



RE: 0705-N

January 30, 2007

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U.S. Nuclear Regulatory Commission
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RE: Sequoyah Fuels Corporation
2006 Annual Groundwater Report
License No. SUB-1010
Docket No. 40-8027

Dear Mr. Fliegel:

Enclosed is a copy of the 2006 Annual Groundwater Report required by Condition 49 of Amendment 31 to the above referenced license.

Let me know if you have any questions or comments pertaining to the report.

Sincerely,

Scott C. Munson
Project Coordinator

2006 ANNUAL GROUNDWATER REPORT

Sequoyah Fuels Corporation
Gore, Oklahoma

Submitted to:
RCRA Enforcement Branch
U.S. Environmental Protection Agency
Region 6 - Dallas, TX

and

Fuel Cycle Facilities Branch
U.S. Nuclear Regulatory Commission
Headquarters Office, Rockville, MD

January 30, 2007

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2006 ANNUAL GROUNDWATER REPORT

Sequoyah Fuels Corporation

1.0 INTRODUCTION

As a condition of the U.S. Environmental Protection Agency (EPA) Administrative Order on Consent (AOC) No. VI-005-(h)93-H (EPA I.D. No. OKD051961183), Sequoyah Fuels Corporation (SFC) was required to submit a Groundwater Monitoring Interim Measures Workplan (GMIM). The GMIM, submitted November 19, 1993 established a schedule for monitoring and required SFC to submit an annual report with the monitoring data collected for the year by February 1st after the end of a monitoring year. On August 22, 2005, the U.S. Nuclear Regulatory Commission (NRC) amended Source Materials License No. SUB-1010 to authorize implementation of SFC's Groundwater Monitoring Plan (GWMP) dated February 25, 2005. This license amendment requires SFC to submit, by April 1 of each year, a groundwater compliance monitoring report. EPA also approved the modification to the schedule contained in the GWMP dated February 25, 2005. Groundwater monitoring data collected during calendar year 2006 is provided herein in fulfillment of the above requirements.

1.1 Background

SFC conducts groundwater monitoring through a monitoring well network described in the GWMP. This network includes corrective action, seep, drainage, surface water and groundwater monitoring. New groundwater monitoring wells required by the GWMP were installed during late 2005 and early 2006. Initial sampling of these wells was completed during early 2006. A map of the site showing corrective action, seep, drainage and groundwater monitoring locations is presented in Figure 1. Surface water sampling locations are shown in Figure 2. Groundwater monitoring wells are completed at various depths to monitor different groundwater units. The groundwater monitoring units at the Sequoyah Facility have been designated as Terrace/Shale 1,

Shale 2, Shale 3, Shale 4 and Shale 5. The GWMP includes a general description of the geologic, hydrogeologic, and geochemical conditions at the Facility.

A detailed discussion of the geology and hydrogeology of the Facility was presented in the Final RFI Report submitted to EPA Region 6 on October 11, 1996. An additional site investigation was conducted during 2001 by Shepherd Miller Inc. (SMI) in support of the development of a site conceptual model for geology and hydrogeology. The conceptual model refined the site geology into individual shale and sandstone units and was submitted to NRC and EPA during October 2002 in a report titled Final Hydrogeological and Geochemical Site Characterization Report.

License Condition 49 of SUB-1010 that required SFC to submit a groundwater monitoring plan to NRC on or before June 15, 2003. SFC evaluated the groundwater monitoring requirements at the Sequoyah Facility during 2003 and submitted the GWMP to NRC and EPA on June 12, 2003. The GWMP provides a comprehensive groundwater monitoring program that meets the objectives of the GMIM and NRC. The GWMP was modified based on comments received from regulatory agencies and resubmitted to NRC and EPA on February 25, 2005. This GWMP was approved by NRC and EPA during August and November of 2005, respectively.

1.2 Scope

Routine groundwater monitoring is conducted for constituents of concern that have previously been identified in the groundwater at the Facility. The primary constituents of concern present in the Facility groundwater are arsenic, fluoride, nitrate and uranium. Barium has also been identified as a constituent of concern but the extent of impact is limited to a small area.

Monitoring is conducted in accordance with the requirements of the GWMP and Amendment No. 31 to NRC License SUB-1010.

Routine groundwater sampling will normally be completed in April each year. Quarterly sampling will typically be completed during January, April, July and December of each year.

Quarterly sampling of some locations is required for a year and annually thereafter. Table 1 provides the GWMP sampling and analysis schedule. Samples were collected by SFC employees using procedures and protocols defined in the GWMP. Laboratory analyses were conducted by Outreach Laboratory (EPA Lab Number OK00922 and ODEQ ID Number 9517) located in Broken Arrow, Oklahoma.

1.3 Report Organization

The remaining sections of this report describe the groundwater monitoring program changes (Section 2.0), current conditions (Section 3.0) and summarization of Facility groundwater monitoring results (Section 4.0).

2.0 MONITORING PROGRAM CHANGES

As described in Section 1.1 of this report SFC submitted a new groundwater monitoring plan to NRC and EPA on June 12, 2003. After responding to several requests for additional information from NRC regarding the plan, SFC submitted a revised plan to NRC and EPA on February 25, 2005. This revised plan was approved by NRC and EPA during 2005.

Condition Number 49 to Amendment No. 31 of SFC's NRC License Number SUB-1010 added a requirement to implement a groundwater compliance monitoring program as described in SFC's GWMP submitted to NRC on February 25, 2005. This condition included the following groundwater protection standards, referred to as Maximum Contaminant Levels (MCL's) in this report:

Antimony = 0.006 mg/l, arsenic = 0.01 mg/l, barium = 1.0 mg/l, beryllium = 0.004 mg/l, cadmium = 0.01 mg/l, chromium = 0.05 mg/l, fluoride = 4.0 mg/l, lead = 0.05 mg/l, mercury = 0.002 mg/l, molybdenum = 0.012 mg/l, nickel = 0.023 mg/l, nitrate = 10 mg/l, combined radium-226 and radium-228 = 5.0 pCi/l, selenium = 0.01 mg/l, silver = 0.05 mg/l, thallium = 0.005 mg/l, thorium-230 = 1.2 pCi/l and uranium = 30 µg/l.

Note that, although the Condition 49 lists the molybdenum MCL as 0.0012 mg/l, this was a typographical error and will be corrected to 0.012 mg/l at the next license amendment.

The GWMP required ten new groundwater monitoring wells to be installed. These wells were installed during late 2005 or early 2006. Lithology and well completion information for these new wells is provided in Appendix A to this report. These new wells are designated MW121A through MW130A and are included on Figure 1. These wells were sampled quarterly during 2006 and will be sampled at an annual frequency in the future.

In addition to groundwater monitor well compliance locations the GWMP requires SFC to monitor corrective action, seep, drainage and surface water locations. Corrective action monitoring includes collecting samples from groundwater recovery systems and monitoring

locations down-gradient of the recovery systems. Seep and drainage samples are collected along the western perimeter of the Facility where groundwater reaches the ground surface from outcrops of groundwater bearing units. Surface water samples are collected at upstream and downstream locations from the rivers located west and southwest of the Facility.

Seven new groundwater recovery wells were also installed at the Facility during 2006. These recovery wells were being installed at the following locations:

- Two wells in the northwest portion of the process area to recover uranium impacted groundwater designated MWRW4 and MWRW5.
- Three wells south of the Main Process Building near the main gate to the process area for recovery of uranium impacted groundwater designated MWRW6 through MWRW8.
- One well north of the SX Building to recover nitrate and uranium impacted groundwater designated as MWRW9.
- One well east of Monitor Well Location MW095A to recover arsenic and nitrate impacted groundwater designated as MWRW10.

Recovery well lithology and completion diagrams are provided in Appendix B of this report.

3.0 CURRENT CONDITIONS

Groundwater flow at the Facility is described as generally westward with some northwesterly and southwesterly movement. This generalization is true for all the groundwater units currently being monitored. The 2006 groundwater level measurements correlate well with the flow directions found during previous measurement events. Groundwater surface contour maps for each groundwater unit are included as Figures 3 through 7. Ten foot contour intervals are shown along with the groundwater elevations measured at each well used to construct the contours. If more than one water level measurement was obtained during the year an average value was calculated and used. Surfer, a computer program developed by Golden Software, Inc., was used to generate the contours. Each contour is labeled with the groundwater surface elevation in feet above mean sea level. Due to the limited number of data points available these figures provide a general depiction of the groundwater elevations surface for each unit.

The major constituents of concern at the Facility have been established as arsenic, fluoride, nitrate (as N), and uranium. Background quality and compliance groundwater monitoring program data for 2006 are presented in Tables 2 and 3. Groundwater isoconcentration maps for arsenic, fluoride, nitrate and uranium have been prepared for each groundwater unit and are included as Figures 8 through 20. Surfer has also been used to prepare the isoconcentration figures. If more than one analyses was available for a parameter an average value was calculated and used. Due to the limited number of data points these figures provide a general depiction of the concentrations present and location of impacted areas. The extent of the impact may vary from that depicted on the figures. A discussion of the groundwater analyses for arsenic, fluoride, nitrate and uranium is provided below.

3.1 Background Quality Monitoring

The GWMP requires that the designated background groundwater monitoring locations be analyzed on a quarterly basis for one year. Background monitoring wells are analyzed for

antimony, arsenic, barium, beryllium, cadmium, chromium, fluoride, lead, nitrate, molybdenum, nickel, selenium, thallium, radium-226, radium-228, thorium-230 and uranium. The background wells (MW007, MW007A, MW007B, MW070, MW073 and MW110A) were sampled during January, April, July and December 2006. These four sampling events and the event from October 2005 have been combined and a statistical analysis completed. This evaluation and statistic analysis are included in Appendix C to this report.

3.2 Compliance Monitoring

The discussion of monitoring results in this section is based on analyses of samples collected during 2006. If more than one sample analysis is available for a monitoring well an average value was calculated and used for data evaluations.

3.2.1 Arsenic

Arsenic has been part of the routine monitoring program for select wells since being identified in Facility groundwater during the Facility Environmental Investigation conducted in the early 1990's. Total arsenic continues to be detected above the maximum contaminant level (MCL) of 0.01 mg/l in the Terrace/Shale 1, Shale 2, Shale 3 and Shale 4 groundwater systems. Arsenic was not detected above the MCL in the Shale 5 groundwater system.

The arsenic levels found in the Terrace/Shale 1 groundwater varied from <0.005 to 1.09 mg/l. The high of 1.09 mg/l occurred in MW075 located south of the incinerator. Terrace/Shale 1 groundwater monitoring wells with arsenic values in 2006 above the MCL were MW014, MW025, MW040, MW042, MW054, MW075 and MW086. An isoconcentration map of arsenic concentrations in Terrace/Shale 1 groundwater is shown in Figure 8.

The arsenic levels found in the Shale 2 groundwater varied from <0.005 to 1.24 mg/l. The high of 1.24 mg/l occurred in MW121A located southwest of Pond 2. Shale 2 groundwater monitoring wells with arsenic values in 2006 above the MCL were MW018A, MW042A,

MW062A, MW065A and MW121A. An isoconcentration map of arsenic concentrations in Shale 2 groundwater is shown in Figure 12.

The arsenic levels found in Shale 3 groundwater varied from <0.005 to 2.95 mg/l. The high of 2.95 mg/l occurred in MW057A located near the southwest corner of Pond 2. Shale 3 groundwater monitoring wells with arsenic values in 2006 above the MCL were 2303A, 2346, MW012A, MW050A, MW057A, MW089A, MW122A and MW124A. An isoconcentration map of arsenic concentrations in Shale 3 groundwater is shown in Figure 15.

The arsenic levels found in the Shale 4 groundwater varied from <0.005 to 1.12 mg/l. The high of 1.12 mg/l occurred in MW059A located southwest of Pond 2. Shale 4 groundwater monitoring wells with arsenic values in 2006 above the MCL were MW059A and MW095A. An isoconcentration map of arsenic concentrations in Shale 4 groundwater is shown in Figure 19.

The arsenic levels found in the Shale 5 groundwater varied from <0.005 to 0.007 mg/l. The high of 0.007 mg/l was less than or equal to the MCL. An isoconcentration map of the arsenic concentrations in Shale 5 groundwater has not been prepared because none of the arsenic analyses were greater than the MCL.

3.2.2 Fluoride

Fluoride has been a common parameter monitored for many years in groundwater at SFC. Fluoride continues to be detected above the MCL of 4 mg/l in Terrace/Shale 1 and Shale 3 groundwater systems. Fluoride was not detected above the MCL in Shale 2, Shale 4 and Shale 5 groundwater systems.

The fluoride levels found in the Terrace/Shale 1 groundwater varied from 0.2 to 4.5 mg/l. The high of 4.5 mg/l occurred in MW045 located northwest of the Main Process Building. The only Terrace/Shale 1 groundwater monitoring well with fluoride values in 2006 above the MCL was

MW045, located north of Pond 2. An isoconcentration map of fluoride concentration in Terrace/Shale 1 groundwater is shown in Figure 9.

The fluoride levels found in the Shale 2 groundwater varied from 0.3 to 2.5 mg/l. The high of 2.5 mg/l was less than the MCL. An isoconcentration map of the fluoride concentrations in Shale 2 groundwater has not been prepared because none of the fluoride analyses were greater than the MCL.

The fluoride levels found in the Shale 3 groundwater varied from 0.3 to 4.9 mg/l. The high of 4.9 mg/l occurred in MW057A located near the southwest corner of Pond 2. The only Shale 3 groundwater monitoring well with fluoride values above the MCL was MW057A. An isoconcentration map of fluoride concentrations in Shale 3 groundwater is shown in Figure 16.

The fluoride levels found in Shale 4 groundwater varied from 0.2 to 2.3 mg/l. The high of 2.3 mg/l was less than the MCL. An isoconcentration map of the fluoride concentrations in Shale 4 groundwater has not been prepared because none of the fluoride analyses were greater than the MCL.

The fluoride levels found in the Shale 5 groundwater varied from 0.5 to 2.6 mg/l. The high of 2.6 mg/l was less than the MCL. An isoconcentration map of the fluoride concentrations in Shale 5 groundwater has not been prepared because none of the fluoride analyses were greater than the MCL.

3.2.3 Nitrate

Nitrate has also been a common parameter monitored for many years in groundwater at SFC. Nitrate continues to be detected above the MCL of 10 mg/l in the Terrace/Shale 1, Shale 2, Shale 3 and Shale 4 groundwater systems. Nitrate was not detected above the MCL in the Shale 5 groundwater system.

The nitrate levels found in the Terrace/Shale 1 groundwater varied from <1 to 877 mg/l. The high 877 mg/l occurred in MW025 located north of the SX Building. Terrace/Shale 1 groundwater monitoring wells with nitrate values in 2006 above the MCL were MW008, MW025, MW035, MW036, MW040 and MW054. An isoconcentration map of nitrate concentrations in Terrace/Shale 1 groundwater is shown in Figure 10.

The nitrate levels found in the Shale 2 groundwater varied from < 1 to 1460 mg/l. The high 1460 mg/l occurred in MW121A located southwest of Pond 2. Shale 2 groundwater monitoring wells with nitrate values in 2006 above the MCL were MW014A, MW042A, MW065A and MW121A. An isoconcentration map of nitrate concentrations in Shale 2 groundwater is shown in Figure 13.

The nitrate levels found in the Shale 3 groundwater varied from 5.5 to 6190 mg/l. The high of 6190 mg/l occurred in MW057A located near the southwest corner of Pond 2. Shale 3 groundwater monitoring wells with nitrate values in 2006 above the MCL were 2302A, 2346, MW012A, MW049A, MW050A, MW057A, MW086A, MW122A, MW124A and MW127A. An isoconcentration map of nitrate concentrations in Shale 3 groundwater is shown in Figure 17.

The nitrate levels found in the Shale 4 groundwater varied from <1 to 3760 mg/l. The high of 3760 mg/l occurred in MW059A located southwest of Pond 2. Shale 4 groundwater monitoring wells with nitrate values in 2006 above the MCL were MW059A, MW095A, MW107 and

MW108. An isoconcentration map of nitrate concentrations in Shale 4 groundwater is shown in Figure 20.

The nitrate levels found in the Shale 5 groundwater varied from <1 to 7.0 mg/l. The high of 7.0 mg/l was less than the MCL. An isoconcentration map of the nitrate concentrations in Shale 5 groundwater has not been prepared because none of the nitrate analyses were greater than the MCL.

3.2.4 Uranium

Uranium has been a common parameter monitored in groundwater at SFC for many years. Uranium continues to be detected above the MCL of 30 $\mu\text{g/l}$ in the Terrace/Shale 1, Shale 2 and Shale 3 groundwater systems. Uranium was not detected above the MCL in Shale 4 and Shale 5 groundwater systems.

The uranium levels found in the Terrace/Shale 1 groundwater varied from <1 to 28000 $\mu\text{g/l}$. The high of 28000 $\mu\text{g/l}$ occurred in MW025 located north of the SX Building. Terrace/Shale 1 groundwater monitoring wells with uranium values in 2006 above the MCL were MW010, MW014, MW025, MW045 and MW087. An isoconcentration map of uranium concentrations in Terrace/Shale 1 groundwater is shown in Figure 11.

The uranium levels found in the Shale 2 groundwater varied from <1 to 243 $\mu\text{g/l}$. The high of 243 $\mu\text{g/l}$ occurred in MW067A located northwest of Solid Waste Burial Area No. 2. Shale 2 groundwater monitoring wells with uranium values in 2006 above the MCL were MW014A and MW067A. An isoconcentration map of uranium concentrations in Shale 2 groundwater is shown in Figure 14.

The uranium levels found in the Shale 3 groundwater varied from <1 to 2670 $\mu\text{g/l}$. The high of 2670 $\mu\text{g/l}$ occurred in MW012A located northwest of the Main Process Building. Shale 3

groundwater monitoring wells with uranium values in 2006 above the MCL were MW012A, MW050A and MW086A. An isoconcentration map of uranium concentrations in Shale 3 groundwater is shown in Figure 18.

The uranium levels found in the Shale 4 groundwater varied from <1 to 27 $\mu\text{g/l}$. The high of 27 $\mu\text{g/l}$ was less than the MCL. An isoconcentration map of the uranium concentrations in Shale 4 groundwater has not been prepared because none of the uranium analyses were greater than the MCL.

The uranium levels found in the Shale 5 groundwater varied from <1 to 2.9 $\mu\text{g/l}$. The high of 2.9 $\mu\text{g/l}$ was less than the MCL. It should be noted that the initial sample analyses for MW128B were eliminated because this well was not developed when this sample was collected. The initial uranium analysis was 19 $\mu\text{g/l}$. An isoconcentration map of the uranium concentrations in Shale 5 groundwater has not been prepared because none of the uranium analyses were greater than the MCL.

3.2.5 Other Parameters

During the RFI, barium was identified in groundwater in a localized area north of the clarifier basins. Additional sampling was performed in 1997. A complete discussion of this data was presented in the 1997 Groundwater Report. MW040 continues to exceed the MCL of 2.0 mg/l. The results of the barium analyses in this well can be found in Table 3.

3.3 Corrective Action Monitoring

Corrective action monitoring includes the collection of samples from groundwater recovery systems and monitoring locations down-gradient of the recovery locations. The corrective action monitoring locations are included on Figure 1. Details regarding the installation and construction of these systems are included in the GWMP or responses to requests for additional information

prepared during the GWMP approval process. The analyses of samples collected from corrective action monitoring locations are included in Table 4 and described below.

3.3.1 005 Drainage Collection Trench

The 005 Drainage Collection Trench (Location Number 2224A) recovers arsenic, nitrate and uranium impacted groundwater that flows through the Shale 3 unit. A monitor trench (Location Number 2224B) is sampled to monitor the effectiveness of the 005 Drainage Collection Trench. The monitor trench was dry during most of 2006 so there is a limited amount of analyses for this location. Analysis of samples collected during 2006 from the 005 Drainage Collection Trench averaged 0.025 mg/l, 348 mg/l, 218 μ g/l and 0.7 mg/l for arsenic, nitrate, uranium and fluoride, respectively. The arsenic, nitrate and uranium analyses exceeded the respective MCL's for each of these parameters. The fluoride analysis was less than the fluoride MCL. Average analysis for samples collected in the monitor trench were 0.007 mg/l, 17.1 mg/l, 226 μ g/l and 1.7 mg/l for arsenic, nitrate, uranium and fluoride, respectively.

Approximately 319,000 gallons of water was recovered from the 005 Collection Trench during 2006. The recovered groundwater was pumped to the Clarifier Basins.

3.3.2 MW095A Collection Trench

The MW095A Collection Trench (Location Number 2247) recovers arsenic and nitrate impacted groundwater that is present in the Shale 4 unit. Monitoring Well MW095A, which is located west of the collection trench, is used to monitor the effectiveness of the trench. Analysis of samples collected during 2006 from the MW095A Collection Trench averaged 0.039 mg/l, 1481 mg/l, 3.0 μ g/l and 0.4 mg/l for arsenic, nitrate, uranium and fluoride, respectively. Analysis of samples collected during 2006 from Monitoring Well MW095A averaged 0.028 mg/l, 230 mg/l, 1 μ g/l and 0.2 mg/l for arsenic, nitrate, uranium and fluoride, respectively. Arsenic and nitrate

analyses exceeded the MCL's for each of these constituents. The uranium and fluoride analyses were well below their respective MCL's.

Approximately 120,000 gallons of water was recovered from the MW095A Collection Trench during 2006. The recovered groundwater was pumped to Pond 3W. Although not included in the GWMP an additional recovery system, the MW095A Collection Pit (Location ID 2247A), is located just east of MW095A and recovered an additional 6700 gallons of water from the Shale 4 unit in this area. This recovered water was also pumped to Pond 3W.

3.3.3 MW010 Collection Trench

The MW010 Collection Trench (Location Number 2248) recovers uranium impacted groundwater that is present in the Terrace/Shale 1 unit. Monitoring Well MW031, which is located south of the collection trench, is used to monitor the effectiveness of the trench. Analysis of samples collected during 2006 from the MW010 Collection Trench averaged 0.008 mg/l, 1.5 mg/l, 57.9 μ g/l and 0.5 mg/l for arsenic, nitrate, uranium and fluoride, respectively. Analysis of samples collected during 2006 from Monitoring Well MW031 averaged 0.009 mg/l, 8.2 mg/l, 4.8 μ g/l and 0.9 mg/l for arsenic, nitrate, uranium and fluoride, respectively. Uranium analyses of water recovered from the MW010 Collection Trench exceeded the MCL's for uranium. The uranium analyses for samples collected from the Monitor Well MW031 were well below the MCL for uranium. Arsenic, nitrate and fluoride analyses were not detected above the respective MCL's at either location.

Approximately 450,000 gallons of water was recovered from the MW010 Collection Trench during 2006. The recovered groundwater was pumped to the Clarifier Basins.

3.4 Seep and Drainage Monitoring

Seep and drainage samples were collected from locations along the western perimeter of the Facility on a quarterly frequency. The monitoring locations are shown on Figure 1. Analyses completed for samples collected during 2006 include antimony, arsenic, fluoride, lead, nitrate, thallium and uranium and are summarized in Table 5. The MCL's for each of these constituents are listed below:

Antimony	0.006 mg/l
Arsenic	0.010 mg/l
Fluoride	4 mg/l
Lead	0.05 mg/l
Nitrate	10 mg/l
Thallium	0.005 mg/l
Uranium	30 µg/l

Location 2241 is located near the property boundary in the 005 Drainage. Uranium analyses at this location ranged from 19.2 to 52 µg/l and, with the exception of one result, was above the MCL for uranium. The nitrate MCL was slightly exceeded for one of the four analyses. Antimony, arsenic, lead and thallium analyses were not detected above the respective MCL's at this location.

Location 2242 is located in the 005 Drainage near Monitoring Well MW100B. Uranium analyses at this location ranged from 16.3 to 87.6 µg/l and were above the MCL for uranium for two of the four analyses. The antimony MCL was slightly exceeded for one of the four analyses. The nitrate MCL was exceeded for two of the four analyses. Arsenic, lead and thallium analyses were not detected above the respective MCL's at this location.

Location 2243 is located in the 007 Drainage north of the Facility. Antimony, arsenic, lead, nitrate, thallium and uranium analyses were not detected above the respective MCL's at this location.

Location 2244 is located in the 004 Drainage west of the Facility. Nitrate analyses at this location ranged from 4.6 to 75 mg/l and was above the MCL for nitrate for two of the four analyses. The arsenic MCL was exceeded for one of the four analyses. Antimony, lead, thallium and uranium analyses were not detected above the respective MCL's at this location.

Location 2245 is a seep located just north of the Port Road Bridge and just east of the 001 Drainage. Nitrate analyses at this location ranged from 9.9 to 42.6 mg/l and, with one exception, were above the MCL for nitrate. Although the nitrate analyses were above the MCL the concentrations have decreased significantly during the past few years. This decrease is attributed to the groundwater recovery accomplished by the MW095A Collection Trench. Antimony, arsenic, fluoride, lead, thallium and uranium analyses were not detected above the respective MCL's at this location. A significant decrease in the arsenic concentrations have also been observed at this location during the past few years.

Location 2246 is located in the 001 Drainage north of the Port Road Bridge. Uranium analyses at this location ranged from < 1 to 133 µg/l and were above the MCL for one of the four analyses. Nitrate analyses at this location ranged from 1.8 to 322 mg/l and were above the MCL for two of the four analyses. Antimony, arsenic, lead and thallium analyses were not detected above the respective MCL's at this location.

3.5 Surface Water Monitoring

Surface water samples are collected annually at the locations shown in Figure 2. The analyses for samples collected on June 14, 2006 are included in Table 6. With the exception of one upstream Illinois River (Location 2201) sample analysis for uranium, all analyses for uranium and other parameters were at background levels.

4.0 SUMMARY

Monitoring completed during 2006 has been grouped by the type of sampling that was conducted and summarized in a series of tables. The types of sampling includes background quality monitoring; compliance groundwater monitoring; corrective action monitoring; seep and drainage monitoring; and surface water monitoring. These results have been described in Section 3.0, Current Conditions, of this report. A few of the groundwater monitoring wells, drainage and other sample locations were dry when sampling was attempted so samples could not be obtained.

NRC License Amendment 31, Condition 49, requires SFC to prepare groundwater contour maps and groundwater isoconcentration maps for arsenic, fluoride, nitrate and uranium. These maps have been prepared but due to the limited number of data points for each groundwater unit the maps only provide a general representation of site conditions. In some cases only one or a few locations had concentrations that can be used to prepare the contours, therefore some maps do not represent actual conditions. Professional judgement must be used when interpreting these maps.

Tables

**Table 1
Groundwater Monitoring Plan
Sampling and Analysis Schedule**

Monitor ID	Location	Groundwater Unit Monitored	Parameters Analyzed
Background Quality Monitoring (Annual Sampling Frequency)			
MW007	Northeast of Main Process Building	Terrace / Shale 1	See Note 1
MW070	NE of DUF4 Building Near Property Boundary	Terrace / Shale 1	See Note 1
MW073	East of OG&E Substation Near Property Line	Terrace / Shale 1	See Note 1
MW007A	Northeast of Main Process Building	Shale 3	See Note 1
MW110A	East of Facility	Shale 4	See Note 1
MW007B	Northeast of Main Process Building	Shale 5	See Note 1
Compliance Monitoring (Annual Sampling Frequency)			
MW008 ²	Between MPB and Administration Building	Terrace / Shale 1	U, NO ₃ (N), F, As
MW010 ²	Southwest of Main Process Building	Terrace / Shale 1	U, NO ₃ (N), F, As
MW014 ²	South of Bechtel Building	Terrace / Shale 1	U, NO ₃ (N), F, As
MW019 ²	South of Loading Dock	Terrace / Shale 1	U, NO ₃ (N), F, As
MW025 ²	SX Yard North of SX Building	Terrace / Shale 1	U, NO ₃ (N), F, As
MW035 ²	North of Pond 1 Spoils Pile	Terrace / Shale 1	U, NO ₃ (N), F, As
MW036 ²	West of Sanitary Lagoon on Pond 1 Spoils Pile	Terrace / Shale 1	U, NO ₃ (N), F, As
MW040	North of Basin 1 of Clarifier A	Terrace / Shale 1	U, NO ₃ (N), F, As, Ba
MW042	South of Yellowcake Sump	Terrace / Shale 1	U, NO ₃ (N), F, As
MW045	Northeast Corner of Pond 2	Terrace / Shale 1	U, NO ₃ (N), F, As
MW049	South of Fluoride Sludge Holding Basin 2 (North)	Terrace / Shale 1	U, NO ₃ (N), F, As
MW053 ²	North of Sanitary Lagoon on Emergency Basin Bank	Terrace / Shale 1	U, NO ₃ (N), F, As
MW054 ²	West of Pond 1 Spoils Pile at Base of Slope	Terrace / Shale 1	U, NO ₃ (N), F, As
MW056	Northwest Corner of '86 Incident Sod Storage Area	Terrace / Shale 1	U, NO ₃ (N), F, As
MW062	South of Fluoride Sludge Holding Basin 1 (South)	Terrace / Shale 1	U, NO ₃ (N), F, As
MW075 ²	South of Incinerator	Terrace / Shale 1	U, NO ₃ (N), F, As
MW077 ²	NW of DUF4 Building Near Fence	Terrace / Shale 1	U, NO ₃ (N), F, As
MW079 ²	NE of Bechtel Building on UF6 Cylinder Pad	Terrace / Shale 1	U, NO ₃ (N), F, As
MW080 ²	West of DUF4 Building in Concrete Pad	Terrace / Shale 1	U, NO ₃ (N), F, As
MW086 ²	NE Corner of Cooling Tower	Terrace / Shale 1	U, NO ₃ (N), F, As
MW087	Old Contaminated Solid Waste Burial Area	Terrace / Shale 1	U, NO ₃ (N), F, As
MW014A ²	South of Bechtel Building	Shale 2, 3	U, NO ₃ (N), F, As
MW018A ²	Southwest Corner of MPB	Shale 2	U, NO ₃ (N), F, As
MW042A	South of South Yellowcake Sump in Parking Lot	Shale 2	U, NO ₃ (N), F, As

**Table 1
Groundwater Monitoring Plan
Sampling and Analysis Schedule**

Monitor ID	Location	Groundwater Unit Monitored	Parameters Analyzed
MW047A	Northwest Corner of Pond 2	Shale 2	U, NO ₃ (N), F, As
MW048	West of Pond 2	Shale 2	U, NO ₃ (N), F, As
MW050A ²	North of Fluoride Basin No. 2	Shale 2, 3	U, NO ₃ (N), F, As
MW052A	West of Fluoride Sludge Holding Basin 2 (North)	Shale 2	U, NO ₃ (N), F, As
MW065A ²	South of Fluoride Clarifier	Shale 2	U, NO ₃ (N), F, As
MW067A ²	North Solid Waste Burial Area No. 2	Shale 2	U, NO ₃ (N), F, As
MW081A	N of DUF4 Building Near Perimeter Fence	Shale 2	U, NO ₃ (N), F, As
MW121A ³	Southwest of Pond 2	Shale 2	U, NO ₃ (N), F, As
2303A	North of Clarifier Basins	Shale 3	U, NO ₃ (N), F, As
2346	Southwest of Pond 6	Shale 3	U, NO ₃ (N), F, As
MW012A ²	Northwest of Main Process Building	Shale 3	U, NO ₃ (N), F, As
MW049A ²	South of Fluoride Holding Basin No. 2	Shale 3	U, NO ₃ (N), F, As
MW057A ²	Southwest of Pond 2	Shale 3	U, NO ₃ (N), F, As
MW084A ²	SW of Misc Digestion on YC Pad	Shale 3	U, NO ₃ (N), F, As
MW086A ²	NE Corner of Cooling Tower	Shale 3	U, NO ₃ (N), F, As
MW089A	Northwest of Fluoride Holding Basin No. 2	Shale 3	U, NO ₃ (N), F, As
MW115A	South of Pond 2	Shale 3	U, NO ₃ (N), F, As
MW122A ³	Northwest of Pond 2	Shale 3	U, NO ₃ (N), F, As
MW123A ³	Southwest of Pond 2	Shale 3	U, NO ₃ (N), F, As
MW124A ³	South of Pond 5	Shale 3	U, NO ₃ (N), F, As
MW127A ³	Southwest of Fluoride Holding Basin No. 2	Shale 3	U, NO ₃ (N), F, As
MW130A ³	West of Pond 5	Shale 3	U, NO ₃ (N), F, As
MW059A	Southwest of Pond 2	Shale 4	U, NO ₃ (N), F, As
MW062A	South of Fluoride Holding Basin No. 1	Shale 4, 2	U, NO ₃ (N), F, As
MW097A	West of Pond 2 at Property Boundary	Shale 4	U, NO ₃ (N), F, As
MW099A	Northwest Corner of Industrial Area in Woods	Shale 4	U, NO ₃ (N), F, As
MW107	800 Feet West of Pond 5	Shale 4	U, NO ₃ (N), F, As
MW108	800 Feet Southwest of Pond 5	Shale 4	U, NO ₃ (N), F, As
MW111A	Northeast Portion of Agland	Shale 4	U, NO ₃ (N), F, As
MW112A	Southwest Portion of Facility on Agland Field	Shale 4	U, NO ₃ (N), F, As
MW125A ³	South of Pond 3 East	Shale 4	U, NO ₃ (N), F, As

**Table 1
Groundwater Monitoring Plan
Sampling and Analysis Schedule**

Monitor ID	Location	Groundwater Unit Monitored	Parameters Analyzed
MW126A ³	Southwest of Pond 5	Shale 4	U, NO ₃ (N), F, As
MW129A ³	Southwest of Pond 2 Near Facility West Boundary	Shale 4	U, NO ₃ (N), F, As
MW059B	Southwest of Pond 2	Shale 5	U, NO ₃ (N), F, As
MW090B	Northwest of Pond 5 Near Reservoir Weir	Shale 5	U, NO ₃ (N), F, As
STA04	Southwest of Pond 2 Near Port Road Bridge	Shale 5	U, NO ₃ (N), F, As
MW098B	West of Pond 2 at Property Boundary (old 004 Path)	Shale 5	U, NO ₃ (N), F, As
MW100B	West of Fluoride Sludge Holding Basin 2 in 005 Drainage	Shale 5	U, NO ₃ (N), F, As
MW105B	West of Pond 5	Shale 5	U, NO ₃ (N), F, As
MW128B ³	SW portion of the Agland	Shale 5	U, NO ₃ (N), F, As
Corrective Action Monitoring (Quarterly Sampling Frequency)			
2224A	005 Collection Trench	Shale 3	U, NO ₃ (N), F, As
2224B	005 Monitor Trench	Shale 3	U, NO ₃ (N), F, As
2247	95A Collection Trench	Shale 4	U, NO ₃ (N), F, As
MW095A	Southwest of Pond 2 Near Facility West Boundary	Shale 4	U, NO ₃ (N), F, As
2248	10 Collection Trench	Terrace/Shale 1	U, NO ₃ (N), F, As
MW031	South of Main Process Building	Terrace/Shale 1	U, NO ₃ (N), F, As
Seep and Drainage Monitoring (Quarterly Sampling Frequency)			
2241	005 Drainage - 25 feet East of COE Property Boundary Fence	Shale 5	See Note 4
2242	005 Drainage - Pool Near MW100B	Shale 4	See Note 4
2243	007 Drainage at Drainage from North Holding Basin	Shale 4	See Note 4
2244	004 Drainage - 20 feet East of COE Property Boundary Fence	Shale 4	See Note 4
2245	Seep North of Port Road Bridge and East of 001 Drainage	Shale 4	See Note 4, F
2246	001 Drainage N of Port Road Bridge	Shale 4	See Note 4
Surface Water Monitoring (Annual Sampling Frequency)			
2201	Illinois River - 1600 feet Upstream of 001 Confluence		U, NO ₃ (N), As, Ra-226
2202	Illinois River - 600 feet Downstream of 001 Confluence		U, NO ₃ (N), As, Ra-226
2203	Arkansas River - Upstream Towards Highway 64 Bridge		U, NO ₃ (N), As, Ra-226
2204	Arkansas River - Downstream Near I-40 Bridge		U, NO ₃ (N), As, Ra-226

Note 1: Analyze for antimony, arsenic, barium, beryllium, cadmium, chromium, fluoride, lead, molybdenum, nickel, nitrate(as N), radium-226, selenium, thallium, thorium-230 and uranium

Note 2: Well will be abandoned and plugged as necessary to allow reclamation activities

Note 3: Well installed upon approval of GWMP

Note 4: Analyze for antimony, arsenic, nitrate (as N), lead, thallium and uranium.

Table 2
Background Quality Monitoring Analyses

Well ID	GW Unit Monitored	Date Sampled	Uranium $\mu\text{g/l}$	Thorium-230 pCi/l	Radium-226 pCi/l	Radium-228 pCi/l	Nitrate(as N) mg/l	Fluoride mg/l	Antimony mg/l	Arsenic mg/l
MW007	Terrace / Shale 1	01/10/06	2.42	0.464 ± 0.334	0.934 ± 0.351	0.965 ± 0.134	2.1	1.3	< 0.005	0.005
MW007	Terrace / Shale 1	04/11/06	< 1	2.71 ± 0.330	0.734 ± 0.244	0.757 ± 0.102	1.2	1	< 0.007	< 0.005
MW007	Terrace / Shale 1	07/25/06	< 1	0 ± 0.278	0.353 ± 0.112	0.780 ± 0.131	1.1	0.7	< 0.005	< 0.009
MW007	Terrace / Shale 1	10/04/06	< 1	0 ± 0.220	0.267 ± 0.126	0.112 ± 0.053	1.5	0.6	0.011	< 0.009
MW070	Terrace / Shale 1	01/10/06	1.26	1.94 ± 0.447	1.81 ± 0.718	1.68 ± 0.130	1.6	0.6	< 0.005	0.01
MW070	Terrace / Shale 1	04/11/06	1.41	0.166 ± 0.117	0.626 ± 0.225	0.247 ± 0.494	< 1	1.1	0.007	0.013
MW070	Terrace / Shale 1	07/25/06	1.47	0.913 ± 0.276	1.46 ± 0.393	1.02 ± 0.112	< 1	1.1	< 0.005	< 0.009
MW070	Terrace / Shale 1	10/04/06	< 1	0 ± 0.235	0 ± 0.296	0.453 ± 0.049	1.8	0.9	< 0.011	< 0.009
MW073	Terrace / Shale 1	01/10/06	< 1	0.558 ± 0.399	0.670 ± 0.281	2.31 ± 0.127	4.1	0.7	0.016	< 0.005
MW073	Terrace / Shale 1	04/11/06	< 1	1.30 ± 0.266	0.254 ± 0.104	0.457 ± 0.103	3	0.7	< 0.007	< 0.005
MW073	Terrace / Shale 1	07/25/06	< 1	0 ± 0.252	0.190 ± 0.185	0.895 ± 0.119	3.2	0.7	< 0.005	< 0.009
MW073	Terrace / Shale 1	10/04/06	< 1	0.048 ± 0.101	0.572 ± 0.186	0 ± 0.049	4	0.4	< 0.011	< 0.009
MW007A	Shale 3	01/10/06	1.44	2.56 ± 0.539	0.130 ± 0.131	3.12 ± 0.130	6.7	0.7	< 0.005	0.006
MW007A	Shale 3	04/11/06	< 1	0.027 ± 0.109	0.090 ± 0.216	0.120 ± 0.104	5.2	0.6	< 0.007	0.005
MW007A	Shale 3	07/25/06	< 1	0.332 ± 0.224	0.211 ± 0.182	0.642 ± 0.107	4.7	0.6	< 0.005	< 0.009
MW007A	Shale 3	10/04/06	< 1	0 ± 0.105	0.139 ± 0.107	0.382 ± 0.054	5.23	0.6	< 0.011	< 0.009
MW110A	Shale 4	01/10/06	2.94	0.619 ± 0.359	0.606 ± 0.290	2.31 ± 0.127	1.3	0.6	< 0.005	< 0.005
MW110A	Shale 4	04/11/06	1.21	0.588 ± 0.204	0.266 ± 0.128	0.753 ± 0.055	< 1	0.5	< 0.007	< 0.005
MW110A	Shale 4	07/25/06	2.46	0.034 ± 0.177	1.00 ± 0.241	2.77 ± 0.119	< 1	0.5	< 0.005	< 0.009
MW110A	Shale 4	10/04/06	< 1	0.130 ± 0.128	0.374 ± 0.129	1.51 ± 0.068	< 1	0.5	< 0.011	< 0.009
MW007B	Shale 5	01/10/06	2.36	1.58 ± 0.504	1.15 ± 0.423	0 ± 0.100	1.2	2.9	< 0.005	0.006
MW007B	Shale 5	04/11/06	< 1	0.450 ± 0.157	0.516 ± 0.327	0 ± 0.309	1.3	2.6	0.008	0.006
MW007B	Shale 5	07/25/06	2.05	0 ± 0.274	0.978 ± 0.349	0 ± 0.117	< 1	2	< 0.005	< 0.009
MW007B	Shale 5	10/04/06	< 1	0 ± 0.199	0.538 ± 0.172	1.61 ± 0.058	< 1	2.7	< 0.011	< 0.009

Table 2
Background Quality Monitoring Analyses

Well ID	Date Sampled	Barium mg/l	Beryllium mg/l	Cadmium mg/l	Chromium mg/l	Lead mg/l	Molybdenum mg/l	Nickel mg/l	Selenium mg/l	Thallium mg/l
MW007	01/10/06	0.167	< 0.006	< 0.006	0.065	0.029	< 0.007	0.038	< 0.007	< 0.004
MW007	04/11/06	0.097	< 0.005	0.001	0.031	0.017	< 0.007	0.037	< 0.007	< 0.004
MW007	07/25/06	0.059	< 0.006	< 0.001	0.011	0.018	< 0.007	< 0.008	0.011	< 0.003
MW007	10/04/06	0.033	< 0.010	< 0.008	< 0.009	0.011	< 0.009	< 0.008	0.009	< 0.006
MW070	01/10/06	0.287	< 0.006	< 0.006	0.036	0.019	< 0.007	0.036	< 0.007	< 0.004
MW070	04/11/06	0.411	< 0.005	0.003	0.056	0.038	< 0.007	0.052	< 0.007	< 0.004
MW070	07/25/06	0.334	< 0.006	0.001	0.023	0.023	< 0.007	0.02	< 0.007	< 0.003
MW070	10/04/06	0.236	< 0.010	< 0.008	0.012	0.019	< 0.009	0.015	< 0.009	< 0.006
MW073	01/10/06	0.081	< 0.006	< 0.006	0.026	0.014	< 0.007	0.01	0.009	< 0.004
MW073	04/11/06	0.058	< 0.005	0.002	0.016	0.014	< 0.007	0.014	0.012	< 0.004
MW073	07/25/06	0.035	< 0.006	< 0.001	< 0.009	< 0.007	< 0.007	0.03	0.014	< 0.003
MW073	10/04/06	0.033	< 0.010	< 0.008	< 0.009	0.01	< 0.009	< 0.008	0.011	< 0.006
MW007A	01/10/06	0.017	< 0.006	< 0.006	< 0.007	0.01	0.008	< 0.006	0.011	0.008
MW007A	04/11/06	0.016	< 0.005	< 0.001	< 0.007	0.022	< 0.007	< 0.006	< 0.007	0.004
MW007A	07/25/06	0.017	< 0.006	< 0.001	< 0.009	< 0.007	< 0.007	< 0.008	0.01	< 0.003
MW007A	10/04/06	0.02	< 0.010	< 0.008	< 0.009	< 0.007	< 0.009	< 0.008	< 0.009	< 0.006
MW110A	01/10/06	0.012	< 0.006	< 0.006	< 0.007	0.01	< 0.007	< 0.006	< 0.007	< 0.004
MW110A	04/11/06	0.014	< 0.005	< 0.001	< 0.007	0.006	< 0.007	0.009	< 0.007	< 0.004
MW110A	07/25/06	0.014	< 0.006	< 0.001	< 0.009	< 0.007	< 0.007	< 0.008	0.012	< 0.003
MW110A	10/04/06	0.017	< 0.010	< 0.008	< 0.009	0.007	< 0.009	< 0.008	< 0.009	< 0.006
MW007B	01/10/06	0.071	< 0.006	< 0.006	0.011	0.019	< 0.007	< 0.006	< 0.007	0.006
MW007B	04/11/06	0.054	< 0.005	< 0.001	0.007	0.007	< 0.007	0.008	< 0.007	0.004
MW007B	07/25/06	0.06	< 0.006	< 0.001	< 0.009	< 0.007	< 0.007	< 0.008	0.008	< 0.003
MW007B	10/04/06	0.075	< 0.010	< 0.008	< 0.009	0.011	< 0.009	< 0.008	< 0.009	< 0.006

Table 3
Compliance Groundwater Monitoring Analyses

Location ID	GW Unit Monitored	Date Sampled	Uranium µg/l	Nitrate (as N) mg/l	Fluoride mg/l	Arsenic mg/l	Barium mg/l
MW008	Terrace / Shale 1	01/23/06	< 1				
MW008	Terrace / Shale 1	04/27/06	< 1	58	0.6	< 0.005	
MW010	Terrace / Shale 1	05/03/06	1770	< 1	0.8	< 0.005	
MW014	Terrace / Shale 1	05/03/06	22100	10	3.5	0.014	
MW019	Terrace / Shale 1	05/03/06	< 1	< 1	0.2	< 0.005	
MW025	Terrace / Shale 1	05/03/06	28000	877	0.4	0.021	
MW035	Terrace / Shale 1	04/26/06	13.1	11.9	0.4	< 0.005	
MW036	Terrace / Shale 1	04/26/06	< 1	31.7	0.2	< 0.005	
MW040	Terrace / Shale 1	04/26/06	< 1	506	3	0.043	8.68
MW042	Terrace / Shale 1	04/27/06	< 1	< 1	1.8	0.17	
MW045	Terrace / Shale 1	04/26/06	57.4	7.8	4.5	< 0.005	
MW049	Terrace / Shale 1	04/26/06	< 1	< 1	0.5	0.007	
MW053	Terrace / Shale 1	05/03/06	17.3	2.5	1.1	< 0.005	
MW054	Terrace / Shale 1	04/26/06	1.81	206	0.7	0.059	
MW056	Terrace / Shale 1	04/12/06	DRY	DRY	DRY	DRY	
MW062	Terrace / Shale 1	04/25/06	DRY	DRY	DRY	DRY	
MW075	Terrace / Shale 1	05/03/06	< 1	< 1	1.6	1.09	
MW077	Terrace / Shale 1	05/03/06	2.25	< 1	0.4	< 0.005	
MW079	Terrace / Shale 1	05/03/06	4.89	< 1	1.4	< 0.005	
MW080	Terrace / Shale 1	05/03/06	< 1	< 1	0.4	< 0.005	
MW086	Terrace / Shale 1	05/03/06	< 1	1.9	0.5	0.017	
MW087	Terrace / Shale 1	05/03/06	616	< 1	0.5	< 0.005	
MW014A	Shale 2,3	05/03/06	48.4	75.2	0.5	0.008	
MW018A	Shale 2	05/03/06	< 1	8.2	0.6	0.047	
MW042A	Shale 2	04/27/06	< 1	18	2.2	0.52	
MW047A	Shale 2	04/26/06	DRY	DRY	DRY	DRY	
MW048	Shale 2	06/02/06	< 1	< 1	0.4	< 0.009	
MW050A	Shale 2, 3	04/12/06	247	40	0.3	0.031	
MW052A	Shale 2	04/12/06	< 1	< 1	0.3	< 0.005	
MW065A	Shale 2	04/27/06	5.57	28.9	1	0.379	
MW067A	Shale 2	05/03/06	243	< 1	0.3	0.009	
MW081A	Shale 2	05/03/06	24.8	< 1	0.7	< 0.005	
MW121A	Shale 2	01/13/06	DRY	DRY	DRY	DRY	
MW121A	Shale 2	04/27/06	< 1	1550	2.4	1.25	
MW121A	Shale 2	08/03/06	1.52	1370	2.5	1.23	
MW121A	Shale 2	10/04/06	DRY	DRY	DRY	DRY	
2303A	Shale 3	04/26/06	5.31	218	0.3	0.02	
2346	Shale 3	04/25/06	2.84	782	0.8	0.02	
MW012A	Shale 3	05/03/06	2670	169	0.4	0.023	
MW049A	Shale 3	04/26/06	1.47	58.1	0.3	< 0.005	
MW057A	Shale 3	04/27/06	1.9	6190	4.9	2.95	
MW084A	Shale 3	05/03/06	< 1	8.8	0.2	< 0.005	
MW086A	Shale 3	05/03/06	245	78.8	0.7	< 0.005	
MW089A	Shale 3	04/12/06	3.96	8	0.4	0.011	
MW115A	Shale 3	04/25/06	DRY	DRY	DRY	DRY	
MW122A	Shale 3	01/13/06	8.08	1420	0.5	0.154	
MW122A	Shale 3	04/26/06	5.89	1310	0.6	0.15	
MW122A	Shale 3	08/03/06	6.93	1290	0.5	0.152	
MW122A	Shale 3	10/04/06	1.44	1360	0.4	0.167	
MW123A	Shale 3	01/13/06	DRY	DRY	DRY	DRY	
MW123A	Shale 3	04/25/06	DRY	DRY	DRY	DRY	
MW123A	Shale 3	08/03/06	DRY	DRY	DRY	DRY	
MW123A	Shale 3	10/04/06	DRY	DRY	DRY	DRY	

Table 3
Compliance Groundwater Monitoring Analyses

Location ID	GW Unit Monitored	Date Sampled	Uranium µg/l	Nitrate (as N) mg/l	Fluoride mg/l	Arsenic mg/l	Barium mg/l
MW124A	Shale 3	01/13/06	5.88	497	0.3	0.015	
MW124A	Shale 3	04/25/06	4.85	462	0.3	0.014	
MW124A	Shale 3	08/03/06	5.07	441	0.3	0.014	
MW124A	Shale 3	10/04/06	4.25	464	0.3	< 0.009	
MW127A	Shale 3	01/13/06	3.54	244	0.4	0.006	
MW127A	Shale 3	04/12/06	2.09	205	0.4	< 0.005	
MW127A	Shale 3	08/03/06	2.37	193	0.4	< 0.009	
MW127A	Shale 3	10/04/06	2.83	195	0.4	< 0.009	
MW130A	Shale 3	01/13/06	DRY	DRY	DRY	DRY	
MW130A	Shale 3	04/25/06	DRY	DRY	DRY	DRY	
MW130A	Shale 3	08/03/06	DRY	DRY	DRY	DRY	
MW130A	Shale 3	10/04/06	DRY	DRY	DRY	DRY	
MW059A	Shale 4	04/27/06	4.61	3760	2.3	1.12	
MW062A	Shale 4, 2	04/25/06	< 1	< 1	0.83	0.2	
MW097A	Shale 4	04/12/06	< 1	< 1	0.3	< 0.005	
MW099A	Shale 4	04/12/06	27	< 1	0.2	0.006	
MW107	Shale 4	04/25/06	< 1	78	0.3	0.007	
MW108	Shale 4	04/25/06	< 1	39.1	< 0.2	0.006	
MW111A	Shale 4	04/11/06	2.84	< 1	0.5	< 0.005	
MW112A	Shale 4	04/25/06	< 1	< 1	0.3	< 0.005	
MW125A	Shale 4	01/13/06	1.81	2.3	0.8	< 0.005	
MW125A	Shale 4	04/25/06	< 1	< 1	0.8	< 0.005	
MW125A	Shale 4	08/03/06	1.39	< 1	0.7	< 0.009	
MW125A	Shale 4	10/04/06	< 1	< 1	0.9	< 0.009	
MW126A	Shale 4	01/13/06	2.6	3.4	0.6	< 0.005	
MW126A	Shale 4	04/25/06	< 1	1.6	0.6	< 0.005	
MW126A	Shale 4	08/03/06	3.12	< 1	0.5	< 0.009	
MW126A	Shale 4	10/04/06	1.82	< 1	0.7	< 0.009	
MW129A	Shale 4	01/13/06	1.14	2.2	0.4	0.015	
MW129A	Shale 4	04/12/06	< 1	1.4	< 0.2	0.005	
MW129A	Shale 4	08/03/06	5.76	1.1	0.2	< 0.009	
MW129A	Shale 4	10/04/06	< 1	1.5	0.34	< 0.009	
MW059B	Shale 5	04/27/06	< 1	7	1.5	< 0.005	
MW090B	Shale 5	04/25/06	< 1	< 1	2	< 0.005	
STA04	Shale 5	01/10/06	< 1	1.3	1.9	< 0.005	
STA04	Shale 5	04/12/06	< 1	< 1	1.6	< 0.005	
MW098B	Shale 5	04/12/06	< 1	< 1	0.5	< 0.005	
MW100B	Shale 5	04/12/06	< 1	1.1	0.5	< 0.005	
MW105B	Shale 5	04/25/06	< 1	< 1	2.2	< 0.005	
MW128B	Shale 5	01/31/06	19	< 1	2.3	0.041	
MW128B	Shale 5	02/27/06	3.24	< 1	1.7	< 0.005	
MW128B	Shale 5	04/11/06	1.03	< 1	1.5	< 0.005	
MW128B	Shale 5	08/03/06	3.55	< 1	1.4	< 0.009	
MW128B	Shale 5	10/04/06	3.71	< 1	1.35	< 0.009	

Table 4
Corrective Action Monitoring Analyses

Location ID	GW Unit Monitored	Date Sampled	Uranium µg/l	Nitrate (as N) mg/l	Fluoride mg/l	Arsenic mg/l
2224A	Shale 3	01/06/06	22.1	459	0.5	0.053
2224A	Shale 3	02/22/06	155	441	0.7	0.034
2224A	Shale 3	03/08/06	256	455	0.7	0.041
2224A	Shale 3	04/03/06	144	172	1.3	0.02
2224A	Shale 3	05/15/06	222	523	0.5	0.015
2224A	Shale 3	06/13/06	221	378	0.6	0.019
2224A	Shale 3	07/14/06	161	380	0.6	0.027
2224A	Shale 3	08/08/06	303	357	0.7	0.032
2224A	Shale 3	09/11/06	110	400	0.8	0.01
2224A	Shale 3	10/06/06	186	259	0.5	0.022
2224A	Shale 3	11/10/06	478	201	0.7	0.022
2224A	Shale 3	12/05/06	356	150	0.6	< 0.009
2224B	Shale 3	01/06/06	DRY	DRY	DRY	DRY
2224B	Shale 3	02/22/06	DRY	DRY	DRY	DRY
2224B	Shale 3	03/08/06	DRY	DRY	DRY	DRY
2224B	Shale 3	04/03/06	2.25	6	2.7	0.005
2224B	Shale 3	05/15/06	DRY	DRY	DRY	DRY
2224B	Shale 3	06/13/06	DRY	DRY	DRY	DRY
2224B	Shale 3	07/14/06	DRY	DRY	DRY	DRY
2224B	Shale 3	08/08/06	DRY	DRY	DRY	DRY
2224B	Shale 3	09/11/06	DRY	DRY	DRY	DRY
2224B	Shale 3	10/06/06	DRY	DRY	DRY	DRY
2224B	Shale 3	11/10/06	DRY	DRY	DRY	DRY
2224B	Shale 3	12/05/06	449	28.2	0.6	< 0.009
2247	Shale 4	01/06/06	2.42	1410	0.3	0.078
2247	Shale 4	02/22/06	2.89	1500	0.3	0.042
2247	Shale 4	03/08/06	2.15	1540	0.4	0.006
2247	Shale 4	04/03/06	2.2	1250	< 1.2	0.062
2247	Shale 4	05/15/06	< 1	2880	0.3	0.036
2247	Shale 4	06/05/06	3.22	1320	-	0.039
2247	Shale 4	07/14/06	3.52	1250	0.3	0.038
2247	Shale 4	08/08/06	3.16	1330	0.4	0.045
2247	Shale 4	09/11/06	6.08	1540	0.4	< 0.009
2247	Shale 4	10/06/06	4.12	1340	0.3	0.04
2247	Shale 4	11/09/06	1.9	1280	0.3	0.046
2247	Shale 4	12/05/06	2.93	1130	0.4	0.026
MW095A	Shale 4	01/10/06	< 1	249	0.2	0.033
MW095A	Shale 4	04/12/06	< 1	275	< 0.2	0.029
MW095A	Shale 4	07/25/06	< 1	98.2	< 0.2	0.033
MW095A	Shale 4	10/04/06	< 1	298	0.2	0.018
2248	Terrace / Shale 1	01/06/06	61.3	1.7	0.6	0.005
2248	Terrace / Shale 1	02/22/06	68.3	1.9	0.5	< 0.005
2248	Terrace / Shale 1	03/08/06	64	1.3	0.5	0.005
2248	Terrace / Shale 1	04/03/06	21.9	1.1	< 1.2	0.006
2248	Terrace / Shale 1	05/15/06	14.6	1.3	0.3	< 0.005
2248	Terrace / Shale 1	06/13/06	46.2	1.1	0.4	< 0.009
2248	Terrace / Shale 1	07/14/06	24.2	1.4	0.2	< 0.009
2248	Terrace / Shale 1	08/08/06	27.8	1.4	0.4	0.01
2248	Terrace / Shale 1	09/11/06	185	1.4	0.7	< 0.009
2248	Terrace / Shale 1	10/06/06	122	1.8	0.4	< 0.009
2248	Terrace / Shale 1	11/09/06	17.7	1	0.4	< 0.009
2248	Terrace / Shale 1	12/05/06	41.8	2	0.4	< 0.009
MW031	Terrace / Shale 1	01/10/06	3.11	1.3	1.7	0.009
MW031	Terrace / Shale 1	06/02/06	13.8	13.5	0.4	< 0.009
MW031	Terrace / Shale 1	07/25/06	1.26	9.4	0.7	< 0.009
MW031	Terrace / Shale 1	10/04/06	< 1	8.71	0.7	< 0.009

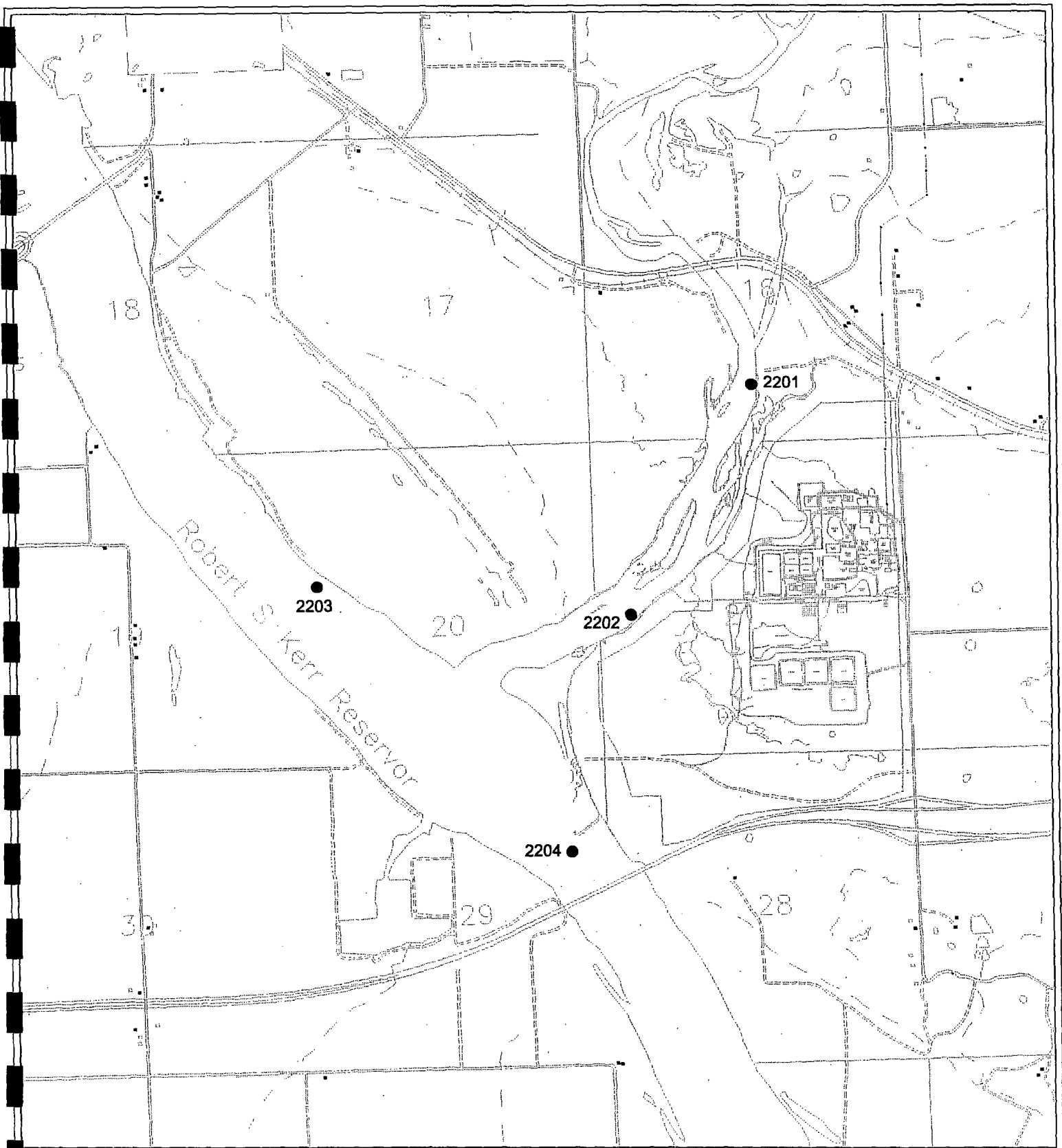
Table 5
Seep and Drainage Monitoring Analyses

Location ID	GW Unit Monitored	Date Sampled	Uranium µg/l	Nitrate (N) mg/l	Fluoride mg/l	Antimony mg/l	Arsenic mg/l	Lead mg/l	Thallium mg/l
2241	Shale 5	03/07/06	DRY	DRY		DRY	DRY	DRY	DRY
2241	Shale 5	05/15/06	52	< 1		< 0.005	< 0.005	0.005	< 0.004
2241	Shale 5	09/25/06	45.9	11.3		< 0.011	< 0.009	< 0.007	< 0.006
2241	Shale 5	12/05/06	19.2	6.9		< 0.011	< 0.009	< 0.007	< 0.006
2242	Shale 4	03/07/06	87.6	58		< 0.005	< 0.005	< 0.005	< 0.002
2242	Shale 4	05/15/06	19.8	< 1		< 0.005	< 0.005	< 0.005	< 0.004
2242	Shale 4	09/25/06	16.3	15.6		0.011	< 0.009	< 0.007	< 0.006
2242	Shale 4	12/05/06	21.7	6.3		< 0.011	< 0.009	< 0.007	< 0.006
2243	Shale 4	03/07/06	DRY	DRY		DRY	DRY	DRY	DRY
2243	Shale 4	05/15/06	< 1	< 1		< 0.005	< 0.005	< 0.005	< 0.004
2243	Shale 4	09/25/06	7.25	2.3		< 0.011	< 0.009	< 0.007	< 0.006
2243	Shale 4	12/05/06	1.11	3.2		< 0.011	< 0.009	< 0.007	< 0.006
2244	Shale 4	03/07/06	< 1	4.6		< 0.005	0.008	0.005	< 0.002
2244	Shale 4	05/15/06	< 1	75		< 0.005	0.014	0.005	< 0.004
2244	Shale 4	09/25/06	< 1	4.7		< 0.011	< 0.009	< 0.007	< 0.006
2244	Shale 4	12/05/06	1.89	30.6		< 0.011	< 0.009	< 0.007	< 0.006
2245	Shale 4	03/07/06	4.2	42.6	< 0.4	< 0.005	0.007	0.026	< 0.002
2245	Shale 4	05/15/06	< 1	27	< 0.5	< 0.005	< 0.005	0.005	< 0.004
2245	Shale 4	09/25/06	DRY	DRY	DRY	DRY	DRY	DRY	DRY
2245	Shale 4	12/05/06	< 1	9.9	< 0.4	< 0.011	< 0.009	< 0.007	< 0.006
2246	Shale 4	03/07/06	133	22.9		< 0.005	< 0.005	0.005	< 0.002
2246	Shale 4	05/15/06	2.8	322		< 0.005	< 0.005	< 0.005	< 0.004
2246	Shale 4	09/25/06	7.93	1.8		< 0.011	< 0.009	< 0.007	< 0.006
2246	Shale 4	12/05/06	1.51	3.9		< 0.011	< 0.009	< 0.007	< 0.006

Table 6
Surface Water Monitoring Analyses

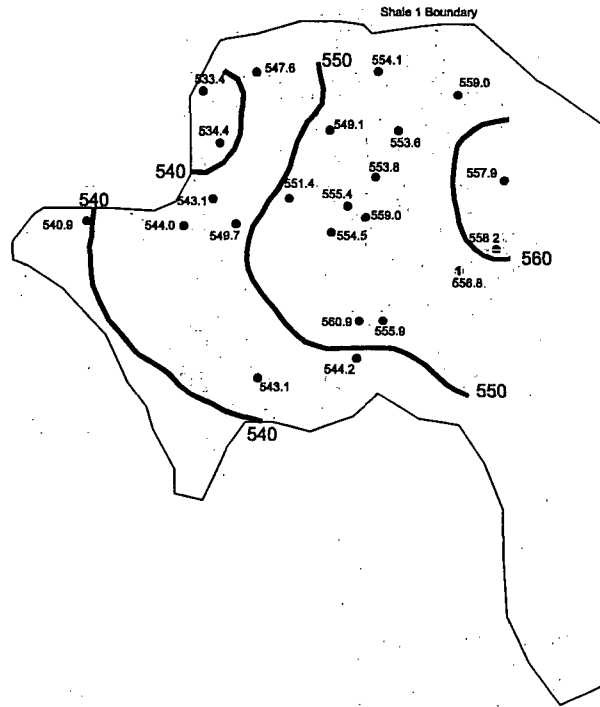
Location ID	Date Sampled	Uranium $\mu\text{g/l}$	Radium-226 pCi/l	Radium-228 pCi/l	Nitrate (N) mg/l	Arsenic mg/l
2201	06/14/06	8.64	0 ± 0.104	0 ± 0.062	< 1	< 0.009
2202	06/14/06	< 1	0.303 ± 0.261	0 ± 0.052	< 1	< 0.009
2203	06/14/06	< 1	0.203 ± 0.235	0.192 ± 0.052	< 1	< 0.009
2204	06/14/06	< 1	0.135 ± 0.186	0.214 ± 0.053	< 1	< 0.009

Figures



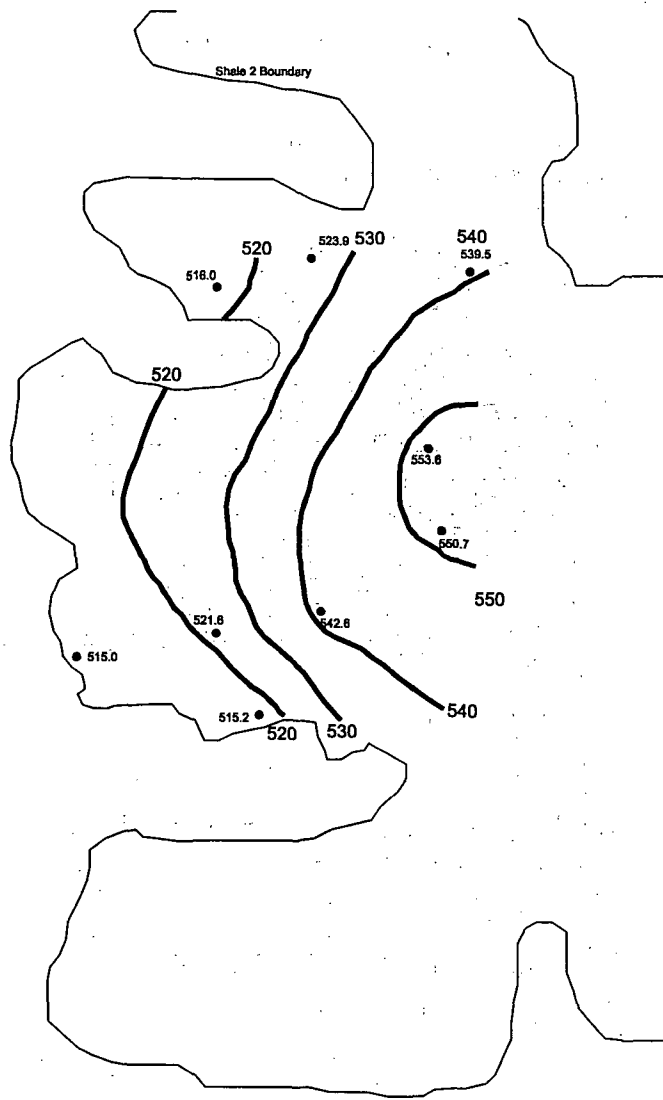
SEQUOYAH FUELS CORPORATION
Annual Groundwater Report

TITLE: <i>Surface Water Sample Locations</i>	
PREPARED BY: <i>SCM</i>	FILENAME: <i>SurfaceWaterLocs.dwg</i>
REVIEWED BY: <i>CLH</i>	FIGURE NO. 2
DATE: <i>27 Jan 2006</i>	



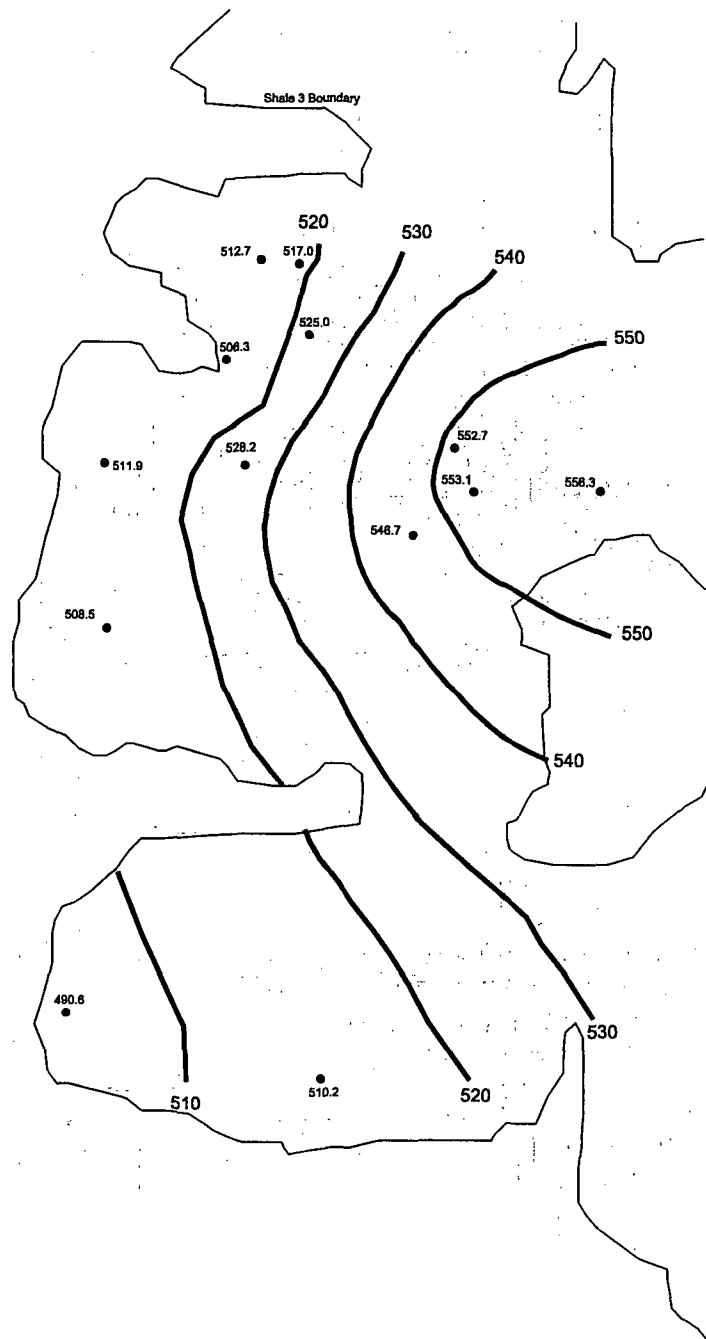
— Groundwater Contour (10 foot interval)
 • Monitor Well Location with Elevation

SEQUOYAH FUELS CORPORATION <i>Annual Groundwater Report</i>	
TITLE: <i>Groundwater Contour Map</i> <i>Terrace / Shale 1 Groundwater System</i>	
PREPARED BY: <i>SCM</i>	FILENAME: <i>TerrShale1WL06.dwg</i>
REVIEWED BY: <i>CLH</i>	FIGURE NO. 3
DATE: <i>08 Jan 2007</i>	



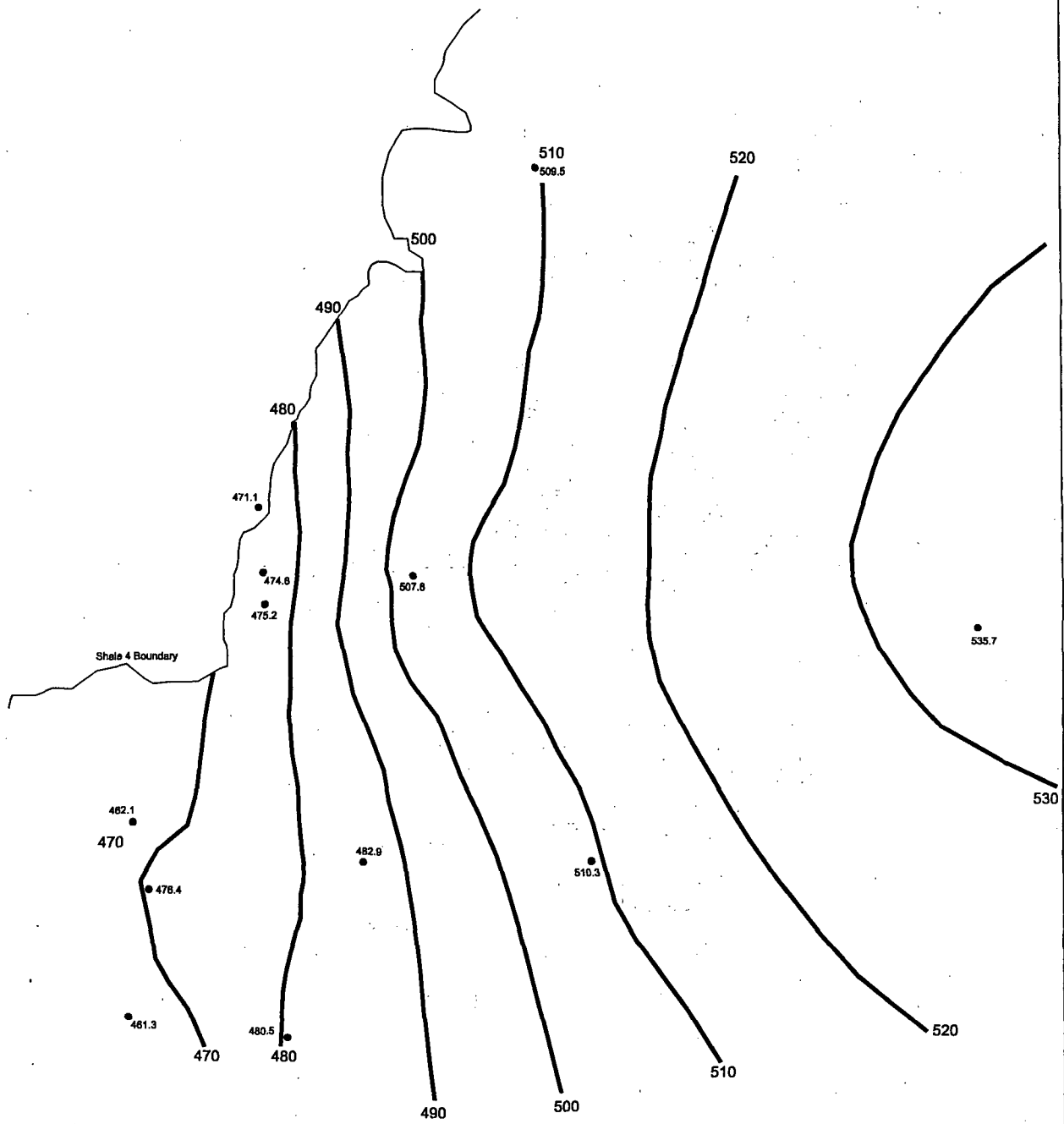
— Groundwater Contour (10 foot interval)
 • Monitor Well Location with Elevation

SEQUOYAH FUELS CORPORATION <i>Annual Groundwater Report</i>	
TITLE: <i>Groundwater Contour Map</i> <i>Shale 2 Groundwater System</i>	
PREPARED BY: <i>SCM</i>	FILENAME: <i>Shale2WL06.dwg</i>
REVIEWED BY: <i>CLH</i>	FIGURE NO. 4
DATE: <i>08 Jan 2007</i>	



— Groundwater Contour (10 foot interval)
 • Monitor Well Location with Elevation

SEQUOYAH FUELS CORPORATION	
<i>Annual Groundwater Report</i>	
TITLE: <i>Groundwater Contour Map</i>	
<i>Shale 3 Groundwater System</i>	
PREPARED BY: <i>SCM</i>	FILENAME: <i>Shale3WL06.dwg</i>
REVIEWED BY: <i>CLH</i>	FIGURE NO. 5
DATE: <i>08 Jan 2007</i>	



— Groundwater Contour (10 foot interval)
 • Monitor Well Location with Elevation

SEQUOYAH FUELS CORPORATION <i>Annual Groundwater Report</i>	
TITLE: <i>Groundwater Contour Map Shale 4 Groundwater System</i>	
PREPARED BY:	SCM
REVIEWED BY:	CLH
DATE:	08 Jan 2007
FILENAME:	Shale4WL06.dwg
FIGURE NO. 6	

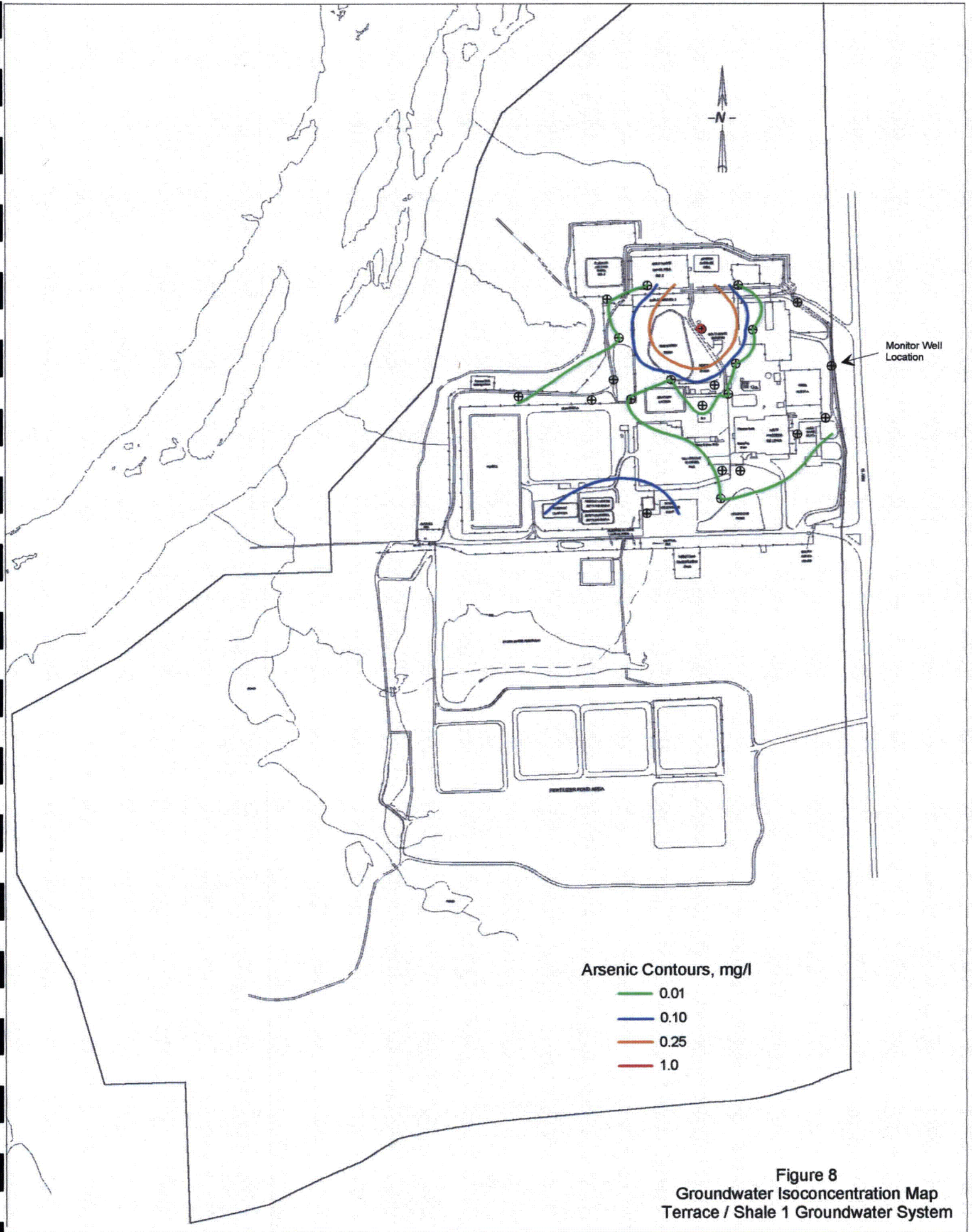


Figure 8
 Groundwater Isoconcentration Map
 Terrace / Shale 1 Groundwater System

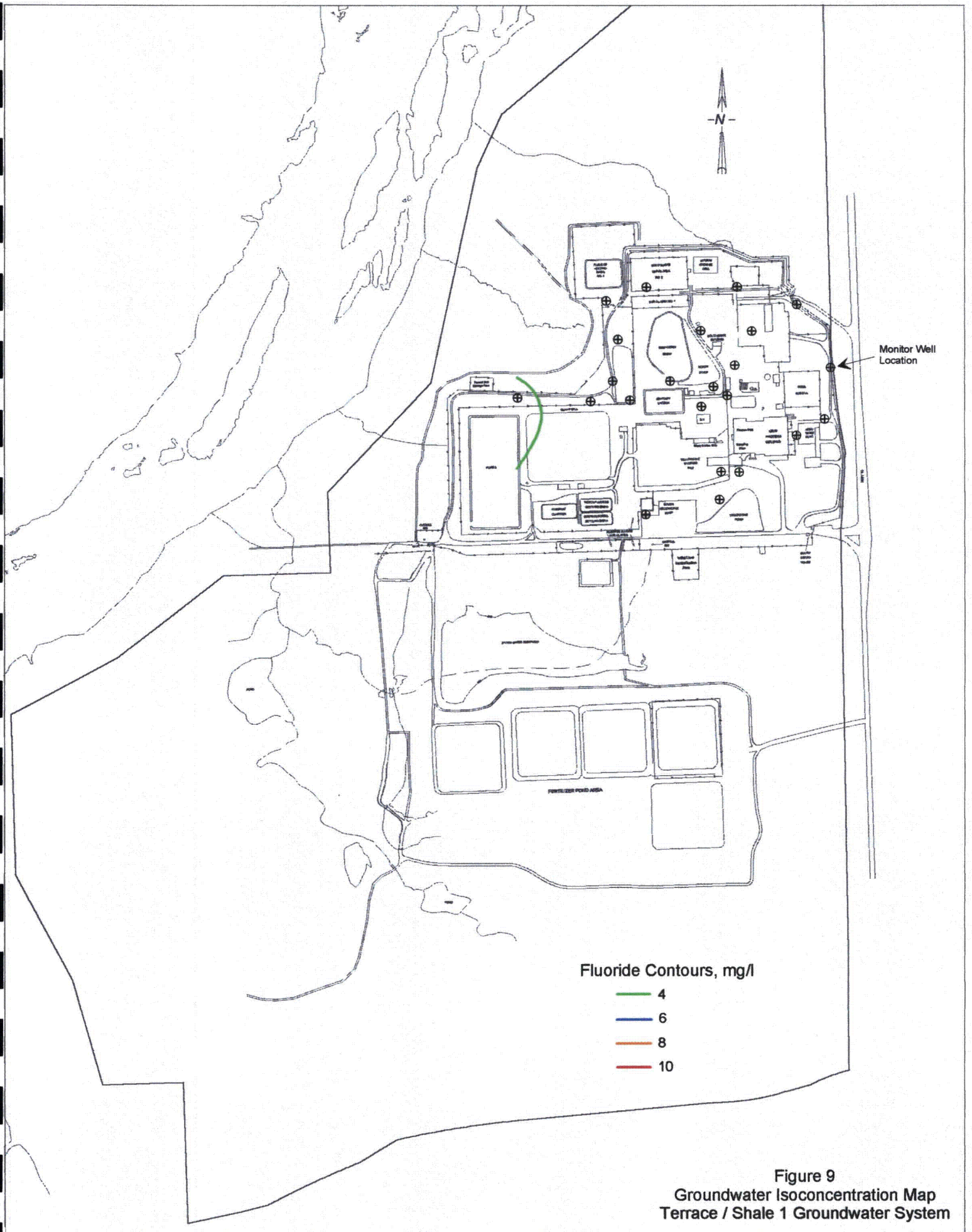


Figure 9
 Groundwater Isoconcentration Map
 Terrace / Shale 1 Groundwater System

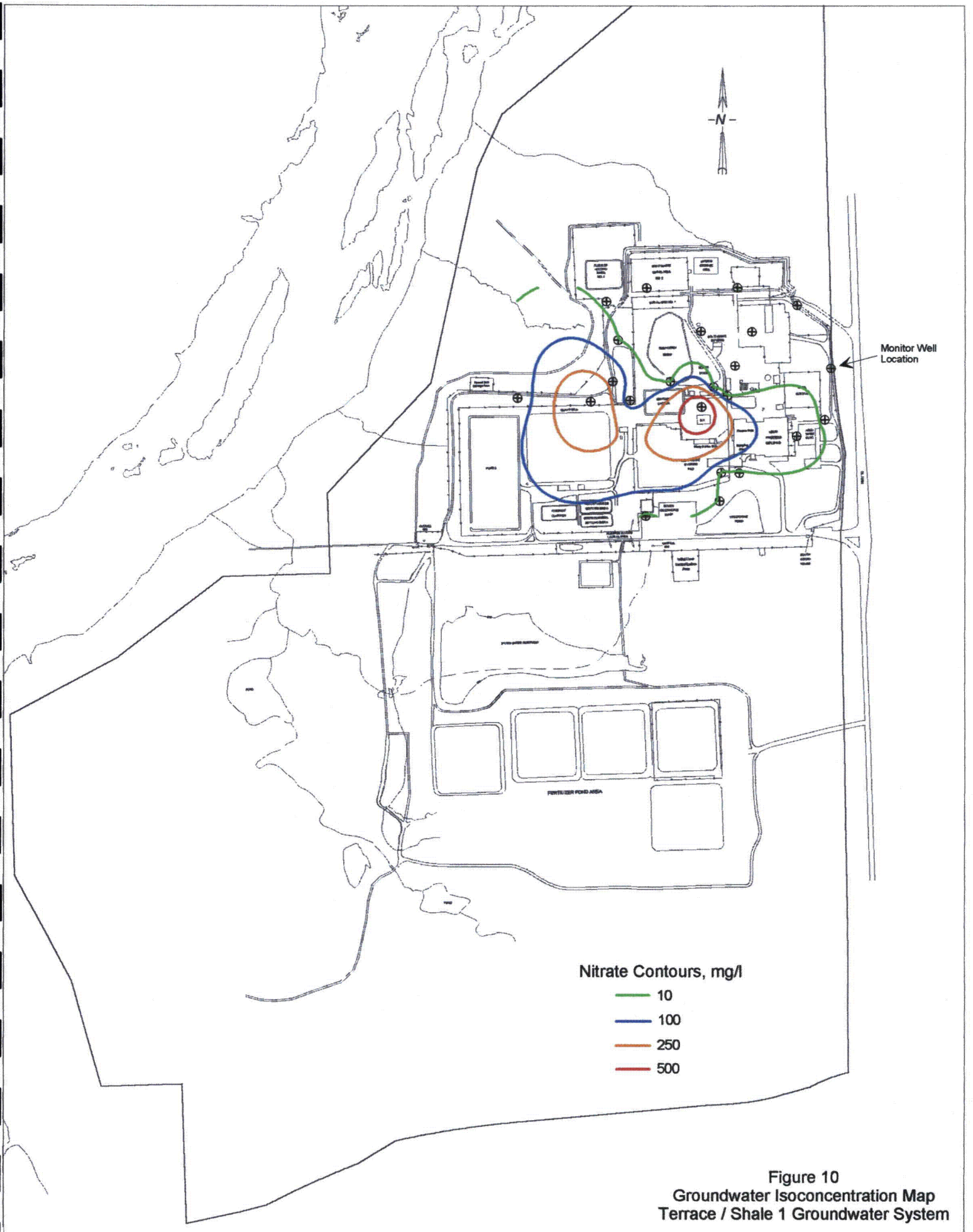


Figure 10
 Groundwater Isoconcentration Map
 Terrace / Shale 1 Groundwater System

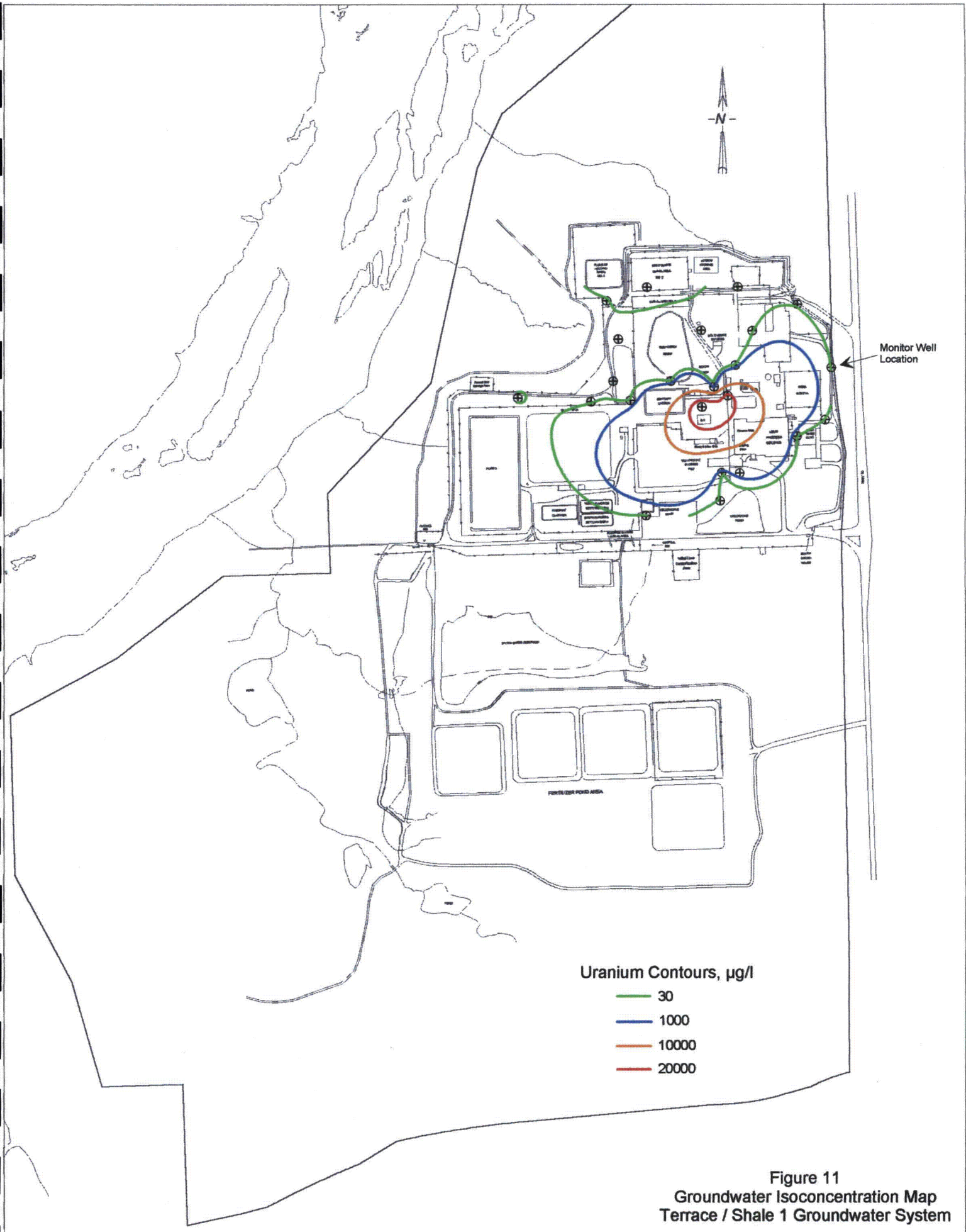


Figure 11
Groundwater Isoconcentration Map
Terrace / Shale 1 Groundwater System

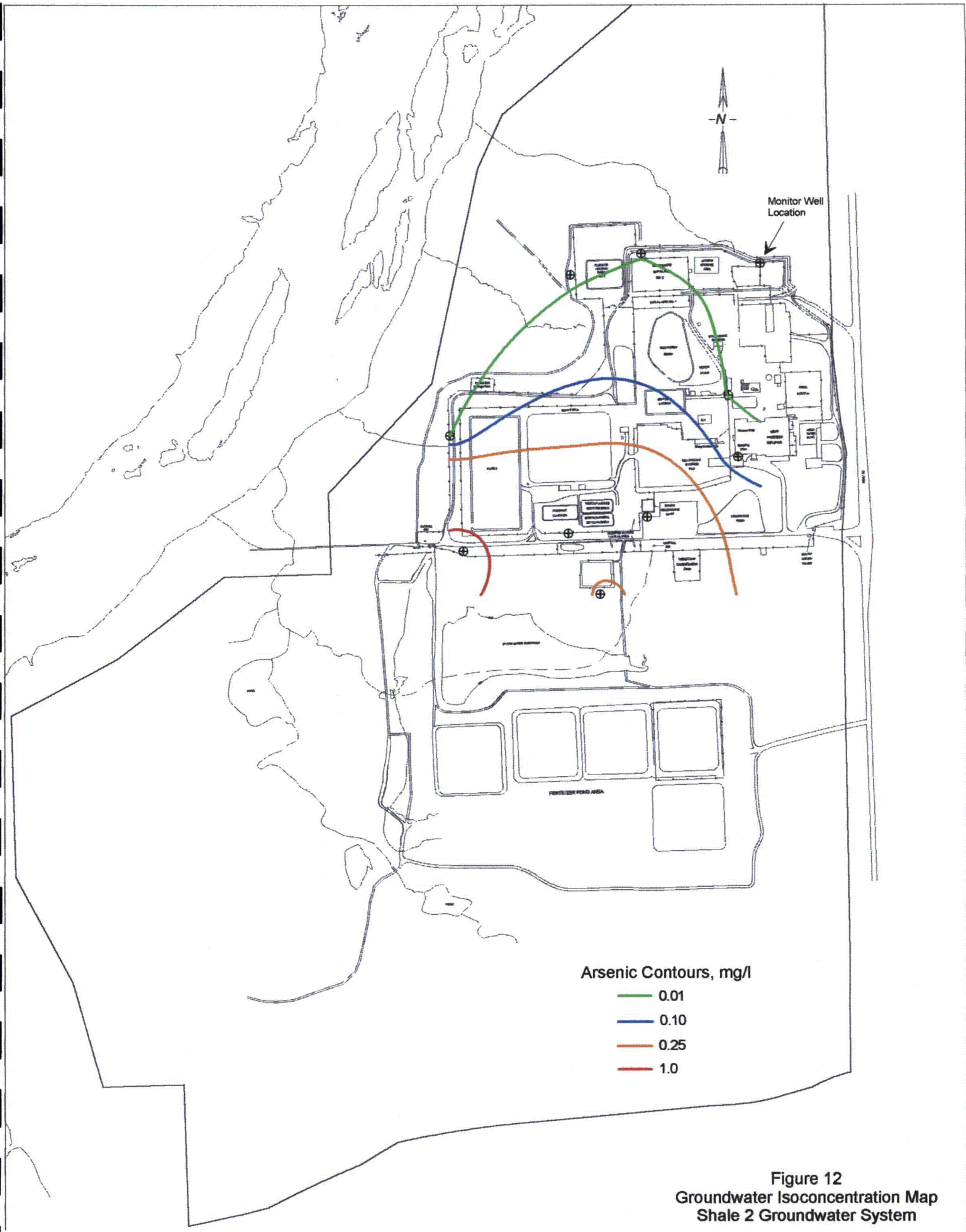


Figure 12
Groundwater Isoconcentration Map
Shale 2 Groundwater System

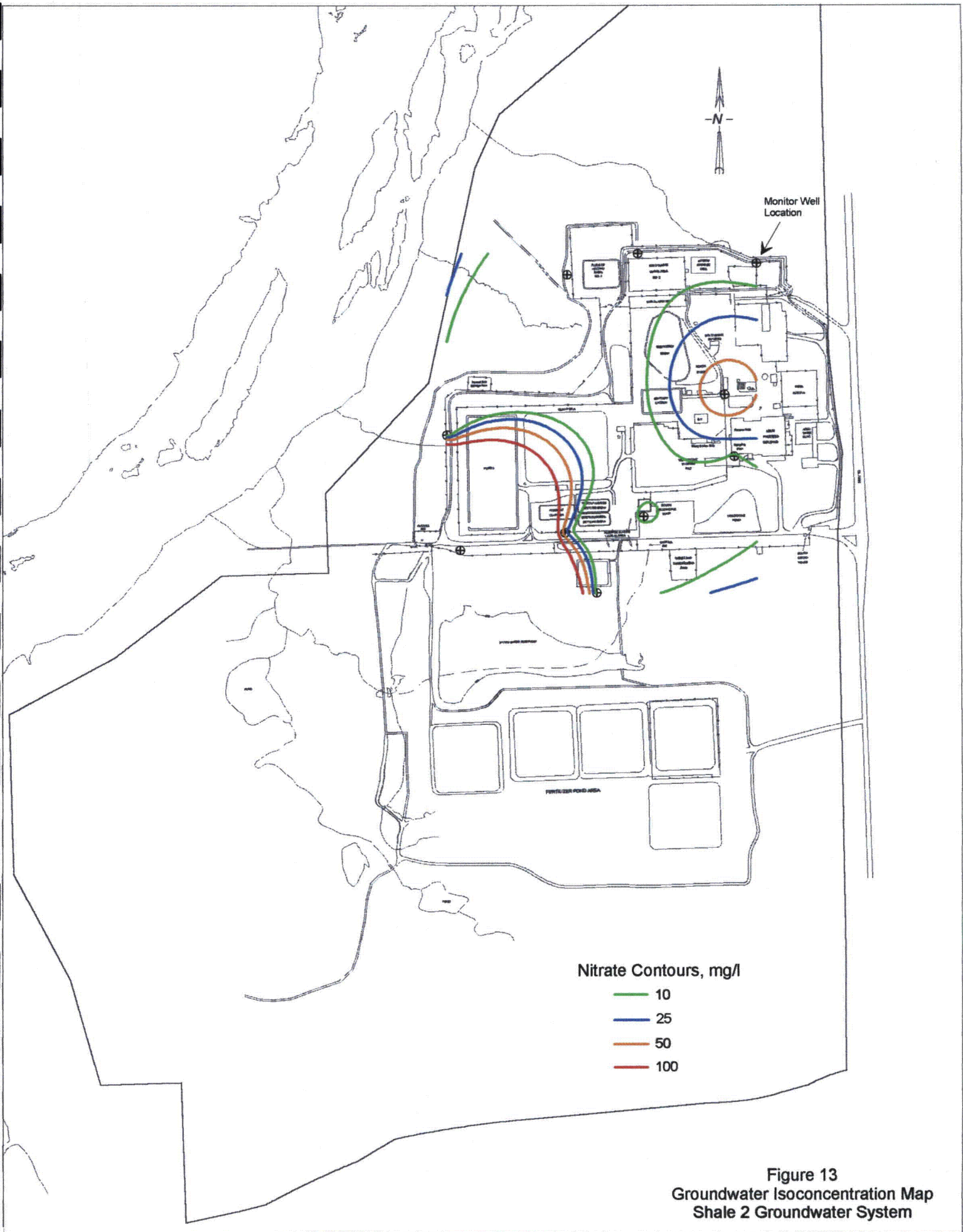


Figure 13
Groundwater Isoconcentration Map
Shale 2 Groundwater System

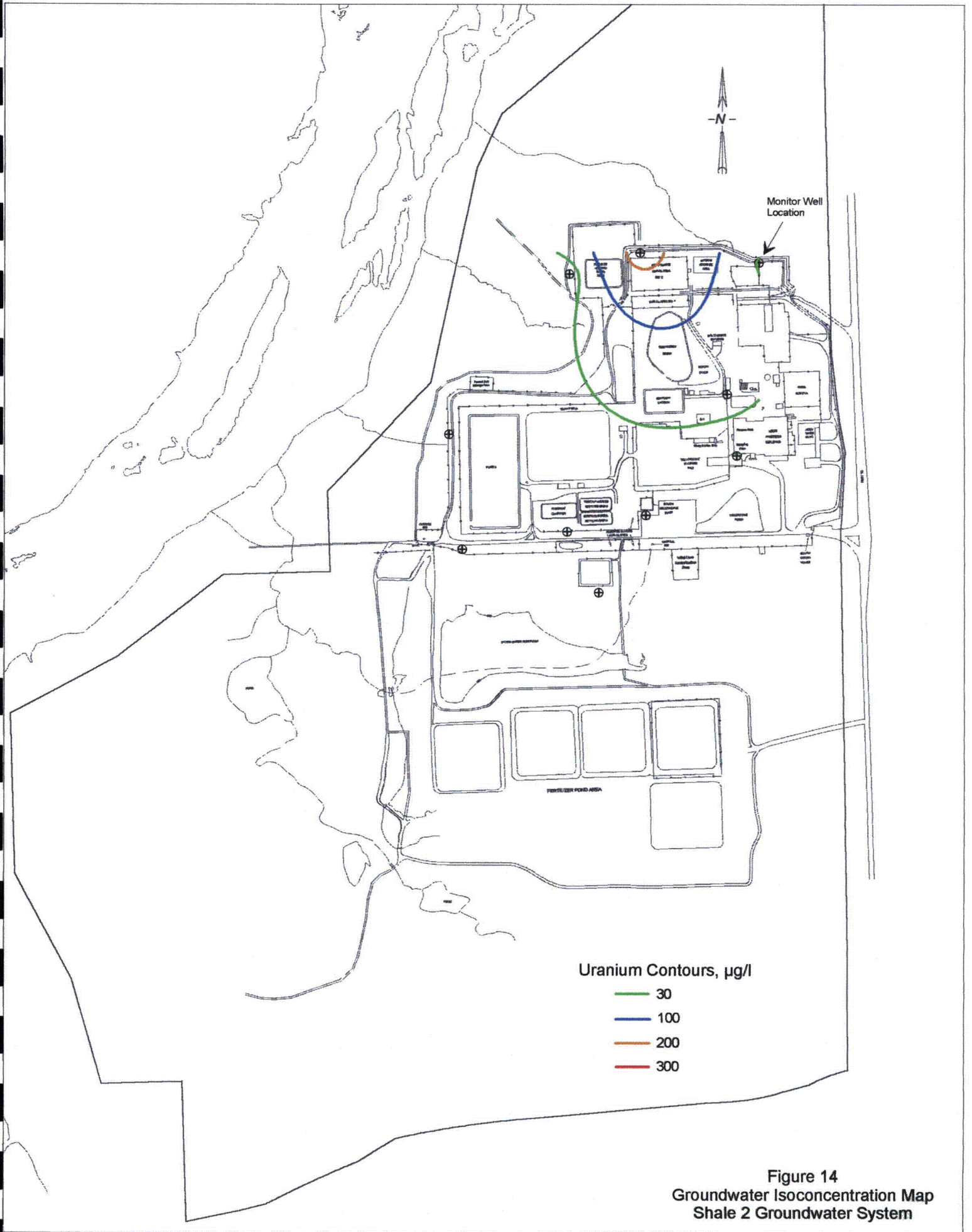
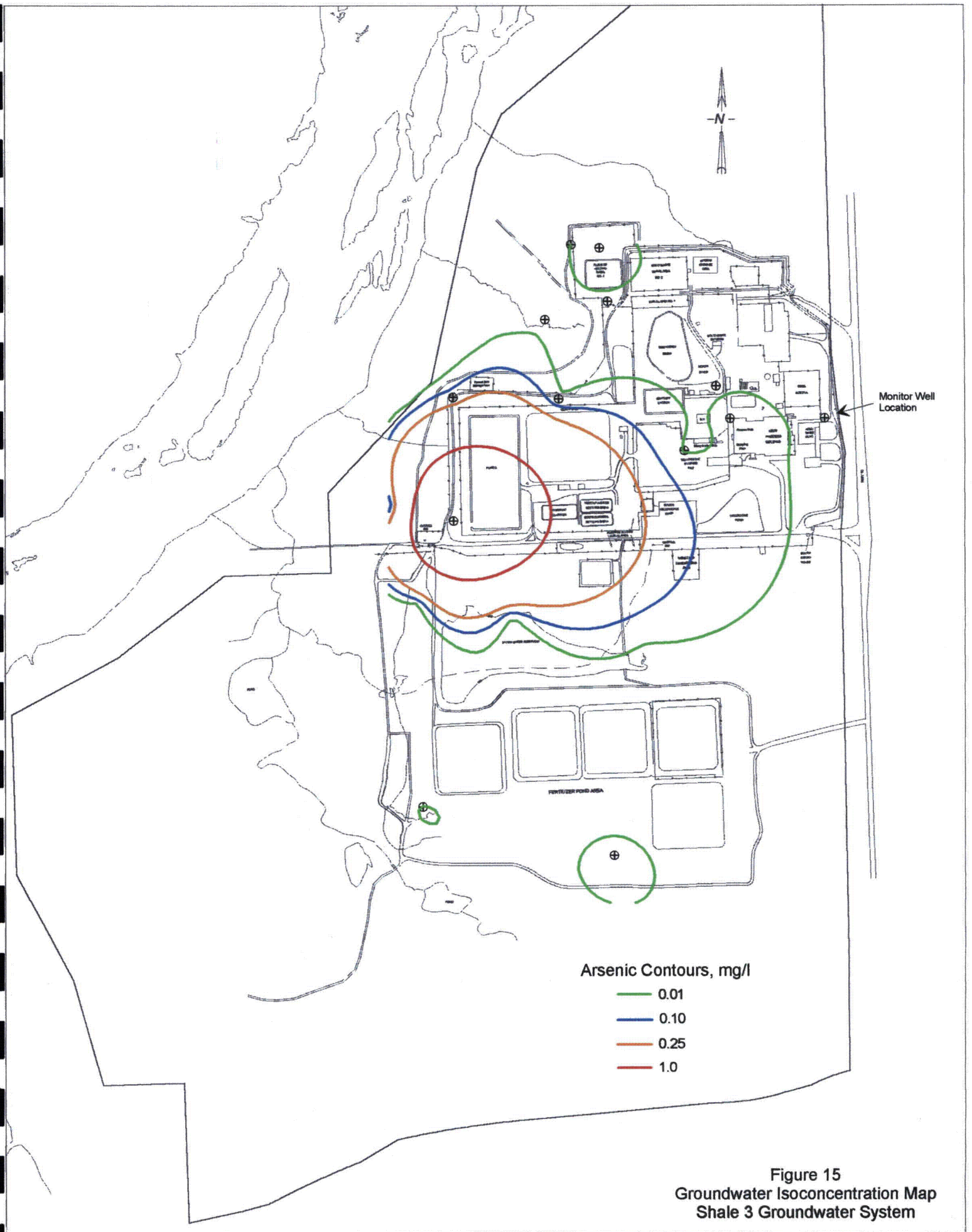


Figure 14
Groundwater Isoconcentration Map
Shale 2 Groundwater System



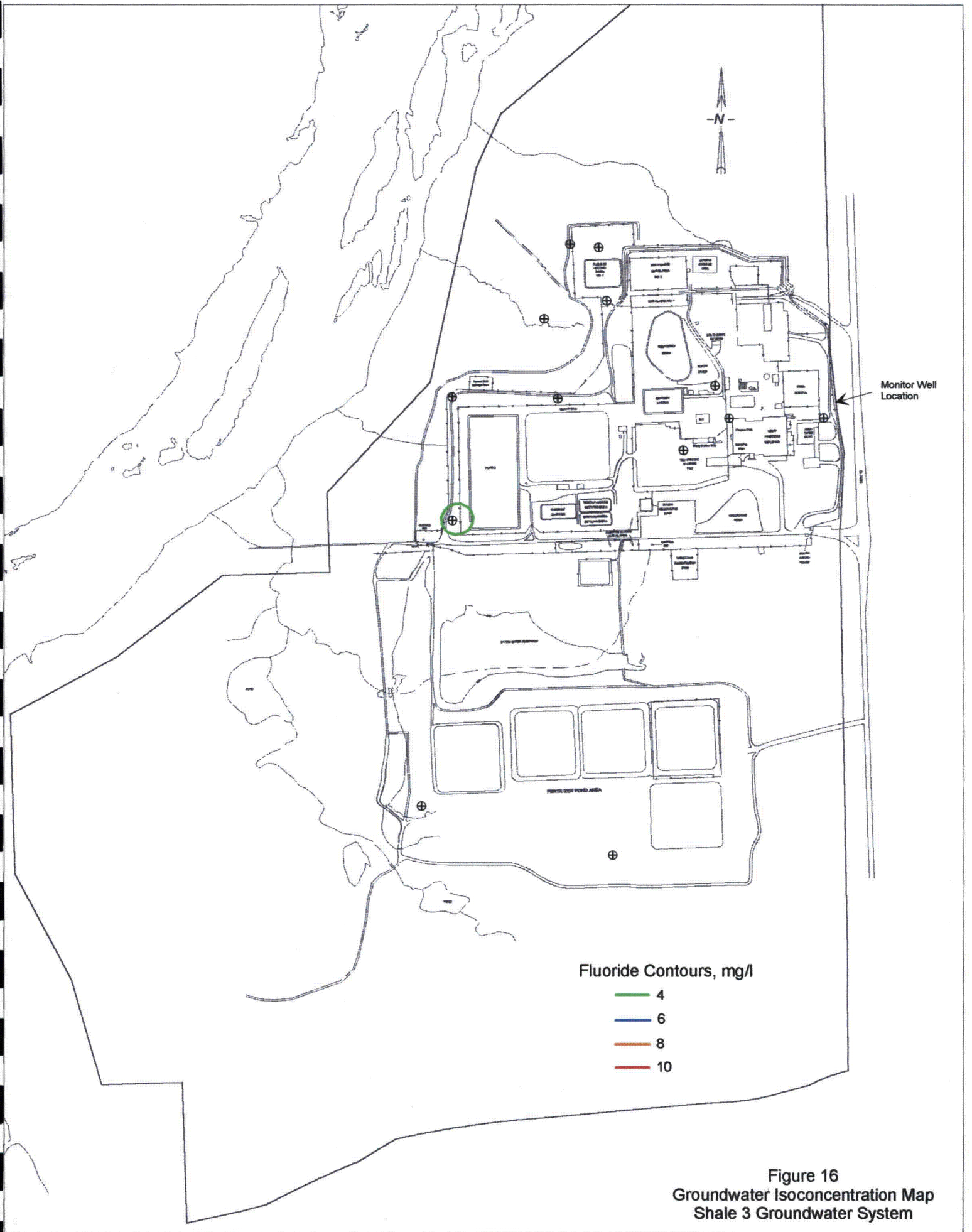


Figure 16
 Groundwater Isoconcentration Map
 Shale 3 Groundwater System

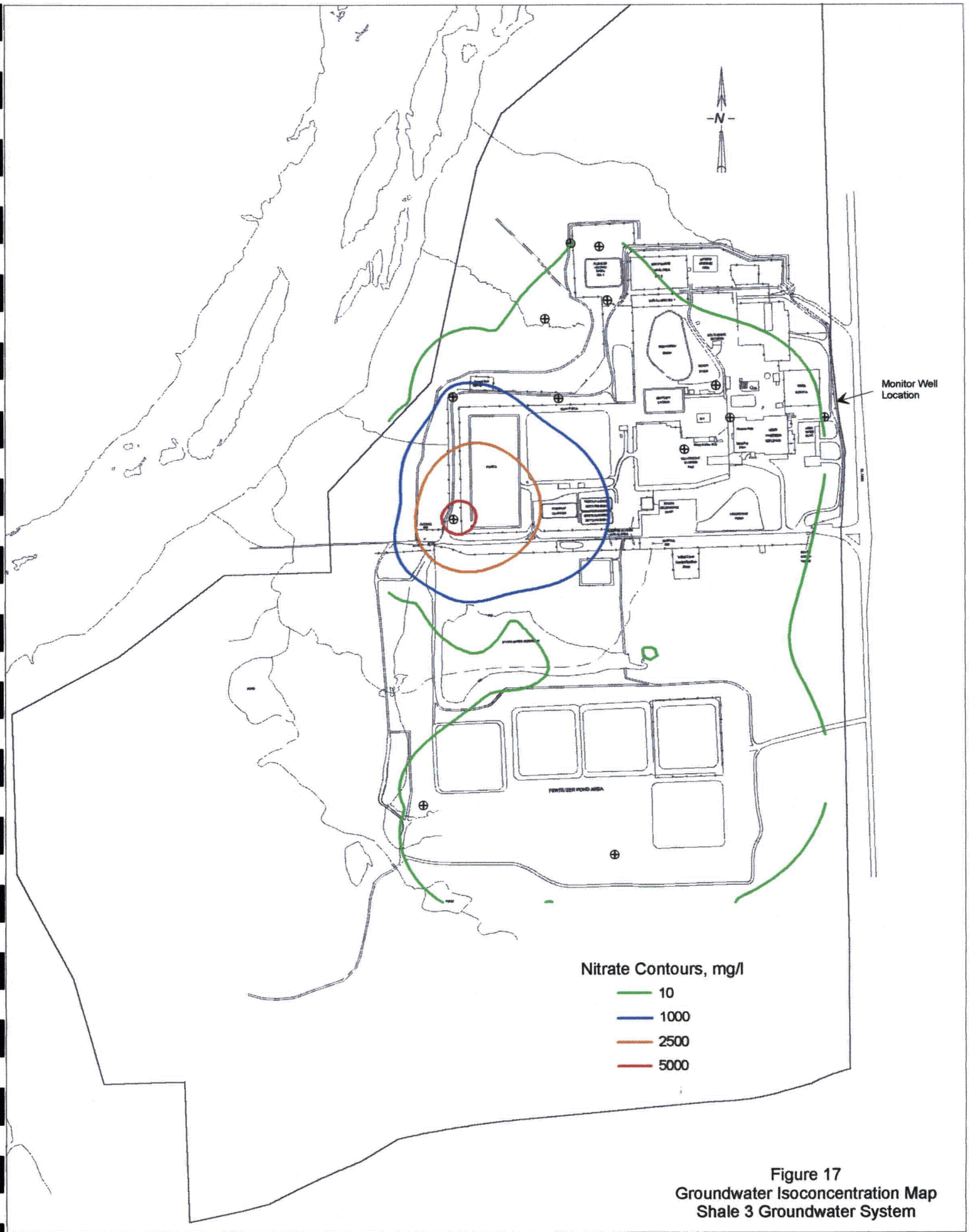


Figure 17
Groundwater Isoconcentration Map
Shale 3 Groundwater System

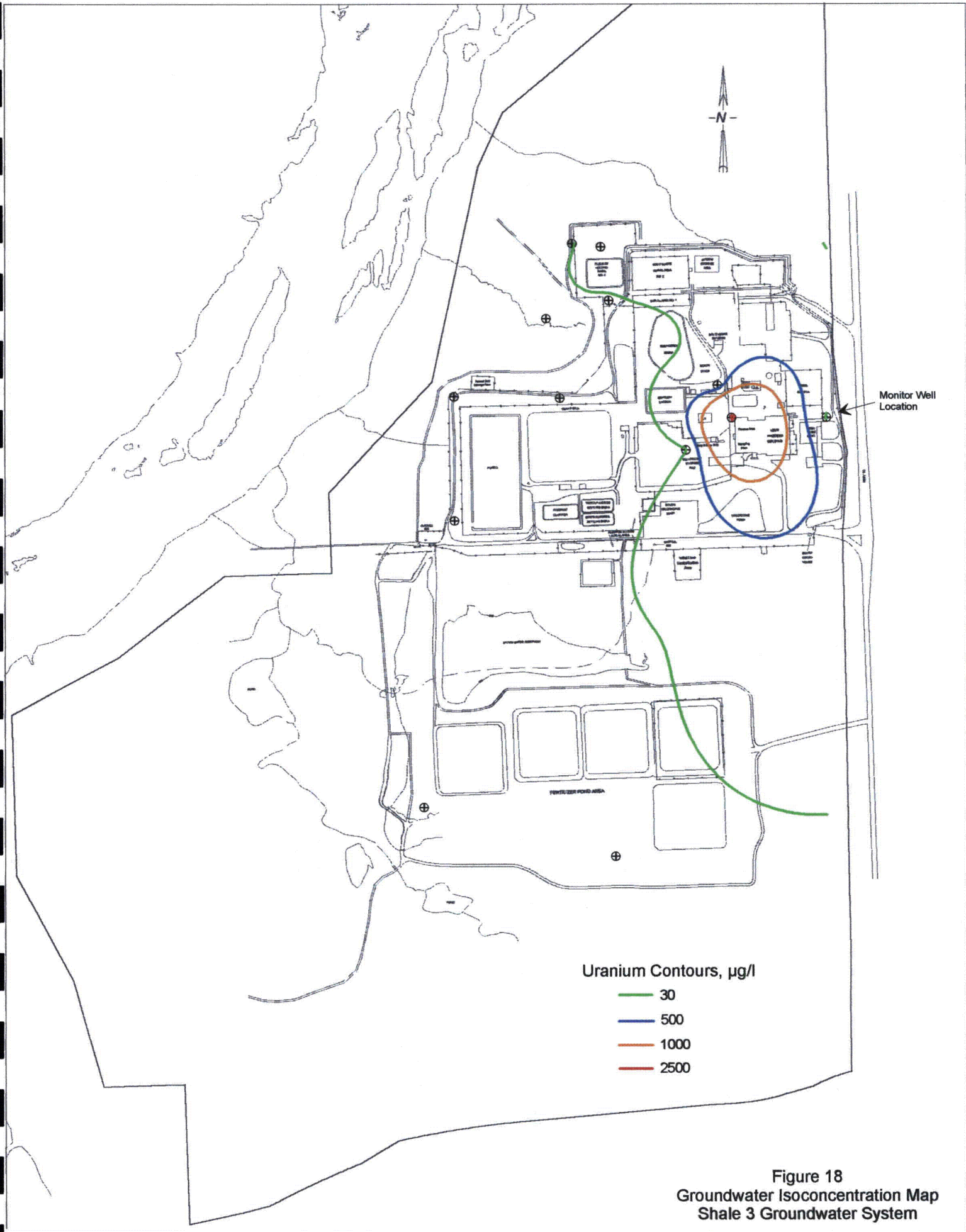


Figure 18
Groundwater Isoconcentration Map
Shale 3 Groundwater System



Monitor Well Location



Arsenic Contours, mg/l
— 0.01
— 0.8
— 0.9
— 1.0

Figure 19
Groundwater Isoconcentration Map
Shale 4 Groundwater System

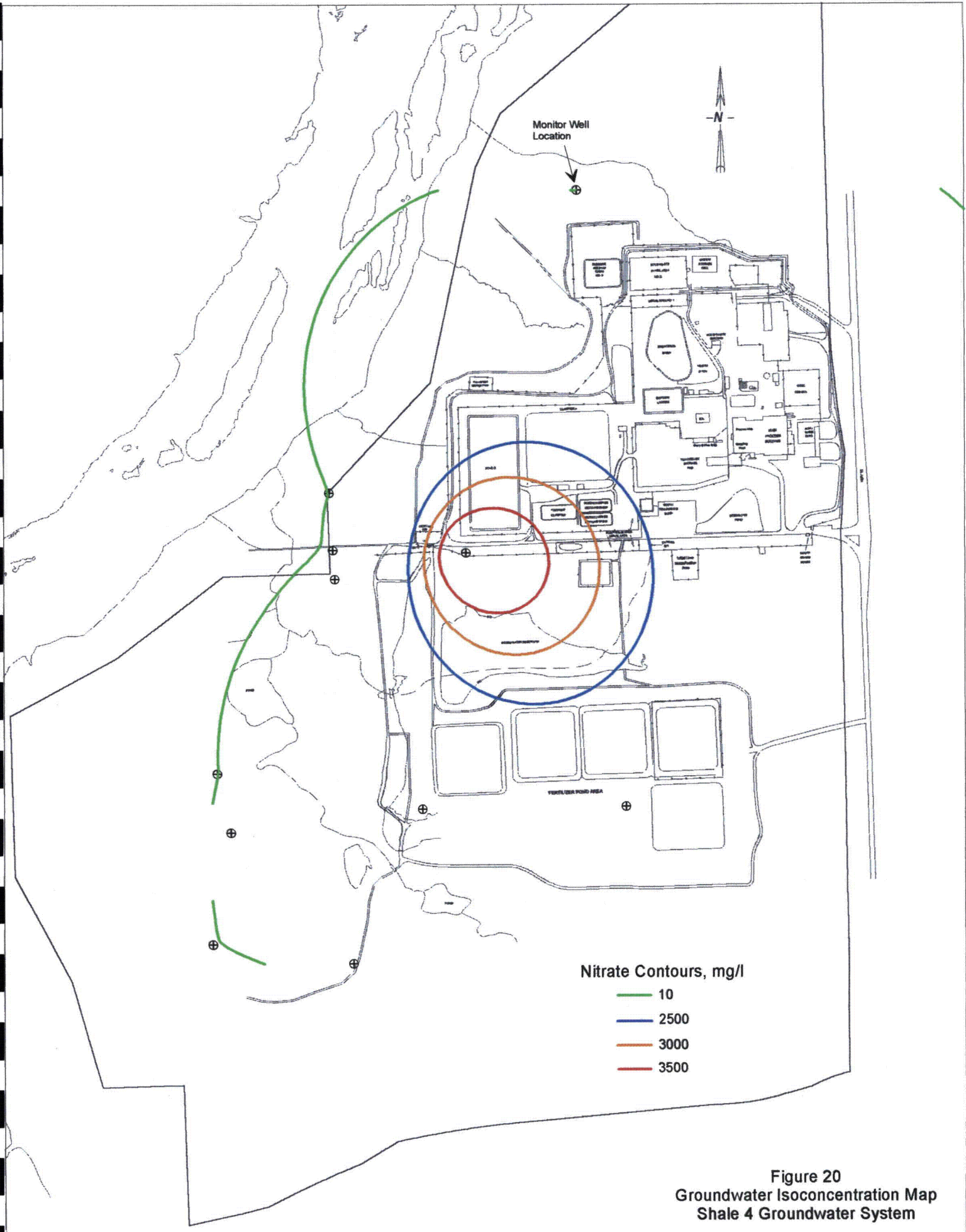


Figure 20
Groundwater Isoconcentration Map
Shale 4 Groundwater System

Appendices

Appendix A

Lithology and Well Completion Diagrams

for

New Monitoring Wells

DRILLING LOG

HOLE NUMBER: MW121A

Facility Sequoyah Fuels		Project SF New Well Installations 2005/2006		Sheet of 1 Sheets
Location Northing/LAT: 195028.907 (Coordinates) Easting/LON: 2835312.017		Coordinates System OKLAHOMA - NORTH	Elevation of Hole 528.11	
Datum for Elevation Shown (TBM or MSL) MSL		Elevation of Groundwater		
Hole Number (As shown on drawing title and file number) MW121A		Direction of Hole <input checked="" type="checkbox"/> Vertical <input type="checkbox"/> Inclined _____ degrees from vertical		
Date Hole	Started 11/1/05	Completed 11/1/05	Thickness of Overburden 15 ft	
Drilling Contractor Giles Environmental Services		Thickness of Rock 0 ft		
Name of Driller Clark Giles		Total Depth of Hole 15 ft		
Manufacturer's Designation of Drill Failing F6 (coring and HSA)		Total Number of Overburden Samples Collected	Disturbed	Undisturbed 4
Size and Type of Bit 4.25 inch HSA		Total Number of Core Boxes		
Signature of Geologist/Inspector		Total Recovery for Boring (%) 53%		

Elevation	Depth	Legend	Classification of Materials (Description)	% Recovery	Box or Sample Number	Remarks (Drilling time, water loss, depth of weathering, blow counts, ect., if significant)
523.11	5	SM	Silty fine sand, brownish tan, dry	3.25/5 65%		Sandstone fragments in the end of the core barrel
		ML	Sandy silt, light brown grading to yellowish brown, fine grained, dry to moist			
		SM	grading to Fine sand with some silt, light brown to brown, dry to moist, some cemented layers greater than 1 inch thick	2.4/5 48%		
518.11	10	SS	Sandstone, weathered, brown to dark gray, hard to brittle, dry to slightly moist.	1.2/2.5 48%		
		SM	Fine sandy silt, brownish gray, slightly moist, some cemented layers.	1.1/2.5 44%		
		SH	Shale, weathered, grayish brown to dark gray, fissile, with some interbedded fine sand layers			
513.11	15					TD = 15 ft

DRILLING LOG

HOLE NUMBER: MW122A

Facility Sequoyah Fuels		Project SF New Well Installations 2005/2006		Sheet 1 of 2 Sheets
Location (Coordinates) Northing/LAT: 195972.203 Easting/LON: 2835251.199		Coordinates System OKLAHOMA - NORTH	Elevation of Hole 536.95	
Datum for Elevation Shown (TBM or MSL) MSL		Elevation of Groundwater		
Hole Number (As shown on drawing title and file number) MW122A		Direction of Hole <input checked="" type="checkbox"/> Vertical <input type="checkbox"/> Inclined _____ degrees from vertical		
Date Hole	Started 11/04/05	Completed 11/09/05	Thickness of Overburden 11.8 ft	
Drilling Contractor Giles Environmental Services		Thickness of Rock 16.2 ft		
Name of Driller Clark Giles		Total Depth of Hole 28.0 ft		
Manufacturer's Designation of Drill Falling F6 (coring and HSA) / Schramm T450W (air rotary)		Total Number of Overburden Samples Collected	Disturbed	Undisturbed 6
Size and Type of Bit 4.25 inch HSA		Total Number of Core Boxes 2		
Signature of Geologist/Inspector		Total Recovery for Boring (%) 81%		

Elevation	Depth	Legend	Classification of Materials (Description)	% Recovery	Box or Sample Number	Remarks (Drilling time, water loss, depth of weathering, blow counts, ect., if significant)
531.95	5	ML	Silt, dark brown, loose, moist	4.7/5 94%		Top soil
			Clayey silt, tan to red, very hard/dense, dry			Compacted fill
526.95	10	ML	Same as above	1.3/5 28%		Large gravel/cobble blocking sample barrel
			Coarse gravel and cobbles with fines, sub-angular, dry			
		GM				
521.95	15	SP	Silty fine sand, yellow to dark red, dense, dry, some cemented lenses	5/5 100%		Auger refusal at 15 ft. Switched to rock coring. 15 - 16 ft interval drilled out with out coring to clean out boring.
		SH	Shale, weathered, clayey becoming fissile, mottled, dry, with interbedded fine sand layers			
			Increasing fine sand content of interbedded layers			
		SS	Sandstone, grayish brown grading to light gray to gray, very hard, dry	5/5 100%		
			Heavy iron staining Shale lenses			

DRILLING LOG (CONT. SHEET) | HOLE NUMBER: MW122A

Elevation	Depth	Legend	Classification of Materials (Description)	% Recovery	Box or Sample Number	Remarks (Drilling time, water loss, depth of weathering, blow counts, etc., if significant)
511.95	25	SS	Shale layers, becoming dark gray	5/5 100%		Vertical fracture ~0.5 ft
		SH	Shale with interbedded sandstone layers, weathered, mottled, dark gray on fresh surface, fissile	3.7/4 92.5%		
		SS	Sandstone, gray to dark gray, with some shale layers			Vertical fracture ~0.5 ft
		SH	Shale, dark gray			
		SS	Sandstone, dark gray	3/3 100%		
						TD = 28 ft

DRILLING LOG

HOLE NUMBER: MW123A

Facility Sequoyah Fuels		Project SF New Well Installations 2005/2006		Sheet 1 of 1 Sheets	
Location (Coordinates) Northing/LAT: 194915.900 Easting/LON: 2834894.517		Coordinates System OKLAHOMA - NORTH		Elevation of Hole 519.49	
Datum for Elevation Shown (TBM or MSL) MSL		Elevation of Groundwater			
Hole Number (As shown on drawing title and file number) MW123A		Direction of Hole <input checked="" type="checkbox"/> Vertical <input type="checkbox"/> Inclined _____ degrees from vertical			
Date Hole Started 11/01/05		Completed 11/01/05		Thickness of Overburden 6 ft	
Drilling Contractor Giles Environmental Services		Thickness of Rock 4 ft			
Name of Driller Clark Giles		Total Depth of Hole 10 ft			
Manufacturer's Designation of Drill Failing F6 (coring and HSA)		Total Number of Overburden Samples Collected		Disturbed Undisturbed 4	
Size and Type of Bit 4.25 inch HSA		Total Number of Core Boxes			
Signature of Geologist/Inspector		Total Recovery for Boring (%) 64%			

Elevation	Depth	Legend	Classification of Materials (Description)	% Recovery	Box or Sample Number	Remarks (Drilling time, water loss, depth of weathering, blow counts, ect., if significant)
514.49	5	SM	Fine sand with some silt and rounded gravel and broken sandstone, yellowish brown, dry	1.4/2.5 56%		~4-inch thick sandstone layer encountered in the first 1ft
		CL	Silty clay, red to brownish red, mottled, slightly plastic, dry			
		SM	Silty sand with some clay, yellowish brown, dry	1.9/2.5 76%		
		SM	Same as above becoming reddish brown with cemented layers			
509.49	10	SH	Shale, weathered, gray to dark gray, fissile, dry, with some fine sand layers	1/2.5 40%		TD = 10 ft
		SS	Interbedded sandstone layers, reddish brown	2.1/2.5 84%		
504.49	15					

DRILLING LOG

HOLE NUMBER: MW125A

Facility Sequoyah Fuels		Project SF New Well Installations 2005/2006		Sheet 1 of 3 Sheets
Location Northing/LAT: 193450.660 (Coordinates) Easting/LON: 2836317.240		Coordinates System OKLAHOMA - NORTH		Elevation of Hole 522.99
Datum for Elevation Shown (TBM or MSL) MSL		Elevation of Groundwater		
Hole Number (As shown on drawing title and file number) MW125A		Direction of Hole <input checked="" type="checkbox"/> Vertical <input type="checkbox"/> Inclined _____ degrees from vertical		
Date Hole	Started 11/03/05	Completed 11/07/05	Thickness of Overburden 9.3 ft	
Drilling Contractor Giles Environmental Services		Thickness of Rock 35.95 ft		
Name of Driller Clark Giles		Total Depth of Hole 45.25 ft		
Manufacturer's Designation of Drill Falling F6 (coring and HSA) / Schramm T450W (air rotary)		Total Number of Overburden Samples Collected	Disturbed	Undisturbed 12
Size and Type of Bit 4.25 inch HSA		Total Number of Core Boxes 3		
Signature of Geologist/Inspector		Total Recovery for Boring (%) 68%		

Elevation	Depth	Legend	Classification of Materials (Description)	% Re- covery	Box or Sample Number	Remarks (Drilling time, water loss, depth of weathering, blow counts, ect., if significant)
517.99	5	SM	Silty fine sand, brown to grayish brown, dense, slightly moist	23./5 46%		Sandstone fragment blocked sample barrel. Sample barrel refused at 7.5 ft and augers refused at 9.3 ft.
		SS	Sandstone, weathered, reddish brown			
			Shale, weathered, observed from cuttings			
512.99	10	SH		0/4.3 0%		Switched from HSA to rock core using air rotary
		SS	Sandstone, weathered, reddish brown, fine grained			
507.99	15		grading to a Sandstone gray to grayish tan, very hard	0.5/0.7 92%	1	
			Becomes gray to light gray	4.6/5 92%	1	
		SS	Brownish gray, becoming shaley			
			Gray, homogeneous	3.5/4.5 78%	1	
			Dark gray, interbedded with weathered shale			

DRILLING LOG (CONT. SHEET) | HOLE NUMBER: MW125A

Elevation	Depth	Legend	Classification of Materials (Description)	% Re-covery	Box or Sample Number	Remarks (Drilling time, water loss, depth of weathering, blow counts, etc., if significant)
497.99	25	SS/SH	Sandstone and interbedded shale layers	.85/2.6 33%	1 & 2	Recovery was all sandstone and probably represented the lower 0.85 of run. Shale recovery poor. Drilling was suspended at 22.3 ft and a surface casing was installed
			grading to a Sandstone, dark gray, very hard, some thin shale layers			
492.99	30	SS/ST	Same as above	1.3/1.5 87%	2	Resumed coring at 22.5 ft. Core bit ruined on this interval.
			Grading to more of a siltstone, becoming darker gray, less sand content			
487.99	35		Shale, dark gray to black, fissile	3.8/5 78%	2	
			Same as above			
482.99	40	SH	Same as above	3.7/4 92.5%	2	
			Same as above			
482.99	40		Same as above	3.4/4 85%	2 & 3	
			Same as above			
482.99	40		Same as above	4.3/5 86%	3	
			Same as above			
		SS	Sandstone, very dark gray, to black, homogeneous, very hard	2.4/3.5 69%	3	

DRILLING LOG (CONT. SHEET) | HOLE NUMBER: MW125A

Elevation	Depth	Legend	Classification of Materials (Description)	% Re- covery	Box or Sample Number	Remarks (Drilling time, water loss, depth of weathering, blow counts, ect., if significant)	
472.99	50	SS	Sandstone			TD = 45.25 ft	50
	55						55
	60						60
	65						65

DRILLING LOG

HOLE NUMBER: MW124A/6A

Facility Sequoyah Fuels		Project SF New Well Installations 2005/2006		Sheet 1 of 2 Sheets	
Location Northing/LAT: 193434.786 (Coordinates) Easting/LON: 2835065.407		Coordinates System OKLAHOMA - NORTH		Elevation of Hole 500.12	
Datum for Elevation Shown (TBM or MSL) MSL		Elevation of Groundwater			
Hole Number (As shown on drawing title and file number) MW126A		Direction of Hole <input checked="" type="checkbox"/> Vertical <input type="checkbox"/> Inclined _____ degrees from vertical			
Date Hole Started 11/02/05		Completed 11/11/05		Thickness of Overburden 7.5 ft	
Drilling Contractor Giles Environmental Services		Thickness of Rock 34.5 ft			
Name of Driller Clark Giles		Total Depth of Hole 42.0 ft			
Manufacturer's Designation of Drill Failing F6 (coring and HSA) / Schramm T450W (air rotary)		Total Number of Overburden Samples Collected		Disturbed Undisturbed 10	
Size and Type of Bit 4.25 inch HSA		Total Number of Core Boxes 3			
Signature of Geologist/Inspector		Total Recovery for Boring (%) 85%			

Elevation	Depth	Legend	Classification of Materials (Description)	% Recovery	Box or Sample Number	Remarks (Drilling time, water loss, depth of weathering, blow counts, ect., if significant)
495.12	5	SM	Silty sand to fine sand, light brown to reddish brown, loose, dry to moist	1.7/2.5 68%		This log is compilation of 3 borings drilled within approximately 10 ft radius of one another. The first boring was Augered to 7.4 ft on 11/02/05 and rock cored to 12 ft on 11/03/05. A well was constructed in this boring and then later plugged and abandoned. A new hole was started on 11/08/05 and drilled out to 12 ft and then rock cored to 36 ft. Due to gumming/plugging of the core barrel this boring was terminated at 36 ft and plugged and abandoned on 11/10/05. A third boring was started on 11/10/05 and was completed as MW126A. Cuttings from this boring were logged from 36-42 ft to complete this log. Switched from HSA to rock coring
			gravel size sandstone fragments	2.2/2.5 88%		
		SH	Shale, weathered, dark gray	1.7/2.4 71%		
490.12	10	SS	Sandstone, weathered, dark gray	3/3 100%		
			Same as above	1.6/1.6 100%		
			Shale lense Becoming more shale like	3.4/4 85%		
485.12	15	SH	Shale, dark gray to black, slightly fissile with some interbedded sandstone			
		SS	Sandstone, dark gray with shale layers	2.9/4.5 64%		

DRILLING LOG (CONT. SHEET) | HOLE NUMBER: MW124A/6A

Sheet 2 of 2 Sheets

Elevation	Depth	Legend	Classification of Materials (Description)	% Recovery	Box or Sample Number	Remarks (Drilling time, water loss, depth of weathering, blow counts, ect., if significant)
475.12	25	ST	grading to a Siltstone	2.9/4.5		Not cored, drilled to cleanout boring
			grading to a Shale, dark gray to black, hard, slightly fissile	4.7/4.75 99%		
470.12	30		Same as above becoming more fissile			Carrying water down the boring from above the sandstone
		SH	Same as above	4.4/5 88%		
465.12	35					Core barrel has become plugged from water and shale cuttings. A pressure washer was used get the sampler open. Core was disturbed in the process.
				5/5 100%		
460.12	40					Due to water in the bore hole causing the core barrel to gum up, the remainder of the boring was logged from cuttings. Drilled with Schramm rig and a 6-inch hammer bit.
		SS	Sandstone, dark gray			
						TD = 42 ft

DRILLING LOG

HOLE NUMBER: MW127A

Facility Sequoyah Fuels		Project SF New Well Installations 2005/2006		Sheet 1 of 1 Sheets	
Location Northing/LAT: 198454.172 (Coordinates) Easting/LON: 2835818.837		Coordinates System OKLAHOMA - NORTH		Elevation of Hole 516.11	
Datum for Elevation Shown (TBM or MSL) MSL		Elevation of Groundwater			
Hole Number (As shown on drawing title and file number) MW127A		Direction of Hole <input checked="" type="checkbox"/> Vertical <input type="checkbox"/> Inclined _____ degrees from vertical			
Date Hole Started 11/02/05		Completed 11/02/05		Thickness of Overburden 2.5 ft	
Drilling Contractor Giles Environmental Services		Thickness of Rock 15.5 ft			
Name of Driller Clark Giles		Total Depth of Hole 18 ft			
Manufacturer's Designation of Drill Failing F6 (coring and HSA) / Schramm T450W (air rotary)		Total Number of Overburden Samples Collected		Disturbed Undisturbed 6	
Size and Type of Bit 4.25 inch HSA		Total Number of Core Boxes			
Signature of Geologist/Inspector		Total Recovery for Boring (%) 79%			

Elevation	Depth	Legend	Classification of Materials (Description)	% Re-covery	Box or Sample Number	Remarks (Drilling time, water loss, depth of weathering, blow counts, etc., if significant)
			Silty fine sand with 1-3 inch sandstone fragments, loose, light brown to tan, dry			Surface fill of roadcut
		SM				
			Shale, dark gray with some mottling between layers, fissile, dry	1.3/5 26%		
511.11	5		Same as above			
				2.5/2.5 100%		
			Same as above Weathered zone 7.6 - 8.4 ft, slightly moist			
				2.5/2.5 100%		
506.11	10	SH	Same as above			
				2.5/2.5 100%		
			Same as above Saturated layer 12.5 - 12.8 ft			
				2.5/2.5 100%		
501.11	15		Same as above			
				3/3 100%		
			Sandstone, gray			Auruger refused TD = 18 ft

DRILLING LOG

HOLE NUMBER: MW128B

Facility Sequoyah Fuels		Project SF New Well Installations 2005/2006		Sheet 1 of 4 Sheets
Location Northing/LAT: 192495.135 (Coordinates) Easting/LON: 2832867.489		Coordinates System OKLAHOMA - NORTH		Elevation of Hole 482.89
Datum for Elevation Shown (IBM or MSL) MSL		Elevation of Groundwater		
Hole Number (As shown on drawing title and file number) MW128B		Direction of Hole <input checked="" type="checkbox"/> Vertical <input type="checkbox"/> Inclined _____ degrees from vertical		
Date Hole	Started 11/03/05 [1/17/06]	Completed 11/18/05 [1/24/06]	Thickness of Overburden 29.4 ft	
Drilling Contractor Giles Environmental Services		Thickness of Rock 64.1 ft		
Name of Driller Clark Giles		Total Depth of Hole 93.5 ft		
Manufacturer's Designation of Drill Falling F6 (coring and HSA) / Schramm T450W (air rotary)		Total Number of Overburden Samples Collected	Disturbed 30	Undisturbed 13
Size and Type of Bit 4.25 Inch HSA		Total Number of Core Boxes 1		
Signature of Geologist/Inspector		Total Recovery for Boring (%) 78% (auger & core)		

Elevation	Depth	Legend	Classification of Materials (Description)	% Recovery	Box or Sample Number	Remarks (Drilling time, water loss, depth of weathering, blow counts, ect., if significant)
477.89	5		Silty fine sand, brown, medium dense, moist	2.8/5 56%		This log is compilation of 2 borings drilled within approximately 10 ft of one another. The first boring was Augered to 50 ft on 11/03/05. A second boring was drilled to 50 ft without sampling on 1/17/06. Coring was done from 50 - 63 ft. Cuttings were logged from 63 - 93.5 ft. A well was constructed in this boring. 11/3/05 Drilled and sampled with HAS to ~50 ft using Falling F6.
			Silty fine sand, reddish brown, very dense to cemented, bedded layers, dry			
472.89	10		Same as above Cemented layers, increasing fines	4.6/5 92%		11/11/05 Reamed boring to 29 ft using Schramm T450W and air. Set a temporary 10-inch steel casing. Continued advancing an 8-inch hole through the temporary steel casing to 50 ft and set a 6-inch PVC casing. Grouted the PVC casing up to the base of the temporary casing. 11/14/05 Grout measured at 34 ft. Temporary steel casing removed and remainder of 6-inch PVC grouted.
		CL/ML	Grading to Clayey silty with some fine sand, bedded layers, light brown to tan, dry			
		SM	Grading to Silty fine sand with some pea size gravel, tan to reddish brown, very dense, dry Increasing silt content, tan to light brown, bedded layers, dry			
467.89	15	CL	Grading to Silty clay, red to reddish brown, very stiff, slightly plastic to plastic, slightly moist	5/5 100%		11/15/05. Unable advance boring and core due to presence of water inside of PVC casing. PVC casing appears to be damaged and allowing water to enter hole. 11/18/05 Boring plugged and abandoned. 1/17/06 Offset 10 ft from first boring. Set 10-inch temporary steel casing to 30 ft and set 6-inch steel casing to ~ 50 ft.
		GC	Increasing silt content grading to clayey silt Clayey gravel with coarse sand and clay lenses, dark reddish brown, rounded gravel up to 2" in diameter, moist to wet	3.7/5 74%		1/18/06 Grouted 6-inch steel casing below the temporary 10-inch steel casing. Removed the temporary casing and finished grouting the 6-inch steel casing. 1/20/06 Cored and drilled through 6-inch casing to 93.5 ft. 1/23/06 Installed 2-inch well and partially grouted. Formation was taking grout. 1/24/06 Grout level checked to be at ~58 ft. Completed grouting of well.

DRILLING LOG (CONT. SHEET) | HOLE NUMBER: MW128B

Elevation	Depth	Legend	Classification of Materials (Description)	% Recovery	Box or Sample Number	Remarks (Drilling time, water loss, depth of weathering, blow counts, ect., if significant)
457.89	25	GC	Same as above Increasing coarse sand content, wet	2.8/5 56%		
			Same as above Decreasing clay content, saturated	4.4/5 88%		Drillers reported change in drilling conditions
452.89	30		Shale, dark gray, fissile dry	4.3/5 86%		Sample was wet through out, difficult to tell if water is in shale or being forced in from saturated gravel by drilling. Material in very end of sampler dry.
447.89	35		Same as above When wet appears black	4.7/5 94%		Sample dry in center
442.89	40	SH	Same as above Some sand lenses	4.2/5 84%		
			Interbedded sandstone layers up to 1" thick			Sandstone layers fine grained, gray to dark gray, very hard

DRILLING LOG (CONT. SHEET) | HOLE NUMBER: MW128B

Sheet 3 of 4 Sheets

Elevation	Depth	Legend	Classification of Materials (Description)	% Recovery	Box or Sample Number	Remarks (Drilling time, water loss, depth of weathering, blow counts, ect., if significant)
432.89	50	SH	Same as above Interbedded sandstone layers still present	4.2/5 84%		
					0.0/0.2	Auger refusal at 50.2 ft.
427.89	55	SS	Sandstone, dark gray, very hard, dry			
		SH	Same as above With interbedded fissile shale			Assume about a 0.5 ft of core loss between 53 - 55.5 ft
422.89	60	SH	Shale, very dark gray to black, some fissile layers	4.1/5 82%	1	Assume 0.4 ft of core loss between 55.5 - 57.5 ft
		SS	Grading back to Sandstone, dark gray, homogeneous, very hard			
		SS	Sandstone, yellowish brown and iron staining, poorly cemented, saturated, <u>weathered fracture zone</u> Sandstone, dark gray, homogeneous, well cemented	4.4/5 88%	1	Lost dust and dry cutting returns at 61 ft. Drill passed through 60 to 61 ft very rapidly. Saturated at 60.4 to 61 ft. Making ~10 gpm. Unable to continue coring, cutting were observed every 1 ft after 61 ft. Some of the cutting from each interval were saved in ziplock bags.
417.89	65	SS				

Elevation	Depth	Legend	Classification of Materials (Description)	% Recovery	Box or Sample Number	Remarks (Drilling time, water loss, depth of weathering, blow counts, ect., if significant)
			Sandstone, dark gray, homogeneous, well cemented			
		SS				
407.89	75		Transitioning to a Shale, very dark gray to black			
402.89	80					
		SH				
397.89	85					
392.89	90					
			Transitioning to a Sandstone, dark gray			
		SS				

DRILLING LOG

HOLE NUMBER: MW129A

Facility Sequoyah Fuels		Project SF New Well Installations 2005/2006		Sheet 1 of 2 Sheets	
Location Northing/LAT: 194851.777 (Coordinates) Easting/LON: 2834528.867		Coordinates System OKLAHOMA - NORTH		Elevation of Hole 487.16	
Datum for Elevation Shown (TBM or MSL) MSL		Elevation of Groundwater			
Hole Number (As shown on drawing title and file number) MW129A		Direction of Hole <input checked="" type="checkbox"/> Vertical <input type="checkbox"/> Inclined _____ degrees from vertical			
Date Hole	Started 11/01/05	Completed 11/01/05	Thickness of Overburden 12.4 ft		
Drilling Contractor Giles Environmental Services			Thickness of Rock 10.6 ft		
Name of Driller Clark Giles			Total Depth of Hole 23.0 ft		
Manufacturer's Designation of Drill Falling F6 (Coring and HSA) / Schramm T450W (air rotary)			Total Number of Overburden Samples Collected	Disturbed	Undisturbed 8
Size and Type of Bit 4.25 Inch HSA			Total Number of Core Boxes		
Signature of Geologist/Inspector			Total Recovery for Boring (%) 87%		

Elevation	Depth	Legend	Classification of Materials (Description)	% Recovery	Box or Sample Number	Remarks (Drilling time, water loss, depth of weathering, blow counts, etc., if significant)
482.16	5	SM	Silty fine sand, brown, damp, dense to loose Light brown to tan, very dense, dry, some rounded gravel, 1 - 2 " diameter Grades to reddish brown	4.6/5 96%		
		SP	Medium sand and rounded gravel with few fines, reddish brown, medium dense, slightly moist Same as above	1.7/2.5 68%		
477.16	10	SP	Medium sand and rounded gravel with few fines, reddish brown, medium dense, slightly moist	1.7/2.5 68%		
		SH	Medium sand and pea size gravel, few fines, medium dense, wet to saturated	2.5/2.5 100%		
472.16	15	SH	Shale, weathered, brown to reddish brown, mottled, wet	2.2/2.5 88%		
		SH	Shale, dark gray to black, fissile, dry Same as above	2.5/2.5 100%		
		SH	Same as above Less fissile	2.4/2.5 96%		

DRILLING LOG

HOLE NUMBER: MW130A

Facility Sequoyah Fuels		Project SF New Well Installations 2005/2006		Sheet 1 of 1 Sheets	
Location Northing/LAT: 193743.103 (Coordinates) Easting/LON: 2835055.052		Coordinates System OKLAHOMA -- NORTH		Elevation of Hole 502.13	
Datum for Elevation Shown (TBM or MSL) MSL		Elevation of Groundwater			
Hole Number (As shown on drawing title and file number) MW130A		Direction of Hole <input checked="" type="checkbox"/> Vertical <input type="checkbox"/> Inclined _____ degrees from vertical			
Date Hole	Started 11/02/05	Completed 11/02/05	Thickness of Overburden 10.5 ft		
Drilling Contractor Giles Environmental Services		Thickness of Rock 3 ft			
Name of Driller Clark Giles		Total Depth of Hole 13.5 ft			
Manufacturer's Designation of Drill Failing F6 (coring and HSA) / Schramm T450W (air rotary)		Total Number of Overburden Samples Collected	Disturbed	Undisturbed 3	
Size and Type of Bit 4.25 inch HSA		Total Number of Core Boxes			
Signature of Geologist/Inspector		Total Recovery for Boring (%) 84%			

Elevation	Depth	Legend	Classification of Materials (Description)	% Recovery	Box or Sample Number	Remarks (Drilling time, water loss, depth of weathering, blow counts, ect., if significant)
532.52	5	SM	Silty sand, light brown, loose, dry	3/5 60%		Top soil
			Compacted fill containing weathered shale and sandstone pieces, mottled to reddish brown, hard, dry			
527.52	10	ML/CL	Same as above	5/5 100%		
			Same as above			
522.52	15	SH	Shale, weathered, light brown with some fine sand between layers	3/3.5 94%		
		SS	Sandstone, dark gray, weathered			
						TD = 13.5 ft

DRILLING LOG (CONT. SHEET) | HOLE NUMBER: MW129A

Sheet 2 of 2 Sheets

Elevation	Depth	Legend	Classification of Materials (Description)	% Recovery	Box or Sample Number	Remarks (Drilling time, water loss, depth of weathering, blow counts, etc., if significant)
462.16	25	SH	Same as above Shale, dark gray to black	2.3/3 77%		
		SS	Sandstone, dark gray, very fine grained, hard, dry			

TOP OF CASING
ELEV.: 530.84'

HEIGHT: 2.73'

ELEV.: 528.11'

GROUND SURFACE

ELEV.: 527.11'

DEPTH: 1'

ELEV.: 522.11'

DEPTH: 6'

ELEV.: 518.11'

DEPTH: 10'

ELEV.: 513.11'

DEPTH: 15'

ELEV.: NA

DEPTH: NA

1

2

3

4

5

6

7

8

520.11' ELEV.

8' DEPTH

WELL CONSTRUCTION INFORMATION

PROJECT: SEQUOYAH FUELS CORP.

WELL NO.: MW121A

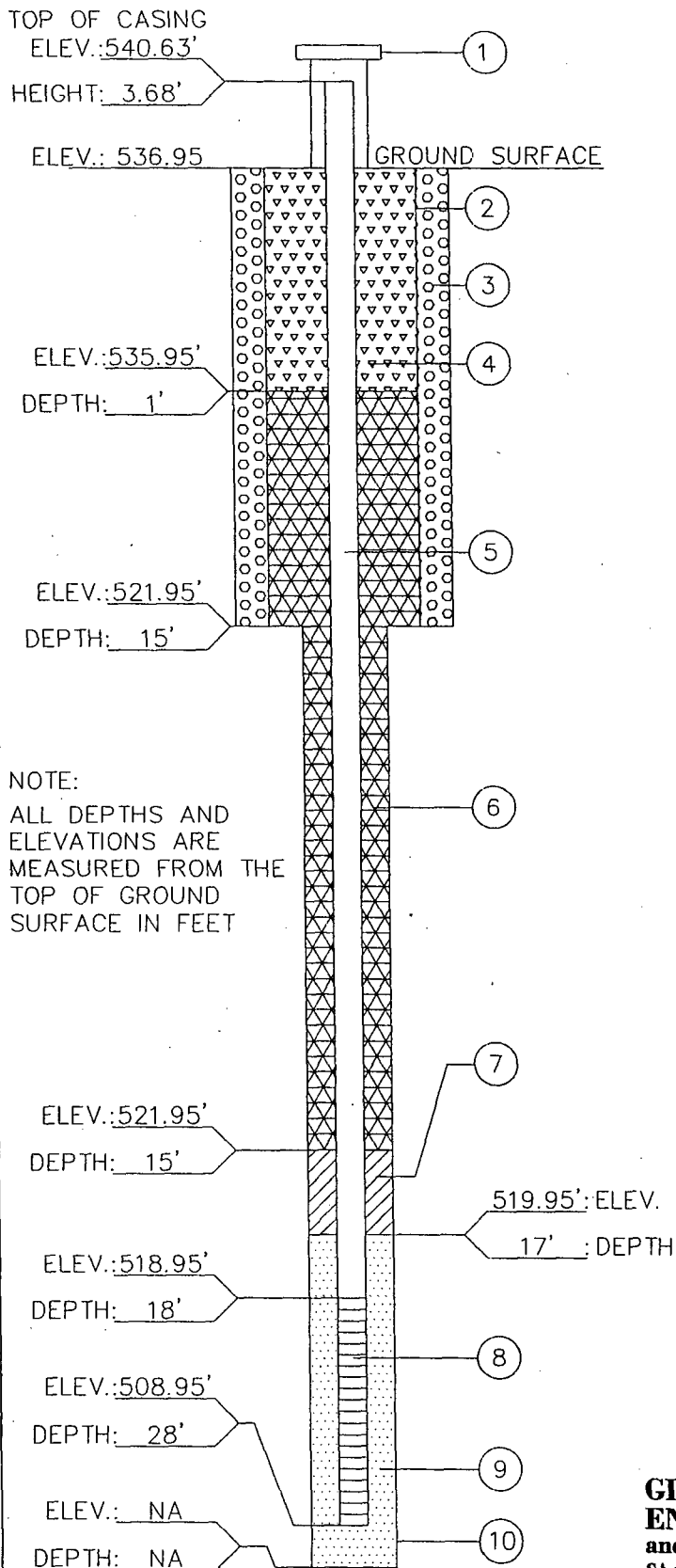
COMPLETION DATE: 11/1/2005

1. PROTECTIVE CASING: YES
LOCKING: YES
2. TYPE OF SURFACE SEAL
(IF INSTALLED): CONCRETE
3. SOLID PIPE TYPE:
SCHEDULE 40 PVC, 2" ID
SOLID PIPE LENGTH: 10 FT.
JOINT TYPE: THREADED
4. TYPE OF BACKFILL:
CEMENT BENTONITE GROUT
HOW INSTALLED: SURFACE
5. TYPE OF LOWER SEAL
(IF INSTALLED): BENTONITE CHIPS
6. SCREEN TYPE:
SLOTTED, SCHEDULE 40 PVC
SCREEN LENGTH: 5 FT.
SCREEN SLOT SIZE: 0.01 IN.
SCREEN DIAMETER: 2 IN.
SUMP LENGTH
(IF INSTALLED): NA FT.
7. TYPE OF FILTER PACK:
20/40 SILICA SAND
8. TYPE OF BACKFILL
(IF INSTALLED): NA
9. DRILLING METHOD: 4.25" ID HSA

NOTE: ALL DEPTHS AND ELEVATIONS
ARE MEASURED FROM THE TOP
OF GROUND SURFACE IN FEET

**GLOBAL
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and Surveying, Inc.**
CA # 3851 (expires 6-30-2006)

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Fax (918) 681-2954



WELL CONSTRUCTION INFORMATION

PROJECT: SEQUOYAH FUELS CORP.

WELL NO.: MW122A

COMPLETION DATE: 11/09/05

1. PROTECTIVE CASING: YES
 LOCKING: YES
2. ISOLATOR PIPE TYPE:
SCHEDULE 40 PVC, 6" ID
 SOLID PIPE LENGTH: 15 FT.
 JOINT TYPE: THREADED
3. TYPE OF BACKFILL:
CEMENT BENTONITE GROUT
 HOW INSTALLED: SURFACE
4. TYPE OF SURFACE SEAL
 (IF INSTALLED): CONCRETE
5. SOLID PIPE TYPE:
SCHEDULE 40 PVC, 2" ID
 SOLID PIPE LENGTH: 18
 JOINT TYPE: THREADED
6. TYPE OF BACKFILL:
CEMENT BENTONITE GROUT
 HOW INSTALLED: TREMIE
7. TYPE OF LOWER SEAL
 (IF INSTALLED): BENTONITE CHIPS
8. SCREEN TYPE:
SLOTTED, SCHEDULE 40 PVC
 SCREEN LENGTH: 10 FT.
 SCREEN SLOT SIZE: 0.01 IN.
 SCREEN DIAMETER: 2 IN.
 SUMP LENGTH
 (IF INSTALLED): NA FT.
9. TYPE OF FILTER PACK:
20/40 SILICA SAND
10. TYPE OF BACKFILL
 (IF INSTALLED): NA
9. DRILLING METHOD: AIR ROTARY

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 Fax (918) 681-2954

TOP OF CASING
ELEV.: 522.22'

HEIGHT: 2.73'

ELEV.: 519.49'

GROUND SURFACE

ELEV.: 518.49'

DEPTH: 1'

ELEV.: 515.49'

DEPTH: 4'

ELEV.: 513.49'

DEPTH: 6'

ELEV.: 509.49'

DEPTH: 10'

ELEV.: NA

DEPTH: NA

1

2

3

4

5

6

7

8

WELL CONSTRUCTION INFORMATION

PROJECT: SEQUOYAH FUELS CORP.

WELL NO.: MW123A

COMPLETION DATE: 11/1/2005

1. PROTECTIVE CASING: YES
LOCKING: YES
2. TYPE OF SURFACE SEAL
(IF INSTALLED): CONCRETE
3. SOLID PIPE TYPE:
SCHEDULE 40 PVC, 2" ID
SOLID PIPE LENGTH: 6 FT.
JOINT TYPE: THREADED
4. TYPE OF BACKFILL:
CEMENT BENTONITE GROUT
HOW INSTALLED: SURFACE
5. TYPE OF LOWER SEAL
(IF INSTALLED): BENTONITE CHIPS
6. SCREEN TYPE:
SLOTTED, SCHEDULE 40 PVC
SCREEN LENGTH: 4 FT.
SCREEN SLOT SIZE: 0.01 IN.
SCREEN DIAMETER: 2 IN.
SUMP LENGTH
(IF INSTALLED): NA FT.
7. TYPE OF FILTER PACK:
20/40 SILICA SAND
8. TYPE OF BACKFILL
(IF INSTALLED): NA
9. DRILLING METHOD: 4.25" ID HSA

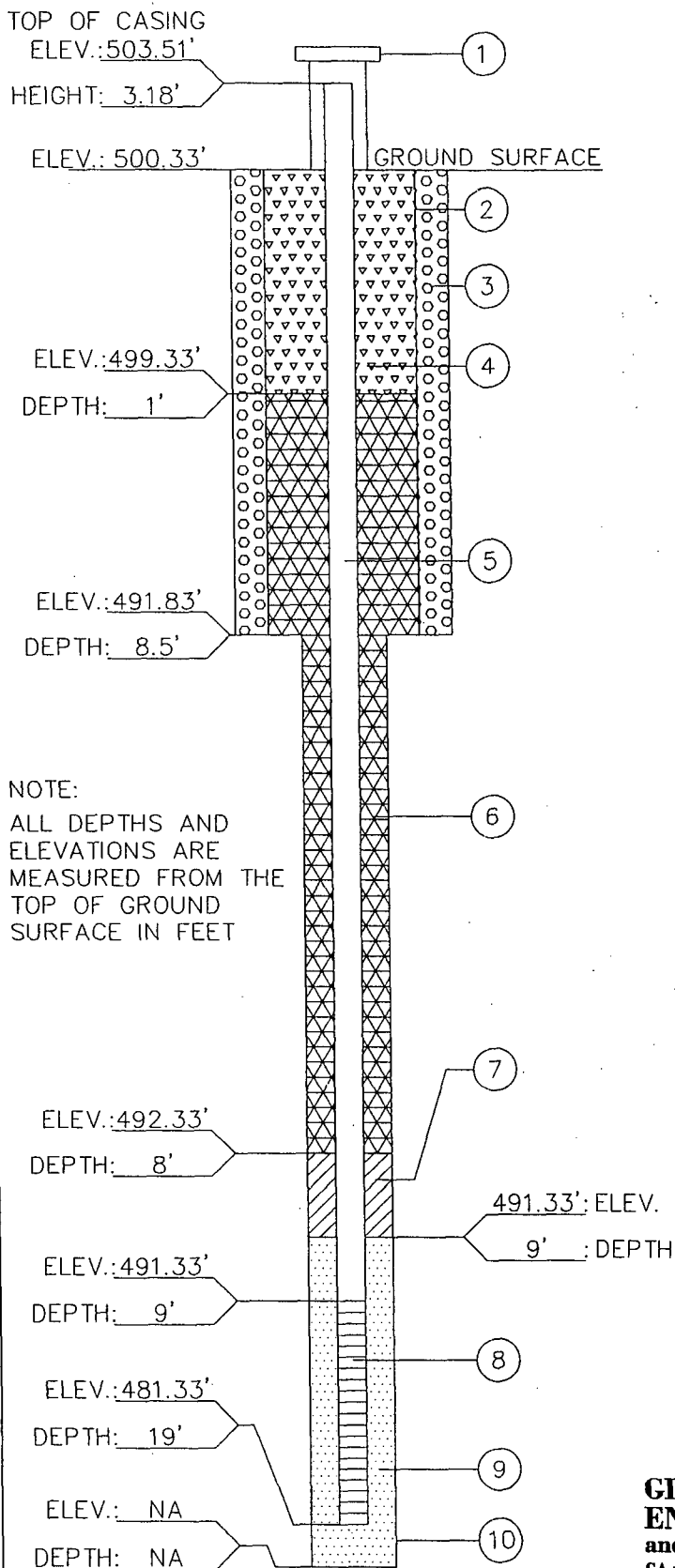
514.49' ELEV.

5' DEPTH

NOTE: ALL DEPTHS AND ELEVATIONS
ARE MEASURED FROM THE TOP
OF GROUND SURFACE IN FEET

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WELL CONSTRUCTION INFORMATION

PROJECT: SEQUOYAH FUELS CORP.

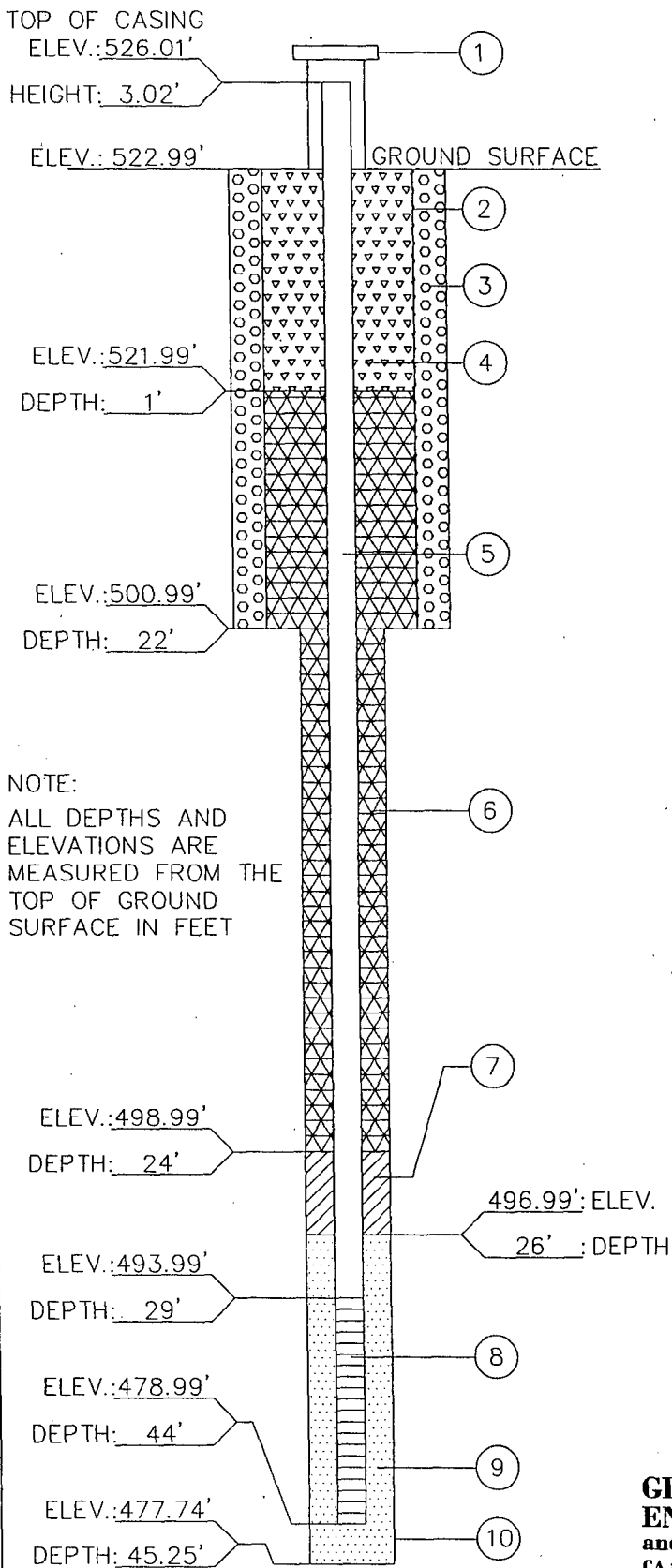
WELL NO.: MW124A

COMPLETION DATE: 11/11/05

1. PROTECTIVE CASING: YES
LOCKING: YES
 2. ISOLATOR PIPE TYPE:
SCHEDULE 40 PVC, 6" ID
SOLID PIPE LENGTH: 8.5 FT.
JOINT TYPE: NA
 3. TYPE OF BACKFILL:
CEMENT BENTONITE GROUT
HOW INSTALLED: SURFACE
 4. TYPE OF SURFACE SEAL (IF INSTALLED): CONCRETE
 5. SOLID PIPE TYPE:
SCHEDULE 40 PVC, 2" ID
SOLID PIPE LENGTH: 9
JOINT TYPE: THREADED
 6. TYPE OF BACKFILL:
CEMENT BENTONITE GROUT
HOW INSTALLED: TREMIE
 7. TYPE OF LOWER SEAL (IF INSTALLED): BENTONITE CHIPS
 8. SCREEN TYPE:
SLOTTED, SCHEDULE 40 PVC
SCREEN LENGTH: 10 FT.
SCREEN SLOT SIZE: 0.01 IN.
SCREEN DIAMETER: 2 IN.
SUMP LENGTH (IF INSTALLED): NA FT.
 9. TYPE OF FILTER PACK:
20/40 SILICA SAND
 10. TYPE OF BACKFILL (IF INSTALLED): NA
9. DRILLING METHOD: AIR ROTARY

GLOBAL ENGINEERING and Surveying, Inc.
CA # 3851 (expires 6-30-2006)

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WELL CONSTRUCTION INFORMATION

PROJECT: SEQUOYAH FUELS CORP.

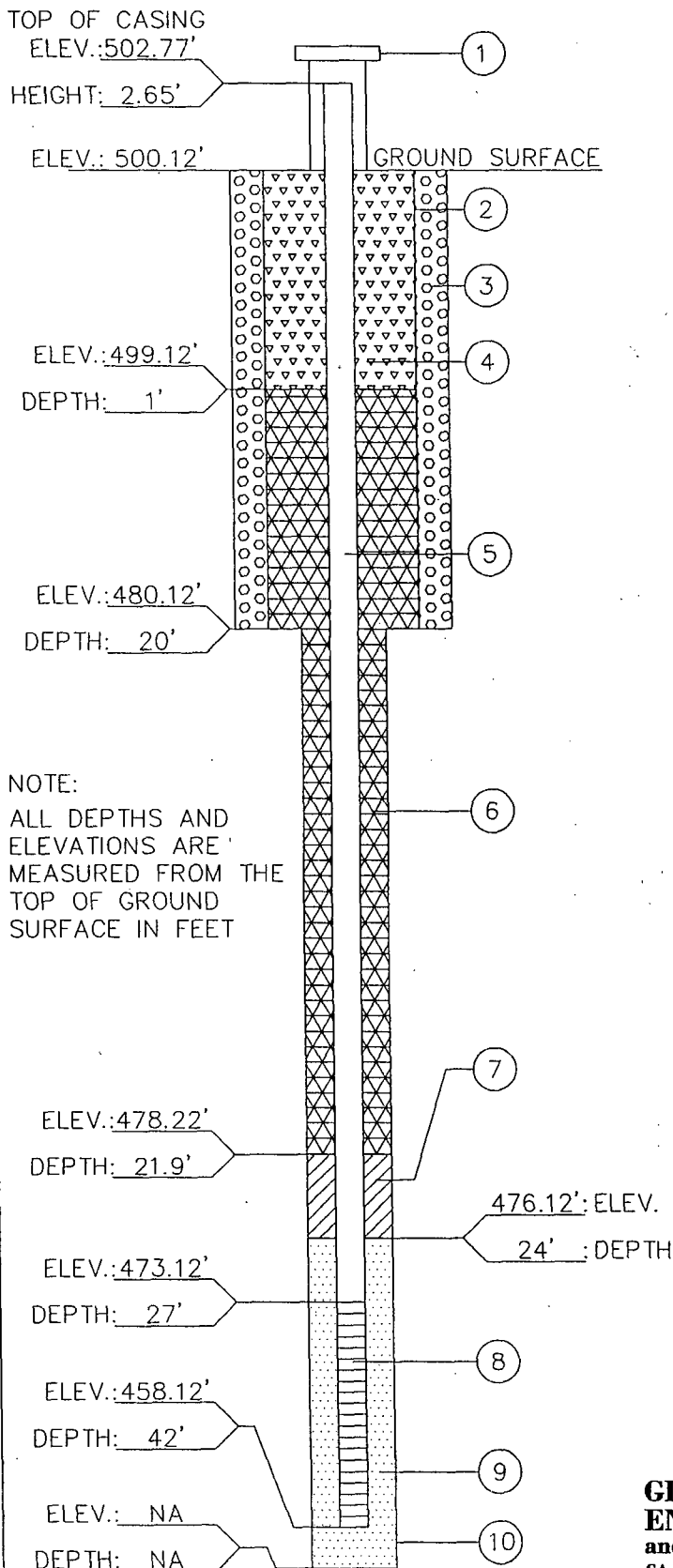
WELL NO.: MW125A

COMPLETION DATE: 11/07/05

1. PROTECTIVE CASING: YES
 LOCKING: YES
2. ISOLATOR PIPE TYPE:
SCHEDULE 40 PVC, 6" ID
 SOLID PIPE LENGTH: 22 FT.
 JOINT TYPE: THREADED
3. TYPE OF BACKFILL:
CEMENT BENTONITE GROUT
 HOW INSTALLED: SURFACE
4. TYPE OF SURFACE SEAL
 (IF INSTALLED): CONCRETE
5. SOLID PIPE TYPE:
SCHEDULE 40 PVC, 2" ID
 SOLID PIPE LENGTH: 29
 JOINT TYPE: THREADED
6. TYPE OF BACKFILL:
CEMENT BENTONITE GROUT
 HOW INSTALLED: TREMIE
7. TYPE OF LOWER SEAL
 (IF INSTALLED): BENTONITE CHIPS
8. SCREEN TYPE:
SLOTTED, SCHEDULE 40 PVC
 SCREEN LENGTH: 15 FT.
 SCREEN SLOT SIZE: 0.01 IN.
 SCREEN DIAMETER: 2 IN.
 SUMP LENGTH
 (IF INSTALLED): NA FT.
9. TYPE OF FILTER PACK:
20/40 SILICA SAND
10. TYPE OF BACKFILL
 (IF INSTALLED): CUTTINGS
9. DRILLING METHOD: AIR ROTARY

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WELL CONSTRUCTION INFORMATION

PROJECT: SEQUOYAH FUELS CORP.

WELL NO.: MW126A

COMPLETION DATE: 11/11/05

1. PROTECTIVE CASING: YES
 LOCKING: YES
 2. ISOLATOR PIPE TYPE:
SCHEDULE 40 PVC, 6" ID
 SOLID PIPE LENGTH: 20 FT.
 JOINT TYPE: NA
 3. TYPE OF BACKFILL:
CEMENT BENTONITE GROUT
 HOW INSTALLED: TREMIE
 4. TYPE OF SURFACE SEAL
 (IF INSTALLED): CONCRETE
 5. SOLID PIPE TYPE:
SCHEDULE 40 PVC, 2" ID
 SOLID PIPE LENGTH: 27
 JOINT TYPE: THREADED
 6. TYPE OF BACKFILL:
CEMENT BENTONITE GROUT
 HOW INSTALLED: TREMIE
 7. TYPE OF LOWER SEAL
 (IF INSTALLED): BENTONITE CHIPS
 8. SCREEN TYPE:
SLOTTED, SCHEDULE 40 PVC
 SCREEN LENGTH: 15 FT.
 SCREEN SLOT SIZE: 0.01 IN.
 SCREEN DIAMETER: 2 IN.
 SUMP LENGTH
 (IF INSTALLED): NA FT.
 9. TYPE OF FILTER PACK:
20/40 SILICA SAND
 10. TYPE OF BACKFILL
 (IF INSTALLED): NA
9. DRILLING METHOD: AIR ROTARY

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TOP OF CASING
ELEV.: 519.08'

HEIGHT: 2.97'

ELEV.: 516.11'

GROUND SURFACE

ELEV.: 515.11'

DEPTH: 1'

ELEV.: 512.11'

DEPTH: 4'

ELEV.: 508.11'

DEPTH: 8'

ELEV.: 498.11'

DEPTH: 18'

ELEV.: NA

DEPTH: NA

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510.11' ELEV.

6' DEPTH

WELL CONSTRUCTION INFORMATION

PROJECT: SEQUOYAH FUELS CORP.

WELL NO.: MW127A

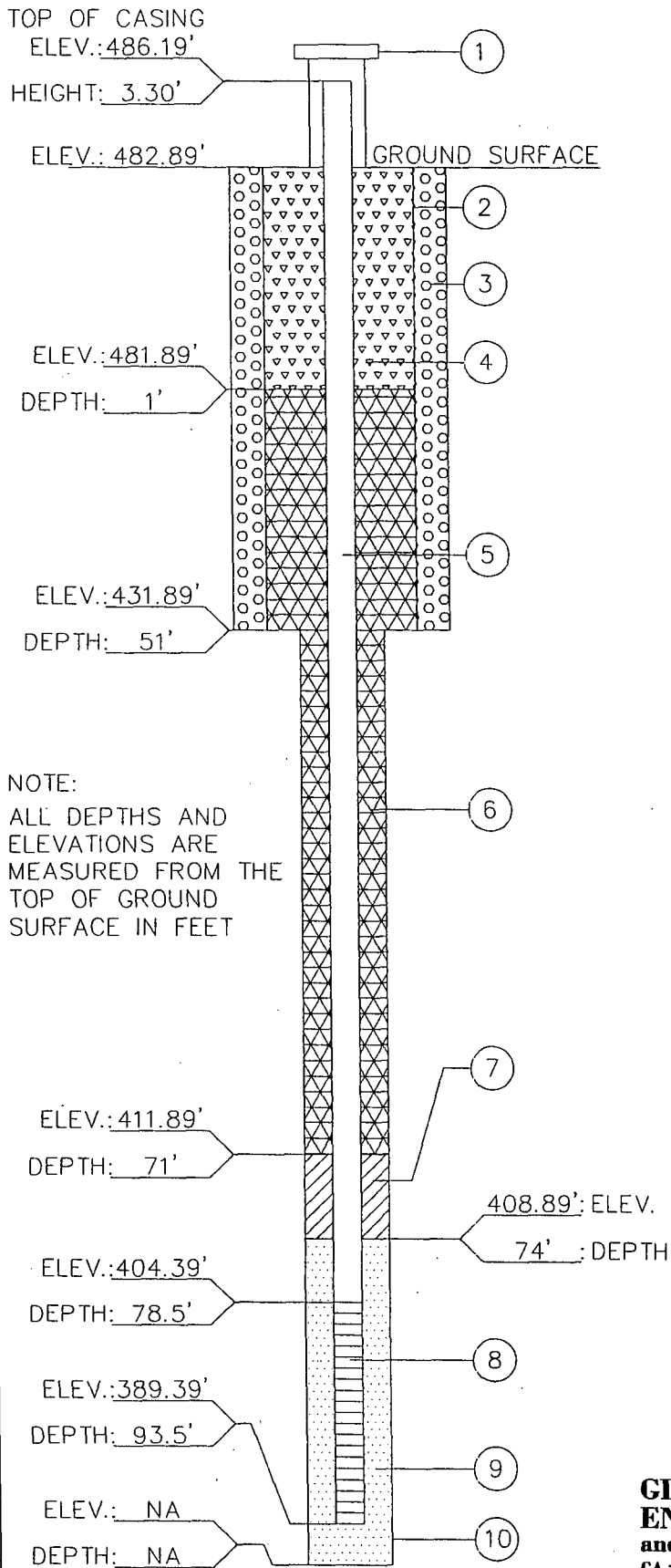
COMPLETION DATE: 11/2/2005

1. PROTECTIVE CASING: YES
LOCKING: YES
2. TYPE OF SURFACE SEAL
(IF INSTALLED): CONCRETE
3. SOLID PIPE TYPE:
SCHEDULE 40 PVC, 2" ID
SOLID PIPE LENGTH: 8 FT.
JOINT TYPE: THREADED
4. TYPE OF BACKFILL:
CEMENT BENTONITE GROUT
HOW INSTALLED: SURFACE
5. TYPE OF LOWER SEAL
(IF INSTALLED): BENTONITE CHIPS
6. SCREEN TYPE:
SLOTTED, SCHEDULE 40 PVC
SCREEN LENGTH: 10 FT.
SCREEN SLOT SIZE: 0.01 IN.
SCREEN DIAMETER: 2 IN.
SUMP LENGTH
(IF INSTALLED): NA FT.
7. TYPE OF FILTER PACK:
20/40 SILICA SAND
8. TYPE OF BACKFILL
(IF INSTALLED): NA
9. DRILLING METHOD: 4.25" ID HSA

NOTE: ALL DEPTHS AND ELEVATIONS
ARE MEASURED FROM THE TOP
OF GROUND SURFACE IN FEET

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WELL CONSTRUCTION INFORMATION

PROJECT: SEQUOYAH FUELS CORP.

WELL NO.: MW128B

COMPLETION DATE: 1/24/06

1. PROTECTIVE CASING: YES
 LOCKING: YES
2. ISOLATOR PIPE TYPE:
 STEEL, 7' OD
- SOLID PIPE LENGTH: 51 FT.
 JOINT TYPE: THREADED
3. TYPE OF BACKFILL:
 CEMENT BENTONITE GROUT
 HOW INSTALLED: SURFACE
4. TYPE OF SURFACE SEAL
 (IF INSTALLED): CONCRETE
5. SOLID PIPE TYPE:
 SCHEDULE 40 PVC, 2" ID
 SOLID PIPE LENGTH: 78.5
 JOINT TYPE: THREADED
6. TYPE OF BACKFILL:
 CEMENT BENTONITE GROUT
 HOW INSTALLED: TREMIE
7. TYPE OF LOWER SEAL
 (IF INSTALLED): COATED PELLETS
8. SCREEN TYPE:
 SLOTTED, SCHEDULE 40 PVC
 SCREEN LENGTH: 15 FT.
 SCREEN SLOT SIZE: 0.01 IN.
 SCREEN DIAMETER: 2 IN.
 SUMP LENGTH
 (IF INSTALLED): NA FT.
9. TYPE OF FILTER PACK:
 20/40 SILICA SAND
10. TYPE OF BACKFILL
 (IF INSTALLED): NA
9. DRILLING METHOD: AIR ROTARY

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TOP OF CASING
ELEV.: 505.14'

HEIGHT: 3.01'

ELEV.: 502.13'

GROUND SURFACE

ELEV.: 501.13'

DEPTH: 1'

ELEV.: 494.13'

DEPTH: 8'

ELEV.: 491.13'

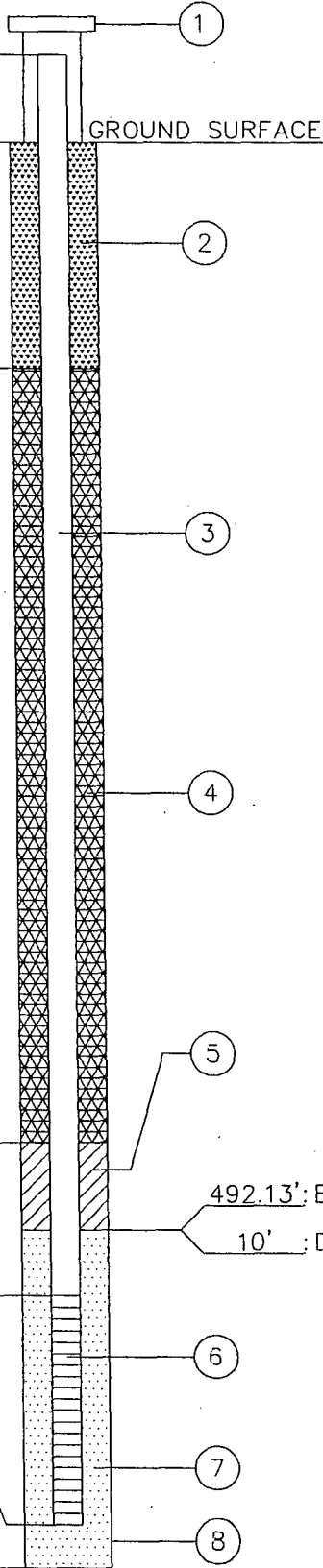
DEPTH: 11'

ELEV.: 488.63'

DEPTH: 13.5'

ELEV.: NA

DEPTH: NA



WELL CONSTRUCTION INFORMATION

PROJECT: SEQUOYAH FUELS CORP.

WELL NO.: MW130A

COMPLETION DATE: 11/2/2005

1. PROTECTIVE CASING: YES
LOCKING: YES
2. TYPE OF SURFACE SEAL
(IF INSTALLED): CONCRETE
3. SOLID PIPE TYPE:
SCHEDULE 40 PVC, 2" ID
SOLID PIPE LENGTH: 11 FT.
JOINT TYPE: THREADED
4. TYPE OF BACKFILL:
CEMENT BENTONITE GROUT
HOW INSTALLED: SURFACE
5. TYPE OF LOWER SEAL
(IF INSTALLED): BENTONITE CHIPS
6. SCREEN TYPE:
SLOTTED, SCHEDULE 40 PVC
SCREEN LENGTH: 2.5 FT.
SCREEN SLOT SIZE: 0.01 IN.
SCREEN DIAMETER: 2 IN.
SUMP LENGTH
(IF INSTALLED): NA FT.
7. TYPE OF FILTER PACK:
20/40 SILICA SAND
8. TYPE OF BACKFILL
(IF INSTALLED): NA
9. DRILLING METHOD: 4.25" ID HSA

NOTE: ALL DEPTHS AND ELEVATIONS
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TOP OF CASING
ELEV.: 489.62'

HEIGHT: 2.46'

ELEV.: 487.16'

GROUND SURFACE

ELEV.: 485.66'

DEPTH: 1.5'

ELEV.: 479.16'

DEPTH: 8'

ELEV.: 474.16'

DEPTH: 13'

ELEV.: 464.16'

DEPTH: 23'

ELEV.: NA

DEPTH: NA

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477.16' ELEV.
10' DEPTH

WELL CONSTRUCTION INFORMATION

PROJECT: SEQUOYAH FUELS CORP.

WELL NO.: MW129A

COMPLETION DATE: 11/1/2005

1. PROTECTIVE CASING: YES
LOCKING: YES
2. TYPE OF SURFACE SEAL
(IF INSTALLED): CONCRETE
3. SOLID PIPE TYPE:
SCHEDULE 40 PVC, 2" ID
SOLID PIPE LENGTH: 13 FT.
JOINT TYPE: THREADED
4. TYPE OF BACKFILL:
CEMENT BENTONITE GROUT
HOW INSTALLED: SURFACE
5. TYPE OF LOWER SEAL
(IF INSTALLED): BENTONITE CHIPS
6. SCREEN TYPE:
SLOTTED, SCHEDULE 40 PVC
SCREEN LENGTH: 10 FT.
SCREEN SLOT SIZE: 0.01 IN.
SCREEN DIAMETER: 2 IN.
SUMP LENGTH
(IF INSTALLED): NA FT.
7. TYPE OF FILTER PACK:
20/40 SILICA SAND
8. TYPE OF BACKFILL
(IF INSTALLED): NA
9. DRILLING METHOD: 4.25" ID HSA

NOTE: ALL DEPTHS AND ELEVATIONS
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Appendix B

Lithology and Well Completion Diagrams

for

New Recovery Wells

DRILLING LOG

HOLE NUMBER: BH344

Facility Sequoyah Fuels		Project SF New Well Installations 2005/2006		Sheet 1 of 2 Sheets	
Location Northing/LAT: 195527.355 (Coordinates) Easting/LON: 2836960.827		Coordinates System OKLAHOMA - NORTH		Elevation of Hole 564.79	
Datum for Elevation Shown (TBM or MSL) MSL		Elevation of Groundwater			
Hole Number (As shown on drawing title and file number) MWRW06		Direction of Hole <input checked="" type="checkbox"/> Vertical <input type="checkbox"/> Inclined _____ degrees from vertical			
Date Hole	Started 11/17/05	Completed 11/18/05	Thickness of Overburden 17.0 ft		
Drilling Contractor Giles Environmental Services		Thickness of Rock 4.5 ft			
Name of Driller Clark Giles		Total Depth of Hole 21.5 ft			
Manufacturer's Designation of Drill Failing F6 (coring and HSA) / Schramm T450W (air rotary)		Total Number of Overburden Samples Collected	Disturbed	Undisturbed	5
Size and Type of Bit 4.25 Inch HSA		Total Number of Core Boxes			
Signature of Geologist/Inspector		Total Recovery for Boring (%) 67%			

Elevation	Depth	Legend	Classification of Materials (Description)	% Recovery	Box or Sample Number	Remarks (Drilling time, water loss, depth of weathering, blow counts, ect., if significant)
559.79	5	GM	Fine silty sand, brown, dry	1.9/5 38%		Top soil
			Silty Clay with coarse gravel, very stiff, reddish brown, dry			Compacted fill
554.79	10	ML/CL	Gravel layer	5/5 100%		
			Same as above			
549.79	15	GC	Fine sandy silt and clayey silt, dark brown to grayish brown, very stiff, dry to slightly moist	4/5 80%		
			reddish brown			
		SH	grayish brown	2/5 40%		Took this 2 feet of recovery as the 18 - 20 ft interval
			Clayey gravel, brown to reddish brown, medium to coarse, rounded to subrounded, saturated			
			Shale, weathered, yellowish tan to dark gray, more clay like grading to fissile layers, mottling, damp to moist			

Elevation	Depth	Legend	Classification of Materials (Description)	% Recovery	Box or Sample Number	Remarks (Drilling time, water loss, depth of weathering, blow counts, etc., if significant)
539.79	25	SH	Same as above	1.5/1.5 100%		
		SS	grading to Shaley sandstone, weathered, yellowish to brown, layering, moist			
						<p>Auger refusal Total Depth = 2.15 ft</p> <p>This boring was plugged with bentonite chips and cement grout 11/18/05. A new boring was drilled to set the well.</p> <p>Twelve soil samples were collected to be analyzed for U, Th-230, and Ra-226. (BH344 0-1', BH344 1-1.9', BH344 5-6', BH344 6-7', BH344 7-8', BH344 8-9.4', BH344 10-11', BH344 11-12', BH344 12-13', BH344 13-14', BH344 18-19', and BH344 19-20')</p>

DRILLING LOG

HOLE NUMBER: BH343

Facility Sequoyah Fuels		Project SF New Well Installations 2005/2006		Sheet 1 of 1 Sheets
Location Northing/LAT: 185519.819 (Coordinates) Easting/LON: 2837016.903		Coordinates System OKLAHOMA - NORTH	Elevation of Hole 562.99	
Datum for Elevation Shown (TBM or MSL) MSL		Elevation of Groundwater		
Hole Number (As shown on drawing title and file number) MWRW07		Direction of Hole <input checked="" type="checkbox"/> Vertical <input type="checkbox"/> Inclined _____ degrees from vertical		
Date Hole	Started 11/17/05	Completed 11/18/05	Thickness of Overburden 15.8 ft	
Drilling Contractor Giles Environmental Services		Thickness of Rock 3.7 ft		
Name of Driller Clark Giles		Total Depth of Hole 19.5 ft		
Manufacturer's Designation of Drill Falling F6 (coring and HSA) / Schramm T450W (air rotary)		Total Number of Overburden Samples Collected	Disturbed	Undisturbed 4
Size and Type of Bit 4.25 inch HSA		Total Number of Core Boxes		
Signature of Geologist/Inspector		Total Recovery for Boring (%) 69%		

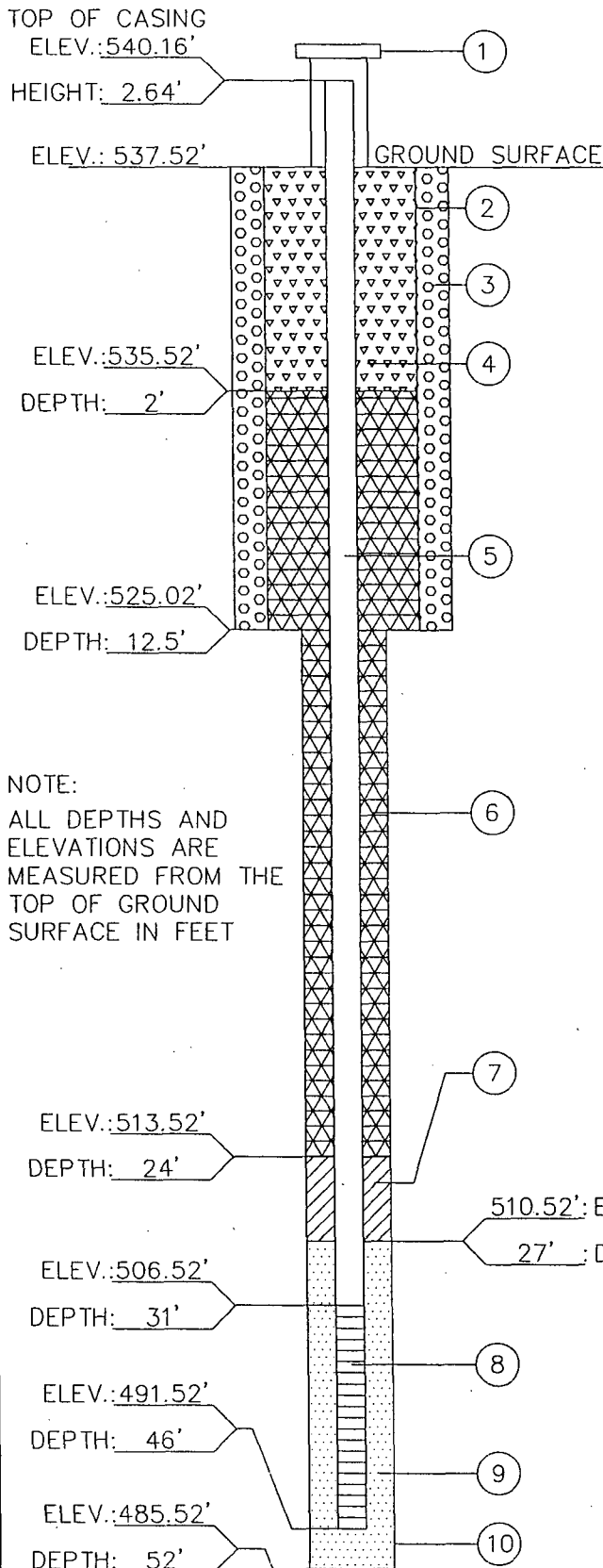
Elevation	Depth	Legend	Classification of Materials (Description)	% Recovery	Box or Sample Number	Remarks (Drilling time, water loss, depth of weathering, blow counts, ect., if significant)
			Fine sandy silt, brown, dry			Top soil
			Silty clay with coarse gravel, reddish brown, very stiff, dry			Fill
557.99	5	CL	Same as above	1.4/5 26%		
552.99	10	ML/CL	Fine sandy silt and clayey silt, dark brown to grayish brown, moist, medium stiff			
			Same as above			
547.99	15	GM	Silty gravel, reddish brown to red, medium to coarse, saturated			
			Same as above			
		SH	Shale weathered, dark gray to tan, mottled, slightly fissile, dry, with some thin interbedded sandstone layers that are red to reddish brown			Fifteen soil samples were collected to be analyzed for U, Th-230, and Ra-226. (BH343 0-1', BH343 1-1.4', BH343 5-6', BH343 6-7', BH343 7-8', BH343 8-9', BH343 9-10', BH343 10-11', BH343 11-12', BH343 12-13', BH343 15-16', BH343 16-17', BH343 17-18', BH343 18-19', and BH343 19-19.5')
		SS	grading to weathered sandstone, red to reddish brown			This boring was plugged with bentonite chips and cement grout 11/18/05. A new boring was drilled to set the well.
						Auruger refusal TD = 19.5 ft

DRILLING LOG

HOLE NUMBER: BH342

Facility Sequoyah Fuels		Project SF New Well Installations 2005/2006		Sheet 1 of 1 Sheets	
Location Northing/LAT: 195518.624 (Coordinates) Easting/LOH: 2837066.39		Coordinates System OKLAHOMA - NORTH		Elevation of Hole 562.66	
Datum for Elevation Shown (TBM or MSL) MSL		Elevation of Groundwater			
Hole Number (As shown on drawing title and file number) MWRW08		Direction of Hole <input checked="" type="checkbox"/> Vertical <input type="checkbox"/> Inclined _____ degrees from vertical			
Date Hole Started 11/17/05	Completed 11/17/05	Thickness of Overburden 15.8 ft			
Drilling Contractor Giles Environmental Services		Thickness of Rock 4.2 ft			
Name of Driller Clark Giles		Total Depth of Hole 20.0 ft			
Manufacturer's Designation of Drill Failing F6 (coring and HSA) / Schramm T450W (air rotary)		Total Number of Overburden Samples Collected	Disturbed	Undisturbed 4	
Size and Type of Bit 4.25 inch HSA		Total Number of Core Boxes			
Signature of Geologist/Inspector		Total Recovery for Boring (%) 65%			

Elevation	Depth	Legend	Classification of Materials (Description)	% Recovery	Box or Sample Number	Remarks (Drilling time, water loss, depth of weathering, blow counts, ect., if significant)
557.66	5	CL	Silty clay with coarse gravel, brown to light brown, dry	2.9/5 58%		Fill
		SP	Sand, medium grain with few fines, poorly graded, loose, wet			
		CL	Silty clay, dark brown, moist, plastic			
552.66	10	ML/CL	Silt to silty clay, dark brown to reddish brown, some wet zones with coarse gravel	4.9/5 98%		Fourteen soil samples were collected to be analyzed for U, Th-230, and Ra-226. (BH342 0-1', BH342 1-2', BH342 2-2.9', BH342 5-6', BH342 6-7', BH342 7-8', BH342 8-9', BH342 9-9.9', BH342 10-11', BH342 11-11.7', BH342 15-16', BH342 16-17', BH342 17-18', and BH342 18-18.5')
		SM	grading to Fine silty sand, moist Same as above	1.7/5 34%		
547.66	15	SH	Shale, weathered, dark gray to tan, mottled, fissile, slightly moist	3/5 70%		This boring was plugged with bentonite chips and cement grout 11/18/05. A new boring was drilled to set the well.
		SS	grading to Sandstone, weathered, yellowish to reddish brown			
						Sample barrel refused at 18.5 ft Auger refused TD = 20 ft



WELL CONSTRUCTION INFORMATION

PROJECT: SEQUOYAH FUELS CORP.

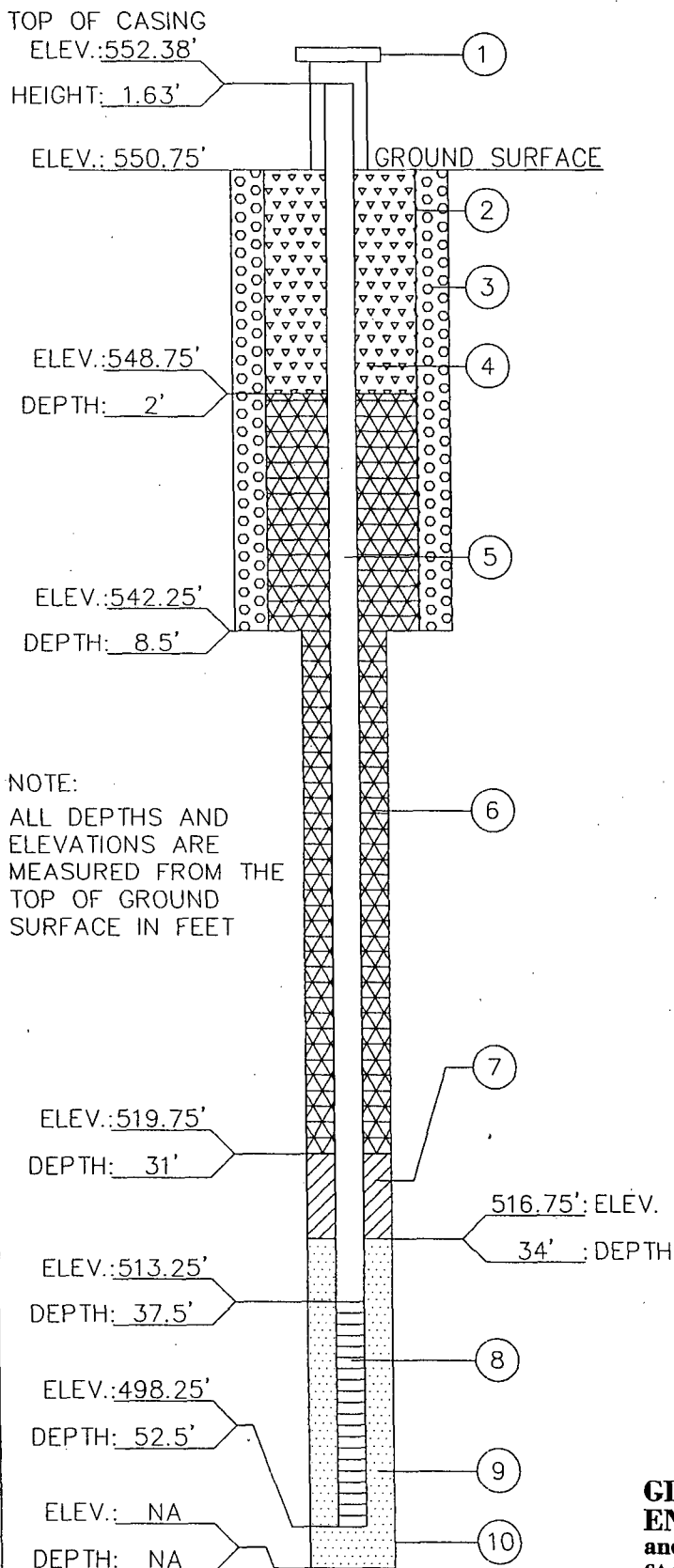
WELL NO.: MWRW4

COMPLETION DATE: 1/25/06

1. PROTECTIVE CASING: NO
LOCKING: YES
2. ISOLATOR PIPE TYPE:
SCHEDULE 40 PVC, 12" ID
- SOLID PIPE LENGTH: 12.5 FT.
JOINT TYPE: THREADED
3. TYPE OF BACKFILL:
CEMENT BENTONITE GROUT
HOW INSTALLED: TREMIE
4. TYPE OF SURFACE SEAL
(IF INSTALLED): CONCRETE
5. SOLID PIPE TYPE:
SCHEDULE 40 PVC, 8" ID
SOLID PIPE LENGTH: 31
JOINT TYPE: THREADED
6. TYPE OF BACKFILL:
CEMENT BENTONITE GROUT
HOW INSTALLED: TREMIE
7. TYPE OF LOWER SEAL
(IF INSTALLED): BENTONITE CHIPS
8. SCREEN TYPE:
SLOTTED, SCHEDULE 40 PVC
SCREEN LENGTH: 14 FT.
SCREEN SLOT SIZE: 0.01 IN.
SCREEN DIAMETER: 8 IN.
SUMP LENGTH
(IF INSTALLED): 1 FT.
9. TYPE OF FILTER PACK:
20/40 SILICA SAND
10. TYPE OF BACKFILL
(IF INSTALLED): BENTONITE CHIPS
9. DRILLING METHOD: AIR ROTARY

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WELL CONSTRUCTION INFORMATION

PROJECT: SEQUOYAH FUELS CORP.
 WELL NO.: MWRW5
 COMPLETION DATE: 1/30/06

1. PROTECTIVE CASING: NO
 LOCKING: YES
2. ISOLATOR PIPE TYPE:
SCHEDULE 40 PVC, 12" ID
 SOLID PIPE LENGTH: 8.5 FT.
 JOINT TYPE: NA
3. TYPE OF BACKFILL:
CEMENT BENTONITE GROUT
 HOW INSTALLED: TREMIE
4. TYPE OF SURFACE SEAL
 (IF INSTALLED): CONCRETE
5. SOLID PIPE TYPE:
SCHEDULE 40 PVC, 8" ID
 SOLID PIPE LENGTH: 37.5
 JOINT TYPE: THREADED
6. TYPE OF BACKFILL:
CEMENT BENTONITE GROUT
 HOW INSTALLED: TREMIE
7. TYPE OF LOWER SEAL
 (IF INSTALLED): BENTONITE CHIPS
8. SCREEN TYPE:
SLOTTED, SCHEDULE 40 PVC
 SCREEN LENGTH: 14 FT.
 SCREEN SLOT SIZE: 0.01 IN.
 SCREEN DIAMETER: 8 IN.
 SUMP LENGTH
 (IF INSTALLED): 1 FT.
9. TYPE OF FILTER PACK:
20/40 SILICA SAND
10. TYPE OF BACKFILL
 (IF INSTALLED): NA
9. DRILLING METHOD: AIR ROTARY

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TOP OF CASING
ELEV.: 566.89'

HEIGHT: 2.10'

ELEV.: 564.79'

GROUND SURFACE

ELEV.: 561.79'

DEPTH: 3'

ELEV.: 557.79'

DEPTH: 7'

ELEV.: 551.64'

DEPTH: 13.15'

ELEV.: 542.54'

DEPTH: 22.25'

ELEV.: NA

DEPTH: NA

1

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4

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555.79' ELEV.

9' DEPTH

WELL CONSTRUCTION INFORMATION

PROJECT: SEQUOYAH FUELS CORP.

WELL NO.: MWRW6

COMPLETION DATE: 1/19/06

1. PROTECTIVE CASING: NO
LOCKING: YES
2. TYPE OF SURFACE SEAL
(IF INSTALLED): CONCRETE
3. SOLID PIPE TYPE:
SCHEDULE 40 PVC, 8" ID
SOLID PIPE LENGTH: 13.15 FT.
JOINT TYPE: " THREADED
4. TYPE OF BACKFILL:
CEMENT BENTONITE GROUT
HOW INSTALLED: SURFACE
5. TYPE OF LOWER SEAL
(IF INSTALLED): BENTONITE CHIPS
6. SCREEN TYPE:
SLOTTED, SCHEDULE 40 PVC
SCREEN LENGTH: 9.1 FT.
SCREEN SLOT SIZE: 0.01 IN.
SCREEN DIAMETER: 8 IN.
SUMP LENGTH
(IF INSTALLED): NA FT.
7. TYPE OF FILTER PACK:
20/40 SILICA SAND
8. TYPE OF BACKFILL
(IF INSTALLED): NA
9. DRILLING METHOD: 10.25" ID HSA

NOTE: ALL DEPTHS AND ELEVATIONS
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TOP OF CASING
ELEV.: 565.81'

HEIGHT: 2.82'

ELEV.: 562.99'

GROUND SURFACE

ELEV.: 559.99'

DEPTH: 3

ELEV.: 556.99'

DEPTH: 6'

554.99' ELEV.

8' DEPTH

ELEV.: 551.74'

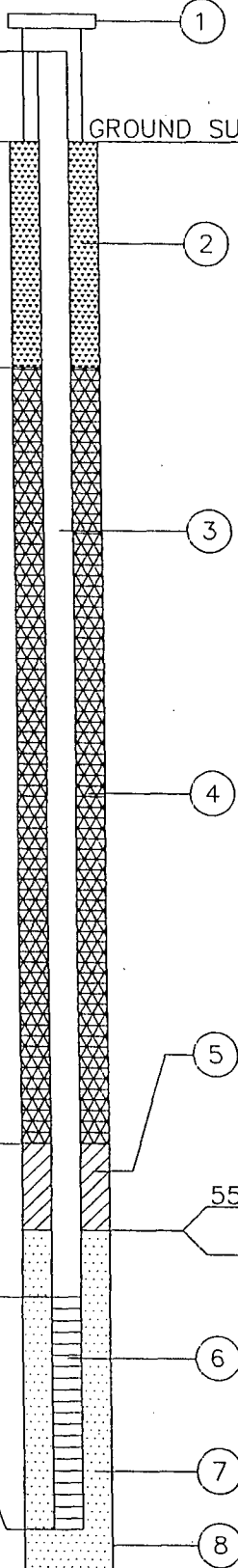
DEPTH: 11.25'

ELEV.: 543.24'

DEPTH: 19.75'

ELEV.: NA

DEPTH: NA



WELL CONSTRUCTION INFORMATION

PROJECT: SEQUOYAH FUELS CORP.

WELL NO.: MWRW7

COMPLETION DATE: 1/19/06

1. PROTECTIVE CASING: NO
LOCKING: YES
2. TYPE OF SURFACE SEAL
(IF INSTALLED): CONCRETE
3. SOLID PIPE TYPE:
SCHEDULE 40 PVC, 8" ID
SOLID PIPE LENGTH: 11.25 FT.
JOINT TYPE: THREADED
4. TYPE OF BACKFILL:
CEMENT BENTONITE GROUT
HOW INSTALLED: SURFACE
5. TYPE OF LOWER SEAL
(IF INSTALLED): BENTONITE CHIPS
6. SCREEN TYPE:
SLOTTED, SCHEDULE 40 PVC
SCREEN LENGTH: 8.5 FT.
SCREEN SLOT SIZE: 0.01 IN.
SCREEN DIAMETER: 8 IN.
SUMP LENGTH
(IF INSTALLED): NA FT.
7. TYPE OF FILTER PACK:
20/40 SILICA SAND
8. TYPE OF BACKFILL
(IF INSTALLED): NA
9. DRILLING METHOD: 10.25" ID HSA

NOTE: ALL DEPTHS AND ELEVATIONS
ARE MEASURED FROM THE TOP
OF GROUND SURFACE IN FEET

**GLOBAL
ENGINEERING
and Surveying, Inc.**
CA # 3851 (expires 6-30-2006)

600 Emporia St., Ste. "B"
Muskogee, Oklahoma 74401
(918) 681-2953
Fax (918) 681-2954

TOP OF CASING
ELEV.: 565.29'

HEIGHT: 2.63'

ELEV.: 562.66'

GROUND SURFACE

ELEV.: 559.66'

DEPTH: 3'

ELEV.: 556.66'

DEPTH: 6'

ELEV.: 553.16'

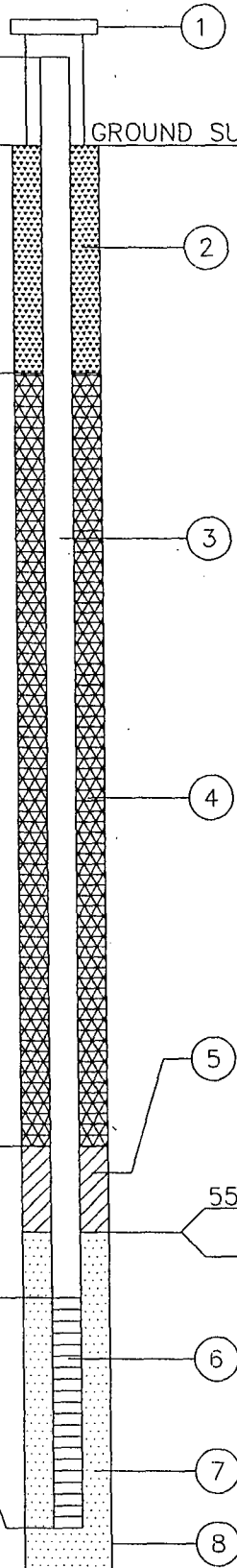
DEPTH: 9.50'

ELEV.: 543.41'

DEPTH: 19.25'

ELEV.: NA

DEPTH: NA



WELL CONSTRUCTION INFORMATION

PROJECT: SEQUOYAH FUELS CORP.

WELL NO.: MWRW8

COMPLETION DATE: 1/18/06

1. PROTECTIVE CASING: NO
LOCKING: YES
2. TYPE OF SURFACE SEAL
(IF INSTALLED): CONCRETE
3. SOLID PIPE TYPE:
SCHEDULE 40 PVC, 8" ID
SOLID PIPE LENGTH: 9.50 FT.
JOINT TYPE: THREADED
4. TYPE OF BACKFILL:
CEMENT BENTONITE GROUT
HOW INSTALLED: SURFACE
5. TYPE OF LOWER SEAL
(IF INSTALLED): BENTONITE CHIPS
6. SCREEN TYPE:
SLOTTED, SCHEDULE 40 PVC
SCREEN LENGTH: 9.75 FT.
SCREEN SLOT SIZE: 0.01 IN.
SCREEN DIAMETER: 8 IN.
SUMP LENGTH
(IF INSTALLED): NA FT.
7. TYPE OF FILTER PACK:
.20/40 SILICA SAND
8. TYPE OF BACKFILL
(IF INSTALLED): NA
9. DRILLING METHOD: 10.25" ID HSA

NOTE: ALL DEPTHS AND ELEVATIONS
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OF GROUND SURFACE IN FEET

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TOP OF CASING
ELEV.: 567.12'

HEIGHT: 1.72'

ELEV.: 565.40'

GROUND SURFACE

ELEV.: 563.40'

DEPTH: 2'

ELEV.: NA

DEPTH: NA

ELEV.: 554.05'

DEPTH: 9.5'

ELEV.: 543.57'

DEPTH: 21.83'

ELEV.: NA

DEPTH: NA

1

2

3

4

5

6

7

8

560.40' ELEV.

5' DEPTH

WELL CONSTRUCTION INFORMATION

PROJECT: SEQUOYAH FUELS CORP.

WELL NO.: MWRW9

COMPLETION DATE: 1/23/06

1. PROTECTIVE CASING: NO
LOCKING: YES
2. TYPE OF SURFACE SEAL
(IF INSTALLED): CONCRETE
3. SOLID PIPE TYPE:
SCHEDULE 40 PVC, 8" ID
SOLID PIPE LENGTH: 9.50 FT.
JOINT TYPE: THREADED
4. TYPE OF BACKFILL:
BENTONITE CHIPS
HOW INSTALLED: SURFACE
5. TYPE OF LOWER SEAL
(IF INSTALLED): NA
6. SCREEN TYPE:
SLOTTED, SCHEDULE 40 PVC
SCREEN LENGTH: 12.33 FT.
SCREEN SLOT SIZE: 0.01 IN.
SCREEN DIAMETER: 8 IN.
SUMP LENGTH
(IF INSTALLED): NA FT.
7. TYPE OF FILTER PACK:
20/40 SILICA SAND
8. TYPE OF BACKFILL
(IF INSTALLED): NA
9. DRILLING METHOD: 10.25" ID HSA

NOTE: ALL DEPTHS AND ELEVATIONS
ARE MEASURED FROM THE TOP
OF GROUND SURFACE IN FEET

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Fax (918) 681-2954

TOP OF CASING
ELEV.: 491.10'

HEIGHT: 2.79'

ELEV.: 488.31

GROUND SURFACE

ELEV.: 485.31

DEPTH: 3'

ELEV.: 482.31'

DEPTH: 6'

ELEV.: 476.97'

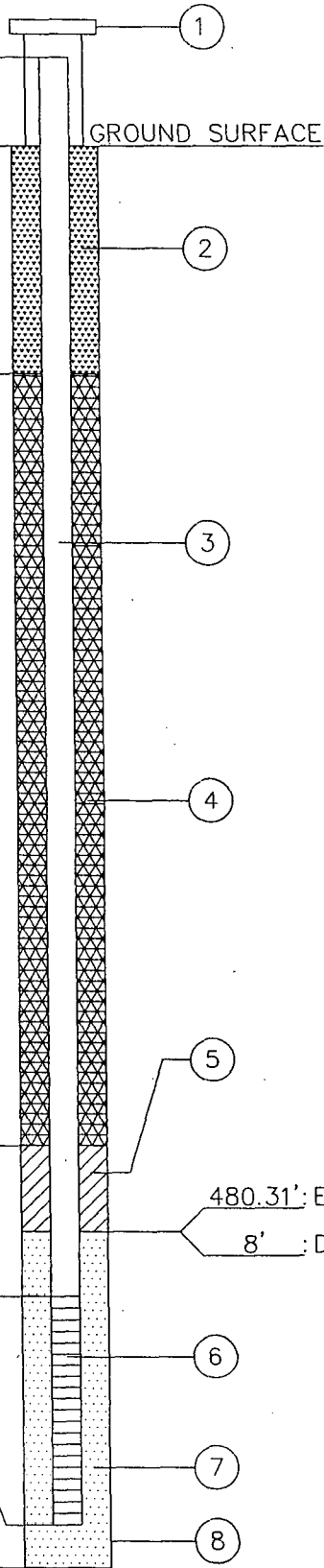
DEPTH: 11.34'

ELEV.: 467.81'

DEPTH: 20.5'

ELEV.: NA

DEPTH: NA



WELL CONSTRUCTION INFORMATION

PROJECT: SEQUOYAH FUELS CORP.

WELL NO.: MWRW10

COMPLETION DATE: 2/1/06

1. PROTECTIVE CASING: NO
LOCKING: YES
2. TYPE OF SURFACE SEAL
(IF INSTALLED): CONCRETE
3. SOLID PIPE TYPE:
SCHEDULE 40 PVC, 8" ID
SOLID PIPE LENGTH: 11.34 FT.
JOINT TYPE: THREADED AND SLIP
4. TYPE OF BACKFILL:
CEMENT BENTONITE GROUT
HOW INSTALLED: SURFACE
5. TYPE OF LOWER SEAL
(IF INSTALLED): BENTONITE CHIPS
6. SCREEN TYPE:
SLOTTED, SCHEDULE 40 PVC
SCREEN LENGTH: 9.16 FT.
SCREEN SLOT SIZE: 0.01 IN.
SCREEN DIAMETER: 8 IN.
SUMP LENGTH
(IF INSTALLED): NA FT.
7. TYPE OF FILTER PACK:
20/40 SILICA SAND
8. TYPE OF BACKFILL
(IF INSTALLED): NA
9. DRILLING METHOD: 10.25" ID HSA

NOTE: ALL DEPTHS AND ELEVATIONS
ARE MEASURED FROM THE TOP
OF GROUND SURFACE IN FEET

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Appendix C

Evaluation of Background Monitoring Data

Evaluation of Background Groundwater Monitoring Data Sequoyah Fuels Corporation

Introduction

Sequoyah Fuels Corporation (SFC) has evaluated the data collected at background groundwater monitoring wells located up-gradient of Facility operations. A total of six background wells, including one sampling event during 2005 and four events from 2006 for each well, have been used for this evaluation. Parameters analyzed for are uranium, thorium-230, radium-226, radium-228, nitrate, fluoride, antimony, arsenic, barium, beryllium, cadmium, chromium, lead, molybdenum, nickel, selenium and thallium.

The spreadsheet program Excel was used for sorting and formatting the data for inclusion in this report. Some basic statistical evaluations and tabulation of analyses have also been completed using Excel. ChemStat¹, an application for the statistical analysis of groundwater monitoring data was used for most of the statistical analysis provided in this evaluation.

Description of Background Monitoring Well System

A map of the site showing locations of the background groundwater monitoring wells is provided as Figure 1. Monitoring wells are typically found as clusters at each location. Each well in a cluster is completed at different depths to monitor separate groundwater systems. Facility hydrogeology is described in the Groundwater Monitoring Plan² and in other documents presented with the Reclamation Plan³. Wells monitoring the Terrace Groundwater System are identified as "MWXXX" (e.g. MW072). Well identifications that end with an "A" (e.g. MW072A), monitor the Shallow Bedrock Groundwater System and well identifications ending with a "B" (e.g. MW072B) designation monitor the Deep Bedrock Groundwater System. The Terrace Groundwater System includes the terrace deposits and Unit 1 Shale, the Shallow Bedrock System includes Units 2, 3 or 4 Shale, and the Deep Bedrock System includes Unit 5 Shale. Well completion summary information is included in Table 1. Sampling methods and quality control practices are described in the Groundwater Monitoring Plan.

¹ ChemStat, Environmental Data Statistical Analysis for Windows, Starpoint Software.

² Groundwater Monitoring Plan, Sequoyah Fuels Corporation, February 2005.

³ Reclamation Plan, Sequoyah Fuels Corporation, January, 2003.

Data Analysis

The box plots (Figures 2 - 19) were reviewed and two significant observations made. Fluoride concentrations in the Deep Bedrock Groundwater System is significantly higher than in the Terrace and Shallow Bedrock Groundwater Systems. Analyses of samples collected from Monitoring Well MW007B, located in the Deep Bedrock system, supports this observation. A natural occurring constituent in this geological formation appears to be causing these elevated concentrations of fluoride. The second observation is that the nitrate concentration in Monitoring Well MW007A is significantly higher than in the other wells. Both of these observations have been made previously and are described in the Groundwater Monitoring Plan (see Groundwater Monitoring Plan, Appendix B, Evaluation of Background Monitoring Data, February 2005). A third observation, not discussed in the Groundwater Monitoring Plan, is the elevated nitrate concentration in Monitor Well MW073. Monitor Well MW073 is located in the same general area as MW007A and is likely impacted from the same source.

Descriptive Statistics of Background Monitoring Wells and Groundwater Systems

Basic statistics for the background monitoring wells are presented in Table 3. For each monitoring well the total number of measurements, total non-detects, mean and standard deviation are listed. Non-detects have been replaced with the minimum detection limit. A review of the data indicates that the fluoride concentration in the Deep Bedrock Groundwater System is higher than in the other systems and the nitrate levels appear to be elevated in groundwater sampled from MW007A and MW073. These observations are consistent with the graphical analysis.

Conclusion

This evaluation updates the information previously included in the Groundwater Monitoring Plan that was limited to arsenic, fluoride, nitrate and uranium. Additional parameters included in this evaluation are antimony, barium, beryllium, cadmium, lead, molybdenum, nickel, radium-226, radium-228, selenium, thallium and thorium-230. Sampling of background monitoring wells was conducted on a quarterly basis during 2006 and will continue at an annual frequency beginning in 2007.

Table 1

Background Well Completion Summary Information

Well ID	GW Unit Monitored	Total Depth, ft	Top Sand ft	Screen Bottom, ft	Ground Elev.	Case Top Elev.
MW007	Terrace / Shale 1	18.2	7.0	17.8	569.9	572.01
MW070	Terrace / Shale 1	13.7	2.6	13.0	567.7	569.94
MW073	Terrace / Shale 1	27.0	15.2	26.3	580.5	582.85
MW007A	Shale 3	35.0	22.0	34.8	570.2	572.63
MW110A	Shale 4	45.0	32.0	44.7	552.6	554.93
MW007B	Shale 5	82.8	72.0	82.1	570.3	572.89

Table 2
Background Monitor Well Sample Analyses

Well ID	GW Unit Monitored	Date Sampled	U µg/l	Th-230 pCi/l	Ra-226 pCi/l	Ra-228 pCi/l	NO3(N) mg/l	F mg/l	Sb mg/l	As mg/l
MW007	Terrace / Shale 1	10/20/2005	< 1	1.05 ± 0.188	0.176 ± 0.075	1.09 ± 0.123	2	0.8	0.015	0.006
		01/10/2006	2.42	0.464 ± 0.334	0.934 ± 0.351	0.965 ± 0.134	2.1	1.3	< 0.005	0.005
		04/11/2006	< 1	2.71 ± 0.330	0.734 ± 0.244	0.757 ± 0.102	1.2	1.0	< 0.007	< 0.005
		07/25/2006	< 1	0 ± 0.278	0.353 ± 0.112	0.780 ± 0.131	1.1	0.7	< 0.005	< 0.009
		10/04/2006	< 1	0 ± 0.220	0.267 ± 0.126	0.112 ± 0.053	1.5	0.6	0.011	< 0.009
MW070	Terrace / Shale 1	10/20/2005	1.67	0.531 ± 0.164	0.756 ± 0.230	3.51 ± 0.294	1.7	1.1	< 0.005	0.009
		01/10/2006	1.26	1.94 ± 0.447	1.81 ± 0.718	1.68 ± 0.130	1.6	0.6	< 0.005	0.010
		04/11/2006	1.41	0.166 ± 0.117	0.626 ± 0.225	0.247 ± 0.494	< 1	1.1	0.007	0.013
		07/25/2006	1.47	0.913 ± 0.276	1.46 ± 0.393	1.02 ± 0.112	< 1	1.1	< 0.005	< 0.009
		10/04/2006	< 1	0 ± 0.235	0 ± 0.296	0.453 ± 0.049	1.8	0.9	< 0.011	< 0.009
MW073	Terrace / Shale 1	10/20/2005	1.08	0.262 ± 0.103	0.161 ± 0.168	1.63 ± 0.287	5.3	0.5	< 0.005	< 0.005
		01/10/2006	< 1	0.558 ± 0.399	0.670 ± 0.281	2.31 ± 0.127	4.1	0.7	0.016	< 0.005
		04/11/2006	< 1	1.30 ± 0.266	0.254 ± 0.104	0.457 ± 0.103	3.0	0.7	< 0.007	< 0.005
		07/25/2006	< 1	0 ± 0.252	0.190 ± 0.185	0.895 ± 0.119	3.2	0.7	< 0.005	< 0.009
		10/04/2006	< 1	0.048 ± 0.101	0.572 ± 0.186	0 ± 0.049	4	0.4	< 0.011	< 0.009
MW007A	Shale 3	10/20/2005	1.92	0.441 ± 0.149	0.054 ± 0.073	1.17 ± 0.118	6.5	0.8	< 0.005	< 0.005
		01/10/2006	1.44	2.56 ± 0.539	0.130 ± 0.131	3.12 ± 0.130	6.7	0.7	< 0.005	0.006
		04/11/2006	< 1	0.027 ± 0.109	0.090 ± 0.216	0.120 ± 0.104	5.2	0.6	< 0.007	0.005
		07/25/2006	< 1	0.332 ± 0.224	0.211 ± 0.182	0.642 ± 0.107	4.7	0.6	< 0.005	< 0.009
		10/04/2006	< 1	0 ± 0.105	0.139 ± 0.107	0.382 ± 0.054	5.23	0.6	< 0.011	< 0.009
MW110A	Shale 4	10/13/2005	2.4	0.826 ± 0.308	1.18 ± 0.283	1.81 ± 0.142	1.1	0.6	< 0.007	0.009
		01/10/2006	2.94	0.619 ± 0.359	0.606 ± 0.290	2.31 ± 0.127	1.3	0.6	< 0.005	< 0.005
		04/11/2006	1.21	0.588 ± 0.204	0.266 ± 0.128	0.753 ± 0.055	< 1	0.5	< 0.007	< 0.005
		07/25/2006	2.46	0.034 ± 0.177	1.00 ± 0.241	2.77 ± 0.119	< 1	0.5	< 0.005	< 0.009
		10/04/2006	< 1	0.130 ± 0.128	0.374 ± 0.129	1.51 ± 0.068	< 1	0.5	< 0.011	< 0.009
MW007B	Shale 5	10/13/2005	5.47	0.389 ± 0.121	0.393 ± 0.18	2.87 ± 0.162	1	1.9	0.013	0.014
		01/10/2006	2.36	1.58 ± 0.504	1.15 ± 0.423	0 ± 0.100	1.2	2.9	< 0.005	0.006
		04/11/2006	< 1	0.450 ± 0.157	0.516 ± 0.327	0 ± 0.309	1.3	2.6	0.008	0.006
		07/25/2006	2.05	0 ± 0.274	0.978 ± 0.349	0 ± 0.117	< 1	2	< 0.005	< 0.009
		10/04/2006	< 1	0 ± 0.199	0.538 ± 0.172	1.61 ± 0.058	< 1	2.7	< 0.011	< 0.009

Well ID	Date Sampled	Ba mg/l	Be mg/l	Cd mg/l	Cr mg/l	Pb mg/l	Mo mg/l	Ni mg/l	Se mg/l	Tl mg/l
MW007	10/20/2005	0.042	< 0.006	< 0.006	0.008	0.01	0.011	< 0.006	0.01	< 0.009
	01/10/2006	0.167	< 0.006	< 0.006	0.065	0.029	< 0.007	0.038	< 0.007	< 0.004
	04/11/2006	0.097	< 0.005	0.001	0.031	0.017	< 0.007	0.037	< 0.007	< 0.004
	07/25/2006	0.059	< 0.006	< 0.001	0.011	0.018	< 0.007	< 0.008	0.011	< 0.003
	10/04/2006	0.033	< 0.010	< 0.008	< 0.009	0.011	< 0.009	< 0.008	0.009	< 0.006
MW070	10/20/2005	0.3	< 0.006	< 0.006	0.015	0.018	< 0.007	0.023	< 0.007	< 0.009
	01/10/2006	0.287	< 0.006	< 0.006	0.036	0.019	< 0.007	0.036	< 0.007	< 0.004
	04/11/2006	0.411	< 0.005	0.003	0.056	0.038	< 0.007	0.052	< 0.007	< 0.004
	07/25/2006	0.334	< 0.006	0.001	0.023	0.023	< 0.007	0.02	< 0.007	< 0.003
	10/04/2006	0.236	< 0.010	< 0.008	0.012	0.019	< 0.009	0.015	< 0.009	< 0.006
MW073	10/20/2005	0.038	< 0.006	< 0.006	< 0.007	0.007	< 0.007	< 0.006	< 0.007	< 0.009
	01/10/2006	0.081	< 0.006	< 0.006	0.026	0.014	< 0.007	0.010	0.009	< 0.004
	04/11/2006	0.058	< 0.005	0.002	0.016	0.014	< 0.007	0.014	0.012	< 0.004
	07/25/2006	0.035	< 0.006	< 0.001	< 0.009	< 0.007	< 0.007	0.03	0.014	< 0.003
	10/04/2006	0.033	< 0.010	< 0.008	< 0.009	0.01	< 0.009	< 0.008	0.011	< 0.006
MW007A	10/20/2005	0.018	< 0.006	< 0.006	< 0.007	< 0.005	0.008	< 0.006	0.009	< 0.009
	01/10/2006	0.017	< 0.006	< 0.006	< 0.007	0.010	0.008	< 0.006	0.011	0.008
	04/11/2006	0.016	< 0.005	< 0.001	< 0.007	0.022	< 0.007	< 0.006	< 0.007	0.004
	07/25/2006	0.017	< 0.006	< 0.001	< 0.009	< 0.007	< 0.007	< 0.008	0.01	< 0.003
	10/04/2006	0.02	< 0.010	< 0.008	< 0.009	< 0.007	< 0.009	< 0.008	< 0.009	< 0.006
MW110A	10/13/2005	0.01	< 0.006	< 0.006	< 0.007	< 0.006	< 0.007	0.008	< 0.007	< 0.004
	01/10/2006	0.012	< 0.006	< 0.006	< 0.007	0.010	< 0.007	< 0.006	< 0.007	< 0.004
	04/11/2006	0.014	< 0.005	< 0.001	< 0.007	0.006	< 0.007	0.009	< 0.007	< 0.004
	07/25/2006	0.014	< 0.006	< 0.001	< 0.009	< 0.007	< 0.007	< 0.008	0.012	< 0.003
	10/04/2006	0.017	< 0.010	< 0.008	< 0.009	0.007	< 0.009	< 0.008	< 0.009	< 0.006
MW007B	10/13/2005	< 0.287	< 0.006	< 0.006	0.012	< 0.006	< 0.007	0.008	< 0.007	< 0.004
	01/10/2006	0.071	< 0.006	< 0.006	0.011	0.019	< 0.007	< 0.006	< 0.007	0.006
	04/11/2006	0.054	< 0.005	< 0.001	0.007	0.007	< 0.007	< 0.008	< 0.007	0.004
	07/25/2006	0.060	< 0.006	< 0.001	< 0.009	< 0.007	< 0.007	< 0.008	0.008	< 0.003
	10/04/2006	0.075	< 0.010	< 0.008	< 0.009	0.011	< 0.009	< 0.008	< 0.009	< 0.006

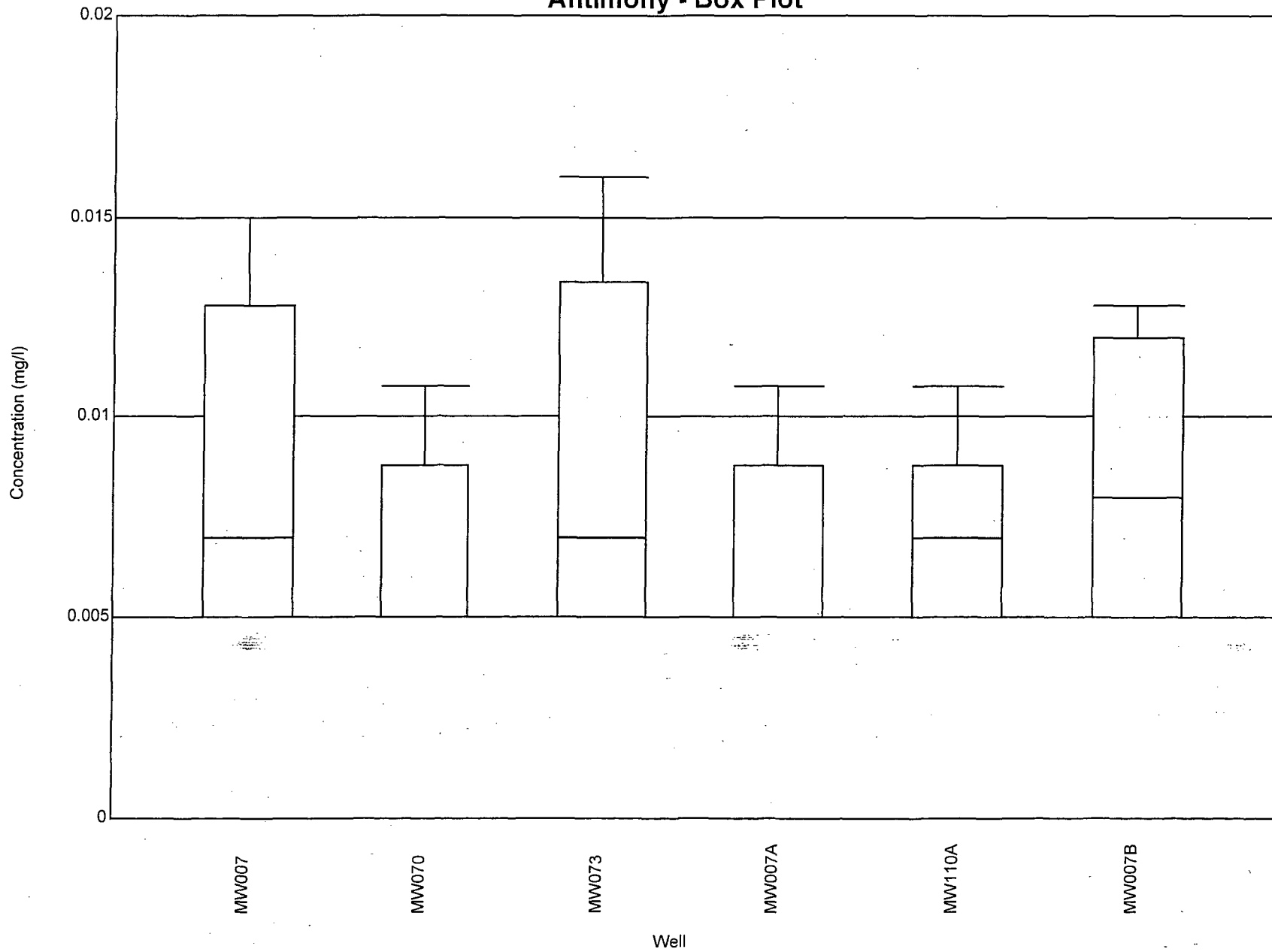
Table 3

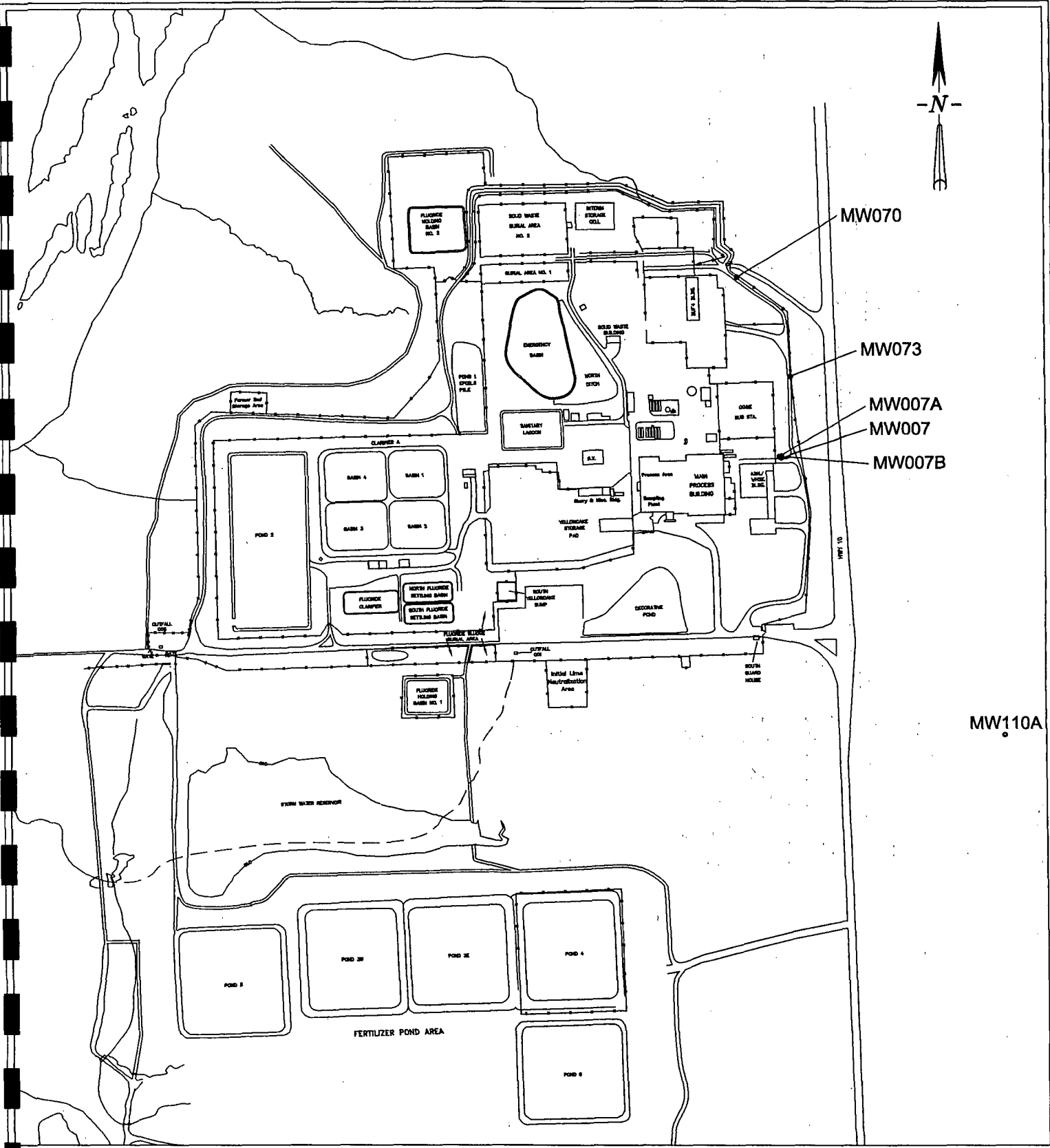
Basic Statistics for Background Monitoring Wells

Parameter	Mean ± Standard Deviation (Number of Non-Detects)						
	All Wells	MW007	MW070	MW073	MW007A	MW110A	MW007B
Geological Unit	-	Terrace / Shale 1			Shale 3	Shale 4	Shale 5
Number of Measurements	30	5	5	5	5	5	5
Antimony, mg/l	0.008 ± 0.003 (24)	0.009 ± 0.004 (3)	0.007 ± 0.003 (4)	0.009 ± 0.005 (4)	0.007 ± 0.003 (5)	0.007 ± 0.002 (5)	0.008 ± 0.004 (3)
Arsenic, mg/l	0.008 ± 0.002 (19)	0.007 ± 0.002 (3)	0.010 ± 0.002 (2)	0.007 ± 0.002 (5)	0.007 ± 0.002 (3)	0.007 ± 0.002 (4)	0.009 ± 0.003 (2)
Barium, mg/l	0.097 ± 0.115 (1)	0.080 ± 0.055 (0)	0.314 ± 0.065 (0)	0.049 ± 0.020 (0)	0.018 ± 0.002 (0)	0.013 ± 0.003 (0)	0.109 ± 0.100 (1)
Beryllium, mg/l	0.007 ± 0.002 (30)	0.007 ± 0.002 (5)	0.007 ± 0.002 (5)	0.007 ± 0.002 (5)	0.007 ± 0.002 (5)	0.007 ± 0.002 (5)	0.007 ± 0.002 (5)
Cadmium, mg/l	0.005 ± 0.003 (26)	0.004 ± 0.003 (4)	0.005 ± 0.003 (3)	0.005 ± 0.003 (4)	0.004 ± 0.003 (5)	0.004 ± 0.003 (5)	0.004 ± 0.003 (5)
Chromium, mg/l	0.015 ± 0.014 (16)	0.025 ± 0.024 (1)	0.028 ± 0.018 (0)	0.013 ± 0.008 (3)	0.008 ± 0.001 (5)	0.008 ± 0.001 (5)	0.010 ± 0.002 (2)
Fluoride, mg/l	1.0 ± 0.7 (0)	0.9 ± 0.3 (0)	1.0 ± 0.2 (0)	0.6 ± 0.1 (0)	0.7 ± 0.1 (0)	0.5 ± 0.1 (0)	2.4 ± 0.4 (0)
Lead, mg/l	0.013 ± 0.008 (8)	0.017 ± 0.008 (0)	0.023 ± 0.008 (0)	0.010 ± 0.004 (1)	0.010 ± 0.007 (3)	0.007 ± 0.002 (2)	0.010 ± 0.005 (2)
Molybdenum, mg/l	0.008 ± 0.001 (27)	0.008 ± 0.002 (4)	0.007 ± 0.001 (5)	0.007 ± 0.001 (5)	0.008 ± 0.001 (3)	0.007 ± 0.001 (5)	0.007 ± 0.001 (5)
Nickel, mg/l	0.014 ± 0.012 (16)	0.019 ± 0.017 (3)	0.029 ± 0.015 (0)	0.017 ± 0.010 (2)	0.007 ± 0.001 (5)	0.008 ± 0.001 (3)	0.008 ± 0.001 (3)
Nitrate, mg/l	2.5 ± 1.8 (7)	1.6 ± 0.5 (0)	1.4 ± 0.4 (2)	3.9 ± 0.9 (0)	5.7 ± 0.9 (0)	1.1 ± 0.1 (3)	1.1 ± 0.1 (2)
Ra-226 + Ra-228, pCi/l	1.72 ± 1.16 (0)	1.23 ± 0.56 (0)	2.31 ± 1.64 (0)	1.42 ± 0.99 (0)	1.21 ± 1.20 (0)	2.52 ± 1.07 (0)	1.61 ± 1.10 (0)
Radium-226, pCi/l	0.553 ± 0.447 (1)	0.493 ± 0.325 (0)	0.930 ± 0.715 (1)	0.369 ± 0.235 (0)	0.125 ± 0.059 (0)	0.685 ± 0.395 (0)	0.715 ± 0.329 (0)
Radium-228, pCi/l	1.17 ± 1.01 (4)	0.741 ± 0.377 (0)	1.38 ± 1.31 (0)	1.06 ± 0.922 (1)	1.09 ± 1.20 (0)	1.83 ± 0.771 (0)	0.896 ± 1.31 (3)
Selenium, mg/l	0.009 ± 0.002 (18)	0.009 ± 0.002 (2)	0.007 ± 0.001 (5)	0.011 ± 0.003 (1)	0.009 ± 0.001 (2)	0.008 ± 0.002 (4)	0.008 ± 0.001 (4)
Thallium, mg/l	0.005 ± 0.002 (26)	0.005 ± 0.002 (5)	0.005 ± 0.002 (5)	0.005 ± 0.002 (5)	0.006 ± 0.003 (3)	0.004 ± 0.001 (5)	0.005 ± 0.001 (3)
Thorium-230, pCi/l	0.597 ± 0.745 (7)	0.845 ± 1.13 (2)	0.710 ± 0.772 (1)	0.434 ± 0.532 (1)	0.672 ± 1.07 (1)	0.439 ± 0.341 (0)	0.484 ± 0.648 (2)
Uranium, µg/l	1.5 ± 0.9 (15)	1.3 ± 0.6 (4)	1.4 ± 0.3 (1)	1.1 ± 0.04 (4)	1.3 ± 0.4 (3)	2.0 ± 0.8 (1)	2.4 ± 1.8 (2)

Note: Non-Detects Replaced with Detection Limit
Original Data (Not Transformed)

Figure 2
Antimony - Box Plot





MW110A

SEQUOYAH FUELS CORPORATION	
<i>Background Groundwater Monitoring Well Evaluation</i>	
TITLE: <i>Background Monitoring Well Locations</i>	
PREPARED BY: <i>SCM</i>	FILENAME: <i>Figure1BkgdWells.dwg</i>
REVIEWED BY: <i>SCM</i>	FIGURE NO. 1
DATE: <i>19 Jan 2007</i>	

Figure 3
Arsenic - Box Plot

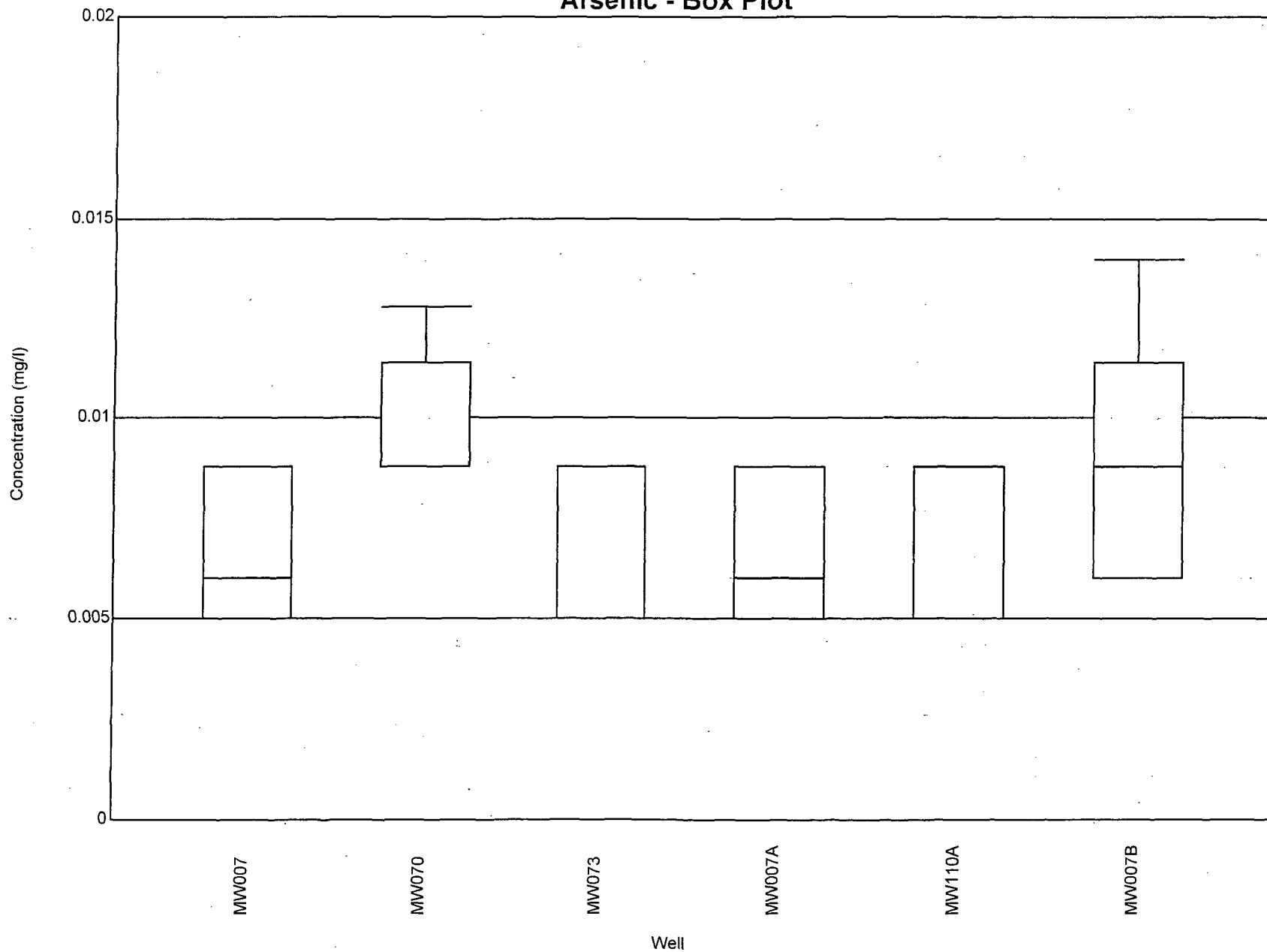


Figure 4
Barium - Box Plot

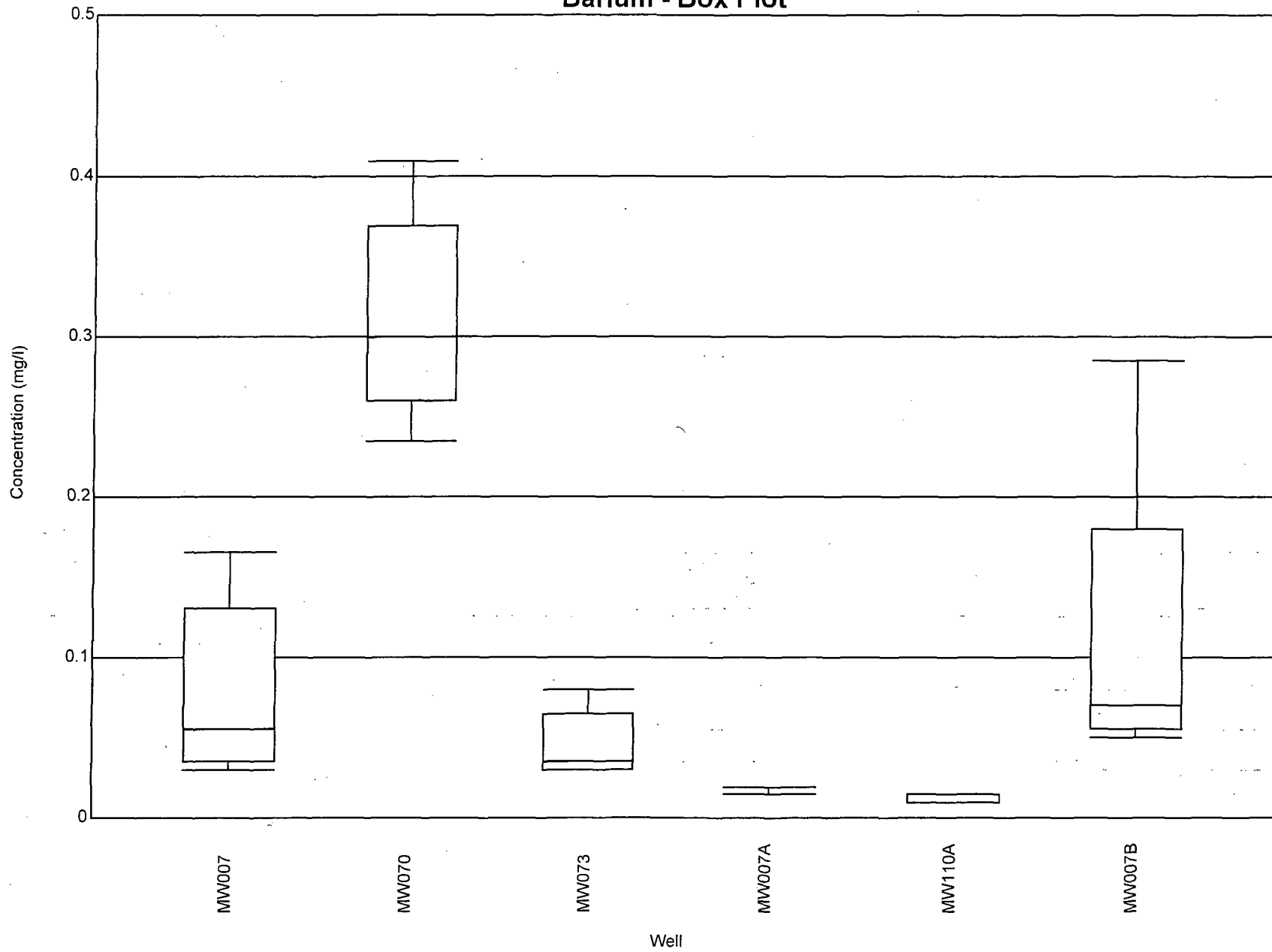


Figure 5
Beryllium - Box Plot

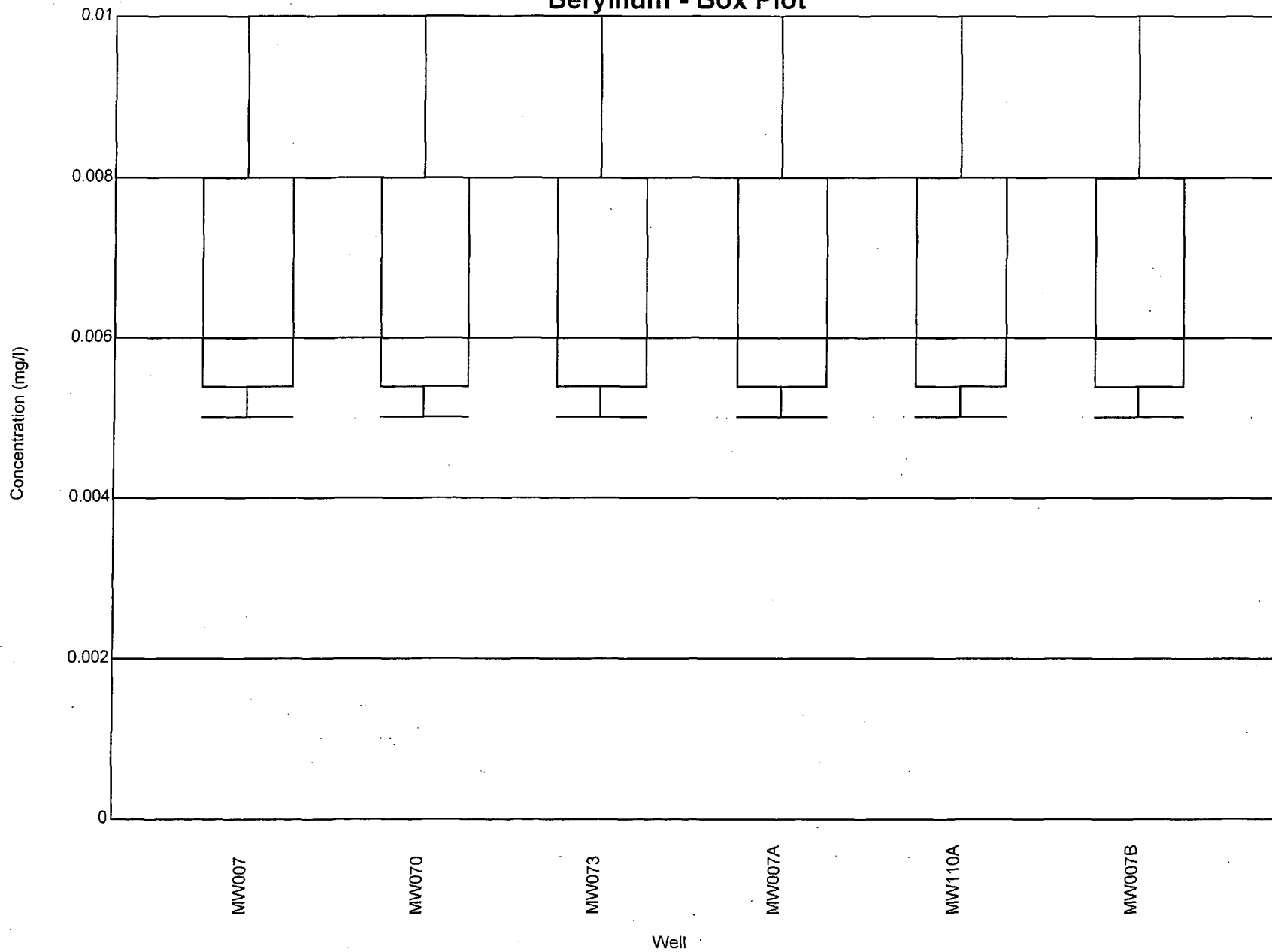


Figure 6
Cadmium - Box Plot

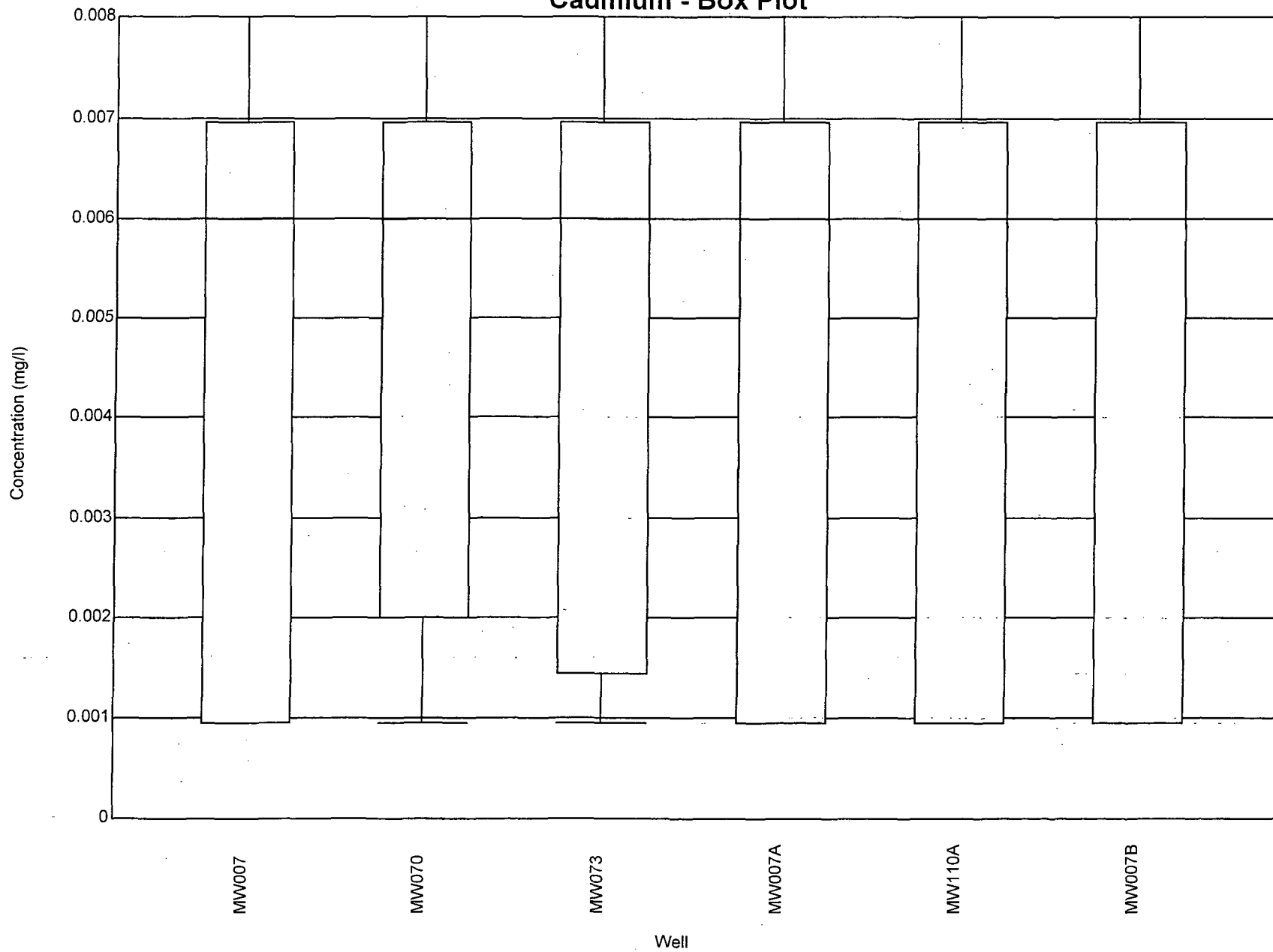


Figure 7
Chromium - Box Plot

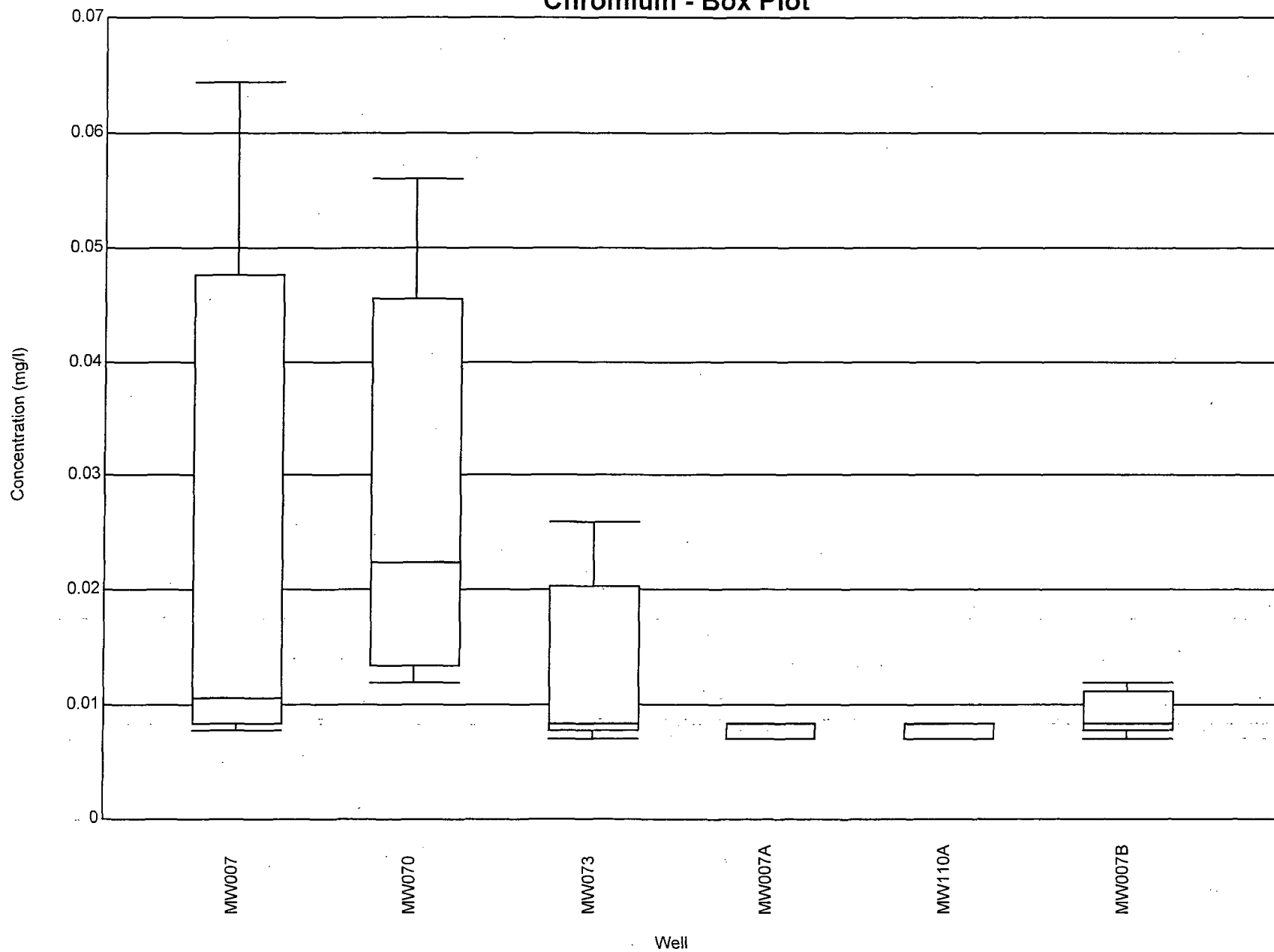


Figure 8
Fluoride - Box Plot

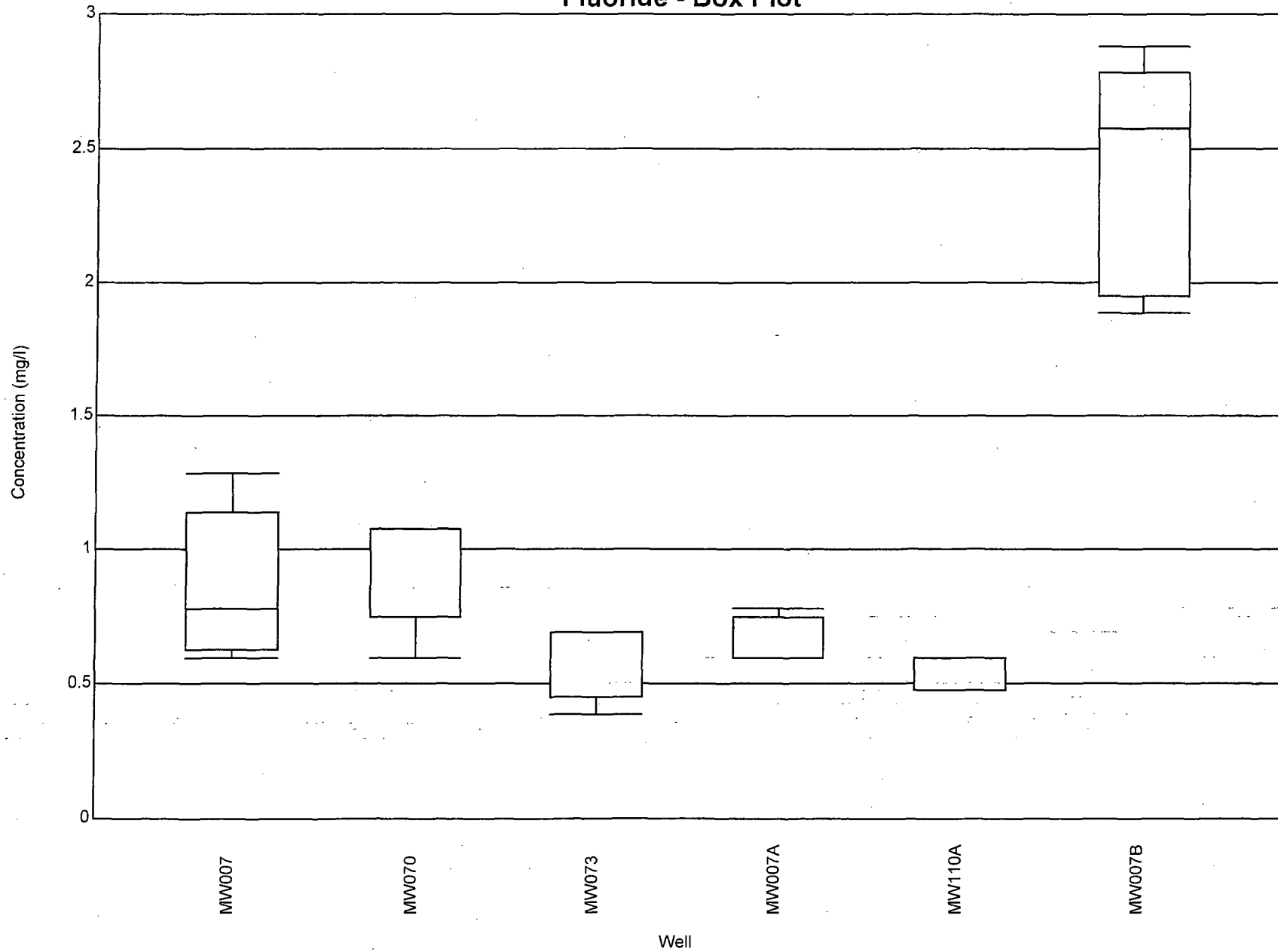


Figure 9
Lead - Box Plot

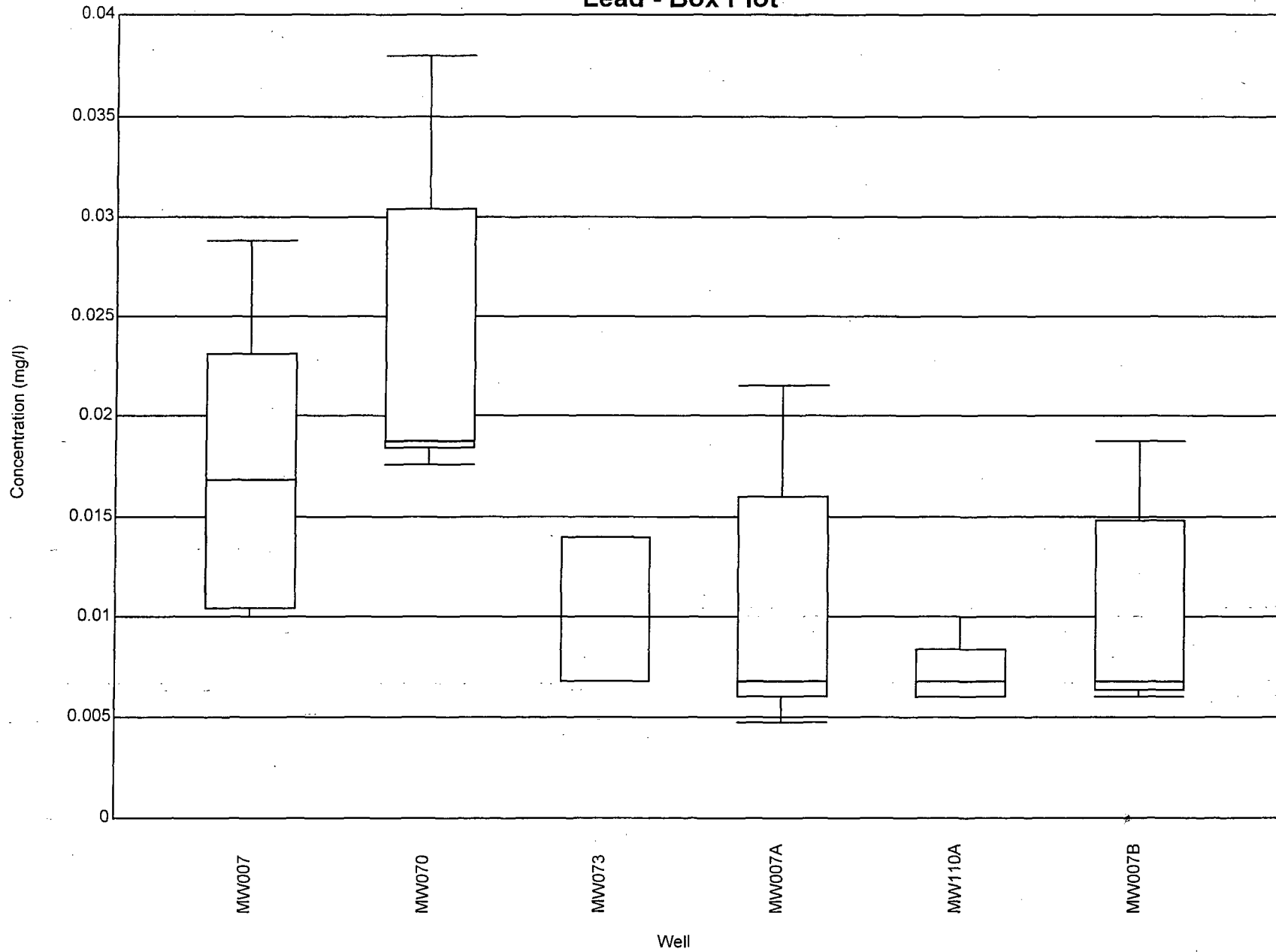


Figure 10
Molybdenum - Box Plot

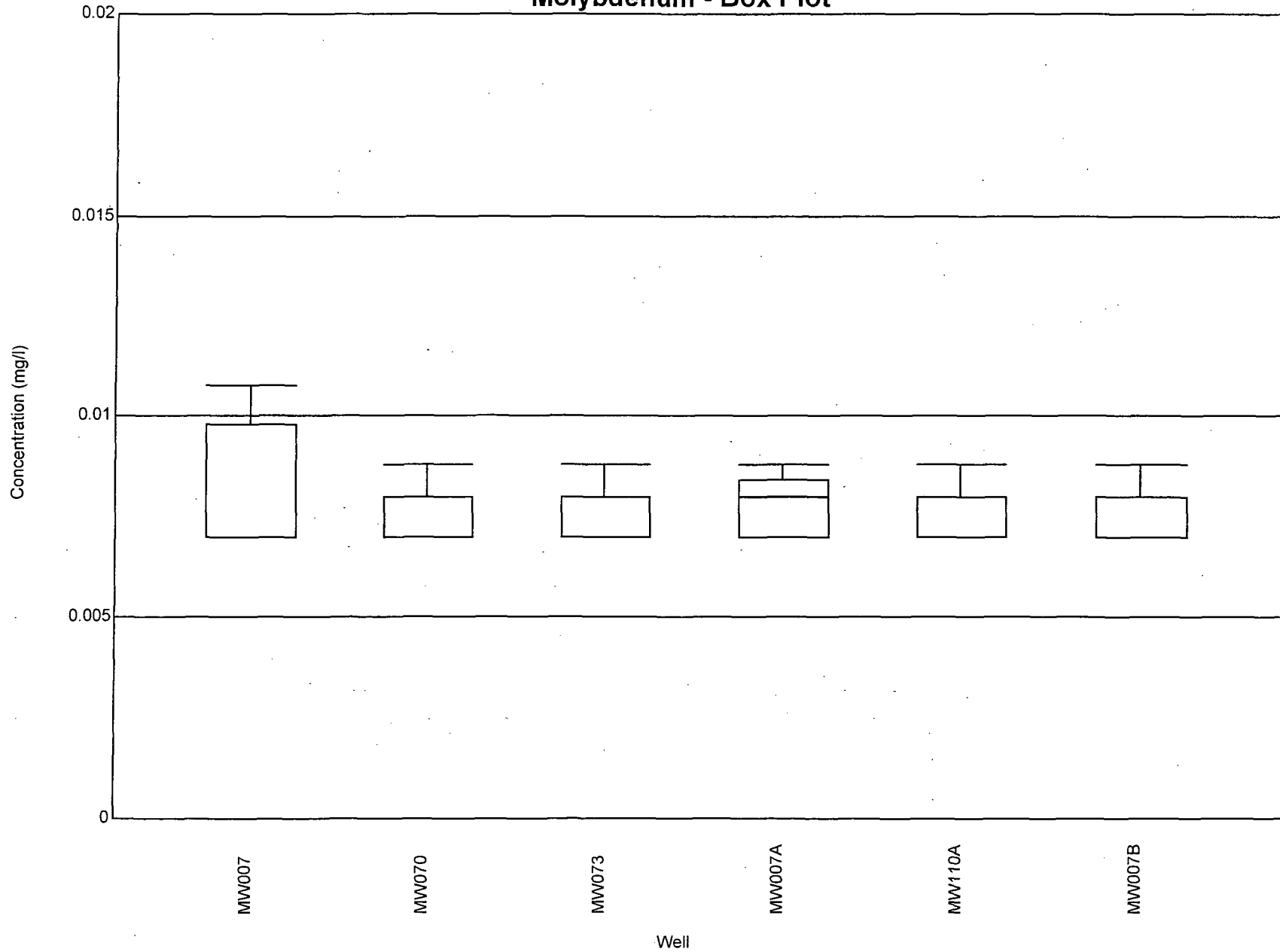


Figure 11
Nickel - Box Plot

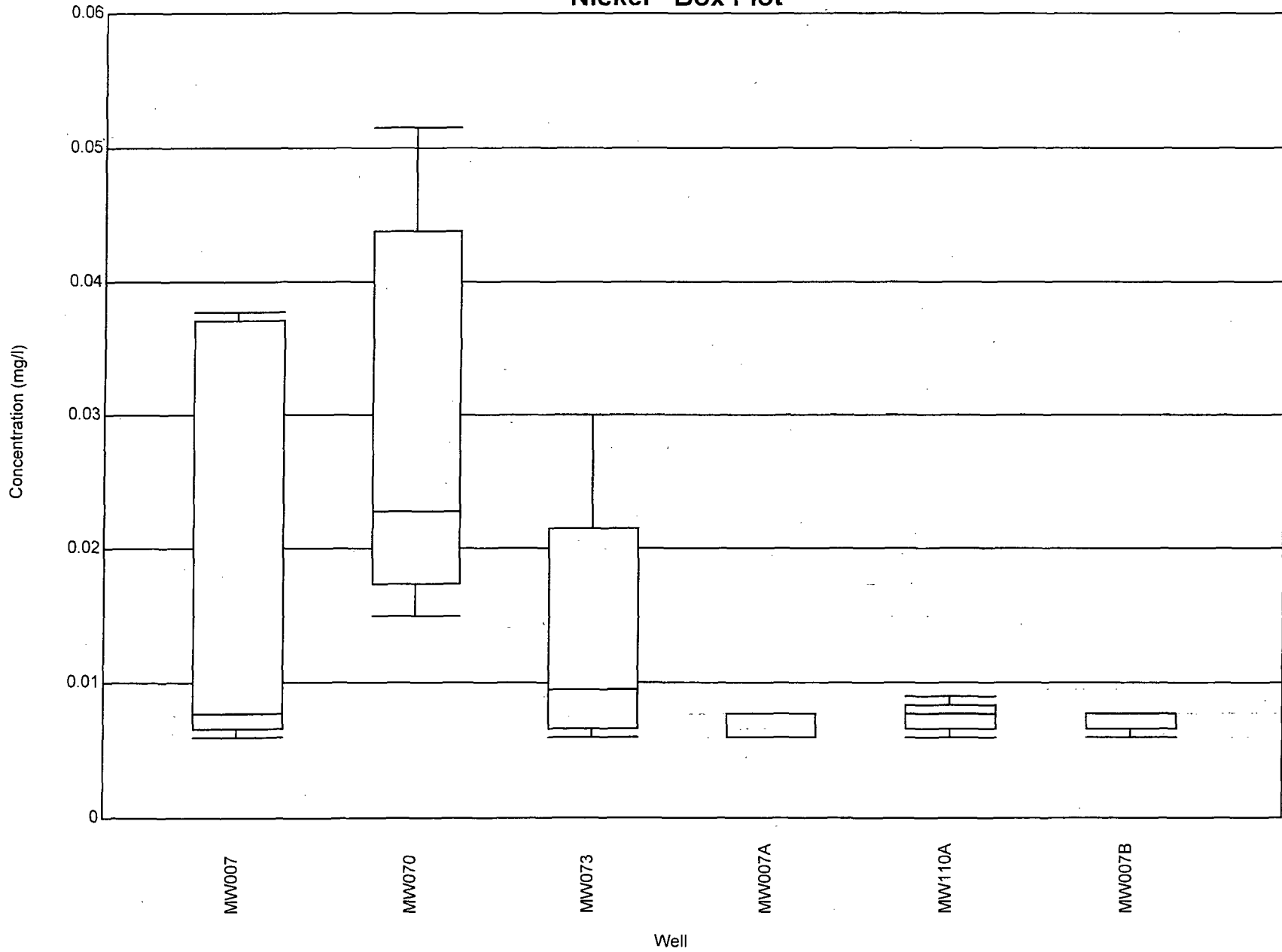


Figure 12
Nitrate - Box Plot



Figure 13
Ra-226 + Ra-228 - Box Plot

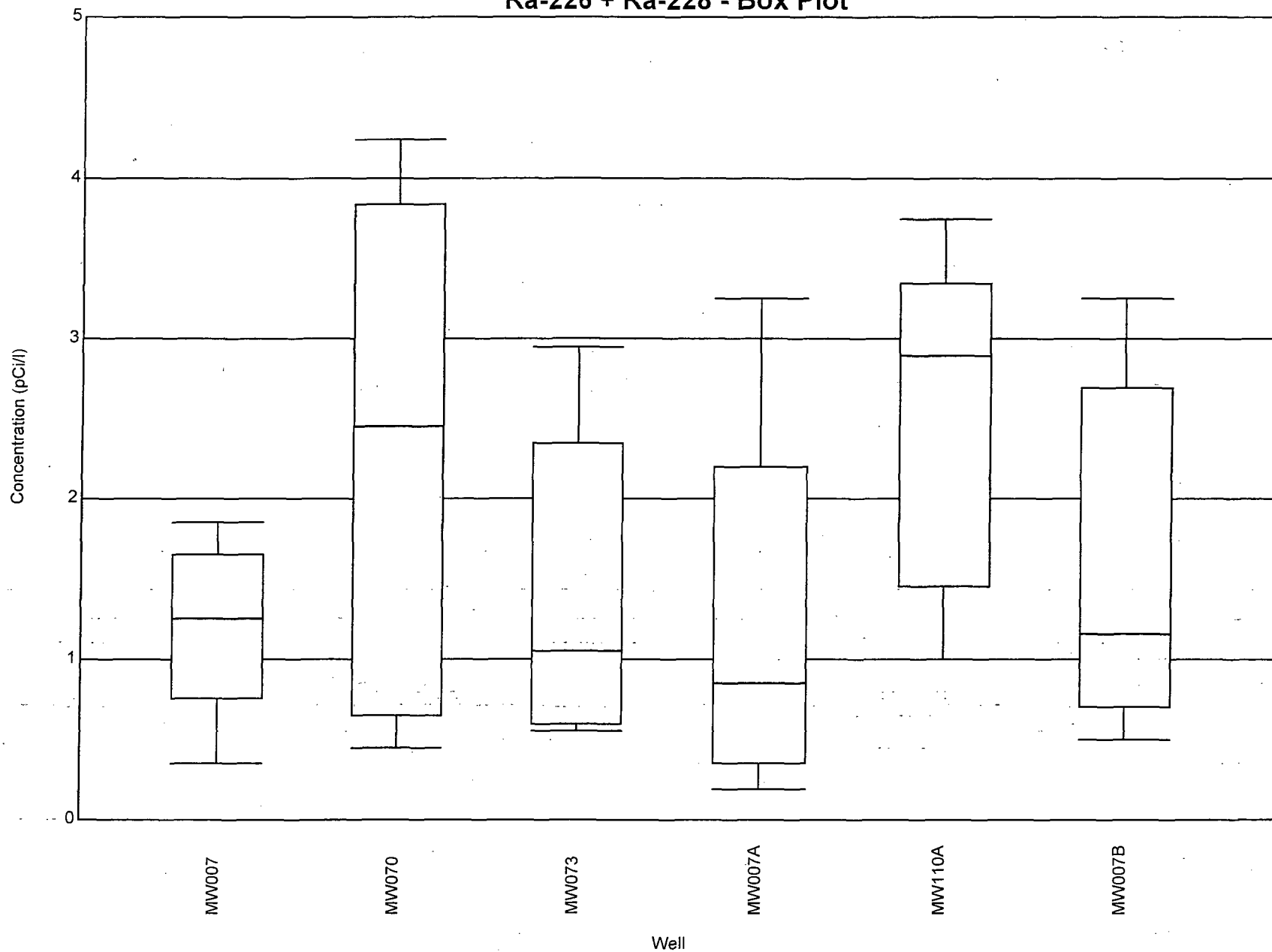


Figure 14
Radium-226 - Box Plot

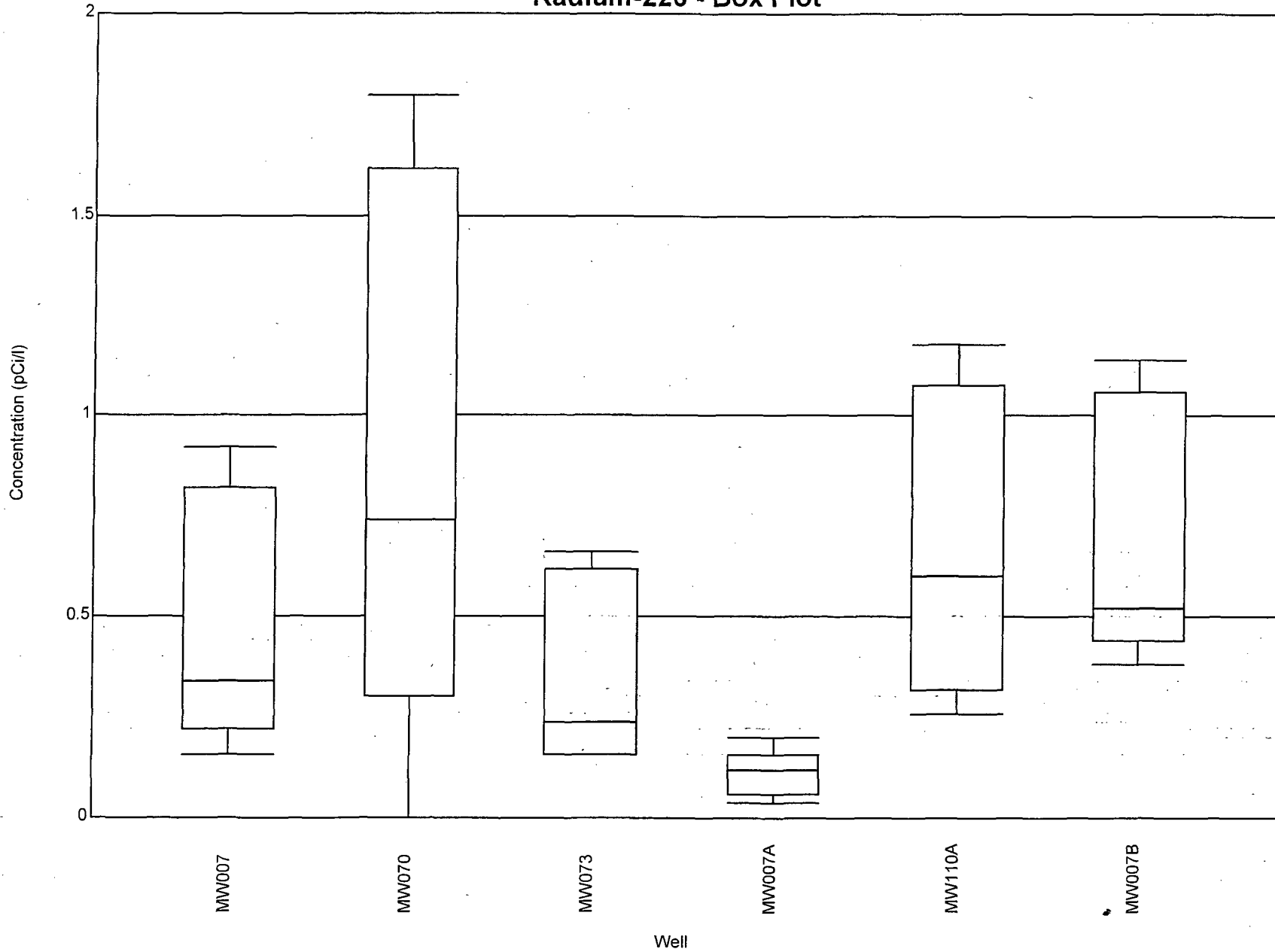


Figure 15
Radium-228 - Box Plot

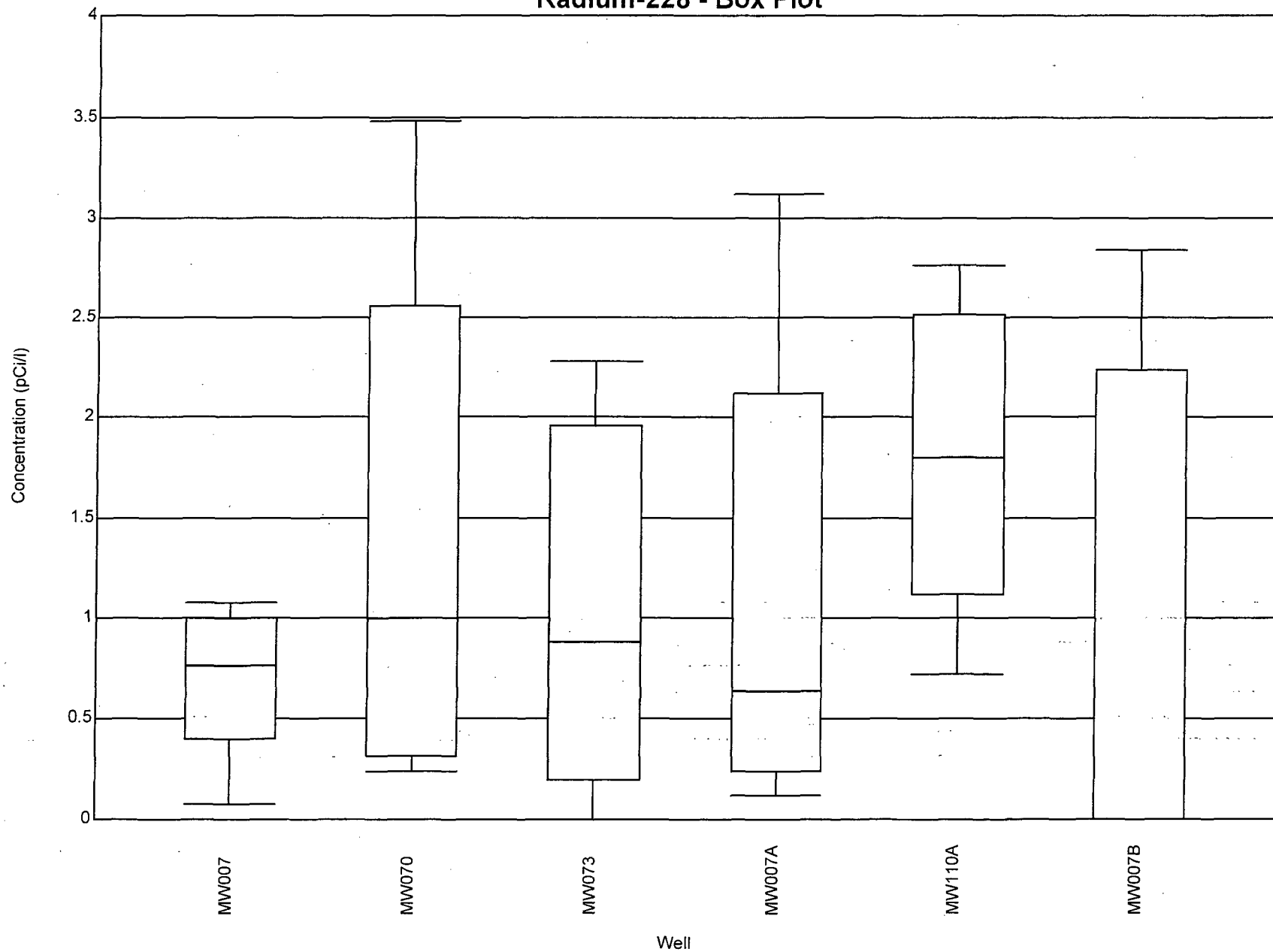


Figure 16
Selenium - Box Plot

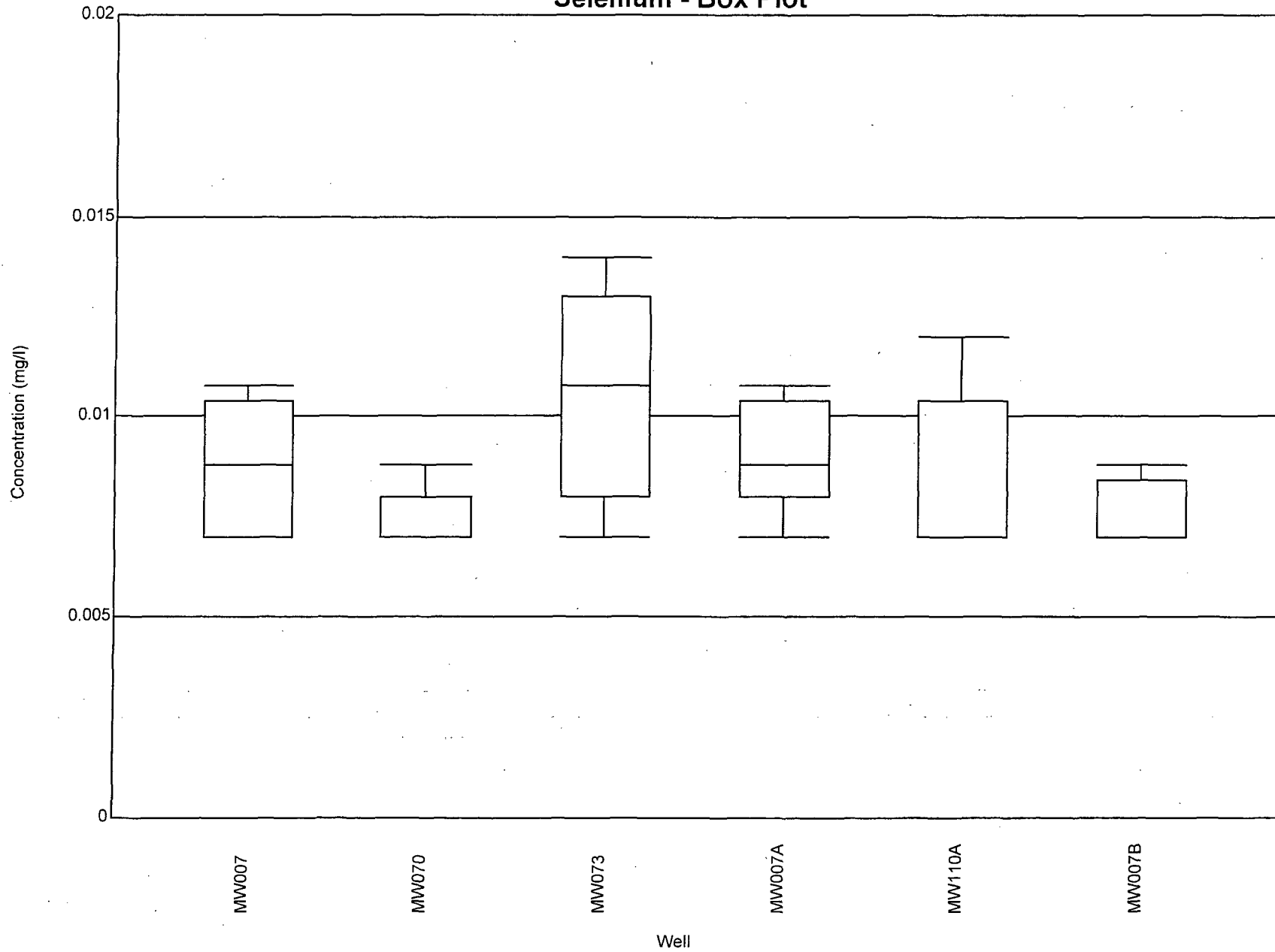


Figure 17
Thallium - Box Plot

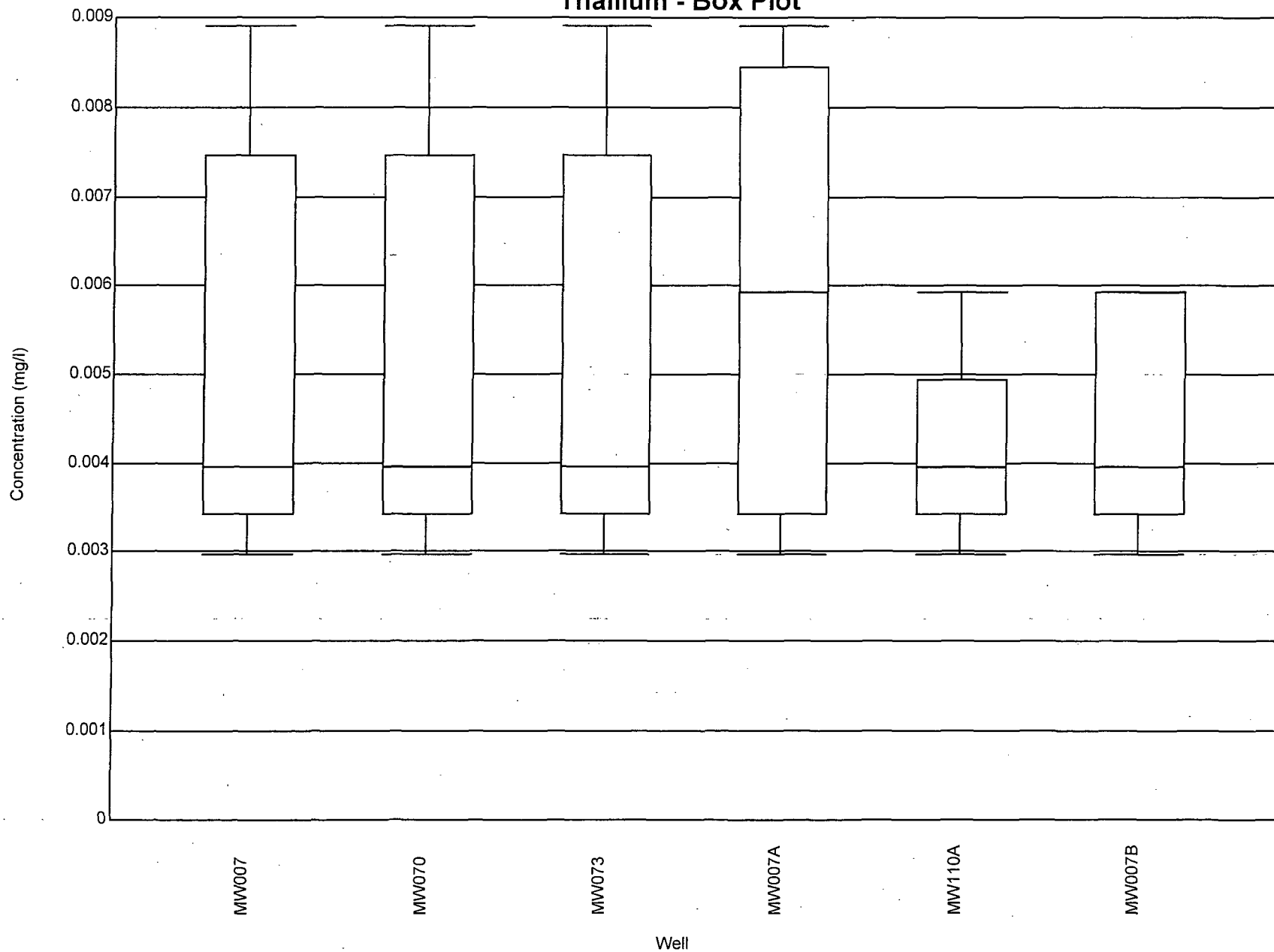


Figure 18
Thorium-230 - Box Plot

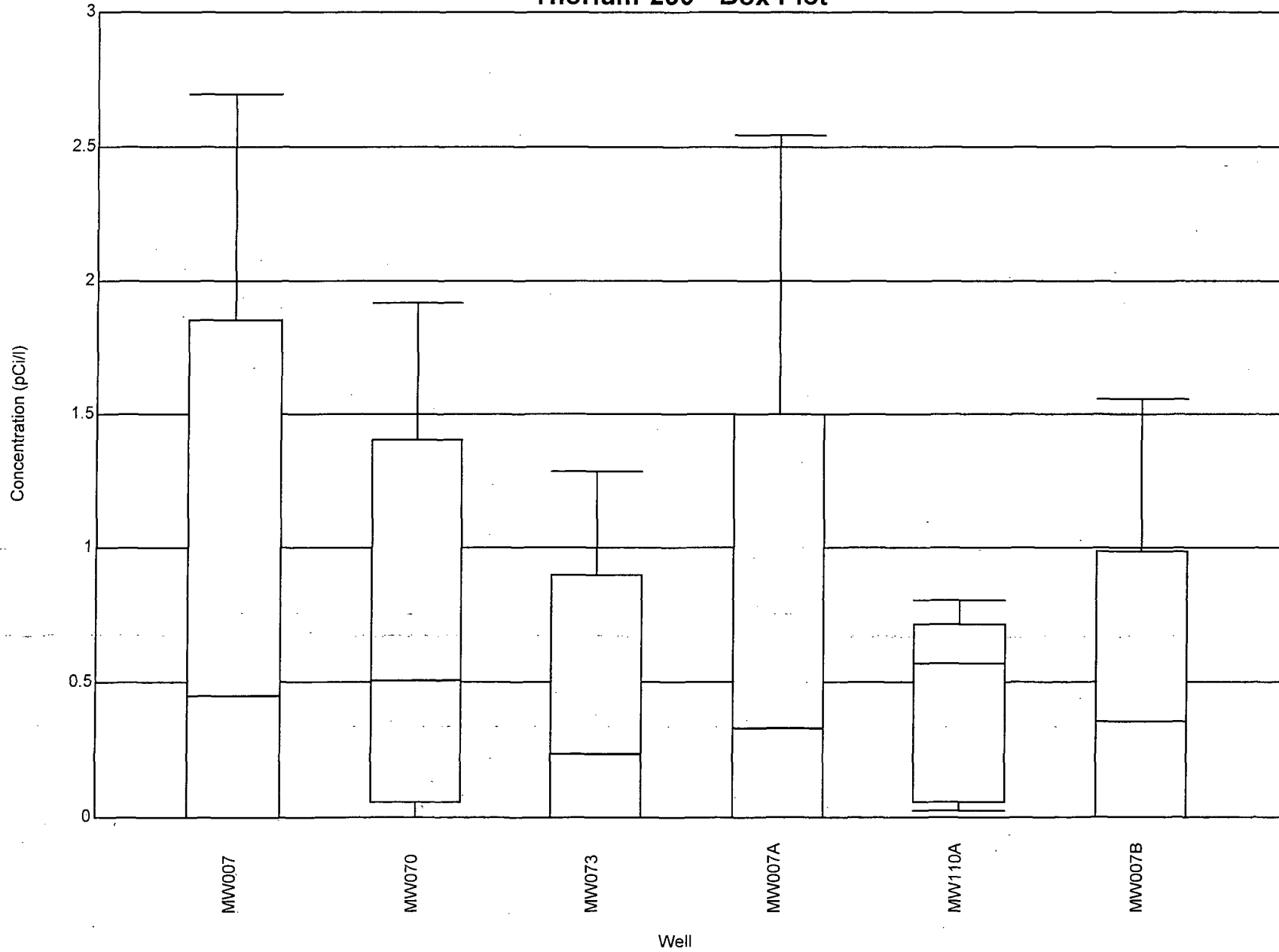


Figure 19
Uranium - Box Plot

