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**Sent VIA Federal Express**

May 29, 2012

Mr. Rusty Lundberg  
Co-Executive Secretary  
Utah Water Quality Board  
Utah Department of Environmental Quality  
195 North 1950 West  
P.O. Box 144820  
Salt Lake City, UT 84114-4820

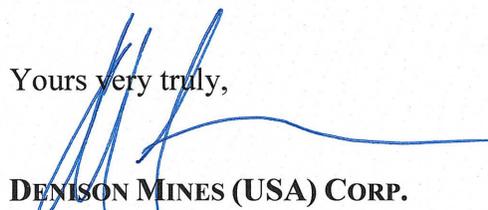
**Re: Transmittal of 1st Quarter 2012 Groundwater Monitoring Report  
Groundwater Quality Discharge Permit UGW370004 White Mesa Uranium Mill**

Dear Mr. Lundberg:

Enclosed are two copies of the White Mesa Uranium Mill Groundwater Monitoring Report for the 1st Quarter of 2012 as required by the Groundwater Quality Discharge Permit UGW370004, as well as two CDs each containing a word searchable electronic copy of the report.

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

Yours very truly,

  
**DENISON MINES (USA) CORP.**  
Jo Ann Tischler  
Director, Compliance and Permitting

cc: Ron F. Hochstein  
David C. Frydenlund  
Harold R. Roberts  
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**White Mesa Uranium Mill**  
**Groundwater Monitoring Report**

**State of Utah**  
**Groundwater Discharge Permit No. UGW370004**

**1st Quarter**  
**(January through March)**  
**2012**

Prepared by:

**Denison Mines (USA) Corp.**  
Suite 950, 1050 17<sup>th</sup> Street  
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**May 29, 2012**

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## **1.0 INTRODUCTION**

This is the Routine Groundwater Monitoring Report, as required under Part I.F.1 of State of Utah Groundwater Discharge Permit No. UGW370004 (the "GWDP") for the first quarter of 2012 (the "quarter") for Denison Mines (USA) Corp's. ("DUSA's") White Mesa Uranium Mill (the "Mill"). As required under Parts I.E.1, I.E.2 and I.E.5 of the GWDP this Report includes all recorded field measurements and laboratory analyses for well monitoring conducted during the quarter.

## **2.0 GROUNDWATER MONITORING**

### **2.1 Samples and Measurements Taken During the Quarter**

A map showing the location of all groundwater monitoring wells, piezometers, existing wells, chloroform contaminant investigation wells and nitrate contaminant investigation wells is attached under Tab A. Groundwater samples and measurements were taken during this reporting period (January through March), as discussed in the remainder of this section.

#### **2.1.1 Groundwater Compliance Monitoring**

Groundwater samples and field measurements collected during the first quarter included both quarterly and accelerated monitoring. Accelerated monitoring is discussed below in Section 2.1.2. In this first quarter report, samples classified as being collected quarterly include those wells which are routinely sampled every quarter as well as semi-annual wells which are sampled on an accelerated quarterly schedule due to exceedances reported in previous quarterly reports. Wells which are sampled routinely every quarter were analyzed for the parameters listed in Table 2 and Part I.E.1.c) 2)ii of the GWDP dated July 14, 2011. The semi-annual wells which have been accelerated to quarterly are analyzed only for those parameters which exceeded the GWCLs in Table 2 and Part I.E.1.c) 2)ii of the GWDP as described in previous reports.

Table 1 of this report provides an overview of all wells sampled during the current period, along with the required sampling frequency applicable to each well during the current monitoring period, the date samples were collected from each well, and the date(s) analytical data were received from the contract laboratory(ies). Table 1 also indicates which sample numbers are associated with the required duplicates. During this quarter, MW-26 and the duplicate MW-65 were resampled for metals and Gross Alpha due to preservation (pH) outside of acceptance limits when the samples were received at the laboratory. In addition MW-26 and the duplicate were unnecessarily resampled for THF because of a communication error. The extra THF data for MW-26 and MW-65 are included for information purposes.

### **2.1.2 Accelerated Groundwater Monitoring.**

In addition to the quarterly monitoring referenced above, accelerated monthly sampling was performed, and results reported, for the wells indicated in Table 1. The accelerated sampling frequency, analyte list and well list were determined based on the previously reported analytical results and are included in Table 2 of this report.

Table 1 provides an overview of the wells sampled for the accelerated monthly program along with the routine sampling frequency as well as the accelerated sampling frequency, the date samples were collected from each well, the associated duplicates and the date(s) which analytical data were received from the contract laboratory(ies).

### **2.1.3 Background Well Monitoring**

A requirement was added to the GWDP on February 15, 2011, which required the Mill to begin quarterly sampling of wells MW-35, MW-36 and MW-37 to develop eight quarters of background data. MW-35, which was installed in the third quarter 2010, has been sampled quarterly since fourth quarter 2010. MW-36 and MW-37, which were installed during the second quarter 2011, have been sampled quarterly since third quarter 2011. Quarterly samples will continue to be collected until 8 quarters of data are available to complete the background report as required by the GWDP.

### **2.1.4 Parameters Analyzed**

All routine quarterly groundwater monitoring samples were analyzed for the parameters listed in Table 2 and Part I.E.1.c) 2)ii of the GWDP dated July 14, 2011. The accelerated monitoring samples were analyzed for a more limited and specific parameter list as shown in Table 2 of this report.

### **2.1.5 Groundwater Head Monitoring**

Depth to groundwater was measured in the following wells and/or piezometers, pursuant to Part I.E.2 of the GWDP dated July 14, 2011:

- The groundwater compliance monitoring wells including MW-20, MW-22, MW-34, MW-35, MW-36 and MW-37.
- Existing monitoring well MW-4 and all of the temporary chloroform investigation wells.
- Piezometers – P-1, P-2, P-3, P-4 and P-5.
- Nitrate monitoring wells.
- The DR piezometers which were installed during the Southwest Hydrogeologic Investigation.

- In addition to the above, depth to water measurements are routinely observed in conjunction with sampling events for all wells sampled during quarterly and accelerated efforts, regardless of the sampling purpose.

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

## **2.2 Field Data**

Attached under Tab B are copies of all field data sheets recorded in association with the quarterly effort for the groundwater compliance monitoring wells referred to in paragraph 2.1.1, above. Sampling dates are listed in Table 1.

Attached under Tab C are copies of all field data sheets recorded in association with the January and March 2012 accelerated monitoring and sampling efforts.

## **2.3 Laboratory Results - Quarterly Sampling**

### **2.3.1 Copy of Laboratory Results**

All analytical results are provided by one of the Mill's two contract analytical laboratories Energy Laboratories ("EL") or America West Analytical Laboratories ("AWAL").

Table 1 lists the dates when analytical results were reported to the Quality Assurance ("QA") Manager for each well.

Results from analysis of samples collected for the third quarter under the GWDP (i.e., all regular quarterly and accelerated samples), are provided in Tab E. Also included under Tab E are the results of analyses for duplicate samples for this sampling effort, as identified in Table 1.

The laboratory report dates for samples collected for the January and March accelerated sampling (i.e. quarterly accelerated to monthly) are provided in Table 1. Results from analysis of samples collected for the January and March accelerated sampling (i.e. quarterly accelerated to monthly) are provided in Tab F. Also included under Tab F are the results of analyses for duplicate samples for this sampling effort, as identified in Table 1.

Copies of laboratory QA/Quality Control ("QC") Summaries are included with the reported data under their corresponding Tabs.

## **2.3.2 Regulatory Framework and Groundwater Background**

Under the GWDP (July 14, 2011), background groundwater quality has been determined on a well-by-well basis, as defined by the mean plus second standard deviation concentration or the equivalent. New GWCLs that reflect this background groundwater quality have been set for all monitoring wells in the January 20, 2010 GWDP. These new GWCLs were in effect for sampling required during the current third quarter monitoring period.

Exceedances of the January 21, 2010 GWCLs as reported in 2010 reports determined the accelerated monthly monitoring program implemented during this quarter.

Exceedances of the GWCLs for the first quarter (January through March) of 2012 are listed in Table 2 for sampling required under the revised GWDP (July 14, 2011). Table 3 shows the accelerated sampling program which started in the second quarter 2010 and shows the results and frequency of the accelerated sampling conducted since that time.

It should be noted, however, that, because the GWCLs have been set at the mean plus second standard deviation, or the equivalent, un-impacted groundwater would normally be expected to exceed the GWCLs approximately 2.5% of the time. Therefore, exceedances are expected in approximately 2.5% of all sample results, and do not necessarily represent impacts to groundwater from Mill operations.

## **2.4 Laboratory Results – Accelerated Monitoring**

### **2.4.1 Copy of Laboratory Results**

The analytical results for the accelerated monthly monitoring of the various constituents in certain monitoring wells for the quarter are provided at Tab F.

### **2.4.2 Regulatory Framework and Groundwater Background**

As a result of the issuance of the revised GWDP on January 20, 2010, which sets revised GWCLs, all requirements to perform accelerated monitoring under Part I.G.1 of the previous GWDP ceased effective on January 20, 2010, and the effect of the issuance of the revised GWDP was to create a “clean slate” for all constituents in all wells going forward.

This means that accelerated monitoring during the first quarter 2012 was required under the revised GWDP for only those constituents that exceeded the GWCLs in 2010.

### **2.4.3 Compliance Status**

Analytes which have exceeded the GWCLs set forth in the GWDP are summarized in Table 2. The analytes which exceeded their respective GWCLs during the first quarter 2012 will be sampled on an accelerated schedule as noted in Table 2. Analytes which

exceeded their respective GWCLs during 2010 are currently sampled on an accelerated schedule. A review of the accelerated data collected during first quarter 2012 indicate that one analyte has exceeded its respective GWCLs for two consecutive sampling periods as reported in DUSA's letter to DRC on May 11, 2012. Table 3 summarizes the results of the accelerated sampling program from first quarter 2010 through first quarter 2012.

Part I.G.1 c) of the GWDP states, with respect to exceedances of GWCLs, "that the Permittee shall prepare and submit within 30 calendar days to the Executive Secretary a plan and a time schedule for assessment of the sources, extent and potential dispersion of the contamination, and an evaluation of potential remedial action to restore and maintain groundwater quality to insure that Permit limits will not be exceeded at the compliance monitoring point and that DMT or BAT will be reestablished." DUSA submitted an exceedance notice on May 11, 2012 for the first quarter 2012 results. The summary in the Exceedance Notice includes, for each exceedance, a brief discussion of whether such a plan and schedule is required at this time in light of other actions currently being undertaken by Denison, as determined by Utah Department of Environmental Quality ("UDEQ") Staff and stated in teleconferences with Denison on April 27 and May 2, 2011. The applicability of the plans and time schedules for assessment was submitted to the Executive Secretary in the May 11, 2012 Exceedance Notice.

## **2.5 Depth to Groundwater and Water Table Contour Map**

As stated above, a listing of groundwater level readings for the quarter (shown as depth to groundwater in feet) is included under Tab D. The data from Tab D has been interpreted (kriged) and plotted in a water table contour map, provided under Tab H.

The water table contour map provides the location and identity of all of the wells and piezometers for which depth to groundwater is recorded. The groundwater elevation at each well and piezometer, measured in feet above mean sea level, and isocontour lines to delineate groundwater flow directions observed during the quarter's sampling event, are displayed on the map.

## **3.0 QUALITY ASSURANCE AND DATA VALIDATION**

The Mill QA Manager performed a QA/QC review to confirm compliance of the monitoring program with requirements of the QAP. As required in the QAP, data QA includes preparation and analysis of QC samples in the field, review of field procedures, an analyte completeness review, and quality control review of laboratory data methods and data. Identification of field QC samples collected and analyzed is provided in Section 3.1. Discussion of adherence to Mill sampling Standard Operating Procedures ("SOPs") is provided in Section 3.2. Analytical completeness review results are provided in Section 3.3. The steps and tests applied to check laboratory data QA/QC are discussed in Sections 3.4.4 through 3.4.9 below.

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

### **3.1 Field QC Samples**

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

Two duplicate samples were collected during quarterly sampling as indicated in Table 1. The QC samples were sent blind to the analytical laboratory and analyzed for the same parameters as permit-required samples.

One duplicate sample was collected during each month of accelerated sampling as indicated in Table 1. The QC samples were sent blind to the analytical laboratory and analyzed for the same accelerated parameters as the parent sample.

Three trip blanks were provided by EL and returned and analyzed with the quarterly monitoring samples.

One trip blank per month was provided by EL and returned and analyzed with the accelerated monthly monitoring samples.

Four trip blanks were provided by AWAL and returned and analyzed with the quarterly monitoring samples.

One trip blank per month was provided by AWAL and returned and analyzed with the accelerated monitoring samples.

Rinsate samples were not collected during this quarter because all equipment used during sample collection was dedicated and did not require decontamination. All wells except MW-37 have dedicated pumps for purging and sampling and as such no rinsate blank samples are required. MW-37 was sampled with a disposable bailer and no rinsate blank was required. A deionized field blank (DIFB) was not required because equipment decontamination was not required and deionized water was not used during this sampling event.

Duplicate and trip blank sample results are shown in Tab G.

### **3.2 Adherence to Mill Sampling SOPs**

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

### **3.3 Analyte Completeness Review**

All analyses required by the GWDP for the quarterly wells were performed. The accelerated quarterly sampling (quarterly to monthly and semi-annual to quarterly) required for this quarter, as shown in Tables 2 and 3, was performed.

### **3.4 Data Validation**

The QAP and GWDP identify the data validation steps and data quality control checks required for the groundwater monitoring program. Consistent with these requirements, the QA Manager performed the following evaluations: a field data QA/QC evaluation, a receipt temperature check, a holding time check, an analytical method check, a reporting limit check, a trip blank check, a QA/QC evaluation of routine sample duplicates, a QA/QC evaluation of accelerated sample duplicates, a gross alpha counting error evaluation and a review of each laboratory's reported QA/QC information. Each evaluation is discussed in the following sections. Data check tables indicating the results of each test are provided under Tab G.

#### **3.4.1 Field Data QA/QC Evaluation**

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

Based upon this review, all quarterly sampled locations conformed to the QAP requirement to evacuate two well casing volumes before sampling except for MW-3A, MW-12, MW-23, MW-24, and MW-37. In all cases these wells were evacuated to dryness before two casing volumes could be purged.

All accelerated sampled locations conformed to the QAP requirement to evacuate two well casing volumes before sampling.

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

The review of the field sheets for compliance with QAP requirements resulted in the observations noted below. The QAP requirements in Section 6.2.7 specifically state that field parameters have to be stabilized to within 10% over at least 2 consecutive measurements. The QAP states that turbidity should be less than 5 Nephelometric Turbidity Units (“NTU”) prior to sampling unless the well is characterized by water that has a higher turbidity. The QAP does not require that turbidity measurements be less than 5 NTU prior to sampling. As such the noted observations regarding turbidity measurements greater than 5 NTU below are included for information purposes only.

- Turbidity measurements were less than 5 NTU for all of the quarterly wells except MW-19, MW-29, MW-32, and MW-37. The QAP does not require that turbidity measurements be less than 5 NTU prior to sampling. Per the QAP Section 6.2.7 d) (v) Turbidity measurements prior to sampling were within a 10% Relative Percent Difference (“RPD”) for all quarterly sampling wells.
- Turbidity measurements were less than 5 NTU for all of the accelerated sampling wells except MW-11. Turbidity measurements prior to sampling were within a 10% RPD for all accelerated sampling wells

DUSA’s letter to DRC of March 26, 2010 discusses further why turbidity does not appear to be an appropriate parameter for assessing well stabilization. In response to DRC’s subsequent correspondence dated June 1, 2010 and June 24, 2010, DUSA has completed a monitoring well redevelopment program. The redevelopment report was submitted to DRC on September 30, 2011. Redevelopment results will be discussed with DRC in an effort to come to a consensus regarding turbidity considerations for the groundwater wells at the Mill site.

### **3.4.2 Holding Time Evaluation**

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

The EL laboratory pH data are qualified with an “H” flag noting that the analyses were performed beyond the recommended holding time. EL noted that per their last NELAC audit, to maintain certification, all pH analyses that are not completed within 15 minutes of sample collection are required to be qualified as completed beyond the recommended holding time. It is important to note that those laboratory pH data are not used for compliance or reporting purposes. Compliance with the pH GWCLs for all groundwater samples is determined using the field pH collected immediately prior to sample collection.

### **3.4.3 Receipt Temperature Evaluation**

Chain of Custody sheets (for AWAL) and temperature blank data sheets (for EL) were reviewed to confirm compliance with the QAP requirement in QAP Table 1 that samples

be received at 6°C or lower. Sample receipt temperature checks are provided under Tab G. All quarterly and accelerated samples were received within the required temperature limit.

#### **3.4.4 Analytical Method Checklist**

All analytical methods reported by both laboratories were checked against the required methods specified in Table 1 of the QAP. Analytical method check results are provided in Tab G. The review indicated that all quarterly and accelerated samples were analyzed in accordance with Table 1 of the QAP.

It is recommended that the QAP be improved and updated to include additional methodologies currently in use by other laboratories certified under the Environmental Lab Certification Program administered by the Utah Department of Environmental Quality (“UDEQ”) Bureau of Lab Improvement. Potentially, to accommodate ongoing improvement in technology and methodology, the entire Table 1 and the Chloroform Investigation Appendix table should be revised to include other currently approved analytical methods in use by other Utah certified laboratories. A revised QAP is currently in process which incorporates multiple methods for all analytes to allow flexibility and to address improvements in technology. The Revised QAP will be implemented upon receipt of approval by UDEQ.

#### **3.4.5 Reporting Limit Evaluation**

All analytical method reporting limits reported by both laboratories were checked against the reporting limits specified in the QAP Table 1. Reporting limit evaluations are provided in Tab G. All analytes were measured and reported to the required reporting limits except several sets of routine and accelerated sample results had the reporting limit raised for at least one analyte due to matrix interference and/or sample dilution as noted in Section 3.4.9. In all cases the reported value for the analyte was higher than the increased detection limit.

#### **3.4.6 Trip Blank Evaluation**

All trip blank results were reviewed to identify any blank contamination. Trip blank evaluations are provided in Tab G. All trip blank results associated with both the quarterly and accelerated samples were less than detection level for all VOCs.

#### **3.4.7 QA/QC Evaluation for Routine Sample Duplicates**

Section 9.1.4 a) of the QAP states that RPDs will be calculated for the comparison of duplicate and original field samples. The QAP acceptance limits for RPDs between the duplicate and original field sample is less than or equal to 20% unless the measured results (described as activities in the QAP) are less than 5 times the required detection limit. This standard is based on the EPA Contract Laboratory Program National Functional Guidelines for Inorganic Data Review, February 1994, 9240.1-05-01 as cited

in the QAP. The RPDs are calculated for all duplicate pairs with detections in both the parent and duplicate sample for all analytes regardless of whether or not the reported concentrations are greater than 5 times the required detection limits; however, data will be considered noncompliant only when the results are greater than 5 times the required detection limit and the RPD is greater than 20%. The additional duplicate information is provided for information purposes.

All duplicate results were within a 20% RPD in the quarterly samples except for the chloride result in the duplicate pair MW-26/MW-65. Duplicate results are provided under Tab G. A revised QAP is currently in progress (Revision 7.1). In response to requests from UDEQ, a separate corrective action for duplicate RPDs outside of acceptance limits has been developed and was documented in the revised QAP. The revised procedure for duplicate results outside of acceptance limits was implemented during the first quarter 2012 for the chloride results in duplicate pair MW-26/MW-65. The corrective actions that were taken in accordance with the revised procedure are as follows: the QA Manager contacted the Analytical Laboratory and requested a review of the raw data to assure that there were no transcription errors and the data were accurately reported. The laboratory noted that the data were accurate and reported correctly. Reanalysis was not completed as the samples were beyond the holding time.

All duplicate results were within a 20% RPD in the accelerated samples. Results of the RPD test are provided under Tab G.

### **3.4.8 Radiologics Counting Error and Duplicate Evaluation**

Section 9.14 of the QAP requires that all gross alpha analysis reported with an activity equal to or greater than the GWCL, shall have a counting variance that is equal to or less than 20% of the reported activity concentration. An error term may be greater than 20% of the reported activity concentration when the sum of the activity concentration and error term is less than or equal to the GWCL.

Section 9.4 of the QAP also requires a comparability check between the sample and field duplicate sample results utilizing the formula provided in the text. The quarterly and accelerated sample and duplicate results met the comparability check specified in the QAP.

Results of quarterly and accelerated radiologic sample QC are provided under Tab G. All quarterly and accelerated radiologic sample results met the counting error requirements specified above.

### **3.4.9 Other Laboratory QA/QC**

Section 9.2 of the QAP requires that the laboratory's QA/QC Manager check the following items in developing data reports: (1) sample preparation information is correct and complete, (2) analysis information is correct and complete, (3) appropriate analytical laboratory procedures are followed, (4) analytical results are correct and complete, (5)

QC samples are within established control limits, (6) blanks are within QC limits, (7) special sample preparation and analytical requirements have been met, and (8) documentation is complete. In addition to other laboratory checks described above, DUSA's QA Manager rechecks QC samples and blanks (items (5) and (6)) to confirm that the percent recovery for spikes and the relative percent difference for spike duplicates are within the method-specific required limits, or that the case narrative sufficiently explains any deviation from these limits. Results of this quantitative check are provided under Tab G. All lab QA/QC results from both EL and AWAL samples for compounds regulated under the GWDP met these requirements. There were QC results which did not meet laboratory established acceptance limits, as identified in Tab G and described below.

Fifteen sets of quarterly sample results (thirteen wells and two duplicates) and seven sets of accelerated samples (six samples and one duplicate) had the reporting limit raised for at least one analyte due to matrix interference and/or sample dilution. In all cases the reported value for the analyte was higher than the increased detection limit. Data are qualified by the laboratory with a "D" flag when the reporting limit is raised due to dilution or matrix interferences.

The check samples included at least the following: a method blank, a laboratory control spike ("LCS"), a matrix spike ("MS") and a matrix spike duplicate ("MSD"), or the equivalent, where applicable. It should be noted that:

- Laboratory fortified blanks are equivalent to LCSs.
- Laboratory reagent blanks are equivalent to method blanks.
- Post digestion spikes are equivalent to MSs.
- Post digestion spike duplicates are equivalent to MSDs.
- For method E900.1, used to determine gross alpha, a sample duplicate was used instead of a MSD.

All qualifiers, and the corresponding explanations reported in the QA/QC Summary Reports for any of the check samples for any of the analytical methods were reviewed by the QA Manager.

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

The information from the Laboratory QA/QC Summary Reports indicates that the MS/MSDs recoveries and the associated RPDs for all quarterly and monthly accelerated samples were within acceptable laboratory limits for all regulated compounds except as indicated in Tab G. The recoveries which are above the laboratory established acceptance limits do not affect the quality or usability of the data because the recoveries outside of the acceptance limits are indicative of matrix interference. The QAP requirement to analyze a MS/MSD pair with each analytical batch was met and as such the data are compliant with the QAP.

The QAP specifies that surrogate compounds shall be employed for all organic analyses but the QAP does not specify acceptance limits for surrogate recoveries. The analytical data associated with the quarterly and accelerated sampling met the requirement specified in the QAP. The information from the Laboratory QA/QC Summary Reports indicates that the surrogate recoveries for all quarterly and monthly accelerated samples were within acceptable laboratory limits for all surrogate compounds except as indicated in Tab G. In all instances the surrogate recoveries outside of acceptance limits were above the upper limit or had a high recovery, indicating a high bias to the individual sample results. A high bias means that reported results for this analyte will tend to be higher than the actual concentration. There is no effect on the quality or usability of the data because there are multiple surrogates added to each sample and all other surrogates were within limits. Furthermore, there are no QAP requirements for surrogate recoveries. Since surrogate compounds were added to all of the organic analyses as required by the QAP, the data are compliant with the QAP requirements.

The information from the Laboratory QA/QC Summary Reports indicates that the LCS recoveries for the quarterly samples were within acceptable laboratory limits for all LCS compounds.

The information from the Laboratory QA/QC Summary Reports indicates that the LCS recoveries for the accelerated monthly samples were within acceptable laboratory limits for all LCS compounds except as indicated in Tab G. In all instances the LCS compound recoveries outside of acceptance limits were above the upper limit or had a high recovery, indicating a high bias to the individual sample results. A high bias means that reported results for this analyte will tend to be higher than the actual concentration. There is no effect on the quality or usability of the data because there are multiple compounds in the LCS and all other LCS compounds were within limits. Furthermore, there are no QAP requirements for LCS recoveries. The QAP requirement to analyze an LCS with each analytical batch was met and as such the data are compliant with the QAP.

The QAP Section 8.1.2 requires that each analytical batch shall be accompanied by a reagent blank. All analytical batches routinely contain a blank, which is a blank sample made and carried through all analytical steps. For the Mill samples, a method blank is prepared for all analytical methods. Per the approved QAP, contamination detected in analysis of method blanks will be used to evaluate any analytical laboratory contamination of environmental samples. The QAP does not specify the process for evaluation of method blanks. For consistency, the QAP required evaluation criteria for

rinsate blanks will be used. The QAP criteria for rinsate blanks states that nonconformance will exist when blanks are within an order of magnitude of the sample results. Two analytes were reported in the method blanks from EL. Method blank results are included in Tab E. In all cases where the associated sample reported a positive detection, the method blank results were less than an order of magnitude relative to the positive sample results reported, that is the detections meet the QAP criteria. The method blank detection reported by EL does not affect the quality or usability of the data due to the high level of the constituents in the samples relative to the associated method blank concentrations. Additionally, blank detections are indicative of a false positive or high bias to the sample results as the laboratory contribution to the results would likely cause higher sample results. The QAP requirement to analyze a method blank with each batch and evaluate the results has been completed as required.

#### **4.0 CORRECTIVE ACTION REPORT**

A revised QAP is currently in progress (Revision 7.1). In response to requests from UDEQ, a separate corrective action for duplicate RPDs outside of acceptance limits has been developed and was documented in the revised QAP. The revised procedure for duplicate results outside of acceptance limits was implemented during the first quarter 2012 for the chloride results in duplicate pair MW-26/MW-65. The corrective actions that were taken in accordance with the revised procedure are as follows: the QA Manager contacted the Analytical Laboratory and requested a review of the raw data to assure that there were no transcription errors and the data were accurately reported. The laboratory noted that the data were accurate and reported correctly. Reanalysis was not completed as the samples were beyond the holding time.

There are no other corrective actions resulting from first quarter 2012 groundwater sampling event.

#### **5.0 TIME CONCENTRATION PLOTS**

Time concentration plots for each monitoring well for the following constituents: chloride, fluoride, sulfate, and uranium, are included under Tab I.

#### **6.0 ELECTRONIC DATA FILES AND FORMAT**

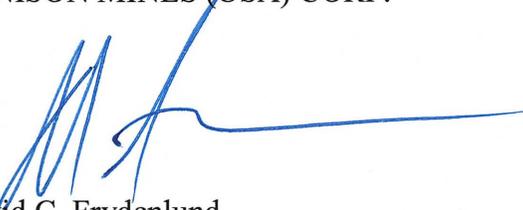
DUSA has provided to the Executive Secretary electronic copies of all laboratory results from groundwater quality monitoring conducted during the quarter in Comma Separated Values ("CSV"), from the EL data; and in Electronic Data Deliverable ("EDD") format from the AWAL data. A copy of the transmittal e-mail is included under Tab J.

**7.0 SIGNATURE AND CERTIFICATION**

This document was prepared by Denison Mines (USA) Corp. on May 29, 2012.

DENISON MINES (USA) CORP.

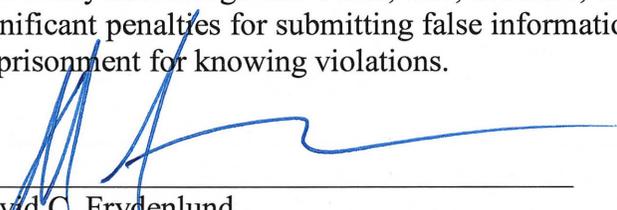
By:

A handwritten signature in blue ink, consisting of several overlapping loops and a long horizontal stroke extending to the right.

David C. Frydenlund  
Vice President, Regulatory Affairs and Counsel

Certification:

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



---

David C. Frydenlund  
Vice President, Regulatory Affairs and Counsel  
Denison Mines (USA) Corp.

## Tables

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Table 1: Summary of Well Sampling for Q1 2012

Well	Normal Frequency	Purpose for Sampling this Quarter	Sample Date	Date of Lab Report
<b>Quarterly Samples</b>				
MW-11	Quarterly	Quarterly	2/13/2012	3/20/2012 (2/21/2012) [3/6/2012]
MW-14	Quarterly	Quarterly	2/21/2012	3/20/2012 (5/9/2012) [5/10/2012]
MW-25	Quarterly	Quarterly	2/14/2012	3/20/2012 (2/21/2012) [3/6/2012]
MW-26	Quarterly	Quarterly	2/15/2012	3/20/2012 (2/21/2012) [3/6/2012]
MW-26 resample	Quarterly	Quarterly	2/21/2012	3/20/2012**
MW-26 resample	Quarterly	Quarterly	3/8/2012	(3/14/2012)***
MW-30	Quarterly	Quarterly	2/14/2012	3/20/2012 (2/21/2012) [3/6/2012]
MW-31	Quarterly	Quarterly	2/13/2012	3/20/2012 (2/21/2012) [3/6/2012]
MW-35	Quarterly	Background	2/14/2012	3/20/2012 (2/21/2012) [3/6/2012]
MW-36	Quarterly	Background	2/20/2012	3/20/2012 (5/9/2012) [5/10/2012]
MW-37	Quarterly	Background	2/29/2012	3/20/2012 (5/9/2012) [5/9/2012]
MW-65	1 per Batch	Duplicate of MW-26	2/15/2012	3/20/2012 (2/21/2012) [3/6/2012]
MW-65 resample	1 per Batch	Duplicate of MW-26	2/21/2012	3/20/2012**
MW-65 resample	1 per Batch	Duplicate of MW-26	3/8/2012	(3/14/2012)***
MW-70	1 per Batch	Duplicate of MW-14	2/21/2012	3/20/2012 (5/9/2012) [5/10/2012]
<b>Accelerated Samples</b>				
Accelerated Quarterly Samples				
MW-2	Semi-annually	Accelerated	2/22/2012	3/20/2012
MW-3	Semi-annually	Accelerated	2/29/2012	3/20/2012
MW-3A	Semi-annually	Accelerated	3/1/2012	3/20/2012
MW-5	Semi-annually	Accelerated	2/28/2012	3/20/2012
MW-12	Semi-annually	Accelerated	2/29/2012	3/20/2012
MW-15	Semi-annually	Accelerated	2/22/2012	3/20/2012
MW-18	Semi-annually	Accelerated	2/27/2012	3/20/2012
MW-19	Semi-annually	Accelerated	2/28/2012	3/20/2012
MW-23	Semi-annually	Accelerated	2/20/2012	3/20/2012
MW-24	Semi-annually	Accelerated	2/23/2012	3/20/2012
MW-27	Semi-annually	Accelerated	2/28/2012	3/20/2012
MW-28	Semi-annually	Accelerated	2/28/2012	3/20/2012
MW-29	Semi-annually	Accelerated	2/22/2012	3/20/2012
MW-32	Semi-annually	Accelerated	2/21/2012	3/20/2012
Accelerated January Monthly				
MW-11	Monthly	Accelerated	1/26/2012	2/8/2012 (2/1/2012)
MW-14	Monthly	Accelerated	1/24/2012	Field pH 1/24/2012
MW-25	Monthly	Accelerated	1/25/2012	2/8/2012
MW-26	Monthly	Accelerated	1/25/2012	2/8/2012
MW-30	Monthly	Accelerated	1/24/2012	2/8/2012
MW-31	Monthly	Accelerated	1/24/2012	2/8/2012
MW-35	Monthly	Accelerated	1/24/2012	2/8/2012
MW-65	1 per Batch	Duplicate of MW-25	1/25/2012	2/8/2012
Accelerated June Monthly				
MW-11	Monthly	Accelerated	3/13/2012	4/12/2012 (3/23/2012)
MW-14	Monthly	Accelerated	3/14/2012	Field pH 3/14/2012
MW-25	Monthly	Accelerated	3/14/2012	4/12/2012
MW-26	Monthly	Accelerated	3/14/2012	4/12/2012
MW-30	Monthly	Accelerated	3/14/2012	4/12/2012
MW-31	Monthly	Accelerated	3/13/2012	4/12/2012
MW-35	Monthly	Accelerated	3/13/2012	4/12/2012
MW-65	1 per Batch	Duplicate of MW-30	3/14/2012	4/12/2012

Notes:

Date in parenthesis depicts the date that tetrahydrofuran was reported from American West Analytical Laboratories. All other metals were reported from Energy Laboratories.

Date in brackets depicts the date that tin was reported from American West Analytical Laboratories. All other VOCs were reported from Energy Laboratories.

\*\* Resampled for metals and gross alpha, because field personnel inadvertently omitted the chemical preservative after filtration .

\*\*\* Resampled for THF only. This sample was not needed for compliance monitoring and is included for information purposes only.

Table 2

Monitoring Well (Water Class)	Constituent Exceeding GWCL	GWCL in Current GWDP	First Result Exceeding the GWCL	Routine Sample Frequency	Accelerated Frequency	Exceedance Sample Period	Start of Accelerated Monitoring
<b>Quarterly Wells Accelerated to Monthly Sampling<sup>1</sup></b>							
MW-11 (Class II)	Manganese (ug/L)	131.29	134	Quarterly	Monthly	Q1 2010	May 2010
	Tetrahydrofuran (ug/L)	11.5	12	Quarterly	Monthly	Q1 2010	May 2010*
MW-14 (Class III)	Field pH (S.U.)	6.5 - 8.5	6.45	Quarterly	Monthly	Q1 2010	May 2010
MW-25 (Class III)	Uranium (ug/L)	6.5	6.57	Quarterly	Monthly	Q3 2010	January 2011
	Field pH (S.U.)	6.5 - 8.5	6.36	Quarterly	Monthly	Q4 2010	January 2011
MW-26 (Class III)	Nitrate + Nitrite (as N) (mg/L)	0.62	1.3	Quarterly	Monthly	Q1 2010	May 2010
	Uranium (ug/L)	41.8	58.7	Quarterly	Monthly	Q1 2010	May 2010
	Chloroform (ug/L)	70	700	Quarterly	Monthly	Q1 2010	May 2010
	Chloride (mg/L)	58.31	72	Quarterly	Monthly	Q1 2010	May 2010
	Gross Alpha minus Rn & U (pCi/L)	4.69	6.4	Quarterly	Monthly	Q4 2012	Q1 2011
	Methylene Chloride (ug/L)	5	9.9	Quarterly	Monthly	Q2 2010	June 2010
	Field pH (S.U.)	6.74 - 8.5	6.59	Quarterly	Monthly	Q1 2010	May 2010
	TDS (mg/L)	3284.19	3440	Quarterly	Monthly	Q3 2010	January 2011
MW-30 (Class II)	Nitrate + Nitrite (as N) (mg/L)	2.5	16.1	Quarterly	Monthly	Q1 2010	May 2010
	Chloride (mg/L)	128	134	Quarterly	Monthly	Q1 2011	May 2011
	Uranium (ug/L)	8.32	9.83	Quarterly	Monthly	Q4 2011	March 2012
	Field pH (S.U.)	6.5 - 8.5	5.66	Quarterly	Monthly	Q3 2011	July 2011
	Selenium (ug/L)	34	35.3	Quarterly	Monthly	Q2 2010	July 2010
MW-31 (Class III)	Nitrate + Nitrite (as N) (mg/L)	5	21.7	Quarterly	Monthly	Q1 2010	May 2010
	TDS (mg/L)	1320	1330	Quarterly	Monthly	Q3 2010	January 2011
	Sulfate (mg/L)	532	539	Quarterly	Monthly	Q4 2010	March 2011
	Field pH (S.U.)	6.5 - 8.5	6.16	Quarterly	Monthly	Q3 2011	July 2011
	Chloride (mg/L)	143	145	Quarterly	Monthly	Q1 2011	May 2011
MW-35 (Class II)	Uranium (ug/L)	7.5	21.7	Quarterly	Monthly	Q3 2011	July 2011
	Thallium (ug/L)	0.5	1.14	Quarterly	Monthly	Q4 2011	July 2011
	Selenium (ug/L)	12.5	19.7	Quarterly	Monthly	Q1 2012	June 2012
	Gross Alpha minus Rn & U (pCi/L)	3.75	4.5	Quarterly	Monthly	Q3 2011	Q4 2011
	Manganese (ug/L)	200	369	Quarterly	Monthly	Q3 2011	July 2011
<b>Semi-Annual Wells Accelerated to Quarterly Sampling<sup>1</sup></b>							
Monitoring Well	Constituent Exceeding GWCL	GWCL in	First Result	Sample	Accelerated	Exceedance	Start of Accelerated
MW-2 (Class III)	Gross Alpha minus Rn & U (pCi/L)	3.2	3.5	Semi-Annually	Quarterly	Q4 2010	Q1 2011
MW-3 (Class III)	Selenium (ug/L)	37	37.2	Semi-Annually	Quarterly	Q2 2010	Q3 2010
	Field pH (S.U.)	6.5 - 8.5	6.14 (6.25)	Semi-Annually	Quarterly	Q2 2010	Q3 2010
	Fluoride (mg/L)	0.68	0.71	Semi-Annually	Quarterly	Q2 2010	Q3 2010
MW-3A (Class III)	Field pH (S.U.)	6.5 - 8.5	6.23 (6.24)	Semi-Annually	Quarterly	Q2 2010	Q3 2010
	Sulfate (mg/L)	3640	3680	Semi-Annually	Quarterly	Q2 2010	Q3 2010
	TDS (mg/L)	5805	5860	Semi-Annually	Quarterly	Q2 2010	Q3 2010
	Selenium (ug/L)	89	94.8	Semi-Annually	Quarterly	Q4 2010	Q1 2011
MW-5 (Class II)	Uranium (ug/L)	7.5	11.6	Semi-Annually	Quarterly	Q4 2010	Q1 2011
MW-12 (Class III)	Field pH (S.U.)	6.5 - 8.5	6.47	Semi-Annually	Quarterly	Q4 2010	Q1 2011
	Selenium (ug/L)	25	25.7	Semi-Annually	Quarterly	Q2 2010	Q3 2010
MW-15 (Class III)	Iron (ug/L)	81.7	137	Semi-Annually	Quarterly	Q4 2011	Q1 2012
MW-18 (Class III)	Thallium (ug/L)	1.95	3.73	Semi-Annually	Quarterly	Q2 2010	Q3 2010
	Sulfate (mg/L)	1938.9	1950	Semi-Annually	Quarterly	Q2 2010	Q3 2010
	Field pH (S.U.)	6.25-8.5	6.2	Semi-Annually	Quarterly	Q2 2010	Q3 2010
	TDS (mg/L)	3198.77	3280	Semi-Annually	Quarterly	Q2 2010	Q3 2010
MW-19 (Class III)	Nitrate + Nitrite (as N) (mg/L)	2.83	4	Semi-Annually	Quarterly	Q4 2011	Q1 2012
	Field pH (S.U.)	6.78-8.5	6.61 (6.66)	Semi-Annually	Quarterly	Q2 2010	Q3 2010
MW-23 (Class III)	Manganese (ug/L)	550	551	Semi-Annually	Quarterly	Q4 2011	Q1 2012
	Field pH (S.U.)	6.5 - 8.5	6.18	Semi-Annually	Quarterly	Q2 2010	Q3 2010
MW-24 (Class III)	Cadmium (ug/L)	2.5	4.28	Semi-Annually	Quarterly	Q2 2010	Q3 2010
	Thallium (ug/L)	1	1.3	Semi-Annually	Quarterly	Q2 2010	Q3 2010
	Field pH (S.U.)	6.5 - 8.5	5.91 (5.78)	Semi-Annually	Quarterly	Q2 2010	Q3 2010
MW-27 (Class III)	Nitrate + Nitrite (as N) (mg/L)	5.6	5.8	Semi-Annually	Quarterly	Q2 2010	Q3 2010
	Chloride (mg/L)	38	42	Semi-Annually	Quarterly	Q2 2010	Q3 2010
	Gross Alpha minus Rn & U (pCi/L)	2	2.4	Semi-Annually	Quarterly	Q4 2010	Q1 2011
	Sulfate (mg/L)	462	469	Semi-Annually	Quarterly	Q2 2010	Q3 2010
	Field pH (S.U.)	6.5 - 8.5	6.39	Semi-Annually	Quarterly	Q3 2011	Q4 2011
	TDS (mg/L)	1075	1160	Semi-Annually	Quarterly	Q2 2010	Q3 2010
MW-28 (Class III)	Chloride (mg/L)	105	108	Semi-Annually	Quarterly	Q2 2010	Q3 2010
	Field pH (S.U.)	6.1 - 8.5	5.67	Semi-Annually	Quarterly	Q2 2010	Q3 2010
MW-29 (Class III)	Field pH (S.U.)	6.46 - 8.5	6.17	Semi-Annually	Quarterly	Q4 2010	Q2 2011
	Iron (ug/L)	1869	3010	Semi-Annually	Quarterly	Q3 2011	Q4 2011
MW-32 (Class III)	Gross Alpha minus Rn & U (pCi/L)	3.33	5.4	Semi-Annually	Quarterly	Q2 2010	Q3 2010
	Field pH (S.U.)	6.4 - 8.5	6.03	Semi-Annually	Quarterly	Q2 2010	Q3 2010

Notes:

<sup>1</sup> GWCL Values are taken from July 14, 2011 version of the GWDP.

\* THF has not reported an exceedance since Q1 2010 and has had 24 consecutive monitoring results below the GWCL. Based on the April 25, 2012 DRC letter, accelerated monitoring of THF in MW-11 will no longer be required.

() Values listed in parentheses are resample results from the same sampling period. Sampled were recollected due field or laboratory problems as noted in the specific report for that sample period.

Highlighted text shows accelerated requirements resulting from Q4 2011 sampling event.

Pursuant to the October 26, 2011 DRC letter, gross alpha monitoring in MW-26 returned to the routine frequency of quarterly. These samples were inadvertently collected and are for information only.

Table 3 – GWCL Exceedances First Quarter 2012 under the July 14, 2011 GWDP

Q1 2010 Results				Q2 2010 Results								Q3 2010 Results						Q4 2010 Results											
Monitoring Well (Water Class)	Constituent Exceeding GWCL	GWCL in July 14, 2011 GWDP	Q1 2010 Sample Date	Q1 2010 Result	Q2 2010 Sample Date	Q2 2010 Result	May 2010 Monthly Sample Date	May 2010 Monthly Result	June 2010 Monthly Sample Date	June 2010 Monthly Result	July 2010 Monthly Sample Date	July 2010 Monthly Result	August 2010 Monthly Sample Date	August 2010 Monthly Result	Q3 2010 Sample Date	Q3 2010 Result	October 2010 Monthly Sample Date	October 2010 Monthly Result	Q4 2010 Sample Date	Q4 2010 Result	December 2010 Monthly Sample Date	December 2010 Monthly Result							
Required Quarterly Sampling Wells																													
MW-11 (Class II)	Manganese (ug/L)	131.29	2/10/10	134	4/28/10	137	5/24/10	122	6/16/10	99	7/20/10	123	8/25/10	138	9/8/10	128	10/20/10	141	11/11/10	133	12/15/10	158							
	Tetrahydrofuran (ug/L)	11.5	2/10/10	12	4/28/10	5.2	5/24/10	<1.0	6/16/10	<1.0	7/27/10	2.17	8/25/10	<1.0	9/8/10	<1.0	10/20/10	<1.0	11/11/10	<1.0	12/15/10	<1.0							
MW-14 (Class III)	Field pH (S.U.)	6.5 - 8.5	2/2/10	6.45	4/21/10	6.29	5/21/10	6.36	6/16/10	6.45	7/20/10	7.19	8/25/10	6.48	9/8/10	6.51	10/20/10	6.60	11/10/10	6.37	12/15/10	6.47							
MW-25 (Class III)	Field pH (S.U.)	6.5 - 8.5	2/26/2010	6.53	4/28/2010	7.2	NS	NA	NS	NA	NS	NA	NS	NA	9/8/2010	6.58	NS	NA	11/10/10	6.36	NS	NA							
	Uranium	6.5		5.93		6.43	NS	NA	NS	NA	NS	NA	NS	NA		6.57	NS	NA		5.89	NS	NA							
MW-26 (Class III)	Nitrate + Nitrite (as N) (mg/L)	0.62	2/2/10	1.3	4/22/10	2	5/21/10	0.3	6/16/10	0.4	7/21/10	0.6	8/16/10	0.6	9/26/10	0.7	10/20/10	0.4	11/15/10	0.2	12/15/10	0.4							
	Uranium (ug/L)	41.8		58.7		37.4		36.6		34.4		71.8		37.5		30.4		29.6											
	Chloroform (ug/L)	70		700		800		940		900		2800		1000		1900		1400											
	Chloride (mg/L)	58.31		72		57		80		47		49		64		48		52											
	Field pH (S.U.)	6.74 - 8.5		6.59		7.18		6.36		6.98		6.45		6.39		6.60		6.49		6.45									
	Dichloromethane (Methylene Chloride) (ug/L)	5		1		9.9		NR		2.2		12		24		45		5.5		16		1.2							
	TDS (mg/L)	3284.19		3100		3280		NS		NS		NS		NS		3440		NS		3140		NS							
Gross Alpha minus Rn & U (pCi/L)	4.69	2.4	0.6	NS	NS	NS	NS	2.5	NS	6.4	NS																		
MW-30 (Class II)	Nitrate + Nitrite (as N) (mg/L)	2.5	2/9/10	16.1	4/27/10	15.8	5/21/10	17	6/15/10	15.3	7/21/10	16	8/24/10	16	9/14/10	15	10/19/10	15	11/9/10	15	12/14/10	16							
	Chloride (mg/L)	128		127		NS		NS		NS	NS	NS		111		NS		126		NS									
	Field pH (S.U.)	6.5 - 8.5		6.81		6.55		6.62		7.47	7/21/2010	6.82		8/24/10		6.73		6.80		6.75		6.65							
	Uranium (ug/L)	8.32		6.82		NS		NS		NS	NS	NS		7.10		NS		6.64		NS									
	Selenium (ug/L)	34		32		35.3		NS		NS	33.5	8/24/10		35.6		32.6		32.2		30.5									
MW-31 (Class III)	Nitrate + Nitrite (as N) (mg/L)	5	2/9/10	21.7	4/20/10	22.5	5/21/10	23	6/15/10	21.1	7/21/10	20	8/24/10	22	9/13/10	21	10/19/10	20	11/9/10	20	12/14/10	20							
	TDS (mg/L)	1320		1150		1220		NS		NA	NS	NA		NS		NA		NS		1330		NS	NA	NS	1320	NS			
	Chloride (mg/L)	143		128		128		NS		NA	NS	NA		NS		NA		NS		NA		NS	NA	139	NS	NA	NS	138	NS
	Field pH (S.U.)	6.5 - 8.5		6.96		7.38		6.95		6/15/10	7.01	7/21/10		7.8		8/24/10		7.1		7.66		10/19/10	6.92	6.98	6.95				
	Sulfate (mg/L)	532		507		522		NS		NA	NS	NA		NS		NA		NS		NA		NS	NA	527	NS	NA	NS	539	NS
MW-35 (Class II)	Manganese (ug/L)	200	NS	NA	NS	NA	NS	NA	NS	NA	NS	NA	NS	NA	NS	NA	NS	NA	NS	NA	NS	NA							
	Thallium (ug/l)	0.5	NS	NA	NS	NA	NS	NA	NS	NA	NS	NA	NS	NA	NS	NA	NS	NA	NS	NA	NS	NA							
	Gross Alpha minus Rn & U (pCi/L)	3.75	NS	NA	NS	NA	NS	NA	NS	NA	NS	NA	NS	NA	NS	NA	NS	NA	NS	NA	NS	NA							
	Selenium (ug/L)	12.5	NS	NA	NS	NA	NS	NA	NS	NA	NS	NA	NS	NA	NS	NA	NS	NA	NS	NA	NS	NA							
	Uranium (ug/L)	7.5	NS	NA	NS	NA	NS	NA	NS	NA	NS	NA	NS	NA	NS	NA	NS	NA	NS	NA	NS	NA							
Required Semi-Annual Sampling Wells																													
MW-2 (Class III)	Gross Alpha minus Rn & U (pCi/L)	3.2	NS	NA	NS	1.2	NS	NA	NS	NA	NS	NA	NS	NA	NS	NA	NS	NA	NS	NA	NS	NA							
MW-3 (Class III)	Selenium (ug/L)	37	NS	NA	5/3/10	37.2	NS	NA	NS	NA	NS	NA	NS	NA	9/20/10	35.5	NS	NA	11/19/10	38.8	NS	NA							
	Field pH (S.U.)	6.5 - 8.5	NS	NA		6.14 (6.25)	NS	NA	NS	NA	NS	NA	NS	NA		6.39	NS	NA		6.35	NS	NA							
	Fluoride (Mg/L)	0.68	NS	NA		0.71	NS	NA	NS	NA	NS	NA	NS	NA		0.63	NS	NA		0.77	NS	NA							
MW-3A (Class III)	Field pH (S.U.)	6.5 - 8.5	NS	NA	5/4/10	6.23 (6.24)	NS	NA	NS	NA	NS	NA	NS	NA	9/21/10	6.42	NS	NA	11/22/10	6.21	NS	NA							
	Sulfate (mg/L)	3640	NS	NA		3680	NS	NA	NS	NA	NS	NA	NS	NA		3630	NS	NA		3850	NS	NA							
	TDS (mg/L)	5805	NS	NA		5860	NS	NA	NS	NA	NS	NA	NS	NA		5470	NS	NA		5330	NS	NA							
	Selenium (ug/L)	89	NS	NA		81.4	NS	NA	NS	NA	NS	NA	NS	NA		NS	NS	NA		94.8	NS	NA							
MW-5 (Class II)	Uranium (ug/L)	7.5	NS	NA	4/26/10	0.39	NS	NA	NS	NA	NS	NA	NS	NA	NS	NA	NS	NA	11/11/10	11.6	NS	NA							
MW-12 (Class III)	Field pH (S.U.)	6.5 - 8.5	NS	NA	4/27/10	7.16	NS	NA	NS	NA	NS	NA	NS	NA	9/20/10	6.62	NS	NA	11/19/10	6.47	NS	NA							
	Selenium (ug/L)	25	NS	NA		25.7	NS	NA	NS	NA	NS	NA	NS	NA		31.9	NS	NA		27.6	NS	NA							
MW-15 (Class III)	Iron (ug/L)	81.7	NS	NA	4/21/10	ND	NS	NA	NS	NA	NS	NA	NS	NA	NS	NA	NS	NA	11/11/10	ND	NS	NA							
MW-18 (Class III)	Thallium (ug/l)	1.95	NS	NA	5/4/10	3.73	NS	NA	NS	NA	NS	NA	NS	NA	9/15/10	3.64	NS	NA	11/18/10	3.57	NS	NA							
	Sulfate (mg/L)	1938.9	NS	NA		1950	NS	NA	NS	NA	NS	NA	NS	NA		1930	NS	NA		1910	NS	NA							
	Field pH (S.U.)	6.25-8.5	NS	NA		6.2	NS	NA	NS	NA	NS	NA	NS	NA		7.23	NS	NA		6.37	NS	NA							
	TDS (mg/L)	3198.77	NS	NA		3280	NS	NA	NS	NA	NS	NA	NS	NA		3190	NS	NA		3030	NS	NA							

Monitoring Well (Water Class)	Constituent Exceeding GWCL	GWCL in Current GWDP	Q1 2010 Results		Q2 2010 Results				Q3 2010 Results				Q4 2010 Results												
			Q1 Sample Date	Q1 Result	Q2 Sample Date	Q2 Result	May Monthly Sample Date	May Monthly Result	June Monthly Sample Date	June Monthly Result	July Monthly Sample Date	July Monthly Result	August Monthly Sample Date	August Monthly Result	Q3 Sample Date	Q3 Result	October Monthly Sample Date	October Monthly Result	Q4 Sample Date	Q4 Result	December Monthly Sample Date	December Monthly Result			
Required Semi-Annual Sampling Wells, continued																									
MW-19 (Class III)	Field pH (S.U.)	6.78-8.5	NS	NA	5/4/10	6.61 (6.66)	NS	NA	NS	NA	NS	NA	NS	NA	9/15/10	6.93	NS	NA	11/18/10	6.8	NS	NA			
	Nitrate + Nitrite (as N) (mg/L)	2.83	NS	NA		2.6	NS	NA	NS	NA	NS	NA	NS	NA		NS	NA	NS		NA	NA	NA	2.4	NS	NA
MW-23 (Class III)	Field pH (S.U.)	6.5 - 8.5	NS	NA	4/22/10	6.18	NS	NA	NS	NA	NS	NA	NS	NA	9/14/10	7.05	NS	NA	11/22/10	6.44	NS	NA			
	Manganese (ug/L)	550	NS	NA		184	NS	NA	NS	NA	NS	NA	NS	NA		NS	NA	NS		NA	NA	NA	65	NS	NA
MW-24 (Class III)	Cadmium (ug/L)	2.5	NS	NA	5/6/10	4.28	NS	NA	NS	NA	NS	NA	NS	NA	9/21/10	5.06	NS	NA	11/17/10	3.22	NS	NA			
	Thallium (ug/L)	1	NS	NA		1.3	NS	NA	NS	NA	NS	NA	NS	NA		NS	NA	NS		NA	NA	NA	1.09	NS	NA
	Field pH (S.U.)	6.5 - 8.5	NS	NA		5.91 (5.78)	NS	NA	NS	NA	NS	NA	NS	NA		NS	NA	6.64		NS	NA	NA	NA	6.1	NS
MW-27 (Class III)	Nitrate + Nitrite (as N) (mg/L)	5.6	NS	NA	5/3/10	5.8	NS	NA	NS	NA	NS	NA	NS	NA	9/14/10	5.9	NS	NA	11/12/10	5.7	NS	NA			
	Chloride (mg/L)	38	NS	NA		42	NS	NA	NS	NA	NS	NA	NS	NA		NS	NA	42		NS	NA	NA	45	NS	NA
	Sulfate (mg/L)	462	NS	NA		469	NS	NA	NS	NA	NS	NA	NS	NA		NS	NA	461		NS	NA	NA	452	NS	NA
	Field pH (S.U.)	6.5-8.5	NS	NA		6.78	NS	NA	NS	NA	NS	NA	NS	NA		NS	NA	7.68		NS	NA	NA	6.89	NS	NA
	TDS (mg/L)	1075	NS	NA		1160	NS	NA	NS	NA	NS	NA	NS	NA		NS	NA	1060		NS	NA	NA	1110	NS	NA
	Gross Alpha minus Rn & U (pCi/L)	2	NS	NA		1.6	NS	NA	NS	NA	NS	NA	NS	NA		NS	NA	NA		NS	NA	NA	2.4	NS	NA
MW-28 (Class III)	Chloride (mg/L)	105	NS	NA	4/19/10	108	NS	NA	NS	NA	NS	NA	NS	NA	9/14/10	106	NS	NA	11/12/10	107	NS	NA			
	Field pH (S.U.)	6.1 - 8.5	NS	NA		5.67	NS	NA	NS	NA	NS	NA	NS	NA		NS	NA	5.91		NS	NA	NA	5.72	NS	NA
MW-29 (Class III)	Iron (ug/L)	1869	NS	NA	4/27/10	1630	NS	NA	NS	NA	NS	NA	NS	NA	NS	NA	NS	NA	11/9/10	1490	NS	NA			
	Field pH (S.U.)	6.46 - 8.5	NS	NA		6.82	NS	NA	NS	NA	NS	NA	NS	NA		NS	NA	NA		NS	NA	NA	6.17	NS	NA
MW-32 (Class III)	Gross Alpha minus Rn & U (pCi/L)	3.33	NS	NA	4/20/10	5.4	NS	NA	NS	NA	NS	NA	NS	NA	9/13/10	2.9	NS	NA	11/10/10	8.8	NS	NA			
	Field pH (S.U.)	6.4 - 8.5	NS	NA		6.03	NS	NA	NS	NA	NS	NA	NS	NA		NS	NA	6.33		NS	NA	NA	6.05	NS	NA

Notes:

GWCL values are taken from February 15, 2011 version of GWDP.

NS = Not Required and Not Sampled

NR = Required and Not Reported

NA = Not Applicable

Exceedances are shown in yellow

Values in () parentheses are the field pH measurements for the resampled analyses.

Pursuant to the October 26, 2011 DRC letter gross alpha monitoring in MW-26 returned to the routine frequency of quarterly. These samples were inadvertently collected and are for information only.

Table 3 – GWCL Exceedances for First Quarter 2012 under the July 14, 2011 GWDP

Monitoring Well (Water Class)	Constituent Exceeding GWCL	GWCL in July 14, 2011 GWDP	Q1 2011 Results				Q2 2011 Results				Q3 2011 Results				Q4 2011 Results											
			January 2011 Monthly Sample Date	January 2011 Monthly Sample Result	Q1 2011 Sample Date	Q1 2011 Result	March 2011 Monthly Sample Date	March 2011 Monthly Result	Q2 2011 Sample Date	Q2 2011 Result	May 2011 Monthly Sample Date	May 2011 Monthly Result	June 2011 Monthly Sample Date	June 2011 Monthly Result	July 2011 Monthly Sample Date	July 2011 Monthly Result	Q3 2011 Sample Date	Q3 2011 Result	September 2011 Monthly Sample Date	September 2011 Monthly Result	Q4 2011 Sample Date	Q4 2011 Result	November 2011 Monthly Sample Date	November 2011 Monthly Result	December 2011 Monthly Sample Date	December 2011 Monthly Result
<b>Required Quarterly Sampling Wells</b>																										
MW-11 (Class II)	Manganese (ug/L)	131.29	1/11/11	121	2/2/11	145	3/15/11	68	4/4/2011	148	5/10/2011	170	6/15/2011	121	7/6/2011	151	8/3/2011	118	9/7/2011	106	10/4/2011	112	11/9/2011	105	12/14/2011	100
	Tetrahydrofuran (ug/L)	11.5		<1.0		<1.0		<1.0		<1.0		<1.0		<1.0		<1.0		<1.0		<1.0		<1.0		<1.0		<1.0
MW-14 (Class III)	Field pH (S.U.)	6.5 - 8.5	1/11/11	6.37	2/7/11	6.22	3/14/11	6.76	4/4/2011	6.63	5/10/2011	6.37	6/15/2011	5.83	7/5/2011	6.4	8/3/2011	6.23 (6.41)	9/8/2011	6.50	10/4/2011	6.71 (6.82)	11/9/2011	6.63	12/12/2011	6.84
MW-25 (Class III)	Field pH (S.U.)	6.5 - 8.5	1/11/11	6.44	2/2/11	6.66	3/15/11	6.79	4/4/2011	6.7	5/11/2011	6.1	6/20/2011	5.77	7/6/2011	6.29	8/3/2011	6.42 (6.54)	9/7/2011	6.54	10/4/2011	6.6	11/9/2011	6.51	12/12/2011	6.87
	Uranium	6.5		7.02		4.77		6.8		5.56		6.72		7.06		6.74	8/3/2011	6.37		5.96		5.27		6.56		6.1
MW-26 (Class III)	Nitrate + Nitrite (as N) (mg/L)	0.62	1/12/11	0.2	2/16/11	0.25	3/15/11	0.6	4/1/2011	0.8	5/10/2011	0.4	6/20/2011	0.3	7/6/2011	0.9	8/3/2011	0.6	9/7/2011	2.4	10/12/2011	0.9	11/9/2011	1.3	12/14/2011	2.3
	Uranium (ug/L)	41.8		32		69.3		31.8		60.2		18.5		57.1		19.0		56.1		58.9		55.6		57		
	Chloroform (ug/L)	70		800		730		1200		390		1900		730		300		1000		1300		440		1200		1400
	Chloride (mg/L)	58.31		52		59		64		64		54		64		60		66		61		55		62		
	Field pH (S.U.)	6.74 - 8.5		6.83		6.06		6.89		6.22		6.43		6.52		6.35		6.07 (6.58)		6.71		6.82		6.75		7.1
	Dichloromethane (Methylene Chloride) (ug/L)	5		<1.0		10		14		3.1		20		7		2.4		10		7.9		2.6		8.9		11
	TDS (mg/L)	3284.19		3100		3270		3140		3310		3140		3020		3270		3190		3200		3190		3220		3160
Gross Alpha minus Rn & U (pCi/L)	4.69	NS	3	2.7	3.3	3.9	4.3	2.8	2.7	2.5	2.2	NS	NS													
MW-30 (Class II)	Nitrate + Nitrite (as N) (mg/L)	2.5	1/10/11	15	2/1/11	16	3/14/11	17	4/11/2011	16	5/10/2011	16	6/20/2011	17	7/5/2011	17	8/3/2011	14	9/7/2011	16	10/4/2011	16	11/8/2011	16	12/12/2011	16
	Chloride (mg/L)	128		NS		134		NS		134		128		127		127		126		145		122		124		
	Field pH (S.U.)	6.5 - 8.5		6.65		6.96		7.10		6.83		6.7		5.66		6.65		6.61		6.80		6.96 (6.73)		6.83		7.14
	Uranium (ug/L)	8.32		NS		5.97		NS		6.49		NS		NS		NS		8		NS		9.83		NS		NS
	Selenium (ug/L)	34		36.2		34.7		34		44.4		38.3		38.7		32.4		39.7		32.4		36.6		36.8		38
MW-31 (Class III)	Nitrate + Nitrite (as N) (mg/L)	5	1/10/11	19	2/1/11	21	3/14/11	22	4/1/2011	21	5/10/2011	20	6/20/2011	22	7/5/2011	22	8/2/2011	20	9/6/2011	21	10/3/2011	21	11/8/2011	21	12/12/2011	21
	TDS (mg/L)	1320		1240		1220		1250		1370		1290		1330		1280		1300		1320		1290		1330		
	Chloride (mg/L)	143		NS		145		NS		143		143		145		148		148		145		145		148		148
	Field pH (S.U.)	6.5 - 8.5		6.65		7.21		7.43		7.01		6.73		6.16		6.64		6.67		7.03		7.28 (7.34)		7.01		7.46
	Sulfate (mg/L)	532		NS		538		531		503		512		540		532		537		541		539		552		530
MW-35 (Class II)	Manganese (ug/L)	200	NS	NA	248	NS	NA	369	NS	NA	NS	NA	348	NS	NA	267	NS	NA	270	NS	NA	271	NS	NA	247	
	Thallium (ug/l)	0.5	NS	NA	< 0.50	NS	NA	< 0.50	NS	NA	NS	NA	NS	NA	NS	NS	0.52	NS	NA	NS	NS	< 0.50	NS	NA	0.63	
	Gross Alpha minus Rn & U (pCi/L)	3.75	NS	NA	2.6	NS	NA	3.7	NS	NA	NS	NA	NS	NA	NS	NS	4.5	NS	NA	NS	NS	4.7	NS	NA	4.2	
	Selenium (ug/L)	12.5	NS	NA	ND	NS	NA	ND	NS	NA	NS	NA	NS	NA	NS	NA	ND	NS	NA	NS	NS	10.5	NS	NA	NA	
	Uranium (ug/L)	7.5	NS	NA	12.7	NS	NA	21.7	NS	NA	NS	NA	NS	NA	NS	NA	24.2	NS	NA	NS	NS	20.1	NS	NA	23.6	
<b>Required Semi-Annual Sampling Wells</b>																										
MW-2 (Class III)	Gross Alpha minus Rn & U (pCi/L)	3.2	NS	NA	1.1	NS	NA	4/12/2011	1.2	NS	NA	NS	NA	NS	NA	8/8/2011	0.5	NS	NA	10/5/2011	1.3	NS	NA	NS	NA	
MW-3 (Class III)	Selenium (ug/L)	37	NS	NA	40.5	NS	NA	4/13/2011	45.4	NS	NA	NS	NA	NS	NA	8/10/2011	46	NS	NA	10/10/2011	46.7	NS	NA	NS	NA	
	Field pH (S.U.)	6.5 - 8.5	NS	NA	6.09	NS	NA	4/13/2011	6.46	NS	NA	NS	NA	NS	NA	8/10/2011	6.32	NS	NA	10/10/2011	6.53 (6.83)	NS	NA	NS	NA	
	Fluoride (Mg/L)	0.68	NS	NA	0.69	NS	NA	4/13/2011	0.68	NS	NA	NS	NA	NS	NA	8/11/2011	0.96	NS	NA	10/11/2011	0.91	NS	NA	NS	NA	
MW-3A (Class III)	Field pH (S.U.)	6.5 - 8.5	NS	NA	6.05	NS	NA	4/13/2011	6.58	NS	NA	NS	NA	NS	NA	8/11/2011	6.19	NS	NA	10/11/2011	6.5 (6.92)	NS	NA	NS	NA	
	Sulfate (mg/L)	3640	NS	NA	3730	NS	NA	4/13/2011	3350	NS	NA	NS	NA	NS	NA	8/11/2011	3560	NS	NA	10/11/2011	3750	NS	NA	NS	NA	
	TDS (mg/L)	5805	NS	NA	5770	NS	NA	4/13/2011	5720	NS	NA	NS	NA	NS	NA	8/11/2011	5810	NS	NA	10/11/2011	5630	NS	NA	NS	NA	
	Selenium (ug/L)	89	NS	NA	99	NS	NA	4/13/2011	85.8	NS	NA	NS	NA	NS	NA	8/11/2011	88.5	NS	NA	10/11/2011	95	NS	NA	NS	NA	
MW-5 (Class II)	Uranium (ug/L)	7.5	NS	NA	29.5	NS	NA	4/12/2011	7.16	NS	NA	NS	NA	NS	NA	8/9/2011	0.5	NS	NA	10/10/2011	4.52	NS	NA	NS	NA	
MW-12 (Class III)	Field pH (S.U.)	6.5 - 8.5	NS	NA	6.43	NS	NA	4/5/2011	6.67	NS	NA	NS	NA	NS	NA	8/9/2011	6.13	NS	NA	10/6/2011	6.7 (6.97)	NS	NA	NS	NA	
	Selenium (ug/L)	25	NS	NA	39	NS	NA	4/5/2011	21.7	NS	NA	NS	NA	NS	NA	8/9/2011	25.4	NS	NA	10/6/2011	35.4	NS	NA	NS	NA	
MW-15 (Class III)	Iron (ug/L)	81.7	NS	NA	NS	NS	NA	4/12/2011	<0.50	NS	NA	NS	NA	NS	NA	NS	NA	NS	NA	10/10/2011	137	NS	NA	NS	NA	
MW-18 (Class III)	Thallium (ug/l)	1.95	NS	NA	3.49	NS	NA	4/6/2011	3.74	NS	NA	NS	NA	NS	NA	8/10/2011	4.0	NS	NA	10/11/2011	3.83	NS	NA	NS	NA	
	Sulfate (mg/L)	1938.9	NS	NA	1770	NS	NA	4/6/2011	1780	NS	NA	NS	NA	NS	NA	8/10/2011	1910	NS	NA	10/11/2011	2020	NS	NA	NS	NA	
	Field pH (S.U.)	6.25-8.5	NS	NA	6.27	NS	NA	4/6/2011	6.71	NS	NA	NS	NA	NS	NA	9/21/11	5.95 (6.30)	NS	NA	10/11/2011	6.55 (6.63)	NS	NA	NS	NA	
	TDS (mg/L)	3198.77	NS	NA	3250	NS	NA	4/6/2011	3250	NS	NA	NS	NA	NS	NA	9/21/11	3190	NS	NA	10/11/2011	3220	NS	NA	NS	NA	

Monitoring Well (Water Class)	Constituent Exceeding GWCL	GWCL in Current GWDP	Q1 2011 Results						Q2 2011 Results						Q3 2011 Results						Q4 2011 Results									
			January 2011 Monthly Sample Date	January 2011 Monthly Sample Result	Q1 2011 Sample Date	Q1 2011 Result	March 2011 Monthly Sample Date	March 2011 Monthly Result	Q2 2011 Sample Date	Q2 2011 Result	May 2011 Monthly Sample Date	May 2011 Monthly Result	June 2011 Monthly Sample Date	June 2011 Monthly Result	July 2011 Monthly Sample Date	July 2011 Monthly Result	Q3 2011 Sample Date	Q3 2011 Result	September 2011 Monthly Sample Date	September 2011 Monthly Result	Q4 2011 Sample Date	Q4 2011 Result	November 2011 Monthly Sample Date	November 2011 Monthly Result	December 2011 Monthly Sample Date	December 2011 Monthly Result				
Required Semi-Annual Sampling Wells, continued																														
MW-19 (Class III)	Field pH (S.U.)	6.78-8.5	NS	NA	2/21/2011	6.78	NS	NA	4/5/2011	7.03	NS	NA	NS	NA	NS	NA	7/20/3011	6.65	NS	NA	10/12/2011	6.88 (7.02)	NS	NA	NS	NA				
	Nitrate + Nitrite (as N) (mg/L)	2.83	NS	NA		NS	NS	NA		2.6	NS	NA	NS	NA	NS	NA		NS	NA	7/20/3011		NS	NS	NA	10/12/2011	4.0	NS	NA	NS	NA
MW-23 (Class III)	Field pH (S.U.)	6.5 - 8.5	NS	NA	2/9/2011	6.13	NS	NA	4/5/2011	7.14	NS	NA	NS	NA	NS	NA	8/4/2011	6.38	NS	NA	10/6/2011	6.56 (6.77)	NS	NA	NS	NA				
	Manganese (ug/L)	550	NS	NA		NS	NS	NA		32	NS	NA	NS	NA	NS	NA		NS	NA	8/4/2011		NS	NS	NA	10/6/2011	551	NS	NA	NS	NA
MW-24 (Class III)	Cadmium (ug/L)	2.5	NS	NA	2/10/2011	2.78	NS	NA	4/5/2011	2.61	NS	NA	NS	NA	NS	NA	8/4/2011	1.46	NS	NA	10/11/2011	1.78	NS	NA	NS	NA				
	Thallium (ug/L)	1	NS	NA		1.42	NS	NA		1.07	NS	NA	NS	NA	NS	NA		NS	NA	8/4/2011		<0.50	NS	NA	10/11/2011	0.62	NS	NA	NS	NA
	Field pH (S.U.)	6.5 - 8.5	NS	NA		5.73	NS	NA		6.12	NS	NA	NS	NA	NS	NA		NS	NA	8/4/2011		6.45	NS	NA	10/11/2011	6.44	NS	NA	NS	NA
MW-27 (Class III)	Nitrate + Nitrite (as N) (mg/L)	5.6	NS	NA	2/9/2011	6	NS	NA	4/5/2011	6.4	NS	NA	NS	NA	NS	NA	8/8/2011	6	NS	NA	10/5/2011	6.3	NS	NA	NS	NA				
	Chloride (mg/L)	38	NS	NA		46	NS	NA		43	NS	NA	NS	NA	NS	NA		NS	NA	8/8/2011		43	NS	NA	10/5/2011	44	NS	NA	NS	NA
	Sulfate (mg/L)	462	NS	NA		455	NS	NA		442	NS	NA	NS	NA	NS	NA		NS	NA	8/8/2011		424	NS	NA	10/5/2011	456	NS	NA	NS	NA
	Field pH (S.U.)	6.5-8.5	NS	NA		6.71	NS	NA		6.79	NS	NA	NS	NA	NS	NA		NS	NA	8/8/2011		6.39	NS	NA	10/5/2011	7.17 (7.24)	NS	NA	NS	NA
	TDS (mg/L)	1075	NS	NA		1090	NS	NA		1190	NS	NA	NS	NA	NS	NA		NS	NA	8/8/2011		1090	NS	NA	10/5/2011	1110	NS	NA	NS	NA
	Gross Alpha minus Rn & U (pCi/L)	2	NS	NA		0.7	NS	NA		1.1	NS	NA	NS	NA	NS	NA		NS	NA	8/8/2011		0.8	NS	NA	10/5/2011	1.5	NS	NA	NS	NA
MW-28 (Class III)	Chloride (mg/L)	105	NS	NA	2/14/2011	114	NS	NA	4/11/2011	109	NS	NA	NS	NA	NS	NA	8/8/2011	105	NS	NA	10/5/2011	143	NS	NA	NS	NA				
	Field pH (S.U.)	6.1 - 8.5	NS	NA		5.69	NS	NA		6.01	NS	NA	NS	NA	NS	NA		NS	NA	8/8/2011		5.78	NS	NA	10/5/2011	6.07 (6.11)	NS	NA	NS	NA
MW-29 (Class III)	Iron (ug/L)	1869	NS	NA	NS	NA	NS	NA	4/18/2011	3010	NS	NA	NS	NA	NS	NA	8/9/2011	1080	NS	NA	10/5/2011	1220	NS	NA	NS	NA				
	Field pH (S.U.)	6.46 - 8.5	NS	NA	NS	NA	NS	NA		6.45	NS	NA	NS	NA	NS	NA		NS	NA	8/9/2011		6.20	NS	NA	10/5/2011	6.52	NS	NA	NS	NA
MW-32 (Class III)	Gross Alpha minus Rn & U (pCi/L)	3.33	NS	NA	2/9/2011	1.5	NS	NA	4/1/2011	4.6	NS	NA	NS	NA	NS	NA	8/2/2011 8/30/11	1.9	NS	NA	10/3/2011	3.7	NS	NA	NS	NA				
	Field pH (S.U.)	6.4 - 8.5	NS	NA		5.99	NS	NA		6.14	NS	NA	NS	NA	NS	NA		NS	NA	8/2/2011 8/30/11		6.10	NS	NA	10/3/2011	6.35	NS	NA	NS	NA

Notes:

GWCL values are taken from July 14, 2011 version of GWDP.

NS = Not Required and Not Sampled

NR = Required and Not Reported

NA = Not Applicable

Exceedances are shown in yellow

Values in () parentheses are the field pH measurements for the resampled analyses.

Pursuant to the October 26, 2011 DRC letter gross alpha monitoring in MW-26 returned to the routine frequency of quarterly. These samples were inadvertently collected and are for information only.

**Table 3 – GWCL Exceedances for First Quarter 2012 under the July 14, 2011 GWDP**

Q1 2012 Results									
Monitoring Well (Water Class)	Constituent Exceeding GWCL	GWCL in July 14, 2011 GWDP	January 2012 Monthly Sample Date	January 2012 Monthly Result	Q1 2012 Sample Date	Q1 2012 Result	March 2012 Monthly Sample Date	March 2012 Monthly Result	Sample Frequency
<b>Required Quarterly Sampling Wells</b>									
MW-11 (Class II)	Manganese (ug/L)	131.29	1/26/2012	102	2/13/2012	<b>154</b>	3/13/2012	121	Quarterly
	Tetrahydrofuran (ug/L)	11.5		<1.0		2.51		<1.0	Quarterly
MW-14 (Class III)	Field pH (S.U.)	6.5 - 8.5	1/24/2012	<b>6.36</b>	2/21/2012	6.57	3/14/2012	6.51	Quarterly
MW-25 (Class III)	Field pH (S.U.)	6.5 - 8.5	1/25/2012	6.63	2/14/2012	6.83	3/14/2012	6.93	Quarterly
	Uranium	6.5		<b>6.6</b>		6.5		<b>6.55</b>	Quarterly
MW-26 (Class III)	Nitrate + Nitrite (as N) (mg/L)	0.62	1/25/2012	<b>1.9</b>	2/15/2012	<b>1.2</b>	3/14/2012	<b>3</b>	Quarterly
	Uranium (ug/L)	41.8		<b>64.6</b>	2/21/2012	<b>59.4</b>		31.2	Quarterly
	Chloroform (ug/L)	70		<b>1900</b>	2/15/2012	<b>3300</b>		<b>2900</b>	Quarterly
	Chloride (mg/L)	58.31		<b>68</b>		40		<b>74</b>	Quarterly
	Field pH (S.U.)	6.74 - 8.5		<b>6.59</b>	2/15/2012 2/21/2012 3/8/2012	<b>6.72 (6.91) (6.71)</b>		<b>6.39</b>	Quarterly
	Dichloromethane (Methylene Chloride) (ug/L)	5		<b>13</b>	2/15/2012	<b>24</b>		<b>27</b>	Quarterly
	TDS (mg/L)	3284.19		3250		3150		3220	Quarterly
Gross Alpha minus Rn & U (pCi/L)	4.69	NS	NA	2/21/2012	<b>1.5</b>	<b>4</b>	Quarterly		
MW-30 (Class II)	Nitrate + Nitrite (as N) (mg/L)	2.5	1/24/2012	<b>17</b>	2/14/2012	<b>17</b>	3/14/2012	<b>18</b>	Quarterly
	Chloride (mg/L)	128		124		126		128	Quarterly
	Field pH (S.U.)	6.5 - 8.5	6.52	7.12		6.86		Quarterly	
	Uranium (ug/L)	8.32	NS	7.42		<b>8.38</b>		Quarterly	
	Selenium (ug/L)	34	1/24/2012	33.3		<b>35</b>		<b>39.5</b>	Quarterly
MW-31 (Class III)	Nitrate + Nitrite (as N) (mg/L)	5	1/24/2012	<b>21</b>	2/13/2012	<b>21</b>	3/13/2012	<b>22</b>	Quarterly
	TDS (mg/L)	1320		<b>1360</b>		1240		<b>1400</b>	Quarterly
	Chloride (mg/L)	143		<b>155</b>		<b>150</b>		<b>152</b>	Quarterly
	Field pH (S.U.)	6.5 - 8.5		6.78		7.37		7.13	Quarterly
	Sulfate (mg/L)	532		<b>539</b>		<b>538</b>		517	Quarterly
MW-35 (Class II)	Manganese (ug/L)	200	1/24/2012	<b>264</b>	2/14/12	<b>253</b>	3/13/12	<b>269</b>	Quarterly
	Thallium (ug/l)	0.5		< 0.50		<b>0.65</b>		<b>0.71</b>	Quarterly
	Gross Alpha minus Rn & U (pCi/L)	3.75		<b>6.5</b>		<b>4.1</b>		<b>6.2</b>	Quarterly
	Selenium (ug/L)	12.5		NS		<b>19.7</b>		NS	NA
	Uranium (ug/L)	7.5		1/24/2012		<b>16.1</b>		<b>24.7</b>	3/13/12
<b>Required Semi-Annual Sampling Wells</b>									
MW-2 (Class III)	Gross Alpha minus Rn & U (pCi/L)	3.2	NS	NA	2/22/2012	0.6	NS	NA	Semi-Annually
MW-3 (Class III)	Selenium (ug/L)	37	NS	NA	2/29/2012	<b>43.1</b>	NS	NA	Semi-Annually
	Field pH (S.U.)	6.5 - 8.5	NS	NA		6.63	NS	NA	Semi-Annually
	Fluoride (Mg/L)	0.68	NS	NA		<b>0.86</b>	NS	NA	Semi-Annually
MW-3A (Class III)	Field pH (S.U.)	6.5 - 8.5	NS	NA	3/1/2012	<b>6.46</b>	NS	NA	Semi-Annually
	Sulfate (mg/L)	3640	NS	NA		3020	NS	NA	Semi-Annually
	TDS (mg/L)	5805	NS	NA		5690	NS	NA	Semi-Annually
	Selenium (ug/L)	89	NS	NA		65.8	NS	NA	Semi-Annually
MW-5 (Class II)	Uranium (ug/L)	7.5	NS	NA	2/28/2012	<b>18.6</b>	NS	NA	Semi-Annually
MW-12 (Class III)	Field pH (S.U.)	6.5 - 8.5	NS	NA	2/29/2012	6.81	NS	NA	Semi-Annually
	Selenium (ug/L)	25	NS	NA		<b>27.2</b>	NS	NA	Semi-Annually
MW-15 (Class III)	Iron (ug/L)	81.7	NS	NA	2/22/2012	< 30	NS	NA	Semi-Annually
MW-18 (Class III)	Thallium (ug/l)	1.95	NS	NA	2/27/2012	<b>3.63</b>	NS	NA	Semi-Annually
	Sulfate (mg/L)	1938.9	NS	NA		1920	NS	NA	Semi-Annually
	Field pH (S.U.)	6.25-8.5	NS	NA		6.6	NS	NA	Semi-Annually
	TDS (mg/L)	3198.77	NS	NA		<b>3230</b>	NS	NA	Semi-Annually

Q1 2012 Results									
Monitoring Well (Water Class)	Constituent Exceeding GWCL	GWCL in Current GWDP	January 2012 Monthly Sample Date	January 2012 Monthly Result	Q1 2012 Sample Date	Q1 2012 Result	March 2012 Monthly Sample Date	March 2012 Monthly Result	Sample Frequency
Required Semi-Annual Sampling Wells, continued									
MW-19 (Class III)	Field pH (S.U.)	6.78-8.5	NS	NA	2/28/2012	6.83	NS	NA	Semi-Annually
	Nitrate + Nitrite (as N) (mg/L)	2.83	NS	NA		3.9	NS	NA	Semi-Annually
MW-23 (Class III)	Field pH (S.U.)	6.5 - 8.5	NS	NA	2/20/2012	6.61	NS	NA	Semi-Annually
	Manganese (ug/L)	550	NS	NA		51	NS	NA	Semi-Annually
MW-24 (Class III)	Cadmium (ug/L)	2.5	NS	NA	2/23/2012	2.25	NS	NA	Semi-Annually
	Thallium (ug/L)	1	NS	NA		0.96	NS	NA	Semi-Annually
	Field pH (S.U.)	6.5 - 8.5	NS	NA		6.03	NS	NA	Semi-Annually
MW-27 (Class III)	Nitrate + Nitrite (as N) (mg/L)	5.6	NS	NA	2/28/2012	6.4	NS	NA	Semi-Annually
	Chloride (mg/L)	38	NS	NA		45	NS	NA	Semi-Annually
	Sulfate (mg/L)	462	NS	NA		451	NS	NA	Semi-Annually
	Field pH (S.U.)	6.5-8.5	NS	NA		7.24	NS	NA	Semi-Annually
	TDS (mg/L)	1075	NS	NA		1140	NS	NA	Semi-Annually
MW-28 (Class III)	Gross Alpha minus Rn & U (pCi/L)	2	NS	NA	2/28/2012	2.3	NS	NA	Semi-Annually
	Chloride (mg/L)	105	NS	NA		109	NS	NA	Semi-Annually
MW-29 (Class III)	Field pH (S.U.)	6.1 - 8.5	NS	NA	2/22/2012	6.22	NS	NA	Semi-Annually
	Iron (ug/L)	1869	NS	NA		1310	NS	NA	Semi-Annually
MW-32 (Class III)	Field pH (S.U.)	6.46 - 8.5	NS	NA	2/21/2012	7.12	NS	NA	Semi-Annually
	Gross Alpha minus Rn & U (pCi/L)	3.33	NS	NA		1.8	NS	NA	Semi-Annually
	Field pH (S.U.)	6.4 - 8.5	NS	NA		6.57	NS	NA	Semi-Annually

Notes:

GWCL values are taken from February 15, 2011 version of GWDP.

NS = Not Required and Not Sampled

NR = Required and Not Reported

NA = Not Applicable

Exceedances are shown in yellow

Values in () parentheses are the field pH measurements for the resampled analyses.

Pursuant to the October 26, 2011 DRC letter gross alpha monitoring in MW-26 returned to the routine frequency of quarterly. These samples were inadvertently collected and are for information only.

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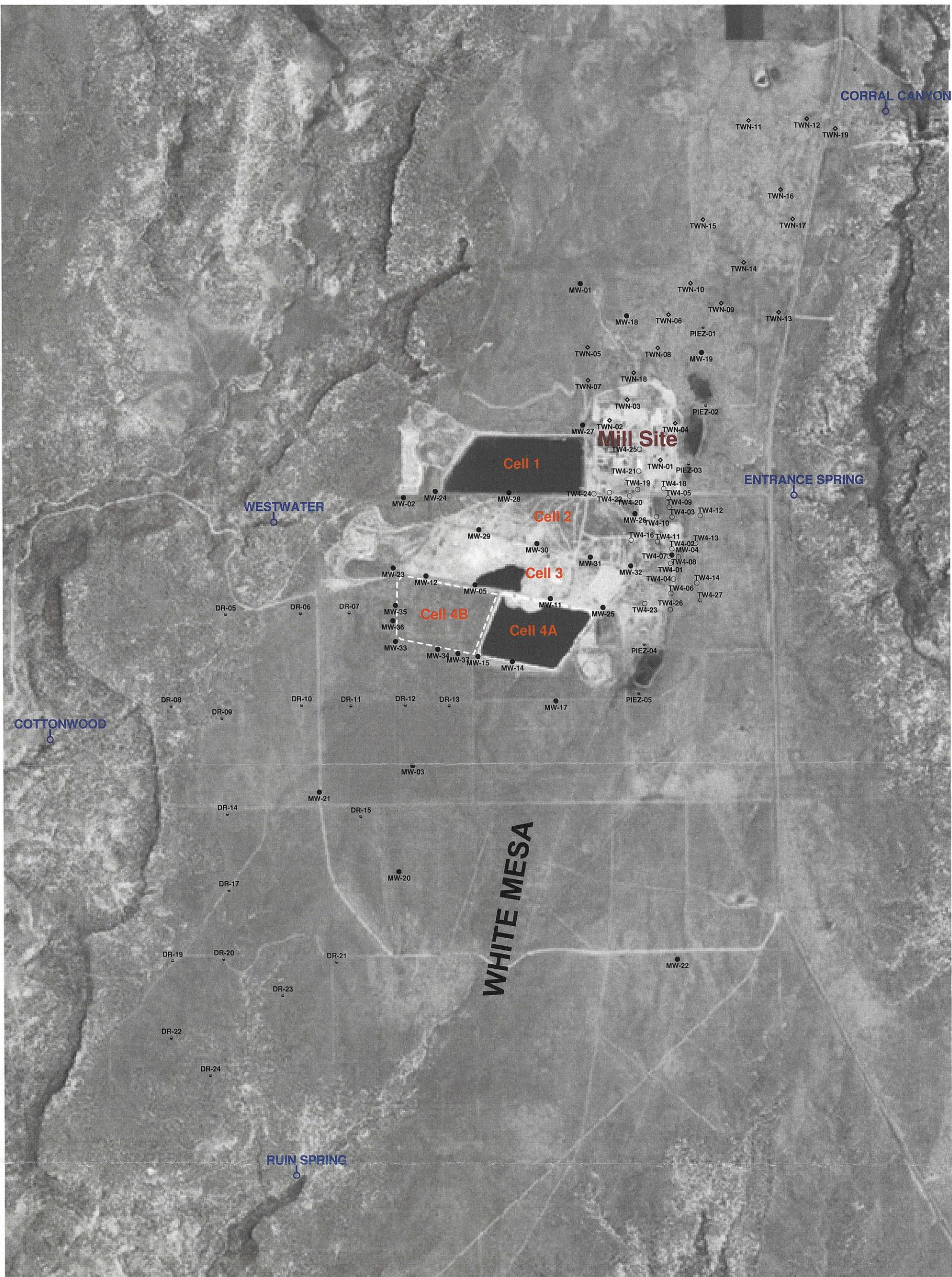
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Tab A

Site Plan and Perched Well Locations White Mesa Site



**EXPLANATION**

- MW-5 ● perched monitoring well
- TW4-12 ○ temporary perched monitoring well
- TWN-10 ◇ temporary perched nitrate monitoring well
- PIEZ-1 ● perched piezometer
- TW4-27 ☼ temporary perched monitoring well installed October, 2011
- RUIN SPRING ○ seep or spring



1 mile



**HYDRO  
GEO  
CHEM, INC.**

**WHITE MESA SITE PLAN  
SHOWING LOCATIONS OF PERCHED  
WELLS AND PIEZOMETERS**

APPROVED	DATE	REFERENCE	FIGURE
		H:/718000/may12/Uwelloc12.srf	A-1

Tab B

Field Data Worksheets Quarterly Sampling



ATTACHMENT 1  
WHITE MESA URANIUM MILL  
FIELD DATA WORKSHEET FOR GROUND WATER



Attachment 1  
See instruction

Description of Sampling Event: 1st Quarter Ground Water 2012

Location (well name): MW-02 Sampler Name and initials: Tanner Holliday/TH

Date and Time for Purging 2/22/2012 and Sampling (if different) N/A

Well Purging Equip Used:  pump or  bailer Well Pump (if other than Bennet) GED

Sampling Event Quarterly GW Prev. Well Sampled in Sampling Event MW-26

pH Buffer 7.0 7.0 pH Buffer 4.0 4.0

Specific Conductance 999  $\mu$ MHOS/cm Well Depth(0.01ft): 128.8

Depth to Water Before Purging 109.95 Casing Volume (V) 4" Well: 12.30 (.653h)  
3" Well: 0 (.367h)

Conductance (avg) 3902 pH of Water (avg) 7.09

Well Water Temp. (avg) 13.01 Redox Potential (Eh) 320 Turbidity 0

Weather Cond. Partly Cloudy Ext'l Amb. Temp. °C (prior sampling event) -1°

Time	<u>0900</u>	Gal. Purged	<u>24.95</u>
Conductance	<u>3904</u>	pH	<u>7.08</u>
Temp. °C	<u>13.03</u>		
Redox Potential Eh (mV)	<u>328</u>		
Turbidity (NTU)	<u>0</u>		

Time	<u>0901</u>	Gal. Purged	<u>25.17</u>
Conductance	<u>3903</u>	pH	<u>7.10</u>
Temp. °C	<u>13.00</u>		
Redox Potential Eh (mV)	<u>321</u>		
Turbidity (NTU)	<u>0</u>		

Time	<u>0902</u>	Gal. Purged	<u>25.38</u>
Conductance	<u>3900</u>	pH	<u>7.10</u>
Temp. °C	<u>13.01</u>		
Redox Potential Eh (mV)	<u>318</u>		
Turbidity (NTU)	<u>0</u>		

Time	<u>0903</u>	Gal. Purged	<u>25.60</u>
Conductance	<u>3901</u>	pH	<u>7.11</u>
Temp. °C	<u>13.02</u>		
Redox Potential Eh (mV)	<u>315</u>		
Turbidity (NTU)	<u>0</u>		

Volume of Water Purged  gallon(s)

Pumping Rate Calculation

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

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

Number of casing volumes evacuated (if other than two)

If well evacuated to dryness, number of gallons evacuated

Name of Certified Analytical Laboratory if Other Than Energy Lab:  Gross Alpha  
 GEL

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

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

 See instruction

Comment

Arrived on site at 0700. Tanner and Garrin present for purge and sampling event. Purge began at 0705. Purged well for a total of 120 minutes, water was clear. Purge ended and samples were collected at 0905. Depth to water was 119.45. Left site at 0910

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**ATTACHMENT 1  
WHITE MESA URANIUM MILL  
FIELD DATA WORKSHEET FOR GROUND WATER**



Attachment 1  
See instruction

Description of Sampling Event: 1<sup>st</sup> Quarter Ground Water 2012

Location (well name): MW-03 Sampler Name and initials: Tanner Holliday/TH

Date and Time for Purging 2/29/2012 and Sampling (if different) N/A

Well Purging Equip Used:  pump or  bailer Well Pump (if other than Bennet) QED

Sampling Event Quarterly GW Prev. Well Sampled in Sampling Event MW-12

pH Buffer 7.0 7.0 pH Buffer 4.0 4.0

Specific Conductance 999  $\mu$ MHOS/cm Well Depth(0.01ft): 97.00

Depth to Water Before Purging 83.00 Casing Volume (V) 4" Well: 0 (.653h)  
3" Well: 5.13 (.367h)

Conductance (avg) 5968 pH of Water (avg) 6.63

Well Water Temp. (avg) 13.18 Redox Potential (Eh) 337 Turbidity 0

Weather Cond. Cloudy Ext'l Amb. Temp. °C (prior sampling event) -3°

Time	<u>0755</u>	Gal. Purged	<u>10.85</u>
Conductance	<u>6008</u>	pH	<u>6.64</u>
Temp. °C	<u>13.15</u>		
Redox Potential Eh (mV)	<u>337</u>		
Turbidity (NTU)	<u>0</u>		

Time	<u>0756</u>	Gal. Purged	<u>11.06</u>
Conductance	<u>5977</u>	pH	<u>6.63</u>
Temp. °C	<u>13.16</u>		
Redox Potential Eh (mV)	<u>337</u>		
Turbidity (NTU)	<u>0</u>		

Time	<u>0757</u>	Gal. Purged	<u>11.28</u>
Conductance	<u>5971</u>	pH	<u>6.63</u>
Temp. °C	<u>13.20</u>		
Redox Potential Eh (mV)	<u>337</u>		
Turbidity (NTU)	<u>0</u>		

Time	<u>0758</u>	Gal. Purged	<u>11.50</u>
Conductance	<u>5918</u>	pH	<u>6.63</u>
Temp. °C	<u>13.21</u>		
Redox Potential Eh (mV)	<u>337</u>		
Turbidity (NTU)	<u>0</u>		

Volume of Water Purged  gallon(s)

Pumping Rate Calculation

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

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

Number of casing volumes evacuated (if other than two)

If well evacuated to dryness, number of gallons evacuated

Name of Certified Analytical Laboratory if Other Than Energy Lab:

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

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

 See instruction

Comment

Arrived on site at 0701. Tanner and Garrin present for purge and sampling event. Purge began at 0705. Purged well for a total of 55 minutes. Purge ended and samples were collected at 0800. Water was clear. Depth to water was 87.55  
 Left site at 0804

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ATTACHMENT 1  
WHITE MESA URANIUM MILL  
FIELD DATA WORKSHEET FOR GROUND WATER



Attachment 1  
See instruction

Description of Sampling Event: 1st Quarter Ground Water 2012

Location (well name): MW-03A

Sampler Name and initials: Tanner Holliday/TH

Date and Time for Purging 2/29/2012

and Sampling (if different) 3/1/2012

Well Purging Equip Used:  pump or  bailer

Well Pump (if other than Bennet) QED

Sampling Event Quarterly GW

Prev. Well Sampled in Sampling Event MW-03

pH Buffer 7.0 7.0

pH Buffer 4.0 4.0

Specific Conductance 999  $\mu$ MHOS/cm

Well Depth(0.01ft): 95.00

Depth to Water Before Purging 85.20

Casing Volume (V) 4" Well: 6.39 (.653h)  
3" Well: 0 (.367h)

Conductance (avg) 6174

pH of Water (avg) 6.46

Well Water Temp. (avg) 12.52

Redox Potential (Eh) 372

Turbidity 0

Weather Cond. Partly cloudy

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

Time	<u>1025</u>	Gal. Purged	<u>12.48</u>
Conductance	<u>6174</u>	pH	<u>6.46</u>
Temp. °C	<u>12.52</u>		
Redox Potential Eh (mV)	<u>372</u>		
Turbidity (NTU)	<u>0</u>		

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

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

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

Volume of Water Purged  gallon(s)

Pumping Rate Calculation

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

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

Number of casing volumes evacuated (if other than two)

If well evacuated to dryness, number of gallons evacuated

Name of Certified Analytical Laboratory if Other Than Energy Lab

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

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

 See instruction

Comment

Arrived on site at 0921. Tanner and Garrin present for purge. Purge began at 0925  
 Purged well for a total of 60 minutes. Purged well dry! water was clear.  
 Flow rate decreased throughout purge. Purge ended at 1025. Left site at 1028  
 Arrived on site at 0716. Tanner and Garrin present to collect samples. Depth to water  
 was 88.10 Samples were collected at 0725. Left site at 0730

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**ATTACHMENT 1  
WHITE MESA URANIUM MILL  
FIELD DATA WORKSHEET FOR GROUND WATER**



Attachment 1  
See instruction

Description of Sampling Event: 1<sup>st</sup> Quarter Ground Water 2012

Location (well name): MW-05

Sampler Name and initials: Tanner Holiday/TH

Date and Time for Purging 2/28/2012

and Sampling (if different) N/A

Well Purging Equip Used:  pump or  bailer

Well Pump (if other than Bennet) QED

Sampling Event Quarterly GW

Prev. Well Sampled in Sampling Event MW-28

pH Buffer 7.0 7.0

pH Buffer 4.0 4.0

Specific Conductance 999  $\mu$ MHOS/cm

Well Depth(0.01ft): 138.50

Depth to Water Before Purging 106.30

Casing Volume (V) 4" Well: 21.02 (.653h)  
3" Well: 0 (.367h)

Conductance (avg) 3093

pH of Water (avg) 7.57

Well Water Temp. (avg) 13.75

Redox Potential (Eh) 190

Turbidity 0

Weather Cond. Snowing

Ext'l Amb. Temp. °C (prior sampling event) -1°

Time	<u>1445</u>	Gal. Purged	<u>42.31</u>
Conductance	<u>3095</u>	pH	<u>7.58</u>
Temp. °C	<u>13.74</u>		
Redox Potential Eh (mV)	<u>192</u>		
Turbidity (NTU)	<u>0</u>		

Time	<u>1446</u>	Gal. Purged	<u>42.53</u>
Conductance	<u>3095</u>	pH	<u>7.57</u>
Temp. °C	<u>13.75</u>		
Redox Potential Eh (mV)	<u>191</u>		
Turbidity (NTU)	<u>0</u>		

Time	<u>1447</u>	Gal. Purged	<u>42.74</u>
Conductance	<u>3091</u>	pH	<u>7.57</u>
Temp. °C	<u>13.76</u>		
Redox Potential Eh (mV)	<u>190</u>		
Turbidity (NTU)	<u>0</u>		

Time	<u>1448</u>	Gal. Purged	<u>42.96</u>
Conductance	<u>3091</u>	pH	<u>7.57</u>
Temp. °C	<u>13.78</u>		
Redox Potential Eh (mV)	<u>188</u>		
Turbidity (NTU)	<u>0</u>		

Volume of Water Purged  gallon(s)

Pumping Rate Calculation

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

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

Number of casing volumes evacuated (if other than two)

If well evacuated to dryness, number of gallons evacuated

Name of Certified Analytical Laboratory if Other Than Energy Lab:

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

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

---

 See instruction

Comment

Arrived on site at 1124. Tanner and Garrin present for purge and sampling event.  
 Purge began at 1130. Purged well for a total of 200 minutes. Water was clear.  
 Purge ended and sample was collected at 1450. Windy at time of sample  
 Depth to water was 123,51 Left site at 1255

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**ATTACHMENT 1**  
**WHITE MESA URANIUM MILL**  
**FIELD DATA WORKSHEET FOR GROUND WATER**



Attachment 1  
 See instruction

Description of Sampling Event: 1st Quarter Ground Water 2012

Location (well name): MW-11 Sampler Name and initials: Tanner Holliday/TH

Date and Time for Purging 2/13/2012 and Sampling (if different) N/A

Well Purging Equip Used:  pump or  bailer Well Pump (if other than Bennet) QED

Sampling Event Quarterly GW Prev. Well Sampled in Sampling Event MW-31

pH Buffer 7.0 7.0 pH Buffer 4.0 4.0

Specific Conductance 999 μMHOS/ cm Well Depth(0.01ft): 130.00

Depth to Water Before Purging 88.15 Casing Volume (V) 4" Well: 27.32 (.653h)  
 3" Well: 0 (.367h)

Conductance (avg) 3006 pH of Water (avg) 7.58

Well Water Temp. (avg) 14.24 Redox Potential (Eh) 26 Turbidity 0

Weather Cond. Overcast and snow Ext'l Amb. Temp. °C (prior sampling event) -1°

Time	<u>1220</u>	Gal. Purged	<u>62.93</u>
Conductance	<u>236</u>	pH	<u>7.59</u>
Temp. °C	<u>14.26</u>		
Redox Potential Eh (mV)	<u>28</u>		
Turbidity (NTU)	<u>0</u>		

Time	<u>1221</u>	Gal. Purged	<u>63.14</u>
Conductance	<u>3006</u>	pH	<u>7.58</u>
Temp. °C	<u>14.24</u>		
Redox Potential Eh (mV)	<u>26</u>		
Turbidity (NTU)	<u>0</u>		

Time	<u>1222</u>	Gal. Purged	<u>63.36</u>
Conductance	<u>3008</u>	pH	<u>7.59</u>
Temp. °C	<u>14.23</u>		
Redox Potential Eh (mV)	<u>25</u>		
Turbidity (NTU)	<u>0</u>		

Time	<u>1223</u>	Gal. Purged	<u>63.58</u>
Conductance	<u>3009</u>	pH	<u>7.59</u>
Temp. °C	<u>14.23</u>		
Redox Potential Eh (mV)	<u>25</u>		
Turbidity (NTU)	<u>0</u>		

Volume of Water Purged  gallon(s)

Pumping Rate Calculation

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

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

Number of casing volumes evacuated (if other than two)

If well evacuated to dryness, number of gallons evacuated

Name of Certified Analytical Laboratory if Other Than Energy Lab  GEL

Type of Sample	Sample Taken		Sample Vol (indicate if other than as specified below)	Filtered		Preservative Type	Preservative Added	
	Y	N		Y	N		Y	N
VOCs	<input checked="" type="checkbox"/>	<input type="checkbox"/>	3x40 ml	<input type="checkbox"/>	<input checked="" type="checkbox"/>	HCL	<input checked="" type="checkbox"/>	<input type="checkbox"/>
Nutrients	<input checked="" type="checkbox"/>	<input type="checkbox"/>	100 ml	<input type="checkbox"/>	<input checked="" type="checkbox"/>	H2SO4	<input checked="" type="checkbox"/>	<input type="checkbox"/>
Heavy Metals	<input checked="" type="checkbox"/>	<input type="checkbox"/>	250 ml	<input checked="" type="checkbox"/>	<input type="checkbox"/>	HNO3	<input checked="" type="checkbox"/>	<input type="checkbox"/>
All Other Non Radiologics	<input checked="" type="checkbox"/>	<input type="checkbox"/>	250 ml	<input type="checkbox"/>	<input checked="" type="checkbox"/>	No Preserv.	<input type="checkbox"/>	<input checked="" type="checkbox"/>
Gross Alpha	<input checked="" type="checkbox"/>	<input type="checkbox"/>	1,000 ml	<input checked="" type="checkbox"/>	<input type="checkbox"/>	HNO3	<input checked="" type="checkbox"/>	<input type="checkbox"/>
Other (specify)	<input checked="" type="checkbox"/>	<input type="checkbox"/>	Sample volume	<input type="checkbox"/>	<input checked="" type="checkbox"/>		<input type="checkbox"/>	<input checked="" type="checkbox"/>
<u>General Inorganics</u>								

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

 See instruction

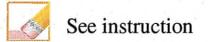
Comment

Arrived on site at 0724. Tanner and Garrin present for purge and sampling event. Purge began at 0730. Purged well for a total of 295 minutes. water was clear. Purge ended and samples were collected at 1225. Depth to water was 88.31. Left site at 1255.

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**ATTACHMENT 1**  
**WHITE MESA URANIUM MILL**  
**FIELD DATA WORKSHEET FOR GROUND WATER**



Attachment 1

Description of Sampling Event: 1st Quarter Ground Water 2012

Location (well name): MW-12 Sampler Name and initials: Tanner Holliday/TH

Date and Time for Purging 2/28/2012 and Sampling (if different) 2/29/2012

Well Purging Equip Used:  pump or  bailer Well Pump (if other than Bennet) GED

Sampling Event Quarterly G-W Prev. Well Sampled in Sampling Event MW-05

pH Buffer 7.0 7.0 pH Buffer 4.0 4.0

Specific Conductance 999 μMHOS/cm Well Depth(0.01ft): 130.40

Depth to Water Before Purging 108.35 Casing Volume (V) 4" Well: 14.39 (.653h)  
 3" Well: 0 (.367h)

Conductance (avg) 4408 pH of Water (avg) 6.81

Well Water Temp. (avg) 13.27 Redox Potential (Eh) 351 Turbidity 0

Weather Cond. Snowing Ext'l Amb. Temp. °C (prior sampling event) 0°

Time	<u>1545</u>	Gal. Purged	<u>22.78</u>
Conductance	<u>4408</u>	pH	<u>6.81</u>
Temp. °C	<u>13.27</u>		
Redox Potential Eh (mV)	<u>351</u>		
Turbidity (NTU)	<u>0</u>		

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

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

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

Volume of Water Purged  gallon(s)

Pumping Rate Calculation

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

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

Number of casing volumes evacuated (if other than two)

If well evacuated to dryness, number of gallons evacuated

Name of Certified Analytical Laboratory if Other Than Energy Lab

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

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

 See instruction

Comment

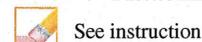
Arrived on site at 1255. Tanner and Garrin present for purge. Purge began at 1300. Purged well for a total of 130 minutes. Purged well dry. Water has a slight discolor. Purge ended at 1510. Left site at 1512

Arrived on site at 0644. Tanner and Garrin present to collect samples. Depth to water was 115.75. Samples were collected at 0650. Left site at 0653

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**ATTACHMENT 1**  
**WHITE MESA URANIUM MILL**  
**FIELD DATA WORKSHEET FOR GROUND WATER**



Attachment 1

Description of Sampling Event: 1<sup>ST</sup> Quarter Ground Water 2012

Location (well name): MW-14 Sampler Name and initials: Tanner Holliday/TH

Date and Time for Purging 2/21/2012 and Sampling (if different) N/A

Well Purging Equip Used:  pump or  bailer Well Pump (if other than Bennet) QED

Sampling Event Quarterly GW Prev. Well Sampled in Sampling Event MW-32

pH Buffer 7.0 7.0 pH Buffer 4.0 4.0

Specific Conductance 999  $\mu$ MHOS/cm Well Depth(0.01ft): 128.70

Depth to Water Before Purging 103.90 Casing Volume (V) 4" Well: 16.19 (.653h)  
3" Well: 0 (.367h)

Conductance (avg) 4081 pH of Water (avg) 6.59

Well Water Temp. (avg) 14.20 Redox Potential (Eh) 371 Turbidity 0

Weather Cond. Partly Cloudy Ext'l Amb. Temp. °C (prior sampling event) -1°

Time	<u>1025</u>	Gal. Purged	<u>31.46</u>
Conductance	<u>4079</u>	pH	<u>6.61</u>
Temp. °C	<u>14.23</u>		
Redox Potential Eh (mV)	<u>379</u>		
Turbidity (NTU)	<u>0</u>		

Time	<u>1026</u>	Gal. Purged	<u>31.68</u>
Conductance	<u>4084</u>	pH	<u>6.61</u>
Temp. °C	<u>14.22</u>		
Redox Potential Eh (mV)	<u>380</u>		
Turbidity (NTU)	<u>0</u>		

Time	<u>1027</u>	Gal. Purged	<u>31.89</u>
Conductance	<u>4080</u>	pH	<u>6.59</u>
Temp. °C	<u>14.17</u>		
Redox Potential Eh (mV)	<u>364</u>		
Turbidity (NTU)	<u>0</u>		

Time	<u>1028</u>	Gal. Purged	<u>32.11</u>
Conductance	<u>4083</u>	pH	<u>6.57</u>
Temp. °C	<u>14.18</u>		
Redox Potential Eh (mV)	<u>361</u>		
Turbidity (NTU)	<u>0</u>		

Volume of Water Purged  gallon(s)

Pumping Rate Calculation

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

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

Number of casing volumes evacuated (if other than two)

If well evacuated to dryness, number of gallons evacuated

Name of Certified Analytical Laboratory if Other Than Energy Lab  GEL

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

General Inorganics

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

 See instruction

Comment

Arrived on site at 0754. Tanner and Garrin present for purge and sampling event. Purge began at 0800. Purged well for a total of 150 minutes. Water was clear. Purge ended and samples were collected at 1030. Depth to water was 104.89. Left site at 1107

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**ATTACHMENT 1  
 WHITE MESA URANIUM MILL  
 FIELD DATA WORKSHEET FOR GROUND WATER**



Attachment 1  
 See instruction

Description of Sampling Event: 1<sup>st</sup> Quarter Ground Water 2012

Location (well name): MW-15 Sampler Name and initials: Tanner Holliday TH

Date and Time for Purging 2/22/2012 and Sampling (if different) N/A

Well Purging Equip Used:  pump or  bailer Well Pump (if other than Bennet) QED

Sampling Event Quarterly GW Prev. Well Sampled in Sampling Event MW-02

pH Buffer 7.0 7.0 pH Buffer 4.0 4.0

Specific Conductance 999  $\mu$ MHOS/ cm Well Depth(0.01ft): 137.00

Depth to Water Before Purging 106.60 Casing Volume (V) 4" Well: 19.85 (.653h)  
 3" Well: 0 (.367h)

Conductance (avg) 4455 pH of Water (avg) 6.84

Well Water Temp. (avg) 14.23 Redox Potential (Eh) 285 Turbidity 0

Weather Cond. Partly cloudy Ext'l Amb. Temp. °C (prior sampling event) -1<sup>o</sup>

Time	<u>1015</u>	Gal. Purged	<u>39.06</u>
Conductance	<u>4446</u>	pH	<u>6.85</u>
Temp. °C	<u>14.24</u>		
Redox Potential Eh (mV)	<u>288</u>		
Turbidity (NTU)	<u>0</u>		

Time	<u>1016</u>	Gal. Purged	<u>39.27</u>
Conductance	<u>4464</u>	pH	<u>6.84</u>
Temp. °C	<u>14.23</u>		
Redox Potential Eh (mV)	<u>287</u>		
Turbidity (NTU)	<u>0</u>		

Time	<u>1017</u>	Gal. Purged	<u>39.49</u>
Conductance	<u>4462</u>	pH	<u>6.84</u>
Temp. °C	<u>14.21</u>		
Redox Potential Eh (mV)	<u>284</u>		
Turbidity (NTU)	<u>0</u>		

Time	<u>1018</u>	Gal. Purged	<u>39.71</u>
Conductance	<u>4451</u>	pH	<u>6.84</u>
Temp. °C	<u>14.25</u>		
Redox Potential Eh (mV)	<u>281</u>		
Turbidity (NTU)	<u>0</u>		

Volume of Water Purged  gallon(s)

Pumping Rate Calculation

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

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

Number of casing volumes evacuated (if other than two)

If well evacuated to dryness, number of gallons evacuated

Name of Certified Analytical Laboratory if Other Than Energy Lab:  Iron

Type of Sample	Sample Taken		Sample Vol (indicate if other than as specified below)	Filtered		Preservative Type	Preservative Added	
	Y	N		Y	N		Y	N
VOCs	<input type="checkbox"/>	<input type="checkbox"/>	3x40 ml	<input type="checkbox"/>	<input type="checkbox"/>	HCL	<input type="checkbox"/>	<input type="checkbox"/>
Nutrients	<input type="checkbox"/>	<input type="checkbox"/>	100 ml	<input type="checkbox"/>	<input type="checkbox"/>	H2SO4	<input type="checkbox"/>	<input type="checkbox"/>
Heavy Metals	<input checked="" type="checkbox"/>	<input type="checkbox"/>	250 ml	<input checked="" type="checkbox"/>	<input type="checkbox"/>	HNO3	<input checked="" type="checkbox"/>	<input type="checkbox"/>
All Other Non Radiologics	<input type="checkbox"/>	<input type="checkbox"/>	250 ml	<input type="checkbox"/>	<input type="checkbox"/>	No Preserv.	<input type="checkbox"/>	<input type="checkbox"/>
Gross Alpha	<input type="checkbox"/>	<input type="checkbox"/>	1,000 ml	<input type="checkbox"/>	<input type="checkbox"/>	HNO3	<input type="checkbox"/>	<input type="checkbox"/>
Other (specify)	<input type="checkbox"/>	<input type="checkbox"/>	Sample volume	<input type="checkbox"/>	<input type="checkbox"/>		<input type="checkbox"/>	<input type="checkbox"/>
Iron	If preservative is used, specify Type and Quantity of Preservative:							

 See instruction

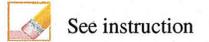
Comment

Arrived on site at 0708. Tanner and Garrin present for purge and sampling event. Purge began at 0715. Purged well for a total of 185 minutes. water was clear. Purge ended and samples were collected at 1020. Depth to water was 110.95  
 Left site at 1028

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**ATTACHMENT 1**  
**WHITE MESA URANIUM MILL**  
**FIELD DATA WORKSHEET FOR GROUND WATER**



Attachment 1

Description of Sampling Event: 1st Quarter Ground Water 2012

Location (well name): MW-18 Sampler Name and initials: Tanner Holliday/TJH

Date and Time for Purging 2/27/2012 and Sampling (if different) N/A

Well Purging Equip Used:  pump or  bailer Well Pump (if other than Bennet) QED

Sampling Event Quarterly GW Prev. Well Sampled in Sampling Event MW-24

pH Buffer 7.0 7.0 pH Buffer 4.0 4.0

Specific Conductance 999  $\mu$ MHOS/cm Well Depth(0.01ft): 134.00

Depth to Water Before Purging 70.05 Casing Volume (V) 4" Well: 41.75 (.653h)  
3" Well: 0 (.367h)

Conductance (avg) 3632 pH of Water (avg) 6.59

Well Water Temp. (avg) 14.02 Redox Potential (Eh) 290 Turbidity 0

Weather Cond. Sunny Ext'l Amb. Temp. °C (prior sampling event) 1°

Time	<u>1335</u>	Gal. Purged	<u>82.46</u>
Conductance	<u>3632</u>	pH	<u>6.58</u>
Temp. °C	<u>14.04</u>		
Redox Potential Eh (mV)	<u>301</u>		
Turbidity (NTU)	<u>0</u>		

Time	<u>1336</u>	Gal. Purged	<u>82.67</u>
Conductance	<u>3632</u>	pH	<u>6.60</u>
Temp. °C	<u>14.03</u>		
Redox Potential Eh (mV)	<u>290</u>		
Turbidity (NTU)	<u>0</u>		

Time	<u>1337</u>	Gal. Purged	<u>82.89</u>
Conductance	<u>3633</u>	pH	<u>6.60</u>
Temp. °C	<u>14.01</u>		
Redox Potential Eh (mV)	<u>287</u>		
Turbidity (NTU)	<u>0</u>		

Time	<u>1338</u>	Gal. Purged	<u>83.11</u>
Conductance	<u>3631</u>	pH	<u>6.60</u>
Temp. °C	<u>14.00</u>		
Redox Potential Eh (mV)	<u>282</u>		
Turbidity (NTU)	<u>0</u>		

Volume of Water Purged  gallon(s)

Pumping Rate Calculation

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

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

Number of casing volumes evacuated (if other than two)

If well evacuated to dryness, number of gallons evacuated

Name of Certified Analytical Laboratory if Other Than Energy Lab:  Heavy Metals

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

Sulfate
TDS

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

 See instruction

Comment

Arrived on site at 0710. Tanner and Garrin present for purge and sampling event. Purge began at 0715. Purged well for a total of 385 minutes. Water was clear. Purge ended and samples were collected at 1340. Depth to water was 70.65. Left site at 1348.

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ATTACHMENT 1  
WHITE MESA URANIUM MILL  
FIELD DATA WORKSHEET FOR GROUND WATER



Attachment 1  
See instruction

Description of Sampling Event: Quarterly Ground Water 2012 1st Quarter

Location (well name): MW-19 Sampler Name and initials: Tanner Holliday/TH

Date and Time for Purging 2/27/2012 and Sampling (if different) 2/28/2012

Well Purging Equip Used:  pump or  bailer Well Pump (if other than Bennet) QED

Sampling Event Quarterly GW Prev. Well Sampled in Sampling Event MW-18

pH Buffer 7.0 7.0 pH Buffer 4.0 4.0

Specific Conductance 999  $\mu$ MHOS/cm Well Depth(0.01ft): 149.00

Depth to Water Before Purging 51.65 Casing Volume (V) 4" Well: 63.56 (.653h)  
3" Well: 0 (.367h)

Conductance (avg) 1875 pH of Water (avg) 6.82

Well Water Temp. (avg) 13.32 Redox Potential (Eh) 372 Turbidity 35

Weather Cond. Overcast and Windy with snow Ext'l Amb. Temp. °C (prior sampling event) -3°

Time	<u>0855</u>	Gal. Purged	<u>129.11</u>
Conductance	<u>1892</u>	pH	<u>6.81</u>
Temp. °C	<u>13.35</u>		
Redox Potential Eh (mV)	<u>384</u>		
Turbidity (NTU)	<u>33</u>		

Time	<u>0856</u>	Gal. Purged	<u>129.33</u>
Conductance	<u>1842</u>	pH	<u>6.82</u>
Temp. °C	<u>13.31</u>		
Redox Potential Eh (mV)	<u>375</u>		
Turbidity (NTU)	<u>35</u>		

Time	<u>0857</u>	Gal. Purged	<u>129.54</u>
Conductance	<u>1886</u>	pH	<u>6.82</u>
Temp. °C	<u>13.32</u>		
Redox Potential Eh (mV)	<u>367</u>		
Turbidity (NTU)	<u>37</u>		

Time	<u>0858</u>	Gal. Purged	<u>129.76</u>
Conductance	<u>1883</u>	pH	<u>6.83</u>
Temp. °C	<u>13.32</u>		
Redox Potential Eh (mV)	<u>365</u>		
Turbidity (NTU)	<u>38</u>		

Volume of Water Purged  gallon(s)

Pumping Rate Calculation

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

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

Number of casing volumes evacuated (if other than two)

If well evacuated to dryness, number of gallons evacuated

Name of Certified Analytical Laboratory if Other Than Energy Lab

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

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

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 See instruction

Comment

Arrived on site at 2245. Tanner Holliday present to start purge. Purge began at 2300. Purged well throughout the night. Purged well for a total of 600 minutes. Purge ended and sample was collected at 0900, snowing at time of sample. Depth to water was 60.11 Left site at 0904

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ATTACHMENT 1  
WHITE MESA URANIUM MILL  
FIELD DATA WORKSHEET FOR GROUND WATER

Attachment 1  
See instruction

Description of Sampling Event: 1<sup>ST</sup> Quarter Ground Water 2012

Location (well name): MW-23 Sampler Name and initials: Tanner Holliday/TH

Date and Time for Purging 2/17/2012 and Sampling (if different) 2/20/2012

Well Purging Equip Used:  pump or  bailer Well Pump (if other than Bennet) QED

Sampling Event Quarterly GW Prev. Well Sampled in Sampling Event MW-26

pH Buffer 7.0 7.0 pH Buffer 4.0 4.0

Specific Conductance 999  $\mu$ MHOS/cm Well Depth(0.01ft): 132.00

Depth to Water Before Purging 114.01 Casing Volume (V) 4" Well: 11.74 (.653h)  
3" Well: 0 (.367h)

Conductance (avg) 4085 pH of Water (avg) 6.61

Well Water Temp. (avg) 13.89 Redox Potential (Eh) 348 Turbidity 1.0

Weather Cond. Clear Ext'l Amb. Temp. °C (prior sampling event) -1°

Time	<u>0825</u>	Gal. Purged	<u>21.70</u>
Conductance	<u>4085</u>	pH	<u>6.61</u>
Temp. °C	<u>13.89</u>		
Redox Potential Eh (mV)	<u>348</u>		
Turbidity (NTU)	<u>1.0</u>		

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

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

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

Volume of Water Purged  gallon(s)

Pumping Rate Calculation

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

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

Number of casing volumes evacuated (if other than two)

If well evacuated to dryness, number of gallons evacuated

Name of Certified Analytical Laboratory if Other Than Energy Lab:

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

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

 See instruction

Comment

Arrived on site at 0637 Tanner Holliday present for purge.  
 Purge began at 0645. Purged well for a total of 100 minutes  
 Purged well dry! Purge ended at 0825. Left site at 0827  
 Arrived on site at 1346. Tanner and Garrin present to collect samples.  
 Depth to water was 126.32. Samples collected at 1400. Left site at 1402

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ATTACHMENT 1  
WHITE MESA URANIUM MILL  
FIELD DATA WORKSHEET FOR GROUND WATER



Attachment 1  
See instruction

Description of Sampling Event: 1<sup>st</sup> Quarter Ground Water 2012

Location (well name): MW-24 Sampler Name and initials: Tanner Holliday/TTH

Date and Time for Purging 2/22/2012 and Sampling (if different) 2/23/2012

Well Purging Equip Used:  pump or  bailer Well Pump (if other than Bennet) QED

Sampling Event Quarterly GW Prev. Well Sampled in Sampling Event MW-29

pH Buffer 7.0 7.0 pH Buffer 4.0 4.0

Specific Conductance 999  $\mu$ MHOS/cm Well Depth(0.01ft): 120.00

Depth to Water Before Purging 114.60 Casing Volume (V) 4" Well: 3.52 (.653h)  
3" Well: 0 (.367h)

Conductance (avg) 4364 pH of Water (avg) 6.03

Well Water Temp. (avg) 14.54 Redox Potential (Eh) 280 Turbidity 0

Weather Cond. cloudy Ext'l Amb. Temp. °C (prior sampling event) 6°

Time	<u>1300</u>	Gal. Purged	<u>6.72</u>
Conductance	<u>4364</u>	pH	<u>6.03</u>
Temp. °C	<u>14.54</u>		
Redox Potential Eh (mV)	<u>280</u>		
Turbidity (NTU)	<u>0</u>		

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

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

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

Volume of Water Purged  gallon(s)

Pumping Rate Calculation

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

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

Number of casing volumes evacuated (if other than two)

If well evacuated to dryness, number of gallons evacuated

Name of Certified Analytical Laboratory if Other Than Energy Lab  GEL

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

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

 See instruction

Comment

Arrived on site at 1221. Tanner and Garrin present for purge. Purge began at 1225. Purged well for a total of 35 minutes. Purged well dry! Purge ended at 1300 water was clear. Left site at 1303

Arrived on site at 0643. Tanner and Garrin present to collect samples. Depth to water was 114.30 samples were taken at 0650. Left site at 0656

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ATTACHMENT 1  
WHITE MESA URANIUM MILL  
FIELD DATA WORKSHEET FOR GROUND WATER



Attachment 1  
See instruction

Description of Sampling Event: 1st Quarter Ground Water 2012

Location (well name): MW-25

Sampler Name and initials: Tanner Holliday/TH

Date and Time for Purging 2/14/2012

and Sampling (if different) N/A

Well Purging Equip Used:  pump or  bailer

Well Pump (if other than Bennet) QED

Sampling Event Quarterly GW

Prev. Well Sampled in Sampling Event MW-11

pH Buffer 7.0 7.0

pH Buffer 4.0 4.0

Specific Conductance 999  $\mu$ MHOS/ cm

Well Depth(0.01ft): 115.06

Depth to Water Before Purging 73.70

Casing Volume (V) 4" Well: 26.96 (.653h)  
3" Well: 0 (.367h)

Conductance (avg) 3343

pH of Water (avg) 6.83

Well Water Temp. (avg) 14.22

Redox Potential (Eh) 349

Turbidity 0

Weather Cond. overcast and snow

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

Time	<u>1100</u>	Gal. Purged	<u>54.25</u>
Conductance	<u>3345</u>	pH	<u>6.83</u>
Temp. °C	<u>14.26</u>		
Redox Potential Eh (mV)	<u>357</u>		
Turbidity (NTU)	<u>0</u>		

Time	<u>1101</u>	Gal. Purged	<u>54.46</u>
Conductance	<u>3342</u>	pH	<u>6.84</u>
Temp. °C	<u>14.23</u>		
Redox Potential Eh (mV)	<u>352</u>		
Turbidity (NTU)	<u>0</u>		

Time	<u>1102</u>	Gal. Purged	<u>54.68</u>
Conductance	<u>3340</u>	pH	<u>6.84</u>
Temp. °C	<u>14.21</u>		
Redox Potential Eh (mV)	<u>348</u>		
Turbidity (NTU)	<u>0</u>		

Time	<u>1103</u>	Gal. Purged	<u>54.90</u>
Conductance	<u>3345</u>	pH	<u>6.83</u>
Temp. °C	<u>14.21</u>		
Redox Potential Eh (mV)	<u>342</u>		
Turbidity (NTU)	<u>0</u>		

Volume of Water Purged  gallon(s)

Pumping Rate Calculation

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

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

Number of casing volumes evacuated (if other than two)

If well evacuated to dryness, number of gallons evacuated

Name of Certified Analytical Laboratory if Other Than Energy Lab:  GEL

Type of Sample	Sample Taken		Sample Vol (indicate if other than as specified below)	Filtered		Preservative Type	Preservative Added	
	Y	N		Y	N		Y	N
VOCs	<input checked="" type="checkbox"/>	<input type="checkbox"/>	3x40 ml	<input type="checkbox"/>	<input checked="" type="checkbox"/>	HCL	<input checked="" type="checkbox"/>	<input type="checkbox"/>
Nutrients	<input checked="" type="checkbox"/>	<input type="checkbox"/>	100 ml	<input type="checkbox"/>	<input checked="" type="checkbox"/>	H2SO4	<input checked="" type="checkbox"/>	<input type="checkbox"/>
Heavy Metals	<input checked="" type="checkbox"/>	<input type="checkbox"/>	250 ml	<input checked="" type="checkbox"/>	<input type="checkbox"/>	HNO3	<input checked="" type="checkbox"/>	<input type="checkbox"/>
All Other Non Radiologics	<input checked="" type="checkbox"/>	<input type="checkbox"/>	250 ml	<input type="checkbox"/>	<input checked="" type="checkbox"/>	No Preserv.	<input type="checkbox"/>	<input checked="" type="checkbox"/>
Gross Alpha	<input checked="" type="checkbox"/>	<input type="checkbox"/>	1,000 ml	<input checked="" type="checkbox"/>	<input type="checkbox"/>	HNO3	<input checked="" type="checkbox"/>	<input type="checkbox"/>
Other (specify)	<input checked="" type="checkbox"/>	<input type="checkbox"/>	Sample volume	<input type="checkbox"/>	<input checked="" type="checkbox"/>		<input type="checkbox"/>	<input checked="" type="checkbox"/>
<u>General Inorganics</u>								

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

 See instruction

Comment

Arrived on site at 0640. Tanner and Garrin present for purge and sampling event  
 Purge began at 0650. Purged well for a total of 255 minutes. Water was clear. Purge ended and samples were collected at 1105.  
 Depth to water was 75.80  
 Left site at 1124

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**ATTACHMENT 1  
 WHITE MESA URANIUM MILL  
 FIELD DATA WORKSHEET FOR GROUND WATER**



Attachment 1  
 See instruction

Description of Sampling Event: 1<sup>st</sup> Quarter Ground Water 2012

Location (well name): MW-26 Sampler Name and initials: Tanner Holliday/TH

Date and Time for Purging 2/15/2012 and Sampling (if different) N/A

Well Purging Equip Used:  pump or  bailer Well Pump (if other than Bennet) Continuous

Sampling Event Quarterly GW Prev. Well Sampled in Sampling Event MW-30

pH Buffer 7.0 7.0 pH Buffer 4.0 4.0

Specific Conductance 999  $\mu$ MHOS/ cm Well Depth(0.01ft): 121.33

Depth to Water Before Purging 61.10 Casing Volume (V) 4" Well: 39.33 (.653h)  
 3" Well: 0 (.367h)

Conductance (avg) 3539 pH of Water (avg) 6.72

Well Water Temp. (avg) 14.96 Redox Potential (Eh) 266 Turbidity 0

Weather Cond. Cloudy Ext'l Amb. Temp. °C (prior sampling event) -1°

Time	<u>0929</u>	Gal. Purged	<u>0</u>
Conductance	<u>3539</u>	pH	<u>6.72</u>
Temp. °C	<u>14.96</u>		
Redox Potential Eh (mV)	<u>266</u>		
Turbidity (NTU)	<u>0</u>		

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

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

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

Volume of Water Purged  gallon(s)

Pumping Rate Calculation

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

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

Number of casing volumes evacuated (if other than two)

If well evacuated to dryness, number of gallons evacuated

Name of Certified Analytical Laboratory if Other Than Energy Lab  GEL

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

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

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 See instruction

Comment

Arrived on site at 0920. Tanner and Garrin present to collect samples  
 Samples were collected at 0930. Water was clear. Left site at 0949

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**ATTACHMENT 1  
 WHITE MESA URANIUM MILL  
 FIELD DATA WORKSHEET FOR GROUND WATER**



Attachment 1  
 See instruction

Description of Sampling Event: 1st Quarter Ground Water 2012 Resample

Location (well name): MW-26 Sampler Name and initials: Tanner Holliday/TH

Date and Time for Purging 2/21/2012 and Sampling (if different) N/A

Well Purging Equip Used:  pump or  bailer Well Pump (if other than Bennet) Continuous

Sampling Event Quarterly GW Prev. Well Sampled in Sampling Event MW-14

pH Buffer 7.0 7.0 pH Buffer 4.0 4.0

Specific Conductance 999  $\mu$ MHOS/ cm Well Depth(0.01ft): 121.33

Depth to Water Before Purging 93.30 Casing Volume (V) 4" Well: 18.30 (.653h)  
 3" Well: 0 (.367h)

Conductance (avg) 3609 pH of Water (avg) 6.91

Well Water Temp. (avg) 14.47 Redox Potential (Eh) 260 Turbidity 0

Weather Cond. Partly Cloudy Ext'l Amb. Temp. °C (prior sampling event) 6°

Time	<u>1409</u>	Gal. Purged	<u>0</u>
Conductance	<u>3609</u>	pH	<u>7.08</u> <u>6.91</u>
Temp. °C	<u>14.47</u>		
Redox Potential Eh (mV)	<u>260</u>		
Turbidity (NTU)	<u>0</u>		

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

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

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

Volume of Water Purged  gallon(s)

Pumping Rate Calculation

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

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

Number of casing volumes evacuated (if other than two)

If well evacuated to dryness, number of gallons evacuated

Name of Certified Analytical Laboratory if Other Than Energy Lab

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

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

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 See instruction

Comment

Arrived on site at 1401 Tanner and Garrin present to collect samples. collected samples at 1410. Left site at 1413. water was clear.

Resample

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**ATTACHMENT 1  
WHITE MESA URANIUM MILL  
FIELD DATA WORKSHEET FOR GROUND WATER**

Attachment 1

See instruction

Description of Sampling Event: 1st Quarter Ground Water 2012 Resample

Location (well name): MW-26

Sampler Name and initials: Tanner Holliday/TH

Date and Time for Purging: 3/8/2012

and Sampling (if different): N/A

Well Purging Equip Used:  pump or  bailer

Well Pump (if other than Bennet): Continuous

Sampling Event: Quarterly G-W

Prev. Well Sampled in Sampling Event: N/A

pH Buffer 7.0: 7.0

pH Buffer 4.0: 4.0

Specific Conductance: 999 µMHOS/ cm

Well Depth(0.01ft): 121.33

Depth to Water Before Purging: 6.30

Casing Volume (V) 4" Well: 38.54 (.653h)  
3" Well: 0 (.367h)

Conductance (avg): 3563

pH of Water (avg): 6.71

Well Water Temp. (avg): 15.15

Redox Potential (Eh): 202

Turbidity: 0

Weather Cond.: Sunny

Ext'l Amb. Temp. °C (prior sampling event): 40

Time	<u>0907</u>	Gal. Purged	<u>0</u>
Conductance	<u>3563</u>	pH	<u>6.71</u>
Temp. °C	<u>15.15</u>		
Redox Potential Eh (mV)	<u>202</u>		
Turbidity (NTU)	<u>0</u>		

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

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

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

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Volume of Water Purged  gallon(s)

Pumping Rate Calculation

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

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

Number of casing volumes evacuated (if other than two)

If well evacuated to dryness, number of gallons evacuated

Name of Certified Analytical Laboratory if Other Than Energy Lab

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

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

93.2887.1.1.12 - CR-QAP REV 11/02/00 - 03/22/10 11:30:00 AM 1704 DWG10000018

Comment

See instruction

Arrived on site at 0903. Tanner and Garrin present to collect samples. Depth to water was 62.30. Turned pump on. Samples were collected at 0908. Water was clear. Left site at 0910

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**ATTACHMENT 1  
 WHITE MESA URANIUM MILL  
 FIELD DATA WORKSHEET FOR GROUND WATER**



Attachment 1  
 See instruction

Description of Sampling Event: 1st Quarter Ground Water 2012

Location (well name): MW-27 Sampler Name and initials: Tanner Holliday/TH

Date and Time for Purging 2/28/2012 and Sampling (if different) N/A

Well Purging Equip Used:  pump or  bailer Well Pump (if other than Bennet) QED

Sampling Event Quarterly GW Prev. Well Sampled in Sampling Event MW-19

pH Buffer 7.0 7.0 pH Buffer 4.0 4.0

Specific Conductance 999  $\mu$ MHOS/cm Well Depth(0.01ft): 95.00

Depth to Water Before Purging 50.75 Casing Volume (V) 4" Well: 28.89 (.653h)  
 3" Well: 0 (.367h)

Conductance (avg) 1652 pH of Water (avg) 7.24

Well Water Temp. (avg) 13.74 Redox Potential (Eh) 323 Turbidity 0

Weather Cond. Overcast with snow Ext'l Amb. Temp. °C (prior sampling event) -3°

Time	<u>1105</u>	Gal. Purged	<u>57.50</u>
Conductance	<u>1662</u>	pH	<u>7.24</u>
Temp. °C	<u>13.75</u>		
Redox Potential Eh (mV)	<u>327</u>		
Turbidity (NTU)	<u>0</u>		

Time	<u>1106</u>	Gal. Purged	<u>57.72</u>
Conductance	<u>1656</u>	pH	<u>7.24</u>
Temp. °C	<u>13.75</u>		
Redox Potential Eh (mV)	<u>325</u>		
Turbidity (NTU)	<u>0</u>		

Time	<u>1107</u>	Gal. Purged	<u>57.93</u>
Conductance	<u>1650</u>	pH	<u>7.24</u>
Temp. °C	<u>13.74</u>		
Redox Potential Eh (mV)	<u>323</u>		
Turbidity (NTU)	<u>0</u>		

Time	<u>1108</u>	Gal. Purged	<u>58.15</u>
Conductance	<u>1640</u>	pH	<u>7.24</u>
Temp. °C	<u>13.74</u>		
Redox Potential Eh (mV)	<u>320</u>		
Turbidity (NTU)	<u>0</u>		

Volume of Water Purged  gallon(s)

Pumping Rate Calculation

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

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

Number of casing volumes evacuated (if other than two)

If well evacuated to dryness, number of gallons evacuated

Name of Certified Analytical Laboratory if Other Than Energy Lab:

Type of Sample	Sample Taken		Sample Vol (indicate if other than as specified below)	Filtered		Preservative Type	Preservative Added	
	Y	N		Y	N		Y	N
VOCs	<input type="checkbox"/>	<input type="checkbox"/>	3x40 ml	<input type="checkbox"/>	<input type="checkbox"/>	HCL	<input type="checkbox"/>	<input type="checkbox"/>
Nutrients	<input checked="" type="checkbox"/>	<input type="checkbox"/>	100 ml	<input type="checkbox"/>	<input checked="" type="checkbox"/>	H2SO4	<input checked="" type="checkbox"/>	<input type="checkbox"/>
Heavy Metals	<input type="checkbox"/>	<input type="checkbox"/>	250 ml	<input type="checkbox"/>	<input type="checkbox"/>	HNO3	<input type="checkbox"/>	<input type="checkbox"/>
All Other Non Radiologics	<input type="checkbox"/>	<input type="checkbox"/>	250 ml	<input type="checkbox"/>	<input type="checkbox"/>	No Preserv.	<input type="checkbox"/>	<input type="checkbox"/>
Gross Alpha	<input checked="" type="checkbox"/>	<input type="checkbox"/>	1,000 ml	<input checked="" type="checkbox"/>	<input type="checkbox"/>	HNO3	<input checked="" type="checkbox"/>	<input type="checkbox"/>
Other (specify)	<input checked="" type="checkbox"/>	<input type="checkbox"/>	Sample volume	<input type="checkbox"/>	<input checked="" type="checkbox"/>		<input type="checkbox"/>	<input checked="" type="checkbox"/>
<input type="text" value="chloride"/>	If preservative is used, specify Type and Quantity of Preservative:							
<input type="text" value="TDS"/>								
<input type="text" value="Sulfate"/>								

 See instruction

Comment

Arrived on site at 0630. Tanner and Garrin present for purge and sampling event. Purge began at 0640. Purged well for a total of 270 minutes, water was clear. Purge ended and samples were collected at 1110. Snowing at time of sample. Depth to water was 52.13 Left site at 1117

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ATTACHMENT 1  
WHITE MESA URANIUM MILL  
FIELD DATA WORKSHEET FOR GROUND WATER



Attachment 1  
See instruction

Description of Sampling Event: 1st Quarter Ground Water 2012

Location (well name): MW-28 Sampler Name and initials: Tanner Holliday/JH

Date and Time for Purging 2/28/2012 and Sampling (if different) N/A

Well Purging Equip Used:  pump or  bailer Well Pump (if other than Bennet) QED

Sampling Event Quarterly GW Prev. Well Sampled in Sampling Event MW-27

pH Buffer 7.0 7.0 pH Buffer 4.0 4.0

Specific Conductance 999  $\mu$ MHOS/cm Well Depth(0.01ft): 110.00

Depth to Water Before Purging 76.45 Casing Volume (V) 4" Well: 21.90 (.653h)  
3" Well: 0 (.367h)

Conductance (avg) 4134 pH of Water (avg) 6.22

Well Water Temp. (avg) 13.48 Redox Potential (Eh) 378 Turbidity 0

Weather Cond. Snowing Ext'l Amb. Temp. °C (prior sampling event) -3°

Time	<u>1235</u>	Gal. Purged	<u>43.40</u>
Conductance	<u>4137</u>	pH	<u>6.24</u>
Temp. °C	<u>13.49</u>		
Redox Potential Eh (mV)	<u>381</u>		
Turbidity (NTU)	<u>0</u>		

Time	<u>1236</u>	Gal. Purged	<u>43.61</u>
Conductance	<u>4130</u>	pH	<u>6.22</u>
Temp. °C	<u>13.48</u>		
Redox Potential Eh (mV)	<u>380</u>		
Turbidity (NTU)	<u>0</u>		

Time	<u>1237</u>	Gal. Purged	<u>43.83</u>
Conductance	<u>4134</u>	pH	<u>6.22</u>
Temp. °C	<u>13.48</u>		
Redox Potential Eh (mV)	<u>376</u>		
Turbidity (NTU)	<u>0</u>		

Time	<u>1238</u>	Gal. Purged	<u>44.05</u>
Conductance	<u>4137</u>	pH	<u>6.22</u>
Temp. °C	<u>13.48</u>		
Redox Potential Eh (mV)	<u>375</u>		
Turbidity (NTU)	<u>0</u>		

Volume of Water Purged  gallon(s)

Pumping Rate Calculation

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

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

Number of casing volumes evacuated (if other than two)

If well evacuated to dryness, number of gallons evacuated

Name of Certified Analytical Laboratory if Other Than Energy Lab

Type of Sample	Sample Taken		Sample Vol (indicate if other than as specified below)	Filtered		Preservative Type	Preservative Added	
	Y	N		Y	N		Y	N
VOCs	<input type="checkbox"/>	<input type="checkbox"/>	3x40 ml	<input type="checkbox"/>	<input type="checkbox"/>	HCL	<input type="checkbox"/>	<input type="checkbox"/>
Nutrients	<input type="checkbox"/>	<input type="checkbox"/>	100 ml	<input type="checkbox"/>	<input type="checkbox"/>	H2SO4	<input type="checkbox"/>	<input type="checkbox"/>
Heavy Metals	<input type="checkbox"/>	<input type="checkbox"/>	250 ml	<input type="checkbox"/>	<input type="checkbox"/>	HNO3	<input type="checkbox"/>	<input type="checkbox"/>
All Other Non Radiologics	<input type="checkbox"/>	<input type="checkbox"/>	250 ml	<input type="checkbox"/>	<input type="checkbox"/>	No Preserv.	<input type="checkbox"/>	<input type="checkbox"/>
Gross Alpha	<input type="checkbox"/>	<input type="checkbox"/>	1,000 ml	<input type="checkbox"/>	<input type="checkbox"/>	HNO3	<input type="checkbox"/>	<input type="checkbox"/>
Other (specify)	<input checked="" type="checkbox"/>	<input type="checkbox"/>	Sample volume	<input type="checkbox"/>	<input checked="" type="checkbox"/>		<input type="checkbox"/>	<input checked="" type="checkbox"/>
<input type="text" value="Chloride"/>								

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

 See instruction

Comment

Arrived on site at 0910. Tanner and Garrin present for purge and sampling event. Purge began at 0915. Purged well for a total of 205 minutes. Water was clear. Purge ended and sample was collected at 1240. Snowing at the time sample was collected. Depth to water was 78.15. Left site at 1244

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**ATTACHMENT 1  
 WHITE MESA URANIUM MILL  
 FIELD DATA WORKSHEET FOR GROUND WATER**



Attachment 1  
 See instruction

Description of Sampling Event: 1st Quarter Ground Water 2012

Location (well name): MW-29 Sampler Name and initials: Tanner Holliday/TH

Date and Time for Purging 2/22/2012 and Sampling (if different) N/A

Well Purging Equip Used:  pump or  bailer Well Pump (if other than Bennet) GED

Sampling Event Quarterly GW Prev. Well Sampled in Sampling Event MW-15

pH Buffer 7.0 7.0 pH Buffer 4.0 4.0

Specific Conductance 999  $\mu$ MHOS/cm Well Depth(0.01ft): 127.00

Depth to Water Before Purging 102.25 Casing Volume (V) 4" Well: 16.16 (.653h)  
 3" Well: 0 (.367h)

Conductance (avg) 2375 pH of Water (avg) 6.56

Well Water Temp. (avg)          Redox Potential (Eh) 257 Turbidity 26

Weather Cond. cloudy Ext'l Amb. Temp. °C (prior sampling event) 1°

Time	<u>1145</u>	Gal. Purged	<u>31.46</u>
Conductance	<u>2401</u>	pH	<u>6.57</u>
Temp. °C	<u>14.23</u>		
Redox Potential Eh (mV)	<u>266</u>		
Turbidity (NTU)	<u>25</u>		

Time	<u>1146</u>	Gal. Purged	<u>31.68</u>
Conductance	<u>2399</u>	pH	<u>6.57</u>
Temp. °C	<u>14.25</u>		
Redox Potential Eh (mV)	<u>262</u>		
Turbidity (NTU)	<u>26</u>		

Time	<u>1147</u>	Gal. Purged	<u>31.89</u>
Conductance	<u>2309</u>	pH	<u>6.56</u>
Temp. °C	<u>14.26</u>		
Redox Potential Eh (mV)	<u>252</u>		
Turbidity (NTU)	<u>26.5</u>		

Time	<u>1148</u>	Gal. Purged	<u>32.11</u>
Conductance	<u>2393</u>	pH	<u>6.55</u>
Temp. °C	<u>14.27</u>		
Redox Potential Eh (mV)	<u>249</u>		
Turbidity (NTU)	<u>26</u>		

Volume of Water Purged  gallon(s)

Pumping Rate Calculation

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

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

Number of casing volumes evacuated (if other than two)

If well evacuated to dryness, number of gallons evacuated

Name of Certified Analytical Laboratory if Other Than Energy Lab:

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

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

 See instruction

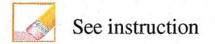
Comment

Arrived on site at 0915. Tanner and Garrin present for purge and sampling event. Purge began at 0920. Purged well for 150 minutes, water had a slight discolor but mostly clear. Purge ended and samples were collected at 1150. Depth to water was 104.29. Left site at 1155

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ATTACHMENT 1  
WHITE MESA URANIUM MILL  
FIELD DATA WORKSHEET FOR GROUND WATER



Attachment 1

Description of Sampling Event: 1st Quarter Ground Water 2012

Location (well name): MW-30

Sampler Name and initials: Tanner Holliday/TH

Date and Time for Purging 2/14/2012

and Sampling (if different) N/A

Well Purging Equip Used:  pump or  bailer

Well Pump (if other than Bennet) GED

Sampling Event Quarterly GW

Prev. Well Sampled in Sampling Event MW-35

pH Buffer 7.0 7.0

pH Buffer 4.0 4.0

Specific Conductance 999  $\mu$ MHOS/cm

Well Depth(0.01ft): 110.00

Depth to Water Before Purging 75.95

Casing Volume (V) 4" Well: 22.23 (.653h)  
3" Well: 0 (.367h)

Conductance (avg) 2135

pH of Water (avg) 7.11

Well Water Temp. (avg) 13.80

Redox Potential (Eh) 301

Turbidity 0

Weather Cond. Overcast

Ext'l Amb. Temp. °C (prior sampling event) -1°

Time	<u>1255</u>	Gal. Purged	<u>49.91</u>
Conductance	<u>2141</u>	pH	<u>7.11</u>
Temp. °C	<u>13.78</u>		
Redox Potential Eh (mV)	<u>309</u>		
Turbidity (NTU)	<u>0</u>		

Time	<u>1256</u>	Gal. Purged	<u>50.12</u>
Conductance	<u>2124</u>	pH	<u>7.11</u>
Temp. °C	<u>13.81</u>		
Redox Potential Eh (mV)	<u>303</u>		
Turbidity (NTU)	<u>0</u>		

Time	<u>1257</u>	Gal. Purged	<u>50.34</u>
Conductance	<u>2137</u>	pH	<u>7.11</u>
Temp. °C	<u>13.81</u>		
Redox Potential Eh (mV)	<u>297</u>		
Turbidity (NTU)	<u>0</u>		

Time	<u>1258</u>	Gal. Purged	<u>50.56</u>
Conductance	<u>2139</u>	pH	<u>7.12</u>
Temp. °C	<u>13.82</u>		
Redox Potential Eh (mV)	<u>296</u>		
Turbidity (NTU)	<u>0</u>		

Volume of Water Purged  gallon(s)

Pumping Rate Calculation

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

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

Number of casing volumes evacuated (if other than two)

If well evacuated to dryness, number of gallons evacuated

Name of Certified Analytical Laboratory if Other Than Energy Lab:  GEL

Type of Sample	Sample Taken		Sample Vol (indicate if other than as specified below)	Filtered		Preservative Type	Preservative Added	
	Y	N		Y	N		Y	N
VOCs	<input checked="" type="checkbox"/>	<input type="checkbox"/>	3x40 ml	<input type="checkbox"/>	<input checked="" type="checkbox"/>	HCL	<input checked="" type="checkbox"/>	<input type="checkbox"/>
Nutrients	<input checked="" type="checkbox"/>	<input type="checkbox"/>	100 ml	<input type="checkbox"/>	<input checked="" type="checkbox"/>	H2SO4	<input checked="" type="checkbox"/>	<input type="checkbox"/>
Heavy Metals	<input checked="" type="checkbox"/>	<input type="checkbox"/>	250 ml	<input checked="" type="checkbox"/>	<input type="checkbox"/>	HNO3	<input checked="" type="checkbox"/>	<input type="checkbox"/>
All Other Non Radiologics	<input checked="" type="checkbox"/>	<input type="checkbox"/>	250 ml	<input type="checkbox"/>	<input checked="" type="checkbox"/>	No Preserv.	<input type="checkbox"/>	<input checked="" type="checkbox"/>
Gross Alpha	<input checked="" type="checkbox"/>	<input type="checkbox"/>	1,000 ml	<input checked="" type="checkbox"/>	<input type="checkbox"/>	HNO3	<input checked="" type="checkbox"/>	<input type="checkbox"/>
Other (specify)	<input checked="" type="checkbox"/>	<input type="checkbox"/>	Sample volume	<input type="checkbox"/>	<input checked="" type="checkbox"/>		<input type="checkbox"/>	<input checked="" type="checkbox"/>
<i>General Inorganics</i>								

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

 See instruction

Comment  
 Arrived on site at 0900. Tanner and Garrin present for purge and sampling event. Purge began at 0905. Purged well for a total of 235 minutes. Water was clear. Purge ended and samples were collected at 1300. Depth to water was 78.41. Left site at 1326

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ATTACHMENT 1  
WHITE MESA URANIUM MILL  
FIELD DATA WORKSHEET FOR GROUND WATER



Attachment 1  
See instruction

Description of Sampling Event: 1st Quarter Ground Water 2012

Location (well name): MW-31

Sampler Name and initials: Tanner Holliday/TH

Date and Time for Purging 2/13/2012

and Sampling (if different) N/A

Well Purging Equip Used:  pump or  bailer

Well Pump (if other than Bennet) QED

Sampling Event Quarterly GW

Prev. Well Sampled in Sampling Event N/A

pH Buffer 7.0 7.0

pH Buffer 4.0 4.0

Specific Conductance 999  $\mu$ MHOS/cm

Well Depth(0.01ft): 130.00

Depth to Water Before Purging 68.13

Casing Volume (V) 4" Well: 40.40 (.653h)  
3" Well: 0 (.367h)

Conductance (avg) 1970

pH of Water (avg) 7.37

Well Water Temp. (avg) 13.81

Redox Potential (Eh) 273

Turbidity 0

Weather Cond. overcast and snow

Ext'l Amb. Temp. °C (prior sampling event) -1°

Time	<u>1335</u>	Gal. Purged	<u>81.37</u>
Conductance	<u>1970</u>	pH	<u>7.37</u>
Temp. °C	<u>13.81</u>		
Redox Potential Eh (mV)	<u>281</u>		
Turbidity (NTU)	<u>0</u>		

Time	<u>1336</u>	Gal. Purged	<u>81.59</u>
Conductance	<u>1972</u>	pH	<u>7.37</u>
Temp. °C	<u>13.83</u>		
Redox Potential Eh (mV)	<u>276</u>		
Turbidity (NTU)	<u>0</u>		

Time	<u>1337</u>	Gal. Purged	<u>81.80</u>
Conductance	<u>1970</u>	pH	<u>7.37</u>
Temp. °C	<u>13.80</u>		
Redox Potential Eh (mV)	<u>274</u>		
Turbidity (NTU)	<u>0</u>		

Time	<u>1338</u>	Gal. Purged	<u>82.02</u>
Conductance	<u>1970</u>	pH	<u>7.37</u>
Temp. °C	<u>13.83</u>		
Redox Potential Eh (mV)	<u>271</u>		
Turbidity (NTU)	<u>0</u>		

Volume of Water Purged  gallon(s)

Pumping Rate Calculation

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

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

Number of casing volumes evacuated (if other than two)

If well evacuated to dryness, number of gallons evacuated

Name of Certified Analytical Laboratory if Other Than Energy Lab  GEL

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

General Inorganics

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

 See instruction

Comment

Arrived on site at 0715. Tanner and Garrin present for purge and sampling event. Purge began at 0720. Purged well for a total of 380 minutes. water was clear. Purge ended and samples were collected at 1340. Depth to water was 71.09. Left site at 1400

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ATTACHMENT 1  
WHITE MESA URANIUM MILL  
FIELD DATA WORKSHEET FOR GROUND WATER



Attachment 1  
See instruction

Description of Sampling Event: 1<sup>st</sup> Quarter Ground Water 2012

Location (well name): MW-32 Sampler Name and initials: Tanner Holiday/TH

Date and Time for Purging 2/21/2012 and Sampling (if different) N/A

Well Purging Equip Used:  pump or  bailer Well Pump (if other than Bennet) QED

Sampling Event Quarterly GW Prev. Well Sampled in Sampling Event MW-36

pH Buffer 7.0 7.0 pH Buffer 4.0 4.0

Specific Conductance 999  $\mu$ MHOS/cm Well Depth(0.01ft): 132.50

Depth to Water Before Purging 75.35 Casing Volume (V) 4" Well: 37.31 (.653h)  
3" Well: 0 (.367h)

Conductance (avg) 4076 pH of Water (avg) 6.58

Well Water Temp. (avg) 14.00 Redox Potential (Eh) 228 Turbidity 12.80

Weather Cond. Partly Cloudy Ext'l Amb. Temp. °C (prior sampling event) -1°

Time	<u>1310</u>	Gal. Purged	<u>73.78</u>
Conductance	<u>4080</u>	pH	<u>6.58</u>
Temp. °C	<u>14.00</u>		
Redox Potential Eh (mV)	<u>231</u>		
Turbidity (NTU)	<u>12.1</u>		

Time	<u>1311</u>	Gal. Purged	<u>73.99</u>
Conductance	<u>4079</u>	pH	<u>6.58</u>
Temp. °C	<u>14.01</u>		
Redox Potential Eh (mV)	<u>229</u>		
Turbidity (NTU)	<u>13.0</u>		

Time	<u>1312</u>	Gal. Purged	<u>74.21</u>
Conductance	<u>4074</u>	pH	<u>6.59</u>
Temp. °C	<u>14.00</u>		
Redox Potential Eh (mV)	<u>228</u>		
Turbidity (NTU)	<u>13.1</u>		

Time	<u>1313</u>	Gal. Purged	<u>74.43</u>
Conductance	<u>4071</u>	pH	<u>6.57</u>
Temp. °C	<u>14.00</u>		
Redox Potential Eh (mV)	<u>226</u>		
Turbidity (NTU)	<u>13.0</u>		

Volume of Water Purged  gallon(s)

Pumping Rate Calculation

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

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

Number of casing volumes evacuated (if other than two)

If well evacuated to dryness, number of gallons evacuated

Name of Certified Analytical Laboratory if Other Than Energy Lab

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

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

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 See instruction

Comment

Arrived on site at 0725. Tanner and Garrin present for purge and sampling event. Purge began at 0730. Purged well for a total of 345 minutes. water was mostly clear. Purge ended and sample was collected at 1315. Depth to water was 81.36 Left site at 1320

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ATTACHMENT 1  
 WHITE MESA URANIUM MILL  
 FIELD DATA WORKSHEET FOR GROUND WATER

Attachment 1  
 See instruction

Description of Sampling Event: 1st Quarter Ground Water 2012

Location (well name): MW-35 Sampler Name and initials: Tanner Holliday/TH

Date and Time for Purging 2/14/2012 and Sampling (if different) N/A

Well Purging Equip Used:  pump or  bailer Well Pump (if other than Bennet) QED

Sampling Event Quarterly G-W Prev. Well Sampled in Sampling Event MW-25

pH Buffer 7.0 7.0 pH Buffer 4.0 4.0

Specific Conductance 999  $\mu$ MHOS/cm Well Depth(0.01 ft): 124.50

Depth to Water Before Purging 112.15 Casing Volume (V) 4" Well: 8.06 (.653h)  
 3" Well: 0 (.367h)

Conductance (avg) 4341 pH of Water (avg) 6.66

Well Water Temp. (avg) 13.74 Redox Potential (Eh) 328 Turbidity 0

Weather Cond. Overcast and snow Ext'l Amb. Temp. °C (prior sampling event) 0

Time	<u>0825</u>	Gal. Purged	<u>18.44</u>
Conductance	<u>4341</u>	pH	<u>6.66</u>
Temp. °C	<u>13.72</u>		
Redox Potential Eh (mV)	<u>336</u>		
Turbidity (NTU)	<u>0</u>		

Time	<u>0826</u>	Gal. Purged	<u>18.66</u>
Conductance	<u>4344</u>	pH	<u>6.67</u>
Temp. °C	<u>13.74</u>		
Redox Potential Eh (mV)	<u>334</u>		
Turbidity (NTU)	<u>0</u>		

Time	<u>0827</u>	Gal. Purged	<u>18.87</u>
Conductance	<u>4341</u>	pH	<u>6.67</u>
Temp. °C	<u>13.76</u>		
Redox Potential Eh (mV)	<u>326</u>		
Turbidity (NTU)	<u>0</u>		

Time	<u>0828</u>	Gal. Purged	<u>19.09</u>
Conductance	<u>4341</u>	pH	<u>6.67</u>
Temp. °C	<u>13.75</u>		
Redox Potential Eh (mV)	<u>319</u>		
Turbidity (NTU)	<u>0</u>		

03.1386, 6.130 - CR-QAP revs 11/02/09 / CR-QAP revs 3/Template-(711) - Printed 12/16/2011 4:59 PM from DMC0200038

Volume of Water Purged  gallon(s)

Pumping Rate Calculation

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

Time to evacuate two casing volumes (2V)  
 $T = 2V.Q =$

Number of casing volumes evacuated (if other than two)

If well evacuated to dryness, number of gallons evacuated

Name of Certified Analytical Laboratory if Other Than Energy Lab:  G-EL

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

General Inorganics

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

See instruction

Comment

Arrived on site at 0653. Tanner and Garrin present for purge and sampling event. Purge began at 0700. Purged well for a total of 90 minutes. water was clear. Purge ended and samples were collected at 0830. Depth to water was 112.59. Left site at 0854

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ATTACHMENT 1  
WHITE MESA URANIUM MILL  
FIELD DATA WORKSHEET FOR GROUND WATER



Attachment 1  
See instruction

Description of Sampling Event: 1st Quarter Ground Water 2012

Location (well name): MW-36 Sampler Name and initials: Tanner Holliday/TJH

Date and Time for Purging 2/20/2012 and Sampling (if different) N/A

Well Purging Equip Used:  pump or  bailer Well Pump (if other than Bennet) QED

Sampling Event Quarterly GW Prev. Well Sampled in Sampling Event MW-23

pH Buffer 7.0 7.0 pH Buffer 4.0 4.0

Specific Conductance 999  $\mu$ MHOS/cm Well Depth(0.01ft): 121.60

Depth to Water Before Purging 110.65 Casing Volume (V) 4" Well: 7.15 (.653h)  
3" Well: 0 (.367h)

Conductance (avg) 5081 pH of Water (avg) 6.91

Well Water Temp. (avg) 14.45 Redox Potential (Eh) 366 Turbidity 0

Weather Cond. Sunny Ext'l Amb. Temp. °C (prior sampling event) 2°

Time	<u>1315</u>	Gal. Purged	<u>14.10</u>
Conductance	<u>5079</u>	pH	<u>6.91</u>
Temp. °C	<u>14.41</u>		
Redox Potential Eh (mV)	<u>376</u>		
Turbidity (NTU)	<u>0</u>		

Time	<u>1316</u>	Gal. Purged	<u>14.32</u>
Conductance	<u>5078</u>	pH	<u>6.91</u>
Temp. °C	<u>14.47</u>		
Redox Potential Eh (mV)	<u>369</u>		
Turbidity (NTU)	<u>0</u>		

Time	<u>1317</u>	Gal. Purged	<u>14.53</u>
Conductance	<u>5072</u>	pH	<u>6.91</u>
Temp. °C	<u>14.45</u>		
Redox Potential Eh (mV)	<u>361</u>		
Turbidity (NTU)	<u>0</u>		

Time	<u>1318</u>	Gal. Purged	<u>14.75</u>
Conductance	<u>5097</u>	pH	<u>6.91</u>
Temp. °C	<u>14.47</u>		
Redox Potential Eh (mV)	<u>358</u>		
Turbidity (NTU)	<u>0</u>		

Volume of Water Purged  gallon(s)

Pumping Rate Calculation

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

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

Number of casing volumes evacuated (if other than two)

If well evacuated to dryness, number of gallons evacuated

Name of Certified Analytical Laboratory if Other Than Energy Lab:  GEL

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

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

 See instruction

Comment

Arrived on site at 1201. Tanner and Garrin present for purge and sampling event. Purge began at 1210. Purged well for a total of 70 minutes. Water was clear. Purge ended and samples were collected at 1320. Depth to water was 112.41. Left site at 1341

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ATTACHMENT 1  
WHITE MESA URANIUM MILL  
FIELD DATA WORKSHEET FOR GROUND WATER



Attachment 1  
See instruction

Description of Sampling Event: 1st Quarter Ground Water 2012

Location (well name): MW-37

Sampler Name and initials: Tanner Holliday/TH

Date and Time for Purging 2/22/2012

and Sampling (if different) 2/29/2012

Well Purging Equip Used:  pump or  bailer

Well Pump (if other than Bennet) N/A

Sampling Event Quarterly GW

Prev. Well Sampled in Sampling Event MW-24

pH Buffer 7.0 7.0

pH Buffer 4.0 4.0

Specific Conductance 999  $\mu$ MHOS/cm

Well Depth(0.01ft): 121.80

Depth to Water Before Purging 107.05

Casing Volume (V) 4" Well: 9.63 (.653h)  
3" Well: 0 (.367h)

Conductance (avg) 4609

pH of Water (avg) 6.68

Well Water Temp. (avg) 14.37

Redox Potential (Eh) 320

Turbidity 70.7

Weather Cond. Cloudy

Ext'l Amb. Temp. °C (prior sampling event) 6°

Time	<u>1344</u>	Gal. Purged	<u>5</u>
Conductance	<u>4609</u>	pH	<u>6.68</u>
Temp. °C	<u>14.37</u>		
Redox Potential Eh (mV)	<u>320</u>		
Turbidity (NTU)	<u>70.7</u>		

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

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

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

Volume of Water Purged  gallon(s)

Pumping Rate Calculation

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

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

Number of casing volumes evacuated (if other than two)

If well evacuated to dryness, number of gallons evacuated

Name of Certified Analytical Laboratory if Other Than Energy Lab:  G-EL

Type of Sample	Sample Taken		Sample Vol (indicate if other than as specified below)	Filtered		Preservative Type	Preservative Added	
	Y	N		Y	N		Y	N
VOCs	<input checked="" type="checkbox"/>	<input type="checkbox"/>	3x40 ml	<input type="checkbox"/>	<input checked="" type="checkbox"/>	HCL	<input checked="" type="checkbox"/>	<input type="checkbox"/>
Nutrients	<input checked="" type="checkbox"/>	<input type="checkbox"/>	100 ml	<input type="checkbox"/>	<input checked="" type="checkbox"/>	H2SO4	<input checked="" type="checkbox"/>	<input type="checkbox"/>
Heavy Metals	<input checked="" type="checkbox"/>	<input type="checkbox"/>	250 ml	<input checked="" type="checkbox"/>	<input type="checkbox"/>	HNO3	<input checked="" type="checkbox"/>	<input type="checkbox"/>
All Other Non Radiologics	<input checked="" type="checkbox"/>	<input type="checkbox"/>	250 ml	<input type="checkbox"/>	<input checked="" type="checkbox"/>	No Preserv.	<input type="checkbox"/>	<input checked="" type="checkbox"/>
Gross Alpha	<input checked="" type="checkbox"/>	<input type="checkbox"/>	1,000 ml	<input checked="" type="checkbox"/>	<input type="checkbox"/>	HNO3	<input checked="" type="checkbox"/>	<input type="checkbox"/>
Other (specify)	<input checked="" type="checkbox"/>	<input type="checkbox"/>	Sample volume	<input type="checkbox"/>	<input checked="" type="checkbox"/>		<input type="checkbox"/>	<input checked="" type="checkbox"/>
<i>General Inorganics</i>								

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

 See instruction

Comment

Arrived on site at 1324. Tanner and Garrin present to <sup>Bail</sup> purge MW-37. Bailed 14 Gallons from well. Bailed well dry! water was murky with a slight discolor. Stopped bailing at 1405. Left site at 1408

Arrived on site at 1245. Tanner and Garrin present to collect samples. Depth to water was 116.70 Samples were bailed at 1300 Left site at 1320

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**ATTACHMENT 1**  
**WHITE MESA URANIUM MILL**  
**FIELD DATA WORKSHEET FOR GROUND WATER**



Attachment 1  
 See instruction

Description of Sampling Event: 1st Quarter Ground Water 2012

Location (well name): MW-65 Sampler Name and initials: Tanner Holliday ATJ

Date and Time for Purging 2/15/2012 and Sampling (if different) N/A

Well Purging Equip Used:  pump or  bailer Well Pump (if other than Bennet) Continuous

Sampling Event Quarterly GW Prev. Well Sampled in Sampling Event MW-30

pH Buffer 7.0 7.0 pH Buffer 4.0 4.0

Specific Conductance 999  $\mu$ MHOS/ cm Well Depth(0.01ft): 121.33

Depth to Water Before Purging 61.10 Casing Volume (V) 4" Well: 39.33 (.653h)  
 3" Well: 0 (.367h)

Conductance (avg) 3539 pH of Water (avg) 6.72

Well Water Temp. (avg) 14.96 Redox Potential (Eh) 266 Turbidity 0

Weather Cond. Cloudy Ext'l Amb. Temp. °C (prior sampling event) -1°

Time	<input type="text"/>	Gal. Purged	<input type="text"/>
Conductance	<input type="text"/>	pH	<input type="text"/>
Temp. °C	<input type="text"/>		
Redox Potential Eh (mV)	<input type="text"/>		
Turbidity (NTU)	<input type="text"/>		

Time	<input type="text"/>	Gal. Purged	<input type="text"/>
Conductance	<input type="text"/>	pH	<input type="text"/>
Temp. °C	<input type="text"/>		
Redox Potential Eh (mV)	<input type="text"/>		
Turbidity (NTU)	<input type="text"/>		

Time	<input type="text"/>	Gal. Purged	<input type="text"/>
Conductance	<input type="text"/>	pH	<input type="text"/>
Temp. °C	<input type="text"/>		
Redox Potential Eh (mV)	<input type="text"/>		
Turbidity (NTU)	<input type="text"/>		

Time	<input type="text"/>	Gal. Purged	<input type="text"/>
Conductance	<input type="text"/>	pH	<input type="text"/>
Temp. °C	<input type="text"/>		
Redox Potential Eh (mV)	<input type="text"/>		
Turbidity (NTU)	<input type="text"/>		

Volume of Water Purged  gallon(s)

Pumping Rate Calculation

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

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

Number of casing volumes evacuated (if other than two)

If well evacuated to dryness, number of gallons evacuated

Name of Certified Analytical Laboratory if Other Than Energy Lab:

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

General Inorganics

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

 See instruction

Comment

Duplicate of MW-26

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ATTACHMENT 1  
WHITE MESA URANIUM MILL  
FIELD DATA WORKSHEET FOR GROUND WATER



Attachment 1  
See instruction

Description of Sampling Event: 1st Quarter Ground Water 2012 Resample

Location (well name): MW-65 Sampler Name and initials: Tanner Holliday /TH

Date and Time for Purging 2/21/2012 and Sampling (if different) N/A

Well Purging Equip Used:  pump or  bailer Well Pump (if other than Bennet) Continuous

Sampling Event Quarterly GW Prev. Well Sampled in Sampling Event MW-14

pH Buffer 7.0 7.0 pH Buffer 4.0 4.0

Specific Conductance 999  $\mu$ MHOS/cm Well Depth(0.01ft): 121.33

Depth to Water Before Purging 93.30 Casing Volume (V) 4" Well: 18.30 (.653h)  
3" Well: 0 (.367h)

Conductance (avg) 3609 pH of Water (avg) 6.91

Well Water Temp. (avg) 14.47 Redox Potential (Eh) 260 Turbidity 0

Weather Cond. Partly Cloudy Ext'l Amb. Temp. °C (prior sampling event) 6°

Time	<input type="text"/>	Gal. Purged	<input type="text"/>
Conductance	<input type="text"/>	pH	<input type="text"/>
Temp. °C	<input type="text"/>		
Redox Potential Eh (mV)	<input type="text"/>		
Turbidity (NTU)	<input type="text"/>		

Time	<input type="text"/>	Gal. Purged	<input type="text"/>
Conductance	<input type="text"/>	pH	<input type="text"/>
Temp. °C	<input type="text"/>		
Redox Potential Eh (mV)	<input type="text"/>		
Turbidity (NTU)	<input type="text"/>		

Time	<input type="text"/>	Gal. Purged	<input type="text"/>
Conductance	<input type="text"/>	pH	<input type="text"/>
Temp. °C	<input type="text"/>		
Redox Potential Eh (mV)	<input type="text"/>		
Turbidity (NTU)	<input type="text"/>		

Time	<input type="text"/>	Gal. Purged	<input type="text"/>
Conductance	<input type="text"/>	pH	<input type="text"/>
Temp. °C	<input type="text"/>		
Redox Potential Eh (mV)	<input type="text"/>		
Turbidity (NTU)	<input type="text"/>		

Volume of Water Purged  gallon(s)

Pumping Rate Calculation

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

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

Number of casing volumes evacuated (if other than two)

If well evacuated to dryness, number of gallons evacuated

Name of Certified Analytical Laboratory if Other Than Energy Lab

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

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

 See instruction

Comment

Duplicate of MW-26 Resample

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ATTACHMENT 1  
WHITE MESA URANIUM MILL  
FIELD DATA WORKSHEET FOR GROUND WATER



See instruction

Attachment 1

Description of Sampling Event: 1st Quarter Ground Water 2012 Resample

Location (well name): MW-65

Sampler Name and initials: Tanner Holliday/T#

Date and Time for Purging: 3/8/2012

and Sampling (if different): N/A

Well Purging Equip Used:  pump or  bailer

Well Pump (if other than Bennet): Continuous

Sampling Event: Quarterly GW

Prev. Well Sampled in Sampling Event: N/A

pH Buffer 7.0: 7.0

pH Buffer 4.0: 4.0

Specific Conductance: 999  $\mu$ MHOS/ cm

Well Depth(0.01ft): 121.33

Depth to Water Before Purging: 62.30

Casing Volume (V) 4" Well: 38.54 (.653h)  
3" Well: 0 (.367h)

Conductance (avg): 3563

pH of Water (avg): 6.71

Well Water Temp. (avg): 15.15

Redox Potential (Eh): 202

Turbidity: 0

Weather Cond.: Sunny

Ext'l Amb. Temp. °C (prior sampling event): 4°

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

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

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

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

Volume of Water Purged  gallon(s)

Pumping Rate Calculation

Flow Rate (Q), in gpm.

S/60 =

Time to evacuate two casing volumes (2V)

T = 2V/Q =

Number of casing volumes evacuated (if other than two)

If well evacuated to dryness, number of gallons evacuated

Name of Certified Analytical Laboratory if Other Than Energy Lab

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

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

 See instruction

Comment

Duplicate of MW-26

MW-65 03-08-2012 Do not touch this cell (SheetName)



**ATTACHMENT 1**  
**WHITE MESA URANIUM MILL**  
**FIELD DATA WORKSHEET FOR GROUND WATER**



Attachment 1  
 See instruction

Description of Sampling Event:

Location (well name):  Sampler Name and initials:

Date and Time for Purging  and Sampling (if different)

Well Purging Equip Used:  pump or  bailer Well Pump (if other than Bennet)

Sampling Event  Prev. Well Sampled in Sampling Event

pH Buffer 7.0  pH Buffer 4.0

Specific Conductance   $\mu$ MHOS/ cm Well Depth(0.01ft):

Depth to Water Before Purging  Casing Volume (V) 4" Well:  (.653h)  
 3" Well:  (.367h)

Conductance (avg)  pH of Water (avg)

Well Water Temp. (avg)  Redox Potential (Eh)  Turbidity

Weather Cond.  Ext'l Amb. Temp. °C (prior sampling event)

Time	<input type="text"/>	Gal. Purged	<input type="text"/>
Conductance	<input type="text"/>	pH	<input type="text"/>
Temp. °C	<input type="text"/>		
Redox Potential Eh (mV)	<input type="text"/>		
Turbidity (NTU)	<input type="text"/>		

Time	<input type="text"/>	Gal. Purged	<input type="text"/>
Conductance	<input type="text"/>	pH	<input type="text"/>
Temp. °C	<input type="text"/>		
Redox Potential Eh (mV)	<input type="text"/>		
Turbidity (NTU)	<input type="text"/>		

Time	<input type="text"/>	Gal. Purged	<input type="text"/>
Conductance	<input type="text"/>	pH	<input type="text"/>
Temp. °C	<input type="text"/>		
Redox Potential Eh (mV)	<input type="text"/>		
Turbidity (NTU)	<input type="text"/>		

Time	<input type="text"/>	Gal. Purged	<input type="text"/>
Conductance	<input type="text"/>	pH	<input type="text"/>
Temp. °C	<input type="text"/>		
Redox Potential Eh (mV)	<input type="text"/>		
Turbidity (NTU)	<input type="text"/>		

Volume of Water Purged  gallon(s)

Pumping Rate Calculation

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

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

Number of casing volumes evacuated (if other than two)

If well evacuated to dryness, number of gallons evacuated

Name of Certified Analytical Laboratory if Other Than Energy Lab:  GEL

Type of Sample	Sample Taken		Sample Vol (indicate if other than as specified below)	Filtered		Preservative Type	Preservative Added	
	Y	N		Y	N		Y	N
VOCs	<input checked="" type="checkbox"/>	<input type="checkbox"/>	3x40 ml	<input type="checkbox"/>	<input checked="" type="checkbox"/>	HCL	<input checked="" type="checkbox"/>	<input type="checkbox"/>
Nutrients	<input checked="" type="checkbox"/>	<input type="checkbox"/>	100 ml	<input type="checkbox"/>	<input checked="" type="checkbox"/>	H2SO4	<input checked="" type="checkbox"/>	<input type="checkbox"/>
Heavy Metals	<input checked="" type="checkbox"/>	<input type="checkbox"/>	250 ml	<input checked="" type="checkbox"/>	<input type="checkbox"/>	HNO3	<input checked="" type="checkbox"/>	<input type="checkbox"/>
All Other Non Radiologics	<input checked="" type="checkbox"/>	<input type="checkbox"/>	250 ml	<input type="checkbox"/>	<input checked="" type="checkbox"/>	No Preserv.	<input type="checkbox"/>	<input checked="" type="checkbox"/>
Gross Alpha	<input checked="" type="checkbox"/>	<input type="checkbox"/>	1,000 ml	<input checked="" type="checkbox"/>	<input type="checkbox"/>	HNO3	<input checked="" type="checkbox"/>	<input type="checkbox"/>
Other (specify)	<input checked="" type="checkbox"/>	<input type="checkbox"/>	Sample volume	<input type="checkbox"/>	<input checked="" type="checkbox"/>		<input type="checkbox"/>	<input checked="" type="checkbox"/>
<i>General Inorganics</i>								

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

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 See instruction

Comment

Duplicate of MW-14

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Tab C

Field Data Worksheets Accelerated Monitoring

Tab C1

Field Data Worksheets Accelerated Monitoring

January 2012



**ATTACHMENT 1**  
**WHITE MESA URANIUM MILL**  
**FIELD DATA WORKSHEET FOR GROUND WATER**



Attachment 1  
See instruction

Description of Sampling Event: January Monthly Ground Water 2012

Location (well name): MW-11

Sampler Name and initials: Tanner Holliday/TH

Date and Time for Purging 1/26/2012

and Sampling (if different) N/A

Well Purging Equip Used:  pump or  bailer

Well Pump (if other than Bennet) QED

Sampling Event monthly GW

Prev. Well Sampled in Sampling Event MW-26

pH Buffer 7.0 7.0

pH Buffer 4.0 4.0

Specific Conductance 999  $\mu$ MHOS/ cm

Well Depth(0.01ft): 130.00

Depth to Water Before Purging 89.15

Casing Volume (V) 4" Well: 26.67 (.653h)  
3" Well: 0 (.367h)

Conductance (avg) 2886

pH of Water (avg) 7.54

Well Water Temp. (avg) 14.44

Redox Potential (Eh) 174

Turbidity 1.0

Weather Cond. Clear

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

Time	<u>1005</u>	Gal. Purged	<u>52.08</u>
Conductance	<u>2887</u>	pH	<u>7.57</u>
Temp. °C	<u>14.44</u>		
Redox Potential Eh (mV)	<u>181</u>		
Turbidity (NTU)	<u>1.0</u>		

Time	<u>1006</u>	Gal. Purged	<u>52.29</u>
Conductance	<u>2891</u>	pH	<u>7.56</u>
Temp. °C	<u>14.45</u>		
Redox Potential Eh (mV)	<u>177</u>		
Turbidity (NTU)	<u>1.0</u>		

Time	<u>1007</u>	Gal. Purged	<u>52.51</u>
Conductance	<u>2885</u>	pH	<u>7.52</u>
Temp. °C	<u>14.44</u>		
Redox Potential Eh (mV)	<u>171</u>		
Turbidity (NTU)	<u>1.0</u>		

Time	<u>1008</u>	Gal. Purged	<u>52.73</u>
Conductance	<u>2883</u>	pH	<u>7.51</u>
Temp. °C	<u>14.45</u>		
Redox Potential Eh (mV)	<u>170</u>		
Turbidity (NTU)	<u>1.0</u>		

Volume of Water Purged  gallon(s)

Pumping Rate Calculation

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

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

Number of casing volumes evacuated (if other than two)

If well evacuated to dryness, number of gallons evacuated

Name of Certified Analytical Laboratory if Other Than Energy Lab

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

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

 See instruction

Comment

Arrived on site at 0555 Tanner and Garrin present for purge and sampling event. Purge began at 0600. Purged well for a total of 250 minutes. water was clear throughout the purge purge ended and samples were collected at 1010. Depth to water was 90.89 Left site at 1014.  
 a few mice still living in protective casing

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**ATTACHMENT 1**  
**WHITE MESA URANIUM MILL**  
**FIELD DATA WORKSHEET FOR GROUND WATER**



Attachment 1  
 See instruction

Description of Sampling Event: January Monthly Ground Water 2012

Location (well name): MW-14 Sampler Name and initials: Tanner Holliday/TH

Date and Time for Purging 1/24/2012 and Sampling (if different) N/A

Well Purging Equip Used:  pump or  bailer Well Pump (if other than Bennet) QED

Sampling Event Monthly GW Prev. Well Sampled in Sampling Event MW-35

pH Buffer 7.0 7.0 pH Buffer 4.0 4.0

Specific Conductance 999  $\mu$ MHOS/ cm Well Depth(0.01ft): 128.70

Depth to Water Before Purging 103.80 Casing Volume (V) 4" Well: 16.25 (.653h)  
 3" Well: 0 (.367h)

Conductance (avg) 4012 pH of Water (avg) 6.35

Well Water Temp. (avg) 13.95 Redox Potential (Eh) 286 Turbidity 0

Weather Cond. Partly cloudy Ext'l Amb. Temp. °C (prior sampling event) 1°

Time	<u>1455</u>	Gal. Purged	<u>31.46</u>
Conductance	<u>4016</u>	pH	<u>6.35</u>
Temp. °C	<u>13.94</u>		
Redox Potential Eh (mV)	<u>288</u>		
Turbidity (NTU)	<u>0</u>		

Time	<u>1456</u>	Gal. Purged	<u>31.68</u>
Conductance	<u>4008</u>	pH	<u>6.34</u>
Temp. °C	<u>13.95</u>		
Redox Potential Eh (mV)	<u>286</u>		
Turbidity (NTU)	<u>0</u>		

Time	<u>1457</u>	Gal. Purged	<u>31.89</u>
Conductance	<u>4011</u>	pH	<u>6.35</u>
Temp. °C	<u>13.95</u>		
Redox Potential Eh (mV)	<u>286</u>		
Turbidity (NTU)	<u>0</u>		

Time	<u>1458</u>	Gal. Purged	<u>32.11</u>
Conductance	<u>4014</u>	pH	<u>6.36</u>
Temp. °C	<u>13.96</u>		
Redox Potential Eh (mV)	<u>285</u>		
Turbidity (NTU)	<u>0</u>		

Volume of Water Purged  gallon(s)

Pumping Rate Calculation

Flow Rate (Q), in gpm.

S/60 =

Time to evacuate two casing volumes (2V)

T = 2V/Q =

Number of casing volumes evacuated (if other than two)

If well evacuated to dryness, number of gallons evacuated

Name of Certified Analytical Laboratory if Other Than Energy Lab:

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

Field PH

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

 See instruction

Comment

Arrived on site at 1227. Tanner and Garrin present for purge. Purge began at 1230. Purged well for a total of 150 minutes. water was clear. Purge ended at 1500. Left site at 1501. Depth to water was 104.05

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ATTACHMENT 1  
WHITE MESA URANIUM MILL  
FIELD DATA WORKSHEET FOR GROUND WATER



Attachment 1  
See instruction

Description of Sampling Event: January Monthly Ground Water 2012

Location (well name): MW-25 Sampler Name and initials: Tanner Holliday/TH

Date and Time for Purging 1/25/2012 and Sampling (if different) N/A

Well Purging Equip Used:  pump or  bailer Well Pump (if other than Bennet) GED

Sampling Event January Monthly Prev. Well Sampled in Sampling Event MW-14

pH Buffer 7.0 7.0 pH Buffer 4.0 4.0

Specific Conductance 999  $\mu$ MHOS/cm Well Depth(0.01ft): 115.00

Depth to Water Before Purging 75.05 Casing Volume (V) 4" Well: 26.08 (.653h)  
3" Well: 0 (.367h)

Conductance (avg) 3285 pH of Water (avg) 6.65

Well Water Temp. (avg) 14.63 Redox Potential (Eh) 285 Turbidity 2.9

Weather Cond. Sunny Ext'l Amb. Temp. °C (prior sampling event) -6°

Time	<u>1230</u>	Gal. Purged	<u>73.78</u>
Conductance	<u>3284</u>	pH	<u>6.67</u>
Temp. °C	<u>14.65</u>		
Redox Potential Eh (mV)	<u>287</u>		
Turbidity (NTU)	<u>3.0</u>		

Time	<u>1231</u>	Gal. Purged	<u>73.99</u>
Conductance	<u>3288</u>	pH	<u>6.68</u>
Temp. °C	<u>14.63</u>		
Redox Potential Eh (mV)	<u>288</u>		
Turbidity (NTU)	<u>3.0</u>		

Time	<u>1232</u>	Gal. Purged	<u>74.21</u>
Conductance	<u>3286</u>	pH	<u>6.64</u>
Temp. °C	<u>14.65</u>		
Redox Potential Eh (mV)	<u>284</u>		
Turbidity (NTU)	<u>2.9</u>		

Time	<u>1233</u>	Gal. Purged	<u>74.43</u>
Conductance	<u>3285</u>	pH	<u>6.63</u>
Temp. °C	<u>14.62</u>		
Redox Potential Eh (mV)	<u>284</u>		
Turbidity (NTU)	<u>3.0</u>		

Volume of Water Purged  gallon(s)

Pumping Rate Calculation

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

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

Number of casing volumes evacuated (if other than two)

If well evacuated to dryness, number of gallons evacuated

Name of Certified Analytical Laboratory if Other Than Energy Lab:

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

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

 See instruction

Comment

Arrived on site at 0643. Tanner and Garrin present for purge and sampling event. Purge began at 0650. Purged well for a total of <sup>345</sup>~~405~~ minutes. Purge ended and sample was collected at 1235. Water was clear. Depth to water was 76.45. Left site at 1241

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**ATTACHMENT 1  
 WHITE MESA URANIUM MILL  
 FIELD DATA WORKSHEET FOR GROUND WATER**



Attachment 1  
 See instruction

Description of Sampling Event: January Monthly Groundwater 2012

Location (well name): MW-26 Sampler Name and initials: Tanner Holliday/TH

Date and Time for Purging: 1/25/2012 and Sampling (if different): N/A

Well Purging Equip Used:  pump or  bailer Well Pump (if other than Bennet): GED - Continuous

Sampling Event: Monthly GW Prev. Well Sampled in Sampling Event: MW-25

pH Buffer 7.0: 7.0 pH Buffer 4.0: 4.0

Specific Conductance: 999  $\mu$ MHOS/ cm Well Depth(0.01ft): 121.33

Depth to Water Before Purging: 60.55 Casing Volume (V) 4" Well: 39.68 (.653h)  
 3" Well: 0 (.367h)

Conductance (avg): 3495 pH of Water (avg): 6.59

Well Water Temp. (avg): 14.67 Redox Potential (Eh): 233 Turbidity: 1.1

Weather Cond.: Sunny Ext'l Amb. Temp. °C (prior sampling event): 4°

Time	<u>1259</u>	Gal. Purged	<u>0</u>
Conductance	<u>3495</u>	pH	<u>6.59</u>
Temp. °C	<u>14.67</u>		
Redox Potential Eh (mV)	<u>233</u>		
Turbidity (NTU)	<u>1.1</u>		

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

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

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

Volume of Water Purged  gallon(s)

Pumping Rate Calculation

Flow Rate (Q), in gpm.

S/60 =

Time to evacuate two casing volumes (2V)

T = 2V/Q =

Number of casing volumes evacuated (if other than two)

If well evacuated to dryness, number of gallons evacuated

Name of Certified Analytical Laboratory if Other Than Energy Lab

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

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

 See instruction

Comment

Arrived on site at 1250. Tanner and Garrin present for sampling event. Samples were taken at 1300. water was mostly clear. Left site at 1305

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**ATTACHMENT 1**  
**WHITE MESA URANIUM MILL**  
**FIELD DATA WORKSHEET FOR GROUND WATER**



Attachment 1  
See instruction

Description of Sampling Event: January Monthly Ground Water 2012

Location (well name): MW-30 Sampler Name and initials: Tanner Holliday/TH

Date and Time for Purging 1/24/2012 and Sampling (if different) N/A

Well Purging Equip Used:  pump or  bailer Well Pump (if other than Bennet) QED

Sampling Event Monthly GW Prev. Well Sampled in Sampling Event MW-31

pH Buffer 7.0 7.0 pH Buffer 4.0 4.0

Specific Conductance 999  $\mu$ MHOS/ cm Well Depth(0.01ft): 110.00

Depth to Water Before Purging 76.15 Casing Volume (V) 4" Well: 22.10 (.653h)  
3" Well: 0 (.367h)

Conductance (avg) 2101 pH of Water (avg) 6.49

Well Water Temp. (avg) 14.16 Redox Potential (Eh) 305 Turbidity 0

Weather Cond. Cloudy Ext'l Amb. Temp. °C (prior sampling event) -3°

Time	<u>1035</u>	Gal. Purged	<u>43.4</u>
Conductance	<u>2099</u>	pH	<u>6.45</u>
Temp. °C	<u>14.15</u>		
Redox Potential Eh (mV)	<u>313</u>		
Turbidity (NTU)	<u>0</u>		

Time	<u>1036</u>	Gal. Purged	<u>43.61</u>
Conductance	<u>2102</u>	pH	<u>6.49</u>
Temp. °C	<u>14.15</u>		
Redox Potential Eh (mV)	<u>306</u>		
Turbidity (NTU)	<u>0</u>		

Time	<u>1037</u>	Gal. Purged	<u>43.83</u>
Conductance	<u>2102</u>	pH	<u>6.52</u>
Temp. °C	<u>14.17</u>		
Redox Potential Eh (mV)	<u>305</u>		
Turbidity (NTU)	<u>0</u>		

Time	<u>1:38</u>	Gal. Purged	<u>44.05</u>
Conductance	<u>2102</u>	pH	<u>6.52</u>
Temp. °C	<u>14.17</u>		
Redox Potential Eh (mV)	<u>299</u>		
Turbidity (NTU)	<u>0</u>		

Volume of Water Purged  gallon(s)

Pumping Rate Calculation

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

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

Number of casing volumes evacuated (if other than two)

If well evacuated to dryness, number of gallons evacuated

Name of Certified Analytical Laboratory if Other Than Energy Lab:

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

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

 See instruction

Comment

Arrived on site at 0710. Tanner and Garrin present for purge and sampling event. Purge began at 0715. Purged well for a total of 205 minutes. water was mostly clear. Purge ended and samples were collected at 1040. Depth to water was 78.63

Left site at 1045

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**ATTACHMENT 1  
 WHITE MESA URANIUM MILL  
 FIELD DATA WORKSHEET FOR GROUND WATER**



Attachment 1  
 See instruction

Description of Sampling Event: January monthly Ground Water 2012

Location (well name): MW-31 Sampler Name and initials: Tanner Holliday/TH

Date and Time for Purging 1/24/2012 and Sampling (if different) N/A

Well Purging Equip Used:  pump or  bailer Well Pump (if other than Bennet) QED

Sampling Event Monthly GW Prev. Well Sampled in Sampling Event N/A

pH Buffer 7.0 7.0 pH Buffer 4.0 4.0

Specific Conductance 999  $\mu$ MHOS/ cm Well Depth(0.01ft): 130.00

Depth to Water Before Purging 68.35 Casing Volume (V) 4" Well: 40.25 (.653h)  
 3" Well: 0 (.367h)

Conductance (avg) 1921 pH of Water (avg) 6.76

Well Water Temp. (avg) 13.89 Redox Potential (Eh) 290 Turbidity 0

Weather Cond. Cloudy Ext'l Amb. Temp. °C (prior sampling event) -3°

Time	<u>1310</u>	Gal. Purged	<u>80.29</u>
Conductance	<u>1924</u>	pH	<u>6.74</u>
Temp. °C	<u>13.81</u>		
Redox Potential Eh (mV)	<u>292</u>		
Turbidity (NTU)	<u>0</u>		

Time	<u>1311</u>	Gal. Purged	<u>80.58</u>
Conductance	<u>1920</u>	pH	<u>6.75</u>
Temp. °C	<u>13.90</u>		
Redox Potential Eh (mV)	<u>290</u>		
Turbidity (NTU)	<u>0</u>		

Time	<u>1312</u>	Gal. Purged	<u>80.72</u>
Conductance	<u>1921</u>	pH	<u>6.77</u>
Temp. °C	<u>13.91</u>		
Redox Potential Eh (mV)	<u>290</u>		
Turbidity (NTU)	<u>0</u>		

Time	<u>1313</u>	Gal. Purged	<u>80.94</u>
Conductance	<u>1922</u>	pH	<u>6.18</u>
Temp. °C	<u>13.91</u>		
Redox Potential Eh (mV)	<u>288</u>		
Turbidity (NTU)	<u>0</u>		

Volume of Water Purged  gallon(s)

Pumping Rate Calculation

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

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

Number of casing volumes evacuated (if other than two)

If well evacuated to dryness, number of gallons evacuated

Name of Certified Analytical Laboratory if Other Than Energy Lab:

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

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

 See instruction

Comment

Arrived on site at 0650. Tanner and Garrin present for purge and sampling event. Purge began at 0700. Purged well for a total of 375 minutes. water was mostly 1 in throughout the purge. Purge ended and samples were collected at 1315. Depth to water was 71.40. Left site at 1320.

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**ATTACHMENT 1  
WHITE MESA URANIUM MILL  
FIELD DATA WORKSHEET FOR GROUND WATER**



Attachment 1  
See instruction

Description of Sampling Event: January Monthly Groundwater 2012

Location (well name): MW-35 Sampler Name and initials: Janner Holliday / JH

Date and Time for Purging 1/24/2012 and Sampling (if different) N/A

Well Purging Equip Used:  pump or  bailer Well Pump (if other than Bennet) QED

Sampling Event  monthly GW Prev. Well Sampled in Sampling Event MW-30

pH Buffer 7.0 7.0 pH Buffer 4.0 4.0

Specific Conductance 999  $\mu$ MHOS/ cm Well Depth(0.01ft): 124.50

Depth to Water Before Purging 112.35 Casing Volume (V) 4" Well: 7.93 (.653h)  
3" Well: 0 (.367h)

Conductance (avg) 4268 pH of Water (avg) 6.32

Well Water Temp. (avg) 13.69 Redox Potential (Eh) 259 Turbidity 1.0

Weather Cond. Partly Cloudy Ext'l Amb. Temp. °C (prior sampling event) 1°

Time	<u>1215</u>	Gal. Purged	<u>16.27</u>
Conductance	<u>4277</u>	pH	<u>6.31</u>
Temp. °C	<u>13.70</u>		
Redox Potential Eh (mV)	<u>265</u>		
Turbidity (NTU)	<u>1.0</u>		

Time	<u>1216</u>	Gal. Purged	<u>16.49</u>
Conductance	<u>4267</u>	pH	<u>6.31</u>
Temp. °C	<u>13.69</u>		
Redox Potential Eh (mV)	<u>262</u>		
Turbidity (NTU)	<u>1.0</u>		

Time	<u>1217</u>	Gal. Purged	<u>16.70</u>
Conductance	<u>4266</u>	pH	<u>6.34</u>
Temp. °C	<u>13.70</u>		
Redox Potential Eh (mV)	<u>257</u>		
Turbidity (NTU)	<u>1.0</u>		

Time	<u>1218</u>	Gal. Purged	<u>16.92</u>
Conductance	<u>4265</u>	pH	<u>6.35</u>
Temp. °C	<u>13.70</u>		
Redox Potential Eh (mV)	<u>254</u>		
Turbidity (NTU)	<u>1.0</u>		

Volume of Water Purged  gallon(s)

Pumping Rate Calculation

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

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

Number of casing volumes evacuated (if other than two)

If well evacuated to dryness, number of gallons evacuated

Name of Certified Analytical Laboratory if Other Than Energy Lab:

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

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

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See instruction

Comment

Arrived on site at 1054. Tanner and Garrin present for purge and sampling event. Purge began at 1100. Purged well for a total of 80 minutes. water was clear throughout the purge. Purge ended and sample was collected at 1220. Depth to water was 113.13  
 Left site at 1226

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**ATTACHMENT 1  
 WHITE MESA URANIUM MILL  
 FIELD DATA WORKSHEET FOR GROUND WATER**



Attachment 1  
 See instruction

Description of Sampling Event: January monthly Ground water 2012

Location (well name): MW-65 Sampler Name and initials: Tanner Holliday/TH

Date and Time for Purging 1/25/2012 and Sampling (if different) N/A

Well Purging Equip Used:  pump or  bailer Well Pump (if other than Bennet) QED

Sampling Event monthly GW Prev. Well Sampled in Sampling Event MW-14

pH Buffer 7.0 7.0 pH Buffer 4.0 4.0

Specific Conductance 999  $\mu$ MHOS/ cm Well Depth(0.01ft): 115.00

Depth to Water Before Purging 75.05 Casing Volume (V) 4" Well: 26.08 (.653h)  
 3" Well: 0 (.367h)

Conductance (avg) 3285 pH of Water (avg) 6.65

Well Water Temp. (avg) 14.63 Redox Potential (Eh) 285 Turbidity 2.9

Weather Cond. Sunny Ext'l Amb. Temp. °C (prior sampling event) -6°

Time	<input type="text"/>	Gal. Purged	<input type="text"/>
Conductance	<input type="text"/>	pH	<input type="text"/>
Temp. °C	<input type="text"/>		
Redox Potential Eh (mV)	<input type="text"/>		
Turbidity (NTU)	<input type="text"/>		

Time	<input type="text"/>	Gal. Purged	<input type="text"/>
Conductance	<input type="text"/>	pH	<input type="text"/>
Temp. °C	<input type="text"/>		
Redox Potential Eh (mV)	<input type="text"/>		
Turbidity (NTU)	<input type="text"/>		

Time	<input type="text"/>	Gal. Purged	<input type="text"/>
Conductance	<input type="text"/>	pH	<input type="text"/>
Temp. °C	<input type="text"/>		
Redox Potential Eh (mV)	<input type="text"/>		
Turbidity (NTU)	<input type="text"/>		

Time	<input type="text"/>	Gal. Purged	<input type="text"/>
Conductance	<input type="text"/>	pH	<input type="text"/>
Temp. °C	<input type="text"/>		
Redox Potential Eh (mV)	<input type="text"/>		
Turbidity (NTU)	<input type="text"/>		

Volume of Water Purged  gallon(s)

Pumping Rate Calculation

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

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

Number of casing volumes evacuated (if other than two)

If well evacuated to dryness, number of gallons evacuated

Name of Certified Analytical Laboratory if Other Than Energy Lab

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

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

 See instruction

Comment

Duplicate of MW-25

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Tab C2

Field Data Worksheets Accelerated Monitoring

March 2012



ATTACHMENT 1  
WHITE MESA URANIUM MILL  
FIELD DATA WORKSHEET FOR GROUND WATER

Attachment 1

See instruction

Description of Sampling Event: March Ground Water 2012

Location (well name): MW-11

Sampler Name and initials: Tanner Holliday/TH

Date and Time for Purging: 3/13/2012

and Sampling (if different): N/A

Well Purging Equip Used:  pump or  bailer

Well Pump (if other than Bennet): QED

Sampling Event: Monthly GW

Prev. Well Sampled in Sampling Event: MW-31

pH Buffer 7.0: 7.0

pH Buffer 4.0: 4.0

Specific Conductance: 999  $\mu$ MHOS/cm

Well Depth(0.01ft): 130.00

Depth to Water Before Purging: 88.32

Casing Volume (V) 4" Well: 27.21 (.653h)  
3" Well: 0 (.367h)

Conductance (avg): 2964

pH of Water (avg): 7.45

Well Water Temp. (avg): 14.70

Redox Potential (Eh): 108

Turbidity: 91

Weather Cond.: Partly cloudy

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

Time	<u>1200</u>	Gal. Purged	<u>54.25</u>
Conductance	<u>2963</u>	pH	<u>7.43</u>
Temp. °C	<u>14.72</u>		
Redox Potential Eh (mV)	<u>112</u>		
Turbidity (NTU)	<u>46</u>		

Time	<u>1201</u>	Gal. Purged	<u>54.46</u>
Conductance	<u>2962</u>	pH	<u>7.44</u>
Temp. °C	<u>14.71</u>		
Redox Potential Eh (mV)	<u>108</u>		
Turbidity (NTU)	<u>91</u>		

Time	<u>1202</u>	Gal. Purged	<u>54.68</u>
Conductance	<u>2965</u>	pH	<u>7.46</u>
Temp. °C	<u>14.69</u>		
Redox Potential Eh (mV)	<u>107</u>		
Turbidity (NTU)	<u>92</u>		

Time	<u>1203</u>	Gal. Purged	<u>54.90</u>
Conductance	<u>2968</u>	pH	<u>7.47</u>
Temp. °C	<u>14.68</u>		
Redox Potential Eh (mV)	<u>106</u>		
Turbidity (NTU)	<u>93</u>		

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Volume of Water Purged  gallon(s)

Pumping Rate Calculation

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

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

Number of casing volumes evacuated (if other than two)

If well evacuated to dryness, number of gallons evacuated

Name of Certified Analytical Laboratory if Other Than Energy Lab

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

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

See instruction

Comment

Arrived on site at 0744. Tanner and Garrin present for purge and sampling event  
 Purge began at 0750. Purged well for a total of 255 minutes.  
 Water was clear. Purge ended and samples were collected at 1205.  
 Depth to water was 88.39 Left site at 1210

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ATTACHMENT 1  
WHITE MESA URANIUM MILL  
FIELD DATA WORKSHEET FOR GROUND WATER

Attachment 1  
See instruction

Description of Sampling Event: March Ground Water 2012

Location (well name): MW-14

Sampler Name and initials: Tanner Holliday TH

Date and Time for Purging: 3/14/2012

and Sampling (if different): N/A

Well Purging Equip Used:  pump or  bailer

Well Pump (if other than Bennet): QED

Sampling Event: Monthly GW

Prev. Well Sampled in Sampling Event: MW-30

pH Buffer 7.0: 7.0

pH Buffer 4.0: 4.0

Specific Conductance: 999  $\mu$ MHOS/cm

Well Depth(0.01ft): 128.70

Depth to Water Before Purging: 103.87

Casing Volume (V) 4" Well: 16.21 (.653h)  
3" Well: 0 (.367h)

Conductance (avg): 4064

pH of Water (avg): 6.47

Well Water Temp. (avg): 15.12

Redox Potential (Eh): 255

Turbidity: 0

Weather Cond.: Sunny

Ext'l Amb. Temp. °C (prior sampling event): 12°

Time	<u>1515</u>	Gal. Purged	<u>31.46</u>
Conductance	<u>4058</u>	pH	<u>6.45</u>
Temp. °C	<u>15.30</u>		
Redox Potential Eh (mV)	<u>252</u>		
Turbidity (NTU)	<u>0</u>		

Time	<u>1516</u>	Gal. Purged	<u>31.68</u>
Conductance	<u>4067</u>	pH	<u>6.45</u>
Temp. °C	<u>15.10</u>		
Redox Potential Eh (mV)	<u>255</u>		
Turbidity (NTU)	<u>0</u>		

Time	<u>1517</u>	Gal. Purged	<u>31.89</u>
Conductance	<u>4065</u>	pH	<u>6.50</u>
Temp. °C	<u>15.05</u>		
Redox Potential Eh (mV)	<u>257</u>		
Turbidity (NTU)	<u>0</u>		

Time	<u>1518</u>	Gal. Purged	<u>32.11</u>
Conductance	<u>4066</u>	pH	<u>6.51</u>
Temp. °C	<u>15.05</u>		
Redox Potential Eh (mV)	<u>258</u>		
Turbidity (NTU)	<u>0</u>		

03.2867.11.7 - GH-QM rev 11/2010 - Copy / Template - (80) - Printed 3/17/2012 9:06 AM from 0000000000

Volume of Water Purged  gallon(s)

Pumping Rate Calculation

Flow Rate (Q), in gpm.

S/60 =

Time to evacuate two casing volumes (2V)

T = 2V/Q =

Number of casing volumes evacuated (if other than two)

If well evacuated to dryness, number of gallons evacuated

Name of Certified Analytical Laboratory if Other Than Energy Lab

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

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

Comment

See instruction

Arrived on site at 1245. Tanner and Garrin present for purge.  
 Purge began at 1250. Purged well for a total of 150 minutes water was clear. Purge ended at 1520. Left site at 1521  
 Depth to water was 104.30

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**ATTACHMENT 1  
WHITE MESA URANIUM MILL  
FIELD DATA WORKSHEET FOR GROUND WATER**

See instruction

Attachment 1

Description of Sampling Event: March Ground Water 2012

Location (well name): MW-25

Sampler Name and initials: Tanner Holliday/TH

Date and Time for Purging: 3/14/2012

and Sampling (if different): N/A

Well Purging Equip Used:  pump or  bailer

Well Pump (if other than Bennet): QED

Sampling Event: Q. Monthly GW  
Monthly GW

Prev. Well Sampled in Sampling Event: MW-35

pH Buffer 7.0: 7.0

pH Buffer 4.0: 4.0

Specific Conductance: 499 μMHOS/cm

Well Depth(0.01ft): 115.00

Depth to Water Before Purging: 74.03

Casing Volume (V) 4" Well: 26.75 (.653h)  
3" Well: 0 (.367h)

Conductance (avg): 3348

pH of Water (avg): 6.54

Well Water Temp. (avg): 14.67

Redox Potential (Eh): 367

Turbidity: 1.2

Weather Cond.: Sunny

Ext'l Amb. Temp. °C (prior sampling event): 5°

Time	<u>1255</u>	Gal. Purged	<u>55.33</u>
Conductance	<u>3347</u>	pH	<u>6.53</u>
Temp. °C	<u>14.68</u>		
Redox Potential Eh (mV)	<u>369</u>		
Turbidity (NTU)	<u>1.2</u>		

Time	<u>1256</u>	Gal. Purged	<u>55.55</u>
Conductance	<u>3347</u>	pH	<u>6.56</u>
Temp. °C	<u>14.68</u>		
Redox Potential Eh (mV)	<u>363</u>		
Turbidity (NTU)	<u>1.2</u>		

Time	<u>1257</u>	Gal. Purged	<u>55.76</u>
Conductance	<u>3350</u>	pH	<u>6.53</u>
Temp. °C	<u>14.67</u>		
Redox Potential Eh (mV)	<u>376</u>		
Turbidity (NTU)	<u>1.2</u>		

Time	<u>1258</u>	Gal. Purged	<u>55.98</u>
Conductance	<u>3348</u>	pH	<u>6.55</u>
Temp. °C	<u>14.67</u>		
Redox Potential Eh (mV)	<u>360</u>		
Turbidity (NTU)	<u>1.2</u>		

01,2867,11.1 - QAP rev 6 11/2010 - Copy 2 / Template-1071 - Printed 3/17/2012 9:05 AM from 0000000036

Volume of Water Purged  gallon(s)

Pumping Rate Calculation

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

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

Number of casing volumes evacuated (if other than two)

If well evacuated to dryness, number of gallons evacuated

Name of Certified Analytical Laboratory if Other Than Energy Lab

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

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

03-2007-11.2 - GH-QAP rev. 11/02/10

Comment

See instruction

Arrived on site at 0835. Tanner and Garrin present for purge and sampling event  
Purge began at 0840. Purged well for a total of 260 minutes.  
Water was clear. Purge ended and sample was collected at 1300  
Depth to water was 74.95 Left site at 1303

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ATTACHMENT 1  
WHITE MESA URANIUM MILL  
FIELD DATA WORKSHEET FOR GROUND WATER

Attachment 1

See instruction

Description of Sampling Event: March Ground Water 2012

Location (well name): MW-26

Sampler Name and initials: Tanner Holliday/HH

Date and Time for Purging: 3/14/2012

and Sampling (if different): N/A

Well Purging Equip Used:  pump or  bailer

Well Pump (if other than Bennet): Continuous

Sampling Event: Monthly GW

Prev. Well Sampled in Sampling Event: MW-14

pH Buffer 7.0: 7.0

pH Buffer 4.0: 4.0

Specific Conductance: 999 µMHOS/ cm

Well Depth(0.01 ft): 121.33

Depth to Water Before Purging: 60.90

Casing Volume (V) 4" Well: 39.46 (.653h)  
3" Well: 0 (.367h)

Conductance (avg): 3604

pH of Water (avg): 6.39

Well Water Temp. (avg): 14.93

Redox Potential (Eh): 219

Turbidity: 0

Weather Cond.: Sunny

Ext'l Amb. Temp. °C (prior sampling event): 13°

Time	<u>1329</u>	Gal. Purged	<u>0</u>
Conductance	<u>3604</u>	pH	<u>6.39</u>
Temp. °C	<u>14.93</u>		
Redox Potential Eh (mV)	<u>219</u>		
Turbidity (NTU)	<u>0</u>		

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

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

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

83 2847-11.5 - GH-QAP rev6 11/02/09 - Copy2 / Template-[010] - Printed 3/19/2012 9:06 AM from ENC0280008

Volume of Water Purged  gallon(s)

**Pumping Rate Calculation**

Flow Rate (Q), in gpm.

S/60 =

Time to evacuate two casing volumes (2V)

T = 2V/Q =

Number of casing volumes evacuated (if other than two)

If well evacuated to dryness, number of gallons evacuated

Name of Certified Analytical Laboratory if Other Than Energy Lab

Type of Sample	Sample Taken		Sample Vol (indicate if other than as specified below)	Filtered		Preservative Type	Preservative Added	
	Y	N		Y	N		Y	N
VOCs	<input checked="" type="checkbox"/>	<input type="checkbox"/>	3x40 ml	<input type="checkbox"/>	<input checked="" type="checkbox"/>	HCL	<input checked="" type="checkbox"/>	<input type="checkbox"/>
Nutrients	<input checked="" type="checkbox"/>	<input type="checkbox"/>	100 ml	<input type="checkbox"/>	<input checked="" type="checkbox"/>	H2SO4	<input checked="" type="checkbox"/>	<input type="checkbox"/>
Heavy Metals	<input checked="" type="checkbox"/>	<input type="checkbox"/>	250 ml	<input checked="" type="checkbox"/>	<input type="checkbox"/>	HNO3	<input checked="" type="checkbox"/>	<input checked="" type="checkbox"/>
All Other Non Radiologics	<input checked="" type="checkbox"/>	<input type="checkbox"/>	250 ml	<input type="checkbox"/>	<input checked="" type="checkbox"/>	No Preserv	<input type="checkbox"/>	<input checked="" type="checkbox"/>
Gross Alpha	<input checked="" type="checkbox"/>	<input type="checkbox"/>	1,000 ml	<input checked="" type="checkbox"/>	<input type="checkbox"/>	HNO3	<input checked="" type="checkbox"/>	<input type="checkbox"/>
Other (specify)	<input checked="" type="checkbox"/>	<input type="checkbox"/>	Sample volume	<input type="checkbox"/>	<input checked="" type="checkbox"/>		<input type="checkbox"/>	<input checked="" type="checkbox"/>

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

**Comment**

See instruction

Arrived on site at 1323. Tanner and Garrin present for sampling event. Samples were taken at 1330. water was clear. Left site at 1300 1339

Do not touch this cell (SheetName)

01-2007.11.6 - GH-QAP v04 11/02/010 - 03/22/2010 - 03/22/2010



ATTACHMENT I  
WHITE MESA URANIUM MILL  
FIELD DATA WORKSHEET FOR GROUND WATER

Attachment I

See instruction

Description of Sampling Event: March Ground Water 2012

Location (well name): MW-30

Sampler Name and initials: Tanner Holliday TH

Date and Time for Purging: 3/14/2012

and Sampling (if different) N/A

Well Purging Equip Used:  pump or  bailer

Well Pump (if other than Bennet) QED

Sampling Event Monthly GW

Prev. Well Sampled in Sampling Event MW-25

pH Buffer 7.0 7.0

pH Buffer 4.0 4.0

Specific Conductance 999  $\mu$ MHOS/cm

Well Depth(0.01 ft): 110.00

Depth to Water Before Purging 76.15

Casing Volume (V) 4" Well: 22.10 (.653h)  
3" Well: 0 (.367h)

Conductance (avg) 2141

pH of Water (avg) 6.84

Well Water Temp. (avg) 14.67

Redox Potential (Eh) 284

Turbidity 0

Weather Cond. Sunny

Ext'l Amb. Temp. °C (prior sampling event) 5°

Time	<u>1215</u>	Gal. Purged	<u>43.4</u>
Conductance	<u>2139</u>	pH	<u>6.83</u>
Temp. °C	<u>14.68</u>		
Redox Potential Eh (mV)	<u>295</u>		
Turbidity (NTU)	<u>0</u>		

Time	<u>1216</u>	Gal. Purged	<u>43.61</u>
Conductance	<u>2146</u>	pH	<u>6.83</u>
Temp. °C	<u>14.67</u>		
Redox Potential Eh (mV)	<u>284</u>		
Turbidity (NTU)	<u>0</u>		

Time	<u>1217</u>	Gal. Purged	<u>43.83</u>
Conductance	<u>2143</u>	pH	<u>6.85</u>
Temp. °C	<u>14.67</u>		
Redox Potential Eh (mV)	<u>282</u>		
Turbidity (NTU)	<u>0</u>		

Time	<u>1218</u>	Gal. Purged	<u>44.05</u>
Conductance	<u>2139</u>	pH	<u>6.86</u>
Temp. °C	<u>14.67</u>		
Redox Potential Eh (mV)	<u>276</u>		
Turbidity (NTU)	<u>0</u>		

83-2867-11.1 - GW-QAP rev 11/07/10 - Copy 2 / Template (v10) - Printed 3/19/2012 9:06 AM from I:\MS\50800\83

Volume of Water Purged  gallon(s)

Pumping Rate Calculation

Flow Rate (Q), in gpm.

S/60 =

Time to evacuate two casing volumes (2V)

T = 2V/Q =

Number of casing volumes evacuated (if other than two)

If well evacuated to dryness, number of gallons evacuated

Name of Certified Analytical Laboratory if Other Than Energy Lab

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

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

See instruction

Comment

Arrived on site at 0851 Tanner and Garrin present for purge and sampling event. Purge began at 0855. Purged well for a total of 205 minutes. water was clear. Purge ended and sample was collected at 1220. Depth to water was 78.69 Left site at 1229

93-3867.11.4 - GH-QAP rev 11/2010 - 03/22/2010



ATTACHMENT 1  
WHITE MESA URANIUM MILL  
FIELD DATA WORKSHEET FOR GROUND WATER

Attachment 1  
See instruction

Description of Sampling Event: March Ground Water 2012

Location (well name) MW-31 Sampler Name and initials: Tanner Holliday / TH  
*MW-31*

Date and Time for Purging 3/13/2012 and Sampling (if different) N/A

Well Purging Equip Used:  pump or  bailer Well Pump (if other than Bennet) QED

Sampling Event Monthly GW Prev. Well Sampled in Sampling Event N/A

pH Buffer 7.0 7.0 pH Buffer 4.0 4.0

Specific Conductance 999  $\mu$ MHOS/ cm Well Depth(0.01 ft): 130.00

Depth to Water Before Purging 68 30 Casing Volume (V) 4" Well: 40.29 (.653h)  
3" Well: 0 (.367h)

Conductance (avg) 1975 pH of Water (avg) 7.12

Well Water Temp. (avg) 14.59 Redox Potential (Eh) 325 Turbidity 2.3

Weather Cond. Partly Cloudy Ext'l Amb. Temp. °C (prior sampling event) 2°

Time	<u>1415</u>	Gal. Purged	<u>85.71</u>
Conductance	<u>1974</u>	pH	<u>7.12</u>
Temp. °C	<u>14.62</u>		
Redox Potential Eh (mV)	<u>332</u>		
Turbidity (NTU)	<u>2.3</u>		

Time	<u>1416</u>	Gal. Purged	<u>85.93</u>
Conductance	<u>1974</u>	pH	<u>7.12</u>
Temp. °C	<u>14.61</u>		
Redox Potential Eh (mV)	<u>327</u>		
Turbidity (NTU)	<u>2.3</u>		

Time	<u>1417</u>	Gal. Purged	<u>86.14</u>
Conductance	<u>1977</u>	pH	<u>7.12</u>
Temp. °C	<u>14.59</u>		
Redox Potential Eh (mV)	<u>322</u>		
Turbidity (NTU)	<u>2.3</u>		

Time	<u>1418</u>	Gal. Purged	<u>86.36</u>
Conductance	<u>1977</u>	pH	<u>7.13</u>
Temp. °C	<u>14.57</u>		
Redox Potential Eh (mV)	<u>321</u>		
Turbidity (NTU)	<u>2.3</u>		

81-2887-10-11 - GR-QAP rev 11/02/10 - Copy2 / Template-(fz) - Printed 3/10/2012 9:01 AM from 18252820038

Volume of Water Purged  gallon(s)

Pumping Rate Calculation

Flow Rate (Q), in gpm.

S/60 =

Time to evacuate two casing volumes (2V)

T = 2V/Q =

Number of casing volumes evacuated (if other than two)

If well evacuated to dryness, number of gallons evacuated

Name of Certified Analytical Laboratory if Other Than Energy Lab

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

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

See instruction

Comment

Arrived on site at 0734. Tanner and Garin present for purge and sampling event. Purge began at 0740. Purged well for a total of 400 minutes. Water was clear. Purge ended and samples were collected at 1420. Depth to water was 71.51. Left site at 1425.

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03-2467-10-14 GR-QAP revs 11/20/10 From: 04/20/2010 08:28



ATTACHMENT 1  
WHITE MESA URANIUM MILL  
FIELD DATA WORKSHEET FOR GROUND WATER

Attachment 1

See instruction

Description of Sampling Event: March Ground Water 2012

Location (well name): MW-35 Sampler Name and initials: Tanner Holliday / TH

Date and Time for Purging: 3/13/2012 and Sampling (if different): N/A

Well Purging Equip Used:  pump or  bailer Well Pump (if other than Bennet): QED

Sampling Event: Monthly GW Prev. Well Sampled in Sampling Event: MW-11

pH Buffer 7.0: 7.0 pH Buffer 4.0: 4.0

Specific Conductance: 999  $\mu$ MHOS/cm Well Depth(0.01ft): 124.50

Depth to Water Before Purging: 112.34 Casing Volume (V) 4" Well: 7.94 (.653h)  
3" Well: 0 (.367h)

Conductance (avg): 4334 pH of Water (avg): 6.47

Well Water Temp. (avg): 14.93 Redox Potential (Eh): 326 Turbidity: 0

Weather Cond.: Partly Cloudy Ext'l Amb. Temp. °C (prior sampling event): 11°

Time: 1400 Gal. Purged: 21.7

Conductance: 4341 pH: 6.46

Temp. °C: 14.93

Redox Potential Eh (mV): 334

Turbidity (NTU): 0

Time: 1401 Gal. Purged: 21.91

Conductance: 4331 pH: 6.47

Temp. °C: 14.94

Redox Potential Eh (mV): 332

Turbidity (NTU): 0

Time: 1402 Gal. Purged: 22.13

Conductance: 4339 pH: 6.47

Temp. °C: 14.93

Redox Potential Eh (mV): 320

Turbidity (NTU): 0

Time: 1403 Gal. Purged: 22.35

Conductance: 4325 pH: 6.48

Temp. °C: 14.93

Redox Potential Eh (mV): 319

Turbidity (NTU): 0

83.3867.10.17 - GH-QAP revs 11/20/2010 - Copy / Template-[016] - Printed 3/22/2013 9:05 AM from INCM020030

Volume of Water Purged  gallon(s)

Pumping Rate Calculation

Flow Rate (Q), in gpm.

S/60 =

Time to evacuate two casing volumes (2V)

T = 2V/Q =

Number of casing volumes evacuated (if other than two)

If well evacuated to dryness, number of gallons evacuated

Name of Certified Analytical Laboratory if Other Than Energy Lab

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

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

See instruction

Comment

Arrived on site at 1214. Tanner and Garrin present for purge and sampling event. Purge began at 1220. Purged well for a total of 105 minutes. Water was clear. Purge ended and sample was collected 1405. Depth to water was 113.05. Left site at 1409.

03.2867.11.0 - GW-QAP Rev. 11/09/10 - 03/22/2010 Rev. 6



**ATTACHMENT 1  
WHITE MESA URANIUM MILL  
FIELD DATA WORKSHEET FOR GROUND WATER**

Attachment 1  
See instruction

Description of Sampling Event: March Ground Water 2012

Location (well name): MW-65 Sampler Name and initials: Tanner Holliday /TH

Date and Time for Purging: 3/14/2012 and Sampling (if different): N/A

Well Purging Equip Used:  pump or  bailer Well Pump (if other than Bennet): QED

Sampling Event: Monthly GW Prev. Well Sampled in Sampling Event: MW-25

pH Buffer 7.0: 7.0 pH Buffer 4.0: 4.0

Specific Conductance: 999  $\mu$ MHOS/ cm Well Depth(0.01ft): 110.00

Depth to Water Before Purging: 76.15 Casing Volume (V) 4" Well: 22.10 (.653h)  
3" Well: 0 (.367h)

Conductance (avg): 2141 pH of Water (avg): 6.84

Well Water Temp. (avg): 14.67 Redox Potential (Eh): 284 Turbidity: 0

Weather Cond.: Sunny Ext'l Amb. Temp. °C (prior sampling event): 5°

Time	<input type="text"/>	Gal. Purged	<input type="text"/>
Conductance	<input type="text"/>	pH	<input type="text"/>
Temp. °C	<input type="text"/>		
Redox Potential Eh (mV)	<input type="text"/>		
Turbidity (NTU)	<input type="text"/>		

Time	<input type="text"/>	Gal. Purged	<input type="text"/>
Conductance	<input type="text"/>	pH	<input type="text"/>
Temp. °C	<input type="text"/>		
Redox Potential Eh (mV)	<input type="text"/>		
Turbidity (NTU)	<input type="text"/>		

Time	<input type="text"/>	Gal. Purged	<input type="text"/>
Conductance	<input type="text"/>	pH	<input type="text"/>
Temp. °C	<input type="text"/>		
Redox Potential Eh (mV)	<input type="text"/>		
Turbidity (NTU)	<input type="text"/>		

Time	<input type="text"/>	Gal. Purged	<input type="text"/>
Conductance	<input type="text"/>	pH	<input type="text"/>
Temp. °C	<input type="text"/>		
Redox Potential Eh (mV)	<input type="text"/>		
Turbidity (NTU)	<input type="text"/>		

01-2007-11.0 - GH-QW REV 11/02/10 - Copy 2 / Template - (04) - Printed 3/19/2012 2:06 AM from DMS20080228

Volume of Water Purged  gallon(s)

Pumping Rate Calculation

Flow Rate (Q), in gpm.

S/60 =

Time to evacuate two casing volumes (2V)

T = 2V/Q =

Number of casing volumes evacuated (if other than two)

If well evacuated to dryness, number of gallons evacuated

Name of Certified Analytical Laboratory if Other Than Energy Lab

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

*Chloride*

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

See instruction

Comment

*Duplicate of MW-30*

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03-2887.11.10 - ON QAP rev6 11/02/08 - AN Form BWS02060038

Tab D  
Quarterly Depth to Water

NAME: Tanner Holliday, Garrin Palmer

DATE: 3/27/2012

TIME	WELL	Static level	TIME	WELL	Static Level	TIME	WELL	Static Level	TIME	WELL	Static Level
911	MW-1	64.59	1253	MW-4	71.11	851	PIEZ-1	61.59		DR-1	ABANDON
1213	MW-2	109.70	1249	TW4-1	64.94	856	PIEZ-2	21.20		DR-2	ABANDON
1201	MW-3	83.20	1256	TW4-2	66.86	1000	PIEZ-3	40.25			
1202	MW-3A	85.23	1259	TW4-3	50.30	1222	PIEZ-4	47.60			
1313	MW-5	106.13	1246	TW4-4	70.01	1226	PIEZ-5	43.11	1351	DR-5	83.14
1243	MW-11	88.11	1301	TW4-5	56.81				1348	DR-6	94.36
1309	MW-12	108.45	1245	TW4-6	70.05	1011	TWN-1	51.55	1300	DR-7	92.20
1247	MW-14	103.64	1251	TW4-7	67.90	1006	TWN-2	21.00	1343	DR-8	50.91
1249	MW-15	106.37	1258	TW4-8	66.55	1003	TWN-3	32.80	1340	DR-9	86.51
1156	MW-17	74.86	1303	TW4-9	54.75	957	TWN-4	41.05	1336	DR-10	78.07
909	MW-18	70.20	1305	TW4-10	56.35	916	TWN-5	69.57	1212	DR-11	98.38
853	MW-19	52.14	1255	TW4-11	57.81	904	TWN-6	74.60	1209	DR-12	88.21
1402	MW-20	84.47	1237	TW4-12	47.16	914	TWN-7	88.34	1206	DR-13	69.93
1257	MW-22	66.89	1235	TW4-13	47.15	906	TWN-8	61.63	1328	DR-14	76.35
1307	MW-23	114.55	1233	TW4-14	86.89	848	TWN-9	62.89	1333	DR-15	92.95
1210	MW-24	114.36	1235	TW4-15	68.15	859	TWN-10	80.82		DR-16	ABANDON
1239	MW-25	73.78	1226	TW4-16	60.26	835	TWN-11	69.42	1326	DR-17	64.63
1235	MW-26	68.15	1224	TW4-17	74.93	832	TWN-12	28.55		DR-18	ABANDON
1203	MW-27	51.04	1012	TW4-18	56.65	846	TWN-13	46.00	1313	DR-19	63.35
1207	MW-28	76.55	929	TW4-19	58.99	843	TWN-14	62.46	1312	DR-20	55.22
1216	MW-29	102.00	1235	TW4-20	61.80	901	TWN-15	92.02	1304	DR-21	107.40
1219	MW-30	75.96	1016	TW4-21	54.11	839	TWN-16	47.86		DR-22	Dry
1221	MW-31	68.10	1233	TW4-22	53.39	840	TWN-17	33.88	70.6	DR-23	70.60
1224	MW-32	74.93	1244	TW4-23	64.78	954	TWN-18	58.40	43076	DR-24	43.76
1256	MW-33	Dry	1230	TW4-24	54.80	925	TWN-19	52.49		DR-25	ABANDON
1254	MW-34	107.84	1009	TW4-25	47.50						
1304	MW-35	112.24	1241	TW4-26	63.50						
1257	MW-36	110.35	1230	TW4-27	83.10						
1251	MW-37	110.58									

We split up to complete depth checks so some of the times may be the same.

Protective casing needs to be placed around TW4-2. TW4-27 needs to be painted and labeled.

\_\_\_\_\_  
\_\_\_\_\_  
\_\_\_\_\_  
\_\_\_\_\_

Tab E

Laboratory Analytical Reports – Quarterly Sampling



### LABORATORY ANALYTICAL REPORT

Prepared by Casper, WY Branch

**Client:** Denison Mines USA Corp  
**Project:** 1st Quarter Groundwater 2012  
**Lab ID:** C12020833-001  
**Client Sample ID:** MW-02

**Report Date:** 03/20/12  
**Collection Date:** 02/22/12 09:05  
**Date Received:** 02/24/12  
**Matrix:** Aqueous

Analyses	Result	Units	Qualifier	RL	MCL/ QCL	Method	Analysis Date / By
<b>RADIONUCLIDES - DISSOLVED</b>							
Gross Alpha minus Rn & U	0.6	pCi/L				E900.1	03/15/12 19:02 / ep
Gross Alpha minus Rn & U Precision (±)	0.2	pCi/L				E900.1	03/15/12 19:02 / ep
Gross Alpha minus Rn & U MDC	0.2	pCi/L				E900.1	03/15/12 19:02 / ep

**Report Definitions:**  
RL - Analyte reporting limit.  
QCL - Quality control limit.  
MDC - Minimum detectable concentration

MCL - Maximum contaminant level.  
ND - Not detected at the reporting limit.



### LABORATORY ANALYTICAL REPORT

Prepared by Casper, WY Branch

**Client:** Denison Mines USA Corp  
**Project:** 1st Quarter Groundwater 2012  
**Lab ID:** C12030065-001  
**Client Sample ID:** MW-03

**Report Date:** 03/20/12  
**Collection Date:** 02/29/12 08:00  
**Date Received:** 03/02/12  
**Matrix:** Aqueous

Analyses	Result	Units	Qualifier	RL	MCL/ QCL	Method	Analysis Date / By
<b>MAJOR IONS</b>							
Fluoride	0.86	mg/L		0.10		A4500-F C	03/02/12 13:24 / jba
<b>METALS - DISSOLVED</b>							
Selenium	43.1	ug/L		5.0		E200.8	03/06/12 01:03 / smm

**Report Definitions:** RL - Analyte reporting limit.  
QCL - Quality control limit.

MCL - Maximum contaminant level.  
ND - Not detected at the reporting limit.

### LABORATORY ANALYTICAL REPORT

Prepared by Casper, WY Branch

**Client:** Denison Mines USA Corp  
**Project:** 1st Quarter Groundwater 2012  
**Lab ID:** C12030065-002  
**Client Sample ID:** MW-03A

**Report Date:** 03/20/12  
**Collection Date:** 03/01/12 07:25  
**Date Received:** 03/02/12  
**Matrix:** Aqueous

Analyses	Result	Units	Qualifier	RL	MCL/ QCL	Method	Analysis Date / By
<b>MAJOR IONS</b>							
Sulfate	3020	mg/L	D	50		A4500-SO4 E	03/06/12 15:42 / wc
<b>PHYSICAL PROPERTIES</b>							
Solids, Total Dissolved TDS @ 180 C	5690	mg/L	D	16		A2540 C	03/02/12 16:29 / lr
<b>METALS - DISSOLVED</b>							
Selenium	65.8	ug/L		5.0		E200.8	03/06/12 01:08 / smm

**Report Definitions:**  
 RL - Analyte reporting limit.  
 QCL - Quality control limit.  
 D - RL increased due to sample matrix.

MCL - Maximum contaminant level.  
 ND - Not detected at the reporting limit.



### LABORATORY ANALYTICAL REPORT

Prepared by Casper, WY Branch

**Client:** Denison Mines USA Corp  
**Project:** 1st Quarter Groundwater 2012  
**Lab ID:** C12030065-003  
**Client Sample ID:** MW-05

**Report Date:** 03/20/12  
**Collection Date:** 02/28/12 14:50  
**Date Received:** 03/02/12  
**Matrix:** Aqueous

Analyses	Result	Units	Qualifier	RL	MCL/ QCL	Method	Analysis Date / By
<b>METALS - DISSOLVED</b>							
Uranium	18.6	ug/L		0.30		E200.8	03/06/12 01:13 / smm

**Report Definitions:** RL - Analyte reporting limit.  
QCL - Quality control limit.

MCL - Maximum contaminant level.  
ND - Not detected at the reporting limit.



## ORGANIC ANALYTICAL REPORT

**Client:** Denison Mines **Contact:** Garrin Palmer  
**Project:** 1st Quarter GW 2012  
**Lab Sample ID:** 1202256-001A  
**Client Sample ID:** MW-11  
**Collection Date:** 2/13/2012 1225h  
**Received Date:** 2/16/2012 1530h **Method:** SW8260C

### Analytical Results

VOAs by GC/MS Method 8260C/5030C

**Analyzed:** 2/20/2012 1717h

**Units:** µg/L

**Dilution Factor:** 1

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Compound	CAS Number	Reporting Limit	Analytical Result	Qual
Tetrahydrofuran	109-99-9	1.00	2.51	

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e-mail: awal@awal-labs.com

Surrogate	CAS	Result	Amount Spiked	% REC	Limits	Qual
Surr: Toluene-d8	2037-26-5	48.4	50.00	96.8	77-129	
Surr: Dibromofluoromethane	1868-53-7	42.5	50.00	84.9	80-124	
Surr: 4-Bromofluorobenzene	460-00-4	43.4	50.00	86.9	80-128	
Surr: 1,2-Dichloroethane-d4	17060-07-0	37.2	50.00	74.5	72-151	

web: www.awal-labs.com

Kyle F. Gross  
Laboratory Director

Jose Rocha  
QA Officer



# INORGANIC ANALYTICAL REPORT

**Client:** Denison Mines  
**Project:** 1st Quarter GW 2012  
**Lab Sample ID:** 1202257-001  
**Client Sample ID:** MW-11  
**Collection Date:** 2/13/2012 1225h  
**Received Date:** 2/16/2012 1530h

**Contact:** Garrin Palmer

## **Analytical Results**

## **DISSOLVED METALS**

<b>Compound</b>	<b>Units</b>	<b>Date Prepared</b>	<b>Date Analyzed</b>	<b>Method Used</b>	<b>Reporting Limit</b>	<b>Analytical Result</b>	<b>Qual</b>
Tin	mg/L		2/24/2012 2017h	E200.8	0.100	< 0.100	

*Reissue of a previously generated report. The reporting limit has been updated. Information herein supersedes that of the previously issued reports.*

*This sample was not digested pursuant to the client request.*

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web: www.awal-labs.com

Kyle F. Gross  
Laboratory Director

Jose Rocha  
QA Officer

### LABORATORY ANALYTICAL REPORT

Prepared by Casper, WY Branch

**Client:** Denison Mines USA Corp  
**Project:** 1st Quarter Groundwater 2012  
**Lab ID:** C12020681-001  
**Client Sample ID:** MW-11

**Report Date:** 03/20/12  
**Collection Date:** 02/13/12 12:25  
**Date Received:** 02/17/12  
**Matrix:** Aqueous

Analyses	Result	Units	Qualifier	RL	MCL/ QCL	Method	Analysis Date / By
<b>MAJOR IONS</b>							
Carbonate as CO <sub>3</sub>	8	mg/L		1		A2320 B	02/21/12 15:42 / jba
Bicarbonate as HCO <sub>3</sub>	360	mg/L		1		A2320 B	02/21/12 15:42 / jba
Calcium	75.0	mg/L		0.5		E200.7	02/24/12 17:25 / cp
Chloride	31	mg/L		1		A4500-Cl B	02/24/12 10:38 / lr
Fluoride	0.57	mg/L		0.10		A4500-F C	02/21/12 12:20 / jba
Magnesium	22.9	mg/L		0.5		E200.7	02/24/12 17:25 / cp
Nitrogen, Ammonia as N	0.78	mg/L		0.05		A4500-NH3 G	02/22/12 12:29 / dc
Nitrogen, Nitrate+Nitrite as N	ND	mg/L		0.1		E353.2	02/21/12 13:36 / dc
Potassium	6.9	mg/L		0.5		E200.7	02/24/12 17:25 / cp
Sodium	626	mg/L	D	0.6		E200.7	02/24/12 17:25 / cp
Sulfate	1160	mg/L	D	50		A4500-SO4 E	02/23/12 15:39 / lr
<b>PHYSICAL PROPERTIES</b>							
Solids, Total Dissolved TDS @ 180 C	2090	mg/L		10		A2540 C	02/17/12 18:21 / wc
<b>METALS - DISSOLVED</b>							
Arsenic	ND	ug/L		5.0		E200.8	02/17/12 13:57 / sml
Beryllium	ND	ug/L		0.50		E200.8	02/17/12 13:57 / sml
Cadmium	ND	ug/L		0.50		E200.8	02/17/12 13:57 / sml
Chromium	ND	ug/L		25		E200.8	02/17/12 13:57 / sml
Cobalt	ND	ug/L		10		E200.8	02/27/12 15:54 / sml
Copper	ND	ug/L		10		E200.8	02/17/12 13:57 / sml
Iron	307	ug/L		30.0		E200.7	02/24/12 17:25 / cp
Lead	ND	ug/L		1.0		E200.8	02/17/12 13:57 / sml
Manganese	154	ug/L		10		E200.8	02/17/12 13:57 / sml
Mercury	ND	ug/L		0.50		E200.8	02/17/12 13:57 / sml
Molybdenum	ND	ug/L		10		E200.8	02/17/12 13:57 / sml
Nickel	ND	ug/L		20		E200.8	02/17/12 13:57 / sml
Selenium	ND	ug/L		5.0		E200.8	02/17/12 13:57 / sml
Silver	ND	ug/L		10		E200.8	02/17/12 13:57 / sml
Thallium	ND	ug/L		0.50		E200.8	02/17/12 13:57 / sml
Uranium	0.85	ug/L		0.30		E200.8	03/15/12 10:25 / smm
Vanadium	ND	ug/L		15		E200.8	02/17/12 13:57 / sml
Zinc	ND	ug/L		10		E200.8	02/17/12 13:57 / sml
<b>RADIONUCLIDES - DISSOLVED</b>							
Gross Alpha minus Rn & U	0.5	pCi/L				E900.1	02/28/12 17:24 / ep
Gross Alpha minus Rn & U Precision (±)	0.2	pCi/L				E900.1	02/28/12 17:24 / ep
Gross Alpha minus Rn & U MDC	0.2	pCi/L				E900.1	02/28/12 17:24 / ep

**Report Definitions:**  
 RL - Analyte reporting limit.  
 QCL - Quality control limit.  
 MDC - Minimum detectable concentration

**Report Definitions:**  
 MCL - Maximum contaminant level.  
 ND - Not detected at the reporting limit.  
 D - RL increased due to sample matrix.



### LABORATORY ANALYTICAL REPORT

Prepared by Casper, WY Branch

**Client:** Denison Mines USA Corp  
**Project:** 1st Quarter Groundwater 2012  
**Lab ID:** C12020681-001  
**Client Sample ID:** MW-11

**Report Date:** 03/20/12  
**Collection Date:** 02/13/12 12:25  
**Date Received:** 02/17/12  
**Matrix:** Aqueous

Analyses	Result	Units	Qualifier	RL	MCL/ QCL	Method	Analysis Date / By
<b>DATA QUALITY</b>							
A/C Balance (± 5)	2.82	%				Calculation	03/14/12 12:34 / sdw
Anions	31.3	meq/L				Calculation	03/14/12 12:34 / sdw
Cations	33.1	meq/L				Calculation	03/14/12 12:34 / sdw
Solids, Total Dissolved Calculated	2120	mg/L				Calculation	03/14/12 12:34 / sdw
TDS Balance (0.80 - 1.20)	0.990					Calculation	03/14/12 12:34 / sdw
<b>VOLATILE ORGANIC COMPOUNDS</b>							
Acetone	ND	ug/L		20		SW8260B	02/23/12 15:58 / jlr
Benzene	ND	ug/L		1.0		SW8260B	02/23/12 15:58 / jlr
Carbon tetrachloride	ND	ug/L		1.0		SW8260B	02/23/12 15:58 / jlr
Chloroform	ND	ug/L		1.0		SW8260B	02/23/12 15:58 / jlr
Chloromethane	ND	ug/L		1.0		SW8260B	02/23/12 15:58 / jlr
Methyl ethyl ketone	ND	ug/L		20		SW8260B	02/23/12 15:58 / jlr
Methylene chloride	ND	ug/L		1.0		SW8260B	02/23/12 15:58 / jlr
Naphthalene	ND	ug/L		1.0		SW8260B	02/23/12 15:58 / jlr
Toluene	ND	ug/L		1.0		SW8260B	02/23/12 15:58 / jlr
Xylenes, Total	ND	ug/L		1.0		SW8260B	02/23/12 15:58 / jlr
Surr: 1,2-Dichlorobenzene-d4	116	%REC		80-120		SW8260B	02/23/12 15:58 / jlr
Surr: Dibromofluoromethane	104	%REC		70-130		SW8260B	02/23/12 15:58 / jlr
Surr: p-Bromofluorobenzene	130	%REC	S	80-120		SW8260B	02/23/12 15:58 / jlr
Surr: Toluene-d8	105	%REC		80-120		SW8260B	02/23/12 15:58 / jlr

**Report** RL - Analyte reporting limit.

**Definitions:** QCL - Quality control limit.

S - Spike recovery outside of advisory limits.

MCL - Maximum contaminant level.

ND - Not detected at the reporting limit.



### LABORATORY ANALYTICAL REPORT

Prepared by Casper, WY Branch

**Client:** Denison Mines USA Corp  
**Project:** 1st Quarter Groundwater 2012  
**Lab ID:** C12030065-004  
**Client Sample ID:** MW-12

**Report Date:** 03/20/12  
**Collection Date:** 02/29/12 06:50  
**Date Received:** 03/02/12  
**Matrix:** Aqueous

Analyses	Result	Units	Qualifier	RL	MCL/ QCL	Method	Analysis Date / By
<b>METALS - DISSOLVED</b>							
Selenium	27.2	ug/L		5.0		E200.8	03/06/12 01:18 / smm

**Report Definitions:** RL - Analyte reporting limit.  
QCL - Quality control limit.

MCL - Maximum contaminant level.  
ND - Not detected at the reporting limit.



# ORGANIC ANALYTICAL REPORT

**Client:** Denison Mines  
**Project:** 1st Quarter GW 2012  
**Lab Sample ID:** 1202371-003E  
**Client Sample ID:** MW-14  
**Collection Date:** 2/21/2012 1030h  
**Received Date:** 2/24/2012 1100h

**Contact:** Garrin Palmer

## Analytical Results

VOAs by GC/MS Method 8260C/5030C

**Analyzed:** 2/29/2012 0756h

**Units:** µg/L

**Dilution Factor:** 1

**Method:** SW8260C

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Compound	CAS Number	Reporting Limit	Analytical Result	Qual
Tetrahydrofuran	109-99-9	1.00	< 1.00	

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Surrogate	CAS	Result	Amount Spiked	% REC	Limits	Qual
Surr: Toluene-d8	2037-26-5	49.2	50.00	98.5	77-129	
Surr: Dibromofluoromethane	1868-53-7	50.4	50.00	101	80-124	
Surr: 4-Bromofluorobenzene	460-00-4	48.8	50.00	97.6	80-128	
Surr: 1,2-Dichloroethane-d4	17060-07-0	58.4	50.00	117	72-151	

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Kyle F. Gross  
Laboratory Director

Jose Rocha  
QA Officer



# INORGANIC ANALYTICAL REPORT

**Client:** Denison Mines  
**Project:** 1st Quarter GW 2012  
**Lab Sample ID:** 1205180-001  
**Client Sample ID:** MW 14  
**Collection Date:** 2/21/2012 1030h  
**Received Date:** 5/10/2012 1015h

**Contact:** Kathy Weinel

## Analytical Results

## TOTAL METALS

<u>Compound</u>	<u>Units</u>	<u>Date Prepared</u>	<u>Date Analyzed</u>	<u>Method Used</u>	<u>Reporting Limit</u>	<u>Analytical Result</u>	<u>Qual</u>
Tin	mg/L		5/10/2012 1116h	E200.8	0.100	< 0.100	

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web: www.awal-labs.com

Kyle F. Gross  
Laboratory Director

Jose Rocha  
QA Officer

### LABORATORY ANALYTICAL REPORT

Prepared by Casper, WY Branch

**Client:** Denison Mines USA Corp  
**Project:** 1st Quarter Groundwater 2012  
**Lab ID:** C12020833-007  
**Client Sample ID:** MW-14

**Report Date:** 03/20/12  
**Collection Date:** 02/21/12 10:30  
**Date Received:** 02/24/12  
**Matrix:** Aqueous

Analyses	Result	Units	Qualifier	RL	MCL/ QCL	Method	Analysis Date / By
<b>MAJOR IONS</b>							
Carbonate as CO3	ND	mg/L		1		A2320 B	02/28/12 14:22 / jba
Bicarbonate as HCO3	459	mg/L		1		A2320 B	02/28/12 14:22 / jba
Calcium	500	mg/L		0.5		E200.7	03/05/12 16:11 / cp
Chloride	18	mg/L		1		A4500-Cl B	03/06/12 10:46 / wc
Fluoride	0.15	mg/L		0.10		A4500-F C	02/28/12 11:47 / jba
Magnesium	152	mg/L		0.5		E200.7	03/05/12 16:11 / cp
Nitrogen, Ammonia as N	0.05	mg/L		0.05		A4500-NH3 G	02/24/12 12:00 / dc
Nitrogen, Nitrate+Nitrite as N	ND	mg/L		0.1		E353.2	02/27/12 12:33 / dc
Potassium	11.6	mg/L		0.5		E200.7	03/05/12 16:11 / cp
Sodium	360	mg/L	D	2		E200.7	03/05/12 16:11 / cp
Sulfate	2160	mg/L	D	50		A4500-SO4 E	03/06/12 15:18 / wc
<b>PHYSICAL PROPERTIES</b>							
Solids, Total Dissolved TDS @ 180 C	3560	mg/L		10		A2540 C	02/24/12 14:26 / wc
<b>METALS - DISSOLVED</b>							
Arsenic	ND	ug/L		5.0		E200.8	02/27/12 22:04 / smm
Beryllium	ND	ug/L		0.50		E200.8	02/27/12 22:04 / smm
Cadmium	1.42	ug/L		0.50		E200.8	02/27/12 22:04 / smm
Chromium	ND	ug/L		25		E200.8	02/27/12 22:04 / smm
Cobalt	ND	ug/L		10		E200.8	02/27/12 22:04 / smm
Copper	ND	ug/L		10		E200.8	02/27/12 22:04 / smm
Iron	ND	ug/L		30		E200.7	03/05/12 16:11 / cp
Lead	ND	ug/L		1.0		E200.8	02/27/12 22:04 / smm
Manganese	1790	ug/L		10		E200.8	02/27/12 22:04 / smm
Mercury	ND	ug/L		0.50		E200.8	02/27/12 22:04 / smm
Molybdenum	ND	ug/L		10		E200.8	02/27/12 22:04 / smm
Nickel	29	ug/L		20		E200.8	02/27/12 22:04 / smm
Selenium	ND	ug/L		5.0		E200.8	02/27/12 22:04 / smm
Silver	ND	ug/L		10		E200.8	02/27/12 22:04 / smm
Thallium	ND	ug/L		0.50		E200.8	02/27/12 22:04 / smm
Uranium	63.5	ug/L		0.30		E200.8	02/27/12 22:04 / smm
Vanadium	ND	ug/L		15		E200.8	02/27/12 22:04 / smm
Zinc	13	ug/L		10		E200.8	02/27/12 22:04 / smm
<b>RADIONUCLIDES - DISSOLVED</b>							
Gross Alpha minus Rn & U	0.2	pCi/L	U			E900.1	03/15/12 19:02 / ep
Gross Alpha minus Rn & U Precision (±)	0.2	pCi/L				E900.1	03/15/12 19:02 / ep
Gross Alpha minus Rn & U MDC	0.2	pCi/L				E900.1	03/15/12 19:02 / ep

**Report** RL - Analyte reporting limit.

**Definitions:** QCL - Quality control limit.

MDC - Minimum detectable concentration

U - Not detected at minimum detectable concentration

MCL - Maximum contaminant level.

ND - Not detected at the reporting limit.

D - RL increased due to sample matrix.

### LABORATORY ANALYTICAL REPORT

Prepared by Casper, WY Branch

**Client:** Denison Mines USA Corp  
**Project:** 1st Quarter Groundwater 2012  
**Lab ID:** C12020833-007  
**Client Sample ID:** MW-14

**Report Date:** 03/20/12  
**Collection Date:** 02/21/12 10:30  
**Date Received:** 02/24/12  
**Matrix:** Aqueous

Analyses	Result	Units	Qualifier	RL	MCL/ QCL	Method	Analysis Date / By
<b>DATA QUALITY</b>							
A/C Balance (± 5)	0.315	%				Calculation	03/07/12 08:07 / kbh
Anions	53.1	meq/L				Calculation	03/07/12 08:07 / kbh
Cations	53.4	meq/L				Calculation	03/07/12 08:07 / kbh
Solids, Total Dissolved Calculated	3440	mg/L				Calculation	03/07/12 08:07 / kbh
TDS Balance (0.80 - 1.20)	1.03					Calculation	03/07/12 08:07 / kbh
<b>VOLATILE ORGANIC COMPOUNDS</b>							
Acetone	ND	ug/L		20		SW8260B	02/24/12 15:03 / jlr
Benzene	ND	ug/L		1.0		SW8260B	02/24/12 15:03 / jlr
Carbon tetrachloride	ND	ug/L		1.0		SW8260B	02/24/12 15:03 / jlr
Chloroform	ND	ug/L		1.0		SW8260B	02/24/12 15:03 / jlr
Chloromethane	ND	ug/L		1.0		SW8260B	02/24/12 15:03 / jlr
Methyl ethyl ketone	ND	ug/L		20		SW8260B	02/24/12 15:03 / jlr
Methylene chloride	ND	ug/L		1.0		SW8260B	02/24/12 15:03 / jlr
Naphthalene	ND	ug/L		1.0		SW8260B	02/24/12 15:03 / jlr
Toluene	ND	ug/L		1.0		SW8260B	02/24/12 15:03 / jlr
Xylenes, Total	ND	ug/L		1.0		SW8260B	02/24/12 15:03 / jlr
Surr: 1,2-Dichlorobenzene-d4	96.0	%REC		80-120		SW8260B	02/24/12 15:03 / jlr
Surr: Dibromofluoromethane	90.0	%REC		70-130		SW8260B	02/24/12 15:03 / jlr
Surr: p-Bromofluorobenzene	130	%REC	S	80-120		SW8260B	02/24/12 15:03 / jlr
Surr: Toluene-d8	93.0	%REC		80-120		SW8260B	02/24/12 15:03 / jlr

**Report Definitions:**  
 RL - Analyte reporting limit.  
 QCL - Quality control limit.  
 S - Spike recovery outside of advisory limits.

MCL - Maximum contaminant level.  
 ND - Not detected at the reporting limit.



### LABORATORY ANALYTICAL REPORT

Prepared by Casper, WY Branch

**Client:** Denison Mines USA Corp  
**Project:** 1st Quarter Groundwater 2012  
**Lab ID:** C12020833-002  
**Client Sample ID:** MW-15

**Report Date:** 03/20/12  
**Collection Date:** 02/22/12 10:20  
**Date Received:** 02/24/12  
**Matrix:** Aqueous

Analyses	Result	Units	Qualifier	RL	MCL/ QCL	Method	Analysis Date / By
<b>METALS - DISSOLVED</b>							
Iron	ND	ug/L		30		E200.7	03/05/12 16:02 / cp

**Report Definitions:** RL - Analyte reporting limit.  
QCL - Quality control limit.

MCL - Maximum contaminant level.  
ND - Not detected at the reporting limit.



### LABORATORY ANALYTICAL REPORT

Prepared by Casper, WY Branch

**Client:** Denison Mines USA Corp  
**Project:** 1st Quarter Groundwater 2012  
**Lab ID:** C12030065-005  
**Client Sample ID:** MW-18

**Report Date:** 03/20/12  
**Collection Date:** 02/27/12 13:40  
**Date Received:** 03/02/12  
**Matrix:** Aqueous

Analyses	Result	Units	Qualifier	RL	MCL/ QCL	Method	Analysis Date / By
<b>MAJOR IONS</b>							
Sulfate	1920	mg/L	D	50		A4500-SO4 E	03/06/12 15:45 / wc
<b>PHYSICAL PROPERTIES</b>							
Solids, Total Dissolved TDS @ 180 C	3230	mg/L		10		A2540 C	03/02/12 16:30 / lr
<b>METALS - DISSOLVED</b>							
Thallium	3.63	ug/L		0.50		E200.8	03/06/12 01:23 / smm

**Report Definitions:**  
RL - Analyte reporting limit.  
QCL - Quality control limit.  
D - RL increased due to sample matrix.

MCL - Maximum contaminant level.  
ND - Not detected at the reporting limit.



### LABORATORY ANALYTICAL REPORT

Prepared by Casper, WY Branch

**Client:** Denison Mines USA Corp  
**Project:** 1st Quarter Groundwater 2012  
**Lab ID:** C12030065-006  
**Client Sample ID:** MW-19

**Report Date:** 03/20/12  
**Collection Date:** 02/28/12 09:00  
**Date Received:** 03/02/12  
**Matrix:** Aqueous

Analyses	Result	Units	Qualifier	RL	MCL/ QCL	Method	Analysis Date / By
<b>MAJOR IONS</b>							
Nitrogen, Nitrate+Nitrite as N	3.9	mg/L	D	0.2		E353.2	03/02/12 15:20 / dc

**Report Definitions:**  
RL - Analyte reporting limit.  
QCL - Quality control limit.  
D - RL increased due to sample matrix.

MCL - Maximum contaminant level.  
ND - Not detected at the reporting limit.



### LABORATORY ANALYTICAL REPORT

Prepared by Casper, WY Branch

**Client:** Denison Mines USA Corp  
**Project:** 1st Quarter Groundwater 2012  
**Lab ID:** C12020833-003  
**Client Sample ID:** MW-23

**Report Date:** 03/20/12  
**Collection Date:** 02/20/12 14:00  
**Date Received:** 02/24/12  
**Matrix:** Aqueous

Analyses	Result	Units	Qualifier	RL	MCL/ QCL	Method	Analysis Date / By
<b>METALS - DISSOLVED</b>							
Manganese	51	ug/L		10		E200.8	02/27/12 21:58 / smm

**Report Definitions:** RL - Analyte reporting limit.  
QCL - Quality control limit.

MCL - Maximum contaminant level.  
ND - Not detected at the reporting limit.



### LABORATORY ANALYTICAL REPORT

Prepared by Casper, WY Branch

**Client:** Denison Mines USA Corp  
**Project:** 1st Quarter Groundwater 2012  
**Lab ID:** C12020833-004  
**Client Sample ID:** MW-24

**Report Date:** 03/20/12  
**Collection Date:** 02/23/12 06:50  
**Date Received:** 02/24/12  
**Matrix:** Aqueous

Analyses	Result	Units	Qualifier	RL	MCL/ QCL	Method	Analysis Date / By
<b>METALS - DISSOLVED</b>							
Cadmium	2.25	ug/L		0.50		E200.8	02/27/12 22:01 / smm
Thallium	0.96	ug/L		0.50		E200.8	02/27/12 22:01 / smm

**Report Definitions:** RL - Analyte reporting limit.  
QCL - Quality control limit.

MCL - Maximum contaminant level.  
ND - Not detected at the reporting limit.



## ORGANIC ANALYTICAL REPORT

**Client:** Denison Mines  
**Project:** 1st Quarter GW 2012  
**Lab Sample ID:** 1202256-002A  
**Client Sample ID:** MW-25  
**Collection Date:** 2/14/2012 1105h  
**Received Date:** 2/16/2012 1530h

**Contact:** Garrin Palmer

**Method:** SW8260C

### Analytical Results

VOAs by GC/MS Method 8260C/5030C

**Analyzed:** 2/20/2012 1735h

**Units:** µg/L

**Dilution Factor:** 1

463 West 3600 South  
Salt Lake City, UT 84115

Compound	CAS Number	Reporting Limit	Analytical Result	Qual
Tetrahydrofuran	109-99-9	1.00	< 1.00	

Surrogate	CAS	Result	Amount Spiked	% REC	Limits	Qual
Surr: Toluene-d8	2037-26-5	48.5	50.00	97.0	77-129	
Surr: Dibromofluoromethane	1868-53-7	43.7	50.00	87.3	80-124	
Surr: 4-Bromofluorobenzene	460-00-4	46.5	50.00	93.0	80-128	
Surr: 1,2-Dichloroethane-d4	17060-07-0	39.9	50.00	79.8	72-151	

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Kyle F. Gross  
Laboratory Director

Jose Rocha  
QA Officer



# INORGANIC ANALYTICAL REPORT

**Client:** Denison Mines  
**Project:** 1st Quarter GW 2012  
**Lab Sample ID:** 1202257-002  
**Client Sample ID:** MW-25  
**Collection Date:** 2/14/2012 1105h  
**Received Date:** 2/16/2012 1530h

**Contact:** Garrin Palmer

## Analytical Results

## DISSOLVED METALS

Compound	Units	Date Prepared	Date Analyzed	Method Used	Reporting Limit	Analytical Result	Qual
Tin	mg/L		2/24/2012 2024h	E200.8	0.100	< 0.100	

*Reissue of a previously generated report. The reporting limit has been updated. Information herein supersedes that of the previously issued reports.*

*This sample was not digested pursuant to the client request.*

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Kyle F. Gross  
Laboratory Director

Jose Rocha  
QA Officer

### LABORATORY ANALYTICAL REPORT

Prepared by Casper, WY Branch

**Client:** Denison Mines USA Corp  
**Project:** 1st Quarter Groundwater 2012  
**Lab ID:** C12020681-002  
**Client Sample ID:** MW-25

**Report Date:** 03/20/12  
**Collection Date:** 02/14/12 11:05  
**Date Received:** 02/17/12  
**Matrix:** Aqueous

Analyses	Result	Units	Qualifier	RL	MCL/ QCL	Method	Analysis Date / By
<b>MAJOR IONS</b>							
Carbonate as CO3	ND	mg/L		1		A2320 B	02/21/12 15:59 / jba
Bicarbonate as HCO3	404	mg/L		1		A2320 B	02/21/12 15:59 / jba
Calcium	371	mg/L		0.5		E200.7	02/24/12 17:37 / cp
Chloride	30	mg/L		1		A4500-Cl B	02/24/12 10:40 / lr
Fluoride	0.34	mg/L		0.10		A4500-F C	02/21/12 12:24 / jba
Magnesium	123	mg/L		0.5		E200.7	02/24/12 17:37 / cp
Nitrogen, Ammonia as N	0.48	mg/L		0.05		A4500-NH3 G	02/22/12 12:31 / dc
Nitrogen, Nitrate+Nitrite as N	ND	mg/L		0.1		E353.2	02/21/12 13:38 / dc
Potassium	9.6	mg/L		0.5		E200.7	02/24/12 17:37 / cp
Sodium	314	mg/L	D	0.6		E200.7	02/24/12 17:37 / cp
Sulfate	1630	mg/L	D	50		A4500-SO4 E	02/23/12 15:41 / lr
<b>PHYSICAL PROPERTIES</b>							
Solids, Total Dissolved TDS @ 180 C	2770	mg/L		10		A2540 C	02/17/12 18:21 / wc
<b>METALS - DISSOLVED</b>							
Arsenic	ND	ug/L		5.0		E200.8	02/17/12 13:59 / sml
Beryllium	ND	ug/L		0.50		E200.8	02/17/12 13:59 / sml
Cadmium	1.31	ug/L		0.50		E200.8	02/17/12 13:59 / sml
Chromium	ND	ug/L		25		E200.8	02/17/12 13:59 / sml
Cobalt	ND	ug/L		10		E200.8	03/01/12 02:25 / smm
Copper	ND	ug/L		10		E200.8	02/17/12 13:59 / sml
Iron	ND	ug/L		30.0		E200.7	02/24/12 17:37 / cp
Lead	ND	ug/L		1.0		E200.8	02/17/12 13:59 / sml
Manganese	1600	ug/L		10		E200.8	02/17/12 13:59 / sml
Mercury	ND	ug/L		0.50		E200.8	02/17/12 13:59 / sml
Molybdenum	11	ug/L		10		E200.8	02/17/12 13:59 / sml
Nickel	ND	ug/L		20		E200.8	02/17/12 13:59 / sml
Selenium	ND	ug/L		5.0		E200.8	02/17/12 13:59 / sml
Silver	ND	ug/L		10		E200.8	02/17/12 13:59 / sml
Thallium	0.98	ug/L		0.50		E200.8	02/17/12 13:59 / sml
Uranium	6.50	ug/L		0.30		E200.8	03/15/12 10:27 / smm
Vanadium	ND	ug/L		15		E200.8	02/17/12 13:59 / sml
Zinc	ND	ug/L		10		E200.8	02/17/12 13:59 / sml
<b>RADIONUCLIDES - DISSOLVED</b>							
Gross Alpha minus Rn & U	0.8	pCi/L				E900.1	02/28/12 17:24 / ep
Gross Alpha minus Rn & U Precision (±)	0.2	pCi/L				E900.1	02/28/12 17:24 / ep
Gross Alpha minus Rn & U MDC	0.2	pCi/L				E900.1	02/28/12 17:24 / ep

**Report Definitions:**  
 RL - Analyte reporting limit.  
 QCL - Quality control limit.  
 MDC - Minimum detectable concentration

MCL - Maximum contaminant level.  
 ND - Not detected at the reporting limit.  
 D - RL increased due to sample matrix.

### LABORATORY ANALYTICAL REPORT

Prepared by Casper, WY Branch

**Client:** Denison Mines USA Corp  
**Project:** 1st Quarter Groundwater 2012  
**Lab ID:** C12020681-002  
**Client Sample ID:** MW-25

**Report Date:** 03/20/12  
**Collection Date:** 02/14/12 11:05  
**Date Received:** 02/17/12  
**Matrix:** Aqueous

Analyses	Result	Units	Qualifier	RL	MCL/ QCL	Method	Analysis Date / By
<b>DATA QUALITY</b>							
A/C Balance (± 5)	1.40	%				Calculation	03/14/12 12:35 / sdw
Anions	41.4	meq/L				Calculation	03/14/12 12:35 / sdw
Cations	42.6	meq/L				Calculation	03/14/12 12:35 / sdw
Solids, Total Dissolved Calculated	2690	mg/L				Calculation	03/14/12 12:35 / sdw
TDS Balance (0.80 - 1.20)	1.03					Calculation	03/14/12 12:35 / sdw
<b>VOLATILE ORGANIC COMPOUNDS</b>							
Acetone	ND	ug/L		20		SW8260B	02/23/12 16:32 / jlr
Benzene	ND	ug/L		1.0		SW8260B	02/23/12 16:32 / jlr
Carbon tetrachloride	ND	ug/L		1.0		SW8260B	02/23/12 16:32 / jlr
Chloroform	ND	ug/L		1.0		SW8260B	02/23/12 16:32 / jlr
Chloromethane	ND	ug/L		1.0		SW8260B	02/23/12 16:32 / jlr
Methyl ethyl ketone	ND	ug/L		20		SW8260B	02/23/12 16:32 / jlr
Methylene chloride	ND	ug/L		1.0		SW8260B	02/23/12 16:32 / jlr
Naphthalene	ND	ug/L		1.0		SW8260B	02/23/12 16:32 / jlr
Toluene	ND	ug/L		1.0		SW8260B	02/23/12 16:32 / jlr
Xylenes, Total	ND	ug/L		1.0		SW8260B	02/23/12 16:32 / jlr
Surr: 1,2-Dichlorobenzene-d4	120	%REC		80-120		SW8260B	02/23/12 16:32 / jlr
Surr: Dibromofluoromethane	108	%REC		70-130		SW8260B	02/23/12 16:32 / jlr
Surr: p-Bromofluorobenzene	129	%REC	S	80-120		SW8260B	02/23/12 16:32 / jlr
Surr: Toluene-d8	104	%REC		80-120		SW8260B	02/23/12 16:32 / jlr

**Report Definitions:** RL - Analyte reporting limit. MCL - Maximum contaminant level.  
QCL - Quality control limit. ND - Not detected at the reporting limit.  
S - Spike recovery outside of advisory limits.



## ORGANIC ANALYTICAL REPORT

**Client:** Denison Mines  
**Project:** 1st Quarter GW 2012  
**Lab Sample ID:** 1202256-003A  
**Client Sample ID:** MW-26  
**Collection Date:** 2/15/2012 930h  
**Received Date:** 2/16/2012 1530h

**Contact:** Garrin Palmer

**Method:** SW8260C

### Analytical Results

VOAs by GC/MS Method 8260C/5030C

**Analyzed:** 2/20/2012 1754h

**Units:** µg/L

**Dilution Factor:** 1

463 West 3600 South  
Salt Lake City, UT 84115

Compound	CAS Number	Reporting Limit	Analytical Result	Qual		
Tetrahydrofuran	109-99-9	1.00	< 1.00			
Surrogate	CAS	Result	Amount Spiked	% REC	Limits	Qual
Surr: Toluene-d8	2037-26-5	47.2	50.00	94.5	77-129	
Surr: Dibromofluoromethane	1868-53-7	43.5	50.00	87.0	80-124	
Surr: 4-Bromofluorobenzene	460-00-4	43.8	50.00	87.7	80-128	
Surr: 1,2-Dichloroethane-d4	17060-07-0	37.9	50.00	75.8	72-151	

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# INORGANIC ANALYTICAL REPORT

**Client:** Denison Mines  
**Project:** 1st Quarter GW 2012  
**Lab Sample ID:** 1202257-003  
**Client Sample ID:** MW-26  
**Collection Date:** 2/15/2012 0930h  
**Received Date:** 2/16/2012 1530h

**Contact:** Garrin Palmer

## Analytical Results

## DISSOLVED METALS

<u>Compound</u>	<u>Units</u>	<u>Date Prepared</u>	<u>Date Analyzed</u>	<u>Method Used</u>	<u>Reporting Limit</u>	<u>Analytical Result</u>	<u>Qual</u>
Tin	mg/L		2/24/2012 2030h	E200.8	0.100	< 0.100	

*Reissue of a previously generated report. The reporting limit has been updated. Information herein supersedes that of the previously issued reports.*

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## ORGANIC ANALYTICAL REPORT

**Client:** Denison Mines  
**Project:** 1st Quarter Ground Water 2012  
**Lab Sample ID:** 1203144-001A  
**Client Sample ID:** MW-26  
**Collection Date:** 3/8/2012 908h  
**Received Date:** 3/9/2012 950h

**Contact:** Garrin Palmer

**Method:** SW8260C

### **Analytical Results**

VOAs by GC/MS Method 8260C/5030C

**Analyzed:** 3/12/2012 530h

**Units:** µg/L

**Dilution Factor:** 1

463 West 3600 South  
Salt Lake City, UT 84115

<b>Compound</b>	<b>CAS Number</b>	<b>Reporting Limit</b>	<b>Analytical Result</b>	<b>Qual</b>
Tetrahydrofuran	109-99-9	1.00	< 1.00	

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<b>Surrogate</b>	<b>CAS</b>	<b>Result</b>	<b>Amount Spiked</b>	<b>% REC</b>	<b>Limits</b>	<b>Qual</b>
Surr: Toluene-d8	2037-26-5	50.0	50.00	100	77-129	
Surr: Dibromofluoromethane	1868-53-7	52.6	50.00	105	80-124	
Surr: 4-Bromofluorobenzene	460-00-4	51.4	50.00	103	80-128	
Surr: 1,2-Dichloroethane-d4	17060-07-0	58.2	50.00	116	72-151	

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Laboratory Director

Jose Rocha  
QA Officer

### LABORATORY ANALYTICAL REPORT

Prepared by Casper, WY Branch

**Client:** Denison Mines USA Corp  
**Project:** 1st Quarter Groundwater 2012  
**Lab ID:** C12020833-010  
**Client Sample ID:** MW-26

**Report Date:** 03/20/12  
**Collection Date:** 02/21/12 14:10  
**Date Received:** 02/24/12  
**Matrix:** Aqueous

Analyses	Result	Units	Qualifier	RL	MCL/ QCL	Method	Analysis Date / By
<b>MAJOR IONS</b>							
Calcium	496	mg/L		0.5		E200.7	03/05/12 16:38 / cp
Magnesium	172	mg/L		0.5		E200.7	03/05/12 16:38 / cp
Potassium	11.0	mg/L		0.5		E200.7	03/05/12 16:38 / cp
Sodium	165	mg/L	D	2		E200.7	03/05/12 16:38 / cp
<b>METALS - DISSOLVED</b>							
Arsenic	ND	ug/L		5.0		E200.8	02/27/12 22:12 / smm
Beryllium	ND	ug/L		0.50		E200.8	02/27/12 22:12 / smm
Cadmium	ND	ug/L		0.50		E200.8	02/27/12 22:12 / smm
Chromium	ND	ug/L		25		E200.8	02/27/12 22:12 / smm
Cobalt	ND	ug/L		10		E200.8	02/27/12 22:12 / smm
Copper	ND	ug/L		10		E200.8	02/27/12 22:12 / smm
Iron	406	ug/L		30		E200.7	03/05/12 16:38 / cp
Lead	ND	ug/L		1.0		E200.8	02/27/12 22:12 / smm
Manganese	630	ug/L		10		E200.8	02/27/12 22:12 / smm
Mercury	ND	ug/L		0.50		E200.8	02/27/12 22:12 / smm
Molybdenum	ND	ug/L		10		E200.8	02/27/12 22:12 / smm
Nickel	33	ug/L		20		E200.8	02/27/12 22:12 / smm
Selenium	22.1	ug/L		5.0		E200.8	02/27/12 22:12 / smm
Silver	ND	ug/L		10		E200.8	02/27/12 22:12 / smm
Thallium	ND	ug/L		0.50		E200.8	02/27/12 22:12 / smm
Uranium	59.4	ug/L		0.30		E200.8	02/27/12 22:12 / smm
Vanadium	ND	ug/L		15		E200.8	02/27/12 22:12 / smm
Zinc	ND	ug/L		10		E200.8	02/27/12 22:12 / smm
<b>RADIONUCLIDES - DISSOLVED</b>							
Gross Alpha minus Rn & U	1.5	pCi/L				E900.1	03/16/12 00:32 / ep
Gross Alpha minus Rn & U Precision (±)	0.3	pCi/L				E900.1	03/16/12 00:32 / ep
Gross Alpha minus Rn & U MDC	0.2	pCi/L				E900.1	03/16/12 00:32 / ep

**Report Definitions:**  
 RL - Analyte reporting limit.  
 QCL - Quality control limit.  
 MDC - Minimum detectable concentration

MCL - Maximum contaminant level.  
 ND - Not detected at the reporting limit.  
 D - RL increased due to sample matrix.

### LABORATORY ANALYTICAL REPORT

Prepared by Casper, WY Branch

**Client:** Denison Mines USA Corp  
**Project:** 1st Quarter Groundwater 2012  
**Lab ID:** C12020681-003  
**Client Sample ID:** MW-26

**Report Date:** 03/20/12  
**Collection Date:** 02/15/12 09:30  
**Date Received:** 02/17/12  
**Matrix:** Aqueous

Analyses	Result	Units	Qualifier	RL	MCL/ QCL	Method	Analysis Date / By
<b>MAJOR IONS</b>							
Carbonate as CO3	ND	mg/L		1		A2320 B	02/21/12 16:12 / jba
Bicarbonate as HCO3	389	mg/L		1		A2320 B	02/21/12 16:12 / jba
Chloride	40	mg/L		1		A4500-Cl B	02/24/12 10:42 / lr
Fluoride	0.30	mg/L		0.10		A4500-F C	02/21/12 12:28 / jba
Nitrogen, Ammonia as N	0.38	mg/L		0.05		A4500-NH3 G	02/22/12 12:33 / dc
Nitrogen, Nitrate+Nitrite as N	1.2	mg/L		0.1		E353.2	02/21/12 13:41 / dc
Sulfate	1840	mg/L	D	50		A4500-SO4 E	02/23/12 15:46 / lr
<b>PHYSICAL PROPERTIES</b>							
Solids, Total Dissolved TDS @ 180 C	3150	mg/L		10		A2540 C	02/17/12 18:22 / wc
<b>DATA QUALITY</b>							
A/C Balance (± 5)	0.479	%				Calculation	03/14/12 12:35 / sdw
Anions	45.9	meq/L				Calculation	03/14/12 12:35 / sdw
Cations	46.4	meq/L				Calculation	03/14/12 12:35 / sdw
Solids, Total Dissolved Calculated	2920	mg/L				Calculation	03/14/12 12:35 / sdw
TDS Balance (0.80 - 1.20)	1.08					Calculation	03/14/12 12:35 / sdw
- The Anion / Cation balance was calculated using cation results from workorder C12020833.							
<b>VOLATILE ORGANIC COMPOUNDS</b>							
Acetone	ND	ug/L		20		SW8260B	02/23/12 20:35 / jlr
Benzene	ND	ug/L		1.0		SW8260B	02/23/12 20:35 / jlr
Carbon tetrachloride	ND	ug/L		1.0		SW8260B	02/23/12 20:35 / jlr
Chloroform	3300	ug/L	D	100		SW8260B	02/23/12 20:01 / jlr
Chloromethane	ND	ug/L		1.0		SW8260B	02/23/12 20:35 / jlr
Methyl ethyl ketone	ND	ug/L		20		SW8260B	02/23/12 20:35 / jlr
Methylene chloride	24	ug/L		1.0		SW8260B	02/23/12 20:35 / jlr
Naphthalene	ND	ug/L		1.0		SW8260B	02/23/12 20:35 / jlr
Toluene	ND	ug/L		1.0		SW8260B	02/23/12 20:35 / jlr
Xylenes, Total	ND	ug/L		1.0		SW8260B	02/23/12 20:35 / jlr
Surr: 1,2-Dichlorobenzene-d4	118	%REC		80-120		SW8260B	02/23/12 20:35 / jlr
Surr: Dibromofluoromethane	111	%REC		70-130		SW8260B	02/23/12 20:35 / jlr
Surr: p-Bromofluorobenzene	129	%REC	S	80-120		SW8260B	02/23/12 20:35 / jlr
Surr: Toluene-d8	106	%REC		80-120		SW8260B	02/23/12 20:35 / jlr

**Report Definitions:**  
 RL - Analyte reporting limit.  
 QCL - Quality control limit.  
 D - RL increased due to sample matrix.

MCL - Maximum contaminant level.  
 ND - Not detected at the reporting limit.  
 S - Spike recovery outside of advisory limits.

### LABORATORY ANALYTICAL REPORT

Prepared by Casper, WY Branch

**Client:** Denison Mines USA Corp  
**Project:** 1st Quarter Groundwater 2012  
**Lab ID:** C12030065-007  
**Client Sample ID:** MW-27

**Report Date:** 03/20/12  
**Collection Date:** 02/28/12 11:10  
**Date Received:** 03/02/12  
**Matrix:** Aqueous

Analyses	Result	Units	Qualifier	RL	MCL/ QCL	Method	Analysis Date / By
<b>MAJOR IONS</b>							
Chloride	45	mg/L		1		A4500-Cl B	03/06/12 10:57 / wc
Nitrogen, Nitrate+Nitrite as N	6.4	mg/L	D	0.5		E353.2	03/02/12 15:28 / dc
Sulfate	451	mg/L	D	10		A4500-SO4 E	03/06/12 16:08 / wc
<b>PHYSICAL PROPERTIES</b>							
Solids, Total Dissolved TDS @ 180 C	1140	mg/L		10		A2540 C	03/02/12 16:30 / lr
<b>RADIONUCLIDES - DISSOLVED</b>							
Gross Alpha minus Rn & U	2.3	pCi/L				E900.1	03/08/12 16:16 / ep
Gross Alpha minus Rn & U Precision (±)	0.6	pCi/L				E900.1	03/08/12 16:16 / ep
Gross Alpha minus Rn & U MDC	0.5	pCi/L				E900.1	03/08/12 16:16 / ep

**Report Definitions:**  
 RL - Analyte reporting limit.  
 QCL - Quality control limit.  
 MDC - Minimum detectable concentration

MCL - Maximum contaminant level.  
 ND - Not detected at the reporting limit.  
 D - RL increased due to sample matrix.



### LABORATORY ANALYTICAL REPORT

Prepared by Casper, WY Branch

**Client:** Denison Mines USA Corp  
**Project:** 1st Quarter Groundwater 2012  
**Lab ID:** C12030065-008  
**Client Sample ID:** MW-28

**Report Date:** 03/20/12  
**Collection Date:** 02/28/12 12:40  
**Date Received:** 03/02/12  
**Matrix:** Aqueous

Analyses	Result	Units	Qualifier	RL	MCL/ QCL	Method	Analysis Date / By
<b>MAJOR IONS</b>							
Chloride	109	mg/L		1		A4500-Cl B	03/06/12 11:00 / wc

**Report Definitions:** RL - Analyte reporting limit.  
QCL - Quality control limit.

MCL - Maximum contaminant level.  
ND - Not detected at the reporting limit.



### LABORATORY ANALYTICAL REPORT

Prepared by Casper, WY Branch

**Client:** Denison Mines USA Corp  
**Project:** 1st Quarter Groundwater 2012  
**Lab ID:** C12020833-005  
**Client Sample ID:** MW-29

**Report Date:** 03/20/12  
**Collection Date:** 02/22/12 11:50  
**Date Received:** 02/24/12  
**Matrix:** Aqueous

Analyses	Result	Units	Qualifier	RL	MCL/ QCL	Method	Analysis Date / By
<b>METALS - DISSOLVED</b>							
Iron	1310	ug/L		30		E200.7	03/05/12 16:07 / cp

**Report Definitions:** RL - Analyte reporting limit.  
QCL - Quality control limit.

MCL - Maximum contaminant level.  
ND - Not detected at the reporting limit.



## ORGANIC ANALYTICAL REPORT

**Client:** Denison Mines  
**Project:** 1st Quarter GW 2012  
**Lab Sample ID:** 1202256-004A  
**Client Sample ID:** MW-30  
**Collection Date:** 2/14/2012 1300h  
**Received Date:** 2/16/2012 1530h

**Contact:** Garrin Palmer

**Method:** SW8260C

### Analytical Results

VOAs by GC/MS Method 8260C/5030C

**Analyzed:** 2/20/2012 1812h

**Units:** µg/L

**Dilution Factor:** 1

463 West 3600 South  
Salt Lake City, UT 84115

Compound	CAS Number	Reporting Limit	Analytical Result	Qual		
Tetrahydrofuran	109-99-9	1.00	< 1.00			
Surrogate	CAS	Result	Amount Spiked	% REC	Limits	Qual
Surr: Toluene-d8	2037-26-5	47.5	50.00	94.9	77-129	
Surr: Dibromofluoromethane	1868-53-7	42.5	50.00	84.9	80-124	
Surr: 4-Bromofluorobenzene	460-00-4	43.9	50.00	87.9	80-128	
Surr: 1,2-Dichloroethane-d4	17060-07-0	40.0	50.00	79.9	72-151	

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web: www.awal-labs.com

Kyle F. Gross  
Laboratory Director

Jose Rocha  
QA Officer



# INORGANIC ANALYTICAL REPORT

**Client:** Denison Mines  
**Project:** 1st Quarter GW 2012  
**Lab Sample ID:** 1202257-004  
**Client Sample ID:** MW-30  
**Collection Date:** 2/14/2012 1300h  
**Received Date:** 2/16/2012 1530h

**Contact:** Garrin Palmer

## Analytical Results

## DISSOLVED METALS

<u>Compound</u>	<u>Units</u>	<u>Date Prepared</u>	<u>Date Analyzed</u>	<u>Method Used</u>	<u>Reporting Limit</u>	<u>Analytical Result</u>	<u>Qual</u>
Tin	mg/L		2/24/2012 2037h	E200.8	0.100	< 0.100	

*Reissue of a previously generated report. The reporting limit has been updated. Information herein supersedes that of the previously issued reports.*

*This sample was not digested pursuant to the client request.*

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Kyle F. Gross  
Laboratory Director

Jose Rocha  
QA Officer

## LABORATORY ANALYTICAL REPORT

Prepared by Casper, WY Branch

**Client:** Denison Mines USA Corp  
**Project:** 1st Quarter Groundwater 2012  
**Lab ID:** C12020681-004  
**Client Sample ID:** MW-30

**Report Date:** 03/20/12  
**Collection Date:** 02/14/12 13:00  
**Date Received:** 02/17/12  
**Matrix:** Aqueous

Analyses	Result	Units	Qualifier	RL	MCL/ QCL	Method	Analysis Date / By
<b>MAJOR IONS</b>							
Carbonate as CO3	ND	mg/L		1		A2320 B	02/21/12 16:20 / jba
Bicarbonate as HCO3	178	mg/L		1		A2320 B	02/21/12 16:20 / jba
Calcium	272	mg/L		0.5		E200.7	02/24/12 17:45 / cp
Chloride	126	mg/L		1		A4500-Cl B	02/24/12 10:44 / lr
Fluoride	0.38	mg/L		0.10		A4500-F C	02/21/12 12:36 / jba
Magnesium	70.0	mg/L		0.5		E200.7	02/24/12 17:45 / cp
Nitrogen, Ammonia as N	ND	mg/L		0.05		A4500-NH3 G	02/22/12 12:35 / dc
Nitrogen, Nitrate+Nitrite as N	17	mg/L	D	1		E353.2	02/21/12 13:43 / dc
Potassium	6.6	mg/L		0.5		E200.7	02/24/12 17:45 / cp
Sodium	102	mg/L	D	0.6		E200.7	02/24/12 17:45 / cp
Sulfate	728	mg/L	D	10		A4500-SO4 E	02/23/12 15:49 / lr
<b>PHYSICAL PROPERTIES</b>							
Solids, Total Dissolved TDS @ 180 C	1550	mg/L		10		A2540 C	02/17/12 18:23 / wc
<b>METALS - DISSOLVED</b>							
Arsenic	ND	ug/L		5.0		E200.8	02/17/12 14:02 / sml
Beryllium	ND	ug/L		0.50		E200.8	02/17/12 14:02 / sml
Cadmium	ND	ug/L		0.50		E200.8	02/17/12 14:02 / sml
Chromium	ND	ug/L		25		E200.8	02/17/12 14:02 / sml
Cobalt	ND	ug/L		10		E200.8	03/01/12 03:05 / smm
Copper	ND	ug/L		10		E200.8	02/17/12 14:02 / sml
Iron	51.4	ug/L		30.0		E200.7	02/24/12 17:45 / cp
Lead	ND	ug/L		1.0		E200.8	02/17/12 14:02 / sml
Manganese	36	ug/L		10		E200.8	02/17/12 14:02 / sml
Mercury	ND	ug/L		0.50		E200.8	02/17/12 14:02 / sml
Molybdenum	ND	ug/L		10		E200.8	02/17/12 14:02 / sml
Nickel	ND	ug/L		20		E200.8	02/17/12 14:02 / sml
Selenium	35.0	ug/L		5.0		E200.8	02/17/12 14:02 / sml
Silver	ND	ug/L		10		E200.8	02/17/12 14:02 / sml
Thallium	ND	ug/L		0.50		E200.8	02/17/12 14:02 / sml
Uranium	7.42	ug/L		0.30		E200.8	03/15/12 10:29 / smm
Vanadium	ND	ug/L		15		E200.8	02/17/12 14:02 / sml
Zinc	ND	ug/L		10		E200.8	02/17/12 14:02 / sml
<b>RADIONUCLIDES - DISSOLVED</b>							
Gross Alpha minus Rn & U	0.9	pCi/L				E900.1	02/28/12 17:24 / ep
Gross Alpha minus Rn & U Precision (±)	0.3	pCi/L				E900.1	02/28/12 17:24 / ep
Gross Alpha minus Rn & U MDC	0.2	pCi/L				E900.1	02/28/12 17:24 / ep

**Report Definitions:**  
 RL - Analyte reporting limit.  
 QCL - Quality control limit.  
 MDC - Minimum detectable concentration

MCL - Maximum contaminant level.  
 ND - Not detected at the reporting limit.  
 D - RL increased due to sample matrix.



### LABORATORY ANALYTICAL REPORT

Prepared by Casper, WY Branch

**Client:** Denison Mines USA Corp  
**Project:** 1st Quarter Groundwater 2012  
**Lab ID:** C12020681-004  
**Client Sample ID:** MW-30

**Report Date:** 03/20/12  
**Collection Date:** 02/14/12 13:00  
**Date Received:** 02/17/12  
**Matrix:** Aqueous

Analyses	Result	Units	Qualifier	RL	MCL/ QCL	Method	Analysis Date / By
<b>DATA QUALITY</b>							
A/C Balance (± 5)	2.36	%				Calculation	03/14/12 12:36 / sdw
Anions	22.9	meq/L				Calculation	03/14/12 12:36 / sdw
Cations	24.0	meq/L				Calculation	03/14/12 12:36 / sdw
Solids, Total Dissolved Calculated	1490	mg/L				Calculation	03/14/12 12:36 / sdw
TDS Balance (0.80 - 1.20)	1.04					Calculation	03/14/12 12:36 / sdw
<b>VOLATILE ORGANIC COMPOUNDS</b>							
Acetone	ND	ug/L		20		SW8260B	02/23/12 17:07 / jlr
Benzene	ND	ug/L		1.0		SW8260B	02/23/12 17:07 / jlr
Carbon tetrachloride	ND	ug/L		1.0		SW8260B	02/23/12 17:07 / jlr
Chloroform	ND	ug/L		1.0		SW8260B	02/23/12 17:07 / jlr
Chloromethane	ND	ug/L		1.0		SW8260B	02/23/12 17:07 / jlr
Methyl ethyl ketone	ND	ug/L		20		SW8260B	02/23/12 17:07 / jlr
Methylene chloride	ND	ug/L		1.0		SW8260B	02/23/12 17:07 / jlr
Naphthalene	ND	ug/L		1.0		SW8260B	02/23/12 17:07 / jlr
Toluene	ND	ug/L		1.0		SW8260B	02/23/12 17:07 / jlr
Xylenes, Total	ND	ug/L		1.0		SW8260B	02/23/12 17:07 / jlr
Surr: 1,2-Dichlorobenzene-d4	116	%REC		80-120		SW8260B	02/23/12 17:07 / jlr
Surr: Dibromofluoromethane	106	%REC		70-130		SW8260B	02/23/12 17:07 / jlr
Surr: p-Bromofluorobenzene	126	%REC	S	80-120		SW8260B	02/23/12 17:07 / jlr
Surr: Toluene-d8	104	%REC		80-120		SW8260B	02/23/12 17:07 / jlr

**Report** RL - Analyte reporting limit.

**Definitions:** QCL - Quality control limit.

S - Spike recovery outside of advisory limits.

MCL - Maximum contaminant level.

ND - Not detected at the reporting limit.



## ORGANIC ANALYTICAL REPORT

**Client:** Denison Mines  
**Project:** 1st Quarter GW 2012  
**Lab Sample ID:** 1202256-005A  
**Client Sample ID:** MW-31  
**Collection Date:** 2/13/2012 1340h  
**Received Date:** 2/16/2012 1530h

**Contact:** Garrin Palmer

**Method:** SW8260C

### Analytical Results

VOAs by GC/MS Method 8260C/5030C

**Analyzed:** 2/20/2012 1830h

**Units:** µg/L

**Dilution Factor:** 1

463 West 3600 South  
Salt Lake City, UT 84115

Compound	CAS Number	Reporting Limit	Analytical Result	Qual		
Tetrahydrofuran	109-99-9	1.00	< 1.00			
Surrogate	CAS	Result	Amount Spiked	% REC	Limits	Qual
Surr: Toluene-d8	2037-26-5	49.4	50.00	98.8	77-129	
Surr: Dibromofluoromethane	1868-53-7	43.2	50.00	86.4	80-124	
Surr: 4-Bromofluorobenzene	460-00-4	46.2	50.00	92.4	80-128	
Surr: 1,2-Dichloroethane-d4	17060-07-0	43.0	50.00	86.1	72-151	

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Kyle F. Gross  
Laboratory Director

Jose Rocha  
QA Officer



# INORGANIC ANALYTICAL REPORT

**Client:** Denison Mines  
**Project:** 1st Quarter GW 2012  
**Lab Sample ID:** 1202257-005  
**Client Sample ID:** MW-31  
**Collection Date:** 2/13/2012 1340h  
**Received Date:** 2/16/2012 1530h

**Contact:** Garrin Palmer

## Analytical Results

## DISSOLVED METALS

Compound	Units	Date Prepared	Date Analyzed	Method Used	Reporting Limit	Analytical Result	Qual
Tin	mg/L		2/24/2012 2043h	E200.8	0.100	< 0.100	

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Jose Rocha  
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### LABORATORY ANALYTICAL REPORT

Prepared by Casper, WY Branch

**Client:** Denison Mines USA Corp  
**Project:** 1st Quarter Groundwater 2012  
**Lab ID:** C12020681-005  
**Client Sample ID:** MW-31

**Report Date:** 03/20/12  
**Collection Date:** 02/13/12 13:40  
**Date Received:** 02/17/12  
**Matrix:** Aqueous

Analyses	Result	Units	Qualifier	RL	MCL/ QCL	Method	Analysis Date / By
<b>MAJOR IONS</b>							
Carbonate as CO <sub>3</sub>	ND	mg/L		1		A2320 B	02/21/12 16:27 / jba
Bicarbonate as HCO <sub>3</sub>	203	mg/L		1		A2320 B	02/21/12 16:27 / jba
Calcium	190	mg/L		0.5		E200.7	02/24/12 17:49 / cp
Chloride	150	mg/L		1		A4500-Cl B	02/24/12 10:45 / lr
Fluoride	0.86	mg/L		0.10		A4500-F C	02/21/12 12:43 / jba
Magnesium	87.9	mg/L		0.5		E200.7	02/24/12 17:49 / cp
Nitrogen, Ammonia as N	ND	mg/L		0.05		A4500-NH3 G	02/22/12 12:43 / dc
Nitrogen, Nitrate+Nitrite as N	21	mg/L	D	1		E353.2	02/21/12 13:46 / dc
Potassium	6.0	mg/L		0.5		E200.7	02/24/12 17:49 / cp
Sodium	97.2	mg/L	D	0.6		E200.7	02/24/12 17:49 / cp
Sulfate	538	mg/L	D	10		A4500-SO <sub>4</sub> E	02/23/12 15:53 / lr
<b>PHYSICAL PROPERTIES</b>							
Solids, Total Dissolved TDS @ 180 C	1240	mg/L		10		A2540 C	02/17/12 18:23 / wc
<b>METALS - DISSOLVED</b>							
Arsenic	ND	ug/L		5.0		E200.8	02/17/12 14:05 / sml
Beryllium	ND	ug/L		0.50		E200.8	02/17/12 14:05 / sml
Cadmium	ND	ug/L		0.50		E200.8	02/17/12 14:05 / sml
Chromium	ND	ug/L		25		E200.8	02/17/12 14:05 / sml
Cobalt	ND	ug/L		10		E200.8	03/01/12 03:10 / smm
Copper	ND	ug/L		10		E200.8	02/17/12 14:05 / sml
Iron	ND	ug/L		30.0		E200.7	02/24/12 17:49 / cp
Lead	ND	ug/L		1.0		E200.8	02/17/12 14:05 / sml
Manganese	ND	ug/L		10		E200.8	02/17/12 14:05 / sml
Mercury	ND	ug/L		0.50		E200.8	02/17/12 14:05 / sml
Molybdenum	ND	ug/L		10		E200.8	02/17/12 14:05 / sml
Nickel	ND	ug/L		20		E200.8	02/17/12 14:05 / sml
Selenium	67.8	ug/L		5.0		E200.8	02/17/12 14:05 / sml
Silver	ND	ug/L		10		E200.8	02/17/12 14:05 / sml
Thallium	ND	ug/L		0.50		E200.8	02/17/12 14:05 / sml
Uranium	7.96	ug/L		0.30		E200.8	03/15/12 10:31 / smm
Vanadium	ND	ug/L		15		E200.8	02/17/12 14:05 / sml
Zinc	ND	ug/L		10		E200.8	02/17/12 14:05 / sml
<b>RADIONUCLIDES - DISSOLVED</b>							
Gross Alpha minus Rn & U	0.7	pCi/L				E900.1	02/28/12 17:24 / ep
Gross Alpha minus Rn & U Precision (±)	0.2	pCi/L				E900.1	02/28/12 17:24 / ep
Gross Alpha minus Rn & U MDC	0.2	pCi/L				E900.1	02/28/12 17:24 / ep

**Report Definitions:**  
 RL - Analyte reporting limit.  
 QCL - Quality control limit.  
 MDC - Minimum detectable concentration

MCL - Maximum contaminant level.  
 ND - Not detected at the reporting limit.  
 D - RL increased due to sample matrix.

### LABORATORY ANALYTICAL REPORT

Prepared by Casper, WY Branch

**Client:** Denison Mines USA Corp  
**Project:** 1st Quarter Groundwater 2012  
**Lab ID:** C12020681-005  
**Client Sample ID:** MW-31

**Report Date:** 03/20/12  
**Collection Date:** 02/13/12 13:40  
**Date Received:** 02/17/12  
**Matrix:** Aqueous

Analyses	Result	Units	Qualifier	RL	MCL/ QCL	Method	Analysis Date / By
<b>DATA QUALITY</b>							
A/C Balance (± 5)	1.97	%				Calculation	03/14/12 12:36 / sdw
Anions	20.3	meq/L				Calculation	03/14/12 12:36 / sdw
Cations	21.1	meq/L				Calculation	03/14/12 12:36 / sdw
Solids, Total Dissolved Calculated	1280	mg/L				Calculation	03/14/12 12:36 / sdw
TDS Balance (0.80 - 1.20)	0.970					Calculation	03/14/12 12:36 / sdw
<b>VOLATILE ORGANIC COMPOUNDS</b>							
Acetone	ND	ug/L		20		SW8260B	02/23/12 17:42 / jlr
Benzene	ND	ug/L		1.0		SW8260B	02/23/12 17:42 / jlr
Carbon tetrachloride	ND	ug/L		1.0		SW8260B	02/23/12 17:42 / jlr
Chloroform	ND	ug/L		1.0		SW8260B	02/23/12 17:42 / jlr
Chloromethane	ND	ug/L		1.0		SW8260B	02/23/12 17:42 / jlr
Methyl ethyl ketone	ND	ug/L		20		SW8260B	02/23/12 17:42 / jlr
Methylene chloride	ND	ug/L		1.0		SW8260B	02/23/12 17:42 / jlr
Naphthalene	ND	ug/L		1.0		SW8260B	02/23/12 17:42 / jlr
Toluene	ND	ug/L		1.0		SW8260B	02/23/12 17:42 / jlr
Xylenes, Total	ND	ug/L		1.0		SW8260B	02/23/12 17:42 / jlr
Surr: 1,2-Dichlorobenzene-d4	119	%REC		80-120		SW8260B	02/23/12 17:42 / jlr
Surr: Dibromofluoromethane	106	%REC		70-130		SW8260B	02/23/12 17:42 / jlr
Surr: p-Bromofluorobenzene	128	%REC	S	80-120		SW8260B	02/23/12 17:42 / jlr
Surr: Toluene-d8	105	%REC		80-120		SW8260B	02/23/12 17:42 / jlr

**Report** RL - Analyte reporting limit.

**Definitions:** QCL - Quality control limit.

S - Spike recovery outside of advisory limits.

MCL - Maximum contaminant level.

ND - Not detected at the reporting limit.



### LABORATORY ANALYTICAL REPORT

Prepared by Casper, WY Branch

**Client:** Denison Mines USA Corp  
**Project:** 1st Quarter Groundwater 2012  
**Lab ID:** C12020833-006  
**Client Sample ID:** MW-32

**Report Date:** 03/20/12  
**Collection Date:** 02/21/12 13:15  
**Date Received:** 02/24/12  
**Matrix:** Aqueous

Analyses	Result	Units	Qualifier	RL	MCL/ QCL	Method	Analysis Date / By
<b>RADIONUCLIDES - DISSOLVED</b>							
Gross Alpha minus Rn & U	1.8	pCi/L				E900.1	03/15/12 19:02 / ep
Gross Alpha minus Rn & U Precision (±)	0.3	pCi/L				E900.1	03/15/12 19:02 / ep
Gross Alpha minus Rn & U MDC	0.2	pCi/L				E900.1	03/15/12 19:02 / ep

**Report Definitions:**  
RL - Analyte reporting limit.  
QCL - Quality control limit.  
MDC - Minimum detectable concentration

MCL - Maximum contaminant level.  
ND - Not detected at the reporting limit.



## ORGANIC ANALYTICAL REPORT

**Client:** Denison Mines  
**Project:** 1st Quarter GW 2012  
**Lab Sample ID:** 1202256-007A  
**Client Sample ID:** MW-35  
**Collection Date:** 2/14/2012 830h  
**Received Date:** 2/16/2012 1530h

**Contact:** Garrin Palmer

**Method:** SW8260C

### Analytical Results

VOAs by GC/MS Method 8260C/5030C

**Analyzed:** 2/20/2012 1907h

**Units:** µg/L

**Dilution Factor:** 1

463 West 3600 South  
Salt Lake City, UT 84115

Compound	CAS Number	Reporting Limit	Analytical Result	Qual		
Tetrahydrofuran	109-99-9	1.00	< 1.00			
Surrogate	CAS	Result	Amount Spiked	% REC	Limits	Qual
Surr: Toluene-d8	2037-26-5	49.3	50.00	98.7	77-129	
Surr: Dibromofluoromethane	1868-53-7	43.6	50.00	87.1	80-124	
Surr: 4-Bromofluorobenzene	460-00-4	46.9	50.00	93.8	80-128	
Surr: 1,2-Dichloroethane-d4	17060-07-0	44.8	50.00	89.5	72-151	

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web: www.awal-labs.com

Kyle F. Gross  
Laboratory Director

Jose Rocha  
QA Officer



# INORGANIC ANALYTICAL REPORT

**Client:** Denison Mines  
**Project:** 1st Quarter GW 2012  
**Lab Sample ID:** 1202257-007  
**Client Sample ID:** MW-35  
**Collection Date:** 2/14/2012 0830h  
**Received Date:** 2/16/2012 1530h

**Contact:** Garrin Palmer

## Analytical Results

## DISSOLVED METALS

<u>Compound</u>	<u>Units</u>	<u>Date Prepared</u>	<u>Date Analyzed</u>	<u>Method Used</u>	<u>Reporting Limit</u>	<u>Analytical Result</u>	<u>Qual</u>
Tin	mg/L		2/24/2012 2056h	E200.8	0.100	< 0.100	

*Reissue of a previously generated report. The reporting limit has been updated. Information herein supersedes that of the previously issued reports.*

*This sample was not digested pursuant to the client request.*

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Salt Lake City, UT 84115

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Kyle F. Gross  
Laboratory Director

Jose Rocha  
QA Officer

## LABORATORY ANALYTICAL REPORT

Prepared by Casper, WY Branch

**Client:** Denison Mines USA Corp  
**Project:** 1st Quarter Groundwater 2012  
**Lab ID:** C12020681-006  
**Client Sample ID:** MW-35

**Report Date:** 03/20/12  
**Collection Date:** 02/14/12 08:30  
**Date Received:** 02/17/12  
**Matrix:** Aqueous

Analyses	Result	Units	Qualifier	RL	MCL/ QCL	Method	Analysis Date / By
<b>MAJOR IONS</b>							
Carbonate as CO <sub>3</sub>	ND	mg/L		1		A2320 B	02/21/12 16:36 / jba
Bicarbonate as HCO <sub>3</sub>	398	mg/L		1		A2320 B	02/21/12 16:36 / jba
Calcium	532	mg/L		0.5		E200.7	02/24/12 17:53 / cp
Chloride	59	mg/L		1		A4500-Cl B	02/24/12 10:47 / lr
Fluoride	0.39	mg/L		0.10		A4500-F C	02/21/12 12:46 / jba
Magnesium	159	mg/L		0.5		E200.7	02/24/12 17:53 / cp
Nitrogen, Ammonia as N	0.08	mg/L		0.05		A4500-NH3 G	02/22/12 12:49 / dc
Nitrogen, Nitrate+Nitrite as N	ND	mg/L		0.1		E353.2	02/21/12 13:48 / dc
Potassium	11.5	mg/L		0.5		E200.7	02/24/12 17:53 / cp
Sodium	414	mg/L	D	0.6		E200.7	02/24/12 17:53 / cp
Sulfate	2330	mg/L	D	50		A4500-SO4 E	02/23/12 15:55 / lr
<b>PHYSICAL PROPERTIES</b>							
Solids, Total Dissolved TDS @ 180 C	3840	mg/L		10		A2540 C	02/17/12 18:23 / wc
<b>METALS - DISSOLVED</b>							
Arsenic	ND	ug/L		5.0		E200.8	02/17/12 14:08 / sml
Beryllium	ND	ug/L		0.50		E200.8	02/17/12 14:08 / sml
Cadmium	ND	ug/L		0.50		E200.8	02/17/12 14:08 / sml
Chromium	ND	ug/L		25		E200.8	02/17/12 14:08 / sml
Cobalt	ND	ug/L		10		E200.8	03/01/12 03:15 / smm
Copper	ND	ug/L		10		E200.8	02/17/12 14:08 / sml
Iron	154	ug/L		30.0		E200.7	02/24/12 17:53 / cp
Lead	ND	ug/L		1.0		E200.8	02/17/12 14:08 / sml
Manganese	253	ug/L		10		E200.8	02/17/12 14:08 / sml
Mercury	ND	ug/L		0.50		E200.8	02/17/12 14:08 / sml
Molybdenum	ND	ug/L		10		E200.8	02/17/12 14:08 / sml
Nickel	ND	ug/L		20		E200.8	02/17/12 14:08 / sml
Selenium	19.7	ug/L		5.0		E200.8	02/17/12 14:08 / sml
Silver	ND	ug/L		10		E200.8	02/17/12 14:08 / sml
Thallium	0.65	ug/L		0.50		E200.8	02/17/12 14:08 / sml
Uranium	24.7	ug/L		0.30		E200.8	03/15/12 10:32 / smm
Vanadium	ND	ug/L		15		E200.8	02/17/12 14:08 / sml
Zinc	ND	ug/L		10		E200.8	02/17/12 14:08 / sml
<b>RADIONUCLIDES - DISSOLVED</b>							
Gross Alpha minus Rn & U	4.1	pCi/L				E900.1	02/28/12 17:24 / ep
Gross Alpha minus Rn & U Precision (±)	0.5	pCi/L				E900.1	02/28/12 17:24 / ep
Gross Alpha minus Rn & U MDC	0.2	pCi/L				E900.1	02/28/12 17:24 / ep

**Report Definitions:**  
 RL - Analyte reporting limit.  
 QCL - Quality control limit.  
 MDC - Minimum detectable concentration

**Report Definitions:**  
 MCL - Maximum contaminant level.  
 ND - Not detected at the reporting limit.  
 D - RL increased due to sample matrix.

### LABORATORY ANALYTICAL REPORT

Prepared by Casper, WY Branch

**Client:** Denison Mines USA Corp  
**Project:** 1st Quarter Groundwater 2012  
**Lab ID:** C12020681-006  
**Client Sample ID:** MW-35

**Report Date:** 03/20/12  
**Collection Date:** 02/14/12 08:30  
**Date Received:** 02/17/12  
**Matrix:** Aqueous

Analyses	Result	Units	Qualifier	RL	MCL/ QCL	Method	Analysis Date / By
<b>DATA QUALITY</b>							
A/C Balance (± 5)	0.985	%				Calculation	03/14/12 12:37 / sdw
Anions	56.8	meq/L				Calculation	03/14/12 12:37 / sdw
Cations	57.9	meq/L				Calculation	03/14/12 12:37 / sdw
Solids, Total Dissolved Calculated	3730	mg/L				Calculation	03/14/12 12:37 / sdw
TDS Balance (0.80 - 1.20)	1.03					Calculation	03/14/12 12:37 / sdw
<b>VOLATILE ORGANIC COMPOUNDS</b>							
Acetone	ND	ug/L		20		SW8260B	02/23/12 18:17 / jlr
Benzene	ND	ug/L		1.0		SW8260B	02/23/12 18:17 / jlr
Carbon tetrachloride	ND	ug/L		1.0		SW8260B	02/23/12 18:17 / jlr
Chloroform	ND	ug/L		1.0		SW8260B	02/23/12 18:17 / jlr
Chloromethane	ND	ug/L		1.0		SW8260B	02/23/12 18:17 / jlr
Methyl ethyl ketone	ND	ug/L		20		SW8260B	02/23/12 18:17 / jlr
Methylene chloride	ND	ug/L		1.0		SW8260B	02/23/12 18:17 / jlr
Naphthalene	ND	ug/L		1.0		SW8260B	02/23/12 18:17 / jlr
Toluene	ND	ug/L		1.0		SW8260B	02/23/12 18:17 / jlr
Xylenes, Total	ND	ug/L		1.0		SW8260B	02/23/12 18:17 / jlr
Surr: 1,2-Dichlorobenzene-d4	118	%REC		80-120		SW8260B	02/23/12 18:17 / jlr
Surr: Dibromofluoromethane	108	%REC		70-130		SW8260B	02/23/12 18:17 / jlr
Surr: p-Bromofluorobenzene	128	%REC	S	80-120		SW8260B	02/23/12 18:17 / jlr
Surr: Toluene-d8	103	%REC		80-120		SW8260B	02/23/12 18:17 / jlr

**Report Definitions:**  
 RL - Analyte reporting limit.  
 QCL - Quality control limit.  
 S - Spike recovery outside of advisory limits.

MCL - Maximum contaminant level.  
 ND - Not detected at the reporting limit.



## ORGANIC ANALYTICAL REPORT

**Client:** Denison Mines  
**Project:** 1st Quarter GW 2012  
**Lab Sample ID:** 1202371-004E  
**Client Sample ID:** MW-36  
**Collection Date:** 2/20/2012 1320h  
**Received Date:** 2/24/2012 1100h

**Contact:** Garrin Palmer

### Analytical Results

VOAs by GC/MS Method 8260C/5030C

**Analyzed:** 2/29/2012 0814h

**Units:** µg/L

**Dilution Factor:** 1

**Method:** SW8260C

463 West 3600 South  
Salt Lake City, UT 84115

Compound	CAS Number	Reporting Limit	Analytical Result	Qual
Tetrahydrofuran	109-99-9	1.00	< 1.00	

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Toll Free: (888) 263-8686  
Fax: (801) 263-8687  
e-mail: awal@awal-labs.com

Surrogate	CAS	Result	Amount Spiked	% REC	Limits	Qual
Surr: Toluene-d8	2037-26-5	49.0	50.00	98.0	77-129	
Surr: Dibromofluoromethane	1868-53-7	50.5	50.00	101	80-124	
Surr: 4-Bromofluorobenzene	460-00-4	48.9	50.00	97.8	80-128	
Surr: 1,2-Dichloroethane-d4	17060-07-0	51.4	50.00	103	72-151	

web: www.awal-labs.com

Kyle F. Gross  
Laboratory Director

Jose Rocha  
QA Officer

# INORGANIC ANALYTICAL REPORT



**Client:** Denison Mines  
**Project:** 1st Quarter GW 2012  
**Lab Sample ID:** 1205180-002  
**Client Sample ID:** MW 36  
**Collection Date:** 2/20/2012 1320h  
**Received Date:** 5/10/2012 1015h

**Contact:** Kathy Weinel

## Analytical Results

## TOTAL METALS

463 West 3600 South  
Salt Lake City, UT 84115

<u>Compound</u>	<u>Units</u>	<u>Date Prepared</u>	<u>Date Analyzed</u>	<u>Method Used</u>	<u>Reporting Limit</u>	<u>Analytical Result</u>	<u>Qual</u>
Tin	mg/L		5/10/2012 1119h	E200.8	0.100	< 0.100	

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web: [www.awal-labs.com](http://www.awal-labs.com)

Kyle F. Gross  
Laboratory Director

Jose Rocha  
QA Officer

### LABORATORY ANALYTICAL REPORT

Prepared by Casper, WY Branch

**Client:** Denison Mines USA Corp  
**Project:** 1st Quarter Groundwater 2012  
**Lab ID:** C12020833-008  
**Client Sample ID:** MW-36

**Report Date:** 03/20/12  
**Collection Date:** 02/20/12 13:20  
**Date Received:** 02/24/12  
**Matrix:** Aqueous

Analyses	Result	Units	Qualifier	RL	MCL/ QCL	Method	Analysis Date / By
<b>MAJOR IONS</b>							
Carbonate as CO3	ND	mg/L		1		A2320 B	02/28/12 14:39 / jba
Bicarbonate as HCO3	350	mg/L		1		A2320 B	02/28/12 14:39 / jba
Calcium	453	mg/L		0.5		E200.7	03/05/12 16:17 / cp
Chloride	73	mg/L		1		A4500-Cl B	03/06/12 10:50 / wc
Fluoride	0.32	mg/L		0.10		A4500-F C	02/28/12 11:50 / jba
Magnesium	140	mg/L		0.5		E200.7	03/05/12 16:17 / cp
Nitrogen, Ammonia as N	ND	mg/L		0.05		A4500-NH3 G	02/24/12 12:06 / dc
Nitrogen, Nitrate+Nitrite as N	0.2	mg/L		0.1		E353.2	02/27/12 12:41 / dc
Potassium	10.5	mg/L		0.5		E200.7	03/05/12 16:17 / cp
Sodium	724	mg/L	D	2		E200.7	03/05/12 16:17 / cp
Sulfate	2690	mg/L	D	50		A4500-SO4 E	03/06/12 15:20 / wc
<b>PHYSICAL PROPERTIES</b>							
Solids, Total Dissolved TDS @ 180 C	4360	mg/L	D	12		A2540 C	02/24/12 14:30 / wc
<b>METALS - DISSOLVED</b>							
Arsenic	ND	ug/L		5.0		E200.8	02/27/12 22:06 / smm
Beryllium	ND	ug/L		0.51		E200.8	02/27/12 22:06 / smm
Cadmium	ND	ug/L		0.51		E200.8	02/27/12 22:06 / smm
Chromium	ND	ug/L		25		E200.8	02/27/12 22:06 / smm
Cobalt	ND	ug/L		10		E200.8	02/27/12 22:06 / smm
Copper	ND	ug/L		10		E200.8	02/27/12 22:06 / smm
Iron	ND	ug/L		30		E200.7	03/05/12 16:17 / cp
Lead	ND	ug/L		1.0		E200.8	02/27/12 22:06 / smm
Manganese	ND	ug/L		10		E200.8	02/27/12 22:06 / smm
Mercury	ND	ug/L		0.50		E200.8	02/27/12 22:06 / smm
Molybdenum	ND	ug/L		10		E200.8	02/27/12 22:06 / smm
Nickel	ND	ug/L		20		E200.8	02/27/12 22:06 / smm
Selenium	259	ug/L		5.0		E200.8	02/27/12 22:06 / smm
Silver	ND	ug/L		10		E200.8	02/27/12 22:06 / smm
Thallium	1.03	ug/L		0.50		E200.8	02/27/12 22:06 / smm
Uranium	23.9	ug/L	D	0.50		E200.8	02/27/12 22:06 / smm
Vanadium	ND	ug/L		15		E200.8	02/27/12 22:06 / smm
Zinc	24	ug/L		10		E200.8	02/27/12 22:06 / smm
<b>RADIONUCLIDES - DISSOLVED</b>							
Gross Alpha minus Rn & U	0.5	pCi/L				E900.1	03/15/12 19:02 / ep
Gross Alpha minus Rn & U Precision (±)	0.2	pCi/L				E900.1	03/15/12 19:02 / ep
Gross Alpha minus Rn & U MDC	0.2	pCi/L				E900.1	03/15/12 19:02 / ep

**Report Definitions:**  
 RL - Analyte reporting limit.  
 QCL - Quality control limit.  
 MDC - Minimum detectable concentration

MCL - Maximum contaminant level.  
 ND - Not detected at the reporting limit.  
 D - RL increased due to sample matrix.

### LABORATORY ANALYTICAL REPORT

Prepared by Casper, WY Branch

**Client:** Denison Mines USA Corp  
**Project:** 1st Quarter Groundwater 2012  
**Lab ID:** C12020833-008  
**Client Sample ID:** MW-36

**Report Date:** 03/20/12  
**Collection Date:** 02/20/12 13:20  
**Date Received:** 02/24/12  
**Matrix:** Aqueous

Analyses	Result	Units	Qualifier	RL	MCL/ QCL	Method	Analysis Date / By
<b>DATA QUALITY</b>							
A/C Balance (± 5)	1.62	%				Calculation	03/07/12 08:07 / kbh
Anions	63.7	meq/L				Calculation	03/07/12 08:07 / kbh
Cations	65.8	meq/L				Calculation	03/07/12 08:07 / kbh
Solids, Total Dissolved Calculated	4280	mg/L				Calculation	03/07/12 08:07 / kbh
TDS Balance (0.80 - 1.20)	1.02					Calculation	03/07/12 08:07 / kbh
<b>VOLATILE ORGANIC COMPOUNDS</b>							
Acetone	ND	ug/L		20		SW8260B	02/24/12 15:39 / jlr
Benzene	ND	ug/L		1.0		SW8260B	02/24/12 15:39 / jlr
Carbon tetrachloride	ND	ug/L		1.0		SW8260B	02/24/12 15:39 / jlr
Chloroform	ND	ug/L		1.0		SW8260B	02/24/12 15:39 / jlr
Chloromethane	ND	ug/L		1.0		SW8260B	02/24/12 15:39 / jlr
Methyl ethyl ketone	ND	ug/L		20		SW8260B	02/24/12 15:39 / jlr
Methylene chloride	ND	ug/L		1.0		SW8260B	02/24/12 15:39 / jlr
Naphthalene	ND	ug/L		1.0		SW8260B	02/24/12 15:39 / jlr
Toluene	ND	ug/L		1.0		SW8260B	02/24/12 15:39 / jlr
Xylenes, Total	ND	ug/L		1.0		SW8260B	02/24/12 15:39 / jlr
Surr: 1,2-Dichlorobenzene-d4	95.0	%REC		80-120		SW8260B	02/24/12 15:39 / jlr
Surr: Dibromofluoromethane	92.0	%REC		70-130		SW8260B	02/24/12 15:39 / jlr
Surr: p-Bromofluorobenzene	130	%REC	S	80-120		SW8260B	02/24/12 15:39 / jlr
Surr: Toluene-d8	94.0	%REC		80-120		SW8260B	02/24/12 15:39 / jlr

**Report Definitions:**  
 RL - Analyte reporting limit.  
 QCL - Quality control limit.  
 S - Spike recovery outside of advisory limits.

MCL - Maximum contaminant level.  
 ND - Not detected at the reporting limit.



## ORGANIC ANALYTICAL REPORT

**Client:** Denison Mines  
**Project:** 1st Quarter Ground Water 2012  
**Lab Sample ID:** 1203040-002C  
**Client Sample ID:** MW-37  
**Collection Date:** 2/29/2012 1300h  
**Received Date:** 3/5/2012 1030h

**Contact:** Garrin Palmer

### Analytical Results

VOAs by GC/MS Method 8260C/5030C

**Analyzed:** 3/6/2012 0938h

**Units:** µg/L

**Dilution Factor:** 1

**Method:** SW8260C

463 West 3600 South  
Salt Lake City, UT 84115

Compound	CAS Number	Reporting Limit	Analytical Result	Qual
Tetrahydrofuran	109-99-9	1.00	< 1.00	

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Fax: (801) 263-8687  
e-mail: awal@awal-labs.com

Surrogate	CAS	Result	Amount Spiked	% REC	Limits	Qual
Surr: Toluene-d8	2037-26-5	49.0	50.00	98.1	77-129	
Surr: Dibromofluoromethane	1868-53-7	52.7	50.00	105	80-124	
Surr: 4-Bromofluorobenzene	460-00-4	51.6	50.00	103	80-128	
Surr: 1,2-Dichloroethane-d4	17060-07-0	63.6	50.00	127	72-151	

web: www.awal-labs.com

Kyle F. Gross  
Laboratory Director

Jose Rocha  
QA Officer



## INORGANIC ANALYTICAL REPORT

**Client:** Denison Mines  
**Project:** 1st Quarter Ground Water 2012  
**Lab Sample ID:** 1203040-002  
**Client Sample ID:** MW-37  
**Collection Date:** 2/29/2012 1300h  
**Received Date:** 3/5/2012 1030h

**Contact:** Garrin Palmer

### Analytical Results

### DISSOLVED METALS

<u>Compound</u>	<u>Units</u>	<u>Date Prepared</u>	<u>Date Analyzed</u>	<u>Method Used</u>	<u>Reporting Limit</u>	<u>Analytical Result</u>	<u>Qual</u>
Tin	mg/L		3/12/2012 1353h	E200.8	0.100	< 0.100	

*This sample was not digested pursuant to the client request.*

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Kyle F. Gross  
Laboratory Director

Jose Rocha  
QA Officer

### LABORATORY ANALYTICAL REPORT

Prepared by Casper, WY Branch

**Client:** Denison Mines USA Corp  
**Project:** 1st Quarter Groundwater 2012  
**Lab ID:** C12030065-009  
**Client Sample ID:** MW-37

**Report Date:** 03/20/12  
**Collection Date:** 02/29/12 13:00  
**Date Received:** 03/02/12  
**Matrix:** Aqueous

Analyses	Result	Units	Qualifier	RL	MCL/ QCL	Method	Analysis Date / By
<b>MAJOR IONS</b>							
Carbonate as CO3	ND	mg/L		1		A2320 B	03/02/12 23:16 / jba
Bicarbonate as HCO3	297	mg/L		1		A2320 B	03/02/12 23:16 / jba
Calcium	482	mg/L		0.5		E200.7	03/07/12 00:42 / cp
Chloride	36	mg/L		1		A4500-Cl B	03/06/12 11:05 / wc
Fluoride	0.25	mg/L		0.10		A4500-F C	03/02/12 13:31 / jba
Magnesium	132	mg/L		0.5		E200.7	03/07/12 00:42 / cp
Nitrogen, Ammonia as N	ND	mg/L		0.05		A4500-NH3 G	03/05/12 15:57 / dc
Nitrogen, Nitrate+Nitrite as N	1.2	mg/L		0.1		E353.2	03/02/12 15:30 / dc
Potassium	15.2	mg/L		0.5		E200.7	03/07/12 00:42 / cp
Sodium	554	mg/L	D	2		E200.7	03/07/12 00:42 / cp
Sulfate	2500	mg/L	D	50		A4500-SO4 E	03/06/12 16:13 / wc
<b>PHYSICAL PROPERTIES</b>							
Solids, Total Dissolved TDS @ 180 C	3900	mg/L	D	11		A2540 C	03/02/12 16:30 / lr
<b>METALS - DISSOLVED</b>							
Arsenic	ND	ug/L		5.0		E200.8	03/06/12 01:28 / smm
Beryllium	ND	ug/L		0.50		E200.8	03/06/12 01:28 / smm
Cadmium	ND	ug/L		0.50		E200.8	03/06/12 01:28 / smm
Chromium	ND	ug/L		25		E200.8	03/06/12 01:28 / smm
Cobalt	ND	ug/L		10		E200.8	03/06/12 01:28 / smm
Copper	ND	ug/L		10		E200.8	03/06/12 01:28 / smm
Iron	ND	ug/L		30		E200.7	03/07/12 00:42 / cp
Lead	ND	ug/L		1.0		E200.8	03/06/12 01:28 / smm
Manganese	ND	ug/L		10		E200.8	03/06/12 01:28 / smm
Mercury	ND	ug/L		0.50		E200.8	03/06/12 01:28 / smm
Molybdenum	ND	ug/L		10		E200.8	03/06/12 01:28 / smm
Nickel	ND	ug/L		20		E200.8	03/06/12 01:28 / smm
Selenium	6.5	ug/L		5.0		E200.8	03/06/12 01:28 / smm
Silver	ND	ug/L		10		E200.8	03/06/12 21:24 / smm
Thallium	ND	ug/L		0.50		E200.8	03/06/12 01:28 / smm
Uranium	12.3	ug/L		0.30		E200.8	03/06/12 01:28 / smm
Vanadium	ND	ug/L		15		E200.8	03/06/12 01:28 / smm
Zinc	20	ug/L		10		E200.8	03/06/12 01:28 / smm
<b>RADIONUCLIDES - DISSOLVED</b>							
Gross Alpha minus Rn & U	2.3	pCi/L				E900.1	03/08/12 16:16 / ep
Gross Alpha minus Rn & U Precision (±)	0.6	pCi/L				E900.1	03/08/12 16:16 / ep
Gross Alpha minus Rn & U MDC	0.5	pCi/L				E900.1	03/08/12 16:16 / ep

**Report Definitions:**  
 RL - Analyte reporting limit.  
 QCL - Quality control limit.  
 MDC - Minimum detectable concentration

MCL - Maximum contaminant level.  
 ND - Not detected at the reporting limit.  
 D - RL increased due to sample matrix.

### LABORATORY ANALYTICAL REPORT

Prepared by Casper, WY Branch

**Client:** Denison Mines USA Corp  
**Project:** 1st Quarter Groundwater 2012  
**Lab ID:** C12030065-009  
**Client Sample ID:** MW-37

**Report Date:** 03/20/12  
**Collection Date:** 02/29/12 13:00  
**Date Received:** 03/02/12  
**Matrix:** Aqueous

Analyses	Result	Units	Qualifier	RL	MCL/ QCL	Method	Analysis Date / By
<b>DATA QUALITY</b>							
A/C Balance (± 5)	1.28	%				Calculation	03/07/12 08:09 / kbh
Anions	57.9	meq/L				Calculation	03/07/12 08:09 / kbh
Cations	59.4	meq/L				Calculation	03/07/12 08:09 / kbh
Solids, Total Dissolved Calculated	3880	mg/L				Calculation	03/07/12 08:09 / kbh
TDS Balance (0.80 - 1.20)	1.01					Calculation	03/07/12 08:09 / kbh
<b>VOLATILE ORGANIC COMPOUNDS</b>							
Acetone	ND	ug/L		20		SW8260B	03/13/12 03:53 / jlr
Benzene	ND	ug/L		1.0		SW8260B	03/13/12 03:53 / jlr
Carbon tetrachloride	ND	ug/L		1.0		SW8260B	03/13/12 03:53 / jlr
Chloroform	ND	ug/L		1.0		SW8260B	03/13/12 03:53 / jlr
Chloromethane	ND	ug/L		1.0		SW8260B	03/13/12 03:53 / jlr
Methyl ethyl ketone	ND	ug/L		20		SW8260B	03/13/12 03:53 / jlr
Methylene chloride	ND	ug/L		1.0		SW8260B	03/13/12 03:53 / jlr
Naphthalene	ND	ug/L		1.0		SW8260B	03/13/12 03:53 / jlr
Toluene	ND	ug/L		1.0		SW8260B	03/13/12 03:53 / jlr
Xylenes, Total	ND	ug/L		1.0		SW8260B	03/13/12 03:53 / jlr
Surr: 1,2-Dichlorobenzene-d4	92.0	%REC		80-120		SW8260B	03/13/12 03:53 / jlr
Surr: Dibromofluoromethane	106	%REC		70-130		SW8260B	03/13/12 03:53 / jlr
Surr: p-Bromofluorobenzene	96.0	%REC		80-120		SW8260B	03/13/12 03:53 / jlr
Surr: Toluene-d8	93.0	%REC		80-120		SW8260B	03/13/12 03:53 / jlr

**Report** RL - Analyte reporting limit.  
**Definitions:** QCL - Quality control limit.

MCL - Maximum contaminant level.  
ND - Not detected at the reporting limit.



## ORGANIC ANALYTICAL REPORT

**Client:** Denison Mines **Contact:** Garrin Palmer  
**Project:** 1st Quarter GW 2012  
**Lab Sample ID:** 1202256-006A  
**Client Sample ID:** MW-65  
**Collection Date:** 2/15/2012 930h  
**Received Date:** 2/16/2012 1530h **Method:** SW8260C

### Analytical Results

VOAs by GC/MS Method 8260C/5030C

**Analyzed:** 2/20/2012 1848h

**Units:** µg/L

**Dilution Factor:** 1

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<u>Compound</u>	<u>CAS Number</u>	<u>Reporting Limit</u>	<u>Analytical Result</u>	<u>Qual</u>
Tetrahydrofuran	109-99-9	1.00	< 1.00	

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<u>Surrogate</u>	<u>CAS</u>	<u>Result</u>	<u>Amount Spiked</u>	<u>% REC</u>	<u>Limits</u>	<u>Qual</u>
Surr: Toluene-d8	2037-26-5	47.6	50.00	95.1	77-129	
Surr: Dibromofluoromethane	1868-53-7	43.9	50.00	87.9	80-124	
Surr: 4-Bromofluorobenzene	460-00-4	44.0	50.00	88.0	80-128	
Surr: 1,2-Dichloroethane-d4	17060-07-0	38.3	50.00	76.7	72-151	

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Kyle F. Gross  
Laboratory Director

Jose Rocha  
QA Officer

# INORGANIC ANALYTICAL REPORT



**Client:** Denison Mines  
**Project:** 1st Quarter GW 2012  
**Lab Sample ID:** 1202257-006  
**Client Sample ID:** MW-65  
**Collection Date:** 2/15/2012 0930h  
**Received Date:** 2/16/2012 1530h

**Contact:** Garrin Palmer

## Analytical Results

## DISSOLVED METALS

Compound	Units	Date Prepared	Date Analyzed	Method Used	Reporting Limit	Analytical Result	Qual
Tin	mg/L		2/24/2012 2049h	E200.8	0.100	< 0.100	

*Reissue of a previously generated report. The reporting limit has been updated. Information herein supersedes that of the previously issued reports.*

*This sample was not digested pursuant to the client request.*

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Kyle F. Gross  
Laboratory Director

Jose Rocha  
QA Officer



# ORGANIC ANALYTICAL REPORT

**Client:** Denison Mines  
**Project:** 1st Quarter Ground Water 2012  
**Lab Sample ID:** 1203144-002A  
**Client Sample ID:** MW-65  
**Collection Date:** 3/8/2012 908h  
**Received Date:** 3/9/2012 950h

**Contact:** Garrin Palmer

**Method:** SW8260C

## **Analytical Results**

VOAs by GC/MS Method 8260C/5030C

**Analyzed:** 3/12/2012 548h

**Units:** µg/L

**Dilution Factor:** 1

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Compound	CAS Number	Reporting Limit	Analytical Result	Qual
Tetrahydrofuran	109-99-9	1.00	< 1.00	

Surrogate	CAS	Result	Amount Spiked	% REC	Limits	Qual
Surr: Toluene-d8	2037-26-5	50.4	50.00	101	77-129	
Surr: Dibromofluoromethane	1868-53-7	52.6	50.00	105	80-124	
Surr: 4-Bromofluorobenzene	460-00-4	51.9	50.00	104	80-128	
Surr: 1,2-Dichloroethane-d4	17060-07-0	58.5	50.00	117	72-151	

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Kyle F. Gross  
Laboratory Director

Jose Rocha  
QA Officer

### LABORATORY ANALYTICAL REPORT

Prepared by Casper, WY Branch

**Client:** Denison Mines USA Corp  
**Project:** 1st Quarter Groundwater 2012  
**Lab ID:** C12020681-007  
**Client Sample ID:** MW-65

**Report Date:** 03/20/12  
**Collection Date:** 02/15/12 09:30  
**Date Received:** 02/17/12  
**Matrix:** Aqueous

Analyses	Result	Units	Qualifier	RL	MCL/ QCL	Method	Analysis Date / By
<b>MAJOR IONS</b>							
Carbonate as CO <sub>3</sub>	ND	mg/L		1		A2320 B	02/21/12 16:45 / jba
Bicarbonate as HCO <sub>3</sub>	397	mg/L		1		A2320 B	02/21/12 16:45 / jba
Chloride	64	mg/L		1		A4500-Cl B	02/24/12 10:49 / lr
Fluoride	0.28	mg/L		0.10		A4500-F C	02/21/12 12:49 / jba
Nitrogen, Ammonia as N	0.36	mg/L		0.05		A4500-NH <sub>3</sub> G	02/22/12 12:51 / dc
Nitrogen, Nitrate+Nitrite as N	1.2	mg/L		0.1		E353.2	02/21/12 13:51 / dc
Sulfate	1890	mg/L	D	50		A4500-SO <sub>4</sub> E	02/23/12 16:00 / lr
<b>PHYSICAL PROPERTIES</b>							
Solids, Total Dissolved TDS @ 180 C	3230	mg/L		10		A2540 C	02/17/12 18:23 / wc
<b>DATA QUALITY</b>							
A/C Balance (± 5)	-1.38	%				Calculation	03/14/12 12:37 / sdw
Anions	47.8	meq/L				Calculation	03/14/12 12:37 / sdw
Cations	46.5	meq/L				Calculation	03/14/12 12:37 / sdw
Solids, Total Dissolved Calculated	3000	mg/L				Calculation	03/14/12 12:37 / sdw
TDS Balance (0.80 - 1.20)	1.08					Calculation	03/14/12 12:37 / sdw
- The Anion / Cation balance was calculated using cation results from workorder C12020833.							
<b>VOLATILE ORGANIC COMPOUNDS</b>							
Acetone	ND	ug/L		20		SW8260B	02/23/12 18:52 / jlr
Benzene	ND	ug/L		1.0		SW8260B	02/23/12 18:52 / jlr
Carbon tetrachloride	ND	ug/L		1.0		SW8260B	02/23/12 18:52 / jlr
Chloroform	2800	ug/L	D	100		SW8260B	02/24/12 17:25 / jlr
Chloromethane	ND	ug/L		1.0		SW8260B	02/23/12 18:52 / jlr
Methyl ethyl ketone	ND	ug/L		20		SW8260B	02/23/12 18:52 / jlr
Methylene chloride	25	ug/L		1.0		SW8260B	02/23/12 18:52 / jlr
Naphthalene	ND	ug/L		1.0		SW8260B	02/23/12 18:52 / jlr
Toluene	ND	ug/L		1.0		SW8260B	02/23/12 18:52 / jlr
Xylenes, Total	ND	ug/L		1.0		SW8260B	02/23/12 18:52 / jlr
Surr: 1,2-Dichlorobenzene-d4	118	%REC		80-120		SW8260B	02/23/12 18:52 / jlr
Surr: Dibromofluoromethane	108	%REC		70-130		SW8260B	02/23/12 18:52 / jlr
Surr: p-Bromofluorobenzene	133	%REC	S	80-120		SW8260B	02/23/12 18:52 / jlr
Surr: Toluene-d8	105	%REC		80-120		SW8260B	02/23/12 18:52 / jlr

**Report Definitions:**  
RL - Analyte reporting limit.  
QCL - Quality control limit.  
D - RL increased due to sample matrix.

MCL - Maximum contaminant level.  
ND - Not detected at the reporting limit.  
S - Spike recovery outside of advisory limits.



**LABORATORY ANALYTICAL REPORT**

Prepared by Casper, WY Branch

**Client:** Denison Mines USA Corp  
**Project:** 1st Quarter Groundwater 2012  
**Lab ID:** C12020681-008  
**Client Sample ID:** Trip Blank 6630

**Report Date:** 03/20/12  
**Collection Date:** 02/15/12  
**Date Received:** 02/17/12  
**Matrix:** Aqueous

Analyses	Result	Units	Qualifier	RL	MCL/ QCL	Method	Analysis Date / By
<b>VOLATILE ORGANIC COMPOUNDS</b>							
Acetone	ND	ug/L		20		SW8260B	02/23/12 19:26 / jlr
Benzene	ND	ug/L		1.0		SW8260B	02/23/12 19:26 / jlr
Carbon tetrachloride	ND	ug/L		1.0		SW8260B	02/23/12 19:26 / jlr
Chloroform	ND	ug/L		1.0		SW8260B	02/23/12 19:26 / jlr
Chloromethane	ND	ug/L		1.0		SW8260B	02/23/12 19:26 / jlr
Methyl ethyl ketone	ND	ug/L		20		SW8260B	02/23/12 19:26 / jlr
Methylene chloride	ND	ug/L		1.0		SW8260B	02/23/12 19:26 / jlr
Naphthalene	ND	ug/L		1.0		SW8260B	02/23/12 19:26 / jlr
Toluene	ND	ug/L		1.0		SW8260B	02/23/12 19:26 / jlr
Xylenes, Total	ND	ug/L		1.0		SW8260B	02/23/12 19:26 / jlr
Surr: 1,2-Dichlorobenzene-d4	119	%REC		80-120		SW8260B	02/23/12 19:26 / jlr
Surr: Dibromofluoromethane	110	%REC		70-130		SW8260B	02/23/12 19:26 / jlr
Surr: p-Bromofluorobenzene	132	%REC	S	80-120		SW8260B	02/23/12 19:26 / jlr
Surr: Toluene-d8	102	%REC		80-120		SW8260B	02/23/12 19:26 / jlr

**Report  
Definitions:**

RL - Analyte reporting limit.  
QCL - Quality control limit.  
S - Spike recovery outside of advisory limits.

MCL - Maximum contaminant level.  
ND - Not detected at the reporting limit.

### LABORATORY ANALYTICAL REPORT

Prepared by Casper, WY Branch

**Client:** Denison Mines USA Corp  
**Project:** 1st Quarter Groundwater 2012  
**Lab ID:** C12020833-011  
**Client Sample ID:** MW-65

**Report Date:** 03/20/12  
**Collection Date:** 02/21/12 14:10  
**Date Received:** 02/24/12  
**Matrix:** Aqueous

Analyses	Result	Units	Qualifier	RL	MCL/ QCL	Method	Analysis Date / By
<b>MAJOR IONS</b>							
Calcium	494	mg/L		0.5		E200.7	03/05/12 16:42 / cp
Magnesium	173	mg/L		0.5		E200.7	03/05/12 16:42 / cp
Potassium	10.8	mg/L		0.5		E200.7	03/05/12 16:42 / cp
Sodium	167	mg/L	D	2		E200.7	03/05/12 16:42 / cp
<b>METALS - DISSOLVED</b>							
Arsenic	ND	ug/L		5.0		E200.8	02/27/12 22:33 / smm
Beryllium	ND	ug/L		0.50		E200.8	03/01/12 02:21 / smm
Cadmium	ND	ug/L		0.50		E200.8	02/27/12 22:33 / smm
Chromium	ND	ug/L		25		E200.8	02/27/12 22:33 / smm
Cobalt	ND	ug/L		10		E200.8	02/27/12 22:33 / smm
Copper	ND	ug/L		10		E200.8	02/27/12 22:33 / smm
Iron	406	ug/L		30		E200.7	03/05/12 16:42 / cp
Lead	ND	ug/L		1.0		E200.8	02/27/12 22:33 / smm
Manganese	609	ug/L		10		E200.8	02/27/12 22:33 / smm
Mercury	ND	ug/L		0.50		E200.8	02/27/12 22:33 / smm
Molybdenum	ND	ug/L		10		E200.8	02/27/12 22:33 / smm
Nickel	34	ug/L		20		E200.8	02/27/12 22:33 / smm
Selenium	22.0	ug/L		5.0		E200.8	02/27/12 22:33 / smm
Silver	ND	ug/L		10		E200.8	02/27/12 22:33 / smm
Thallium	0.57	ug/L		0.50		E200.8	02/27/12 22:33 / smm
Uranium	58.8	ug/L		0.30		E200.8	02/27/12 22:33 / smm
Vanadium	ND	ug/L		15		E200.8	02/27/12 22:33 / smm
Zinc	ND	ug/L		10		E200.8	02/27/12 22:33 / smm
<b>RADIONUCLIDES - DISSOLVED</b>							
Gross Alpha minus Rn & U	1.8	pCi/L				E900.1	03/16/12 00:32 / ep
Gross Alpha minus Rn & U Precision (±)	0.3	pCi/L				E900.1	03/16/12 00:32 / ep
Gross Alpha minus Rn & U MDC	0.2	pCi/L				E900.1	03/16/12 00:32 / ep

**Report Definitions:**  
 RL - Analyte reporting limit.  
 QCL - Quality control limit.  
 MDC - Minimum detectable concentration

MCL - Maximum contaminant level.  
 ND - Not detected at the reporting limit.  
 D - RL increased due to sample matrix.



# ORGANIC ANALYTICAL REPORT

**Client:** Denison Mines  
**Project:** 1st Quarter GW 2012  
**Lab Sample ID:** 1202371-005E  
**Client Sample ID:** MW-70  
**Collection Date:** 2/21/2012 1030h  
**Received Date:** 2/24/2012 1100h

**Contact:** Garrin Palmer

## Analytical Results

VOAs by GC/MS Method 8260C/5030C

**Analyzed:** 2/29/2012 0832h

**Units:** µg/L

**Dilution Factor:** 1

**Method:** SW8260C

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Compound	CAS Number	Reporting Limit	Analytical Result	Qual
Tetrahydrofuran	109-99-9	1.00	< 1.00	

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Surrogate	CAS	Result	Amount Spiked	% REC	Limits	Qual
Surr: Toluene-d8	2037-26-5	49.2	50.00	98.3	77-129	
Surr: Dibromofluoromethane	1868-53-7	50.5	50.00	101	80-124	
Surr: 4-Bromofluorobenzene	460-00-4	49.2	50.00	98.4	80-128	
Surr: 1,2-Dichloroethane-d4	17060-07-0	57.5	50.00	115	72-151	

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Kyle F. Gross  
Laboratory Director

Jose Rocha  
QA Officer



# INORGANIC ANALYTICAL REPORT

**Client:** Denison Mines **Contact:** Kathy Weinel  
**Project:** 1st Quarter GW 2012  
**Lab Sample ID:** 1205180-004  
**Client Sample ID:** MW 70  
**Collection Date:** 2/21/2012 1030h  
**Received Date:** 5/10/2012 1015h

## Analytical Results

## TOTAL METALS

Compound	Units	Date Prepared	Date Analyzed	Method Used	Reporting Limit	Analytical Result	Qual
Tin	mg/L		5/10/2012 1122h	E200.8	0.100	< 0.100	

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web: www.awal-labs.com

Kyle F. Gross  
Laboratory Director

Jose Rocha  
QA Officer

## LABORATORY ANALYTICAL REPORT

Prepared by Casper, WY Branch

**Client:** Denison Mines USA Corp  
**Project:** 1st Quarter Groundwater 2012  
**Lab ID:** C12020833-009  
**Client Sample ID:** MW-70

**Report Date:** 03/20/12  
**Collection Date:** 02/21/12 10:30  
**Date Received:** 02/24/12  
**Matrix:** Aqueous

Analyses	Result	Units	Qualifier	RL	MCL/ QCL	Method	Analysis Date / By
<b>MAJOR IONS</b>							
Carbonate as CO <sub>3</sub>	ND	mg/L		1		A2320 B	02/28/12 14:47 / jba
Bicarbonate as HCO <sub>3</sub>	459	mg/L		1		A2320 B	02/28/12 14:47 / jba
Calcium	509	mg/L		0.5		E200.7	03/05/12 16:30 / cp
Chloride	19	mg/L		1		A4500-Cl B	03/06/12 10:52 / wc
Fluoride	0.16	mg/L		0.10		A4500-F C	02/28/12 11:52 / jba
Magnesium	153	mg/L		0.5		E200.7	03/05/12 16:30 / cp
Nitrogen, Ammonia as N	0.05	mg/L		0.05		A4500-NH3 G	02/24/12 12:08 / dc
Nitrogen, Nitrate+Nitrite as N	ND	mg/L		0.1		E353.2	02/27/12 12:43 / dc
Potassium	12.0	mg/L		0.5		E200.7	03/05/12 16:30 / cp
Sodium	343	mg/L	D	2		E200.7	03/05/12 16:30 / cp
Sulfate	2340	mg/L	D	50		A4500-SO4 E	03/06/12 15:23 / wc
<b>PHYSICAL PROPERTIES</b>							
Solids, Total Dissolved TDS @ 180 C	3600	mg/L		10		A2540 C	02/24/12 14:31 / wc
<b>METALS - DISSOLVED</b>							
Arsenic	ND	ug/L		5.0		E200.8	02/27/12 22:09 / smm
Beryllium	ND	ug/L		0.50		E200.8	02/27/12 22:09 / smm
Cadmium	1.44	ug/L		0.50		E200.8	02/27/12 22:09 / smm
Chromium	ND	ug/L		25		E200.8	02/27/12 22:09 / smm
Cobalt	ND	ug/L		10		E200.8	02/27/12 22:09 / smm
Copper	ND	ug/L		10		E200.8	02/27/12 22:09 / smm
Iron	ND	ug/L		30		E200.7	03/05/12 16:30 / cp
Lead	ND	ug/L		1.0		E200.8	02/27/12 22:09 / smm
Manganese	1790	ug/L		10		E200.8	02/27/12 22:09 / smm
Mercury	ND	ug/L		0.50		E200.8	02/27/12 22:09 / smm
Molybdenum	ND	ug/L		10		E200.8	02/27/12 22:09 / smm
Nickel	25	ug/L		20		E200.8	02/27/12 22:09 / smm
Selenium	ND	ug/L		5.0		E200.8	02/27/12 22:09 / smm
Silver	ND	ug/L		10		E200.8	02/27/12 22:09 / smm
Thallium	ND	ug/L		0.50		E200.8	02/27/12 22:09 / smm
Uranium	64.6	ug/L		0.30		E200.8	02/27/12 22:09 / smm
Vanadium	ND	ug/L		15		E200.8	02/27/12 22:09 / smm
Zinc	12	ug/L		10		E200.8	02/27/12 22:09 / smm
<b>RADIONUCLIDES - DISSOLVED</b>							
Gross Alpha minus Rn & U	0.04	pCi/L	U			E900.1	03/15/12 19:02 / ep
Gross Alpha minus Rn & U Precision (±)	0.1	pCi/L				E900.1	03/15/12 19:02 / ep
Gross Alpha minus Rn & U MDC	0.2	pCi/L				E900.1	03/15/12 19:02 / ep

**Report Definitions:**  
 RL - Analyte reporting limit.  
 QCL - Quality control limit.  
 MDC - Minimum detectable concentration  
 U - Not detected at minimum detectable concentration

MCL - Maximum contaminant level.  
 ND - Not detected at the reporting limit.  
 D - RL increased due to sample matrix.

### LABORATORY ANALYTICAL REPORT

Prepared by Casper, WY Branch

**Client:** Denison Mines USA Corp  
**Project:** 1st Quarter Groundwater 2012  
**Lab ID:** C12020833-009  
**Client Sample ID:** MW-70

**Report Date:** 03/20/12  
**Collection Date:** 02/21/12 10:30  
**Date Received:** 02/24/12  
**Matrix:** Aqueous

Analyses	Result	Units	Qualifier	RL	MCL/ QCL	Method	Analysis Date / By
<b>DATA QUALITY</b>							
A/C Balance (± 5)	-3.32	%				Calculation	03/07/12 08:07 / kbh
Anions	56.9	meq/L				Calculation	03/07/12 08:07 / kbh
Cations	53.2	meq/L				Calculation	03/07/12 08:07 / kbh
Solids, Total Dissolved Calculated	3620	mg/L				Calculation	03/07/12 08:07 / kbh
TDS Balance (0.80 - 1.20)	0.990					Calculation	03/07/12 08:07 / kbh
<b>VOLATILE ORGANIC COMPOUNDS</b>							
Acetone	ND	ug/L		20		SW8260B	02/24/12 16:14 / jlr
Benzene	ND	ug/L		1.0		SW8260B	02/24/12 16:14 / jlr
Carbon tetrachloride	ND	ug/L		1.0		SW8260B	02/24/12 16:14 / jlr
Chloroform	ND	ug/L		1.0		SW8260B	02/24/12 16:14 / jlr
Chloromethane	ND	ug/L		1.0		SW8260B	02/24/12 16:14 / jlr
Methyl ethyl ketone	ND	ug/L		20		SW8260B	02/24/12 16:14 / jlr
Methylene chloride	ND	ug/L		1.0		SW8260B	02/24/12 16:14 / jlr
Naphthalene	ND	ug/L		1.0		SW8260B	02/24/12 16:14 / jlr
Toluene	ND	ug/L		1.0		SW8260B	02/24/12 16:14 / jlr
Xylenes, Total	ND	ug/L		1.0		SW8260B	02/24/12 16:14 / jlr
Surr: 1,2-Dichlorobenzene-d4	96.0	%REC		80-120		SW8260B	02/24/12 16:14 / jlr
Surr: Dibromofluoromethane	97.0	%REC		70-130		SW8260B	02/24/12 16:14 / jlr
Surr: p-Bromofluorobenzene	130	%REC	S	80-120		SW8260B	02/24/12 16:14 / jlr
Surr: Toluene-d8	94.0	%REC		80-120		SW8260B	02/24/12 16:14 / jlr

**Report Definitions:**  
 RL - Analyte reporting limit.  
 QCL - Quality control limit.  
 S - Spike recovery outside of advisory limits.

MCL - Maximum contaminant level.  
 ND - Not detected at the reporting limit.



## ORGANIC ANALYTICAL REPORT

**Client:** Denison Mines **Contact:** Garrin Palmer  
**Project:** 1st Quarter GW 2012  
**Lab Sample ID:** 1202256-008A  
**Client Sample ID:** Trip Blank  
**Collection Date:** 2/13/2012  
**Received Date:** 2/16/2012 1530h **Method:** SW8260C

### Analytical Results

VOAs by GC/MS Method 8260C/5030C

**Analyzed:** 2/20/2012 1925h

**Units:** µg/L

**Dilution Factor:** 1

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Compound	CAS Number	Reporting Limit	Analytical Result	Qual		
Tetrahydrofuran	109-99-9	1.00	< 1.00			
Surrogate	CAS	Result	Amount Spiked	% REC	Limits	Qual
Surr: Toluene-d8	2037-26-5	48.6	50.00	97.2	77-129	
Surr: Dibromofluoromethane	1868-53-7	43.8	50.00	87.6	80-124	
Surr: 4-Bromofluorobenzene	460-00-4	44.2	50.00	88.5	80-128	
Surr: 1,2-Dichloroethane-d4	17060-07-0	38.7	50.00	77.4	72-151	

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Fax: (801) 263-8687  
e-mail: awal@awal-labs.com

web: www.awal-labs.com

Kyle F. Gross  
Laboratory Director

Jose Rocha  
QA Officer



# ORGANIC ANALYTICAL REPORT

**Client:** Denison Mines  
**Project:** 1st Quarter GW 2012  
**Lab Sample ID:** 1202371-006A  
**Client Sample ID:** Trip Blank  
**Collection Date:** 2/20/2012  
**Received Date:** 2/24/2012 1100h

**Contact:** Garrin Palmer

## Analytical Results

VOAs by GC/MS Method 8260C/5030C

**Analyzed:** 2/29/2012 0851h

**Units:** µg/L

**Dilution Factor:** 1

**Method:** SW8260C

463 West 3600 South  
Salt Lake City, UT 84115

Compound	CAS Number	Reporting Limit	Analytical Result	Qual
Tetrahydrofuran	109-99-9	1.00	< 1.00	

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Surrogate	CAS	Result	Amount Spiked	% REC	Limits	Qual
Surr: Toluene-d8	2037-26-5	48.5	50.00	97.0	77-129	
Surr: Dibromofluoromethane	1868-53-7	50.1	50.00	100	80-124	
Surr: 4-Bromofluorobenzene	460-00-4	49.2	50.00	98.5	80-128	
Surr: 1,2-Dichloroethane-d4	17060-07-0	49.6	50.00	99.1	72-151	

web: www.awal-labs.com

Kyle F. Gross  
Laboratory Director

Jose Rocha  
QA Officer



## ORGANIC ANALYTICAL REPORT

**Client:** Denison Mines  
**Project:** 1st Quarter Ground Water 2012  
**Lab Sample ID:** 1203040-003A  
**Client Sample ID:** Trip Blank  
**Collection Date:** 2/29/2012  
**Received Date:** 3/5/2012 1030h

**Contact:** Garrin Palmer

### Analytical Results

VOAs by GC/MS Method 8260C/5030C

**Analyzed:** 3/6/2012 0957h

**Units:** µg/L

**Dilution Factor:** 1

**Method:** SW8260C

Compound	CAS Number	Reporting Limit	Analytical Result	Qual
Tetrahydrofuran	109-99-9	1.00	< 1.00	

Surrogate	CAS	Result	Amount Spiked	% REC	Limits	Qual
Surr: Toluene-d8	2037-26-5	48.8	50.00	97.6	77-129	
Surr: Dibromofluoromethane	1868-53-7	53.1	50.00	106	80-124	
Surr: 4-Bromofluorobenzene	460-00-4	51.1	50.00	102	80-128	
Surr: 1,2-Dichloroethane-d4	17060-07-0	62.9	50.00	126	72-151	

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Salt Lake City, UT 84115

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Kyle F. Gross  
Laboratory Director

Jose Rocha  
QA Officer



# ORGANIC ANALYTICAL REPORT

**Client:** Denison Mines  
**Project:** 1st Quarter Ground Water 2012  
**Lab Sample ID:** 1203144-003A  
**Client Sample ID:** Trip Blank  
**Collection Date:** 3/8/2012  
**Received Date:** 3/9/2012 950h

**Contact:** Garrin Palmer

**Method:** SW8260C

## Analytical Results

VOAs by GC/MS Method 8260C/5030C

**Analyzed:** 3/12/2012 607h

**Units:** µg/L

**Dilution Factor:** 1

463 West 3600 South  
Salt Lake City, UT 84115

Compound	CAS Number	Reporting Limit	Analytical Result	Qual
Tetrahydrofuran	109-99-9	1.00	< 1.00	

Surrogate	CAS	Result	Amount Spiked	% REC	Limits	Qual
Surr: Toluene-d8	2037-26-5	50.1	50.00	100	77-129	
Surr: Dibromofluoromethane	1868-53-7	52.0	50.00	104	80-124	
Surr: 4-Bromofluorobenzene	460-00-4	51.8	50.00	104	80-128	
Surr: 1,2-Dichloroethane-d4	17060-07-0	57.8	50.00	116	72-151	

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Kyle F. Gross  
Laboratory Director

Jose Rocha  
QA Officer

### LABORATORY ANALYTICAL REPORT

Prepared by Casper, WY Branch

**Client:** Denison Mines USA Corp  
**Project:** 1st Quarter Groundwater 2012  
**Lab ID:** C12020833-012  
**Client Sample ID:** Trip Blank 6706

**Report Date:** 03/20/12  
**Collection Date:** 02/20/12  
**Date Received:** 02/24/12  
**Matrix:** Aqueous

Analyses	Result	Units	Qualifier	RL	MCL/ QCL	Method	Analysis Date / By
<b>VOLATILE ORGANIC COMPOUNDS</b>							
Acetone	ND	ug/L		20		SW8260B	02/24/12 16:49 / jlr
Benzene	ND	ug/L		1.0		SW8260B	02/24/12 16:49 / jlr
Carbon tetrachloride	ND	ug/L		1.0		SW8260B	02/24/12 16:49 / jlr
Chloroform	ND	ug/L		1.0		SW8260B	02/24/12 16:49 / jlr
Chloromethane	ND	ug/L		1.0		SW8260B	02/24/12 16:49 / jlr
Methyl ethyl ketone	ND	ug/L		20		SW8260B	02/24/12 16:49 / jlr
Methylene chloride	ND	ug/L		1.0		SW8260B	02/24/12 16:49 / jlr
Naphthalene	ND	ug/L		1.0		SW8260B	02/24/12 16:49 / jlr
Toluene	ND	ug/L		1.0		SW8260B	02/24/12 16:49 / jlr
Xylenes, Total	ND	ug/L		1.0		SW8260B	02/24/12 16:49 / jlr
Surr: 1,2-Dichlorobenzene-d4	96.0	%REC		80-120		SW8260B	02/24/12 16:49 / jlr
Surr: Dibromofluoromethane	92.0	%REC		70-130		SW8260B	02/24/12 16:49 / jlr
Surr: p-Bromofluorobenzene	131	%REC	S	80-120		SW8260B	02/24/12 16:49 / jlr
Surr: Toluene-d8	97.0	%REC		80-120		SW8260B	02/24/12 16:49 / jlr

**Report Definitions:**  
 RL - Analyte reporting limit.  
 QCL - Quality control limit.  
 S - Spike recovery outside of advisory limits.

MCL - Maximum contaminant level.  
 ND - Not detected at the reporting limit.

### LABORATORY ANALYTICAL REPORT

Prepared by Casper, WY Branch

**Client:** Denison Mines USA Corp  
**Project:** 1st Quarter Groundwater 2012  
**Lab ID:** C12030065-010  
**Client Sample ID:** Trip Blank 6746

**Report Date:** 03/20/12  
**Collection Date:** 02/29/12  
**Date Received:** 03/02/12  
**Matrix:** Aqueous

Analyses	Result	Units	Qualifier	RL	MCL/ QCL	Method	Analysis Date / By
<b>VOLATILE ORGANIC COMPOUNDS</b>							
Acetone	ND	ug/L		20		SW8260B	03/13/12 04:29 / jlr
Benzene	ND	ug/L		1.0		SW8260B	03/13/12 04:29 / jlr
Carbon tetrachloride	ND	ug/L		1.0		SW8260B	03/13/12 04:29 / jlr
Chloroform	ND	ug/L		1.0		SW8260B	03/13/12 04:29 / jlr
Chloromethane	ND	ug/L		1.0		SW8260B	03/13/12 04:29 / jlr
Methyl ethyl ketone	ND	ug/L		20		SW8260B	03/13/12 04:29 / jlr
Methylene chloride	ND	ug/L		1.0		SW8260B	03/13/12 04:29 / jlr
Naphthalene	ND	ug/L		1.0		SW8260B	03/13/12 04:29 / jlr
Toluene	ND	ug/L		1.0		SW8260B	03/13/12 04:29 / jlr
Xylenes, Total	ND	ug/L		1.0		SW8260B	03/13/12 04:29 / jlr
Surr: 1,2-Dichlorobenzene-d4	93.0	%REC		80-120		SW8260B	03/13/12 04:29 / jlr
Surr: Dibromofluoromethane	112	%REC		70-130		SW8260B	03/13/12 04:29 / jlr
Surr: p-Bromofluorobenzene	95.0	%REC		80-120		SW8260B	03/13/12 04:29 / jlr
Surr: Toluene-d8	93.0	%REC		80-120		SW8260B	03/13/12 04:29 / jlr

**Report Definitions:** RL - Analyte reporting limit.  
QCL - Quality control limit.

MCL - Maximum contaminant level.  
ND - Not detected at the reporting limit.



### LABORATORY ANALYTICAL REPORT

Prepared by Casper, WY Branch

**Client:** Denison Mines USA Corp  
**Project:** 1st Quarter Groundwater 2012  
**Lab ID:** C12020833-013  
**Client Sample ID:** Temp Blank

**Report Date:** 03/20/12  
**Collection Date:** 02/23/12  
**Date Received:** 02/24/12  
**Matrix:** Aqueous

Analyses	Result	Units	Qualifier	RL	MCL/ QCL	Method	Analysis Date / By
<b>PHYSICAL PROPERTIES</b>							
Temperature	2.6	°C				E170.1	02/24/12 09:15 / kbh

**Report Definitions:** RL - Analyte reporting limit.  
QCL - Quality control limit.

MCL - Maximum contaminant level.  
ND - Not detected at the reporting limit.



### LABORATORY ANALYTICAL REPORT

Prepared by Casper, WY Branch

**Client:** Denison Mines USA Corp  
**Project:** 1st Quarter Groundwater 2012  
**Lab ID:** C12030065-011  
**Client Sample ID:** Temp Blank

**Report Date:** 03/20/12  
**Collection Date:** 03/01/12  
**Date Received:** 03/02/12  
**Matrix:** Aqueous

Analyses	Result	Units	Qualifier	RL	MCL/ QCL	Method	Analysis Date / By
<b>PHYSICAL PROPERTIES</b>							
Temperature	2.4	°C				E170.1	03/02/12 09:40 / kbh

**Report Definitions:** RL - Analyte reporting limit.  
QCL - Quality control limit.

MCL - Maximum contaminant level.  
ND - Not detected at the reporting limit.



### LABORATORY ANALYTICAL REPORT

Prepared by Casper, WY Branch

**Client:** Denison Mines USA Corp  
**Project:** 1st Quarter Groundwater 2012  
**Lab ID:** C12020681-009  
**Client Sample ID:** Temp Blank

**Report Date:** 03/20/12  
**Collection Date:** 02/15/12  
**Date Received:** 02/17/12  
**Matrix:** Aqueous

Analyses	Result	Units	Qualifier	RL	MCL/ QCL	Method	Analysis Date / By
<b>PHYSICAL PROPERTIES</b>							
Temperature	2.4	°C				E170.1	02/17/12 10:00 / kbh

**Report Definitions:** RL - Analyte reporting limit.  
QCL - Quality control limit.

MCL - Maximum contaminant level.  
ND - Not detected at the reporting limit.



Garrin Palmer  
Denison Mines  
1050 17th Street, # 950  
Denver, CO 80265  
TEL: (303) 389-4132

RE: 1st Quarter GW 2012

Dear Garrin Palmer:

Lab Set ID: 1202256

463 West 3600 South  
Salt Lake City, UT 84115

American West Analytical Laboratories received 8 sample(s) on 2/16/2012 for the analyses presented in the following report.

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Fax: (801) 263-8687  
e-mail: awal@awal-labs.com

All analyses were performed in accordance to The NELAC Institute protocols unless noted otherwise. American West Analytical Laboratories is accredited by The NELAC Institute in Utah and Texas; and is state accredited in Colorado, Idaho, and Missouri. Accreditation documents are available upon request. If you have any questions or concerns regarding this report please feel free to call.

web: www.awal-labs.com

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

Kyle F. Gross  
Laboratory Director

Jose Rocha  
QA Officer

Thank You,

Approved by:

Digitally signed by Jose G. Rocha  
DN: cn=Jose G. Rocha,  
o=American West Analytical  
Laboratories, ou=Quality  
Assurance Officer,  
email=jose@awal-labs.com,  
c=US  
Date: 2012.02.21 16:43:15  
-07'00'

**Jose G.  
Rocha**

Laboratory Director or designee



## SAMPLE SUMMARY

**Client:** Denison Mines  
**Project:** 1st Quarter GW 2012  
**Lab Set ID:** 1202256  
**Date Received:** 2/16/2012 1530h

**Contact:** Garrin Palmer

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Salt Lake City, UT 84115

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Kyle F. Gross  
 Laboratory Director

Jose Rocha  
 QA Officer

Lab Sample ID	Client Sample ID	Date Collected	Matrix	Analysis
1202256-001A	MW-11	2/13/2012 1225h	Aqueous	VOA by GC/MS Method 8260C/5030C
1202256-002A	MW-25	2/14/2012 1105h	Aqueous	VOA by GC/MS Method 8260C/5030C
1202256-003A	MW-26	2/15/2012 930h	Aqueous	VOA by GC/MS Method 8260C/5030C
1202256-004A	MW-30	2/14/2012 1300h	Aqueous	VOA by GC/MS Method 8260C/5030C
1202256-005A	MW-31	2/13/2012 1340h	Aqueous	VOA by GC/MS Method 8260C/5030C
1202256-006A	MW-65	2/15/2012 930h	Aqueous	VOA by GC/MS Method 8260C/5030C
1202256-007A	MW-35	2/14/2012 830h	Aqueous	VOA by GC/MS Method 8260C/5030C
1202256-008A	Trip Blank	2/13/2012	Aqueous	VOA by GC/MS Method 8260C/5030C



## Volatile Case Narrative

**Client:** Denison Mines  
**Contact:** Jo Ann Tischler  
**Project:** 1st Quarter GW 2012  
**Lab Set ID:** 1202256

---

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Salt Lake City, UT 84115

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Kyle F. Gross  
Laboratory Director

Jose Rocha  
QA Officer

### **Sample Receipt Information:**

**Date of Receipt:** 2/16/2012  
**Date(s) of Collection:** 2/13-2/15/2012  
**Sample Condition:** Intact  
**C-O-C Discrepancies:** None  
**Method:** SW-846 8260C/5030C  
**Analysis:** Tetrahydrofuran

**General Set Comments:** Tetrahydrofuran was only observed above reporting limits on sample 1202256-001.

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

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

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

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

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

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

**Surrogates:** All surrogate recoveries were within established limits.

**Corrective Action:** None required.



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Kyle F. Gross  
Laboratory Director

Jose Rocha  
QA Officer

## QC SUMMARY REPORT

**Client:** Denison Mines  
**Lab Set ID:** 1202256  
**Project:** 1st Quarter GW 2012

**Contact:** Garrin Palmer  
**Dept:** MSVOA  
**QC Type:** LCS

Sample ID	Analyte	Units	Method	Result	Amount Spiked	Original Amount	%REC	Limits	%RPD	RPD Limit	Qual	Date Analyzed
LCS VOC 022012A	Tetrahydrofuran	µg/L	SW8260C	19.4	20.00	0	97.0	43-146				2/20/2012 1452h
LCS VOC 022012A	Surr: 1,2-Dichloroethane-d4	%REC	SW8260C	44.5	50.00		89.0	69-132				2/20/2012 1452h
LCS VOC 022012A	Surr: 4-Bromofluorobenzene	%REC	SW8260C	42.4	50.00		84.7	82-120				2/20/2012 1452h
LCS VOC 022012A	Surr: Dibromofluoromethane	%REC	SW8260C	41.9	50.00		83.7	80-120				2/20/2012 1452h
LCS VOC 022012A	Surr: Toluene-d8	%REC	SW8260C	46.6	50.00		93.3	81-120				2/20/2012 1452h



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Kyle F. Gross  
Laboratory Director

Jose Rocha  
QA Officer

## QC SUMMARY REPORT

**Client:** Denison Mines  
**Lab Set ID:** 1202256  
**Project:** 1st Quarter GW 2012

**Contact:** Garrin Palmer  
**Dept:** MSVOA  
**QC Type:** MBLK

Sample ID	Analyte	Units	Method	Result	Amount Spiked	Original Amount	%REC	Limits	%RPD	RPD Limit	Qual	Date Analyzed
MB VOC 022012A	Tetrahydrofuran	µg/L	SW8260C	< 1.00				-				2/20/2012 1528h
MB VOC 022012A	Surr: 1,2-Dichloroethane-d4	%REC	SW8260C	37.9	50.00		75.9	69-132				2/20/2012 1528h
MB VOC 022012A	Surr: 4-Bromofluorobenzene	%REC	SW8260C	45.2	50.00		90.5	82-120				2/20/2012 1528h
MB VOC 022012A	Surr: Dibromofluoromethane	%REC	SW8260C	42.5	50.00		85.1	80-120				2/20/2012 1528h
MB VOC 022012A	Surr: Toluene-d8	%REC	SW8260C	48.5	50.00		97.0	81-120				2/20/2012 1528h



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Kyle F. Gross  
Laboratory Director

Jose Rocha  
QA Officer

## QC SUMMARY REPORT

**Client:** Denison Mines  
**Lab Set ID:** 1202256  
**Project:** 1st Quarter GW 2012

**Contact:** Garrin Palmer  
**Dept:** MSVOA  
**QC Type:** MS

Sample ID	Analyte	Units	Method	Result	Amount Spiked	Original Amount	%REC	Limits	%RPD	RPD Limit	Qual	Date Analyzed
1202258-001AMS	Tetrahydrofuran	µg/L	SW8260C	23.3	20.00	2.510	104	43-146				2/20/2012 2001h
1202258-001AMS	Surr: 1,2-Dichloroethane-d4	%REC	SW8260C	37.5	50.00		75.0	72-151				2/20/2012 2001h
1202258-001AMS	Surr: 4-Bromofluorobenzene	%REC	SW8260C	42.3	50.00		84.6	80-128				2/20/2012 2001h
1202258-001AMS	Surr: Dibromofluoromethane	%REC	SW8260C	44.0	50.00		88.0	80-124				2/20/2012 2001h
1202258-001AMS	Surr: Toluene-d8	%REC	SW8260C	46.5	50.00		93.0	77-129				2/20/2012 2001h



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Kyle F. Gross  
Laboratory Director

Jose Rocha  
QA Officer

## QC SUMMARY REPORT

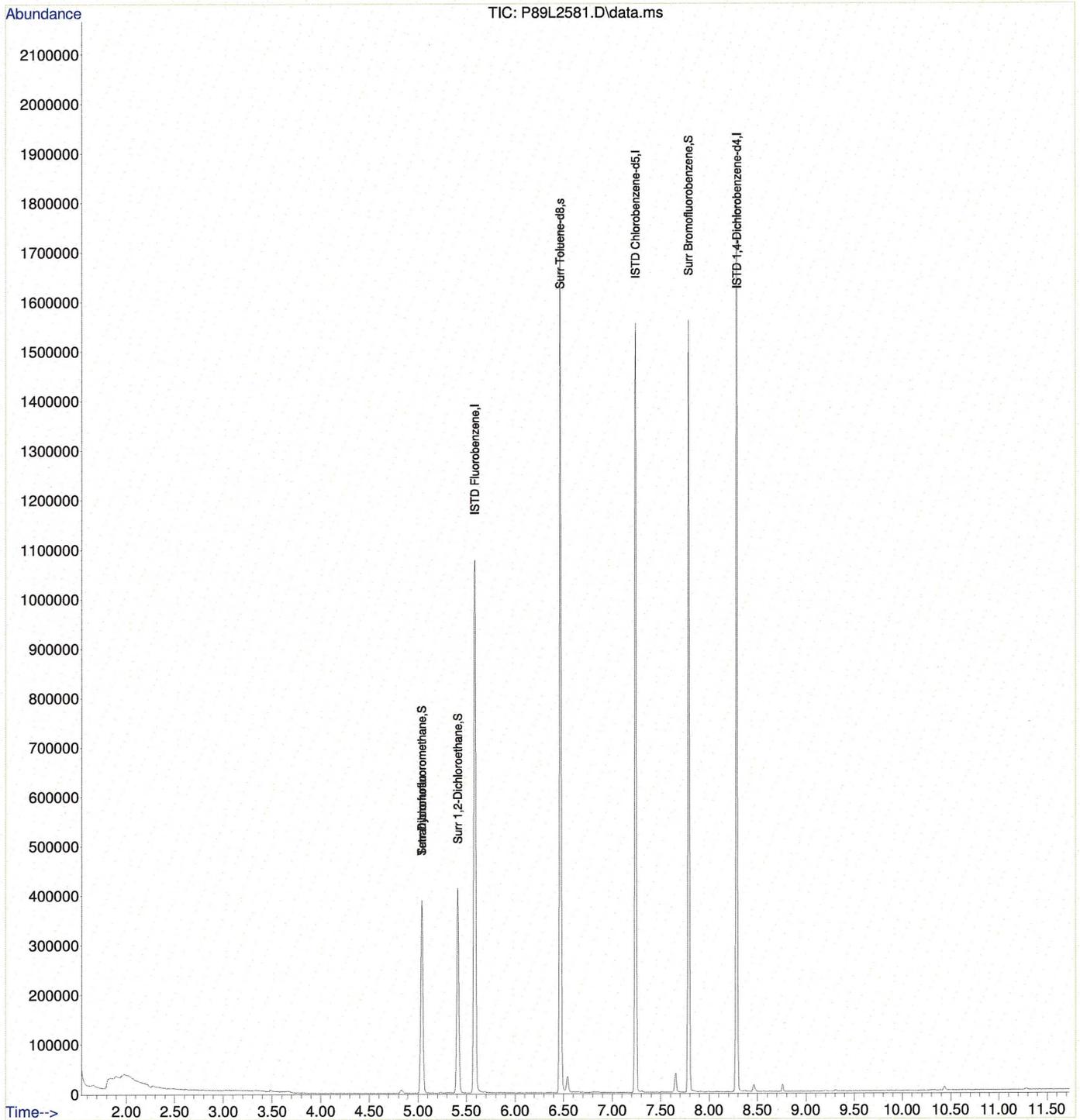
**Client:** Denison Mines  
**Lab Set ID:** 1202256  
**Project:** 1st Quarter GW 2012

**Contact:** Garrin Palmer  
**Dept:** MSVOA  
**QC Type:** MSD

Sample ID	Analyte	Units	Method	Result	Amount Spiked	Original Amount	%REC	Limits	%RPD	RPD Limit	Qual	Date Analyzed
1202258-001AMSD	Tetrahydrofuran	µg/L	SW8260C	24.2	20.00	2.510	109	43-146	4.09	25		2/20/2012 2020h
1202258-001AMSD	Surr: 1,2-Dichloroethane-d4	%REC	SW8260C	39.0	50.00		78.0	72-151				2/20/2012 2020h
1202258-001AMSD	Surr: 4-Bromofluorobenzene	%REC	SW8260C	42.4	50.00		84.8	80-128				2/20/2012 2020h
1202258-001AMSD	Surr: Dibromofluoromethane	%REC	SW8260C	43.3	50.00		86.7	80-124				2/20/2012 2020h
1202258-001AMSD	Surr: Toluene-d8	%REC	SW8260C	46.0	50.00		92.0	77-129				2/20/2012 2020h

Data Path : C:\msdchem\1\DATA\FEB12-C\20FEB12A\  
Data File : P89L2581.D  
Acq On : 20 Feb 2012 5:17 pm  
Operator :  
Sample : 1202258-001A  
Misc : SAMP 5ML 1OF3 DL  
ALS Vial : 18 Sample Multiplier: 1

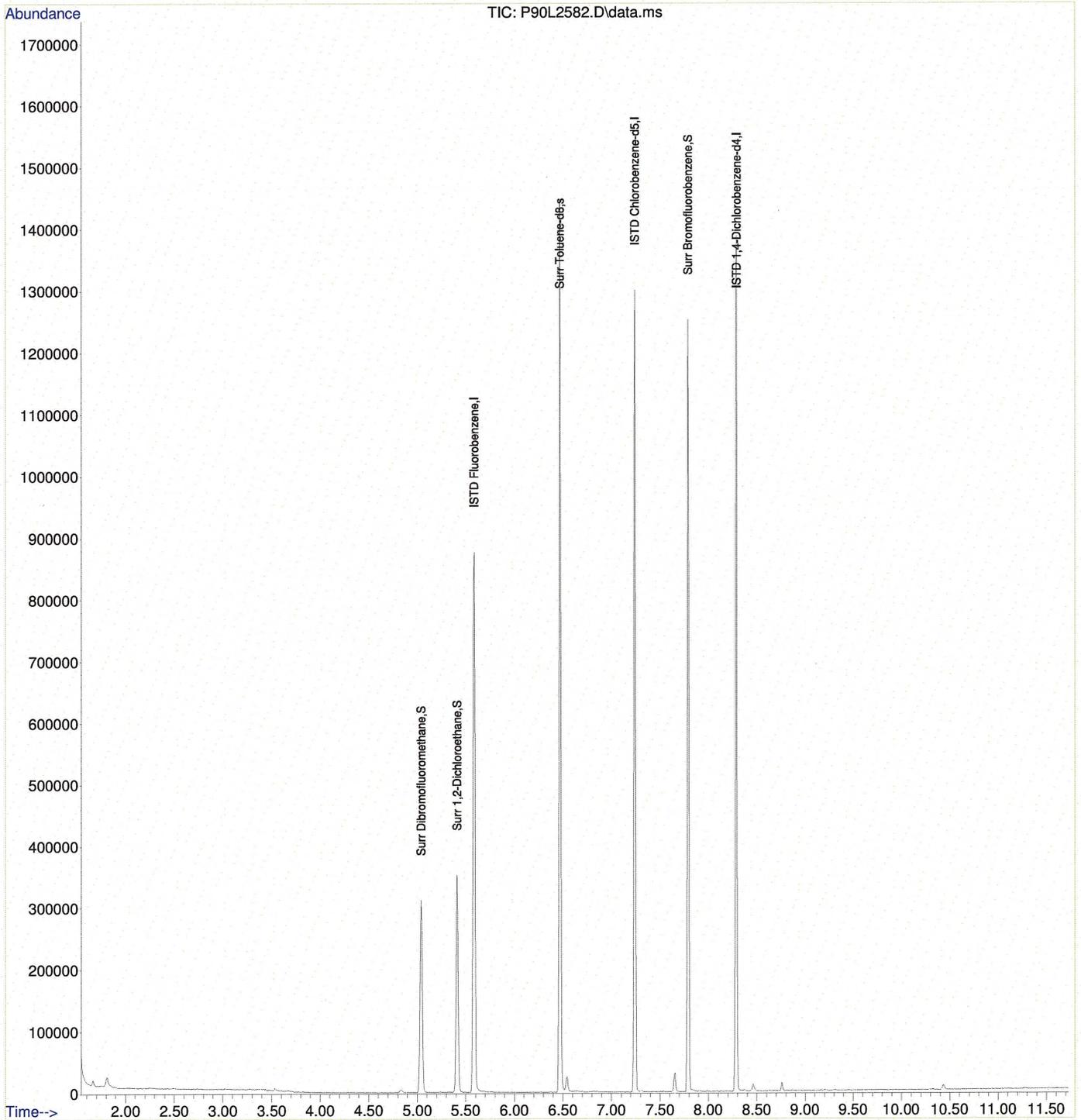
Quant Time: Feb 21 05:36:28 2012  
Quant Method : C:\msdchem\1\METHODS\AFULLW\_50.M  
Quant Title : VOA Calibration  
QLast Update : Mon Feb 20 18:33:00 2012  
Response via : Initial Calibration



Quantitation Report (QT Reviewed)

Data Path : C:\msdchem\1\DATA\FEB12-C\20FEB12A\  
Data File : P90L2582.D  
Acq On : 20 Feb 2012 5:35 pm  
Operator :  
Sample : 1202258-002A  
Misc : SAMP 5ML 10F3 DL  
ALS Vial : 19 Sample Multiplier: 1

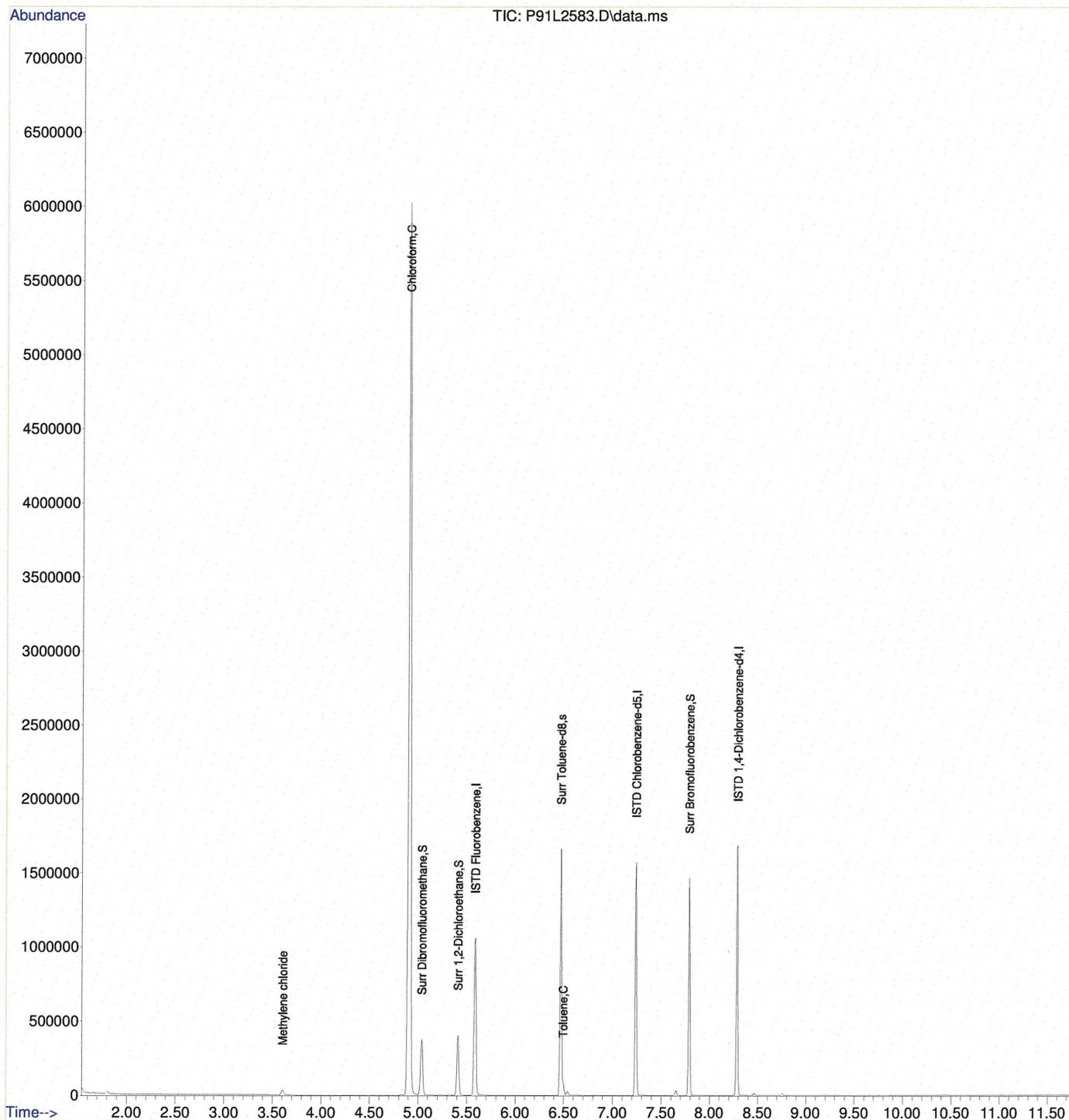
Quant Time: Feb 21 05:36:52 2012  
Quant Method : C:\msdchem\1\METHODS\AFULLW\_50.M  
Quant Title : VOA Calibration  
QLast Update : Mon Feb 20 18:33:00 2012  
Response via : Initial Calibration



Quantitation Report (QT Reviewed)

Data Path : C:\msdchem\1\DATA\FEB12-C\20FEB12A\  
Data File : P91L2583.D  
Acq On : 20 Feb 2012 5:54 pm  
Operator :  
Sample : 1202258-003A  
Misc : SAMP 5ML 1OF3 DL  
ALS Vial : 20 Sample Multiplier: 1

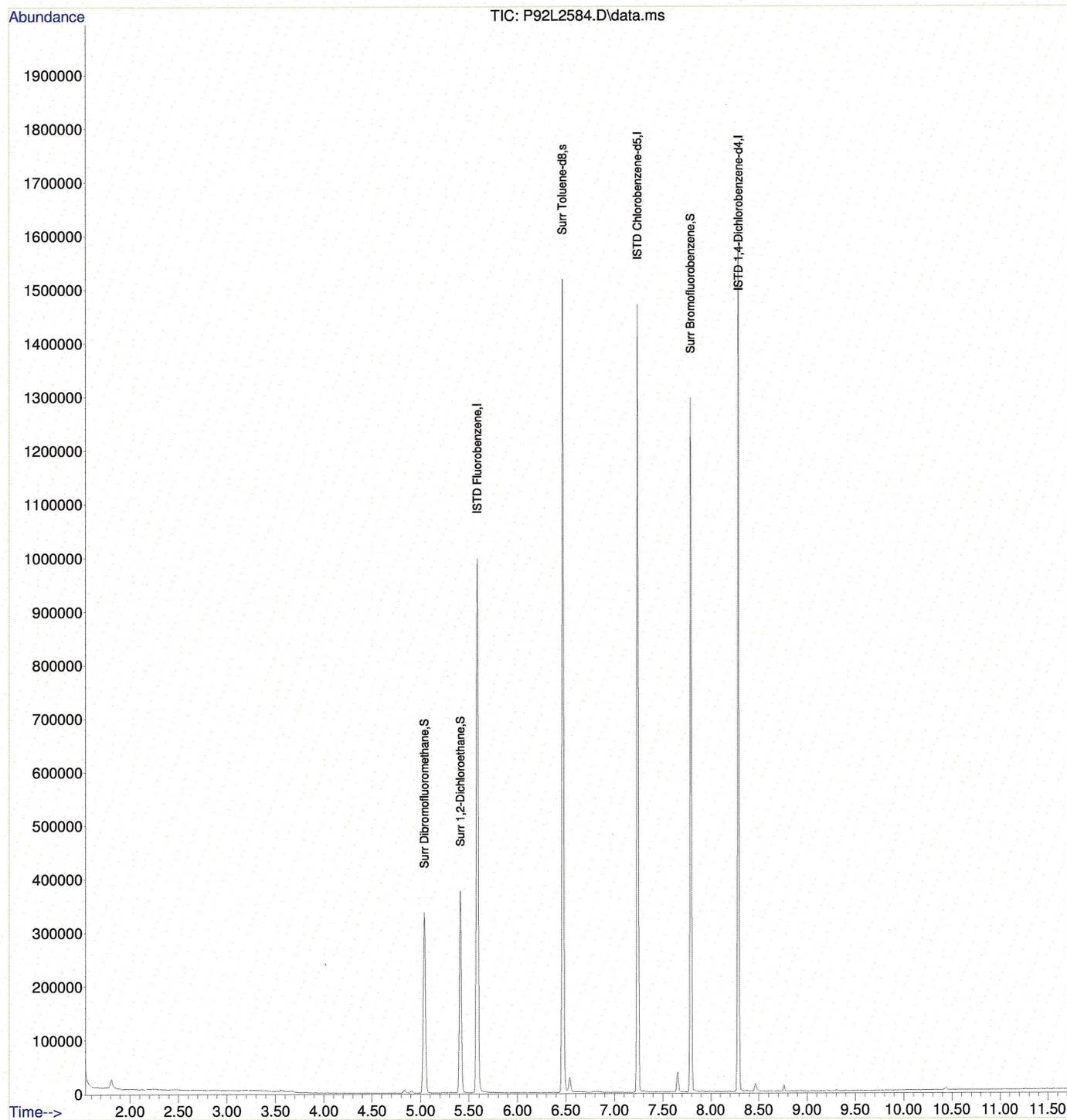
Quant Time: Feb 21 05:37:20 2012  
Quant Method : C:\msdchem\1\METHODS\AFULLW\_50.M  
Quant Title : VOA Calibration  
QLast Update : Mon Feb 20 18:33:00 2012  
Response via : Initial Calibration



Quantitation Report (QT Reviewed)

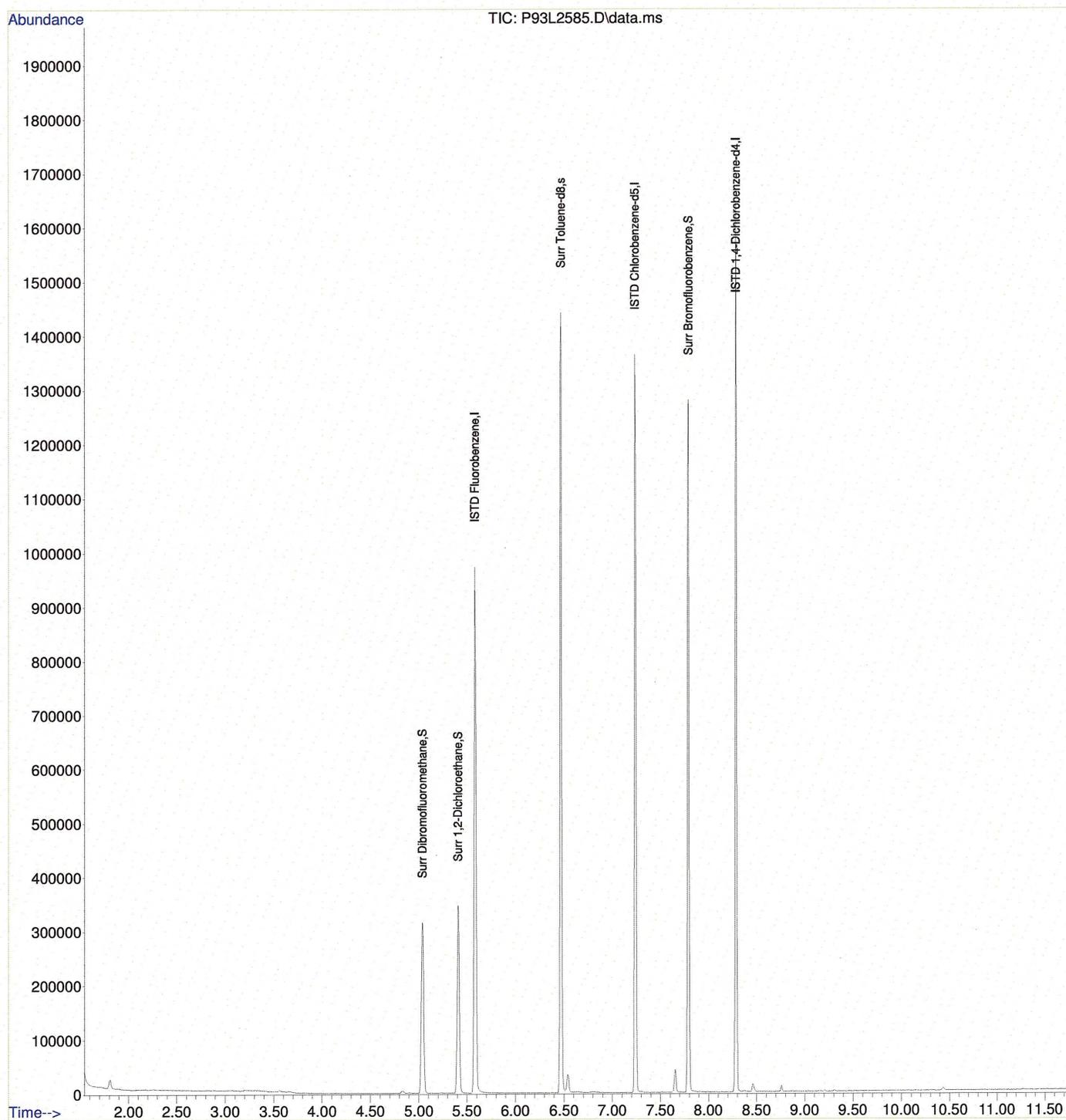
Data Path : C:\msdchem\1\DATA\FEB12-C\20FEB12A\  
Data File : P92L2584.D  
Acq On : 20 Feb 2012 6:12 pm  
Operator :  
Sample : 1202258-004A  
Misc : SAMP 5ML 1OF3 DL  
ALS Vial : 21 Sample Multiplier: 1

Quant Time: Feb 21 05:37:45 2012  
Quant Method : C:\msdchem\1\METHODS\AFULLW\_50.M  
Quant Title : VOA Calibration  
QLast Update : Mon Feb 20 18:33:00 2012  
Response via : Initial Calibration



Data Path : C:\msdchem\1\DATA\FEB12-C\20FEB12A\  
Data File : P93L2585.D  
Acq On : 20 Feb 2012 6:30 pm  
Operator :  
Sample : 1202258-005A  
Misc : SAMP 5ML 10F3 DL  
ALS Vial : 22 Sample Multiplier: 1

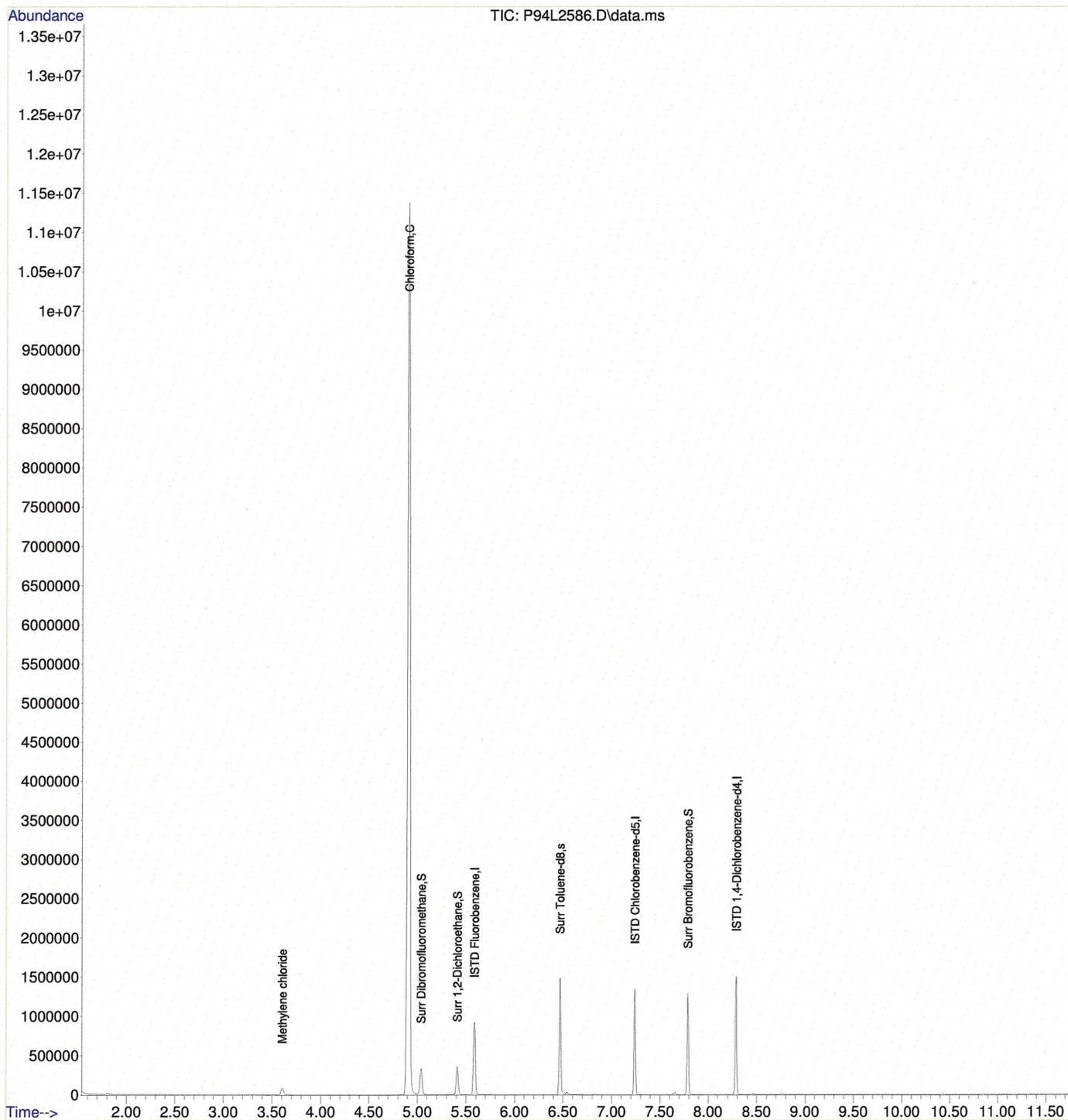
Quant Time: Feb 21 05:38:02 2012  
Quant Method : C:\msdchem\1\METHODS\AFULLW\_50.M  
Quant Title : VOA Calibration  
QLast Update : Mon Feb 20 18:33:00 2012  
Response via : Initial Calibration



Quantitation Report (QT Reviewed)

Data Path : C:\msdchem\1\DATA\FEB12-C\20FEB12A\  
 Data File : P94L2586.D  
 Acq On : 20 Feb 2012 6:48 pm  
 Operator :  
 Sample : 1202258-006A  
 Misc : SAMP 5ML 1OF3 DL  
 ALS Vial : 23 Sample Multiplier: 1

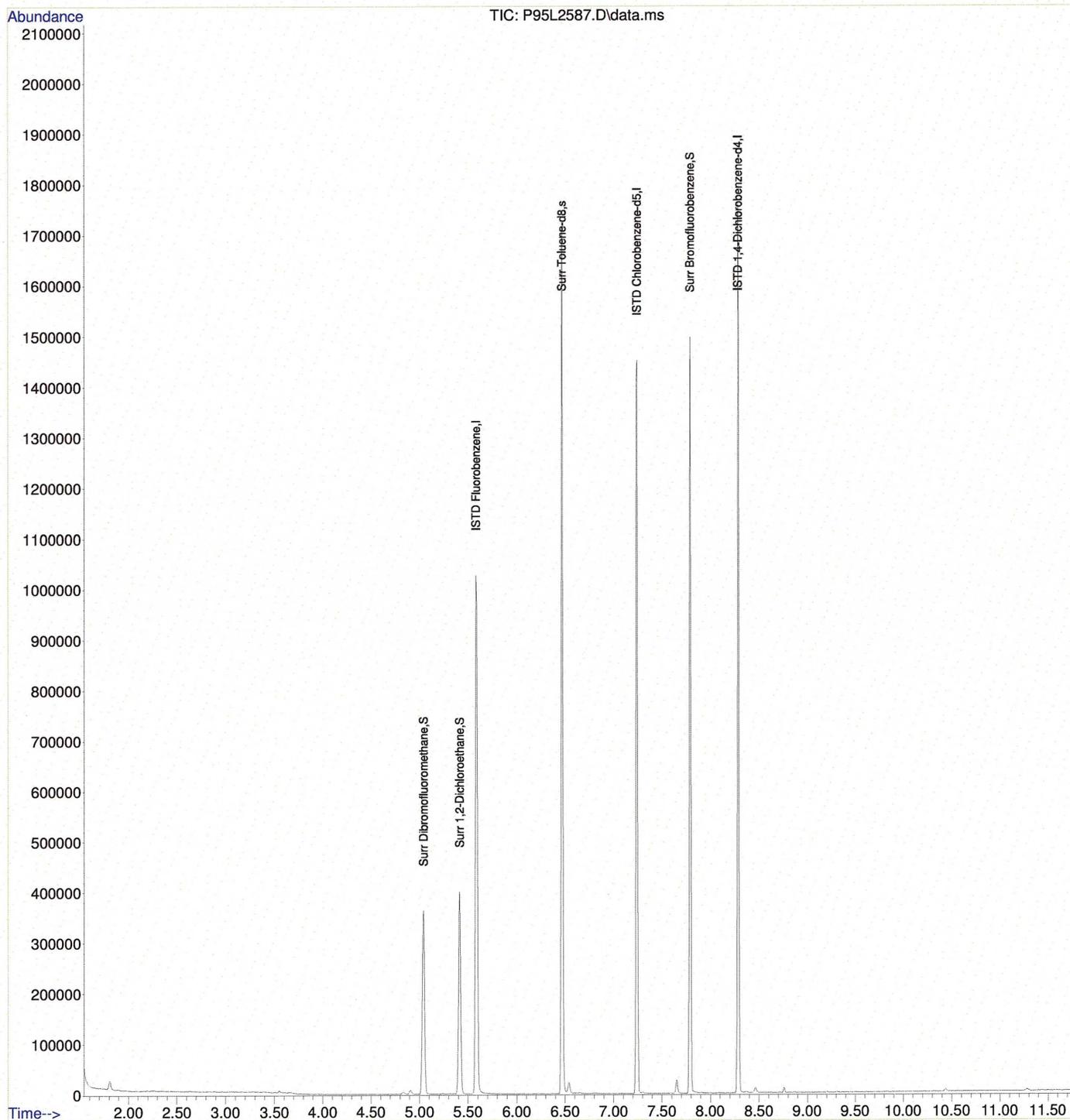
Quant Time: Feb 21 05:38:26 2012  
 Quant Method : C:\msdchem\1\METHODS\AFULLW\_50.M  
 Quant Title : VOA Calibration  
 QLast Update : Mon Feb 20 18:33:00 2012  
 Response via : Initial Calibration



Quantitation Report (QT Reviewed)

Data Path : C:\msdchem\1\DATA\FEB12-C\20FEB12A\  
Data File : P95L2587.D  
Acq On : 20 Feb 2012 7:07 pm  
Operator :  
Sample : 1202258-007A  
Misc : SAMP 5ML 1OF3 DL  
ALS Vial : 24 Sample Multiplier: 1

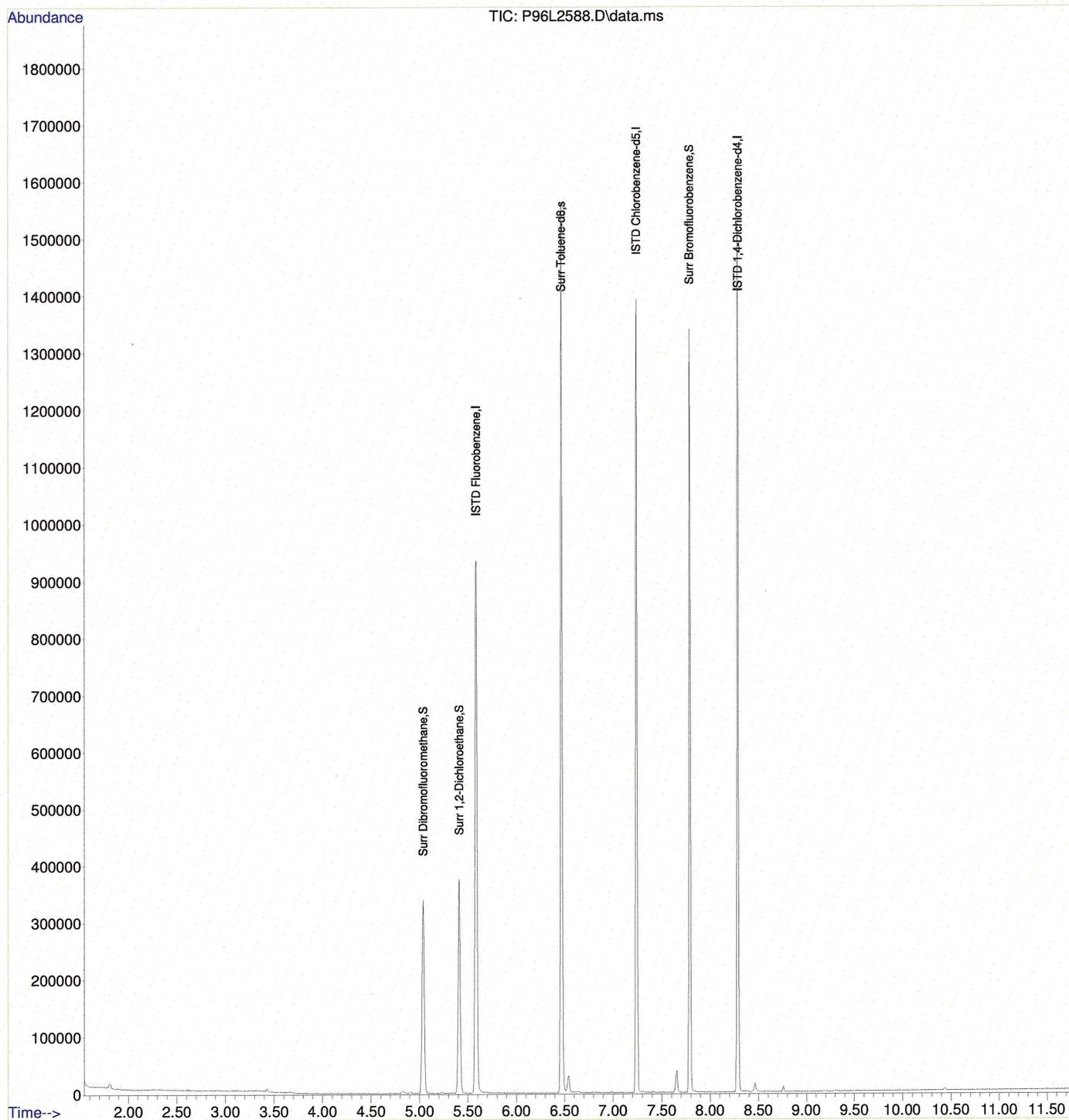
Quant Time: Feb 21 05:38:47 2012  
Quant Method : C:\msdchem\1\METHODS\AFULLW\_50.M  
Quant Title : VOA Calibration  
QLast Update : Mon Feb 20 18:33:00 2012  
Response via : Initial Calibration



Quantitation Report (QT Reviewed)

Data Path : C:\msdchem\1\DATA\FEB12-C\20FEB12A\  
Data File : P96L2588.D  
Acq On : 20 Feb 2012 7:25 pm  
Operator :  
Sample : 1202258-008A  
Misc : SAMP 5ML 1OF3 DL  
ALS Vial : 25 Sample Multiplier: 1

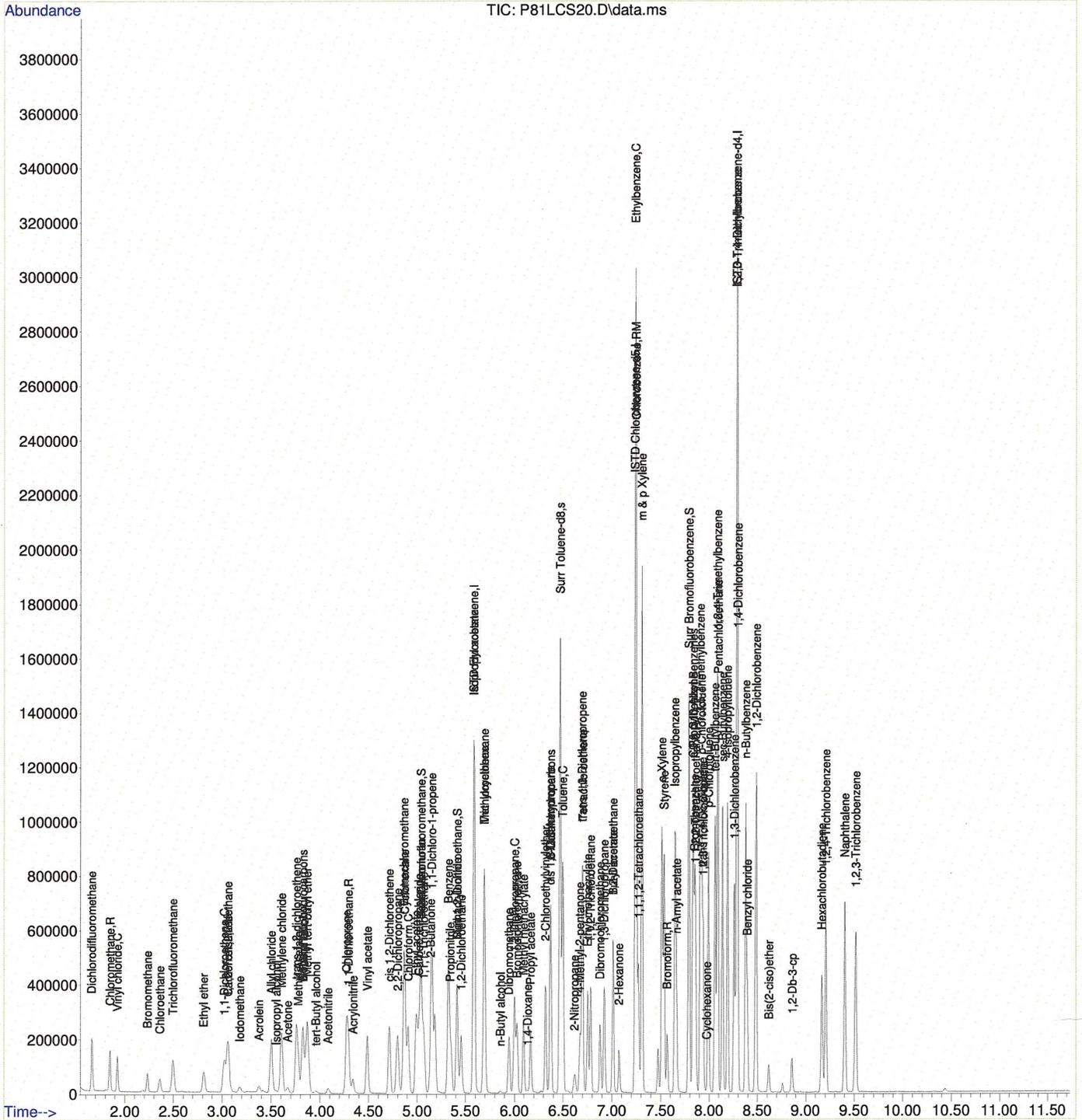
Quant Time: Feb 21 05:39:06 2012  
Quant Method : C:\msdchem\1\METHODS\AFULLW\_50.M  
Quant Title : VOA Calibration  
QLast Update : Mon Feb 20 18:33:00 2012  
Response via : Initial Calibration



Quantitation Report (QT Reviewed)

Data Path : C:\msdchem\1\DATA\FEB12-C\20FEB12A\  
 Data File : P81LCS20.D  
 Acq On : 20 Feb 2012 2:52 pm  
 Operator :  
 Sample : LCS VOC 022012A  
 Misc : LCS SEE COVERSHEET FOR ID AND AMOUNTS JO  
 ALS Vial : 10 Sample Multiplier: 1

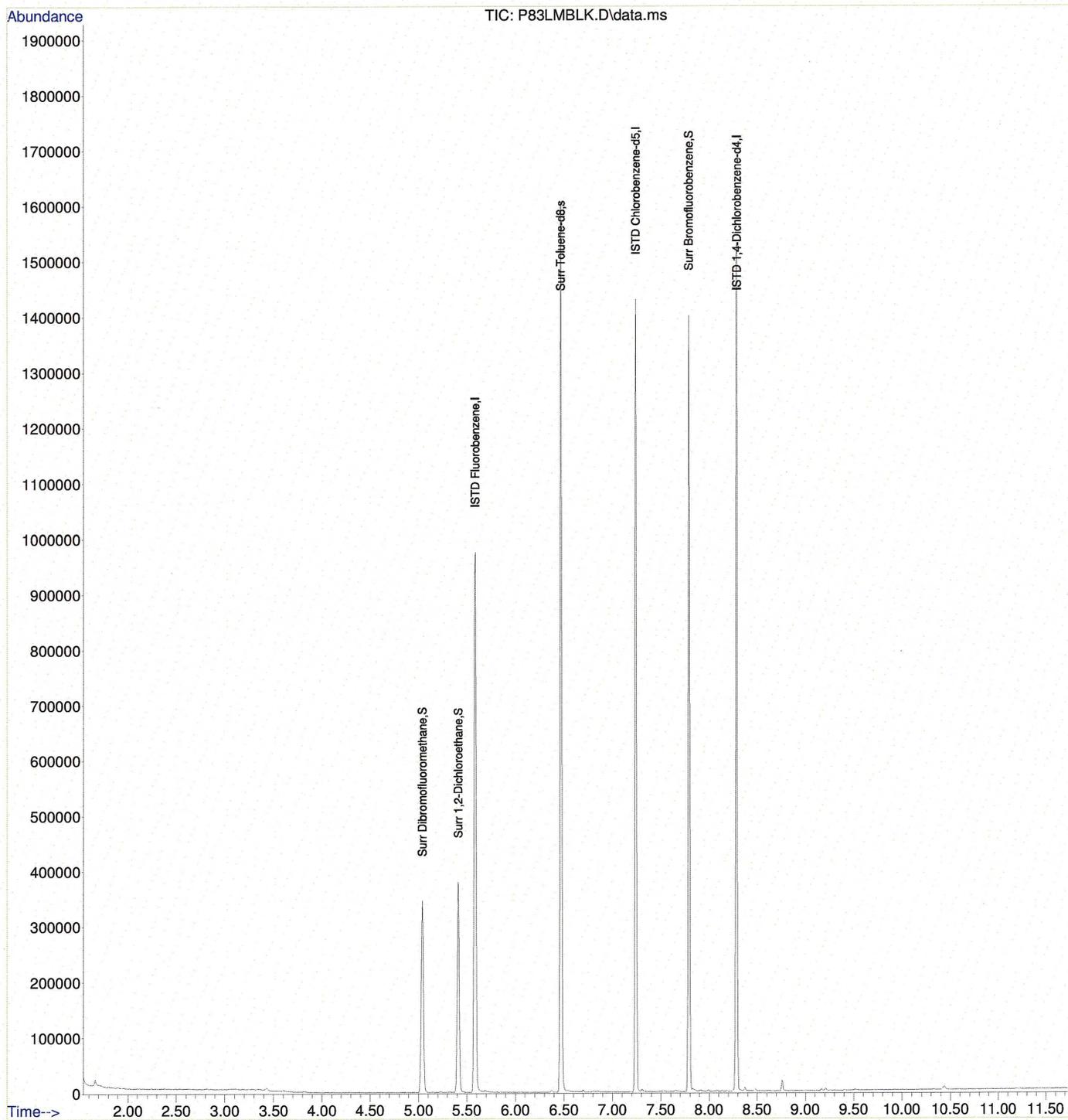
Quant Time: Feb 20 18:02:13 2012  
 Quant Method : C:\msdchem\1\METHODS\AFULLW\_50.M  
 Quant Title : VOA Calibration  
 QLast Update : Mon Feb 20 17:31:52 2012  
 Response via : Initial Calibration



Quantitation Report (QT Reviewed)

Data Path : C:\msdchem\1\DATA\FEB12-C\20FEB12A\  
Data File : P83LMBLK.D  
Acq On : 20 Feb 2012 3:28 pm  
Operator :  
Sample : MB VOC 022012A  
Misc : MBLK 5.0ML JO  
ALS Vial : 12 Sample Multiplier: 1

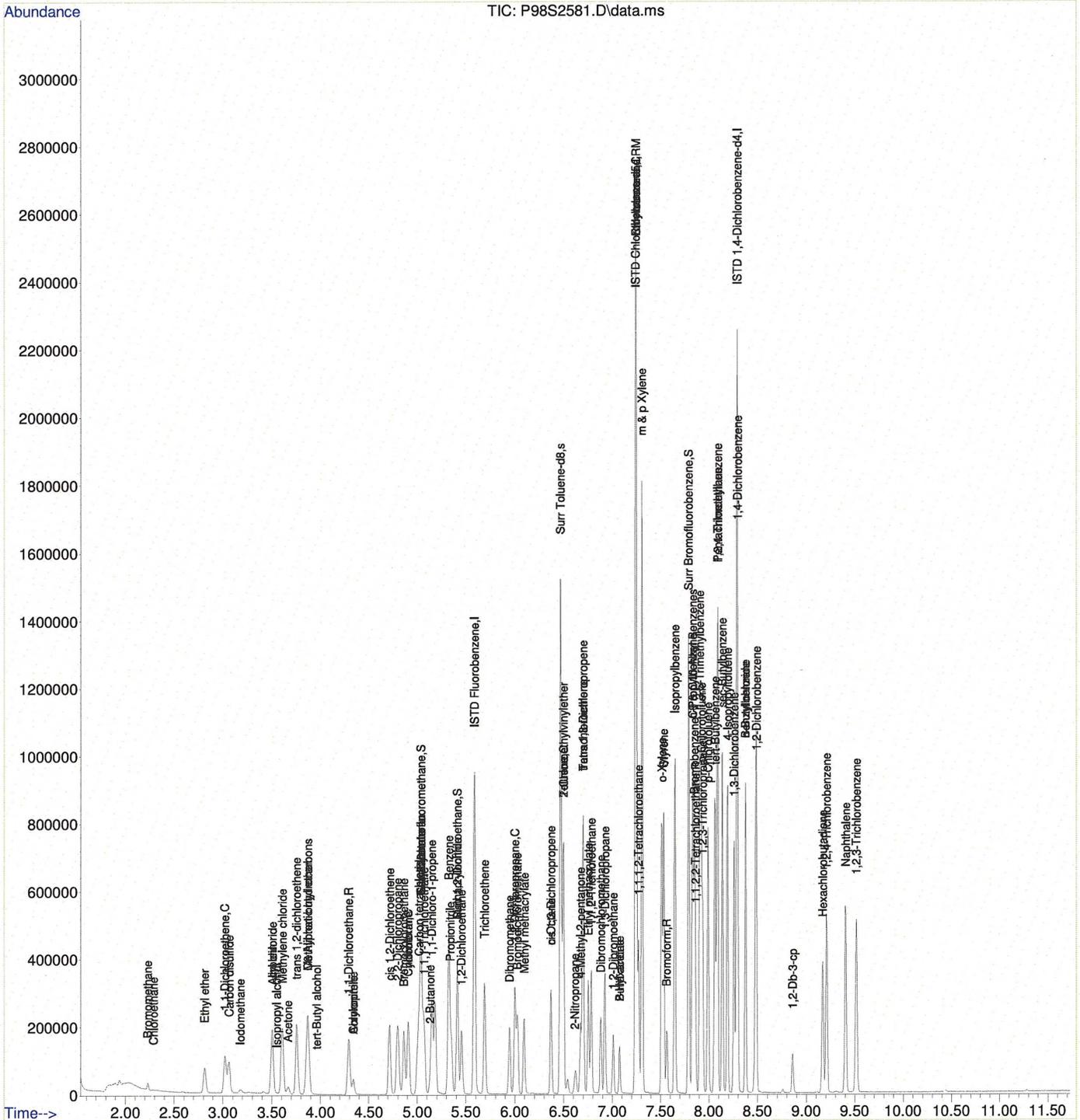
Quant Time: Feb 20 18:03:35 2012  
Quant Method : C:\msdchem\1\METHODS\AFULLW\_50.M  
Quant Title : VOA Calibration  
QLast Update : Mon Feb 20 17:31:52 2012  
Response via : Initial Calibration



Quantitation Report (Not Reviewed)

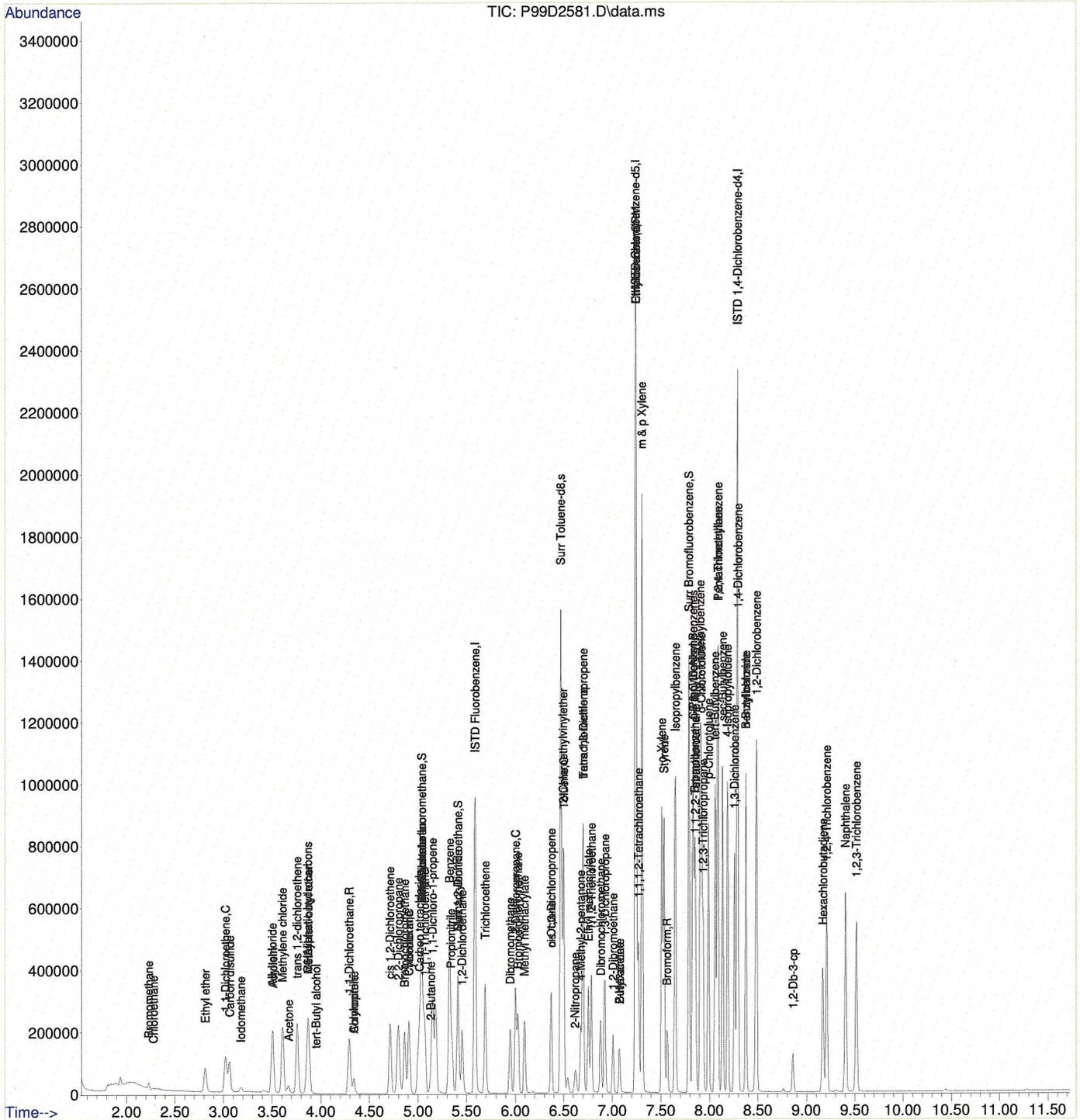
Data Path : C:\msdchem\1\DATA\FEB12-C\20FEB12A\  
 Data File : P98S2581.D  
 Acq On : 20 Feb 2012 8:01 pm  
 Operator :  
 Sample : 1202258-001AMS  
 Misc : MS 5ML 1OF3 DL  
 ALS Vial : 27 Sample Multiplier: 1

Quant Time: Feb 21 05:26:55 2012  
 Quant Method : C:\msdchem\1\METHODS\AFULLW\_50.M  
 Quant Title : VOA Calibration  
 QLast Update : Mon Feb 20 18:33:00 2012  
 Response via : Initial Calibration



Data Path : C:\msdchem\1\DATA\FEB12-C\20FEB12A\  
 Data File : P99D2581.D  
 Acq On : 20 Feb 2012 8:20 pm  
 Operator :  
 Sample : 1202258-001AMSD  
 Misc : MSD 5ML 1OF3 DL  
 ALS Vial : 28 Sample Multiplier: 1

Quant Time: Feb 21 05:26:58 2012  
 Quant Method : C:\msdchem\1\METHODS\AFULLW\_50.M  
 Quant Title : VOA Calibration  
 QLast Update : Mon Feb 20 18:33:00 2012  
 Response via : Initial Calibration



# American West Analytical Laboratories

UL  
Denison

## WORK ORDER Summary

Work Order: **1202256**

Client: Denison Mines

Page 1 of 1 2/16/2012

Client ID: DEN100

Contact: Garrin Palmer

Project: 1st Quarter GW 2012

QC Level: LEVEL III

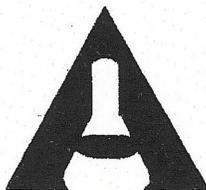
WO Type: Project

Comments: PA Rush. QC 3 & Summary. EDD-CSV. Report THF to 1 µg/L. Email Group;

*SP*

Sample ID	Client Sample ID	Collected Date	Received Date	Date Due	Matrix	Test Code	Sel Storage	
1202256-001A	MW-11	2/13/2012 1225h	2/16/2012 1530h	2/27/2012	Aqueous	8260-W	<input checked="" type="checkbox"/> VOCFridge	3
1202256-002A	MW-25	2/14/2012 1105h				8260-W	<input checked="" type="checkbox"/> VOCFridge	
1202256-003A	MW-26	2/15/2012 0930h				8260-W	<input checked="" type="checkbox"/> VOCFridge	
1202256-004A	MW-30	2/14/2012 1300h				8260-W	<input checked="" type="checkbox"/> VOCFridge	
1202256-005A	MW-31	2/13/2012 1340h				8260-W	<input checked="" type="checkbox"/> VOCFridge	
1202256-006A	MW-65	2/15/2012 0930h				8260-W	<input checked="" type="checkbox"/> VOCFridge	
1202256-007A	MW-35	2/14/2012 0830h				8260-W	<input checked="" type="checkbox"/> VOCFridge	
1202256-008A	Trip Blank	2/13/2012				8260-W	<input checked="" type="checkbox"/> VOCFridge	

Client Denison Mines  
 Address 6425 South Hwy 191  
Blanding UT 84511  
 City State Zip  
 Phone 435 678 2221 Fax \_\_\_\_\_



AMERICAN WEST ANALYTICAL LABORATORIES  
 463 West 3600 South Salt Lake City, Utah 84115  
 (801) 263-8686 (888) 263-8686  
 Fax (801) 263-8687  
 Email: [awal@awal-labs.com](mailto:awal@awal-labs.com)

CHAIN OF CUSTODY

Lab Sample Set # 1202256-TFF  
1202257-Tin  
1202258-Met., WC, etc.  
 Page 1 of 1

Turn Around Time (Circle One)

1 day 2 day 3 day 4 day 5 day Standard

Contact Garrin Palmer / Tanner Holliday  
 E-mail gpalmer@denisonmines.com  
 Project Name 1st Quarter GW 2012  
 Project Number/P.O.# \_\_\_\_\_  
 Sampler Name Tanner Holliday

Sample ID	Date/Time Collected	Matrix	Number of Containers (Total)	TESTS REQUIRED										QC LEVEL			COMMENTS				
				Quote # 120109	Nitrate + Nitrite	NH3	Metals	VOCs	PAH - 16 - 504	TDS, BICARB	actions (wt, mg, cc)	1	2	2+							
MW-11	2-13-12/1225	W	7	X	X	X	X	X	X	X	X	X	X	X	X	X	X	3	3+	4	Heavy Metals Filtered
MW-25	2-14-12/1105	W	7	X	X	X	X	X	X	X	X	X	X	X	X	X	X				
MW-26	2-15-12/0930	W	7	X	X	X	X	X	X	X	X	X	X	X	X	X	X				
MW-30	2-14-12/1300	W	7	X	X	X	X	X	X	X	X	X	X	X	X	X	X				
MW-31	2-13-12/1340	W	7	X	X	X	X	X	X	X	X	X	X	X	X	X	X				
MW-65	2-15-12/0930	W	7	X	X	X	X	X	X	X	X	X	X	X	X	X	X				
MW-35	2-14-12/0930	W	7	X	X	X	X	X	X	X	X	X	X	X	X	X	X				
Trip Blank	2-13-12	W																			

LABORATORY USE ONLY	
SAMPLES WERE:	
1	Shipped or hand delivered Notes:
2	Ambient or Chilled Notes:
3	Temperature <u>3.6°C</u>
4	Received Broken/Leaking (Improperly Sealed) Y <u>N</u> Notes:
5	Properly Preserved Y <u>N</u> Checked at Bench Y <u>N</u> Notes:
6	Received Within Holding Times Y <u>N</u> Notes:

Relinquished By: Signature <u>Garrin Palmer</u>	Date <u>2-16-12</u>	Received By: Signature <u>Samantha Broadhead</u>	Date <u>2/16/12</u>
PRINT NAME <u>Garrin Palmer</u>	Time <u>1530</u>	PRINT NAME <u>Samantha Broadhead</u>	Time <u>1530</u>
Relinquished By: Signature	Date	Received By: Signature	Date
PRINT NAME	Time	PRINT NAME	Time
Relinquished By: Signature	Date	Received By: Signature	Date
PRINT NAME	Time	PRINT NAME	Time
Relinquished By: Signature	Date	Received By: Signature	Date
PRINT NAME	Time	PRINT NAME	Time

Special Instructions:

COC Tape Was:	
1	Present on Outer Package Y <u>N</u> NA
2	Unbroken on Outer Package Y <u>N</u> NA
3	Present on Sample Y <u>N</u> NA
4	Unbroken on Sample Y <u>N</u> NA
Discrepancies Between Sample Labels and COC Record? Y <u>N</u> Notes:	



Garrin Palmer  
Denison Mines  
1050 17th Street, # 950  
Denver, CO 80265  
TEL: (303) 389-4132

RE: 1st Quarter GW 2012

Dear Garrin Palmer:

Lab Set ID: 1202257

463 West 3600 South  
Salt Lake City, UT 84115

American West Analytical Laboratories received 7 sample(s) on 2/16/2012 for the analyses presented in the following report.

Phone: (801) 263-8686  
Toll Free: (888) 263-8686  
Fax: (801) 263-8687  
e-mail: awal@awal-labs.com

All analyses were performed in accordance to The NELAC Institute protocols unless noted otherwise. American West Analytical Laboratories is accredited by The NELAC Institute in Utah and Texas; and is state accredited in Colorado, Idaho, and Missouri. Accreditation documents are available upon request. If you have any questions or concerns regarding this report please feel free to call.

web: www.awal-labs.com

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

Kyle F. Gross  
Laboratory Director

Jose Rocha  
QA Officer

This is a revision to a report originally issued 3/5/2012. Pages 1 and 4-10 have been revised.

Thank You,

**Kyle F. Gross**  
Digitally signed by Kyle F. Gross  
DN: cn=Kyle F. Gross, o=AWAL,  
ou=AWAL, email=kyle@awal-  
labs.com, c=US  
Date: 2012.03.08 15:04:37 -0700

Approved by:

Laboratory Director or designee



## SAMPLE SUMMARY

**Client:** Denison Mines  
**Project:** 1st Quarter GW 2012  
**Lab Set ID:** 1202257  
**Date Received:** 2/16/2012 1530h

**Contact:** Garrin Palmer

463 West 3600 South  
Salt Lake City, UT 84115

Phone: (801) 263-8686  
 Toll Free: (888) 263-8686  
 Fax: (801) 263-8687  
 e-mail: awal@awal-labs.com

web: www.awal-labs.com

Kyle F. Gross  
 Laboratory Director

Jose Rocha  
 QA Officer

Lab Sample ID	Client Sample ID	Date Collected	Matrix	Analysis
1202257-001A	MW-11	2/13/2012 1225h	Aqueous-	ICPMS Metals, Dissolved
1202257-001A	MW-11	2/13/2012 1225h	Aqueous-	ICP Metals, Dissolved
1202257-002A	MW-25	2/14/2012 1105h	Aqueous-	ICPMS Metals, Dissolved
1202257-002A	MW-25	2/14/2012 1105h	Aqueous-	ICP Metals, Dissolved
1202257-003A	MW-26	2/15/2012 0930h	Aqueous-	ICPMS Metals, Dissolved
1202257-003A	MW-26	2/15/2012 0930h	Aqueous-	ICP Metals, Dissolved
1202257-004A	MW-30	2/14/2012 1300h	Aqueous-	ICPMS Metals, Dissolved
1202257-004A	MW-30	2/14/2012 1300h	Aqueous-	ICP Metals, Dissolved
1202257-005A	MW-31	2/13/2012 1340h	Aqueous-	ICPMS Metals, Dissolved
1202257-005A	MW-31	2/13/2012 1340h	Aqueous-	ICP Metals, Dissolved
1202257-006A	MW-65	2/15/2012 0930h	Aqueous-	ICPMS Metals, Dissolved
1202257-006A	MW-65	2/15/2012 0930h	Aqueous-	ICP Metals, Dissolved
1202257-007A	MW-35	2/14/2012 0830h	Aqueous-	ICPMS Metals, Dissolved
1202257-007A	MW-35	2/14/2012 0830h	Aqueous-	ICP Metals, Dissolved



## Inorganic Case Narrative

**Client:** Denison Mines  
**Contact:** Garrin Palmer  
**Project:** 1st Quarter GW 2012  
**Lab Set ID:** 1202257

---

463 West 3600 South  
Salt Lake City, UT 84115

### **Sample Receipt Information:**

**Date of Receipt:** 2/27/2011  
**Date of Collection:** 2/13, 2/14, & 2/15/2011  
**Sample Condition:** Intact  
**C-O-C Discrepancies:** None

Phone: (801) 263-8686  
Toll Free: (888) 263-8686  
Fax: (801) 263-8687  
e-mail: awal@awal-labs.com

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

web: www.awal-labs.com

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

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

Kyle F. Gross  
Laboratory Director

**Corrective Action:** None required.

Jose Rocha  
QA Officer



Client Denison Mines  
 Address 6425 South Hwy 191  
Blanding UT 84511  
 City State Zip

Phone 435 678 2221 Fax \_\_\_\_\_

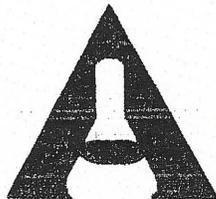
Contact Garrin Palmer / Tanner Holliday

E-mail gpalmer@denisonmines.com

Project Name 1st Quarter GW 2012

Project Number/P.O.# \_\_\_\_\_

Sampler Name Tanner Holliday



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

**CHAIN OF  
CUSTODY**  
  
 (801) 263-8686  
 (888) 263-8686  
 Fax (801) 263-8687  
 Email: awal@awal-labs.com

1202256 - ITT  
 1202257 - Tin  
 Lab Sample Set # 1202258 - Met., WC, etc.  
 Page 1 of 1

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

Sample ID	Date/Time Collected	Matrix	Number of Containers (Total)	TESTS REQUIRED										QC LEVEL			LABORATORY USE ONLY					
				Quote # 120109	Nitrate + Nitrite	NH3	Metals	VOCs	SL-14-504	TDS, BILGIB3	Cations (Ca, Mg, Cu)	1	2	2+	3	3+		4	COMMENTS			
MW-11	2-13-12/1225	W	7	X	X	X	X	X	X	X	X	X	X	X	X	X	X	3	3+	4	Heavy Metals Filtered	1 Shipped or hand delivered Notes:
MW-25	2-14-12/1105	W	7	X	X	X	X	X	X	X	X	X	X	X	X	X	X					2 Ambient or Chilled Notes:
MW-26	2-15-12/0930	W	7	X	X	X	X	X	X	X	X	X	X	X	X	X	X					3 Temperature <u>3.6°C</u>
MW-30	2-14-12/1300	W	7	X	X	X	X	X	X	X	X	X	X	X	X	X	X					4 Received Broken/Leaking (Improperly Sealed) Y <u>N</u> Notes:
MW-31	2-13-12/1340	W	7	X	X	X	X	X	X	X	X	X	X	X	X	X	X					5 Properly Preserved Y <u>N</u> Checked at Bench Y <u>N</u> Notes:
MW-65	2-15-12/0930	W	7	X	X	X	X	X	X	X	X	X	X	X	X	X	X					6 Received Within Holding Times Y <u>N</u> Notes:
MW-35	2-14-12/0830	W	7	X	X	X	X	X	X	X	X	X	X	X	X	X	X					
Trip Blank	2-13-12	W																				

Relinquished By: Signature <u>Garrin Palmer</u>	Date <u>2-16-12</u>	Received By: Signature <u>Samantha Broadhead</u>	Date <u>2/16/12</u>
PRINT NAME <u>Garrin Palmer</u>	Time <u>1530</u>	PRINT NAME <u>Samantha Broadhead</u>	Time <u>1530</u>
Relinquished By: Signature	Date	Received By: Signature	Date
PRINT NAME	Time	PRINT NAME	Time
Relinquished By: Signature	Date	Received By: Signature	Date
PRINT NAME	Time	PRINT NAME	Time
Relinquished By: Signature	Date	Received By: Signature	Date
PRINT NAME	Time	PRINT NAME	Time

Special Instructions:

1 Present on Outer Package	Y <u>N</u>	NA
2 Unbroken on Outer Package	Y <u>N</u>	NA
3 Present on Sample	Y <u>N</u>	NA
4 Unbroken on Sample	Y <u>N</u>	NA
Discrepancies Between Sample Labels and COC Record?	Y <u>N</u>	Notes:

Sample Set: 1202257

Preservation Check Sheet

Sample Set Extension and pH

Bottle Type	Preservative	All OK	Except														
			-1	-2	-3	-4	-5	-6	-7								
Ammonia	pH <2 H <sub>2</sub> SO <sub>4</sub>																
COD	pH <2 H <sub>2</sub> SO <sub>4</sub>																
Cyanide	pH >12 NaOH																
Metals	pH <2 HNO <sub>3</sub>		yes														
NO <sub>2</sub> & NO <sub>3</sub>	pH <2 H <sub>2</sub> SO <sub>4</sub>																
Nutrients	pH <2 H <sub>2</sub> SO <sub>4</sub>																
O & G	pH <2 HCL																
Phenols	pH <2 H <sub>2</sub> SO <sub>4</sub>																
Sulfide	pH >9NaOH, Zn Acetate																
TKN	pH <2 H <sub>2</sub> SO <sub>4</sub>																
TOC	pH <2 H <sub>3</sub> PO <sub>4</sub>																
TOX	pH <2 H <sub>2</sub> SO <sub>4</sub>																
T PO <sub>4</sub>	pH <2 H <sub>2</sub> SO <sub>4</sub>																
TPH	pH <2 HCL																

12/10/12

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

Frequency: All samples requiring preservation



Garrin Palmer  
Denison Mines  
1050 17th Street, # 950  
Denver, CO 80265  
TEL: (303) 389-4132

RE: 1st Quarter GW 2012

Dear Garrin Palmer:

Lab Set ID: 1202371

463 West 3600 South  
Salt Lake City, UT 84115

American West Analytical Laboratories received 6 sample(s) on 2/24/2012 for the analyses presented in the following report.

Phone: (801) 263-8686  
Toll Free: (888) 263-8686  
Fax: (801) 263-8687  
e-mail: awal@awal-labs.com

All analyses were performed in accordance to The NELAC Institute protocols unless noted otherwise. American West Analytical Laboratories is accredited by The NELAC Institute in Utah and Texas; and is state accredited in Colorado, Idaho, and Missouri. Accreditation documents are available upon request. If you have any questions or concerns regarding this report please feel free to call.

web: www.awal-labs.com

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

Kyle F. Gross  
Laboratory Director

Jose Rocha  
QA Officer

This is a revision to a report originally issued 3/7/2012. This report contains results for Tetrahydrofuran. All pages have been revised and updated for pagination.

Thank You,

Approved by:

**Jose G.  
Rocha**

Digitally signed by Jose G. Rocha  
DN: cn=Jose G. Rocha,  
o=American West Analytical  
Laboratories, ou=Quality  
Assurance Officer,  
email=jose@awal-labs.com,  
c=US  
Date: 2012.05.10 10:29:41  
-06'00'

Laboratory Director or designee



## SAMPLE SUMMARY

**Client:** Denison Mines  
**Project:** 1st Quarter GW 2012  
**Lab Set ID:** 1202371  
**Date Received:** 2/24/2012 1100h

**Contact:** Garrin Palmer

Lab Sample ID	Client Sample ID	Date Collected	Matrix	Analysis
463 West 3600 South Salt Lake City, UT 84115	1202371-003E MW-14	2/21/2012 1030h		VOA by GC/MS Method 8260C/5030C
	1202371-004E MW-36	2/20/2012 1320h		VOA by GC/MS Method 8260C/5030C
	1202371-005E MW-70	2/21/2012 1030h		VOA by GC/MS Method 8260C/5030C
	1202371-006A Trip Blank	2/20/2012		VOA by GC/MS Method 8260C/5030C

Phone: (801) 263-8686  
Toll Free: (888) 263-8686  
Fax: (801) 263-8687  
e-mail: awal@awal-labs.com

web: www.awal-labs.com

Kyle F. Gross  
Laboratory Director

Jose Rocha  
QA Officer



## Volatile Case Narrative

**Client:** Denison Mines  
**Contact:** Garrin Palmer  
**Project:** 1st Quarter GW 2012  
**Lab Set ID:** 1202371

---

463 West 3600 South  
Salt Lake City, UT 84115

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Toll Free: (888) 263-8686  
Fax: (801) 263-8687  
e-mail: awal@awal-labs.com

web: www.awal-labs.com

Kyle F. Gross  
Laboratory Director

Jose Rocha  
QA Officer

### **Sample Receipt Information:**

**Date of Receipt:** 2/24/2012  
**Date of Collection:** 2/20, 2/21, 2/22, & 2/23/2012  
**Sample Condition:** Intact  
**C-O-C Discrepancies:** None  
**Method:** SW-846 8260C/5030C  
**Analysis:** Volatile Organic Compounds

**General Set Comments:** Tetrahydrofuran was not observed above its reporting limit.

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

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

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

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

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

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

**Surrogates:** All surrogate recoveries were within established limits.

**Corrective Action:** None required.



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Kyle F. Gross  
Laboratory Director

Jose Rocha  
QA Officer

## QC SUMMARY REPORT

**Client:** Denison Mines  
**Lab Set ID:** 1202371  
**Project:** 1st Quarter GW 2012

**Contact:** Garrin Palmer  
**Dept:** MSVOA  
**QC Type:** LCS

Sample ID	Analyte	Units	Method	Result	Amount Spiked	Original Amount	%REC	Limits	%RPD	RPD Limit	Qual	Date Analyzed
LCS VOC 022912A	Tetrahydrofuran	µg/L	SW8260C	18.2	20.00	0	91.2	43-146				2/29/2012 0659h
LCS VOC 022912A	Surr: 1,2-Dichloroethane-d4	%REC	SW8260C	55.2	50.00		110	69-132				2/29/2012 0659h
LCS VOC 022912A	Surr: 4-Bromofluorobenzene	%REC	SW8260C	48.1	50.00		96.3	77-121				2/29/2012 0659h
LCS VOC 022912A	Surr: Dibromofluoromethane	%REC	SW8260C	49.8	50.00		99.6	67-128				2/29/2012 0659h
LCS VOC 022912A	Surr: Toluene-d8	%REC	SW8260C	48.3	50.00		96.6	81-135				2/29/2012 0659h



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Kyle F. Gross  
Laboratory Director

Jose Rocha  
QA Officer

## QC SUMMARY REPORT

**Client:** Denison Mines  
**Lab Set ID:** 1202371  
**Project:** 1st Quarter GW 2012

**Contact:** Garrin Palmer  
**Dept:** MSVOA  
**QC Type:** MBLK

Sample ID	Analyte	Units	Method	Result	Amount Spiked	Original Amount	%REC	Limits	%RPD	RPD Limit	Qual	Date Analyzed
MB VOC 022912A	Tetrahydrofuran	µg/L	SW8260C	< 1.00				-				2/29/2012 0735h
MB VOC 022912A	Surr: 1,2-Dichloroethane-d4	%REC	SW8260C	54.2	50.00		108	69-132				2/29/2012 0735h
MB VOC 022912A	Surr: 4-Bromofluorobenzene	%REC	SW8260C	47.5	50.00		95.0	77-121				2/29/2012 0735h
MB VOC 022912A	Surr: Dibromofluoromethane	%REC	SW8260C	49.2	50.00		98.5	67-128				2/29/2012 0735h
MB VOC 022912A	Surr: Toluene-d8	%REC	SW8260C	48.5	50.00		97.0	81-135				2/29/2012 0735h



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Kyle F. Gross  
Laboratory Director

Jose Rocha  
QA Officer

## QC SUMMARY REPORT

**Client:** Denison Mines  
**Lab Set ID:** 1202371  
**Project:** 1st Quarter GW 2012

**Contact:** Garrin Palmer  
**Dept:** MSVOA  
**QC Type:** MS

Sample ID	Analyte	Units	Method	Result	Amount Spiked	Original Amount	%REC	Limits	%RPD	RPD Limit	Qual	Date Analyzed
1202371-003EMS	Tetrahydrofuran	µg/L	SW8260C	20.2	20.00	0	101	43-146				2/29/2012 0909h
1202371-003EMS	Surr: 1,2-Dichloroethane-d4	%REC	SW8260C	56.6	50.00		113	72-151				2/29/2012 0909h
1202371-003EMS	Surr: 4-Bromofluorobenzene	%REC	SW8260C	46.2	50.00		92.4	80-128				2/29/2012 0909h
1202371-003EMS	Surr: Dibromofluoromethane	%REC	SW8260C	50.2	50.00		101	80-124				2/29/2012 0909h
1202371-003EMS	Surr: Toluene-d8	%REC	SW8260C	47.8	50.00		95.6	77-129				2/29/2012 0909h



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Kyle F. Gross  
Laboratory Director

Jose Rocha  
QA Officer

## QC SUMMARY REPORT

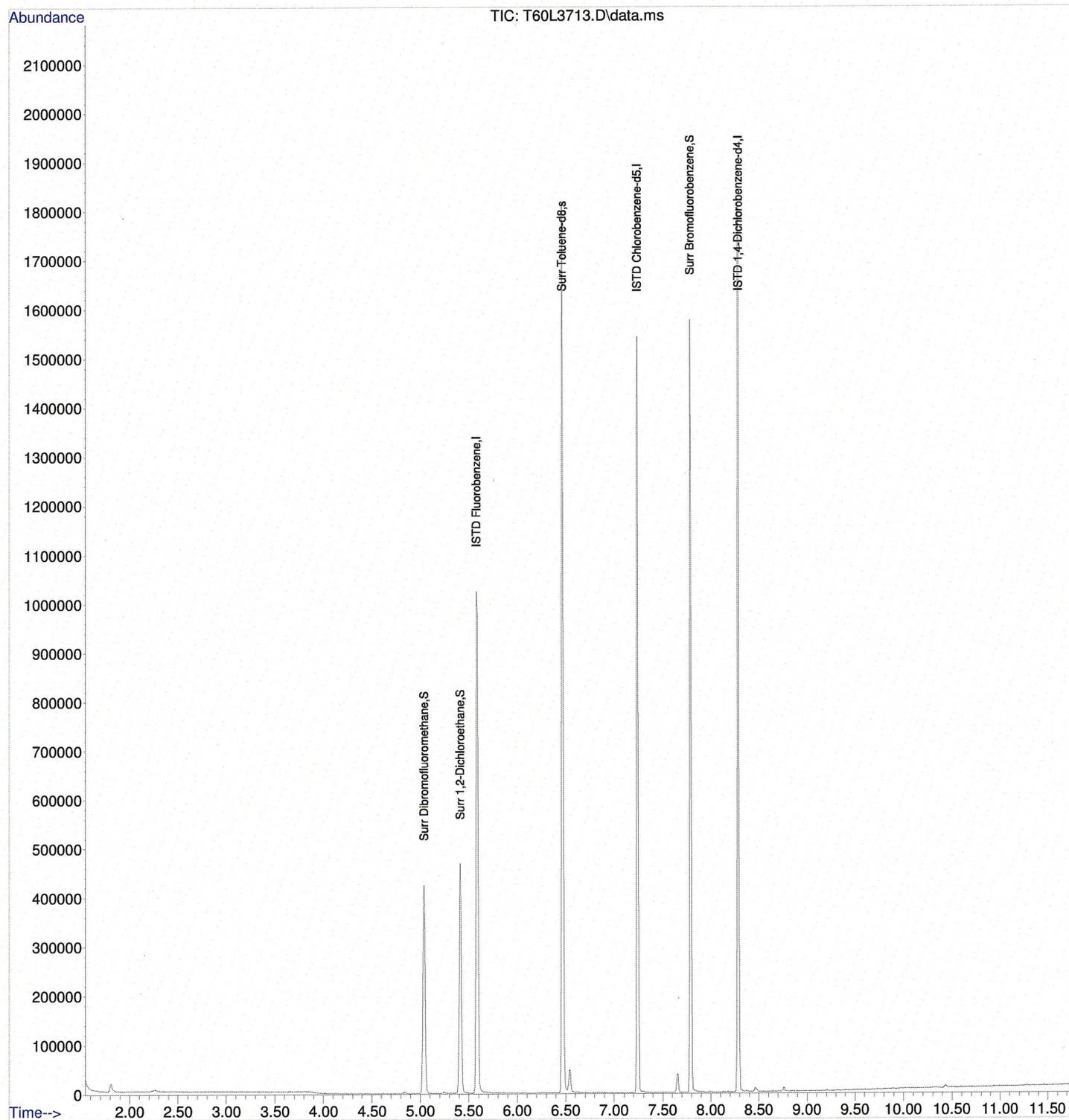
**Client:** Denison Mines  
**Lab Set ID:** 1202371  
**Project:** 1st Quarter GW 2012

**Contact:** Garrin Palmer  
**Dept:** MSVOA  
**QC Type:** MSD

Sample ID	Analyte	Units	Method	Result	Amount Spiked	Original Amount	%REC	Limits	%RPD	RPD Limit	Qual	Date Analyzed
1202371-003EMSD	Tetrahydrofuran	µg/L	SW8260C	21.1	20.00	0	105	43-146	4.21	25		2/29/2012 0927h
1202371-003EMSD	Surr: 1,2-Dichloroethane-d4	%REC	SW8260C	51.8	50.00		104	72-151				2/29/2012 0927h
1202371-003EMSD	Surr: 4-Bromofluorobenzene	%REC	SW8260C	48.3	50.00		96.6	80-128				2/29/2012 0927h
1202371-003EMSD	Surr: Dibromofluoromethane	%REC	SW8260C	51.2	50.00		102	80-124				2/29/2012 0927h
1202371-003EMSD	Surr: Toluene-d8	%REC	SW8260C	48.9	50.00		97.8	77-129				2/29/2012 0927h

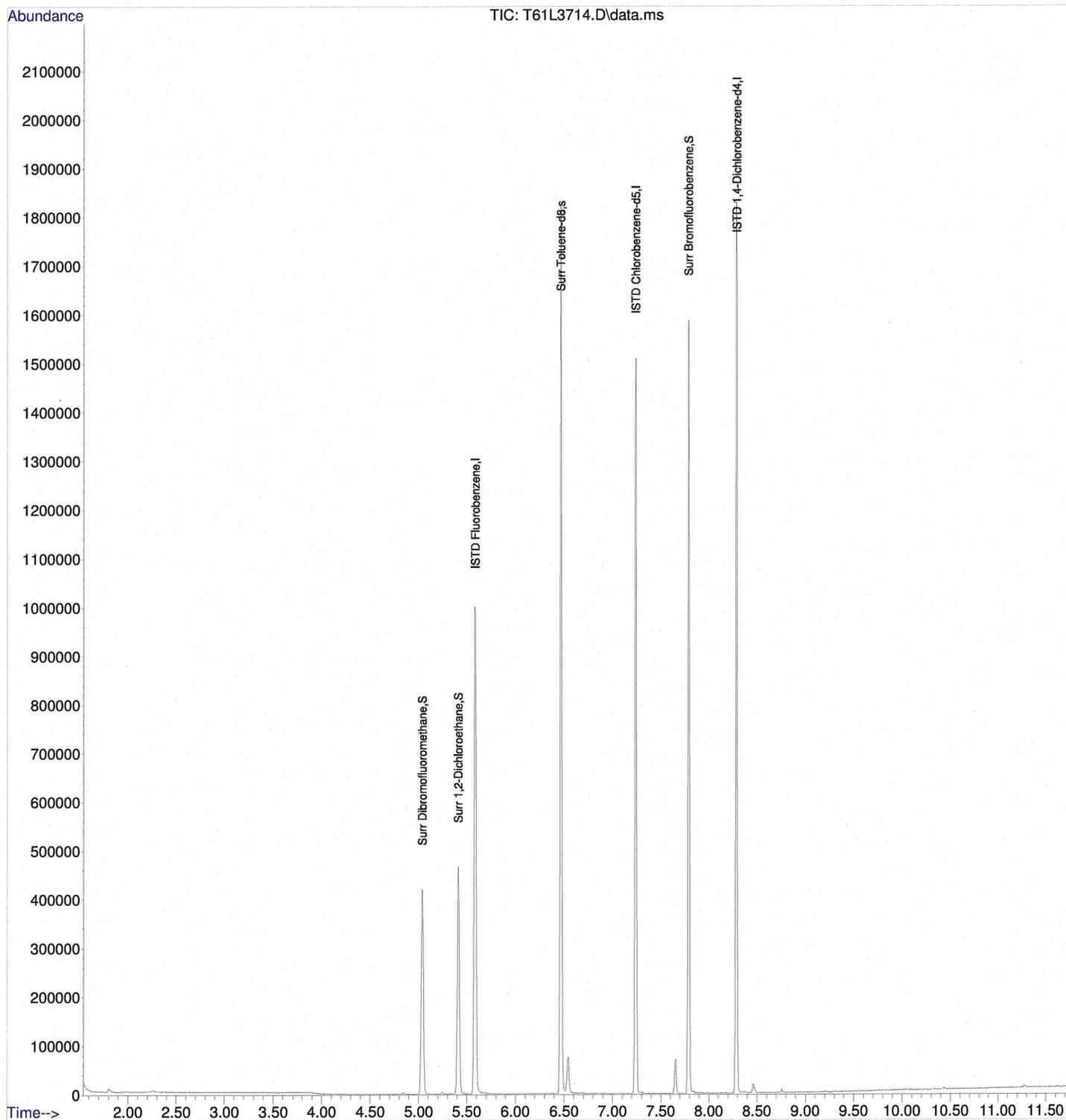
Data Path : C:\msdchem\1\DATA\FEB12-C\29FEB12A\  
 Data File : T60L3713.D  
 Acq On : 29 Feb 2012 7:56 am  
 Operator :  
 Sample : 1202371-003E  
 Misc : SAMP 5.0ML 1OF3 JO  
 ALS Vial : 6 Sample Multiplier: 1

Quant Time: Feb 29 08:24:39 2012  
 Quant Method : C:\MSDCHEM\1\METHODS\AFULLW\_52.M  
 Quant Title : VOA Calibration  
 QLast Update : Tue Feb 28 15:26:14 2012  
 Response via : Initial Calibration



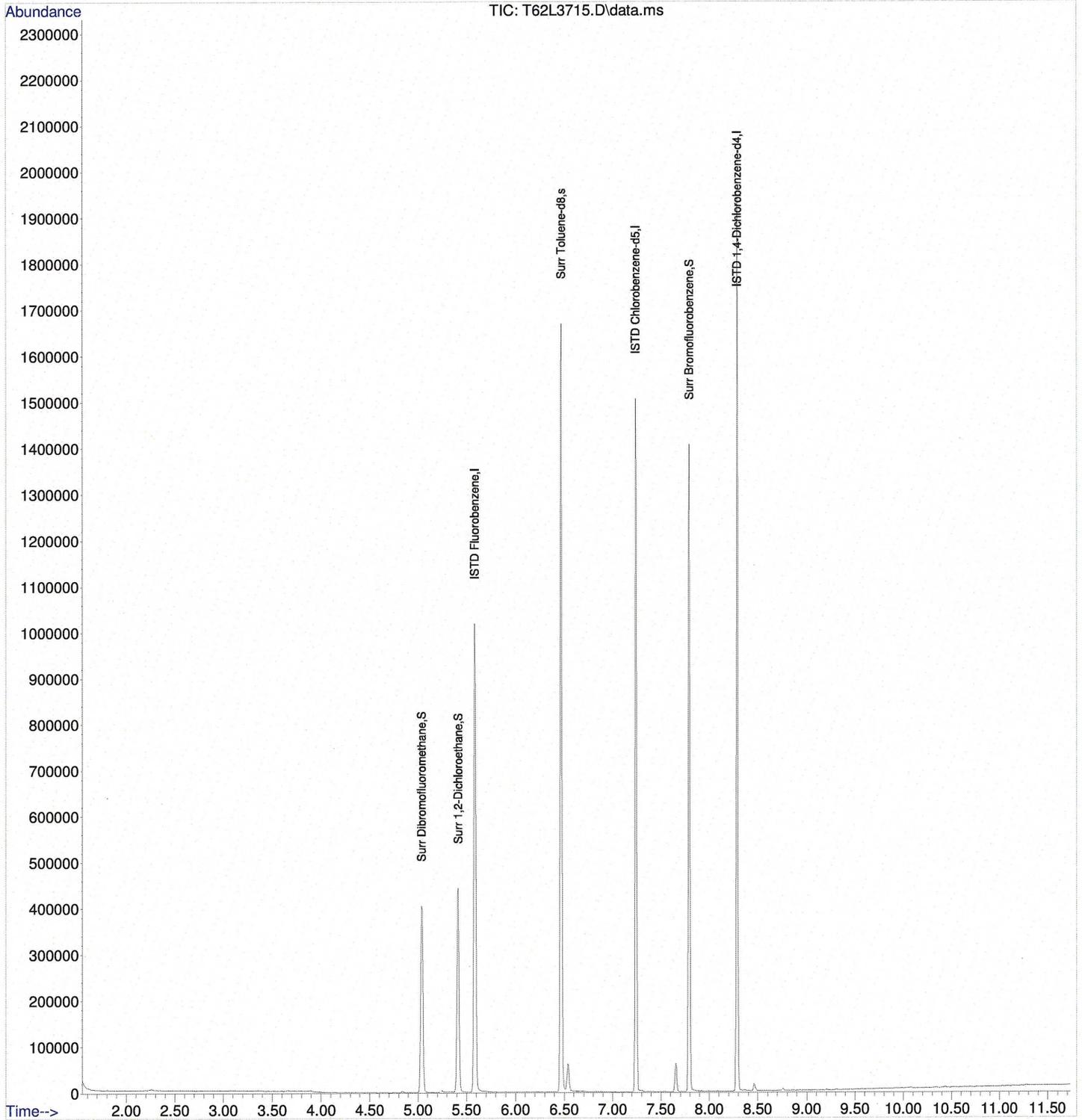
Data Path : C:\msdchem\1\DATA\FEB12-C\29FEB12A\  
 Data File : T61L3714.D  
 Acq On : 29 Feb 2012 8:14 am  
 Operator :  
 Sample : 1202371-004E  
 Misc : SAMP 5.0ML 1OF3 JO  
 ALS Vial : 7 Sample Multiplier: 1

Quant Time: Feb 29 13:29:11 2012  
 Quant Method : C:\MSDCHEM\1\METHODS\AFULLW\_52.M  
 Quant Title : VOA Calibration  
 QLast Update : Tue Feb 28 15:26:14 2012  
 Response via : Initial Calibration



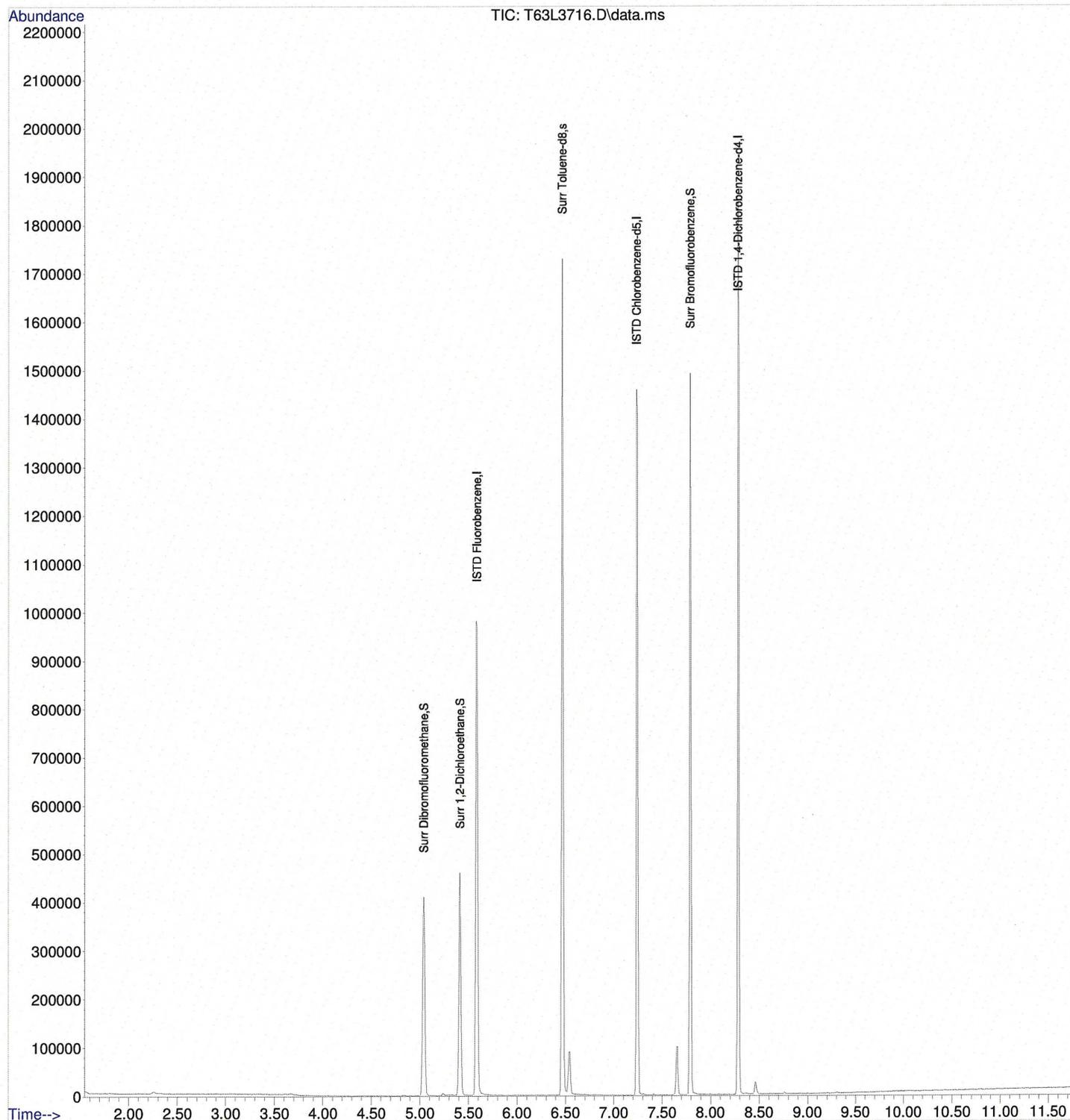
Data Path : C:\msdchem\1\DATA\FEB12-C\29FEB12A\  
Data File : T62L3715.D  
Acq On : 29 Feb 2012 8:32 am  
Operator :  
Sample : 1202371-005E  
Misc : SAMP 5.0ML 10F3 JO  
ALS Vial : 8 Sample Multiplier: 1

Quant Time: Feb 29 13:29:44 2012  
Quant Method : C:\MSDCHEM\1\METHODS\AFULLW\_52.M  
Quant Title : VOA Calibration  
QLast Update : Tue Feb 28 15:26:14 2012  
Response via : Initial Calibration



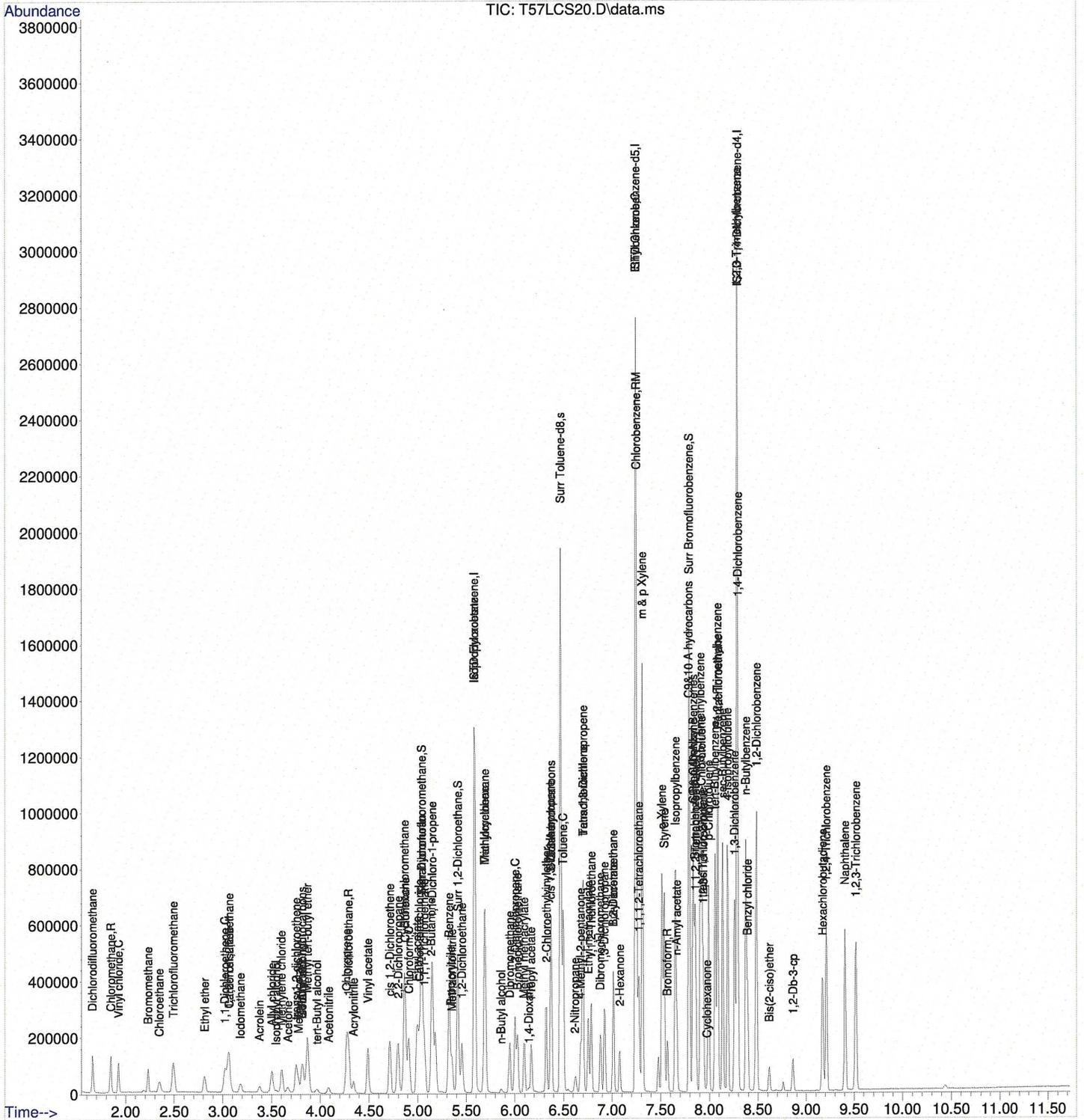
Data Path : C:\msdchem\1\DATA\FEB12-C\29FEB12A\  
 Data File : T63L3716.D  
 Acq On : 29 Feb 2012 8:51 am  
 Operator :  
 Sample : 1202371-006E  
 Misc : SAMP 5.0ML 1OF3 JO  
 ALS Vial : 9 Sample Multiplier: 1

Quant Time: Feb 29 13:30:11 2012  
 Quant Method : C:\MSDCHEM\1\METHODS\AFULLW\_52.M  
 Quant Title : VOA Calibration  
 QLast Update : Tue Feb 28 15:26:14 2012  
 Response via : Initial Calibration



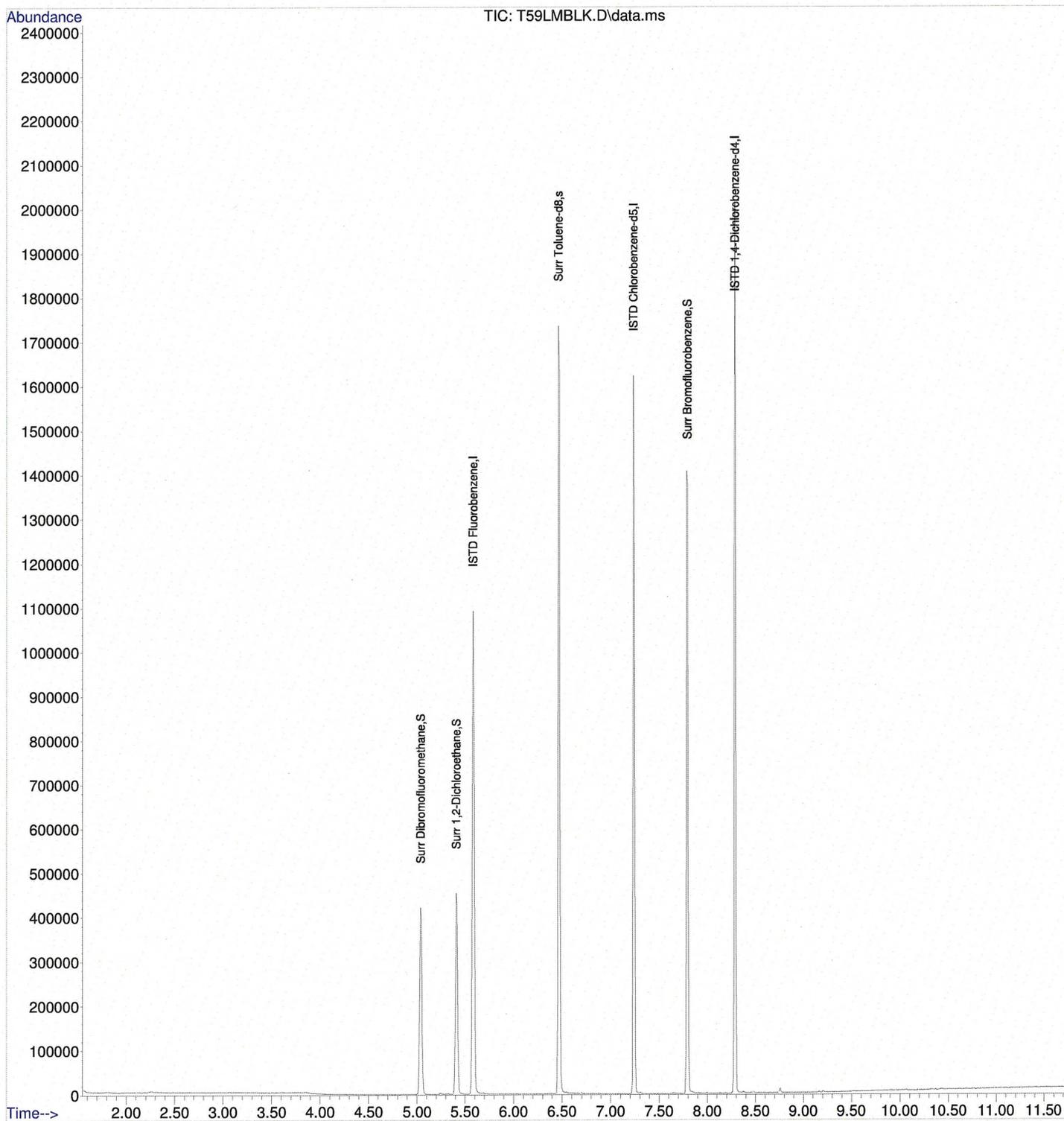
Data Path : C:\msdchem\1\DATA\FEB12-C\29FEB12A\  
Data File : T57LCS20.D  
Acq On : 29 Feb 2012 6:59 am  
Operator :  
Sample : LCS VOC 022912A  
Misc : LCS SEE COVERSHEET FOR ID AND AMOUNTS JO  
ALS Vial : 3 Sample Multiplier: 1

Quant Time: Feb 29 07:35:50 2012  
Quant Method : C:\MSDCHEM\1\METHODS\AFULLW\_52.M  
Quant Title : VOA Calibration  
QLast Update : Tue Feb 28 15:26:14 2012  
Response via : Initial Calibration



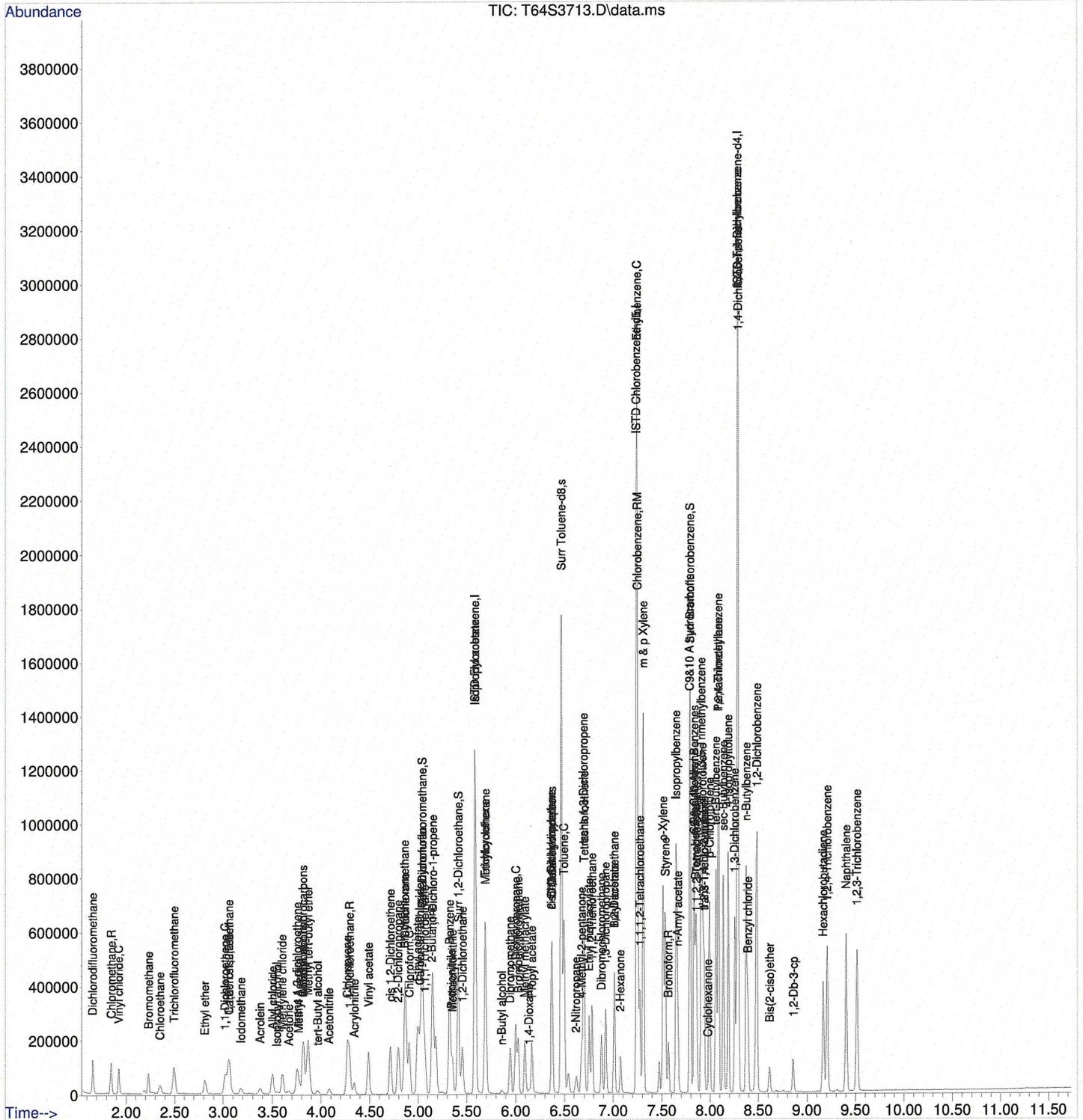
Data Path : C:\msdchem\1\DATA\FEB12-C\29FEB12A\  
 Data File : T59LMBLK.D  
 Acq On : 29 Feb 2012 7:35 am  
 Operator :  
 Sample : MB VOC 022912A  
 Misc : MBLK 5.0ML JO  
 ALS Vial : 5 Sample Multiplier: 1

Quant Time: Feb 29 13:30:45 2012  
 Quant Method : C:\MSDCHEM\1\METHODS\AFULLW\_52.M  
 Quant Title : VOA Calibration  
 QLast Update : Tue Feb 28 15:26:14 2012  
 Response via : Initial Calibration



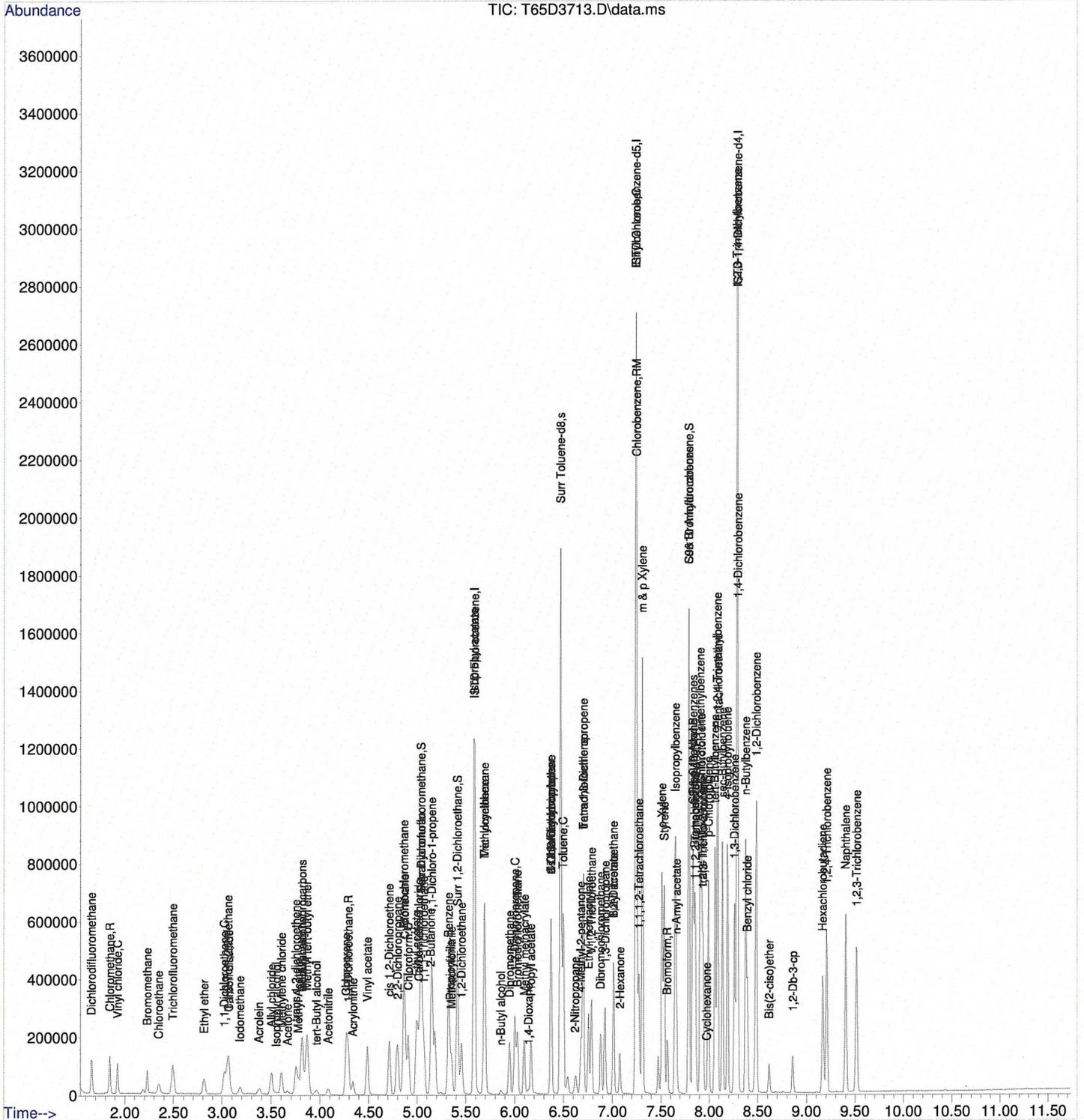
Data Path : C:\msdchem\1\DATA\FEB12-C\29FEB12A\  
 Data File : T64S3713.D  
 Acq On : 29 Feb 2012 9:09 am  
 Operator :  
 Sample : 1202371-003EMS  
 Misc : MS 5.0ML 2OF3 JO  
 ALS Vial : 10 Sample Multiplier: 1

Quant Time: Feb 29 13:31:45 2012  
 Quant Method : C:\MSDCHEM\1\METHODS\AFULLW\_52.M  
 Quant Title : VOA Calibration  
 QLast Update : Tue Feb 28 15:26:14 2012  
 Response via : Initial Calibration



Data Path : C:\msdchem\1\DATA\FEB12-C\29FEB12A\  
 Data File : T65D3713.D  
 Acq On : 29 Feb 2012 9:27 am  
 Operator :  
 Sample : 1202371-003EMSD  
 Misc : MSD 5.0ML 30F3 JO  
 ALS Vial : 11 Sample Multiplier: 1

Quant Time: Feb 29 13:32:05 2012  
 Quant Method : C:\MSDCHEM\1\METHODS\AFULLW\_52.M  
 Quant Title : VOA Calibration  
 QLast Update : Tue Feb 28 15:26:14 2012  
 Response via : Initial Calibration



# American West Analytical Laboratories

UL  
Denison

## WORK ORDER Summary

Work Order: **1202371**

Client: Denison Mines

Page 1 of 2 2/24/2012

Client ID: DEN100

Contact: Garrin Palmer

Project: 1st Quarter GW 2012

QC Level: LEVEL III *NO2*

WO Type: Project

Comments: PA Rush. QC 3 & Summary. EDD-CSV. Report Special VOC DLs (see attached); No digestion on metals per Pat (except Hg);

Sample ID	Client Sample ID	Collected Date	Received Date	Date Due	Matrix	Test Code	Sel	Storage	
1202371-001A	MW-15 SEL Analytes: FE	2/22/2012 1020h	2/24/2012 1100h	3/6/2012	Aqueous	200.7-DIS	<input checked="" type="checkbox"/>	df - metals	1
1202371-002A	MW-24 SEL Analytes: CD TL	2/23/2012 0650h				200.8-DIS	<input checked="" type="checkbox"/>	df - ,eta;s	
1202371-003A	MW-14 SEL Analytes: CA CR FE MG MO K NA SN V	2/21/2012 1030h				200.7-DIS	<input checked="" type="checkbox"/>	df - metals	
	SEL Analytes: AS BE CD CO CU PB MN NI SE AG TL U ZN					200.8-DIS	<input checked="" type="checkbox"/>	df - metals	
						HG-DW-DIS-245.1	<input type="checkbox"/>	df - metals	
						HG-DW-DIS-PR	<input type="checkbox"/>	df - metals	
1202371-003B						NH3-W-350.1	<input type="checkbox"/>	df - h2so4	
						NH3-W-PR	<input type="checkbox"/>	df - h2so4	
						NO2/NO3-W-353.2	<input type="checkbox"/>	df - h2so4	
1202371-003C						TDS-W-2540C	<input type="checkbox"/>	ww - tds	
1202371-003D	SEL Analytes: ALKB ALKC					ALK-W-2320B	<input checked="" type="checkbox"/>	df - wc	
						CL-W-4500CLE	<input type="checkbox"/>	df - wc	
						F-W-4500FC	<input type="checkbox"/>	df - wc	
						SO4-W-4500SO4E	<input type="checkbox"/>	df - wc	
1202371-003E						8260-W	<input checked="" type="checkbox"/>	voc	3
1202371-004A	MW-36 SEL Analytes: CA CR FE MG MO K NA SN V	2/20/2012 1320h				200.7-DIS	<input checked="" type="checkbox"/>	df - metals	1
	SEL Analytes: AS BE CD CO CU PB MN NI SE AG TL U ZN					200.8-DIS	<input checked="" type="checkbox"/>	df - metals	
						HG-DW-DIS-245.1	<input type="checkbox"/>	df - metals	
						HG-DW-DIS-PR	<input type="checkbox"/>	df - metals	
1202371-004B						NH3-W-350.1	<input type="checkbox"/>	df - h2so4	
						NH3-W-PR	<input type="checkbox"/>	df - h2so4	
						NO2/NO3-W-353.2	<input type="checkbox"/>	df - h2so4	

# WORK ORDER Summary

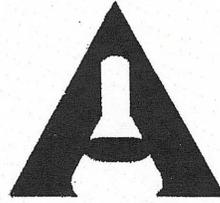
Work Order: **1202371**

Client: Denison Mines

Page 2 of 2 2/24/2012

Sample ID	Client Sample ID	Collected Date	Received Date	Date Due	Matrix	Test Code	Sel	Storage	
1202371-004C	MW-36	2/20/2012 1320h	2/24/2012 1100h	3/6/2012		TDS-W-2540C	<input type="checkbox"/>	ww - tds	1
1202371-004D						ALK-W-2320B	<input checked="" type="checkbox"/>	df - wc	
SEL Analytes: ALKB ALKC									
						CL-W-4500CLE	<input type="checkbox"/>	df - wc	
						F-W-4500FC	<input type="checkbox"/>	df - wc	
						SO4-W-4500SO4E	<input type="checkbox"/>	df - wc	
1202371-004E						8260-W	<input checked="" type="checkbox"/>	voc	3
1202371-005A	MW-70	2/21/2012 1030h				200.7-DIS	<input checked="" type="checkbox"/>	df - metals	1
SEL Analytes: CA CR FE MG MO K NA SN V									
						200.8-DIS	<input checked="" type="checkbox"/>	df - metals	
SEL Analytes: AS BE CD CO CU PB MN NI SE AG TL U ZN									
						HG-DW-DIS-245.1	<input type="checkbox"/>	df - metals	
						HG-DW-DIS-PR	<input type="checkbox"/>	df - metals	
1202371-005B						NH3-W-350.1	<input type="checkbox"/>	df - h2so4	
						NH3-W-PR	<input type="checkbox"/>	df - h2so4	
						NO2/NO3-W-353.2	<input type="checkbox"/>	df - h2so4	
1202371-005C						TDS-W-2540C	<input type="checkbox"/>	ww - tds	
1202371-005D						ALK-W-2320B	<input checked="" type="checkbox"/>	df - wc	
SEL Analytes: ALKB ALKC									
						CL-W-4500CLE	<input type="checkbox"/>	df - wc	
						F-W-4500FC	<input type="checkbox"/>	df - wc	
						SO4-W-4500SO4E	<input type="checkbox"/>	df - wc	
1202371-005E						8260-W	<input checked="" type="checkbox"/>	voc	3
1202371-006A	Trip Blank	2/20/2012				8260-W	<input checked="" type="checkbox"/>	voc	

Client Denison Mines  
 Address 6425 S Hwy 191  
Blanding UT 84511  
 City State Zip  
 Phone 435 678 2221 Fax \_\_\_\_\_  
 Contact Garrin Palmer/Tanner Holliday  
 E-mail gpalmer@denisonmines.com  
 Project Name 1st Quarter GW 2012  
 Project Number/P.O.# \_\_\_\_\_  
 Sampler Name Tanner Holliday



AMERICAN WEST ANALYTICAL LABORATORIES  
 463 West 3600 South Salt Lake City, Utah 84115  
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 Fax (801) 263-8687 Email: awal@awal-labs.com

**CHAIN OF CUSTODY**

Lab Sample Set # 1202371  
 Page 1 of 1

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

Sample ID	Date/Time Collected	Matrix	Number of Containers (Total)	TESTS REQUIRED										QC LEVEL			COMMENTS		
				Quote # 120109	Nitrate + Nitrite	NH3	Metals	VOCs	FR* CR-504	TDS, Bicarb*	Cations (Na, K, Mg, Ca)	Iron	Cadmium + Thallium	1	2	2+			
MW-15	2/22/12 1020	W	1	X															Heavy Metals Filtered
MW-24	2/23/12 0650	W	1	X															
MW-14	2/21/12 1030	W	7	X	X	X	X	X	X	X	X	X	X						
MW-36	2/20/12 1320	W	7	X	X	X	X	X	X	X	X	X	X						
MW-70	2/21/12 1030	W	7	X	X	X	X	X	X	X	X	X	X						
Trip Blank	2/20/12								X										

Per Kathy Weinel, Report THF separately.  
 Energy Labs will send additional sample for Tin by 200.8 and will be reported out on a different number -RW 5/9/12

LABORATORY USE ONLY

SAMPLES WERE:

- Shipped or hand delivered  
Notes: FedX
- Ambient or Chilled  
Notes: \_\_\_\_\_
- Temperature 0.7°
- Received Broken/Leaking (Improperly Sealed)  
Y N  
Notes: \_\_\_\_\_
- Properly Preserved  
Y N  
Checked at Bench  
Y N  
Notes: \_\_\_\_\_
- Received Within Holding Times  
Y N  
Notes: \_\_\_\_\_

COC Tape Was:

- Present on Outer Package  
Y N NA
- Unbroken on Outer Package  
Y N NA
- Present on Sample  
Y N NA
- Unbroken on Sample  
Y N NA

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

Relinquished By: Signature <u>Tanner Holliday</u>	Date <u>2/23/12</u>	Received By: Signature <u>Denise Bruun</u>	Date <u>2/24/12</u>
PRINT NAME <u>Tanner Holliday</u>	Time <u>11:00</u>	PRINT NAME <u>Denise Bruun</u>	Time <u>11:00</u>

Special Instructions:  
 \* per Kathy Weinel run Trip Blank for same VOC list as attached, Run Bicarb and Carbonate, and FR = Fluoride and CR = chloride. see email SB 2/24/12

Sample Set: 1202371

Preservation Check Sheet

Sample Set Extension and pH

Bottle Type	Preservative	All OK	Except -001	Except -002	Except -003	Except -004	Except -005	Except									
Ammonia	pH <2 H <sub>2</sub> SO <sub>4</sub>				yes	yes	yes										
COD	pH <2 H <sub>2</sub> SO <sub>4</sub>																
Cyanide	PH >12 NaOH																
Metals	pH <2 HNO <sub>3</sub>		yes	yes	yes	yes	yes										
NO <sub>2</sub> & NO <sub>3</sub>	pH <2 H <sub>2</sub> SO <sub>4</sub>				yes	yes	yes										
Nutrients	pH <2 H <sub>2</sub> SO <sub>4</sub>																
O & G	pH <2 HCL																
Phenols	pH <2 H <sub>2</sub> SO <sub>4</sub>																
Sulfide	pH > 9NaOH, Zn Acetate																
TKN	pH <2 H <sub>2</sub> SO <sub>4</sub>																
TOC	pH <2 H <sub>3</sub> PO <sub>4</sub>																
TOX	pH <2 H <sub>2</sub> SO <sub>4</sub>																
T PO <sub>4</sub>	pH <2 H <sub>2</sub> SO <sub>4</sub>																
TPH	pH <2 HCL																

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

Frequency: All samples requiring preservation



Garrin Palmer  
Denison Mines  
1050 17th Street, # 950  
Denver, CO 80265  
TEL: (303) 389-4132

RE: 1st Quarter Ground Water 2012

Dear Garrin Palmer:

Lab Set ID: 1203040

463 West 3600 South  
Salt Lake City, UT 84115

American West Analytical Laboratories received 3 sample(s) on 3/5/2012 for the analyses presented in the following report.

Phone: (801) 263-8686  
Toll Free: (888) 263-8686  
Fax: (801) 263-8687  
e-mail: awal@awal-labs.com

All analyses were performed in accordance to The NELAC Institute protocols unless noted otherwise. American West Analytical Laboratories is accredited by The NELAC Institute in Utah and Texas; and is state accredited in Colorado, Idaho, and Missouri. Accreditation documents are available upon request. If you have any questions or concerns regarding this report please feel free to call.

web: www.awal-labs.com

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

Kyle F. Gross  
Laboratory Director

Jose Rocha  
QA Officer

This is a revision to a report originally issued 3/14/2012. This report contains results for Tetrahydrofuran and Tin. All pages have been revised and updated for pagination.

Thank You,

Approved by:

Digitally signed by Jose G. Rocha  
DN: cn=Jose G. Rocha,  
o=American West Analytical  
Laboratories, ou=Quality  
Assurance Officer,  
email=jose@awal-labs.com,  
c=US  
Date: 2012.05.09 15:26:30  
-06'00'

Jose G.  
Rocha

Laboratory Director or designee



## SAMPLE SUMMARY

**Client:** Denison Mines  
**Project:** 1st Quarter Ground Water 2012  
**Lab Set ID:** 1203040  
**Date Received:** 3/5/2012 1030h

**Contact:** Garrin Palmer

Lab Sample ID	Client Sample ID	Date Collected	Matrix	Analysis
1203040-002B	MW-37	2/29/2012 1300h	Aqueous	ICPMS Metals, Dissolved
1203040-002C	MW-37	2/29/2012 1300h	Aqueous	VOA by GC/MS Method 8260C/5030C
1203040-003A	Trip Blank	2/29/2012	Aqueous	VOA by GC/MS Method 8260C/5030C

463 West 3600 South  
Salt Lake City, UT 84115

Phone: (801) 263-8686

Toll Free: (888) 263-8686

Fax: (801) 263-8687

e-mail: [awal@awal-labs.com](mailto:awal@awal-labs.com)

web: [www.awal-labs.com](http://www.awal-labs.com)

Kyle F. Gross  
Laboratory Director

Jose Rocha  
QA Officer



## Inorganic Case Narrative

**Client:** Denison Mines  
**Contact:** Garrin Palmer  
**Project:** 1st Quarter Ground Water 2012  
**Lab Set ID:** 1203040

---

463 West 3600 South  
Salt Lake City, UT 84115

### **Sample Receipt Information:**

**Date of Receipt:** 3/5/2012  
**Date of Collection:** 2/27 & 2/29/2012  
**Sample Condition:** Intact  
**C-O-C Discrepancies:** None

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Toll Free: (888) 263-8686  
Fax: (801) 263-8687  
e-mail: awal@awal-labs.com

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

web: www.awal-labs.com

**Preparation and Analysis Requirements:** The samples were analyzed following the methods stated on the analytical reports. By client request, a digestion was not performed for method 200.8.

Kyle F. Gross  
Laboratory Director

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

Jose Rocha  
QA Officer

**Corrective Action:** None required.



## Volatile Case Narrative

**Client:** Denison Mines  
**Contact:** Garrin Palmer  
**Project:** 1st Quarter Ground Water 2012  
**Lab Set ID:** 1203040

---

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web: www.awal-labs.com

Kyle F. Gross  
Laboratory Director

Jose Rocha  
QA Officer

### **Sample Receipt Information:**

**Date of Receipt:** 3/5/2012  
**Date of Collection:** 2/27 & 2/29/2012  
**Sample Condition:** Intact  
**C-O-C Discrepancies:** None  
**Method:** SW-846 8260C/5030C  
**Analysis:** Volatile Organic Compounds

**General Set Comments:** Tetrahydrofuran was not observed above its reporting limit.

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

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

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

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

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

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

**Surrogates:** All surrogate recoveries were within established limits.

**Corrective Action:** None required.



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Kyle F. Gross  
Laboratory Director

Jose Rocha  
QA Officer

## QC SUMMARY REPORT

**Client:** Denison Mines  
**Lab Set ID:** 1203040  
**Project:** 1st Quarter Ground Water 2012

**Contact:** Garrin Palmer  
**Dept:** MSVOA  
**QC Type:** LCS

Sample ID	Analyte	Units	Method	Result	Amount Spiked	Original Amount	%REC	Limits	%RPD	RPD Limit	Qual	Date Analyzed
LCS VOC 030612A	Tetrahydrofuran	µg/L	SW8260C	15.6	20.00	0	78.2	43-146				3/6/2012 0726h
LCS VOC 030612A	Surr: 1,2-Dichloroethane-d4	%REC	SW8260C	60.9	50.00		122	69-132				3/6/2012 0726h
LCS VOC 030612A	Surr: 4-Bromofluorobenzene	%REC	SW8260C	48.4	50.00		96.9	77-121				3/6/2012 0726h
LCS VOC 030612A	Surr: Dibromofluoromethane	%REC	SW8260C	52.5	50.00		105	67-128				3/6/2012 0726h
LCS VOC 030612A	Surr: Toluene-d8	%REC	SW8260C	48.3	50.00		96.5	81-135				3/6/2012 0726h



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Kyle F. Gross  
Laboratory Director

Jose Rocha  
QA Officer

## QC SUMMARY REPORT

**Client:** Denison Mines  
**Lab Set ID:** 1203040  
**Project:** 1st Quarter Ground Water 2012

**Contact:** Garrin Palmer  
**Dept:** MSVOA  
**QC Type:** MBLK

Sample ID	Analyte	Units	Method	Result	Amount Spiked	Original Amount	%REC	Limits	%RPD	RPD Limit	Qual	Date Analyzed
MB VOC 030612A	Tetrahydrofuran	µg/L	SW8260C	< 1.00				-				3/6/2012 0803h
MB VOC 030612A	Surr: 1,2-Dichloroethane-d4	%REC	SW8260C	59.9	50.00		120	69-132				3/6/2012 0803h
MB VOC 030612A	Surr: 4-Bromofluorobenzene	%REC	SW8260C	52.4	50.00		105	77-121				3/6/2012 0803h
MB VOC 030612A	Surr: Dibromofluoromethane	%REC	SW8260C	52.8	50.00		106	67-128				3/6/2012 0803h
MB VOC 030612A	Surr: Toluene-d8	%REC	SW8260C	49.4	50.00		98.9	81-135				3/6/2012 0803h



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Kyle F. Gross  
 Laboratory Director

Jose Rocha  
 QA Officer

## QC SUMMARY REPORT

**Client:** Denison Mines  
**Lab Set ID:** 1203040  
**Project:** 1st Quarter Ground Water 2012

**Contact:** Garrin Palmer  
**Dept:** MSVOA  
**QC Type:** MS

Sample ID	Analyte	Units	Method	Result	Amount Spiked	Original Amount	%REC	Limits	%RPD	RPD Limit	Qual	Date Analyzed
1203040-002CMS	Tetrahydrofuran	µg/L	SW8260C	16.2	20.00	0	80.9	43-146				3/6/2012 1054h
1203040-002CMS	Surr: 1,2-Dichloroethane-d4	%REC	SW8260C	63.1	50.00		126	72-151				3/6/2012 1054h
1203040-002CMS	Surr: 4-Bromofluorobenzene	%REC	SW8260C	51.0	50.00		102	80-128				3/6/2012 1054h
1203040-002CMS	Surr: Dibromofluoromethane	%REC	SW8260C	53.2	50.00		106	80-124				3/6/2012 1054h
1203040-002CMS	Surr: Toluene-d8	%REC	SW8260C	48.0	50.00		96.1	77-129				3/6/2012 1054h



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Kyle F. Gross  
Laboratory Director

Jose Rocha  
QA Officer

## QC SUMMARY REPORT

**Client:** Denison Mines  
**Lab Set ID:** 1203040  
**Project:** 1st Quarter Ground Water 2012

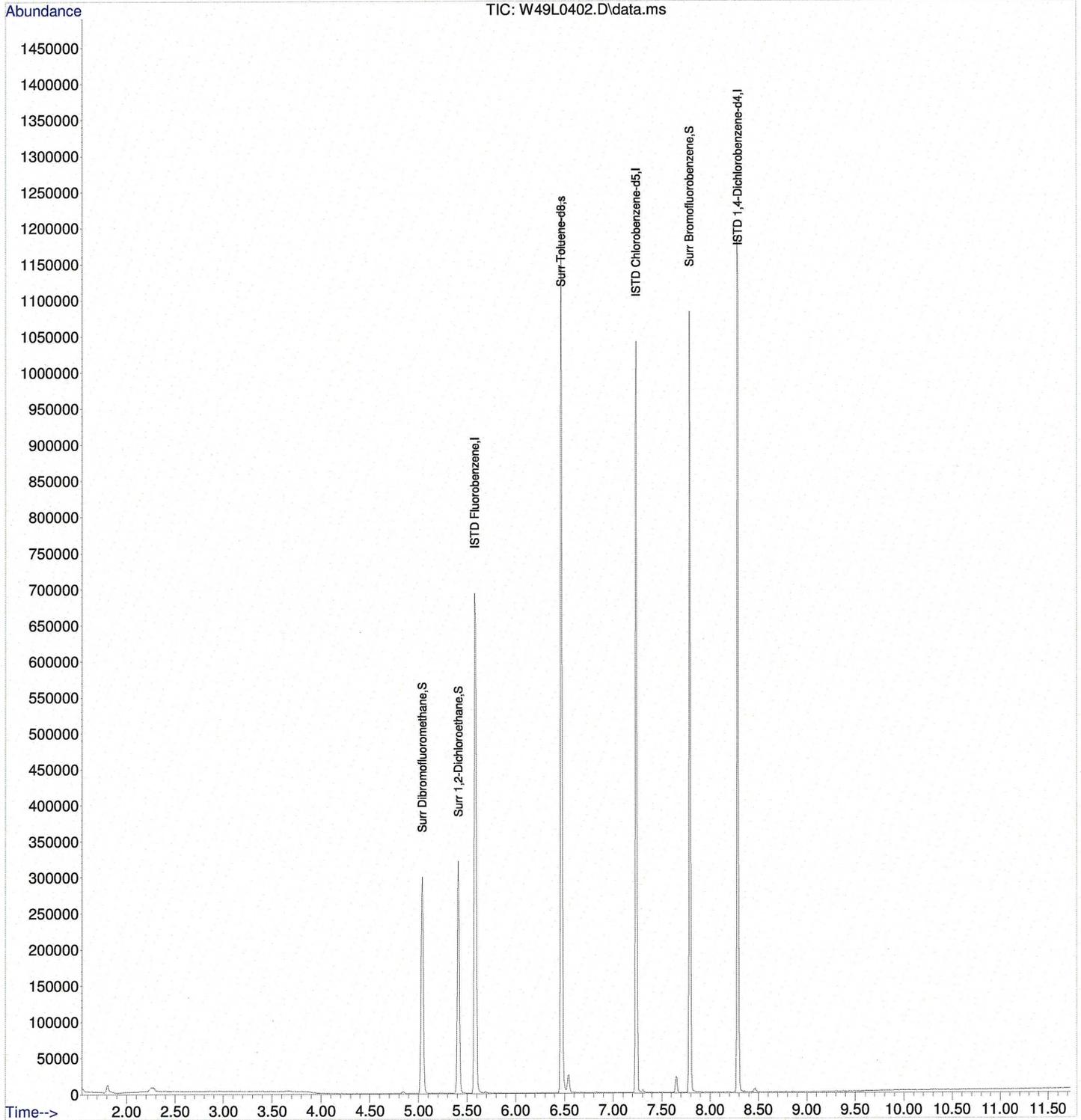
**Contact:** Garrin Palmer  
**Dept:** MSVOA  
**QC Type:** MSD

Sample ID	Analyte	Units	Method	Result	Amount Spiked	Original Amount	%REC	Limits	%RPD	RPD Limit	Qual	Date Analyzed
1203040-002CMSD	Tetrahydrofuran	µg/L	SW8260C	16.8	20.00	0	84.0	43-146	3.82	25		3/6/2012 1112h
1203040-002CMSD	Surr: 1,2-Dichloroethane-d4	%REC	SW8260C	56.1	50.00		112	72-151				3/6/2012 1112h
1203040-002CMSD	Surr: 4-Bromofluorobenzene	%REC	SW8260C	50.9	50.00		102	80-128				3/6/2012 1112h
1203040-002CMSD	Surr: Dibromofluoromethane	%REC	SW8260C	53.9	50.00		108	80-124				3/6/2012 1112h
1203040-002CMSD	Surr: Toluene-d8	%REC	SW8260C	47.9	50.00		95.8	77-129				3/6/2012 1112h

Quantitation Report (QT Reviewed)

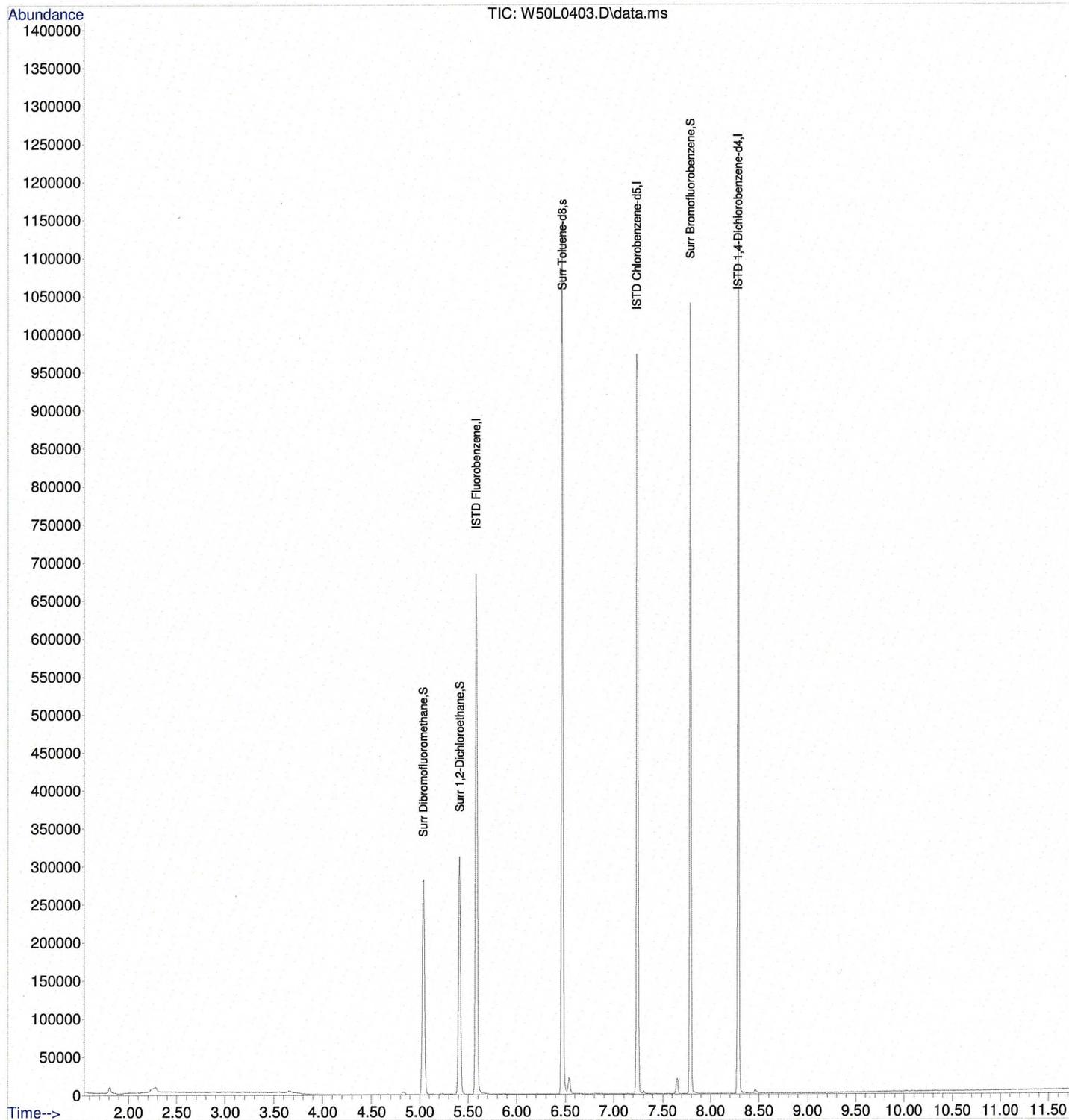
Data Path : C:\msdchem\1\DATA\MAR12-C\06MAR12A\  
Data File : W49L0402.D  
Acq On : 6 Mar 2012 9:38 am  
Operator :  
Sample : 1203040-002C  
Misc : SAMP 5.0ML 1OF3 JO  
ALS Vial : 10 Sample Multiplier: 1

Quant Time: Mar 06 10:47:42 2012  
Quant Method : C:\MSDCHEM\1\METHODS\AFULLW\_52.M  
Quant Title : VOA Calibration  
QLast Update : Thu Mar 01 11:05:52 2012  
Response via : Initial Calibration



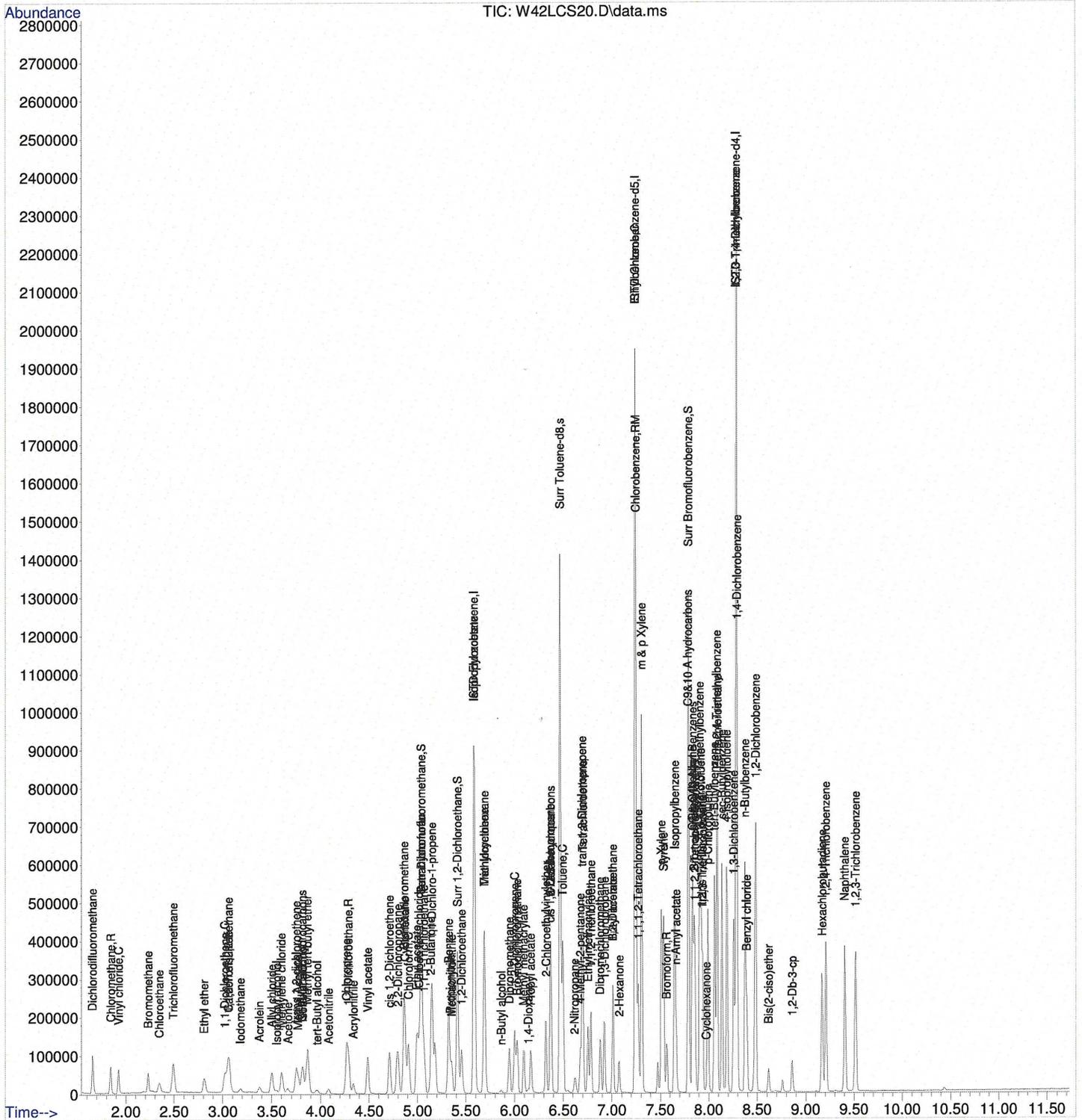
Data Path : C:\msdchem\1\DATA\MAR12-C\06MAR12A\  
 Data File : W50L0403.D  
 Acq On : 6 Mar 2012 9:57 am  
 Operator :  
 Sample : 1203040-003A  
 Misc : SAMP 5.0ML 1OF3 JO  
 ALS Vial : 11 Sample Multiplier: 1

Quant Time: Mar 06 10:48:15 2012  
 Quant Method : C:\MSDCHEM\1\METHODS\AFULLW\_52.M  
 Quant Title : VOA Calibration  
 QLast Update : Thu Mar 01 11:05:52 2012  
 Response via : Initial Calibration



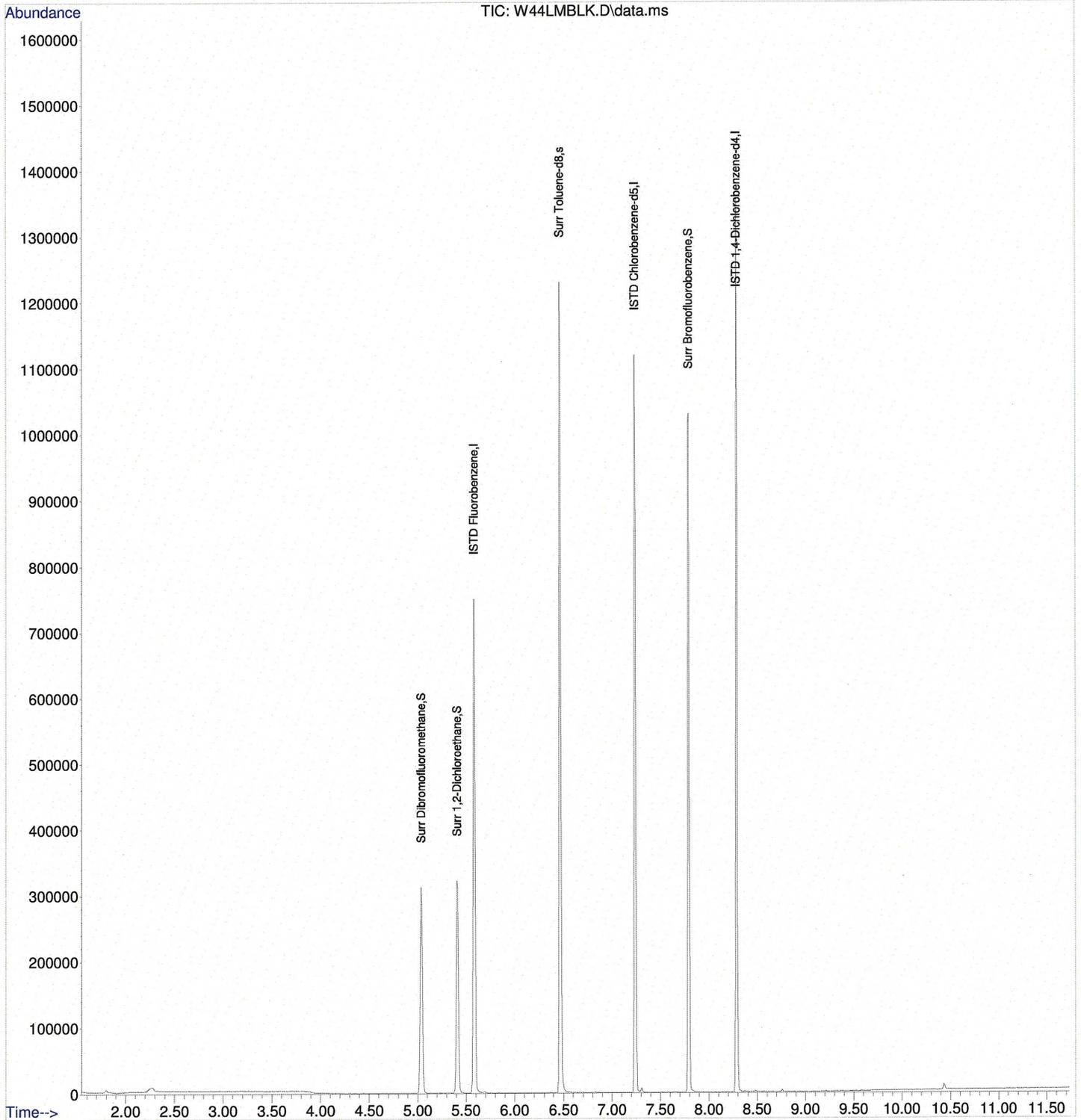
Data Path : C:\msdchem\1\DATA\MAR12-C\06MAR12A\  
 Data File : W42LCS20.D  
 Acq On : 6 Mar 2012 7:26 am  
 Operator :  
 Sample : LCS VOC 030612A  
 Misc : LCS SEE COVERSHEET FOR ID AND AMOUNTS JO  
 ALS Vial : 3 Sample Multiplier: 1

Quant Time: Mar 06 08:07:19 2012  
 Quant Method : C:\MSDCHEM\1\METHODS\AFULLW\_52.M  
 Quant Title : VOA Calibration  
 QLast Update : Thu Mar 01 11:05:52 2012  
 Response via : Initial Calibration



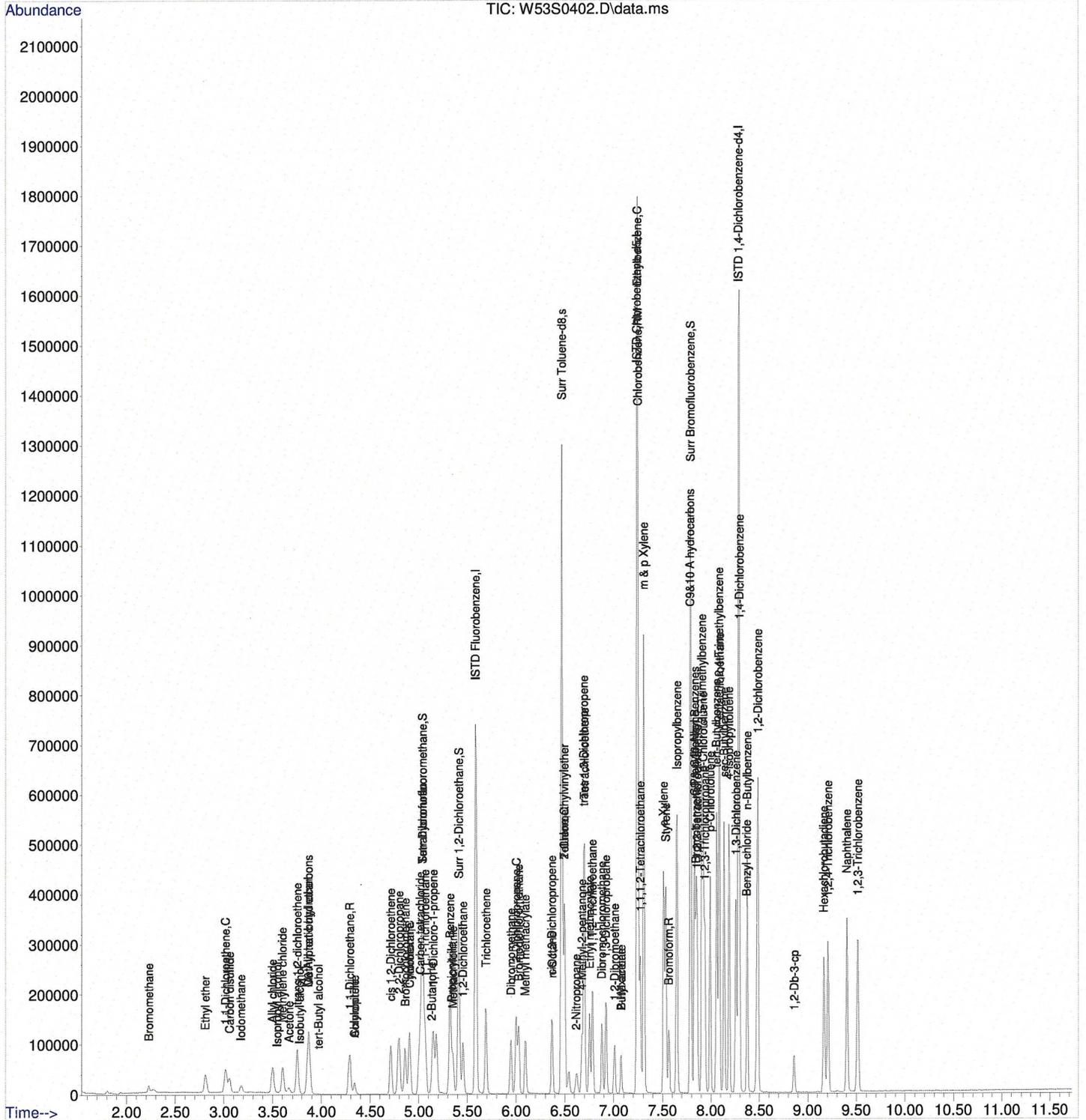
Data Path : C:\msdchem\1\DATA\MAR12-C\06MAR12A\  
Data File : W44LMBLK.D  
Acq On : 6 Mar 2012 8:03 am  
Operator :  
Sample : MB VOC 030612A  
Misc : MBLK 5.0ML JO  
ALS Vial : 5 Sample Multiplier: 1

Quant Time: Mar 06 10:44:37 2012  
Quant Method : C:\MSDCHEM\1\METHODS\AFULLW\_52.M  
Quant Title : VOA Calibration  
QLast Update : Thu Mar 01 11:05:52 2012  
Response via : Initial Calibration



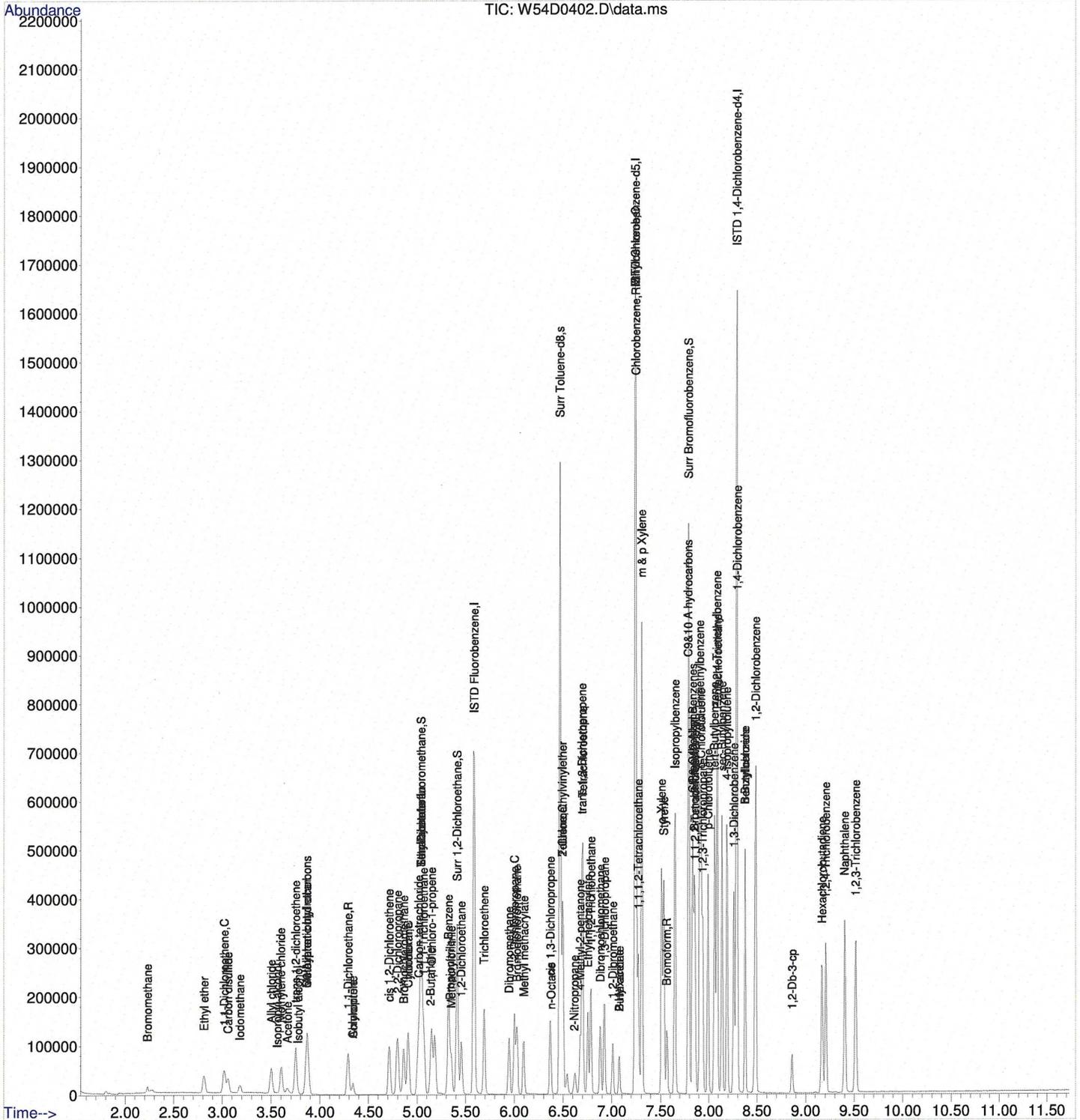
Data Path : C:\msdchem\1\DATA\MAR12-C\06MAR12A\  
 Data File : W53S0402.D  
 Acq On : 6 Mar 2012 10:54 am  
 Operator :  
 Sample : 1203040-002CMS  
 Misc : MS 5.0ML 2OF3 JO  
 ALS Vial : 14 Sample Multiplier: 1

Quant Time: Mar 06 11:05:54 2012  
 Quant Method : C:\MSDCHEM\1\METHODS\AFULLW\_52.M  
 Quant Title : VOA Calibration  
 QLast Update : Thu Mar 01 11:05:52 2012  
 Response via : Initial Calibration



Data Path : C:\msdchem\1\DATA\MAR12-C\06MAR12A\  
Data File : W54D0402.D  
Acq On : 6 Mar 2012 11:12 am  
Operator :  
Sample : 1203040-002CMSD  
Misc : MSD 5.0ML 30F3 JO  
ALS Vial : 15 Sample Multiplier: 1

Quant Time: Mar 06 11:24:45 2012  
Quant Method : C:\MSDCHEM\1\METHODS\AFULLW\_52.M  
Quant Title : VOA Calibration  
QLast Update : Thu Mar 01 11:05:52 2012  
Response via : Initial Calibration



# American West Analytical Laboratories

UL  
Denison

## WORK ORDER Summary

Work Order: **1203040**

Client: Denison Mines

Page 1 of 1 3/9/2012

Client ID: DEN100

Contact: Garrin Palmer

Project: 1st Quarter Ground Water 2012

QC Level: LEVEL III

WO Type: Project

Comments: PA Rush. QC 3 & Summary. EDD-CSV. Report Special VOC DLs (see attached); No digestion on metals per Pat (except Hg); Metals samples field filtered; DB

Sample ID	Client Sample ID	Collected Date	Received Date	Date Due	Matrix	Test Code	Sel	Storage	
1203040-001A	MW-18 SEL Analytes: TL	2/27/2012 1340h	3/5/2012 1030h	3/14/2012	Aqueous	200.8-DIS	<input checked="" type="checkbox"/>	df - metals	1
1203040-002A	MW-37 SEL Analytes: NH3N	2/29/2012 1300h				NH3-W-350.1	<input checked="" type="checkbox"/>	df - no2/no3 / nh3	
						NH3-W-PR	<input type="checkbox"/>	df - no2/no3 / nh3	
						NO2/NO3-W-353.2	<input checked="" type="checkbox"/>	df - no2/no3 / nh3	
	SEL Analytes: NO3NO2N								
1203040-002B	SEL Analytes: CA CR FE MG MO K NA SN V					200.7-DIS	<input checked="" type="checkbox"/>	DIS MET	
	SEL Analytes: AS BE CD CO CU PB MN NI SE AG TL U ZN					200.8-DIS	<input checked="" type="checkbox"/>	DIS MET	
	SEL Analytes: HG					HG-DW-DIS-245.1	<input checked="" type="checkbox"/>	DIS MET	
						HG-DW-DIS-PR	<input type="checkbox"/>	DIS MET	
1203040-002C						8260-W	<input checked="" type="checkbox"/>	voc	3
1203040-002D	SEL Analytes: CL F SO4					300.0-W	<input checked="" type="checkbox"/>	df - wc	1
	SEL Analytes: ALKB ALKC					ALK-W-2320B	<input checked="" type="checkbox"/>	df - wc	
1203040-002E	SEL Analytes: TDS					TDS-W-2540C	<input checked="" type="checkbox"/>	ww - tds	
1203040-003A	Trip Blank	2/29/2012				8260-W	<input checked="" type="checkbox"/>	voc	3



Lab Set ID: 1203040

*DB 3/5/2*

<b>Samples Were:</b>		<b>COC Tape Was:</b>		<b>Container Type:</b>		<b>No. Rec.</b>	
<input checked="" type="checkbox"/> Shipped By: <i>Fed Ex</i>		<b>Present on Outer Package</b>		<input type="checkbox"/> AWAL Supplied Plastic			
<input type="checkbox"/> Hand Delivered		<input checked="" type="checkbox"/> Yes <input type="checkbox"/> No <input type="checkbox"/> N/A		<input type="checkbox"/> AWAL Supplied Clear Glass			
<input type="checkbox"/> Ambient		<b>Unbroken on Outer package</b>		<input type="checkbox"/> AWAL Supplied Amber Glass			
<input checked="" type="checkbox"/> Chilled		<input checked="" type="checkbox"/> Yes <input type="checkbox"/> No <input type="checkbox"/> N/A		<input type="checkbox"/> AWAL Supplied VOA/TOC/TOX Vials			
Temperature <i>4.0</i> °C		<b>Present on Sample</b>		<input type="checkbox"/> Amber <input type="checkbox"/> Clear <input type="checkbox"/> Headspace <input type="checkbox"/> No Headspace			
Rec. Broken/Leaking <input type="checkbox"/> Yes <input checked="" type="checkbox"/> No <input type="checkbox"/> N/A		<input type="checkbox"/> Yes <input checked="" type="checkbox"/> No <input type="checkbox"/> N/A		<input type="checkbox"/> Non AWAL Supplied Container			
<b>Notes:</b>		<b>Unbroken on Sample</b>		<b>Notes:</b>			
<input checked="" type="checkbox"/> Properly Preserved <input checked="" type="checkbox"/> Yes <input type="checkbox"/> No <input type="checkbox"/> N/A		<input type="checkbox"/> Yes <input type="checkbox"/> No <input checked="" type="checkbox"/> N/A					
<b>Notes:</b>		<b>Notes:</b>					
Rec. Within Hold <input checked="" type="checkbox"/> Yes <input type="checkbox"/> No				<b>Discrepancies Between Labels and COC</b>		<input type="checkbox"/> Yes <input checked="" type="checkbox"/> No	
<b>Notes:</b>				<b>Notes:</b>			

Bottle Type	Preservative	All pHs OK	-001	-002													
Ammonia	pH <2 H <sub>2</sub> SO <sub>4</sub>			<i>yes</i>													
COD	pH <2 H <sub>2</sub> SO <sub>4</sub>			<i>yes</i>													
Cyanide	PH >12 NaOH																
Metals	pH <2 HNO <sub>3</sub>		<i>yes</i>	<i>yes</i>													
NO <sub>2</sub> & NO <sub>3</sub>	pH <2 H <sub>2</sub> SO <sub>4</sub>		<i>yes</i>	<i>yes</i>													
Nutrients	pH <2 H <sub>2</sub> SO <sub>4</sub>			<i>yes</i>													
O & G	pH <2 HCL																
Phenols	pH <2 H <sub>2</sub> SO <sub>4</sub>																
Sulfide	pH > 9NaOH, ZnAC																
TKN	pH <2 H <sub>2</sub> SO <sub>4</sub>																
TOC	pH <2 H <sub>3</sub> PO <sub>4</sub>																
T PO <sub>4</sub>	pH <2 H <sub>2</sub> SO <sub>4</sub>																
TPH	pH <2 HCL																

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



Garrin Palmer  
Denison Mines  
1050 17th Street, # 950  
Denver, CO 80265  
TEL: (303) 389-4132

RE: 1st Quarter Ground Water 2012

Dear Garrin Palmer:

Lab Set ID: 1203144

463 West 3600 South  
Salt Lake City, UT 84115

American West Analytical Laboratories received 3 sample(s) on 3/9/2012 for the analyses presented in the following report.

Phone: (801) 263-8686  
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Fax: (801) 263-8687  
e-mail: awal@awal-labs.com

All analyses were performed in accordance to The NELAC Institute protocols unless noted otherwise. American West Analytical Laboratories is accredited by The NELAC Institute in Utah and Texas; and is state accredited in Colorado, Idaho, and Missouri. Accreditation documents are available upon request. If you have any questions or concerns regarding this report please feel free to call.

web: www.awal-labs.com

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

Kyle F. Gross  
Laboratory Director

Jose Rocha  
QA Officer

Thank You,

Approved by:

Digitally signed by Jose G. Rocha  
DN: cn=Jose G. Rocha, o=American West Analytical Laboratories, ou=Quality Assurance Officer, email=jose@awal-labs.com, c=US  
Date: 2012.03.14 14:16:35 -06'00'

**Jose G.  
Rocha**

Laboratory Director or designee



## SAMPLE SUMMARY

**Client:** Denison Mines  
**Project:** 1st Quarter Ground Water 2012  
**Lab Set ID:** 1203144  
**Date Received:** 3/9/2012 950h

**Contact:** Garrin Palmer

Lab Sample ID	Client Sample ID	Date Collected	Matrix	Analysis
1203144-001A	MW-26	3/8/2012 908h	Aqueous	VOA by GC/MS Method 8260C/5030C
1203144-002A	MW-65	3/8/2012 908h	Aqueous	VOA by GC/MS Method 8260C/5030C
1203144-003A	Trip Blank	3/8/2012	Aqueous	VOA by GC/MS Method 8260C/5030C

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Kyle F. Gross  
Laboratory Director

Jose Rocha  
QA Officer



## Volatile Case Narrative

**Client:** Denison Mines  
**Contact:** Garrin Palmer  
**Project:** 1st Quarter Ground Water 2012  
**Lab Set ID:** 1203144

---

### **Sample Receipt Information:**

**Date of Receipt:** 3/9/2012  
**Date(s) of Collection:** 3/8/2012  
**Sample Condition:** Intact  
**C-O-C Discrepancies:** None  
**Method:** SW-846 8260C/5030C  
**Analysis:** Tetrahydrofuran

**General Set Comments:** Tetrahydrofuran was not observed above reporting limits.

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

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

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

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

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

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

**Surrogates:** All surrogate recoveries were within established limits.

**Corrective Action:** None required.

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Kyle F. Gross  
Laboratory Director

Jose Rocha  
QA Officer



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e-mail: awal@awal-labs.com, web: www.awal-labs.com

Kyle F. Gross  
Laboratory Director

Jose Rocha  
QA Officer

## QC SUMMARY REPORT

**Client:** Denison Mines  
**Lab Set ID:** 1203144  
**Project:** 1st Quarter Ground Water 2012

**Contact:** Garrin Palmer  
**Dept:** MSVOA  
**QC Type:** LCS

Sample ID	Analyte	Units	Method	Result	Amount Spiked	Original Amount	%REC	Limits	%RPD	RPD Limit	Qual	Date Analyzed
LCS VOC 031112A	Tetrahydrofuran	µg/L	SW8260C	18.2	20.00	0	90.8	43-146				3/11/2012 2214h
LCS VOC 031112A	Surr: 1,2-Dichloroethane-d4	%REC	SW8260C	54.9	50.00		110	72-136				3/11/2012 2214h
LCS VOC 031112A	Surr: 4-Bromofluorobenzene	%REC	SW8260C	50.8	50.00		102	77-121				3/11/2012 2214h
LCS VOC 031112A	Surr: Dibromofluoromethane	%REC	SW8260C	52.0	50.00		104	67-128				3/11/2012 2214h
LCS VOC 031112A	Surr: Toluene-d8	%REC	SW8260C	50.9	50.00		102	81-135				3/11/2012 2214h



463 West 3600 South  
Salt Lake City, UT 84115

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e-mail: awal@awal-labs.com, web: www.awal-labs.com

Kyle F. Gross  
Laboratory Director

Jose Rocha  
QA Officer

## QC SUMMARY REPORT

**Client:** Denison Mines  
**Lab Set ID:** 1203144  
**Project:** 1st Quarter Ground Water 2012

**Contact:** Garrin Palmer  
**Dept:** MSVOA  
**QC Type:** MBLK

Sample ID	Analyte	Units	Method	Result	Amount Spiked	Original Amount	%REC	Limits	%RPD	RPD Limit	Qual	Date Analyzed
MB VOC 031112A	Tetrahydrofuran	µg/L	SW8260C	< 1.00				-				3/11/2012 2252h
MB VOC 031112A	Surr: 1,2-Dichloroethane-d4	%REC	SW8260C	57.8	50.00		116	72-136				3/11/2012 2252h
MB VOC 031112A	Surr: 4-Bromofluorobenzene	%REC	SW8260C	51.6	50.00		103	77-121				3/11/2012 2252h
MB VOC 031112A	Surr: Dibromofluoromethane	%REC	SW8260C	51.6	50.00		103	67-128				3/11/2012 2252h
MB VOC 031112A	Surr: Toluene-d8	%REC	SW8260C	50.9	50.00		102	81-135				3/11/2012 2252h



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Kyle F. Gross  
Laboratory Director

Jose Rocha  
QA Officer

## QC SUMMARY REPORT

**Client:** Denison Mines

**Lab Set ID:** 1203144

**Project:** 1st Quarter Ground Water 2012

**Contact:** Garrin Palmer

**Dept:** MSVOA

**QC Type:** MS

Sample ID	Analyte	Units	Method	Result	Amount Spiked	Original Amount	%REC	Limits	%RPD	RPD Limit	Qual	Date Analyzed
1203144-001AMS	Tetrahydrofuran	µg/L	SW8260C	19.8	20.00	0	99.2	43-146				3/12/2012 626h
1203144-001AMS	Surr: 1,2-Dichloroethane-d4	%REC	SW8260C	59.6	50.00		119	72-151				3/12/2012 626h
1203144-001AMS	Surr: 4-Bromofluorobenzene	%REC	SW8260C	49.4	50.00		98.7	80-128				3/12/2012 626h
1203144-001AMS	Surr: Dibromofluoromethane	%REC	SW8260C	53.4	50.00		107	80-124				3/12/2012 626h
1203144-001AMS	Surr: Toluene-d8	%REC	SW8260C	49.9	50.00		99.9	77-129				3/12/2012 626h



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Kyle F. Gross  
Laboratory Director

Jose Rocha  
QA Officer

## QC SUMMARY REPORT

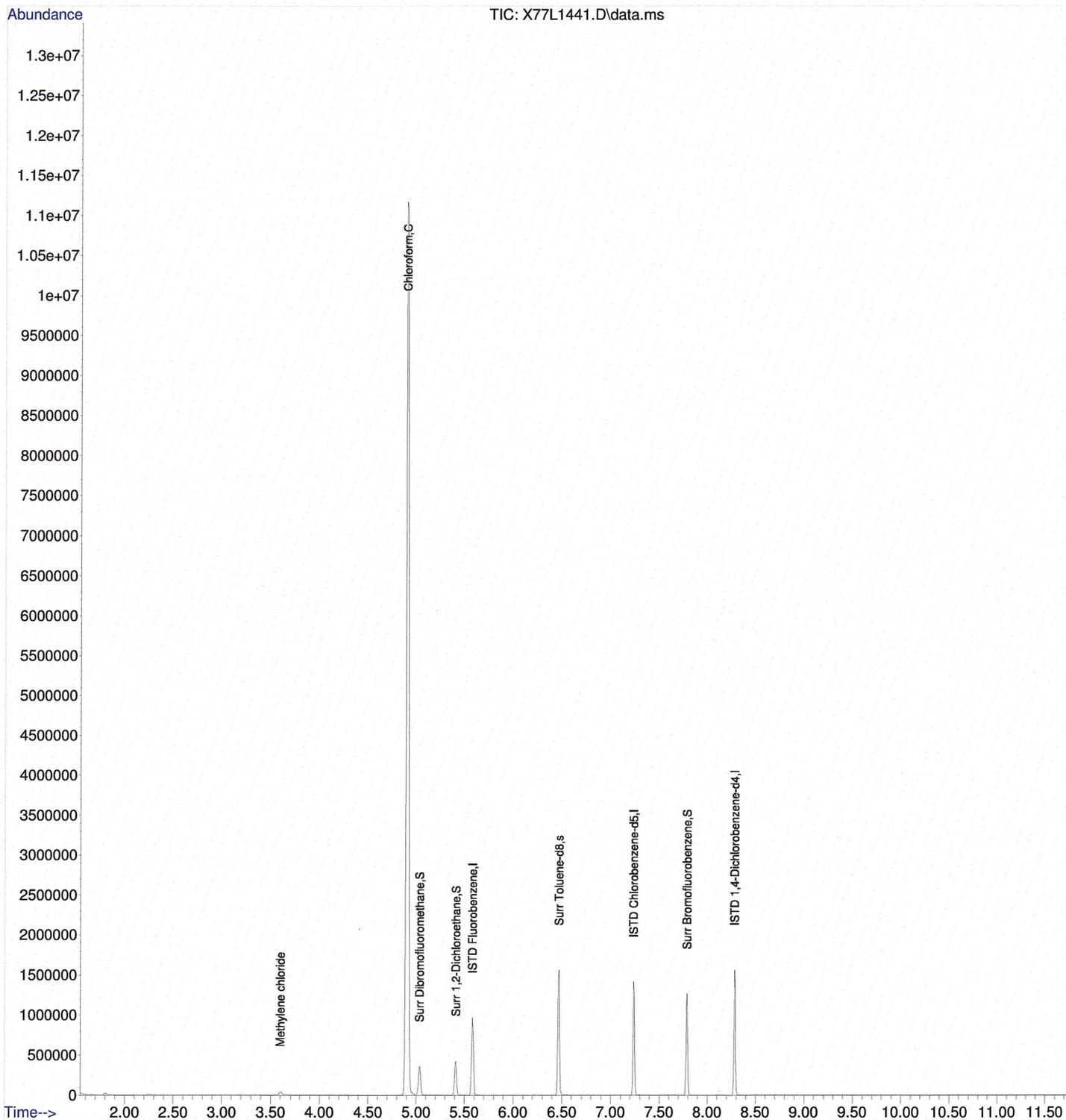
**Client:** Denison Mines  
**Lab Set ID:** 1203144  
**Project:** 1st Quarter Ground Water 2012

**Contact:** Garrin Palmer  
**Dept:** MSVOA  
**QC Type:** MSD

Sample ID	Analyte	Units	Method	Result	Amount Spiked	Original Amount	%REC	Limits	%RPD	RPD Limit	Qual	Date Analyzed
1203144-001AMSD	Tetrahydrofuran	µg/L	SW8260C	20.2	20.00	0	101	43-146	1.95	25		3/12/2012 645h
1203144-001AMSD	Surr: 1,2-Dichloroethane-d4	%REC	SW8260C	58.8	50.00		118	72-151				3/12/2012 645h
1203144-001AMSD	Surr: 4-Bromofluorobenzene	%REC	SW8260C	50.1	50.00		100	80-128				3/12/2012 645h
1203144-001AMSD	Surr: Dibromofluoromethane	%REC	SW8260C	53.4	50.00		107	80-124				3/12/2012 645h
1203144-001AMSD	Surr: Toluene-d8	%REC	SW8260C	50.1	50.00		100	77-129				3/12/2012 645h

Data Path : C:\msdchem\1\DATA\MAR12-C\11MAR12A\11MAR12A\  
 Data File : X77L1441.D  
 Acq On : 12 Mar 2012 5:30 am  
 Operator :  
 Sample : 1203144-001A  
 Misc : SAMP 5.0ML 1OF3 AAP  
 ALS Vial : 26 Sample Multiplier: 1

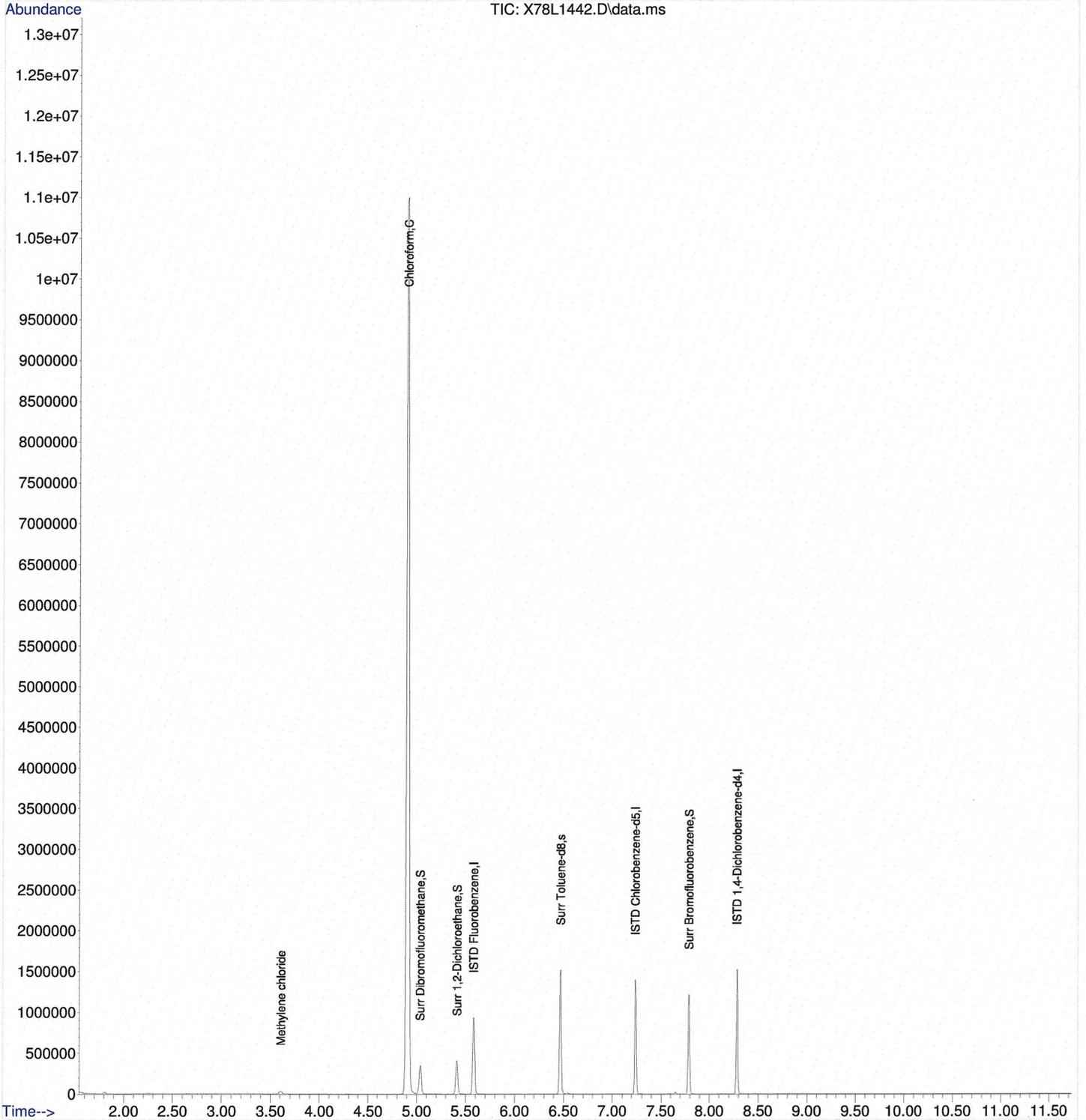
Quant Time: Mar 13 22:50:05 2012  
 Quant Method : C:\msdchem\1\METHODS\AFULLW\_53.M  
 Quant Title : VOA Calibration  
 QLast Update : Mon Mar 12 10:23:08 2012  
 Response via : Initial Calibration



Quantitation Report (QT Reviewed)

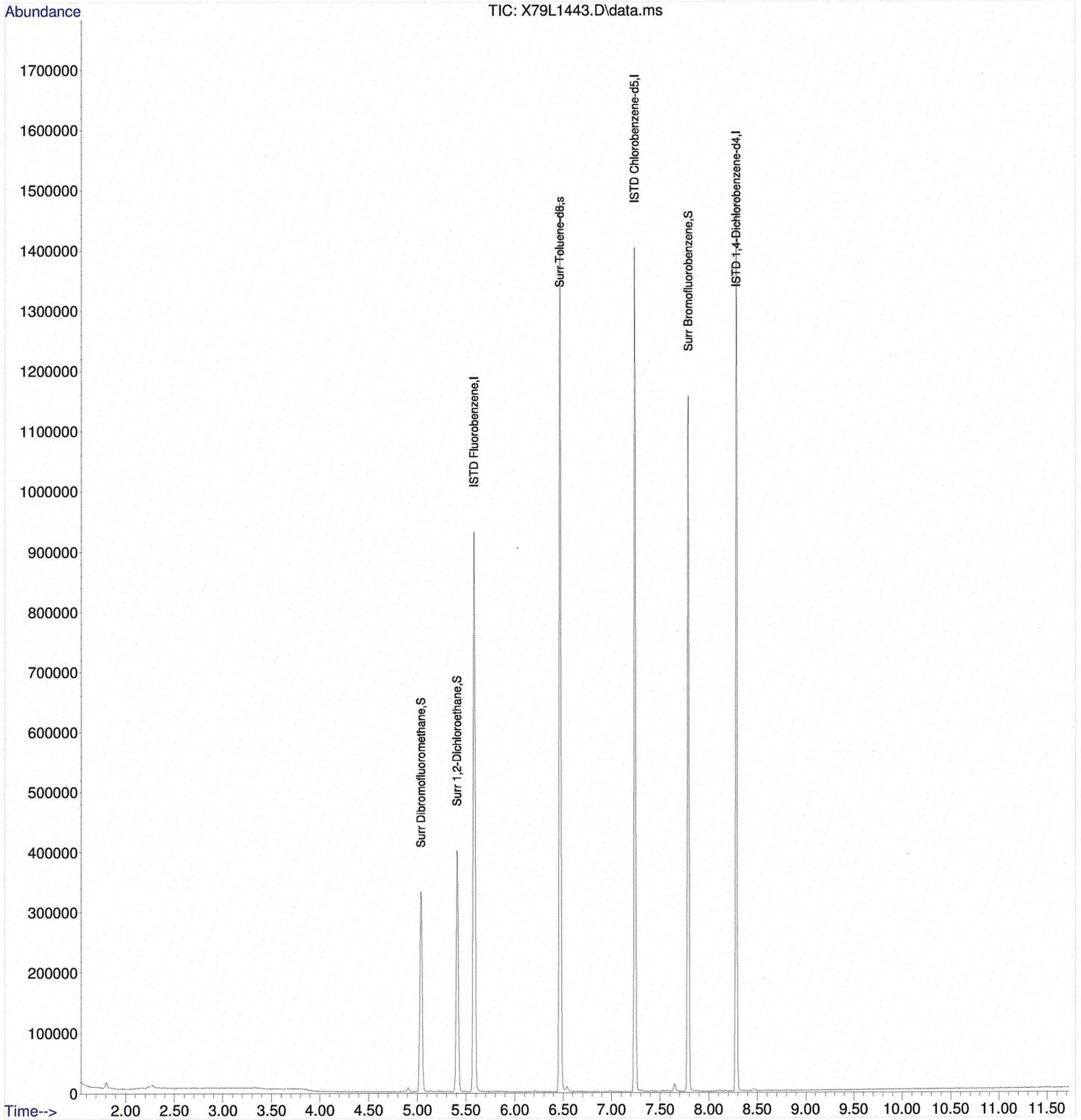
Data Path : C:\msdchem\1\DATA\MAR12-C\11MAR12A\11MAR12A\  
Data File : X78L1442.D  
Acq On : 12 Mar 2012 5:48 am  
Operator :  
Sample : 1203144-002A  
Misc : SAMP 5.0ML 10F3 AAP  
ALS Vial : 27 Sample Multiplier: 1

Quant Time: Mar 13 22:52:10 2012  
Quant Method : C:\msdchem\1\METHODS\AFULLW\_53.M  
Quant Title : VOA Calibration  
QLast Update : Mon Mar 12 10:23:08 2012  
Response via : Initial Calibration



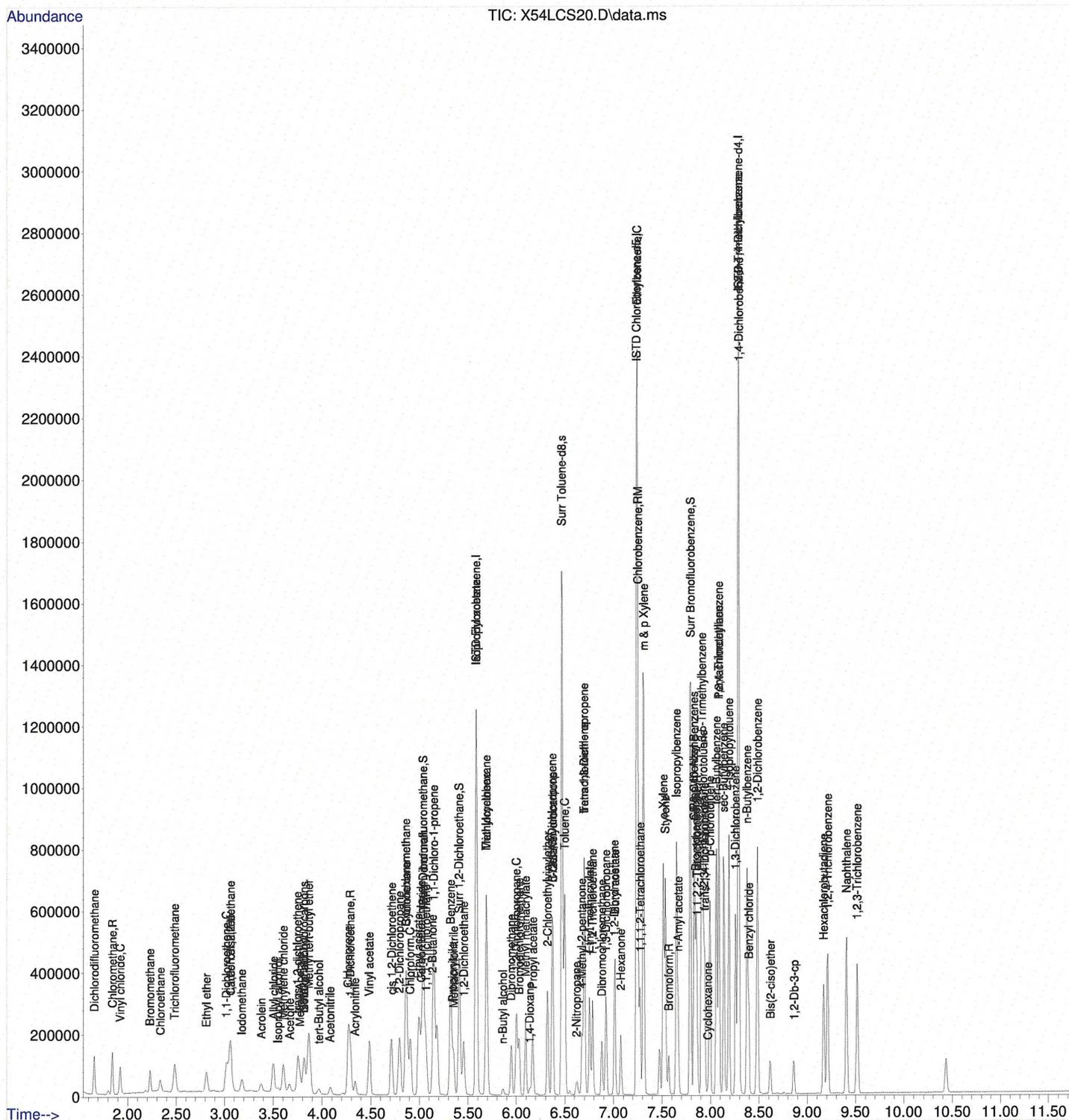
Data Path : C:\msdchem\1\DATA\MAR12-C\11MAR12A\11MAR12A\  
Data File : X79L1443.D  
Acq On : 12 Mar 2012 6:07 am  
Operator :  
Sample : 1203144-003A  
Misc : SAMP 5.0ML 1OF3 AAP  
ALS Vial : 28 Sample Multiplier: 1

Quant Time: Mar 13 22:53:34 2012  
Quant Method : C:\msdchem\1\METHODS\AFULLW\_53.M  
Quant Title : VOA Calibration  
QLast Update : Mon Mar 12 10:23:08 2012  
Response via : Initial Calibration



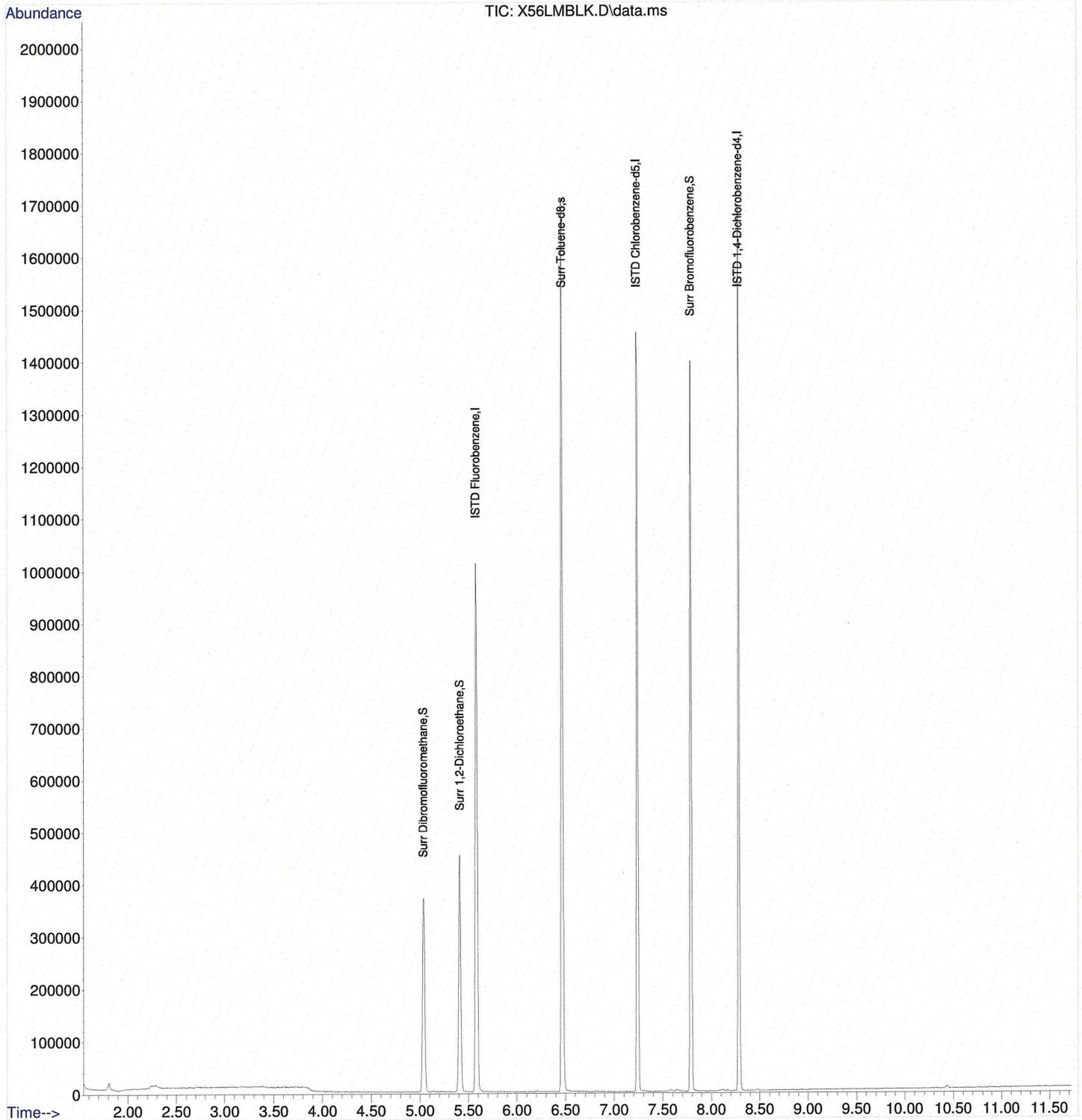
Data Path : C:\msdchem\1\DATA\MAR12-C\11MAR12A\  
 Data File : X54LCS20.D  
 Acq On : 11 Mar 2012 10:14 pm  
 Operator :  
 Sample : LCS VOC 031112A  
 Misc : LCS SEE COVERSHEET FOR ID AND AMOUNTS AAP  
 ALS Vial : 3 Sample Multiplier: 1

Quant Time: Mar 11 22:29:33 2012  
 Quant Method : C:\MSDCHEM\1\METHODS\AFULLW\_53.M  
 Quant Title : VOA Calibration  
 QLast Update : Sun Mar 11 20:47:59 2012  
 Response via : Initial Calibration



Data Path : C:\msdchem\1\DATA\MAR12-C\11MAR12A\  
Data File : X56LMBLK.D  
Acq On : 11 Mar 2012 10:52 pm  
Operator :  
Sample : MB VOC 031112A  
Misc : MBLK 5.0ML AAP  
ALS Vial : 5 Sample Multiplier: 1

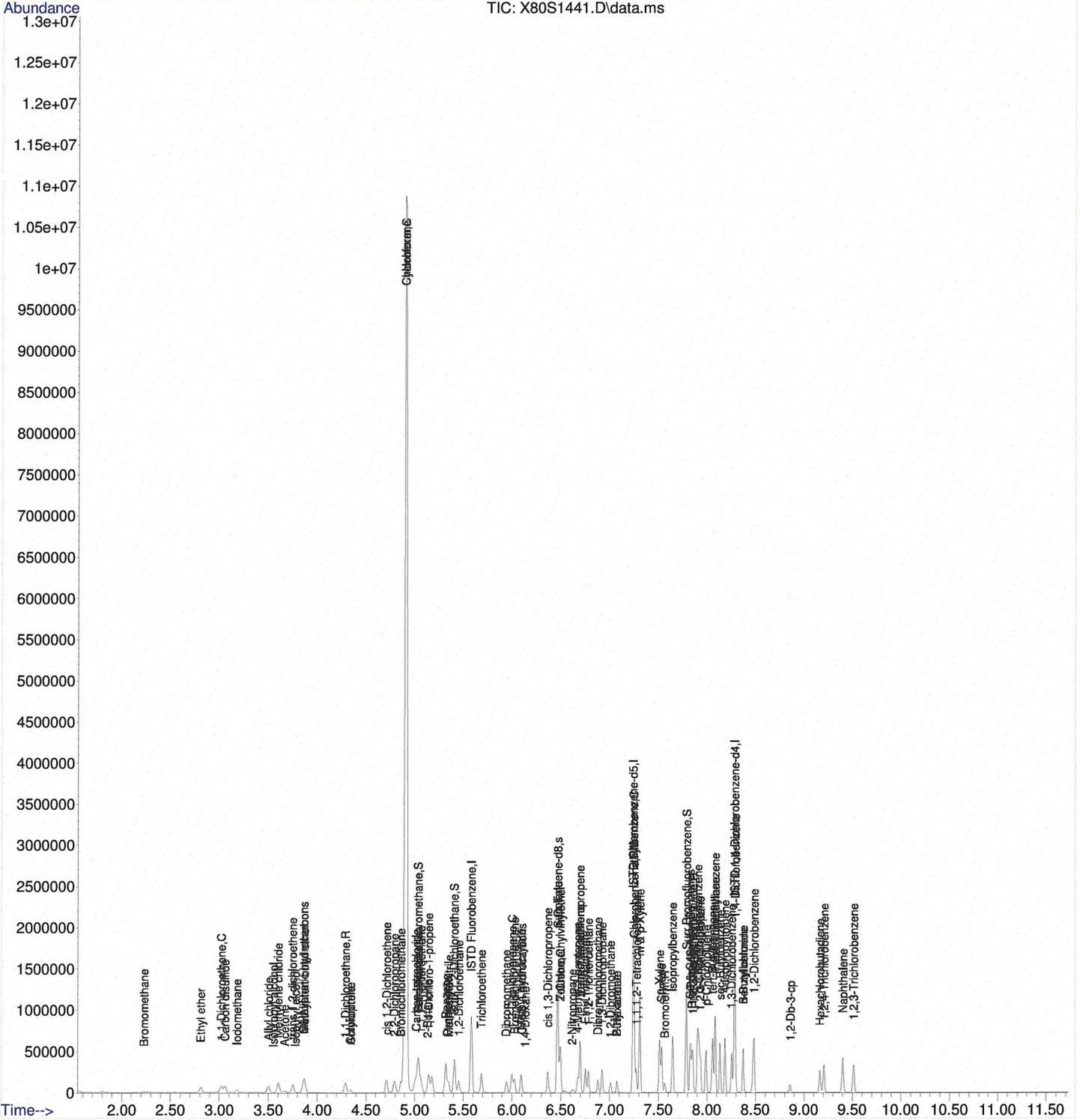
Quant Time: Mar 12 10:57:08 2012  
Quant Method : C:\msdchem\1\METHODS\AFULLW\_53.M  
Quant Title : VOA Calibration  
QLast Update : Mon Mar 12 10:23:08 2012  
Response via : Initial Calibration



Quantitation Report (Not Reviewed)

Data Path : C:\msdchem\1\DATA\MAR12-C\11MAR12A\11MAR12A\  
 Data File : X80S1441.D  
 Acq On : 12 Mar 2012 6:26 am  
 Operator :  
 Sample : 1203144-001AMS  
 Misc : MS 5.0ML 2OF3 AAP  
 ALS Vial : 29 Sample Multiplier: 1

Quant Time: Mar 12 11:04:25 2012  
 Quant Method : C:\msdchem\1\METHODS\AFULLW\_53.M  
 Quant Title : VOA Calibration  
 QLast Update : Mon Mar 12 10:23:08 2012  
 Response via : Initial Calibration





# American West Analytical Laboratories

UL  
Denison

## WORK ORDER Summary

Work Order: **1203144**

Client: Denison Mines

Page 1 of 1 3/9/2012

Client ID: DEN100

Contact: Garrin Palmer

Project: 1st Quarter Ground Water 2012

QC Level: LEVEL III

WO Type: Project

Comments: PA Rush. QC 3 & Summary. EDD-CSV. Report THF to 1 µg/L.;

*Handwritten initials*

*DB*

Sample ID	Client Sample ID	Collected Date	Received Date	Date Due	Matrix	Test Code	Sel	Storage	
1203144-001A	MW-26	3/8/2012 0908h	3/9/2012 0950h	3/20/2012	Aqueous	8260-W	<input checked="" type="checkbox"/>	VOCFridge	3
1203144-002A	MW-65					8260-W	<input checked="" type="checkbox"/>	VOCFridge	
1203144-003A	Trip Blank	3/8/2012				8260-W	<input checked="" type="checkbox"/>	VOCFridge	







Kathy Weinel  
Denison Mines  
1050 17th Street, # 950  
Denver, CO 80265  
TEL: (303) 389-4132

RE: 1st Quarter GW 2012

Dear Kathy Weinel:

Lab Set ID: 1205180

463 West 3600 South  
Salt Lake City, UT 84115

American West Analytical Laboratories received 4 sample(s) on 5/10/2012 for the analyses presented in the following report.

Phone: (801) 263-8686  
Toll Free: (888) 263-8686  
Fax: (801) 263-8687  
e-mail: awal@awal-labs.com

All analyses were performed in accordance to The NELAC Institute protocols unless noted otherwise. American West Analytical Laboratories is accredited by The NELAC Institute in Utah and Texas; and is state accredited in Colorado, Idaho, and Missouri. Accreditation documents are available upon request. If you have any questions or concerns regarding this report please feel free to call.

web: www.awal-labs.com

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

Kyle F. Gross  
Laboratory Director

Jose Rocha  
QA Officer

Thank You,

Approved by:

**Jose G.  
Rocha**

Digitally signed by Jose G. Rocha  
DN: cn=Jose G. Rocha,  
o=American West Analytical  
Laboratories, ou=Quality  
Assurance Officer,  
email=jose@awal-labs.com,  
c=US  
Date: 2012.05.10 15:11:21  
-06'00'

Laboratory Director or designee



## SAMPLE SUMMARY

**Client:** Denison Mines  
**Project:** 1st Quarter GW 2012  
**Lab Set ID:** 1205180  
**Date Received:** 5/10/2012 1015h

**Contact:** Kathy Weinel

463 West 3600 South  
Salt Lake City, UT 84115

Lab Sample ID	Client Sample ID	Date Collected	Matrix	Analysis
1205180-001A	MW 14	2/21/2012 1030h	Aqueous	ICPMS Metals, Total
1205180-002A	MW 36	2/20/2012 1320h	Aqueous	ICPMS Metals, Total
1205180-004A	MW 70	2/21/2012 1030h	Aqueous	ICPMS Metals, Total

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Fax: (801) 263-8687  
e-mail: awal@awal-labs.com

web: www.awal-labs.com

Kyle F. Gross  
Laboratory Director

Jose Rocha  
QA Officer



## Inorganic Case Narrative

**Client:** Denison Mines  
**Contact:** Kathy Weinel  
**Project:** 1st Quarter GW 2012  
**Lab Set ID:** 1205180

---

463 West 3600 South  
Salt Lake City, UT 84115

### **Sample Receipt Information:**

**Date of Receipt:** 5/10/2012  
**Date of Collection:** 2/20 & 2/21/2012  
**Sample Condition:** Intact  
**C-O-C Discrepancies:** None

Phone: (801) 263-8686  
Toll Free: (888) 263-8686  
Fax: (801) 263-8687  
e-mail: awal@awal-labs.com

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

web: www.awal-labs.com

**Preparation and Analysis Requirements:** The samples were analyzed following the methods stated on the analytical reports. By client request, a digestion was not performed for method 200.8.

Kyle F. Gross  
Laboratory Director

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

Jose Rocha  
QA Officer

**Corrective Action:** None required.

# American West Analytical Laboratories

UL  
Denison

## WORK ORDER Summary

Work Order: **1205180**

Client: Denison Mines

Page 1 of 1 5/10/2012

Client ID: DEN100

Contact: Kathy Weinel

Project: 1st Quarter GW 2012

QC Level: LEVEL III

WO Type: Standard

Comments: PA Rush. QC 3 & Summary. EDD-Denison. CC kathy.weinel@gmail.com; *for*

*LB*

Sample ID	Client Sample ID	Collected Date	Received Date	Date Due	Matrix	Test Code	Sel	Storage
1205180-001A	MW 14 SEL Analytes: SN	2/21/2012 1030h	5/10/2012 1015h	5/21/2012	Aqueous	200.8-W	<input checked="" type="checkbox"/>	df - metals 1
1205180-002A	MW 36 SEL Analytes: SN	2/20/2012 1320h				200.8-W	<input checked="" type="checkbox"/>	df - metals
1205180-003A	MW 37	2/29/2012 1300h					<input type="checkbox"/>	hold
1205180-004A	MW 70 SEL Analytes: SN	2/21/2012 1030h		5/21/2012		200.8-W	<input checked="" type="checkbox"/>	df - metals



# Chain of Custody and Analytical Request Record

1205180

Page \_\_\_\_ of \_\_\_\_

PLEASE PRINT- Provide as much information as possible.

Company Name: <i>Denison Mines</i>	Project Name, PWS, Permit, Etc. <i>1st QUARTER GW 2012 - added per Kathy Weinel - 2w</i>	Sample Origin State:	EPA/State Compliance: Yes <input type="checkbox"/> No <input type="checkbox"/>
Report Mail Address:	Contact Name: <i>Kathy Weinel</i>	Phone/Fax: <i>303-389-4120</i>	Email: Sampler: (Please Print)
Invoice Address:	Invoice Contact & Phone:	Purchase Order:	Quote/Bottle Order:

Special Report/Formats – ELI must be notified prior to sample submittal for the following:			ANALYSIS REQUESTED	SEE ATTACHED	Normal Turnaround (TAT)	RUSH	Contact ELI prior to RUSH sample submittal for charges and scheduling – See Instruction Page	Shipped by:	
<input type="checkbox"/> DW <input type="checkbox"/> A2LA <input type="checkbox"/> GSA <input type="checkbox"/> EDD/EDT (Electronic Data) <input type="checkbox"/> POTW/WWTP <b>Format:</b> _____ <input type="checkbox"/> State: _____ <input type="checkbox"/> LEVEL IV <input type="checkbox"/> Other: _____ <input type="checkbox"/> NELAC							Number of Containers Sample Type: A W S V B O Air Water Soils/Solids Vegetation Bioassay Other	Comments:	Receipt Temp _____ °C
SAMPLE IDENTIFICATION (Name, Location, Interval, etc.)	Collection Date	Collection Time	MATRIX						
1 <i>MW 14</i>	<i>2-21-12</i>	<i>10:30</i>	<i>GW</i>	<i>1</i>					
2 <i>MW 36</i>	<i>2-20-12</i>	<i>13:20</i>	<i>↓</i>	<i>1</i>					
3 <i>MW 37</i>	<i>2-29-12</i>	<i>13:00</i>	<i>↓</i>				<i>HOLD per Kathy Weinel - 2w 5/10/12</i>		
4 <i>MW 70</i>	<i>2-21-12</i>	<i>10:30</i>	<i>↓</i>	<i>1</i>					
5									
6									
7									
8									
9	<i>Relinquishing samples to AWWAL as requested by Kathy Weinel on 5-9-12.</i>								
10									

Custody Record MUST be Signed	Relinquished by (print): <i>Herm Schmeider</i>	Date/Time: <i>5-9-12 11:15</i>	Signature:	Received by (print): <i>Denise Brown</i>	Date/Time: <i>5/10/12 10:15</i>	Signature:
	Relinquished by (print):	Date/Time:	Signature:	Received by (print):	Date/Time:	Signature:
	Sample Disposal: Return to Client:	Lab Disposal:				

In certain circumstances, samples submitted to Energy Laboratories, Inc. may be subcontracted to other certified laboratories in order to complete the analysis requested. This serves as notice of this possibility. All sub-contract data will be clearly notated on your analytical report. Visit our web site at [www.energylab.com](http://www.energylab.com) for additional information, downloadable fee schedule, forms, and links.

Lab Set ID: 1205180

DB5/10/12

<b>Samples Were:</b>		<b>COC Tape Was:</b>		<b>Container Type:</b>		No. Rec.
<input checked="" type="checkbox"/> Shipped By: <u>Fed Ex</u>		<b>Present on Outer Package</b>		<input type="checkbox"/> AWAL Supplied Plastic		
<input type="checkbox"/> Hand Delivered		<input checked="" type="checkbox"/> Yes <input type="checkbox"/> No <input type="checkbox"/> N/A		<input type="checkbox"/> AWAL Supplied Clear Glass		
<input type="checkbox"/> Ambient		<b>Unbroken on Outer package</b>		<input type="checkbox"/> AWAL Supplied Amber Glass		
<input checked="" type="checkbox"/> Chilled		<input checked="" type="checkbox"/> Yes <input type="checkbox"/> No <input type="checkbox"/> N/A		<input type="checkbox"/> AWAL Supplied VOA/TOC/TOX Vials		
Temperature <u>1.3</u> °C		<b>Present on Sample</b>		<input type="checkbox"/> Amber <input type="checkbox"/> Clear <input type="checkbox"/> Headspace <input type="checkbox"/> No Headspace		
Rec. Broken/Leaking <input type="checkbox"/> Yes <input checked="" type="checkbox"/> No <input type="checkbox"/> N/A		<input type="checkbox"/> Yes <input checked="" type="checkbox"/> No <input type="checkbox"/> N/A		<input type="checkbox"/> Non AWAL Supplied Container		
<b>Notes:</b>		<b>Unbroken on Sample</b>		<b>Notes:</b>		
<input type="checkbox"/> Yes <input type="checkbox"/> No <input checked="" type="checkbox"/> N/A		<input type="checkbox"/> Yes <input type="checkbox"/> No <input checked="" type="checkbox"/> N/A				
Properly Preserved <input checked="" type="checkbox"/> Yes <input type="checkbox"/> No <input type="checkbox"/> N/A		<b>Notes:</b>				
<b>Notes:</b>						
Rec. Within Hold <input checked="" type="checkbox"/> Yes <input type="checkbox"/> No				<b>Discrepancies Between Labels and COC</b>		<input type="checkbox"/> Yes <input checked="" type="checkbox"/> No
<b>Notes:</b>				<b>Notes:</b>		

Bottle Type	Preservative	All pHs OK	-001	-002	-003	-004												
Ammonia	pH <2 H <sub>2</sub> SO <sub>4</sub>																	
COD	pH <2 H <sub>2</sub> SO <sub>4</sub>																	
Cyanide	PH >12 NaOH																	
Metals	pH <2 HNO <sub>3</sub>		yes	yes	yes	yes												
NO <sub>2</sub> & NO <sub>3</sub>	pH <2 H <sub>2</sub> SO <sub>4</sub>																	
Nutrients	pH <2 H <sub>2</sub> SO <sub>4</sub>																	
O & G	pH <2 HCL																	
Phenols	pH <2 H <sub>2</sub> SO <sub>4</sub>																	
Sulfide	pH > 9NaOH, ZnAC																	
TKN	pH <2 H <sub>2</sub> SO <sub>4</sub>																	
TOC	pH <2 H <sub>3</sub> PO <sub>4</sub>																	
T PO <sub>4</sub>	pH <2 H <sub>2</sub> SO <sub>4</sub>																	
TPH	pH <2 HCL																	

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

## ANALYTICAL SUMMARY REPORT

March 20, 2012

Denison Mines USA Corp  
6425 S Hwy 191  
Blanding, UT 84511

Workorder No.: C12020833      Quote ID: C1640 - POC Wells

Project Name: 1st Quarter Groundwater 2012

Energy Laboratories, Inc. Casper WY received the following 13 samples for Denison Mines USA Corp on 2/24/2012 for analysis.

Sample ID	Client Sample ID	Collect Date	Receive Date	Matrix	Test
C12020833-001	MW-02	02/22/12 9:05	02/24/12	Aqueous	Gross Alpha minus Rn222 and Uranium
C12020833-002	MW-15	02/22/12 10:20	02/24/12	Aqueous	Metals by ICP, Dissolved
C12020833-003	MW-23	02/20/12 14:00	02/24/12	Aqueous	Metals by ICP-MS, Dissolved
C12020833-004	MW-24	02/23/12 6:50	02/24/12	Aqueous	Same As Above
C12020833-005	MW-29	02/22/12 11:50	02/24/12	Aqueous	Metals by ICP, Dissolved
C12020833-006	MW-32	02/21/12 13:15	02/24/12	Aqueous	Gross Alpha minus Rn222 and Uranium
C12020833-007	MW-14	02/21/12 10:30	02/24/12	Aqueous	Alkalinity QA Calculations Chloride Fluoride Metals by ICP, Dissolved Metals by ICP-MS, Dissolved Nitrogen, Ammonia Nitrogen, Nitrate + Nitrite pH Gross Alpha minus Rn222 and Uranium Solids, Total Dissolved Sulfate SW8260B VOCs, Standard List
C12020833-008	MW-36	02/20/12 13:20	02/24/12	Aqueous	Same As Above
C12020833-009	MW-70	02/21/12 10:30	02/24/12	Aqueous	Same As Above
C12020833-010	MW-26	02/21/12 14:10	02/24/12	Aqueous	Metals by ICP, Dissolved Metals by ICP-MS, Dissolved Gross Alpha minus Rn222 and Uranium
C12020833-011	MW-65	02/21/12 14:10	02/24/12	Aqueous	Same As Above
C12020833-012	Trip Blank 6706	02/20/12 0:00	02/24/12	Aqueous	SW8260B VOCs, Standard List
C12020833-013	Temp Blank	02/23/12 0:00	02/24/12	Aqueous	Temperature

## ANALYTICAL SUMMARY REPORT

The analyses presented in this report were performed at Energy Laboratories, Inc., 2393 Salt Creek Hwy., Casper, WY 82601, unless otherwise noted. Radiochemistry analyses were performed at Energy Laboratories, Inc., 2325 Kerzell Lane, Casper, WY 82601, unless otherwise noted. Any exceptions or problems with the analyses are noted in the Laboratory Analytical Report, the QA/QC Summary Report, or the Case Narrative.

The results as reported relate only to the item(s) submitted for testing. Solid/soil samples are reported on a wet weight basis (as received) unless specifically indicated. Data corrected for moisture content are typically noted as - dry on the report. For agricultural and mining soil parameters/characteristics, all samples are dried and ground prior to sample analysis.

If you have any questions regarding these test results, please call.

Report Approved By:

*Stephanie D Waldrop*  
Reporting Supervisor

Digitally signed by  
Stephanie Waldrop  
Date: 2012.03.20 13:09:39 -06:00

**CLIENT:** Denison Mines USA Corp  
**Project:** 1st Quarter Groundwater 2012  
**Sample Delivery Group:** C12020833

**Report Date:** 03/20/12

## CASE NARRATIVE

---

### ORIGINAL SAMPLE SUBMITTAL(S)

All original sample submittals have been returned with the data package.

### SAMPLE TEMPERATURE COMPLIANCE: 4 °C (±2 °C)

Temperature of samples received may not be considered properly preserved by accepted standards. Samples that are hand delivered immediately after collection shall be considered acceptable if there is evidence that the chilling process has begun.

### GROSS ALPHA ANALYSIS

Method 900.0 for gross alpha and gross beta is intended as a drinking water method for low TDS waters. Data provided by this method for non potable waters should be viewed as inconsistent.

### RADON IN AIR ANALYSIS

The desired exposure time is 48 hours (2 days). The time delay in returning the canister to the laboratory for processing should be as short as possible to avoid excessive decay. Maximum recommended delay between end of exposure to beginning of counting should not exceed 8 days.

### SOIL/SOLID SAMPLES

All samples reported on an as received basis unless otherwise indicated.

### ATRAZINE, SIMAZINE AND PCB ANALYSIS

Data for PCBs, Atrazine and Simazine are reported from EPA 525.2. PCB data reported by ELI reflects the results for seven individual Aroclors. When the results for all seven are ND (not detected), the sample meets EPA compliance criteria for PCB monitoring.

### SUBCONTRACTING ANALYSIS

Subcontracting of sample analyses to an outside laboratory may be required. If so, ENERGY LABORATORIES will utilize its branch laboratories or qualified contract laboratories for this service. Any such laboratories will be indicated within the Laboratory Analytical Report.

### BRANCH LABORATORY LOCATIONS

eli-b - Energy Laboratories, Inc. - Billings, MT  
eli-g - Energy Laboratories, Inc. - Gillette, WY  
eli-h - Energy Laboratories, Inc. - Helena, MT  
eli-r - Energy Laboratories, Inc. - Rapid City, SD  
eli-t - Energy Laboratories, Inc. - College Station, TX

### CERTIFICATIONS:

USEPA: WY00002, Radiochemical WY00937; FL-DOH NELAC: E87641, Radiochemical E871017; California: 02118CA; Oregon: WY200001, Radiochemical WY200002; Utah: WY00002; Virginia: 00057; Washington: C836

### ISO 17025 DISCLAIMER:

The results of this Analytical Report relate only to the items submitted for analysis.

ENERGY LABORATORIES, INC. - CASPER, WY certifies that certain method selections contained in this report meet requirements as set forth by the above accrediting authorities. Some results requested by the client may not be covered under these certifications. All analysis data to be submitted for regulatory enforcement should be certified in the sample state of origin. Please verify ELI's certification coverage by visiting [www.energylab.com](http://www.energylab.com)

ELI appreciates the opportunity to provide you with this analytical service. For additional information and services visit our web page [www.energylab.com](http://www.energylab.com).

### LABORATORY ANALYTICAL REPORT

Prepared by Casper, WY Branch

**Client:** Denison Mines USA Corp  
**Project:** 1st Quarter Groundwater 2012

**Report Date:** 03/20/12

**Lab ID:** C12020833-007  
**Client Sample ID:** MW-14

**Collection Date:** 02/21/12 10:30  
**DateReceived:** 02/24/12  
**Matrix:** Aqueous

Analyses	Result	Units	Qualifiers	RL	MCL/ QCL	Method	Analysis Date / By
<b>PHYSICAL PROPERTIES</b>							
pH	6.84	s.u.	H	0.01		A4500-H B	02/24/12 13:58 / wc

**Lab ID:** C12020833-008  
**Client Sample ID:** MW-36

**Collection Date:** 02/20/12 13:20  
**DateReceived:** 02/24/12  
**Matrix:** Aqueous

Analyses	Result	Units	Qualifiers	RL	MCL/ QCL	Method	Analysis Date / By
<b>PHYSICAL PROPERTIES</b>							
pH	7.09	s.u.	H	0.01		A4500-H B	02/24/12 14:01 / wc

**Lab ID:** C12020833-009  
**Client Sample ID:** MW-70

**Collection Date:** 02/21/12 10:30  
**DateReceived:** 02/24/12  
**Matrix:** Aqueous

Analyses	Result	Units	Qualifiers	RL	MCL/ QCL	Method	Analysis Date / By
<b>PHYSICAL PROPERTIES</b>							
pH	6.84	s.u.	H	0.01		A4500-H B	02/24/12 14:04 / wc

**Report Definitions:**  
 RL - Analyte reporting limit.  
 QCL - Quality control limit.  
 H - Analysis performed past recommended holding time.

MCL - Maximum contaminant level.  
 ND - Not detected at the reporting limit.

## QA/QC Summary Report

Prepared by Casper, WY Branch

**Client:** Denison Mines USA Corp  
**Project:** 1st Quarter Groundwater 2012

**Report Date:** 03/20/12  
**Work Order:** C12020833

Analyte	Count	Result	Units	RL	%REC	Low Limit	High Limit	RPD	RPDLimit	Qual
<b>Method: A2320 B</b> <span style="float: right;">Batch: R156853</span>										
<b>Sample ID: MBLK</b>	3	Method Blank								
Alkalinity, Total as CaCO3		ND	mg/L	5.0						Run: MANTECH_120228C 02/28/12 13:44
Carbonate as CO3		ND	mg/L	1.0						
Bicarbonate as HCO3		4.70	mg/L	1.0						
<b>Sample ID: LCS-6677</b>		Laboratory Control Sample								Run: MANTECH_120228C 02/28/12 13:58
Alkalinity, Total as CaCO3		200	mg/L	5.0	98	90	110			
<b>Sample ID: C12020833-007AMS</b>		Sample Matrix Spike								Run: MANTECH_120228C 02/28/12 14:31
Alkalinity, Total as CaCO3		507	mg/L	5.0	105	80	120			
<b>Sample ID: C12020888-002ADUP</b>	3	Sample Duplicate								Run: MANTECH_120228C 02/28/12 15:57
Alkalinity, Total as CaCO3		112	mg/L	5.0				0.6	10	
Carbonate as CO3		2.91	mg/L	5.0					10	
Bicarbonate as HCO3		131	mg/L	5.0				0.3	10	

**Qualifiers:**

RL - Analyte reporting limit.

ND - Not detected at the reporting limit.

MDC - Minimum detectable concentration

# QA/QC Summary Report

Prepared by Casper, WY Branch

**Client:** Denison Mines USA Corp

**Report Date:** 03/20/12

**Project:** 1st Quarter Groundwater 2012

**Work Order:** C12020833

Analyte	Count	Result	Units	RL	%REC	Low Limit	High Limit	RPD	RPDLimit	Qual
<b>Method: A2540 C</b>								Batch: 120224_1_SLDS-TDS-W		
<b>Sample ID: MBLK1_120224</b>		Method Blank					Run: BAL-1_120224A			02/24/12 14:25
Solids, Total Dissolved TDS @ 180 C		ND	mg/L	10						
<b>Sample ID: LCS1_120224</b>		Laboratory Control Sample					Run: BAL-1_120224A			02/24/12 14:25
Solids, Total Dissolved TDS @ 180 C		1690	mg/L	10	102	90	110			
<b>Sample ID: C12020823-001ADUP</b>		Sample Duplicate					Run: BAL-1_120224A			02/24/12 14:26
Solids, Total Dissolved TDS @ 180 C		3360	mg/L	13				0.4	5	
<b>Sample ID: C12020837-001AMS</b>		Sample Matrix Spike					Run: BAL-1_120224A			02/24/12 14:31
Solids, Total Dissolved TDS @ 180 C		2280	mg/L	10	102	90	110			

**Qualifiers:**

RL - Analyte reporting limit.

ND - Not detected at the reporting limit.

MDC - Minimum detectable concentration

## QA/QC Summary Report

Prepared by Casper, WY Branch

**Client:** Denison Mines USA Corp

**Report Date:** 03/20/12

**Project:** 1st Quarter Groundwater 2012

**Work Order:** C12020833

Analyte	Count	Result	Units	RL	%REC	Low Limit	High Limit	RPD	RPDLimit	Qual
<b>Method: A4500-CI B</b>								Batch: 120306-CL-TTR-W		
<b>Sample ID: MBLK9-120306</b>		Method Blank			Run: TITRATION_120306A			03/06/12 10:42		
Chloride		ND	mg/L	1.0						
<b>Sample ID: C12030065-009AMS</b>		Sample Matrix Spike			Run: TITRATION_120306A			03/06/12 11:08		
Chloride		97.8	mg/L	1.0	105	90	110			
<b>Sample ID: C12030065-009AMSD</b>		Sample Matrix Spike Duplicate			Run: TITRATION_120306A			03/06/12 11:09		
Chloride		97.8	mg/L	1.0	105	90	110	0.0	10	
<b>Sample ID: LCS35-120306</b>		Laboratory Control Sample			Run: TITRATION_120306A			03/06/12 11:20		
Chloride		3450	mg/L	1.0	97	90	110			

**Qualifiers:**

RL - Analyte reporting limit.

ND - Not detected at the reporting limit.

MDC - Minimum detectable concentration

## QA/QC Summary Report

Prepared by Casper, WY Branch

**Client:** Denison Mines USA Corp  
**Project:** 1st Quarter Groundwater 2012

**Report Date:** 03/20/12  
**Work Order:** C12020833

Analyte	Count	Result	Units	RL	%REC	Low Limit	High Limit	RPD	RPDLimit	Qual
<b>Method: A4500-F C</b>										
Batch: R156838										
<b>Sample ID: MBLK</b>		Method Blank								
Fluoride		ND	mg/L	0.10						Run: MANTECH_120228B 02/28/12 11:13
<b>Sample ID: LCS-6622</b>		Laboratory Control Sample								
Fluoride		1.92	mg/L	0.10	96	90	110			Run: MANTECH_120228B 02/28/12 11:15
<b>Sample ID: C12020732-001AMS</b>		Sample Matrix Spike								
Fluoride		2.00	mg/L	0.10	95	80	120			Run: MANTECH_120228B 02/28/12 11:32
<b>Sample ID: C12020732-001AMSD</b>		Sample Matrix Spike Duplicate								
Fluoride		2.04	mg/L	0.10	97	80	120	2.0	10	Run: MANTECH_120228B 02/28/12 11:35

**Qualifiers:**

RL - Analyte reporting limit.

MDC - Minimum detectable concentration

ND - Not detected at the reporting limit.



# QA/QC Summary Report

Prepared by Casper, WY Branch

**Client:** Denison Mines USA Corp  
**Project:** 1st Quarter Groundwater 2012

**Report Date:** 03/20/12  
**Work Order:** C12020833

Analyte	Count	Result	Units	RL	%REC	Low Limit	High Limit	RPD	RPDLimit	Qual
<b>Method:</b> A4500-H B							Analytical Run: PHSC_101-C_120224A			
<b>Sample ID:</b> pH 6.86		Initial Calibration Verification Standard			02/24/12 09:17					
pH		6.81	s.u.	0.010	99	98	102			
<b>Method:</b> A4500-H B							Batch: R156718			
<b>Sample ID:</b> C12020824-001ADUP		Sample Duplicate			Run: PHSC_101-C_120224A					
pH		7.97	s.u.	0.010				0.1	3	

**Qualifiers:**

RL - Analyte reporting limit.

MDC - Minimum detectable concentration

ND - Not detected at the reporting limit.

## QA/QC Summary Report

Prepared by Casper, WY Branch

**Client:** Denison Mines USA Corp  
**Project:** 1st Quarter Groundwater 2012

**Report Date:** 03/20/12  
**Work Order:** C12020833

Analyte	Count	Result	Units	RL	%REC	Low Limit	High Limit	RPD	RPDLimit	Qual
<b>Method: A4500-NH3 G</b>										
Batch: R156740										
<b>Sample ID: LCS-2</b>		Laboratory Control Sample								
Nitrogen, Ammonia as N		2.03	mg/L	0.050	96	90	110			Run: TECHNICON_120224A 02/24/12 11:14
<b>Sample ID: LFB-3</b>		Laboratory Fortified Blank								
Nitrogen, Ammonia as N		1.98	mg/L	0.050	95	80	120			Run: TECHNICON_120224A 02/24/12 11:16
<b>Sample ID: C12020833-007DMS</b>		Sample Matrix Spike								
Nitrogen, Ammonia as N		2.07	mg/L	0.050	103	90	110			Run: TECHNICON_120224A 02/24/12 12:02
<b>Sample ID: C12020833-007DMSD</b>		Sample Matrix Spike Duplicate								
Nitrogen, Ammonia as N		2.08	mg/L	0.050	104	90	110	0.5	10	Run: TECHNICON_120224A 02/24/12 12:04

**Qualifiers:**

RL - Analyte reporting limit.

MDC - Minimum detectable concentration

ND - Not detected at the reporting limit.

# QA/QC Summary Report

Prepared by Casper, WY Branch

**Client:** Denison Mines USA Corp

**Report Date:** 03/20/12

**Project:** 1st Quarter Groundwater 2012

**Work Order:** C12020833

Analyte	Count	Result	Units	RL	%REC	Low Limit	High Limit	RPD	RPDLimit	Qual
<b>Method: A4500-SO4 E</b>								Batch: 120306_1_SO4-TURB-W		
<b>Sample ID: LCS-1_120306</b>										
Laboratory Control Sample										
Sulfate		5150	mg/L	100	107	90	110			03/06/12 15:06
<b>Sample ID: MBLK-1_120306</b>										
Method Blank										
Sulfate		ND	mg/L	0.8						03/06/12 15:07
<b>Sample ID: C12030065-009AMS</b>										
Sample Matrix Spike										
Sulfate		3460	mg/L	50	100	90	110			03/06/12 16:15
<b>Sample ID: C12030065-009AMSD</b>										
Sample Matrix Spike Duplicate										
Sulfate		3440	mg/L	50	98	90	110	0.4	10	03/06/12 16:16

**Qualifiers:**

RL - Analyte reporting limit.

ND - Not detected at the reporting limit.

MDC - Minimum detectable concentration

# QA/QC Summary Report

Prepared by Casper, WY Branch

**Client:** Denison Mines USA Corp

**Report Date:** 03/20/12

**Project:** 1st Quarter Groundwater 2012

**Work Order:** C12020833

Analyte	Count	Result	Units	RL	%REC	Low Limit	High Limit	RPD	RPDLimit	Qual
<b>Method: E200.7</b>										
Analytical Run: ICP2-C_120305A										
<b>Sample ID: ICV</b>	5	Initial Calibration Verification Standard								03/05/12 13:08
Calcium		49.8	mg/L	0.50	100	95	105			
Iron		5.06	mg/L	0.030	101	95	105			
Magnesium		50.1	mg/L	0.50	100	95	105			
Potassium		49.1	mg/L	2.7	98	95	105			
Sodium		50.2	mg/L	0.50	100	95	105			
<b>Sample ID: ICSA</b>	5	Interference Check Sample A								03/05/12 13:42
Calcium		492	mg/L	0.50	98	80	120			
Iron		187	mg/L	0.030	93	80	120			
Magnesium		517	mg/L	0.50	103	80	120			
Potassium		0.00270	mg/L	0.50						
Sodium		-0.217	mg/L	0.50						
<b>Sample ID: ICSAB</b>	5	Interference Check Sample AB								03/05/12 13:47
Calcium		500	mg/L	0.50	100	80	120			
Iron		188	mg/L	0.030	94	80	120			
Magnesium		525	mg/L	0.50	105	80	120			
Potassium		0.00380	mg/L	0.50						
Sodium		-0.226	mg/L	0.50						
<b>Method: E200.7</b>										
Batch: R157030										
<b>Sample ID: MB-120305A</b>	5	Method Blank								Run: ICP2-C_120305A 03/05/12 14:16
Calcium		ND	mg/L	0.50						
Iron		ND	mg/L	0.030						
Magnesium		ND	mg/L	0.50						
Potassium		ND	mg/L	0.50						
Sodium		ND	mg/L	2.0						
<b>Sample ID: LFB-120305A</b>	5	Laboratory Fortified Blank								Run: ICP2-C_120305A 03/05/12 14:20
Calcium		48.0	mg/L	0.50	96	85	115			
Iron		0.971	mg/L	0.030	97	85	115			
Magnesium		48.8	mg/L	0.50	98	85	115			
Potassium		43.0	mg/L	0.50	86	85	115			
Sodium		47.8	mg/L	0.50	96	85	115			
<b>Sample ID: C12020833-008BMS2</b>	5	Sample Matrix Spike								Run: ICP2-C_120305A 03/05/12 16:21
Calcium		670	mg/L	0.50	85	70	130			
Iron		4.90	mg/L	0.030	96	70	130			
Magnesium		379	mg/L	0.50	94	70	130			
Potassium		233	mg/L	0.50	87	70	130			
Sodium		993	mg/L	1.6	106	70	130			
<b>Sample ID: C12020833-008BMSD</b>	5	Sample Matrix Spike Duplicate								Run: ICP2-C_120305A 03/05/12 16:25
Calcium		672	mg/L	0.50	86	70	130	0.2	20	
Iron		4.92	mg/L	0.030	97	70	130	0.4	20	
Magnesium		384	mg/L	0.50	96	70	130	1.2	20	
Potassium		240	mg/L	0.50	90	70	130	3.3	20	
Sodium		955	mg/L	1.6	91	70	130	3.9	20	

**Qualifiers:**

RL - Analyte reporting limit.

ND - Not detected at the reporting limit.

MDC - Minimum detectable concentration

# QA/QC Summary Report

Prepared by Casper, WY Branch

**Client:** Denison Mines USA Corp  
**Project:** 1st Quarter Groundwater 2012

**Report Date:** 03/20/12  
**Work Order:** C12020833

Analyte	Count	Result	Units	RL	%REC	Low Limit	High Limit	RPD	RPDLimit	Qual
<b>Method: E200.8</b>		Analytical Run: ICPMS2-C_120227B								
<b>Sample ID: ICV</b>	17 Initial Calibration Verification Standard								02/27/12 16:11	
Arsenic		0.0492	mg/L	0.0010	98	90	110			
Beryllium		0.0499	mg/L	0.0010	100	90	110			
Cadmium		0.0499	mg/L	0.0010	100	90	110			
Chromium		0.0497	mg/L	0.0010	99	90	110			
Cobalt		0.0499	mg/L	0.0010	100	90	110			
Copper		0.0498	mg/L	0.0010	100	90	110			
Lead		0.0494	mg/L	0.0010	99	90	110			
Manganese		0.0492	mg/L	0.0010	98	90	110			
Mercury		0.00525	mg/L	0.0010	105	90	110			
Molybdenum		0.0514	mg/L	0.0010	103	90	110			
Nickel		0.0492	mg/L	0.0010	99	90	110			
Selenium		0.0495	mg/L	0.0010	99	90	110			
Silver		0.0198	mg/L	0.0010	99	90	110			
Thallium		0.0496	mg/L	0.0010	99	90	110			
Uranium		0.0504	mg/L	0.00030	101	90	110			
Vanadium		0.0496	mg/L	0.0010	99	90	110			
Zinc		0.0478	mg/L	0.0010	96	90	110			

<b>Method: E200.8</b>		Batch: R156842								
<b>Sample ID: LRB</b>	17 Method Blank								Run: ICPMS2-C_120227B	02/27/12 16:34
Arsenic		ND	mg/L	0.0050						
Beryllium		ND	mg/L	0.00050						
Cadmium		ND	mg/L	0.00050						
Chromium		ND	mg/L	0.020						
Cobalt		ND	mg/L	0.010						
Copper		ND	mg/L	0.010						
Lead		ND	mg/L	0.0010						
Manganese		ND	mg/L	0.010						
Mercury		ND	mg/L	0.00050						
Molybdenum		ND	mg/L	0.010						
Nickel		ND	mg/L	0.020						
Selenium		ND	mg/L	0.0050						
Silver		ND	mg/L	0.010						
Thallium		ND	mg/L	0.00050						
Uranium		ND	mg/L	0.00030						
Vanadium		ND	mg/L	0.010						
Zinc		ND	mg/L	0.010						

<b>Sample ID: LFB</b>	17 Laboratory Fortified Blank								Run: ICPMS2-C_120227B	02/27/12 16:37
Arsenic		0.0537	mg/L	0.0010	107	85	115			
Beryllium		0.0528	mg/L	0.0010	106	85	115			
Cadmium		0.0532	mg/L	0.0010	106	85	115			
Chromium		0.0509	mg/L	0.0010	102	85	115			
Cobalt		0.0510	mg/L	0.0010	102	85	115			
Copper		0.0504	mg/L	0.0010	101	85	115			
Lead		0.0521	mg/L	0.0010	104	85	115			

**Qualifiers:**

RL - Analyte reporting limit.

ND - Not detected at the reporting limit.

MDC - Minimum detectable concentration

# QA/QC Summary Report

Prepared by Casper, WY Branch

**Client:** Denison Mines USA Corp

**Report Date:** 03/20/12

**Project:** 1st Quarter Groundwater 2012

**Work Order:** C12020833

Analyte	Count	Result	Units	RL	%REC	Low Limit	High Limit	RPD	RPDLimit	Qual
<b>Method: E200.8</b>										
Batch: R156842										
<b>Sample ID: LFB</b>	17	Laboratory Fortified Blank								
Manganese		0.0504	mg/L	0.0010	101	85	115			
Mercury		0.00535	mg/L	0.0010	107	85	115			
Molybdenum		0.0513	mg/L	0.0010	103	85	115			
Nickel		0.0511	mg/L	0.0010	102	85	115			
Selenium		0.0557	mg/L	0.0010	111	85	115			
Silver		0.0198	mg/L	0.0010	99	85	115			
Thallium		0.0525	mg/L	0.0010	105	85	115			
Uranium		0.0532	mg/L	0.00030	106	85	115			
Vanadium		0.0511	mg/L	0.0010	102	85	115			
Zinc		0.0534	mg/L	0.0010	107	85	115			
<b>Sample ID: C12020833-010AMS</b>	17	Sample Matrix Spike								
Arsenic		0.0576	mg/L	0.0010	109	70	130			
Beryllium		0.0430	mg/L	0.0010	86	70	130			
Cadmium		0.0474	mg/L	0.0010	94	70	130			
Chromium		0.0466	mg/L	0.0010	92	70	130			
Cobalt		0.0484	mg/L	0.0010	88	70	130			
Copper		0.0537	mg/L	0.0010	92	70	130			
Lead		0.0529	mg/L	0.0010	106	70	130			
Manganese		0.656	mg/L	0.0010		70	130			A
Mercury		0.00531	mg/L	0.0010	106	70	130			
Molybdenum		0.0518	mg/L	0.0010	99	70	130			
Nickel		0.0738	mg/L	0.0010	82	70	130			
Selenium		0.0765	mg/L	0.0010	109	70	130			
Silver		0.0157	mg/L	0.0010	78	70	130			
Thallium		0.0522	mg/L	0.0010	104	70	130			
Uranium		0.112	mg/L	0.00030	106	70	130			
Vanadium		0.0478	mg/L	0.0010	94	70	130			
Zinc		0.0482	mg/L	0.0010	83	70	130			
<b>Sample ID: C12020833-010AMSD</b>	17	Sample Matrix Spike Duplicate								
Arsenic		0.0593	mg/L	0.0010	112	70	130	2.9	20	
Beryllium		0.0458	mg/L	0.0010	92	70	130	6.3	20	
Cadmium		0.0490	mg/L	0.0010	97	70	130	3.5	20	
Chromium		0.0491	mg/L	0.0010	97	70	130	5.2	20	
Cobalt		0.0511	mg/L	0.0010	93	70	130	5.4	20	
Copper		0.0561	mg/L	0.0010	97	70	130	4.4	20	
Lead		0.0557	mg/L	0.0010	111	70	130	5.2	20	
Manganese		0.687	mg/L	0.0010		70	130	4.6	20	A
Mercury		0.00550	mg/L	0.0010	110	70	130	3.6	20	
Molybdenum		0.0531	mg/L	0.0010	102	70	130	2.5	20	
Nickel		0.0739	mg/L	0.0010	83	70	130	0.1	20	
Selenium		0.0781	mg/L	0.0010	112	70	130	2.1	20	
Silver		0.0148	mg/L	0.0010	74	70	130	5.8	20	
Thallium		0.0549	mg/L	0.0010	109	70	130	5.0	20	
Uranium		0.117	mg/L	0.00030	116	70	130	4.3	20	

**Qualifiers:**

RL - Analyte reporting limit.

ND - Not detected at the reporting limit.

A - The analyte level was greater than four times the spike level. In accordance with the method % recovery is not calculated.

MDC - Minimum detectable concentration

## QA/QC Summary Report

Prepared by Casper, WY Branch

**Client:** Denison Mines USA Corp  
**Project:** 1st Quarter Groundwater 2012

**Report Date:** 03/20/12  
**Work Order:** C12020833

Analyte	Count	Result	Units	RL	%REC	Low Limit	High Limit	RPD	RPDLimit	Qual
<b>Method: E200.8</b> <span style="float: right;">Batch: R156842</span>										
<b>Sample ID: C12020833-010AMSD</b> 17 Sample Matrix Spike Duplicate <span style="float: right;">Run: ICPMS2-C_120227B 02/27/12 22:30</span>										
Vanadium		0.0505	mg/L	0.0010	100	70	130	5.5	20	
Zinc		0.0506	mg/L	0.0010	88	70	130	4.9	20	
<b>Method: E200.8</b> <span style="float: right;">Analytical Run: ICPMS4-C_120229A</span>										
<b>Sample ID: ICV</b> Initial Calibration Verification Standard <span style="float: right;">02/29/12 11:24</span>										
Beryllium		0.0506	mg/L	0.0010	101	90	110			
<b>Method: E200.8</b> <span style="float: right;">Batch: R156925A</span>										
<b>Sample ID: C12020681-002BMS</b> Sample Matrix Spike <span style="float: right;">Run: ICPMS4-C_120229A 03/01/12 02:30</span>										
Beryllium		0.0406	mg/L	0.0010	81	70	130			
<b>Sample ID: C12020681-002BMSD</b> Sample Matrix Spike Duplicate <span style="float: right;">Run: ICPMS4-C_120229A 03/01/12 02:55</span>										
Beryllium		0.0416	mg/L	0.0010	83	70	130	2.5	20	
<b>Sample ID: LRB</b> Method Blank <span style="float: right;">Run: ICPMS4-C_120229A 02/29/12 13:21</span>										
Beryllium		ND	mg/L	0.00050						
<b>Sample ID: LFB</b> Laboratory Fortified Blank <span style="float: right;">Run: ICPMS4-C_120229A 02/29/12 13:26</span>										
Beryllium		0.0552	mg/L	0.0010	110	85	115			

**Qualifiers:**

RL - Analyte reporting limit.

ND - Not detected at the reporting limit.

MDC - Minimum detectable concentration

## QA/QC Summary Report

Prepared by Casper, WY Branch

**Client:** Denison Mines USA Corp

**Report Date:** 03/20/12

**Project:** 1st Quarter Groundwater 2012

**Work Order:** C12020833

Analyte	Count	Result	Units	RL	%REC	Low Limit	High Limit	RPD	RPDLimit	Qual
<b>Method: E353.2</b>										Batch: R156802
<b>Sample ID: MBLK-1</b>		Method Blank								Run: TECHNICON_120227A 02/27/12 12:26
Nitrogen, Nitrate+Nitrite as N		ND	mg/L	0.10						
<b>Sample ID: LCS-2</b>		Laboratory Control Sample								Run: TECHNICON_120227A 02/27/12 12:28
Nitrogen, Nitrate+Nitrite as N		2.49	mg/L	0.10	100	90	110			
<b>Sample ID: LFB-3</b>		Laboratory Fortified Blank								Run: TECHNICON_120227A 02/27/12 12:31
Nitrogen, Nitrate+Nitrite as N		1.88	mg/L	0.10	96	90	110			
<b>Sample ID: C12020833-007DMS</b>		Sample Matrix Spike								Run: TECHNICON_120227A 02/27/12 12:36
Nitrogen, Nitrate+Nitrite as N		1.89	mg/L	0.10	96	90	110			
<b>Sample ID: C12020833-007DMSD</b>		Sample Matrix Spike Duplicate								Run: TECHNICON_120227A 02/27/12 12:38
Nitrogen, Nitrate+Nitrite as N		1.90	mg/L	0.10	97	90	110	0.5	10	

**Qualifiers:**

RL - Analyte reporting limit.

ND - Not detected at the reporting limit.

MDC - Minimum detectable concentration

## QA/QC Summary Report

Prepared by Casper, WY Branch

**Client:** Denison Mines USA Corp  
**Project:** 1st Quarter Groundwater 2012

**Report Date:** 03/20/12  
**Work Order:** C12020833

Analyte	Count	Result	Units	RL	%REC	Low Limit	High Limit	RPD	RPDLimit	Qual
<b>Method: E900.1</b>										
Batch: GA-0514										
<b>Sample ID: MB-GA-0514</b>	3	Method Blank								
Gross Alpha minus Rn & U		-0.189	pCi/L							U
Gross Alpha minus Rn & U Precision (±)		0.0941	pCi/L							
Gross Alpha minus Rn & U MDC		0.212	pCi/L							
<b>Sample ID: LCS-GA-0514</b>		Laboratory Control Sample								
Gross Alpha minus Rn & U		22.0	pCi/L	105		70	130			03/15/12 19:02
<b>Sample ID: C12020833-001AMS</b>		Sample Matrix Spike								
Gross Alpha minus Rn & U		41.8	pCi/L	98		70	130			03/15/12 19:02
<b>Sample ID: C12020833-001AMSD</b>		Sample Matrix Spike Duplicate								
Gross Alpha minus Rn & U		43.9	pCi/L	103		70	130	4.8		03/15/12 19:02 18.1

**Qualifiers:**

RL - Analyte reporting limit.

MDC - Minimum detectable concentration

ND - Not detected at the reporting limit.

U - Not detected at minimum detectable concentration

# QA/QC Summary Report

Prepared by Casper, WY Branch

**Client:** Denison Mines USA Corp

**Report Date:** 03/20/12

**Project:** 1st Quarter Groundwater 2012

**Work Order:** C12020833

Analyte	Count	Result	Units	RL	%REC	Low Limit	High Limit	RPD	RPDLimit	Qual
<b>Method: SW8260B</b>										
Batch: R156779										
<b>Sample ID: 24-Feb-12_LCS_4</b>	16	Laboratory Control Sample					Run: 5975VOC1_120224A		02/24/12 13:14	
Acetone		80	ug/L	20	80	70	130			
Benzene		9.9	ug/L	1.0	99	70	130			
Carbon tetrachloride		9.2	ug/L	1.0	92	70	130			
Chloroform		8.6	ug/L	1.0	86	70	130			
Chloromethane		10	ug/L	1.0	100	70	130			
m+p-Xylenes		17	ug/L	1.0	86	70	130			
Methyl ethyl ketone		88	ug/L	20	88	70	130			
Methylene chloride		8.6	ug/L	1.0	86	70	130			
Naphthalene		9.8	ug/L	1.0	98	70	130			
o-Xylene		8.6	ug/L	1.0	86	70	130			
Toluene		9.0	ug/L	1.0	90	70	130			
Xylenes, Total		26	ug/L	1.0	86	70	130			
Surr: 1,2-Dichlorobenzene-d4				1.0	100	80	120			
Surr: Dibromofluoromethane				1.0	86	70	130			
Surr: p-Bromofluorobenzene				1.0	94	80	130			
Surr: Toluene-d8				1.0	92	80	120			
<b>Sample ID: 24-Feb-12_MBLK_6</b>	16	Method Blank					Run: 5975VOC1_120224A		02/24/12 14:28	
Acetone		ND	ug/L	20						
Benzene		ND	ug/L	1.0						
Carbon tetrachloride		ND	ug/L	1.0						
Chloroform		ND	ug/L	1.0						
Chloromethane		ND	ug/L	1.0						
m+p-Xylenes		ND	ug/L	1.0						
Methyl ethyl ketone		ND	ug/L	20						
Methylene chloride		ND	ug/L	1.0						
Naphthalene		ND	ug/L	1.0						
o-Xylene		ND	ug/L	1.0						
Toluene		ND	ug/L	1.0						
Xylenes, Total		ND	ug/L	1.0						
Surr: 1,2-Dichlorobenzene-d4				1.0	95	80	120			
Surr: Dibromofluoromethane				1.0	87	70	130			
Surr: p-Bromofluorobenzene				1.0	129	80	120			S
Surr: Toluene-d8				1.0	94	80	120			
<b>Sample ID: C12020681-007EMS</b>	16	Sample Matrix Spike					Run: 5975VOC1_120224A		02/24/12 18:01	
Acetone		19000	ug/L	2000	96	70	130			
Benzene		2000	ug/L	100	100	70	130			
Carbon tetrachloride		2000	ug/L	100	102	70	130			
Chloroform		5400	ug/L	100	132	70	130			S
Chloromethane		2100	ug/L	100	104	70	130			
m+p-Xylenes		4200	ug/L	100	106	70	130			
Methyl ethyl ketone		19000	ug/L	2000	96	70	130			
Methylene chloride		2100	ug/L	100	100	70	130			
Naphthalene		1900	ug/L	100	96	70	130			
o-Xylene		2100	ug/L	100	104	70	130			

**Qualifiers:**

RL - Analyte reporting limit.

ND - Not detected at the reporting limit.

MDC - Minimum detectable concentration

S - Spike recovery outside of advisory limits.

# QA/QC Summary Report

Prepared by Casper, WY Branch

**Client:** Denison Mines USA Corp

**Report Date:** 03/20/12

**Project:** 1st Quarter Groundwater 2012

**Work Order:** C12020833

Analyte	Count	Result	Units	RL	%REC	Low Limit	High Limit	RPD	RPDLimit	Qual
<b>Method: SW8260B</b>										
Batch: R156779										
<b>Sample ID: C12020681-007EMS</b>	16	Sample Matrix Spike								
Run: 5975VOC1_120224A										
02/24/12 18:01										
Toluene		2000	ug/L	100	102	70	130			
Xylenes, Total		6300	ug/L	100	105	70	130			
Surr: 1,2-Dichlorobenzene-d4				1.0	105	80	120			
Surr: Dibromofluoromethane				1.0	94	70	130			
Surr: p-Bromofluorobenzene				1.0	96	80	120			
Surr: Toluene-d8				1.0	98	80	120			
<b>Sample ID: C12020681-007EMSD</b>	16	Sample Matrix Spike Duplicate								
Run: 5975VOC1_120224A										
02/24/12 18:36										
Acetone		16000	ug/L	2000	81	70	130	17	20	
Benzene		2100	ug/L	100	104	70	130	3.9	20	
Carbon tetrachloride		2000	ug/L	100	101	70	130	1.6	20	
Chloroform		5300	ug/L	100	129	70	130	1.0	20	
Chloromethane		2300	ug/L	100	114	70	130	9.5	20	
m+p-Xylenes		3800	ug/L	100	95	70	130	11	20	
Methyl ethyl ketone		20000	ug/L	2000	100	70	130	4.5	20	
Methylene chloride		2000	ug/L	100	95	70	130	5.6	20	
Naphthalene		2000	ug/L	100	100	70	130	4.5	20	
o-Xylene		1900	ug/L	100	94	70	130	11	20	
Toluene		2000	ug/L	100	98	70	130	4.4	20	
Xylenes, Total		5700	ug/L	100	95	70	130	11	20	
Surr: 1,2-Dichlorobenzene-d4				1.0	102	80	120	0.0	10	
Surr: Dibromofluoromethane				1.0	94	70	130	0.0	10	
Surr: p-Bromofluorobenzene				1.0	95	80	120	0.0	10	
Surr: Toluene-d8				1.0	97	80	120	0.0	10	

**Qualifiers:**

RL - Analyte reporting limit.

ND - Not detected at the reporting limit.

MDC - Minimum detectable concentration

# Workorder Receipt Checklist



C12020833

Login completed by: Debra Williams

Date Received: 2/24/2012

Reviewed by: BL2000\kschroeder

Received by: tj

Reviewed Date: 3/1/2012

Carrier NDA  
name:

- |                                                                                                                                                             |                                         |                             |                                                 |
|-------------------------------------------------------------------------------------------------------------------------------------------------------------|-----------------------------------------|-----------------------------|-------------------------------------------------|
| Shipping container/cooler in good condition?                                                                                                                | Yes <input checked="" type="checkbox"/> | No <input type="checkbox"/> | Not Present <input type="checkbox"/>            |
| Custody seals intact on shipping container/cooler?                                                                                                          | Yes <input checked="" type="checkbox"/> | No <input type="checkbox"/> | Not Present <input type="checkbox"/>            |
| Custody seals intact on sample bottles?                                                                                                                     | Yes <input type="checkbox"/>            | No <input type="checkbox"/> | Not Present <input checked="" type="checkbox"/> |
| Chain of custody present?                                                                                                                                   | Yes <input checked="" type="checkbox"/> | No <input type="checkbox"/> |                                                 |
| Chain of custody signed when relinquished and received?                                                                                                     | Yes <input checked="" type="checkbox"/> | No <input type="checkbox"/> |                                                 |
| Chain of custody agrees with sample labels?                                                                                                                 | Yes <input checked="" type="checkbox"/> | No <input type="checkbox"/> |                                                 |
| Samples in proper container/bottle?                                                                                                                         | Yes <input checked="" type="checkbox"/> | No <input type="checkbox"/> |                                                 |
| Sample containers intact?                                                                                                                                   | Yes <input checked="" type="checkbox"/> | No <input type="checkbox"/> |                                                 |
| Sufficient sample volume for indicated test?                                                                                                                | Yes <input checked="" type="checkbox"/> | No <input type="checkbox"/> |                                                 |
| All samples received within holding time?<br>(Exclude analyses that are considered field parameters<br>such as pH, DO, Res Cl, Sulfite, Ferrous Iron, etc.) | Yes <input checked="" type="checkbox"/> | No <input type="checkbox"/> |                                                 |
| Container/Temp Blank temperature:                                                                                                                           | 2.6°C On Ice                            |                             |                                                 |
| Water - VOA vials have zero headspace?                                                                                                                      | Yes <input checked="" type="checkbox"/> | No <input type="checkbox"/> | No VOA vials submitted <input type="checkbox"/> |
| Water - pH acceptable upon receipt?                                                                                                                         | Yes <input checked="" type="checkbox"/> | No <input type="checkbox"/> | Not Applicable <input type="checkbox"/>         |

-----  
Contact and Corrective Action Comments:

None

# Chain of Custody and Analytical Request Record

PLEASE PRINT (Provide as much information as possible.)

Company Name: <b>Denison Mines</b>	Project Name, PWS, Permit, Etc. <b>1st Quarter Ground Water 2012</b>	Sample Origin State: <b>UT</b>	EPA/State Compliance: Yes <input checked="" type="checkbox"/> No <input type="checkbox"/>
Report Mail Address: <b>PO Box 809 Blanding UT 84511</b>	Contact Name: <b>Tanner Holliday</b>	Phone/Fax: <b>435 678 2221</b>	Email: <b>Tanner Holliday</b>
Invoice Address: <b>Same</b>	Invoice Contact & Phone: <b>David Turk 435 678 2221</b>	Purchase Order:	Quote/Bottle Order:

Special Report/Formats:  <input type="checkbox"/> DW <input type="checkbox"/> EDD/EDT (Electronic Data) <input type="checkbox"/> POTW/WWTP <input type="checkbox"/> Format: _____ <input type="checkbox"/> State: _____ <input type="checkbox"/> LEVEL IV <input type="checkbox"/> Other: _____ <input type="checkbox"/> NELAC	Number of Containers Sample Type: A W S V B O DW Air Water Soils/Solids Vegetation Bioassay Other DW - Drinking Water	ANALYSIS REQUESTED										SEE ATTACHED Standard Turnaround (TAT)	R U S H	Contact ELI prior to <b>RUSH</b> sample submittal for charges and scheduling - See Instruction Page	Shipped by: <b>ups NPA</b> Coder ID(s): <b>client</b>	
		Comments:	Receipt Temp <b>26 °C</b> On Ice: <input checked="" type="checkbox"/> N	Custody Seal On Bottle <input checked="" type="checkbox"/> N On Cooler <input checked="" type="checkbox"/> N Intact <input checked="" type="checkbox"/> N Signature Match <input checked="" type="checkbox"/> N												
SAMPLE IDENTIFICATION (Name, Location, Interval, etc.)	Collection Date	Collection Time	MATRIX	Quote #	Grass Alpha	Iron	Manganese	Cadmium	Thallium	Metals						
<sup>1</sup> MW-02	2/22/12	0905	1-W		X											
<sup>2</sup> MW-15	2/22/12	1020	1-W			X										
<sup>3</sup> MW-23	2/20/12	1400	1-W				X									
<sup>4</sup> MW-24	2/23/12	0650	1-W					X	X							
<sup>5</sup> MW-29	2/22/12	1150	1-W			X										
<sup>6</sup> MW-32	2/21/12	1315	1-W		X											
<sup>7</sup> MW-14	2/21/12	1030	6-W	X												
<sup>8</sup> MW-36	2/20/12	1320	6-W	X												
<sup>9</sup> MW-70	2/21/12	1030	6-W	X												
<sup>10</sup> MW-26	2/21/12	1410	1-W		X					X						

<b>Custody Record MUST be Signed</b>	Relinquished by (print): <b>Tanner Holliday</b>	Date/Time: <b>2/23/2012 1100</b>	Signature: <i>Tanner Holliday</i>	Received by (print):	Date/Time:	Signature:
	Relinquished by (print):	Date/Time:	Signature:	Received by (print):	Date/Time:	Signature:
	Sample Disposal: Return to Client:	Lab Disposal:	Received by Laboratory: <b>Jaco Judge</b>	Date/Time: <b>2-24-12 9:25</b>	Signature:	

In certain circumstances, samples submitted to Energy Laboratories, Inc. may be subcontracted to other certified laboratories in order to complete the analysis requested. This serves as notice of this possibility. All sub-contract data will be clearly notated on your analytical report. Visit our web site at [www.energylab.com](http://www.energylab.com) for additional information, downloadable fee schedule, forms, and links.

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LABORATORY USE ONLY  
LAB/20205833

**PLEASE PRINT (Provide as much information as possible.)**

Company Name:	Project Name, PWS, Permit, Etc.	Sample Origin State:	EPA/State Compliance: Yes <input type="checkbox"/> No <input type="checkbox"/>
Report Mail Address:	Contact Name: Phone/Fax:	Email:	Sampler: (Please Print)
Invoice Address:	Invoice Contact & Phone:	Purchase Order:	Quote/Bottle Order:

*Same as Page 1*

Special Report/Formats:			Number of Containers Sample Type: A W S V B O D W Air Water Soils/Solids Vegetation Bioassay Other DW - Drinking Water	ANALYSIS REQUESTED										SEE ATTACHED Standard Turnaround (TAT)	<b>R U S H</b>	Contact ELI prior to RUSH sample submittal for charges and scheduling - See Instruction Page	Shipped by: <i>Ups NDA</i> Cooler ID(s): <i>client</i>	
<input type="checkbox"/> DW <input type="checkbox"/> POTW/WWTP <input type="checkbox"/> State: <input type="checkbox"/> Other:	<input type="checkbox"/> EDD/EDT (Electronic Data) Format: _____ <input type="checkbox"/> LEVEL IV <input type="checkbox"/> NELAC															Comments:	Receipt Temp <i>2.6</i> °C On Ice: <input checked="" type="checkbox"/> Y <input type="checkbox"/> N Custody Seal On Bottle <input checked="" type="checkbox"/> Y <input type="checkbox"/> N On Cooler <input checked="" type="checkbox"/> Y <input type="checkbox"/> N Intact <input checked="" type="checkbox"/> Y <input type="checkbox"/> N Signature Match <input checked="" type="checkbox"/> Y <input type="checkbox"/> N	
SAMPLE IDENTIFICATION (Name, Location, Interval, etc.)	Collection Date	Collection Time	MATRIX															
1 MW-65	2/21/12	1410	1-W	X	X													
2 Trip Blank 1070L	2/20/12																	
3 temp blank																		
4																		
5																		
6																		
7																		
8																		
9																		
10																		

LABORATORY USE ONLY

12020833

<b>Custody Record MUST be Signed</b>	Relinquished by (print): <i>Tanner Holliday</i> Date/Time: <i>2/23/2012 1100</i> Signature: <i>Tanner Holliday</i>	Received by (print): _____ Date/Time: _____ Signature: _____
	Relinquished by (print): _____ Date/Time: _____ Signature: _____	Received by (print): _____ Date/Time: _____ Signature: _____
	Sample Disposal: Return to Client: _____ Lab Disposal: _____	Received by Laboratory: <i>Tracy Judge</i> Date/Time: <i>2-24-12 9:15</i> Signature: _____

In certain circumstances, samples submitted to Energy Laboratories, Inc. may be subcontracted to other certified laboratories in order to complete the analysis requested. This serves as notice of this possibility. All sub-contract data will be clearly notated on your analytical report. Visit our web site at [www.energylab.com](http://www.energylab.com) for additional information, downloadable fee schedule, forms, and links.



## ANALYTICAL SUMMARY REPORT

March 20, 2012

Denison Mines USA Corp  
6425 S Hwy 191  
Blanding, UT 84511

Workorder No.: C12030065      Quote ID: C1640 - POC Wells  
Project Name: 1st Quarter Groundwater 2012

Energy Laboratories, Inc. Casper WY received the following 11 samples for Denison Mines USA Corp on 3/2/2012 for analysis.

Sample ID	Client Sample ID	Collect Date	Receive Date	Matrix	Test
C12030065-001	MW-03	02/29/12 8:00	03/02/12	Aqueous	Fluoride Metals by ICP-MS, Dissolved
C12030065-002	MW-03A	03/01/12 7:25	03/02/12	Aqueous	Metals by ICP-MS, Dissolved Solids, Total Dissolved Sulfate
C12030065-003	MW-05	02/28/12 14:50	03/02/12	Aqueous	Metals by ICP-MS, Dissolved
C12030065-004	MW-12	02/29/12 6:50	03/02/12	Aqueous	Same As Above
C12030065-005	MW-18	02/27/12 13:40	03/02/12	Aqueous	Metals by ICP-MS, Dissolved Solids, Total Dissolved Sulfate
C12030065-006	MW-19	02/28/12 9:00	03/02/12	Aqueous	Nitrogen, Nitrate + Nitrite
C12030065-007	MW-27	02/28/12 11:10	03/02/12	Aqueous	Chloride Nitrogen, Nitrate + Nitrite Gross Alpha minus Rn222 and Uranium Solids, Total Dissolved Sulfate
C12030065-008	MW-28	02/28/12 12:40	03/02/12	Aqueous	Chloride
C12030065-009	MW-37	02/29/12 13:00	03/02/12	Aqueous	Alkalinity QA Calculations Chloride Fluoride Metals by ICP, Dissolved Metals by ICP-MS, Dissolved Nitrogen, Ammonia Nitrogen, Nitrate + Nitrite pH Gross Alpha minus Rn222 and Uranium Solids, Total Dissolved Sulfate SW8260B VOCs, Standard List
C12030065-010	Trip Blank 6746	02/29/12 0:00	03/02/12	Aqueous	SW8260B VOCs, Standard List
C12030065-011	Temp Blank	03/01/12 0:00	03/02/12	Aqueous	Temperature

## ANALYTICAL SUMMARY REPORT

The analyses presented in this report were performed at Energy Laboratories, Inc., 2393 Salt Creek Hwy., Casper, WY 82601, unless otherwise noted. Radiochemistry analyses were performed at Energy Laboratories, Inc., 2325 Kerzell Lane, Casper, WY 82601, unless otherwise noted. Any exceptions or problems with the analyses are noted in the Laboratory Analytical Report, the QA/QC Summary Report, or the Case Narrative.

The results as reported relate only to the item(s) submitted for testing. Solid/soil samples are reported on a wet weight basis (as received) unless specifically indicated. Data corrected for moisture content are typically noted as - dry on the report. For agricultural and mining soil parameters/characteristics, all samples are dried and ground prior to sample analysis.

If you have any questions regarding these test results, please call.

Report Approved By:

*Stephanie D Waldrop*  
Reporting Supervisor

Digitally signed by  
Stephanie Waldrop  
Date: 2012.03.20 16:13:19 -06:00

**CLIENT:** Denison Mines USA Corp  
**Project:** 1st Quarter Groundwater 2012  
**Sample Delivery Group:** C12030065

**Report Date:** 03/20/12

## CASE NARRATIVE

---

### ORIGINAL SAMPLE SUBMITTAL(S)

All original sample submittals have been returned with the data package.

### SAMPLE TEMPERATURE COMPLIANCE: 4 °C (±2 °C)

Temperature of samples received may not be considered properly preserved by accepted standards. Samples that are hand delivered immediately after collection shall be considered acceptable if there is evidence that the chilling process has begun.

### GROSS ALPHA ANALYSIS

Method 900.0 for gross alpha and gross beta is intended as a drinking water method for low TDS waters. Data provided by this method for non potable waters should be viewed as inconsistent.

### RADON IN AIR ANALYSIS

The desired exposure time is 48 hours (2 days). The time delay in returning the canister to the laboratory for processing should be as short as possible to avoid excessive decay. Maximum recommended delay between end of exposure to beginning of counting should not exceed 8 days.

### SOIL/SOLID SAMPLES

All samples reported on an as received basis unless otherwise indicated.

### ATRAZINE, SIMAZINE AND PCB ANALYSIS

Data for PCBs, Atrazine and Simazine are reported from EPA 525.2. PCB data reported by ELI reflects the results for seven individual Aroclors. When the results for all seven are ND (not detected), the sample meets EPA compliance criteria for PCB monitoring.

### SUBCONTRACTING ANALYSIS

Subcontracting of sample analyses to an outside laboratory may be required. If so, ENERGY LABORATORIES will utilize its branch laboratories or qualified contract laboratories for this service. Any such laboratories will be indicated within the Laboratory Analytical Report.

### BRANCH LABORATORY LOCATIONS

eli-b - Energy Laboratories, Inc. - Billings, MT  
eli-g - Energy Laboratories, Inc. - Gillette, WY  
eli-h - Energy Laboratories, Inc. - Helena, MT  
eli-r - Energy Laboratories, Inc. - Rapid City, SD  
eli-t - Energy Laboratories, Inc. - College Station, TX

### CERTIFICATIONS:

USEPA: WY00002, Radiochemical WY00937; FL-DOH NELAC: E87641, Radiochemical E871017; California: 02118CA; Oregon: WY200001, Radiochemical WY200002; Utah: WY00002; Virginia: 00057; Washington: C836

### ISO 17025 DISCLAIMER:

The results of this Analytical Report relate only to the items submitted for analysis.

ENERGY LABORATORIES, INC. - CASPER, WY certifies that certain method selections contained in this report meet requirements as set forth by the above accrediting authorities. Some results requested by the client may not be covered under these certifications. All analysis data to be submitted for regulatory enforcement should be certified in the sample state of origin. Please verify ELI's certification coverage by visiting [www.energylab.com](http://www.energylab.com)

ELI appreciates the opportunity to provide you with this analytical service. For additional information and services visit our web page [www.energylab.com](http://www.energylab.com).

### LABORATORY ANALYTICAL REPORT

Prepared by Casper, WY Branch

**Client:** Denison Mines USA Corp  
**Project:** 1st Quarter Groundwater 2012  
**Lab ID:** C12030065-009  
**Client Sample ID:** MW-37

**Report Date:** 03/20/12  
**Collection Date:** 02/29/12 13:00  
**Date Received:** 03/02/12  
**Matrix:** Aqueous

Analyses	Result	Units	Qualifier	RL	MCL/ QCL	Method	Analysis Date / By
<b>PHYSICAL PROPERTIES</b>							
pH	7.14	s.u.	H	0.01		A4500-H B	03/02/12 14:32 / Ir

**Report Definitions:**  
 RL - Analyte reporting limit.  
 QCL - Quality control limit.  
 H - Analysis performed past recommended holding time.

MCL - Maximum contaminant level.  
 ND - Not detected at the reporting limit.

## QA/QC Summary Report

Prepared by Casper, WY Branch

**Client:** Denison Mines USA Corp  
**Project:** 1st Quarter Groundwater 2012

**Report Date:** 03/20/12  
**Work Order:** C12030065

Analyte	Count	Result	Units	RL	%REC	Low Limit	High Limit	RPD	RPDLimit	Qual
<b>Method: A2320 B</b>										
Batch: R156994										
<b>Sample ID: MBLK</b>	3	Method Blank								
Alkalinity, Total as CaCO3		ND	mg/L	5.0						
Carbonate as CO3		ND	mg/L	1.0						
Bicarbonate as HCO3		4.10	mg/L	1.0						
<b>Sample ID: LCS-6677</b>										
Laboratory Control Sample										
Run: MANTECH_120302B										
03/02/12 14:58										
Alkalinity, Total as CaCO3		203	mg/L	5.0	100	90	110			
<b>Sample ID: C12030049-005ADUP</b>										
3 Sample Duplicate										
Run: MANTECH_120302B										
03/02/12 19:06										
Alkalinity, Total as CaCO3		124	mg/L	5.0				0.4	10	
Carbonate as CO3		19.3	mg/L	5.0				7.6	10	
Bicarbonate as HCO3		112	mg/L	5.0				2.0	10	
<b>Sample ID: C12030049-006AMS</b>										
Sample Matrix Spike										
Run: MANTECH_120302B										
03/02/12 19:22										
Alkalinity, Total as CaCO3		245	mg/L	5.0	101	80	120			

**Qualifiers:**

RL - Analyte reporting limit.

ND - Not detected at the reporting limit.

MDC - Minimum detectable concentration



# QA/QC Summary Report

Prepared by Casper, WY Branch

**Client:** Denison Mines USA Corp  
**Project:** 1st Quarter Groundwater 2012

**Report Date:** 03/20/12  
**Work Order:** C12030065

Analyte	Count	Result	Units	RL	%REC	Low Limit	High Limit	RPD	RPDLimit	Qual
<b>Method: A2540 C</b>								Batch: 120302_2_SLDS-TDS-W		
<b>Sample ID: MBLK1_120302</b>		Method Blank			Run: BAL-1_120303A			03/02/12 16:27		
Solids, Total Dissolved TDS @ 180 C		ND	mg/L	10						
<b>Sample ID: LCS1_120302</b>		Laboratory Control Sample			Run: BAL-1_120303A			03/02/12 16:27		
Solids, Total Dissolved TDS @ 180 C		1690	mg/L	10	101	90	110			
<b>Sample ID: C12030064-003ADUP</b>		Sample Duplicate			Run: BAL-1_120303A			03/02/12 16:28		
Solids, Total Dissolved TDS @ 180 C		5310	mg/L	16				0.9	5	
<b>Sample ID: C12030065-002AMS</b>		Sample Matrix Spike			Run: BAL-1_120303A			03/02/12 16:30		
Solids, Total Dissolved TDS @ 180 C		9260	mg/L	17	107	90	110			

**Qualifiers:**

RL - Analyte reporting limit.

ND - Not detected at the reporting limit.

MDC - Minimum detectable concentration

# QA/QC Summary Report

Prepared by Casper, WY Branch

**Client:** Denison Mines USA Corp

**Report Date:** 03/20/12

**Project:** 1st Quarter Groundwater 2012

**Work Order:** C12030065

Analyte	Count	Result	Units	RL	%REC	Low Limit	High Limit	RPD	RPDLimit	Qual
<b>Method: A4500-CI B</b>								Batch: 120306-CL-TTR-W		
<b>Sample ID: MBLK9-120306</b>										
		Method Blank					Run: TITRATION_120306A		03/06/12 10:42	
Chloride		ND	mg/L	1.0						
<b>Sample ID: C12030065-009AMS</b>										
		Sample Matrix Spike					Run: TITRATION_120306A		03/06/12 11:08	
Chloride		97.8	mg/L	1.0	105	90	110			
<b>Sample ID: C12030065-009AMSD</b>										
		Sample Matrix Spike Duplicate					Run: TITRATION_120306A		03/06/12 11:09	
Chloride		97.8	mg/L	1.0	105	90	110	0.0	10	
<b>Sample ID: LCS35-120306</b>										
		Laboratory Control Sample					Run: TITRATION_120306A		03/06/12 11:20	
Chloride		3450	mg/L	1.0	97	90	110			

**Qualifiers:**

RL - Analyte reporting limit.

ND - Not detected at the reporting limit.

MDC - Minimum detectable concentration

## QA/QC Summary Report

Prepared by Casper, WY Branch

**Client:** Denison Mines USA Corp

**Report Date:** 03/20/12

**Project:** 1st Quarter Groundwater 2012

**Work Order:** C12030065

Analyte	Count	Result	Units	RL	%REC	Low Limit	High Limit	RPD	RPDLimit	Qual
<b>Method:</b> A4500-F C										Batch: R156983
<b>Sample ID:</b> MBLK		Method Blank								Run: MANTECH_120302A
Fluoride		ND	mg/L	0.10						03/02/12 10:58
<b>Sample ID:</b> LCS-6622		Laboratory Control Sample								Run: MANTECH_120302A
Fluoride		2.00	mg/L	0.10	100	90	110			03/02/12 11:01
<b>Sample ID:</b> C12030056-001AMS		Sample Matrix Spike								Run: MANTECH_120302A
Fluoride		2.52	mg/L	0.10	101	80	120			03/02/12 13:10
<b>Sample ID:</b> C12030056-001AMSD		Sample Matrix Spike Duplicate								Run: MANTECH_120302A
Fluoride		2.48	mg/L	0.10	99	80	120	1.6	10	03/02/12 13:17

**Qualifiers:**

RL - Analyte reporting limit.

ND - Not detected at the reporting limit.

MDC - Minimum detectable concentration

# QA/QC Summary Report

Prepared by Casper, WY Branch

**Client:** Denison Mines USA Corp  
**Project:** 1st Quarter Groundwater 2012

**Report Date:** 03/20/12  
**Work Order:** C12030065

Analyte	Count	Result	Units	RL	%REC	Low Limit	High Limit	RPD	RPDLimit	Qual
<b>Method:</b> A4500-H B								Analytical Run: PHSC_101-C_120302A		
<b>Sample ID:</b> pH 6.86		Initial Calibration Verification Standard						03/02/12 10:17		
pH		6.80	s.u.	0.010	99	98	102			
<b>Method:</b> A4500-H B								Batch: R156970		
<b>Sample ID:</b> C12030013-001ADUP		Sample Duplicate				Run: PHSC_101-C_120302A		03/02/12 11:51		
pH		7.76	s.u.	0.010				0.1	3	

**Qualifiers:**

RL - Analyte reporting limit.

MDC - Minimum detectable concentration

ND - Not detected at the reporting limit.

## QA/QC Summary Report

Prepared by Casper, WY Branch

**Client:** Denison Mines USA Corp  
**Project:** 1st Quarter Groundwater 2012

**Report Date:** 03/20/12  
**Work Order:** C12030065

Analyte	Count	Result	Units	RL	%REC	Low Limit	High Limit	RPD	RPDLimit	Qual
<b>Method:</b> A4500-NH3 G										Batch: R157024
<b>Sample ID:</b> MBLK-1		Method Blank								Run: TECHNICON_120305A 03/05/12 15:07
Nitrogen, Ammonia as N		ND	mg/L	0.050						
<b>Sample ID:</b> LCS-2		Laboratory Control Sample								Run: TECHNICON_120305A 03/05/12 15:09
Nitrogen, Ammonia as N		1.86	mg/L	0.050	93	90	110			
<b>Sample ID:</b> LFB-3		Laboratory Fortified Blank								Run: TECHNICON_120305A 03/05/12 15:11
Nitrogen, Ammonia as N		1.98	mg/L	0.050	101	80	120			
<b>Sample ID:</b> C12030049-003DMS		Sample Matrix Spike								Run: TECHNICON_120305A 03/05/12 15:43
Nitrogen, Ammonia as N		2.00	mg/L	0.050	100	90	110			
<b>Sample ID:</b> C12030049-003DMSD		Sample Matrix Spike Duplicate								Run: TECHNICON_120305A 03/05/12 15:45
Nitrogen, Ammonia as N		2.07	mg/L	0.050	104	90	110	3.4	10	

**Qualifiers:**

RL - Analyte reporting limit.

ND - Not detected at the reporting limit.

MDC - Minimum detectable concentration

# QA/QC Summary Report

Prepared by Casper, WY Branch

**Client:** Denison Mines USA Corp  
**Project:** 1st Quarter Groundwater 2012

**Report Date:** 03/20/12  
**Work Order:** C12030065

Analyte	Count	Result	Units	RL	%REC	Low Limit	High Limit	RPD	RPDLimit	Qual
<b>Method:</b> A4500-SO4 E								Batch: 120306_1_SO4-TURB-W		
<b>Sample ID:</b> LCS-1_120306		Laboratory Control Sample			Run: TURB-2_120306A		03/06/12 15:06			
Sulfate		5150	mg/L	100	107	90	110			
<b>Sample ID:</b> MBLK-1_120306		Method Blank			Run: TURB-2_120306A		03/06/12 15:07			
Sulfate		ND	mg/L	0.8						
<b>Sample ID:</b> C12030065-009AMS		Sample Matrix Spike			Run: TURB-2_120306A		03/06/12 16:15			
Sulfate		3460	mg/L	50	100	90	110			
<b>Sample ID:</b> C12030065-009AMSD		Sample Matrix Spike Duplicate			Run: TURB-2_120306A		03/06/12 16:16			
Sulfate		3440	mg/L	50	98	90	110	0.4	10	

**Qualifiers:**

RL - Analyte reporting limit.

ND - Not detected at the reporting limit.

MDC - Minimum detectable concentration

# QA/QC Summary Report

Prepared by Casper, WY Branch

**Client:** Denison Mines USA Corp  
**Project:** 1st Quarter Groundwater 2012

**Report Date:** 03/20/12  
**Work Order:** C12030065

Analyte	Count	Result	Units	RL	%REC	Low Limit	High Limit	RPD	RPDLimit	Qual
<b>Method: E200.7</b>		Analytical Run: ICP2-C_120306A								
<b>Sample ID: ICV</b>	5	Initial Calibration Verification Standard								03/06/12 15:26
Calcium		47.7	mg/L	0.50	95	95	105			
Iron		4.87	mg/L	0.030	97	95	105			
Magnesium		47.4	mg/L	0.50	95	95	105			
Potassium		49.1	mg/L	2.7	98	95	105			
Sodium		50.9	mg/L	0.50	102	95	105			
<b>Sample ID: ICSA</b>	5	Interference Check Sample A								03/06/12 15:54
Calcium		509	mg/L	0.50	102	80	120			
Iron		190	mg/L	0.030	95	80	120			
Magnesium		523	mg/L	0.50	105	80	120			
Potassium		0.00420	mg/L	0.50						
Sodium		0.0100	mg/L	0.50						
<b>Sample ID: ICSAB</b>	5	Interference Check Sample AB								03/06/12 16:04
Calcium		492	mg/L	0.50	98	80	120			
Iron		188	mg/L	0.030	94	80	120			
Magnesium		513	mg/L	0.50	103	80	120			
Potassium		0.00360	mg/L	0.50						
Sodium		0.0689	mg/L	0.50						
<b>Method: E200.7</b>		Batch: R157078								
<b>Sample ID: MB-120306A</b>	5	Method Blank								Run: ICP2-C_120306A 03/06/12 16:27
Calcium		ND	mg/L	0.50						
Iron		ND	mg/L	0.030						
Magnesium		ND	mg/L	0.50						
Potassium		ND	mg/L	0.50						
Sodium		ND	mg/L	2.0						
<b>Sample ID: LFB-120306A</b>	5	Laboratory Fortified Blank								Run: ICP2-C_120306A 03/06/12 16:31
Calcium		48.8	mg/L	0.50	98	85	115			
Iron		0.981	mg/L	0.030	98	85	115			
Magnesium		48.5	mg/L	0.50	97	85	115			
Potassium		44.7	mg/L	0.50	89	85	115			
Sodium		49.4	mg/L	0.50	99	85	115			
<b>Sample ID: C12030065-009BMS2</b>	5	Sample Matrix Spike								Run: ICP2-C_120306A 03/07/12 00:46
Calcium		717	mg/L	0.50	92	70	130			
Iron		4.97	mg/L	0.030	98	70	130			
Magnesium		374	mg/L	0.50	95	70	130			
Potassium		245	mg/L	0.50	90	70	130			
Sodium		792	mg/L	1.6	93	70	130			
<b>Sample ID: C12030065-009BMSD</b>	5	Sample Matrix Spike Duplicate								Run: ICP2-C_120306A 03/07/12 00:50
Calcium		716	mg/L	0.50	92	70	130	0.1	20	
Iron		5.03	mg/L	0.030	99	70	130	1.2	20	
Magnesium		376	mg/L	0.50	96	70	130	0.8	20	
Potassium		249	mg/L	0.50	92	70	130	1.7	20	
Sodium		796	mg/L	1.6	95	70	130	0.4	20	

**Qualifiers:**

RL - Analyte reporting limit.

ND - Not detected at the reporting limit.

MDC - Minimum detectable concentration

# QA/QC Summary Report

Prepared by Casper, WY Branch

**Client:** Denison Mines USA Corp  
**Project:** 1st Quarter Groundwater 2012

**Report Date:** 03/20/12  
**Work Order:** C12030065

Analyte	Count	Result	Units	RL	%REC	Low Limit	High Limit	RPD	RPDLimit	Qual
<b>Method: E200.8</b>		Analytical Run: ICPMS4-C_120305A								
<b>Sample ID: ICV</b>	16	Initial Calibration Verification Standard								03/05/12 10:56
Arsenic		0.0483	mg/L	0.0010	97	90	110			
Beryllium		0.0511	mg/L	0.0010	102	90	110			
Cadmium		0.0505	mg/L	0.0010	101	90	110			
Chromium		0.0489	mg/L	0.0010	98	90	110			
Cobalt		0.0490	mg/L	0.0010	98	90	110			
Copper		0.0498	mg/L	0.0010	100	90	110			
Lead		0.0494	mg/L	0.0010	99	90	110			
Manganese		0.0498	mg/L	0.0010	100	90	110			
Mercury		0.00521	mg/L	0.0010	104	90	110			
Molybdenum		0.0507	mg/L	0.0010	101	90	110			
Nickel		0.0492	mg/L	0.0010	98	90	110			
Selenium		0.0498	mg/L	0.0010	100	90	110			
Thallium		0.0480	mg/L	0.0010	96	90	110			
Uranium		0.0498	mg/L	0.00030	100	90	110			
Vanadium		0.0487	mg/L	0.0010	97	90	110			
Zinc		0.0496	mg/L	0.0010	99	90	110			

<b>Method: E200.8</b>		Batch: R157031A								
<b>Sample ID: C12030065-009BMS</b>	16	Sample Matrix Spike								03/06/12 01:52
Run: ICPMS4-C_120305A										
Arsenic		0.0521	mg/L	0.0010	103	70	130			
Beryllium		0.0428	mg/L	0.0010	86	70	130			
Cadmium		0.0444	mg/L	0.0010	89	70	130			
Chromium		0.0528	mg/L	0.0010	105	70	130			
Cobalt		0.0488	mg/L	0.0010	95	70	130			
Copper		0.0479	mg/L	0.0010	94	70	130			
Lead		0.0510	mg/L	0.0010	102	70	130			
Manganese		0.0598	mg/L	0.0010	101	70	130			
Mercury		0.00504	mg/L	0.0010	101	70	130			
Molybdenum		0.0510	mg/L	0.0010	99	70	130			
Nickel		0.0573	mg/L	0.0010	95	70	130			
Selenium		0.0563	mg/L	0.0010	100	70	130			
Thallium		0.0504	mg/L	0.0010	100	70	130			
Uranium		0.0672	mg/L	0.00030	110	70	130			
Vanadium		0.0550	mg/L	0.0010	108	70	130			
Zinc		0.0628	mg/L	0.0010	86	70	130			

<b>Sample ID: C12030065-009BMSD</b>	16	Sample Matrix Spike Duplicate								03/06/12 01:57
Run: ICPMS4-C_120305A										
Arsenic		0.0525	mg/L	0.0010	104	70	130	0.7	20	
Beryllium		0.0463	mg/L	0.0010	93	70	130	7.7	20	
Cadmium		0.0471	mg/L	0.0010	94	70	130	5.8	20	
Chromium		0.0529	mg/L	0.0010	105	70	130	0.1	20	
Cobalt		0.0491	mg/L	0.0010	95	70	130	0.6	20	
Copper		0.0480	mg/L	0.0010	94	70	130	0.2	20	
Lead		0.0532	mg/L	0.0010	106	70	130	4.2	20	
Manganese		0.0615	mg/L	0.0010	104	70	130	2.9	20	
Mercury		0.00524	mg/L	0.0010	105	70	130	4.0	20	

**Qualifiers:**

RL - Analyte reporting limit.

ND - Not detected at the reporting limit.

MDC - Minimum detectable concentration

# QA/QC Summary Report

Prepared by Casper, WY Branch

**Client:** Denison Mines USA Corp  
**Project:** 1st Quarter Groundwater 2012

**Report Date:** 03/20/12  
**Work Order:** C12030065

Analyte	Count	Result	Units	RL	%REC	Low Limit	High Limit	RPD	RPDLimit	Qual
<b>Method: E200.8</b>										
Batch: R157031A										
<b>Sample ID: C12030065-009BMSD</b>	16	Sample Matrix Spike Duplicate			Run: ICPMS4-C_120305A			03/06/12 01:57		
Molybdenum		0.0537	mg/L	0.0010	105	70	130	5.2	20	
Nickel		0.0572	mg/L	0.0010	95	70	130	0.1	20	
Selenium		0.0575	mg/L	0.0010	102	70	130	2.1	20	
Thallium		0.0525	mg/L	0.0010	104	70	130	4.0	20	
Uranium		0.0690	mg/L	0.00030	113	70	130	2.7	20	
Vanadium		0.0552	mg/L	0.0010	108	70	130	0.2	20	
Zinc		0.0623	mg/L	0.0010	85	70	130	0.9	20	
<b>Sample ID: LRB</b>	16	Method Blank			Run: ICPMS4-C_120305A			03/05/12 11:35		
Arsenic		ND	mg/L	0.0050						
Beryllium		ND	mg/L	0.00050						
Cadmium		ND	mg/L	0.00050						
Chromium		ND	mg/L	0.020						
Cobalt		ND	mg/L	0.010						
Copper		ND	mg/L	0.010						
Lead		ND	mg/L	0.0010						
Manganese		ND	mg/L	0.010						
Mercury		ND	mg/L	0.00050						
Molybdenum		ND	mg/L	0.010						
Nickel		ND	mg/L	0.020						
Selenium		ND	mg/L	0.0050						
Thallium		ND	mg/L	0.00050						
Uranium		ND	mg/L	0.00030						
Vanadium		ND	mg/L	0.010						
Zinc		ND	mg/L	0.010						
<b>Sample ID: LFB</b>	16	Laboratory Fortified Blank			Run: ICPMS4-C_120305A			03/05/12 11:40		
Arsenic		0.0450	mg/L	0.0010	90	85	115			
Beryllium		0.0484	mg/L	0.0010	97	85	115			
Cadmium		0.0475	mg/L	0.0010	95	85	115			
Chromium		0.0435	mg/L	0.0010	87	85	115			
Cobalt		0.0454	mg/L	0.0010	91	85	115			
Copper		0.0447	mg/L	0.0010	89	85	115			
Lead		0.0467	mg/L	0.0010	93	85	115			
Manganese		0.0449	mg/L	0.0010	90	85	115			
Mercury		0.00453	mg/L	0.0010	91	85	115			
Molybdenum		0.0468	mg/L	0.0010	94	85	115			
Nickel		0.0443	mg/L	0.0010	89	85	115			
Selenium		0.0460	mg/L	0.0010	92	85	115			
Thallium		0.0477	mg/L	0.0010	95	85	115			
Uranium		0.0460	mg/L	0.00030	92	85	115			
Vanadium		0.0440	mg/L	0.0010	88	85	115			
Zinc		0.0465	mg/L	0.0010	93	85	115			

**Qualifiers:**

RL - Analyte reporting limit.

ND - Not detected at the reporting limit.

MDC - Minimum detectable concentration

## QA/QC Summary Report

Prepared by Casper, WY Branch

**Client:** Denison Mines USA Corp  
**Project:** 1st Quarter Groundwater 2012

**Report Date:** 03/20/12  
**Work Order:** C12030065

Analyte	Count	Result	Units	RL	%REC	Low Limit	High Limit	RPD	RPDLimit	Qual
<b>Method: E200.8</b>								Analytical Run: ICPMS4-C_120306A		
<b>Sample ID: ICV</b> Initial Calibration Verification Standard 03/06/12 11:47										
Silver		0.0206	mg/L	0.0010	103	90	110			
<b>Method: E200.8</b>								Batch: R157089A		
<b>Sample ID: C12030049-006CMS4</b> Sample Matrix Spike Run: ICPMS4-C_120306A 03/06/12 16:08										
Silver		0.0155	mg/L	0.0010	78	70	130			
<b>Sample ID: C12030049-006CMSD</b> Sample Matrix Spike Duplicate Run: ICPMS4-C_120306A 03/06/12 16:32										
Silver		0.0168	mg/L	0.0010	84	70	130	8.0	20	
<b>Sample ID: LRB</b> Method Blank Run: ICPMS4-C_120306A 03/06/12 12:27										
Silver		ND	mg/L	0.010						
<b>Sample ID: LFB</b> Laboratory Fortified Blank Run: ICPMS4-C_120306A 03/06/12 12:32										
Silver		0.0184	mg/L	0.0010	91	85	115			

**Qualifiers:**

RL - Analyte reporting limit.

ND - Not detected at the reporting limit.

MDC - Minimum detectable concentration



# QA/QC Summary Report

Prepared by Casper, WY Branch

**Client:** Denison Mines USA Corp

**Report Date:** 03/20/12

**Project:** 1st Quarter Groundwater 2012

**Work Order:** C12030065

Analyte	Count	Result	Units	RL	%REC	Low Limit	High Limit	RPD	RPDLimit	Qual
<b>Method: E353.2</b>										Batch: R156988
<b>Sample ID: MBLK-1</b>		Method Blank								Run: TECHNICON_120302A 03/02/12 13:50
Nitrogen, Nitrate+Nitrite as N		ND	mg/L	0.10						
<b>Sample ID: LCS-2</b>		Laboratory Control Sample								Run: TECHNICON_120302A 03/02/12 14:05
Nitrogen, Nitrate+Nitrite as N		2.49	mg/L	0.10	100	90	110			
<b>Sample ID: LFB-3</b>		Laboratory Fortified Blank								Run: TECHNICON_120302A 03/02/12 14:08
Nitrogen, Nitrate+Nitrite as N		1.83	mg/L	0.10	93	90	110			
<b>Sample ID: C12030065-006AMS</b>		Sample Matrix Spike								Run: TECHNICON_120302A 03/02/12 15:23
Nitrogen, Nitrate+Nitrite as N		7.78	mg/L	0.20	100	90	110			
<b>Sample ID: C12030065-006AMSD</b>		Sample Matrix Spike Duplicate								Run: TECHNICON_120302A 03/02/12 15:25
Nitrogen, Nitrate+Nitrite as N		7.83	mg/L	0.20	101	90	110	0.6	10	

**Qualifiers:**

RL - Analyte reporting limit.

ND - Not detected at the reporting limit.

MDC - Minimum detectable concentration



# QA/QC Summary Report

Prepared by Casper, WY Branch

**Client:** Denison Mines USA Corp  
**Project:** 1st Quarter Groundwater 2012

**Report Date:** 03/20/12  
**Work Order:** C12030065

Analyte	Count	Result	Units	RL	%REC	Low Limit	High Limit	RPD	RPDLimit	Qual
<b>Method: E900.1</b>										
Batch: GA-0517										
<b>Sample ID: MB-GA-0517</b>	3	Method Blank								
Gross Alpha minus Rn & U		-0.555	pCi/L							U
Gross Alpha minus Rn & U Precision (±)		0.396	pCi/L							
Gross Alpha minus Rn & U MDC		0.940	pCi/L							
<b>Sample ID: LCS-GA-0517</b>		Laboratory Control Sample								
Gross Alpha minus Rn & U		25.8	pCi/L	125		70	130			03/08/12 16:16
<b>Sample ID: C12030056-001DMS</b>		Sample Matrix Spike								
Gross Alpha minus Rn & U		49.4	pCi/L	114		70	130			03/08/12 16:16
<b>Sample ID: C12030056-001DMSD</b>		Sample Matrix Spike Duplicate								
Gross Alpha minus Rn & U		53.5	pCi/L	124		70	130	8.0		03/08/12 16:16 29.4

**Qualifiers:**

RL - Analyte reporting limit.

MDC - Minimum detectable concentration

ND - Not detected at the reporting limit.

U - Not detected at minimum detectable concentration

# QA/QC Summary Report

Prepared by Casper, WY Branch

**Client:** Denison Mines USA Corp  
**Project:** 1st Quarter Groundwater 2012

**Report Date:** 03/20/12  
**Work Order:** C12030065

Analyte	Count	Result	Units	RL	%REC	Low Limit	High Limit	RPD	RPDLimit	Qual	
<b>Method: SW8260B</b>											
Batch: R157322											
<b>Sample ID: 031212_LCS_4</b>	16	Laboratory Control Sample			Run: SATURNCA_120312A			03/12/12 13:47			
Acetone		110	ug/L	20	108	70	130				
Benzene		9.6	ug/L	1.0	96	70	130				
Carbon tetrachloride		8.9	ug/L	1.0	89	70	130				
Chloroform		8.8	ug/L	1.0	88	70	130				
Chloromethane		9.8	ug/L	1.0	98	70	130				
m+p-Xylenes		19	ug/L	1.0	96	70	130				
Methyl ethyl ketone		120	ug/L	20	123	70	130				
Methylene chloride		9.2	ug/L	1.0	92	70	130				
Naphthalene		9.4	ug/L	1.0	94	70	130				
o-Xylene		9.6	ug/L	1.0	94	70	130				
Toluene		9.8	ug/L	1.0	98	70	130				
Xylenes, Total		29	ug/L	1.0	95	70	130				
Surr: 1,2-Dichlorobenzene-d4				1.0	98	80	120				
Surr: Dibromofluoromethane				1.0	101	70	130				
Surr: p-Bromofluorobenzene				1.0	96	80	130				
Surr: Toluene-d8				1.0	105	80	120				
<b>Sample ID: 031212_MBLK_6</b>	16	Method Blank			Run: SATURNCA_120312A			03/12/12 15:00			
Acetone		ND	ug/L	20							
Benzene		ND	ug/L	1.0							
Carbon tetrachloride		ND	ug/L	1.0							
Chloroform		ND	ug/L	1.0							
Chloromethane		ND	ug/L	1.0							
m+p-Xylenes		ND	ug/L	1.0							
Methyl ethyl ketone		ND	ug/L	20							
Methylene chloride		ND	ug/L	1.0							
Naphthalene		ND	ug/L	1.0							
o-Xylene		ND	ug/L	1.0							
Toluene		ND	ug/L	1.0							
Xylenes, Total		ND	ug/L	1.0							
Surr: 1,2-Dichlorobenzene-d4				1.0	96	80	120				
Surr: Dibromofluoromethane				1.0	101	70	130				
Surr: p-Bromofluorobenzene				1.0	90	80	120				
Surr: Toluene-d8				1.0	100	80	120				
<b>Sample ID: C12030314-005BMS</b>	16	Sample Matrix Spike			Run: SATURNCA_120312A			03/12/12 20:37			
Acetone		2200	ug/L	200	106	70	130				
Benzene		180	ug/L	10	92	70	130				
Carbon tetrachloride		190	ug/L	10	95	70	130				
Chloroform		190	ug/L	10	96	70	130				
Chloromethane		210	ug/L	10	107	70	130				
m+p-Xylenes		380	ug/L	10	95	70	130				
Methyl ethyl ketone		2400	ug/L	200	118	70	130				
Methylene chloride		200	ug/L	10	99	70	130				
Naphthalene		180	ug/L	10	88	70	130				
o-Xylene		190	ug/L	10	93	70	130				

**Qualifiers:**

RL - Analyte reporting limit.

ND - Not detected at the reporting limit.

MDC - Minimum detectable concentration



# QA/QC Summary Report

Prepared by Casper, WY Branch

**Client:** Denison Mines USA Corp

**Report Date:** 03/20/12

**Project:** 1st Quarter Groundwater 2012

**Work Order:** C12030065

Analyte	Count	Result	Units	RL	%REC	Low Limit	High Limit	RPD	RPDLimit	Qual
<b>Method: SW8260B</b>										
Batch: R157322										
<b>Sample ID: C12030314-005BMS</b>	16	Sample Matrix Spike			Run: SATURNCA_120312A				03/12/12 20:37	
Toluene		200	ug/L	10	102	70	130			
Xylenes, Total		570	ug/L	10	94	70	130			
Surr: 1,2-Dichlorobenzene-d4				1.0	92	80	120			
Surr: Dibromofluoromethane				1.0	106	70	130			
Surr: p-Bromofluorobenzene				1.0	97	80	120			
Surr: Toluene-d8				1.0	105	80	120			
<b>Sample ID: C12030314-005BMSD</b>	16	Sample Matrix Spike Duplicate			Run: SATURNCA_120312A				03/12/12 21:13	
Acetone		2400	ug/L	200	119	70	130	11	20	
Benzene		200	ug/L	10	102	70	130	10	20	
Carbon tetrachloride		210	ug/L	10	104	70	130	9.2	20	
Chloroform		210	ug/L	10	104	70	130	7.6	20	
Chloromethane		230	ug/L	10	114	70	130	5.8	20	
m+p-Xylenes		400	ug/L	10	101	70	130	5.7	20	
Methyl ethyl ketone		2400	ug/L	200	121	70	130	2.3	20	
Methylene chloride		210	ug/L	10	107	70	130	7.4	20	
Naphthalene		200	ug/L	10	101	70	130	14	20	
o-Xylene		190	ug/L	10	94	70	130	1.3	20	
Toluene		200	ug/L	10	102	70	130	0.8	20	
Xylenes, Total		590	ug/L	10	99	70	130	4.3	20	
Surr: 1,2-Dichlorobenzene-d4				1.0	102	80	120	0.0	10	
Surr: Dibromofluoromethane				1.0	113	70	130	0.0	10	
Surr: p-Bromofluorobenzene				1.0	103	80	120	0.0	10	
Surr: Toluene-d8				1.0	102	80	120	0.0	10	

**Qualifiers:**

RL - Analyte reporting limit.

ND - Not detected at the reporting limit.

MDC - Minimum detectable concentration

# Workorder Receipt Checklist



C12030065

Login completed by: Edith McPike  
Reviewed by: BL2000\kschroeder  
Reviewed Date: 3/2/2012

Date Received: 3/2/2012

Received by: kg

Carrier FedEx  
name:

- |                                                                                                                                                             |                                         |                             |                                                 |
|-------------------------------------------------------------------------------------------------------------------------------------------------------------|-----------------------------------------|-----------------------------|-------------------------------------------------|
| Shipping container/cooler in good condition?                                                                                                                | Yes <input checked="" type="checkbox"/> | No <input type="checkbox"/> | Not Present <input type="checkbox"/>            |
| Custody seals intact on shipping container/cooler?                                                                                                          | Yes <input checked="" type="checkbox"/> | No <input type="checkbox"/> | Not Present <input type="checkbox"/>            |
| Custody seals intact on sample bottles?                                                                                                                     | Yes <input type="checkbox"/>            | No <input type="checkbox"/> | Not Present <input checked="" type="checkbox"/> |
| Chain of custody present?                                                                                                                                   | Yes <input checked="" type="checkbox"/> | No <input type="checkbox"/> |                                                 |
| Chain of custody signed when relinquished and received?                                                                                                     | Yes <input checked="" type="checkbox"/> | No <input type="checkbox"/> |                                                 |
| Chain of custody agrees with sample labels?                                                                                                                 | Yes <input checked="" type="checkbox"/> | No <input type="checkbox"/> |                                                 |
| Samples in proper container/bottle?                                                                                                                         | Yes <input checked="" type="checkbox"/> | No <input type="checkbox"/> |                                                 |
| Sample containers intact?                                                                                                                                   | Yes <input checked="" type="checkbox"/> | No <input type="checkbox"/> |                                                 |
| Sufficient sample volume for indicated test?                                                                                                                | Yes <input checked="" type="checkbox"/> | No <input type="checkbox"/> |                                                 |
| All samples received within holding time?<br>(Exclude analyses that are considered field parameters<br>such as pH, DO, Res Cl, Sulfite, Ferrous Iron, etc.) | Yes <input checked="" type="checkbox"/> | No <input type="checkbox"/> |                                                 |
| Container/Temp Blank temperature:                                                                                                                           | 2.4°C On Ice                            |                             |                                                 |
| Water - VOA vials have zero headspace?                                                                                                                      | Yes <input checked="" type="checkbox"/> | No <input type="checkbox"/> | No VOA vials submitted <input type="checkbox"/> |
| Water - pH acceptable upon receipt?                                                                                                                         | Yes <input checked="" type="checkbox"/> | No <input type="checkbox"/> | Not Applicable <input type="checkbox"/>         |

Contact and Corrective Action Comments:

None

# Chain of Custody and Analytical Request Record

PLEASE PRINT (Provide as much information as possible.)

Company Name: <b>Denison Mines</b>	Project Name, PWS, Permit, Etc. <b>1st Quarter Ground Water 2012</b>	Sample Origin State: <b>UT</b>	EPA/State Compliance: Yes <input checked="" type="checkbox"/> No <input type="checkbox"/>
Report Mail Address: <b>PO BOX 809 Blanding UT 84511</b>	Contact Name: <b>Tanner Holliday</b>	Phone/Fax: <b>435 678 2221</b>	Email: <b>Tanner Holliday</b>
Invoice Address: <b>Same</b>	Invoice Contact & Phone: <b>David Turk 435 678 2221</b>	Purchase Order:	Quote/Bottle Order:

Special Report/Formats:  <input type="checkbox"/> DW <input type="checkbox"/> EDD/EDT (Electronic Data) <input type="checkbox"/> POTW/WWTP            Format: _____ <input type="checkbox"/> State: _____ <input type="checkbox"/> LEVEL IV <input type="checkbox"/> Other: _____ <input type="checkbox"/> NELAC	Number of Containers Sample Type: <input type="checkbox"/> A <input type="checkbox"/> W <input type="checkbox"/> S <input type="checkbox"/> V <input type="checkbox"/> B <input type="checkbox"/> O <input type="checkbox"/> D <input type="checkbox"/> W <input type="checkbox"/> Air Water Soils/Solids <input type="checkbox"/> Vegetation Bioassay <input type="checkbox"/> Other <input type="checkbox"/> DW - Drinking Water	<b>ANALYSIS REQUESTED</b>								R U S H Standard Turnaround (TAT)	→ Contact ELI prior to <b>RUSH</b> sample submittal for charges and scheduling - See Instruction Page	Shipped by: <b>FE-EX</b>
		Comments:  <b>Temp Blank</b>										Cooler ID(s): <b>client</b>

SAMPLE IDENTIFICATION (Name, Location, Interval, etc.)	Collection Date	Collection Time	MATRIX	Selenium	Flouride	Sulfate	TDS	Uranium	Nitrate + Nitrite	Chloride	Gross Alpha	Thallium	Quote#	Standard Turnaround (TAT)	Comments	Shipped by:	Cooler ID(s):	Receipt Temp	On Ice:	Custody Seal	Intact	Signature Match
1 MW-03	2/29/12	0800	2-W	X	X								C1640					2.4 °C	<input checked="" type="radio"/> N	On Bottle <input checked="" type="radio"/> N	On Cooler <input checked="" type="radio"/> N	<input checked="" type="radio"/> N
2 MW-03A	3/1/12	0725	2-W	X		X	X													<input checked="" type="radio"/> N	<input checked="" type="radio"/> N	<input checked="" type="radio"/> N
3 MW-05	2/28/12	1450	1-W					X												<input checked="" type="radio"/> N	<input checked="" type="radio"/> N	<input checked="" type="radio"/> N
4 MW-12	2/29/12	0650	1-W	X																<input checked="" type="radio"/> N	<input checked="" type="radio"/> N	<input checked="" type="radio"/> N
5 MW-18	2/27/12	1340	2-W			X	X					X								<input checked="" type="radio"/> N	<input checked="" type="radio"/> N	<input checked="" type="radio"/> N
6 MW-19	2/28/12	0900	1-W					X												<input checked="" type="radio"/> N	<input checked="" type="radio"/> N	<input checked="" type="radio"/> N
7 MW-27	2/28/12	1110	3-W		X	X		X	X	X										<input checked="" type="radio"/> N	<input checked="" type="radio"/> N	<input checked="" type="radio"/> N
8 MW-28	2/28/12	1240	1-W							X										<input checked="" type="radio"/> N	<input checked="" type="radio"/> N	<input checked="" type="radio"/> N
9 MW-37	2/29/12	1300	6-W										X							<input checked="" type="radio"/> N	<input checked="" type="radio"/> N	<input checked="" type="radio"/> N
10 Trip Blank 6746																				<input checked="" type="radio"/> N	<input checked="" type="radio"/> N	<input checked="" type="radio"/> N

LABORATORY USE ONLY

1/2030065

<b>Custody Record MUST be Signed</b>	Relinquished by (print): <b>Tanner Holliday</b>	Date/Time: <b>3/1/2012 1100</b>	Signature: <i>Tanner Holliday</i>	Received by (print):	Date/Time:	Signature:
	Relinquished by (print):	Date/Time:	Signature:	Received by (print):	Date/Time:	Signature:
	Sample Disposal: Return to Client:	Lab Disposal:	Received by Laboratory:	Date/Time: <b>3-2-12 9:40</b>	Signature: <b>Kris G. SSC</b>	

## ANALYTICAL SUMMARY REPORT

March 20, 2012

Denison Mines USA Corp  
6425 S Hwy 191  
Blanding, UT 84511

Workorder No.: C12020681                      Quote ID: C1640 - POC Wells

Project Name: 1st Quarter Groundwater 2012

Energy Laboratories, Inc. Casper WY received the following 9 samples for Denison Mines USA Corp on 2/17/2012 for analysis.

Sample ID	Client Sample ID	Collect Date	Receive Date	Matrix	Test
C12020681-001	MW-11	02/13/12 12:25	02/17/12	Aqueous	Alkalinity QA Calculations Chloride Fluoride Metals by ICP, Dissolved Metals by ICP-MS, Dissolved Nitrogen, Ammonia Nitrogen, Nitrate + Nitrite pH Gross Alpha minus Rn222 and Uranium Solids, Total Dissolved Sulfate SW8260B VOCs, Standard List
C12020681-002	MW-25	02/14/12 11:05	02/17/12	Aqueous	Same As Above
C12020681-003	MW-26	02/15/12 9:30	02/17/12	Aqueous	Alkalinity QA Calculations Cancelled Sample Chloride Fluoride Nitrogen, Ammonia Nitrogen, Nitrate + Nitrite pH Solids, Total Dissolved Sulfate SW8260B VOCs, Standard List
C12020681-004	MW-30	02/14/12 13:00	02/17/12	Aqueous	Alkalinity QA Calculations Chloride Fluoride Metals by ICP, Dissolved Metals by ICP-MS, Dissolved Nitrogen, Ammonia Nitrogen, Nitrate + Nitrite pH Gross Alpha minus Rn222 and Uranium Solids, Total Dissolved Sulfate SW8260B VOCs, Standard List
C12020681-005	MW-31	02/13/12 13:40	02/17/12	Aqueous	Same As Above
C12020681-006	MW-35	02/14/12 8:30	02/17/12	Aqueous	Same As Above

## ANALYTICAL SUMMARY REPORT

C12020681-007	MW-65	02/15/12 9:30	02/17/12	Aqueous	Alkalinity QA Calculations Cancelled Sample Chloride Fluoride Nitrogen, Ammonia Nitrogen, Nitrate + Nitrite pH Solids, Total Dissolved Sulfate SW8260B VOCs, Standard List
C12020681-008	Trip Blank 6630	02/15/12 0:00	02/17/12	Aqueous	SW8260B VOCs, Standard List
C12020681-009	Temp Blank	02/15/12 0:00	02/17/12	Aqueous	Temperature

The analyses presented in this report were performed at Energy Laboratories, Inc., 2393 Salt Creek Hwy., Casper, WY 82601, unless otherwise noted. Radiochemistry analyses were performed at Energy Laboratories, Inc., 2325 Kerzell Lane, Casper, WY 82601, unless otherwise noted. Any exceptions or problems with the analyses are noted in the Laboratory Analytical Report, the QA/QC Summary Report, or the Case Narrative.

The results as reported relate only to the item(s) submitted for testing. Solid/soil samples are reported on a wet weight basis (as received) unless specifically indicated. Data corrected for moisture content are typically noted as - dry on the report. For agricultural and mining soil parameters/characteristics, all samples are dried and ground prior to sample analysis.

If you have any questions regarding these test results, please call.

Report Approved By:

*Stephanie D Waldrop*  
Reporting Supervisor

Digitally signed by  
Stephanie Waldrop  
Date: 2012.03.20 12:25:46 -06:00



**CLIENT:** Denison Mines USA Corp  
**Project:** 1st Quarter Groundwater 2012  
**Sample Delivery Group:** C12020681

**Report Date:** 03/20/12

## CASE NARRATIVE

---

### ORIGINAL SAMPLE SUBMITTAL(S)

All original sample submittals have been returned with the data package.

### SAMPLE TEMPERATURE COMPLIANCE: 4°C (±2°C)

Temperature of samples received may not be considered properly preserved by accepted standards. Samples that are hand delivered immediately after collection shall be considered acceptable if there is evidence that the chilling process has begun.

### GROSS ALPHA ANALYSIS

Method 900.0 for gross alpha and gross beta is intended as a drinking water method for low TDS waters. Data provided by this method for non potable waters should be viewed as inconsistent.

### RADON IN AIR ANALYSIS

The desired exposure time is 48 hours (2 days). The time delay in returning the canister to the laboratory for processing should be as short as possible to avoid excessive decay. Maximum recommended delay between end of exposure to beginning of counting should not exceed 8 days.

### SOIL/SOLID SAMPLES

All samples reported on an as received basis unless otherwise indicated.

### ATRAZINE, SIMAZINE AND PCB ANALYSIS

Data for PCBs, Atrazine and Simazine are reported from EPA 525.2. PCB data reported by ELI reflects the results for seven individual Aroclors. When the results for all seven are ND (not detected), the sample meets EPA compliance criteria for PCB monitoring.

### SUBCONTRACTING ANALYSIS

Subcontracting of sample analyses to an outside laboratory may be required. If so, ENERGY LABORATORIES will utilize its branch laboratories or qualified contract laboratories for this service. Any such laboratories will be indicated within the Laboratory Analytical Report.

### BRANCH LABORATORY LOCATIONS

eli-b - Energy Laboratories, Inc. - Billings, MT  
eli-g - Energy Laboratories, Inc. - Gillette, WY  
eli-h - Energy Laboratories, Inc. - Helena, MT  
eli-r - Energy Laboratories, Inc. - Rapid City, SD  
eli-t - Energy Laboratories, Inc. - College Station, TX

### CERTIFICATIONS:

USEPA: WY00002, Radiochemical WY00937; FL-DOH NELAC: E87641, Radiochemical E871017; California: 02118CA; Oregon: WY200001, Radiochemical WY200002; Utah: WY00002; Virginia: 00057; Washington: C836

### ISO 17025 DISCLAIMER:

The results of this Analytical Report relate only to the items submitted for analysis.

ENERGY LABORATORIES, INC. - CASPER, WY certifies that certain method selections contained in this report meet requirements as set forth by the above accrediting authorities. Some results requested by the client may not be covered under these certifications. All analysis data to be submitted for regulatory enforcement should be certified in the sample state of origin. Please verify ELI's certification coverage by visiting [www.energylab.com](http://www.energylab.com)

ELI appreciates the opportunity to provide you with this analytical service. For additional information and services visit our web page [www.energylab.com](http://www.energylab.com).



### LABORATORY ANALYTICAL REPORT

Prepared by Casper, WY Branch

**Client:** Denison Mines USA Corp  
**Project:** 1st Quarter Groundwater 2012

**Report Date:** 03/20/12

**Lab ID:** C12020681-001  
**Client Sample ID:** MW-11

**Collection Date:** 02/13/12 12:25  
**DateReceived:** 02/17/12  
**Matrix:** Aqueous

Analyses	Result	Units	Qualifiers	RL	MCL/ QCL	Method	Analysis Date / By
<b>PHYSICAL PROPERTIES</b>							
pH	7.66	s.u.	H	0.01		A4500-H B	02/17/12 17:15 / lr

**Lab ID:** C12020681-002  
**Client Sample ID:** MW-25

**Collection Date:** 02/14/12 11:05  
**DateReceived:** 02/17/12  
**Matrix:** Aqueous

Analyses	Result	Units	Qualifiers	RL	MCL/ QCL	Method	Analysis Date / By
<b>PHYSICAL PROPERTIES</b>							
pH	6.87	s.u.	H	0.01		A4500-H B	02/17/12 17:17 / lr

**Lab ID:** C12020681-003  
**Client Sample ID:** MW-26

**Collection Date:** 02/15/12 09:30  
**DateReceived:** 02/17/12  
**Matrix:** Aqueous

Analyses	Result	Units	Qualifiers	RL	MCL/ QCL	Method	Analysis Date / By
<b>PHYSICAL PROPERTIES</b>							
pH	6.95	s.u.	H	0.01		A4500-H B	02/17/12 17:20 / lr

**Lab ID:** C12020681-004  
**Client Sample ID:** MW-30

**Collection Date:** 02/14/12 13:00  
**DateReceived:** 02/17/12  
**Matrix:** Aqueous

Analyses	Result	Units	Qualifiers	RL	MCL/ QCL	Method	Analysis Date / By
<b>PHYSICAL PROPERTIES</b>							
pH	7.20	s.u.	H	0.01		A4500-H B	02/17/12 17:23 / lr

**Report Definitions:**  
RL - Analyte reporting limit.  
QCL - Quality control limit.  
H - Analysis performed past recommended holding time.

MCL - Maximum contaminant level.  
ND - Not detected at the reporting limit.



### LABORATORY ANALYTICAL REPORT

Prepared by Casper, WY Branch

**Client:** Denison Mines USA Corp  
**Project:** 1st Quarter Groundwater 2012

**Report Date:** 03/20/12

**Lab ID:** C12020681-005  
**Client Sample ID:** MW-31

**Collection Date:** 02/13/12 13:40  
**DateReceived:** 02/17/12  
**Matrix:** Aqueous

Analyses	Result	Units	Qualifiers	RL	MCL/ QCL	Method	Analysis Date / By
<b>PHYSICAL PROPERTIES</b>							
pH	7.51	s.u.	H	0.01		A4500-H B	02/17/12 17:25 / lr

**Lab ID:** C12020681-006  
**Client Sample ID:** MW-35

**Collection Date:** 02/14/12 08:30  
**DateReceived:** 02/17/12  
**Matrix:** Aqueous

Analyses	Result	Units	Qualifiers	RL	MCL/ QCL	Method	Analysis Date / By
<b>PHYSICAL PROPERTIES</b>							
pH	6.88	s.u.	H	0.01		A4500-H B	02/17/12 17:28 / lr

**Lab ID:** C12020681-007  
**Client Sample ID:** MW-65

**Collection Date:** 02/15/12 09:30  
**DateReceived:** 02/17/12  
**Matrix:** Aqueous

Analyses	Result	Units	Qualifiers	RL	MCL/ QCL	Method	Analysis Date / By
<b>PHYSICAL PROPERTIES</b>							
pH	6.95	s.u.	H	0.01		A4500-H B	02/17/12 17:33 / lr

**Report Definitions:**  
RL - Analyte reporting limit.  
QCL - Quality control limit.  
H - Analysis performed past recommended holding time.

MCL - Maximum contaminant level.  
ND - Not detected at the reporting limit.

## QA/QC Summary Report

Prepared by Casper, WY Branch

**Client:** Denison Mines USA Corp

**Report Date:** 03/20/12

**Project:** 1st Quarter Groundwater 2012

**Work Order:** C12020681

Analyte	Count	Result	Units	RL	%REC	Low Limit	High Limit	RPD	RPDLimit	Qual
<b>Method: A2320 B</b>										
Batch: R156596										
<b>Sample ID: MBLK</b>	3	Method Blank								
Run: MANTECH_120221B										
Alkalinity, Total as CaCO <sub>3</sub>		ND	mg/L	5.0						02/21/12 13:43
Carbonate as CO <sub>3</sub>		ND	mg/L	1.0						
Bicarbonate as HCO <sub>3</sub>		3.81	mg/L	1.0						
<b>Sample ID: LCS-6465</b>										
Laboratory Control Sample										
Run: MANTECH_120221B										
Alkalinity, Total as CaCO <sub>3</sub>		203	mg/L	5.0	100	90	110			02/21/12 13:59
<b>Sample ID: C12020681-001ADUP</b>										
3 Sample Duplicate										
Run: MANTECH_120221B										
Alkalinity, Total as CaCO <sub>3</sub>		307	mg/L	5.0				0.5	10	02/21/12 15:50
Carbonate as CO <sub>3</sub>		3.94	mg/L	5.0					10	
Bicarbonate as HCO <sub>3</sub>		367	mg/L	5.0				1.9	10	

**Qualifiers:**

RL - Analyte reporting limit.

ND - Not detected at the reporting limit.

MDC - Minimum detectable concentration

# QA/QC Summary Report

Prepared by Casper, WY Branch

**Client:** Denison Mines USA Corp

**Report Date:** 03/20/12

**Project:** 1st Quarter Groundwater 2012

**Work Order:** C12020681

Analyte	Count	Result	Units	RL	%REC	Low Limit	High Limit	RPD	RPDLimit	Qual	
<b>Method: A2540 C</b>								Batch: 120217_2_SLDS-TDS-W			
<b>Sample ID: MBLK1_120217</b>		Method Blank					Run: BAL-1_120217D			02/17/12 18:13	
Solids, Total Dissolved TDS @ 180 C		ND	mg/L	10							
<b>Sample ID: LCS1_120217</b>		Laboratory Control Sample					Run: BAL-1_120217D			02/17/12 18:15	
Solids, Total Dissolved TDS @ 180 C		1660	mg/L	10	100	90	110				
<b>Sample ID: C12020679-001ADUP</b>		Sample Duplicate					Run: BAL-1_120217D			02/17/12 18:21	
Solids, Total Dissolved TDS @ 180 C		292000	mg/L	980				0.1	5		
<b>Sample ID: C12020687-001AMS</b>		Sample Matrix Spike					Run: BAL-1_120217D			02/17/12 18:23	
Solids, Total Dissolved TDS @ 180 C		2370	mg/L	10	100	90	110				

**Qualifiers:**

RL - Analyte reporting limit.

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MDC - Minimum detectable concentration

## QA/QC Summary Report

Prepared by Casper, WY Branch

**Client:** Denison Mines USA Corp

**Report Date:** 03/20/12

**Project:** 1st Quarter Groundwater 2012

**Work Order:** C12020681

Analyte	Count	Result	Units	RL	%REC	Low Limit	High Limit	RPD	RPDLimit	Qual
<b>Method:</b> A4500-CI B								Batch: 120224-CL-TTR-W		
<b>Sample ID:</b> MBLK9-120224		Method Blank								
Chloride		ND	mg/L	1.0						
<b>Sample ID:</b> C12020681-007AMS								Run: TITRATION_120224A		
Chloride		237	mg/L	1.0	97	90	110			02/24/12 10:21
<b>Sample ID:</b> C12020681-007AMSD								Run: TITRATION_120224A		
Chloride		238	mg/L	1.0	98	90	110	0.7	10	02/24/12 10:52
<b>Sample ID:</b> LCS35-120224								Run: TITRATION_120224A		
Chloride		3590	mg/L	1.0	101	90	110			02/24/12 10:54

**Qualifiers:**

RL - Analyte reporting limit.

ND - Not detected at the reporting limit.

MDC - Minimum detectable concentration

## QA/QC Summary Report

Prepared by Casper, WY Branch

**Client:** Denison Mines USA Corp

**Report Date:** 03/20/12

**Project:** 1st Quarter Groundwater 2012

**Work Order:** C12020681

Analyte	Count	Result	Units	RL	%REC	Low Limit	High Limit	RPD	RPDLimit	Qual
<b>Method: A4500-F C</b>										
Batch: R156578										
<b>Sample ID: MBLK</b>		Method Blank								
Fluoride		ND	mg/L	0.10						Run: MANTECH_120221A 02/21/12 10:43
<b>Sample ID: LCS-6622</b>		Laboratory Control Sample								
Fluoride		2.08	mg/L	0.10	104	90	110			Run: MANTECH_120221A 02/21/12 10:48
<b>Sample ID: C12020681-003AMS</b>		Sample Matrix Spike								
Fluoride		2.20	mg/L	0.10	95	80	120			Run: MANTECH_120221A 02/21/12 12:30
<b>Sample ID: C12020681-003AMSD</b>		Sample Matrix Spike Duplicate								
Fluoride		2.20	mg/L	0.10	95	80	120	0.0	10	Run: MANTECH_120221A 02/21/12 12:33

**Qualifiers:**

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ND - Not detected at the reporting limit.

MDC - Minimum detectable concentration

## QA/QC Summary Report

Prepared by Casper, WY Branch

**Client:** Denison Mines USA Corp

**Report Date:** 03/20/12

**Project:** 1st Quarter Groundwater 2012

**Work Order:** C12020681

Analyte	Count	Result	Units	RL	%REC	Low Limit	High Limit	RPD	RPDLimit	Qual
<b>Method:</b> A4500-H B								Analytical Run: PHSC_101-C_120217A		
<b>Sample ID:</b> pH 6.86		Initial Calibration Verification Standard						02/17/12 15:14		
pH		6.81	s.u.	0.010	99	98	102			
<b>Method:</b> A4500-H B								Batch: R156532		
<b>Sample ID:</b> C12020681-006ADUP		Sample Duplicate				Run: PHSC_101-C_120217A		02/17/12 17:31		
pH		6.88	s.u.	0.010				0.0	3	

**Qualifiers:**

RL - Analyte reporting limit.

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MDC - Minimum detectable concentration



## QA/QC Summary Report

Prepared by Casper, WY Branch

**Client:** Denison Mines USA Corp  
**Project:** 1st Quarter Groundwater 2012

**Report Date:** 03/20/12  
**Work Order:** C12020681

Analyte	Count	Result	Units	RL	%REC	Low Limit	High Limit	RPD	RPDLimit	Qual
<b>Method:</b> A4500-NH3 G										Batch: R156657
<b>Sample ID:</b> MBLK-1		Method Blank								Run: TECHNICON_120222A 02/22/12 11:39
Nitrogen, Ammonia as N		ND	mg/L	0.050						
<b>Sample ID:</b> LCS-2		Laboratory Control Sample								Run: TECHNICON_120222A 02/22/12 11:41
Nitrogen, Ammonia as N		2.01	mg/L	0.050	100	90	110			
<b>Sample ID:</b> LFB-3		Laboratory Fortified Blank								Run: TECHNICON_120222A 02/22/12 11:43
Nitrogen, Ammonia as N		2.08	mg/L	0.050	106	80	120			
<b>Sample ID:</b> C12020681-005CMS		Sample Matrix Spike								Run: TECHNICON_120222A 02/22/12 12:45
Nitrogen, Ammonia as N		2.13	mg/L	0.050	109	90	110			
<b>Sample ID:</b> C12020681-005CMSD		Sample Matrix Spike Duplicate								Run: TECHNICON_120222A 02/22/12 12:47
Nitrogen, Ammonia as N		2.16	mg/L	0.050	110	90	110	1.4	10	

**Qualifiers:**

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## QA/QC Summary Report

Prepared by Casper, WY Branch

**Client:** Denison Mines USA Corp

**Report Date:** 03/20/12

**Project:** 1st Quarter Groundwater 2012

**Work Order:** C12020681

Analyte	Count	Result	Units	RL	%REC	Low Limit	High Limit	RPD	RPDLimit	Qual
<b>Method:</b> A4500-SO4 E								Batch: 120223_1_SO4-TURB-W		
<b>Sample ID:</b> BLNKB-1_120223		Method Blank			Run: TURB-2_120223A			02/23/12 15:18		
Sulfate		14.8	mg/L	10						
<b>Sample ID:</b> LCS-1_120223		Laboratory Control Sample			Run: TURB-2_120223A			02/23/12 15:20		
Sulfate		5000	mg/L	100	104	90	110			
<b>Sample ID:</b> C12020681-007AMS		Sample Matrix Spike			Run: TURB-2_120223A			02/23/12 16:02		
Sulfate		2840	mg/L	50	99	90	110			
<b>Sample ID:</b> C12020681-007AMSD		Sample Matrix Spike Duplicate			Run: TURB-2_120223A			02/23/12 16:04		
Sulfate		2850	mg/L	50	100	90	110	0.3	10	

**Qualifiers:**

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MDC - Minimum detectable concentration

# QA/QC Summary Report

Prepared by Casper, WY Branch

**Client:** Denison Mines USA Corp  
**Project:** 1st Quarter Groundwater 2012

**Report Date:** 03/20/12  
**Work Order:** C12020681

Analyte	Count	Result	Units	RL	%REC	Low Limit	High Limit	RPD	RPDLimit	Qual
<b>Method: E200.7</b>										
Analytical Run: ICP2-C_120224A										
<b>Sample ID: ICV</b>	5	Initial Calibration Verification Standard								02/24/12 12:44
Calcium		50.4	mg/L	0.50	101	95	105			
Iron		5.12	mg/L	0.030	102	95	105			
Magnesium		49.9	mg/L	0.50	100	95	105			
Potassium		49.5	mg/L	2.7	99	95	105			
Sodium		50.8	mg/L	0.50	102	95	105			
<b>Sample ID: ICSA</b>	5	Interference Check Sample A								02/24/12 13:13
Calcium		521	mg/L	0.50	104	80	120			
Iron		199	mg/L	0.030	100	80	120			
Magnesium		531	mg/L	0.50	106	80	120			
Potassium		0.00300	mg/L	0.50						
Sodium		-0.0490	mg/L	0.50						
<b>Sample ID: ICSAB</b>	5	Interference Check Sample AB								02/24/12 13:17
Calcium		515	mg/L	0.50	103	80	120			
Iron		199	mg/L	0.030	99	80	120			
Magnesium		542	mg/L	0.50	108	80	120			
Potassium		0.00310	mg/L	0.50						
Sodium		-0.135	mg/L	0.50						
<b>Method: E200.7</b>										
Batch: R156772										
<b>Sample ID: MB-120224A</b>	5	Method Blank								02/24/12 13:42
Run: ICP2-C_120224A										
Calcium		ND	mg/L	0.50						
Iron		ND	mg/L	0.030						
Magnesium		ND	mg/L	0.50						
Potassium		ND	mg/L	0.50						
Sodium		ND	mg/L	0.60						
<b>Sample ID: LFB-120224A</b>	5	Laboratory Fortified Blank								02/24/12 13:46
Run: ICP2-C_120224A										
Calcium		49.8	mg/L	0.50	100	85	115			
Iron		0.992	mg/L	0.030	99	85	115			
Magnesium		48.9	mg/L	0.50	98	85	115			
Potassium		45.1	mg/L	0.50	90	85	115			
Sodium		48.2	mg/L	0.50	96	85	115			
<b>Sample ID: C12020674-004CMS2</b>	5	Sample Matrix Spike								02/24/12 15:51
Run: ICP2-C_120224A										
Calcium		155	mg/L	1.0	92	70	130			
Iron		2.00	mg/L	0.030	97	70	130			
Magnesium		100	mg/L	1.0	96	70	130			
Potassium		95.6	mg/L	1.0	86	70	130			
Sodium		131	mg/L	1.0	95	70	130			
<b>Sample ID: C12020674-004CMSD</b>	5	Sample Matrix Spike Duplicate								02/24/12 15:55
Run: ICP2-C_120224A										
Calcium		160	mg/L	1.0	97	70	130	3.6	20	
Iron		2.03	mg/L	0.030	99	70	130	1.2	20	
Magnesium		102	mg/L	1.0	97	70	130	1.4	20	
Potassium		97.5	mg/L	1.0	88	70	130	2.0	20	
Sodium		133	mg/L	1.0	97	70	130	1.4	20	

**Qualifiers:**

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ND - Not detected at the reporting limit.

MDC - Minimum detectable concentration

# QA/QC Summary Report

Prepared by Casper, WY Branch

**Client:** Denison Mines USA Corp

**Report Date:** 03/20/12

**Project:** 1st Quarter Groundwater 2012

**Work Order:** C12020681

Analyte	Count	Result	Units	RL	%REC	Low Limit	High Limit	RPD	RPDLimit	Qual	
<b>Method: E200.8</b>										Analytical Run: ICPMS2-C_120217A	
<b>Sample ID: ICV</b>	15 Initial Calibration Verification Standard									02/17/12 12:48	
Arsenic		0.0475	mg/L	0.0010	95	90	110				
Beryllium		0.0481	mg/L	0.0010	96	90	110				
Cadmium		0.0483	mg/L	0.0010	97	90	110				
Chromium		0.0477	mg/L	0.0010	95	90	110				
Copper		0.0492	mg/L	0.0010	98	90	110				
Lead		0.0483	mg/L	0.0010	97	90	110				
Manganese		0.0483	mg/L	0.0010	97	90	110				
Mercury		0.00534	mg/L	0.0010	107	90	110				
Molybdenum		0.0514	mg/L	0.0010	103	90	110				
Nickel		0.0485	mg/L	0.0010	97	90	110				
Selenium		0.0478	mg/L	0.0010	96	90	110				
Silver		0.0199	mg/L	0.0010	99	90	110				
Thallium		0.0480	mg/L	0.0010	96	90	110				
Vanadium		0.0468	mg/L	0.0010	94	90	110				
Zinc		0.0473	mg/L	0.0010	95	90	110				

<b>Method: E200.8</b>										Batch: R156539	
<b>Sample ID: LRB</b>	15 Method Blank									Run: ICPMS2-C_120217A	02/17/12 13:11
Arsenic		ND	mg/L	0.0050							
Beryllium		ND	mg/L	0.00050							
Cadmium		ND	mg/L	0.00050							
Chromium		ND	mg/L	0.020							
Copper		ND	mg/L	0.010							
Lead		ND	mg/L	0.0010							
Manganese		ND	mg/L	0.010							
Mercury		ND	mg/L	0.00050							
Molybdenum		ND	mg/L	0.010							
Nickel		ND	mg/L	0.020							
Selenium		ND	mg/L	0.0050							
Silver		ND	mg/L	0.010							
Thallium		ND	mg/L	0.00050							
Vanadium		ND	mg/L	0.010							
Zinc		ND	mg/L	0.010							

<b>Sample ID: C12020681-006BMS</b>	15 Sample Matrix Spike									Run: ICPMS2-C_120217A	02/17/12 14:11
Arsenic		0.0539	mg/L	0.0010	105	70	130				
Beryllium		0.0432	mg/L	0.0010	86	70	130				
Cadmium		0.0406	mg/L	0.0010	81	70	130				
Chromium		0.0538	mg/L	0.0010	91	70	130				
Copper		0.0496	mg/L	0.0010	87	70	130				
Lead		0.0527	mg/L	0.0010	105	70	130				
Manganese		0.302	mg/L	0.0010		70	130			A	
Mercury		0.00513	mg/L	0.0010	103	70	130				
Molybdenum		0.0528	mg/L	0.0010	104	70	130				
Nickel		0.0643	mg/L	0.0010	91	70	130				
Selenium		0.0678	mg/L	0.0010	96	70	130				

**Qualifiers:**

RL - Analyte reporting limit.

ND - Not detected at the reporting limit.

A - The analyte level was greater than four times the spike level. In accordance with the method % recovery is not calculated.

MDC - Minimum detectable concentration

# QA/QC Summary Report

Prepared by Casper, WY Branch

**Client:** Denison Mines USA Corp

**Report Date:** 03/20/12

**Project:** 1st Quarter Groundwater 2012

**Work Order:** C12020681

Analyte	Count	Result	Units	RL	%REC	Low Limit	High Limit	RPD	RPDLimit	Qual
<b>Method: E200.8</b>										
Batch: R156539										
<b>Sample ID: C12020681-006BMS</b>	15	Sample Matrix Spike		Run: ICPMS2-C_120217A			02/17/12 14:11			
Silver		0.0144	mg/L	0.0010	72	70	130			
Thallium		0.0537	mg/L	0.0010	106	70	130			
Vanadium		0.0493	mg/L	0.0010	93	70	130			
Zinc		0.0419	mg/L	0.0010	71	70	130			
<b>Sample ID: C12020681-006BMSD</b>	15	Sample Matrix Spike Duplicate		Run: ICPMS2-C_120217A			02/17/12 14:25			
Arsenic		0.0555	mg/L	0.0010	108	70	130	2.9	20	
Beryllium		0.0398	mg/L	0.0010	80	70	130	8.1	20	
Cadmium		0.0408	mg/L	0.0010	81	70	130	0.5	20	
Chromium		0.0519	mg/L	0.0010	87	70	130	3.7	20	
Copper		0.0540	mg/L	0.0010	96	70	130	8.6	20	
Lead		0.0537	mg/L	0.0010	107	70	130	1.9	20	
Manganese		0.270	mg/L	0.0010		70	130	12	20	A
Mercury		0.00533	mg/L	0.0010	107	70	130	3.9	20	
Molybdenum		0.0556	mg/L	0.0010	110	70	130	5.1	20	
Nickel		0.0733	mg/L	0.0010	109	70	130	13	20	
Selenium		0.0711	mg/L	0.0010	103	70	130	4.8	20	
Silver		0.0151	mg/L	0.0010	76	70	130	4.6	20	
Thallium		0.0542	mg/L	0.0010	107	70	130	0.9	20	
Vanadium		0.0485	mg/L	0.0010	92	70	130	1.5	20	
Zinc		0.0451	mg/L	0.0010	78	70	130	7.3	20	
<b>Sample ID: LFB</b>	15	Laboratory Fortified Blank		Run: ICPMS2-C_120217A			02/17/12 14:28			
Arsenic		0.0478	mg/L	0.0010	96	85	115			
Beryllium		0.0467	mg/L	0.0010	93	85	115			
Cadmium		0.0469	mg/L	0.0010	94	85	115			
Chromium		0.0508	mg/L	0.0010	102	85	115			
Copper		0.0486	mg/L	0.0010	97	85	115			
Lead		0.0502	mg/L	0.0010	100	85	115			
Manganese		0.0528	mg/L	0.0010	106	85	115			
Mercury		0.00550	mg/L	0.0010	110	85	115			
Molybdenum		0.0547	mg/L	0.0010	109	85	115			
Nickel		0.0493	mg/L	0.0010	99	85	115			
Selenium		0.0443	mg/L	0.0010	89	85	115			
Silver		0.0185	mg/L	0.0010	92	85	115			
Thallium		0.0502	mg/L	0.0010	100	85	115			
Vanadium		0.0507	mg/L	0.0010	101	85	115			
Zinc		0.0475	mg/L	0.0010	95	85	115			

**Qualifiers:**

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ND - Not detected at the reporting limit.

A - The analyte level was greater than four times the spike level. In accordance with the method % recovery is not calculated.

MDC - Minimum detectable concentration

## QA/QC Summary Report

Prepared by Casper, WY Branch

**Client:** Denison Mines USA Corp  
**Project:** 1st Quarter Groundwater 2012

**Report Date:** 03/20/12  
**Work Order:** C12020681

Analyte	Count	Result	Units	RL	%REC	Low Limit	High Limit	RPD	RPDLimit	Qual
<b>Method: E200.8</b> Analytical Run: ICPMS2-C_120315A										
<b>Sample ID: ICV</b> Initial Calibration Verification Standard 03/15/12 09:09										
Uranium		0.0507	mg/L	0.00030	101	90	110			
<b>Method: E200.8</b> Batch: R157423										
<b>Sample ID: LRB</b> Method Blank Run: ICPMS2-C_120315A 03/15/12 10:20										
Uranium		ND	mg/L	0.00030						
<b>Sample ID: LFB</b> Laboratory Fortified Blank Run: ICPMS2-C_120315A 03/15/12 10:22										
Uranium		0.0565	mg/L	0.00030	113	85	115			
<b>Sample ID: C12030470-001BMS</b> Sample Matrix Spike Run: ICPMS2-C_120315A 03/15/12 10:50										
Uranium		0.0517	mg/L	0.0010	103	70	130			
<b>Sample ID: C12030470-001BMSD</b> Sample Matrix Spike Duplicate Run: ICPMS2-C_120315A 03/15/12 10:52										
Uranium		0.0598	mg/L	0.0010	120	70	130	15	20	
<b>Method: E200.8</b> Analytical Run: ICPMS4-C_120227A										
<b>Sample ID: ICV</b> Initial Calibration Verification Standard 02/27/12 11:43										
Cobalt		0.0480	mg/L	0.0010	96	90	110			
<b>Method: E200.8</b> Batch: R156806B										
<b>Sample ID: C12020681-001BMS</b> Sample Matrix Spike Run: ICPMS4-C_120227A 02/27/12 15:59										
Cobalt		0.0509	mg/L	0.0010	101	70	130			
<b>Sample ID: C12020681-006BMS</b> Sample Matrix Spike Run: ICPMS4-C_120227A 02/27/12 21:30										
Cobalt		0.0527	mg/L	0.0010	99	70	130			
<b>Sample ID: LRB</b> Method Blank Run: ICPMS4-C_120227A 02/27/12 17:42										
Cobalt		ND	mg/L	0.010						
<b>Sample ID: LFB</b> Laboratory Fortified Blank Run: ICPMS4-C_120227A 02/27/12 17:47										
Cobalt		0.0504	mg/L	0.0010	101	85	115			
<b>Method: E200.8</b> Analytical Run: ICPMS4-C_120229A										
<b>Sample ID: ICV</b> Initial Calibration Verification Standard 02/29/12 11:24										
Cobalt		0.0498	mg/L	0.0010	100	90	110			
<b>Method: E200.8</b> Batch: R156925A										
<b>Sample ID: C12020681-002BMS</b> Sample Matrix Spike Run: ICPMS4-C_120229A 03/01/12 02:30										
Cobalt		0.0592	mg/L	0.0010	99	70	130			
<b>Sample ID: C12020681-002BMSD</b> Sample Matrix Spike Duplicate Run: ICPMS4-C_120229A 03/01/12 02:55										
Cobalt		0.0587	mg/L	0.0010	98	70	130	0.8	20	
<b>Sample ID: LRB</b> Method Blank Run: ICPMS4-C_120229A 02/29/12 13:21										
Cobalt		ND	mg/L	0.010						
<b>Sample ID: LFB</b> Laboratory Fortified Blank Run: ICPMS4-C_120229A 02/29/12 13:26										
Cobalt		0.0549	mg/L	0.0010	110	85	115			

**Qualifiers:**

RL - Analyte reporting limit.

ND - Not detected at the reporting limit.

MDC - Minimum detectable concentration

## QA/QC Summary Report

Prepared by Casper, WY Branch

**Client:** Denison Mines USA Corp

**Report Date:** 03/20/12

**Project:** 1st Quarter Groundwater 2012

**Work Order:** C12020681

Analyte	Count	Result	Units	RL	%REC	Low Limit	High Limit	RPD	RPDLimit	Qual
<b>Method: E353.2</b>										Batch: R156588
<b>Sample ID: MBLK-1</b>		Method Blank								Run: TECHNICON_120221A 02/21/12 11:30
Nitrogen, Nitrate+Nitrite as N		ND	mg/L	0.10						
<b>Sample ID: LCS-2</b>		Laboratory Control Sample								Run: TECHNICON_120221A 02/21/12 11:33
Nitrogen, Nitrate+Nitrite as N		2.57	mg/L	0.10	103	90	110			
<b>Sample ID: LFB-3</b>		Laboratory Fortified Blank								Run: TECHNICON_120221A 02/21/12 11:35
Nitrogen, Nitrate+Nitrite as N		1.98	mg/L	0.10	101	90	110			
<b>Sample ID: C12020674-006DMS</b>		Sample Matrix Spike								Run: TECHNICON_120221A 02/21/12 13:28
Nitrogen, Nitrate+Nitrite as N		1.98	mg/L	0.10	99	90	110			
<b>Sample ID: C12020674-006DMSD</b>		Sample Matrix Spike Duplicate								Run: TECHNICON_120221A 02/21/12 13:31
Nitrogen, Nitrate+Nitrite as N		1.99	mg/L	0.10	99	90	110	0.5	10	
<b>Sample ID: C12020687-001DMS</b>		Sample Matrix Spike								Run: TECHNICON_120221A 02/21/12 14:06
Nitrogen, Nitrate+Nitrite as N		1.96	mg/L	0.10	100	90	110			
<b>Sample ID: C12020687-001DMSD</b>		Sample Matrix Spike Duplicate								Run: TECHNICON_120221A 02/21/12 14:08
Nitrogen, Nitrate+Nitrite as N		1.98	mg/L	0.10	101	90	110	1.0	10	

**Qualifiers:**

RL - Analyte reporting limit.

ND - Not detected at the reporting limit.

MDC - Minimum detectable concentration



## QA/QC Summary Report

Prepared by Casper, WY Branch

**Client:** Denison Mines USA Corp

**Report Date:** 03/20/12

**Project:** 1st Quarter Groundwater 2012

**Work Order:** C12020681

Analyte	Count	Result	Units	RL	%REC	Low Limit	High Limit	RPD	RPDLimit	Qual
<b>Method: E900.1</b>										
Batch: GA-0512										
<b>Sample ID: MB-GA-0512</b>	3	Method Blank								
Run: G5000W_120224B										
Gross Alpha minus Rn & U		0.279	pCi/L							U
Gross Alpha minus Rn & U Precision (±)		0.332	pCi/L							
Gross Alpha minus Rn & U MDC		0.496	pCi/L							
<b>Sample ID: LCS-GA-0512</b>		Laboratory Control Sample								
Run: G5000W_120224B										
Gross Alpha minus Rn & U		20.3	pCi/L	95		70	130			02/28/12 17:24
<b>Sample ID: C12020681-006DMS</b>		Sample Matrix Spike								
Run: G5000W_120224B										
Gross Alpha minus Rn & U		23.7	pCi/L	93		70	130			02/28/12 17:24
<b>Sample ID: C12020681-006DMSD</b>		Sample Matrix Spike Duplicate								
Run: G5000W_120224B										
Gross Alpha minus Rn & U		24.7	pCi/L	98		70	130	4.1		23.1

**Qualifiers:**

RL - Analyte reporting limit.

ND - Not detected at the reporting limit.

MDC - Minimum detectable concentration

U - Not detected at minimum detectable concentration



# QA/QC Summary Report

Prepared by Casper, WY Branch

**Client:** Denison Mines USA Corp

**Report Date:** 03/20/12

**Project:** 1st Quarter Groundwater 2012

**Work Order:** C12020681

Analyte	Count	Result	Units	RL	%REC	Low Limit	High Limit	RPD	RPDLimit	Qual
<b>Method: SW8260B</b>										
Batch: R156719										
<b>Sample ID: 23-Feb-12_MBLK_6</b>	16	Method Blank		Run: GCMS2_120223A			02/23/12 14:49			
Acetone		ND	ug/L	20						
Benzene		ND	ug/L	1.0						
Carbon tetrachloride		ND	ug/L	1.0						
Chloroform		ND	ug/L	1.0						
Chloromethane		ND	ug/L	1.0						
m+p-Xylenes		ND	ug/L	1.0						
Methyl ethyl ketone		ND	ug/L	20						
Methylene chloride		ND	ug/L	1.0						
Naphthalene		ND	ug/L	1.0						
o-Xylene		ND	ug/L	1.0						
Toluene		ND	ug/L	1.0						
Xylenes, Total		ND	ug/L	1.0						
Surr: 1,2-Dichlorobenzene-d4				1.0	115	80	120			
Surr: Dibromofluoromethane				1.0	98	70	130			
Surr: p-Bromofluorobenzene				1.0	134	80	120			S
Surr: Toluene-d8				1.0	107	80	120			
<b>Sample ID: 23-Feb-12_LCS_7</b>	16	Laboratory Control Sample		Run: GCMS2_120223A			02/23/12 15:23			
Acetone		100	ug/L	20	101	70	130			
Benzene		10	ug/L	1.0	100	70	130			
Carbon tetrachloride		10	ug/L	1.0	102	70	130			
Chloroform		9.6	ug/L	1.0	96	70	130			
Chloromethane		12	ug/L	1.0	117	70	130			
m+p-Xylenes		21	ug/L	1.0	106	70	130			
Methyl ethyl ketone		98	ug/L	20	98	70	130			
Methylene chloride		9.0	ug/L	1.0	90	70	130			
Naphthalene		9.4	ug/L	1.0	94	70	130			
o-Xylene		8.5	ug/L	1.0	85	70	130			
Toluene		9.8	ug/L	1.0	97	70	130			
Xylenes, Total		30	ug/L	1.0	99	70	130			
Surr: 1,2-Dichlorobenzene-d4				1.0	92	80	120			
Surr: Dibromofluoromethane				1.0	100	70	130			
Surr: p-Bromofluorobenzene				1.0	93	80	130			
Surr: Toluene-d8				1.0	108	80	120			
<b>Sample ID: C12020681-003CMS</b>	16	Sample Matrix Spike		Run: GCMS2_120223A			02/23/12 21:10			
Acetone		27000	ug/L	2000	133	70	130			S
Benzene		2100	ug/L	100	104	70	130			
Carbon tetrachloride		2200	ug/L	100	112	70	130			
Chloroform		5800	ug/L	100	125	70	130			
Chloromethane		2000	ug/L	100	101	70	130			
m+p-Xylenes		4200	ug/L	100	106	70	130			
Methyl ethyl ketone		26000	ug/L	2000	129	70	130			
Methylene chloride		2200	ug/L	100	110	70	130			
Naphthalene		2100	ug/L	100	104	70	130			
o-Xylene		1700	ug/L	100	87	70	130			
Toluene		2000	ug/L	100	100	70	130			

**Qualifiers:**

RL - Analyte reporting limit.

ND - Not detected at the reporting limit.

MDC - Minimum detectable concentration

S - Spike recovery outside of advisory limits.



# QA/QC Summary Report

Prepared by Casper, WY Branch

**Client:** Denison Mines USA Corp  
**Project:** 1st Quarter Groundwater 2012

**Report Date:** 03/20/12  
**Work Order:** C12020681

Analyte	Count	Result	Units	RL	%REC	Low Limit	High Limit	RPD	RPDLimit	Qual
<b>Method:</b> SW8260B										
Batch: R156719										
<b>Sample ID:</b> C12020681-003CMS	16	Sample Matrix Spike				Run: GCMS2_120223A		02/23/12 21:10		
Xylenes, Total		6000	ug/L	100	99	70	130			
Surr: 1,2-Dichlorobenzene-d4				1.0	95	80	120			
Surr: Dibromofluoromethane				1.0	116	70	130			
Surr: p-Bromofluorobenzene				1.0	98	80	120			
Surr: Toluene-d8				1.0	107	80	120			
<b>Sample ID:</b> C12020681-003CMSD	16	Sample Matrix Spike Duplicate				Run: GCMS2_120223A		02/23/12 21:45		
Acetone		26000	ug/L	2000	130	70	130	2.4		20
Benzene		2100	ug/L	100	104	70	130	0.8		20
Carbon tetrachloride		2200	ug/L	100	112	70	130	0.4		20
Chloroform		5800	ug/L	100	125	70	130	0.1		20
Chloromethane		2200	ug/L	100	110	70	130	8.7		20
m+p-Xylenes		4200	ug/L	100	106	70	130	0.0		20
Methyl ethyl ketone		26000	ug/L	2000	128	70	130	0.6		20
Methylene chloride		2200	ug/L	100	111	70	130	1.1		20
Naphthalene		2100	ug/L	100	105	70	130	1.2		20
o-Xylene		1700	ug/L	100	86	70	130	0.5		20
Toluene		2000	ug/L	100	99	70	130	1.2		20
Xylenes, Total		6000	ug/L	100	99	70	130	0.1		20
Surr: 1,2-Dichlorobenzene-d4				1.0	96	80	120	0.0		10
Surr: Dibromofluoromethane				1.0	117	70	130	0.0		10
Surr: p-Bromofluorobenzene				1.0	96	80	120	0.0		10
Surr: Toluene-d8				1.0	108	80	120	0.0		10

**Qualifiers:**

RL - Analyte reporting limit.

ND - Not detected at the reporting limit.

MDC - Minimum detectable concentration



## QA/QC Summary Report

Prepared by Casper, WY Branch

**Client:** Denison Mines USA Corp  
**Project:** 1st Quarter Groundwater 2012

**Report Date:** 03/20/12  
**Work Order:** C12020681

Analyte	Count	Result	Units	RL	%REC	Low Limit	High Limit	RPD	RPDLimit	Qual
<b>Method: SW8260B</b>										
Batch: R156779										
<b>Sample ID: 24-Feb-12_LCS_4</b>	5	Laboratory Control Sample			Run: 5975VOC1_120224A				02/24/12 13:14	
Chloroform		8.6	ug/L	1.0	86	70	130			
Surr: 1,2-Dichlorobenzene-d4				1.0	100	80	120			
Surr: Dibromofluoromethane				1.0	86	70	130			
Surr: p-Bromofluorobenzene				1.0	94	80	130			
Surr: Toluene-d8				1.0	92	80	120			
<b>Sample ID: 24-Feb-12_MBLK_6</b>	5	Method Blank			Run: 5975VOC1_120224A				02/24/12 14:28	
Chloroform		ND	ug/L	1.0						
Surr: 1,2-Dichlorobenzene-d4				1.0	95	80	120			
Surr: Dibromofluoromethane				1.0	87	70	130			
Surr: p-Bromofluorobenzene				1.0	129	80	120			S
Surr: Toluene-d8				1.0	94	80	120			
<b>Sample ID: C12020681-007EMS</b>	5	Sample Matrix Spike			Run: 5975VOC1_120224A				02/24/12 18:01	
Chloroform		5400	ug/L	100	132	70	130			S
Surr: 1,2-Dichlorobenzene-d4				1.0	105	80	120			
Surr: Dibromofluoromethane				1.0	94	70	130			
Surr: p-Bromofluorobenzene				1.0	96	80	120			
Surr: Toluene-d8				1.0	98	80	120			
<b>Sample ID: C12020681-007EMSD</b>	5	Sample Matrix Spike Duplicate			Run: 5975VOC1_120224A				02/24/12 18:36	
Chloroform		5300	ug/L	100	129	70	130	1.0	20	
Surr: 1,2-Dichlorobenzene-d4				1.0	102	80	120	0.0	10	
Surr: Dibromofluoromethane				1.0	94	70	130	0.0	10	
Surr: p-Bromofluorobenzene				1.0	95	80	120	0.0	10	
Surr: Toluene-d8				1.0	97	80	120	0.0	10	

**Qualifiers:**

RL - Analyte reporting limit.

MDC - Minimum detectable concentration

ND - Not detected at the reporting limit.

S - Spike recovery outside of advisory limits.



# Workorder Receipt Checklist

## Denison Mines USA Corp



C12020681

Login completed by: Kristy Gisse

Date Received: 2/17/2012

Reviewed by: BL2000\kschroeder

Received by: kg

Reviewed Date: 2/23/2012

Carrier FedEx  
name:

- |                                                                                                                                                             |                                         |                             |                                                 |
|-------------------------------------------------------------------------------------------------------------------------------------------------------------|-----------------------------------------|-----------------------------|-------------------------------------------------|
| Shipping container/cooler in good condition?                                                                                                                | Yes <input checked="" type="checkbox"/> | No <input type="checkbox"/> | Not Present <input type="checkbox"/>            |
| Custody seals intact on shipping container/cooler?                                                                                                          | Yes <input checked="" type="checkbox"/> | No <input type="checkbox"/> | Not Present <input type="checkbox"/>            |
| Custody seals intact on sample bottles?                                                                                                                     | Yes <input type="checkbox"/>            | No <input type="checkbox"/> | Not Present <input checked="" type="checkbox"/> |
| Chain of custody present?                                                                                                                                   | Yes <input checked="" type="checkbox"/> | No <input type="checkbox"/> |                                                 |
| Chain of custody signed when relinquished and received?                                                                                                     | Yes <input checked="" type="checkbox"/> | No <input type="checkbox"/> |                                                 |
| Chain of custody agrees with sample labels?                                                                                                                 | Yes <input checked="" type="checkbox"/> | No <input type="checkbox"/> |                                                 |
| Samples in proper container/bottle?                                                                                                                         | Yes <input checked="" type="checkbox"/> | No <input type="checkbox"/> |                                                 |
| Sample containers intact?                                                                                                                                   | Yes <input checked="" type="checkbox"/> | No <input type="checkbox"/> |                                                 |
| Sufficient sample volume for indicated test?                                                                                                                | Yes <input checked="" type="checkbox"/> | No <input type="checkbox"/> |                                                 |
| All samples received within holding time?<br>(Exclude analyses that are considered field parameters<br>such as pH, DO, Res Cl, Sulfite, Ferrous Iron, etc.) | Yes <input checked="" type="checkbox"/> | No <input type="checkbox"/> |                                                 |
| Container/Temp Blank temperature:                                                                                                                           | 2.4°C On Ice                            |                             |                                                 |
| Water - VOA vials have zero headspace?                                                                                                                      | Yes <input checked="" type="checkbox"/> | No <input type="checkbox"/> | No VOA vials submitted <input type="checkbox"/> |
| Water - pH acceptable upon receipt?                                                                                                                         | Yes <input checked="" type="checkbox"/> | No <input type="checkbox"/> | Not Applicable <input type="checkbox"/>         |

-----  
Contact and Corrective Action Comments:

Cancelled Gross Alpha and Dissolved Metals analyses on samples MW-26 and MW-65. The samples did not contain nitric acid. Client will submit resamples.



# Chain of Custody and Analytical Request Record

PLEASE PRINT (Provide as much information as possible.)

Company Name: <u>Denison Mines</u>	Project Name, PWS, Permit, Etc. <u>1st Quarter GW 2012</u>	Sample Origin State: <u>UT</u>	EPA/State Compliance: Yes <input checked="" type="checkbox"/> No <input type="checkbox"/>
Report Mail Address: <u>6425 S. Hwy 191 Blanding, UT 84511</u>	Contact Name: <u>Tanner Holliday</u> Phone/Fax: <u>435-678 2221</u>	Email:	Sampler: (Please Print) <u>Tanner Holliday</u>
Invoice Address: <u>Same</u>	Invoice Contact & Phone: <u>Same</u>	Purchase Order:	Quote/Bottle Order:

Special Report/Formats:  <input type="checkbox"/> DW <input type="checkbox"/> EDD/EDT (Electronic Data) <input type="checkbox"/> POTW/WWTP <input type="checkbox"/> Format: _____ <input type="checkbox"/> State: _____ <input type="checkbox"/> LEVEL IV <input type="checkbox"/> Other: _____ <input type="checkbox"/> NELAC			ANALYSIS REQUESTED Number of Containers Sample Type: <u>AW S V B O DW</u> <input type="checkbox"/> Air Water <input type="checkbox"/> Solids/Solids <input type="checkbox"/> Vegetation <input type="checkbox"/> Bioassay <input type="checkbox"/> Other <input type="checkbox"/> DW - Drinking Water	SEE ATTACHED Standard Turnaround (TAT)	R U S H	Contact ELI prior to RUSH sample submittal for charges and scheduling - See Instruction Page	Shipped by: <u>FE-EX</u> Cooler ID(s): <u>C1ent(2)</u>
SAMPLE IDENTIFICATION (Name, Location, Interval, etc.)    Collection Date    Collection Time    MATRIX						Comments:	Receipt Temp: <u>2.4 °C</u> On Ice: <input checked="" type="checkbox"/> Y <input type="checkbox"/> N Custody Seal: On Bottle <input checked="" type="checkbox"/> Y <input type="checkbox"/> N, On Cooler <input checked="" type="checkbox"/> Y <input type="checkbox"/> N Intact: <input checked="" type="checkbox"/> Y <input type="checkbox"/> N Signature Match: <input checked="" type="checkbox"/> Y <input type="checkbox"/> N
1	<u>MW-11</u>	<u>2-13-12</u>	<u>1225</u>	<u>6-W</u>	<u>X</u>		
2	<u>MW-25</u>	<u>2-14-12</u>	<u>1105</u>	<u>6-W</u>	<u>X</u>		
3	<u>MW-26</u>	<u>2-15-12</u>	<u>0930</u>	<u>6-W</u>	<u>X</u>		
4	<u>MW-30</u>	<u>2-14-12</u>	<u>1300</u>	<u>6-W</u>	<u>X</u>		
5	<u>MW-31</u>	<u>2-13-12</u>	<u>1340</u>	<u>6-W</u>	<u>X</u>		
6	<u>MW-35</u>	<u>2-14-12</u>	<u>0830</u>	<u>6-W</u>	<u>X</u>		
7	<u>MW-65</u>	<u>2-15-12</u>	<u>0930</u>	<u>6-W</u>	<u>X</u>		
8	<u>Trip Blank 6630</u>						
9	<u>Temp Blank 2</u>						
10							

<b>Custody Record MUST be Signed</b>	Relinquished by (print): <u>Garrin Palmer</u> Date/Time: <u>2-16-12/1200</u> Signature: <u>Garrin Palmer</u>	Received by (print): _____ Date/Time: _____ Signature: _____
	Relinquished by (print): _____ Date/Time: _____ Signature: _____	Received by (print): _____ Date/Time: _____ Signature: _____
	Sample Disposal: Return to Client: _____ Lab Disposal: _____	Received by Laboratory: _____ Date/Time: <u>2-17-12 10:10</u> Signature: <u>Rris 6:55C</u>

LABORATORY USE ONLY

Tab F

Laboratory Analytical Reports – Accelerated Monitoring

Tab F1

Laboratory Analytical Reports – Accelerated Monitoring

January 2012



## ORGANIC ANALYTICAL REPORT

**Client:** Denison Mines  
**Project:** January Monthly Groundwater 2012  
**Lab Sample ID:** 1201399-001A  
**Client Sample ID:** MW-11  
**Collection Date:** 1/26/2012 1010h  
**Received Date:** 1/27/2012 1000h

**Contact:** Jo Ann Tischler

**Method:** SW8260C

### Analytical Results

VOAs by GC/MS Method 8260C/5030C

**Analyzed:** 1/27/2012 1406h

**Units:** µg/L

**Dilution Factor:** 1

463 West 3600 South  
Salt Lake City, UT 84115

Compound	CAS Number	Reporting Limit	Analytical Result	Qual		
Tetrahydrofuran	109-99-9	1.00	< 1.00	1		
Surrogate	CAS	Result	Amount Spiked	% REC	Limits	Qual
Surr: Toluene-d8	2037-26-5	49.3	50.00	98.7	77-129	
Surr: Dibromofluoromethane	1868-53-7	46.5	50.00	92.9	80-124	
Surr: 4-Bromofluorobenzene	460-00-4	49.1	50.00	98.2	80-128	
Surr: 1,2-Dichloroethane-d4	17060-07-0	48.1	50.00	96.3	74-151	

<sup>1</sup> - Matrix spike recovery indicates matrix interference. The method is in control as indicated by the LCS.

Phone: (801) 263-8686  
Toll Free: (888) 263-8686  
Fax: (801) 263-8687  
e-mail: awal@awal-labs.com

web: www.awal-labs.com

Kyle F. Gross  
Laboratory Director

Jose Rocha  
QA Officer



### LABORATORY ANALYTICAL REPORT

Prepared by Casper, WY Branch

**Client:** Denison Mines USA Corp  
**Project:** January Monthly Groundwater 2012  
**Lab ID:** C12010822-001  
**Client Sample ID:** MW-11

**Report Date:** 02/08/12  
**Collection Date:** 01/26/12 10:10  
**Date Received:** 01/27/12  
**Matrix:** Aqueous

Analyses	Result	Units	Qualifier	RL	MCL/ QCL	Method	Analysis Date / By
<b>METALS - DISSOLVED</b>							
Manganese	102	ug/L		10		E200.8	01/30/12 19:14 / sml

**Report Definitions:** RL - Analyte reporting limit.  
QCL - Quality control limit.

MCL - Maximum contaminant level.  
ND - Not detected at the reporting limit.



### LABORATORY ANALYTICAL REPORT

Prepared by Casper, WY Branch

**Client:** Denison Mines USA Corp  
**Project:** January Monthly Groundwater 2012  
**Lab ID:** C12010822-002  
**Client Sample ID:** MW-25

**Report Date:** 02/08/12  
**Collection Date:** 01/25/12 12:35  
**Date Received:** 01/27/12  
**Matrix:** Aqueous

Analyses	Result	Units	Qualifier	RL	MCL/ QCL	Method	Analysis Date / By
<b>METALS - DISSOLVED</b>							
Uranium	6.60	ug/L		0.30		E200.8	01/27/12 19:30 / sml

**Report Definitions:** RL - Analyte reporting limit.  
QCL - Quality control limit.

MCL - Maximum contaminant level.  
ND - Not detected at the reporting limit.



### LABORATORY ANALYTICAL REPORT

Prepared by Casper, WY Branch

**Client:** Denison Mines USA Corp  
**Project:** January Monthly Groundwater 2012  
**Lab ID:** C12010822-003  
**Client Sample ID:** MW-26

**Report Date:** 02/08/12  
**Collection Date:** 01/25/12 13:00  
**Date Received:** 01/27/12  
**Matrix:** Aqueous

Analyses	Result	Units	Qualifier	RL	MCL/ QCL	Method	Analysis Date / By
<b>MAJOR IONS</b>							
Chloride	68	mg/L		1		A4500-Cl B	01/31/12 15:01 / lr
Nitrogen, Nitrate+Nitrite as N	1.9	mg/L		0.1		E353.2	01/27/12 14:26 / dc
<b>PHYSICAL PROPERTIES</b>							
Solids, Total Dissolved TDS @ 180 C	3250	mg/L		10		A2540 C	01/27/12 16:03 / lr
<b>METALS - DISSOLVED</b>							
Uranium	64.6	ug/L		0.30		E200.8	01/27/12 19:32 / sml
<b>RADIONUCLIDES - DISSOLVED</b>							
Gross Alpha minus Rn & U	2.8	pCi/L				E900.1	02/07/12 17:18 / lbb
Gross Alpha minus Rn & U Precision (±)	0.6	pCi/L				E900.1	02/07/12 17:18 / lbb
Gross Alpha minus Rn & U MDC	0.5	pCi/L				E900.1	02/07/12 17:18 / lbb
<b>VOLATILE ORGANIC COMPOUNDS</b>							
Acetone	ND	ug/L		20		SW8260B	02/06/12 20:29 / jlr
Benzene	ND	ug/L		1.0		SW8260B	02/06/12 20:29 / jlr
Carbon tetrachloride	ND	ug/L		1.0		SW8260B	02/06/12 20:29 / jlr
Chloroform	1900	ug/L	D	100		SW8260B	02/06/12 19:53 / jlr
Chloromethane	ND	ug/L		1.0		SW8260B	02/06/12 20:29 / jlr
Methyl ethyl ketone	ND	ug/L		20		SW8260B	02/06/12 20:29 / jlr
Methylene chloride	13	ug/L		1.0		SW8260B	02/06/12 20:29 / jlr
Naphthalene	ND	ug/L		1.0		SW8260B	02/06/12 20:29 / jlr
Toluene	ND	ug/L		1.0		SW8260B	02/06/12 20:29 / jlr
Xylenes, Total	ND	ug/L		1.0		SW8260B	02/06/12 20:29 / jlr
Surr: 1,2-Dichlorobenzene-d4	94.0	%REC		80-120		SW8260B	02/06/12 20:29 / jlr
Surr: Dibromofluoromethane	110	%REC		70-130		SW8260B	02/06/12 20:29 / jlr
Surr: p-Bromofluorobenzene	91.0	%REC		80-120		SW8260B	02/06/12 20:29 / jlr
Surr: Toluene-d8	102	%REC		80-120		SW8260B	02/06/12 20:29 / jlr

**Report** RL - Analyte reporting limit.  
**Definitions:** QCL - Quality control limit.  
MDC - Minimum detectable concentration

MCL - Maximum contaminant level.  
ND - Not detected at the reporting limit.  
D - RL increased due to sample matrix.



### LABORATORY ANALYTICAL REPORT

Prepared by Casper, WY Branch

**Client:** Denison Mines USA Corp  
**Project:** January Monthly Groundwater 2012  
**Lab ID:** C12010822-004  
**Client Sample ID:** MW-30

**Report Date:** 02/08/12  
**Collection Date:** 01/24/12 10:40  
**Date Received:** 01/27/12  
**Matrix:** Aqueous

Analyses	Result	Units	Qualifier	RL	MCL/ QCL	Method	Analysis Date / By
<b>MAJOR IONS</b>							
Chloride	124	mg/L		1		A4500-Cl B	01/31/12 15:03 / lr
Nitrogen, Nitrate+Nitrite as N	17	mg/L	D	1		E353.2	01/27/12 14:29 / dc
<b>METALS - DISSOLVED</b>							
Selenium	33.3	ug/L		5.0		E200.8	01/30/12 19:21 / sml

**Report Definitions:**  
RL - Analyte reporting limit.  
QCL - Quality control limit.  
D - RL increased due to sample matrix.

MCL - Maximum contaminant level.  
ND - Not detected at the reporting limit.



### LABORATORY ANALYTICAL REPORT

Prepared by Casper, WY Branch

**Client:** Denison Mines USA Corp  
**Project:** January Monthly Groundwater 2012  
**Lab ID:** C12010822-005  
**Client Sample ID:** MW-31

**Report Date:** 02/08/12  
**Collection Date:** 01/24/12 13:15  
**Date Received:** 01/27/12  
**Matrix:** Aqueous

Analyses	Result	Units	Qualifier	RL	MCL/ QCL	Method	Analysis Date / By
<b>MAJOR IONS</b>							
Chloride	155	mg/L		1		A4500-Cl B	01/31/12 15:04 / lr
Nitrogen, Nitrate+Nitrite as N	21	mg/L	D	1		E353.2	01/27/12 14:31 / dc
Sulfate	539	mg/L	D	10		A4500-SO4 E	02/06/12 16:14 / lr
<b>PHYSICAL PROPERTIES</b>							
Solids, Total Dissolved TDS @ 180 C	1360	mg/L		10		A2540 C	01/27/12 16:03 / lr

**Report Definitions:**  
RL - Analyte reporting limit.  
QCL - Quality control limit.  
D - RL increased due to sample matrix.

MCL - Maximum contaminant level.  
ND - Not detected at the reporting limit.



**LABORATORY ANALYTICAL REPORT**

Prepared by Casper, WY Branch

**Client:** Denison Mines USA Corp  
**Project:** January Monthly Groundwater 2012  
**Lab ID:** C12010822-006  
**Client Sample ID:** MW-35

**Report Date:** 02/08/12  
**Collection Date:** 01/24/12 12:20  
**Date Received:** 01/27/12  
**Matrix:** Aqueous

Analyses	Result	Units	Qualifier	RL	MCL/ QCL	Method	Analysis Date / By
<b>METALS - DISSOLVED</b>							
Manganese	264	ug/L		10		E200.8	01/30/12 19:56 / sml
Thallium	ND	ug/L		0.50		E200.8	01/30/12 19:56 / sml
Uranium	16.1	ug/L		0.30		E200.8	01/30/12 19:56 / sml
<b>RADIONUCLIDES - DISSOLVED</b>							
Gross Alpha minus Rn & U	6.5	pCi/L				E900.1	02/02/12 13:58 / lbb
Gross Alpha minus Rn & U Precision (±)	1.2	pCi/L				E900.1	02/02/12 13:58 / lbb
Gross Alpha minus Rn & U MDC	0.9	pCi/L				E900.1	02/02/12 13:58 / lbb

**Report Definitions:**  
RL - Analyte reporting limit.  
QCL - Quality control limit.  
MDC - Minimum detectable concentration

MCL - Maximum contaminant level.  
ND - Not detected at the reporting limit.



### LABORATORY ANALYTICAL REPORT

Prepared by Casper, WY Branch

**Client:** Denison Mines USA Corp  
**Project:** January Monthly Groundwater 2012  
**Lab ID:** C12010822-007  
**Client Sample ID:** MW-65

**Report Date:** 02/08/12  
**Collection Date:** 01/25/12 12:35  
**Date Received:** 01/27/12  
**Matrix:** Aqueous

Analyses	Result	Units	Qualifier	RL	MCL/ QCL	Method	Analysis Date / By
<b>METALS - DISSOLVED</b>							
Uranium	6.59	ug/L		0.30		E200.8	01/27/12 19:41 / sml

**Report Definitions:** RL - Analyte reporting limit.  
QCL - Quality control limit.

MCL - Maximum contaminant level.  
ND - Not detected at the reporting limit.



## ORGANIC ANALYTICAL REPORT

**Client:** Denison Mines  
**Project:** January Monthly Groundwater 2012  
**Lab Sample ID:** 1201399-002A  
**Client Sample ID:** Trip Blank  
**Collection Date:** 1/26/2012  
**Received Date:** 1/27/2012 1000h

**Contact:** Jo Ann Tischler

**Method:** SW8260C

### Analytical Results

VOAs by GC/MS Method 8260C/5030C

**Analyzed:** 1/27/2012 1513h

**Units:** µg/L

**Dilution Factor:** 1

463 West 3600 South  
Salt Lake City, UT 84115

Compound	CAS Number	Reporting Limit	Analytical Result	Qual
Tetrahydrofuran	109-99-9	1.00	< 1.00	

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Toll Free: (888) 263-8686  
Fax: (801) 263-8687  
e-mail: awal@awal-labs.com

Surrogate	CAS	Result	Amount Spiked	% REC	Limits	Qual
Surr: Toluene-d8	2037-26-5	50.5	50.00	101	77-129	
Surr: Dibromofluoromethane	1868-53-7	52.0	50.00	104	80-124	
Surr: 4-Bromofluorobenzene	460-00-4	51.7	50.00	103	80-128	
Surr: 1,2-Dichloroethane-d4	17060-07-0	54.8	50.00	110	74-151	

web: www.awal-labs.com

Kyle F. Gross  
Laboratory Director

Jose Rocha  
QA Officer



### LABORATORY ANALYTICAL REPORT

Prepared by Casper, WY Branch

**Client:** Denison Mines USA Corp  
**Project:** January Monthly Groundwater 2012  
**Lab ID:** C12010822-008  
**Client Sample ID:** Trip Blank 6630

**Report Date:** 02/08/12  
**Collection Date:** 01/25/12  
**Date Received:** 01/27/12  
**Matrix:** Aqueous

Analyses	Result	Units	Qualifier	RL	MCL/ QCL	Method	Analysis Date / By
<b>VOLATILE ORGANIC COMPOUNDS</b>							
Acetone	ND	ug/L		20		SW8260B	02/06/12 16:51 / jlr
Benzene	ND	ug/L		1.0		SW8260B	02/06/12 16:51 / jlr
Carbon tetrachloride	ND	ug/L		1.0		SW8260B	02/06/12 16:51 / jlr
Chloroform	ND	ug/L		1.0		SW8260B	02/06/12 16:51 / jlr
Chloromethane	ND	ug/L		1.0		SW8260B	02/06/12 16:51 / jlr
Methyl ethyl ketone	ND	ug/L		20		SW8260B	02/06/12 16:51 / jlr
Methylene chloride	ND	ug/L		1.0		SW8260B	02/06/12 16:51 / jlr
Naphthalene	ND	ug/L		1.0		SW8260B	02/06/12 16:51 / jlr
Toluene	ND	ug/L		1.0		SW8260B	02/06/12 16:51 / jlr
Xylenes, Total	ND	ug/L		1.0		SW8260B	02/06/12 16:51 / jlr
Surr: 1,2-Dichlorobenzene-d4	93.0	%REC		80-120		SW8260B	02/06/12 16:51 / jlr
Surr: Dibromofluoromethane	101	%REC		70-130		SW8260B	02/06/12 16:51 / jlr
Surr: p-Bromofluorobenzene	93.0	%REC		80-120		SW8260B	02/06/12 16:51 / jlr
Surr: Toluene-d8	95.0	%REC		80-120		SW8260B	02/06/12 16:51 / jlr

**Report** RL - Analyte reporting limit.  
**Definitions:** QCL - Quality control limit.

MCL - Maximum contaminant level.  
ND - Not detected at the reporting limit.



### LABORATORY ANALYTICAL REPORT

Prepared by Casper, WY Branch

**Client:** Denison Mines USA Corp  
**Project:** January Monthly Groundwater 2012  
**Lab ID:** C12010822-009  
**Client Sample ID:** Temp Blank

**Report Date:** 02/08/12  
**Collection Date:** 01/25/12  
**Date Received:** 01/27/12  
**Matrix:** Aqueous

Analyses	Result	Units	Qualifier	RL	MCL/ QCL	Method	Analysis Date / By
<b>PHYSICAL PROPERTIES</b>							
Temperature	3.6	°C				E170.1	01/27/12 11:42 / kbh

**Report Definitions:** RL - Analyte reporting limit.  
QCL - Quality control limit.

MCL - Maximum contaminant level.  
ND - Not detected at the reporting limit.



Jo Ann Tischler  
Denison Mines  
1050 17th Street, # 950  
Denver, CO 80265  
TEL: (303) 389-4132

RE: January Monthly Groundwater 2012

Dear Jo Ann Tischler:

Lab Set ID: 1201399

463 West 3600 South  
Salt Lake City, UT 84115

American West Analytical Laboratories received 2 sample(s) on 1/27/2012 for the analyses presented in the following report.

Phone: (801) 263-8686  
Toll Free: (888) 263-8686  
Fax: (801) 263-8687  
e-mail: awal@awal-labs.com

All analyses were performed in accordance to The NELAC Institute protocols unless noted otherwise. American West Analytical Laboratories is accredited by The NELAC Institute in Utah and Texas; and is state accredited in Colorado, Idaho, and Missouri. Accreditation documents are available upon request. If you have any questions or concerns regarding this report please feel free to call.

web: www.awal-labs.com

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

Kyle F. Gross  
Laboratory Director

Jose Rocha  
QA Officer

Thank You,

Approved by:

**Kyle F.  
Gross**  
Digitally signed by Kyle F. Gross  
DN: cn=Kyle F. Gross, o=AWAL,  
ou=AWAL, email=kyle@awal-  
labs.com, c=US  
Date: 2012.02.01 11:20:18 -07'00'

Laboratory Director or designee



## SAMPLE SUMMARY

**Client:** Denison Mines  
**Project:** January Monthly Groundwater 2012  
**Lab Set ID:** 1201399  
**Date Received:** 1/27/2012 1000h

**Contact:** Jo Ann Tischler

463 West 3600 South  
Salt Lake City, UT 84115

<u>Lab Sample ID</u>	<u>Client Sample ID</u>	<u>Date Collected</u>	<u>Matrix</u>	<u>Analysis</u>
1201399-001A	MW-11	1/26/2012 1010h	Aqueous	VOA by GC/MS Method 8260C/5030C
1201399-002A	Trip Blank	1/26/2012	Aqueous	VOA by GC/MS Method 8260C/5030C

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web: [www.awal-labs.com](http://www.awal-labs.com)

Kyle F. Gross  
Laboratory Director

Jose Rocha  
QA Officer



## Volatile Case Narrative

**Client:** Denison Mines  
**Contact:** Jo Ann Tischler  
**Project:** January Monthly Groundwater 2012  
**Lab Set ID:** 1201399

---

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Salt Lake City, UT 84115

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e-mail: awal@awal-labs.com

web: www.awal-labs.com

Kyle F. Gross  
Laboratory Director

Jose Rocha  
QA Officer

### **Sample Receipt Information:**

**Date of Receipt:** 1/27/2012  
**Date(s) of Collection:** 1/26/2012  
**Sample Condition:** Intact  
**C-O-C Discrepancies:** None  
**Method:** SW-846 8260C/5030C  
**Analysis:** Tetrahydrofuran

**General Set Comments:** Tetrahydrofuran was not observed above reporting limits.

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

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

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

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

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

**Matrix Spike / Matrix Spike Duplicate (MS/MSD):** The MS/MSD percent recoveries for tetrahydrofuran were outside of their control limits on sample 1201399-001A due to matrix interference. The RPD (Relative Percent Differences) was inside its established limit.

**Surrogates:** All surrogate recoveries were within established limits.

**Corrective Action:** None required.



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Kyle F. Gross  
Laboratory Director

Jose Rocha  
QA Officer

## QC SUMMARY REPORT

**Client:** Denison Mines  
**Lab Set ID:** 1201399  
**Project:** January Monthly Groundwater 2012

**Contact:** Jo Ann Tischler  
**Dept:** MSVOA  
**QC Type:** LCS

Sample ID	Analyte	Units	Method	Result	Amount Spiked	Original Amount	%REC	Limits	%RPD	RPD Limit	Qual	Date Analyzed
LCS VOC 012712A	Tetrahydrofuran	µg/L	SW8260C	23.1	20.00	0	116	43-146				1/27/2012 723h
LCS VOC 012712A	Surr: 1,2-Dichloroethane-d4	%REC	SW8260C	45.1	50.00		90.3	69-132				1/27/2012 723h
LCS VOC 012712A	Surr: 4-Bromofluorobenzene	%REC	SW8260C	51.0	50.00		102	85-118				1/27/2012 723h
LCS VOC 012712A	Surr: Dibromofluoromethane	%REC	SW8260C	45.0	50.00		90.0	80-120				1/27/2012 723h
LCS VOC 012712A	Surr: Toluene-d8	%REC	SW8260C	51.9	50.00		104	81-120				1/27/2012 723h



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Kyle F. Gross  
Laboratory Director

Jose Rocha  
QA Officer

## QC SUMMARY REPORT

**Client:** Denison Mines  
**Lab Set ID:** 1201399  
**Project:** January Monthly Groundwater 2012

**Contact:** Jo Ann Tischler  
**Dept:** MSVOA  
**QC Type:** MBLK

Sample ID	Analyte	Units	Method	Result	Amount Spiked	Original Amount	%REC	Limits	%RPD	RPD Limit	Qual	Date Analyzed
MB VOC 012712A	Tetrahydrofuran	µg/L	SW8260C	< 1.00				-				1/27/2012 808h
MB VOC 012712A	Surr: 1,2-Dichloroethane-d4	%REC	SW8260C	51.5	50.00		103	69-132				1/27/2012 808h
MB VOC 012712A	Surr: 4-Bromofluorobenzene	%REC	SW8260C	54.2	50.00		108	85-118				1/27/2012 808h
MB VOC 012712A	Surr: Dibromofluoromethane	%REC	SW8260C	47.9	50.00		95.8	80-120				1/27/2012 808h
MB VOC 012712A	Surr: Toluene-d8	%REC	SW8260C	52.8	50.00		106	81-120				1/27/2012 808h



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Kyle F. Gross  
Laboratory Director

Jose Rocha  
QA Officer

## QC SUMMARY REPORT

**Client:** Denison Mines  
**Lab Set ID:** 1201399  
**Project:** January Monthly Groundwater 2012

**Contact:** Jo Ann Tischler  
**Dept:** MSVOA  
**QC Type:** MS

Sample ID	Analyte	Units	Method	Result	Amount Spiked	Original Amount	%REC	Limits	%RPD	RPD Limit	Qual	Date Analyzed
1201399-001AMS	Tetrahydrofuran	µg/L	SW8260C	30.6	20.00	0	153	43-146			<sup>1</sup>	1/27/2012 1428h
1201399-001AMS	Surr: 1,2-Dichloroethane-d4	%REC	SW8260C	51.3	50.00		103	74-151				1/27/2012 1428h
1201399-001AMS	Surr: 4-Bromofluorobenzene	%REC	SW8260C	49.2	50.00		98.5	80-128				1/27/2012 1428h
1201399-001AMS	Surr: Dibromofluoromethane	%REC	SW8260C	48.3	50.00		96.6	80-124				1/27/2012 1428h
1201399-001AMS	Surr: Toluene-d8	%REC	SW8260C	48.6	50.00		97.2	77-129				1/27/2012 1428h

<sup>1</sup> - Matrix spike recovery indicates matrix interference. The method is in control as indicated by the LCS.



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Kyle F. Gross  
Laboratory Director

Jose Rocha  
QA Officer

## QC SUMMARY REPORT

**Client:** Denison Mines  
**Lab Set ID:** 1201399  
**Project:** January Monthly Groundwater 2012

**Contact:** Jo Ann Tischler  
**Dept:** MSVOA  
**QC Type:** MSD

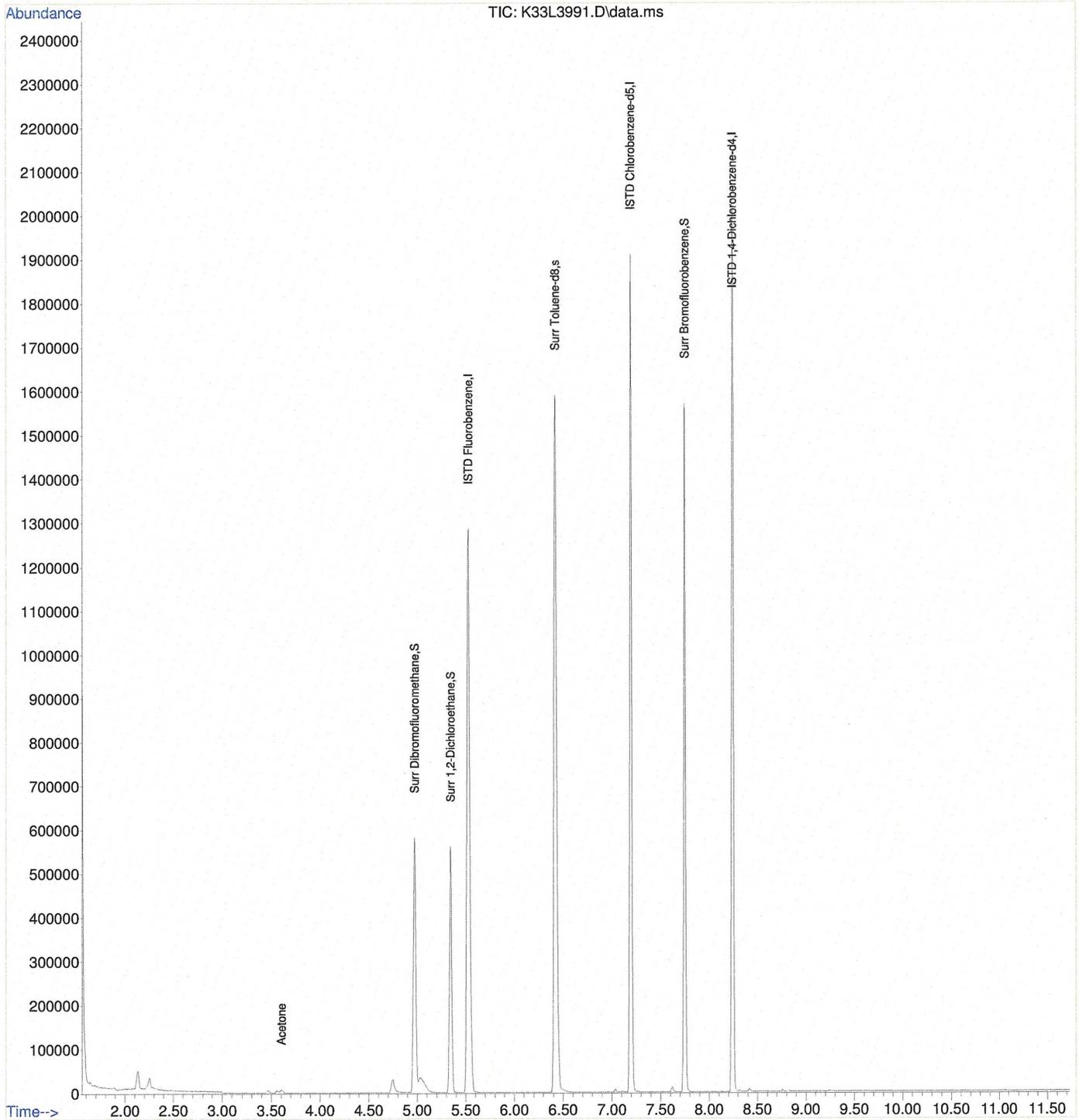
Sample ID	Analyte	Units	Method	Result	Amount Spiked	Original Amount	%REC	Limits	%RPD	RPD Limit	Qual	Date Analyzed
1201399-001AMSD	Tetrahydrofuran	µg/L	SW8260C	30.2	20.00	0	151	43-146	1.45	25	<sup>1</sup>	1/27/2012 1451h
1201399-001AMSD	Surr: 1,2-Dichloroethane-d4	%REC	SW8260C	53.3	50.00		107	74-151				1/27/2012 1451h
1201399-001AMSD	Surr: 4-Bromofluorobenzene	%REC	SW8260C	48.1	50.00		96.2	80-128				1/27/2012 1451h
1201399-001AMSD	Surr: Dibromofluoromethane	%REC	SW8260C	50.6	50.00		101	80-124				1/27/2012 1451h
1201399-001AMSD	Surr: Toluene-d8	%REC	SW8260C	48.2	50.00		96.4	77-129				1/27/2012 1451h

<sup>1</sup> - Matrix spike recovery indicates matrix interference. The method is in control as indicated by the LCS.

Quantitation Report (QT Reviewed)

Data Path : C:\msdchem\1\DATA\JAN12-A\27JAN12\  
Data File : K33L3991.D  
Acq On : 27 Jan 2012 2:06 pm  
Operator :  
Sample : 1201399-001A  
Misc : SAMP 5ML 1OF3 DL  
ALS Vial : 21 Sample Multiplier: 1

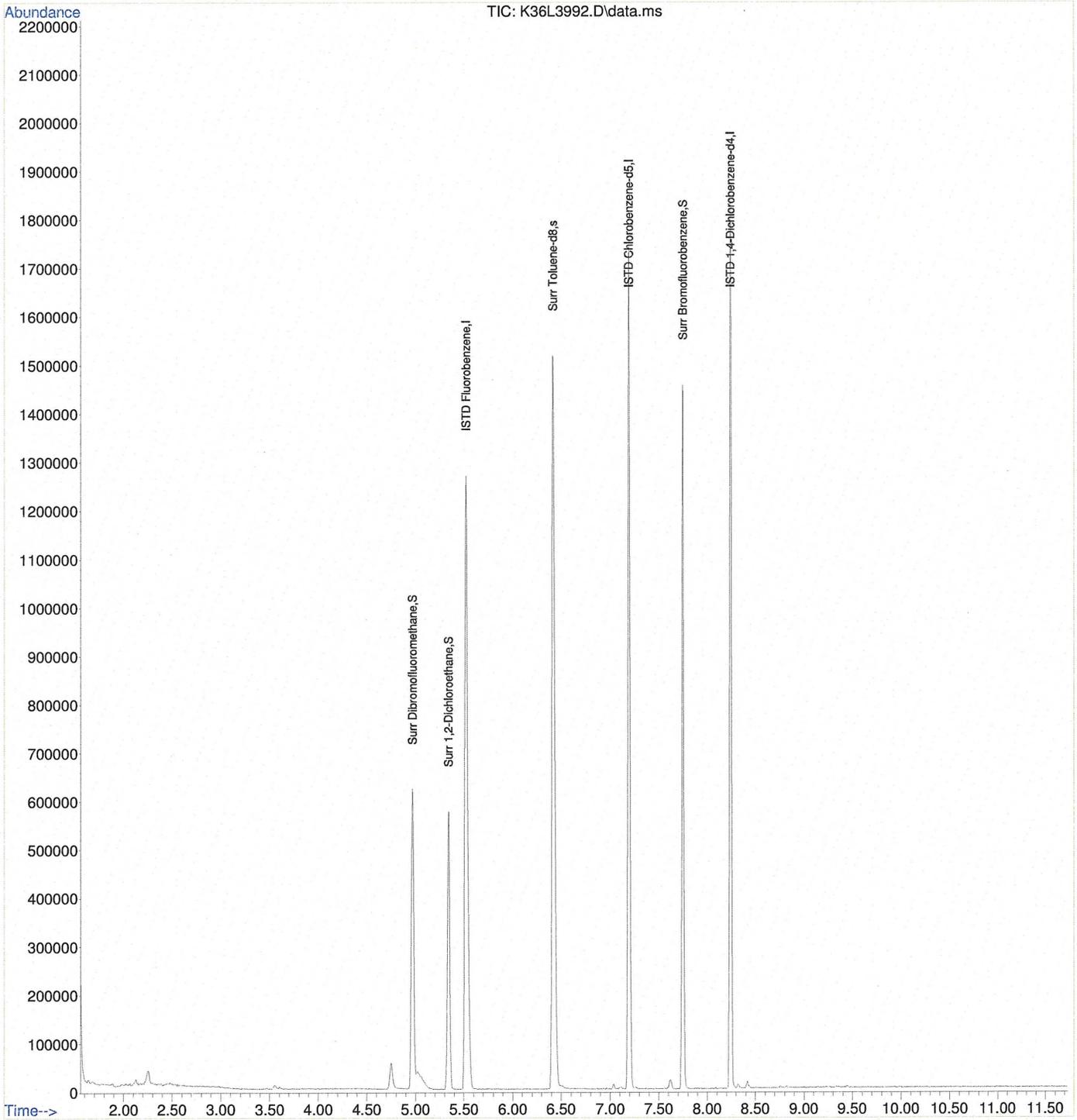
Quant Time: Jan 27 16:41:40 2012  
Quant Method : C:\MSDCHEM\1\METHODS\FULS\_143.M  
Quant Title : VOA Calibration  
QLast Update : Thu Jan 12 06:50:32 2012  
Response via : Initial Calibration



Quantitation Report (QT Reviewed)

Data Path : C:\msdchem\1\DATA\JAN12-A\27JAN12\  
Data File : K36L3992.D  
Acq On : 27 Jan 2012 3:13 pm  
Operator :  
Sample : 1201399-002A  
Misc : SAMP 5ML 1OF3 DL  
ALS Vial : 24 Sample Multiplier: 1

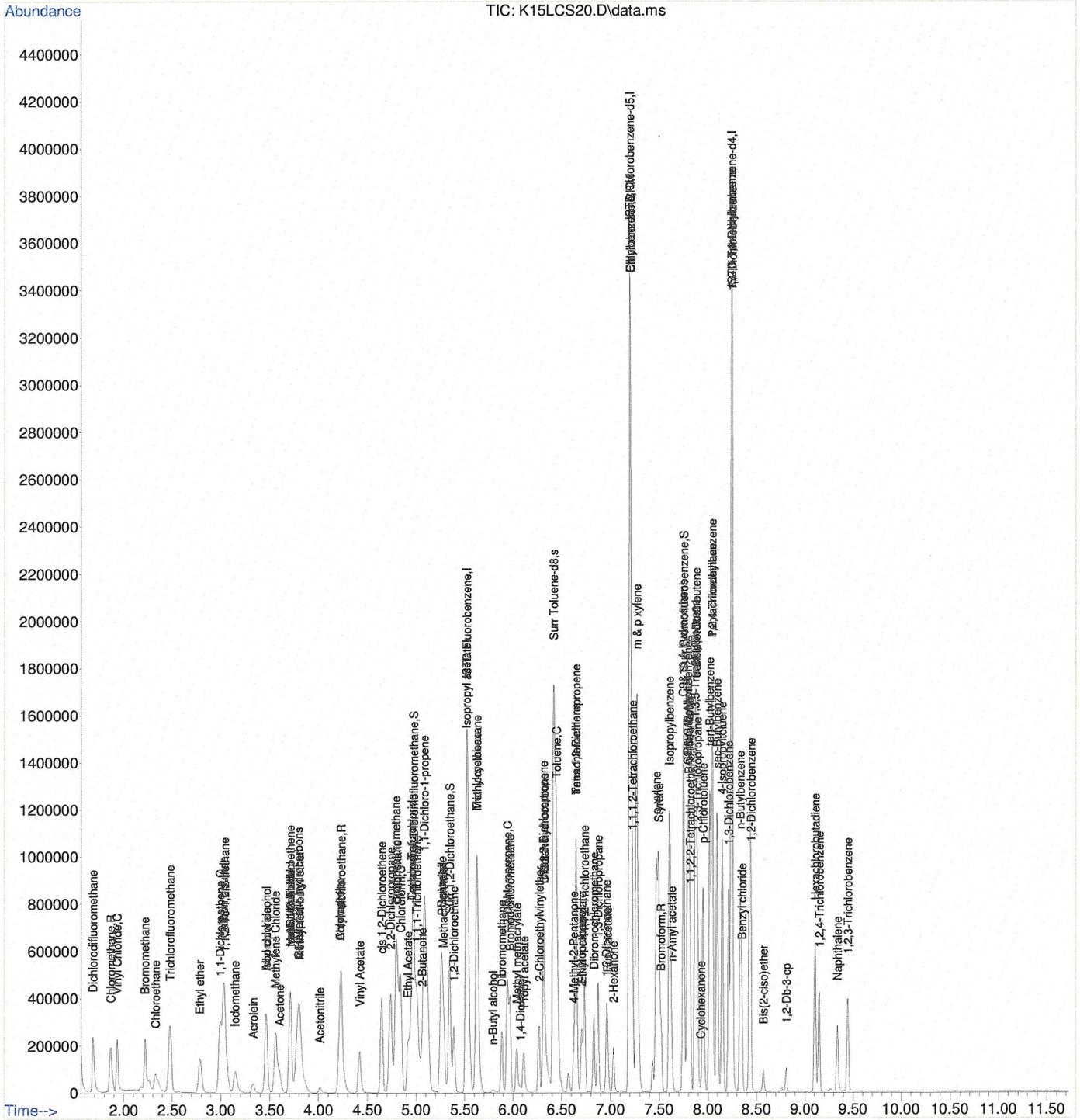
Quant Time: Jan 27 16:44:18 2012  
Quant Method : C:\MSDCHEM\1\METHODS\FULS\_143.M  
Quant Title : VOA Calibration  
QLast Update : Thu Jan 12 06:50:32 2012  
Response via : Initial Calibration



Quantitation Report (Not Reviewed)

Data Path : C:\msdchem\1\DATA\JAN12-A\27JAN12\  
Data File : K15LCS20.D  
Acq On : 27 Jan 2012 7:23 am  
Operator :  
Sample : LCS VOC 012712A  
Misc : LCS SEE COVERSHEET FOR ID AND AMOUNT JO  
ALS Vial : 3 Sample Multiplier: 1

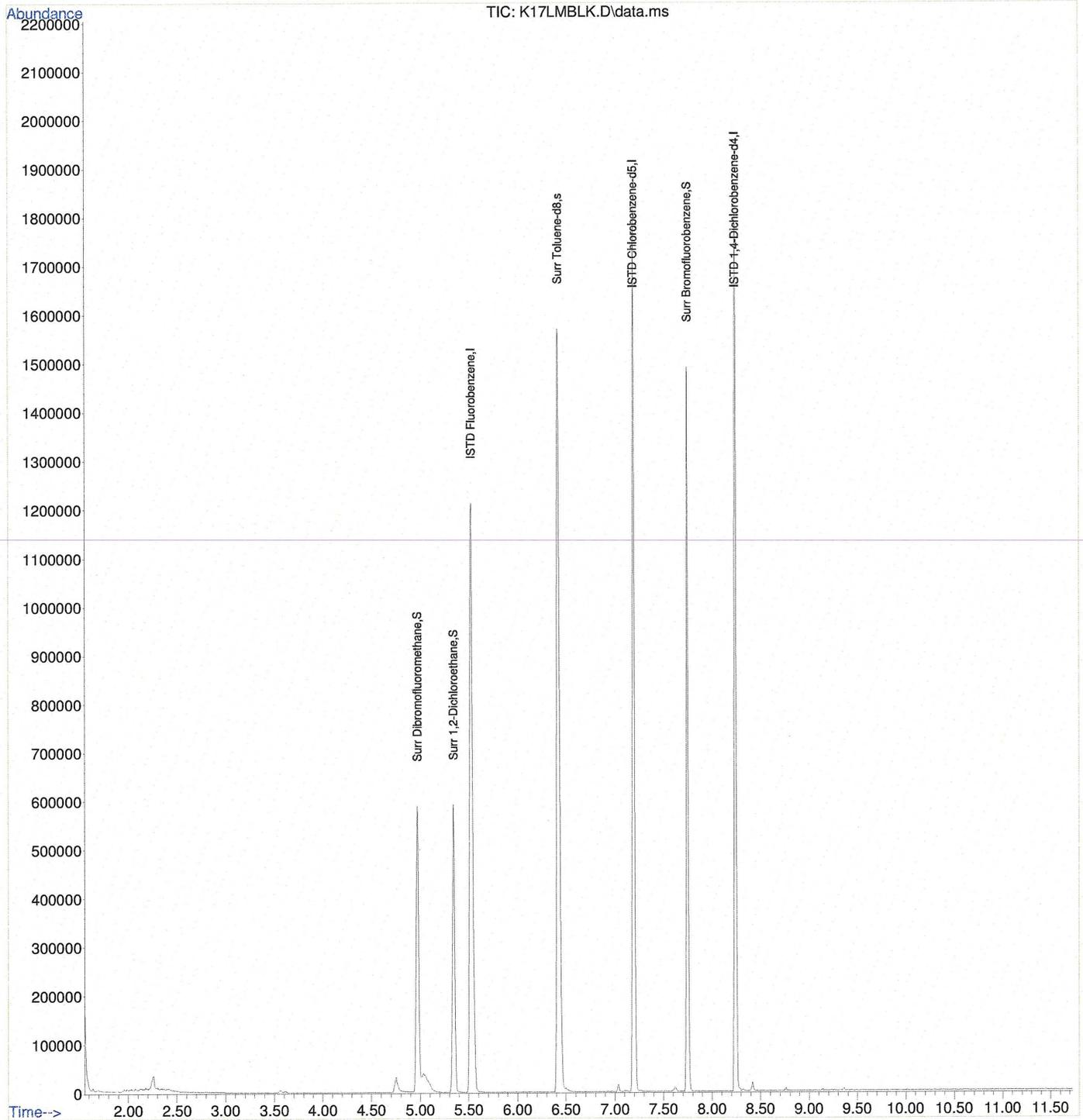
Quant Time: Jan 27 07:35:38 2012  
Quant Method : C:\MSDCHEM\1\METHODS\FULS\_143.M  
Quant Title : VOA Calibration  
QLast Update : Thu Jan 12 06:50:32 2012  
Response via : Initial Calibration



Quantitation Report (QT Reviewed)

Data Path : C:\msdchem\1\DATA\JAN12-A\27JAN12\  
Data File : K17LMBLK.D  
Acq On : 27 Jan 2012 8:08 am  
Operator :  
Sample : MB VOC 012712A  
Misc : MBLK SOIL 5.0ML JO  
ALS Vial : 5 Sample Multiplier: 1

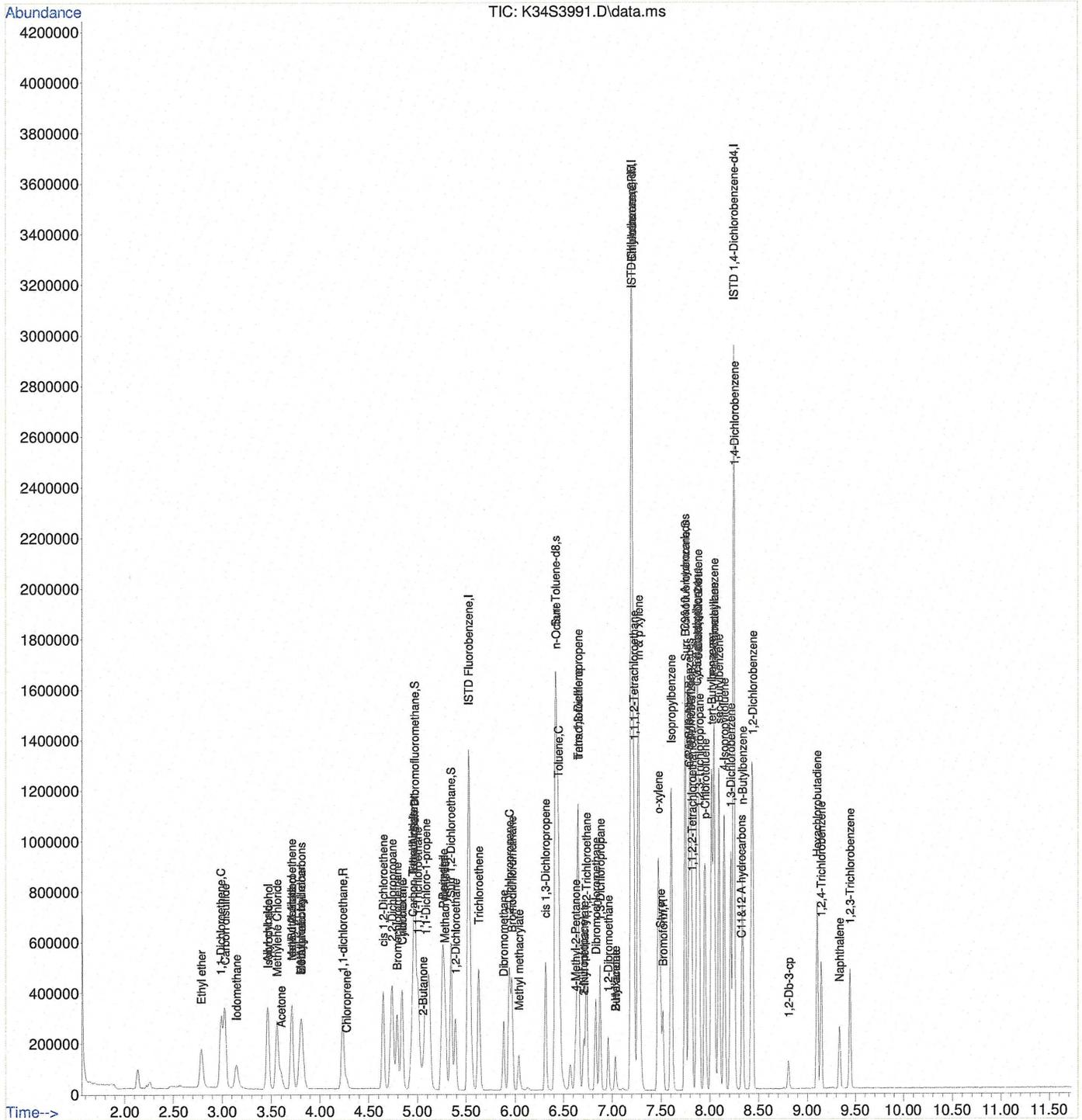
Quant Time: Jan 27 09:22:58 2012  
Quant Method : C:\MSDCHEM\1\METHODS\FULS\_143.M  
Quant Title : VOA Calibration  
QLast Update : Thu Jan 12 06:50:32 2012  
Response via : Initial Calibration



Quantitation Report (Not Reviewed)

Data Path : C:\msdchem\1\DATA\JAN12-A\27JAN12\  
 Data File : K34S3991.D  
 Acq On : 27 Jan 2012 2:28 pm  
 Operator :  
 Sample : 1201399-001AMS  
 Misc : MS 5ML 2OF3 DL  
 ALS Vial : 22 Sample Multiplier: 1

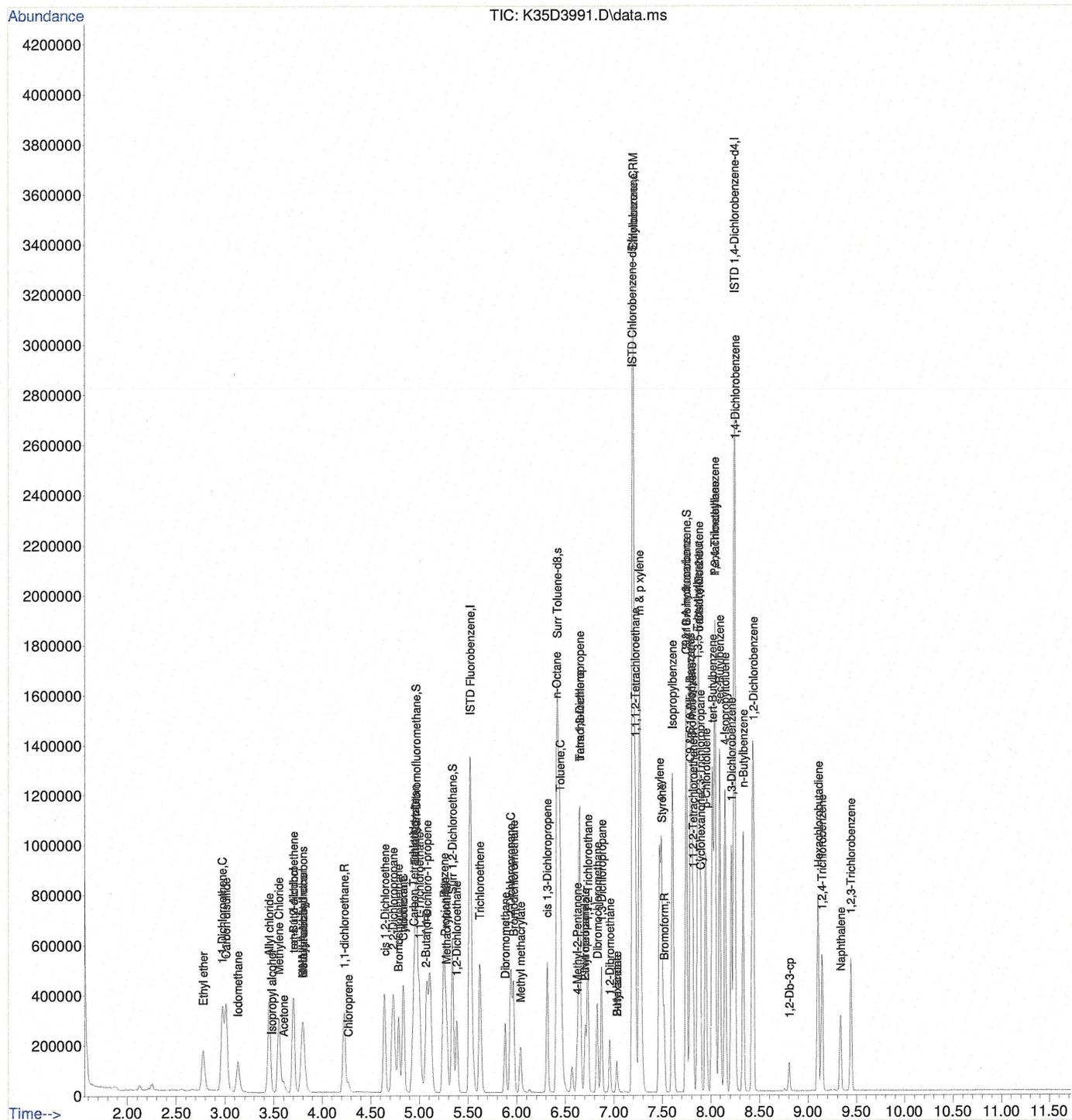
Quant Time: Jan 27 14:40:33 2012  
 Quant Method : C:\MSDCHEM\1\METHODS\FULS\_143.M  
 Quant Title : VOA Calibration  
 QLast Update : Thu Jan 12 06:50:32 2012  
 Response via : Initial Calibration



Quantitation Report (Not Reviewed)

Data Path : C:\msdchem\1\DATA\JAN12-A\27JAN12\  
 Data File : K35D3991.D  
 Acq On : 27 Jan 2012 2:51 pm  
 Operator :  
 Sample : 1201399-001AMSD  
 Misc : MSD 5ML 2OF3 DL  
 ALS Vial : 23 Sample Multiplier: 1

Quant Time: Jan 27 15:02:59 2012  
 Quant Method : C:\MSDCHEM\1\METHODS\FULS\_143.M  
 Quant Title : VOA Calibration  
 QLast Update : Thu Jan 12 06:50:32 2012  
 Response via : Initial Calibration



# American West Analytical Laboratories

UL  
Denison

## WORK ORDER Summary

**Client:** Denison Mines  
**Client ID:** DEN100  
**Project:** January Monthly Groundwater 2012  
**Comments:** PA Rush. QC 3 & Summary. EDD-CSV. Report THF to 1 µg/L.; *Heck*

**Work Order:** 1201399  
**Page 1 of 1** 1/27/2012  
**Contact:** Jo Ann Tischler  
**QC Level:** LEVEL III  
**WO Type:** Project

*DB*

Sample ID	Client Sample ID	Collected Date	Received Date	Date Due	Matrix	Test Code	Sel Storage
1201399-001A	MW-11	1/26/2012 1010h	1/27/2012 1000h	2/7/2012	Aqueous	8260-W	<input checked="" type="checkbox"/> VOCFridge 3
1201399-002A	Trip Blank	1/26/2012				8260-W	<input checked="" type="checkbox"/> VOCFridge



Lab Set ID: 12 01399

DB

<b>Samples Were:</b>		<b>COC Tape Was:</b>		<b>Container Type:</b>		<b>No. Rec.</b>	
<input checked="" type="checkbox"/> Shipped By: <u>UPS</u>		<b>Present on Outer Package</b>		<input type="checkbox"/> AWAL Supplied Plastic			
<input type="checkbox"/> Hand Delivered		<input checked="" type="checkbox"/> Yes <input type="checkbox"/> No <input type="checkbox"/> N/A		<input type="checkbox"/> AWAL Supplied Clear Glass			
<input type="checkbox"/> Ambient		<b>Unbroken on Outer package</b>		<input type="checkbox"/> AWAL Supplied Amber Glass			
<input checked="" type="checkbox"/> Chilled		<input checked="" type="checkbox"/> Yes <input type="checkbox"/> No <input type="checkbox"/> N/A		<input type="checkbox"/> AWAL Supplied VOA/TOC/TOX Vials			
Temperature <u>1.6</u> °C		<b>Present on Sample</b>		<input type="checkbox"/> Amber <input type="checkbox"/> Clear <input type="checkbox"/> Headspace <input type="checkbox"/> No Headspace			
Rec. Broken/Leaking <input type="checkbox"/> Yes <input checked="" type="checkbox"/> No <input type="checkbox"/> N/A		<input type="checkbox"/> Yes <input checked="" type="checkbox"/> No <input type="checkbox"/> N/A		<input type="checkbox"/> Non AWAL Supplied Container			
<b>Notes:</b>		<b>Unbroken on Sample</b>		<b>Notes:</b>			
<input checked="" type="checkbox"/> Properly Preserved <input type="checkbox"/> Yes <input type="checkbox"/> No <input type="checkbox"/> N/A		<input type="checkbox"/> Yes <input type="checkbox"/> No <input checked="" type="checkbox"/> N/A					
<b>Notes:</b>		<b>Notes:</b>					
<input checked="" type="checkbox"/> Rec. Within Hold <input type="checkbox"/> Yes <input type="checkbox"/> No							
<b>Notes:</b>							
				<b>Discrepancies Between Labels and COC</b>		<input type="checkbox"/> Yes <input checked="" type="checkbox"/> No	
				<b>Notes:</b>			

DB

Bottle Type	Preservative	All pHs OK																		
Ammonia	pH <2 H <sub>2</sub> SO <sub>4</sub>																			
COD	pH <2 H <sub>2</sub> SO <sub>4</sub>																			
Cyanide	PH >12 NaOH																			
Metals	pH <2 HNO <sub>3</sub>																			
NO <sub>2</sub> & NO <sub>3</sub>	pH <2 H <sub>2</sub> SO <sub>4</sub>																			
Nutrients	pH <2 H <sub>2</sub> SO <sub>4</sub>																			
O & G	pH <2 HCL																			
Phenols	pH <2 H <sub>2</sub> SO <sub>4</sub>																			
Sulfide	pH > 9NaOH, ZnAC																			
TKN	pH <2 H <sub>2</sub> SO <sub>4</sub>																			
TOC	pH <2 H <sub>3</sub> PO <sub>4</sub>																			
T PO <sub>4</sub>	pH <2 H <sub>2</sub> SO <sub>4</sub>																			
TPH	pH <2 HCL																			

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



# ANALYTICAL SUMMARY REPORT

February 08, 2012

Denison Mines USA Corp  
6425 S Hwy 191  
Blanding, UT 84511

Workorder No.: C12010822      Quote ID: C1640 - POC Wells  
Project Name: January Monthly Groundwater 2012

Energy Laboratories, Inc. Casper WY received the following 9 samples for Denison Mines USA Corp on 1/27/2012 for analysis.

Sample ID	Client Sample ID	Collect Date	Receive Date	Matrix	Test
C12010822-001	MW-11	01/26/12 10:10	01/27/12	Aqueous	Metals by ICP-MS, Dissolved
C12010822-002	MW-25	01/25/12 12:35	01/27/12	Aqueous	Same As Above
C12010822-003	MW-26	01/25/12 13:00	01/27/12	Aqueous	Chloride Metals by ICP-MS, Dissolved Nitrogen, Nitrate + Nitrite Gross Alpha minus Rn222 and Uranium Solids, Total Dissolved SW8260B VOCs, Standard List
C12010822-004	MW-30	01/24/12 10:40	01/27/12	Aqueous	Chloride Metals by ICP-MS, Dissolved Nitrogen, Nitrate + Nitrite
C12010822-005	MW-31	01/24/12 13:15	01/27/12	Aqueous	Chloride Nitrogen, Nitrate + Nitrite Solids, Total Dissolved Sulfate
C12010822-006	MW-35	01/24/12 12:20	01/27/12	Aqueous	Metals by ICP-MS, Dissolved Gross Alpha minus Rn222 and Uranium
C12010822-007	MW-65	01/25/12 12:35	01/27/12	Aqueous	Metals by ICP-MS, Dissolved
C12010822-008	Trip Blank 6630	01/25/12 0:00	01/27/12	Aqueous	SW8260B VOCs, Standard List
C12010822-009	Temp Blank	01/25/12 0:00	01/27/12	Aqueous	Temperature

The analyses presented in this report were performed at Energy Laboratories, Inc., 2393 Salt Creek Hwy., Casper, WY 82601, unless otherwise noted. Radiochemistry analyses were performed at Energy Laboratories, Inc., 2325 Kerzell Lane, Casper, WY 82601, unless otherwise noted. Any exceptions or problems with the analyses are noted in the Laboratory Analytical Report, the QA/QC Summary Report, or the Case Narrative.

The results as reported relate only to the item(s) submitted for testing. Solid/soil samples are reported on a wet weight basis (as received) unless specifically indicated. Data corrected for moisture content are typically noted as - dry on the report. For agricultural and mining soil parameters/characteristics, all samples are dried and ground prior to sample analysis.

If you have any questions regarding these test results, please call.

Report Approved By:

*Stephanie D Waldrop*  
Reporting Supervisor

Digitally signed by  
Stephanie Waldrop  
Date: 2012.02.08 14:35:12 -07:00



**CLIENT:** Denison Mines USA Corp  
**Project:** January Monthly Groundwater 2012  
**Sample Delivery Group:** C12010822

**Report Date:** 02/08/12

## CASE NARRATIVE

### ORIGINAL SAMPLE SUBMITTAL(S)

All original sample submittals have been returned with the data package.

### SAMPLE TEMPERATURE COMPLIANCE: 4°C (±2°C)

Temperature of samples received may not be considered properly preserved by accepted standards. Samples that are hand delivered immediately after collection shall be considered acceptable if there is evidence that the chilling process has begun.

### GROSS ALPHA ANALYSIS

Method 900.0 for gross alpha and gross beta is intended as a drinking water method for low TDS waters. Data provided by this method for non potable waters should be viewed as inconsistent.

### RADON IN AIR ANALYSIS

The desired exposure time is 48 hours (2 days). The time delay in returning the canister to the laboratory for processing should be as short as possible to avoid excessive decay. Maximum recommended delay between end of exposure to beginning of counting should not exceed 8 days.

### SOIL/SOLID SAMPLES

All samples reported on an as received basis unless otherwise indicated.

### ATRAZINE, SIMAZINE AND PCB ANALYSIS

Data for PCBs, Atrazine and Simazine are reported from EPA 525.2. PCB data reported by ELI reflects the results for seven individual Aroclors. When the results for all seven are ND (not detected), the sample meets EPA compliance criteria for PCB monitoring.

### SUBCONTRACTING ANALYSIS

Subcontracting of sample analyses to an outside laboratory may be required. If so, ENERGY LABORATORIES will utilize its branch laboratories or qualified contract laboratories for this service. Any such laboratories will be indicated within the Laboratory Analytical Report.

### BRANCH LABORATORY LOCATIONS

eli-b - Energy Laboratories, Inc. - Billings, MT  
eli-g - Energy Laboratories, Inc. - Gillette, WY  
eli-h - Energy Laboratories, Inc. - Helena, MT  
eli-r - Energy Laboratories, Inc. - Rapid City, SD  
eli-t - Energy Laboratories, Inc. - College Station, TX

### CERTIFICATIONS:

USEPA: WY00002, Radiochemical WY00937; FL-DOH NELAC: E87641, Radiochemical E871017; California: 02118CA; Oregon: WY200001; Utah: 3072350515; Virginia: 00057; Washington: C1903

### ISO 17025 DISCLAIMER:

The results of this Analytical Report relate only to the items submitted for analysis.

ENERGY LABORATORIES, INC. - CASPER, WY certifies that certain method selections contained in this report meet requirements as set forth by the above accrediting authorities. Some results requested by the client may not be covered under these certifications. All analysis data to be submitted for regulatory enforcement should be certified in the sample state of origin. Please verify ELI's certification coverage by visiting [www.energylab.com](http://www.energylab.com)

ELI appreciates the opportunity to provide you with this analytical service. For additional information and services visit our web page [www.energylab.com](http://www.energylab.com).



# QA/QC Summary Report

Prepared by Casper, WY Branch

**Client:** Denison Mines USA Corp

**Report Date:** 02/08/12

**Project:** January Monthly Groundwater 2012

**Work Order:** C12010822

Analyte	Count	Result	Units	RL	%REC	Low Limit	High Limit	RPD	RPDLimit	Qual
<b>Method: A2540 C</b>								Batch: 120127_1_SLDS-TDS-W		
<b>Sample ID: MBLK1_120127</b>		Method Blank								
Solids, Total Dissolved TDS @ 180 C		ND	mg/L	10						01/27/12 15:57
<b>Sample ID: LCS1_120127</b>		Laboratory Control Sample								
Solids, Total Dissolved TDS @ 180 C		1660	mg/L	10	99	90	110			01/27/12 15:58
<b>Sample ID: C12010820-004AMS</b>		Sample Matrix Spike								
Solids, Total Dissolved TDS @ 180 C		9500	mg/L	20	104	90	110			01/27/12 16:03
<b>Sample ID: C12010823-005ADUP</b>		Sample Duplicate								
Solids, Total Dissolved TDS @ 180 C		163	mg/L	10				4.9	5	01/27/12 16:06

**Qualifiers:**

RL - Analyte reporting limit.

ND - Not detected at the reporting limit.

MDC - Minimum detectable concentration



## QA/QC Summary Report

Prepared by Casper, WY Branch

**Client:** Denison Mines USA Corp

**Report Date:** 02/08/12

**Project:** January Monthly Groundwater 2012

**Work Order:** C12010822

Analyte	Count	Result	Units	RL	%REC	Low Limit	High Limit	RPD	RPDLimit	Qual
<b>Method:</b> A4500-Cl B								Batch: 120131A-CL-TTR-W		
<b>Sample ID:</b> MBLK9-120131A		Method Blank					Run: TITRATION_120131A			01/31/12 13:56
Chloride		ND	mg/L	1.0						
<b>Sample ID:</b> C12010822-005AMS		Sample Matrix Spike					Run: TITRATION_120131A			01/31/12 15:06
Chloride		333	mg/L	1.0	100	90	110			
<b>Sample ID:</b> C12010822-005AMSD		Sample Matrix Spike Duplicate					Run: TITRATION_120131A			01/31/12 15:07
Chloride		335	mg/L	1.0	101	90	110	0.5	10	
<b>Sample ID:</b> LCS35-120131A		Laboratory Control Sample					Run: TITRATION_120131A			01/31/12 15:08
Chloride		3590	mg/L	1.0	101	90	110			

**Qualifiers:**

RL - Analyte reporting limit.

ND - Not detected at the reporting limit.

MDC - Minimum detectable concentration



# QA/QC Summary Report

Prepared by Casper, WY Branch

**Client:** Denison Mines USA Corp

**Report Date:** 02/08/12

**Project:** January Monthly Groundwater 2012

**Work Order:** C12010822

Analyte	Count	Result	Units	RL	%REC	Low Limit	High Limit	RPD	RPDLimit	Qual
<b>Method:</b> A4500-SO4 E								Batch: 120206_1_SO4-TURB-W		
<b>Sample ID:</b> LCS-1_120206	Laboratory Control Sample						Run: TURB-2_120206A			02/06/12 15:58
Sulfate	4850	mg/L	100	101	90	110				
<b>Sample ID:</b> MBLK-1_120206	Method Blank						Run: TURB-2_120206A			02/06/12 16:02
Sulfate	ND	mg/L	10							
<b>Sample ID:</b> C12010822-005AMS	Sample Matrix Spike						Run: TURB-2_120206A			02/06/12 16:15
Sulfate	735	mg/L	10	102	90	110				
<b>Sample ID:</b> C12010822-005AMSD	Sample Matrix Spike Duplicate						Run: TURB-2_120206A			02/06/12 16:19
Sulfate	737	mg/L	10	103	90	110	0.3	10		

**Qualifiers:**

RL - Analyte reporting limit.

ND - Not detected at the reporting limit.

MDC - Minimum detectable concentration



## QA/QC Summary Report

Prepared by Casper, WY Branch

**Client:** Denison Mines USA Corp  
**Project:** January Monthly Groundwater 2012

**Report Date:** 02/08/12  
**Work Order:** C12010822

Analyte	Count	Result	Units	RL	%REC	Low Limit	High Limit	RPD	RPDLimit	Qual
<b>Method: E200.8</b>		Analytical Run: ICPMS2-C_120127B								
<b>Sample ID: ICV</b>	Initial Calibration Verification Standard									
Uranium		0.0506	mg/L	0.00030	101	90	110			01/27/12 17:34
<b>Method: E200.8</b>		Batch: R155799								
<b>Sample ID: LRB</b>	Method Blank									
Uranium		ND	mg/L	0.00030						01/27/12 17:43
<b>Sample ID: LFB</b>	Laboratory Fortified Blank									
Uranium		0.0604	mg/L	0.00030	101	85	115			01/27/12 17:47
<b>Sample ID: C12010793-003AMS4</b>	Sample Matrix Spike									
Uranium		0.0551	mg/L	0.00030	101	70	130			01/27/12 19:48
<b>Sample ID: C12010793-003AMSD</b>	Sample Matrix Spike Duplicate									
Uranium		0.0581	mg/L	0.00030	107	70	130	5.2	20	01/27/12 19:50
<b>Method: E200.8</b>		Analytical Run: ICPMS4-C_120130A								
<b>Sample ID: ICV</b>	4	Initial Calibration Verification Standard								
Manganese		0.0484	mg/L	0.0010	97	90	110			01/30/12 16:07
Selenium		0.0503	mg/L	0.0010	101	90	110			
Thallium		0.0494	mg/L	0.0010	99	90	110			
Uranium		0.0484	mg/L	0.00030	97	90	110			
<b>Method: E200.8</b>		Batch: R155858A								
<b>Sample ID: C12010822-006AMS</b>	4	Sample Matrix Spike								
Manganese		0.307	mg/L	0.0010		70	130			A
Selenium		0.0550	mg/L	0.0010	94	70	130			
Thallium		0.0500	mg/L	0.0010	99	70	130			
Uranium		0.0693	mg/L	0.00030	106	70	130			
<b>Sample ID: C12010822-006AMSD</b>	4	Sample Matrix Spike Duplicate								
Manganese		0.302	mg/L	0.0010		70	130	1.4	20	A
Selenium		0.0544	mg/L	0.0010	93	70	130	1.0	20	
Thallium		0.0506	mg/L	0.0010	101	70	130	1.2	20	
Uranium		0.0699	mg/L	0.00030	108	70	130	0.9	20	
<b>Sample ID: LRB</b>	4	Method Blank								
Manganese		ND	mg/L	0.010						01/30/12 17:03
Selenium		ND	mg/L	0.0050						
Thallium		ND	mg/L	0.00050						
Uranium		ND	mg/L	0.00030						
<b>Sample ID: LFB</b>	4	Laboratory Fortified Blank								
Manganese		0.0478	mg/L	0.0010	96	85	115			01/30/12 17:10
Selenium		0.0498	mg/L	0.0010	100	85	115			
Thallium		0.0478	mg/L	0.0010	96	85	115			
Uranium		0.0472	mg/L	0.00030	94	85	115			

**Qualifiers:**

RL - Analyte reporting limit.

ND - Not detected at the reporting limit.

A - The analyte level was greater than four times the spike level. In accordance with the method % recovery is not calculated.

MDC - Minimum detectable concentration



## QA/QC Summary Report

Prepared by Casper, WY Branch

**Client:** Denison Mines USA Corp

**Report Date:** 02/08/12

**Project:** January Monthly Groundwater 2012

**Work Order:** C12010822

Analyte	Count	Result	Units	RL	%REC	Low Limit	High Limit	RPD	RPDLimit	Qual
<b>Method: E353.2</b>										
Batch: R155787										
<b>Sample ID: MBLK-1</b>		Method Blank								
Nitrogen, Nitrate+Nitrite as N		ND	mg/L	0.10						Run: TECHNICON_120127A 01/27/12 12:16
<b>Sample ID: LCS-2</b>		Laboratory Control Sample								
Nitrogen, Nitrate+Nitrite as N		2.48	mg/L	0.10	99	90	110			Run: TECHNICON_120127A 01/27/12 12:19
<b>Sample ID: LFB-3</b>		Laboratory Fortified Blank								
Nitrogen, Nitrate+Nitrite as N		1.94	mg/L	0.10	99	90	110			Run: TECHNICON_120127A 01/27/12 12:21
<b>Sample ID: C12010792-003DMS</b>		Sample Matrix Spike								
Nitrogen, Nitrate+Nitrite as N		5.38	mg/L	0.10	106	90	110			Run: TECHNICON_120127A 01/27/12 13:01
<b>Sample ID: C12010792-003DMSD</b>		Sample Matrix Spike Duplicate								
Nitrogen, Nitrate+Nitrite as N		5.44	mg/L	0.10	109	90	110	1.1	10	Run: TECHNICON_120127A 01/27/12 13:04

**Qualifiers:**

RL - Analyte reporting limit.

ND - Not detected at the reporting limit.

MDC - Minimum detectable concentration



## QA/QC Summary Report

Prepared by Casper, WY Branch

**Client:** Denison Mines USA Corp  
**Project:** January Monthly Groundwater 2012

**Report Date:** 02/08/12  
**Work Order:** C12010822

Analyte	Count	Result	Units	RL	%REC	Low Limit	High Limit	RPD	RPDLimit	Qual
<b>Method: E900.1</b>										
Batch: GA-0509										
<b>Sample ID: MB-GA-0509</b>	3	Method Blank								
							Run: G5000W_120206A			02/07/12 17:18
Gross Alpha minus Rn & U		0.0891	pCi/L							U
Gross Alpha minus Rn & U Precision (±)		0.542	pCi/L							
Gross Alpha minus Rn & U MDC		0.913	pCi/L							
<b>Sample ID: LCS-GA-0509</b>		Laboratory Control Sample								
							Run: G5000W_120206A			02/07/12 17:18
Gross Alpha minus Rn & U		22.3	pCi/L	107		70	130			
<b>Sample ID: C12020148-008EMS</b>		Sample Matrix Spike								
							Run: G5000W_120206A			02/07/12 17:18
Gross Alpha minus Rn & U		61.5	pCi/L	114		70	130			
<b>Sample ID: C12020148-008EMSD</b>		Sample Matrix Spike Duplicate								
							Run: G5000W_120206A			02/07/12 17:18
Gross Alpha minus Rn & U		56.5	pCi/L	103		70	130	8.5	26.5	
<b>Method: E900.1</b>										
Batch: GA-0506										
<b>Sample ID: MB-GA-0506</b>	3	Method Blank								
							Run: G542M_120201A			02/02/12 13:57
Gross Alpha minus Rn & U		0.691	pCi/L							U
Gross Alpha minus Rn & U Precision (±)		0.634	pCi/L							
Gross Alpha minus Rn & U MDC		0.901	pCi/L							
<b>Sample ID: LCS-GA-0506</b>		Laboratory Control Sample								
							Run: G542M_120201A			02/02/12 13:57
Gross Alpha minus Rn & U		21.4	pCi/L	102		70	130			
<b>Sample ID: C12010823-011EMS</b>		Sample Matrix Spike								
							Run: G542M_120201A			02/02/12 15:43
Gross Alpha minus Rn & U		60.9	pCi/L	101		70	130			
<b>Sample ID: C12010823-011EMSD</b>		Sample Matrix Spike Duplicate								
							Run: G542M_120201A			02/02/12 15:43
Gross Alpha minus Rn & U		66.4	pCi/L	114		70	130	8.7	25.8	

**Qualifiers:**

RL - Analyte reporting limit.  
MDC - Minimum detectable concentration

ND - Not detected at the reporting limit.  
U - Not detected at minimum detectable concentration



# QA/QC Summary Report

Prepared by Casper, WY Branch

**Client:** Denison Mines USA Corp

**Report Date:** 02/08/12

**Project:** January Monthly Groundwater 2012

**Work Order:** C12010822

Analyte	Count	Result	Units	RL	%REC	Low Limit	High Limit	RPD	RPDLimit	Qual
<b>Method: SW8260B</b>										
Batch: R156139										
<b>Sample ID: 020612_LCS_4</b>	16	Laboratory Control Sample					Run: SATURNCA_120206B	02/06/12 13:12		
Acetone		110	ug/L	20	112	70	130			
Benzene		10	ug/L	1.0	103	70	130			
Carbon tetrachloride		12	ug/L	1.0	115	70	130			
Chloroform		12	ug/L	1.0	116	70	130			
Chloromethane		12	ug/L	1.0	118	70	130			
m+p-Xylenes		19	ug/L	1.0	95	70	130			
Methyl ethyl ketone		110	ug/L	20	113	70	130			
Methylene chloride		12	ug/L	1.0	121	70	130			
Naphthalene		15	ug/L	1.0	149	70	130			S
o-Xylene		9.3	ug/L	1.0	93	70	130			
Toluene		11	ug/L	1.0	108	70	130			
Xylenes, Total		28	ug/L	1.0	94	70	130			
Surr: 1,2-Dichlorobenzene-d4				1.0	99	80	120			
Surr: Dibromofluoromethane				1.0	112	70	130			
Surr: p-Bromofluorobenzene				1.0	102	80	130			
Surr: Toluene-d8				1.0	106	80	120			
<b>Sample ID: 020612_MBLK_6</b>	16	Method Blank					Run: SATURNCA_120206B	02/06/12 14:25		
Acetone		ND	ug/L	20						
Benzene		ND	ug/L	1.0						
Carbon tetrachloride		ND	ug/L	1.0						
Chloroform		ND	ug/L	1.0						
Chloromethane		ND	ug/L	1.0						
m+p-Xylenes		ND	ug/L	1.0						
Methyl ethyl ketone		ND	ug/L	20						
Methylene chloride		ND	ug/L	1.0						
Naphthalene		ND	ug/L	1.0						
o-Xylene		ND	ug/L	1.0						
Toluene		ND	ug/L	1.0						
Xylenes, Total		ND	ug/L	1.0						
Surr: 1,2-Dichlorobenzene-d4				1.0	94	80	120			
Surr: Dibromofluoromethane				1.0	103	70	130			
Surr: p-Bromofluorobenzene				1.0	90	80	120			
Surr: Toluene-d8				1.0	101	80	120			
<b>Sample ID: C12010822-003EMS</b>	16	Sample Matrix Spike					Run: SATURNCA_120206B	02/06/12 21:06		
Acetone		21000	ug/L	2000	106	70	130			
Benzene		1900	ug/L	100	94	70	130			
Carbon tetrachloride		2100	ug/L	100	107	70	130			
Chloroform		4000	ug/L	100	108	70	130			
Chloromethane		2100	ug/L	100	105	70	130			
m+p-Xylenes		3500	ug/L	100	88	70	130			
Methyl ethyl ketone		22000	ug/L	2000	110	70	130			
Methylene chloride		2300	ug/L	100	114	70	130			
Naphthalene		2700	ug/L	100	133	70	130			S

**Qualifiers:**

RL - Analyte reporting limit.

ND - Not detected at the reporting limit.

MDC - Minimum detectable concentration

S - Spike recovery outside of advisory limits.



## QA/QC Summary Report

Prepared by Casper, WY Branch

**Client:** Denison Mines USA Corp  
**Project:** January Monthly Groundwater 2012

**Report Date:** 02/08/12  
**Work Order:** C12010822

Analyte	Count	Result	Units	RL	%REC	Low Limit	High Limit	RPD	RPDLimit	Qual
<b>Method: SW8260B</b>										
Batch: R156139										
<b>Sample ID: C12010822-003EMS</b>	16	Sample Matrix Spike					Run: SATURNCA_120206B	02/06/12 21:06		
o-Xylene		1800	ug/L	100	89	70	130			
Toluene		2000	ug/L	100	102	70	130			
Xylenes, Total		5300	ug/L	100	88	70	130			
Surr: 1,2-Dichlorobenzene-d4				1.0	99	80	120			
Surr: Dibromofluoromethane				1.0	104	70	130			
Surr: p-Bromofluorobenzene				1.0	102	80	120			
Surr: Toluene-d8				1.0	104	80	120			
<b>Sample ID: C12010822-003EMSD</b>										
16 Sample Matrix Spike Duplicate										
Run: SATURNCA_120206B										
02/06/12 21:42										
Acetone		21000	ug/L	2000	105	70	130	0.8	20	
Benzene		2000	ug/L	100	98	70	130	3.8	20	
Carbon tetrachloride		2100	ug/L	100	105	70	130	1.9	20	
Chloroform		4000	ug/L	100	108	70	130	0.0	20	
Chloromethane		2200	ug/L	100	108	70	130	2.6	20	
m+p-Xylenes		3600	ug/L	100	91	70	130	3.6	20	
Methyl ethyl ketone		22000	ug/L	2000	111	70	130	0.7	20	
Methylene chloride		2300	ug/L	100	114	70	130	0.7	20	
Naphthalene		2700	ug/L	100	134	70	130	0.6	20	S
o-Xylene		1800	ug/L	100	90	70	130	1.8	20	
Toluene		2000	ug/L	100	100	70	130	1.6	20	
Xylenes, Total		5400	ug/L	100	91	70	130	3.0	20	
Surr: 1,2-Dichlorobenzene-d4				1.0	99	80	120	0.0	10	
Surr: Dibromofluoromethane				1.0	103	70	130	0.0	10	
Surr: p-Bromofluorobenzene				1.0	102	80	120	0.0	10	
Surr: Toluene-d8				1.0	102	80	120	0.0	10	

**Qualifiers:**

RL - Analyte reporting limit.  
MDC - Minimum detectable concentration

ND - Not detected at the reporting limit.  
S - Spike recovery outside of advisory limits.

# Workorder Receipt Checklist



C12010822

Login completed by: Debra Williams

Date Received: 1/27/2012

Reviewed by: BL2000\kschroeder

Received by: dw

Reviewed Date: 1/30/2012

Carrier FedEx  
name:

- |                                                                                                                                                             |                                         |                             |                                                 |
|-------------------------------------------------------------------------------------------------------------------------------------------------------------|-----------------------------------------|-----------------------------|-------------------------------------------------|
| Shipping container/cooler in good condition?                                                                                                                | Yes <input checked="" type="checkbox"/> | No <input type="checkbox"/> | Not Present <input type="checkbox"/>            |
| Custody seals intact on shipping container/cooler?                                                                                                          | Yes <input checked="" type="checkbox"/> | No <input type="checkbox"/> | Not Present <input type="checkbox"/>            |
| Custody seals intact on sample bottles?                                                                                                                     | Yes <input type="checkbox"/>            | No <input type="checkbox"/> | Not Present <input checked="" type="checkbox"/> |
| Chain of custody present?                                                                                                                                   | Yes <input checked="" type="checkbox"/> | No <input type="checkbox"/> |                                                 |
| Chain of custody signed when relinquished and received?                                                                                                     | Yes <input checked="" type="checkbox"/> | No <input type="checkbox"/> |                                                 |
| Chain of custody agrees with sample labels?                                                                                                                 | Yes <input checked="" type="checkbox"/> | No <input type="checkbox"/> |                                                 |
| Samples in proper container/bottle?                                                                                                                         | Yes <input checked="" type="checkbox"/> | No <input type="checkbox"/> |                                                 |
| Sample containers intact?                                                                                                                                   | Yes <input checked="" type="checkbox"/> | No <input type="checkbox"/> |                                                 |
| Sufficient sample volume for indicated test?                                                                                                                | Yes <input checked="" type="checkbox"/> | No <input type="checkbox"/> |                                                 |
| All samples received within holding time?<br>(Exclude analyses that are considered field parameters<br>such as pH, DO, Res Cl, Sulfite, Ferrous Iron, etc.) | Yes <input checked="" type="checkbox"/> | No <input type="checkbox"/> |                                                 |
| Container/Temp Blank temperature:                                                                                                                           | 3.6°C On Ice                            |                             |                                                 |
| Water - VOA vials have zero headspace?                                                                                                                      | Yes <input checked="" type="checkbox"/> | No <input type="checkbox"/> | No VOA vials submitted <input type="checkbox"/> |
| Water - pH acceptable upon receipt?                                                                                                                         | Yes <input checked="" type="checkbox"/> | No <input type="checkbox"/> | Not Applicable <input type="checkbox"/>         |

Contact and Corrective Action Comments:

None



# Chain of Custody and Analytical Request Record

PLEASE PRINT (Provide as much information as possible.)

Company Name: <b>Jana Denison Mines</b>	Project Name, PWS, Permit, Etc. <b>January Monthly Ground Water 2012</b>	Sample Origin State: <b>UT</b>	EPA/State Compliance: Yes <input checked="" type="checkbox"/> No <input type="checkbox"/>
Report Mail Address: <b>PO Box 809 Blanding UT 84511</b>	Contact Name: <b>Tanner Holliday</b>	Phone/Fax: <b>435 678 2221</b>	Email: <b>Tanner Holliday</b>
Invoice Address: <b>Same</b>	Invoice Contact & Phone: <b>David Turk 435 678 2221</b>	Purchase Order:	Quote/Bottle Order:

Special Report/Formats:

DW                       EDD/EDT (Electronic Data)  
 POTW/WWTP                      **Format:** \_\_\_\_\_  
 State: \_\_\_\_\_                       LEVEL IV  
 Other: \_\_\_\_\_                       NELAC

MATRIX	ANALYSIS REQUESTED							
	Manganese	Uranium	Nitrate + Nitrite	Chloroform + Dichloromethane	Gross Alpha Chloride	TDS	Selenium	Thallium
1-MW-11	X							
2-MW-25		X						
3-MW-26		X	X	X	X	X		
4-MW-30			X		X		X	
5-MW-31			X		X	X		X
6-MW-35	X	X		X				X
7-MW-65		X						

Number of Containers  
Sample Type: A W S V B O D W  
Air Water Soils/Solids  
Vegetation Bioassay Other  
DW - Drinking Water

Standard Turnaround (TAT) →

**RUSH**

Contact ELI prior to RUSH sample submittal for charges and scheduling - See Instruction Page

Comments:  
**Trip Blank Included**

Shipped by:  
**Felex**

Cooler ID(s):  
**Client**

Receipt Temp  
**3.6 °C**

On Ice:  Y  N

Custody Seal  
On Bottle  Y  N  
On Cooler  Y  N

Intact  Y  N  
Signature Match  Y  N

SAMPLE IDENTIFICATION (Name, Location, Interval, etc.)	Collection Date	Collection Time	MATRIX	Manganese	Uranium	Nitrate + Nitrite	Chloroform + Dichloromethane	Gross Alpha Chloride	TDS	Selenium	Thallium	Sulfate
1 MW-11	1/26/12	1010	1-W	X								
2 MW-25	1/25/12	1235	1-W		X							
3 MW-26	1/25/12	1300	6-W		X	X	X	X	X			
4 MW-30	1/24/12	1040	3-W			X		X		X		
5 MW-31	1/24/12	1315	2-W			X		X	X			X
6 MW-35	1/24/12	1220	1-W	X	X		X					X
7 MW-65	1/25/12	1235	1-W		X							
8												
9												
10												

<b>Custody Record MUST be Signed</b>	Relinquished by (print): <b>Tanner Holliday</b>	Date/Time: <b>1/26/2012 1100</b>	Signature: <i>Tanner Holliday</i>	Received by (print):	Date/Time:	Signature:
	Relinquished by (print):	Date/Time:	Signature:	Received by (print):	Date/Time:	Signature:
	Sample Disposal: <u>Return to Client:</u>	Lab Disposal:	Received by Laboratory: <i>[Signature]</i>	Date/Time: <b>1-27-12</b>	Signature: <b>10:00</b>	

LABORATORY USE ONLY

12010822

In certain circumstances, samples submitted to Energy Laboratories, Inc. may be subcontracted to other certified laboratories in order to complete the analysis requested. This serves as notice of this possibility. All sub-contract data will be clearly notated on your analytical report. Visit our web site at [www.energylab.com](http://www.energylab.com) for additional information, downloadable fee schedule, forms, and links.

Tab F2

Laboratory Analytical Reports – Accelerated Monitoring

March 2012



# ORGANIC ANALYTICAL REPORT

**Client:** Denison Mines  
**Project:** March Monthly Ground Water 2012  
**Lab Sample ID:** 1203257-001A  
**Client Sample ID:** MW-11  
**Collection Date:** 3/13/2012 1205h  
**Received Date:** 3/16/2012 1005h

**Contact:** Jo Ann Tischler

**Method:** SW8260C

## Analytical Results

VOAs by GC/MS Method 8260C/5030C

**Analyzed:** 3/19/2012 0816h

**Units:** µg/L

**Dilution Factor:** 1

463 West 3600 South  
Salt Lake City, UT 84115

Compound	CAS Number	Reporting Limit	Analytical Result	Qual
Tetrahydrofuran	109-99-9	1.00	< 1.00	

Phone: (801) 263-8686  
Toll Free: (888) 263-8686  
Fax: (801) 263-8687  
e-mail: awal@awal-labs.com

Surrogate	CAS	Result	Amount Spiked	% REC	Limits	Qual
Surr: Toluene-d8	2037-26-5	49.6	50.00	99.3	77-129	
Surr: Dibromofluoromethane	1868-53-7	48.6	50.00	97.2	80-124	
Surr: 4-Bromofluorobenzene	460-00-4	49.7	50.00	99.4	80-128	
Surr: 1,2-Dichloroethane-d4	17060-07-0	53.8	50.00	108	72-151	

web: www.awal-labs.com

Kyle F. Gross  
Laboratory Director

Jose Rocha  
QA Officer



### LABORATORY ANALYTICAL REPORT

Prepared by Casper, WY Branch

**Client:** Denison Mines USA Corp  
**Project:** March Monthly Groundwater 2012  
**Lab ID:** C12030624-001  
**Client Sample ID:** MW-11\_03132012

**Report Date:** 04/12/12  
**Collection Date:** 03/13/12 12:05  
**Date Received:** 03/16/12  
**Matrix:** Aqueous

Analyses	Result	Units	Qualifier	RL	MCL/ QCL	Method	Analysis Date / By
<b>METALS - DISSOLVED</b>							
Manganese	121	ug/L		10		E200.8	03/17/12 23:44 / smm

**Report Definitions:** RL - Analyte reporting limit.  
QCL - Quality control limit.

MCL - Maximum contaminant level.  
ND - Not detected at the reporting limit.



### LABORATORY ANALYTICAL REPORT

Prepared by Casper, WY Branch

**Client:** Denison Mines USA Corp  
**Project:** March Monthly Groundwater 2012  
**Lab ID:** C12030624-002  
**Client Sample ID:** MW-25\_03142012

**Report Date:** 04/12/12  
**Collection Date:** 03/14/12 13:00  
**Date Received:** 03/16/12  
**Matrix:** Aqueous

Analyses	Result	Units	Qualifier	RL	MCL/ QCL	Method	Analysis Date / By
<b>METALS - DISSOLVED</b>							
Uranium	6.93	ug/L		0.30		E200.8	03/17/12 23:47 / smm

**Report Definitions:** RL - Analyte reporting limit.  
QCL - Quality control limit.

MCL - Maximum contaminant level.  
ND - Not detected at the reporting limit.

## LABORATORY ANALYTICAL REPORT

Prepared by Casper, WY Branch

**Client:** Denison Mines USA Corp  
**Project:** March Monthly Groundwater 2012  
**Lab ID:** C12030624-003  
**Client Sample ID:** MW-26\_03142012

**Report Date:** 04/12/12  
**Collection Date:** 03/14/12 13:30  
**Date Received:** 03/16/12  
**Matrix:** Aqueous

Analyses	Result	Units	Qualifier	RL	MCL/ QCL	Method	Analysis Date / By
<b>MAJOR IONS</b>							
Chloride	74	mg/L		1		A4500-Cl B	03/21/12 09:48 / ljr
Nitrogen, Nitrate+Nitrite as N	3.0	mg/L		0.1		E353.2	03/19/12 14:18 / ljl
<b>PHYSICAL PROPERTIES</b>							
Solids, Total Dissolved TDS @ 180 C	3220	mg/L		10		A2540 C	03/19/12 08:58 / ab
<b>METALS - DISSOLVED</b>							
Uranium	31.2	ug/L		0.30		E200.8	03/16/12 17:09 / smm
<b>RADIONUCLIDES - DISSOLVED</b>							
Gross Alpha minus Rn & U	4.0	pCi/L				E900.1	03/22/12 14:42 / ep
Gross Alpha minus Rn & U Precision (±)	0.6	pCi/L				E900.1	03/22/12 14:42 / ep
Gross Alpha minus Rn & U MDC	0.3	pCi/L				E900.1	03/22/12 14:42 / ep
<b>VOLATILE ORGANIC COMPOUNDS</b>							
Acetone	ND	ug/L		20		SW8260B	03/19/12 18:49 / jlr
Benzene	ND	ug/L		1.0		SW8260B	03/19/12 18:49 / jlr
Carbon tetrachloride	ND	ug/L		1.0		SW8260B	03/19/12 18:49 / jlr
Chloroform	2900	ug/L	D	500		SW8260B	03/23/12 19:37 / jlr
Chloromethane	ND	ug/L		1.0		SW8260B	03/19/12 18:49 / jlr
Methyl ethyl ketone	ND	ug/L		20		SW8260B	03/19/12 18:49 / jlr
Methylene chloride	27	ug/L		1.0		SW8260B	03/19/12 18:49 / jlr
Naphthalene	ND	ug/L		1.0		SW8260B	03/19/12 18:49 / jlr
Toluene	ND	ug/L		1.0		SW8260B	03/19/12 18:49 / jlr
Xylenes, Total	ND	ug/L		1.0		SW8260B	03/19/12 18:49 / jlr
Surr: 1,2-Dichlorobenzene-d4	90.0	%REC		80-120		SW8260B	03/19/12 18:49 / jlr
Surr: Dibromofluoromethane	112	%REC		70-130		SW8260B	03/19/12 18:49 / jlr
Surr: p-Bromofluorobenzene	94.0	%REC		80-120		SW8260B	03/19/12 18:49 / jlr
Surr: Toluene-d8	100	%REC		80-120		SW8260B	03/19/12 18:49 / jlr

**Report Definitions:**  
 RL - Analyte reporting limit.  
 QCL - Quality control limit.  
 MDC - Minimum detectable concentration

MCL - Maximum contaminant level.  
 ND - Not detected at the reporting limit.  
 D - RL increased due to sample matrix.

### LABORATORY ANALYTICAL REPORT

Prepared by Casper, WY Branch

**Client:** Denison Mines USA Corp  
**Project:** March Monthly Groundwater 2012  
**Lab ID:** C12030624-004  
**Client Sample ID:** MW-30\_03142012

**Report Date:** 04/12/12  
**Collection Date:** 03/14/12 12:20  
**Date Received:** 03/16/12  
**Matrix:** Aqueous

Analyses	Result	Units	Qualifier	RL	MCL/ QCL	Method	Analysis Date / By
<b>MAJOR IONS</b>							
Chloride	128	mg/L		1		A4500-Cl B	03/21/12 09:50 / lr
Nitrogen, Nitrate+Nitrite as N	18	mg/L	D	2		E353.2	03/19/12 14:26 / ljl
<b>METALS - DISSOLVED</b>							
Selenium	39.5	ug/L		5.0		E200.8	03/16/12 16:37 / smm
Uranium	8.38	ug/L		0.30		E200.8	03/16/12 16:37 / smm

**Report Definitions:**  
 RL - Analyte reporting limit.  
 QCL - Quality control limit.  
 D - RL increased due to sample matrix.

MCL - Maximum contaminant level.  
 ND - Not detected at the reporting limit.



### LABORATORY ANALYTICAL REPORT

Prepared by Casper, WY Branch

**Client:** Denison Mines USA Corp  
**Project:** March Monthly Groundwater 2012  
**Lab ID:** C12030624-005  
**Client Sample ID:** MW-31\_03132012

**Report Date:** 04/12/12  
**Collection Date:** 03/13/12 14:20  
**Date Received:** 03/16/12  
**Matrix:** Aqueous

Analyses	Result	Units	Qualifier	RL	MCL/ QCL	Method	Analysis Date / By
<b>MAJOR IONS</b>							
Chloride	152	mg/L		1		A4500-Cl B	03/21/12 09:51 / lr
Nitrogen, Nitrate+Nitrite as N	22	mg/L	D	2		E353.2	03/19/12 14:28 / ljl
Sulfate	517	mg/L	D	10		A4500-SO4 E	03/20/12 11:19 / lr
<b>PHYSICAL PROPERTIES</b>							
Solids, Total Dissolved TDS @ 180 C	1400	mg/L		10		A2540 C	03/19/12 08:59 / ab

**Report Definitions:**  
RL - Analyte reporting limit.  
QCL - Quality control limit.  
D - RL increased due to sample matrix.

MCL - Maximum contaminant level.  
ND - Not detected at the reporting limit.

**LABORATORY ANALYTICAL REPORT**

Prepared by Casper, WY Branch

**Client:** Denison Mines USA Corp  
**Project:** March Monthly Groundwater 2012  
**Lab ID:** C12030624-006  
**Client Sample ID:** MW-35\_03132012

**Report Date:** 04/12/12  
**Collection Date:** 03/13/12 14:05  
**Date Received:** 03/16/12  
**Matrix:** Aqueous

Analyses	Result	Units	Qualifier	RL	MCL/ QCL	Method	Analysis Date / By
<b>METALS - DISSOLVED</b>							
Manganese	269	ug/L		10		E200.8	03/17/12 23:50 / smm
Thallium	0.71	ug/L		0.50		E200.8	03/17/12 23:50 / smm
Uranium	24.9	ug/L		0.30		E200.8	03/17/12 23:50 / smm
<b>RADIONUCLIDES - DISSOLVED</b>							
Gross Alpha minus Rn & U	6.2	pCi/L				E900.1	03/22/12 14:42 / ep
Gross Alpha minus Rn & U Precision (±)	0.7	pCi/L				E900.1	03/22/12 14:42 / ep
Gross Alpha minus Rn & U MDC	0.3	pCi/L				E900.1	03/22/12 14:42 / ep

**Report Definitions:**  
 RL - Analyte reporting limit.  
 QCL - Quality control limit.  
 MDC - Minimum detectable concentration

MCL - Maximum contaminant level.  
 ND - Not detected at the reporting limit.

### LABORATORY ANALYTICAL REPORT

Prepared by Casper, WY Branch

**Client:** Denison Mines USA Corp  
**Project:** March Monthly Groundwater 2012  
**Lab ID:** C12030624-007  
**Client Sample ID:** MW-65\_03142012

**Report Date:** 04/12/12  
**Collection Date:** 03/14/12 12:20  
**Date Received:** 03/16/12  
**Matrix:** Aqueous

Analyses	Result	Units	Qualifier	RL	MCL/ QCL	Method	Analysis Date / By
<b>MAJOR IONS</b>							
Chloride	113	mg/L		1		A4500-Cl B	03/21/12 09:59 / lr
Nitrogen, Nitrate+Nitrite as N	16	mg/L	D	2		E353.2	03/19/12 14:31 / ljl
<b>METALS - DISSOLVED</b>							
Selenium	40.0	ug/L		5.0		E200.8	03/16/12 16:39 / smm
Uranium	7.45	ug/L		0.30		E200.8	03/16/12 16:39 / smm

**Report Definitions:**  
 RL - Analyte reporting limit.  
 QCL - Quality control limit.  
 D - RL increased due to sample matrix.

MCL - Maximum contaminant level.  
 ND - Not detected at the reporting limit.



## ORGANIC ANALYTICAL REPORT

**Client:** Denison Mines  
**Project:** March Monthly Ground Water 2012  
**Lab Sample ID:** 1203257-002A  
**Client Sample ID:** Trip Blank  
**Collection Date:** 3/13/2012  
**Received Date:** 3/16/2012 1005h

**Contact:** Jo Ann Tischler

**Method:** SW8260C

### Analytical Results

VOAs by GC/MS Method 8260C/5030C

**Analyzed:** 3/19/2012 0835h

**Units:** µg/L

**Dilution Factor:** 1

463 West 3600 South  
Salt Lake City, UT 84115

Compound	CAS Number	Reporting Limit	Analytical Result	Qual
Tetrahydrofuran	109-99-9	1.00	< 1.00	

Phone: (801) 263-8686  
Toll Free: (888) 263-8686  
Fax: (801) 263-8687  
e-mail: awal@awal-labs.com

Surrogate	CAS	Result	Amount Spiked	% REC	Limits	Qual
Surr: Toluene-d8	2037-26-5	49.8	50.00	99.6	77-129	
Surr: Dibromofluoromethane	1868-53-7	48.5	50.00	97.0	80-124	
Surr: 4-Bromofluorobenzene	460-00-4	49.4	50.00	98.8	80-128	
Surr: 1,2-Dichloroethane-d4	17060-07-0	55.4	50.00	111	72-151	

web: www.awal-labs.com

Kyle F. Gross  
Laboratory Director

Jose Rocha  
QA Officer



### LABORATORY ANALYTICAL REPORT

Prepared by Casper, WY Branch

**Client:** Denison Mines USA Corp  
**Project:** March Monthly Groundwater 2012  
**Lab ID:** C12030624-008  
**Client Sample ID:** Trip Blank 6746

**Report Date:** 04/12/12  
**Collection Date:** 03/14/12  
**Date Received:** 03/16/12  
**Matrix:** Aqueous

Analyses	Result	Units	Qualifier	RL	MCL/ QCL	Method	Analysis Date / By
<b>VOLATILE ORGANIC COMPOUNDS</b>							
Acetone	ND	ug/L		20		SW8260B	03/19/12 18:13 / jlr
Benzene	ND	ug/L		1.0		SW8260B	03/19/12 18:13 / jlr
Carbon tetrachloride	ND	ug/L		1.0		SW8260B	03/19/12 18:13 / jlr
Chloroform	ND	ug/L		1.0		SW8260B	03/19/12 18:13 / jlr
Chloromethane	ND	ug/L		1.0		SW8260B	03/19/12 18:13 / jlr
Methyl ethyl ketone	ND	ug/L		20		SW8260B	03/19/12 18:13 / jlr
Methylene chloride	ND	ug/L		1.0		SW8260B	03/19/12 18:13 / jlr
Naphthalene	ND	ug/L		1.0		SW8260B	03/19/12 18:13 / jlr
Toluene	ND	ug/L		1.0		SW8260B	03/19/12 18:13 / jlr
Xylenes, Total	ND	ug/L		1.0		SW8260B	03/19/12 18:13 / jlr
Surr: 1,2-Dichlorobenzene-d4	94.0	%REC		80-120		SW8260B	03/19/12 18:13 / jlr
Surr: Dibromofluoromethane	102	%REC		70-130		SW8260B	03/19/12 18:13 / jlr
Surr: p-Bromofluorobenzene	94.0	%REC		80-120		SW8260B	03/19/12 18:13 / jlr
Surr: Toluene-d8	99.0	%REC		80-120		SW8260B	03/19/12 18:13 / jlr

**Report** RL - Analyte reporting limit.  
**Definitions:** QCL - Quality control limit.

MCL - Maximum contaminant level.  
ND - Not detected at the reporting limit.

### LABORATORY ANALYTICAL REPORT

Prepared by Casper, WY Branch

**Client:** Denison Mines USA Corp  
**Project:** March Monthly Groundwater 2012  
**Lab ID:** C12030624-009  
**Client Sample ID:** Temp Blank

**Report Date:** 04/12/12  
**Collection Date:** 03/15/12  
**Date Received:** 03/16/12  
**Matrix:** Aqueous

Analyses	Result	Units	Qualifier	RL	MCL/ QCL	Method	Analysis Date / By
<b>PHYSICAL PROPERTIES</b>							
Temperature	2.8	°C				E170.1	03/16/12 09:35 / kbh

**Report Definitions:** RL - Analyte reporting limit.  
QCL - Quality control limit.

MCL - Maximum contaminant level.  
ND - Not detected at the reporting limit.



Jo Ann Tischler  
Denison Mines  
1050 17th Street, # 950  
Denver, CO 80265  
TEL: (303) 389-4132

RE: March Monthly Ground Water 2012

Dear Jo Ann Tischler:

Lab Set ID: 1203257

463 West 3600 South  
Salt Lake City, UT 84115

American West Analytical Laboratories received 2 sample(s) on 3/16/2012 for the analyses presented in the following report.

Phone: (801) 263-8686  
Toll Free: (888) 263-8686  
Fax: (801) 263-8687  
e-mail: awal@awal-labs.com

All analyses were performed in accordance to The NELAC Institute protocols unless noted otherwise. American West Analytical Laboratories is accredited by The NELAC Institute in Utah and Texas; and is state accredited in Colorado, Idaho, and Missouri. Accreditation documents are available upon request. If you have any questions or concerns regarding this report please feel free to call.

web: www.awal-labs.com

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

Kyle F. Gross  
Laboratory Director

Jose Rocha  
QA Officer

Thank You,

Approved by:

**Jose G.  
Rocha**

Digitally signed by Jose G. Rocha  
DN: cn=Jose G. Rocha, o=American West Analytical Laboratories, ou=Quality Assurance Officer, email=jose@awal-labs.com, c=US  
Date: 2012.03.23 14:14:40 -06'00'

Laboratory Director or designee



## SAMPLE SUMMARY

**Client:** Denison Mines  
**Project:** March Monthly Ground Water 2012  
**Lab Set ID:** 1203257  
**Date Received:** 3/16/2012 1005h

**Contact:** Jo Ann Tischler

<u>Lab Sample ID</u>	<u>Client Sample ID</u>	<u>Date Collected</u>	<u>Matrix</u>	<u>Analysis</u>
1203257-001A	MW-11	3/13/2012 1205h	Aqueous	VOA by GC/MS Method 8260C/5030C
1203257-002A	Trip Blank	3/13/2012	Aqueous	VOA by GC/MS Method 8260C/5030C

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Fax: (801) 263-8687  
e-mail: awal@awal-labs.com

web: www.awal-labs.com

Kyle F. Gross  
Laboratory Director

Jose Rocha  
QA Officer



## Volatile Case Narrative

**Client:** Denison Mines  
**Contact:** Jo Ann Tischler  
**Project:** March Monthly Ground Water 2012  
**Lab Set ID:** 1203257

---

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Jose Rocha  
QA Officer

### Sample Receipt Information:

**Date of Receipt:** 3/16/2012  
**Date(s) of Collection:** 3/13/2012  
**Sample Condition:** Intact  
**C-O-C Discrepancies:** None  
**Method:** SW-846 8260C/5030C  
**Analysis:** Tetrahydrofuran

**General Set Comments:** Tetrahydrofuran was not observed above reporting limits.

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

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

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

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

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

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

**Surrogates:** All surrogate recoveries were within established limits.

**Corrective Action:** None required.



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Laboratory Director

Jose Rocha  
QA Officer

## QC SUMMARY REPORT

**Client:** Denison Mines  
**Lab Set ID:** 1203257  
**Project:** March Monthly Ground Water 2012

**Contact:** Jo Ann Tischler  
**Dept:** MSVOA  
**QC Type:** LCS

Sample ID	Analyte	Units	Method	Result	Amount Spiked	Original Amount	%REC	Limits	%RPD	RPD Limit	Qual	Date Analyzed
LCS VOC 031912A	Tetrahydrofuran	µg/L	SW8260C	15.2	20.00	0	75.9	43-146				3/19/2012 0719h
LCS VOC 031912A	Surr: 1,2-Dichloroethane-d4	%REC	SW8260C	52.9	50.00		106	72-136				3/19/2012 0719h
LCS VOC 031912A	Surr: 4-Bromofluorobenzene	%REC	SW8260C	48.1	50.00		96.2	77-121				3/19/2012 0719h
LCS VOC 031912A	Surr: Dibromofluoromethane	%REC	SW8260C	48.6	50.00		97.3	67-128				3/19/2012 0719h
LCS VOC 031912A	Surr: Toluene-d8	%REC	SW8260C	48.6	50.00		97.1	81-135				3/19/2012 0719h



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Kyle F. Gross  
 Laboratory Director

Jose Rocha  
 QA Officer

## QC SUMMARY REPORT

**Client:** Denison Mines  
**Lab Set ID:** 1203257  
**Project:** March Monthly Ground Water 2012

**Contact:** Jo Ann Tischler  
**Dept:** MSVOA  
**QC Type:** MBLK

Sample ID	Analyte	Units	Method	Result	Amount Spiked	Original Amount	%REC	Limits	%RPD	RPD Limit	Qual	Date Analyzed
MB VOC 031912A	Tetrahydrofuran	µg/L	SW8260C	< 1.00				-				3/19/2012 0757h
MB VOC 031912A	Surr: 1,2-Dichloroethane-d4	%REC	SW8260C	56.3	50.00		113	72-136				3/19/2012 0757h
MB VOC 031912A	Surr: 4-Bromofluorobenzene	%REC	SW8260C	49.4	50.00		98.8	77-121				3/19/2012 0757h
MB VOC 031912A	Surr: Dibromofluoromethane	%REC	SW8260C	48.2	50.00		96.3	67-128				3/19/2012 0757h
MB VOC 031912A	Surr: Toluene-d8	%REC	SW8260C	49.0	50.00		97.9	81-135				3/19/2012 0757h



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Kyle F. Gross  
Laboratory Director

Jose Rocha  
QA Officer

## QC SUMMARY REPORT

**Client:** Denison Mines  
**Lab Set ID:** 1203257  
**Project:** March Monthly Ground Water 2012

**Contact:** Jo Ann Tischler  
**Dept:** MSVOA  
**QC Type:** MS

Sample ID	Analyte	Units	Method	Result	Amount Spiked	Original Amount	%REC	Limits	%RPD	RPD Limit	Qual	Date Analyzed
1203257-001AMS	Tetrahydrofuran	µg/L	SW8260C	18.1	20.00	0	90.4	43-146				3/19/2012 0913h
1203257-001AMS	Surr: 1,2-Dichloroethane-d4	%REC	SW8260C	53.7	50.00		107	72-151				3/19/2012 0913h
1203257-001AMS	Surr: 4-Bromofluorobenzene	%REC	SW8260C	48.5	50.00		97.1	80-128				3/19/2012 0913h
1203257-001AMS	Surr: Dibromofluoromethane	%REC	SW8260C	47.8	50.00		95.6	80-124				3/19/2012 0913h
1203257-001AMS	Surr: Toluene-d8	%REC	SW8260C	49.1	50.00		98.2	77-129				3/19/2012 0913h



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Laboratory Director

Jose Rocha  
QA Officer

## QC SUMMARY REPORT

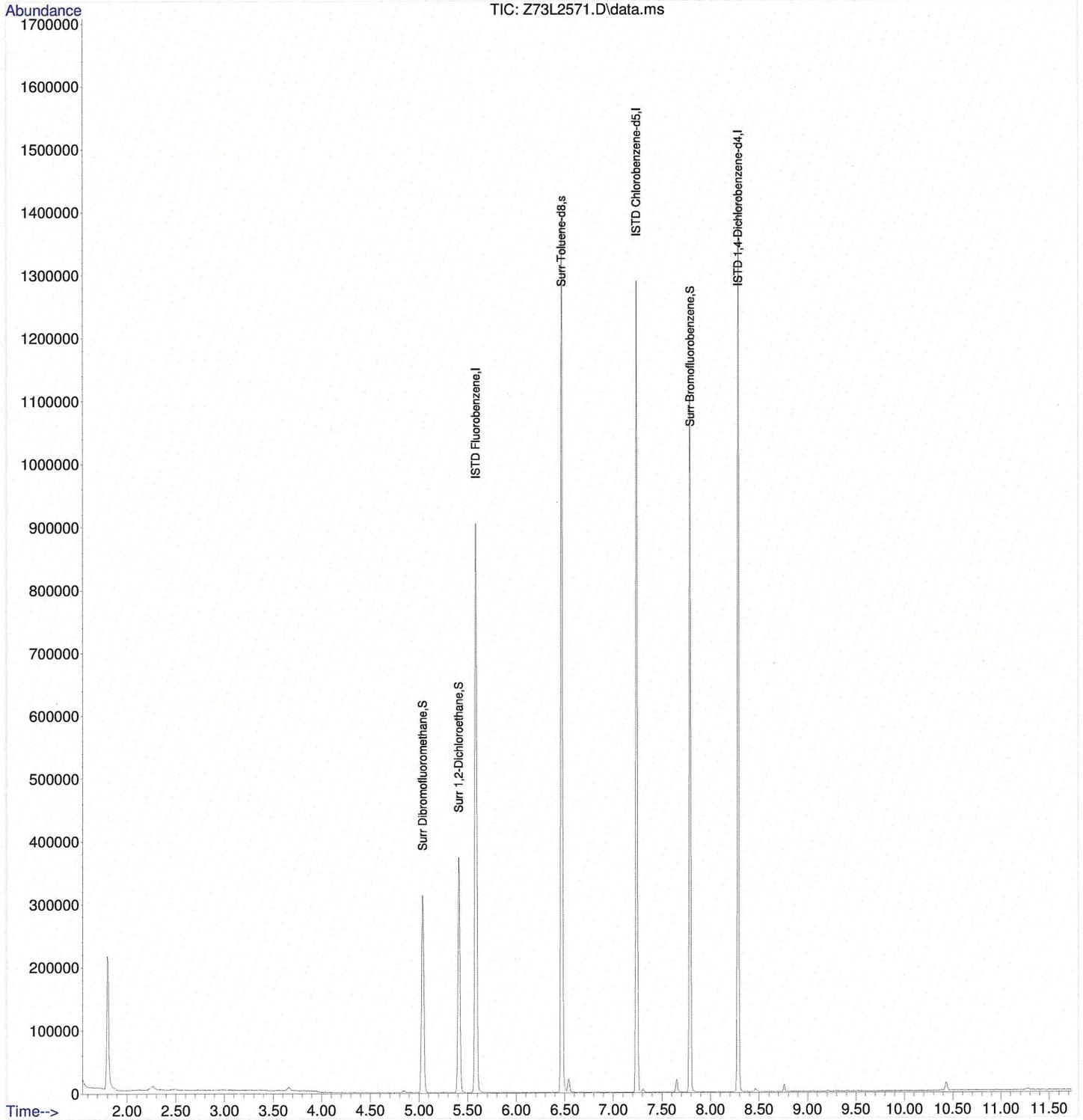
**Client:** Denison Mines  
**Lab Set ID:** 1203257  
**Project:** March Monthly Ground Water 2012

**Contact:** Jo Ann Tischler  
**Dept:** MSVOA  
**QC Type:** MSD

Sample ID	Analyte	Units	Method	Result	Amount Spiked	Original Amount	%REC	Limits	%RPD	RPD Limit	Qual	Date Analyzed
1203257-001AMSD	Tetrahydrofuran	µg/L	SW8260C	18.8	20.00	0	94.2	43-146	4.12	25		3/19/2012 0946h
1203257-001AMSD	Surr: 1,2-Dichloroethane-d4	%REC	SW8260C	49.8	50.00		99.6	72-151				3/19/2012 0946h
1203257-001AMSD	Surr: 4-Bromofluorobenzene	%REC	SW8260C	48.8	50.00		97.5	80-128				3/19/2012 0946h
1203257-001AMSD	Surr: Dibromofluoromethane	%REC	SW8260C	48.2	50.00		96.5	80-124				3/19/2012 0946h
1203257-001AMSD	Surr: Toluene-d8	%REC	SW8260C	49.8	50.00		99.6	77-129				3/19/2012 0946h

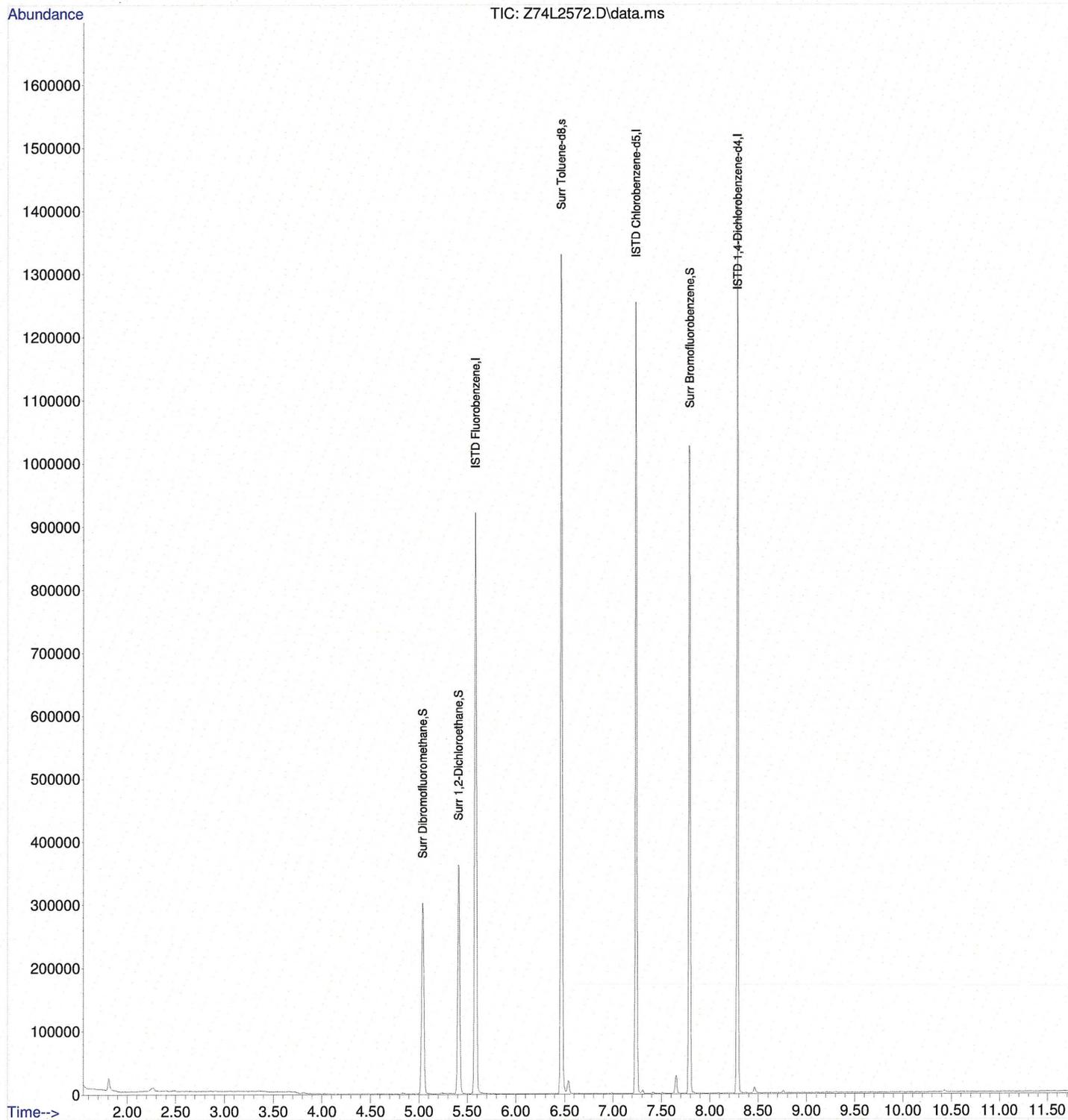
Data Path : C:\msdchem\1\DATA\MAR12-C\19MAR12A\  
Data File : Z73L2571.D  
Acq On : 19 Mar 2012 8:16 am  
Operator :  
Sample : 1203257-001A  
Misc : SAMP 5.0ML 10F3 JO  
ALS Vial : 6 Sample Multiplier: 1

Quant Time: Mar 20 06:58:48 2012  
Quant Method : C:\MSDCHEM\1\METHODS\AFULLW\_53.M  
Quant Title : VOA Calibration  
QLast Update : Sun Mar 11 20:47:59 2012  
Response via : Initial Calibration



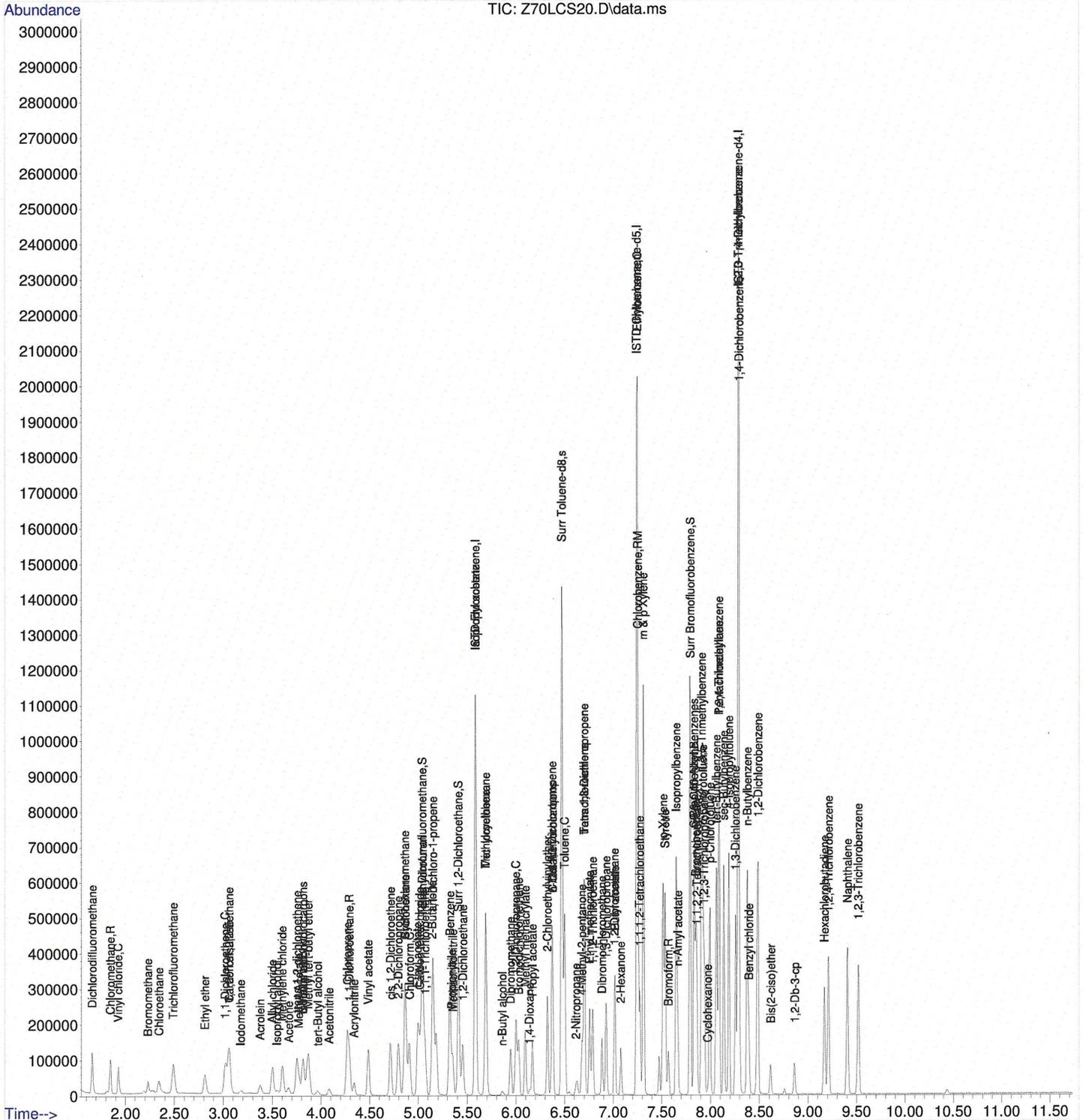
Data Path : C:\msdchem\1\DATA\MAR12-C\19MAR12A\  
 Data File : Z74L2572.D  
 Acq On : 19 Mar 2012 8:35 am  
 Operator :  
 Sample : 1203257-002A  
 Misc : SAMP 5.0ML 10F3 JO  
 ALS Vial : 7 Sample Multiplier: 1

Quant Time: Mar 20 06:59:17 2012  
 Quant Method : C:\MSDCHEM\1\METHODS\AFULLW\_53.M  
 Quant Title : VOA Calibration  
 QLast Update : Sun Mar 11 20:47:59 2012  
 Response via : Initial Calibration



Data Path : C:\msdchem\1\DATA\MAR12-C\19MAR12A\  
Data File : Z70LCS20.D  
Acq On : 19 Mar 2012 7:19 am  
Operator :  
Sample : LCS VOC 031912A  
Misc : LCS SEE COVERSHEET FOR ID AND AMOUNTS JO  
ALS Vial : 3 Sample Multiplier: 1

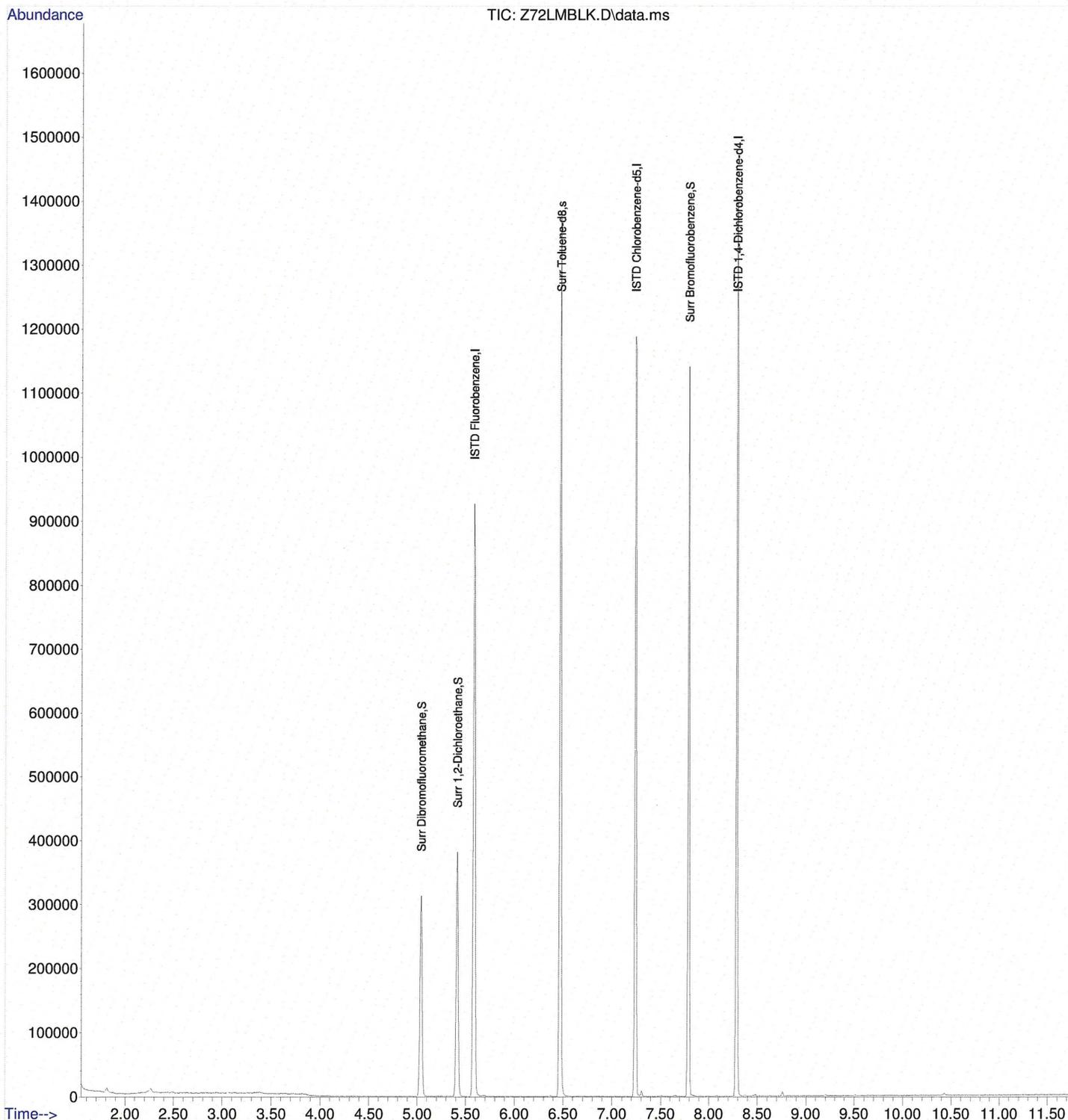
Quant Time: Mar 19 07:31:08 2012  
Quant Method : C:\MSDCHEM\1\METHODS\AFULLW\_53.M  
Quant Title : VOA Calibration  
QLast Update : Sun Mar 11 20:47:59 2012  
Response via : Initial Calibration



Quantitation Report (QT Reviewed)

Data Path : C:\msdchem\1\DATA\MAR12-C\19MAR12A\  
Data File : Z72LMBLK.D  
Acq On : 19 Mar 2012 7:57 am  
Operator :  
Sample : MB VOC 031912A  
Misc : MBLK 5.0ML JO  
ALS Vial : 5 Sample Multiplier: 1

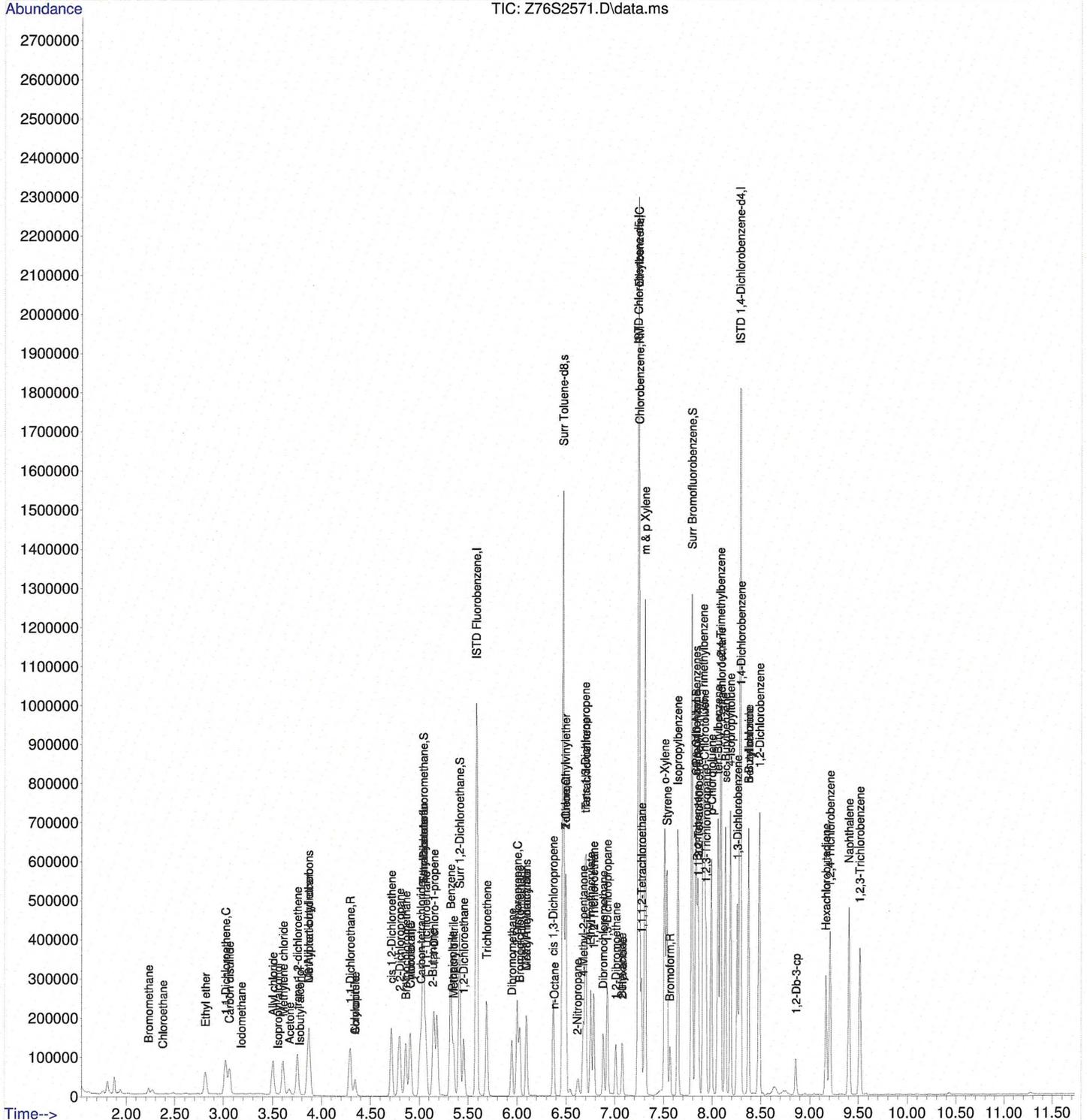
Quant Time: Mar 20 06:58:08 2012  
Quant Method : C:\MSDCHEM\1\METHODS\AFULLW\_53.M  
Quant Title : VOA Calibration  
QLast Update : Sun Mar 11 20:47:59 2012  
Response via : Initial Calibration



Quantitation Report (Not Reviewed)

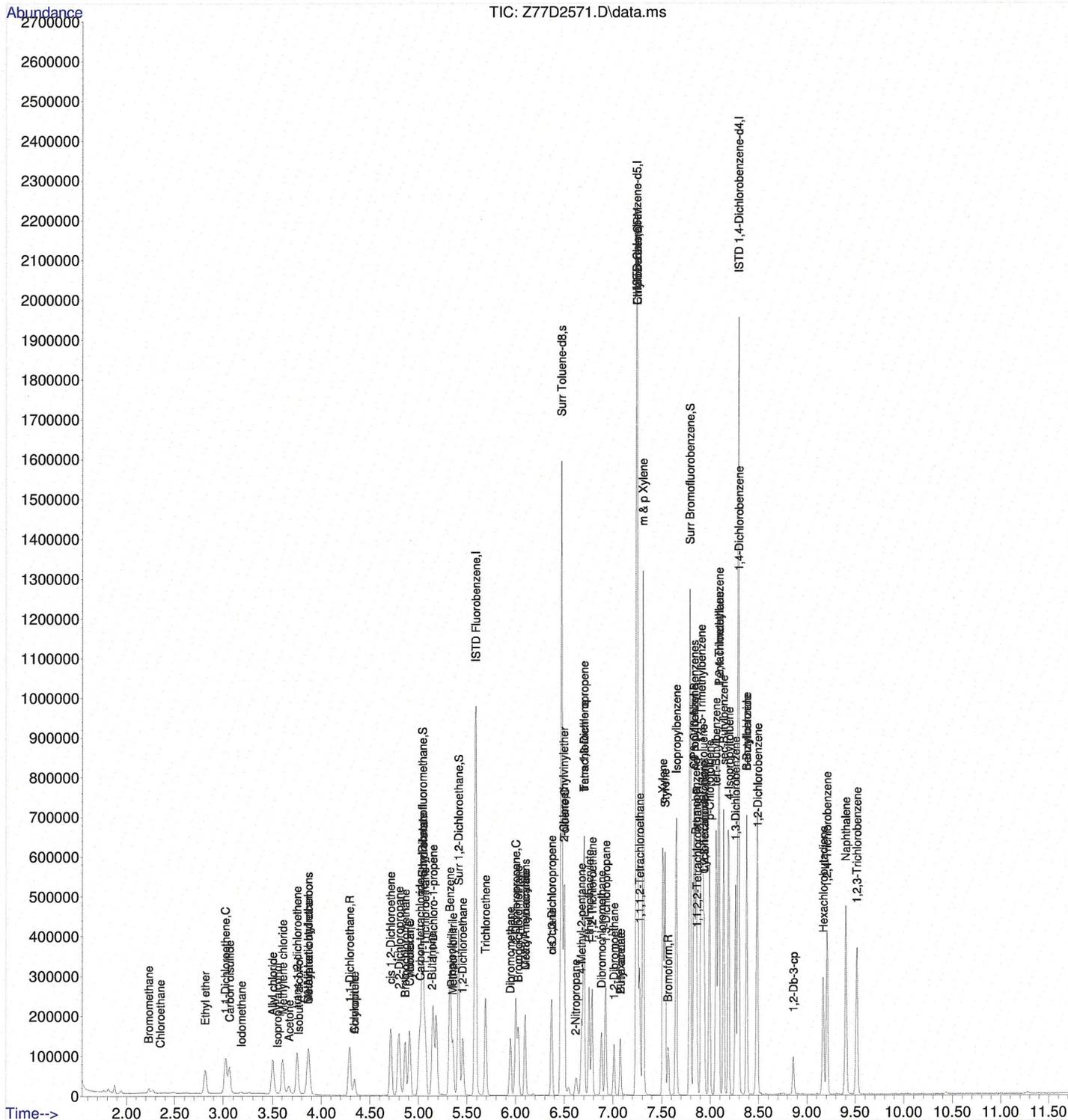
Data Path : C:\msdchem\1\DATA\MAR12-C\19MAR12A\  
 Data File : Z76S2571.D  
 Acq On : 19 Mar 2012 9:13 am  
 Operator :  
 Sample : 1203257-001AMS  
 Misc : MS 5.0ML 20F3 JO  
 ALS Vial : 9 Sample Multiplier: 1

Quant Time: Mar 19 09:24:56 2012  
 Quant Method : C:\MSDCHEM\1\METHODS\AFULLW\_53.M  
 Quant Title : VOA Calibration  
 QLast Update : Sun Mar 11 20:47:59 2012  
 Response via : Initial Calibration



Data Path : C:\msdchem\1\DATA\MAR12-C\19MAR12A\  
Data File : Z77D2571.D  
Acq On : 19 Mar 2012 9:46 am  
Operator :  
Sample : 1203257-001AMSD  
Misc : MSD 5.0ML 3OF3 JO  
ALS Vial : 10 Sample Multiplier: 1

Quant Time: Mar 19 09:58:25 2012  
Quant Method : C:\MSDCHEM\1\METHODS\AFULLW\_53.M  
Quant Title : VOA Calibration  
QLast Update : Sun Mar 11 20:47:59 2012  
Response via : Initial Calibration



# American West Analytical Laboratories

UL  
Denison

## WORK ORDER Summary

**Client:** Denison Mines  
**Client ID:** DEN100  
**Project:** March Monthly Ground Water 2012  
**Comments:** PA Rush. QC 3 & Summary. EDD-EIM into Locus Database. Report THF to 1 µg/L.;

**Contact:** Jo Ann Tischler  
**QC Level:** LEVEL III

**Work Order:** 1203257

Page 1 of 1 3/16/2012

**WO Type:** Project

Sample ID	Client Sample ID	Collected Date	Received Date	Date Due	Matrix	Test Code	Sel	Storage	
1203257-001A	MW-11	3/13/2012 1205h	3/16/2012 1005h	3/27/2012	Aqueous	8260-W	<input checked="" type="checkbox"/>	VOCFridge	3
1203257-002A	Trip Blank	3/13/2012				8260-W	<input checked="" type="checkbox"/>	VOCFridge	





## ANALYTICAL SUMMARY REPORT

April 12, 2012

Denison Mines USA Corp  
6425 S Hwy 191  
Blanding, UT 84511

Workorder No.: C12030624      Quote ID: C1640 - POC Wells  
Project Name: March Monthly Groundwater 2012

Energy Laboratories, Inc. Casper WY received the following 9 samples for Denison Mines USA Corp on 3/16/2012 for analysis.

Sample ID	Client Sample ID	Collect Date	Receive Date	Matrix	Test
C12030624-001	MW-11_03132012	03/13/12 12:05	03/16/12	Aqueous	Metals by ICP-MS, Dissolved
C12030624-002	MW-25_03142012	03/14/12 13:00	03/16/12	Aqueous	Same As Above
C12030624-003	MW-26_03142012	03/14/12 13:30	03/16/12	Aqueous	Chloride Metals by ICP-MS, Dissolved Nitrogen, Nitrate + Nitrite Gross Alpha minus Rn222 and Uranium Solids, Total Dissolved SW8260B VOCs, Standard List
C12030624-004	MW-30_03142012	03/14/12 12:20	03/16/12	Aqueous	Chloride Metals by ICP-MS, Dissolved Nitrogen, Nitrate + Nitrite
C12030624-005	MW-31_03132012	03/13/12 14:20	03/16/12	Aqueous	Chloride Nitrogen, Nitrate + Nitrite Solids, Total Dissolved Sulfate
C12030624-006	MW-35_03132012	03/13/12 14:05	03/16/12	Aqueous	Metals by ICP-MS, Dissolved Gross Alpha minus Rn222 and Uranium
C12030624-007	MW-65_03142012	03/14/12 12:20	03/16/12	Aqueous	Chloride Metals by ICP-MS, Dissolved Nitrogen, Nitrate + Nitrite
C12030624-008	Trip Blank 6746	03/14/12 0:00	03/16/12	Aqueous	SW8260B VOCs, Standard List
C12030624-009	Temp Blank	03/15/12 0:00	03/16/12	Aqueous	Temperature

The analyses presented in this report were performed at Energy Laboratories, Inc., 2393 Salt Creek Hwy., Casper, WY 82601, unless otherwise noted. Radiochemistry analyses were performed at Energy Laboratories, Inc., 2325 Kerzell Lane, Casper, WY 82601, unless otherwise noted. Any exceptions or problems with the analyses are noted in the Laboratory Analytical Report, the QA/QC Summary Report, or the Case Narrative.

The results as reported relate only to the item(s) submitted for testing. Solid/soil samples are reported on a wet weight basis (as received) unless specifically indicated. Data corrected for moisture content are typically noted as - dry on the report. For agricultural and mining soil parameters/characteristics, all samples are dried and ground prior to sample analysis.

If you have any questions regarding these test results, please call.

Report Approved By:

*Stephanie D Waldrop*  
Reporting Supervisor

Digitally signed by  
Stephanie Waldrop  
Date: 2012.04.12 11:21:27 -06:00

**CLIENT:** Denison Mines USA Corp  
**Project:** March Monthly Groundwater 2012  
**Sample Delivery Group:** C12030624

**Report Date:** 04/12/12

## CASE NARRATIVE

### ORIGINAL SAMPLE SUBMITTAL(S)

All original sample submittals have been returned with the data package.

### SAMPLE TEMPERATURE COMPLIANCE: 4°C (±2°C)

Temperature of samples received may not be considered properly preserved by accepted standards. Samples that are hand delivered immediately after collection shall be considered acceptable if there is evidence that the chilling process has begun.

### GROSS ALPHA ANALYSIS

Method 900.0 for gross alpha and gross beta is intended as a drinking water method for low TDS waters. Data provided by this method for non potable waters should be viewed as inconsistent.

### RADON IN AIR ANALYSIS

The desired exposure time is 48 hours (2 days). The time delay in returning the canister to the laboratory for processing should be as short as possible to avoid excessive decay. Maximum recommended delay between end of exposure to beginning of counting should not exceed 8 days.

### SOIL/SOLID SAMPLES

All samples reported on an as received basis unless otherwise indicated.

### ATRAZINE, SIMAZINE AND PCB ANALYSIS

Data for PCBs, Atrazine and Simazine are reported from EPA 525.2. PCB data reported by ELI reflects the results for seven individual Aroclors. When the results for all seven are ND (not detected), the sample meets EPA compliance criteria for PCB monitoring.

### SUBCONTRACTING ANALYSIS

Subcontracting of sample analyses to an outside laboratory may be required. If so, ENERGY LABORATORIES will utilize its branch laboratories or qualified contract laboratories for this service. Any such laboratories will be indicated within the Laboratory Analytical Report.

### BRANCH LABORATORY LOCATIONS

eli-b - Energy Laboratories, Inc. - Billings, MT  
eli-g - Energy Laboratories, Inc. - Gillette, WY  
eli-h - Energy Laboratories, Inc. - Helena, MT  
eli-r - Energy Laboratories, Inc. - Rapid City, SD  
eli-t - Energy Laboratories, Inc. - College Station, TX

### CERTIFICATIONS:

USEPA: WY00002, Radiochemical WY00937; FL-DOH NELAC: E87641, Radiochemical E871017; California: 02118CA; Oregon: WY200001, Radiochemical WY200002; Utah: WY00002; Virginia: 00057; Washington: C836

### ISO 17025 DISCLAIMER:

The results of this Analytical Report relate only to the items submitted for analysis.

ENERGY LABORATORIES, INC. - CASPER, WY certifies that certain method selections contained in this report meet requirements as set forth by the above accrediting authorities. Some results requested by the client may not be covered under these certifications. All analysis data to be submitted for regulatory enforcement should be certified in the sample state of origin. Please verify ELI's certification coverage by visiting [www.energylab.com](http://www.energylab.com)

ELI appreciates the opportunity to provide you with this analytical service. For additional information and services visit our web page [www.energylab.com](http://www.energylab.com).

## QA/QC Summary Report

Prepared by Casper, WY Branch

**Client:** Denison Mines USA Corp  
**Project:** March Monthly Groundwater 2012

**Report Date:** 04/12/12  
**Work Order:** C12030624

Analyte	Count	Result	Units	RL	%REC	Low Limit	High Limit	RPD	RPDLimit	Qual
<b>Method: A2540 C</b>								Batch: 120319_1_SLDS-TDS-W		
<b>Sample ID: MBLK1_120319</b>		Method Blank					Run: BAL-1_120319B		03/19/12 08:50	
Solids, Total Dissolved TDS @ 180 C		ND	mg/L	10						
<b>Sample ID: LCS1_120319</b>		Laboratory Control Sample					Run: BAL-1_120319B		03/19/12 08:50	
Solids, Total Dissolved TDS @ 180 C		1620	mg/L	10	97	90	110			
<b>Sample ID: C12030623-002ADUP</b>		Sample Duplicate					Run: BAL-1_120319B		03/19/12 08:58	
Solids, Total Dissolved TDS @ 180 C		3030	mg/L	11				1.1	5	
<b>Sample ID: C12030630-001AMS</b>		Sample Matrix Spike					Run: BAL-1_120319B		03/19/12 09:00	
Solids, Total Dissolved TDS @ 180 C		2250	mg/L	10	102	90	110			

**Qualifiers:**

RL - Analyte reporting limit.

ND - Not detected at the reporting limit.

MDC - Minimum detectable concentration

## QA/QC Summary Report

Prepared by Casper, WY Branch

**Client:** Denison Mines USA Corp

**Report Date:** 04/12/12

**Project:** March Monthly Groundwater 2012

**Work Order:** C12030624

Analyte	Count	Result	Units	RL	%REC	Low Limit	High Limit	RPD	RPDLimit	Qual
<b>Method:</b> A4500-Cl B								Batch: 120321-CL-TTR-W		
<b>Sample ID:</b> MBLK9-120321		Method Blank								
Chloride		ND	mg/L	1.0						03/21/12 09:28
<b>Sample ID:</b> C12030558-004AMS								Run: TITRATION_120321A		
Chloride		46.8	mg/L	1.0	101	90	110			03/21/12 09:54
<b>Sample ID:</b> C12030558-004AMSD								Run: TITRATION_120321A		
Chloride		46.4	mg/L	1.0	100	90	110	0.8	10	03/21/12 09:56
<b>Sample ID:</b> C12030624-007AMS								Run: TITRATION_120321A		
Chloride		294	mg/L	1.0	102	90	110			03/21/12 10:00
<b>Sample ID:</b> C12030624-007AMSD								Run: TITRATION_120321A		
Chloride		291	mg/L	1.0	100	90	110	1.2	10	03/21/12 10:02
<b>Sample ID:</b> LCS35-120321								Run: TITRATION_120321A		
Chloride		3580	mg/L	1.0	101	90	110			03/21/12 10:04

**Qualifiers:**

RL - Analyte reporting limit.

ND - Not detected at the reporting limit.

MDC - Minimum detectable concentration

## QA/QC Summary Report

Prepared by Casper, WY Branch

**Client:** Denison Mines USA Corp

**Report Date:** 04/12/12

**Project:** March Monthly Groundwater 2012

**Work Order:** C12030624

Analyte	Count	Result	Units	RL	%REC	Low Limit	High Limit	RPD	RPDLimit	Qual
<b>Method:</b> A4500-SO4 E								Batch: 120320_1_SO4-TURB-W		
<b>Sample ID:</b> LCS-1_120320	Laboratory Control Sample			Run: TURB-2_120320A			03/20/12 10:24			
Sulfate	4840	mg/L	100	101	90	110				
<b>Sample ID:</b> MBLK-1_120320	Method Blank			Run: TURB-2_120320A			03/20/12 10:25			
Sulfate	ND	mg/L	10							
<b>Sample ID:</b> C12030624-005AMS	Sample Matrix Spike			Run: TURB-2_120320A			03/20/12 11:22			
Sulfate	701	mg/L	10	96	90	110				
<b>Sample ID:</b> C12030624-005AMSD	Sample Matrix Spike Duplicate			Run: TURB-2_120320A			03/20/12 11:23			
Sulfate	703	mg/L	10	97	90	110	0.3	10		

**Qualifiers:**

RL - Analyte reporting limit.

ND - Not detected at the reporting limit.

MDC - Minimum detectable concentration

## QA/QC Summary Report

Prepared by Casper, WY Branch

**Client:** Denison Mines USA Corp

**Report Date:** 04/12/12

**Project:** March Monthly Groundwater 2012

**Work Order:** C12030624

Analyte	Count	Result	Units	RL	%REC	Low Limit	High Limit	RPD	RPDLimit	Qual
<b>Method: E200.8</b>		Analytical Run: ICPMS2-C_120316A								
<b>Sample ID: ICV</b>	2	Initial Calibration Verification Standard								03/16/12 10:03
Selenium		0.0496	mg/L	0.0010	99	90	110			
Uranium		0.0508	mg/L	0.00030	102	90	110			
<b>Method: E200.8</b>		Batch: R157470								
<b>Sample ID: LRB</b>	2	Method Blank								03/16/12 10:26
Selenium		ND	mg/L	0.0050						
Uranium		ND	mg/L	0.00030						
<b>Sample ID: LFB</b>	2	Laboratory Fortified Blank								03/16/12 10:59
Selenium		0.0477	mg/L	0.0010	95	85	115			
Uranium		0.0479	mg/L	0.00030	96	85	115			
<b>Sample ID: C12030624-003BMS</b>	2	Sample Matrix Spike								03/16/12 17:12
Selenium		0.0578	mg/L	0.0010	103	70	130			
Uranium		0.0821	mg/L	0.00030	102	70	130			
<b>Sample ID: C12030624-003BMSD</b>	2	Sample Matrix Spike Duplicate								03/16/12 17:15
Selenium		0.0604	mg/L	0.0010	108	70	130	4.3	20	
Uranium		0.0846	mg/L	0.00030	107	70	130	3.1	20	
<b>Method: E200.8</b>		Analytical Run: ICPMS2-C_120317A								
<b>Sample ID: ICV</b>	3	Initial Calibration Verification Standard								03/17/12 19:03
Manganese		0.0513	mg/L	0.0010	103	90	110			
Thallium		0.0533	mg/L	0.0010	107	90	110			
Uranium		0.0528	mg/L	0.00030	106	90	110			
<b>Method: E200.8</b>		Batch: R157481								
<b>Sample ID: LRB</b>	3	Method Blank								03/17/12 19:26
Manganese		ND	mg/L	0.010						
Thallium		ND	mg/L	0.00050						
Uranium		ND	mg/L	0.00030						
<b>Sample ID: LFB</b>	3	Laboratory Fortified Blank								03/17/12 19:29
Manganese		0.0470	mg/L	0.0010	94	85	115			
Thallium		0.0505	mg/L	0.0010	101	85	115			
Uranium		0.0489	mg/L	0.00030	98	85	115			
<b>Sample ID: C12030558-001DMS4</b>	3	Sample Matrix Spike								03/17/12 23:03
Manganese		0.0804	mg/L	0.0010	101	70	130			
Thallium		0.0532	mg/L	0.00050	106	70	130			
Uranium		0.0536	mg/L	0.00030	107	70	130			
<b>Sample ID: C12030558-001DMSD</b>	3	Sample Matrix Spike Duplicate								03/17/12 23:05
Manganese		0.0814	mg/L	0.0010	103	70	130	1.3	20	
Thallium		0.0537	mg/L	0.00050	107	70	130	1.0	20	
Uranium		0.0550	mg/L	0.00030	110	70	130	2.5	20	

**Qualifiers:**

RL - Analyte reporting limit.

ND - Not detected at the reporting limit.

MDC - Minimum detectable concentration

## QA/QC Summary Report

Prepared by Casper, WY Branch

**Client:** Denison Mines USA Corp  
**Project:** March Monthly Groundwater 2012

**Report Date:** 04/12/12  
**Work Order:** C12030624

Analyte	Count	Result	Units	RL	%REC	Low Limit	High Limit	RPD	RPDLimit	Qual
<b>Method:</b> E353.2										Batch: R157510
<b>Sample ID:</b> MBLK-1		Method Blank								Run: TECHNICON_120319A 03/19/12 11:46
Nitrogen, Nitrate+Nitrite as N		ND	mg/L	0.10						
<b>Sample ID:</b> LCS-2		Laboratory Control Sample								Run: TECHNICON_120319A 03/19/12 11:48
Nitrogen, Nitrate+Nitrite as N		2.39	mg/L	0.10	96	90	110			
<b>Sample ID:</b> LFB-3		Laboratory Fortified Blank								Run: TECHNICON_120319A 03/19/12 11:51
Nitrogen, Nitrate+Nitrite as N		2.09	mg/L	0.10	107	90	110			
<b>Sample ID:</b> C12030624-003CMS		Sample Matrix Spike								Run: TECHNICON_120319A 03/19/12 14:21
Nitrogen, Nitrate+Nitrite as N		4.91	mg/L	0.10	98	90	110			
<b>Sample ID:</b> C12030624-003CMSD		Sample Matrix Spike Duplicate								Run: TECHNICON_120319A 03/19/12 14:23
Nitrogen, Nitrate+Nitrite as N		4.93	mg/L	0.10	99	90	110	0.4	10	

**Qualifiers:**

RL - Analyte reporting limit.

ND - Not detected at the reporting limit.

MDC - Minimum detectable concentration

## QA/QC Summary Report

Prepared by Casper, WY Branch

**Client:** Denison Mines USA Corp  
**Project:** March Monthly Groundwater 2012

**Report Date:** 04/12/12  
**Work Order:** C12030624

Analyte	Count	Result	Units	RL	%REC	Low Limit	High Limit	RPD	RPDLimit	Qual
<b>Method: E900.1</b>										
Batch: GA-0518										
<b>Sample ID: MB-GA-0518</b>	3	Method Blank								
Gross Alpha minus Rn & U		-0.138	pCi/L							U
Gross Alpha minus Rn & U Precision (±)		0.318	pCi/L							
Gross Alpha minus Rn & U MDC		0.608	pCi/L							
<b>Sample ID: LCS-GA-0518</b>		Laboratory Control Sample								
Gross Alpha minus Rn & U		23.0	pCi/L	110		70	130			
<b>Sample ID: C12030624-006BMS</b>		Sample Matrix Spike								
Gross Alpha minus Rn & U		27.5	pCi/L	101		70	130			
<b>Sample ID: C12030624-006BMSD</b>		Sample Matrix Spike Duplicate								
Gross Alpha minus Rn & U		25.8	pCi/L	93		70	130	6.4		24.8

**Qualifiers:**

RL - Analyte reporting limit.

MDC - Minimum detectable concentration

ND - Not detected at the reporting limit.

U - Not detected at minimum detectable concentration

# QA/QC Summary Report

Prepared by Casper, WY Branch

**Client:** Denison Mines USA Corp  
**Project:** March Monthly Groundwater 2012

**Report Date:** 04/12/12  
**Work Order:** C12030624

Analyte	Count	Result	Units	RL	%REC	Low Limit	High Limit	RPD	RPDLimit	Qual
<b>Method: SW8260B</b>										
Batch: R157552										
<b>Sample ID: 031912_LCS_4</b>	16	Laboratory Control Sample					Run: SATURNCA_120319D		03/19/12 13:30	
Acetone		130	ug/L	20	133	70	130			S
Benzene		9.4	ug/L	1.0	94	70	130			
Carbon tetrachloride		10	ug/L	1.0	100	70	130			
Chloroform		9.6	ug/L	1.0	96	70	130			
Chloromethane		8.7	ug/L	1.0	87	70	130			
m+p-Xylenes		19	ug/L	1.0	93	70	130			
Methyl ethyl ketone		140	ug/L	20	138	70	130			S
Methylene chloride		9.6	ug/L	1.0	96	70	130			
Naphthalene		9.8	ug/L	1.0	98	70	130			
o-Xylene		9.0	ug/L	1.0	89	70	130			
Toluene		10	ug/L	1.0	100	70	130			
Xylenes, Total		28	ug/L	1.0	92	70	130			
Surr: 1,2-Dichlorobenzene-d4				1.0	99	80	120			
Surr: Dibromofluoromethane				1.0	109	70	130			
Surr: p-Bromofluorobenzene				1.0	111	80	130			
Surr: Toluene-d8				1.0	104	80	120			
<b>Sample ID: 031912_MBLK_6</b>	16	Method Blank					Run: SATURNCA_120319D		03/19/12 14:43	
Acetone		ND	ug/L	20						
Benzene		ND	ug/L	1.0						
Carbon tetrachloride		ND	ug/L	1.0						
Chloroform		ND	ug/L	1.0						
Chloromethane		ND	ug/L	1.0						
m+p-Xylenes		ND	ug/L	1.0						
Methyl ethyl ketone		ND	ug/L	20						
Methylene chloride		ND	ug/L	1.0						
Naphthalene		ND	ug/L	1.0						
o-Xylene		ND	ug/L	1.0						
Toluene		ND	ug/L	1.0						
Xylenes, Total		ND	ug/L	1.0						
Surr: 1,2-Dichlorobenzene-d4				1.0	90	80	120			
Surr: Dibromofluoromethane				1.0	110	70	130			
Surr: p-Bromofluorobenzene				1.0	94	80	120			
Surr: Toluene-d8				1.0	95	80	120			
<b>Sample ID: C12030335-001GMS</b>	16	Sample Matrix Spike					Run: SATURNCA_120319D		03/19/12 21:15	
Acetone		2500	ug/L	200	126	70	130			
Benzene		200	ug/L	10	100	70	130			
Carbon tetrachloride		220	ug/L	10	109	70	130			
Chloroform		220	ug/L	10	103	70	130			
Chloromethane		190	ug/L	10	97	70	130			
m+p-Xylenes		410	ug/L	10	103	70	130			
Methyl ethyl ketone		2500	ug/L	200	126	70	130			
Methylene chloride		220	ug/L	10	109	70	130			
Naphthalene		190	ug/L	10	94	70	130			

**Qualifiers:**

RL - Analyte reporting limit.  
MDC - Minimum detectable concentration

ND - Not detected at the reporting limit.  
S - Spike recovery outside of advisory limits.

## QA/QC Summary Report

Prepared by Casper, WY Branch

**Client:** Denison Mines USA Corp

**Report Date:** 04/12/12

**Project:** March Monthly Groundwater 2012

**Work Order:** C12030624

Analyte	Count	Result	Units	RL	%REC	Low Limit	High Limit	RPD	RPDLimit	Qual
<b>Method: SW8260B</b>										
Batch: R157552										
<b>Sample ID: C12030335-001GMS</b>	16	Sample Matrix Spike			Run: SATURNCA_120319D				03/19/12 21:15	
o-Xylene		200	ug/L	10	98	70	130			
Toluene		200	ug/L	10	102	70	130			
Xylenes, Total		610	ug/L	10	101	70	130			
Surr: 1,2-Dichlorobenzene-d4				1.0	99	80	120			
Surr: Dibromofluoromethane				1.0	110	70	130			
Surr: p-Bromofluorobenzene				1.0	106	80	120			
Surr: Toluene-d8				1.0	99	80	120			
<b>Sample ID: C12030335-001GMSD</b>	16	Sample Matrix Spike Duplicate			Run: SATURNCA_120319D				03/19/12 21:51	
Acetone		2600	ug/L	200	129	70	130	2.5	20	
Benzene		200	ug/L	10	101	70	130	1.2	20	
Carbon tetrachloride		220	ug/L	10	109	70	130	0.4	20	
Chloroform		220	ug/L	10	105	70	130	1.5	20	
Chloromethane		200	ug/L	10	98	70	130	1.6	20	
m+p-Xylenes		370	ug/L	10	92	70	130	11	20	
Methyl ethyl ketone		2700	ug/L	200	137	70	130	7.9	20	S
Methylene chloride		220	ug/L	10	111	70	130	1.5	20	
Naphthalene		200	ug/L	10	99	70	130	5.0	20	
o-Xylene		190	ug/L	10	94	70	130	4.6	20	
Toluene		190	ug/L	10	93	70	130	9.4	20	
Xylenes, Total		560	ug/L	10	93	70	130	8.9	20	
Surr: 1,2-Dichlorobenzene-d4				1.0	98	80	120	0.0	10	
Surr: Dibromofluoromethane				1.0	116	70	130	0.0	10	
Surr: p-Bromofluorobenzene				1.0	105	80	120	0.0	10	
Surr: Toluene-d8				1.0	95	80	120	0.0	10	

**Qualifiers:**

RL - Analyte reporting limit.

MDC - Minimum detectable concentration

ND - Not detected at the reporting limit.

S - Spike recovery outside of advisory limits.

## QA/QC Summary Report

Prepared by Casper, WY Branch

**Client:** Denison Mines USA Corp  
**Project:** March Monthly Groundwater 2012

**Report Date:** 04/12/12  
**Work Order:** C12030624

Analyte	Count	Result	Units	RL	%REC	Low Limit	High Limit	RPD	RPDLimit	Qual
<b>Method: SW8260B</b>										
Batch: R157776										
<b>Sample ID: 23-Mar-12_LCS_4</b>	5	Laboratory Control Sample								
Run: 5975VOC1_120323A										
03/23/12 14:13										
Chloroform		11	ug/L	1.0	109	70	130			
Surr: 1,2-Dichlorobenzene-d4				1.0	95	80	120			
Surr: Dibromofluoromethane				1.0	123	70	130			
Surr: p-Bromofluorobenzene				1.0	97	80	130			
Surr: Toluene-d8				1.0	107	80	120			
<b>Sample ID: 23-Mar-12_MBLK_6</b>	5	Method Blank								
Run: 5975VOC1_120323A										
03/23/12 15:26										
Chloroform		ND	ug/L	1.0						
Surr: 1,2-Dichlorobenzene-d4				1.0	101	80	120			
Surr: Dibromofluoromethane				1.0	119	70	130			
Surr: p-Bromofluorobenzene				1.0	134	80	120			S
Surr: Toluene-d8				1.0	101	80	120			
<b>Sample ID: C12030640-008AMS</b>	5	Sample Matrix Spike								
Run: 5975VOC1_120323A										
03/23/12 21:23										
Chloroform		220	ug/L	10	112	70	130			
Surr: 1,2-Dichlorobenzene-d4				1.0	96	80	120			
Surr: Dibromofluoromethane				1.0	131	70	130			S
Surr: p-Bromofluorobenzene				1.0	101	80	120			
Surr: Toluene-d8				1.0	108	80	120			
<b>Sample ID: C12030640-008AMSD</b>	5	Sample Matrix Spike Duplicate								
Run: 5975VOC1_120323A										
03/23/12 21:59										
Chloroform		220	ug/L	10	110	70	130	2.5	20	
Surr: 1,2-Dichlorobenzene-d4				1.0	94	80	120	0.0	10	
Surr: Dibromofluoromethane				1.0	124	70	130	0.0	10	
Surr: p-Bromofluorobenzene				1.0	99	80	120	0.0	10	
Surr: Toluene-d8				1.0	106	80	120	0.0	10	

### Qualifiers:

RL - Analyte reporting limit.

MDC - Minimum detectable concentration

ND - Not detected at the reporting limit.

S - Spike recovery outside of advisory limits.

# Workorder Receipt Checklist



C12030624

Login completed by: Kristy Gisse

Date Received: 3/16/2012

Reviewed by: BL2000\kschroeder

Received by: dw

Reviewed Date: 3/19/2012

Carrier FedEx  
name:

- |                                                                                                                                                             |                                         |                             |                                                 |
|-------------------------------------------------------------------------------------------------------------------------------------------------------------|-----------------------------------------|-----------------------------|-------------------------------------------------|
| Shipping container/cooler in good condition?                                                                                                                | Yes <input checked="" type="checkbox"/> | No <input type="checkbox"/> | Not Present <input type="checkbox"/>            |
| Custody seals intact on shipping container/cooler?                                                                                                          | Yes <input checked="" type="checkbox"/> | No <input type="checkbox"/> | Not Present <input type="checkbox"/>            |
| Custody seals intact on sample bottles?                                                                                                                     | Yes <input type="checkbox"/>            | No <input type="checkbox"/> | Not Present <input checked="" type="checkbox"/> |
| Chain of custody present?                                                                                                                                   | Yes <input checked="" type="checkbox"/> | No <input type="checkbox"/> |                                                 |
| Chain of custody signed when relinquished and received?                                                                                                     | Yes <input checked="" type="checkbox"/> | No <input type="checkbox"/> |                                                 |
| Chain of custody agrees with sample labels?                                                                                                                 | Yes <input checked="" type="checkbox"/> | No <input type="checkbox"/> |                                                 |
| Samples in proper container/bottle?                                                                                                                         | Yes <input checked="" type="checkbox"/> | No <input type="checkbox"/> |                                                 |
| Sample containers intact?                                                                                                                                   | Yes <input checked="" type="checkbox"/> | No <input type="checkbox"/> |                                                 |
| Sufficient sample volume for indicated test?                                                                                                                | Yes <input checked="" type="checkbox"/> | No <input type="checkbox"/> |                                                 |
| All samples received within holding time?<br>(Exclude analyses that are considered field parameters<br>such as pH, DO, Res Cl, Sulfite, Ferrous Iron, etc.) | Yes <input checked="" type="checkbox"/> | No <input type="checkbox"/> |                                                 |
| Container/Temp Blank temperature:                                                                                                                           | 2.8°C On Ice                            |                             |                                                 |
| Water - VOA vials have zero headspace?                                                                                                                      | Yes <input checked="" type="checkbox"/> | No <input type="checkbox"/> | No VOA vials submitted <input type="checkbox"/> |
| Water - pH acceptable upon receipt?                                                                                                                         | Yes <input checked="" type="checkbox"/> | No <input type="checkbox"/> | Not Applicable <input type="checkbox"/>         |

Contact and Corrective Action Comments:

None

PLEASE PRINT (Provide as much information as possible.)

Company Name: <b>Denison Mines</b>	Project Name, PWS, Permit, Etc. <b>March Monthly Ground Water 2012</b>	Sample Origin State: <b>UT</b>	EPA/State Compliance: Yes <input checked="" type="checkbox"/> No <input type="checkbox"/>
Report Mail Address: <b>PO BOX 809 Blanding UT 84511</b>	Contact Name: <b>Garrin Palmer</b>	Phone/Fax: <b>435 678 2221</b>	Email: <b>Tanner Holliday</b>
Invoice Address: <b>Same</b>	Invoice Contact & Phone: <b>David Turk 435 678 2221</b>	Purchase Order:	Quote/Bottle Order:

SAMPLE IDENTIFICATION (Name, Location, Interval, etc.)	Collection Date	Collection Time	MATRIX	ANALYSIS REQUESTED										Standard Turnaround (TAT)	R U S H	Contact ELI prior to RUSH sample submittal for charges and scheduling - See Instruction Page	Comments:	Shipped by: <b>Freelex</b>		Cooler ID(s): <b>Chud</b>		Receipt Temp: <b>2.8 °C</b>		On Ice: <input type="radio"/> Y <input checked="" type="radio"/> N		Custody Seal		Intact		Signature Match									
				Manganese	Uranium	Nitrate + Nitrite	Chloroform + Dichloro	Crass Alpha	Chloride	TDS	Selenium	Sulfate	Thallium					SEE ATTACHED	Y	N	Y	N	Y	N	Y	N													
1 MW-11_03132012	3/13/12	1205	1-W	X																																			
2 MW-25_03142012	3/14/12	1300	1-W		X																																		
3 MW-26_03142012	3/14/12	1330	6-W		X	X	X	X	X	X																													
4 MW-30_03142012	3/14/12	1220	3-W		X	X			X		X																												
5 MW-31_03132012	3/13/12	1420	2-W			X			X	X		X																											
6 MW-35_03132012	3/13/12	1405	1-W	X	X		X							X																									
7 MW-65_03142012	3/14/12	1220	3-W		X	X			X		X																												
8 Trip Blank 6746	3/14/12																																						
9 TEMP BLANK																																							
10																																							

<b>Custody Record MUST be Signed</b>	Relinquished by (print): <b>Tanner Holliday</b>	Date/Time: <b>3/15/2012 1100</b>	Signature: <i>Tanner Holliday</i>	Received by (print):	Date/Time:	Signature:
	Relinquished by (print):	Date/Time:	Signature:	Received by (print):	Date/Time:	Signature:
	Sample Disposal: Return to Client:	Lab Disposal:	Received by Laboratory: <b>Oxy Plus</b>	Date/Time: <b>3-15-12</b>	Signature: <b>935</b>	

In certain circumstances, samples submitted to Energy Laboratories, Inc. may be subcontracted to other certified laboratories in order to complete the analysis requested. This serves as notice of this possibility. All sub-contract data will be clearly notated on your analytical report. Visit our web site at [www.energylab.com](http://www.energylab.com) for additional information, downloadable fee schedule, forms, and links.

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Tab G

Quality Assurance and Data Validation Tables

G-1A: Routine Field Data QA/QC Evaluation

Well	Sample Date	Time Req'd for 2 Casings	Time Pumped (min)	Amount Sufficient?	Conductance		RPD(%)	pH		RPD(%)	Temp (°C)		RPD(%)	Redox Potential (Eh)		RPD(%)	Turbidity (NTU)		>5 NTU	RPD(%)
MW-2	2/22/2012	113.44	120	Y	3900	3901	0.03	7.1	7.11	0.14	13.01	13.02	0.08	318	315	0.95	0	0	N	0.00
MW-3	2/29/2012	47.35	55	Y	5971	5918	0.89	6.63	6.63	0.00	13.2	13.21	0.08	337	337	0.00	0	0	N	0.00
MW-3A	3/1/2012	61.53	60	Pumped dry	6174		NC	6.46		NC	12.52		NC	372		NC	0		N	NC
MW-5	2/28/2012	193.79	200	Y	3091	3091	0.00	7.57	7.57	0.00	13.76	13.78	0.15	190	188	1.06	0.0	0	N	0.00
MW-11	2/13/2012	251.87	295	Y	3008.0	3009.0	0.03	7.59	7.59	0.00	14.23	14.23	0.00	25	25	0.00	0	0	N	0.00
MW-12	2/29/2012	132.70	130	Pumped dry	4408		NC	6.81		NC	13.27		NC	351		NC	0		Y	NC
MW-14	2/21/2012	149.25	150	Y	4080	4083	0.07	6.59	6.57	0.30	14.17	14.18	0.07	364	361	0.83	0	0	N	0.00
MW-15	2/22/2012	182.96	185	Y	4462	4451	0.25	6.84	6.84	0.00	14.21	14.25	0.28	284	281	1.06	0	0	N	0.00
MW-18	2/27/2012	384.87	385	Y	3633	3631	0.06	6.6	6.6	0.00	14.01	14	0.07	287	282	1.76	0	0	N	0.00
MW-19	2/28/2012	585.89	600	Y	1886	1883	0.16	6.82	6.83	0.15	13.32	13.32	0.00	367	363	1.10	37	38	Y	2.67
MW-23	2/20/2012	108.27	100	Pumped dry	4085		NC	6.61		NC	13.89		NC	348		NC	1.0		N	NC
MW-24	2/23/2012	36.73	35	Pumped dry	4364		NC	6.03		NC	14.54		NC	280		NC	0		N	NC
MW-25	2/14/2012	248.56	255	Y	3340	3345	0.15	6.84	6.83	0.15	14.21	14.21	0.00	348	342	1.74	0	0	N	0.00
MW-26	2/15/2012	Continuously pumped well			3539		NC	6.72		NC	14.96		NC	266		NC	0		N	NC
MW-26 Resample	2/21/2012	Continuously pumped well			3609		NC	6.91		NC	14.47		NC	260		NC	0		N	NC
MW-26 Resample	3/8/2012	Continuously pumped well			3563		NC	6.71		NC	15.15		NC	202		NC	0		N	NC
MW-27	2/28/2012	266.31	270	Y	1650	1640	0.61	7.24	7.24	0.00	13.74	13.74	0.00	323	320	0.93	0	0	N	0.00
MW-28	2/28/2012	201.91	205	Y	4134	4137	0.07	6.22	6.22	0.00	13.48	13.48	0.00	376	375	0.27	0	0	N	0.00
MW-29	2/22/2012	148.95	150	Y	2309	2393	3.57	6.56	6.55	0.15	14.26	14.27	0.07	252	249	1.20	26.5	26	Y	1.90
MW-30	2/14/2012	204.92	235	Y	2137	2139	0.09	7.11	7.12	0.14	13.81	13.82	0.07	297	296	0.34	0	0	N	0.00
MW-31	2/13/2012	372.36	380	Y	1970	1970	0.00	7.37	7.37	0.00	13.8	13.83	0.22	274	271	1.10	0	0	N	0.00
MW-32	2/21/2012	343.95	345	Y	4074	4071	0.07	6.59	6.57	0.30	14	14	0.00	228	226	0.88	13.1	13	Y	0.77
MW-35	2/14/2012	75.36	90	Y	4341	4341	0.00	6.67	6.67	0.00	13.76	13.75	0.07	326	319	2.17	0	0	N	0.00
MW-36	2/20/2012	65.90	70	Y	5072	5097	0.49	6.91	6.91	0.00	14.45	14.47	0.14	361	358	0.83	0	0	N	0.00
MW-37	2/29/2012	NA			4609		NC	6.68		NC	14.37		NC	320		NC	70.7		Y	NC

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

MW-26 is a continuously pumped well. Per the QAP, only one set of parameters are required to be collected from continuously pumped wells.

Well was pumped dry

N/A = The amount of water in the well was insufficient to pump. The pump was not able to operate due to the minimal amount of water. The well was sampled with a bailer.

NC = Not calculated.

G-1B: Accelerated Field Data QA/QC Evaluation

Well	Sample Date	Time Req'd for 2 Casings	Time Pumped (min)	Amount Sufficient?	Conductance		RPD(%)	pH		RPD(%)	Temp (°C)		RPD(%)	Redox Potential (Eh)		RPD(%)	Turbidity (NTU)		<5 (NTU)	RPD(%)
<b>Accelerated January Monthly</b>																				
MW-11	1/26/2012	245.9	250.0	Y	2885	2883	0.07	7.52	7.51	0.13	14.44	14.45	0.07	171	170	0.59	1.0	1.0	Y	0.00
MW-14	1/24/2012	149.9	150.0	Y	4011	4014	0.07	6.35	6.36	0.16	13.95	13.96	0.07	286	285	0.35	0	0	Y	0.00
MW-25	1/25/2012	240.4	345.0	Y	3286	3285	0.03	6.64	6.63	0.15	14.65	14.62	0.20	284	284	0.00	2.9	3	Y	3.39
MW-26	1/25/2012	Continuously pumped well			3495		NC	6.59		NC	14.61		NC	233		NC	1.1		Y	NC
MW-30	1/24/2012	203.7	205.0	Y	2102	2102	0.00	6.52	6.52	0.00	14.17	14.17	0.00	305	299	1.99	0	0	Y	0.00
MW-31	1/24/2012	371.0	375.0	Y	1921	1922	0.05	6.77	6.78	0.15	13.91	13.91	0.00	290	288	0.69	0	0	Y	0.00
MW-35	1/24/2012	73.1	80.0	Y	4266	4265	0.02	6.34	6.35	0.16	13.7	13.7	0.00	257	254	1.17	1	1	Y	0.00
<b>Accelerated March Monthly</b>																				
MW-11	3/13/2012	250.8	255.0	Y	2965	2968	0.10	7.46	7.47	0.13	14.69	14.68	0.07	107	106	0.94	92	93	N	1.08
MW-14	3/14/2012	149.4	150.0	Y	4065	4066	0.02	6.5	6.51	0.15	15.05	15.05	0.00	257	258	0.39	0	0	Y	0.00
MW-25	3/14/2012	246.6	260.0	Y	3350	3348	0.06	6.53	6.55	0.31	14.67	14.67	0.00	376	360	0.00	1.2	1.2	Y	0.00
MW-26	3/14/2012	Continuously pumped well			3604		NC	6.39		NC	14.93		NC	219		NC	0		Y	0.00
MW-30	3/14/2012	203.7	205.0	Y	2143	2139	0.19	6.85	6.86	0.15	14.67	14.67	0.00	282	276	2.15	0	0	Y	0.00
MW-31	3/13/2012	371.3	400.0	Y	1977	1977	0.00	7.12	7.13	0.14	14.59	14.57	0.14	322	321	0.31	2.3	2.3	Y	0.00
MW-35	3/13/2012	73.2	105.0	Y	4339	4325	0.32	6.47	6.48	0.15	14.93	14.93	0.00	320	319	0.31	0	0	Y	0.00

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

MW-26 is a continuously pumped well.

## G-2A: Holding Time Evaluation

Constituent	QAP Holding Time	MW-2 2/22/2012	MW-3 2/29/2012	MW-3A 3/1/2012	MW-5 2/28/2012
2-Butanone (MEK)	14 days	--	--	--	--
Acetone	14 days	--	--	--	--
Ammonia (as N)	28 days	--	--	--	--
Arsenic	6 months	--	--	--	--
Benzene	14 days	--	--	--	--
Beryllium	6 months	--	--	--	--
Cadmium	6 months	--	--	--	--
Carbon Tetrachloride	14 days	--	--	--	--
Chloride (mg/L)	28 days	--	--	--	--
Chloroform	14 days	--	--	--	--
Chloromethane	14 days	--	--	--	--
Chromium	6 months	--	--	--	--
Cobalt	6 months	--	--	--	--
Copper	6 months	--	--	--	--
Dichloromethane (Methylene Chloride)	14 days	--	--	--	--
Fluoride (Mg/L)	28 days	--	2.2 days	--	--
Gross Alpha minus Rn & U MDC	6 months	22.4 days	--	--	--
Gross Alpha minus Rn & U Precision ( $\pm$ )	6 months	22.4 days	--	--	--
Gross Alpha minus Rn & U	6 months	22.4 days	--	--	--
Iron	6 months	--	--	--	--
Lab pH (S.U.)	--	--	--	--	--
Lead	6 months	--	--	--	--
Manganese	6 months	--	--	--	--
Mercury	28 days	--	--	--	--
Molybdenum	6 months	--	--	--	--
Naphthalene	14 days	--	--	--	--
Nickel	6 months	--	--	--	--
Nitrate + Nitrite (as N)	28 days	--	--	--	--
Selenium	6 months	--	5.7 days	4.7 days	--
Silver	6 months	--	--	--	--
Sulfate (mg/L)	28 days	--	--	5.3 days	--
TDS (mg/L)	7 days	--	--	1.4 days	--
Tetrahydrofuran	14 days	--	--	--	--
Thallium	6 months	--	--	--	--
Tin	6 months	--	--	--	--
Toluene	14 days	--	--	--	--
Uranium	6 months	--	--	--	6.4 days
Vanadium	6 months	--	--	--	--
Xylenes (total)	14 days	--	--	--	--
Zinc	6 months	--	--	--	--
A/C Balance ( $\pm$ 5) BALANCE-W	--	--	--	--	--
Anions BALANCE-W	--	--	--	--	--
Bicarbonate as HCO <sub>3</sub>	14 days	--	--	--	--
Calcium	6 months	--	--	--	--
Carbonate as CO <sub>3</sub>	14 days	--	--	--	--
Cations BALANCE-W	--	--	--	--	--
Magnesium	6 months	--	--	--	--
Potassium	6 months	--	--	--	--
Sodium	6 months	--	--	--	--

## G-2A: Holding Time Evaluation

Constituent	QAP Holding Time	MW-11 2/13/2012	MW-12 2/29/2012	MW-14 2/21/2012	MW-15 2/22/2012
2-Butanone (MEK)	14 days	10.1 days	--	3.2 days	--
Acetone	14 days	10.1 days	--	3.2 days	--
Ammonia (as N)	28 days	9 days	--	3.1 days	--
Arsenic	6 months	4.1 days	--	6.5 days	--
Benzene	14 days	10.1 days	--	3.2 days	--
Beryllium	6 months	4.1 days	--	6.5 days	--
Cadmium	6 months	4.1 days	--	6.5 days	--
Carbon Tetrachloride	14 days	10.1 days	--	3.2 days	--
Chloride (mg/L)	28 days	10.9 days	--	14 days	--
Chloroform	14 days	10.1 days	--	3.2 days	--
Chloromethane	14 days	10.1 days	--	3.2 days	--
Chromium	6 months	4.1 days	--	6.5 days	--
Cobalt	6 months	14.1 days	--	6.5 days	--
Copper	6 months	4.1 days	--	6.5 days	--
Dichloromethane (Methylene Chloride)	14 days	10.1 days	--	3.2 days	--
Fluoride (Mg/L)	28 days	8 days	--	7 days	--
Gross Alpha minus Rn & U MDC	6 months	15.2 days	--	23.4 days	--
Gross Alpha minus Rn & U Precision ( $\pm$ )	6 months	15.2 days	--	23.4 days	--
Gross Alpha minus Rn & U	6 months	15.2 days	--	23.4 days	--
Iron	6 months	11.2 days	--	13.2 days	12.2 days
Lab pH (S.U.)	--	4.2 days	--	3.1 days	--
Lead	6 months	4.1 days	--	6.5 days	--
Manganese	6 months	4.1 days	--	6.5 days	--
Mercury	28 days	4.1 days	--	6.5 days	--
Molybdenum	6 months	4.1 days	--	6.5 days	--
Naphthalene	14 days	10.1 days	--	3.2 days	--
Nickel	6 months	4.1 days	--	6.5 days	--
Nitrate + Nitrite (as N)	28 days	8 days	--	6.1 days	--
Selenium	6 months	4.1 days	5.8 days	6.5 days	--
Silver	6 months	4.1 days	--	6.5 days	--
Sulfate (mg/L)	28 days	10.1 days	--	14.2 days	--
TDS (mg/L)	7 days	4.2 days	--	3.2 days	--
Tetrahydrofuran	14 days	7 days	--	8 days	--
Thallium	6 months	4.1 days	--	6.5 days	--
Tin	6 months	3.6 days	--	79.4 days	--
Toluene	14 days	10.1 days	--	3.2 days	--
Uranium	6 months	30.9 days	--	6.5 days	--
Vanadium	6 months	4.1 days	--	6.5 days	--
Xylenes (total)	14 days	10.1 days	--	3.2 days	--
Zinc	6 months	4.1 days	--	6.5 days	--
A/C Balance ( $\pm$ 5) BALANCE-W	--	30 days	--	14.9 days	--
Anions BALANCE-W	--	30 days	--	14.9 days	--
Bicarbonate as HCO <sub>3</sub>	14 days	8.1 days	--	7.2 days	--
Calcium	6 months	11.2 days	--	13.2 days	--
Carbonate as CO <sub>3</sub>	14 days	8.1 days	--	7.2 days	--
Cations BALANCE-W	--	30 days	--	14.9 days	--
Magnesium	6 months	11.2 days	--	13.2 days	--
Potassium	6 months	11.2 days	--	13.2 days	--
Sodium	6 months	11.2 days	--	13.2 days	--

## G-2A: Holding Time Evaluation

Constituent	QAP Holding Time	MW-18 2/27/2012	MW-19 2/28/2012	MW-23 2/20/2012	MW-24 2/23/2012
2-Butanone (MEK)	14 days	--	--	--	--
Acetone	14 days	--	--	--	--
Ammonia (as N)	28 days	--	--	--	--
Arsenic	6 months	--	--	--	--
Benzene	14 days	--	--	--	--
Beryllium	6 months	--	--	--	--
Cadmium	6 months	--	--	--	4.6 days
Carbon Tetrachloride	14 days	--	--	--	--
Chloride (mg/L)	28 days	--	--	--	--
Chloroform	14 days	--	--	--	--
Chloromethane	14 days	--	--	--	--
Chromium	6 months	--	--	--	--
Cobalt	6 months	--	--	--	--
Copper	6 months	--	--	--	--
Dichloromethane (Methylene Chloride)	14 days	--	--	--	--
Fluoride (Mg/L)	28 days	--	--	--	--
Gross Alpha minus Rn & U MDC	6 months	--	--	--	--
Gross Alpha minus Rn & U Precision ( $\pm$ )	6 months	--	--	--	--
Gross Alpha minus Rn & U	6 months	--	--	--	--
Iron	6 months	--	--	--	--
Lab pH (S.U.)	--	--	--	--	--
Lead	6 months	--	--	--	--
Manganese	6 months	--	--	7.3 days	--
Mercury	28 days	--	--	--	--
Molybdenum	6 months	--	--	--	--
Naphthalene	14 days	--	--	--	--
Nickel	6 months	--	--	--	--
Nitrate + Nitrite (as N)	28 days	--	3.3 days	--	--
Selenium	6 months	--	--	--	--
Silver	6 months	--	--	--	--
Sulfate (mg/L)	28 days	8.1 days	--	--	--
TDS (mg/L)	7 days	4.1 days	--	--	--
Tetrahydrofuran	14 days	--	--	--	--
Thallium	6 months	7.5 days	--	--	4.6 days
Tin	6 months	--	--	--	--
Toluene	14 days	--	--	--	--
Uranium	6 months	--	--	--	--
Vanadium	6 months	--	--	--	--
Xylenes (total)	14 days	--	--	--	--
Zinc	6 months	--	--	--	--
A/C Balance ( $\pm$ 5) BALANCE-W	--	--	--	--	--
Anions BALANCE-W	--	--	--	--	--
Bicarbonate as HCO <sub>3</sub>	14 days	--	--	--	--
Calcium	6 months	--	--	--	--
Carbonate as CO <sub>3</sub>	14 days	--	--	--	--
Cations BALANCE-W	--	--	--	--	--
Magnesium	6 months	--	--	--	--
Potassium	6 months	--	--	--	--
Sodium	6 months	--	--	--	--

## G-2A: Holding Time Evaluation

Constituent	QAP Holding Time	MW-25 2/14/2012	MW-26 2/15/2012	MW-26 2/21/2012	MW-26 3/8/2012
2-Butanone (MEK)	14 days	9.2 days	8.5 days	--	--
Acetone	14 days	9.2 days	8.5 days	--	--
Ammonia (as N)	28 days	8.1 days	7.1 days	--	--
Arsenic	6 months	3.1 days	--	6.3 days	--
Benzene	14 days	9.2 days	8.5 days	--	--
Beryllium	6 months	3.1 days	--	6.3 days	--
Cadmium	6 months	3.1 days	--	6.3 days	--
Carbon Tetrachloride	14 days	9.2 days	8.5 days	--	--
Chloride (mg/L)	28 days	10 days	9 days	--	--
Chloroform	14 days	9.2 days	8.4 days	--	--
Chloromethane	14 days	9.2 days	8.5 days	--	--
Chromium	6 months	3.1 days	--	6.3 days	--
Cobalt	6 months	15.6 days	--	6.3 days	--
Copper	6 months	3.1 days	--	6.3 days	--
Dichloromethane (Methylene Chloride)	14 days	9.2 days	8.5 days	--	--
Fluoride (Mg/L)	28 days	7 days	6.1 days	--	--
Gross Alpha minus Rn & U MDC	6 months	14.3 days	--	23.4 days	--
Gross Alpha minus Rn & U Precision ( $\pm$ )	6 months	14.3 days	--	23.4 days	--
Gross Alpha minus Rn & U	6 months	14.3 days	--	23.4 days	--
Iron	6 months	10.3 days	--	13.1 days	--
Lab pH (S.U.)	--	3.3 days	2.3 days	--	--
Lead	6 months	3.1 days	--	6.3 days	--
Manganese	6 months	3.1 days	--	6.3 days	--
Mercury	28 days	3.1 days	--	6.3 days	--
Molybdenum	6 months	3.1 days	--	6.3 days	--
Naphthalene	14 days	9.2 days	8.5 days	--	--
Nickel	6 months	3.1 days	--	6.3 days	--
Nitrate + Nitrite (as N)	28 days	7.1 days	6.2 days	--	--
Selenium	6 months	3.1 days	--	6.3 days	--
Silver	6 months	3.1 days	--	6.3 days	--
Sulfate (mg/L)	28 days	9.2 days	8.3 days	--	--
TDS (mg/L)	7 days	3.3 days	2.4 days	--	--
Tetrahydrofuran	14 days	6 days	5 days	--	4.2 days
Thallium	6 months	3.1 days	--	6.3 days	--
Tin	6 months	2.6 days	1.6 days	--	--
Toluene	14 days	9.2 days	8.5 days	--	--
Uranium	6 months	30 days	--	6.3 days	--
Vanadium	6 months	3.1 days	--	6.3 days	--
Xylenes (total)	14 days	9.2 days	8.5 days	--	--
Zinc	6 months	3.1 days	--	6.3 days	--
A/C Balance ( $\pm$ 5) BALANCE-W	--	29.1 days	28.1 days	--	--
Anions BALANCE-W	--	29.1 days	28.1 days	--	--
Bicarbonate as HCO <sub>3</sub>	14 days	7.2 days	6.3 days	--	--
Calcium	6 months	10.3 days	--	13.1 days	--
Carbonate as CO <sub>3</sub>	14 days	7.2 days	6.3 days	--	--
Cations BALANCE-W	--	29.1 days	28.1 days	--	--
Magnesium	6 months	10.3 days	--	13.1 days	--
Potassium	6 months	10.3 days	--	13.1 days	--
Sodium	6 months	10.3 days	--	13.1 days	--

## G-2A: Holding Time Evaluation

Constituent	QAP Holding Time	MW-27 2/28/2012	MW-28 2/28/2012	MW-29 2/22/2012	MW-30 2/14/2012
2-Butanone (MEK)	14 days	--	--	--	9.2 days
Acetone	14 days	--	--	--	9.2 days
Ammonia (as N)	28 days	--	--	--	8 days
Arsenic	6 months	--	--	--	3 days
Benzene	14 days	--	--	--	9.2 days
Beryllium	6 months	--	--	--	3 days
Cadmium	6 months	--	--	--	3 days
Carbon Tetrachloride	14 days	--	--	--	9.2 days
Chloride (mg/L)	28 days	7 days	6.9 days	--	9.9 days
Chloroform	14 days	--	--	--	9.2 days
Chloromethane	14 days	--	--	--	9.2 days
Chromium	6 months	--	--	--	3 days
Cobalt	6 months	--	--	--	15.6 days
Copper	6 months	--	--	--	3 days
Dichloromethane (Methylene Chloride)	14 days	--	--	--	9.2 days
Fluoride (Mg/L)	28 days	--	--	--	7 days
Gross Alpha minus Rn & U MDC	6 months	9.2 days	--	--	14.2 days
Gross Alpha minus Rn & U Precision ( $\pm$ )	6 months	9.2 days	--	--	14.2 days
Gross Alpha minus Rn & U	6 months	9.2 days	--	--	14.2 days
Iron	6 months	--	--	12.2 days	10.2 days
Lab pH (S.U.)	--	--	--	--	3.2 days
Lead	6 months	--	--	--	3 days
Manganese	6 months	--	--	--	3 days
Mercury	28 days	--	--	--	3 days
Molybdenum	6 months	--	--	--	3 days
Naphthalene	14 days	--	--	--	9.2 days
Nickel	6 months	--	--	--	3 days
Nitrate + Nitrite (as N)	28 days	3.2 days	--	--	7 days
Selenium	6 months	--	--	--	3 days
Silver	6 months	--	--	--	3 days
Sulfate (mg/L)	28 days	7.2 days	--	--	9.1 days
TDS (mg/L)	7 days	3.2 days	--	--	3.2 days
Tetrahydrofuran	14 days	--	--	--	6 days
Thallium	6 months	--	--	--	3 days
Tin	6 months	--	--	--	2.6 days
Toluene	14 days	--	--	--	9.2 days
Uranium	6 months	--	--	--	29.9 days
Vanadium	6 months	--	--	--	3 days
Xylenes (total)	14 days	--	--	--	9.2 days
Zinc	6 months	--	--	--	3 days
A/C Balance ( $\pm$ 5) BALANCE-W	--	--	--	--	29 days
Anions BALANCE-W	--	--	--	--	29 days
Bicarbonate as HCO <sub>3</sub>	14 days	--	--	--	7.1 days
Calcium	6 months	--	--	--	10.2 days
Carbonate as CO <sub>3</sub>	14 days	--	--	--	7.1 days
Cations BALANCE-W	--	--	--	--	29 days
Magnesium	6 months	--	--	--	10.2 days
Potassium	6 months	--	--	--	10.2 days
Sodium	6 months	--	--	--	10.2 days

## G-2A: Holding Time Evaluation

Constituent	QAP Holding Time	MW-31 2/13/2012	MW-32 2/21/2012	MW-35 2/14/2012	MW-65 2/15/2012
2-Butanone (MEK)	14 days	10.2 days	--	9.4 days	8.4 days
Acetone	14 days	10.2 days	--	9.4 days	8.4 days
Ammonia (as N)	28 days	9 days	--	8.2 days	7.1 days
Arsenic	6 months	4 days	--	3.2 days	--
Benzene	14 days	10.2 days	--	9.4 days	8.4 days
Beryllium	6 months	4 days	--	3.2 days	--
Cadmium	6 months	4 days	--	3.2 days	--
Carbon Tetrachloride	14 days	10.2 days	--	9.4 days	8.4 days
Chloride (mg/L)	28 days	10.9 days	--	10.1 days	9 days
Chloroform	14 days	10.2 days	--	9.4 days	9.3 days
Chloromethane	14 days	10.2 days	--	9.4 days	8.4 days
Chromium	6 months	4 days	--	3.2 days	--
Cobalt	6 months	16.6 days	--	15.8 days	--
Copper	6 months	4 days	--	3.2 days	--
Dichloromethane (Methylene Chloride)	14 days	10.2 days	--	9.4 days	8.4 days
Fluoride (Mg/L)	28 days	8 days	--	7.2 days	6.1 days
Gross Alpha minus Rn & U MDC	6 months	15.2 days	23.2 days	14.4 days	--
Gross Alpha minus Rn & U Precision ( $\pm$ )	6 months	15.2 days	23.2 days	14.4 days	--
Gross Alpha minus Rn & U	6 months	15.2 days	23.2 days	14.4 days	--
Iron	6 months	11.2 days	--	10.4 days	--
Lab pH (S.U.)	--	4.2 days	--	3.4 days	2.3 days
Lead	6 months	4 days	--	3.2 days	--
Manganese	6 months	4 days	--	3.2 days	--
Mercury	28 days	4 days	--	3.2 days	--
Molybdenum	6 months	4 days	--	3.2 days	--
Naphthalene	14 days	10.2 days	--	9.4 days	8.4 days
Nickel	6 months	4 days	--	3.2 days	--
Nitrate + Nitrite (as N)	28 days	8 days	--	7.2 days	6.2 days
Selenium	6 months	4 days	--	3.2 days	--
Silver	6 months	4 days	--	3.2 days	--
Sulfate (mg/L)	28 days	10.1 days	--	9.3 days	8.3 days
TDS (mg/L)	7 days	4.2 days	--	3.4 days	2.4 days
Tetrahydrofuran	14 days	7 days	--	6 days	5 days
Thallium	6 months	4 days	--	3.2 days	--
Tin	6 months	3.6 days	--	2.6 days	1.6 days
Toluene	14 days	10.2 days	--	9.4 days	8.4 days
Uranium	6 months	30.9 days	--	30.1 days	--
Vanadium	6 months	4 days	--	3.2 days	--
Xylenes (total)	14 days	10.2 days	--	9.4 days	8.4 days
Zinc	6 months	4 days	--	3.2 days	--
A/C Balance ( $\pm$ 5) BALANCE-W	--	30 days	--	29.2 days	28.1 days
Anions BALANCE-W	--	30 days	--	29.2 days	28.1 days
Bicarbonate as HCO <sub>3</sub>	14 days	8.1 days	--	7.3 days	6.3 days
Calcium	6 months	11.2 days	--	10.4 days	--
Carbonate as CO <sub>3</sub>	14 days	8.1 days	--	7.3 days	6.3 days
Cations BALANCE-W	--	30 days	--	29.2 days	28.1 days
Magnesium	6 months	11.2 days	--	10.4 days	--
Potassium	6 months	11.2 days	--	10.4 days	--
Sodium	6 months	11.2 days	--	10.4 days	--

## G-2A: Holding Time Evaluation

Constituent	QAP Holding Time	MW-65 2/21/2012	MW-65 3/8/2012	MW-70 2/21/2012
2-Butanone (MEK)	14 days	--	--	3.2 days
Acetone	14 days	--	--	3.2 days
Ammonia (as N)	28 days	--	--	3.1 days
Arsenic	6 months	6.3 days	--	6.5 days
Benzene	14 days	--	--	3.2 days
Beryllium	6 months	8.5 days	--	6.5 days
Cadmium	6 months	6.3 days	--	6.5 days
Carbon Tetrachloride	14 days	--	--	3.2 days
Chloride (mg/L)	28 days	--	--	14 days
Chloroform	14 days	--	--	3.2 days
Chloromethane	14 days	--	--	3.2 days
Chromium	6 months	6.3 days	--	6.5 days
Cobalt	6 months	6.3 days	--	6.5 days
Copper	6 months	6.3 days	--	6.5 days
Dichloromethane (Methylene Chloride)	14 days	--	--	3.2 days
Fluoride (Mg/L)	28 days	--	--	7.1 days
Gross Alpha minus Rn & U MDC	6 months	23.4 days	--	23.4 days
Gross Alpha minus Rn & U Precision ( $\pm$ )	6 months	23.4 days	--	23.4 days
Gross Alpha minus Rn & U	6 months	23.4 days	--	23.4 days
Iron	6 months	13.1 days	--	13.3 days
Lab pH (S.U.)	--	--	--	3.2 days
Lead	6 months	6.3 days	--	6.5 days
Manganese	6 months	6.3 days	--	6.5 days
Mercury	28 days	6.3 days	--	6.5 days
Molybdenum	6 months	6.3 days	--	6.5 days
Naphthalene	14 days	--	--	3.2 days
Nickel	6 months	6.3 days	--	6.5 days
Nitrate + Nitrite (as N)	28 days	--	--	6.1 days
Selenium	6 months	6.3 days	--	6.5 days
Silver	6 months	6.3 days	--	6.5 days
Sulfate (mg/L)	28 days	--	--	14.2 days
TDS (mg/L)	7 days	--	--	3.2 days
Tetrahydrofuran	14 days	--	4.2 days	3.5 days
Thallium	6 months	6.3 days	--	6.5 days
Tin	6 months	--	--	79.4 days
Toluene	14 days	--	--	3.2 days
Uranium	6 months	6.3 days	--	6.5 days
Vanadium	6 months	6.3 days	--	6.5 days
Xylenes (total)	14 days	--	--	3.2 days
Zinc	6 months	6.3 days	--	6.5 days
A/C Balance ( $\pm$ 5) BALANCE-W	--	--	--	14.9 days
Anions BALANCE-W	--	--	--	14.9 days
Bicarbonate as HCO <sub>3</sub>	14 days	--	--	7.2 days
Calcium	6 months	13.1 days	--	13.3 days
Carbonate as CO <sub>3</sub>	14 days	--	--	7.2 days
Cations BALANCE-W	--	--	--	14.9 days
Magnesium	6 months	13.1 days	--	13.3 days
Potassium	6 months	13.1 days	--	13.3 days
Sodium	6 months	13.1 days	--	13.3 days

## G-2B: Holding Time Evaluation - Accelerated samples

Constituent	QAP Holding Time	MW-11 1/26/2012	MW-14 1/24/2012	MW-25 1/25/2012
2-Butanone (MEK)	14 days	--	--	--
Acetone	14 days	--	--	--
Ammonia (as N)	28 days	--	--	--
Arsenic	6 months	--	--	--
Benzene	14 days	--	--	--
Beryllium	6 months	--	--	--
Cadmium	6 months	--	--	--
Carbon Tetrachloride	14 days	--	--	--
Chloride (mg/L)	28 days	--	--	--
Chloroform	14 days	--	--	--
Chloromethane	14 days	--	--	--
Chromium	6 months	--	--	--
Cobalt	6 months	--	--	--
Copper	6 months	--	--	--
Dichloromethane (Methylene Chloride)	14 days	--	--	--
Field pH (S.U.)	Immediate			
Fluoride (Mg/L)	28 days	--	--	--
Gross Alpha minus Rn & U MDC	6 months	--	--	--
Gross Alpha minus Rn & U Precision ( $\pm$ )	6 months	--	--	--
Gross Alpha minus Rn & U	6 months	--	--	--
Iron	6 months	--	--	--
Lab pH (S.U.)	--	--	--	--
Lead	6 months	--	--	--
Manganese	6 months	4.4 days	--	--
Mercury	28 days	--	--	--
Molybdenum	6 months	--	--	--
Naphthalene	14 days	--	--	--
Nickel	6 months	--	--	--
Nitrate + Nitrite (as N)	28 days	--	--	--
Selenium	6 months	--	--	--
Silver	6 months	--	--	--
Sulfate (mg/L)	28 days	--	--	--
TDS (mg/L)	7 days	--	--	--
Tetrahydrofuran	14 days	1 days	--	--
Thallium	6 months	--	--	--
Tin	6 months	--	--	--
Toluene	14 days	--	--	--
Uranium	6 months	--	--	2.3 days
Vanadium	6 months	--	--	--
Xylenes (total)	14 days	--	--	--
Zinc	6 months	--	--	--
A/C Balance ( $\pm$ 5) BALANCE-W	--	--	--	--
Anions BALANCE-W	--	--	--	--
Bicarbonate as HCO <sub>3</sub>	14 days	--	--	--
Calcium	6 months	--	--	--
Carbonate as CO <sub>3</sub>	14 days	--	--	--
Cations BALANCE-W	--	--	--	--
Magnesium	6 months	--	--	--
Potassium	6 months	--	--	--
Sodium	6 months	--	--	--

## G-2B: Holding Time Evaluation - Accelerated samples

Constituent	QAP Holding Time	MW-26 1/25/2012	MW-30 1/24/2012	MW-31 1/24/2012
2-Butanone (MEK)	14 days	12.3 days	--	--
Acetone	14 days	12.3 days	--	--
Ammonia (as N)	28 days	--	--	--
Arsenic	6 months	--	--	--
Benzene	14 days	12.3 days	--	--
Beryllium	6 months	--	--	--
Cadmium	6 months	--	--	--
Carbon Tetrachloride	14 days	12.3 days	--	--
Chloride (mg/L)	28 days	6.1 days	7.2 days	7.1 days
Chloroform	14 days	12.3 days	--	--
Chloromethane	14 days	12.3 days	--	--
Chromium	6 months	--	--	--
Cobalt	6 months	--	--	--
Copper	6 months	--	--	--
Dichloromethane (Methylene Chloride)	14 days	12.3 days	--	--
Field pH (S.U.)	Immediate			
Fluoride (Mg/L)	28 days	--	--	--
Gross Alpha minus Rn & U MDC	6 months	13.2 days	--	--
Gross Alpha minus Rn & U Precision ( $\pm$ )	6 months	13.2 days	--	--
Gross Alpha minus Rn & U	6 months	13.2 days	--	--
Iron	6 months	--	--	--
Lab pH (S.U.)	--	--	--	--
Lead	6 months	--	--	--
Manganese	6 months	--	--	--
Mercury	28 days	--	--	--
Molybdenum	6 months	--	--	--
Naphthalene	14 days	12.3 days	--	--
Nickel	6 months	--	--	--
Nitrate + Nitrite (as N)	28 days	2.1 days	3.2 days	3 days
Selenium	6 months	--	6.4 days	--
Silver	6 months	--	--	--
Sulfate (mg/L)	28 days	--	--	13.1 days
TDS (mg/L)	7 days	2.1 days	--	3.1 days
Tetrahydrofuran	14 days	--	--	--
Thallium	6 months	--	--	--
Tin	6 months	--	--	--
Toluene	14 days	12.3 days	--	--
Uranium	6 months	2.3 days	--	--
Vanadium	6 months	--	--	--
Xylenes (total)	14 days	12.3 days	--	--
Zinc	6 months	--	--	--
A/C Balance ( $\pm$ 5) BALANCE-W	--	--	--	--
Anions BALANCE-W	--	--	--	--
Bicarbonate as HCO <sub>3</sub>	14 days	--	--	--
Calcium	6 months	--	--	--
Carbonate as CO <sub>3</sub>	14 days	--	--	--
Cations BALANCE-W	--	--	--	--
Magnesium	6 months	--	--	--
Potassium	6 months	--	--	--
Sodium	6 months	--	--	--

## G-2B: Holding Time Evaluation - Accelerated samples

Constituent	QAP Holding Time	MW-35 1/24/2012	MW-11 3/13/2012	MW-14 3/14/2012
2-Butanone (MEK)	14 days	--	--	--
Acetone	14 days	--	--	--
Ammonia (as N)	28 days	--	--	--
Arsenic	6 months	--	--	--
Benzene	14 days	--	--	--
Beryllium	6 months	--	--	--
Cadmium	6 months	--	--	--
Carbon Tetrachloride	14 days	--	--	--
Chloride (mg/L)	28 days	--	--	--
Chloroform	14 days	--	--	--
Chloromethane	14 days	--	--	--
Chromium	6 months	--	--	--
Cobalt	6 months	--	--	--
Copper	6 months	--	--	--
Dichloromethane (Methylene Chloride)	14 days	--	--	--
Field pH (S.U.)	Immediate			
Fluoride (Mg/L)	28 days	--	--	--
Gross Alpha minus Rn & U MDC	6 months	9.1 days	--	--
Gross Alpha minus Rn & U Precision ( $\pm$ )	6 months	9.1 days	--	--
Gross Alpha minus Rn & U	6 months	9.1 days	--	--
Iron	6 months	--	--	--
Lab pH (S.U.)	--	--	--	--
Lead	6 months	--	--	--
Manganese	6 months	6.3 days	4.5 days	--
Mercury	28 days	--	--	--
Molybdenum	6 months	--	--	--
Naphthalene	14 days	--	--	--
Nickel	6 months	--	--	--
Nitrate + Nitrite (as N)	28 days	--	--	--
Selenium	6 months	--	--	--
Silver	6 months	--	--	--
Sulfate (mg/L)	28 days	--	--	--
TDS (mg/L)	7 days	--	--	--
Tetrahydrofuran	14 days	--	6 days	--
Thallium	6 months	6.3 days	--	--
Tin	6 months	--	--	--
Toluene	14 days	--	--	--
Uranium	6 months	6.3 days	--	--
Vanadium	6 months	--	--	--
Xylenes (total)	14 days	--	--	--
Zinc	6 months	--	--	--
A/C Balance ( $\pm$ 5) BALANCE-W	--	--	--	--
Anions BALANCE-W	--	--	--	--
Bicarbonate as HCO <sub>3</sub>	14 days	--	--	--
Calcium	6 months	--	--	--
Carbonate as CO <sub>3</sub>	14 days	--	--	--
Cations BALANCE-W	--	--	--	--
Magnesium	6 months	--	--	--
Potassium	6 months	--	--	--
Sodium	6 months	--	--	--

## G-2B: Holding Time Evaluation - Accelerated samples

Constituent	QAP Holding Time	MW-25 3/14/2012	MW-26 3/14/2012	MW-30 3/14/2012
2-Butanone (MEK)	14 days	--	5.2 days	--
Acetone	14 days	--	5.2 days	--
Ammonia (as N)	28 days	--	--	--
Arsenic	6 months	--	--	--
Benzene	14 days	--	5.2 days	--
Beryllium	6 months	--	--	--
Cadmium	6 months	--	--	--
Carbon Tetrachloride	14 days	--	5.2 days	--
Chloride (mg/L)	28 days	--	6.8 days	6.9 days
Chloroform	14 days	--	9.3 days	--
Chloromethane	14 days	--	5.2 days	--
Chromium	6 months	--	--	--
Cobalt	6 months	--	--	--
Copper	6 months	--	--	--
Dichloromethane (Methylene Chloride)	14 days	--	5.2 days	--
Field pH (S.U.)	Immediate			
Fluoride (Mg/L)	28 days	--	--	--
Gross Alpha minus Rn & U MDC	6 months	--	8 days	--
Gross Alpha minus Rn & U Precision ( $\pm$ )	6 months	--	8 days	--
Gross Alpha minus Rn & U	6 months	--	8 days	--
Iron	6 months	--	--	--
Lab pH (S.U.)	--	--	--	--
Lead	6 months	--	--	--
Manganese	6 months	--	--	--
Mercury	28 days	--	--	--
Molybdenum	6 months	--	--	--
Naphthalene	14 days	--	5.2 days	--
Nickel	6 months	--	--	--
Nitrate + Nitrite (as N)	28 days	--	5 days	5.1 days
Selenium	6 months	--	--	2.2 days
Silver	6 months	--	--	--
Sulfate (mg/L)	28 days	--	--	--
TDS (mg/L)	7 days	--	4.8 days	--
Tetrahydrofuran	14 days	--	--	--
Thallium	6 months	--	--	--
Tin	6 months	--	--	--
Toluene	14 days	--	5.2 days	--
Uranium	6 months	3.4 days	2.2 days	2.2 days
Vanadium	6 months	--	--	--
Xylenes (total)	14 days	--	5.2 days	--
Zinc	6 months	--	--	--
A/C Balance ( $\pm$ 5) BALANCE-W	--	--	--	--
Anions BALANCE-W	--	--	--	--
Bicarbonate as HCO <sub>3</sub>	14 days	--	--	--
Calcium	6 months	--	--	--
Carbonate as CO <sub>3</sub>	14 days	--	--	--
Cations BALANCE-W	--	--	--	--
Magnesium	6 months	--	--	--
Potassium	6 months	--	--	--
Sodium	6 months	--	--	--

## G-2B: Holding Time Evaluation - Accelerated samples

Constituent	QAP Holding Time	MW-31 3/13/2012	MW-35 3/13/2012
2-Butanone (MEK)	14 days	--	--
Acetone	14 days	--	--
Ammonia (as N)	28 days	--	--
Arsenic	6 months	--	--
Benzene	14 days	--	--
Beryllium	6 months	--	--
Cadmium	6 months	--	--
Carbon Tetrachloride	14 days	--	--
Chloride (mg/L)	28 days	7.8 days	--
Chloroform	14 days	--	--
Chloromethane	14 days	--	--
Chromium	6 months	--	--
Cobalt	6 months	--	--
Copper	6 months	--	--
Dichloromethane (Methylene Chloride)	14 days	--	--
Field pH (S.U.)	Immediate		
Fluoride (Mg/L)	28 days	--	--
Gross Alpha minus Rn & U MDC	6 months	--	9 days
Gross Alpha minus Rn & U Precision ( $\pm$ )	6 months	--	9 days
Gross Alpha minus Rn & U	6 months	--	9 days
Iron	6 months	--	--
Lab pH (S.U.)	--	--	--
Lead	6 months	--	--
Manganese	6 months	--	4.4 days
Mercury	28 days	--	--
Molybdenum	6 months	--	--
Naphthalene	14 days	--	--
Nickel	6 months	--	--
Nitrate + Nitrite (as N)	28 days	6 days	--
Selenium	6 months	--	--
Silver	6 months	--	--
Sulfate (mg/L)	28 days	6.9 days	--
TDS (mg/L)	7 days	5.8 days	--
Tetrahydrofuran	14 days	--	--
Thallium	6 months	--	4.4 days
Tin	6 months	--	--
Toluene	14 days	--	--
Uranium	6 months	--	4.4 days
Vanadium	6 months	--	--
Xylenes (total)	14 days	--	--
Zinc	6 months	--	--
A/C Balance ( $\pm$ 5) BALANCE-W	--	--	--
Anions BALANCE-W	--	--	--
Bicarbonate as HCO <sub>3</sub>	14 days	--	--
Calcium	6 months	--	--
Carbonate as CO <sub>3</sub>	14 days	--	--
Cations BALANCE-W	--	--	--
Magnesium	6 months	--	--
Potassium	6 months	--	--
Sodium	6 months	--	--

## G-3A: Laboratory Receipt Temperature Check

Sample Batch	Wells in Batch	Temperature
EL - C12020681	MW-11, MW-25, MW-26, MW-30, MW-31, MW-35, MW-65, Trip Blank	2.4 °C
EL - C12020833	MW-02, MW-15, MW-23, MW-24, MW-29, MW-32, MW-14, MW-36, MW-70, MW-26, MW-65, Trip Blank	2.6 °C
EL - C12030065	MW-03, MW-03A, MW-05, MW-12, MW-18, MW-19, MW-27, MW-28, MW-37, Trip Blank	2.4°C
AWAL - 1202256 - THF	MW-11, MW-25, MW-26, MW-30, MW-31, MW-35, MW-65, Trip Blank	3.6°C
AWAL - 1202257 - Tin	MW-11, MW-25, MW-26, MW-30, MW-31, MW-35, MW-65	3.6°C
AWAL - 1202371 - THF	MW-14, MW-36, MW-70, Trip Blank	0.7°C
AWAL - 1203040 - THF and Tin	MW-37	4.0°C
AWAL - 1203144 - THF	MW-26, MW-65, Trip Blank	1.8°C
AWAL - 1205180 - Tin	MW-14, MW-36, MW-70	1.3°C

G-3B: Laboratory Receipt Temperature Check - Accelerated Samples

Sample Batch	Wells in Batch	Temperature
AWAL - 1201399	MW-11, Trip Blank	1.6 °C
AWAL - 1203257	MW-11, Trip Blank	2.3°C
EL - C12010822	MW-11, MW-25, MW-26, MW-30, MW-31, MW-35, MW-65, Trip Blank	3.6°C
EL - C12030624	MW-11, MW-25, MW-26, MW-30, MW-31, MW-35, MW-65, Trip Blank	2.8°C

G-4A: Analytical Method Check

Parameter	QAP Method	Method Used by Lab
Ammonia (as N)	A4500-NH3 G	A4500-NH3 G
Nitrate + Nitrite (as N)	E353.2	E353.2
Metals except Iron	E200.8	E200.8
Iron	E200.7	E200.7
Gross Alpha	E900.1	E900.1
VOCs except Tetrahydrofuran	SW8260B	SW8260B
Tetrahydrofuran	SW8260C	SW8260C
Chloride	A4500-Cl B	A4500-Cl B
Fluoride	A4500-F C	A4500-F C
Sulfate	A4500-SO4 E	A4500-SO4 E
TDS	A2540 C	A2540 C
Carbonate as CO <sub>3</sub> , Bicarbonate as HCO <sub>3</sub>	A2320 B	A2320 B
Calcium, Magnesium, Potassium, Sodium	E200.7	E200.7

Tetrahydrofuran and Tin were analyzed by American West Analytical Laboratories. All other constituents were analyzed by Energy Laboratories.

G-4B: Analytical Method Check - Accelerated Samples

Parameter	QAP Method	Method Used by Lab
Nitrate + Nitrite (as N)	E353.2	E353.2
Manganese, Uranium, Selenium, Thallium	E200.8	E200.8
Gross Alpha	E900.1	E900.1
VOCs except Tetrahydrofuran	SW8260B	SW8260B
Tetrahydrofuran	SW8260C	SW8260C
Chloride	A4500-Cl B	A4500-Cl B
Sulfate	A4500-SO4 E	A4500-SO4 E
TDS	A2540 C	A2540 C

Tetrahydrofuran and Tin were analyzed by American West Analytical Laboratories. All other constituents were analyzed by Energy Laboratories.

G-5A: Routine Reporting Limit Check

Constituent	QAP Reporting Limit	MW-2		MW-3	
		2/22/2012		2/29/2012	
		RL	Qualifier	RL	Qualifier
2-Butanone (MEK)	20 µg/L	--	--	--	--
Acetone	20 µg/L	--	--	--	--
Ammonia (as N)	0.05 mg/L	--	--	--	--
Arsenic	5 µg/L	--	--	--	--
Benzene	1.0 µg/L	--	--	--	--
Beryllium	0.50 µg/L	--	--	--	--
Cadmium	0.50 µg/L	--	--	--	--
Carbon Tetrachloride	1.0 µg/L	--	--	--	--
Chloride (mg/L)	1 mg/L	--	--	--	--
Chloroform	1.0 µg/L	--	--	--	--
Chloromethane	1.0 µg/L	--	--	--	--
Chromium	25 µg/L	--	--	--	--
Cobalt	10 µg/L	--	--	--	--
Copper	10 µg/L	--	--	--	--
Dichloromethane (Methylene Chloride)	1.0 µg/L	--	--	--	--
Fluoride (Mg/L)	0.1 mg/L	--	--	0.1 mg/L	
Gross Alpha minus Rn & U MDC	1.0 pCi/L	0 pCi/L		--	
Iron	30 µg/L	--	--	--	--
Lead	1.0 µg/L	--	--	--	--
Manganese	10 µg/L	--	--	--	--
Mercury	0.50 µg/L	--	--	--	--
Molybdenum	10 µg/L	--	--	--	--
Naphthalene	1.0 µg/L	--	--	--	--
Nickel	20 µg/L	--	--	--	--
Nitrate + Nitrite (as N)	0.1 mg/L	--	--	--	--
Selenium	5 µg/L	--	--	5 ug/L	
Silver	10 µg/L	--	--	--	--
Sulfate (mg/L)	1 mg/L	--	--	--	--
TDS (mg/L)	10 mg/L	--	--	--	--
Tetrahydrofuran	1.0 µg/L	--	--	--	--
Thallium	0.50 µg/L	--	--	--	--
Tin	100 µg/L	--	--	--	--
Toluene	1.0 µg/L	--	--	--	--
Uranium	0.30 µg/L	--	--	--	--
Vanadium	15 µg/L	--	--	--	--
Xylenes (total)	1.0 µg/L	--	--	--	--
Zinc	10 µg/L	--	--	--	--
Bicarbonate as HCO3	1 mg/L	--	--	--	--
Calcium	0.5 mg/L	--	--	--	--
Carbonate as CO3	1 mg/L	--	--	--	--
Magnesium	0.5 mg/L	--	--	--	--
Potassium	0.5 mg/L	--	--	--	--
Sodium	0.5 mg/L	--	--	--	--

## G-5A: Routine Reporting Limit Check

Constituent	QAP Reporting Limit	MW-3A		MW-5	
		3/1/2012		2/28/2012	
		RL	Qualifier	RL	Qualifier
2-Butanone (MEK)	20 µg/L	--	--	--	--
Acetone	20 µg/L	--	--	--	--
Ammonia (as N)	0.05 mg/L	--	--	--	--
Arsenic	5 µg/L	--	--	--	--
Benzene	1.0 µg/L	--	--	--	--
Beryllium	0.50 µg/L	--	--	--	--
Cadmium	0.50 µg/L	--	--	--	--
Carbon Tetrachloride	1.0 µg/L	--	--	--	--
Chloride (mg/L)	1 mg/L	--	--	--	--
Chloroform	1.0 µg/L	--	--	--	--
Chloromethane	1.0 µg/L	--	--	--	--
Chromium	25 µg/L	--	--	--	--
Cobalt	10 µg/L	--	--	--	--
Copper	10 µg/L	--	--	--	--
Dichloromethane (Methylene Chloride)	1.0 µg/L	--	--	--	--
Fluoride (Mg/L)	0.1 mg/L	--	--	--	--
Gross Alpha minus Rn & U MDC	1.0 pCi/L	--	--	--	--
Iron	30 µg/L	--	--	--	--
Lead	1.0 µg/L	--	--	--	--
Manganese	10 µg/L	--	--	--	--
Mercury	0.50 µg/L	--	--	--	--
Molybdenum	10 µg/L	--	--	--	--
Naphthalene	1.0 µg/L	--	--	--	--
Nickel	20 µg/L	--	--	--	--
Nitrate + Nitrite (as N)	0.1 mg/L	--	--	--	--
Selenium	5 µg/L	5 ug/L		--	--
Silver	10 µg/L	--	--	--	--
Sulfate (mg/L)	1 mg/L	50 mg/L	D	--	--
TDS (mg/L)	10 mg/L	16 mg/L	D	--	--
Tetrahydrofuran	1.0 µg/L	--	--	--	--
Thallium	0.50 µg/L	--	--	--	--
Tin	100 µg/L	--	--	--	--
Toluene	1.0 µg/L	--	--	--	--
Uranium	0.30 µg/L	--	--	0.3 ug/L	
Vanadium	15 µg/L	--	--	--	--
Xylenes (total)	1.0 µg/L	--	--	--	--
Zinc	10 µg/L	--	--	--	--
Bicarbonate as HCO3	1 mg/L	--	--	--	--
Calcium	0.5 mg/L	--	--	--	--
Carbonate as CO3	1 mg/L	--	--	--	--
Magnesium	0.5 mg/L	--	--	--	--
Potassium	0.5 mg/L	--	--	--	--
Sodium	0.5 mg/L	--	--	--	--

G-5A: Routine Reporting Limit Check

Constituent	QAP Reporting Limit	MW-11		MW-12	
		2/13/2012		2/29/2012	
		RL	Qualifier	RL	Qualifier
2-Butanone (MEK)	20 µg/L	20 ug/L	U	--	--
Acetone	20 µg/L	20 ug/L	U	--	--
Ammonia (as N)	0.05 mg/L	0.05 mg/L		--	--
Arsenic	5 µg/L	5 ug/L	U	--	--
Benzene	1.0 µg/L	1 ug/L	U	--	--
Beryllium	0.50 µg/L	0.5 ug/L	U	--	--
Cadmium	0.50 µg/L	0.5 ug/L	U	--	--
Carbon Tetrachloride	1.0 µg/L	1 ug/L	U	--	--
Chloride (mg/L)	1 mg/L	1 mg/L		--	--
Chloroform	1.0 µg/L	1 ug/L	U	--	--
Chloromethane	1.0 µg/L	1 ug/L	U	--	--
Chromium	25 µg/L	25 ug/L	U	--	--
Cobalt	10 µg/L	10 ug/L	U	--	--
Copper	10 µg/L	10 ug/L	U	--	--
Dichloromethane (Methylene Chloride)	1.0 µg/L	1 ug/L	U	--	--
Fluoride (Mg/L)	0.1 mg/L	0.1 mg/L		--	--
Gross Alpha minus Rn & U MDC	1.0 pCi/L	0 pCi/L		--	--
Iron	30 µg/L	30 ug/L		--	--
Lead	1.0 µg/L	1 ug/L	U	--	--
Manganese	10 µg/L	10 ug/L		--	--
Mercury	0.50 µg/L	0.5 ug/L	U	--	--
Molybdenum	10 µg/L	10 ug/L	U	--	--
Naphthalene	1.0 µg/L	1 ug/L	U	--	--
Nickel	20 µg/L	20 ug/L	U	--	--
Nitrate + Nitrite (as N)	0.1 mg/L	0.1 mg/L	U	--	--
Selenium	5 µg/L	5 ug/L	U	5 ug/L	
Silver	10 µg/L	10 ug/L	U	--	--
Sulfate (mg/L)	1 mg/L	50 mg/L	D	--	--
TDS (mg/L)	10 mg/L	10 mg/L		--	--
Tetrahydrofuran	1.0 µg/L	1 µg/L		--	--
Thallium	0.50 µg/L	0.5 ug/L	U	--	--
Tin	100 µg/L	100 ug/L		--	--
Toluene	1.0 µg/L	1 ug/L	U	--	--
Uranium	0.30 µg/L	0.3 ug/L		--	--
Vanadium	15 µg/L	15 ug/L	U	--	--
Xylenes (total)	1.0 µg/L	1 ug/L	U	--	--
Zinc	10 µg/L	10 ug/L	U	--	--
Bicarbonate as HCO3	1 mg/L	1 mg/L		--	--
Calcium	0.5 mg/L	0.5 mg/L		--	--
Carbonate as CO3	1 mg/L	1 mg/L		--	--
Magnesium	0.5 mg/L	0.5 mg/L		--	--
Potassium	0.5 mg/L	0.5 mg/L		--	--
Sodium	0.5 mg/L	0.6 mg/L	D	--	--

## G-5A: Routine Reporting Limit Check

Constituent	QAP Reporting Limit	MW-14		MW-15	
		2/21/2012		2/22/2012	
		RL	Qualifier	RL	Qualifier
2-Butanone (MEK)	20 µg/L	20 ug/L	U	--	--
Acetone	20 µg/L	20 ug/L	U	--	--
Ammonia (as N)	0.05 mg/L	0.05 mg/L		--	--
Arsenic	5 µg/L	5 ug/L	U	--	--
Benzene	1.0 µg/L	1 ug/L	U	--	--
Beryllium	0.50 µg/L	0.5 ug/L	U	--	--
Cadmium	0.50 µg/L	0.5 ug/L		--	--
Carbon Tetrachloride	1.0 µg/L	1 ug/L	U	--	--
Chloride (mg/L)	1 mg/L	1 mg/L		--	--
Chloroform	1.0 µg/L	1 ug/L	U	--	--
Chloromethane	1.0 µg/L	1 ug/L	U	--	--
Chromium	25 µg/L	25 ug/L	U	--	--
Cobalt	10 µg/L	10 ug/L	U	--	--
Copper	10 µg/L	10 ug/L	U	--	--
Dichloromethane (Methylene Chloride)	1.0 µg/L	1 ug/L	U	--	--
Fluoride (Mg/L)	0.1 mg/L	0.1 mg/L		--	--
Gross Alpha minus Rn & U MDC	1.0 pCi/L	0 pCi/L		--	--
Iron	30 µg/L	30 ug/L	U	30 ug/L	U
Lead	1.0 µg/L	1 ug/L	U	--	--
Manganese	10 µg/L	10 ug/L		--	--
Mercury	0.50 µg/L	0.5 ug/L	U	--	--
Molybdenum	10 µg/L	10 ug/L	U	--	--
Naphthalene	1.0 µg/L	1 ug/L	U	--	--
Nickel	20 µg/L	20 ug/L		--	--
Nitrate + Nitrite (as N)	0.1 mg/L	0.1 mg/L	U	--	--
Selenium	5 µg/L	5 ug/L	U	--	--
Silver	10 µg/L	10 ug/L	U	--	--
Sulfate (mg/L)	1 mg/L	50 mg/L	D	--	--
TDS (mg/L)	10 mg/L	10 mg/L		--	--
Tetrahydrofuran	1.0 µg/L	1 µg/L		--	--
Thallium	0.50 µg/L	0.5 ug/L	U	--	--
Tin	100 µg/L	100 µg/L		--	--
Toluene	1.0 µg/L	1 ug/L	U	--	--
Uranium	0.30 µg/L	0.3 ug/L		--	--
Vanadium	15 µg/L	15 ug/L	U	--	--
Xylenes (total)	1.0 µg/L	1 ug/L	U	--	--
Zinc	10 µg/L	10 ug/L		--	--
Bicarbonate as HCO3	1 mg/L	1 mg/L		--	--
Calcium	0.5 mg/L	0.5 mg/L		--	--
Carbonate as CO3	1 mg/L	1 mg/L	U	--	--
Magnesium	0.5 mg/L	0.5 mg/L		--	--
Potassium	0.5 mg/L	0.5 mg/L		--	--
Sodium	0.5 mg/L	2 mg/L	D	--	--

## G-5A: Routine Reporting Limit Check

Constituent	QAP Reporting Limit	MW-18		MW-19	
		2/27/2012		2/28/2012	
		RL	Qualifier	RL	Qualifier
2-Butanone (MEK)	20 µg/L	--	--	--	--
Acetone	20 µg/L	--	--	--	--
Ammonia (as N)	0.05 mg/L	--	--	--	--
Arsenic	5 µg/L	--	--	--	--
Benzene	1.0 µg/L	--	--	--	--
Beryllium	0.50 µg/L	--	--	--	--
Cadmium	0.50 µg/L	--	--	--	--
Carbon Tetrachloride	1.0 µg/L	--	--	--	--
Chloride (mg/L)	1 mg/L	--	--	--	--
Chloroform	1.0 µg/L	--	--	--	--
Chloromethane	1.0 µg/L	--	--	--	--
Chromium	25 µg/L	--	--	--	--
Cobalt	10 µg/L	--	--	--	--
Copper	10 µg/L	--	--	--	--
Dichloromethane (Methylene Chloride)	1.0 µg/L	--	--	--	--
Fluoride (Mg/L)	0.1 mg/L	--	--	--	--
Gross Alpha minus Rn & U MDC	1.0 pCi/L	--	--	--	--
Iron	30 µg/L	--	--	--	--
Lead	1.0 µg/L	--	--	--	--
Manganese	10 µg/L	--	--	--	--
Mercury	0.50 µg/L	--	--	--	--
Molybdenum	10 µg/L	--	--	--	--
Naphthalene	1.0 µg/L	--	--	--	--
Nickel	20 µg/L	--	--	--	--
Nitrate + Nitrite (as N)	0.1 mg/L	--	--	0.2 mg/L	D
Selenium	5 µg/L	--	--	--	--
Silver	10 µg/L	--	--	--	--
Sulfate (mg/L)	1 mg/L	50 mg/L	D	--	--
TDS (mg/L)	10 mg/L	10 mg/L	--	--	--
Tetrahydrofuran	1.0 µg/L	--	--	--	--
Thallium	0.50 µg/L	0.5 ug/L	--	--	--
Tin	100 µg/L	--	--	--	--
Toluene	1.0 µg/L	--	--	--	--
Uranium	0.30 µg/L	--	--	--	--
Vanadium	15 µg/L	--	--	--	--
Xylenes (total)	1.0 µg/L	--	--	--	--
Zinc	10 µg/L	--	--	--	--
Bicarbonate as HCO3	1 mg/L	--	--	--	--
Calcium	0.5 mg/L	--	--	--	--
Carbonate as CO3	1 mg/L	--	--	--	--
Magnesium	0.5 mg/L	--	--	--	--
Potassium	0.5 mg/L	--	--	--	--
Sodium	0.5 mg/L	--	--	--	--

## G-5A: Routine Reporting Limit Check

Constituent	QAP Reporting Limit	MW-23		MW-24	
		2/20/2012		2/23/2012	
		RL	Qualifier	RL	Qualifier
2-Butanone (MEK)	20 µg/L	--	--	--	--
Acetone	20 µg/L	--	--	--	--
Ammonia (as N)	0.05 mg/L	--	--	--	--
Arsenic	5 µg/L	--	--	--	--
Benzene	1.0 µg/L	--	--	--	--
Beryllium	0.50 µg/L	--	--	--	--
Cadmium	0.50 µg/L	--	--	0.5 ug/L	
Carbon Tetrachloride	1.0 µg/L	--	--	--	--
Chloride (mg/L)	1 mg/L	--	--	--	--
Chloroform	1.0 µg/L	--	--	--	--
Chloromethane	1.0 µg/L	--	--	--	--
Chromium	25 µg/L	--	--	--	--
Cobalt	10 µg/L	--	--	--	--
Copper	10 µg/L	--	--	--	--
Dichloromethane (Methylene Chloride)	1.0 µg/L	--	--	--	--
Fluoride (Mg/L)	0.1 mg/L	--	--	--	--
Gross Alpha minus Rn & U MDC	1.0 pCi/L	--	--	--	--
Iron	30 µg/L	--	--	--	--
Lead	1.0 µg/L	--	--	--	--
Manganese	10 µg/L	10 ug/L		--	--
Mercury	0.50 µg/L	--	--	--	--
Molybdenum	10 µg/L	--	--	--	--
Naphthalene	1.0 µg/L	--	--	--	--
Nickel	20 µg/L	--	--	--	--
Nitrate + Nitrite (as N)	0.1 mg/L	--	--	--	--
Selenium	5 µg/L	--	--	--	--
Silver	10 µg/L	--	--	--	--
Sulfate (mg/L)	1 mg/L	--	--	--	--
TDS (mg/L)	10 mg/L	--	--	--	--
Tetrahydrofuran	1.0 µg/L	--	--	--	--
Thallium	0.50 µg/L	--	--	0.5 ug/L	
Tin	100 µg/L	--	--	--	--
Toluene	1.0 µg/L	--	--	--	--
Uranium	0.30 µg/L	--	--	--	--
Vanadium	15 µg/L	--	--	--	--
Xylenes (total)	1.0 µg/L	--	--	--	--
Zinc	10 µg/L	--	--	--	--
Bicarbonate as HCO3	1 mg/L	--	--	--	--
Calcium	0.5 mg/L	--	--	--	--
Carbonate as CO3	1 mg/L	--	--	--	--
Magnesium	0.5 mg/L	--	--	--	--
Potassium	0.5 mg/L	--	--	--	--
Sodium	0.5 mg/L	--	--	--	--

## G-5A: Routine Reporting Limit Check

Constituent	QAP Reporting Limit	MW-25		MW-26	
		2/14/2012		2/15/2012	
		RL	Qualifier	RL	Qualifier
2-Butanone (MEK)	20 µg/L	20 ug/L	U	20 ug/L	U
Acetone	20 µg/L	20 ug/L	U	20 ug/L	U
Ammonia (as N)	0.05 mg/L	0.1 mg/L		0.05 mg/L	
Arsenic	5 µg/L	5 ug/L	U	--	--
Benzene	1.0 µg/L	1 ug/L	U	1 ug/L	U
Beryllium	0.50 µg/L	0.5 ug/L	U	--	--
Cadmium	0.50 µg/L	0.5 ug/L		--	--
Carbon Tetrachloride	1.0 µg/L	1 ug/L	U	1 ug/L	U
Chloride (mg/L)	1 mg/L	1 mg/L		1 mg/L	
Chloroform	1.0 µg/L	1 ug/L	U	100 ug/L	D
Chloromethane	1.0 µg/L	1 ug/L	U	1 ug/L	U
Chromium	25 µg/L	25 ug/L	U	--	--
Cobalt	10 µg/L	10 ug/L	U	--	--
Copper	10 µg/L	10 ug/L	U	--	--
Dichloromethane (Methylene Chloride)	1.0 µg/L	1 ug/L	U	1 ug/L	
Fluoride (Mg/L)	0.1 mg/L	0.1 mg/L		0.1 mg/L	
Gross Alpha minus Rn & U MDC	1.0 pCi/L	0 pCi/L		--	
Iron	30 µg/L	30 ug/L	U	--	--
Lead	1.0 µg/L	1 ug/L	U	--	--
Manganese	10 µg/L	10 ug/L		--	--
Mercury	0.50 µg/L	0.5 ug/L	U	--	--
Molybdenum	10 µg/L	10 ug/L		--	--
Naphthalene	1.0 µg/L	1 ug/L	U	1 ug/L	U
Nickel	20 µg/L	20 ug/L	U	--	--
Nitrate + Nitrite (as N)	0.1 mg/L	0.1 mg/L	U	0.1 mg/L	
Selenium	5 µg/L	5 ug/L	U	--	--
Silver	10 µg/L	10 ug/L	U	--	--
Sulfate (mg/L)	1 mg/L	50 mg/L	D	50 mg/L	D
TDS (mg/L)	10 mg/L	10 mg/L		10 mg/L	
Tetrahydrofuran	1.0 µg/L	1 µg/L		1 µg/L	
Thallium	0.50 µg/L	0.5 ug/L		--	--
Tin	100 µg/L	100 ug/L		100 ug/L	
Toluene	1.0 µg/L	1 ug/L	U	1 ug/L	U
Uranium	0.30 µg/L	0.3 ug/L		--	--
Vanadium	15 µg/L	15 ug/L	U	--	--
Xylenes (total)	1.0 µg/L	1 ug/L	U	1 ug/L	U
Zinc	10 µg/L	10 ug/L	U	--	--
Bicarbonate as HCO3	1 mg/L	1 mg/L		1 mg/L	
Calcium	0.5 mg/L	0.5 mg/L		--	--
Carbonate as CO3	1 mg/L	1 mg/L	U	1 mg/L	U
Magnesium	0.5 mg/L	0.5 mg/L		--	--
Potassium	0.5 mg/L	0.5 mg/L		--	--
Sodium	0.5 mg/L	0.6 mg/L	D	--	--

## G-5A: Routine Reporting Limit Check

Constituent	QAP Reporting Limit	MW-26		MW-26	
		2/21/2012		3/8/2012	
		RL	Qualifier	RL	Qualifier
2-Butanone (MEK)	20 µg/L	--	--	--	--
Acetone	20 µg/L	--	--	--	--
Ammonia (as N)	0.05 mg/L	--	--	--	--
Arsenic	5 µg/L	5 ug/L	U	--	--
Benzene	1.0 µg/L	--	--	--	--
Beryllium	0.50 µg/L	0.5 ug/L	U	--	--
Cadmium	0.50 µg/L	0.5 ug/L	U	--	--
Carbon Tetrachloride	1.0 µg/L	--	--	--	--
Chloride (mg/L)	1 mg/L	--	--	--	--
Chloroform	1.0 µg/L	--	--	--	--
Chloromethane	1.0 µg/L	--	--	--	--
Chromium	25 µg/L	25 ug/L	U	--	--
Cobalt	10 µg/L	10 ug/L	U	--	--
Copper	10 µg/L	10 ug/L	U	--	--
Dichloromethane (Methylene Chloride)	1.0 µg/L	--	--	--	--
Fluoride (Mg/L)	0.1 mg/L	--	--	--	--
Gross Alpha minus Rn & U MDC	1.0 pCi/L	0 pCi/L		--	--
Iron	30 µg/L	30 ug/L		--	--
Lead	1.0 µg/L	1 ug/L	U	--	--
Manganese	10 µg/L	10 ug/L		--	--
Mercury	0.50 µg/L	0.5 ug/L	U	--	--
Molybdenum	10 µg/L	10 ug/L	U	--	--
Naphthalene	1.0 µg/L	--	--	--	--
Nickel	20 µg/L	20 ug/L		--	--
Nitrate + Nitrite (as N)	0.1 mg/L	--	--	--	--
Selenium	5 µg/L	5 ug/L		--	--
Silver	10 µg/L	10 ug/L	U	--	--
Sulfate (mg/L)	1 mg/L	--	--	--	--
TDS (mg/L)	10 mg/L	--	--	--	--
Tetrahydrofuran	1.0 µg/L	--	--	1 µg/L	
Thallium	0.50 µg/L	0.5 ug/L	U	--	--
Tin	100 µg/L	--	--	--	--
Toluene	1.0 µg/L	--	--	--	--
Uranium	0.30 µg/L	0.3 ug/L		--	--
Vanadium	15 µg/L	15 ug/L	U	--	--
Xylenes (total)	1.0 µg/L	--	--	--	--
Zinc	10 µg/L	10 ug/L	U	--	--
Bicarbonate as HCO <sub>3</sub>	1 mg/L	--	--	--	--
Calcium	0.5 mg/L	0.5 mg/L		--	--
Carbonate as CO <sub>3</sub>	1 mg/L	--	--	--	--
Magnesium	0.5 mg/L	0.5 mg/L		--	--
Potassium	0.5 mg/L	0.5 mg/L		--	--
Sodium	0.5 mg/L	2 mg/L	D	--	--

## G-5A: Routine Reporting Limit Check

Constituent	QAP Reporting Limit	MW-27		MW-28	
		2/28/2012		2/28/2012	
		RL	Qualifier	RL	Qualifier
2-Butanone (MEK)	20 µg/L	--	--	--	--
Acetone	20 µg/L	--	--	--	--
Ammonia (as N)	0.05 mg/L	--	--	--	--
Arsenic	5 µg/L	--	--	--	--
Benzene	1.0 µg/L	--	--	--	--
Beryllium	0.50 µg/L	--	--	--	--
Cadmium	0.50 µg/L	--	--	--	--
Carbon Tetrachloride	1.0 µg/L	--	--	--	--
Chloride (mg/L)	1 mg/L	1 mg/L		1 mg/L	
Chloroform	1.0 µg/L	--	--	--	--
Chloromethane	1.0 µg/L	--	--	--	--
Chromium	25 µg/L	--	--	--	--
Cobalt	10 µg/L	--	--	--	--
Copper	10 µg/L	--	--	--	--
Dichloromethane (Methylene Chloride)	1.0 µg/L	--	--	--	--
Fluoride (Mg/L)	0.1 mg/L	--	--	--	--
Gross Alpha minus Rn & U MDC	1.0 pCi/L	0 pCi/L		--	
Iron	30 µg/L	--	--	--	--
Lead	1.0 µg/L	--	--	--	--
Manganese	10 µg/L	--	--	--	--
Mercury	0.50 µg/L	--	--	--	--
Molybdenum	10 µg/L	--	--	--	--
Naphthalene	1.0 µg/L	--	--	--	--
Nickel	20 µg/L	--	--	--	--
Nitrate + Nitrite (as N)	0.1 mg/L	0.5 mg/L	D	--	--
Selenium	5 µg/L	--	--	--	--
Silver	10 µg/L	--	--	--	--
Sulfate (mg/L)	1 mg/L	10 mg/L	D	--	--
TDS (mg/L)	10 mg/L	10 mg/L		--	--
Tetrahydrofuran	1.0 µg/L	--	--	--	--
Thallium	0.50 µg/L	--	--	--	--
Tin	100 µg/L	--	--	--	--
Toluene	1.0 µg/L	--	--	--	--
Uranium	0.30 µg/L	--	--	--	--
Vanadium	15 µg/L	--	--	--	--
Xylenes (total)	1.0 µg/L	--	--	--	--
Zinc	10 µg/L	--	--	--	--
Bicarbonate as HCO3	1 mg/L	--	--	--	--
Calcium	0.5 mg/L	--	--	--	--
Carbonate as CO3	1 mg/L	--	--	--	--
Magnesium	0.5 mg/L	--	--	--	--
Potassium	0.5 mg/L	--	--	--	--
Sodium	0.5 mg/L	--	--	--	--

## G-5A: Routine Reporting Limit Check

Constituent	QAP Reporting Limit	MW-29		MW-30	
		2/22/2012		2/14/2012	
		RL	Qualifier	RL	Qualifier
2-Butanone (MEK)	20 µg/L	--	--	20 ug/L	U
Acetone	20 µg/L	--	--	20 ug/L	U
Ammonia (as N)	0.05 mg/L	--	--	0.05 mg/L	U
Arsenic	5 µg/L	--	--	5 ug/L	U
Benzene	1.0 µg/L	--	--	1 ug/L	U
Beryllium	0.50 µg/L	--	--	0.5 ug/L	U
Cadmium	0.50 µg/L	--	--	0.5 ug/L	U
Carbon Tetrachloride	1.0 µg/L	--	--	1 ug/L	U
Chloride (mg/L)	1 mg/L	--	--	1 mg/L	
Chloroform	1.0 µg/L	--	--	1 ug/L	U
Chloromethane	1.0 µg/L	--	--	1 ug/L	U
Chromium	25 µg/L	--	--	25 ug/L	U
Cobalt	10 µg/L	--	--	10 ug/L	U
Copper	10 µg/L	--	--	10 ug/L	U
Dichloromethane (Methylene Chloride)	1.0 µg/L	--	--	1 ug/L	U
Fluoride (Mg/L)	0.1 mg/L	--	--	0.1 mg/L	
Gross Alpha minus Rn & U MDC	1.0 pCi/L	--	--	0 pCi/L	
Iron	30 µg/L	30 ug/L		30 ug/L	
Lead	1.0 µg/L	--	--	1 ug/L	U
Manganese	10 µg/L	--	--	10 ug/L	
Mercury	0.50 µg/L	--	--	0.5 ug/L	U
Molybdenum	10 µg/L	--	--	10 ug/L	U
Naphthalene	1.0 µg/L	--	--	1 ug/L	U
Nickel	20 µg/L	--	--	20 ug/L	U
Nitrate + Nitrite (as N)	0.1 mg/L	--	--	1 mg/L	D
Selenium	5 µg/L	--	--	5 ug/L	
Silver	10 µg/L	--	--	10 ug/L	U
Sulfate (mg/L)	1 mg/L	--	--	10 mg/L	D
TDS (mg/L)	10 mg/L	--	--	10 mg/L	
Tetrahydrofuran	1.0 µg/L	--	--	1 µg/L	
Thallium	0.50 µg/L	--	--	0.5 ug/L	U
Tin	100 µg/L	--	--	100 ug/L	
Toluene	1.0 µg/L	--	--	1 ug/L	U
Uranium	0.30 µg/L	--	--	0.3 ug/L	
Vanadium	15 µg/L	--	--	15 ug/L	U
Xylenes (total)	1.0 µg/L	--	--	1 ug/L	U
Zinc	10 µg/L	--	--	10 ug/L	U
Bicarbonate as HCO <sub>3</sub>	1 mg/L	--	--	1 mg/L	
Calcium	0.5 mg/L	--	--	0.5 mg/L	
Carbonate as CO <sub>3</sub>	1 mg/L	--	--	1 mg/L	U
Magnesium	0.5 mg/L	--	--	0.5 mg/L	
Potassium	0.5 mg/L	--	--	0.5 mg/L	
Sodium	0.5 mg/L	--	--	0.6 mg/L	D

G-5A: Routine Reporting Limit Check

Constituent	QAP Reporting Limit	MW-31		MW-32	
		2/13/2012		2/21/2012	
		RL	Qualifier	RL	Qualifier
2-Butanone (MEK)	20 µg/L	20 ug/L	U	--	--
Acetone	20 µg/L	20 ug/L	U	--	--
Ammonia (as N)	0.05 mg/L	0.05 mg/L	U	--	--
Arsenic	5 µg/L	5 ug/L	U	--	--
Benzene	1.0 µg/L	1 ug/L	U	--	--
Beryllium	0.50 µg/L	0.5 ug/L	U	--	--
Cadmium	0.50 µg/L	0.5 ug/L	U	--	--
Carbon Tetrachloride	1.0 µg/L	1 ug/L	U	--	--
Chloride (mg/L)	1 mg/L	1 mg/L		--	--
Chloroform	1.0 µg/L	1 ug/L	U	--	--
Chloromethane	1.0 µg/L	1 ug/L	U	--	--
Chromium	25 µg/L	25 ug/L	U	--	--
Cobalt	10 µg/L	10 ug/L	U	--	--
Copper	10 µg/L	10 ug/L	U	--	--
Dichloromethane (Methylene Chloride)	1.0 µg/L	1 ug/L	U	--	--
Fluoride (Mg/L)	0.1 mg/L	0.1 mg/L		--	--
Gross Alpha minus Rn & U MDC	1.0 pCi/L	0 pCi/L		0 pCi/L	
Iron	30 µg/L	30 ug/L	U	--	--
Lead	1.0 µg/L	1 ug/L	U	--	--
Manganese	10 µg/L	10 ug/L	U	--	--
Mercury	0.50 µg/L	0.5 ug/L	U	--	--
Molybdenum	10 µg/L	10 ug/L	U	--	--
Naphthalene	1.0 µg/L	1 ug/L	U	--	--
Nickel	20 µg/L	20 ug/L	U	--	--
Nitrate + Nitrite (as N)	0.1 mg/L	1 mg/L	D	--	--
Selenium	5 µg/L	5 ug/L		--	--
Silver	10 µg/L	10 ug/L	U	--	--
Sulfate (mg/L)	1 mg/L	10 mg/L	D	--	--
TDS (mg/L)	10 mg/L	10 mg/L		--	--
Tetrahydrofuran	1.0 µg/L	1 µg/L		--	--
Thallium	0.50 µg/L	0.5 ug/L	U	--	--
Tin	100 µg/L	100 ug/L		--	--
Toluene	1.0 µg/L	1 ug/L	U	--	--
Uranium	0.30 µg/L	0.3 ug/L		--	--
Vanadium	15 µg/L	15 ug/L	U	--	--
Xylenes (total)	1.0 µg/L	1 ug/L	U	--	--
Zinc	10 µg/L	10 ug/L	U	--	--
Bicarbonate as HCO3	1 mg/L	1 mg/L		--	--
Calcium	0.5 mg/L	0.5 mg/L		--	--
Carbonate as CO3	1 mg/L	1 mg/L	U	--	--
Magnesium	0.5 mg/L	0.5 mg/L		--	--
Potassium	0.5 mg/L	0.5 mg/L		--	--
Sodium	0.5 mg/L	0.6 mg/L	D	--	--

## G-5A: Routine Reporting Limit Check

Constituent	QAP Reporting Limit	MW-35		MW-36	
		2/14/2012		2/20/2012	
		RL	Qualifier	RL	Qualifier
2-Butanone (MEK)	20 µg/L	20 ug/L	U	20 ug/L	U
Acetone	20 µg/L	20 ug/L	U	20 ug/L	U
Ammonia (as N)	0.05 mg/L	0.1 mg/L		0.1 mg/L	U
Arsenic	5 µg/L	5 ug/L	U	5 ug/L	U
Benzene	1.0 µg/L	1 ug/L	U	1 ug/L	U
Beryllium	0.50 µg/L	0.5 ug/L	U	0.5 ug/L	U
Cadmium	0.50 µg/L	0.5 ug/L	U	0.5 ug/L	U
Carbon Tetrachloride	1.0 µg/L	1 ug/L	U	1 ug/L	U
Chloride (mg/L)	1 mg/L	1 mg/L		1 mg/L	
Chloroform	1.0 µg/L	1 ug/L	U	1 ug/L	U
Chloromethane	1.0 µg/L	1 ug/L	U	1 ug/L	U
Chromium	25 µg/L	25 ug/L	U	25 ug/L	U
Cobalt	10 µg/L	10 ug/L	U	10 ug/L	U
Copper	10 µg/L	10 ug/L	U	10 ug/L	U
Dichloromethane (Methylene Chloride)	1.0 µg/L	1 ug/L	U	1 ug/L	U
Fluoride (Mg/L)	0.1 mg/L	0.1 mg/L		0.1 mg/L	
Gross Alpha minus Rn & U MDC	1.0 pCi/L	0 pCi/L		0 pCi/L	
Iron	30 µg/L	30 ug/L		30 ug/L	U
Lead	1.0 µg/L	1 ug/L	U	1 ug/L	U
Manganese	10 µg/L	10 ug/L		10 ug/L	U
Mercury	0.50 µg/L	0.5 ug/L	U	0.5 ug/L	U
Molybdenum	10 µg/L	10 ug/L	U	10 ug/L	U
Naphthalene	1.0 µg/L	1 ug/L	U	1 ug/L	U
Nickel	20 µg/L	20 ug/L	U	20 ug/L	U
Nitrate + Nitrite (as N)	0.1 mg/L	0.1 mg/L	U	0.1 mg/L	
Selenium	5 µg/L	5 ug/L		5 ug/L	
Silver	10 µg/L	10 ug/L	U	10 ug/L	U
Sulfate (mg/L)	1 mg/L	50 mg/L	D	50 mg/L	D
TDS (mg/L)	10 mg/L	10 mg/L		12 mg/L	D
Tetrahydrofuran	1.0 µg/L	1 µg/L		1 µg/L	
Thallium	0.50 µg/L	0.5 ug/L		0.5 ug/L	
Tin	100 µg/L	100 ug/L		100 µg/L	
Toluene	1.0 µg/L	1 ug/L	U	1 ug/L	U
Uranium	0.30 µg/L	0.3 ug/L		0.5 ug/L	D
Vanadium	15 µg/L	15 ug/L	U	15 ug/L	U
Xylenes (total)	1.0 µg/L	1 ug/L	U	1 ug/L	U
Zinc	10 µg/L	10 ug/L	U	10 ug/L	
Bicarbonate as HCO <sub>3</sub>	1 mg/L	1 mg/L		1 mg/L	
Calcium	0.5 mg/L	0.5 mg/L		0.5 mg/L	
Carbonate as CO <sub>3</sub>	1 mg/L	1 mg/L	U	1 mg/L	U
Magnesium	0.5 mg/L	0.5 mg/L		0.5 mg/L	
Potassium	0.5 mg/L	0.5 mg/L		0.5 mg/L	
Sodium	0.5 mg/L	0.6 mg/L	D	2 mg/L	D

## G-5A: Routine Reporting Limit Check

Constituent	QAP Reporting Limit	MW-37		MW-65	
		2/29/2012		2/15/2012	
		RL	Qualifier	RL	Qualifier
2-Butanone (MEK)	20 µg/L	20 ug/L	U	20 ug/L	U
Acetone	20 µg/L	20 ug/L	U	20 ug/L	U
Ammonia (as N)	0.05 mg/L	0.1 mg/L	U	0.05 mg/L	
Arsenic	5 µg/L	5 ug/L	U	--	--
Benzene	1.0 µg/L	1 ug/L	U	1 ug/L	U
Beryllium	0.50 µg/L	0.5 ug/L	U	--	--
Cadmium	0.50 µg/L	0.5 ug/L	U	--	--
Carbon Tetrachloride	1.0 µg/L	1 ug/L	U	1 ug/L	U
Chloride (mg/L)	1 mg/L	1 mg/L		1 mg/L	
Chloroform	1.0 µg/L	1 ug/L	U	100 ug/L	D
Chloromethane	1.0 µg/L	1 ug/L	U	1 ug/L	U
Chromium	25 µg/L	25 ug/L	U	--	--
Cobalt	10 µg/L	10 ug/L	U	--	--
Copper	10 µg/L	10 ug/L	U	--	--
Dichloromethane (Methylene Chloride)	1.0 µg/L	1 ug/L	U	1 ug/L	
Fluoride (Mg/L)	0.1 mg/L	0.1 mg/L		0.1 mg/L	
Gross Alpha minus Rn & U MDC	1.0 pCi/L	0 pCi/L		--	
Iron	30 µg/L	30 ug/L	U	--	--
Lead	1.0 µg/L	1 ug/L	U	--	--
Manganese	10 µg/L	10 ug/L	U	--	--
Mercury	0.50 µg/L	0.5 ug/L	U	--	--
Molybdenum	10 µg/L	10 ug/L	U	--	--
Naphthalene	1.0 µg/L	1 ug/L	U	1 ug/L	U
Nickel	20 µg/L	20 ug/L	U	--	--
Nitrate + Nitrite (as N)	0.1 mg/L	0.1 mg/L		0.1 mg/L	
Selenium	5 µg/L	5 ug/L		--	--
Silver	10 µg/L	10 ug/L	U	--	--
Sulfate (mg/L)	1 mg/L	50 mg/L	D	50 mg/L	D
TDS (mg/L)	10 mg/L	11 mg/L	D	10 mg/L	
Tetrahydrofuran	1.0 µg/L	1 µg/L		1 µg/L	
Thallium	0.50 µg/L	0.5 ug/L	U	--	--
Tin	100 µg/L	100 µg/L		100 ug/L	
Toluene	1.0 µg/L	1 ug/L	U	1 ug/L	U
Uranium	0.30 µg/L	0.3 ug/L		--	--
Vanadium	15 µg/L	15 ug/L	U	--	--
Xylenes (total)	1.0 µg/L	1 ug/L	U	1 ug/L	U
Zinc	10 µg/L	10 ug/L		--	--
Bicarbonate as HCO3	1 mg/L	1 mg/L		1 mg/L	
Calcium	0.5 mg/L	0.5 mg/L		--	--
Carbonate as CO3	1 mg/L	1 mg/L	U	1 mg/L	U
Magnesium	0.5 mg/L	0.5 mg/L		--	--
Potassium	0.5 mg/L	0.5 mg/L		--	--
Sodium	0.5 mg/L	2 mg/L	D	--	--

## G-5A: Routine Reporting Limit Check

Constituent	QAP Reporting Limit	MW-65		MW-65	
		2/21/2012		3/8/2012	
		RL	Qualifier	RL	Qualifier
2-Butanone (MEK)	20 µg/L	--	--	--	--
Acetone	20 µg/L	--	--	--	--
Ammonia (as N)	0.05 mg/L	--	--	--	--
Arsenic	5 µg/L	5 ug/L	U	--	--
Benzene	1.0 µg/L	--	--	--	--
Beryllium	0.50 µg/L	0.5 ug/L	U	--	--
Cadmium	0.50 µg/L	0.5 ug/L	U	--	--
Carbon Tetrachloride	1.0 µg/L	--	--	--	--
Chloride (mg/L)	1 mg/L	--	--	--	--
Chloroform	1.0 µg/L	--	--	--	--
Chloromethane	1.0 µg/L	--	--	--	--
Chromium	25 µg/L	25 ug/L	U	--	--
Cobalt	10 µg/L	10 ug/L	U	--	--
Copper	10 µg/L	10 ug/L	U	--	--
Dichloromethane (Methylene Chloride)	1.0 µg/L	--	--	--	--
Fluoride (Mg/L)	0.1 mg/L	--	--	--	--
Gross Alpha minus Rn & U MDC	1.0 pCi/L	0 pCi/L		--	--
Iron	30 µg/L	30 ug/L		--	--
Lead	1.0 µg/L	1 ug/L	U	--	--
Manganese	10 µg/L	10 ug/L		--	--
Mercury	0.50 µg/L	0.5 ug/L	U	--	--
Molybdenum	10 µg/L	10 ug/L	U	--	--
Naphthalene	1.0 µg/L	--	--	--	--
Nickel	20 µg/L	20 ug/L		--	--
Nitrate + Nitrite (as N)	0.1 mg/L	--	--	--	--
Selenium	5 µg/L	5 ug/L		--	--
Silver	10 µg/L	10 ug/L	U	--	--
Sulfate (mg/L)	1 mg/L	--	--	--	--
TDS (mg/L)	10 mg/L	--	--	--	--
Tetrahydrofuran	1.0 µg/L	--	--	1 µg/L	
Thallium	0.50 µg/L	0.5 ug/L		--	--
Tin	100 µg/L	--	--	--	--
Toluene	1.0 µg/L	--	--	--	--
Uranium	0.30 µg/L	0.3 ug/L		--	--
Vanadium	15 µg/L	15 ug/L	U	--	--
Xylenes (total)	1.0 µg/L	--	--	--	--
Zinc	10 µg/L	10 ug/L	U	--	--
Bicarbonate as HCO <sub>3</sub>	1 mg/L	--	--	--	--
Calcium	0.5 mg/L	0.5 mg/L		--	--
Carbonate as CO <sub>3</sub>	1 mg/L	--	--	--	--
Magnesium	0.5 mg/L	0.5 mg/L		--	--
Potassium	0.5 mg/L	0.5 mg/L		--	--
Sodium	0.5 mg/L	2 mg/L	D	--	--

## G-5A: Routine Reporting Limit Check

Constituent	QAP Reporting Limit	MW-70	
		2/21/2012	
		RL	Qualifier
2-Butanone (MEK)	20 µg/L	20 ug/L	U
Acetone	20 µg/L	20 ug/L	U
Ammonia (as N)	0.05 mg/L	0.05 mg/L	
Arsenic	5 µg/L	5 ug/L	U
Benzene	1.0 µg/L	1 ug/L	U
Beryllium	0.50 µg/L	0.5 ug/L	U
Cadmium	0.50 µg/L	0.5 ug/L	
Carbon Tetrachloride	1.0 µg/L	1 ug/L	U
Chloride (mg/L)	1 mg/L	1 mg/L	
Chloroform	1.0 µg/L	1 ug/L	U
Chloromethane	1.0 µg/L	1 ug/L	U
Chromium	25 µg/L	25 ug/L	U
Cobalt	10 µg/L	10 ug/L	U
Copper	10 µg/L	10 ug/L	U
Dichloromethane (Methylene Chloride)	1.0 µg/L	1 ug/L	U
Fluoride (Mg/L)	0.1 mg/L	0.1 mg/L	
Gross Alpha minus Rn & U MDC	1.0 pCi/L	0 pCi/L	
Iron	30 µg/L	30 ug/L	U
Lead	1.0 µg/L	1 ug/L	U
Manganese	10 µg/L	10 ug/L	
Mercury	0.50 µg/L	0.5 ug/L	U
Molybdenum	10 µg/L	10 ug/L	U
Naphthalene	1.0 µg/L	1 ug/L	U
Nickel	20 µg/L	20 ug/L	
Nitrate + Nitrite (as N)	0.1 mg/L	0.1 mg/L	U
Selenium	5 µg/L	5 ug/L	U
Silver	10 µg/L	10 ug/L	U
Sulfate (mg/L)	1 mg/L	50 mg/L	D
TDS (mg/L)	10 mg/L	10 mg/L	
Tetrahydrofuran	1.0 µg/L	1 µg/L	
Thallium	0.50 µg/L	0.5 ug/L	U
Tin	100 µg/L	100 µg/L	
Toluene	1.0 µg/L	1 ug/L	U
Uranium	0.30 µg/L	0.3 ug/L	
Vanadium	15 µg/L	15 ug/L	U
Xylenes (total)	1.0 µg/L	1 ug/L	U
Zinc	10 µg/L	10 ug/L	
Bicarbonate as HCO <sub>3</sub>	1 mg/L	1 mg/L	
Calcium	0.5 mg/L	0.5 mg/L	
Carbonate as CO <sub>3</sub>	1 mg/L	1 mg/L	U
Magnesium	0.5 mg/L	0.5 mg/L	
Potassium	0.5 mg/L	0.5 mg/L	
Sodium	0.5 mg/L	2 mg/L	D

## G-5B: Accelerated Reporting Limit Check

Constituent	QAP Reporting Limit	MW-11 1/26/2012		MW-14 1/24/2012	
		RL	Qualifier	RL	Qualifier
2-Butanone (MEK)	20 µg/L	--	--	--	--
Acetone	20 µg/L	--	--	--	--
Benzene	1.0 µg/L	--	--	--	--
Carbon Tetrachloride	1.0 µg/L	--	--	--	--
Chloride (mg/L)	1 mg/L	--	--	--	--
Chloroform	1.0 µg/L	--	--	--	--
Chloromethane	1.0 µg/L	--	--	--	--
Dichloromethane (Methylene Chloride)	1.0 µg/L	--	--	--	--
Field pH (S.U.)	0.01 s.u.	--	--	0.01	
Gross Alpha minus Rn & U	1.0 pCi/L	--	--	--	
Manganese	10 µg/L	10 ug/L	--	--	--
Naphthalene	1.0 µg/L	--	--	--	--
Nitrate + Nitrite (as N)	0.1 mg/L	--	--	--	--
Selenium	5 µg/L	--	--	--	--
Sulfate (mg/L)	1 mg/L	--	--	--	--
TDS (mg/L)	10 mg/L	--	--	--	--
Tetrahydrofuran	1.0 µg/L	1 µg/L	--	--	--
Toluene	1.0 µg/L	--	--	--	--
Uranium	0.30 µg/L	--	--	--	--
Xylenes (total)	1.0 µg/L	--	--	--	--

## G-5B: Accelerated Reporting Limit Check

Constituent	QAP Reporting Limit	MW-25 1/25/2012		MW-26 1/25/2012	
		RL	Qualifier	RL	Qualifier
2-Butanone (MEK)	20 µg/L	--	--	20 ug/L	U
Acetone	20 µg/L	--	--	20 ug/L	U
Benzene	1.0 µg/L	--	--	1 ug/L	U
Carbon Tetrachloride	1.0 µg/L	--	--	1 ug/L	U
Chloride (mg/L)	1 mg/L	--	--	1 mg/L	
Chloroform	1.0 µg/L	--	--	100 ug/L	D
Chloromethane	1.0 µg/L	--	--	1 ug/L	U
Dichloromethane (Methylene Chloride)	1.0 µg/L	--	--	1 ug/L	
Field pH (S.U.)	0.01 s.u.	0.01		0.01	
Gross Alpha minus Rn & U	1.0 pCi/L	--		1 pCi/L	
Manganese	10 µg/L	--	--	--	--
Naphthalene	1.0 µg/L	--	--	1 ug/L	U
Nitrate + Nitrite (as N)	0.1 mg/L	--	--	0.1 mg/L	
Selenium	5 µg/L	--	--	--	--
Sulfate (mg/L)	1 mg/L	--	--	--	--
TDS (mg/L)	10 mg/L	--	--	10 mg/L	
Tetrahydrofuran	1.0 µg/L	--	--	--	--
Toluene	1.0 µg/L	--	--	1 ug/L	U
Uranium	0.30 µg/L	0.3 ug/L		0.3 ug/L	
Xylenes (total)	1.0 µg/L	--	--	1 ug/L	U

G-5B: Accelerated Reporting Limit Check

Constituent	QAP Reporting Limit	MW-30 1/24/2012		MW-31 1/24/2012	
		RL	Qualifier	RL	Qualifier
2-Butanone (MEK)	20 µg/L	--	--	--	--
Acetone	20 µg/L	--	--	--	--
Benzene	1.0 µg/L	--	--	--	--
Carbon Tetrachloride	1.0 µg/L	--	--	--	--
Chloride (mg/L)	1 mg/L	1 mg/L		1 mg/L	
Chloroform	1.0 µg/L	--	--	--	--
Chloromethane	1.0 µg/L	--	--	--	--
Dichloromethane (Methylene Chloride)	1.0 µg/L	--	--	--	--
Field pH (S.U.)	0.01 s.u.	0.01		0.01	
Gross Alpha minus Rn & U	1.0 pCi/L	--		--	
Manganese	10 µg/L	--	--	--	--
Naphthalene	1.0 µg/L	--	--	--	--
Nitrate + Nitrite (as N)	0.1 mg/L	1 mg/L	D	1 mg/L	D
Selenium	5 µg/L	5 ug/L		--	--
Sulfate (mg/L)	1 mg/L	--	--	10 mg/L	D
TDS (mg/L)	10 mg/L	--	--	10 mg/L	
Tetrahydrofuran	1.0 µg/L	--	--	--	--
Toluene	1.0 µg/L	--	--	--	--
Uranium	0.30 µg/L	--	--	--	--
Xylenes (total)	1.0 µg/L	--	--	--	--

## G-5B: Accelerated Reporting Limit Check

Constituent	QAP Reporting Limit	MW-35 1/24/2012	
		RL	Qualifier
2-Butanone (MEK)	20 µg/L	--	--
Acetone	20 µg/L	--	--
Benzene	1.0 µg/L	--	--
Carbon Tetrachloride	1.0 µg/L	--	--
Chloride (mg/L)	1 mg/L	--	--
Chloroform	1.0 µg/L	--	--
Chloromethane	1.0 µg/L	--	--
Dichloromethane (Methylene Chloride)	1.0 µg/L	--	--
Field pH (S.U.)	0.01 s.u.	0.01	
Gross Alpha minus Rn & U	1.0 pCi/L	1 pCi/L	
Manganese	10 µg/L	10 ug/L	
Naphthalene	1.0 µg/L	--	--
Nitrate + Nitrite (as N)	0.1 mg/L	--	--
Selenium	5 µg/L	--	--
Sulfate (mg/L)	1 mg/L	--	--
TDS (mg/L)	10 mg/L	--	--
Tetrahydrofuran	1.0 µg/L	--	--
Toluene	1.0 µg/L	--	--
Uranium	0.30 µg/L	0.3 ug/L	
Xylenes (total)	1.0 µg/L	--	--

## G-5B: Accelerated Reporting Limit Check

Constituent	QAP Reporting Limit	MW-11 3/13/2012		MW-14 3/14/2012	
		RL	Qualifier	RL	Qualifier
2-Butanone (MEK)	20 µg/L	--	--	--	--
Acetone	20 µg/L	--	--	--	--
Benzene	1.0 µg/L	--	--	--	--
Carbon Tetrachloride	1.0 µg/L	--	--	--	--
Chloride (mg/L)	1 mg/L	--	--	--	--
Chloroform	1.0 µg/L	--	--	--	--
Chloromethane	1.0 µg/L	--	--	--	--
Dichloromethane (Methylene Chloride)	1.0 µg/L	--	--	--	--
Field pH (S.U.)	0.01 s.u.	0.01		0.01	
Gross Alpha minus Rn & U	1.0 pCi/L	--		--	
Manganese	10 µg/L	10 ug/L		--	--
Naphthalene	1.0 µg/L	--	--	--	--
Nitrate + Nitrite (as N)	0.1 mg/L	--	--	--	--
Selenium	5 µg/L	--	--	--	--
Sulfate (mg/L)	1 mg/L	--	--	--	--
TDS (mg/L)	10 mg/L	--	--	--	--
Tetrahydrofuran	1.0 µg/L	1 ug/L		--	--
Toluene	1.0 µg/L	--	--	--	--
Uranium	0.30 µg/L	--	--	--	--
Xylenes (total)	1.0 µg/L	--	--	--	--

## G-5B: Accelerated Reporting Limit Check

Constituent	QAP Reporting Limit	MW-25 3/14/2012		MW-26 3/14/2012	
		RL	Qualifier	RL	Qualifier
2-Butanone (MEK)	20 µg/L	--	--	20 ug/L	U
Acetone	20 µg/L	--	--	20 ug/L	U
Benzene	1.0 µg/L	--	--	1 ug/L	U
Carbon Tetrachloride	1.0 µg/L	--	--	1 ug/L	U
Chloride (mg/L)	1 mg/L	--	--	1 mg/L	
Chloroform	1.0 µg/L	--	--	500 ug/L	D
Chloromethane	1.0 µg/L	--	--	1 ug/L	U
Dichloromethane (Methylene Chloride)	1.0 µg/L	--	--	1 ug/L	
Field pH (S.U.)	0.01 s.u.	0.01		0.01	
Gross Alpha minus Rn & U	1.0 pCi/L	--		1 pCi/L	
Manganese	10 µg/L	--	--	--	--
Naphthalene	1.0 µg/L	--	--	1 ug/L	U
Nitrate + Nitrite (as N)	0.1 mg/L	--	--	0.1 mg/L	
Selenium	5 µg/L	--	--	--	--
Sulfate (mg/L)	1 mg/L	--	--	--	--
TDS (mg/L)	10 mg/L	--	--	10 mg/L	
Tetrahydrofuran	1.0 µg/L	--	--	--	--
Toluene	1.0 µg/L	--	--	1 ug/L	U
Uranium	0.30 µg/L	0.3 ug/L		0.3 ug/L	
Xylenes (total)	1.0 µg/L	--	--	1 ug/L	U

## G-5B: Accelerated Reporting Limit Check

Constituent	QAP Reporting Limit	MW-30 3/14/2012		MW-31 3/13/2012	
		RL	Qualifier	RL	Qualifier
2-Butanone (MEK)	20 µg/L	--	--	--	--
Acetone	20 µg/L	--	--	--	--
Benzene	1.0 µg/L	--	--	--	--
Carbon Tetrachloride	1.0 µg/L	--	--	--	--
Chloride (mg/L)	1 mg/L	1 mg/L		1 mg/L	
Chloroform	1.0 µg/L	--	--	--	--
Chloromethane	1.0 µg/L	--	--	--	--
Dichloromethane (Methylene Chloride)	1.0 µg/L	--	--	--	--
Field pH (S.U.)	0.01 s.u.	0.01		0.01	
Gross Alpha minus Rn & U	1.0 pCi/L	--		--	
Manganese	10 µg/L	--	--	--	--
Naphthalene	1.0 µg/L	--	--	--	--
Nitrate + Nitrite (as N)	0.1 mg/L	2 mg/L	D	2 mg/L	D
Selenium	5 µg/L	5 ug/L		--	--
Sulfate (mg/L)	1 mg/L	--	--	10 mg/L	D
TDS (mg/L)	10 mg/L	--	--	10 mg/L	
Tetrahydrofuran	1.0 µg/L	--	--	--	--
Toluene	1.0 µg/L	--	--	--	--
Uranium	0.30 µg/L	0.3 ug/L		--	--
Xylenes (total)	1.0 µg/L	--	--	--	--

## G-5B: Accelerated Reporting Limit Check

Constituent	QAP Reporting Limit	MW-35 3/13/2012	
		RL	Qualifier
2-Butanone (MEK)	20 µg/L	--	--
Acetone	20 µg/L	--	--
Benzene	1.0 µg/L	--	--
Carbon Tetrachloride	1.0 µg/L	--	--
Chloride (mg/L)	1 mg/L	--	--
Chloroform	1.0 µg/L	--	--
Chloromethane	1.0 µg/L	--	--
Dichloromethane (Methylene Chloride)	1.0 µg/L	--	--
Field pH (S.U.)	0.01 s.u.	0.01	
Gross Alpha minus Rn & U	1.0 pCi/L	1 pCi/L	
Manganese	10 µg/L	10 ug/L	
Naphthalene	1.0 µg/L	--	--
Nitrate + Nitrite (as N)	0.1 mg/L	--	--
Selenium	5 µg/L	--	--
Sulfate (mg/L)	1 mg/L	--	--
TDS (mg/L)	10 mg/L	--	--
Tetrahydrofuran	1.0 µg/L	--	--
Toluene	1.0 µg/L	--	--
Uranium	0.30 µg/L	0.3 ug/L	
Xylenes (total)	1.0 µg/L	--	--

G-6A: Trip Blank Evaluation

All trip blanks for the 2012 First Quarter samples were nondetect.

<b>Blank</b>	<b>Sample Date</b>	<b>Laboratory</b>
1202256	2/13/2012	American West Analytical Laboratories
1202371	2/20/2012	American West Analytical Laboratories
1203040	2/29/2012	American West Analytical Laboratories
1203144	3/8/2012	American West Analytical Laboratories
C12020681	2/15/2012	Energy Laboratories
C12020833	2/20/2012	Energy Laboratories
C12030065	2/29/2012	Energy Laboratories

G-6B: Trip Blank Evaluation

All trip blanks for the Accelerated 2012 First Quarter samples were non detect.

<b>Blank</b>	<b>Sample Date</b>	<b>Laboratory</b>
1	1/25/2012	Energy Laboratories
2	1/26/2012	American West Analytical Laboratories
3	3/14/2012	Energy Laboratories
4	3/13/2012	American West Analytical Laboratories

G-7A: QA/QC Evaluation for Routine Sample Duplicates

Constituent	MW-26	MW-65	%RPD
Ammonia (as N)	0.38	0.36	5.41
Nitrate + Nitrite (as N)	1.2	1.2	0.00
Iron	406	406	0.00
Manganese	630	609	3.39
Nickel	33	34	2.99
Selenium	22.1	22	0.45
Uranium	59.4	58.8	1.02
Chloroform	3300	2800	16.39
Dichloromethane (Methylene Chloride)	24	25	4.08
Chloride (mg/L)	40	64	46.15
Field pH (S.U.)	6.72	6.72	0.00
Fluoride (Mg/L)	0.3	0.28	6.90
Lab pH (S.U.)	6.95	6.95	0.00
Sulfate (mg/L)	1840	1890	2.68
TDS (mg/L)	3150	3230	-2.51
Bicarbonate as HCO <sub>3</sub>	389	397	-2.04
Calcium	496	494	0.40
Magnesium	172	173	-0.58
Potassium	11	10.8	1.83
Sodium	165	167	-1.20
<b>Radiologic Duplicate Tests</b>			
Gross Alpha minus Rn & U MDC	0.2	0.2	0.00
Gross Alpha minus Rn & U*	1.5	1.8	0.707
Gross Alpha minus Rn & U Precision (±)	0.3	0.3	

\* Duplicate checks reported for gross alpha minus RN and U are not %RPD. Calculated values are based on the formula in the approved QAP.

Constituent	MW-14	MW-70	%RPD
Ammonia (as N)	0.05	0.05	0.00
Cadmium	1.42	1.44	1.40
Manganese	1790	1790	0.00
Nickel	29	25	14.81
Tin	100	100	0.00
Uranium	63.5	64.6	1.72
Zinc	13	12	8.00
Tetrahydrofuran	1	1	0.00
Chloride (mg/L)	18	19	5.41
Field pH (S.U.)	6.57	6.57	0.00
Fluoride (Mg/L)	0.15	0.16	6.45
Lab pH (S.U.)	6.84	6.84	0.00
TDS (mg/L)	3560	3600	-1.12
Sulfate (mg/L)	2160	2340	8.00
<b>Radiologic Duplicate Tests</b>			
Gross Alpha minus Rn & U MDC	0.2	0.2	0.00
Gross Alpha minus Rn & U*	0.2	0.04	0.72
Gross Alpha minus Rn & U Precision (±)	0.2	0.1	0.00

\* Duplicate checks reported for gross alpha minus RN and U are not %RPD. Calculated values are based on the formula in the approved QAP.

G-8A: Radiologics Counting Error

Well	Sample Date	Gross Alpha minus Rn & U	Gross Alpha minus Rn & U Precision ( $\pm$ )	Counting Error $\leq$ 20%	GWCL	Within GWCL?
MW-02	2/22/2012	0.6	0.2	N	3.2	Y
MW-11	2/13/2012	0.5	0.2	N	3.75	Y
MW-14	2/21/2012	0.2 U	0.2	N	7.5	NC
MW-25	2/14/2012	0.8	0.2	N	7.5	Y
MW-26	2/21/2012	1.5	0.3	Y	4.69	Y
MW-27	2/28/2012	2.3	0.6	N	2	N
MW-30	2/14/2012	0.9	0.3	N	3.75	Y
MW-31	2/13/2012	0.7	0.2	N	7.5	Y
MW-32	2/21/2012	1.8	0.3	Y	3.33	Y
MW-35	2/14/2012	4.1	0.5	Y	3.75	NA
MW-36	2/20/2012	0.5	0.2	N	No GWCLs have been set	
MW-37	2/29/2012	2.3	0.6	N		
MW-65	2/21/2012	1.8	0.3	Y	4.69	Y
MW-70	2/21/2012	0.04 U	0.1	N	2.42	NC

N/A - the counting error is less than 20% of the activity as required by the GWDP. The value is above the GWCL and this check column is not applicable.

NC - Sample results were nondetect and as such the check is not applicable

**G-8B: Radiologics Counting Error for Accelerated Samples**

<b>Well</b>	<b>Sample Date</b>	<b>Gross Alpha minus Rn &amp; U</b>	<b>Gross Alpha minus Rn &amp; U Precision (±)</b>	<b>Counting Error ≤ 20%</b>	<b>GWCL</b>
MW-35	1/24/2012	6.5	1.2	Y	NA
MW-35	3/13/2012	6.2	0.7	Y	NA
MW-26	3/14/2012	4	0.6	Y	4.69

N/A - the counting error is less than 20% of the activity as required by the GWDP. The value is above the GWCL and this check column is not applicable.

G-9A: Laboratory Matrix QC

**Matrix Spike % Recovery Comparison**

Lab Report	Well	Analyte	MS %REC	MSD %REC	REC Range	RPD
C12020681	MW-26	Acetone	133	130	70 - 130	2.4
C12020681	MW-35	Manganese*	NC	NC	70 - 130	NC
C12020681	MW-65	Chloroform	132	129	70 - 130	1
C12020833	MW-26	Manganese*	NC	NC	70 - 130	NC
C12020833	MW-65	Chloroform	132	129	70 - 130	1

NA = MS samples were not Denison samples.

\*= Recovery was not calculated as the analyte level in the sample was greater than 4 times the spike level.

**Surrogate % Recovery**

Lab Report	Well/Sample	Analyte	Surrogate %REC	Lab Specified REC Range	QAP Required Range
C12020681	MW-11	p-Bromofluorobenzene	130	80-120	None
C12020681	MW-25	p-Bromofluorobenzene	129	80-120	None
C12020681	MW-26	p-Bromofluorobenzene	129	80-120	None
C12020681	MW-30	p-Bromofluorobenzene	126	80-120	None
C12020681	MW-31	p-Bromofluorobenzene	128	80-120	None
C12020681	MW-35	p-Bromofluorobenzene	128	80-120	None
C12020681	MW-65	p-Bromofluorobenzene	133	80-120	None
C12020681	Trip Blank	p-Bromofluorobenzene	132	80-120	None
C12020681	Method Blank	p-Bromofluorobenzene	134	80-120	None
C12020681	Method Blank	p-Bromofluorobenzene	129	80-120	None
C12020833	MW-14	p-Bromofluorobenzene	130	80-120	None
C12020833	MW-36	p-Bromofluorobenzene	130	80-120	None
C12020833	MW-70	p-Bromofluorobenzene	130	80-120	None
C12020833	Trip Blank	p-Bromofluorobenzene	131	80-120	None
C12020833	Method Blank	p-Bromofluorobenzene	129	80-120	None

**Method Blank detections**

Lab Report	Well/Sample	Analyte	Reported Concentration	QAP Required RL
C12020681	NA	Bicarbonate as HCO3	3.81 mg/L	1 mg/L
C12020681	NA	Sulfate	14.8 mg/L	10 mg/L
C12020833	NA	Bicarbonate as HCO3	4.70 mg/L	1 mg/L
C12030065	NA	Bicarbonate as HCO3	4.10 mg/L	1 mg/L

G-9B: Accelerated Laboratory Matrix QC

**Matrix Spike % Recovery Comparison**

Lab Report	Well	Analyte	MS %REC	MSD %REC	REC Range	RPD %
1201399 - January Accelerated	MW-11	Tetrahydrofuran	153	151	43-146	1.45
C12010822 - January Accelerated	MW-35	Manganese*	NC	NC	70-130	NC
C12010822 - January Accelerated	MW-26	Napthalene	133	134	70-130	0.6
C12030624 - March Accelerated	NA	Methyl ethyl ketone	126	137	70-130	7.9

\*= Recovery was not calculated as the analyte level in the sample was greater than 4 times the spike level.

NA = MS samples were not Denison samples.

**Laboratory Control Sample**

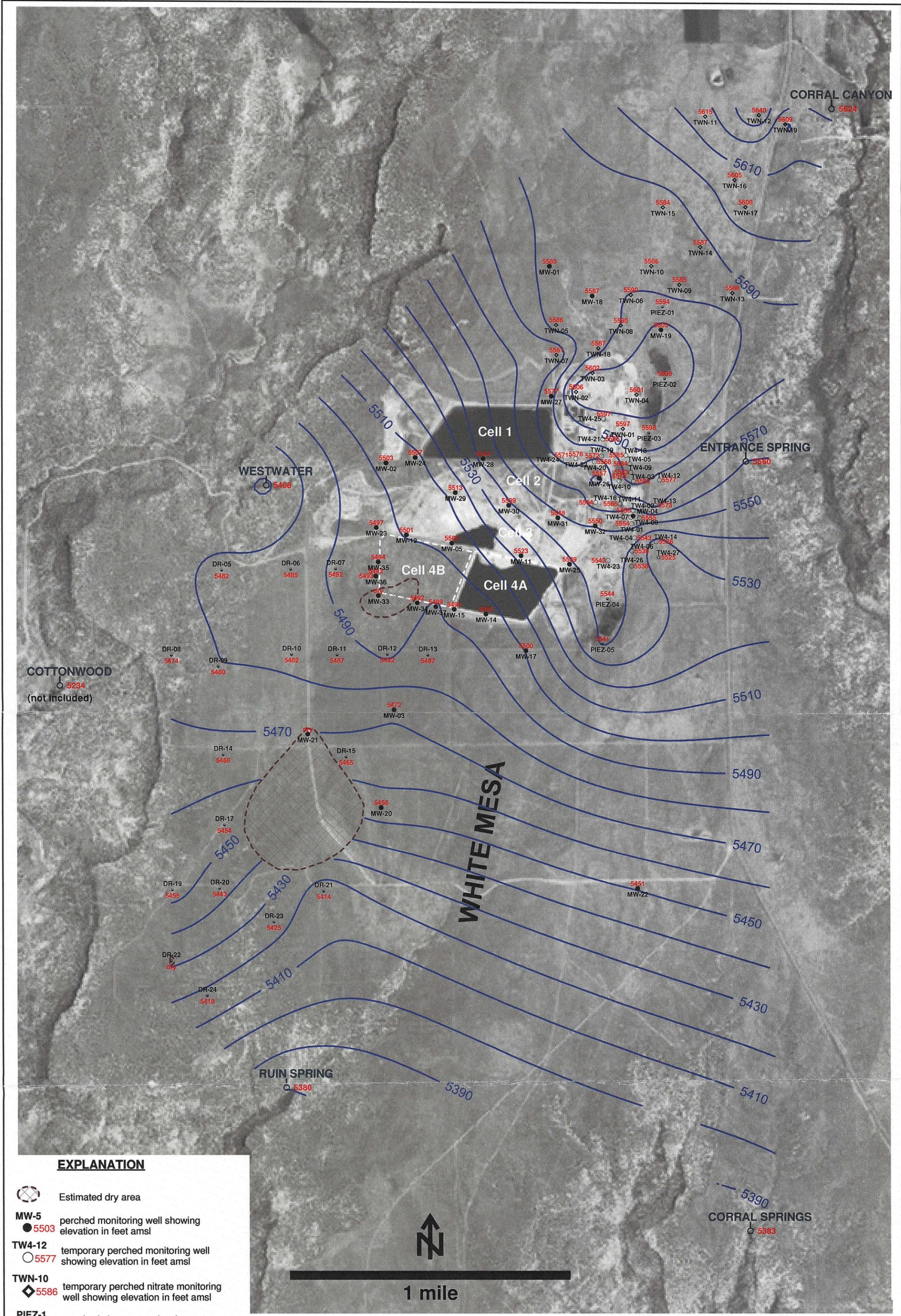
Lab Report	Analyte	LCS %REC	Lab Specified REC Range	QAP Required Range
C12010822 - January Accelerated	Napthalene	149	70-130	None
C12030624 - March Accelerated	Acetone	133	70-130	None
C12030624 - March Accelerated	Methyl ethyl ketone	138	70-130	None

**Surrogate % Recovery**

Lab Report	Well/Sample	Analyte	Surrogate %REC	Lab Specified REC Range	QAP Required Range
C12030624 - March Accelerated	NA	Dibromofluoromethane	131	70-130	None

Tab H

Kriged Current Quarterly Groundwater Contour Map



**EXPLANATION**

-  Estimated dry area
- MW-5**  
 5503 perched monitoring well showing elevation in feet amsl
- TW4-12**  
 5577 temporary perched monitoring well showing elevation in feet amsl
- TWN-10**  
 5586 temporary perched nitrate monitoring well showing elevation in feet amsl
- PIEZ-1**  
 5594 perched piezometer showing elevation in feet amsl
- TW4-27**  
 5525 temporary perched monitoring well installed October, 2011 showing elevation in feet amsl
- RUIN SPRING**  
 5380 seep or spring showing elevation in feet amsl



**HYDRO  
GEO  
CHEM, INC.**

**KRIGED 1st QUARTER, 2012 WATER LEVELS  
WHITE MESA SITE**

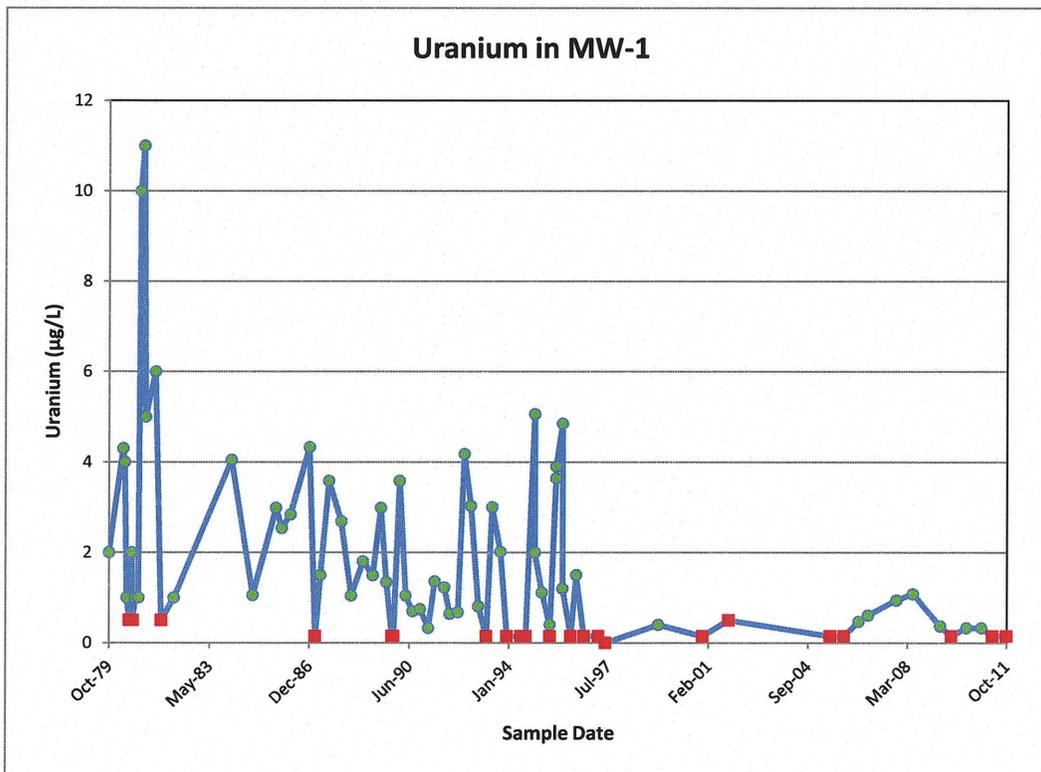
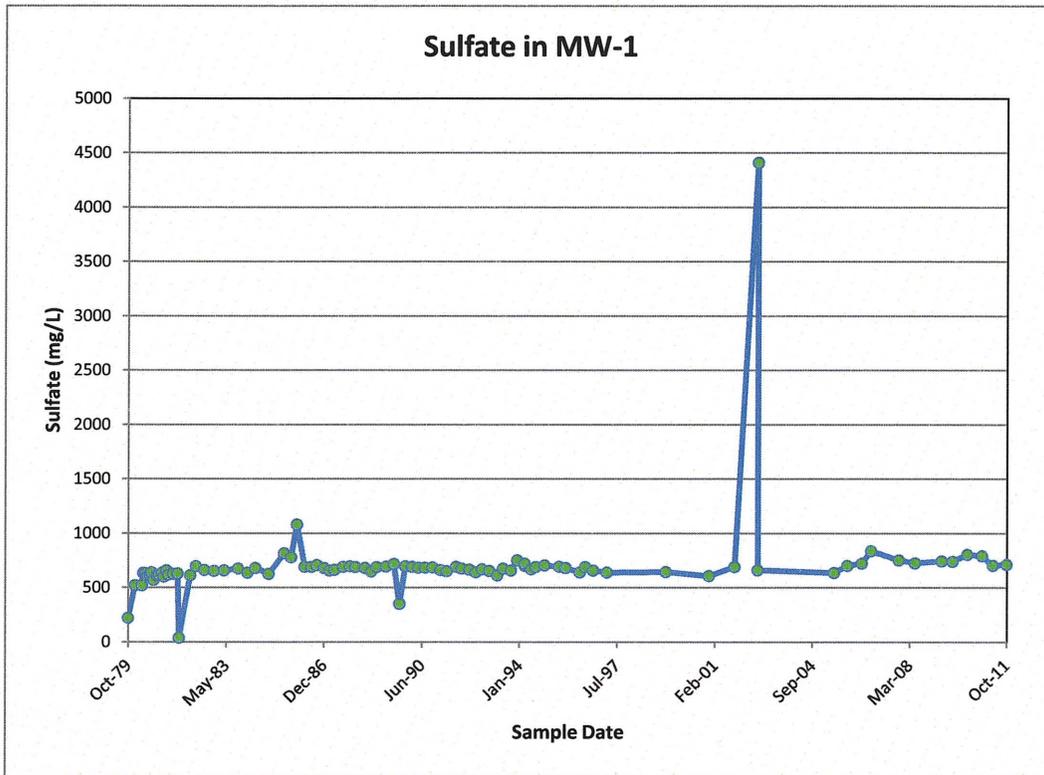
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Tab I

Groundwater Time Concentration Plots

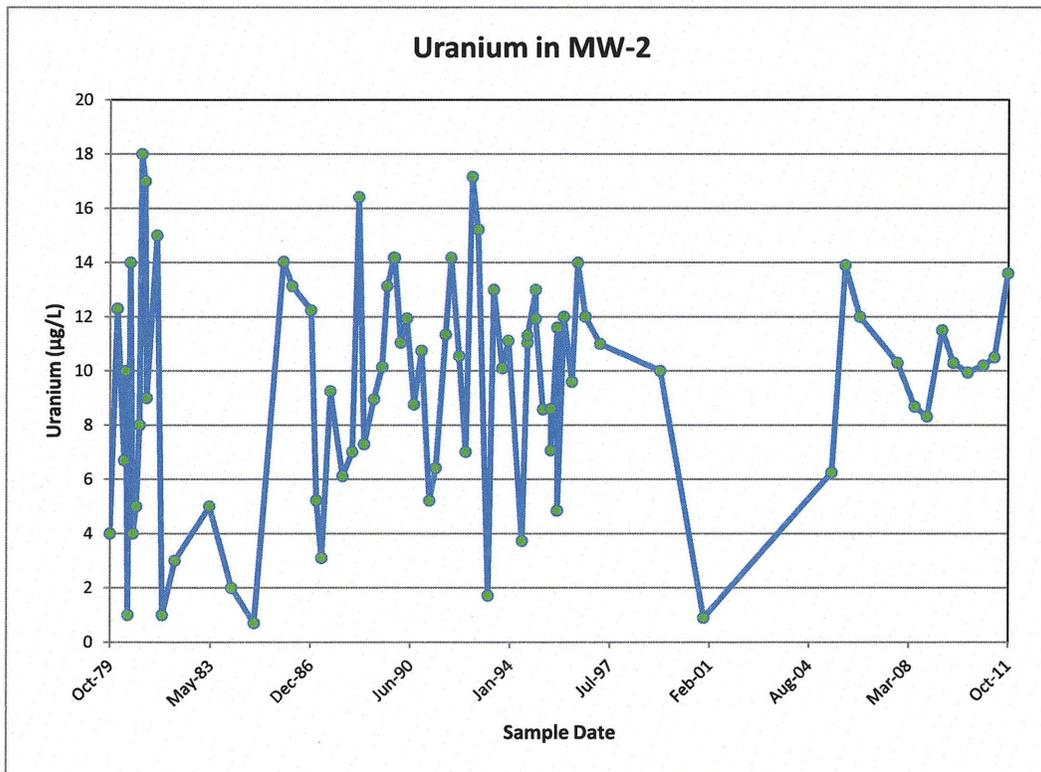
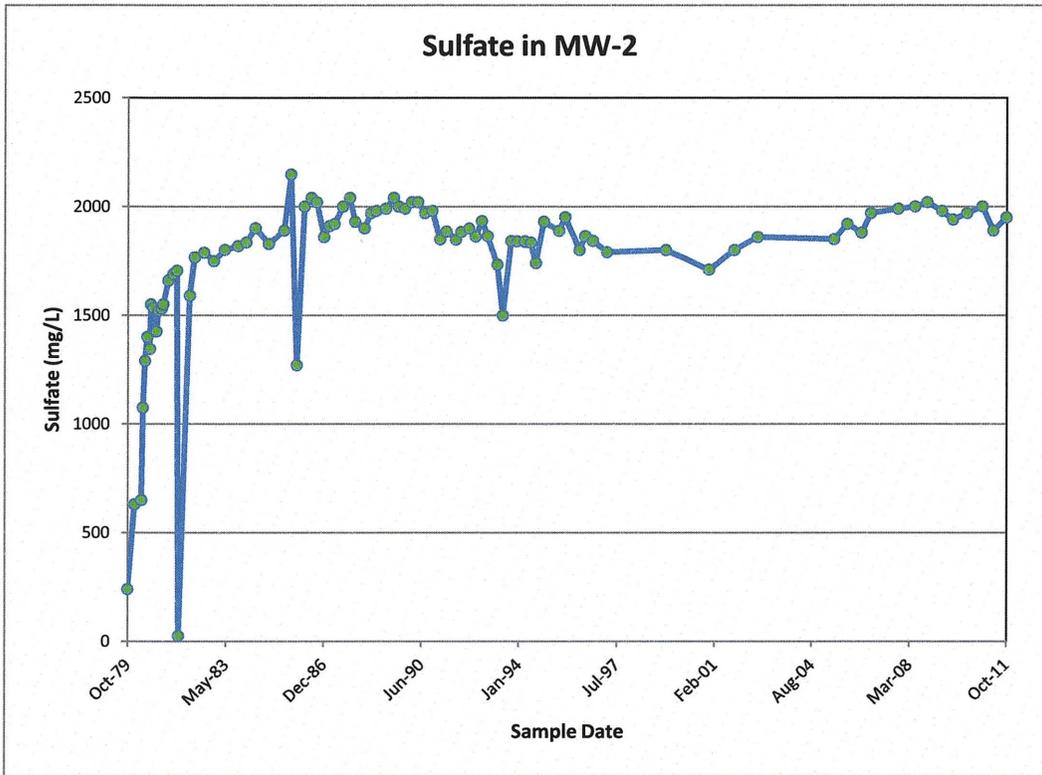


## Time concentration plots for MW-1

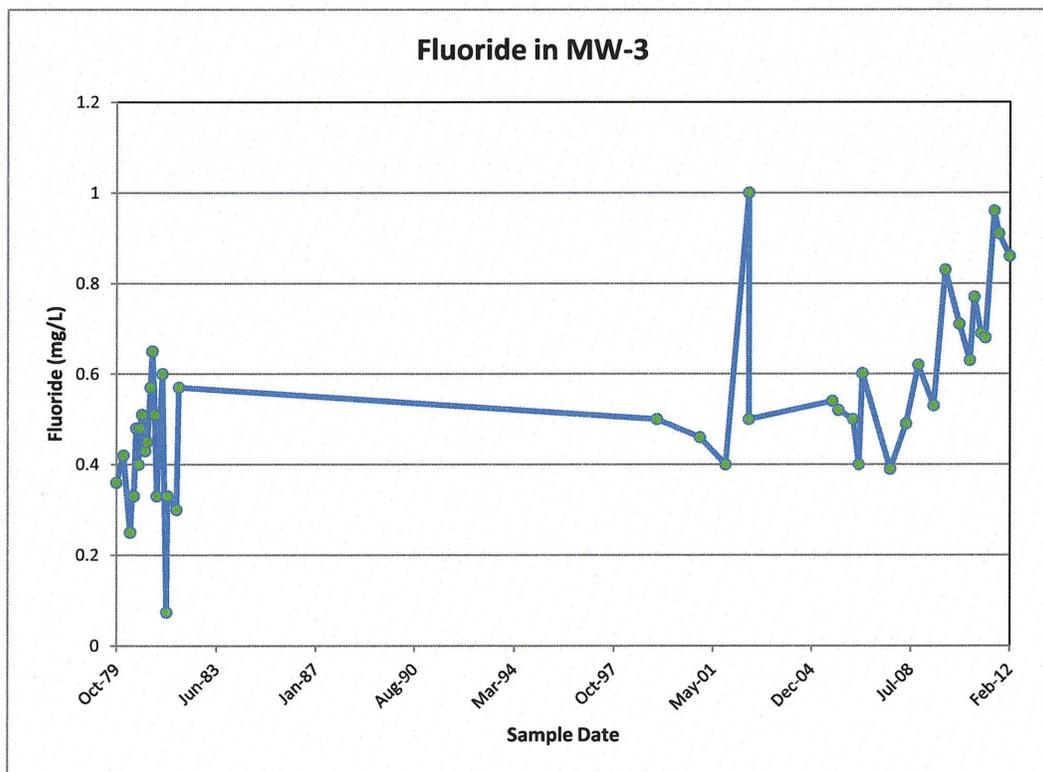
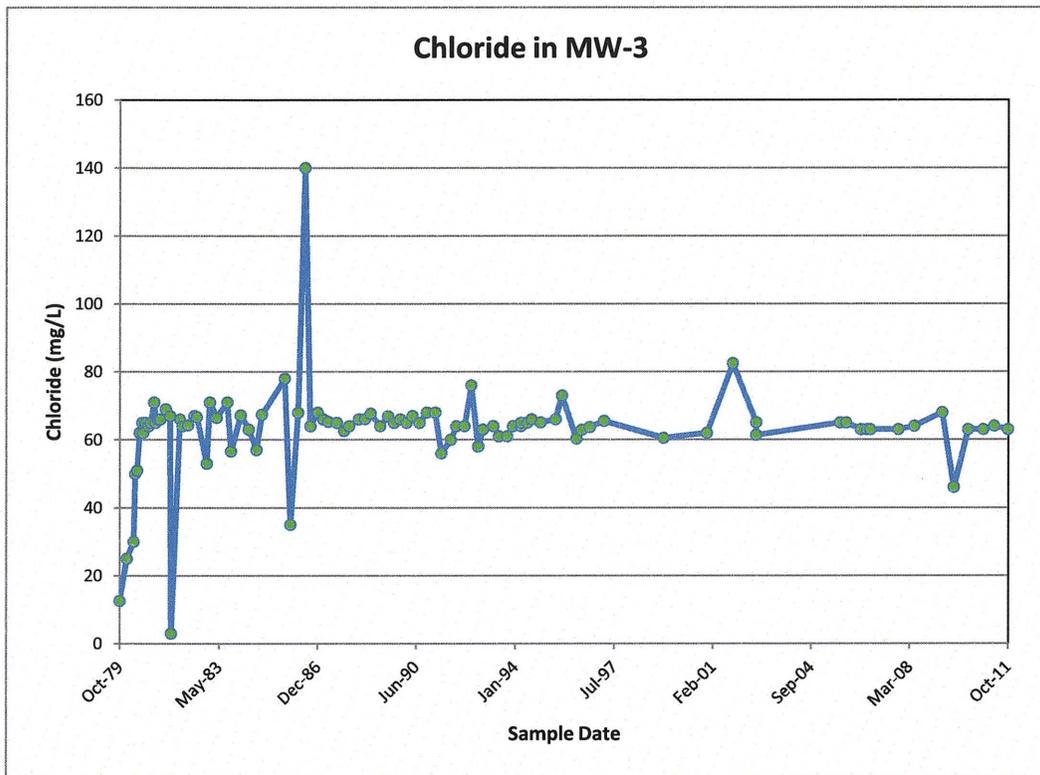




### Time concentration plots for MW-2

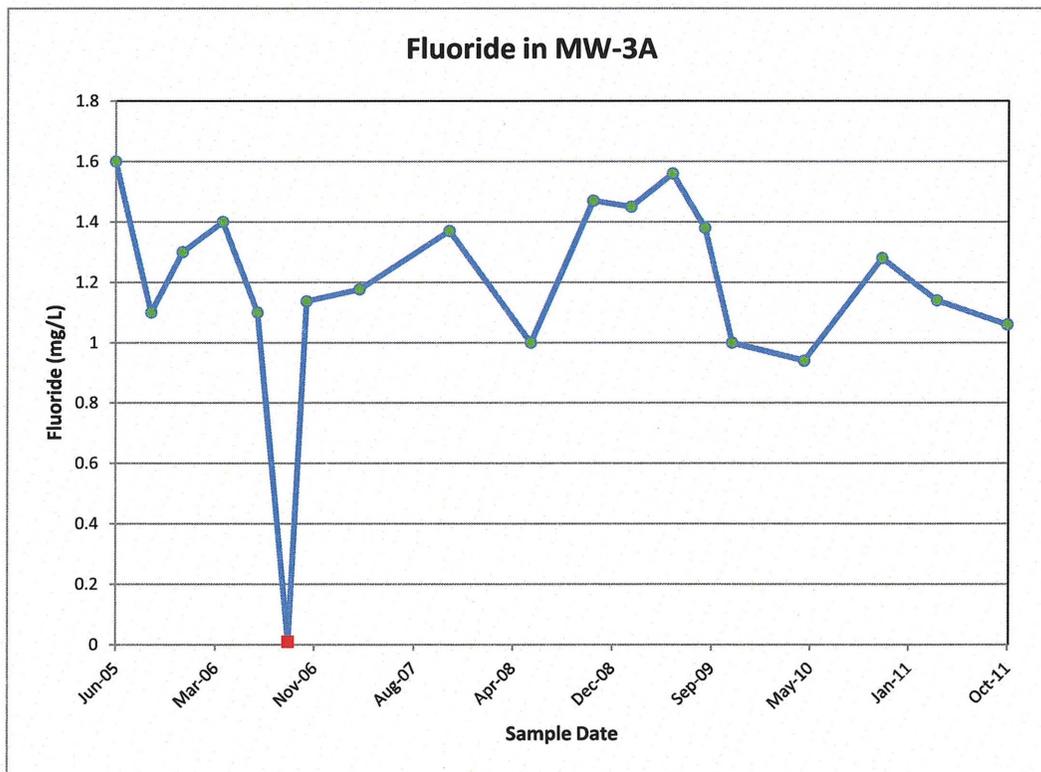
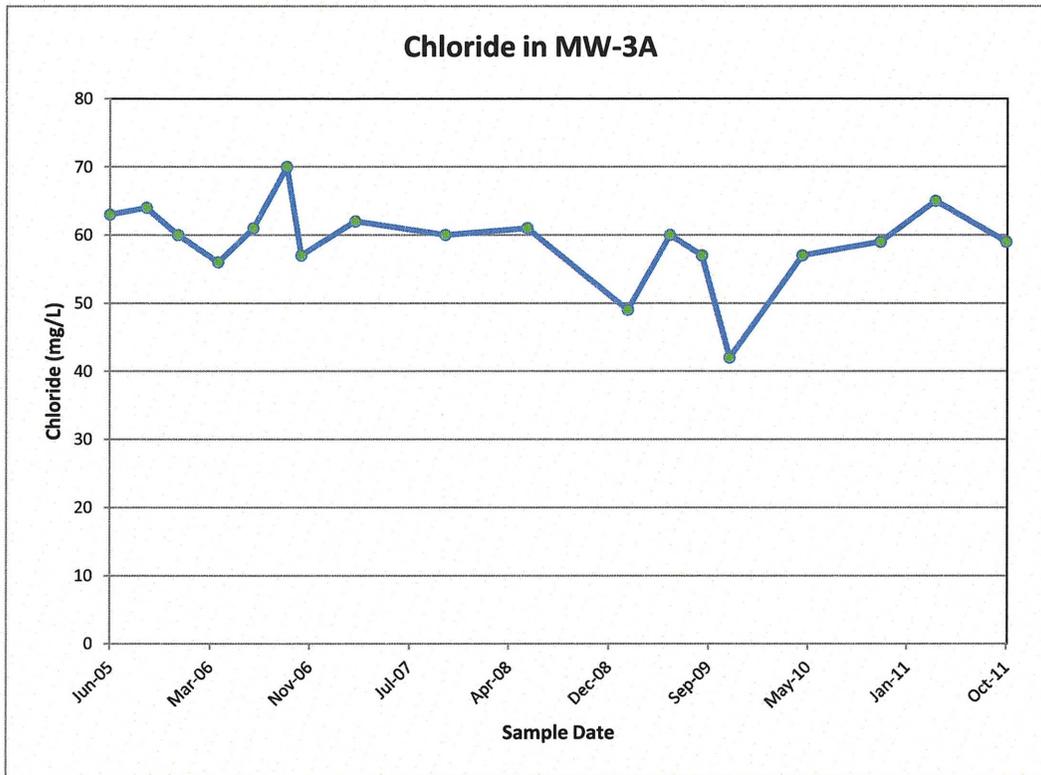


### Time concentration plots for MW-3

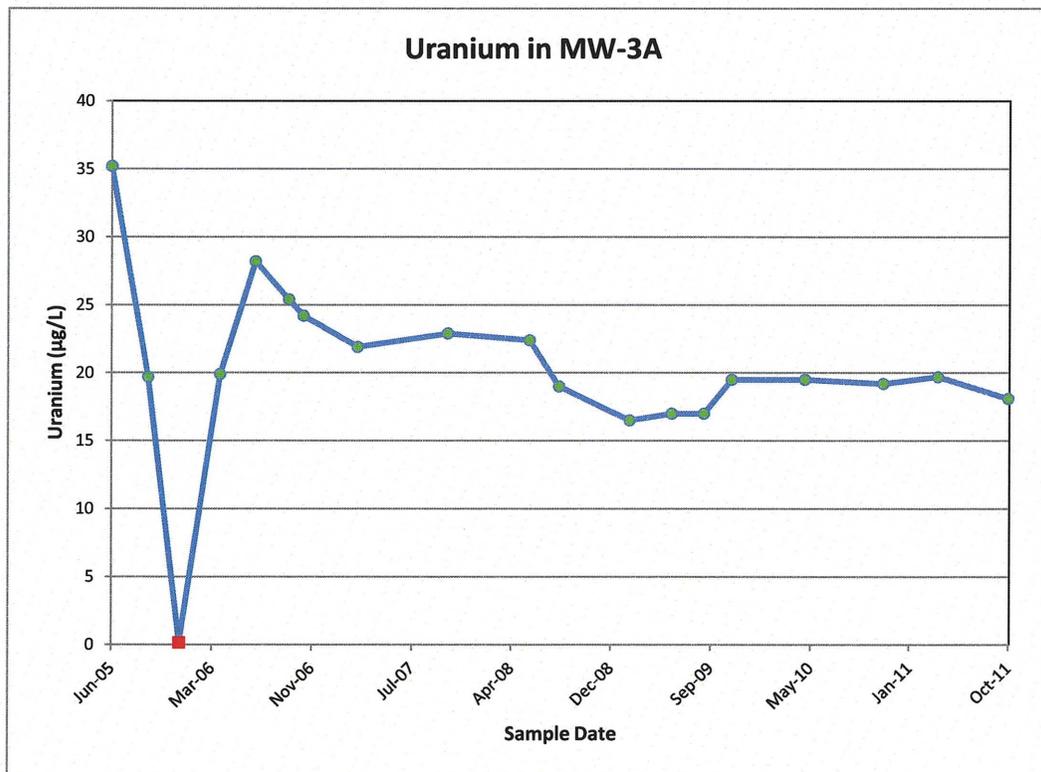
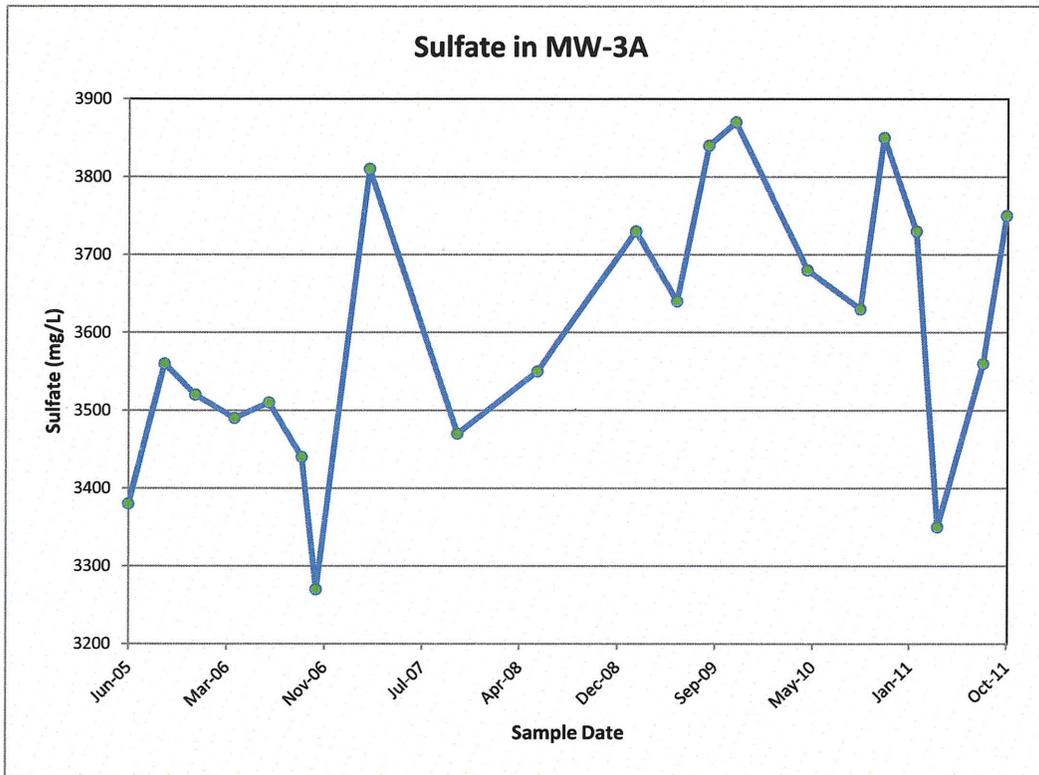




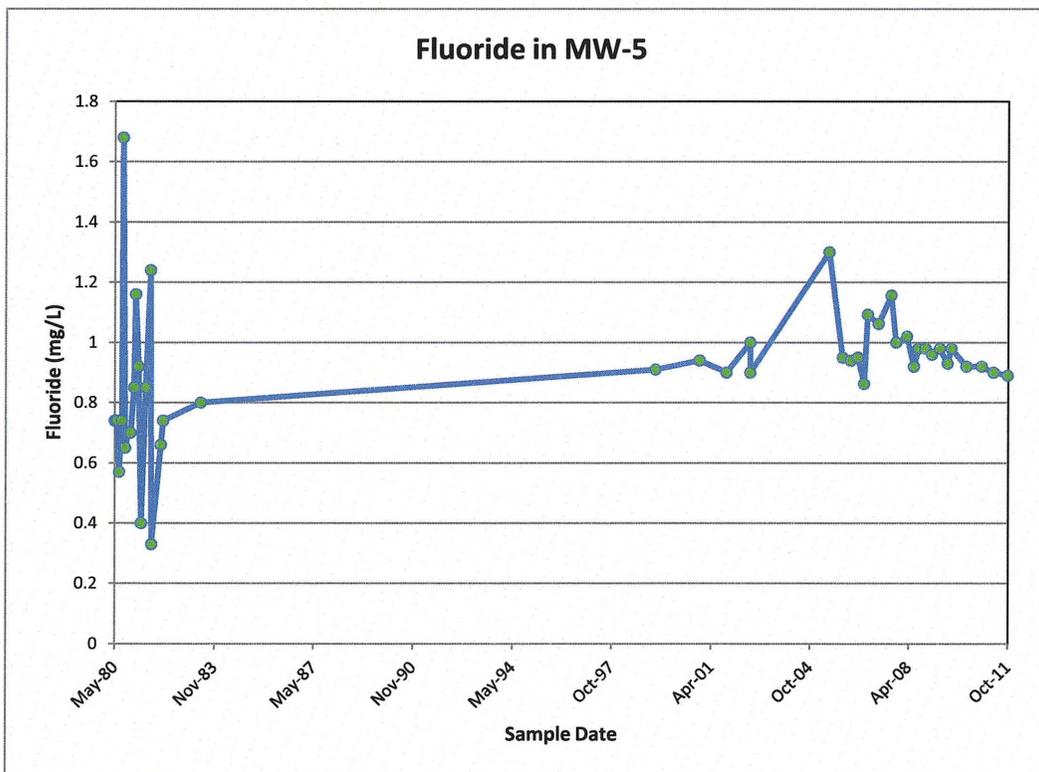
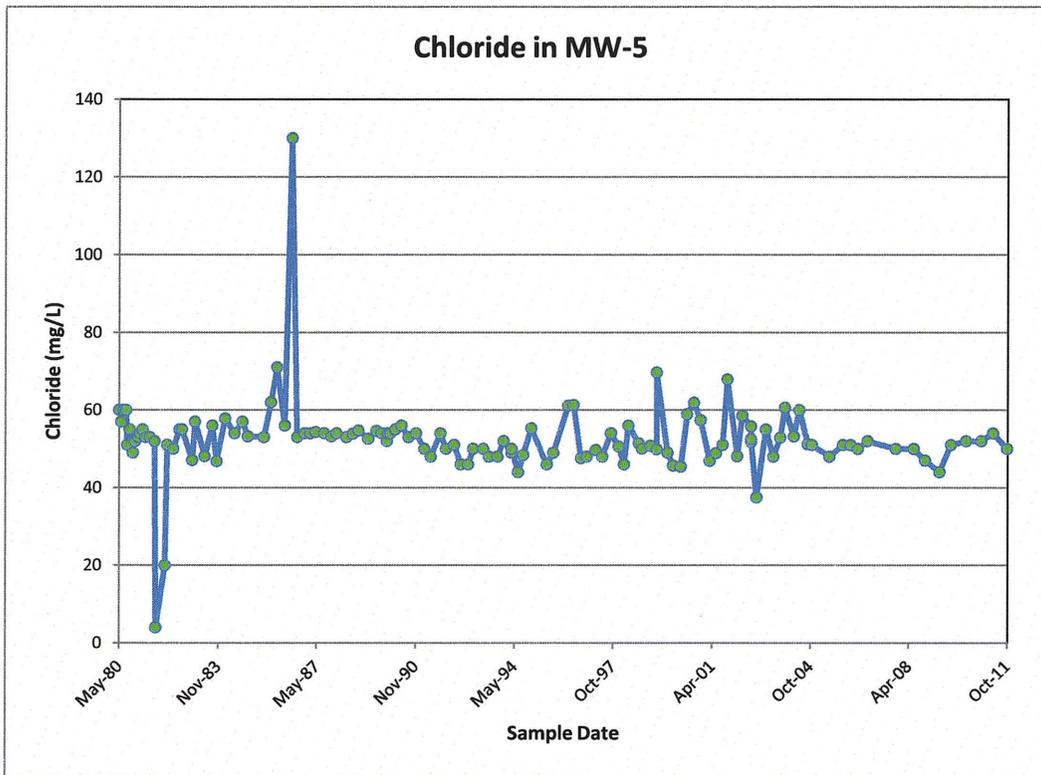
### Time concentration plots for MW-3A



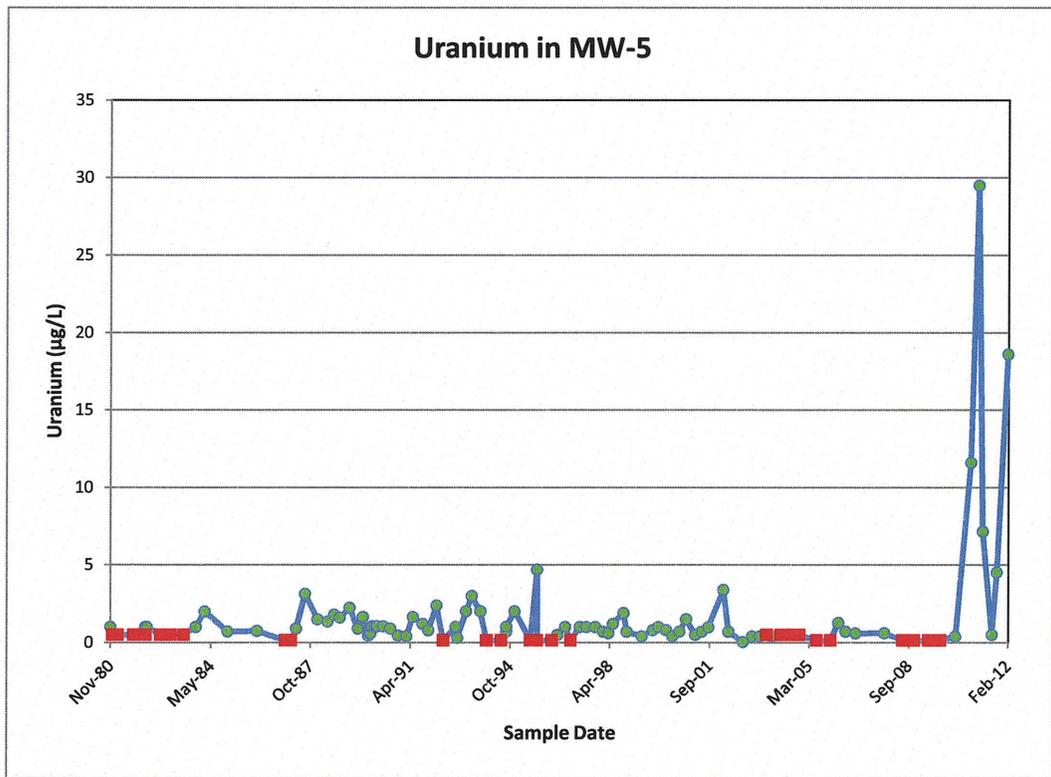
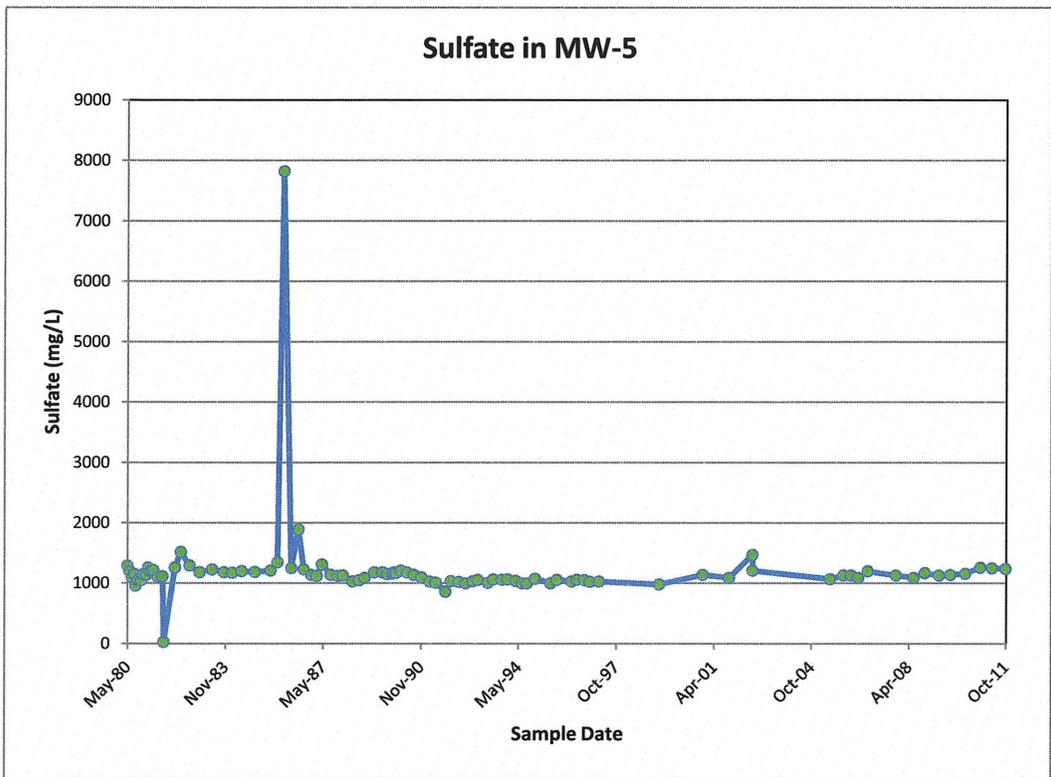
## Time concentration plots for MW-3A



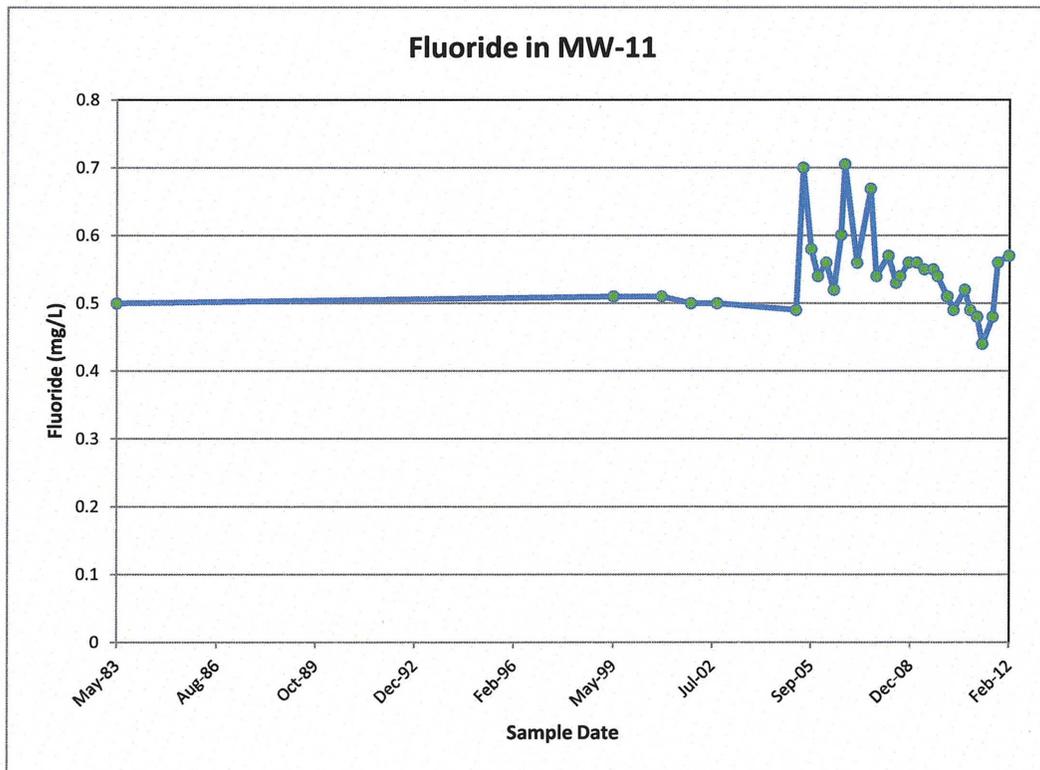
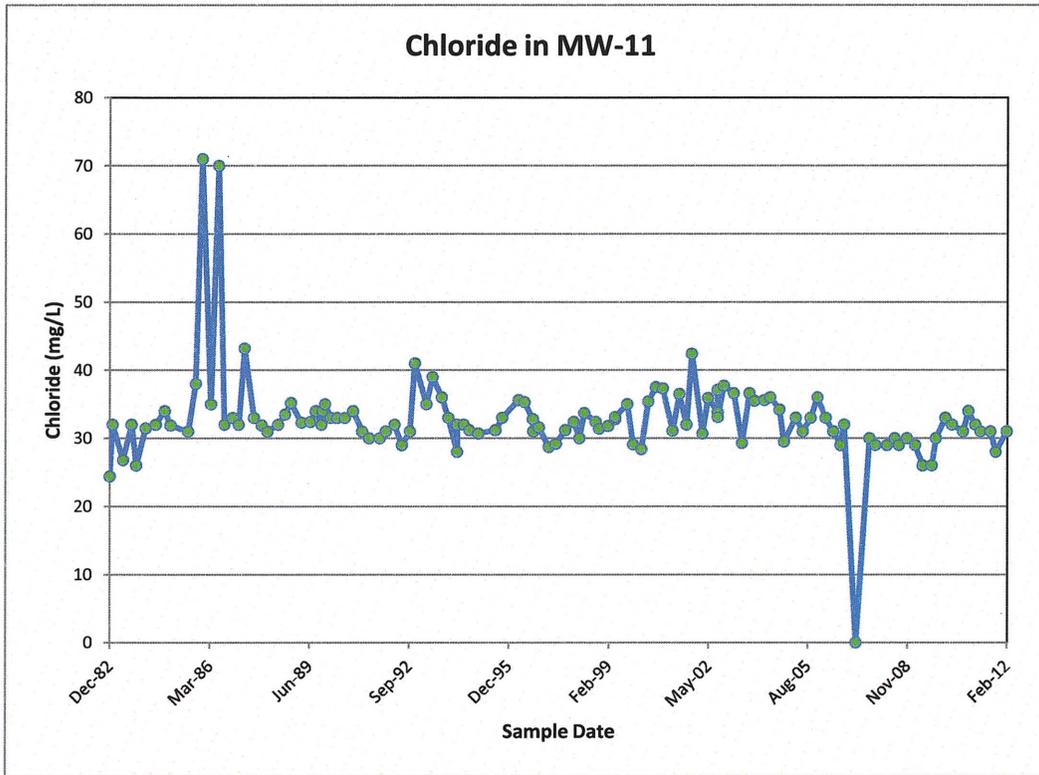
## Time concentration plots for MW-5



### Time concentration plots for MW-5

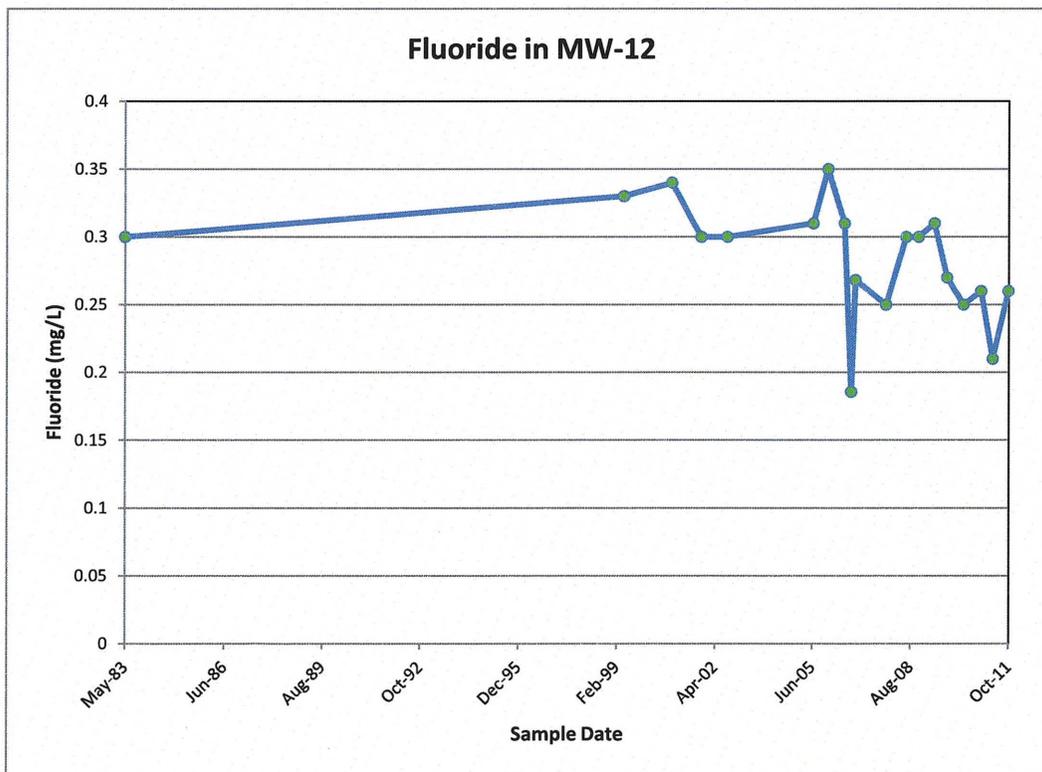
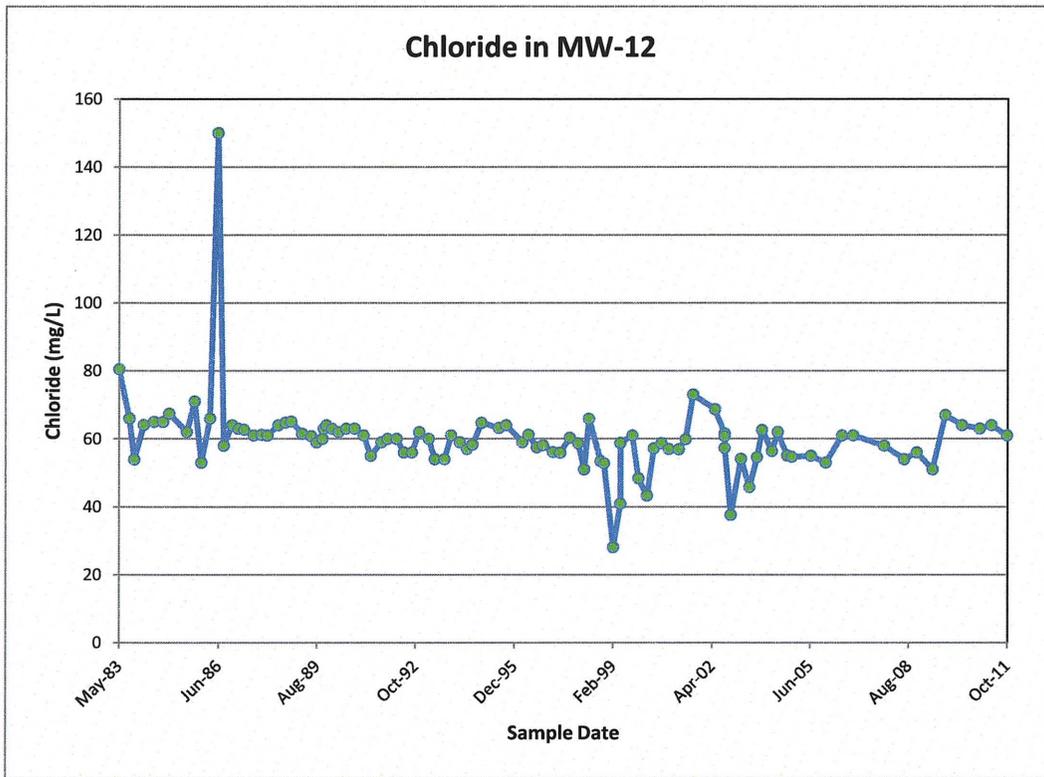


## Time concentration plots for MW-11

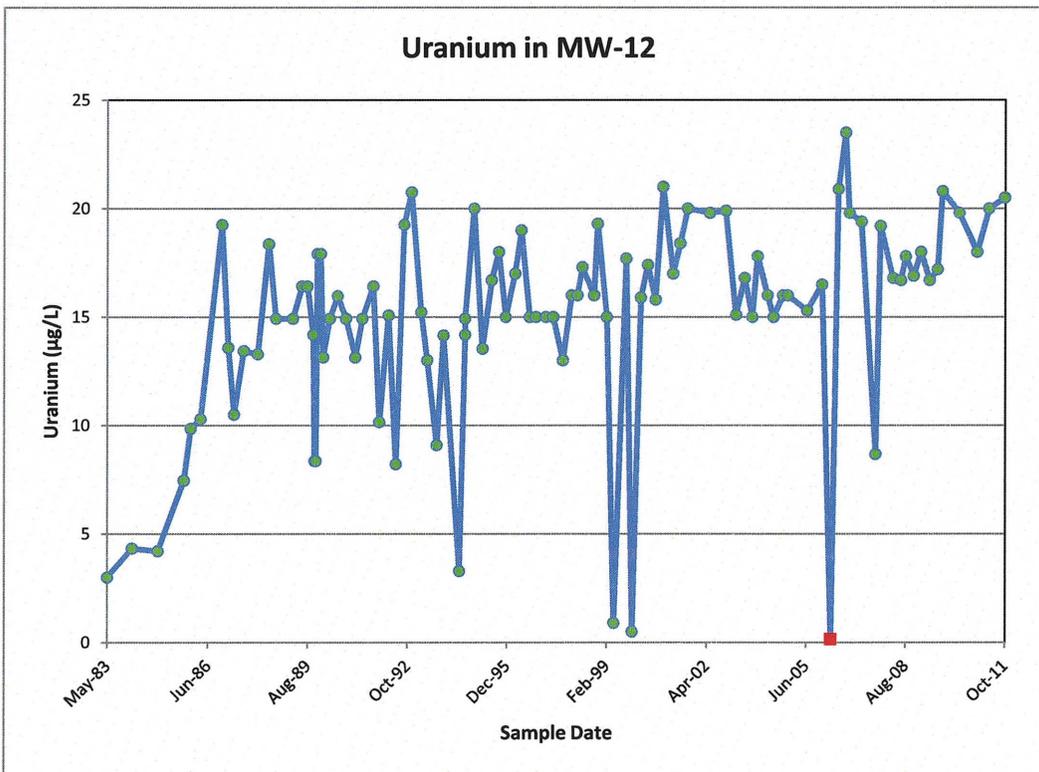
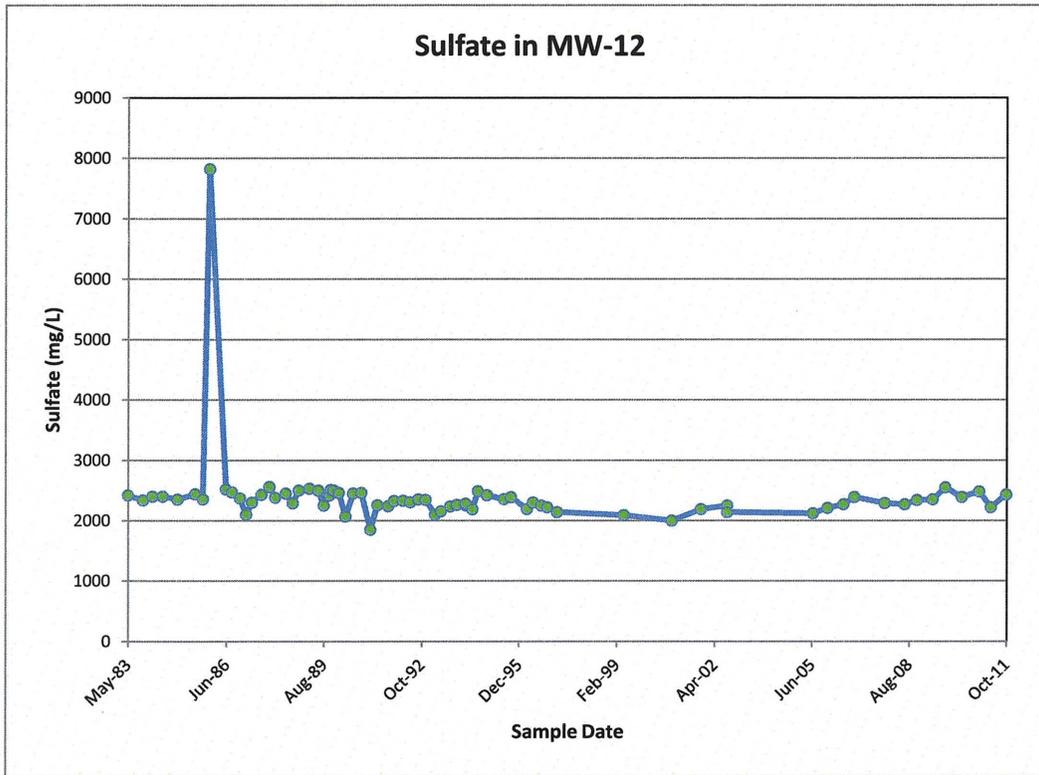




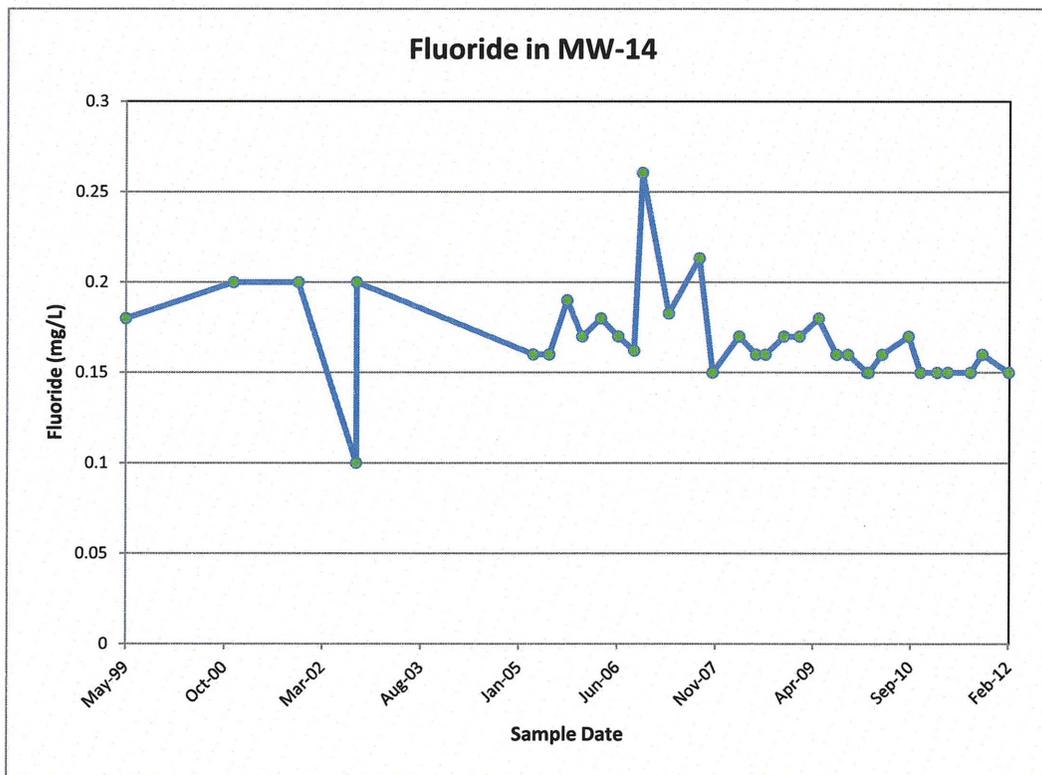
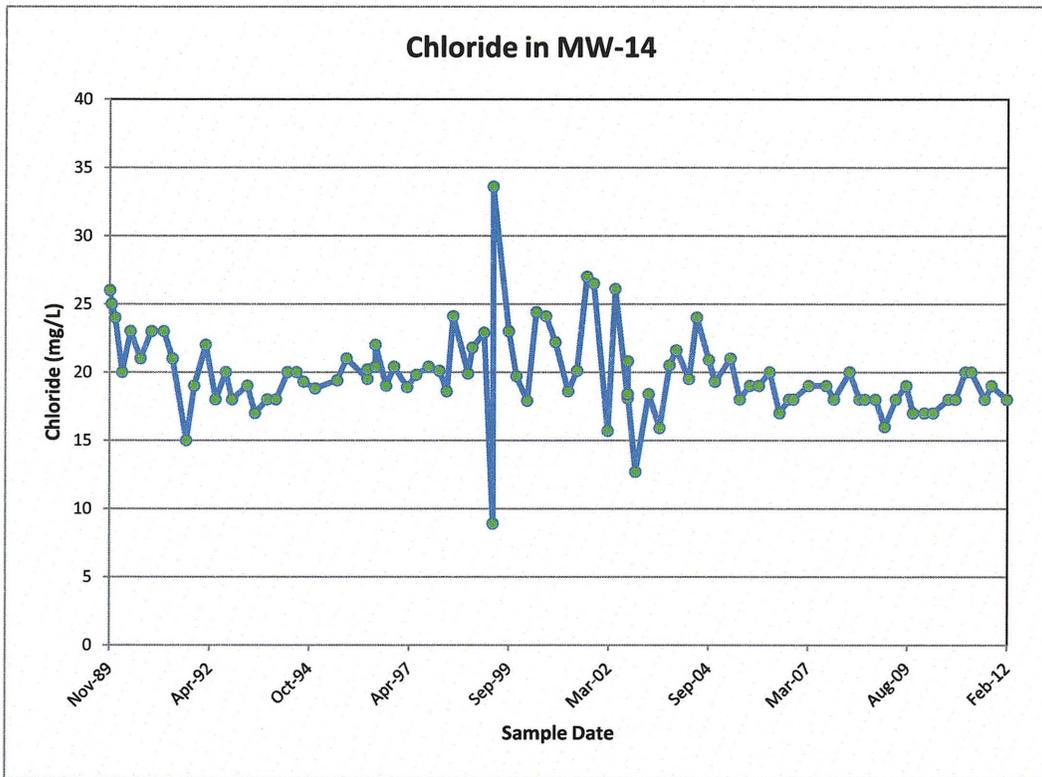
## Time concentration plots for MW-12



## Time concentration plots for MW-12

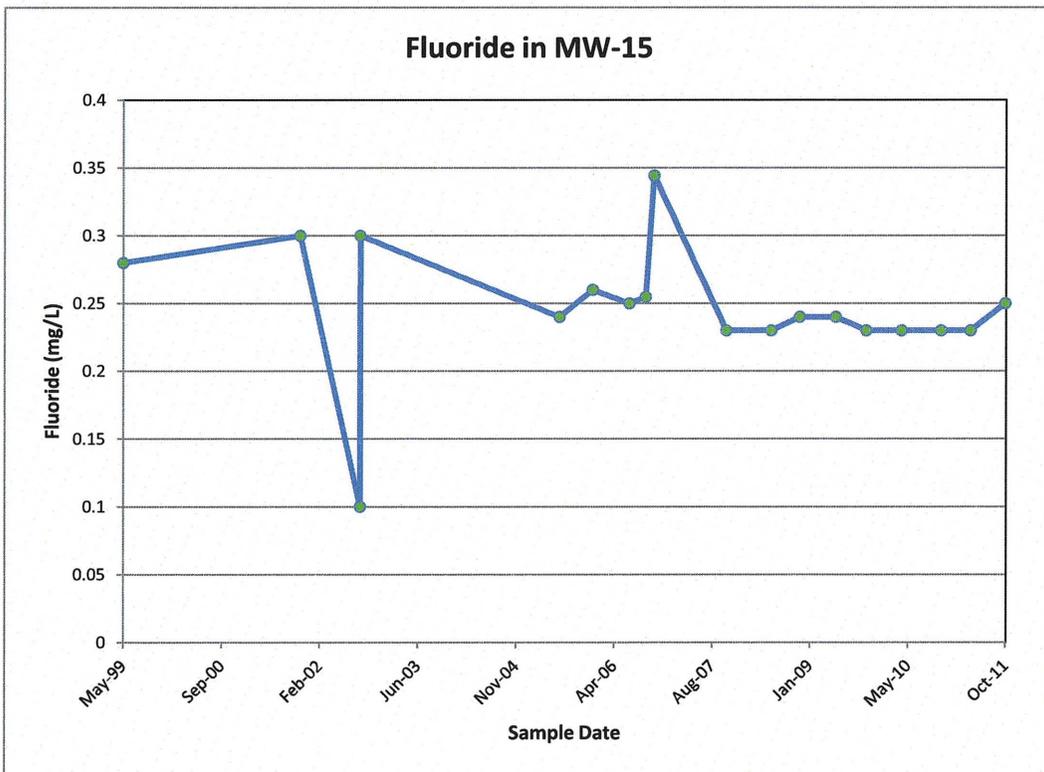
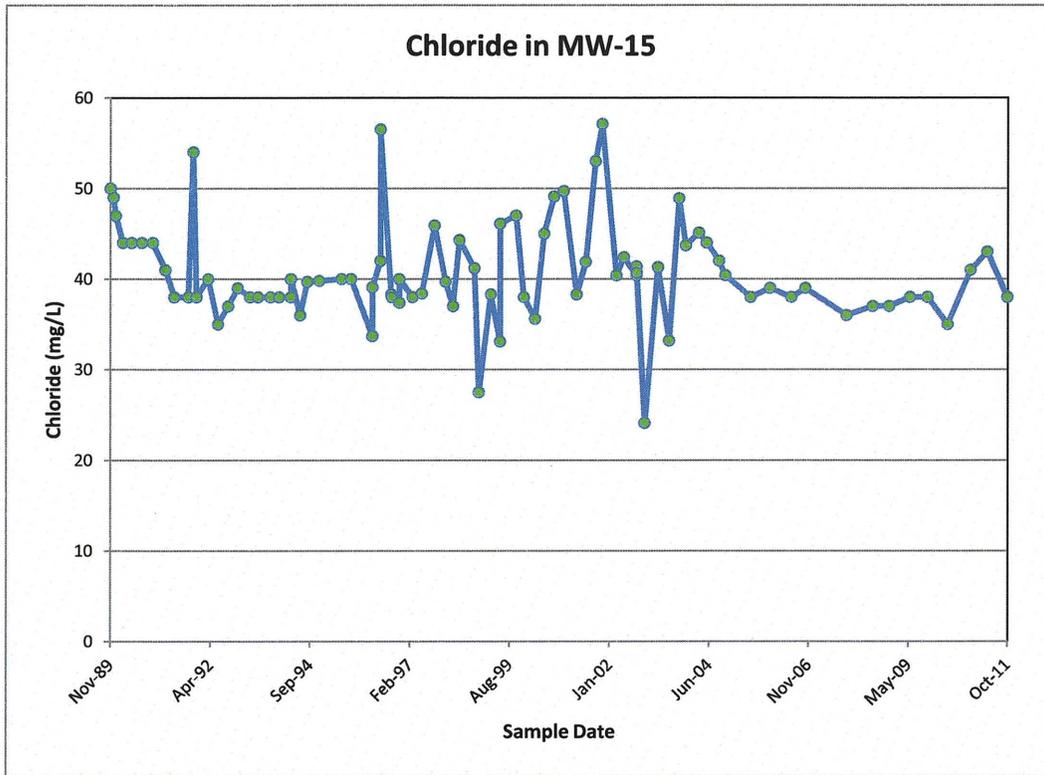


## Time concentration plots for MW-14

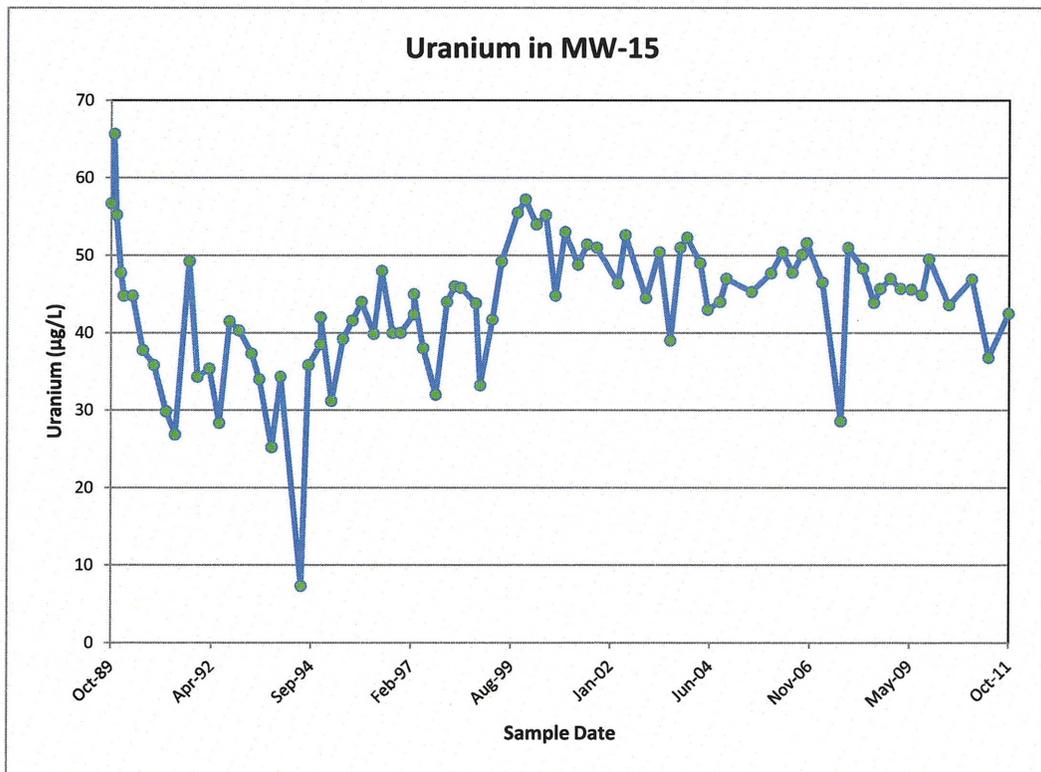
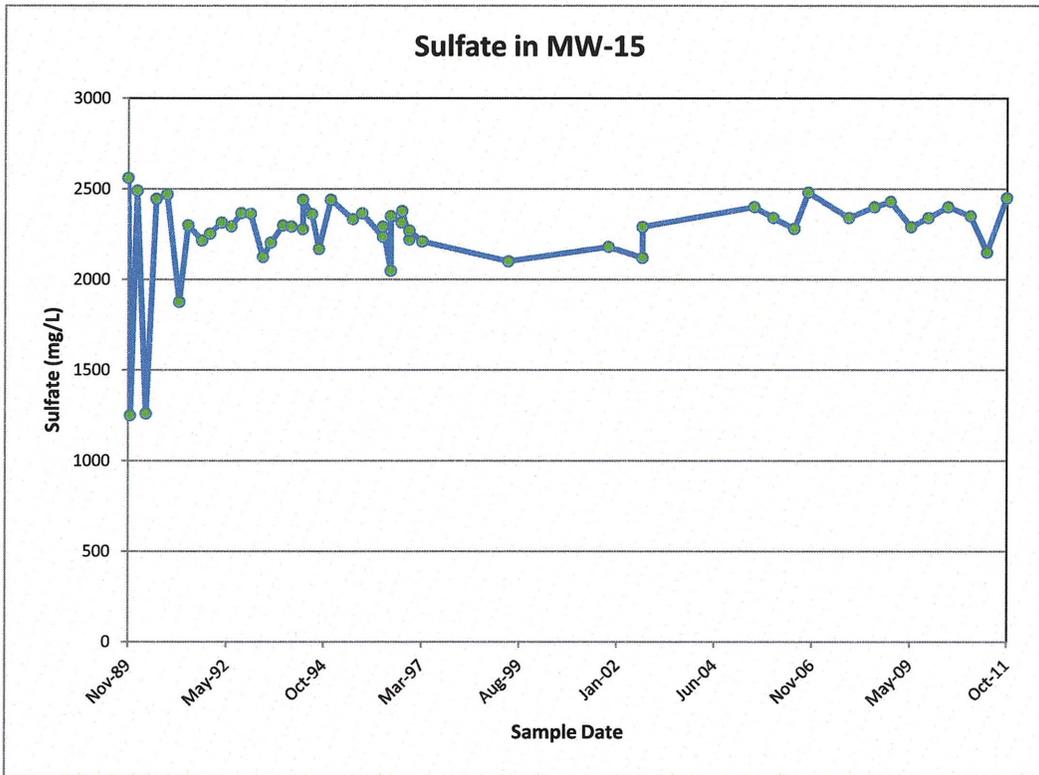




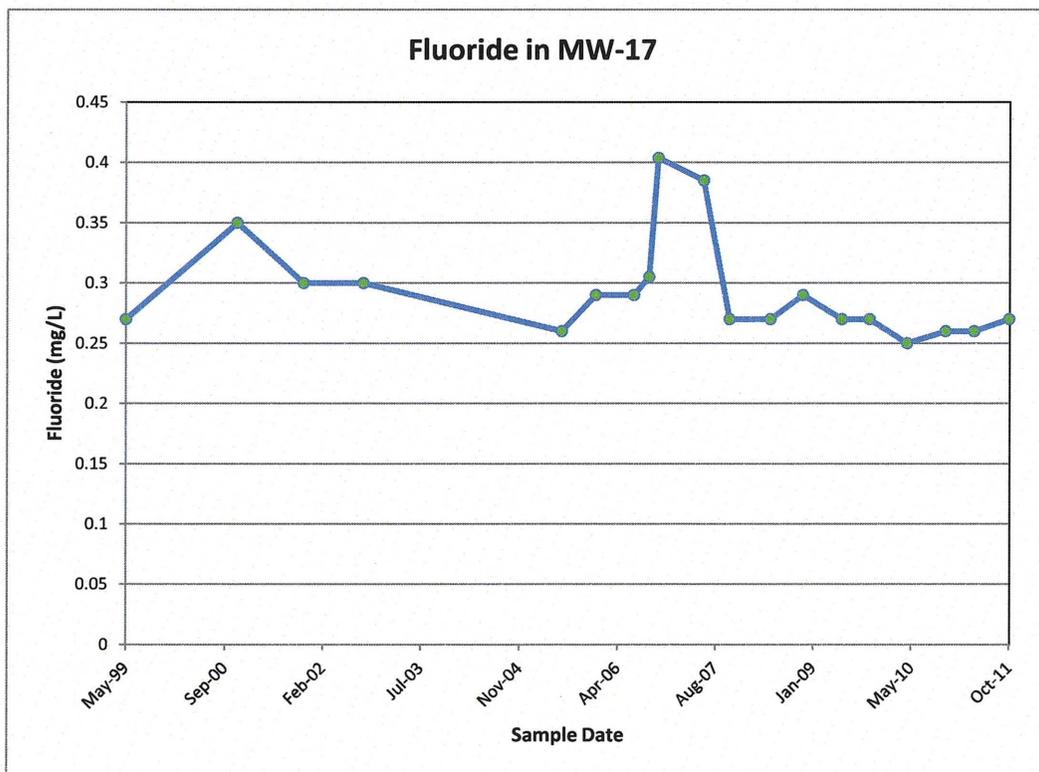
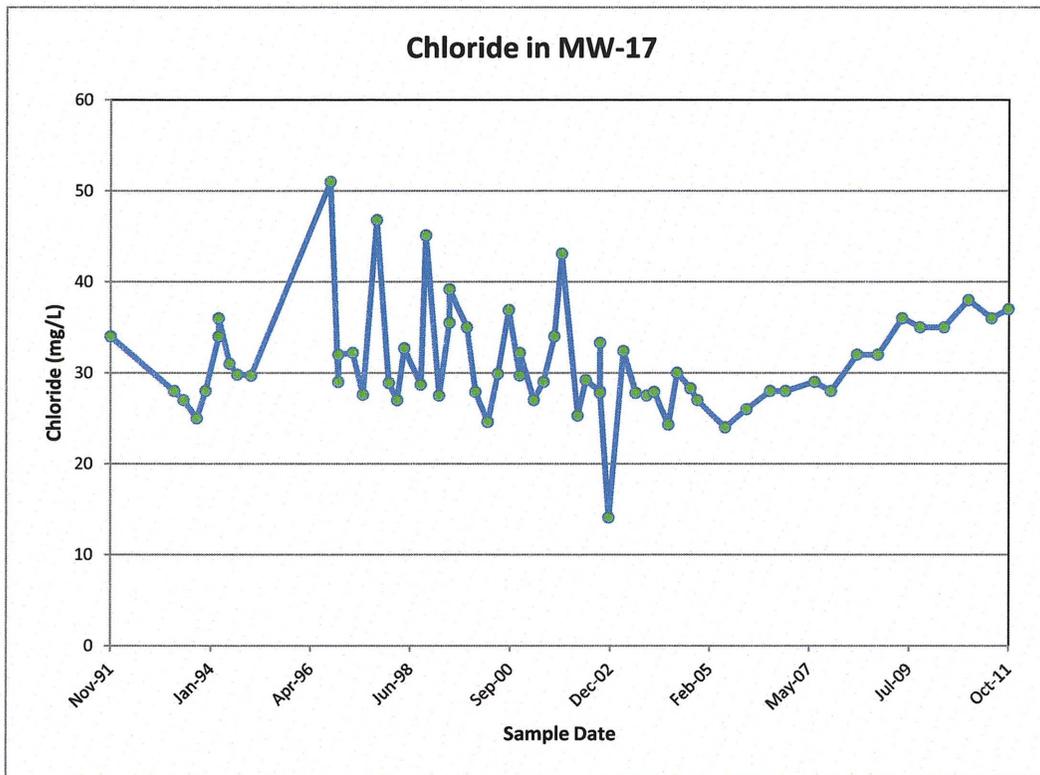
### Time concentration plots for MW-15



## Time concentration plots for MW-15

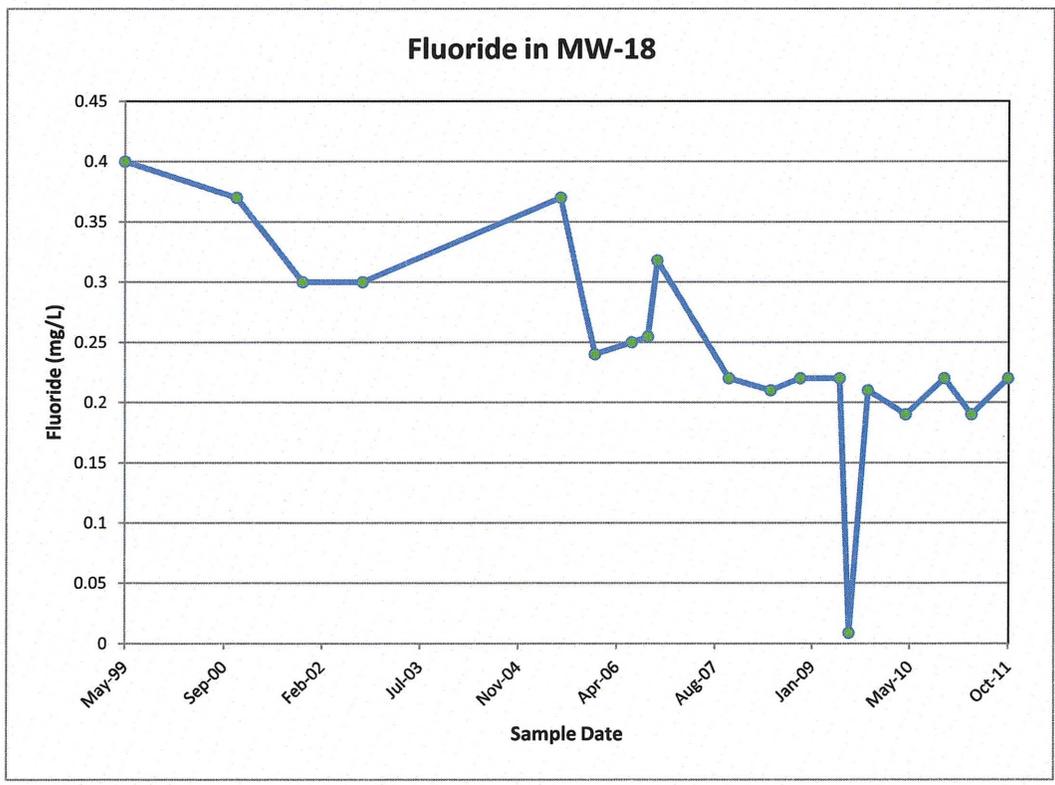
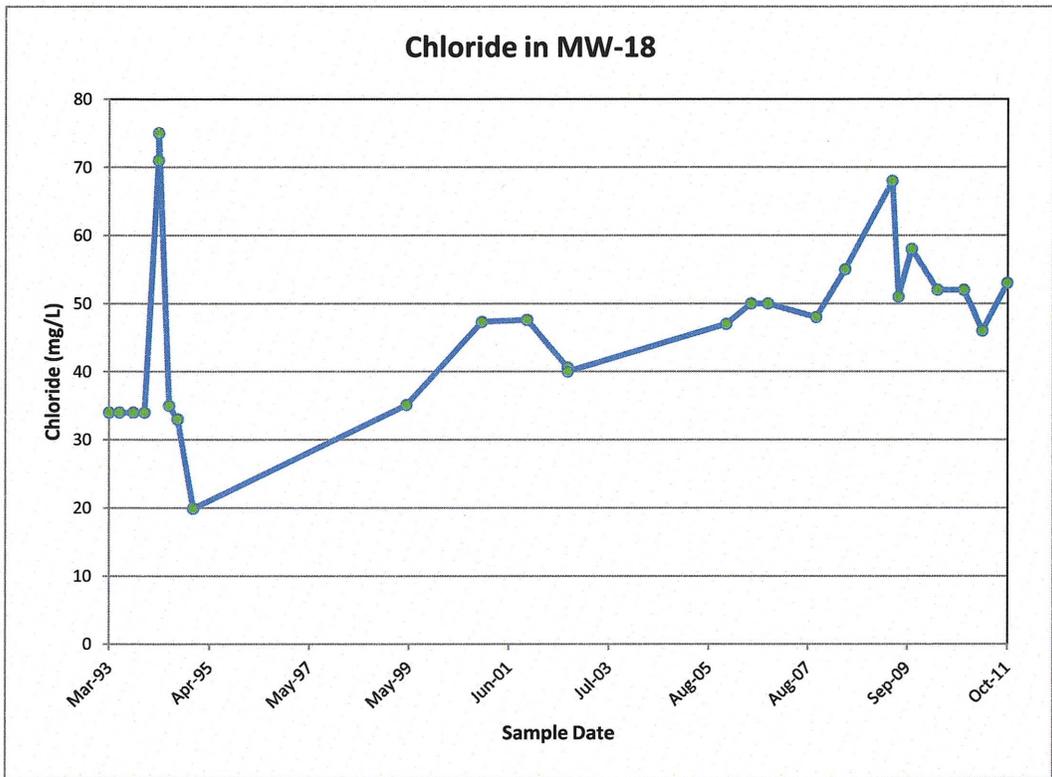


## Time concentration plots for MW-17

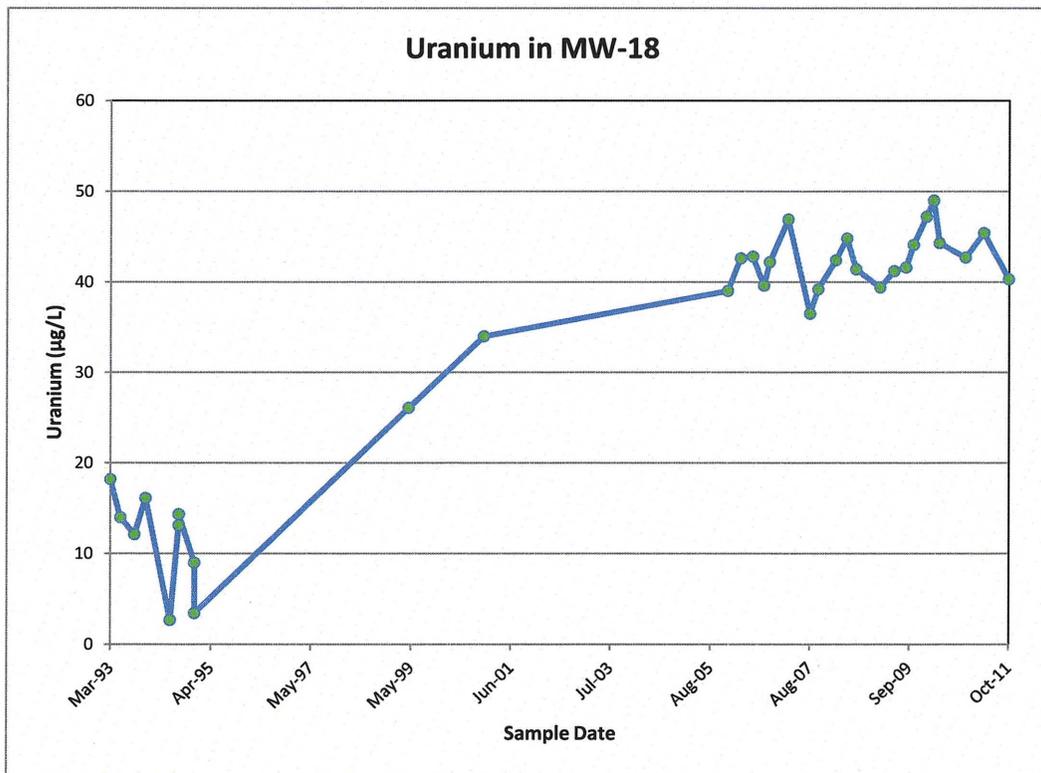
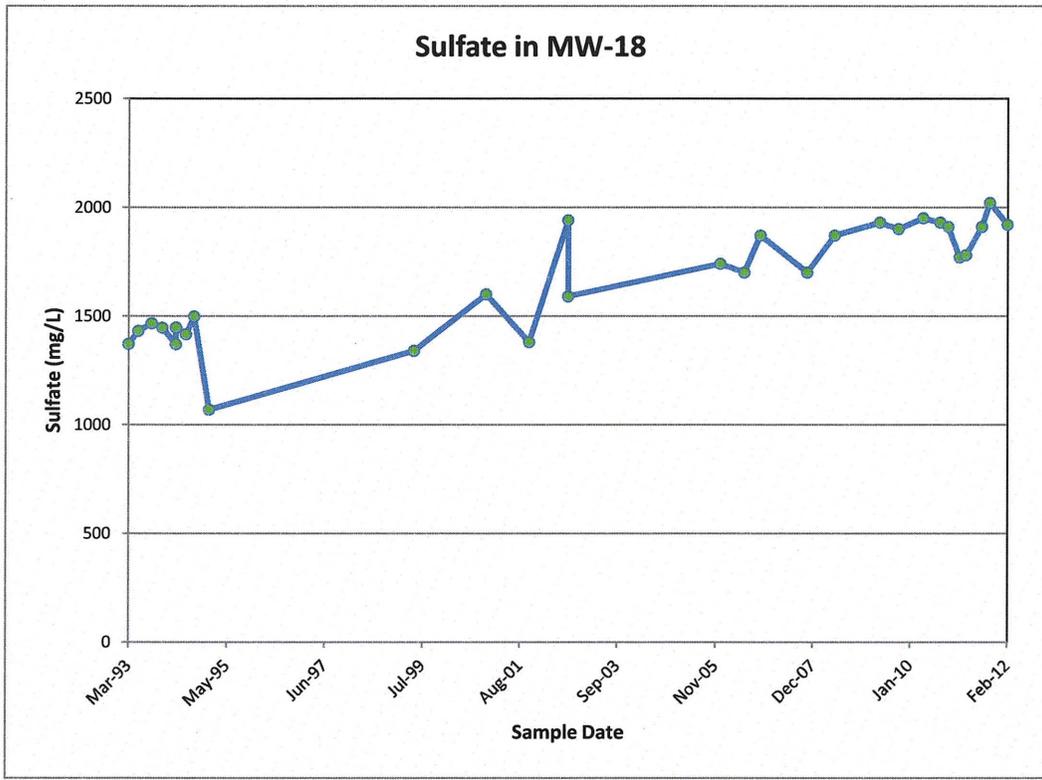




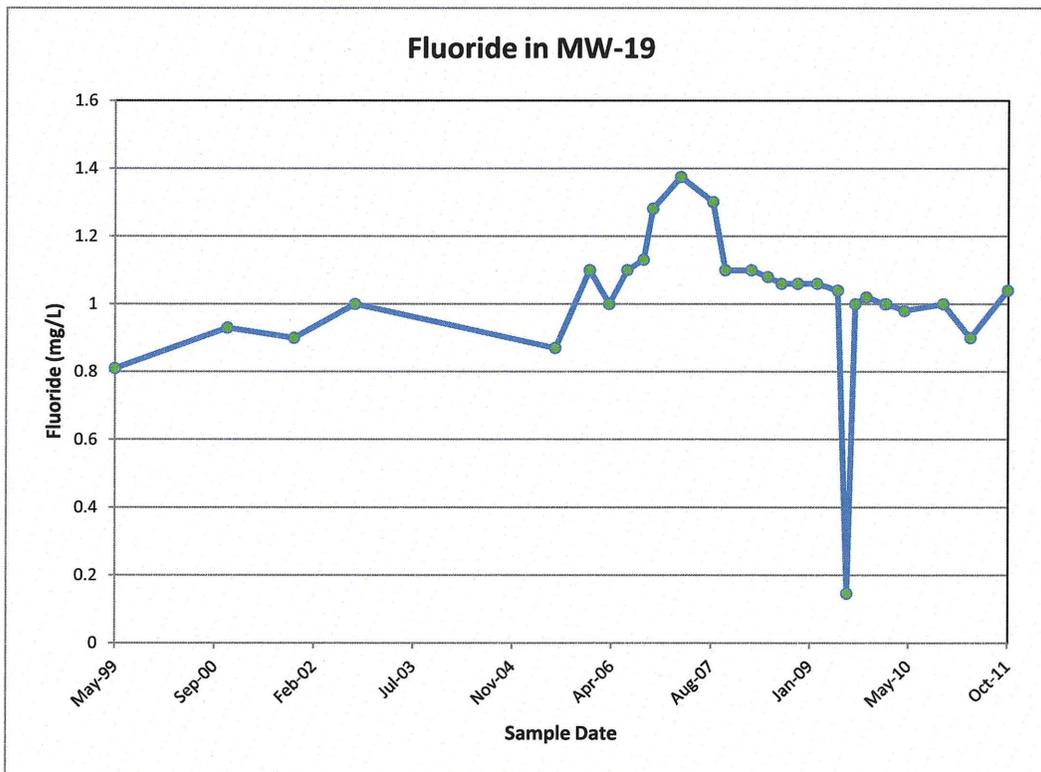
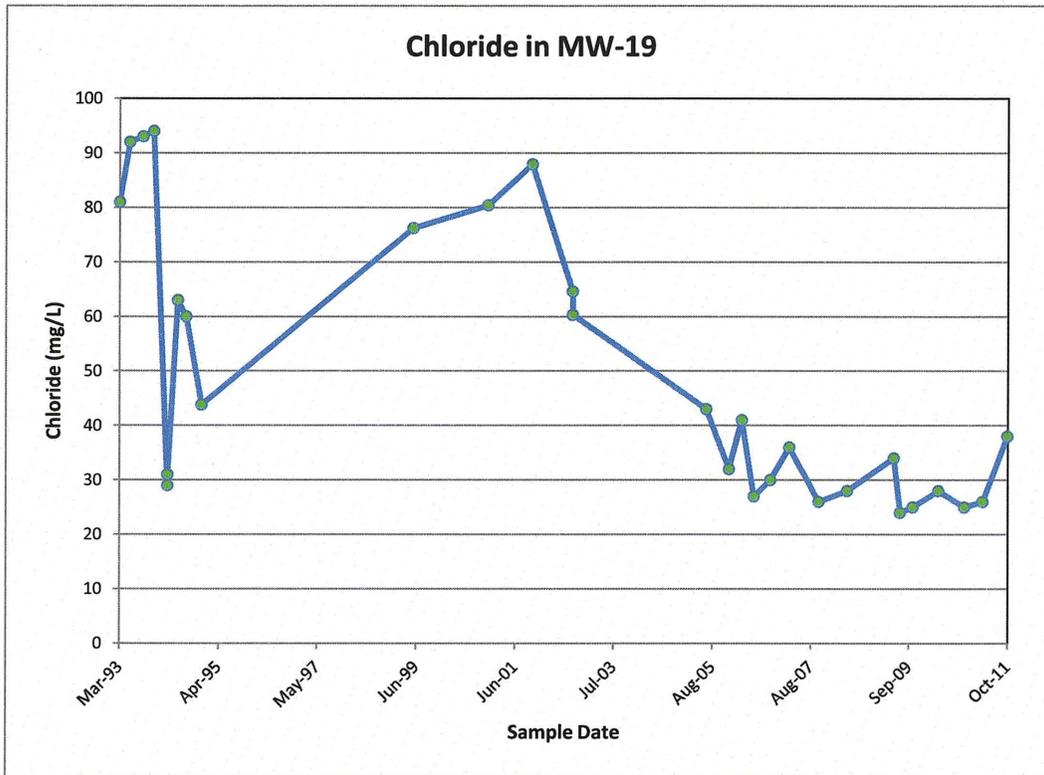
### Time concentration plots for MW-18



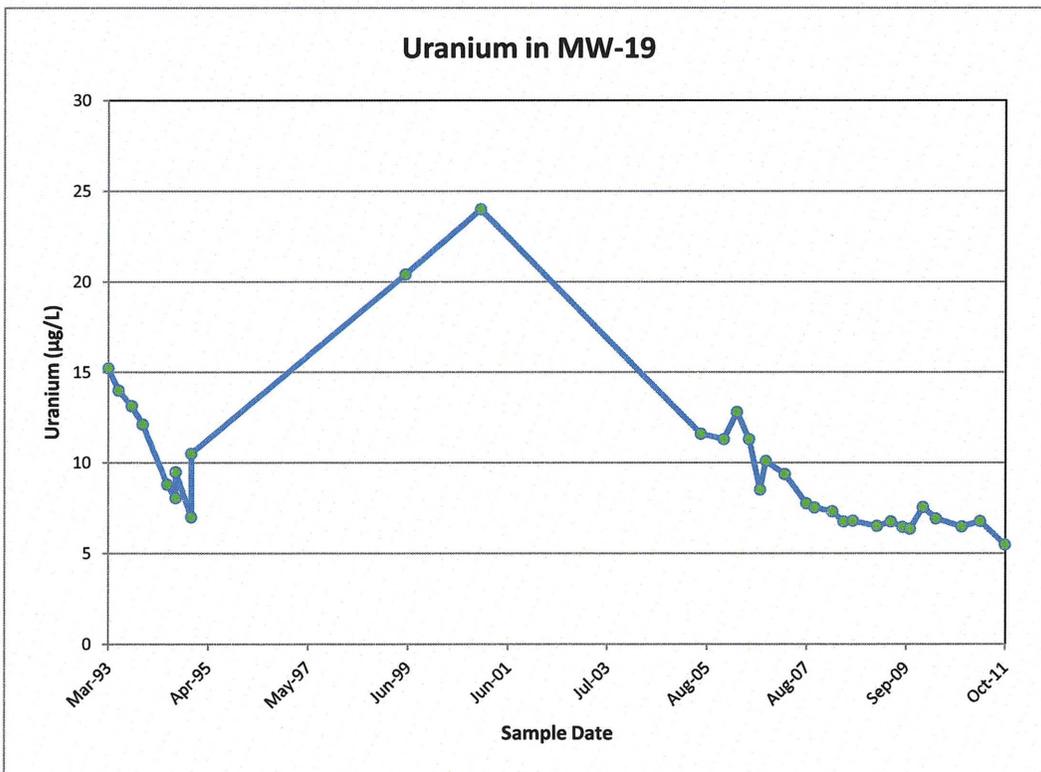
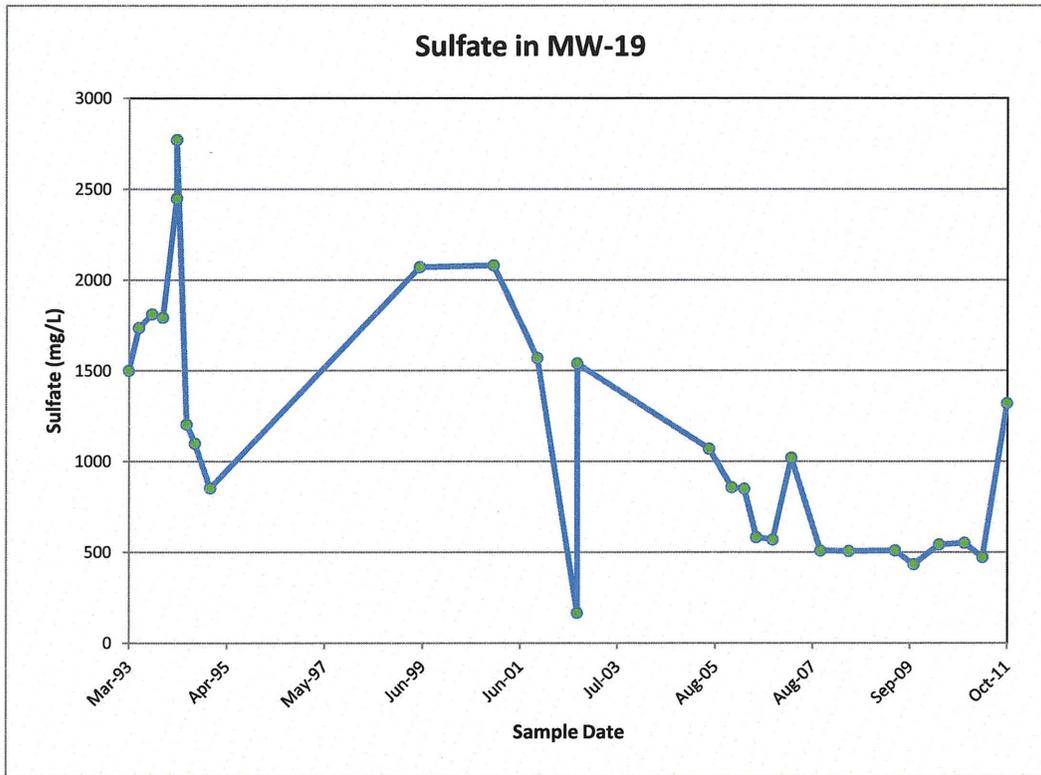
### Time concentration plots for MW-18



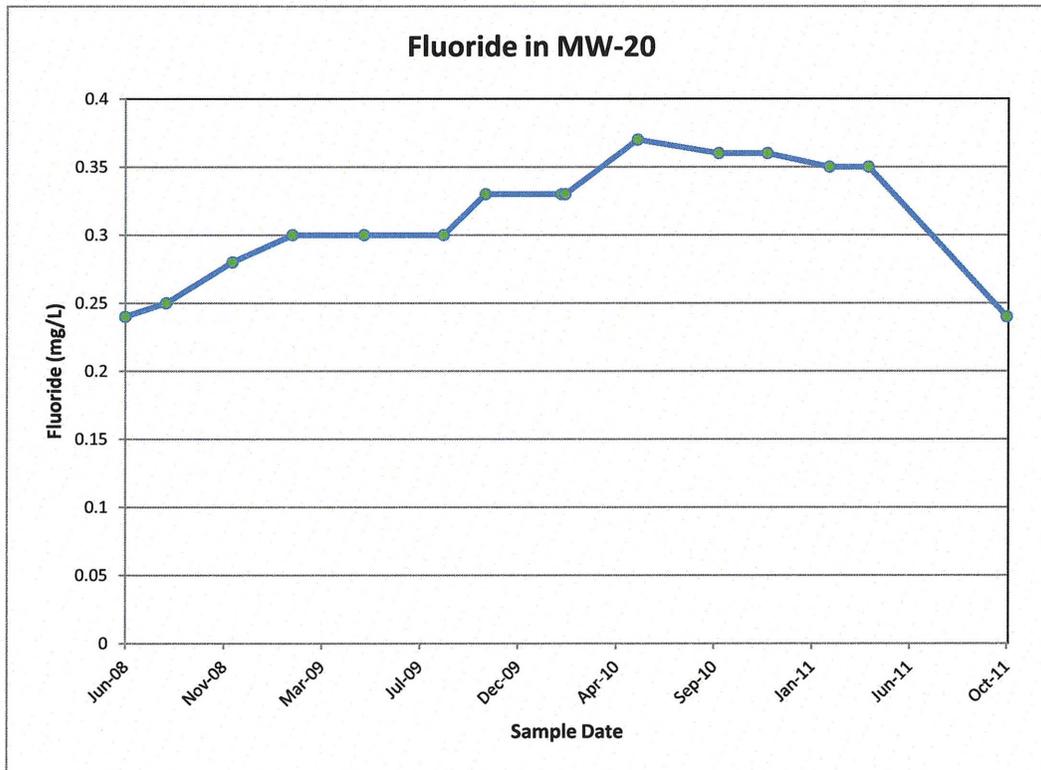
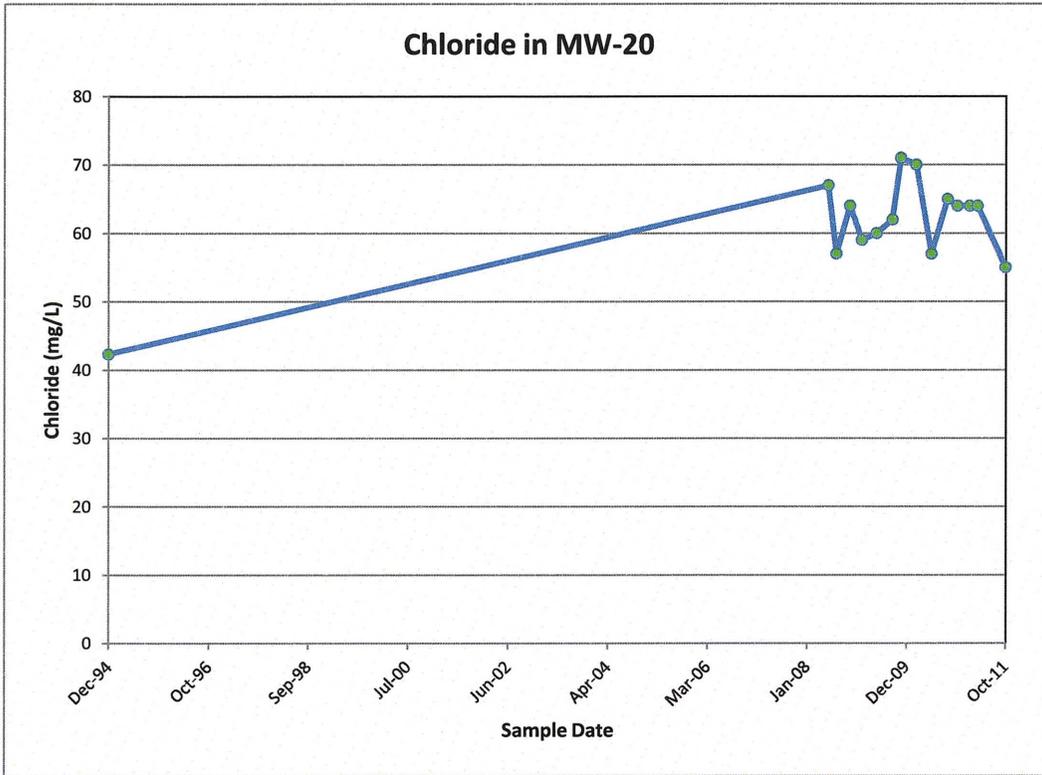
### Time concentration plots for MW-19



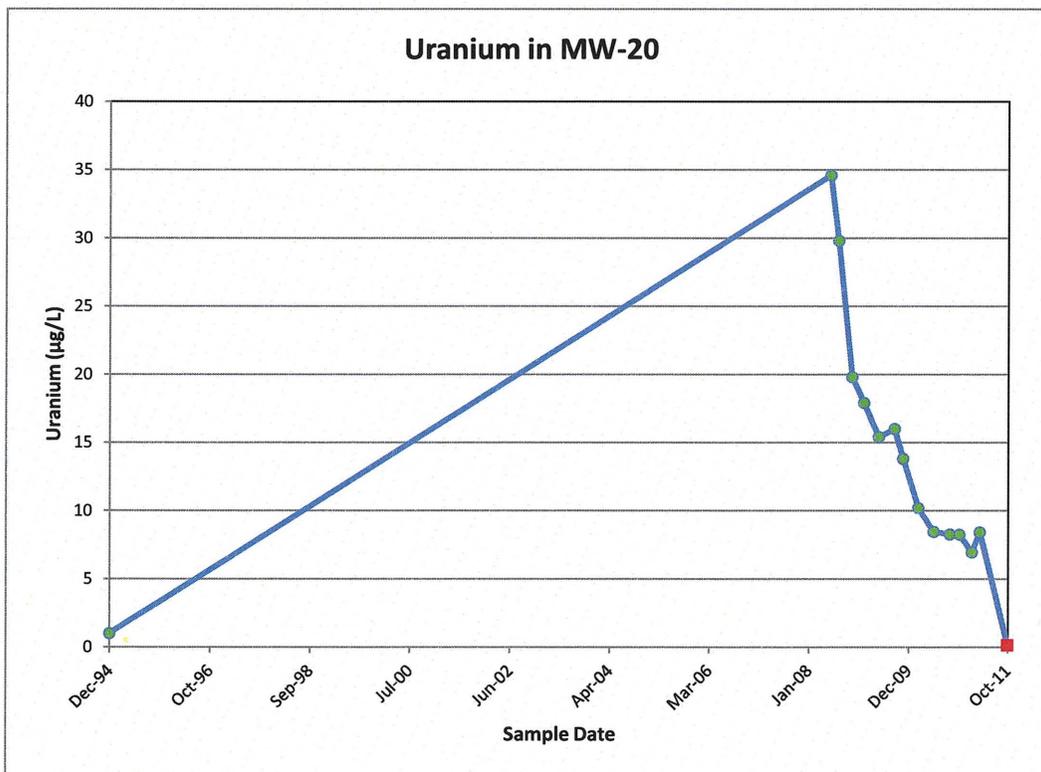
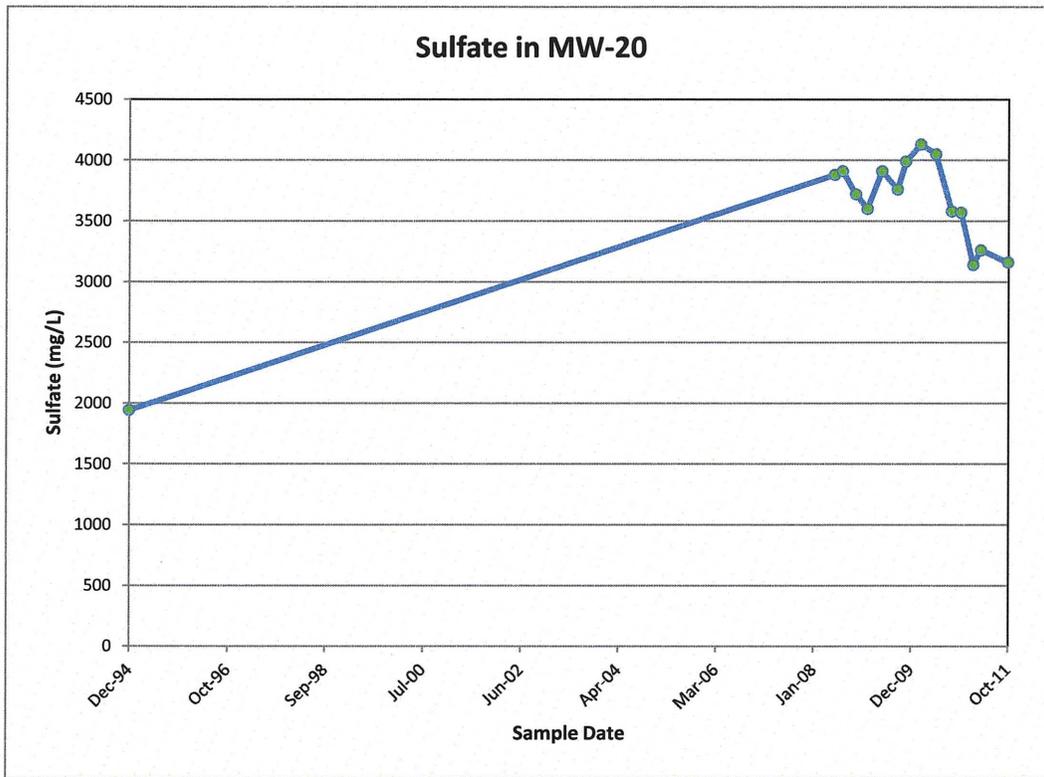
### Time concentration plots for MW-19



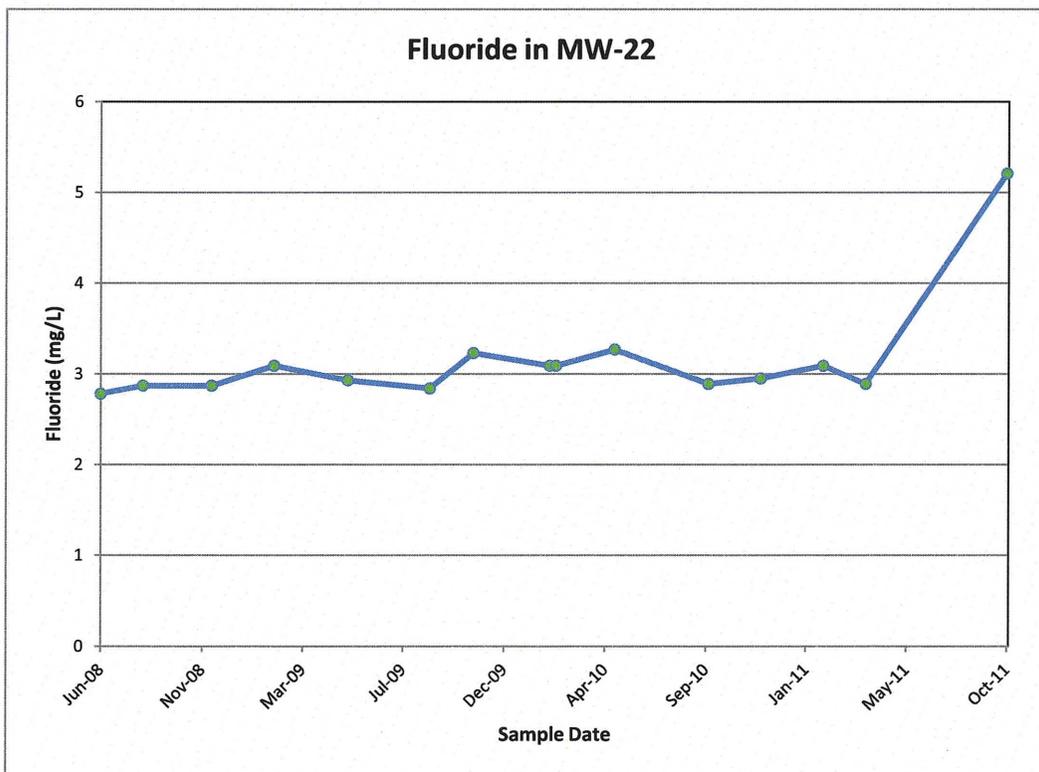
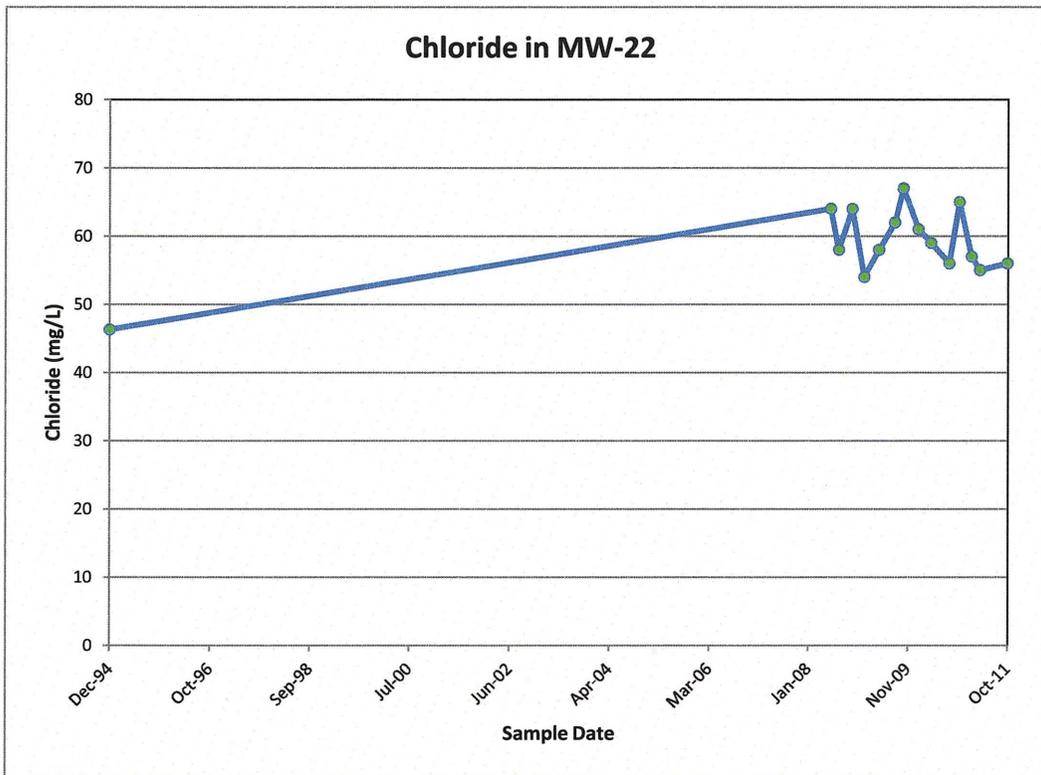
## Time concentration plots for MW-20



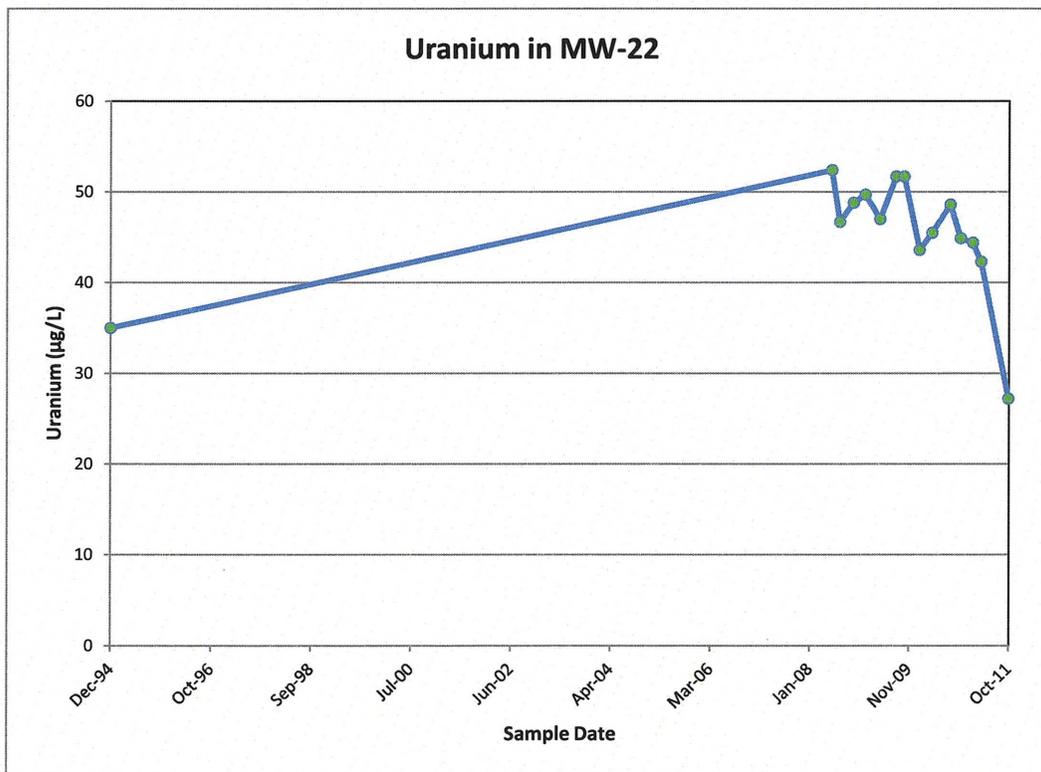
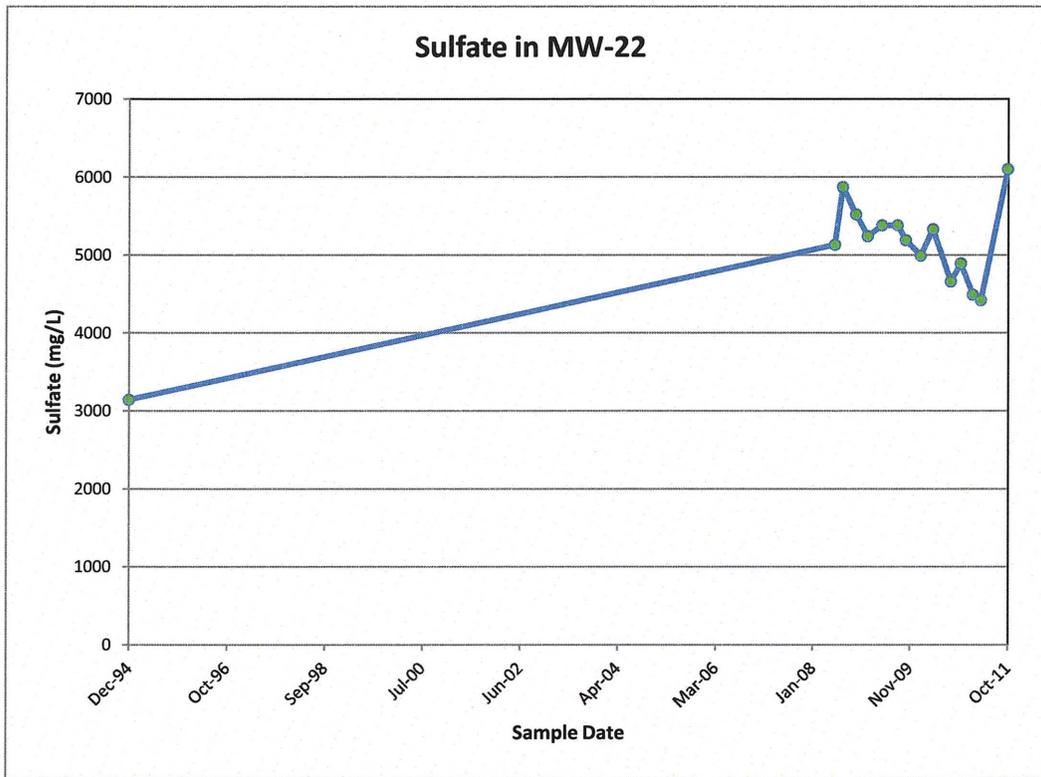
## Time concentration plots for MW-20



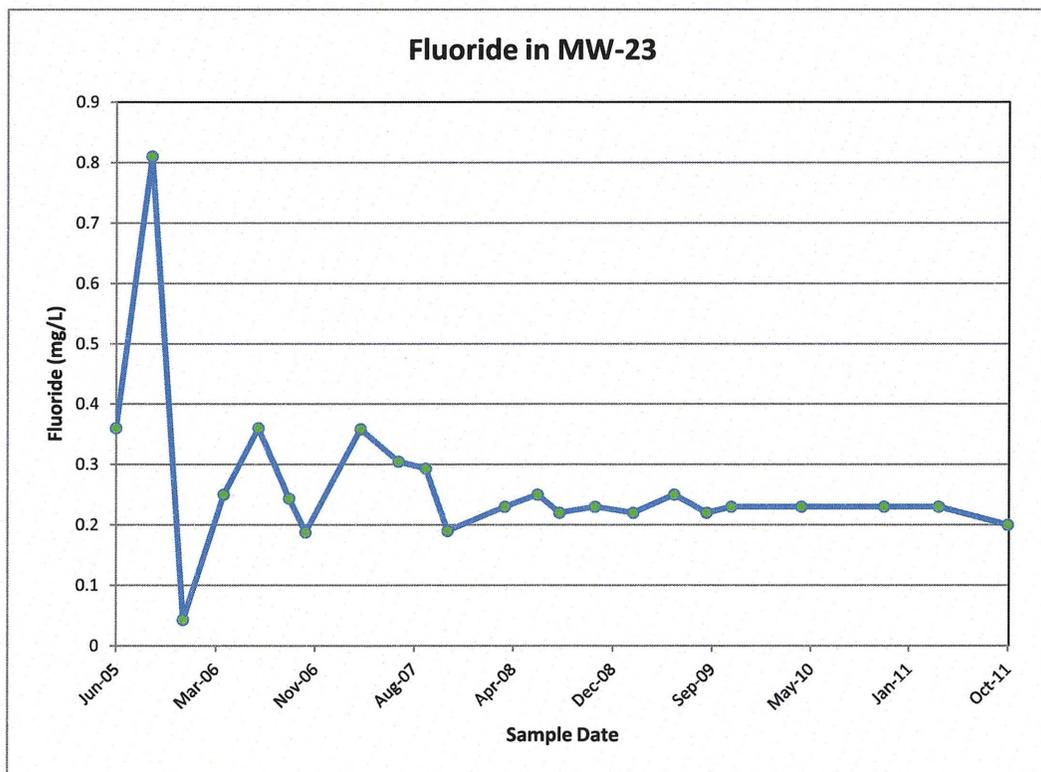
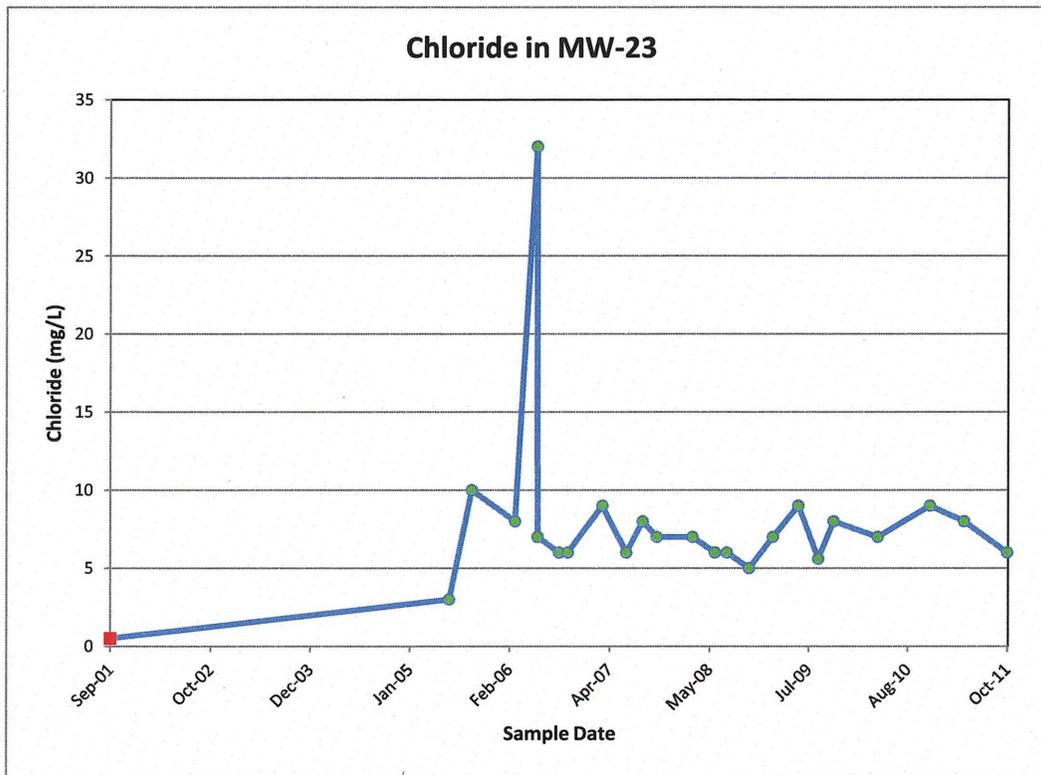
## Time concentration plots for MW-22



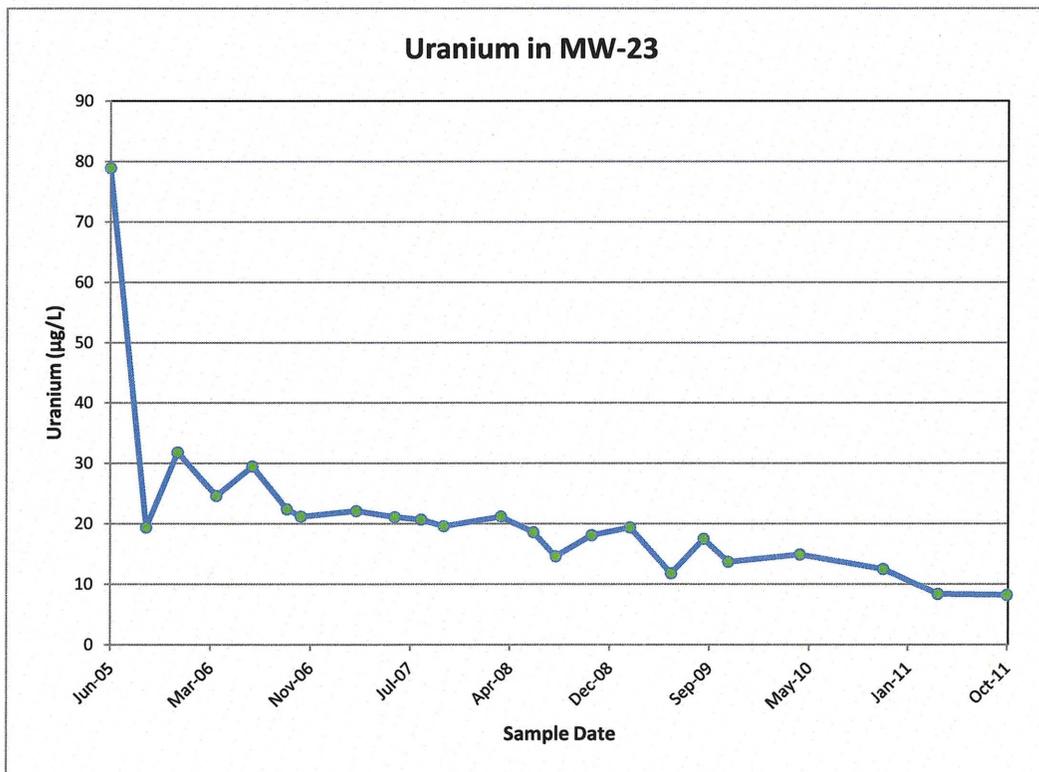
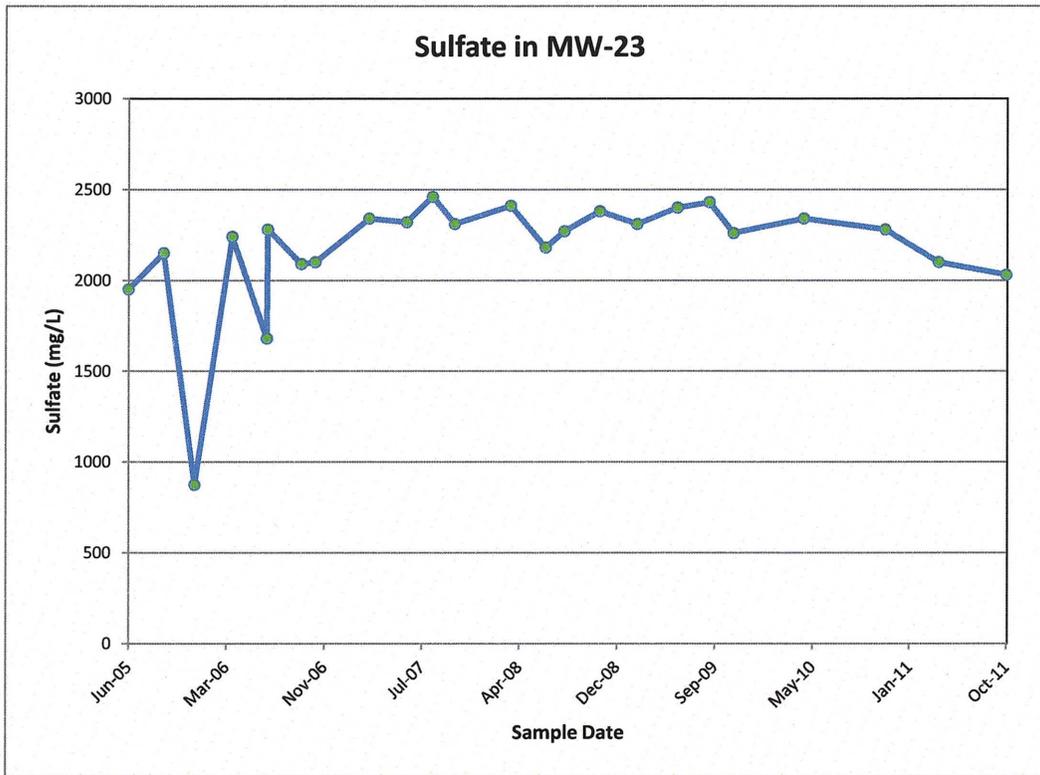
## Time concentration plots for MW-22



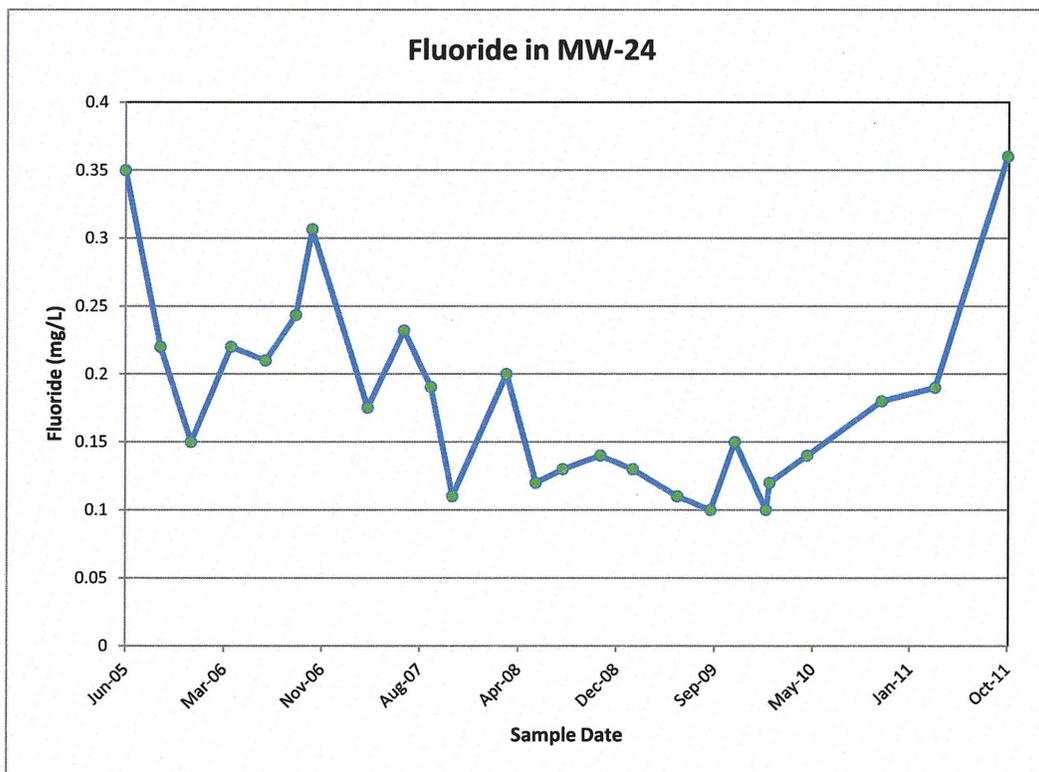
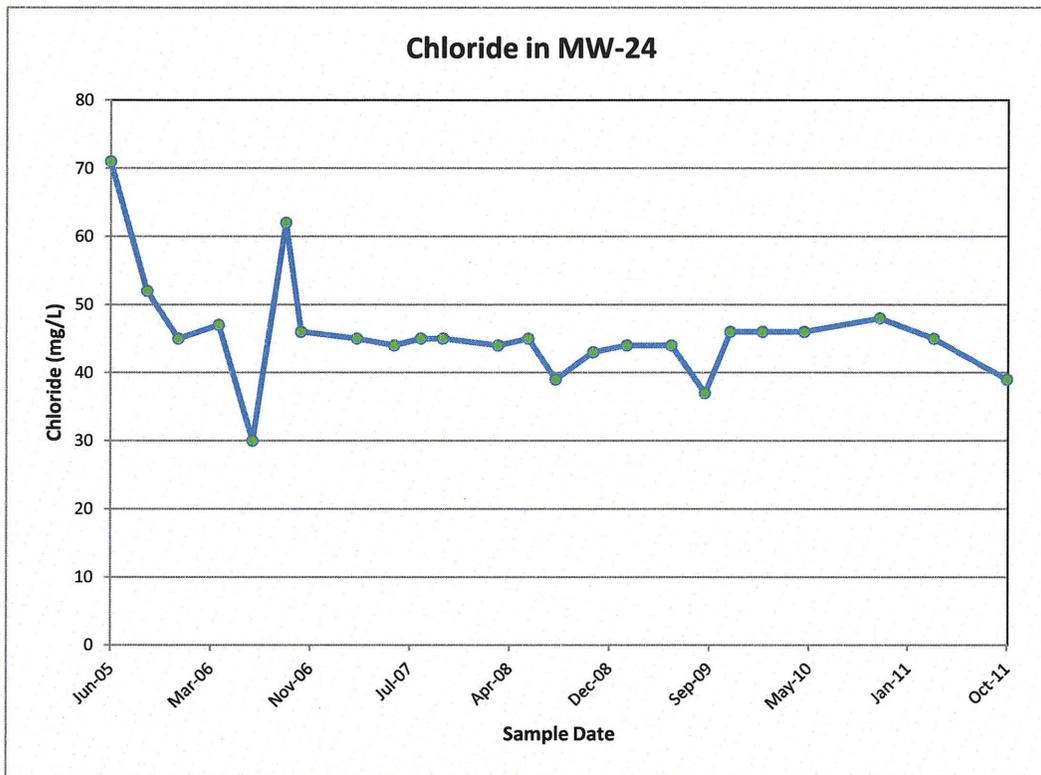
### Time concentration plots for MW-23



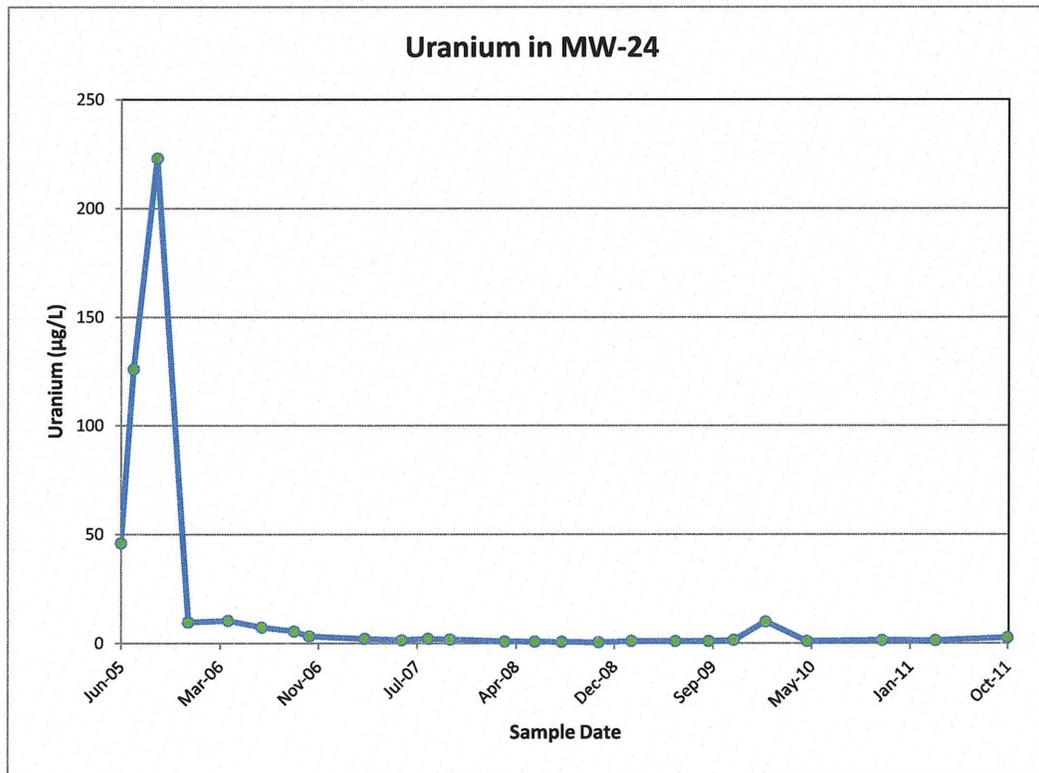
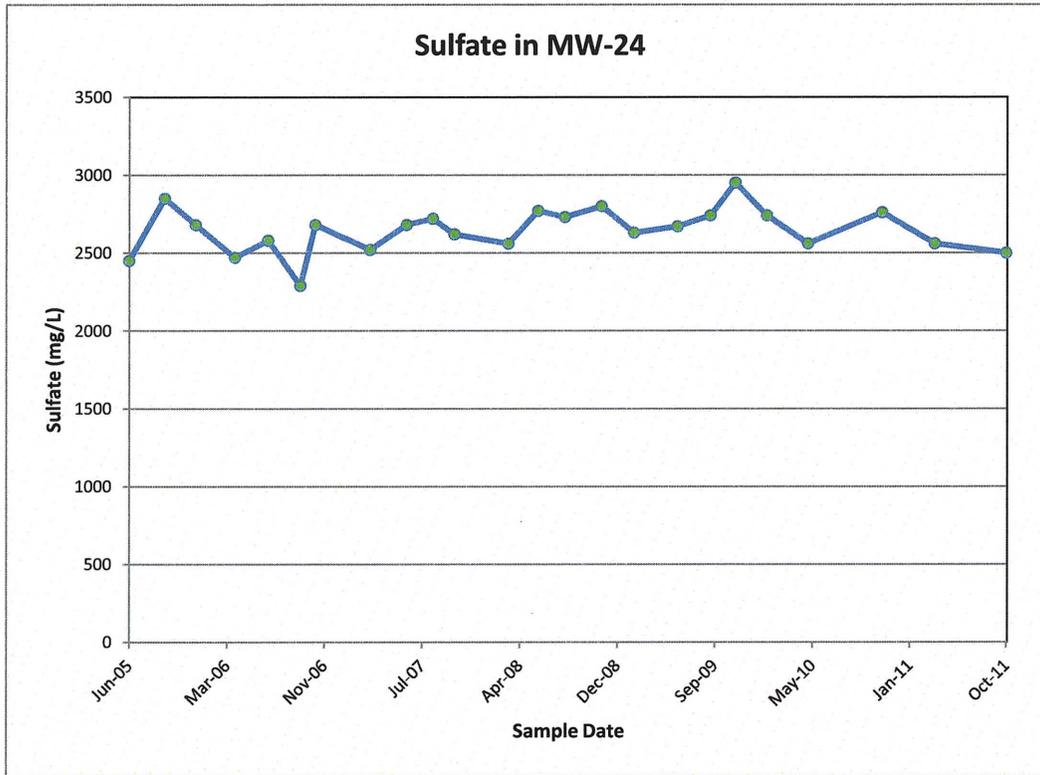
### Time concentration plots for MW-23



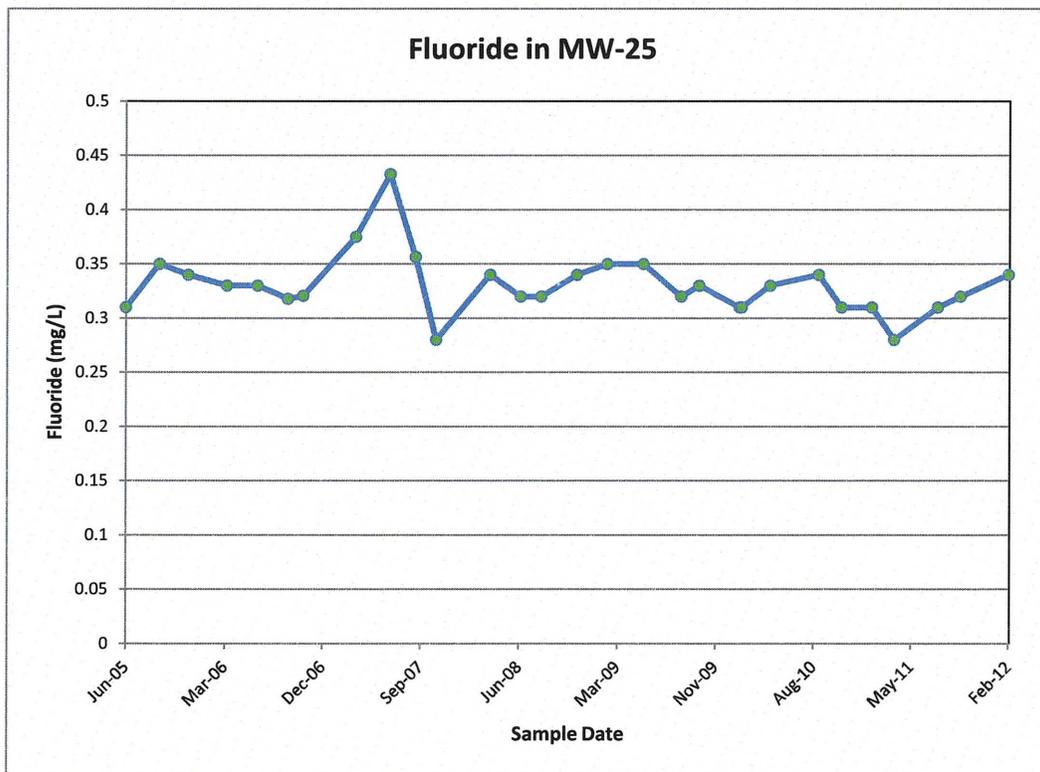
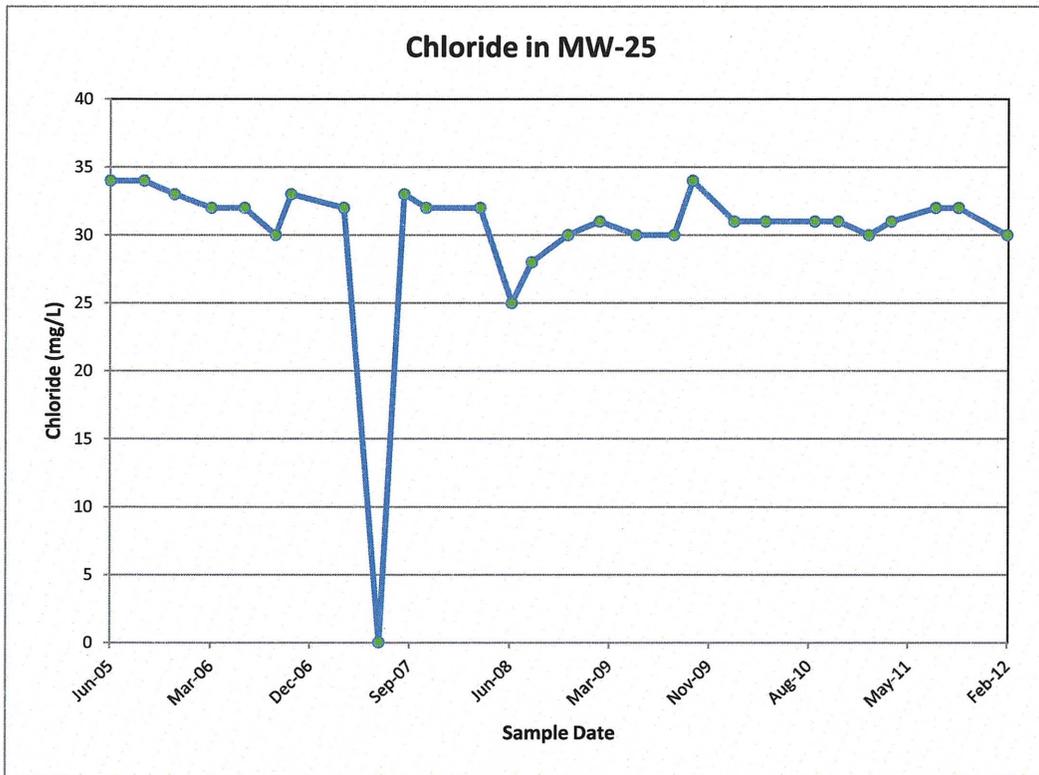
### Time concentration plots for MW-24



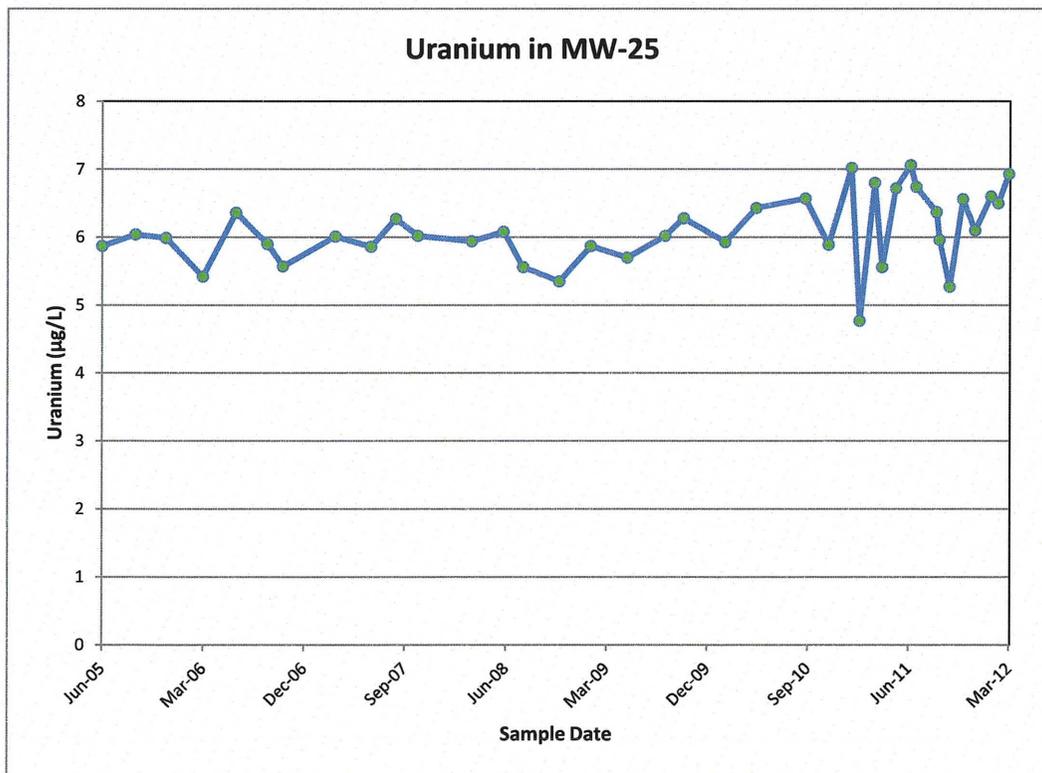
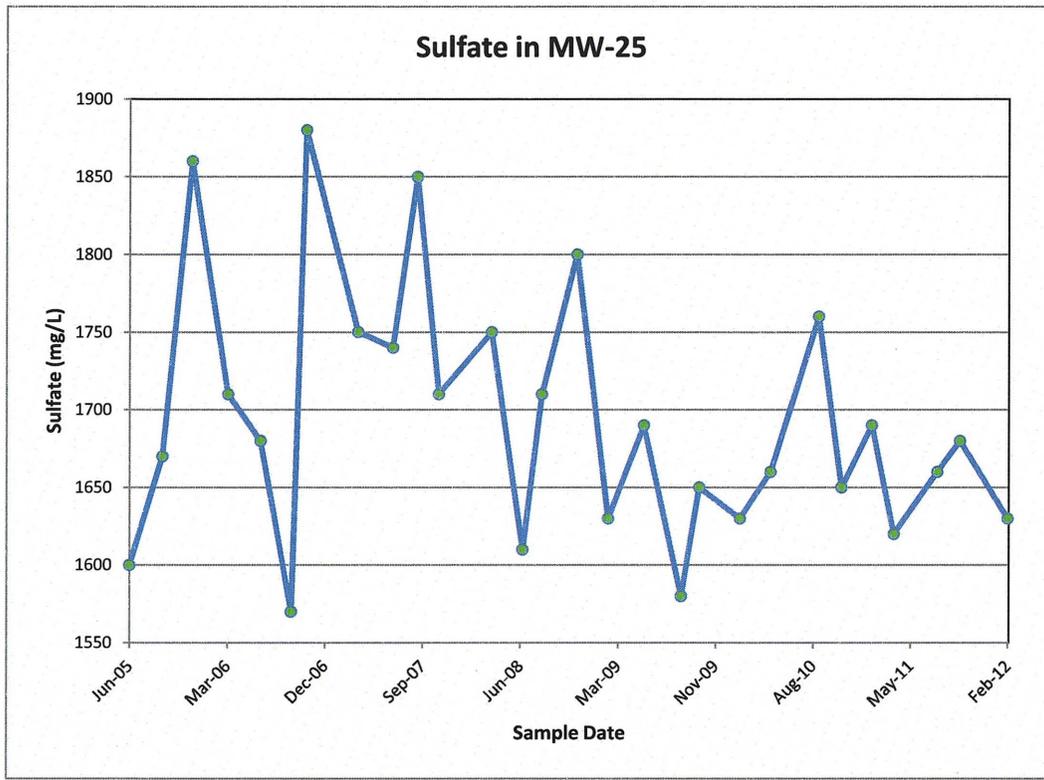
## Time concentration plots for MW-24



## Time concentration plots for MW-25

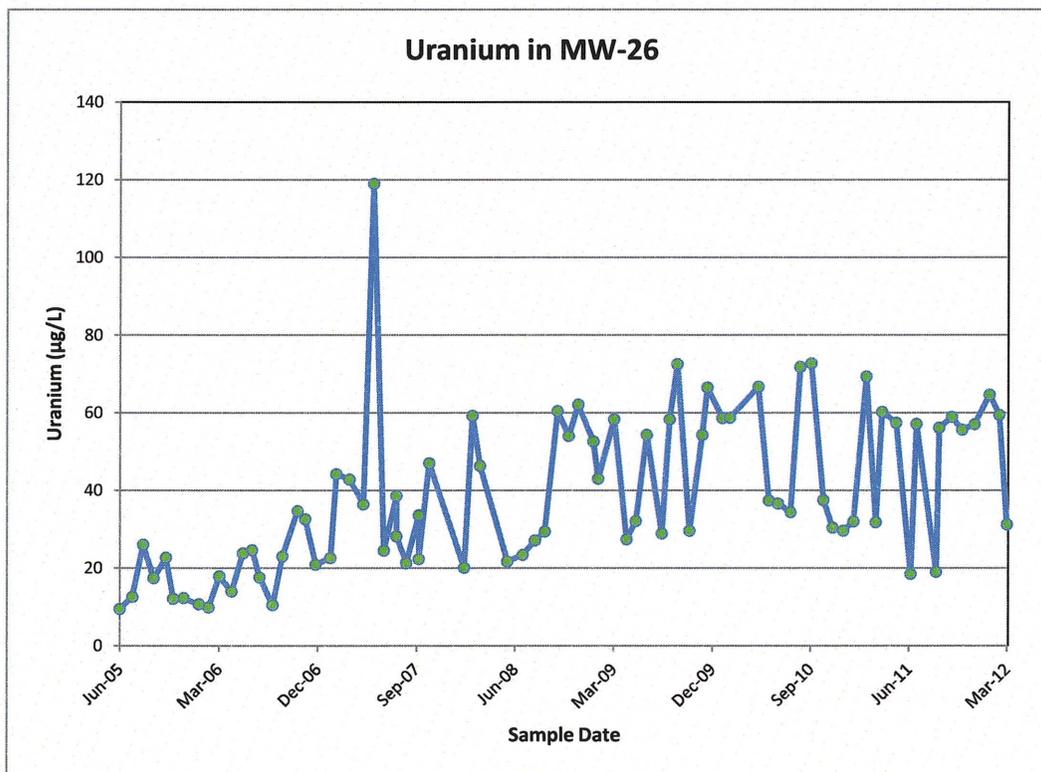
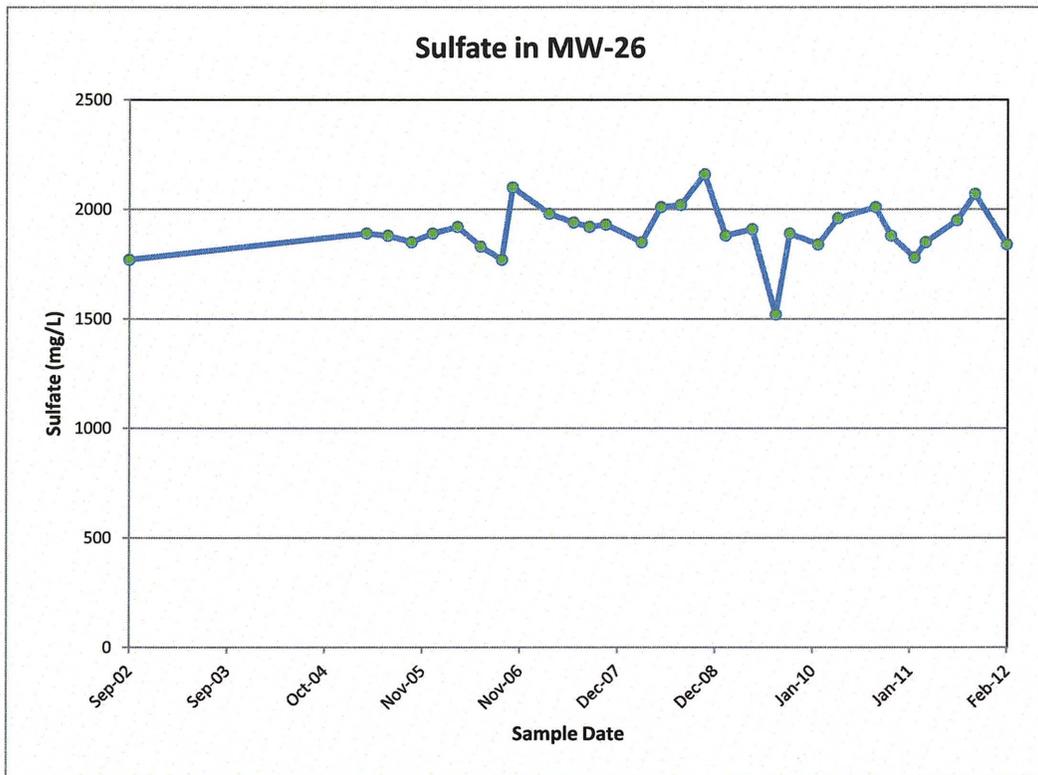


## Time concentration plots for MW-25

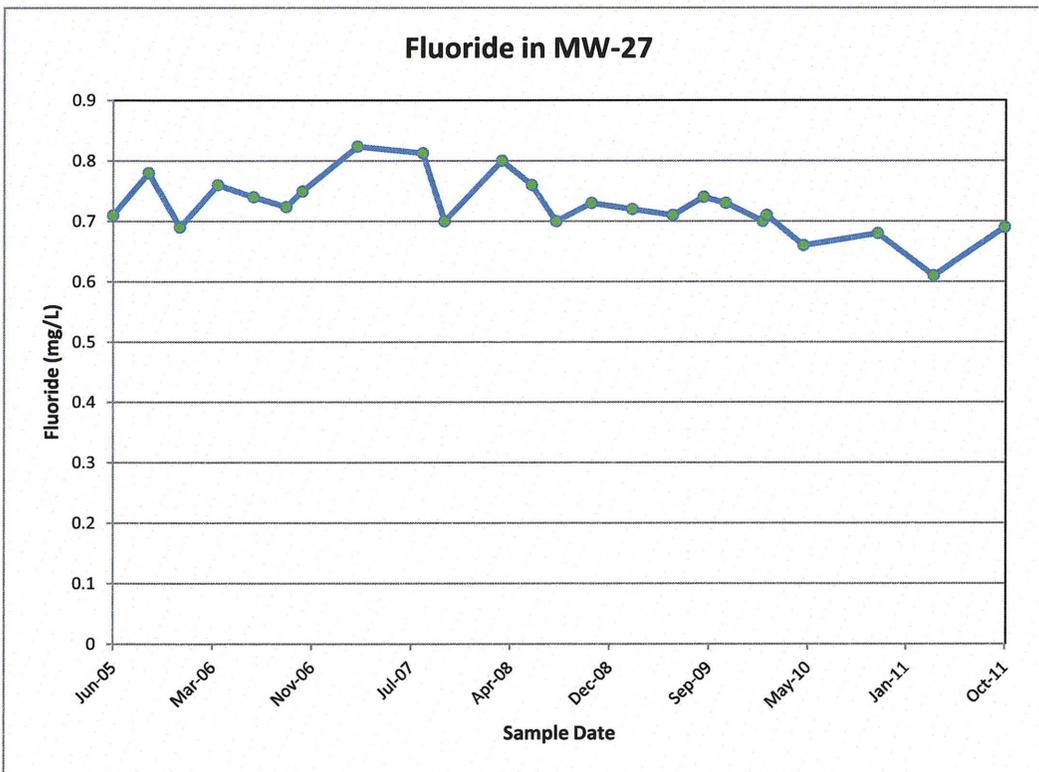
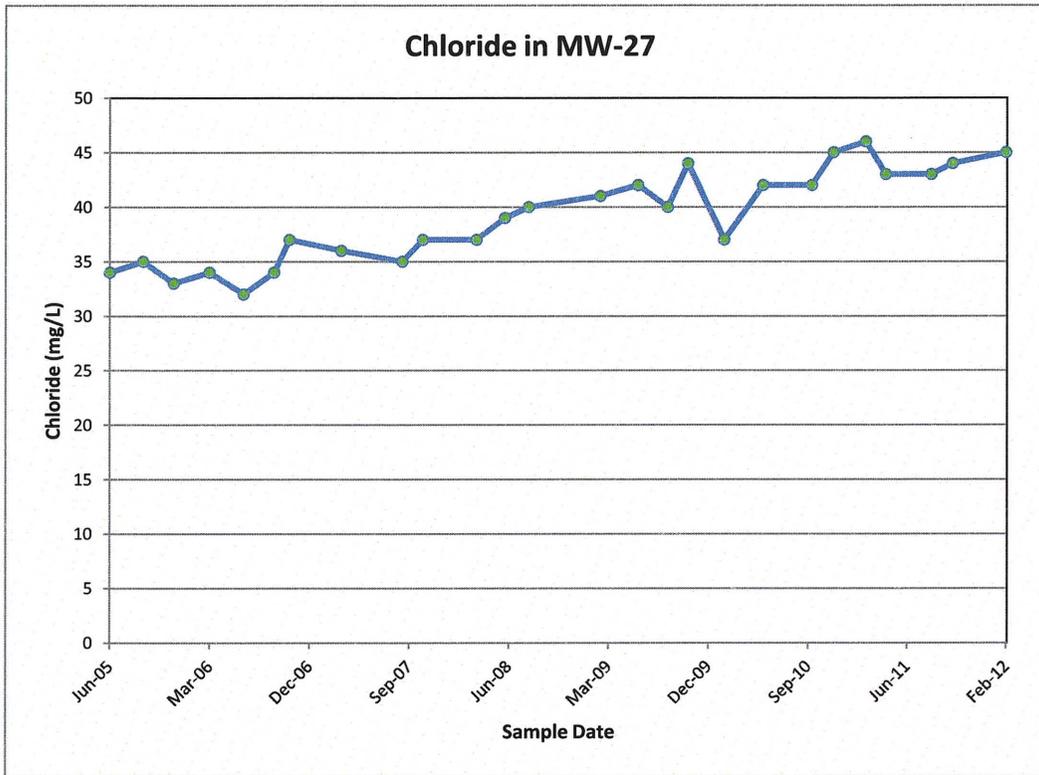




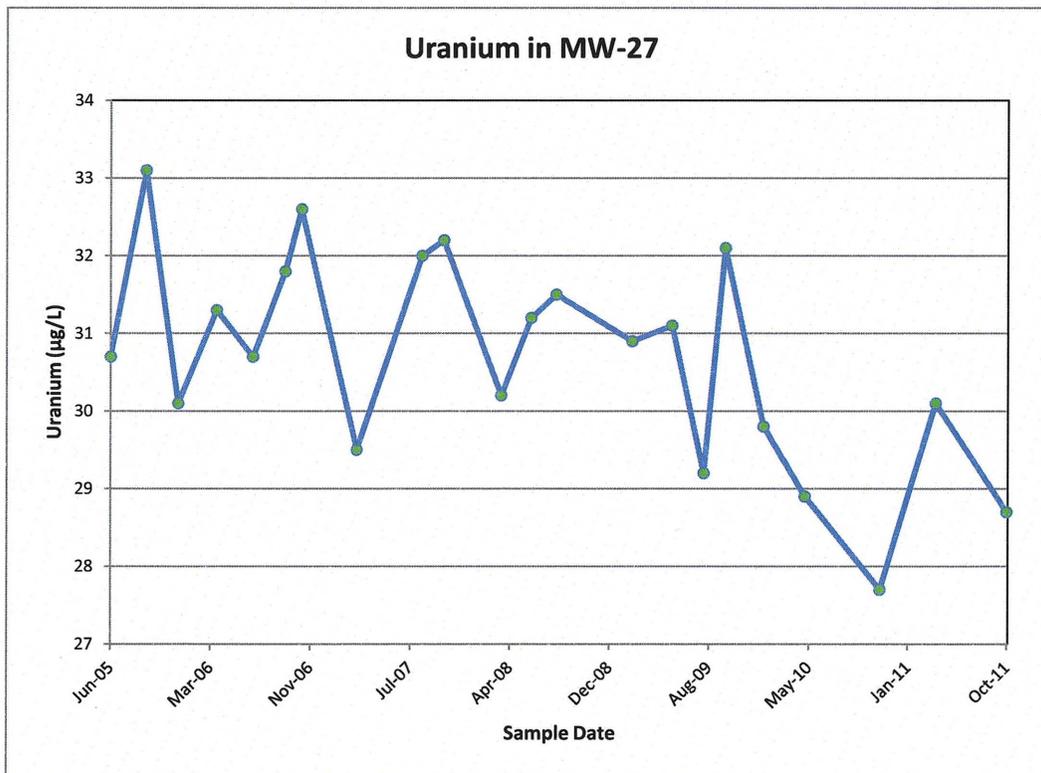
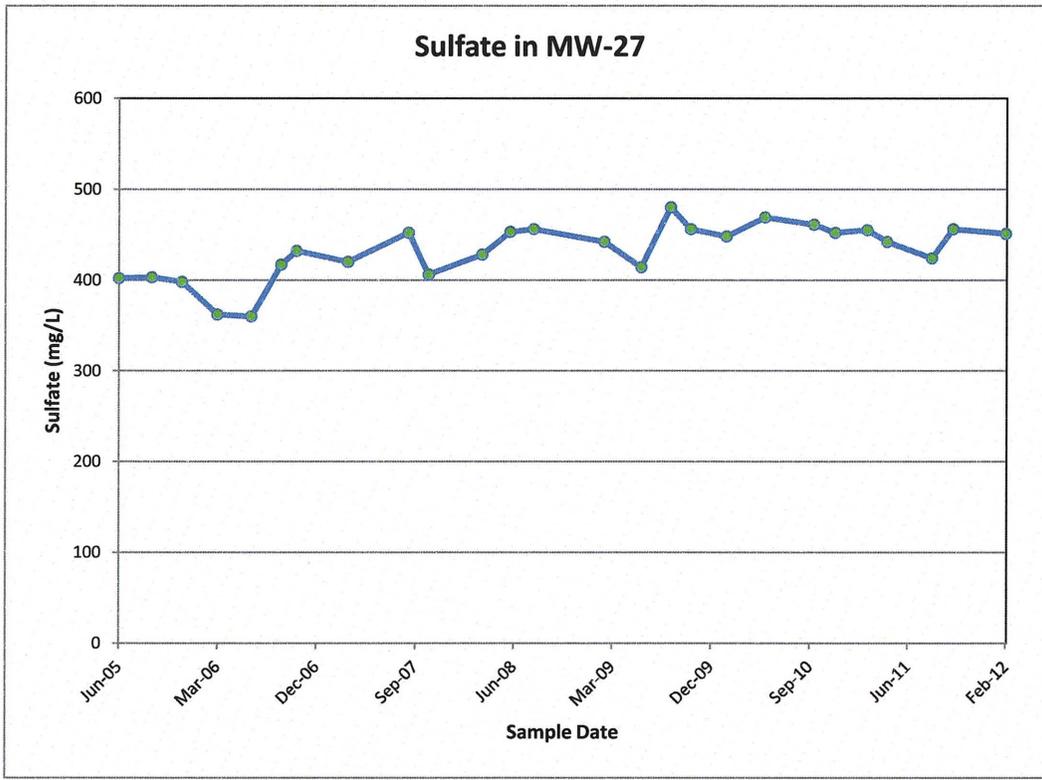
## Time concentration plots for MW-26



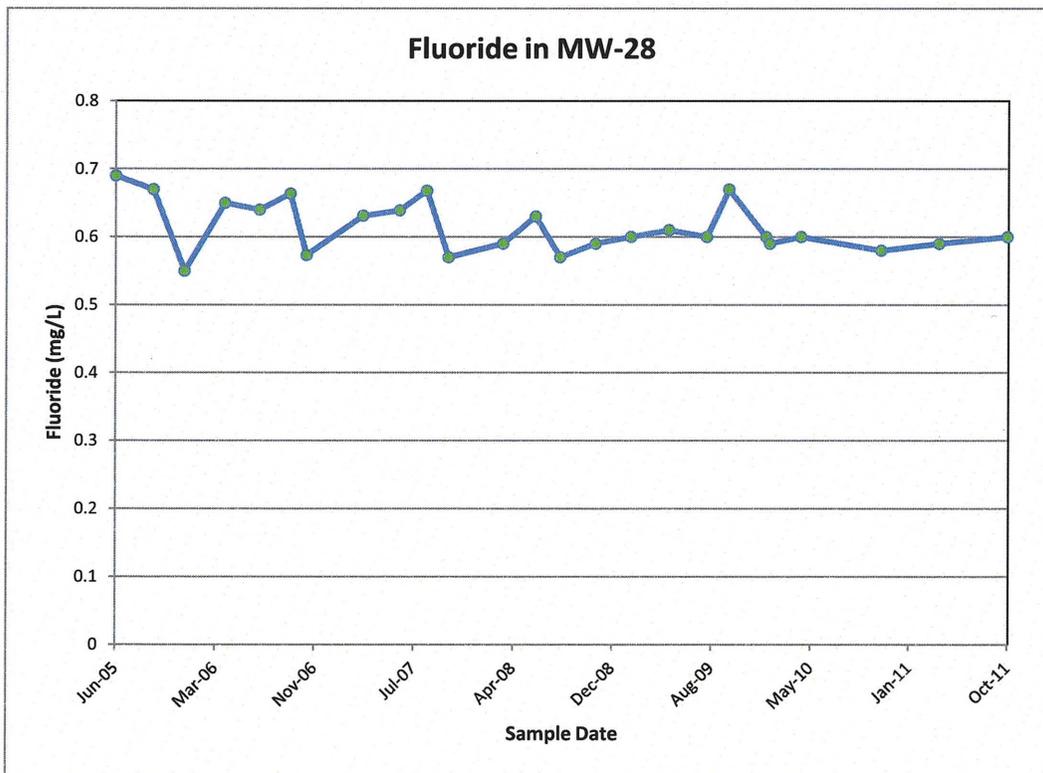
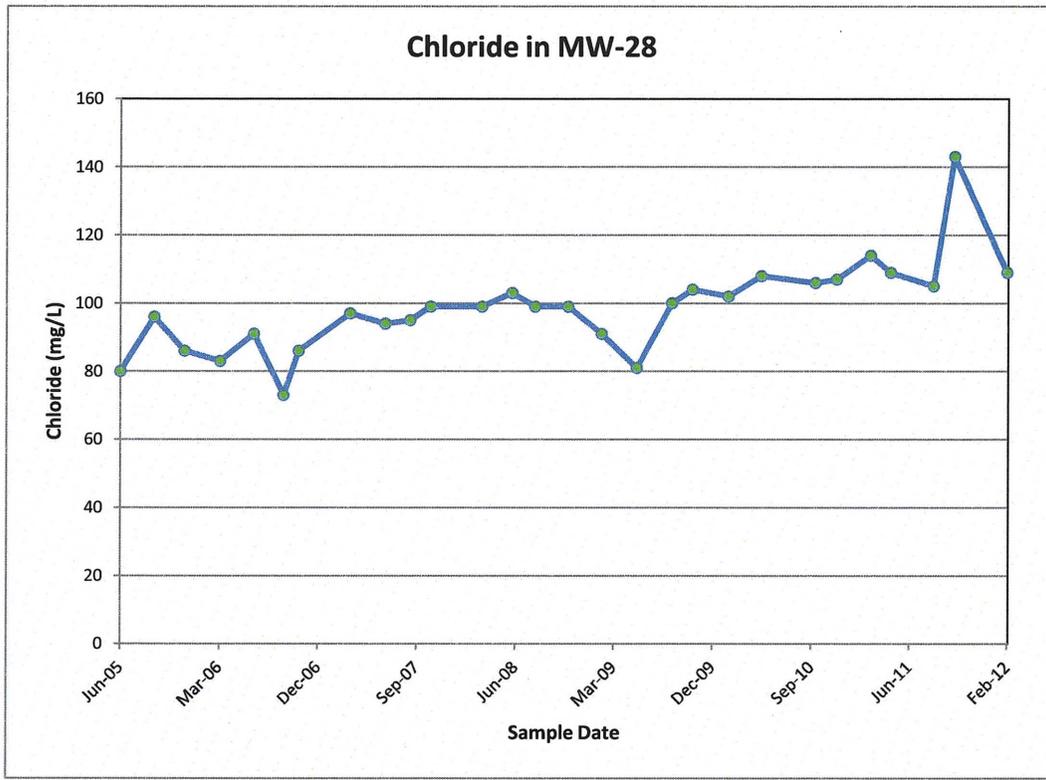
## Time concentration plots for MW-27



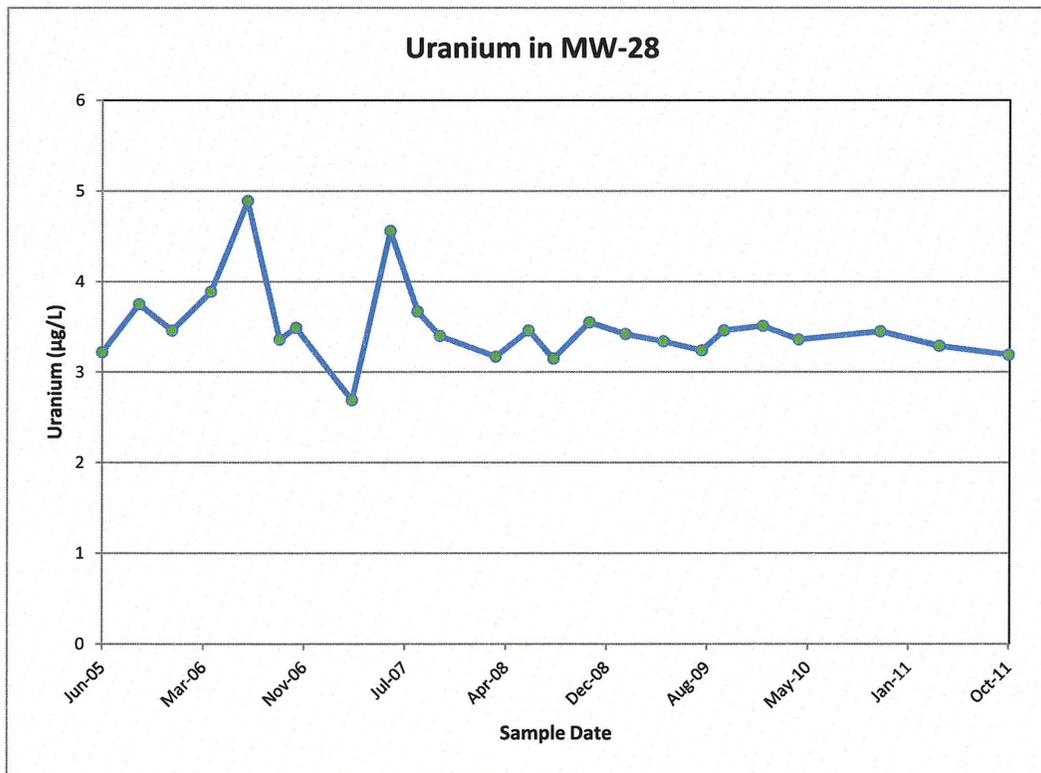
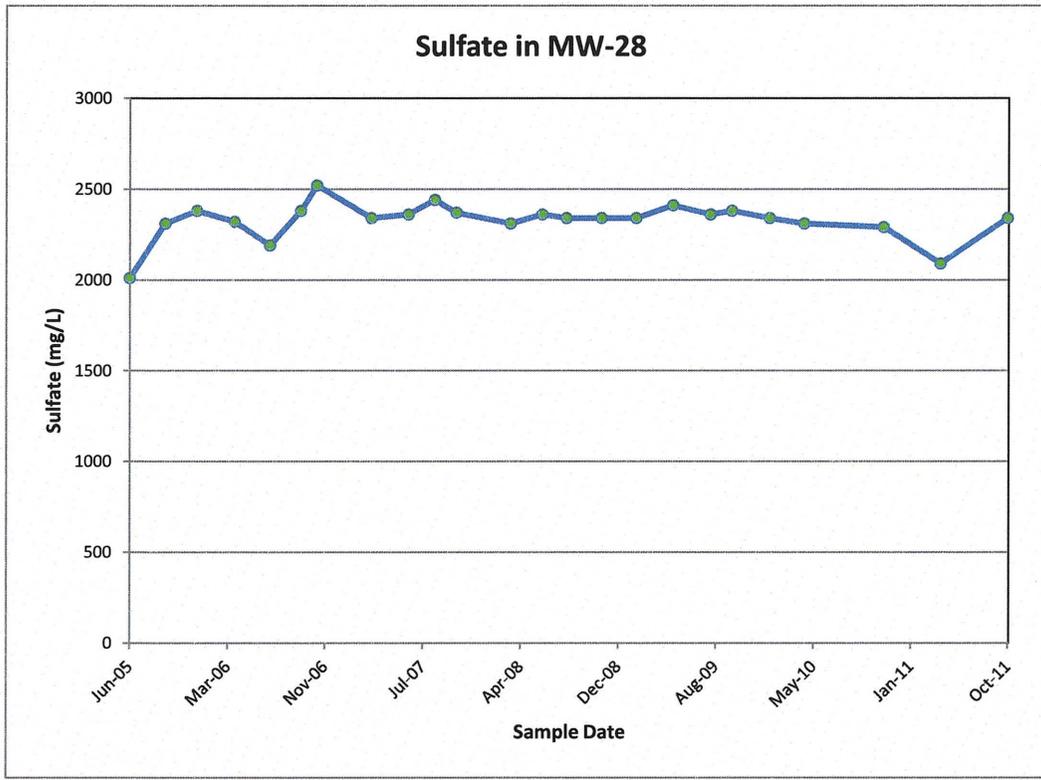
### Time concentration plots for MW-27



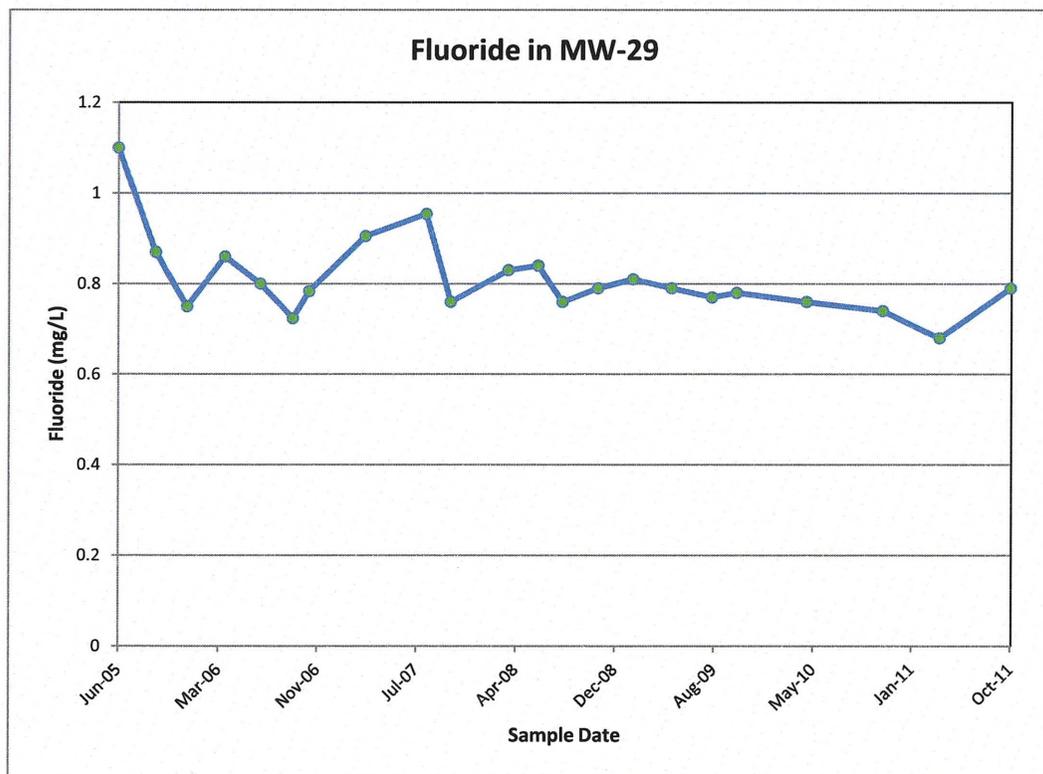
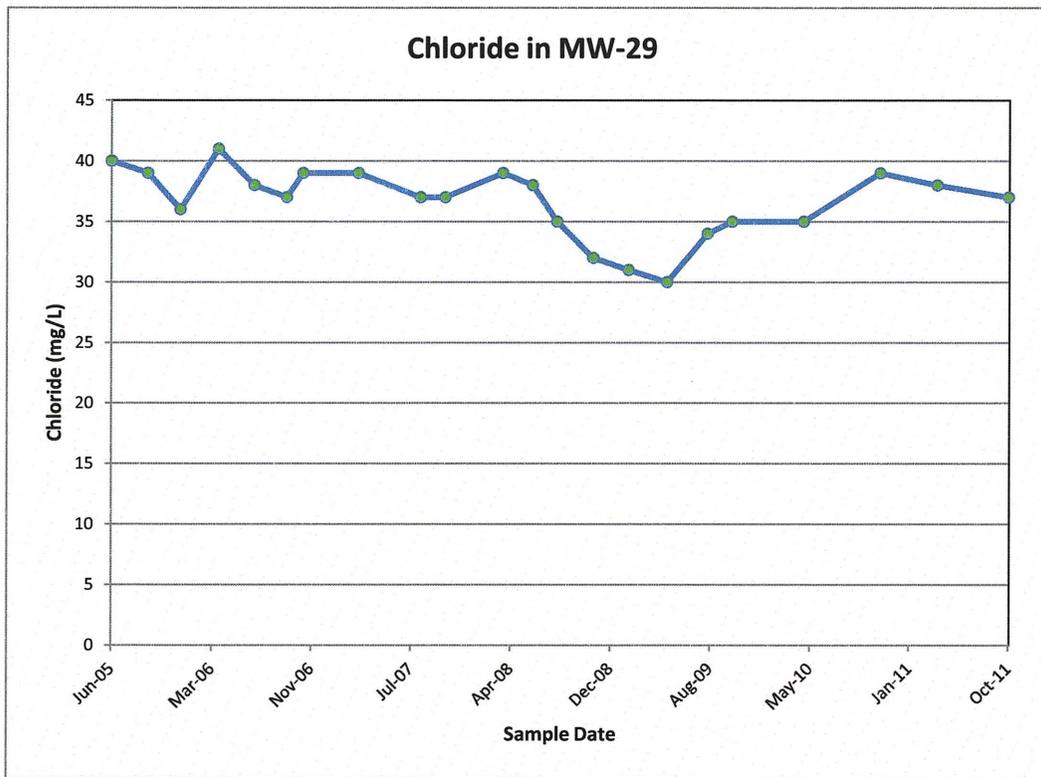
### Time concentration plots for MW-28



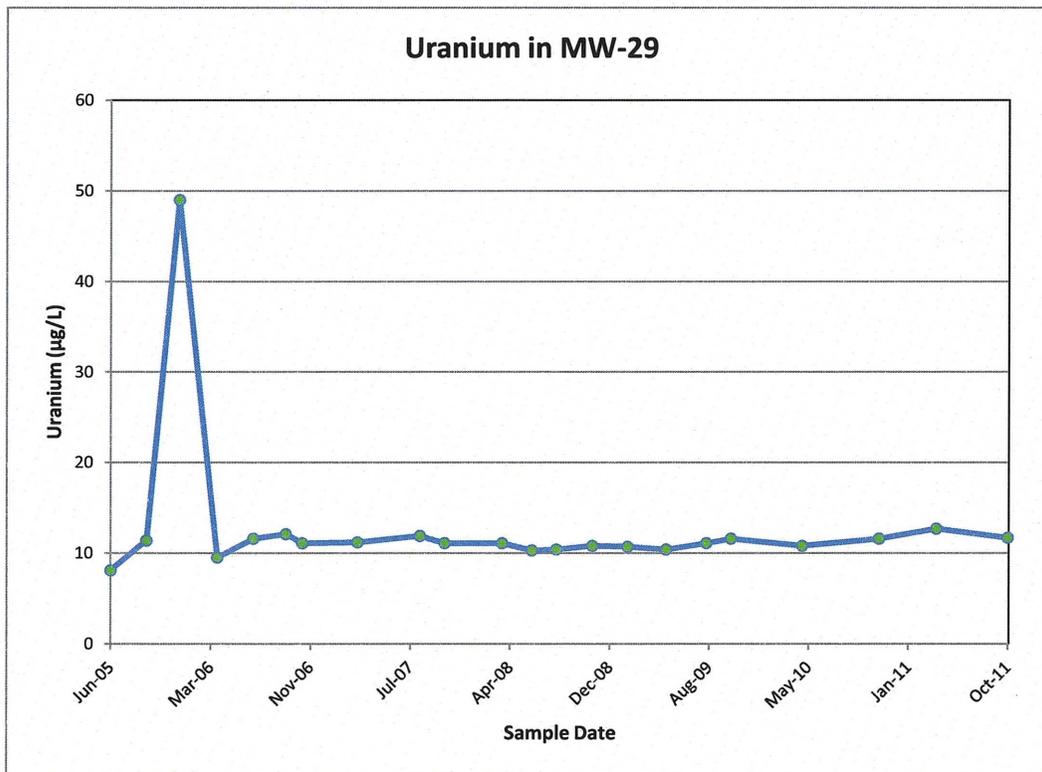
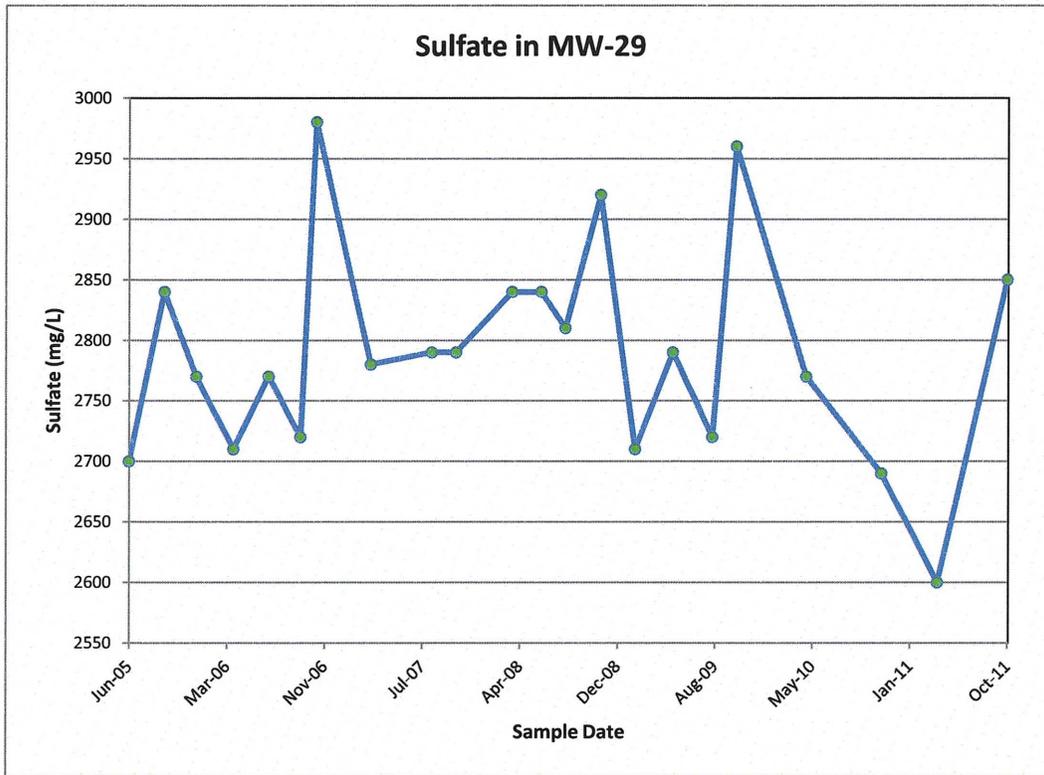
## Time concentration plots for MW-28



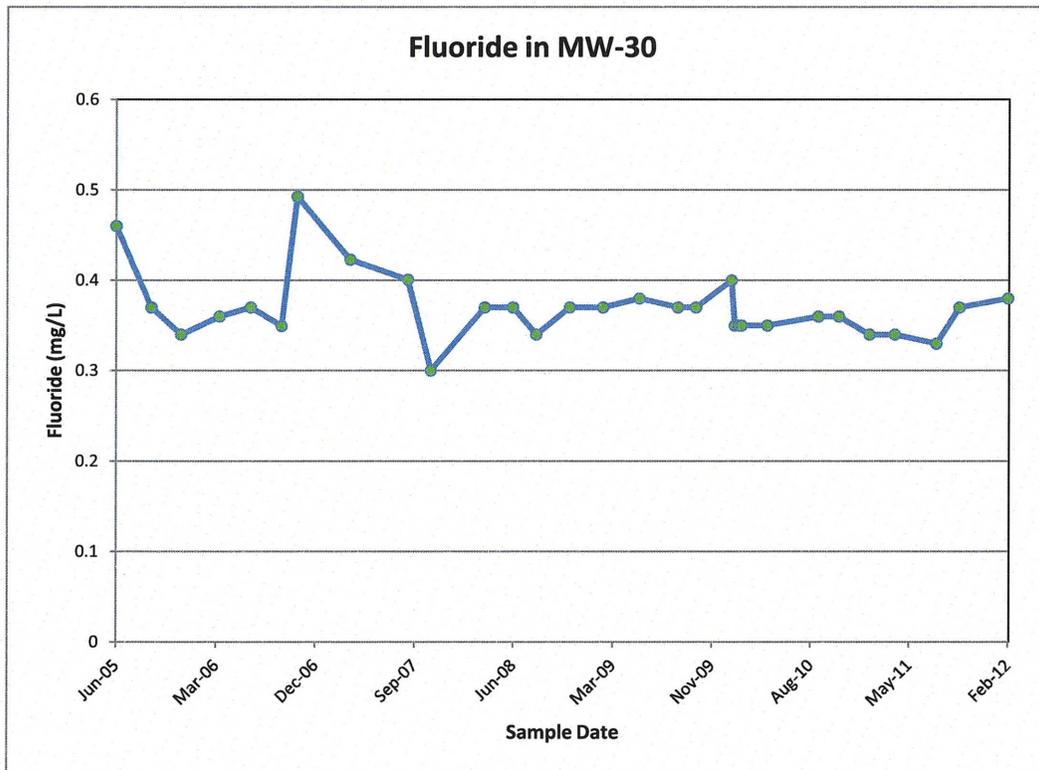
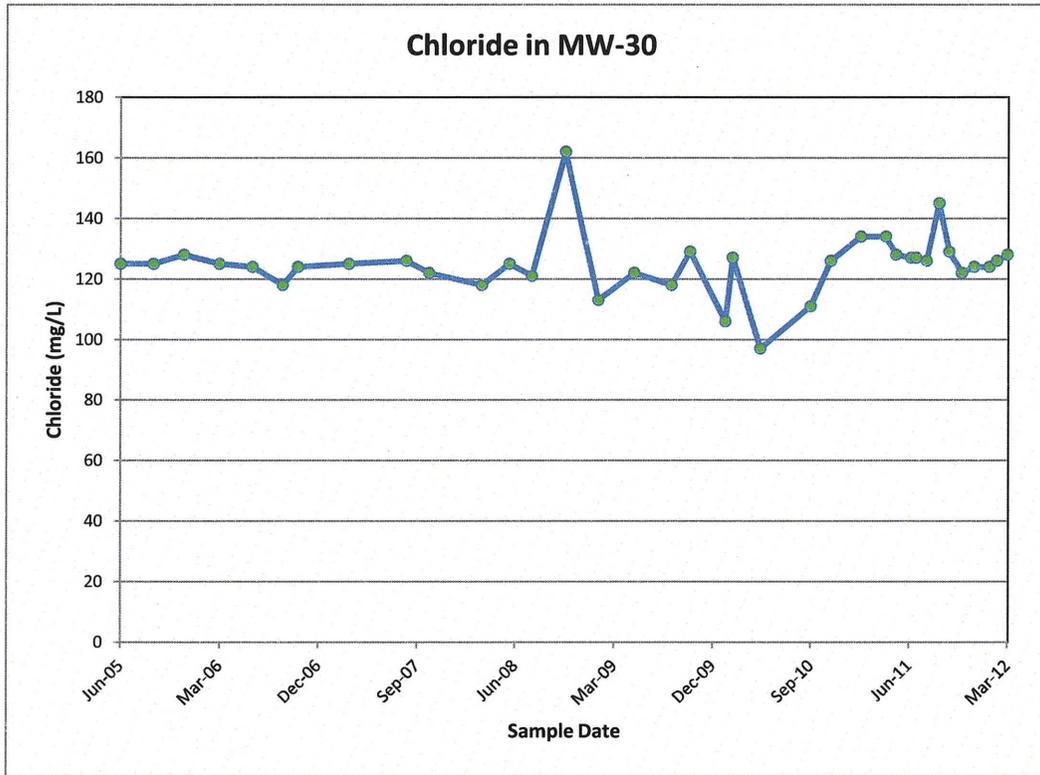
## Time concentration plots for MW-29



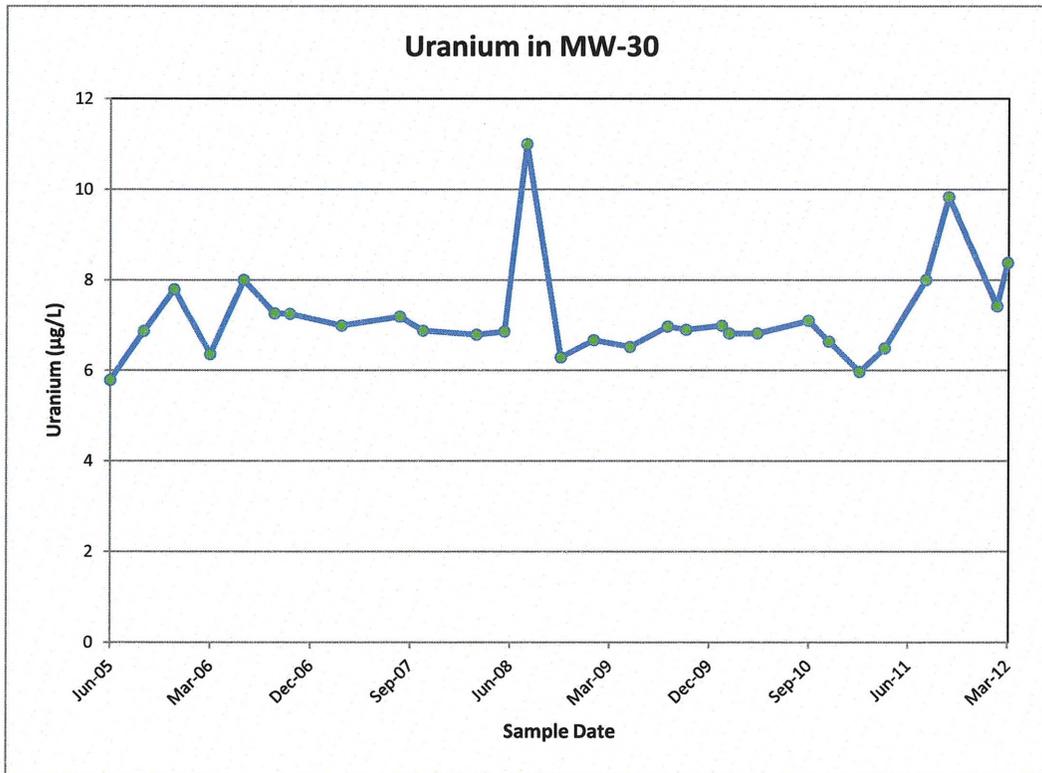
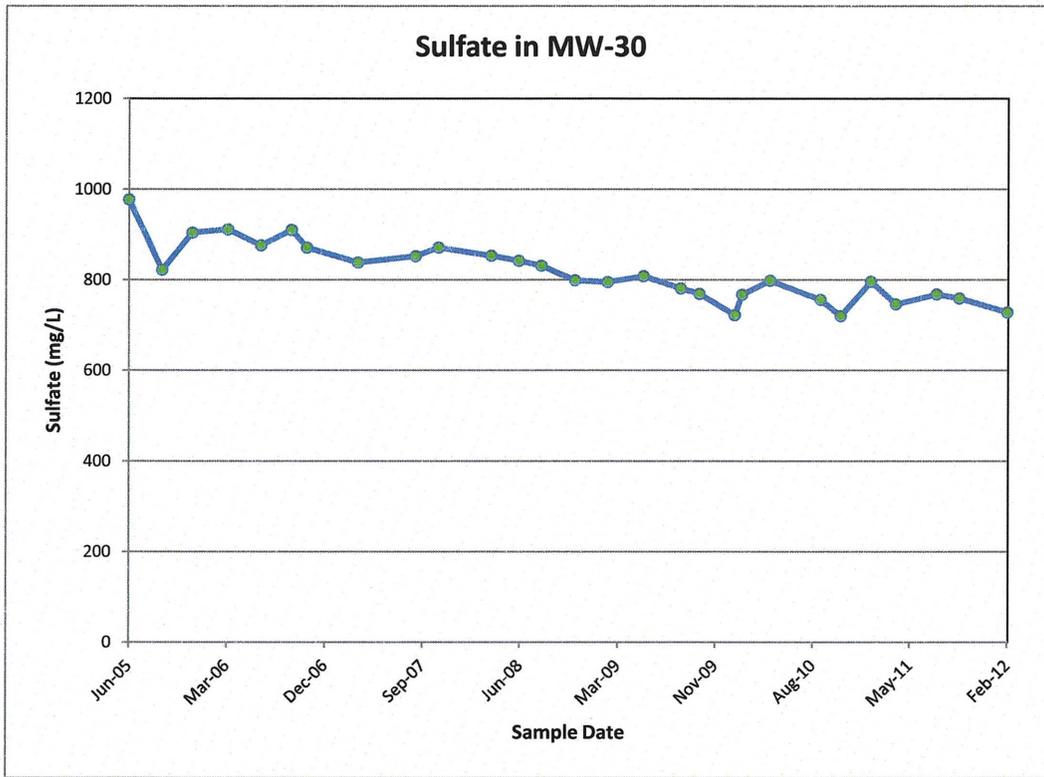
### Time concentration plots for MW-29



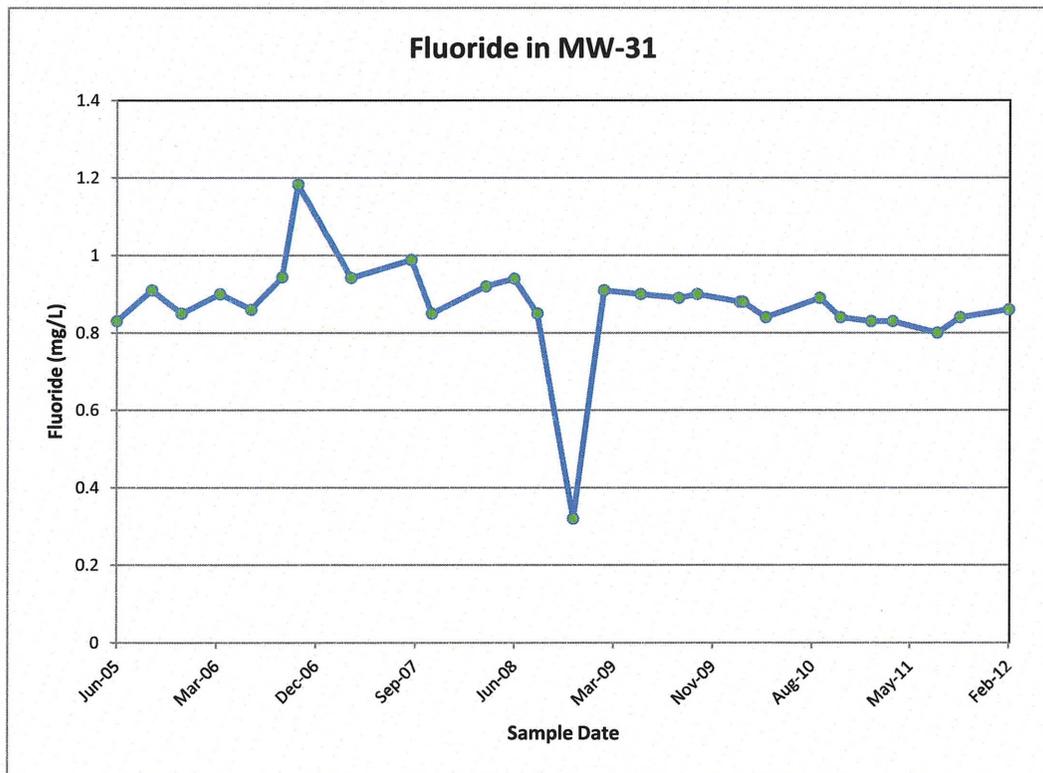
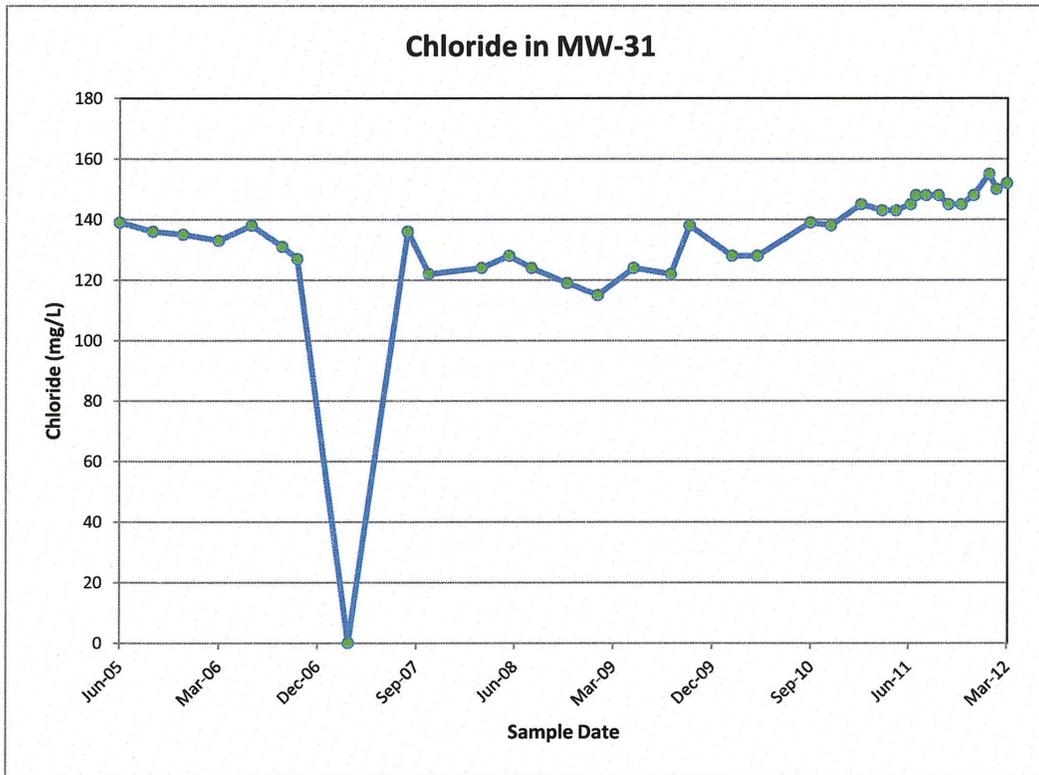
## Time concentration plots for MW-30



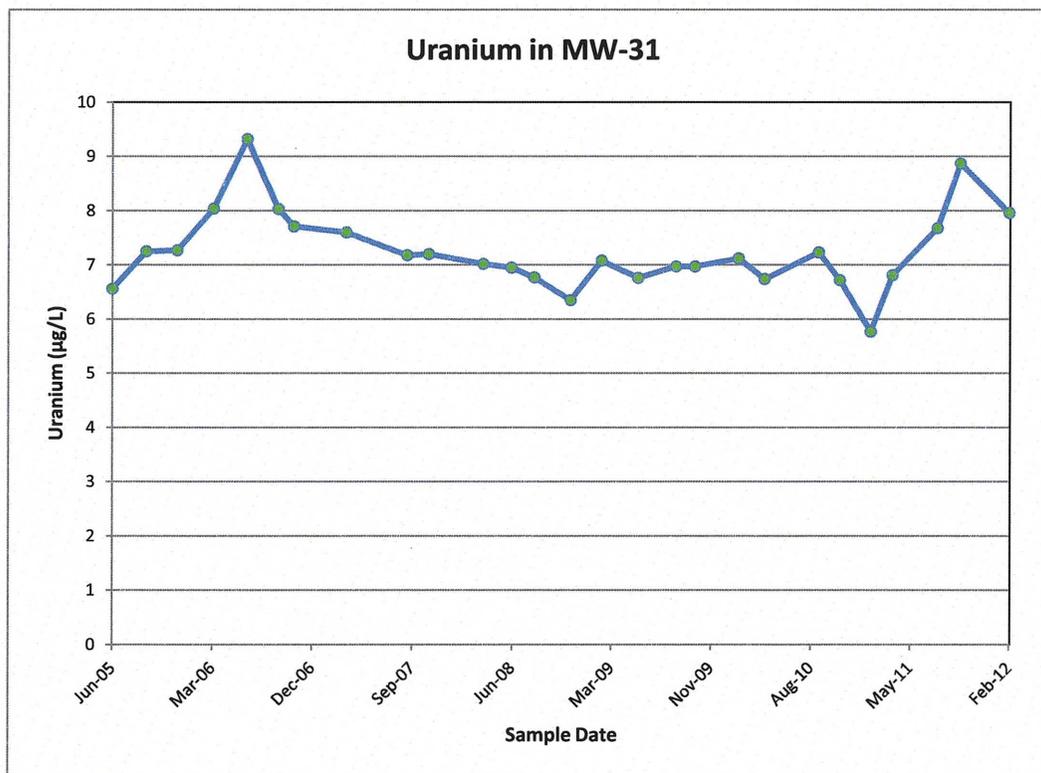
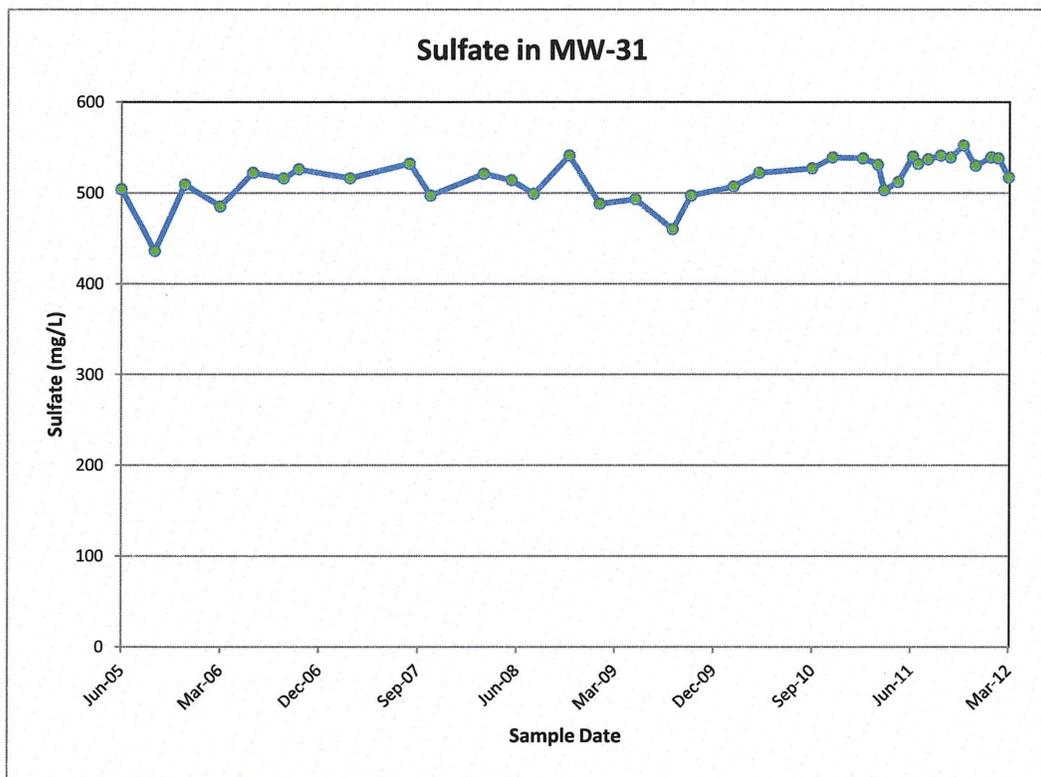
### Time concentration plots for MW-30



### Time concentration plots for MW-31

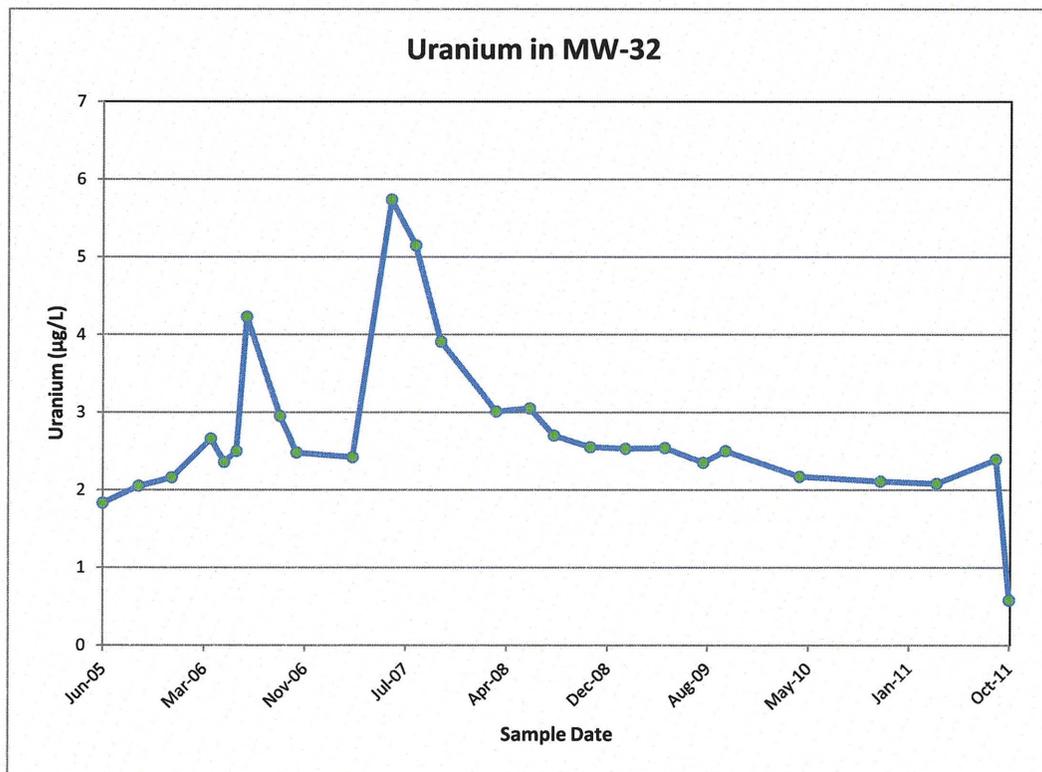
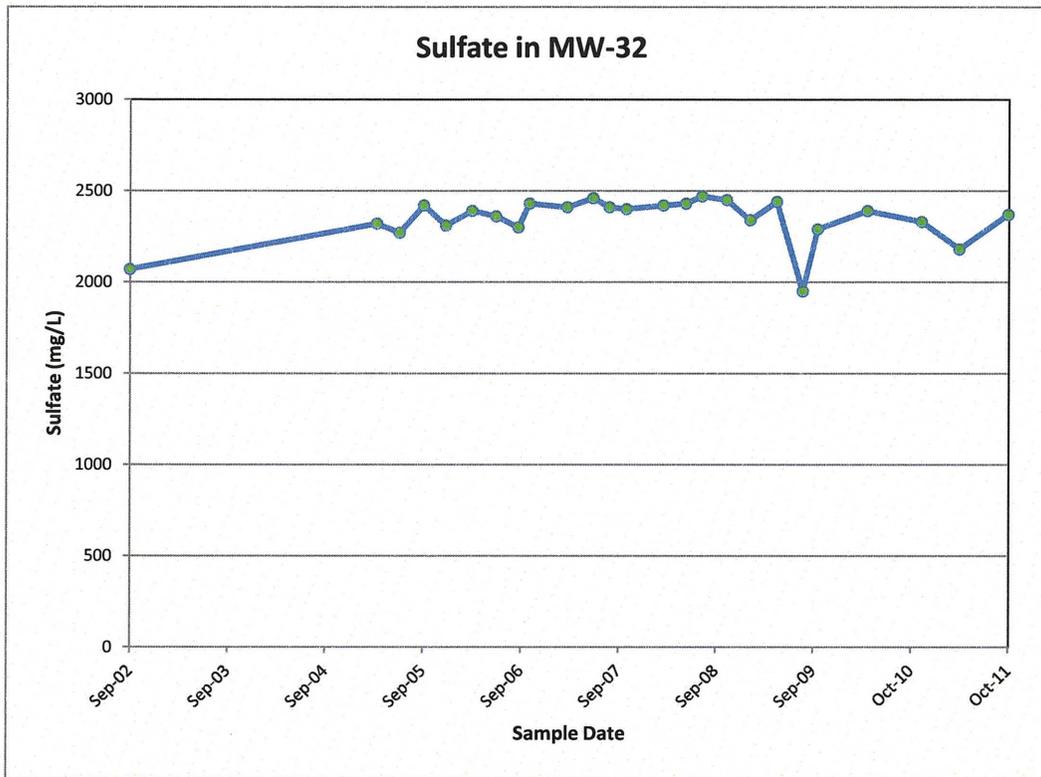


### Time concentration plots for MW-31

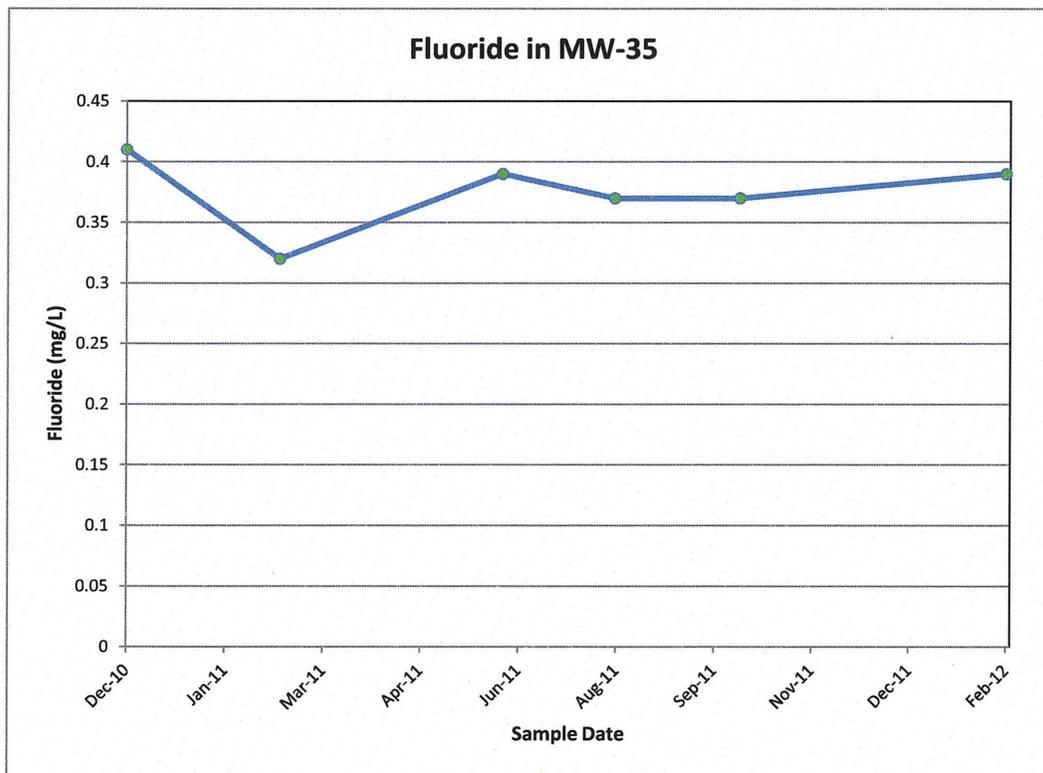
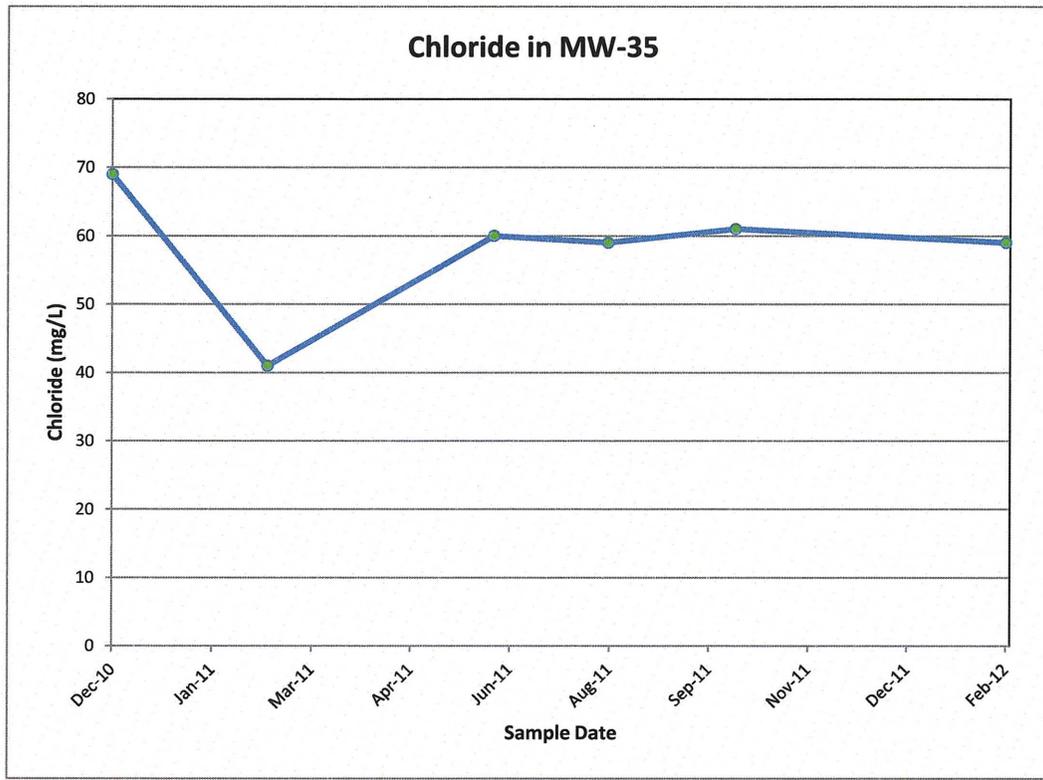




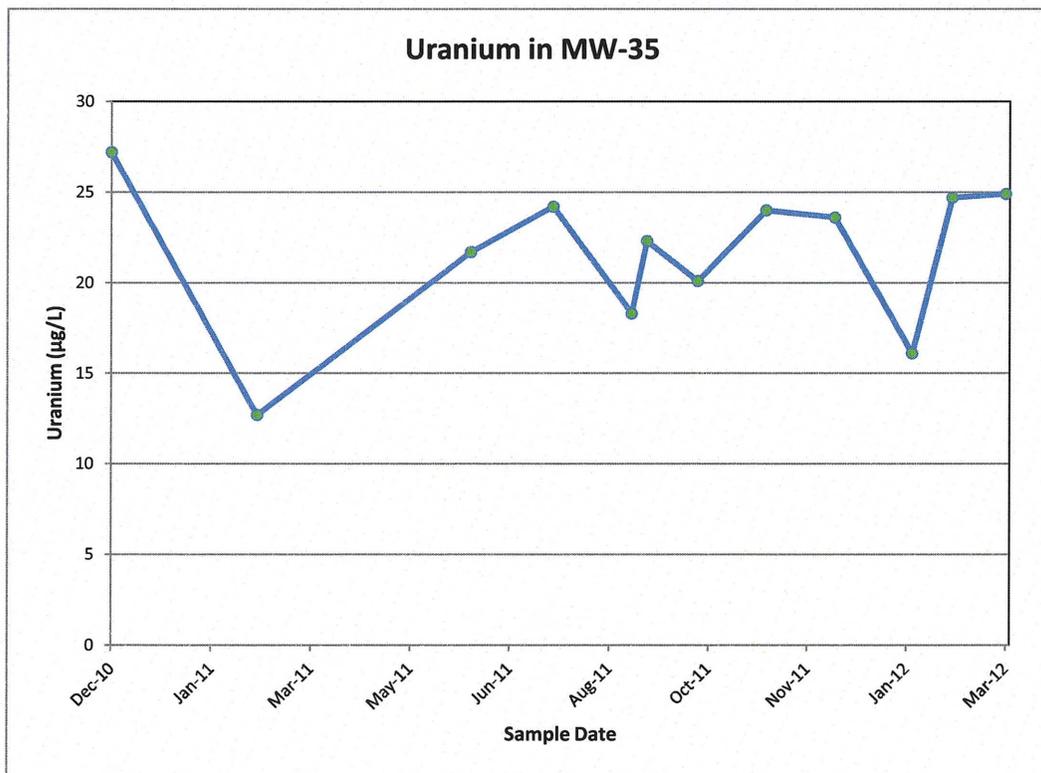
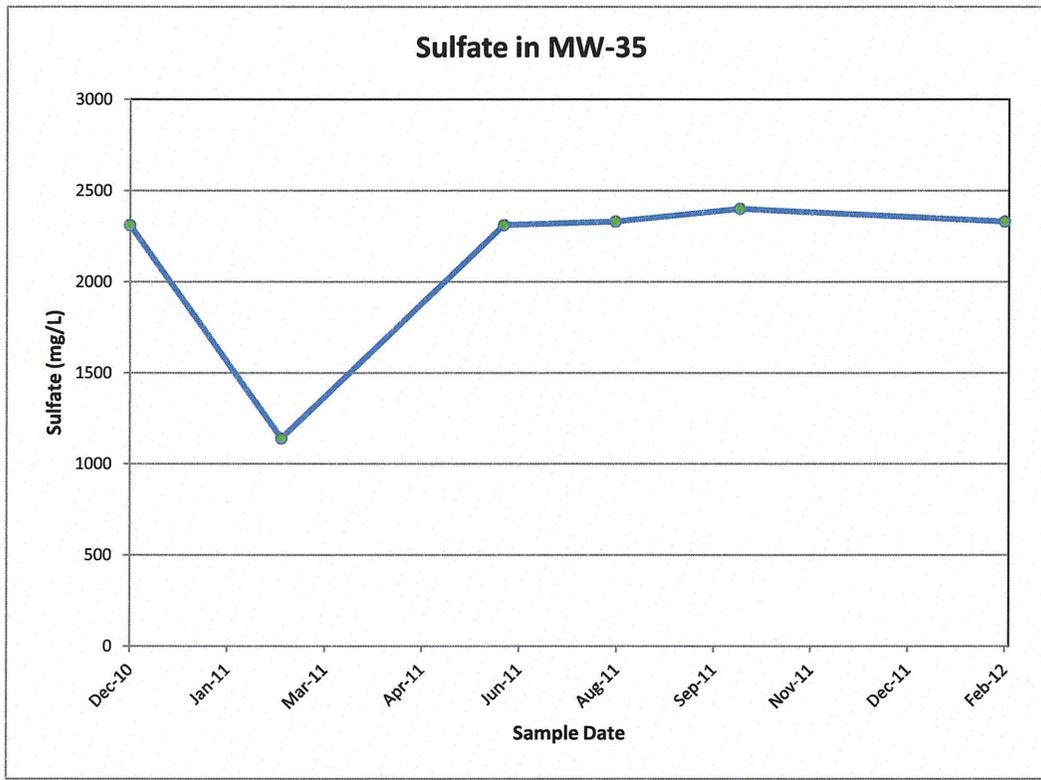
### Time concentration plots for MW-32



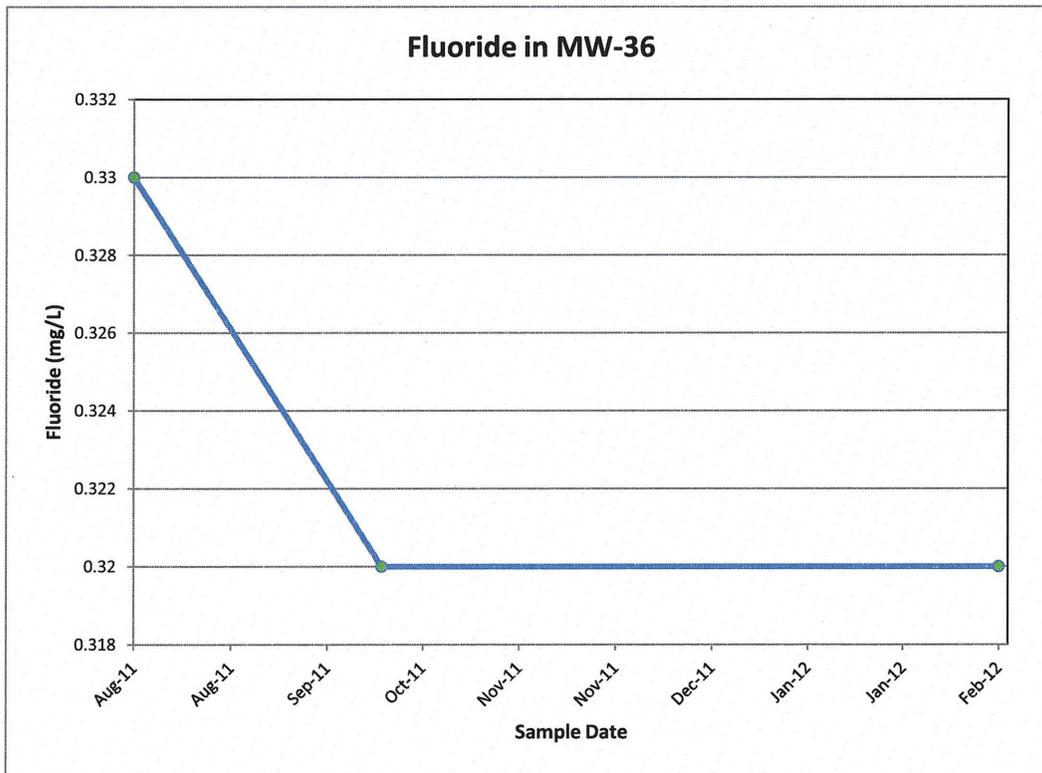
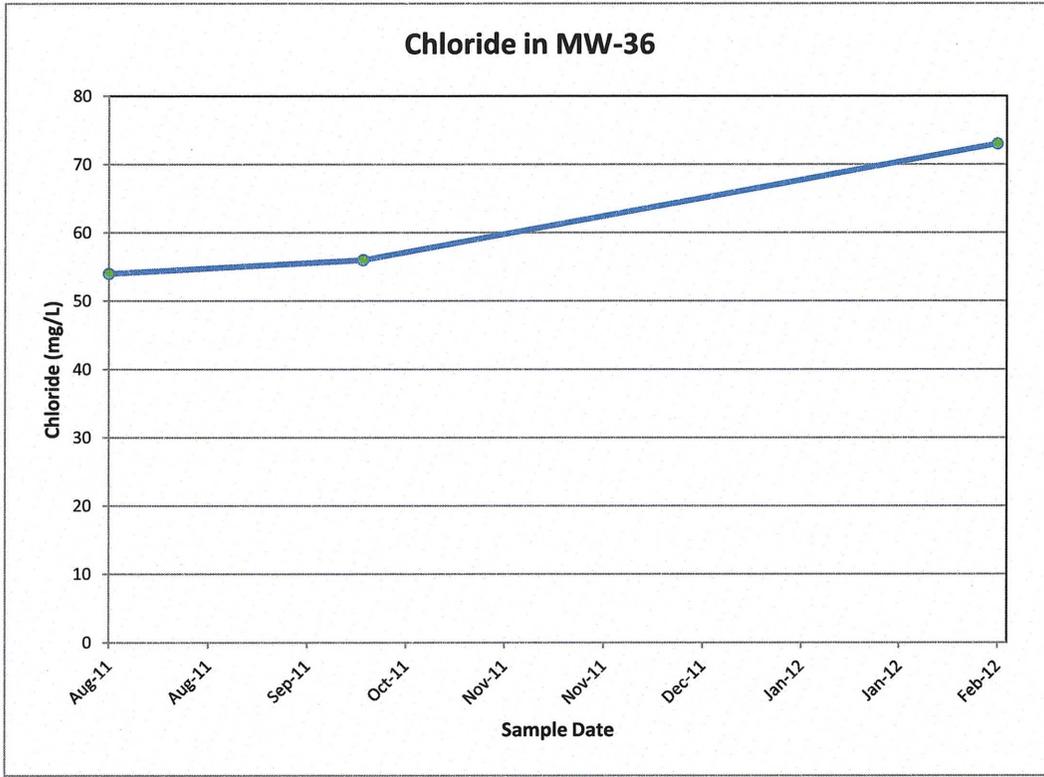
### Time concentration plots for MW-35



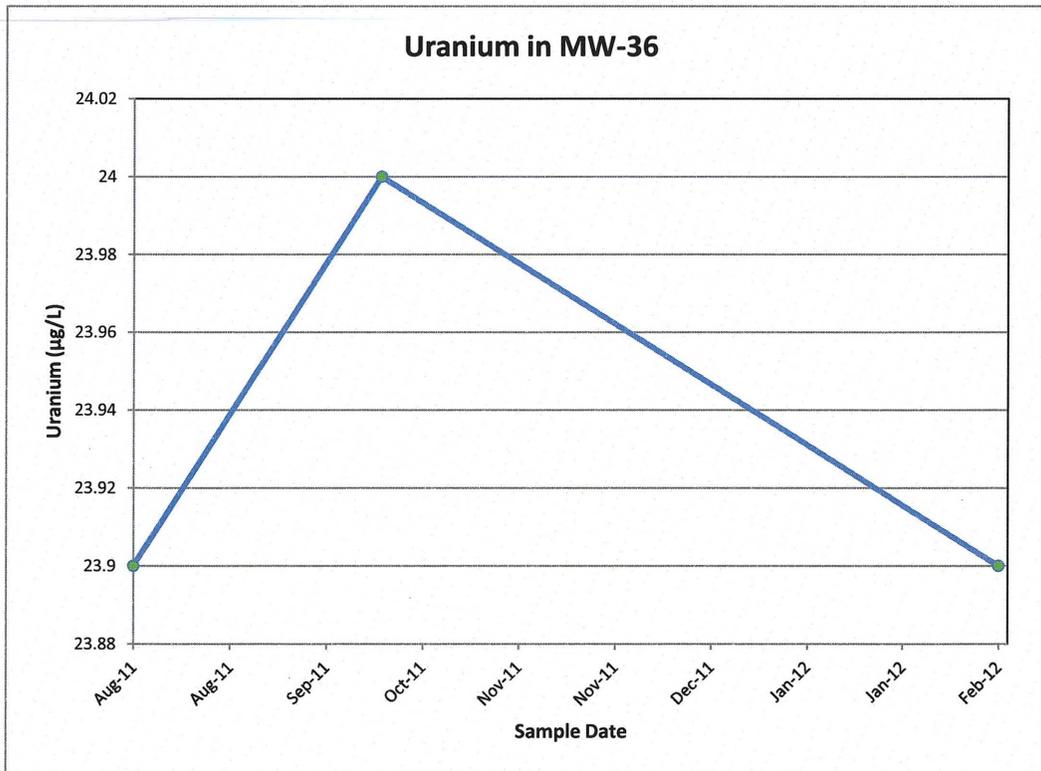
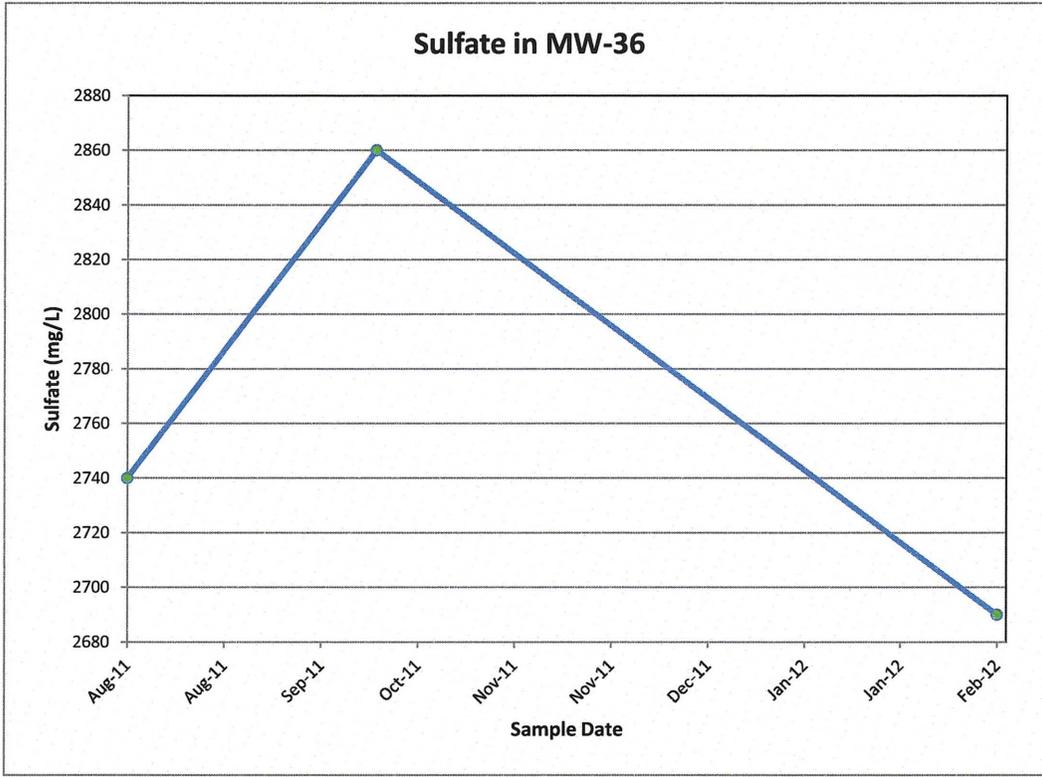
### Time concentration plots for MW-35



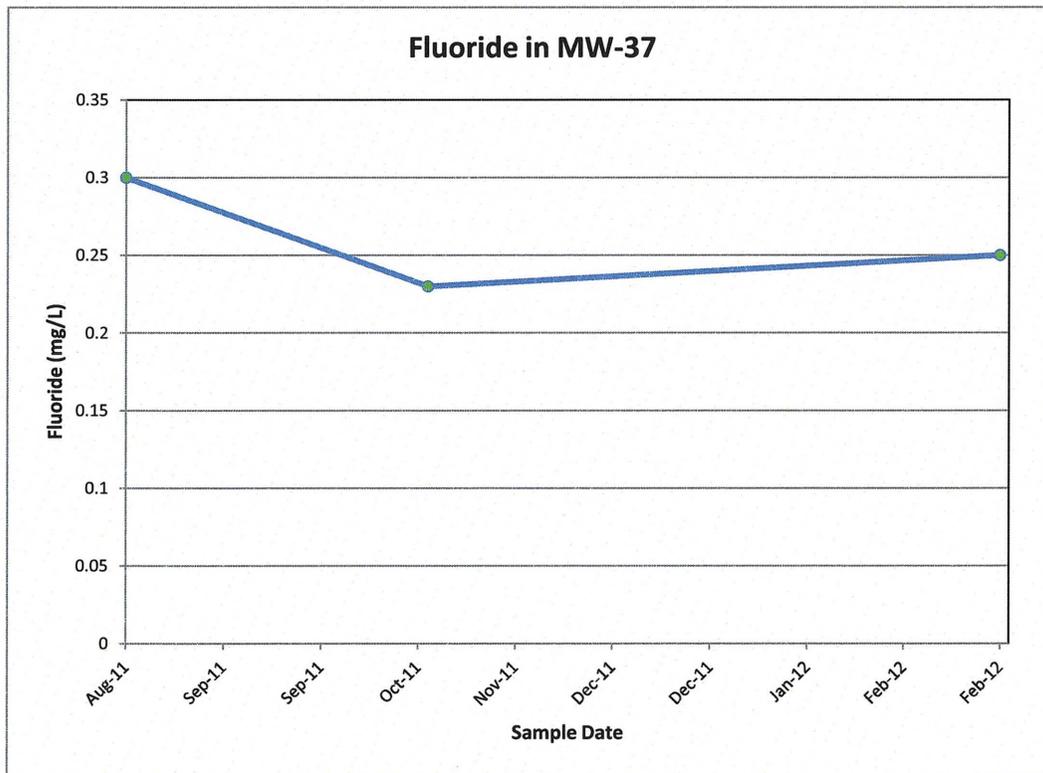
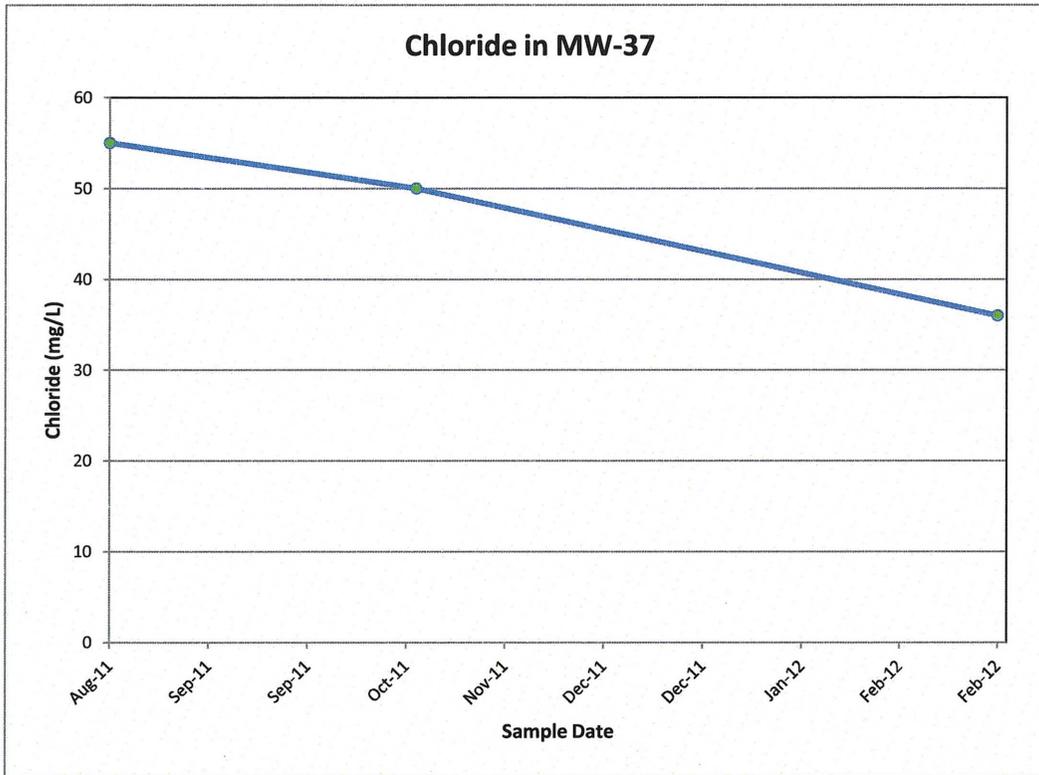
### Time concentration plots for MW-36



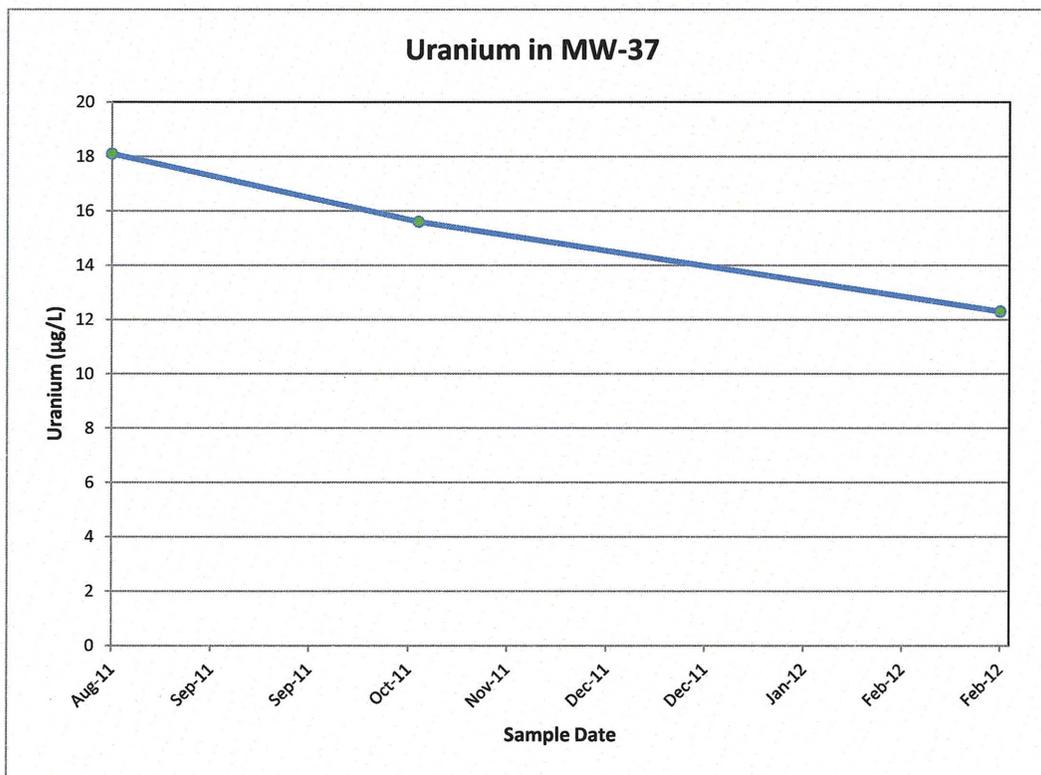
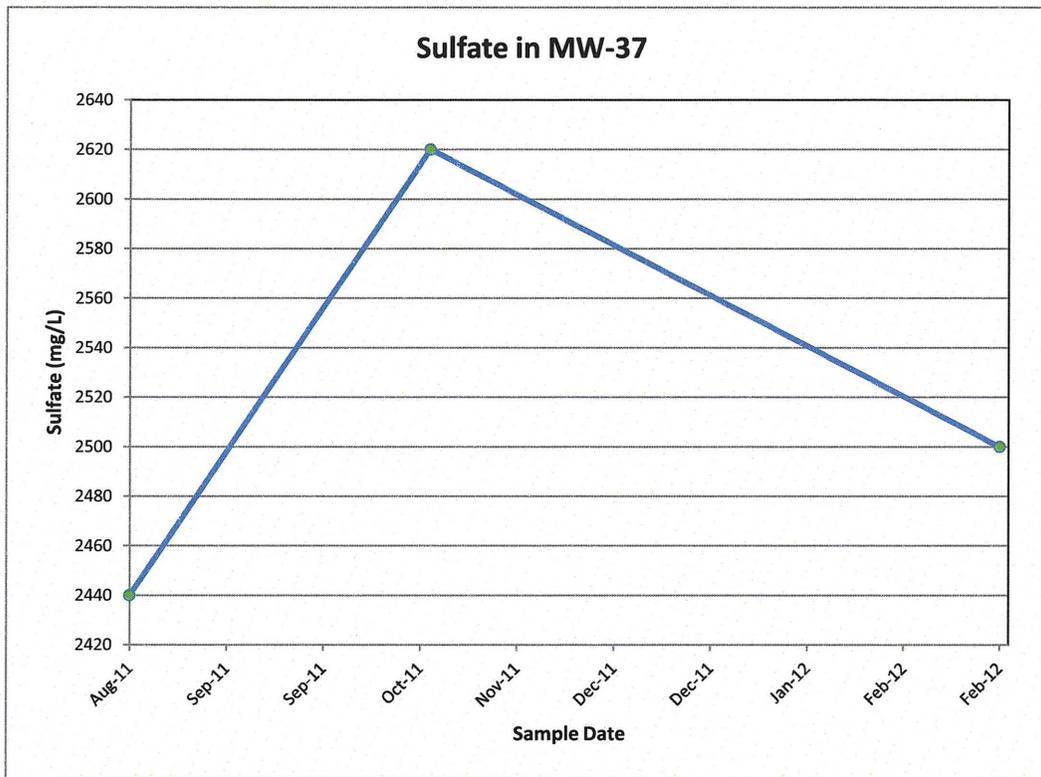
### Time concentration plots for MW-36



### Time concentration plots for MW-37



### Time concentration plots for MW-37



Tab J

CSV Transmittal Letter

## Kathy Weinel

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**From:** Kathy Weinel  
**Sent:** Friday, May 25, 2012 1:06 PM  
**To:** 'rlundberg@utah.gov'  
**Cc:** 'Pgoble@utah.gov'; 'TRUSHING@utah.gov'; Ron Hochstein; David Frydenlund; Jo Ann Tischler; Harold Roberts; David Turk; N. Tanner Holliday; Garrin Palmer; Jaime Massey  
**Subject:** Transmittal of CSV Files White Mesa Mill 2012 Q1 Groundwater Monitoring  
**Attachments:** 1201399-EDD.csv; 1202256-EDD.csv; 1202257-EDD.csv; 1202371-EDD.csv; 1203040-EDD.csv; 1203144-EDD.csv; 1203257 - EDD.csv; 1205180-EDD.csv; C12010822.csv; C12020681.CSV; C12020833.CSV; C12030065.CSV; C12030624.csv

Dear Mr. Lundberg,

Attached to this e-mail is an electronic copy of laboratory results for groundwater monitoring conducted at the White Mesa Mill during the first quarter of 2012, in Comma Separated Value (CSV) format.

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

Yours Truly

Kathy Weinel  
Denison Mines (USA) Corp.  
Quality Assurance Manager