Sr90, liquid-ALL,MIX													
Strontium-90	U	0.657	+/-0.650	0.670	+/-0.677	1.42	pCi/L		LCA1	04/06/04	1203	321378	3
Gross A/B, liquid-ALL,STND,MIX,PENN,LF													
Alpha		7.07	+/-1.51	0.662	+/-1.79	1.50	pCi/L		ATH1	04/13/04	1341	321321	4
Beta		7.14	+/-1.17	0.689	+/-1.17	1.46	pCi/L						
Rad Liquid Scintillation Analysis													
LSC, Tritium Dist, Liquid-ALL,STND,MIX,PENN													
Tritium		5890	+/-424	137	+/-434	275	pCi/L		CTO1	04/03/04	0319	320143	5

The following Prep Methods were performed

Method	Description	Analyst	Date	Time	Prep Batch
SW846 3005A	ICP-MS 3005 PREP	ARG1	04/14/04	0800	321016
SW846 3005A	ICP-TRACE SW846 3005A	ARG1	04/14/04	0800	320990

The following Analytical Methods were performed

Method	Description
1	DOE EML HASL-300, Am-05-RC Modified
2	EPA 901.1

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East Hampton, Connecticut 06424
Contact: Mr. David Keefer
Project: Quarterly Groundwater PO# 002337

Report Date: April 22, 2004

Client Sample ID: MW110D-0104-001
Sample ID: 109455010

Project: YANK00304
Client ID: YANK001

Parameter	Qualifier	Result	Uncertainty	LC	TPU	MDA	Units	DF	AnalystDate	Time	Batch Mtd.
3	EPA 905.0 Modified										
4	EPA 900.0										
5	EPA 906.0 Modified										

Surrogate/Tracer recovery	Test	Recovery%	Acceptable Limits
Americium-243	Am241 Liquid-STND,MIX,PENN	98	(25%-125%)
Carrier/Tracer Recovery	GFPC, Sr90, liquid-ALL,MIX	79	

Notes:
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UI Uncertain identification for gamma spectroscopy.
X Lab-specific qualifier-please see case narrative, data summary package or contact your project manager for details.
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Company: CYAPCo
Address: Haddam Neck Plant
362 Injun Hollow Road
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Contact: Mr. David Keefer
Project: Quarterly Groundwater PO# 002337

Report Date: April 22, 2004

Client Sample ID: MW123S-0104-001
Sample ID: 109455011
Matrix: Ground Water
Collect Date: 17-MAR-04
Receive Date: 22-MAR-04
Collector: Client

Project: YANK00304
Client ID: YANK001

Parameter	Qualifier	Result	Uncertainty	LC	TPU	MDA	Units	DF	Analyst	Date	Time	Batch	Mtd.
Rad Alpha Spec Analysis													
Am241 Liquid-STND,MIX,PENN,LF													
Americium-241	U	-0.0642	+/-0.042	0.102	+/-0.0428	0.284	pCi/L		JS1	04/12/04	1002	322683	2
Rad Gamma Spec Analysis													
Gammaspec, Gamma,Liquid-ALL,GAM2,STND,MIX,PENN,LF													
Americium-241	U	1.45	+/-3.75	3.15	+/-3.67	6.57	pCi/L		SRB	04/01/04	1405	320207	3
Cesium-134	U	-1.04	+/-2.85	2.28	+/-2.79	4.97	pCi/L						
Cesium-137	U	3.64	+/-5.70	1.98	+/-5.59	4.31	pCi/L						
Cobalt-60	U	2.94	+/-4.56	1.80	+/-4.47	4.15	pCi/L						
Europium-152	U	-5.64	+/-5.76	4.35	+/-5.65	9.33	pCi/L						
Europium-154	U	-1.95	+/-7.52	6.12	+/-7.37	13.7	pCi/L						
Europium-155	U	-0.577	+/-5.60	4.46	+/-5.49	9.35	pCi/L						
Manganese-54	U	1.78	+/-3.49	2.03	+/-3.42	4.44	pCi/L						
Niobium-94	U	1.87	+/-2.27	2.05	+/-2.23	4.41	pCi/L						
Silver-108m	U	0.162	+/-1.96	1.61	+/-1.92	3.46	pCi/L						
Rad Gas Flow Proportional Counting													
GFPC, Sr90, liquid-ALL,MIX													
Strontium-90	U	0.866	+/-0.551	0.530	+/-0.596	1.13	pCi/L		LCA1	04/06/04	1203	321378	4
Gross A/B, liquid-ALL,STND,MIX,PENN,LF													
Alpha		4.19	+/-1.49	0.865	+/-1.55	1.96	pCi/L		ATH1	04/13/04	1452	321321	5
Beta		14.7	+/-1.54	0.702	+/-1.55	1.49	pCi/L						
Rad Liquid Scintillation Analysis													
LSC, Tritium Dist, Liquid-ALL,STND,MIX,PENN													
Tritium	U	27.5	+/-150	124	+/-150	249	pCi/L		CTO1	04/03/04	0405	320143	6

The following Prep Methods were performed

Method	Description	Analyst	Date	Time	Prep Batch
SW846 3005A	ICP-MS 3005 PREP	ARG1	04/14/04	0800	321016

The following Analytical Methods were performed

Method	Description
1	DOE EML HASL-300, Am-05-RC Modified
2	DOE EML HASL-300, Am-05-RC Modified
3	EPA 901.1

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Contact: Mr. David Keefer
Project: Quarterly Groundwater PO# 002337

Report Date: April 22, 2004

Client Sample ID: MW123S-0104-001
Sample ID: 109455011

Project: YANK00304
Client ID: YANK001

Parameter	Qualifier	Result	Uncertainty	LC	TPU	MDA	Units	DF	Analyst	Date	Time	Batch	Mtd.
4	EPA 905.0 Modified												
5	EPA 900.0												
6	EPA 906.0 Modified												

Surrogate/Tracer recovery	Test	Recovery%	Acceptable Limits
Americium-243	Am241 Liquid-STND,MIX,PENN	93	(25%-125%)
Carrier/Tracer Recovery	GFPC, Sr90, liquid-ALL,MIX	89	

Notes:
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UI Uncertain identification for gamma spectroscopy.
X Lab-specific qualifier-please see case narrative, data summary package or contact your project manager for details.
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Contact: Mr. David Keefer
Project: Quarterly Groundwater PO# 002337

Report Date: April 22, 2004

Client Sample ID: MW101S-0104-001
Sample ID: 109455012
Matrix: Ground Water
Collect Date: 15-MAR-04
Receive Date: 22-MAR-04
Collector: Client

Project: YANK00304
Client ID: YANK001

Parameter	Qualifier	Result	Uncertainty	LC	TPU	MDA	Units	DF	Analyst	Date	Time	Batch	Mtd.
Rad Alpha Spec Analysis													
Am241 Liquid-STND,MIX,PENN,LF													
Americium-241	U	0.0783	+/-0.139	0.108	+/-0.140	0.298	pCi/L		JS1	04/05/04	1040	321612	1
Rad Gamma Spec Analysis													
Gammaspec, Gamma,Liquid-ALL,GAM2,STND,MIX,PENN,LF													
Americium-241	U	1.45	+/-3.75	3.15	+/-3.67	6.57	pCi/L		SRB	04/01/04	1405	320207	2
Cesium-134	U	-1.04	+/-2.85	2.28	+/-2.79	4.97	pCi/L						
Cesium-137	U	3.64	+/-5.70	1.98	+/-5.59	4.31	pCi/L						
Cobalt-60	U	2.94	+/-4.56	1.80	+/-4.47	4.15	pCi/L						
Europium-152	U	-5.64	+/-5.76	4.35	+/-5.65	9.33	pCi/L						
Europium-154	U	-1.95	+/-7.52	6.12	+/-7.37	13.7	pCi/L						
Europium-155	U	-0.577	+/-5.60	4.46	+/-5.49	9.35	pCi/L						
Manganese-54	U	1.78	+/-3.49	2.03	+/-3.42	4.44	pCi/L						
Niobium-94	U	1.87	+/-2.27	2.05	+/-2.23	4.41	pCi/L						
Silver-108m	U	0.162	+/-1.96	1.61	+/-1.92	3.46	pCi/L						
Rad Gas Flow Proportional Counting													
GFPC, Sr-90, liquid-ALL,MIX													
Strontium-90	U	0.438	+/-0.539	0.567	+/-0.554	1.20	pCi/L		LCA1	04/06/04	1203	321378	3
Gross A/B, liquid-ALL,STND,MIX,PENN,LF													
Alpha	U	0.389	+/-0.515	0.409	+/-0.516	0.977	pCi/L		ATH1	04/13/04	1452	321321	4
Beta		1.87	+/-0.772	0.611	+/-0.772	1.30	pCi/L						
Rad Liquid Scintillation Analysis													
LSC, Tritium Dist, Liquid-ALL,STND,MIX,PENN													
Tritium	U	-59.9	+/-157	135	+/-157	271	pCi/L		CTO1	04/03/04	0525	320143	5

The following Prep Methods were performed

Method	Description	Analyst	Date	Time	Prep Batch
SW846 3005A	ICP-MS 3005 PREP	ARG1	04/14/04	0800	321016

The following Analytical Methods were performed

Method	Description
1	DOE EML HASL-300, Am-05-RC Modified
2	EPA 901.1
3	EPA 905.0 Modified

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East Hampton, Connecticut 06424
Contact: Mr. David Keefer
Project: Quarterly Groundwater PO# 002337

Report Date: April 22, 2004

Client Sample ID: MW101S-0104-001
Sample ID: 109455012

Project: YANK00304
Client ID: YANK001

Parameter	Qualifier	Result	Uncertainty	LC	TPU	MDA	Units	DF	AnalystDate	Time	Batch Mtd.
4	EPA 900.0										
5	EPA 906.0 Modified										

Surrogate/Tracer recovery	Test	Recovery%	Acceptable Limits
Americium-243	Am241 Liquid-STND,MIX,PENN	86	(25%-125%)
Carrier/Tracer Recovery	GFPC, Sr90, liquid-ALL,MIX	91	

Notes:
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Address: Haddam Neck Plant
362 Injun Hollow Road
East Hampton, Connecticut 06424
Contact: Mr. David Keefer
Project: Quarterly Groundwater PO# 002337

Report Date: April 22, 2004

Client Sample ID: MW101D-0104-001
Sample ID: 109455013
Matrix: Ground Water
Collect Date: 15-MAR-04
Receive Date: 22-MAR-04
Collector: Client

Project: YANK00304
Client ID: YANK001

Parameter	Qualifier	Result	Uncertainty	LC	TPU	MDA	Units	DF	Analyst	Date	Time	Batch	Mtd.
Rad Alpha Spec Analysis													
Am241 Liquid-STND,MIX,PENN,LF													
Americium-241	U	0.0267	+/-0.0988	0.0849	+/-0.0988	0.260	pCi/L		JS1	04/06/04	1232	321612	1
Rad Gamma Spec Analysis													
Gammaspec, Gamma,Liquid-ALL,GAM2,STND,MIX,PENN,LF													
Americium-241	U	4.00	+/-10.3	7.64	+/-10.1	15.7	pCi/L		SRB	04/01/04	1524	320207	2
Cesium-134	U	1.26	+/-2.35	2.06	+/-2.31	4.43	pCi/L						
Cesium-137	U	0.00	+/-3.81	3.42	+/-3.73	7.09	pCi/L						
	UI												
Cobalt-60	U	0.858	+/-2.27	1.93	+/-2.22	4.26	pCi/L						
Europium-152	U	-6.26	+/-5.80	4.46	+/-5.68	9.40	pCi/L						
Europium-154	U	-2.67	+/-5.30	3.97	+/-5.20	9.00	pCi/L						
Europium-155	U	-3.25	+/-7.55	5.96	+/-7.40	12.3	pCi/L						
Manganese-54	U	-1.68	+/-2.08	1.60	+/-2.04	3.49	pCi/L						
Niobium-94	U	1.12	+/-2.33	1.72	+/-2.28	3.68	pCi/L						
Silver-108m	U	-0.95	+/-2.10	1.67	+/-2.06	3.53	pCi/L						
Rad Gas Flow Proportional Counting													
GFPC, Sr-90, liquid-ALL,MIX													
Strontium-90	U	0.166	+/-0.497	0.547	+/-0.499	1.16	pCi/L		LCA1	04/06/04	1204	321378	3
Gross A/B, liquid-ALL,STND,MIX,PENN,LF													
Alpha		6.52	+/-1.36	0.542	+/-1.46	1.25	pCi/L		ATH1	04/13/04	1452	321321	4
Beta		1.70	+/-0.858	0.717	+/-0.858	1.51	pCi/L						
Rad Liquid Scintillation Analysis													
LSC, Tritium Dist, Liquid-ALL,STND,MIX,PENN													
Tritium	U	91.3	+/-171	138	+/-171	276	pCi/L		CTO1	04/03/04	0611	320143	5

The following Prep Methods were performed

Method	Description	Analyst	Date	Time	Prep Batch
SW846 3005A	ICP-MS 3005 PREP	ARG1	04/14/04	0800	321016

The following Analytical Methods were performed

Method	Description
1	DOE EML HASL-300, Am-05-RC Modified
2	EPA 901.1

GENERAL ENGINEERING LABORATORIES, LLC

2040 Savage Road Charleston SC 29407 - (843) 556-8171 - www.gel.com

Certificate of Analysis

Company: CYAPCo
Address: Haddam Neck Plant
362 Injun Hollow Road
East Hampton, Connecticut 06424
Contact: Mr. David Keefer
Project: Quarterly Groundwater PO# 002337

Report Date: April 22, 2004

Client Sample ID: MW101D-0104-001
Sample ID: 109455013

Project: YANK00304
Client ID: YANK001

Parameter	Qualifier	Result	Uncertainty	LC	TPU	MDA	Units	DF	AnalystDate	Time	Batch Mtd.
3	EPA 905.0 Modified										
4	EPA 900.0										
5	EPA 906.0 Modified										

Surrogate/Tracer recovery	Test	Recovery%	Acceptable Limits
Americium-243	Am241 Liquid-STND,MIX,PENN	84	(25%-125%)
Carrier/Tracer Recovery	GFPC, Sr90, liquid-ALL,MIX	95	

Notes:
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H Analytical holding time exceeded.
J Indicates an estimated value. The result was greater than the detection limit, but less than the reporting limit.
U Indicates the target analyte was analyzed for but not detected above the detection limit.
UI Uncertain identification for gamma spectroscopy.
X Lab-specific qualifier-please see case narrative, data summary package or contact your project manager for details.
h Sample preparation or preservation holding time exceeded.
The above sample is reported on an "as received" basis.

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Certificate of Analysis

Company: CYAPCo
Address: Haddam Neck Plant
362 Injun Hollow Road
East Hampton, Connecticut 06424
Contact: Mr. David Keefer
Project: Quarterly Groundwater PO# 002337

Report Date: April 22, 2004

Client Sample ID: MW102D-0104-001
Sample ID: 109455014
Matrix: Ground Water
Collect Date: 17-MAR-04
Receive Date: 22-MAR-04
Collector: Client

Project: YANK00304
Client ID: YANK001

Parameter	Qualifier	Result	Uncertainty	LC	TPU	MDA	Units	DF	Analyst	Date	Time	Batch	Mtd.
Rad Alpha Spec Analysis													
Am241 Liquid-STND,MIX,PENN,LF													
Americium-241	U	-0.0138	+/-0.0711	0.0873	+/-0.0711	0.259	pCi/L		JS1	04/05/04	1040	321612	1
Rad Gamma Spec Analysis													
Gammaspec, Gamma,Liquid-ALL,GAM2,STND,MIX,PENN,LF													
Americium-241	U	-2.32	+/-20.2	14.6	+/-19.8	30.5	pCi/L		SRB	04/01/04	1823	320207	2
Cesium-134	U	-0.206	+/-2.37	1.87	+/-2.32	4.13	pCi/L						
Cesium-137	U	1.24	+/-2.07	1.79	+/-2.03	3.92	pCi/L						
Cobalt-60	U	0.158	+/-2.13	1.77	+/-2.09	4.05	pCi/L						
Europium-152	U	-1.01	+/-6.44	5.29	+/-6.31	11.3	pCi/L						
Europium-154	U	4.74	+/-6.19	5.25	+/-6.07	11.9	pCi/L						
Europium-155	U	-1.79	+/-9.38	7.46	+/-9.19	15.5	pCi/L						
Manganese-54	U	-2.12	+/-1.85	1.30	+/-1.82	2.96	pCi/L						
Niobium-94	U	0.308	+/-2.09	1.71	+/-2.05	3.71	pCi/L						
Silver-108m	U	0.343	+/-2.08	1.74	+/-2.04	3.74	pCi/L						
Rad Gas Flow Proportional Counting													
GFPC, Sr90, liquid-ALL,MIX													
Strontium-90	U	-0.213	+/-0.434	0.520	+/-0.438	1.11	pCi/L		LCA1	04/06/04	1204	321378	3
Gross A/B, liquid-ALL,STND,MIX,PENN,LF													
Alpha		11.3	+/-2.16	1.06	+/-2.45	2.33	pCi/L		ATH1	04/13/04	1452	321321	4
Beta		6.89	+/-1.19	0.712	+/-1.19	1.51	pCi/L						
Rad Liquid Scintillation Analysis													
LSC, Tritium Dist, Liquid-ALL,STND,MIX,PENN													
Tritium		4940	+/-411	148	+/-418	296	pCi/L		CTO1	04/03/04	0657	320143	5

The following Prep Methods were performed

Method	Description	Analyst	Date	Time	Prep Batch
SW846 3005A	ICP-MS 3005 PREP	ARG1	04/14/04	0800	321016

The following Analytical Methods were performed

Method	Description
1	DOE EML HASL-300, Am-05-RC Modified
2	EPA 901.1
3	EPA 905.0 Modified

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Contact: Mr. David Keefer
Project: Quarterly Groundwater PO# 002337

Report Date: April 22, 2004

Client Sample ID: MW102D-0104-001
Sample ID: 109455014

Project: YANK00304
Client ID: YANK001

Parameter	Qualifier	Result	Uncertainty	LC	TPU	MDA	Units	DF	AnalystDate	Time	Batch Mtd.
4	EPA 900.0										
5	EPA 906.0 Modified										

Surrogate/Tracer recovery	Test	Recovery%	Acceptable Limits
Americium-243	Am241 Liquid-STND,MIX,PENN	94	(25%-125%)
Carrier/Tracer Recovery	GFPC, Sr90, liquid-ALL,MIX	97	

Notes:
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U Indicates the target analyte was analyzed for but not detected above the detection limit.
UI Uncertain identification for gamma spectroscopy.
X Lab-specific qualifier-please see case narrative, data summary package or contact your project manager for details.
h Sample preparation or preservation holding time exceeded.
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Certificate of Analysis

Company: CYAPCo
Address: Haddam Neck Plant
362 Injun Hollow Road
East Hampton, Connecticut 06424
Contact: Mr. David Keefer
Project: Quarterly Groundwater PO# 002337

Report Date: April 22, 2004

Client Sample ID: MW124S-0104-001
Sample ID: 109455015
Matrix: Ground Water
Collect Date: 18-MAR-04
Receive Date: 22-MAR-04
Collector: Client

Project: YANK00304
Client ID: YANK001

Parameter	Qualifier	Result	Uncertainty	LC	TPU	MDA	Units	DF	Analyst	Date	Time	Batch	Mtd.
Rad Alpha Spec Analysis													
Am241 Liquid-STND,MIX,PENN,LF													
Americium-241	U	-0.0863	+/-0.117	0.181	+/-0.118	0.486	pCi/L		JS1	04/05/04	1040	321612	1
Rad Gamma Spec Analysis													
Gammaspec, Gamma,Liquid-ALL,GAM2,STND,MIX,PENN,LF													
Americium-241	U	2.85	+/-11.5	9.73	+/-11.3	20.3	pCi/L		SRB	04/01/04	1824	320207	2
Cesium-134	U	1.46	+/-2.15	1.90	+/-2.11	4.13	pCi/L						
Cesium-137	U	-0.926	+/-1.92	1.52	+/-1.88	3.32	pCi/L						
Cobalt-60	U	-0.654	+/-2.19	1.74	+/-2.14	3.89	pCi/L						
Europium-152	U	0.383	+/-5.90	4.89	+/-5.79	10.4	pCi/L						
Europium-154	U	0.344	+/-5.88	4.27	+/-5.76	9.68	pCi/L						
Europium-155	U	0.216	+/-7.54	6.16	+/-7.39	12.8	pCi/L						
Manganese-54	U	-0.218	+/-1.92	1.56	+/-1.88	3.41	pCi/L						
Niobium-94	U	0.471	+/-1.81	1.55	+/-1.78	3.34	pCi/L						
Silver-108m	U	-0.76	+/-1.76	1.37	+/-1.72	2.95	pCi/L						
Rad Gas Flow Proportional Counting													
GFPC, Sr90, liquid-ALL,MIX													
Strontium-90	U	0.0515	+/-0.469	0.527	+/-0.470	1.12	pCi/L		LCA1	04/06/04	1204	321378	3
Gross A/B, liquid-ALL,STND,MIX,PENN,LF													
Alpha	U	0.620	+/-0.833	0.711	+/-0.834	1.61	pCi/L		ATH1	04/13/04	1452	321321	4
Beta		5.12	+/-1.05	0.679	+/-1.05	1.44	pCi/L						
Rad Liquid Scintillation Analysis													
LSC, Tritium Dist, Liquid-ALL,STND,MIX,PENN													
Tritium		1530	+/-263	141	+/-264	283	pCi/L		CTO1	04/03/04	0743	320143	5

The following Prep Methods were performed

Method	Description	Analyst	Date	Time	Prep Batch
SW846 3005A	ICP-MS 3005 PREP	ARG1	04/14/04	0800	321016

The following Analytical Methods were performed

Method	Description
1	DOE EML HASL-300, Am-05-RC Modified
2	EPA 901.1
3	EPA 905.0 Modified

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Certificate of Analysis

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Address : Haddam Neck Plant
362 Injun Hollow Road
East Hampton, Connecticut 06424
Contact: Mr. David Keefer
Project: Quarterly Groundwater PO# 002337

Report Date: April 22, 2004

Client Sample ID: MW124S-0104-001
Sample ID: 109455015

Project: YANK00304
Client ID: YANK001

Parameter	Qualifier	Result	Uncertainty	LC	TPU	MDA	Units	DF	AnalystDate	Time	Batch Mtd.
4	EPA 900.0										
5	EPA 906.0 Modified										

Surrogate/Tracer recovery	Test	Recovery%	Acceptable Limits
Americium-243	Am241 Liquid-STND,MIX,PENN	68	(25%-125%)
Carrier/Tracer Recovery	GFPC, Sr90, liquid-ALL,MIX	91	

Notes:
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E Concentration of the target analyte exceeds the instrument calibration range.
H Analytical holding time exceeded.
J Indicates an estimated value. The result was greater than the detection limit, but less than the reporting limit.
U Indicates the target analyte was analyzed for but not detected above the detection limit.
UI Uncertain identification for gamma spectroscopy.
X Lab-specific qualifier-please see case narrative, data summary package or contact your project manager for details.
h Sample preparation or preservation holding time exceeded.
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Company: CYAPCo
Address: Haddam Neck Plant
362 Injun Hollow Road
East Hampton, Connecticut 06424
Contact: Mr. David Keefer
Project: Quarterly Groundwater PO# 002337

Report Date: April 22, 2004

Client Sample ID: MW102S-0104-001
Sample ID: 109455016
Matrix: Ground Water
Collect Date: 16-MAR-04
Receive Date: 22-MAR-04
Collector: Client

Project: YANK00304
Client ID: YANK001

Parameter	Qualifier	Result	Uncertainty	LC	TPU	MDA	Units	DF	Analyst	Date	Time	Batch	Mtd.
Rad Alpha Spec Analysis													
Am241 Liquid-STND,MIX,PENN,LF													
Americium-241	U	0.0619	+/-0.155	0.135	+/-0.155	0.360	pCi/L		JS1	04/05/04	1212	321612	1
Rad Gamma Spec Analysis													
Gammaspec, Gamma,Liquid-ALL,GAM2,STND,MIX,PENN,LF													
Americium-241	U	-3.91	+/-15.1	10.6	+/-14.8	22.2	pCi/L		SRB	04/01/04	1825	320207	2
Cesium-134	U	0.383	+/-2.24	1.83	+/-2.19	4.02	pCi/L						
Cesium-137	U	-1.27	+/-2.21	1.68	+/-2.17	3.67	pCi/L						
Cobalt-60	U	0.367	+/-2.12	1.77	+/-2.07	4.02	pCi/L						
Europium-152	U	-4.96	+/-6.04	4.41	+/-5.92	9.43	pCi/L						
Europium-154	U	2.18	+/-5.81	4.51	+/-5.69	10.3	pCi/L						
Europium-155	U	0.836	+/-7.64	5.85	+/-7.49	12.2	pCi/L						
Manganese-54	U	-0.35	+/-2.04	1.59	+/-2.00	3.52	pCi/L						
Niobium-94	U	-1.27	+/-1.90	1.42	+/-1.86	3.10	pCi/L						
Silver-108m	U	-1.45	+/-1.88	1.47	+/-1.85	3.17	pCi/L						
Rad Gas Flow Proportional Counting													
GFPC, Sr-90, liquid-ALL,MIX													
Strontium-90	U	0.122	+/-0.507	0.560	+/-0.508	1.20	pCi/L		LCA1	04/06/04	1204	321378	3
Gross A/B, liquid-ALL,STND,MIX,PENN,LF													
Alpha	U	0.245	+/-0.731	0.661	+/-0.731	1.50	pCi/L		ATH1	04/13/04	1452	321321	4
Beta		2.28	+/-0.837	0.645	+/-0.837	1.38	pCi/L						
Rad Liquid Scintillation Analysis													
LSC, Tritium Dist, Liquid-ALL,STND,MIX,PENN													
Tritium		6740	+/-469	148	+/-481	296	pCi/L		CTO1	04/03/04	0829	320143	5

The following Prep Methods were performed

Method	Description	Analyst	Date	Time	Prep Batch
SW846 3005A	ICP-MS 3005 PREP	ARG1	04/14/04	0800	321016

The following Analytical Methods were performed

Method	Description
1	DOE EML HASL-300, Am-05-RC Modified
2	EPA 901.1
3	EPA 905.0 Modified

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Contact: Mr. David Keefer
Project: Quarterly Groundwater PO# 002337

Report Date: April 22, 2004

Client Sample ID: MW102S-0104-001
Sample ID: 109455016

Project: YANK00304
Client ID: YANK001

Parameter	Qualifier	Result	Uncertainty	LC	TPU	MDA	Units	DF	AnalystDate	Time	Batch Mtd.
4	EPA 900.0										
5	EPA 906.0 Modified										

Surrogate/Tracer recovery	Test	Recovery%	Acceptable Limits
Americium-243	Am241 Liquid-STND,MIX,PENN	85	(25%-125%)
Carrier/Tracer Recovery	GFPC, Sr90, liquid-ALL,MIX	89	

Notes:
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UI Uncertain identification for gamma spectroscopy.
X Lab-specific qualifier-please see case narrative, data summary package or contact your project manager for details.
h Sample preparation or preservation holding time exceeded.

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Certificate of Analysis

Company: CYAPCo
Address: Haddam Neck Plant
362 Injun Hollow Road
East Hampton, Connecticut 06424
Contact: Mr. David Keefer
Project: Quarterly Groundwater PO# 002337

Report Date: April 22, 2004

Client Sample ID: MW109S-0104-001
Sample ID: 109455017
Matrix: Ground Water
Collect Date: 16-MAR-04
Receive Date: 22-MAR-04
Collector: Client

Project: YANK00304
Client ID: YANK001

Parameter	Qualifier	Result	Uncertainty	LC	TPU	MDA	Units	DF	Analyst	Date	Time	Batch	Mtd.
Rad Alpha Spec Analysis													
Am241 Liquid-STND,MIX,PENN,LF													
Americium-241	U	0.0539	+/-0.155	0.140	+/-0.155	0.369	pCi/L		JS1	04/05/04	1212	321612	1
Rad Gamma Spec Analysis													
Gammaspec, Gamma,Liquid-ALL,GAM2,STND,MIX,PENN,LF													
Americium-241	U	5.15	+/-12.4	9.36	+/-12.1	19.5	pCi/L		SRB	04/01/04	1825	320207	2
Cesium-134	U	-0.476	+/-1.82	1.40	+/-1.78	3.10	pCi/L						
Cesium-137	U	-0.0667	+/-1.92	1.55	+/-1.89	3.36	pCi/L						
Cobalt-60	U	-0.592	+/-1.94	1.51	+/-1.90	3.41	pCi/L						
Europium-152	U	-1.73	+/-5.37	4.38	+/-5.26	9.28	pCi/L						
Europium-154	U	1.67	+/-4.46	3.51	+/-4.37	8.09	pCi/L						
Europium-155	U	-2.31	+/-7.39	5.90	+/-7.24	12.3	pCi/L						
Manganese-54	U	-0.927	+/-1.83	1.46	+/-1.79	3.19	pCi/L						
Niobium-94	U	-1.25	+/-1.86	1.39	+/-1.83	3.02	pCi/L						
Silver-108m	U	-0.605	+/-1.76	1.41	+/-1.72	3.02	pCi/L						
Rad Gas Flow Proportional Counting													
GFPC, Sr-90, liquid-ALL,MIX													
Strontium-90	U	0.181	+/-0.475	0.516	+/-0.477	1.11	pCi/L		LCA1	04/06/04	1204	321378	3
Gross A/B, liquid-ALL,STND,MIX,PENN,LF													
Alpha	U	0.571	+/-0.784	0.610	+/-0.787	1.37	pCi/L		HOB1	04/20/04	1352	325997	4
Beta		9.63	+/-1.02	0.500	+/-1.03	1.05	pCi/L						
Rad Liquid Scintillation Analysis													
LSC, Tritium Dist, Liquid-ALL,STND,MIX,PENN													
Tritium	U	30.8	+/-169	139	+/-169	279	pCi/L		CTO1	04/03/04	0915	320143	6

The following Prep Methods were performed

Method	Description	Analyst	Date	Time	Prep Batch
SW846 3005A	ICP-MS 3005 PREP	ARG1	04/14/04	0800	321016

The following Analytical Methods were performed

Method	Description
1	DOE EML HASL-300, Am-05-RC Modified
2	EPA 901.1
3	EPA 905.0 Modified

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362 Injun Hollow Road
East Hampton, Connecticut 06424
Contact: Mr. David Keefer
Project: Quarterly Groundwater PO# 002337

Report Date: April 22, 2004

Client Sample ID: MW109S-0104-001
Sample ID: 109455017

Project: YANK00304
Client ID: YANK001

Parameter	Qualifier	Result	Uncertainty	LC	TPU	MDA	Units	DF	AnalystDate	Time	Batch Mtd.
4	EPA 900.0										
5	EPA 900.0										
6	EPA 906.0 Modified										

Surrogate/Tracer recovery	Test	Recovery%	Acceptable Limits
Americium-243	Am241 Liquid-STND,MIX,PENN	84	(25%-125%)
Carrier/Tracer Recovery	GFPC, Sr90, liquid-ALL,MIX	90	

Notes:
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Certificate of Analysis

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Address: Haddam Neck Plant
362 Injun Hollow Road
East Hampton, Connecticut 06424
Contact: Mr. David Keefer
Project: Quarterly Groundwater PO# 002337

Report Date: April 22, 2004

Client Sample ID:	MW109D-0104-001	Project:	YANK00304
Sample ID:	109455018	Client ID:	YANK001
Matrix:	Ground Water		
Collect Date:	16-MAR-04		
Receive Date:	22-MAR-04		
Collector:	Client		

Parameter	Qualifier	Result	Uncertainty	LC	TPU	MDA	Units	DF	Analyst	Date	Time	Batch	Mtd.
Rad Alpha Spec Analysis													
Am241 Liquid-STND,MIX,PENN,LF													
Americium-241	U	0.0494	+/-0.153	0.137	+/-0.153	0.373	pCi/L		JS1	04/05/04	1212	321612	1
Rad Gamma Spec Analysis													
Gammaspec, Gamma,Liquid-ALL,GAM2,STND,MIX,PENN,LF													
Americium-241	U	-5.23	+/-6.83	5.69	+/-6.69	11.7	pCi/L		SRB	04/01/04	2155	320207	2
Cesium-134	U	0.541	+/-1.24	1.06	+/-1.21	2.26	pCi/L						
Cesium-137	U	-0.486	+/-1.17	0.947	+/-1.15	2.02	pCi/L						
Cobalt-60	U	0.0743	+/-1.22	1.04	+/-1.20	2.27	pCi/L						
Europium-152	U	-1.58	+/-3.59	2.82	+/-3.52	5.88	pCi/L						
Europium-154	U	1.49	+/-3.28	2.77	+/-3.21	6.06	pCi/L						
Europium-155	U	2.67	+/-4.34	3.74	+/-4.26	7.69	pCi/L						
Manganese-54	U	-0.0433	+/-1.12	0.921	+/-1.10	1.98	pCi/L						
Niobium-94	U	0.453	+/-1.05	0.899	+/-1.03	1.91	pCi/L						
Silver-108m	U	1.29	+/-1.10	0.936	+/-1.08	1.97	pCi/L						
Rad Gas Flow Proportional Counting													
GFPC, Sr90, liquid-ALL,MIX													
Strontium-90	U	0.391	+/-0.457	0.471	+/-0.465	1.01	pCi/L		LCA1	04/06/04	1204	321378	3
Gross A/B, liquid-ALL,STND,MIX,PENN,LF													
Alpha		6.95	+/-1.15	0.332	+/-1.30	0.782	pCi/L		HOB1	04/20/04	1352	325997	4
Beta		7.60	+/-0.880	0.421	+/-0.883	0.892	pCi/L						
Rad Liquid Scintillation Analysis													
LSC, Tritium Dist, Liquid-ALL,STND,MIX,PENN													
Tritium		4550	+/-393	145	+/-399	290	pCi/L		CTO1	04/03/04	1001	320143	6

The following Prep Methods were performed

Method	Description	Analyst	Date	Time	Prep Batch
SW846 3005A	ICP-MS 3005 PREP	ARG1	04/14/04	0800	321016

The following Analytical Methods were performed

Method	Description
1	DOE EML HASL-300, Am-05-RC Modified
2	EPA 901.1
3	EPA 905.0 Modified

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Certificate of Analysis

Company: CYAPCo
Address: Haddam Neck Plant
362 Injun Hollow Road
East Hampton, Connecticut 06424
Contact: Mr. David Keefer
Project: Quarterly Groundwater PO# 002337

Report Date: April 22, 2004

Client Sample ID: MW109D-0104-001
Sample ID: 109455018

Project: YANK00304
Client ID: YANK001

Parameter	Qualifier	Result	Uncertainty	LC	TPU	MDA	Units	DF	AnalystDate	Time	Batch Mtd.
4	EPA 900.0										
5	EPA 900.0										
6	EPA 906.0 Modified										

Surrogate/Tracer recovery	Test	Recovery%	Acceptable Limits
Americium-243	Am241 Liquid-STND,MIX,PENN	82	(25%-125%)
Carrier/Tracer Recovery	GFPC, Sr90, liquid-ALL,MIX	102	

Notes:
The Qualifiers in this report are defined as follows:

B Target analyte was detected in the sample as well as the associated blank.
BD Flag for results below the MDC or a flag for low tracer recovery.
E Concentration of the target analyte exceeds the instrument calibration range.
H Analytical holding time exceeded.
J Indicates an estimated value. The result was greater than the detection limit, but less than the reporting limit.
U Indicates the target analyte was analyzed for but not detected above the detection limit.
UI Uncertain identification for gamma spectroscopy.
X Lab-specific qualifier-please see case narrative, data summary package or contact your project manager for details.
h Sample preparation or preservation holding time exceeded.
The above sample is reported on an "as received" basis.

This data report has been prepared and reviewed in accordance with General Engineering Laboratories, LLC standard operating procedures. Please direct any questions to your Project Manager, Sarah Kozlik.

Heather G Cicale
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Certificate of Analysis

Company: CYAPCo
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East Hampton, Connecticut 06424
Contact: Mr. David Keefer
Project: Quarterly Groundwater PO# 002337

Report Date: April 22, 2004

Client Sample ID: MW106D-0104-001
Sample ID: 109455019
Matrix: Ground Water
Collect Date: 17-MAR-04
Receive Date: 22-MAR-04
Collector: Client

Project: YANK00304
Client ID: YANK001

Parameter	Qualifier	Result	Uncertainty	LC	TPU	MDA	Units	DF	AnalystDate	Time	Batch	Mtd.
Rad Alpha Spec Analysis												
Alphaspec Pu, Liquid-ALL												
Plutonium-238	U	0.0439	+/-0.0709	0.0488	+/-0.071	0.137	pCi/L		JAS1 04/05/04	1431	321618	1
Plutonium-239/240	U	-0.0153	+/-0.0649	0.0689	+/-0.0649	0.178	pCi/L					
Am241,Cm, Liquid-ALL												
Americium-241	U	0.071	+/-0.112	0.0876	+/-0.112	0.218	pCi/L		JAS1 04/05/04	1431	321615	2
Curium-242	U	-0.0265	+/-0.0514	0.0642	+/-0.0514	0.175	pCi/L					
Curium-243/244	U	-0.089	+/-0.0652	0.0954	+/-0.0658	0.234	pCi/L					
Liquid Scint Pu241, Liquid-ALL												
Plutonium-241	U	12.1	+/-8.50	7.00	+/-8.56	14.2	pCi/L		JAS1 04/09/04	1541	321621	3
Rad Gamma Spec Analysis												
Gammaspec, Gamma,Liquid-ALL,GAM2,STND,MIX,PENN,LF												
Americium-241	U	-0.531	+/-9.81	7.73	+/-9.61	16.0	pCi/L		SRB 04/01/04	2155	320207	4
Cesium-134	U	0.415	+/-1.27	1.06	+/-1.24	2.26	pCi/L					
Cesium-137	U	0.616	+/-1.24	1.06	+/-1.21	2.24	pCi/L					
Cobalt-60	U	-0.492	+/-1.23	0.971	+/-1.21	2.13	pCi/L					
Europium-152	U	0.630	+/-3.64	2.95	+/-3.56	6.14	pCi/L					
Europium-154	U	-0.202	+/-3.34	2.75	+/-3.27	6.01	pCi/L					
Europium-155	U	-1.42	+/-4.74	4.01	+/-4.65	8.25	pCi/L					
Manganese-54	U	0.427	+/-1.20	1.00	+/-1.18	2.14	pCi/L					
Niobium-94	U	1.40	+/-1.03	0.930	+/-1.01	1.97	pCi/L					
Silver-108m	U	-0.391	+/-1.08	0.899	+/-1.06	1.89	pCi/L					
Rad Gas Flow Proportional Counting												
GFPC, Sr90, liquid-ALL,MIX												
Strontium-90	U	0.325	+/-0.515	0.546	+/-0.521	1.17	pCi/L		LCA1 04/06/04	1204	321378	5
Gross A/B, liquid-ALL,STND,MIX,PENN,LF												
Alpha		2.75	+/-0.770	0.383	+/-0.803	0.869	pCi/L		HOB1 04/20/04	1353	325997	6
Beta		4.12	+/-0.697	0.399	+/-0.698	0.847	pCi/L					
Rad Liquid Scintillation Analysis												
LSC, Tritium Dist, Liquid-ALL,STND,MIX,PENN												
Tritium		1110	+/-243	143	+/-244	287	pCi/L		CTO1 04/03/04	1047	320143	8
Liquid Scint C14, Liquid-ALL												
Carbon-14	U	85.7	+/-90.2	73.7	+/-124	151	pCi/L		CTO1 04/03/04	0441	320177	9
Liquid Scint Fe55, Liquid-ALL												
Iron-55	U	-44.2	+/-9.78	4.21	+/-9.96	8.78	pCi/L		LAG1 04/08/04	1526	320139	10
Liquid Scint Ni63, Liquid-ALL												

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Certificate of Analysis

Company: CYAPCo
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East Hampton, Connecticut 06424
Contact: Mr. David Keefer
Project: Quarterly Groundwater PO# 002337

Report Date: April 22, 2004

Client Sample ID: MW106D-0104-001
Sample ID: 109455019

Project: YANK00304
Client ID: YANK001

Parameter	Qualifier	Result	Uncertainty	LC	TPU	MDA	Units	DF	Analyst	Date	Time	Batch	Mtd.
Rad Liquid Scintillation Analysis													
Liquid Scint Ni63, Liquid-ALL													
Nickel-63	U	-2.08	+/-3.79	3.23	+/-3.79	6.61	pCi/L		LAG1	04/05/04	1528	320136	11
Liquid Scint Tc99, Liquid-ALL													
Technetium-99	U	-2.47	+/-5.82	4.94	+/-5.82	10.1	pCi/L		JLB1	04/12/04	0016	320141	12

The following Prep Methods were performed

Method	Description	Analyst	Date	Time	Prep Batch
SW846 3005A	ICP-MS 3005 PREP	ARG1	04/14/04	0800	321016

The following Analytical Methods were performed

Method	Description
1	DOE EML HASL-300, Pu-11-RC Modified
2	DOE EML HASL-300, Am-05-RC Modified
3	DOE EML HASL-300, Pu-11-RC Modified
4	EPA 901.1
5	EPA 905.0 Modified
6	EPA 900.0
7	EPA 900.0
8	EPA 906.0 Modified
9	EPA EERF C-01 Modified
10	DOE RESL Fe-1, Modified
11	DOE RESL Ni-1, Modified
12	DOE EML HASL-300, Tc-02-RC Modified

Surrogate/Tracer recovery	Test	Recovery%	Acceptable Limits
Plutonium-242	Alphaspec Pu, Liquid-ALL	99	(15%-125%)
Americium-243	Am241,Cm, Liquid-ALL	95	(25%-125%)
Carrier/Tracer Recovery	Liquid Scint Pu241, Liquid-ALL	83	
Carrier/Tracer Recovery	GFPC, Sr90, liquid-ALL,MIX	92	
Carrier/Tracer Recovery	Liquid Scint Fe55, Liquid-ALL	64	
Carrier/Tracer Recovery	Liquid Scint Ni63, Liquid-ALL	69	
Carrier/Tracer Recovery	Liquid Scint Tc99, Liquid-ALL	103	

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Project: Quarterly Groundwater PO# 002337

Report Date: April 22, 2004

Client Sample ID: MW106D-0104-001
Sample ID: 109455019
Project: YANK00304
Client ID: YANK001

Parameter	Qualifier	Result	Uncertainty	LC	TPU	MDA	Units	DF	AnalystDate	Time	Batch Mtd.

Notes:
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B Target analyte was detected in the sample as well as the associated blank.
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Contact: Mr. David Keefer
Project: Quarterly Groundwater PO# 002337

Report Date: April 22, 2004

Client Sample ID: MW106D-0104-001(FILT)
Sample ID: 109455020
Matrix: Ground Water
Collect Date: 17-MAR-04
Receive Date: 22-MAR-04
Collector: Client

Project: YANK00304
Client ID: YANK001

Parameter	Qualifier	Result	Uncertainty	LC	TPU	MDA	Units	DF	Analyst	Date	Time	Batch	Mtd.
Rad Alpha Spec Analysis													
Alphaspec Pu, Liquid-ALL													
Plutonium-238	U	0.0778	+/-0.0867	0.0517	+/-0.087	0.146	pCi/L		JAS1	04/05/04	1431	321618	1
Plutonium-239/240	U	0.0311	+/-0.0574	0.0365	+/-0.0574	0.115	pCi/L						
Am241,Cm, Liquid-ALL													
Americium-241	U	0.00	+/-0.119	0.0996	+/-0.119	0.238	pCi/L		JAS1	04/07/04	1717	322618	3
Curium-242	U	0.0157	+/-0.0532	0.0365	+/-0.0532	0.115	pCi/L						
Curium-243/244	U	-0.0286	+/-0.0971	0.088	+/-0.0971	0.215	pCi/L						
Liquid Scint Pu241, Liquid-ALL													
Plutonium-241	U	-0.301	+/-8.30	6.97	+/-8.30	14.1	pCi/L		JAS1	04/09/04	1847	321621	4
Rad Gamma Spec Analysis													
Gammaspec, Gamma,Liquid-ALL,GAM2,STND,MIX,PENN,LF													
Americium-241	U	-8.88	+/-12.5	7.62	+/-12.3	15.6	pCi/L		SRB	04/01/04	2156	320207	5
Cesium-134	U	-0.14	+/-1.54	1.25	+/-1.51	2.65	pCi/L						
Cesium-137	U	-0.727	+/-1.39	1.11	+/-1.36	2.35	pCi/L						
Cobalt-60	U	0.644	+/-1.45	1.26	+/-1.42	2.71	pCi/L						
Europium-152	U	2.53	+/-4.70	3.71	+/-4.61	7.68	pCi/L						
Europium-154	U	1.44	+/-3.72	3.21	+/-3.64	6.95	pCi/L						
Europium-155	U	-0.296	+/-5.61	4.79	+/-5.50	9.80	pCi/L						
Manganese-54	U	0.569	+/-1.47	1.09	+/-1.44	2.32	pCi/L						
Niobium-94	U	0.681	+/-1.77	1.10	+/-1.73	2.31	pCi/L						
Silver-108m	U	1.35	+/-1.51	1.25	+/-1.48	2.61	pCi/L						
Rad Gas Flow Proportional Counting													
GFPC, Sr90, liquid-ALL,MIX													
Strontium-90	U	0.237	+/-0.457	0.489	+/-0.461	1.05	pCi/L		LCA1	04/06/04	1400	321378	6
Gross A/B, liquid-ALL,STND,MIX,PENN,LF													
Alpha		1.74	+/-0.964	0.723	+/-0.983	1.55	pCi/L		HOB1	04/20/04	1353	325997	7
Beta		6.21	+/-0.864	0.495	+/-0.866	1.04	pCi/L						
Rad Liquid Scintillation Analysis													
LSC, Tritium Dist, Liquid-ALL,STND,MIX,PENN													
Tritium		1000	+/-235	142	+/-236	283	pCi/L		CTO1	04/03/04	1133	320143	9
Liquid Scint C14, Liquid-ALL													
Carbon-14	U	90.4	+/-90.6	74.0	+/-128	151	pCi/L		CTO1	04/03/04	0543	320177	10
Liquid Scint Fe55, Liquid-ALL													
Iron-55	U	-27.2	+/-10.9	4.11	+/-11.0	8.57	pCi/L		LAG1	04/08/04	1627	320139	11
Liquid Scint Ni63, Liquid-ALL													

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East Hampton, Connecticut 06424
Contact: Mr. David Keefer
Project: Quarterly Groundwater PO# 002337

Report Date: April 22, 2004

Client Sample ID: MW106D-0104-001(FILT) Project: YANK00304
Sample ID: 109455020 Client ID: YANK001

Parameter	Qualifier	Result	Uncertainty	LC	TPU	MDA	Units	DF	AnalystDate	Time	Batch	Mtd.
Rad Liquid Scintillation Analysis												
Liquid Scint Ni63, Liquid-ALL												
Nickel-63	U	-0.512	+/-2.56	2.16	+/-2.56	4.42	pCi/L		LAG1 04/05/04	1615	320136	12
Liquid Scint Tc99, Liquid-ALL												
Technetium-99	U	-3.26	+/-5.70	4.86	+/-5.70	9.94	pCi/L		JLB1 04/12/04	0048	320141	13

The following Prep Methods were performed

Method	Description	Analyst	Date	Time	Prep Batch
SW846 3005A	ICP-MS 3005 PREP	ARG1	04/14/04	0800	321016

The following Analytical Methods were performed

Method	Description
1	DOE EML HASL-300, Pu-11-RC Modified
2	DOE EML HASL-300, Am-05-RC Modified
3	DOE EML HASL-300, Am-05-RC Modified
4	DOE EML HASL-300, Pu-11-RC Modified
5	EPA 901.1
6	EPA 905.0 Modified
7	EPA 900.0
8	EPA 900.0
9	EPA 906.0 Modified
10	EPA EERF C-01 Modified
11	DOE RESL Fe-1, Modified
12	DOE RESL Ni-1, Modified
13	DOE EML HASL-300, Tc-02-RC Modified

Surrogate/Tracer recovery	Test	Recovery%	Acceptable Limits
Plutonium-242	Alphaspec Pu, Liquid-ALL	96	(15%-125%)
Americium-243	Am241,Cm, Liquid-ALL	90	(25%-125%)
Carrier/Tracer Recovery	Liquid Scint Pu241, Liquid-ALL	84	
Carrier/Tracer Recovery	GFPC, Sr90, liquid-ALL,MIX	100	
Carrier/Tracer Recovery	Liquid Scint Fe55, Liquid-ALL	75	
Carrier/Tracer Recovery	Liquid Scint Ni63, Liquid-ALL	108	
Carrier/Tracer Recovery	Liquid Scint Tc99, Liquid-ALL	105	

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Project: Quarterly Groundwater PO# 002337

Report Date: April 22, 2004

Client Sample ID: MW106D-0104-001(FILT) Project: YANK00304
Sample ID: 109455020 Client ID: YANK001

Parameter	Qualifier	Result	Uncertainty	LC	TPU	MDA	Units	DF	AnalystDate	Time	Batch Mtd.

Notes:
The Qualifiers in this report are defined as follows :

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The above sample is reported on an "as received" basis.

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Contact: Mr. David Keefer
Project: Quarterly Groundwater PO# 002337

Report Date: April 22, 2004

Client Sample ID: MW106S-0104-001
Sample ID: 109455021
Matrix: Ground Water
Collect Date: 17-MAR-04
Receive Date: 22-MAR-04
Collector: Client

Project: YANK00304
Client ID: YANK001

Parameter	Qualifier	Result	Uncertainty	LC	TPU	MDA	Units	DF	Analyst	Date	Time	Batch	Mtd.
Rad Alpha Spec Analysis													
Alphaspec Pu, Liquid-ALL													
Plutonium-238	U	0.0355	+/-0.0704	0.053	+/-0.0705	0.145	pCi/L		JAS1	04/05/04	1432	321618	1
Plutonium-239/240	U	0.00	+/-0.0281	0.00	+/-0.0281	0.0389	pCi/L						
Am241,Cm, Liquid-ALL													
Americium-241	U	0.0609	+/-0.0878	0.0621	+/-0.088	0.166	pCi/L		JAS1	04/05/04	1431	321615	2
Curium-242	U	0.0165	+/-0.0518	0.039	+/-0.0518	0.123	pCi/L						
Curium-243/244	U	-0.0706	+/-0.0944	0.111	+/-0.0947	0.263	pCi/L						
Liquid Scint Pu241, Liquid-ALL													
Plutonium-241	U	3.58	+/-7.10	5.92	+/-7.11	12.0	pCi/L		JAS1	04/09/04	2153	321621	3
Rad Gamma Spec Analysis													
Gammaspec, Gamma,Liquid-ALL,GAM2,STND,MIX,PENN,LF													
Americium-241	U	2.31	+/-6.48	5.54	+/-6.35	11.4	pCi/L		SRB	03/31/04	1902	320209	4
Cesium-134	U	-0.309	+/-1.20	0.938	+/-1.18	1.99	pCi/L						
Cesium-137	U	-0.118	+/-1.17	0.939	+/-1.15	1.98	pCi/L						
Cobalt-60	U	0.423	+/-1.28	1.07	+/-1.26	2.30	pCi/L						
Europium-152	U	1.00	+/-3.23	2.76	+/-3.16	5.71	pCi/L						
Europium-154	U	-0.564	+/-3.21	2.57	+/-3.15	5.57	pCi/L						
Europium-155	U	0.171	+/-4.20	3.50	+/-4.12	7.17	pCi/L						
Manganese-54	U	-0.694	+/-1.11	0.891	+/-1.08	1.89	pCi/L						
Niobium-94	U	-0.178	+/-1.06	0.845	+/-1.04	1.78	pCi/L						
Silver-108m	U	-0.689	+/-1.11	0.892	+/-1.09	1.86	pCi/L						
Rad Gas Flow Proportional Counting													
GFPC, Sr90, liquid-ALL,MIX													
Strontium-90		1.60	+/-0.500	0.286	+/-0.608	0.654	pCi/L		HOB1	04/06/04	1429	321379	5
Gross A/B, liquid-ALL,STND,MIX,PENN,LF													
Alpha		1.54	+/-0.935	0.573	+/-0.958	1.31	pCi/L		HOB1	04/20/04	1353	325997	6
Beta		13.9	+/-1.23	0.549	+/-1.24	1.16	pCi/L						
Rad Liquid Scintillation Analysis													
LSC, Tritium Dist, Liquid-ALL,STND,MIX,PENN													
Tritium		542	+/-202	135	+/-202	271	pCi/L		CTO1	04/04/04	1237	320148	8
Liquid Scint C14, Liquid-ALL													
Carbon-14	U	88.1	+/-90.5	73.9	+/-126	151	pCi/L		CTO1	04/03/04	0645	320177	9
Liquid Scint Fe55, Liquid-ALL													
Iron-55	U	7.32	+/-11.0	4.04	+/-11.1	8.42	pCi/L		LAG1	04/08/04	1728	320139	10
Liquid Scint Ni63, Liquid-ALL													

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Contact: Mr. David Keefer
Project: Quarterly Groundwater PO# 002337

Report Date: April 22, 2004

Client Sample ID: MW106S-0104-001
Sample ID: 109455021

Project: YANK00304
Client ID: YANK001

Parameter	Qualifier	Result	Uncertainty	LC	TPU	MDA	Units	DF	Analyst	Date	Time	Batch	Mtd.
Rad Liquid Scintillation Analysis													
Liquid Scint Ni63, Liquid-ALL													
Nickel-63	U	-2.99	+/-3.25	2.79	+/-3.25	5.72	pCi/L		LAG1	04/05/04	1703	320136	11
Liquid Scint Tc99, Liquid-ALL													
Technetium-99	U	-0.923	+/-6.45	5.43	+/-6.45	11.1	pCi/L		JLB1	04/12/04	0121	320141	12

The following Analytical Methods were performed

Method	Description
1	DOE EML HASL-300, Pu-11-RC Modified
2	DOE EML HASL-300, Am-05-RC Modified
3	DOE EML HASL-300, Pu-11-RC Modified
4	EPA 901.1
5	EPA 905.0 Modified
6	EPA 900.0
7	EPA 900.0
8	EPA 906.0 Modified
9	EPA EERF C-01 Modified
10	DOE RESL Fe-1, Modified
11	DOE RESL Ni-1, Modified
12	DOE EML HASL-300, Tc-02-RC Modified

Surrogate/Tracer recovery	Test	Recovery%	Acceptable Limits
Plutonium-242	Alphaspec Pu, Liquid-ALL	92	(15%-125%)
Americium-243	Am241,Cm, Liquid-ALL	87	(25%-125%)
Carrier/Tracer Recovery	Liquid Scint Pu241, Liquid-ALL	99	
Carrier/Tracer Recovery	GFPC, Sr90, liquid-ALL,MIX	103	
Carrier/Tracer Recovery	Liquid Scint Fe55, Liquid-ALL	70	
Carrier/Tracer Recovery	Liquid Scint Ni63, Liquid-ALL	82	
Carrier/Tracer Recovery	Liquid Scint Tc99, Liquid-ALL	97	

Notes:
The Qualifiers in this report are defined as follows:

B Target analyte was detected in the sample as well as the associated blank.
BD Flag for results below the MDC or a flag for low tracer recovery.
E Concentration of the target analyte exceeds the instrument calibration range.

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Certificate of Analysis

Company: CYAPCo
Address: Haddam Neck Plant
362 Injun Hollow Road
East Hampton, Connecticut 06424
Contact: Mr. David Keefer
Project: Quarterly Groundwater PO# 002337

Report Date: April 22, 2004

Client Sample ID: MW106S-0104-001
Sample ID: 109455021

Project: YANK00304
Client ID: YANK001

Parameter	Qualifier	Result	Uncertainty	LC	TPU	MDA	Units	DF	AnalystDate	Time	Batch Mtd.

H Analytical holding time exceeded.
J Indicates an estimated value. The result was greater than the detection limit, but less than the reporting limit.
U Indicates the target analyte was analyzed for but not detected above the detection limit.
UI Uncertain identification for gamma spectroscopy.
X Lab-specific qualifier-please see case narrative, data summary package or contact your project manager for details.
h Sample preparation or preservation holding time exceeded.
The above sample is reported on an "as received" basis.

This data report has been prepared and reviewed in accordance with General Engineering Laboratories, LLC standard operating procedures. Please direct any questions to your Project Manager, Sarah Kozlik.

Reviewed by

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Certificate of Analysis

Company: CYAPCo
Address: Haddam Neck Plant
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East Hampton, Connecticut 06424
Contact: Mr. David Keefer
Project: Quarterly Groundwater PO# 002337

Report Date: April 22, 2004

Client Sample ID: MW106S-0104-001(FILT)
Sample ID: 109455022
Matrix: Ground Water
Collect Date: 17-MAR-04
Receive Date: 22-MAR-04
Collector: Client

Project: YANK00304
Client ID: YANK001

Parameter	Qualifier	Result	Uncertainty	LC	TPU	MDA	Units	DF	Analyst	Date	Time	Batch	Mtd.
Rad Alpha Spec Analysis													
Alphaspec Pu, Liquid-ALL													
Plutonium-238	U	0.0207	+/-0.0879	0.0785	+/-0.0879	0.196	pCi/L		JAS1	04/05/04	1432	321618	1
Plutonium-239/240	U	0.0142	+/-0.0444	0.0335	+/-0.0445	0.106	pCi/L						
Am241,Cm, Liquid-ALL													
Americium-241	U	-0.0251	+/-0.0625	0.0717	+/-0.0625	0.188	pCi/L		JAS1	04/05/04	1431	321615	2
Curium-242	U	0.00882	+/-0.0391	0.0294	+/-0.0391	0.107	pCi/L						
Curium-243/244	U	-0.0249	+/-0.0281	0.047	+/-0.0282	0.138	pCi/L						
Liquid Scint Pu241, Liquid-ALL													
Plutonium-241	U	3.72	+/-7.93	6.62	+/-7.94	13.4	pCi/L		JAS1	04/10/04	0059	321621	3
Rad Gamma Spec Analysis													
Gammaspec, Gamma,Liquid-ALL,GAM2,STND,MIX,PENN,LF													
Americium-241	U	3.32	+/-7.25	5.97	+/-7.10	12.2	pCi/L		SRB	03/31/04	1903	320209	4
Cesium-134	U	-0.156	+/-1.78	1.48	+/-1.74	3.12	pCi/L						
Cesium-137	U	0.00	+/-2.96	2.44	+/-2.90	5.01	pCi/L						
	UI												
Cobalt-60	U	0.619	+/-1.55	1.31	+/-1.52	2.81	pCi/L						
Europium-152	U	5.65	+/-4.60	3.97	+/-4.51	8.17	pCi/L						
Europium-154	U	-1.78	+/-4.31	3.37	+/-4.23	7.28	pCi/L						
Europium-155	U	0.786	+/-5.80	4.68	+/-5.68	9.54	pCi/L						
Manganese-54	U	-0.866	+/-1.59	1.28	+/-1.55	2.70	pCi/L						
Niobium-94	U	0.855	+/-1.53	1.26	+/-1.50	2.64	pCi/L						
Silver-108m	U	0.106	+/-1.55	1.27	+/-1.52	2.63	pCi/L						
Rad Gas Flow Proportional Counting													
GFPC, Sr90, liquid-ALL,MIX													
Strontium-90		16.5	+/-1.43	0.318	+/-3.72	0.720	pCi/L		HOB1	04/06/04	1429	321379	5
Gross A/B, liquid-ALL,STND,MIX,PENN,LF													
Alpha	U	0.503	+/-1.01	0.841	+/-1.01	1.85	pCi/L		HOB1	04/20/04	1353	325997	6
Beta		14.1	+/-1.32	0.671	+/-1.32	1.40	pCi/L						
Rad Liquid Scintillation Analysis													
LSC, Tritium Dist, Liquid-ALL,STND,MIX,PENN													
Tritium		405	+/-189	132	+/-189	265	pCi/L		CTO1	04/04/04	1323	320148	8
Liquid Scint C14, Liquid-ALL													
Carbon-14	U	85.6	+/-90.1	73.7	+/-124	151	pCi/L		CTO1	04/03/04	0747	320177	9
Liquid Scint Fe55, Liquid-ALL													
Iron-55	U	-15.5	+/-11.8	4.32	+/-11.8	9.00	pCi/L		LAG1	04/08/04	1829	320139	10
Liquid Scint Ni63, Liquid-ALL													

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Contact: Mr. David Keefer
Project: Quarterly Groundwater PO# 002337

Report Date: April 22, 2004

Client Sample ID: MW106S-0104-001(FILT)
Sample ID: 109455022

Project: YANK00304
Client ID: YANK001

Parameter	Qualifier	Result	Uncertainty	LC	TPU	MDA	Units	DF	AnalystDate	Time	Batch	Mtd.
Rad Liquid Scintillation Analysis												
Liquid Scint Ni63, Liquid-ALL												
Nickel-63	U	-2.16	+/-2.92	2.50	+/-2.92	5.11	pCi/L		LAG1 04/05/04	1750	320136	11
Liquid Scint Tc99, Liquid-ALL												
Technetium-99	U	-3.25	+/-5.57	4.75	+/-5.57	9.71	pCi/L		JLB1 04/12/04	0153	320141	12

The following Prep Methods were performed

Method	Description	Analyst	Date	Time	Prep Batch
SW846 3005A	ICP-MS 3005 PREP	ARG1	04/14/04	0800	321018

The following Analytical Methods were performed

Method	Description
1	DOE EML HASL-300, Pu-11-RC Modified
2	DOE EML HASL-300, Am-05-RC Modified
3	DOE EML HASL-300, Pu-11-RC Modified
4	EPA 901.1
5	EPA 905.0 Modified
6	EPA 900.0
7	EPA 900.0
8	EPA 906.0 Modified
9	EPA EERF C-01 Modified
10	DOE RESL Fe-1, Modified
11	DOE RESL Ni-1, Modified
12	DOE EML HASL-300, Tc-02-RC Modified

Surrogate/Tracer recovery	Test	Recovery%	Acceptable Limits
Plutonium-242	Alphaspec Pu, Liquid-ALL	96	(15%-125%)
Americium-243	Am241,Cm, Liquid-ALL	89	(25%-125%)
Carrier/Tracer Recovery	Liquid Scint Pu241, Liquid-ALL	89	
Carrier/Tracer Recovery	GFPC, Sr90, liquid-ALL,MIX	107	
Carrier/Tracer Recovery	Liquid Scint Fe55, Liquid-ALL	74	
Carrier/Tracer Recovery	Liquid Scint Ni63, Liquid-ALL	88	
Carrier/Tracer Recovery	Liquid Scint Tc99, Liquid-ALL	107	

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Project: Quarterly Groundwater PO# 002337

Report Date: April 22, 2004

Client Sample ID: MW106S-0104-001(FILT) Project: YANK00304
Sample ID: 109455022 Client ID: YANK001

Parameter	Qualifier	Result	Uncertainty	LC	TPU	MDA	Units	DF	AnalystDate	Time	Batch Mtd.

Notes:
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East Hampton, Connecticut 06424
Contact: Mr. David Keefer
Project: Quarterly Groundwater PO# 002337

Report Date: April 22, 2004

Client Sample ID: MW105D-0104-001(FILT)
Sample ID: 109455023
Matrix: Ground Water
Collect Date: 17-MAR-04
Receive Date: 22-MAR-04
Collector: Client

Project: YANK00304
Client ID: YANK001

Parameter	Qualifier	Result	Uncertainty	LC	TPU	MDA	Units	DF	Analyst	Date	Time	Batch	Mtd.
Rad Alpha Spec Analysis													
Alphaspec Pu, Liquid-ALL													
Plutonium-238	U	-0.0144	+/-0.0516	0.0568	+/-0.0517	0.151	pCi/L		JAS1	04/05/04	1432	321618	1
Plutonium-239/240	U	0.014	+/-0.0275	0.00	+/-0.0275	0.038	pCi/L						
Am241,Cm, Liquid-ALL													
Americium-241	U	0.0109	+/-0.0825	0.0768	+/-0.0825	0.259	pCi/L		JAS1	04/06/04	1003	321615	2
Curium-242	U	-0.0102	+/-0.0199	0.0483	+/-0.020	0.212	pCi/L						
Curium-243/244	U	0.0452	+/-0.186	0.178	+/-0.186	0.460	pCi/L						
Liquid Scint Pu241, Liquid-ALL													
Plutonium-241	U	-0.093	+/-7.69	6.46	+/-7.69	13.1	pCi/L		JAS1	04/10/04	0405	321621	3
Rad Gamma Spec Analysis													
Gammaspec, Gamma,Liquid-ALL,GAM2,STND,MIX,PENN,LF													
Americium-241	U	3.95	+/-9.92	7.62	+/-9.73	15.6	pCi/L		SRB	03/31/04	2008	320209	4
Cesium-134	U	0.103	+/-1.22	0.988	+/-1.20	2.09	pCi/L						
Cesium-137	U	0.581	+/-1.11	0.931	+/-1.08	1.96	pCi/L						
Cobalt-60	U	0.728	+/-1.13	0.980	+/-1.10	2.11	pCi/L						
Europium-152	U	-1.4	+/-3.07	2.54	+/-3.01	5.28	pCi/L						
Europium-154	U	-1.49	+/-3.06	2.40	+/-3.00	5.19	pCi/L						
Europium-155	U	0.935	+/-4.19	3.49	+/-4.10	7.15	pCi/L						
Manganese-54	U	0.355	+/-1.13	0.923	+/-1.10	1.95	pCi/L						
Niobium-94	U	0.274	+/-0.985	0.814	+/-0.965	1.71	pCi/L						
Silver-108m	U	0.839	+/-1.09	0.940	+/-1.07	1.95	pCi/L						
Rad Gas Flow Proportional Counting													
GFPC, Sr90, liquid-ALL,MIX													
Strontium-90	U	0.118	+/-0.401	0.437	+/-0.402	0.973	pCi/L		HOB1	04/06/04	1429	321379	5
Gross A/B, liquid-ALL,STND,MIX,PENN,LF													
Alpha		2.70	+/-0.811	0.436	+/-0.856	0.976	pCi/L		HOB1	04/20/04	1353	325997	6
Beta		3.73	+/-0.729	0.464	+/-0.730	0.977	pCi/L						
Rad Liquid Scintillation Analysis													
LSC, Tritium Dist, Liquid-ALL,STND,MIX,PENN													
Tritium		802	+/-213	131	+/-214	262	pCi/L		CTO1	04/04/04	1409	320148	8
Liquid Scint C14, Liquid-ALL													
Carbon-14	U	16.4	+/-87.7	73.2	+/-89.2	150	pCi/L		CTO1	04/03/04	0849	320177	9
Liquid Scint Fe55, Liquid-ALL													
Iron-55	U	-30.1	+/-9.07	3.35	+/-9.16	6.99	pCi/L		LAG1	04/08/04	1930	320139	10
Liquid Scint Ni63, Liquid-ALL													

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East Hampton, Connecticut 06424
Contact: Mr. David Keefer
Project: Quarterly Groundwater PO# 002337

Report Date: April 22, 2004

Client Sample ID: MW105D-0104-001(FILT) Project: YANK00304
Sample ID: 109455023 Client ID: YANK001

Parameter	Qualifier	Result	Uncertainty	LC	TPU	MDA	Units	DF	Analyst	Date	Time	Batch	Mtd.
Rad Liquid Scintillation Analysis													
Liquid Scint Ni63, Liquid-ALL													
Nickel-63	U	-3.33	+/-2.72	2.36	+/-2.72	4.83	pCi/L		LAG1	04/05/04	1837	320136	11
Liquid Scint Tc99, Liquid-ALL													
Technetium-99	U	-2.72	+/-5.81	4.94	+/-5.81	10.1	pCi/L		JLB1	04/12/04	0225	320141	12

The following Prep Methods were performed

Method	Description	Analyst	Date	Time	Prep Batch
SW846 3005A	ICP-MS 3005 PREP	ARG1	04/14/04	0800	321018

The following Analytical Methods were performed

Method	Description
1	DOE EML HASL-300, Pu-11-RC Modified
2	DOE EML HASL-300, Am-05-RC Modified
3	DOE EML HASL-300, Pu-11-RC Modified
4	EPA 901.1
5	EPA 905.0 Modified
6	EPA 900.0
7	EPA 900.0
8	EPA 906.0 Modified
9	EPA EERF C-01 Modified
10	DOE RESL Fe-1, Modified
11	DOE RESL Ni-1, Modified
12	DOE EML HASL-300, Tc-02-RC Modified

Surrogate/Tracer recovery	Test	Recovery %	Acceptable Limits
Plutonium-242	Alphaspec Pu, Liquid-ALL	93	(15%-125%)
Americium-243	Am241,Cm, Liquid-ALL	78	(25%-125%)
Carrier/Tracer Recovery	Liquid Scint Pu241, Liquid-ALL	96	
Carrier/Tracer Recovery	GFPC, Sr90, liquid-ALL,MIX	87	
Carrier/Tracer Recovery	Liquid Scint Fe55, Liquid-ALL	84	
Carrier/Tracer Recovery	Liquid Scint Ni63, Liquid-ALL	88	
Carrier/Tracer Recovery	Liquid Scint Tc99, Liquid-ALL	103	

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Client Sample ID: MW105D-0104-001(FILT)
Sample ID: 109455023

Project: YANK00304
Client ID: YANK001

Parameter	Qualifier	Result	Uncertainty	LC	TPU	MDA	Units	DF	AnalystDate	Time	Batch Mtd.

Notes:
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UI Uncertain identification for gamma spectroscopy.
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Contact: Mr. David Keefer
Project: Quarterly Groundwater PO# 002337

Report Date: April 22, 2004

Client Sample ID: MW105D-0104-001
Sample ID: 109455024
Matrix: Ground Water
Collect Date: 17-MAR-04
Receive Date: 22-MAR-04
Collector: Client

Project: YANK00304
Client ID: YANK001

Parameter	Qualifier	Result	Uncertainty	LC	TPU	MDA	Units	DF	Analyst	Date	Time	Batch	Mtd.
Rad Alpha Spec Analysis													
Alphaspec Pu, Liquid-ALL													
Plutonium-238	U	0.0263	+/-0.0669	0.0541	+/-0.067	0.144	pCi/L		JAS1	04/05/04	1432	321618	1
Plutonium-239/240	U	0.020	+/-0.0393	0.0221	+/-0.0394	0.0804	pCi/L						
Am241,Cm, Liquid-ALL													
Americium-241		0.0462	+/-0.0522	0.00	+/-0.0524	0.0417	pCi/L		JAS1	04/05/04	1431	321615	2
Curium-242	U	0.0167	+/-0.0328	0.00	+/-0.0328	0.0453	pCi/L						
Curium-243/244	U	0.00	+/-0.0302	0.00	+/-0.0302	0.0417	pCi/L						
Liquid Scint Pu241, Liquid-ALL													
Plutonium-241	U	3.77	+/-7.31	6.10	+/-7.32	12.3	pCi/L		JAS1	04/10/04	0711	321621	3
Rad Gamma Spec Analysis													
Gammaspec, Gamma,Liquid-ALL,GAM2,STND,MIX,PENN,LF													
Americium-241	U	0.680	+/-2.19	1.82	+/-2.15	3.73	pCi/L		SRB	03/31/04	2009	320209	4
Cesium-134	U	-0.29	+/-1.50	1.23	+/-1.47	2.61	pCi/L						
Cesium-137	U	-0.42	+/-1.43	1.18	+/-1.40	2.48	pCi/L						
Cobalt-60	U	-0.939	+/-1.42	1.12	+/-1.39	2.42	pCi/L						
Europium-152	U	-1.94	+/-3.44	2.76	+/-3.37	5.74	pCi/L						
Europium-154	U	1.98	+/-4.19	3.66	+/-4.11	7.82	pCi/L						
Europium-155	U	-0.0801	+/-3.35	2.69	+/-3.29	5.51	pCi/L						
Manganese-54	U	-1.24	+/-1.44	1.13	+/-1.42	2.38	pCi/L						
Niobium-94	U	-0.799	+/-1.27	1.02	+/-1.24	2.15	pCi/L						
Silver-108m	U	-0.429	+/-1.21	0.962	+/-1.19	2.01	pCi/L						
Rad Gas Flow Proportional Counting													
GFPC, Sr90, liquid-ALL,MIX													
Strontium-90	U	-0.0604	+/-0.299	0.360	+/-0.299	0.811	pCi/L		HOB1	04/06/04	1429	321379	5
Gross A/B, liquid-ALL,STND,MIX,PENN,LF													
Alpha		2.59	+/-0.795	0.421	+/-0.900	0.949	pCi/L		HOB1	04/20/04	1353	325997	6
Beta		3.56	+/-0.707	0.449	+/-0.708	0.946	pCi/L						
Rad Liquid Scintillation Analysis													
LSC, Tritium Dist, Liquid-ALL,STND,MIX,PENN													
Tritium		953	+/-227	135	+/-228	270	pCi/L		CTO1	04/04/04	1455	320148	8
Liquid Scint C14, Liquid-ALL													
Carbon-14	U	33.9	+/-89.0	73.9	+/-95.2	151	pCi/L		CTO1	04/03/04	0951	320177	9
Liquid Scint Fe55, Liquid-ALL													
Iron-55	U	-43.7	+/-7.97	3.28	+/-8.17	6.85	pCi/L		LAG1	04/08/04	2031	320139	10
Liquid Scint Ni63, Liquid-ALL													

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Contact: Mr. David Keefer
Project: Quarterly Groundwater PO# 002337

Report Date: April 22, 2004

Client Sample ID: MW105D-0104-001
Sample ID: 109455024

Project: YANK00304
Client ID: YANK001

Parameter	Qualifier	Result	Uncertainty	LC	TPU	MDA	Units	DF	AnalystDate	Time	Batch	Mtd.
Rad Liquid Scintillation Analysis												
Liquid Scint Ni63, Liquid-ALL												
Nickel-63	U	-3.36	+/-5.54	4.73	+/-5.54	9.67	pCi/L		LAG1 04/05/04	1924	320136	11
Liquid Scint Tc99, Liquid-ALL												
Technetium-99	U	-4.95	+/-5.85	5.02	+/-5.85	10.3	pCi/L		JLB1 04/12/04	0258	320141	12

The following Prep Methods were performed

Method	Description	Analyst	Date	Time	Prep Batch
SW846 3005A	ICP-MS 3005 PREP	ARG1	04/14/04	0800	321018

The following Analytical Methods were performed

Method	Description
1	DOE EML HASL-300, Pu-11-RC Modified
2	DOE EML HASL-300, Am-05-RC Modified
3	DOE EML HASL-300, Pu-11-RC Modified
4	EPA 901.1
5	EPA 905.0 Modified
6	EPA 900.0
7	EPA 900.0
8	EPA 906.0 Modified
9	EPA EERF C-01 Modified
10	DOE RESL Fe-1, Modified
11	DOE RESL Ni-1, Modified
12	DOE EML HASL-300, Tc-02-RC Modified

Surrogate/Tracer recovery	Test	Recovery%	Acceptable Limits
Plutonium-242	Alphaspec Pu, Liquid-ALL	99	(15%-125%)
Americium-243	Am241,Cm, Liquid-ALL	85	(25%-125%)
Carrier/Tracer Recovery	Liquid Scint Pu241, Liquid-ALL	95	
Carrier/Tracer Recovery	GFPC, Sr90, liquid-ALL,MIX	94	
Carrier/Tracer Recovery	Liquid Scint Fe55, Liquid-ALL	77	
Carrier/Tracer Recovery	Liquid Scint Ni63, Liquid-ALL	46	
Carrier/Tracer Recovery	Liquid Scint Tc99, Liquid-ALL	101	

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Contact: Mr. David Keefer
Project: Quarterly Groundwater PO# 002337

Report Date: April 22, 2004

Client Sample ID: MW105D-0104-001
Sample ID: 109455024
Project: YANK00304
Client ID: YANK001

Parameter	Qualifier	Result	Uncertainty	LC	TPU	MDA	Units	DF	AnalystDate	Time	Batch Mtd.

Notes:
The Qualifiers in this report are defined as follows :

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BD Flag for results below the MDC or a flag for low tracer recovery.
E Concentration of the target analyte exceeds the instrument calibration range.
H Analytical holding time exceeded.
J Indicates an estimated value. The result was greater than the detection limit, but less than the reporting limit.
U Indicates the target analyte was analyzed for but not detected above the detection limit.
UI Uncertain identification for gamma spectroscopy.
X Lab-specific qualifier-please see case narrative, data summary package or contact your project manager for details.
h Sample preparation or preservation holding time exceeded.
The above sample is reported on an "as received" basis.

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Reviewed by

GENERAL ENGINEERING LABORATORIES, LLC

2040 Savage Road Charleston SC 29407 - (843) 556-8171 - www.gel.com

Certificate of Analysis

Company: CYAPCo
Address: Haddam Neck Plant
362 Injun Hollow Road
East Hampton, Connecticut 06424
Contact: Mr. David Keefer
Project: Quarterly Groundwater PO# 002337

Report Date: April 22, 2004

Client Sample ID: MW105S-0104-001
Sample ID: 109455025
Matrix: Ground Water
Collect Date: 16-MAR-04
Receive Date: 22-MAR-04
Collector: Client

Project: YANK00304
Client ID: YANK001

Parameter	Qualifier	Result	Uncertainty	LC	TPU	MDA	Units	DF	Analyst	Date	Time	Batch	Mtd.
Rad Alpha Spec Analysis													
Alphaspec Pu, Liquid-ALL													
Plutonium-238	U	-0.00714	+/-0.014	0.0234	+/-0.014	0.085	pCi/L		JAS1	04/05/04	1432	321618	1
Plutonium-239/240	U	0.007	+/-0.031	0.0234	+/-0.031	0.085	pCi/L						
Am241,Cm, Liquid-ALL													
Americium-241	U	0.0379	+/-0.0652	0.0437	+/-0.0654	0.129	pCi/L		JAS1	04/05/04	1431	321615	2
Curium-242	U	0.00	+/-0.0326	0.00	+/-0.0326	0.0451	pCi/L						
Curium-243/244	U	-0.000305	+/-0.052	0.0505	+/-0.052	0.142	pCi/L						
Liquid Scint Pu241, Liquid-ALL													
Plutonium-241	U	0.357	+/-7.39	6.20	+/-7.39	12.5	pCi/L		JAS1	04/10/04	1017	321621	3
Rad Gamma Spec Analysis													
Gammaspec, Gamma,Liquid-ALL,GAM2,STND,MIX,PENN,LF													
Americium-241	U	4.44	+/-8.84	5.31	+/-8.66	10.9	pCi/L		SRB	03/31/04	2036	320209	4
Cesium-134	U	-0.163	+/-1.17	0.927	+/-1.15	1.96	pCi/L						
Cesium-137	U	-0.505	+/-1.13	0.888	+/-1.11	1.86	pCi/L						
Cobalt-60		3.23	+/-2.06	0.899	+/-2.02	1.93	pCi/L						
Europium-152	U	-0.19	+/-3.22	2.68	+/-3.16	5.54	pCi/L						
Europium-154	U	0.154	+/-2.69	2.22	+/-2.63	4.80	pCi/L						
Europium-155	U	1.29	+/-4.34	3.56	+/-4.26	7.27	pCi/L						
Manganese-54	U	0.072	+/-1.05	0.884	+/-1.03	1.86	pCi/L						
Niobium-94	U	0.516	+/-0.950	0.791	+/-0.931	1.66	pCi/L						
Silver-108m	U	0.291	+/-1.05	0.879	+/-1.03	1.82	pCi/L						
Rad Gas Flow Proportional Counting													
GFPC, Sr90, liquid-ALL,MIX													
Strontium-90		91.8	+/-3.45	0.362	+/-21.3	0.815	pCi/L		HOB1	04/06/04	1429	321379	5
Gross A/B, liquid-ALL,STND,MIX,PENN,LF													
Alpha		1.60	+/-1.76	0.547	+/-2.80	1.20	pCi/L		HOB1	04/20/04	1353	325997	6
Beta		192	+/-3.82	0.506	+/-5.21	1.06	pCi/L						
Rad Liquid Scintillation Analysis													
LSC, Tritium Dist, Liquid-ALL,STND,MIX,PENN													
Tritium		5520	+/-422	136	+/-431	273	pCi/L		CTO1	04/04/04	1541	320148	8
Liquid Scint C14, Liquid-ALL													
Carbon-14	U	83.5	+/-91.0	74.5	+/-123	152	pCi/L		CTO1	04/03/04	1052	320177	9
Liquid Scint Fe55, Liquid-ALL													
Iron-55	U	-22.9	+/-10.1	3.73	+/-10.2	7.77	pCi/L		LAG1	04/08/04	2132	320139	10
Liquid Scint Ni63, Liquid-ALL													

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East Hampton, Connecticut 06424
Contact: Mr. David Keefer
Project: Quarterly Groundwater PO# 002337

Report Date: April 22, 2004

Client Sample ID: MW105S-0104-001
Sample ID: 109455025

Project: YANK00304
Client ID: YANK001

Parameter	Qualifier	Result	Uncertainty	LC	TPU	MDA	Units	DF	Analyst	Date	Time	Batch	Mtd.
Rad Liquid Scintillation Analysis													
Liquid Scint Ni63, Liquid-ALL													
Nickel-63	U	-1.42	+/-3.17	2.69	+/-3.17	5.51	pCi/L		LAG1	04/05/04	2011	320136	11
Liquid Scint Tc99, Liquid-ALL													
Technetium-99	U	-1.5	+/-5.92	5.01	+/-5.92	10.2	pCi/L		JLB1	04/12/04	0330	320141	12

The following Prep Methods were performed

Method	Description	Analyst	Date	Time	Prep Batch
SW846 3005A	ICP-MS 3005 PREP	ARG1	04/14/04	0800	321018

The following Analytical Methods were performed

Method	Description
1	DOE EML HASL-300, Pu-11-RC Modified
2	DOE EML HASL-300, Am-05-RC Modified
3	DOE EML HASL-300, Pu-11-RC Modified
4	EPA 901.1
5	EPA 905.0 Modified
6	EPA 900.0
7	EPA 900.0
8	EPA 906.0 Modified
9	EPA EERF C-01 Modified
10	DOE RESL Fe-1, Modified
11	DOE RESL Ni-1, Modified
12	DOE EML HASL-300, Tc-02-RC Modified

Surrogate/Tracer recovery	Test	Recovery %	Acceptable Limits
Plutonium-242	Alphaspec Pu, Liquid-ALL	91	(15%-125%)
Americium-243	Am241,Cm, Liquid-ALL	83	(25%-125%)
Carrier/Tracer Recovery	Liquid Scint Pu241, Liquid-ALL	95	
Carrier/Tracer Recovery	GFPC, Sr90, liquid-ALL,MIX	97	
Carrier/Tracer Recovery	Liquid Scint Fe55, Liquid-ALL	79	
Carrier/Tracer Recovery	Liquid Scint Ni63, Liquid-ALL	82	
Carrier/Tracer Recovery	Liquid Scint Tc99, Liquid-ALL	102	

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Client Sample ID: MW105S-0104-001
Sample ID: 109455025

Project: YANK00304
Client ID: YANK001

Parameter	Qualifier	Result	Uncertainty	LC	TPU	MDA	Units	DF	AnalystDate	Time	Batch Mtd.

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Contact: Mr. David Keefer
Project: Quarterly Groundwater PO# 002337

Report Date: April 22, 2004

Client Sample ID: MW105S-0104-001(FILT)
Sample ID: 109455026
Matrix: Ground Water
Collect Date: 16-MAR-04
Receive Date: 22-MAR-04
Collector: Client

Project: YANK00304
Client ID: YANK001

Parameter	Qualifier	Result	Uncertainty	LC	TPU	MDA	Units	DF	AnalystDate	Time	Batch	Mtd.
Rad Alpha Spec Analysis												
Alphaspec Pu, Liquid-ALL												
Plutonium-238	U	0.00695	+/-0.0308	0.0232	+/-0.0308	0.0845	pCi/L		JAS1 04/05/04	1505	321618	1
Plutonium-239/240	U	-0.00014	+/-0.0338	0.0328	+/-0.0338	0.104	pCi/L					
Am241,Cm, Liquid-ALL												
Americium-241		0.0629	+/-0.0616	0.00	+/-0.0619	0.0426	pCi/L		JAS1 04/05/04	1431	321615	2
Curium-242	U	0.00	+/-0.0336	0.00	+/-0.0336	0.0465	pCi/L					
Curium-243/244	U	0.00	+/-0.0308	0.00	+/-0.0308	0.0426	pCi/L					
Liquid Scint Pu241, Liquid-ALL												
Plutonium-241	U	-2.24	+/-11.6	9.74	+/-11.6	19.7	pCi/L		JAS1 04/10/04	1539	321621	3
Rad Gamma Spec Analysis												
Gammaspec, Gamma,Liquid-ALL,GAM2,STND,MIX,PENN,LF												
Americium-241	U	-1.31	+/-7.80	5.99	+/-7.65	12.4	pCi/L		SRB 03/31/04	2049	320209	4
Cesium-134	U	0.644	+/-1.31	1.12	+/-1.29	2.39	pCi/L					
Cesium-137	U	0.752	+/-1.18	1.03	+/-1.16	2.19	pCi/L					
Cobalt-60	U	0.00	+/-2.40	1.04	+/-2.35	2.27	pCi/L					
	UI											
Europium-152	U	-0.209	+/-3.57	2.86	+/-3.49	5.96	pCi/L					
Europium-154	U	2.62	+/-3.47	3.01	+/-3.40	6.54	pCi/L					
Europium-155	U	0.946	+/-4.52	3.84	+/-4.43	7.90	pCi/L					
Manganese-54	U	-0.211	+/-1.22	0.986	+/-1.19	2.11	pCi/L					
Niobium-94	U	0.278	+/-1.09	0.922	+/-1.07	1.95	pCi/L					
Silver-108m	U	-0.291	+/-1.16	0.902	+/-1.13	1.90	pCi/L					
Rad Gas Flow Proportional Counting												
GFPC, Sr90, liquid-ALL,MIX												
Strontium-90		92.4	+/-3.45	0.366	+/-21.8	0.822	pCi/L		HOB1 04/06/04	1429	321379	5
Gross A/B, liquid-ALL,STND,MIX,PENN,LF												
Alpha		2.42	+/-1.40	0.383	+/-1.84	0.877	pCi/L		HOB1 04/20/04	1353	325997	6
Beta		203	+/-3.90	0.486	+/-4.69	1.02	pCi/L					
Rad Liquid Scintillation Analysis												
LSC, Tritium Dist, Liquid-ALL,STND,MIX,PENN												
Tritium		5880	+/-434	137	+/-444	275	pCi/L		CTO1 04/04/04	1627	320148	8
Liquid Scint C14, Liquid-ALL												
Carbon-14	U	140	+/-92.3	74.3	+/-167	152	pCi/L		CTO1 04/03/04	1154	320177	9
Liquid Scint Fe55, Liquid-ALL												
Iron-55	U	-45.7	+/-8.91	3.47	+/-9.11	7.25	pCi/L		LAG1 04/08/04	2233	320139	10
Liquid Scint Ni63, Liquid-ALL												

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Contact: Mr. David Keefer
Project: Quarterly Groundwater PO# 002337

Report Date: April 22, 2004

Client Sample ID: MW105S-0104-001(FILT) Project: YANK00304
Sample ID: 109455026 Client ID: YANK001

Parameter	Qualifier	Result	Uncertainty	LC	TPU	MDA	Units	DF	AnalystDate	Time	Batch	Mtd.
Rad Liquid Scintillation Analysis												
Liquid Scint Ni63, Liquid-ALL												
Nickel-63	U	0.00	+/-3.16	2.65	+/-3.16	5.42	pCi/L		LAG1 04/05/04	2059	320136	11
Liquid Scint Tc99, Liquid-ALL												
Technetium-99	U	-1.86	+/-6.28	5.31	+/-6.28	10.9	pCi/L		JLB1 04/12/04	0402	320141	12

The following Prep Methods were performed

Method	Description	Analyst	Date	Time	Prep Batch
SW846 3005A	ICP-MS 3005 PREP	ARG1	04/14/04	0800	321018

The following Analytical Methods were performed

Method	Description
1	DOE EML HASL-300, Pu-11-RC Modified
2	DOE EML HASL-300, Am-05-RC Modified
3	DOE EML HASL-300, Pu-11-RC Modified
4	EPA 901.1
5	EPA 905.0 Modified
6	EPA 900.0
7	EPA 900.0
8	EPA 906.0 Modified
9	EPA EERF C-01 Modified
10	DOE RESL Fe-1, Modified
11	DOE RESL Ni-1, Modified
12	DOE EML HASL-300, Tc-02-RC Modified

Surrogate/Tracer recovery	Test	Recovery%	Acceptable Limits
Plutonium-242	Alphaspec Pu, Liquid-ALL	108	(15%-125%)
Americium-243	Am241,Cm, Liquid-ALL	96	(25%-125%)
Carrier/Tracer Recovery	Liquid Scint Pu241, Liquid-ALL	61	
Carrier/Tracer Recovery	GFPC, Sr90, liquid-ALL,MIX	96	
Carrier/Tracer Recovery	Liquid Scint Fe55, Liquid-ALL	81	
Carrier/Tracer Recovery	Liquid Scint Ni63, Liquid-ALL	84	
Carrier/Tracer Recovery	Liquid Scint Tc99, Liquid-ALL	95	

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Client Sample ID: MW105S-0104-001(FILT)
Sample ID: 109455026
Project: YANK00304
Client ID: YANK001

Parameter	Qualifier	Result	Uncertainty	LC	TPU	MDA	Units	DF	AnalystDate	Time	Batch Mtd.

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Contact: Mr. David Keefer
Project: Quarterly Groundwater PO# 002337

Report Date: April 22, 2004

Client Sample ID: MW103D-0104-001
Sample ID: 109455027
Matrix: Ground Water
Collect Date: 17-MAR-04
Receive Date: 22-MAR-04
Collector: Client

Project: YANK00304
Client ID: YANK001

Parameter	Qualifier	Result	Uncertainty	LC	TPU	MDA	Units	DF	Analyst	Date	Time	Batch	Mtd.
Rad Alpha Spec Analysis													
Alphaspec Pu, Liquid-ALL													
Plutonium-238	U	-0.000139	+/-0.0335	0.0325	+/-0.0335	0.103	pCi/L		JAS1	04/05/04	1505	321618	1
Plutonium-239/240	U	0.0138	+/-0.0432	0.0325	+/-0.0432	0.103	pCi/L						
Am241,Cm, Liquid-ALL													
Americium-241	U	-0.0166	+/-0.023	0.0384	+/-0.0231	0.121	pCi/L		JAS1	04/05/04	1431	321615	2
Curium-242	U	0.0357	+/-0.0495	0.00	+/-0.0497	0.0484	pCi/L						
Curium-243/244	U	0.00815	+/-0.0361	0.0272	+/-0.0361	0.099	pCi/L						
Liquid Scint Pu241, Liquid-ALL													
Plutonium-241	U	-2.42	+/-7.12	6.00	+/-7.12	12.1	pCi/L		JAS1	04/10/04	1846	321621	3
Rad Gamma Spec Analysis													
Gammaspec, Gamma,Liquid-ALL,GAM2,STND,MIX,PENN,LF													
Americium-241	U	1.98	+/-9.02	7.18	+/-8.84	14.8	pCi/L		SRB	03/31/04	2051	320209	4
Cesium-134	U	-0.522	+/-1.56	1.24	+/-1.53	2.63	pCi/L						
Cesium-137	U	1.34	+/-1.48	1.29	+/-1.45	2.70	pCi/L						
Cobalt-60	U	0.541	+/-1.48	1.27	+/-1.45	2.74	pCi/L						
Europium-152	U	-0.26	+/-4.54	3.65	+/-4.45	7.55	pCi/L						
Europium-154	U	0.622	+/-4.42	3.26	+/-4.33	7.06	pCi/L						
Europium-155	U	-1.36	+/-5.40	4.59	+/-5.29	9.39	pCi/L						
Manganese-54	U	-0.296	+/-1.30	1.04	+/-1.28	2.22	pCi/L						
Niobium-94	U	1.67	+/-1.25	1.11	+/-1.22	2.34	pCi/L						
Silver-108m	U	-0.542	+/-1.43	1.11	+/-1.41	2.32	pCi/L						
Rad Gas Flow Proportional Counting													
GFPC, Sr90, liquid-ALL,MIX													
Strontium-90	U	-0.0756	+/-0.298	0.362	+/-0.298	0.815	pCi/L		HOB1	04/06/04	1429	321379	5
Gross A/B, liquid-ALL,STND,MIX,PENN,LF													
Alpha		5.19	+/-1.10	0.456	+/-1.25	1.04	pCi/L		HOB1	04/20/04	1353	325997	6
Beta		6.06	+/-0.881	0.514	+/-0.883	1.08	pCi/L						
Rad Liquid Scintillation Analysis													
LSC, Tritium Dist, Liquid-ALL,STND,MIX,PENN													
Tritium		12000	+/-580	130	+/-610	259	pCi/L		CTO1	04/04/04	1713	320148	8
Liquid Scint C14, Liquid-ALL													
Carbon-14	U	31.3	+/-88.1	73.3	+/-93.5	150	pCi/L		CTO1	04/03/04	1256	320177	9
Liquid Scint Fe55, Liquid-ALL													
Iron-55	U	2.59	+/-13.8	5.60	+/-13.8	11.7	pCi/L		LAG1	04/08/04	2334	320139	10
Liquid Scint Ni63, Liquid-ALL													

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Project: Quarterly Groundwater PO# 002337

Report Date: April 22, 2004

Client Sample ID: MW103D-0104-001
Sample ID: 109455027
Project: YANK00304
Client ID: YANK001

Parameter	Qualifier	Result	Uncertainty	LC	TPU	MDA	Units	DF	Analyst	Date	Time	Batch	Mtd.
Rad Liquid Scintillation Analysis													
Liquid Scint Ni63, Liquid-ALL													
Nickel-63	U	-5.23	+/-3.59	3.13	+/-3.59	6.41	pCi/L		LAG1	04/05/04	2146	320136	11
Liquid Scint Tc99, Liquid-ALL													
Technetium-99	U	0.00	+/-6.96	5.84	+/-6.96	11.9	pCi/L		JLB1	04/12/04	0434	320141	12

The following Prep Methods were performed

Method	Description	Analyst	Date	Time	Prep Batch
SW846 3005A	ICP-MS 3005 PREP	ARG1	04/14/04	0800	321018

The following Analytical Methods were performed

Method	Description
1	DOE EML HASL-300, Pu-11-RC Modified
2	DOE EML HASL-300, Am-05-RC Modified
3	DOE EML HASL-300, Pu-11-RC Modified
4	EPA 901.1
5	EPA 905.0 Modified
6	EPA 900.0
7	EPA 900.0
8	EPA 906.0 Modified
9	EPA EERF C-01 Modified
10	DOE RESL Fe-1, Modified
11	DOE RESL Ni-1, Modified
12	DOE EML HASL-300, Tc-02-RC Modified

Surrogate/Tracer recovery	Test	Recovery%	Acceptable Limits
Plutonium-242	Alphaspec Pu, Liquid-ALL	101	(15%-125%)
Americium-243	Am241,Cm, Liquid-ALL	84	(25%-125%)
Carrier/Tracer Recovery	Liquid Scint Pu241, Liquid-ALL	97	
Carrier/Tracer Recovery	GFPC, Sr90, liquid-ALL,MIX	94	
Carrier/Tracer Recovery	Liquid Scint Fe55, Liquid-ALL	53	
Carrier/Tracer Recovery	Liquid Scint Ni63, Liquid-ALL	72	
Carrier/Tracer Recovery	Liquid Scint Tc99, Liquid-ALL	98	

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Project: Quarterly Groundwater PO# 002337

Report Date: April 22, 2004

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Sample ID: 109455027

Project: YANK00304
Client ID: YANK001

Parameter	Qualifier	Result	Uncertainty	LC	TPU	MDA	Units	DF	AnalystDate	Time	Batch Mtd.

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East Hampton, Connecticut 06424
Contact: Mr. David Keefer
Project: Quarterly Groundwater PO# 002337

Report Date: April 22, 2004

Client Sample ID: MW104S-0104-001
Sample ID: 109455028
Matrix: Ground Water
Collect Date: 18-MAR-04
Receive Date: 22-MAR-04
Collector: Client

Project: YANK00304
Client ID: YANK001

Parameter	Qualifier	Result	Uncertainty	LC	TPU	MDA	Units	DF	Analyst	Date	Time	Batch	Mtd.
Rad Alpha Spec Analysis													
Alphaspec Pu, Liquid-ALL													
Plutonium-238	U	-0.0271	+/-0.0266	0.0444	+/-0.0267	0.125	pCi/L		JAS1	04/05/04	1505	321618	1
Plutonium-239/240	U	0.0065	+/-0.0437	0.0384	+/-0.0437	0.113	pCi/L						
Am241,Cm, Liquid-ALL													
Americium-241	U	0.0229	+/-0.0451	0.0253	+/-0.0452	0.0921	pCi/L		JAS1	04/05/04	1431	321615	2
Curium-242	U	-0.0167	+/-0.0232	0.0388	+/-0.0233	0.122	pCi/L						
Curium-243/244	U	0.00759	+/-0.0337	0.0254	+/-0.0337	0.0923	pCi/L						
Liquid Scint Pu241, Liquid-ALL													
Plutonium-241	U	2.29	+/-8.64	7.23	+/-8.65	14.6	pCi/L		JAS1	04/10/04	2152	321621	3
Rad Gamma Spec Analysis													
Gammaspec, Gamma,Liquid-ALL,GAM2,STND,MIX,PENN,LF													
Americium-241	U	-0.0809	+/-10.8	8.82	+/-10.6	18.0	pCi/L		SRB	03/31/04	2105	320209	4
Cesium-134	U	1.55	+/-1.41	1.22	+/-1.38	2.56	pCi/L						
Cesium-137	U	-0.923	+/-1.30	0.991	+/-1.27	2.09	pCi/L						
Cobalt-60	U	0.247	+/-1.29	1.08	+/-1.26	2.32	pCi/L						
Europium-152	U	-0.481	+/-3.84	3.17	+/-3.76	6.57	pCi/L						
Europium-154	U	-0.122	+/-3.49	2.86	+/-3.42	6.19	pCi/L						
Europium-155	U	0.0548	+/-5.67	4.56	+/-5.55	9.32	pCi/L						
Manganese-54	U	-0.902	+/-1.25	1.00	+/-1.22	2.12	pCi/L						
Niobium-94	U	-0.494	+/-1.23	0.965	+/-1.21	2.03	pCi/L						
Silver-108m	U	-0.434	+/-1.29	1.04	+/-1.26	2.17	pCi/L						
Rad Gas Flow Proportional Counting													
GFPC, Sr90, liquid-ALL,MIX													
Strontium-90	U	-0.0046	+/-0.258	0.299	+/-0.258	0.685	pCi/L		HOB1	04/06/04	1534	321379	5
Gross A/B, liquid-ALL,STND,MIX,PENN,LF													
Alpha		1.25	+/-0.718	0.404	+/-0.724	0.998	pCi/L		HOB1	04/22/04	1338	326865	6
Beta		4.11	+/-1.46	1.24	+/-1.46	2.59	pCi/L						
Rad Liquid Scintillation Analysis													
LSC, Tritium Dist, Liquid-ALL,STND,MIX,PENN													
Tritium		285	+/-183	135	+/-183	269	pCi/L		CTO1	04/04/04	1759	320148	9
Liquid Scint C14, Liquid-ALL													
Carbon-14	U	75.0	+/-89.7	73.6	+/-117	151	pCi/L		CTO1	04/03/04	1358	320177	10
Liquid Scint Fe55, Liquid-ALL													
Iron-55	U	-38.4	+/-11.2	4.93	+/-11.3	10.3	pCi/L		LAG1	04/09/04	0035	320139	11
Liquid Scint Ni63, Liquid-ALL													

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Certificate of Analysis

Company: CYAPCo
Address: Haddam Neck Plant
362 Injun Hollow Road
East Hampton, Connecticut 06424
Contact: Mr. David Keefer
Project: Quarterly Groundwater PO# 002337

Report Date: April 22, 2004

Client Sample ID: MW104S-0104-001
Sample ID: 109455028

Project: YANK00304
Client ID: YANK001

Parameter	Qualifier	Result	Uncertainty	LC	TPU	MDA	Units	DF	AnalystDate	Time	Batch	Mtd.
Rad Liquid Scintillation Analysis												
Liquid Scint Ni63, Liquid-ALL												
Nickel-63	U	-3.23	+/-3.24	2.79	+/-3.24	5.71	pCi/L		LAG1 04/05/04	2233	320136	12
Liquid Scint Tc99, Liquid-ALL												
Technetium-99	U	-0.45	+/-6.29	5.29	+/-6.29	10.8	pCi/L		JLB1 04/12/04	0507	320141	13

The following Prep Methods were performed

Method	Description	Analyst	Date	Time	Prep Batch
SW846 3005A	ICP-MS 3005 PREP	ARG1	04/14/04	0800	321018

The following Analytical Methods were performed

Method	Description
1	DOE EML HASL-300, Pu-11-RC Modified
2	DOE EML HASL-300, Am-05-RC Modified
3	DOE EML HASL-300, Pu-11-RC Modified
4	EPA 901.1
5	EPA 905.0 Modified
6	EPA 900.0
7	EPA 900.0
8	EPA 900.0
9	EPA 906.0 Modified
10	EPA EERF C-01 Modified
11	DOE RESL Fe-1, Modified
12	DOE RESL Ni-1, Modified
13	DOE EML HASL-300, Tc-02-RC Modified

Surrogate/Tracer recovery	Test	Recovery%	Acceptable Limits
Plutonium-242	Alphaspec Pu, Liquid-ALL	105	(15%-125%)
Americium-243	Am241,Cm, Liquid-ALL	88	(25%-125%)
Carrier/Tracer Recovery	Liquid Scint Pu241, Liquid-ALL	82	
Carrier/Tracer Recovery	GFPC, Sr90, liquid-ALL,MIX	97	
Carrier/Tracer Recovery	Liquid Scint Fe55, Liquid-ALL	56	
Carrier/Tracer Recovery	Liquid Scint Ni63, Liquid-ALL	79	
Carrier/Tracer Recovery	Liquid Scint Tc99, Liquid-ALL	96	

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Project: Quarterly Groundwater PO# 002337

Report Date: April 22, 2004

Client Sample ID: MW104S-0104-001
Sample ID: 109455028

Project: YANK00304
Client ID: YANK001

Parameter	Qualifier	Result	Uncertainty	LC	TPU	MDA	Units	DF	AnalystDate	Time	Batch Mtd.

Notes:
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H Analytical holding time exceeded.
J Indicates an estimated value. The result was greater than the detection limit, but less than the reporting limit.
U Indicates the target analyte was analyzed for but not detected above the detection limit.
UI Uncertain identification for gamma spectroscopy.
X Lab-specific qualifier-please see case narrative, data summary package or contact your project manager for details.
h Sample preparation or preservation holding time exceeded.
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Certificate of Analysis

Company: CYAPCo
Address: Haddam Neck Plant
362 Injun Hollow Road
East Hampton, Connecticut 06424
Contact: Mr. David Keefer
Project: Quarterly Groundwater PO# 002337

Report Date: April 22, 2004

Client Sample ID: MW103S-0104-001
Sample ID: 109455029
Matrix: Ground Water
Collect Date: 16-MAR-04
Receive Date: 22-MAR-04
Collector: Client

Project: YANK00304
Client ID: YANK001

Parameter	Qualifier	Result	Uncertainty	LC	TPU	MDA	Units	DF	Analyst	Date	Time	Batch	Mtd.
Rad Alpha Spec Analysis													
Alphaspec Pu, Liquid-ALL													
Plutonium-238	U	0.00	+/-0.0294	0.00	+/-0.0294	0.0407	pCi/L		JAS1	04/05/04	1505	321618	1
Plutonium-239/240	U	0.00728	+/-0.0489	0.043	+/-0.0489	0.127	pCi/L						
Am241,Cm, Liquid-ALL													
Americium-241	U	0.0413	+/-0.0585	0.0274	+/-0.0587	0.0995	pCi/L		JAS1	04/05/04	1431	321615	2
Curium-242	U	-0.0093	+/-0.047	0.0517	+/-0.0471	0.152	pCi/L						
Curium-243/244	U	0.0157	+/-0.095	0.0866	+/-0.095	0.218	pCi/L						
Liquid Scint Pu241, Liquid-ALL													
Plutonium-241	U	16.6	+/-10.6	8.73	+/-10.7	17.6	pCi/L		JAS1	04/11/04	0058	321621	3
Rad Gamma Spec Analysis													
Gammaspec, Gamma,Liquid-ALL,GAM2,STND,MIX,PENN,LF													
Americium-241	U	-5.66	+/-9.35	6.82	+/-9.16	14.0	pCi/L		SRB	03/31/04	2308	320209	4
Cesium-134	U	0.796	+/-1.42	1.21	+/-1.39	2.55	pCi/L						
Cesium-137		22.4	+/-3.45	1.26	+/-3.38	2.63	pCi/L						
Cobalt-60	U	1.43	+/-1.55	1.38	+/-1.52	2.92	pCi/L						
Europium-152	U	1.37	+/-4.29	3.58	+/-4.20	7.38	pCi/L						
Europium-154	U	-2.14	+/-3.96	3.15	+/-3.88	6.75	pCi/L						
Europium-155	U	1.24	+/-5.64	4.63	+/-5.53	9.45	pCi/L						
Manganese-54	U	-0.60	+/-1.39	1.11	+/-1.36	2.34	pCi/L						
Niobium-94	U	0.615	+/-1.34	1.01	+/-1.32	2.11	pCi/L						
Silver-108m	U	0.469	+/-1.45	1.19	+/-1.42	2.47	pCi/L						
Rad Gas Flow Proportional Counting													
GFPC, Sr90, liquid-ALL,MIX													
Strontium-90		2.27	+/-0.620	0.347	+/-0.811	0.786	pCi/L		HOB1	04/06/04	1534	321379	5
Gross A/B, liquid-ALL,STND,MIX,PENN,LF													
Alpha		1.53	+/-0.879	0.469	+/-0.891	1.14	pCi/L		HOB1	04/22/04	1338	326865	6
Beta		27.8	+/-2.43	1.23	+/-2.66	2.58	pCi/L						
Rad Liquid Scintillation Analysis													
LSC, Tritium Dist, Liquid-ALL,STND,MIX,PENN													
Tritium		1090	+/-228	129	+/-229	258	pCi/L		CTO1	04/04/04	1845	320148	9
Liquid Scint C14, Liquid-ALL													
Carbon-14	U	11.9	+/-99.4	83.1	+/-100	170	pCi/L		CTO1	04/03/04	1500	320177	10
Liquid Scint Fe55, Liquid-ALL													
Iron-55	U	9.53	+/-12.7	4.87	+/-12.7	10.1	pCi/L		LAG1	04/09/04	0136	320139	11
Liquid Scint Ni63, Liquid-ALL													

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Certificate of Analysis

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East Hampton, Connecticut 06424
Contact: Mr. David Keefer
Project: Quarterly Groundwater PO# 002337

Report Date: April 22, 2004

Client Sample ID: MW103S-0104-001
Sample ID: 109455029

Project: YANK00304
Client ID: YANK001

Parameter	Qualifier	Result	Uncertainty	LC	TPU	MDA	Units	DF	Analyst	Date	Time	Batch	Mtd.
Rad Liquid Scintillation Analysis													
Liquid Scint Ni63, Liquid-ALL													
Nickel-63	U	0.483	+/-3.77	3.15	+/-3.77	6.46	pCi/L		LAG1	04/05/04	2320	320136	12
Liquid Scint Tc99, Liquid-ALL													
Technetium-99	U	-3.57	+/-6.25	5.33	+/-6.25	10.9	pCi/L		JLB1	04/12/04	0539	320141	13

The following Prep Methods were performed

Method	Description	Analyst	Date	Time	Prep Batch
SW846 3005A	ICP-MS 3005 PREP	ARG1	04/14/04	0800	321018

The following Analytical Methods were performed

Method	Description
1	DOE EML HASL-300, Pu-11-RC Modified
2	DOE EML HASL-300, Am-05-RC Modified
3	DOE EML HASL-300, Pu-11-RC Modified
4	EPA 901.1
5	EPA 905.0 Modified
6	EPA 900.0
7	EPA 900.0
8	EPA 900.0
9	EPA 906.0 Modified
10	EPA EERF C-01 Modified
11	DOE RESL Fe-1, Modified
12	DOE RESL Ni-1, Modified
13	DOE EML HASL-300, Tc-02-RC Modified

Surrogate/Tracer recovery	Test	Recovery %	Acceptable Limits
Plutonium-242	Alphaspec Pu, Liquid-ALL	91	(15%-125%)
Americium-243	Am241,Cm, Liquid-ALL	86	(25%-125%)
Carrier/Tracer Recovery	Liquid Scint Pu241, Liquid-ALL	87	
Carrier/Tracer Recovery	GFPC, Sr90, liquid-ALL,MIX	97	
Carrier/Tracer Recovery	Liquid Scint Fe55, Liquid-ALL	61	
Carrier/Tracer Recovery	Liquid Scint Ni63, Liquid-ALL	70	
Carrier/Tracer Recovery	Liquid Scint Tc99, Liquid-ALL	95	

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Project: Quarterly Groundwater PO# 002337

Report Date: April 22, 2004

Client Sample ID: MW103S-0104-001
Sample ID: 109455029

Project: YANK00304
Client ID: YANK001

Parameter	Qualifier	Result	Uncertainty	LC	TPU	MDA	Units	DF	AnalystDate	Time	Batch Mtd.

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UI Uncertain identification for gamma spectroscopy.
X Lab-specific qualifier-please see case narrative, data summary package or contact your project manager for details.
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East Hampton, Connecticut 06424
Contact: Mr. David Keefer
Project: Quarterly Groundwater PO# 002337

Report Date: April 22, 2004

Client Sample ID:	MW100D-0104-001	Project:	YANK00304
Sample ID:	109455030	Client ID:	YANK001
Matrix:	Ground Water		
Collect Date:	18-MAR-04		
Receive Date:	22-MAR-04		
Collector:	Client		

Parameter	Qualifier	Result	Uncertainty	LC	TPU	MDA	Units	DF	Analyst	Date	Time	Batch	Mtd.
Rad Alpha Spec Analysis													
Am241 Liquid-STND,MIX,PENN,LF													
Americium-241	U	0.0956	+/-0.119	0.0395	+/-0.120	0.173	pCi/L		JS1	04/05/04	1008	321614	1
Rad Gamma Spec Analysis													
Gammaspec, Gamma,Liquid-ALL,GAM2,STND,MIX,PENN,LF													
Americium-241	U	-8.26	+/-12.0	9.87	+/-11.7	20.7	pCi/L		SRB	04/01/04	0940	320209	2
Cesium-134	U	0.123	+/-2.25	1.86	+/-2.20	4.10	pCi/L						
Cesium-137	U	0.194	+/-1.94	1.64	+/-1.90	3.59	pCi/L						
Cobalt-60	U	0.0719	+/-1.70	1.45	+/-1.67	3.37	pCi/L						
Europium-152	U	4.07	+/-5.79	4.93	+/-5.68	10.5	pCi/L						
Europium-154	U	1.87	+/-4.85	4.19	+/-4.76	9.68	pCi/L						
Europium-155	U	-1.56	+/-7.63	6.38	+/-7.48	13.3	pCi/L						
Manganese-54	U	0.263	+/-2.02	1.68	+/-1.98	3.70	pCi/L						
Niobium-94	U	-1.1	+/-1.81	1.40	+/-1.77	3.08	pCi/L						
Silver-108m	U	0.693	+/-2.07	1.70	+/-2.03	3.63	pCi/L						
Rad Gas Flow Proportional Counting													
Gross A/B, liquid-ALL,STND,MIX,PENN,LF													
Alpha	U	0.187	+/-0.453	0.391	+/-0.453	0.952	pCi/L		HOB1	04/22/04	1338	326865	3
Beta	U	1.31	+/-1.21	1.15	+/-1.21	2.40	pCi/L						
Rad Liquid Scintillation Analysis													
LSC, Tritium Dist, Liquid-ALL,STND,MIX,PENN													
Tritium	U	61.5	+/-161	131	+/-161	262	pCi/L		CTO1	04/04/04	1931	320148	6

The following Prep Methods were performed

Method	Description	Analyst	Date	Time	Prep Batch
SW846 3005A	ICP-MS 3005 PREP	ARG1	04/14/04	0800	321018

The following Analytical Methods were performed

Method	Description
1	DOE EML HASL-300, Am-05-RC Modified
2	EPA 901.1
3	EPA 900.0
4	EPA 900.0
5	EPA 900.0

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East Hampton, Connecticut 06424
Contact: Mr. David Keefer
Project: Quarterly Groundwater PO# 002337

Report Date: April 22, 2004

Client Sample ID: MW100D-0104-001
Sample ID: 109455030

Project: YANK00304
Client ID: YANK001

Parameter	Qualifier	Result	Uncertainty	LC	TPU	MDA	Units	DF	AnalystDate	Time	Batch Mtd.
6	EPA 906.0 Modified										

Surrogate/Tracer recovery	Test	Recovery%	Acceptable Limits
Americium-243	Am241 Liquid-STND,MIX,PENN	92	(25%-125%)

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Certificate of Analysis

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Contact: Mr. David Keefer
Project: Quarterly Groundwater PO# 002337

Report Date: April 22, 2004

Client Sample ID: MW100S-0104-001
Sample ID: 109455031
Matrix: Ground Water
Collect Date: 18-MAR-04
Receive Date: 22-MAR-04
Collector: Client

Project: YANK00304
Client ID: YANK001

Parameter	Qualifier	Result	Uncertainty	LC	TPU	MDA	Units	DF	Analyst	Date	Time	Batch	Mtd.
Rad Alpha Spec Analysis													
Am241 Liquid-STND,MIX,PENN,LF													
Americium-241	U	0.0503	+/-0.0943	0.0533	+/-0.0945	0.196	pCi/L		JS1	04/05/04	1008	321614	1
Rad Gamma Spec Analysis													
Gammaspec, Gamma,Liquid-ALL,GAM2,STND,MIX,PENN,LF													
Americium-241	U	0.00	+/-11.0	8.42	+/-10.8	17.6	pCi/L		SRB	04/01/04	1357	320209	2
	UI												
Cesium-134	U	1.78	+/-2.05	1.80	+/-2.01	3.91	pCi/L						
Cesium-137	U	-1.44	+/-1.94	1.44	+/-1.90	3.13	pCi/L						
Cobalt-60	U	0.389	+/-1.90	1.60	+/-1.86	3.61	pCi/L						
Europium-152	U	-5.6	+/-5.91	4.62	+/-5.80	9.77	pCi/L						
Europium-154	U	2.71	+/-5.60	4.90	+/-5.49	10.9	pCi/L						
Europium-155	U	-2.38	+/-7.84	6.28	+/-7.69	13.0	pCi/L						
Manganese-54	U	0.188	+/-1.76	1.50	+/-1.73	3.28	pCi/L						
Niobium-94	U	0.129	+/-1.88	1.52	+/-1.84	3.28	pCi/L						
Silver-108m	U	0.455	+/-1.85	1.55	+/-1.81	3.31	pCi/L						
Rad Gas Flow Proportional Counting													
Gross A/B, liquid-ALL,STND,MIX,PENN,LF													
Alpha	U	-0.067	+/-1.25	1.27	+/-1.25	2.80	pCi/L		HOB1	04/22/04	1424	326865	3
Beta		4.23	+/-1.76	1.57	+/-1.76	3.26	pCi/L						
Rad Liquid Scintillation Analysis													
LSC, Tritium Dist, Liquid-ALL,STND,MIX,PENN													
Tritium	U	94.2	+/-167	133	+/-167	267	pCi/L		CTO1	04/04/04	2017	320148	6

The following Prep Methods were performed

Method	Description	Analyst	Date	Time	Prep Batch
SW846 3005A	ICP-MS 3005 PREP	ARG1	04/14/04	0800	321018

The following Analytical Methods were performed

Method	Description
1	DOE EML HASL-300, Am-05-RC Modified
2	EPA 901.1
3	EPA 900.0
4	EPA 900.0

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Contact: Mr. David Keefer
Project: Quarterly Groundwater PO# 002337

Report Date: April 22, 2004

Client Sample ID: MW100S-0104-001
Sample ID: 109455031

Project: YANK00304
Client ID: YANK001

Parameter	Qualifier	Result	Uncertainty	LC	TPU	MDA	Units	DF	AnalystDate	Time	Batch Mtd.
5	EPA 900.0										
6	EPA 906.0 Modified										

Surrogate/Tracer recovery	Test	Recovery%	Acceptable Limits
Americium-243	Am241 Liquid-STND,MIX,PENN	89	(25%-125%)

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Certificate of Analysis

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Address: Haddam Neck Plant
362 Injun Hollow Road
East Hampton, Connecticut 06424
Contact: Mr. David Keefer
Project: Quarterly Groundwater PO# 002337

Report Date: April 22, 2004

Client Sample ID: MWEOF2-0104-001
Sample ID: 109455032
Matrix: Ground Water
Collect Date: 18-MAR-04
Receive Date: 22-MAR-04
Collector: Client

Project: YANK00304
Client ID: YANK001

Parameter	Qualifier	Result	Uncertainty	LC	TPU	MDA	Units	DF	Analyst	Date	Time	Batch	Mtd.
Rad Alpha Spec Analysis													
Am241 Liquid-STND,MIX,PENN,LF													
Americium-241	U	0.108	+/-0.143	0.0806	+/-0.143	0.257	pCi/L		JS1	04/05/04	1008	321614	1
Rad Gamma Spec Analysis													
Gammaspec, Gamma,Liquid-ALL,GAM2,STND,MIX,PENN,LF													
Americium-241	U	-1.71	+/-14.0	10.4	+/-13.7	21.6	pCi/L		SRB	04/01/04	0941	320209	2
Cesium-134	U	0.129	+/-2.08	1.73	+/-2.04	3.78	pCi/L						
Cesium-137	U	-2.72	+/-2.18	1.60	+/-2.14	3.48	pCi/L						
Cobalt-60	U	0.925	+/-2.20	1.93	+/-2.16	4.27	pCi/L						
Europium-152	U	-3.83	+/-6.28	4.96	+/-6.15	10.5	pCi/L						
Europium-154	U	0.352	+/-5.95	4.99	+/-5.83	11.1	pCi/L						
Europium-155	U	-2.94	+/-8.10	6.49	+/-7.94	13.5	pCi/L						
Manganese-54	U	-0.98	+/-2.23	1.75	+/-2.19	3.80	pCi/L						
Niobium-94	U	0.918	+/-1.86	1.62	+/-1.82	3.48	pCi/L						
Silver-108m	U	-2.27	+/-2.15	1.60	+/-2.11	3.41	pCi/L						
Rad Gas Flow Proportional Counting													
Gross A/B, liquid-ALL,STND,MIX,PENN,LF													
Alpha		1.73	+/-1.05	0.635	+/-1.06	1.55	pCi/L		HOB1	04/22/04	1424	326865	3
Beta		5.46	+/-1.61	1.30	+/-1.65	2.73	pCi/L						
Rad Liquid Scintillation Analysis													
LSC, Tritium Dist, Liquid-ALL,STND,MIX,PENN													
Tritium	U	62.3	+/-163	132	+/-163	265	pCi/L		CTO1	04/04/04	2103	320148	6

The following Analytical Methods were performed

Method	Description
1	DOE EML HASL-300, Am-05-RC Modified
2	EPA 901.1
3	EPA 900.0
4	EPA 900.0
5	EPA 900.0
6	EPA 906.0 Modified

Surrogate/Tracer recovery	Test	Recovery%	Acceptable Limits
Americium-243	Am241 Liquid-STND,MIX,PENN	84	(25%-125%)

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Certificate of Analysis

Company: CYAPCo
Address: Haddam Neck Plant
362 Injun Hollow Road
East Hampton, Connecticut 06424
Contact: Mr. David Keefer
Project: Quarterly Groundwater PO# 002337

Report Date: April 22, 2004

Client Sample ID: MWEOF2-0104-001
Sample ID: 109455032
Project: YANK00304
Client ID: YANK001

Parameter	Qualifier	Result	Uncertainty	LC	TPU	MDA	Units	DF	AnalystDate	Time	Batch Mtd.

Notes:
The Qualifiers in this report are defined as follows :

B Target analyte was detected in the sample as well as the associated blank.
BD Flag for results below the MDC or a flag for low tracer recovery.
E Concentration of the target analyte exceeds the instrument calibration range.
H Analytical holding time exceeded.
J Indicates an estimated value. The result was greater than the detection limit, but less than the reporting limit.
U Indicates the target analyte was analyzed for but not detected above the detection limit.
UI Uncertain identification for gamma spectroscopy.
X Lab-specific qualifier-please see case narrative, data summary package or contact your project manager for details.
h Sample preparation or preservation holding time exceeded.

The above sample is reported on an "as received" basis.

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Certificate of Analysis

Company : CYAPCo
Address : Haddam Neck Plant
362 Injun Hollow Road
East Hampton, Connecticut 06424
Contact: Mr. David Keefer
Project: Quarterly Groundwater PO# 002337

Report Date: April 22, 2004

Client Sample ID:	MW108S-0104-001	Project:	YANK00304
Sample ID:	109455033	Client ID:	YANK001
Matrix:	Ground Water		
Collect Date:	17-MAR-04		
Receive Date:	22-MAR-04		
Collector:	Client		

Parameter	Qualifier	Result	Uncertainty	LC	TPU	MDA	Units	DF	Analyst	Date	Time	Batch	Mtd.
Rad Alpha Spec Analysis													
Am241 Liquid-STND,MIX,PENN,LF													
Americium-241	U	0.0339	+/-0.0664	0.00	+/-0.0666	0.0919	pCi/L		JS1	04/05/04	1008	321614	1
Rad Gamma Spec Analysis													
Gammaspec, Gamma,Liquid-ALL,GAM2,STND,MIX,PENN,LF													
Americium-241	U	-2.93	+/-16.0	12.4	+/-15.6	26.1	pCi/L		SRB	04/01/04	0942	320209	2
Cesium-134	U	-1.2	+/-1.95	1.45	+/-1.91	3.25	pCi/L						
Cesium-137	U	1.11	+/-1.48	1.65	+/-1.45	3.60	pCi/L						
Cobalt-60	U	1.74	+/-1.69	1.66	+/-1.66	3.79	pCi/L						
Europium-152	U	-0.765	+/-6.15	4.88	+/-6.03	10.4	pCi/L						
Europium-154	U	3.24	+/-5.45	4.95	+/-5.35	11.2	pCi/L						
Europium-155	U	2.96	+/-7.51	6.53	+/-7.36	13.7	pCi/L						
Manganese-54	U	0.379	+/-1.78	1.49	+/-1.75	3.30	pCi/L						
Niobium-94	U	0.498	+/-1.72	1.46	+/-1.69	3.19	pCi/L						
Silver-108m	U	0.693	+/-1.74	1.53	+/-1.71	3.29	pCi/L						
Rad Gas Flow Proportional Counting													
GFPC, Sr-90, liquid-ALL,MIX													
Strontium-90	U	-0.324	+/-0.279	0.399	+/-0.290	0.887	pCi/L		HOB1	04/06/04	1534	321379	3
Gross A/B, liquid-ALL,STND,MIX,PENN,LF													
Alpha	U	0.390	+/-0.561	0.474	+/-0.564	1.11	pCi/L		HOB1	04/22/04	1424	326865	4
Beta		2.63	+/-1.20	1.05	+/-1.26	2.21	pCi/L						
Rad Liquid Scintillation Analysis													
LSC, Tritium Dist, Liquid-ALL,STND,MIX,PENN													
Tritium	U	0.00	+/-160	134	+/-160	268	pCi/L		CTO1	04/04/04	2149	320148	7

The following Analytical Methods were performed

Method	Description
1	DOE EML HASL-300, Am-05-RC Modified
2	EPA 901.1
3	EPA 905.0 Modified
4	EPA 900.0
5	EPA 900.0
6	EPA 900.0
7	EPA 906.0 Modified

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Company : CYAPCo
Address : Haddam Neck Plant
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East Hampton, Connecticut 06424
Contact: Mr. David Keefer
Project: Quarterly Groundwater PO# 002337

Report Date: April 22, 2004

Client Sample ID: MW108S-0104-001
Sample ID: 109455033

Project: YANK00304
Client ID: YANK001

Parameter	Qualifier	Result	Uncertainty	LC	TPU	MDA	Units	DF	AnalystDate	Time	Batch Mtd.

Surrogate/Tracer recovery	Test	Recovery%	Acceptable Limits
Americium-243	Am241 Liquid-STND,MIX,PENN	85	(25%-125%)
Carrier/Tracer Recovery	GFPC, Sr90, liquid-ALL,MIX	95	

Notes:
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E Concentration of the target analyte exceeds the instrument calibration range.
H Analytical holding time exceeded.
J Indicates an estimated value. The result was greater than the detection limit, but less than the reporting limit.
U Indicates the target analyte was analyzed for but not detected above the detection limit.
UI Uncertain identification for gamma spectroscopy.
X Lab-specific qualifier-please see case narrative, data summary package or contact your project manager for details.
h Sample preparation or preservation holding time exceeded.
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Certificate of Analysis

Company: CYAPCo
Address: Haddam Neck Plant
362 Injun Hollow Road
East Hampton, Connecticut 06424
Contact: Mr. David Keefer
Project: Quarterly Groundwater PO# 002337

Report Date: April 22, 2004

Client Sample ID: MW117S-0104-001
Sample ID: 109455034
Matrix: Ground Water
Collect Date: 16-MAR-04
Receive Date: 22-MAR-04
Collector: Client

Project: YANK00304
Client ID: YANK001

Parameter	Qualifier	Result	Uncertainty	LC	TPU	MDA	Units	DF	Analyst	Date	Time	Batch	Mtd.
Rad Alpha Spec Analysis													
Am241 Liquid-STND,MIX,PENN,LF													
Americium-241	U	-0.0415	+/-0.0364	0.0881	+/-0.0368	0.270	pCi/L		JS1	04/05/04	1008	321614	1
Rad Gamma Spec Analysis													
Gammaspec, Gamma,Liquid-ALL,GAM2,STND,MIX,PENN,LF													
Americium-241	U	-17.9	+/-16.5	10.9	+/-16.2	22.8	pCi/L		SRB	04/01/04	0942	320209	2
Cesium-134	U	1.65	+/-2.30	2.04	+/-2.25	4.45	pCi/L						
Cesium-137	U	-2.67	+/-2.36	1.72	+/-2.31	3.76	pCi/L						
Cobalt-60	U	-1.42	+/-2.34	1.76	+/-2.29	4.01	pCi/L						
Europium-152	U	3.21	+/-7.20	5.98	+/-7.06	12.6	pCi/L						
Europium-154	U	0.292	+/-4.71	3.97	+/-4.61	9.27	pCi/L						
Europium-155	U	-4.09	+/-8.64	7.24	+/-8.47	15.0	pCi/L						
Manganese-54	U	-0.03	+/-2.50	1.78	+/-2.45	3.89	pCi/L						
Niobium-94	U	0.259	+/-1.91	1.60	+/-1.87	3.48	pCi/L						
Silver-108m	U	0.603	+/-2.27	1.84	+/-2.22	3.92	pCi/L						
Rad Gas Flow Proportional Counting													
GFPC, Sr-90, liquid-ALL,MIX													
Strontium-90	U	0.196	+/-0.457	0.482	+/-0.461	1.09	pCi/L		HOB1	04/06/04	1534	321379	3
Gross A/B, liquid-ALL,STND,MIX,PENN,LF													
Alpha	U	1.21	+/-1.49	1.36	+/-1.50	2.97	pCi/L		HOB1	04/22/04	1430	326865	4
Beta		5.41	+/-1.80	1.56	+/-1.81	3.23	pCi/L						
Rad Liquid Scintillation Analysis													
LSC, Tritium Dist, Liquid-ALL,STND,MIX,PENN													
Tritium	U	33.3	+/-171	141	+/-171	283	pCi/L		CTO1	04/04/04	2235	320148	7

The following Analytical Methods were performed

Method	Description
1	DOE EML HASL-300, Am-05-RC Modified
2	EPA 901.1
3	EPA 905.0 Modified
4	EPA 900.0
5	EPA 900.0
6	EPA 900.0
7	EPA 906.0 Modified

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Certificate of Analysis

Company: CYAPCo
Address: Haddam Neck Plant
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East Hampton, Connecticut 06424
Contact: Mr. David Keefer
Project: Quarterly Groundwater PO# 002337

Report Date: April 22, 2004

Client Sample ID: MW117S-0104-001
Sample ID: 109455034

Project: YANK00304
Client ID: YANK001

Parameter	Qualifier	Result	Uncertainty	LC	TPU	MDA	Units	DF	AnalystDate	Time	Batch Mtd.

Surrogate/Tracer recovery	Test	Recovery%	Acceptable Limits
Americium-243	Am241 Liquid-STND,MIX,PENN	80	(25%-125%)
Carrier/Tracer Recovery	GFPC, Sr90, liquid-ALL,MIX	68	

Notes:
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H Analytical holding time exceeded.
J Indicates an estimated value. The result was greater than the detection limit, but less than the reporting limit.
U Indicates the target analyte was analyzed for but not detected above the detection limit.
UI Uncertain identification for gamma spectroscopy.
X Lab-specific qualifier-please see case narrative, data summary package or contact your project manager for details.
h Sample preparation or preservation holding time exceeded.

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Certificate of Analysis

Company: CYAPCo
Address: Haddam Neck Plant
362 Injun Hollow Road
East Hampton, Connecticut 06424
Contact: Mr. David Keefer
Project: Quarterly Groundwater PO# 002337

Report Date: April 22, 2004

Client Sample ID: MW112S-0104-001
Sample ID: 109455035
Matrix: Ground Water
Collect Date: 15-MAR-04
Receive Date: 22-MAR-04
Collector: Client

Project: YANK00304
Client ID: YANK001

Parameter	Qualifier	Result	Uncertainty	LC	TPU	MDA	Units	DF	Analyst	Date	Time	Batch	Mtd.
Rad Alpha Spec Analysis													
Am241 Liquid-STND,MIX,PENN,LF													
Americium-241	U	0.00	+/-0.0677	0.00	+/-0.0677	0.0936	pCi/L		JS1	04/05/04	1008	321614	1
Rad Gamma Spec Analysis													
Gammaspec, Gamma,Liquid-ALL,GAM2,STND,MIX,PENN,LF													
Americium-241	U	0.342	+/-11.1	9.41	+/-10.9	19.7	pCi/L		SRB	04/01/04	0943	320209	2
Cesium-134	U	1.51	+/-1.88	1.67	+/-1.84	3.70	pCi/L						
Cesium-137	U	-0.335	+/-1.98	1.57	+/-1.94	3.44	pCi/L						
Cobalt-60	U	-0.535	+/-2.36	1.85	+/-2.31	4.17	pCi/L						
Europium-152	U	3.51	+/-5.91	5.18	+/-5.79	11.0	pCi/L						
Europium-154	U	-2.12	+/-5.74	4.38	+/-5.63	10.0	pCi/L						
Europium-155	U	-1.82	+/-7.35	6.03	+/-7.21	12.6	pCi/L						
Manganese-54	U	0.00	+/-0.00	1.66	+/-0.00	3.64	pCi/L						
Niobium-94	U	1.63	+/-1.66	1.50	+/-1.63	3.26	pCi/L						
Silver-108m	U	0.403	+/-1.67	1.42	+/-1.64	3.08	pCi/L						
Rad Gas Flow Proportional Counting													
GFPC, Sr90, liquid-ALL,MIX													
Strontium-90	U	-0.0217	+/-0.291	0.340	+/-0.291	0.765	pCi/L		HOB1	04/06/04	1534	321379	3
Gross A/B, liquid-ALL,STND,MIX,PENN,LF													
Alpha	U	0.259	+/-0.466	0.396	+/-0.467	0.960	pCi/L		HOB1	04/22/04	1430	326865	4
Beta	U	0.778	+/-1.17	1.14	+/-1.17	2.38	pCi/L						
Rad Liquid Scintillation Analysis													
LSC, Tritium Dist, Liquid-ALL,STND,MIX,PENN													
Tritium	U	32.0	+/-165	136	+/-165	272	pCi/L		CTO1	04/04/04	2321	320148	7

The following Analytical Methods were performed

Method	Description
1	DOE EML HASL-300, Am-05-RC Modified
2	EPA 901.1
3	EPA 905.0 Modified
4	EPA 900.0
5	EPA 900.0
6	EPA 900.0
7	EPA 906.0 Modified

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Certificate of Analysis

Company : CYAPCo
Address : Haddam Neck Plant
362 Injun Hollow Road
East Hampton, Connecticut 06424
Contact: Mr. David Keefer
Project: Quarterly Groundwater PO# 002337

Report Date: April 22, 2004

Client Sample ID: MW112S-0104-001
Sample ID: 109455035

Project: YANK00304
Client ID: YANK001

Parameter	Qualifier	Result	Uncertainty	LC	TPU	MDA	Units	DF	AnalystDate	Time	Batch Mtd.

Surrogate/Tracer recovery	Test	Recovery%	Acceptable Limits
Americium-243	Am241 Liquid-STND,MIX,PENN	85	(25%-125%)
Carrier/Tracer Recovery	GFPC, Sr90, liquid-ALL,MIX	103	

Notes:
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UI Uncertain identification for gamma spectroscopy.
X Lab-specific qualifier-please see case narrative, data summary package or contact your project manager for details.
h Sample preparation or preservation holding time exceeded.
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Certificate of Analysis

Company: CYAPCo
Address: Haddam Neck Plant
362 Injun Hollow Road
East Hampton, Connecticut 06424
Contact: Mr. David Keefer
Project: Quarterly Groundwater PO# 002337

Report Date: April 22, 2004

Client Sample ID: MW111S-0104-001
Sample ID: 109455036
Matrix: Ground Water
Collect Date: 15-MAR-04
Receive Date: 22-MAR-04
Collector: Client

Project: YANK00304
Client ID: YANK001

Parameter	Qualifier	Result	Uncertainty	LC	TPU	MDA	Units	DF	Analyst	Date	Time	Batch	Mtd.
Rad Alpha Spec Analysis													
Am241 Liquid-STND,MIX,PENN,LF													
Americium-241	U	-0.014	+/-0.0724	0.0889	+/-0.0724	0.264	pCi/L		JS1	04/05/04	1008	321614	1
Rad Gamma Spec Analysis													
Gammaspec, Gamma,Liquid-ALL,GAM2,STND,MIX,PENN,LF													
Americium-241	U	2.12	+/-11.4	9.06	+/-11.2	19.0	pCi/L		SRB	04/01/04	0944	320209	2
Cesium-134	U	3.33	+/-2.40	1.83	+/-2.35	4.00	pCi/L						
Cesium-137	U	-2.13	+/-2.27	1.38	+/-2.23	3.06	pCi/L						
Cobalt-60	U	0.367	+/-2.24	1.67	+/-2.20	3.78	pCi/L						
Europium-152	U	-0.273	+/-5.42	4.31	+/-5.32	9.21	pCi/L						
Europium-154	U	3.44	+/-5.58	5.04	+/-5.47	11.3	pCi/L						
Europium-155	U	4.25	+/-7.07	6.16	+/-6.92	12.8	pCi/L						
Manganese-54	U	0.442	+/-1.82	1.52	+/-1.78	3.35	pCi/L						
Niobium-94	U	1.20	+/-1.57	1.50	+/-1.54	3.25	pCi/L						
Silver-108m	U	1.84	+/-1.67	1.54	+/-1.63	3.30	pCi/L						
Rad Gas Flow Proportional Counting													
GFPC, Sr90, liquid-ALL,MIX													
Strontium-90	U	0.0142	+/-0.307	0.351	+/-0.307	0.788	pCi/L		HOB1	04/06/04	1534	321379	3
Gross A/B, liquid-ALL,STND,MIX,PENN,LF													
Alpha		0.731	+/-0.509	0.248	+/-0.513	0.678	pCi/L		HOB1	04/22/04	1430	326865	4
Beta		4.95	+/-1.41	1.13	+/-1.43	2.37	pCi/L						
Rad Liquid Scintillation Analysis													
LSC, Tritium Dist, Liquid-ALL,STND,MIX,PENN													
Tritium	U	63.2	+/-165	134	+/-165	269	pCi/L		CTO1	04/05/04	0007	320148	7

The following Analytical Methods were performed

Method	Description
1	DOE EML HASL-300, Am-05-RC Modified
2	EPA 901.1
3	EPA 905.0 Modified
4	EPA 900.0
5	EPA 900.0
6	EPA 900.0
7	EPA 906.0 Modified

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Certificate of Analysis

Company: CYAPCo
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362 Injun Hollow Road
East Hampton, Connecticut 06424
Contact: Mr. David Keefer
Project: Quarterly Groundwater PO# 002337

Report Date: April 22, 2004

Client Sample ID: MW111S-0104-001
Sample ID: 109455036

Project: YANK00304
Client ID: YANK001

Parameter	Qualifier	Result	Uncertainty	LC	TPU	MDA	Units	DF	AnalystDate	Time	Batch Mtd.

Surrogate/Tracer recovery	Test	Recovery%	Acceptable Limits
Americium-243	Am241 Liquid-STND,MIX,PENN	83	(25%-125%)
Carrier/Tracer Recovery	GFPC, Sr90, liquid-ALL,MIX	99	

Notes:
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E Concentration of the target analyte exceeds the instrument calibration range.
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J Indicates an estimated value. The result was greater than the detection limit, but less than the reporting limit.
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UI Uncertain identification for gamma spectroscopy.
X Lab-specific qualifier-please see case narrative, data summary package or contact your project manager for details.
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Certificate of Analysis

Company: CYAPCo
Address: Haddam Neck Plant
362 Injun Hollow Road
East Hampton, Connecticut 06424
Contact: Mr. David Keefer
Project: Quarterly Groundwater PO# 002337

Report Date: April 22, 2004

Client Sample ID: MW113S-0104-001
Sample ID: 109455037
Matrix: Ground Water
Collect Date: 16-MAR-04
Receive Date: 22-MAR-04
Collector: Client

Project: YANK00304
Client ID: YANK001

Parameter	Qualifier	Result	Uncertainty	LC	TPU	MDA	Units	DF	Analyst	Date	Time	Batch	Mtd.
Rad Alpha Spec Analysis													
Am241 Liquid-STND,MIX,PENN,LF													
Americium-241	U	-0.0131	+/-0.0679	0.0834	+/-0.0679	0.248	pCi/L		JS1	04/05/04	1008	321614	1
Rad Gamma Spec Analysis													
Gammaspec, Gamma,Liquid-ALL,GAM2,STND,MIX,PENN,LF													
Americium-241	U	0.435	+/-15.2	12.8	+/-14.9	26.7	pCi/L		SRB	04/01/04	1038	320209	2
Cesium-134	U	-0.614	+/-1.95	1.50	+/-1.91	3.33	pCi/L						
Cesium-137	U	-0.281	+/-1.80	1.44	+/-1.76	3.16	pCi/L						
Cobalt-60	U	-0.406	+/-2.22	1.77	+/-2.18	3.99	pCi/L						
Europium-152	U	5.93	+/-5.03	4.61	+/-4.93	9.81	pCi/L						
Europium-154	U	0.512	+/-4.77	4.01	+/-4.67	9.21	pCi/L						
Europium-155	U	-1.5	+/-6.98	5.70	+/-6.84	11.9	pCi/L						
Manganese-54	U	2.64	+/-2.00	1.26	+/-1.96	2.83	pCi/L						
Niobium-94	U	2.78	+/-2.40	1.57	+/-2.36	3.39	pCi/L						
Silver-108m	U	-0.727	+/-1.87	1.51	+/-1.83	3.23	pCi/L						
Rad Gas Flow Proportional Counting													
GFPC, Sr90, liquid-ALL,MIX													
Strontium-90	U	0.373	+/-0.354	0.328	+/-0.363	0.739	pCi/L		HOB1	04/06/04	1534	321379	3
Gross A/B, liquid-ALL,STND,MIX,PENN,LF													
Alpha	U	0.542	+/-0.963	0.864	+/-0.965	1.93	pCi/L		HOB1	04/22/04	1430	326865	4
Beta		16.3	+/-2.07	1.31	+/-2.17	2.73	pCi/L						
Rad Liquid Scintillation Analysis													
LSC, Tritium Dist, Liquid-ALL,STND,MIX,PENN													
Tritium	U	30.6	+/-157	130	+/-157	260	pCi/L		CTO1	04/05/04	0053	320148	7

The following Analytical Methods were performed

Method	Description
1	DOE EML HASL-300, Am-05-RC Modified
2	EPA 901.1
3	EPA 905.0 Modified
4	EPA 900.0
5	EPA 900.0
6	EPA 900.0
7	EPA 906.0 Modified

GENERAL ENGINEERING LABORATORIES, LLC
2040 Savage Road Charleston SC 29407 - (843) 556-8171 - www.gel.com

Certificate of Analysis

Company : CYAPCo
Address : Haddam Neck Plant
362 Injun Hollow Road
East Hampton, Connecticut 06424
Contact: Mr. David Keefer
Project: Quarterly Groundwater PO# 002337

Report Date: April 22, 2004

Client Sample ID: MW113S-0104-001
Sample ID: 109455037

Project: YANK00304
Client ID: YANK001

Parameter	Qualifier	Result	Uncertainty	LC	TPU	MDA	Units	DF	AnalystDate	Time	Batch Mtd.

Surrogate/Tracer recovery	Test	Recovery%	Acceptable Limits
Americium-243	Am241 Liquid-STND,MIX,PENN	84	(25%-125%)
Carrier/Tracer Recovery	GFPC, Sr90, liquid-ALL,MIX	103	

Notes:
The Qualifiers in this report are defined as follows :

B Target analyte was detected in the sample as well as the associated blank.
BD Flag for results below the MDC or a flag for low tracer recovery.
E Concentration of the target analyte exceeds the instrument calibration range.
H Analytical holding time exceeded.
J Indicates an estimated value. The result was greater than the detection limit, but less than the reporting limit.
U Indicates the target analyte was analyzed for but not detected above the detection limit.
UI Uncertain identification for gamma spectroscopy.
X Lab-specific qualifier-please see case narrative, data summary package or contact your project manager for details.
h Sample preparation or preservation holding time exceeded.
The above sample is reported on an "as received" basis.

This data report has been prepared and reviewed in accordance with General Engineering Laboratories, LLC standard operating procedures. Please direct any questions to your Project Manager, Sarah Kozlik.

Reviewed by

QUALITY CONTROL DATA

GENERAL ENGINEERING LABORATORIES, LLC

2040 Savage Road Charleston SC 29407 - (843) 556-8171 - www.gel.com

QC Summary

Report Date: April 23, 2004

Client : CYAPCo
Haddam Neck Plant
362 Injun Hollow Road
East Hampton, Connecticut

Contact: Mr. David Keefer

Workorder: 109455

Parmname	NOM	Sample	Qual	QC	Units	RPD%	REC%	Range	Anlst	Date Time
Rad Alpha Spec										
Batch 321612										
QC1200598188 109455001 DUP										
Americium-241	U	0.0226	U	0.0158	pCi/L	35		(0% - 100%)	JS1	04/05/04 14:31
Uncert:		+/-0.060		+/-0.0632						
TPU:		+/-0.060		+/-0.0632						
QC1200598190 LCS										
Americium-241	13.4			12.8	pCi/L		96	(75%-125%)		04/05/04 12:12
Uncert:				+/-1.25						
TPU:				+/-1.98						
QC1200598187 MB										
Americium-241			U	-0.0232	pCi/L					
Uncert:				+/-0.115						
TPU:				+/-0.115						
QC1200598189 109455001 MS										
Americium-241	13.4 U	0.0226		12.8	pCi/L		95	(75%-125%)		04/05/04 14:31
Uncert:		+/-0.060		+/-0.937						
TPU:		+/-0.060		+/-1.63						
Batch 321614										
QC1200598196 109455030 DUP										
Americium-241	U	0.0956	U	-0.0392	pCi/L	N/A		(0% - 100%)	JS1	04/05/04 10:08
Uncert:		+/-0.119		+/-0.0344						
TPU:		+/-0.120		+/-0.0347						
QC1200598198 LCS										
Americium-241	13.4			12.1	pCi/L		90	(75%-125%)		
Uncert:				+/-1.16						
TPU:				+/-1.83						
QC1200598195 MB										
Americium-241			U	0.00122	pCi/L					
Uncert:				+/-0.0663						
TPU:				+/-0.0663						
QC1200598197 109455030 MS										
Americium-241	13.4 U	0.0956		14.3	pCi/L		106	(75%-125%)		
Uncert:		+/-0.119		+/-1.35						
TPU:		+/-0.120		+/-2.21						
Batch 321615										
QC1200598200 109455019 DUP										
Americium-241	U	0.071	U	0.034	pCi/L	71		(0% - 100%)	JAS1	04/05/04 14:31
Uncert:		+/-0.112		+/-0.0674						
TPU:		+/-0.112		+/-0.0675						
Curium-242	U	-0.0265	U	0.0149	pCi/L	N/A		(0% - 100%)		
Uncert:		+/-0.0514		+/-0.0293						
TPU:		+/-0.0514		+/-0.0293						
Curium-243/244	U	-0.089	U	-0.00804	pCi/L	N/A		(0% - 100%)		
Uncert:		+/-0.0652		+/-0.0946						

QC Summary

Workorder: 109455

Parmname	NOM	Sample	Qual	QC	Units	RPD%	REC%	Range	Anlst	Date Time
Rad Alpha Spec										
Batch 321615										
	TPU:	+/-0.0658		+/-0.0946						
QC1200598202 LCS										
Americium-241	13.4			12.7	pCi/L		95	(75%-125%)		04/05/04 14:32
	Uncert:			+/-0.836						
	TPU:			+/-1.52						
Curium-242			U	-0.000434	pCi/L					
	Uncert:			+/-0.0604						
	TPU:			+/-0.0604						
Curium-243/244	17.4			17.7	pCi/L		102			
	Uncert:			+/-0.986						
	TPU:			+/-2.03						
QC1200598199 MB										
Americium-241			U	0.0235	pCi/L					04/05/04 14:31
	Uncert:			+/-0.0998						
	TPU:			+/-0.0998						
Curium-242			U	-0.0168	pCi/L					
	Uncert:			+/-0.0232						
	TPU:			+/-0.0233						
Curium-243/244			U	-0.0338	pCi/L					
	Uncert:			+/-0.101						
	TPU:			+/-0.101						
QC1200598201 109455019 MS										
Americium-241	26.9 U	0.071		27.2	pCi/L		101	(75%-125%)		04/05/04 14:32
	Uncert:	+/-0.112		+/-1.93						
	TPU:	+/-0.112		+/-3.43						
Curium-242	U	-0.0265	U	-0.0969	pCi/L					
	Uncert:	+/-0.0514		+/-0.0849						
	TPU:	+/-0.0514		+/-0.0855						
Curium-243/244	34.9 U	-0.089		35.9	pCi/L		103			
	Uncert:	+/-0.0652		+/-2.23						
	TPU:	+/-0.0658		+/-4.37						
Batch 321618										
QC1200598204 109455019 DUP										
Plutonium-238	U	0.0439	U	0.00	pCi/L			(0% - 100%)	JAS1	04/05/04 15:05
	Uncert:	+/-0.0709		+/-0.0295						
	TPU:	+/-0.071		+/-0.0295						
Plutonium-239/240	U	-0.0153	U	0.0225	pCi/L	N/A		(0% - 100%)		
	Uncert:	+/-0.0649		+/-0.0443						
	TPU:	+/-0.0649		+/-0.0444						
QC1200598206 LCS										
Plutonium-238			U	-0.017	pCi/L			(75%-125%)		04/05/04 15:30
	Uncert:			+/-0.0894						
	TPU:			+/-0.0894						
Plutonium-239/240	11.3			9.40	pCi/L		83	(75%-125%)		
	Uncert:			+/-0.763						
	TPU:			+/-1.08						
QC1200598203 MB										
Plutonium-238			U	-0.0297	pCi/L					04/05/04 15:05
	Uncert:			+/-0.0456						

QC Summary

Workorder: 109455

Parmname	NOM	Sample	Qual	QC	Units	RPD%	REC%	Range	Anlst	Date Time
Rad Alpha Spec										
Batch 321618										
	TPU:			+/-0.0457						
Plutonium-239/240			U	-0.0517	pCi/L					
	Uncert:			+/-0.0383						
	TPU:			+/-0.0386						
QC1200598205 109455019 MS										
Plutonium-238	U	0.0439	U	0.114	pCi/L			(75%-125%)		04/05/04 15:30
	Uncert:	+/-0.0709		+/-0.0993						
	TPU:	+/-0.071		+/-0.0997						
Plutonium-239/240	11.3 U	-0.0153		11.2	pCi/L		99	(75%-125%)		
	Uncert:	+/-0.0649		+/-0.784						
	TPU:	+/-0.0649		+/-1.17						
Batch 321621										
QC1200598217 109455019 DUP										
Plutonium-241	U	12.1	U	1.69	pCi/L	0		(0% - 100%)	JAS1	04/12/04 14:42
	Uncert:	+/-8.50		+/-7.81						
	TPU:	+/-8.56		+/-7.82						
QC1200598219 LCS										
Plutonium-241	359			361	pCi/L		101	(75%-125%)		04/08/04 13:30
	Uncert:			+/-33.1						
	TPU:			+/-47.9						
QC1200598216 MB										
Plutonium-241			U	2.64	pCi/L					04/12/04 11:36
	Uncert:			+/-9.13						
	TPU:			+/-9.13						
QC1200598218 109455019 MS										
Plutonium-241	719 U	12.1		633	pCi/L		86	(75%-125%)		04/08/04 12:58
	Uncert:	+/-8.50		+/-52.4						
	TPU:	+/-8.56		+/-74.1						
Batch 322618										
QC1200600698 109455020 DUP										
Americium-241	U	0.00	U	0.0444	pCi/L			(0% - 100%)	JAS1	04/07/04 18:06
	Uncert:	+/-0.119		+/-0.0615						
	TPU:	+/-0.119		+/-0.0616						
Curium-242	U	0.0157	U	0.00	pCi/L			(0% - 100%)		
	Uncert:	+/-0.0532		+/-0.0477						
	TPU:	+/-0.0532		+/-0.0477						
Curium-243/244	U	-0.0286	U	0.00	pCi/L	N/A		(0% - 100%)		
	Uncert:	+/-0.0971		+/-0.0435						
	TPU:	+/-0.0971		+/-0.0435						
QC1200600700 LCS										
Americium-241	26.8			25.6	pCi/L		96	(75%-125%)		
	Uncert:			+/-1.45						
	TPU:			+/-2.84						
Curium-242			U	0.0432	pCi/L					
	Uncert:			+/-0.0598						
	TPU:			+/-0.060						
Curium-243/244	34.8			33.8	pCi/L		97			
	Uncert:			+/-1.67						
	TPU:			+/-3.63						

QC Summary

Workorder: 109455

Parmname	NOM	Sample	Qual	QC	Units	RPD%	REC%	Range	Anlst	Date Time
Rad Alpha Spec										
Batch 322618										
QC1200600697 MB										
Americium-241			U	-0.0541	pCi/L					04/07/04 17:17
	Uncert:			+/-0.112						
	TPU:			+/-0.113						
Curium-242			U	0.00	pCi/L					
	Uncert:			+/-0.0267						
	TPU:			+/-0.0267						
Curium-243/244			U	0.027	pCi/L					
	Uncert:			+/-0.0837						
	TPU:			+/-0.0838						
QC1200600699 109455020 MS										
Americium-241	26.9 U	0.00		27.8	pCi/L		103	(75%-125%)		04/07/04 18:06
	Uncert:	+/-0.119		+/-1.44						
	TPU:	+/-0.119		+/-2.97						
Curium-242	U	0.0157	U	0.00	pCi/L					
	Uncert:	+/-0.0532		+/-0.0414						
	TPU:	+/-0.0532		+/-0.0414						
Curium-243/244	34.9 U	-0.0286		36.5	pCi/L		105			
	Uncert:	+/-0.0971		+/-1.65						
	TPU:	+/-0.0971		+/-3.79						
Batch 322683										
QC1200600875 109455011 DUP										
Americium-241	U	-0.0642	U	0.0465	pCi/L	N/A		(0% - 100%)	JS1	04/12/04 10:02
	Uncert:	+/-0.042		+/-0.0871						
	TPU:	+/-0.0428		+/-0.0873						
QC1200600877 LCS										
Americium-241	13.4			13.4	pCi/L		100	(75%-125%)		
	Uncert:			+/-1.21						
	TPU:			+/-2.15						
QC1200600874 MB										
Americium-241			U	-0.0401	pCi/L					
	Uncert:			+/-0.0834						
	TPU:			+/-0.0836						
QC1200600876 109455011 MS										
Americium-241	13.4 U	-0.0642		14.2	pCi/L		106	(75%-125%)		
	Uncert:	+/-0.042		+/-1.27						
	TPU:	+/-0.0428		+/-2.29						
Rad Gamma Spec										
Batch 320207										
QC1200594695 109455001 DUP										
Americium-241	U	-1.14	U	1.36	pCi/L	N/A		(0% - 100%)	SRB	04/01/04 21:57
	Uncert:	+/-17.5		+/-7.04						
	TPU:	+/-17.2		+/-6.90						
Cesium-134	U	0.392	U	0.561	pCi/L	36		(0% - 100%)		
	Uncert:	+/-1.84		+/-1.16						
	TPU:	+/-1.80		+/-1.14						
Cesium-137	U	3.19	U	-0.0677	pCi/L	N/A		(0% - 100%)		
	Uncert:	+/-2.40		+/-1.19						

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QC Summary

Workorder: 109455

Parmname	NOM	Sample	Qual	QC	Units	RPD%	REC%	Range	Anlst	Date Time
Rad Gamma Spec										
Batch 320207										
	TPU:	+/-2.36		+/-1.16						
Cobalt-60	U	1.19	U	-0.465	pCi/L	N/A		(0% - 100%)		
	Uncert:	+/-1.94		+/-1.20						
	TPU:	+/-1.90		+/-1.17						
Europium-152	U	-2.09	U	2.53	pCi/L	N/A		(0% - 100%)		
	Uncert:	+/-5.34		+/-3.46						
	TPU:	+/-5.23		+/-3.39						
Europium-154	U	-6.26	U	-2.03	pCi/L	N/A		(0% - 100%)		
	Uncert:	+/-5.09		+/-3.24						
	TPU:	+/-4.99		+/-3.18						
Europium-155	U	-2.88	U	-0.00359	pCi/L	N/A		(0% - 100%)		
	Uncert:	+/-6.86		+/-4.29						
	TPU:	+/-6.72		+/-4.21						
Manganese-54	U	1.18	U	-0.0531	pCi/L	N/A		(0% - 100%)		
	Uncert:	+/-1.68		+/-1.24						
	TPU:	+/-1.65		+/-1.21						
Niobium-94	U	1.58	U	0.754	pCi/L	71		(0% - 100%)		
	Uncert:	+/-1.68		+/-1.07						
	TPU:	+/-1.64		+/-1.05						
r-108m	U	-0.724	U	-0.18	pCi/L	N/A		(0% - 100%)		
	Uncert:	+/-1.79		+/-1.05						
	TPU:	+/-1.76		+/-1.02						
QC1200594697 LCS										
Americium-241	1170			1240	pCi/L		106			04/01/04 18:16
	Uncert:			+/-225						
	TPU:			+/-221						
Cesium-134			U	13.0	pCi/L					
	Uncert:			+/-12.8						
	TPU:			+/-12.5						
Cesium-137	464			524	pCi/L		113	(75%-125%)		
	Uncert:			+/-47.2						
	TPU:			+/-46.3						
Cobalt-60	736			804	pCi/L		109	(75%-125%)		
	Uncert:			+/-71.1						
	TPU:			+/-69.7						
Europium-152			U	2.38	pCi/L					
	Uncert:			+/-32.3						
	TPU:			+/-31.6						
Europium-154			U	3.51	pCi/L					
	Uncert:			+/-30.3						
	TPU:			+/-29.7						
Europium-155			U	-2.52	pCi/L					
	Uncert:			+/-48.3						
	TPU:			+/-47.3						
Manganese-54			U	0.822	pCi/L					
	Uncert:			+/-13.8						
	TPU:			+/-13.6						
Niobium-94			U	-5.99	pCi/L					

QC Summary

Workorder: 109455

Parmname	NOM	Sample	Qual	QC	Units	RPD%	REC%	Range	Anlst	Date Time
Rad Gamma Spec										
Batch 320207										
	Uncert:			+/-11.1						
	TPU:			+/-10.8						
Silver-108m			U	-0.975	pCi/L					
	Uncert:			+/-10.7						
	TPU:			+/-10.5						
QC1200594694 MB										
Americium-241			U	2.95	pCi/L					04/01/04 21:56
	Uncert:			+/-7.81						
	TPU:			+/-7.65						
Cesium-134			U	-1.11	pCi/L					
	Uncert:			+/-1.33						
	TPU:			+/-1.30						
Cesium-137			U	0.163	pCi/L					
	Uncert:			+/-1.19						
	TPU:			+/-1.17						
Cobalt-60			U	0.760	pCi/L					
	Uncert:			+/-1.15						
	TPU:			+/-1.12						
Europium-152			U	-0.498	pCi/L					
	Uncert:			+/-3.47						
	TPU:			+/-3.40						
Europium-154			U	1.78	pCi/L					
	Uncert:			+/-3.28						
	TPU:			+/-3.21						
Europium-155			U	-0.667	pCi/L					
	Uncert:			+/-3.62						
	TPU:			+/-3.55						
Manganese-54			U	-0.717	pCi/L					
	Uncert:			+/-1.16						
	TPU:			+/-1.14						
Niobium-94			U	-0.575	pCi/L					
	Uncert:			+/-1.21						
	TPU:			+/-1.19						
Silver-108m			U	0.656	pCi/L					
	Uncert:			+/-1.08						
	TPU:			+/-1.06						
QC1200594696 109455001 MS										
Americium-241	9400 U	-1.14		9570	pCi/L		102			04/01/04 18:15
	Uncert:	+/-17.5		+/-2070						
	TPU:	+/-17.2		+/-30100						
Cesium-134	U	0.392	U	4.25	pCi/L					
	Uncert:	+/-1.84		+/-195						
	TPU:	+/-1.80		+/-192						
Cesium-137	3720 U	3.19		3890	pCi/L		105	(75%-125%)		
	Uncert:	+/-2.40		+/-511						
	TPU:	+/-2.36		+/-12200						
Cobalt-60	5920 U	1.19		5650	pCi/L		95			
	Uncert:	+/-1.94		+/-729						
	TPU:	+/-1.90		+/-17700						

QC Summary

Workorder: 109455

Parmname	NOM	Sample	Qual	QC	Units	RPD%	REC%	Range	Anlst	Date Time
Rad Gamma Spec										
Batch 320207										
Europium-152	U	-2.09	U	112	pCi/L					
	Uncert:	+/-5.34		+/-385						
	TPU:	+/-5.23		+/-516						
Europium-154	U	-6.26	U	82.2	pCi/L					
	Uncert:	+/-5.09		+/-391						
	TPU:	+/-4.99		+/-462						
Europium-155	U	-2.88	U	258	pCi/L					
	Uncert:	+/-6.86		+/-467						
	TPU:	+/-6.72		+/-930						
Manganese-54	U	1.18	U	-61.7	pCi/L					
	Uncert:	+/-1.68		+/-144						
	TPU:	+/-1.65		+/-240						
Niobium-94	U	1.58	U	-48.9	pCi/L					
	Uncert:	+/-1.68		+/-163						
	TPU:	+/-1.64		+/-221						
Silver-108m	U	-0.724	U	-28	pCi/L					
	Uncert:	+/-1.79		+/-130						
	TPU:	+/-1.76		+/-155						
Batch 320209										
C1200594699 109455021 DUP										
Americium-241	U	2.31	U	-1.07	pCi/L	N/A	(0% - 100%)	SRB	04/01/04 09:45	
	Uncert:	+/-6.48		+/-11.1						
	TPU:	+/-6.35		+/-10.9						
Cesium-134	U	-0.309	U	1.29	pCi/L	N/A	(0% - 100%)			
	Uncert:	+/-1.20		+/-2.08						
	TPU:	+/-1.18		+/-2.04						
Cesium-137	U	-0.118	U	-0.362	pCi/L	N/A	(0% - 100%)			
	Uncert:	+/-1.17		+/-1.98						
	TPU:	+/-1.15		+/-1.94						
Cobalt-60	U	0.423	U	-0.0143	pCi/L	N/A	(0% - 100%)			
	Uncert:	+/-1.28		+/-1.74						
	TPU:	+/-1.26		+/-1.70						
Europium-152	U	1.00	U	-0.292	pCi/L	N/A	(0% - 100%)			
	Uncert:	+/-3.23		+/-5.85						
	TPU:	+/-3.16		+/-5.73						
Europium-154	U	-0.564	U	-2.34	pCi/L	N/A	(0% - 100%)			
	Uncert:	+/-3.21		+/-4.41						
	TPU:	+/-3.15		+/-4.32						
Europium-155	U	0.171	U	-4.71	pCi/L	N/A	(0% - 100%)			
	Uncert:	+/-4.20		+/-7.59						
	TPU:	+/-4.12		+/-7.44						
Manganese-54	U	-0.694	U	-0.652	pCi/L	N/A	(0% - 100%)			
	Uncert:	+/-1.11		+/-1.87						
	TPU:	+/-1.08		+/-1.84						
Niobium-94	U	-0.178	U	0.112	pCi/L	N/A	(0% - 100%)			
	Uncert:	+/-1.06		+/-1.79						
	TPU:	+/-1.04		+/-1.75						
Silver-108m	U	-0.689	U	-1.64	pCi/L	N/A	(0% - 100%)			

QC Summary

Workorder: 109455

Parmname	NOM	Sample	Qual	QC	Units	RPD%	REC%	Range	Anlst	Date Time
Rad Gamma Spec										
Batch 320209										
	Uncert:	+/-1.11		+/-2.21						
	TPU:	+/-1.09		+/-2.17						
QC1200594701 LCS										
Americium-241	1170			1390	pCi/L		119			04/02/04 14:20
	Uncert:			+/-223						
	TPU:			+/-218						
Cesium-134			U	-8.01	pCi/L					
	Uncert:			+/-12.5						
	TPU:			+/-12.2						
Cesium-137	464			477	pCi/L		103	(75%-125%)		
	Uncert:			+/-49.6						
	TPU:			+/-48.6						
Cobalt-60	736			794	pCi/L		108	(75%-125%)		
	Uncert:			+/-71.3						
	TPU:			+/-69.9						
Europium-152			U	14.5	pCi/L					
	Uncert:			+/-31.8						
	TPU:			+/-31.1						
Europium-154			U	-16.5	pCi/L					
	Uncert:			+/-32.2						
	TPU:			+/-31.6						
Europium-155			U	-17.8	pCi/L					
	Uncert:			+/-49.8						
	TPU:			+/-48.8						
Manganese-54			U	6.90	pCi/L					
	Uncert:			+/-12.5						
	TPU:			+/-12.2						
Niobium-94			U	1.14	pCi/L					
	Uncert:			+/-11.0						
	TPU:			+/-10.8						
Silver-108m			U	1.86	pCi/L					
	Uncert:			+/-12.0						
	TPU:			+/-11.8						
QC1200594698 MB										
Americium-241			U	10.4	pCi/L					04/01/04 09:45
	Uncert:			+/-11.8						
	TPU:			+/-11.5						
Cesium-134			U	1.00	pCi/L					
	Uncert:			+/-1.94						
	TPU:			+/-1.90						
Cesium-137			U	-0.708	pCi/L					
	Uncert:			+/-1.98						
	TPU:			+/-1.94						
Cobalt-60			U	0.485	pCi/L					
	Uncert:			+/-2.06						
	TPU:			+/-2.02						
Europium-152			U	1.86	pCi/L					
	Uncert:			+/-5.35						
	TPU:			+/-5.24						

QC Summary

Workorder: 109455

Parmname	NOM	Sample	Qual	QC	Units	RPD%	REC%	Range	Anlst	Date Time
Rad Gamma Spec										
Batch 320209										
Europium-154			U	-1.47	pCi/L					
	Uncert:			+/-4.66						
	TPU:			+/-4.56						
Europium-155			U	-3.73	pCi/L					
	Uncert:			+/-5.38						
	TPU:			+/-5.28						
Manganese-54			U	-0.885	pCi/L					
	Uncert:			+/-1.85						
	TPU:			+/-1.81						
Niobium-94			U	0.504	pCi/L					
	Uncert:			+/-1.73						
	TPU:			+/-1.69						
Silver-108m			U	-0.556	pCi/L					
	Uncert:			+/-1.64						
	TPU:			+/-1.61						
QC1200594700 109455021 MS										
Americium-241	8980 U	2.31		10200	pCi/L		114			03/31/04 19:01
	Uncert:	+/-6.48		+/-2570						
	TPU:	+/-6.35		+/-32200						
'um-134	U	-0.309	U	-38.1	pCi/L					
	Uncert:	+/-1.20		+/-164						
	TPU:	+/-1.18		+/-200						
Cesium-137	3680 U	-0.118		3520	pCi/L		96	(75%-125%)		
	Uncert:	+/-1.17		+/-477						
	TPU:	+/-1.15		+/-11000						
Cobalt-60	5310 U	0.423		5810	pCi/L		110			
	Uncert:	+/-1.28		+/-673						
	TPU:	+/-1.26		+/-18200						
Europium-152	U	1.00	U	85.7	pCi/L					
	Uncert:	+/-3.23		+/-294						
	TPU:	+/-3.16		+/-394						
Europium-154	U	-0.564	U	-178	pCi/L					
	Uncert:	+/-3.21		+/-274						
	TPU:	+/-3.15		+/-619						
Europium-155	U	0.171	U	61.1	pCi/L					
	Uncert:	+/-4.20		+/-348						
	TPU:	+/-4.12		+/-391						
Manganese-54	U	-0.694	U	-83.4	pCi/L					
	Uncert:	+/-1.11		+/-142						
	TPU:	+/-1.08		+/-296						
Niobium-94	U	-0.178	U	112	pCi/L					
	Uncert:	+/-1.06		+/-110						
	TPU:	+/-1.04		+/-368						
Silver-108m	U	-0.689	U	29.2	pCi/L					
	Uncert:	+/-1.11		+/-116						
	TPU:	+/-1.09		+/-146						
Rad Gas Flow										
Batch 321321										

QC Summary

Workorder: 109455

Parmname	NOM	Sample	Qual	QC	Units	RPD%	REC%	Range	Anlst	Date Time
Rad Gas Flow										
Batch 321321										
QC1200597406 109455003 DUP										
Alpha	U	1.79	U	1.20	pCi/L	0		(0% - 100%)	ATH1	04/13/04 18:33
Uncert:		+/-1.41		+/-1.55						
TPU:		+/-1.48		+/-1.56						
Beta		16.3		20.8	pCi/L	25*		(0%-20%)		
Uncert:		+/-1.66		+/-1.85						
TPU:		+/-1.69		+/-1.87						
QC1200597409 LCS										
Alpha	69.8			55.2	pCi/L		79	(75%-125%)		04/13/04 16:03
Uncert:				+/-6.66						
TPU:				+/-11.3						
Beta	221			204	pCi/L		92	(75%-125%)		
Uncert:				+/-9.08						
TPU:				+/-9.28						
QC1200597405 MB										
Alpha			U	0.121	pCi/L					04/13/04 18:33
Uncert:				+/-0.505						
TPU:				+/-0.505						
Beta			U	-0.915	pCi/L					
Uncert:				+/-0.616						
TPU:				+/-0.616						
QC1200597407 109455003 MS										
Alpha	69.8 U	1.79		41.2	pCi/L		56	(75%-125%)		04/13/04 16:03
Uncert:		+/-1.41		+/-7.89						
TPU:		+/-1.48		+/-8.36						
Beta	221	16.3		274	pCi/L		116	(75%-125%)		
Uncert:		+/-1.66		+/-11.5						
TPU:		+/-1.69		+/-11.7						
QC1200597408 109455003 MSD										
Alpha	69.8 U	1.79		39.7	pCi/L		54*	(75%-125%)		
Uncert:		+/-1.41		+/-7.91						
TPU:		+/-1.48		+/-9.16						
Beta	221	16.3		264	pCi/L		112	(75%-125%)		
Uncert:		+/-1.66		+/-11.2						
TPU:		+/-1.69		+/-11.6						
Batch 321378										
QC1200597582 109455001 DUP										
Strontium-90	U	0.552	U	-0.239	pCi/L	N/A		(0% - 100%)	LCA1	04/06/04 14:00
Uncert:		+/-0.527		+/-0.445						
TPU:		+/-0.542		+/-0.450						
QC1200597584 LCS										
Strontium-90	41.5			39.4	pCi/L		95	(75%-125%)		04/06/04 15:20
Uncert:				+/-2.55						
TPU:				+/-9.67						
QC1200597581 MB										
Strontium-90			U	0.165	pCi/L					04/06/04 14:00
Uncert:				+/-0.499						
TPU:				+/-0.501						
QC1200597583 109455001 MS										

QC Summary

Workorder: 109455

Parmname	NOM	Sample	Qual	QC	Units	RPD%	REC%	Range	Anlst	Date Time
Rad Gas Flow										
Batch 321378										
Strontium-90	83.1 U	0.552		84.1	pCi/L		100	(75%-125%)		
	Uncert:	+/-0.527		+/-4.41						
	TPU:	+/-0.542		+/-21.8						
Batch 321379										
QC1200597586 109455021 DUP										
Strontium-90		1.60		1.67	pCi/L	4		(0% - 100%)	HOB1	04/06/04 16:50
	Uncert:	+/-0.500		+/-0.422						
	TPU:	+/-0.608		+/-0.556						
QC1200597588 LCS										
Strontium-90	41.5			40.4	pCi/L		97	(75%-125%)		04/06/04 16:19
	Uncert:			+/-2.29						
	TPU:			+/-9.88						
QC1200597585 MB										
Strontium-90			U	-0.0411	pCi/L					04/06/04 16:49
	Uncert:			+/-0.262						
	TPU:			+/-0.262						
QC1200597587 109455021 MS										
Strontium-90	83.1	1.60		79.5	pCi/L		94	(75%-125%)		04/06/04 16:19
	Uncert:	+/-0.500		+/-4.58						
	TPU:	+/-0.608		+/-19.7						
325997										
QC1200608573 109455017 DUP										
Alpha	U	0.571	U	0.635	pCi/L	0		(0% - 100%)	HOB1	04/20/04 13:53
	Uncert:	+/-0.784		+/-0.654						
	TPU:	+/-0.787		+/-0.659						
Beta		9.63		8.06	pCi/L	18		(0% - 100%)		
	Uncert:	+/-1.02		+/-0.964						
	TPU:	+/-1.03		+/-0.971						
QC1200608576 LCS										
Alpha	69.8			79.3	pCi/L		114	(75%-125%)		04/20/04 08:53
	Uncert:			+/-8.00						
	TPU:			+/-13.8						
Beta	221			237	pCi/L		107	(75%-125%)		
	Uncert:			+/-9.89						
	TPU:			+/-10.6						
QC1200608572 MB										
Alpha			U	0.119	pCi/L					04/20/04 13:53
	Uncert:			+/-0.372						
	TPU:			+/-0.372						
Beta			U	0.237	pCi/L					
	Uncert:			+/-0.514						
	TPU:			+/-0.514						
QC1200608574 109455017 MS										
Alpha	140 U	0.571		125	pCi/L		89	(75%-125%)		04/20/04 08:53
	Uncert:	+/-0.784		+/-15.8						
	TPU:	+/-0.787		+/-16.5						
Beta	443	9.63		502	pCi/L		111	(75%-125%)		
	Uncert:	+/-1.02		+/-20.9						
	TPU:	+/-1.03		+/-21.0						

QC Summary

Workorder: 109455

Parmname	NOM	Sample	Qual	QC	Units	RPD%	REC%	Range	Anlst	Date Time
Rad Gas Flow										
Batch 325997										
QC1200608575 109455017 MSD										
Alpha	140 U	0.571		139	pCi/L	11*	100	(75%-125%)		
	Uncert:	+/-0.784		+/-17.0						
	TPU:	+/-0.787		+/-21.0						
Beta	443	9.63		496	pCi/L	1*	110	(75%-125%)		
	Uncert:	+/-1.02		+/-20.9						
	TPU:	+/-1.03		+/-21.3						
Batch 326865										
QC1200610606 109455037 DUP										
Alpha	U	0.542	U	0.0947	pCi/L	0		(0% - 100%)	HOB1	04/22/04 14:30
	Uncert:	+/-0.963		+/-0.806						
	TPU:	+/-0.965		+/-0.806						
Beta		16.3		13.7	pCi/L	17		(0% - 100%)		
	Uncert:	+/-2.07		+/-2.05						
	TPU:	+/-2.17		+/-2.07						
QC1200610609 LCS										
Alpha	69.8			65.9	pCi/L		94	(75%-125%)		04/22/04 12:32
	Uncert:			+/-6.69						
	TPU:			+/-8.98						
Beta	221			235	pCi/L		106	(75%-125%)		
	Uncert:			+/-10.3						
	TPU:			+/-14.4						
QC1200610605 MB										
Alpha			U	-0.0321	pCi/L					04/22/04 14:30
	Uncert:			+/-0.484						
	TPU:			+/-0.484						
Beta			U	-0.0634	pCi/L					
	Uncert:			+/-1.14						
	TPU:			+/-1.14						
QC1200610607 109455037 MS										
Alpha	140 U	0.542		133	pCi/L		95	(75%-125%)		
	Uncert:	+/-0.963		+/-8.34						
	TPU:	+/-0.965		+/-10.7						
Beta	443	16.3		465	pCi/L		101	(75%-125%)		
	Uncert:	+/-2.07		+/-12.1						
	TPU:	+/-2.17		+/-22.8						
QC1200610608 109455037 MSD										
Alpha	140 U	0.542		141	pCi/L	6*	100	(75%-125%)		
	Uncert:	+/-0.963		+/-8.48						
	TPU:	+/-0.965		+/-15.2						
Beta	443	16.3		469	pCi/L	1*	102	(75%-125%)		
	Uncert:	+/-2.07		+/-12.1						
	TPU:	+/-2.17		+/-22.4						
Rad Liquid Scintillation										
Batch 320136										
QC1200594497 109455019 DUP										
Nickel-63	U	-2.08	U	-3.95	pCi/L	N/A		(0% - 100%)	LAG1	04/06/04 00:55
	Uncert:	+/-3.79		+/-3.64						

QC Summary

Workorder: 109455

Parmname	NOM	Sample	Qual	QC	Units	RPD%	REC%	Range	Anlst	Date Time
Rad Liquid Scintillation										
Batch 320136										
	TPU:	+/-3.79		+/-3.64						
QC1200594499 LCS										
Nickel-63	250			251	pCi/L		100	(75%-125%)		04/06/04 02:29
	Uncert:			+/-8.37						
	TPU:			+/-11.5						
QC1200594496 MB										
Nickel-63			U	-3.26	pCi/L					04/06/04 00:07
	Uncert:			+/-3.44						
	TPU:			+/-3.44						
QC1200594498 109455019 MS										
Nickel-63	250 U	-2.08		205	pCi/L		82	(75%-125%)		04/06/04 01:42
	Uncert:	+/-3.79		+/-6.73						
	TPU:	+/-3.79		+/-9.32						
Batch 320139										
QC1200594508 109455019 DUP										
Iron-55	U	-44.2	U	-7.54	pCi/L	N/A		(0% - 100%)	LAG1	04/09/04 03:38
	Uncert:	+/-9.78		+/-15.9						
	TPU:	+/-9.96		+/-15.9						
QC1200594510 LCS										
55	58.2			48.3	pCi/L		83*	(0%-%)		04/07/04 18:00
	Uncert:			+/-15.6						
	TPU:			+/-15.8						
QC1200594507 MB										
Iron-55			U	-17.7	pCi/L					04/09/04 02:37
	Uncert:			+/-14.6						
	TPU:			+/-14.6						
QC1200594509 109455019 MS										
Iron-55	58.7 U	-44.2		55.3	pCi/L		94*	(0%-%)		04/07/04 17:00
	Uncert:	+/-9.78		+/-14.0						
	TPU:	+/-9.96		+/-14.2						
Batch 320141										
QC1200594516 109455019 DUP										
Technetium-99	U	-2.47	U	0.710	pCi/L	N/A		(0% - 100%)	JLB1	04/12/04 07:26
	Uncert:	+/-5.82		+/-5.66						
	TPU:	+/-5.82		+/-5.66						
QC1200594518 LCS										
Technetium-99	470			481	pCi/L		102	(75%-125%)		04/12/04 08:30
	Uncert:			+/-13.7						
	TPU:			+/-21.6						
QC1200594515 MB										
Technetium-99			U	0.669	pCi/L					04/12/04 06:53
	Uncert:			+/-6.15						
	TPU:			+/-6.15						
QC1200594517 109455019 MS										
Technetium-99	470 U	-2.47		457	pCi/L		97	(75%-125%)		04/12/04 07:58
	Uncert:	+/-5.82		+/-13.5						
	TPU:	+/-5.82		+/-20.8						
Batch 320143										
C1200594525 109455001 DUP										

QC Summary

Workorder: 109455

Parmname	NOM	Sample	Qual	QC	Units	RPD%	REC%	Range	Anlst	Date Time
Rad Liquid Scintillation										
Batch 320143										
Tritium	U	32.9	U	94.5	pCi/L	0		(0% - 100%)	CTO1	04/03/04 13:05
	Uncert:	+/-180		+/-177						
	TPU:	+/-180		+/-177						
QC1200594527 LCS										
Tritium	3280			2960	pCi/L		90	(75%-125%)		04/03/04 14:37
	Uncert:			+/-324						
	TPU:			+/-328						
QC1200594524 MB										
Tritium			U	-129	pCi/L					04/03/04 12:19
	Uncert:			+/-163						
	TPU:			+/-163						
QC1200594526 109455001 MS										
Tritium	3280 U	32.9		3470	pCi/L		105	(75%-125%)		04/03/04 13:50
	Uncert:	+/-180		+/-325						
	TPU:	+/-180		+/-330						
Batch 320148										
QC1200594533 109455021 DUP										
Tritium		542		494	pCi/L	9		(0% - 100%)	CTO1	04/05/04 02:25
	Uncert:	+/-202		+/-194						
	TPU:	+/-202		+/-194						
QC1200594535 LCS										
Tritium	3280			3350	pCi/L		102	(75%-125%)		04/05/04 03:57
	Uncert:			+/-333						
	TPU:			+/-338						
QC1200594532 MB										
Tritium			U	-31	pCi/L					04/05/04 01:39
	Uncert:			+/-154						
	TPU:			+/-154						
QC1200594534 109455021 MS										
Tritium	3280	542		3370	pCi/L		86	(75%-125%)		04/05/04 03:11
	Uncert:	+/-202		+/-337						
	TPU:	+/-202		+/-341						
Batch 320177										
QC1200594615 109455019 DUP										
Carbon-14	U	85.7	U	126	pCi/L	0		(0% - 100%)	CTO1	04/03/04 17:04
	Uncert:	+/-90.2		+/-111						
	TPU:	+/-124		+/-167						
QC1200594617 LCS										
Carbon-14	6660			6790	pCi/L		102	(75%-125%)		04/03/04 19:07
	Uncert:			+/-211						
	TPU:			+/-6750						
QC1200594614 MB										
Carbon-14			U	3.31	pCi/L					04/03/04 16:02
	Uncert:			+/-96.9						
	TPU:			+/-96.9						
QC1200594616 109455019 MS										
Carbon-14	6660 U	85.7		6960	pCi/L		103	(75%-125%)		04/03/04 18:05
	Uncert:	+/-90.2		+/-234						
	TPU:	+/-124		+/-6930						

QC Summary

Workorder: 109455

Parmname	NOM	Sample	Qual	QC	Units	RPD%	REC%	Range	Anlst	Date	Time

Notes:
The Qualifiers in this report are defined as follows:

- B Target analyte was detected in the sample as well as the associated blank.
- BD Flag for results below the MDC or a flag for low tracer recovery.
- E Concentration of the target analyte exceeds the instrument calibration range.
- H Analytical holding time exceeded.
- J Indicates an estimated value. The result was greater than the detection limit, but less than the reporting limit.
- U Indicates the target analyte was analyzed for but not detected above the detection limit.
- UI Uncertain identification for gamma spectroscopy.
- X Lab-specific qualifier-please see case narrative, data summary package or contact your project manager for details.
- h Sample preparation or preservation holding time exceeded.

N/A indicates that spike recovery limits do not apply when sample concentration exceeds spike conc. by a factor of 4 or more.
** Indicates analyte is a surrogate compound.
^ The Relative Percent Difference (RPD) obtained from the sample duplicate (DUP) is evaluated against the acceptence criteria when the sample is greater than five times (5X) the contract required detection limit (RL). In cases where either the sample or duplicate value is less than 5X the RL, a control limit of +/- the RL is used to evaluate the DUP result.
For PS, PSD, and SDILT results, the values listed are the measured amounts, not final concentrations.

ere the analytical method has been performed under NELAP certification, the analysis has met all of the uirements of the NELAC standard unless qualified on the QC Summary.

Appendix D.3
June 2004 Lab Analytical Results Summary

Well ID	Nuclide	Conc. (pCi/L)	2-sigma TPU (pCi/L)	MDC (pCi/L)	Required MDC (pCi/L)	Lab Flag	Aliquot Volume (L)	Analysis Date	Analysis Time
QC Blank	Gross Alpha	2.72	1.59	2.75	3	U	0.15	23-Jul-04	10:17
QC Blank	Gross Alpha	-0.774	0.56	1.7	3	U	0.15	27-Jul-04	02:30
QC Blank	Gross Alpha	-0.111	0.593	1.11	3	U	0.1	24-Jul-04	04:20
QC Blank	Gross Alpha	-0.384	0.351	0.991	3	U	0.15	29-Jul-04	02:18
EOF2	Gross Alpha	2.58	0.825	0.949	3		0.1	22-Jul-04	04:12
MW1	Gross Alpha	0.302	0.939	2	3	U	0.15	26-Jul-04	04:08
MW100D	Gross Alpha	2.38	1.01	1.46	3		0.1	22-Jul-04	04:19
MW100S	Gross Alpha	0.253	1.04	2.27	3	U	0.15	27-Jul-04	10:29
MW101D	Gross Alpha	8.5	1.34	1.26	3		0.1	22-Jul-04	04:12
MW101S	Gross Alpha	1.59	0.939	1.44	3		0.1	22-Jul-04	04:12
MW102D	Gross Alpha	8.51	1.77	1.65	3		0.15	28-Jul-04	06:34
MW102S	Gross Alpha	1.66	1.31	2.3	3	U	0.15	22-Jul-04	08:16
MW103D	Gross Alpha	2.72	1.31	2.02	3		0.15	26-Jul-04	07:49
MW103S	Gross Alpha	2.33	1	1.44	3		0.1	23-Jul-04	03:11
MW104S	Gross Alpha	2.49	0.789	0.838	3		0.1	23-Jul-04	04:22
MW105D	Gross Alpha	5.3	1.86	2.84	3		0.15	26-Jul-04	05:43
MW105S	Gross Alpha	0.163	1.18	2.01	3	U	0.15	26-Jul-04	07:49
MW105S Duplicate	Gross Alpha	0.257	1.19	2.14	3	U	0.15	26-Jul-04	07:49
MW106D	Gross Alpha	1.16	0.687	0.963	3		0.1	24-Jul-04	04:20
MW106S	Gross Alpha	2.73	1.09	1.34	3		0.1	24-Jul-04	04:10
MW107D	Gross Alpha	0.548	1.27	2.53	3	U	0.15	22-Jul-04	06:03
MW107S	Gross Alpha	0.317	1.17	2.66	3	U	0.15	22-Jul-04	06:03
MW108S	Gross Alpha	3.9	1.64	2.55	3		0.1	27-Jul-04	02:03
MW108S Replicate	Gross Alpha	0.499	0.849	1.65	3	U	0.1	27-Jul-04	02:03
MW109D	Gross Alpha	7.78	2.23	2.03	3		0.15	22-Jul-04	06:03
MW109S	Gross Alpha	0.441	1.12	2.32	3	U	0.15	26-Jul-04	04:08
MW109S Replicate	Gross Alpha	-0.474	0.975	2.38	3	U	0.15	29-Jul-04	04:14
MW110D	Gross Alpha	5.63	1.94	2.33	3		0.15	22-Jul-04	08:16
MW110S	Gross Alpha	-0.0535	0.988	2.44	3	U	0.15	22-Jul-04	06:03
MW111S	Gross Alpha	-0.239	1.03	2.49	3	U	0.15	22-Jul-04	08:16
MW112S	Gross Alpha	1.56	1.1	1.77	3	U	0.15	22-Jul-04	08:16
MW113S	Gross Alpha	0.989	1.26	2.38	3	U	0.15	22-Jul-04	08:16
MW114S	Gross Alpha	6.29	1.19	1.11	3		0.1	22-Jul-04	04:51
MW117S	Gross Alpha	0.41	0.837	1.44	3	U	0.1	29-Jul-04	04:48
MW117S Replicate	Gross Alpha	1.25	0.834	1.25	3	U	0.1	29-Jul-04	04:48
MW122D	Gross Alpha	7.14	2.19	2.37	3		0.15	22-Jul-04	06:03
MW122S	Gross Alpha	4.88	1.33	1.6	3		0.1	22-Jul-04	04:51
MW123S	Gross Alpha	4.63	1.12	1.25	3		0.1	22-Jul-04	04:19
MW124S	Gross Alpha	1.09	1.32	2.2	3	U	0.1	22-Jul-04	04:12
MW125S	Gross Alpha	2.36	0.789	0.86	3		0.1	22-Jul-04	04:51
MW2	Gross Alpha	0.416	0.66	1.29	3	U	0.15	28-Jul-04	06:34
MW3	Gross Alpha	-0.168	0.763	1.81	3	U	0.15	26-Jul-04	04:08
MW502	Gross Alpha	1.65	1.12	1.77	3	U	0.1	22-Jul-04	04:21
MW503	Gross Alpha	3.23	0.89	0.965	3		0.1	22-Jul-04	04:21
MW504	Gross Alpha	0.767	1.01	1.97	3	U	0.15	27-Jul-04	10:29
MW505	Gross Alpha	1.82	0.738	0.934	3		0.1	23-Jul-04	03:11
MW507D	Gross Alpha	28.8	2.16	1.09	3		0.1	22-Jul-04	04:19
MW507S	Gross Alpha	1.42	0.962	1.51	3	U	0.1	22-Jul-04	04:19
MW508D	Gross Alpha	7.58	1.85	2.07	3		0.15	26-Jul-04	07:49
MW508S	Gross Alpha	0.356	1.12	2.28	3	U	0.15	27-Jul-04	02:30
QC Dup. Spike (BDS)	Gross Alpha	62	9.32	6.29	3		0.15	26-Jul-04	06:52
QC Dup. Spike (BDS)	Gross Alpha	132	12.9	5.05	3		0.1	23-Jul-04	09:40
QC Dup. Spike (BDS)	Gross Alpha	117	13.4	6.28	3		0.1	28-Jul-04	08:01
QC Spike (BS)	Gross Alpha	70.1	8.58	3.43	3		0.15	23-Jul-04	10:14
QC Spike (BS)	Gross Alpha	60.9	7.61	4.04	3		0.15	26-Jul-04	06:52
QC Spike (BS)	Gross Alpha	116	12.1	5.54	3		0.1	23-Jul-04	09:40
QC Spike (BS)	Gross Alpha	88.2	8.67	2.45	3		0.15	28-Jul-04	08:01
QC Spike (MS)	Gross Alpha	54.9	8.41	3.51	3		0.15	30-Jul-04	06:59
QC Spike (MS)	Gross Alpha	126	13.1	3.35	3		0.1	23-Jul-04	03:37
QC Spike (MS)	Gross Alpha	104	12.8	4.83	3		0.1	28-Jul-04	08:01
QC Blank	Gross Beta	0.654	1	2.07	4	U	0.15	23-Jul-04	10:17
QC Blank	Gross Beta	-0.0404	0.676	1.49	4	U	0.15	27-Jul-04	02:30
QC Blank	Gross Beta	-0.435	1.28	2.23	4	U	0.1	24-Jul-04	04:20
QC Blank	Gross Beta	0.0197	0.997	2.02	4	U	0.15	29-Jul-04	02:18
EOF2	Gross Beta	3.3	1.4	2.24	4		0.1	22-Jul-04	04:12
MW1	Gross Beta	0.234	0.875	1.84	4	U	0.15	26-Jul-04	04:08
MW100D	Gross Beta	1.02	1.37	2.29	4	U	0.1	22-Jul-04	04:19
MW100S	Gross Beta	1.51	0.849	1.5	4		0.15	27-Jul-04	10:29
MW101D	Gross Beta	8.18	1.4	2.06	4		0.1	22-Jul-04	04:12
MW101S	Gross Beta	3.27	1.4	2.25	4		0.1	22-Jul-04	04:12
MW102D	Gross Beta	9.95	1.72	2.48	4		0.15	28-Jul-04	06:34
MW102S	Gross Beta	2.06	1.13	2.06	4	U	0.15	22-Jul-04	08:16
MW103D	Gross Beta	3.36	0.947	1.34	4		0.15	26-Jul-04	07:49
MW103S	Gross Beta	23.5	1.91	2.25	4		0.1	23-Jul-04	03:11
MW104S	Gross Beta	6.23	1.35	1.99	4		0.1	23-Jul-04	04:22
MW105D	Gross Beta	5.67	1.22	1.68	4		0.15	26-Jul-04	05:43
MW105S	Gross Beta	44.3	2.7	1.48	4		0.15	26-Jul-04	07:49
MW105S Duplicate	Gross Beta	43.2	2.72	1.83	4		0.15	26-Jul-04	07:49
MW106D	Gross Beta	3.23	1.49	2.4	4		0.1	24-Jul-04	04:20
MW106S	Gross Beta	19.5	2.05	2.58	4		0.1	24-Jul-04	04:10
MW107D	Gross Beta	7	1.58	2.2	4		0.15	22-Jul-04	06:03
MW107S	Gross Beta	1.09	1.08	2.04	4	U	0.15	22-Jul-04	06:03
MW108S	Gross Beta	5.72	1.74	2.92	4		0.1	27-Jul-04	02:03
MW108S Replicate	Gross Beta	2.03	1.64	3.1	4	U	0.1	27-Jul-04	02:03
MW109D	Gross Beta	9.21	1.7	1.98	4		0.15	22-Jul-04	06:03
MW109S	Gross Beta	6.53	1.16	1.34	4		0.15	26-Jul-04	04:08
MW109S Replicate	Gross Beta	3.64	0.994	1.45	4		0.15	29-Jul-04	04:14
MW110D	Gross Beta	8.5	1.65	2.06	4		0.15	22-Jul-04	08:16
MW110S	Gross Beta	4.35	1.33	2.05	4		0.15	22-Jul-04	06:03
MW111S	Gross Beta	2.06	1.18	2.2	4	U	0.15	22-Jul-04	08:16
MW112S	Gross Beta	0.641	0.944	1.97	4	U	0.15	22-Jul-04	08:16
MW113S	Gross Beta	8.3	1.79	2.54	4		0.15	22-Jul-04	08:16
MW114S	Gross Beta	8.11	1.45	2.06	4		0.1	22-Jul-04	04:51
MW117S	Gross Beta	7.28	1.55	2.3	4		0.1	29-Jul-04	04:48

NOTES:
Bold results are greater than 2-sigma TPU and the sample MDC.
Gray results are greater than 2-sigma TPU and less than the sample MDC.
Boron concentration results are in ug/liter.

Appendix D.3
June 2004 Lab Analytical Results Summary

Well ID	Nuclide	Conc. (pCi/L)	2-sigma TPU (pCi/L)	MDC (pCi/L)	Required MDC (pCi/L)	Lab Flag	Aliquot Volume (L)	Analysis Date	Analysis Time
MW117S Replicate	Gross Beta	8.65	1.58	2.26	4		0.1	29-Jul-04	04:48
MW122D	Gross Beta	5.21	1.58	2.55	4		0.15	22-Jul-04	06:03
MW122S	Gross Beta	8.4	1.54	2.21	4		0.1	22-Jul-04	04:51
MW123S	Gross Beta	19.6	1.84	2.29	4		0.1	22-Jul-04	04:19
MW124S	Gross Beta	4.98	1.66	2.62	4		0.1	22-Jul-04	04:12
MW125S	Gross Beta	11.8	1.52	2.02	4		0.1	22-Jul-04	04:51
MW2	Gross Beta	4.43	1.43	2.46	4		0.15	28-Jul-04	06:34
MW3	Gross Beta	0.788	0.765	1.49	4	U	0.15	26-Jul-04	04:08
MW502	Gross Beta	5.02	1.39	2.12	4		0.1	22-Jul-04	04:21
MW503	Gross Beta	1.74	1.3	2.14	4	U	0.1	22-Jul-04	04:21
MW504	Gross Beta	3.4	0.945	1.35	4		0.15	27-Jul-04	10:29
MW505	Gross Beta	4.88	1.44	2.22	4		0.1	23-Jul-04	03:11
MW507D	Gross Beta	15.2	1.71	2.21	4		0.1	22-Jul-04	04:19
MW507S	Gross Beta	3.95	1.49	2.36	4		0.1	22-Jul-04	04:19
MW508D	Gross Beta	6.68	1.22	1.46	4		0.15	26-Jul-04	07:49
MW508S	Gross Beta	4.5	1.09	1.54	4		0.15	27-Jul-04	02:30
QC Dup. Spike (BDS)	Gross Beta	269	11	3.05	4		0.15	26-Jul-04	06:52
QC Dup. Spike (BDS)	Gross Beta	358	15.9	7.68	4		0.1	23-Jul-04	09:40
QC Dup. Spike (BDS)	Gross Beta	405	17.4	6.56	4		0.1	28-Jul-04	08:01
QC Spike (BS)	Gross Beta	243	10.7	3.25	4		0.15	23-Jul-04	10:14
QC Spike (BS)	Gross Beta	245	10.5	2.73	4		0.15	26-Jul-04	06:52
QC Spike (BS)	Gross Beta	331	15.2	7.26	4		0.1	23-Jul-04	09:40
QC Spike (BS)	Gross Beta	230	10.4	4.26	4		0.15	28-Jul-04	08:01
QC Spike (MS)	Gross Beta	253	10.6	2.47	4		0.15	30-Jul-04	06:59
QC Spike (MS)	Gross Beta	336	15.5	7.13	4		0.1	23-Jul-04	03:37
QC Spike (MS)	Gross Beta	391	17	6.96	4		0.1	28-Jul-04	08:01
QC Blank	H-3	-97.5	205	350	400	U	0	29-Jul-04	02:50
QC Blank	H-3	62.1	157	260	400	U	0	15-Jul-04	07:21
QC Blank	H-3	82.6	209	346	400	U	0	31-Jul-04	12:01
EOF2	H-3	196	176	286	400	U	0	14-Jul-04	05:49
MW1	H-3	223	172	274	400	U	0	20-Jul-04	05:27
MW100D	H-3	1.8	183	306	400	U	0	14-Jul-04	06:57
MW100S	H-3	80.4	172	284	400	U	0	20-Jul-04	11:45
MW101D	H-3	15.5	145	242	400	U	0	14-Jul-04	04:47
MW101S	H-3	252	179	288	400	U	0	14-Jul-04	06:52
MW102D	H-3	4690	253	229	400		0	30-Jul-04	02:40
MW102S	H-3	5740	332	300	400		0	20-Jul-04	12:37
MW103D	H-3	6530	313	254	400		0	20-Jul-04	07:33
MW103S	H-3	5300	304	302	400		0	15-Jul-04	03:12
MW104S	H-3	241	190	306	400	U	0	15-Jul-04	04:14
MW105D	H-3	1280	208	277	400		0	20-Jul-04	06:30
MW105S	H-3	3350	263	277	400		0	20-Jul-04	06:36
MW105S Duplicate	H-3	3270	260	276	400		0	20-Jul-04	09:39
MW106D	H-3	1520	219	297	400		0	15-Jul-04	06:19
MW106S	H-3	850	205	302	400		0	15-Jul-04	05:17
MW107D	H-3	656	172	249	400		0	19-Jul-04	06:25
MW107S	H-3	-133	205	352	400	U	0	28-Jul-04	11:41
MW108S	H-3	136	154	251	400	U	0	14-Jul-04	11:35
MW108S Replicate	H-3	10	171	286	400	U	0	15-Jul-04	06:24
MW109D	H-3	3140	246	258	400		0	19-Jul-04	06:18
MW109S	H-3	-9.7	164	275	400	U	0	20-Jul-04	02:43
MW110D	H-3	8300	363	278	400		0	19-Jul-04	09:28
MW110S	H-3	1010	220	310	400		0	19-Jul-04	04:11
MW110S Replicate	H-3	789	171	241	400		0	20-Jul-04	03:58
MW111S	H-3	233	180	288	400	U	0	20-Jul-04	01:40
MW112S	H-3	102	169	277	400	U	0	19-Jul-04	11:34
MW113S	H-3	180	163	263	400	U	0	19-Jul-04	10:31
MW114S	H-3	6730	420	427	400		0	21-Jul-04	09:02
MW117S	H-3	25.1	194	324	400	U	0	30-Jul-04	10:58
MW122D	H-3	222	165	264	400	U	0	19-Jul-04	05:15
MW122S	H-3	645	158	233	400		0	14-Jul-04	12:37
MW123S	H-3	174	187	306	400	U	0	14-Jul-04	07:54
MW124S	H-3	1770	296	410	400		0	21-Jul-04	10:05
MW125S	H-3	2170	197	236	400		0	14-Jul-04	02:42
MW2	H-3	-251	229	397	400	U	0	2-Aug-04	07:40
MW2 Replicate	H-3	48.7	206	342	400	U	0	31-Jul-04	01:04
MW3	H-3	15.6	147	245	400	U	0	20-Jul-04	04:24
MW502	H-3	141	184	302	400	U	0	15-Jul-04	01:07
MW503	H-3	168	186	303	400	U	0	15-Jul-04	12:04
MW504	H-3	276	174	275	400		0	20-Jul-04	12:49
MW505	H-3	-11.6	169	284	400	U	0	15-Jul-04	02:09
MW507D	H-3	112	186	306	400	U	0	14-Jul-04	09:59
MW507S	H-3	47.7	176	292	400	U	0	14-Jul-04	11:02
MW508D	H-3	-11.5	161	270	400	U	0	20-Jul-04	10:42
MW508S	H-3	157	174	282	400	U	0	20-Jul-04	01:52
QC Spike (BS)	H-3	2820	238	257	400		0	20-Jul-04	06:05
QC Spike (BS)	H-3	3000	249	289	400		0	15-Jul-04	10:29
QC Spike (BS)	H-3	2650	208	225	400		0	30-Jul-04	06:54
QC Spike (MS)	H-3	3500	261	268	400		0	20-Jul-04	05:02
QC Spike (MS)	H-3	3030	252	293	400		0	15-Jul-04	09:26
QC Spike (MS)	H-3	2790	214	229	400		0	30-Jul-04	05:50
QC Blank	Boron	2.51	-	0.54	15	J	0	26-Jul-04	07:05
QC Blank	Boron	15	-	0.54	15	U	0	22-Jul-04	09:26
QC Blank	Boron	0.769	-	0.54	15	J	0	26-Jul-04	05:47
QC Blank	Boron	15	-	0.54	15	U	0	22-Jul-04	09:47
EOF2	Boron	63.4	-	0.54	15		0	26-Jul-04	06:21
MW1	Boron	5.08	-	0.54	15	J	0	26-Jul-04	06:00
MW100D	Boron	10.4	-	0.54	15	J	0	26-Jul-04	06:29
MW100S	Boron	25.3	-	0.54	15		0	26-Jul-04	06:16
MW101D	Boron	54	-	0.54	15		0	26-Jul-04	06:18
MW101S	Boron	68.6	-	0.54	15		0	26-Jul-04	06:23
MW102D	Boron	97.1	-	0.54	15		0	22-Jul-04	10:06
MW102S	Boron	91.2	-	0.54	15		0	26-Jul-04	07:44
MW103D	Boron	57.1	-	0.54	15		0	26-Jul-04	06:05

NOTES:
Bold results are greater than 2-sigma TPU and the sample MDC.
Gray results are greater than 2-sigma TPU and less than the sample MDC.
Boron concentration results are in ug/liter.

Appendix D.3
June 2004 Lab Analytical Results Summary

Well ID	Nuclide	Conc. (pCi/L)	2-sigma TPU (pCi/L)	MDC (pCi/L)	Required MDC (pCi/L)	Lab Flag	Aliquot Volume (L)	Analysis Date	Analysis Time
MW103S	Boron	165	-	0.54	15		0	26-Jul-04	06:49
MW104S	Boron	274	-	0.54	15		0	26-Jul-04	06:52
MW105D	Boron	60.8	-	0.54	15		0	26-Jul-04	08:03
MW105S	Boron	484	-	0.54	15		0	26-Jul-04	08:08
MW105S Duplicate	Boron	518	-	0.54	15		0	26-Jul-04	08:11
MW106D	Boron	64.7	-	0.54	15		0	26-Jul-04	06:57
MW106S	Boron	490	-	0.54	15		0	26-Jul-04	06:55
MW107D	Boron	32.1	-	0.54	15		0	26-Jul-04	07:34
MW107S	Boron	177	-	0.54	15		0	26-Jul-04	07:31
MW108S	Boron	68.3	-	0.54	15		0	26-Jul-04	05:52
MW108S Replicate	Boron	68.7	-	0.54	15		0	26-Jul-04	05:55
MW109D	Boron	191	-	0.54	15		0	26-Jul-04	07:28
MW109S	Boron	124	-	0.54	15		0	26-Jul-04	07:55
MW110D	Boron	236	-	0.54	15		0	26-Jul-04	07:36
MW110S	Boron	291	-	0.54	15		0	26-Jul-04	07:10
MW110S Replicate	Boron	301	-	0.54	15		0	26-Jul-04	07:13
MW111S	Boron	55.5	-	0.54	15		0	26-Jul-04	07:47
MW112S	Boron	47.8	-	0.54	15		0	26-Jul-04	07:42
MW113S	Boron	110	-	0.54	15		0	26-Jul-04	07:39
MW114S	Boron	1260	-	0.54	15		0	26-Jul-04	06:10
MW117S	Boron	68.5	-	0.54	15		0	22-Jul-04	10:03
MW122D	Boron	223	-	0.54	15		0	26-Jul-04	07:26
MW122S	Boron	307	-	0.54	15		0	26-Jul-04	06:08
MW123S	Boron	90.8	-	0.54	15		0	26-Jul-04	06:26
MW124S	Boron	225	-	0.54	15		0	26-Jul-04	06:16
MW125S	Boron	445	-	0.54	15		0	26-Jul-04	06:13
MW2	Boron	15.5	-	0.54	15	J	0	22-Jul-04	09:52
MW2 Replicate	Boron	14	-	0.54	15	J	0	22-Jul-04	09:55
MW3	Boron	5.67	-	0.54	15	J	0	26-Jul-04	07:57
MW502	Boron	65.2	-	0.54	15		0	26-Jul-04	06:44
MW503	Boron	10.7	-	0.54	15	J	0	26-Jul-04	06:42
MW504	Boron	42.7	-	0.54	15		0	26-Jul-04	08:19
MW505	Boron	54.4	-	0.54	15		0	26-Jul-04	06:47
MW507D	Boron	36.7	-	0.54	15		0	26-Jul-04	06:36
MW507S	Boron	52.8	-	0.54	15		0	26-Jul-04	06:39
MW508D	Boron	66.1	-	0.54	15		0	26-Jul-04	08:13
MW508S	Boron	41.9	-	0.54	15		0	22-Jul-04	09:32
MW508S Replicate	Boron	41.8	-	0.54	15		0	22-Jul-04	09:34
QC Spike (BS)	Boron	114	-	0.54	15		0	26-Jul-04	07:08
QC Spike (BS)	Boron	108	-	0.54	15		0	22-Jul-04	09:29
QC Spike (BS)	Boron	108	-	0.54	15		0	26-Jul-04	05:50
QC Spike (BS)	Boron	114	-	0.54	15		0	22-Jul-04	09:50
QC Spike (MS)	Boron	113	-	0.54	15		0	26-Jul-04	07:15
QC Spike (MS)	Boron	111	-	0.54	15		0	22-Jul-04	09:37
QC Spike (MS)	Boron	103	-	0.54	15		0	26-Jul-04	05:57
QC Spike (MS)	Boron	115	-	0.54	15		0	22-Jul-04	09:58
QC Blank	C-14	-2.14	3.32	5.67	200	U	0.325	9-Jul-04	11:12
QC Blank	C-14	3.4	6.94	11.8	200	U	0.2	3-Jul-04	10:44
MW103D	C-14	-4.07	43.3	73.5	200	U	0.025	9-Jul-04	01:48
MW103S	C-14	-2.65	6.75	11.8	200	U	0.2	3-Jul-04	08:37
MW103S Replicate	C-14	2.92	7.04	12	200	U	0.2	3-Jul-04	11:16
MW104S	C-14	1.35	6.84	11.7	200	U	0.2	3-Jul-04	09:08
MW105D	C-14	-3.61	43.9	74.5	200	U	0.025	9-Jul-04	12:15
MW105S	C-14	-14.7	43.6	74.3	200	U	0.025	9-Jul-04	03:21
MW105S Duplicate	C-14	-13.2	44	74.9	200	U	0.025	9-Jul-04	04:55
MW106D	C-14	3.53	6.99	11.9	200	U	0.2	3-Jul-04	10:12
MW106S	C-14	-4.53	6.67	11.8	200	U	0.2	3-Jul-04	09:40
QC Spike (BS)	C-14	201	5.73	6.24	200		0.325	10-Jul-04	03:15
QC Spike (BS)	C-14	339	14.5	11.9	200		0.2	3-Jul-04	12:20
QC Spike (MS)	C-14	374	15.2	11.9	200		0.2	3-Jul-04	11:48
QC Blank	Mn-54	1.17	1.92	3.63	50	U	2	20-Jul-04	10:10
QC Blank	Mn-54	-0.241	2.05	3.75	50	U	2	25-Jul-04	04:12
QC Blank	Mn-54	-0.705	1.26	2.18	50	U	2	21-Jul-04	08:48
QC Blank	Mn-54	-1.94	1.86	2.87	50	U	2	4-Aug-04	11:32
EOF2	Mn-54	0.174	1.73	3.23	50	U	2	21-Jul-04	02:28
MW1	Mn-54	1.41	1.43	2.69	50	U	2	19-Jul-04	10:14
MW100D	Mn-54	-0.415	2.48	4.42	50	U	2	21-Jul-04	02:30
MW100S	Mn-54	0.2	1.31	2.3	50	U	2	19-Jul-04	10:16
MW101D	Mn-54	0.0144	2.14	3.76	50	U	2	21-Jul-04	02:28
MW101S	Mn-54	-1.17	1.94	3.26	50	U	2	21-Jul-04	02:29
MW102D	Mn-54	0.676	1.93	3.6	50	U	2	4-Aug-04	10:07
MW102S	Mn-54	0	3	2.32	50		2	19-Jul-04	08:06
MW103D	Mn-54	0.0734	1.33	2.3	50	U	2	19-Jul-04	09:59
MW103S	Mn-54	-0.731	1.81	3.13	50	U	2	21-Jul-04	08:15
MW104S	Mn-54	1.82	1.94	2.33	50	U	2	21-Jul-04	08:31
MW105D	Mn-54	0.18	1.28	2.27	50	U	2	19-Jul-04	09:59
MW105S	Mn-54	-0.828	1.25	2.13	50	U	2	19-Jul-04	10:02
MW105S Duplicate	Mn-54	0.381	2.34	4.33	50	U	2	20-Jul-04	10:10
MW106D	Mn-54	0.0915	1.38	2.14	50	U	2	21-Jul-04	08:47
MW106S	Mn-54	0.217	1.43	2.63	50	U	2	21-Jul-04	08:32
MW107D	Mn-54	0.487	2.24	3.61	50	U	2	20-Jul-04	10:09
MW107S	Mn-54	-0.333	1.57	2.86	50	U	2	20-Jul-04	10:09
MW108S	Mn-54	-0.585	1.9	3.33	50	U	2	21-Jul-04	02:23
MW108S Replicate	Mn-54	-0.193	1.24	2.2	50	U	2	21-Jul-04	07:50
MW109D	Mn-54	-1.28	2.36	4.09	50	U	2	20-Jul-04	10:08
MW109S	Mn-54	-0.593	1.39	2	50	U	2	19-Jul-04	08:11
MW110D	Mn-54	1.18	1.27	2.38	50	U	2	19-Jul-04	09:53
MW110S	Mn-54	0.368	1.7	3.06	50	U	2	19-Jul-04	10:20
MW110S Replicate	Mn-54	0.0673	2.01	3.64	50	U	2	20-Jul-04	02:41
MW111S	Mn-54	0	1.85	2.29	50		2	19-Jul-04	10:13
MW112S	Mn-54	1.69	1.82	3.57	50	U	2	20-Jul-04	10:09
MW113S	Mn-54	-0.167	1.33	2.32	50	U	2	19-Jul-04	09:56
MW114S	Mn-54	-0.0794	1.77	3.2	50	U	2	21-Jul-04	02:26
MW117S	Mn-54	-1.04	2.18	3.83	50	U	2	4-Aug-04	10:07

NOTES:
Bold results are greater than 2-sigma TPU and the sample MDC.
Gray results are greater than 2-sigma TPU and less than the sample MDC.
Boron concentration results are in ug/liter.

Appendix D.3
June 2004 Lab Analytical Results Summary

Well ID	Nuclide	Conc. (pCi/L)	2-sigma TPU (pCi/L)	MDC (pCi/L)	Required MDC (pCi/L)	Lab Flag	Aliquot Volume (L)	Analysis Date	Analysis Time
MW122D	Mn-54	0.356	1.85	3.41	50	U	2	20-Jul-04	11:10
MW122S	Mn-54	0.584	1.81	3.55	50	U	2	21-Jul-04	02:24
MW123S	Mn-54	-0.696	1.69	2.88	50	U	2	21-Jul-04	02:29
MW124S	Mn-54	0.268	1.66	3.05	50	U	2	21-Jul-04	02:27
MW125S	Mn-54	-0.535	2.08	3.62	50	U	2	21-Jul-04	02:26
MW2	Mn-54	-0.154	1.92	3.47	50	U	2	4-Aug-04	10:06
MW2 Replicate	Mn-54	1.86	1.83	3.65	50	U	2	4-Aug-04	11:01
MW3	Mn-54	0.202	1.39	2.55	50	U	2	19-Jul-04	09:50
MW502	Mn-54	-0.638	1.23	2.04	50	U	2	21-Jul-04	08:08
MW503	Mn-54	0	3.48	2.28	50		2	21-Jul-04	07:57
MW504	Mn-54	-0.528	1.33	2.33	50	U	2	19-Jul-04	11:08
MW505	Mn-54	-1.86	1.76	2.84	50	U	2	21-Jul-04	08:09
MW507D	Mn-54	-0.166	1.26	2.2	50	U	2	21-Jul-04	07:39
MW507S	Mn-54	0.612	1.22	2.23	50	U	2	21-Jul-04	07:55
MW508D	Mn-54	-0.871	1.36	2.26	50	U	2	19-Jul-04	10:30
MW508S	Mn-54	-0.0592	1.68	3.08	50	U	2	25-Jul-04	04:11
MW508S Replicate	Mn-54	-0.761	1.6	2.85	50	U	2	26-Jul-04	09:35
QC Spike (BS)	Mn-54	-6.23	10.8	17.5	50	U	2	20-Jul-04	04:06
QC Spike (BS)	Mn-54	-5.14	8.21	11.7	50	U	2	28-Jul-04	12:19
QC Spike (BS)	Mn-54	4.75	13.3	24.5	50	U	2	21-Jul-04	07:14
QC Spike (BS)	Mn-54	1.28	11.1	19.2	50	U	2	4-Aug-04	12:49
QC Spike (MS)	Mn-54	89.6	148	288	50	U	0.05	22-Jul-04	05:28
QC Spike (MS)	Mn-54	-50.9	98.7	167	50	U	0.05	26-Jul-04	02:47
QC Spike (MS)	Mn-54	4.06	141	253	50	U	0.05	21-Jul-04	06:59
QC Spike (MS)	Mn-54	83.4	133	262	50	U	0.05	4-Aug-04	10:08
QC Blank	Fe-55	3.35	12	11.5	25	U	0.525	22-Jul-04	01:32
QC Blank	Fe-55	-32.7	13	12.1	25	U	0.375	11-Jul-04	10:25
MW103D	Fe-55	2.08	12.6	12.3	25	U	0.525	29-Jul-04	06:35
MW103S	Fe-55	-17.9	11.5	10.8	25	U	0.375	11-Jul-04	04:12
MW103S Replicate	Fe-55	-19.9	12.5	11.7	25	U	0.375	11-Jul-04	11:58
MW104S	Fe-55	-27.1	12.3	11.6	25	U	0.375	11-Jul-04	05:45
MW105D	Fe-55	6.19	12.9	11.8	25	U	0.525	29-Jul-04	05:32
MW105D Replicate	Fe-55	2.27	11.3	10.6	25	U	0.525	22-Jul-04	02:35
MW105S	Fe-55	9.02	13.4	12.6	25	U	0.525	21-Jul-04	11:28
MW105S Duplicate	Fe-55	1.85	11.3	10.9	25	U	0.525	22-Jul-04	12:30
MW106D	Fe-55	-25.1	12.4	11.6	25	U	0.375	11-Jul-04	08:51
MW106S	Fe-55	-21.3	12.5	11.5	25	U	0.375	11-Jul-04	07:18
QC Spike (BS)	Fe-55	47.6	12.5	10.9	25		0.525	22-Jul-04	04:40
QC Spike (BS)	Fe-55	353	17.8	11.9	25		0.375	11-Jul-04	03:04
QC Spike (MS)	Fe-55	55.4	12.7	11.1	25		0.525	29-Jul-04	08:39
QC Spike (MS)	Fe-55	363	17.5	11.9	25		0.375	11-Jul-04	01:31
QC Blank	Co-60	-0.456	2.12	3.83	25	U	2	2-Aug-04	12:39
QC Blank	Co-60	-0.159	2.02	3.7	25	U	2	20-Jul-04	10:10
QC Blank	Co-60	0.188	1.83	3.59	25	U	2	25-Jul-04	04:12
QC Blank	Co-60	-1.21	1.51	2.43	25	U	2	21-Jul-04	08:48
QC Blank	Co-60	-0.388	1.59	2.95	25	U	2	4-Aug-04	11:32
EOF2	Co-60	0.179	2.03	3.33	25	U	2	21-Jul-04	02:28
MW1	Co-60	0.75	1.58	2.95	25	U	2	19-Jul-04	10:14
MW100D	Co-60	6.2	2.37	5.63	25	U	2	21-Jul-04	02:30
MW100D Replicate	Co-60	-0.521	2.74	4.28	25	U	2	2-Aug-04	12:38
MW100S	Co-60	0.0636	1.2	2.22	25	U	2	19-Jul-04	10:16
MW101D	Co-60	1.97	1.73	3.9	25	U	2	21-Jul-04	02:28
MW101D Replicate	Co-60	0.634	1.82	3.67	25	U	2	2-Aug-04	12:37
MW101S	Co-60	0.503	1.94	3.78	25	U	2	21-Jul-04	02:29
MW102D	Co-60	1.52	1.84	3.87	25	U	2	4-Aug-04	10:07
MW102S	Co-60	0.869	1.54	2.83	25	U	2	19-Jul-04	08:06
MW103D	Co-60	0.568	1.43	2.67	25	U	2	19-Jul-04	09:59
MW103S	Co-60	11.4	3.62	3.13	25		2	21-Jul-04	08:15
MW103S Replicate	Co-60	13.7	4.93	4.04	25		2	2-Aug-04	12:38
MW104S	Co-60	6.28	2.06	4.4	25		2	21-Jul-04	08:31
MW104S Replicate	Co-60	-0.163	2.17	4	25	U	2	2-Aug-04	12:39
MW105D	Co-60	0.017	1.46	2.65	25	U	2	19-Jul-04	09:59
MW105S	Co-60	0.984	1.3	2.5	25	U	2	19-Jul-04	10:02
MW105S Duplicate	Co-60	1.78	2.09	4.56	25	U	2	20-Jul-04	10:10
MW106D	Co-60	0.167	1.26	2.36	25	U	2	21-Jul-04	08:47
MW106S	Co-60	0.809	1.55	2.95	25	U	2	21-Jul-04	08:32
MW107D	Co-60	0.452	2.18	4.16	25	U	2	20-Jul-04	10:09
MW107S	Co-60	-0.142	2.22	4	25	U	2	20-Jul-04	10:09
MW108S	Co-60	5.25	2.64	5.87	25	U	2	21-Jul-04	02:23
MW108S Replicate	Co-60	4.41	3.05	5.01	25	U	2	2-Aug-04	12:36
MW108S Replicate	Co-60	0.317	1.46	2.62	25	U	2	2-Aug-04	06:04
MW108S Replicate	Co-60	1.02	1.32	2.54	25	U	2	21-Jul-04	07:50
MW109D	Co-60	0	3.44	6.01	25		2	20-Jul-04	10:06
MW109S	Co-60	-0.337	1.26	2.2	25	U	2	19-Jul-04	08:11
MW110D	Co-60	0.0068	1.49	2.69	25	U	2	19-Jul-04	09:53
MW110S	Co-60	0.194	1.86	3.42	25	U	2	19-Jul-04	10:20
MW110S Replicate	Co-60	-1.34	2.01	3.42	25	U	2	20-Jul-04	02:41
MW111S	Co-60	0.0721	1.44	2.6	25	U	2	19-Jul-04	10:13
MW112S	Co-60	-0.456	1.87	3.39	25	U	2	20-Jul-04	10:09
MW113S	Co-60	2.58	2.8	4.55	25	U	2	19-Jul-04	09:56
MW114S	Co-60	1.17	1.83	3.76	25	U	2	21-Jul-04	02:26
MW117S	Co-60	2.12	2.22	4.71	25	U	2	4-Aug-04	10:07
MW122D	Co-60	-1.17	2.07	3.56	25	U	2	20-Jul-04	11:10
MW122S	Co-60	0.857	2.32	4.55	25	U	2	21-Jul-04	02:24
MW123S	Co-60	0.781	1.78	3.59	25	U	2	21-Jul-04	02:29
MW124S	Co-60	-0.263	2.05	3.74	25	U	2	21-Jul-04	02:27
MW125S	Co-60	1.95	1.78	3.71	25	U	2	21-Jul-04	02:26
MW125S Replicate	Co-60	0.291	2.04	3.87	25	U	2	2-Aug-04	12:37
MW2	Co-60	1.08	3.74	3.73	25	U	2	4-Aug-04	10:06
MW2 Replicate	Co-60	-0.265	1.57	2.93	25	U	2	4-Aug-04	11:01
MW3	Co-60	0.383	1.49	2.78	25	U	2	19-Jul-04	09:50
MW502	Co-60	0.176	1.43	2.31	25	U	2	21-Jul-04	08:08
MW503	Co-60	0.0962	1.38	2.5	25	U	2	21-Jul-04	07:57
MW504	Co-60	0.186	1.35	2.46	25	U	2	19-Jul-04	11:08

NOTES:
Bold results are greater than 2-sigma TPU and the sample MDC.
Gray results are greater than 2-sigma TPU and less than the sample MDC.
Boron concentration results are in ug/liter.

Appendix D.3
June 2004 Lab Analytical Results Summary

Well ID	Nuclide	Conc. (pCi/L)	2-sigma TPU (pCi/L)	MDC (pCi/L)	Required MDC (pCi/L)	Lab Flag	Aliquot Volume (L)	Analysis Date	Analysis Time
MW506	Co-60	-0.459	1.85	3.3	25	U	2	21-Jul-04	08:09
MW507D	Co-60	-0.597	1.59	2.75	25	U	2	21-Jul-04	07:39
MW507S	Co-60	1	1.34	2.64	25	U	2	21-Jul-04	07:55
MW508D	Co-60	0.145	1.59	2.87	25	U	2	19-Jul-04	10:30
MW508S	Co-60	5.24	2.64	5.87	25	U	2	25-Jul-04	04:11
MW508S Replicate	Co-60	0.703	1.68	3.44	25	U	2	26-Jul-04	09:35
QC Spike (BS)	Co-60	570	70.9	22.1	25		0.5	3-Aug-04	12:05
QC Spike (BS)	Co-60	738	69.5	21	25		2	20-Jul-04	04:06
QC Spike (BS)	Co-60	762	60.5	12.4	25		2	28-Jul-04	12:19
QC Spike (BS)	Co-60	705	74.4	24.4	25		2	21-Jul-04	07:14
QC Spike (BS)	Co-60	819	65.7	17.1	25		2	4-Aug-04	12:49
QC Spike (MS)	Co-60	6410	672	277	25		0.05	3-Aug-04	12:04
QC Spike (MS)	Co-60	6770	633	263	25		0.05	22-Jul-04	05:28
QC Spike (MS)	Co-60	6280	614	152	25		0.05	26-Jul-04	02:47
QC Spike (MS)	Co-60	6050	730	236	25		0.05	21-Jul-04	06:59
QC Spike (MS)	Co-60	5430	721	299	25		0.05	4-Aug-04	10:08
QC Blank	Ni-63	0.213	7.06	12.1	15	U	0.525	21-Jul-04	01:47
QC Blank	Ni-63	4.42	7.87	13.3	15	U	0.375	9-Jul-04	07:07
MW103D	Ni-63	-5.64	6.72	11.8	15	U	0.525	21-Jul-04	12:12
MW103S	Ni-63	5.72	8.17	13.8	15	U	0.375	9-Jul-04	04:59
MW103S Replicate	Ni-63	10.8	8.94	14.8	15	U	0.375	9-Jul-04	07:39
MW104S	Ni-63	6.13	7.5	12.6	15	U	0.375	9-Jul-04	05:31
MW105D	Ni-63	-4.97	7.69	13.4	15	U	0.525	21-Jul-04	11:41
MW105D Replicate	Ni-63	-6.43	7.78	13.7	15	U	0.525	21-Jul-04	02:18
MW105S	Ni-63	-0.892	7.62	13.1	15	U	0.525	21-Jul-04	12:44
MW105S Duplicate	Ni-63	-4.7	7.26	12.7	15	U	0.525	21-Jul-04	01:15
MW106D	Ni-63	-3.19	7.74	13.6	15	U	0.375	9-Jul-04	06:35
MW106S	Ni-63	-0.217	6.74	11.7	15	U	0.375	9-Jul-04	06:03
QC Spike (BS)	Ni-63	310	13.6	12.9	15		0.525	21-Jul-04	03:21
QC Spike (BS)	Ni-63	320	14.4	12.3	15		0.375	9-Jul-04	09:49
QC Spike (MS)	Ni-63	288	13.1	12.7	15		0.525	21-Jul-04	02:50
QC Spike (MS)	Ni-63	314	14.8	13.1	15		0.375	9-Jul-04	08:11
QC Blank	Sr-90	0.391	0.657	1.47	2	U	0.3	15-Jul-04	02:08
QC Blank	Sr-90	-0.73	0.347	1.32	2	U	0.3	27-Jul-04	12:22
QC Blank	Sr-90	0.129	0.363	0.803	2	U	0.3	17-Jul-04	09:09
EOF2	Sr-90	-0.131	0.504	1.34	2	U	0.3	27-Jul-04	09:31
MW1	Sr-90	0.944	0.726	1.47	2	U	0.3	15-Jul-04	12:45
MW101D	Sr-90	0.0309	0.49	1.23	2	U	0.3	27-Jul-04	09:31
MW101S	Sr-90	-0.242	0.414	1.2	2	U	0.3	27-Jul-04	09:31
MW102D	Sr-90	0.928	0.58	1.08	2	U	0.3	17-Jul-04	04:54
MW102S	Sr-90	0.289	0.555	1.2	2	U	0.3	13-Jul-04	10:44
MW103D	Sr-90	1.26	0.72	1.37	2	U	0.3	15-Jul-04	12:45
MW103S	Sr-90	1.34	0.661	1.08	2		0.3	27-Jul-04	09:30
MW104S	Sr-90	-0.0679	0.528	1.35	2	U	0.3	27-Jul-04	09:31
MW105D	Sr-90	1.11	0.656	1.26	2	U	0.3	15-Jul-04	12:45
MW105S	Sr-90	16.2	1.71	1.38	2		0.3	15-Jul-04	02:08
MW105S Duplicate	Sr-90	16.8	1.73	1.33	2		0.3	15-Jul-04	02:08
MW106D	Sr-90	0.549	0.58	1.2	2	U	0.3	27-Jul-04	09:47
MW106S	Sr-90	3.17	0.961	1.31	2		0.3	27-Jul-04	09:47
MW107D	Sr-90	0.262	0.555	1.2	2	U	0.3	13-Jul-04	08:41
MW107S	Sr-90	2.69	0.741	1.19	2		0.3	13-Jul-04	04:52
MW108S	Sr-90	0.0577	0.567	1.4	2	U	0.3	27-Jul-04	08:36
MW109D	Sr-90	0.473	0.555	1.16	2	U	0.3	13-Jul-04	04:52
MW109S	Sr-90	0.801	0.537	1.06	2	U	0.3	13-Jul-04	10:44
MW110D	Sr-90	0.441	0.547	1.15	2	U	0.3	13-Jul-04	08:41
MW110S	Sr-90	0.689	0.637	1.3	2	U	0.3	13-Jul-04	04:52
MW110S Replicate	Sr-90	1.13	0.729	1.44	2	U	0.3	15-Jul-04	03:46
MW111S	Sr-90	-0.0552	0.485	1.11	2	U	0.3	13-Jul-04	10:44
MW112S	Sr-90	0.697	0.59	1.19	2	U	0.3	13-Jul-04	08:41
MW113S	Sr-90	0.665	0.602	1.23	2	U	0.3	13-Jul-04	08:41
MW114S	Sr-90	0.541	0.571	1.19	2	U	0.3	27-Jul-04	09:31
MW117S	Sr-90	0.79	0.516	0.952	2	U	0.3	17-Jul-04	04:54
MW122D	Sr-90	3.29	0.768	1.15	2		0.3	13-Jul-04	04:52
MW122S	Sr-90	0.568	0.493	0.977	2	U	0.3	27-Jul-04	08:36
MW123S	Sr-90	0.471	0.617	1.34	2	U	0.3	27-Jul-04	09:31
MW124S	Sr-90	1.33	0.791	1.47	2	U	0.3	27-Jul-04	09:31
MW124S Replicate	Sr-90	-0.275	0.392	1.14	2	U	0.3	27-Jul-04	12:22
MW125S	Sr-90	1.78	0.742	1.15	2		0.3	27-Jul-04	09:31
MW2	Sr-90	-0.131	0.374	1.02	2	U	0.3	17-Jul-04	04:54
MW2 Replicate	Sr-90	0.642	0.374	0.684	2	U	0.3	17-Jul-04	09:08
MW3	Sr-90	0.582	0.599	1.24	2	U	0.3	13-Jul-04	10:44
QC Spike (BS)	Sr-90	52.3	2.81	1.23	2		0.3	15-Jul-04	03:46
QC Spike (BS)	Sr-90	52.1	3.48	1.31	2		0.3	27-Jul-04	12:22
QC Spike (BS)	Sr-90	73.1	2.61	0.942	2		0.3	17-Jul-04	09:08
QC Spike (MS)	Sr-90	115	5.96	2.48	2		0.15	15-Jul-04	03:46
QC Spike (MS)	Sr-90	108	6.96	2.43	2		0.15	27-Jul-04	12:22
QC Spike (MS)	Sr-90	148	4.99	1.35	2		0.15	17-Jul-04	09:08
QC Blank	Nb-94	0.331	1.65	3.02	50	U	2	20-Jul-04	10:10
QC Blank	Nb-94	0.258	1.97	3.52	50	U	2	25-Jul-04	04:12
QC Blank	Nb-94	-0.846	1.37	2.24	50	U	2	21-Jul-04	08:48
QC Blank	Nb-94	0.642	1.69	3.17	50	U	2	4-Aug-04	11:32
EOF2	Nb-94	0.293	1.8	3.18	50	U	2	21-Jul-04	02:28
MW1	Nb-94	-0.174	1.29	2.26	50	U	2	19-Jul-04	10:14
MW100D	Nb-94	-0.828	2.35	4.13	50	U	2	21-Jul-04	02:30
MW100S	Nb-94	0.136	1.14	2.02	50	U	2	19-Jul-04	10:16
MW101D	Nb-94	-1.44	2.03	2.77	50	U	2	21-Jul-04	02:28
MW101S	Nb-94	-0.645	1.81	3.16	50	U	2	21-Jul-04	02:29
MW102D	Nb-94	1.4	1.64	3.21	50	U	2	4-Aug-04	10:07
MW102S	Nb-94	0.829	1.48	2.55	50	U	2	19-Jul-04	08:06
MW103D	Nb-94	0.546	1.2	2.15	50	U	2	19-Jul-04	09:59
MW103S	Nb-94	1.03	1.86	3.27	50	U	2	21-Jul-04	08:15
MW104S	Nb-94	1.11	1.19	2.26	50	U	2	21-Jul-04	08:31
MW105D	Nb-94	-0.17	1.29	1.96	50	U	2	19-Jul-04	09:59
MW105S	Nb-94	0.968	1.15	2.09	50	U	2	19-Jul-04	10:02

NOTES:
Bold results are greater than 2-sigma TPU and the sample MDC.
Gray results are greater than 2-sigma TPU and less than the sample MDC.
Boron concentration results are in ug/liter.

Appendix D.3
June 2004 Lab Analytical Results Summary

Well ID	Nuclide	Conc. (pCi/L)	2-sigma TPU (pCi/L)	MDC (pCi/L)	Required MDC (pCi/L)	Lab Flag	Aliquot Volume (L)	Analysis Date	Analysis Time
MW105S Duplicate	Nb-94	0.716	2.15	4.04	50	U	2	20-Jul-04	10:10
MW106D	Nb-94	0.354	1.13	2.04	50	U	2	21-Jul-04	08:47
MW106S	Nb-94	-0.426	1.25	2.09	50	U	2	21-Jul-04	08:32
MW107D	Nb-94	0.734	1.88	3.5	50	U	2	20-Jul-04	10:09
MW107S	Nb-94	-0.559	1.66	2.8	50	U	2	20-Jul-04	10:09
MW108S	Nb-94	**1.71**	1.66	3.35	50	U	2	21-Jul-04	02:23
MW108S Replicate	Nb-94	0.326	1.12	1.96	50	U	2	21-Jul-04	07:50
MW109D	Nb-94	-0.431	2.42	4.13	50	U	2	20-Jul-04	10:08
MW109S	Nb-94	-0.407	1.2	1.78	50	U	2	19-Jul-04	08:11
MW110D	Nb-94	0.664	1.25	2.25	50	U	2	19-Jul-04	09:53
MW110S	Nb-94	0.0195	1.7	2.68	50	U	2	19-Jul-04	10:20
MW110S Replicate	Nb-94	-1.81	1.88	3.04	50	U	2	20-Jul-04	02:41
MW111S	Nb-94	-0.669	1.33	2.2	50	U	2	19-Jul-04	10:13
MW112S	Nb-94	0.816	1.73	3.22	50	U	2	20-Jul-04	10:09
MW113S	Nb-94	0.713	1.24	2.28	50	U	2	19-Jul-04	09:56
MW114S	Nb-94	-0.379	1.61	2.86	50	U	2	21-Jul-04	02:26
MW117S	Nb-94	1.22	1.93	3.64	50	U	2	4-Aug-04	10:07
MW122D	Nb-94	-0.283	1.84	3.27	50	U	2	20-Jul-04	11:10
MW122S	Nb-94	0.651	1.77	3.29	50	U	2	21-Jul-04	02:24
MW123S	Nb-94	-1.22	2.06	2.99	50	U	2	21-Jul-04	02:29
MW124S	Nb-94	1.12	1.84	3.43	50	U	2	21-Jul-04	02:27
MW125S	Nb-94	1.15	2.23	3.3	50	U	2	21-Jul-04	02:26
MW2	Nb-94	1.33	1.66	3.28	50	U	2	4-Aug-04	10:06
MW2 Replicate	Nb-94	**2.26**	1.66	3.35	50	U	2	4-Aug-04	11:01
MW3	Nb-94	-0.436	1.4	2.34	50	U	2	19-Jul-04	09:50
MW502	Nb-94	0.341	1.03	1.86	50	U	2	21-Jul-04	08:08
MW503	Nb-94	-0.278	1.26	2.13	50	U	2	21-Jul-04	07:57
MW504	Nb-94	-0.449	1.21	2.02	50	U	2	19-Jul-04	11:08
MW505	Nb-94	0.898	1.61	2.96	50	U	2	21-Jul-04	08:09
MW507D	Nb-94	0.612	1.18	2.16	50	U	2	21-Jul-04	07:39
MW507S	Nb-94	0.703	1.36	2.2	50	U	2	21-Jul-04	07:55
MW508D	Nb-94	-0.55	1.33	2.26	50	U	2	19-Jul-04	10:30
MW508S	Nb-94	-0.304	1.55	2.78	50	U	2	25-Jul-04	04:11
MW508S Replicate	Nb-94	-0.177	1.6	2.8	50	U	2	26-Jul-04	09:35
QC Spike (BS)	Nb-94	-6.01	10.2	16.8	50	U	2	20-Jul-04	04:06
QC Spike (BS)	Nb-94	3.62	6.89	12.3	50	U	2	28-Jul-04	12:19
QC Spike (BS)	Nb-94	-1.37	12.8	21.6	50	U	2	21-Jul-04	07:14
QC Spike (BS)	Nb-94	-1.97	10.3	17.5	50	U	2	4-Aug-04	12:49
QC Spike (MS)	Nb-94	115	131	261	50	U	0.05	22-Jul-04	05:28
QC Spike (MS)	Nb-94	-8.44	89.8	159	50	U	0.05	26-Jul-04	02:47
QC Spike (MS)	Nb-94	-49.2	123	212	50	U	0.05	21-Jul-04	06:59
QC Spike (MS)	Nb-94	-153	110	160	50	U	0.05	4-Aug-04	10:08
QC Blank	Tc-99	-0.445	4.95	8.56	15	U	0.25	25-Jul-04	10:56
QC Blank	Tc-99	-5.76	5.17	9.06	15	U	0.225	18-Jul-04	02:57
MW103D	Tc-99	-3.4	4.7	8.31	15	U	0.25	25-Jul-04	09:18
MW103S	Tc-99	-0.421	5.25	9	15	U	0.225	17-Jul-04	11:46
MW103S Replicate	Tc-99	-1.92	4.89	8.43	15	U	0.225	18-Jul-04	03:45
MW104S	Tc-99	0.557	5.24	8.94	15	U	0.225	18-Jul-04	12:34
MW105D	Tc-99	-4.26	4.7	8.36	15	U	0.25	25-Jul-04	08:46
MW105D Replicate	Tc-99	-2.09	4.65	8.14	15	U	0.25	25-Jul-04	11:28
MW105S	Tc-99	-2.65	4.74	8.33	15	U	0.25	25-Jul-04	09:51
MW105S Duplicate	Tc-99	-2.31	4.78	8.39	15	U	0.25	25-Jul-04	10:23
MW106D	Tc-99	-4.65	5.15	8.99	15	U	0.225	18-Jul-04	02:10
MW106S	Tc-99	-7.78	8.26	14.4	15	U	0.225	18-Jul-04	01:22
QC Spike (BS)	Tc-99	491	13.7	8.55	15		0.25	26-Jul-04	12:33
QC Spike (BS)	Tc-99	528	12.4	8.95	15		0.225	18-Jul-04	05:21
QC Spike (MS)	Tc-99	493	16.2	11.4	15		0.25	26-Jul-04	12:00
QC Spike (MS)	Tc-99	543	12.5	8.88	15		0.225	18-Jul-04	04:33
QC Blank	Ag-108m	0.257	1.6	2.95	50	U	2	20-Jul-04	10:10
QC Blank	Ag-108m	-0.831	2.08	3.55	50	U	2	25-Jul-04	04:12
QC Blank	Ag-108m	-1.02	1.37	1.97	50	U	2	21-Jul-04	08:48
QC Blank	Ag-108m	0.846	1.78	3.39	50	U	2	4-Aug-04	11:32
EOF2	Ag-108m	1.32	1.78	3.3	50	U	2	21-Jul-04	02:28
MW1	Ag-108m	0.784	1.2	2.15	50	U	2	19-Jul-04	10:14
MW100D	Ag-108m	-2.46	2.14	3.32	50	U	2	21-Jul-04	02:30
MW100S	Ag-108m	0.41	1.12	2.04	50	U	2	19-Jul-04	10:16
MW101D	Ag-108m	-0.828	1.83	3.17	50	U	2	21-Jul-04	02:28
MW101S	Ag-108m	0.851	1.78	3.24	50	U	2	21-Jul-04	02:29
MW102D	Ag-108m	0.0407	1.84	3.21	50	U	2	4-Aug-04	10:07
MW102S	Ag-108m	0.958	1.46	2.55	50	U	2	19-Jul-04	08:06
MW103D	Ag-108m	-0.589	1.26	2.14	50	U	2	19-Jul-04	09:59
MW103S	Ag-108m	0.802	1.89	3.31	50	U	2	21-Jul-04	08:15
MW104S	Ag-108m	0.885	1.25	2.21	50	U	2	21-Jul-04	08:31
MW105D	Ag-108m	-1.01	1.21	2.06	50	U	2	19-Jul-04	09:59
MW105S	Ag-108m	0.352	1.43	2.21	50	U	2	19-Jul-04	10:02
MW105S Duplicate	Ag-108m	0.469	1.75	3.17	50	U	2	20-Jul-04	10:10
MW106D	Ag-108m	-0.215	1.23	2.19	50	U	2	21-Jul-04	08:47
MW106S	Ag-108m	-0.0648	1.32	2.3	50	U	2	21-Jul-04	08:32
MW107D	Ag-108m	-0.297	1.95	3.35	50	U	2	20-Jul-04	10:09
MW107S	Ag-108m	0.395	1.73	3.12	50	U	2	20-Jul-04	10:09
MW108S	Ag-108m	1.5	1.73	3.24	50	U	2	21-Jul-04	02:23
MW108S Replicate	Ag-108m	0.203	1.2	2.1	50	U	2	21-Jul-04	07:50
MW109D	Ag-108m	-0.462	2.52	4.35	50	U	2	20-Jul-04	10:08
MW109S	Ag-108m	0.372	1.19	2.05	50	U	2	19-Jul-04	08:11
MW110D	Ag-108m	-1.47	1.11	1.8	50	U	2	19-Jul-04	09:53
MW110S	Ag-108m	-1.55	1.4	2.2	50	U	2	19-Jul-04	10:20
MW110S Replicate	Ag-108m	-1.84	2.34	3.68	50	U	2	20-Jul-04	02:41
MW111S	Ag-108m	0.104	1.3	2.3	50	U	2	19-Jul-04	10:13
MW112S	Ag-108m	0.723	1.7	3.19	50	U	2	20-Jul-04	10:09
MW113S	Ag-108m	**1.57**	1.42	2.1	50	U	2	19-Jul-04	09:56
MW114S	Ag-108m	0.386	2.01	3.53	50	U	2	21-Jul-04	02:26
MW117S	Ag-108m	-0.686	2.03	3.04	50	U	2	4-Aug-04	10:07
MW122D	Ag-108m	**2.23**	1.8	3.45	50	U	2	20-Jul-04	11:10
MW122S	Ag-108m	-1.58	2.07	3.41	50	U	2	21-Jul-04	02:24

NOTES:
Bold results are greater than 2-sigma TPU and the sample MDC.
Gray results are greater than 2-sigma TPU and less than the sample MDC.
Boron concentration results are in ug/liter.

Appendix D.3
June 2004 Lab Analytical Results Summary

Well ID	Nuclide	Conc. (pCi/L)	2-sigma TPU (pCi/L)	MDC (pCi/L)	Required MDC (pCi/L)	Lab Flag	Aliquot Volume (L)	Analysis Date	Analysis Time
MW123S	Ag-108m	0.323	1.84	3.37	50	U	2	21-Jul-04	02:29
MW124S	Ag-108m	2.19	1.69	3.42	50	U	2	21-Jul-04	02:27
MW125S	Ag-108m	0.854	2	3.57	50	U	2	21-Jul-04	02:26
MW2	Ag-108m	0.666	1.61	2.93	50	U	2	4-Aug-04	10:06
MW2 Replicate	Ag-108m	0.349	1.84	3.34	50	U	2	4-Aug-04	11:01
MW3	Ag-108m	0.574	1.45	2.58	50	U	2	19-Jul-04	09:50
MW502	Ag-108m	0.562	1.13	2.08	50	U	2	21-Jul-04	08:08
MW503	Ag-108m	0.132	1.25	2.22	50	U	2	21-Jul-04	07:57
MW504	Ag-108m	0.255	1.19	2.12	50	U	2	19-Jul-04	11:08
MW505	Ag-108m	0.0578	1.4	2.4	50	U	2	21-Jul-04	08:09
MW507D	Ag-108m	-0.437	1.38	2.31	50	U	2	21-Jul-04	07:39
MW507S	Ag-108m	0.83	1.92	2.09	50	U	2	21-Jul-04	07:55
MW508D	Ag-108m	0.137	1.43	2.44	50	U	2	19-Jul-04	10:30
MW508S	Ag-108m	-0.0515	1.76	3.03	50	U	2	25-Jul-04	04:11
MW508S Replicate	Ag-108m	0.388	1.62	2.99	50	U	2	26-Jul-04	09:35
QC Spike (BS)	Ag-108m	-0.426	9.57	16.8	50	U	2	20-Jul-04	04:06
QC Spike (BS)	Ag-108m	-1.26	6.9	11.3	50	U	2	28-Jul-04	12:19
QC Spike (BS)	Ag-108m	-1.91	12.5	21.3	50	U	2	21-Jul-04	07:14
QC Spike (BS)	Ag-108m	-5.64	8.92	15.2	50	U	2	4-Aug-04	12:49
QC Spike (MS)	Ag-108m	-67.4	148	242	50	U	0.05	22-Jul-04	05:28
QC Spike (MS)	Ag-108m	-58.6	85.8	137	50	U	0.05	26-Jul-04	02:47
QC Spike (MS)	Ag-108m	-77.5	115	199	50	U	0.05	21-Jul-04	06:59
QC Spike (MS)	Ag-108m	-73.9	113	197	50	U	0.05	4-Aug-04	10:08
QC Blank	Cs-134	0.173	2.07	3.7	14	U	2	20-Jul-04	10:10
QC Blank	Cs-134	-2.01	3.16	4.28	14	U	2	25-Jul-04	04:12
QC Blank	Cs-134	0.476	1.46	2.58	14	U	2	21-Jul-04	08:48
QC Blank	Cs-134	0.0508	2.02	3.65	14	U	2	4-Aug-04	11:32
EOF2	Cs-134	0.192	1.82	3.26	14	U	2	21-Jul-04	02:28
MW1	Cs-134	1.02	1.47	2.73	14	U	2	19-Jul-04	10:14
MW100D	Cs-134	3.84	4.84	5.28	14	U	2	21-Jul-04	02:30
MW100S	Cs-134	0.331	1.25	2.26	14	U	2	19-Jul-04	10:16
MW101D	Cs-134	-0.136	2.23	3.92	14	U	2	21-Jul-04	02:28
MW101S	Cs-134	-0.693	2.11	3.68	14	U	2	21-Jul-04	02:29
MW102D	Cs-134	0.438	1.68	3.2	14	U	2	4-Aug-04	10:07
MW102S	Cs-134	0.721	1.61	2.93	14	U	2	19-Jul-04	08:06
MW103D	Cs-134	0.601	1.38	2.48	14	U	2	19-Jul-04	09:59
MW103S	Cs-134	1.61	2.18	3.68	14	U	2	21-Jul-04	08:15
MW104S	Cs-134	1.03	1.45	2.72	14	U	2	21-Jul-04	08:31
MW105D	Cs-134	0.895	1.32	2.47	14	U	2	19-Jul-04	09:59
MW105S	Cs-134	0.651	1.31	2.34	14	U	2	19-Jul-04	10:02
MW105S Duplicate	Cs-134	1.8	3.45	4.73	14	U	2	20-Jul-04	10:10
MW106D	Cs-134	0.105	1.33	2.37	14	U	2	21-Jul-04	08:47
MW106S	Cs-134	0.585	1.59	2.84	14	U	2	21-Jul-04	08:32
MW107D	Cs-134	-1.75	2.3	3.8	14	U	2	20-Jul-04	10:09
MW107S	Cs-134	0.453	2.09	3.73	14	U	2	20-Jul-04	10:09
MW108S	Cs-134	0.667	1.84	3.56	14	U	2	21-Jul-04	02:23
MW108S Replicate	Cs-134	0.905	1.37	2.47	14	U	2	21-Jul-04	07:50
MW109D	Cs-134	0.364	2.82	5.26	14	U	2	20-Jul-04	10:08
MW109S	Cs-134	-0.0876	1.25	2.17	14	U	2	19-Jul-04	08:11
MW110D	Cs-134	0.265	1.42	2.51	14	U	2	19-Jul-04	09:53
MW110S	Cs-134	-0.753	1.87	3.21	14	U	2	19-Jul-04	10:20
MW110S Replicate	Cs-134	1.23	3.33	4.59	14	U	2	20-Jul-04	02:41
MW111S	Cs-134	0.418	1.47	2.6	14	U	2	19-Jul-04	10:13
MW112S	Cs-134	1.16	2.38	3.26	14	U	2	20-Jul-04	10:09
MW113S	Cs-134	0.548	1.36	2.52	14	U	2	19-Jul-04	09:56
MW114S	Cs-134	-1.58	2.16	3.58	14	U	2	21-Jul-04	02:26
MW117S	Cs-134	0.0363	1.96	3.54	14	U	2	4-Aug-04	10:07
MW122D	Cs-134	1.47	2.03	3.94	14	U	2	20-Jul-04	11:10
MW122S	Cs-134	2.44	4.14	4.41	14	U	2	21-Jul-04	02:24
MW123S	Cs-134	1.84	2.8	3.47	14	U	2	21-Jul-04	02:29
MW124S	Cs-134	0.34	1.96	3.19	14	U	2	21-Jul-04	02:27
MW125S	Cs-134	0.5	2.12	3.93	14	U	2	21-Jul-04	02:26
MW2	Cs-134	0.129	1.89	3.52	14	U	2	4-Aug-04	10:06
MW2 Replicate	Cs-134	-1.66	1.89	2.96	14	U	2	4-Aug-04	11:01
MW3	Cs-134	0.0365	1.69	2.9	14	U	2	19-Jul-04	09:50
MW502	Cs-134	0.405	1.35	2.43	14	U	2	21-Jul-04	08:08
MW503	Cs-134	-0.588	1.52	2.52	14	U	2	21-Jul-04	07:57
MW504	Cs-134	-1.5	1.34	2.03	14	U	2	19-Jul-04	11:08
MW505	Cs-134	-0.123	1.95	3.43	14	U	2	21-Jul-04	08:09
MW507D	Cs-134	-0.0531	1.42	2.51	14	U	2	21-Jul-04	07:39
MW507S	Cs-134	0.397	1.35	2.43	14	U	2	21-Jul-04	07:55
MW508D	Cs-134	0.616	1.57	2.83	14	U	2	19-Jul-04	10:30
MW508S	Cs-134	-0.251	1.86	3.37	14	U	2	25-Jul-04	04:11
MW508S Replicate	Cs-134	0.827	2.01	3.75	14	U	2	26-Jul-04	09:35
QC Spike (BS)	Cs-134	1.95	13.8	21	14	U	2	20-Jul-04	04:06
QC Spike (BS)	Cs-134	-3.13	7.92	13.4	14	U	2	28-Jul-04	12:19
QC Spike (BS)	Cs-134	-12.1	13.9	23.1	14	U	2	21-Jul-04	07:14
QC Spike (BS)	Cs-134	-11.6	12.8	20.1	14	U	2	4-Aug-04	12:49
QC Spike (MS)	Cs-134	-72.4	167	286	14	U	0.05	22-Jul-04	05:28
QC Spike (MS)	Cs-134	-80.3	113	187	14	U	0.05	26-Jul-04	02:47
QC Spike (MS)	Cs-134	-114	129	205	14	U	0.05	21-Jul-04	06:59
QC Spike (MS)	Cs-134	-72.2	153	260	14	U	0.05	4-Aug-04	10:08
QC Blank	Cs-137	-0.48	1.95	3.39	15	U	2	20-Jul-04	10:10
QC Blank	Cs-137	1.01	1.97	3.73	15	U	2	25-Jul-04	04:12
QC Blank	Cs-137	0.0541	1.26	2.2	15	U	2	21-Jul-04	08:48
QC Blank	Cs-137	-0.591	1.62	2.84	15	U	2	4-Aug-04	11:32
EOF2	Cs-137	0.605	1.79	3.27	15	U	2	21-Jul-04	02:28
MW1	Cs-137	-0.248	1.38	2.41	15	U	2	19-Jul-04	10:14
MW100D	Cs-137	0.39	2.32	4.32	15	U	2	21-Jul-04	02:30
MW100S	Cs-137	0.612	2.43	2.21	15	U	2	19-Jul-04	10:16
MW101D	Cs-137	1.38	1.81	3.52	15	U	2	21-Jul-04	02:28
MW101S	Cs-137	-0.254	2	3.59	15	U	2	21-Jul-04	02:29
MW102D	Cs-137	0.235	1.86	3.43	15	U	2	4-Aug-04	10:07
MW102S	Cs-137	0	3.02	5.06	15		2	19-Jul-04	08:06

NOTES:
Bold results are greater than 2-sigma TPU and the sample MDC.
Gray results are greater than 2-sigma TPU and less than the sample MDC.
Boron concentration results are in ug/liter.

Appendix D.3
June 2004 Lab Analytical Results Summary

Well ID	Nuclide	Conc. (pCi/L)	2-sigma TPU (pCi/L)	MDC (pCi/L)	Required MDC (pCi/L)	Lab Flag	Aliquot Volume (L)	Analysis Date	Analysis Time
MW103D	Cs-137	1.44	2.07	2.23	15	U	2	19-Jul-04	09:59
MW103S	Cs-137	7.5	5.54	3.33	15		2	21-Jul-04	08:15
MW104S	Cs-137	-0.227	1.28	2.26	15	U	2	21-Jul-04	08:31
MW105D	Cs-137	0.318	1.29	2.33	15	U	2	19-Jul-04	09:59
MW105S	Cs-137	-0.409	1.22	2.03	15	U	2	19-Jul-04	10:02
MW105S Duplicate	Cs-137	-1.62	2.51	4.32	15	U	2	20-Jul-04	10:10
MW106D	Cs-137	-0.302	1.22	2.11	15	U	2	21-Jul-04	08:47
MW106S	Cs-137	0.532	1.46	2.61	15	U	2	21-Jul-04	08:32
MW107D	Cs-137	-1.42	2.13	3.61	15	U	2	20-Jul-04	10:09
MW107S	Cs-137	1.07	1.82	3.39	15	U	2	20-Jul-04	10:09
MW108S	Cs-137	-0.215	1.89	3.43	15	U	2	21-Jul-04	02:23
MW108S Replicate	Cs-137	0.376	1.29	2.26	15	U	2	21-Jul-04	07:50
MW109D	Cs-137	0	4.47	8.77	15		2	20-Jul-04	10:08
MW109S	Cs-137	0.0362	1.18	2.06	15	U	2	19-Jul-04	08:11
MW110D	Cs-137	-0.836	1.17	1.94	15	U	2	19-Jul-04	09:53
MW110S	Cs-137	1.45	1.86	3.05	15	U	2	19-Jul-04	10:20
MW110S Replicate	Cs-137	0.526	2.31	4.23	15	U	2	20-Jul-04	02:41
MW111S	Cs-137	0.663	1.33	2.4	15	U	2	19-Jul-04	10:13
MW112S	Cs-137	0	2.15	4.43	15		2	20-Jul-04	10:09
MW113S	Cs-137	-0.106	1.27	2.26	15	U	2	19-Jul-04	09:56
MW114S	Cs-137	1.57	1.89	3.68	15	U	2	21-Jul-04	02:26
MW117S	Cs-137	-0.372	2.37	4.06	15	U	2	4-Aug-04	10:07
MW122D	Cs-137	-0.756	1.88	3.28	15	U	2	20-Jul-04	11:10
MW122S	Cs-137	0.551	2.12	3.87	15	U	2	21-Jul-04	02:24
MW123S	Cs-137	2.46	1.96	3.93	15	U	2	21-Jul-04	02:29
MW124S	Cs-137	-0.912	1.91	3.22	15	U	2	21-Jul-04	02:27
MW125S	Cs-137	1.26	2.03	3.88	15	U	2	21-Jul-04	02:26
MW2	Cs-137	0.322	1.88	3.51	15	U	2	4-Aug-04	10:06
MW2 Replicate	Cs-137	1.64	1.65	3.31	15	U	2	4-Aug-04	11:01
MW3	Cs-137	-0.627	1.48	2.47	15	U	2	19-Jul-04	09:50
MW502	Cs-137	0.00859	2.48	2.26	15	U	2	21-Jul-04	08:06
MW503	Cs-137	-0.615	1.4	2.35	15	U	2	21-Jul-04	07:57
MW504	Cs-137	0.716	1.29	2.34	15	U	2	19-Jul-04	11:06
MW505	Cs-137	1.42	1.84	3.12	15	U	2	21-Jul-04	08:09
MW507D	Cs-137	0.474	1.31	2.39	15	U	2	21-Jul-04	07:39
MW507S	Cs-137	-0.208	1.29	2.25	15	U	2	21-Jul-04	07:55
MW508D	Cs-137	0.557	1.53	2.76	15	U	2	19-Jul-04	10:30
MW508S	Cs-137	0.576	1.63	3.16	15	U	2	25-Jul-04	04:11
MW508S Replicate	Cs-137	1.8	1.95	3.79	15	U	2	26-Jul-04	09:35
QC Spike (BS)	Cs-137	523	50.6	19.5	15		2	20-Jul-04	04:06
QC Spike (BS)	Cs-137	480	41	13.4	15		2	28-Jul-04	12:19
QC Spike (BS)	Cs-137	469	70	28.2	15		2	21-Jul-04	07:14
QC Spike (BS)	Cs-137	475	43.7	21.2	15		2	4-Aug-04	12:49
QC Spike (MS)	Cs-137	4130	524	279	15		0.05	22-Jul-04	05:28
QC Spike (MS)	Cs-137	3870	440	176	15		0.05	26-Jul-04	02:47
QC Spike (MS)	Cs-137	3710	499	259	15		0.05	21-Jul-04	06:59
QC Spike (MS)	Cs-137	3960	546	263	15		0.05	4-Aug-04	10:08
QC Blank	Eu-152	-0.246	5.07	8.58	50	U	2	20-Jul-04	10:10
QC Blank	Eu-152	2.13	5.65	10.4	50	U	2	25-Jul-04	04:12
QC Blank	Eu-152	-2.39	4.07	6.07	50	U	2	21-Jul-04	08:48
QC Blank	Eu-152	0.521	5.36	9.31	50	U	2	4-Aug-04	11:32
EOF2	Eu-152	4.12	5.54	10.2	50	U	2	21-Jul-04	02:28
MW1	Eu-152	1.5	3.57	6.33	50	U	2	19-Jul-04	10:14
MW100D	Eu-152	0.428	6.06	10.7	50	U	2	21-Jul-04	02:30
MW100S	Eu-152	3.57	4.29	6.59	50	U	2	19-Jul-04	10:16
MW101D	Eu-152	-0.267	6.05	10.1	50	U	2	21-Jul-04	02:28
MW101S	Eu-152	2.1	4.96	9.04	50	U	2	21-Jul-04	02:29
MW102D	Eu-152	-7.03	5.61	8.87	50	U	2	4-Aug-04	10:07
MW102S	Eu-152	-1.28	4.2	7.1	50	U	2	19-Jul-04	08:06
MW103D	Eu-152	0.424	3.8	6.74	50	U	2	19-Jul-04	09:59
MW103S	Eu-152	-0.506	5.19	8.9	50	U	2	21-Jul-04	08:15
MW104S	Eu-152	3.01	4.16	7.28	50	U	2	21-Jul-04	08:31
MW105D	Eu-152	-0.699	3.97	6.62	50	U	2	19-Jul-04	09:59
MW105S	Eu-152	2.86	4.15	6.44	50	U	2	19-Jul-04	10:02
MW105S Duplicate	Eu-152	-2.89	5.06	8.52	50	U	2	20-Jul-04	10:10
MW106D	Eu-152	1.23	3.98	6.83	50	U	2	21-Jul-04	08:47
MW106S	Eu-152	-1.18	4.16	7.14	50	U	2	21-Jul-04	08:32
MW107D	Eu-152	-0.225	5.32	9.34	50	U	2	20-Jul-04	10:09
MW107S	Eu-152	2.21	5.13	9.35	50	U	2	20-Jul-04	10:09
MW108S	Eu-152	-3.42	5.71	9.29	50	U	2	21-Jul-04	02:23
MW108S Replicate	Eu-152	0.993	3.86	6.78	50	U	2	21-Jul-04	07:50
MW109D	Eu-152	-5.94	7.28	12	50	U	2	20-Jul-04	10:08
MW109S	Eu-152	-0.975	3.54	5.99	50	U	2	19-Jul-04	08:11
MW110D	Eu-152	0.828	3.79	6.44	50	U	2	19-Jul-04	09:53
MW110S	Eu-152	0.288	3.89	6.77	50	U	2	19-Jul-04	10:20
MW110S Replicate	Eu-152	-0.445	7.36	12.4	50	U	2	20-Jul-04	02:41
MW111S	Eu-152	-1.01	4.03	6.58	50	U	2	19-Jul-04	10:13
MW112S	Eu-152	0.143	5.48	9.35	50	U	2	20-Jul-04	10:09
MW113S	Eu-152	3.33	3.7	6.6	50	U	2	19-Jul-04	09:56
MW114S	Eu-152	0.77	5.79	10.2	50	U	2	21-Jul-04	02:26
MW117S	Eu-152	-0.0575	6.31	11.2	50	U	2	4-Aug-04	10:07
MW122D	Eu-152	3.75	5.33	9.81	50	U	2	20-Jul-04	11:10
MW122S	Eu-152	0.606	6.21	11.1	50	U	2	21-Jul-04	02:24
MW123S	Eu-152	0.146	5.52	9.42	50	U	2	21-Jul-04	02:29
MW124S	Eu-152	1.35	5.43	8.91	50	U	2	21-Jul-04	02:27
MW125S	Eu-152	-3.97	6.42	10.6	50	U	2	21-Jul-04	02:26
MW2	Eu-152	3.88	5.35	9.78	50	U	2	4-Aug-04	10:06
MW2 Replicate	Eu-152	-2.24	5.32	9.26	50	U	2	4-Aug-04	11:01
MW3	Eu-152	-0.884	4.31	7.42	50	U	2	19-Jul-04	09:50
MW502	Eu-152	1.64	3.87	6.62	50	U	2	21-Jul-04	08:06
MW503	Eu-152	1.34	4.08	6.88	50	U	2	21-Jul-04	07:57
MW504	Eu-152	2.15	3.97	7.18	50	U	2	19-Jul-04	11:06
MW505	Eu-152	0.542	3.97	6.92	50	U	2	21-Jul-04	08:09
MW507D	Eu-152	-0.753	3.96	6.75	50	U	2	21-Jul-04	07:39

NOTES:
Bold results are greater than 2-sigma TPU and the sample MDC.
Gray results are greater than 2-sigma TPU and less than the sample MDC.
Boron concentration results are in ug/liter.

Appendix D.3
June 2004 Lab Analytical Results Summary

Well ID	Nuclide	Conc. (pCi/L)	2-sigma TPU (pCi/L)	MDC (pCi/L)	Required MDC (pCi/L)	Lab Flag	Aliquot Volume (L)	Analysis Date	Analysis Time
MW507S	Eu-152	-0.657	3.85	6.37	50	U	2	21-Jul-04	07:55
MW508D	Eu-152	0.207	4.29	7.33	50	U	2	19-Jul-04	10:30
MW508S	Eu-152	-1.32	5.16	8.71	50	U	2	25-Jul-04	04:11
MW508S Replicate	Eu-152	-0.25	4.83	8.72	50	U	2	26-Jul-04	09:35
QC Spike (BS)	Eu-152	20.5	28.3	51.9	50	U	2	20-Jul-04	04:06
QC Spike (BS)	Eu-152	-5.35	19.3	31.8	50	U	2	28-Jul-04	12:19
QC Spike (BS)	Eu-152	-10.8	33	56.3	50	U	2	21-Jul-04	07:14
QC Spike (BS)	Eu-152	-1.09	28.6	47.5	50	U	2	4-Aug-04	12:49
QC Spike (MS)	Eu-152	121	384	686	50	U	0.05	22-Jul-04	05:28
QC Spike (MS)	Eu-152	97.9	219	388	50	U	0.05	26-Jul-04	02:47
QC Spike (MS)	Eu-152	-76.9	342	576	50	U	0.05	21-Jul-04	06:59
QC Spike (MS)	Eu-152	-104	342	576	50	U	0.05	4-Aug-04	10:06
QC Blank	Eu-154	0.0444	5.49	10.3	50	U	2	20-Jul-04	10:10
QC Blank	Eu-154	-0.515	5.15	9.69	50	U	2	25-Jul-04	04:12
QC Blank	Eu-154	4.53	4.04	7.54	50	U	2	21-Jul-04	08:48
QC Blank	Eu-154	-0.747	5.04	9.4	50	U	2	4-Aug-04	11:32
EOF2	Eu-154	-0.808	3.94	7.27	50	U	2	21-Jul-04	02:28
MW1	Eu-154	-1.42	4.1	7.13	50	U	2	19-Jul-04	10:14
MW100D	Eu-154	-0.717	5.85	11.2	50	U	2	21-Jul-04	02:30
MW100S	Eu-154	2.53	3.62	7.03	50	U	2	19-Jul-04	10:16
MW101D	Eu-154	2.68	5.81	10.8	50	U	2	21-Jul-04	02:28
MW101S	Eu-154	0.0777	6.34	11.7	50	U	2	21-Jul-04	02:29
MW102D	Eu-154	-1.41	5.59	10.1	50	U	2	4-Aug-04	10:07
MW102S	Eu-154	-0.714	3.95	6.84	50	U	2	19-Jul-04	08:06
MW103D	Eu-154	-0.468	3.69	6.59	50	U	2	19-Jul-04	09:59
MW103S	Eu-154	-1.84	5.2	8.9	50	U	2	21-Jul-04	08:15
MW104S	Eu-154	0.259	3.69	6.6	50	U	2	21-Jul-04	08:31
MW105D	Eu-154	0.0175	3.44	6.34	50	U	2	19-Jul-04	09:59
MW105S	Eu-154	0.348	3.15	5.79	50	U	2	19-Jul-04	10:02
MW105S Duplicate	Eu-154	-2.95	7.66	13.7	50	U	2	20-Jul-04	10:10
MW106D	Eu-154	1.74	3.31	6.51	50	U	2	21-Jul-04	08:47
MW106S	Eu-154	1.32	3.63	6.96	50	U	2	21-Jul-04	08:32
MW107D	Eu-154	1.05	6.58	12.3	50	U	2	20-Jul-04	10:09
MW107S	Eu-154	-3.11	5.47	9.26	50	U	2	20-Jul-04	10:09
MW108S	Eu-154	0.457	5.26	9.84	50	U	2	21-Jul-04	02:23
MW108S Replicate	Eu-154	0.7	3.8	6.9	50	U	2	21-Jul-04	07:50
MW109D	Eu-154	2.24	7.2	13.9	50	U	2	20-Jul-04	10:08
MW109S	Eu-154	-1.94	3.82	5.5	50	U	2	19-Jul-04	08:11
MW110D	Eu-154	2.09	3.74	7.19	50	U	2	19-Jul-04	09:53
MW110S	Eu-154	2.66	4.74	9.18	50	U	2	19-Jul-04	10:20
MW110S Replicate	Eu-154	-0.572	5.09	9.63	50	U	2	20-Jul-04	02:41
MW111S	Eu-154	-1.74	4.11	6.99	50	U	2	19-Jul-04	10:13
MW112S	Eu-154	0.712	4.67	9.11	50	U	2	20-Jul-04	10:09
MW113S	Eu-154	-1.33	3.85	6.49	50	U	2	19-Jul-04	09:56
MW114S	Eu-154	1.31	4.87	9.61	50	U	2	21-Jul-04	02:26
MW117S	Eu-154	2.22	5.7	11.4	50	U	2	4-Aug-04	10:07
MW122D	Eu-154	3.59	5.51	11.1	50	U	2	20-Jul-04	11:10
MW122S	Eu-154	3.66	5.61	10.8	50	U	2	21-Jul-04	02:24
MW123S	Eu-154	0.979	4.73	9.27	50	U	2	21-Jul-04	02:29
MW124S	Eu-154	1	4.36	8.72	50	U	2	21-Jul-04	02:27
MW125S	Eu-154	3.35	5.51	11.1	50	U	2	21-Jul-04	02:28
MW2	Eu-154	1.6	4.82	9.56	50	U	2	4-Aug-04	10:06
MW2 Replicate	Eu-154	6.8	4.32	10.2	50	U	2	4-Aug-04	11:01
MW3	Eu-154	-2.25	4.05	6.85	50	U	2	19-Jul-04	09:50
MW502	Eu-154	-0.694	3.61	6.45	50	U	2	21-Jul-04	08:08
MW503	Eu-154	-3.43	4.1	6.61	50	U	2	21-Jul-04	07:57
MW504	Eu-154	3.4	5.38	6.5	50	U	2	19-Jul-04	11:08
MW505	Eu-154	-2.45	4.65	8.12	50	U	2	21-Jul-04	08:09
MW507D	Eu-154	2.96	4.13	7.9	50	U	2	21-Jul-04	07:39
MW507S	Eu-154	-0.325	3.49	6.33	50	U	2	21-Jul-04	07:55
MW508D	Eu-154	-2	4.5	6.57	50	U	2	19-Jul-04	10:30
MW508S	Eu-154	1.39	4.77	9.4	50	U	2	25-Jul-04	04:11
MW508S Replicate	Eu-154	2.34	4.98	10.1	50	U	2	26-Jul-04	09:35
QC Spike (BS)	Eu-154	4.16	25	46.9	50	U	2	20-Jul-04	04:06
QC Spike (BS)	Eu-154	-6.69	17.4	29	50	U	2	28-Jul-04	12:19
QC Spike (BS)	Eu-154	-9.1	25.6	45.1	50	U	2	21-Jul-04	07:14
QC Spike (BS)	Eu-154	-9.84	31.6	46.8	50	U	2	4-Aug-04	12:49
QC Spike (MS)	Eu-154	269	277	774	50	U	0.05	22-Jul-04	05:28
QC Spike (MS)	Eu-154	-13.6	246	442	50	U	0.05	26-Jul-04	02:47
QC Spike (MS)	Eu-154	-171	378	671	50	U	0.05	21-Jul-04	06:59
QC Spike (MS)	Eu-154	148	309	625	50	U	0.05	4-Aug-04	10:06
QC Blank	Eu-155	3.62	5.23	9.76	50	U	2	20-Jul-04	10:10
QC Blank	Eu-155	-2.67	7.64	12.6	50	U	2	25-Jul-04	04:12
QC Blank	Eu-155	3.56	4.11	7.35	50	U	2	21-Jul-04	08:48
QC Blank	Eu-155	-4.05	6.1	10.6	50	U	2	4-Aug-04	11:32
EOF2	Eu-155	-5.68	7.4	12	50	U	2	21-Jul-04	02:28
MW1	Eu-155	3.94	3.94	6.94	50	U	2	19-Jul-04	10:14
MW100D	Eu-155	-3.34	5.9	9.55	50	U	2	21-Jul-04	02:30
MW100S	Eu-155	-3.37	4.72	8.01	50	U	2	19-Jul-04	10:16
MW101D	Eu-155	5.14	7.58	12.6	50	U	2	21-Jul-04	02:28
MW101S	Eu-155	2	5.53	9.72	50	U	2	21-Jul-04	02:29
MW102D	Eu-155	3.25	7.77	13.4	50	U	2	4-Aug-04	10:07
MW102S	Eu-155	5.11	6.89	8.9	50	U	2	19-Jul-04	08:06
MW103D	Eu-155	-1.44	4.98	8.41	50	U	2	19-Jul-04	09:59
MW103S	Eu-155	0.135	6.76	11.2	50	U	2	21-Jul-04	08:15
MW104S	Eu-155	-1.23	4.84	8.37	50	U	2	21-Jul-04	08:31
MW105D	Eu-155	-0.388	5.16	9.06	50	U	2	19-Jul-04	09:59
MW105S	Eu-155	-0.109	5.33	8.89	50	U	2	19-Jul-04	10:02
MW105S Duplicate	Eu-155	1.05	5.77	9.78	50	U	2	20-Jul-04	10:10
MW106D	Eu-155	0.386	5.22	9.23	50	U	2	21-Jul-04	08:47
MW106S	Eu-155	-0.226	6.46	10.7	50	U	2	21-Jul-04	08:32
MW107D	Eu-155	8.45	5.97	10.7	50	U	2	20-Jul-04	10:09
MW107S	Eu-155	2.74	7.46	12.8	50	U	2	20-Jul-04	10:09
MW108S	Eu-155	0.673	6.73	12	50	U	2	21-Jul-04	02:23

NOTES:
Bold results are greater than 2-sigma TPU and the sample MDC.
Gray results are greater than 2-sigma TPU and less than the sample MDC.
Boron concentration results are in ug/liter.

Appendix D.3
June 2004 Lab Analytical Results Summary

Well ID	Nuclide	Conc. (pCi/L)	2-sigma TPU (pCi/L)	MDC (pCi/L)	Required MDC (pCi/L)	Lab Flag	Aliquot Volume (L)	Analysis Date	Analysis Time
MW108S Replicate	Eu-155	-1.69	5.14	8.48	50	U	2	21-Jul-04	07:50
MW109D	Eu-155	5.37	9.33	16	50	U	2	20-Jul-04	10:08
MW109S	Eu-155	1.01	4.72	7.95	50	U	2	19-Jul-04	08:11
MW110D	Eu-155	-2.17	4.77	8.2	50	U	2	19-Jul-04	09:53
MW110S	Eu-155	-1.15	4.2	6.86	50	U	2	19-Jul-04	10:20
MW110S Replicate	Eu-155	3.38	8.34	15.1	50	U	2	20-Jul-04	02:41
MW111S	Eu-155	-0.2	4.6	8.03	50	U	2	19-Jul-04	10:13
MW112S	Eu-155	-5.38	6.64	11.2	50	U	2	20-Jul-04	10:09
MW113S	Eu-155	-0.381	4.84	8.41	50	U	2	19-Jul-04	09:56
MW114S	Eu-155	0.0514	7.39	12.6	50	U	2	21-Jul-04	02:26
MW117S	Eu-155	-2.22	9.14	15.1	50	U	2	4-Aug-04	10:07
MW122D	Eu-155	-0.326	7.49	12.7	50	U	2	20-Jul-04	11:10
MW122S	Eu-155	-2.81	9.19	15.1	50	U	2	21-Jul-04	02:24
MW123S	Eu-155	0.191	7.12	12.6	50	U	2	21-Jul-04	02:29
MW124S	Eu-155	4.87	6.93	12.4	50	U	2	21-Jul-04	02:27
MW125S	Eu-155	2.71	8.59	14.5	50	U	2	21-Jul-04	02:26
MW2	Eu-155	-1.68	6.8	11.9	50	U	2	4-Aug-04	10:06
MW2 Replicate	Eu-155	7.66	7.05	12.9	50	U	2	4-Aug-04	11:01
MW3	Eu-155	-1.4	6.34	10.4	50	U	2	19-Jul-04	09:50
MW502	Eu-155	2.48	4.92	8.75	50	U	2	21-Jul-04	08:08
MW503	Eu-155	1.6	4.54	8.04	50	U	2	21-Jul-04	07:57
MW504	Eu-155	-0.575	4.65	7.96	50	U	2	19-Jul-04	11:08
MW505	Eu-155	-2.45	4.15	6.69	50	U	2	21-Jul-04	08:09
MW507D	Eu-155	-1.98	5.46	9.03	50	U	2	21-Jul-04	07:39
MW507S	Eu-155	3.66	4.68	8.42	50	U	2	21-Jul-04	07:55
MW508D	Eu-155	-0.886	5.94	9.69	50	U	2	19-Jul-04	10:30
MW508S	Eu-155	5.24	6.92	12.7	50	U	2	25-Jul-04	04:11
MW508S Replicate	Eu-155	3.27	6.74	12	50	U	2	26-Jul-04	09:35
QC Spike (BS)	Eu-155	38.2	43.4	76	50	U	2	20-Jul-04	04:06
QC Spike (BS)	Eu-155	-14.5	27.6	46.9	50	U	2	28-Jul-04	12:19
QC Spike (BS)	Eu-155	18.1	48.6	81.5	50	U	2	21-Jul-04	07:14
QC Spike (BS)	Eu-155	-30.6	37.8	63.9	50	U	2	4-Aug-04	12:49
QC Spike (MS)	Eu-155	420	446	840	50	U	0.05	22-Jul-04	05:28
QC Spike (MS)	Eu-155	98.6	275	490	50	U	0.05	26-Jul-04	02:47
QC Spike (MS)	Eu-155	-458	408	674	50	U	0.05	21-Jul-04	06:59
QC Spike (MS)	Eu-155	-115	431	766	50	U	0.05	4-Aug-04	10:08
QC Blank	Pu-238	0.0694	0.106	0.202	0.5	U	0.2	24-Jul-04	03:32
QC Blank	Pu-238	-0.0324	0.0259	0.187	0.5	U	0.25	17-Jul-04	04:40
MW103D	Pu-238	-0.0644	0.117	0.414	0.5	U	0.2	24-Jul-04	03:32
MW103S	Pu-238	0.0612	0.108	0.23	0.5	U	0.25	17-Jul-04	04:40
MW103S Replicate	Pu-238	0.00102	0.0554	0.185	0.5	U	0.25	17-Jul-04	04:40
MW104S	Pu-238	0.0504	0.126	0.293	0.5	U	0.25	17-Jul-04	04:40
MW105D	Pu-238	-0.0134	0.0691	0.252	0.5	U	0.2	24-Jul-04	03:32
MW105D Replicate	Pu-238	-0.0193	0.0657	0.247	0.5	U	0.2	24-Jul-04	03:32
MW105S	Pu-238	0.0669	0.17	0.392	0.5	U	0.2	24-Jul-04	03:32
MW105S Duplicate	Pu-238	-0.00649	0.0166	0.176	0.5	U	0.2	24-Jul-04	03:32
MW106D	Pu-238	0.0251	0.0706	0.175	0.5	U	0.25	17-Jul-04	04:40
MW106S	Pu-238	0.0161	0.114	0.294	0.5	U	0.25	17-Jul-04	04:40
QC Spike (BS)	Pu-238	0.29	0.225	0.356	0.5	U	0.2	24-Jul-04	03:32
QC Spike (BS)	Pu-238	0.000976	0.0531	0.177	0.5	U	0.25	17-Jul-04	04:40
QC Spike (MS)	Pu-238	0.0349	0.0787	0.181	0.5	U	0.2	24-Jul-04	03:32
QC Spike (MS)	Pu-238	-0.0181	0.0617	0.232	0.5	U	0.25	17-Jul-04	04:40
QC Blank	Pu-239,240	0.214	0.171	0.221	0.5	U	0.2	24-Jul-04	03:32
QC Blank	Pu-239,240	-0.0162	0.0183	0.15	0.5	U	0.25	17-Jul-04	04:40
MW103D	Pu-239,240	0.123	0.139	0.208	0.5	U	0.2	24-Jul-04	03:32
MW103S	Pu-239,240	-0.0127	0.0175	0.156	0.5	U	0.25	17-Jul-04	04:40
MW103S Replicate	Pu-239,240	0.00713	0.054	0.169	0.5	U	0.25	17-Jul-04	04:40
MW104S	Pu-239,240	0.115	0.12	0.178	0.5	U	0.25	17-Jul-04	04:40
MW105D	Pu-239,240	-0.0146	0.0202	0.18	0.5	U	0.2	24-Jul-04	03:32
MW105D Replicate	Pu-239,240	-0.0272	0.0266	0.206	0.5	U	0.2	24-Jul-04	03:32
MW105S	Pu-239,240	0.062	0.107	0.221	0.5	U	0.2	24-Jul-04	03:32
MW105S Duplicate	Pu-239,240	0.0368	0.103	0.257	0.5	U	0.2	24-Jul-04	03:32
MW106D	Pu-239,240	0.0125	0.0499	0.143	0.5	U	0.25	17-Jul-04	04:40
MW106S	Pu-239,240	-0.0228	0.0223	0.172	0.5	U	0.25	17-Jul-04	04:40
QC Spike (BS)	Pu-239,240	10.7	1.13	0.183	0.5		0.2	24-Jul-04	03:32
QC Spike (BS)	Pu-239,240	9.78	0.96	0.19	0.5		0.25	17-Jul-04	04:40
QC Spike (MS)	Pu-239,240	11.1	1.06	0.136	0.5		0.2	24-Jul-04	03:32
QC Spike (MS)	Pu-239,240	10.4	1.03	0.132	0.5		0.25	17-Jul-04	04:40
MW103D	Pu-241	4.81	6.78	11.4	15	U	0.4	28-Jul-04	12:10
MW103S	Pu-241	-8.25	8.25	14.5	15	U	0.5	21-Jul-04	06:56
MW103S Replicate	Pu-241	-0.996	8.02	13.8	15	U	0.5	21-Jul-04	09:34
MW104S	Pu-241	0.693	8.41	14.4	15	U	0.5	21-Jul-04	07:27
MW105D	Pu-241	0	6.53	11.3	15	U	0.4	28-Jul-04	11:23
MW105D Replicate	Pu-241	1.38	6.33	10.8	15	U	0.4	28-Jul-04	03:16
MW105S	Pu-241	8.32	7.85	13.1	15	U	0.4	28-Jul-04	12:56
MW105S Duplicate	Pu-241	6.14	6.59	11	15	U	0.4	28-Jul-04	01:43
MW106D	Pu-241	-1.49	8.36	14.4	15	U	0.5	21-Jul-04	06:31
MW106S	Pu-241	-4	8.7	15.1	15	U	0.5	21-Jul-04	07:59
QC Blank	Pu-241	1.21	2.81	4.77	15	U	1	28-Jul-04	02:29
QC Blank	Pu-241	-9.32	8.68	15.3	15	U	0.5	21-Jul-04	09:02
QC Spike (BS)	Pu-241	67.8	4.58	4.96	15		1	28-Jul-04	04:49
QC Spike (BS)	Pu-241	116	10.6	13.7	15		0.5	21-Jul-04	10:38
QC Spike (MS)	Pu-241	161	10.6	11.4	15		0.4	28-Jul-04	04:02
QC Spike (MS)	Pu-241	110	10.2	13.3	15		0.5	21-Jul-04	10:06
EOF2	Am-241 (gamma)	-2.78	10.6	18	0.5	U	2	21-Jul-04	02:28
MW1	Am-241 (gamma)	-1.81	2.35	4	0.5	U	2	19-Jul-04	10:14
MW100D	Am-241 (gamma)	1.61	3.52	6.22	0.5	U	2	21-Jul-04	02:30
MW100S	Am-241 (gamma)	4.94	12.2	20	0.5	U	2	19-Jul-04	10:16
MW101D	Am-241 (gamma)	-0.665	13.7	20.4	0.5	U	2	21-Jul-04	02:28
MW101S	Am-241 (gamma)	1.22	3.4	6.11	0.5	U	2	21-Jul-04	02:29
MW102D	Am-241 (gamma)	0.708	12.1	19	0.5	U	2	4-Aug-04	10:07
MW102S	Am-241 (gamma)	-8.79	7.68	10.8	0.5	U	2	19-Jul-04	08:06
MW103D	Am-241 (gamma)	3.07	10.3	18.1	0.5	U	2	19-Jul-04	09:59
MW103S	Am-241 (gamma)	-3.5	8.16	13.5	0.5	U	2	21-Jul-04	08:15

NOTES:
Bold results are greater than 2-sigma TPU and the sample MDC.
Gray results are greater than 2-sigma TPU and less than the sample MDC.
Boron concentration results are in ug/liter.

Appendix D.3
June 2004 Lab Analytical Results Summary

Well ID	Nuclide	Conc. (pCi/L)	2-sigma TPU (pCi/L)	MDC (pCi/L)	Required MDC (pCi/L)	Lab Flag	Aliquot Volume (L)	Analysis Date	Analysis Time
MW104S	Am-241 (gamma)	-1.39	7.12	12.6	0.5	U	2	21-Jul-04	08:31
MW105D	Am-241 (gamma)	4.62	10.4	17.4	0.5	U	2	19-Jul-04	09:59
MW105S	Am-241 (gamma)	2.96	7.67	13.2	0.5	U	2	19-Jul-04	10:02
MW105S Duplicate	Am-241 (gamma)	-0.466	3.55	6.07	0.5	U	2	20-Jul-04	10:10
MW106D	Am-241 (gamma)	4.4	10.4	17.4	0.5	U	2	21-Jul-04	08:47
MW106S	Am-241 (gamma)	9.75	15.7	19.6	0.5	U	2	21-Jul-04	08:32
MW107D	Am-241 (gamma)	2.12	3.64	6.59	0.5	U	2	20-Jul-04	10:09
MW107S	Am-241 (gamma)	3.32	10.6	18.5	0.5	U	2	20-Jul-04	10:09
MW108S	Am-241 (gamma)	3.74	10.3	18.9	0.5	U	2	21-Jul-04	02:23
MW108S Replicate	Am-241 (gamma)	-1.61	8.6	12.9	0.5	U	2	21-Jul-04	07:50
MW109D	Am-241 (gamma)	-1.6	11.4	19.1	0.5	U	2	20-Jul-04	10:08
MW109S	Am-241 (gamma)	2.95	7.67	12	0.5	U	2	19-Jul-04	08:11
MW110D	Am-241 (gamma)	1.46	7.34	12	0.5	U	2	19-Jul-04	09:53
MW110S	Am-241 (gamma)	0.753	2.45	4.22	0.5	U	2	19-Jul-04	10:20
MW110S Replicate	Am-241 (gamma)	-7.51	13.3	21.3	0.5	U	2	20-Jul-04	02:41
MW111S	Am-241 (gamma)	-5.14	9.11	13.1	0.5	U	2	19-Jul-04	10:13
MW112S	Am-241 (gamma)	-18.8	18.2	27.3	0.5	U	2	20-Jul-04	10:09
MW113S	Am-241 (gamma)	-0.0669	7.55	12.2	0.5	U	2	19-Jul-04	09:56
MW114S	Am-241 (gamma)	6.68	13.1	21	0.5	U	2	21-Jul-04	02:26
MW117S	Am-241 (gamma)	-2.76	18.3	27.5	0.5	U	2	4-Aug-04	10:07
MW122D	Am-241 (gamma)	1.31	14.4	18.1	0.5	U	2	20-Jul-04	11:10
MW122S	Am-241 (gamma)	13	18	28.8	0.5	U	2	21-Jul-04	02:24
MW123S	Am-241 (gamma)	12.9	16.8	29	0.5	U	2	21-Jul-04	02:29
MW124S	Am-241 (gamma)	19.2	24.3	24.1	0.5	U	2	21-Jul-04	02:27
MW125S	Am-241 (gamma)	-0.964	15.3	23	0.5	U	2	21-Jul-04	02:26
MW2	Am-241 (gamma)	-2.02	9.69	17.3	0.5	U	2	4-Aug-04	10:06
MW2 Replicate	Am-241 (gamma)	-11.9	14.3	23.9	0.5	U	2	4-Aug-04	11:01
MW3	Am-241 (gamma)	-12.4	17.4	19.3	0.5	U	2	19-Jul-04	09:50
MW502	Am-241 (gamma)	-2.99	11.7	18.6	0.5	U	2	21-Jul-04	08:08
MW503	Am-241 (gamma)	5.17	9.57	13.5	0.5	U	2	21-Jul-04	07:57
MW504	Am-241 (gamma)	10.1	7.82	12.9	0.5	U	2	19-Jul-04	11:06
MW505	Am-241 (gamma)	1.95	2.48	4.34	0.5	U	2	21-Jul-04	08:09
MW507D	Am-241 (gamma)	-0.462	8.97	13.8	0.5	U	2	21-Jul-04	07:39
MW507S	Am-241 (gamma)	5.48	7.99	12.4	0.5	U	2	21-Jul-04	07:55
MW508D	Am-241 (gamma)	-4.31	9.85	16.2	0.5	U	2	19-Jul-04	10:30
MW508S	Am-241 (gamma)	6.14	9.72	18.2	0.5	U	2	25-Jul-04	04:11
MW508S Replicate	Am-241 (gamma)	-3.43	11	17.2	0.5	U	2	26-Jul-04	09:35
QC Blank	Am-241 (gamma)	1.21	10.9	16.7	0.5	U	2	20-Jul-04	10:10
QC Blank	Am-241 (gamma)	-5.76	15.4	22.8	0.5	U	2	25-Jul-04	04:12
QC Blank	Am-241 (gamma)	4.76	6.22	11.4	0.5	U	2	21-Jul-04	08:48
QC Blank	Am-241 (gamma)	-1.42	13.1	21.7	0.5	U	2	4-Aug-04	11:32
QC Spike (BS)	Am-241 (gamma)	1300	254	163	0.5		2	20-Jul-04	04:06
QC Spike (BS)	Am-241 (gamma)	1230	163	83.2	0.5		2	28-Jul-04	12:19
QC Spike (BS)	Am-241 (gamma)	1210	231	114	0.5		2	21-Jul-04	07:14
QC Spike (BS)	Am-241 (gamma)	1390	229	120	0.5		2	4-Aug-04	12:49
QC Spike (MS)	Am-241 (gamma)	8440	1610	1510	0.5		0.05	22-Jul-04	05:28
QC Spike (MS)	Am-241 (gamma)	10200	1530	881	0.5		0.05	26-Jul-04	02:47
QC Spike (MS)	Am-241 (gamma)	9620	2780	1870	0.5		0.05	21-Jul-04	06:59
QC Spike (MS)	Am-241 (gamma)	10500	2360	1660	0.5		0.05	4-Aug-04	10:08
MW103D	Am-241	-0.0447	0.108	0.369	0.5	U	0.2	24-Jul-04	03:32
MW103S	Am-241	0.0029	0.091	0.256	0.5	U	0.25	17-Jul-04	04:40
MW103S Replicate	Am-241	0.0525	0.147	0.34	0.5	U	0.25	17-Jul-04	04:40
MW104S	Am-241	0.0588	0.0938	0.19	0.5	U	0.25	17-Jul-04	04:40
MW105D	Am-241	0.0272	0.142	0.358	0.5	U	0.2	24-Jul-04	03:32
MW105D Replicate	Am-241	0.0584	0.101	0.208	0.5	U	0.2	24-Jul-04	03:32
MW105S	Am-241	-0.0224	0.0254	0.207	0.5	U	0.2	24-Jul-04	03:32
MW105S Duplicate	Am-241	-0.014	0.0724	0.264	0.5	U	0.2	24-Jul-04	03:32
MW106D	Am-241	0.0901	0.135	0.275	0.5	U	0.25	17-Jul-04	04:40
MW106S	Am-241	-0.0265	0.0683	0.264	0.5	U	0.25	17-Jul-04	04:40
QC Blank	Am-241	0.0784	0.155	0.341	0.5	U	0.2	24-Jul-04	03:32
QC Blank	Am-241	-0.0053	0.059	0.207	0.5	U	0.25	17-Jul-04	04:40
QC Spike (BS)	Am-241	13.4	1.25	0.0826	0.5		0.2	24-Jul-04	03:32
QC Spike (BS)	Am-241	10.3	1	0.366	0.5		0.25	17-Jul-04	04:40
QC Spike (MS)	Am-241	12.5	1.27	0.34	0.5		0.2	24-Jul-04	03:32
QC Spike (MS)	Am-241	9.84	0.951	0.266	0.5		0.25	17-Jul-04	04:40
QC Blank	Cm-242	-0.0242	0.0274	0.224	0.5	U	0.2	24-Jul-04	03:32
QC Blank	Cm-242	-0.0322	0.0282	0.209	0.5	U	0.25	17-Jul-04	04:40
MW103D	Cm-242	-0.0263	0.0297	0.243	0.5	U	0.2	24-Jul-04	03:32
MW103S	Cm-242	-0.0128	0.0553	0.158	0.5	U	0.25	17-Jul-04	04:40
MW103S Replicate	Cm-242	-0.0428	0.0317	0.222	0.5	U	0.25	17-Jul-04	04:40
MW104S	Cm-242	0.0449	0.0717	0.127	0.5	U	0.25	17-Jul-04	04:40
MW105D	Cm-242	0.00132	0.0717	0.24	0.5	U	0.2	24-Jul-04	03:32
MW105D Replicate	Cm-242	0.0319	0.0626	0.0866	0.5	U	0.2	24-Jul-04	03:32
MW105S	Cm-242	0	0.0681	0.0941	0.5	U	0.2	24-Jul-04	03:32
MW105S Duplicate	Cm-242	-0.0256	0.0289	0.236	0.5	U	0.2	24-Jul-04	03:32
MW106D	Cm-242	0.061	0.105	0.217	0.5	U	0.25	17-Jul-04	04:40
MW106S	Cm-242	-0.0309	0.0699	0.234	0.5	U	0.25	17-Jul-04	04:40
QC Spike (BS)	Cm-242	-0.00739	0.0621	0.154	0.5	U	0.2	24-Jul-04	03:32
QC Spike (BS)	Cm-242	-0.00501	0.0558	0.196	0.5	U	0.25	17-Jul-04	04:40
QC Spike (MS)	Cm-242	-0.0074	0.0623	0.289	0.5	U	0.2	24-Jul-04	03:32
QC Spike (MS)	Cm-242	-0.0115	0.0595	0.217	0.5	U	0.25	17-Jul-04	04:40
QC Blank	Cm-243,244	0.0465	0.158	0.383	0.5	U	0.2	24-Jul-04	03:32
QC Blank	Cm-243,244	-0.0434	0.0664	0.272	0.5	U	0.25	17-Jul-04	04:40
MW103D	Cm-243,244	-0.0619	0.0839	0.349	0.5	U	0.2	24-Jul-04	03:32
MW103S	Cm-243,244	0.0329	0.102	0.248	0.5	U	0.25	17-Jul-04	04:40
MW103S Replicate	Cm-243,244	-0.036	0.0914	0.291	0.5	U	0.25	17-Jul-04	04:40
MW104S	Cm-243,244	0.00184	0.0707	0.211	0.5	U	0.25	17-Jul-04	04:40
MW105D	Cm-243,244	0.064	0.153	0.35	0.5	U	0.2	24-Jul-04	03:32
MW105D Replicate	Cm-243,244	0.0103	0.107	0.295	0.5	U	0.2	24-Jul-04	03:32
MW105S	Cm-243,244	-0.00375	0.118	0.341	0.5	U	0.2	24-Jul-04	03:32
MW105S Duplicate	Cm-243,244	0.0689	0.164	0.377	0.5	U	0.2	24-Jul-04	03:32
MW106D	Cm-243,244	-0.0881	0.0952	0.36	0.5	U	0.25	17-Jul-04	04:40
MW106S	Cm-243,244	-0.0532	0.0968	0.342	0.5	U	0.25	17-Jul-04	04:40
QC Spike (BS)	Cm-243,244	17.1	1.42	0.333	0.5		0.2	24-Jul-04	03:32

NOTES:
Bold results are greater than 2-sigma TPU and the sample MDC.
Gray results are greater than 2-sigma TPU and less than the sample MDC.
Boron concentration results are in ug/liter.

Appendix D.3
June 2004 Lab Analytical Results Summary

Well ID	Nuclide	Conc. (pCi/L)	2-sigma TPU (pCi/L)	MDC (pCi/L)	Required MDC (pCi/L)	Lab Flag	Aliquot Volume (L)	Analysis Date	Analysis Time
QC Spike (BS)	Cm-243,244	14.3	1.17	0.332	0.5		0.25	17-Jul-04	04:40
QC Spike (MS)	Cm-243,244	18.5	1.55	0.437	0.5		0.2	24-Jul-04	03:32
QC Spike (MS)	Cm-243,244	13.2	1.1	0.312	0.5		0.25	17-Jul-04	04:40

NOTES:
Bold results are greater than 2-sigma TPU and the sample MDC.
Gray results are greater than 2-sigma TPU and less than the sample MDC.
Boron concentration results are in ug/liter.

GENERAL ENGINEERING LABORATORIES, LLC
a Member of THE GEL GROUP, INC.
Meeting Today's Needs with a Vision for Tomorrow

July 27, 2004

Mr. Dave Keefer
CYAPCo
Haddam Neck Plant 362 Injun Hollow Road
East Hampton, Connecticut 06424

RE: Quarterly Groundwater PO# 002337
Work Order: 115774
SDG: MSR#04-1807

Dear Mr. Keefer:

General Engineering Laboratories, LLC (GEL) appreciates the opportunity to provide the following analytical results for the sample(s) we received on June 28, 2004. Our policy is to provide high quality, personalized analytical services to enable you to meet your analytical needs on time every time.

This data report has been prepared and reviewed in accordance with GEL's standard operating procedures. We trust that you will find everything in order and to your satisfaction. If you have any questions, please do not hesitate to call me at (843) 556-8171, ext. 4475.

Sincerely,

Sarah Kozlik
Project Manager

Purchase Order: 002337
Enclosures

P.O. Box 30712 • Charleston, SC 29417 • 2040 Savage Road (29407)
Phone (843) 556-8171 • Fax (843) 766-1178 • www.gel.com

CONNECTICUT YANKEE

RE: Quarterly Groundwater
PO# 002337
Work Order: 115774
SDG: MSR#04-1807

115774001	MW-108S-0204-001
115774002	MW-122S-0204-001
115774003	MW-114S-0204-001
115774004	MW-125S
115774005	MW-124S
115774006	MW-101D-0204-001
115774007	EOF2-0204-001
115774008	MW-101S-0204-001
115774009	MW-123S-0204-001
115774010	MW100D-0204-001
115774011	MW507D-0204-001
115774012	MW507S-0204-001
115774013	MW503-0204-001
115774014	MW502-0204-001
115774015	MW505-0204-001
115774016	MW-103S-0204-001
115774017	MW-104S-0204-001
115774018	MW-106S-0204-001
115774019	MW-106D-0204-001

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CASE NARRATIVE

CASE NARRATIVE
For
CONNECTICUT YANKEE
RE: Quarterly Groundwater
PO# 002337
Work Order: 115774
SDG: MSR#04-1807

July 27, 2004

Laboratory Identification:
General Engineering Laboratories, LLC

Mailing Address:
P.O. Box 30712
Charleston, South Carolina 29417

Express Mail Delivery and Shipping Address:
2040 Savage Road
Charleston, South Carolina 29407

Telephone Number:
(843) 556-8171

Summary:

Sample receipt

The samples for the Quarterly Groundwater Project for work order 115774 arrived at General Engineering Laboratories, LLC, (GEL) in Charleston, South Carolina June 28, 2004 for environmental analysis. All sample containers arrived without any visible signs of tampering or breakage. The chain of custody contained the proper documentation and signatures.

The laboratory received the following groundwater samples:

MW-108S-0204-001
MW-122S-0204-001
MW-114S-0204-001
MW-125S
MW-124S
MW-101D-0204-001
EOF2-0204-001
MW-101S-0204-001
MW-123S-0204-001
MW100D-0204-001
MW507D-0204-001
MW507S-0204-001
MW503-0204-001
MW502-0204-001
MW505-0204-001
MW-103S-0204-001
MW-104S-0204-001
MW-106S-0204-001
MW-106D-0204-001

Items of Note:

Connecticut Yankee technical representative, David Keefer, was contacted regarding damaged samples. Per the clients request, the preserved samples MW-507D and MW-507S were analyzed for tritium.

Case Narrative:

Sample analyses were conducted using methodology as outlined in General Engineering Laboratories (GEL) Standard Operating Procedures. Any technical or administrative problems during analysis, data review, and reduction are listed below by analytical parameter.

Analytical Request:

Nine groundwater samples were analyzed for MIX, six for STND and four for ALL.

Internal Chain of Custody:

Custody was maintained for all of these samples.

Data Package:

The enclosed data package contains the following sections: Case Narrative, Chain of Custody, Cooler Receipt Checklist, Laboratory Certifications, and Radiochemistry.

I certify that this data package is in compliance with the SOW, both technically and for completeness, for other than the conditions detailed above. Release of the data contained in this hard copy data package has been authorized by the Laboratory Manager or a designee, as verified by the following signature.

Sarah Kozlik
Project Manager

CHAIN OF CUSTODY

Chain of Custody Form

Connecticut Yankee Atomic Power Company
362 Injun Hollow Road, East Hampton, CT 06424
860-267-2556

No. 2004-00112

Project Name: Haddam Neck Decommissioning

Contact Name & Phone:
Rich McGrath 860-267-3573

Analytical Lab (Name, City, State):
General Engineering Lab (GEL), 2040 Savage Rd, Charleston, SC 29407, 843.556.8171 (Sarah Kozlik)

Priority: ☐ 45 D. ☒ 30 D. ☐ 14 D. ☐ 7 D.
Other:

Sample Designation	Date	Time	Media Code	Sample Type Code	Container Size-&Type Code	MIX	STND	ALL				Comment, Preservation	Lab Sample ID
MW-1145-0204-001	6/24/04	0935	WG	G	4L, 1L	X						HNO_3, None	
			WG	G	4L, 1L								
			WG	G	4L, 1L								
			WG	G	4L, 1L								
			WG	G	4L, 1L								

Lab Use Only

NOTES: PO #: 002337 MSR #: 04-1807 ☐ LTP QA ☐ Radwaste QA ☒ Non QA

Requested analyses should be performed to typical groundwater program MDC's.

Samples Shipped Via:
☒ Fed Ex
☐ UPS
☐ Hand
☐ Other _____

Bill of Lading #

Internal Container Temp 25.3 Deg. C

Custody Sealed? Y☑ N☐

Custody Seal Intact? Y☑ N☐

1) Relinquished By: [signature]	Date/Time 6/25/04 0800	2) Received By [signature]	Date/Time 6/28/04 8:45
3) Relinquished By	Date/Time	4) Received By	Date/Time
5) Relinquished By	Date/Time	6) Received By	Date/Time

5

Chain of Custody Form

No. 2004-00111

Connecticut Yankee Atomic Power Company
362 Injun Hollow Road, East Hampton, CT 06424
860-267-2556

Project Name: Haddam Neck Decommissioning

Contact Name & Phone:
Rich McGrath 860-267-3573

Analytical Lab (Name, City, State):
General Engineering Lab (GEL), 2040 Savage Rd, Charleston, SC 29407, 843.556.8171 (Sarah Kozlik)

Priority: ☐ 45 D. ☒ 30 D. ☐ 14 D. ☐ 7 D.
Other:

Sample Designation	Date	Time	Media Code	Sample Type Code	Container Size-&Type Code	MIX	STND	ALL				Comment, Preservation	Lab Sample ID
MW-103S-0204-001	6/24/04	1415	WG	G	4L, 1L			X				HNO_3, None	
MW-101S-0204-001	6/23/04	1430	WG	G	4L, 1L	X						HNO_3, None	
			WG	G	4L, 1L								
			WG	G	4L, 1L								
			WG	G	4L, 1L								

Analyses Requested

Lab Use Only

NOTES: PO #: 002337 MSR #: 04-1807 ☐ LTP QA ☐ Radwaste QA ☒ Non QA

Requested analyses should be performed to typical groundwater program MDC's.

Samples Shipped Via:
☒ Fed Ex
☐ UPS
☐ Hand
☐ Other ____

Bill of Lading #

Internal Container Temp.: 25.3 Deg. C

Custody Sealed? Y ☑ N ☐

Custody Seal Intact? Y ☑ N ☐

1) Relinquished By: [signature] Date/Time 6/25/04 0800	2) Received By [signature] Date/Time 6-28-04 8:45
3) Relinquished By Date/Time	4) Received By Date/Time
5) Relinquished By Date/Time	6) Received By Date/Time

Chain of Custody Form

No. 2004-00110

Connecticut Yankee Atomic Power Company
362 Injun Hollow Road, East Hampton, CT 06424
860-267-2556

Project Name: Haddam Neck Decommissioning

Contact Name & Phone:
Rich McGrath 860-267-3573

Analytical Lab (Name, City, State):
General Engineering Lab (GEL), 2040 Savage Rd, Charleston, SC 29407, 843.556.8171 (Sarah Kozlik)

Priority: ☐ 45 D. ☒ 30 D. ☐ 14 D. ☐ 7 D.
Other:

Sample Designation	Date	Time	Media Code	Sample Type Code	Container Size-&Type Code	MIX	STND	ALL				Comment, Preservation	Lab Sample ID
MW-101D-0204-001	6/23/04	1155	WG	G	4L, 1L	X						HNO_3, None	
EGF2-0204-001	6/24/04	1540	WG	G	4L, 1L	X						HNO_3, None	
			WG	G	4L, 1L								
			WG	G	4L, 1L								
			WG	G	4L, 1L								

Analyses Requested

Lab Use Only

NOTES: PO #: 002337 MSR #: 04-1807 ☐ LTP QA ☐ Radwaste QA ☒ Non QA

Requested analyses should be performed to typical groundwater program MDC's.

Samples Shipped Via:
☒ Fed Ex
☐ UPS
☐ Hand
☐ Other _____

Bill of Lading #

Internal Container Temp. 25.5 Deg. C

Custody Sealed? Y ☑ N ☐

Custody Seal Intact? Y ☑ N ☐

1) Relinquished By: [signature]	Date/Time 6/25/04 0800
2) Received By [signature]	Date/Time 6/28/04 8:45
3) Relinquished By	Date/Time
4) Received By	Date/Time
5) Relinquished By	Date/Time
6) Received By	Date/Time

Chain of Custody Form

No. 2004-00109

Connecticut Yankee Atomic Power Company
362 Injun Hollow Road, East Hampton, CT 06424
860-267-2556

Project Name: Haddam Neck Decommissioning

Contact Name & Phone:
Rich McGrath 860-267-3573

Analytical Lab (Name, City, State):
General Engineering Lab (GEL), 2040 Savage Rd, Charleston, SC 29407, 843.556.8171 (Sarah Kozlik)

Priority: ☐ 45 D. ☒ 30 D. ☐ 14 D. ☐ 7 D.
Other:

Sample Designation	Date	Time	Media Code	Sample Type Code	Container Size-&Type Code	Analyses Requested: MIX	STND	ALL				Lab Use Only: Comment, Preservation	Lab Sample ID
MW-104S-0204-001	6/23/04	1220	WG	G	4L, 1L			X				HNO_3, None	
MW-123S-0204-001	6/23/04	0920	WG	G	4L, 1L	X						HNO_3, None	
			WG	G	4L, 1L								
			WG	G	4L, 1L								
			WG	G	4L, 1L								

NOTES: PO #: 002337 MSR #: 04-1807 ☐ LTP QA ☐ Radwaste QA ☒ Non QA

Requested analyses should be performed to typical groundwater program MDC's.

Samples Shipped Via:
☒ Fed Ex
☐ UPS
☐ Hand
☐ Other ____

Bill of Lading #

Internal Container Temp 24.8 Deg. C

Custody Sealed? Y ☑ N ☐

Custody Seal Intact? Y ☑ N ☐

1) Relinquished By:	Date/Time	2) Received By	Date/Time
[illegible]	6/25/04 0800	[illegible]	6/28/04 8:45
3) Relinquished By	Date/Time	4) Received By	Date/Time
5) Relinquished By	Date/Time	6) Received By	Date/Time

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115774 9

Chain of Custody Form

Connecticut Yankee Atomic Power Company
362 Injun Hollow Road, East Hampton, CT 06424
860-267-2556

No. 2004-00108

Project Name: Haddam Neck Decommissioning

Contact Name & Phone:
Rich McGrath 860-267-3573

Analytical Lab (Name, City, State):
General Engineering Lab (GEL), 2040 Savage Rd, Charleston, SC 29407, 843.556.8171 (Sarah Kozlik)

Priority: ☐ 45 D. ☒ 30 D. ☐ 14 D. ☐ 7 D.
Other:

Sample Designation	Date	Time	Media Code	Sample Type Code	Container Size-&Type Code	MIX	STND	ALL				Comment, Preservation	Lab Sample ID
MW-108S-0204-001	6/24/04	0930	WG	G	4L, 1L	X						HNO3 / 4°C.	
MW-122S-0204-001	6/24/04	1210	WG	G	4L, 1L	X							
			WG	G	4L, 1L								
			WG	G	4L, 1L								
			WG	G	4L, 1L								

Lab Use Only

NOTES: PO #: 002337 MSR #: 04-1807 ☐ LTP QA ☐ Radwaste QA ☒ Non QA

Requested analyses should be performed to typical groundwater program MDC's.

Samples Shipped Via:
☒ Fed Ex
☐ UPS
☐ Hand
☐ Other ____
Bill of Lading #

Internal Container Temp.: 25.6 Deg. C
Custody Sealed? Y ☑ N ☐
Custody Seal Intact? Y ☑ N ☐

1) Relinquished By: [signature] Date/Time 6/25/04 0800	2) Received By [signature] 8145 Date/Time 6/28/04
3) Relinquished By Date/Time	4) Received By Date/Time
5) Relinquished By Date/Time	6) Received By Date/Time

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Chain of Custody Form

No. 2004-00102

Connecticut Yankee Atomic Power Company
362 Injun Hollow Road, East Hampton, CT 06424
860-267-2556

Project Name: Haddam Neck Decommissioning

Contact Name & Phone:
Rich McGrath 860-267-3573

Analytical Lab (Name, City, State):
General Engineering Lab (GEL), 2040 Savage Rd, Charleston, SC 29407, 843.556.8171 (Sarah Kozlik)

Priority: ☐ 45 D. ☒ 30 D. ☐ 14 D. ☐ 7 D.
Other:

Sample Designation	Date	Time	Media Code	Sample Type Code	Container Size- &Type Code	MIX	STND	ALL				Comment, Preservation	Lab Sample ID
MW-125S	6-22-04	1530	WG	G	4L, 1L	X						2x4L-HNO3 / 1L-np	
MW-124S	6-23-04	1605	WG	G	4L, 1L	X						2x4L-HNO3 / 1Lx np	
			WG	G	4L, 1L								
			WG	G	4L, 1L								
			WG	G	4L, 1L								

Analyses Requested

Lab Use Only

NOTES: PO #: 002337 MSR #: 04-1807 ☐ LTP QA ☐ Radwaste QA ☒ Non QA

Requested analyses should be performed to typical groundwater program MDC's.

Samples Shipped Via:
☒ Fed Ex
☐ UPS
☐ Hand
☐ Other ____

Bill of Lading #

Internal Container Temp. 2.3 Deg. C

Custody Sealed? Y ☑ N ☐

Custody Seal Intact? Y ☑ N ☐

1) Relinquished By: Cyn — Date/Time 6/25/04 0800	2) Received By A. Miles — Date/Time 6-28-04 8:45
3) Relinquished By — Date/Time	4) Received By — Date/Time
5) Relinquished By — Date/Time	6) Received By — Date/Time

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Chain of Custody Form

Connecticut Yankee Atomic Power Company
362 Injun Hollow Road, East Hampton, CT 06424
860-267-2556

No. 2004-00106

Project Name: Haddam Neck Decommissioning

Contact Name & Phone:
Rich McGrath 860-267-3573

Analytical Lab (Name, City, State):
General Engineering Lab (GEL), 2040 Savage Rd, Charleston, SC 29407, 843.556.8171 (Sarah Kozlik)

Priority: ☐ 45 D. ☒ 30 D. ☐ 14 D. ☐ 7 D.
Other:

Sample Designation	Date	Time	Media Code	Sample Type Code	Container Size-&Type Code	MIX	STND	ALL				Comment, Preservation	Lab Sample ID
MW-106S-0204-001	6-22-04	1435	WG	G	4L, 1L			X				HNO_3 in 4L	
MW-106D-0204-001	6-22-04	1025	WG	G	4L, 1L			X				HNO_3 in 4L	
			WG	G	4L, 1L								
			WG	G	4L, 1L								
			WG	G	4L, 1L								

Analyses Requested

Lab Use Only

NOTES: PO #: 002337 MSR #: 04-1807 ☐ LTP QA ☐ Radwaste QA ☒ Non QA

Requested analyses should be performed to typical groundwater program MDC's.

Samples Shipped Via:
☒ Fed Ex
☐ UPS
☐ Hand
☐ Other _____

Bill of Lading #

Internal Container Temp. 24.4 Deg. C

Custody Sealed? Y ☐ N ☐

Custody Seal Intact? Y ☑ N ☐

1) Relinquished By: [signature] Date/Time 6/25/04 0800	2) Received By: [signature] Date/Time 6-28-04 8:45
3) Relinquished By Date/Time	4) Received By Date/Time
5) Relinquished By Date/Time	6) Received By Date/Time

Connecticut Yankee Atomic Power Company

362 Injun Hollow Road, East Hampton, CT 06424
860-267-2556

Chain of Custody Form

No. 2004-00104

Project Name: Haddam Neck Decommissioning

Contact Name & Phone:
Rich McGrath 860-267-3573

Analytical Lab (Name, City, State):
General Engineering Lab (GEL), 2040 Savage Rd, Charleston, SC 29407, 843.556.8171 (Sarah Kozlik)

Priority: ☐ 45 D. ☒ 30 D. ☐ 14 D. ☐ 7 D.
Other:

Sample Designation	Date	Time	Media Code	Sample Type Code	Container Size-&Type Code	MIX	STND	ALL				Comment, Preservation	Lab Sample ID
MW503-0204-001	6/22/04	0931	WG	G	4L, 1L		X					HNO3	
MW502-0204-001	6/22/04	1126	WG	G	4L, 1L		X					HNO3	
MW505-0204-001	6/22/04	1436	WG	G	4L, 1L		X					HNO3	
			WG	G	4L, 1L								
			WG	G	4L, 1L								

Analyses Requested

Lab Use Only

NOTES: PO #: 002337 MSR #: 04-1807 ☐ LTP QA ☐ Radwaste QA ☒ Non QA

Requested analyses should be performed to typical groundwater program MDC's.

Samples Shipped Via:
☒ Fed Ex
☐ UPS
☐ Hand
☐ Other ____
Bill of Lading #

Internal Container Temp. 2.4 Deg. C
Custody Sealed? Y ☑ N ☐
Custody Seal Intact? Y ☑ N ☐

1) Relinquished By: Cyrin Date/Time 6/25/04 0800	2) Received By A. Yules Date/Time 6-28-04 8:45
3) Relinquished By Date/Time	4) Received By Date/Time
5) Relinquished By Date/Time	6) Received By Date/Time

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Chain of Custody Form

Connecticut Yankee Atomic Power Company
362 Injun Hollow Road, East Hampton, CT 06424
860-267-2556

No. 2004-00105

Project Name: Haddam Neck Decommissioning

Contact Name & Phone:
Rich McGrath 860-267-3573

Analytical Lab (Name, City, State):
General Engineering Lab (GEL), 2040 Savage Rd, Charleston, SC 29407, 843.556.8171 (Sarah Kozlik)

Priority: ☐ 45 D. ☒ 30 D. ☐ 14 D. ☐ 7 D.
Other:

Sample Designation	Date	Time	Media Code	Sample Type Code	Container Size-&Type Code	MIX	STND	ALL				Comment, Preservation	Lab Sample ID
MW100D-0204-001	6/23/04	1026	WG	G	4L, 1L		X					HNO3	
MW507D-0204-001	6/23/04	1427	WG	G	4L, 1L		X					HNO3	
MW507S-0204-001	6/24/04	0846	WG	G	4L, 1L		X					HNO3	
			WG	G	4L, 1L								
			WG	G	4L, 1L								

Lab Use Only

NOTES: PO #: 002337 MSR #: 04-1807 ☐ LTP QA ☐ Radwaste QA ☒ Non QA

Requested analyses should be performed to typical groundwater program MDC's.

Samples Shipped Via:
☒ Fed Ex
☐ UPS
☐ Hand
☐ Other ____
Bill of Lading #

Internal Container Temp.: 24.8 Deg. C
Custody Sealed? Y ☐ N ☐
Custody Seal Intact? Y ☐ N ☐

1) Relinquished By: [signature] Date/Time 6/25/04 0800	2) Received By [signature] Date/Time 6-28-04 / 8:45
3) Relinquished By Date/Time	4) Received By Date/Time
5) Relinquished By Date/Time	6) Received By Date/Time

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COOLER RECEIPT CHECKLIST

Figure 1. Sample Check-in List

Date/Time Received: 6/28/04 8:45 AM

SDG#: MSB #04-1807

Work Order Number: 1157749

Shipping Container ID: Fed Ex 792671516620 Chain of Custody # 2004-00108

1. Custody Seals on shipping container intact? Yes [✓] No [ ]
2. Custody Seals dated and signed? Yes [✓] No [ ]
3. Chain-of-Custody record present? Yes [✓] No [ ]
4. Cooler temperature 25.6
5. Vermiculite/packing materials is: Wet [ ] Dry [✓]
6. Number of samples in shipping container: 6
7. Sample holding times exceeded? Yes [ ] No [✓]

8. Samples have:

✓ tape ____ hazard labels

____ custody seals ____ appropriate sample labels

9. Samples are:

✓ in good condition ____ leaking

____ broken ____ have air bubbles

10. Were any anomalies identified in sample receipt? Yes [✓] No [ ]
11. Description of anomalies (include sample numbers): extra 4L for each sample

Sample Custodian/Laboratory: Gause Date: 6/28/04

Telephoned to: ____ On ____ By ____

Figure 1. Sample Check-in List

Date/Time Received: 6/28/04 8:45 Am

SDG#: MSA # 04-1807

Work Order Number: 1157749

Shipping Container ID: Fed Ex 7926 7151 6539 Chain of Custody # 2004-00112

1. Custody Seals on shipping container intact? Yes [✓] No [ ]
2. Custody Seals dated and signed? Yes [✓] No [ ]
3. Chain-of-Custody record present? Yes [✓] No [ ]
4. Cooler temperature 25.3
5. Vermiculite/packing materials is: Wet [ ] Dry [✓]
6. Number of samples in shipping container: 3
7. Sample holding times exceeded? Yes [ ] No [✓]

8. Samples have:

✓ tape ____ hazard labels

____ custody seals ____ appropriate sample labels

9. Samples are:

✓ in good condition ____ leaking

____ broken ____ have air bubbles

10. Were any anomalies identified in sample receipt? Yes [✓] No [✓]

11. Description of anomalies (include sample numbers):

extra 4L

Sample Custodian/Laboratory: CJause Date: 6/28/04

Telephoned to: ____ On ____ By ____

Figure 1. Sample Check-in List

Date/Time Received: 6-28-04 / 8:45

SDG#: MSR # 04-18097 dec 6/29/04

Work Order Number: 1157749.

Shipping Container ID: 7926 7151 6681 Chain of Custody # 2004-00102

1. Custody Seals on shipping container intact? Yes [✓] No [ ]
2. Custody Seals dated and signed? Yes [✓] No [ ]
3. Chain-of-Custody record present? Yes [✓] No [ ]
4. Cooler temperature 24.3°
5. Vermiculite/packing materials is: Wet [ ] Dry [✓]
6. Number of samples in shipping container: 6
7. Sample holding times exceeded? Yes [✓] No [ ]

8. Samples have:

✓ tape ____ hazard labels

✓ custody seals ____ appropriate sample labels

9. Samples are:

✓ in good condition ____ leaking

____ broken ____ have air bubbles

10. Were any anomalies identified in sample receipt? Yes [ ] No [✓]
11. Description of anomalies (include sample numbers): _____

Sample Custodian/Laboratory: A. Miles / Lab Date: 6-28-04

Telephoned to: _____ On _____ By _____

Figure 1. Sample Check-in List

Date/Time Received: 6/28/04 8:45 AM

SDG#: MSR# 04-1807

Work Order Number: 9157742

Shipping Container ID: FedEx 7926 7151 6561 Chain of Custody # 2004-00110

1. Custody Seals on shipping container intact? Yes [✓] No [ ]
2. Custody Seals dated and signed? Yes [✓] No [ ]
3. Chain-of-Custody record present? Yes [✓] No [ ]
4. Cooler temperature 25.5
5. Vermiculite/packing materials is: Wet [ ] Dry [✓]
6. Number of samples in shipping container: 6
7. Sample holding times exceeded? Yes [ ] No [✓]

8. Samples have:

✓ tape ____ hazard labels

____ custody seals ____ appropriate sample labels

9. Samples are:

✓ in good condition ____ leaking

____ broken ____ have air bubbles

10. Were any anomalies identified in sample receipt? Yes [✓] No [✓]

11. Description of anomalies (include sample numbers):

Extra 4 liter of each sample

Sample Custodian/Laboratory: Clause Date: 6/28/04

Telephoned to: ____ On ____ By ____

Figure 1. Sample Check-in List

Date/Time Received: 6-28-04 / 8:45

SDG#: MSR#04-1807

Work Order Number: 1157742

Shipping Container ID: 7926 7151 6688 Chain of Custody # 2004-00105

1. Custody Seals on shipping container intact? Yes [✓] No [ ]
2. Custody Seals dated and signed? Yes [✓] No [ ]
3. Chain-of-Custody record present? Yes [✓] No [ ]
4. Cooler temperature 24.8°
5. Vermiculite/packing materials is: Wet [✓] Dry [ ]
6. Number of samples in shipping container: 6
7. Sample holding times exceeded? Yes [✓] No [ ]

8. Samples have:

✓ tape ____ hazard labels

____ custody seals ✓ appropriate sample labels

9. Samples are:

✓ in good condition (exception of 2) ____ leaking

____ broken ____ have air bubbles

10. Were any anomalies identified in sample receipt? Yes [✓] No [ ]

11. Description of anomalies (include sample numbers): Samples MW 507s(1L) MW 507D(1L) 2 Samples were not intact

Sample Custodian/Laboratory: A. Miles Date: 6-28-04

Telephoned to: ____ On ____ By ____

Figure 1. Sample Check-in List

Date/Time Received: 6-28-04 / 8:45

SDG#: MSB#04-1807

Work Order Number: 1137749

Shipping Container ID: 7926 7151 6675 Chain of Custody # 2004-00104

1. Custody Seals on shipping container intact? Yes [✓] No [ ]
2. Custody Seals dated and signed? Yes [✓] No [ ]
3. Chain-of-Custody record present? Yes [✓] No [ ]
4. Cooler temperature 26.4°C
5. Vermiculite/packing materials is: Wet [ ] Dry [✓]
6. Number of samples in shipping container: 6
7. Sample holding times exceeded? Yes [✓] No [ ]

8. Samples have:

✓ tape ____ hazard labels

____ custody seals ____ appropriate sample labels

9. Samples are:

✓ in good condition ____ leaking

____ broken ____ have air bubbles

10. Were any anomalies identified in sample receipt? Yes [ ] No [✓]
11. Description of anomalies (include sample numbers): _____

Sample Custodian/Laboratory: A. Kiles Date: 6-28-04

Telephoned to: _____ On _____ By _____

Figure 1. Sample Check-in List

Date/Time Received: 6-28-04 / 8:45

SDG#: MSB #04-1807

Work Order Number: 1159749o

Shipping Container ID: 7926 7151 6653 Chain of Custody # 2004-00111

1. Custody Seals on shipping container intact? Yes [✓] No [ ]
2. Custody Seals dated and signed? Yes [✓] No [ ]
3. Chain-of-Custody record present? Yes [✓] No [ ]
4. Cooler temperature 25.3
5. Vermiculite/packing materials is: Wet [ ] Dry [✓]
6. Number of samples in shipping container: 7
7. Sample holding times exceeded? Yes [✓] No [ ]

8. Samples have:

✓ tape ____ hazard labels

____ custody seals ✓ appropriate sample labels

9. Samples are:

✓ in good condition ____ leaking

____ broken ____ have air bubbles

10. Were any anomalies identified in sample receipt? Yes [✓] No [ ]
11. Description of anomalies (include sample numbers): Sample MW103S has 2 additional 4L; Sample MW101S has 1 additional 4L sent

Sample Custodian/Laboratory: A. Mub Date: 6-28-04

Telephoned to: ____ On ____ By ____

Figure 1. Sample Check-in List

Date/Time Received: 6/28/04 8:45 AM

SDG#: MSB#04-1807

Work Order Number: 1157749

Shipping Container ID: FedEx 7926 7151 6583 Chain of Custody # 2004-00109

1. Custody Seals on shipping container intact? Yes [✓] No [ ]
2. Custody Seals dated and signed? Yes [✓] No [ ]
3. Chain-of-Custody record present? Yes [✓] No [ ]
4. Cooler temperature 24.8
5. Vermiculite/packing materials is: Wet [ ] Dry [✓]
6. Number of samples in shipping container: 7
7. Sample holding times exceeded? Yes [ ] No [✓]

8. Samples have:

✓ tape ____ hazard labels

____ custody seals ____ appropriate sample labels

9. Samples are:

✓ in good condition ____ leaking

____ broken ____ have air bubbles

10. Were any anomalies identified in sample receipt? Yes [✓] No [ ]
11. Description of anomalies (include sample numbers):

1 extra 4L of 001-0920 (MW-~~1045~~ 1235)

2 extra 4L of 001-1220 (MW-1045)

Sample Custodian/Laboratory: CGause Date: 6/28/04

Telephoned to: ____ On ____ By ____

Figure 1. Sample Check-in List

Date/Time Received: 6-28-04 / 8:45

SDG#: MSA # 04-1807

Work Order Number: 1457749.

Shipping Container ID: 7926 7151 6550 Chain of Custody # 2004 - 00106

1. Custody Seals on shipping container intact? Yes [✓] No [ ]
2. Custody Seals dated and signed? Yes [✓] No [ ]
3. Chain-of-Custody record present? Yes [✓] No [ ]
4. Cooler temperature 24.4°
5. Vermiculite/packing materials is: Wet [ ] Dry [✓]
6. Number of samples in shipping container: 8
7. Sample holding times exceeded? Yes [ ] No [ ]

8. Samples have:

✓ tape ____ hazard labels

____ custody seals ✓ appropriate sample labels

9. Samples are:

✓ in good condition ____ leaking

____ broken ____ have air bubbles

10. Were any anomalies identified in sample receipt? Yes [✓] No [ ]

11. Description of anomalies (include sample numbers): ~~An~~ two additional 4L Samples were sent for samples MW 106 S + MW106D Not indicated on COC

Sample Custodian/Laboratory: A. Miles Date: 6-28-04

Telephoned to: ____ On ____ By ____

INORGANIC ANALYSIS

Metals Fractional Narrative
Connecticut Yankee Atomic Power Co. (YANK)
SDG MSR#04-1807

Method/Analysis Information

Analytical Batch:	345046
Prep Batch:	345045
Standard Operating Procedures:	GL-MA-E-014 REV# 9, GL-MA-E-006 REV# 9
Analytical Method:	SW846 6020
Prep Method:	SW846 3005A

Sample Analysis

Sample ID	Client ID
115774001	MW-108S-0204-001
115774002	MW-122S-0204-001
115774003	MW-114S-0204-001
115774004	MW-125S
115774005	MW-124S
115774006	MW-101D-0204-001
115774007	EOF2-0204-001
115774008	MW-101S-0204-001
115774009	MW-123S-0204-001
115774010	MW100D-0204-001
115774011	MW507D-0204-001
115774012	MW507S-0204-001
115774013	MW503-0204-001
115774014	MW502-0204-001
115774015	MW505-0204-001
115774016	MW-103S-0204-001
115774017	MW-104S-0204-001
115774018	MW-106S-0204-001
115774019	MW-106D-0204-001

1200653487	Method Blank (MB) ICP-MS
1200653488	Laboratory Control Sample (LCS)
1200653491	115774001(MW-108S-0204-001L) Serial Dilution (SD)
1200653489	115774001(MW-108S-0204-001D) Sample Duplicate (DUP)
1200653490	115774001(MW-108S-0204-001S) Matrix Spike (MS)

Preparation/Analytical Method Verification

The SOP stated above has been prepared based on technical research and testing conducted by General Engineering Laboratories, LLC. and with guidance from the regulatory documents listed in this "Method/Analysis Information" section.

System Configuration

The ICP-MS analysis was performed on a Perkin Elmer ICP-MS ELAN 9000. The instrument is equipped with a cross-flow nebulizer, quadrupole mass spectrometer, and dual mode electron multiplier detector. Internal standards of scandium, germanium, indium, and tantalum were utilized to cover the mass spectrum. Operating conditions are set at 1400W power and combined argon pressures of 3607 kPa for the plasma and auxiliary gases, and 0.85 L/min carrier gas flow, and an initial lens voltage of 5.2.

Calibration Information

Instrument Calibration
All initial calibration requirements have been met for this SDG.

CRDL Requirements
All CRDL standard(s) met the referenced advisory control limits.

ICSA/ICSAB statement
All interference check samples (ICSA and ICSAB) associated with this SDG met the established acceptance criteria.

Continuing Calibration Blank (CCB) Requirements
All continuing calibration blanks (CCB) bracketing this batch met the established acceptance criteria.

Continuing Calibration Verification (CCV) Requirements
All continuing calibration verifications (CCV) bracketing this SDG met the acceptance criteria.

Quality Control (QC) Information

Method Blank (MB) Statement

The MB analyzed with this SDG met the acceptance criteria.

Laboratory Control Sample (LCS) Recovery
The LCS spike recoveries met the acceptance limits.

Quality Control (QC) Sample Statement
The following sample was selected as the quality control (QC) sample for this batch: 115774001 (MW-108S-0204-001).

Matrix Spike (MS) Recovery Statement
The percent recoveries (%R) obtained from the MS analyses are evaluated when the sample concentration is less than four times (4X) the spike concentration added. All applicable elements met the acceptance criteria.

Duplicate Relative Percent Difference (RPD) Statement
The RPD obtained from the designated sample duplicate (DUP) is evaluated based on acceptance criteria of 20% when the sample is >5X the contract required detection limit (RL). In cases where either the sample or duplicate value is less than 5X the RL, a control of RL is used to evaluate the DUP results. All applicable analytes met these requirements.

Serial Dilution % Difference Statement
The serial dilution is used to assess matrix suppression or enhancement. Raw element concentrations that are 25X the IDL for CVAA, 50X the IDL for ICP, and 100X the IDL for ICP-MS analyses are applicable for serial dilution assessment. All applicable analytes met the acceptance criteria of less than 10% difference (%D).

Technical Information

Holding Time Specifications
GEL assigns holding times based on the associated methodology, which assigns the date and time from sample collection of sample receipt. Those holding times expressed in hours are calculated in the AlphaLIMS system. Those holding times expressed as days expire at midnight on the day of expiration. All samples in this SDG met the specified holding time.

Preparation/Analytical Method Verification
All procedures were performed as stated in the SOP.

Sample Dilutions
Dilutions are performed to minimize matrix interferences resulting from elevated mineral element concentrations present in soil samples and/or to bring over range target analyte concentrations into the linear calibration range of the instrument. The samples in this SDG did not require dilutions.

Preparation Information
The samples in this SDG were prepared exactly according to the cited SOP.

Miscellaneous Information

Nonconformance Documentation
Nonconformance reports (NCRs) are generated to document procedural anomalies that may deviate from referenced SOP or contractual documents. A NCR was not required for this SDG.

Additional Comments
Additional comments were not required for this SDG.

Certification Statement

Where the analytical method has been performed under NELAP certification, the analysis has met all of the requirements of the NELAC standard unless otherwise noted in the analytical case narrative.

Review Validation

GEL requires all analytical data to be verified by a qualified data validator. In addition, all data designated for CLP or CLP-like packaging will receive a third level validation upon completion of the data package.

The following data validator verified the information presented in this case narrative:

Reviewer: _____ **Date:** 7/27/04

SAMPLE DATA SUMMARY

GENERAL ENGINEERING LABORATORIES, LLC

2040 Savage Road Charleston SC 29407 - (843) 556-8171 - www.gel.com

Certificate of Analysis

Company : CYAPCo
Address : Haddam Neck Plant
362 Injun Hollow Road
East Hampton, Connecticut 06424
Contact: Mr. Dave Keefer
Project: Quarterly Groundwater PO# 002337

Report Date: July 27, 2004

Client Sample ID: MW-108S-0204-001
Sample ID: 115774001
Matrix: Ground Water
Collect Date: 24-JUN-04 09:30
Receive Date: 28-JUN-04
Collector: Client

Project: YANK00304
Client ID: YANK001

Parameter	Qualifier	Result	DL	RL	Units	DF	Analyst	Date	Time	Batch	Method
Metals Analysis-ICP-MS											
3005/6020 Boron-ALL,STND,MIX											
Boron		68.3	0.540	16.0	ug/L	1	PRB	07/26/04	1752	345046	1

The following Prep Methods were performed

Method	Description	Analyst	Date	Time	Prep Batch
SW846 3005A	ICP-MS 3005 PREP	CQH1	07/14/04	1721	345045

The following Analytical Methods were performed

Method	Description	Analyst Comments
1	SW846 3005/6020	

Notes:
The Qualifiers in this report are defined as follows :

B Target analyte was detected in the sample as well as the associated blank.
BD Flag for results below the MDC or a flag for low tracer recovery.
E Concentration of the target analyte exceeds the instrument calibration range.
H Analytical holding time exceeded.
J Indicates an estimated value. The result was greater than the detection limit, but less than the reporting limit.
U Indicates the target analyte was analyzed for but not detected above the detection limit.
UI Uncertain identification for gamma spectroscopy.
X Lab-specific qualifier-please see case narrative, data summary package or contact your project manager for details.
h Sample preparation or preservation holding time exceeded.

The above sample is reported on an "as received" basis.

Where the analytical method has been performed under NELAP certification, the analysis has met all of the requirements of the NELAC standard unless qualified on the Certificate of Analysis.

This data report has been prepared and reviewed in accordance with General Engineering Laboratories, LLC standard operating procedures. Please direct any questions to your Project Manager, Sarah Kozlik.

Allison H. 7/27/04
Reviewed by

GENERAL ENGINEERING LABORATORIES, LLC

2040 Savage Road Charleston SC 29407 - (843) 556-8171 - www.gel.com

Certificate of Analysis

Company : CYAPCo
Address : Haddam Neck Plant
362 Injun Hollow Road
East Hampton, Connecticut 06424
Contact: Mr. Dave Keefer
Project: Quarterly Groundwater PO# 002337

Report Date: July 27, 2004

Client Sample ID: MW-122S-0204-001
Sample ID: 115774002
Matrix: Ground Water
Collect Date: 24-JUN-04 12:10
Receive Date: 28-JUN-04
Collector: Client

Project: YANK00304
Client ID: YANK001

Parameter	Qualifier	Result	DL	RL	Units	DF	AnalystDate	Time	Batch	Method
Metals Analysis-ICP-MS										
3005/6020 Boron-ALL,STND,MIX										
Boron		307	0.540	16.0	ug/L	1	PRB 07/26/04	1808	345046	1

The following Prep Methods were performed

Method	Description	Analyst	Date	Time	Prep Batch
SW846 3005A	ICP-MS 3005 PREP	CQH1	07/14/04	1721	345045

The following Analytical Methods were performed

Method	Description	Analyst Comments
1	SW846 3005/6020	

Notes:
The Qualifiers in this report are defined as follows :

B Target analyte was detected in the sample as well as the associated blank.
BD Flag for results below the MDC or a flag for low tracer recovery.
E Concentration of the target analyte exceeds the instrument calibration range.
H Analytical holding time exceeded.
J Indicates an estimated value. The result was greater than the detection limit, but less than the reporting limit.
U Indicates the target analyte was analyzed for but not detected above the detection limit.
UI Uncertain identification for gamma spectroscopy.
X Lab-specific qualifier-please see case narrative, data summary package or contact your project manager for details.
h Sample preparation or preservation holding time exceeded.

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This data report has been prepared and reviewed in accordance with General Engineering Laboratories, LLC standard operating procedures. Please direct any questions to your Project Manager, Sarah Kozlik.

Allison M. 7/27/04
Reviewed by

GENERAL ENGINEERING LABORATORIES, LLC

2040 Savage Road Charleston SC 29407 - (843) 556-8171 - www.gel.com

Certificate of Analysis

Company: CYAPCo
Address: Haddam Neck Plant
362 Injun Hollow Road
East Hampton, Connecticut 06424
Contact: Mr. Dave Keefer
Project: **Quarterly Groundwater PO# 002337**

Report Date: July 27, 2004

Page 1 of 1

Client Sample ID: MW-114S-0204-001
Sample ID: 115774003
Matrix: Ground Water
Collect Date: 24-JUN-04 09:35
Receive Date: 28-JUN-04
Collector: Client

Project: YANK00304
Client ID: YANK001

Parameter	Qualifier	Result	DL	RL	Units	DF	Analyst	Date	Time	Batch	Method
Metals Analysis-ICP-MS											
3005/6020 Boron-ALL,STND,MIX											
Boron		1260	0.540	16.0	ug/L	1	PRB	07/26/04	1810	345046	1

The following Prep Methods were performed

Method	Description	Analyst	Date	Time	Prep Batch
SW846 3005A	ICP-MS 3005 PREP	CQH1	07/14/04	1721	345045

The following Analytical Methods were performed

Method	Description	Analyst Comments
1	SW846 3005/6020	

Notes:
The Qualifiers in this report are defined as follows:

B Target analyte was detected in the sample as well as the associated blank.
BD Flag for results below the MDC or a flag for low tracer recovery.
E Concentration of the target analyte exceeds the instrument calibration range.
H Analytical holding time exceeded.
J Indicates an estimated value. The result was greater than the detection limit, but less than the reporting limit.
U Indicates the target analyte was analyzed for but not detected above the detection limit.
UI Uncertain identification for gamma spectroscopy.
X Lab-specific qualifier-please see case narrative, data summary package or contact your project manager for details.
h Sample preparation or preservation holding time exceeded.

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This data report has been prepared and reviewed in accordance with General Engineering Laboratories, LLC standard operating procedures. Please direct any questions to your Project Manager, Sarah Kozlik.

Allison White 7/27/04

Reviewed by

GENERAL ENGINEERING LABORATORIES, LLC

2040 Savage Road Charleston SC 29407 - (843) 556-8171 - www.gel.com

Certificate of Analysis

Company: CYAPCo
Address: Haddam Neck Plant
362 Injun Hollow Road
East Hampton, Connecticut 06424
Contact: Mr. Dave Keefer
Project: Quarterly Groundwater PO# 002337

Report Date: July 27, 2004

Page 1 of 1

Client Sample ID: MW-125S
Sample ID: 115774004
Matrix: Ground Water
Collect Date: 22-JUN-04 15:30
Receive Date: 28-JUN-04
Collector: Client

Project: YANK00304
Client ID: YANK001

Parameter	Qualifier	Result	DL	RL	Units	DF	Analyst	Date	Time	Batch	Method
Metals Analysis-ICP-MS											
3005/6020 Boron-ALL,STND,MIX											
Boron		445	0.540	16.0	ug/L	1	PRB	07/26/04	1813	345046	1

The following Prep Methods were performed

Method	Description	Analyst	Date	Time	Prep Batch
SW846 3005A	ICP-MS 3005 PREP	CQH1	07/14/04	1721	345045

The following Analytical Methods were performed

Method	Description	Analyst Comments
1	SW846 3005/6020	

Notes:
The Qualifiers in this report are defined as follows :

B Target analyte was detected in the sample as well as the associated blank.
BD Flag for results below the MDC or a flag for low tracer recovery.
E Concentration of the target analyte exceeds the instrument calibration range.
H Analytical holding time exceeded.
J Indicates an estimated value. The result was greater than the detection limit, but less than the reporting limit.
U Indicates the target analyte was analyzed for but not detected above the detection limit.
UI Uncertain identification for gamma spectroscopy.
X Lab-specific qualifier-please see case narrative, data summary package or contact your project manager for details.
h Sample preparation or preservation holding time exceeded.

The above sample is reported on an "as received" basis.

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This data report has been prepared and reviewed in accordance with General Engineering Laboratories, LLC standard operating procedures. Please direct any questions to your Project Manager, Sarah Kozlik.

Alesanh 7/27/04
Reviewed by

GENERAL ENGINEERING LABORATORIES, LLC
2040 Savage Road Charleston SC 29407 - (843) 556-8171 - www.gel.com

Certificate of Analysis

Company: CYAPCo
Address: Haddam Neck Plant
362 Injun Hollow Road
East Hampton, Connecticut 06424
Contact: Mr. Dave Keefer
Project: Quarterly Groundwater PO# 002337

Report Date: July 27, 2004

Client Sample ID: MW-124S
Sample ID: 115774005
Matrix: Ground Water
Collect Date: 23-JUN-04 16:05
Receive Date: 28-JUN-04
Collector: Client

Project: YANK00304
Client ID: YANK001

Parameter	Qualifier	Result	DL	RL	Units	DF	Analyst	Date	Time	Batch	Method
Metals Analysis-ICP-MS											
3005/6020 Boron-ALL,STND,MIX											
Boron		225	0.540	16.0	ug/L	1	PRB	07/26/04	1816	345046	1

The following Prep Methods were performed

Method	Description	Analyst	Date	Time	Prep Batch
SW846 3005A	ICP-MS 3005 PREP	CQH1	07/14/04	1721	345045

The following Analytical Methods were performed

Method	Description	Analyst Comments
1	SW846 3005/6020	

Notes:
The Qualifiers in this report are defined as follows:

B Target analyte was detected in the sample as well as the associated blank.
BD Flag for results below the MDC or a flag for low tracer recovery.
E Concentration of the target analyte exceeds the instrument calibration range.
H Analytical holding time exceeded.
J Indicates an estimated value. The result was greater than the detection limit, but less than the reporting limit.
U Indicates the target analyte was analyzed for but not detected above the detection limit.
UI Uncertain identification for gamma spectroscopy.
X Lab-specific qualifier-please see case narrative, data summary package or contact your project manager for details.
h Sample preparation or preservation holding time exceeded.

The above sample is reported on an "as received" basis.

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This data report has been prepared and reviewed in accordance with General Engineering Laboratories, LLC standard operating procedures. Please direct any questions to your Project Manager, Sarah Kozlik.

Dee Smith 7/27/04
Reviewed by

GENERAL ENGINEERING LABORATORIES, LLC
2040 Savage Road Charleston SC 29407 - (843) 556-8171 - www.gel.com

Certificate of Analysis

Company: CYAPCo
Address: Haddam Neck Plant
362 Injun Hollow Road
East Hampton, Connecticut 06424
Contact: Mr. Dave Keefer
Project: Quarterly Groundwater PO# 002337

Report Date: July 27, 2004

Client Sample ID: MW-101D-0204-001
Sample ID: 115774006
Matrix: Ground Water
Collect Date: 23-JUN-04 11:55
Receive Date: 28-JUN-04
Collector: Client

Project: YANK00304
Client ID: YANK001

Parameter	Qualifier	Result	DL	RL	Units	DF	Analyst	Date	Time	Batch	Method
Metals Analysis-ICP-MS											
3005/6020 Boron-ALL,STND,MIX											
Boron		54.0	0.540	16.0	ug/L	1	PRB	07/26/04	1818	345046	1

The following Prep Methods were performed

Method	Description	Analyst	Date	Time	Prep Batch
SW846 3005A	ICP-MS 3005 PREP	CQH1	07/14/04	1721	345045

The following Analytical Methods were performed

Method	Description	Analyst Comments
1	SW846 3005/6020	

Notes:
The Qualifiers in this report are defined as follows :

B Target analyte was detected in the sample as well as the associated blank.
BD Flag for results below the MDC or a flag for low tracer recovery.
E Concentration of the target analyte exceeds the instrument calibration range.
H Analytical holding time exceeded.
J Indicates an estimated value. The result was greater than the detection limit, but less than the reporting limit.
U Indicates the target analyte was analyzed for but not detected above the detection limit.
UI Uncertain identification for gamma spectroscopy.
X Lab-specific qualifier-please see case narrative, data summary package or contact your project manager for details.
h Sample preparation or preservation holding time exceeded.

The above sample is reported on an "as received" basis.

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Reviewed by

GENERAL ENGINEERING LABORATORIES, LLC
2040 Savage Road Charleston SC 29407 - (843) 556-8171 - www.gel.com

Certificate of Analysis

Company : CYAPCo
Address : Haddam Neck Plant
362 Injun Hollow Road
East Hampton, Connecticut 06424
Contact: Mr. Dave Keefer
Project: Quarterly Groundwater PO# 002337

Report Date: July 27, 2004

Client Sample ID: EOF2-0204-001
Sample ID: 115774007
Matrix: Ground Water
Collect Date: 24-JUN-04 15:40
Receive Date: 28-JUN-04
Collector: Client

Project: YANK00304
Client ID: YANK001

Parameter	Qualifier	Result	DL	RL	Units	DF	Analyst	Date	Time	Batch	Method
Metals Analysis-ICP-MS											
3005/6020 Boron-ALL,STND,MIX											
Boron		63.4	0.540	16.0	ug/L	1	PRB	07/26/04	1821	345046	1

The following Prep Methods were performed

Method	Description	Analyst	Date	Time	Prep Batch
SW846 3005A	ICP-MS 3005 PREP	CQH1	07/14/04	1721	345045

The following Analytical Methods were performed

Method	Description	Analyst Comments
1	SW846 3005/6020	

Notes:
The Qualifiers in this report are defined as follows :

B Target analyte was detected in the sample as well as the associated blank.
BD Flag for results below the MDC or a flag for low tracer recovery.
E Concentration of the target analyte exceeds the instrument calibration range.
H Analytical holding time exceeded.
J Indicates an estimated value. The result was greater than the detection limit, but less than the reporting limit.
U Indicates the target analyte was analyzed for but not detected above the detection limit.
UI Uncertain identification for gamma spectroscopy.
X Lab-specific qualifier-please see case narrative, data summary package or contact your project manager for details.
h Sample preparation or preservation holding time exceeded.

The above sample is reported on an "as received" basis.

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Allison M. 7/27/04
Reviewed by

GENERAL ENGINEERING LABORATORIES, LLC

2040 Savage Road Charleston SC 29407 - (843) 556-8171 - www.gel.com

Certificate of Analysis

Company : CYAPCo
Address : Haddam Neck Plant
362 Injun Hollow Road
East Hampton, Connecticut 06424
Contact: Mr. Dave Keefer
Project: Quarterly Groundwater PO# 002337

Report Date: July 27, 2004

Client Sample ID: MW-101S-0204-001
Sample ID: 115774008
Matrix: Ground Water
Collect Date: 23-JUN-04 14:30
Receive Date: 28-JUN-04
Collector: Client

Project: YANK00304
Client ID: YANK001

Parameter	Qualifier	Result	DL	RL	Units	DF	Analyst	Date	Time	Batch	Method
Metals Analysis-ICP-MS											
3005/6020 Boron-ALL,STND,MIX											
Boron		68.6	0.540	16.0	ug/L	1	PRB	07/26/04	1823	345046	1

The following Prep Methods were performed

Method	Description	Analyst	Date	Time	Prep Batch
SW846 3005A	ICP-MS 3005 PREP	CQH1	07/14/04	1721	345045

The following Analytical Methods were performed

Method	Description	Analyst Comments
1	SW846 3005/6020	

Notes:
The Qualifiers in this report are defined as follows :

B Target analyte was detected in the sample as well as the associated blank.
BD Flag for results below the MDC or a flag for low tracer recovery.
E Concentration of the target analyte exceeds the instrument calibration range.
H Analytical holding time exceeded.
J Indicates an estimated value. The result was greater than the detection limit, but less than the reporting limit.
U Indicates the target analyte was analyzed for but not detected above the detection limit.
UI Uncertain identification for gamma spectroscopy.
X Lab-specific qualifier-please see case narrative, data summary package or contact your project manager for details.
h Sample preparation or preservation holding time exceeded.

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This data report has been prepared and reviewed in accordance with General Engineering Laboratories, LLC standard operating procedures. Please direct any questions to your Project Manager, Sarah Kozlik.

Allison M. [illegible] 7/27/04
Reviewed by

GENERAL ENGINEERING LABORATORIES, LLC

2040 Savage Road Charleston SC 29407 - (843) 556-8171 - www.gel.com

Certificate of Analysis

Company : CYAPCo
Address : Haddam Neck Plant
362 Injun Hollow Road
East Hampton, Connecticut 06424
Contact: Mr. Dave Keefer
Project: Quarterly Groundwater PO# 002337

Report Date: July 27, 2004

Client Sample ID: MW-123S-0204-001
Sample ID: 115774009
Matrix: Ground Water
Collect Date: 23-JUN-04 09:20
Receive Date: 28-JUN-04
Collector: Client

Project: YANK00304
Client ID: YANK001

Parameter	Qualifier	Result	DL	RL	Units	DF	Analyst	Date	Time	Batch	Method
Metals Analysis-ICP-MS											
3005/6020 Boron-ALL,STND,MIX											
Boron		90.8	0.540	16.0	ug/L	1	PRB	07/26/04	1826	345046	1

The following Prep Methods were performed

Method	Description	Analyst	Date	Time	Prep Batch
SW846 3005A	ICP-MS 3005 PREP	CQH1	07/14/04	1721	345045

The following Analytical Methods were performed

Method	Description	Analyst Comments
1	SW846 3005/6020	

Notes:
The Qualifiers in this report are defined as follows :

B Target analyte was detected in the sample as well as the associated blank.
BD Flag for results below the MDC or a flag for low tracer recovery.
E Concentration of the target analyte exceeds the instrument calibration range.
H Analytical holding time exceeded.
J Indicates an estimated value. The result was greater than the detection limit, but less than the reporting limit.
U Indicates the target analyte was analyzed for but not detected above the detection limit.
UI Uncertain identification for gamma spectroscopy.
X Lab-specific qualifier-please see case narrative, data summary package or contact your project manager for details.
h Sample preparation or preservation holding time exceeded.

The above sample is reported on an "as received" basis.

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This data report has been prepared and reviewed in accordance with General Engineering Laboratories, LLC standard operating procedures. Please direct any questions to your Project Manager, Sarah Kozlik.

7/27/04

Reviewed by

GENERAL ENGINEERING LABORATORIES, LLC
2040 Savage Road Charleston SC 29407 - (843) 556-8171 - www.gel.com

Certificate of Analysis

Company: CYAPCo
Address: Haddam Neck Plant
362 Injun Hollow Road
East Hampton, Connecticut 06424
Contact: Mr. Dave Keefer
Project: Quarterly Groundwater PO# 002337

Report Date: July 27, 2004

Client Sample ID: MW100D-0204-001
Sample ID: 115774010
Matrix: Ground Water
Collect Date: 23-JUN-04 10:26
Receive Date: 28-JUN-04
Collector: Client

Project: YANK00304
Client ID: YANK001

Parameter	Qualifier	Result	DL	RL	Units	DF	Analyst	Date	Time	Batch	Method
Metals Analysis-ICP-MS											
3005/6020 Boron-ALL,STND,MIX											
Boron	J	10.4	0.540	16.0	ug/L	1	PRB	07/26/04	1829	345046	1

The following Prep Methods were performed

Method	Description	Analyst	Date	Time	Prep Batch
SW846 3005A	ICP-MS 3005 PREP	CQH1	07/14/04	1721	345045

The following Analytical Methods were performed

Method	Description	Analyst Comments
1	SW846 3005/6020	

Notes:
The Qualifiers in this report are defined as follows :

B Target analyte was detected in the sample as well as the associated blank.
BD Flag for results below the MDC or a flag for low tracer recovery.
E Concentration of the target analyte exceeds the instrument calibration range.
H Analytical holding time exceeded.
J Indicates an estimated value. The result was greater than the detection limit, but less than the reporting limit.
U Indicates the target analyte was analyzed for but not detected above the detection limit.
UI Uncertain identification for gamma spectroscopy.
X Lab-specific qualifier-please see case narrative, data summary package or contact your project manager for details.
h Sample preparation or preservation holding time exceeded.

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Alison M. 7/27/04
Reviewed by

GENERAL ENGINEERING LABORATORIES, LLC

2040 Savage Road Charleston SC 29407 - (843) 556-8171 - www.gel.com

Certificate of Analysis

Company : CYAPCo
Address : Haddam Neck Plant
362 Injun Hollow Road
East Hampton, Connecticut 06424
Contact: Mr. Dave Keefer
Project: Quarterly Groundwater PO# 002337

Report Date: July 27, 2004

Page 1 of 1

Client Sample ID: MW507D-0204-001
Sample ID: 115774011
Matrix: Ground Water
Collect Date: 23-JUN-04 14:27
Receive Date: 28-JUN-04
Collector: Client

Project: YANK00304
Client ID: YANK001

Parameter	Qualifier	Result	DL	RL	Units	DF	Analyst	Date	Time	Batch	Method
Metals Analysis-ICP-MS											
3005/6020 Boron-ALL,STND,MIX											
Boron		36.7	0.540	16.0	ug/L	1	PRB	07/26/04	1836	345046	1

The following Prep Methods were performed

Method	Description	Analyst	Date	Time	Prep Batch
SW846 3005A	ICP-MS 3005 PREP	CQH1	07/14/04	1721	345045

The following Analytical Methods were performed

Method	Description	Analyst Comments
1	SW846 3005/6020	

Notes:
The Qualifiers in this report are defined as follows :

B Target analyte was detected in the sample as well as the associated blank.
BD Flag for results below the MDC or a flag for low tracer recovery.
E Concentration of the target analyte exceeds the instrument calibration range.
H Analytical holding time exceeded.
J Indicates an estimated value. The result was greater than the detection limit, but less than the reporting limit.
U Indicates the target analyte was analyzed for but not detected above the detection limit.
UI Uncertain identification for gamma spectroscopy.
X Lab-specific qualifier-please see case narrative, data summary package or contact your project manager for details.
h Sample preparation or preservation holding time exceeded.

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Reviewed by

GENERAL ENGINEERING LABORATORIES, LLC

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Certificate of Analysis

Company : CYAPCo
Address : Haddam Neck Plant
362 Injun Hollow Road
East Hampton, Connecticut 06424
Contact: Mr. Dave Keefer
Project: Quarterly Groundwater PO# 002337

Report Date: July 27, 2004

Client Sample ID: MW507S-0204-001
Sample ID: 115774012
Matrix: Ground Water
Collect Date: 24-JUN-04 08:45
Receive Date: 28-JUN-04
Collector: Client

Project: YANK00304
Client ID: YANK001

Parameter	Qualifier	Result	DL	RL	Units	DF	Analyst	Date	Time	Batch	Method
Metals Analysis-ICP-MS											
3005/6020 Boron-ALL,STND,MIX											
Boron		52.8	0.540	16.0	ug/L	1	PRB	07/26/04	1839	345046	1

The following Prep Methods were performed

Method	Description	Analyst	Date	Time	Prep Batch
SW846 3005A	ICP-MS 3005 PREP	CQHI	07/14/04	1721	345045

he following Analytical Methods were performed

Method	Description	Analyst Comments
1	SW846 3005/6020	

Notes:
The Qualifiers in this report are defined as follows :

B Target analyte was detected in the sample as well as the associated blank.
BD Flag for results below the MDC or a flag for low tracer recovery.
E Concentration of the target analyte exceeds the instrument calibration range.
H Analytical holding time exceeded.
J Indicates an estimated value. The result was greater than the detection limit, but less than the reporting limit.
U Indicates the target analyte was analyzed for but not detected above the detection limit.
UI Uncertain identification for gamma spectroscopy.
X Lab-specific qualifier-please see case narrative, data summary package or contact your project manager for details.
h Sample preparation or preservation holding time exceeded.

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Reviewed by

GENERAL ENGINEERING LABORATORIES, LLC
2040 Savage Road Charleston SC 29407 - (843) 556-8171 - www.gel.com

Certificate of Analysis

Company: CYAPCo
Address: Haddam Neck Plant
362 Injun Hollow Road
East Hampton, Connecticut 06424
Contact: Mr. Dave Keefer
Project: Quarterly Groundwater PO# 002337

Report Date: July 27, 2004

Client Sample ID: MW503-0204-001
Sample ID: 115774013
Matrix: Ground Water
Collect Date: 22-JUN-04 09:31
Receive Date: 28-JUN-04
Collector: Client

Project: YANK00304
Client ID: YANK001

Parameter	Qualifier	Result	DL	RL	Units	DF	Analyst	Date	Time	Batch	Method
Metals Analysis-ICP-MS											
3005/6020 Boron-ALL,STND,MIX											
Boron	J	10.7	0.540	16.0	ug/L	1	PRB	07/26/04	1842	345046	1

The following Prep Methods were performed

Method	Description	Analyst	Date	Time	Prep Batch
SW846 3005A	ICP-MS 3005 PREP	CQH1	07/14/04	1721	345045

The following Analytical Methods were performed

Method	Description	Analyst Comments
1	SW846 3005/6020	

Notes:
The Qualifiers in this report are defined as follows:

B Target analyte was detected in the sample as well as the associated blank.
BD Flag for results below the MDC or a flag for low tracer recovery.
E Concentration of the target analyte exceeds the instrument calibration range.
H Analytical holding time exceeded.
J Indicates an estimated value. The result was greater than the detection limit, but less than the reporting limit.
U Indicates the target analyte was analyzed for but not detected above the detection limit.
UI Uncertain identification for gamma spectroscopy.
X Lab-specific qualifier-please see case narrative, data summary package or contact your project manager for details.
h Sample preparation or preservation holding time exceeded.

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Alissa M. [illegible] 7/27/04
Reviewed by

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Certificate of Analysis

Company : CYAPCo
Address : Haddam Neck Plant
362 Injun Hollow Road
East Hampton, Connecticut 06424
Contact: Mr. Dave Keefer
Project: Quarterly Groundwater PO# 002337

Report Date: July 27, 2004

Client Sample ID: MW502-0204-001
Sample ID: 115774014
Matrix: Ground Water
Collect Date: 22-JUN-04 11:26
Receive Date: 28-JUN-04
Collector: Client

Project: YANK00304
Client ID: YANK001

Parameter	Qualifier	Result	DL	RL	Units	DF	Analyst	Date	Time	Batch	Method
Metals Analysis-ICP-MS											
3005/6020 Boron-ALL,STND,MIX											
Boron		65.2	0.540	16.0	ug/L	1	PRB	07/26/04	1844	345046	1

The following Prep Methods were performed

Method	Description	Analyst	Date	Time	Prep Batch
SW846 3005A	ICP-MS 3005 PREP	CQH1	07/14/04	1721	345045

he following Analytical Methods were performed

Method	Description	Analyst Comments
1	SW846 3005/6020	

Notes:
The Qualifiers in this report are defined as follows :

B Target analyte was detected in the sample as well as the associated blank.
BD Flag for results below the MDC or a flag for low tracer recovery.
E Concentration of the target analyte exceeds the instrument calibration range.
H Analytical holding time exceeded.
J Indicates an estimated value. The result was greater than the detection limit, but less than the reporting limit.
U Indicates the target analyte was analyzed for but not detected above the detection limit.
UI Uncertain identification for gamma spectroscopy.
X Lab-specific qualifier-please see case narrative, data summary package or contact your project manager for details.
h Sample preparation or preservation holding time exceeded.

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Allison M. S. 7/27/04
Reviewed by

GENERAL ENGINEERING LABORATORIES, LLC
2040 Savage Road Charleston SC 29407 - (843) 556-8171 - www.gel.com

Certificate of Analysis

Company : CYAPCo
Address : Haddam Neck Plant
362 Injun Hollow Road
East Hampton, Connecticut 06424
Contact: Mr. Dave Keefer
Project: Quarterly Groundwater PO# 002337

Report Date: July 27, 2004

Client Sample ID: MW505-0204-001
Sample ID: 115774015
Matrix: Ground Water
Collect Date: 22-JUN-04 14:36
Receive Date: 28-JUN-04
Collector: Client

Project: YANK00304
Client ID: YANK001

Parameter	Qualifier	Result	DL	RL	Units	DF	Analyst	Date	Time	Batch	Method
Metals Analysis-ICP-MS											
3005/6020 Boron-ALL,STND,MIX											
Boron		54.4	0.540	16.0	ug/L	1	PRB	07/26/04	1847	345046	1

The following Prep Methods were performed

Method	Description	Analyst	Date	Time	Prep Batch
SW846 3005A	ICP-MS 3005 PREP	CQH1	07/14/04	1721	345045

The following Analytical Methods were performed

Method	Description	Analyst Comments
1	*SW846 3005/6020*	

Notes:
The Qualifiers in this report are defined as follows :

B Target analyte was detected in the sample as well as the associated blank.
BD Flag for results below the MDC or a flag for low tracer recovery.
E Concentration of the target analyte exceeds the instrument calibration range.
H Analytical holding time exceeded.
J Indicates an estimated value. The result was greater than the detection limit, but less than the reporting limit.
U Indicates the target analyte was analyzed for but not detected above the detection limit.
UI Uncertain identification for gamma spectroscopy.
X Lab-specific qualifier-please see case narrative, data summary package or contact your project manager for details.
h Sample preparation or preservation holding time exceeded.

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Alison H-S 7/27/04
Reviewed by

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Certificate of Analysis

Company: CYAPCo
Address: Haddam Neck Plant
362 Injun Hollow Road
East Hampton, Connecticut 06424
Contact: Mr. Dave Keefer
Project: Quarterly Groundwater PO# 002337

Report Date: July 27, 2004

Client Sample ID: MW-103S-0204-001
Sample ID: 115774016
Matrix: Ground Water
Collect Date: 24-JUN-04 14:15
Receive Date: 28-JUN-04
Collector: Client

Project: YANK00304
Client ID: YANK001

Parameter	Qualifier	Result	DL	RL	Units	DF	Analyst	Date	Time	Batch	Method
Metals Analysis-ICP-MS											
3005/6020 Boron-ALL,STND,MIX											
Boron		165	0.540	16.0	ug/L	1	PRB	07/26/04	1849	345046	1

The following Prep Methods were performed

Method	Description	Analyst	Date	Time	Prep Batch
SW846 3005A	ICP-MS 3005 PREP	CQH1	07/14/04	1721	345045

The following Analytical Methods were performed

Method	Description	Analyst Comments
1	SW846 3005/6020	

Notes:
The Qualifiers in this report are defined as follows:

B Target analyte was detected in the sample as well as the associated blank.
BD Flag for results below the MDC or a flag for low tracer recovery.
E Concentration of the target analyte exceeds the instrument calibration range.
H Analytical holding time exceeded.
J Indicates an estimated value. The result was greater than the detection limit, but less than the reporting limit.
U Indicates the target analyte was analyzed for but not detected above the detection limit.
UI Uncertain identification for gamma spectroscopy.
X Lab-specific qualifier-please see case narrative, data summary package or contact your project manager for details.
h Sample preparation or preservation holding time exceeded.

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7/27/04

Reviewed by

GENERAL ENGINEERING LABORATORIES, LLC
2040 Savage Road Charleston SC 29407 - (843) 556-8171 - www.gel.com

Certificate of Analysis

Company : CYAPCo
Address : Haddam Neck Plant
362 Injun Hollow Road
East Hampton, Connecticut 06424
Contact: Mr. Dave Keefer
Project: Quarterly Groundwater PO# 002337

Report Date: July 27, 2004

Client Sample ID: MW-104S-0204-001
Sample ID: 115774017
Matrix: Ground Water
Collect Date: 23-JUN-04 12:20
Receive Date: 28-JUN-04
Collector: Client

Project: YANK00304
Client ID: YANK001

Parameter	Qualifier	Result	DL	RL	Units	DF	AnalystDate	Time	Batch	Method
Metals Analysis-ICP-MS										
3005/6020 Boron-ALL,STND,MIX										
Boron		274	0.540	16.0	ug/L	1	PRB 07/26/04	1852	345046	1

The following Prep Methods were performed

Method	Description	Analyst	Date	Time	Prep Batch
SW846 3005A	ICP-MS 3005 PREP	CQH1	07/14/04	1721	345045

The following Analytical Methods were performed

Method	Description	Analyst Comments
1	SW846 3005/6020	

Notes:
The Qualifiers in this report are defined as follows :

B Target analyte was detected in the sample as well as the associated blank.
BD Flag for results below the MDC or a flag for low tracer recovery.
E Concentration of the target analyte exceeds the instrument calibration range.
H Analytical holding time exceeded.
J Indicates an estimated value. The result was greater than the detection limit, but less than the reporting limit.
U Indicates the target analyte was analyzed for but not detected above the detection limit.
UI Uncertain identification for gamma spectroscopy.
X Lab-specific qualifier-please see case narrative, data summary package or contact your project manager for details.
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7/27/04

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2040 Savage Road Charleston SC 29407 - (843) 556-8171 - www.gel.com

Certificate of Analysis

Company : CYAPCo
Address : Haddam Neck Plant
362 Injun Hollow Road
East Hampton, Connecticut 06424
Contact: Mr. Dave Keefer
Project: Quarterly Groundwater PO# 002337

Report Date: July 27, 2004

Client Sample ID: MW-106S-0204-001
Sample ID: 115774018
Matrix: Ground Water
Collect Date: 22-JUN-04 14:35
Receive Date: 28-JUN-04
Collector: Client

Project: YANK00304
Client ID: YANK001

Parameter	Qualifier	Result	DL	RL	Units	DF	Analyst	Date	Time	Batch	Method
Metals Analysis-ICP-MS											
3005/6020 Boron-ALL,STND,MIX											
Boron		490	0.540	16.0	ug/L	1	PRB	07/26/04	1855	345046	1

The following Prep Methods were performed

Method	Description	Analyst	Date	Time	Prep Batch
SW846 3005A	ICP-MS 3005 PREP	CQH1	07/14/04	1721	345045

The following Analytical Methods were performed

Method	Description	Analyst Comments
1	SW846 3005/6020	

Notes:
The Qualifiers in this report are defined as follows :

B Target analyte was detected in the sample as well as the associated blank.
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E Concentration of the target analyte exceeds the instrument calibration range.
H Analytical holding time exceeded.
J Indicates an estimated value. The result was greater than the detection limit, but less than the reporting limit.
U Indicates the target analyte was analyzed for but not detected above the detection limit.
UI Uncertain identification for gamma spectroscopy.
X Lab-specific qualifier-please see case narrative, data summary package or contact your project manager for details.
h Sample preparation or preservation holding time exceeded.

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7/27/04

Reviewed by

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2040 Savage Road Charleston SC 29407 - (843) 556-8171 - www.gel.com

Certificate of Analysis

Company : CYAPCo
Address : Haddam Neck Plant
362 Injun Hollow Road
East Hampton, Connecticut 06424
Contact: Mr. Dave Keefer
Project: Quarterly Groundwater PO# 002337

Report Date: July 27, 2004

Client Sample ID: MW-106D-0204-001
Sample ID: 115774019
Matrix: Ground Water
Collect Date: 22-JUN-04 10:25
Receive Date: 28-JUN-04
Collector: Client

Project: YANK00304
Client ID: YANK001

Parameter	Qualifier	Result	DL	RL	Units	DF	Analyst	Date	Time	Batch	Method
Metals Analysis-ICP-MS											
3005/6020 Boron-ALL,STND,MIX											
Boron		64.7	0.540	16.0	ug/L	1	PRB	07/26/04	1857	345046	1

The following Prep Methods were performed

Method	Description	Analyst	Date	Time	Prep Batch
SW846 3005A	ICP-MS 3005 PREP	CQH1	07/14/04	1721	345045

The following Analytical Methods were performed

Method	Description	Analyst Comments
1	SW846 3005/6020	

Notes:
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B Target analyte was detected in the sample as well as the associated blank.
BD Flag for results below the MDC or a flag for low tracer recovery.
E Concentration of the target analyte exceeds the instrument calibration range.
H Analytical holding time exceeded.
J Indicates an estimated value. The result was greater than the detection limit, but less than the reporting limit.
U Indicates the target analyte was analyzed for but not detected above the detection limit.
UI Uncertain identification for gamma spectroscopy.
X Lab-specific qualifier-please see case narrative, data summary package or contact your project manager for details.
h Sample preparation or preservation holding time exceeded.

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Melissa H. [illegible] 7/27/04
Reviewed by

QUALITY CONTROL SUMMARY

GENERAL ENGINEERING LABORATORIES, LLC

2040 Savage Road Charleston, SC 29407 - (843) 556-8171 - www.gel.com

QC Summary

Report Date: July 27, 2004
Page 1 of 1

Client: CYAPCo
Haddam Neck Plant
362 Injun Hollow Road
East Hampton, Connecticut

Contact: Mr. Dave Keefer

Workorder: 115774

Parmname	NOM	Sample	Qual	QC	Units	RPD%	REC%	Range	Anlst	Date Time
Metals Analysis - ICPMS										
Batch 345046										
QC1200653489 115774001 DUP										
Boron		68.3		68.7	ug/L	1 ^		(+/-16.0)	PRB	07/26/04 17:55
QC1200653488 LCS										
Boron	100			108	ug/L		108	(80%-120%)		07/26/04 17:50
QC1200653487 MB										
Boron			J	0.769	ug/L					07/26/04 17:47
QC1200653490 115774001 MS										
Boron	100	68.3		172	ug/L		103	(75%-125%)		07/26/04 17:57
QC1200653491 115774001 SDILT										
Boron		68.3		16.0	ug/L	16.8				07/26/04 18:00

Notes:
The Qualifiers in this report are defined as follows:

- B Target analyte was detected in the sample as well as the associated blank.
- BD Flag for results below the MDC or a flag for low tracer recovery.
- E Concentration of the target analyte exceeds the instrument calibration range.
- H Analytical holding time exceeded.
- J Indicates an estimated value. The result was greater than the detection limit, but less than the reporting limit.
- U Indicates the target analyte was analyzed for but not detected above the detection limit.
- UI Uncertain identification for gamma spectroscopy.
- X Lab-specific qualifier-please see case narrative, data summary package or contact your project manager for details.
- h Sample preparation or preservation holding time exceeded.

N/A indicates that spike recovery limits do not apply when sample concentration exceeds spike conc. by a factor of 4 or more.
^ The Relative Percent Difference (RPD) obtained from the sample duplicate (DUP) is evaluated against the acceptance criteria when the sample is greater than five times (5X) the contract required detection limit (RL). In cases where either the sample or duplicate value is less than 5X the RL, a control limit of +/- the RL is used to evaluate the DUP result.
For PS, PSD, and SDILT results, the values listed are the measured amounts, not final concentrations.

Where the analytical method has been performed under NELAP certification, the analysis has met all of the requirements of the NELAC standard unless qualified on the QC Summary.