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May 31, 2013

Sent VIA OVERNIGHT DELIVERY

Mr. Rusty Lundberg
Division of Radiation Control
Utah Department of Environmental Quality
195 North 1950 West
P.O. Box 144850
Salt Lake City, UT 84114-4820

**Re: Transmittal of 1st Quarter 2013 Nitrate Monitoring Report
Stipulation and Consent Order Docket Number UGW12-04 White Mesa Uranium Mill**

Dear Mr. Lundberg:

Enclosed are two copies of the White Mesa Uranium Mill Nitrate Monitoring Report for the 1st Quarter of 2013 as required by the Stipulation and Consent Order Docket Number UGW12-04, as well as two CDs each containing a word searchable electronic copy of the report.

If you should have any questions regarding this report please contact me.

Yours very truly,

JoAnn Tischler

ENERGY FUELS RESOURCES (USA) INC.
Jo Ann Tischler
Manager, Compliance and Licensing

cc: David C. Frydenlund
Dan Hillsten
Harold R. Roberts
David E. Turk
Katherine A. Weinel
Central Files

White Mesa Uranium Mill

Nitrate Monitoring Report

State of Utah
Stipulated Consent Agreement, January 2009
Docket No. UGW09-03

1st Quarter
(January through March)
2013

Prepared by:

Energy Fuels Resources (USA) Inc.
225 Union Boulevard, Suite 600
Lakewood, CO 80228

May 31, 2013

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1.0 INTRODUCTION

The Utah Department of Environmental Quality ("UDEQ") Division of Radiation Control ("DRC") noted in a Request dated September 30, 2008 (the "Request"), for a Voluntary Plan and Schedule to Investigate and Remediate Nitrate Contamination at the White Mesa Uranium Mill (the "Mill") (the "Plan"), that nitrate levels have exceeded the State water quality standard of 10 mg/L in certain monitoring wells. As a result of the Request, Energy Fuels Resources (USA) Inc. ("EFRI") entered into a Stipulated Consent Agreement (the "Consent Agreement") with the Utah Water Quality Board in January 2009 which directed the preparation of a Nitrate Contamination Investigation Report ("CIR"). A subsequent letter dated December 1, 2009, among other things, recommended that EFRI also address elevated chloride concentration in the CIR. The Consent Agreement ("CA") was amended in August 2011. Under the amended Consent Agreement, EFRI submitted a Corrective Action Plan ("CAP"), pursuant to the requirements of the Utah Groundwater Quality Protection Rules [UAC R317-6-6.15(C – E)] on November 29, 2011 and revised versions of the CAP on February 27, 2012 and May 7, 2012. On December 12, 2012, DRC signed the Stipulation and Consent Order ("SCO"), Docket Number UGW12-04, which approved the EFRI CAP, dated May 7, 2012. The SCO ordered EFRI to fully implement all elements of the May 7, 2012 CAP.

Based on the schedule included in the CAP and as delineated and approved by the SCO, all activities associated with the implementation of the CAP began in January, 2013. The reporting requirements specified in the CAP and SCO are included in this quarterly nitrate report.

This is the Quarterly Nitrate Monitoring Report, as required under the SCO, State of UDEQ Docket No. UGW12-04 for the 1st quarter of 2013. This report meets the requirements of SCO, State of UDEQ Docket No. UGW12-04 and is the document which covers nitrate monitoring activities during the 1st quarter of 2013.

2.0 GROUNDWATER NITRATE MONITORING

2.1 Samples and Measurements Taken During the Quarter

A map showing the location of all groundwater monitoring wells, piezometers, existing wells, temporary chloroform contaminant investigation wells and temporary nitrate investigation wells is attached under Tab A. Nitrate samples and measurements taken during this reporting period are discussed in the remainder of this section.

2.1.1 Nitrate Monitoring

Quarterly sampling for nitrate monitoring parameters was performed in the following wells:

TWN-1	TW4-24*
TWN-2	TW4-25*
TWN-3	Piezometer 1
TWN-4	Piezometer 2
TWN-7	Piezometer 3
TWN-18	
TW4-22*	

As discussed in Section 2.1.2 the analytical constituents required by the CAP include are inorganic chloride and nitrate+nitrite as N (referred to as nitrate in this document)

* TW4-22, TW4-24, TW4-25 are chloroform investigation wells and are sampled as part of the chloroform program. The analytical suite for these three wells includes nitrate, chloride and a select list of Volatile Organic Compounds ("VOCs") as specified in the chloroform program. These three wells are included here because they are being pumped as part of the remediation of the nitrate contamination as required by the SCO and the CAP. The nitrate and chloride data are included in this report as well as in the chloroform program quarterly report. The VOC data for these three wells will be reported in the chloroform quarterly monitoring report only.

The December 12, 2012 SCO approved the CAP which specified the cessation of sampling in TWN-5, TWN-6, TWN-8, TWN-9, TWN-10, TWN-11, TWN-12, TWN-13, TWN-14, TWN-15, TWN-16, TWN-17, and TWN-19. Per the CAP and SCO, these wells were not sampled during the 1st quarter 2013. Additionally, the CAP and SCO approved the abandonment of TWN-5, TWN-8, TWN-9, TWN-10, TWN-11, TWN-12, TWN-13, TWN-15, and TWN-17 within 1 year of the SCO approval. These wells will be abandoned in accordance with the DRC-approved Well Abandonment Procedure according to the schedule set by the CAP. TWN-6, TWN-14, TWN-16, and TWN-19 will be maintained for depth to groundwater monitoring only as noted in the CAP.

Table 1 provides an overview of all locations sampled during the current period, along with the date samples were collected from each location, and the date(s) upon which analytical data were received from the contract laboratory. Table 1 also identifies rinsate samples collected, as well as sample numbers associated with any required duplicates.

As indicated in Table 1, nitrate monitoring was performed in all of the nitrate monitoring wells, TW4-22, TW4-24, TW4-25 and Piezometers 1, 2, and 3. Analytical data for all of the above-listed wells, and the piezometers, are included in Tab G.

Nitrate and chloride are also monitored in all of the Mill's groundwater monitoring wells and chloroform investigation wells. Data from those wells for this quarter are incorporated in certain maps and figures in this report but are discussed in their respective programmatic reports.

2.1.2 Parameters Analyzed

Locations sampled during this reporting period were analyzed for the following constituents:

- Inorganic Chloride
- Nitrate plus Nitrite as Nitrogen (referred to herein as nitrate)

Use of analytical methods consistent with the requirements found in White Mesa Mill Groundwater Quality Assurance Plan, ("QAP") Revision 7.2, dated June 6, 2012 was confirmed for all analytes, as discussed later in this report.

2.1.3 Groundwater Head and Level Monitoring

Depth to groundwater was measured in the following wells and/or piezometers, pursuant to Part I.E.3 of the Groundwater Discharge Permit (the "GWDP") (dated August 24, 2012):

- The quarterly groundwater compliance monitoring wells.
- Existing well MW-4 and all of the temporary chloroform investigation wells.
- Piezometers – P-1, P-2, P-3, P-4 and P-5.
- MW-20, MW-22, and MW-34.
- The DR piezometers which were installed during the Southwest Hydrogeologic Investigation.
- Nitrate wells.
- In addition to the above, depth to water measurements are routinely observed in conjunction with sampling events for all wells sampled during quarterly and accelerated efforts, regardless of the sampling purpose.

All well levels used for groundwater contour mapping were measured and recorded within 5 calendar days of each other as indicated by the measurement dates in the summary sheet under Tab C.

Weekly and monthly depth to groundwater measurements were taken in the chloroform pumping wells MW-4, MW-26, TW4-19, TW4-20, and TW4-4, and the nitrate pumping wells TW4-22, TW4-24, TW4-25, and TWN-2. In addition, monthly water level measurements were taken in non-pumping wells MW-27, MW-30, MW-31, TW4-21, TWN-1, TWN-3, TWN-4, TWN-7, and TWN-18 as required by the CAP.

Depth to groundwater was measured in all of the nitrate wells this quarter. The CAP, which became effective December 12, 2012, approved the abandonment of TWN-5, TWN-8, TWN-9, TWN-10, TWN-11, TWN-12, TWN-13, TWN-15, and TWN-17 and removed the requirement to measure depth to groundwater in these wells. Since these wells were not abandoned during the quarter, the depth to groundwater was measured. The depth to groundwater measurement data for these wells are provided for information purposes only.

Weekly and monthly depth to groundwater measurements were also taken in the chloroform pumping wells MW-4, MW-26, TW4-19, TW4-20, and TW4-4, and the nitrate pumping wells TW4-22, TW4-24, TW4-25, and TWN-2. In addition, monthly water level measurements were taken in non-pumping wells MW-27, MW-30, MW-31, TW4-21, TWN-1, TWN-3, TWN-4, TWN-7, and TWN-18 as required by the CAP.

2.2 Sampling Methodology and Equipment and Decontamination Procedures

The QAP provides a detailed presentation of procedures utilized for groundwater sampling activities under the GWDP (August 24, 2012).

The sampling methodology, equipment and decontamination procedures that were performed for the nitrate contaminant investigation, as summarized below, are consistent with the QAP.

2.2.1 Well Purging, Sampling and Depth to Groundwater

A list of the wells in order of increasing nitrate contamination is generated quarterly. The order for purging is thus established. The list is included with the Field Data Worksheets under Tab B. Mill personnel start purging with all of the non-detect wells and then move to the more contaminated wells in order of nitrate contamination, starting with the wells having the lowest nitrate contamination.

Before leaving the Mill office, the pump and hose are decontaminated using the cleaning agents described in Attachment 2-2 of the QAP. Rinsate blanks are collected at a frequency of one rinsate per 20 field samples.

Purging is completed to remove stagnant water from the casing and to assure that representative samples of formation water are collected for analysis. There are three purging strategies specified in the QAP that are used to remove stagnant water from the casing during groundwater sampling at the Mill. The three strategies are as follows:

1. Purging three well casing volumes with a single measurement of field parameters
2. Purging two casing volumes with stable field parameters (within 10% RPD)
3. Purging a well to dryness and stability (within 10% RPD) of a limited list of field parameters after recovery.

Mill personnel proceed to the first well which is the well with the lowest concentration (i.e. non-dectect) of nitrate based on the previous quarter's sampling results. Well depth measurements are taken and the one casing volume is calculated. The purging strategy that will be used for the well is determined at this time based on the depth to water measurement and the previous production of the well. The Grundfos pump (a 6 to 10 gallon per minute [gpm] pump) is then lowered to the appropriate depth in the well and purging is started. At the first well, the purge rate is measured for the purging event by using a calibrated 5 gallon bucket. After the evacuation of the well has been completed, the well is sampled when possible, and the pump is removed from the well and the process is repeated at each well location moving from the least contaminated to most contaminated well. If sample collection is not possible due to the well being purged dry, a sample is collected after recovery using a disposable bailer and as described in Attachment 2-3 of the QAP. Sample collection follows the procedures described in Attachment 2-4 of the QAP.

After the samples have been collected for a particular well, the samples are placed into a cooler that contains ice. The well is then recapped and Mill personnel proceed to the next well. If a bailer has been used it is disposed of.

Decontamination of non-dedicated equipment, using the reagents in Attachment 2-2 of the QAP, is performed between each sample location, and at the beginning of each sampling day, in addition to the pre-event decontamination described above.

<u>Piezometers</u>
Samples are collected from Piezometers 1, 2 and 3, if possible. Samples are collected from piezometers using a disposable bailer after one set of field measurements have been collected. Due to the difficulty in obtaining samples from the piezometers, the purging protocols set out in the QAP are not followed.

After samples are collected, the bailer is disposed of and samples are placed into a cooler containing ice for sample preservation and transit to the Mill's contract analytical laboratory, American West Analytical Laboratories ("AWAL").

2.3 Field Data

Attached under Tab B are copies of all Field Data Worksheets that were completed during the quarter for the nitrate contaminant investigation monitoring wells, and piezometers identified in Section 2.1.1 above, and Table 1.

2.4 Depth to Groundwater Data and Water Table Contour Map

Depth-to-groundwater measurements which were utilized for groundwater contours are included on the Quarterly Depth to Water Sheet at Tab C of this Report along with the kriged groundwater contour map for the current quarter generated from this data. All well levels used for groundwater contour mapping were measured and recorded within 5 calendar days of each other as indicated by the measurement dates in the summary sheet under Tab C. A copy of the kriged groundwater contour map generated from the previous quarter's data is provided under Tab D.

2.5 Laboratory Results

2.5.1 Copy of Laboratory Results

All analytical results were provided by AWAL. Table 1 lists the dates when analytical results were reported to the Quality Assurance ("QA") Manager for each well or other sample.

Results from analysis of samples collected for this quarter's nitrate investigation and a limited list of chloroform investigation nitrate and chloride results are provided under Tab G of this Report. Also included under Tab G are the results of analyses for duplicate samples and rinsate samples for this sampling effort, as identified in Table 1. See the Groundwater Monitoring Report and Chloroform Monitoring Report for this quarter for nitrate and chloroform analytical results for the groundwater monitoring wells and chloroform investigation wells not listed in Table 1.

2.5.2 Regulatory Framework

As discussed in Section 1.0 above, the Request, Plan, and Consent Agreement each triggered a series of actions on EFRI's part. Potential surficial sources of nitrate and chloride have been described in the December 30, 2009 CIR and additional investigations into potential sources were completed and discussed with DRC in 2011. Pursuant to the Consent Agreement, the CAP was submitted to the Director of the Division of Radiation Control (the "Director") on May 7, 2012. The CAP describes activities associated with the nitrate in groundwater. The CAP was approved by the Director on December 12, 2012. This quarterly report documents the monitoring consistent with the program described in the CAP.

3.0 QUALITY ASSURANCE AND DATA VALIDATION

EFRI's QA Manager performed a QA/QC review to confirm compliance of the monitoring program with requirements of the QAP. As required in the QAP, data QA includes preparation and analysis of QC samples in the field, review of field procedures, an analyte completeness review, and QC review of laboratory data methods and data. Identification of field QC samples collected and analyzed is provided in Section 3.1. Discussion of adherence to Mill sampling Standard Operating Procedures ("SOPs") is provided in Section 3.2. Analytical completeness review results are provided in Section 3.3. The steps and tests applied to check field data QA/QC, holding times, receipt temperature and laboratory data QA/QC are discussed in Sections 3.4.1 through 3.4.7 below.

The analytical laboratory has provided summary reports of the analytical QA/QC measurements necessary to maintain conformance with National Environmental Laboratory Accreditation Conference ("NELAC") certification and reporting protocol. The Analytical Laboratory QA/QC Summary Reports, including copies of the Mill's Chain of Custody and Analytical Request Record forms for each set of Analytical Results, follow the analytical results under Tab G. Results of review of the laboratory QA/QC information are provided under Tab H and discussed in Section 3.4, below.

3.1 Field QC Samples

The following QC samples were generated by Mill personnel and submitted to the analytical laboratory in order to assess the quality of data resulting from the field sampling program.

Field QC samples for the nitrate investigation program consist of one field duplicate sample for each 20 samples, DI Field Blanks ("DIFB"), and equipment rinsate samples.

During the quarter, one duplicate sample was collected as indicated in Table 1. The duplicate was sent blind to the analytical laboratory and analyzed for the same parameters as the nitrate wells.

One rinsate blank sample was collected as indicated on Table 1. Rinsate samples are labeled with the name of the subsequently purged well with a terminal letter "R" added (e.g. TWN-7R).

The field QC sample results are included with the routine analyses under Tab G.

3.2 Adherence to Mill Sampling SOPs

On a review of adherence by Mill personnel to the existing sampling SOPs, the QA Manager observed that QA/QC requirements established in the QAP were being adhered to and that the SOPs were implemented.

3.3 Analyte Completeness Review

All analyses required by the GWDP for nitrate monitoring for the period were performed.

3.4 Data Validation

The QAP and GWDP (August 24, 2012) identify the data validation steps and data QC checks required for the nitrate monitoring program. Consistent with these requirements, the QA Manager performed the following evaluations: a field data QA/QC evaluation, a holding time evaluation, an analytical method check, a reporting limit evaluation, a QC evaluation of sample duplicates, a QC evaluation of control limits for analysis and blanks, a receipt temperature evaluation, and a rinsate evaluation. Because no VOCs are analyzed for the nitrate contamination investigation, no trip blanks are required in the sampling program. Each evaluation is discussed in the following sections. Data check tables indicating the results of each test are provided under Tab H.

3.4.1 Field Data QA/QC Evaluation

The QA Manager performs a review of all field recorded parameters to assess their adherence with QAP requirements. The assessment involved review of two sources of information: the Field Data Sheets and the Quarterly Depth to Water summary sheet. Review of the Field Data Sheets addresses well purging volumes and stability of five parameters: conductance, pH, temperature, redox potential, and turbidity. Review of the Depth to Water data confirms that all depth measurements used for development of groundwater contour maps were conducted within a five-day period of each other. The results of this quarter's review are provided under Tab H.

Based upon the review of the field data sheets, all wells conformed to the QAP purging and field measurement requirements. A summary of the purging techniques employed and field measurements taken is described below:

<u>Purging Two Casing Volumes with Stable Field Parameters (within 10% RPD)</u>
Wells TWN-01, TWN-04, and TWN-18 were sampled after two casing volumes were removed. Field parameters pH, specific conductivity, turbidity, water temperature, and redox potential were measured during purging. All field parameters for this requirement were stable within 10% RPD.

<u>Purging a Well to Dryness and Stability of a Limited List of Field Parameters</u>
Wells TWN-03 and TWN-07 were purged to dryness before two casing volumes were evacuated. After well recovery, one set of measurements for the field parameters of pH, specific conductivity, and water temperature only were taken, the samples were collected, and another set

of measurements for pH, specific conductivity, and water temperature were taken. Stabilization of pH, conductivity and temperature are required within 10% RPD under the QAP. It is important to note that redox potential and turbidity were measured as well during purging and sampling. Two of the turbidity measurements were not within 10% RPD. Turbidity and redox potential are not required to be measured or to be within 10% RPD per the QAP. Data from measurement of these parameters has been provided for information purposes only.

Continuously Pumped Wells
Wells TWN-02, TW4-22, TW4-24, and TW4-25 are continuously pumped wells. These wells are pumped on a set schedule per the remediation plan and are considered sufficiently evacuated to immediately collect a sample. As previously noted, TW4-22, TW4-24, and TW4-25 are chloroform investigation wells and are sampled under the chloroform program. Data for nitrate and chloride are provided here for completeness purposes.

During review of the field data sheets, it was observed that sampling personnel consistently recorded depth to water to the nearest 0.01 foot.

All field parameters for all wells were within the QAP required limits, as indicated below.

The review of the field sheets for compliance with QAP requirements resulted in the observations noted below. The QAP requirements in Attachment 2-3 specifically state that field parameters must be stabilized to within 10% over at least 2 consecutive measurements for wells purged to two casing volumes or to dryness. The QAP Attachment 2-3 states that turbidity should be less than 5 NTU prior to sampling unless the well is characterized by water that has a higher turbidity. The QAP Attachment 2-3 does not require that turbidity measurements be less than 5 NTU prior to sampling. As such the noted observations regarding turbidity measurements greater than 5 NTU below are included for information purposes only.

- Seven well measurements exceeded the QAP's 5 NTU turbidity goal as noted in Tab H. All required turbidity RPD's met the QAP Requirement to stabilize within 10% except in wells that were purged to dryness as noted above.

EFRI's letter to DRC of March 26, 2010 discusses further why turbidity does not appear to be an appropriate parameter for assessing well stabilization. In response to DRC's subsequent correspondence dated June 1, 2010 and June 24, 2010, EFRI has completed a monitoring well redevelopment program. The redevelopment report was submitted to DRC on September 30, 2011. DRC responded to the redevelopment report via letter on November 15, 2012. Per the DRC letter dated November 15, 2012, the field data generated this quarter are compliant with the turbidity requirements of the approved QAP.

3.4.2 Holding Time Evaluation

QAP Table 1 identifies the method holding times for each suite of parameters. Sample holding time checks are provided in Tab H. All samples were received and analyzed within the required holding time.

3.4.3 Receipt Temperature Evaluation

Chain of Custody sheets were reviewed to confirm compliance with the QAP requirement in QAP Table 1 that samples be received at 6°C or lower. Sample temperatures checks are provided in Tab H. All samples were received within the required temperature limit.

3.4.4 Analytical Method Checklist

All analytical methods reported by the laboratory were checked against the required methods enumerated in the QAP. Analytical method checks are provided in Tab H. All methods were consistent with the requirements of the QAP.

3.4.5 Reporting Limit Evaluation

All analytical method reporting limits reported by the laboratory were checked against the reporting limits enumerated in the QAP. Reporting Limit Checks are provided in Tab H. All analytes were measured and reported to the required reporting limits, with the exception of eleven samples and one duplicate sample that had increased reporting limits due to matrix interference or required dilution due to the sample concentration. However, in all of those cases the analytical results were greater than the reporting limit used.

3.4.6 QA/QC Evaluation for Sample Duplicates

Section 9.1.4 a) of the QAP states that RPDs will be calculated for the comparison of duplicate and original field samples. The QAP acceptance limits for RPDs between the duplicate and original field sample is less than or equal to 20% unless the measured results (described as activities in the QAP) are less than 5 times the required detection limit. This standard is based on the EPA Contract Laboratory Program National Functional Guidelines for Inorganic Data Review, February 1994, 9240.1-05-01 as cited in the QAP. The RPDs are calculated for all duplicate pairs for all analytes regardless of whether or not the reported concentrations are greater than 5 times the required detection limits. However, data will be considered noncompliant only when the results are greater than 5 times the required detection limit and the RPD is greater than 20%. The additional duplicate information is provided for information purposes.

All duplicate results were within a 20% RPD. Results of the RPD test are provided in Tab H.

3.4.7 Rinsate Check

Rinsate checks are provided in Tab H. A comparison of the rinsate blank sample concentration levels to the QAP requirements – that rinsate sample concentrations be one order of magnitude lower than that of the actual well – indicated that all of the rinsate blank analytes met this criterion.

3.4.8 Other Laboratory QA/QC

Section 9.2 of the QAP requires that the laboratory's QA/QC Manager check the following items in developing data reports: (1) sample preparation information is correct and complete, (2) analysis information is correct and complete, (3) appropriate Analytical Laboratory procedures are followed, (4) analytical results are correct and complete, (5) QC samples are within established control limits, (6) blanks are within QC limits, (7) special sample preparation and analytical requirements have been met, and (8) documentation is complete. In addition to other laboratory checks described above, EFRI's QA Manager rechecks QC samples and blanks (items (5) and (6)) to confirm that the percent recovery for spikes and the relative percent difference for spike duplicates are within the method-specific required limits, or that the case narrative sufficiently explains any deviation from these limits. Results of this quantitative check are provided in Tab H.

All lab QA/QC results met these specified acceptance limits.

The QAP Section 8.1.2 requires that a Matrix Spike/Matrix Spike Duplicate ("MS/MSD") pair be analyzed with each analytical batch. The QAP does not specify acceptance limits for the MS/MSD pair, and the QAP does not specify that the MS/MSD pair be prepared on EFRI samples only. Acceptance limits for MS/MSDs are set by the laboratories. The review of the information provided by the laboratories in the data packages verified that the QAP requirement to analyze an MS/MSD pair with each analytical batch was met. While the QAP does not require it, the recoveries were reviewed for compliance with the laboratory established acceptance limits. The QAP does not require this level of review, and the results of this review are provided for information only.

The information from the Laboratory QA/QC Summary Reports indicates that the MS/MSDs recoveries and the associated RPDs for all quarterly nitrate samples are within acceptable laboratory limits for all regulated compounds as indicated in Tab H.

The information from the Laboratory QA/QC Summary Reports indicates that the LCS recoveries were acceptable which indicate that the analytical system was operating properly.

The QAP Section 8.1.2 requires that each analytical batch shall be accompanied by a reagent blank. All analytical batches routinely contain a blank, which is a blank sample made and carried through all analytical steps. For the Mill samples, a method blank is prepared for all analytical methods. The information from the Laboratory QA/QC Summary Reports indicates that the method blanks did not contain detections of any target analytes above the RL.

4.0 INTERPRETATION OF DATA

4.1 Interpretation of Groundwater Levels, Gradients and Flow Directions.

4.1.1 Current Site Groundwater Contour Map

As stated above, a listing of groundwater level readings for the current quarter (shown as depth to groundwater in feet) is included under Tab C. The data from this tab has been interpreted (kriged) and plotted in a water table contour map, provided under the same tab. The contour map is based on the current quarter's data for all wells.

The water level contour maps indicate that perched water flow ranges from generally southwesterly beneath the Mill site and tailings cells to generally southerly along the eastern and western margins of White Mesa. Perched water mounding associated with the wildlife ponds locally changes the flow patterns. For example, northeast of the Mill site, mounding associated with wildlife ponds results in locally northerly flow near MW-19. The impact of the mounding associated with the northern ponds, to which water is no longer delivered, is diminishing and is expected to continue to diminish as the mound decays due to reduced recharge. Flow directions are also locally influenced by operation of chloroform pumping wells MW-4, MW-26, TW4-4, TW4-19, and TW4-20. Well-defined cones of depression are evident in the vicinity of all chloroform pumping wells except TW4-4, which began pumping in the first quarter of 2010. Flow directions are also locally influenced by the start-up of nitrate pumping wells TW4-22, TW4-24, TW4-25, and TWN-2 during the first quarter of 2013. Nitrate pumping wells TW4-22, TW4-24, TW4-25, and TWN-2 have not been in operation long enough for well-defined cones of depression to have developed. Although operation of the nitrate pumping system has not yet produced a well-defined impact on water levels, continued operation of the system is expected to produce a well-defined capture zone that will merge with and enhance the capture associated with the chloroform pumping system. The actual impact of nitrate pumping on the chloroform pumping system cannot be evaluated until more data are collected as part of routine monitoring.

Although operation of chloroform pumping well TW4-4 has depressed the water table in the vicinity of TW4-4, a well-defined cone of depression is not evident. The lack of a well-defined cone of depression likely results from 1) variable permeability conditions in the vicinity of TW4-4, and 2) persistent relatively low water levels at adjacent well TW4-14.

Changes in water levels at wells immediately south of TW4-4 resulting from TW4-4 pumping are expected to be muted because TW4-4 is located at a transition from relatively high to relatively low permeability conditions south (downgradient) of TW4-4. The permeability of the perched zone at TW4-6 and TW4-26 is approximately two orders of magnitude lower than at TW4-4. Any drawdown of water levels at wells immediately south of TW4-4 resulting from TW4-4 pumping is also difficult to determine because of a general, long-term increase in water levels in this area due to recharge from the wildlife ponds. Recharge from the southern wildlife pond is expected to continue to have an effect on water levels near TW4-4, but the effects related to recharge from the northern ponds is expected to diminish over time as water is no longer delivered to the northern ponds. Water levels at TW4-4 and TW4-6 increased by nearly 2.7 and 2.9 feet, respectively, between the fourth quarter of 2007 and the fourth quarter of 2009 (just prior to TW4-4 pumping) at rates of approximately 1.2 feet/year and 1.3 feet/year, respectively. However, the increase in water level at TW4-6 has been reduced since the start of pumping at TW4-4 (first quarter of 2010) to less than 0.5 feet/year suggesting that TW4-6 is within the hydraulic influence of TW4-4.

The lack of a well-defined cone of depression at TW4-4 is also influenced by the persistent, relatively low water level at non-pumping well TW4-14, located east of TW4-4 and TW4-6. For the current quarter, the water level at TW4-14 (approximately 5526.94 feet above mean sea level [ft amsl]) is approximately 13 feet lower than the water level at TW4-6 (approximately 5539.53 ft amsl) and nearly 17 feet lower than at TW4-4 (approximately 5543.49 ft amsl) even though TW4-4 is pumping.

Well TW4-27 (installed south of TW4-14 in the fourth quarter of 2011) has a static water level of approximately 5526.4 ft amsl, similar to TW4-14.

Prior to the installation of TW4-27, the persistently low water level at TW4-14 was considered anomalous because it appeared to be downgradient of all three wells TW4-4, TW4-6, and TW4-26, yet chloroform was not detected at TW4-14. Chloroform had apparently migrated from TW4-4 to TW4-6 and from TW4-6 to TW4-26 which suggested that TW4-26 was actually downgradient of TW4-6, and TW4-6 was actually downgradient of TW4-4, regardless of the flow direction implied by the low water level at TW4-14. The water level at TW4-26 (5539.1 feet amsl) is, however, lower than water levels at adjacent wells TW4-6 (5539.5 feet amsl), and TW4-23 (5543.5 feet amsl)

Hydraulic tests conducted in November, 2011 indicate that the permeability at TW4-27 is an order of magnitude lower than at TW4-6 and three orders of magnitude lower than at TW4-4. The similar water levels at TW4-14 and TW4-27, and the low permeability estimate at TW4-27 suggest that both wells are completed in materials having lower permeability than nearby wells. The low permeability condition likely reduces the rate of long-term water level increase at TW4-14 and TW4-27 compared to nearby wells, yielding water levels that appear anomalously low.

4.1.2 Comparison of Current Groundwater Contour Map to Groundwater Contour Map for Previous Quarter

The groundwater contour maps for the Mill site for the previous quarter, as submitted with the Nitrate Monitoring Report for the previous quarter, are attached under Tab D.

A comparison of the water table contour maps for the current (first) quarter of 2013 to the water table contour maps for the previous quarter (fourth quarter of 2012) indicates similar patterns of drawdown related to operation of chloroform pumping wells MW-4, MW-26, TW4-4, TW4-19 and TW4-20. Although nitrate pumping wells TW4-22, TW4-24, TW4-25, and TWN-2 were brought into operation during the first quarter of 2013, water levels and water level contours for the site have not changed significantly since the last quarter, except for a few locations. As discussed in Section 4.1.1, pumping at TW4-4, which began in the first quarter of 2010, has depressed the water table near TW4-4, but a well-defined cone of depression is not yet evident, likely due to variable permeability conditions near TW4-4 and the persistently low water level at adjacent well TW4-14.

Reported increases in water levels (decreases in drawdown) of approximately 8 feet, 4 feet, and 3 feet occurred in chloroform pumping wells MW-26, TW4-19, and MW-4, respectively, and decreases in water levels (increases in drawdown) of approximately 7 feet, 6 feet, and 2 feet occurred in nitrate pumping wells TWN-2, TW4-24, and TW4-22, respectively. Changes in water levels at other pumping wells (chloroform pumping wells TW4-4 and TW4-20 and nitrate pumping well TW4-25) were 1 foot or less. Water level fluctuations at pumping wells typically occur in part because of fluctuations in pumping conditions just prior to and at the time the measurements are taken.

A reported water level increase of approximately 3 feet occurred at TW4-7 (likely in response to changes in pumping at adjacent well MW-4), and of nearly 6 feet occurred at TW4-12, restoring it to a more typical value. Water level decreases of approximately 10 feet, 5 feet, and 3 feet for Piezometer 2, TWN-4, and Piezometer 3, respectively, likely result from cessation of water delivery to the northern wildlife ponds and the consequent continuing decay of the associated perched water mound. The water level decrease of approximately 3 feet reported for TWN-3 is likely related to operation of nitrate pumping well TWN-2, and the decrease of approximately 3 feet reported for TWN-1 is likely related to both decay of the perched water mound and operation of nitrate pumping well TW4-25.

The increases in water levels (decreases in drawdown) at chloroform pumping wells MW-26, TW4-19, and MW-4 have slightly decreased the apparent capture of these wells relative to other pumping wells. As a result, the combined capture of chloroform pumping wells MW-4, MW-26, TW4-4, TW4-19, and TW4-20 has been reduced slightly since the last quarter.

4.1.3 Hydrographs

Attached under Tab E are hydrographs showing groundwater elevation in each nitrate contaminant investigation monitor well over time.

4.1.4 Depth to Groundwater Measured and Groundwater Elevation

Attached in Tab F are tables showing depth to groundwater measured and groundwater elevation over time for each of the wells listed in Section 2.1.1 above.

4.2 Effectiveness of Hydraulic Containment and Capture

4.2.1 Hydraulic Containment and Control

The CAP states that hydraulic containment and control will be evaluated in part based on water level data and in part on concentrations in wells downgradient of pumping wells TW4-22 and TW4-24.

Water level data will be used to evaluate flow patterns resulting from operation of nitrate pumping wells. Bounding stream tubes defining the capture zone of nitrate pumping wells will be generated from the kriged quarterly perched water level data. Hydraulic containment and control based on water level data will be considered successful if the entire nitrate plume upgradient of TW4-22 and TW4-24 falls within the combined capture of the nitrate pumping wells. The CAP requires that EFRI will evaluate the capture zones after four quarters of water level measurements have been taken, and will include the capture zone boundaries on figures in the next quarterly nitrate monitoring report. The current quarter is the first quarter of data collected after the commencement of pumping the nitrate system. The capture zone maps will be generated after four quarters of data are collected and will be included in the fourth quarter 2013 report which will be submitted on or before March 1, 2014.

The CAP states that MW-5, MW-11, MW-30, and MW-31 are located downgradient of TW4-22 and TW4-24. MW-30 and MW-31 are within the plume near its downgradient edge and MW-5 and MW-11 are outside and downgradient of the plume. Hydraulic control based on concentration data will be considered successful if the concentrations of nitrate in MW-30 and MW-31 remain stable or decline, and concentrations of nitrate in downgradient wells MW-5 and MW-11 do not exceed the 10 mg/L standard.

Table 5 presents the nitrate concentration data for MW-30, MW-31, MW-5 and MW-11 which are down-gradient of pumping wells TW4-22 and TW4-24. Based on these data, the nitrate plume is under control.

The plume has not migrated downgradient to MW-11 because nitrate was not detected at MW-11. MW-5 was not sampled during the current quarter, but was non-detect in the previous quarter. Between the previous and current quarters, nitrate concentrations increased slightly in MW-30 and decreased slightly in MW-31. Nitrate in MW-30 increased from 18.5 mg/L to 21.4 mg/L and nitrate in MW-31 decreased from 23.6 mg/L to 19.3 mg/L. Changes in both wells were less than 20% suggesting the changes are within the range typical for sampling and analytical error. Although short-term fluctuations have occurred, nitrate concentrations in MW-30 and MW-31 have been relatively stable, consistent with plume migration that is minimal or absent. The relative stability of chloride in these wells also supports minimal plume movement.

4.2.2 Current Nitrate and Chloride Isoconcentration Maps

Included under Tab I of this Report are current nitrate and chloride iso-concentration maps for the Mill site. Nitrate iso-contours start at 5 mg/L and chloride iso-contours start at 100 mg/L because those values appear to separate the plumes from background. All nitrate and chloride data used to develop these iso-concentration maps are from the current quarter's sampling events.

4.2.3 Comparison of Areal Extent

Although changes in concentration have occurred in wells within the nitrate plume, the boundaries of the plume have not changed significantly since the last quarter, even under the influence of nitrate pumping wells TW4-22, TW4-24, TW4-25, and TWN-2. Nitrate pumping has, however, caused the boundary of the northern portion of the chloroform plume to move slightly to the west toward nitrate pumping well TW4-24. Nitrate concentrations at the downgradient edge of the plume (MW-30 and MW-31) continue to be relatively stable, suggesting that plume migration is minimal or absent.

4.2.4 Nitrate and Chloride Concentration Trend Data and Graphs

Attached under Tab J is a table summarizing values for nitrate and chloride for each well over time. Some data (MW-18, MW-19 and the Frog Pond) were not sampled this period but the historical data are included for information purposes.

Attached under Tab K are graphs showing nitrate and chloride concentration plots in each monitor well over time.

4.2.5 Interpretation of Analytical Data

Comparing the nitrate analytical results to those of the previous quarter, as summarized in the table included under Tab K, the following observations can be made for wells within and immediately surrounding the nitrate plume:

a) Nitrate concentrations have increased by more than 20% in the following wells compared to last quarter: TW4-19, TW4-22, TWN-1, TWN-2, and TWN-3;

b) Nitrate concentrations have decreased by more than 20% in the following wells compared to last quarter: TW4-20 and TW4-25;

c) Nitrate concentrations have remained within 20% in the following wells compared to last quarter: MW-27, MW-30, MW-31, TW4-18, TW4-21, TW4-24, TWN-4, TWN-7 and TWN-18; and

d) MW-11, MW-25, MW-32 and TW4-16 remained non-detect.

As indicated, nitrate concentrations at many of the wells with detected nitrate were within 20% of the values reported for the wells during the previous quarter, suggesting that variations are within the range typical for sampling and analytical error. Wells TW4-19, TW4-20, TW4-22, TW4-25, TWN-1, TWN-2 and TWN-3 had changes in concentration greater than 20%. Of the latter, TW4-19 and TW4-20 are chloroform pumping wells, and TW4-22, TW4-24 and TWN-2 are nitrate pumping wells. TWN-1 is located adjacent to nitrate pumping well TW4-25 and TWN-3 is located adjacent to nitrate pumping well TWN-2. Fluctuations in concentrations at pumping wells and wells adjacent to pumping wells likely result in part from changes in pumping.

Nitrate pumping well TW4-22 had the highest detected nitrate concentration. Since the last quarter, the nitrate concentration in pumping well TW4-22 increased from 14 mg/L to 58 mg/L, and the concentration in pumping well TWN-2 increased from 22 mg/L to 57 mg/L. Increases at both wells likely result from the start-up of nitrate pumping in the current quarter. The chloroform concentration in nitrate pumping well TW4-22 also increased substantially from 330 µg/L to 10,600 µg/L in response to the start-up of pumping and the presence of historically high chloroform concentrations at adjacent, cross-gradient well TW4-20. MW-27, located west of TWN-2, and TWN-18, located north of TWN-3, bound the nitrate plume to the west and north. In addition, the southernmost (downgradient) boundary of the plume remains between MW-30/MW-31 and MW-11. Nitrate concentrations at MW-5 (adjacent to MW-11) and MW-11 have historically been low (< 1 mg/L) or non-detect for nitrate. MW-25, MW-26, MW-32, TW4-16, TW4-19 TWN-1, and TWN-4 bound the nitrate plume to the east.

Nitrate concentrations outside the nitrate plume exceed 10 mg/L at a few locations: TW4-12 (12.6 mg/L), TW4-26 (12.5 mg/L), and TW4-27 (31.2 mg/L). All are located southeast of the nitrate plume and are separated from the plume by numerous wells having nitrate concentrations that are either non-detect, or, if detected, are less than 10 mg/L. Concentrations at the above three wells are within 20% of their concentrations during the previous quarter. New temporary perched wells TW4-28 through TW4-31 were installed during the current quarter to better define nitrate concentrations in these areas but will not be sampled until the next quarter (second quarter of 2013).

Chloride concentrations are measured because elevated chloride (greater than 100 mg/L) is associated with the nitrate plume. Chloride concentrations at all measured locations are within 20% of their respective concentrations during the previous quarter except at the following locations: TW4-21 (decreased from 270 mg/L to 221 mg/L); TW4-22 (increased from 130 mg/L to 635 mg/L); TW4-24 (increased from 405 mg/L to 1,260 mg/L); and TW4-25 (decreased from 338 mg/L to 190 mg/L). TW4-22, TW4-24, and TW4-25 are nitrate pumping wells, and TW4-21 is located between chloroform pumping well TW4-20 and nitrate pumping well TW4-25. Changes in concentrations in these four wells are likely related to start-up of nitrate pumping during the current quarter.

4.3 Estimation of Pumped Nitrate Mass and Residual Nitrate Mass within the Plume

Nitrate mass removed by pumping is summarized in Table 2, and includes mass removed by both chloroform and nitrate pumping wells. Mass removal calculations begin with the third quarter of 2010 because the second quarter, 2010 data are specified to be used to establish a baseline mass for the nitrate plume. As stated in the CAP, the baseline mass is to be calculated using the second quarter, 2010 concentration and saturated thickness data "within the area of the kriged 10 mg/L plume boundary." The second quarter, 2010 data set was considered appropriate because "the second quarter, 2010 concentration peak at TWN-2 likely identifies a high concentration zone that still exists but has migrated away from the immediate vicinity of TWN-2."

As shown in Table 2, a total of approximately 370 lb of nitrate has been removed from the perched zone since the third quarter of 2010. Prior to the current quarter, all direct nitrate mass removal resulted from operation of chloroform pumping wells MW-4, MW-26, TW4-4, TW4-19, and TW4-20. During the current quarter:

- A total of approximately 128 lb of nitrate was removed by the chloroform pumping wells and by nitrate pumping wells TW4-22, TW4-24, TW4-25, and TWN-2.
- Of the 128 lb removed during the current quarter, approximately 107 lb, (or 83%), was removed by the nitrate pumping wells.

Baseline mass and current quarter mass estimates (nitrate + nitrite as N) for the nitrate plume are approximately 43,700 lb and 41,350 lb, respectively. Mass estimates were calculated within the plume boundaries as defined by the kriged 10 mg/L isocons by 1) gridding (kriging) the nitrate concentration data on 50-foot centers; 2) calculating the volume of water in each grid cell based on the saturated thickness and assuming a porosity of 0.18; 3) calculating the mass of nitrate+nitrite as N in each cell based on the concentration and volume of water for each cell; and 4) totaling the mass of all grid cells within the 10 mg/L plume boundary. Data used in these calculations included data from wells listed in Table 3 of the CAP.

The nitrate mass estimate for the current quarter is lower than the baseline estimate by 2,350 lb, which is greater than the amount of nitrate mass removed directly by pumping. Changes in the quarterly mass estimates are expected to result primarily from 1) nitrate mass removed directly by pumping, 2) natural attenuation of nitrate, and 3) changes in nitrate concentrations in wells within the plume as a result of re-distribution of nitrate within the plume and changes in saturated thicknesses. Redistribution of nitrate within the plume and changes in saturated thicknesses will be impacted by changes in pumping and in background conditions (such as the decay of the perched water mound associated with the northern wildlife ponds). Examples of concentration changes resulting from changes in pumping are the increases in nitrate concentrations at nitrate pumping wells TW4-22 and TWN-2 since the last quarter. Nitrate increased from 14 to 58 mg/L in TW4-22 and from 22 to 57 mg/L in TWN-2.

Nitrate mass removal by 1) pumping and 2) natural attenuation will always act to lower nitrate mass within the plume. Changes resulting from 3) redistribution of nitrate within the plume are expected to result in both increases and decreases in concentrations at wells within the plume and therefore increases and decreases in mass estimates based on those concentrations, thus generating 'noise' in the mass estimates. Over the long term, however, nitrate mass estimates are expected to trend downward.

As specified in the CAP, once eight quarters of data have been collected (starting with the current quarter), a regression trend line will be applied to the quarterly mass estimates and evaluated. The trend line will then be updated quarterly and reevaluated as additional quarters of data are collected. The evaluation will determine whether the mass estimates are increasing, decreasing, or stable.

5.0 LONG TERM PUMP TEST AT TWN-02, TW4-22, TW4-24, and TW4-25 OPERATIONS REPORT

5.1 Introduction

Beginning in January 2013, EFRI began long term pumping of TW4-22, TW4-24, TW4-25, and TWN-02 as required by the Nitrate CAP, dated May 7, 2012 and the SCO dated December 12, 2012.

In addition, as a part of the investigation of chloroform contamination at the Mill site, EFRI has been conducting a Long Term Pump Test on MW-4, TW4-19, MW-26, and TW4-20, and, since January 31, 2010, TW4-4. The purpose of the test is to serve as an interim action that will remove a significant amount of chloroform-contaminated water while gathering additional data on hydraulic properties in the area of investigation.

Because wells MW-4, TW4-19, MW-26, TW4-4 and TW4-20 are pumping wells that may impact the removal of nitrate, they will be included in this report and any nitrate removal realized as part of this pumping will be calculated and included in this and all future nitrate quarterly reports.

The following information documents the operational activities during the quarter.

5.2 Pumping Well Data Collection

Data collected during the quarter included the following:

- Measurement of water levels at MW-4, TW4-19, MW-26, and TW4-20 and, commencing regularly on March 1, 2010, TW4-4, on a weekly basis, and at selected temporary wells and permanent monitoring wells on a monthly basis.
- Measurement of pumping history, including:
  - pumping rates

- total pumped volume
- operational and non-operational periods.

- Periodic sampling of pumped water for chloroform and nitrate/nitrite analysis and other constituents
- Measurement of water levels weekly at TW4-22, TW4-24, TW4-25, and TWN-02 commencing January 28, 2013, and on a monthly basis selected temporary wells and permanent monitoring wells.

5.3 Water Level Measurements

Beginning August 16, 2003, the frequency of water level measurements from chloroform pumping wells MW-4, MW-26, and TW4-19 was conducted weekly. From commencement of pumping TW4-20, and regularly after March 1, 2010 for TW4-4, water levels in these two chloroform pumping wells have been measured weekly. From commencement of pumping in January 2013, water levels in wells TW4-22, TW4-24, TW4-25, and TWN-02 have been measured weekly. Copies of the weekly Depth to Water monitoring sheets for MW-4, MW-26, TW4-19, TW4-20, TW4-4, TW4-22, TW4-24, TW4-25 and TWN-02 are included under Tab C.

Monthly depth to water monitoring is required for all of the chloroform contaminant investigation wells and non-pumping wells MW-27, MW-30, MW-31, TW4-21, TWN-1, TWN-3, TWN-4, TWN-7, and TWN-18. Copies of the monthly depth to Water monitoring sheets are included under Tab C.

Depth to groundwater in all other nitrate contaminant investigation wells was monitored quarterly. As previously stated, depth to groundwater was measured in all of the nitrate wells this quarter. The CAP, which became effective December 12, 2012, approved the abandonment of TWN-5, TWN-8, TWN-9, TWN-10, TWN-11, TWN-12, TWN-13, TWN-15, and TWN-17 and removed the requirement to measure depth to groundwater in these wells. Since these wells were not abandoned during the quarter, the depth to groundwater was measured. The depth to groundwater measurement data are provided for information purposes only.

5.4 Pumping Rates and Volumes

The pumping wells do not pump continuously, but are on a delay device. The wells purge for a set amount of time and then shut off to allow the well to recharge. Water from the pumping wells is either transferred to the Cell 1 evaporation pond or is used in the Mill process. Unless specifically noted below, no operational problems were observed with the well or pumping equipment during the quarter.

All of the pumped wells are fitted with a flow meter which records the volume of water pumped from the well in gallons. The flow meter readings shown in Tab C are used to calculate the gallons of water pumped from the wells each quarter as required by Section 7.2.2 of the CAP. The average pumping rates and quarterly volumes for each of the pumping wells are shown in Table 3. The cumulative volume of water pumped from each of the wells is shown in Table 4.

5.4.1 MW-4

During the weekly check, on January 7, 2013, the flow meter at MW-4 was noted as cracked and leaking. The pumping operations were not affected and the flow meter was replaced within 24 hours. No notifications to DRC were required.

6.0 CORRECTIVE ACTION REPORT

There are no corrective actions resulting from 1st quarter 2013 nitrate sampling event.

6.1 Assessment of Previous Quarter's Corrective Actions

There were no corrective actions in the 4th quarter 2012 nitrate sampling event.

7.0 CONCLUSIONS AND RECOMMENDATIONS

The water level contour maps for the first quarter, 2013 indicate that operation of the nitrate pumping system has not yet produced a well-defined impact on water levels, and that hydraulic capture associated with the chloroform pumping system has not changed significantly since the previous quarter. As nitrate pumping continues, the hydraulic capture associated with the nitrate pumping wells is expected to merge with the hydraulic capture associated with the chloroform pumping, yielding enhanced capture for both nitrate and chloroform plumes. However, the actual impact of nitrate pumping on the chloroform pumping system cannot be evaluated until more data are collected as part of routine monitoring.

First quarter, 2013 nitrate concentrations at many of the wells within and adjacent to the nitrate plume were within 20% of the values reported during the previous quarter, suggesting that variations are within the range typical for sampling and analytical error. Changes in concentration greater than 20% occurred in wells TW4-19, TW4-20, TW4-22, TW4-25, TWN-1, TWN-2 and TWN-3; the concentrations in wells MW-11, MW-25, MW-32 and TW4-16 remained non-detect.

Of the wells showing changes in concentration greater than 20%, TW4-19 and TW4-20 are chloroform pumping wells, and TW4-22, TW4-24 and TWN-2 are nitrate pumping wells. TWN-1 is located adjacent to nitrate pumping well TW4-25 and TWN-3 is located adjacent to nitrate pumping well TWN-2. Fluctuations in concentrations at pumping wells and wells adjacent to pumping wells likely result in part from changes in pumping.

The highest nitrate concentration (58 mg/L) was detected at nitrate pumping well TW4-22. Since the last quarter, the nitrate concentration in TW4-22 increased from 14 mg/L to 58 mg/L, and the concentration in pumping well TWN-2 increased from 22 mg/L to 57 mg/L. Increases in both wells are presumed to result from the start-up of nitrate pumping in the current quarter. The chloroform concentration in nitrate pumping well TW4-22 also increased substantially from 330 µg/L to 10,600 µg/L in response to the start-up of pumping and the presence of historically high chloroform concentrations at adjacent, cross-gradient well TW4-20. MW-27, located west of TWN-2, and TWN-18, located north of TWN-3, bound the nitrate plume to the west and north. In addition, the southernmost (downgradient) boundary of the plume remains between MW-

30/MW-31 and MW-11. Nitrate concentrations at MW-5 (adjacent to MW-11) and MW-11 have historically been low (< 1 mg/L) or non-detect for nitrate. MW-25, MW-26, MW-32, TW4-16, TW4-19 TWN-1, and TWN-4 bound the nitrate plume to the east.

Although changes in concentration have occurred in wells within the nitrate plume, the boundaries of the plume have not changed significantly since the last quarter, even under the influence of nitrate pumping wells TW4-22, TW4-24, TW4-25, and TWN-2. Nitrate pumping has, however, caused the boundary of the northern portion of the chloroform plume to move slightly to the west toward nitrate pumping well TW4-24. Nitrate concentrations at the downgradient edge of the plume (MW-30 and MW-31) continue to be relatively stable, suggesting that plume migration is minimal or absent.

Nitrate plume (nitrate+nitrite as N) mass estimates for the first quarter, 2013 and for the second quarter, 2010 were calculated. The second quarter, 2010 data were used to calculate the baseline mass as specified in th CAP. The baseline mass estimate was approximately 43,700 lb and the first quarter, 2013 mass estimate was approximately 41,350 lb. As specified in the CAP, once eight quarters of data have been collected (starting with the current quarter), a regression trend line will be applied to the quarterly mass estimates and evaluated. The trend line will then be updated quarterly and reevaluated as additional quarters of data are collected. The evaluation will determine whether the mass estimates are increasing, decreasing, or stable.

During the current quarter, a total of approximately 128 lb of nitrate was removed by the chloroform pumping wells and by nitrate pumping wells TW4-22, TW4-24, TW4-25, and TWN-2. Of the 128 lb removed during the current quarter, approximately 107 lb, or 83%, was removed by the nitrate pumping wells.

Nitrate concentrations outside the nitrate plume exceed 10 mg/L at a few locations: TW4-12 (12.6 mg/L), TW4-26 (12.5 mg/L), and TW4-27 (31.2 mg/L). All are located southeast of the nitrate plume and are separated from the plume by numerous wells having nitrate concentrations that are either non-detect, or, if detected, are less than 10 mg/L. Concentrations at the above three wells are within 20% of their concentrations during the previous quarter. New temporary perched wells TW4-28 through TW4-31 were installed during the current quarter to better define nitrate concentrations in these areas but will not be sampled until the next quarter (second quarter of 2013).

Chloride concentrations at all measured locations are within 20% of their respective concentrations during the previous quarter except at the following locations: TW4-21 (decreased from 270 mg/L to 221 mg/L); TW4-22 (increased from 130 mg/L to 635 mg/L); TW4-24 (increased from 405 mg/L to 1,260 mg/L); and TW4-25 (decreased from 338 mg/L to 190 mg/L). TW4-22, TW4-24, and TW4-25 are nitrate pumping wells, and TW4-21 is located between chloroform pumping well TW4-20 and nitrate pumping well TW4-25. Changes in concentrations in these four wells are likely related to start-up of nitrate pumping during the current quarter.

Nitrate mass removal from the perched zone has been increased substantially by start-up of nitrate pumping wells TW4-22, TW4-24, TW4-25, and TWN-2. Continued operation of these wells is therefore recommended. Pumping these wells, regardless of any short term fluctuations in concentrations detected at the wells, helps to reduce downgradient nitrate migration by removing nitrate mass and reducing average hydraulic gradients, thereby allowing natural attenuation to be more effective. Continued operation of the nitrate pumping system is expected to reduce nitrate concentrations within the plume and to further reduce or halt downgradient nitrate migration.

8.0 ELECTRONIC DATA FILES AND FORMAT

EFRI has provided to the Director an electronic copy of all laboratory results for groundwater quality monitoring conducted under the nitrate contaminant investigation during the Quarter, in Comma Separated Values ("CSV") format. A copy of the transmittal e-mail is included under Tab L.

9.0 SIGNATURE AND CERTIFICATION

This document was prepared by Energy Fuels Resources (USA) Inc. on May 31, 2013.

Energy Fuels Resources (USA) Inc.

By:

David C. Frydenlund
Senior Vice President, General Counsel and Corporate Secretary

Certification:

I certify, under penalty of law, that this document and all attachments were prepared under my direction or supervision in accordance with a system designed to assure that qualified personnel properly gather and evaluate the information submitted. Based on my inquiry of the person or persons who manage the system, or those persons directly responsible for gathering the information, the information submitted is, to the best of my knowledge and belief, true, accurate, and complete. I am aware that there are significant penalties for submitting false information, including the possibility of fine and imprisonment for knowing violations.

____

David C. Frydenlund
Senior Vice President, General Counsel and Corporate Secretary
Energy Fuels Resources (USA) Inc.

Tables

Table 1
Summary of Well Sampling and Constituents for the Period

Well	Sample Collection Date	Date of Lab Report
Piezometer 01	2/19/2013	3/20/2013
Piezometer 02	2/19/2013	3/20/2013
Piezometer 03	2/19/2013	3/20/2013
TWN-01	2/18/2013	3/20/2013
TWN-01R	2/18/2013	3/20/2013
TWN-02	2/19/2013	3/20/2013
TWN-03	2/19/2013	3/20/2013
TWN-04	2/18/2013	3/20/2013
TWN-07	2/19/2013	3/20/2013
TWN-18	2/18/2013	3/20/2013
TW4-22	2/11/2013	2/26/2013
TW4-24	2/11/2013	2/26/2013
TW4-25	2/11/2013	2/26/2013
TWN-60	2/19/2013	3/20/2013
TW4-60	2/14/2013	2/26/2013
TWN-65	2/18/2013	3/20/2013

Note: All wells were sampled for Nitrate and Chloride.

TWN-60 is a DI Field Blank.

TWN-65 is a duplicate of TWN-04.

TW4-60 is the chloroform program DI Field Blank.

Table 2 Nitrate Mass Removal Per Well Per Quarter

Quarter	MW-4 (lbs.)	TW4-15 (MW-26) (lbs.)	TW4-19 (lbs.)	TW4-20 (lbs.)	TW4-4 (lbs.)	TW4-22 (lbs.)	TW4-24 (lbs.)	TW4-25 (lbs.)	TWN-02 (lbs.)	Quarter Totals (lbs.)
Q3 2010	3.2	0.3	5.8	1.7	4.7	NA	NA	NA	NA	15.7
Q4 2010	3.8	0.4	17.3	1.4	5.1	NA	NA	NA	NA	28.0
Q1 2011	2.9	0.2	64.5	1.4	4.3	NA	NA	NA	NA	73.3
Q2 2011	3.5	0.1	15.9	2.7	4.7	NA	NA	NA	NA	27.0
Q3 2011	3.5	0.5	3.5	3.9	5.4	NA	NA	NA	NA	16.8
Q4 2011	3.8	0.8	6.2	2.5	6.4	NA	NA	NA	NA	19.7
Q1 2012	3.6	0.4	0.7	5.0	6.0	NA	NA	NA	NA	15.9
Q2 2012	3.7	0.6	3.4	2.1	5.2	NA	NA	NA	NA	15.0
Q3 2012	3.8	0.5	3.6	2.0	4.7	NA	NA	NA	NA	14.7
Q4 2012	3.2	0.4	5.4	1.8	4.2	NA	NA	NA	NA	14.9
Q1 2013	2.5	0.4	14.1	1.4	3.6	8.1	43.4	7.5	47.5	128.4
Well Totals (pounds)	**37.5**	**4.7**	**140.4**	**26.0**	**54.3**	**8.1**	**43.4**	**7.5**	**47.5**	**369.4**

Table 3 Nitrate Well Pumping Rates and Volumes

Pumping Well Name	Volume of Water Pumped during the quarter (gals)	Average Pump Rate (gpm)
MW-4	62,943.7	4.3
MW-26	22,650.7	9.9
TW4-4	58,716.8	8.3
TW4-19	210,908.0	14.0
TW4-20	18,177.0	9.7
TW4-22	16,677.4	18.1
TW4-24	144,842.6	18.1
TW4-25	99,369.9	17.9
TWN-2	31,009.4	18.7

Table 4 Quarterly Calculation of Nitrate Removed and Total Volume of Water Pumped

	MW-4							TW4-15 (formerly MW-26)						
Quarter	Total Pumped (gal)	Conc (mg/L)	Conc (ug/L)	Total Pumped (liters)	Total (ug)	Total (grams)	Total (pounds)	Total Pumped (gal)	Conc (mg/L)	Conc (ug/L)	Total Pumped (liters)	Total (ug)	Total (grams)	Total (pounds)
Calculations and Data Origination	Total Gallons pumped for the quarter from the Flow Meter data	Concentration from the analytical data	Concentration in mg/LX1000 to convert to ug/L	Total pumped gallons/3.785 to conver to liters	Concentration in ug/L X total liters	Total ug/1000000 to convert to grams	Total grams/453.592 to convert to pounds							
Q3 2010	79859.1	4.8	4800	302266.7	1450880129	1450.9	3.19865	63850.0	0.6	600	241672.3	145003350	145	0.3
Q4 2010	90042.2	5	5000	340809.7	1704048635	1704.0	3.75679	60180.0	0.7	700	227781.3	159446910	159	0.4
Q1 2011	76247.6	4.6	4600	288597.2	1327546964	1327.5	2.92674	55130.0	0.5	500	208667.1	104333525	104	0.2
Q2 2011	85849.3	4.9	4900	324939.6	1592204042	1592.2	3.51021	55800.6	0.3	300	211205.3	63361581	63	0.1
Q3 2011	85327.7	4.9	4900	322965.3	1582530188	1582.5	3.48888	65618.0	0.9	900	248364.1	223527717	224	0.5
Q4 2011	89735.0	5.1	5100	339647.0	1732199573	1732.2	3.81885	50191.3	2	2000	189974.1	379948141	380	0.8
Q1 2012	90376.4	4.8	4800	342074.7	1641958435	1642.0	3.61990	31440.1	1.7	1700	119000.8	202301323	202	0.4
Q2 2012	90916.5	4.9	4900	344118.8	1686181940	1686.2	3.71740	26701.2	2.5	2500	101064.1	252660294	253	0.6
Q3 2012	91607.0	5	5000	346732.5	1733662475	1733.7	3.82207	25246.0	2.6	2600	95556.1	248445886	248	0.5
Q4 2012	78840.0	4.8	4800	298409.4	1432365120	1432.4	3.15783	30797.0	1.46	1460	116566.6	170187302	170	0.4
Q1 2013	62943.7	4.78	4780	238241.9	1138796304	1138.8	2.51062	22650.7	2.27	2270	85732.9	194613682	195	0.4
Totals Since Q3 2010	921744.45						37.53	487604.9						4.7

Highlighted cells are the totals for the current quarter

Table 4 Quarterly Calculation of Nitrate Removed and Total Volume of Water Pumped

	TW4-19							TW4-20						
Quarter	Total Pumped (gal)	Conc (mg/L)	Conc (ug/L)	Total Pumped (liters)	Total (ug)	Total (grams)	Total (pounds)	Total Pumped (gal)	Conc (mg/L)	Conc (ug/L)	Total Pumped (liters)	Total (ug)	Total (grams)	Total (pounds)
Calculations and Data Origination														
Q3 2010	116899.2	5.9	5900	442463.5	2.611E+09	2611	5.8	39098.3	5.3	5300	147987.1	784331447	784	1.7
Q4 2010	767970.5	2.7	2700	2906768.3	7.848E+09	7848	17.3	36752.5	4.6	4600	139108.2	639897778	640	1.4
Q1 2011	454607.9	17	17000	1720690.9	2.925E+10	29252	64.5	37187.5	4.4	4400	140754.7	619320625	619	1.4
Q2 2011	159238.9	12	12000	602719.2	7.233E+09	7233	15.9	67907.7	4.8	4800	257030.6	1.234E+09	1234	2.7
Q3 2011	141542.6	3	3000	535738.7	1.607E+09	1607	3.5	72311.2	6.5	6500	273697.9	1.779E+09	1779	3.9
Q4 2011	147647.2	5	5000	558844.7	2.794E+09	2794	6.2	72089.3	4.2	4200	272858.0	1.146E+09	1146	2.5
Q1 2012	148747.0	0.6	600	563007.4	337804437	338	0.7	76306.0	7.9	7900	288818.2	2.282E+09	2282	5.0
Q2 2012	172082.0	2.4	2400	651330.5	1.563E+09	1563	3.4	22956.4	11	11000	86890.1	955790963	956	2.1
Q3 2012	171345.0	2.5	2500	648540.8	1.621E+09	1621	3.6	22025.0	10.8	10800	83364.6	900337950	900	2.0
Q4 2012	156653.0	4.1	4100	592931.6	2.431E+09	2431	5.4	20114.0	11	11000	76131.5	837446390	837	1.8
Q1 2013	210908.0	7.99	7990	798286.8	6.378E+09	6378	14.1	18177.0	9.07	9070	68799.9	624015501	624	1.4
Totals Since Q3 2010	2647641.3						140.4	484924.9						26.0

Highlighted ce Highlighted cells are the totals for the current quarter

Table 4 Quarterly Calculation of Nitrate Removed and Total Volume of Water Pumped

	TW4-4							TW4-22						
Quarter	Total Pumped (gal)	Conc (mg/L)	Conc (ug/L)	Total Pumped (liters)	Total (ug)	Total (grams)	Total (pounds)	Total Pumped (gal)	Conc (mg/L)	Conc (ug/L)	Total Pumped (liters)	Total (ug)	Total (grams)	Total (pounds)
Calculations and Data Origination														
Q3 2010	76916.8	7.30	7300.00	291130.1	2.1E+09	2125.25	4.68538	NA	NA	NA	NA	NA	NA	NA
Q4 2010	86872.1	7.10	7100.00	328810.9	2.3E+09	2334.56	5.14682	NA	NA	NA	NA	NA	NA	NA
Q1 2011	73360.0	7.00	7000.00	277667.6	1.9E+09	1943.67	4.28507	NA	NA	NA	NA	NA	NA	NA
Q2 2011	80334.6	7.00	7000.00	304066.5	2.1E+09	2128.47	4.69247	NA	NA	NA	NA	NA	NA	NA
Q3 2011	97535.0	6.60	6600.00	369170.0	2.4E+09	2436.52	5.37162	NA	NA	NA	NA	NA	NA	NA
Q4 2011	109043.5	7.00	7000.00	412729.6	2.9E+09	2889.11	6.36940	NA	NA	NA	NA	NA	NA	NA
Q1 2012	101616.8	7.10	7100.00	384619.6	2.7E+09	2730.80	6.02039	NA	NA	NA	NA	NA	NA	NA
Q2 2012	87759.1	7.10	7100.00	332168.2	2.4E+09	2358.39	5.19937	NA	NA	NA	NA	NA	NA	NA
Q3 2012	80006.0	7.10	7100.00	302822.7	2.2E+09	2150.04	4.74003	NA	NA	NA	NA	NA	NA	NA
Q4 2012	71596.0	7.00	7000.00	270990.9	1.9E+09	1896.94	4.18203	NA	NA	NA	NA	NA	NA	NA
Q1 2013	58716.8	7.36	7360.00	222243.1	1.6E+09	1635.71	3.60612	16677.4	58.0	58000.0	63124.0	3661189622.0	3661.2	8.1
Totals Since Q3 2010	923756.7						54.29870	16677.4						8.1

Highlighted ce Highlighted cells are the totals for the current quarter

Table 4 Quarterly Calculation of Nitrate Removed and Total Volume of Water Pumped

	TW4-24							TW4-25						
Quarter	Total Pumped (gal)	Conc (mg/L)	Conc (ug/L)	Total Pumped (liters)	Total (ug)	Total (grams)	Total (pounds)	Total Pumped (gal)	Conc (mg/L)	Conc (ug/L)	Total Pumped (liters)	Total (ug)	Total (grams)	Total (pounds)
Calculations and Data Origination														
Q3 2010	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Q4 2010	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Q1 2011	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Q2 2011	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Q3 2011	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Q4 2011	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Q1 2012	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Q2 2012	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Q3 2012	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Q4 2012	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Q1 2013	144842.6	35.9	35900.0	548229.2	19681429751.9	19681.4	43.39	99369.9	9.0	9000.0	376115.1	3385035643.5	3385.0	7.5
Totals Since Q3 2010	144842.6						43.4	99369.9						7.5

Highlighted ce Highlighted cells are the totals for the current quarter

Table 4 Quarterly Calculation of Nitrate Removed and Total Volume of Water Pumped

	TWN-02							
Quarter	Total Pumped (gal)	Conc (mg/L)	Conc (ug/L)	Total Pumped (liters)	Total (ug)	Total (grams)	Total (pounds)	Total Removed by All Wells (pounds)
Calculations and Data Origination								
Q3 2010	NA	NA	NA	NA	NA	NA	NA	15.7
Q4 2010	NA	NA	NA	NA	NA	NA	NA	28.0
Q1 2011	NA	NA	NA	NA	NA	NA	NA	73.3
Q2 2011	NA	NA	NA	NA	NA	NA	NA	27.0
Q3 2011	NA	NA	NA	NA	NA	NA	NA	16.8
Q4 2011	NA	NA	NA	NA	NA	NA	NA	19.7
Q1 2012	NA	NA	NA	NA	NA	NA	NA	15.9
Q2 2012	NA	NA	NA	NA	NA	NA	NA	15.0
Q3 2012	NA	NA	NA	NA	NA	NA	NA	14.7
Q4 2012	NA	NA	NA	NA	NA	NA	NA	14.9
Q1 2013	99369.9	57.3	57300.0	376115.1	21551393597.0	21551.4	47.5	128.4
Totals Since Q3 2010	99369.9						47.5	369.391

Highlighted ce Highlighted cells are the totals for the current quarter

Table 5 Nitrate Data Over Time for MW-30, MW-31, MW-5, and MW-11

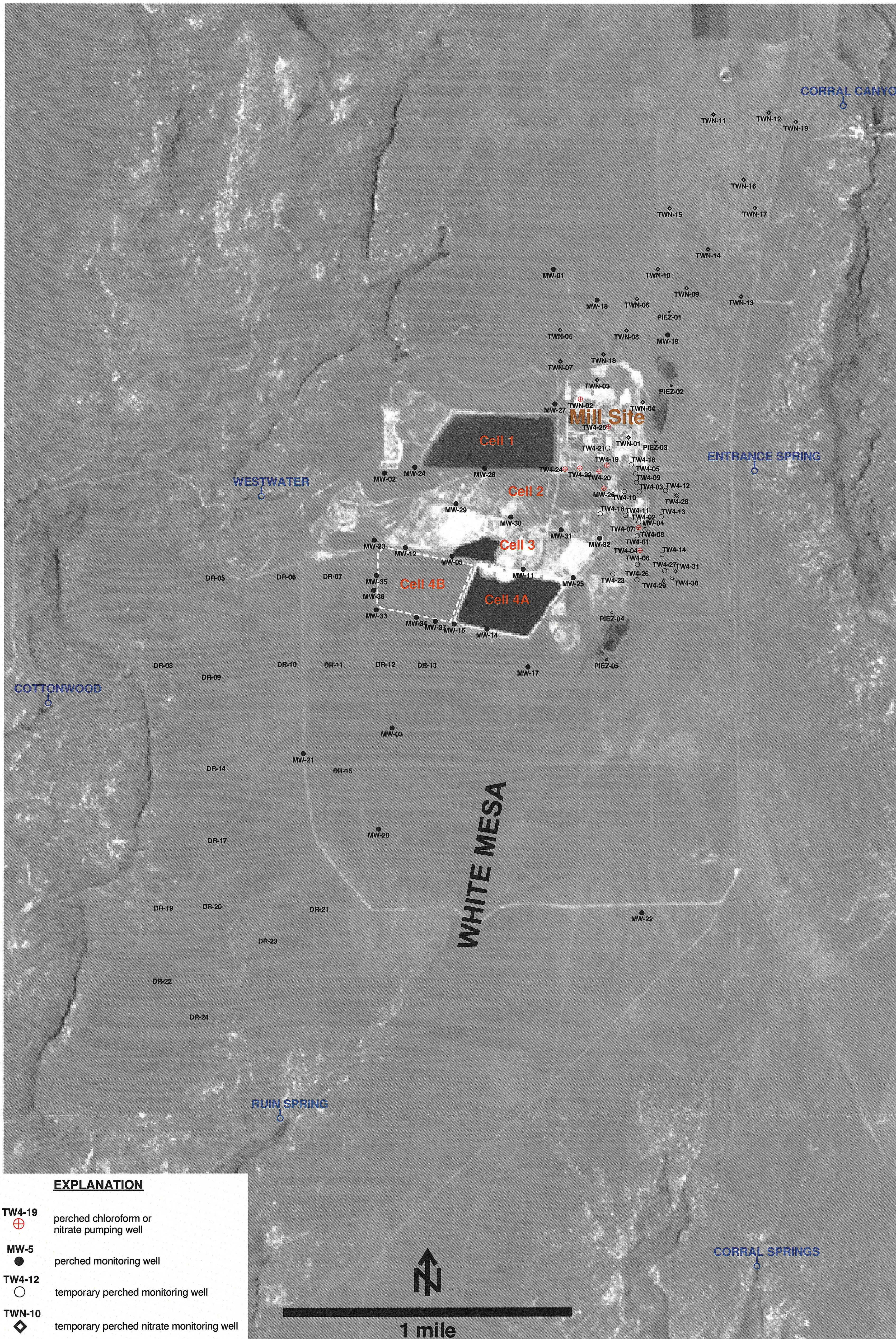
Location	Q2 2010	Q3 2010	Q4 2010	Q1 2011	Q2 2011	Q3 2011	Q4 2011	Q1 2012	Q2 2012	Q3 2012	Q4 2012	Q1 2013
MW-30	15.8	15	16	16	17	16	16	17	16	17	18.5	21.4
MW-31	22.5	21	20	21	22	21	21	21	20	21	23.6	19.3
MW-5	ND	NS	0.2	NS	0.2	NS	0.2	NS	0.1	NS	ND	NS
MW-11	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND

ND = Not detected
NS = Not Sampled

INDEX OF TABS

Tab A

Site Plan and Perched Well Locations White Mesa Site



EXPLANATION

- TW4-19 — perched chloroform or nitrate pumping well
- MW-5 — perched monitoring well
- TW4-12 — temporary perched monitoring well
- TWN-10 — temporary perched nitrate monitoring well
- PIEZ-1 — perched piezometer
- TW4-28 — temporary perched monitoring well installed March, 2013
- RUIN SPRING — seep or spring

HYDRO
GEO
CHEM, INC.

SITE PLAN SHOWING PERCHED WELL AND PIEZOMETER LOCATIONS WHITE MESA SITE

APPROVED	DATE	REFERENCE	FIGURE
		H:/718000/may13/Uwelloc13.srf	A-1

Tab B

Order of Sampling and Field Data Worksheets

Nitrate Order
1st Quarter 2013

Nitrate Samples

Name	Nitrate Mg/L Previous Qrt.	Date/Purge	sample	Depth	Total Depth
TWN-1	0.432	2/18/13	1241		112.5
TWN-7	0.641	2/19/13	1025		105
TWN-4	1.45	2/18/13	1351		125.7
TWN-18	1.95	2/18/13	1440		145
TWN-3	12.1	2/19/13	1045		96
TWN-2	22.1	2/19/13	1052		96
Piez 1	7.66	2/19/13	1412		
Piez 2	0.192	2/19/13	1345		
Piez 3	2.75	2/19/13	1400		

Rinsate Samples

Name	Date	Sample
TWN-1R	2/18/13	1218
TWN-7R		
TWN-4R		
TWN-18R		
TWN-3R		
TWN-2R		

Samplers: Tanner Holliday

Garrin Palmer

2/18	65	1351
2/19	60	1515

DENISON MINES

ATTACHMENT 1-2
WHITE MESA URANIUM MILL
FIELD DATA WORKSHEET FOR GROUNDWATER

See instruction

Description of Sampling Event: 1st Quarter Nitrate 2013

Location (well name): Piez-01

Sampler Name and initials: Tanner Holliday/TH

Field Sample ID: Piez-01_02192013

Date and Time for Purging: 2/19/2013

and Sampling (if different): N/A

Well Purging Equip Used: ☐ pump or ☒ bailer

Well Pump (if other than Bennet): N/A

Purging Method Used: ☐ 2 casings ☐ 3 casings

Sampling Event: Quarterly Nitrate

Prev. Well Sampled in Sampling Event: Piez-03

pH Buffer 7.0: 7.0

pH Buffer 4.0: 4.0

Specific Conductance: 999 µMHOS/ cm

Well Depth(0.01ft): 0

Depth to Water Before Purging: 61.45

Casing Volume (V) 4" Well: 0 (.653h)

3" Well: 0 (.367h)

Conductance (avg): 2123

pH of Water (avg): 8.93

Well Water Temp. (avg): 14.14

Redox Potential (Eh): 332

Turbidity: 5.3

Weather Cond.: Cloudy

Ext'l Amb. Temp. °C (prior sampling event): 7°

Time	1411	Gal. Purged	0
Conductance	2123	pH	8.93
Temp. °C	14.14		
Redox Potential Eh (mV)	332		
Turbidity (NTU)	5.3		

Time		Gal. Purged	
Conductance		pH	
Temp. °C			
Redox Potential Eh (mV)			
Turbidity (NTU)			

Time		Gal. Purged	
Conductance		pH	
Temp. °C			
Redox Potential Eh (mV)			
Turbidity (NTU)			

Time		Gal. Purged	
Conductance		pH	
Temp. °C			
Redox Potential Eh (mV)			
Turbidity (NTU)			

Volume of Water Purged 0 gallon(s)

Pumping Rate Calculation

Flow Rate (Q), in gpm.
S/60 = 0

Time to evacuate two casing volumes (2V)
T = 2V/Q = 0

Number of casing volumes evacuated (if other than two) 0

If well evacuated to dryness, number of gallons evacuated 0

Name of Certified Analytical Laboratory if Other Than Energy Labs AWAL

Type of Sample	Sample Taken Y	Sample Taken N	Sample Vol (indicate if other than as specified below)	Filtered Y	Filtered N	Preservative Type	Preservative Added Y	Preservative Added N
VOCs	☐	☐	3x40 ml	☐	☐	HCL	☐	☐
Nutrients	☒	☐	100 ml	☐	☒	H2SO4	☒	☐
Heavy Metals	☐	☐	250 ml	☐	☐	HNO3	☐	☐
All Other Non Radiologics	☐	☐	250 ml	☐	☐	No Preserv.	☐	☐
Gross Alpha	☐	☐	1,000 ml	☐	☐	HNO3	☐	☐
Other (specify)	☒	☐	Sample volume	☐	☒		☐	☒
Chloride								

If preservative is used, specify
Type and Quantity of Preservative:

Final Depth 67.19

Sample Time 1412

See instruction

Comment

Arrived on site at 1406 Tanner and Garrin present to collect samples. Samples bailed and collected at 1412. water had particles floating but was mostly Clear. Left site at 1416

Piez-01 02-19-2013 Do not touch this cell (SheetName)

DENISON MINES

ATTACHMENT 1-2
WHITE MESA URANIUM MILL
FIELD DATA WORKSHEET FOR GROUNDWATER

See instruction

Description of Sampling Event: 1ST Quarter Nitrate 2013

Location (well name): Piez-02

Sampler Name and initials: Tanner Holliday/TH

Field Sample ID: Piez-02_02192013

Date and Time for Purging: 2/19/2013

and Sampling (if different): N/A

Well Purging Equip Used: ☐ pump or ☒ bailer

Well Pump (if other than Bennet): N/A

Purging Method Used: ☐ 2 casings ☐ 3 casings

Sampling Event: Quarterly Nitrate

Prev. Well Sampled in Sampling Event: TWN-02

pH Buffer 7.0: 7.0

pH Buffer 4.0: 4.0

Specific Conductance: 999 µMHOS/ cm

Well Depth(0.01ft): 0

Depth to Water Before Purging: 29.32

Casing Volume (V) 4" Well: 0 (.653h)
3" Well: 0 (.367h)

Conductance (avg): 692

pH of Water (avg): 7.40

Well Water Temp. (avg): 13.58

Redox Potential (Eh): 367

Turbidity: 2.8

Weather Cond.: Cloudy

Ext'l Amb. Temp. °C (prior sampling event): 7°

Time	1344	Gal. Purged	0
Conductance	692	pH	7.40
Temp. °C	13.58		
Redox Potential Eh (mV)	367		
Turbidity (NTU)	2.8		

Time		Gal. Purged	
Conductance		pH	
Temp. °C			
Redox Potential Eh (mV)			
Turbidity (NTU)			

Time		Gal. Purged	
Conductance		pH	
Temp. °C			
Redox Potential Eh (mV)			
Turbidity (NTU)			

Time		Gal. Purged	
Conductance		pH	
Temp. °C			
Redox Potential Eh (mV)			
Turbidity (NTU)			

Volume of Water Purged: 0 gallon(s)

Pumping Rate Calculation

Flow Rate (Q), in gpm.
S/60 = 0

Time to evacuate two casing volumes (2V)
T = 2V/Q = 0

Number of casing volumes evacuated (if other than two): 0

If well evacuated to dryness, number of gallons evacuated: 0

Name of Certified Analytical Laboratory if Other Than Energy Labs: AWAL

Type of Sample	Sample Taken		Sample Vol (indicate if other than as specified below)	Filtered		Preservative Type	Preservative Added	
	Y	N		Y	N		Y	N
VOCs	☐	☐	3x40 ml	☐	☐	HCL	☐	☐
Nutrients	☒	☐	100 ml	☐	☒	H2SO4	☒	☐
Heavy Metals	☐	☐	250 ml	☐	☐	HNO3	☐	☐
All Other Non Radiologics	☐	☐	250 ml	☐	☐	No Preserv.	☐	☐
Gross Alpha	☐	☐	1,000 ml	☐	☐	HNO3	☐	☐
Other (specify)	☒	☐	Sample volume	☐	☒		☐	☒
Chloride								

If preservative is used, specify Type and Quantity of Preservative:

Final Depth: 30.05

Sample Time: 1345

See instruction

Comment

Arrived on site at 1341. Tanner and Garrin present to collect samples. Samples collected with bailer at 1345. water was clear.

Left site at 1348

Do not touch this cell (SheetName)

DENISON MINES

ATTACHMENT 1-2
WHITE MESA URANIUM MILL
FIELD DATA WORKSHEET FOR GROUNDWATER

See instruction

Description of Sampling Event: 1ST Quarter Nitrate 2013

Location (well name): Piez-03

Sampler Name and initials: Tanner Holliday/TH

Field Sample ID: Piez-03_02192013

Date and Time for Purging: 2/19/2013

and Sampling (if different): N/A

Well Purging Equip Used: ☐ pump or ☒ bailer

Well Pump (if other than Bennet): N/A

Purging Method Used: ☐ 2 casings ☐ 3 casings

Sampling Event: Quarterly Nitrate

Prev. Well Sampled in Sampling Event: Piez-02

pH Buffer 7.0: 7.0

pH Buffer 4.0: 4.0

Specific Conductance: 999 µMHOS/ cm

Well Depth(0.01ft): 0

Depth to Water Before Purging: 42.30

Casing Volume (V) 4" Well: 0 (.653h)

3" Well: 0 (.367h)

Conductance (avg): 3075

pH of Water (avg): 12.03

Well Water Temp. (avg): 14.08

Redox Potential (Eh): 278

Turbidity: 14.3

Weather Cond.: Cloudy

Ext'l Amb. Temp. °C (prior sampling event): 7°

Time	1359	Gal. Purged	0
Conductance	3075	pH	12.03
Temp. °C	14.08		
Redox Potential Eh (mV)	278		
Turbidity (NTU)	14.3		

Time		Gal. Purged	
Conductance		pH	
Temp. °C			
Redox Potential Eh (mV)			
Turbidity (NTU)			

Time		Gal. Purged	
Conductance		pH	
Temp. °C			
Redox Potential Eh (mV)			
Turbidity (NTU)			

Time		Gal. Purged	
Conductance		pH	
Temp. °C			
Redox Potential Eh (mV)			
Turbidity (NTU)			

Volume of Water Purged: 0 gallon(s)

Pumping Rate Calculation

Flow Rate (Q), in gpm.
S/60 = 0

Time to evacuate two casing volumes (2V)
T = 2V/Q = 0

Number of casing volumes evacuated (if other than two): 0

If well evacuated to dryness, number of gallons evacuated: 0

Name of Certified Analytical Laboratory if Other Than Energy Labs: AWAL

Type of Sample	Sample Taken Y	Sample Taken N	Sample Vol (indicate if other than as specified below)	Filtered Y	Filtered N	Preservative Type	Preservative Added Y	Preservative Added N
VOCs	☐	☐	3x40 ml	☐	☐	HCL	☐	☐
Nutrients	☒	☐	100 ml	☐	☒	H2SO4	☒	☐
Heavy Metals	☐	☐	250 ml	☐	☐	HNO3	☐	☐
All Other Non Radiologics	☐	☐	250 ml	☐	☐	No Preserv.	☐	☐
Gross Alpha	☐	☐	1,000 ml	☐	☐	HNO3	☐	☐
Other (specify)	☒	☐	Sample volume	☐	☒		☐	☒
Chloride								

If preservative is used, specify
Type and Quantity of Preservative:

Final Depth: 43.59

Sample Time: 1400

See instruction

Comment

Arrived on site at 1352. Tanner and Garrin present to collect samples. samples bailed and collected at 1400. water had a few particles floating but was mostly clear. PH was High. Left site at 1403

Piez-03 02-19-2013 Do not touch this cell (SheetName)

DENISON MINES

ATTACHMENT 1-2
WHITE MESA URANIUM MILL
FIELD DATA WORKSHEET FOR GROUNDWATER

See instruction

Description of Sampling Event: 1st Quarter Nitrate 2013

Location (well name): TWN-01

Sampler Name and initials: Tanner Holliday/TH

Field Sample ID: TWN-01_02182013

Date and Time for Purging: 2/18/2013 and Sampling (if different): 2/18/2013

Well Purging Equip Used: [x] pump or [ ] bailer

Well Pump (if other than Bennet): Grundfos

Purging Method Used: [x] 2 casings [ ] 3 casings

Sampling Event: Quarterly Nitrate

Prev. Well Sampled in Sampling Event: TWN-01R

pH Buffer 7.0: 7.0

pH Buffer 4.0: 4.0

Specific Conductance: 999 µMHOS/ cm

Well Depth(0.01ft): 112.50

Depth to Water Before Purging: 54.21
54.21

Casing Volume (V) 4" Well: 38.06 (.653h)
3" Well: 0 (.367h)

Conductance (avg): 786

pH of Water (avg): 7.33

Well Water Temp. (avg): 14.76

Redox Potential (Eh): 473

Turbidity: 14.7

Weather Cond.: Sunny

Ext'l Amb. Temp. °C (prior sampling event): 8°

Time	1238	Gal. Purged	60
Conductance	789	pH	7.33
Temp. °C	14.78		
Redox Potential Eh (mV)	473		
Turbidity (NTU)	14.9		

Time	1239	Gal. Purged	72
Conductance	786	pH	7.34
Temp. °C	14.78		
Redox Potential Eh (mV)	473		
Turbidity (NTU)	14.5		

Time	1240	Gal. Purged	84
Conductance	785	pH	7.35
Temp. °C	14.75		
Redox Potential Eh (mV)	473		
Turbidity (NTU)	14.7		

Time	1241	Gal. Purged	96
Conductance	786	pH	7.30
Temp. °C	14.76		
Redox Potential Eh (mV)	474		
Turbidity (NTU)	14.9		

Volume of Water Purged: 96 gallon(s)

Pumping Rate Calculation

Flow Rate (Q), in gpm.
S/60 = 12

Time to evacuate two casing volumes (2V)
T = 2V/Q = 6.34

Number of casing volumes evacuated (if other than two): 0

If well evacuated to dryness, number of gallons evacuated: 0

Name of Certified Analytical Laboratory if Other Than Energy Labs: AWAL

Type of Sample	Sample Taken		Sample Vol (indicate if other than as specified below)	Filtered		Preservative Type	Preservative Added	
	Y	N		Y	N		Y	N
VOCs	☐	☐	3x40 ml	☐	☐	HCL	☐	☐
Nutrients	☒	☐	100 ml	☐	☒	H2SO4	☒	☐
Heavy Metals	☐	☐	250 ml	☐	☐	HNO3	☐	☐
All Other Non Radiologics	☐	☐	250 ml	☐	☐	No Preserv.	☐	☐
Gross Alpha	☐	☐	1,000 ml	☐	☐	HNO3	☐	☐
Other (specify)	☒	☐	Sample volume	☐	☒		☐	☒
Chloride								

If preservative is used, specify Type and Quantity of Preservative:

Final Depth: 76.20

Sample Time: 1241

See instruction

Comment

Arrived on site at 1231. Tanner and Garrin present for purge and sampling event. Purge began at 1233. Purged well for a total of 8 minutes. Water was clear. Purge ended and Samples collected at 1241. Left site at 1243

Do not touch this cell (SheetName)

76.20

DENISON MINES

ATTACHMENT 1-2
WHITE MESA URANIUM MILL
FIELD DATA WORKSHEET FOR GROUNDWATER

See instruction

Description of Sampling Event: 1st Quarter Nitrate 2013

Location (well name): TWN-01R

Sampler Name and initials: Tanner Holliday/TH

Field Sample ID: TWN-01R_02182013

Date and Time for Purging: 2/18/2013 and Sampling (if different): N/A

Well Purging Equip Used: [x] pump or [ ] bailer

Well Pump (if other than Bennet): Grundfos

Purging Method Used: [ ] 2 casings [ ] 3 casings

Sampling Event: Quarterly Nitrate

Prev. Well Sampled in Sampling Event: N/A

pH Buffer 7.0: 7.0

pH Buffer 4.0: 4.0

Specific Conductance: 999 µMHOS/ cm

Well Depth(0.01ft): 0

Depth to Water Before Purging: 0

Casing Volume (V) 4" Well: 0 (.653h)
3" Well: 0 (.367h)

Conductance (avg): 1.5

pH of Water (avg): 5.50

Well Water Temp. (avg): 13.35

Redox Potential (Eh): 475

Turbidity: 0

Weather Cond.: Sunny

Ext'l Amb. Temp. °C (prior sampling event): 8°

Time	1216	Gal. Purged	130
Conductance	1.5	pH	5.50
Temp. °C	13.35		
Redox Potential Eh (mV)	475		
Turbidity (NTU)	0		

Time		Gal. Purged	
Conductance		pH	
Temp. °C			
Redox Potential Eh (mV)			
Turbidity (NTU)			

Time		Gal. Purged	
Conductance		pH	
Temp. °C			
Redox Potential Eh (mV)			
Turbidity (NTU)			

Time		Gal. Purged	
Conductance		pH	
Temp. °C			
Redox Potential Eh (mV)			
Turbidity (NTU)			

Volume of Water Purged: 150 gallon(s)

Pumping Rate Calculation

Flow Rate (Q), in gpm.
S/60 = 12

Time to evacuate two casing volumes (2V)
T = 2V/Q = 0

Number of casing volumes evacuated (if other than two): 0

If well evacuated to dryness, number of gallons evacuated: 0

Name of Certified Analytical Laboratory if Other Than Energy Labs: AWAL

Type of Sample	Sample Taken Y	Sample Taken N	Sample Vol (indicate if other than as specified below)	Filtered Y	Filtered N	Preservative Type	Preservative Added Y	Preservative Added N
VOCs	☐	☐	3x40 ml	☐	☐	HCL	☐	☐
Nutrients	☒	☐	100 ml	☐	☒	H2SO4	☒	☐
Heavy Metals	☐	☐	250 ml	☐	☐	HNO3	☐	☐
All Other Non Radiologics	☐	☐	250 ml	☐	☐	No Preserv.	☐	☐
Gross Alpha	☐	☐	1,000 ml	☐	☐	HNO3	☐	☐
Other (specify)	☒	☐	Sample volume	☐	☒		☐	☒
Chloride								

If preservative is used, specify Type and Quantity of Preservative:

Final Depth: 0

Sample Time: 1218

See instruction

Comment

Arrived on site at 1200. Tanner and Garrin present for rinsate. Rinsate began 1205. Pumped 50 Gallons of soap water and 100 Gallons of DI water. Rinsate ended and samples collected at 1218
Left site at 1225

TWN-01R 02-18-2013 Do not touch this cell (SheetName)

DENISON MINES

ATTACHMENT 1-2
WHITE MESA URANIUM MILL
FIELD DATA WORKSHEET FOR GROUNDWATER

See instruction

Description of Sampling Event: 1st Quarter Nitrate 2013

Location (well name): TWN-02

Sampler Name and initials: Tanner Holliday/TH

Field Sample ID: TWN-02_02192013

Date and Time for Purging: 2/19/2013

and Sampling (if different): N/A

Well Purging Equip Used: [X] pump or [ ] bailer

Well Pump (if other than Bennet): Continuous

Purging Method Used: [ ] 2 casings [ ] 3 casings

Sampling Event: Quarterly Nitrate

Prev. Well Sampled in Sampling Event: TWN-03

pH Buffer 7.0: 7.0

pH Buffer 4.0: 4.0

Specific Conductance: 999 µMHOS/ cm

Well Depth(0.01ft): 96.00

Depth to Water Before Purging: 26.99

Casing Volume (V) 4" Well: 45.06 (.653h)
3" Well: 0 (.367h)

Conductance (avg): 3361

pH of Water (avg): 6.50

Well Water Temp. (avg): 13.65

Redox Potential (Eh): 453

Turbidity: 1.7

Weather Cond.: Partly Cloudy

Ext'l Amb. Temp. °C (prior sampling event): 0°

Time	1051	Gal. Purged	0
Conductance	3361	pH	6.50
Temp. °C	13.65		
Redox Potential Eh (mV)	453		
Turbidity (NTU)	1.7		

Time		Gal. Purged	
Conductance		pH	
Temp. °C			
Redox Potential Eh (mV)			
Turbidity (NTU)			

Time		Gal. Purged	
Conductance		pH	
Temp. °C			
Redox Potential Eh (mV)			
Turbidity (NTU)			

Time		Gal. Purged	
Conductance		pH	
Temp. °C			
Redox Potential Eh (mV)			
Turbidity (NTU)			

Volume of Water Purged | 0 | gallon(s)

Pumping Rate Calculation

Flow Rate (Q), in gpm.
S/60 = 18.0

Time to evacuate two casing volumes (2V)
T = 2V/Q = 0

Number of casing volumes evacuated (if other than two) 0

If well evacuated to dryness, number of gallons evacuated 0

Name of Certified Analytical Laboratory if Other Than Energy Labs AWAL

Type of Sample	Sample Taken Y	Sample Taken N	Sample Vol (indicate if other than as specified below)	Filtered Y	Filtered N	Preservative Type	Preservative Added Y	Preservative Added N
VOCs	☐	☐	3x40 ml	☐	☐	HCL	☐	☐
Nutrients	☒	☐	100 ml	☐	☒	H2SO4	☒	☐
Heavy Metals	☐	☐	250 ml	☐	☐	HNO3	☐	☐
All Other Non Radiologics	☐	☐	250 ml	☐	☐	No Preserv.	☐	☐
Gross Alpha	☐	☐	1,000 ml	☐	☐	HNO3	☐	☐
Other (specify)	☒	☐	Sample volume	☐	☒		☐	☒

Chloride

If preservative is used, specify
Type and Quantity of Preservative:

Final Depth 71.09

Sample Time 1052

See instruction

Comment

Arrived on site at 1049. Tanner and Garrin present to collect samples
Samples collected at 1052. Water was clear. Left site at 1055

TWN-02 02-19-2013 | Do not touch this cell (SheetName)

ATTACHMENT 1-2
WHITE MESA URANIUM MILL
FIELD DATA WORKSHEET FOR GROUNDWATER

See instruction

Description of Sampling Event: 1st Quarter Nitrate 2013

Location (well name): TWN-03

Sampler Name and initials: Tanner Holliday/TH

Field Sample ID: TWN-03_02192013

Date and Time for Purging: 2/18/2013

and Sampling (if different): 2/19/2013

Well Purging Equip Used: [x] pump or [ ] bailer

Well Pump (if other than Bennet): Grundfos

Purging Method Used: [x] 2 casings [ ] 3 casings

Sampling Event: Quarterly Nitrate

Prev. Well Sampled in Sampling Event: TWN-18

pH Buffer 7.0: 7.0

pH Buffer 4.0: 4.0

Specific Conductance: 999 µMHOS/ cm

Well Depth(0.01ft): 96.00

Depth to Water Before Purging: 35.80

Casing Volume (V) 4" Well: 39.31 (.653h)
3" Well: 0 (.367h)

Conductance (avg): 2348

pH of Water (avg): 7.09

Well Water Temp. (avg): 14.42

Redox Potential (Eh): 461

Turbidity: 21

Weather Cond.: Sunny

Ext'l Amb. Temp. °C (prior sampling event): 7°

Time	1508	Gal. Purged	54
Conductance	2315	pH	7.00
Temp. °C	14.73		
Redox Potential Eh (mV)	473		
Turbidity (NTU)	50		

Time		Gal. Purged	
Conductance		pH	
Temp. °C			
Redox Potential Eh (mV)			
Turbidity (NTU)			

Time	1045	Gal. Purged	0
Conductance	2371	pH	7.18
Temp. °C	14.28		
Redox Potential Eh (mV)	453		
Turbidity (NTU)	4.2		

Time	1047	Gal. Purged	0
Conductance	2359	pH	7.11
Temp. °C	14.25		
Redox Potential Eh (mV)	459		
Turbidity (NTU)	8.9		

Volume of Water Purged Before 54 gallon(s) After

Pumping Rate Calculation

Flow Rate (Q), in gpm.
S/60 = 12

Time to evacuate two casing volumes (2V)
T = 2V/Q = 6.55

Number of casing volumes evacuated (if other than two) 1.37

If well evacuated to dryness, number of gallons evacuated 54

Name of Certified Analytical Laboratory if Other Than Energy Labs AWAL

Type of Sample	Sample Taken Y	Sample Taken N	Sample Vol (indicate if other than as specified below)	Filtered Y	Filtered N	Preservative Type	Preservative Added Y	Preservative Added N
VOCs	☐	☐	3x40 ml	☐	☐	HCL	☐	☐
Nutrients	☒	☐	100 ml	☐	☒	H2SO4	☒	☐
Heavy Metals	☐	☐	250 ml	☐	☐	HNO3	☐	☐
All Other Non Radiologics	☐	☐	250 ml	☐	☐	No Preserv.	☐	☐
Gross Alpha	☐	☐	1,000 ml	☐	☐	HNO3	☐	☐
Other (specify)	☒	☐	Sample volume	☐	☒		☐	☒
Chloride								

If preservative is used, specify
Type and Quantity of Preservative:

Final Depth 94.31

Sample Time 1045

See instruction

Comment

Arrived on site at 1501 Tanner and Garrin present for purge. Purge began at 1504
Purged well for a total of 4 minutes and 30 seconds. Purged well dry.
water was a little murky. Purge ended at 1508. Left site at 1511.
Arrived on site at 1039. Tanner and Garrin present to collect samples. Depth to
water was 35.65. Samples bailed at 1045. Left site at 1047

TWN-03 02-18-2013 Do not touch this cell (SheetName)

DENISON MINES

ATTACHMENT 1-2
WHITE MESA URANIUM MILL
FIELD DATA WORKSHEET FOR GROUNDWATER

See instruction

Description of Sampling Event: 1st Quarter Nitrate 2013

Location (well name): TWN-04

Sampler Name and initials: Tanner Holliday/TH

Field Sample ID: TWN-04_02182013

Date and Time for Purging: 2/18/2013 and Sampling (if different): N/A

Well Purging Equip Used: [X] pump or [ ] bailer

Well Pump (if other than Bennet): ~~125.70~~ Grundfos

Purging Method Used: [X] 2 casings [ ] 3 casings

Sampling Event: Quarterly Nitrate

Prev. Well Sampled in Sampling Event: TWN-07

pH Buffer 7.0: 7.0

pH Buffer 4.0: 4.0

Specific Conductance: 999 μMHOS/ cm

Well Depth(0.01ft): 125.70

Depth to Water Before Purging: 45.70

Casing Volume (V) 4" Well: 52.24 (.653h)
3" Well: 0 (.367h)

Conductance (avg): 986

pH of Water (avg): 7.14

Well Water Temp. (avg): 14.46

Redox Potential (Eh): 529

Turbidity: 13.25

Weather Cond.: Sunny

Ext'l Amb. Temp. °C (prior sampling event): 7°

Time	Gal. Purged	Conductance	pH	Temp. °C	Redox Potential Eh (mV)	Turbidity (NTU)
1348	108	987	7.13	14.47	528	12.9
1349	126	986	7.15	14.47	528	13.0
1350	132	986	~~48~~ 7.14	14.46	531	13.1
1351	144	986	7.14	14.47	531	14

Volume of Water Purged 144 gallon(s)

Pumping Rate Calculation

Flow Rate (Q), in gpm.
S/60 = 12

Time to evacuate two casing volumes (2V)
T = 2V/Q = 8.70

Number of casing volumes evacuated (if other than two) 0

If well evacuated to dryness, number of gallons evacuated 0

Name of Certified Analytical Laboratory if Other Than Energy Labs AWAL

Type of Sample	Sample Taken Y	Sample Taken N	Sample Vol (indicate if other than as specified below)	Filtered Y	Filtered N	Preservative Type	Preservative Added Y	Preservative Added N
VOCs	☐	☐	3x40 ml	☐	☐	HCL	☐	☐
Nutrients	☒	☐	100 ml	☐	☒	H2SO4	☒	☒
Heavy Metals	☐	☐	250 ml	☐	☐	HNO3	☐	☐
All Other Non Radiologics	☐	☐	250 ml	☐	☐	No Preserv.	☐	☐
Gross Alpha	☐	☐	1,000 ml	☐	☐	HNO3	☐	☐
Other (specify)	☒	☐	Sample volume	☐	☒		☐	☒
Chloride								

If preservative is used, specify
Type and Quantity of Preservative:

Final Depth 49.43

Sample Time 1351

See instruction

Comment

Arrived on site at 1335 Tanner and Garrin present for purge and sampling event.
Purge began at 1339 Purged well for a total of 12 minutes.
water was clear. Purge ended and samples collected at 1351.
Left site at 1353.

TWN-04 02-18-2013 Do not touch this cell (SheetName)

DENISON MINES

ATTACHMENT 1-2
WHITE MESA URANIUM MILL
FIELD DATA WORKSHEET FOR GROUNDWATER

See instruction

Description of Sampling Event: 1st Quarter Nitrate 2013

Location (well name): TWN-07

Sampler Name and initials: Tanner Holliday/TH

Field Sample ID: TWN-07_02192013

Date and Time for Purging: 2/18/2013 and Sampling (if different): 2/19/2013

Well Purging Equip Used: [X] pump or [ ] bailer

Well Pump (if other than Bennet): Grundfos

Purging Method Used: [X] 2 casings [ ] 3 casings

Sampling Event: Quarterly Nitrate

Prev. Well Sampled in Sampling Event: TWN-01

pH Buffer 7.0: 7.0

pH Buffer 4.0: 4.0

Specific Conductance: 999 µMHOS/ cm

Well Depth(0.01ft): 105.00

Depth to Water Before Purging: 87.40

Casing Volume (V) 4" Well: 11.49 (.653h)
3" Well: 0 (.367h)

Conductance (avg): 1201

pH of Water (avg): 7.56

Well Water Temp. (avg): 14.19

Redox Potential (Eh): 437

Turbidity: 21

Weather Cond.: Sunny

Ext'l Amb. Temp. °C (prior sampling event): 8°

Time	1312
Gal. Purged	15
Conductance	1193
pH	7.36
Temp. °C	14.24
Redox Potential Eh (mV)	448
Turbidity (NTU)	31

Time	
Gal. Purged	
Conductance	
pH	
Temp. °C	
Redox Potential Eh (mV)	
Turbidity (NTU)	

Time	1025
Gal. Purged	0
Conductance	1209
pH	7.68
Temp. °C	14.15
Redox Potential Eh (mV)	436
Turbidity (NTU)	16.1

Time	1027
Gal. Purged	0
Conductance	1200
pH	7.66
Temp. °C	14.19
Redox Potential Eh (mV)	428
Turbidity (NTU)	7.0

Volume of Water Purged Before 15 gallon(s) After

Pumping Rate Calculation

Flow Rate (Q), in gpm.
S/60 = 12

Time to evacuate two casing volumes (2V)
T = 2V/Q = 1.91

Number of casing volumes evacuated (if other than two) 1.30

If well evacuated to dryness, number of gallons evacuated 15

Name of Certified Analytical Laboratory if Other Than Energy Labs AWAL

Type of Sample	Sample Taken Y	Sample Taken N	Sample Vol (indicate if other than as specified below)	Filtered Y	Filtered N	Preservative Type	Preservative Added Y	Preservative Added N
VOCs	☐	☐	3x40 ml	☐	☐	HCL	☐	☐
Nutrients	☒	☐	100 ml	☐	☒	H2SO4	☒	☐
Heavy Metals	☐	☐	250 ml	☐	☐	HNO3	☐	☐
All Other Non Radiologics	☐	☐	250 ml	☐	☐	No Preserv.	☐	☐
Gross Alpha	☐	☐	1,000 ml	☐	☐	HNO3	☐	☐
Other (specify)	☒	☐	Sample volume	☐	☒		☐	☒
Chloride								

If preservative is used, specify
Type and Quantity of Preservative:

Final Depth 103.11

Sample Time 1025

See instruction

Comment

Arrived on site at 1309 Tanner and Garrin present for purge. Purge began at 1311. Purged well for a total of 1 minute and 15 seconds. Purged well dry!
Water was mostly clear. Purge ended at 1312. Left site at 1314
Arrived on site at 1021. Tanner and Garrin present to collect samples. Depth to water was 96.20. Samples bailed at 1025. Left site at 1028

TWN-07 02-18-2013 Do not touch this cell (SheetName)

DENISON MINES

ATTACHMENT 1-2
WHITE MESA URANIUM MILL
FIELD DATA WORKSHEET FOR GROUNDWATER

See instruction

Description of Sampling Event: 1st Quarter Nitrate 2013

Location (well name): TWN-18

Sampler Name and initials: Tanner Holliday/TH

Field Sample ID: TWN-18_02182013

Date and Time for Purging: 2/18/2013 and Sampling (if different): N/A

Well Purging Equip Used: [X] pump or [ ] bailer

Well Pump (if other than Bennet): Grundfos

Purging Method Used: [X] 2 casings [ ] 3 casings

Sampling Event: Quarterly Nitrate

Prev. Well Sampled in Sampling Event: TWN-04

pH Buffer 7.0: 7.0

pH Buffer 4.0: 4.0

Specific Conductance: 999 µMHOS/ cm

Well Depth(0.01ft): 145.00

Depth to Water Before Purging: 58.10

Casing Volume (V) 4" Well: 56.74 (.653h)
3" Well: 0 (.367h)

Conductance (avg): 2104

pH of Water (avg): 6.88

Well Water Temp. (avg): 14.29

Redox Potential (Eh): 464

Turbidity: 29.12

Weather Cond.: Sunny

Ext'l Amb. Temp. °C (prior sampling event): 7°

Time	1437	Gal. Purged	96
Conductance	2101	pH	6.87
Temp. °C	14.29		
Redox Potential Eh (mV)	464		
Turbidity (NTU)	27.5		

Time	1438	Gal. Purged	108
Conductance	2104	pH	6.88
Temp. °C	14.30		
Redox Potential Eh (mV)	464		
Turbidity (NTU)	29		

Time	1439	Gal. Purged	120
Conductance	2105	pH	6.89
Temp. °C	14.30		
Redox Potential Eh (mV)	464		
Turbidity (NTU)	29		

Time	1440	Gal. Purged	132
Conductance	2107	pH	6.88
Temp. °C	14.30		
Redox Potential Eh (mV)	464		
Turbidity (NTU)	31		

Volume of Water Purged: 132 gallon(s)

132

Pumping Rate Calculation

Flow Rate (Q), in gpm.
S/60 = 12

Time to evacuate two casing volumes (2V)
T = 2V/Q = 9.45

Number of casing volumes evacuated (if other than two): 0

If well evacuated to dryness, number of gallons evacuated: 0

Name of Certified Analytical Laboratory if Other Than Energy Labs: AWAL

Type of Sample	Sample Taken Y	Sample Taken N	Sample Vol (indicate if other than as specified below)	Filtered Y	Filtered N	Preservative Type	Preservative Added Y	Preservative Added N
VOCs	☐	☐	3x40 ml	☐	☐	HCL	☐	☐
Nutrients	☒	☐	100 ml	☐	☒	H2SO4	☒	☐
Heavy Metals	☐	☐	250 ml	☐	☐	HNO3	☐	☐
All Other Non Radiologics	☐	☐	250 ml	☐	☐	No Preserv.	☐	☐
Gross Alpha	☐	☐	1,000 ml	☐	☐	HNO3	☐	☐
Other (specify)	☒	☐	Sample volume	☐	☒		☐	☒
Chloride								

If preservative is used, specify
Type and Quantity of Preservative:

Final Depth: 59.75

Sample Time: 1440

See instruction

Comment

Arrived on site at 1426 Tanner and Garrin present for purge and sampling event.
Purge began at 1429. Purged well for a total of 11 minutes.
Water was mostly clear. Purge ended and samples collected at 1440.
Left site at 1442

TWN-18 02-18-2013 Do not touch this cell (SheetName)

ATTACHMENT 1-2
WHITE MESA URANIUM MILL
FIELD DATA WORKSHEET FOR GROUNDWATER

DENISON MINES

See instruction

Description of Sampling Event: 1st Quarter Chloroform 2013

Location (well name): TW4-22

Sampler Name and initials: Garrin Palmer/GP

Field Sample ID: TW4-22_02112013

Date and Time for Purging: 02/11/2013 and Sampling (if different): N/A

Well Purging Equip Used: ☒ pump or ☐ bailer

Well Pump (if other than Bennet): Grundfos

Purging Method Used: ☐ 2 casings ☐ 3 casings

Sampling Event: Quarterly Chloroform

Prev. Well Sampled in Sampling Event: TW4-24

pH Buffer 7.0: 7.0

pH Buffer 4.0: 4.0

Specific Conductance: 999 µMHOS/ cm

Well Depth(0.01ft): 113.5

Depth to Water Before Purging: 54.53

Casing Volume (V) 4" Well: 38.50 (.653h)
3" Well: 0 (.367h)

Conductance (avg): 5881

pH of Water (avg): 6.80

Well Water Temp. (avg): 13.59

Redox Potential (Eh): 412

Turbidity: 1.8

Weather Cond.: Cloudy

Ext'l Amb. Temp. °C (prior sampling event): 0°

Time	0925	Gal. Purged	0
Conductance	5881	pH	6.80
Temp. °C	13.59		
Redox Potential Eh (mV)	412		
Turbidity (NTU)	1.8		

Time		Gal. Purged	
Conductance		pH	
Temp. °C			
Redox Potential Eh (mV)			
Turbidity (NTU)			

Time		Gal. Purged	
Conductance		pH	
Temp. °C			
Redox Potential Eh (mV)			
Turbidity (NTU)			

Time		Gal. Purged	
Conductance		pH	
Temp. °C			
Redox Potential Eh (mV)			
Turbidity (NTU)			

Volume of Water Purged: 0 gallon(s)

Pumping Rate Calculation

Flow Rate (Q), in gpm.
S/60 = 16.7

Time to evacuate two casing volumes (2V)
T = 2V/Q = 0

Number of casing volumes evacuated (if other than two): 0

If well evacuated to dryness, number of gallons evacuated: 0

Name of Certified Analytical Laboratory if Other Than Energy Labs: AWAL

Type of Sample	Sample Taken Y	Sample Taken N	Sample Vol (indicate if other than as specified below)	Filtered Y	Filtered N	Preservative Type	Preservative Added Y	Preservative Added N
VOCs	☒	☐	3x40 ml	☐	☒	HCL	☒	☐
Nutrients	☒	☐	100 ml	☐	☒	H2SO4	☒	☐
Heavy Metals	☐	☐	250 ml	☐	☐	HNO3	☐	☐
All Other Non Radiologics	☐	☐	250 ml	☐	☐	No Preserv.	☐	☐
Gross Alpha	☐	☐	1,000 ml	☐	☐	HNO3	☐	☐
Other (specify)	☒	☐	Sample volume	☐	☒		☐	☒

Other (specify): Chloride

If preservative is used, specify Type and Quantity of Preservative:

Final Depth: 101.40

Sample Time: 0926

See instruction

Comment

Arrived on site at 0920. Garrin and David present for sampling event. Parameters were taken and samples were collected at 0926. Water was clear. Left site 0940.

TW4-22 02-11-2013 Do not touch this cell (SheetName)

DENISON MINES

ATTACHMENT 1-2
WHITE MESA URANIUM MILL
FIELD DATA WORKSHEET FOR GROUNDWATER

See instruction

Description of Sampling Event: 1st Quarter Chloroform 2013

Location (well name): TW4-24

Sampler Name and initials: Garrin Palmer / GP

Field Sample ID: TW4-24_02112013

Date and Time for Purging: 2/11/2013 and Sampling (if different): NA

Well Purging Equip Used: ☒ pump or ☐ bailer

Well Pump (if other than Bennet): Grundfos

Purging Method Used: ☐ 2 casings ☐ 3 casings

Sampling Event: Quarterly Chloroform

Prev. Well Sampled in Sampling Event: TW4-25

pH Buffer 7.0: 7.0

pH Buffer 4.0: 4.0

Specific Conductance: 999 µMHOS/ cm

Well Depth(0.01ft): 112.5

Depth to Water Before Purging: 60.68

Casing Volume (V) 4" Well: 33.83 (.653h)
3" Well: 0 (.367h)

Conductance (avg): 7620

pH of Water (avg): 6.70

Well Water Temp. (avg): 13.78

Redox Potential (Eh): 416

Turbidity: 4.6

Weather Cond.: Cloudy

Ext'l Amb. Temp. °C (prior sampling event): 0°

Time	0909	Gal. Purged	0
Conductance	7620	pH	6.70
Temp. °C	13.78		
Redox Potential Eh (mV)	416		
Turbidity (NTU)	4.6		

Time		Gal. Purged	
Conductance		pH	
Temp. °C			
Redox Potential Eh (mV)			
Turbidity (NTU)			

Time		Gal. Purged	
Conductance		pH	
Temp. °C			
Redox Potential Eh (mV)			
Turbidity (NTU)			

Time		Gal. Purged	
Conductance		pH	
Temp. °C			
Redox Potential Eh (mV)			
Turbidity (NTU)			

Volume of Water Purged: 0 gallon(s)

Pumping Rate Calculation

Flow Rate (Q), in gpm.
S/60 = 18.0

Time to evacuate two casing volumes (2V)
T = 2V/Q = 0

Number of casing volumes evacuated (if other than two): 0

If well evacuated to dryness, number of gallons evacuated: 0

Name of Certified Analytical Laboratory if Other Than Energy Labs: AWAL

Type of Sample	Sample Taken Y	Sample Taken N	Sample Vol (indicate if other than as specified below)	Filtered Y	Filtered N	Preservative Type	Preservative Added Y	Preservative Added N
VOCs	☒	☐	3x40 ml	☐	☒	HCL	☒	☐
Nutrients	☒	☐	100 ml	☐	☒	H2SO4	☒	☐
Heavy Metals	☐	☐	250 ml	☐	☐	HNO3	☐	☐
All Other Non Radiologics	☐	☐	250 ml	☐	☐	No Preserv.	☐	☐
Gross Alpha	☐	☐	1,000 ml	☐	☐	HNO3	☐	☐
Other (specify)	☒	☐	Sample volume	☐	☒		☐	☒

Other (specify)
Chloride

If preservative is used, specify
Type and Quantity of Preservative:

Final Depth: 67.18

Sample Time: 0910

See instruction

Comment

Arrived on site at 0902. Garrin and David present for sampling event. Parameters were taken and samples were collected at 0910. Water was clear. Left site at 0918.

TW4-24 02-11-2013 | Do not touch this cell (SheetName)

DENISON MINES

ATTACHMENT 1-2
WHITE MESA URANIUM MILL
FIELD DATA WORKSHEET FOR GROUNDWATER

See instruction

Description of Sampling Event: 1st Quarter Chloroform 2013

Location (well name): TW4-25

Sampler Name and initials: Garrin Palmer / GP

Field Sample ID: TW4-25_02112013

Date and Time for Purging: 02/11/2013 and Sampling (if different): N/A

Well Purging Equip Used: ☒ pump or ☐ bailer

Well Pump (if other than Bennet): Grundfos

Purging Method Used: ☐ 2 casings ☐ 3 casings

Sampling Event: Quarterly Chloroform

Prev. Well Sampled in Sampling Event: TW4-26

pH Buffer 7.0: 7.0

pH Buffer 4.0: 4.0

Specific Conductance: 999 µMHOS/ cm

Well Depth(0.01ft): 134.8

Depth to Water Before Purging: 55.23

Casing Volume (V) 4" Well: 51.95 (.653h)
3" Well: 0 (.367h)

Conductance (avg): 2798

pH of Water (avg): 6.62

Well Water Temp. (avg): 14.84

Redox Potential (Eh): 540

Turbidity: 0.8

Weather Cond.: Cloudy

Ext'l Amb. Temp. °C (prior sampling event): -2°

Time	0849	Gal. Purged	0
Conductance	2798	pH	6.62
Temp. °C	14.84		
Redox Potential Eh (mV)	540		
Turbidity (NTU)	0.8		

Time		Gal. Purged	
Conductance		pH	
Temp. °C			
Redox Potential Eh (mV)			
Turbidity (NTU)			

Time		Gal. Purged	
Conductance		pH	
Temp. °C			
Redox Potential Eh (mV)			
Turbidity (NTU)			

Time		Gal. Purged	
Conductance		pH	
Temp. °C			
Redox Potential Eh (mV)			
Turbidity (NTU)			

Volume of Water Purged: 0 gallon(s)

Pumping Rate Calculation

Flow Rate (Q), in gpm.
S/60 = 17.5

Time to evacuate two casing volumes (2V)
T = 2V/Q = 0

Number of casing volumes evacuated (if other than two): 0

If well evacuated to dryness, number of gallons evacuated: 0

Name of Certified Analytical Laboratory if Other Than Energy Labs: AWAL

Type of Sample	Sample Taken Y	Sample Taken N	Sample Vol (indicate if other than as specified below)	Filtered Y	Filtered N	Preservative Type	Preservative Added Y	Preservative Added N
VOCs	☒	☐	3x40 ml	☐	☒	HCL	☒	☐
Nutrients	☒	☐	100 ml	☐	☒	H2SO4	☒	☐
Heavy Metals	☐	☐	250 ml	☐	☐	HNO3	☐	☐
All Other Non Radiologics	☐	☐	250 ml	☐	☐	No Preserv.	☐	☐
Gross Alpha	☐	☐	1,000 ml	☐	☐	HNO3	☐	☐
Other (specify)	☒	☐	Sample volume	☐	☒		☐	☒

Other (specify): Chloride

If preservative is used, specify Type and Quantity of Preservative:

Final Depth: 88.36

Sample Time: 0850

See instruction

Comment

Arrived on site at 0837. Garrin and David Turk present for sampling. Parameters were taken and samples were collected at 0850. Left Site at 0900. Water was clear.

TW4-25 02-11-2013 Do not touch this cell (SheetName)

DENISON MINES

ATTACHMENT 1-2
WHITE MESA URANIUM MILL
FIELD DATA WORKSHEET FOR GROUNDWATER

See instruction

Description of Sampling Event: 1st Quarter Nitrate 2013

Location (well name): TWN-60

Sampler Name and initials: Tanner Holliday/TH

Field Sample ID: TWN-60_02192013

Date and Time for Purging: 2/19/2013 and Sampling (if different): N/A

Well Purging Equip Used: ☐ pump or ☐ bailer

Well Pump (if other than Bennet): N/A

Purging Method Used: ☐ 2 casings ☐ 3 casings

Sampling Event: 999

Prev. Well Sampled in Sampling Event: Piez-01

pH Buffer 7.0: 7.0

pH Buffer 4.0: 4.0

Specific Conductance: 999 µMHOS/ cm

Well Depth(0.01ft): 0

Depth to Water Before Purging: 0

Casing Volume (V) 4" Well: 0 (.653h)
3" Well: 0 (.367h)

Conductance (avg): 0.1

pH of Water (avg): 5.98

Well Water Temp. (avg): 14.86

Redox Potential (Eh): 446

Turbidity: 9.6

Weather Cond.: Clear

Ext'l Amb. Temp. °C (prior sampling event): 20°

Time	~~1514~~	Gal. Purged	~~0~~
Conductance	~~59~~	pH	~~5.50~~
Temp. °C	~~15.16~~		
Redox Potential Eh (mV)	~~444~~		
Turbidity (NTU)	~~0.6~~		

Time	1514	Gal. Purged	0
Conductance	0.1	pH	5.98
Temp. °C	14.86		
Redox Potential Eh (mV)	446		
Turbidity (NTU)	9.6		

Time		Gal. Purged	
Conductance		pH	
Temp. °C			
Redox Potential Eh (mV)			
Turbidity (NTU)			

Time		Gal. Purged	
Conductance		pH	
Temp. °C			
Redox Potential Eh (mV)			
Turbidity (NTU)			

Volume of Water Purged: 0 gallon(s)

Pumping Rate Calculation

Flow Rate (Q), in gpm.
S/60 = 0

Time to evacuate two casing volumes (2V)
T = 2V/Q = 0

Number of casing volumes evacuated (if other than two): 0

If well evacuated to dryness, number of gallons evacuated: 0

Name of Certified Analytical Laboratory if Other Than Energy Labs: AWAL

Type of Sample	Sample Taken Y	Sample Taken N	Sample Vol (indicate if other than as specified below)	Filtered Y	Filtered N	Preservative Type	Preservative Added Y	Preservative Added N
VOCs	☐	☐	3x40 ml	☐	☐	HCL	☐	☐
Nutrients	☒	☐	100 ml	☐	☒	H2SO4	☒	☐
Heavy Metals	☐	☐	250 ml	☐	☐	HNO3	☐	☐
All Other Non Radiologics	☐	☐	250 ml	☐	☐	No Preserv.	☐	☐
Gross Alpha	☐	☐	1,000 ml	☐	☐	HNO3	☐	☐
Other (specify)	☒	☐	Sample volume	☐	☒		☐	☒
Chloride								

If preservative is used, specify
Type and Quantity of Preservative:

Final Depth: 0

Sample Time: 1515

See instruction

Comment

Arrived in Lab at 1510. Tanner Holliday Present to collect DI Sample. Sample taken at 1515. Left site at 1516

DI Sample

Do not touch this cell (SheetName)

DENISON MINES

ATTACHMENT 1-2
WHITE MESA URANIUM MILL
FIELD DATA WORKSHEET FOR GROUNDWATER

See instruction

Description of Sampling Event: 1ST Quarter Nitrate 2013

Location (well name): TWN-65

Sampler Name and initials: Tanner Holliday/TH

Field Sample ID: TWN-65_02182013

Date and Time for Purging: 2/18/2013 and Sampling (if different): N/A

Well Purging Equip Used: [X] pump or [ ] bailer

Well Pump (if other than Bennet): Grundfos

Purging Method Used: [X] 2 casings [ ] 3 casings

Sampling Event: Quarterly Nitrate

Prev. Well Sampled in Sampling Event: TWN-07

pH Buffer 7.0: 7.0

pH Buffer 4.0: 4.0

Specific Conductance: 999 µMHOS/ cm

Well Depth(0.01ft): 125.70

Depth to Water Before Purging: 45.70

Casing Volume (V) 4" Well: 52.24 (.653h)
3" Well: 0 (.367h)

Conductance (avg): 986

pH of Water (avg): 7.14

Well Water Temp. (avg): 14.46

Redox Potential (Eh): 529

Turbidity: 13.25

Weather Cond.: Sunny

Ext'l Amb. Temp. °C (prior sampling event): 7°

Time		Gal. Purged	
Conductance		pH	
Temp. °C			
Redox Potential Eh (mV)			
Turbidity (NTU)			

Time		Gal. Purged	
Conductance		pH	
Temp. °C			
Redox Potential Eh (mV)			
Turbidity (NTU)			

Time		Gal. Purged	
Conductance		pH	
Temp. °C			
Redox Potential Eh (mV)			
Turbidity (NTU)			

Time		Gal. Purged	
Conductance		pH	
Temp. °C			
Redox Potential Eh (mV)			
Turbidity (NTU)			

Volume of Water Purged: 144 gallon(s)

Pumping Rate Calculation

Flow Rate (Q), in gpm.
S/60 = . 12

Time to evacuate two casing volumes (2V)
T = 2V/Q = 8.70

Number of casing volumes evacuated (if other than two): 0

If well evacuated to dryness, number of gallons evacuated: 0

Name of Certified Analytical Laboratory if Other Than Energy Labs: AWAL

Type of Sample	Sample Taken Y	Sample Taken N	Sample Vol (indicate if other than as specified below)	Filtered Y	Filtered N	Preservative Type	Preservative Added Y	Preservative Added N
VOCs	☐	☐	3x40 ml	☐	☐	HCL	☐	☐
Nutrients	☒	☐	100 ml	☐	☒	H2SO4	☒	☐
Heavy Metals	☐	☐	250 ml	☐	☐	HNO3	☐	☐
All Other Non Radiologics	☐	☐	250 ml	☐	☐	No Preserv.	☐	☐
Gross Alpha	☐	☐	1,000 ml	☐	☐	HNO3	☐	☐
Other (specify)	☒	☐	Sample volume	☐	☒		☐	☒
Chloride								

If preservative is used, specify
Type and Quantity of Preservative:

Final Depth: 49.43

Sample Time: 1351

See instruction

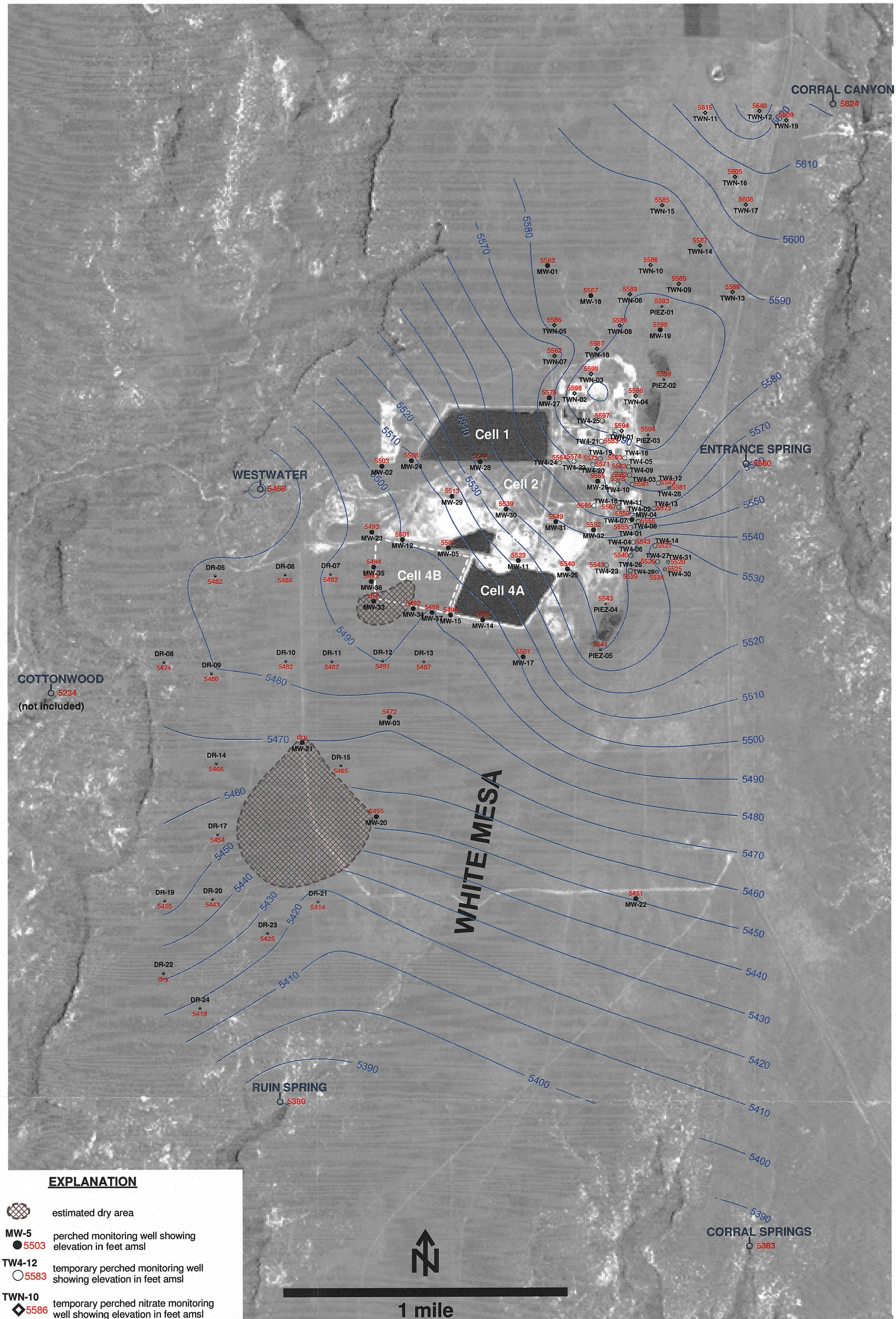
Comment

Duplicate of TWN-04

TWN-65 02-18-2013 Do not touch this cell (SheetName)

Tab C

Kriged Current Quarter Groundwater Contour Map and Depth to Water Summary



EXPLANATION

(cross-hatched area)	estimated dry area
MW-5 ● 5503	perched monitoring well showing elevation in feet amsl
TW4-12 ○ 5583	temporary perched monitoring well showing elevation in feet amsl
TWN-10 ◆ 5586	temporary perched nitrate monitoring well showing elevation in feet amsl
PIEZ-1 5593	perched piezometer showing elevation in feet amsl
TW4-28 ☼ 5581	temporary perched monitoring well installed March, 2013 showing elevation in feet amsl
RUIN SPRING 5380	seep or spring showing elevation in feet amsl

NOTE: MW-4, MW-26, TW4-4, TW4-19, and TW4-20 are chloroform pumping wells; TW4-22, TW4-24, TW4-25, and TWN-2 are nitrate pumping wells

HYDRO GEO CHEM, INC.

KRIGED 1st QUARTER, 2013 WATER LEVELS WHITE MESA SITE

APPROVED	DATE	REFERENCE	FIGURE
		H:/718000/may13/Uwl0313.srf	C-1

NAME: Garrin Palmer, Tanner Holliday

DATE: 3/28/2013

TIME	WELL	Static level	TIME	WELL	Static Level	TIME	WELL	Static Level	TIME	WELL	Static Level
852	MW-1	64.26	1011	MW-4	70.03	815	PIEZ-1	62.33	NA	DR-1	ABANDON
944	MW-2	109.65	1009	TW4-1	63.85	808	PIEZ-2	30.12	NA	DR-2	ABANDON
952	MW-3	83.15	1013	TW4-2	65.33	900	PIEZ-3	43.80	853	DR-5	83.09
955	MW-3A	85.11	1005	TW4-3	50.71	938	PIEZ-4	47.97	1008	DR-6	94.38
1040	MW-5	106.12	1017	TW4-4	70.00	941	PIEZ-5	43.55	1006	DR-7	92.26
1046	MW-11	87.41	1001	TW4-5	57.82	928	TWN-1	54.55	848	DR-8	51.00
1018	MW-12	108.51	1019	TW4-6	69.25	1010	TWN-2	28.41	845	DR-9	86.55
1050	MW-14	103.60	1010	TW4-7	64.84	906	TWN-3	35.90	842	DR-10	78.15
1037	MW-15	106.37	1007	TW4-8	64.92	858	TWN-4	46.30	1000	DR-11	98.28
947	MW-17	73.65	1003	TW4-9	55.62	847	TWN-5	69.50	958	DR-12	89.34
844	MW-18	70.21	959	TW4-10	56.32	839	TWN-6	75.49	950	DR-13	69.86
812	MW-19	55.88	1015	TW4-11	56.73	849	TWN-7	87.25	834	DR-14	76.38
859	MW-20	85.80	1028	TW4-12	41.52	842	TWN-8	62.53	838	DR-15	92.94
807	MW-22	66.83	1032	TW4-13	46.91	817	TWN-9	62.10	NA	DR-16	ABANDON
1015	MW-23	119.15	1034	TW4-14	85.86	837	TWN-10	80.70	830	DR-17	64.80
941	MW-24	114.00	957	TW4-15	60.08	831	TWN-11	69.13	NA	DR-18	ABANDON
936	MW-25	73.14	1048	TW4-16	59.28	829	TWN-12	28.25	819	DR-19	63.15
957	MW-26	60.08	1045	TW4-17	73.70	820	TWN-13	45.45	816	DR-20	55.22
936	MW-27	51.80	931	TW4-18	58.40	822	TWN-14	62.10	901	DR-21	107.33
947	MW-28	76.05	1104	TW4-19	58.88	835	TWN-15	91.56	826	DR-22	DRY
1057	MW-29	101.65	955	TW4-20	58.01	827	TWN-16	47.48	812	DR-23	70.62
1053	MW-30	75.25	934	TW4-21	56.61	825	TWN-17	33.64	823	DR-24	43.85
1050	MW-31	67.26	952	TW4-22	55.50	904	TWN-18	58.13	NA	DR-25	ABANDON
1045	MW-32	73.70	1021	TW4-23	63.89	1330	TWN-19	52.19			
1007	MW-33	Dry	950	TW4-24	61.30						
1053	MW-34	107.92	1047	TW4-25	47.48						
1013	MW-35	112.40	1023	TW4-26	62.55						
1010	MW-36	110.56	1036	TW4-27	81.57						
1055	MW-37	110.15	1030	TW4-28	36.31						
			1037	TW4-29	72.06						
			1039	TW4-30	78.03						
			1041	TW4-31	84.41						

Weekly Inspection Form

Date 1/7/13 **Name** Garrin Palmer, Tanner Holliday

Time	Well	Depth*	Comments	System Operational (If no note any problems/corrective actions)
1221	MW-4	76.4	Flow 4.4 GPM	Yes No
			Meter 12812.43	Yes No
1218	MW-26	58.15	Flow 10.0 GPM	Yes No
			Meter 290706.18	Yes No
1035	TW4-19	57.49	Flow 14.0 GPM	Yes No
			Meter 812616.00	Yes No
1215	TW4-20	55.77	Flow 9.6 GPM	Yes No
			Meter 535382.54	Yes No
1223	TW4-4	80.98	Flow 8.4 GPM	Yes No
			Meter 3807.84	Yes No
	TWN-2		Flow	Yes No
			Meter	Yes No
	TW4-22		Flow	Yes No
			Meter	Yes No
	TW4-24		Flow	Yes No
			Meter	Yes No
	TW4-25		Flow	Yes No
			Meter	Yes No

Operational Problems (Please list well number): TWN-2, TW4-22, TW4-24, TW4-25 are currently being installed and are not yet operational.

MW-4 Flow meter is cracked and is slowly leaking.

Corrective Action(s) Taken (Please list well number): Replaced flow meter in MW-4.

* Depth is measured to the nearest 0.01 feet.

Weekly Inspection Form

Date 1/14/13 **Name** Garrin Palmer

Time	Well	Depth*	Comments	System Operational (If no note any problems/corrective actions)
1312	MW-4	76.82	Flow 4.2 GPM	Yes No
			Meter 4622.50	Yes No
1308	MW-26	58.30	Flow 8.3 GPM	Yes No
			Meter 292254.54	Yes No
1420	TW4-19	57.59	Flow 14.0 GPM	Yes No
			Meter 831428.00	Yes No
1305	TW4-20	56.02	Flow 9.9 GPM	Yes No
			Meter 536551.01	Yes No
1315	TW4-4	81.10	Flow 8.0 GPM	Yes No
			Meter 8161.17	Yes No
	TWN-2		Flow	Yes No
			Meter	Yes No
	TW4-22		Flow	Yes No
			Meter	Yes No
	TW4-24		Flow	Yes No
			Meter	Yes No
	TW4-25		Flow	Yes No
			Meter	Yes No

Operational Problems (Please list well number): TWN-2, TW4-22, TW4-24, TW4-25 Not operational yet.

Corrective Action(s) Taken (Please list well number):

* Depth is measured to the nearest 0.01 feet.

Weekly Inspection Form

Date 1/21/13 **Name** Garrin Palmer

Time	Well	Depth*	Comments	System Operational (If no note any problems/corrective actions)
1408	MW-4	68.05	Flow 4.2 GPM	Yes No
			Meter 10145.67	Yes No
1404	MW-26	68.80	Flow 10.0 GPM	Yes No
			Meter 294167.98	Yes No
1338	TW4-19	58.46	Flow 14.0 GPM	Yes No
			Meter 847364.00	Yes No
1400	TW4-20	57.85	Flow 10.7 GPM	Yes No
			Meter 538182.81	Yes No
1411	TW4-4	69.91	Flow 8.6	Yes No
			Meter 13202.01	Yes No
	TWN-2		Flow	Yes No
			Meter	Yes No
	TW4-22		Flow	Yes No
			Meter	Yes No
	TW4-24		Flow	Yes No
			Meter	Yes No
	TW4-25		Flow	Yes No
			Meter	Yes No

Operational Problems (Please list well number): ______________________

Corrective Action(s) Taken (Please list well number): ______________________

* Depth is measured to the nearest 0.01 feet.

Weekly Inspection Form

Date 1/28/2013 **Name** Tanner Holliday

Time	**Well**	**Depth***	**Comments**	**System Operational (If no note any problems/corrective actions)**
1240	MW-4	69.20	Flow 4.0 GPM	Yes No
			Meter 15600.33	Yes No
1223	MW-26	58.49	Flow 10.3 GPM	Yes No
			Meter 296050.58	Yes No
1343	TW4-19	59.68	Flow 14.0	Yes No
			Meter 866029.00	Yes No
1217	TW4-20	56.42	Flow 8.6 GPM	Yes No
			Meter 539555.57	Yes No
1244	TW4-4	70.01	Flow 8.2 GPM	Yes No
			Meter 18264.9	Yes No
1337	TWN-2	25.40	Flow 18.3 GPM	Yes No
			Meter 547.3	Yes No
1213	TW4-22	53.30	Flow 18.1 GPM	Yes No
			Meter 954.3	Yes No
1205	TW4-24	58.61	Flow 16.9 GPM	Yes No
			Meter 9302.9	Yes No
1343	TW4-25	54.85	Flow 18.1 GPM	Yes No
			Meter 6162.1	Yes No

Operational Problems (Please list well number): ______________________

Corrective Action(s) Taken (Please list well number): ______________________

* Depth is measured to the nearest 0.01 feet.

2852379

Monthly Depth Check Form

Date 1/31/2013 **Name** Tanner Holliday

Time	Well	Depth*	Time	Well	Depth*
1234	MW-4	70.56	1419	TWN-1	51.50
1241	TW4-1	64.13	1404	TWN-2	28.13
1231	TW4-2	66.85	1407	TWN-3	32.75
1227	TW4-3	49.37	1411	TWN-4	41.00
1247	TW4-4	70.02	1435	TWN-7	87.75
1219	TW4-5	55.98	1440	TWN-18	57.95
1250	TW4-6	69.60	1400	MW-27	51.47
1237	TW4-7	67.61	1331	MW-30	75.84
1244	TW4-8	66.15	1328	MW-31	67.79
1224	TW4-9	53.85			
1216	TW4-10	55.40			
1338	TW4-11	56.61			
1300	TW4-12	40.50			
1303	TW4-13	45.89			
1306	TW4-14	86.57			
1212	TW4-15	59.13			
1323	TW4-16	60.13			
1336	TW4-17	74.83			
1423	TW4-18	56.77			
1455	TW4-19	59.99			
1209	TW4-20	58.19			
1427	TW4-21	53.86			
1206	TW4-22	53.29			
1319	TW4-23	64.70			
1203	TW4-24	58.63			
1415	TW4-25	54.84			
1315	TW4-26	63.05			
1309	TW4-27	82.56			

Comments: (Please note the well number for any comments)

* Depth is measured to the nearest 0.01 feet

Weekly Inspection Form

Date 2/4/13 **Name** Garrin Palmer

Time	Well	Depth*	Comments	System Operational (If no note any problems/corrective actions)
1641	MW-4	68.25	Flow 4.4 GPM	Yes No
			Meter 21167.18	Yes No
1636	MW-26	59.60	Flow 10.1 GPM	Yes No
			Meter 291911.80	Yes No
1459	TW4-19	57.84	Flow 14.0	Yes No
			Meter 885087.00	Yes No
1645	TW4-20	59.10	Flow 10.5 GPM	Yes No
			Meter 541197.99	Yes No
1443	TW4-4	69.45	Flow 8.0 GPM	Yes No
			Meter 23500.10	Yes No
1213	TWN-2	59.78	Flow 18.7 GPM	Yes No
			Meter 4205.6	Yes No
1222	TW4-22	54.20	Flow 18.4 GPM	Yes No
			Meter 2989.46	Yes No
1219	TW4-24	59.87	Flow 18.2 GPM	Yes No
			Meter 28143.10	Yes No
1211	TW4-25	95.40	Flow 16.8 GPM	Yes No
			Meter 18172.00	Yes No

Operational Problems (Please list well number):

Corrective Action(s) Taken (Please list well number):

* Depth is measured to the nearest 0.01 feet.

Weekly Inspection Form

Date 2/11/13 **Name** Garrin Palmer, David Turk

Time	Well	Depth*	Comments	System Operational (If no note any problems/corrective actions)
1020	MW-4	68.50	Flow 4.4 GPM	Yes No
			Meter 26408.32	Yes No
1010	MW-26	58.17	Flow 10.0 GPM	Yes No
			Meter 299875.21	Yes No
1100	TW4-19	58.65	Flow 14.0 GPM	Yes No
			Meter 903084.00	Yes No
0950	TW4-20	56.78	Flow 10.1 GPM	Yes No
			Meter 542520.59	Yes No
1030	TW4-4	69.94	Flow 8.1 GPM	Yes No
			Meter 28455.00	Yes No
0900	TWN-2	27.05	Flow 18.2 GPM	Yes No
			Meter 8097.91	Yes No
0926	TW4-22	54.53	Flow 16.7 GPM	Yes No
		~~54.53~~	Meter 4899.90	Yes No
0910	TW4-24	60.68	Flow 18.0 GPM	Yes No
			Meter 46122.30	Yes No
0850	TW4-25	55.23	Flow 17.5 GPM	Yes No
			Meter 2959660	Yes No

Operational Problems (Please list well number): ______

Corrective Action(s) Taken (Please list well number): ______

* Depth is measured to the nearest 0.01 feet.

Weekly Inspection Form

Date 2/18/13 **Name** Garrin Palmer

Time	Well	Depth*	Comments	System Operational (If no note any problems/corrective actions)
1017	MW-4	68.60	Flow 4.4 GPM	Yes No
			Meter 31825.73	Yes No
1014	MW-26	58.40	Flow 10.0 GPM	Yes No
			Meter 301798.01	Yes No
1300	TW4-19	59.44	Flow 14.0 GPM	Yes No
			Meter 921692.00	Yes No
1010	TW4-20	79.80	Flow 10.3 GPM	Yes No
			Meter 544176.92	Yes No
1020	TW4-4	69.88	Flow 8.7 GPM	Yes No
			Meter 33603.23	Yes No
0958	TWN-2	27.47	Flow 18.9 GPM	Yes No
			Meter 12047.64	Yes No
1006	TW4-22	54.80	Flow 18.4 GPM	Yes No
			Meter 6887.60	Yes No
1001	TW4-24	60.34	Flow 18.5	Yes No
			Meter 63804.67	Yes No
0955	TW4-25	66.38	Flow 18.3 GPM	Yes No
			Meter 41559.85	Yes No

Operational Problems (Please list well number): ______________________

Corrective Action(s) Taken (Please list well number): ______________________

* Depth is measured to the nearest 0.01 feet.

Weekly Inspection Form

Date 2/25/2013 **Name** Tanner Holliday Garrin Palmer

Time	Well	Depth*	Comments	System Operational (If no note any problems/corrective actions)
1438	MW-4	67.10	Flow 4.3	Yes No
			Meter 372~~4~~0.91	Yes No
1434	MW-26	62.14	Flow 10.1 GPM	Yes No
			Meter 303798.15	Yes No
1500	TW4-19	60.02	Flow 14.0 GPM	Yes No
			Meter 940579.00	Yes No
1431	TW4-20	57.92	Flow 9.8 GPM	Yes No
			Meter 545618.47	Yes No
1442	TW4-4	69.94	Flow 8.5 GPM	Yes No
			Meter 38792.0	Yes No
1419	TWN-2	26.97	Flow 18.9 GPM	Yes No
			Meter 15812.3	Yes No
1428	TW4-22	56.10	Flow 18.2 GPM	Yes No
			Meter 8807.7	Yes No
1423	TW4-24	70.03	Flow 18.2 GPM	Yes No
			Meter 81695.4	Yes No
1415	TW4-25	58.00	Flow 18.1 GPM	Yes No
			Meter 53338.1	Yes No

Operational Problems (Please list well number): ______

Corrective Action(s) Taken (Please list well number): ______

* Depth is measured to the nearest 0.01 feet.

Monthly Depth Check Form

Date 2/28/2013 **Name** Tanner Holliday

Time	Well	Depth*	Time	Well	Depth*
1309	MW-4	69.11	1400	TWN-1	54.19
1306	TW4-1	64.12	1355	TWN-2	27.14
1313	TW4-2	65.65	1410	TWN-3	35.80
1302	TW4-3	50.89	1414	TWN-4	45.69
1315	TW4-4	69.99	1424	TWN-7	87.48
1258	TW4-5	57.90	1419	TWN-18	~~3580~~ 58.11
1317	TW4-6	69.80	1349	MW-27	51.68
1308	TW4-7	65.04	1345	MW-30	75.20
1304	TW4-8	59.26	1342	MW-31	67.31
1300	TW4-9	55.66			
1256	TW4-10	56.53			
1310	TW4-11	57.10			
1322	TW4-12	41.60			
1324	TW4-13	47.56			
1326	TW4-14	86.27			
1253	TW4-15	75.19			
1340	TW4-16	59.45			
1338	TW4-17	74.10			
1403	TW4-18	56.63			
1433	TW4-19	59.95			
1251	TW4-20	63.12			
1406	TW4-21	54.09			
1248	TW4-22	59.03			
1335	TW4-23	64.20			
1245	TW4-24	70.11			
1358	TW4-25	58.19			
1332	TW4-26	62.86			
1328	TW4-27	82.02			

Comments: (Please note the well number for any comments)

* Depth is measured to the nearest 0.01 feet

Weekly Inspection Form

Date 3/4/13 **Name** Garrin Palmer

Time	Well	Depth*	Comments	System Operational (If no note any problems/corrective actions)
1047	MW-4	68.20	Flow 4.4 GPM	Yes No
			Meter 42578.30	Yes No
1248	MW-26	59.15	Flow 10.0 GPM	Yes No
			Meter 305822.26	Yes No
1202	TW4-19	74.10	Flow 14.0 GPM	Yes No
			Meter 961716.00	Yes No
1245	TW4-20	57.45	Flow 9.4 GPM	Yes No
			Meter 547326.63	Yes No
1050	TW4-4	69.84	Flow 8.2 GPM	Yes No
			Meter 43673.10	Yes No
1233	TWN-2	31.78	Flow 18.6 GPM	Yes No
			Meter 20272.30	Yes No
1241	TW4-22	55.40	Flow 18.3 GPM	Yes No
			Meter 11003.60	Yes No
1238	TW4-24	61.20	Flow 18.4 GPM	Yes No
			Meter 100124.39	Yes No
1229	TW4-25	65.90	Flow 17.2 GPM	Yes No
			Meter 66152.30	Yes No

Operational Problems (Please list well number): ______

Corrective Action(s) Taken (Please list well number): ______

* Depth is measured to the nearest 0.01 feet.

Weekly Inspection Form

Date 3/12/2013 **Name** Garrin Palmer

Time	Well	Depth*	Comments	System Operational (If no note any problems/corrective actions)
1248	MW-4	67.48	Flow 4.4 GPM	Yes No
			Meter 48613.84	Yes No
1244	MW-26	61.80	Flow 10.4 GPM	Yes No
			Meter 307728.34	Yes No
1030	TW4-19	60.82	Flow 14.0 GPM	Yes No
			Meter 980145.00	Yes No
1241	TW4-20	58.00	Flow 8.9 GPM	Yes No
			Meter 548865.90	Yes No
1251	TW4-4	70.83	Flow 8.2 GPM	Yes No
			Meter 49472.08	Yes No
1230	TWN-2	29.84	Flow 18.9 GPM	Yes No
			Meter 24047.68	Yes No
1227	TW4-22	67.45	Flow 18.0 GPM	Yes No
			Meter 78109.76	Yes No
1233	TW4-24	61.60	Flow 18.0 GPM	Yes No
			Meter 116275.24	Yes No
1236	TW4-25	55.60	Flow 18.2 GPM	Yes No
			Meter 13065.40	Yes No

Operational Problems (Please list well number): ______

Corrective Action(s) Taken (Please list well number): ______

* Depth is measured to the nearest 0.01 feet.

Weekly Inspection Form

Date 3/18/13 **Name** Garrin Palmer

Time	Well	Depth*	Comments	System Operational (If no note any problems/corrective actions)
1022	MW-4	77.05	Flow 4.4 GPM	Yes No
			Meter 54080.76	Yes No
1018	MW-26	59.70	Flow 10.0 GPM	Yes No
			Meter 309553.34	Yes No
1410	TW4-19	59.85	Flow 14.0 GPM	Yes No
			Meter 996511.00	Yes No
1013	TW4-20	57.60	Flow 9.0 GPM	Yes No
			Meter 55033.55	Yes No
1025	TW4-4	76.84	Flow 8.2 GPM	Yes No
			Meter 54531.90	Yes No
0953	TWN-2	28.30	Flow 19.0 GPM	Yes No
			Meter 27722.81	Yes No
1007	TW4-22	55.47	Flow 18.0 GPM	Yes No
			Meter 14990.80	Yes No
0957	TW4-24	61.40	Flow 18.2 GPM	Yes No
			Meter 131681.20	Yes No
0949	TW4-25	60.45	Flow 18.6 GPM	Yes No
			Meter 89415.63	Yes No

Operational Problems (Please list well number): ______________________

Corrective Action(s) Taken (Please list well number): ______________________

* Depth is measured to the nearest 0.01 feet.

All wells were checked on 3/19 except for TW4-19 it was checked 3-18.

Weekly Inspection Form

Date 3/25/13 **Name** Garrin Palmer, Tanner Holliday

Time	Well	Depth*	Comments	System Operational (If no note any problems/corrective actions)
0948	MW-4	67.61	Flow 4.4 GPM	Yes No
			Meter 58506.10	Yes No
0945	MW-26	61.13	Flow 10.1 GPM	Yes No
			Meter 311217.85	Yes No
1040	TW4-19	69.78	Flow 14.0 GPM	Yes No
			Meter 1014640.00	Yes No
0942	TW4-20	58.17	Flow 9.8 GPM	Yes No
			Meter 551637.90	Yes No
0951	TW4-4	72.43	Flow 8.5 GPM	Yes No
			Meter 58716.76	Yes No
0932	TWN-2	27.38	Flow 18.9 GPM	Yes No
			Meter 31009.41	Yes No
0939	TW4-22	55.70	Flow 18.4 GPM	Yes No
			Meter 16677.44	Yes No
0936	TW4-24	61.80	Flow 18.1 GPM	Yes No
			Meter 144842.63	Yes No
0929	TW4-25	66.00	Flow 18.0 GPM	Yes No
			Meter 99369.89	Yes No

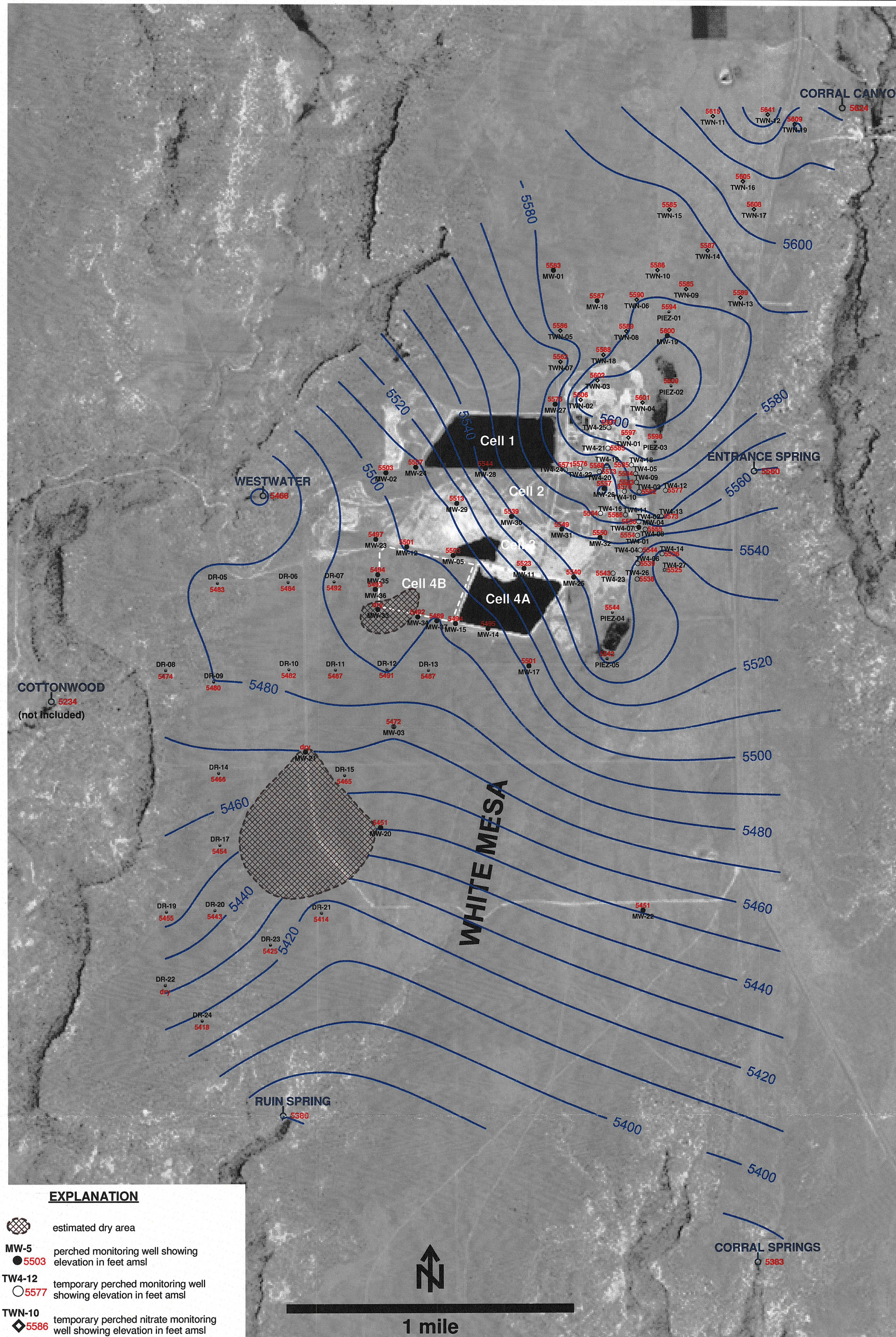
Operational Problems (Please list well number): ______

Corrective Action(s) Taken (Please list well number): ______

* Depth is measured to the nearest 0.01 feet.

Tab D

Kriged Previous Quarter Groundwater Contour Map



NOTE: MW-4, MW-26, TW4-4, TW4-19, and TW4-20 are pumping wells

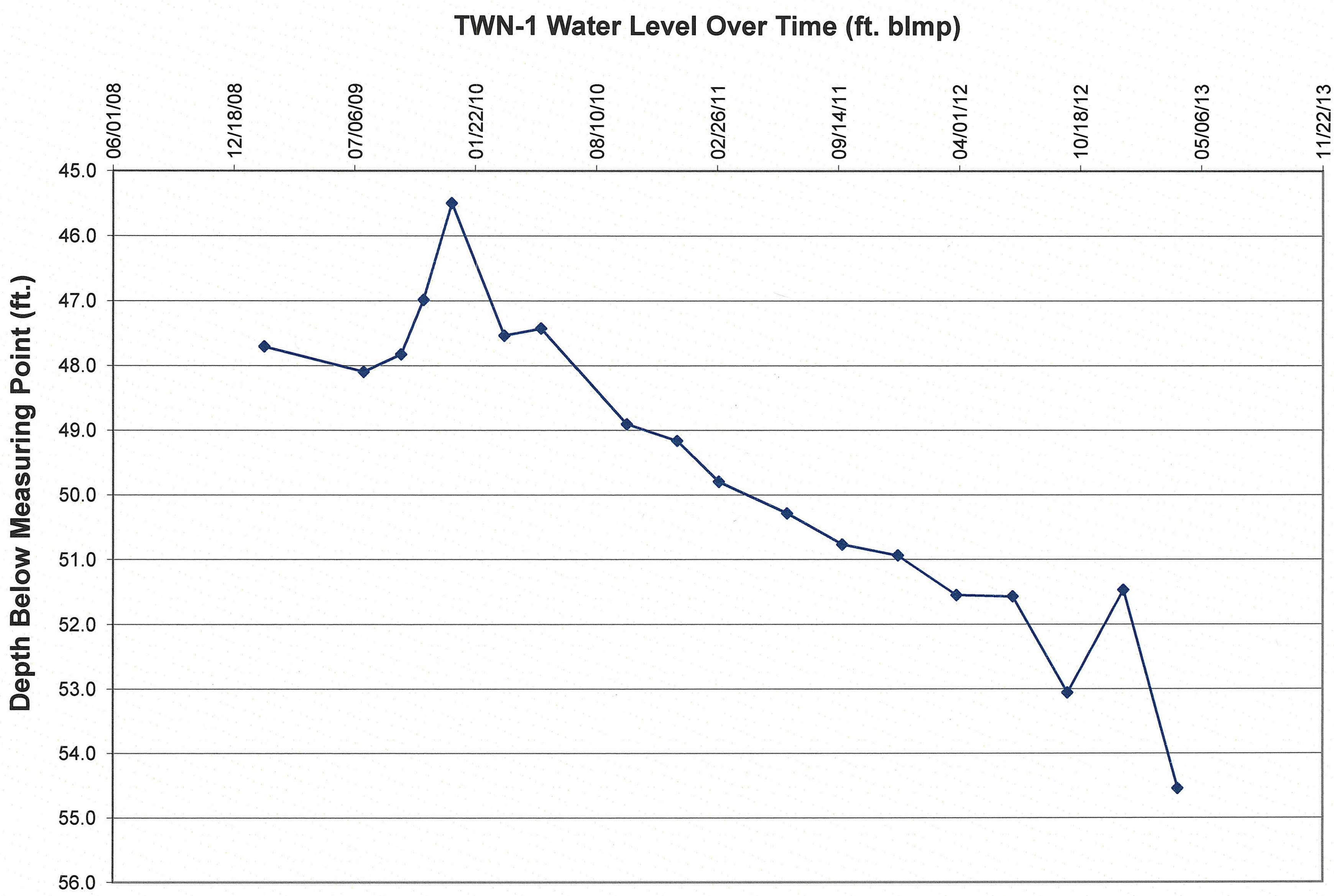
HYDRO GEO CHEM, INC.

KRIGED 4th QUARTER, 2012 WATER LEVELS WHITE MESA SITE

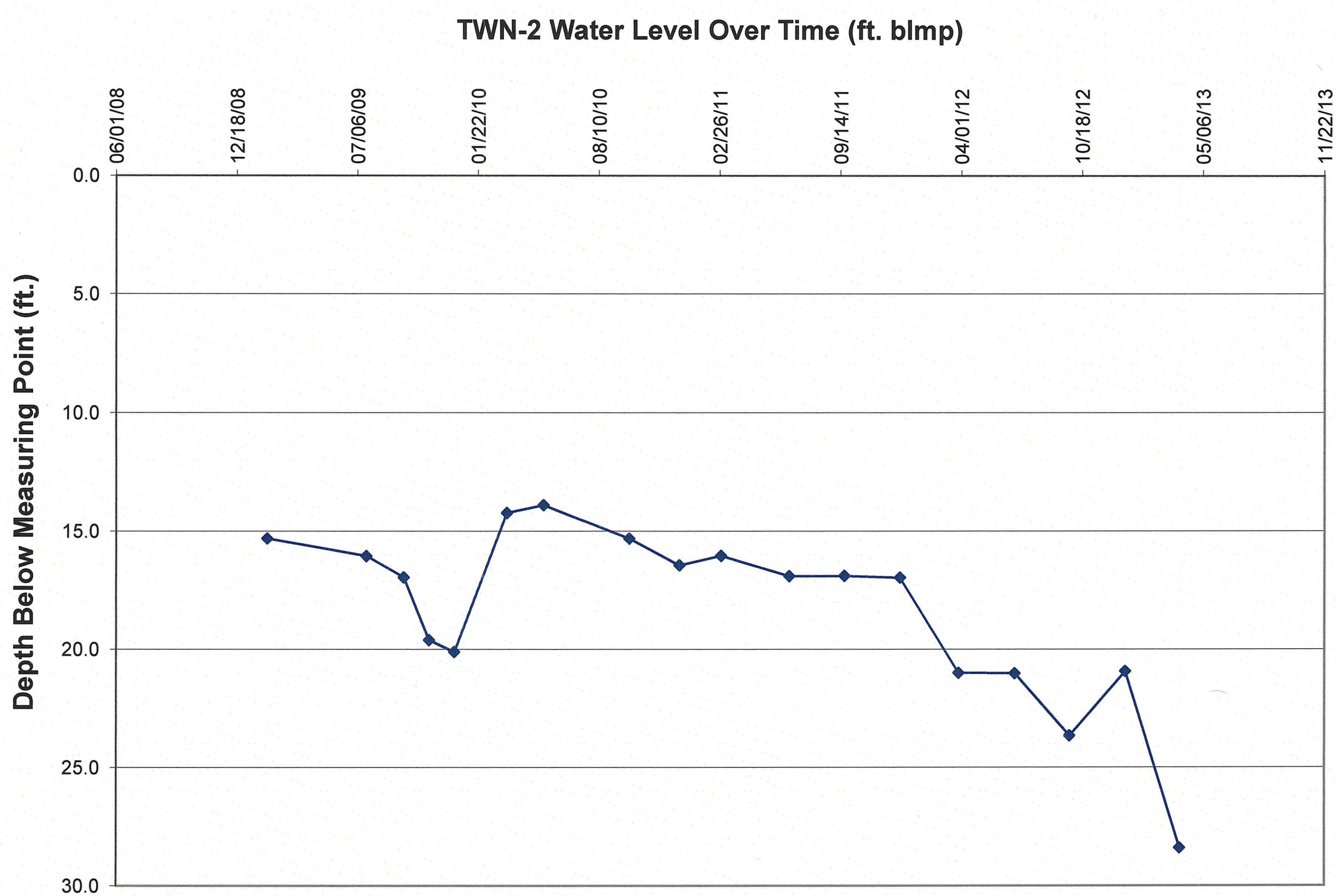
APPROVED	DATE	REFERENCE	FIGURE
		H:/718000/feb13/Uwl1212.srf	D-1

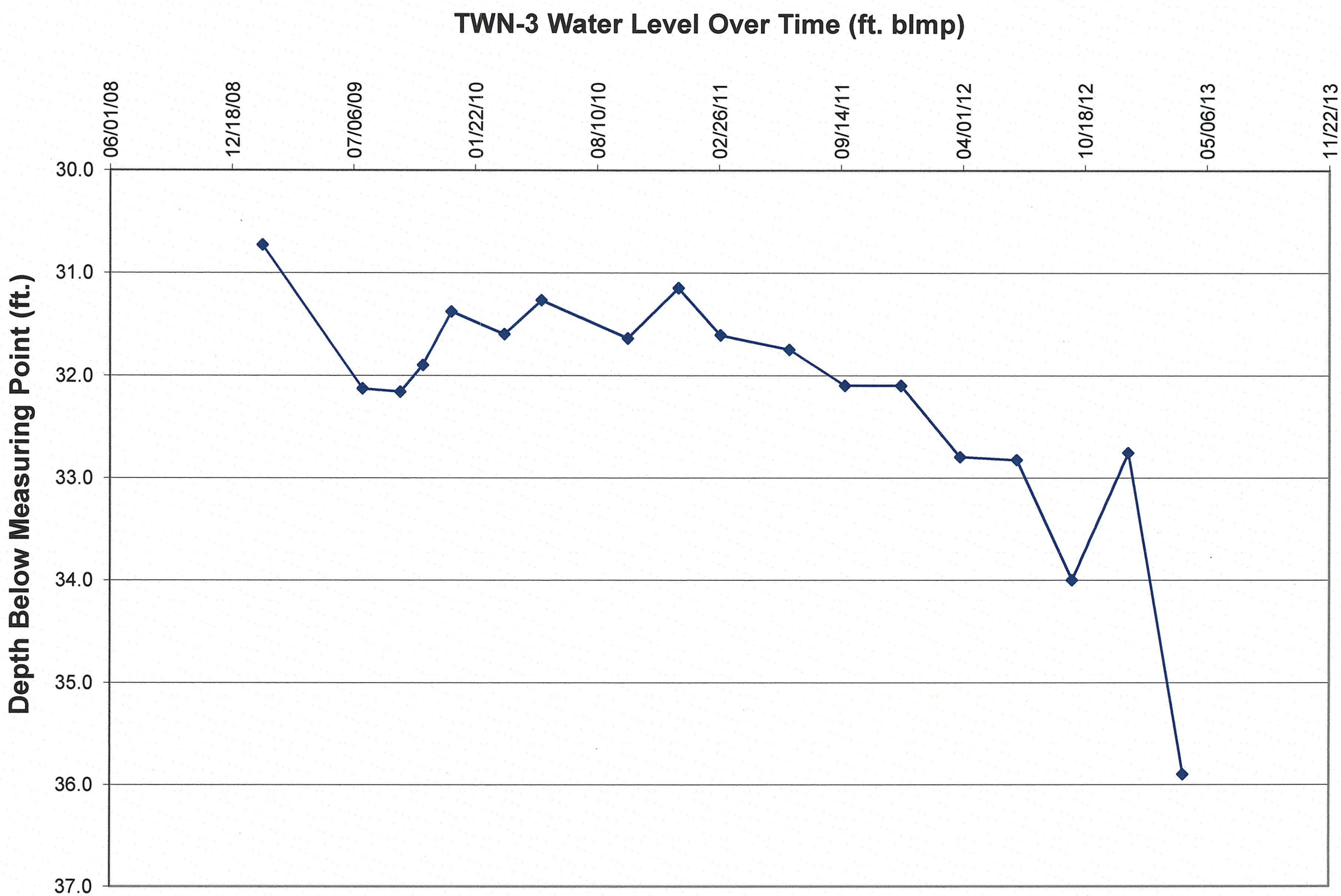
Tab E

Hydrographs of Groundwater Elevations Over Time for Nitrate Monitoring Wells

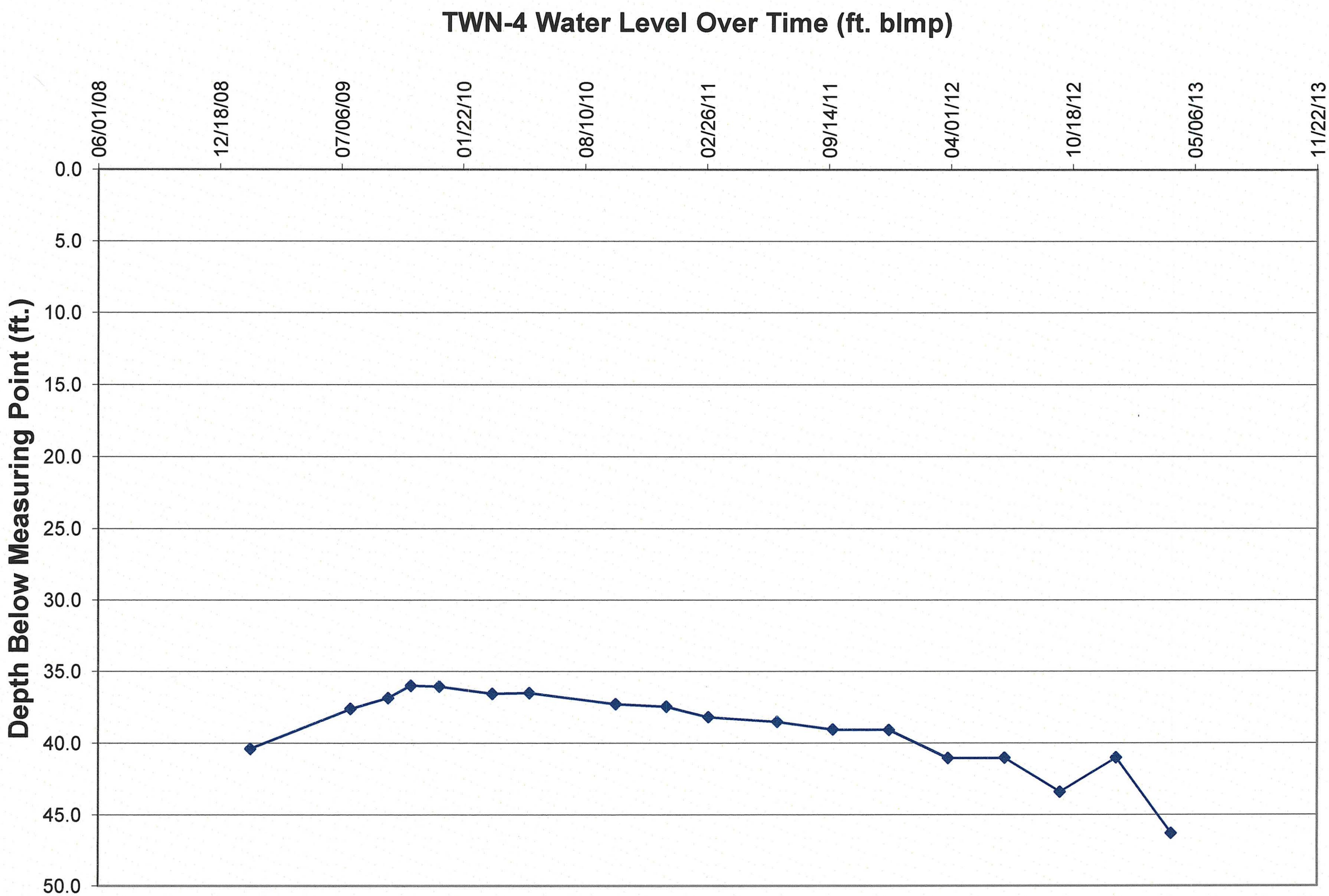


TWN-1 Water Level Over Time (ft. blmp)
Depth Below Measuring Point (ft.)
45.0
46.0
47.0
48.0
49.0
50.0
51.0
52.0
53.0
54.0
55.0
56.0
06/01/08
12/18/08
07/06/09
01/22/10
08/10/10
02/26/11
09/14/11
04/01/12
10/18/12
05/06/13
11/22/13

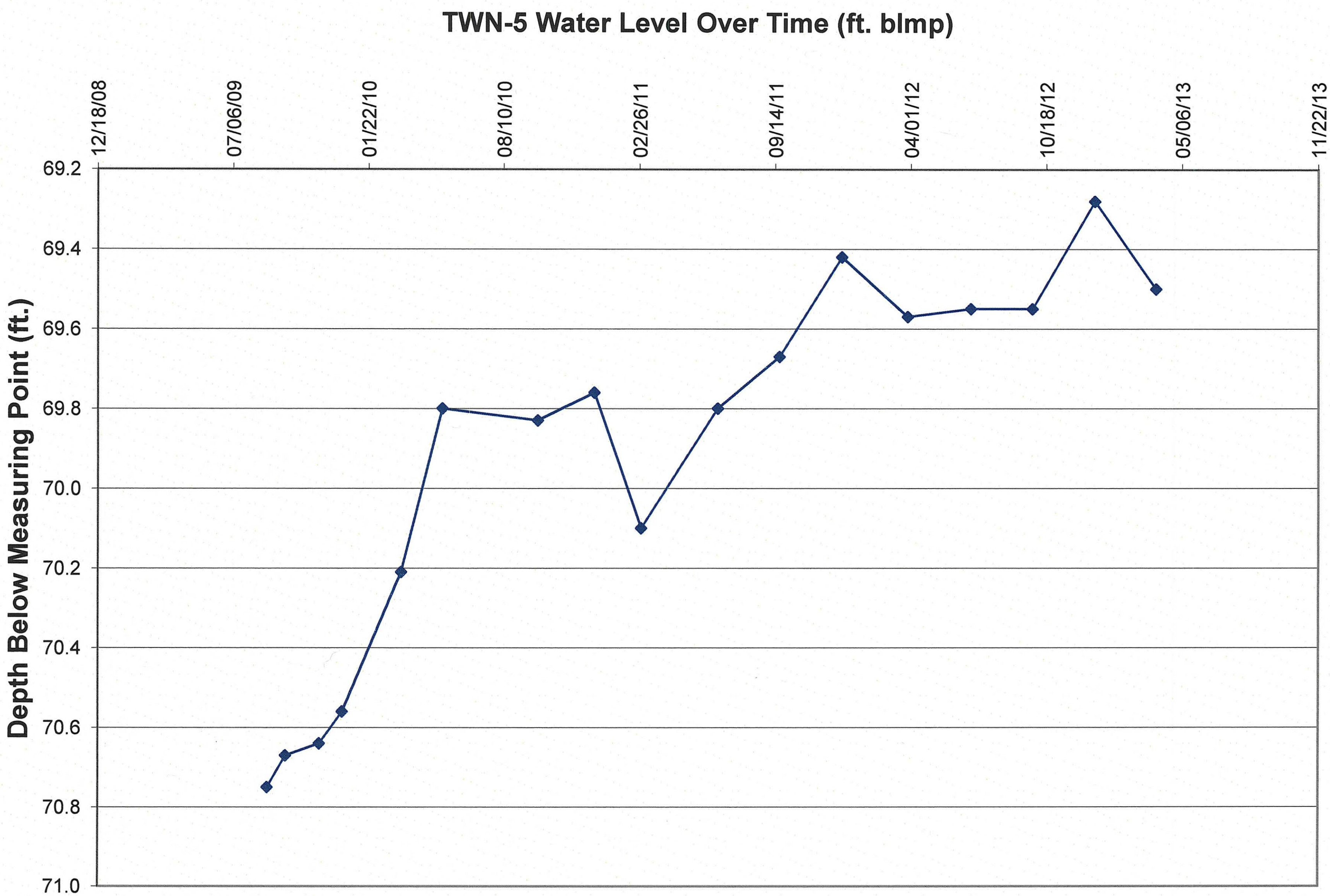

TWN-2 Water Level Over Time (ft. blmp)
Depth Below Measuring Point (ft.)
0.0
5.0
10.0
15.0
20.0
25.0
30.0
06/01/08
12/18/08
07/06/09
01/22/10
08/10/10
02/26/11
09/14/11
04/01/12
10/18/12
05/06/13
11/22/13



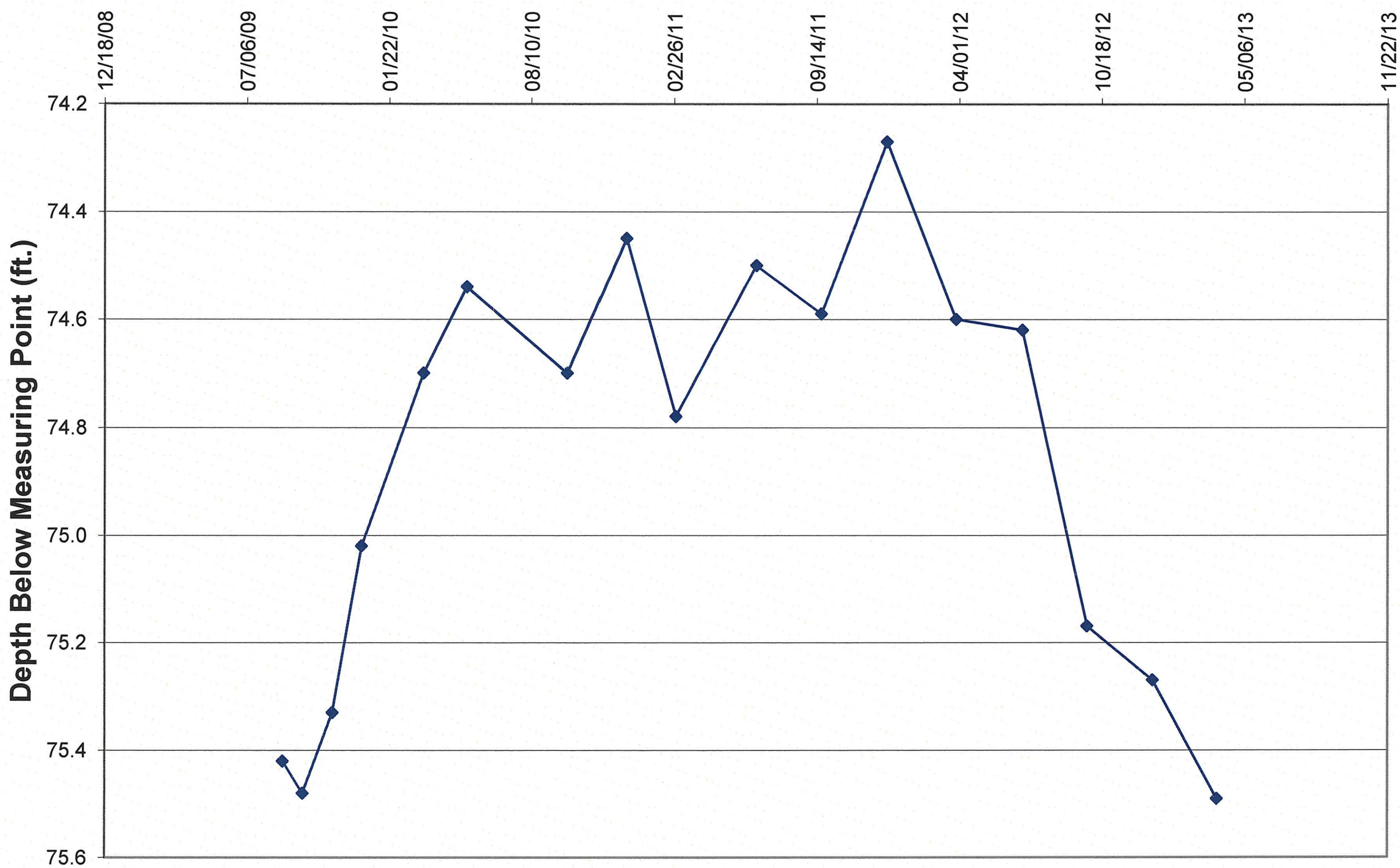
TWN-3 Water Level Over Time (ft. blmp)
Depth Below Measuring Point (ft.)
30.0
31.0
32.0
33.0
34.0
35.0
36.0
37.0
06/01/08
12/18/08
07/06/09
01/22/10
08/10/10
02/26/11
09/14/11
04/01/12
10/18/12
05/06/13
11/22/13



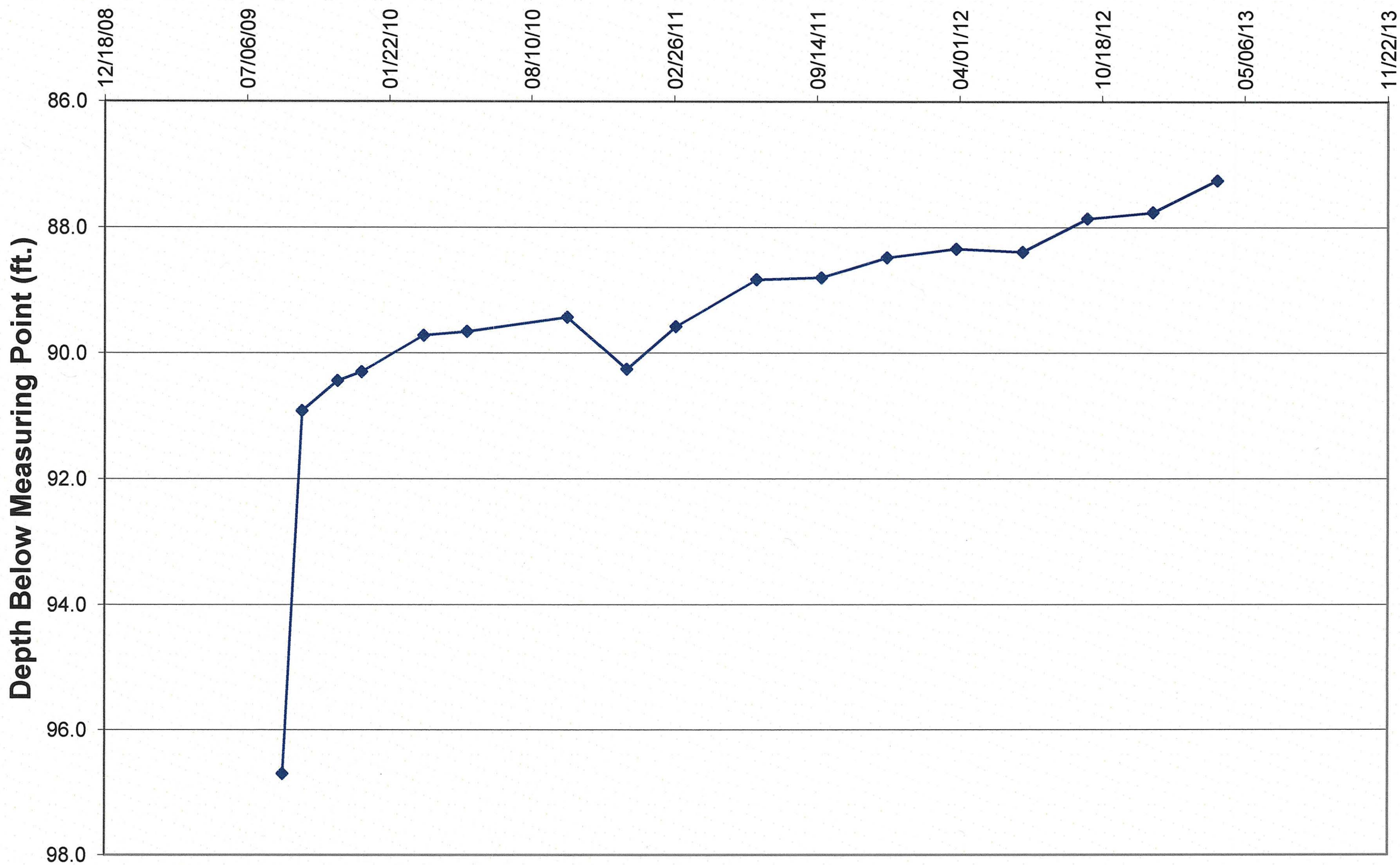
TWN-4 Water Level Over Time (ft. blmp)
Depth Below Measuring Point (ft.)
0.0
5.0
10.0
15.0
20.0
25.0
30.0
35.0
40.0
45.0
50.0
06/01/08
12/18/08
07/06/09
01/22/10
08/10/10
02/26/11
09/14/11
04/01/12
10/18/12
05/06/13
11/22/13


TWN-5 Water Level Over Time (ft. blmp)
Depth Below Measuring Point (ft.)
69.2
69.4
69.6
69.8
70.0
70.2
70.4
70.6
70.8
71.0
12/18/08
07/06/09
01/22/10
08/10/10
02/26/11
09/14/11
04/01/12
10/18/12
05/06/13
11/22/13

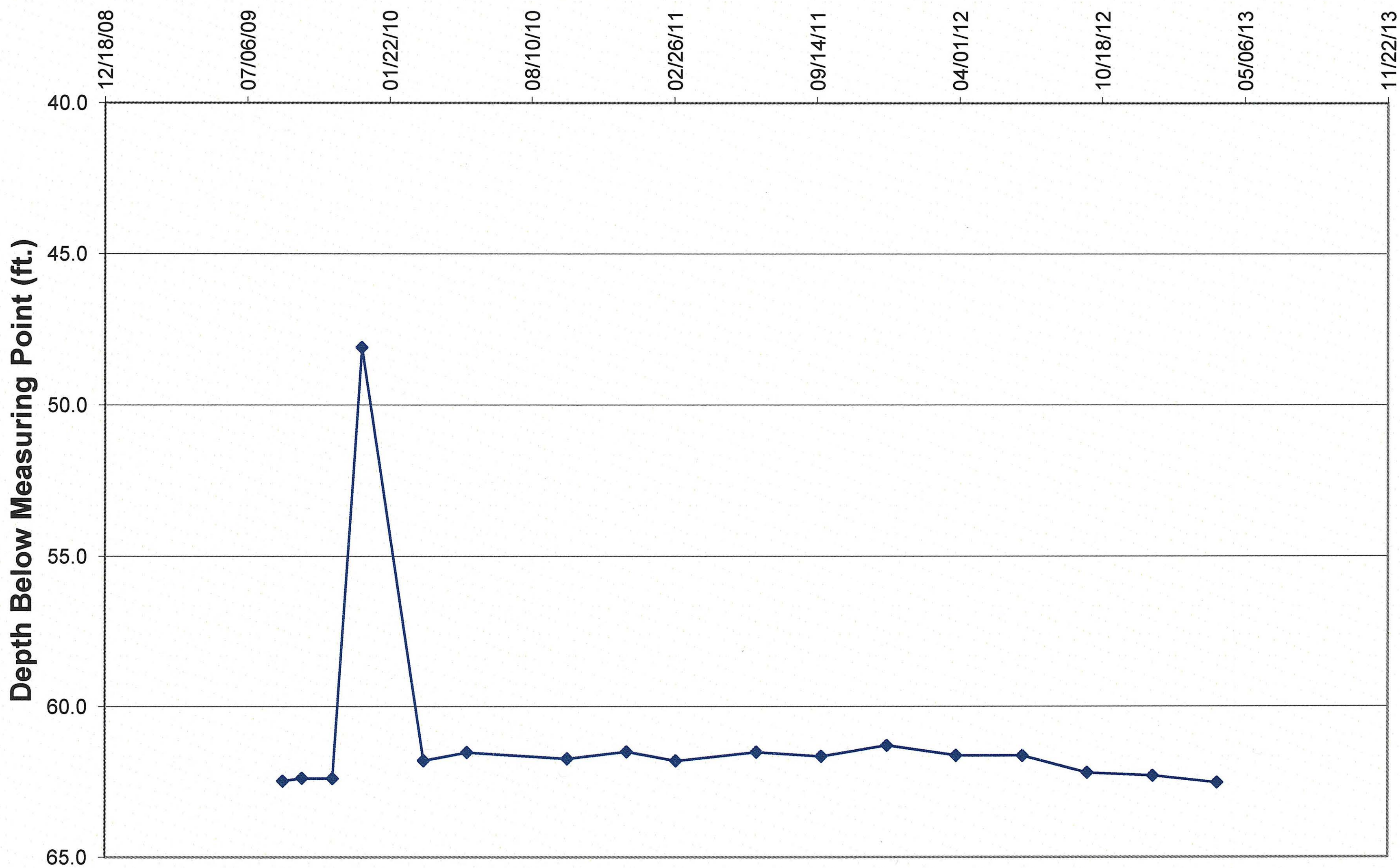
TWN-6 Water Level Over Time (ft. blmp)

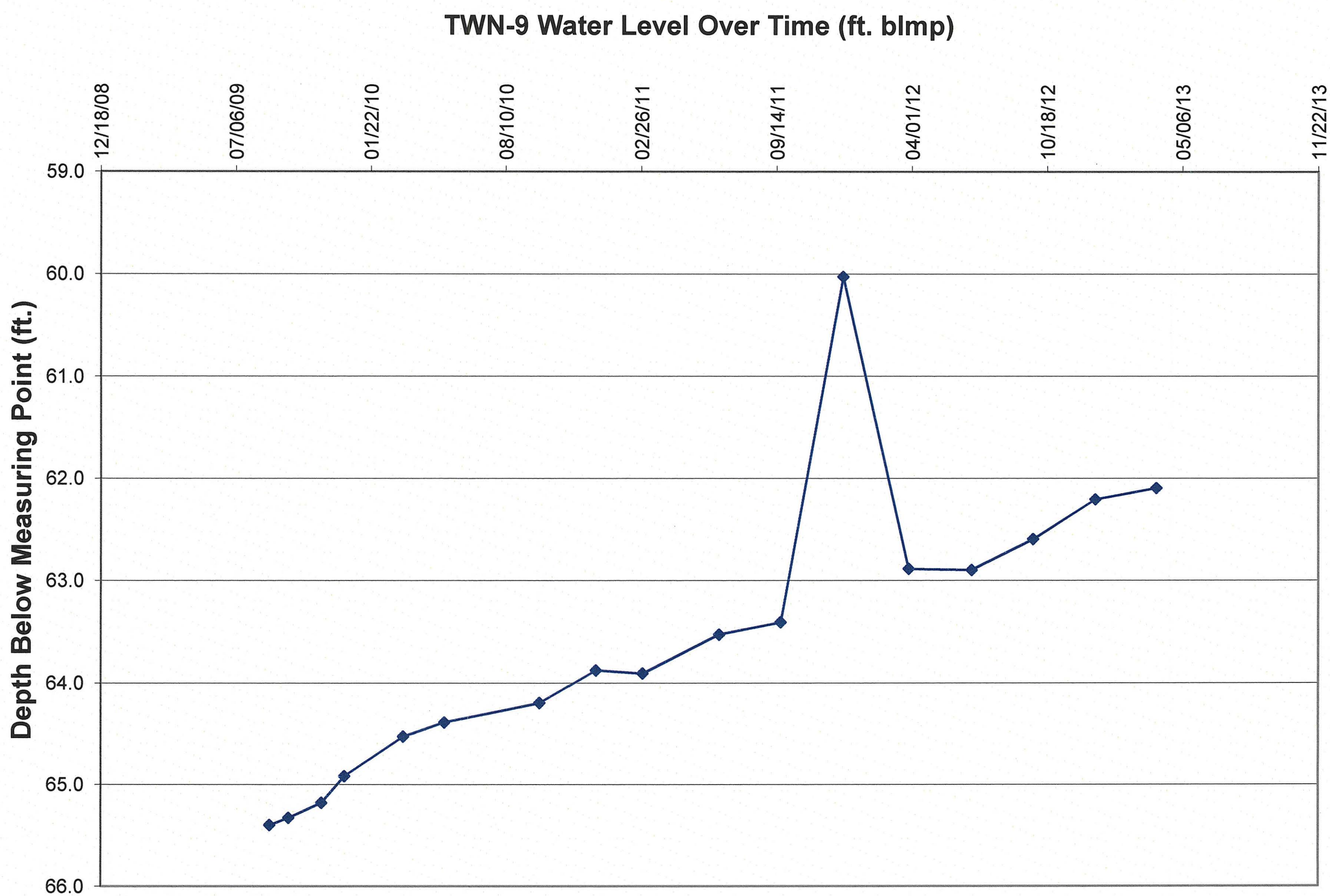


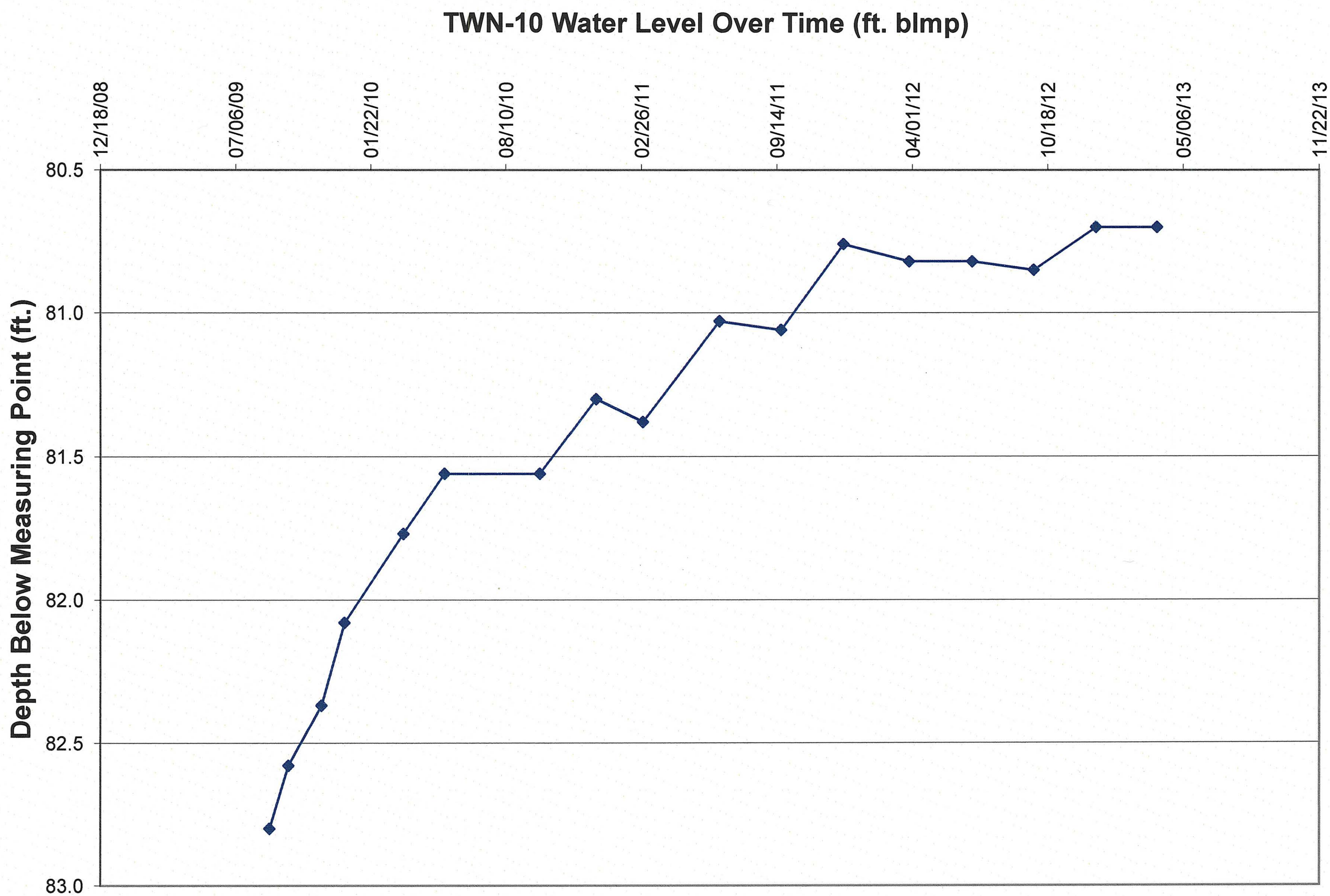
TWN-7 Water Level Over Time (ft. blmp)



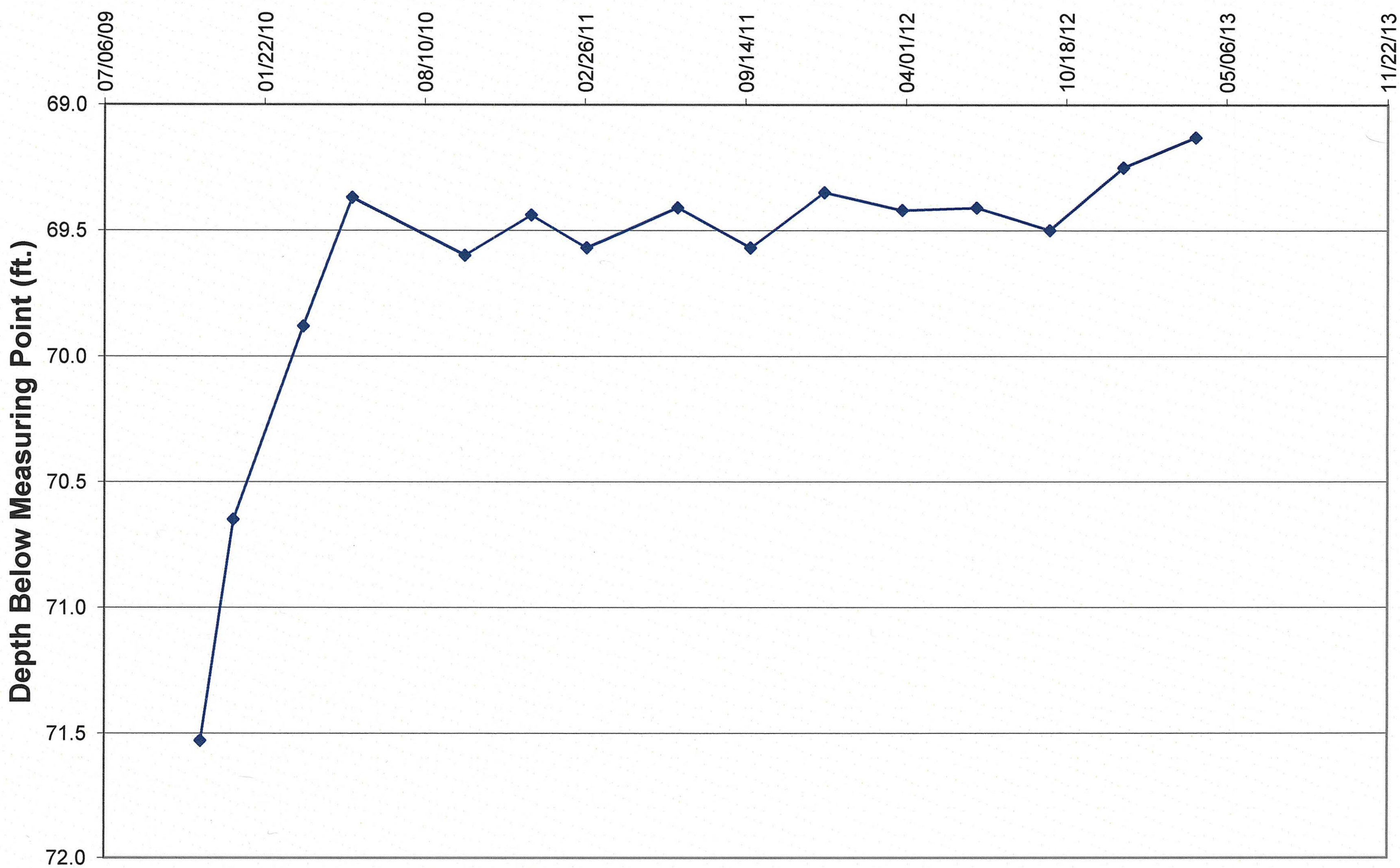
TWN-8 Water Level Over Time (ft. blmp)



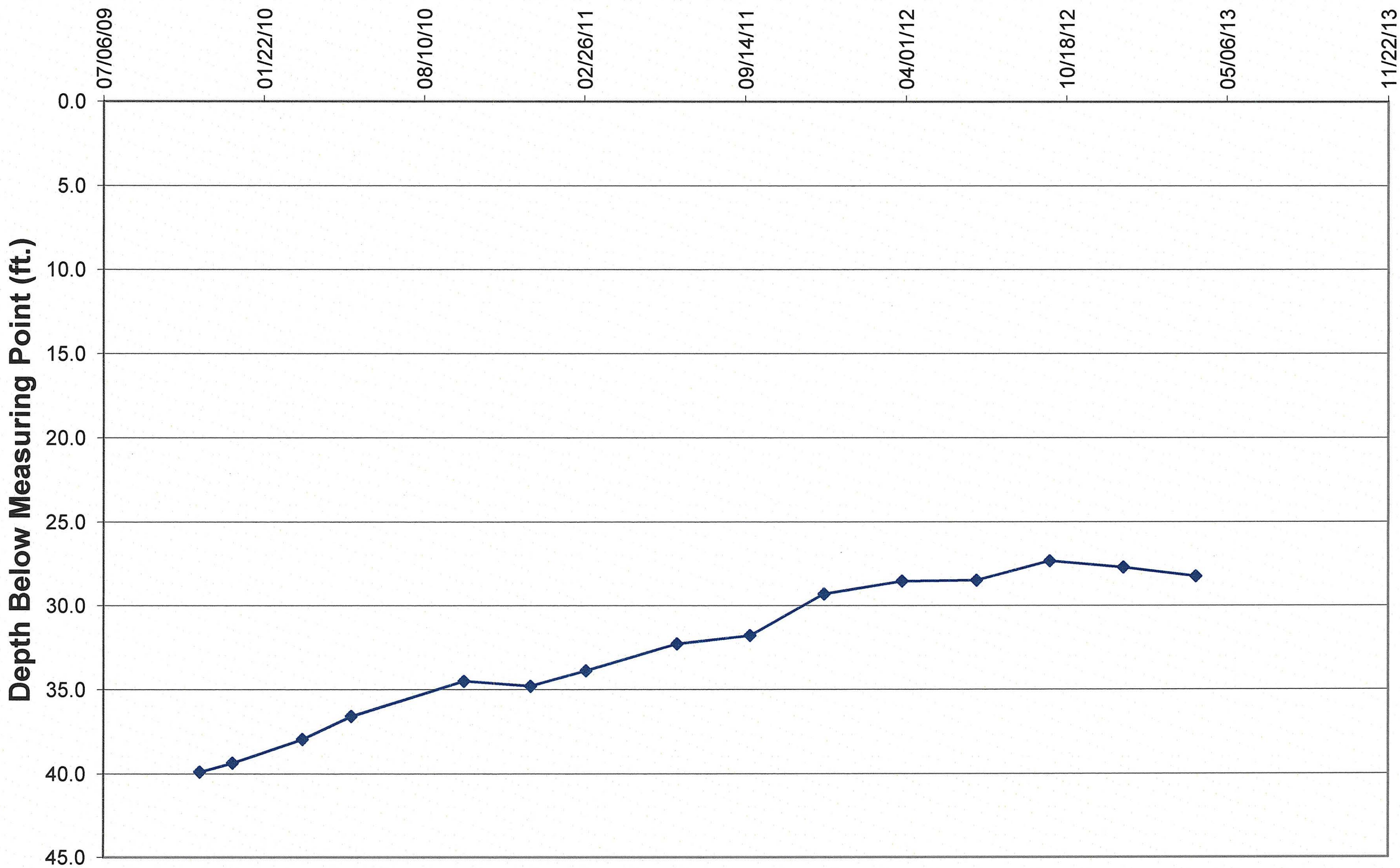

TWN-9 Water Level Over Time (ft. blmp)
Depth Below Measuring Point (ft.)
59.0
60.0
61.0
62.0
63.0
64.0
65.0
66.0
12/18/08
07/06/09
01/22/10
08/10/10
02/26/11
09/14/11
04/01/12
10/18/12
05/06/13
11/22/13

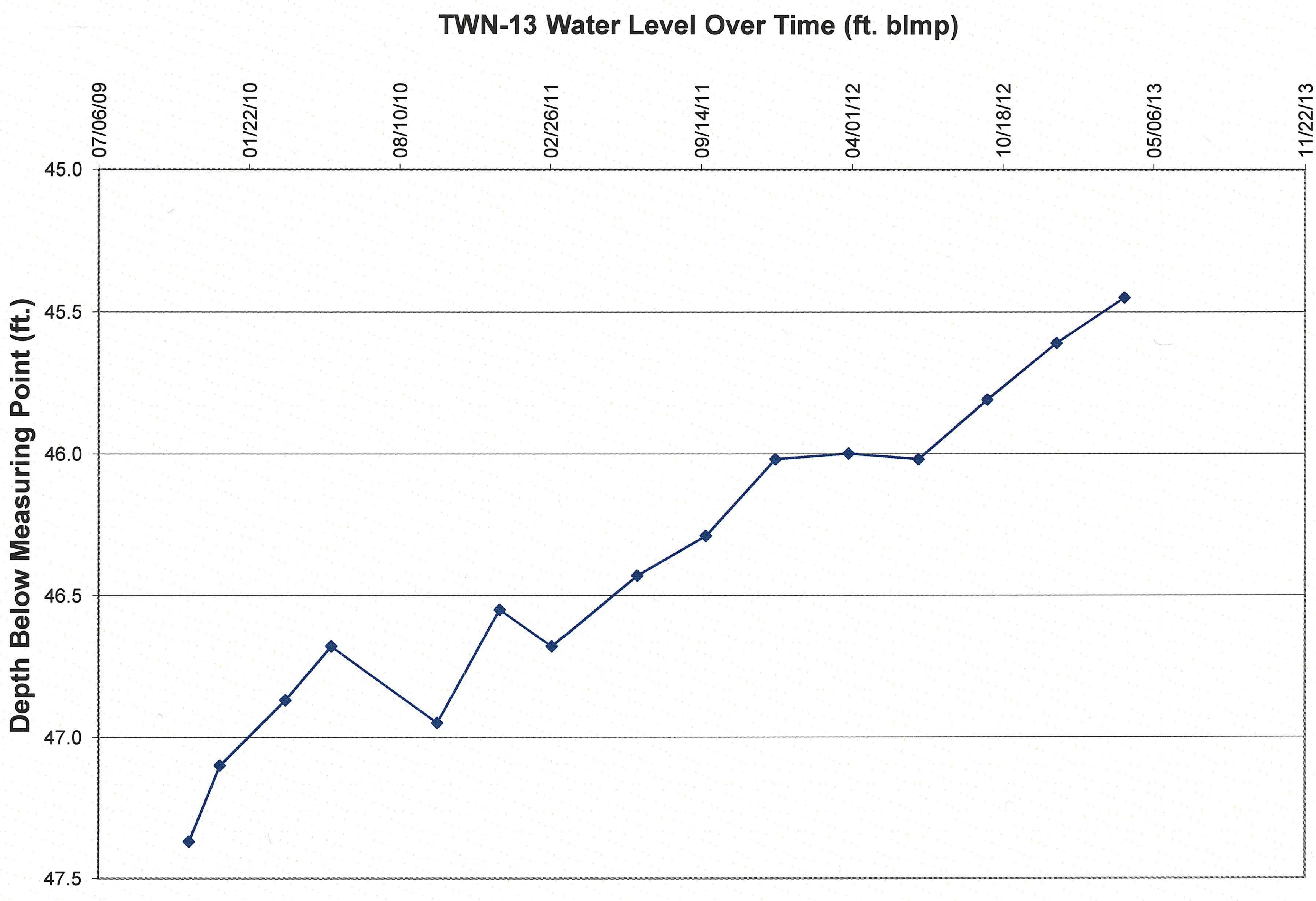

TWN-10 Water Level Over Time (ft. blmp)
Depth Below Measuring Point (ft.)
80.5
81.0
81.5
82.0
82.5
83.0
12/18/08
07/06/09
01/22/10
08/10/10
02/26/11
09/14/11
04/01/12
10/18/12
05/06/13
11/22/13

TWN-11 Water Level Over Time (ft. blmp)

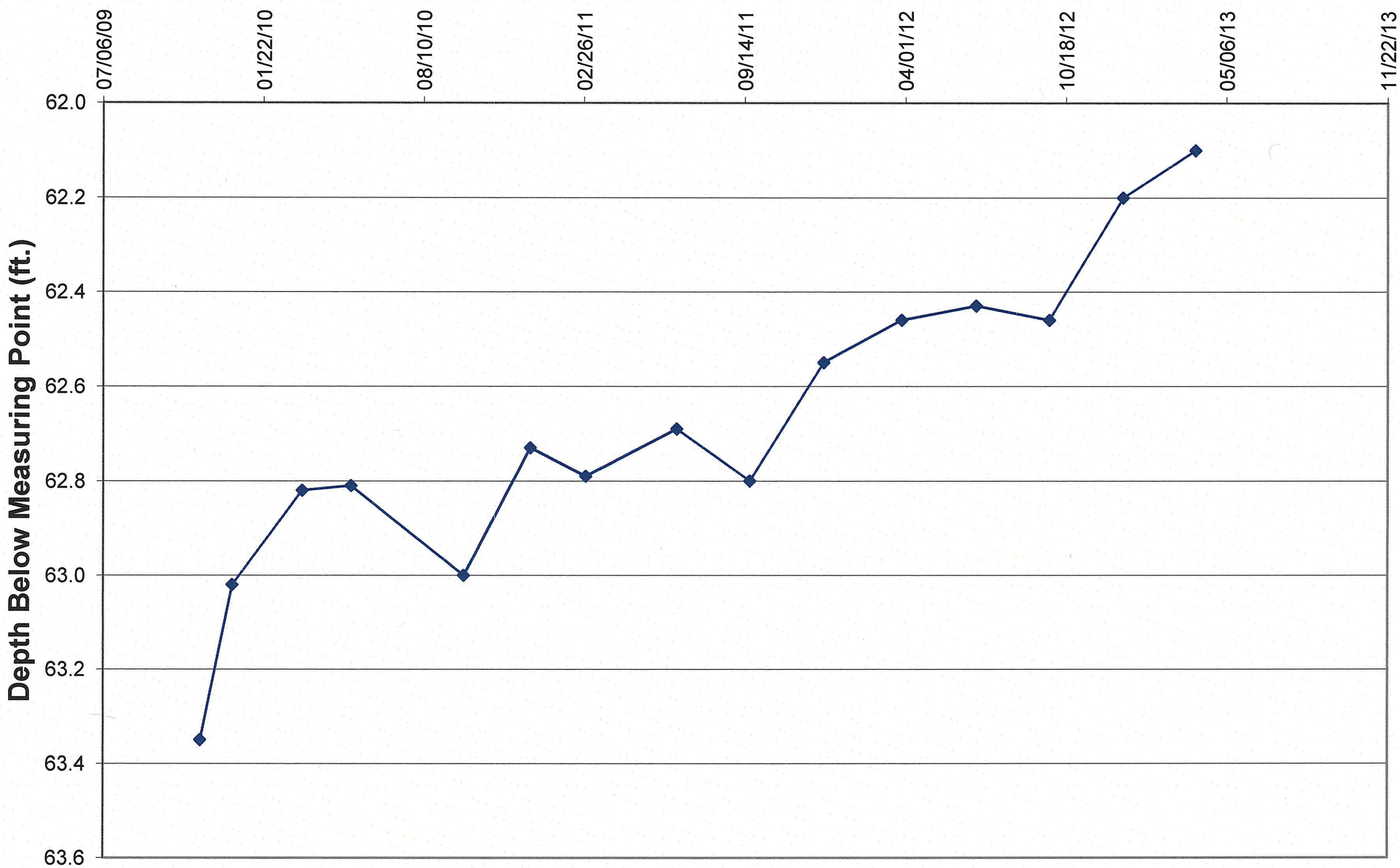


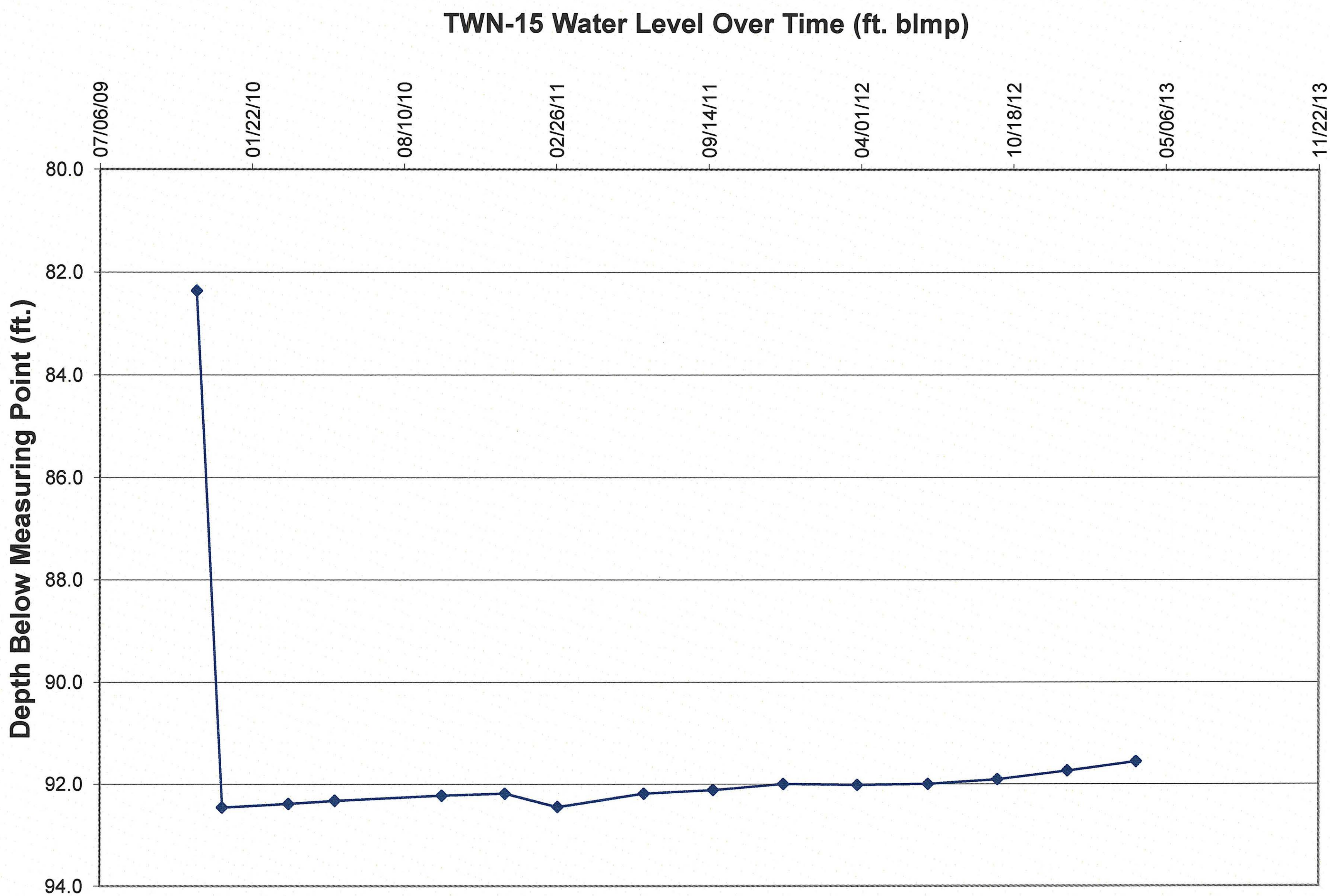
TWN-12 Water Level Over Time (ft. blmp)



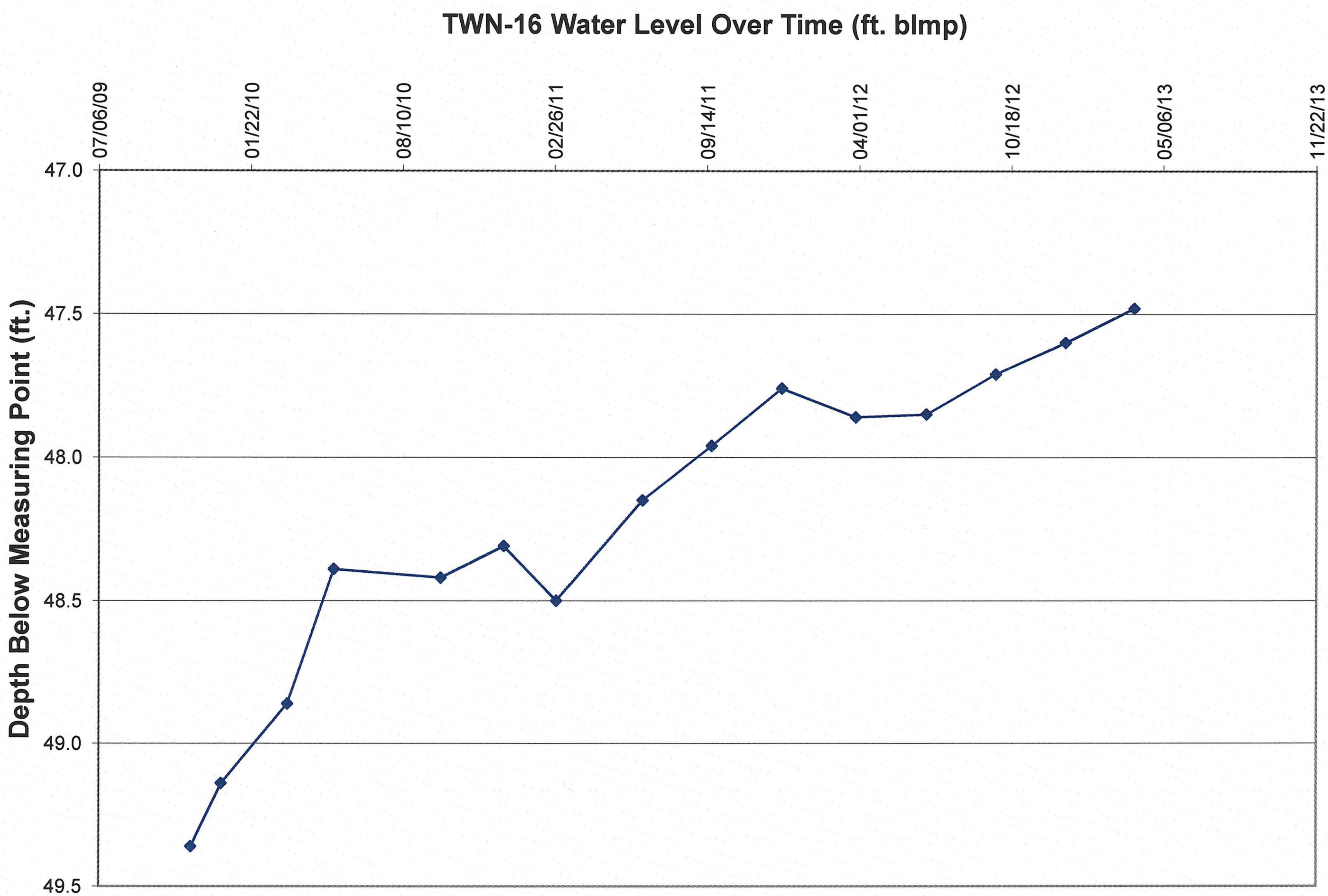

TWN-13 Water Level Over Time (ft. blmp)
Depth Below Measuring Point (ft.)
45.0
45.5
46.0
46.5
47.0
47.5
07/06/09
01/22/10
08/10/10
02/26/11
09/14/11
04/01/12
10/18/12
05/06/13
11/22/13

TWN-14 Water Level Over Time (ft. blmp)

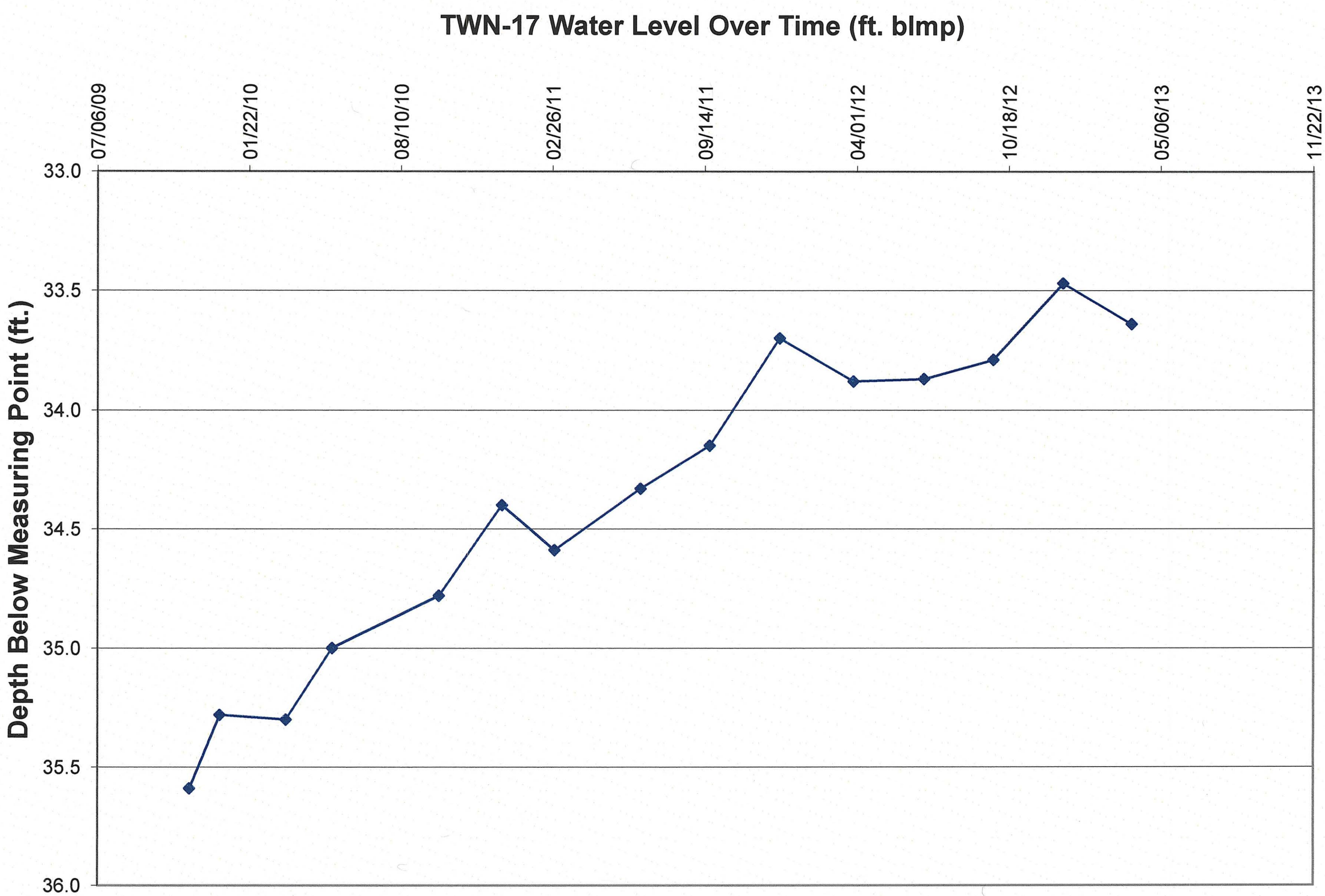




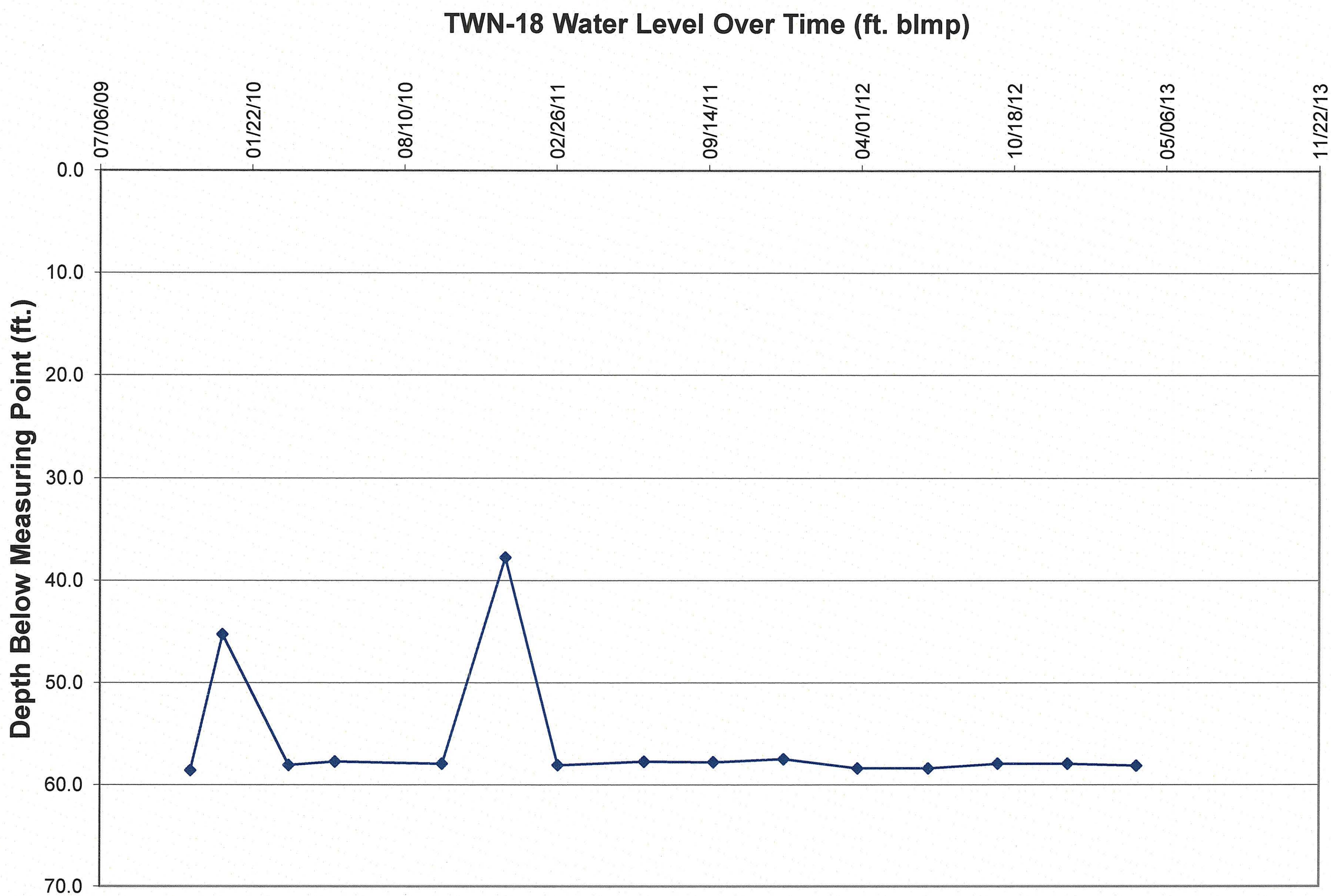
TWN-15 Water Level Over Time (ft. blmp)
Depth Below Measuring Point (ft.)
80.0
82.0
84.0
86.0
88.0
90.0
92.0
94.0
07/06/09
01/22/10
08/10/10
02/26/11
09/14/11
04/01/12
10/18/12
05/06/13
11/22/13



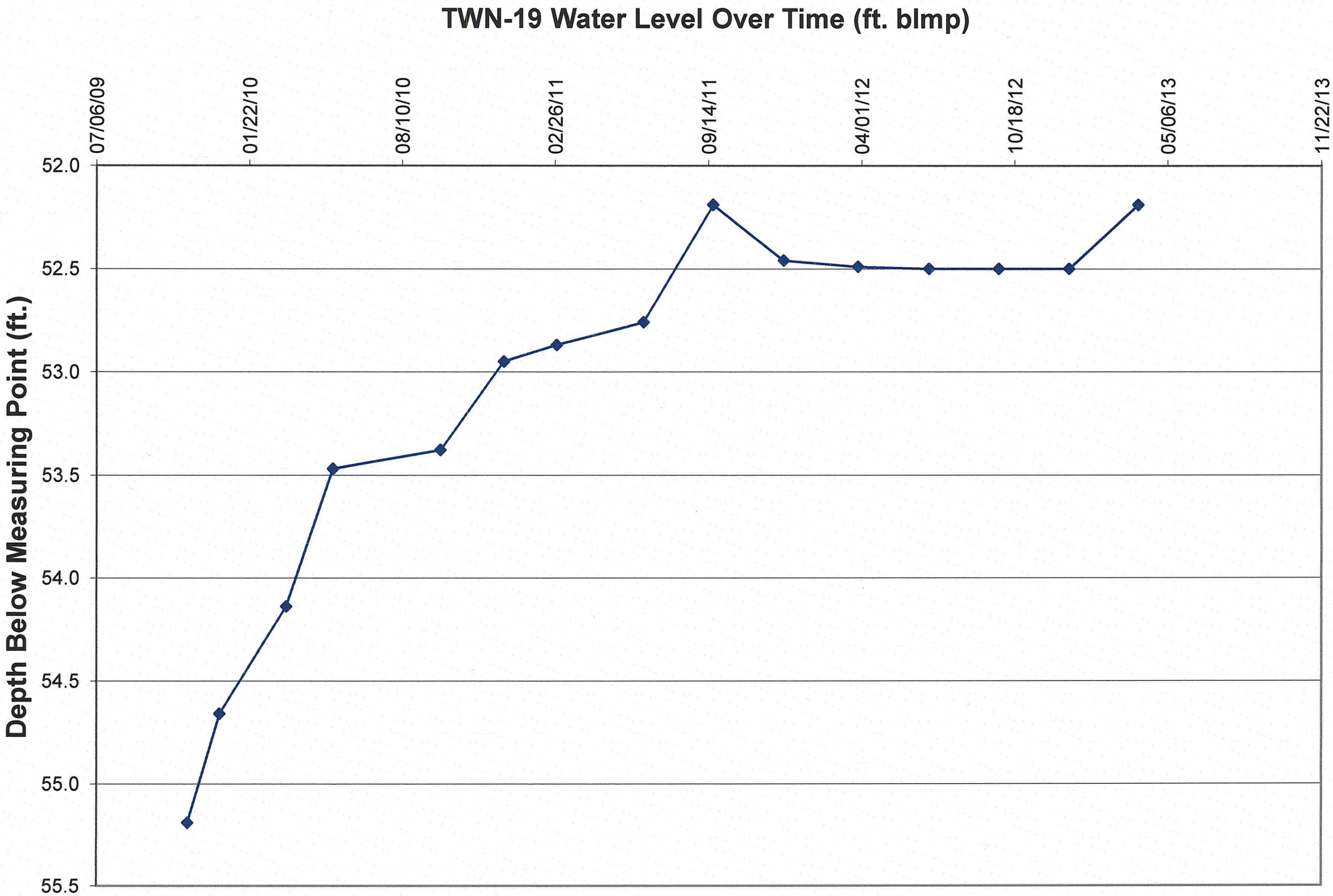
TWN-16 Water Level Over Time (ft. blmp)
Depth Below Measuring Point (ft.)
47.0
47.5
48.0
48.5
49.0
49.5
07/06/09
01/22/10
08/10/10
02/26/11
09/14/11
04/01/12
10/18/12
05/06/13
11/22/13



TWN-17 Water Level Over Time (ft. blmp)
Depth Below Measuring Point (ft.)
33.0
33.5
34.0
34.5
35.0
35.5
36.0
07/06/09
01/22/10
08/10/10
02/26/11
09/14/11
04/01/12
10/18/12
05/06/13
11/22/13

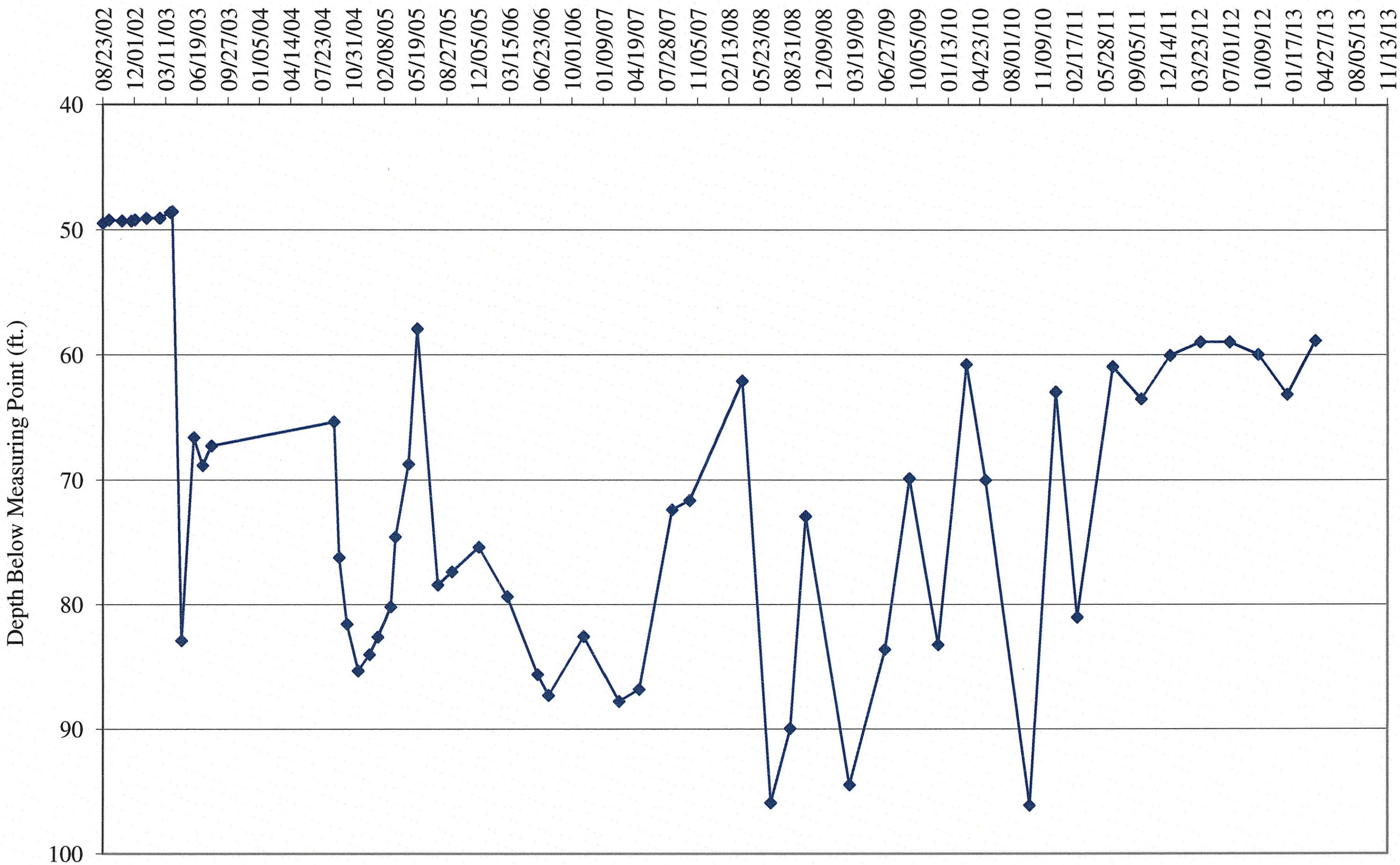


TWN-18 Water Level Over Time (ft. blmp)
Depth Below Measuring Point (ft.)
0.0
10.0
20.0
30.0
40.0
50.0
60.0
70.0
07/06/09
01/22/10
08/10/10
02/26/11
09/14/11
04/01/12
10/18/12
05/06/13
11/22/13

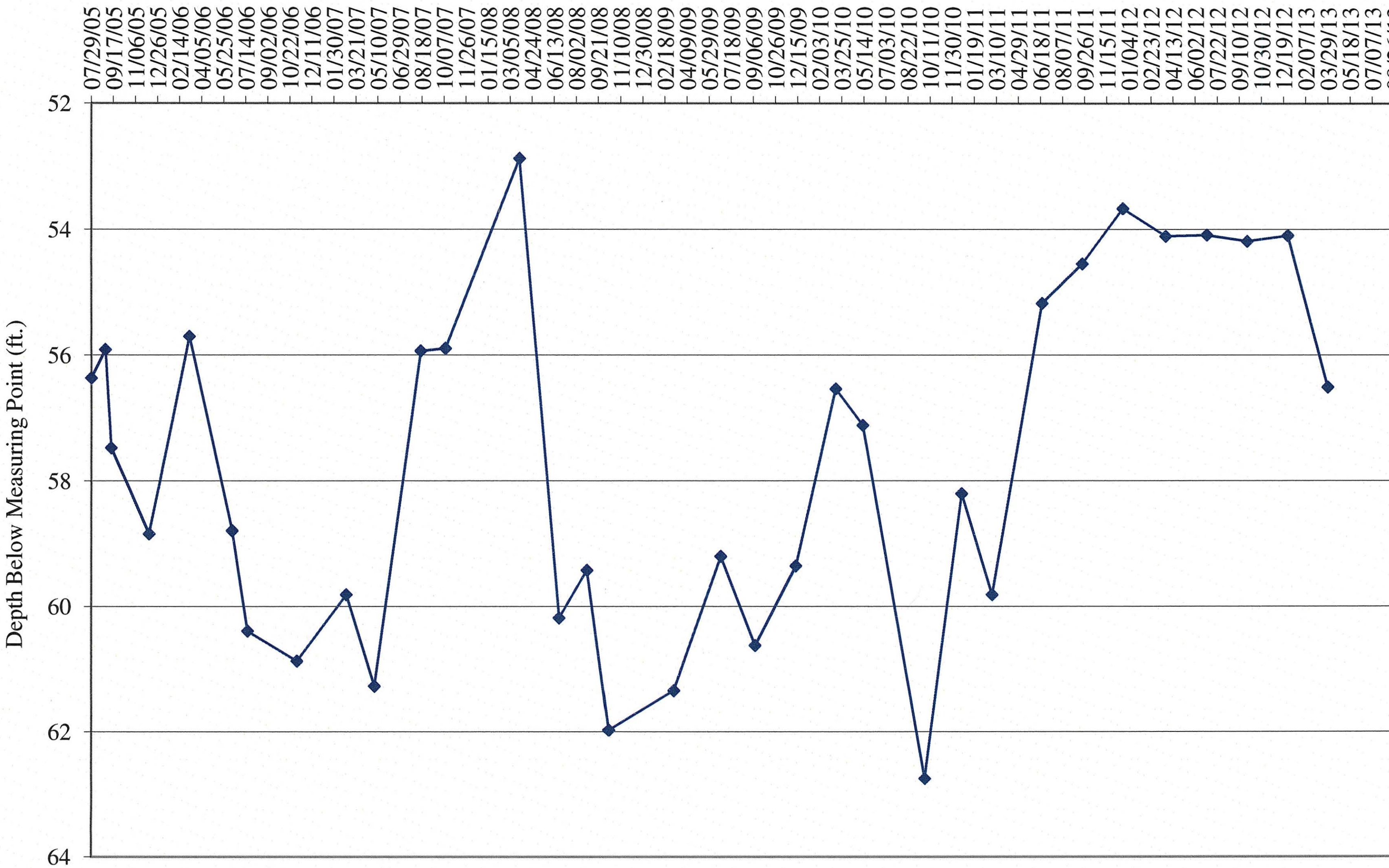


TWN-19 Water Level Over Time (ft. blmp)
Depth Below Measuring Point (ft.)
52.0
52.5
53.0
53.5
54.0
54.5
55.0
55.5
07/06/09
01/22/10
08/10/10
02/26/11
09/14/11
04/01/12
10/18/12
05/06/13
11/22/13

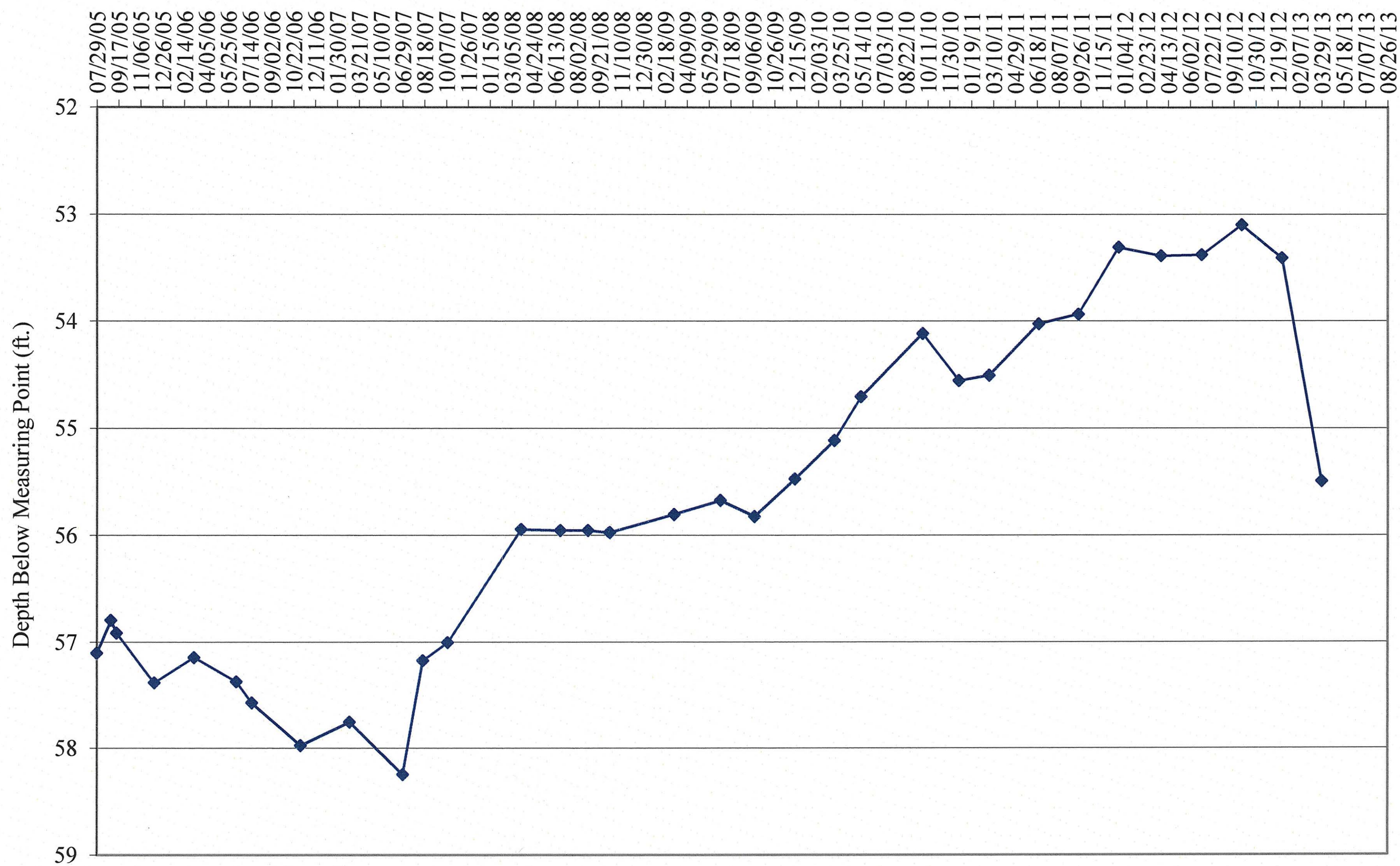
TW4-19 Water Depth Over Time (ft. blmp)



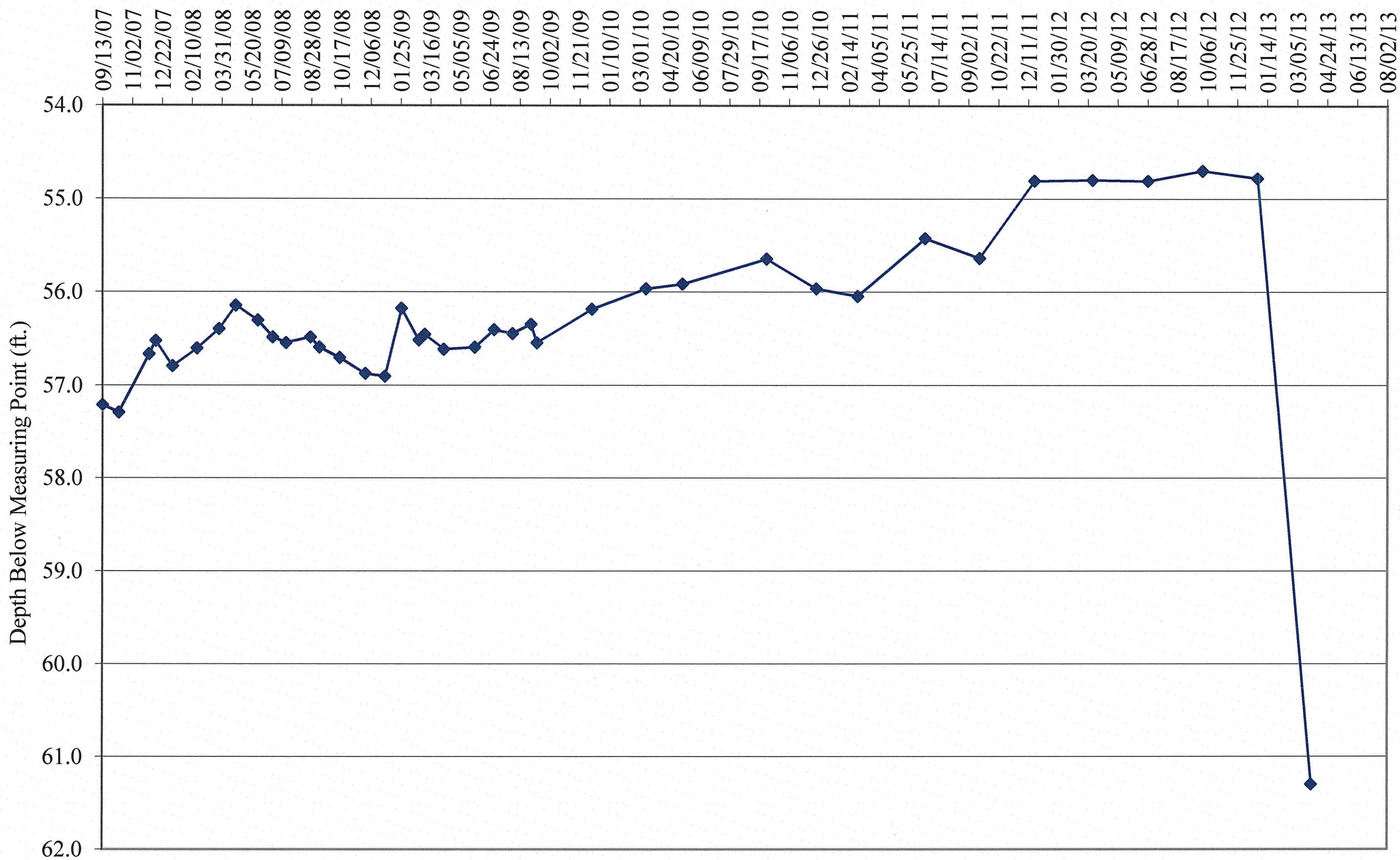
TW4-21 Water Depth Over Time (ft. blmp)



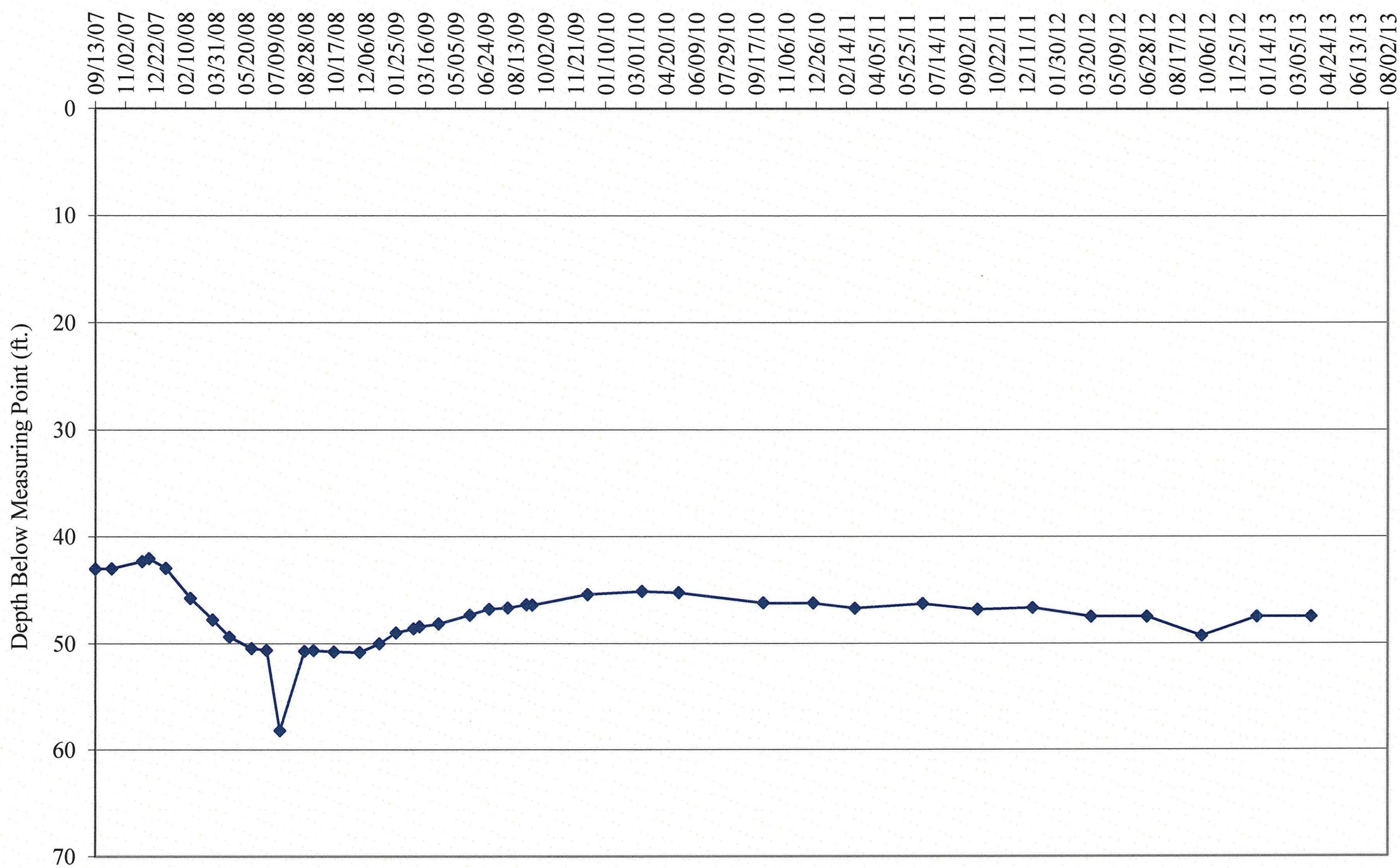
TW4-22 Water Depth Over Time (ft. blmp)



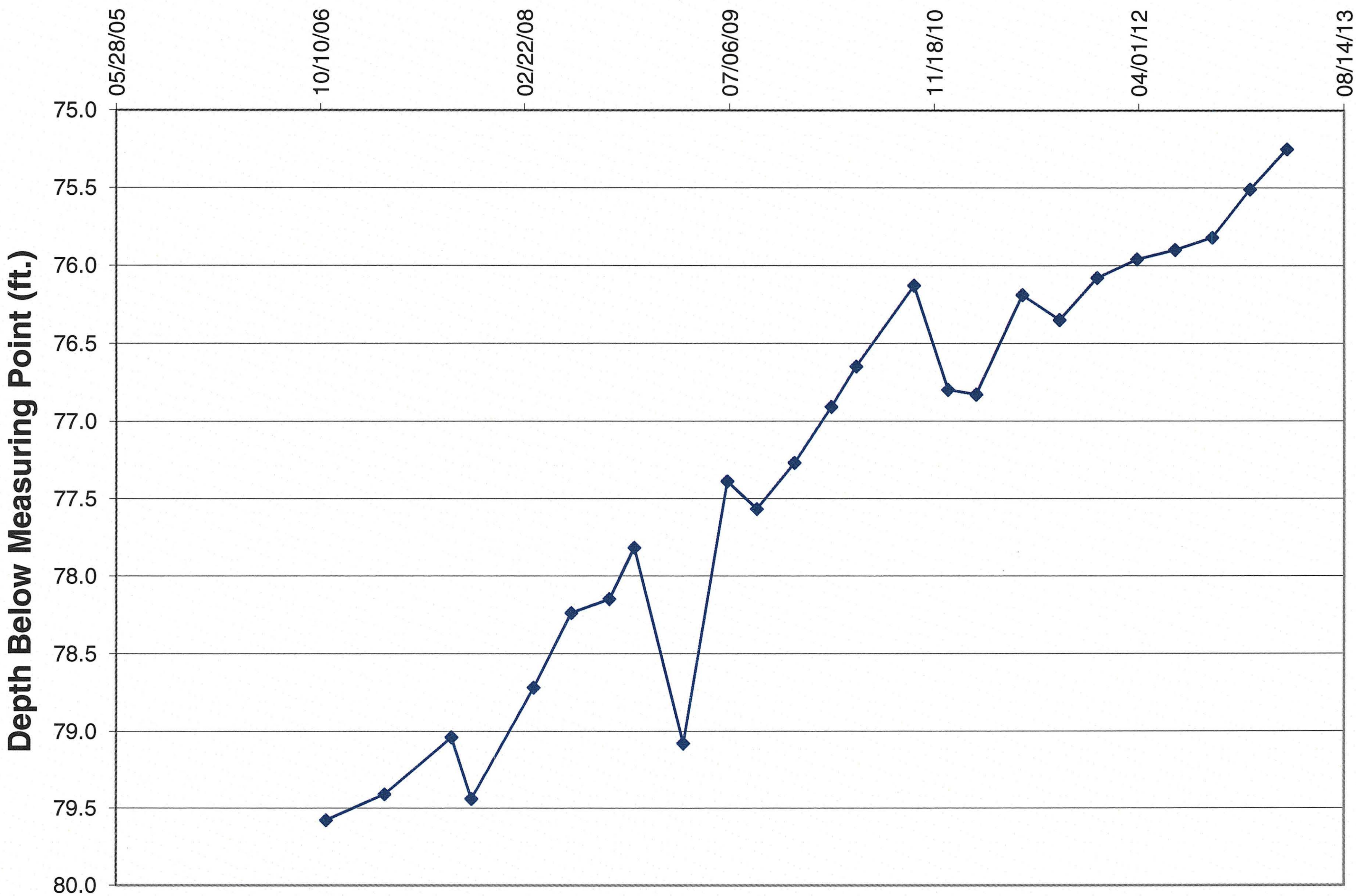
TW4-24 Water Depth Over Time (ft. blmp)

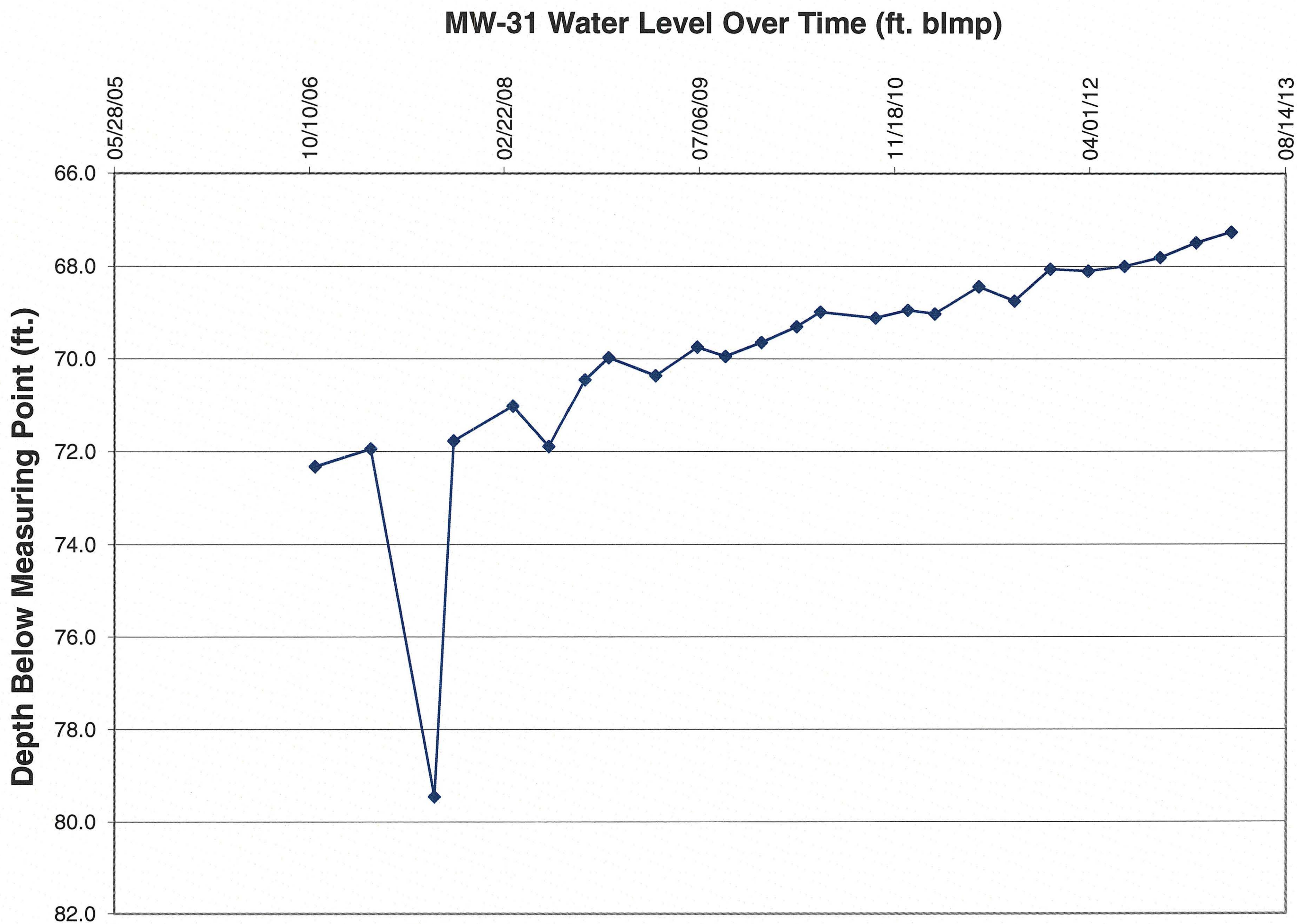


TW4-25 Water Depth Over Time (ft. blmp)



MW-30 Water Level Over Time (ft. blmp)




MW-31 Water Level Over Time (ft. blmp)
05/28/05
10/10/06
02/22/08
07/06/09
11/18/10
04/01/12
08/14/13
66.0
68.0
70.0
72.0
74.0
76.0
78.0
80.0
82.0
Depth Below Measuring Point (ft.)

Tab F

Depths to Groundwater and Elevations Over Time for Nitrate Monitoring Wells

Water Levels and Data over Time
White Mesa Mill - Well TWN-1

Water Elevation (WL)	Land Surface (LSD)	Measuring Point Elevation (MP)	Length Of Riser (L)	Date Of Monitoring	Total or Measured Depth to Water (blw.MP)	Total Depth to Water (blw.LSD)	Total Depth Of Well
	5,646.96	5,648.09	1.13				112.5
5,600.38				02/06/09	47.71	46.58	
5,599.99				07/21/09	48.10	46.97	
5,600.26				09/21/09	47.83	46.70	
5,601.10				10/28/09	46.99	45.86	
5,602.59				12/14/09	45.50	44.37	
5,600.55				03/11/10	47.54	46.41	
5,600.66				05/11/10	47.43	46.30	
5,599.18				09/29/10	48.91	47.78	
5,598.92				12/21/10	49.17	48.04	
5,598.29				02/28/11	49.80	48.67	
5,597.80				06/21/11	50.29	49.16	
5,597.32				09/20/11	50.77	49.64	
5,597.15				12/21/11	50.94	49.81	
5,596.54				03/27/12	51.55	50.42	
5,596.52				06/28/12	51.57	50.44	
5,595.03				09/27/12	53.06	51.93	
5,596.62				12/28/12	51.47	50.34	
5,593.54				03/28/13	54.55	53.42	

Water Levels and Data over Time
White Mesa Mill - Well TWN-2

Water Elevation (WL)	Land Surface (LSD)	Measuring Point Elevation (MP)	Length Of Riser (L)	Date Of Monitoring	Total or Measured Depth to Water (blw.MP)	Total Depth to Water (blw.LSD)	Total Depth Of Well
	5,625.75	5,626.69	0.94				95
5,611.37				02/06/09	15.32	14.38	
5,610.63				07/21/09	16.06	15.12	
5,609.73				09/21/09	16.96	16.02	
5,607.08				11/02/09	19.61	18.67	
5,606.57				12/14/09	20.12	19.18	
5,612.45				03/11/10	14.24	13.30	
5,612.78				05/11/10	13.91	12.97	
5,611.37				09/29/10	15.32	14.38	
5,610.24				12/21/10	16.45	15.51	
5,610.64				02/28/11	16.05	15.11	
5,609.78				06/21/11	16.91	15.97	
5609.79				09/20/11	16.90	15.96	
5609.72				12/21/11	16.97	16.03	
5,605.69				03/27/12	21.00	20.06	
5,605.67				06/28/12	21.02	20.08	
5,603.03				09/27/12	23.66	22.72	
5,605.76				12/28/12	20.93	19.99	
5,598.28				03/28/13	28.41	27.47	

Water Levels and Data over Time
White Mesa Mill - Well TWN-3

Water Elevation (WL)	Land Surface (LSD)	Measuring Point Elevation (MP)	Length Of Riser (L)	Date Of Monitoring	Total or Measured Depth to Water (blw.MP)	Total Depth to Water (blw.LSD)	Total Depth Of Well
	5,633.64	5,634.50	0.86				110
5,603.77				02/06/09	30.73	29.87	
5,602.37				07/21/09	32.13	31.27	
5,602.34				09/21/09	32.16	31.30	
5,602.60				10/28/09	31.90	31.04	
5,603.12				12/14/09	31.38	30.52	
5,602.90				03/11/10	31.60	30.74	
5,603.23				05/11/10	31.27	30.41	
5,602.86				09/29/10	31.64	30.78	
5,603.35				12/21/10	31.15	30.29	
5,602.89				02/28/11	31.61	30.75	
5,602.75				06/21/11	31.75	30.89	
5,602.40				09/20/11	32.10	31.24	
5,602.40				12/21/11	32.10	31.24	
5,601.70				03/27/12	32.80	31.94	
5,601.67				06/28/12	32.83	31.97	
5,600.50				09/27/12	34.00	33.14	
5,601.74				12/28/12	32.76	31.90	
5,598.60				03/28/13	35.90	35.04	

Water Levels and Data over Time
White Mesa Mill - Well TWN-4

Water Elevation (WL)	Land Surface (LSD)	Measuring Point Elevation (MP)	Length Of Riser (L)	Date Of Monitoring	Total or Measured Depth to Water (blw.MP)	Total Depth to Water (blw.LSD)	Total Depth Of Well
	5,641.04	5,641.87	0.83				136
5,601.47				02/06/09	40.40	39.57	
5,604.26				07/21/09	37.61	36.78	
5,605.02				09/21/09	36.85	36.02	
5,605.87				10/28/09	36.00	35.17	
5,605.81				12/14/09	36.06	35.23	
5,605.31				03/11/10	36.56	35.73	
5,605.36				05/11/10	36.51	35.68	
5,604.59				09/29/10	37.28	36.45	
5,604.42				12/21/10	37.45	36.62	
5,603.69				02/28/11	38.18	37.35	
5,603.36				06/21/11	38.51	37.68	
5,602.82				09/20/11	39.05	38.22	
5,602.79				12/21/11	39.08	38.25	
5,600.82				03/27/12	41.05	40.22	
5,600.84				06/28/12	41.03	40.20	
5,598.47				09/27/12	43.40	42.57	
5,600.86				12/28/12	41.01	40.18	
5,595.57				03/28/13	46.30	45.47	

Water Levels and Data over Time
White Mesa Mill - Well TWN-5

Water Elevation (WL)	Land Surface (LSD)	Measuring Point Elevation (MP)	Length Of Riser (L)	Date Of Monitoring	Total or Measured Depth to Water (blw.MP)	Total Depth to Water (blw.LSD)	Total Depth Of Well
	5,653.70	5,655.18	1.48				155
5,584.43				08/25/09	70.75	69.27	
5,584.51				09/21/09	70.67	69.19	
5,584.54				11/10/09	70.64	69.16	
5,584.62				12/14/09	70.56	69.08	
5,584.97				03/11/10	70.21	68.73	
5,585.38				05/11/10	69.80	68.32	
5,585.35				09/29/10	69.83	68.35	
5,585.42				12/21/10	69.76	68.28	
5,585.08				02/28/11	70.10	68.62	
5,585.38				06/21/11	69.80	68.32	
5,585.51				09/20/11	69.67	68.19	
5,585.76				12/21/11	69.42	67.94	
5,585.61				03/27/12	69.57	68.09	
5,585.63				06/28/12	69.55	68.07	
5,585.63				09/27/12	69.55	68.07	
5,585.90				12/28/12	69.28	67.80	
5,585.68				03/28/13	69.50	68.02	

Water Levels and Data over Time
White Mesa Mill - Well TWN-6

Water Elevation (WL)	Land Surface (LSD)	Measuring Point Elevation (MP)	Length Of Riser (L)	Date Of Monitoring	Total or Measured Depth to Water (blw.MP)	Total Depth to Water (blw.LSD)	Total Depth Of Well
	5,663.03	5,664.94	1.91				135
5,589.52				08/25/09	75.42	73.51	
5,589.46				09/22/09	75.48	73.57	
5,589.61				11/03/09	75.33	73.42	
5,589.92				12/14/09	75.02	73.11	
5,590.24				03/11/10	74.70	72.79	
5,590.40				05/11/10	74.54	72.63	
5,590.24				09/29/10	74.70	72.79	
5,590.49				12/21/10	74.45	72.54	
5,590.16				02/28/11	74.78	72.87	
5,590.44				06/21/11	74.50	72.59	
5,590.35				09/20/11	74.59	72.68	
5,590.67				12/21/11	74.27	72.36	
5,590.34				03/27/12	74.60	72.69	
5,590.32				06/28/12	74.62	72.71	
5,589.77				09/27/12	75.17	73.26	
5,589.67				12/28/12	75.27	73.36	
5,589.45				03/28/13	75.49	73.58	

Water Levels and Data over Time
White Mesa Mill - Well TWN-7

Water Elevation (WL)	Land Surface (LSD)	Measuring Point Elevation (MP)	Length Of Riser (L)	Date Of Monitoring	Total or Measured Depth to Water (blw.MP)	Total Depth to Water (blw.LSD)	Total Depth Of Well
	5,647.39	5,649.26	1.87				120
5,552.56				08/25/09	96.70	94.83	
5,558.34				09/21/09	90.92	89.05	
5,558.82				11/10/09	90.44	88.57	
5,558.96				12/14/09	90.30	88.43	
5,559.54				03/11/10	89.72	87.85	
5,559.60				05/11/10	89.66	87.79	
5,559.83				09/29/10	89.43	87.56	
5,559.00				12/21/10	90.26	88.39	
5,559.68				02/28/11	89.58	87.71	
5,560.43				06/21/11	88.83	86.96	
5,560.46				09/20/11	88.80	86.93	
5,560.78				12/21/11	88.48	86.61	
5,560.92				03/27/12	88.34	86.47	
5,560.87				06/28/12	88.39	86.52	
5,561.40				09/27/12	87.86	85.99	
5,561.50				12/28/12	87.76	85.89	
5,562.01				03/28/13	87.25	85.38	

Water Levels and Data over Time
White Mesa Mill - Well TWN-8

Water Elevation (WL)	Land Surface (LSD)	Measuring Point Elevation (MP)	Length Of Riser (L)	Date Of Monitoring	Total or Measured Depth to Water (blw.MP)	Total Depth to Water (blw.LSD)	Total Depth Of Well
	5,649.35	5,651.48	2.13				160
5,589.01				08/25/09	62.47	60.34	
5,589.10				09/21/09	62.38	60.25	
5,589.09				11/03/09	62.39	60.26	
5,603.38				12/14/09	48.10	45.97	
5,589.68				03/11/10	61.80	59.67	
5,589.95				05/11/10	61.53	59.40	
5,589.74				09/29/10	61.74	59.61	
5,589.97				12/21/10	61.51	59.38	
5,589.67				02/28/11	61.81	59.68	
5,589.96				06/21/11	61.52	59.39	
5,589.82				09/20/11	61.66	59.53	
5,590.18				12/21/11	61.30	59.17	
5,589.85				03/27/12	61.63	59.50	
5,589.84				06/28/12	61.64	59.51	
5,589.28				09/27/12	62.20	60.07	
5,589.18				12/28/12	62.30	60.17	
5,588.95				03/28/13	62.53	60.40	

Water Levels and Data over Time
White Mesa Mill - Well TWN-9

Water Elevation (WL)	Land Surface (LSD)	Measuring Point Elevation (MP)	Length Of Riser (L)	Date Of Monitoring	Total or Measured Depth to Water (blw.MP)	Total Depth to Water (blw.LSD)	Total Depth Of Well
	5,645.68	5,647.45	1.77				102.5
5,582.05				08/25/09	65.40	63.63	
5,582.12				09/22/09	65.33	63.56	
5,582.27				11/10/09	65.18	63.41	
5,582.53				12/14/09	64.92	63.15	
5,582.92				03/11/10	64.53	62.76	
5,583.06				05/11/10	64.39	62.62	
5,583.25				09/29/10	64.20	62.43	
5,583.57				12/21/10	63.88	62.11	
5,583.54				02/28/11	63.91	62.14	
5,583.92				06/21/11	63.53	61.76	
5,584.04				09/20/11	63.41	61.64	
5,587.42				12/21/11	60.03	58.26	
5,584.56				03/27/12	62.89	61.12	
5,584.55				06/28/12	62.90	61.13	
5,584.85				09/27/12	62.6	60.83	
5,585.24				12/28/12	62.21	60.44	
5,585.35				03/28/13	62.10	60.33	

Water Levels and Data over Time
White Mesa Mill - Well TWN-10

Water Elevation (WL)	Land Surface (LSD)	Measuring Point Elevation (MP)	Length Of Riser (L)	Date Of Monitoring	Total or Measured Depth to Water (blw.MP)	Total Depth to Water (blw.LSD)	Total Depth Of Well
	5,664.63	5,666.98	2.35				107.5
5,584.18				08/25/09	82.80	80.45	
5,584.40				09/22/09	82.58	80.23	
5,584.61				11/10/09	82.37	80.02	
5,584.90				12/14/09	82.08	79.73	
5,585.21				03/11/10	81.77	79.42	
5,585.42				05/11/10	81.56	79.21	
5,585.42				09/29/10	81.56	79.21	
5,585.68				12/21/10	81.30	78.95	
5,585.60				02/28/11	81.38	79.03	
5,585.95				06/21/11	81.03	78.68	
5,585.92				09/20/11	81.06	78.71	
5,586.22				12/21/11	80.76	78.41	
5,586.16				03/27/12	80.82	78.47	
5,586.16				06/28/12	80.82	78.47	
5,586.13				09/27/12	80.85	78.50	
5,586.28				12/28/12	80.70	78.35	
5,586.28				03/28/13	80.70	78.35	

Water Levels and Data over Time
White Mesa Mill - Well TWN-11

Water Elevation (WL)	Land Surface (LSD)	Measuring Point Elevation (MP)	Length Of Riser (L)	Date Of Monitoring	Total or Measured Depth to Water (blw.MP)	Total Depth to Water (blw.LSD)	Total Depth Of Well
	5,683.16	5,684.53	1.37				147.5
5,613.00				11/03/09	71.53	70.16	
5,613.88				12/14/09	70.65	69.28	
5,614.65				03/11/10	69.88	68.51	
5,615.16				05/11/10	69.37	68.00	
5,614.93				09/29/10	69.60	68.23	
5,615.09				12/21/10	69.44	68.07	
5,614.96				02/28/11	69.57	68.20	
5,615.12				06/21/11	69.41	68.04	
5,614.96				09/20/11	69.57	68.20	
5,615.18				12/21/11	69.35	67.98	
5,615.11				03/27/12	69.42	68.05	
5,615.12				06/28/12	69.41	68.04	
5,615.03				09/27/12	69.50	68.13	
5,615.28				12/28/12	69.25	67.88	
5,615.40				03/28/13	69.13	67.76	

Water Levels and Data over Time
White Mesa Mill - Well TWN-12

Water Elevation (WL)	Land Surface (LSD)	Measuring Point Elevation (MP)	Length Of Riser (L)	Date Of Monitoring	Total or Measured Depth to Water (blw.MP)	Total Depth to Water (blw.LSD)	Total Depth Of Well
	5,667.03	5,668.24	1.21				115
5,628.33				11/03/09	39.91	38.70	
5,628.86				12/14/09	39.38	38.17	
5,630.27				03/11/10	37.97	36.76	
5,631.64				05/11/10	36.60	35.39	
5,633.73				09/29/10	34.51	33.30	
5,633.43				12/21/10	34.81	33.60	
5,634.35				02/28/11	33.89	32.68	
5,635.95				06/21/11	32.29	31.08	
5,636.44				09/20/11	31.80	30.59	
5,638.93				12/21/11	29.31	28.10	
5,639.69				03/27/12	28.55	27.34	
5,639.74				06/28/12	28.50	27.29	
5,640.90				09/27/12	27.34	26.13	
5,640.52				12/28/12	27.72	26.51	
5,639.99				03/28/13	28.25	27.04	

Water Levels and Data over Time
White Mesa Mill - Well TWN-13

Water Elevation (WL)	Land Surface (LSD)	Measuring Point Elevation (MP)	Length Of Riser (L)	Date Of Monitoring	Total or Measured Depth to Water (blw.MP)	Total Depth to Water (blw.LSD)	Total Depth Of Well
	5,633.04	5,634.32	1.28				120
5,586.95				11/03/09	47.37	46.09	
5,587.22				12/14/09	47.10	45.82	
5,587.45				03/11/10	46.87	45.59	
5,587.64				05/11/10	46.68	45.40	
5,587.37				09/29/10	46.95	45.67	
5,587.77				12/21/10	46.55	45.27	
5,587.64				02/28/11	46.68	45.40	
5,587.89				06/21/11	46.43	45.15	
5,588.03				09/20/11	46.29	45.01	
5,588.30				12/21/11	46.02	44.74	
5,588.32				03/27/12	46.00	44.72	
5,588.30				06/28/12	46.02	44.74	
5,588.51				09/27/12	45.81	44.53	
5,588.71				12/28/12	45.61	44.33	
5,588.87				03/28/13	45.45	44.17	

Water Levels and Data over Time
White Mesa Mill - Well TWN-14

Water Elevation (WL)	Land Surface (LSD)	Measuring Point Elevation (MP)	Length Of Riser (L)	Date Of Monitoring	Total or Measured Depth to Water (blw.MP)	Total Depth to Water (blw.LSD)	Total Depth Of Well
	5,647.80	5,649.53	1.73				135
5,586.18				11/04/09	63.35	61.62	
5,586.51				12/14/09	63.02	61.29	
5,586.71				03/11/10	62.82	61.09	
5,586.72				05/11/10	62.81	61.08	
5,586.53				09/29/10	63.00	61.27	
5,586.80				12/21/10	62.73	61.00	
5,586.74				02/28/11	62.79	61.06	
5,586.84				06/21/11	62.69	60.96	
5,586.73				09/20/11	62.80	61.07	
5,586.98				12/21/11	62.55	60.82	
5,587.07				03/27/12	62.46	60.73	
5,587.10				06/28/12	62.43	60.70	
5,587.07				09/27/12	62.46	60.73	
5,587.33				12/28/12	62.20	60.47	
5,587.43				03/28/13	62.10	60.37	

Water Levels and Data over Time
White Mesa Mill - Well TWN-15

Water Elevation (WL)	Land Surface (LSD)	Measuring Point Elevation (MP)	Length Of Riser (L)	Date Of Monitoring	Total or Measured Depth to Water (blw.MP)	Total Depth to Water (blw.LSD)	Total Depth Of Well
	5,675.01	5,676.49	1.48				155
5,594.12				11/10/09	82.37	80.89	
5,584.03				12/14/09	92.46	90.98	
5,584.10				03/11/10	92.39	90.91	
5,584.16				05/11/10	92.33	90.85	
5,584.26				09/29/10	92.23	90.75	
5,584.30				12/21/10	92.19	90.71	
5,584.04				02/28/11	92.45	90.97	
5,584.30				06/21/11	92.19	90.71	
5,584.37				09/20/11	92.12	90.64	
5,584.49				12/21/11	92.00	90.52	
5,584.47				03/27/12	92.02	90.54	
5,584.49				06/28/12	92.00	90.52	
5,584.58				09/27/12	91.91	90.43	
5,584.75				12/28/12	91.74	90.26	
5,584.93				03/28/13	91.56	90.08	

Water Levels and Data over Time
White Mesa Mill - Well TWN-16

Water Elevation (WL)	Land Surface (LSD)	Measuring Point Elevation (MP)	Length Of Riser (L)	Date Of Monitoring	Total or Measured Depth to Water (blw.MP)	Total Depth to Water (blw.LSD)	Total Depth Of Well
	5,651.07	5,652.70	1.63				100
5,603.34				11/04/09	49.36	47.73	
5,603.56				12/14/09	49.14	47.51	
5,603.84				03/11/10	48.86	47.23	
5,604.31				05/11/10	48.39	46.76	
5,604.28				09/29/10	48.42	46.79	
5,604.39				12/21/10	48.31	46.68	
5,604.20				02/28/11	48.50	46.87	
5,604.55				06/21/11	48.15	46.52	
5,604.74				09/20/11	47.96	46.33	
5,604.94				12/21/11	47.76	46.13	
5,604.84				03/27/12	47.86	46.23	
5,604.85				06/28/12	47.85	46.22	
5,604.99				09/27/12	47.71	46.08	
5,605.10				12/28/12	47.60	45.97	
5,605.22				03/28/13	47.48	45.85	

Water Levels and Data over Time
White Mesa Mill - Well TWN-17

Water Elevation (WL)	Land Surface (LSD)	Measuring Point Elevation (MP)	Length Of Riser (L)	Date Of Monitoring	Total or Measured Depth to Water (blw.MP)	Total Depth to Water (blw.LSD)	Total Depth Of Well
	5,639.73	5,641.55	1.82				100
5,605.96				11/04/09	35.59	33.77	
5,606.27				12/14/09	35.28	33.46	
5,606.25				03/11/10	35.30	33.48	
5,606.55				05/11/10	35.00	33.18	
5,606.77				09/29/10	34.78	32.96	
5,607.15				12/21/10	34.40	32.58	
5,606.96				02/28/11	34.59	32.77	
5,607.22				06/21/11	34.33	32.51	
5,607.40				09/20/11	34.15	32.33	
5,607.85				12/21/11	33.70	31.88	
5,607.67				03/27/12	33.88	32.06	
5,607.68				06/28/12	33.87	32.05	
5,607.76				09/27/12	33.79	31.97	
5,608.08				12/28/12	33.47	31.65	
5,607.91				03/28/13	33.64	31.82	

Water Levels and Data over Time
White Mesa Mill - Well TWN -18

Water Elevation (WL)	Land Surface (LSD)	Measuring Point Elevation (MP)	Length Of Riser (L)	Date Of Monitoring	Total or Measured Depth to Water (blw.MP)	Total Depth to Water (blw.LSD)	Total Depth Of Well
	5,643.95	5,645.45	1.50				100
5,586.85				11/02/09	58.60	57.10	
5,600.14				12/14/09	45.31	43.81	
5,587.36				03/11/10	58.09	56.59	
5,587.71				05/11/10	57.74	56.24	
5,587.50				09/29/10	57.95	56.45	
5,607.66				12/21/10	37.79	36.29	
5,587.35				02/28/11	58.10	56.60	
5,587.71				06/21/11	57.74	56.24	
5,587.65				09/20/11	57.80	56.30	
5,587.95				12/21/11	57.50	56.00	
5,587.05				03/27/12	58.40	56.90	
5,587.05				06/28/12	58.40	56.90	
5,587.50				09/27/12	57.95	56.45	
5,587.50				12/28/12	57.95	56.45	
5,587.32				03/28/13	58.13	56.63	

Water Levels and Data over Time
White Mesa Mill - Well TWN-19

Water Elevation (WL)	Land Surface (LSD)	Measuring Point Elevation (MP)	Length Of Riser (L)	Date Of Monitoring	Total or Measured Depth to Water (blw.MP)	Total Depth to Water (blw.LSD)	Total Depth Of Well
	5,659.59	5,661.36	1.77				110
5,606.17				11/02/09	55.19	53.42	
5,606.70				12/14/09	54.66	52.89	
5,607.22				03/11/10	54.14	52.37	
5,607.89				05/11/10	53.47	51.70	
5,607.98				09/29/10	53.38	51.61	
5,608.41				12/21/10	52.95	51.18	
5,608.49				02/28/11	52.87	51.10	
5,608.60				06/21/11	52.76	50.99	
5,609.17				09/20/11	52.19	50.42	
5,608.90				12/21/11	52.46	50.69	
5,608.87				03/27/12	52.49	50.72	
5,608.86				06/28/12	52.50	50.73	
5,608.86				09/27/12	52.50	50.73	
5,608.86				12/28/12	52.50	50.73	
5,609.17				03/28/13	52.19	50.42	

Water Levels and Data over Time
White Mesa Mill - Well TW4-19

Water Elevation (WL)	Land Surface (LSD)	Measuring Point Elevation (MP)	Length Of Riser (L)	Date Of Monitoring	Total or Measured Depth to Water (blw.MP)	Total Depth to Water (blw.LSD)	Total Depth Of Well
	5,629.53	5,631.39	1.86				121.33
5,581.88				08/23/02	49.51	47.65	
5,582.14				09/11/02	49.25	47.39	
5,582.06				10/23/02	49.33	47.47	
5,582.07				11/22/02	49.32	47.46	
5,582.16				12/03/02	49.23	47.37	
5,582.28				01/09/03	49.11	47.25	
5,582.29				02/21/03	49.10	47.24	
5,582.74				03/26/03	48.65	46.79	
5,582.82				04/02/03	48.57	46.71	
5,548.47				05/01/03	82.92	81.06	
5,564.76				06/09/03	66.63	64.77	
5,562.53				07/07/03	68.86	67.00	
5,564.10				08/04/03	67.29	65.43	
5,566.01				08/30/04	65.38	63.52	
5,555.16				09/16/04	76.23	74.37	
5,549.80				10/11/04	81.59	79.73	
5,546.04				11/16/04	85.35	83.49	
5,547.34				12/22/04	84.05	82.19	
5,548.77				01/18/05	82.62	80.76	
5,551.18				02/28/05	80.21	78.35	
5,556.81				03/15/05	74.58	72.72	
5,562.63				04/26/05	68.76	66.90	
5,573.42				05/24/05	57.97	56.11	
5,552.94				07/29/05	78.45	76.59	
5,554.00				09/12/05	77.39	75.53	
5,555.98				12/07/05	75.41	73.55	
5,552.00				03/08/06	79.39	77.53	
5,545.74				06/13/06	85.65	83.79	
5,544.06				07/18/06	87.33	85.47	
5,548.81				11/07/06	82.58	80.72	
5543.59				02/27/07	87.80	85.94	
5544.55				05/02/07	86.84	84.98	
5558.97				08/15/07	72.42	70.56	
5559.73				10/10/07	71.66	69.8	
5569.26				03/26/08	62.13	60.27	
5535.47				06/25/08	95.92	94.06	
5541.41				08/26/08	89.98	88.12	
5558.45				10/14/08	72.94	71.08	
5536.9				03/03/09	94.49	92.63	
5547.76				06/24/09	83.63	81.77	
5561.48				09/10/09	69.91	68.05	
5548.14				12/11/09	83.25	81.39	
5,570.58				03/11/10	60.81	58.95	

Water Levels and Data over Time
White Mesa Mill - Well TW4-19

Water Elevation (WL)	Land Surface (LSD)	Measuring Point Elevation (MP)	Length Of Riser (L)	Date Of Monitoring	Total or Measured Depth to Water (blw.MP)	Total Depth to Water (blw.LSD)	Total Depth Of Well
	5,629.53	5,631.39	1.86				121.33
5,561.35				05/11/10	70.04	68.18	
5,535.26				09/29/10	96.13	94.27	
5,568.40				12/21/10	62.99	61.13	
5,550.36				02/28/11	81.03	79.17	
5,570.41				06/21/11	60.98	59.12	
5,567.84				09/20/11	63.55	61.69	
5,571.32				12/21/11	60.07	58.21	
5,572.40				03/27/12	58.99	57.13	
5,572.39				06/28/12	59.00	57.14	
5,571.40				09/27/12	59.99	58.13	
5,568.21				12/28/12	63.18	61.32	
5,572.51				03/28/13	58.88	57.02	

Water Levels and Data over Time
White Mesa Mill - Well TW4-21

Water Elevation (WL)	Land Surface (LSD)	Measuring Point Elevation (MP)	Length Of Riser (L)	Date Of Monitoring	Total or Measured Depth to Water (blw.MP)	Total Depth to Water (blw.LSD)	Total Depth Of Well
	5,638.20	5,639.35	1.15				120.92
5,582.98				07/29/05	56.37	55.22	
5,583.43				08/30/05	55.92	54.77	
5,581.87				09/12/05	57.48	56.33	
5,580.50				12/07/05	58.85	57.70	
5,583.64				03/08/06	55.71	54.56	
5,580.55				06/13/06	58.80	57.65	
5,578.95				07/18/06	60.40	59.25	
5,578.47				11/07/06	60.88	59.73	
5,579.53				02/27/07	59.82	58.67	
5,578.07				05/02/07	61.28	60.13	
5,583.41				08/15/07	55.94	54.79	
5,583.45				10/10/07	55.90	54.75	
5,586.47				03/26/08	52.88	51.73	
5,579.16				06/24/08	60.19	59.04	
5,579.92				08/26/08	59.43	58.28	
5,577.37				10/14/08	61.98	60.83	
5,578.00				03/10/09	61.35	60.20	
5,580.14				06/24/09	59.21	58.06	
5,578.72				09/10/09	60.63	59.48	
5,579.99				12/11/09	59.36	58.21	
5,582.81				03/11/10	56.54	55.39	
5,582.23				05/11/10	57.12	55.97	
5,576.60				09/29/10	62.75	61.60	
5,581.14				12/21/10	58.21	57.06	
5,579.53				02/28/11	59.82	58.67	
5,584.17				06/21/11	55.18	54.03	
5,584.80				09/20/11	54.55	53.40	
5,585.68				12/21/11	53.67	52.52	
5,585.24				03/27/12	54.11	52.96	
5,585.26				06/28/12	54.09	52.94	
5,585.16				09/27/12	54.19	53.04	
5,585.25				12/28/12	54.10	52.95	
5,582.84				03/28/13	56.51	55.36	

Water Levels and Data over Time
White Mesa Mill - Well TW4-22

Water Elevation (WL)	Land Surface (LSD)	Measuring Point Elevation (MP)	Length Of Riser (L)	Date Of Monitoring	Total or Measured Depth to Water (blw.MP)	Total Depth to Water (blw.LSD)	Total Depth Of Well
	5,627.83	5,629.00	1.17				113.5
5,571.89				07/29/05	57.11	55.94	
5,572.20				08/30/05	56.80	55.63	
5,572.08				09/12/05	56.92	55.75	
5,571.61				12/07/05	57.39	56.22	
5,571.85				03/08/06	57.15	55.98	
5,571.62				06/13/06	57.38	56.21	
5,571.42				07/18/06	57.58	56.41	
5,571.02				11/07/06	57.98	56.81	
5571.24				02/27/07	57.76	56.59	
5,570.75				06/29/07	58.25	57.08	
5,571.82				08/14/07	57.18	56.01	
5,571.99				10/10/07	57.01	55.84	
5,573.05				03/26/08	55.95	54.78	
5,573.04				06/24/08	55.96	54.79	
5,573.04				08/26/08	55.96	54.79	
5,573.02				10/14/08	55.98	54.81	
5,573.19				03/10/09	55.81	54.64	
5,573.32				06/24/09	55.68	54.51	
5,573.17				09/10/09	55.83	54.66	
5,573.52				12/11/09	55.48	54.31	
5,573.88				03/11/10	55.12	53.95	
5,574.29				05/11/10	54.71	53.54	
5,574.88				09/29/10	54.12	52.95	
5,574.44				12/21/10	54.56	53.39	
5,574.49				02/28/11	54.51	53.34	
5,574.97				06/21/11	54.03	52.86	
5,575.06				09/20/11	53.94	52.77	
5,575.69				12/21/11	53.31	52.14	
5,575.61				03/27/12	53.39	52.22	
5,575.62				06/28/12	53.38	52.21	
5,575.90				09/27/12	53.10	51.93	
5,575.59				12/28/12	53.41	52.24	
5,573.50				03/28/13	55.50	54.33	

Water Levels and Data over Time
White Mesa Mill - Well TW4-24

Water Elevation (WL)	Land Surface (LSD)	Measuring Point Elevation (MP)	Length Of Riser (L)	Date Of Monitoring	Total or Measured Depth to Water (blw.MP)	Total Depth to Water (blw.LSD)	Total Depth Of Well
	5,625.70	5,627.83	2.13				113.5
5,570.61				09/13/07	57.22	55.09	
5,570.53				10/10/07	57.30	55.17	
5,571.16				11/30/07	56.67	54.54	
5,571.30				12/11/07	56.53	54.40	
5,571.03				01/08/08	56.80	54.67	
5,571.22				02/18/08	56.61	54.48	
5,571.43				03/26/08	56.40	54.27	
5,571.68				04/23/08	56.15	54.02	
5571.52				05/30/08	56.31	54.18	
5,571.34				06/24/08	56.49	54.36	
5,571.28				07/16/08	56.55	54.42	
5,571.34				08/26/08	56.49	54.36	
5,571.23				09/10/08	56.60	54.47	
5,571.12				10/14/08	56.71	54.58	
5,570.95				11/26/08	56.88	54.75	
5,570.92				12/29/08	56.91	54.78	
5,571.65				01/26/09	56.18	54.05	
5,571.31				02/24/09	56.52	54.39	
5,571.37				03/06/09	56.46	54.33	
5,571.21				04/07/09	56.62	54.49	
5,571.23				05/29/09	56.60	54.47	
5,571.42				06/30/09	56.41	54.28	
5,571.38				07/31/09	56.45	54.32	
5,571.48				08/31/09	56.35	54.22	
5,571.28				09/10/09	56.55	54.42	
5,571.64				12/11/09	56.19	54.06	
5,571.86				03/11/10	55.97	53.84	
5,571.91				05/11/10	55.92	53.79	
5,572.18				09/29/10	55.65	53.52	
5,571.86				12/21/10	55.97	53.84	
5,571.78				02/28/11	56.05	53.92	
5,572.40				06/21/11	55.43	53.30	
5,572.19				09/20/11	55.64	53.51	
5,573.02				12/21/11	54.81	52.68	
5,573.03				03/27/12	54.80	52.67	
5,573.02				06/28/12	54.81	52.68	
5,573.13				09/27/12	54.70	52.57	
5,573.05				12/28/12	54.78	52.65	
5,566.53				03/28/13	61.30	59.17	

Water Levels and Data over Time
White Mesa Mill - Well TW4-25

Water Elevation (WL)	Land Surface (LSD)	Measuring Point Elevation (MP)	Length Of Riser (L)	Date Of Monitoring	Total or Measured Depth to Water (blw.MP)	Total Depth to Water (blw.LSD)	Total Depth Of Well
	5,627.83	5,644.91	17.08				134.8
5,601.86				09/13/07	43.05	25.97	
5,601.89				10/10/07	43.02	25.94	
5,602.57				11/30/07	42.34	25.26	
5,602.82				12/11/07	42.09	25.01	
5,601.94				01/08/08	42.97	25.89	
5,599.13				02/18/08	45.78	28.70	
5,597.11				03/26/08	47.80	30.72	
5,595.51				04/23/08	49.40	32.32	
5594.42				05/30/08	50.49	33.41	
5,594.26				06/24/08	50.65	33.57	
5,586.67				07/16/08	58.24	41.16	
5,594.17				08/26/08	50.74	33.66	
5,594.23				09/10/08	50.68	33.60	
5,594.12				10/14/08	50.79	33.71	
5,594.06				11/26/08	50.85	33.77	
5,594.87				12/29/08	50.04	32.96	
5,595.89				01/26/09	49.02	31.94	
5,596.27				02/24/09	48.64	31.56	
5,596.47				03/06/09	48.44	31.36	
5,596.74				04/07/09	48.17	31.09	
5,597.55				05/29/09	47.36	30.28	
5,598.11				06/30/09	46.80	29.72	
5,598.22				07/31/09	46.69	29.61	
5,598.52				08/31/09	46.39	29.31	
5,598.49				09/10/09	46.42	29.34	
5,599.48				12/11/09	45.43	28.35	
5,599.75				03/11/10	45.16	28.08	
5,599.63				05/11/10	45.28	28.20	
5,598.68				09/29/10	46.23	29.15	
5,598.66				12/21/10	46.25	29.17	
5,598.18				02/28/11	46.73	29.65	
5,598.61				06/21/11	46.30	29.22	
5,598.08				09/20/11	46.83	29.75	
5,598.23				12/21/11	46.68	29.60	
5,597.41				03/27/12	47.50	30.42	
5,597.41				06/28/12	47.50	30.42	
5,595.60				09/27/12	49.31	32.23	
5,597.41				12/28/12	47.50	30.42	
5,597.43				03/28/13	47.48	30.40	

Water Levels and Data over Time
White Mesa Mill - Well MW-30

Water Elevation (WL)	Land Surface (LSD)	Measuring Point Elevation (MP)	Length Of Riser (L)	Date Of Monitoring	Total or Measured Depth to Water (blw.MP)	Total Depth to Water (blw.LSD)	Total Depth Of Well
	5,613.34	5,614.50	1.16				110
5,534.92				10/24/2006	79.58	78.42	
5,535.09				3/16/2007	79.41	78.25	
5,535.46				8/27/2007	79.04	77.88	
5,535.06				10/15/2007	79.44	78.28	
5,535.78				3/15/2008	78.72	77.56	
5,536.26				6/15/2008	78.24	77.08	
5,536.35				9/15/2008	78.15	76.99	
5,536.68				11/15/2008	77.82	76.66	
5,535.42				3/15/2009	79.08	77.92	
5,537.11				6/30/2009	77.39	76.23	
5,536.93				9/10/2009	77.57	76.41	
5,537.23				12/11/2009	77.27	76.11	
5,537.59				3/11/2010	76.91	75.75	
5,537.85				5/11/2010	76.65	75.49	
5,538.37				9/29/2010	76.13	74.97	
5537.70				12/21/2010	76.8	75.64	
5537.67				2/28/2011	76.83	75.67	
5538.31				6/21/2011	76.19	75.03	
5538.15				9/20/2011	76.35	75.19	
5538.42				12/21/2011	76.08	74.92	
5538.54				3/27/2012	75.96	74.8	
5538.60				6/28/2012	75.9	74.74	
5538.68				9/27/2012	75.82	74.66	
5538.99				12/28/2012	75.51	74.35	
5539.25				3/28/2013	75.25	74.09	

Water Levels and Data over Time
White Mesa Mill - Well MW-31

Water Elevation (WL)	Land Surface (LSD)	Measuring Point Elevation (MP)	Length Of Riser (L)	Date Of Monitoring	Total or Measured Depth to Water (blw.MP)	Total Depth to Water (blw.LSD)	Total Depth Of Well
	5,615.26	5,616.40	1.14				130
5,544.07				10/24/2006	72.33	71.19	
5,544.45				3/16/2007	71.95	70.81	
5,536.94				8/27/2007	79.46	78.32	
5,544.62				10/15/2007	71.78	70.64	
5,545.37				3/15/2008	71.03	69.89	
5,544.50				6/15/2008	71.90	70.76	
5,545.94				9/15/2008	70.46	69.32	
5,546.42				11/15/2008	69.98	68.84	
5,546.03				3/15/2009	70.37	69.23	
5,546.65				6/30/2009	69.75	68.61	
5,546.45				9/10/2009	69.95	68.81	
5,546.75				12/11/2009	69.65	68.51	
5,547.09				3/11/2010	69.31	68.17	
5,547.41				5/11/2010	68.99	67.85	
5,547.28				9/29/2010	69.12	67.98	
5547.45				12/21/2010	68.95	67.81	
5547.37				2/28/2011	69.03	67.89	
5547.96				6/21/2011	68.44	67.3	
5547.65				9/20/2011	68.75	67.61	
5548.34				12/21/2011	68.06	66.92	
5548.30				3/27/2012	68.10	66.96	
5548.40				6/28/2012	68.00	66.86	
5548.59				9/27/2012	67.81	66.67	
5548.91				12/28/2012	67.49	66.35	
5549.14				3/28/2013	67.26	66.12	

Tab G

Laboratory Analytical Reports

INORGANIC ANALYTICAL REPORT

American West
ANALYTICAL LABORATORIES

463 West 3600 South
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Kyle F. Gross
Laboratory Director

Jose Rocha
QA Officer

Client: Energy Fuels Resources, Inc. **Contact:** Garrin Palmer
Project: 1st Quarter Nitrate 2013
Lab Sample ID: 1302338-010
Client Sample ID: Piez-01_02192013
Collection Date: 2/19/2013 1412h
Received Date: 2/22/2013 1110h

Analytical Results

Compound	Units	Date Prepared	Date Analyzed	Method Used	Reporting Limit	Analytical Result	Qual
Chloride	mg/L		2/27/2013 2124h	E300.0	10.0	**56.7**	
Nitrate/Nitrite (as N)	mg/L		2/22/2013 1455h	E353.2	1.00	**8.11**	^

^ - Reissue of a previously generated report. Information has been added, updated, or revised. Information herein supersedes that of the previously issued reports.

American West
ANALYTICAL LABORATORIES

INORGANIC ANALYTICAL REPORT

Client: Energy Fuels Resources, Inc. **Contact:** Garrin Palmer
Project: 1st Quarter Nitrate 2013
Lab Sample ID: 1302338-011
Client Sample ID: Piez-02_02192013
Collection Date: 2/19/2013 1345h
Received Date: 2/22/2013 1110h

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Laboratory Director

Jose Rocha
QA Officer

Analytical Results

Compound	Units	Date Prepared	Date Analyzed	Method Used	Reporting Limit	Analytical Result	Qual
Chloride	mg/L		2/27/2013 2147h	E300.0	1.00	**9.67**	
Nitrate/Nitrite (as N)	mg/L		2/22/2013 1458h	E353.2	0.100	**0.218**	^

^ - *Reissue of a previously generated report. Information has been added, updated, or revised. Information herein supersedes that of the previously issued reports.*

American West
ANALYTICAL LABORATORIES

INORGANIC ANALYTICAL REPORT

Client: Energy Fuels Resources, Inc. **Contact:** Garrin Palmer
Project: 1st Quarter Nitrate 2013
Lab Sample ID: 1302338-012
Client Sample ID: Piez-03_02192013
Collection Date: 2/19/2013 1400h
Received Date: 2/22/2013 1110h

Analytical Results

Compound	Units	Date Prepared	Date Analyzed	Method Used	Reporting Limit	Analytical Result	Qual
Chloride	mg/L		2/27/2013 2211h	E300.0	10.0	**21.0**	
Nitrate/Nitrite (as N)	mg/L		2/22/2013 1509h	E353.2	0.200	**1.85**	

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Jose Rocha
QA Officer

American West
ANALYTICAL LABORATORIES

INORGANIC ANALYTICAL REPORT

Client: Energy Fuels Resources, Inc. **Contact:** Garrin Palmer
Project: 1st Quarter Nitrate 2013
Lab Sample ID: 1302338-002
Client Sample ID: TWN-01_02182013
Collection Date: 2/18/2013 1241h
Received Date: 2/22/2013 1110h

Analytical Results

Compound	Units	Date Prepared	Date Analyzed	Method Used	Reporting Limit	Analytical Result	Qual
Chloride	mg/L		2/27/2013 1708h	E300.0	10.0	**17.6**	
Nitrate/Nitrite (as N)	mg/L		2/22/2013 1436h	E353.2	0.100	**0.681**	

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American West
ANALYTICAL LABORATORIES

INORGANIC ANALYTICAL REPORT

Client: Energy Fuels Resources, Inc. **Contact:** Garrin Palmer
Project: 1st Quarter Nitrate 2013
Lab Sample ID: 1302338-001
Client Sample ID: TWN-01R_02182013
Collection Date: 2/18/2013 1218h
Received Date: 2/22/2013 1110h

Analytical Results

Compound	Units	Date Prepared	Date Analyzed	Method Used	Reporting Limit	Analytical Result	Qual
Chloride	mg/L		2/27/2013 1558h	E300.0	1.00	< 1.00	
Nitrate/Nitrite (as N)	mg/L		2/22/2013 1435h	E353.2	0.100	< 0.100	

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INORGANIC ANALYTICAL REPORT

Client: Energy Fuels Resources, Inc. **Contact:** Garrin Palmer
Project: 1st Quarter Nitrate 2013
Lab Sample ID: 1302338-007
Client Sample ID: TWN-02_02192013
Collection Date: 2/19/2013 1052h
Received Date: 2/22/2013 1110h

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Analytical Results

Compound	Units	Date Prepared	Date Analyzed	Method Used	Reporting Limit	Analytical Result	Qual
Chloride	mg/L		2/27/2013 1951h	E300.0	10.0	**80.5**	
Nitrate/Nitrite (as N)	mg/L		2/22/2013 1450h	E353.2	10.0	**57.3**	

INORGANIC ANALYTICAL REPORT

Client: Energy Fuels Resources, Inc. **Contact:** Garrin Palmer
Project: 1st Quarter Nitrate 2013
Lab Sample ID: 1302338-006
Client Sample ID: TWN-03_02192013
Collection Date: 2/19/2013 1045h
Received Date: 2/22/2013 1110h

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Analytical Results

Compound	Units	Date Prepared	Date Analyzed	Method Used	Reporting Limit	Analytical Result	Qual
Chloride	mg/L		2/27/2013 1841h	E300.0	100	**157**	
Nitrate/Nitrite (as N)	mg/L		2/22/2013 1449h	E353.2	10.0	**22.2**	

American West
ANALYTICAL LABORATORIES

INORGANIC ANALYTICAL REPORT

Client: Energy Fuels Resources, Inc. **Contact:** Garrin Palmer
Project: 1st Quarter Nitrate 2013
Lab Sample ID: 1302338-004
Client Sample ID: TWN-04_02182013
Collection Date: 2/18/2013 1351h
Received Date: 2/22/2013 1110h

Analytical Results

Compound	Units	Date Prepared	Date Analyzed	Method Used	Reporting Limit	Analytical Result	Qual
Chloride	mg/L		2/27/2013 1754h	E300.0	10.0	**25.3**	
Nitrate/Nitrite (as N)	mg/L		2/22/2013 1439h	E353.2	0.100	**1.51**	

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QA Officer

INORGANIC ANALYTICAL REPORT

Client:	Energy Fuels Resources, Inc.	**Contact:**	Garrin Palmer
Project:	1st Quarter Nitrate 2013		
Lab Sample ID:	1302338-003		
Client Sample ID:	TWN-07_02192013		
Collection Date:	2/19/2013 1025h		
Received Date:	2/22/2013 1110h		

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Analytical Results

Compound	Units	Date Prepared	Date Analyzed	Method Used	Reporting Limit	Analytical Result	Qual
Chloride	mg/L		2/27/2013 1731h	E300.0	1.00	**5.68**	
Nitrate/Nitrite (as N)	mg/L		2/22/2013 1437h	E353.2	0.100	**0.591**	

INORGANIC ANALYTICAL REPORT

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Client: Energy Fuels Resources, Inc. **Contact:** Garrin Palmer
Project: 1st Quarter Nitrate 2013
Lab Sample ID: 1302338-005
Client Sample ID: TWN-18_02182013
Collection Date: 2/18/2013 1440h
Received Date: 2/22/2013 1110h

Analytical Results

Compound	Units	Date Prepared	Date Analyzed	Method Used	Reporting Limit	Analytical Result	Qual
Chloride	mg/L		2/27/2013 1818h	E300.0	10.0	**68.7**	
Nitrate/Nitrite (as N)	mg/L		2/22/2013 1440h	E353.2	1.00	**2.27**	

American West
ANALYTICAL LABORATORIES

INORGANIC ANALYTICAL REPORT

Client: Energy Fuels Resources, Inc. **Contact:** Garrin Palmer
Project: 1st Quarter Chloroform 2013
Lab Sample ID: 1302239-004
Client Sample ID: TW4-22_02112013
Collection Date: 2/11/2013 0926h
Received Date: 2/15/2013 1000h

Analytical Results

Compound	Units	Date Prepared	Date Analyzed	Method Used	Reporting Limit	Analytical Result	Qual
Chloride	mg/L		2/19/2013 2325h	E300.0	100	**635**	
Nitrate/Nitrite (as N)	mg/L		2/15/2013 1603h	E353.2	10.0	**58.0**	

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American West
ANALYTICAL LABORATORIES

INORGANIC ANALYTICAL REPORT

Client: Energy Fuels Resources, Inc. **Contact:** Garrin Palmer
Project: 1st Quarter Chloroform 2013
Lab Sample ID: 1302239-003
Client Sample ID: TW4-24_02112013
Collection Date: 2/11/2013 0910h
Received Date: 2/15/2013 1000h

Analytical Results

Compound	Units	Date Prepared	Date Analyzed	Method Used	Reporting Limit	Analytical Result	Qual
Chloride	mg/L		2/18/2013 2046h	E300.0	100	**1,260**	
Nitrate/Nitrite (as N)	mg/L		2/15/2013 1525h	E353.2	10.0	**35.9**	

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QA Officer

American West
ANALYTICAL LABORATORIES

INORGANIC ANALYTICAL REPORT

Client: Energy Fuels Resources, Inc. **Contact:** Garrin Palmer
Project: 1st Quarter Chloroform 2013
Lab Sample ID: 1302239-002
Client Sample ID: TW4-25_02112013
Collection Date: 2/11/2013 0850h
Received Date: 2/15/2013 1000h

Analytical Results

Compound	Units	Date Prepared	Date Analyzed	Method Used	Reporting Limit	Analytical Result	Qual
Chloride	mg/L		2/18/2013 2019h	E300.0	100	**190**	
Nitrate/Nitrite (as N)	mg/L		2/15/2013 1524h	E353.2	1.00	**9.04**	

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QA Officer

INORGANIC ANALYTICAL REPORT

American West
ANALYTICAL LABORATORIES

Client:	Energy Fuels Resources, Inc.	**Contact:**	Garrin Palmer
Project:	1st Quarter Nitrate 2013		
Lab Sample ID:	1302338-008		
Client Sample ID:	TWN-60_02192013		
Collection Date:	2/19/2013 1515h		
Received Date:	2/22/2013 1110h		

Analytical Results

Compound	Units	Date Prepared	Date Analyzed	Method Used	Reporting Limit	Analytical Result	Qual
Chloride	mg/L		2/27/2013 2014h	E300.0	1.00	< 1.00	
Nitrate/Nitrite (as N)	mg/L		2/22/2013 1451h	E353.2	0.100	< 0.100	

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Jose Rocha
QA Officer

INORGANIC ANALYTICAL REPORT

American West
ANALYTICAL LABORATORIES

Client: Energy Fuels Resources, Inc. **Contact:** Garrin Palmer
Project: 1st Quarter Chloroform 2013
Lab Sample ID: 1302239-019
Client Sample ID: TW4-60_02142013
Collection Date: 2/14/2013 0805h
Received Date: 2/15/2013 1000h

Analytical Results

Compound	Units	Date Prepared	Date Analyzed	Method Used	Reporting Limit	Analytical Result	Qual
Chloride	mg/L		2/19/2013 0715h	E300.0	1.00	< 1.00	
Nitrate/Nitrite (as N)	mg/L		2/15/2013 1600h	E353.2	0.100	< 0.100	

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Laboratory Director

Jose Rocha
QA Officer

INORGANIC ANALYTICAL REPORT

Client: Energy Fuels Resources, Inc. **Contact:** Garrin Palmer
Project: 1st Quarter Nitrate 2013
Lab Sample ID: 1302338-009
Client Sample ID: TWN-65_02182013
Collection Date: 2/18/2013 1351h
Received Date: 2/22/2013 1110h

Analytical Results

Compound	Units	Date Prepared	Date Analyzed	Method Used	Reporting Limit	Analytical Result	Qual
Chloride	mg/L		2/27/2013 2101h	E300.0	10.0	**25.9**	
Nitrate/Nitrite (as N)	mg/L		2/22/2013 1453h	E353.2	0.100	**1.51**	

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Jose Rocha
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Garrin Palmer
Energy Fuels Resources, Inc.
6425 S. Hwy 191
Blanding, UT 84511
TEL: (435) 678-2221

RE: 1st Quarter Nitrate 2013

Dear Garrin Palmer: Lab Set ID: 1302338

American West Analytical Laboratories received 12 sample(s) on 2/22/2013 for the analyses presented in the following report.

American West Analytical Laboratories (AWAL) is accredited by The National Environmental Laboratory Accreditation Program (NELAP) in Utah and Texas; and is state accredited in Colorado, Idaho, New Mexico, and Missouri.

All analyses were performed in accordance to the NELAP protocols unless noted otherwise. Accreditation scope documents are available upon request. If you have any questions or concerns regarding this report please feel free to call.

The abbreviation "Surr" found in organic reports indicates a surrogate compound that is intentionally added by the laboratory to determine sample injection, extraction, and/or purging efficiency. The "Reporting Limit" found on the report is equivalent to the practical quantitation limit (PQL). This is the minimum concentration that can be reported by the method referenced and the sample matrix. The reporting limit must not be confused with any regulatory limit. Analytical results are reported to three significant figures for quality control and calculation purposes.

This is a revision to a report originally issued 3/1/2013. Pages 1, 13, and 14 have been revised.

Thank You,

Kyle F. Gross

Digitally signed by Kyle F. Gross
DN: cn=Kyle F. Gross, o=AWAL, ou=AWAL-Laboratory Director, email=kyle@awal-labs.com, c=US
Date: 2013.03.20 13:32:32 -06'00'

Approved by:

Laboratory Director or designee

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Kyle F. Gross
Laboratory Director

Jose Rocha
QA Officer

SAMPLE SUMMARY

Client: Energy Fuels Resources, Inc. **Contact:** Garrin Palmer
Project: 1st Quarter Nitrate 2013
Lab Set ID: 1302338
Date Received: 2/22/2013 1110h

Lab Sample ID	Client Sample ID	Date Collected	Matrix	Analysis
1302338-001A	TWN-01R_02182013	2/18/2013 1218h	Aqueous	Anions, E300.0
1302338-001B	TWN-01R_02182013	2/18/2013 1218h	Aqueous	Nitrite/Nitrate (as N), E353.2
1302338-002A	TWN-01_02182013	2/18/2013 1241h	Aqueous	Anions, E300.0
1302338-002B	TWN-01_02182013	2/18/2013 1241h	Aqueous	Nitrite/Nitrate (as N), E353.2
1302338-003A	TWN-07_02192013	2/19/2013 1025h	Aqueous	Anions, E300.0
1302338-003B	TWN-07_02192013	2/19/2013 1025h	Aqueous	Nitrite/Nitrate (as N), E353.2
1302338-004A	TWN-04_02182013	2/18/2013 1351h	Aqueous	Anions, E300.0
1302338-004B	TWN-04_02182013	2/18/2013 1351h	Aqueous	Nitrite/Nitrate (as N), E353.2
1302338-005A	TWN-18_02182013	2/18/2013 1440h	Aqueous	Anions, E300.0
1302338-005B	TWN-18_02182013	2/18/2013 1440h	Aqueous	Nitrite/Nitrate (as N), E353.2
1302338-006A	TWN-03_02192013	2/19/2013 1045h	Aqueous	Anions, E300.0
1302338-006B	TWN-03_02192013	2/19/2013 1045h	Aqueous	Nitrite/Nitrate (as N), E353.2
1302338-007A	TWN-02_02192013	2/19/2013 1052h	Aqueous	Anions, E300.0
1302338-007B	TWN-02_02192013	2/19/2013 1052h	Aqueous	Nitrite/Nitrate (as N), E353.2
1302338-008A	TWN-60_02192013	2/19/2013 1515h	Aqueous	Anions, E300.0
1302338-008B	TWN-60_02192013	2/19/2013 1515h	Aqueous	Nitrite/Nitrate (as N), E353.2
1302338-009A	TWN-65_02182013	2/18/2013 1351h	Aqueous	Anions, E300.0
1302338-009B	TWN-65_02182013	2/18/2013 1351h	Aqueous	Nitrite/Nitrate (as N), E353.2
1302338-010A	Piez-01_02192013	2/19/2013 1412h	Aqueous	Anions, E300.0
1302338-010B	Piez-01_02192013	2/19/2013 1412h	Aqueous	Nitrite/Nitrate (as N), E353.2
1302338-011A	Piez-02_02192013	2/19/2013 1345h	Aqueous	Anions, E300.0
1302338-011B	Piez-02_02192013	2/19/2013 1345h	Aqueous	Nitrite/Nitrate (as N), E353.2
1302338-012A	Piez-03_02192013	2/19/2013 1400h	Aqueous	Anions, E300.0
1302338-012B	Piez-03_02192013	2/19/2013 1400h	Aqueous	Nitrite/Nitrate (as N), E353.2

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Inorganic Case Narrative

Client: Energy Fuels Resources, Inc.
Contact: Garrin Palmer
Project: 1st Quarter Nitrate 2013
Lab Set ID: 1302338

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Jose Rocha
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Sample Receipt Information:

Date of Receipt:	2/22/2013
Date(s) of Collection:	2/18 & 2/19/2013
Sample Condition:	Intact
C-O-C Discrepancies:	None

Holding Time and Preservation Requirements: The analysis and preparation of all samples were performed within the method holding times. All samples were properly preserved.

Preparation and Analysis Requirements: The samples were analyzed following the methods stated on the analytical reports.

Analytical QC Requirements: All instrument calibration and calibration check requirements were met. All internal standard recoveries met method criterion.

Batch QC Requirements: MB, LCS, MS, MSD, RPD, DUP:

Method Blanks (MB): No target analytes were detected above reporting limits, indicating that the procedure was free from contamination.

Laboratory Control Samples (LCS): All LCS recoveries were within control limits, indicating that the preparation and analysis were in control.

Matrix Spike / Matrix Spike Duplicates (MS/MSD): All percent recoveries and RPDs (Relative Percent Differences) were inside established limits, indicating no apparent matrix interferences.

Corrective Action: None required.

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Laboratory Director

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QC SUMMARY REPORT

Client: Energy Fuels Resources, Inc.
Lab Set ID: 1302338
Project: 1st Quarter Nitrate 2013

Contact: Garrin Palmer
Dept: WC
QC Type: LCS

Sample ID	Analyte	Units	Method	Result	Amount Spiked	Original Amount	%REC	Limits	%RPD	RPD Limit	Qual	Date Analyzed
LCS-R50993	Chloride	mg/L	E300.0	5.11	5.000	0	102	90-110				2/27/2013 1535h
LCS-R50830	Nitrate/Nitrite (as N)	mg/L	E353.2	1.02	1.000	0	102	90-110				2/22/2013 1432h

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QC SUMMARY REPORT

Client: Energy Fuels Resources, Inc.
Lab Set ID: 1302338
Project: 1st Quarter Nitrate 2013

Contact: Garrin Palmer
Dept: WC
QC Type: MBLK

Sample ID	Analyte	Units	Method	Result	Amount Spiked	Original Amount	%REC	Limits	%RPD	RPD Limit	Qual	Date Analyzed
MB-R50993	Chloride	mg/L	E300.0	< 1.00				-				2/27/2013 1511h
MB-R50830	Nitrate/Nitrite (as N)	mg/L	E353.2	< 0.100				-				2/22/2013 1431h

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QC SUMMARY REPORT

Client: Energy Fuels Resources, Inc.
Lab Set ID: 1302338
Project: 1st Quarter Nitrate 2013

Contact: Garrin Palmer
Dept: WC
QC Type: MS

Sample ID	Analyte	Units	Method	Result	Amount Spiked	Original Amount	%REC	Limits	%RPD	RPD Limit	Qual	Date Analyzed
1302338-001AMS	Chloride	mg/L	E300.0	5.14	5.000	0	103	90-110				2/27/2013 1621h
1302338-001BMS	Nitrate/Nitrite (as N)	mg/L	E353.2	1.00	1.000	0	100	90-110				2/22/2013 1441h
1302339-001DMS	Nitrate/Nitrite (as N)	mg/L	E353.2	0.996	1.000	0.008600	98.8	90-110				2/22/2013 1511h

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Kyle F. Gross
Laboratory Director

Jose Rocha
QA Officer

American West
ANALYTICAL LABORATORIES

QC SUMMARY REPORT

Client: Energy Fuels Resources, Inc.
Lab Set ID: 1302338
Project: 1st Quarter Nitrate 2013

Contact: Garrin Palmer
Dept: WC
QC Type: MSD

Sample ID	Analyte	Units	Method	Result	Amount Spiked	Original Amount	%REC	Limits	%RPD	RPD Limit	Qual	Date Analyzed
1302338-001AMSD	Chloride	mg/L	E300.0	5.11	5.000	0	102	90-110	0.586	20		2/27/2013 1645h
1302338-001BMSD	Nitrate/Nitrite (as N)	mg/L	E353.2	1.07	1.000	0	107	90-110	6.3	10		2/22/2013 1443h
1302339-001DMSD	Nitrate/Nitrite (as N)	mg/L	E353.2	1.02	1.000	0.008600	101	90-110	2.64	10		2/22/2013 1512h

American West Analytical Laboratories

WORK ORDER Summary

Work Order: **1302338**

Client: Energy Fuels Resources, Inc. Due Date: 3/5/2013

Client ID: DEN100 **Contact:** Garrin Palmer

Project: **1st Quarter Nitrate 2013** **QC Level:** III WO Type: Project

Comments: PA Rush. QC 3 (no chromatograms). MUST report project specific DL's: Cl @ 1 mg/L, NO2/NO3 @ 0.1 mg/L. EDD-Denison & LOCUS. Email Group; dl

Sample ID	Client Sample ID	Collected Date	Received Date	Test Code	Matrix	Sel	Storage	
1302338-001A	**TWN-01R_02182013**	2/18/2013 1218h	2/22/2013 1110h	**300.0-W**	Aqueous	☑	df - cl	1
				1 SEL Analytes: CL				
1302338-001B				**NO2/NO3-W-353.2**		☑	df - no2/no3	
				1 SEL Analytes: NO3NO2N				
1302338-002A	**TWN-01_02182013**	2/18/2013 1241h	2/22/2013 1110h	**300.0-W**	Aqueous	☑	df - cl	1
				1 SEL Analytes: CL				
1302338-002B				**NO2/NO3-W-353.2**		☑	df - no2/no3	
				1 SEL Analytes: NO3NO2N				
1302338-003A	**TWN-07_02192013**	2/19/2013 1025h	2/22/2013 1110h	**300.0-W**	Aqueous	☑	df - cl	1
				1 SEL Analytes: CL				
1302338-003B				**NO2/NO3-W-353.2**		☑	df - no2/no3	
				1 SEL Analytes: NO3NO2N				
1302338-004A	**TWN-04_02182013**	2/18/2013 1351h	2/22/2013 1110h	**300.0-W**	Aqueous	☑	df - cl	1
				1 SEL Analytes: CL				
1302338-004B				**NO2/NO3-W-353.2**		☑	df - no2/no3	
				1 SEL Analytes: NO3NO2N				
1302338-005A	**TWN-18_02182013**	2/18/2013 1440h	2/22/2013 1110h	**300.0-W**	Aqueous	☑	df - cl	1
				1 SEL Analytes: CL				
1302338-005B				**NO2/NO3-W-353.2**		☑	df - no2/no3	
				1 SEL Analytes: NO3NO2N				
1302338-006A	**TWN-03_02192013**	2/19/2013 1045h	2/22/2013 1110h	**300.0-W**	Aqueous	☑	df - cl	1
				1 SEL Analytes: CL				
1302338-006B				**NO2/NO3-W-353.2**		☑	df - no2/no3	
				1 SEL Analytes: NO3NO2N				
1302338-007A	**TWN-02_02192013**	2/19/2013 1052h	2/22/2013 1110h	**300.0-W**	Aqueous	☑	df - cl	1
				1 SEL Analytes: CL				
1302338-007B				**NO2/NO3-W-353.2**		☑	df - no2/no3	
				1 SEL Analytes: NO3NO2N				
1302338-008A	**TWN-60_02192013**	2/19/2013 1515h	2/22/2013 1110h	**300.0-W**	Aqueous	☑	df - cl	1
				1 SEL Analytes: CL				
1302338-008B				**NO2/NO3-W-353.2**		☑	df - no2/no3	
				1 SEL Analytes: NO3NO2N				

 FOR LABORATORY USE ONLY [fill out on page 1]: %M ☑ RT ☑ CN ☑ TAT ☑ QC ☑ HOK el HOK____ HOK____ COC Emailed______

WORK ORDER Summary

Work Order: **1302338**

Client: Energy Fuels Resources, Inc.

Due Date: 3/5/2013

Sample ID	Client Sample ID	Collected Date	Received Date	Test Code	Matrix	Sel	Storage	
1302338-009A	**TWN-65_02182013**	2/18/2013 1351h	2/22/2013 1110h	**300.0-W** *1 SEL Analytes: CL*	Aqueous	☑	df - cl	1
1302338-009B				**NO2/NO3-W-353.2** *1 SEL Analytes: NO3NO2N*		☑	df - no2/no3	
1302338-010A	**Piez-01_02192013**	2/19/2013 1412h	2/22/2013 1110h	**300.0-W** *1 SEL Analytes: CL*	Aqueous	☑	df - cl	1
1302338-010B				**NO2/NO3-W-353.2** *1 SEL Analytes: NO3NO2N*		☑	df - no2/no3	
1302338-011A	**Piez-02_02192013**	2/19/2013 1345h	2/22/2013 1110h	**300.0-W** *1 SEL Analytes: CL*	Aqueous	☑	df - cl	1
1302338-011B				**NO2/NO3-W-353.2** *1 SEL Analytes: NO3NO2N*		☑	df - no2/no3	
1302338-012A	**Piez-03_02192013**	2/19/2013 1400h	2/22/2013 1110h	**300.0-W** *1 SEL Analytes: CL*	Aqueous	☑	df - cl	1
1302338-012B				**NO2/NO3-W-353.2** *1 SEL Analytes: NO3NO2N*		☑	df - no2/no3	

Client: Energy Fuels
Address: 6425 S Hwy 191
Blanding (City) UT (State) 84511 (Zip)
Phone: 435 678 2221 Fax:
Contact: Garrin Palmer
E-mail: gpalmer@energyfuels.com
Project Name: 1ST Quarter Nitrate 2013
Project Number/P.O.#:
Sampler Name: Tanner Holliday

AMERICAN WEST ANALYTICAL LABORATORIES
463 West 3600 South
Salt Lake City, Utah 84115

CHAIN OF CUSTODY

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Lab Sample Set # 1302338
Page 1 of 1

Turn Around Time (Circle One)
1 day 2 day 3 day 4 day 5 day Standard (circled)

QC LEVEL: 1 2 2+ 3 (circled) 3+ 4

Sample ID	Date/Time Collected	Matrix	Number of Containers (Total)	Nitrate + Nitrite	Chloride								COMMENTS
TWN-01R_02182013	2/18/13 1218	W	2	X	X								
TWN-01_02182013	2/18/13 1241	W	2	X	X								
TWN-07_02192013	2/19/13 1025	W	2	X	X								
TWN-04_02182013	2/18/13 1351	W	2	X	X								
TWN-18_02182013	2/18/13 1440	W	2	X	X								
TWN-03_02192013	2/19/13 1045	W	2	X	X								
TWN-02_02192013	2/19/13 1052	W	2	X	X								
TWN-60_02192013	2/19/13 1515	W	2	X	X								
TWN-65_02182013	2/18/13 1351	W	2	X	X								
~~Piez-01_0218~~ Piez-01_02192013	2/19/13 1412	W	2	X	X								
Piez-02_02192013	2/19/13 1345	W	2	X	X								
Piez-03_02192013	2/19/13 1400	W	2	X	X								

Relinquished By: Signature	Date	Received By: Signature	Date
Tanner Holliday	2/21/13	Amber Cluff	2/22/13
PRINT NAME Tanner Holliday	Time 1100	PRINT NAME Amber Cluff	Time 11:10
Relinquished By: Signature	Date	Received By: Signature	Date
PRINT NAME	Time	PRINT NAME	Time
Relinquished By: Signature	Date	Received By: Signature	Date
PRINT NAME	Time	PRINT NAME	Time
Relinquished By: Signature	Date	Received By: Signature	Date
PRINT NAME	Time	PRINT NAME	Time

Special Instructions:
Temp Blank Included

LABORATORY USE ONLY

SAMPLES WERE:
1 Shipped (circled) or hand delivered
Notes: Fed Ex
2 Ambient or Chilled (circled)
Notes: on ice
3 Temperature 2.2
4 Received Broken/Leaking (Improperly Sealed)
Y N (circled)
Notes:
5 Properly Preserved
Y (circled) N
Checked at Bench
Y N
Notes:
6 Received Within Holding Times
Y (circled) N
Notes:

COC Tape Was:
1 Present on Outer Package
Y N NA (circled)
2 Unbroken on Outer Package
Y N NA (circled)
3 Present on Sample
Y N NA (circled)
4 Unbroken on Sample
Y N NA (circled)

Discrepancies Between Sample Labels and COC Record?
Y N (circled)
Notes:

Sample Set: 1302338

Preservation Check Sheet

Sample Set Extension and pH

ao 2/22/1

Bottle Type	Preservative	All OK	Except -001	Except -002	Except -003	Except -004	Except -005	Except -006	Except -007	Except -008	Except -009	Except -010	Except -011	Except -012	~~Except~~	~~Except~~	~~Except~~
Ammonia	pH <2 H_2SO_4																
COD	pH <2 H_2SO_4																
Cyanide	PH >12 NaOH																
Metals	pH <2 HNO_3																
NO_2 & NO_3	pH <2 H_2SO_4		yes	yes	yes	yes	yes	yes	yes	yes	yes	yes	yes	yes			
Nutrients	pH <2 H_2SO_4																
O & G	pH <2 HCL																
Phenols	pH <2 H_2SO_4																
Sulfide	pH > 9NaOH, Zn Acetate																
TKN	pH <2 H_2SO_4																
TOC	pH <2 H_3PO_4																
TOX	pH <2 H_2SO_4																
T PO_4	pH <2 H_2SO_4																
TPH	pH <2 HCL																

Procedure:
1) Pour a small amount of sample in the sample lid
2) Pour sample from Lid gently over wide range pH paper
3) **Do Not** dip the pH paper in the sample bottle or lid
4) If sample is not preserved properly list its extension and receiving pH in the appropriate column above
5) Flag COC, notify client if requested
6) Place client conversation on COC
7) Samples may be adjusted

Frequency: All samples requiring preservation

American West
ANALYTICAL LABORATORIES

Garrin Palmer
Energy Fuels Resources, Inc.
6425 S. Hwy 191
Blanding, UT 84511
TEL: (435) 678-2221

RE: 1st Quarter Chloroform 2013

Dear Garrin Palmer: Lab Set ID: 1302239

463 West 3600 South
Salt Lake City, UT 84115

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web: www.awal-labs.com

Kyle F. Gross
Laboratory Director

Jose Rocha
QA Officer

American West Analytical Laboratories received 22 sample(s) on 2/15/2013 for the analyses presented in the following report.

American West Analytical Laboratories (AWAL) is accredited by The National Environmental Laboratory Accreditation Program (NELAP) in Utah and Texas; and is state accredited in Colorado, Idaho, New Mexico, and Missouri.

All analyses were performed in accordance to the NELAP protocols unless noted otherwise. Accreditation scope documents are available upon request. If you have any questions or concerns regarding this report please feel free to call.

The abbreviation "Surr" found in organic reports indicates a surrogate compound that is intentionally added by the laboratory to determine sample injection, extraction, and/or purging efficiency. The "Reporting Limit" found on the report is equivalent to the practical quantitation limit (PQL). This is the minimum concentration that can be reported by the method referenced and the sample matrix. The reporting limit must not be confused with any regulatory limit. Analytical results are reported to three significant figures for quality control and calculation purposes.

Thank You,

Kyle F. Gross

Digitally signed by Kyle F. Gross
DN: cn=Kyle F. Gross, o=AWAL, ou=AWAL-Laboratory Director, email=kyle@awal-labs.com, c=US
Date: 2013.02.26 15:53:25 -07'00'

Approved by:

Laboratory Director or designee

American West
ANALYTICAL LABORATORIES

SAMPLE SUMMARY

Client: Energy Fuels Resources, Inc. **Contact:** Garrin Palmer
Project: 1st Quarter Chloroform 2013
Lab Set ID: 1302239
Date Received: 2/15/2013 1000h

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Kyle F. Gross
Laboratory Director

Jose Rocha
QA Officer

Lab Sample ID	Client Sample ID	Date Collected		Matrix	Analysis
1302239-001A	MW-32_02132013	2/13/2013	1500h	Aqueous	Anions, E300.0
1302239-001B	MW-32_02132013	2/13/2013	1500h	Aqueous	Nitrite/Nitrate (as N), E353.2
1302239-001C	MW-32_02132013	2/13/2013	1500h	Aqueous	VOA by GC/MS Method 8260C/5030C
1302239-002A	TW4-25_02112013	2/11/2013	0850h	Aqueous	Anions, E300.0
1302239-002B	TW4-25_02112013	2/11/2013	0850h	Aqueous	Nitrite/Nitrate (as N), E353.2
1302239-002C	TW4-25_02112013	2/11/2013	0850h	Aqueous	VOA by GC/MS Method 8260C/5030C
1302239-003A	TW4-24_02112013	2/11/2013	0910h	Aqueous	Anions, E300.0
1302239-003B	TW4-24_02112013	2/11/2013	0910h	Aqueous	Nitrite/Nitrate (as N), E353.2
1302239-003C	TW4-24_02112013	2/11/2013	0910h	Aqueous	VOA by GC/MS Method 8260C/5030C
1302239-004A	TW4-22_02112013	2/11/2013	0926h	Aqueous	Anions, E300.0
1302239-004B	TW4-22_02112013	2/11/2013	0926h	Aqueous	Nitrite/Nitrate (as N), E353.2
1302239-004C	TW4-22_02112013	2/11/2013	0926h	Aqueous	VOA by GC/MS Method 8260C/5030C
1302239-005A	MW-26_02112013	2/11/2013	1010h	Aqueous	Anions, E300.0
1302239-005B	MW-26_02112013	2/11/2013	1010h	Aqueous	Nitrite/Nitrate (as N), E353.2
1302239-005C	MW-26_02112013	2/11/2013	1010h	Aqueous	VOA by GC/MS Method 8260C/5030C
1302239-006A	MW-04_02112013	2/11/2013	1020h	Aqueous	Anions, E300.0
1302239-006B	MW-04_02112013	2/11/2013	1020h	Aqueous	Nitrite/Nitrate (as N), E353.2
1302239-006C	MW-04_02112013	2/11/2013	1020h	Aqueous	VOA by GC/MS Method 8260C/5030C
1302239-007A	TW4-04_02112013	2/11/2013	1030h	Aqueous	Anions, E300.0
1302239-007B	TW4-04_02112013	2/11/2013	1030h	Aqueous	Nitrite/Nitrate (as N), E353.2
1302239-007C	TW4-04_02112013	2/11/2013	1030h	Aqueous	VOA by GC/MS Method 8260C/5030C
1302239-008A	TW4-19_02112013	2/11/2013	1100h	Aqueous	Anions, E300.0
1302239-008B	TW4-19_02112013	2/11/2013	1100h	Aqueous	Nitrite/Nitrate (as N), E353.2
1302239-008C	TW4-19_02112013	2/11/2013	1100h	Aqueous	VOA by GC/MS Method 8260C/5030C
1302239-009A	TW4-20_02112013	2/11/2013	0950h	Aqueous	Anions, E300.0
1302239-009B	TW4-20_02112013	2/11/2013	0950h	Aqueous	Nitrite/Nitrate (as N), E353.2
1302239-009C	TW4-20_02112013	2/11/2013	0950h	Aqueous	VOA by GC/MS Method 8260C/5030C
1302239-010A	TW4-05_02132013	2/13/2013	1237h	Aqueous	Anions, E300.0
1302239-010B	TW4-05_02132013	2/13/2013	1237h	Aqueous	Nitrite/Nitrate (as N), E353.2

American West
ANALYTICAL LABORATORIES

Client:	Energy Fuels Resources, Inc.
Project:	1st Quarter Chloroform 2013
Lab Set ID:	1302239
Date Received:	2/15/2013 1000h

Contact: Garrin Palmer

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Salt Lake City, UT 84115

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web: www.awal-labs.com

Kyle F. Gross
Laboratory Director

Jose Rocha
QA Officer

Lab Sample ID	Client Sample ID	Date Collected	Matrix	Analysis
1302239-010C	TW4-05_02132013	2/13/2013 1237h	Aqueous	VOA by GC/MS Method 8260C/5030C
1302239-011A	TW4-06_02132013	2/13/2013 1247h	Aqueous	Anions, E300.0
1302239-011B	TW4-06_02132013	2/13/2013 1247h	Aqueous	Nitrite/Nitrate (as N), E353.2
1302239-011C	TW4-06_02132013	2/13/2013 1247h	Aqueous	VOA by GC/MS Method 8260C/5030C
1302239-012A	TW4-18_02132013	2/13/2013 1304h	Aqueous	Anions, E300.0
1302239-012B	TW4-18_02132013	2/13/2013 1304h	Aqueous	Nitrite/Nitrate (as N), E353.2
1302239-012C	TW4-18_02132013	2/13/2013 1304h	Aqueous	VOA by GC/MS Method 8260C/5030C
1302239-013A	TW4-10_02132013	2/13/2013 1318h	Aqueous	Anions, E300.0
1302239-013B	TW4-10_02132013	2/13/2013 1318h	Aqueous	Nitrite/Nitrate (as N), E353.2
1302239-013C	TW4-10_02132013	2/13/2013 1318h	Aqueous	VOA by GC/MS Method 8260C/5030C
1302239-014A	TW4-21_02132013	2/13/2013 1331h	Aqueous	Anions, E300.0
1302239-014B	TW4-21_02132013	2/13/2013 1331h	Aqueous	Nitrite/Nitrate (as N), E353.2
1302239-014C	TW4-21_02132013	2/13/2013 1331h	Aqueous	VOA by GC/MS Method 8260C/5030C
1302239-015A	TW4-11_02132013	2/13/2013 1341h	Aqueous	Anions, E300.0
1302239-015B	TW4-11_02132013	2/13/2013 1341h	Aqueous	Nitrite/Nitrate (as N), E353.2
1302239-015C	TW4-11_02132013	2/13/2013 1341h	Aqueous	VOA by GC/MS Method 8260C/5030C
1302239-016A	TW4-07_02132013	2/13/2013 1349h	Aqueous	Anions, E300.0
1302239-016B	TW4-07_02132013	2/13/2013 1349h	Aqueous	Nitrite/Nitrate (as N), E353.2
1302239-016C	TW4-07_02132013	2/13/2013 1349h	Aqueous	VOA by GC/MS Method 8260C/5030C
1302239-017A	TW4-01_02132013	2/13/2013 1355h	Aqueous	Anions, E300.0
1302239-017B	TW4-01_02132013	2/13/2013 1355h	Aqueous	Nitrite/Nitrate (as N), E353.2
1302239-017C	TW4-01_02132013	2/13/2013 1355h	Aqueous	VOA by GC/MS Method 8260C/5030C
1302239-018A	TW4-02_02132013	2/13/2013 1403h	Aqueous	Anions, E300.0
1302239-018B	TW4-02_02132013	2/13/2013 1403h	Aqueous	Nitrite/Nitrate (as N), E353.2
1302239-018C	TW4-02_02132013	2/13/2013 1403h	Aqueous	VOA by GC/MS Method 8260C/5030C
1302239-019A	TW4-60_02142013	2/14/2013 0805h	Aqueous	Anions, E300.0
1302239-019B	TW4-60_02142013	2/14/2013 0805h	Aqueous	Nitrite/Nitrate (as N), E353.2
1302239-019C	TW4-60_02142013	2/14/2013 0805h	Aqueous	VOA by GC/MS Method 8260C/5030C
1302239-020A	TW4-70_02132013	2/13/2013 1304h	Aqueous	Anions, E300.0
1302239-020B	TW4-70_02132013	2/13/2013 1304h	Aqueous	Nitrite/Nitrate (as N), E353.2

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web: www.awal-labs.com

Kyle F. Gross
Laboratory Director

Jose Rocha
QA Officer

Client: Energy Fuels Resources, Inc. **Contact:** Garrin Palmer
Project: 1st Quarter Chloroform 2013
Lab Set ID: 1302239
Date Received: 2/15/2013 1000h

Lab Sample ID	Client Sample ID	Date Collected	Matrix	Analysis
1302239-020C	TW4-70_02132013	2/13/2013 1304h	Aqueous	VOA by GC/MS Method 8260C/5030C
1302239-021A	Trip Blank	2/11/2013	Aqueous	VOA by GC/MS Method 8260C/5030C
1302239-022A	TW4-05R_02122013	2/12/2013 0714h	Aqueous	Anions, E300.0
1302239-022B	TW4-05R_02122013	2/12/2013 0714h	Aqueous	Nitrite/Nitrate (as N), E353.2
1302239-022C	TW4-05R_02122013	2/12/2013 0714h	Aqueous	VOA by GC/MS Method 8260C/5030C

American West
ANALYTICAL LABORATORIES

Inorganic Case Narrative

Client:	Energy Fuels Resources, Inc.
Contact:	Garrin Palmer
Project:	1st Quarter Chloroform 2013
Lab Set ID:	1302239

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Kyle F. Gross
Laboratory Director

Jose Rocha
QA Officer

Sample Receipt Information:

Date of Receipt:	2/15/2013
Date(s) of Collection:	2/11, 2/12, 2/13, & 2/14/2013
Sample Condition:	Intact
C-O-C Discrepancies:	None

Holding Time and Preservation Requirements: The analysis and preparation of all samples were performed within the method holding times. All samples were properly preserved.

Preparation and Analysis Requirements: The samples were analyzed following the methods stated on the analytical reports.

Analytical QC Requirements: All instrument calibration and calibration check requirements were met. All internal standard recoveries met method criterion.

Batch QC Requirements: MB, LCS, MS, MSD, RPD:

Method Blanks (MB): No target analytes were detected above reporting limits, indicating that the procedure was free from contamination.

Laboratory Control Samples (LCS): All LCS recoveries were within control limits, indicating that the preparation and analysis were in control.

Matrix Spike / Matrix Spike Duplicates (MS/MSD): All percent recoveries and RPDs (Relative Percent Differences) were inside established limits, indicating no apparent matrix interferences.

Corrective Action: None required.

American West
ANALYTICAL LABORATORIES

Volatile Case Narrative

Client:	Energy Fuels Resources, Inc.
Contact:	Garrin Palmer
Project:	1st Quarter Chloroform 2013
Lab Set ID:	1302239

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Salt Lake City, UT 84115

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web: www.awal-labs.com

Kyle F. Gross
Laboratory Director

Jose Rocha
QA Officer

Sample Receipt Information:

Date of Receipt:	2/15/2013
Date(s) of Collection:	2/11, 2/12, 2/13, & 2/14/2013
Sample Condition:	Intact
C-O-C Discrepancies:	None
Method:	SW-846 8260C/5030C
Analysis:	Volatile Organic Compounds

General Set Comments: Multiple target analytes were observed above reporting limits.

Holding Time and Preservation Requirements: All samples were received in appropriate containers and properly preserved. The analysis and preparation of all samples were performed within the method holding times following the methods stated on the analytical reports.

Analytical QC Requirements: All instrument calibration and calibration check requirements were met. All internal standard recoveries met method criterion.

Batch QC Requirements: MB, LCS, MS, MSD, RPD, and Surrogates:

Method Blanks (MBs): No target analytes were detected above reporting limits, indicating that the procedure was free from contamination.

Laboratory Control Sample (LCSs): All LCS recoveries were within control limits, indicating that the preparation and analysis were in control.

Matrix Spike / Matrix Spike Duplicate (MS/MSD): All percent recoveries and RPDs (Relative Percent Differences) were inside established limits, with the following exception: The MSD percent recovery was outside of control limits on chloroform for sample 1302239-008C due to sample matrix interference.

Surrogates: All surrogate recoveries were within established limits.

Corrective Action: None required.

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American West ANALYTICAL LABORATORIES

Kyle F. Gross
Laboratory Director

Jose Rocha
QA Officer

QC SUMMARY REPORT

Client: Energy Fuels Resources, Inc.
Lab Set ID: 1302239
Project: 1st Quarter Chloroform 2013

Contact: Garrin Palmer
Dept: WC
QC Type: MBLK

Sample ID	Analyte	Units	Method	Result	Amount Spiked	Original Amount	%REC	Limits	%RPD	RPD Limit	Qual	Date Analyzed
MB-R50669	Chloride	mg/L	E300.0	< 1.00				-				2/18/2013 1803h
MB-R50718	Chloride	mg/L	E300.0	< 1.00				-				2/19/2013 1053h
MB-R50606	Nitrate/Nitrite (as N)	mg/L	E353.2	< 0.10				-				2/15/2013 1519h
MB-R50607	Nitrate/Nitrite (as N)	mg/L	E353.2	< 0.100				-				2/15/2013 1616h

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Kyle F. Gross
Laboratory Director

Jose Rocha
QA Officer

QC SUMMARY REPORT

Client: Energy Fuels Resources, Inc.
Lab Set ID: 1302239
Project: 1st Quarter Chloroform 2013

Contact: Garrin Palmer
Dept: WC
QC Type: MS

Sample ID	Analyte	Units	Method	Result	Amount Spiked	Original Amount	%REC	Limits	%RPD	RPD Limit	Qual	Date Analyzed
1302239-001AMS	Chloride	mg/L	E300.0	526	500.0	34.35	98.4	90-110				2/18/2013 1925h
1302239-011AMS	Chloride	mg/L	E300.0	559	500.0	40.44	104	90-110				2/19/2013 0214h
1302239-022AMS	Chloride	mg/L	E300.0	5.17	5.000	0	103	90-110				2/19/2013 1211h
1302239-001BMS	Nitrate/Nitrite (as N)	mg/L	E353.2	0.97	1.000	0.06540	90.1	90-110				2/15/2013 1605h
1302239-011BMS	Nitrate/Nitrite (as N)	mg/L	E353.2	1.1	1.000	0.1544	93.2	90-110				2/15/2013 1608h
1302239-022BMS	Nitrate/Nitrite (as N)	mg/L	E353.2	0.937	1.000	0.002900	93.4	90-110				2/15/2013 1624h

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Kyle F. Gross
Laboratory Director

Jose Rocha
QA Officer

QC SUMMARY REPORT

Client: Energy Fuels Resources, Inc.
Lab Set ID: 1302239
Project: 1st Quarter Chloroform 2013

Contact: Garrin Palmer
Dept: WC
QC Type: MSD

Sample ID	Analyte	Units	Method	Result	Amount Spiked	Original Amount	%REC	Limits	%RPD	RPD Limit	Qual	Date Analyzed
1302239-001AMSD	Chloride	mg/L	E300.0	526	500.0	34.35	98.3	90-110	0.0243	20		2/18/2013 1952h
1302239-011AMSD	Chloride	mg/L	E300.0	526	500.0	40.44	97.1	90-110	6.11	20		2/19/2013 0241h
1302239-022AMSD	Chloride	mg/L	E300.0	5.17	5.000	0	103	90-110	0.0387	20		2/19/2013 1236h
1302239-001BMSD	Nitrate/Nitrite (as N)	mg/L	E353.2	1.0	1.000	0.06540	94.6	90-110	4.56	10		2/15/2013 1607h
1302239-011BMSD	Nitrate/Nitrite (as N)	mg/L	E353.2	1.1	1.000	0.1544	94.0	90-110	0.725	10		2/15/2013 1609h
1302239-022BMSD	Nitrate/Nitrite (as N)	mg/L	E353.2	0.975	1.000	0.002900	97.2	90-110	4.03	10		2/15/2013 1626h

American West Analytical Laboratories

UL
Denison

WORK ORDER Summary

Work Order: **1302239**

Client: Energy Fuels Resources, Inc. Due Date: 2/26/2013

Client ID: DEN100 **Contact:** Garrin Palmer

Project: **1st Quarter Chloroform 2013** **QC Level:** III WO Type: Project

Comments: PA Rush. QC 3 & Summary. EDD-Denison. Email Group. RL of 1 ppm for Chloride and VOC and 0.1 ppm for NO2/NO3. Expected levels provided by client - see Jenn. J-flag what we can't meet.;

Sample ID	Client Sample ID	Collected Date	Received Date	Test Code	Matrix	Sel	Storage	
1302239-001A	**MW-32_02132013**	2/13/2013 1500h	2/15/2013 1000h	**300.0-W**	Aqueous	☑	df - wc	1
				1 SEL Analytes: CL				
1302239-001B				**NO2/NO3-W-353.2**		☑	df - no2/no3	
				1 SEL Analytes: NO3NO2N				
1302239-001C				**8260-W**		☑	VOCFridge	3
				Test Group: 8260-W-Custom; # of Analytes: 4 / # of Surr: 4				
1302239-002A	**TW4-25_02112013**	2/11/2013 0850h	2/15/2013 1000h	**300.0-W**	Aqueous	☑	df - wc	1
				1 SEL Analytes: CL				
1302239-002B				**NO2/NO3-W-353.2**		☑	df - no2/no3	
				1 SEL Analytes: NO3NO2N				
1302239-002C				**8260-W**		☑	VOCFridge	3
				Test Group: 8260-W-Custom; # of Analytes: 4 / # of Surr: 4				
1302239-003A	**TW4-24_02112013**	2/11/2013 0910h	2/15/2013 1000h	**300.0-W**	Aqueous	☑	df - wc	1
				1 SEL Analytes: CL				
1302239-003B				**NO2/NO3-W-353.2**		☑	df - no2/no3	
				1 SEL Analytes: NO3NO2N				
1302239-003C				**8260-W**		☑	VOCFridge	3
				Test Group: 8260-W-Custom; # of Analytes: 4 / # of Surr: 4				
1302239-004A	**TW4-22_02112013**	2/11/2013 0926h	2/15/2013 1000h	**300.0-W**	Aqueous	☑	df - wc	1
				1 SEL Analytes: CL				
1302239-004B				**NO2/NO3-W-353.2**		☑	df - no2/no3	
				1 SEL Analytes: NO3NO2N				
1302239-004C				**8260-W**		☑	VOCFridge	3
				Test Group: 8260-W-Custom; # of Analytes: 4 / # of Surr: 4				
1302239-005A	**MW-26_02112013**	2/11/2013 1010h	2/15/2013 1000h	**300.0-W**	Aqueous	☑	df - wc	1
				1 SEL Analytes: CL				
1302239-005B				**NO2/NO3-W-353.2**		☑	df - no2/no3	
				1 SEL Analytes: NO3NO2N				
1302239-005C				**8260-W**		☑	VOCFridge	3
				Test Group: 8260-W-Custom; # of Analytes: 4 / # of Surr: 4				
1302239-006A	**MW-04_02112013**	2/11/2013 1020h	2/15/2013 1000h	**300.0-W**	Aqueous	☑	df - wc	1
				1 SEL Analytes: CL				

 FOR LABORATORY USE ONLY [fill out on page 1]: %M ☑ RT ☑ CN ☑ TAT ☑ QC ☑ HOK______ HOK______ HOK______ COC Emailed 2-15-13

WORK ORDER Summary

Work Order: **1302239**

Client: Energy Fuels Resources, Inc.

Due Date: 2/26/2013

Sample ID	Client Sample ID	Collected Date	Received Date	Test Code	Matrix	Sel	Storage	
1302239-006B	**MW-04_02112013**	2/11/2013 1020h	2/15/2013 1000h	**NO2/NO3-W-353.2** *1 SEL Analytes: NO3NO2N*	Aqueous	☑	df - no2/no3	1
1302239-006C				**8260-W** *Test Group: 8260-W-Custom; # of Analytes: 4 / # of Surr: 4*		☑	VOCFridge	3
1302239-007A	**TW4-04_02112013**	2/11/2013 1030h	2/15/2013 1000h	**300.0-W** *1 SEL Analytes: CL*	Aqueous	☑	df - wc	1
1302239-007B				**NO2/NO3-W-353.2** *1 SEL Analytes: NO3NO2N*		☑	df - no2/no3	
1302239-007C				**8260-W** *Test Group: 8260-W-Custom; # of Analytes: 4 / # of Surr: 4*		☑	VOCFridge	3
1302239-008A	**TW4-19_02112013**	2/11/2013 1100h	2/15/2013 1000h	**300.0-W** *1 SEL Analytes: CL*	Aqueous	☑	df - wc	1
1302239-008B				**NO2/NO3-W-353.2** *1 SEL Analytes: NO3NO2N*		☑	df - no2/no3	
1302239-008C				**8260-W** *Test Group: 8260-W-Custom; # of Analytes: 4 / # of Surr: 4*		☑	VOCFridge	3
1302239-009A	**TW4-20_02112013**	2/11/2013 0950h	2/15/2013 1000h	**300.0-W** *1 SEL Analytes: CL*	Aqueous	☑	df - wc	1
1302239-009B				**NO2/NO3-W-353.2** *1 SEL Analytes: NO3NO2N*		☑	df - no2/no3	
1302239-009C				**8260-W** *Test Group: 8260-W-Custom; # of Analytes: 4 / # of Surr: 4*		☑	VOCFridge	3
1302239-010A	**TW4-05_02132013**	2/13/2013 1237h	2/15/2013 1000h	**300.0-W** *1 SEL Analytes: CL*	Aqueous	☑	df - wc	1
1302239-010B				**NO2/NO3-W-353.2** *1 SEL Analytes: NO3NO2N*		☑	df - no2/no3	
1302239-010C				**8260-W** *Test Group: 8260-W-Custom; # of Analytes: 4 / # of Surr: 4*		☑	VOCFridge	3
1302239-011A	**TW4-06_02132013**	2/13/2013 1247h	2/15/2013 1000h	**300.0-W** *1 SEL Analytes: CL*	Aqueous	☑	df - wc	1
1302239-011B				**NO2/NO3-W-353.2** *1 SEL Analytes: NO3NO2N*		☑	df - no2/no3	
1302239-011C				**8260-W** *Test Group: 8260-W-Custom; # of Analytes: 4 / # of Surr: 4*		☑	VOCFridge	3
1302239-012A	**TW4-18_02132013**	2/13/2013 1304h	2/15/2013 1000h	**300.0-W** *1 SEL Analytes: CL*	Aqueous	☑	df - wc	1
1302239-012B				**NO2/NO3-W-353.2** *1 SEL Analytes: NO3NO2N*		☑	df - no2/no3	

WORK ORDER Summary

Work Order: **1302239**

Client: Energy Fuels Resources, Inc.

Due Date: 2/26/2013

Sample ID	Client Sample ID	Collected Date	Received Date	Test Code	Matrix	Sel	Storage	
1302239-012C	**TW4-18_02132013**	2/13/2013 1304h	2/15/2013 1000h	**8260-W**	Aqueous	☑	VOCFridge	3
				Test Group: 8260-W-Custom; # of Analytes: 4 / # of Surr: 4				
1302239-013A	**TW4-10_02132013**	2/13/2013 1318h	2/15/2013 1000h	**300.0-W**	Aqueous	☑	df - wc	1
				1 SEL Analytes: CL				
1302239-013B				**NO2/NO3-W-353.2**		☑	df - no2/no3	
				1 SEL Analytes: NO3NO2N				
1302239-013C				**8260-W**		☑	VOCFridge	3
				Test Group: 8260-W-Custom; # of Analytes: 4 / # of Surr: 4				
1302239-014A	**TW4-21_02132013**	2/13/2013 1331h	2/15/2013 1000h	**300.0-W**	Aqueous	☑	df - wc	1
				1 SEL Analytes: CL				
1302239-014B				**NO2/NO3-W-353.2**		☑	df - no2/no3	
				1 SEL Analytes: NO3NO2N				
1302239-014C				**8260-W**		☑	VOCFridge	3
				Test Group: 8260-W-Custom; # of Analytes: 4 / # of Surr: 4				
1302239-015A	**TW4-11_02132013**	2/13/2013 1341h	2/15/2013 1000h	**300.0-W**	Aqueous	☑	df - wc	1
				1 SEL Analytes: CL				
1302239-015B				**NO2/NO3-W-353.2**		☑	df - no2/no3	
				1 SEL Analytes: NO3NO2N				
1302239-015C				**8260-W**		☑	VOCFridge	3
				Test Group: 8260-W-Custom; # of Analytes: 4 / # of Surr: 4				
1302239-016A	**TW4-07_02132013**	2/13/2013 1349h	2/15/2013 1000h	**300.0-W**	Aqueous	☑	df - wc	1
				1 SEL Analytes: CL				
1302239-016B				**NO2/NO3-W-353.2**		☑	df - no2/no3	
				1 SEL Analytes: NO3NO2N				
1302239-016C				**8260-W**		☑	VOCFridge	3
				Test Group: 8260-W-Custom; # of Analytes: 4 / # of Surr: 4				
1302239-017A	**TW4-01_02132013**	2/13/2013 1355h	2/15/2013 1000h	**300.0-W**	Aqueous	☑	df - wc	1
				1 SEL Analytes: CL				
1302239-017B				**NO2/NO3-W-353.2**		☑	df - no2/no3	
				1 SEL Analytes: NO3NO2N				
1302239-017C				**8260-W**		☑	VOCFridge	3
				Test Group: 8260-W-Custom; # of Analytes: 4 / # of Surr: 4				
1302239-018A	**TW4-02_02132013**	2/13/2013 1403h	2/15/2013 1000h	**300.0-W**	Aqueous	☑	df - wc	1
				1 SEL Analytes: CL				
1302239-018B				**NO2/NO3-W-353.2**		☑	df - no2/no3	
				1 SEL Analytes: NO3NO2N				
1302239-018C				**8260-W**		☑	VOCFridge	3
				Test Group: 8260-W-Custom; # of Analytes: 4 / # of Surr: 4				

WORK ORDER Summary

Work Order: **1302239**

Client: Energy Fuels Resources, Inc.

Due Date: 2/26/2013

Sample ID	Client Sample ID	Collected Date	Received Date	Test Code	Matrix	Sel	Storage	
1302239-019A	**TW4-60_02142013**	2/14/2013 0805h	2/15/2013 1000h	**300.0-W** *1 SEL Analytes: CL*	Aqueous	☑	df - wc	1
1302239-019B				**NO2/NO3-W-353.2** *1 SEL Analytes: NO3NO2N*		☑	df - no2/no3	
1302239-019C				**8260-W** *Test Group: 8260-W-Custom; # of Analytes: 4 / # of Surr: 4*		☑	VOCFridge	3
1302239-020A	**TW4-70_02132013**	2/13/2013 1304h	2/15/2013 1000h	**300.0-W** *1 SEL Analytes: CL*	Aqueous	☑	df - wc	1
1302239-020B				**NO2/NO3-W-353.2** *1 SEL Analytes: NO3NO2N*		☑	df - no2/no3	
1302239-020C				**8260-W** *Test Group: 8260-W-Custom; # of Analytes: 4 / # of Surr: 4*		☑	VOCFridge	3
1302239-021A	**Trip Blank**	2/11/2013	2/15/2013 1000h	**8260-W** *Test Group: 8260-W-Custom; # of Analytes: 4 / # of Surr: 4*	Aqueous	☑	VOCFridge	3
1302239-022A	**TW4-05R_02122013**	2/12/2013 0714h	2/15/2013 1000h	**300.0-W** *1 SEL Analytes: CL*	Aqueous	☑	df - wc	1
1302239-022B				**NO2/NO3-W-353.2** *1 SEL Analytes: NO3NO2N*		☑	df - no2/no3	
1302239-022C				**8260-W** *Test Group: 8260-W-Custom; # of Analytes: 4 / # of Surr: 4*		☑	VOCFridge	3

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Client Energy Fuels
Address 6425 S Hwy 191
Blanding UT 84511
City State Zip
Phone 435 678 2221 Fax
Contact Garrin Palmer
E-mail gpalmer@energyfuels.com
Project Name 1ST Quarter Chloroform 2013
Project Number/P.O.#
Sampler Name Tanner Holliday

AMERICAN WEST ANALYTICAL LABORATORIES
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CHAIN OF CUSTODY

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Lab Sample Set # 1302239
Page 1 of 2

Turn Around Time (Circle One)
1 day 2 day 3 day 4 day 5 day Standard

Sample ID	Date/Time Collected	Matrix	Number of Containers (Total)	VOC's	Nitrate + Nitrite	Chloride								COMMENTS
MW-32_02132013	2/13/13 1500	W	5	X	X	X								
TW4-25_02112013	2/11/13 0850	W	5	X	X	X								
TW4-24_02112013	2/11/13 0910	W	5	X	X	X								
TW4-22_02112013	2/11/13 0926	W	5	X	X	X								
MW-26_02112013	2/11/13 1010	W	5	X	X	X								
MW-04_02112013	2/11/13 1020	W	5	X	X	X								
TW4-04_02112013	2/11/13 1030	W	5	X	X	X								
TW4-19_02112013	2/11/13 1100	W	5	X	X	X								
TW4-20_02112013	2/11/13 0950	W	5	X	X	X								
TW4-05_02132013	2/13/13 1237	W	5	X	X	X								
TW4-06_02132013	2/13/13 1247	W	5	X	X	X								
TW4-18_02132013	2/13/13 1304	W	5	X	X	X								

QC LEVEL
1 2 2+
3 3+ 4

Relinquished By: Signature	Date	Received By: Signature	Date
Tanner Holliday	2/14/2013		
PRINT NAME Tanner Holliday	Time 1100	PRINT NAME	Time
Relinquished By: Signature	Date	Received By: Signature	Date
PRINT NAME	Time	PRINT NAME	Time
Relinquished By: Signature	Date	Received By: Signature	Date
PRINT NAME	Time	PRINT NAME	Time
Relinquished By: Signature	Date	Received By: Signature [signature]	Date 2/15/13
PRINT NAME	Time	PRINT NAME	Time

Special Instructions:

LABORATORY USE ONLY

SAMPLES WERE:
1 Shipped or hand delivered
Notes:
2 Ambient or Chilled
Notes: on ice
3 Temperature 2.9
4 Received Broken/Leaking (Improperly Sealed)
Y N
Notes:
5 Properly Preserved
Y N
Checked at Bench
Y N
Notes:
6 Received Within Holding Times
Y N
Notes:

COC Tape Was:
1 Present on Outer Package
Y N NA
2 Unbroken on Outer Package
Y N NA
3 Present on Sample
Y N NA
4 Unbroken on Sample
Y N NA

Discrepancies Between Sample Labels and COC Record?
Y N
Notes:

Client
Address

City State Zip
Phone Fax
Contact Same as
E-mail
Project Name Page 1
Project Number/P.O.#
Sampler Name

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CHAIN OF CUSTODY

Lab Sample Set # 1302239
Page 2 of 2

Turn Around Time (Circle One)
1 day 2 day 3 day 4 day 5 day Standard

QC LEVEL: 1 2 2+ 3 3+ 4

Sample ID	Date/Time Collected	Matrix	Number of Containers (Total)	VOCs	Nitrate + Nitrite	Chloride							COMMENTS
TW4-10_02132013	2/13/13 1318	w	5	X	X	X							
TW4-21_02132013	2/13/13 1331	w	5	X	X	X							
TW4-11_02132013	2/13/13 1341	w	5	X	X	X							
TW4-07_02132013	2/13/13 1349	w	5	X	X	X							
TW4-01_02132013	2/13/13 1355	w	5	X	X	X							
TW4-02_02132013	2/13/13 1403	w	5	X	X	X							
TW4-60_02142013	2/14/13 0805	w	5	X	X	X							
TW4-70_02132013	2/13/13 1304	w	5	X	X	X							
Trip Blank	2/11/13	w	3	X									
Temp Blank	2/14/13												
TW4-05R_02122013	2/12/13 0714	w	5	X	X	X							2/15/13 added per Kathy. el

Relinquished By: Signature	Date	Received By: Signature	Date
Tanner Holliday	2/14/2013		
PRINT NAME Tanner Holliday	Time 1100	PRINT NAME	Time
Relinquished By: Signature	Date	Received By: Signature	Date
PRINT NAME	Time	PRINT NAME	Time
Relinquished By: Signature	Date	Received By: Signature	Date
PRINT NAME	Time	PRINT NAME	Time
Relinquished By: Signature	Date	Received By: Signature [signature]	Date 2/15/13
PRINT NAME	Time	PRINT NAME [illegible]	Time

Special Instructions:

LABORATORY USE ONLY

SAMPLES WERE:
1 Shipped or hand delivered
Notes: FedX
2 Ambient or Chilled
Notes: on ice
3 Temperature 2.9
4 Received Broken/Leaking (Improperly Sealed)
Y N
Notes:
5 Properly Preserved
Y N
Checked at Bench
Y N
Notes:
6 Received Within Holding Times
Y N
Notes:

COC Tape Was:
1 Present on Outer Package
Y N NA
2 Unbroken on Outer Package
Y N NA
3 Present on Sample
Y N NA
4 Unbroken on Sample
Y N NA

Discrepancies Between Sample Labels and COC Record?
Y N
Notes:

Preservation Check Sheet

Lab Sample Set #: **1302239**

	-001	-002	-003	-004	-005	-006	-007	-008	-009	-010	-011	-012	-013	-014	-015	-016
NO_2/NO_3: pH <2 H_2SO_4	YES	YES	YES	YES	YES	YES	YES	YES	YES	YES	YES	YES	YES	YES	YES	YES

	-017	-018	-019	-020	-022											
NO_2/NO_3: pH <2 H_2SO_4	YES	YES	YES	YES	YES											

Tab H

Quality Assurance and Data Validation Tables

H-1 Field Data QA/QC Evaluation

Location		2x Casing Volume	Volume Pumped	Volume Check	Conductivity		RPD	pH		RPD	Temp		RPD	Redox Potential		RPD	Turbidity		RPD
Piezometer 1		--			2123.0		NC	8.93		NC	14.14		NC	332		NC	5.3		NC
Piezometer 2		--			692.0		NC	7.40		NC	13.58		NC	367		NC	2.8		NC
Piezometer 3		--			3075.0		NC	12.03		NC	14.08		NC	278		NC	14.3		NC
TWN-1	38.06	76.12	96.00	OK	785.0	786.0	0.13	7.35	7.30	0.68	14.75	14.76	0.07	473	474	0.21	14.7	14.8	0.68
TWN-2	47.24	Continuously Pumped Well			3361		NC	6.5		NC	13.65		NC	453		NC	1.7		NC
TWN-3	39.31	78.62	54.00	Pumped Dry	2371.0	2359.0	0.51	7.18	7.11	0.98	14.28	14.25	0.21	453	459	1.32	4.20	8.9	71.76
TWN-4	52.24	104.48	144.00	OK	986.0	986.0	0.00	7.14	7.14	0.00	14.46	14.47	0.07	531	531	0.00	13.1	14.0	6.64
TWN-7	11.49	22.98	15.00	Pumped Dry	1209.0	1200.0	0.75	7.68	7.66	0.26	14.15	14.19	0.28	436	428	1.85	16.1	7.0	78.79
TWN-18	56.74	113.48	132.00	OK	2105.0	2107.0	0.09	6.89	6.88	0.15	14.30	14.30	0.00	464	464	0.00	29.0	31.0	6.67
TW4-22	NA	Continuously pumped well			5881		N/A	6.8		N/A	13.59		N/A	412		N/A	1.8		N/A
TW4-24	NA	Continuously pumped well			7620		N/A	6.7		N/A	13.78		N/A	416		N/A	4.6		N/A
TW4-25	NA	Continuously pumped well			2798		N/A	6.62		N/A	14.84		N/A	540		N/A	0.8		N/A

TWN-2 , TW4-22, TW4-24, and TW4-25 are continuously pumping wells.

Piezometers 1, 2, and 3 were not pumped, only one set of parameters were taken.

TWN-3 and TWN-7 were pumped dry and sampled after recovery.

The QAP states that turbidity should be less than 5 Nephelometric Turbidity Units ("NTU") prior to sampling unless the well is characterized by water that has a higher turbidity. The QAP does not require that turbidity measurements be less than 5 NTU prior to sampling. As such, the noted observations regarding turbidity measurements less than 5 NTU below are included for information purposes only.

RPD >10%. Per the revised QAP Revision 7.2, Attachment 2-3, when a well is purged to dryness, only pH, temperature and specific conductance parameters are required to be within 10% RPD. Redox potential and turbidity parameters are measured for information purposes only and as such are not required to meet the 10% RPD criteria used for pH, specific conductance and temperature.

H-2: Holding Time Evaluation

Location ID	Parameter Name	Sample Date	Analysis Date	Hold Time (Days)	Allowed Hold Time (Days)	Hold Time Check
PIEZ-01	Chloride	2/19/2013	2/27/2013	8	28	OK
PIEZ-01	Nitrate/Nitrite (as N)	2/19/2013	2/22/2013	3	28	OK
PIEZ-02	Chloride	2/19/2013	2/27/2013	8	28	OK
PIEZ-02	Nitrate/Nitrite (as N)	2/19/2013	2/22/2013	3	28	OK
PIEZ-03	Chloride	2/19/2013	2/27/2013	8	28	OK
PIEZ-03	Nitrate/Nitrite (as N)	2/19/2013	2/22/2013	3	28	OK
TWN-01	Chloride	2/18/2013	2/27/2013	9	28	OK
TWN-01	Nitrate/Nitrite (as N)	2/18/2013	2/22/2013	4	28	OK
TWN-01R	Chloride	2/18/2013	2/27/2013	9	28	OK
TWN-01R	Nitrate/Nitrite (as N)	2/18/2013	2/22/2013	4	28	OK
TWN-02	Chloride	2/19/2013	2/27/2013	8	28	OK
TWN-02	Nitrate/Nitrite (as N)	2/19/2013	2/22/2013	3	28	OK
TWN-03	Chloride	2/19/2013	2/27/2013	8	28	OK
TWN-03	Nitrate/Nitrite (as N)	2/19/2013	2/22/2013	3	28	OK
TWN-04	Chloride	2/18/2013	2/27/2013	9	28	OK
TWN-04	Nitrate/Nitrite (as N)	2/18/2013	2/22/2013	4	28	OK
TWN-07	Chloride	2/19/2013	2/27/2013	8	28	OK
TWN-07	Nitrate/Nitrite (as N)	2/19/2013	2/22/2013	3	28	OK
TWN-18	Chloride	2/18/2013	2/27/2013	9	28	OK
TWN-18	Nitrate/Nitrite (as N)	2/18/2013	2/22/2013	4	28	OK
TW4-22	Chloride	2/11/2013	2/19/2013	8	28	OK
TW4-22	Nitrate/Nitrite (as N)	2/11/2013	2/15/2013	4	28	OK
TW4-24	Chloride	2/11/2013	2/18/2013	7	28	OK
TW4-24	Nitrate/Nitrite (as N)	2/11/2013	2/15/2013	4	28	OK
TW4-25	Chloride	2/11/2013	2/18/2013	7	28	OK
TW4-25	Nitrate/Nitrite (as N)	2/11/2013	2/15/2013	4	28	OK
TWN-60	Chloride	2/19/2013	2/27/2013	8	28	OK
TWN-60	Nitrate/Nitrite (as N)	2/19/2013	2/22/2013	3	28	OK
TW4-60	Chloride	2/14/2013	2/19/2013	5	28	OK
TW4-60	Nitrate/Nitrite (as N)	2/14/2013	2/15/2013	1	28	OK
TWN-65	Chloride	2/18/2013	2/27/2013	9	28	OK
TWN-65	Nitrate/Nitrite (as N)	2/18/2013	2/22/2013	4	28	OK

H-3: Analytical Method Check

Parameter	Method	Method Used by Lab
Nitrate	E353.1 or E353.2	E353.2
Chloride	A4500-Cl B or A4500-Cl E or E300.0	E300.0

Both Nitrate and Chloride were analyzed with the correct analytical method.

H-4 Reporting Limit Check

Location	Analyte	Lab Reporting Limit	Units	Qualifier	Required Reporting Limit	Units	RL Check
PIEZ-01	Chloride	10	mg/L		1	mg/L	OK
PIEZ-01	Nitrate/Nitrite (as N)	0.1	mg/L		0.1	mg/L	OK
PIEZ-02	Chloride	1	mg/L		1	mg/L	OK
PIEZ-02	Nitrate/Nitrite (as N)	1	mg/L		0.1	mg/L	OK
PIEZ-03	Chloride	10	mg/L		1	mg/L	OK
PIEZ-03	Nitrate/Nitrite (as N)	0.2	mg/L		0.1	mg/L	OK
TWN-01	Chloride	10	mg/L		1	mg/L	OK
TWN-01	Nitrate/Nitrite (as N)	0.1	mg/L		0.1	mg/L	OK
TWN-01R	Chloride	1	mg/L	U	1	mg/L	OK
TWN-01R	Nitrate/Nitrite (as N)	0.1	mg/L	U	0.1	mg/L	OK
TWN-02	Chloride	10	mg/L		1	mg/L	OK
TWN-02	Nitrate/Nitrite (as N)	10	mg/L		0.1	mg/L	OK
TWN-03	Chloride	100	mg/L		1	mg/L	OK
TWN-03	Nitrate/Nitrite (as N)	10	mg/L		0.1	mg/L	OK
TWN-04	Chloride	10	mg/L		1	mg/L	OK
TWN-04	Nitrate/Nitrite (as N)	0.1	mg/L		0.1	mg/L	OK
TWN-07	Chloride	1	mg/L		1	mg/L	OK
TWN-07	Nitrate/Nitrite (as N)	0.1	mg/L		0.1	mg/L	OK
TWN-18	Chloride	10	mg/L		1	mg/L	OK
TWN-18	Nitrate/Nitrite (as N)	1	mg/L		0.1	mg/L	OK
TW4-22	Chloride	100	mg/L		1	mg/L	OK
TW4-22	Nitrate/Nitrite (as N)	10	mg/L		0.1	mg/L	OK
TW4-24	Chloride	100	mg/L		1	mg/L	OK
TW4-24	Nitrate/Nitrite (as N)	10	mg/L		0.1	mg/L	OK
TW4-25	Chloride	100	mg/L		1	mg/L	OK
TW4-25	Nitrate/Nitrite (as N)	1	mg/L		0.1	mg/L	OK
TWN-60	Chloride	1	mg/L	U	1	mg/L	OK
TWN-60	Nitrate/Nitrite (as N)	0.1	mg/L	U	0.1	mg/L	OK
TW4-60	Chloride	1	mg/L	U	1	mg/L	OK
TW4-60	Nitrate/Nitrite (as N)	0.1	mg/L	U	0.1	mg/L	OK
TWN-65	Chloride	10	mg/L		1	mg/L	OK
TWN-65	Nitrate/Nitrite (as N)	0.1	mg/L		0.1	mg/L	OK

H-5 QA/QC Evaluation for Sample Duplicates

Constituent	TWN-04	TWN-65	%RPD
Chloride	25.3	25.9	2.34
Nitrogen	1.51	1.51	0.00

H-6 QC Control Limits for Analysis and Blanks

All QC control limits for the 1st quarter of 2013 were within acceptable limits.

H-7 Receipt Temperature Evaluation

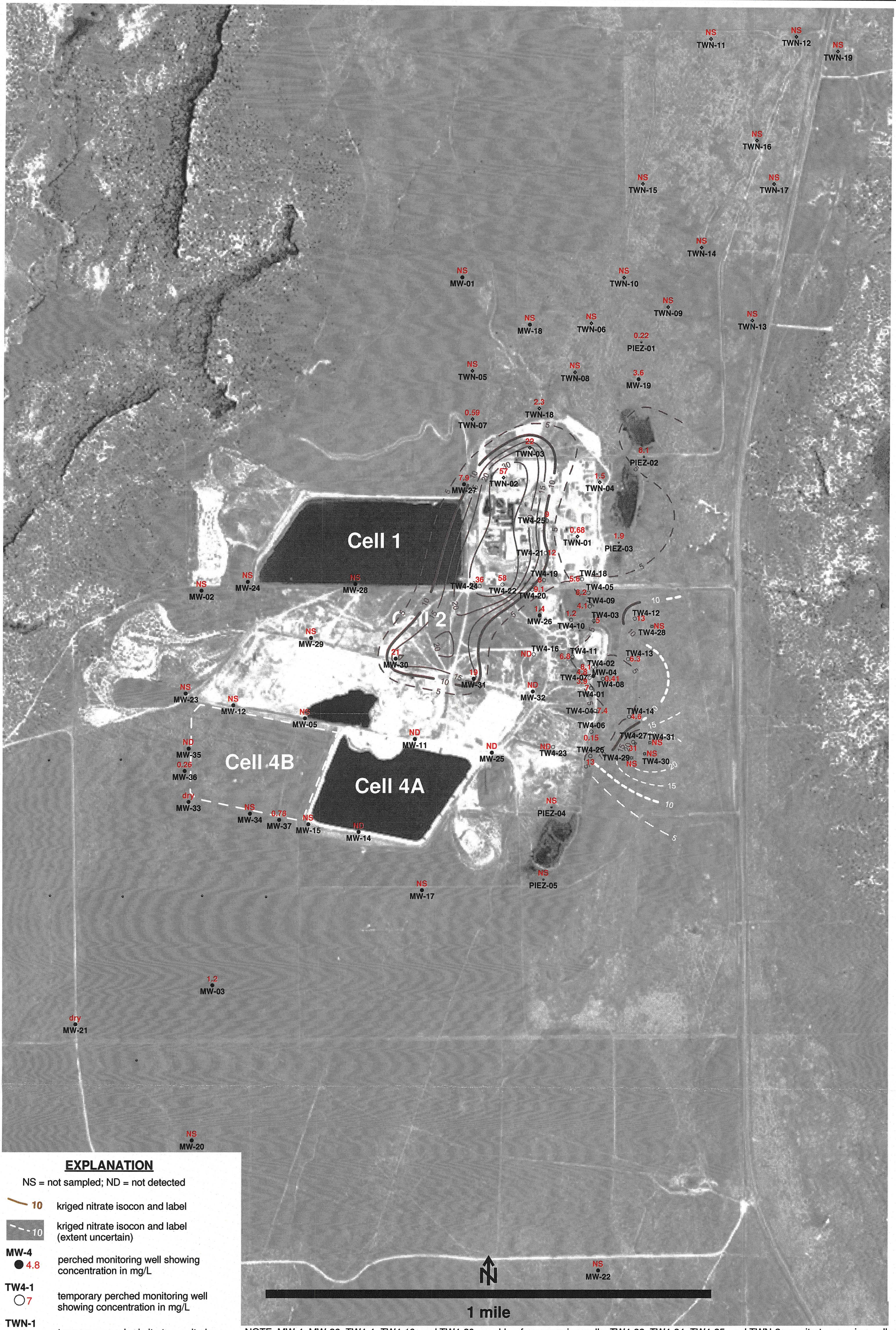
Sample Batch	Wells in Batch	Temperature
1302338	Piezometer 1, Piezometer 2, Piezometer 3, TWN-1, TWN-2, TWN-3, TWN-4, TWN-7, TWN-18, TWN-60, TWN-65	2.2 °C
1302239	TW4-22, TW4-24, TW4-25, TW4-60	2.9 °C

H-8 Rinsate Evaluation

All Rinsate and DI Blank samples were non-detect for the 1st quarter of 2013.

Tab I

Kriged Current Quarter Isoconcentration Maps



EXPLANATION

NS = not sampled; ND = not detected

10 kriged nitrate isocon and label

10 kriged nitrate isocon and label (extent uncertain)

MW-4 ● 4.8 perched monitoring well showing concentration in mg/L

TW4-1 ○ 7 temporary perched monitoring well showing concentration in mg/L

TWN-1 ◇ 0.7 temporary perched nitrate monitoring well showing concentration in mg/L

PIEZ-1 0.2 perched piezometer showing concentration in mg/L

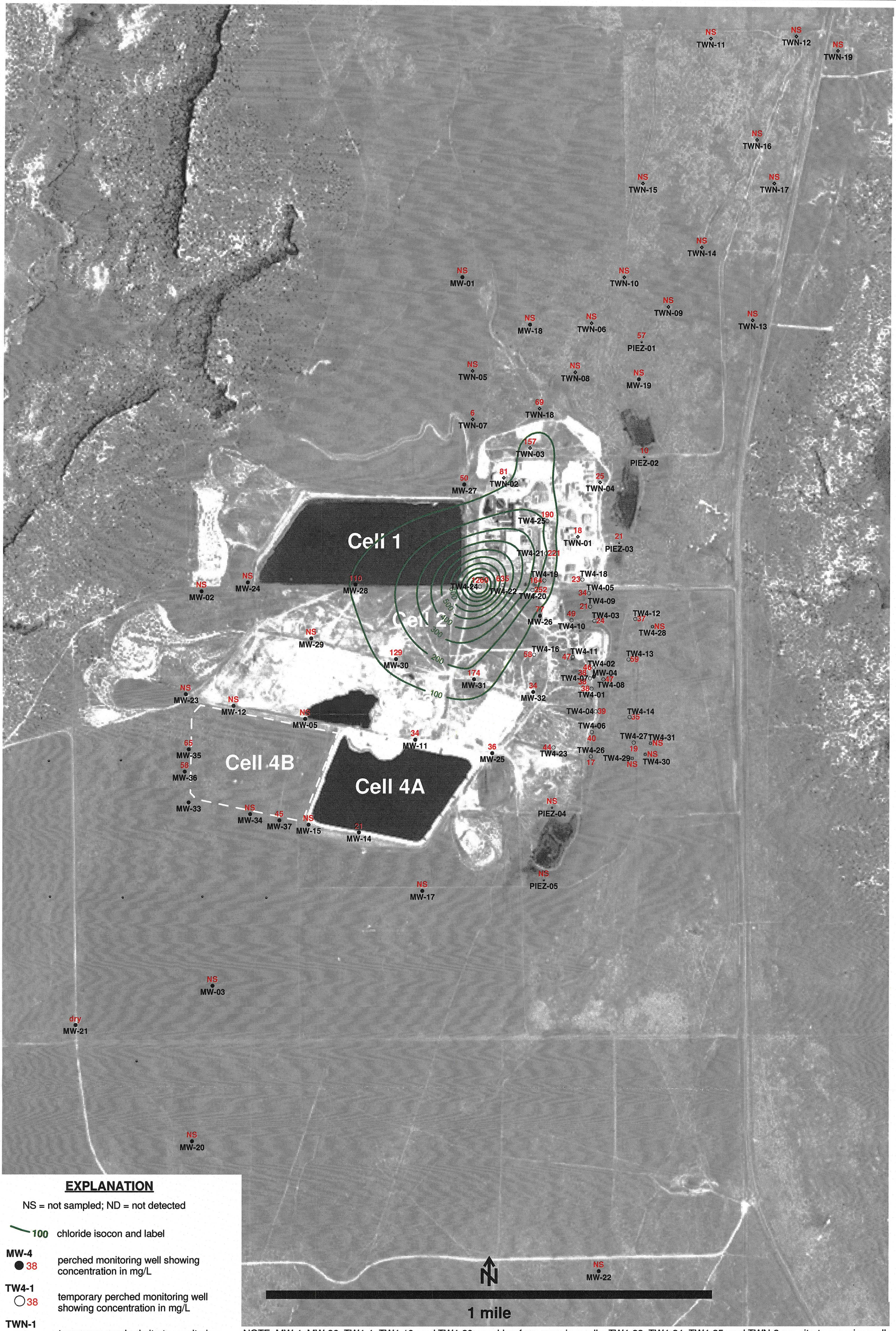
TW4-28 NS temporary perched monitoring well installed March, 2013 (not sampled)

NOTE: MW-4, MW-26, TW4-4, TW4-19, and TW4-20 are chloroform pumping wells; TW4-22, TW4-24, TW4-25, and TWN-2 are nitrate pumping wells

HYDRO GEO CHEM, INC.

KRIGED 1st QUARTER, 2013 NITRATE (mg/L) (NITRATE + NITRITE as N) WHITE MESA SITE

APPROVED	DATE	REFERENCE	FIGURE
		H:/718000/may13/nitrate/Unt0313_rev.srf	I-1



NOTE: MW-4, MW-26, TW4-4, TW4-19, and TW4-20 are chloroform pumping wells; TW4-22, TW4-24, TW4-25, and TWN-2 are nitrate pumping wells

HYDRO GEO CHEM, INC.

KRIGED 1st QUARTER, 2013 CHLORIDE (mg/L)
WHITE MESA SITE

APPROVED	DATE	REFERENCE	FIGURE
		H:/718000/may13/chloride/Ucl0313_rev.srf	I-2

Tab J

Analyte Concentrations Over Time

TWN-1

Date	Nitrate (mg/l)	Chloride (mg/l)
2/6/2009	0.7	19
7/21/2009	0.4	17
9/21/2009	0.4	19
10/28/2009	0.5	18
3/17/2010	0.5	17
5/26/2010	0.6	20
9/27/2010	0.6	19
12/7/2010	0.6	14
1/26/2011	0.5	17
4/20/2011	0.5	19
7/26/2011	0.5	14
10/17/2011	0.5	10
1/9/2012	0.6	15
4/18/2012	0.6	17
7/24/2012	0.6	17
10/15/2012	0.432	17.5
2/18/2013	0.681	17.6

TWN-2

Date	Nitrate (mg/l)	Chloride (mg/l)
2/6/2009	25.4	29
7/21/2009	25	25
9/21/2009	22.6	17
11/2/2009	20.8	55
3/24/2010	62.1	85
6/2/2010	69	97
9/29/2010	69	104
12/9/2010	48	93
2/1/2011	43	93
4/28/2011	40	85
7/28/2011	33	74
10/20/2011	33	76
1/12/2012	31	86
4/20/2012	48	103
7/31/2012	54	93
10/17/2012	22.1	79
2/19/2013	57.3	80.5

TWN-3

Date	Nitrate (mg/l)	Chloride (mg/l)
2/6/2009	23.6	96
7/21/2009	25.3	96
9/21/2009	27.1	99
11/2/2009	29	106
3/25/2010	25.3	111
6/3/2010	26	118
7/15/2010	27	106
12/10/2010	24	117
2/1/2011	24	138
4/28/2011	26	128
7/29/2011	25	134
10/20/2011	25	129
1/12/2012	25	143
4/20/2012	24	152
7/31/2012	27	158
10/17/2012	12.1	149
2/19/2013	22.2	157

TWN-4

Date	Nitrate (mg/l)	Chloride (mg/l)
2/6/2009	1	13
7/21/2009	0.05	12
9/21/2009	0.4	13
10/28/2009	0.4	11
3/16/2010	0.9	22
5/27/2010	1.0	22
9/27/2010	0.9	19
12/8/2010	1	21
1/25/2011	0.9	21
4/20/2011	0.9	21
7/26/2011	1.1	35
10/18/2011	0.9	20
1/9/2012	0.9	20
4/18/2012	1.1	24
7/25/2012	1.4	25
10/15/2012	1.45	26.4
2/18/2013	1.51	25.3

TWN-5

Date	Nitrate (mg/l)	Chloride (mg/l)	
8/25/2009	0.22	42	
9/21/2009	0.5	45	
11/10/2009	0.2	48	
3/16/2010	0.3	43	
5/26/2010	0.3	44	
7/12/2010	0.3	43	
12/7/2010	0.3	45	
1/25/2011	0.4	47	
4/20/2011	0.3	44	
7/26/2011	0.3	44	
10/17/2011	0.3	45	
1/9/2012	0.2	45	
4/18/2012	0.3	39	
7/24/2012	0.3	48	
10/15/2012	0.1	43.5	Nitrate ND

TWN-6

Date	Nitrate (mg/l)	Chloride (mg/l)
8/25/2009	3.2	32
9/22/2009	1.6	13
11/3/2009	1.4	21
3/23/2010	1.5	19
6/1/2010	1.4	22
7/13/2010	1.4	73
12/8/2010	1.2	21
1/26/2011	1.1	18
4/20/2011	1.5	22
7/27/2011	1.1	17
10/18/2011	1.4	21
1/10/2012	1.2	20
4/18/2012	1.1	22
7/25/2012	1.4	22
10/15/2012	0.786	20.4

TWN-7

Date	Nitrate (mg/l)	Chloride (mg/l)
8/25/2009	ND	11
9/21/2009	ND	7
11/10/2009	0.1	7
3/17/2010	0.8	6
5/28/2010	1.2	6
7/14/2010	1.6	7
12/10/2010	1	4
1/27/2011	1.3	6
4/21/2011	1.7	6
7/29/2011	0.7	5
10/19/2011	2.2	6
1/11/2012	2.3	5
4/20/2012	1.2	6
7/26/2012	0.9	6
10/16/2012	0.641	5.67
2/19/2013	0.591	5.68

TWN-8

Date	Nitrate (mg/l)	Chloride (mg/l)	Notes
8/25/2009	0	11	Nitrate is ND
9/21/2009	0	12	Nitrate is ND
11/10/2009	0	12	Nitrate is ND
3/16/2010	0	11	Nitrate is ND
5/26/2010	0	11	Nitrate is ND
7/12/2010	0	11	Nitrate is ND
12/6/2010	0	9	Nitrate is ND
1/25/2011	0	13	Nitrate is ND
4/18/2011	0	10	Nitrate is ND
7/26/2011	0	18	Nitrate is ND
10/17/2011	0	10	Nitrate is ND
1/9/2012	0	11	Nitrate is ND
4/18/2012	0	15	Nitrate is ND
7/24/2012	0	11	Nitrate is ND
10/15/2012	0	11.1	Nitrate is ND

TWN-9

Date	Nitrate (mg/l)	Chloride (mg/l)
8/25/2009	9.3	169
9/22/2009	8.9	201
11/10/2009	12	205
3/23/2010	7.6	183
6/1/2010	7.6	175
7/15/2010	10.7	210
12/9/2010	8	172
2/1/2011	9.5	217
4/28/2011	10	192
7/29/2011	11	208
10/20/2011	10.9	134
1/12/2012	12.2	202
4/20/2012	10.6	209
7/31/2012	12.3	215
10/15/2012	12.5	194

TWN-10

Date	Nitrate (mg/l)	Chloride (mg/l)
8/25/2009	1.1	19
9/22/2009	1.6	35
11/10/2009	1.4	26
3/23/2010	1.5	54
6/4/2010	1	30
7/14/2010	0.2	21
12/8/2010	1.3	28
1/27/2011	0.3	40
4/21/2011	1.2	28
7/27/2011	0.1	28
10/18/2011	0.2	33
1/10/2012	0.8	44
4/19/2012	0.9	28
7/25/2012	0.6	33
10/16/2012	0.119	30.8

TWN-11

Date	Nitrate (mg/l)	Chloride (mg/l)
11/3/2009	1.3	74
3/17/2010	1.4	73
6/4/2010	1.3	72
9/27/2010	1.4	76
12/8/2010	1.4	72
1/27/2011	1.4	84
4/26/2011	1.4	76
7/27/2011	0.1	76
10/17/2011	1.6	76
1/10/2012	1.6	69
4/19/2012	1.6	71
7/25/2012	1.8	77
10/16/2012	1.84	76.4

TWN-12

Date	Nitrate (mg/l)	Chloride (mg/l)
11/3/2009	0.5	109
3/17/2010	0.7	113
5/26/2010	0.8	106
7/12/2010	0.7	112
12/7/2010	0.7	103
1/26/2011	4.2	87
4/26/2011	1	109
7/26/2011	0.6	102
10/17/2011	1.2	87
1/10/2012	0.9	104
4/18/2012	1.2	106
7/25/2012	1.4	102
10/16/2012	1.41	101

TWN-13

Date	Nitrate (mg/l)	Chloride (mg/l)	Notes
11/4/2009	0.5	83	
3/17/2010	0	47	Nitrate ND
5/26/2010	0.1	49	
9/27/2010	0.2	53	
12/7/2010	0.4	57	
1/25/2011	1.6	103	
4/26/2011	0	49	Nitrate ND
7/26/2011	0.1	49	
10/17/2011	0	48	Nitrate ND
1/9/2012	0	46	Nitrate ND
4/18/2012	0	53	Nitrate ND
7/24/2012	0.1	48	
10/15/2012	0	47.3	Nitrate ND

TWN-14

Date	Nitrate (mg/l)	Chloride (mg/l)
11/4/2009	3.4	32
3/24/2010	2.9	24
6/2/2010	2.9	30
7/15/2010	3.5	26
12/10/2010	4.2	28
1/28/2011	3.7	24
4/27/2011	3.5	30
7/29/2011	3.5	25
10/19/2011	3.9	27
1/11/2012	3.5	26
4/20/2012	3.4	27
7/27/2012	3.7	27
10/17/2012	4.03	27.4

TWN-15

Date	Nitrate (mg/l)	Chloride (mg/l)
11/10/2009	1.1	78
3/18/2010	0.7	43
5/28/2010	1.0	39
7/13/2010	1.0	36
12/9/2010	1.2	38
1/27/2011	1.4	43
4/27/2011	1.6	49
7/28/2011	1.6	47
10/19/2011	1.3	38
1/11/2012	1.5	38
4/20/2012	1.6	46
7/26/2012	2.1	50
10/17/2012	1.8	47

TWN-16

Date	Nitrate (mg/l)	Chloride (mg/l)
11/4/2009	1	39
3/17/2010	1.2	35
5/27/2010	0.2	35
9/27/2010	2.6	35
12/9/2010	2	30
1/27/2011	4.6	34
4/27/2011	1.6	39
7/27/2011	2.4	31
10/18/2011	2.6	34
1/10/2012	2.8	33
4/19/2012	2	50
7/25/2012	2.4	33
10/16/2012	2.5	32.1

TWN-17

Date	Nitrate (mg/l)	Chloride (mg/l)
11/4/2009	6.7	152
3/24/2010	10.4	78
6/3/2010	11	87
7/15/2010	8.9	66
12/10/2010	8	65
2/1/2011	8.6	90
4/28/2011	9	81
7/29/2011	8.5	74
10/20/2011	8.1	71
1/12/2012	8.7	79
4/20/2012	9.1	80
7/27/2012	9.5	85
10/17/2012	9.65	84.8

TWN-18

Date	Nitrate (mg/l)	Chloride (mg/l)
11/2/2009	1.3	57
3/17/2010	1.6	42
6/1/2010	1.8	63
9/27/2010	1.8	64
12/9/2010	1.6	59
1/27/2011	1.4	61
4/26/2011	1.8	67
7/28/2011	1.8	65
10/18/2011	1.9	60
1/10/2012	1.9	64
4/19/2012	2.1	64
7/26/2012	2.3	67
10/16/2012	1.95	67.5
2/18/2013	2.27	68.7

TWN-19

Date	Nitrate (mg/l)	Chloride (mg/l)
11/2/2009	7.4	125
3/23/2010	7.2	118
6/1/2010	6.2	113
9/29/2010	7.2	113
12/9/2010	7	107
2/1/2011	7	114
4/28/2011	6.9	120
7/28/2011	7.1	113
10/18/2011	6.5	108
1/10/2012	7	114
4/19/2012	6.8	117
7/26/2012	7.5	117
10/16/2012	7.7	118

TW4-19

Date	Nitrate (mg/l)	Date	Chloride (mg/l)
7/22/2002	42.80	12/7/2005	81
9/12/2002	47.60	3/9/2006	86
3/28/2003	61.40	7/20/2006	123
6/23/2003	11.40	11/9/2006	134
7/15/2003	6.80	2/28/2007	133
8/15/2003	4.00	8/15/2007	129
9/12/2003	5.70	10/10/2007	132
9/25/2003	9.20	3/26/2008	131
10/29/2003	7.70	6/25/2008	128
11/9/2003	4.80	9/10/2008	113
8/16/2004	9.91	10/15/2008	124
9/17/2004	4.50	3/4/2009	127
3/16/2005	5.30	6/23/2009	132
6/7/2005	5.70	9/14/2009	43
8/31/2005	4.60	12/14/2009	124
12/1/2005	0.10	2/17/2010	144
3/9/2006	4.00	6/9/2010	132
6/14/2006	5.20	8/16/2010	142
7/20/2006	4.30	10/11/2010	146
11/9/2006	4.60	2/17/2011	135
2/28/2007	4.00	6/7/2011	148
8/15/2007	4.10	8/17/2011	148
10/10/2007	4.00	11/17/2011	148
3/26/2008	2.20	1/23/2012	138
6/25/2008	2.81	6/6/2012	149
9/10/2008	36.20	9/5/2012	149
10/15/2008	47.80	10/3/2012	150
3/4/2009	3.20	2/11/2013	164
6/23/2009	2.40		
9/14/2009	0.10		
12/14/2009	26.70		
2/17/2010	2.00		
6/9/2010	4.40		
8/16/2010	5.90		
10/11/2010	2.70		
2/17/2011	17.00		
6/7/2011	12.00		
8/17/2011	3.00		
11/17/2011	5.00		
1/23/2012	0.60		
6/6/2012	2.40		
9/5/2012	2.50		
10/3/2012	4.10		
2/11/2013	7.99		

The sampling program for TW4-19 was updated in the fourth quarter of 2005 to include analysis for chloride as well as nitrate. This change accounts for the different number of data points represented above.

TW4-21

Date	Nitrate (mg/l)	Date	Chloride (mg/l)
5/25/2005	14.6	12/7/2005	353
8/31/2005	10.1	3/9/2006	347
11/30/2005	9.6	7/20/2006	357
3/9/2006	8.5	11/8/2006	296
6/14/2006	10.2	2/28/2007	306
7/20/2006	8.9	6/27/2007	327
11/8/2006	8.7	8/15/2007	300
2/28/2007	8.7	10/10/2007	288
6/27/2007	8.6	3/26/2008	331
8/15/2007	8.6	6/25/2008	271
10/10/2007	8.3	9/10/2008	244
3/26/2008	14.3	10/15/2008	284
6/25/2008	8.8	3/11/2009	279
9/10/2008	7.6	6/24/2009	291
10/15/2008	8.0	9/15/2009	281
3/11/2009	8.3	12/22/2009	256
6/24/2009	8.1	2/25/2010	228
9/15/2009	9.2	6/10/2010	266
12/22/2009	8.4	8/12/2010	278
2/25/2010	8.4	10/13/2010	210
6/10/2010	12.0	2/22/2011	303
8/12/2010	14.0	6/1/2011	297
10/13/2010	7.0	8/17/2011	287
2/22/2011	9.0	11/16/2011	276
6/1/2011	13.0	1/19/2012	228
8/17/2011	14.0	6/13/2012	285
11/16/2011	13.0	9/13/2012	142
1/19/2012	15.0	10/4/2012	270
6/13/2012	11.0	2/13/2013	221
9/13/2012	13.0		
10/4/2012	14.0		
2/13/2013	11.8		

The sampling program for TW4-21 was updated in the fourth quarter of 2005 to include analysis for chloride as well as nitrate. This change accounts for the different number of data points represented above.

TW4-22

Date	Nitrate (mg/l)	Chloride (mg/l)	Notes
2/28/2007	20.9	347	
6/27/2007	19.3	273	
8/15/2007	19.3	259	
10/10/2007	18.8	238	
3/26/2008	39.1	519	
6/25/2008	41.9	271	
9/10/2008	38.7	524	
10/15/2008	36.3	539	
3/11/2009	20.7	177	
6/24/2009	20.6	177	
9/15/2009	40.3	391	
12/29/2009	17.8	175	
3/3/2010	36.6	427	
6/15/2010	19	134	
8/12/2010	18	127	
8/24/2010	15	130	
10/13/2010	16	134	
2/23/2011	18	114	
6/1/2011	17	138	
8/17/2011	15	120	
11/16/2011	19	174	
1/19/2012	14	36	
6/13/2012	12.8	35	
9/12/2012	7	121	
10/4/2012	14	130	
2/11/2013	58	635	

TW4-24

Date	Nitrate (mg/l)	Chloride (mg/l)	Notes
6/27/2007	26.1	770	
8/15/2007	29	791	
10/10/2007	24.7	692	
3/26/2008	24.4	740	
6/25/2008	45.3	834	
9/10/2008	38.4	1180	
10/15/2008	44.6	1130	
3/4/2009	30.5	1010	
6/24/2009	30.4	759	
9/15/2009	30.7	618	
12/17/2009	28.3	1080	
2/25/2010	33.1	896	
6/9/2010	30	639	
8/11/2010	32	556	
8/24/2010	31	587	
10/6/2010	31	522	
2/17/2011	31	1100	
5/26/2011	35	1110	
8/17/2011	34	967	
11/16/2011	35	608	
1/18/2012	37	373	
6/6/2012	37	355	
8/30/2012	37	489	
10/3/2012	38	405	
2/11/2013	35.9	1260	

TW4-25

Date	Nitrate (mg/l)	Chloride (mg/l)	Notes
6/27/2007	17.1	395	
8/15/2007	16.7	382	
10/10/2007	17	356	
3/26/2008	18.7	374	
6/25/2008	22.1	344	
9/10/2008	18.8	333	
10/15/2008	21.3	366	
3/4/2009	15.3	332	
6/24/2009	15.3	328	
9/15/2009	3.3	328	
12/16/2009	14.2	371	
2/23/2010	14.4	296	
6/8/2010	16	306	
8/10/2010	14	250	
10/5/2010	15	312	
2/16/2011	15	315	
5/25/2011	16	321	
8/16/2011	16	276	
11/15/2011	16	294	
1/18/2012	16	304	
5/31/2012	16	287	
9/11/2012	17	334	
10/3/2012	17	338	
2/11/2013	9.04	190	

MW-18

Date	Nitrate (mg/l)	Chloride (mg/l)
7/14/2009	ND	51

MW-19

Date	Nitrate (mg/l)	Chloride (mg/l)
7/14/2009	2.2	24

MW-30

Date	Nitrate (mg/l)	Date	Chloride (mg/l)
6/22/2005	12.4	6/22/2005	125
9/22/2005	12.8	9/22/2005	125
12/14/2005	13.6	12/14/2005	128
3/22/2006	13.8	3/22/2006	125
6/21/2006	14.5	6/21/2006	124
9/13/2006	14.1	9/13/2006	118
10/25/2006	14.6	10/25/2006	124
3/15/2007	14.4	3/15/2007	125
8/22/2007	14.6	8/22/2007	126
10/24/2007	14.9	10/24/2007	122
3/19/2008	14.8	3/19/2008	118
6/3/2008	18.7	6/3/2008	125
8/4/2008	17.3	8/4/2008	121
11/5/2008	15.6	11/5/2008	162
2/3/2009	15.3	2/3/2009	113
5/13/2009	15.1	5/13/2009	122
8/24/2009	20.9	8/24/2009	118
10/14/2009	15.0	10/14/2009	129
1/20/2010	15.4	1/20/2010	106
2/9/2010	16.1	2/9/2010	127
4/27/2010	15.8	4/27/2010	97
5/24/2010	17.0	9/14/2010	111
6/15/2010	15.3	11/9/2010	126
8/24/2010	16.0	2/1/2011	134
9/14/2010	15.0	4/11/2011	134
10/19/2010	15.0	5/10/2011	128
11/9/2010	15.0	6/20/2011	127
12/14/2010	16.0	7/5/2011	127
1/10/2011	15.0	8/3/2011	126
2/1/2011	16.0	9/7/2011	145
3/14/2011	17.0	10/4/2011	129
4/11/2011	16.0	11/8/2011	122
5/10/2011	16.0	12/12/2011	124
6/20/2011	17.0	1/24/2012	124
7/5/2011	17.0	2/14/2012	126
8/3/2011	14.0	3/14/2012	128
9/7/2011	16.0	4/10/2012	128
10/4/2011	16.0	5/2/2012	124
11/8/2011	16.0	6/18/2012	131
12/12/2011	16.0	7/10/2012	128
1/24/2012	17.0	8/7/2012	139
2/14/2012	17.0	9/19/2012	130
3/14/2012	18.0	10/23/2012	135
4/10/2012	17.0	11/13/2012	114
5/2/2012	16.0	12/26/2012	122

MW-30

Date	Nitrate (mg/l)	Date	Chloride (mg/l)
6/18/2012	15.0	1/23/2013	128
7/10/2012	17.0	2/26/2013	129
8/7/2012	18.0	3/20/2013	126
9/19/2012	16.0		
10/23/2012	16.2		
11/13/2012	18.5		
12/26/2012	17.2		
1/23/2013	19.2		
2/26/2013	21.4		
3/20/2013	14.3		

Under the groundwater sampling progran, accelerated monitoring for nitrate began in MW-30 prior to when the accelerated monitoring for chloride began. This difference accounts for the different number of data points represented above.

MW-31

Date	Nitrate (mg/l)	Date	Chloride (mg/l)
6/22/2005	24.2	6/22/2005	139
9/22/2005	22.4	9/22/2005	136
12/14/2005	23.8	12/14/2005	135
3/22/2006	24.1	3/22/2006	133
6/21/2006	25.3	6/21/2006	138
9/13/2006	24.6	9/13/2006	131
10/25/2006	25.1	10/25/2006	127
3/15/2007	23.2	3/15/2007	132
3/15/2007	22.0	3/15/2007	132
8/27/2007	23.3	8/27/2007	136
10/24/2007	24.6	10/24/2007	122
3/19/2008	25.0	3/19/2008	124
6/3/2008	29.3	6/3/2008	128
8/4/2008	28.7	8/4/2008	124
11/11/2008	29.9	11/11/2008	119
2/3/2009	23.4	2/3/2009	115
5/13/2009	22.4	5/13/2009	124
8/24/2009	15.4	8/24/2009	122
10/14/2009	22.6	10/14/2009	138
2/9/2010	21.7	2/9/2010	128
4/20/2010	22.5	4/20/2010	128
5/21/2010	23.0	9/13/2010	139
6/15/2010	21.1	11/9/2010	138
8/24/2010	22.0	2/1/2011	145
9/13/2010	21.0	4/1/2011	143
10/19/2010	20.0	5/10/2011	143
11/9/2010	20.0	6/20/2011	145
12/14/2010	20.0	7/5/2011	148
1/10/2011	19.0	8/2/2011	148
2/1/2011	21.0	9/6/2011	148
3/14/2011	22.0	10/3/2011	145
4/1/2011	21.0	11/8/2011	145
5/10/2011	20.0	12/12/2011	148
6/20/2011	22.0	1/24/2012	155
7/5/2011	22.0	2/13/2012	150
8/2/2011	20.0	3/13/2012	152
9/6/2011	21.0	4/9/2012	160
10/3/2011	21.0	5/2/2012	151
11/8/2011	21.0	6/18/2012	138
12/12/2011	21.0	7/9/2012	161
1/24/2012	21.0	8/6/2012	175
2/13/2012	21.0	9/18/2012	172
3/13/2012	22.0	10/22/2012	157
4/9/2012	21.0	11/6/2012	189
5/2/2012	20.0	12/18/2012	170

MW-31

Date	Nitrate (mg/l)	Date	Chloride (mg/l)
6/18/2012	21.6	1/22/2013	176
7/9/2012	21.0	2/19/2013	174
8/6/2012	21.0	3/19/2013	168
9/18/2012	21.0		
10/22/2012	18.0		
11/6/2012	23.6		
12/18/2012	22.2		
1/22/2013	22.8		
2/19/2013	19.3		
3/19/2013	19.1		

Under the groundwater sampling progran, accelerated monitoring for nitrate began in MW-31 prior to when the accelerated monitoring for chloride began. This difference accounts for the different number of data points represented above.

Piezometer 1

Date	Nitrate (mg/l)	Chloride (mg/l)
2/19/2009	6.8	NA
7/14/2009	6.8	60
9/22/2009	7.3	78
10/27/2009	7.4	61
6/2/2010	7.2	52
7/19/2010	6.8	52
12/10/2010	6.5	60
1/31/2011	7	60
4/25/2011	6.8	58
7/25/2011	7	53
10/19/2011	6.6	55
1/11/2012	7.1	78
4/20/2012	6.6	58
7/27/2012	7.2	56
10/17/2012	7.66	55
2/18/2013	8.11	56.7

Piezometer 2

Date	Nitrate (mg/l)	Chloride (mg/l)
2/19/2009	0.5	NA
7/14/2009	0.5	7
9/22/2009	0.5	17
10/27/2009	0.6	7
6/2/2010	0.6	8
7/19/2010	0.6	8
12/10/2010	0.2	6
1/31/2011	0.3	9
4/25/2011	0.3	8
7/25/2011	0.1	9
10/19/2011	0.1	8
1/11/2012	0.1	9
4/20/2012	0.2	8
7/27/2012	0.2	9
10/17/2012	0.192	9.5
2/19/2013	0.218	9.67

Piezometer 3

Date	Nitrate (mg/l)	Chloride (mg/l)
2/19/2009	0.7	NA
7/14/2009	0.8	12
9/22/2009	0.8	24
10/27/2009	1.2	19
3/24/2010	1.7	116
6/2/2010	1.6	36
7/19/2010	1.6	35
12/10/2010	1.8	25
1/31/2011	1.8	40
4/25/2011	1.7	35
7/25/2011	1.8	61
10/19/2011	1.7	12
1/11/2012	1.8	20
4/20/2012	1.7	53
7/27/2012	1.8	21
10/17/2012	2.75	20.1
2/19/2013	1.85	21

Piezometer 4

Date	Nitrate (mg/l)	Chloride (mg/l)
7/14/2009	1.8	46

Piezometer 5

Date	Nitrate (mg/l)	Chloride (mg/l)
7/14/2009	0.7	18

Upper Wildlife Pond

Date	Nitrate (mg/l)	Chloride (mg/l)	Note
9/22/2009	0	5	Nitrate ND
10/27/2009	0	3	Nitrate ND
6/2/2010	0	0	Nitrate and Chloride ND
7/19/2010	0	0	Nitrate and Chloride ND
12/10/2010	0	1	Nitrate ND
1/31/2011	0.1	1	
4/25/2011	0	0	Nitrate and Chloride ND
7/25/2011	0	0	Nitrate and Chloride ND
10/19/2011	0	0	Nitrate and Chloride ND
1/11/2012	0	2	Nitrate ND

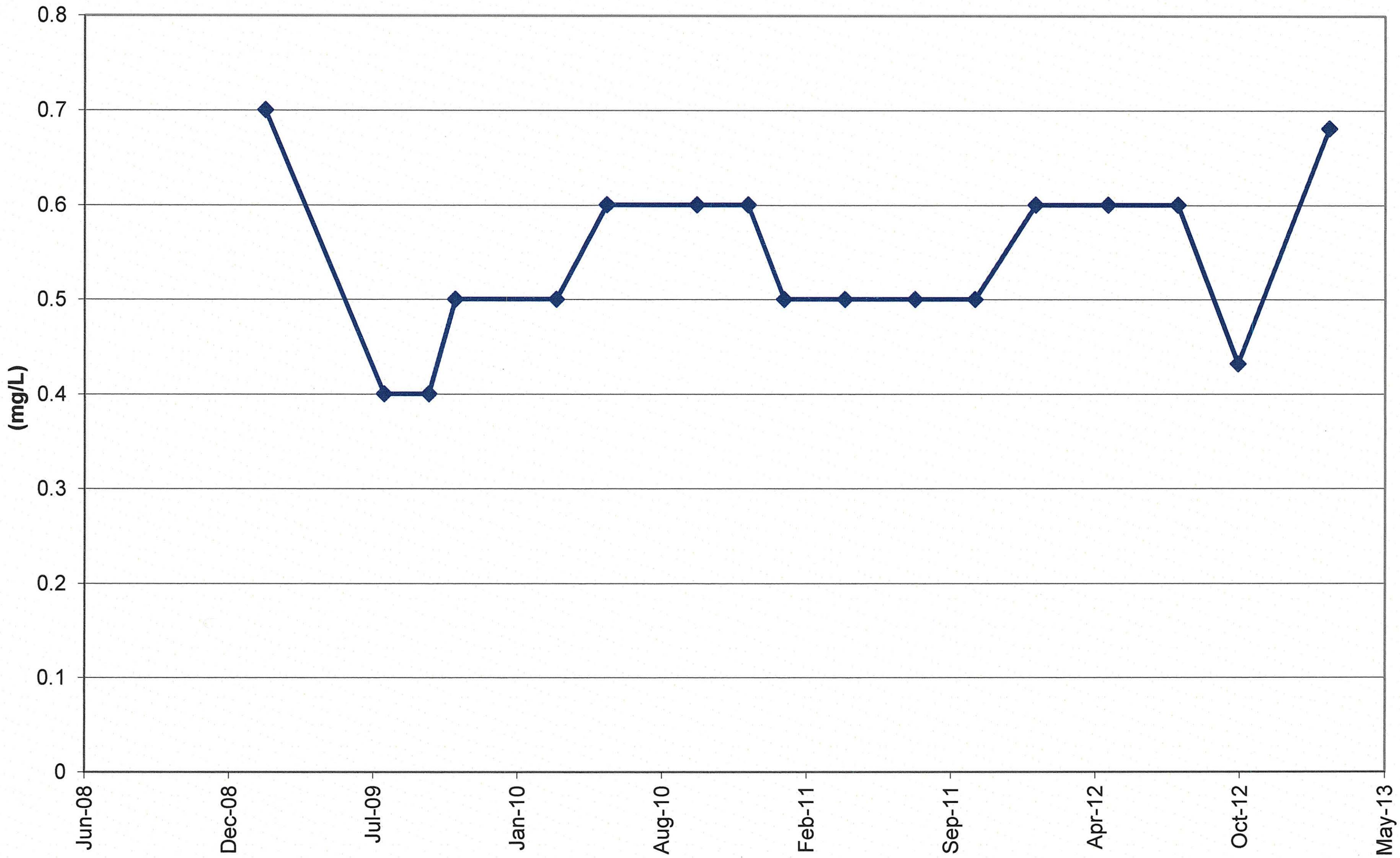
Frog Pond

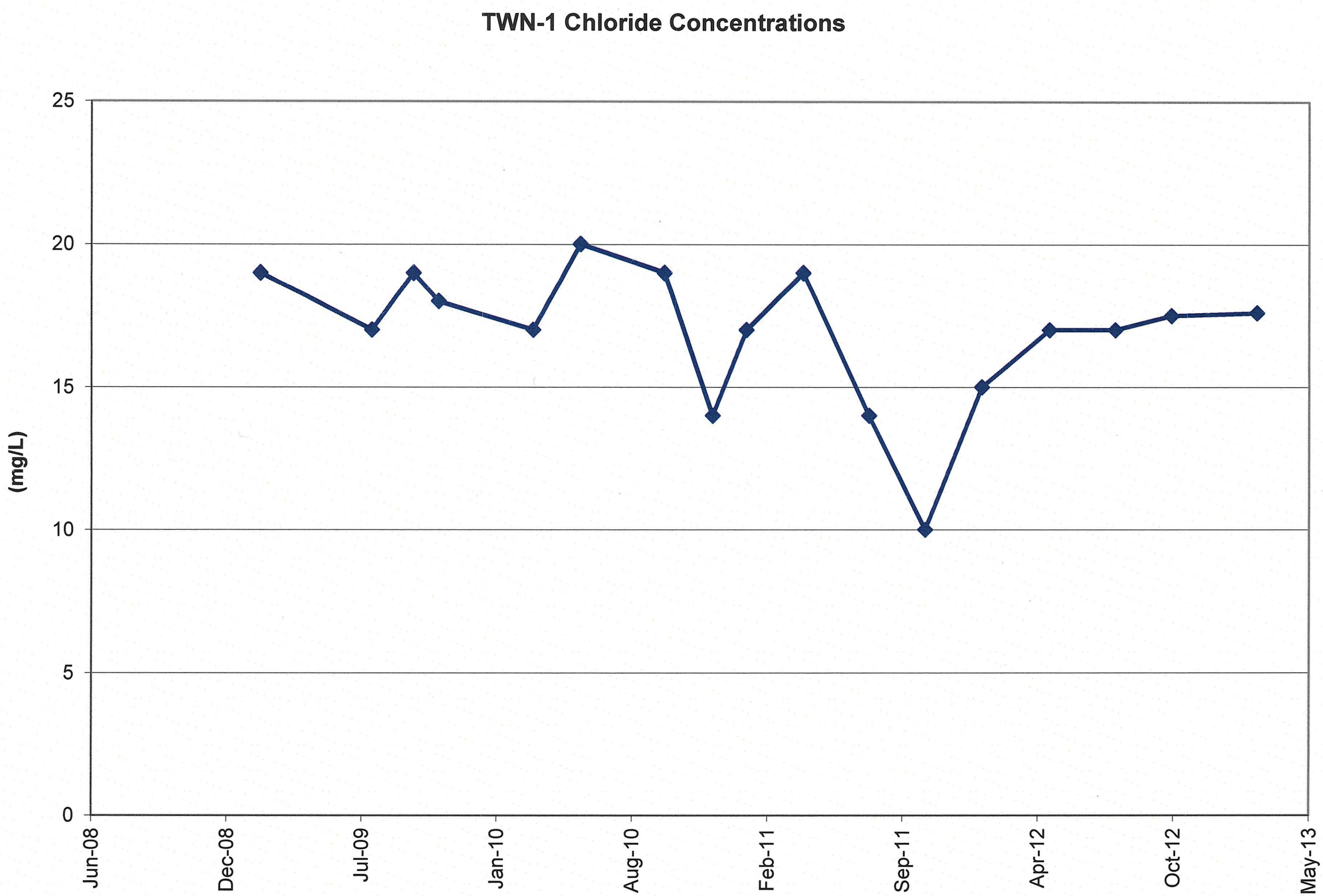
Date	Nitrate (mg/l)	Chloride (mg/l)	Notes
10/14/09	0	0	Nitrate ND

Tab K

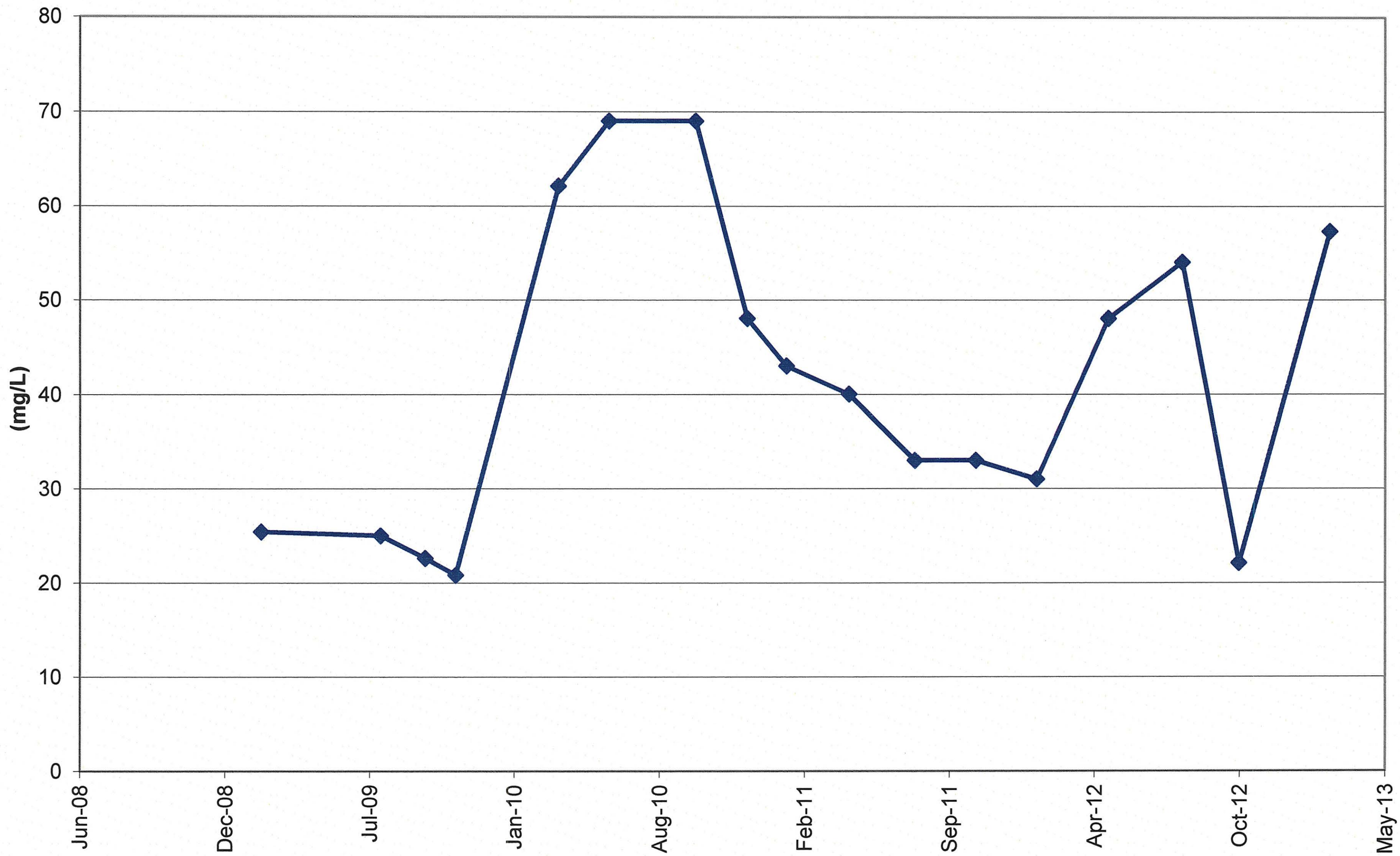
Concentration Trend Graphs

TWN-1 Nitrate Concentrations

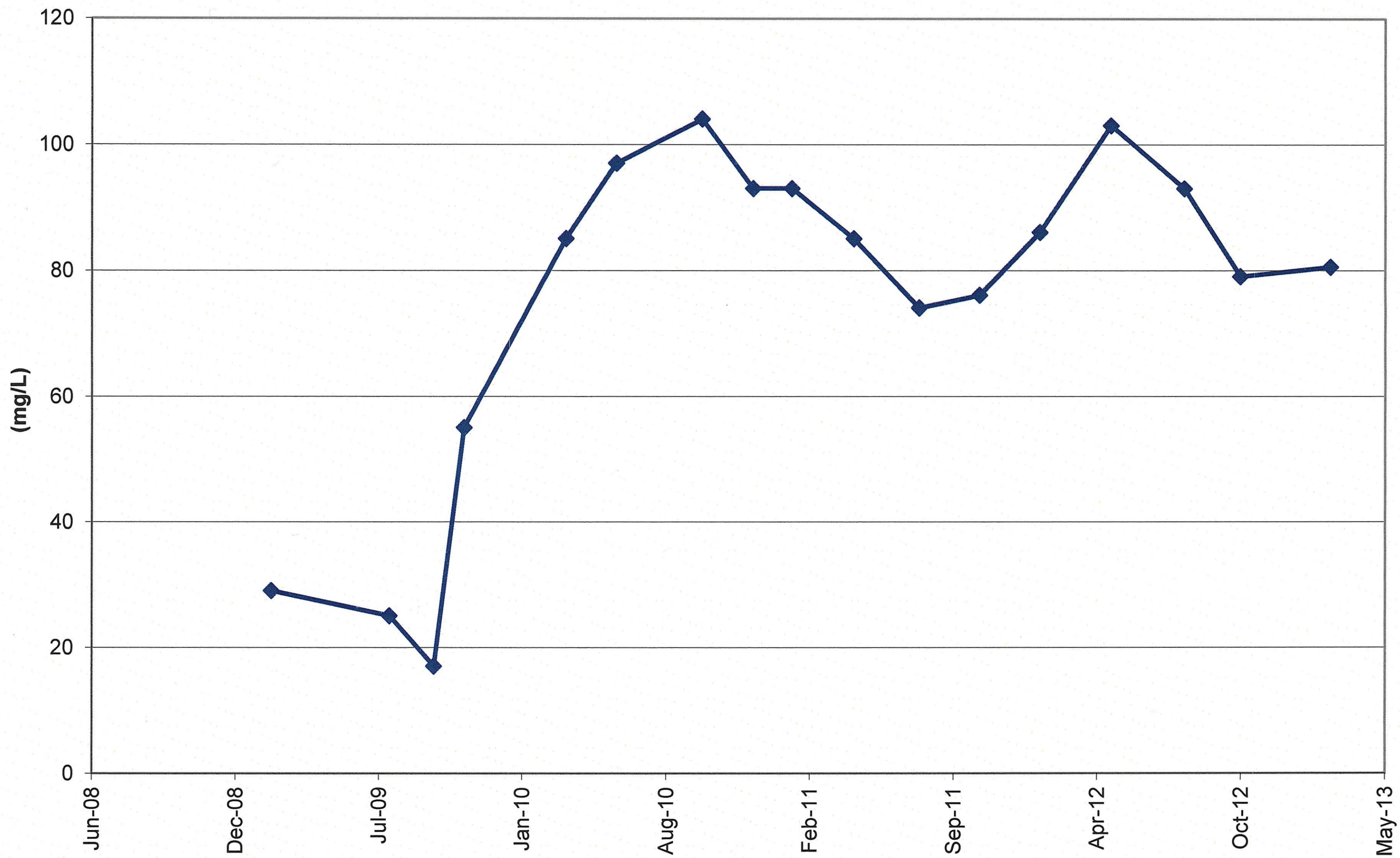



TWN-1 Chloride Concentrations
(mg/L)
25
20
15
10
5
0
Jun-08
Dec-08
Jul-09
Jan-10
Aug-10
Feb-11
Sep-11
Apr-12
Oct-12
May-13

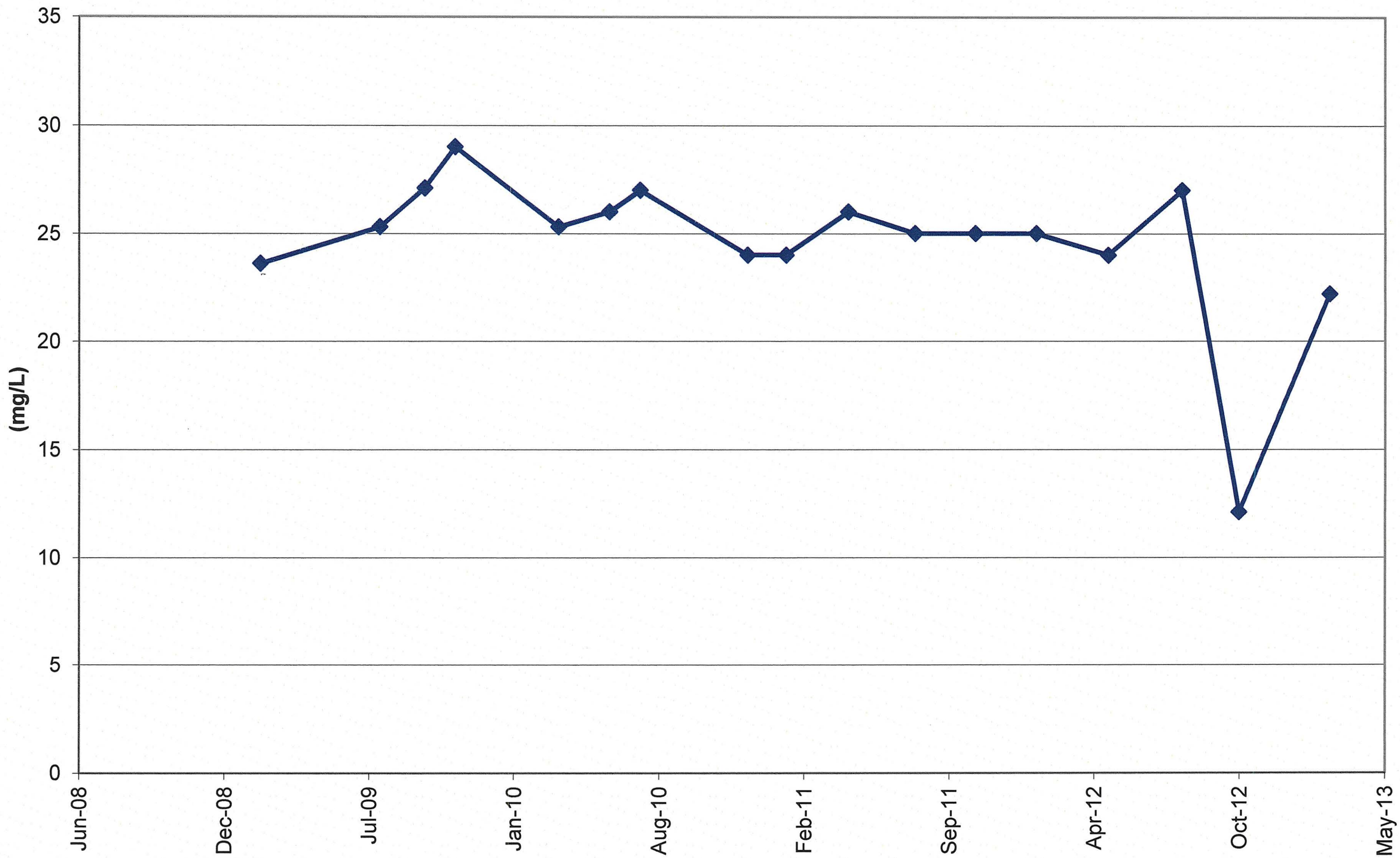
TWN-2 Nitrate Concentrations



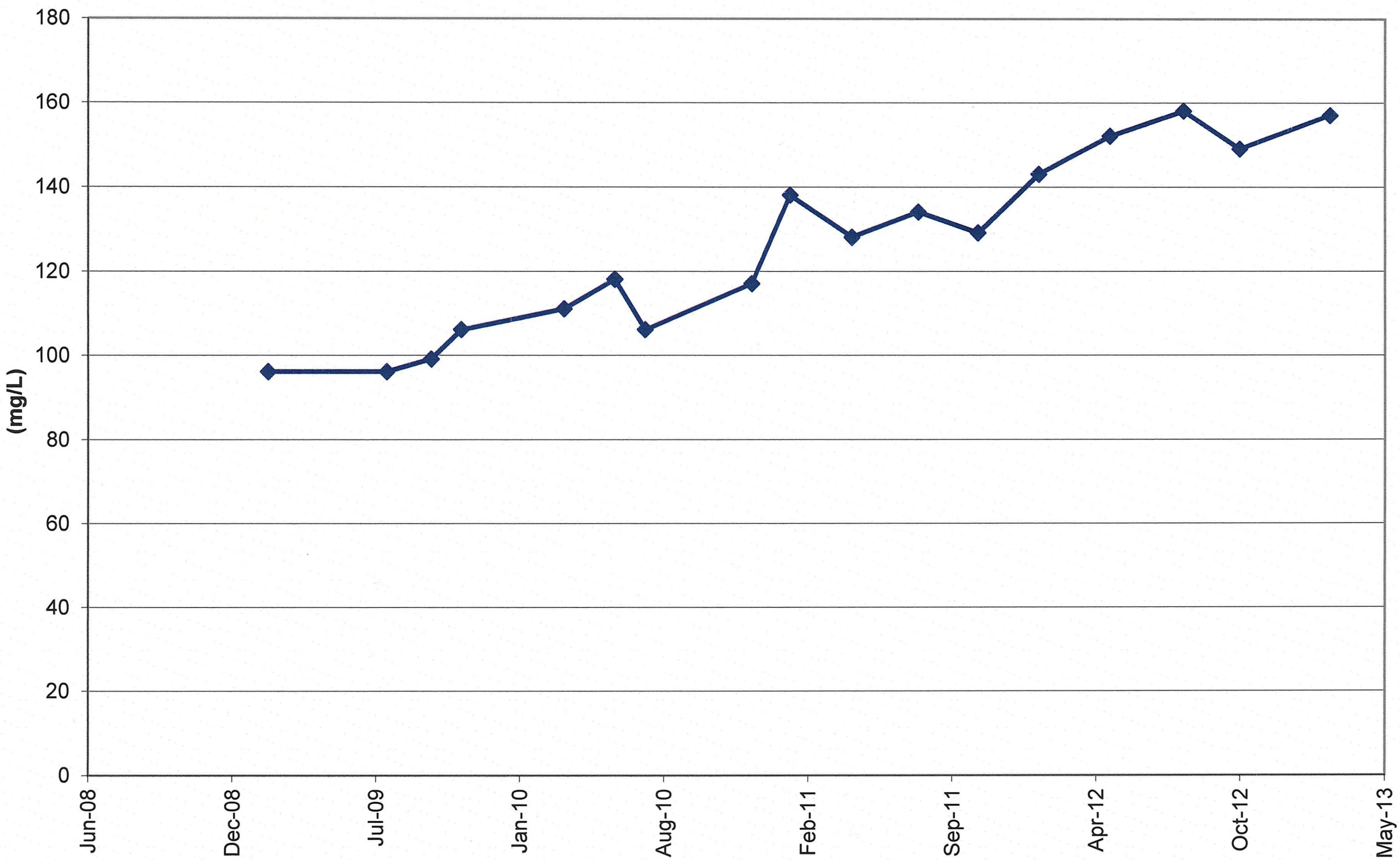
TWN-2 Chloride Concentrations



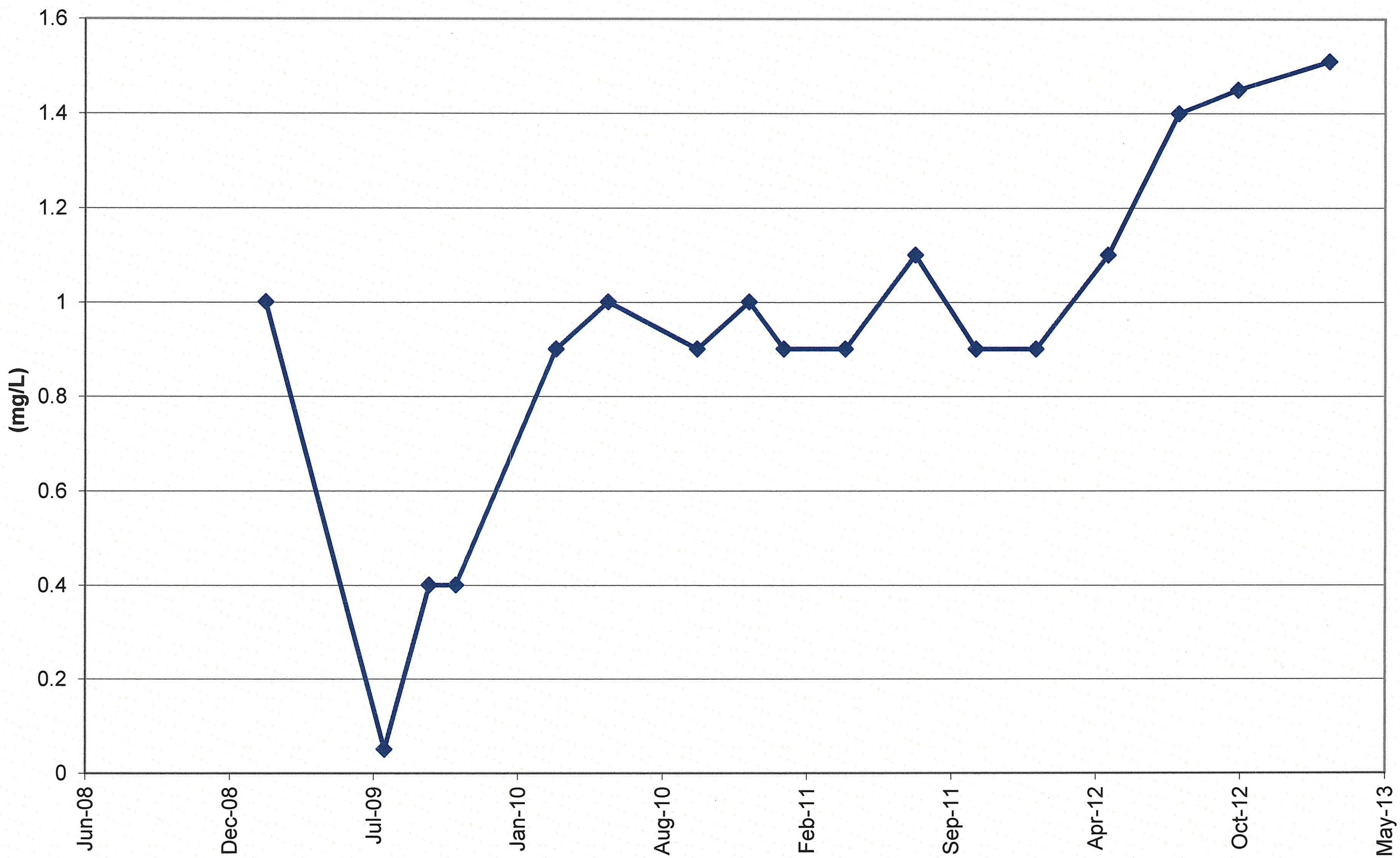
TWN-3 Nitrate Concentrations



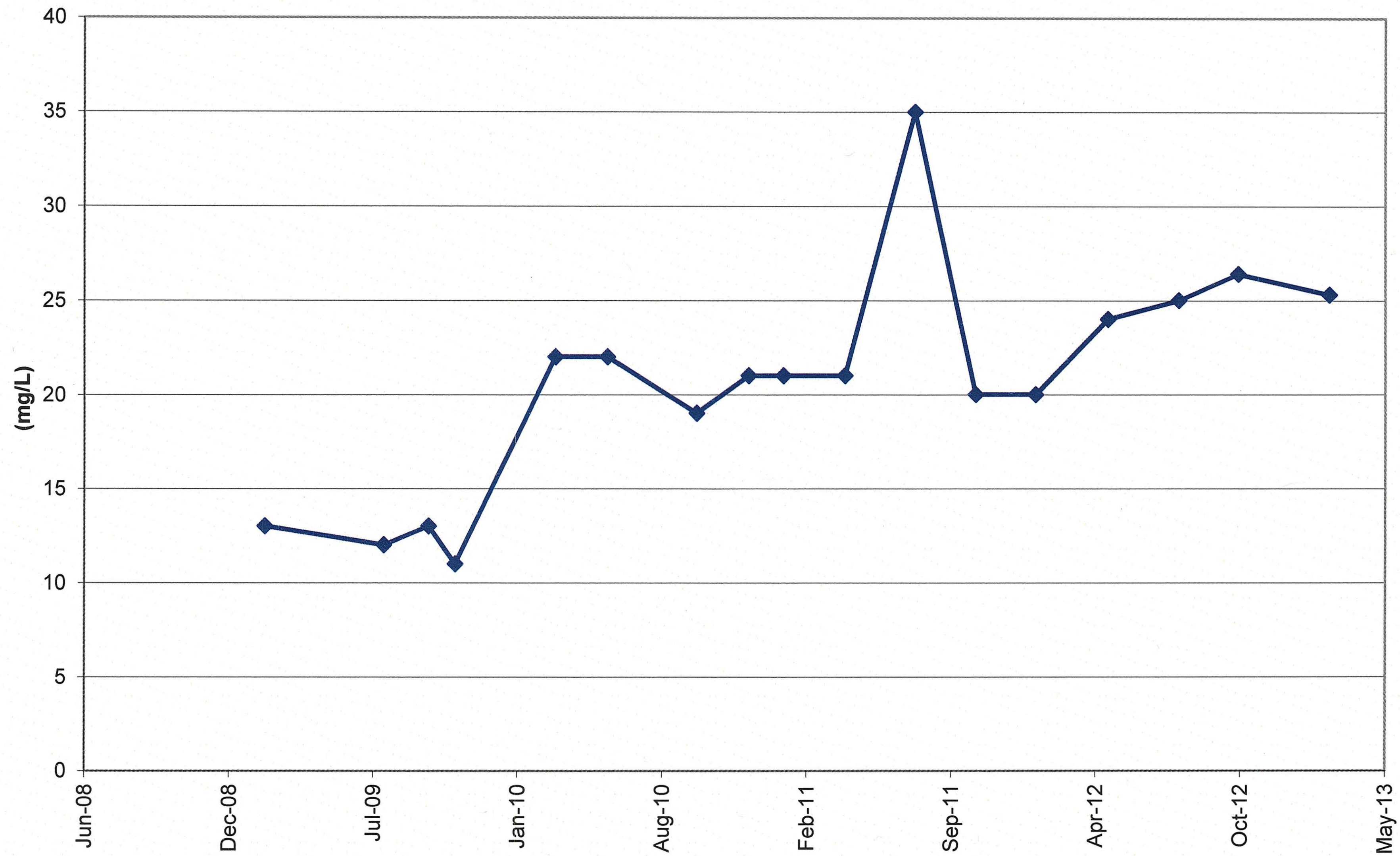
TWN-3 Chloride Concentrations

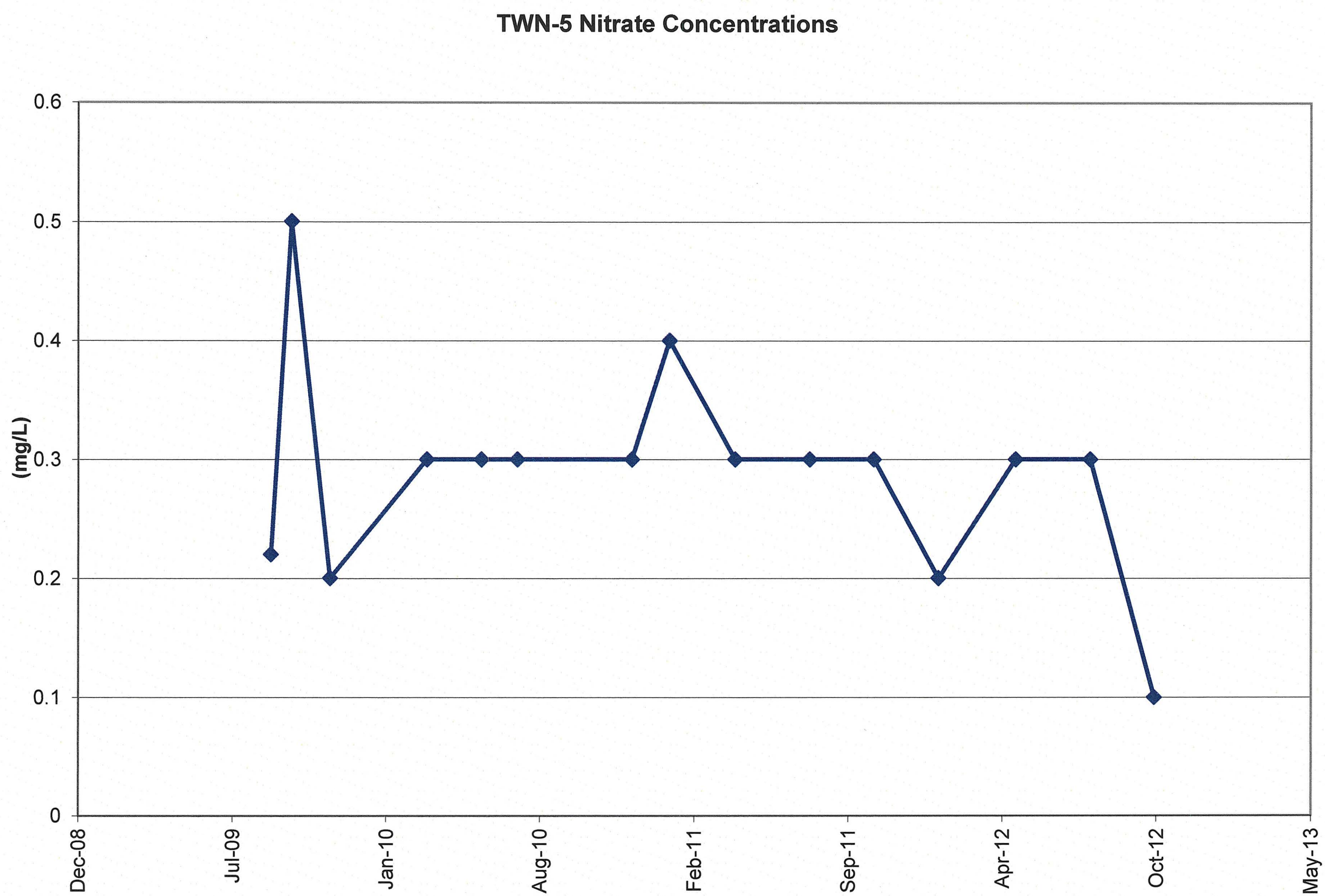


TWN-4 Nitrate Concentrations



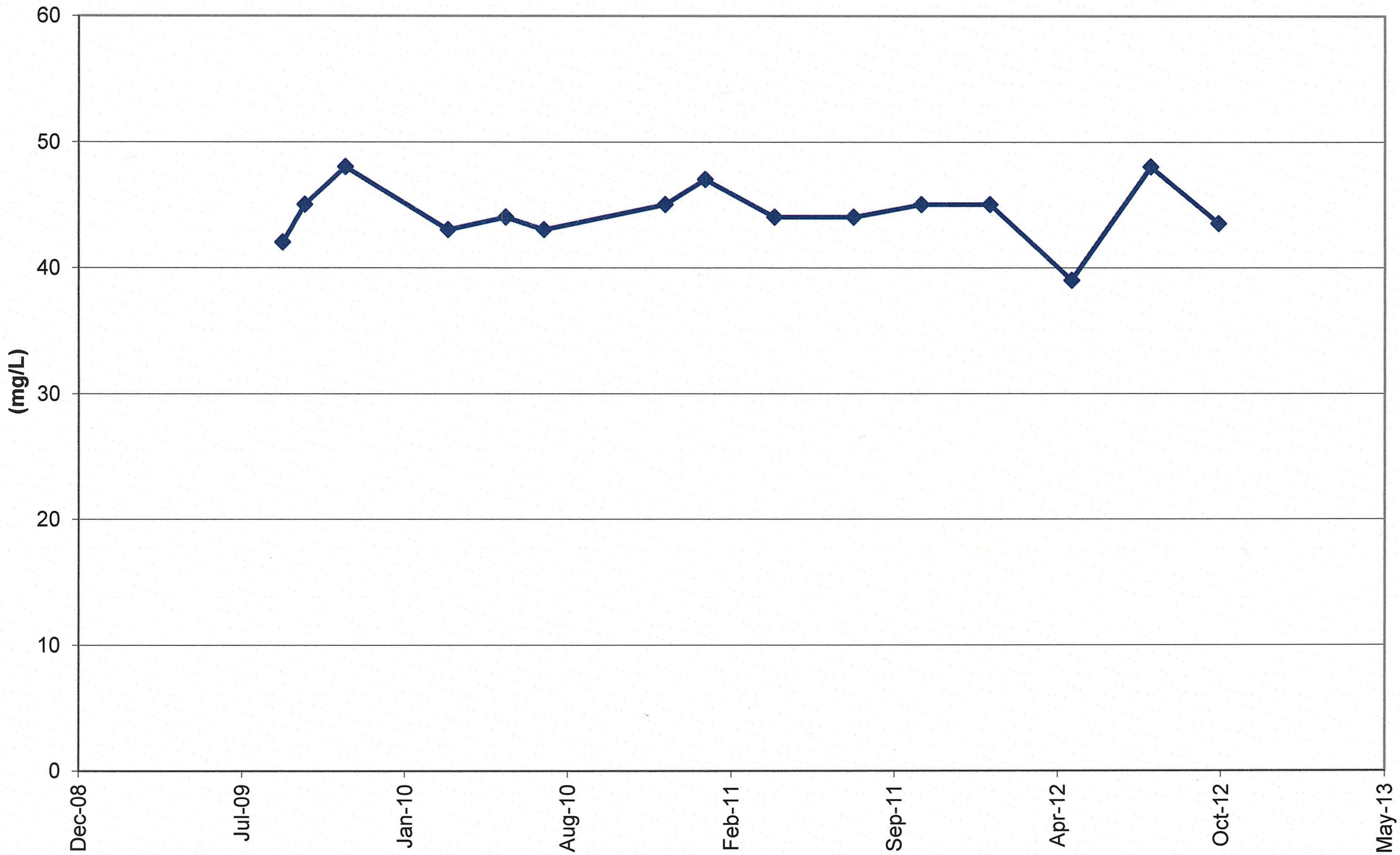
TWN-4 Chloride Concentrations

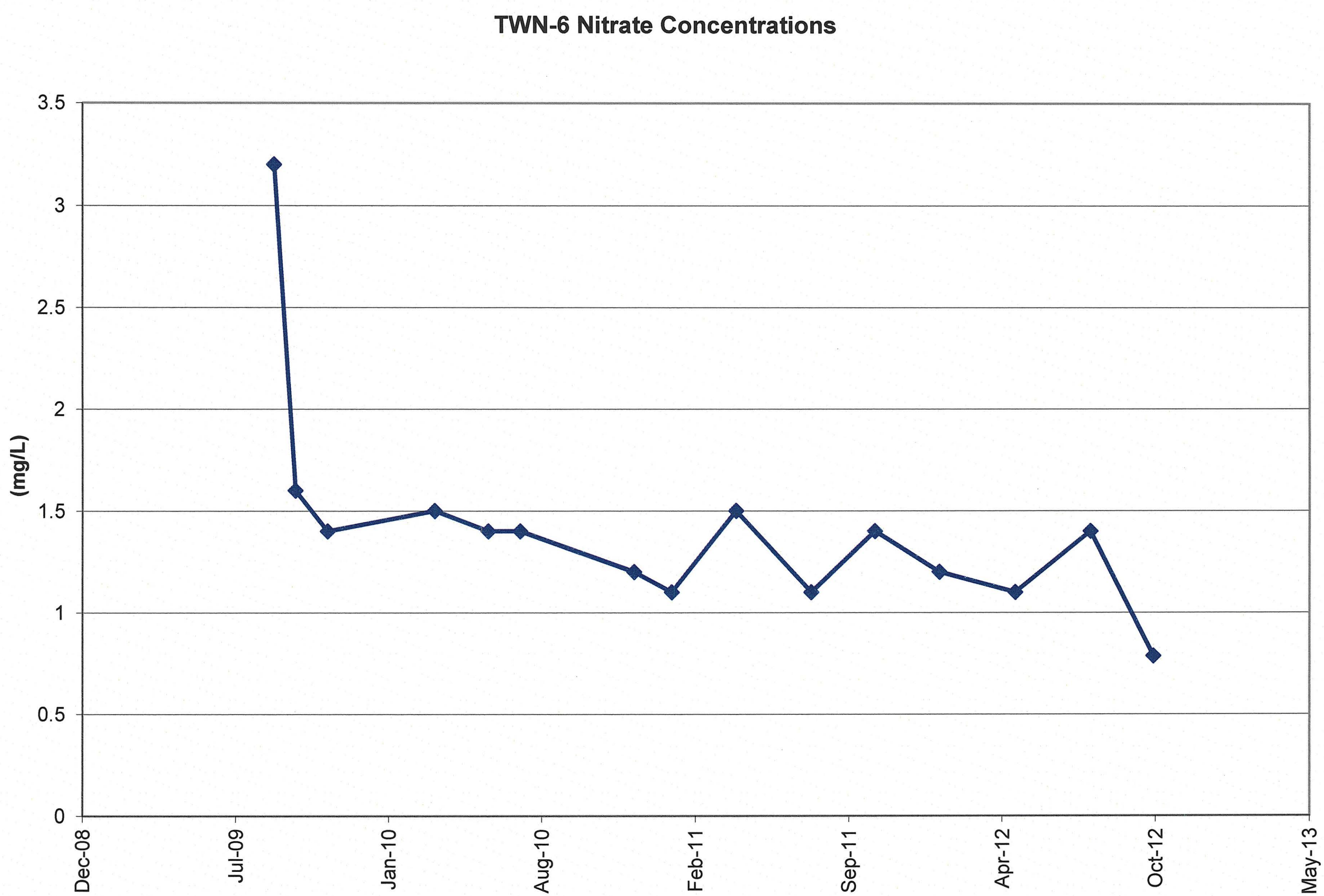




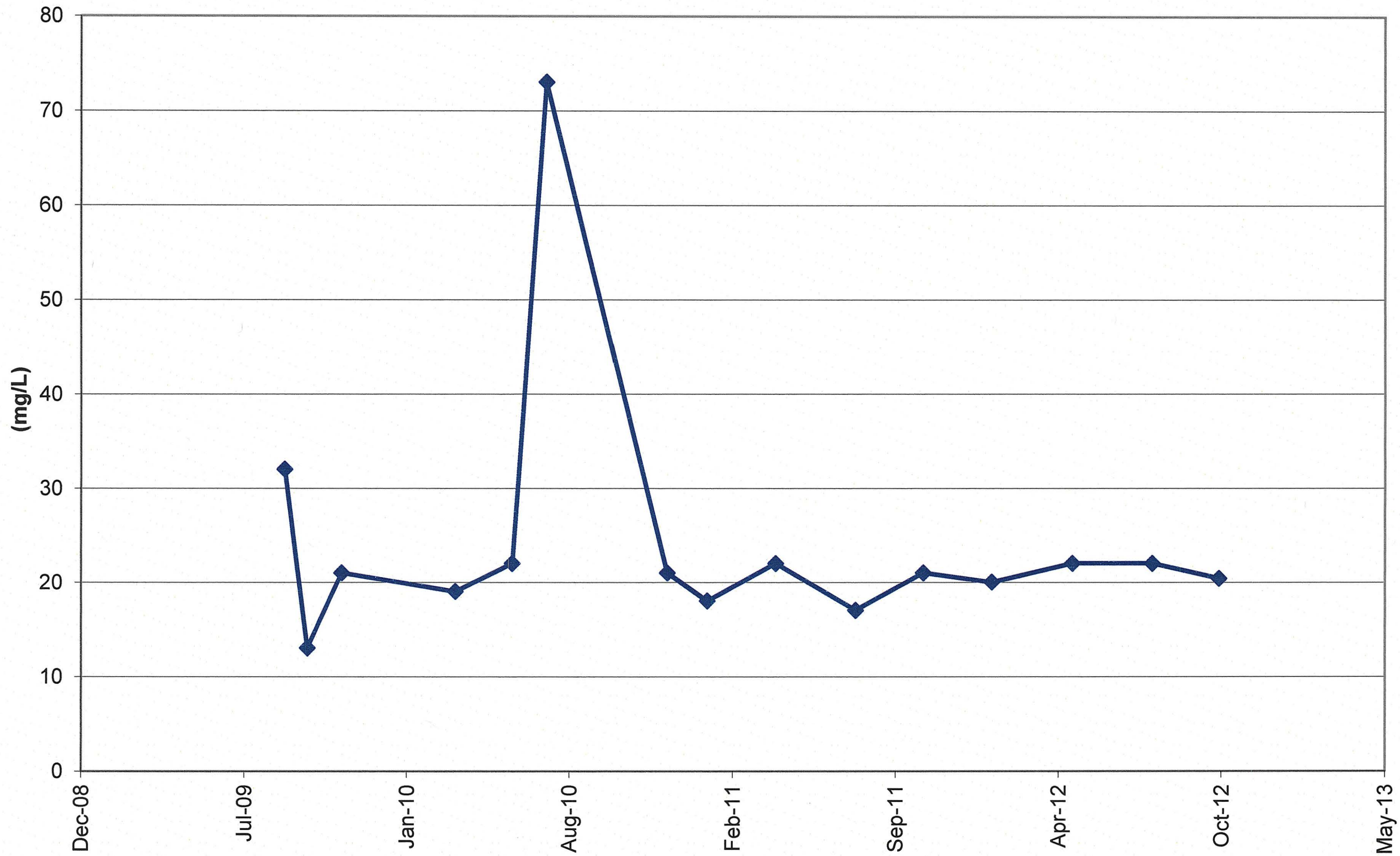
TWN-5 Nitrate Concentrations
(mg/L)
0.6
0.5
0.4
0.3
0.2
0.1
0
Dec-08
Jul-09
Jan-10
Aug-10
Feb-11
Sep-11
Apr-12
Oct-12
May-13

TWN-5 Chloride Concentrations

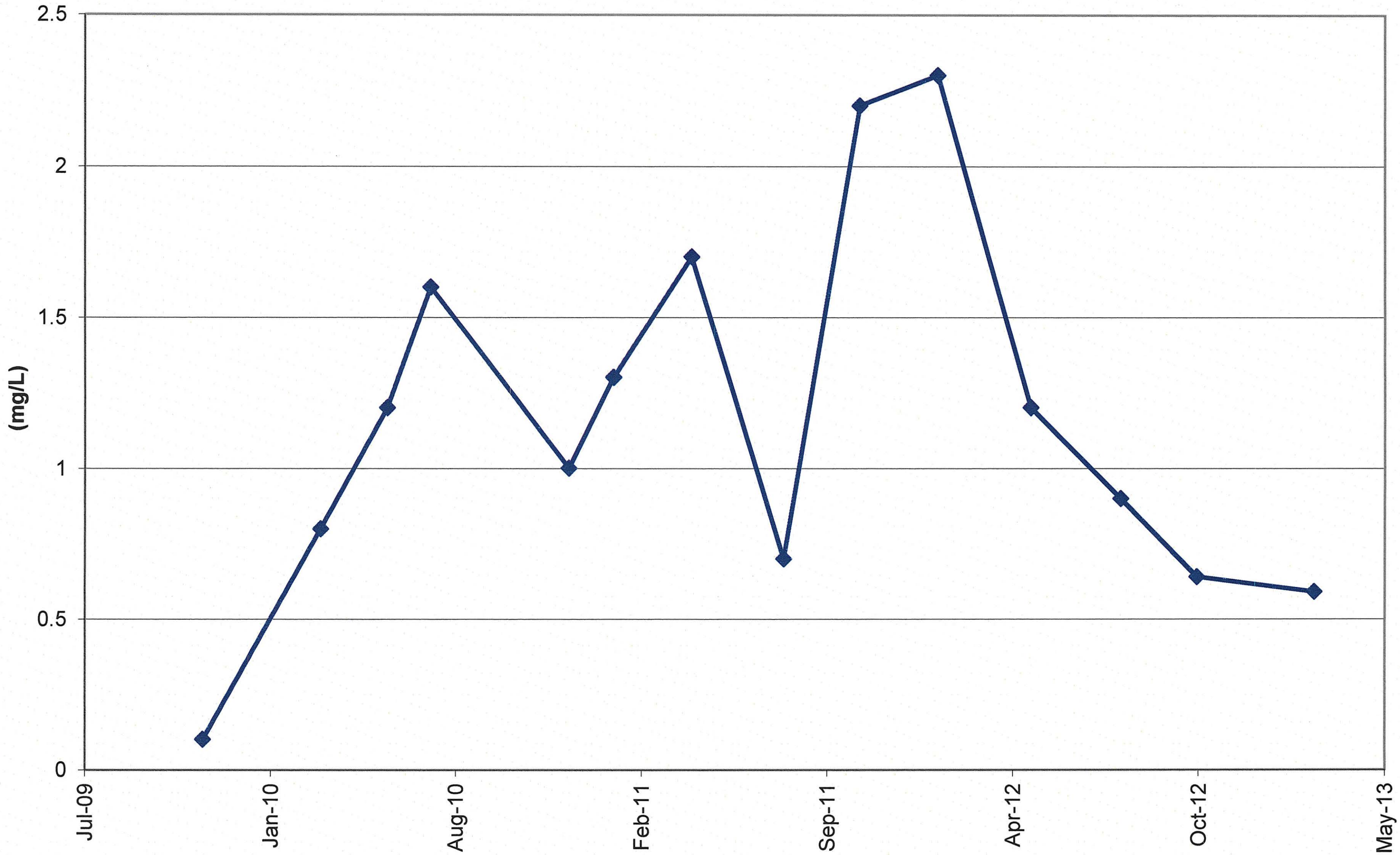


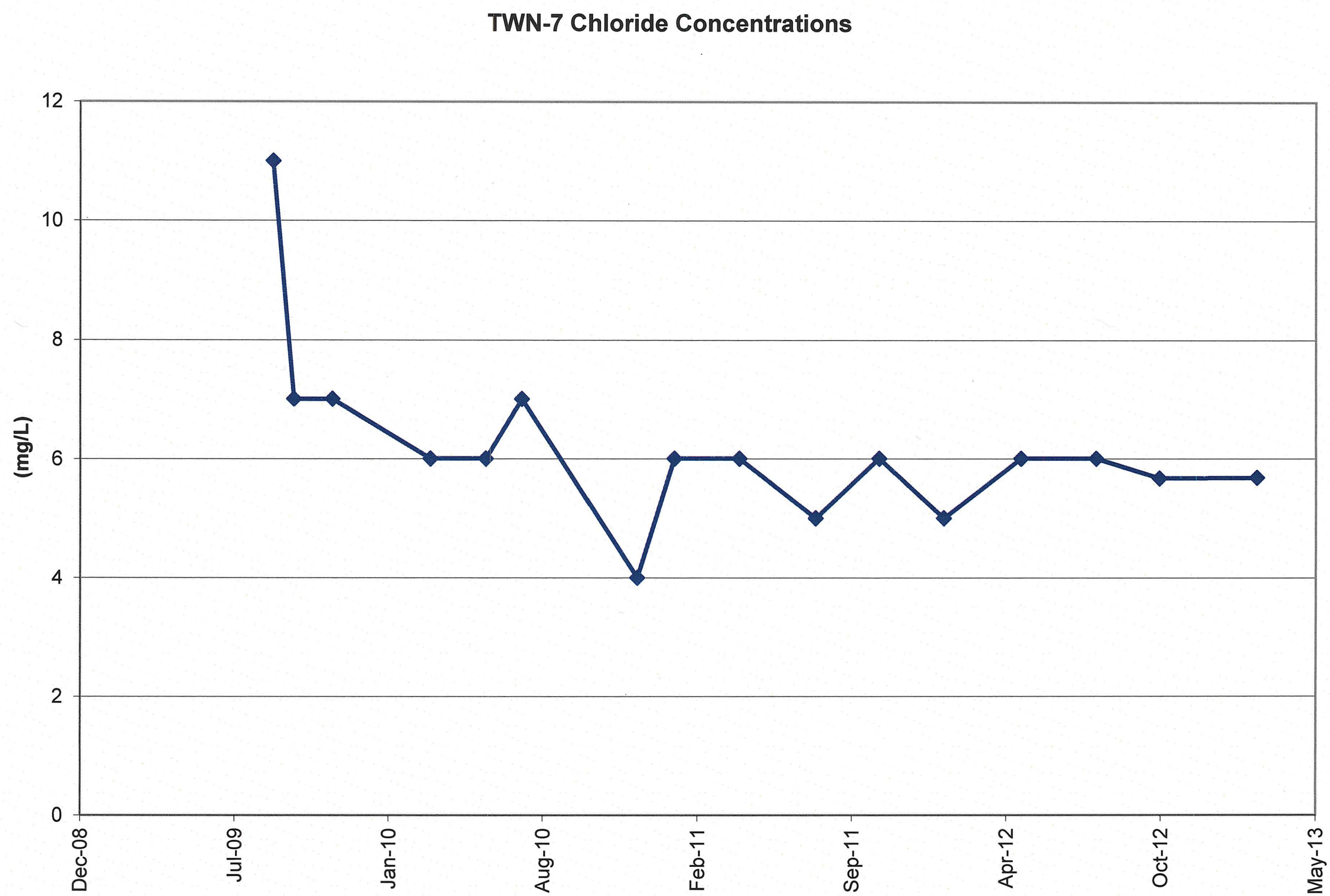

TWN-6 Nitrate Concentrations
(mg/L)
3.5
3
2.5
2
1.5
1
0.5
0
Dec-08
Jul-09
Jan-10
Aug-10
Feb-11
Sep-11
Apr-12
Oct-12
May-13

TWN-6 Chloride Concentrations

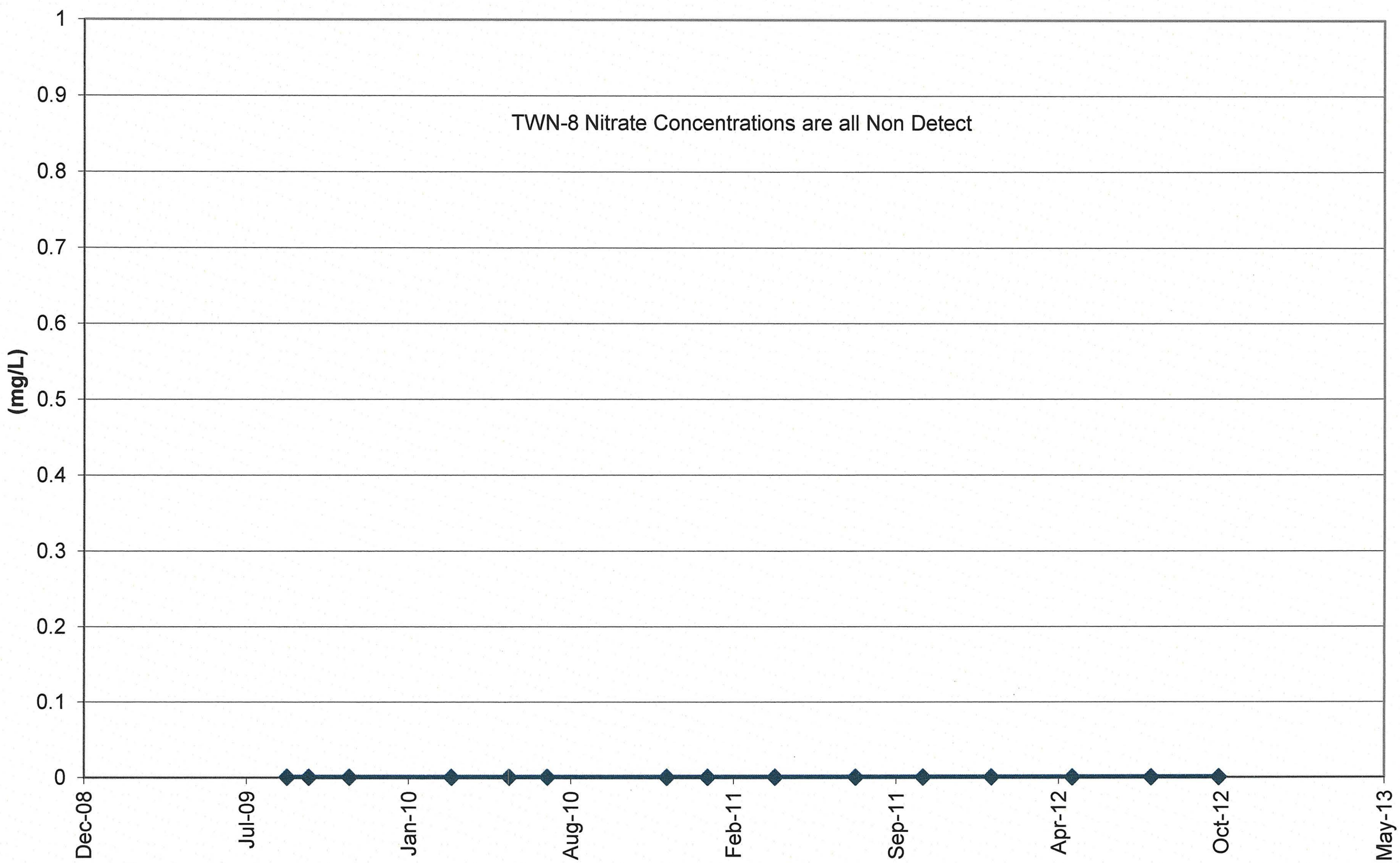


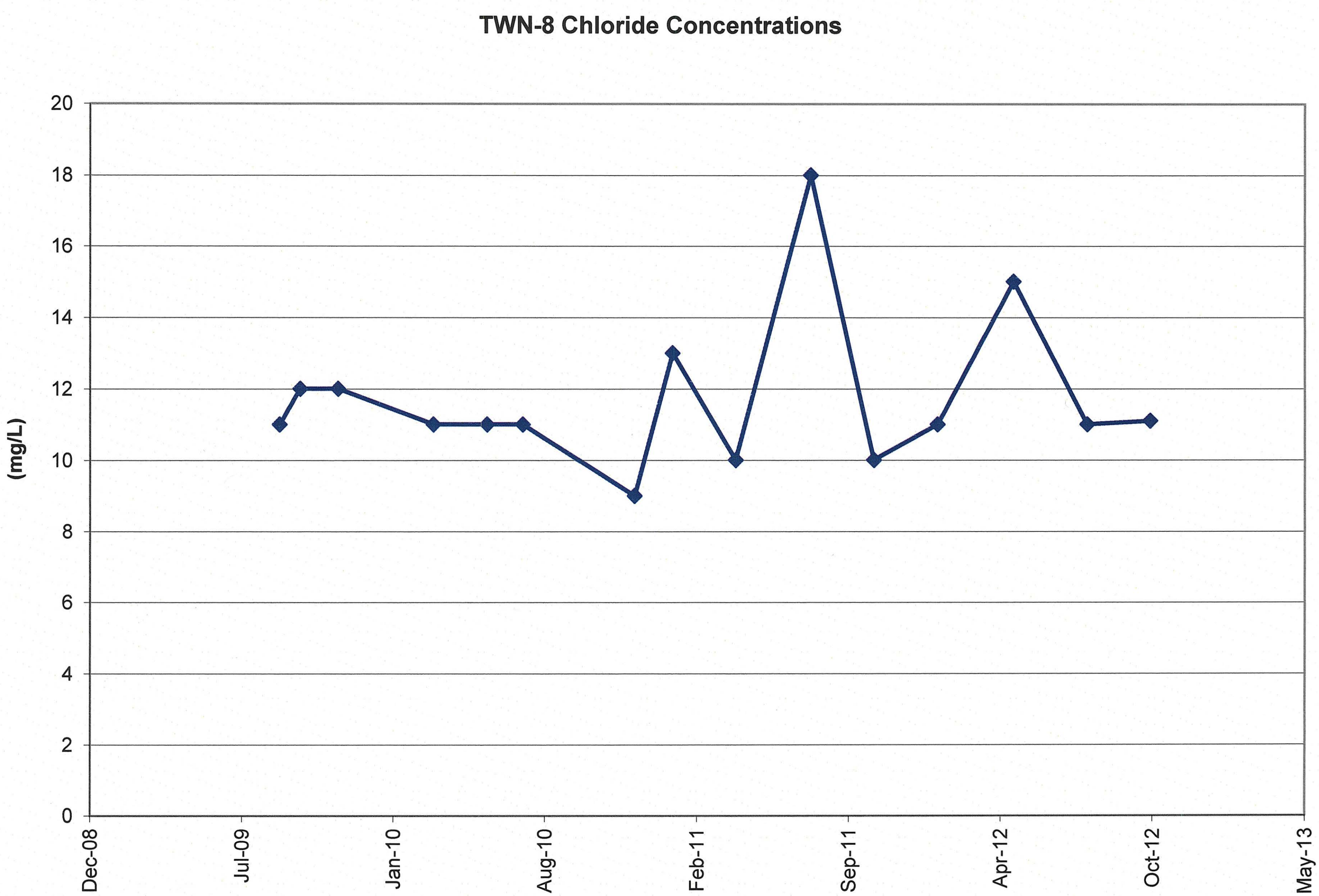
TWN-7 Nitrate Concentrations



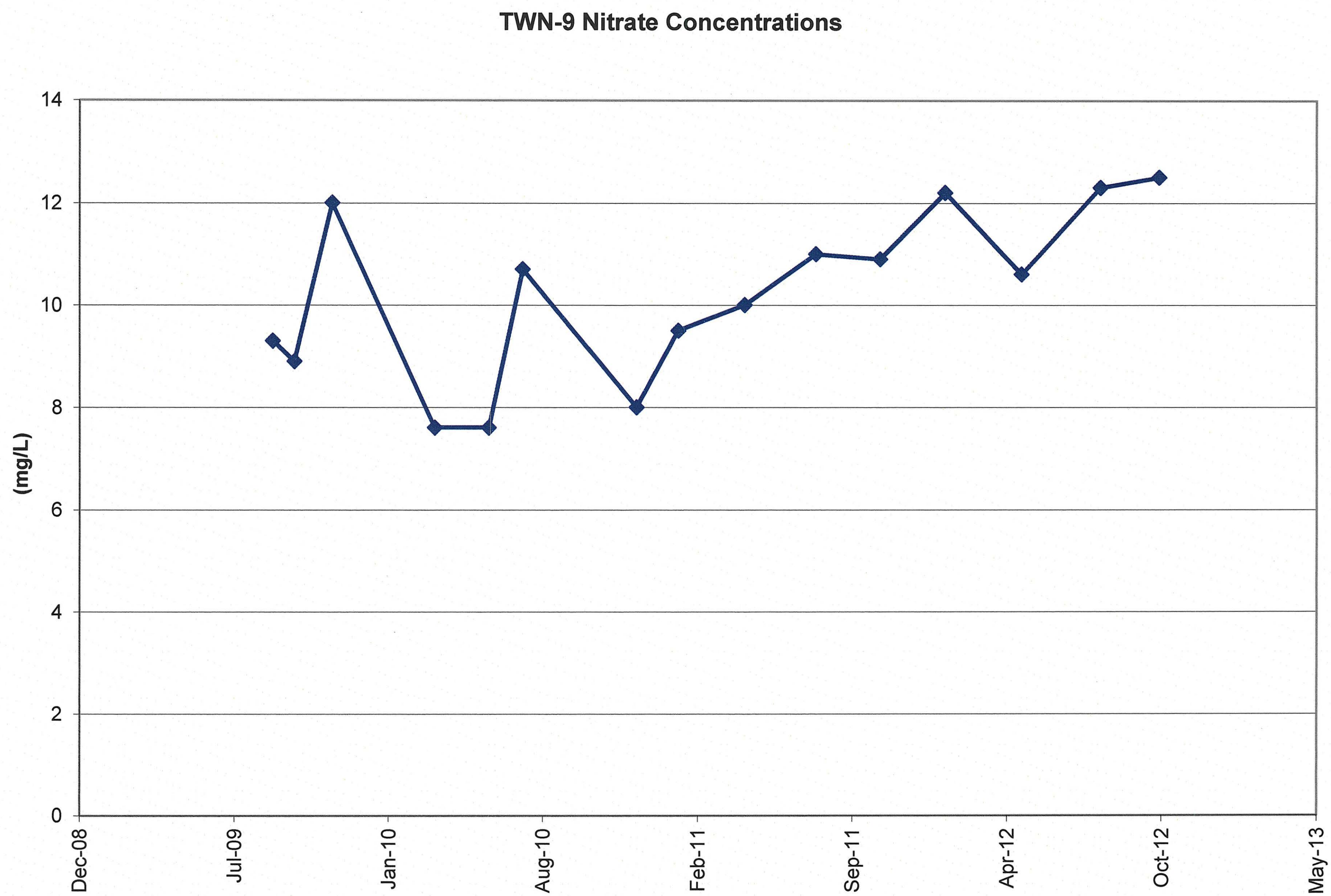

TWN-7 Chloride Concentrations
(mg/L)
12
10
8
6
4
2
0
Dec-08
Jul-09
Jan-10
Aug-10
Feb-11
Sep-11
Apr-12
Oct-12
May-13

TWN-8 Nitrate Concentrations

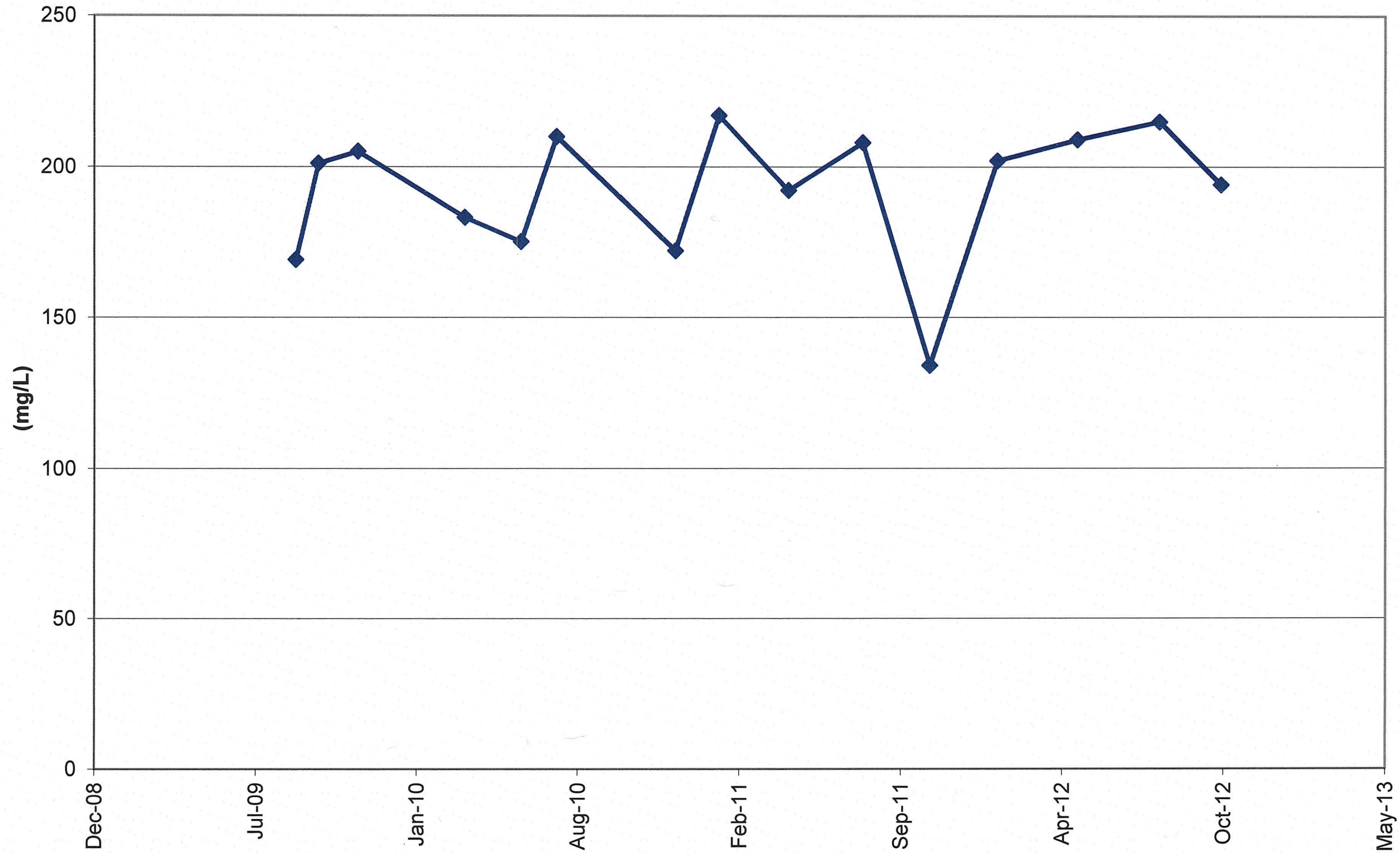


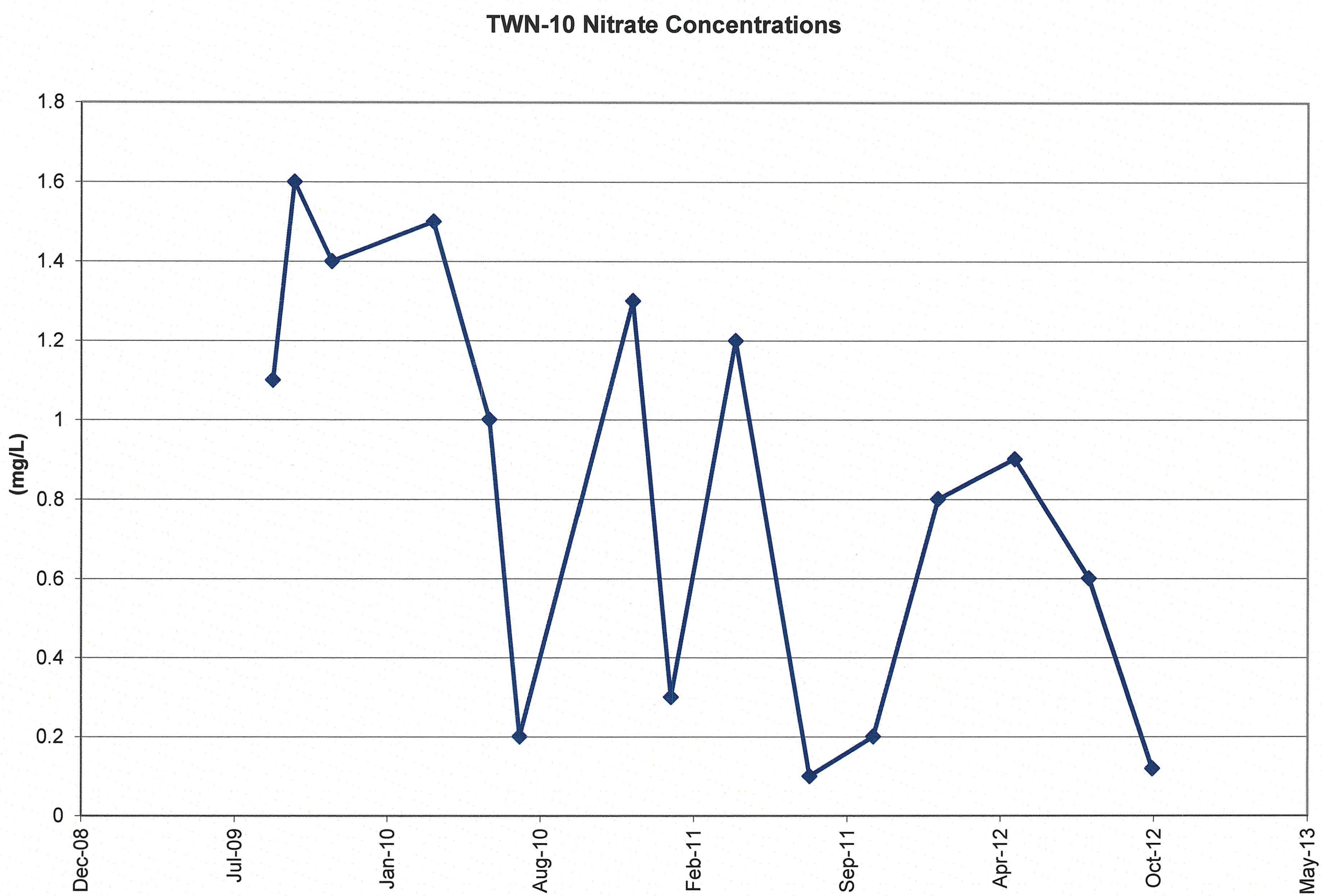


TWN-8 Chloride Concentrations
(mg/L)
20
18
16
14
12
10
8
6
4
2
0
Dec-08
Jul-09
Jan-10
Aug-10
Feb-11
Sep-11
Apr-12
Oct-12
May-13


TWN-9 Nitrate Concentrations
(mg/L)
14
12
10
8
6
4
2
0
Dec-08
Jul-09
Jan-10
Aug-10
Feb-11
Sep-11
Apr-12
Oct-12
May-13

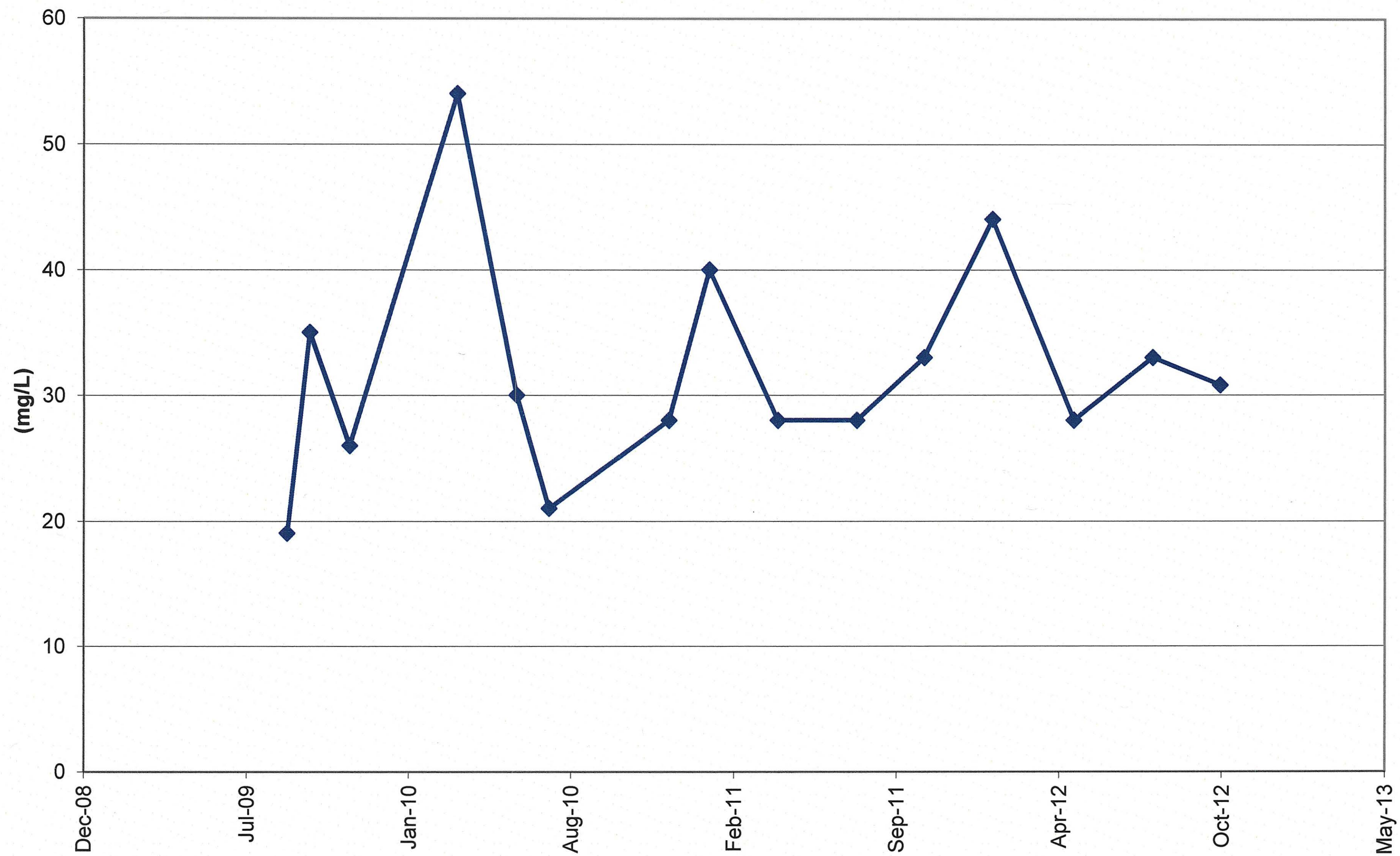
TWN-9 Chloride Concentrations



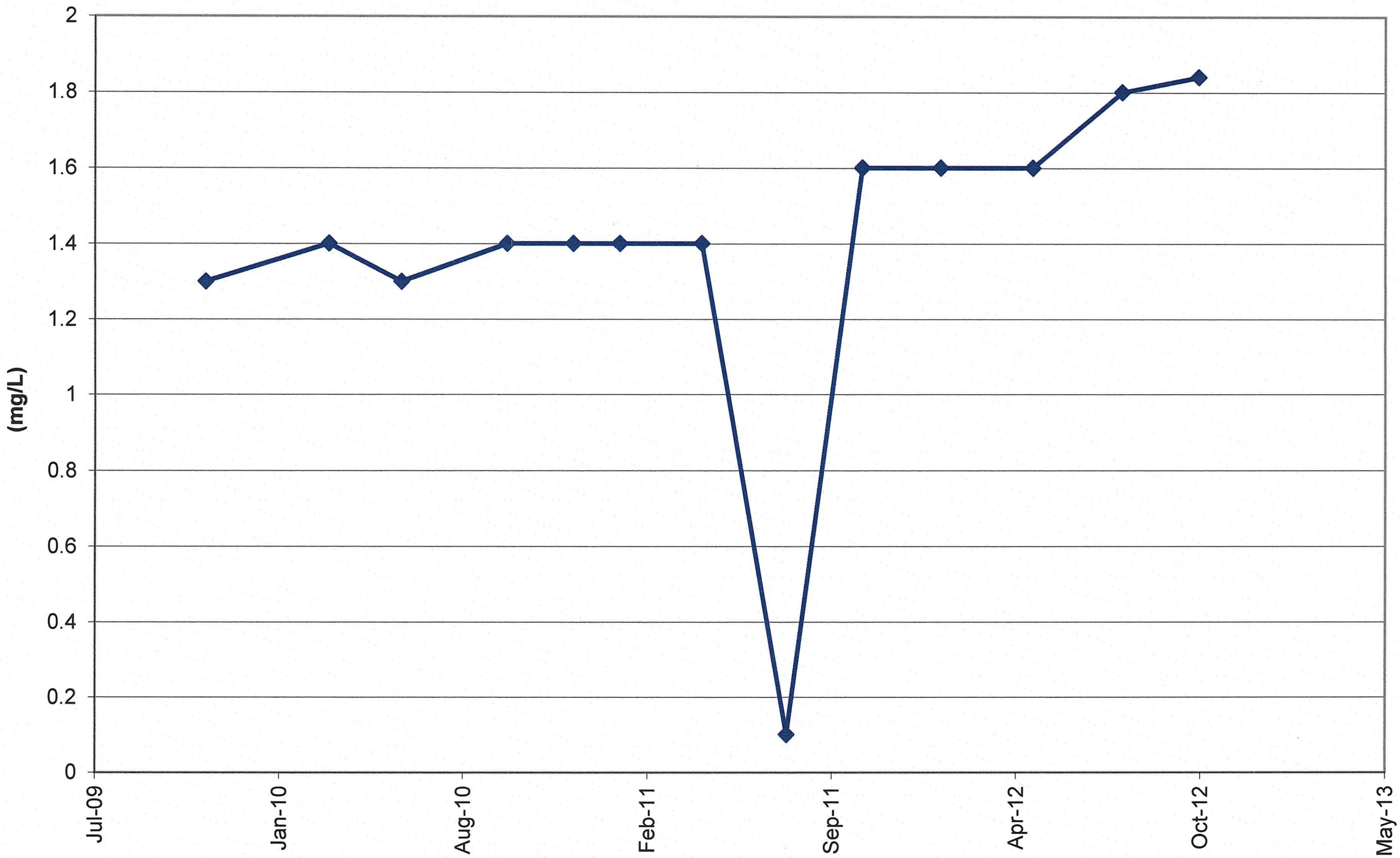


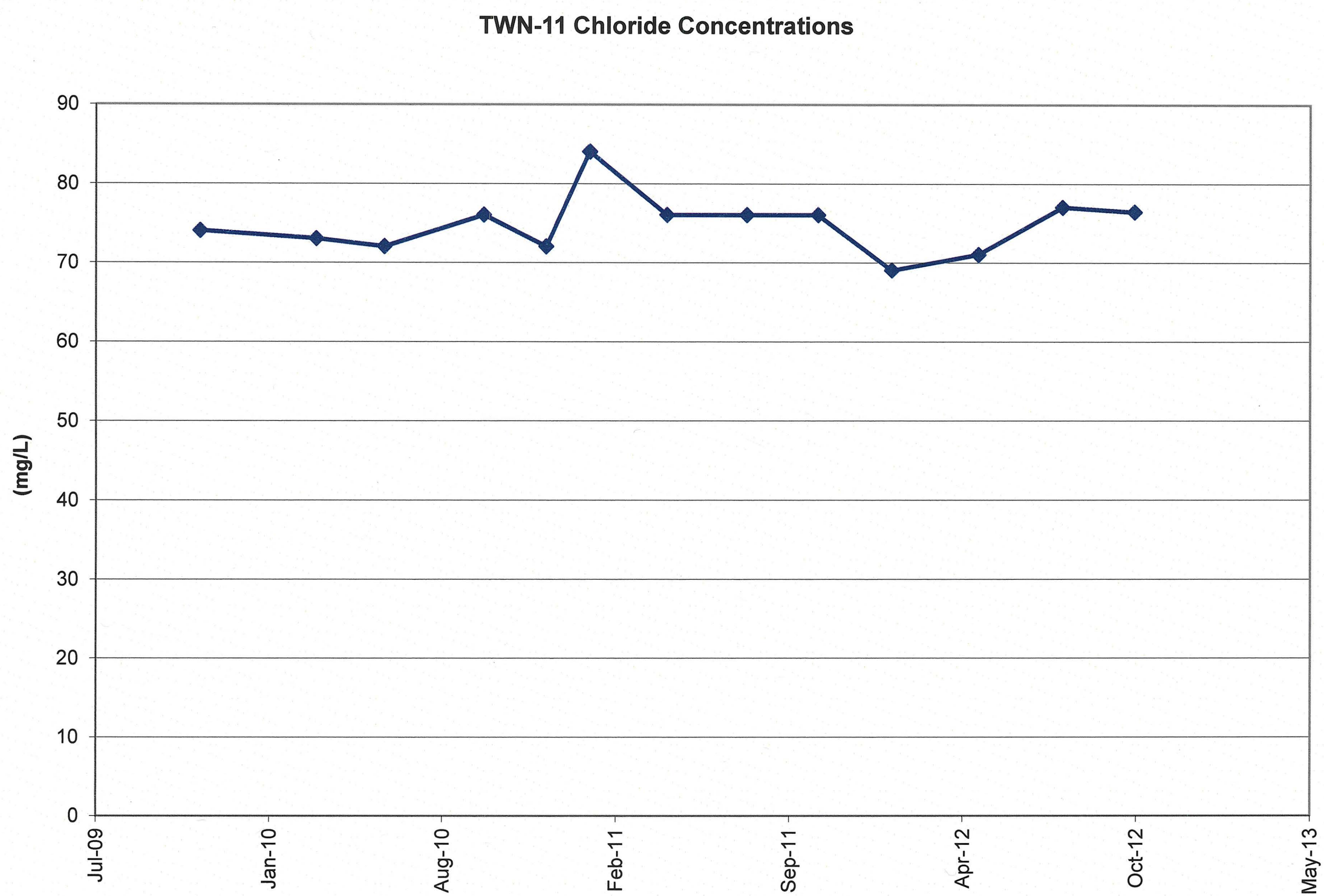
TWN-10 Nitrate Concentrations
(mg/L)
1.8
1.6
1.4
1.2
1
0.8
0.6
0.4
0.2
0
Dec-08
Jul-09
Jan-10
Aug-10
Feb-11
Sep-11
Apr-12
Oct-12
May-13

TWN-10 Chloride Concentrations

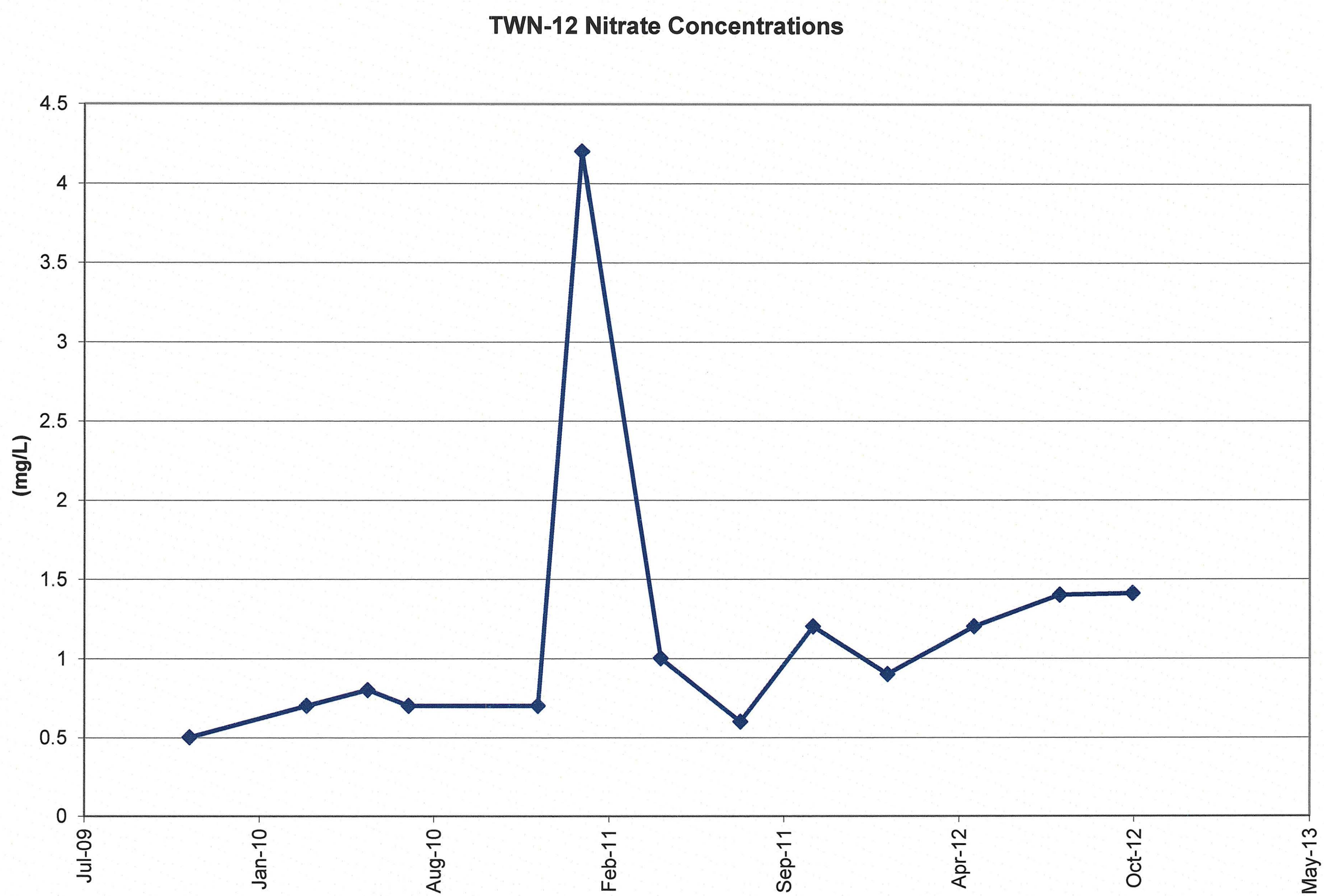


TWN-11 Nitrate Concentrations

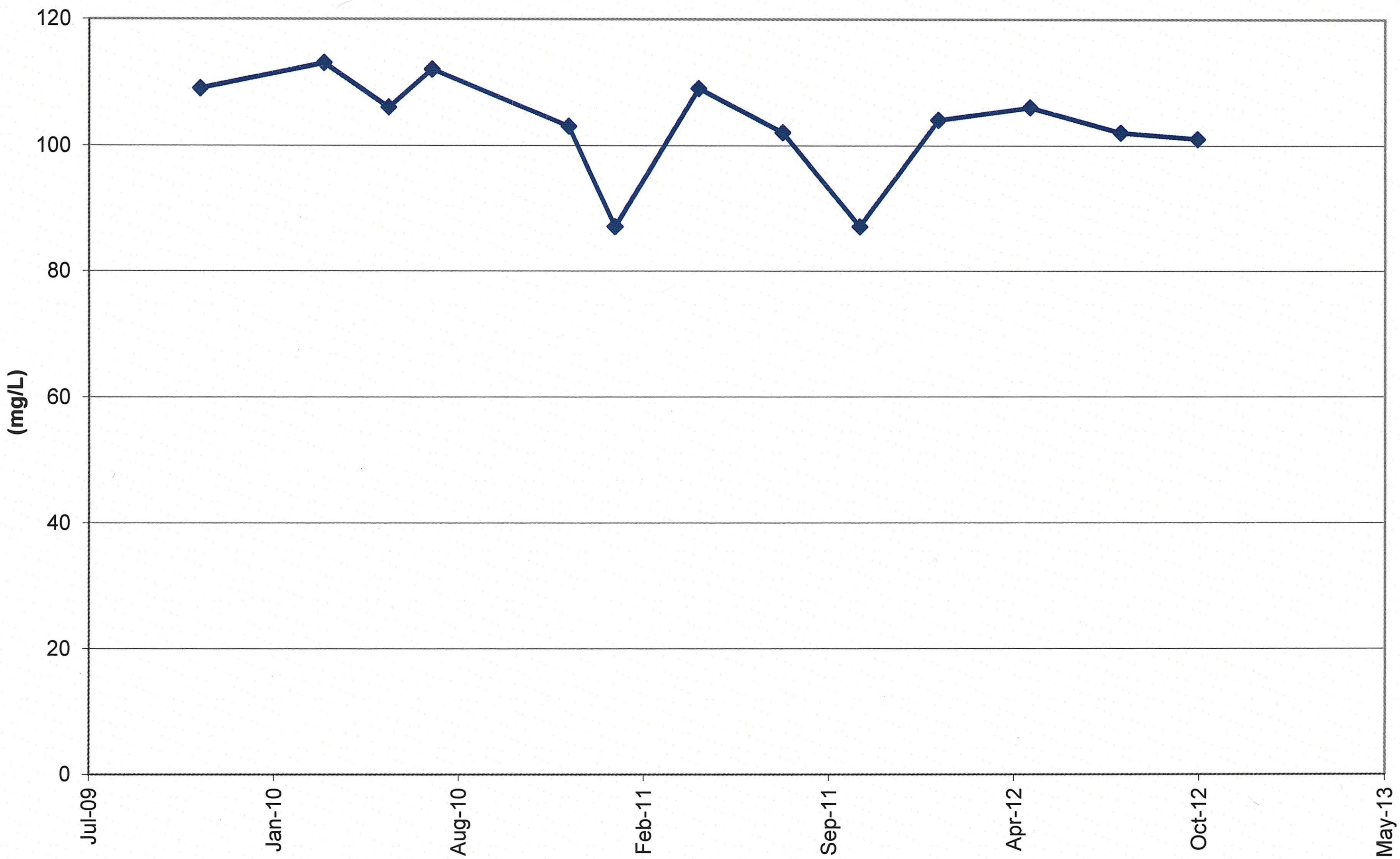


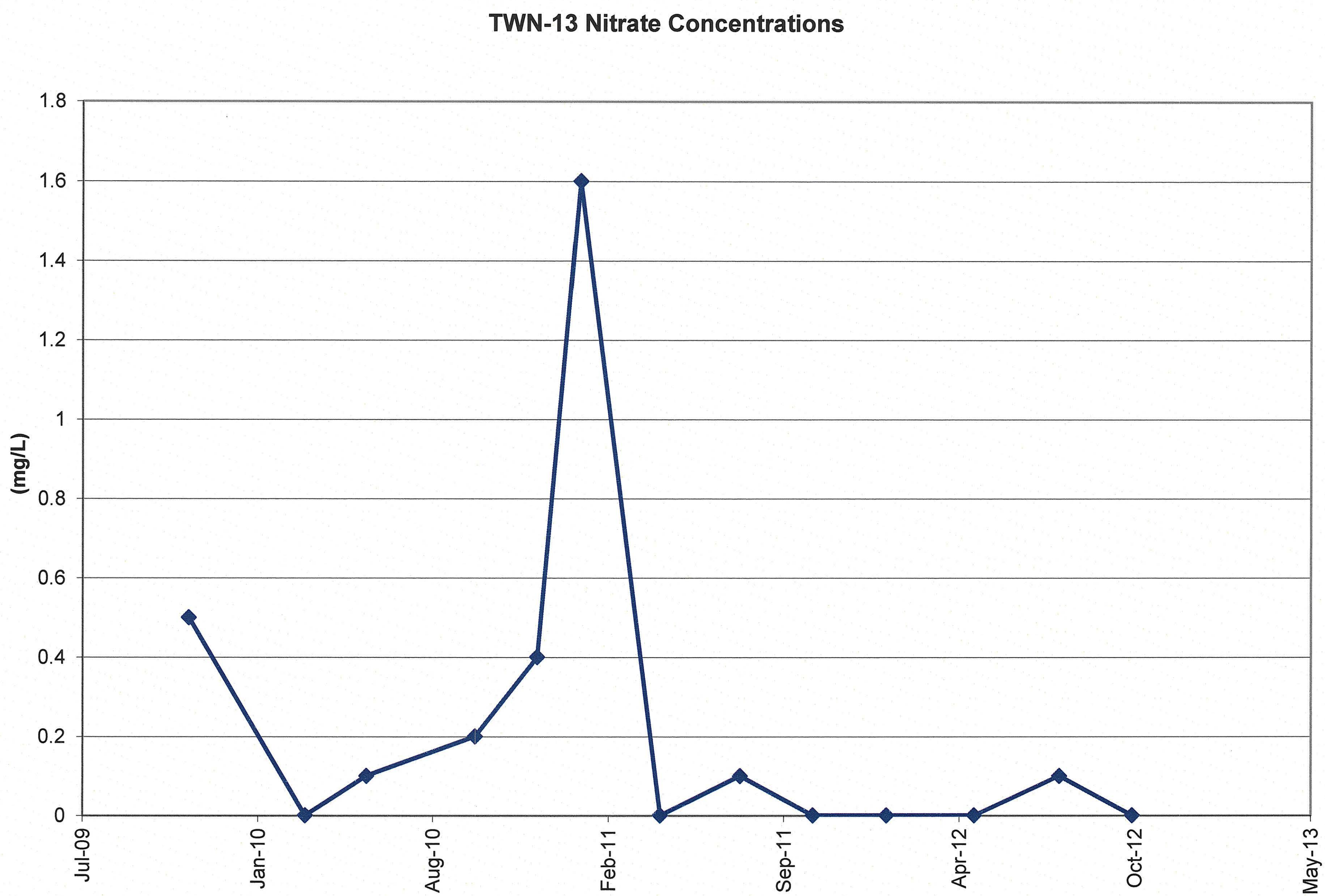


TWN-11 Chloride Concentrations
(mg/L)
90
80
70
60
50
40
30
20
10
0
Jul-09
Jan-10
Aug-10
Feb-11
Sep-11
Apr-12
Oct-12
May-13


TWN-12 Nitrate Concentrations
(mg/L)
4.5
4
3.5
3
2.5
2
1.5
1
0.5
0
Jul-09
Jan-10
Aug-10
Feb-11
Sep-11
Apr-12
Oct-12
May-13

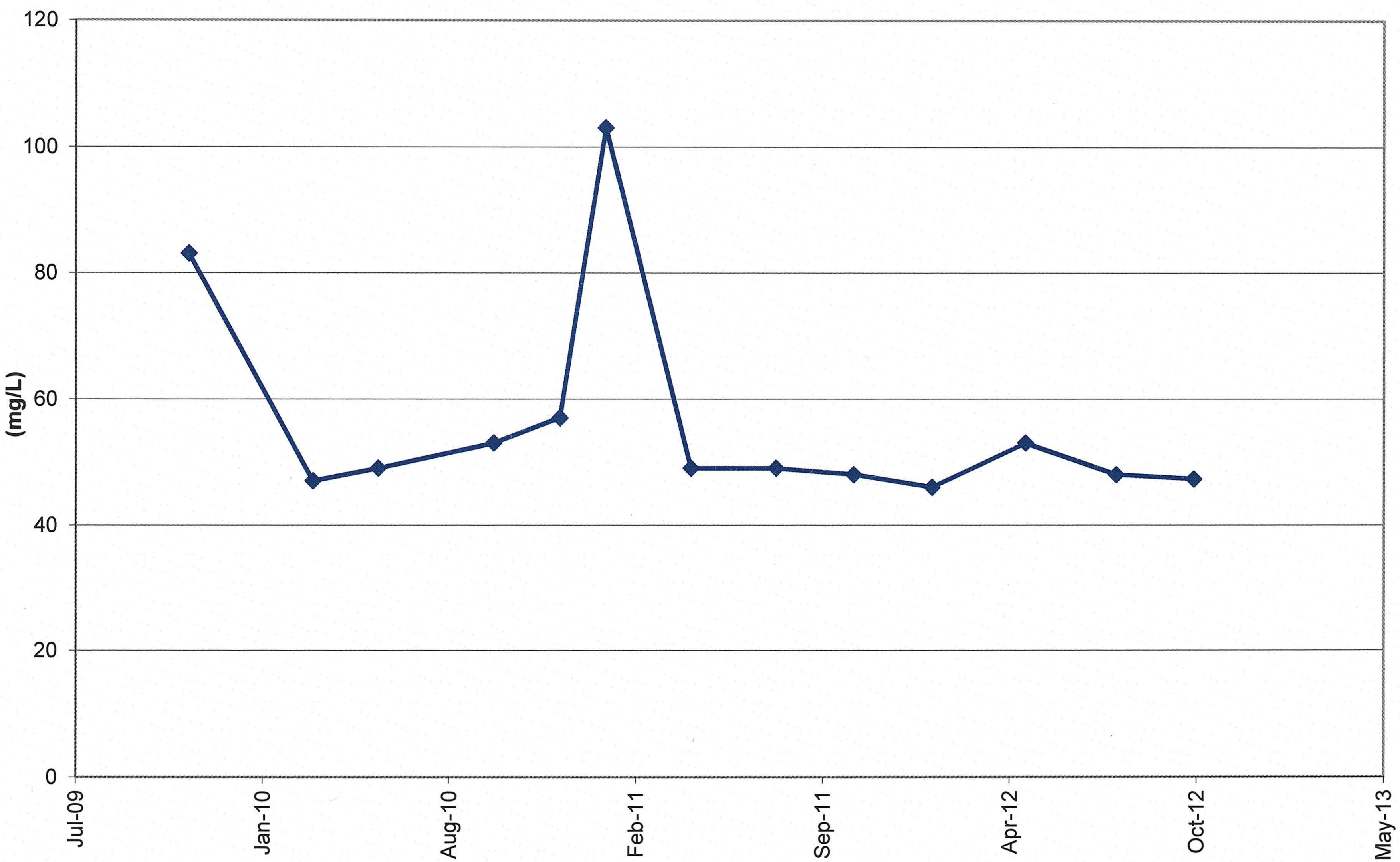
TWN-12 Chloride Concentrations



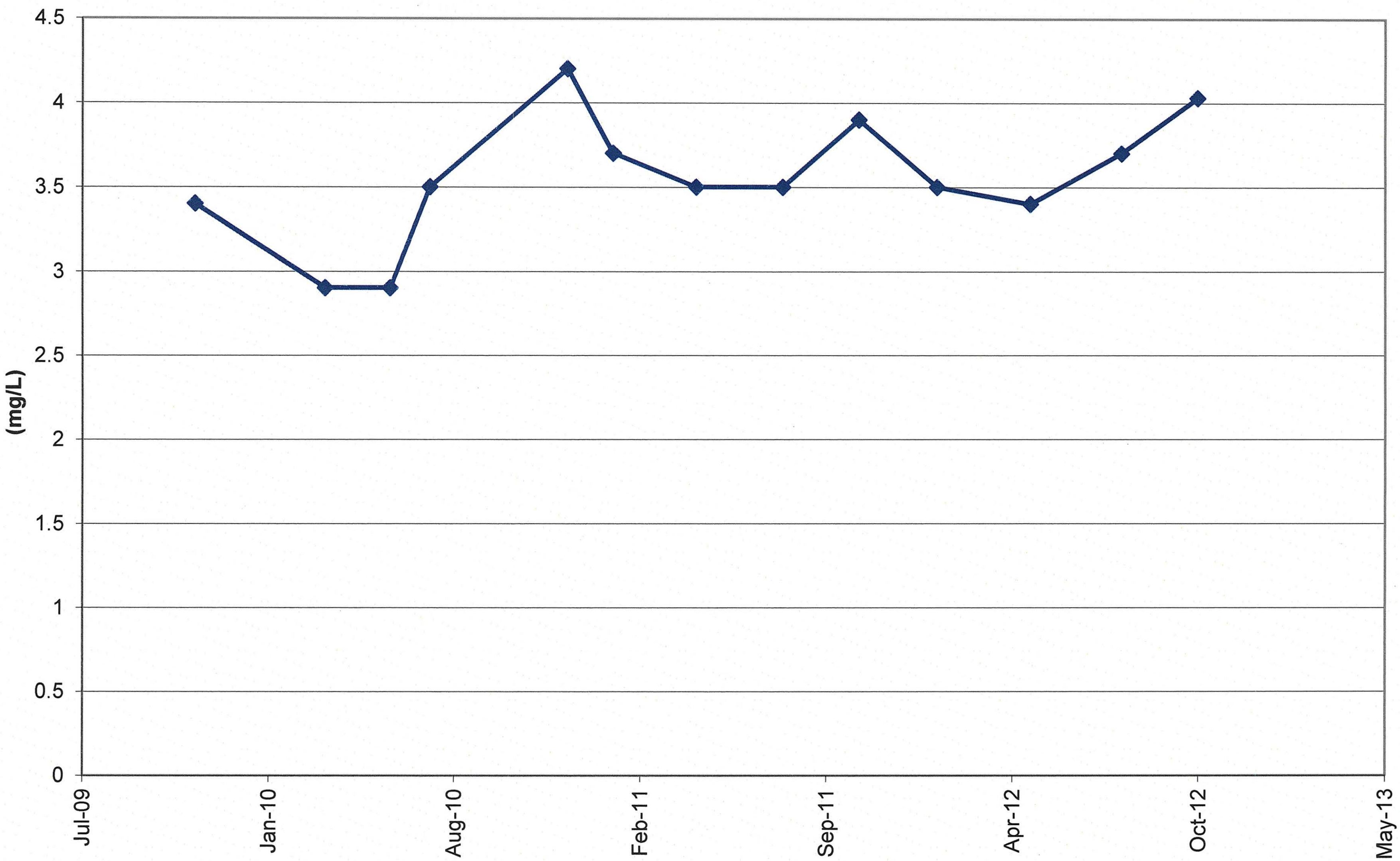


TWN-13 Nitrate Concentrations
(mg/L)
1.8
1.6
1.4
1.2
1
0.8
0.6
0.4
0.2
0
Jul-09
Jan-10
Aug-10
Feb-11
Sep-11
Apr-12
Oct-12
May-13

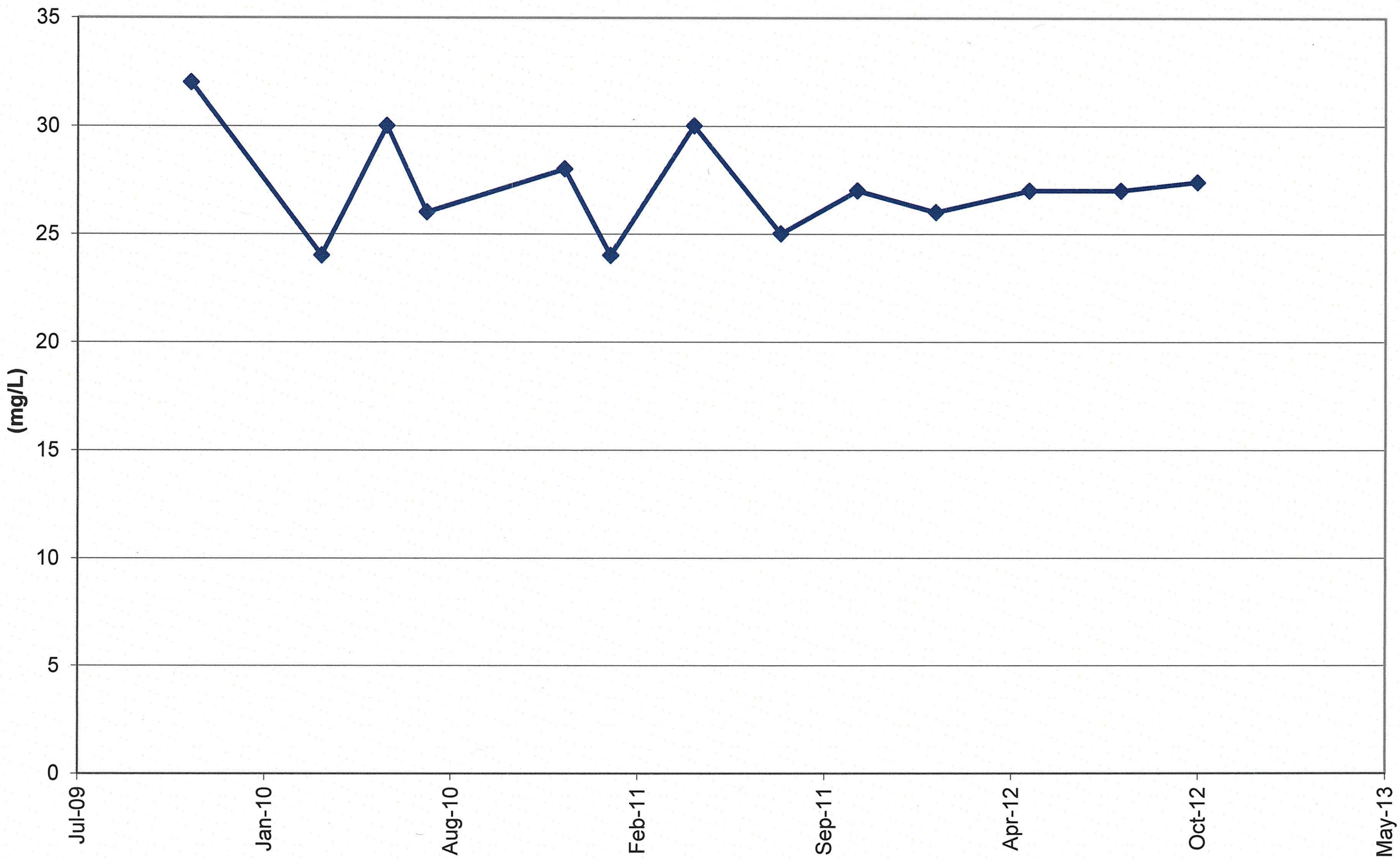
TWN-13 Chloride Concentrations

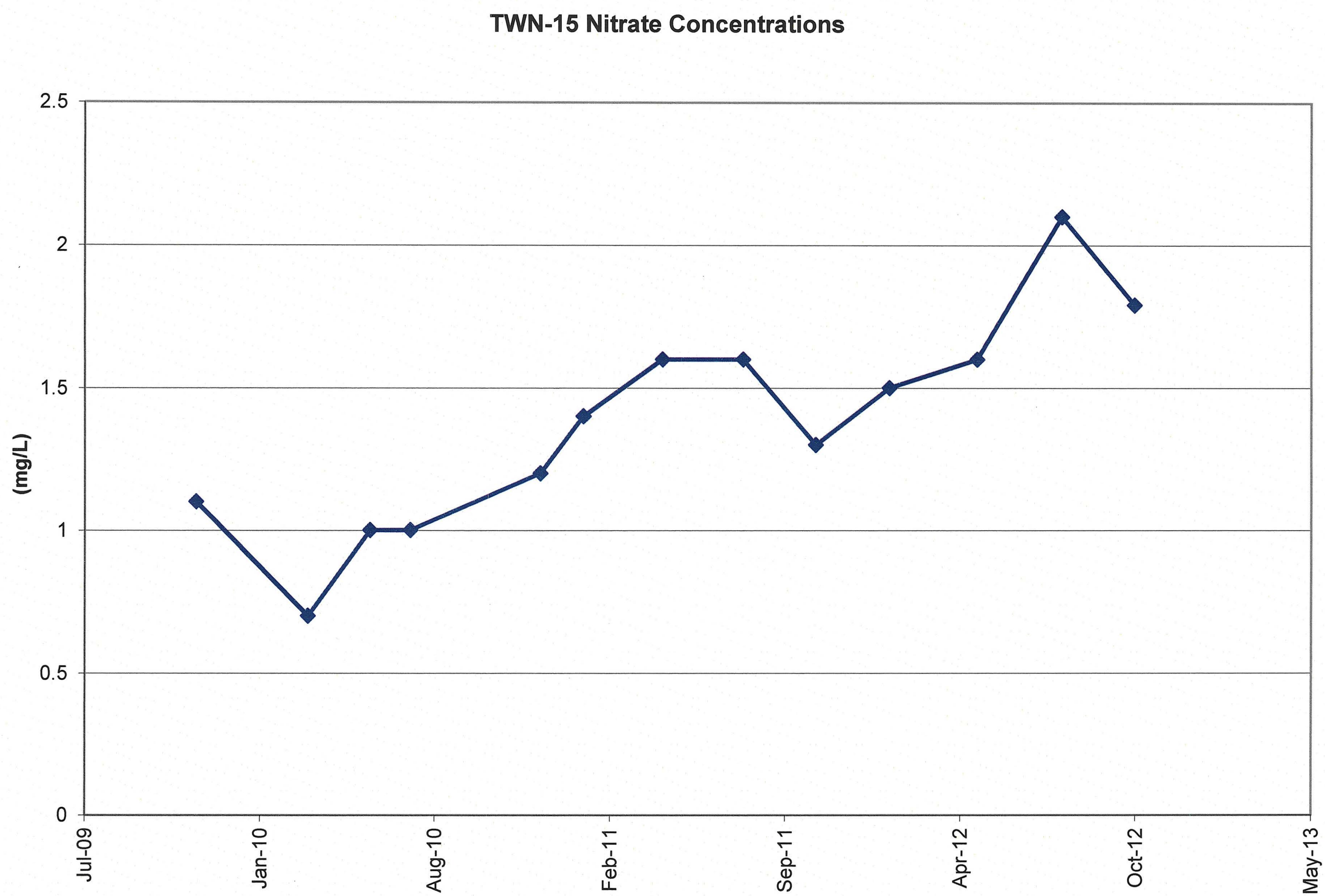


TWN-14 Nitrate Concentrations



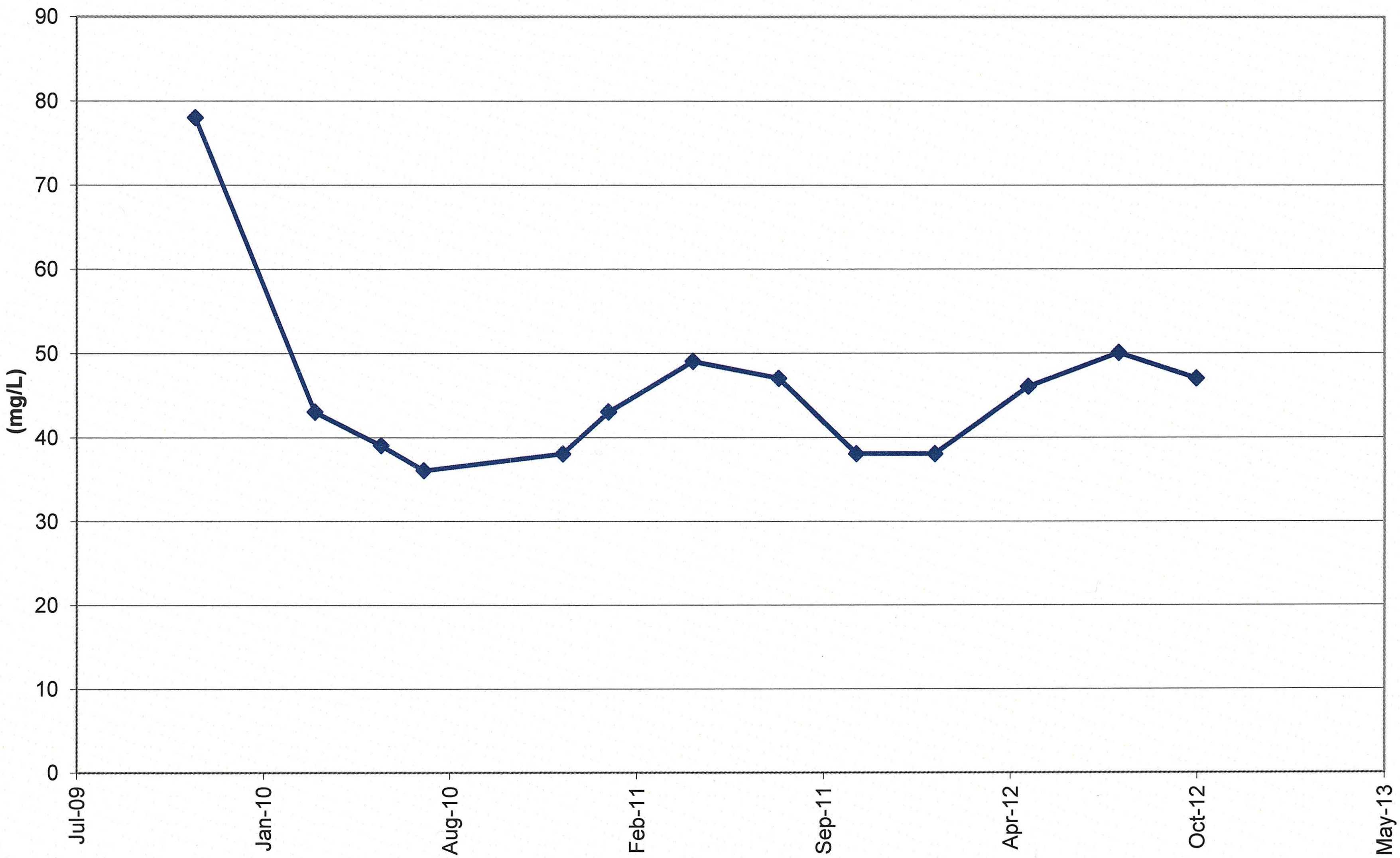
TWN-14 Chloride Concentrations



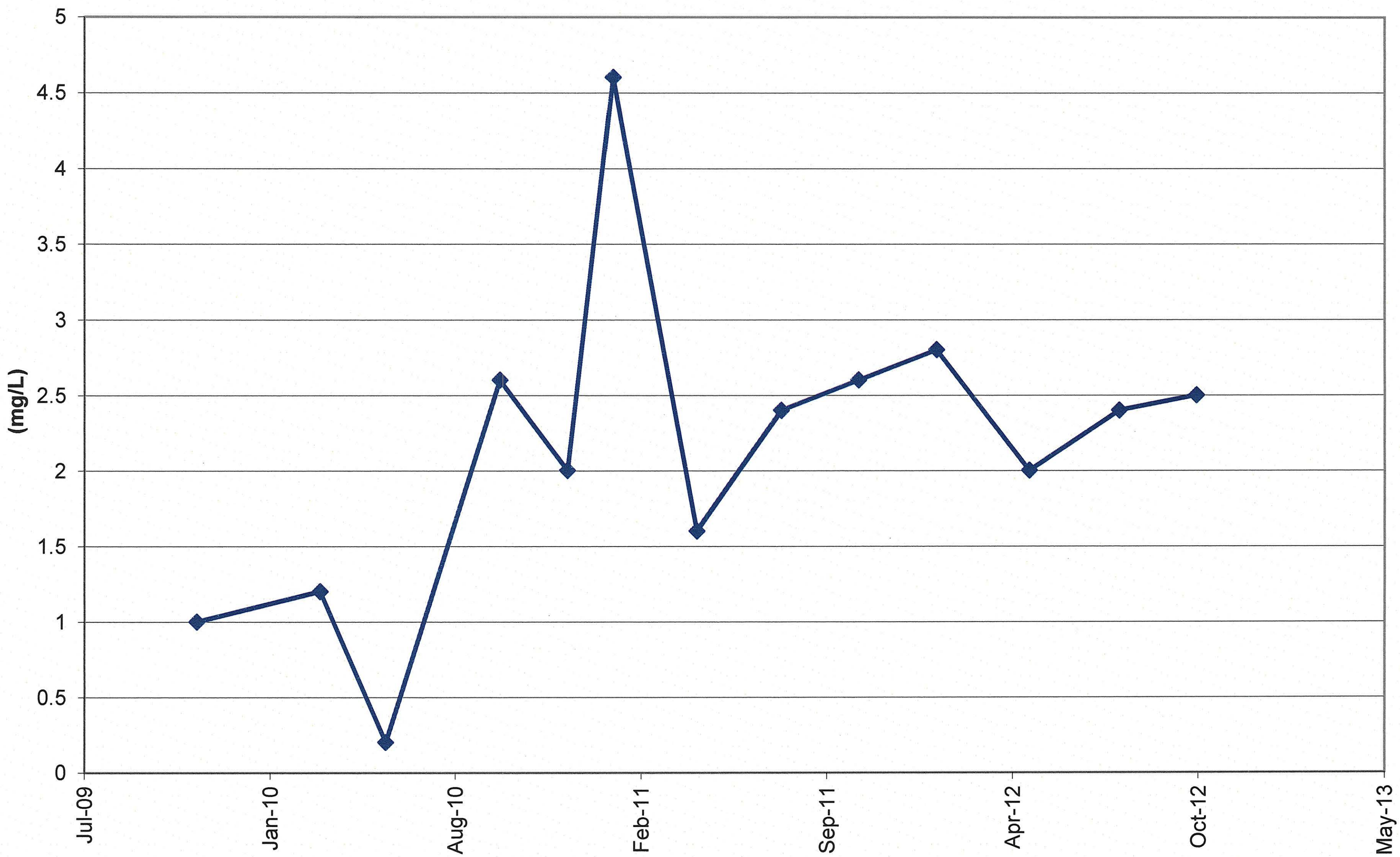


TWN-15 Nitrate Concentrations
(mg/L)
2.5
2
1.5
1
0.5
0
Jul-09
Jan-10
Aug-10
Feb-11
Sep-11
Apr-12
Oct-12
May-13

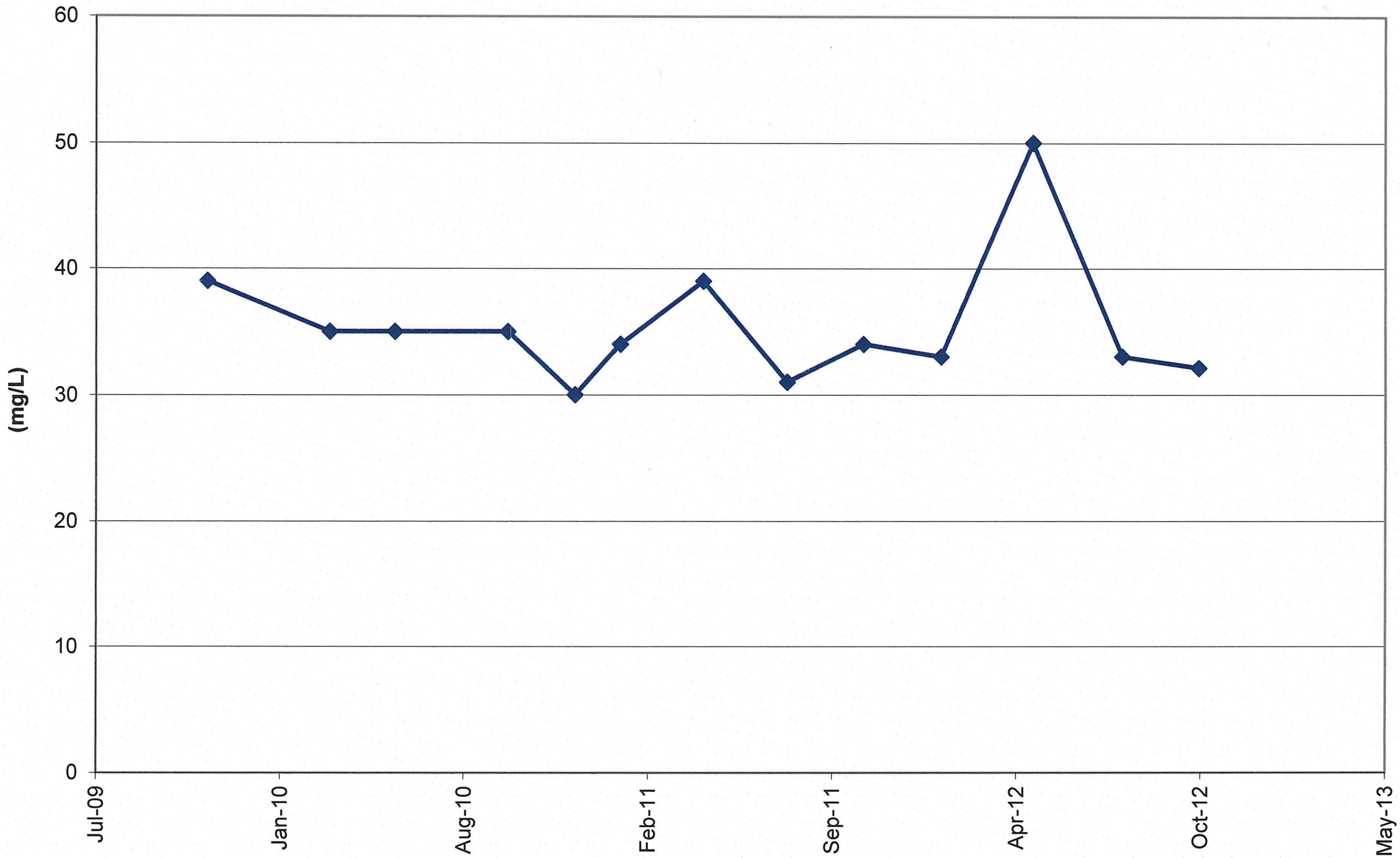
TWN-15 Chloride Concentrations



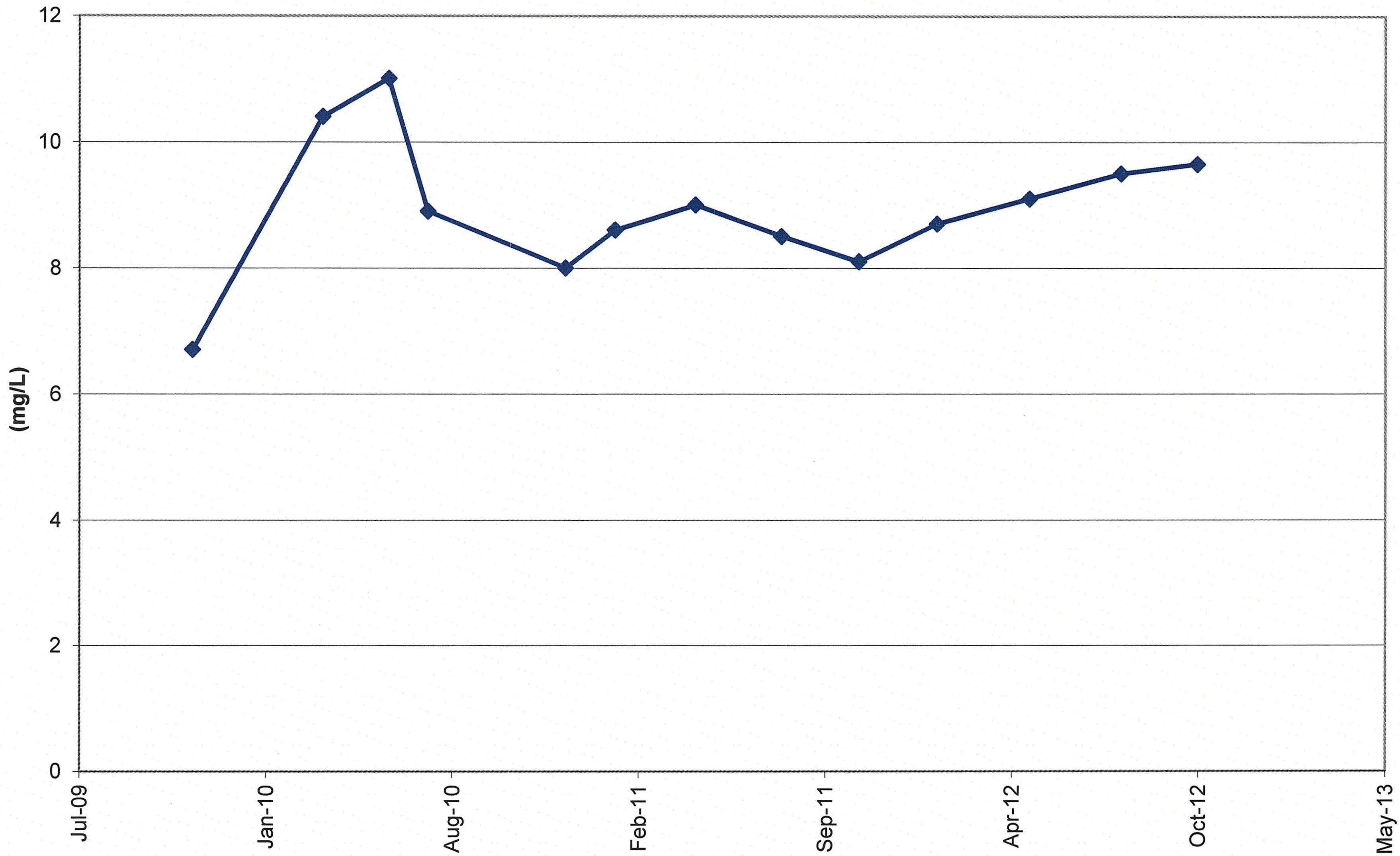
TWN-16 Nitrate Concentrations



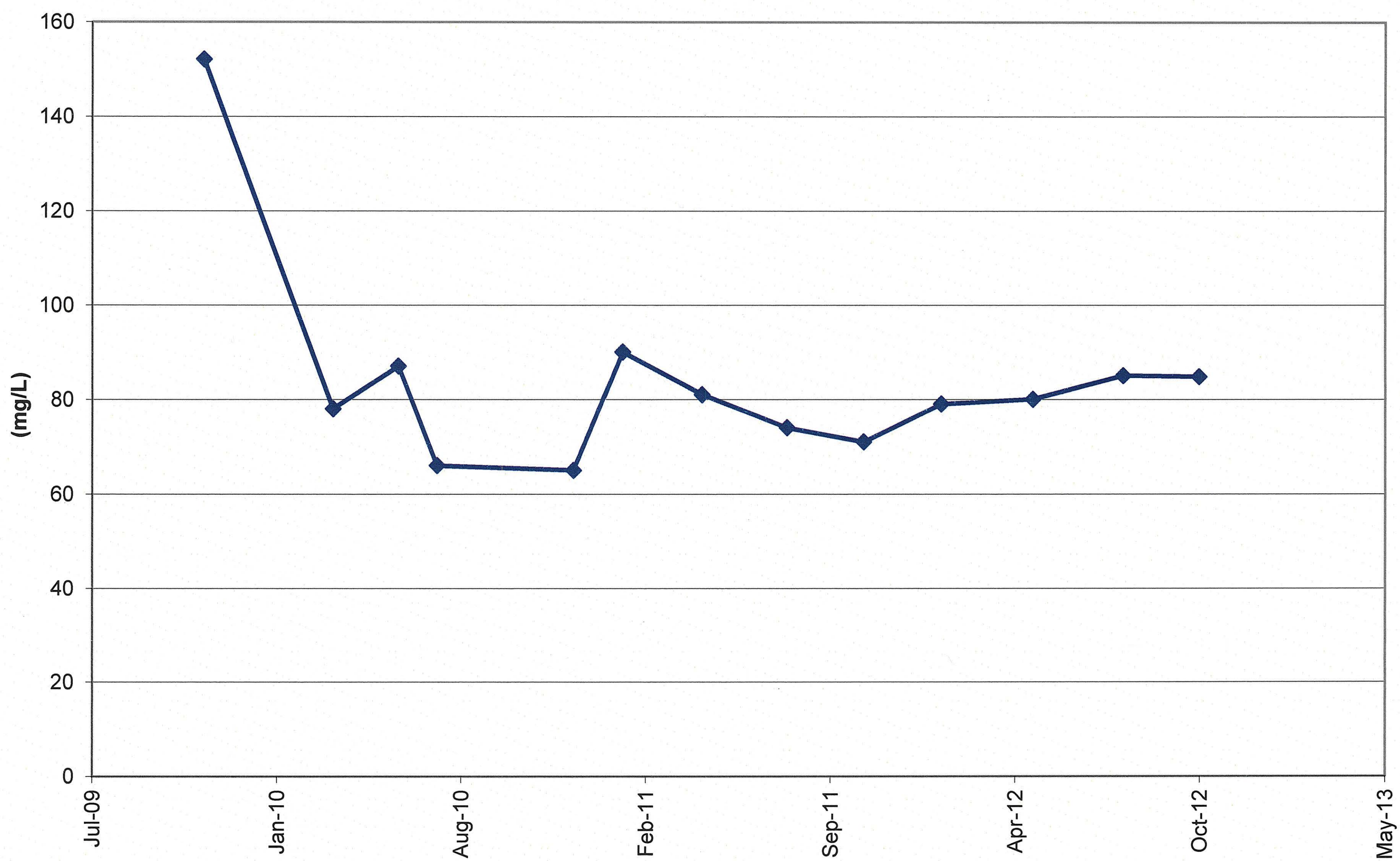
TWN-16 Chloride Concentrations



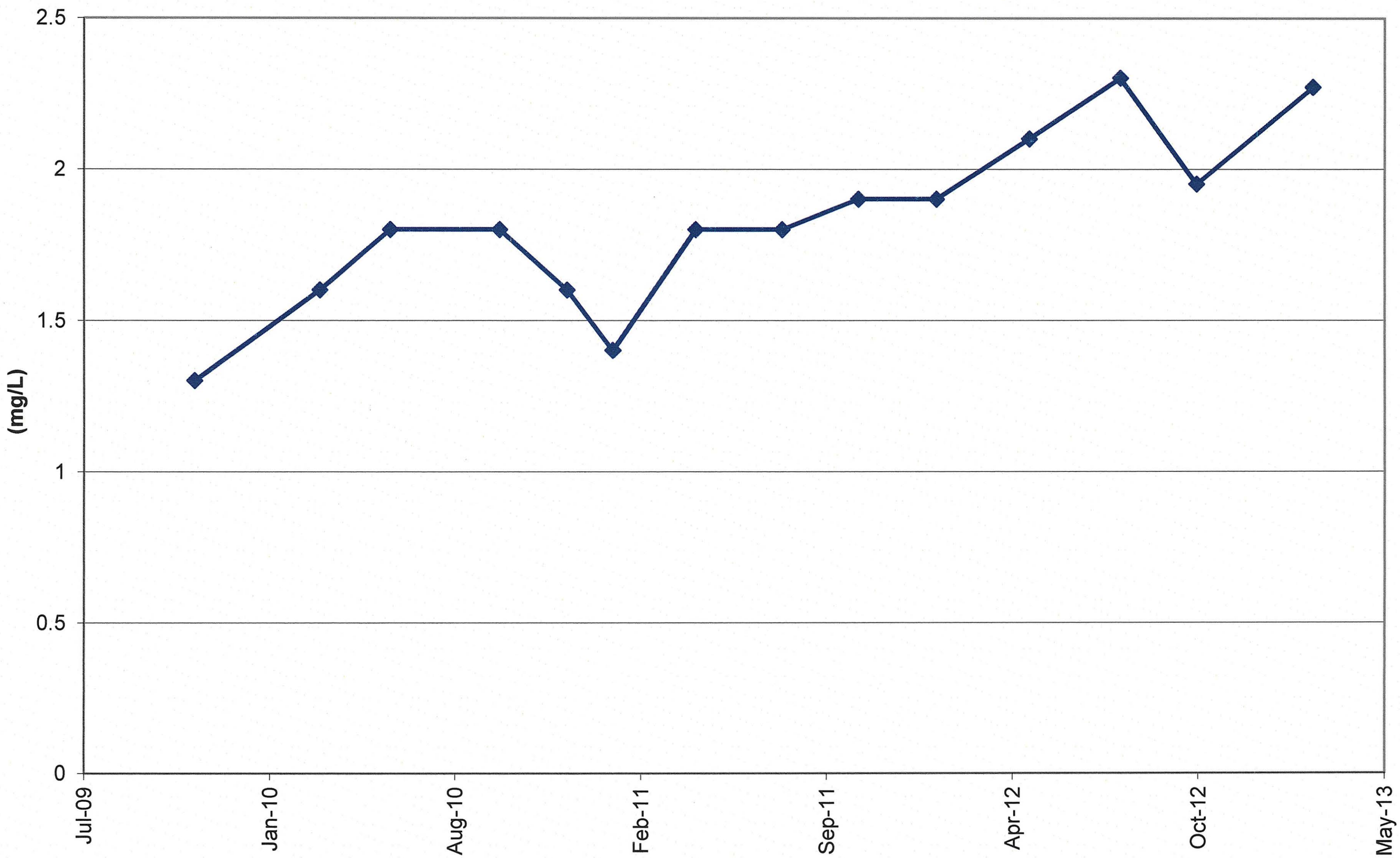
TWN-17 Nitrate Concentrations



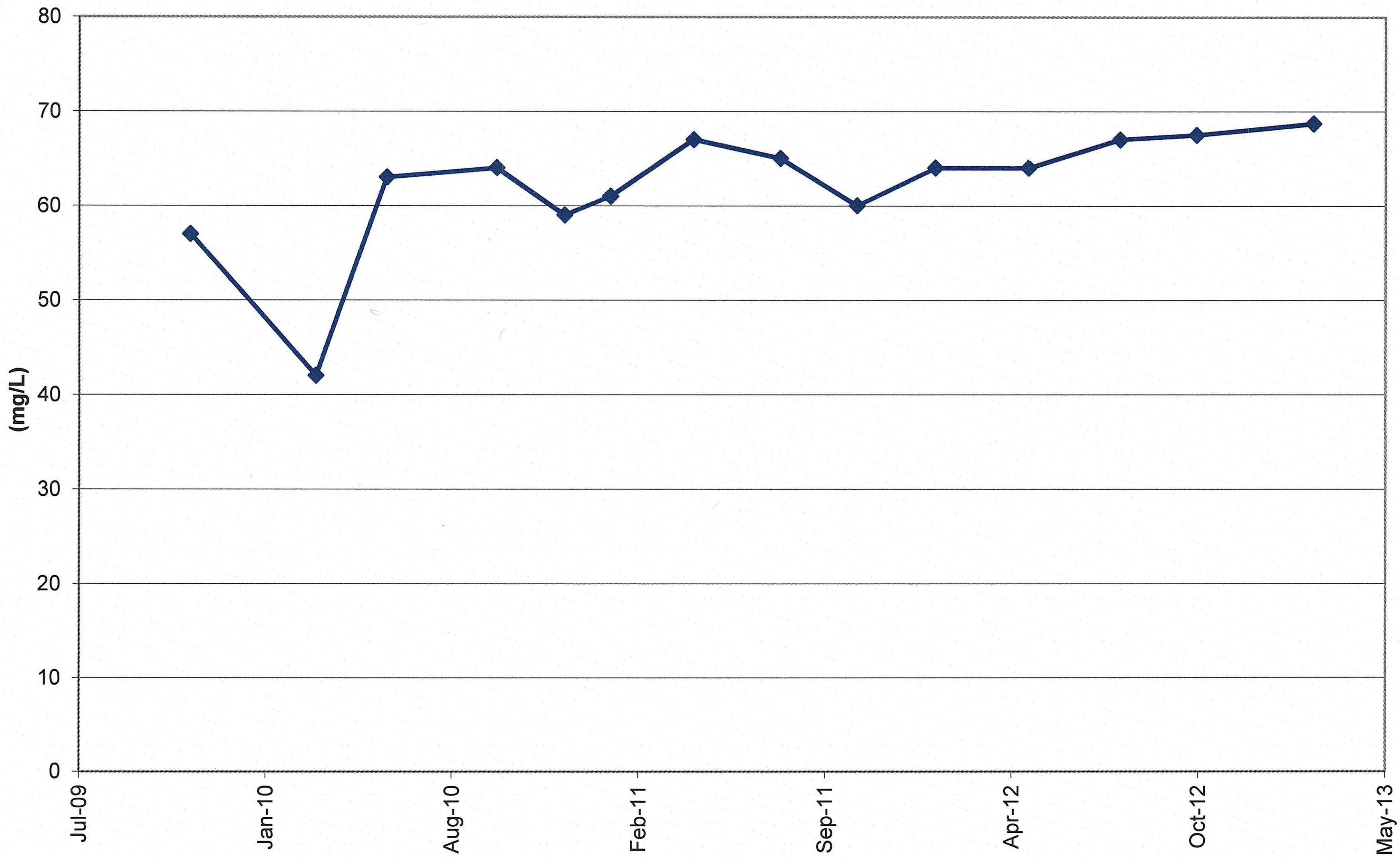
TWN-17 Chloride Concentrations



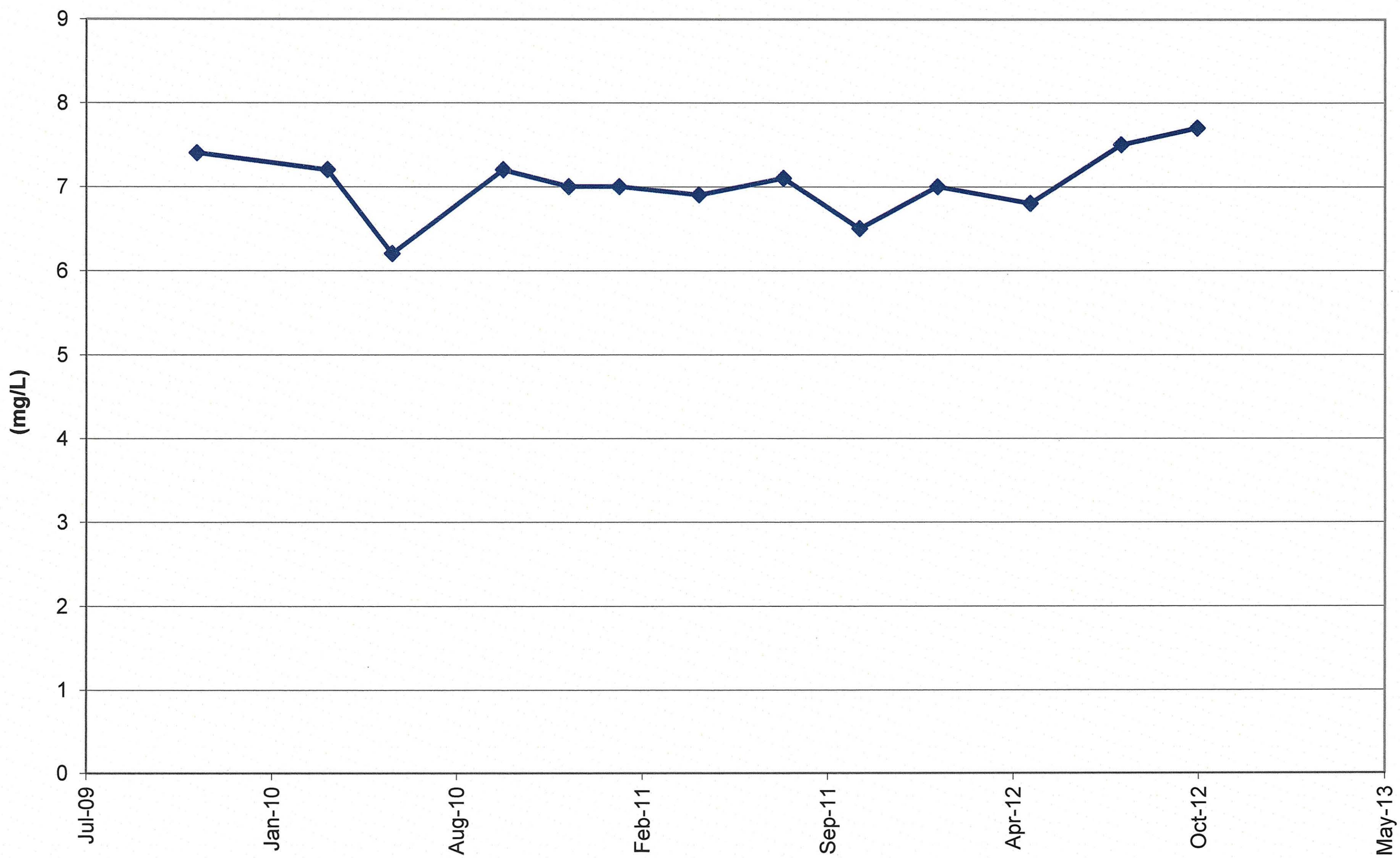
TWN-18 Nitrate Concentrations



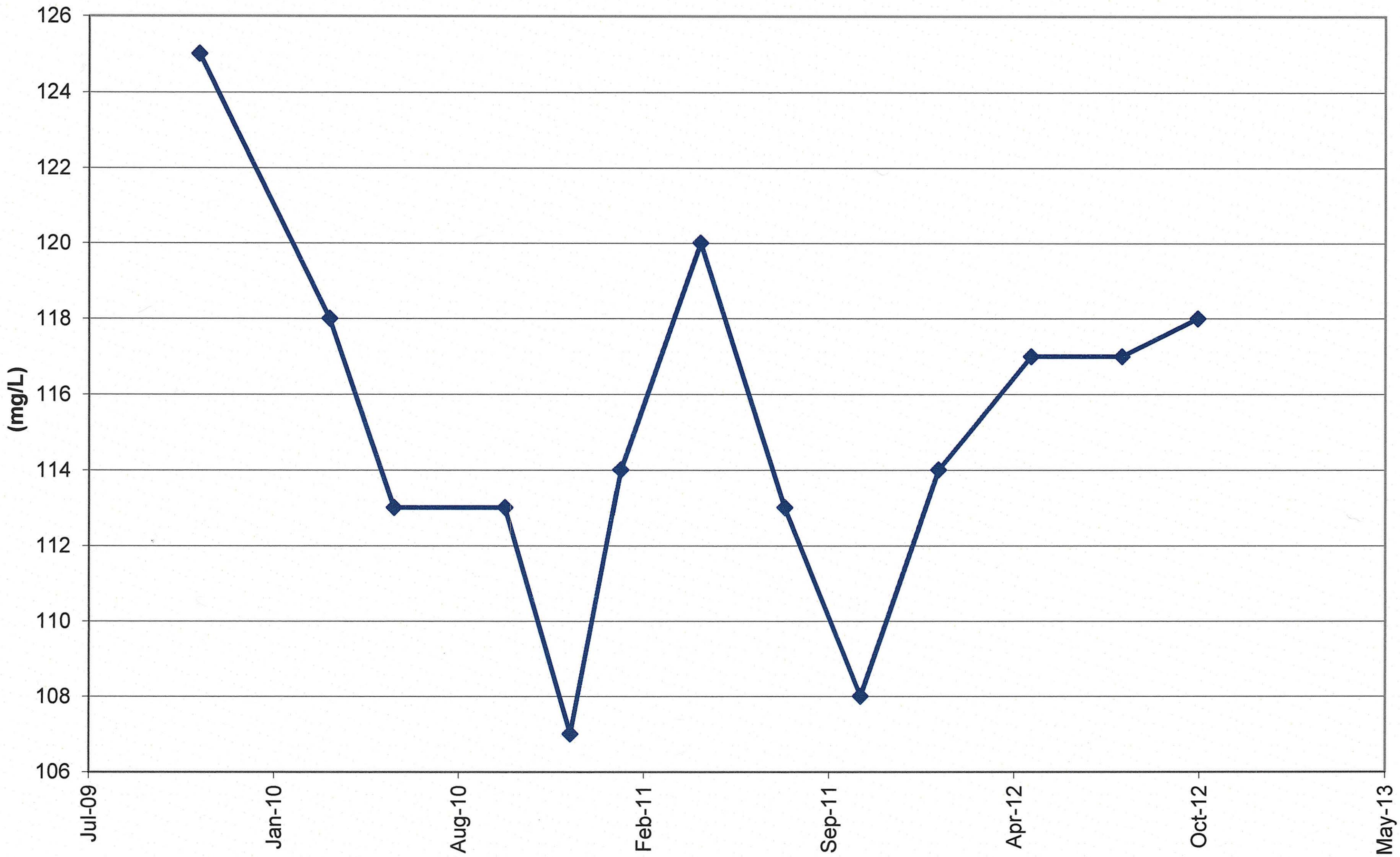
TWN-18 Chloride Concentrations



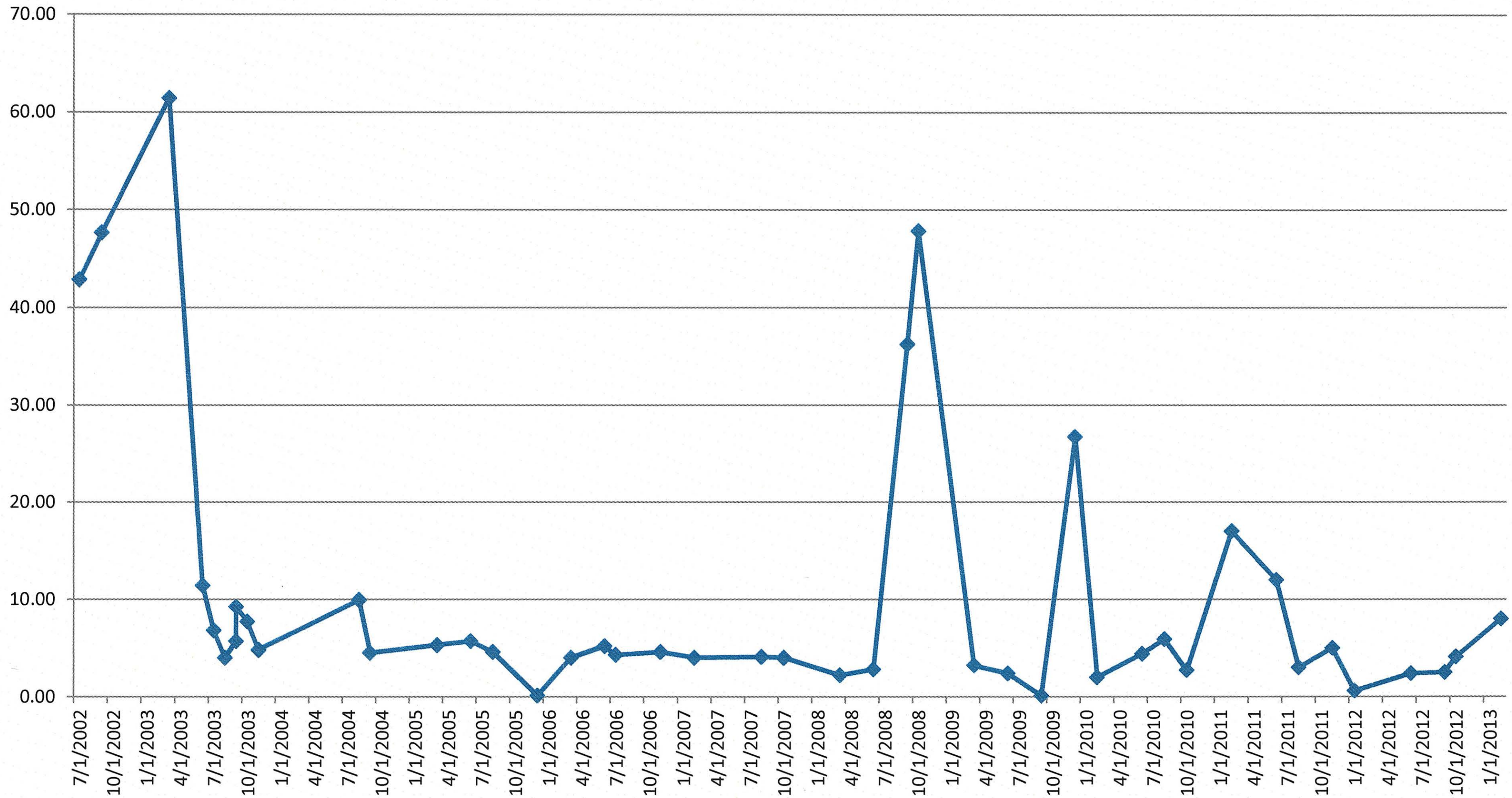
TWN-19 Nitrate Concentrations

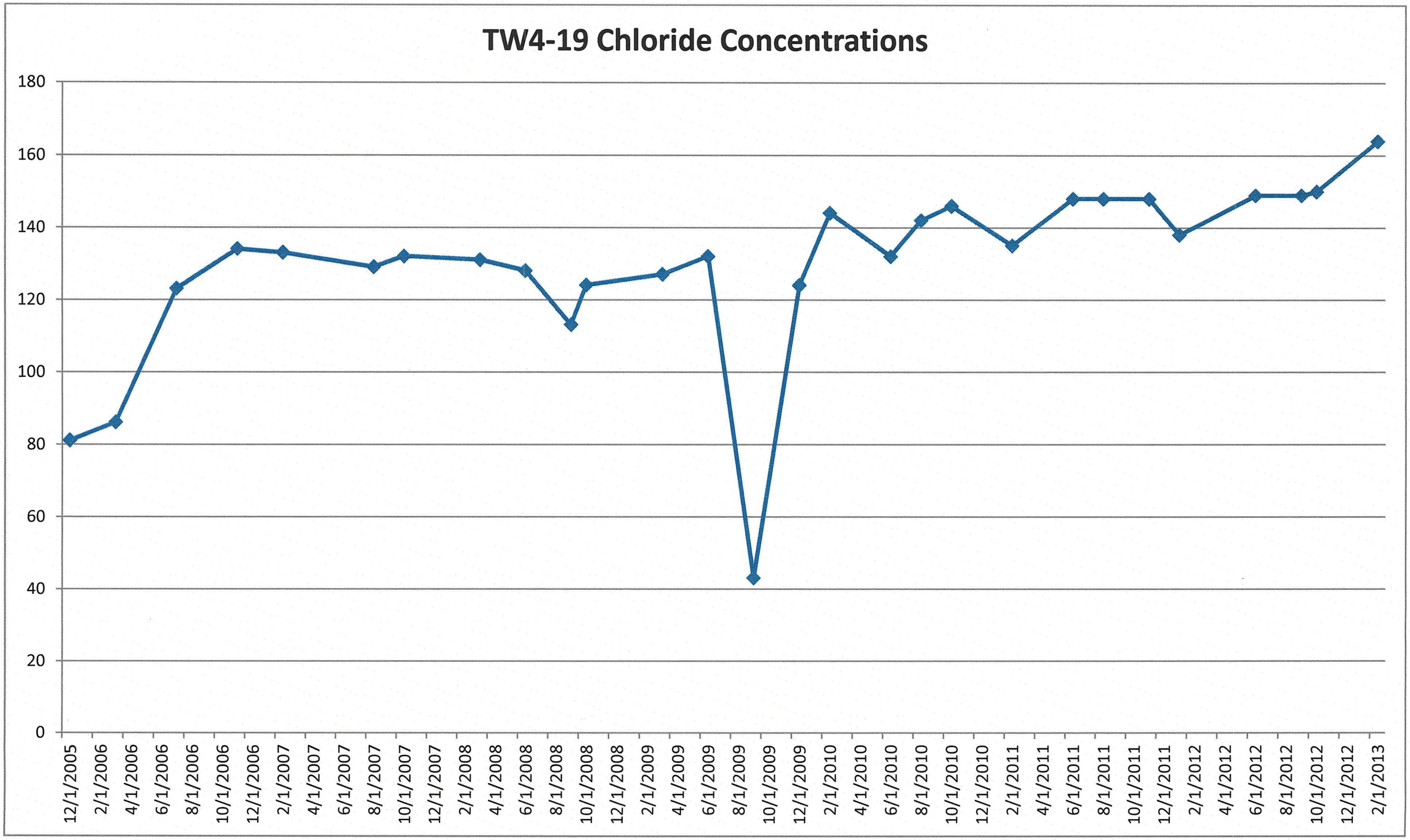


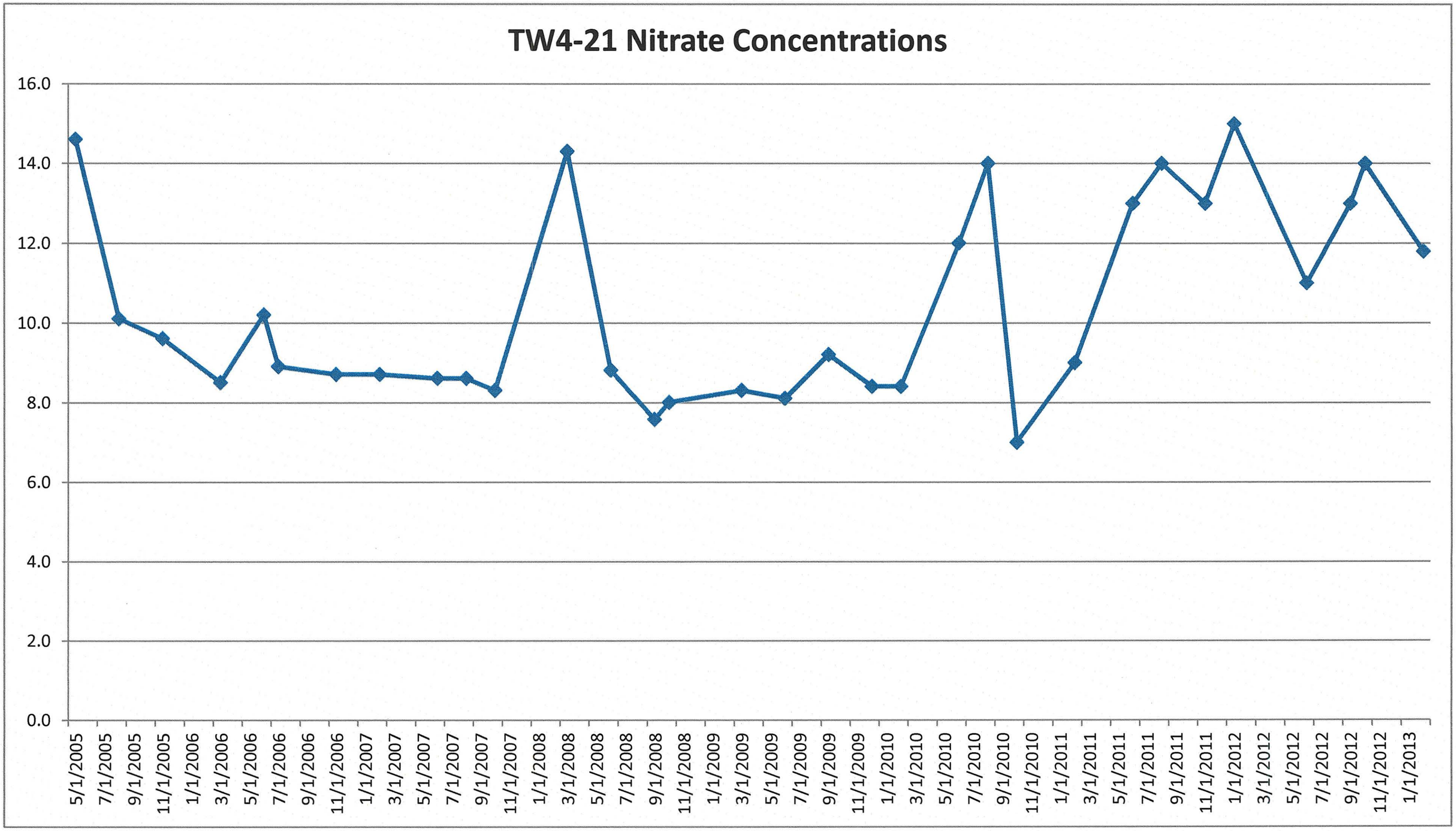
TWN-19 Chloride Concentrations

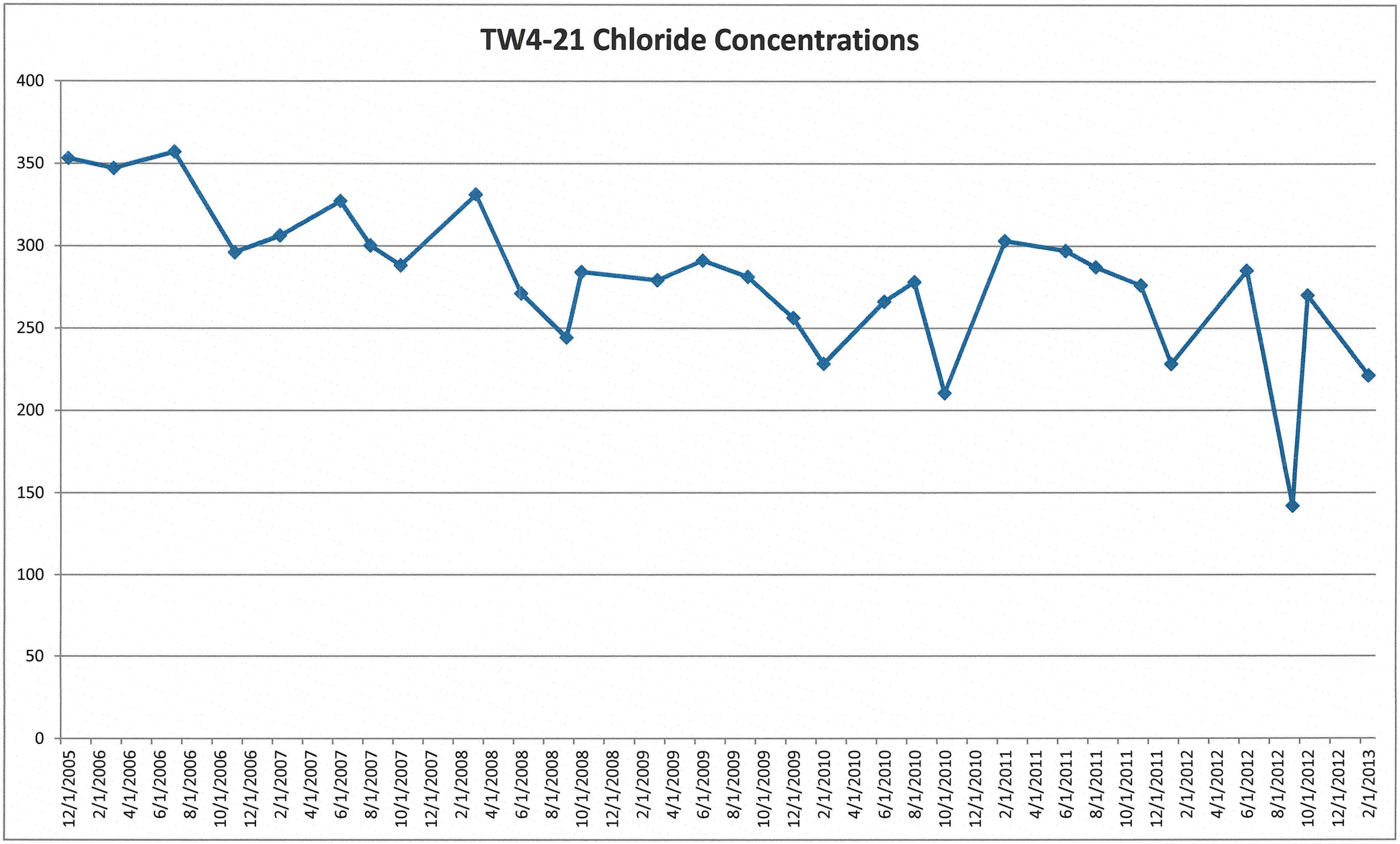


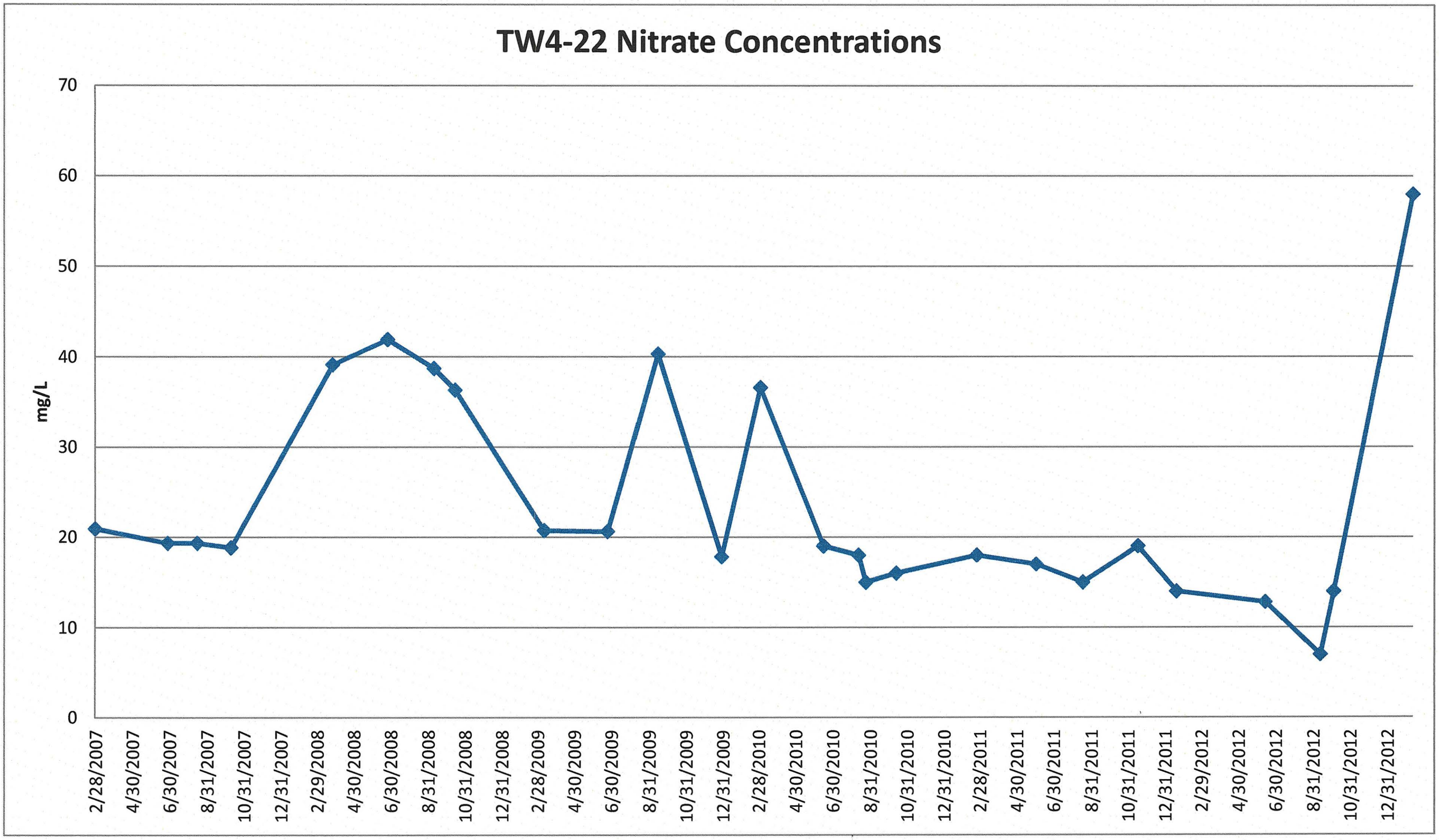
TW4-19 Nitrate Concentrations



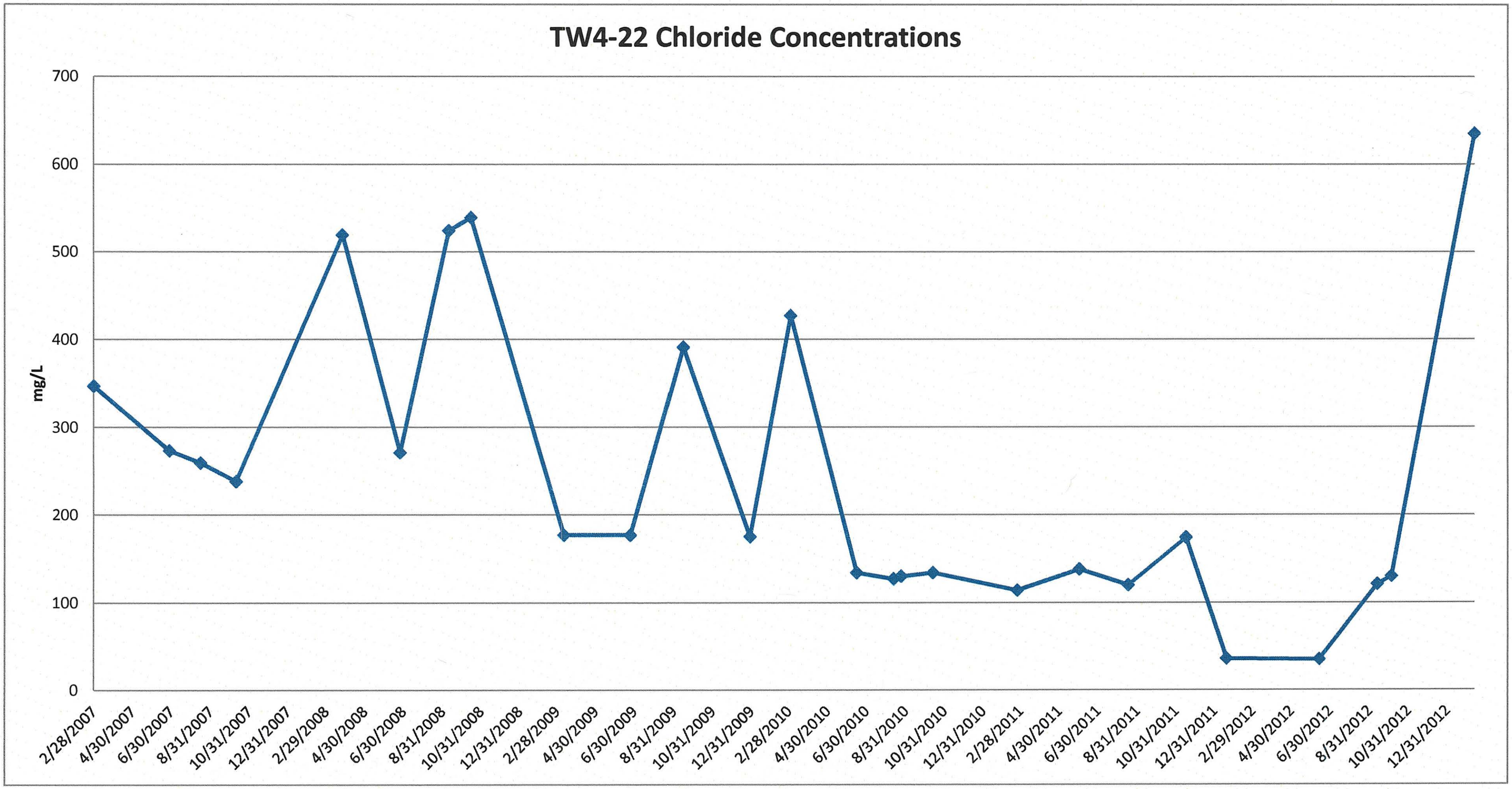

TW4-19 Chloride Concentrations
0
20
40
60
80
100
120
140
160
180
12/1/2005
2/1/2006
4/1/2006
6/1/2006
8/1/2006
10/1/2006
12/1/2006
2/1/2007
4/1/2007
6/1/2007
8/1/2007
10/1/2007
12/1/2007
2/1/2008
4/1/2008
6/1/2008
8/1/2008
10/1/2008
12/1/2008
2/1/2009
4/1/2009
6/1/2009
8/1/2009
10/1/2009
12/1/2009
2/1/2010
4/1/2010
6/1/2010
8/1/2010
10/1/2010
12/1/2010
2/1/2011
4/1/2011
6/1/2011
8/1/2011
10/1/2011
12/1/2011
2/1/2012
4/1/2012
6/1/2012
8/1/2012
10/1/2012
12/1/2012
2/1/2013

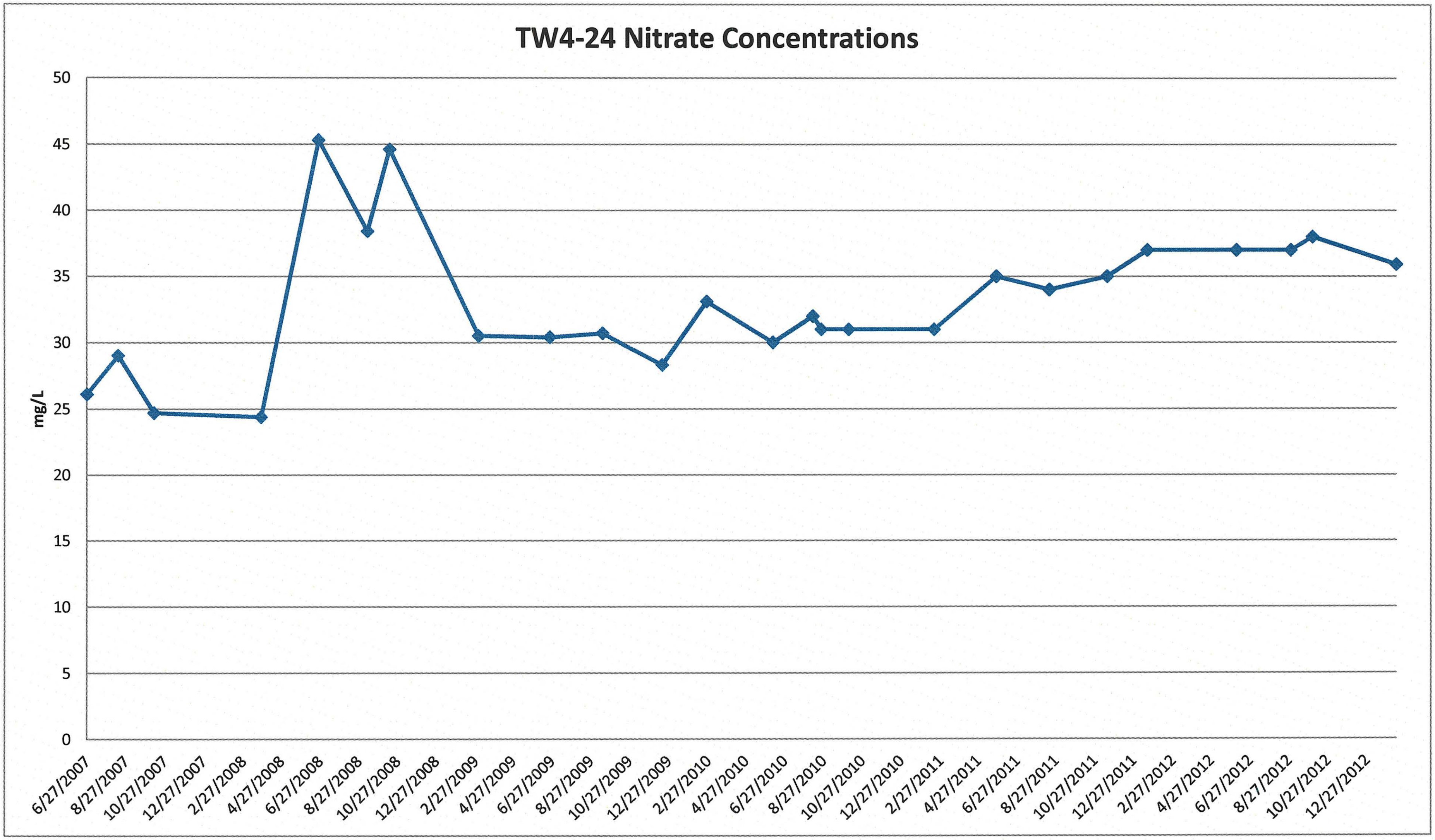

TW4-21 Nitrate Concentrations
16.0
14.0
12.0
10.0
8.0
6.0
4.0
2.0
0.0
5/1/2005
7/1/2005
9/1/2005
11/1/2005
1/1/2006
3/1/2006
5/1/2006
7/1/2006
9/1/2006
11/1/2006
1/1/2007
3/1/2007
5/1/2007
7/1/2007
9/1/2007
11/1/2007
1/1/2008
3/1/2008
5/1/2008
7/1/2008
9/1/2008
11/1/2008
1/1/2009
3/1/2009
5/1/2009
7/1/2009
9/1/2009
11/1/2009
1/1/2010
3/1/2010
5/1/2010
7/1/2010
9/1/2010
11/1/2010
1/1/2011
3/1/2011
5/1/2011
7/1/2011
9/1/2011
11/1/2011
1/1/2012
3/1/2012
5/1/2012
7/1/2012
9/1/2012
11/1/2012
1/1/2013

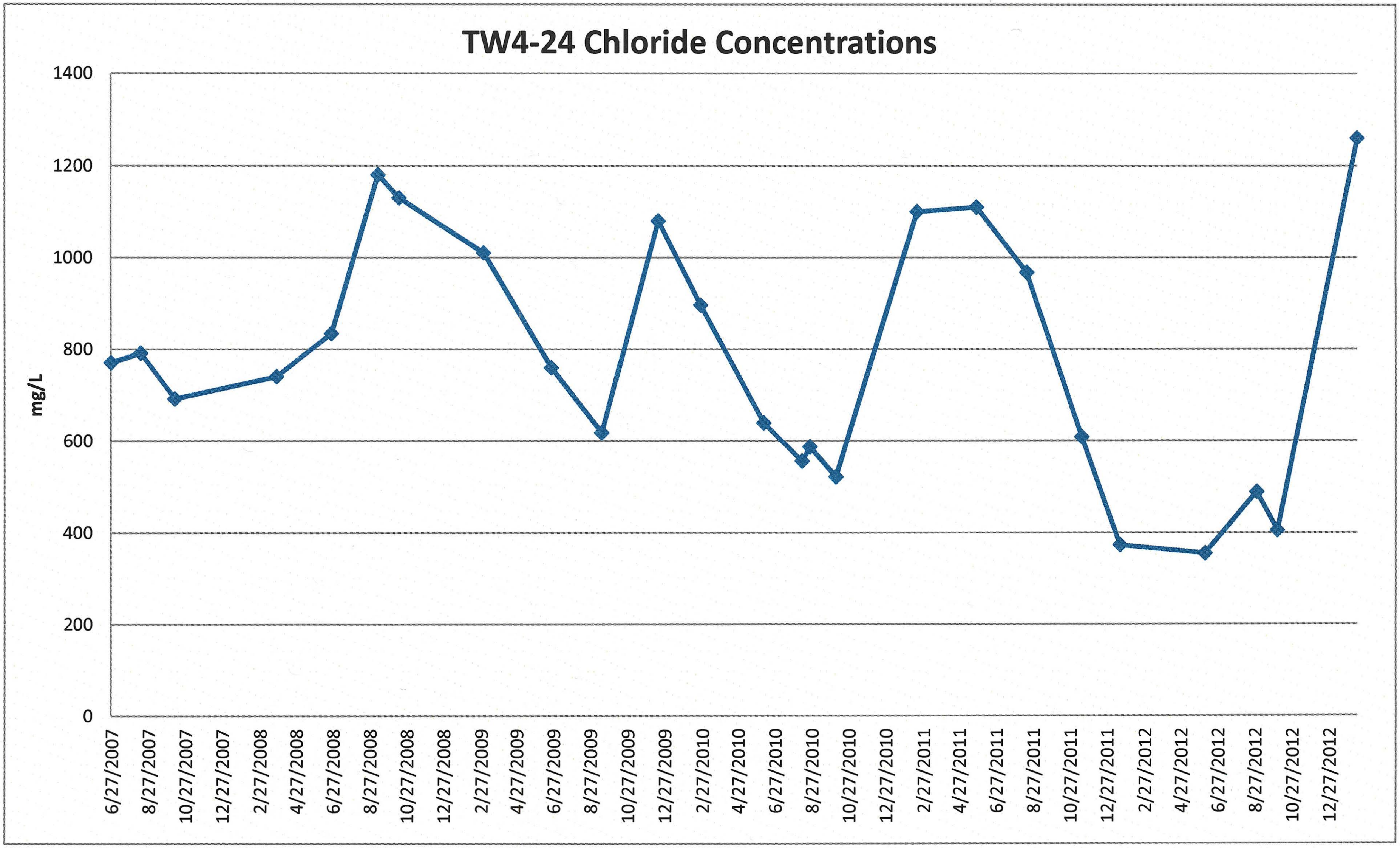

TW4-21 Chloride Concentrations
400
350
300
250
200
150
100
50
0
12/1/2005
2/1/2006
4/1/2006
6/1/2006
8/1/2006
10/1/2006
12/1/2006
2/1/2007
4/1/2007
6/1/2007
8/1/2007
10/1/2007
12/1/2007
2/1/2008
4/1/2008
6/1/2008
8/1/2008
10/1/2008
12/1/2008
2/1/2009
4/1/2009
6/1/2009
8/1/2009
10/1/2009
12/1/2009
2/1/2010
4/1/2010
6/1/2010
8/1/2010
10/1/2010
12/1/2010
2/1/2011
4/1/2011
6/1/2011
8/1/2011
10/1/2011
12/1/2011
2/1/2012
4/1/2012
6/1/2012
8/1/2012
10/1/2012
12/1/2012
2/1/2013



TW4-22 Nitrate Concentrations
mg/L
0
10
20
30
40
50
60
70
2/28/2007
4/30/2007
6/30/2007
8/31/2007
10/31/2007
12/31/2007
2/29/2008
4/30/2008
6/30/2008
8/31/2008
10/31/2008
12/31/2008
2/28/2009
4/30/2009
6/30/2009
8/31/2009
10/31/2009
12/31/2009
2/28/2010
4/30/2010
6/30/2010
8/31/2010
10/31/2010
12/31/2010
2/28/2011
4/30/2011
6/30/2011
8/31/2011
10/31/2011
12/31/2011
2/29/2012
4/30/2012
6/30/2012
8/31/2012
10/31/2012
12/31/2012


TW4-22 Chloride Concentrations
mg/L
700
600
500
400
300
200
100
0
2/28/2007
4/30/2007
6/30/2007
8/31/2007
10/31/2007
12/31/2007
2/29/2008
4/30/2008
6/30/2008
8/31/2008
10/31/2008
12/31/2008
2/28/2009
4/30/2009
6/30/2009
8/31/2009
10/31/2009
12/31/2009
2/28/2010
4/30/2010
6/30/2010
8/31/2010
10/31/2010
12/31/2010
2/28/2011
4/30/2011
6/30/2011
8/31/2011
10/31/2011
12/31/2011
2/29/2012
4/30/2012
6/30/2012
8/31/2012
10/31/2012
12/31/2012


TW4-24 Nitrate Concentrations
mg/L
50
45
40
35
30
25
20
15
10
5
0
6/27/2007
8/27/2007
10/27/2007
12/27/2007
2/27/2008
4/27/2008
6/27/2008
8/27/2008
10/27/2008
12/27/2008
2/27/2009
4/27/2009
6/27/2009
8/27/2009
10/27/2009
12/27/2009
2/27/2010
4/27/2010
6/27/2010
8/27/2010
10/27/2010
12/27/2010
2/27/2011
4/27/2011
6/27/2011
8/27/2011
10/27/2011
12/27/2011
2/27/2012
4/27/2012
6/27/2012
8/27/2012
10/27/2012
12/27/2012


TW4-24 Chloride Concentrations
mg/L
1400
1200
1000
800
600
400
200
0
6/27/2007
8/27/2007
10/27/2007
12/27/2007
2/27/2008
4/27/2008
6/27/2008
8/27/2008
10/27/2008
12/27/2008
2/27/2009
4/27/2009
6/27/2009
8/27/2009
10/27/2009
12/27/2009
2/27/2010
4/27/2010
6/27/2010
8/27/2010
10/27/2010
12/27/2010
2/27/2011
4/27/2011
6/27/2011
8/27/2011
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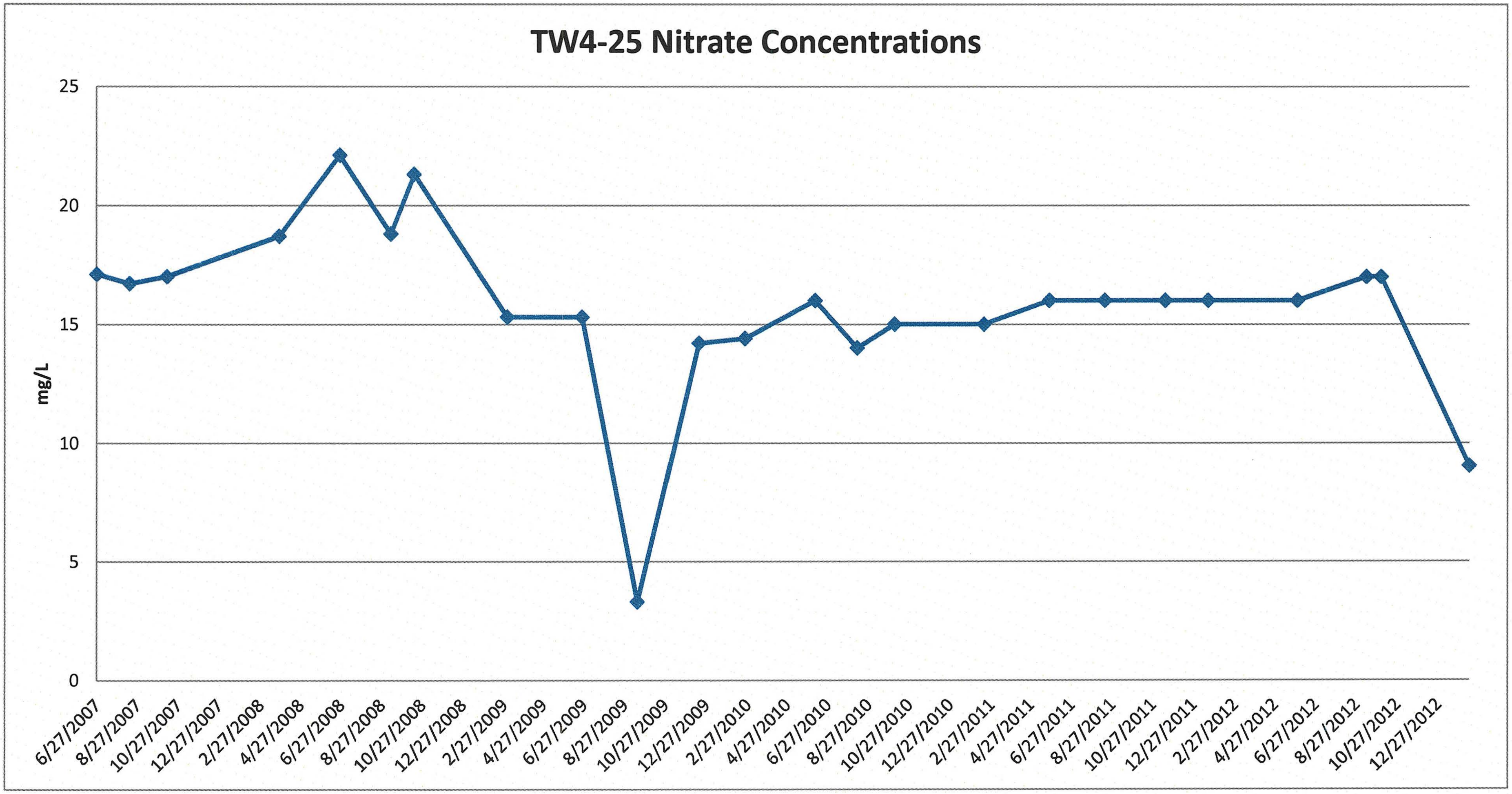
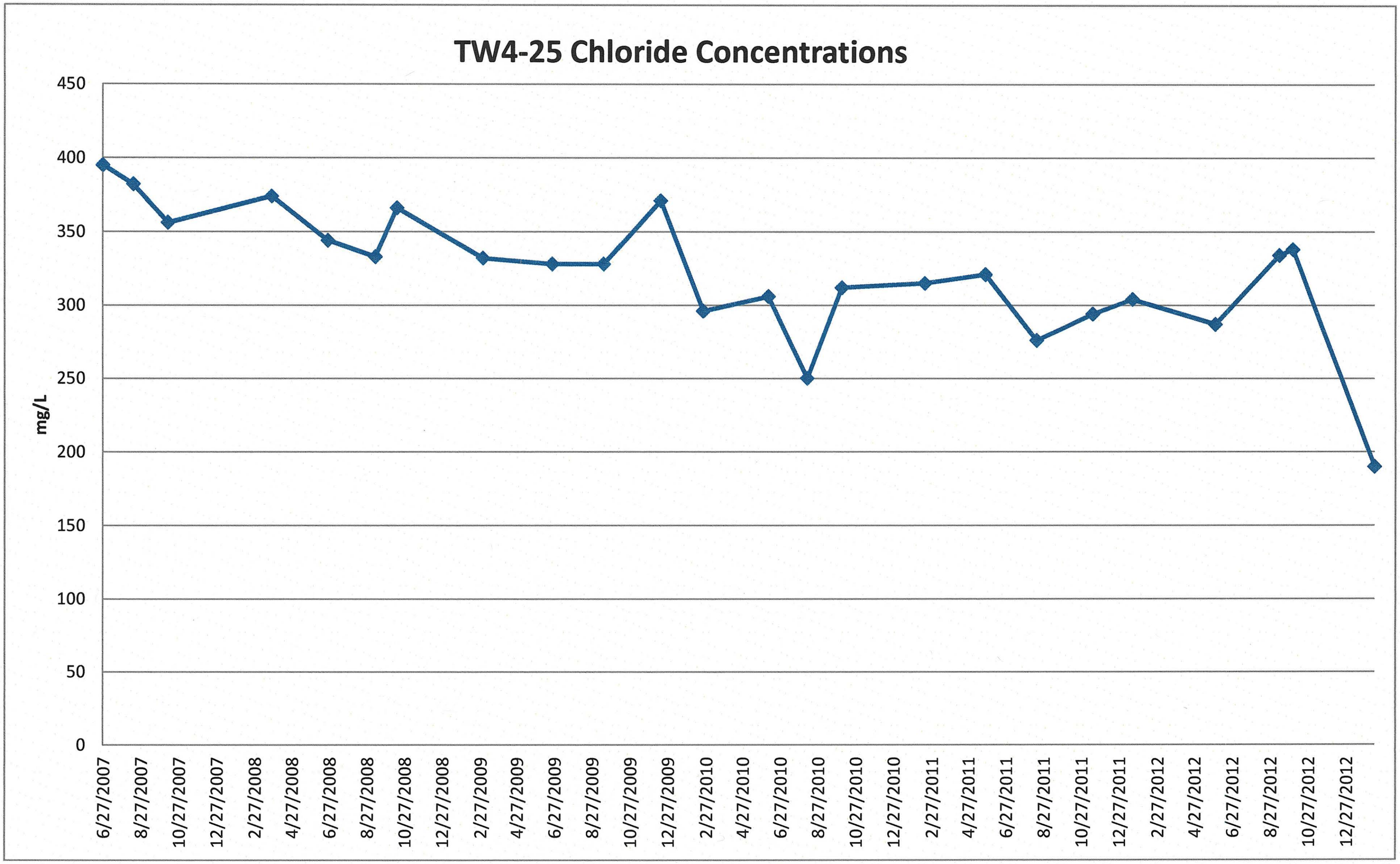
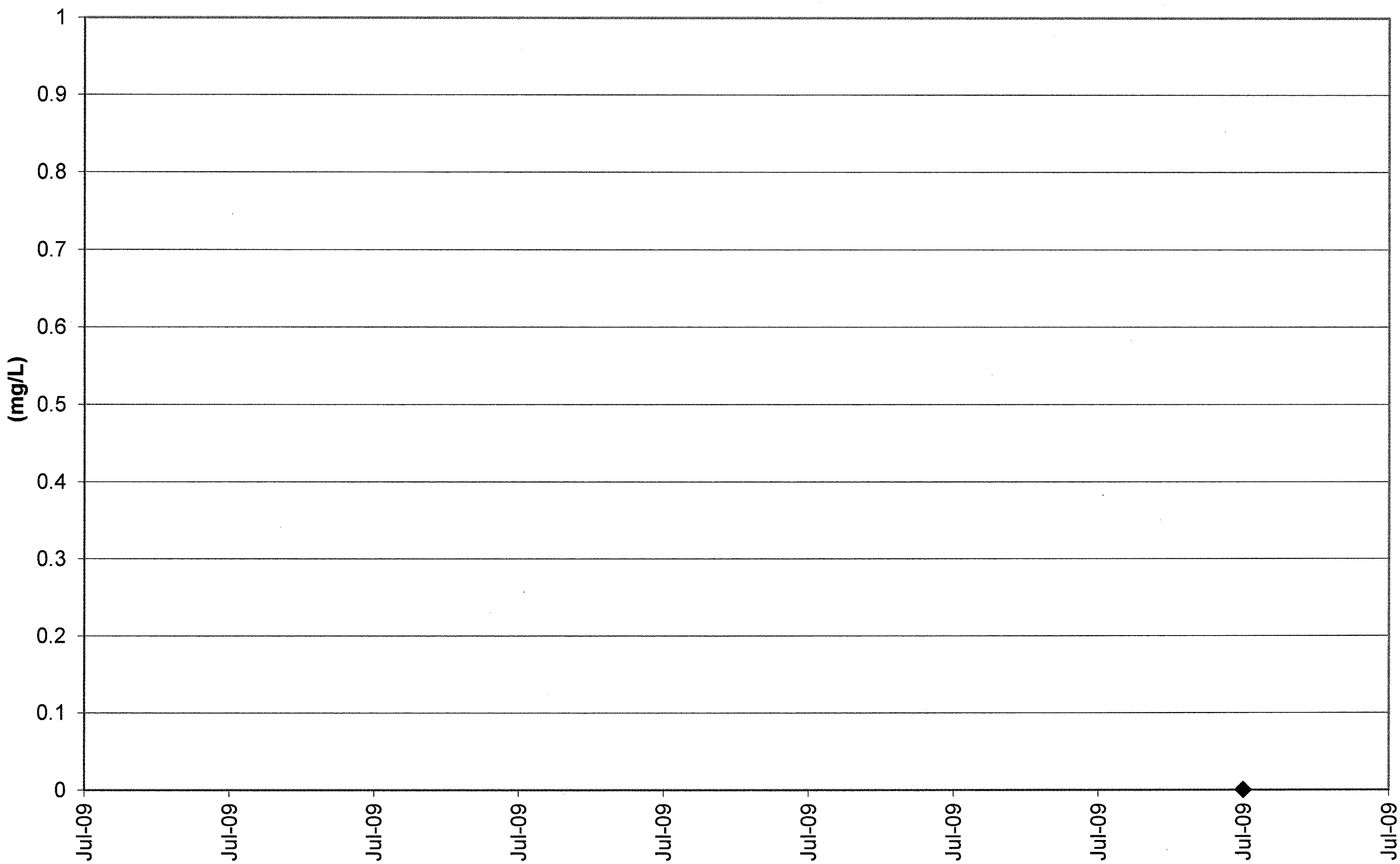
8/27/2012
10/27/2012
12/27/2012

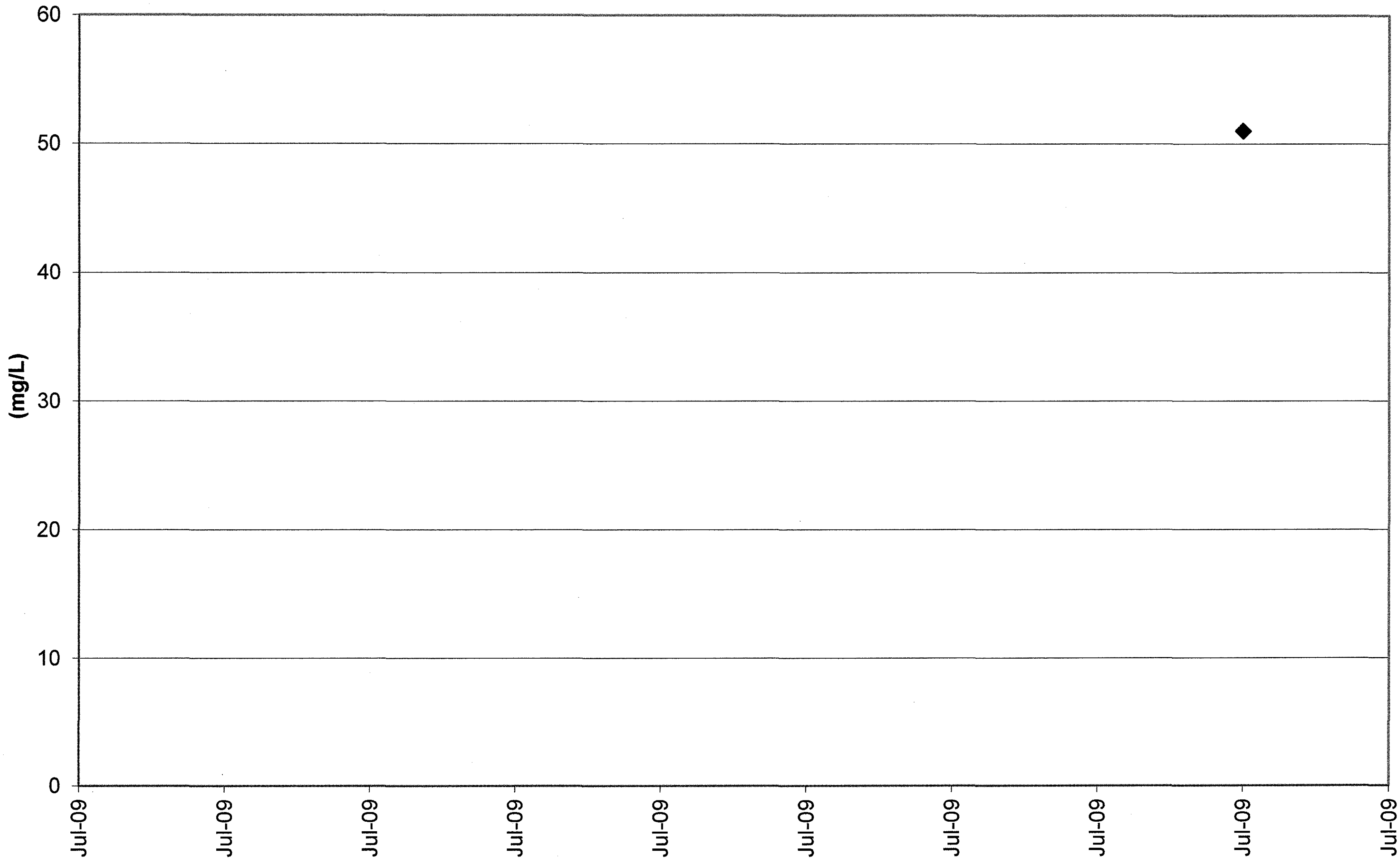

TW4-25 Nitrate Concentrations
mg/L
25
20
15
10
5
0
6/27/2007
8/27/2007
10/27/2007
12/27/2007
2/27/2008
4/27/2008
6/27/2008
8/27/2008
10/27/2008
12/27/2008
2/27/2009
4/27/2009
6/27/2009
8/27/2009
10/27/2009
12/27/2009
2/27/2010
4/27/2010
6/27/2010
8/27/2010
10/27/2010
12/27/2010
2/27/2011
4/27/2011
6/27/2011
8/27/2011
10/27/2011
12/27/2011
2/27/2012
4/27/2012
6/27/2012
8/27/2012
10/27/2012
12/27/2012


TW4-25 Chloride Concentrations
mg/L
0
50
100
150
200
250
300
350
400
450
6/27/2007
8/27/2007
10/27/2007
12/27/2007
2/27/2008
4/27/2008
6/27/2008
8/27/2008
10/27/2008
12/27/2008
2/27/2009
4/27/2009
6/27/2009
8/27/2009
10/27/2009
12/27/2009
2/27/2010
4/27/2010
6/27/2010
8/27/2010
10/27/2010
12/27/2010
2/27/2011
4/27/2011
6/27/2011
8/27/2011
10/27/2011
12/27/2011
2/27/2012
4/27/2012
6/27/2012
8/27/2012
10/27/2012
12/27/2012

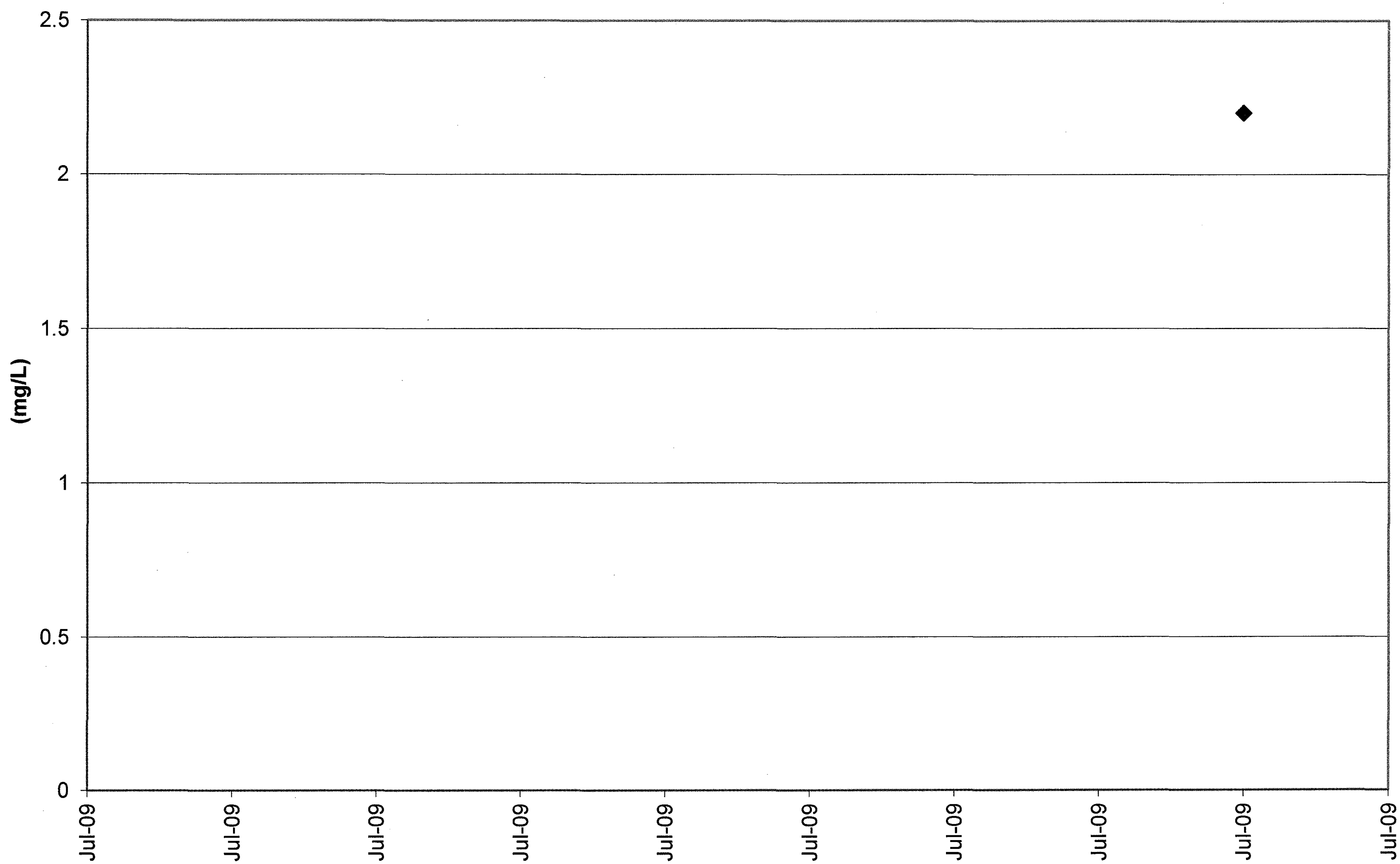
MW-18 Nitrate Concentrations



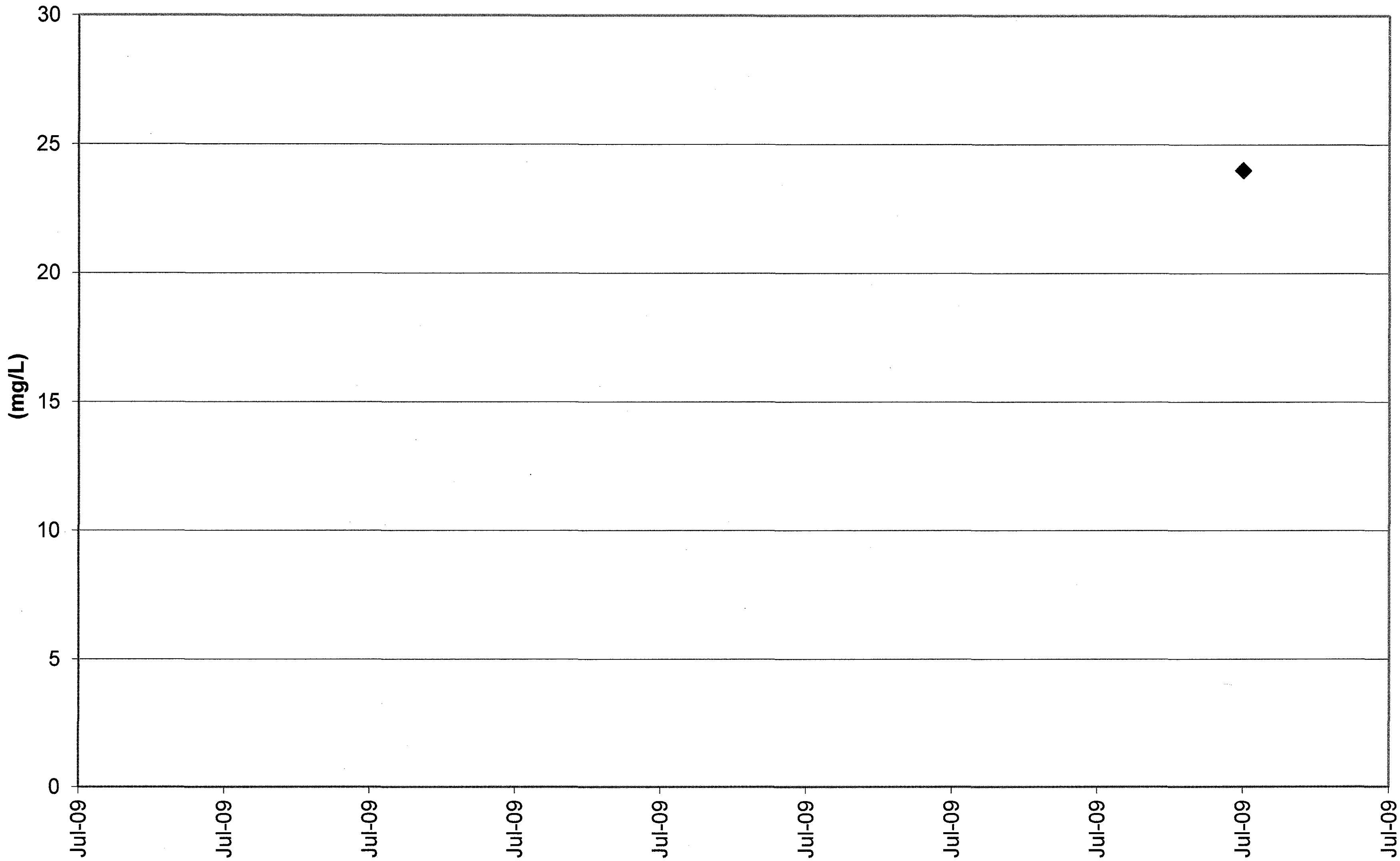
MW-18 Chloride Concentrations

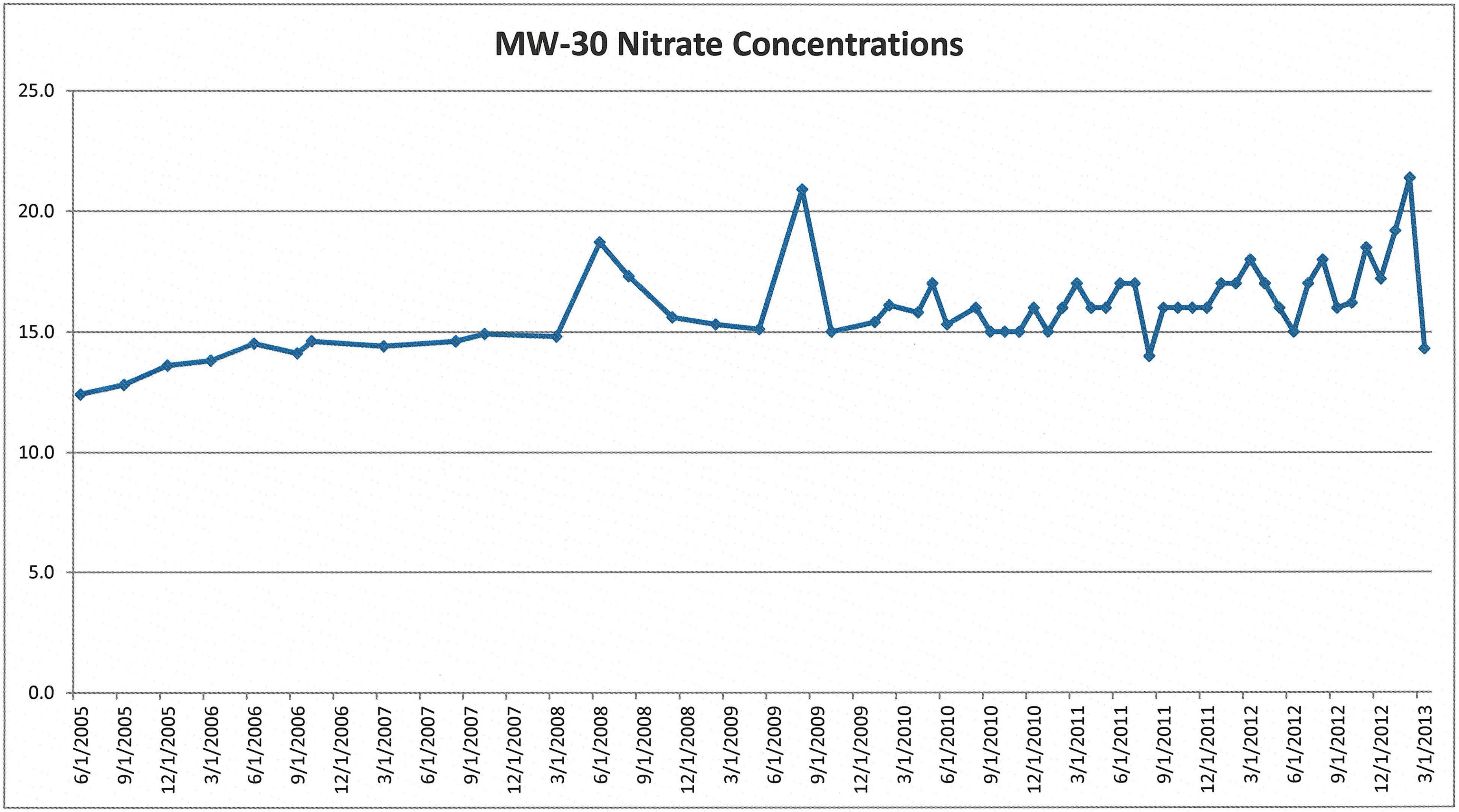


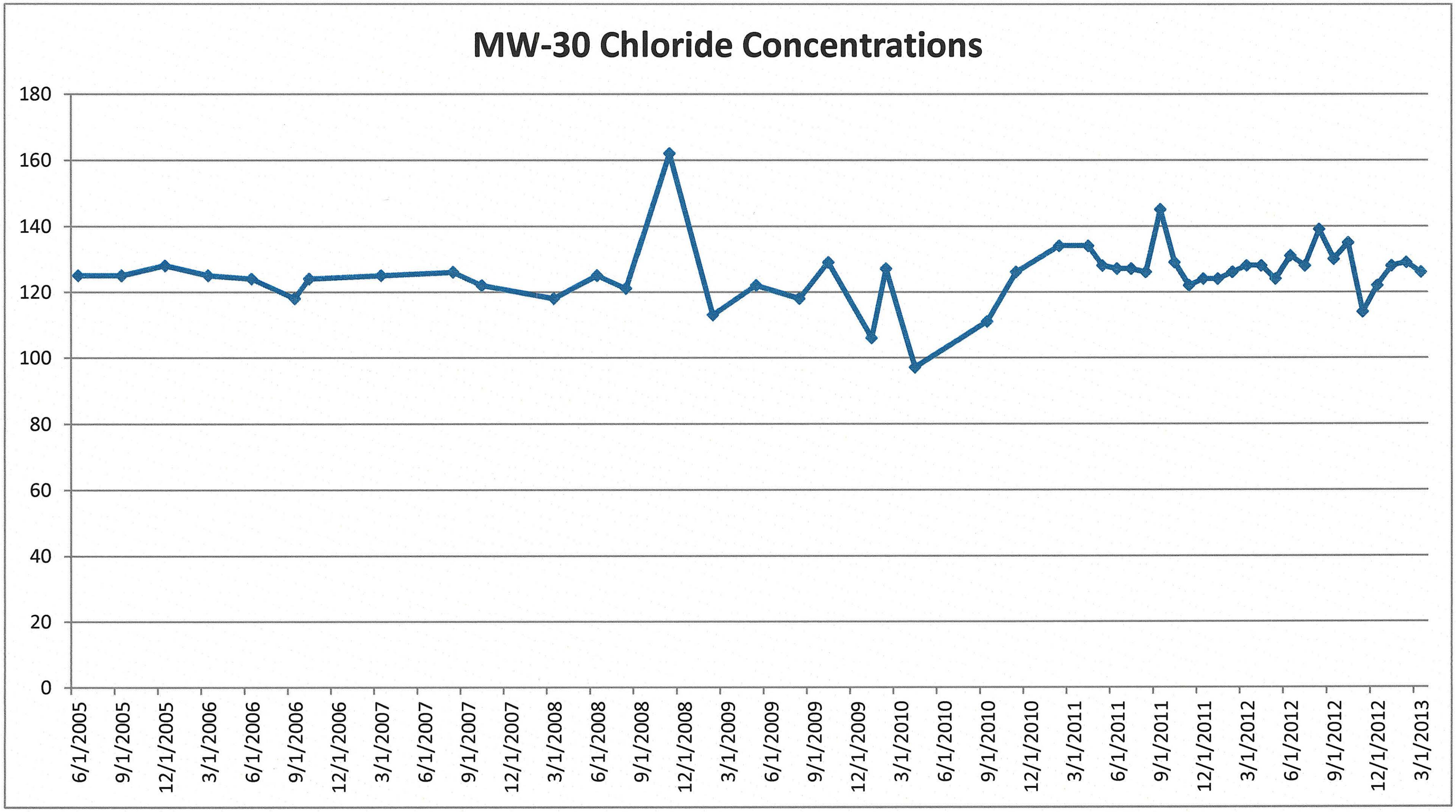
MW-19 Nitrate Concentrations

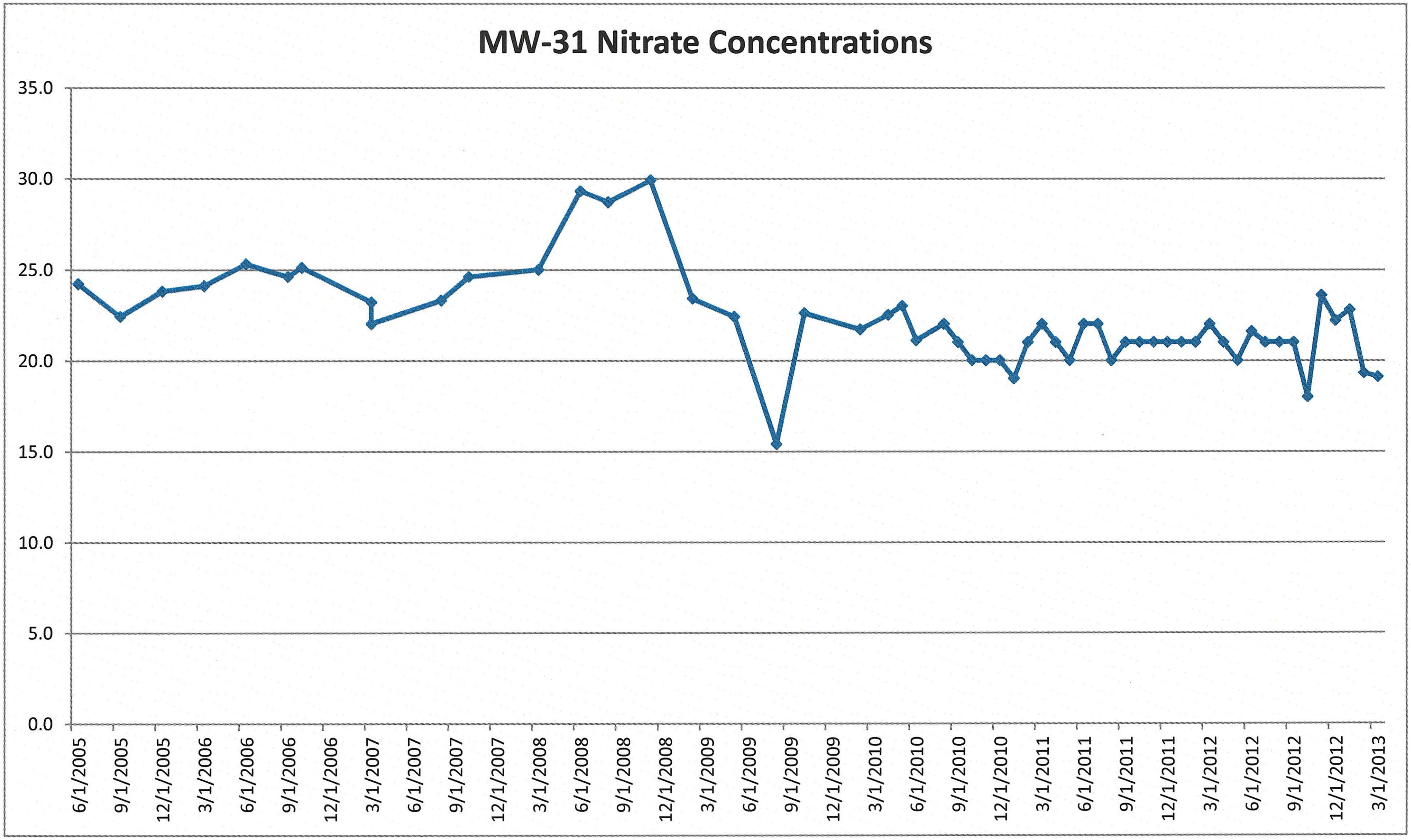


MW-19 Chloride Concentrations

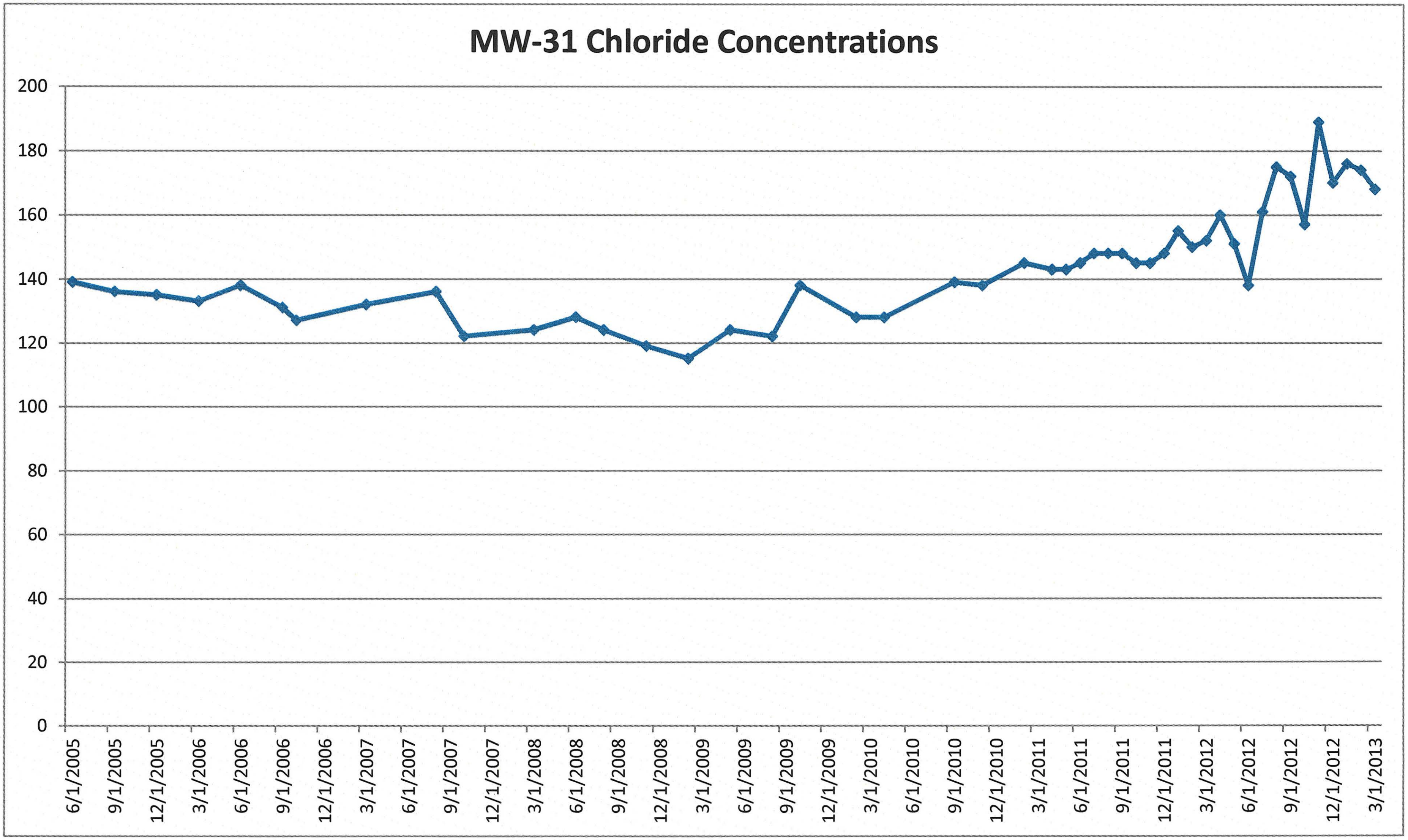



MW-30 Nitrate Concentrations
25.0
20.0
15.0
10.0
5.0
0.0
6/1/2005
9/1/2005
12/1/2005
3/1/2006
6/1/2006
9/1/2006
12/1/2006
3/1/2007
6/1/2007
9/1/2007
12/1/2007
3/1/2008
6/1/2008
9/1/2008
12/1/2008
3/1/2009
6/1/2009
9/1/2009
12/1/2009
3/1/2010
6/1/2010
9/1/2010
12/1/2010
3/1/2011
6/1/2011
9/1/2011
12/1/2011
3/1/2012
6/1/2012
9/1/2012
12/1/2012
3/1/2013

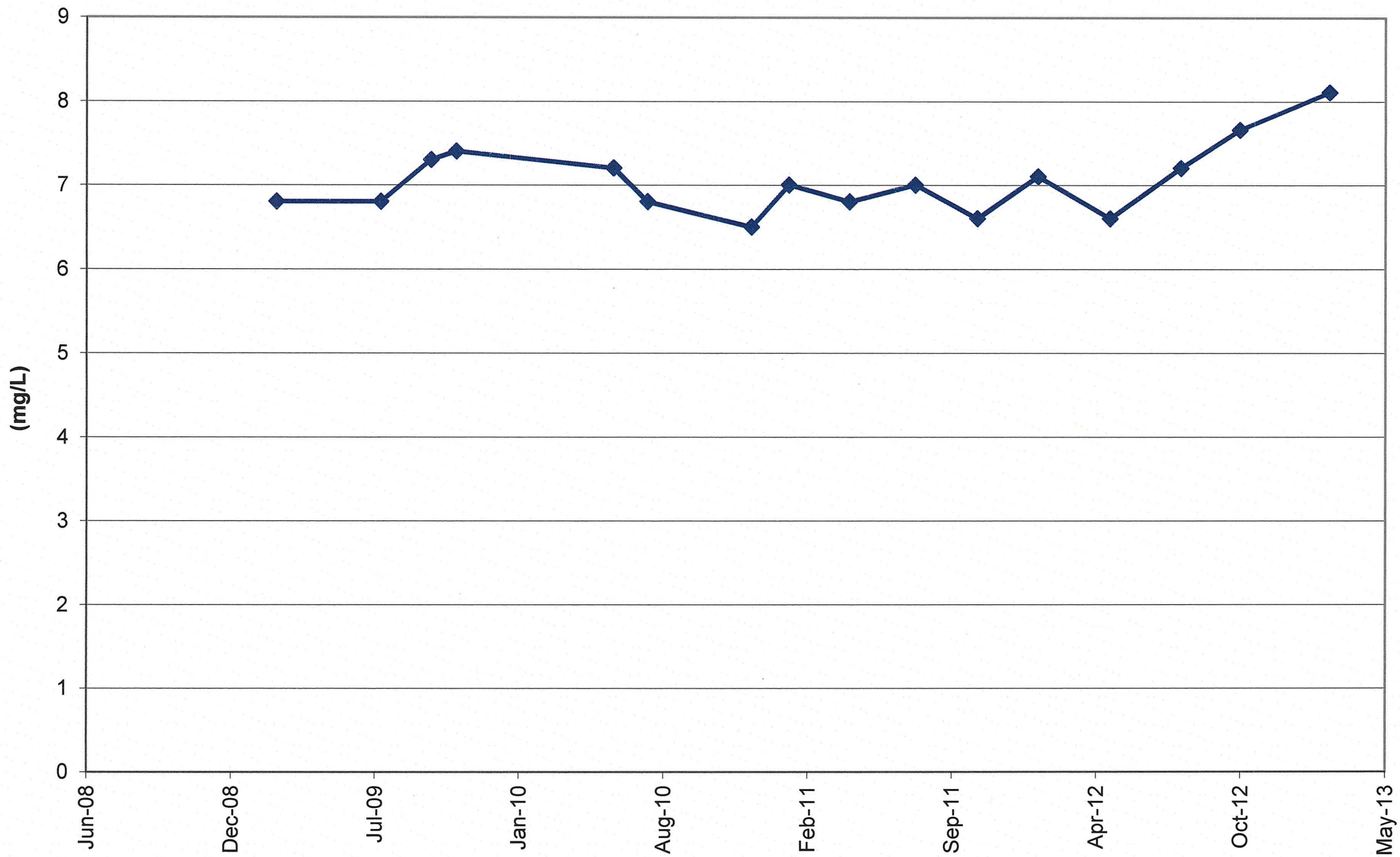

MW-30 Chloride Concentrations
180
160
140
120
100
80
60
40
20
0
6/1/2005
9/1/2005
12/1/2005
3/1/2006
6/1/2006
9/1/2006
12/1/2006
3/1/2007
6/1/2007
9/1/2007
12/1/2007
3/1/2008
6/1/2008
9/1/2008
12/1/2008
3/1/2009
6/1/2009
9/1/2009
12/1/2009
3/1/2010
6/1/2010
9/1/2010
12/1/2010
3/1/2011
6/1/2011
9/1/2011
12/1/2011
3/1/2012
6/1/2012
9/1/2012
12/1/2012
3/1/2013



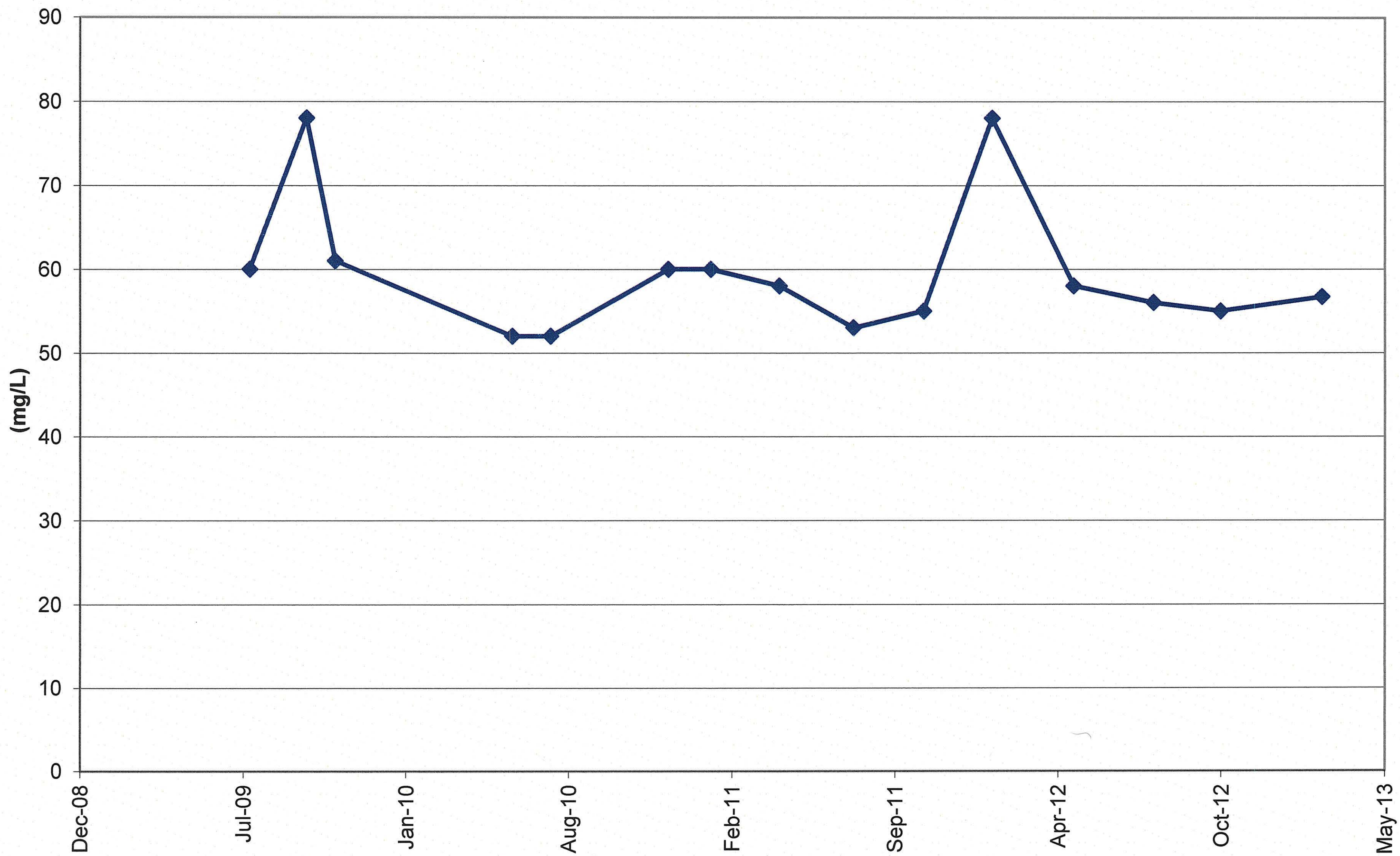
MW-31 Nitrate Concentrations
35.0
30.0
25.0
20.0
15.0
10.0
5.0
0.0
6/1/2005
9/1/2005
12/1/2005
3/1/2006
6/1/2006
9/1/2006
12/1/2006
3/1/2007
6/1/2007
9/1/2007
12/1/2007
3/1/2008
6/1/2008
9/1/2008
12/1/2008
3/1/2009
6/1/2009
9/1/2009
12/1/2009
3/1/2010
6/1/2010
9/1/2010
12/1/2010
3/1/2011
6/1/2011
9/1/2011
12/1/2011
3/1/2012
6/1/2012
9/1/2012
12/1/2012
3/1/2013


MW-31 Chloride Concentrations
200
180
160
140
120
100
80
60
40
20
0
6/1/2005
9/1/2005
12/1/2005
3/1/2006
6/1/2006
9/1/2006
12/1/2006
3/1/2007
6/1/2007
9/1/2007
12/1/2007
3/1/2008
6/1/2008
9/1/2008
12/1/2008
3/1/2009
6/1/2009
9/1/2009
12/1/2009
3/1/2010
6/1/2010
9/1/2010
12/1/2010
3/1/2011
6/1/2011
9/1/2011
12/1/2011
3/1/2012
6/1/2012
9/1/2012
12/1/2012
3/1/2013

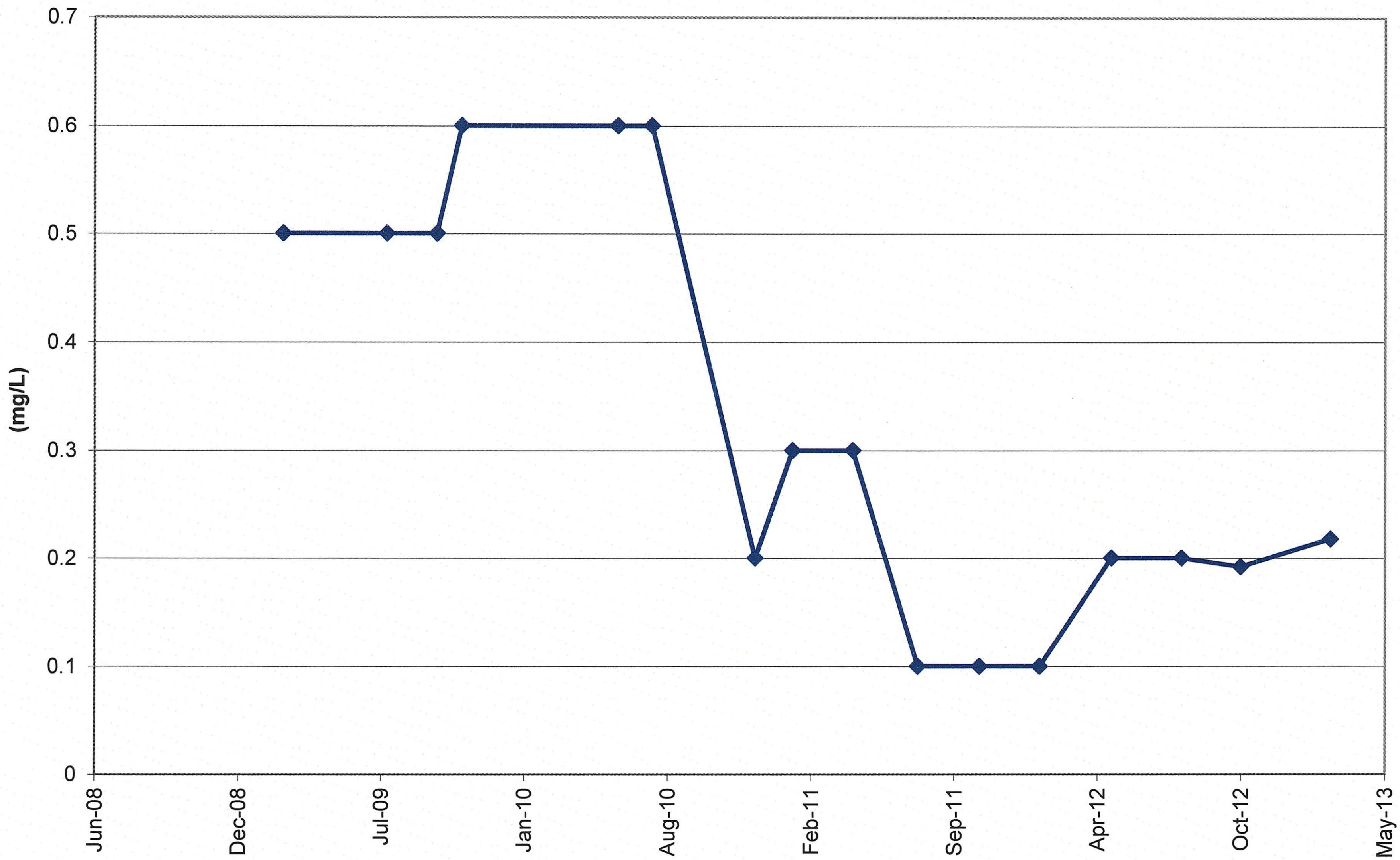
Piezometer 1 Nitrate Concentrations



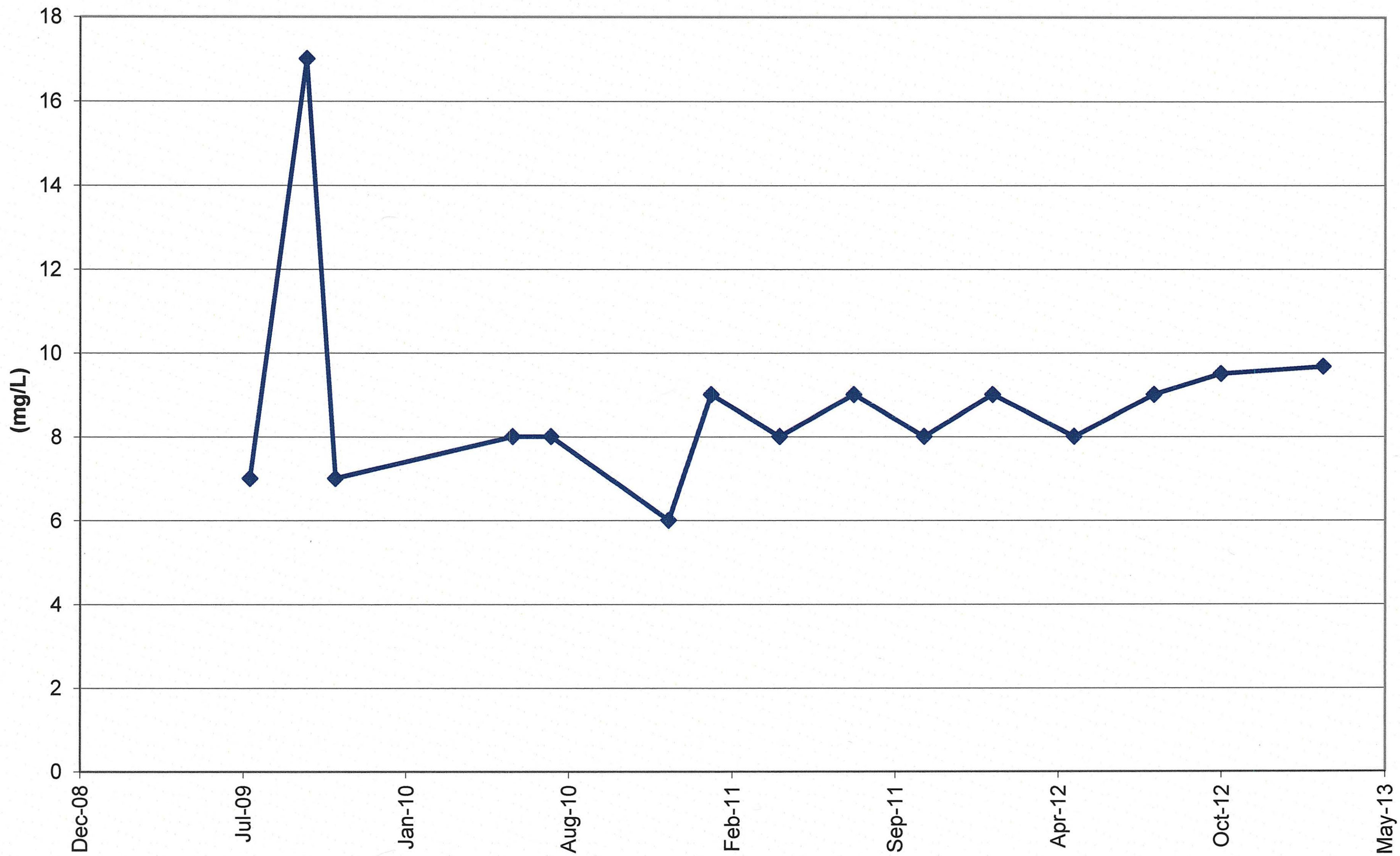
Piezometer 1 Chloride Concentrations

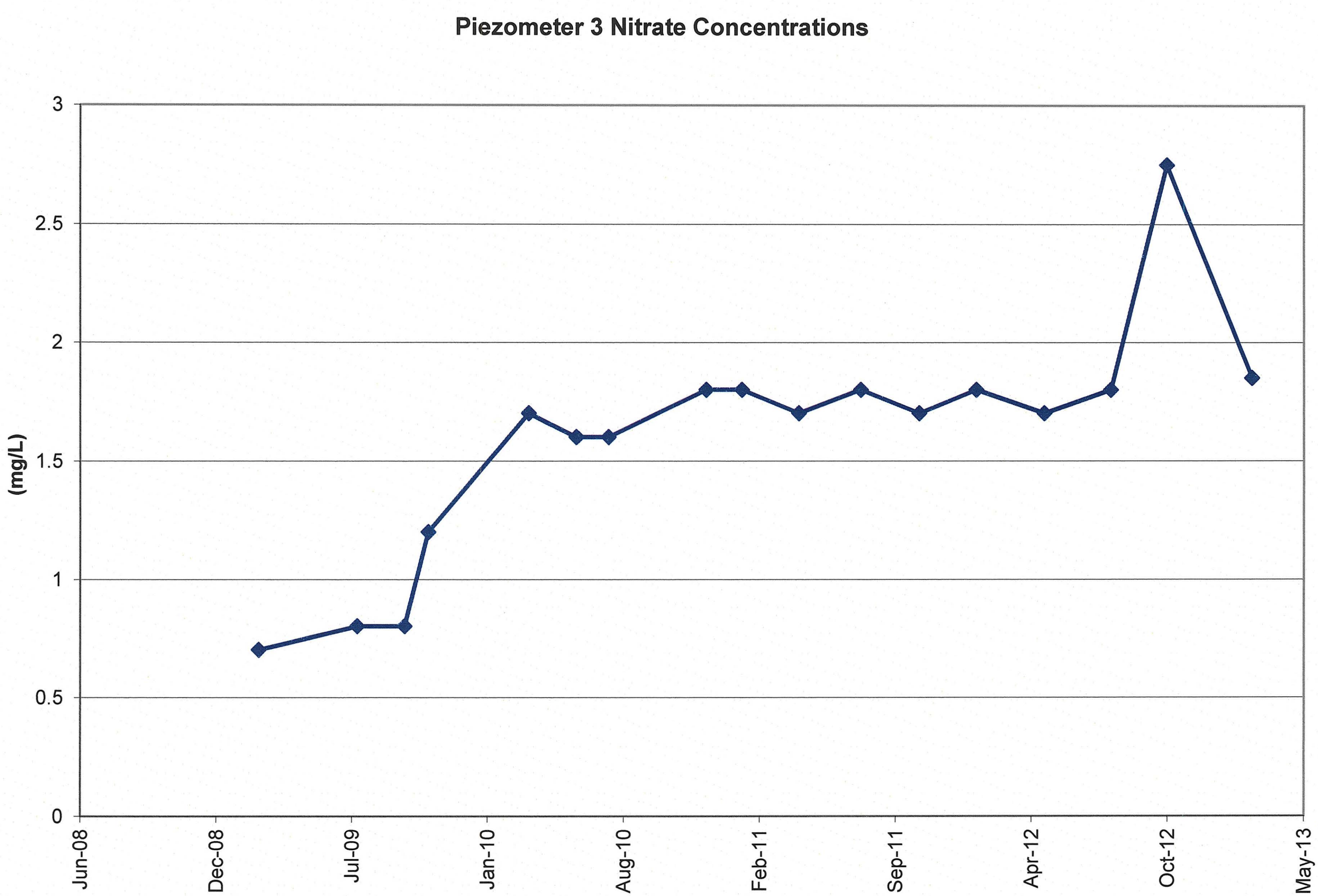


Piezometer 2 Nitrate Concentrations



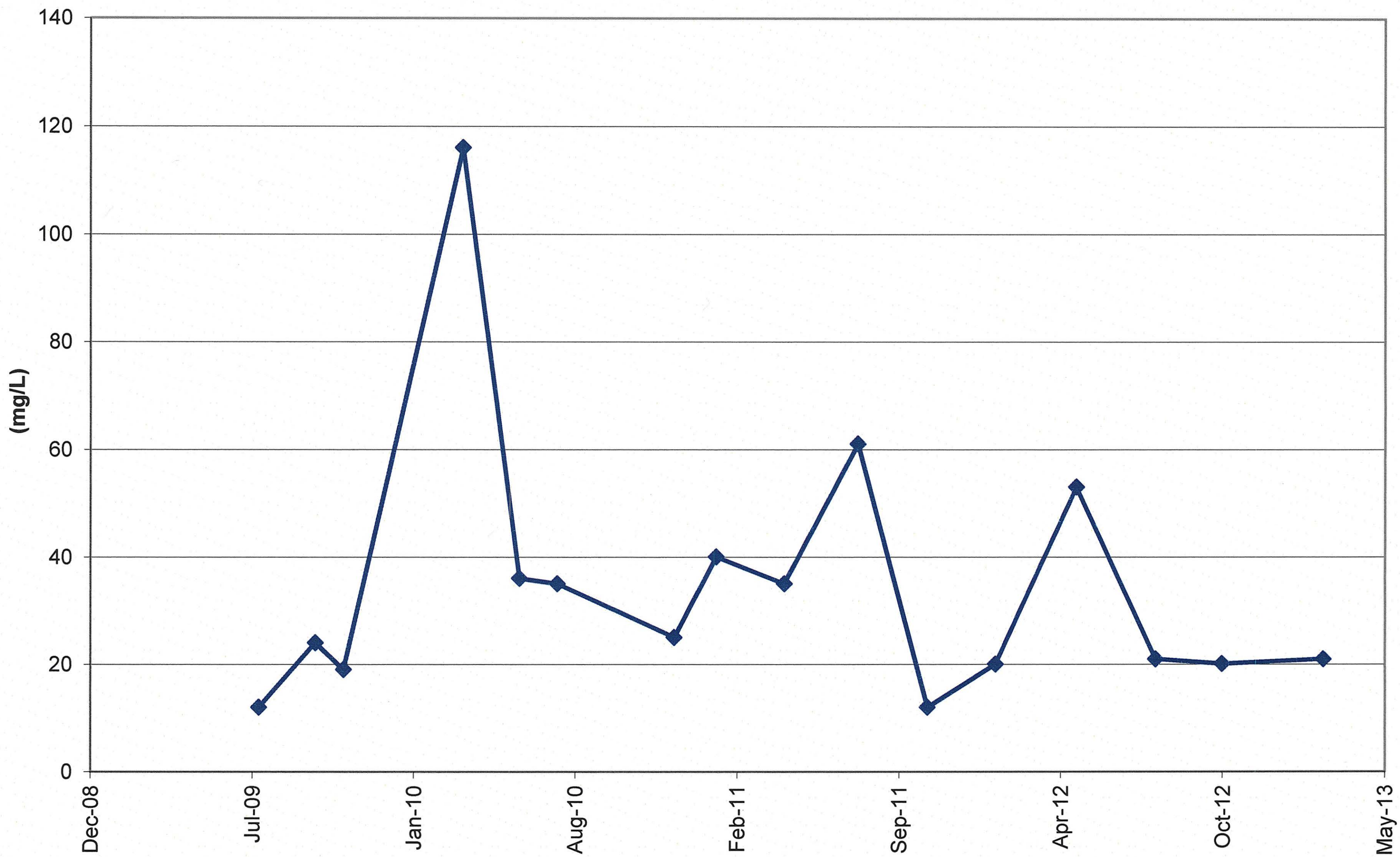
Piezometer 2 Chloride Concentrations

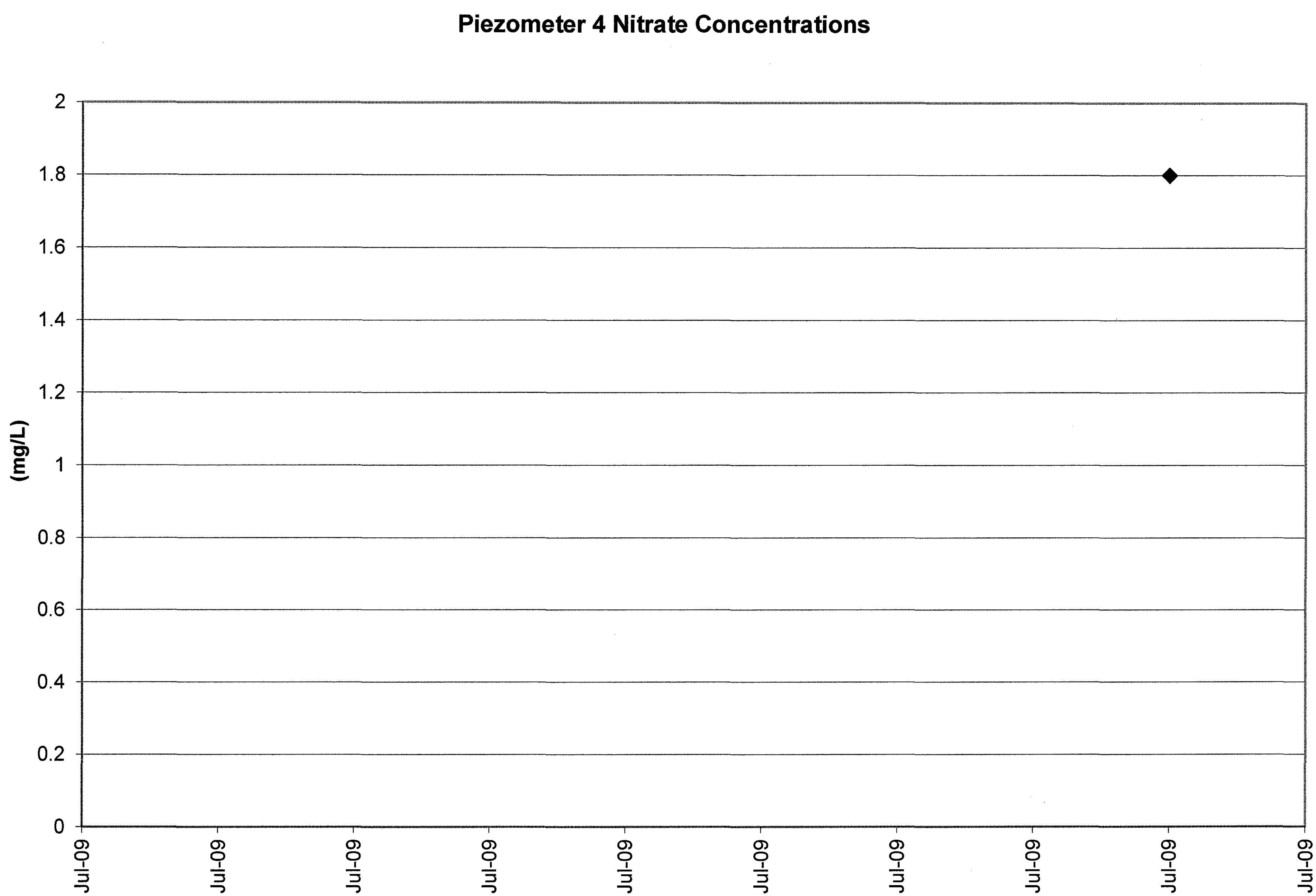




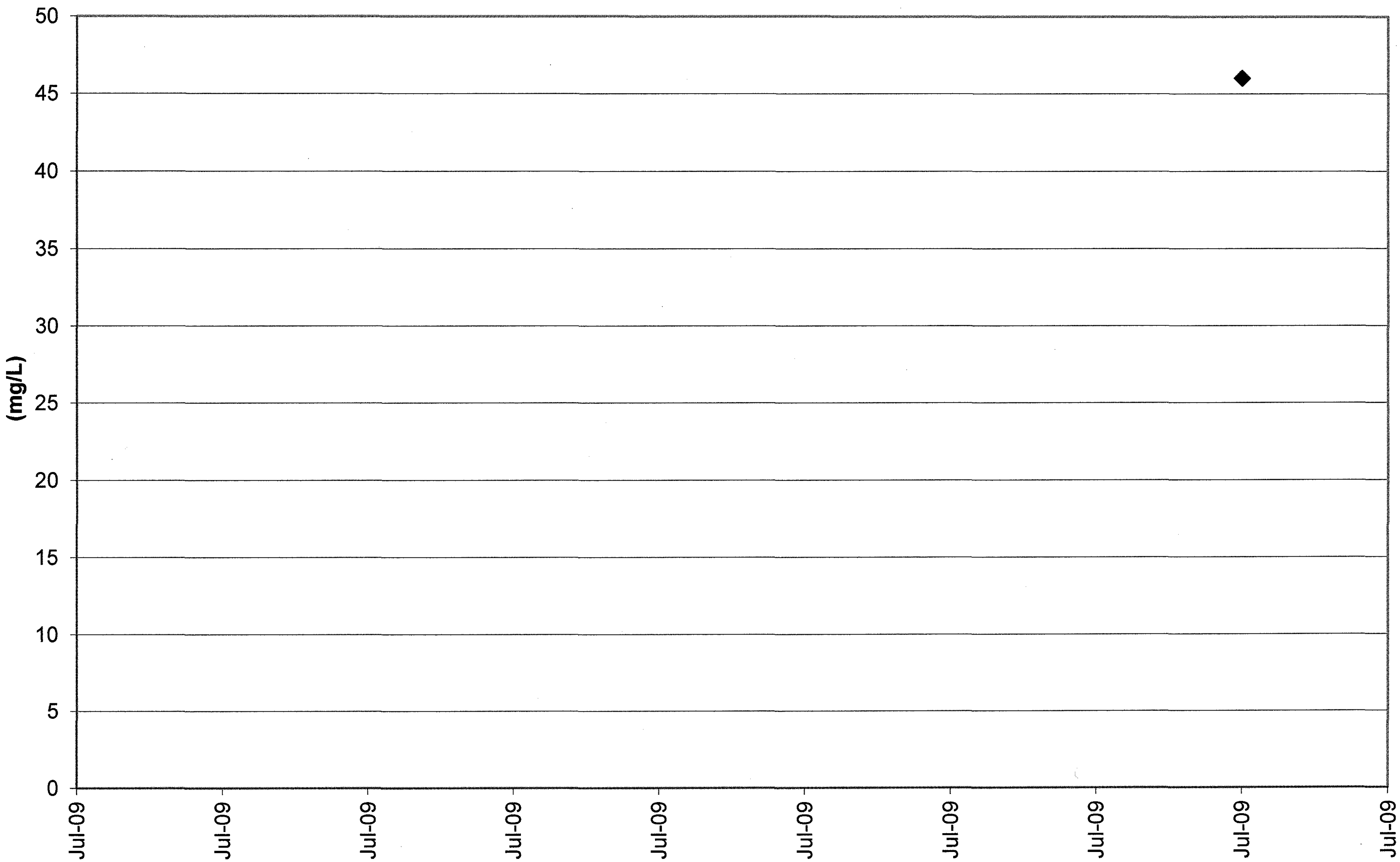
Piezometer 3 Nitrate Concentrations
(mg/L)
3
2.5
2
1.5
1
0.5
0
Jun-08
Dec-08
Jul-09
Jan-10
Aug-10
Feb-11
Sep-11
Apr-12
Oct-12
May-13

Piezometer 3 Chloride Concentrations

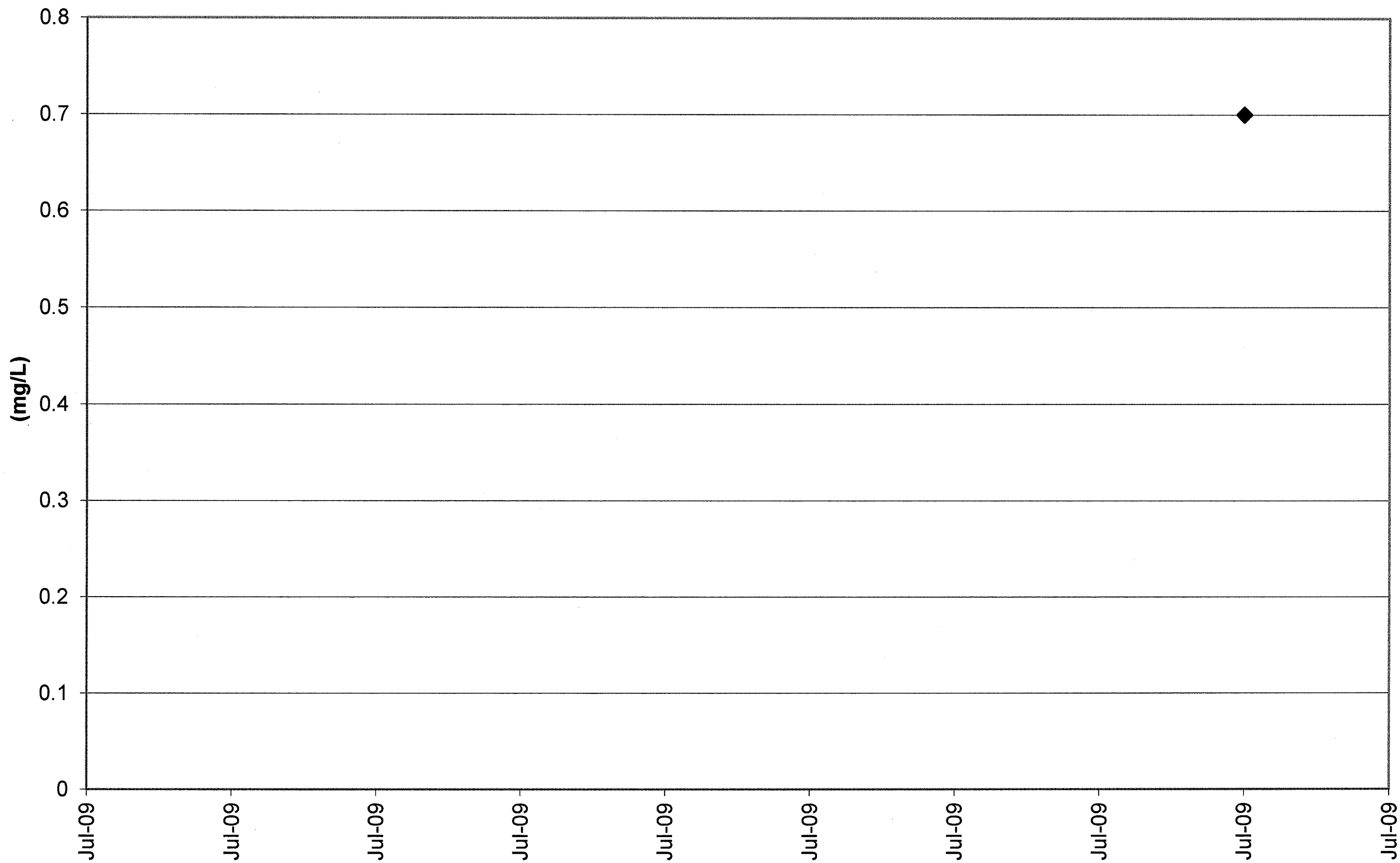



Piezometer 4 Nitrate Concentrations
(mg/L)
2
1.8
1.6
1.4
1.2
1
0.8
0.6
0.4
0.2
0
Jul-09
Jul-09
Jul-09
Jul-09
Jul-09
Jul-09
Jul-09
Jul-09
Jul-09
Jul-09

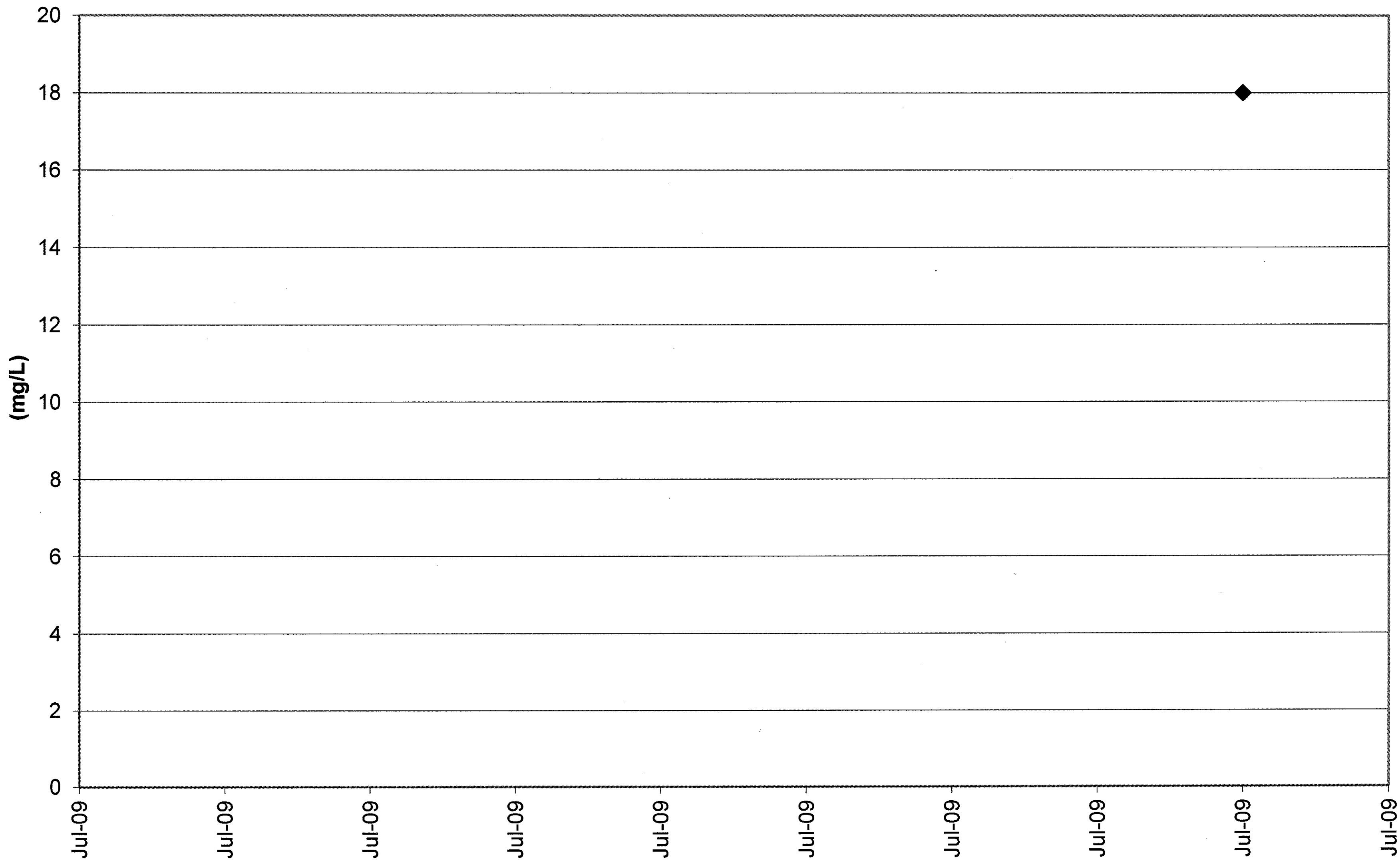
Piezometer 4 Chloride Concentrations



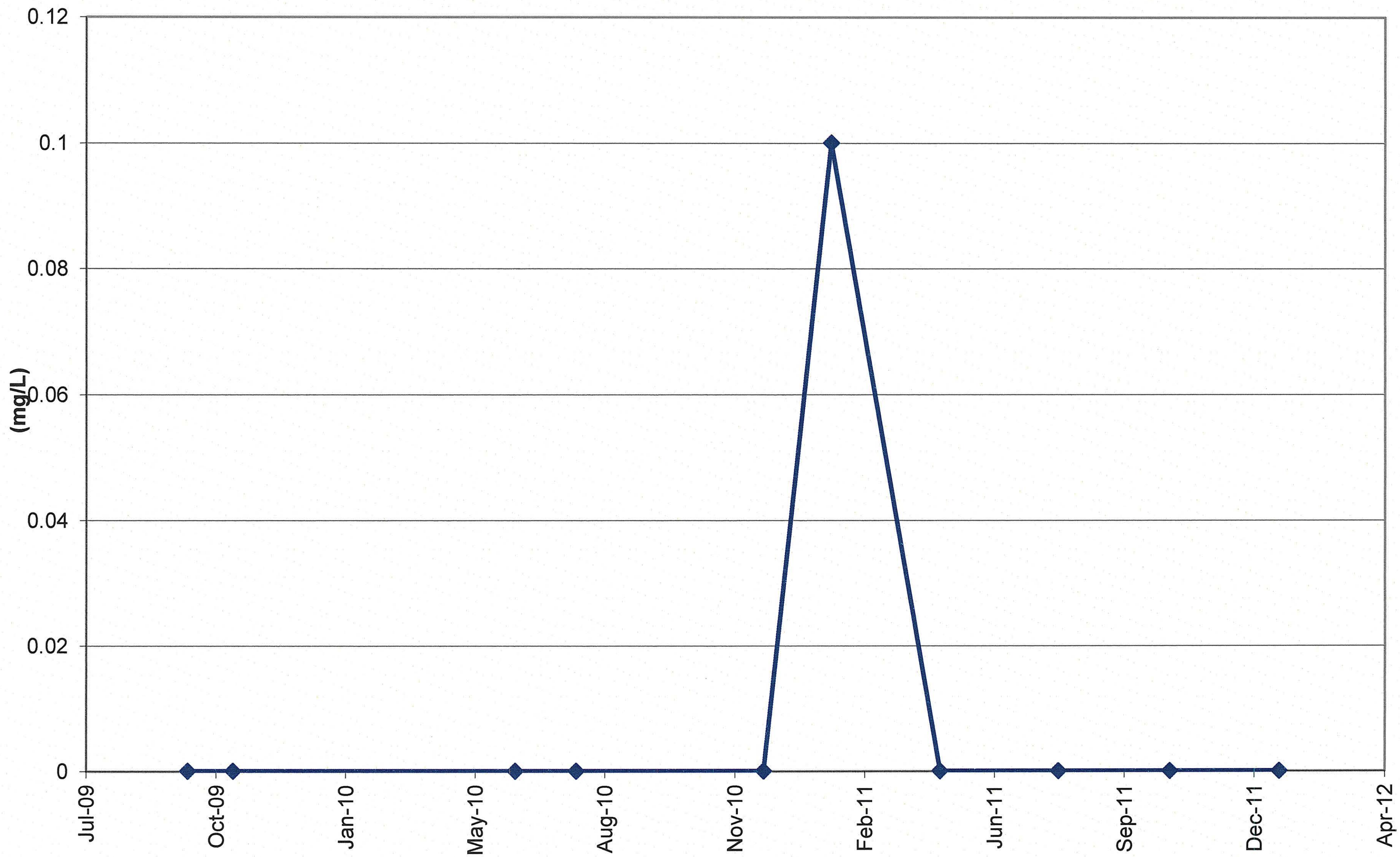
Piezometer 5 Nitrate Concentrations



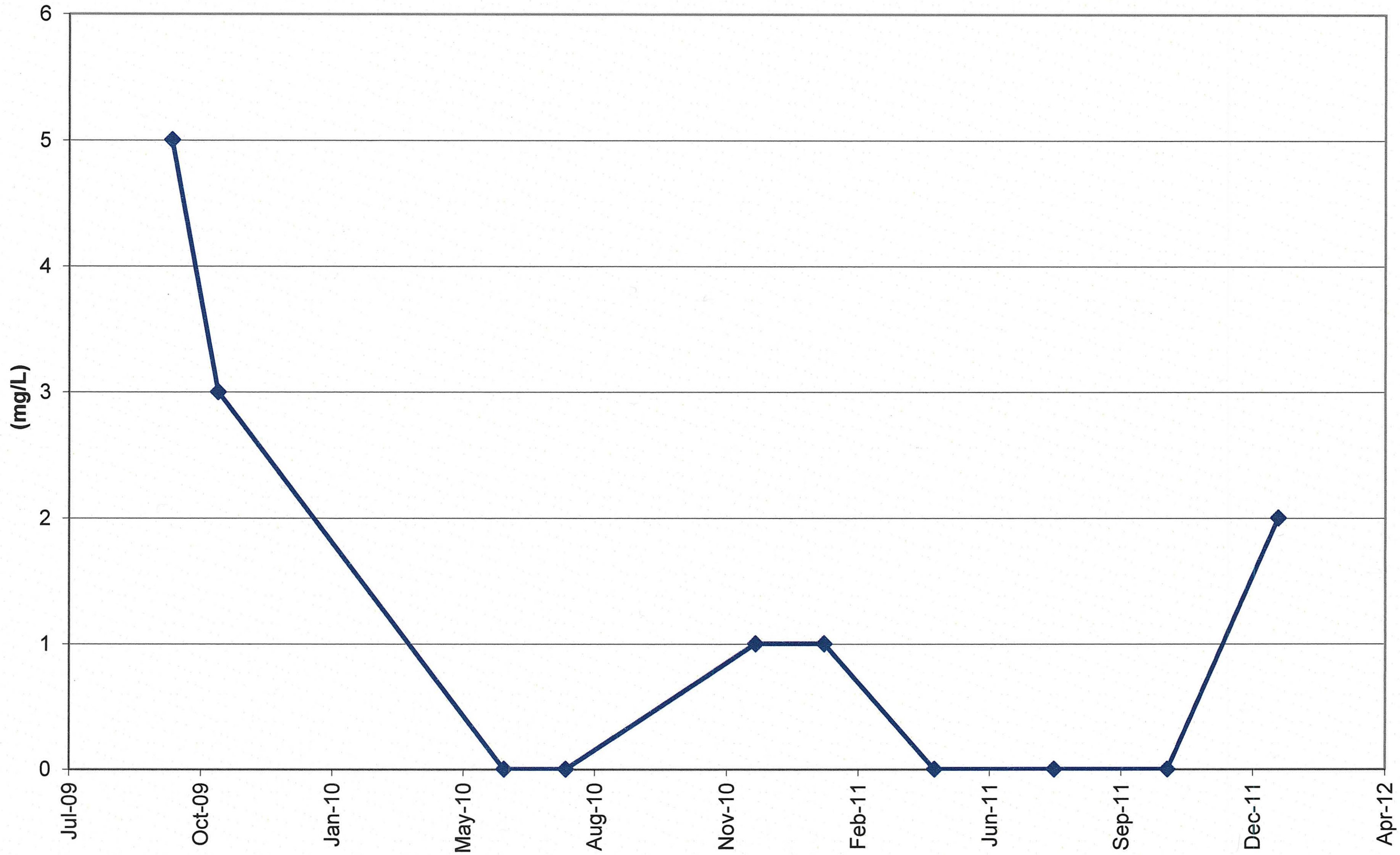
Piezometer 5 Chloride Concentrations

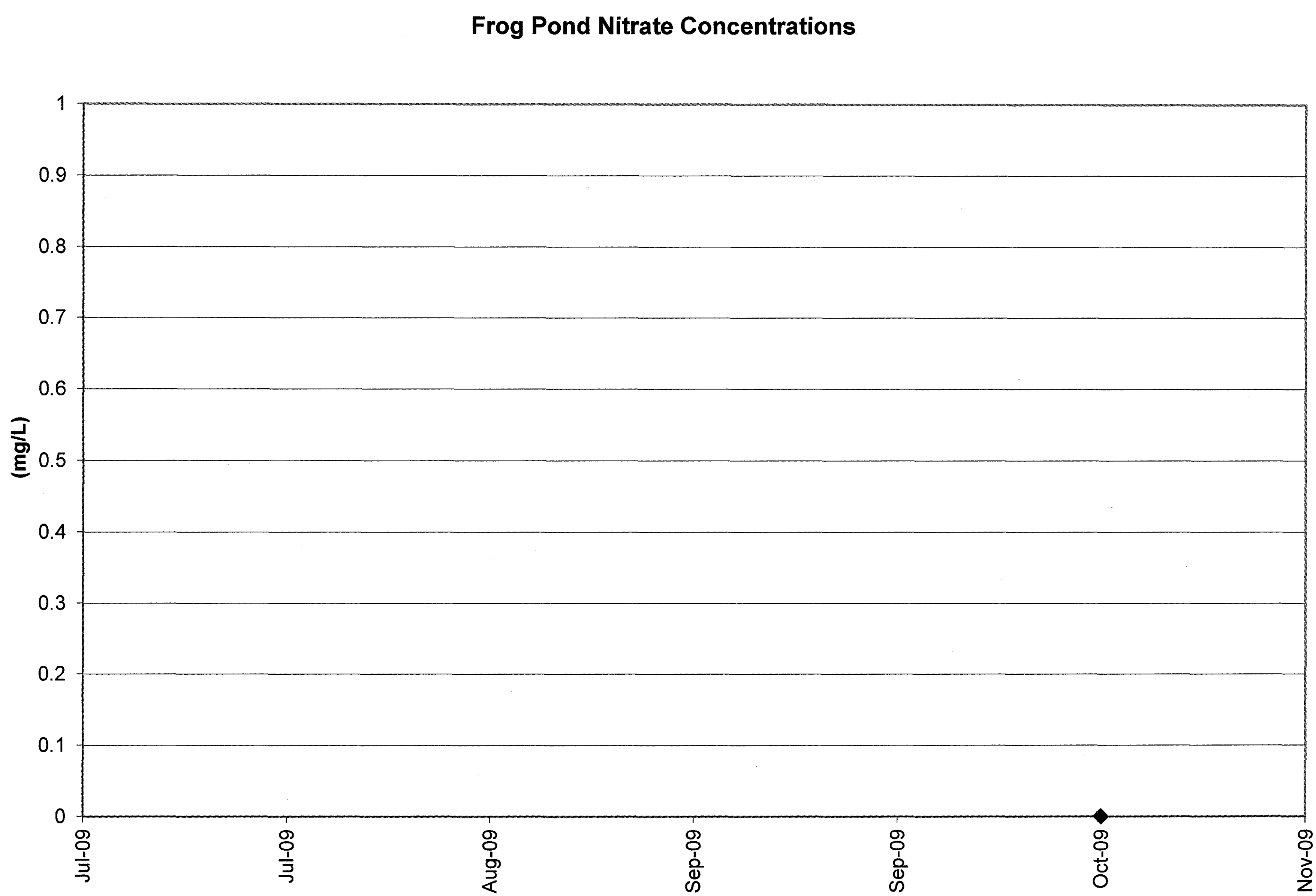


Upper Wildlife Pond Nitrate Concentrations

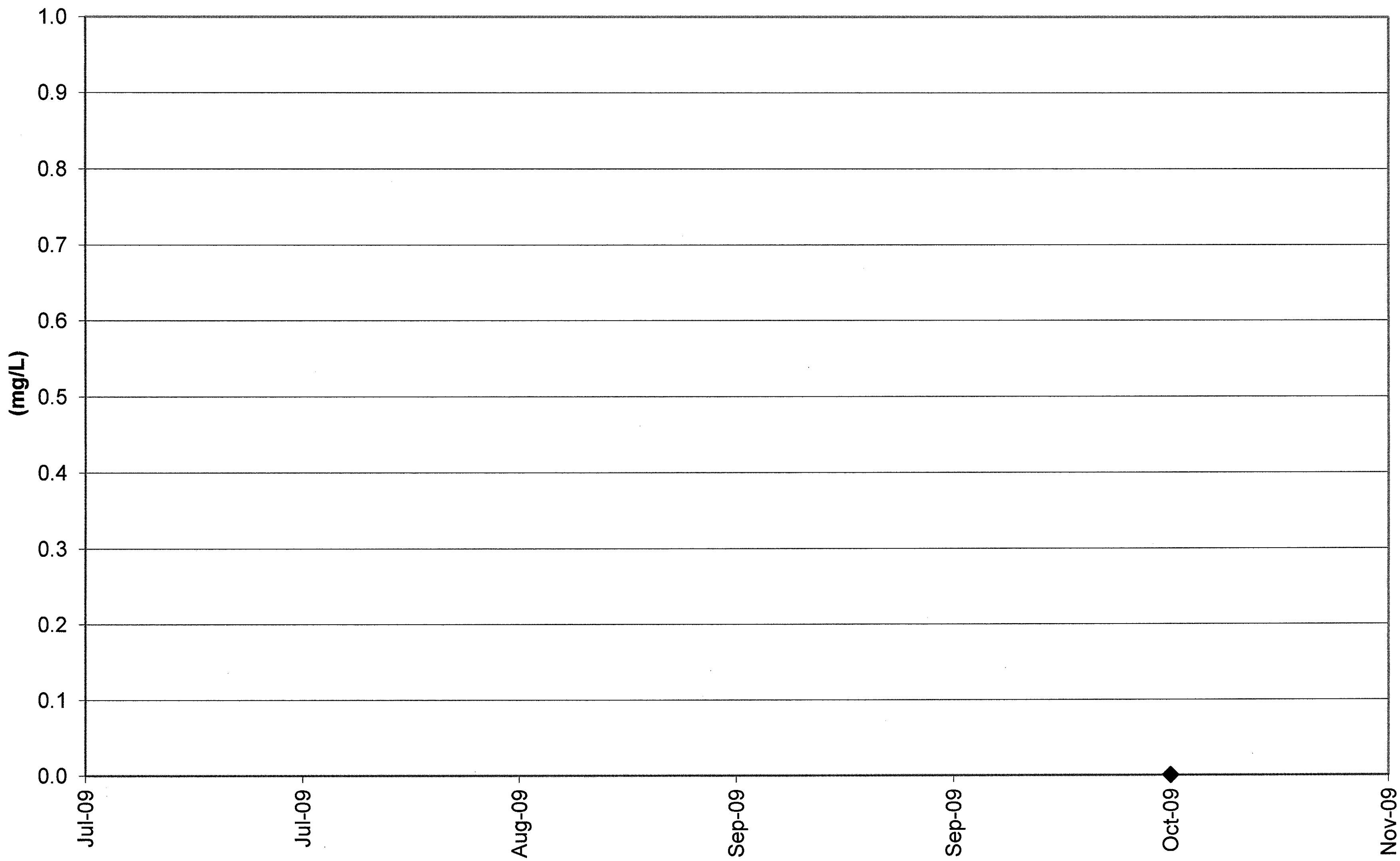


Upper Wildlife Pond Chloride Concentrations




Frog Pond Nitrate Concentrations
(mg/L)
1
0.9
0.8
0.7
0.6
0.5
0.4
0.3
0.2
0.1
0
Jul-09
Jul-09
Aug-09
Sep-09
Sep-09
Oct-09
Nov-09

Frog Pond Chloride Concentrations



Tab L

CSV Transmittal Letter

Kathy Weinel

From: Kathy Weinel
Sent: Thursday, May 23, 2013 8:48 AM
To: 'rlundberg@utah.gov'
Cc: 'Phillip Goble'; 'Thomas Rushing'; 'Dean Henderson'; Harold Roberts; David Frydenlund; Jo Ann Tischler; Jaime Massey; David Turk; Garrin Palmer; N. Tanner Holliday; Dan Hillsten
Subject: Transmittal of CSV Files White Mesa Mill 2013 Q1 Nitrate Monitoring
Attachments: 1302338-EDD-rev1.csv

Dear Mr. Lundberg,

Attached to this e-mail are electronic copies of laboratory results for nitrate monitoring conducted at the White Mesa Mill during the first quarter of 2013, in Comma Separated Value (CSV) format.

Please contact me at 303-389-4134 if you have any questions on this transmittal.

Yours Truly

Kathy Weinel