



Energy Fuels Resources (USA) Inc.  
225 Union Blvd. Suite 600  
Lakewood, CO, US, 80228  
303 974 2140  
[www.energyfuels.com](http://www.energyfuels.com)

DRC-2019-008675

August 7, 2019

Div of Waste Management  
and Radiation Control

AUG 12 2019

**Sent VIA OVERNIGHT DELIVERY**

Mr. Ty L. Howard  
Director of Division of Waste Management and Radiation Control  
Utah Department of Environmental Quality  
195 North 1950 West  
P.O. Box 144880  
Salt Lake City, UT 84114-4880

**Re: Transmittal of 2nd Quarter 2019 Groundwater Monitoring Report  
Groundwater Quality Discharge Permit UGW370004 White Mesa Uranium Mill**

Dear Mr. Howard:

Enclosed are two copies of the White Mesa Uranium Mill Groundwater Monitoring Report for the 2nd Quarter of 2019 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,

A handwritten signature in cursive script that reads 'Kathy Weinel'.

**ENERGY FUELS RESOURCES (USA) INC.**  
Kathy Weinel  
Quality Assurance Manager

cc: William Paul Goranson  
David C. Frydenlund  
Scott Bakken  
Logan Shumway  
Terry Slade



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Kathy Weinel  
Quality Assurance Manager

cc: William Paul Goranson  
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Terry Slade

**White Mesa Uranium Mill**  
**Groundwater Monitoring Report**

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

**2nd Quarter**  
**(April through July)**  
**2019**

Prepared by:



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

**August 7, 2019**

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## ACRONYM LIST

AWAL	American West Analytical Laboratory
COC	Chain-of-Custody
DWMRC	Utah Division of Waste Management and Radiation Control
EFRI	Energy Fuels Resources (USA) Inc.
GEL	GEL Laboratories, Inc.
GWCLs	Groundwater Compliance Limits
GWDP	Groundwater Discharge Permit
LCS	Laboratory Control Spike
MS	Matrix Spike
MSD	Matrix Spike Duplicate
QA	Quality Assurance
QAP	Quality Assurance Plan
QC	Quality Control
RPD	Relative Percent Difference
SOPs	Standard Operating Procedures
USEPA	United States Environmental Protection Agency

## **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 second quarter of 2019 for Energy Fuels Resources (USA) Inc.’s. (“EFRI’s”) White Mesa Uranium Mill (the “Mill”). As required under Parts I.E.1, I.E.2, I.E.3, and I.E.5 of the GWDP, this Report includes 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 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, as discussed in the remainder of this section.

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

Groundwater samples and field measurements collected during the quarter included quarterly, semi-annual and accelerated monitoring. Accelerated monitoring is discussed below in Section 2.1.2. In this report, samples classified as being collected quarterly include those wells which are routinely sampled every quarter and the wells sampled semi-annually. Wells which are sampled routinely every quarter and semi-annually were analyzed for the parameters listed in Table 2 and Part I.E.1.d) 2)ii of the GWDP dated January 19, 2018.

Table 1 of this report provides an overview of 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.

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

Accelerated monthly sampling was also performed (quarterly wells accelerated to monthly), and results reported, for the wells indicated in Table 1. The accelerated sampling frequency, analyte list and well list were determined based on the previous analytical results as shown in Table 2.

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**

Monitor wells MW-38, MW-39, and MW-40 were installed in the first quarter 2018 pursuant to the GWDP Part 1.H.2 and quarterly sampling commenced in fourth quarter 2018. The GWDP Part 1.H.3 requires the completion of a background report for each of these wells after the completion of 8 quarters of sampling. The background reports and resultant Groundwater Compliance Limits (“GWCLs”) are to be calculated based on 8 statistically valid data points.

The statistical methods used for the background assessments and calculation of the GWCLs will be calculated as described in the GWDP Part 1.H.3.c.1), as approved by the Utah Division of Waste Management and Radiation Control (“DWMRC”).

The fourth quarter analytical results for MW-38, MW-39, and MW-40 are included in Tab E.

### **2.1.4 TW4-24**

Pursuant to the GWDP dated January 19, 2018, Part 1.E.1.c).ii, semi-annual monitoring of TW4-24 commenced in the second quarter of 2018. TW4-24 is currently used as a pumping well for the nitrate corrective action, is located within the chloroform plume, and is expected to exceed groundwater quality standards for analytes associated with these projects. It is expected that monitoring results will be highly variable as a result of the pumping and should not be used for direct compliance purposes. Rising or decreasing trends in analytes caused solely by pumping should not be unexpected. Further as background cannot be established for this pumping well, and given the variability of background concentrations across the site, analyte concentrations in TW4-24 may also vary widely from site ranges due to natural background variability and/or localized changes resulting from long-term pumping.

### **2.1.5 Parameters Analyzed**

Routine quarterly groundwater monitoring samples were analyzed for the parameters listed in Table 2 and Part I.E.1.d) 2) ii of the GWDP dated March 19, 2019. The accelerated monitoring samples were analyzed for a more limited and specific parameter list as shown in Table 2.

### **2.1.6 Groundwater Head Monitoring**

Depth to groundwater was measured in the following wells and/or piezometers, pursuant to Part I.E.3 of the GWDP dated March 19, 2019:

- The quarterly groundwater compliance monitoring wells (including MW-33 and MW-34).

- Existing monitoring well MW-4 and the temporary chloroform investigation wells.
- Piezometers – P-1, P-2, P-3A, 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 wells sampled during quarterly and accelerated efforts, regardless of the sampling purpose.

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 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 the field data sheets recorded in association with the accelerated monthly monitoring sampling efforts, referred to in paragraph 2.1.2, above. Sampling dates are listed in Table 1.

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

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

Analytical results are provided by two contract analytical laboratories: GEL and 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 under the GWDP (i.e., regular quarterly and accelerated semi-annual samples) are provided in Tab E. Also included under Tab E are the results of analyses for duplicate samples as identified in Table 1.

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

Under the GWDP, background groundwater quality has been determined on a well-by-well basis, as defined by the statistics contained in the Decision Tree/Flowchart used for the previous Background Reports that was conditionally approved by the DWMRC on

August 24, 2007. GWCLs that reflect this background groundwater quality have been set for compliance monitoring wells.

Exceedances of the GWCLs during the preceding quarter determined the accelerated monthly monitoring program implemented during this quarter as noted in Tables 1 and 2.

Exceedances of the GWCLs for this quarter are listed in Table 2 for sampling required under the revised GWDP. Accelerated requirements resulting from this quarter are highlighted for ease of reference. Table 3 documents the accelerated sampling program that started in the first quarter 2018 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 sample results, and do not necessarily represent impacts to groundwater from Mill operations. In fact, more frequent sampling of a given analyte will increase the number of exceedances due to statistical variation and not due to Mill activity. Additionally, given the slow velocity of groundwater movement, accelerated sampling monthly may result in resampling of the same water and may lead to repeat exceedances for accelerated constituents not due to Mill activities, but due to repeat sampling of the same water.

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

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

Results from analysis of samples collected for the monthly 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.

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

As a result of the issuance of a revised GWDP on March 19, 2019, which sets revised GWCLs, requirements to perform accelerated monitoring under Part I.G.1 of the previous GWDP ceased, effective March 19, 2019, and the effect of the issuance of the revised GWDP was to create a “clean slate” for most constituents going forward.

This means that accelerated monitoring during this quarter was required under the revised GWDP for only those constituents that exceeded the GWCLs since March 19, 2019.

### **2.4.3 Compliance Status**

Analytes that have exceeded the GWCLs set forth in the GWDP are summarized in Table 2. The analytes which exceeded their respective GWCLs during the quarter will be

sampled on an accelerated schedule as noted in Table 2. A review of the accelerated data collected during the quarter is reported in EFRI's Exceedance Notice for the quarter. Table 3 summarizes the results of the accelerated sampling program from second quarter 2019 through the current quarter.

Part I.G.4 c) of the GWDP states, with respect to exceedances of GWCLs, "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." EFRI submits an Exceedance Notice quarterly and 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 EFRI. The determination of whether a Plan and Time Schedule is required is based on discussions with DWMRC Staff in teleconferences on April 27 and May 2, 2011 and the constituents covered by previously submitted Source Assessment Reports.

#### **2.4.3.1 MW-28**

On May 28, 2014 EFRI notified DWMRC personnel of damage to Monitoring Well 28 ("MW-28"). The damage was noted by EFRI Environmental Staff during routine, quarterly sampling activities. Upon arrival at MW-28, EFRI Environmental Staff noticed that there was evidence that a vehicle had struck the outer protective metal casing of MW-28 and it was slightly bent and leaning to the west. Inspection of the inner, 10-inch PVC protective casing and the 4-inch well casing also showed signs of damage. The concrete seal between the 10-inch outer casing and the 4-inch casing was cracked and EFRI Environmental Staff noted that the 2 inner PVC casings were likely cracked and/or broken. Upon discovery of the damage on May 28, 2014, EFRI Environmental Staff contacted the EFRI QAM. The EFRI QAM notified DWMRC in person, while at the DWMRC offices in Salt Lake City. On June 2, and June 5, 2014 Environmental Staff and Bayles Exploration repaired the well and removed the debris in the bottom of the well resulting from the damage. The Environmental Staff then over pumped the well and removed over 4 casing volumes to redevelop the well. The well was sampled and the routine, second quarter 2014 sample was collected on June 18, 2014.

Three new analytes were reported above the GWCL in the second quarter 2014 data. The analytes are uranium, vanadium and cadmium as shown in Tables 2 and 3. Per the GWDP, EFRI began accelerated monitoring in third quarter 2014 at MW-28 for those three constituents. The fourth quarter 2014 MW-28 results for vanadium and cadmium were below the GWCLs. The uranium result remained above the GWCL in the third quarter 2014. Part I.G.4 c) of the GWDP requires a Plan and Time Schedule for constituents exceeding their GWCL in two consecutive monitoring periods. A Plan and Time Schedule was submitted for uranium in MW-28 on December 4, 2014 as required. The Plan and Time Schedule specified that an assessment of the uranium results would be completed after the first quarter 2015 sampling event. If the uranium results continue to

exceed the GWCL, EFRI will perform a video inspection of the interior of MW-28 to investigate the possibility of additional physical damage to the well structure that may be causing the elevated uranium results. The first quarter 2015 MW-28 results for uranium were below the GWCLs. The second quarter 2015 MW-28 uranium result was slightly above the GWCL and within the analytical variability of the method. Per discussions with DWMRC, EFRI was to continue to collect uranium data quarterly in MW-28 and assess the results and determine a path forward after the fourth quarter 2015. Both the third and fourth quarter 2015 and all of the 2016 results for uranium were below the GWCL. The first quarter 2017 MW-28 uranium result was slightly above the GWCL and within the analytical variability of the method. The second quarter 2017 result was below the GWCL, the third quarter 2017 result was slightly above the GWCL but within the analytical variation of the analytical method, and the fourth quarter result was below the GWCL. The first quarter 2018 uranium result was below the GWCL and the second, third, and fourth quarter 2018 and the first and second quarter 2019 results were slightly above the GWCL but within the analytical variation of the analytical method. Per discussions with DWMRC, EFRI will continue to collect uranium data quarterly in MW-28 and assess the results and determine a path forward after additional data are received.

As previously noted, cadmium results exceeded the GWCL in the second quarter 2014, immediately following the damage to the well, but the subsequent cadmium results were below the GWCL. The first quarter 2016 MW-28 cadmium result was slightly above the GWCL and within the analytical variability of the method. The second, third, and fourth quarter 2016 results were below the GWCL. The first quarter 2017 MW-28 cadmium result was slightly above the GWCL and within the analytical variability of the method. The second, third and fourth quarter 2017 and first and second, third, and fourth quarter 2018 and the first and second quarter 2019 MW-28 cadmium results were below the GWCL. Cadmium results have been below the GWCL for eight consecutive quarters and per the DWMRC letter dated May 22, 2019, cadmium will no longer be sampled on an accelerated schedule.

In the fourth quarter 2018 the gross alpha minus radon and uranium (“gross alpha”) result in MW-28 exceeded the GWCL. Gross alpha will be accelerated as required by the GWDP.

In the second quarter 2019 the selenium result in MW-28 exceeded the GWCL. Selenium will be accelerated as required by the GWDP.

EFRI will continue accelerated monitoring as required by the GWDP and discuss any additional findings in future reports.

#### **2.4.3.2 MW-05**

Uranium in this well first exceeded the GWCL in 2011 and the concentrations have been extremely variable since the first exceedance in 2011. The concentrations have ranged from 0.04 ug/L to 145 ug/L with the 118 of 127 results below the GWCL of 7.5 ug/L. Additionally, the variability of the uranium results in MW-05 appear to be affected by

temporal or seasonal conditions as evidenced by concentrations which rise in either the fourth quarter or first quarter followed by substantial decreases beginning in the second quarter. Uranium in MW-05 was addressed in the SAR, dated October 10, 2012, which stated that the exceedance is not caused by Mill activities, but further study was warranted due to the variability issues associated with the uranium data. Further study is currently in progress.

In an effort to address potential physical causes on the uranium variability, EFRI made changes to the casing and surrounding area in May 2017. The top of the casing (“TOC”) for MW-05 was slightly below the ground surface and may have inadvertently allowed dust and dirt to enter the well during sampling activities. To address this issue EFRI extended the TOC several feet and regraded the area surrounding the well. After the TOC was extended, the well was over pumped to remove any dirt which may have been introduced during these field activities. These activities were completed after the second quarter sampling event was conducted. The uranium data in MW-05 have been below the GWCL from the third quarter 2017 through second quarter 2019.

Uranium results have been below the GWCL for eight consecutive quarters and per the DWMRC letter dated August 6, 2019, uranium will no longer be sampled on an accelerated schedule.

Discussions regarding MW-05 will no longer be included in this quarterly report in the future.

## **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 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 Groundwater Monitoring Quality Assurance Plan (“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 certification and reporting protocol. The analytical laboratory QA/QC Summary Reports, including copies of the Mill's COC and Analytical Request Record forms for each set of Analytical Results, follow the analytical results under Tabs E and F. Review of the laboratory QA/QC information is provided under Tab G.

### **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.

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

One trip blank for each of the monthly accelerated sample events was provided by AWAL and returned and analyzed with the accelerated monthly monitoring samples.

Rinsate samples were not collected during the quarter because equipment used during sample collection was dedicated and did not require decontamination. All wells except MW-20, MW-37 and MW-38 have dedicated pumps for purging and sampling and as such no rinsate blanks samples are required. MW-20, MW-37 and MW-38 were purged and sampled with a disposable bailer and no rinsate blank was required. A deionized field blank was not required because equipment decontamination was not required and deionized water was not used during this sampling event.

### **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 met and that the SOP's were implemented as required.

### **3.3 Analyte Completeness Review**

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

The monthly accelerated sampling program shown on Tables 2 and 3 is required as a result of exceedances in quarterly well monitoring results reported in previous quarters.

### **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 completed 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 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 the stability of the following field parameters (based upon the purging method chosen): specific conductance, pH, temperature, redox potential, and turbidity. Stability of field parameters and well sampling techniques are dependent on the purging technique employed. Review of the Depth to Water data confirms that depth measurements were conducted within a five-day period. The results of this quarter's review are provided in Tab G.

There are three purging strategies specified in Revision 7.4 of the QAP that are used to remove stagnant water from the casing during groundwater sampling at the Mill. The three strategies are as follows:

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

During both the quarterly sampling event and the two monthly events, the purging technique used was two casing volumes with stable field parameters (pH, Conductivity, Redox, temperature and turbidity) except for the following wells that were purged to dryness after 2 casing volumes were removed: MW-03A, MW-23 and MW-24.

Based upon the review of the Field Data Sheets, quarterly and semi-annually sampled locations conformed to the QAP requirement for purging using the two casing volume technique except for MW-20, MW-37 and MW-38. MW-20, MW-37 and MW-38 were evacuated to dryness before two casing volumes could be removed. MW-20, MW-37 and MW-38 have insufficient water to purge using a pump. Due to the small volume of water present, these wells are purged and sampled using a disposable bailer. MW-20, MW-37 and MW-38 conformed to the QAP, Revision 7.4 requirement for sampling low yield wells which includes the collection of three field parameters (pH, specific conductance [“conductivity”] and temperature) immediately prior to and immediately following sample collection. Stabilization of pH, conductivity and temperature were within the 10% RPD required by QAP, Revision 7.4. MW-03A, MW-23, and MW-24 were purged to dryness after 2 casing volumes were removed and the low yield sampling procedures were used for the collection of field parameters. Stabilization of pH, conductivity and temperature were within the 10% RPD required by QAP, Revision 7.4 for well MW-03A, MW-23, and MW-24.

Additionally, two casing volumes were not purged from MW-26 and TW4-24, prior to sampling because MW-26 and TW4-24 are continuously pumped wells. If a well is continuously pumped, it is pumped on a set schedule per the remediation plan and is considered sufficiently evacuated to immediately collect a sample; however, if a pumping well has been out of service for 48 hours or more, EFRI follows the purging requirements outlined in Attachment 2-3 of the QAP.

The review of the field sheets for compliance with QAP, Revision 7.4 requirements resulted in the observations noted below. The QAP requirements in Attachment 2-3 specifically state that field parameters must be stabilized to within 10% over at least two consecutive measurements. The QAP Attachment 2-3 states that turbidity should be less than 5 NTU prior to sampling unless the well is characterized by water that has a higher turbidity. The QAP Attachment 2-3 does not require that turbidity measurements be less than 5 NTU prior to sampling. As such, the noted observations regarding turbidity measurements greater than 5 NTU below are included for information purposes only.

- Turbidity measurements were less than 5 NTU for the quarterly and semi-annual wells except MW17, MW-29, MW-31, MW-32, and TW4-24. Per the QAP, Revision 7.4, Attachment 2-3, turbidity measurements prior to sampling were within a 10% RPD for the quarterly and semi-annual wells.
- Turbidity measurements were less than 5 NTU for the accelerated sampling wells except MW-25 in the May and June monthly events. As previously noted, the QAP does not require that turbidity be less than 5 NTU. Turbidity measurements prior to sampling were within a 10% RPD for the accelerated sampling wells

The other field parameters (conductance, pH, redox potential, and temperature) for the wells were within the required RPD for the quarterly, semi-annual and accelerated sampling.

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

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

#### **3.4.2 Holding Time Evaluation**

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

#### **3.4.3 Receipt Temperature Evaluation**

COC sheets were reviewed to confirm compliance with the QAP requirement in Table 1 that samples be received at 6°C or lower. Sample receipt temperature checks are provided under Tab G. The quarterly, semi-annual and accelerated samples were received within the required temperature limit.

As noted in Tab G, samples for gross alpha analyses were shipped without using ice. Per Table 1 in the approved QAP, samples submitted for gross alpha analyses do not have a sample temperature requirement.

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

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

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

The analytical method RLs reported by both laboratories were checked against the RLs specified in the QAP Table 1. RL evaluations are provided in Tab G. The analytes were

measured and reported to the required RLs except that several sets of quarterly, semi-annual and accelerated sample results had the RL 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 RL.

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

The trip blank results were reviewed to identify any VOC sample contamination which is the result of sample handling and shipment. Trip blank evaluations are provided in Tab G. The trip blank results associated with the quarterly, semi-annual and accelerated samples were all nondetect for 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 are less than 5 times the 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 the duplicate pairs for all analytes regardless of whether or not the reported concentrations are greater than 5 times the required detection limits; however, data will be considered noncompliant only when the results are greater than 5 times the required detection limit and the RPD is greater than 20%. The additional duplicate information is provided for information purposes.

Field duplicate sample results were assessed as required by the SOP. Duplicate results were within the acceptance limits specified in the QAP except for zinc in MW-14/MW-65. The zinc results were greater than 20% RPD, however, the sample and duplicate results were not greater than 5 times the RL and as such are acceptable. Field duplicate results are shown in Attachment I.

The duplicate results were within a 20% RPD in the monthly 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 when gross alpha results are reported with an activity equal to or greater than the GWCL the counting variance shall be 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. The quarterly and semi-annual radiologic sample results met the counting error requirements specified in the QAP except as noted in Tab G. The results for MW-02, MW-11, MW-19, MW-22, MW-23, MW-25, MW-27, MW-29, MW-31, MW-37, and MW-40 did not meet the requirement that the counting error be equal to or less than 20% of the reported activity concentration, likely because

the reported concentrations are very near the RL. As stated above the 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; however, MW-19, MW-22, and MW-40 do not have GWCLs and this second level check cannot be performed. The results are usable for the intended purpose and there is no adverse effect on the data.

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.

All of the radiologic duplicates were within acceptance limits. Results of quarterly, semi-annual, and accelerated radiologic sample QC are provided under Tab G.

### **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, EFRI's QA Manager rechecks QC samples and blanks (items (5) and (6)) to confirm that the percent recovery for spikes and the relative percent difference for spike duplicates are within the method-specific required limits, or that the case narrative sufficiently explains any deviation from these limits. Results of this quantitative check are provided under Tab G. The lab QA/QC results from both GEL and AWAL samples for compounds regulated under the GWDP met these requirements.

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.
- Laboratory Duplicates are equivalent to MSDs.

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

The QAP, Section 8.1.2 requires that a MS/MSD pair be analyzed with each analytical batch. The QAP does not specify acceptance limits for the MS/MSD pair, and the QAP does not specify that the MS/MSD pair be prepared on EFRI samples only. Acceptance limits for MS/MSDs are set by the laboratories. The review of the information provided

by the laboratories in the data packages verified that the requirements in the QAP to analyze a MS/MSD pair with each analytical batch were 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 the quarterly and semi-annual samples were within acceptable laboratory limits for the regulated compounds except as indicated in Tab G. The data recoveries and RPDs which are outside the laboratory established acceptance limits do not affect the quality or usability of the data because the recoveries and RPDs above or below the acceptance limits are indicative of matrix interference most likely caused by other constituents in the samples. Matrix interferences are applicable to the individual sample results only. The requirement in the QAP to analyze a MS/MSD pair with each analytical batch was met and as such the data are compliant with the QAP.

The information from the Laboratory QA/QC Summary Reports indicates that the MS/MSDs recoveries and the associated RPDs for the accelerated samples were within acceptable laboratory limits for the regulated compounds except as indicated in Tab G. The data recoveries and RPDs which are outside the laboratory established acceptance limits do not affect the quality or usability of the data because the recoveries and RPDs above or below the acceptance limits are indicative of matrix interference most likely caused by other constituents in the samples. Matrix interferences are applicable to the individual sample results only. The requirement in the QAP 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 information from the Laboratory QA/QC Summary Reports indicates that the surrogate recoveries for the quarterly and accelerated samples were within acceptable laboratory limits for the surrogate compounds.

The information from the Laboratory QA/QC Summary Reports indicates that the LCS recoveries for both the quarterly and accelerated samples were within acceptable laboratory limits except as noted in Tab G. The LCS recoveries (tetrahydrofuran) above the laboratory established acceptance limits do not affect the quality or usability of the data because the recoveries above the acceptance limits indicate a potential high bias to the sample results.

The QAP, Section 8.1.2 requires that each analytical batch shall be accompanied by a method blank. The 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 was prepared for the 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. QAP Revision 7.4 states that non-conformance conditions will exist when contaminant levels in the samples(s) are not an order of

magnitude greater than the blank result. The quarterly, semi-annual and accelerated method blank results were nondetect.

Method blank results are included in Tab E and Tab F.

Laboratory duplicates are completed by the analytical laboratories as required by the analytical method specifications. Acceptance limits for laboratory duplicates are set by the laboratories. The QAP does not require the completion of laboratory duplicates or the completion of a QA assessment of them. EFRI reviews the QC data provided by the laboratories for completeness and to assess the overall quality of the data provided. Duplicate results for the quarterly, semi-annual and accelerated samples outside of the laboratory established acceptance limits are included in Tab G. The results outside of the laboratory established acceptance limits do not affect the quality or usability of the data because the RPDs above the acceptance limits are indicative of non-homogeneity in the sample matrix. Matrix effects are applicable to the individual sample results only.

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

There are no corrective actions required during the current monitoring period.

##### **4.1 Assessment of Corrective Actions from Previous Period**

No corrective actions were identified in the previous report.

#### **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. The data points collected to date are reflected on the plots.

Time concentration plots included with quarterly groundwater reports prior to and including first quarter 2012 did not include data that were determined to be outliers using the statistical methods used for the background determinations at the Mill. Based on conversations with DWMRC, all of the data have been included in the quarterly time concentration plots since first quarter 2012.

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

EFRI has provided to the Director electronic copies of the laboratory results from groundwater quality monitoring conducted during the quarter in Comma Separated Values format, from the analytical laboratories. A copy of the transmittal e-mail is included under Tab J.

**7.0 SIGNATURE AND CERTIFICATION**

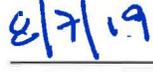
This document was prepared by Energy Fuels Resources (USA) Inc.

Energy Fuels Resources (USA) Inc.

By:



\_\_\_\_\_  
Scott A. Bakken  
Senior Director Regulatory Affairs



\_\_\_\_\_  
Date

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.



---

Scott A. Bakken  
Senior Director Regulatory Affairs  
Energy Fuels Resources (USA) Inc.

## Tables

Table 1: Summary of Well Sampling for Q2 2019

Well	Normal Frequency	Purpose for sampling this quarter	Sample Date	Date of Lab Report
MW-01	Semi-annually	General Monitoring Well	4/17/2019	(05/03/19) [05/14/19]
MW-02	Semi-annually	Semi-annually	4/25/2019	(05/21/19) [05/22/19]
MW-03A	Semi-annually	Semi-annually	5/2/2019	(05/20/19) [05/31/19]
MW-05	Semi-annually	Semi-annually	4/24/2019	(05/21/19) [05/22/19]
MW-11	Quarterly	Quarterly	4/24/2019	(05/21/19) [05/22/19]
MW-12	Semi-annually	Semi-annually	4/25/2019	(05/21/19) [05/22/19]
MW-14	Quarterly	Quarterly	4/23/2019	(05/21/19) [05/22/19]
MW-15	Semi-annually	Semi-annually	4/30/2019	(05/20/19) [05/31/19]
MW-17	Semi-annually	Semi-annually	4/16/2019	(05/03/19) [05/14/19]
MW-18	Semi-annually	General Monitoring Well	4/16/2019	(05/03/19) [05/14/19]
MW-19	Semi-annually	General Monitoring Well	4/23/2019	(05/21/19) [05/22/19]
MW-20	Semi-annually	General Monitoring Well	5/15/2019	(06/02/19) [06/17/19]
MW-22	Semi-annually	General Monitoring Well	4/30/2019	(05/20/19) [05/31/19]
MW-23	Semi-annually	Semi-annually	5/15/2019	(06/02/19) [06/17/19]
MW-24	Semi-annually	Semi-annually	5/2/2019	(05/20/19) [05/31/19]
MW-25	Quarterly	Quarterly	4/10/2019	(04/26/19) [05/06/19]
MW-26	Quarterly	Quarterly	4/24/2019	(05/21/19) [05/22/19]
MW-27	Semi-annually	Semi-annually	4/23/2019	(05/21/19) [05/22/19]
MW-28	Semi-annually	Semi-annually	4/24/2019	(05/21/19) [05/22/19]
MW-29	Semi-annually	Semi-annually	4/24/2019	(05/21/19) [05/22/19]
MW-30	Quarterly	Quarterly	4/9/2019	(04/26/19) [05/06/19]
MW-31	Quarterly	Quarterly	4/10/2019	(04/26/19) [05/06/19]
MW-32	Semi-annually	Semi-annually	4/9/2019	(04/26/19) [05/06/19]
MW-35	Semi-annually	Semi-annually	4/18/2019	(05/03/19) [05/14/19]
MW-36	Quarterly	Quarterly	4/18/2019	(05/03/19) [05/14/19]
MW-37	Semi-annually	Semi-annually	5/15/2019	(06/02/19) [06/17/19]
MW-38	Background	Background	5/2/2019	(05/20/19) [05/31/19]
MW-39	Background	Background	5/1/2019	(05/20/19) [05/31/19]
MW-40	Background	Background	4/17/2019	(05/03/19) [05/14/19]
TW4-24	Semi-annually	General Monitoring Well	4/25/2019	(05/21/2019)
TW4-24 RESAMPLE	Semi-annually	General Monitoring Well	5/2/2019	[5/31/2019]
MW-65	1 per Batch	Duplicate of MW-14	4/23/2019	(05/21/19) [05/22/19]
MW-70	1 per Batch	Duplicate of MW-15	4/30/2019	(05/20/19) [05/31/19]
<b>Accelerated May Monthly</b>				
MW-11	Monthly	Accelerated	5/7/2019	(5/23/19)
MW-25	Monthly	Accelerated	5/8/2019	(5/23/19)
MW-26	Monthly	Accelerated	5/7/2019	(5/23/19)
MW-30	Monthly	Accelerated	5/7/2019	(5/23/19)
MW-31	Monthly	Accelerated	5/7/2019	(5/23/19)
MW-36	Monthly	Accelerated	5/21/2019	N/A - Field pH measurement only
MW-65	1 per Batch	Duplicate of MW-30	5/7/2019	(5/23/19)
<b>Accelerated June Monthly</b>				
MW-11	Monthly	Accelerated	6/3/2019	(6/18/2019)
MW-25	Monthly	Accelerated	6/4/2019	(6/18/2019)
MW-26	Monthly	Accelerated	6/4/2019	(6/18/2019)
MW-30	Monthly	Accelerated	6/3/2019	(6/18/2019)
MW-31	Monthly	Accelerated	6/3/2019	(6/18/2019)
MW-36	Monthly	Accelerated	6/3/2019	N/A - Field pH measurement only
MW-65	1 per Batch	Duplicate of MW-25	6/4/2019	(6/18/2019)

**Notes:**

Multiple dates shown for a single laboratory depict resubmission dates for the data. Resubmissions were required to correct reporting errors. When multiple dates are shown for a single laboratory, the final submission date is shown in italics.

Dates in parenthesis depicts the date that data was reported by American West Laboratories (AWAL).

Dates in brackets are the date and data reported by GEL Laboratories.

**Table 2**  
**Exceedances and Acceleration Requirements**

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</b>							
MW-11 (Class II)	Manganese (ug/L)	164.67	174	Quarterly	Monthly	Q2 2018	Q3 2018 (September)
MW-25 (Class III)	Cadmium (ug/L)	1.5	1.51	Quarterly	Monthly	Q1 2016	April 2016
MW-26 (Class III)	Nitrate + Nitrite (as N) (mg/L)	0.62	1.3	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
	Methylene Chloride (ug/L)	5	9.9	Quarterly	Monthly	Q2 2010	June 2010
	Nitrogen, Ammonia as N	0.92	0.938	Quarterly	Monthly	Q1 2019	May 2019
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
	Field pH (S.U.)	6.47	6.33	Quarterly	Monthly	Q2 2018	July 2018
	Selenium (ug/L)	47.2	48.6	Quarterly	Monthly	Q1 2019	May 2019
	Uranium (ug/L)	8.32	8.57	Quarterly	Monthly	Q4 2013	March 2014
MW-31 (Class III)	Nitrate + Nitrite (as N) (mg/L)	5	21.7	Quarterly	Monthly	Q1 2010	May 2010
	Chloride (mg/L)	143	145	Quarterly	Monthly	Q1 2011	May 2011
MW-36 (Class III)	Field pH (S.U.)	6.49	6.35	Quarterly	Monthly	Q1 2019	May 2019
<b>Semi-Annual Wells Accelerated to Quarterly Sampling</b>							
Monitoring Well (Water Class)	Constituent Exceeding GWCL	GWCL in Current GWDP	First Result Exceeding the GWCL	Sample Frequency	Accelerated Frequency	Exceedance Sample Period	Start of Accelerated Monitoring
MW-5 (Class II)	Uranium (ug/L)	7.5	11.6	Semi-Annually	Quarterly	Q4 2010	Q1 2011
MW-12 (Class III)	Uranium (ug/L)	23.5	23.7	Semi-Annually	Quarterly	Q2 2017	Q3 2017
MW-24 (Class III)	Cadmium (ug/L)	6.43	6.97	Semi-Annually	Quarterly	Q2 2018	Q3 2018 (September)
	Beryllium (ug/L)	2	2.42	Semi-Annually	Quarterly	Q4 2017	Q1 2018
	Thallium (ug/L)	2.01	2.44	Semi-Annually	Quarterly	Q2 2018	Q3 2018 (September)
	Nickel (ug/L)	50	57.7	Semi-Annually	Quarterly	Q4 2018	Q3 2019
	Fluoride (mg/L)	0.47	0.797	Semi-Annually	Quarterly	Q4 2018	Q3 2019
MW-27 (Class III)	Field pH (S.U.)	5.03	4.45	Semi-Annually	Quarterly	Q2 2018	Q3 2018 (September)
	Nitrate + Nitrite (as N) (mg/L)	5.6	5.8	Semi-Annually	Quarterly	Q2 2010	Q3 2010
MW-28 (Class III)	Chloride (mg/L)	38	42	Semi-Annually	Quarterly	Q2 2010	Q3 2010
	Chloride (mg/L)	105	108	Semi-Annually	Quarterly	Q2 2010	Q3 2010
	Gross Alpha (pCi/L)	2.42	2.55	Semi-Annually	Quarterly	Q4 2018	Q3 2019
	Selenium (ug/L)	11.1	12.4	Semi-Annually	Quarterly	Q2 2019	Q3 2019
	Cadmium (ug/L)	5.2	5.41	Semi-Annually	Quarterly	Q2 2014	Q4 2014
MW-32 (Class III)	Uranium (ug/L)	4.9	61.3	Semi-Annually	Quarterly	Q2 2014	Q4 2014
	Chloride (mg/L)	35.99	36.3	Semi-Annually	Quarterly	Q2 2014 (Q1 2015)	Q2 2014
MW-35 (Class II)	Nitrogen Ammonia, as N	0.14	0.254	Semi-Annually	Quarterly	Q2 2018	Q3 2018 (September)

Notes:

() 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 Q2 2019 sampling event.

Table 3 – GWCL Exceedances for Second Quarter 2019 under the March 19, 2019 GWDP

Monitoring Well (Water Class)	Constituent Exceeding GWCL	GWCL in March 19, 2019 GWDP	Q2 2019 Results					
			Q2 2019 Sample Date	Q2 2019 Result	May 2019 Monthly Sample Date	May 2019 Monthly Result	June 2019 Monthly Sample Date	June 2019 Monthly Result
<b>Required Quarterly Sampling Wells</b>								
MW-11 (Class II)	Manganese (ug/L)	164.67	4/24/2019	<b>181</b>	5/7/2019	<b>210</b>	6/3/2019	<b>210</b>
MW-25 (Class III)	Cadmium (ug/L)	1.5	4/10/2019	1.30	5/8/2019	1.41	6/4/2019	1.47
MW-26 (Class III)	Nitrate + Nitrite (as N) (mg/L)	0.62	4/24/2019	<b>3.00</b>	5/7/2019	<b>0.986</b>	6/4/2019	<b>3.16</b>
	Chloroform (ug/L)	70		<b>4140</b>		<b>1140</b>		<b>778</b>
	Chloride (mg/L)	58.31		<b>82.0</b>		<b>73.0</b>		<b>72.6</b>
	Methylene Chloride (ug/L)	5		4.16		1.69		<1.00
	Nitrogen, Ammonia as N	0.92		0.104		0.479		0.0919
MW-30 (Class II)	Nitrate + Nitrite (as N) (mg/L)	2.5	4/9/2019	<b>18.5</b>	5/7/2019	<b>17.9</b>	6/3/2019	<b>15.8</b>
	Chloride (mg/L)	128		<b>138</b>		<b>175</b>		<b>165</b>
	Selenium (ug/L)	47.2		<b>53.6</b>		47.1		<b>49.9</b>
	Uranium (ug/L)	8.32		<b>8.62</b>		8.15		<b>8.88</b>
	Field pH (S.U.)	6.47 - 8.5		7.06		7.00		7.12
MW-31 (Class III)	Nitrate + Nitrite (as N) (mg/L)	5	4/10/2019	<b>19.7</b>	5/7/2019	<b>18.9</b>	6/3/2019	<b>19.7</b>
	Chloride (mg/L)	143		<b>294</b>		<b>346</b>		<b>325</b>
MW - 36 (Class III)	Field pH (S.U.)	6.49 - 8.5	4/18/2019	7.05	5/21/2019	6.73	6/3/2019	7.01
<b>Required Semi-Annual Sampling Wells</b>								
MW-05 (Class II)	Uranium (ug/L)	7.5	4/24/2019	0.959	NS	NA	NS	NA
MW-12 (Class III)	Uranium (ug/L)	23.5	4/25/2019	23.2	NS	NA	NS	NA
MW-24 (Class III)	Beryllium (ug/L)	2	5/2/2019	<b>2.83</b>	NS	NA	NS	NA
	Cadmium (ug/L)	6.43		<b>8.24</b>		NA		NA
	Fluoride (mg/L)	0.47		<b>0.839</b>		NA		NA
	Nickel (mg/L)	50		<b>63.9</b>		NA		NA
	Thallium (ug/L)	2.01		<b>2.73</b>		NA		NA
	Field pH (S.U.)	5.03 - 8.5		<b>4.53</b>		NA		NA
MW-27 (Class III)	Nitrate + Nitrite (as N) (mg/L)	5.6	4/23/2019	<b>6.33</b>	NS	NA	NS	NA
	Chloride (mg/L)	38		32.0		NA		NA
MW-28 (Class III)	Chloride (mg/L)	105	4/24/2019	<b>165</b>	NS	NA	NS	NA
	Cadmium (ug/L)	5.2		<b>5.11</b>		NA		NA
	Selenium (ug/L)	11.1		<b>12.4</b>		NA		NA
	Gross Alpha (pCi/L)	2.42		1.94		NA		NA
	Uranium (ug/L)	4.9		<b>9.60</b>		NA		NA
MW-32 (Class III)	Chloride (mg/L)	35.39	4/9/2019	34.5	NS	NA	NS	NA
MW-35 (Class II)	Nitrogen, Ammonia as N	0.14	4/18/2019	0.0634	NS	NA	NS	NA

Notes:

NS= Not Required and Not Sampled

NA= Not Applicable

Exceedances are shown in yellow

Pursuant to the DWMRC letter of May 22, 2019, this constituent will no longer be monitored on an accelerated schedule. This constituent will be dropped from this report after this quarter.

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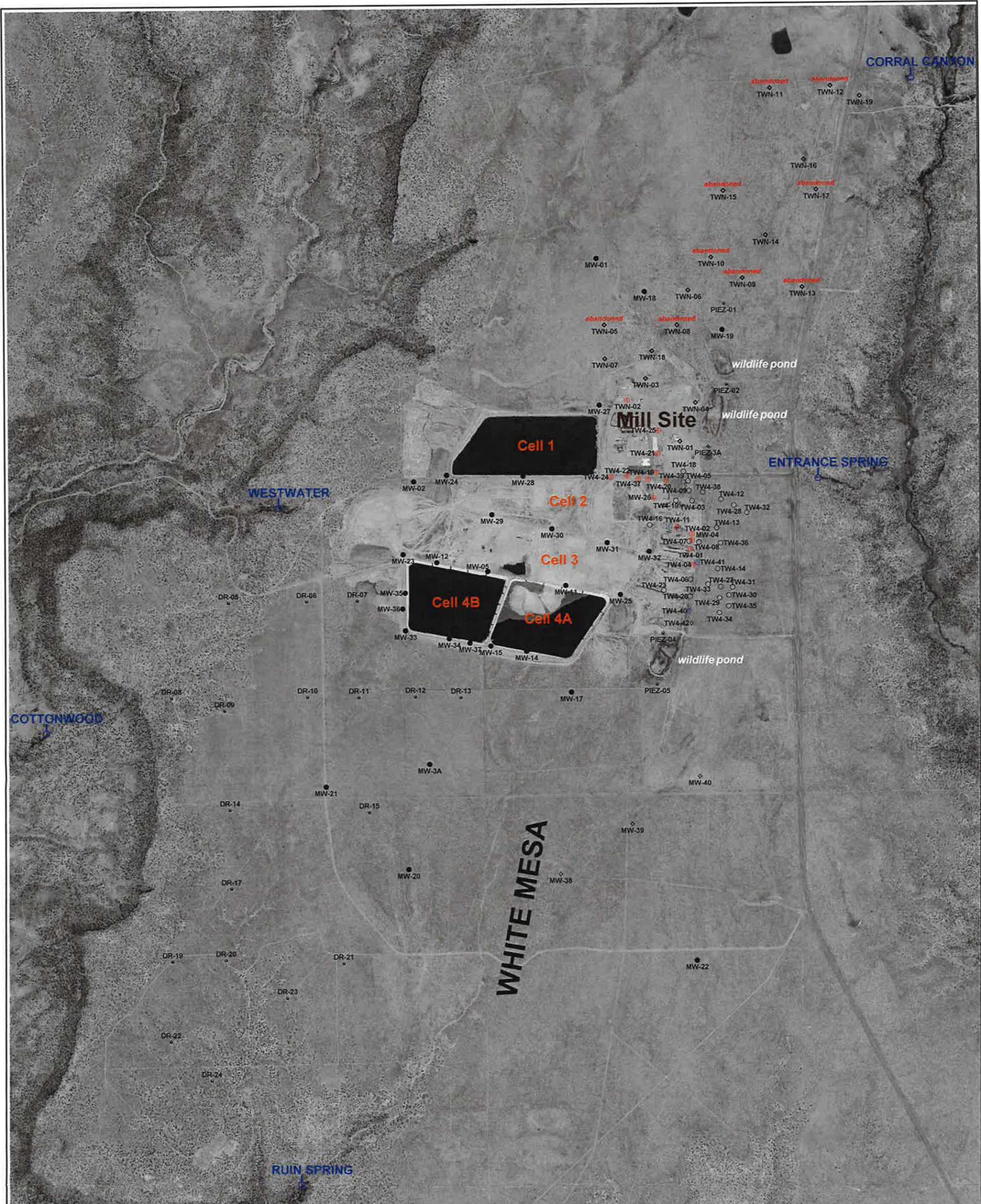
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Tab A

Site Plan and Perched Well Locations White Mesa Site



**EXPLANATION**

- TW4-42  temporary perched monitoring well installed April 2019
- TW4-40  perched chloroform pumping well installed February 2018
- TW4-19  perched chloroform or nitrate pumping well
- MW-38  perched monitoring well installed February 2018
- MW-5  perched monitoring well
- TW4-12  temporary perched monitoring well
- TWN-7  temporary perched nitrate monitoring well
- PIEZ-1  perched piezometer
- 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/aug19/Uwelloc0619.srf	A-1

Tab B

Field Data Worksheets Quarterly Sampling



White Mesa Mill  
Field Data Worksheet For Groundwater

Location ID	MW-01
Field Sample ID	MW-01_04172019
Purge Date & Time	4/17/2019 9:34
Sample Date & Time	4/17/2019 11:45

Sampling Program	
Sampling Event	2019 Q2 GW Quarterly

Sampler	TH/DL
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Purging Equipment	Pump
Pump Type	QED
Purging Method	2 Casings
Casing Volume (gal)	19.61
Calculated Casing Volumes Purge Duration (min)	180.79
pH Buffer 7.0	7.0
pH Buffer 4.0	4.0
Specific Conductance (micromhos)	1000

Weather Conditions	Clear
External Ambient Temperature (C)	5
Previous Well Sampled	MW-18

Well Depth (ft)	118.00
Well Casing Diameter (in)	3
Depth to Water Before Purging (ft)	64.55

Date/Time	Gallons Purged	Conductivity	pH	Temp (Deg C)	Redox	Turbidity	Before/After
4/17/2019 11:42	39.49	1844	7.32	14.49	362	3.0	
4/17/2019 11:43	39.71	1844	7.28	14.44	336	3.1	
4/17/2019 11:44	39.92	1842	7.26	14.23	319	3.1	
4/17/2019 11:45	40.14	1843	7.26	14.22	320	3.1	

Volume of water purged (gals)	40.14
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Final Depth to Water (feet)	98.85
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Name of Certified Analytical Laboratory	
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Pumping Rate Calculations

Flow Rate (Q = S/60) (gal/min)	.217
Time to evacuate 2 Casing Volumes (min)	185.00
Number of casing Volumes	2
Volume, if well evacuated to dryness ( )	0

Analytical Samples Information

Type of Sample/Analysis	Sample Collected?	Matrix	Container		Sample Filtered?	Preservative	
			Number	Type		Type	Added?
Total Dissolved Solids	Y	WATER	1	250-mL HDPE	U	4 Deg C	Y
Heavy Metals - Full Suite	Y	WATER	1	250-mL HDPE	Y	HNO3 (pH<2)	Y
VOCs - Full Suite for GW	Y	WATER	3	40ml VOA	U	HCl (pH<2), 4 Deg C	Y
Nutrients	Y	WATER	1	250-mL HDPE	U	H2SO4 (pH<2), 4 Deg	Y
General Inorganics	Y	WATER	1	250-mL HDPE	U	4 Deg C	Y
Gross Alpha	Y	WATER	1	250-mL HDPE	Y	HNO3	Y

Comments:

Arrived on site at 0835. Started purge at 0840. Purged well for a total of 185.00 minutes. Purge ended and samples collected at 1145.

Signature of Field Technician

*Deer Colman*



**White Mesa Mill**  
**Field Data Worksheet For Groundwater**

Location ID	MW-02
Field Sample ID	MW-02_04252019
Purge Date & Time	4/25/2019 6:40
Sample Date & Time	4/25/2019 8:40
Purging Equipment	Pump
Pump Type	QED
Purging Method	2 Casings
Casing Volume (gal)	12.39
Calculated Casing Volumes Purge Duration (min)	114.22
pH Buffer 7.0	7.0
pH Buffer 4.0	4.0
Specific Conductance (micromhos)	1000

Sampling Program	
Sampling Event	2019 Q2 GW Quarterly
Sampler	TH/DL
Weather Conditions	Clear
External Ambient Temperature (C)	10
Previous Well Sampled	MW-12

Well Depth (ft)	128.80
Well Casing Diameter (in)	4
Depth to Water Before Purging (ft)	109.82

Date/Time	Gallons Purged	Conductivity	pH	Temp (Deg C)	Redox	Turbidity	Before/After
4/25/2019 8:37	25.38	3734	7.25	14.03	541	0	
4/25/2019 8:38	25.60	3736	7.22	14.13	539	0	
4/25/2019 8:39	25.82	3730	7.21	14.09	538	0	
4/25/2019 8:40	26.04	3724	7.21	14.07	538	0	

Volume of water purged (gals)	26.04
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Final Depth to Water (feet)	118.60
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Name of Certified Analytical Laboratory	
AWSL	

**Pumping Rate Calculations**

Flow Rate (Q = S/60) (gal/min)	.217
Time to evacuate 2 Casing Volumes (min)	120.00
Number of casing Volumes	2.00
Volume, if well evacuated to dryness ( )	0

**Analytical Samples Information**

Type of Sample/Analysis	Sample Collected?	Matrix	Container		Sample Filtered?	Preservative	
			Number	Type		Type	Added?
Total Dissolved Solids	Y	WATER	1	250-mL HDPE	U	4 Deg C	Y
Heavy Metals - Full Suite	Y	WATER	1	250-mL HDPE	Y	HNO3 (pH<2)	Y
VOCs - Full Suite for GW	Y	WATER	3	40ml VOA	U	HCl (pH<2), 4 Deg C	Y
Nutrients	Y	WATER	1	250-mL HDPE	U	H2SO4 (pH<2), 4 Deg C	Y
General Inorganics	Y	WATER	1	250-mL HDPE	U	4 Deg C	Y
Gross Alpha	Y	WATER	1	250-mL HDPE	Y	HNO3	Y

**Comments:**

Arrived on site at 0636. Purge began at 0640. Purged well for a total of 120 minutes. Purge ended and samples collected at 0840. Water was clear. Left site at 0650.

Signature of Field Technician



**White Mesa Mill**  
**Field Data Worksheet For Groundwater**

Location ID	MW-03A
Field Sample ID	MW-03A_05022019
Purge Date & Time	5/1/2019 11:45
Sample Date & Time	5/2/2019 7:30
Purging Equipment	Pump
Pump Type	QED
Purging Method	2 Casings
Casing Volume (gal)	7.11
Calculated Casing Volumes Purge Duration (min)	68.43
pH Buffer 7.0	7.0
pH Buffer 4.0	4.0
Specific Conductance (micromhos)	1000

Sampling Program	
Sampling Event	2019 Q2 GW Quarterly
Sampler	TH/DL
Weather Conditions	Raining
External Ambient Temperature (C)	15
Previous Well Sampled	MW-39

Well Depth (ft)	95.00
Well Casing Diameter (in)	4
Depth to Water Before Purging (ft)	84.10

Date/Time	Gallons Purged	Conductivity	pH	Temp (Deg C)	Redox	Turbidity	Before/After
5/1/2019 12:55	14.56	5693	6.62	15.50	479	0	
5/2/2019 7:29		5807	6.01	14.03			Before
5/2/2019 7:40		5800	6.04	14.10			After

**Pumping Rate Calculations**

Flow Rate (Q = S/60) (gal/min)	.208
Time to evacuate 2 Casing Volumes (min)	70.00
Number of casing Volumes	2.00
Volume, if well evacuated to dryness (gals)	14.56

Volume of water purged (gals)	14.56
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Final Depth to Water (feet)	92.21
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Name of Certified Analytical Laboratory	
AWSL	

**Analytical Samples Information**

Type of Sample/Analysis	Sample Collected?	Matrix	Container		Sample Filtered?	Preservative	
			Number	Type		Type	Added?
Total Dissolved Solids	Y	WATER	1	250-mL HDPE	U	4 Deg C	Y
Heavy Metals - Full Suite	Y	WATER	1	250-mL HDPE	Y	HNO3 (pH<2)	Y
VOCs - Full Suite for GW	Y	WATER	3	40ml VOA	U	HCl (pH<2), 4 Deg C	Y
Nutrients	Y	WATER	1	250-mL HDPE	U	H2SO4 (pH<2), 4 Deg C	Y
General Inorganics	Y	WATER	1	250-mL HDPE	U	4 Deg C	Y
Gross Alpha	Y	WATER	1	250-mL HDPE	Y	HNO3	Y

**Comments:**

Arrived on site at 1141. Purge began at 1145. Purged well for a total of 70 minutes. Purged well dry. Purge ended at 1255. Water was clear. Left site at 1256.  
Arrived on site at 0726. Depth to water was 86.95. Samples collected at 0730. Left site at 0741.

Signature of Field Technician



**White Mesa Mill**  
**Field Data Worksheet For Groundwater**

Location ID	MW-05
Field Sample ID	MW-05_04242019
Purge Date & Time	4/24/2019 11:45
Sample Date & Time	4/24/2019 15:05
Purging Equipment	Pump
Pump Type	QED
Purging Method	2 Casings
Casing Volume (gal)	21.44
Calculated Casing Volumes Purge Duration (min)	197.64
pH Buffer 7.0	7.0
pH Buffer 4.0	4.0
Specific Conductance (micromhos)	1000

Sampling Program	
Sampling Event	2019 Q2 GW Quarterly
Sampler	TH/DL
Weather Conditions	Sunny
External Ambient Temperature (C)	17
Previous Well Sampled	MW-11

Well Depth (ft)	141.50
Well Casing Diameter (in)	4
Depth to Water Before Purging (ft)	108.66

Date/Time	Gallons Purged	Conductivity	pH	Temp (Deg C)	Redox	Turbidity	Before/After
4/24/2019 15:02	42.74	2867	7.57	15.50	454	0	
4/24/2019 15:03	42.96	2892	7.57	15.57	451	0	
4/24/2019 15:04	43.18	2872	7.57	15.59	448	0	
4/24/2019 15:05	43.40	2873	7.57	15.55	446	0	

Volume of water purged (gals)	43.40
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Final Depth to Water (feet)	125.35
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Name of Certified Analytical Laboratory	AWSL
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Pumping Rate Calculations

Flow Rate (Q = S/60) (gal/min)	.217
Time to evacuate 2 Casing Volumes (min)	200.00
Number of casing Volumes	2.00
Volume, if well evacuated to dryness ( )	0

Analytical Samples Information

Type of Sample/Analysis	Sample Collected?	Matrix	Container		Sample Filtered?	Preservative	Added?
			Number	Type		Type	
Total Dissolved Solids	Y	WATER	1	250-mL HDPE	U	4 Deg C	Y
Heavy Metals - Full Suite	Y	WATER	1	250-mL HDPE	Y	HNO3 (pH<2)	Y
VOCs - Full Suite for GW	Y	WATER	3	40ml VOA	U	HCl (pH<2), 4 Deg C	Y
Nutrients	Y	WATER	1	250-mL HDPE	U	H2SO4 (pH<2), 4 Deg C	Y
General Inorganics	Y	WATER	1	250-mL HDPE	U	4 Deg C	Y
Gross Alpha	Y	WATER	1	250-mL HDPE	Y	HNO3	Y

Comments:

Arrived on site at 1141. Purge began at 1145. Purged well for a total of 200 minutes. Purge ended and samples collected at 1505. Water was clear. Left site at 1515.

Signature of Field Technician

*Deen G Lyman*



**White Mesa Mill**  
**Field Data Worksheet For Groundwater**

Location ID	MW-11
Field Sample ID	MW-11_04242019
Purge Date & Time	4/24/2019 6:55
Sample Date & Time	4/24/2019 11:25
Purging Equipment	Pump
Pump Type	QED
Purging Method	2 Casings
Casing Volume (gal)	29.12
Calculated Casing Volumes Purge Duration (min)	268.42
pH Buffer 7.0	7.0
pH Buffer 4.0	4.0
Specific Conductance (micromhos)	1000

Sampling Program	
Sampling Event	2019 Q2 GW Quarterly
Sampler	TH/DL
Weather Conditions	Sunny
External Ambient Temperature (C)	6
Previous Well Sampled	MW-28

Well Depth (ft)	130.00
Well Casing Diameter (in)	4
Depth to Water Before Purging (ft)	85.40

Date/Time	Gallons Purged	Conductivity	pH	Temp (Deg C)	Redox	Turbidity	Before/After
4/24/2019 11:22	57.93	2978	7.18	14.71	569	0	
4/24/2019 11:23	58.15	2964	7.30	14.73	564	0	
4/24/2019 11:24	58.37	2965	7.37	14.61	560	0	
4/24/2019 11:25	58.59	2965	7.39	14.63	557	0	

Volume of water purged (gals)	58.59
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Final Depth to Water (feet)	87.86
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Name of Certified Analytical Laboratory	
AWSL	

**Pumping Rate Calculations**

Flow Rate (Q = S/60) (gal/min)	.217
Time to evacuate 2 Casing Volumes (min)	270.00
Number of casing Volumes	2.00
Volume, if well evacuated to dryness ( )	0

**Analytical Samples Information**

Type of Sample/Analysis	Sample Collected?	Matrix	Container		Sample Filtered?	Preservative	
			Number	Type		Type	Added?
Total Dissolved Solids	Y	WATER	1	250-mL HDPE	U	4 Deg C	Y
Heavy Metals - Full Suite	Y	WATER	1	250-mL HDPE	Y	HNO3 (pH<2)	Y
VOCs - Full Suite for GW	Y	WATER	3	40ml VOA	U	HCl (pH<2), 4 Deg C	Y
Nutrients	Y	WATER	1	250-mL HDPE	U	H2SO4 (pH<2), 4 Deg C	Y
General Inorganics	Y	WATER	1	250-mL HDPE	U	4 Deg C	Y
Gross Alpha	Y	WATER	1	250-mL HDPE	Y	HNO3	Y

**Comments:**

Arrived on site at 0651. Purge began at 0655. Purged well for a total of 270 minutes. Purge ended and samples collected at 1125. Water was clear. Left site at 1135.

**Signature of Field Technician**

*Deen G. Lyman*



White Mesa Mill  
Field Data Worksheet For Groundwater

Location ID	MW-12
Field Sample ID	MW-12_04252019
Purge Date & Time	4/25/2019 6:30
Sample Date & Time	4/25/2019 9:00

Sampling Program	
Sampling Event	2019 Q2 GW Quarterly

Sampler	TH/DL
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Weather Conditions	Clear
External Ambient Temperature (C)	10
Previous Well Sampled	MW-26

Purging Equipment	Pump
Pump Type	QED
Purging Method	2 Casings
Casing Volume (gal)	14.66
Calculated Casing Volumes Purge Duration (min)	135.17
pH Buffer 7.0	7.0
pH Buffer 4.0	4.0
Specific Conductance (micromhos)	1000

Well Depth (ft)	130.40
Well Casing Diameter (in)	4
Depth to Water Before Purging (ft)	107.94

Date/Time	Gallons Purged	Conductivity	pH	Temp (Deg C)	Redox	Turbidity	Before/After
4/25/2019 8:57	31.89	4093	7.00	14.50	538	1.0	
4/25/2019 8:58	32.11	4161	6.95	14.50	540	1.0	
4/25/2019 8:59	32.33	4167	6.90	14.43	544	1.0	
4/25/2019 9:00	32.55	4162	6.85	14.39	545	1.0	

Volume of water purged (gals)	32.55
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Final Depth to Water (feet)	122.45
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Name of Certified Analytical Laboratory	
AWSL	

Pumping Rate Calculations

Flow Rate (Q = S/60) (gal/min)	.217
Time to evacuate 2 Casing Volumes (min)	150.00
Number of casing Volumes	2.00
Volume, if well evacuated to dryness ( )	0

Analytical Samples Information

Type of Sample/Analysis	Sample Collected?	Matrix	Container		Sample Filtered?	Preservative	
			Number	Type		Type	Added?
Total Dissolved Solids	Y	WATER	1	250-mL HDPE	U	4 Deg C	Y
Heavy Metals - Full Suite	Y	WATER	1	250-mL HDPE	Y	HNO3 (pH<2)	Y
VOCs - Full Suite for GW	Y	WATER	3	40ml VOA	U	HCl (pH<2), 4 Deg C	Y
Nutrients	Y	WATER	1	250-mL HDPE	U	H2SO4 (pH<2), 4 Deg C	Y
General Inorganics	Y	WATER	1	250-mL HDPE	U	4 Deg C	Y
Gross Alpha	Y	WATER	1	250-mL HDPE	Y	HNO3	Y

Comments:

Arrived on site at 0625. Purge began at 0630. Purged well for a total of 150 minutes. Purge ended and samples collected at 0900. Water was mostly clear. Left site at 0909.

Signature of Field Technician

*Deen Lyman*



**White Mesa Mill**

**Field Data Worksheet For Groundwater**

Location ID	MW-14
Field Sample ID	MW-14_04232019
Purge Date & Time	4/23/2019 11:15
Sample Date & Time	4/23/2019 13:55

Sampling Program	
Sampling Event	2019 Q2 GW Quarterly

Sampler	TH/DL
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Purging Equipment	Pump
Pump Type	QED
Purging Method	2 Casings
Casing Volume (gal)	17.20
Calculated Casing Volumes Purge Duration (min)	158.58
pH Buffer 7.0	7.0
pH Buffer 4.0	4.0
Specific Conductance (micromhos)	1000

Weather Conditions	Cloudy
External Ambient Temperature (C)	15
Previous Well Sampled	MW-27

Well Depth (ft)	128.70
Well Casing Diameter (in)	4
Depth to Water Before Purging (ft)	102.35

Date/Time	Gallons Purged	Conductivity	pH	Temp (Deg C)	Redox	Turbidity	Before/After
4/23/2019 13:52	34.06	3955	6.87	14.85	571	0	
4/23/2019 13:53	34.28	3955	6.86	14.84	571	0	
4/23/2019 13:54	34.50	3956	6.84	14.83	570	0	
4/23/2019 13:55	34.72	3957	6.83	14.82	570	0	

Volume of water purged (gals)	34.72
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Final Depth to Water (feet)	102.93
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Name of Certified Analytical Laboratory	
AWSL	

**Pumping Rate Calculations**

Flow Rate (Q = S/60) (gal/min)	.217
Time to evacuate 2 Casing Volumes (min)	160.00
Number of casing Volumes	2.00
Volume, if well evacuated to dryness ( )	0

**Analytical Samples Information**

Type of Sample/Analysis	Sample Collected?	Matrix	Container		Sample Filtered?	Preservative	
			Number	Type		Type	Added?
Total Dissolved Solids	Y	WATER	1	250-mL HDPE	U	4 Deg C	Y
Heavy Metals - Full Suite	Y	WATER	1	250-mL HDPE	Y	HNO3 (pH<2)	Y
VOCs - Full Suite for GW	Y	WATER	3	40ml VOA	U	HCl (pH<2), 4 Deg C	Y
Nutrients	Y	WATER	1	250-mL HDPE	U	H2SO4 (pH<2), 4 Deg C	Y
General Inorganics	Y	WATER	1	250-mL HDPE	U	4 Deg C	Y
Gross Alpha	Y	WATER	1	250-mL HDPE	Y	HNO3	Y

**Comments:**

Arrived on site at 1112. Purge began at 1115. Purged well for a total of 160 minutes. Purge ended and samples collected at 1355. Water was clear. Left site at 1409.

**Signature of Field Technician**

*Deen G Lyman*



**White Mesa Mill**  
**Field Data Worksheet For Groundwater**

Location ID	MW-15
Field Sample ID	MW-15_04302019
Purge Date & Time	4/30/2019 7:35
Sample Date & Time	4/30/2019 10:55

Sampling Program	
Sampling Event	2019 Q2 GW Quarterly

Purging Equipment	Pump
Pump Type	QED
Purging Method	2 Casings
Casing Volume (gal)	20.56
Calculated Casing Volumes Purge Duration (min)	189.58
pH Buffer 7.0	7.0
pH Buffer 4.0	4.0
Specific Conductance (micromhos)	1000

Sampler	TH/DL
Weather Conditions	Raining
External Ambient Temperature (C)	9
Previous Well Sampled	MW-22

Well Depth (ft)	137.00
Well Casing Diameter (in)	4
Depth to Water Before Purging (ft)	105.50

Date/Time	Gallons Purged	Conductivity	pH	Temp (Deg C)	Redox	Turbidity	Before/After
4/30/2019 10:52	42.74	4250	6.65	14.39	574	0	
4/30/2019 10:53	42.96	4241	6.64	14.32	575	0	
4/30/2019 10:54	43.18	4244	6.63	14.39	575	0	
4/30/2019 10:55	43.40	4247	6.62	14.38	576	0	

Volume of water purged (gals)	43.40
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Final Depth to Water (feet)	108.25
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Name of Certified Analytical Laboratory	
AWSL	

**Pumping Rate Calculations**

Flow Rate (Q = S/60) (gal/min)	.217
Time to evacuate 2 Casing Volumes (min)	200.00
Number of casing Volumes	2.00
Volume, if well evacuated to dryness ( )	0

**Analytical Samples Information**

Type of Sample/Analysis	Sample Collected?	Matrix	Container		Sample Filtered?	Preservative	
			Number	Type		Type	Added?
Total Dissolved Solids	Y	WATER	1	250-mL HDPE	U	4 Deg C	Y
Heavy Metals - Full Suite	Y	WATER	1	250-mL HDPE	Y	HNO3 (pH<2)	Y
VOCs - Full Suite for GW	Y	WATER	3	40ml VOA	U	HCl (pH<2), 4 Deg C	Y
Nutrients	Y	WATER	1	250-mL HDPE	U	H2SO4 (pH<2), 4 Deg C	Y
General Inorganics	Y	WATER	1	250-mL HDPE	U	4 Deg C	Y
Gross Alpha	Y	WATER	1	250-mL HDPE	Y	HNO3	Y

**Comments:**

Arrived on site at 0731. Purge began at 0735. Purged well for a total of 200 minutes. Purge ended and samples collected at 1055. Water was clear. Left site at 1110.

Signature of Field Technician

*Deen Gorman*



White Mesa Mill

Field Data Worksheet For Groundwater

Location ID	MW-17
Field Sample ID	MW-17_04162019
Purge Date & Time	4/16/2019 8:35
Sample Date & Time	4/16/2019 12:40
Purging Equipment	Pump
Pump Type	QED
Purging Method	2 Casings
Casing Volume (gal)	26.34
Calculated Casing Volumes Purge Duration (min)	242.84
pH Buffer 7.0	7.0
pH Buffer 4.0	4.0
Specific Conductance (micromhos)	1000

Sampling Program	
Sampling Event	2019 Q2 GW Quarterly
Sampler	TH/DL
Weather Conditions	Cloudy
External Ambient Temperature (C)	11
Previous Well Sampled	MW-18

Well Depth (ft)	112.00
Well Casing Diameter (in)	4
Depth to Water Before Purging (ft)	71.65

Date/Time	Gallons Purged	Conductivity	pH	Temp (Deg C)	Redox	Turbidity	Before/After
4/16/2019 12:37	52.51	3734	7.09	14.58	532	5.4	
4/16/2019 12:38	52.73	3712	7.08	14.56	526	5.4	
4/16/2019 12:39	52.94	3726	7.08	14.60	519	5.3	
4/16/2019 12:40	53.16	3723	7.07	14.62	513	5.2	

Volume of water purged (gals)	53.16
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Final Depth to Water (feet)	85.42
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Name of Certified Analytical Laboratory	
AWSL	

Pumping Rate Calculations

Flow Rate (Q = S/60) (gal/min)	.217
Time to evacuate 2 Casing Volumes (min)	245.00
Number of casing Volumes	2
Volume, if well evacuated to dryness ( )	0

Analytical Samples Information

Type of Sample/Analysis	Sample Collected?	Matrix	Container		Sample Filtered?	Preservative	
			Number	Type		Type	Added?
Total Dissolved Solids	Y	WATER	1	250-mL HDPE	U	4 Deg C	Y
Heavy Metals - Full Suite	Y	WATER	1	250-mL HDPE	Y	HNO3 (pH<2)	Y
VOCs - Full Suite for GW	Y	WATER	3	40ml VOA	U	HCl (pH<2), 4 Deg C	Y
Nutrients	Y	WATER	1	250-mL HDPE	U	H2SO4 (pH<2), 4 Deg C	Y
General Inorganics	Y	WATER	1	250-mL HDPE	U	4 Deg C	Y
Gross Alpha	Y	WATER	1	250-mL HDPE	Y	HNO3	Y

Comments:

Arrived on site at 0830. Started purge at 0835. Purged well for a total of 245 minutes. Pure ended and samples collected at 1240. Water was mostly clear. Left site at 1251.

Signature of Field Technician

*Deer G Lyman*



**White Mesa Mill**  
**Field Data Worksheet For Groundwater**

Location ID	MW-18
Field Sample ID	MW-18_04162019
Purge Date & Time	4/16/2019 11:35
Sample Date & Time	4/16/2019 14:25
Purging Equipment	Pump
Pump Type	QED
Purging Method	2 Casings
Casing Volume (gal)	39.83
Calculated Casing Volumes Purge Duration (min)	367.12
pH Buffer 7.0	7.0
pH Buffer 4.0	4.0
Specific Conductance (micromhos)	1000

Sampling Program	
Sampling Event	2019 Q2 GW Quarterly
Sampler	TH/DL
Weather Conditions	Cloudy
External Ambient Temperature (C)	11
Previous Well Sampled	MW-17

Well Depth (ft)	134.00
Well Casing Diameter (in)	4
Depth to Water Before Purging (ft)	73.00

Date/Time	Gallons Purged	Conductivity	pH	Temp (Deg C)	Redox	Turbidity	Before/After
4/16/2019 14:22	79.63	3469	6.66	14.26	526	1.5	
4/16/2019 14:23	79.85	3467	6.68	14.36	523	1.5	
4/16/2019 14:24	80.07	3473	6.68	14.40	523	1.4	
4/16/2019 14:25	80.29	3470	6.66	14.33	523	1.4	

Volume of water purged (gals)	80.29
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Final Depth to Water (feet)	73.75
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Name of Certified Analytical Laboratory	
AWSL	

**Pumping Rate Calculations**

Flow Rate (Q = S/60) (gal/min)	.217
Time to evacuate 2 Casing Volumes (min)	370.00
Number of casing Volumes	2
Volume, if well evacuated to dryness ( )	0

**Analytical Samples Information**

Type of Sample/Analysis	Sample Collected?	Matrix	Container		Sample Filtered?	Preservative	
			Number	Type		Type	Added?
Total Dissolved Solids	Y	WATER	1	250-mL HDPE	U	4 Deg C	Y
Heavy Metals - Full Suite	Y	WATER	1	250-mL HDPE	Y	HNO3 (pH<2)	Y
VOCs - Full Suite for GW	Y	WATER	3	40ml VOA	U	HCl (pH<2), 4 Deg C	Y
Nutrients	Y	WATER	1	250-mL HDPE	U	H2SO4 (pH<2), 4 Deg C	Y
General Inorganics	Y	WATER	1	250-mL HDPE	U	4 Deg C	Y
Gross Alpha	Y	WATER	1	250-mL HDPE	Y	HNO3	Y

**Comments:**

Arrived on site at 0810. Started purge at 0815. Purged for a total of 370 minutes. Purge ended and samples collected at 1425. Water was mostly clear. Left site at 1436.

Signature of Field Technician



White Mesa Mill  
Field Data Worksheet For Groundwater

Location ID	MW-19
Field Sample ID	MW-19_04232019
Purge Date & Time	4/23/2019 6:30
Sample Date & Time	4/23/2019 15:00
Purging Equipment	Pump
Pump Type	QED
Purging Method	2 Casings
Casing Volume (gal)	55.13
Calculated Casing Volumes Purge Duration (min)	508.19
pH Buffer 7.0	7.0
pH Buffer 4.0	4.0
Specific Conductance (micromhos)	1000

Sampling Program	
Sampling Event	2019 Q2 GW Quarterly
Sampler	TH/DL
Weather Conditions	Cloudy
External Ambient Temperature (C)	9
Previous Well Sampled	MW-36

Well Depth (ft)	149.00
Well Casing Diameter (in)	4
Depth to Water Before Purging (ft)	64.56

Date/Time	Gallons Purged	Conductivity	pH	Temp (Deg C)	Redox	Turbidity	Before/After
4/23/2019 14:57	110.01	1330	7.19	14.84	552	0	
4/23/2019 14:58	110.23	1322	7.14	14.82	555	0	
4/23/2019 14:59	110.45	1319	7.13	14.80	555	0	
4/23/2019 15:00	110.67	1322	7.11	14.82	556	0	

Volume of water purged (gals)	110.67
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Final Depth to Water (feet)	74.95
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Name of Certified Analytical Laboratory	
AWSL	

Analytical Samples Information

Type of Sample/Analysis	Sample Collected?	Matrix	Container		Sample Filtered?	Preservative	
			Number	Type		Type	Added?
Total Dissolved Solids	Y	WATER	1	250-mL HDPE	U	4 Deg C	Y
Heavy Metals - Full Suite	Y	WATER	1	250-mL HDPE	Y	HNO3 (pH<2)	Y
VOCs - Full Suite for GW	Y	WATER	3	40ml VOA	U	HCl (pH<2), 4 Deg C	Y
Nutrients	Y	WATER	1	250-mL HDPE	U	H2SO4 (pH<2), 4 Deg C	Y
General Inorganics	Y	WATER	1	250-mL HDPE	U	4 Deg C	Y
Gross Alpha	Y	WATER	1	250-mL HDPE	Y	HNO3	Y

Comments:

Arrived on site at 0625. Purge began at 0630. Purged well for a total of 510 minutes. Purge ended and samples collected at 1500. Water was clear. Left site at 1510.

Signature of Field Technician

Pumping Rate Calculations

Flow Rate (Q = S/60) (gal/min)	.217
Time to evacuate 2 Casing Volumes (min)	510.00
Number of casing Volumes	2.00
Volume, if well evacuated to dryness ( )	0



White Mesa Mill

Field Data Worksheet For Groundwater

Location ID	MW-20
Field Sample ID	MW-20_05152019
Purge Date & Time	5/1/2019 14:55
Sample Date & Time	5/15/2019 8:30
Purging Equipment	Bailer
Pump Type	Grundfos
Purging Method	2 Casings
Casing Volume (gal)	5.33
Calculated Casing Volumes Purge Duration ( )	
pH Buffer 7.0	7.0
pH Buffer 4.0	4.0
Specific Conductance (micromhos)	1000

Sampling Program	
Sampling Event	2019 Q2 GW Quarterly
Sampler	TH/DL
Weather Conditions	Partly cloudy
External Ambient Temperature (C)	15
Previous Well Sampled	MW-38

Well Depth (ft)	92.00
Well Casing Diameter (in)	4
Depth to Water Before Purging (ft)	83.83

Date/Time	Gallons Purged	Conductivity	pH	Temp (Deg C)	Redox	Turbidity	Before/After
5/1/2019 15:03	5.00	6413	7.23	15.03	530	44.6	
5/15/2019 8:23		5758	7.15	14.70			After
5/15/2019 8:29		5755	7.13	14.85			Before

Volume of water purged (gals)	7.50
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Final Depth to Water (feet)	91.95
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Name of Certified Analytical Laboratory	AWSL
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Pumping Rate Calculations

Flow Rate (Q = S/60) (gal/min)	0
Time to evacuate 2 Casing Volumes ( )	
Number of casing Volumes	1.40
Volume, if well evacuated to dryness (gals)	7.50

Analytical Samples Information

Type of Sample/Analysis	Sample Collected?	Matrix	Container		Sample Filtered?	Preservative	
			Number	Type		Type	Added?
Total Dissolved Solids	Y	WATER	1	250-mL HDPE	U	4 Deg C	Y
Heavy Metals - Full Suite	Y	WATER	1	250-mL HDPE	Y	HNO3 (pH<2)	Y
VOCs - Full Suite for GW	Y	WATER	3	40ml VOA	U	HCl (pH<2), 4 Deg C	Y
Nutrients	Y	WATER	1	250-mL HDPE	U	H2SO4 (pH<2), 4 Deg C	Y
General Inorganics	Y	WATER	1	250-mL HDPE	U	4 Deg C	Y
Gross Alpha	Y	WATER	1	250-mL HDPE	Y	HNO3	Y

Comments:

Arrived on site at 1453. Bailing began at 1455. Bailed a total of 7.5 gallons. Bailed well dry. Parameters taken from a 5 gallon bucket. Water started clear and ended dirty and murky at the end of bailing. Left site at 1510. Arrived on site at 0821. Depth to water was 89.58. Samples collected at 0830. Left site at 0839.

Signature of Field Technician

*Deen G Lyman*



**White Mesa Mill**  
**Field Data Worksheet For Groundwater**

Location ID	MW-22
Field Sample ID	MW-22_04302019
Purge Date & Time	4/30/2019 7:10
Sample Date & Time	4/30/2019 12:10

Sampling Program	
Sampling Event	2019 Q2 GW Quarterly

Sampler	TH/DL
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Purging Equipment	Pump
Pump Type	QED
Purging Method	2 Casings
Casing Volume (gal)	31.14
Calculated Casing Volumes Purge Duration (min)	287.07
pH Buffer 7.0	7.0
pH Buffer 4.0	4.0
Specific Conductance (micromhos)	1000

Weather Conditions	Raining
External Ambient Temperature (C)	8
Previous Well Sampled	MW-23

Well Depth (ft)	114.00
Well Casing Diameter (in)	4
Depth to Water Before Purging (ft)	66.30

Date/Time	Gallons Purged	Conductivity	pH	Temp (Deg C)	Redox	Turbidity	Before/After
4/30/2019 12:07	64.44	7591	4.31	15.11	640	0	
4/30/2019 12:08	64.66	7561	4.31	14.82	639	0	
4/30/2019 12:09	64.88	7547	4.31	14.81	636	0	
4/30/2019 12:10	65.10	7524	4.30	14.83	633	0	

Volume of water purged (gals)	65.10
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Final Depth to Water (feet)	97.60
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Name of Certified Analytical Laboratory	
AWSL	

**Pumping Rate Calculations**

Flow Rate (Q = S/60) (gal/min)	.217
Time to evacuate 2 Casing Volumes (min)	300.00
Number of casing Volumes	2.00
Volume, if well evacuated to dryness ( )	0

**Analytical Samples Information**

Type of Sample/Analysis	Sample Collected?	Matrix	Container		Sample Filtered?	Preservative	
			Number	Type		Type	Added?
Total Dissolved Solids	Y	WATER	1	250-mL HDPE	U	4 Deg C	Y
Heavy Metals - Full Suite	Y	WATER	1	250-mL HDPE	Y	HNO3 (pH<2)	Y
VOCs - Full Suite for GW	Y	WATER	3	40ml VOA	U	HCl (pH<2), 4 Deg C	Y
Nutrients	Y	WATER	1	250-mL HDPE	U	H2SO4 (pH<2), 4 Deg C	Y
General Inorganics	Y	WATER	1	250-mL HDPE	U	4 Deg C	Y
Gross Alpha	Y	WATER	1	250-mL HDPE	Y	HNO3	Y

**Comments:**

Arrived on site at 0706. Purge began at 0710. Purged well for a total of 300 minutes. Purge ended and samples collected at 1210. Water was clear. Left site at 1220.

**Signature of Field Technician**

*Deen Colman*



White Mesa Mill

Field Data Worksheet For Groundwater

Location ID	MW-23
Field Sample ID	MW-23_05152019
Purge Date & Time	4/29/2019 13:00
Sample Date & Time	5/15/2019 7:40
Purging Equipment	Pump
Pump Type	QED
Purging Method	2 Casings
Casing Volume (gal)	11.78
Calculated Casing Volumes Purge Duration (min)	113.33
pH Buffer 7.0	7.0
pH Buffer 4.0	4.0
Specific Conductance (micromhos)	1000

Sampling Program	
Sampling Event	2019 Q2 GW Quarterly
Sampler	TH/DL
Weather Conditions	Overcast
External Ambient Temperature (C)	20
Previous Well Sampled	TW4-24

Well Depth (ft)	132.00
Well Casing Diameter (in)	4
Depth to Water Before Purging (ft)	113.95

Date/Time	Gallons Purged	Conductivity	pH	Temp (Deg C)	Redox	Turbidity	Before/After
4/29/2019 15:00	24.96	3798	6.10	16.58	545	0	
5/15/2019 7:39		3843	6.70	15.30			Before
5/15/2019 7:48		3840	6.68	15.23			After

Volume of water purged (gals)	24.96
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Final Depth to Water (feet)	128.50
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Name of Certified Analytical Laboratory	
AWSL	

Pumping Rate Calculations

Flow Rate (Q = S/60) (gal/min)	.208
Time to evacuate 2 Casing Volumes (min)	120.00
Number of casing Volumes	2.00
Volume, if well evacuated to dryness (gals)	24.96

Analytical Samples Information

Type of Sample/Analysis	Sample Collected?	Matrix	Container		Sample Filtered?	Preservative	
			Number	Type		Type	Added?
Total Dissolved Solids	Y	WATER	1	250-mL HDPE	U	4 Deg C	Y
Heavy Metals - Full Suite	Y	WATER	1	250-mL HDPE	Y	HNO3 (pH<2)	Y
VOCs - Full Suite for GW	Y	WATER	3	40ml VOA	U	HCl (pH<2), 4 Deg C	Y
Nutrients	Y	WATER	1	250-mL HDPE	U	H2SO4 (pH<2), 4 Deg C	Y
General Inorganics	Y	WATER	1	250-mL HDPE	U	4 Deg C	Y
Gross Alpha	Y	WATER	1	250-mL HDPE	Y	HNO3	Y

Comments:

Arrived on site at 1256. Purge began at 1300. Purged well for a total of 120 minutes. Purged well dry. Flow rate decreased as purge went on. Purge ended at 1500. Water was clear. Left site at 1503. Arrived on site at 0735. Depth to water was 119.35. Samples collected at 0740. Left site at 0750.

Signature of Field Technician



**White Mesa Mill**  
**Field Data Worksheet For Groundwater**

Location ID	MW-24
Field Sample ID	MW-24_05022019
Purge Date & Time	5/1/2019 13:05
Sample Date & Time	5/2/2019 7:00

Purging Equipment	Pump
Pump Type	QED
Purging Method	2 Casings
Casing Volume (gal)	5.60
Calculated Casing Volumes Purge Duration (min)	58.42
pH Buffer 7.0	7.0
pH Buffer 4.0	4.0
Specific Conductance (micromhos)	1000

Sampling Program	
Sampling Event	2019 Q2 GW Quarterly

Sampler	TH/DL
Weather Conditions	Overcast
External Ambient Temperature (C)	15
Previous Well Sampled	MW-03A

Well Depth (ft)	120.00
Well Casing Diameter (in)	4
Depth to Water Before Purging (ft)	111.41

Date/Time	Gallons Purged	Conductivity	pH	Temp (Deg C)	Redox	Turbidity	Before/After
5/1/2019 14:05	11.52	4434	5.20	15.61	560	0	
5/2/2019 6:58		4428	4.50	14.73			Before
5/2/2019 7:10		4430	4.53	14.80			After

Volume of water purged (gals)	11.52
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Final Depth to Water (feet)	117.89
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Name of Certified Analytical Laboratory	
AWSL	

**Analytical Samples Information**

Type of Sample/Analysis	Sample Collected?	Matrix	Container		Sample Filtered?	Preservative	
			Number	Type		Type	Added?
Total Dissolved Solids	Y	WATER	1	250-mL HDPE	U	4 Deg C	Y
Heavy Metals - Full Suite	Y	WATER	1	250-mL HDPE	Y	HNO3 (pH<2)	Y
VOCs - Full Suite for GW	Y	WATER	3	40ml VOA	U	HCl (pH<2), 4 Deg C	Y
Nutrients	Y	WATER	1	250-mL HDPE	U	H2SO4 (pH<2), 4 Deg C	Y
General Inorganics	Y	WATER	1	250-mL HDPE	U	4 Deg C	Y
Gross Alpha	Y	WATER	1	250-mL HDPE	Y	HNO3	Y

**Comments:**

Arrived on site at 1302. Purge began at 1305. Purged well for a total of 60 minutes. Purged well dry. Purge ended at 1405. Water was mostly clear. Left site at 1407. Arrived on site at 0656. Depth to water was 111.50. Samples collected at 0700. Left site at 0715.

Signature of Field Technician

*Deen G Lyman*

**Pumping Rate Calculations**

Flow Rate (Q = S/60) (gal/min)	.192
Time to evacuate 2 Casing Volumes (min)	60.00
Number of casing Volumes	2.00
Volume, if well evacuated to dryness (gals)	11.52



White Mesa Mill  
Field Data Worksheet For Groundwater

Location ID	MW-25
Field Sample ID	MW-25_04102019
Purge Date & Time	4/10/2019 7:30
Sample Date & Time	4/10/2019 11:10
Purging Equipment	Pump
Pump Type	QED
Purging Method	2 Casings
Casing Volume (gal)	23.45
Calculated Casing Volumes Purge Duration (min)	216.18
pH Buffer 7.0	7.0
pH Buffer 4.0	4.0
Specific Conductance (micromhos)	1000

Sampling Program	
Sampling Event	2019 Q2 GW Quarterly
Sampler	TH/DL
Weather Conditions	Cloudy
External Ambient Temperature (C)	3
Previous Well Sampled	MW-31

Well Depth (ft)	115.00
Well Casing Diameter (in)	4
Depth to Water Before Purging (ft)	79.08

Date/Time	Gallons Purged	Conductivity	pH	Temp (Deg C)	Redox	Turbidity	Before/After
4/10/2019 11:07	47.08	3162	6.80	14.27	549	2.1	
4/10/2019 11:08	47.30	3162	6.80	14.40	549	2.2	
4/10/2019 11:09	47.53	3158	6.80	14.36	548	2.1	
4/10/2019 11:10	47.74	3162	6.79	14.32	548	2.1	

Volume of water purged (gals)	47.74
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Final Depth to Water (feet)	80.75
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Name of Certified Analytical Laboratory	AWSL
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Analytical Samples Information

Type of Sample/Analysis	Sample Collected?	Matrix	Container		Sample Filtered?	Preservative	
			Number	Type		Type	Added?
Total Dissolved Solids	Y	WATER	1	250-mL HDPE	U	4 Deg C	Y
Heavy Metals - Full Suite	Y	WATER	1	250-mL HDPE	Y	HNO3 (pH<2)	Y
VOCs - Full Suite for GW	Y	WATER	3	40ml VOA	U	HCl (pH<2), 4 Deg C	Y
Nutrients	Y	WATER	1	250-mL HDPE	U	H2SO4 (pH<2), 4 Deg C	Y
General Inorganics	Y	WATER	1	250-mL HDPE	U	4 Deg C	Y
Gross Alpha	Y	WATER	1	250-mL HDPE	Y	HNO3	Y

Comments:

Arrived on site at 0725. Started purge at 0730. Purged well for a total of 220 minutes. Purge ended and samples collected at 1110.

Signature of Field Technician

Pumping Rate Calculations

Flow Rate (Q = S/60) (gal/min)	.217
Time to evacuate 2 Casing Volumes (min)	220.00
Number of casing Volumes	2.00
Volume, if well evacuated to dryness ( )	0



**White Mesa Mill**  
**Field Data Worksheet For Groundwater**

Location ID	MW-26
Field Sample ID	MW-26_04242019
Purge Date & Time	4/24/2019 12:58
Sample Date & Time	4/24/2019 13:15

Sampling Program	
Sampling Event	2019 Q2 GW Quarterly

Sampler	TH/DL
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Purging Equipment	Pump
Pump Type	Continuous
Purging Method	2 Casings
Casing Volume ( )	
Calculated Casing Volumes Purge Duration ( )	
pH Buffer 7.0	7.0
pH Buffer 4.0	4.0
Specific Conductance (micromhos)	1000

Weather Conditions	Sunny
External Ambient Temperature (C)	20
Previous Well Sampled	MW-05

Well Depth (ft)	121.33
Well Casing Diameter (in)	4
Depth to Water Before Purging (ft)	68.49

Date/Time	Gallons Purged	Conductivity	pH	Temp (Deg C)	Redox	Turbidity	Before/After
4/24/2019 13:14		3531	6.70	16.70	577	0	

Volume of water purged ( )	
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Final Depth to Water (feet)	100.32
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Name of Certified Analytical Laboratory	
AWSL	

**Pumping Rate Calculations**

Flow Rate (Q = S/60) (gal/min)	10.00
Time to evacuate 2 Casing Volumes ( )	
Number of casing Volumes	
Volume, if well evacuated to dryness ( )	0

**Analytical Samples Information**

Type of Sample/Analysis	Sample Collected?	Matrix	Container		Sample Filtered?	Preservative	
			Number	Type		Type	Added?
Total Dissolved Solids	Y	WATER	1	250-mL HDPE	U	4 Deg C	Y
Heavy Metals - Full Suite	Y	WATER	1	250-mL HDPE	Y	HNO3 (pH<2)	Y
VOCs - Full Suite for GW	Y	WATER	3	40ml VOA	U	HCl (pH<2), 4 Deg C	Y
Nutrients	Y	WATER	1	250-mL HDPE	U	H2SO4 (pH<2), 4 Deg C	Y
General Inorganics	Y	WATER	1	250-mL HDPE	U	4 Deg C	Y
Gross Alpha	Y	WATER	1	250-mL HDPE	Y	HNO3	Y

**Comments:**

Arrived on site at 1310. Samples collected at 1315. Water was mostly clear. Left site at 1320.

Signature of Field Technician



**White Mesa Mill**  
**Field Data Worksheet For Groundwater**

Location ID	MW-27
Field Sample ID	MW-27_04232019
Purge Date & Time	4/23/2019 7:00
Sample Date & Time	4/23/2019 11:00
Purging Equipment	Pump
Pump Type	QED
Purging Method	2 Casings
Casing Volume (gal)	25.17
Calculated Casing Volumes Purge Duration (min)	232.01
pH Buffer 7.0	7.0
pH Buffer 4.0	4.0
Specific Conductance (micromhos)	1000

Sampling Program	
Sampling Event	2019 Q2 GW Quarterly
Sampler	TH/DL
Weather Conditions	Cloudy
External Ambient Temperature (C)	10
Previous Well Sampled	MW-19

Well Depth (ft)	95.00
Well Casing Diameter (in)	4
Depth to Water Before Purging (ft)	56.45

Date/Time	Gallons Purged	Conductivity	pH	Temp (Deg C)	Redox	Turbidity	Before/After
4/23/2019 10:57	51.42	1132	7.46	14.98	550	0	
4/23/2019 10:58	51.64	1128	7.44	14.94	549	0	
4/23/2019 10:59	51.86	1125	7.42	14.94	548	0	
4/23/2019 11:00	52.08	1127	7.41	14.98	547	0	

Volume of water purged (gals)	52.08
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Final Depth to Water (feet)	58.03
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Name of Certified Analytical Laboratory	
AWSL	

**Analytical Samples Information**

Type of Sample/Analysis	Sample Collected?	Matrix	Container		Sample Filtered?	Preservative	
			Number	Type		Type	Added?
Total Dissolved Solids	Y	WATER	1	250-mL HDPE	U	4 Deg C	Y
Heavy Metals - Full Suite	Y	WATER	1	250-mL HDPE	Y	HNO3 (pH<2)	Y
VOCs - Full Suite for GW	Y	WATER	3	40ml VOA	U	HCl (pH<2), 4 Deg C	Y
Nutrients	Y	WATER	1	250-mL HDPE	U	H2SO4 (pH<2), 4 Deg C	Y
General Inorganics	Y	WATER	1	250-mL HDPE	U	4 Deg C	Y
Gross Alpha	Y	WATER	1	250-mL HDPE	Y	HNO3	Y

**Comments:**

Arrived on site at 0655. Purge began at 0700. Purged well for a total of 240 minutes. Purge ended and samples collected at 1100. Water was clear. Left site at 1110.

Signature of Field Technician

**Pumping Rate Calculations**

Flow Rate (Q = S/60) (gal/min)	.217
Time to evacuate 2 Casing Volumes (min)	240.00
Number of casing Volumes	2.00
Volume, if well evacuated to dryness ( )	0



White Mesa Mill  
Field Data Worksheet For Groundwater

Location ID	MW-28
Field Sample ID	MW-28_04242019
Purge Date & Time	4/24/2019 6:40
Sample Date & Time	4/24/2019 10:15
Purging Equipment	Pump
Pump Type	QED
Purging Method	2 Casings
Casing Volume (gal)	23.01
Calculated Casing Volumes Purge Duration (min)	212.14
pH Buffer 7.0	7.0
pH Buffer 4.0	4.0
Specific Conductance (micromhos)	1000

Sampling Program	
Sampling Event	2019 Q2 GW Quarterly
Sampler	TH/DL
Weather Conditions	Sunny
External Ambient Temperature (C)	6
Previous Well Sampled	MW-14

Well Depth (ft)	110.00
Well Casing Diameter (in)	4
Depth to Water Before Purging (ft)	74.75

Date/Time	Gallons Purged	Conductivity	pH	Temp (Deg C)	Redox	Turbidity	Before/After
4/24/2019 10:12	46.00	4114	6.61	14.45	584	5.0	
4/24/2019 10:13	46.22	4113	6.60	14.40	589	5.0	
4/24/2019 10:14	46.43	4110	6.58	14.42	593	4.8	
4/24/2019 10:15	46.65	4109	6.58	14.40	596	4.8	

Volume of water purged (gals) 46.65

Final Depth to Water (feet) 78.00

Name of Certified Analytical Laboratory  
AWSL

Analytical Samples Information

Type of Sample/Analysis	Sample Collected?	Matrix	Container		Sample Filtered?	Preservative	
			Number	Type		Type	Added?
Total Dissolved Solids	Y	WATER	1	250-mL HDPE	U	4 Deg C	Y
Heavy Metals - Full Suite	Y	WATER	1	250-mL HDPE	Y	HNO3 (pH<2)	Y
VOCs - Full Suite for GW	Y	WATER	3	40ml VOA	U	HCl (pH<2), 4 Deg C	Y
Nutrients	Y	WATER	1	250-mL HDPE	U	H2SO4 (pH<2), 4 Deg C	Y
General Inorganics	Y	WATER	1	250-mL HDPE	U	4 Deg C	Y
Gross Alpha	Y	WATER	1	250-mL HDPE	Y	HNO3	Y

Comments:

Arrived on site at 0635. Began purge at 0640. Purged well for a total of 215 minutes. Collected samples at 1015. Water was mostly clear. Left site at 1025.

Signature of Field Technician

Pumping Rate Calculations

Flow Rate (Q = S/60) (gal/min)	.217
Time to evacuate 2 Casing Volumes (min)	215.00
Number of casing Volumes	46..65
Volume, if well evacuated to dryness ( )	0



White Mesa Mill  
Field Data Worksheet For Groundwater

Location ID	MW-29
Field Sample ID	MW-29_04242019
Purge Date & Time	4/24/2019 11:25
Sample Date & Time	4/24/2019 14:25
Purging Equipment	Pump
Pump Type	QED
Purging Method	2 Casings
Casing Volume (gal)	17.69
Calculated Casing Volumes Purge Duration (min)	163.09
pH Buffer 7.0	7.0
pH Buffer 4.0	4.0
Specific Conductance (micromhos)	1000

Sampling Program	
Sampling Event	2019 Q2 GW Quarterly
Sampler	TH/DL
Weather Conditions	Sunny
External Ambient Temperature (C)	15
Previous Well Sampled	MW-11

Well Depth (ft)	135.00
Well Casing Diameter (in)	4
Depth to Water Before Purging (ft)	107.90

Date/Time	Gallons Purged	Conductivity	pH	Temp (Deg C)	Redox	Turbidity	Before/After
4/24/2019 14:22	38.40	3703	6.77	14.83	455	35.0	
4/24/2019 14:23	38.62	3682	6.70	14.81	426	42.1	
4/24/2019 14:24	38.84	3670	6.69	14.87	416	43.1	
4/24/2019 14:25	39.06	3639	6.68	14.85	408	45.0	

Volume of water purged (gals)	39.06
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Final Depth to Water (feet)	110.50
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Name of Certified Analytical Laboratory	
AWSL	

**Pumping Rate Calculations**

Flow Rate (Q = S/60) (gal/min)	.217
Time to evacuate 2 Casing Volumes (min)	180.00
Number of casing Volumes	2.00
Volume, if well evacuated to dryness ( )	0

**Analytical Samples Information**

Type of Sample/Analysis	Sample Collected?	Matrix	Container		Sample Filtered?	Preservative	
			Number	Type		Type	Added?
Total Dissolved Solids	Y	WATER	1	250-mL HDPE	U	4 Deg C	Y
Heavy Metals - Full Suite	Y	WATER	1	250-mL HDPE	Y	HNO3 (pH<2)	Y
VOCs - Full Suite for GW	Y	WATER	3	40ml VOA	U	HCl (pH<2), 4 Deg C	Y
Nutrients	Y	WATER	1	250-mL HDPE	U	H2SO4 (pH<2), 4 Deg C	Y
General Inorganics	Y	WATER	1	250-mL HDPE	U	4 Deg C	Y
Gross Alpha	Y	WATER	1	250-mL HDPE	Y	HNO3	Y

**Comments:**

Arrived on site at 1121. Purge began 1125. Purged well for a total of 180 minutes. Purge ended and samples collected at 1425. Water was a little murky with little bubbles surfacing. Left site at 1435.

Signature of Field Technician

*Deer G Lyman*



**White Mesa Mill**  
**Field Data Worksheet For Groundwater**

Location ID	MW-30
Field Sample ID	MW-30_04092019
Purge Date & Time	4/9/2019 8:35
Sample Date & Time	4/9/2019 12:10

Sampling Program	
Sampling Event	2019 Q2 GW Quarterly

Purging Equipment	Pump
Pump Type	QED
Purging Method	2 Casings
Casing Volume (gal)	22.90
Calculated Casing Volumes Purge Duration (min)	211.12
pH Buffer 7.0	7.0
pH Buffer 4.0	4.0
Specific Conductance (micromhos)	1000

Sampler	TH/DL
Weather Conditions	Cloudy
External Ambient Temperature (C)	9
Previous Well Sampled	MW-32

Well Depth (ft)	110.00
Well Casing Diameter (in)	4
Depth to Water Before Purging (ft)	74.92

Date/Time	Gallons Purged	Conductivity	pH	Temp (Deg C)	Redox	Turbidity	Before/After
4/9/2019 12:07	46.00	2148	7.11	14.52	538	0.8	
4/9/2019 12:08	46.22	2151	7.07	14.47	525	0.9	
4/9/2019 12:09	46.43	2151	7.07	14.49	522	1.0	
4/9/2019 12:10	46.65	2151	7.06	14.46	519	1.0	

Volume of water purged (gals)	46.65
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Final Depth to Water (feet)	76.98
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Name of Certified Analytical Laboratory	
AWSL	

**Pumping Rate Calculations**

Flow Rate (Q = S/60) (gal/min)	.217
Time to evacuate 2 Casing Volumes (min)	215.00
Number of casing Volumes	2.00
Volume, if well evacuated to dryness ( )	0

**Analytical Samples Information**

Type of Sample/Analysis	Sample Collected?	Matrix	Container		Sample Filtered?	Preservative	
			Number	Type		Type	Added?
Total Dissolved Solids	Y	WATER	1	250-mL HDPE	U	4 Deg C	Y
Heavy Metals - Full Suite	Y	WATER	1	250-mL HDPE	Y	HNO3 (pH<2)	Y
VOCs - Full Suite for GW	Y	WATER	3	40ml VOA	U	HCl (pH<2), 4 Deg C	Y
Nutrients	Y	WATER	1	250-mL HDPE	U	H2SO4 (pH<2), 4 Deg C	Y
General Inorganics	Y	WATER	1	250-mL HDPE	U	4 Deg C	Y
Gross Alpha	Y	WATER	1	250-mL HDPE	Y	HNO3	Y

**Comments:**

Arrived on site at 0830. Purge began at 0835. Purged well for a total of 215 minutes. Purge ended and samples collected at 1210. Water was clear. Left site at 1221.
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Signature of Field Technician

*Deen G Lyman*



**White Mesa Mill**  
**Field Data Worksheet For Groundwater**

Location ID	MW-31
Field Sample ID	MW-31_04102019
Purge Date & Time	4/10/2019 7:20
Sample Date & Time	4/10/2019 13:35
Purging Equipment	Pump
Pump Type	QED
Purging Method	2 Casings
Casing Volume (gal)	40.25
Calculated Casing Volumes Purge Duration (min)	371.03
pH Buffer 7.0	7.0
pH Buffer 4.0	4.0
Specific Conductance (micromhos)	1000

Sampling Program	
Sampling Event	2019 Q2 GW Quarterly
Sampler	TH/DL
Weather Conditions	Cloudy and windy
External Ambient Temperature (C)	3
Previous Well Sampled	MW-32

Well Depth (ft)	130.00
Well Casing Diameter (in)	4
Depth to Water Before Purging (ft)	68.35

Date/Time	Gallons Purged	Conductivity	pH	Temp (Deg C)	Redox	Turbidity	Before/After
4/10/2019 13:32	80.72	2922	7.30	14.39	529	5.3	
4/10/2019 13:33	80.94	2924	7.29	14.36	529	5.2	
4/10/2019 13:34	81.15	2924	7.29	14.34	529	5.2	
4/10/2019 13:35	81.37	2922	7.29	14.32	528	5.2	

Volume of water purged (gals)	81.37
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Final Depth to Water (feet)	70.55
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Name of Certified Analytical Laboratory	
AWSL	

**Pumping Rate Calculations**

Flow Rate (Q = S/60) (gal/min)	.217
Time to evacuate 2 Casing Volumes (min)	375.00
Number of casing Volumes	2.00
Volume, if well evacuated to dryness ( )	0

**Analytical Samples Information**

Type of Sample/Analysis	Sample Collected?	Matrix	Container		Sample Filtered?	Preservative	
			Number	Type		Type	Added?
Total Dissolved Solids	Y	WATER	1	250-mL HDPE	U	4 Deg C	Y
Heavy Metals - Full Suite	Y	WATER	1	250-mL HDPE	Y	HNO3 (pH<2)	Y
VOCs - Full Suite for GW	Y	WATER	3	40ml VOA	U	HCl (pH<2), 4 Deg C	Y
Nutrients	Y	WATER	1	250-mL HDPE	U	H2SO4 (pH<2), 4 Deg C	Y
General Inorganics	Y	WATER	1	250-mL HDPE	U	4 Deg C	Y
Gross Alpha	Y	WATER	1	250-mL HDPE	Y	HNO3	Y

**Comments:**

Arrived on site at 0715. Started purge at 0720. Purged well for a total of 375 minutes. Purge ended and samples collected at 1335.

Signature of Field Technician

*Deen Glyman*



**White Mesa Mill**  
**Field Data Worksheet For Groundwater**

Location ID	MW-32
Field Sample ID	MW-32_04092019
Purge Date & Time	4/9/2019 8:15
Sample Date & Time	4/9/2019 13:25
Purging Equipment	Pump
Pump Type	QED
Purging Method	2 Casings
Casing Volume (gal)	33.02
Calculated Casing Volumes Purge Duration (min)	304.35
pH Buffer 7.0	7.0
pH Buffer 4.0	4.0
Specific Conductance (micromhos)	1000

Sampling Program	
Sampling Event	2019 Q2 GW Quarterly
Sampler	TH/DL
Weather Conditions	Cloudy
External Ambient Temperature (C)	9
Previous Well Sampled	N/A

Well Depth (ft)	130.60
Well Casing Diameter (in)	4
Depth to Water Before Purging (ft)	80.03

Date/Time	Gallons Purged	Conductivity	pH	Temp (Deg C)	Redox	Turbidity	Before/After
4/9/2019 13:22	66.61	3769	6.48	14.64	311	7.2	
4/9/2019 13:23	66.83	3766	6.50	14.61	304	7.3	
4/9/2019 13:24	67.05	3768	6.51	14.53	297	7.2	
4/9/2019 13:25	67.27	3761	6.51	14.60	292	7.3	

Volume of water purged (gals)	67.27
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Final Depth to Water (feet)	85.48
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Name of Certified Analytical Laboratory	
AWSL	

**Analytical Samples Information**

Type of Sample/Analysis	Sample Collected?	Matrix	Container		Sample Filtered?	Preservative	
			Number	Type		Type	Added?
Total Dissolved Solids	Y	WATER	1	250-mL HDPE	U	4 Deg C	Y
Heavy Metals - Full Suite	Y	WATER	1	250-mL HDPE	Y	HNO3 (pH<2)	Y
VOCs - Full Suite for GW	Y	WATER	3	40ml VOA	U	HCl (pH<2), 4 Deg C	Y
Nutrients	Y	WATER	1	250-mL HDPE	U	H2SO4 (pH<2), 4 Deg C	Y
General Inorganics	Y	WATER	1	250-mL HDPE	U	4 Deg C	Y
Gross Alpha	Y	WATER	1	250-mL HDPE	Y	HNO3	Y

**Comments:**

Arrived on site at 0810. Started purge at 0815. Purged well for a total of 310 minutes. Purge ended and samples collected at 1325. Water was a little murky. Left site at 1336.

Signature of Field Technician

*Deena C Lyman*

**Pumping Rate Calculations**

Flow Rate (Q = S/60) (gal/min)	.217
Time to evacuate 2 Casing Volumes (min)	310.00
Number of casing Volumes	2.00
Volume, if well evacuated to dryness ( )	0



**White Mesa Mill**  
**Field Data Worksheet For Groundwater**

Location ID	MW-35
Field Sample ID	MW-35_04182019
Purge Date & Time	4/18/2019 7:10
Sample Date & Time	4/18/2019 8:25

Sampling Program	
Sampling Event	2019 Q2 GW Quarterly

Purging Equipment	Pump
Pump Type	GrundfosQED
Purging Method	2 Casings
Casing Volume (gal)	7.7
Calculated Casing Volumes Purge Duration (min)	71.61
pH Buffer 7.0	7.0
pH Buffer 4.0	4.0
Specific Conductance (micromhos)	1000

Sampler	TH/DL
Weather Conditions	Clear
External Ambient Temperature (C)	5
Previous Well Sampled	MW-40

Well Depth (ft)	124.50
Well Casing Diameter (in)	4
Depth to Water Before Purging (ft)	112.60

Date/Time	Gallons Purged	Conductivity	pH	Temp (Deg C)	Redox	Turbidity	Before/After
4/18/2019 8:22	15.62	4148	6.85	14.30	508	0	
4/18/2019 8:23	15.84	4151	6.83	14.10	494	0	
4/18/2019 8:24	16.05	4179	6.82	14.13	484	0	
4/18/2019 8:25	16.27	4142	6.82	14.09	477	0	

Volume of water purged (gals)	16.27
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Final Depth to Water (feet)	113.12
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Name of Certified Analytical Laboratory	
AWSL	

**Pumping Rate Calculations**

Flow Rate (Q = S/60) (gal/min)	.217
Time to evacuate 2 Casing Volumes (min)	75.00
Number of casing Volumes	2
Volume, if well evacuated to dryness ( )	0

**Analytical Samples Information**

Type of Sample/Analysis	Sample Collected?	Matrix	Container		Sample Filtered?	Preservative	
			Number	Type		Type	Added?
Total Dissolved Solids	Y	WATER	1	250-mL HDPE	U	4 Deg C	Y
Heavy Metals - Full Suite	Y	WATER	1	250-mL HDPE	Y	HNO3 (pH<2)	Y
VOCs - Full Suite for GW	Y	WATER	3	40ml VOA	U	HCl (pH<2), 4 Deg C	Y
Nutrients	Y	WATER	1	250-mL HDPE	U	H2SO4 (pH<2), 4 Deg C	Y
General Inorganics	Y	WATER	1	250-mL HDPE	U	4 Deg C	Y
Gross Alpha	Y	WATER	1	250-mL HDPE	Y	HNO3	Y

**Comments:**

Arrived on site at 0705. Began purge at 0710. Purged well for a total of 75 minutes. Purge ended and samples collected at 0825. Water was mostly clear. Left site at 0835.

Signature of Field Technician

*Debra Glyman*



**White Mesa Mill**  
**Field Data Worksheet For Groundwater**

Location ID	MW-36
Field Sample ID	MW-36_04182019
Purge Date & Time	4/18/2019 8:40
Sample Date & Time	4/18/2019 9:50
Purging Equipment	Pump
Pump Type	QED
Purging Method	2 Casings
Casing Volume (gal)	7.06
Calculated Casing Volumes Purge Duration (min)	65.11
pH Buffer 7.0	7.0
pH Buffer 4.0	4.0
Specific Conductance (micromhos)	1000

Sampling Program	
Sampling Event	2019 Q2 GW Quarterly
Sampler	TH/DL
Weather Conditions	Sunny
External Ambient Temperature (C)	7
Previous Well Sampled	MW-35

Well Depth (ft)	121.60
Well Casing Diameter (in)	4
Depth to Water Before Purging (ft)	110.78

Date/Time	Gallons Purged	Conductivity	pH	Temp (Deg C)	Redox	Turbidity	Before/After
4/18/2019 9:47	14.53	4906	7.06	14.15	464	0	
4/18/2019 9:48	14.75	4902	7.06	14.10	465	0	
4/18/2019 9:49	14.97	4905	7.06	14.13	466	0	
4/18/2019 9:50	15.19	4902	7.05	14.10	466	0	

Volume of water purged (gals)	15.19
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Final Depth to Water (feet)	112.48
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Name of Certified Analytical Laboratory	
AWSL	

**Analytical Samples Information**

Type of Sample/Analysis	Sample Collected?	Matrix	Container		Sample Filtered?	Preservative	
			Number	Type		Type	Added?
Total Dissolved Solids	Y	WATER	1	250-mL HDPE	U	4 Deg C	Y
Heavy Metals - Full Suite	Y	WATER	1	250-mL HDPE	Y	HNO3 (pH<2)	Y
VOCs - Full Suite for GW	Y	WATER	3	40ml VOA	U	HCl (pH<2), 4 Deg C	Y
Nutrients	Y	WATER	1	250-mL HDPE	U	H2SO4 (pH<2), 4 Deg C	Y
General Inorganics	Y	WATER	1	250-mL HDPE	U	4 Deg C	Y
Gross Alpha	Y	WATER	1	250-mL HDPE	Y	HNO3	Y

**Comments:**

Arrived on site at 0837. Purge began at 0840. Purged well for a total of 70 minutes. Purge ended and samples collected at 0950. Water was clear. Left site at 1000.

Signature of Field Technician

*Dean Glyman*

**Pumping Rate Calculations**

Flow Rate (Q = S/60) (gal/min)	.217
Time to evacuate 2 Casing Volumes (min)	70.00
Number of casing Volumes	2
Volume, if well evacuated to dryness ( )	0



White Mesa Mill  
Field Data Worksheet For Groundwater

Location ID	MW-37
Field Sample ID	MW-37_05152019
Purge Date & Time	5/2/2019 9:40
Sample Date & Time	5/15/2019 8:00
Purging Equipment	Bailer
Pump Type	Grundfos
Purging Method	2 Casings
Casing Volume (gal)	10.16
Calculated Casing Volumes Purge Duration ( )	
pH Buffer 7.0	7.0
pH Buffer 4.0	4.0
Specific Conductance (micromhos)	1000

Sampling Program	
Sampling Event	2019 Q2 GW Quarterly
Sampler	TH/DL
Weather Conditions	Partly cloudy
External Ambient Temperature (C)	12
Previous Well Sampled	TW4-24

Well Depth (ft)	121.80
Well Casing Diameter (in)	4
Depth to Water Before Purging (ft)	106.23

Date/Time	Gallons Purged	Conductivity	pH	Temp (Deg C)	Redox	Turbidity	Before/After
5/2/2019 9:45	5.00	4381	6.50	14.19	546	13.4	
5/15/2019 7:59		4338	6.70	14.65			Before
5/15/2019 8:05		4339	6.69	14.70			After

Volume of water purged (gals)	14.00
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Final Depth to Water (feet)	121.45
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Name of Certified Analytical Laboratory	AWSL
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Analytical Samples Information

Type of Sample/Analysis	Sample Collected?	Matrix	Container		Sample Filtered?	Preservative	
			Number	Type		Type	Added?
Total Dissolved Solids	Y	WATER	1	250-mL HDPE	U	4 Deg C	Y
Heavy Metals - Full Suite	Y	WATER	1	250-mL HDPE	Y	HNO3 (pH<2)	Y
VOCs - Full Suite for GW	Y	WATER	3	40ml VOA	U	HCl (pH<2), 4 Deg C	Y
Nutrients	Y	WATER	1	250-mL HDPE	U	H2SO4 (pH<2), 4 Deg C	Y
General Inorganics	Y	WATER	1	250-mL HDPE	U	4 Deg C	Y
Gross Alpha	Y	WATER	1	250-mL HDPE	Y	HNO3	Y

Comments:

Arrived on site at 0946. Bailing began at 0950. Bailed a total of 14 gallons from the well. Purged well dry. Water started clear and ended murky as bailing progressed. Took 1 set of parameters straight from a 5 gallon bucket. Left site at 1011. Arrived on site at 0755. Depth to water was 114.49. Samples collected 0800. Left site at 0808.

Signature of Field Technician

Pumping Rate Calculations

Flow Rate (Q = S/60) (gal/min)	0
Time to evacuate 2 Casing Volumes ( )	
Number of casing Volumes	1.45
Volume, if well evacuated to dryness (gals)	14.00



White Mesa Mill  
Field Data Worksheet For Groundwater

Location ID	MW-38
Field Sample ID	MW-38_05022019
Purge Date & Time	5/1/2019 14:35
Sample Date & Time	5/2/2019 8:45
Purging Equipment	Bailer
Pump Type	Grundfos
Purging Method	2 Casings
Casing Volume (gal)	2.49
Calculated Casing Volumes Purge Duration ( )	
pH Buffer 7.0	7.0
pH Buffer 4.0	4.0
Specific Conductance (micromhos)	1000

Sampling Program	
Sampling Event	2019 Q2 GW Quarterly
Sampler	TH/DL
Weather Conditions	Partly cloudy
External Ambient Temperature (C)	15
Previous Well Sampled	MW-24

Well Depth (ft)	74.40
Well Casing Diameter (in)	4
Depth to Water Before Purging (ft)	70.58

Date/Time	Gallons Purged	Conductivity	pH	Temp (Deg C)	Redox	Turbidity	Before/After
5/1/2019 14:40	5.00	4455	6.83	16.65	548	20.7	
5/2/2019 8:44		4402	7.00	13.92			Before
5/2/2019 8:50		4410	7.00	13.95			After

Volume of water purged (gals)	5.00
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Final Depth to Water (feet)	74.38
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Name of Certified Analytical Laboratory	
AWSL	

Pumping Rate Calculations

Flow Rate (Q = S/60) (gal/min)	0.00
Time to evacuate 2 Casing Volumes ( )	
Number of casing Volumes	2.00
Volume, if well evacuated to dryness (gals)	5.00

Analytical Samples Information

Type of Sample/Analysis	Sample Collected?	Matrix	Container		Sample Filtered?	Preservative	
			Number	Type		Type	Added?
Total Dissolved Solids	Y	WATER	1	250-mL HDPE	U	4 Deg C	Y
Heavy Metals - Full Suite	Y	WATER	1	250-mL HDPE	Y	HNO3 (pH<2)	Y
VOCs - Full Suite for GW	Y	WATER	3	40ml VOA	U	HCl (pH<2), 4 Deg C	Y
Nutrients	Y	WATER	1	250-mL HDPE	U	H2SO4 (pH<2), 4 Deg C	Y
General Inorganics	Y	WATER	1	250-mL HDPE	U	4 Deg C	Y
Gross Alpha	Y	WATER	1	250-mL HDPE	Y	HNO3	Y

Comments:

Arrived on site at 1432. Bailing started at 1435. Bailed a total of 5 gallons from well. Bailed well dry. Took 1 set of parameters from 5 gallon bucket. Left site at 1448. Arrived on site at 0841. Depth to water was 70.59. Samples bailed and collected at 0845. Left site at 0850.

Signature of Field Technician

*Deen Glyman*



**White Mesa Mill**  
**Field Data Worksheet For Groundwater**

Location ID	MW-39
Field Sample ID	MW-39_05012019
Purge Date & Time	5/1/2019 7:25
Sample Date & Time	5/1/2019 11:25
Purging Equipment	Pump
Pump Type	QED
Purging Method	2 Casings
Casing Volume (gal)	24.22
Calculated Casing Volumes Purge Duration (min)	223.28
pH Buffer 7.0	7.0
pH Buffer 4.0	4.0
Specific Conductance (micromhos)	1000

Sampling Program	
Sampling Event	2019 Q2 GW Quarterly
Sampler	TH/DL
Weather Conditions	Raining
External Ambient Temperature (C)	7
Previous Well Sampled	MW-15

Well Depth (ft)	102.50
Well Casing Diameter (in)	4
Depth to Water Before Purging (ft)	65.40

Date/Time	Gallons Purged	Conductivity	pH	Temp (Deg C)	Redox	Turbidity	Before/After
5/1/2019 11:22	51.42	4710	4.08	14.40	533	0	
5/1/2019 11:23	51.64	4694	4.05	14.45	541	0	
5/1/2019 11:24	51.86	4692	4.00	14.41	544	1.0	
5/1/2019 11:25	52.08	4680	4.00	14.39	545	1.0	

Volume of water purged (gals)	52.08
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Final Depth to Water (feet)	70.20
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Name of Certified Analytical Laboratory	
AWSL	

**Analytical Samples Information**

Type of Sample/Analysis	Sample Collected?	Matrix	Container		Sample Filtered?	Preservative	
			Number	Type		Type	Added?
Total Dissolved Solids	Y	WATER	1	250-mL HDPE	U	4 Deg C	Y
Heavy Metals - Full Suite	Y	WATER	1	250-mL HDPE	Y	HNO3 (pH<2)	Y
VOCs - Full Suite for GW	Y	WATER	3	40ml VOA	U	HCl (pH<2), 4 Deg C	Y
Nutrients	Y	WATER	1	250-mL HDPE	U	H2SO4 (pH<2), 4 Deg C	Y
General Inorganics	Y	WATER	1	250-mL HDPE	U	4 Deg C	Y
Gross Alpha	Y	WATER	1	250-mL HDPE	Y	HNO3	Y

**Comments:**

Arrived on site at 0721. Purge began at 0725. Purged well for a total of 240 minutes. Purge ended and samples collected at 1125. Water was clear. Left site at 1135.

Signature of Field Technician

*Deen G Lyman*

**Pumping Rate Calculations**

Flow Rate (Q = S/60) (gal/min)	.217
Time to evacuate 2 Casing Volumes (min)	240.00
Number of casing Volumes	2.00
Volume, if well evacuated to dryness ( )	0



**White Mesa Mill**  
**Field Data Worksheet For Groundwater**

Location ID	MW-40
Field Sample ID	MW-40_04172019
Purge Date & Time	4/17/2019 9:00
Sample Date & Time	4/17/2019 13:05
Purging Equipment	Pump
Pump Type	QED
Purging Method	2 Casings
Casing Volume (gal)	26.15
Calculated Casing Volumes Purge Duration (min)	241.01
pH Buffer 7.0	7.0
pH Buffer 4.0	4.0
Specific Conductance (micromhos)	1000

Sampling Program	
Sampling Event	2019 Q2 GW Quarterly
Sampler	TH/DL
Weather Conditions	Clear
External Ambient Temperature (C)	6
Previous Well Sampled	MW-01

Well Depth (ft)	120.00
Well Casing Diameter (in)	4
Depth to Water Before Purging (ft)	79.95

Date/Time	Gallons Purged	Conductivity	pH	Temp (Deg C)	Redox	Turbidity	Before/After
4/17/2019 13:02	52.51	3975	6.94	14.32	449	2.0	
4/17/2019 13:03	52.73	3969	6.92	14.29	454	2.1	
4/17/2019 13:04	52.94	3969	6.91	14.30	457	2.2	
4/17/2019 13:05	53.16	3964	6.90	14.42	460	2.1	

Volume of water purged (gals)	53.16
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Final Depth to Water (feet)	80.85
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Name of Certified Analytical Laboratory	
AWSL	

**Analytical Samples Information**

Type of Sample/Analysis	Sample Collected?	Matrix	Container		Sample Filtered?	Preservative	
			Number	Type		Type	Added?
Total Dissolved Solids	Y	WATER	1	250-mL HDPE	U	4 Deg C	Y
Heavy Metals - Full Suite	Y	WATER	1	250-mL HDPE	Y	HNO3 (pH<2)	Y
VOCs - Full Suite for GW	Y	WATER	3	40ml VOA	U	HCl (pH<2), 4 Deg C	Y
Nutrients	Y	WATER	1	250-mL HDPE	U	H2SO4 (pH<2), 4 Deg C	Y
General Inorganics	Y	WATER	1	250-mL HDPE	U	4 Deg C	Y
Gross Alpha	Y	WATER	1	250-mL HDPE	Y	HNO3	Y

**Comments:**

Arrived on site at 0855. Started purge at 0900. Purged well for a total of 245 minutes. Purge ended and samples collected at 1305.

Signature of Field Technician

*Deen G Lyman*

**Pumping Rate Calculations**

Flow Rate (Q = S/60) (gal/min)	.217
Time to evacuate 2 Casing Volumes (min)	245.00
Number of casing Volumes	2
Volume, if well evacuated to dryness ( )	0



**White Mesa Mill**  
**Field Data Worksheet For Groundwater**

Location ID	TW4-24
Field Sample ID	TW4-24_04252019
Purge Date & Time	4/25/2019 8:07
Sample Date & Time	4/25/2019 8:15

Purging Equipment	Pump
Pump Type	Continuous
Purging Method	2 Casings
Casing Volume ( )	
Calculated Casing Volumes Purge Duration ( )	
pH Buffer 7.0	7.0
pH Buffer 4.0	4.0
Specific Conductance (micromhos)	1000

Sampling Program	
Sampling Event	2019 Q2 GW Quarterly

Sampler	TH/DL
Weather Conditions	Sunny
External Ambient Temperature (C)	13
Previous Well Sampled	MW-02

Well Depth (ft)	114.80
Well Casing Diameter (in)	4
Depth to Water Before Purging (ft)	75.61

Date/Time	Gallons Purged	Conductivity	pH	Temp (Deg C)	Redox	Turbidity	Before/After
4/25/2019 8:14		6018	6.72	14.58	558	10.5	

Volume of water purged ( )	
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Final Depth to Water (feet)	88.21
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Name of Certified Analytical Laboratory	
AWSL	

**Pumping Rate Calculations**

Flow Rate (Q = S/60) (gal/min)	14.00
Time to evacuate 2 Casing Volumes ( )	
Number of casing Volumes	
Volume, if well evacuated to dryness ( )	0

**Analytical Samples Information**

Type of Sample/Analysis	Sample Collected?	Matrix	Container		Sample Filtered?	Preservative	
			Number	Type		Type	Added?
General Inorganics	Y	WATER	1	250-mL HDPE	U	4 Deg C	Y
Heavy Metals - Full Suite	Y	WATER	1	250-mL HDPE	Y	HNO3 (pH<2)	Y
Nutrients	Y	WATER	1	250-mL HDPE	U	H2SO4 (pH<2), 4 Deg C	Y
Total Dissolved Solids	Y	WATER	1	250-mL HDPE	U	4 Deg C	Y
VOCs - Full Suite for GW	Y	WATER	3	40ml VOA	U	HCl (pH<2), 4 Deg C	Y

**Comments:**

Arrived on site at 0810. Samples collected at 0815. Water was mostly clear. Left site at 0821.

Signature of Field Technician



**White Mesa Mill**  
**Field Data Worksheet For Groundwater**

Location ID	TW4-24
Field Sample ID	TW4-24_05022019
Purge Date & Time	5/2/2019 7:58
Sample Date & Time	5/2/2019 8:00

Sampling Program	
Sampling Event	TW4-24 Resample

Sampler	TH
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Purging Equipment	Pump
Pump Type	Continuous
Purging Method	2 Casings
Casing Volume (gal)	25.41
Calculated Casing Volumes Purge Duration ( )	
pH Buffer 7.0	7.0
pH Buffer 4.0	4.0
Specific Conductance (micromhos)	1000

Weather Conditions	Partly cloudy
External Ambient Temperature (C)	8
Previous Well Sampled	MW-20

Well Depth (ft)	114.80
Well Casing Diameter (in)	4
Depth to Water Before Purging (ft)	75.88

Date/Time	Gallons Purged	Conductivity	pH	Temp (Deg C)	Redox	Turbidity		Before/After
5/2/2019 7:59		5873	6.35	14.28	579	0		

Volume of water purged ( )	
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Final Depth to Water (feet)	83.21
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Name of Certified Analytical Laboratory	
GEL	

**Pumping Rate Calculations**

Flow Rate (Q = S/60) (gal/min)	16.0
Time to evacuate 2 Casing Volumes ( )	
Number of casing Volumes	
Volume, if well evacuated to dryness ( )	0

**Analytical Samples Information**

Type of Sample/Analysis	Sample Collected?	Matrix	Container		Sample Filtered?	Preservative	
			Number	Type		Type	Added?
Gross Alpha	Y	WATER	1	250-mL HDPE	Y	HNO3	Y

**Comments:**

Arrived on site at 0756. Sample collected at 0800. Water was clear. Left site at 0806.
--

Signature of Field Technician

*Deena Glyman*



White Mesa Mill  
Field Data Worksheet For Groundwater

Location ID	MW-65
Field Sample ID	MW-65_04232019
Purge Date & Time	
Sample Date & Time	4/23/2019 13:55

Sampling Program	
Sampling Event	2019 Q2 GW Quarterly

Sampler	TH/DL
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Purging Equipment	
Pump Type	
Purging Method	
Casing Volume ( )	
Calculated Casing Volumes Purge Duration ( )	
pH Buffer 7.0	
pH Buffer 4.0	
Specific Conductance ( )	

Weather Conditions	
External Ambient Temperature ( )	
Previous Well Sampled	

Well Depth (ft)	
Well Casing Diameter ( )	
Depth to Water Before Purging (ft)	

Date/Time	Gallons Purged	Conductivity	pH	Temp (Deg C)	Redox	Turbidity	Before/After
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Volume of water purged ( )	
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Final Depth to Water (feet)	
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Name of Certified Analytical Laboratory	
AWSL	

Pumping Rate Calculations

Flow Rate (Q = S/60) ( )	
Time to evacuate 2 Casing Volumes ( )	
Number of casing Volumes	
Volume, if well evacuated to dryness ( )	

Analytical Samples Information

Type of Sample/Analysis	Sample Collected?	Matrix	Container		Sample Filtered?	Preservative	
			Number	Type		Type	Added?
General Inorganics	Y	WATER	1	250-mL HDPE	U	4 Deg C	Y
VOCs - Full Suite for GW	Y	WATER	3	40ml VOA	U	HCl (pH<2), 4 Deg C	Y
Heavy Metals - Full Suite	Y	WATER	1	250-mL HDPE	Y	HNO3 (pH<2)	Y
Nutrients	Y	WATER	1	250-mL HDPE	U	H2SO4 (pH<2), 4 Deg C	Y
Total Dissolved Solids	Y	WATER	1	250-mL HDPE	U	4 Deg C	Y
Gross Alpha	Y	WATER	1	250-mL HDPE	Y	HNO3	Y

Comments:

Duplicate of MW-14
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Signature of Field Technician

*Deen G. Lyman*



White Mesa Mill  
Field Data Worksheet For Groundwater

Location ID	MW-70
Field Sample ID	MW-70_04302019
Purge Date & Time	
Sample Date & Time	4/30/2019 8:48
Purging Equipment	
Pump Type	
Purging Method	
Casing Volume ( )	
Calculated Casing Volumes Purge Duration ( )	
pH Buffer 7.0	
pH Buffer 4.0	
Specific Conductance ( )	

Sampling Program	
Sampling Event	2019 Q2 GW Quarterly

Sampler	TH/DL
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Weather Conditions	
External Ambient Temperature ( )	
Previous Well Sampled	

Well Depth (ft)	
Well Casing Diameter ( )	
Depth to Water Before Purging (ft)	

Date/Time	Gallons Purged	Conductivity	pH	Temp (Deg C)	Redox	Turbidity	Before/After
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Volume of water purged ( )	
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Final Depth to Water (feet)	
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Name of Certified Analytical Laboratory	
AWSL	

Pumping Rate Calculations

Flow Rate (Q = S/60) ( )	
Time to evacuate 2 Casing Volumes ( )	
Number of casing Volumes	
Volume, if well evacuated to dryness ( )	

Analytical Samples Information

Type of Sample/Analysis	Sample Collected?	Matrix	Container		Sample Filtered?	Preservative	
			Number	Type		Type	Added?
Total Dissolved Solids	Y	WATER	1	250-mL HDPE	U	4 Deg C	Y
Nutrients	Y	WATER	1	250-mL HDPE	U	H2SO4 (pH<2), 4 Deg C	Y
Heavy Metals - Full Suite	Y	WATER	1	250-mL HDPE	Y	HNO3 (pH<2)	Y
VOCs - Full Suite for GW	Y	WATER	3	40ml VOA	U	HCl (pH<2), 4 Deg C	Y
General Inorganics	Y	WATER	1	250-mL HDPE	U	4 Deg C	Y
Gross Alpha	Y	WATER	1	250-mL HDPE	Y	HNO3	Y

Comments:

Duplicate of MW-15
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Signature of Field Technician

*Deen G. Lyman*

Tab C

Field Data Worksheets Accelerated Monitoring

Tab C1

Field Data Worksheets Accelerated Monitoring

May 2019



White Mesa Mill  
Field Data Worksheet For Groundwater

Location ID	MW-11
Field Sample ID	MW-11_05072019
Purge Date & Time	5/7/2019 7:20
Sample Date & Time	5/7/2019 11:50

Sampling Program	
Sampling Event	May 2019
Sampler	TH/DL
Weather Conditions	Sunny
External Ambient Temperature (C)	10
Previous Well Sampled	MW-31

Purging Equipment	Pump
Pump Type	QED
Purging Method	2 Casings
Casing Volume (gal)	29.20
Calculated Casing Volumes Purge Duration (min)	269.20
pH Buffer 7.0	7.0
pH Buffer 4.0	4.0
Specific Conductance (micromhos)	1000

Well Depth (ft)	130.00
Well Casing Diameter (in)	4
Depth to Water Before Purging (ft)	85.27

Date/Time	Gallons Purged	Conductivity	pH	Temp (Deg C)	Redox	Turbidity	Before/After
5/7/2019 11:47	57.93	2972	7.24	14.68	466	0.0	
5/7/2019 11:48	58.15	2975	7.25	14.59	457	0.0	
5/7/2019 11:49	58.37	2964	7.26	14.58	450	0.0	
5/7/2019 11:50	58.59	2975	7.25	14.61	445	0.0	

Volume of water purged (gals)	58.59
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Final Depth to Water (feet)	87.51
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Name of Certified Analytical Laboratory	
AWSL	

**Pumping Rate Calculations**

Flow Rate (Q = S/60) (gal/min)	.217
Time to evacuate 2 Casing Volumes (min)	270.00
Number of casing Volumes	2.00
Volume, if well evacuated to dryness ( )	0

**Analytical Samples Information**

Type of Sample/Analysis	Sample Collected?	Matrix	Container		Sample Filtered?	Preservative	
			Number	Type		Type	Added?
Heavy Metals - Mn only	Y	WATER	1	250-mL HDPE	Y	HNO3 (pH<2)	Y

**Comments:**

Arrived on site at 0716. Purge began at 0720. Purged well for a total of 270 minutes. Purge ended and samples collected at 1150. Water was clear. left site at 1153.

Signature of Field Technician



**White Mesa Mill**  
**Field Data Worksheet For Groundwater**

Location ID	MW-25
Field Sample ID	MW-25_05082019
Purge Date & Time	5/8/2019 6:00
Sample Date & Time	5/8/2019 9:40

Sampling Program	
Sampling Event	May 2019
Sampler	TH/DL
Weather Conditions	Overcast
External Ambient Temperature (C)	9
Previous Well Sampled	MW-30

Purging Equipment	Pump
Pump Type	QED
Purging Method	2 Casings
Casing Volume (gal)	23.27
Calculated Casing Volumes Purge Duration (min)	214.55
pH Buffer 7.0	7.0
pH Buffer 4.0	4.0
Specific Conductance (micromhos)	1000

Well Depth (ft)	115.00
Well Casing Diameter (in)	4
Depth to Water Before Purging (ft)	79.35

Date/Time	Gallons Purged	Conductivity	pH	Temp (Deg C)	Redox	Turbidity	Before/After
5/8/2019 9:37	47.08	3138	6.68	14.87	548	13.1	
5/8/2019 9:38	47.30	3132	6.66	14.70	550	13.6	
5/8/2019 9:39	47.52	3129	6.63	14.55	551	14.0	
5/8/2019 9:40	47.74	3131	6.61	14.60	551	15.0	

Volume of water purged (gals)	47.74
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Final Depth to Water (feet)	81.28
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Name of Certified Analytical Laboratory	
AWSL	

**Pumping Rate Calculations**

Flow Rate (Q = S/60) (gal/min)	.217
Time to evacuate 2 Casing Volumes (min)	220.00
Number of casing Volumes	2.00
Volume, if well evacuated to dryness ( )	0

**Analytical Samples Information**

Type of Sample/Analysis	Sample Collected?	Matrix	Container		Sample Filtered?	Preservative	
			Number	Type		Type	Added?
Heavy Metals - Cd only	Y	WATER	1	250-mL HDPE	Y	HNO3 (pH<2)	Y

**Comments:**

Arrived on site at 0556. Purge began at 0600. Purged well for a total of 220 minutes. Purge ended and samples collected at 0940. Water was mostly clear with little air bubbles surfacing. Left site at 0945.

Signature of Field Technician

*Deen G Lyman*



White Mesa Mill  
Field Data Worksheet For Groundwater

Location ID	MW-26
Field Sample ID	MW-26_05072019
Purge Date & Time	5/7/2019 7:53
Sample Date & Time	5/7/2019 8:00

Sampling Program	
Sampling Event	May 2019

Sampler	TH/DL
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Purging Equipment	Pump
Pump Type	Continuous
Purging Method	2 Casings
Casing Volume ( )	
Calculated Casing Volumes Purge Duration ( )	
pH Buffer 7.0	7.0
pH Buffer 4.0	4.0
Specific Conductance (micromhos)	1000

Weather Conditions	Sunny
External Ambient Temperature (C)	11
Previous Well Sampled	MW-11

Well Depth (ft)	121.33
Well Casing Diameter (in)	4
Depth to Water Before Purging (ft)	74.97

Date/Time	Gallons Purged	Conductivity	pH	Temp (Deg C)	Redox	Turbidity	Before/After
5/7/2019 7:59		3455	6.54	15.03	554	0	

Volume of water purged ( )	
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Final Depth to Water (feet)	84.53
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Name of Certified Analytical Laboratory	
AWSL	

**Pumping Rate Calculations**

Flow Rate (Q = S/60) (gal/min)	10.00
Time to evacuate 2 Casing Volumes ( )	
Number of casing Volumes	
Volume, if well evacuated to dryness ( )	0

**Analytical Samples Information**

Type of Sample/Analysis	Sample Collected?	Matrix	Container		Sample Filtered?	Preservative	
			Number	Type		Type	Added?
Chloride	Y	WATER	1	500-mL Poly	U	None	N
Nitrate/nitrite as N	Y	WATER	1	250-mL HDPE	U	H2SO4 (pH<2), 4 Deg C	Y
VOCs - ChCl3 and MeCl2	Y	WATER	3	4oz glass jar	U	HCl (pH<2), 4 Deg C	Y
Ammonia	Y	WATER	1	250-mL HDPE	U	H2SO4 (pH<2), 4 Deg C	Y

**Comments:**

Arrived on site at 0755. Samples collected at 0800. Water was clear. Left site at 0805.

Signature of Field Technician

*Debra Glyman*



White Mesa Mill  
Field Data Worksheet For Groundwater

Location ID	MW-30
Field Sample ID	MW-30_05072019
Purge Date & Time	5/7/2019 12:25
Sample Date & Time	5/7/2019 16:00
Purging Equipment	Pump
Pump Type	QED
Purging Method	2 Casings
Casing Volume (gal)	22.85
Calculated Casing Volumes Purge Duration (min)	210.64
pH Buffer 7.0	7.0
pH Buffer 4.0	4.0
Specific Conductance (micromhos)	1000

Sampling Program	
Sampling Event	May 2019
Sampler	TH/DL
Weather Conditions	Sunny
External Ambient Temperature (C)	20
Previous Well Sampled	MW-26

Well Depth (ft)	110.00
Well Casing Diameter (in)	4
Depth to Water Before Purging (ft)	75.00

Date/Time	Gallons Purged	Conductivity	pH	Temp (Deg C)	Redox	Turbidity	Before/After
5/7/2019 15:57	46.00	2129	7.04	15.00	499	0	
5/7/2019 15:58	46.22	2120	7.02	14.88	500	0	
5/7/2019 15:59	46.43	2125	7.01	14.80	499	0	
5/7/2019 16:00	46.65	2118	7.00	14.82	499	0	

Volume of water purged (gals)	46.65
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Final Depth to Water (feet)	77.30
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Name of Certified Analytical Laboratory	AWSL
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**Analytical Samples Information**

Type of Sample/Analysis	Sample Collected?	Matrix	Container		Sample Filtered?	Preservative	
			Number	Type		Type	Added?
Chloride	Y	WATER	1	500-mL Poly	U	None	N
Nitrate/nitrite as N	Y	WATER	1	250-mL HDPE	U	H2SO4 (pH<2), 4 Deg C	Y
Heavy Metals - U and Se only	Y	WATER	1	250-mL HDPE	Y	HNO3 (pH<2)	Y

**Comments:**

Arrived on site at 1220. Purge began at 1225. Purged well for a total of 215 minutes. Purge ended and samples collected at 1600. Water was clear. Left site at 1610.

Signature of Field Technician

*Deen G. Lyman*

**Pumping Rate Calculations**

Flow Rate (Q = S/60) (gal/min)	.217
Time to evacuate 2 Casing Volumes (min)	215.00
Number of casing Volumes	2.00
Volume, if well evacuated to dryness ( )	0



**White Mesa Mill**  
**Field Data Worksheet For Groundwater**

Location ID	MW-31
Field Sample ID	MW-31_05072019
Purge Date & Time	5/7/2019 7:00
Sample Date & Time	5/7/2019 13:10
Purging Equipment	Pump
Pump Type	QED
Purging Method	2 Casings
Casing Volume (gal)	40.06
Calculated Casing Volumes Purge Duration (min)	369.23
pH Buffer 7.0	7.0
pH Buffer 4.0	4.0
Specific Conductance (micromhos)	1000

Sampling Program	
Sampling Event	May 2019
Sampler	TH/DL
Weather Conditions	Sunny
External Ambient Temperature (C)	10
Previous Well Sampled	N/A

Well Depth (ft)	130.00
Well Casing Diameter (in)	4
Depth to Water Before Purging (ft)	68.65

Date/Time	Gallons Purged	Conductivity	pH	Temp (Deg C)	Redox	Turbidity	Before/After
5/7/2019 13:07	79.63	2922	7.04	15.00	481	0	
5/7/2019 13:08	79.85	2920	7.03	14.96	481	0	
5/7/2019 13:09	80.07	2923	7.02	15.00	482	0	
5/7/2019 13:10	80.29	2917	7.02	14.95	483	0	

Volume of water purged (gals)	80.29
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Final Depth to Water (feet)	72.31
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Name of Certified Analytical Laboratory	
AWSL	

**Analytical Samples Information**

Type of Sample/Analysis	Sample Collected?	Matrix	Container		Sample Filtered?	Preservative	
			Number	Type		Type	Added?
Chloride	Y	WATER	1	500-mL Poly	U	None	N
Nitrate/nitrite as N	Y	WATER	1	250-mL HDPE	U	H2SO4 (pH<2), 4 Deg C	Y

**Comments:**

Arrived on site at 0656. Purge began at 0700. Purged well for a total of 370 minutes. Purge ended and samples collected at 1310. Water was clear. Left site at 1315.

Signature of Field Technician

*Deer G Lyman*

**Pumping Rate Calculations**

Flow Rate (Q = S/60) (gal/min)	.217
Time to evacuate 2 Casing Volumes (min)	370.00
Number of casing Volumes	2.00
Volume, if well evacuated to dryness ( )	0



**White Mesa Mill**  
**Field Data Worksheet For Groundwater**

Location ID	MW-36
Field Sample ID	MW-36_05212019
Purge Date & Time	5/21/2019 8:45
Sample Date & Time	5/21/2019 10:15

Purging Equipment	Pump
Pump Type	QED
Purging Method	2 Casings
Casing Volume (gal)	7.30
Calculated Casing Volumes Purge Duration (min)	67.34
pH Buffer 7.0	7.0
pH Buffer 4.0	4.0
Specific Conductance (micromhos)	1000

Sampling Program	
Sampling Event	MW-36

Sampler	TH/DL
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Weather Conditions	Cloudy
External Ambient Temperature (C)	5
Previous Well Sampled	MW-11

Well Depth (ft)	121.60
Well Casing Diameter (in)	4
Depth to Water Before Purging (ft)	110.41

Date/Time	Gallons Purged	Conductivity	pH	Temp (Deg C)	Redox	Turbidity	Before/After
5/21/2019 10:12	18.87	4850	6.70	14.20	563	0	
5/21/2019 10:13	19.09	4846	6.72	14.21	563	0	
5/21/2019 10:14	19.31	4845	6.72	14.18	562	0	
5/21/2019 10:15	19.53	4842	6.73	14.21	562	0	

Volume of water purged (gals)	19.53
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Final Depth to Water (feet)	111.94
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Name of Certified Analytical Laboratory	
AWSL	

**Analytical Samples Information**

Type of Sample/Analysis	Sample Collected?	Matrix	Container		Sample Filtered?	Preservative	
			Number	Type		Type	Added?
Field pH only	Y	WATER	1	100-mL	U	None	N

**Comments:**

Arrived on site at 0840. Purge began at 0845. Purged well for a total of 90 minutes. Purge ended at 1015. Water was clear. Left site at 1017.

**Signature of Field Technician**

**Pumping Rate Calculations**

Flow Rate (Q = S/60) (gal/min)	.217
Time to evacuate 2 Casing Volumes (min)	90.00
Number of casing Volumes	2.00
Volume, if well evacuated to dryness ( )	0



White Mesa Mill  
Field Data Worksheet For Groundwater

Location ID	MW-65
Field Sample ID	MW-65_05072019
Purge Date & Time	
Sample Date & Time	5/7/2019 16:00

Sampling Program	
Sampling Event	May 2019

Sampler	TH/DL
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Purging Equipment	
Pump Type	
Purging Method	
Casing Volume ( )	
Calculated Casing Volumes Purge Duration ( )	
pH Buffer 7.0	
pH Buffer 4.0	
Specific Conductance ( )	

Weather Conditions	
External Ambient Temperature ( )	
Previous Well Sampled	

Well Depth (ft)	
Well Casing Diameter ( )	
Depth to Water Before Purging (ft)	

Date/Time	Gallons Purged	Conductivity	pH	Temp (Deg C)	Redox	Turbidity	Before/After
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Volume of water purged ( )	
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Final Depth to Water (feet)	
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Name of Certified Analytical Laboratory	
AWSL	

Pumping Rate Calculations

Flow Rate (Q = S/60) ( )	
Time to evacuate 2 Casing Volumes ( )	
Number of casing Volumes	
Volume, if well evacuated to dryness ( )	

Analytical Samples Information

Type of Sample/Analysis	Sample Collected?	Matrix	Container		Sample Filtered?	Preservative	
			Number	Type		Type	Added?
Chloride	Y	WATER	1	500-mL Poly	U	None	N
Heavy Metals - U and Se only	Y	WATER	1	250-mL HDPE	Y	HNO3 (pH<2)	Y
Nitrate/nitrite as N	Y	WATER	1	250-mL HDPE	U	H2SO4 (pH<2), 4 Deg C	Y

Comments:

Duplicate of MW-30
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Signature of Field Technician

*J Deen G Lyman*

Tab C2

Field Data Worksheets Accelerated Monitoring

June 2019



**White Mesa Mill**  
**Field Data Worksheet For Groundwater**

Location ID	MW-11
Field Sample ID	MW-11_06032019
Purge Date & Time	6/3/2019 6:50
Sample Date & Time	6/3/2019 11:20

Purging Equipment	Pump
Pump Type	QED
Purging Method	2 Casings
Casing Volume (gal)	29.22
Calculated Casing Volumes Purge Duration (min)	269.32
pH Buffer 7.0	7.0
pH Buffer 4.0	4.0
Specific Conductance (micromhos)	1000

Sampling Program	
Sampling Event	June Monthly R-1
Sampler	TH/DL
Weather Conditions	Partly cloudy
External Ambient Temperature (C)	15
Previous Well Sampled	MW-31

Well Depth (ft)	130.00
Well Casing Diameter (in)	4
Depth to Water Before Purging (ft)	85.25

Date/Time	Gallons Purged	Conductivity	pH	Temp (Deg C)	Redox	Turbidity	Before/After
6/3/2019 11:17	57.93	2975	7.62	15.50	557	0	
6/3/2019 11:18	58.15	2972	7.50	14.82	548	1.0	
6/3/2019 11:19	58.37	2978	7.45	14.80	544	1.5	
6/3/2019 11:20	58.59	2977	7.42	14.83	539	1.5	

Volume of water purged (gals)	58.59
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Final Depth to Water (feet)	85.60
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Name of Certified Analytical Laboratory	
AWSL	

**Pumping Rate Calculations**

Flow Rate (Q = S/60) (gal/min)	.217
Time to evacuate 2 Casing Volumes (min)	270.00
Number of casing Volumes	2.00
Volume, if well evacuated to dryness ( )	0

**Analytical Samples Information**

Type of Sample/Analysis	Sample Collected?	Matrix	Container		Sample Filtered?	Preservative	
			Number	Type		Type	Added?
Heavy Metals - Mn only	Y	WATER	1	250-mL HDPE	Y	HNO3 (pH<2)	Y

**Comments:**

Arrived on site at 0646. Purge began at 0650. Purged well for a total of 270 minutes. Purge ended and sample collected at 1120. Water was clear. Left site at 1125.

Signature of Field Technician

*Deer G Lyman*



White Mesa Mill  
Field Data Worksheet For Groundwater

Location ID	MW-25
Field Sample ID	MW-25_06042019
Purge Date & Time	6/4/2019 6:20
Sample Date & Time	6/4/2019 10:20
Purging Equipment	Pump
Pump Type	QED
Purging Method	2 Casings
Casing Volume (gal)	23.14
Calculated Casing Volumes Purge Duration (min)	213.35
pH Buffer 7.0	7.0
pH Buffer 4.0	4.0
Specific Conductance (micromhos)	1000

Sampling Program	
Sampling Event	June Monthly R-1
Sampler	TH/DL
Weather Conditions	Sunny
External Ambient Temperature (C)	13
Previous Well Sampled	MW-36

Well Depth (ft)	115.00
Well Casing Diameter (in)	4
Depth to Water Before Purging (ft)	79.55

Date/Time	Gallons Purged	Conductivity	pH	Temp (Deg C)	Redox	Turbidity	Before/After
6/4/2019 10:17	51.42	3188	6.81	15.15	455	30.0	
6/4/2019 10:18	51.64	3159	6.67	15.05	459	31.0	
6/4/2019 10:19	51.86	3165	6.67	15.03	461	30.0	
6/4/2019 10:20	52.08	3148	6.65	14.98	461	29.0	

Volume of water purged (gals)	52.08
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Final Depth to Water (feet)	81.60
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Name of Certified Analytical Laboratory	
AWSL	

Analytical Samples Information

Type of Sample/Analysis	Sample Collected?	Matrix	Container		Sample Filtered?	Preservative	
			Number	Type		Type	Added?
Heavy Metals - Cd only	Y	WATER	1	250-mL HDPE	Y	HNO3 (pH<2)	Y

Comments:

Arrived on site at 0615. Purge began at 0620. Purged well for a total of 240 minutes. Purge ended and samples collected at 1020. Water was clear with a bunch of little little air bubbles surfacing. Left site at 1026.

Signature of Field Technician

*Deen G Lyman*

Pumping Rate Calculations

Flow Rate (Q = S/60) (gal/min)	.217
Time to evacuate 2 Casing Volumes (min)	240.00
Number of casing Volumes	2.00
Volume, if well evacuated to dryness ( )	0



**White Mesa Mill**  
**Field Data Worksheet For Groundwater**

Location ID	MW-26
Field Sample ID	MW-26_06042019
Purge Date & Time	6/4/2019 7:29
Sample Date & Time	6/4/2019 7:30

Sampling Program	
Sampling Event	June Monthly R-1

Sampler	TH/DL
---------	-------

Purging Equipment	Pump
Pump Type	Continuous
Purging Method	2 Casings
Casing Volume (gal)	29.67
Calculated Casing Volumes Purge Duration ( )	
pH Buffer 7.0	7.0
pH Buffer 4.0	4.0
Specific Conductance (micromhos)	1000

Weather Conditions	Sunny
External Ambient Temperature (C)	15
Previous Well Sampled	MW-25

Well Depth (ft)	121.33
Well Casing Diameter (in)	4
Depth to Water Before Purging (ft)	75.89

Date/Time	Gallons Purged	Conductivity	pH	Temp (Deg C)	Redox	Turbidity	Before/After
6/4/2019 7:29		3460	6.68	15.80	488	0	

Volume of water purged ( )	
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Final Depth to Water (feet)	86.34
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Name of Certified Analytical Laboratory	
AWSL	

**Pumping Rate Calculations**

Flow Rate (Q = S/60) (gal/min)	11.0
Time to evacuate 2 Casing Volumes ( )	
Number of casing Volumes	
Volume, if well evacuated to dryness ( )	0

**Analytical Samples Information**

Type of Sample/Analysis	Sample Collected?	Matrix	Container		Sample Filtered?	Preservative	
			Number	Type		Type	Added?
Chloride	Y	WATER	1	500-mL Poly	U	None	N
Nitrate/nitrite as N	Y	WATER	1	250-mL HDPE	U	H2SO4 (pH<2), 4 Deg C	Y
VOCs - ChCl3 and MeCl2	Y	WATER	3	4oz glass jar	U	HCl (pH<2), 4 Deg C	Y
Ammonia	Y	WATER	1	250-mL HDPE	U	H2SO4 (pH<2), 4 Deg C	Y

**Comments:**

Arrived on site at 0725. Samples collected at 0730. Water was mostly clear. Left site at 0735.

Signature of Field Technician

*Deena G Lyman*



White Mesa Mill  
Field Data Worksheet For Groundwater

Location ID	MW-30
Field Sample ID	MW-30_06032019
Purge Date & Time	6/3/2019 12:00
Sample Date & Time	6/3/2019 15:35

Sampling Program	
Sampling Event	June Monthly R-1

Purging Equipment	Pump
Pump Type	QED
Purging Method	2 Casings
Casing Volume (gal)	22.85
Calculated Casing Volumes Purge Duration (min)	210.64
pH Buffer 7.0	7.0
pH Buffer 4.0	4.0
Specific Conductance (micromhos)	1000

Sampler	TH/DL
Weather Conditions	Partly cloudy
External Ambient Temperature (C)	25
Previous Well Sampled	MW-11

Well Depth (ft)	110.00
Well Casing Diameter (in)	4
Depth to Water Before Purging (ft)	75.00

Date/Time	Gallons Purged	Conductivity	pH	Temp (Deg C)	Redox	Turbidity	Before/After
6/3/2019 15:32	46.00	2178	7.23	15.01	541	0	
6/3/2019 15:33	46.22	2177	7.19	15.03	543	0	
6/3/2019 15:34	46.43	2150	7.16	15.01	544	0	
6/3/2019 15:35	46.65	2139	7.12	15.05	546	0	

Volume of water purged (gals)	46.65
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Final Depth to Water (feet)	77.48
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Name of Certified Analytical Laboratory	
AWSL	

**Pumping Rate Calculations**

Flow Rate (Q = S/60) (gal/min)	.217
Time to evacuate 2 Casing Volumes (min)	215.00
Number of casing Volumes	2.00
Volume, if well evacuated to dryness ( )	0

**Analytical Samples Information**

Type of Sample/Analysis	Sample Collected?	Matrix	Container		Sample Filtered?	Preservative	
			Number	Type		Type	Added?
Heavy Metals - U and Se only	Y	WATER	1	250-mL HDPE	Y	HNO3 (pH<2)	Y
Chloride	Y	WATER	1	500-mL Poly	U	None	N
Nitrate/nitrite as N	Y	WATER	1	250-mL HDPE	U	2SO4 (pH<2), 4 Deg	Y

**Comments:**  
Arrived on site at 1156. Purge began at 1200. Purged well for a total of 215 minutes. Purge ended and samples collected at 1535. Water was mostly clear. Left site at 1543.

Signature of Field Technician

*Deena Colman*



White Mesa Mill  
Field Data Worksheet For Groundwater

Location ID	MW-31
Field Sample ID	MW-31_06032019
Purge Date & Time	6/3/2019 6:35
Sample Date & Time	6/3/2019 12:45
Purging Equipment	Pump
Pump Type	QED
Purging Method	2 Casings
Casing Volume (gal)	40.06
Calculated Casing Volumes Purge Duration (min)	369.29
pH Buffer 7.0	7.0
pH Buffer 4.0	4.0
Specific Conductance (micromhos)	1000

Sampling Program	
Sampling Event	June Monthly R-1
Sampler	TH/DL
Weather Conditions	Partly cloudy
External Ambient Temperature (C)	15
Previous Well Sampled	N/A

Well Depth (ft)	130.00
Well Casing Diameter (in)	4
Depth to Water Before Purging (ft)	68.64

Date/Time	Gallons Purged	Conductivity	pH	Temp (Deg C)	Redox	Turbidity	Before/After
6/3/2019 12:42	79.63	2963	7.04	15.05	554	0	
6/3/2019 12:43	79.85	2945	7.03	15.03	555	0	
6/3/2019 12:44	80.07	2954	7.02	15.00	555	0	
6/3/2019 12:45	80.29	2951	7.02	15.01	555	0	

**Pumping Rate Calculations**

Flow Rate (Q = S/60) (gal/min)	.217
Time to evacuate 2 Casing Volumes (min)	370.00
Number of casing Volumes	2.00
Volume, if well evacuated to dryness ( )	0

Volume of water purged (gals)	80.29
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Final Depth to Water (feet)	71.44
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Name of Certified Analytical Laboratory	
AWSL	

**Analytical Samples Information**

Type of Sample/Analysis	Sample Collected?	Matrix	Container		Sample Filtered?	Preservative	
			Number	Type		Type	Added?
Chloride	Y	WATER	1	500-mL Poly	U	None	N
Nitrate/nitrite as N	Y	WATER	1	250-mL HDPE	U	H2SO4 (pH<2), 4 Deg C	Y

**Comments:**

Arrived on site at 0630. Purge began at 0635. Purged well for a total of 370 minutes. Purge ended and samples collected at 1245. Water was clear. Left site at 1253.

Signature of Field Technician

*Deen G. Lyman*



**White Mesa Mill**  
**Field Data Worksheet For Groundwater**

Location ID	MW-36
Field Sample ID	MW-36_06032019
Purge Date & Time	6/3/2019 13:00
Sample Date & Time	6/3/2019 14:15
Purging Equipment	Pump
Pump Type	QED
Purging Method	2 Casings
Casing Volume (gal)	7.19
Calculated Casing Volumes Purge Duration (min)	66.32
pH Buffer 7.0	7.0
pH Buffer 4.0	4.0
Specific Conductance (micromhos)	1000

Sampling Program	
Sampling Event	June Monthly R-1
Sampler	TH/DL
Weather Conditions	Partly cloudy
External Ambient Temperature (C)	25
Previous Well Sampled	MW-30

Well Depth (ft)	121.60
Well Casing Diameter (in)	4
Depth to Water Before Purging (ft)	110.58

Date/Time	Gallons Purged	Conductivity	pH	Temp (Deg C)	Redox	Turbidity	Before/After
6/3/2019 14:12	15.62	4781	7.05	15.15	550	0	
6/3/2019 14:13	15.84	4881	7.04	15.10	550	0	
6/3/2019 14:14	16.05	4890	7.02	15.10	549	0	
6/3/2019 14:15	16.27	4888	7.01	15.12	548	0	

Volume of water purged (gals)	16.27
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Final Depth to Water (feet)	111.21
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Name of Certified Analytical Laboratory	
AWSL	

**Pumping Rate Calculations**

Flow Rate (Q = S/60) (gal/min)	.217
Time to evacuate 2 Casing Volumes (min)	75.00
Number of casing Volumes	2.00
Volume, if well evacuated to dryness ( )	0

**Analytical Samples Information**

Type of Sample/Analysis	Sample Collected?	Matrix	Container		Sample Filtered?	Preservative	
			Number	Type		Type	Added?
Field pH only	Y	WATER	1	100-mL	U	None	N

**Comments:**

Arrived on site at 1256. Purge began at 1300. Purged well for a total of 75 minutes. Purge ended at 1415. Water was clear. Left site at 1418.
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Signature of Field Technician



White Mesa Mill  
Field Data Worksheet For Groundwater

Location ID	MW-65
Field Sample ID	MW-65_06042019
Purge Date & Time	
Sample Date & Time	6/4/2019 10:20

Purging Equipment	
Pump Type	
Purging Method	
Casing Volume ( )	
Calculated Casing Volumes Purge Duration ( )	
pH Buffer 7.0	
pH Buffer 4.0	
Specific Conductance ( )	

Sampling Program	
Sampling Event	June Monthly R-1

Sampler	TH/DL
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Weather Conditions	
External Ambient Temperature ( )	
Previous Well Sampled	

Well Depth (ft)	
Well Casing Diameter ( )	
Depth to Water Before Purging (ft)	

Date/Time	Gallons Purged	Conductivity	pH	Temp (Deg C)	Redox	Turbidity	Before/After
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Volume of water purged ( )	
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Final Depth to Water (feet)	
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Name of Certified Analytical Laboratory	
AWSL	

Pumping Rate Calculations

Flow Rate (Q = S/60) ( )	
Time to evacuate 2 Casing Volumes ( )	
Number of casing Volumes	
Volume, if well evacuated to dryness ( )	

Analytical Samples Information

Type of Sample/Analysis	Sample Collected?	Matrix	Container		Sample Filtered?	Preservative	
			Number	Type		Type	Added?
Heavy Metals - Cd only	Y	WATER	1	250-mL HDPE	Y	HNO3 (pH<2)	Y

Comments:

Duplicate of MW-25.
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Signature of Field Technician

*Deen G Lyman*

Tab D

Quarterly Depth to Water

Tanner Holliday, Deen Lyman

Date: 6/24/2019

Date	Time	Well	Depth to Water (ft.)	Date	Time	Well	Depth to Water (ft.)	Date	Time	Well	Depth to Water (ft.)
6/24/2019	1404	MW-01	64.70	6/24/2019	908	MW-04	86.13	6/24/2019	1326	PIEZ-01	66.59
6/25/2019	807	MW-02	109.75	6/24/2019	920	TW4-01	78.68	6/24/2019	1313	PIEZ-02	43.79
6/25/2019	1008	MW-03A	84.18	6/24/2019	906	TW4-02	102.23	6/24/2019	1306	PIEZ-03A	54.86
6/24/2019	1334	MW-05	108.18	6/24/2019	1256	TW4-03	61.95	6/25/2019	825	PIEZ-04	64.29
6/24/2019	1325	MW-11	85.23	6/24/2019	938	TW4-04	84.38	6/25/2019	829	PIEZ-05	63.67
6/24/2019	1339	MW-12	107.78	6/24/2019	1242	TW4-05	69.44	6/24/2019	1235	TWN-01	66.91
6/24/2019	1450	MW-14	102.10	6/24/2019	1052	TW4-06	76.22	6/24/2019	755	TWN-02	57.63
6/24/2019	1444	MW-15	105.48	6/24/2019	1309	TW4-07	81.96	6/24/2019	1248	TWN-03	41.81
6/24/2019	1512	MW-17	71.85	6/24/2019	1305	TW4-08	84.73	6/24/2019	1301	TWN-04	59.90
6/24/2019	1357	MW-18	73.25	6/24/2019	1246	TW4-09	67.42	6/24/2019	1350	TWN-06	79.89
6/24/2019	1319	MW-19	64.72	6/24/2019	1237	TW4-10	66.85	6/24/2019	1409	TWN-07	82.33
6/25/2019	954	MW-20	88.77	6/24/2019	854	TW4-11	90.00	6/25/2019	846	TWN-14	60.13
6/24/2019	1543	MW-22	66.46	6/24/2019	1034	TW4-12	53.45	6/24/2019	1337	TWN-16	47.74
6/24/2019	1345	MW-23	114.25	6/24/2019	1030	TW4-13	54.95	6/24/2019	1253	TWN-18	61.76
6/24/2019	1557	MW-24	110.98	6/24/2019	1023	TW4-14	77.73	6/25/2019	935	TWN-19	53.90
6/24/2019	1317	MW-25	79.50	6/24/2019	914	TW4-16	71.67	6/25/2019	1037	DR-05	83.18
6/24/2019	840	MW-26	78.18	6/24/2019	1241	TW4-18	70.68	6/25/2019	1034	DR-06	94.20
6/24/2019	1604	MW-27	56.15	6/24/2019	1055	TW4-19	73.40	6/24/2019	1418	DR-07	91.86
6/24/2019	1550	MW-28	74.38	6/24/2019	821	TW4-20	74.31	6/25/2019	1053	DR-08	51.49
6/25/2019	749	MW-29	107.88	6/24/2019	737	TW4-21	77.86	6/25/2019	1045	DR-09	86.61
6/24/2019	935	MW-30	74.80	6/24/2019	808	TW4-22	88.35	6/25/2019	1023	DR-10	78.45
6/24/2019	923	MW-31	68.72	6/24/2019	942	TW4-23	73.15	6/25/2019	1349	DR-11	98.08
6/24/2019	918	MW-32	80.25	6/24/2019	802	TW4-24	81.15	6/24/2019	1524	DR-12	91.74
6/24/2019	1350	MW-33	DRY	6/24/2019	749	TW4-25	73.33	6/24/2019	1519	DR-13	69.77
6/24/2019	1433	MW-34	107.38	6/24/2019	948	TW4-26	70.48	6/25/2019	1236	DR-14	76.29
6/24/2019	1408	MW-35	112.16	6/24/2019	1002	TW4-27	78.74	6/25/2019	1016	DR-15	92.92
6/24/2019	1355	MW-36	110.45	6/24/2019	1037	TW4-28	46.40	6/25/2019	1228	DR-17	64.75
6/24/2019	1439	MW-37	107.11	6/24/2019	1020	TW4-29	76.27	6/25/2019	1244	DR-19	63.21
6/24/2019	1551	MW-38	70.58	6/24/2019	1009	TW4-30	74.80	6/25/2019	1250	DR-20	55.29
6/24/2019	1558	MW-39	65.41	6/24/2019	1006	TW4-31	76.64	6/25/2019	1321	DR-21	100.83
6/24/2019	1504	MW-40	80.01	6/24/2019	1040	TW4-32	54.43	6/25/2019	1307	DR-22	DRY
				6/24/2019	959	TW4-33	75.65	6/25/2019	1326	DR-23	70.48
				6/24/2019	1016	TW4-34	74.50	6/25/2019	1302	DR-24	44.55
				6/24/2019	1012	TW4-35	74.52				
				6/24/2019	1027	TW4-36	56.98				
				6/24/2019	815	TW4-37	71.22				
				6/24/2019	1249	TW4-38	57.46				
				6/24/2019	827	TW4-39	75.71				
				6/24/2019	948	TW4-40	69.89				
				6/24/2019	930	TW4-41	87.07				
				6/24/2019	954	TW4-42	66.42				

MW-26 = TW4-15

MW-32 = TW4-17

Comments:

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Tab E

Laboratory Analytical Reports – Quarterly Sampling



# INORGANIC ANALYTICAL REPORT

**Client:** Energy Fuels Resources, Inc.  
**Project:** 2nd Quarter Groundwater 2019  
**Lab Sample ID:** 1904508-001  
**Client Sample ID:** MW-01\_04172019  
**Collection Date:** 4/17/2019 1145h  
**Received Date:** 4/19/2019 1045h

**Contact:** Tanner Holliday

## Analytical Results

## DISSOLVED METALS

Compound	Units	Date Prepared	Date Analyzed	Method Used	Reporting Limit	Analytical Result	Qual
Arsenic	mg/L	4/22/2019 1103h	4/30/2019 1841h	E200.8	0.00500	< 0.00500	
Beryllium	mg/L	4/22/2019 1103h	4/30/2019 1841h	E200.8	0.000500	< 0.000500	
Cadmium	mg/L	4/22/2019 1103h	4/30/2019 1841h	E200.8	0.000500	< 0.000500	
Calcium	mg/L	4/22/2019 1103h	5/1/2019 1313h	E200.7	20.0	<b>209</b>	<sup>2</sup>
Chromium	mg/L	4/22/2019 1103h	4/30/2019 1841h	E200.8	0.0250	< 0.0250	
Cobalt	mg/L	4/22/2019 1103h	4/30/2019 1841h	E200.8	0.0100	< 0.0100	
Copper	mg/L	4/22/2019 1103h	4/30/2019 1841h	E200.8	0.0100	< 0.0100	
Iron	mg/L	4/22/2019 1103h	5/1/2019 1308h	E200.8	0.0300	<b>0.454</b>	
Lead	mg/L	4/22/2019 1103h	4/30/2019 1841h	E200.8	0.00100	< 0.00100	
Magnesium	mg/L	4/22/2019 1103h	5/1/2019 1313h	E200.7	20.0	<b>75.7</b>	<sup>2</sup>
Manganese	mg/L	4/22/2019 1103h	4/30/2019 1841h	E200.8	0.0100	<b>0.194</b>	
Mercury	mg/L	4/25/2019 1745h	4/26/2019 846h	E245.1	0.000500	< 0.000500	
Molybdenum	mg/L	4/22/2019 1103h	4/30/2019 1841h	E200.8	0.0100	< 0.0100	
Nickel	mg/L	4/22/2019 1103h	4/30/2019 1841h	E200.8	0.0200	< 0.0200	
Potassium	mg/L	4/22/2019 1103h	5/1/2019 1400h	E200.7	1.00	<b>7.17</b>	
Selenium	mg/L	4/22/2019 1103h	4/30/2019 1841h	E200.8	0.00500	< 0.00500	
Silver	mg/L	4/22/2019 1103h	4/30/2019 1841h	E200.8	0.0100	< 0.0100	
Sodium	mg/L	4/22/2019 1103h	5/1/2019 1313h	E200.7	20.0	<b>200</b>	<sup>2</sup>
Thallium	mg/L	4/22/2019 1103h	4/30/2019 1841h	E200.8	0.000500	< 0.000500	
Tin	mg/L	4/22/2019 1103h	4/30/2019 1841h	E200.8	0.100	< 0.100	
Uranium	mg/L	4/22/2019 1103h	4/30/2019 1841h	E200.8	0.000300	< 0.000300	
Vanadium	mg/L	4/22/2019 1103h	5/1/2019 1400h	E200.7	0.0150	< 0.0150	
Zinc	mg/L	4/22/2019 1103h	5/1/2019 1308h	E200.8	0.0100	< 0.0100	

<sup>2</sup> - Analyte concentration is too high for accurate matrix spike recovery and/or RPD.



# INORGANIC ANALYTICAL REPORT

**Client:** Energy Fuels Resources, Inc.  
**Project:** 2nd Quarter Groundwater 2019  
**Lab Sample ID:** 1904508-001  
**Client Sample ID:** MW-01\_04172019  
**Collection Date:** 4/17/2019 1145h  
**Received Date:** 4/19/2019 1045h

**Contact:** Tanner Holliday

## Analytical Results

3440 South 700 West  
Salt Lake City, UT 84119

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

Compound	Units	Date Prepared	Date Analyzed	Method Used	Reporting Limit	Analytical Result	Qual
Ammonia (as N)	mg/L	4/26/2019 945h	4/26/2019 1450h	E350.1	0.0500	<b>0.0748</b>	1
Bicarbonate (as CaCO3)	mg/L		4/22/2019 720h	SM2320B	1.00	<b>250</b>	
Carbonate (as CaCO3)	mg/L		4/22/2019 720h	SM2320B	1.00	< 1.00	
Chloride	mg/L		5/1/2019 2013h	E300.0	1.00	<b>19.0</b>	
Fluoride	mg/L		5/1/2019 2228h	E300.0	0.100	<b>0.245</b>	
Ion Balance	%		5/1/2019 1538h	Calc.	-100	<b>11.6</b>	
Nitrate/Nitrite (as N)	mg/L		4/22/2019 1100h	E353.2	0.100	< 0.100	
Sulfate	mg/L		5/1/2019 1006h	E300.0	75.0	<b>706</b>	
Total Anions, Measured	meq/L		5/1/2019 1538h	Calc.		<b>20.2</b>	
Total Cations, Measured	meq/L		5/1/2019 1538h	Calc.		<b>25.6</b>	
Total Dissolved Solids	mg/L		4/19/2019 1125h	SM2540C	20.0	<b>1,300</b>	
Total Dissolved Solids Ratio, Measured/Calculated			5/1/2019 1538h	Calc.		<b>0.953</b>	
Total Dissolved Solids, Calculated	mg/L		5/1/2019 1538h	Calc.		<b>1,370</b>	

<sup>1</sup> - Matrix spike recovery indicates matrix interference. The method is in control as indicated by the LCS.



# ORGANIC ANALYTICAL REPORT

**Client:** Energy Fuels Resources, Inc.  
**Project:** 2nd Quarter Groundwater 2019  
**Lab Sample ID:** 1904508-001A  
**Client Sample ID:** MW-01\_04172019  
**Collection Date:** 4/17/2019 1145h  
**Received Date:** 4/19/2019 1045h

**Contact:** Tanner Holliday

Test Code: 8260-W-DEN100

## Analytical Results

VOAs by GC/MS Method 8260C/5030C

**Analyzed:** 4/22/2019 1157h

**Units:** µg/L

**Dilution Factor:** 1

**Method:** SW8260C

3440 South 700 West  
Salt Lake City, UT 84119

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

Compound	CAS Number	Reporting Limit	Analytical Result	Qual
2-Butanone	78-93-3	20.0	< 20.0	
Acetone	67-64-1	20.0	< 20.0	
Benzene	71-43-2	1.00	< 1.00	
Carbon tetrachloride	56-23-5	1.00	< 1.00	
Chloroform	67-66-3	1.00	< 1.00	
Chloromethane	74-87-3	1.00	< 1.00	
Methylene chloride	75-09-2	1.00	< 1.00	
Naphthalene	91-20-3	1.00	< 1.00	
Tetrahydrofuran	109-99-9	1.00	<b>5.31</b>	
Toluene	108-88-3	1.00	< 1.00	
Xylenes, Total	1330-20-7	1.00	< 1.00	

Surrogate	Units: µg/L	CAS	Result	Amount Spiked	% REC	Limits	Qual
Surr: 1,2-Dichloroethane-d4		17060-07-0	52.7	50.00	105	72-151	
Surr: 4-Bromofluorobenzene		460-00-4	51.0	50.00	102	80-152	
Surr: Dibromofluoromethane		1868-53-7	49.8	50.00	99.6	72-135	
Surr: Toluene-d8		2037-26-5	51.2	50.00	102	80-124	

# GEL LABORATORIES LLC

2040 Savage Road Charleston SC 29407 - (843) 556-8171 - www.gel.com

## Certificate of Analysis

Report Date: May 9, 2019

Company : Energy Fuels Resources (USA), Inc.  
 Address : 225 Union Boulevard  
 Suite 600  
 Lakewood, Colorado 80228  
 Contact: Ms. Kathy Weinel  
 Project: White Mesa Mill GW

Client Sample ID: MW-01_04172019	Project: DNMI00100
Sample ID: 476962001	Client ID: DNMI001
Matrix: Ground Water	
Collect Date: 17-APR-19 11:45	
Receive Date: 19-APR-19	
Collector: Client	

Parameter	Qualifier	Result	Uncertainty	MDC	RL	Units	PF	DF	Analyst	Date	Time	Batch	Method
Rad Gas Flow Proportional Counting													
GFPC, Total Alpha Radium, Liquid "As Received"													
Gross Radium Alpha	U	1.00	+/-0.233	0.516	1.00	pCi/L			LXB3	05/06/19	1634	1872063	1

The following Analytical Methods were performed:

Method	Description	Analyst Comments
	EPA 903.0	

Surrogate/Tracer Recovery	Test	Result	Nominal	Recovery%	Acceptable Limits
Barium Carrier	GFPC, Total Alpha Radium, Liquid "As Received"			105	(25%-125%)

**Notes:**

Counting Uncertainty is calculated at the 68% confidence level (1-sigma).

SRL = Sample Reporting Limit. For metals analysis only. When the sample is U qualified and ND, the SRL column reports the value which is the greater of either the adjusted MDL or the CRDL.

Column headers are defined as follows:

- |                                       |                                |
|---------------------------------------|--------------------------------|
| DF: Dilution Factor                   | Lc/LC: Critical Level          |
| DL: Detection Limit                   | PF: Prep Factor                |
| MDA: Minimum Detectable Activity      | RL: Reporting Limit            |
| MDC: Minimum Detectable Concentration | SQL: Sample Quantitation Limit |



# INORGANIC ANALYTICAL REPORT

**Client:** Energy Fuels Resources, Inc.  
**Project:** 2nd Quarter Groundwater 2019  
**Lab Sample ID:** 1904652-001  
**Client Sample ID:** MW-02\_04252019  
**Collection Date:** 4/25/2019 840h  
**Received Date:** 4/26/2019 1010h

**Contact:** Tanner Holliday

## Analytical Results

## DISSOLVED METALS

	Compound	Units	Date Prepared	Date Analyzed	Method Used	Reporting Limit	Analytical Result	Qual
3440 South 700 West	Arsenic	mg/L	4/29/2019 1036h	5/3/2019 1511h	E200.8	0.00500	< 0.00500	
Salt Lake City, UT 84119	Beryllium	mg/L	4/29/2019 1036h	5/3/2019 1511h	E200.8	0.000500	< 0.000500	
	Cadmium	mg/L	4/29/2019 1036h	5/3/2019 1511h	E200.8	0.000500	< 0.000500	
Phone: (801) 263-8686	Calcium	mg/L	4/29/2019 1036h	5/9/2019 1431h	E200.7	20.0	<b>341</b>	<sup>2</sup>
Toll Free: (888) 263-8686	Chromium	mg/L	4/29/2019 1036h	5/8/2019 1150h	E200.8	0.0250	< 0.0250	
Fax: (801) 263-8687	Cobalt	mg/L	4/29/2019 1036h	5/3/2019 1511h	E200.8	0.0100	< 0.0100	
e-mail: awal@awal-labs.com	Copper	mg/L	4/29/2019 1036h	5/8/2019 1013h	E200.8	0.0100	< 0.0100	
	Iron	mg/L	4/29/2019 1036h	5/3/2019 1511h	E200.8	0.0300	< 0.0300	
	Lead	mg/L	4/29/2019 1036h	5/3/2019 1511h	E200.8	0.00100	< 0.00100	
web: www.awal-labs.com	Magnesium	mg/L	4/29/2019 1036h	5/9/2019 1431h	E200.7	20.0	<b>93.6</b>	<sup>2</sup>
	Manganese	mg/L	4/29/2019 1036h	5/3/2019 1511h	E200.8	0.0100	< 0.0100	
	Mercury	mg/L	4/30/2019 1430h	5/1/2019 744h	E245.1	0.000500	< 0.000500	
Kyle F. Gross	Molybdenum	mg/L	4/29/2019 1036h	5/3/2019 1511h	E200.8	0.0100	< 0.0100	
Laboratory Director	Nickel	mg/L	4/29/2019 1036h	5/3/2019 1511h	E200.8	0.0200	< 0.0200	
	Potassium	mg/L	4/29/2019 1036h	5/9/2019 1519h	E200.7	1.00	<b>10.7</b>	
Jose Rocha	Selenium	mg/L	4/29/2019 1036h	5/3/2019 1511h	E200.8	0.00500	<b>0.00797</b>	
QA Officer	Silver	mg/L	4/29/2019 1036h	5/3/2019 1511h	E200.8	0.0100	< 0.0100	
	Sodium	mg/L	4/29/2019 1036h	5/9/2019 1431h	E200.7	20.0	<b>544</b>	<sup>2</sup>
	Thallium	mg/L	4/29/2019 1036h	5/3/2019 1511h	E200.8	0.000500	< 0.000500	
	Tin	mg/L	4/29/2019 1036h	5/3/2019 1511h	E200.8	0.100	< 0.100	
	Uranium	mg/L	4/29/2019 1036h	5/3/2019 1511h	E200.8	0.000300	<b>0.0129</b>	
	Vanadium	mg/L	4/29/2019 1036h	5/9/2019 1519h	E200.7	0.0150	< 0.0150	
	Zinc	mg/L	4/29/2019 1036h	5/8/2019 1150h	E200.8	0.0100	< 0.0100	

<sup>2</sup> - Analyte concentration is too high for accurate matrix spike recovery and/or RPD.



# INORGANIC ANALYTICAL REPORT

**Client:** Energy Fuels Resources, Inc.  
**Project:** 2nd Quarter Groundwater 2019  
**Lab Sample ID:** 1904652-001  
**Client Sample ID:** MW-02\_04252019  
**Collection Date:** 4/25/2019 840h  
**Received Date:** 4/26/2019 1010h

**Contact:** Tanner Holliday

## Analytical Results

Compound	Units	Date Prepared	Date Analyzed	Method Used	Reporting Limit	Analytical Result	Qual
Ammonia (as N)	mg/L	4/30/2019 1150h	4/30/2019 1430h	E350.1	0.0500	< 0.0500	1
Bicarbonate (as CaCO <sub>3</sub> )	mg/L		4/30/2019 639h	SM2320B	1.00	<b>324</b>	
Carbonate (as CaCO <sub>3</sub> )	mg/L		4/30/2019 639h	SM2320B	1.00	< 1.00	
Chloride	mg/L		5/8/2019 1253h	E300.0	1.00	<b>6.76</b>	
Fluoride	mg/L		5/8/2019 1253h	E300.0	0.100	<b>0.230</b>	
Ion Balance	%		5/9/2019 1636h	Calc.	-100	<b>12.6</b>	
Nitrate/Nitrite (as N)	mg/L		4/29/2019 1627h	E353.2	0.100	< 0.100	
Sulfate	mg/L		5/7/2019 1118h	E300.0	750	<b>1,490</b>	
Total Anions, Measured	meq/L		5/9/2019 1636h	Calc.		<b>37.8</b>	
Total Cations, Measured	meq/L		5/9/2019 1636h	Calc.		<b>48.7</b>	
Total Dissolved Solids	mg/L		4/26/2019 1145h	SM2540C	20.0	<b>2,880</b>	
Total Dissolved Solids Ratio, Measured/Calculated			5/9/2019 1636h	Calc.		<b>1.07</b>	
Total Dissolved Solids, Calculated	mg/L		5/9/2019 1636h	Calc.		<b>2,680</b>	

<sup>1</sup> - Matrix spike recovery indicates matrix interference. The method is in control as indicated by the LCS.

3440 South 700 West  
Salt Lake City, UT 84119

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



# ORGANIC ANALYTICAL REPORT

**Client:** Energy Fuels Resources, Inc.  
**Project:** 2nd Quarter Groundwater 2019  
**Lab Sample ID:** 1904652-001A  
**Client Sample ID:** MW-02\_04252019  
**Collection Date:** 4/25/2019 840h  
**Received Date:** 4/26/2019 1010h

**Contact:** Tanner Holliday

Test Code: 8260-W-DEN100

## Analytical Results

VOAs by GC/MS Method 8260C/5030C

**Analyzed:** 4/26/2019 1706h

**Units:** µg/L

**Dilution Factor:** 1

**Method:** SW8260C

3440 South 700 West

Salt Lake City, UT 84119

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

Compound	CAS Number	Reporting Limit	Analytical Result	Qual
2-Butanone	78-93-3	20.0	< 20.0	
Acetone	67-64-1	20.0	< 20.0	
Benzene	71-43-2	1.00	< 1.00	
Carbon tetrachloride	56-23-5	1.00	< 1.00	
Chloroform	67-66-3	1.00	< 1.00	
Chloromethane	74-87-3	1.00	< 1.00	
Methylene chloride	75-09-2	1.00	< 1.00	
Naphthalene	91-20-3	1.00	< 1.00	
Tetrahydrofuran	109-99-9	1.00	< 1.00	
Toluene	108-88-3	1.00	< 1.00	
Xylenes, Total	1330-20-7	1.00	< 1.00	

Surrogate	Units: µg/L	CAS	Result	Amount Spiked	% REC	Limits	Qual
Surr: 1,2-Dichloroethane-d4		17060-07-0	55.1	50.00	110	72-151	
Surr: 4-Bromofluorobenzene		460-00-4	53.4	50.00	107	80-152	
Surr: Dibromofluoromethane		1868-53-7	49.5	50.00	99.0	72-135	
Surr: Toluene-d8		2037-26-5	51.0	50.00	102	80-124	

# GEL LABORATORIES LLC

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## Certificate of Analysis

Report Date: May 13, 2019

Company : Energy Fuels Resources (USA), Inc.  
Address : 225 Union Boulevard  
Suite 600  
Lakewood, Colorado 80228  
Contact: Ms. Kathy Weinel  
Project: White Mesa Mill GW

Client Sample ID: MW-02\_04252019 Project: DNMI00100  
Sample ID: 477632001 Client ID: DNMI001  
Matrix: Ground Water  
Collect Date: 25-APR-19 08:40  
Receive Date: 26-APR-19  
Collector: Client

Parameter	Qualifier	Result	Uncertainty	MDC	RL	Units	PF	DF	Analyst	Date	Time	Batch	Method
Rad Gas Flow Proportional Counting													
GFPC, Total Alpha Radium, Liquid "As Received"													
Gross Radium Alpha		1.32	+/-0.370	0.885	1.00	pCi/L			LXB3	05/06/19	1635	1872063	1

The following Analytical Methods were performed:

Method	Description	Analyst	Comments
	EPA 903.0		

Surrogate/Tracer Recovery	Test	Result	Nominal	Recovery%	Acceptable Limits
Barium Carrier	GFPC, Total Alpha Radium, Liquid "As Received"			93.7	(25%-125%)

### Notes:

Counting Uncertainty is calculated at the 68% confidence level (1-sigma).

SRL = Sample Reporting Limit. For metals analysis only. When the sample is U qualified and ND, the SRL column reports the value which is the greater of either the adjusted MDL or the CRDL.

Column headers are defined as follows:

DF: Dilution Factor Lc/LC: Critical Level  
DL: Detection Limit PF: Prep Factor  
MDA: Minimum Detectable Activity RL: Reporting Limit  
MDC: Minimum Detectable Concentration SQL: Sample Quantitation Limit



# INORGANIC ANALYTICAL REPORT

**Client:** Energy Fuels Resources, Inc.  
**Project:** 2nd Quarter Groundwater 2019  
**Lab Sample ID:** 1905087-001  
**Client Sample ID:** MW-03A\_05022019  
**Collection Date:** 5/2/2019 730h  
**Received Date:** 5/3/2019 1005h

**Contact:** Tanner Holliday

## Analytical Results

## DISSOLVED METALS

Compound	Units	Date Prepared	Date Analyzed	Method Used	Reporting Limit	Analytical Result	Qual
Arsenic	mg/L	5/6/2019 1142h	5/14/2019 1554h	E200.8	0.00500	< 0.00500	
Beryllium	mg/L	5/6/2019 1142h	5/14/2019 1737h	E200.8	0.000500	< 0.000500	
Cadmium	mg/L	5/6/2019 1142h	5/14/2019 1554h	E200.8	0.000500	<b>0.00136</b>	
Calcium	mg/L	5/6/2019 1142h	5/17/2019 1241h	E200.7	20.0	<b>512</b>	
Chromium	mg/L	5/6/2019 1142h	5/14/2019 1554h	E200.8	0.0250	< 0.0250	
Cobalt	mg/L	5/6/2019 1142h	5/14/2019 1554h	E200.8	0.0100	< 0.0100	
Copper	mg/L	5/6/2019 1142h	5/14/2019 1554h	E200.8	0.0100	< 0.0100	
Iron	mg/L	5/6/2019 1142h	5/14/2019 1737h	E200.8	0.0300	< 0.0300	
Lead	mg/L	5/6/2019 1142h	5/14/2019 1737h	E200.8	0.00100	< 0.00100	
Magnesium	mg/L	5/6/2019 1142h	5/17/2019 1241h	E200.7	20.0	<b>307</b>	
Manganese	mg/L	5/6/2019 1142h	5/14/2019 1554h	E200.8	0.0100	<b>0.0839</b>	
Mercury	mg/L	5/6/2019 1530h	5/7/2019 730h	E245.1	0.000500	< 0.000500	
Molybdenum	mg/L	5/6/2019 1142h	5/14/2019 1554h	E200.8	0.0100	< 0.0100	
Nickel	mg/L	5/6/2019 1142h	5/14/2019 1554h	E200.8	0.0200	< 0.0200	
Potassium	mg/L	5/6/2019 1142h	5/17/2019 1446h	E200.7	1.00	<b>28.9</b>	
Selenium	mg/L	5/6/2019 1142h	5/14/2019 1554h	E200.8	0.00500	<b>0.0619</b>	
Silver	mg/L	5/6/2019 1142h	5/14/2019 1554h	E200.8	0.0100	< 0.0100	
Sodium	mg/L	5/6/2019 1142h	5/17/2019 1241h	E200.7	20.0	<b>947</b>	
Thallium	mg/L	5/6/2019 1142h	5/14/2019 1737h	E200.8	0.000500	<b>0.000514</b>	
Tin	mg/L	5/6/2019 1142h	5/14/2019 1554h	E200.8	0.100	< 0.100	
Uranium	mg/L	5/6/2019 1142h	5/14/2019 1845h	E200.8	0.000300	<b>0.0190</b>	
Vanadium	mg/L	5/6/2019 1142h	5/17/2019 1446h	E200.7	0.0150	< 0.0150	
Zinc	mg/L	5/6/2019 1142h	5/14/2019 1554h	E200.8	0.0100	<b>0.0226</b>	

3440 South 700 West

Salt Lake City, UT 84119

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



# INORGANIC ANALYTICAL REPORT

**Client:** Energy Fuels Resources, Inc.  
**Project:** 2nd Quarter Groundwater 2019  
**Lab Sample ID:** 1905087-001  
**Client Sample ID:** MW-03A\_05022019  
**Collection Date:** 5/2/2019 730h  
**Received Date:** 5/3/2019 1005h

**Contact:** Tanner Holliday

## Analytical Results

Compound	Units	Date Prepared	Date Analyzed	Method Used	Reporting Limit	Analytical Result	Qual
Ammonia (as N)	mg/L	5/10/2019 1650h	5/10/2019 1859h	E350.1	0.0500	< 0.0500	
Bicarbonate (as CaCO <sub>3</sub> )	mg/L		5/6/2019 820h	SM2320B	1.00	<b>380</b>	
Carbonate (as CaCO <sub>3</sub> )	mg/L		5/6/2019 820h	SM2320B	1.00	< 1.00	
Chloride	mg/L		5/11/2019 045h	E300.0	1.00	<b>62.5</b>	
Fluoride	mg/L		5/11/2019 353h	E300.0	0.100	<b>1.02</b>	
Ion Balance	%		5/17/2019 1612h	Calc.	-100	<b>6.69</b>	
Nitrate/Nitrite (as N)	mg/L		5/3/2019 1526h	E353.2	0.100	<b>0.795</b>	
Sulfate	mg/L		5/10/2019 1820h	E300.0	300	<b>3,450</b>	
Total Anions, Measured	meq/L		5/17/2019 1612h	Calc.		<b>81.1</b>	
Total Cations, Measured	meq/L		5/17/2019 1612h	Calc.		<b>92.7</b>	
Total Dissolved Solids	mg/L		5/3/2019 1310h	SM2540C	20.0	<b>4,880</b>	@
Total Dissolved Solids Ratio, Measured/Calculated			5/17/2019 1612h	Calc.		<b>0.883</b>	
Total Dissolved Solids, Calculated	mg/L		5/17/2019 1612h	Calc.		<b>5,530</b>	

@ - High RPD due to suspected sample non-homogeneity or matrix interference.

3440 South 700 West  
 Salt Lake City, UT 84119  
  
 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



# ORGANIC ANALYTICAL REPORT

**Client:** Energy Fuels Resources, Inc.  
**Project:** 2nd Quarter Groundwater 2019  
**Lab Sample ID:** 1905087-001A  
**Client Sample ID:** MW-03A\_05022019  
**Collection Date:** 5/2/2019 730h  
**Received Date:** 5/3/2019 1005h

**Contact:** Tanner Holliday

Test Code: 8260-W-DEN100

**Analytical Results**

VOAs by GC/MS Method 8260C/5030C

**Analyzed:** 5/4/2019 1106h

**Units:** µg/L

**Dilution Factor:** 1

**Method:** SW8260C

3440 South 700 West

Salt Lake City, UT 84119

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

Compound	CAS Number	Reporting Limit	Analytical Result	Qual
2-Butanone	78-93-3	20.0	< 20.0	
Acetone	67-64-1	20.0	< 20.0	
Benzene	71-43-2	1.00	< 1.00	
Carbon tetrachloride	56-23-5	1.00	< 1.00	
Chloroform	67-66-3	1.00	< 1.00	
Chloromethane	74-87-3	1.00	< 1.00	
Methylene chloride	75-09-2	1.00	< 1.00	
Naphthalene	91-20-3	1.00	< 1.00	
Tetrahydrofuran	109-99-9	1.00	< 1.00	S
Toluene	108-88-3	1.00	< 1.00	
Xylenes, Total	1330-20-7	1.00	< 1.00	

Surrogate	Units: µg/L	CAS	Result	Amount Spiked	% REC	Limits	Qual
Surr: 1,2-Dichloroethane-d4		17060-07-0	55.7	50.00	111	72-151	
Surr: 4-Bromofluorobenzene		460-00-4	50.6	50.00	101	80-152	
Surr: Dibromofluoromethane		1868-53-7	47.8	50.00	95.6	72-135	
Surr: Toluene-d8		2037-26-5	49.4	50.00	98.7	80-124	

*S - High LCS recoveries indicate possible bias high. Data deemed acceptable as the analyte was not observed in the field sample.*

# GEL LABORATORIES LLC

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## Certificate of Analysis

Report Date: May 31, 2019

Company : Energy Fuels Resources (USA), Inc.  
Address : 225 Union Boulevard  
Suite 600  
Lakewood, Colorado 80228  
Contact: Ms. Kathy Weinel  
Project: White Mesa Mill GW

Client Sample ID: MW-03A\_05022019  
Sample ID: 478290001  
Matrix: Ground Water  
Collect Date: 02-MAY-19 07:30  
Receive Date: 03-MAY-19  
Collector: Client

Project: DNMI00100  
Client ID: DNMI001

Parameter	Qualifier	Result	Uncertainty	MDC	RL	Units	PF	DF	Analyst	Date	Time	Batch	Method
Rad Gas Flow Proportional Counting													
GFPC, Total Alpha Radium, Liquid "As Received"													
Gross Radium Alpha	U	1.00	+/-0.227	0.625	1.00	pCi/L			BXF1	05/25/19	0950	1878765	1

The following Analytical Methods were performed:

Method	Description	Analyst Comments
	EPA 903.0	

Surrogate/Tracer Recovery	Test	Result	Nominal	Recovery%	Acceptable Limits
Barium Carrier	GFPC, Total Alpha Radium, Liquid "As Received"			87.7	(25%-125%)

### Notes:

Counting Uncertainty is calculated at the 68% confidence level (1-sigma).

SRL = Sample Reporting Limit. For metals analysis only. When the sample is U qualified and ND, the SRL column reports the value which is the greater of either the adjusted MDL or the CRDL.

Column headers are defined as follows:

DF: Dilution Factor  
DL: Detection Limit  
MDA: Minimum Detectable Activity  
MDC: Minimum Detectable Concentration  
Lc/LC: Critical Level  
PF: Prep Factor  
RL: Reporting Limit  
SQL: Sample Quantitation Limit



# INORGANIC ANALYTICAL REPORT

**Client:** Energy Fuels Resources, Inc.  
**Project:** 2nd Quarter Groundwater 2019  
**Lab Sample ID:** 1904652-002  
**Client Sample ID:** MW-05\_04242019  
**Collection Date:** 4/24/2019 1505h  
**Received Date:** 4/26/2019 1010h

**Contact:** Tanner Holliday

## Analytical Results

## DISSOLVED METALS

Compound	Units	Date Prepared	Date Analyzed	Method Used	Reporting Limit	Analytical Result	Qual
Arsenic	mg/L	4/29/2019 1036h	5/3/2019 1526h	E200.8	0.00500	< 0.00500	
Beryllium	mg/L	4/29/2019 1036h	5/3/2019 1526h	E200.8	0.000500	< 0.000500	
Cadmium	mg/L	4/29/2019 1036h	5/3/2019 1526h	E200.8	0.000500	< 0.000500	
Calcium	mg/L	4/29/2019 1036h	5/9/2019 1438h	E200.7	20.0	<b>153</b>	
Chromium	mg/L	4/29/2019 1036h	5/8/2019 1159h	E200.8	0.0250	< 0.0250	
Cobalt	mg/L	4/29/2019 1036h	5/3/2019 1526h	E200.8	0.0100	< 0.0100	
Copper	mg/L	4/29/2019 1036h	5/8/2019 1022h	E200.8	0.0100	< 0.0100	
Iron	mg/L	4/29/2019 1036h	5/3/2019 1526h	E200.8	0.0300	< 0.0300	
Lead	mg/L	4/29/2019 1036h	5/3/2019 1526h	E200.8	0.00100	< 0.00100	
Magnesium	mg/L	4/29/2019 1036h	5/9/2019 1438h	E200.7	20.0	<b>41.5</b>	
Manganese	mg/L	4/29/2019 1036h	5/3/2019 1526h	E200.8	0.0100	<b>0.124</b>	
Mercury	mg/L	4/30/2019 1430h	5/1/2019 738h	E245.1	0.000500	< 0.000500	
Molybdenum	mg/L	4/29/2019 1036h	5/3/2019 1526h	E200.8	0.0100	< 0.0100	
Nickel	mg/L	4/29/2019 1036h	5/3/2019 1526h	E200.8	0.0200	< 0.0200	
Potassium	mg/L	4/29/2019 1036h	5/9/2019 1531h	E200.7	1.00	<b>7.74</b>	
Selenium	mg/L	4/29/2019 1036h	5/3/2019 1526h	E200.8	0.00500	< 0.00500	
Silver	mg/L	4/29/2019 1036h	5/3/2019 1526h	E200.8	0.0100	< 0.0100	
Sodium	mg/L	4/29/2019 1036h	5/9/2019 1438h	E200.7	20.0	<b>548</b>	
Thallium	mg/L	4/29/2019 1036h	5/3/2019 1526h	E200.8	0.000500	< 0.000500	
Tin	mg/L	4/29/2019 1036h	5/3/2019 1526h	E200.8	0.100	< 0.100	
Uranium	mg/L	4/29/2019 1036h	5/3/2019 1526h	E200.8	0.000300	<b>0.000959</b>	
Vanadium	mg/L	4/29/2019 1036h	5/9/2019 1531h	E200.7	0.0150	< 0.0150	
Zinc	mg/L	4/29/2019 1036h	5/8/2019 1159h	E200.8	0.0100	< 0.0100	

3440 South 700 West

Salt Lake City, UT 84119

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



# INORGANIC ANALYTICAL REPORT

**Client:** Energy Fuels Resources, Inc.  
**Project:** 2nd Quarter Groundwater 2019  
**Lab Sample ID:** 1904652-002  
**Client Sample ID:** MW-05\_04242019  
**Collection Date:** 4/24/2019 1505h  
**Received Date:** 4/26/2019 1010h

**Contact:** Tanner Holliday

## Analytical Results

Compound	Units	Date Prepared	Date Analyzed	Method Used	Reporting Limit	Analytical Result	Qual
Ammonia (as N)	mg/L	4/30/2019 1240h	4/30/2019 1445h	E350.1	0.0500	<b>0.342</b>	
Bicarbonate (as CaCO3)	mg/L		4/30/2019 639h	SM2320B	1.00	<b>328</b>	
Carbonate (as CaCO3)	mg/L		4/30/2019 639h	SM2320B	1.00	< 1.00	
Chloride	mg/L		5/8/2019 1309h	E300.0	1.00	<b>52.3</b>	
Fluoride	mg/L		5/8/2019 1613h	E300.0	0.100	<b>0.847</b>	
Ion Balance	%		5/9/2019 1636h	Calc.	-100	<b>5.74</b>	
Nitrate/Nitrite (as N)	mg/L		4/29/2019 1631h	E353.2	0.100	<b>0.260</b>	
Sulfate	mg/L		5/13/2019 1401h	E300.0	150	<b>1,120</b>	
Total Anions, Measured	meq/L		5/9/2019 1636h	Calc.		<b>31.3</b>	
Total Cations, Measured	meq/L		5/9/2019 1636h	Calc.		<b>35.1</b>	
Total Dissolved Solids	mg/L		4/26/2019 1145h	SM2540C	20.0	<b>1,930</b>	
Total Dissolved Solids Ratio, Measured/Calculated			5/9/2019 1636h	Calc.		<b>0.912</b>	
Total Dissolved Solids, Calculated	mg/L		5/9/2019 1636h	Calc.		<b>2,120</b>	

3440 South 700 West

Salt Lake City, UT 84119

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web: www.awal-labs.com

Kyle F. Gross

Laboratory Director

Jose Rocha

QA Officer



# ORGANIC ANALYTICAL REPORT

**Client:** Energy Fuels Resources, Inc.  
**Project:** 2nd Quarter Groundwater 2019  
**Lab Sample ID:** 1904652-002A  
**Client Sample ID:** MW-05\_04242019  
**Collection Date:** 4/24/2019 1505h  
**Received Date:** 4/26/2019 1010h

**Contact:** Tanner Holliday

Test Code: 8260-W-DEN100

## Analytical Results

VOAs by GC/MS Method 8260C/5030C

**Analyzed:** 4/26/2019 1726h

**Units:** µg/L

**Dilution Factor:** 1

**Method:** SW8260C

3440 South 700 West

Salt Lake City, UT 84119

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Toll Free: (888) 263-8686

Fax: (801) 263-8687

e-mail: awal@awal-labs.com

web: www.awal-labs.com

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Compound	CAS Number	Reporting Limit	Analytical Result	Qual
2-Butanone	78-93-3	20.0	< 20.0	
Acetone	67-64-1	20.0	< 20.0	
Benzene	71-43-2	1.00	< 1.00	
Carbon tetrachloride	56-23-5	1.00	< 1.00	
Chloroform	67-66-3	1.00	< 1.00	
Chloromethane	74-87-3	1.00	< 1.00	
Methylene chloride	75-09-2	1.00	< 1.00	
Naphthalene	91-20-3	1.00	< 1.00	
Tetrahydrofuran	109-99-9	1.00	< 1.00	
Toluene	108-88-3	1.00	< 1.00	
Xylenes, Total	1330-20-7	1.00	< 1.00	

Surrogate	Units: µg/L	CAS	Result	Amount Spiked	% REC	Limits	Qual
Surr: 1,2-Dichloroethane-d4		17060-07-0	54.3	50.00	109	72-151	
Surr: 4-Bromofluorobenzene		460-00-4	52.2	50.00	104	80-152	
Surr: Dibromofluoromethane		1868-53-7	49.3	50.00	98.5	72-135	
Surr: Toluene-d8		2037-26-5	50.6	50.00	101	80-124	

# GEL LABORATORIES LLC

2040 Savage Road Charleston SC 29407 - (843) 556-8171 - www.gel.com

## Certificate of Analysis

Report Date: May 13, 2019

Company : Energy Fuels Resources (USA), Inc.  
 Address : 225 Union Boulevard  
 Suite 600  
 Lakewood, Colorado 80228  
 Contact: Ms. Kathy Weinel  
 Project: White Mesa Mill GW

Client Sample ID: MW-05_04242019	Project: DNMI00100
Sample ID: 477632002	Client ID: DNMI001
Matrix: Ground Water	
Collect Date: 24-APR-19 15:05	
Receive Date: 26-APR-19	
Collector: Client	

Parameter	Qualifier	Result	Uncertainty	MDC	RL	Units	PF	DF	Analyst	Date	Time	Batch	Method
Rad Gas Flow Proportional Counting													
GFPC, Total Alpha Radium, Liquid "As Received"													
Gross Radium Alpha	U	1.00	+/-0.209	0.665	1.00	pCi/L			LXB3	05/06/19	1635	1872063	1

The following Analytical Methods were performed:

Method	Description	Analyst Comments
	EPA 903.0	

Surrogate/Tracer Recovery	Test	Result	Nominal	Recovery%	Acceptable Limits
Barium Carrier	GFPC, Total Alpha Radium, Liquid "As Received"			101	(25%-125%)

**Notes:**

Counting Uncertainty is calculated at the 68% confidence level (1-sigma).

SRL = Sample Reporting Limit. For metals analysis only. When the sample is U qualified and ND, the SRL column reports the value which is the greater of either the adjusted MDL or the CRDL.

Column headers are defined as follows:

- |                                       |                                |
|---------------------------------------|--------------------------------|
| DF: Dilution Factor                   | Lc/LC: Critical Level          |
| DL: Detection Limit                   | PF: Prep Factor                |
| MDA: Minimum Detectable Activity      | RL: Reporting Limit            |
| MDC: Minimum Detectable Concentration | SQL: Sample Quantitation Limit |



# INORGANIC ANALYTICAL REPORT

**Client:** Energy Fuels Resources, Inc.  
**Project:** 2nd Quarter Groundwater 2019  
**Lab Sample ID:** 1904652-003  
**Client Sample ID:** MW-11\_04242019  
**Collection Date:** 4/24/2019 1125h  
**Received Date:** 4/26/2019 1010h

**Contact:** Tanner Holliday

## Analytical Results

## DISSOLVED METALS

Compound	Units	Date Prepared	Date Analyzed	Method Used	Reporting Limit	Analytical Result	Qual
Arsenic	mg/L	4/29/2019 1036h	5/3/2019 1529h	E200.8	0.00500	< 0.00500	
Beryllium	mg/L	4/29/2019 1036h	5/3/2019 1529h	E200.8	0.000500	< 0.000500	
Cadmium	mg/L	4/29/2019 1036h	5/3/2019 1529h	E200.8	0.000500	< 0.000500	
Calcium	mg/L	4/29/2019 1036h	5/9/2019 1440h	E200.7	20.0	<b>83.4</b>	
Chromium	mg/L	4/29/2019 1036h	5/8/2019 1202h	E200.8	0.0250	< 0.0250	
Cobalt	mg/L	4/29/2019 1036h	5/3/2019 1529h	E200.8	0.0100	< 0.0100	
Copper	mg/L	4/29/2019 1036h	5/8/2019 1025h	E200.8	0.0100	< 0.0100	
Iron	mg/L	4/29/2019 1036h	5/3/2019 1529h	E200.8	0.0300	< 0.0300	
Lead	mg/L	4/29/2019 1036h	5/3/2019 1529h	E200.8	0.00100	< 0.00100	
Magnesium	mg/L	4/29/2019 1036h	5/9/2019 1533h	E200.7	1.00	<b>27.1</b>	
Manganese	mg/L	4/29/2019 1036h	5/3/2019 1529h	E200.8	0.0100	<b>0.181</b>	
Mercury	mg/L	4/30/2019 1430h	5/1/2019 746h	E245.1	0.000500	< 0.000500	
Molybdenum	mg/L	4/29/2019 1036h	5/3/2019 1529h	E200.8	0.0100	< 0.0100	
Nickel	mg/L	4/29/2019 1036h	5/3/2019 1529h	E200.8	0.0200	< 0.0200	
Potassium	mg/L	4/29/2019 1036h	5/9/2019 1533h	E200.7	1.00	<b>7.26</b>	
Selenium	mg/L	4/29/2019 1036h	5/3/2019 1529h	E200.8	0.00500	< 0.00500	
Silver	mg/L	4/29/2019 1036h	5/3/2019 1529h	E200.8	0.0100	< 0.0100	
Sodium	mg/L	4/29/2019 1036h	5/9/2019 1440h	E200.7	20.0	<b>608</b>	
Thallium	mg/L	4/29/2019 1036h	5/3/2019 1529h	E200.8	0.000500	< 0.000500	
Tin	mg/L	4/29/2019 1036h	5/3/2019 1529h	E200.8	0.100	< 0.100	
Uranium	mg/L	4/29/2019 1036h	5/3/2019 1529h	E200.8	0.000300	<b>0.000944</b>	
Vanadium	mg/L	4/29/2019 1036h	5/9/2019 1533h	E200.7	0.0150	< 0.0150	
Zinc	mg/L	4/29/2019 1036h	5/8/2019 1202h	E200.8	0.0100	< 0.0100	

3440 South 700 West

Salt Lake City, UT 84119

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



# INORGANIC ANALYTICAL REPORT

**Client:** Energy Fuels Resources, Inc.  
**Project:** 2nd Quarter Groundwater 2019  
**Lab Sample ID:** 1904652-003  
**Client Sample ID:** MW-11\_04242019  
**Collection Date:** 4/24/2019 1125h  
**Received Date:** 4/26/2019 1010h

**Contact:** Tanner Holliday

## Analytical Results

Compound	Units	Date Prepared	Date Analyzed	Method Used	Reporting Limit	Analytical Result	Qual
Ammonia (as N)	mg/L	4/30/2019 1240h	4/30/2019 1446h	E350.1	0.0500	<b>0.794</b>	
Bicarbonate (as CaCO3)	mg/L		4/30/2019 639h	SM2320B	1.00	<b>316</b>	
Carbonate (as CaCO3)	mg/L		4/30/2019 639h	SM2320B	1.00	< 1.00	
Chloride	mg/L		5/8/2019 1326h	E300.0	1.00	<b>34.0</b>	
Fluoride	mg/L		5/8/2019 1630h	E300.0	0.100	<b>0.430</b>	
Ion Balance	%		5/9/2019 1636h	Calc.	-100	<b>2.60</b>	
Nitrate/Nitrite (as N)	mg/L		4/29/2019 1632h	E353.2	0.100	< 0.100	
Sulfate	mg/L		5/7/2019 1228h	E300.0	750	<b>1,160</b>	
Total Anions, Measured	meq/L		5/9/2019 1636h	Calc.		<b>31.3</b>	
Total Cations, Measured	meq/L		5/9/2019 1636h	Calc.		<b>33.0</b>	
Total Dissolved Solids	mg/L		4/26/2019 1400h	SM2540C	20.0	<b>1,890</b>	
Total Dissolved Solids Ratio, Measured/Calculated			5/9/2019 1636h	Calc.		<b>0.899</b>	
Total Dissolved Solids, Calculated	mg/L		5/9/2019 1636h	Calc.		<b>2,100</b>	

3440 South 700 West

Salt Lake City, UT 84119

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



# ORGANIC ANALYTICAL REPORT

**Client:** Energy Fuels Resources, Inc.  
**Project:** 2nd Quarter Groundwater 2019  
**Lab Sample ID:** 1904652-003A  
**Client Sample ID:** MW-11\_04242019  
**Collection Date:** 4/24/2019 1125h  
**Received Date:** 4/26/2019 1010h

**Contact:** Tanner Holliday

Test Code: 8260-W-DEN100

**Analytical Results**

VOAs by GC/MS Method 8260C/5030C

**Analyzed:** 4/26/2019 1746h

**Units:** µg/L                      **Dilution Factor:** 1                      **Method:** SW8260C

3440 South 700 West

Salt Lake City, UT 84119

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

Compound	CAS Number	Reporting Limit	Analytical Result	Qual
2-Butanone	78-93-3	20.0	< 20.0	
Acetone	67-64-1	20.0	< 20.0	
Benzene	71-43-2	1.00	< 1.00	
Carbon tetrachloride	56-23-5	1.00	< 1.00	
Chloroform	67-66-3	1.00	< 1.00	
Chloromethane	74-87-3	1.00	< 1.00	
Methylene chloride	75-09-2	1.00	< 1.00	
Naphthalene	91-20-3	1.00	< 1.00	
Tetrahydrofuran	109-99-9	1.00	< 1.00	
Toluene	108-88-3	1.00	< 1.00	
Xylenes, Total	1330-20-7	1.00	< 1.00	

Surrogate	Units: µg/L	CAS	Result	Amount Spiked	% REC	Limits	Qual
Surr: 1,2-Dichloroethane-d4		17060-07-0	54.7	50.00	109	72-151	
Surr: 4-Bromofluorobenzene		460-00-4	52.4	50.00	105	80-152	
Surr: Dibromofluoromethane		1868-53-7	49.3	50.00	98.6	72-135	
Surr: Toluene-d8		2037-26-5	51.1	50.00	102	80-124	

# GEL LABORATORIES LLC

2040 Savage Road Charleston SC 29407 - (843) 556-8171 - www.gel.com

## Certificate of Analysis

Report Date: May 13, 2019

Company : Energy Fuels Resources (USA), Inc.  
 Address : 225 Union Boulevard  
 Suite 600  
 Lakewood, Colorado 80228  
 Contact: Ms. Kathy Weinel  
 Project: White Mesa Mill GW

Client Sample ID: MW-11_04242019	Project: DNMI00100
Sample ID: 477632003	Client ID: DNMI001
Matrix: Ground Water	
Collect Date: 24-APR-19 11:25	
Receive Date: 26-APR-19	
Collector: Client	

Parameter	Qualifier	Result	Uncertainty	MDC	RL	Units	PF	DF	Analyst	Date	Time	Batch	Method
Rad Gas Flow Proportional Counting													
GFPC, Total Alpha Radium, Liquid "As Received"													
Gross Radium Alpha		1.01	+/-0.272	0.623	1.00	pCi/L			LXB3	05/06/19	1635	1872063	1

The following Analytical Methods were performed:

Method	Description	Analyst Comments											
	EPA 903.0												
Surrogate/Tracer Recovery	Test	Result	Nominal	Recovery%	Acceptable Limits								
Barium Carrier	GFPC, Total Alpha Radium, Liquid "As Received"			99.6	(25%-125%)								

**Notes:**

Counting Uncertainty is calculated at the 68% confidence level (1-sigma).

SRL = Sample Reporting Limit. For metals analysis only. When the sample is U qualified and ND, the SRL column reports the value which is the greater of either the adjusted MDL or the CRDL.

Column headers are defined as follows:

- |                                       |                                |
|---------------------------------------|--------------------------------|
| DF: Dilution Factor                   | Lc/LC: Critical Level          |
| DL: Detection Limit                   | PF: Prep Factor                |
| MDA: Minimum Detectable Activity      | RL: Reporting Limit            |
| MDC: Minimum Detectable Concentration | SQL: Sample Quantitation Limit |



# INORGANIC ANALYTICAL REPORT

**Client:** Energy Fuels Resources, Inc.  
**Project:** 2nd Quarter Groundwater 2019  
**Lab Sample ID:** 1904652-004  
**Client Sample ID:** MW-12\_04252019  
**Collection Date:** 4/25/2019 900h  
**Received Date:** 4/26/2019 1010h

**Contact:** Tanner Holliday

## Analytical Results

## DISSOLVED METALS

Compound	Units	Date Prepared	Date Analyzed	Method Used	Reporting Limit	Analytical Result	Qual
Arsenic	mg/L	4/29/2019 1036h	5/3/2019 1533h	E200.8	0.00500	< 0.00500	
Beryllium	mg/L	4/29/2019 1036h	5/8/2019 930h	E200.8	0.000500	< 0.000500	
Cadmium	mg/L	4/29/2019 1036h	5/3/2019 1533h	E200.8	0.000500	< 0.000500	
Calcium	mg/L	4/29/2019 1036h	5/9/2019 1442h	E200.7	20.0	<b>531</b>	
Chromium	mg/L	4/29/2019 1036h	5/8/2019 1205h	E200.8	0.0250	< 0.0250	
Cobalt	mg/L	4/29/2019 1036h	5/3/2019 1533h	E200.8	0.0100	< 0.0100	
Copper	mg/L	4/29/2019 1036h	5/8/2019 930h	E200.8	0.0100	< 0.0100	
Iron	mg/L	4/29/2019 1036h	5/3/2019 1533h	E200.8	0.0300	< 0.0300	
Lead	mg/L	4/29/2019 1036h	5/8/2019 930h	E200.8	0.00100	< 0.00100	
Magnesium	mg/L	4/29/2019 1036h	5/9/2019 1442h	E200.7	20.0	<b>225</b>	
Manganese	mg/L	4/29/2019 1036h	5/3/2019 1533h	E200.8	0.0100	<b>0.0197</b>	
Mercury	mg/L	4/30/2019 1430h	5/1/2019 753h	E245.1	0.000500	< 0.000500	
Molybdenum	mg/L	4/29/2019 1036h	5/3/2019 1533h	E200.8	0.0100	< 0.0100	
Nickel	mg/L	4/29/2019 1036h	5/3/2019 1533h	E200.8	0.0200	< 0.0200	
Potassium	mg/L	4/29/2019 1036h	5/9/2019 1535h	E200.7	1.00	<b>14.2</b>	
Selenium	mg/L	4/29/2019 1036h	5/17/2019 1012h	E200.8	0.00500	<b>0.0339</b>	
Silver	mg/L	4/29/2019 1036h	5/3/2019 1533h	E200.8	0.0100	< 0.0100	
Sodium	mg/L	4/29/2019 1036h	5/9/2019 1442h	E200.7	20.0	<b>345</b>	
Thallium	mg/L	4/29/2019 1036h	5/8/2019 930h	E200.8	0.000500	< 0.000500	
Tin	mg/L	4/29/2019 1036h	5/3/2019 1533h	E200.8	0.100	< 0.100	
Uranium	mg/L	4/29/2019 1036h	5/8/2019 930h	E200.8	0.000500	<b>0.0232</b>	
Vanadium	mg/L	4/29/2019 1036h	5/9/2019 1535h	E200.7	0.0150	< 0.0150	
Zinc	mg/L	4/29/2019 1036h	5/8/2019 1205h	E200.8	0.0100	< 0.0100	

3440 South 700 West  
 Salt Lake City, UT 84119  
  
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 web: www.awal-labs.com

Kyle F. Gross  
 Laboratory Director

Jose Rocha  
 QA Officer



# INORGANIC ANALYTICAL REPORT

**Client:** Energy Fuels Resources, Inc. **Contact:** Tanner Holliday  
**Project:** 2nd Quarter Groundwater 2019  
**Lab Sample ID:** 1904652-004  
**Client Sample ID:** MW-12\_04252019  
**Collection Date:** 4/25/2019 900h  
**Received Date:** 4/26/2019 1010h

## Analytical Results

Compound	Units	Date Prepared	Date Analyzed	Method Used	Reporting Limit	Analytical Result	Qual
Ammonia (as N)	mg/L	4/30/2019 1240h	4/30/2019 1447h	E350.1	0.0500	< 0.0500	
Bicarbonate (as CaCO <sub>3</sub> )	mg/L		4/30/2019 639h	SM2320B	1.00	<b>336</b>	
Carbonate (as CaCO <sub>3</sub> )	mg/L		4/30/2019 639h	SM2320B	1.00	< 1.00	
Chloride	mg/L		5/8/2019 1343h	E300.0	1.00	<b>65.8</b>	
Fluoride	mg/L		5/8/2019 1646h	E300.0	0.100	<b>0.214</b>	
Ion Balance	%		5/9/2019 1636h	Calc.	-100	<b>9.35</b>	
Nitrate/Nitrite (as N)	mg/L		4/29/2019 1633h	E353.2	0.100	<b>0.138</b>	
Sulfate	mg/L		5/7/2019 1245h	E300.0	750	<b>1,990</b>	
Total Anions, Measured	meq/L		5/9/2019 1636h	Calc.		<b>50.0</b>	
Total Cations, Measured	meq/L		5/9/2019 1636h	Calc.		<b>60.3</b>	
Total Dissolved Solids	mg/L		4/26/2019 1400h	SM2540C	20.0	<b>3,600</b>	
Total Dissolved Solids Ratio, Measured/Calculated			5/9/2019 1636h	Calc.		<b>1.07</b>	
Total Dissolved Solids, Calculated	mg/L		5/9/2019 1636h	Calc.		<b>3,370</b>	

3440 South 700 West

Salt Lake City, UT 84119

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web: www.awal-labs.com

Kyle F. Gross

Laboratory Director

Jose Rocha

QA Officer



# ORGANIC ANALYTICAL REPORT

**Client:** Energy Fuels Resources, Inc.  
**Project:** 2nd Quarter Groundwater 2019  
**Lab Sample ID:** 1904652-004A  
**Client Sample ID:** MW-12\_04252019  
**Collection Date:** 4/25/2019 900h  
**Received Date:** 4/26/2019 1010h

**Contact:** Tanner Holliday

Test Code: 8260-W-DEN100

## Analytical Results

VOAs by GC/MS Method 8260C/5030C

**Analyzed:** 4/26/2019 1806h

**Units:** µg/L

**Dilution Factor:** 1

**Method:** SW8260C

3440 South 700 West

Salt Lake City, UT 84119

Phone: (801) 263-8686

Toll Free: (888) 263-8686

Fax: (801) 263-8687

e-mail: awal@awal-labs.com

web: www.awal-labs.com

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Laboratory Director

Jose Rocha

QA Officer

Compound	CAS Number	Reporting Limit	Analytical Result	Qual
2-Butanone	78-93-3	20.0	< 20.0	
Acetone	67-64-1	20.0	< 20.0	
Benzene	71-43-2	1.00	< 1.00	
Carbon tetrachloride	56-23-5	1.00	< 1.00	
Chloroform	67-66-3	1.00	< 1.00	
Chloromethane	74-87-3	1.00	< 1.00	
Methylene chloride	75-09-2	1.00	< 1.00	
Naphthalene	91-20-3	1.00	< 1.00	
Tetrahydrofuran	109-99-9	1.00	< 1.00	
Toluene	108-88-3	1.00	< 1.00	
Xylenes, Total	1330-20-7	1.00	< 1.00	

Surrogate	Units: µg/L	CAS	Result	Amount Spiked	% REC	Limits	Qual
Surr: 1,2-Dichloroethane-d4		17060-07-0	54.4	50.00	109	72-151	
Surr: 4-Bromofluorobenzene		460-00-4	52.0	50.00	104	80-152	
Surr: Dibromofluoromethane		1868-53-7	49.0	50.00	97.9	72-135	
Surr: Toluene-d8		2037-26-5	50.9	50.00	102	80-124	

# GEL LABORATORIES LLC

2040 Savage Road Charleston SC 29407 - (843) 556-8171 - www.gel.com

## Certificate of Analysis

Report Date: May 13, 2019

Company : Energy Fuels Resources (USA), Inc.  
Address : 225 Union Boulevard  
Suite 600  
Lakewood, Colorado 80228  
Contact: Ms. Kathy Weinel  
Project: White Mesa Mill GW

Client Sample ID: MW-12\_04252019  
Sample ID: 477632004  
Matrix: Ground Water  
Collect Date: 25-APR-19 09:00  
Receive Date: 26-APR-19  
Collector: Client

Project: DNMI00100  
Client ID: DNMI001

Parameter	Qualifier	Result	Uncertainty	MDC	RL	Units	PF	DF	Analyst	Date	Time	Batch	Method
Rad Gas Flow Proportional Counting													
GFPC, Total Alpha Radium, Liquid "As Received"													
Gross Radium Alpha	U	1.00	+/-0.201	0.490	1.00	pCi/L			LXB3	05/06/19	1635	1872063	1

The following Analytical Methods were performed:

Method	Description	Analyst	Comments
	EPA 903.0		

Surrogate/Tracer Recovery	Test	Result	Nominal	Recovery%	Acceptable Limits
Barium Carrier	GFPC, Total Alpha Radium, Liquid "As Received"			102	(25%-125%)

### Notes:

Counting Uncertainty is calculated at the 68% confidence level (1-sigma).

SRL = Sample Reporting Limit. For metals analysis only. When the sample is U qualified and ND, the SRL column reports the value which is the greater of either the adjusted MDL or the CRDL.

Column headers are defined as follows:

DF: Dilution Factor                      Lc/LC: Critical Level  
DL: Detection Limit                      PF: Prep Factor  
MDA: Minimum Detectable Activity      RL: Reporting Limit  
MDC: Minimum Detectable Concentration      SQL: Sample Quantitation Limit



# INORGANIC ANALYTICAL REPORT

**Client:** Energy Fuels Resources, Inc.  
**Project:** 2nd Quarter Groundwater 2019  
**Lab Sample ID:** 1904652-005  
**Client Sample ID:** MW-14\_04232019  
**Collection Date:** 4/23/2019 1355h  
**Received Date:** 4/26/2019 1010h

**Contact:** Tanner Holliday

## Analytical Results

## DISSOLVED METALS

Compound	Units	Date Prepared	Date Analyzed	Method Used	Reporting Limit	Analytical Result	Qual
Arsenic	mg/L	4/29/2019 1036h	5/3/2019 1552h	E200.8	0.00500	< 0.00500	
Beryllium	mg/L	4/29/2019 1036h	5/3/2019 1552h	E200.8	0.000500	< 0.000500	
Cadmium	mg/L	4/29/2019 1036h	5/3/2019 1552h	E200.8	0.000500	<b>0.00135</b>	
Calcium	mg/L	4/29/2019 1036h	5/9/2019 1444h	E200.7	20.0	<b>506</b>	
Chromium	mg/L	4/29/2019 1036h	5/8/2019 1209h	E200.8	0.0250	< 0.0250	
Cobalt	mg/L	4/29/2019 1036h	5/3/2019 1552h	E200.8	0.0100	< 0.0100	
Copper	mg/L	4/29/2019 1036h	5/3/2019 1552h	E200.8	0.0100	< 0.0100	
Iron	mg/L	4/29/2019 1036h	5/3/2019 1552h	E200.8	0.0300	< 0.0300	
Lead	mg/L	4/29/2019 1036h	5/3/2019 1552h	E200.8	0.00100	< 0.00100	
Magnesium	mg/L	4/29/2019 1036h	5/9/2019 1444h	E200.7	20.0	<b>149</b>	
Manganese	mg/L	4/29/2019 1036h	5/8/2019 1209h	E200.8	0.0100	<b>1.85</b>	
Mercury	mg/L	4/30/2019 1430h	5/1/2019 755h	E245.1	0.000500	< 0.000500	
Molybdenum	mg/L	4/29/2019 1036h	5/8/2019 1041h	E200.8	0.0100	< 0.0100	
Nickel	mg/L	4/29/2019 1036h	5/3/2019 1552h	E200.8	0.0200	< 0.0200	
Potassium	mg/L	4/29/2019 1036h	5/9/2019 1538h	E200.7	1.00	<b>12.7</b>	
Selenium	mg/L	4/29/2019 1036h	5/3/2019 1552h	E200.8	0.00500	< 0.00500	
Silver	mg/L	4/29/2019 1036h	5/3/2019 1552h	E200.8	0.0100	< 0.0100	
Sodium	mg/L	4/29/2019 1036h	5/9/2019 1444h	E200.7	20.0	<b>359</b>	
Thallium	mg/L	4/29/2019 1036h	5/3/2019 1552h	E200.8	0.000500	< 0.000500	
Tin	mg/L	4/29/2019 1036h	5/8/2019 1041h	E200.8	0.100	< 0.100	
Uranium	mg/L	4/29/2019 1036h	5/3/2019 1552h	E200.8	0.000300	<b>0.0640</b>	
Vanadium	mg/L	4/29/2019 1036h	5/9/2019 1538h	E200.7	0.0150	< 0.0150	
Zinc	mg/L	4/29/2019 1036h	5/8/2019 1209h	E200.8	0.0100	<b>0.0133</b>	

3440 South 700 West

Salt Lake City, UT 84119

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



# INORGANIC ANALYTICAL REPORT

**Client:** Energy Fuels Resources, Inc.  
**Project:** 2nd Quarter Groundwater 2019  
**Lab Sample ID:** 1904652-005  
**Client Sample ID:** MW-14\_04232019  
**Collection Date:** 4/23/2019 1355h  
**Received Date:** 4/26/2019 1010h

**Contact:** Tanner Holliday

## Analytical Results

3440 South 700 West  
Salt Lake City, UT 84119

Phone: (801) 263-8686

Toll Free: (888) 263-8686

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e-mail: awal@awal-labs.com

web: www.awal-labs.com

Kyle F. Gross  
Laboratory Director

Jose Rocha  
QA Officer

Compound	Units	Date Prepared	Date Analyzed	Method Used	Reporting Limit	Analytical Result	Qual
Ammonia (as N)	mg/L	4/30/2019 1240h	4/30/2019 1447h	E350.1	0.0500	< 0.0500	
Bicarbonate (as CaCO <sub>3</sub> )	mg/L		4/30/2019 639h	SM2320B	1.00	<b>384</b>	
Carbonate (as CaCO <sub>3</sub> )	mg/L		4/30/2019 639h	SM2320B	1.00	< 1.00	
Chloride	mg/L		5/8/2019 1359h	E300.0	1.00	<b>20.0</b>	
Fluoride	mg/L		5/8/2019 1703h	E300.0	0.100	< 0.100	
Ion Balance	%		5/9/2019 1636h	Calc.	-100	<b>8.32</b>	
Nitrate/Nitrite (as N)	mg/L		4/29/2019 1634h	E353.2	0.100	< 0.100	
Sulfate	mg/L		5/7/2019 1303h	E300.0	750	<b>1,780</b>	
Total Anions, Measured	meq/L		5/9/2019 1636h	Calc.		<b>45.3</b>	
Total Cations, Measured	meq/L		5/9/2019 1636h	Calc.		<b>53.5</b>	
Total Dissolved Solids	mg/L		4/26/2019 1400h	SM2540C	20.0	<b>3,310</b>	
Total Dissolved Solids Ratio, Measured/Calculated			5/9/2019 1636h	Calc.		<b>1.08</b>	
Total Dissolved Solids, Calculated	mg/L		5/9/2019 1636h	Calc.		<b>3,060</b>	



# ORGANIC ANALYTICAL REPORT

**Client:** Energy Fuels Resources, Inc.  
**Project:** 2nd Quarter Groundwater 2019  
**Lab Sample ID:** 1904652-005A  
**Client Sample ID:** MW-14\_04232019  
**Collection Date:** 4/23/2019 1355h  
**Received Date:** 4/26/2019 1010h

**Contact:** Tanner Holliday

Test Code: 8260-W-DEN100

**Analytical Results**

VOAs by GC/MS Method 8260C/5030C

**Analyzed:** 4/26/2019 1826h

**Units:** µg/L

**Dilution Factor:** 1

**Method:** SW8260C

3440 South 700 West  
Salt Lake City, UT 84119

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

Compound	CAS Number	Reporting Limit	Analytical Result	Qual
2-Butanone	78-93-3	20.0	< 20.0	
Acetone	67-64-1	20.0	< 20.0	
Benzene	71-43-2	1.00	< 1.00	
Carbon tetrachloride	56-23-5	1.00	< 1.00	
Chloroform	67-66-3	1.00	< 1.00	
Chloromethane	74-87-3	1.00	< 1.00	
Methylene chloride	75-09-2	1.00	< 1.00	
Naphthalene	91-20-3	1.00	< 1.00	
Tetrahydrofuran	109-99-9	1.00	< 1.00	
Toluene	108-88-3	1.00	< 1.00	
Xylenes, Total	1330-20-7	1.00	< 1.00	

Surrogate	Units: µg/L	CAS	Result	Amount Spiked	% REC	Limits	Qual
Surr: 1,2-Dichloroethane-d4		17060-07-0	55.2	50.00	110	72-151	
Surr: 4-Bromofluorobenzene		460-00-4	53.2	50.00	106	80-152	
Surr: Dibromofluoromethane		1868-53-7	49.6	50.00	99.3	72-135	
Surr: Toluene-d8		2037-26-5	51.4	50.00	103	80-124	

# GEL LABORATORIES LLC

2040 Savage Road Charleston SC 29407 - (843) 556-8171 - www.gel.com

## Certificate of Analysis

Report Date: May 13, 2019

Company : Energy Fuels Resources (USA), Inc.  
Address : 225 Union Boulevard  
Suite 600  
Lakewood, Colorado 80228  
Contact: Ms. Kathy Weinel  
Project: White Mesa Mill GW

Client Sample ID: MW-14\_04232019  
Sample ID: 477632005  
Matrix: Ground Water  
Collect Date: 23-APR-19 13:55  
Receive Date: 26-APR-19  
Collector: Client

Project: DNMI00100  
Client ID: DNMI001

Parameter	Qualifier	Result	Uncertainty	MDC	RL	Units	PF	DF	Analyst	Date	Time	Batch	Method
Rad Gas Flow Proportional Counting													
GFPC, Total Alpha Radium, Liquid "As Received"													
Gross Radium Alpha	U	1.00	+/-0.203	0.528	1.00	pCi/L			LXB3	05/06/19	1635	1872063	1

The following Analytical Methods were performed:

Method	Description	Analyst Comments
	EPA 903.0	

Surrogate/Tracer Recovery	Test	Result	Nominal	Recovery%	Acceptable Limits
Barium Carrier	GFPC, Total Alpha Radium, Liquid "As Received"			100	(25%-125%)

### Notes:

Counting Uncertainty is calculated at the 68% confidence level (1-sigma).

SRL = Sample Reporting Limit. For metals analysis only. When the sample is U qualified and ND, the SRL column reports the value which is the greater of either the adjusted MDL or the CRDL.

Column headers are defined as follows:

DF: Dilution Factor                      Lc/LC: Critical Level  
DL: Detection Limit                      PF: Prep Factor  
MDA: Minimum Detectable Activity      RL: Reporting Limit  
MDC: Minimum Detectable Concentration      SQL: Sample Quantitation Limit



# INORGANIC ANALYTICAL REPORT

**Client:** Energy Fuels Resources, Inc.  
**Project:** 2nd Quarter Groundwater 2019  
**Lab Sample ID:** 1905087-002  
**Client Sample ID:** MW-15\_04302019  
**Collection Date:** 4/30/2019 1055h  
**Received Date:** 5/3/2019 1005h

**Contact:** Tanner Holliday

## Analytical Results

## DISSOLVED METALS

Compound	Units	Date Prepared	Date Analyzed	Method Used	Reporting Limit	Analytical Result	Qual
Arsenic	mg/L	5/6/2019 1142h	5/14/2019 1557h	E200.8	0.00500	< 0.00500	
Beryllium	mg/L	5/6/2019 1142h	5/14/2019 1740h	E200.8	0.000500	< 0.000500	
Cadmium	mg/L	5/6/2019 1142h	5/14/2019 1557h	E200.8	0.000500	< 0.000500	
Calcium	mg/L	5/6/2019 1142h	5/17/2019 1244h	E200.7	20.0	<b>502</b>	2
Chromium	mg/L	5/6/2019 1142h	5/14/2019 1557h	E200.8	0.0250	< 0.0250	
Cobalt	mg/L	5/6/2019 1142h	5/14/2019 1557h	E200.8	0.0100	< 0.0100	
Copper	mg/L	5/6/2019 1142h	5/14/2019 1557h	E200.8	0.0100	< 0.0100	
Iron	mg/L	5/6/2019 1142h	5/14/2019 1740h	E200.8	0.0300	< 0.0300	
Lead	mg/L	5/6/2019 1142h	5/14/2019 1740h	E200.8	0.00100	< 0.00100	
Magnesium	mg/L	5/6/2019 1142h	5/17/2019 1244h	E200.7	20.0	<b>191</b>	2
Manganese	mg/L	5/6/2019 1142h	5/14/2019 1557h	E200.8	0.0100	< 0.0100	
Mercury	mg/L	5/6/2019 1530h	5/7/2019 737h	E245.1	0.000500	< 0.000500	
Molybdenum	mg/L	5/6/2019 1142h	5/14/2019 1557h	E200.8	0.0100	< 0.0100	
Nickel	mg/L	5/6/2019 1142h	5/14/2019 1557h	E200.8	0.0200	< 0.0200	
Potassium	mg/L	5/6/2019 1142h	5/17/2019 1448h	E200.7	1.00	<b>11.6</b>	
Selenium	mg/L	5/6/2019 1142h	5/14/2019 1557h	E200.8	0.00500	<b>0.103</b>	
Silver	mg/L	5/6/2019 1142h	5/14/2019 1557h	E200.8	0.0100	< 0.0100	
Sodium	mg/L	5/6/2019 1142h	5/17/2019 1244h	E200.7	20.0	<b>570</b>	2
Thallium	mg/L	5/6/2019 1142h	5/14/2019 1740h	E200.8	0.000500	< 0.000500	
Tin	mg/L	5/6/2019 1142h	5/14/2019 1557h	E200.8	0.100	< 0.100	
Uranium	mg/L	5/6/2019 1142h	5/14/2019 1848h	E200.8	0.000300	<b>0.0427</b>	
Vanadium	mg/L	5/6/2019 1142h	5/17/2019 1448h	E200.7	0.0150	< 0.0150	
Zinc	mg/L	5/6/2019 1142h	5/14/2019 1557h	E200.8	0.0100	< 0.0100	

<sup>2</sup> - Analyte concentration is too high for accurate matrix spike recovery and/or RPD.



# INORGANIC ANALYTICAL REPORT

**Client:** Energy Fuels Resources, Inc.  
**Project:** 2nd Quarter Groundwater 2019  
**Lab Sample ID:** 1905087-002  
**Client Sample ID:** MW-15\_04302019  
**Collection Date:** 4/30/2019 1055h  
**Received Date:** 5/3/2019 1005h

**Contact:** Tanner Holliday

## Analytical Results

3440 South 700 West  
Salt Lake City, UT 84119

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

Compound	Units	Date Prepared	Date Analyzed	Method Used	Reporting Limit	Analytical Result	Qual
Ammonia (as N)	mg/L	5/10/2019 1650h	5/10/2019 1902h	E350.1	0.0500	< 0.0500	
Bicarbonate (as CaCO3)	mg/L		5/6/2019 820h	SM2320B	1.00	<b>366</b>	
Carbonate (as CaCO3)	mg/L		5/6/2019 820h	SM2320B	1.00	< 1.00	
Chloride	mg/L		5/11/2019 103h	E300.0	1.00	<b>39.7</b>	
Fluoride	mg/L		5/11/2019 410h	E300.0	0.100	<b>0.159</b>	
Ion Balance	%		5/17/2019 1612h	Calc.	-100	<b>5.08</b>	
Nitrate/Nitrite (as N)	mg/L		5/3/2019 1527h	E353.2	0.100	<b>0.201</b>	
Sulfate	mg/L		5/10/2019 1837h	E300.0	300	<b>2,450</b>	
Total Anions, Measured	meq/L		5/17/2019 1612h	Calc.		<b>59.5</b>	
Total Cations, Measured	meq/L		5/17/2019 1612h	Calc.		<b>65.9</b>	
Total Dissolved Solids	mg/L		5/3/2019 1310h	SM2540C	20.0	<b>3,660</b>	
Total Dissolved Solids Ratio, Measured/Calculated			5/17/2019 1612h	Calc.		<b>0.918</b>	
Total Dissolved Solids, Calculated	mg/L		5/17/2019 1612h	Calc.		<b>3,990</b>	



# ORGANIC ANALYTICAL REPORT

**Client:** Energy Fuels Resources, Inc.  
**Project:** 2nd Quarter Groundwater 2019  
**Lab Sample ID:** 1905087-002A  
**Client Sample ID:** MW-15\_04302019  
**Collection Date:** 4/30/2019 1055h  
**Received Date:** 5/3/2019 1005h

**Contact:** Tanner Holliday

Test Code: 8260-W-DEN100

## Analytical Results

VOAs by GC/MS Method 8260C/5030C

**Analyzed:** 5/4/2019 1126h

**Units:** µg/L

**Dilution Factor:** 1

**Method:** SW8260C

3440 South 700 West

Salt Lake City, UT 84119

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

Compound	CAS Number	Reporting Limit	Analytical Result	Qual
2-Butanone	78-93-3	20.0	< 20.0	
Acetone	67-64-1	20.0	< 20.0	
Benzene	71-43-2	1.00	< 1.00	
Carbon tetrachloride	56-23-5	1.00	< 1.00	
Chloroform	67-66-3	1.00	< 1.00	
Chloromethane	74-87-3	1.00	< 1.00	
Methylene chloride	75-09-2	1.00	< 1.00	
Naphthalene	91-20-3	1.00	< 1.00	
Tetrahydrofuran	109-99-9	1.00	< 1.00	S
Toluene	108-88-3	1.00	< 1.00	
Xylenes, Total	1330-20-7	1.00	< 1.00	

Surrogate	Units: µg/L	CAS	Result	Amount Spiked	% REC	Limits	Qual
Surr: 1,2-Dichloroethane-d4		17060-07-0	56.1	50.00	112	72-151	
Surr: 4-Bromofluorobenzene		460-00-4	49.5	50.00	99.0	80-152	
Surr: Dibromofluoromethane		1868-53-7	48.4	50.00	96.8	72-135	
Surr: Toluene-d8		2037-26-5	51.4	50.00	103	80-124	

*S - High LCS recoveries indicate possible bias high. Data deemed acceptable as the analyte was not observed in the field sample.*

# GEL LABORATORIES LLC

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## Certificate of Analysis

Report Date: May 31, 2019

Company : Energy Fuels Resources (USA), Inc.  
Address : 225 Union Boulevard  
Suite 600  
Lakewood, Colorado 80228  
Contact: Ms. Kathy Weinel  
Project: White Mesa Mill GW

Client Sample ID: MW-15\_04302019 Project: DNMI00100  
Sample ID: 478290002 Client ID: DNMI001  
Matrix: Ground Water  
Collect Date: 30-APR-19 10:55  
Receive Date: 03-MAY-19  
Collector: Client

Parameter	Qualifier	Result	Uncertainty	MDC	RL	Units	PF	DF	Analyst	Date	Time Batch	Method
Rad Gas Flow Proportional Counting												
GFPC, Total Alpha Radium, Liquid "As Received"												
Gross Radium Alpha	U	1.00	+/-0.160	0.739	1.00	pCi/L			BXF1	05/25/19	0950 1878765	1

The following Analytical Methods were performed:

Method	Description	Analyst Comments
	EPA 903.0	

Surrogate/Tracer Recovery	Test	Result	Nominal	Recovery%	Acceptable Limits
Barium Carrier	GFPC, Total Alpha Radium, Liquid "As Received"			93	(25%-125%)

### Notes:

Counting Uncertainty is calculated at the 68% confidence level (1-sigma).

SRL = Sample Reporting Limit. For metals analysis only. When the sample is U qualified and ND, the SRL column reports the value which is the greater of either the adjusted MDL or the CRDL.

Column headers are defined as follows:

DF: Dilution Factor                      Lc/LC: Critical Level  
DL: Detection Limit                      PF: Prep Factor  
MDA: Minimum Detectable Activity      RL: Reporting Limit  
MDC: Minimum Detectable Concentration      SQL: Sample Quantitation Limit



# INORGANIC ANALYTICAL REPORT

**Client:** Energy Fuels Resources, Inc.  
**Project:** 2nd Quarter Groundwater 2019  
**Lab Sample ID:** 1904508-002  
**Client Sample ID:** MW-17\_04162019  
**Collection Date:** 4/16/2019 1240h  
**Received Date:** 4/19/2019 1045h

**Contact:** Tanner Holliday

## Analytical Results

## DISSOLVED METALS

Compound	Units	Date Prepared	Date Analyzed	Method Used	Reporting Limit	Analytical Result	Qual
Arsenic	mg/L	4/22/2019 1103h	4/30/2019 1844h	E200.8	0.00500	< 0.00500	
Beryllium	mg/L	4/22/2019 1103h	4/30/2019 1844h	E200.8	0.000500	< 0.000500	
Cadmium	mg/L	4/22/2019 1103h	4/30/2019 1844h	E200.8	0.000500	< 0.000500	
Calcium	mg/L	4/22/2019 1103h	5/1/2019 1320h	E200.7	20.0	<b>320</b>	
Chromium	mg/L	4/22/2019 1103h	4/30/2019 1844h	E200.8	0.0250	< 0.0250	
Cobalt	mg/L	4/22/2019 1103h	4/30/2019 1844h	E200.8	0.0100	< 0.0100	
Copper	mg/L	4/22/2019 1103h	4/30/2019 1844h	E200.8	0.0100	< 0.0100	
Iron	mg/L	4/22/2019 1103h	4/30/2019 1844h	E200.8	0.0300	< 0.0300	
Lead	mg/L	4/22/2019 1103h	4/30/2019 1844h	E200.8	0.00100	< 0.00100	
Magnesium	mg/L	4/22/2019 1103h	5/1/2019 1320h	E200.7	20.0	<b>158</b>	
Manganese	mg/L	4/22/2019 1103h	4/30/2019 1844h	E200.8	0.0100	<b>0.0473</b>	
Mercury	mg/L	4/25/2019 1745h	4/26/2019 852h	E245.1	0.000500	< 0.000500	
Molybdenum	mg/L	4/22/2019 1103h	4/30/2019 1844h	E200.8	0.0100	< 0.0100	
Nickel	mg/L	4/22/2019 1103h	4/30/2019 1844h	E200.8	0.0200	< 0.0200	
Potassium	mg/L	4/22/2019 1103h	5/1/2019 1407h	E200.7	1.00	<b>10.8</b>	
Selenium	mg/L	4/22/2019 1103h	4/30/2019 1844h	E200.8	0.00500	<b>0.0137</b>	
Silver	mg/L	4/22/2019 1103h	4/30/2019 1844h	E200.8	0.0100	< 0.0100	
Sodium	mg/L	4/22/2019 1103h	5/1/2019 1320h	E200.7	20.0	<b>519</b>	
Thallium	mg/L	4/22/2019 1103h	4/30/2019 1844h	E200.8	0.000500	< 0.000500	
Tin	mg/L	4/22/2019 1103h	4/30/2019 1844h	E200.8	0.100	< 0.100	
Uranium	mg/L	4/22/2019 1103h	4/30/2019 1844h	E200.8	0.000300	<b>0.0204</b>	
Vanadium	mg/L	4/22/2019 1103h	5/1/2019 1407h	E200.7	0.0150	< 0.0150	
Zinc	mg/L	4/22/2019 1103h	5/1/2019 1330h	E200.8	0.0100	< 0.0100	

3440 South 700 West  
 Salt Lake City, UT 84119  
  
 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



# INORGANIC ANALYTICAL REPORT

**Client:** Energy Fuels Resources, Inc.  
**Project:** 2nd Quarter Groundwater 2019  
**Lab Sample ID:** 1904508-002  
**Client Sample ID:** MW-17\_04162019  
**Collection Date:** 4/16/2019 1240h  
**Received Date:** 4/19/2019 1045h

**Contact:** Tanner Holliday

## Analytical Results

	Compound	Units	Date Prepared	Date Analyzed	Method Used	Reporting Limit	Analytical Result	Qual
3440 South 700 West	Ammonia (as N)	mg/L	4/30/2019 1150h	4/30/2019 1400h	E350.1	0.0500	< 0.0500	
Salt Lake City, UT 84119	Bicarbonate (as CaCO <sub>3</sub> )	mg/L		4/22/2019 720h	SM2320B	1.00	<b>360</b>	
	Carbonate (as CaCO <sub>3</sub> )	mg/L		4/22/2019 720h	SM2320B	1.00	< 1.00	
Phone: (801) 263-8686	Chloride	mg/L		5/1/2019 2030h	E300.0	1.00	<b>32.8</b>	
Toll Free: (888) 263-8686	Fluoride	mg/L		5/1/2019 2245h	E300.0	0.100	<b>0.222</b>	
Fax: (801) 263-8687	Ion Balance	%		5/1/2019 1538h	Calc.	-100	<b>12.1</b>	
e-mail: awal@awal-labs.com	Nitrate/Nitrite (as N)	mg/L		4/22/2019 1030h	E353.2	0.100	<b>1.21</b>	
	Sulfate	mg/L		5/1/2019 1057h	E300.0	150	<b>1,560</b>	
web: www.awal-labs.com	Total Anions, Measured	meq/L		5/1/2019 1538h	Calc.		<b>40.6</b>	
	Total Cations, Measured	meq/L		5/1/2019 1538h	Calc.		<b>51.8</b>	
	Total Dissolved Solids	mg/L		4/19/2019 1125h	SM2540C	20.0	<b>2,980</b>	
Kyle F. Gross Laboratory Director	Total Dissolved Solids Ratio, Measured/Calculated			5/1/2019 1538h	Calc.		<b>1.06</b>	
Jose Rocha QA Officer	Total Dissolved Solids, Calculated	mg/L		5/1/2019 1538h	Calc.		<b>2,820</b>	



# ORGANIC ANALYTICAL REPORT

**Client:** Energy Fuels Resources, Inc.  
**Project:** 2nd Quarter Groundwater 2019  
**Lab Sample ID:** 1904508-002A  
**Client Sample ID:** MW-17\_04162019  
**Collection Date:** 4/16/2019 1240h  
**Received Date:** 4/19/2019 1045h

**Contact:** Tanner Holliday

Test Code: 8260-W-DEN100

**Analytical Results**

VOAs by GC/MS Method 8260C/5030C

**Analyzed:** 4/22/2019 1217h

**Units:** µg/L

**Dilution Factor:** 1

**Method:** SW8260C

3440 South 700 West  
Salt Lake City, UT 84119

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

Compound	CAS Number	Reporting Limit	Analytical Result	Qual
2-Butanone	78-93-3	20.0	< 20.0	
Acetone	67-64-1	20.0	< 20.0	
Benzene	71-43-2	1.00	< 1.00	
Carbon tetrachloride	56-23-5	1.00	< 1.00	
Chloroform	67-66-3	1.00	< 1.00	
Chloromethane	74-87-3	1.00	< 1.00	
Methylene chloride	75-09-2	1.00	< 1.00	
Naphthalene	91-20-3	1.00	< 1.00	
Tetrahydrofuran	109-99-9	1.00	< 1.00	
Toluene	108-88-3	1.00	< 1.00	
Xylenes, Total	1330-20-7	1.00	< 1.00	

Jose Rocha

QA Officer

Surrogate	Units: µg/L	CAS	Result	Amount Spiked	% REC	Limits	Qual
Surr: 1,2-Dichloroethane-d4		17060-07-0	53.2	50.00	106	72-151	
Surr: 4-Bromofluorobenzene		460-00-4	52.0	50.00	104	80-152	
Surr: Dibromofluoromethane		1868-53-7	49.6	50.00	99.3	72-135	
Surr: Toluene-d8		2037-26-5	51.2	50.00	102	80-124	

# GEL LABORATORIES LLC

2040 Savage Road Charleston SC 29407 - (843) 556-8171 - www.gel.com

## Certificate of Analysis

Report Date: May 9, 2019

Company : Energy Fuels Resources (USA), Inc.  
Address : 225 Union Boulevard  
Suite 600  
Lakewood, Colorado 80228  
Contact: Ms. Kathy Weinel  
Project: White Mesa Mill GW

Client Sample ID: MW-17\_04162019  
Sample ID: 476962002  
Matrix: Ground Water  
Collect Date: 16-APR-19 12:40  
Receive Date: 19-APR-19  
Collector: Client

Project: DNMI00100  
Client ID: DNMI001

Parameter	Qualifier	Result	Uncertainty	MDC	RL	Units	PF	DF	Analyst	Date	Time	Batch	Method
Rad Gas Flow Proportional Counting													
GFPC, Total Alpha Radium, Liquid "As Received"													
Gross Radium Alpha	U	1.00	+/-0.213	0.531	1.00	pCi/L			LXB3	05/06/19	1634	1872063	1

The following Analytical Methods were performed:

Method	Description	Analyst	Comments
	EPA 903.0		

Surrogate/Tracer Recovery	Test	Result	Nominal	Recovery%	Acceptable Limits
Barium Carrier	GFPC, Total Alpha Radium, Liquid "As Received"			103	(25%-125%)

### Notes:

Counting Uncertainty is calculated at the 68% confidence level (1-sigma).

SRL = Sample Reporting Limit. For metals analysis only. When the sample is U qualified and ND, the SRL column reports the value which is the greater of either the adjusted MDL or the CRDL.

Column headers are defined as follows:

DF: Dilution Factor  
DL: Detection Limit  
MDA: Minimum Detectable Activity  
MDC: Minimum Detectable Concentration  
Lc/LC: Critical Level  
PF: Prep Factor  
RL: Reporting Limit  
SQL: Sample Quantitation Limit



# INORGANIC ANALYTICAL REPORT

**Client:** Energy Fuels Resources, Inc.  
**Project:** 2nd Quarter Groundwater 2019  
**Lab Sample ID:** 1904508-003  
**Client Sample ID:** MW-18\_04162019  
**Collection Date:** 4/16/2019 1425h  
**Received Date:** 4/19/2019 1045h

**Contact:** Tanner Holliday

## Analytical Results

## DISSOLVED METALS

Compound	Units	Date Prepared	Date Analyzed	Method Used	Reporting Limit	Analytical Result	Qual
Arsenic	mg/L	4/22/2019 1103h	4/30/2019 1847h	E200.8	0.00500	< 0.00500	
Beryllium	mg/L	4/22/2019 1103h	4/30/2019 1847h	E200.8	0.000500	< 0.000500	
Cadmium	mg/L	4/22/2019 1103h	4/30/2019 1847h	E200.8	0.000500	< 0.000500	
Calcium	mg/L	4/22/2019 1103h	5/1/2019 1322h	E200.7	20.0	<b>602</b>	
Chromium	mg/L	4/22/2019 1103h	4/30/2019 1847h	E200.8	0.0250	< 0.0250	
Cobalt	mg/L	4/22/2019 1103h	4/30/2019 1847h	E200.8	0.0100	< 0.0100	
Copper	mg/L	4/22/2019 1103h	4/30/2019 1847h	E200.8	0.0100	< 0.0100	
Iron	mg/L	4/22/2019 1103h	4/30/2019 1847h	E200.8	0.0300	<b>0.0416</b>	
Lead	mg/L	4/22/2019 1103h	4/30/2019 1847h	E200.8	0.00100	< 0.00100	
Magnesium	mg/L	4/22/2019 1103h	5/1/2019 1322h	E200.7	20.0	<b>140</b>	
Manganese	mg/L	4/22/2019 1103h	4/30/2019 1847h	E200.8	0.0100	<b>0.0698</b>	
Mercury	mg/L	4/25/2019 1745h	4/26/2019 854h	E245.1	0.000500	< 0.000500	
Molybdenum	mg/L	4/22/2019 1103h	4/30/2019 1847h	E200.8	0.0100	< 0.0100	
Nickel	mg/L	4/22/2019 1103h	4/30/2019 1847h	E200.8	0.0200	< 0.0200	
Potassium	mg/L	4/22/2019 1103h	5/1/2019 1409h	E200.7	1.00	<b>9.29</b>	
Selenium	mg/L	4/22/2019 1103h	4/30/2019 1847h	E200.8	0.00500	< 0.00500	
Silver	mg/L	4/22/2019 1103h	4/30/2019 1847h	E200.8	0.0100	< 0.0100	
Sodium	mg/L	4/22/2019 1103h	5/1/2019 1322h	E200.7	20.0	<b>204</b>	
Thallium	mg/L	4/22/2019 1103h	4/30/2019 1847h	E200.8	0.000500	<b>0.00224</b>	
Tin	mg/L	4/22/2019 1103h	4/30/2019 1847h	E200.8	0.100	< 0.100	
Uranium	mg/L	4/22/2019 1103h	4/30/2019 1847h	E200.8	0.000300	<b>0.0308</b>	
Vanadium	mg/L	4/22/2019 1103h	5/1/2019 1409h	E200.7	0.0150	< 0.0150	
Zinc	mg/L	4/22/2019 1103h	5/1/2019 1333h	E200.8	0.0100	< 0.0100	

3440 South 700 West

Salt Lake City, UT 84119

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



# INORGANIC ANALYTICAL REPORT

**Client:** Energy Fuels Resources, Inc.  
**Project:** 2nd Quarter Groundwater 2019  
**Lab Sample ID:** 1904508-003  
**Client Sample ID:** MW-18\_04162019  
**Collection Date:** 4/16/2019 1425h  
**Received Date:** 4/19/2019 1045h

**Contact:** Tanner Holliday

## Analytical Results

	<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>
3440 South 700 West	Ammonia (as N)	mg/L	4/30/2019 1150h	4/30/2019 1402h	E350.1	0.0500	< 0.0500	
Salt Lake City, UT 84119	Bicarbonate (as CaCO3)	mg/L		4/22/2019 720h	SM2320B	1.00	<b>378</b>	
Phone: (801) 263-8686	Carbonate (as CaCO3)	mg/L		4/22/2019 720h	SM2320B	1.00	< 1.00	
Toll Free: (888) 263-8686	Chloride	mg/L		5/1/2019 2047h	E300.0	1.00	<b>45.4</b>	
Fax: (801) 263-8687	Fluoride	mg/L		5/1/2019 2301h	E300.0	0.100	<b>0.152</b>	
e-mail: awal@awal-labs.com	Ion Balance	%		5/1/2019 1538h	Calc.	-100	<b>8.60</b>	
web: www.awal-labs.com	Nitrate/Nitrite (as N)	mg/L		4/22/2019 1102h	E353.2	0.100	< 0.100	
	Sulfate	mg/L		5/1/2019 1114h	E300.0	150	<b>1,620</b>	
	Total Anions, Measured	meq/L		5/1/2019 1538h	Calc.		<b>42.6</b>	
	Total Cations, Measured	meq/L		5/1/2019 1538h	Calc.		<b>50.6</b>	
Kyle F. Gross	Total Dissolved Solids	mg/L		4/19/2019 1125h	SM2540C	20.0	<b>3,060</b>	
Laboratory Director	Total Dissolved Solids Ratio, Measured/Calculated			5/1/2019 1538h	Calc.		<b>1.07</b>	
Jose Rocha	Total Dissolved Solids, Calculated	mg/L		5/1/2019 1538h	Calc.		<b>2,850</b>	
QA Officer								



# ORGANIC ANALYTICAL REPORT

**Client:** Energy Fuels Resources, Inc.  
**Project:** 2nd Quarter Groundwater 2019  
**Lab Sample ID:** 1904508-003A  
**Client Sample ID:** MW-18\_04162019  
**Collection Date:** 4/16/2019 1425h  
**Received Date:** 4/19/2019 1045h

**Contact:** Tanner Holliday

Test Code: 8260-W-DEN100

**Analytical Results**

VOAs by GC/MS Method 8260C/5030C

**Analyzed:** 4/22/2019 1237h

**Units:** µg/L

**Dilution Factor:** 1

**Method:** SW8260C

3440 South 700 West

Salt Lake City, UT 84119

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

Compound	CAS Number	Reporting Limit	Analytical Result	Qual
2-Butanone	78-93-3	20.0	< 20.0	
Acetone	67-64-1	20.0	< 20.0	
Benzene	71-43-2	1.00	< 1.00	
Carbon tetrachloride	56-23-5	1.00	< 1.00	
Chloroform	67-66-3	1.00	< 1.00	
Chloromethane	74-87-3	1.00	< 1.00	
Methylene chloride	75-09-2	1.00	< 1.00	
Naphthalene	91-20-3	1.00	< 1.00	
Tetrahydrofuran	109-99-9	1.00	< 1.00	
Toluene	108-88-3	1.00	< 1.00	
Xylenes, Total	1330-20-7	1.00	< 1.00	

Surrogate	Units: µg/L	CAS	Result	Amount Spiked	% REC	Limits	Qual
Surr: 1,2-Dichloroethane-d4		17060-07-0	53.7	50.00	107	72-151	
Surr: 4-Bromofluorobenzene		460-00-4	50.9	50.00	102	80-152	
Surr: Dibromofluoromethane		1868-53-7	49.8	50.00	99.5	72-135	
Surr: Toluene-d8		2037-26-5	50.9	50.00	102	80-124	

# GEL LABORATORIES LLC

2040 Savage Road Charleston SC 29407 - (843) 556-8171 - www.gel.com

## Certificate of Analysis

Report Date: May 9, 2019

Company : Energy Fuels Resources (USA), Inc.  
 Address : 225 Union Boulevard  
 Suite 600  
 Lakewood, Colorado 80228  
 Contact: Ms. Kathy Weinel  
 Project: White Mesa Mill GW

Client Sample ID: MW-18_04162019	Project: DNMI00100
Sample ID: 476962003	Client ID: DNMI001
Matrix: Ground Water	
Collect Date: 16-APR-19 14:25	
Receive Date: 19-APR-19	
Collector: Client	

Parameter	Qualifier	Result	Uncertainty	MDC	RL	Units	PF	DF	Analyst	Date	Time	Batch	Method
Rad Gas Flow Proportional Counting													
GFPC, Total Alpha Radium, Liquid "As Received"													
Gross Radium Alpha	U	1.00	+/-0.234	0.506	1.00	pCi/L			LXB3	05/06/19	1634	1872063	1

The following Analytical Methods were performed:

Method	Description	Analyst Comments											
	EPA 903.0												
Surrogate/Tracer Recovery	Test	Result	Nominal	Recovery%	Acceptable Limits								
Barium Carrier	GFPC, Total Alpha Radium, Liquid "As Received"			99.3	(25%-125%)								

**Notes:**

Counting Uncertainty is calculated at the 68% confidence level (1-sigma).

SRL = Sample Reporting Limit. For metals analysis only. When the sample is U qualified and ND, the SRL column reports the value which is the greater of either the adjusted MDL or the CRDL.

Column headers are defined as follows:

- |                                       |                                |
|---------------------------------------|--------------------------------|
| DF: Dilution Factor                   | Lc/LC: Critical Level          |
| DL: Detection Limit                   | PF: Prep Factor                |
| MDA: Minimum Detectable Activity      | RL: Reporting Limit            |
| MDC: Minimum Detectable Concentration | SQL: Sample Quantitation Limit |



# INORGANIC ANALYTICAL REPORT

**Client:** Energy Fuels Resources, Inc.  
**Project:** 2nd Quarter Groundwater 2019  
**Lab Sample ID:** 1904652-006  
**Client Sample ID:** MW-19\_04232019  
**Collection Date:** 4/23/2019 1500h  
**Received Date:** 4/26/2019 1010h

**Contact:** Tanner Holliday

**Analytical Results**

**DISSOLVED METALS**

3440 South 700 West  
 Salt Lake City, UT 84119  
  
 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

Compound	Units	Date Prepared	Date Analyzed	Method Used	Reporting Limit	Analytical Result	Qual
Arsenic	mg/L	4/29/2019 1036h	5/3/2019 1555h	E200.8	0.00500	< 0.00500	
Beryllium	mg/L	4/29/2019 1036h	5/8/2019 933h	E200.8	0.000500	< 0.000500	
Cadmium	mg/L	4/29/2019 1036h	5/3/2019 1555h	E200.8	0.000500	< 0.000500	
Calcium	mg/L	4/29/2019 1036h	5/9/2019 1453h	E200.7	20.0	<b>129</b>	
Chromium	mg/L	4/29/2019 1036h	5/8/2019 1212h	E200.8	0.0250	< 0.0250	
Cobalt	mg/L	4/29/2019 1036h	5/3/2019 1555h	E200.8	0.0100	< 0.0100	
Copper	mg/L	4/29/2019 1036h	5/3/2019 1555h	E200.8	0.0100	< 0.0100	
Iron	mg/L	4/29/2019 1036h	5/3/2019 1555h	E200.8	0.0300	< 0.0300	
Lead	mg/L	4/29/2019 1036h	5/8/2019 933h	E200.8	0.00100	< 0.00100	
Magnesium	mg/L	4/29/2019 1036h	5/9/2019 1453h	E200.7	20.0	<b>47.1</b>	
Manganese	mg/L	4/29/2019 1036h	5/3/2019 1555h	E200.8	0.0100	< 0.0100	
Mercury	mg/L	4/30/2019 1430h	5/1/2019 757h	E245.1	0.000500	< 0.000500	
Molybdenum	mg/L	4/29/2019 1036h	5/8/2019 1044h	E200.8	0.0100	< 0.0100	
Nickel	mg/L	4/29/2019 1036h	5/3/2019 1555h	E200.8	0.0200	< 0.0200	
Potassium	mg/L	4/29/2019 1036h	5/9/2019 1549h	E200.7	1.00	<b>4.63</b>	
Selenium	mg/L	4/29/2019 1036h	5/3/2019 1555h	E200.8	0.00500	<b>0.0135</b>	
Silver	mg/L	4/29/2019 1036h	5/3/2019 1555h	E200.8	0.0100	< 0.0100	
Sodium	mg/L	4/29/2019 1036h	5/9/2019 1453h	E200.7	20.0	<b>106</b>	
Thallium	mg/L	4/29/2019 1036h	5/8/2019 933h	E200.8	0.000500	< 0.000500	
Tin	mg/L	4/29/2019 1036h	5/8/2019 933h	E200.8	0.100	< 0.100	
Uranium	mg/L	4/29/2019 1036h	5/8/2019 933h	E200.8	0.000500	<b>0.00622</b>	
Vanadium	mg/L	4/29/2019 1036h	5/9/2019 1549h	E200.7	0.0150	< 0.0150	
Zinc	mg/L	4/29/2019 1036h	5/8/2019 1212h	E200.8	0.0100	< 0.0100	



# INORGANIC ANALYTICAL REPORT

**Client:** Energy Fuels Resources, Inc.  
**Project:** 2nd Quarter Groundwater 2019  
**Lab Sample ID:** 1904652-006  
**Client Sample ID:** MW-19\_04232019  
**Collection Date:** 4/23/2019 1500h  
**Received Date:** 4/26/2019 1010h

**Contact:** Tanner Holliday

## Analytical Results

Compound	Units	Date Prepared	Date Analyzed	Method Used	Reporting Limit	Analytical Result	Qual
Ammonia (as N)	mg/L	4/30/2019 1240h	4/30/2019 1448h	E350.1	0.0500	< 0.0500	
Bicarbonate (as CaCO3)	mg/L		4/30/2019 639h	SM2320B	1.00	<b>202</b>	
Carbonate (as CaCO3)	mg/L		4/30/2019 639h	SM2320B	1.00	< 1.00	
Chloride	mg/L		5/8/2019 1416h	E300.0	1.00	<b>29.9</b>	
Fluoride	mg/L		5/8/2019 1720h	E300.0	0.100	<b>1.02</b>	
Ion Balance	%		5/9/2019 1636h	Calc.	-100	<b>1.98</b>	
Nitrate/Nitrite (as N)	mg/L		4/29/2019 1635h	E353.2	0.100	<b>2.47</b>	
Sulfate	mg/L		5/8/2019 1129h	E300.0	75.0	<b>459</b>	
Total Anions, Measured	meq/L		5/9/2019 1636h	Calc.		<b>14.5</b>	
Total Cations, Measured	meq/L		5/9/2019 1636h	Calc.		<b>15.1</b>	
Total Dissolved Solids	mg/L		4/26/2019 1400h	SM2540C	20.0	<b>908</b>	
Total Dissolved Solids Ratio, Measured/Calculated			5/9/2019 1636h	Calc.		<b>1.01</b>	
Total Dissolved Solids, Calculated	mg/L		5/9/2019 1636h	Calc.		<b>899</b>	

3440 South 700 West

Salt Lake City, UT 84119

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



# ORGANIC ANALYTICAL REPORT

**Client:** Energy Fuels Resources, Inc.  
**Project:** 2nd Quarter Groundwater 2019  
**Lab Sample ID:** 1904652-006A  
**Client Sample ID:** MW-19\_04232019  
**Collection Date:** 4/23/2019 1500h  
**Received Date:** 4/26/2019 1010h

**Contact:** Tanner Holliday

Test Code: 8260-W-DEN100

## Analytical Results

VOAs by GC/MS Method 8260C/5030C

**Analyzed:** 4/26/2019 1846h

**Units:** µg/L

**Dilution Factor:** 1

**Method:** SW8260C

3440 South 700 West

Salt Lake City, UT 84119

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

Compound	CAS Number	Reporting Limit	Analytical Result	Qual
2-Butanone	78-93-3	20.0	< 20.0	
Acetone	67-64-1	20.0	< 20.0	
Benzene	71-43-2	1.00	< 1.00	
Carbon tetrachloride	56-23-5	1.00	< 1.00	
Chloroform	67-66-3	1.00	< 1.00	
Chloromethane	74-87-3	1.00	< 1.00	
Methylene chloride	75-09-2	1.00	< 1.00	
Naphthalene	91-20-3	1.00	< 1.00	
Tetrahydrofuran	109-99-9	1.00	< 1.00	
Toluene	108-88-3	1.00	< 1.00	
Xylenes, Total	1330-20-7	1.00	< 1.00	

Surrogate	Units: µg/L	CAS	Result	Amount Spiked	% REC	Limits	Qual
Surr: 1,2-Dichloroethane-d4		17060-07-0	54.9	50.00	110	72-151	
Surr: 4-Bromofluorobenzene		460-00-4	53.0	50.00	106	80-152	
Surr: Dibromofluoromethane		1868-53-7	49.4	50.00	98.8	72-135	
Surr: Toluene-d8		2037-26-5	50.1	50.00	100	80-124	

# GEL LABORATORIES LLC

2040 Savage Road Charleston SC 29407 - (843) 556-8171 - www.gel.com

## Certificate of Analysis

Report Date: May 13, 2019

Company : Energy Fuels Resources (USA), Inc.  
 Address : 225 Union Boulevard  
 Suite 600  
 Lakewood, Colorado 80228  
 Contact: Ms. Kathy Weinel  
 Project: White Mesa Mill GW

Client Sample ID: MW-19_04232019	Project: DNMI00100
Sample ID: 477632006	Client ID: DNMI001
Matrix: Ground Water	
Collect Date: 23-APR-19 15:00	
Receive Date: 26-APR-19	
Collector: Client	

Parameter	Qualifier	Result	Uncertainty	MDC	RL	Units	PF	DF	Analyst	Date	Time	Batch	Method
Rad Gas Flow Proportional Counting													
GFPC, Total Alpha Radium, Liquid "As Received"													
Gross Radium Alpha		1.35	+/-0.327	0.752	1.00	pCi/L			LXB3	05/06/19	1635	1872063	1

The following Analytical Methods were performed:

Method	Description	Analyst Comments											
	EPA 903.0												
Surrogate/Tracer Recovery	Test	Result	Nominal	Recovery%	Acceptable Limits								
Barium Carrier	GFPC, Total Alpha Radium, Liquid "As Received"			98.9	(25%-125%)								

**Notes:**

Counting Uncertainty is calculated at the 68% confidence level (1-sigma).

SRL = Sample Reporting Limit. For metals analysis only. When the sample is U qualified and ND, the SRL column reports the value which is the greater of either the adjusted MDL or the CRDL.

Column headers are defined as follows:

- |                                       |                                |
|---------------------------------------|--------------------------------|
| DF: Dilution Factor                   | Lc/LC: Critical Level          |
| DL: Detection Limit                   | PF: Prep Factor                |
| MDA: Minimum Detectable Activity      | RL: Reporting Limit            |
| MDC: Minimum Detectable Concentration | SQL: Sample Quantitation Limit |



# INORGANIC ANALYTICAL REPORT

**Client:** Energy Fuels Resources, Inc.  
**Project:** 2nd Quarter Groundwater 2019  
**Lab Sample ID:** 1905400-001  
**Client Sample ID:** MW-20\_05152019  
**Collection Date:** 5/15/2019 830h  
**Received Date:** 5/16/2019 1015h

**Contact:** Tanner Holliday

## Analytical Results

## DISSOLVED METALS

3440 South 700 West

Salt Lake City, UT 84119

Phone: (801) 263-8686

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web: www.awal-labs.com

Kyle F. Gross

Laboratory Director

Jose Rocha

QA Officer

Compound	Units	Date Prepared	Date Analyzed	Method Used	Reporting Limit	Analytical Result	Qual
Arsenic	mg/L	5/16/2019 1732h	5/22/2019 1753h	E200.8	0.00500	< 0.00500	
Beryllium	mg/L	5/16/2019 1732h	5/22/2019 1826h	E200.8	0.000500	< 0.000500	
Cadmium	mg/L	5/16/2019 1732h	5/22/2019 1753h	E200.8	0.000500	< 0.000500	
Calcium	mg/L	5/16/2019 1541h	5/29/2019 1353h	E200.7	50.0	<b>344</b>	<sup>1</sup>
Chromium	mg/L	5/16/2019 1732h	5/22/2019 1753h	E200.8	0.0250	< 0.0250	
Cobalt	mg/L	5/16/2019 1732h	5/22/2019 1753h	E200.8	0.0100	< 0.0100	
Copper	mg/L	5/16/2019 1732h	5/22/2019 1753h	E200.8	0.0100	< 0.0100	
Iron	mg/L	5/16/2019 1732h	5/22/2019 1826h	E200.8	0.0300	< 0.0300	
Lead	mg/L	5/16/2019 1732h	5/22/2019 1826h	E200.8	0.00100	< 0.00100	
Magnesium	mg/L	5/16/2019 1541h	5/29/2019 1410h	E200.7	1.00	<b>22.8</b>	
Manganese	mg/L	5/16/2019 1732h	5/22/2019 1753h	E200.8	0.0100	< 0.0100	
Mercury	mg/L	5/16/2019 1401h	5/17/2019 802h	E245.1	0.000500	< 0.000500	
Molybdenum	mg/L	5/16/2019 1732h	5/22/2019 1753h	E200.8	0.0100	<b>0.0184</b>	
Nickel	mg/L	5/16/2019 1732h	5/22/2019 1753h	E200.8	0.0200	< 0.0200	
Potassium	mg/L	5/16/2019 1541h	5/29/2019 1410h	E200.7	1.00	<b>26.8</b>	
Selenium	mg/L	5/16/2019 1732h	5/22/2019 1753h	E200.8	0.00500	< 0.00500	
Silver	mg/L	5/16/2019 1732h	5/22/2019 1753h	E200.8	0.0100	< 0.0100	
Sodium	mg/L	5/16/2019 1541h	5/29/2019 1353h	E200.7	50.0	<b>1,250</b>	<sup>2</sup>
Thallium	mg/L	5/16/2019 1732h	5/22/2019 1826h	E200.8	0.000500	< 0.000500	
Tin	mg/L	5/16/2019 1732h	5/22/2019 1753h	E200.8	0.100	< 0.100	
Uranium	mg/L	5/16/2019 1732h	5/22/2019 1845h	E200.8	0.000300	<b>0.00173</b>	
Vanadium	mg/L	5/16/2019 1541h	5/29/2019 1410h	E200.7	0.0150	< 0.0150	
Zinc	mg/L	5/16/2019 1732h	5/22/2019 1753h	E200.8	0.0100	< 0.0100	

<sup>1</sup> - Matrix spike recovery indicates matrix interference. The method is in control as indicated by the LCS.

<sup>2</sup> - Analyte concentration is too high for accurate matrix spike recovery and/or RPD.



# INORGANIC ANALYTICAL REPORT

**Client:** Energy Fuels Resources, Inc.  
**Project:** 2nd Quarter Groundwater 2019  
**Lab Sample ID:** 1905400-001  
**Client Sample ID:** MW-20\_05152019  
**Collection Date:** 5/15/2019 830h  
**Received Date:** 5/16/2019 1015h

**Contact:** Tanner Holliday

## Analytical Results

3440 South 700 West  
Salt Lake City, UT 84119

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

Compound	Units	Date Prepared	Date Analyzed	Method Used	Reporting Limit	Analytical Result	Qual
Ammonia (as N)	mg/L	5/22/2019 820h	5/22/2019 1212h	E350.1	0.0500	<b>0.102</b>	
Bicarbonate (as CaCO3)	mg/L		5/21/2019 736h	SM2320B	1.00	<b>68.0</b>	
Carbonate (as CaCO3)	mg/L		5/21/2019 736h	SM2320B	1.00	< 1.00	
Chloride	mg/L		5/23/2019 332h	E300.0	1.00	<b>66.3</b>	
Fluoride	mg/L		5/23/2019 546h	E300.0	0.100	<b>0.269</b>	
Ion Balance	%		5/29/2019 1516h	Calc.	-100	<b>9.36</b>	
Nitrate/Nitrite (as N)	mg/L		5/20/2019 1134h	E353.2	0.200	<b>8.06</b>	
Sulfate	mg/L		5/22/2019 2125h	E300.0	375	<b>2,790</b>	
Total Anions, Measured	meq/L		5/29/2019 1516h	Calc.		<b>61.5</b>	
Total Cations, Measured	meq/L		5/29/2019 1516h	Calc.		<b>74.2</b>	
Total Dissolved Solids	mg/L		5/16/2019 1050h	SM2540C	20.0	<b>4,220</b>	
Total Dissolved Solids Ratio, Measured/Calculated			5/29/2019 1516h	Calc.		<b>0.925</b>	
Total Dissolved Solids, Calculated	mg/L		5/29/2019 1516h	Calc.		<b>4,560</b>	



# ORGANIC ANALYTICAL REPORT

**Client:** Energy Fuels Resources, Inc.  
**Project:** 2nd Quarter Groundwater 2019  
**Lab Sample ID:** 1905400-001A  
**Client Sample ID:** MW-20\_05152019  
**Collection Date:** 5/15/2019 830h  
**Received Date:** 5/16/2019 1015h

**Contact:** Tanner Holliday

Test Code: 8260-W-DEN100

**Analytical Results**

VOAs by GC/MS Method 8260C/5030C

**Analyzed:** 5/16/2019 1329h

**Units:** µg/L

**Dilution Factor:** 1

**Method:** SW8260C

3440 South 700 West

Salt Lake City, UT 84119

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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

Compound	CAS Number	Reporting Limit	Analytical Result	Qual
2-Butanone	78-93-3	20.0	< 20.0	
Acetone	67-64-1	20.0	< 20.0	
Benzene	71-43-2	1.00	< 1.00	
Carbon tetrachloride	56-23-5	1.00	< 1.00	
Chloroform	67-66-3	1.00	< 1.00	
Chloromethane	74-87-3	1.00	< 1.00	
Methylene chloride	75-09-2	1.00	< 1.00	
Naphthalene	91-20-3	1.00	< 1.00	
Tetrahydrofuran	109-99-9	1.00	< 1.00	
Toluene	108-88-3	1.00	< 1.00	
Xylenes, Total	1330-20-7	1.00	< 1.00	

Surrogate	Units: µg/L	CAS	Result	Amount Spiked	% REC	Limits	Qual
Surr: 1,2-Dichloroethane-d4		17060-07-0	52.6	50.00	105	72-151	
Surr: 4-Bromofluorobenzene		460-00-4	56.2	50.00	112	80-152	
Surr: Dibromofluoromethane		1868-53-7	43.9	50.00	87.7	72-135	
Surr: Toluene-d8		2037-26-5	49.8	50.00	99.6	80-124	

# GEL LABORATORIES LLC

2040 Savage Road Charleston SC 29407 - (843) 556-8171 - www.gel.com

## Certificate of Analysis

Report Date: June 7, 2019

Company : Energy Fuels Resources (USA), Inc.  
Address : 225 Union Boulevard  
Suite 600  
Lakewood, Colorado 80228  
Contact: Ms. Kathy Weinel  
Project: White Mesa Mill GW

Client Sample ID: MW-20\_05152019 Project: DNMI00100  
Sample ID: 479531001 Client ID: DNMI001  
Matrix: Ground Water  
Collect Date: 15-MAY-19 08:30  
Receive Date: 17-MAY-19  
Collector: Client

Parameter	Qualifier	Result	Uncertainty	MDC	RL	Units	PF	DF	Analyst	Date	Time	Batch	Method
Rad Gas Flow Proportional Counting													
GFPC, Total Alpha Radium, Liquid "As Received"													
Gross Radium Alpha	U	1.00	+/-0.240	0.645	1.00	pCi/L			BXF1	05/25/19	0950	1878765	1

The following Analytical Methods were performed:

Method	Description	Analyst Comments
	EPA 903.0	

Surrogate/Tracer Recovery	Test	Result	Nominal	Recovery%	Acceptable Limits
Barium Carrier	GFPC, Total Alpha Radium, Liquid "As Received"			90.9	(25%-125%)

### Notes:

Counting Uncertainty is calculated at the 68% confidence level (1-sigma).

SRL = Sample Reporting Limit. For metals analysis only. When the sample is U qualified and ND, the SRL column reports the value which is the greater of either the adjusted MDL or the CRDL.

Column headers are defined as follows:

DF: Dilution Factor                      Lc/LC: Critical Level  
DL: Detection Limit                      PF: Prep Factor  
MDA: Minimum Detectable Activity      RL: Reporting Limit  
MDC: Minimum Detectable Concentration      SQL: Sample Quantitation Limit



# INORGANIC ANALYTICAL REPORT

**Client:** Energy Fuels Resources, Inc.  
**Project:** 2nd Quarter Groundwater 2019  
**Lab Sample ID:** 1905087-007  
**Client Sample ID:** MW-22\_04302019  
**Collection Date:** 4/30/2019 1210h  
**Received Date:** 5/3/2019 1005h

**Contact:** Tanner Holliday

## Analytical Results

## DISSOLVED METALS

Compound	Units	Date Prepared	Date Analyzed	Method Used	Reporting Limit	Analytical Result	Qual
Arsenic	mg/L	5/6/2019 1142h	5/14/2019 1636h	E200.8	0.00500	< 0.00500	
Beryllium	mg/L	5/6/2019 1142h	5/14/2019 1808h	E200.8	0.000500	<b>0.0118</b>	
Cadmium	mg/L	5/6/2019 1142h	5/14/2019 1636h	E200.8	0.000500	<b>0.151</b>	
Calcium	mg/L	5/6/2019 1142h	5/17/2019 1406h	E200.7	100	<b>468</b>	
Chromium	mg/L	5/6/2019 1142h	5/14/2019 1636h	E200.8	0.0250	< 0.0250	
Cobalt	mg/L	5/6/2019 1142h	5/14/2019 1636h	E200.8	0.0100	<b>0.479</b>	
Copper	mg/L	5/6/2019 1142h	5/14/2019 1636h	E200.8	0.0100	<b>0.102</b>	
Iron	mg/L	5/6/2019 1142h	5/14/2019 1808h	E200.8	0.0300	<b>0.0890</b>	
Lead	mg/L	5/6/2019 1142h	5/14/2019 1808h	E200.8	0.00100	<b>0.00294</b>	
Magnesium	mg/L	5/6/2019 1142h	5/17/2019 1406h	E200.7	100	<b>1,260</b>	
Manganese	mg/L	5/6/2019 1142h	5/14/2019 1653h	E200.8	0.0500	<b>44.2</b>	
Mercury	mg/L	5/6/2019 1530h	5/7/2019 751h	E245.1	0.000500	< 0.000500	
Molybdenum	mg/L	5/6/2019 1142h	5/14/2019 1636h	E200.8	0.0100	<b>0.273</b>	
Nickel	mg/L	5/6/2019 1142h	5/14/2019 1636h	E200.8	0.0200	<b>0.281</b>	
Potassium	mg/L	5/6/2019 1142h	5/17/2019 1517h	E200.7	1.00	<b>22.7</b>	
Selenium	mg/L	5/6/2019 1142h	5/14/2019 1636h	E200.8	0.00500	<b>0.0156</b>	
Silver	mg/L	5/6/2019 1142h	5/14/2019 1636h	E200.8	0.0100	< 0.0100	
Sodium	mg/L	5/6/2019 1142h	5/17/2019 1306h	E200.7	100	<b>309</b>	
Thallium	mg/L	5/6/2019 1142h	5/14/2019 1808h	E200.8	0.000500	<b>0.00156</b>	
Tin	mg/L	5/6/2019 1142h	5/14/2019 1636h	E200.8	0.100	< 0.100	
Uranium	mg/L	5/6/2019 1142h	5/14/2019 1808h	E200.8	0.000500	<b>0.0196</b>	
Vanadium	mg/L	5/6/2019 1142h	5/17/2019 1517h	E200.7	0.0150	< 0.0150	
Zinc	mg/L	5/6/2019 1142h	5/14/2019 1636h	E200.8	0.0100	<b>1.32</b>	

3440 South 700 West

Salt Lake City, UT 84119

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Toll Free: (888) 263-8686

Fax: (801) 263-8687

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web: www.awal-labs.com

Kyle F. Gross

Laboratory Director

Jose Rocha

QA Officer



# INORGANIC ANALYTICAL REPORT

**Client:** Energy Fuels Resources, Inc.  
**Project:** 2nd Quarter Groundwater 2019  
**Lab Sample ID:** 1905087-007  
**Client Sample ID:** MW-22\_04302019  
**Collection Date:** 4/30/2019 1210h  
**Received Date:** 5/3/2019 1005h

**Contact:** Tanner Holliday

## Analytical Results

3440 South 700 West Salt Lake City, UT 84119	<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>
	Ammonia (as N)	mg/L	5/10/2019 1650h	5/10/2019 1906h	E350.1	0.0500	<b>0.807</b>	
	Bicarbonate (as CaCO <sub>3</sub> )	mg/L		5/6/2019 820h	SM2320B	1.00	< 1.00	
	Carbonate (as CaCO <sub>3</sub> )	mg/L		5/6/2019 820h	SM2320B	1.00	< 1.00	
Phone: (801) 263-8686	Chloride	mg/L		5/11/2019 228h	E300.0	1.00	<b>53.4</b>	
Toll Free: (888) 263-8686	Fluoride	mg/L		5/11/2019 228h	E300.0	1.00	<b>13.1</b>	
Fax: (801) 263-8687	Ion Balance	%		5/17/2019 1612h	Calc.	-100	<b>7.99</b>	
e-mail: awal@awal-labs.com	Nitrate/Nitrite (as N)	mg/L		5/3/2019 1538h	E353.2	0.100	<b>2.38</b>	
	Sulfate	mg/L		5/10/2019 1623h	E300.0	750	<b>5,700</b>	
web: www.awal-labs.com	Total Anions, Measured	meq/L		5/17/2019 1612h	Calc.		<b>120</b>	
	Total Cations, Measured	meq/L		5/17/2019 1612h	Calc.		<b>141</b>	
Kyle F. Gross	Total Dissolved Solids	mg/L		5/3/2019 1310h	SM2540C	20.0	<b>7,950</b>	
Laboratory Director	Total Dissolved Solids Ratio, Measured/Calculated			5/17/2019 1612h	Calc.		<b>1.02</b>	
Jose Rocha	Total Dissolved Solids, Calculated	mg/L		5/17/2019 1612h	Calc.		<b>7,810</b>	
QA Officer								



# ORGANIC ANALYTICAL REPORT

**Client:** Energy Fuels Resources, Inc.  
**Project:** 2nd Quarter Groundwater 2019  
**Lab Sample ID:** 1905087-007A  
**Client Sample ID:** MW-22\_04302019  
**Collection Date:** 4/30/2019 1210h  
**Received Date:** 5/3/2019 1005h

**Contact:** Tanner Holliday

Test Code: 8260-W-DEN100

## Analytical Results

VOAs by GC/MS Method 8260C/5030C

**Analyzed:** 5/4/2019 1347h

**Units:** µg/L

**Dilution Factor:** 1

**Method:** SW8260C

3440 South 700 West

Salt Lake City, UT 84119

Phone: (801) 263-8686

Toll Free: (888) 263-8686

Fax: (801) 263-8687

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web: www.awal-labs.com

Kyle F. Gross

Laboratory Director

Jose Rocha

QA Officer

Compound	CAS Number	Reporting Limit	Analytical Result	Qual
2-Butanone	78-93-3	20.0	< 20.0	
Acetone	67-64-1	20.0	< 20.0	
Benzene	71-43-2	1.00	< 1.00	
Carbon tetrachloride	56-23-5	1.00	< 1.00	
Chloroform	67-66-3	1.00	< 1.00	
Chloromethane	74-87-3	1.00	< 1.00	
Methylene chloride	75-09-2	1.00	< 1.00	
Naphthalene	91-20-3	1.00	< 1.00	
Tetrahydrofuran	109-99-9	1.00	< 1.00	S
Toluene	108-88-3	1.00	< 1.00	
Xylenes, Total	1330-20-7	1.00	< 1.00	

Surrogate	Units: µg/L	CAS	Result	Amount Spiked	% REC	Limits	Qual
Surr: 1,2-Dichloroethane-d4		17060-07-0	54.0	50.00	108	72-151	
Surr: 4-Bromofluorobenzene		460-00-4	48.3	50.00	96.6	80-152	
Surr: Dibromofluoromethane		1868-53-7	46.1	50.00	92.2	72-135	
Surr: Toluene-d8		2037-26-5	47.3	50.00	94.6	80-124	

*S - High LCS recoveries indicate possible bias high. Data deemed acceptable as the analyte was not observed in the field sample.*

# GEL LABORATORIES LLC

2040 Savage Road Charleston SC 29407 - (843) 556-8171 - www.gel.com

## Certificate of Analysis

Report Date: May 31, 2019

Company : Energy Fuels Resources (USA), Inc.  
Address : 225 Union Boulevard  
Suite 600  
Lakewood, Colorado 80228  
Contact: Ms. Kathy Weinel  
Project: White Mesa Mill GW

Client Sample ID: MW-22\_04302019  
Sample ID: 478290007  
Matrix: Ground Water  
Collect Date: 30-APR-19 12:10  
Receive Date: 03-MAY-19  
Collector: Client

Project: DNMI00100  
Client ID: DNMI001

Parameter	Qualifier	Result	Uncertainty	MDC	RL	Units	PF	DF	Analyst	Date	Time	Batch	Method
Rad Gas Flow Proportional Counting													
GFPC, Total Alpha Radium, Liquid "As Received"													
Gross Radium Alpha		2.78	+/-0.685	1.39	1.00	pCi/L			BXF1	05/25/19	0950	1878765	1

The following Analytical Methods were performed:

Method	Description	Analyst Comments
	EPA 903.0	

Surrogate/Tracer Recovery	Test	Result	Nominal	Recovery%	Acceptable Limits
Barium Carrier	GFPC, Total Alpha Radium, Liquid "As Received"			91.9	(25%-125%)

### Notes:

Counting Uncertainty is calculated at the 68% confidence level (1-sigma).

SRL = Sample Reporting Limit. For metals analysis only. When the sample is U qualified and ND, the SRL column reports the value which is the greater of either the adjusted MDL or the CRDL.

Column headers are defined as follows:

DF: Dilution Factor                      Lc/LC: Critical Level  
DL: Detection Limit                      PF: Prep Factor  
MDA: Minimum Detectable Activity      RL: Reporting Limit  
MDC: Minimum Detectable Concentration      SQL: Sample Quantitation Limit



# INORGANIC ANALYTICAL REPORT

**Client:** Energy Fuels Resources, Inc.  
**Project:** 2nd Quarter Groundwater 2019  
**Lab Sample ID:** 1905400-002  
**Client Sample ID:** MW-23\_05152019  
**Collection Date:** 5/15/2019 740h  
**Received Date:** 5/16/2019 1015h

**Contact:** Tanner Holliday

## Analytical Results

## DISSOLVED METALS

3440 South 700 West  
Salt Lake City, UT 84119

Phone: (801) 263-8686  
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web: www.awal-labs.com

Kyle F. Gross  
Laboratory Director

Jose Rocha  
QA Officer

Compound	Units	Date Prepared	Date Analyzed	Method Used	Reporting Limit	Analytical Result	Qual
Arsenic	mg/L	5/16/2019 1732h	5/22/2019 1808h	E200.8	0.00500	< 0.00500	
Beryllium	mg/L	5/16/2019 1732h	5/22/2019 1829h	E200.8	0.000500	< 0.000500	
Cadmium	mg/L	5/16/2019 1732h	5/22/2019 1808h	E200.8	0.000500	< 0.000500	
Calcium	mg/L	5/16/2019 1541h	5/29/2019 1400h	E200.7	50.0	<b>491</b>	
Chromium	mg/L	5/16/2019 1732h	5/22/2019 1808h	E200.8	0.0250	< 0.0250	
Cobalt	mg/L	5/16/2019 1732h	5/22/2019 1808h	E200.8	0.0100	< 0.0100	
Copper	mg/L	5/16/2019 1732h	5/22/2019 1808h	E200.8	0.0100	< 0.0100	
Iron	mg/L	5/16/2019 1732h	5/22/2019 1829h	E200.8	0.0300	< 0.0300	
Lead	mg/L	5/16/2019 1732h	5/22/2019 1829h	E200.8	0.00100	< 0.00100	
Magnesium	mg/L	5/16/2019 1541h	5/29/2019 1400h	E200.7	50.0	<b>170</b>	
Manganese	mg/L	5/16/2019 1732h	5/22/2019 1808h	E200.8	0.0100	< 0.0100	
Mercury	mg/L	5/16/2019 1401h	5/17/2019 808h	E245.1	0.000500	< 0.000500	
Molybdenum	mg/L	5/16/2019 1732h	5/22/2019 1808h	E200.8	0.0100	< 0.0100	
Nickel	mg/L	5/16/2019 1732h	5/22/2019 1808h	E200.8	0.0200	< 0.0200	
Potassium	mg/L	5/16/2019 1541h	5/29/2019 1421h	E200.7	1.00	<b>10.9</b>	
Selenium	mg/L	5/16/2019 1732h	5/22/2019 1808h	E200.8	0.00500	< 0.00500	
Silver	mg/L	5/16/2019 1732h	5/22/2019 1808h	E200.8	0.0100	< 0.0100	
Sodium	mg/L	5/16/2019 1541h	5/29/2019 1400h	E200.7	50.0	<b>422</b>	
Thallium	mg/L	5/16/2019 1732h	5/22/2019 1829h	E200.8	0.000500	< 0.000500	
Tin	mg/L	5/16/2019 1732h	5/22/2019 1808h	E200.8	0.100	< 0.100	
Uranium	mg/L	5/16/2019 1732h	5/22/2019 1848h	E200.8	0.000300	<b>0.00774</b>	
Vanadium	mg/L	5/16/2019 1541h	5/29/2019 1421h	E200.7	0.0150	< 0.0150	
Zinc	mg/L	5/16/2019 1732h	5/22/2019 1808h	E200.8	0.0100	< 0.0100	



# INORGANIC ANALYTICAL REPORT

**Client:** Energy Fuels Resources, Inc.  
**Project:** 2nd Quarter Groundwater 2019  
**Lab Sample ID:** 1905400-002  
**Client Sample ID:** MW-23\_05152019  
**Collection Date:** 5/15/2019 740h  
**Received Date:** 5/16/2019 1015h

**Contact:** Tanner Holliday

## Analytical Results

Compound	Units	Date Prepared	Date Analyzed	Method Used	Reporting Limit	Analytical Result	Qual
Ammonia (as N)	mg/L	5/22/2019 820h	5/22/2019 1215h	E350.1	0.0500	< 0.0500	
Bicarbonate (as CaCO3)	mg/L		5/21/2019 736h	SM2320B	1.00	<b>280</b>	
Carbonate (as CaCO3)	mg/L		5/21/2019 736h	SM2320B	1.00	< 1.00	
Chloride	mg/L		5/23/2019 349h	E300.0	1.00	<b>7.97</b>	
Fluoride	mg/L		5/23/2019 602h	E300.0	0.100	<b>0.211</b>	
Ion Balance	%		5/29/2019 1516h	Calc.	-100	<b>8.16</b>	
Nitrate/Nitrite (as N)	mg/L		5/20/2019 1138h	E353.2	0.100	<b>0.175</b>	
Sulfate	mg/L		5/22/2019 2215h	E300.0	150	<b>2,050</b>	
Total Anions, Measured	meq/L		5/29/2019 1516h	Calc.		<b>48.5</b>	
Total Cations, Measured	meq/L		5/29/2019 1516h	Calc.		<b>57.2</b>	
Total Dissolved Solids	mg/L		5/16/2019 1050h	SM2540C	20.0	<b>3,300</b>	
Total Dissolved Solids Ratio, Measured/Calculated			5/29/2019 1516h	Calc.		<b>0.993</b>	
Total Dissolved Solids, Calculated	mg/L		5/29/2019 1516h	Calc.		<b>3,320</b>	

3440 South 700 West  
Salt Lake City, UT 84119

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



# ORGANIC ANALYTICAL REPORT

**Client:** Energy Fuels Resources, Inc.  
**Project:** 2nd Quarter Groundwater 2019  
**Lab Sample ID:** 1905400-002A  
**Client Sample ID:** MW-23\_05152019  
**Collection Date:** 5/15/2019 740h  
**Received Date:** 5/16/2019 1015h

**Contact:** Tanner Holliday

Test Code: 8260-W-DEN100

## Analytical Results

VOAs by GC/MS Method 8260C/5030C

**Analyzed:** 5/16/2019 1349h

**Units:** µg/L

**Dilution Factor:** 1

**Method:** SW8260C

3440 South 700 West

Salt Lake City, UT 84119

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

Compound	CAS Number	Reporting Limit	Analytical Result	Qual
2-Butanone	78-93-3	20.0	< 20.0	
Acetone	67-64-1	20.0	< 20.0	
Benzene	71-43-2	1.00	< 1.00	
Carbon tetrachloride	56-23-5	1.00	< 1.00	
Chloroform	67-66-3	1.00	< 1.00	
Chloromethane	74-87-3	1.00	< 1.00	
Methylene chloride	75-09-2	1.00	< 1.00	
Naphthalene	91-20-3	1.00	< 1.00	
Tetrahydrofuran	109-99-9	1.00	< 1.00	
Toluene	108-88-3	1.00	< 1.00	
Xylenes, Total	1330-20-7	1.00	< 1.00	

Surrogate	Units: µg/L	CAS	Result	Amount Spiked	% REC	Limits	Qual
Surr: 1,2-Dichloroethane-d4		17060-07-0	52.8	50.00	106	72-151	
Surr: 4-Bromofluorobenzene		460-00-4	56.9	50.00	114	80-152	
Surr: Dibromofluoromethane		1868-53-7	44.4	50.00	88.7	72-135	
Surr: Toluene-d8		2037-26-5	50.0	50.00	100	80-124	

# GEL LABORATORIES LLC

2040 Savage Road Charleston SC 29407 - (843) 556-8171 - www.gel.com

## Certificate of Analysis

Report Date: June 7, 2019

Company : Energy Fuels Resources (USA), Inc.  
Address : 225 Union Boulevard  
Suite 600  
Lakewood, Colorado 80228  
Contact: Ms. Kathy Weinel  
Project: White Mesa Mill GW

Client Sample ID: MW-23\_05152019 Project: DNMI00100  
Sample ID: 479531002 Client ID: DNMI001  
Matrix: Ground Water  
Collect Date: 15-MAY-19 07:40  
Receive Date: 17-MAY-19  
Collector: Client

Parameter	Qualifier	Result	Uncertainty	MDC	RL	Units	PF	DF	Analyst	Date	Time	Batch	Method
Rad Gas Flow Proportional Counting													
GFPC, Total Alpha Radium, Liquid "As Received"													
Gross Radium Alpha		1.35	+/-0.337	0.687	1.00	pCi/L			BXF1	05/25/19	0951	1878765	1

The following Analytical Methods were performed:

Method	Description	Analyst Comments			
	EPA 903.0				
Surrogate/Tracer Recovery	Test	Result	Nominal	Recovery%	Acceptable Limits
Barium Carrier	GFPC, Total Alpha Radium, Liquid "As Received"			90.9	(25%-125%)

### Notes:

Counting Uncertainty is calculated at the 68% confidence level (1-sigma).

SRL = Sample Reporting Limit. For metals analysis only. When the sample is U qualified and ND, the SRL column reports the value which is the greater of either the adjusted MDL or the CRDL.

Column headers are defined as follows:

DF: Dilution Factor  
DL: Detection Limit  
MDA: Minimum Detectable Activity  
MDC: Minimum Detectable Concentration  
Lc/LC: Critical Level  
PF: Prep Factor  
RL: Reporting Limit  
SQL: Sample Quantitation Limit



# INORGANIC ANALYTICAL REPORT

**Client:** Energy Fuels Resources, Inc.  
**Project:** 2nd Quarter Groundwater 2019  
**Lab Sample ID:** 1905087-003  
**Client Sample ID:** MW-24\_05022019  
**Collection Date:** 5/2/2019 700h  
**Received Date:** 5/3/2019 1005h

**Contact:** Tanner Holliday

## Analytical Results

## DISSOLVED METALS

3440 South 700 West  
 Salt Lake City, UT 84119  
  
 Phone: (801) 263-8686  
 Toll Free: (888) 263-8686  
 Fax: (801) 263-8687  
 e-mail: awal@awal-labs.com  
  
 web: www.awal-labs.com

Compound	Units	Date Prepared	Date Analyzed	Method Used	Reporting Limit	Analytical Result	Qual
Arsenic	mg/L	5/6/2019 1142h	5/14/2019 1624h	E200.8	0.00500	< 0.00500	
Beryllium	mg/L	5/6/2019 1142h	5/14/2019 1743h	E200.8	0.000500	<b>0.00283</b>	
Cadmium	mg/L	5/6/2019 1142h	5/14/2019 1624h	E200.8	0.000500	<b>0.00824</b>	
Calcium	mg/L	5/6/2019 1142h	5/17/2019 1251h	E200.7	20.0	<b>564</b>	
Chromium	mg/L	5/6/2019 1142h	5/14/2019 1624h	E200.8	0.0250	< 0.0250	
Cobalt	mg/L	5/6/2019 1142h	5/14/2019 1624h	E200.8	0.0100	<b>0.120</b>	
Copper	mg/L	5/6/2019 1142h	5/14/2019 1624h	E200.8	0.0100	<b>0.0151</b>	
Iron	mg/L	5/6/2019 1142h	5/14/2019 1743h	E200.8	0.0300	<b>0.0716</b>	
Lead	mg/L	5/6/2019 1142h	5/14/2019 1743h	E200.8	0.00100	<b>0.00261</b>	
Magnesium	mg/L	5/6/2019 1142h	5/17/2019 1251h	E200.7	20.0	<b>219</b>	
Manganese	mg/L	5/6/2019 1142h	5/14/2019 1647h	E200.8	0.0100	<b>7.02</b>	
Mercury	mg/L	5/6/2019 1530h	5/7/2019 739h	E245.1	0.000500	< 0.000500	
Molybdenum	mg/L	5/6/2019 1142h	5/14/2019 1624h	E200.8	0.0100	< 0.0100	
Nickel	mg/L	5/6/2019 1142h	5/14/2019 1624h	E200.8	0.0200	<b>0.0639</b>	
Potassium	mg/L	5/6/2019 1142h	5/17/2019 1500h	E200.7	1.00	<b>13.6</b>	
Selenium	mg/L	5/6/2019 1142h	5/14/2019 1624h	E200.8	0.00500	<b>0.00584</b>	
Silver	mg/L	5/6/2019 1142h	5/14/2019 1624h	E200.8	0.0100	< 0.0100	
Sodium	mg/L	5/6/2019 1142h	5/17/2019 1251h	E200.7	20.0	<b>535</b>	
Thallium	mg/L	5/6/2019 1142h	5/14/2019 1743h	E200.8	0.000500	<b>0.00273</b>	
Tin	mg/L	5/6/2019 1142h	5/14/2019 1624h	E200.8	0.100	< 0.100	
Uranium	mg/L	5/6/2019 1142h	5/14/2019 1851h	E200.8	0.000300	<b>0.00532</b>	
Vanadium	mg/L	5/6/2019 1142h	5/17/2019 1500h	E200.7	0.0150	< 0.0150	
Zinc	mg/L	5/6/2019 1142h	5/14/2019 1624h	E200.8	0.0100	<b>0.137</b>	

Kyle F. Gross  
 Laboratory Director

Jose Rocha  
 QA Officer



# INORGANIC ANALYTICAL REPORT

**Client:** Energy Fuels Resources, Inc.  
**Project:** 2nd Quarter Groundwater 2019  
**Lab Sample ID:** 1905087-003  
**Client Sample ID:** MW-24\_05022019  
**Collection Date:** 5/2/2019 700h  
**Received Date:** 5/3/2019 1005h

**Contact:** Tanner Holliday

## Analytical Results

Compound	Units	Date Prepared	Date Analyzed	Method Used	Reporting Limit	Analytical Result	Qual
Ammonia (as N)	mg/L	5/10/2019 1650h	5/10/2019 1902h	E350.1	0.0500	<b>0.124</b>	
Bicarbonate (as CaCO3)	mg/L		5/6/2019 820h	SM2320B	1.00	< 1.00	
Carbonate (as CaCO3)	mg/L		5/6/2019 820h	SM2320B	1.00	< 1.00	
Chloride	mg/L		5/11/2019 120h	E300.0	1.00	<b>46.3</b>	
Fluoride	mg/L		5/11/2019 427h	E300.0	0.100	<b>0.839</b>	
Ion Balance	%		5/17/2019 1612h	Calc.	-100	<b>7.99</b>	
Nitrate/Nitrite (as N)	mg/L		5/3/2019 1533h	E353.2	0.100	<b>0.177</b>	
Sulfate	mg/L		5/10/2019 1853h	E300.0	300	<b>2,790</b>	
Total Anions, Measured	meq/L		5/17/2019 1612h	Calc.		<b>59.5</b>	
Total Cations, Measured	meq/L		5/17/2019 1612h	Calc.		<b>69.8</b>	
Total Dissolved Solids	mg/L		5/3/2019 1310h	SM2540C	20.0	<b>4,270</b>	
Total Dissolved Solids Ratio, Measured/Calculated			5/17/2019 1612h	Calc.		<b>1.02</b>	
Total Dissolved Solids, Calculated	mg/L		5/17/2019 1612h	Calc.		<b>4,170</b>	

3440 South 700 West

Salt Lake City, UT 84119

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



# ORGANIC ANALYTICAL REPORT

**Client:** Energy Fuels Resources, Inc.  
**Project:** 2nd Quarter Groundwater 2019  
**Lab Sample ID:** 1905087-003A  
**Client Sample ID:** MW-24\_05022019  
**Collection Date:** 5/2/2019 700h  
**Received Date:** 5/3/2019 1005h

**Contact:** Tanner Holliday

Test Code: 8260-W-DEN100

## Analytical Results

VOAs by GC/MS Method 8260C/5030C

**Analyzed:** 5/4/2019 1226h

**Units:** µg/L

**Dilution Factor:** 1

**Method:** SW8260C

3440 South 700 West

Salt Lake City, UT 84119

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

Compound	CAS Number	Reporting Limit	Analytical Result	Qual
2-Butanone	78-93-3	20.0	< 20.0	
Acetone	67-64-1	20.0	< 20.0	
Benzene	71-43-2	1.00	< 1.00	
Carbon tetrachloride	56-23-5	1.00	< 1.00	
Chloroform	67-66-3	1.00	< 1.00	
Chloromethane	74-87-3	1.00	< 1.00	
Methylene chloride	75-09-2	1.00	< 1.00	
Naphthalene	91-20-3	1.00	< 1.00	
Tetrahydrofuran	109-99-9	1.00	< 1.00	S
Toluene	108-88-3	1.00	< 1.00	
Xylenes, Total	1330-20-7	1.00	< 1.00	

Surrogate	Units: µg/L	CAS	Result	Amount Spiked	% REC	Limits	Qual
Surr: 1,2-Dichloroethane-d4		17060-07-0	57.6	50.00	115	72-151	
Surr: 4-Bromofluorobenzene		460-00-4	52.2	50.00	104	80-152	
Surr: Dibromofluoromethane		1868-53-7	49.4	50.00	98.7	72-135	
Surr: Toluene-d8		2037-26-5	51.8	50.00	104	80-124	

*S - High LCS recoveries indicate possible bias high. Data deemed acceptable as the analyte was not observed in the field sample.*

# GEL LABORATORIES LLC

2040 Savage Road Charleston SC 29407 - (843) 556-8171 - www.gel.com

## Certificate of Analysis

Report Date: May 31, 2019

Company : Energy Fuels Resources (USA), Inc.  
Address : 225 Union Boulevard  
Suite 600  
Lakewood, Colorado 80228  
Contact: Ms. Kathy Weinel  
Project: White Mesa Mill GW

Client Sample ID: MW-24\_05022019 Project: DNMI00100  
Sample ID: 478290003 Client ID: DNMI001  
Matrix: Ground Water  
Collect Date: 02-MAY-19 07:00  
Receive Date: 03-MAY-19  
Collector: Client

Parameter	Qualifier	Result	Uncertainty	MDC	RL	Units	PF	DF	Analyst	Date	Time	Batch	Method
Rad Gas Flow Proportional Counting													
GFPC, Total Alpha Radium, Liquid "As Received"													
Gross Radium Alpha		3.32	+/-0.507	0.671	1.00	pCi/L			BXF1	05/25/19	0950	1878765	1

The following Analytical Methods were performed:

Method	Description	Analyst Comments
	EPA 903.0	

Surrogate/Tracer Recovery	Test	Result	Nominal	Recovery%	Acceptable Limits
Barium Carrier	GFPC, Total Alpha Radium, Liquid "As Received"			89.5	(25%-125%)

### Notes:

Counting Uncertainty is calculated at the 68% confidence level (1-sigma).

SRL = Sample Reporting Limit. For metals analysis only. When the sample is U qualified and ND, the SRL column reports the value which is the greater of either the adjusted MDL or the CRDL.

Column headers are defined as follows:

DF: Dilution Factor  
DL: Detection Limit  
MDA: Minimum Detectable Activity  
MDC: Minimum Detectable Concentration  
Lc/LC: Critical Level  
PF: Prep Factor  
RL: Reporting Limit  
SQL: Sample Quantitation Limit



# INORGANIC ANALYTICAL REPORT

**Client:** Energy Fuels Resources, Inc.  
**Project:** 2nd Quarter Groundwater 2019  
**Lab Sample ID:** 1904300-001  
**Client Sample ID:** MW-25\_04102019  
**Collection Date:** 4/10/2019 1110h  
**Received Date:** 4/11/2019 847h

**Contact:** Tanner Holliday

## Analytical Results

## DISSOLVED METALS

3440 South 700 West  
 Salt Lake City, UT 84119  
  
 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

Compound	Units	Date Prepared	Date Analyzed	Method Used	Reporting Limit	Analytical Result	Qual
Arsenic	mg/L	4/17/2019 937h	4/22/2019 1745h	E200.8	0.00500	< 0.00500	
Beryllium	mg/L	4/17/2019 937h	4/22/2019 1745h	E200.8	0.000500	< 0.000500	
Cadmium	mg/L	4/17/2019 937h	4/22/2019 1745h	E200.8	0.000500	<b>0.00130</b>	
Calcium	mg/L	4/17/2019 937h	4/23/2019 1353h	E200.7	20.0	<b>364</b>	2
Chromium	mg/L	4/17/2019 937h	4/24/2019 1027h	E200.8	0.0250	< 0.0250	
Cobalt	mg/L	4/17/2019 937h	4/22/2019 1745h	E200.8	0.0100	< 0.0100	
Copper	mg/L	4/17/2019 937h	4/24/2019 1027h	E200.8	0.0100	< 0.0100	
Iron	mg/L	4/17/2019 937h	4/22/2019 1745h	E200.8	0.0300	< 0.0300	
Lead	mg/L	4/17/2019 937h	4/22/2019 1745h	E200.8	0.00100	< 0.00100	
Magnesium	mg/L	4/17/2019 937h	4/23/2019 1617h	E200.7	20.0	<b>115</b>	2
Manganese	mg/L	4/17/2019 937h	4/23/2019 1649h	E200.8	0.0100	<b>1.50</b>	2
Mercury	mg/L	4/16/2019 1530h	4/17/2019 844h	E245.1	0.000500	< 0.000500	
Molybdenum	mg/L	4/17/2019 937h	4/22/2019 1745h	E200.8	0.0100	<b>0.0163</b>	
Nickel	mg/L	4/17/2019 937h	4/22/2019 1745h	E200.8	0.0200	< 0.0200	
Potassium	mg/L	4/17/2019 937h	4/23/2019 1415h	E200.7	1.00	<b>9.60</b>	
Selenium	mg/L	4/17/2019 937h	4/22/2019 1745h	E200.8	0.00500	< 0.00500	
Silver	mg/L	4/17/2019 937h	4/22/2019 1745h	E200.8	0.0100	< 0.0100	
Sodium	mg/L	4/17/2019 937h	4/23/2019 1353h	E200.7	20.0	<b>283</b>	2
Thallium	mg/L	4/17/2019 937h	4/22/2019 1745h	E200.8	0.000500	<b>0.000815</b>	
Tin	mg/L	4/17/2019 937h	4/22/2019 1745h	E200.8	0.100	< 0.100	
Uranium	mg/L	4/17/2019 937h	4/22/2019 1745h	E200.8	0.000300	<b>0.00702</b>	
Vanadium	mg/L	4/17/2019 937h	4/23/2019 1637h	E200.7	0.0150	< 0.0150	
Zinc	mg/L	4/17/2019 937h	4/22/2019 1745h	E200.8	0.0100	< 0.0100	

<sup>2</sup> - Analyte concentration is too high for accurate matrix spike recovery and/or RPD.



# INORGANIC ANALYTICAL REPORT

**Client:** Energy Fuels Resources, Inc.  
**Project:** 2nd Quarter Groundwater 2019  
**Lab Sample ID:** 1904300-001  
**Client Sample ID:** MW-25\_04102019  
**Collection Date:** 4/10/2019 1110h  
**Received Date:** 4/11/2019 847h

**Contact:** Tanner Holliday

## Analytical Results

3440 South 700 West  
 Salt Lake City, UT 84119  
  
 Phone: (801) 263-8686  
 Toll Free: (888) 263-8686  
 Fax: (801) 263-8687  
 e-mail: awal@awal-labs.com  
 web: www.awal-labs.com

Compound	Units	Date Prepared	Date Analyzed	Method Used	Reporting Limit	Analytical Result	Qual
Ammonia (as N)	mg/L	4/18/2019 1030h	4/18/2019 1358h	E350.1	0.0500	<b>0.473</b>	
Bicarbonate (as CaCO3)	mg/L		4/12/2019 802h	SM2320B	1.00	<b>320</b>	
Carbonate (as CaCO3)	mg/L		4/12/2019 802h	SM2320B	1.00	< 1.00	
Chloride	mg/L		4/17/2019 1339h	E300.0	1.00	<b>30.1</b>	
Fluoride	mg/L		4/17/2019 1413h	E300.0	0.100	<b>0.324</b>	
Ion Balance	%		4/23/2019 1530h	Calc.	-100	<b>3.66</b>	
Nitrate/Nitrite (as N)	mg/L		4/15/2019 1229h	E353.2	0.100	< 0.100	
Sulfate	mg/L		4/17/2019 1248h	E300.0	150	<b>1,450</b>	
Total Anions, Measured	meq/L		4/23/2019 1530h	Calc.		<b>37.4</b>	
Total Cations, Measured	meq/L		4/23/2019 1530h	Calc.		<b>40.2</b>	
Total Dissolved Solids	mg/L		4/11/2019 1200h	SM2540C	20.0	<b>2,520</b>	@
Total Dissolved Solids Ratio, Measured/Calculated			4/23/2019 1530h	Calc.		<b>1.03</b>	
Total Dissolved Solids, Calculated	mg/L		4/23/2019 1530h	Calc.		<b>2,440</b>	

Kyle F. Gross  
 Laboratory Director

Jose Rocha  
 QA Officer

@ - High RPD due to suspected sample non-homogeneity or matrix interference.



# ORGANIC ANALYTICAL REPORT

**Client:** Energy Fuels Resources, Inc.  
**Project:** 2nd Quarter Groundwater 2019  
**Lab Sample ID:** 1904300-001A  
**Client Sample ID:** MW-25\_04102019  
**Collection Date:** 4/10/2019 1110h  
**Received Date:** 4/11/2019 847h

**Contact:** Tanner Holliday

Test Code: 8260-W-DEN100

## Analytical Results

VOAs by GC/MS Method 8260C/5030C

**Analyzed:** 4/12/2019 831h

**Units:** µg/L

**Dilution Factor:** 1

**Method:** SW8260C

3440 South 700 West  
Salt Lake City, UT 84119

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

Compound	CAS Number	Reporting Limit	Analytical Result	Qual
2-Butanone	78-93-3	20.0	< 20.0	
Acetone	67-64-1	20.0	< 20.0	
Benzene	71-43-2	1.00	< 1.00	
Carbon tetrachloride	56-23-5	1.00	< 1.00	
Chloroform	67-66-3	1.00	< 1.00	
Chloromethane	74-87-3	1.00	< 1.00	
Methylene chloride	75-09-2	1.00	< 1.00	
Naphthalene	91-20-3	1.00	< 1.00	
Tetrahydrofuran	109-99-9	1.00	< 1.00	
Toluene	108-88-3	1.00	< 1.00	
Xylenes, Total	1330-20-7	1.00	< 1.00	

Surrogate	Units: µg/L	CAS	Result	Amount Spiked	% REC	Limits	Qual
Surr: 1,2-Dichloroethane-d4		17060-07-0	50.3	50.00	101	72-151	
Surr: 4-Bromofluorobenzene		460-00-4	52.8	50.00	106	80-152	
Surr: Dibromofluoromethane		1868-53-7	46.4	50.00	92.8	72-135	
Surr: Toluene-d8		2037-26-5	51.8	50.00	104	80-124	

# GEL LABORATORIES LLC

2040 Savage Road Charleston SC 29407 - (843) 556-8171 - www.gel.com

## Certificate of Analysis

Report Date: April 29, 2019

Company : Energy Fuels Resources (USA), Inc.  
Address : 225 Union Boulevard  
Suite 600  
Lakewood, Colorado 80228  
Contact: Ms. Kathy Weinel  
Project: White Mesa Mill GW

Client Sample ID: MW-25\_04102019 Project: DNMI00100  
Sample ID: 476322001 Client ID: DNMI001  
Matrix: Ground Water  
Collect Date: 10-APR-19 11:10  
Receive Date: 12-APR-19  
Collector: Client

Parameter	Qualifier	Result	Uncertainty	MDC	RL	Units	PF	DF	Analyst	Date	Time	Batch	Method
Rad Gas Flow Proportional Counting													
GFPC, Total Alpha Radium, Liquid "As Received"													
Gross Radium Alpha		1.00	+/-0.352	0.890	1.00	pCi/L			JXC9	04/24/19	1330	1867685	1

The following Analytical Methods were performed:

Method	Description	Analyst Comments
	EPA 903.0	

Surrogate/Tracer Recovery	Test	Result	Nominal	Recovery%	Acceptable Limits
Barium Carrier	GFPC, Total Alpha Radium, Liquid "As Received"			101	(25%-125%)

### Notes:

Counting Uncertainty is calculated at the 68% confidence level (1-sigma).

SRL = Sample Reporting Limit. For metals analysis only. When the sample is U qualified and ND, the SRL column reports the value which is the greater of either the adjusted MDL or the CRDL.

Column headers are defined as follows:

DF: Dilution Factor                      Lc/LC: Critical Level  
DL: Detection Limit                      PF: Prep Factor  
MDA: Minimum Detectable Activity      RL: Reporting Limit  
MDC: Minimum Detectable Concentration      SQL: Sample Quantitation Limit



# INORGANIC ANALYTICAL REPORT

**Client:** Energy Fuels Resources, Inc.  
**Project:** 2nd Quarter Groundwater 2019  
**Lab Sample ID:** 1904652-007  
**Client Sample ID:** MW-26\_04242019  
**Collection Date:** 4/24/2019 1315h  
**Received Date:** 4/26/2019 1010h

**Contact:** Tanner Holliday

## Analytical Results

## DISSOLVED METALS

3440 South 700 West  
 Salt Lake City, UT 84119  
  
 Phone: (801) 263-8686  
 Toll Free: (888) 263-8686  
 Fax: (801) 263-8687  
 e-mail: awal@awal-labs.com  
 web: www.awal-labs.com

Compound	Units	Date Prepared	Date Analyzed	Method Used	Reporting Limit	Analytical Result	Qual
Arsenic	mg/L	4/29/2019 1036h	5/3/2019 1558h	E200.8	0.00500	< 0.00500	
Beryllium	mg/L	4/29/2019 1036h	5/8/2019 936h	E200.8	0.000500	< 0.000500	
Cadmium	mg/L	4/29/2019 1036h	5/3/2019 1558h	E200.8	0.000500	< 0.000500	
Calcium	mg/L	4/29/2019 1036h	5/9/2019 1455h	E200.7	20.0	<b>497</b>	
Chromium	mg/L	4/29/2019 1036h	5/8/2019 1215h	E200.8	0.0250	< 0.0250	
Cobalt	mg/L	4/29/2019 1036h	5/3/2019 1558h	E200.8	0.0100	< 0.0100	
Copper	mg/L	4/29/2019 1036h	5/3/2019 1558h	E200.8	0.0100	< 0.0100	
Iron	mg/L	4/29/2019 1036h	5/8/2019 1215h	E200.8	0.100	<b>0.916</b>	
Lead	mg/L	4/29/2019 1036h	5/8/2019 936h	E200.8	0.00100	< 0.00100	
Magnesium	mg/L	4/29/2019 1036h	5/9/2019 1455h	E200.7	20.0	<b>161</b>	
Manganese	mg/L	4/29/2019 1036h	5/8/2019 1215h	E200.8	0.0100	<b>0.639</b>	
Mercury	mg/L	4/30/2019 1430h	5/1/2019 759h	E245.1	0.000500	< 0.000500	
Molybdenum	mg/L	4/29/2019 1036h	5/8/2019 1047h	E200.8	0.0100	< 0.0100	
Nickel	mg/L	4/29/2019 1036h	5/3/2019 1558h	E200.8	0.0200	< 0.0200	
Potassium	mg/L	4/29/2019 1036h	5/9/2019 1551h	E200.7	1.00	<b>11.4</b>	
Selenium	mg/L	4/29/2019 1036h	5/3/2019 1558h	E200.8	0.00500	< 0.00500	
Silver	mg/L	4/29/2019 1036h	5/3/2019 1558h	E200.8	0.0100	< 0.0100	
Sodium	mg/L	4/29/2019 1036h	5/9/2019 1455h	E200.7	20.0	<b>223</b>	
Thallium	mg/L	4/29/2019 1036h	5/8/2019 936h	E200.8	0.000500	< 0.000500	
Tin	mg/L	4/29/2019 1036h	5/8/2019 936h	E200.8	0.100	< 0.100	
Uranium	mg/L	4/29/2019 1036h	5/8/2019 936h	E200.8	0.000500	<b>0.0267</b>	
Vanadium	mg/L	4/29/2019 1036h	5/9/2019 1551h	E200.7	0.0150	< 0.0150	
Zinc	mg/L	4/29/2019 1036h	5/8/2019 1215h	E200.8	0.0100	< 0.0100	

Kyle F. Gross  
 Laboratory Director

Jose Rocha  
 QA Officer



# INORGANIC ANALYTICAL REPORT

**Client:** Energy Fuels Resources, Inc.  
**Project:** 2nd Quarter Groundwater 2019  
**Lab Sample ID:** 1904652-007  
**Client Sample ID:** MW-26\_04242019  
**Collection Date:** 4/24/2019 1315h  
**Received Date:** 4/26/2019 1010h

**Contact:** Tanner Holliday

## Analytical Results

3440 South 700 West  
Salt Lake City, UT 84119

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

Compound	Units	Date Prepared	Date Analyzed	Method Used	Reporting Limit	Analytical Result	Qual
Ammonia (as N)	mg/L	4/30/2019 1240h	4/30/2019 1452h	E350.1	0.0500	<b>0.104</b>	
Bicarbonate (as CaCO3)	mg/L		4/30/2019 639h	SM2320B	1.00	<b>354</b>	
Carbonate (as CaCO3)	mg/L		4/30/2019 639h	SM2320B	1.00	< 1.00	
Chloride	mg/L		5/8/2019 1433h	E300.0	1.00	<b>82.0</b>	
Fluoride	mg/L		5/8/2019 1736h	E300.0	0.100	<b>0.133</b>	
Ion Balance	%		5/9/2019 1636h	Calc.	-100	<b>11.4</b>	
Nitrate/Nitrite (as N)	mg/L		4/29/2019 1649h	E353.2	0.100	<b>3.00</b>	
Sulfate	mg/L		5/7/2019 1412h	E300.0	750	<b>1,380</b>	
Total Anions, Measured	meq/L		5/9/2019 1636h	Calc.		<b>38.2</b>	
Total Cations, Measured	meq/L		5/9/2019 1636h	Calc.		<b>48.1</b>	
Total Dissolved Solids	mg/L		4/26/2019 1400h	SM2540C	20.0	<b>2,820</b>	
Total Dissolved Solids Ratio, Measured/Calculated			5/9/2019 1636h	Calc.		<b>1.10</b>	
Total Dissolved Solids, Calculated	mg/L		5/9/2019 1636h	Calc.		<b>2,570</b>	



# ORGANIC ANALYTICAL REPORT

**Client:** Energy Fuels Resources, Inc.  
**Project:** 2nd Quarter Groundwater 2019  
**Lab Sample ID:** 1904652-007A  
**Client Sample ID:** MW-26\_04242019  
**Collection Date:** 4/24/2019 1315h  
**Received Date:** 4/26/2019 1010h

**Contact:** Tanner Holliday

Test Code: 8260-W-DEN100

**Analytical Results**

VOAs by GC/MS Method 8260C/5030C

**Analyzed:** 5/1/2019 1316h

**Units:** µg/L                      **Dilution Factor:** 100                      **Method:** SW8260C

Compound	CAS Number	Reporting Limit	Analytical Result	Qual
Chloroform	67-66-3	100	4,140	~

Surrogate	Units: µg/L	CAS	Result	Amount Spiked	% REC	Limits	Qual
Surr: 1,2-Dichloroethane-d4		17060-07-0	5,680	5,000	114	72-151	
Surr: 4-Bromofluorobenzene		460-00-4	5,150	5,000	103	80-152	
Surr: Dibromofluoromethane		1868-53-7	5,030	5,000	101	72-135	
Surr: Toluene-d8		2037-26-5	5,020	5,000	100	80-124	

~ ~ The reporting limits were raised due to high analyte concentrations.

**Analyzed:** 4/30/2019 1632h

**Units:** µg/L                      **Dilution Factor:** 1                      **Method:** SW8260C

Compound	CAS Number	Reporting Limit	Analytical Result	Qual
2-Butanone	78-93-3	20.0	< 20.0	
Acetone	67-64-1	20.0	< 20.0	
Benzene	71-43-2	1.00	< 1.00	
Carbon tetrachloride	56-23-5	1.00	< 1.00	
Chloromethane	74-87-3	1.00	< 1.00	
Methylene chloride	75-09-2	1.00	4.16	
Naphthalene	91-20-3	1.00	< 1.00	
Tetrahydrofuran	109-99-9	1.00	< 1.00	
Toluene	108-88-3	1.00	< 1.00	
Xylenes, Total	1330-20-7	1.00	< 1.00	

Surrogate	Units: µg/L	CAS	Result	Amount Spiked	% REC	Limits	Qual
Surr: 1,2-Dichloroethane-d4		17060-07-0	55.8	50.00	112	72-151	
Surr: 4-Bromofluorobenzene		460-00-4	51.8	50.00	104	80-152	
Surr: Dibromofluoromethane		1868-53-7	51.0	50.00	102	72-135	
Surr: Toluene-d8		2037-26-5	50.3	50.00	101	80-124	

3440 South 700 West  
Salt Lake City, UT 84119

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e-mail: awal@awal-labs.com

web: www.awal-labs.com

Kyle F. Gross  
Laboratory Director

Jose Rocha  
QA Officer

# GEL LABORATORIES LLC

2040 Savage Road Charleston SC 29407 - (843) 556-8171 - www.gel.com

## Certificate of Analysis

Report Date: May 13, 2019

Company : Energy Fuels Resources (USA), Inc.  
Address : 225 Union Boulevard  
Suite 600  
Lakewood, Colorado 80228  
Contact: Ms. Kathy Weinel  
Project: White Mesa Mill GW

Client Sample ID: MW-26\_04242019  
Sample ID: 477632007  
Matrix: Ground Water  
Collect Date: 24-APR-19 13:15  
Receive Date: 26-APR-19  
Collector: Client

Project: DNMI00100  
Client ID: DNMI001

Parameter	Qualifier	Result	Uncertainty	MDC	RL	Units	PF	DF	Analyst	Date	Time	Batch	Method
Rad Gas Flow Proportional Counting													
GFPC, Total Alpha Radium, Liquid "As Received"													
Gross Radium Alpha		1.74	+/-0.317	0.460	1.00	pCi/L			LXB3	05/06/19	1634	1872063	1

The following Analytical Methods were performed:

Method	Description	Analyst	Comments
	EPA 903.0		

Surrogate/Tracer Recovery	Test	Result	Nominal	Recovery%	Acceptable Limits
Barium Carrier	GFPC, Total Alpha Radium, Liquid "As Received"			99.3	(25%-125%)

### Notes:

Counting Uncertainty is calculated at the 68% confidence level (1-sigma).

SRL = Sample Reporting Limit. For metals analysis only. When the sample is U qualified and ND, the SRL column reports the value which is the greater of either the adjusted MDL or the CRDL.

Column headers are defined as follows:

DF: Dilution Factor  
DL: Detection Limit  
MDA: Minimum Detectable Activity  
MDC: Minimum Detectable Concentration  
Lc/LC: Critical Level  
PF: Prep Factor  
RL: Reporting Limit  
SQL: Sample Quantitation Limit



# INORGANIC ANALYTICAL REPORT

**Client:** Energy Fuels Resources, Inc.  
**Project:** 2nd Quarter Groundwater 2019  
**Lab Sample ID:** 1904652-008  
**Client Sample ID:** MW-27\_04232019  
**Collection Date:** 4/23/2019 1100h  
**Received Date:** 4/26/2019 1010h

**Contact:** Tanner Holliday

## Analytical Results

## DISSOLVED METALS

Compound	Units	Date Prepared	Date Analyzed	Method Used	Reporting Limit	Analytical Result	Qual
Arsenic	mg/L	4/29/2019 1036h	5/3/2019 1601h	E200.8	0.00500	< 0.00500	
Beryllium	mg/L	4/29/2019 1036h	5/8/2019 939h	E200.8	0.000500	< 0.000500	
Cadmium	mg/L	4/29/2019 1036h	5/3/2019 1601h	E200.8	0.000500	< 0.000500	
Calcium	mg/L	4/29/2019 1036h	5/9/2019 1457h	E200.7	20.0	<b>109</b>	
Chromium	mg/L	4/29/2019 1036h	5/8/2019 1218h	E200.8	0.0250	< 0.0250	
Cobalt	mg/L	4/29/2019 1036h	5/3/2019 1601h	E200.8	0.0100	< 0.0100	
Copper	mg/L	4/29/2019 1036h	5/3/2019 1601h	E200.8	0.0100	< 0.0100	
Iron	mg/L	4/29/2019 1036h	5/3/2019 1601h	E200.8	0.0300	< 0.0300	
Lead	mg/L	4/29/2019 1036h	5/8/2019 939h	E200.8	0.00100	< 0.00100	
Magnesium	mg/L	4/29/2019 1036h	5/9/2019 1457h	E200.7	20.0	<b>43.7</b>	
Manganese	mg/L	4/29/2019 1036h	5/3/2019 1601h	E200.8	0.0100	< 0.0100	
Mercury	mg/L	4/30/2019 1430h	5/1/2019 801h	E245.1	0.000500	< 0.000500	
Molybdenum	mg/L	4/29/2019 1036h	5/8/2019 1050h	E200.8	0.0100	< 0.0100	
Nickel	mg/L	4/29/2019 1036h	5/3/2019 1601h	E200.8	0.0200	< 0.0200	
Potassium	mg/L	4/29/2019 1036h	5/9/2019 1553h	E200.7	1.00	<b>4.07</b>	
Selenium	mg/L	4/29/2019 1036h	5/3/2019 1601h	E200.8	0.00500	<b>0.0135</b>	
Silver	mg/L	4/29/2019 1036h	5/3/2019 1601h	E200.8	0.0100	< 0.0100	
Sodium	mg/L	4/29/2019 1036h	5/9/2019 1457h	E200.7	20.0	<b>76.2</b>	
Thallium	mg/L	4/29/2019 1036h	5/8/2019 939h	E200.8	0.000500	< 0.000500	
Tin	mg/L	4/29/2019 1036h	5/8/2019 939h	E200.8	0.100	< 0.100	
Uranium	mg/L	4/29/2019 1036h	5/8/2019 939h	E200.8	0.000500	<b>0.0122</b>	
Vanadium	mg/L	4/29/2019 1036h	5/9/2019 1553h	E200.7	0.0150	< 0.0150	
Zinc	mg/L	4/29/2019 1036h	5/8/2019 1218h	E200.8	0.0100	< 0.0100	

3440 South 700 West

Salt Lake City, UT 84119

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



# INORGANIC ANALYTICAL REPORT

**Client:** Energy Fuels Resources, Inc.  
**Project:** 2nd Quarter Groundwater 2019  
**Lab Sample ID:** 1904652-008  
**Client Sample ID:** MW-27\_04232019  
**Collection Date:** 4/23/2019 1100h  
**Received Date:** 4/26/2019 1010h

**Contact:** Tanner Holliday

## Analytical Results

Compound	Units	Date Prepared	Date Analyzed	Method Used	Reporting Limit	Analytical Result	Qual
Ammonia (as N)	mg/L	4/30/2019 1240h	4/30/2019 1453h	E350.1	0.0500	< 0.0500	
Bicarbonate (as CaCO3)	mg/L		4/30/2019 639h	SM2320B	1.00	<b>354</b>	
Carbonate (as CaCO3)	mg/L		4/30/2019 639h	SM2320B	1.00	< 1.00	
Chloride	mg/L		5/8/2019 1450h	E300.0	1.00	<b>32.0</b>	
Fluoride	mg/L		5/8/2019 1753h	E300.0	0.100	<b>0.698</b>	
Ion Balance	%		5/9/2019 1636h	Calc.	-100	<b>-0.681</b>	
Nitrate/Nitrite (as N)	mg/L		4/29/2019 1640h	E353.2	0.100	<b>6.33</b>	
Sulfate	mg/L		5/7/2019 1430h	E300.0	75.0	<b>218</b>	
Total Anions, Measured	meq/L		5/9/2019 1636h	Calc.		<b>12.6</b>	
Total Cations, Measured	meq/L		5/9/2019 1636h	Calc.		<b>12.5</b>	
Total Dissolved Solids	mg/L		4/26/2019 1400h	SM2540C	20.0	<b>676</b>	
Total Dissolved Solids Ratio, Measured/Calculated			5/9/2019 1636h	Calc.		<b>0.963</b>	
Total Dissolved Solids, Calculated	mg/L		5/9/2019 1636h	Calc.		<b>702</b>	

3440 South 700 West  
Salt Lake City, UT 84119

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web: www.awal-labs.com

Kyle F. Gross  
Laboratory Director

Jose Rocha  
QA Officer



# ORGANIC ANALYTICAL REPORT

**Client:** Energy Fuels Resources, Inc.  
**Project:** 2nd Quarter Groundwater 2019  
**Lab Sample ID:** 1904652-008A  
**Client Sample ID:** MW-27\_04232019  
**Collection Date:** 4/23/2019 1100h  
**Received Date:** 4/26/2019 1010h

**Contact:** Tanner Holliday

Test Code: 8260-W-DEN100

**Analytical Results**

VOAs by GC/MS Method 8260C/5030C

**Analyzed:** 5/1/2019 1236h

**Units:** µg/L

**Dilution Factor:** 1

**Method:** SW8260C

3440 South 700 West

Salt Lake City, UT 84119

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

Compound	CAS Number	Reporting Limit	Analytical Result	Qual
2-Butanone	78-93-3	20.0	< 20.0	
Acetone	67-64-1	20.0	< 20.0	
Benzene	71-43-2	1.00	< 1.00	
Carbon tetrachloride	56-23-5	1.00	< 1.00	
Chloroform	67-66-3	1.00	< 1.00	
Chloromethane	74-87-3	1.00	< 1.00	
Methylene chloride	75-09-2	1.00	< 1.00	
Naphthalene	91-20-3	1.00	< 1.00	
Tetrahydrofuran	109-99-9	1.00	< 1.00	
Toluene	108-88-3	1.00	< 1.00	
Xylenes, Total	1330-20-7	1.00	< 1.00	

Surrogate	Units: µg/L	CAS	Result	Amount Spiked	% REC	Limits	Qual
Surr: 1,2-Dichloroethane-d4		17060-07-0	57.1	50.00	114	72-151	
Surr: 4-Bromofluorobenzene		460-00-4	52.3	50.00	105	80-152	
Surr: Dibromofluoromethane		1868-53-7	50.9	50.00	102	72-135	
Surr: Toluene-d8		2037-26-5	51.7	50.00	103	80-124	

# GEL LABORATORIES LLC

2040 Savage Road Charleston SC 29407 - (843) 556-8171 - www.gel.com

## Certificate of Analysis

Report Date: May 13, 2019

Company : Energy Fuels Resources (USA), Inc.  
 Address : 225 Union Boulevard  
 Suite 600  
 Lakewood, Colorado 80228  
 Contact: Ms. Kathy Weinel  
 Project: White Mesa Mill GW

Client Sample ID: MW-27_04232019	Project: DNMI00100
Sample ID: 477632008	Client ID: DNMI001
Matrix: Ground Water	
Collect Date: 23-APR-19 11:00	
Receive Date: 26-APR-19	
Collector: Client	

Parameter	Qualifier	Result	Uncertainty	MDC	RL	Units	PF	DF	Analyst	Date	Time	Batch	Method
Rad Gas Flow Proportional Counting													
GFPC, Total Alpha Radium, Liquid "As Received"													
Gross Radium Alpha		1.08	+/-0.288	0.704	1.00	pCi/L			LXB3	05/06/19	1634	1872063	1

The following Analytical Methods were performed:

Method	Description	Analyst Comments
	EPA 903.0	

Surrogate/Tracer Recovery	Test	Result	Nominal	Recovery%	Acceptable Limits
Barium Carrier	GFPC, Total Alpha Radium, Liquid "As Received"			100	(25%-125%)

**Notes:**

Counting Uncertainty is calculated at the 68% confidence level (1-sigma).

SRL = Sample Reporting Limit. For metals analysis only. When the sample is U qualified and ND, the SRL column reports the value which is the greater of either the adjusted MDL or the CRDL.

Column headers are defined as follows:

- |                                       |                                |
|---------------------------------------|--------------------------------|
| DF: Dilution Factor                   | Lc/LC: Critical Level          |
| DL: Detection Limit                   | PF: Prep Factor                |
| MDA: Minimum Detectable Activity      | RL: Reporting Limit            |
| MDC: Minimum Detectable Concentration | SQL: Sample Quantitation Limit |



# INORGANIC ANALYTICAL REPORT

**Client:** Energy Fuels Resources, Inc.  
**Project:** 2nd Quarter Groundwater 2019  
**Lab Sample ID:** 1904652-009  
**Client Sample ID:** MW-28\_04242019  
**Collection Date:** 4/24/2019 1015h  
**Received Date:** 4/26/2019 1010h

**Contact:** Tanner Holliday

## Analytical Results

## DISSOLVED METALS

Compound	Units	Date Prepared	Date Analyzed	Method Used	Reporting Limit	Analytical Result	Qual
Arsenic	mg/L	4/29/2019 1036h	5/3/2019 1604h	E200.8	0.00500	<b>0.0110</b>	
Beryllium	mg/L	4/29/2019 1036h	5/3/2019 1604h	E200.8	0.000500	< 0.000500	
Cadmium	mg/L	4/29/2019 1036h	5/3/2019 1604h	E200.8	0.000500	<b>0.00511</b>	
Calcium	mg/L	4/29/2019 1036h	5/9/2019 1459h	E200.7	20.0	<b>574</b>	
Chromium	mg/L	4/29/2019 1036h	5/8/2019 1230h	E200.8	0.0250	< 0.0250	
Cobalt	mg/L	4/29/2019 1036h	5/3/2019 1604h	E200.8	0.0100	<b>0.0311</b>	
Copper	mg/L	4/29/2019 1036h	5/3/2019 1604h	E200.8	0.0100	< 0.0100	
Iron	mg/L	4/29/2019 1036h	5/3/2019 1604h	E200.8	0.0300	< 0.0300	
Lead	mg/L	4/29/2019 1036h	5/8/2019 942h	E200.8	0.00100	< 0.00100	
Magnesium	mg/L	4/29/2019 1036h	5/9/2019 1459h	E200.7	20.0	<b>198</b>	
Manganese	mg/L	4/29/2019 1036h	5/8/2019 1230h	E200.8	0.0100	<b>1.40</b>	
Mercury	mg/L	4/30/2019 1430h	5/1/2019 803h	E245.1	0.000500	< 0.000500	
Molybdenum	mg/L	4/29/2019 1036h	5/8/2019 1053h	E200.8	0.0100	< 0.0100	
Nickel	mg/L	4/29/2019 1036h	5/3/2019 1604h	E200.8	0.0200	<b>0.0223</b>	
Potassium	mg/L	4/29/2019 1036h	5/9/2019 1556h	E200.7	1.00	<b>12.9</b>	
Selenium	mg/L	4/29/2019 1036h	5/17/2019 1015h	E200.8	0.00500	<b>0.0124</b>	
Silver	mg/L	4/29/2019 1036h	5/3/2019 1604h	E200.8	0.0100	< 0.0100	
Sodium	mg/L	4/29/2019 1036h	5/9/2019 1459h	E200.7	20.0	<b>380</b>	
Thallium	mg/L	4/29/2019 1036h	5/8/2019 942h	E200.8	0.000500	<b>0.000896</b>	
Tin	mg/L	4/29/2019 1036h	5/8/2019 942h	E200.8	0.100	< 0.100	
Uranium	mg/L	4/29/2019 1036h	5/8/2019 942h	E200.8	0.000500	<b>0.00960</b>	
Vanadium	mg/L	4/29/2019 1036h	5/9/2019 1556h	E200.7	0.0150	< 0.0150	
Zinc	mg/L	4/29/2019 1036h	5/8/2019 1230h	E200.8	0.0100	<b>0.0520</b>	

3440 South 700 West  
 Salt Lake City, UT 84119  
  
 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



# INORGANIC ANALYTICAL REPORT

**Client:** Energy Fuels Resources, Inc.  
**Project:** 2nd Quarter Groundwater 2019  
**Lab Sample ID:** 1904652-009  
**Client Sample ID:** MW-28\_04242019  
**Collection Date:** 4/24/2019 1015h  
**Received Date:** 4/26/2019 1010h

**Contact:** Tanner Holliday

## Analytical Results

3440 South 700 West  
Salt Lake City, UT 84119

Phone: (801) 263-8686

Toll Free: (888) 263-8686

Fax: (801) 263-8687

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web: www.awal-labs.com

Kyle F. Gross  
Laboratory Director

Jose Rocha  
QA Officer

Compound	Units	Date Prepared	Date Analyzed	Method Used	Reporting Limit	Analytical Result	Qual
Ammonia (as N)	mg/L	4/30/2019 1240h	4/30/2019 1454h	E350.1	0.0500	< 0.0500	
Bicarbonate (as CaCO3)	mg/L		4/30/2019 639h	SM2320B	1.00	<b>148</b>	
Carbonate (as CaCO3)	mg/L		4/30/2019 639h	SM2320B	1.00	< 1.00	
Chloride	mg/L		5/10/2019 1136h	E300.0	20.0	<b>165</b>	
Fluoride	mg/L		5/8/2019 1810h	E300.0	0.100	<b>0.695</b>	
Ion Balance	%		5/9/2019 1636h	Calc.	-100	<b>3.72</b>	
Nitrate/Nitrite (as N)	mg/L		4/29/2019 1650h	E353.2	0.100	<b>3.70</b>	
Sulfate	mg/L		5/10/2019 1136h	E300.0	150	<b>2,390</b>	
Total Anions, Measured	meq/L		5/9/2019 1636h	Calc.		<b>57.3</b>	
Total Cations, Measured	meq/L		5/9/2019 1636h	Calc.		<b>61.8</b>	
Total Dissolved Solids	mg/L		4/26/2019 1400h	SM2540C	20.0	<b>3,500</b>	
Total Dissolved Solids Ratio, Measured/Calculated			5/9/2019 1636h	Calc.		<b>0.920</b>	
Total Dissolved Solids, Calculated	mg/L		5/9/2019 1636h	Calc.		<b>3,810</b>	



# ORGANIC ANALYTICAL REPORT

**Client:** Energy Fuels Resources, Inc.  
**Project:** 2nd Quarter Groundwater 2019  
**Lab Sample ID:** 1904652-009A  
**Client Sample ID:** MW-28\_04242019  
**Collection Date:** 4/24/2019 1015h  
**Received Date:** 4/26/2019 1010h

**Contact:** Tanner Holliday

Test Code: 8260-W-DEN100

**Analytical Results**

VOAs by GC/MS Method 8260C/5030C

**Analyzed:** 5/1/2019 1256h

**Units:** µg/L

**Dilution Factor:** 1

**Method:** SW8260C

3440 South 700 West

Salt Lake City, UT 84119

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

Compound	CAS Number	Reporting Limit	Analytical Result	Qual
2-Butanone	78-93-3	20.0	< 20.0	
Acetone	67-64-1	20.0	< 20.0	
Benzene	71-43-2	1.00	< 1.00	
Carbon tetrachloride	56-23-5	1.00	< 1.00	
Chloroform	67-66-3	1.00	< 1.00	
Chloromethane	74-87-3	1.00	< 1.00	
Methylene chloride	75-09-2	1.00	< 1.00	
Naphthalene	91-20-3	1.00	< 1.00	
Tetrahydrofuran	109-99-9	1.00	< 1.00	
Toluene	108-88-3	1.00	< 1.00	
Xylenes, Total	1330-20-7	1.00	< 1.00	

Surrogate	Units: µg/L	CAS	Result	Amount Spiked	% REC	Limits	Qual
Surr: 1,2-Dichloroethane-d4		17060-07-0	56.8	50.00	114	72-151	
Surr: 4-Bromofluorobenzene		460-00-4	51.5	50.00	103	80-152	
Surr: Dibromofluoromethane		1868-53-7	49.9	50.00	99.8	72-135	
Surr: Toluene-d8		2037-26-5	50.6	50.00	101	80-124	

# GEL LABORATORIES LLC

2040 Savage Road Charleston SC 29407 - (843) 556-8171 - www.gel.com

## Certificate of Analysis

Report Date: May 13, 2019

Company : Energy Fuels Resources (USA), Inc.  
 Address : 225 Union Boulevard  
 Suite 600  
 Lakewood, Colorado 80228  
 Contact: Ms. Kathy Weinel  
 Project: White Mesa Mill GW

Client Sample ID: MW-28_04242019	Project: DNMI00100
Sample ID: 477632009	Client ID: DNMI001
Matrix: Ground Water	
Collect Date: 24-APR-19 10:15	
Receive Date: 26-APR-19	
Collector: Client	

Parameter	Qualifier	Result	Uncertainty	MDC	RL	Units	PF	DF	Analyst	Date	Time	Batch	Method
Rad Gas Flow Proportional Counting													
GFPC, Total Alpha Radium, Liquid "As Received"													
Gross Radium Alpha		1.94	+/-0.346	0.611	1.00	pCi/L			LXB3	05/06/19	1634	1872063	I

The following Analytical Methods were performed:

Method	Description	Analyst	Comments
	EPA 903.0		

Surrogate/Tracer Recovery	Test	Result	Nominal	Recovery%	Acceptable Limits
Barium Carrier	GFPC, Total Alpha Radium, Liquid "As Received"			100	(25%-125%)

**Notes:**  
 Counting Uncertainty is calculated at the 68% confidence level (1-sigma).

SRL = Sample Reporting Limit. For metals analysis only. When the sample is U qualified and ND, the SRL column reports the value which is the greater of either the adjusted MDL or the CRDL.

Column headers are defined as follows:

- |                                       |                                |
|---------------------------------------|--------------------------------|
| DF: Dilution Factor                   | Lc/LC: Critical Level          |
| DL: Detection Limit                   | PF: Prep Factor                |
| MDA: Minimum Detectable Activity      | RL: Reporting Limit            |
| MDC: Minimum Detectable Concentration | SQL: Sample Quantitation Limit |



# INORGANIC ANALYTICAL REPORT

**Client:** Energy Fuels Resources, Inc.  
**Project:** 2nd Quarter Groundwater 2019  
**Lab Sample ID:** 1904652-010  
**Client Sample ID:** MW-29\_04242019  
**Collection Date:** 4/24/2019 1425h  
**Received Date:** 4/26/2019 1010h

**Contact:** Tanner Holliday

## Analytical Results

## DISSOLVED METALS

3440 South 700 West  
 Salt Lake City, UT 84119  
  
 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

Compound	Units	Date Prepared	Date Analyzed	Method Used	Reporting Limit	Analytical Result	Qual
Arsenic	mg/L	4/29/2019 1036h	5/3/2019 1607h	E200.8	0.00500	< 0.00500	
Beryllium	mg/L	4/29/2019 1036h	5/8/2019 1122h	E200.8	0.000500	< 0.000500	
Cadmium	mg/L	4/29/2019 1036h	5/3/2019 1607h	E200.8	0.000500	< 0.000500	
Calcium	mg/L	4/29/2019 1036h	5/9/2019 1501h	E200.7	20.0	<b>524</b>	
Chromium	mg/L	4/29/2019 1036h	5/8/2019 1259h	E200.8	0.0250	< 0.0250	
Cobalt	mg/L	4/29/2019 1036h	5/3/2019 1607h	E200.8	0.0100	< 0.0100	
Copper	mg/L	4/29/2019 1036h	5/3/2019 1607h	E200.8	0.0100	< 0.0100	
Iron	mg/L	4/29/2019 1036h	5/8/2019 1259h	E200.8	0.100	<b>1.27</b>	
Lead	mg/L	4/29/2019 1036h	5/3/2019 1607h	E200.8	0.00100	< 0.00100	
Magnesium	mg/L	4/29/2019 1036h	5/9/2019 1501h	E200.7	20.0	<b>231</b>	
Manganese	mg/L	4/29/2019 1036h	5/8/2019 1234h	E200.8	0.0100	<b>5.00</b>	
Mercury	mg/L	4/30/2019 1430h	5/1/2019 805h	E245.1	0.000500	< 0.000500	
Molybdenum	mg/L	4/29/2019 1036h	5/8/2019 1122h	E200.8	0.0100	< 0.0100	
Nickel	mg/L	4/29/2019 1036h	5/3/2019 1607h	E200.8	0.0200	< 0.0200	
Potassium	mg/L	4/29/2019 1036h	5/9/2019 1558h	E200.7	1.00	<b>18.4</b>	
Selenium	mg/L	4/29/2019 1036h	5/3/2019 1607h	E200.8	0.00500	< 0.00500	
Silver	mg/L	4/29/2019 1036h	5/3/2019 1607h	E200.8	0.0100	< 0.0100	
Sodium	mg/L	4/29/2019 1036h	5/9/2019 1501h	E200.7	20.0	<b>543</b>	
Thallium	mg/L	4/29/2019 1036h	5/3/2019 1607h	E200.8	0.000500	< 0.000500	
Tin	mg/L	4/29/2019 1036h	5/8/2019 945h	E200.8	0.100	< 0.100	
Uranium	mg/L	4/29/2019 1036h	5/3/2019 1607h	E200.8	0.000300	<b>0.0150</b>	
Vanadium	mg/L	4/29/2019 1036h	5/9/2019 1558h	E200.7	0.0150	< 0.0150	
Zinc	mg/L	4/29/2019 1036h	5/8/2019 1259h	E200.8	0.0100	< 0.0100	



# INORGANIC ANALYTICAL REPORT

**Client:** Energy Fuels Resources, Inc.  
**Project:** 2nd Quarter Groundwater 2019  
**Lab Sample ID:** 1904652-010  
**Client Sample ID:** MW-29\_04242019  
**Collection Date:** 4/24/2019 1425h  
**Received Date:** 4/26/2019 1010h

**Contact:** Tanner Holliday

## Analytical Results

Compound	Units	Date Prepared	Date Analyzed	Method Used	Reporting Limit	Analytical Result	Qual
Ammonia (as N)	mg/L	4/30/2019 1240h	4/30/2019 1455h	E350.1	0.0500	<b>0.715</b>	
Bicarbonate (as CaCO3)	mg/L		4/30/2019 639h	SM2320B	1.00	<b>314</b>	
Carbonate (as CaCO3)	mg/L		4/30/2019 639h	SM2320B	1.00	< 1.00	
Chloride	mg/L		5/8/2019 1506h	E300.0	1.00	<b>37.9</b>	
Fluoride	mg/L		5/8/2019 1827h	E300.0	0.100	<b>0.757</b>	
Ion Balance	%		5/9/2019 1636h	Calc.	-100	<b>13.8</b>	
Nitrate/Nitrite (as N)	mg/L		4/29/2019 1643h	E353.2	0.100	< 0.100	
Sulfate	mg/L		5/7/2019 1504h	E300.0	750	<b>2,170</b>	
Total Anions, Measured	meq/L		5/9/2019 1636h	Calc.		<b>52.6</b>	
Total Cations, Measured	meq/L		5/9/2019 1636h	Calc.		<b>69.3</b>	
Total Dissolved Solids	mg/L		4/26/2019 1400h	SM2540C	20.0	<b>3,860</b>	
Total Dissolved Solids Ratio, Measured/Calculated			5/9/2019 1636h	Calc.		<b>1.04</b>	
Total Dissolved Solids, Calculated	mg/L		5/9/2019 1636h	Calc.		<b>3,720</b>	

3440 South 700 West

Salt Lake City, UT 84119

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



# ORGANIC ANALYTICAL REPORT

**Client:** Energy Fuels Resources, Inc.  
**Project:** 2nd Quarter Groundwater 2019  
**Lab Sample ID:** 1904652-010A  
**Client Sample ID:** MW-29\_04242019  
**Collection Date:** 4/24/2019 1425h  
**Received Date:** 4/26/2019 1010h

**Contact:** Tanner Holliday

Test Code: 8260-W-DEN100

## Analytical Results

VOAs by GC/MS Method 8260C/5030C

**Analyzed:** 4/30/2019 1732h

**Units:** µg/L

**Dilution Factor:** 1

**Method:** SW8260C

3440 South 700 West

Salt Lake City, UT 84119

Phone: (801) 263-8686

Toll Free: (888) 263-8686

Fax: (801) 263-8687

e-mail: awal@awal-labs.com

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Jose Rocha

QA Officer

Compound	CAS Number	Reporting Limit	Analytical Result	Qual
2-Butanone	78-93-3	20.0	< 20.0	
Acetone	67-64-1	20.0	< 20.0	
Benzene	71-43-2	1.00	< 1.00	
Carbon tetrachloride	56-23-5	1.00	< 1.00	
Chloroform	67-66-3	1.00	< 1.00	
Chloromethane	74-87-3	1.00	< 1.00	
Methylene chloride	75-09-2	1.00	< 1.00	
Naphthalene	91-20-3	1.00	< 1.00	
Tetrahydrofuran	109-99-9	1.00	< 1.00	
Toluene	108-88-3	1.00	< 1.00	
Xylenes, Total	1330-20-7	1.00	< 1.00	

Surrogate	Units: µg/L	CAS	Result	Amount Spiked	% REC	Limits	Qual
Surr: 1,2-Dichloroethane-d4		17060-07-0	56.0	50.00	112	72-151	
Surr: 4-Bromofluorobenzene		460-00-4	52.3	50.00	105	80-152	
Surr: Dibromofluoromethane		1868-53-7	49.3	50.00	98.5	72-135	
Surr: Toluene-d8		2037-26-5	51.8	50.00	104	80-124	

# GEL LABORATORIES LLC

2040 Savage Road Charleston SC 29407 - (843) 556-8171 - www.gel.com

## Certificate of Analysis

Report Date: May 13, 2019

Company : Energy Fuels Resources (USA), Inc.  
 Address : 225 Union Boulevard  
 Suite 600  
 Lakewood, Colorado 80228  
 Contact: Ms. Kathy Weinel  
 Project: White Mesa Mill GW

Client Sample ID: MW-29_04242019	Project: DNMI00100
Sample ID: 477632010	Client ID: DNMI001
Matrix: Ground Water	
Collect Date: 24-APR-19 14:25	
Receive Date: 26-APR-19	
Collector: Client	

Parameter	Qualifier	Result	Uncertainty	MDC	RL	Units	PF	DF	Analyst	Date	Time	Batch	Method
Rad Gas Flow Proportional Counting													
GFPC, Total Alpha Radium, Liquid "As Received"													
Gross Radium Alpha		1.30	+/-0.299	0.573	1.00	pCi/L			LXB3	05/06/19	1635	1872063	1

The following Analytical Methods were performed:

Method	Description	Analyst Comments											
	EPA 903.0												
Surrogate/Tracer Recovery	Test	Result	Nominal	Recovery%	Acceptable Limits								
Barium Carrier	GFPC, Total Alpha Radium, Liquid "As Received"			100	(25%-125%)								

**Notes:**

Counting Uncertainty is calculated at the 68% confidence level (1-sigma).

SRL = Sample Reporting Limit. For metals analysis only. When the sample is U qualified and ND, the SRL column reports the value which is the greater of either the adjusted MDL or the CRDL.

Column headers are defined as follows:

- |                                       |                                |
|---------------------------------------|--------------------------------|
| DF: Dilution Factor                   | Lc/LC: Critical Level          |
| DL: Detection Limit                   | PF: Prep Factor                |
| MDA: Minimum Detectable Activity      | RL: Reporting Limit            |
| MDC: Minimum Detectable Concentration | SQL: Sample Quantitation Limit |



# INORGANIC ANALYTICAL REPORT

**Client:** Energy Fuels Resources, Inc.  
**Project:** 2nd Quarter Groundwater 2019  
**Lab Sample ID:** 1904300-002  
**Client Sample ID:** MW-30\_04092019  
**Collection Date:** 4/9/2019 1210h  
**Received Date:** 4/11/2019 847h

**Contact:** Tanner Holliday

## Analytical Results

## DISSOLVED METALS

Compound	Units	Date Prepared	Date Analyzed	Method Used	Reporting Limit	Analytical Result	Qual
Arsenic	mg/L	4/17/2019 937h	4/22/2019 1800h	E200.8	0.00500	< 0.00500	
Beryllium	mg/L	4/17/2019 937h	4/22/2019 1800h	E200.8	0.000500	< 0.000500	
Cadmium	mg/L	4/17/2019 937h	4/22/2019 1800h	E200.8	0.000500	< 0.000500	
Calcium	mg/L	4/17/2019 937h	4/23/2019 1400h	E200.7	20.0	<b>283</b>	
Chromium	mg/L	4/17/2019 937h	4/24/2019 1037h	E200.8	0.0250	< 0.0250	
Cobalt	mg/L	4/17/2019 937h	4/22/2019 1800h	E200.8	0.0100	< 0.0100	
Copper	mg/L	4/17/2019 937h	4/24/2019 1037h	E200.8	0.0100	< 0.0100	
Iron	mg/L	4/17/2019 937h	4/22/2019 1800h	E200.8	0.0300	< 0.0300	
Lead	mg/L	4/17/2019 937h	4/22/2019 1800h	E200.8	0.00100	< 0.00100	
Magnesium	mg/L	4/17/2019 937h	4/23/2019 1624h	E200.7	20.0	<b>72.8</b>	
Manganese	mg/L	4/17/2019 937h	4/22/2019 1800h	E200.8	0.0100	< 0.0100	
Mercury	mg/L	4/16/2019 1530h	4/17/2019 854h	E245.1	0.000500	< 0.000500	
Molybdenum	mg/L	4/17/2019 937h	4/22/2019 1800h	E200.8	0.0100	< 0.0100	
Nickel	mg/L	4/17/2019 937h	4/22/2019 1800h	E200.8	0.0200	< 0.0200	
Potassium	mg/L	4/17/2019 937h	4/23/2019 1428h	E200.7	1.00	<b>6.53</b>	
Selenium	mg/L	4/17/2019 937h	4/22/2019 1800h	E200.8	0.00500	<b>0.0536</b>	
Silver	mg/L	4/17/2019 937h	4/22/2019 1800h	E200.8	0.0100	< 0.0100	
Sodium	mg/L	4/17/2019 937h	4/23/2019 1400h	E200.7	20.0	<b>95.5</b>	
Thallium	mg/L	4/17/2019 937h	4/22/2019 1800h	E200.8	0.000500	< 0.000500	
Tin	mg/L	4/17/2019 937h	4/22/2019 1800h	E200.8	0.100	< 0.100	
Uranium	mg/L	4/17/2019 937h	4/22/2019 1800h	E200.8	0.000300	<b>0.00862</b>	
Vanadium	mg/L	4/17/2019 937h	4/23/2019 1644h	E200.7	0.0150	< 0.0150	
Zinc	mg/L	4/17/2019 937h	4/22/2019 1800h	E200.8	0.0100	< 0.0100	

3440 South 700 West

Salt Lake City, UT 84119

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web: www.awal-labs.com

Kyle F. Gross

Laboratory Director

Jose Rocha

QA Officer



# INORGANIC ANALYTICAL REPORT

**Client:** Energy Fuels Resources, Inc.  
**Project:** 2nd Quarter Groundwater 2019  
**Lab Sample ID:** 1904300-002  
**Client Sample ID:** MW-30\_04092019  
**Collection Date:** 4/9/2019 1210h  
**Received Date:** 4/11/2019 847h

**Contact:** Tanner Holliday

## Analytical Results

		Compound	Units	Date Prepared	Date Analyzed	Method Used	Reporting Limit	Analytical Result	Qual
3440 South 700 West		Ammonia (as N)	mg/L	4/18/2019 1030h	4/18/2019 1400h	E350.1	0.0500	< 0.0500	
Salt Lake City, UT 84119		Bicarbonate (as CaCO3)	mg/L		4/12/2019 802h	SM2320B	1.00	<b>170</b>	
		Carbonate (as CaCO3)	mg/L		4/12/2019 802h	SM2320B	1.00	< 1.00	
Phone: (801) 263-8686		Chloride	mg/L		4/17/2019 1107h	E300.0	10.0	<b>138</b>	
Toll Free: (888) 263-8686		Fluoride	mg/L		4/17/2019 1446h	E300.0	0.100	<b>0.329</b>	
Fax: (801) 263-8687		Ion Balance	%		4/23/2019 1530h	Calc.	-100	<b>6.38</b>	
e-mail: awal@awal-labs.com		Nitrate/Nitrite (as N)	mg/L		4/15/2019 1205h	E353.2	0.100	<b>18.5</b>	
		Sulfate	mg/L		4/17/2019 1107h	E300.0	75.0	<b>668</b>	
web: www.awal-labs.com		Total Anions, Measured	meq/L		4/23/2019 1530h	Calc.		<b>21.5</b>	
		Total Cations, Measured	meq/L		4/23/2019 1530h	Calc.		<b>24.4</b>	
		Total Dissolved Solids	mg/L		4/11/2019 1200h	SM2540C	20.0	<b>1,550</b>	
Kyle F. Gross Laboratory Director		Total Dissolved Solids Ratio, Measured/Calculated			4/23/2019 1530h	Calc.		<b>1.12</b>	
		Total Dissolved Solids, Calculated	mg/L		4/23/2019 1530h	Calc.		<b>1,380</b>	
Jose Rocha QA Officer									



# ORGANIC ANALYTICAL REPORT

**Client:** Energy Fuels Resources, Inc.  
**Project:** 2nd Quarter Groundwater 2019  
**Lab Sample ID:** 1904300-002A  
**Client Sample ID:** MW-30\_04092019  
**Collection Date:** 4/9/2019 1210h  
**Received Date:** 4/11/2019 847h

**Contact:** Tanner Holliday

Test Code: 8260-W-DEN100

## Analytical Results

VOAs by GC/MS Method 8260C/5030C

**Analyzed:** 4/12/2019 851h

**Units:** µg/L

**Dilution Factor:** 1

**Method:** SW8260C

3440 South 700 West

Salt Lake City, UT 84119

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

Compound	CAS Number	Reporting Limit	Analytical Result	Qual
2-Butanone	78-93-3	20.0	< 20.0	
Acetone	67-64-1	20.0	< 20.0	
Benzene	71-43-2	1.00	< 1.00	
Carbon tetrachloride	56-23-5	1.00	< 1.00	
Chloroform	67-66-3	1.00	< 1.00	
Chloromethane	74-87-3	1.00	< 1.00	
Methylene chloride	75-09-2	1.00	< 1.00	
Naphthalene	91-20-3	1.00	< 1.00	
Tetrahydrofuran	109-99-9	1.00	< 1.00	
Toluene	108-88-3	1.00	< 1.00	
Xylenes, Total	1330-20-7	1.00	< 1.00	

Surrogate	Units: µg/L	CAS	Result	Amount Spiked	% REC	Limits	Qual
Surr: 1,2-Dichloroethane-d4		17060-07-0	49.2	50.00	98.5	72-151	
Surr: 4-Bromofluorobenzene		460-00-4	50.6	50.00	101	80-152	
Surr: Dibromofluoromethane		1868-53-7	45.1	50.00	90.1	72-135	
Surr: Toluene-d8		2037-26-5	50.4	50.00	101	80-124	

# GEL LABORATORIES LLC

2040 Savage Road Charleston SC 29407 - (843) 556-8171 - www.gel.com

## Certificate of Analysis

Report Date: April 29, 2019

Company : Energy Fuels Resources (USA), Inc.  
Address : 225 Union Boulevard  
Suite 600  
Lakewood, Colorado 80228  
Contact: Ms. Kathy Weinel  
Project: White Mesa Mill GW

Client Sample ID: MW-30\_04092019 Project: DNMI00100  
Sample ID: 476322002 Client ID: DNMI001  
Matrix: Ground Water  
Collect Date: 09-APR-19 12:10  
Receive Date: 12-APR-19  
Collector: Client

Parameter	Qualifier	Result	Uncertainty	MDC	RL	Units	PF	DF	Analyst	Date	Time	Batch	Method
Rad Gas Flow Proportional Counting													
GFPC, Total Alpha Radium, Liquid "As Received"													
Gross Radium Alpha	U	1.00	+/-0.260	0.891	1.00	pCi/L			JXC9	04/24/19	1330	1867685	1

The following Analytical Methods were performed:

Method	Description	Analyst Comments			
	EPA 903.0				
Surrogate/Tracer Recovery	Test	Result	Nominal	Recovery%	Acceptable Limits
Barium Carrier	GFPC, Total Alpha Radium, Liquid "As Received"			103	(25%-125%)

### Notes:

Counting Uncertainty is calculated at the 68% confidence level (1-sigma).

SRL = Sample Reporting Limit. For metals analysis only. When the sample is U qualified and ND, the SRL column reports the value which is the greater of either the adjusted MDL or the CRDL.

Column headers are defined as follows:

DF: Dilution Factor                      Lc/LC: Critical Level  
DL: Detection Limit                      PF: Prep Factor  
MDA: Minimum Detectable Activity      RL: Reporting Limit  
MDC: Minimum Detectable Concentration      SQL: Sample Quantitation Limit



# INORGANIC ANALYTICAL REPORT

**Client:** Energy Fuels Resources, Inc.  
**Project:** 2nd Quarter Groundwater 2019  
**Lab Sample ID:** 1904300-003  
**Client Sample ID:** MW-31\_04102019  
**Collection Date:** 4/10/2019 1335h  
**Received Date:** 4/11/2019 847h

**Contact:** Tanner Holliday

## Analytical Results

## DISSOLVED METALS

Compound	Units	Date Prepared	Date Analyzed	Method Used	Reporting Limit	Analytical Result	Qual
Arsenic	mg/L	4/17/2019 937h	4/22/2019 1803h	E200.8	0.00500	< 0.00500	
Beryllium	mg/L	4/17/2019 937h	4/22/2019 1803h	E200.8	0.000500	< 0.000500	
Cadmium	mg/L	4/17/2019 937h	4/22/2019 1803h	E200.8	0.000500	< 0.000500	
Calcium	mg/L	4/17/2019 937h	4/23/2019 1402h	E200.7	20.0	<b>327</b>	
Chromium	mg/L	4/17/2019 937h	4/24/2019 1040h	E200.8	0.0250	< 0.0250	
Cobalt	mg/L	4/17/2019 937h	4/22/2019 1803h	E200.8	0.0100	< 0.0100	
Copper	mg/L	4/17/2019 937h	4/24/2019 1040h	E200.8	0.0100	< 0.0100	
Iron	mg/L	4/17/2019 937h	4/22/2019 1803h	E200.8	0.0300	< 0.0300	
Lead	mg/L	4/17/2019 937h	4/22/2019 1803h	E200.8	0.00100	< 0.00100	
Magnesium	mg/L	4/17/2019 937h	4/23/2019 1626h	E200.7	20.0	<b>146</b>	
Manganese	mg/L	4/17/2019 937h	4/22/2019 1803h	E200.8	0.0100	< 0.0100	
Mercury	mg/L	4/16/2019 1530h	4/17/2019 856h	E245.1	0.000500	< 0.000500	
Molybdenum	mg/L	4/17/2019 937h	4/22/2019 1803h	E200.8	0.0100	< 0.0100	
Nickel	mg/L	4/17/2019 937h	4/22/2019 1803h	E200.8	0.0200	< 0.0200	
Potassium	mg/L	4/17/2019 937h	4/23/2019 1430h	E200.7	1.00	<b>7.01</b>	
Selenium	mg/L	4/17/2019 937h	4/22/2019 1803h	E200.8	0.00500	<b>0.0963</b>	
Silver	mg/L	4/17/2019 937h	4/22/2019 1803h	E200.8	0.0100	< 0.0100	
Sodium	mg/L	4/17/2019 937h	4/23/2019 1402h	E200.7	20.0	<b>107</b>	
Thallium	mg/L	4/17/2019 937h	4/22/2019 1803h	E200.8	0.000500	< 0.000500	
Tin	mg/L	4/17/2019 937h	4/22/2019 1803h	E200.8	0.100	< 0.100	
Uranium	mg/L	4/17/2019 937h	4/22/2019 1803h	E200.8	0.000300	<b>0.0136</b>	
Vanadium	mg/L	4/17/2019 937h	4/23/2019 1646h	E200.7	0.0150	< 0.0150	
Zinc	mg/L	4/17/2019 937h	4/22/2019 1803h	E200.8	0.0100	< 0.0100	

3440 South 700 West

Salt Lake City, UT 84119

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



# INORGANIC ANALYTICAL REPORT

**Client:** Energy Fuels Resources, Inc.  
**Project:** 2nd Quarter Groundwater 2019  
**Lab Sample ID:** 1904300-003  
**Client Sample ID:** MW-31\_04102019  
**Collection Date:** 4/10/2019 1335h  
**Received Date:** 4/11/2019 847h

**Contact:** Tanner Holliday

## Analytical Results

3440 South 700 West  
Salt Lake City, UT 84119

Phone: (801) 263-8686  
 Toll Free: (888) 263-8686  
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 e-mail: awal@awal-labs.com

web: www.awal-labs.com

Kyle F. Gross  
 Laboratory Director

Jose Rocha  
 QA Officer

Compound	Units	Date Prepared	Date Analyzed	Method Used	Reporting Limit	Analytical Result	Qual
Ammonia (as N)	mg/L	4/18/2019 1030h	4/18/2019 1401h	E350.1	0.0500	< 0.0500	
Bicarbonate (as CaCO3)	mg/L		4/12/2019 802h	SM2320B	1.00	<b>176</b>	
Carbonate (as CaCO3)	mg/L		4/12/2019 802h	SM2320B	1.00	< 1.00	
Chloride	mg/L		4/17/2019 1322h	E300.0	10.0	<b>294</b>	
Fluoride	mg/L		4/17/2019 1505h	E300.0	0.100	<b>0.667</b>	
Ion Balance	%		4/23/2019 1530h	Calc.	-100	<b>3.00</b>	
Nitrate/Nitrite (as N)	mg/L		4/15/2019 1206h	E353.2	0.100	<b>19.7</b>	
Sulfate	mg/L		4/17/2019 1322h	E300.0	75.0	<b>917</b>	
Total Anions, Measured	meq/L		4/23/2019 1530h	Calc.		<b>31.2</b>	
Total Cations, Measured	meq/L		4/23/2019 1530h	Calc.		<b>33.1</b>	
Total Dissolved Solids	mg/L		4/11/2019 1200h	SM2540C	20.0	<b>2,080</b>	
Total Dissolved Solids Ratio, Measured/Calculated			4/23/2019 1530h	Calc.		<b>1.08</b>	
Total Dissolved Solids, Calculated	mg/L		4/23/2019 1530h	Calc.		<b>1,920</b>	



# ORGANIC ANALYTICAL REPORT

**Client:** Energy Fuels Resources, Inc.  
**Project:** 2nd Quarter Groundwater 2019  
**Lab Sample ID:** 1904300-003A  
**Client Sample ID:** MW-31\_04102019  
**Collection Date:** 4/10/2019 1335h  
**Received Date:** 4/11/2019 847h

**Contact:** Tanner Holliday

Test Code: 8260-W-DEN100

**Analytical Results**

VOAs by GC/MS Method 8260C/5030C

**Analyzed:** 4/12/2019 911h

**Units:** µg/L

**Dilution Factor:** 1

**Method:** SW8260C

3440 South 700 West  
Salt Lake City, UT 84119

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

Compound	CAS Number	Reporting Limit	Analytical Result	Qual
2-Butanone	78-93-3	20.0	< 20.0	
Acetone	67-64-1	20.0	< 20.0	
Benzene	71-43-2	1.00	< 1.00	
Carbon tetrachloride	56-23-5	1.00	< 1.00	
Chloroform	67-66-3	1.00	< 1.00	
Chloromethane	74-87-3	1.00	< 1.00	
Methylene chloride	75-09-2	1.00	< 1.00	
Naphthalene	91-20-3	1.00	< 1.00	
Tetrahydrofuran	109-99-9	1.00	< 1.00	
Toluene	108-88-3	1.00	< 1.00	
Xylenes, Total	1330-20-7	1.00	< 1.00	

Surrogate	Units: µg/L	CAS	Result	Amount Spiked	% REC	Limits	Qual
Surr: 1,2-Dichloroethane-d4		17060-07-0	51.1	50.00	102	72-151	
Surr: 4-Bromofluorobenzene		460-00-4	53.7	50.00	107	80-152	
Surr: Dibromofluoromethane		1868-53-7	45.2	50.00	90.3	72-135	
Surr: Toluene-d8		2037-26-5	51.4	50.00	103	80-124	

# GEL LABORATORIES LLC

2040 Savage Road Charleston SC 29407 - (843) 556-8171 - www.gel.com

## Certificate of Analysis

Report Date: April 29, 2019

Company : Energy Fuels Resources (USA), Inc.  
Address : 225 Union Boulevard  
Suite 600  
Lakewood, Colorado 80228  
Contact: Ms. Kathy Weinel  
Project: White Mesa Mill GW

Client Sample ID: MW-31\_04102019 Project: DNMI00100  
Sample ID: 476322003 Client ID: DNMI001  
Matrix: Ground Water  
Collect Date: 10-APR-19 13:35  
Receive Date: 12-APR-19  
Collector: Client

Parameter	Qualifier	Result	Uncertainty	MDC	RL	Units	PF	DF	Analyst	Date	Time	Batch	Method
Rad Gas Flow Proportional Counting													
GFPC, Total Alpha Radium, Liquid "As Received"													
Gross Radium Alpha		1.77	+/-0.423	0.845	1.00	pCi/L			JXC9	04/24/19	1330	1867685	1

The following Analytical Methods were performed:

Method	Description	Analyst Comments
	EPA 903.0	

Surrogate/Tracer Recovery	Test	Result	Nominal	Recovery%	Acceptable Limits
Barium Carrier	GFPC, Total Alpha Radium, Liquid "As Received"			100	(25%-125%)

### Notes:

Counting Uncertainty is calculated at the 68% confidence level (1-sigma).

SRL = Sample Reporting Limit. For metals analysis only. When the sample is U qualified and ND, the SRL column reports the value which is the greater of either the adjusted MDL or the CRDL.

Column headers are defined as follows:

DF: Dilution Factor                      Lc/LC: Critical Level  
DL: Detection Limit                      PF: Prep Factor  
MDA: Minimum Detectable Activity      RL: Reporting Limit  
MDC: Minimum Detectable Concentration      SQL: Sample Quantitation Limit



# INORGANIC ANALYTICAL REPORT

**Client:** Energy Fuels Resources, Inc.  
**Project:** 2nd Quarter Groundwater 2019  
**Lab Sample ID:** 1904300-004  
**Client Sample ID:** MW-32\_04092019  
**Collection Date:** 4/9/2019 1325h  
**Received Date:** 4/11/2019 847h

**Contact:** Tanner Holliday

## Analytical Results

## DISSOLVED METALS

Compound	Units	Date Prepared	Date Analyzed	Method Used	Reporting Limit	Analytical Result	Qual
Arsenic	mg/L	4/17/2019 937h	4/22/2019 1807h	E200.8	0.00500	< 0.00500	
Beryllium	mg/L	4/17/2019 937h	4/22/2019 1807h	E200.8	0.000500	< 0.000500	
Cadmium	mg/L	4/17/2019 937h	4/22/2019 1807h	E200.8	0.000500	<b>0.00154</b>	
Calcium	mg/L	4/17/2019 937h	4/23/2019 1405h	E200.7	20.0	<b>512</b>	
Chromium	mg/L	4/17/2019 937h	4/24/2019 1043h	E200.8	0.0250	< 0.0250	
Cobalt	mg/L	4/17/2019 937h	4/22/2019 1807h	E200.8	0.0100	<b>0.0353</b>	
Copper	mg/L	4/17/2019 937h	4/24/2019 1043h	E200.8	0.0100	< 0.0100	
Iron	mg/L	4/17/2019 937h	4/23/2019 1652h	E200.8	0.500	<b>5.52</b>	
Lead	mg/L	4/17/2019 937h	4/22/2019 1807h	E200.8	0.00100	< 0.00100	
Magnesium	mg/L	4/17/2019 937h	4/23/2019 1628h	E200.7	20.0	<b>196</b>	
Manganese	mg/L	4/17/2019 937h	4/23/2019 1652h	E200.8	0.0100	<b>4.98</b>	
Mercury	mg/L	4/16/2019 1530h	4/17/2019 858h	E245.1	0.000500	< 0.000500	
Molybdenum	mg/L	4/17/2019 937h	4/22/2019 1807h	E200.8	0.0100	<b>0.0100</b>	
Nickel	mg/L	4/17/2019 937h	4/22/2019 1807h	E200.8	0.0200	<b>0.0401</b>	
Potassium	mg/L	4/17/2019 937h	4/23/2019 1432h	E200.7	1.00	<b>13.9</b>	
Selenium	mg/L	4/17/2019 937h	4/22/2019 1807h	E200.8	0.00500	< 0.00500	
Silver	mg/L	4/17/2019 937h	4/22/2019 1807h	E200.8	0.0100	< 0.0100	
Sodium	mg/L	4/17/2019 937h	4/23/2019 1405h	E200.7	20.0	<b>216</b>	
Thallium	mg/L	4/17/2019 937h	4/22/2019 1807h	E200.8	0.000500	< 0.000500	
Tin	mg/L	4/17/2019 937h	4/22/2019 1807h	E200.8	0.100	< 0.100	
Uranium	mg/L	4/17/2019 937h	4/22/2019 1807h	E200.8	0.000300	<b>0.00184</b>	
Vanadium	mg/L	4/17/2019 937h	4/23/2019 1649h	E200.7	0.0150	< 0.0150	
Zinc	mg/L	4/17/2019 937h	4/22/2019 1807h	E200.8	0.0100	<b>0.0668</b>	

3440 South 700 West

Salt Lake City, UT 84119

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Toll Free: (888) 263-8686

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web: www.awal-labs.com

Kyle F. Gross

Laboratory Director

Jose Rocha

QA Officer



# INORGANIC ANALYTICAL REPORT

**Client:** Energy Fuels Resources, Inc.  
**Project:** 2nd Quarter Groundwater 2019  
**Lab Sample ID:** 1904300-004  
**Client Sample ID:** MW-32\_04092019  
**Collection Date:** 4/9/2019 1325h  
**Received Date:** 4/11/2019 847h

**Contact:** Tanner Holliday

## Analytical Results

Compound	Units	Date Prepared	Date Analyzed	Method Used	Reporting Limit	Analytical Result	Qual
Ammonia (as N)	mg/L	4/18/2019 1030h	4/18/2019 1407h	E350.1	0.0500	<b>0.625</b>	
Bicarbonate (as CaCO3)	mg/L		4/12/2019 802h	SM2320B	1.00	<b>378</b>	
Carbonate (as CaCO3)	mg/L		4/12/2019 802h	SM2320B	1.00	< 1.00	
Chloride	mg/L		4/17/2019 1356h	E300.0	1.00	<b>34.5</b>	
Fluoride	mg/L		4/17/2019 1430h	E300.0	0.100	<b>0.160</b>	
Ion Balance	%		4/23/2019 1530h	Calc.	-100	<b>4.13</b>	
Nitrate/Nitrite (as N)	mg/L		4/15/2019 1233h	E353.2	0.100	< 0.100	
Sulfate	mg/L		4/17/2019 1305h	E300.0	150	<b>1,860</b>	
Total Anions, Measured	meq/L		4/23/2019 1530h	Calc.		<b>47.3</b>	
Total Cations, Measured	meq/L		4/23/2019 1530h	Calc.		<b>51.4</b>	
Total Dissolved Solids	mg/L		4/11/2019 1200h	SM2540C	20.0	<b>3,230</b>	
Total Dissolved Solids Ratio, Measured/Calculated			4/23/2019 1530h	Calc.		<b>1.05</b>	
Total Dissolved Solids, Calculated	mg/L		4/23/2019 1530h	Calc.		<b>3,060</b>	

3440 South 700 West

Salt Lake City, UT 84119

Phone: (801) 263-8686

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web: www.awal-labs.com

Kyle F. Gross

Laboratory Director

Jose Rocha

QA Officer



# ORGANIC ANALYTICAL REPORT

**Client:** Energy Fuels Resources, Inc.  
**Project:** 2nd Quarter Groundwater 2019  
**Lab Sample ID:** 1904300-004A  
**Client Sample ID:** MW-32\_04092019  
**Collection Date:** 4/9/2019 1325h  
**Received Date:** 4/11/2019 847h

**Contact:** Tanner Holliday

Test Code: 8260-W-DEN100

## Analytical Results

VOAs by GC/MS Method 8260C/5030C

**Analyzed:** 4/12/2019 930h

**Units:** µg/L

**Dilution Factor:** 1

**Method:** SW8260C

3440 South 700 West

Salt Lake City, UT 84119

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

Compound	CAS Number	Reporting Limit	Analytical Result	Qual
2-Butanone	78-93-3	20.0	< 20.0	
Acetone	67-64-1	20.0	< 20.0	
Benzene	71-43-2	1.00	< 1.00	
Carbon tetrachloride	56-23-5	1.00	< 1.00	
Chloroform	67-66-3	1.00	< 1.00	
Chloromethane	74-87-3	1.00	< 1.00	
Methylene chloride	75-09-2	1.00	< 1.00	
Naphthalene	91-20-3	1.00	< 1.00	
Tetrahydrofuran	109-99-9	1.00	< 1.00	
Toluene	108-88-3	1.00	< 1.00	
Xylenes, Total	1330-20-7	1.00	< 1.00	

Surrogate	Units: µg/L	CAS	Result	Amount Spiked	% REC	Limits	Qual
Surr: 1,2-Dichloroethane-d4		17060-07-0	50.9	50.00	102	72-151	
Surr: 4-Bromofluorobenzene		460-00-4	51.1	50.00	102	80-152	
Surr: Dibromofluoromethane		1868-53-7	42.2	50.00	84.5	72-135	
Surr: Toluene-d8		2037-26-5	47.3	50.00	94.6	80-124	

# GEL LABORATORIES LLC

2040 Savage Road Charleston SC 29407 - (843) 556-8171 - www.gel.com

## Certificate of Analysis

Report Date: April 29, 2019

Company : Energy Fuels Resources (USA), Inc.  
Address : 225 Union Boulevard  
Suite 600  
Lakewood, Colorado 80228  
Contact: Ms. Kathy Weinel  
Project: White Mesa Mill GW

Client Sample ID: MW-32\_04092019 Project: DNMI00100  
Sample ID: 476322004 Client ID: DNMI001  
Matrix: Ground Water  
Collect Date: 09-APR-19 13:25  
Receive Date: 12-APR-19  
Collector: Client

Parameter	Qualifier	Result	Uncertainty	MDC	RL	Units	PF	DF	Analyst	Date	Time	Batch	Method
Rad Gas Flow Proportional Counting													
GFPC, Total Alpha Radium, Liquid "As Received"													
Gross Radium Alpha		3.66	+/-0.629	0.990	1.00	pCi/L			JXC9	04/24/19	1330	1867685	1

The following Analytical Methods were performed:

Method	Description	Analyst Comments			
	EPA 903.0				
Surrogate/Tracer Recovery	Test	Result	Nominal	Recovery%	Acceptable Limits
Barium Carrier	GFPC, Total Alpha Radium, Liquid "As Received"			101	(25%-125%)

### Notes:

Counting Uncertainty is calculated at the 68% confidence level (1-sigma).

SRL = Sample Reporting Limit. For metals analysis only. When the sample is U qualified and ND, the SRL column reports the value which is the greater of either the adjusted MDL or the CRDL.

Column headers are defined as follows:

DF: Dilution Factor                      Lc/LC: Critical Level  
DL: Detection Limit                      PF: Prep Factor  
MDA: Minimum Detectable Activity      RL: Reporting Limit  
MDC: Minimum Detectable Concentration      SQL: Sample Quantitation Limit



# INORGANIC ANALYTICAL REPORT

**Client:** Energy Fuels Resources, Inc.  
**Project:** 2nd Quarter Groundwater 2019  
**Lab Sample ID:** 1904508-004  
**Client Sample ID:** MW-35\_04182019  
**Collection Date:** 4/18/2019 825h  
**Received Date:** 4/19/2019 1045h

**Contact:** Tanner Holliday

## Analytical Results

## DISSOLVED METALS

Compound	Units	Date Prepared	Date Analyzed	Method Used	Reporting Limit	Analytical Result	Qual
Arsenic	mg/L	4/22/2019 1103h	4/30/2019 1850h	E200.8	0.00500	< 0.00500	
Beryllium	mg/L	4/22/2019 1103h	4/30/2019 1850h	E200.8	0.000500	< 0.000500	
Cadmium	mg/L	4/22/2019 1103h	4/30/2019 1850h	E200.8	0.000500	< 0.000500	
Calcium	mg/L	4/22/2019 1103h	5/1/2019 1324h	E200.7	20.0	<b>553</b>	
Chromium	mg/L	4/22/2019 1103h	4/30/2019 1850h	E200.8	0.0250	< 0.0250	
Cobalt	mg/L	4/22/2019 1103h	4/30/2019 1850h	E200.8	0.0100	< 0.0100	
Copper	mg/L	4/22/2019 1103h	4/30/2019 1850h	E200.8	0.0100	< 0.0100	
Iron	mg/L	4/22/2019 1103h	4/30/2019 1850h	E200.8	0.0300	<b>0.175</b>	
Lead	mg/L	4/22/2019 1103h	4/30/2019 1850h	E200.8	0.00100	< 0.00100	
Magnesium	mg/L	4/22/2019 1103h	5/1/2019 1324h	E200.7	20.0	<b>169</b>	
Manganese	mg/L	4/22/2019 1103h	4/30/2019 1823h	E200.8	0.0100	<b>0.270</b>	
Mercury	mg/L	4/25/2019 1745h	4/26/2019 900h	E245.1	0.000500	< 0.000500	
Molybdenum	mg/L	4/22/2019 1103h	4/30/2019 1850h	E200.8	0.0100	< 0.0100	
Nickel	mg/L	4/22/2019 1103h	4/30/2019 1850h	E200.8	0.0200	< 0.0200	
Potassium	mg/L	4/22/2019 1103h	5/1/2019 1412h	E200.7	1.00	<b>12.1</b>	
Selenium	mg/L	4/22/2019 1103h	4/30/2019 1850h	E200.8	0.00500	<b>0.00588</b>	
Silver	mg/L	4/22/2019 1103h	4/30/2019 1850h	E200.8	0.0100	< 0.0100	
Sodium	mg/L	4/22/2019 1103h	5/1/2019 1324h	E200.7	20.0	<b>416</b>	
Thallium	mg/L	4/22/2019 1103h	4/30/2019 1850h	E200.8	0.000500	< 0.000500	
Tin	mg/L	4/22/2019 1103h	4/30/2019 1850h	E200.8	0.100	< 0.100	
Uranium	mg/L	4/22/2019 1103h	4/30/2019 1850h	E200.8	0.000300	<b>0.0215</b>	
Vanadium	mg/L	4/22/2019 1103h	5/1/2019 1412h	E200.7	0.0150	< 0.0150	
Zinc	mg/L	4/22/2019 1103h	5/1/2019 1336h	E200.8	0.0100	< 0.0100	

3440 South 700 West

Salt Lake City, UT 84119

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



# INORGANIC ANALYTICAL REPORT

**Client:** Energy Fuels Resources, Inc.  
**Project:** 2nd Quarter Groundwater 2019  
**Lab Sample ID:** 1904508-004  
**Client Sample ID:** MW-35\_04182019  
**Collection Date:** 4/18/2019 825h  
**Received Date:** 4/19/2019 1045h

**Contact:** Tanner Holliday

## Analytical Results

Compound	Units	Date Prepared	Date Analyzed	Method Used	Reporting Limit	Analytical Result	Qual
Ammonia (as N)	mg/L	4/30/2019 1150h	4/30/2019 1403h	E350.1	0.0500	<b>0.0634</b>	
Bicarbonate (as CaCO3)	mg/L		4/22/2019 720h	SM2320B	1.00	<b>344</b>	
Carbonate (as CaCO3)	mg/L		4/22/2019 720h	SM2320B	1.00	< 1.00	
Chloride	mg/L		5/1/2019 2104h	E300.0	1.00	<b>65.2</b>	
Fluoride	mg/L		5/1/2019 2318h	E300.0	0.100	<b>0.397</b>	
Ion Balance	%		5/1/2019 1538h	Calc.	-100	<b>7.51</b>	
Nitrate/Nitrite (as N)	mg/L		4/22/2019 1103h	E353.2	0.100	< 0.100	
Sulfate	mg/L		5/1/2019 1130h	E300.0	150	<b>2,060</b>	
Total Anions, Measured	meq/L		5/1/2019 1538h	Calc.		<b>51.6</b>	
Total Cations, Measured	meq/L		5/1/2019 1538h	Calc.		<b>60.0</b>	
Total Dissolved Solids	mg/L		4/19/2019 1125h	SM2540C	20.0	<b>3,450</b>	
Total Dissolved Solids Ratio, Measured/Calculated			5/1/2019 1538h	Calc.		<b>0.992</b>	
Total Dissolved Solids, Calculated	mg/L		5/1/2019 1538h	Calc.		<b>3,480</b>	

3440 South 700 West

Salt Lake City, UT 84119

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e-mail: awal@awal-labs.com

web: www.awal-labs.com

Kyle F. Gross

Laboratory Director

Jose Rocha

QA Officer



# ORGANIC ANALYTICAL REPORT

**Client:** Energy Fuels Resources, Inc.  
**Project:** 2nd Quarter Groundwater 2019  
**Lab Sample ID:** 1904508-004A  
**Client Sample ID:** MW-35\_04182019  
**Collection Date:** 4/18/2019 825h  
**Received Date:** 4/19/2019 1045h

**Contact:** Tanner Holliday

Test Code: 8260-W-DEN100

**Analytical Results**

VOAs by GC/MS Method 8260C/5030C

**Analyzed:** 4/22/2019 1257h

**Units:** µg/L

**Dilution Factor:** 1

**Method:** SW8260C

3440 South 700 West

Salt Lake City, UT 84119

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

Compound	CAS Number	Reporting Limit	Analytical Result	Qual
2-Butanone	78-93-3	20.0	< 20.0	
Acetone	67-64-1	20.0	< 20.0	
Benzene	71-43-2	1.00	< 1.00	
Carbon tetrachloride	56-23-5	1.00	< 1.00	
Chloroform	67-66-3	1.00	< 1.00	
Chloromethane	74-87-3	1.00	< 1.00	
Methylene chloride	75-09-2	1.00	< 1.00	
Naphthalene	91-20-3	1.00	< 1.00	
Tetrahydrofuran	109-99-9	1.00	< 1.00	
Toluene	108-88-3	1.00	< 1.00	
Xylenes, Total	1330-20-7	1.00	< 1.00	

Surrogate	Units: µg/L	CAS	Result	Amount Spiked	% REC	Limits	Qual
Surr: 1,2-Dichloroethane-d4		17060-07-0	52.1	50.00	104	72-151	
Surr: 4-Bromofluorobenzene		460-00-4	50.8	50.00	102	80-152	
Surr: Dibromofluoromethane		1868-53-7	48.4	50.00	96.9	72-135	
Surr: Toluene-d8		2037-26-5	50.7	50.00	101	80-124	

# GEL LABORATORIES LLC

2040 Savage Road Charleston SC 29407 - (843) 556-8171 - www.gel.com

## Certificate of Analysis

Report Date: May 9, 2019

Company : Energy Fuels Resources (USA), Inc.  
 Address : 225 Union Boulevard  
 Suite 600  
 Lakewood, Colorado 80228  
 Contact: Ms. Kathy Weinel  
 Project: White Mesa Mill GW

Client Sample ID: MW-35_04182019	Project: DNMI00100
Sample ID: 476962004	Client ID: DNMI001
Matrix: Ground Water	
Collect Date: 18-APR-19 08:25	
Receive Date: 19-APR-19	
Collector: Client	

Parameter	Qualifier	Result	Uncertainty	MDC	RL	Units	PF	DF	Analyst	Date	Time	Batch	Method
Rad Gas Flow Proportional Counting													
GFPC, Total Alpha Radium, Liquid "As Received"													
Gross Radium Alpha		4.02	+/-0.480	0.665	1.00	pCi/L			LXB3	05/06/19	1635	1872063	1

The following Analytical Methods were performed:

Method	Description	Analyst Comments											
	EPA 903.0												
Surrogate/Tracer Recovery	Test	Result	Nominal	Recovery%	Acceptable Limits								
Barium Carrier	GFPC, Total Alpha Radium, Liquid "As Received"			98.2	(25%-125%)								

**Notes:**

Counting Uncertainty is calculated at the 68% confidence level (1-sigma).

SRL = Sample Reporting Limit. For metals analysis only. When the sample is U qualified and ND, the SRL column reports the value which is the greater of either the adjusted MDL or the CRDL.

Column headers are defined as follows:

DF: Dilution Factor	Lc/LC: Critical Level
DL: Detection Limit	PF: Prep Factor
MDA: Minimum Detectable Activity	RL: Reporting Limit
MDC: Minimum Detectable Concentration	SQL: Sample Quantitation Limit



# INORGANIC ANALYTICAL REPORT

**Client:** Energy Fuels Resources, Inc.  
**Project:** 2nd Quarter Groundwater 2019  
**Lab Sample ID:** 1904508-005  
**Client Sample ID:** MW-36\_04182019  
**Collection Date:** 4/18/2019 950h  
**Received Date:** 4/19/2019 1045h

**Contact:** Tanner Holliday

## Analytical Results

## DISSOLVED METALS

Compound	Units	Date Prepared	Date Analyzed	Method Used	Reporting Limit	Analytical Result	Qual
Arsenic	mg/L	4/22/2019 1103h	4/30/2019 1853h	E200.8	0.00500	< 0.00500	
Beryllium	mg/L	4/22/2019 1103h	4/30/2019 1853h	E200.8	0.000500	< 0.000500	
Cadmium	mg/L	4/22/2019 1103h	4/30/2019 1853h	E200.8	0.000500	< 0.000500	
Calcium	mg/L	4/22/2019 1103h	5/1/2019 1326h	E200.7	20.0	<b>482</b>	
Chromium	mg/L	4/22/2019 1103h	4/30/2019 1853h	E200.8	0.0250	< 0.0250	
Cobalt	mg/L	4/22/2019 1103h	4/30/2019 1853h	E200.8	0.0100	< 0.0100	
Copper	mg/L	4/22/2019 1103h	4/30/2019 1853h	E200.8	0.0100	< 0.0100	
Iron	mg/L	4/22/2019 1103h	4/30/2019 1853h	E200.8	0.0300	< 0.0300	
Lead	mg/L	4/22/2019 1103h	4/30/2019 1853h	E200.8	0.00100	< 0.00100	
Magnesium	mg/L	4/22/2019 1103h	5/1/2019 1326h	E200.7	20.0	<b>151</b>	
Manganese	mg/L	4/22/2019 1103h	4/30/2019 1853h	E200.8	0.0100	< 0.0100	
Mercury	mg/L	4/25/2019 1745h	4/26/2019 902h	E245.1	0.000500	< 0.000500	
Molybdenum	mg/L	4/22/2019 1103h	4/30/2019 1853h	E200.8	0.0100	< 0.0100	
Nickel	mg/L	4/22/2019 1103h	4/30/2019 1853h	E200.8	0.0200	< 0.0200	
Potassium	mg/L	4/22/2019 1103h	5/1/2019 1414h	E200.7	1.00	<b>10.9</b>	
Selenium	mg/L	4/22/2019 1103h	4/30/2019 1826h	E200.8	0.00500	<b>0.238</b>	
Silver	mg/L	4/22/2019 1103h	4/30/2019 1853h	E200.8	0.0100	< 0.0100	
Sodium	mg/L	4/22/2019 1103h	5/1/2019 1326h	E200.7	20.0	<b>751</b>	
Thallium	mg/L	4/22/2019 1103h	4/30/2019 1853h	E200.8	0.000500	<b>0.000627</b>	
Tin	mg/L	4/22/2019 1103h	4/30/2019 1853h	E200.8	0.100	< 0.100	
Uranium	mg/L	4/22/2019 1103h	4/30/2019 1853h	E200.8	0.000300	<b>0.0228</b>	
Vanadium	mg/L	4/22/2019 1103h	5/1/2019 1414h	E200.7	0.0150	< 0.0150	
Zinc	mg/L	4/22/2019 1103h	5/1/2019 1339h	E200.8	0.0100	<b>0.0225</b>	

3440 South 700 West

Salt Lake City, UT 84119

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



# INORGANIC ANALYTICAL REPORT

**Client:** Energy Fuels Resources, Inc.  
**Project:** 2nd Quarter Groundwater 2019  
**Lab Sample ID:** 1904508-005  
**Client Sample ID:** MW-36\_04182019  
**Collection Date:** 4/18/2019 950h  
**Received Date:** 4/19/2019 1045h

**Contact:** Tanner Holliday

## Analytical Results

Compound	Units	Date Prepared	Date Analyzed	Method Used	Reporting Limit	Analytical Result	Qual
Ammonia (as N)	mg/L	4/30/2019 1150h	4/30/2019 1403h	E350.1	0.0500	< 0.0500	
Bicarbonate (as CaCO3)	mg/L		4/22/2019 720h	SM2320B	1.00	<b>298</b>	
Carbonate (as CaCO3)	mg/L		4/22/2019 720h	SM2320B	1.00	< 1.00	
Chloride	mg/L		5/1/2019 2120h	E300.0	1.00	<b>58.1</b>	
Fluoride	mg/L		5/1/2019 2335h	E300.0	0.100	<b>0.224</b>	
Ion Balance	%		5/1/2019 1538h	Calc.	-100	<b>8.04</b>	
Nitrate/Nitrite (as N)	mg/L		4/22/2019 1041h	E353.2	0.100	<b>0.199</b>	
Sulfate	mg/L		5/1/2019 1147h	E300.0	150	<b>2,470</b>	
Total Anions, Measured	meq/L		5/1/2019 1538h	Calc.		<b>59.1</b>	
Total Cations, Measured	meq/L		5/1/2019 1538h	Calc.		<b>69.4</b>	
Total Dissolved Solids	mg/L		4/19/2019 1125h	SM2540C	20.0	<b>3,980</b>	
Total Dissolved Solids Ratio, Measured/Calculated			5/1/2019 1538h	Calc.		<b>0.969</b>	
Total Dissolved Solids, Calculated	mg/L		5/1/2019 1538h	Calc.		<b>4,100</b>	

3440 South 700 West

Salt Lake City, UT 84119

Phone: (801) 263-8686

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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:** Energy Fuels Resources, Inc.  
**Project:** 2nd Quarter Groundwater 2019  
**Lab Sample ID:** 1904508-005A  
**Client Sample ID:** MW-36\_04182019  
**Collection Date:** 4/18/2019 950h  
**Received Date:** 4/19/2019 1045h

**Contact:** Tanner Holliday

Test Code: 8260-W-DEN100

**Analytical Results**

VOAs by GC/MS Method 8260C/5030C

**Analyzed:** 4/22/2019 1317h

**Units:** µg/L

**Dilution Factor:** 1

**Method:** SW8260C

3440 South 700 West

Salt Lake City, UT 84119

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

Compound	CAS Number	Reporting Limit	Analytical Result	Qual
2-Butanone	78-93-3	20.0	< 20.0	
Acetone	67-64-1	20.0	< 20.0	
Benzene	71-43-2	1.00	< 1.00	
Carbon tetrachloride	56-23-5	1.00	< 1.00	
Chloroform	67-66-3	1.00	< 1.00	
Chloromethane	74-87-3	1.00	< 1.00	
Methylene chloride	75-09-2	1.00	< 1.00	
Naphthalene	91-20-3	1.00	< 1.00	
Tetrahydrofuran	109-99-9	1.00	< 1.00	
Toluene	108-88-3	1.00	< 1.00	
Xylenes, Total	1330-20-7	1.00	< 1.00	

Jose Rocha

QA Officer

Surrogate	Units: µg/L	CAS	Result	Amount Spiked	% REC	Limits	Qual
Surr: 1,2-Dichloroethane-d4		17060-07-0	53.0	50.00	106	72-151	
Surr: 4-Bromofluorobenzene		460-00-4	51.4	50.00	103	80-152	
Surr: Dibromofluoromethane		1868-53-7	49.4	50.00	98.7	72-135	
Surr: Toluene-d8		2037-26-5	50.1	50.00	100	80-124	

# GEL LABORATORIES LLC

2040 Savage Road Charleston SC 29407 - (843) 556-8171 - www.gel.com

## Certificate of Analysis

Report Date: May 9, 2019

Company : Energy Fuels Resources (USA), Inc.  
Address : 225 Union Boulevard  
Suite 600  
Lakewood, Colorado 80228  
Contact: Ms. Kathy Weinel  
Project: White Mesa Mill GW

Client Sample ID: MW-36\_04182019  
Sample ID: 476962005  
Matrix: Ground Water  
Collect Date: 18-APR-19 09:50  
Receive Date: 19-APR-19  
Collector: Client

Project: DNMI00100  
Client ID: DNMI001

Parameter	Qualifier	Result	Uncertainty	MDC	RL	Units	PF	DF	Analyst	Date	Time	Batch	Method
Rad Gas Flow Proportional Counting													
GFPC, Total Alpha Radium, Liquid "As Received"													
Gross Radium Alpha	U	1.00	+/-0.239	0.566	1.00	pCi/L			LXB3	05/06/19	1635	1872063	I

The following Analytical Methods were performed:

Method	Description	Analyst	Comments
	EPA 903.0		

Surrogate/Tracer Recovery	Test	Result	Nominal	Recovery%	Acceptable Limits
Barium Carrier	GFPC, Total Alpha Radium, Liquid "As Received"			97.5	(25%-125%)

### Notes:

Counting Uncertainty is calculated at the 68% confidence level (1-sigma).

SRL = Sample Reporting Limit. For metals analysis only. When the sample is U qualified and ND, the SRL column reports the value which is the greater of either the adjusted MDL or the CRDL.

Column headers are defined as follows:

DF: Dilution Factor  
DL: Detection Limit  
MDA: Minimum Detectable Activity  
MDC: Minimum Detectable Concentration  
Lc/LC: Critical Level  
PF: Prep Factor  
RL: Reporting Limit  
SQL: Sample Quantitation Limit



# INORGANIC ANALYTICAL REPORT

**Client:** Energy Fuels Resources, Inc.  
**Project:** 2nd Quarter Groundwater 2019  
**Lab Sample ID:** 1905400-003  
**Client Sample ID:** MW-37\_05152019  
**Collection Date:** 5/15/2019 800h  
**Received Date:** 5/16/2019 1015h

**Contact:** Tanner Holliday

## Analytical Results

## DISSOLVED METALS

3440 South 700 West  
 Salt Lake City, UT 84119  
  
 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

Compound	Units	Date Prepared	Date Analyzed	Method Used	Reporting Limit	Analytical Result	Qual
Arsenic	mg/L	5/16/2019 1732h	5/22/2019 1811h	E200.8	0.00500	< 0.00500	
Beryllium	mg/L	5/16/2019 1732h	5/22/2019 1832h	E200.8	0.000500	< 0.000500	
Cadmium	mg/L	5/16/2019 1732h	5/22/2019 1811h	E200.8	0.000500	< 0.000500	
Calcium	mg/L	5/16/2019 1541h	5/29/2019 1402h	E200.7	50.0	<b>527</b>	
Chromium	mg/L	5/16/2019 1732h	5/22/2019 1811h	E200.8	0.0250	< 0.0250	
Cobalt	mg/L	5/16/2019 1732h	5/22/2019 1811h	E200.8	0.0100	< 0.0100	
Copper	mg/L	5/16/2019 1732h	5/22/2019 1811h	E200.8	0.0100	< 0.0100	
Iron	mg/L	5/16/2019 1732h	5/22/2019 1832h	E200.8	0.0300	< 0.0300	
Lead	mg/L	5/16/2019 1732h	5/22/2019 1832h	E200.8	0.00100	< 0.00100	
Magnesium	mg/L	5/16/2019 1541h	5/29/2019 1402h	E200.7	50.0	<b>146</b>	
Manganese	mg/L	5/16/2019 1732h	5/22/2019 1811h	E200.8	0.0100	< 0.0100	
Mercury	mg/L	5/16/2019 1401h	5/17/2019 810h	E245.1	0.000500	< 0.000500	
Molybdenum	mg/L	5/16/2019 1732h	5/22/2019 1811h	E200.8	0.0100	< 0.0100	
Nickel	mg/L	5/16/2019 1732h	5/22/2019 1811h	E200.8	0.0200	< 0.0200	
Potassium	mg/L	5/16/2019 1541h	5/29/2019 1423h	E200.7	1.00	<b>17.4</b>	
Selenium	mg/L	5/16/2019 1732h	5/22/2019 1811h	E200.8	0.00500	< 0.00500	
Silver	mg/L	5/16/2019 1732h	5/22/2019 1811h	E200.8	0.0100	< 0.0100	
Sodium	mg/L	5/16/2019 1541h	5/29/2019 1402h	E200.7	50.0	<b>567</b>	
Thallium	mg/L	5/16/2019 1732h	5/22/2019 1832h	E200.8	0.000500	<b>0.000612</b>	
Tin	mg/L	5/16/2019 1732h	5/22/2019 1811h	E200.8	0.100	< 0.100	
Uranium	mg/L	5/16/2019 1732h	5/22/2019 1851h	E200.8	0.000300	<b>0.0115</b>	
Vanadium	mg/L	5/16/2019 1541h	5/29/2019 1423h	E200.7	0.0150	< 0.0150	
Zinc	mg/L	5/16/2019 1732h	5/22/2019 1811h	E200.8	0.0100	<b>0.0282</b>	



# INORGANIC ANALYTICAL REPORT

**Client:** Energy Fuels Resources, Inc.  
**Project:** 2nd Quarter Groundwater 2019  
**Lab Sample ID:** 1905400-003  
**Client Sample ID:** MW-37\_05152019  
**Collection Date:** 5/15/2019 800h  
**Received Date:** 5/16/2019 1015h

**Contact:** Tanner Holliday

## Analytical Results

3440 South 700 West  
Salt Lake City, UT 84119

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

Compound	Units	Date Prepared	Date Analyzed	Method Used	Reporting Limit	Analytical Result	Qual
Ammonia (as N)	mg/L	5/22/2019 820h	5/22/2019 1215h	E350.1	0.0500	< 0.0500	
Bicarbonate (as CaCO <sub>3</sub> )	mg/L		5/21/2019 736h	SM2320B	1.00	<b>232</b>	
Carbonate (as CaCO <sub>3</sub> )	mg/L		5/21/2019 736h	SM2320B	1.00	< 1.00	
Chloride	mg/L		5/23/2019 405h	E300.0	1.00	<b>48.7</b>	
Fluoride	mg/L		5/23/2019 619h	E300.0	0.100	<b>0.294</b>	
Ion Balance	%		5/29/2019 1516h	Calc.	-100	<b>7.55</b>	
Nitrate/Nitrite (as N)	mg/L		5/20/2019 1139h	E353.2	0.100	<b>0.218</b>	
Sulfate	mg/L		5/22/2019 2305h	E300.0	150	<b>2,330</b>	
Total Anions, Measured	meq/L		5/29/2019 1516h	Calc.		<b>54.5</b>	
Total Cations, Measured	meq/L		5/29/2019 1516h	Calc.		<b>63.4</b>	
Total Dissolved Solids	mg/L		5/16/2019 1050h	SM2540C	20.0	<b>3,890</b>	
Total Dissolved Solids Ratio, Measured/Calculated			5/29/2019 1516h	Calc.		<b>1.03</b>	
Total Dissolved Solids, Calculated	mg/L		5/29/2019 1516h	Calc.		<b>3,780</b>	



# ORGANIC ANALYTICAL REPORT

**Client:** Energy Fuels Resources, Inc.  
**Project:** 2nd Quarter Groundwater 2019  
**Lab Sample ID:** 1905400-003A  
**Client Sample ID:** MW-37\_05152019  
**Collection Date:** 5/15/2019 800h  
**Received Date:** 5/16/2019 1015h

**Contact:** Tanner Holliday

Test Code: 8260-W-DEN100

**Analytical Results**

VOAs by GC/MS Method 8260C/5030C

**Analyzed:** 5/16/2019 1409h

**Units:** µg/L

**Dilution Factor:** 1

**Method:** SW8260C

3440 South 700 West

Salt Lake City, UT 84119

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Laboratory Director

Jose Rocha

QA Officer

Compound	CAS Number	Reporting Limit	Analytical Result	Qual
2-Butanone	78-93-3	20.0	< 20.0	
Acetone	67-64-1	20.0	< 20.0	
Benzene	71-43-2	1.00	< 1.00	
Carbon tetrachloride	56-23-5	1.00	< 1.00	
Chloroform	67-66-3	1.00	< 1.00	
Chloromethane	74-87-3	1.00	< 1.00	
Methylene chloride	75-09-2	1.00	< 1.00	
Naphthalene	91-20-3	1.00	< 1.00	
Tetrahydrofuran	109-99-9	1.00	< 1.00	
Toluene	108-88-3	1.00	< 1.00	
Xylenes, Total	1330-20-7	1.00	< 1.00	

Surrogate	Units: µg/L	CAS	Result	Amount Spiked	% REC	Limits	Qual
Surr: 1,2-Dichloroethane-d4		17060-07-0	52.2	50.00	104	72-151	
Surr: 4-Bromofluorobenzene		460-00-4	57.1	50.00	114	80-152	
Surr: Dibromofluoromethane		1868-53-7	44.5	50.00	89.1	72-135	
Surr: Toluene-d8		2037-26-5	50.1	50.00	100	80-124	

# GEL LABORATORIES LLC

2040 Savage Road Charleston SC 29407 - (843) 556-8171 - www.gel.com

## Certificate of Analysis

Report Date: June 7, 2019

Company : Energy Fuels Resources (USA), Inc.  
Address : 225 Union Boulevard  
Suite 600  
Lakewood, Colorado 80228  
Contact: Ms. Kathy Weinel  
Project: White Mesa Mill GW

Client Sample ID: MW-37\_05152019 Project: DNMI00100  
Sample ID: 479531003 Client ID: DNMI001  
Matrix: Ground Water  
Collect Date: 15-MAY-19 08:00  
Receive Date: 17-MAY-19  
Collector: Client

Parameter	Qualifier	Result	Uncertainty	MDC	RL	Units	PF	DF	Analyst	Date	Time	Batch	Method
Rad Gas Flow Proportional Counting													
GFPC, Total Alpha Radium, Liquid "As Received"													
Gross Radium Alpha		2.02	+/-0.447	0.820	1.00	pCi/L			BXF1	05/25/19	0951	1878765	1

The following Analytical Methods were performed:

Method	Description	Analyst	Comments
	EPA 903.0		

Surrogate/Tracer Recovery	Test	Result	Nominal	Recovery%	Acceptable Limits
Barium Carrier	GFPC, Total Alpha Radium, Liquid "As Received"			97.2	(25%-125%)

### Notes:

Counting Uncertainty is calculated at the 68% confidence level (1-sigma).

SRL = Sample Reporting Limit. For metals analysis only. When the sample is U qualified and ND, the SRL column reports the value which is the greater of either the adjusted MDL or the CRDL.

Column headers are defined as follows:

DF: Dilution Factor                      Lc/LC: Critical Level  
DL: Detection Limit                      PF: Prep Factor  
MDA: Minimum Detectable Activity      RL: Reporting Limit  
MDC: Minimum Detectable Concentration      SQL: Sample Quantitation Limit



# INORGANIC ANALYTICAL REPORT

**Client:** Energy Fuels Resources, Inc.  
**Project:** 2nd Quarter Groundwater 2019  
**Lab Sample ID:** 1905087-004  
**Client Sample ID:** MW-38\_05022019  
**Collection Date:** 5/2/2019 845h  
**Received Date:** 5/3/2019 1005h

**Contact:** Tanner Holliday

## Analytical Results

## DISSOLVED METALS

Compound	Units	Date Prepared	Date Analyzed	Method Used	Reporting Limit	Analytical Result	Qual
Arsenic	mg/L	5/6/2019 1142h	5/14/2019 1627h	E200.8	0.00500	< 0.00500	
Beryllium	mg/L	5/6/2019 1142h	5/14/2019 1746h	E200.8	0.000500	< 0.000500	
Cadmium	mg/L	5/6/2019 1142h	5/14/2019 1627h	E200.8	0.000500	< 0.000500	
Calcium	mg/L	5/6/2019 1142h	5/17/2019 1253h	E200.7	20.0	<b>559</b>	
Chromium	mg/L	5/6/2019 1142h	5/14/2019 1627h	E200.8	0.0250	< 0.0250	
Cobalt	mg/L	5/6/2019 1142h	5/14/2019 1627h	E200.8	0.0100	< 0.0100	
Copper	mg/L	5/6/2019 1142h	5/14/2019 1627h	E200.8	0.0100	< 0.0100	
Iron	mg/L	5/6/2019 1142h	5/14/2019 1746h	E200.8	0.0300	< 0.0300	
Lead	mg/L	5/6/2019 1142h	5/14/2019 1746h	E200.8	0.00100	< 0.00100	
Magnesium	mg/L	5/6/2019 1142h	5/17/2019 1253h	E200.7	20.0	<b>220</b>	
Manganese	mg/L	5/6/2019 1142h	5/14/2019 1627h	E200.8	0.0100	< 0.0100	
Mercury	mg/L	5/6/2019 1530h	5/7/2019 745h	E245.1	0.000500	< 0.000500	
Molybdenum	mg/L	5/6/2019 1142h	5/14/2019 1627h	E200.8	0.0100	< 0.0100	
Nickel	mg/L	5/6/2019 1142h	5/14/2019 1627h	E200.8	0.0200	< 0.0200	
Potassium	mg/L	5/6/2019 1142h	5/17/2019 1502h	E200.7	1.00	<b>30.3</b>	
Selenium	mg/L	5/6/2019 1142h	5/14/2019 1627h	E200.8	0.00500	<b>0.166</b>	
Silver	mg/L	5/6/2019 1142h	5/14/2019 1627h	E200.8	0.0100	< 0.0100	
Sodium	mg/L	5/6/2019 1142h	5/17/2019 1253h	E200.7	20.0	<b>509</b>	
Thallium	mg/L	5/6/2019 1142h	5/14/2019 1746h	E200.8	0.000500	< 0.000500	
Tin	mg/L	5/6/2019 1142h	5/14/2019 1627h	E200.8	0.100	< 0.100	
Uranium	mg/L	5/6/2019 1142h	5/14/2019 1854h	E200.8	0.000300	<b>0.00601</b>	
Vanadium	mg/L	5/6/2019 1142h	5/17/2019 1502h	E200.7	0.0150	< 0.0150	
Zinc	mg/L	5/6/2019 1142h	5/14/2019 1627h	E200.8	0.0100	< 0.0100	

3440 South 700 West

Salt Lake City, UT 84119

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web: www.awal-labs.com

Kyle F. Gross

Laboratory Director

Jose Rocha

QA Officer



# INORGANIC ANALYTICAL REPORT

**Client:** Energy Fuels Resources, Inc.  
**Project:** 2nd Quarter Groundwater 2019  
**Lab Sample ID:** 1905087-004  
**Client Sample ID:** MW-38\_05022019  
**Collection Date:** 5/2/2019 845h  
**Received Date:** 5/3/2019 1005h

**Contact:** Tanner Holliday

## Analytical Results

Compound	Units	Date Prepared	Date Analyzed	Method Used	Reporting Limit	Analytical Result	Qual
Ammonia (as N)	mg/L	5/10/2019 1650h	5/10/2019 1903h	E350.1	0.0500	< 0.0500	
Bicarbonate (as CaCO3)	mg/L		5/6/2019 820h	SM2320B	1.00	<b>118</b>	
Carbonate (as CaCO3)	mg/L		5/6/2019 820h	SM2320B	1.00	< 1.00	
Chloride	mg/L		5/11/2019 137h	E300.0	1.00	<b>44.0</b>	
Fluoride	mg/L		5/11/2019 444h	E300.0	0.100	<b>0.786</b>	
Ion Balance	%		5/17/2019 1612h	Calc.	-100	<b>8.80</b>	
Nitrate/Nitrite (as N)	mg/L		5/3/2019 1534h	E353.2	0.100	<b>13.3</b>	
Sulfate	mg/L		5/10/2019 1910h	E300.0	300	<b>2,590</b>	
Total Anions, Measured	meq/L		5/17/2019 1612h	Calc.		<b>57.8</b>	
Total Cations, Measured	meq/L		5/17/2019 1612h	Calc.		<b>68.9</b>	
Total Dissolved Solids	mg/L		5/3/2019 1310h	SM2540C	20.0	<b>3,910</b>	
Total Dissolved Solids Ratio, Measured/Calculated			5/17/2019 1612h	Calc.		<b>0.969</b>	
Total Dissolved Solids, Calculated	mg/L		5/17/2019 1612h	Calc.		<b>4,040</b>	

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Salt Lake City, UT 84119

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Laboratory Director

Jose Rocha  
QA Officer



# ORGANIC ANALYTICAL REPORT

**Client:** Energy Fuels Resources, Inc.  
**Project:** 2nd Quarter Groundwater 2019  
**Lab Sample ID:** 1905087-004A  
**Client Sample ID:** MW-38\_05022019  
**Collection Date:** 5/2/2019 845h  
**Received Date:** 5/3/2019 1005h

**Contact:** Tanner Holliday

Test Code: 8260-W-DEN100

## Analytical Results

VOAs by GC/MS Method 8260C/5030C

**Analyzed:** 5/4/2019 1246h

**Units:** µg/L

**Dilution Factor:** 1

**Method:** SW8260C

3440 South 700 West  
Salt Lake City, UT 84119

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  
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Jose Rocha  
QA Officer

Compound	CAS Number	Reporting Limit	Analytical Result	Qual
2-Butanone	78-93-3	20.0	< 20.0	
Acetone	67-64-1	20.0	< 20.0	
Benzene	71-43-2	1.00	< 1.00	
Carbon tetrachloride	56-23-5	1.00	< 1.00	
Chloroform	67-66-3	1.00	< 1.00	
Chloromethane	74-87-3	1.00	< 1.00	
Methylene chloride	75-09-2	1.00	< 1.00	
Naphthalene	91-20-3	1.00	< 1.00	
Tetrahydrofuran	109-99-9	1.00	< 1.00	S
Toluene	108-88-3	1.00	< 1.00	
Xylenes, Total	1330-20-7	1.00	< 1.00	

Surrogate	Units: µg/L	CAS	Result	Amount Spiked	% REC	Limits	Qual
Surr: 1,2-Dichloroethane-d4		17060-07-0	56.3	50.00	113	72-151	
Surr: 4-Bromofluorobenzene		460-00-4	51.7	50.00	103	80-152	
Surr: Dibromofluoromethane		1868-53-7	48.5	50.00	97.0	72-135	
Surr: Toluene-d8		2037-26-5	50.3	50.00	101	80-124	

*S - High LCS recoveries indicate possible bias high. Data deemed acceptable as the analyte was not observed in the field sample.*

# GEL LABORATORIES LLC

2040 Savage Road Charleston SC 29407 - (843) 556-8171 - www.gel.com

## Certificate of Analysis

Report Date: May 31, 2019

Company : Energy Fuels Resources (USA), Inc.  
 Address : 225 Union Boulevard  
 Suite 600  
 Lakewood, Colorado 80228  
 Contact: Ms. Kathy Weinel  
 Project: White Mesa Mill GW

Client Sample ID: MW-38_05022019	Project: DNMI00100
Sample ID: 478290004	Client ID: DNMI001
Matrix: Ground Water	
Collect Date: 02-MAY-19 08:45	
Receive Date: 03-MAY-19	
Collector: Client	

Parameter	Qualifier	Result	Uncertainty	MDC	RL	Units	PF	DF	Analyst	Date	Time	Batch	Method
Rad Gas Flow Proportional Counting													
GFPC, Total Alpha Radium, Liquid "As Received"													
Gross Radium Alpha	U	1.00	+/-0.269	0.704	1.00	pCi/L			BXF1	05/25/19	0950	1878765	1

The following Analytical Methods were performed:

Method	Description	Analyst Comments	
	EPA 903.0		

Surrogate/Tracer Recovery	Test	Result	Nominal	Recovery%	Acceptable Limits
Barium Carrier	GFPC, Total Alpha Radium, Liquid "As Received"			96.5	(25%-125%)

**Notes:**

Counting Uncertainty is calculated at the 68% confidence level (1-sigma).

SRL = Sample Reporting Limit. For metals analysis only. When the sample is U qualified and ND, the SRL column reports the value which is the greater of either the adjusted MDL or the CRDL.

Column headers are defined as follows:

DF: Dilution Factor	Lc/LC: Critical Level
DL: Detection Limit	PF: Prep Factor
MDA: Minimum Detectable Activity	RL: Reporting Limit
MDC: Minimum Detectable Concentration	SQL: Sample Quantitation Limit



# INORGANIC ANALYTICAL REPORT

**Client:** Energy Fuels Resources, Inc.  
**Project:** 2nd Quarter Groundwater 2019  
**Lab Sample ID:** 1905087-005  
**Client Sample ID:** MW-39\_05012019  
**Collection Date:** 5/1/2019 1125h  
**Received Date:** 5/3/2019 1005h

**Contact:** Tanner Holliday

## Analytical Results

## DISSOLVED METALS

Compound	Units	Date Prepared	Date Analyzed	Method Used	Reporting Limit	Analytical Result	Qual
Arsenic	mg/L	5/6/2019 1142h	5/14/2019 1630h	E200.8	0.00500	< 0.00500	
Beryllium	mg/L	5/6/2019 1142h	5/14/2019 1755h	E200.8	0.000500	<b>0.00499</b>	
Cadmium	mg/L	5/6/2019 1142h	5/14/2019 1630h	E200.8	0.000500	<b>0.00265</b>	
Calcium	mg/L	5/6/2019 1142h	5/17/2019 1255h	E200.7	20.0	<b>515</b>	
Chromium	mg/L	5/6/2019 1142h	5/14/2019 1630h	E200.8	0.0250	< 0.0250	
Cobalt	mg/L	5/6/2019 1142h	5/14/2019 1630h	E200.8	0.0100	<b>0.0668</b>	
Copper	mg/L	5/6/2019 1142h	5/14/2019 1630h	E200.8	0.0100	<b>0.0320</b>	
Iron	mg/L	5/6/2019 1142h	5/14/2019 1643h	E200.8	1.00	<b>14.6</b>	
Lead	mg/L	5/6/2019 1142h	5/14/2019 1755h	E200.8	0.00100	< 0.00100	
Magnesium	mg/L	5/6/2019 1142h	5/17/2019 1255h	E200.7	20.0	<b>226</b>	
Manganese	mg/L	5/6/2019 1142h	5/14/2019 1650h	E200.8	0.0100	<b>2.19</b>	
Mercury	mg/L	5/6/2019 1530h	5/7/2019 747h	E245.1	0.000500	< 0.000500	
Molybdenum	mg/L	5/6/2019 1142h	5/14/2019 1630h	E200.8	0.0100	< 0.0100	
Nickel	mg/L	5/6/2019 1142h	5/14/2019 1630h	E200.8	0.0200	<b>0.0333</b>	
Potassium	mg/L	5/6/2019 1142h	5/17/2019 1505h	E200.7	1.00	<b>14.6</b>	
Selenium	mg/L	5/6/2019 1142h	5/14/2019 1630h	E200.8	0.00500	< 0.00500	
Silver	mg/L	5/6/2019 1142h	5/14/2019 1630h	E200.8	0.0100	< 0.0100	
Sodium	mg/L	5/6/2019 1142h	5/17/2019 1255h	E200.7	20.0	<b>602</b>	
Thallium	mg/L	5/6/2019 1142h	5/14/2019 1755h	E200.8	0.000500	<b>0.00348</b>	
Tin	mg/L	5/6/2019 1142h	5/14/2019 1630h	E200.8	0.100	< 0.100	
Uranium	mg/L	5/6/2019 1142h	5/14/2019 1857h	E200.8	0.000300	<b>0.0115</b>	
Vanadium	mg/L	5/6/2019 1142h	5/17/2019 1505h	E200.7	0.0150	< 0.0150	
Zinc	mg/L	5/6/2019 1142h	5/14/2019 1630h	E200.8	0.0100	<b>0.243</b>	

3440 South 700 West

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web: www.awal-labs.com

Kyle F. Gross

Laboratory Director

Jose Rocha

QA Officer



# INORGANIC ANALYTICAL REPORT

**Client:** Energy Fuels Resources, Inc.  
**Project:** 2nd Quarter Groundwater 2019  
**Lab Sample ID:** 1905087-005  
**Client Sample ID:** MW-39\_05012019  
**Collection Date:** 5/1/2019 1125h  
**Received Date:** 5/3/2019 1005h

**Contact:** Tanner Holliday

## Analytical Results

Compound	Units	Date Prepared	Date Analyzed	Method Used	Reporting Limit	Analytical Result	Qual
Ammonia (as N)	mg/L	5/10/2019 1650h	5/10/2019 1904h	E350.1	0.0500	<b>0.239</b>	
Bicarbonate (as CaCO <sub>3</sub> )	mg/L		5/6/2019 820h	SM2320B	1.00	< 1.00	
Carbonate (as CaCO <sub>3</sub> )	mg/L		5/6/2019 820h	SM2320B	1.00	< 1.00	
Chloride	mg/L		5/11/2019 154h	E300.0	1.00	<b>40.1</b>	
Fluoride	mg/L		5/11/2019 502h	E300.0	0.100	<b>0.646</b>	
Ion Balance	%		5/17/2019 1612h	Calc.	-100	<b>8.12</b>	
Nitrate/Nitrite (as N)	mg/L		5/3/2019 1536h	E353.2	0.100	<b>0.109</b>	
Sulfate	mg/L		5/10/2019 1927h	E300.0	300	<b>2,870</b>	
Total Anions, Measured	meq/L		5/17/2019 1612h	Calc.		<b>60.9</b>	
Total Cations, Measured	meq/L		5/17/2019 1612h	Calc.		<b>71.6</b>	
Total Dissolved Solids	mg/L		5/3/2019 1310h	SM2540C	20.0	<b>4,200</b>	
Total Dissolved Solids Ratio, Measured/Calculated			5/17/2019 1612h	Calc.		<b>0.981</b>	
Total Dissolved Solids, Calculated	mg/L		5/17/2019 1612h	Calc.		<b>4,280</b>	

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Salt Lake City, UT 84119

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Kyle F. Gross  
Laboratory Director

Jose Rocha  
QA Officer



# ORGANIC ANALYTICAL REPORT

**Client:** Energy Fuels Resources, Inc.  
**Project:** 2nd Quarter Groundwater 2019  
**Lab Sample ID:** 1905087-005A  
**Client Sample ID:** MW-39\_05012019  
**Collection Date:** 5/1/2019 1125h  
**Received Date:** 5/3/2019 1005h

**Contact:** Tanner Holliday

Test Code: 8260-W-DEN100

## Analytical Results

VOAs by GC/MS Method 8260C/5030C

**Analyzed:** 5/4/2019 1307h

**Units:** µg/L

**Dilution Factor:** 1

**Method:** SW8260C

3440 South 700 West  
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Kyle F. Gross  
Laboratory Director

Jose Rocha  
QA Officer

Compound	CAS Number	Reporting Limit	Analytical Result	Qual
2-Butanone	78-93-3	20.0	< 20.0	
Acetone	67-64-1	20.0	< 20.0	
Benzene	71-43-2	1.00	< 1.00	
Carbon tetrachloride	56-23-5	1.00	< 1.00	
Chloroform	67-66-3	1.00	< 1.00	
Chloromethane	74-87-3	1.00	< 1.00	
Methylene chloride	75-09-2	1.00	< 1.00	
Naphthalene	91-20-3	1.00	< 1.00	
Tetrahydrofuran	109-99-9	1.00	< 1.00	S
Toluene	108-88-3	1.00	< 1.00	
Xylenes, Total	1330-20-7	1.00	< 1.00	

Surrogate	Units: µg/L	CAS	Result	Amount Spiked	% REC	Limits	Qual
Surr: 1,2-Dichloroethane-d4		17060-07-0	57.2	50.00	114	72-151	
Surr: 4-Bromofluorobenzene		460-00-4	52.4	50.00	105	80-152	
Surr: Dibromofluoromethane		1868-53-7	48.9	50.00	97.9	72-135	
Surr: Toluene-d8		2037-26-5	52.1	50.00	104	80-124	

S - High LCS recoveries indicate possible bias high. Data deemed acceptable as the analyte was not observed in the field sample.

# GEL LABORATORIES LLC

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## Certificate of Analysis

Report Date: May 31, 2019

Company : Energy Fuels Resources (USA), Inc.  
 Address : 225 Union Boulevard  
 Suite 600  
 Lakewood, Colorado 80228  
 Contact: Ms. Kathy Weinel  
 Project: White Mesa Mill GW

Client Sample ID: MW-39_05012019	Project: DNMI00100
Sample ID: 478290005	Client ID: DNMI001
Matrix: Ground Water	
Collect Date: 01-MAY-19 11:25	
Receive Date: 03-MAY-19	
Collector: Client	

Parameter	Qualifier	Result	Uncertainty	MDC	RL	Units	PF	DF	Analyst	Date	Time	Batch	Method
Rad Gas Flow Proportional Counting													
GFPC, Total Alpha Radium, Liquid "As Received"													
Gross Radium Alpha		2.09	+/-0.406	0.665	1.00	pCi/L			BXF1	05/25/19	0950	1878765	1

The following Analytical Methods were performed:

Method	Description	Analyst Comments											
	EPA 903.0												
Surrogate/Tracer Recovery	Test	Result	Nominal	Recovery%	Acceptable Limits								
Barium Carrier	GFPC, Total Alpha Radium, Liquid "As Received"			89.1	(25%-125%)								

**Notes:**

Counting Uncertainty is calculated at the 68% confidence level (1-sigma).

SRL = Sample Reporting Limit. For metals analysis only. When the sample is U qualified and ND, the SRL column reports the value which is the greater of either the adjusted MDL or the CRDL.

Column headers are defined as follows:

DF: Dilution Factor	Lc/LC: Critical Level
DL: Detection Limit	PF: Prep Factor
MDA: Minimum Detectable Activity	RL: Reporting Limit
MDC: Minimum Detectable Concentration	SQL: Sample Quantitation Limit



# INORGANIC ANALYTICAL REPORT

**Client:** Energy Fuels Resources, Inc.  
**Project:** 2nd Quarter Groundwater 2019  
**Lab Sample ID:** 1904508-006  
**Client Sample ID:** MW-40\_04172019  
**Collection Date:** 4/17/2019 1305h  
**Received Date:** 4/19/2019 1045h

**Contact:** Tanner Holliday

## Analytical Results

## DISSOLVED METALS

Compound	Units	Date Prepared	Date Analyzed	Method Used	Reporting Limit	Analytical Result	Qual
Arsenic	mg/L	4/22/2019 1103h	4/30/2019 1856h	E200.8	0.00500	< 0.00500	
Beryllium	mg/L	4/22/2019 1103h	5/1/2019 1407h	E200.8	0.000500	< 0.000500	
Cadmium	mg/L	4/22/2019 1103h	4/30/2019 1856h	E200.8	0.000500	< 0.000500	
Calcium	mg/L	4/22/2019 1103h	5/1/2019 1335h	E200.7	20.0	<b>463</b>	
Chromium	mg/L	4/22/2019 1103h	4/30/2019 1856h	E200.8	0.0250	< 0.0250	
Cobalt	mg/L	4/22/2019 1103h	4/30/2019 1856h	E200.8	0.0100	< 0.0100	
Copper	mg/L	4/22/2019 1103h	4/30/2019 1856h	E200.8	0.0100	< 0.0100	
Iron	mg/L	4/22/2019 1103h	4/30/2019 1856h	E200.8	0.0300	< 0.0300	
Lead	mg/L	4/22/2019 1103h	4/30/2019 1856h	E200.8	0.00100	< 0.00100	
Magnesium	mg/L	4/22/2019 1103h	5/1/2019 1335h	E200.7	20.0	<b>199</b>	
Manganese	mg/L	4/22/2019 1103h	4/30/2019 1856h	E200.8	0.0100	<b>0.119</b>	
Mercury	mg/L	4/25/2019 1745h	4/26/2019 904h	E245.1	0.000500	< 0.000500	
Molybdenum	mg/L	4/22/2019 1103h	4/30/2019 1856h	E200.8	0.0100	< 0.0100	
Nickel	mg/L	4/22/2019 1103h	4/30/2019 1856h	E200.8	0.0200	< 0.0200	
Potassium	mg/L	4/22/2019 1103h	5/1/2019 1416h	E200.7	1.00	<b>9.52</b>	
Selenium	mg/L	4/22/2019 1103h	4/30/2019 1856h	E200.8	0.00500	<b>0.143</b>	
Silver	mg/L	4/22/2019 1103h	4/30/2019 1856h	E200.8	0.0100	< 0.0100	
Sodium	mg/L	4/22/2019 1103h	5/1/2019 1335h	E200.7	20.0	<b>381</b>	
Thallium	mg/L	4/22/2019 1103h	4/30/2019 1856h	E200.8	0.000500	< 0.000500	
Tin	mg/L	4/22/2019 1103h	4/30/2019 1856h	E200.8	0.100	< 0.100	
Uranium	mg/L	4/22/2019 1103h	4/30/2019 1856h	E200.8	0.000300	<b>0.0272</b>	
Vanadium	mg/L	4/22/2019 1103h	5/1/2019 1416h	E200.7	0.0150	< 0.0150	
Zinc	mg/L	4/22/2019 1103h	5/1/2019 1317h	E200.8	0.0100	< 0.0100	

3440 South 700 West

Salt Lake City, UT 84119

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



# INORGANIC ANALYTICAL REPORT

**Client:** Energy Fuels Resources, Inc.  
**Project:** 2nd Quarter Groundwater 2019  
**Lab Sample ID:** 1904508-006  
**Client Sample ID:** MW-40\_04172019  
**Collection Date:** 4/17/2019 1305h  
**Received Date:** 4/19/2019 1045h

**Contact:** Tanner Holliday

## Analytical Results

Compound	Units	Date Prepared	Date Analyzed	Method Used	Reporting Limit	Analytical Result	Qual
Ammonia (as N)	mg/L	4/30/2019 1150h	4/30/2019 1404h	E350.1	0.0500	< 0.0500	
Bicarbonate (as CaCO3)	mg/L		4/22/2019 720h	SM2320B	1.00	<b>280</b>	
Carbonate (as CaCO3)	mg/L		4/22/2019 720h	SM2320B	1.00	< 1.00	
Chloride	mg/L		5/1/2019 2137h	E300.0	1.00	<b>47.1</b>	
Fluoride	mg/L		5/1/2019 2352h	E300.0	0.100	<b>0.704</b>	
Ion Balance	%		5/1/2019 1538h	Calc.	-100	<b>5.48</b>	
Nitrate/Nitrite (as N)	mg/L		4/22/2019 1043h	E353.2	0.100	<b>2.91</b>	
Sulfate	mg/L		5/1/2019 1204h	E300.0	150	<b>2,090</b>	
Total Anions, Measured	meq/L		5/1/2019 1538h	Calc.		<b>50.4</b>	
Total Cations, Measured	meq/L		5/1/2019 1538h	Calc.		<b>56.3</b>	
Total Dissolved Solids	mg/L		4/19/2019 1125h	SM2540C	20.0	<b>3,480</b>	
Total Dissolved Solids Ratio, Measured/Calculated			5/1/2019 1538h	Calc.		<b>1.04</b>	
Total Dissolved Solids, Calculated	mg/L		5/1/2019 1538h	Calc.		<b>3,360</b>	

3440 South 700 West

Salt Lake City, UT 84119

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e-mail: awal@awal-labs.com

web: www.awal-labs.com

Kyle F. Gross

Laboratory Director

Jose Rocha

QA Officer



# ORGANIC ANALYTICAL REPORT

**Client:** Energy Fuels Resources, Inc.  
**Project:** 2nd Quarter Groundwater 2019  
**Lab Sample ID:** 1904508-006A  
**Client Sample ID:** MW-40\_04172019  
**Collection Date:** 4/17/2019 1305h  
**Received Date:** 4/19/2019 1045h

**Contact:** Tanner Holliday

Test Code: 8260-W-DEN100

**Analytical Results**

VOAs by GC/MS Method 8260C/5030C

**Analyzed:** 4/22/2019 1337h

**Units:** µg/L

**Dilution Factor:** 1

**Method:** SW8260C

3440 South 700 West

Salt Lake City, UT 84119

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

Compound	CAS Number	Reporting Limit	Analytical Result	Qual
2-Butanone	78-93-3	20.0	< 20.0	
Acetone	67-64-1	20.0	< 20.0	
Benzene	71-43-2	1.00	< 1.00	
Carbon tetrachloride	56-23-5	1.00	< 1.00	
Chloroform	67-66-3	1.00	< 1.00	
Chloromethane	74-87-3	1.00	< 1.00	
Methylene chloride	75-09-2	1.00	< 1.00	
Naphthalene	91-20-3	1.00	< 1.00	
Tetrahydrofuran	109-99-9	1.00	< 1.00	
Toluene	108-88-3	1.00	< 1.00	
Xylenes, Total	1330-20-7	1.00	< 1.00	

Surrogate	Units: µg/L	CAS	Result	Amount Spiked	% REC	Limits	Qual
Surr: 1,2-Dichloroethane-d4		17060-07-0	53.0	50.00	106	72-151	
Surr: 4-Bromofluorobenzene		460-00-4	50.2	50.00	100	80-152	
Surr: Dibromofluoromethane		1868-53-7	49.1	50.00	98.2	72-135	
Surr: Toluene-d8		2037-26-5	50.0	50.00	100	80-124	

# GEL LABORATORIES LLC

2040 Savage Road Charleston SC 29407 - (843) 556-8171 - www.gel.com

## Certificate of Analysis

Report Date: May 9, 2019

Company : Energy Fuels Resources (USA), Inc.  
 Address : 225 Union Boulevard  
 Suite 600  
 Lakewood, Colorado 80228  
 Contact: Ms. Kathy Weinel  
 Project: White Mesa Mill GW

Client Sample ID: MW-40_04172019	Project: DNMI00100
Sample ID: 476962006	Client ID: DNMI001
Matrix: Ground Water	
Collect Date: 17-APR-19 13:05	
Receive Date: 19-APR-19	
Collector: Client	

Parameter	Qualifier	Result	Uncertainty	MDC	RL	Units	PF	DF	Analyst	Date	Time	Batch	Method
Rad Gas Flow Proportional Counting													
GFPC, Total Alpha Radium, Liquid "As Received"													
Gross Radium Alpha		1.27	+/-0.271	0.464	1.00	pCi/L			LXB3	05/06/19	1635	1872063	1

The following Analytical Methods were performed:

Method	Description	Analyst Comments											
	EPA 903.0												
Surrogate/Tracer Recovery	Test	Result	Nominal	Recovery%	Acceptable Limits								
Barium Carrier	GFPC, Total Alpha Radium, Liquid "As Received"			101	(25%-125%)								

**Notes:**

Counting Uncertainty is calculated at the 68% confidence level (1-sigma).

SRL = Sample Reporting Limit. For metals analysis only. When the sample is U qualified and ND, the SRL column reports the value which is the greater of either the adjusted MDL or the CRDL.

Column headers are defined as follows:

- |                                       |                                |
|---------------------------------------|--------------------------------|
| DF: Dilution Factor                   | Lc/LC: Critical Level          |
| DL: Detection Limit                   | PF: Prep Factor                |
| MDA: Minimum Detectable Activity      | RL: Reporting Limit            |
| MDC: Minimum Detectable Concentration | SQL: Sample Quantitation Limit |



# INORGANIC ANALYTICAL REPORT

**Client:** Energy Fuels Resources, Inc.  
**Project:** 2nd Quarter Groundwater 2019  
**Lab Sample ID:** 1904652-012  
**Client Sample ID:** TW4-24\_04252019  
**Collection Date:** 4/25/2019 815h  
**Received Date:** 4/26/2019 1010h

**Contact:** Tanner Holliday

## Analytical Results

## DISSOLVED METALS

Compound	Units	Date Prepared	Date Analyzed	Method Used	Reporting Limit	Analytical Result	Qual
Arsenic	mg/L	4/29/2019 1036h	5/3/2019 1619h	E200.8	0.00500	< 0.00500	
Beryllium	mg/L	4/29/2019 1036h	5/3/2019 1619h	E200.8	0.000500	< 0.000500	
Cadmium	mg/L	4/29/2019 1036h	5/3/2019 1619h	E200.8	0.000500	<b>0.00170</b>	
Calcium	mg/L	4/29/2019 1036h	5/9/2019 1510h	E200.7	20.0	<b>600</b>	
Chromium	mg/L	4/29/2019 1036h	5/8/2019 1246h	E200.8	0.0250	< 0.0250	
Cobalt	mg/L	4/29/2019 1036h	5/3/2019 1619h	E200.8	0.0100	<b>0.0130</b>	
Copper	mg/L	4/29/2019 1036h	5/3/2019 1619h	E200.8	0.0100	< 0.0100	
Iron	mg/L	4/29/2019 1036h	5/3/2019 1619h	E200.8	0.0300	< 0.0300	
Lead	mg/L	4/29/2019 1036h	5/3/2019 1619h	E200.8	0.00100	< 0.00100	
Magnesium	mg/L	4/29/2019 1036h	5/9/2019 1510h	E200.7	20.0	<b>292</b>	
Manganese	mg/L	4/29/2019 1036h	5/8/2019 1246h	E200.8	0.0100	<b>0.556</b>	
Mercury	mg/L	4/30/2019 1430h	5/1/2019 809h	E245.1	0.000500	< 0.000500	
Molybdenum	mg/L	4/29/2019 1036h	5/8/2019 1213h	E200.8	0.0100	<b>0.820</b>	
Nickel	mg/L	4/29/2019 1036h	5/3/2019 1619h	E200.8	0.0200	< 0.0200	
Potassium	mg/L	4/29/2019 1036h	5/9/2019 1607h	E200.7	1.00	<b>12.5</b>	
Selenium	mg/L	4/29/2019 1036h	5/3/2019 1619h	E200.8	0.00500	<b>0.0609</b>	
Silver	mg/L	4/29/2019 1036h	5/3/2019 1619h	E200.8	0.0100	< 0.0100	
Sodium	mg/L	4/29/2019 1036h	5/9/2019 1510h	E200.7	20.0	<b>1,000</b>	
Thallium	mg/L	4/29/2019 1036h	5/3/2019 1619h	E200.8	0.000500	<b>0.00178</b>	
Tin	mg/L	4/29/2019 1036h	5/8/2019 1213h	E200.8	0.100	< 0.100	
Uranium	mg/L	4/29/2019 1036h	5/8/2019 953h	E200.8	0.00100	<b>0.581</b>	
Vanadium	mg/L	4/29/2019 1036h	5/9/2019 1607h	E200.7	0.0150	< 0.0150	
Zinc	mg/L	4/29/2019 1036h	5/8/2019 1246h	E200.8	0.0100	< 0.0100	

3440 South 700 West

Salt Lake City, UT 84119

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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



# INORGANIC ANALYTICAL REPORT

**Client:** Energy Fuels Resources, Inc.  
**Project:** 2nd Quarter Groundwater 2019  
**Lab Sample ID:** 1904652-012  
**Client Sample ID:** TW4-24\_04252019  
**Collection Date:** 4/25/2019 815h  
**Received Date:** 4/26/2019 1010h

**Contact:** Tanner Holliday

## Analytical Results

Compound	Units	Date Prepared	Date Analyzed	Method Used	Reporting Limit	Analytical Result	Qual
Ammonia (as N)	mg/L	4/30/2019 1240h	4/30/2019 1456h	E350.1	0.0500	<b>6.07</b>	
Bicarbonate (as CaCO <sub>3</sub> )	mg/L		4/30/2019 639h	SM2320B	1.00	<b>650</b>	
Carbonate (as CaCO <sub>3</sub> )	mg/L		4/30/2019 639h	SM2320B	1.00	< 1.00	
Chloride	mg/L		5/8/2019 1039h	E300.0	20.0	<b>737</b>	
Fluoride	mg/L		5/8/2019 1933h	E300.0	0.100	<b>0.389</b>	
Ion Balance	%		5/9/2019 1636h	Calc.	-100	<b>11.9</b>	
Nitrate/Nitrite (as N)	mg/L		4/29/2019 1645h	E353.2	0.500	<b>26.6</b>	
Sulfate	mg/L		5/8/2019 1039h	E300.0	150	<b>2,060</b>	
Total Anions, Measured	meq/L		5/9/2019 1636h	Calc.		<b>77.1</b>	
Total Cations, Measured	meq/L		5/9/2019 1636h	Calc.		<b>98.0</b>	
Total Dissolved Solids	mg/L		4/26/2019 1400h	SM2540C	20.0	<b>5,750</b>	
Total Dissolved Solids Ratio, Measured/Calculated			5/9/2019 1636h	Calc.		<b>1.12</b>	
Total Dissolved Solids, Calculated	mg/L		5/9/2019 1636h	Calc.		<b>5,120</b>	

3440 South 700 West

Salt Lake City, UT 84119

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e-mail: awal@awal-labs.com

web: www.awal-labs.com

Kyle F. Gross

Laboratory Director

Jose Rocha

QA Officer



# ORGANIC ANALYTICAL REPORT

**Client:** Energy Fuels Resources, Inc.  
**Project:** 2nd Quarter Groundwater 2019  
**Lab Sample ID:** 1904652-012A  
**Client Sample ID:** TW4-24\_04252019  
**Collection Date:** 4/25/2019 815h  
**Received Date:** 4/26/2019 1010h

**Contact:** Tanner Holliday

Test Code: 8260-W-DEN100

**Analytical Results**

VOAs by GC/MS Method 8260C/5030C

**Analyzed:** 4/30/2019 1812h

**Units:** µg/L

**Dilution Factor:** 1

**Method:** SW8260C

3440 South 700 West  
Salt Lake City, UT 84119

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

Compound	CAS Number	Reporting Limit	Analytical Result	Qual
2-Butanone	78-93-3	20.0	< 20.0	
Acetone	67-64-1	20.0	< 20.0	
Benzene	71-43-2	1.00	< 1.00	
Carbon tetrachloride	56-23-5	1.00	< 1.00	
Chloroform	67-66-3	1.00	<b>83.6</b>	
Chloromethane	74-87-3	1.00	< 1.00	
Methylene chloride	75-09-2	1.00	< 1.00	
Naphthalene	91-20-3	1.00	< 1.00	
Tetrahydrofuran	109-99-9	1.00	< 1.00	
Toluene	108-88-3	1.00	< 1.00	
Xylenes, Total	1330-20-7	1.00	< 1.00	

Jose Rocha

QA Officer

Surrogate	Units: µg/L	CAS	Result	Amount Spiked	% REC	Limits	Qual
Surr: 1,2-Dichloroethane-d4		17060-07-0	56.1	50.00	112	72-151	
Surr: 4-Bromofluorobenzene		460-00-4	52.0	50.00	104	80-152	
Surr: Dibromofluoromethane		1868-53-7	49.5	50.00	99.0	72-135	
Surr: Toluene-d8		2037-26-5	50.5	50.00	101	80-124	

# GEL LABORATORIES LLC

2040 Savage Road Charleston SC 29407 - (843) 556-8171 - www.gel.com

## Certificate of Analysis

Report Date: May 31, 2019

Company : Energy Fuels Resources (USA), Inc.  
Address : 225 Union Boulevard  
Suite 600  
Lakewood, Colorado 80228  
Contact: Ms. Kathy Weinel  
Project: White Mesa Mill GW

Client Sample ID: TW4-24\_05022019  
Sample ID: 478290008  
Matrix: Ground Water  
Collect Date: 02-MAY-19 08:00  
Receive Date: 03-MAY-19  
Collector: Client

Project: DNMI00100  
Client ID: DNMI001

Parameter	Qualifier	Result	Uncertainty	MDC	RL	Units	PF	DF	Analyst	Date	Time	Batch	Method
Rad Gas Flow Proportional Counting													
GFPC, Total Alpha Radium, Liquid "As Received"													
Gross Radium Alpha	U	1.00	+/-0.235	0.656	1.00	pCi/L			BXF1	05/25/19	0951	1878765	1

The following Analytical Methods were performed:

Method	Description	Analyst Comments
	EPA 903.0	

Surrogate/Tracer Recovery	Test	Result	Nominal	Recovery%	Acceptable Limits
Barium Carrier	GFPC, Total Alpha Radium, Liquid "As Received"			104	(25%-125%)

**Notes:**  
Counting Uncertainty is calculated at the 68% confidence level (1-sigma).

SRL = Sample Reporting Limit. For metals analysis only. When the sample is U qualified and ND, the SRL column reports the value which is the greater of either the adjusted MDL or the CRDL.

Column headers are defined as follows:

DF: Dilution Factor  
DL: Detection Limit  
MDA: Minimum Detectable Activity  
MDC: Minimum Detectable Concentration  
Lc/LC: Critical Level  
PF: Prep Factor  
RL: Reporting Limit  
SQL: Sample Quantitation Limit



# INORGANIC ANALYTICAL REPORT

**Client:** Energy Fuels Resources, Inc.  
**Project:** 2nd Quarter Groundwater 2019  
**Lab Sample ID:** 1904652-011  
**Client Sample ID:** MW-65\_04232019  
**Collection Date:** 4/23/2019 1355h  
**Received Date:** 4/26/2019 1010h

**Contact:** Tanner Holliday

## Analytical Results

## DISSOLVED METALS

Compound	Units	Date Prepared	Date Analyzed	Method Used	Reporting Limit	Analytical Result	Qual
Arsenic	mg/L	4/29/2019 1036h	5/3/2019 1610h	E200.8	0.00500	< 0.00500	
Beryllium	mg/L	4/29/2019 1036h	5/3/2019 1610h	E200.8	0.000500	< 0.000500	
Cadmium	mg/L	4/29/2019 1036h	5/3/2019 1610h	E200.8	0.000500	<b>0.00139</b>	
Calcium	mg/L	4/29/2019 1036h	5/9/2019 1504h	E200.7	20.0	<b>552</b>	2
Chromium	mg/L	4/29/2019 1036h	5/8/2019 1302h	E200.8	0.0250	< 0.0250	
Cobalt	mg/L	4/29/2019 1036h	5/3/2019 1610h	E200.8	0.0100	< 0.0100	
Copper	mg/L	4/29/2019 1036h	5/3/2019 1610h	E200.8	0.0100	< 0.0100	
Iron	mg/L	4/29/2019 1036h	5/3/2019 1610h	E200.8	0.0300	< 0.0300	
Lead	mg/L	4/29/2019 1036h	5/3/2019 1610h	E200.8	0.00100	< 0.00100	
Magnesium	mg/L	4/29/2019 1036h	5/9/2019 1504h	E200.7	20.0	<b>162</b>	2
Manganese	mg/L	4/29/2019 1036h	5/8/2019 1302h	E200.8	0.0100	<b>1.84</b>	2
Mercury	mg/L	4/30/2019 1430h	5/1/2019 807h	E245.1	0.000500	< 0.000500	
Molybdenum	mg/L	4/29/2019 1036h	5/8/2019 1056h	E200.8	0.0100	< 0.0100	
Nickel	mg/L	4/29/2019 1036h	5/3/2019 1610h	E200.8	0.0200	< 0.0200	
Potassium	mg/L	4/29/2019 1036h	5/9/2019 1600h	E200.7	1.00	<b>13.1</b>	
Selenium	mg/L	4/29/2019 1036h	5/3/2019 1610h	E200.8	0.00500	< 0.00500	
Silver	mg/L	4/29/2019 1036h	5/3/2019 1610h	E200.8	0.0100	< 0.0100	
Sodium	mg/L	4/29/2019 1036h	5/9/2019 1504h	E200.7	20.0	<b>398</b>	2
Thallium	mg/L	4/29/2019 1036h	5/3/2019 1610h	E200.8	0.000500	< 0.000500	
Tin	mg/L	4/29/2019 1036h	5/8/2019 1056h	E200.8	0.100	< 0.100	
Uranium	mg/L	4/29/2019 1036h	5/3/2019 1610h	E200.8	0.000300	<b>0.0637</b>	
Vanadium	mg/L	4/29/2019 1036h	5/9/2019 1600h	E200.7	0.0150	< 0.0150	
Zinc	mg/L	4/29/2019 1036h	5/8/2019 1302h	E200.8	0.0100	<b>0.0105</b>	

<sup>2</sup> - Analyte concentration is too high for accurate matrix spike recovery and/or RPD.



# INORGANIC ANALYTICAL REPORT

**Client:** Energy Fuels Resources, Inc.  
**Project:** 2nd Quarter Groundwater 2019  
**Lab Sample ID:** 1904652-011  
**Client Sample ID:** MW-65\_04232019  
**Collection Date:** 4/23/2019 1355h  
**Received Date:** 4/26/2019 1010h

**Contact:** Tanner Holliday

## Analytical Results

	Compound	Units	Date Prepared	Date Analyzed	Method Used	Reporting Limit	Analytical Result	Qual
3440 South 700 West	Ammonia (as N)	mg/L	4/30/2019 1240h	4/30/2019 1456h	E350.1	0.0500	< 0.0500	
Salt Lake City, UT 84119	Bicarbonate (as CaCO <sub>3</sub> )	mg/L		4/30/2019 639h	SM2320B	1.00	<b>392</b>	
	Carbonate (as CaCO <sub>3</sub> )	mg/L		4/30/2019 639h	SM2320B	1.00	< 1.00	
Phone: (801) 263-8686	Chloride	mg/L		5/8/2019 1523h	E300.0	1.00	<b>18.9</b>	
Toll Free: (888) 263-8686	Fluoride	mg/L		5/8/2019 1843h	E300.0	0.100	< 0.100	
Fax: (801) 263-8687	Ion Balance	%		5/9/2019 1636h	Calc.	-100	<b>9.59</b>	
e-mail: awal@awal-labs.com	Nitrate/Nitrite (as N)	mg/L		4/29/2019 1644h	E353.2	0.100	< 0.100	
	Sulfate	mg/L		5/7/2019 1522h	E300.0	150	<b>1,920</b>	
web: www.awal-labs.com	Total Anions, Measured	meq/L		5/9/2019 1636h	Calc.		<b>48.3</b>	
	Total Cations, Measured	meq/L		5/9/2019 1636h	Calc.		<b>58.5</b>	
	Total Dissolved Solids	mg/L		4/26/2019 1400h	SM2540C	20.0	<b>3,330</b>	
Kyle F. Gross Laboratory Director	Total Dissolved Solids Ratio, Measured/Calculated			5/9/2019 1636h	Calc.		<b>1.01</b>	
Jose Rocha QA Officer	Total Dissolved Solids, Calculated	mg/L		5/9/2019 1636h	Calc.		<b>3,300</b>	



# ORGANIC ANALYTICAL REPORT

**Client:** Energy Fuels Resources, Inc.  
**Project:** 2nd Quarter Groundwater 2019  
**Lab Sample ID:** 1904652-011A  
**Client Sample ID:** MW-65\_04232019  
**Collection Date:** 4/23/2019 1355h  
**Received Date:** 4/26/2019 1010h

**Contact:** Tanner Holliday

Test Code: 8260-W-DEN100

## Analytical Results

VOAs by GC/MS Method 8260C/5030C

**Analyzed:** 4/30/2019 1752h

**Units:** µg/L

**Dilution Factor:** 1

**Method:** SW8260C

3440 South 700 West

Salt Lake City, UT 84119

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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

Compound	CAS Number	Reporting Limit	Analytical Result	Qual
2-Butanone	78-93-3	20.0	< 20.0	
Acetone	67-64-1	20.0	< 20.0	
Benzene	71-43-2	1.00	< 1.00	
Carbon tetrachloride	56-23-5	1.00	< 1.00	
Chloroform	67-66-3	1.00	< 1.00	
Chloromethane	74-87-3	1.00	< 1.00	
Methylene chloride	75-09-2	1.00	< 1.00	
Naphthalene	91-20-3	1.00	< 1.00	
Tetrahydrofuran	109-99-9	1.00	< 1.00	
Toluene	108-88-3	1.00	< 1.00	
Xylenes, Total	1330-20-7	1.00	< 1.00	

Surrogate	Units: µg/L	CAS	Result	Amount Spiked	% REC	Limits	Qual
Surr: 1,2-Dichloroethane-d4		17060-07-0	56.1	50.00	112	72-151	
Surr: 4-Bromofluorobenzene		460-00-4	52.3	50.00	105	80-152	
Surr: Dibromofluoromethane		1868-53-7	49.5	50.00	99.1	72-135	
Surr: Toluene-d8		2037-26-5	51.4	50.00	103	80-124	

# GEL LABORATORIES LLC

2040 Savage Road Charleston SC 29407 - (843) 556-8171 - www.gel.com

## Certificate of Analysis

Report Date: May 13, 2019

Company : Energy Fuels Resources (USA), Inc.  
 Address : 225 Union Boulevard  
 Suite 600  
 Lakewood, Colorado 80228  
 Contact: Ms. Kathy Weinel  
 Project: White Mesa Mill GW

Client Sample ID: MW-65_04232019	Project: DNMI00100
Sample ID: 477632011	Client ID: DNMI001
Matrix: Ground Water	
Collect Date: 23-APR-19 13:55	
Receive Date: 26-APR-19	
Collector: Client	

Parameter	Qualifier	Result	Uncertainty	MDC	RL	Units	PF	DF	Analyst	Date	Time	Batch	Method
Rad Gas Flow Proportional Counting													
GFPC, Total Alpha Radium, Liquid "As Received"													
Gross Radium Alpha	U	1.00	+/-0.220	0.586	1.00	pCi/L			LXB3	05/06/19	1635	1872063	1

The following Analytical Methods were performed:

Method	Description	Analyst Comments											
	EPA 903.0												
Surrogate/Tracer Recovery	Test	Result	Nominal	Recovery%	Acceptable Limits								
Barium Carrier	GFPC, Total Alpha Radium, Liquid "As Received"			98.6	(25%-125%)								

**Notes:**

Counting Uncertainty is calculated at the 68% confidence level (1-sigma).

SRL = Sample Reporting Limit. For metals analysis only. When the sample is U qualified and ND, the SRL column reports the value which is the greater of either the adjusted MDL or the CRDL.

Column headers are defined as follows:

DF: Dilution Factor	Lc/LC: Critical Level
DL: Detection Limit	PF: Prep Factor
MDA: Minimum Detectable Activity	RL: Reporting Limit
MDC: Minimum Detectable Concentration	SQL: Sample Quantitation Limit



# INORGANIC ANALYTICAL REPORT

**Client:** Energy Fuels Resources, Inc.  
**Project:** 2nd Quarter Groundwater 2019  
**Lab Sample ID:** 1905087-006  
**Client Sample ID:** MW-70\_04302019  
**Collection Date:** 4/30/2019 1055h  
**Received Date:** 5/3/2019 1005h

**Contact:** Tanner Holliday

## Analytical Results

## DISSOLVED METALS

Compound	Units	Date Prepared	Date Analyzed	Method Used	Reporting Limit	Analytical Result	Qual
Arsenic	mg/L	5/6/2019 1142h	5/14/2019 1633h	E200.8	0.00500	< 0.00500	
Beryllium	mg/L	5/6/2019 1142h	5/14/2019 1749h	E200.8	0.000500	< 0.000500	
Cadmium	mg/L	5/6/2019 1142h	5/14/2019 1633h	E200.8	0.000500	< 0.000500	
Calcium	mg/L	5/6/2019 1142h	5/17/2019 1403h	E200.7	20.0	<b>518</b>	
Chromium	mg/L	5/6/2019 1142h	5/14/2019 1633h	E200.8	0.0250	< 0.0250	
Cobalt	mg/L	5/6/2019 1142h	5/14/2019 1633h	E200.8	0.0100	< 0.0100	
Copper	mg/L	5/6/2019 1142h	5/14/2019 1633h	E200.8	0.0100	< 0.0100	
Iron	mg/L	5/6/2019 1142h	5/14/2019 1749h	E200.8	0.0300	< 0.0300	
Lead	mg/L	5/6/2019 1142h	5/14/2019 1749h	E200.8	0.00100	< 0.00100	
Magnesium	mg/L	5/6/2019 1142h	5/17/2019 1403h	E200.7	20.0	<b>188</b>	
Manganese	mg/L	5/6/2019 1142h	5/14/2019 1633h	E200.8	0.0100	< 0.0100	
Mercury	mg/L	5/6/2019 1530h	5/7/2019 749h	E245.1	0.000500	< 0.000500	
Molybdenum	mg/L	5/6/2019 1142h	5/14/2019 1633h	E200.8	0.0100	< 0.0100	
Nickel	mg/L	5/6/2019 1142h	5/14/2019 1633h	E200.8	0.0200	< 0.0200	
Potassium	mg/L	5/6/2019 1142h	5/17/2019 1515h	E200.7	1.00	<b>11.4</b>	
Selenium	mg/L	5/6/2019 1142h	5/14/2019 1633h	E200.8	0.00500	<b>0.100</b>	
Silver	mg/L	5/6/2019 1142h	5/14/2019 1633h	E200.8	0.0100	< 0.0100	
Sodium	mg/L	5/6/2019 1142h	5/17/2019 1304h	E200.7	20.0	<b>551</b>	
Thallium	mg/L	5/6/2019 1142h	5/14/2019 1749h	E200.8	0.000500	< 0.000500	
Tin	mg/L	5/6/2019 1142h	5/14/2019 1633h	E200.8	0.100	< 0.100	
Uranium	mg/L	5/6/2019 1142h	5/14/2019 1900h	E200.8	0.000300	<b>0.0421</b>	
Vanadium	mg/L	5/6/2019 1142h	5/17/2019 1515h	E200.7	0.0150	< 0.0150	
Zinc	mg/L	5/6/2019 1142h	5/14/2019 1633h	E200.8	0.0100	< 0.0100	

3440 South 700 West

Salt Lake City, UT 84119

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



# INORGANIC ANALYTICAL REPORT

**Client:** Energy Fuels Resources, Inc.  
**Project:** 2nd Quarter Groundwater 2019  
**Lab Sample ID:** 1905087-006  
**Client Sample ID:** MW-70\_04302019  
**Collection Date:** 4/30/2019 1055h  
**Received Date:** 5/3/2019 1005h

**Contact:** Tanner Holliday

## Analytical Results

Compound	Units	Date Prepared	Date Analyzed	Method Used	Reporting Limit	Analytical Result	Qual
Ammonia (as N)	mg/L	5/10/2019 1650h	5/10/2019 1905h	E350.1	0.0500	< 0.0500	
Bicarbonate (as CaCO3)	mg/L		5/6/2019 820h	SM2320B	1.00	<b>364</b>	
Carbonate (as CaCO3)	mg/L		5/6/2019 820h	SM2320B	1.00	< 1.00	
Chloride	mg/L		5/11/2019 211h	E300.0	1.00	<b>38.8</b>	
Fluoride	mg/L		5/11/2019 519h	E300.0	0.100	<b>0.183</b>	
Ion Balance	%		5/17/2019 1612h	Calc.	-100	<b>7.87</b>	
Nitrate/Nitrite (as N)	mg/L		5/3/2019 1537h	E353.2	0.100	<b>0.205</b>	
Sulfate	mg/L		5/10/2019 1943h	E300.0	300	<b>2,290</b>	
Total Anions, Measured	meq/L		5/17/2019 1612h	Calc.		<b>56.0</b>	
Total Cations, Measured	meq/L		5/17/2019 1612h	Calc.		<b>65.6</b>	
Total Dissolved Solids	mg/L		5/3/2019 1310h	SM2540C	20.0	<b>3,540</b>	
Total Dissolved Solids Ratio, Measured/Calculated			5/17/2019 1612h	Calc.		<b>0.928</b>	
Total Dissolved Solids, Calculated	mg/L		5/17/2019 1612h	Calc.		<b>3,810</b>	

3440 South 700 West  
Salt Lake City, UT 84119

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e-mail: awal@awal-labs.com

web: www.awal-labs.com

Kyle F. Gross  
Laboratory Director

Jose Rocha  
QA Officer



# ORGANIC ANALYTICAL REPORT

**Client:** Energy Fuels Resources, Inc.  
**Project:** 2nd Quarter Groundwater 2019  
**Lab Sample ID:** 1905087-006A  
**Client Sample ID:** MW-70\_04302019  
**Collection Date:** 4/30/2019 1055h  
**Received Date:** 5/3/2019 1005h

**Contact:** Tanner Holliday

Test Code: 8260-W-DEN100

## Analytical Results

VOAs by GC/MS Method 8260C/5030C

**Analyzed:** 5/4/2019 1327h

**Units:** µg/L

**Dilution Factor:** 1

**Method:** SW8260C

3440 South 700 West

Salt Lake City, UT 84119

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

Compound	CAS Number	Reporting Limit	Analytical Result	Qual
2-Butanone	78-93-3	20.0	< 20.0	
Acetone	67-64-1	20.0	< 20.0	
Benzene	71-43-2	1.00	< 1.00	
Carbon tetrachloride	56-23-5	1.00	< 1.00	
Chloroform	67-66-3	1.00	< 1.00	
Chloromethane	74-87-3	1.00	< 1.00	
Methylene chloride	75-09-2	1.00	< 1.00	
Naphthalene	91-20-3	1.00	< 1.00	
Tetrahydrofuran	109-99-9	1.00	< 1.00	S
Toluene	108-88-3	1.00	< 1.00	
Xylenes, Total	1330-20-7	1.00	< 1.00	

Surrogate	Units: µg/L	CAS	Result	Amount Spiked	% REC	Limits	Qual
Surr: 1,2-Dichloroethane-d4		17060-07-0	57.3	50.00	115	72-151	
Surr: 4-Bromofluorobenzene		460-00-4	52.6	50.00	105	80-152	
Surr: Dibromofluoromethane		1868-53-7	49.3	50.00	98.6	72-135	
Surr: Toluene-d8		2037-26-5	50.4	50.00	101	80-124	

*S - High LCS recoveries indicate possible bias high. Data deemed acceptable as the analyte was not observed in the field sample.*

# GEL LABORATORIES LLC

2040 Savage Road Charleston SC 29407 - (843) 556-8171 - www.gel.com

## Certificate of Analysis

Report Date: May 31, 2019

Company : Energy Fuels Resources (USA), Inc.  
Address : 225 Union Boulevard  
Suite 600  
Lakewood, Colorado 80228  
Contact: Ms. Kathy Weinel  
Project: White Mesa Mill GW

Client Sample ID: MW-70\_04302019 Project: DNMI00100  
Sample ID: 478290006 Client ID: DNMI001  
Matrix: Ground Water  
Collect Date: 30-APR-19 10:55  
Receive Date: 03-MAY-19  
Collector: Client

Parameter	Qualifier	Result	Uncertainty	MDC	RL	Units	PF	DF	Analyst	Date	Time	Batch	Method
Rad Gas Flow Proportional Counting													
GFPC, Total Alpha Radium, Liquid "As Received"													
Gross Radium Alpha	U	1.00	+/-0.209	0.654	1.00	pCi/L			BXF1	05/25/19	0950	1878765	I

The following Analytical Methods were performed:

Method	Description	Analyst Comments
	EPA 903.0	

Surrogate/Tracer Recovery	Test	Result	Nominal	Recovery%	Acceptable Limits
Barium Carrier	GFPC, Total Alpha Radium, Liquid "As Received"			94	(25%-125%)

### Notes:

Counting Uncertainty is calculated at the 68% confidence level (1-sigma).

SRL = Sample Reporting Limit. For metals analysis only. When the sample is U qualified and ND, the SRL column reports the value which is the greater of either the adjusted MDL or the CRDL.

Column headers are defined as follows:

DF: Dilution Factor                      Lc/LC: Critical Level  
DL: Detection Limit                      PF: Prep Factor  
MDA: Minimum Detectable Activity      RL: Reporting Limit  
MDC: Minimum Detectable Concentration      SQL: Sample Quantitation Limit



# ORGANIC ANALYTICAL REPORT

**Client:** Energy Fuels Resources, Inc.  
**Project:** 2nd Quarter Groundwater 2019  
**Lab Sample ID:** 1904300-005A  
**Client Sample ID:** Trip Blank  
**Collection Date:** 4/9/2019 1210h  
**Received Date:** 4/11/2019 847h

**Contact:** Tanner Holliday

Test Code: 8260-W-DEN100

## Analytical Results

VOAs by GC/MS Method 8260C/5030C

**Analyzed:** 4/12/2019 811h

**Units:** µg/L

**Dilution Factor:** 1

**Method:** SW8260C

3440 South 700 West

Salt Lake City, UT 84119

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

Compound	CAS Number	Reporting Limit	Analytical Result	Qual
2-Butanone	78-93-3	20.0	< 20.0	
Acetone	67-64-1	20.0	< 20.0	
Benzene	71-43-2	1.00	< 1.00	
Carbon tetrachloride	56-23-5	1.00	< 1.00	
Chloroform	67-66-3	1.00	< 1.00	
Chloromethane	74-87-3	1.00	< 1.00	
Methylene chloride	75-09-2	1.00	< 1.00	
Naphthalene	91-20-3	1.00	< 1.00	
Tetrahydrofuran	109-99-9	1.00	< 1.00	
Toluene	108-88-3	1.00	< 1.00	
Xylenes, Total	1330-20-7	1.00	< 1.00	

Surrogate	Units: µg/L	CAS	Result	Amount Spiked	% REC	Limits	Qual
Surr: 1,2-Dichloroethane-d4		17060-07-0	50.7	50.00	101	72-151	
Surr: 4-Bromofluorobenzene		460-00-4	51.2	50.00	102	80-152	
Surr: Dibromofluoromethane		1868-53-7	47.9	50.00	95.8	72-135	
Surr: Toluene-d8		2037-26-5	51.5	50.00	103	80-124	



# ORGANIC ANALYTICAL REPORT

**Client:** Energy Fuels Resources, Inc.  
**Project:** 2nd Quarter Groundwater 2019  
**Lab Sample ID:** 1904508-007A  
**Client Sample ID:** Trip Blank  
**Collection Date:** 4/16/2019 1240h  
**Received Date:** 4/19/2019 1045h

**Contact:** Tanner Holliday

Test Code: 8260-W-DEN100

## Analytical Results

VOAs by GC/MS Method 8260C/5030C

**Analyzed:** 4/22/2019 1137h

**Units:** µg/L

**Dilution Factor:** 1

**Method:** SW8260C

3440 South 700 West

Salt Lake City, UT 84119

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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

Compound	CAS Number	Reporting Limit	Analytical Result	Qual
2-Butanone	78-93-3	20.0	< 20.0	
Acetone	67-64-1	20.0	< 20.0	
Benzene	71-43-2	1.00	< 1.00	
Carbon tetrachloride	56-23-5	1.00	< 1.00	
Chloroform	67-66-3	1.00	< 1.00	
Chloromethane	74-87-3	1.00	< 1.00	
Methylene chloride	75-09-2	1.00	< 1.00	
Naphthalene	91-20-3	1.00	< 1.00	
Tetrahydrofuran	109-99-9	1.00	< 1.00	
Toluene	108-88-3	1.00	< 1.00	
Xylenes, Total	1330-20-7	1.00	< 1.00	

Surrogate	Units: µg/L	CAS	Result	Amount Spiked	% REC	Limits	Qual
Surr: 1,2-Dichloroethane-d4		17060-07-0	53.3	50.00	107	72-151	
Surr: 4-Bromofluorobenzene		460-00-4	52.4	50.00	105	80-152	
Surr: Dibromofluoromethane		1868-53-7	50.0	50.00	100	72-135	
Surr: Toluene-d8		2037-26-5	51.2	50.00	102	80-124	



# ORGANIC ANALYTICAL REPORT

**Client:** Energy Fuels Resources, Inc.  
**Project:** 2nd Quarter Groundwater 2019  
**Lab Sample ID:** 1904652-013A  
**Client Sample ID:** Trip Blank  
**Collection Date:** 4/23/2019 1100h  
**Received Date:** 4/26/2019 1010h

**Contact:** Tanner Holliday

Test Code: 8260-W-DEN100

## Analytical Results

VOAs by GC/MS Method 8260C/5030C

**Analyzed:** 4/30/2019 1612h

**Units:** µg/L

**Dilution Factor:** 1

**Method:** SW8260C

3440 South 700 West

Salt Lake City, UT 84119

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Kyle F. Gross

Laboratory Director

Jose Rocha

QA Officer

Compound	CAS Number	Reporting Limit	Analytical Result	Qual
2-Butanone	78-93-3	20.0	< 20.0	
Acetone	67-64-1	20.0	< 20.0	
Benzene	71-43-2	1.00	< 1.00	
Carbon tetrachloride	56-23-5	1.00	< 1.00	
Chloroform	67-66-3	1.00	< 1.00	
Chloromethane	74-87-3	1.00	< 1.00	
Methylene chloride	75-09-2	1.00	< 1.00	
Naphthalene	91-20-3	1.00	< 1.00	
Tetrahydrofuran	109-99-9	1.00	< 1.00	
Toluene	108-88-3	1.00	< 1.00	
Xylenes, Total	1330-20-7	1.00	< 1.00	

Surrogate	Units: µg/L	CAS	Result	Amount Spiked	% REC	Limits	Qual
Surr: 1,2-Dichloroethane-d4		17060-07-0	55.5	50.00	111	72-151	
Surr: 4-Bromofluorobenzene		460-00-4	50.8	50.00	102	80-152	
Surr: Dibromofluoromethane		1868-53-7	49.5	50.00	98.9	72-135	
Surr: Toluene-d8		2037-26-5	50.0	50.00	99.9	80-124	



# ORGANIC ANALYTICAL REPORT

**Client:** Energy Fuels Resources, Inc.  
**Project:** 2nd Quarter Groundwater 2019  
**Lab Sample ID:** 1905087-008A  
**Client Sample ID:** Trip Blank  
**Collection Date:** 4/30/2019 1055h  
**Received Date:** 5/3/2019 1005h

**Contact:** Tanner Holliday

Test Code: 8260-W-DEN100

## Analytical Results

VOAs by GC/MS Method 8260C/5030C

**Analyzed:** 5/4/2019 1046h

**Units:** µg/L

**Dilution Factor:** 1

**Method:** SW8260C

3440 South 700 West  
Salt Lake City, UT 84119

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

Compound	CAS Number	Reporting Limit	Analytical Result	Qual
2-Butanone	78-93-3	20.0	< 20.0	
Acetone	67-64-1	20.0	< 20.0	
Benzene	71-43-2	1.00	< 1.00	
Carbon tetrachloride	56-23-5	1.00	< 1.00	
Chloroform	67-66-3	1.00	< 1.00	
Chloromethane	74-87-3	1.00	< 1.00	
Methylene chloride	75-09-2	1.00	< 1.00	
Naphthalene	91-20-3	1.00	< 1.00	
Tetrahydrofuran	109-99-9	1.00	< 1.00	S
Toluene	108-88-3	1.00	< 1.00	
Xylenes, Total	1330-20-7	1.00	< 1.00	

Surrogate	Units: µg/L	CAS	Result	Amount Spiked	% REC	Limits	Qual
Surr: 1,2-Dichloroethane-d4		17060-07-0	57.2	50.00	114	72-151	
Surr: 4-Bromofluorobenzene		460-00-4	50.8	50.00	102	80-152	
Surr: Dibromofluoromethane		1868-53-7	49.6	50.00	99.3	72-135	
Surr: Toluene-d8		2037-26-5	49.9	50.00	99.8	80-124	

*S - High LCS recoveries indicate possible bias high. Data deemed acceptable as the analyte was not observed in the field sample.*



# ORGANIC ANALYTICAL REPORT

**Client:** Energy Fuels Resources, Inc.  
**Project:** 2nd Quarter Groundwater 2019  
**Lab Sample ID:** 1905400-004A  
**Client Sample ID:** Trip Blank  
**Collection Date:** 5/15/2019 740h  
**Received Date:** 5/16/2019 1015h

**Contact:** Tanner Holliday

Test Code: 8260-W-DEN100

**Analytical Results**

VOAs by GC/MS Method 8260C/5030C

**Analyzed:** 5/16/2019 1309h

**Units:** µg/L

**Dilution Factor:** 1

**Method:** SW8260C

3440 South 700 West

Salt Lake City, UT 84119

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

Compound	CAS Number	Reporting Limit	Analytical Result	Qual
2-Butanone	78-93-3	20.0	< 20.0	
Acetone	67-64-1	20.0	< 20.0	
Benzene	71-43-2	1.00	< 1.00	
Carbon tetrachloride	56-23-5	1.00	< 1.00	
Chloroform	67-66-3	1.00	< 1.00	
Chloromethane	74-87-3	1.00	< 1.00	
Methylene chloride	75-09-2	1.00	< 1.00	
Naphthalene	91-20-3	1.00	< 1.00	
Tetrahydrofuran	109-99-9	1.00	< 1.00	
Toluene	108-88-3	1.00	< 1.00	
Xylenes, Total	1330-20-7	1.00	< 1.00	

Surrogate	Units: µg/L	CAS	Result	Amount Spiked	% REC	Limits	Qual
Surr: 1,2-Dichloroethane-d4		17060-07-0	46.2	50.00	92.3	72-151	
Surr: 4-Bromofluorobenzene		460-00-4	57.0	50.00	114	80-152	
Surr: Dibromofluoromethane		1868-53-7	44.4	50.00	88.8	72-135	
Surr: Toluene-d8		2037-26-5	50.7	50.00	101	80-124	



Tanner Holliday  
Energy Fuels Resources, Inc.  
6425 South Hwy 191  
Blanding, UT 84511  
TEL: (435) 678-2221

RE: 2nd Quarter Groundwater 2019

Dear Tanner Holliday:

Lab Set ID: 1904300

3440 South 700 West

Salt Lake City, UT 84119

American West Analytical Laboratories received sample(s) on 4/11/2019 for the analyses presented in the following report.

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

Phone: (801) 263-8686

Toll Free: (888) 263-8686

Fax: (801) 263-8687

e-mail: [awal@awal-labs.com](mailto:awal@awal-labs.com)

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

web: [www.awal-labs.com](http://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:

<b>Kyle F. Gross</b>	Digitally signed by Kyle F. Gross
	Date: 2019.04.26 12:33:28 -06'00'

Laboratory Director or designee



## SAMPLE SUMMARY

**Client:** Energy Fuels Resources, Inc.  
**Project:** 2nd Quarter Groundwater 2019  
**Lab Set ID:** 1904300  
**Date Received:** 4/11/2019 847h

**Contact:** Tanner Holliday

Lab Sample ID	Client Sample ID	Date Collected	Matrix	Analysis
1904300-001A	MW-25_04102019	4/10/2019 1110h	Aqueous	VOA by GC/MS Method 8260C/5030C
1904300-001B	MW-25_04102019	4/10/2019 1110h	Aqueous	Anions, E300.0
1904300-001B	MW-25_04102019	4/10/2019 1110h	Aqueous	Alkalinity/ Bicarbonate/ Carbonate, Low Level
1904300-001C	MW-25_04102019	4/10/2019 1110h	Aqueous	Total Dissolved Solids, A2540C
1904300-001D	MW-25_04102019	4/10/2019 1110h	Aqueous	Nitrite/Nitrate (as N), E353.2
1904300-001D	MW-25_04102019	4/10/2019 1110h	Aqueous	Ammonia, Aqueous
1904300-001E	MW-25_04102019	4/10/2019 1110h	Aqueous	Mercury, Drinking Water Dissolved
1904300-001E	MW-25_04102019	4/10/2019 1110h	Aqueous	Ion Balance
1904300-001E	MW-25_04102019	4/10/2019 1110h	Aqueous	ICP Metals, Dissolved
1904300-001E	MW-25_04102019	4/10/2019 1110h	Aqueous	ICPMS Metals, Dissolved
1904300-002A	MW-30_04092019	4/9/2019 1210h	Aqueous	VOA by GC/MS Method 8260C/5030C
1904300-002B	MW-30_04092019	4/9/2019 1210h	Aqueous	Alkalinity/ Bicarbonate/ Carbonate, Low Level
1904300-002B	MW-30_04092019	4/9/2019 1210h	Aqueous	Anions, E300.0
1904300-002C	MW-30_04092019	4/9/2019 1210h	Aqueous	Total Dissolved Solids, A2540C
1904300-002D	MW-30_04092019	4/9/2019 1210h	Aqueous	Nitrite/Nitrate (as N), E353.2
1904300-002D	MW-30_04092019	4/9/2019 1210h	Aqueous	Ammonia, Aqueous
1904300-002E	MW-30_04092019	4/9/2019 1210h	Aqueous	Mercury, Drinking Water Dissolved
1904300-002E	MW-30_04092019	4/9/2019 1210h	Aqueous	Ion Balance
1904300-002E	MW-30_04092019	4/9/2019 1210h	Aqueous	ICP Metals, Dissolved
1904300-002E	MW-30_04092019	4/9/2019 1210h	Aqueous	ICPMS Metals, Dissolved
1904300-003A	MW-31_04102019	4/10/2019 1335h	Aqueous	VOA by GC/MS Method 8260C/5030C
1904300-003B	MW-31_04102019	4/10/2019 1335h	Aqueous	Anions, E300.0
1904300-003B	MW-31_04102019	4/10/2019 1335h	Aqueous	Alkalinity/ Bicarbonate/ Carbonate, Low Level
1904300-003C	MW-31_04102019	4/10/2019 1335h	Aqueous	Total Dissolved Solids, A2540C
1904300-003D	MW-31_04102019	4/10/2019 1335h	Aqueous	Nitrite/Nitrate (as N), E353.2
1904300-003D	MW-31_04102019	4/10/2019 1335h	Aqueous	Ammonia, Aqueous
1904300-003E	MW-31_04102019	4/10/2019 1335h	Aqueous	Mercury, Drinking Water Dissolved
1904300-003E	MW-31_04102019	4/10/2019 1335h	Aqueous	Ion Balance

3440 South 700 West  
Salt Lake City, UT 84119

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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



**Client:** Energy Fuels Resources, Inc.  
**Project:** 2nd Quarter Groundwater 2019  
**Lab Set ID:** 1904300  
**Date Received:** 4/11/2019 847h

**Contact:** Tanner Holliday

Lab Sample ID	Client Sample ID	Date Collected	Matrix	Analysis
1904300-003E	MW-31_04102019	4/10/2019 1335h	Aqueous	ICP Metals, Dissolved
1904300-003E	MW-31_04102019	4/10/2019 1335h	Aqueous	ICPMS Metals, Dissolved
1904300-004A	MW-32_04092019	4/9/2019 1325h	Aqueous	VOA by GC/MS Method 8260C/5030C
1904300-004B	MW-32_04092019	4/9/2019 1325h	Aqueous	Alkalinity/ Bicarbonate/ Carbonate, Low Level
1904300-004B	MW-32_04092019	4/9/2019 1325h	Aqueous	Anions, E300.0
1904300-004C	MW-32_04092019	4/9/2019 1325h	Aqueous	Total Dissolved Solids, A2540C
1904300-004D	MW-32_04092019	4/9/2019 1325h	Aqueous	Nitrite/Nitrate (as N), E353.2
1904300-004D	MW-32_04092019	4/9/2019 1325h	Aqueous	Ammonia, Aqueous
1904300-004E	MW-32_04092019	4/9/2019 1325h	Aqueous	Ion Balance
1904300-004E	MW-32_04092019	4/9/2019 1325h	Aqueous	ICP Metals, Dissolved
1904300-004E	MW-32_04092019	4/9/2019 1325h	Aqueous	ICPMS Metals, Dissolved
1904300-004E	MW-32_04092019	4/9/2019 1325h	Aqueous	Mercury, Drinking Water Dissolved
1904300-005A	Trip Blank	4/9/2019 1210h	Aqueous	VOA by GC/MS Method 8260C/5030C

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web: www.awal-labs.com

Kyle F. Gross  
Laboratory Director

Jose Rocha  
QA Officer



# Inorganic Case Narrative

**Client:** Energy Fuels Resources, Inc.  
**Contact:** Tanner Holliday  
**Project:** 2nd Quarter Groundwater 2019  
**Lab Set ID:** 1904300

## Sample Receipt Information:

**Date of Receipt:** 4/11/2019  
**Date(s) of Collection:** 4/9-4/10/2019  
**Sample Condition:** See Chain of Custody  
**C-O-C Discrepancies:** See Chain of Custody

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

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

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

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

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

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

**Matrix Spike / Matrix Spike Duplicates (MS/MSD):** All percent recoveries and RPDs (Relative Percent Differences) were inside established limits, with the following exceptions:

Sample ID	Analyte	QC	Explanation
1904300-001E	Calcium	MS/MSD	High analyte concentration
1904300-001E	Magnesium	MSD	High analyte concentration
1904300-001E	Manganese	MSD	High analyte concentration
1904300-001E	Sodium	MS/MSD	High analyte concentration

**Duplicate (DUP):** The parameters that required a duplicate analysis had RPDs within the control limits.

**Corrective Action:** None required.

3440 South 700 West  
 Salt Lake City, UT 84119

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:** Energy Fuels Resources, Inc.  
**Contact:** Tanner Holliday  
**Project:** 2nd Quarter Groundwater 2019  
**Lab Set ID:** 1904300

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3440 South 700 West  
Salt Lake City, UT 84119

### **Sample Receipt Information:**

**Date of Receipt:** 4/11/2019  
**Date(s) of Collection:** 4/9-4/10/2019  
**Sample Condition:** See Chain of Custody  
**C-O-C Discrepancies:** See Chain of Custody  
**Method:** SW-846 8260C/5030C  
**Analysis:** Volatile Organic Compounds

Phone: (801) 263-8686

Toll Free: (888) 263-8686

Fax: (801) 263-8687

e-mail: awal@awal-labs.com

web: www.awal-labs.com

**General Set Comments:** No target analytes were observed above reporting limits.

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

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

**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.



3440 South 700 West  
Salt Lake City, UT 84119

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Kyle F. Gross  
Laboratory Director

Jose Rocha  
QA Officer

## QC SUMMARY REPORT

**Client:** Energy Fuels Resources, Inc.  
**Lab Set ID:** 1904300  
**Project:** 2nd Quarter Groundwater 2019

**Contact:** Tanner Holliday  
**Dept:** ME  
**QC Type:** LCS

Analyte	Result	Units	Method	MDL	Reporting Limit	Amount Spiked	Spike Ref. Amount	%REC	Limits	RPD Ref. Amt	% RPD	RPD Limit	Qual
<b>Lab Sample ID:</b> LCS-62061	Date Analyzed:		04/23/2019 1332h										
<b>Test Code:</b> 200.7-DIS	Date Prepared:		04/17/2019 937h										
Calcium	10.4	mg/L	E200.7	0.0937	1.00	10.00	0	104	85 - 115				
Potassium	9.69	mg/L	E200.7	0.134	1.00	10.00	0	96.9	85 - 115				
Sodium	9.65	mg/L	E200.7	0.187	1.00	10.00	0	96.5	85 - 115				
<b>Lab Sample ID:</b> LCS-62061	Date Analyzed:		04/23/2019 1615h										
<b>Test Code:</b> 200.7-DIS	Date Prepared:		04/17/2019 937h										
Magnesium	10.2	mg/L	E200.7	0.0439	1.00	10.00	0	102	85 - 115				
Vanadium	0.201	mg/L	E200.7	0.00138	0.00500	0.2000	0	101	85 - 115				
<b>Lab Sample ID:</b> LCS-62062	Date Analyzed:		04/22/2019 1741h										
<b>Test Code:</b> 200.8-DIS	Date Prepared:		04/17/2019 937h										
Arsenic	0.189	mg/L	E200.8	0.000298	0.00200	0.2000	0	94.7	85 - 115				
Beryllium	0.192	mg/L	E200.8	0.000198	0.00200	0.2000	0	95.8	85 - 115				
Cadmium	0.185	mg/L	E200.8	0.0000858	0.000500	0.2000	0	92.3	85 - 115				
Cobalt	0.187	mg/L	E200.8	0.000300	0.00400	0.2000	0	93.3	85 - 115				
Iron	0.938	mg/L	E200.8	0.0496	0.100	1.000	0	93.8	85 - 115				
Lead	0.190	mg/L	E200.8	0.000448	0.00200	0.2000	0	95.2	85 - 115				
Manganese	0.189	mg/L	E200.8	0.00108	0.00200	0.2000	0	94.4	85 - 115				
Molybdenum	0.186	mg/L	E200.8	0.000652	0.00200	0.2000	0	93.0	85 - 115				
Nickel	0.187	mg/L	E200.8	0.00148	0.00200	0.2000	0	93.6	85 - 115				
Selenium	0.185	mg/L	E200.8	0.000574	0.00200	0.2000	0	92.6	85 - 115				
Silver	0.184	mg/L	E200.8	0.000232	0.00200	0.2000	0	92.1	85 - 115				
Thallium	0.189	mg/L	E200.8	0.000154	0.00200	0.2000	0	94.3	85 - 115				
Tin	0.965	mg/L	E200.8	0.00116	0.00400	1.000	0	96.5	85 - 115				
Uranium	0.225	mg/L	E200.8	0.000176	0.00200	0.2000	0	112	85 - 115				
Zinc	0.952	mg/L	E200.8	0.00418	0.00600	1.000	0	95.2	85 - 115				



3440 South 700 West  
Salt Lake City, UT 84119

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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:** Energy Fuels Resources, Inc.  
**Lab Set ID:** 1904300  
**Project:** 2nd Quarter Groundwater 2019

**Contact:** Tanner Holliday  
**Dept:** ME  
**QC Type:** LCS

Analyte	Result	Units	Method	MDL	Reporting Limit	Amount Spiked	Spike Ref. Amount	%REC	Limits	RPD Ref. Amt	% RPD	RPD Limit	Qual
<b>Lab Sample ID:</b> LCS-62062	Date Analyzed:		04/24/2019 1024h										
Test Code:	Date Prepared:		200.8-DIS 04/17/2019 937h										
Chromium	0.194	mg/L	E200.8	0.00191	0.00200	0.2000	0	96.9	85 - 115				
Copper	0.195	mg/L	E200.8	0.00282	0.00200	0.2000	0	97.3	85 - 115				
<b>Lab Sample ID:</b> LCS-62051	Date Analyzed:		04/17/2019 838h										
Test Code:	Date Prepared:		HG-DW-DIS-245.1 04/16/2019 1530h										
Mercury	0.00346	mg/L	E245.1	0.0000396	0.0000900	0.003330	0	104	85 - 115				



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Kyle F. Gross  
Laboratory Director

Jose Rocha  
QA Officer

## QC SUMMARY REPORT

**Client:** Energy Fuels Resources, Inc.  
**Lab Set ID:** 1904300  
**Project:** 2nd Quarter Groundwater 2019

**Contact:** Tanner Holliday  
**Dept:** ME  
**QC Type:** MBLK

Analyte	Result	Units	Method	MDL	Reporting Limit	Amount Spiked	Spike Ref. Amount	%REC	Limits	RPD Ref. Amt	% RPD	RPD Limit	Qual
<b>Lab Sample ID:</b> MB-62061	Date Analyzed:	04/23/2019	1330h										
Test Code:	200.7-DIS	Date Prepared:	04/17/2019	937h									
Calcium	< 1.00	mg/L	E200.7	0.0937	1.00								
Potassium	< 1.00	mg/L	E200.7	0.134	1.00								
Sodium	< 1.00	mg/L	E200.7	0.187	1.00								
<b>Lab Sample ID:</b> MB-62061	Date Analyzed:	04/23/2019	1613h										
Test Code:	200.7-DIS	Date Prepared:	04/17/2019	937h									
Magnesium	< 1.00	mg/L	E200.7	0.0439	1.00								
Vanadium	< 0.00500	mg/L	E200.7	0.00138	0.00500								
<b>Lab Sample ID:</b> MB-62062	Date Analyzed:	04/22/2019	1738h										
Test Code:	200.8-DIS	Date Prepared:	04/17/2019	937h									
Arsenic	< 0.000200	mg/L	E200.8	0.0000298	0.000200								
Beryllium	< 0.000200	mg/L	E200.8	0.0000198	0.000200								
Cadmium	< 0.0000500	mg/L	E200.8	0.00000858	0.0000500								
Cobalt	< 0.000400	mg/L	E200.8	0.0000300	0.000400								
Iron	< 0.0100	mg/L	E200.8	0.00496	0.0100								
Lead	< 0.000200	mg/L	E200.8	0.0000448	0.000200								
Manganese	< 0.000200	mg/L	E200.8	0.000108	0.000200								
Molybdenum	< 0.000200	mg/L	E200.8	0.0000652	0.000200								
Nickel	< 0.000200	mg/L	E200.8	0.000148	0.000200								
Selenium	< 0.000200	mg/L	E200.8	0.0000574	0.000200								
Silver	< 0.000200	mg/L	E200.8	0.0000232	0.000200								
Thallium	< 0.000200	mg/L	E200.8	0.0000154	0.000200								
Tin	< 0.000400	mg/L	E200.8	0.000116	0.000400								
Uranium	< 0.000200	mg/L	E200.8	0.0000176	0.000200								
Zinc	< 0.000600	mg/L	E200.8	0.000418	0.000600								



3440 South 700 West  
Salt Lake City, UT 84119

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Kyle F. Gross  
Laboratory Director

Jose Rocha  
QA Officer

## QC SUMMARY REPORT

**Client:** Energy Fuels Resources, Inc.  
**Lab Set ID:** 1904300  
**Project:** 2nd Quarter Groundwater 2019

**Contact:** Tanner Holliday  
**Dept:** ME  
**QC Type:** MBLK

Analyte	Result	Units	Method	MDL	Reporting Limit	Amount Spiked	Spike Ref. Amount	%REC	Limits	RPD Ref. Amt	% RPD	RPD Limit	Qual
<b>Lab Sample ID:</b> MB-62062	Date Analyzed:	04/24/2019	1021h										
Test Code:	200.8-DIS	Date Prepared:	04/17/2019	937h									
Chromium	< 0.00200	mg/L	E200.8	0.00191	0.00200								
Copper	< 0.00200	mg/L	E200.8	0.00282	0.00200								
<b>Lab Sample ID:</b> MB-62051	Date Analyzed:	04/17/2019	836h										
Test Code:	HG-DW-DIS-245.1	Date Prepared:	04/16/2019	1530h									
Mercury	< 0.0000900	mg/L	E245.1	0.0000396	0.0000900								



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Kyle F. Gross  
Laboratory Director

Jose Rocha  
QA Officer

## QC SUMMARY REPORT

**Client:** Energy Fuels Resources, Inc.  
**Lab Set ID:** 1904300  
**Project:** 2nd Quarter Groundwater 2019

**Contact:** Tanner Holliday  
**Dept:** ME  
**QC Type:** MS

Analyte	Result	Units	Method	MDL	Reporting Limit	Amount Spiked	Spike Ref. Amount	%REC	Limits	RPD Ref. Amt	% RPD	RPD Limit	Qual
<b>Lab Sample ID: 1904300-001EMS</b>													
Date Analyzed: 04/23/2019 1356h													
Test Code: 200.7-DIS													
Date Prepared: 04/17/2019 937h													
Calcium	358	mg/L	E200.7	1.87	20.0	10.00	364	-60.0	70 - 130				2
Sodium	279	mg/L	E200.7	3.74	20.0	10.00	283	-40.0	70 - 130				2
<b>Lab Sample ID: 1904300-001EMS</b>													
Date Analyzed: 04/23/2019 1423h													
Test Code: 200.7-DIS													
Date Prepared: 04/17/2019 937h													
Potassium	19.4	mg/L	E200.7	0.134	1.00	10.00	9.6	98.0	70 - 130				
<b>Lab Sample ID: 1904300-001EMS</b>													
Date Analyzed: 04/23/2019 1619h													
Test Code: 200.7-DIS													
Date Prepared: 04/17/2019 937h													
Magnesium	127	mg/L	E200.7	0.878	20.0	10.00	115	112	70 - 130				
<b>Lab Sample ID: 1904300-001EMS</b>													
Date Analyzed: 04/23/2019 1639h													
Test Code: 200.7-DIS													
Date Prepared: 04/17/2019 937h													
Vanadium	0.199	mg/L	E200.7	0.00138	0.00500	0.2000	0	99.5	70 - 130				
<b>Lab Sample ID: 1904300-001EMS</b>													
Date Analyzed: 04/22/2019 1754h													
Test Code: 200.8-DIS													
Date Prepared: 04/17/2019 937h													
Arsenic	0.205	mg/L	E200.8	0.000298	0.00200	0.2000	0.000129	103	75 - 125				
Beryllium	0.193	mg/L	E200.8	0.000198	0.00200	0.2000	0	96.6	75 - 125				
Cadmium	0.192	mg/L	E200.8	0.0000858	0.000500	0.2000	0.0013	95.4	75 - 125				
Cobalt	0.197	mg/L	E200.8	0.000300	0.00400	0.2000	0.00818	94.4	75 - 125				
Iron	0.946	mg/L	E200.8	0.0496	0.100	1.000	0.00637	94.0	75 - 125				
Lead	0.189	mg/L	E200.8	0.000448	0.00200	0.2000	0.0000488	94.6	75 - 125				
Manganese	1.57	mg/L	E200.8	0.00108	0.00200	0.2000	1.5	34.2	75 - 125				2
Molybdenum	0.217	mg/L	E200.8	0.000652	0.00200	0.2000	0.0163	101	75 - 125				
Nickel	0.195	mg/L	E200.8	0.00148	0.00200	0.2000	0.00486	95.1	75 - 125				
Selenium	0.205	mg/L	E200.8	0.000574	0.00200	0.2000	0.0000623	102	75 - 125				
Silver	0.187	mg/L	E200.8	0.000232	0.00200	0.2000	0.0000404	93.5	75 - 125				



3440 South 700 West  
Salt Lake City, UT 84119

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Kyle F. Gross  
Laboratory Director

Jose Rocha  
QA Officer

## QC SUMMARY REPORT

**Client:** Energy Fuels Resources, Inc.  
**Lab Set ID:** 1904300  
**Project:** 2nd Quarter Groundwater 2019

**Contact:** Tanner Holliday  
**Dept:** ME  
**QC Type:** MS

Analyte	Result	Units	Method	MDL	Reporting Limit	Amount Spiked	Spike Ref. Amount	%REC	Limits	RPD Ref. Amt	% RPD	RPD Limit	Qual
<b>Lab Sample ID: 1904300-001EMS</b>		Date Analyzed:	04/22/2019 1754h										
Test Code: 200.8-DIS		Date Prepared:	04/17/2019 937h										
Thallium	0.192	mg/L	E200.8	0.000154	0.00200	0.2000	0.000815	95.4	75 - 125				
Tin	1.03	mg/L	E200.8	0.00116	0.00400	1.000	0	103	75 - 125				
Uranium	0.223	mg/L	E200.8	0.000176	0.00200	0.2000	0.00702	108	75 - 125				
Zinc	0.989	mg/L	E200.8	0.00418	0.00600	1.000	0.00457	98.4	75 - 125				
<b>Lab Sample ID: 1904300-001EMS</b>		Date Analyzed:	04/24/2019 1031h										
Test Code: 200.8-DIS		Date Prepared:	04/17/2019 937h										
Chromium	0.193	mg/L	E200.8	0.00191	0.00200	0.2000	0	96.5	75 - 125				
Copper	0.192	mg/L	E200.8	0.00282	0.00200	0.2000	0	96.2	75 - 125				
<b>Lab Sample ID: 1904300-001EMS</b>		Date Analyzed:	04/17/2019 846h										
Test Code: HG-DW-DIS-245.1		Date Prepared:	04/16/2019 1530h										
Mercury	0.00343	mg/L	E245.1	0.0000396	0.0000900	0.003330	0	103	85 - 115				

<sup>2</sup> - Analyte concentration is too high for accurate matrix spike recovery and/or RPD.



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Salt Lake City, UT 84119

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## QC SUMMARY REPORT

**Client:** Energy Fuels Resources, Inc.  
**Lab Set ID:** 1904300  
**Project:** 2nd Quarter Groundwater 2019

**Contact:** Tanner Holliday  
**Dept:** ME  
**QC Type:** MSD

Analyte	Result	Units	Method	MDL	Reporting Limit	Amount Spiked	Spike Ref. Amount	%REC	Limits	RPD Ref. Amt	% RPD	RPD Limit	Qual
<b>Lab Sample ID:</b> 1904300-001EMSD	Date Analyzed:	04/23/2019 1358h											
Test Code:	200.7-DIS												
	Date Prepared:	04/17/2019 937h											
Calcium	361	mg/L	E200.7	1.87	20.0	10.00	364	-30.0	70 - 130	358	0.834	20	2
Sodium	282	mg/L	E200.7	3.74	20.0	10.00	283	-10.0	70 - 130	279	1.07	20	2
<b>Lab Sample ID:</b> 1904300-001EMSD	Date Analyzed:	04/23/2019 1425h											
Test Code:	200.7-DIS												
	Date Prepared:	04/17/2019 937h											
Potassium	19.5	mg/L	E200.7	0.134	1.00	10.00	9.6	99.0	70 - 130	19.4	0.514	20	
<b>Lab Sample ID:</b> 1904300-001EMSD	Date Analyzed:	04/23/2019 1621h											
Test Code:	200.7-DIS												
	Date Prepared:	04/17/2019 937h											
Magnesium	129	mg/L	E200.7	0.878	20.0	10.00	115	131	70 - 130	127	1.52	20	2
<b>Lab Sample ID:</b> 1904300-001EMSD	Date Analyzed:	04/23/2019 1642h											
Test Code:	200.7-DIS												
	Date Prepared:	04/17/2019 937h											
Vanadium	0.187	mg/L	E200.7	0.00138	0.00500	0.2000	0	93.7	70 - 130	0.199	5.96	20	
<b>Lab Sample ID:</b> 1904300-001EMSD	Date Analyzed:	04/22/2019 1757h											
Test Code:	200.8-DIS												
	Date Prepared:	04/17/2019 937h											
Arsenic	0.204	mg/L	E200.8	0.000298	0.00200	0.2000	0.000129	102	75 - 125	0.205	0.563	20	
Beryllium	0.195	mg/L	E200.8	0.000198	0.00200	0.2000	0	97.6	75 - 125	0.193	1.06	20	
Cadmium	0.192	mg/L	E200.8	0.0000858	0.000500	0.2000	0.0013	95.1	75 - 125	0.192	0.232	20	
Cobalt	0.201	mg/L	E200.8	0.000300	0.00400	0.2000	0.00818	96.4	75 - 125	0.197	1.95	20	
Iron	0.964	mg/L	E200.8	0.0496	0.100	1.000	0.00637	95.7	75 - 125	0.946	1.82	20	
Lead	0.179	mg/L	E200.8	0.000448	0.00200	0.2000	0.0000488	89.6	75 - 125	0.189	5.34	20	
Manganese	1.61	mg/L	E200.8	0.00108	0.00200	0.2000	1.5	52.2	75 - 125	1.57	2.26	20	2
Molybdenum	0.221	mg/L	E200.8	0.000652	0.00200	0.2000	0.0163	102	75 - 125	0.217	1.47	20	
Nickel	0.197	mg/L	E200.8	0.00148	0.00200	0.2000	0.00486	96.3	75 - 125	0.195	1.20	20	
Selenium	0.203	mg/L	E200.8	0.000574	0.00200	0.2000	0.0000623	101	75 - 125	0.205	1.14	20	
Silver	0.188	mg/L	E200.8	0.000232	0.00200	0.2000	0.0000404	94.2	75 - 125	0.187	0.724	20	



3440 South 700 West

Salt Lake City, UT 84119

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Kyle F. Gross  
Laboratory Director

Jose Rocha  
QA Officer

## QC SUMMARY REPORT

**Client:** Energy Fuels Resources, Inc.  
**Lab Set ID:** 1904300  
**Project:** 2nd Quarter Groundwater 2019

**Contact:** Tanner Holliday  
**Dept:** ME  
**QC Type:** MSD

Analyte	Result	Units	Method	MDL	Reporting Limit	Amount Spiked	Spike Ref. Amount	%REC	Limits	RPD Ref. Amt	% RPD	RPD Limit	Qual
<b>Lab Sample ID:</b> 1904300-001EMSD	Date Analyzed: 04/22/2019 1757h												
Test Code: 200.8-DIS	Date Prepared: 04/17/2019 937h												
Thallium	0.186	mg/L	E200.8	0.000154	0.00200	0.2000	0.000815	92.8	75 - 125	0.192	2.72	20	
Tin	1.02	mg/L	E200.8	0.00116	0.00400	1.000	0	102	75 - 125	1.03	0.922	20	
Uranium	0.204	mg/L	E200.8	0.000176	0.00200	0.2000	0.00702	98.7	75 - 125	0.223	8.51	20	
Zinc	1.00	mg/L	E200.8	0.00418	0.00600	1.000	0.00457	100	75 - 125	0.989	1.59	20	
<b>Lab Sample ID:</b> 1904300-001EMSD	Date Analyzed: 04/24/2019 1034h												
Test Code: 200.8-DIS	Date Prepared: 04/17/2019 937h												
Chromium	0.194	mg/L	E200.8	0.00191	0.00200	0.2000	0	97.0	75 - 125	0.191	1.75	20	
Copper	0.191	mg/L	E200.8	0.00282	0.00200	0.2000	0	95.3	75 - 125	0.189	0.838	20	
<b>Lab Sample ID:</b> 1904300-001EMSD	Date Analyzed: 04/17/2019 848h												
Test Code: HG-DW-DIS-245.1	Date Prepared: 04/16/2019 1530h												
Mercury	0.00340	mg/L	E245.1	0.0000396	0.0000900	0.003330	0	102	85 - 115	0.00343	0.928	20	

<sup>2</sup> - Analyte concentration is too high for accurate matrix spike recovery and/or RPD.



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## QC SUMMARY REPORT

**Client:** Energy Fuels Resources, Inc.  
**Lab Set ID:** 1904300  
**Project:** 2nd Quarter Groundwater 2019

**Contact:** Tanner Holliday  
**Dept:** WC  
**QC Type:** DUP

Analyte	Result	Units	Method	MDL	Reporting Limit	Amount Spiked	Spike Ref. Amount	%REC	Limits	RPD Ref. Amt	% RPD	RPD Limit	Qual
<b>Lab Sample ID:</b> 1904300-001CDUP	Date Analyzed: 04/11/2019 1200h												
<b>Test Code:</b> TDS-W-2540C													
Total Dissolved Solids	2,670	mg/L	SM2540C	16.0	20.0					2520	5.70	5	@

@ - High RPD due to suspected sample non-homogeneity or matrix interference.



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Jose Rocha  
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## QC SUMMARY REPORT

**Client:** Energy Fuels Resources, Inc.  
**Lab Set ID:** 1904300  
**Project:** 2nd Quarter Groundwater 2019

**Contact:** Tanner Holliday  
**Dept:** WC  
**QC Type:** LCS

Analyte	Result	Units	Method	MDL	Reporting Limit	Amount Spiked	Spike Ref. Amount	%REC	Limits	RPD Ref. Amt	% RPD	RPD Limit	Qual
<b>Lab Sample ID: LCS-R124789</b> Date Analyzed: 04/17/2019 1017h													
Test Code: 300.0-W													
Chloride	4.83	mg/L	E300.0	0.0386	0.100	5.000	0	96.7	90 - 110				
Fluoride	5.01	mg/L	E300.0	0.0240	0.100	5.000	0	100	90 - 110				
Sulfate	5.41	mg/L	E300.0	0.0557	0.750	5.000	0	108	90 - 110				
<b>Lab Sample ID: LCS-R124592</b> Date Analyzed: 04/12/2019 802h													
Test Code: ALK-W-2320B-LL													
Alkalinity (as CaCO3)	250	mg/L	SM2320B	0.781	1.00	250.0	0	100	90 - 110				
<b>Lab Sample ID: LCS-62086</b> Date Analyzed: 04/18/2019 1346h													
Test Code: NH3-W-350.1 Date Prepared: 04/18/2019 1030h													
Ammonia (as N)	10.6	mg/L	E350.1	0.0492	0.0500	10.00	0	106	90 - 110				
<b>Lab Sample ID: LCS-R124662</b> Date Analyzed: 04/15/2019 1147h													
Test Code: NO2/NO3-W-353.2													
Nitrate/Nitrite (as N)	1.06	mg/L	E353.2	0.00363	0.0100	1.000	0	106	90 - 110				
<b>Lab Sample ID: LCS-R124627</b> Date Analyzed: 04/11/2019 1200h													
Test Code: TDS-W-2540C													
Total Dissolved Solids	190	mg/L	SM2540C	8.00	10.0	205.0	0	92.7	80 - 120				



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## QC SUMMARY REPORT

**Client:** Energy Fuels Resources, Inc.  
**Lab Set ID:** 1904300  
**Project:** 2nd Quarter Groundwater 2019

**Contact:** Tanner Holliday  
**Dept:** WC  
**QC Type:** MBLK

Analyte	Result	Units	Method	MDL	Reporting Limit	Amount Spiked	Spike Ref. Amount	%REC	Limits	RPD Ref. Amt	% RPD	RPD Limit	Qual
<b>Lab Sample ID:</b> MB-R124789	Date Analyzed:	04/17/2019	1000h										
Test Code:	300.0-W												
Chloride	< 0.100	mg/L	E300.0	0.0386	0.100								
Fluoride	< 0.100	mg/L	E300.0	0.0240	0.100								
Sulfate	< 0.750	mg/L	E300.0	0.0557	0.750								
<b>Lab Sample ID:</b> MB-R124592	Date Analyzed:	04/12/2019	802h										
Test Code:	ALK-W-2320B-LL												
Bicarbonate (as CaCO3)	< 1.00	mg/L	SM2320B	0.781	1.00								
Carbonate (as CaCO3)	< 1.00	mg/L	SM2320B	0.781	1.00								
<b>Lab Sample ID:</b> MB-62086	Date Analyzed:	04/18/2019	1345h										
Test Code:	NH3-W-350.1												
Ammonia (as N)	< 0.0500	mg/L	E350.1	0.0492	0.0500								
<b>Lab Sample ID:</b> MB-R124662	Date Analyzed:	04/15/2019	1145h										
Test Code:	NO2/NO3-W-353.2												
Nitrate/Nitrite (as N)	< 0.0100	mg/L	E353.2	0.00363	0.0100								
<b>Lab Sample ID:</b> MB-R124627	Date Analyzed:	04/11/2019	1200h										
Test Code:	TDS-W-2540C												
Total Dissolved Solids	< 10.0	mg/L	SM2540C	8.00	10.0								



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## QC SUMMARY REPORT

**Client:** Energy Fuels Resources, Inc.  
**Lab Set ID:** 1904300  
**Project:** 2nd Quarter Groundwater 2019

**Contact:** Tanner Holliday  
**Dept:** WC  
**QC Type:** MS

Analyte	Result	Units	Method	MDL	Reporting Limit	Amount Spiked	Spike Ref. Amount	%REC	Limits	RPD Ref. Amt	% RPD	RPD Limit	Qual
<b>Lab Sample ID: 1904300-002BMS</b> Date Analyzed: 04/17/2019 1124h													
Test Code: 300.0-W													
Chloride	1,100	mg/L	E300.0	7.72	20.0	1,000	138	96.1	90 - 110				
Fluoride	984	mg/L	E300.0	4.80	20.0	1,000	0	98.4	90 - 110				
Sulfate	1,710	mg/L	E300.0	11.1	150	1,000	668	104	90 - 110				
<b>Lab Sample ID: 1904300-001BMS</b> Date Analyzed: 04/12/2019 802h													
Test Code: ALK-W-2320B-LL													
Alkalinity (as CaCO3)	1,320	mg/L	SM2320B	0.781	1.00	1,000	320	100	80 - 120				
<b>Lab Sample ID: 1904300-001DMS</b> Date Analyzed: 04/18/2019 1358h													
Test Code: NH3-W-350.1      Date Prepared: 04/18/2019 1030h													
Ammonia (as N)	11.3	mg/L	E350.1	0.0492	0.0500	10.00	0.473	108	90 - 110				
<b>Lab Sample ID: 1904300-001DMS</b> Date Analyzed: 04/15/2019 1230h													
Test Code: NO2/NO3-W-353.2													
Nitrate/Nitrite (as N)	1.09	mg/L	E353.2	0.00363	0.0100	1.000	0	109	90 - 110				



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## QC SUMMARY REPORT

**Client:** Energy Fuels Resources, Inc.  
**Lab Set ID:** 1904300  
**Project:** 2nd Quarter Groundwater 2019

**Contact:** Tanner Holliday  
**Dept:** WC  
**QC Type:** MSD

Analyte	Result	Units	Method	MDL	Reporting Limit	Amount Spiked	Spike Ref. Amount	%REC	Limits	RPD Ref. Amt	% RPD	RPD Limit	Qual
<b>Lab Sample ID: 1904300-002BMSD</b>		Date Analyzed: 04/17/2019 1141h											
Test Code: 300.0-W													
Chloride	1,100	mg/L	E300.0	7.72	20.0	1,000	138	96.4	90 - 110	1100	0.295	20	
Fluoride	990	mg/L	E300.0	4.80	20.0	1,000	0	99.0	90 - 110	984	0.648	20	
Sulfate	1,730	mg/L	E300.0	11.1	150	1,000	668	106	90 - 110	1710	1.40	20	
<b>Lab Sample ID: 1904300-001BMSD</b>		Date Analyzed: 04/12/2019 802h											
Test Code: ALK-W-2320B-LL													
Alkalinity (as CaCO3)	1,330	mg/L	SM2320B	0.781	1.00	1,000	320	101	80 - 120	1320	0.302	10	
<b>Lab Sample ID: 1904300-001DMSD</b>		Date Analyzed: 04/18/2019 1359h											
Test Code: NH3-W-350.1		Date Prepared: 04/18/2019 1030h											
Ammonia (as N)	11.4	mg/L	E350.1	0.0492	0.0500	10.00	0.473	110	90 - 110	11.3	1.23	10	
<b>Lab Sample ID: 1904300-001DMSD</b>		Date Analyzed: 04/15/2019 1231h											
Test Code: NO2/NO3-W-353.2													
Nitrate/Nitrite (as N)	1.08	mg/L	E353.2	0.00363	0.0100	1.000	0	108	90 - 110	1.09	0.832	10	



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## QC SUMMARY REPORT

**Client:** Energy Fuels Resources, Inc.  
**Lab Set ID:** 1904300  
**Project:** 2nd Quarter Groundwater 2019

**Contact:** Tanner Holliday  
**Dept:** MSVOA  
**QC Type:** LCS

Analyte	Result	Units	Method	MDL	Reporting Limit	Amount Spiked	Spike Ref. Amount	%REC	Limits	RPD Ref. Amt	% RPD	RPD Limit	Qual
<b>Lab Sample ID:</b> LCS VOC-3 041219A	Date Analyzed: 04/12/2019 732h												
<b>Test Code:</b> 8260-W-DEN100													
Benzene	20.4	µg/L	SW8260C	0.147	1.00	20.00	0	102	82 - 132				
Chloroform	20.3	µg/L	SW8260C	0.166	1.00	20.00	0	101	85 - 124				
Methylene chloride	19.5	µg/L	SW8260C	0.448	1.00	20.00	0	97.5	65 - 154				
Naphthalene	20.1	µg/L	SW8260C	0.704	1.00	20.00	0	101	63 - 129				
Tetrahydrofuran	18.4	µg/L	SW8260C	0.436	1.00	20.00	0	92.0	59 - 125				
Toluene	20.6	µg/L	SW8260C	0.177	1.00	20.00	0	103	69 - 129				
Xylenes, Total	63.2	µg/L	SW8260C	0.253	1.00	60.00	0	105	66 - 124				
Surr: 1,2-Dichloroethane-d4	50.8	µg/L	SW8260C			50.00		102	80 - 136				
Surr: 4-Bromofluorobenzene	51.6	µg/L	SW8260C			50.00		103	85 - 121				
Surr: Dibromofluoromethane	50.2	µg/L	SW8260C			50.00		100	78 - 132				
Surr: Toluene-d8	51.0	µg/L	SW8260C			50.00		102	81 - 123				



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**Lab Set ID:** 1904300  
**Project:** 2nd Quarter Groundwater 2019

**Contact:** Tanner Holliday  
**Dept:** MSVOA  
**QC Type:** MBLK

Analyte	Result	Units	Method	MDL	Reporting Limit	Amount Spiked	Spike Ref. Amount	%REC	Limits	RPD Ref. Amt	% RPD	RPD Limit	Qual
<b>Lab Sample ID:</b> MB VOC-3 041219A	Date Analyzed: 04/12/2019 752h												
<b>Test Code:</b> 8260-W-DEN100													
2-Butanone	< 20.0	µg/L	SW8260C	1.31	20.0								
Acetone	< 20.0	µg/L	SW8260C	2.87	20.0								
Benzene	< 1.00	µg/L	SW8260C	0.147	1.00								
Carbon tetrachloride	< 1.00	µg/L	SW8260C	0.262	1.00								
Chloroform	< 1.00	µg/L	SW8260C	0.166	1.00								
Chloromethane	< 1.00	µg/L	SW8260C	0.832	1.00								
Methylene chloride	< 1.00	µg/L	SW8260C	0.448	1.00								
Naphthalene	< 1.00	µg/L	SW8260C	0.704	1.00								
Tetrahydrofuran	< 1.00	µg/L	SW8260C	0.436	1.00								
Toluene	< 1.00	µg/L	SW8260C	0.177	1.00								
Xylenes, Total	< 1.00	µg/L	SW8260C	0.253	1.00								
Surr: 1,2-Dichloroethane-d4	51.2	µg/L	SW8260C			50.00		102	80 - 136				
Surr: 4-Bromofluorobenzene	51.4	µg/L	SW8260C			50.00		103	85 - 121				
Surr: Dibromofluoromethane	49.4	µg/L	SW8260C			50.00		98.7	78 - 132				
Surr: Toluene-d8	50.9	µg/L	SW8260C			50.00		102	81 - 123				



3440 South 700 West  
Salt Lake City, UT 84119

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

## QC SUMMARY REPORT

**Client:** Energy Fuels Resources, Inc.  
**Lab Set ID:** 1904300  
**Project:** 2nd Quarter Groundwater 2019

**Contact:** Tanner Holliday  
**Dept:** MSVOA  
**QC Type:** MS

Analyte	Result	Units	Method	MDL	Reporting Limit	Amount Spiked	Spike Ref. Amount	%REC	Limits	RPD Ref. Amt	% RPD	RPD Limit	Qual
<b>Lab Sample ID: 1904300-001AMS</b>		Date Analyzed: 04/12/2019 1442h											
Test Code: 8260-W-DEN100													
Benzene	21.8	µg/L	SW8260C	0.147	1.00	20.00	0	109	66 - 145				
Chloroform	21.2	µg/L	SW8260C	0.166	1.00	20.00	0	106	50 - 146				
Methylene chloride	20.6	µg/L	SW8260C	0.448	1.00	20.00	0	103	30 - 192				
Naphthalene	20.4	µg/L	SW8260C	0.704	1.00	20.00	0	102	41 - 131				
Tetrahydrofuran	19.0	µg/L	SW8260C	0.436	1.00	20.00	0	95.1	43 - 146				
Toluene	21.6	µg/L	SW8260C	0.177	1.00	20.00	0	108	18 - 192				
Xylenes, Total	66.5	µg/L	SW8260C	0.253	1.00	60.00	0	111	42 - 167				
Surr: 1,2-Dichloroethane-d4	52.3	µg/L	SW8260C			50.00		105	72 - 151				
Surr: 4-Bromofluorobenzene	51.4	µg/L	SW8260C			50.00		103	80 - 152				
Surr: Dibromofluoromethane	50.2	µg/L	SW8260C			50.00		100	72 - 135				
Surr: Toluene-d8	51.0	µg/L	SW8260C			50.00		102	80 - 124				



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Kyle F. Gross  
Laboratory Director

Jose Rocha  
QA Officer

## QC SUMMARY REPORT

**Client:** Energy Fuels Resources, Inc.  
**Lab Set ID:** 1904300  
**Project:** 2nd Quarter Groundwater 2019

**Contact:** Tanner Holliday  
**Dept:** MSVOA  
**QC Type:** MSD

Analyte	Result	Units	Method	MDL	Reporting Limit	Amount Spiked	Spike Ref. Amount	%REC	Limits	RPD Ref. Amt	% RPD	RPD Limit	Qual
<b>Lab Sample ID: 1904300-001AMSD</b>		Date Analyzed: 04/12/2019 1502h											
Test Code: 8260-W-DEN100													
Benzene	21.2	µg/L	SW8260C	0.147	1.00	20.00	0	106	66 - 145	21.8	3.03	25	
Chloroform	20.5	µg/L	SW8260C	0.166	1.00	20.00	0	103	50 - 146	21.2	3.21	25	
Methylene chloride	20.4	µg/L	SW8260C	0.448	1.00	20.00	0	102	30 - 192	20.6	1.07	25	
Naphthalene	21.5	µg/L	SW8260C	0.704	1.00	20.00	0	107	41 - 131	20.4	5.06	25	
Tetrahydrofuran	18.1	µg/L	SW8260C	0.436	1.00	20.00	0	90.7	43 - 146	19	4.79	25	
Toluene	21.1	µg/L	SW8260C	0.177	1.00	20.00	0	106	18 - 192	21.6	2.39	25	
Xylenes, Total	64.1	µg/L	SW8260C	0.253	1.00	60.00	0	107	42 - 167	66.5	3.66	25	
Surr: 1,2-Dichloroethane-d4	50.8	µg/L	SW8260C			50.00		102	72 - 151				
Surr: 4-Bromofluorobenzene	53.6	µg/L	SW8260C			50.00		107	80 - 152				
Surr: Dibromofluoromethane	49.8	µg/L	SW8260C			50.00		99.7	72 - 135				
Surr: Toluene-d8	50.4	µg/L	SW8260C			50.00		101	80 - 124				

**WORK ORDER Summary**

Work Order: **1904300**

Page 1 of 3

**Client:** Energy Fuels Resources, Inc.

Due Date: 4/25/2019

**Client ID:** ENE300

**Contact:** Tanner Holliday

**Project:** 2nd Quarter Groundwater 2019

**QC Level:** III

**WO Type:** Project

**Comments:** QC 3 (no chromatograms). EDD-Denison. CC KWeinel@energyfuels.com; (USE PROJECT for special DLs). Do not use "\*R\_" samples as MS/MSD.;

Sample ID	Client Sample ID	Collected Date	Received Date	Test Code	Matrix	Sel	Storage	
1904300-001A	MW-25_04102019	4/10/2019 1110h	4/11/2019 0847h	8260-W-DEN100	Aqueous		VOCFridge	3
				<i>Test Group: 8260-W-DEN100; # of Analytes: 11 / # of Surr: 4</i>				
1904300-001B				300.0-W			df - wc	1
				<i>3 SEL Analytes: CL F SO4</i>				
				ALK-W-2320B-LL			df - wc	
				<i>2 SEL Analytes: ALKB ALKC</i>				
1904300-001C				TDS-W-2540C			df - tds	
				<i>1 SEL Analytes: TDS</i>				
1904300-001D				NH3-W-350.1			df - no2/no3 & nh3	
				<i>1 SEL Analytes: NH3N</i>				
				NH3-W-PR			df - no2/no3 & nh3	
				NO2/NO3-W-353.2			df - no2/no3 & nh3	
				<i>1 SEL Analytes: NO3NO2N</i>				
1904300-001E				200.7-DIS			df-met	
				<i>5 SEL Analytes: CA MG K NA V</i>				
				200.7-DIS-PR			df-met	
				200.8-DIS			df-met	
				<i>17 SEL Analytes: AS BE CD CR CO CU FE PB MN MO NI SE AG TL SN U ZN</i>				
				200.8-DIS-PR			df-met	
				HG-DW-DIS-245.1			df-met	
				<i>1 SEL Analytes: HG</i>				
				HG-DW-DIS-PR			df-met	
				IONBALANCE			df-met	
				<i>5 SEL Analytes: BALANCE Anions Cations TDS-Balance TDS-Calc</i>				
1904300-002A	MW-30_04092019	4/9/2019 1210h	4/11/2019 0847h	8260-W-DEN100	Aqueous		VOCFridge	3
				<i>Test Group: 8260-W-DEN100; # of Analytes: 11 / # of Surr: 4</i>				
1904300-002B				300.0-W			df - wc	1
				<i>3 SEL Analytes: CL F SO4</i>				
				ALK-W-2320B-LL			df - wc	
				<i>2 SEL Analytes: ALKB ALKC</i>				
1904300-002C				TDS-W-2540C			df - tds	
				<i>1 SEL Analytes: TDS</i>				

# WORK ORDER Summary

Work Order: **1904300** Page 2 of 3

Client: Energy Fuels Resources, Inc.

Due Date: 4/25/2019

Sample ID	Client Sample ID	Collected Date	Received Date	Test Code	Matrix	Sel Storage	
1904300-002D	MW-30_04092019	4/9/2019 1210h	4/11/2019 0847h	NH3-W-350.1	Aqueous	df - no2/no3 & nh3	1
				<i>1 SEL Analytes: NH3N</i>			
				NH3-W-PR		df - no2/no3 & nh3	
				NO2/NO3-W-353.2		df - no2/no3 & nh3	
				<i>1 SEL Analytes: NO3NO2N</i>			
1904300-002E				200.7-DIS		df-met	
				<i>5 SEL Analytes: CA MG K NA V</i>			
				200.7-DIS-PR		df-met	
				200.8-DIS		df-met	
				<i>17 SEL Analytes: AS BE CD CR CO CU FE PB MN MO NI SE AG TL SN U ZN</i>			
				200.8-DIS-PR		df-met	
				HG-DW-DIS-245.1		df-met	
				<i>1 SEL Analytes: HG</i>			
				HG-DW-DIS-PR		df-met	
				IONBALANCE		df-met	
				<i>5 SEL Analytes: BALANCE Anions Cations TDS-Balance TDS-Calc</i>			
1904300-003A	MW-31_04102019	4/10/2019 1335h	4/11/2019 0847h	8260-W-DEN100	Aqueous	VOCFridge	3
				<i>Test Group: 8260-W-DEN100; # of Analytes: 11 / # of Surr: 4</i>			
1904300-003B				300.0-W		df - wc	1
				<i>3 SEL Analytes: CL F SO4</i>			
				ALK-W-2320B-LL		df - wc	
				<i>2 SEL Analytes: ALKB ALKC</i>			
1904300-003C				TDS-W-2540C		df - tds	
				<i>1 SEL Analytes: TDS</i>			
1904300-003D				NH3-W-350.1		df - no2/no3 & nh3	
				<i>1 SEL Analytes: NH3N</i>			
				NH3-W-PR		df - no2/no3 & nh3	
				NO2/NO3-W-353.2		df - no2/no3 & nh3	
				<i>1 SEL Analytes: NO3NO2N</i>			
1904300-003E				200.7-DIS		df-met	
				<i>5 SEL Analytes: CA MG K NA V</i>			
				200.7-DIS-PR		df-met	
				200.8-DIS		df-met	
				<i>17 SEL Analytes: AS BE CD CR CO CU FE PB MN MO NI SE AG TL SN U ZN</i>			
				200.8-DIS-PR		df-met	
				HG-DW-DIS-245.1		df-met	
				<i>1 SEL Analytes: HG</i>			

# WORK ORDER Summary

Work Order: **1904300**

Page 3 of 3

Client: Energy Fuels Resources, Inc.

Due Date: 4/25/2019

Sample ID	Client Sample ID	Collected Date	Received Date	Test Code	Matrix	Sel	Storage	
1904300-003E	MW-31_04102019	4/10/2019 1335h	4/11/2019 0847h	HG-DW-DIS-PR	Aqueous		df-met	1
				IONBALANCE			df-met	
				5 SEL Analytes: BALANCE Anions Cations TDS-Balance TDS-Calc				
1904300-004A	MW-32_04092019	4/9/2019 1325h	4/11/2019 0847h	8260-W-DEN100	Aqueous		VOCFridge	3
				Test Group: 8260-W-DEN100; # of Analytes: 11 / # of Surr: 4				
1904300-004B				300.0-W			df - wc	1
				3 SEL Analytes: CL F SO4				
				ALK-W-2320B-LL			df - wc	
				2 SEL Analytes: ALKB ALKC				
1904300-004C				TDS-W-2540C			df - tds	
				1 SEL Analytes: TDS				
1904300-004D				NH3-W-350.1			df - no2/no3 & nh3	
				1 SEL Analytes: NH3N				
				NH3-W-PR			df - no2/no3 & nh3	
				NO2/NO3-W-353.2			df - no2/no3 & nh3	
				1 SEL Analytes: NO3NO2N				
1904300-004E				200.7-DIS			df-met	
				5 SEL Analytes: CA MG K NA V				
				200.7-DIS-PR			df-met	
				200.8-DIS			df-met	
				17 SEL Analytes: AS BE CD CR CO CU FE PB MN MO NI SE AG TL SN U ZN				
				200.8-DIS-PR			df-met	
				HG-DW-DIS-245.1			df-met	
				1 SEL Analytes: HG				
				HG-DW-DIS-PR			df-met	
				IONBALANCE			df-met	
				5 SEL Analytes: BALANCE Anions Cations TDS-Balance TDS-Calc				
1904300-005A	Trip Blank	4/9/2019 1210h	4/11/2019 0847h	8260-W-DEN100	Aqueous		VOCFridge	3
				Test Group: 8260-W-DEN100; # of Analytes: 11 / # of Surr: 4				



Lab Set ID: 1904300

pH Lot #: 5911

**Preservation Check Sheet**

**Sample Set Extension and pH**

Analysis	Preservative	1	2	3	4														
Ammonia	pH <2 H <sub>2</sub> SO <sub>4</sub>	Yes	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														
NO <sub>2</sub> /NO <sub>3</sub>	pH <2 H <sub>2</sub> SO <sub>4</sub>	Yes	Yes	Yes	Yes														
O & G	pH <2 HCL																		
Phenols	pH <2 H <sub>2</sub> SO <sub>4</sub>																		
Sulfide	pH >9 NaOH, Zn Acetate																		
TKN	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>																		
Cr VI+	pH >9 (NH <sub>4</sub> ) <sub>2</sub> SO <sub>4</sub>																		

- 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

- \* The sample required additional preservative upon receipt.
- + The sample was received unpreserved.
- ▲ The sample was received unpreserved and therefore preserved upon receipt.
- # The sample pH was unadjustable to a pH < 2 due to the sample matrix.
- The sample pH was unadjustable to a pH > \_\_\_\_ due to the sample matrix interference.



Tanner Holliday  
Energy Fuels Resources, Inc.  
6425 South Hwy 191  
Blanding, UT 84511  
TEL: (435) 678-2221

RE: 2nd Quarter Groundwater 2019

Dear Tanner Holliday:

Lab Set ID: 1904508

3440 South 700 West  
Salt Lake City, UT 84119

American West Analytical Laboratories received sample(s) on 4/19/2019 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  
web: www.awal-labs.com

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

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

Kyle F. Gross  
Laboratory Director

Jose Rocha  
QA Officer

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

Thank You,

Approved by: 

<b>Kyle F. Gross</b>	Digitally signed by Kyle F. Gross Date: 2019.05.03 14:01:23 -06'00'
----------------------	---

  
Laboratory Director or designee



## SAMPLE SUMMARY

**Client:** Energy Fuels Resources, Inc.  
**Project:** 2nd Quarter Groundwater 2019  
**Lab Set ID:** 1904508  
**Date Received:** 4/19/2019 1045h

**Contact:** Tanner Holliday

3440 South 700 West  
Salt Lake City, UT 84119

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
1904508-001A	MW-01_04172019	4/17/2019 1145h	Aqueous	VOA by GC/MS Method 8260C/5030C
1904508-001B	MW-01_04172019	4/17/2019 1145h	Aqueous	Anions, E300.0
1904508-001B	MW-01_04172019	4/17/2019 1145h	Aqueous	Alkalinity/ Bicarbonate/ Carbonate, Low Level
1904508-001C	MW-01_04172019	4/17/2019 1145h	Aqueous	Total Dissolved Solids, A2540C
1904508-001D	MW-01_04172019	4/17/2019 1145h	Aqueous	Nitrite/Nitrate (as N), E353.2
1904508-001D	MW-01_04172019	4/17/2019 1145h	Aqueous	Ammonia, Aqueous
1904508-001E	MW-01_04172019	4/17/2019 1145h	Aqueous	Ion Balance
1904508-001E	MW-01_04172019	4/17/2019 1145h	Aqueous	ICP Metals, Dissolved
1904508-001E	MW-01_04172019	4/17/2019 1145h	Aqueous	ICPMS Metals, Dissolved
1904508-001E	MW-01_04172019	4/17/2019 1145h	Aqueous	Mercury, Drinking Water Dissolved
1904508-002A	MW-17_04162019	4/16/2019 1240h	Aqueous	VOA by GC/MS Method 8260C/5030C
1904508-002B	MW-17_04162019	4/16/2019 1240h	Aqueous	Anions, E300.0
1904508-002B	MW-17_04162019	4/16/2019 1240h	Aqueous	Alkalinity/ Bicarbonate/ Carbonate, Low Level
1904508-002C	MW-17_04162019	4/16/2019 1240h	Aqueous	Total Dissolved Solids, A2540C
1904508-002D	MW-17_04162019	4/16/2019 1240h	Aqueous	Nitrite/Nitrate (as N), E353.2
1904508-002D	MW-17_04162019	4/16/2019 1240h	Aqueous	Ammonia, Aqueous
1904508-002E	MW-17_04162019	4/16/2019 1240h	Aqueous	ICP Metals, Dissolved
1904508-002E	MW-17_04162019	4/16/2019 1240h	Aqueous	ICPMS Metals, Dissolved
1904508-002E	MW-17_04162019	4/16/2019 1240h	Aqueous	Mercury, Drinking Water Dissolved
1904508-002E	MW-17_04162019	4/16/2019 1240h	Aqueous	Ion Balance
1904508-003A	MW-18_04162019	4/16/2019 1425h	Aqueous	VOA by GC/MS Method 8260C/5030C
1904508-003B	MW-18_04162019	4/16/2019 1425h	Aqueous	Anions, E300.0
1904508-003B	MW-18_04162019	4/16/2019 1425h	Aqueous	Alkalinity/ Bicarbonate/ Carbonate, Low Level
1904508-003C	MW-18_04162019	4/16/2019 1425h	Aqueous	Total Dissolved Solids, A2540C
1904508-003D	MW-18_04162019	4/16/2019 1425h	Aqueous	Nitrite/Nitrate (as N), E353.2
1904508-003D	MW-18_04162019	4/16/2019 1425h	Aqueous	Ammonia, Aqueous
1904508-003E	MW-18_04162019	4/16/2019 1425h	Aqueous	Mercury, Drinking Water Dissolved
1904508-003E	MW-18_04162019	4/16/2019 1425h	Aqueous	Ion Balance



**Client:** Energy Fuels Resources, Inc.  
**Project:** 2nd Quarter Groundwater 2019  
**Lab Set ID:** 1904508  
**Date Received:** 4/19/2019 1045h

**Contact:** Tanner Holliday

Lab Sample ID	Client Sample ID	Date Collected	Matrix	Analysis
1904508-003E	MW-18_04162019	4/16/2019 1425h	Aqueous	ICP Metals, Dissolved
1904508-003E	MW-18_04162019	4/16/2019 1425h	Aqueous	ICPMS Metals, Dissolved
1904508-004A	MW-35_04182019	4/18/2019 825h	Aqueous	VOA by GC/MS Method 8260C/5030C
1904508-004B	MW-35_04182019	4/18/2019 825h	Aqueous	Anions, E300.0
1904508-004B	MW-35_04182019	4/18/2019 825h	Aqueous	Alkalinity/ Bicarbonate/ Carbonate, Low Level
1904508-004C	MW-35_04182019	4/18/2019 825h	Aqueous	Total Dissolved Solids, A2540C
1904508-004D	MW-35_04182019	4/18/2019 825h	Aqueous	Nitrite/Nitrate (as N), E353.2
1904508-004D	MW-35_04182019	4/18/2019 825h	Aqueous	Ammonia, Aqueous
1904508-004E	MW-35_04182019	4/18/2019 825h	Aqueous	Ion Balance
1904508-004E	MW-35_04182019	4/18/2019 825h	Aqueous	ICP Metals, Dissolved
1904508-004E	MW-35_04182019	4/18/2019 825h	Aqueous	ICPMS Metals, Dissolved
1904508-004E	MW-35_04182019	4/18/2019 825h	Aqueous	Mercury, Drinking Water Dissolved
1904508-005A	MW-36_04182019	4/18/2019 950h	Aqueous	VOA by GC/MS Method 8260C/5030C
1904508-005B	MW-36_04182019	4/18/2019 950h	Aqueous	Anions, E300.0
1904508-005B	MW-36_04182019	4/18/2019 950h	Aqueous	Alkalinity/ Bicarbonate/ Carbonate, Low Level
1904508-005C	MW-36_04182019	4/18/2019 950h	Aqueous	Total Dissolved Solids, A2540C
1904508-005D	MW-36_04182019	4/18/2019 950h	Aqueous	Nitrite/Nitrate (as N), E353.2
1904508-005D	MW-36_04182019	4/18/2019 950h	Aqueous	Ammonia, Aqueous
1904508-005E	MW-36_04182019	4/18/2019 950h	Aqueous	Ion Balance
1904508-005E	MW-36_04182019	4/18/2019 950h	Aqueous	ICP Metals, Dissolved
1904508-005E	MW-36_04182019	4/18/2019 950h	Aqueous	ICPMS Metals, Dissolved
1904508-005E	MW-36_04182019	4/18/2019 950h	Aqueous	Mercury, Drinking Water Dissolved
1904508-006A	MW-40_04172019	4/17/2019 1305h	Aqueous	VOA by GC/MS Method 8260C/5030C
1904508-006B	MW-40_04172019	4/17/2019 1305h	Aqueous	Alkalinity/ Bicarbonate/ Carbonate, Low Level
1904508-006B	MW-40_04172019	4/17/2019 1305h	Aqueous	Anions, E300.0
1904508-006C	MW-40_04172019	4/17/2019 1305h	Aqueous	Total Dissolved Solids, A2540C
1904508-006D	MW-40_04172019	4/17/2019 1305h	Aqueous	Ammonia, Aqueous
1904508-006D	MW-40_04172019	4/17/2019 1305h	Aqueous	Nitrite/Nitrate (as N), E353.2
1904508-006E	MW-40_04172019	4/17/2019 1305h	Aqueous	Ion Balance
1904508-006E	MW-40_04172019	4/17/2019 1305h	Aqueous	ICP Metals, Dissolved
1904508-006E	MW-40_04172019	4/17/2019 1305h	Aqueous	ICPMS Metals, Dissolved

3440 South 700 West  
Salt Lake City, UT 84119

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Kyle F. Gross  
Laboratory Director

Jose Rocha  
QA Officer



**Client:** Energy Fuels Resources, Inc.  
**Project:** 2nd Quarter Groundwater 2019  
**Lab Set ID:** 1904508  
**Date Received:** 4/19/2019 1045h

**Contact:** Tanner Holliday

Lab Sample ID	Client Sample ID	Date Collected	Matrix	Analysis
1904508-006E	MW-40_04172019	4/17/2019 1305h	Aqueous	Mercury, Drinking Water Dissolved
1904508-007A	Trip Blank	4/16/2019 1240h	Aqueous	VOA by GC/MS Method 8260C/5030C

3440 South 700 West  
Salt Lake City, UT 84119

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



## Inorganic Case Narrative

**Client:** Energy Fuels Resources, Inc.  
**Contact:** Tanner Holliday  
**Project:** 2nd Quarter Groundwater 2019  
**Lab Set ID:** 1904508

3440 South 700 West  
Salt Lake City, UT 84119

### Sample Receipt Information:

**Date of Receipt:** 4/19/2019  
**Date(s) of Collection:** 4/16-4/18/2019  
**Sample Condition:** See Chain of Custody  
**C-O-C Discrepancies:** See Chain of Custody

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)

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

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

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

Kyle F. Gross

Laboratory Director

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

Jose Rocha

QA Officer

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

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

**Matrix Spike / Matrix Spike Duplicates (MS/MSD):** All percent recoveries and RPDs (Relative Percent Differences) were inside established limits, with the following exceptions:

Sample ID	Analyte	QC	Explanation
1904508-001E	Calcium	MS/MSD	High analyte concentration
1904508-001E	Magnesium	MSD	High analyte concentration
1904508-001E	Sodium	MS/MSD	High analyte concentration
1904508-001D	Ammonia	MS/MSD	Sample matrix interference
1904652-001D	Ammonia	MS/MSD	Sample matrix interference

**Duplicate (DUP):** The parameters that required a duplicate analysis had RPDs within the control limits.

**Corrective Action:** None required.



## Volatile Case Narrative

**Client:** Energy Fuels Resources, Inc.  
**Contact:** Tanner Holliday  
**Project:** 2nd Quarter Groundwater 2019  
**Lab Set ID:** 1904508

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3440 South 700 West  
Salt Lake City, UT 84119

### **Sample Receipt Information:**

**Date of Receipt:** 4/19/2019  
**Date(s) of Collection:** 4/16-4/18/2019  
**Sample Condition:** See Chain of Custody  
**C-O-C Discrepancies:** See Chain of Custody  
**Method:** SW-846 8260C/5030C  
**Analysis:** Volatile Organic Compounds

Phone: (801) 263-8686

Toll Free: (888) 263-8686

Fax: (801) 263-8687

e-mail: awal@awal-labs.com

**General Set Comments:** One or more target analytes were observed above reporting limits.

web: www.awal-labs.com

**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.

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

**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:** Energy Fuels Resources, Inc.  
**Lab Set ID:** 1904508  
**Project:** 2nd Quarter Groundwater 2019

**Contact:** Tanner Holliday  
**Dept:** ME  
**QC Type:** LCS

Analyte	Result	Units	Method	MDL	Reporting Limit	Amount Spiked	Spike Ref. Amount	%REC	Limits	RPD Ref. Amt	% RPD	RPD Limit	Qual
<b>Lab Sample ID:</b> LCS-62145		Date Analyzed: 05/01/2019 1311h											
Test Code: 200.7-DIS		Date Prepared: 04/22/2019 1103h											
Calcium	10.1	mg/L	E200.7	0.0937	1.00	10.00	0	101	85 - 115				
Magnesium	10.6	mg/L	E200.7	0.0439	1.00	10.00	0	106	85 - 115				
Potassium	10.4	mg/L	E200.7	0.134	1.00	10.00	0	104	85 - 115				
Sodium	10.5	mg/L	E200.7	0.187	1.00	10.00	0	105	85 - 115				
Vanadium	0.201	mg/L	E200.7	0.00138	0.00500	0.2000	0	100	85 - 115				
<b>Lab Sample ID:</b> LCS-62146		Date Analyzed: 04/29/2019 1428h											
Test Code: 200.8-DIS		Date Prepared: 04/22/2019 1103h											
Arsenic	0.199	mg/L	E200.8	0.000298	0.00200	0.2000	0	99.5	85 - 115				
Cadmium	0.194	mg/L	E200.8	0.0000858	0.000500	0.2000	0	96.8	85 - 115				
Chromium	0.196	mg/L	E200.8	0.00191	0.00200	0.2000	0	98.2	85 - 115				
Cobalt	0.195	mg/L	E200.8	0.000300	0.00400	0.2000	0	97.7	85 - 115				
Copper	0.197	mg/L	E200.8	0.00282	0.00200	0.2000	0	98.7	85 - 115				
Iron	0.987	mg/L	E200.8	0.0496	0.100	1.000	0	98.7	85 - 115				
Manganese	0.200	mg/L	E200.8	0.00108	0.00200	0.2000	0	100	85 - 115				
Molybdenum	0.202	mg/L	E200.8	0.000652	0.00200	0.2000	0	101	85 - 115				
Nickel	0.194	mg/L	E200.8	0.00148	0.00200	0.2000	0	97.0	85 - 115				
Selenium	0.194	mg/L	E200.8	0.000574	0.00200	0.2000	0	97.0	85 - 115				
Silver	0.194	mg/L	E200.8	0.000232	0.00200	0.2000	0	96.9	85 - 115				
Thallium	0.195	mg/L	E200.8	0.000154	0.00200	0.2000	0	97.7	85 - 115				
Tin	1.01	mg/L	E200.8	0.00116	0.00400	1.000	0	101	85 - 115				
<b>Lab Sample ID:</b> LCS-62146		Date Analyzed: 04/29/2019 1531h											
Test Code: 200.8-DIS		Date Prepared: 04/22/2019 1103h											
Lead	0.199	mg/L	E200.8	0.000448	0.00200	0.2000	0	99.3	85 - 115				



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Kyle F. Gross  
Laboratory Director

Jose Rocha  
QA Officer

## QC SUMMARY REPORT

**Client:** Energy Fuels Resources, Inc.

**Lab Set ID:** 1904508

**Project:** 2nd Quarter Groundwater 2019

**Contact:** Tanner Holliday

**Dept:** ME

**QC Type:** LCS

Analyte	Result	Units	Method	MDL	Reporting Limit	Amount Spiked	Spike Ref. Amount	%REC	Limits	RPD Ref. Amt	% RPD	RPD Limit	Qual
<b>Lab Sample ID:</b> LCS-62146	Date Analyzed:		04/30/2019 1804h										
<b>Test Code:</b> 200.8-DIS	Date Prepared:		04/22/2019 1103h										
Beryllium	0.196	mg/L	E200.8	0.000198	0.00200	0.2000	0	97.9	85 - 115				
Uranium	0.204	mg/L	E200.8	0.000176	0.00200	0.2000	0	102	85 - 115				
<b>Lab Sample ID:</b> LCS-62146	Date Analyzed:		05/01/2019 1305h										
<b>Test Code:</b> 200.8-DIS	Date Prepared:		04/22/2019 1103h										
Zinc	0.956	mg/L	E200.8	0.00418	0.00600	1.000	0	95.6	85 - 115				
<b>Lab Sample ID:</b> LCS-62253	Date Analyzed:		04/26/2019 840h										
<b>Test Code:</b> HG-DW-DIS-245.1	Date Prepared:		04/25/2019 1745h										
Mercury	0.00326	mg/L	E245.1	0.0000396	0.0000900	0.003330	0	97.9	85 - 115				



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## QC SUMMARY REPORT

**Client:** Energy Fuels Resources, Inc.

**Lab Set ID:** 1904508

**Project:** 2nd Quarter Groundwater 2019

**Contact:** Tanner Holliday

**Dept:** ME

**QC Type:** MBLK

Analyte	Result	Units	Method	MDL	Reporting Limit	Amount Spiked	Spike Ref. Amount	%REC	Limits	RPD Ref. Amt	% RPD	RPD Limit	Qual
<b>Lab Sample ID: MB-62145</b>													
Date Analyzed:		05/01/2019 1309h											
Test Code:		200.7-DIS											
Date Prepared:		04/22/2019 1103h											
Calcium	< 1.00	mg/L	E200.7	0.0937	1.00								
Magnesium	< 1.00	mg/L	E200.7	0.0439	1.00								
Potassium	< 1.00	mg/L	E200.7	0.134	1.00								
Sodium	< 1.00	mg/L	E200.7	0.187	1.00								
Vanadium	< 0.00500	mg/L	E200.7	0.00138	0.00500								
<b>Lab Sample ID: MB-62146</b>													
Date Analyzed:		04/29/2019 1425h											
Test Code:		200.8-DIS											
Date Prepared:		04/22/2019 1103h											
Arsenic	< 0.000500	mg/L	E200.8	0.0000745	0.000500								
Cadmium	< 0.000125	mg/L	E200.8	0.0000214	0.000125								
Chromium	< 0.000500	mg/L	E200.8	0.000478	0.000500								
Cobalt	< 0.00100	mg/L	E200.8	0.0000750	0.00100								
Copper	< 0.000500	mg/L	E200.8	0.000705	0.000500								
Iron	< 0.0250	mg/L	E200.8	0.0124	0.0250								
Manganese	< 0.000500	mg/L	E200.8	0.000270	0.000500								
Molybdenum	< 0.000500	mg/L	E200.8	0.000163	0.000500								
Nickel	< 0.000500	mg/L	E200.8	0.000370	0.000500								
Selenium	< 0.000500	mg/L	E200.8	0.000144	0.000500								
Silver	< 0.000500	mg/L	E200.8	0.0000580	0.000500								
Thallium	< 0.000500	mg/L	E200.8	0.0000384	0.000500								
Tin	< 0.00100	mg/L	E200.8	0.000291	0.00100								
<b>Lab Sample ID: MB-62146</b>													
Date Analyzed:		04/29/2019 1528h											
Test Code:		200.8-DIS											
Date Prepared:		04/22/2019 1103h											
Lead	< 0.000500	mg/L	E200.8	0.000112	0.000500								



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Salt Lake City, UT 84119

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Kyle F. Gross  
Laboratory Director

Jose Rocha  
QA Officer

## QC SUMMARY REPORT

**Client:** Energy Fuels Resources, Inc.  
**Lab Set ID:** 1904508  
**Project:** 2nd Quarter Groundwater 2019

**Contact:** Tanner Holliday  
**Dept:** ME  
**QC Type:** MBLK

Analyte	Result	Units	Method	MDL	Reporting Limit	Amount Spiked	Spike Ref. Amount	%REC	Limits	RPD Ref. Amt	% RPD	RPD Limit	Qual
<b>Lab Sample ID:</b> MB-62146	Date Analyzed:	04/30/2019	1801h										
Test Code:	200.8-DIS	Date Prepared:	04/22/2019	1103h									
Beryllium	< 0.000200	mg/L	E200.8	0.0000198	0.000200								
Uranium	< 0.000200	mg/L	E200.8	0.0000176	0.000200								
<b>Lab Sample ID:</b> MB-62146	Date Analyzed:	05/01/2019	1301h										
Test Code:	200.8-DIS	Date Prepared:	04/22/2019	1103h									
Zinc	< 0.00150	mg/L	E200.8	0.00105	0.00150								
<b>Lab Sample ID:</b> MB-62253	Date Analyzed:	04/26/2019	838h										
Test Code:	HG-DW-DIS-245.1	Date Prepared:	04/25/2019	1745h									
Mercury	< 0.0000900	mg/L	E245.1	0.0000396	0.0000900								



3440 South 700 West

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Kyle F. Gross  
Laboratory Director

Jose Rocha  
QA Officer

## QC SUMMARY REPORT

**Client:** Energy Fuels Resources, Inc.

**Lab Set ID:** 1904508

**Project:** 2nd Quarter Groundwater 2019

**Contact:** Tanner Holliday

**Dept:** ME

**QC Type:** MS

Analyte	Result	Units	Method	MDL	Reporting Limit	Amount Spiked	Spike Ref. Amount	%REC	Limits	RPD Ref. Amt	% RPD	RPD Limit	Qual
<b>Lab Sample ID: 1904508-001EMS</b>													
Date Analyzed:		05/01/2019 1316h											
Test Code:		200.7-DIS											
Date Prepared:		04/22/2019 1103h											
Calcium	204	mg/L	E200.7	1.87	20.0	10.00	209	-48.7	70 - 130				2
Magnesium	82.8	mg/L	E200.7	0.878	20.0	10.00	75.7	71.2	70 - 130				
Sodium	198	mg/L	E200.7	3.74	20.0	10.00	200	-18.0	70 - 130				2
<b>Lab Sample ID: 1904508-001EMS</b>													
Date Analyzed:		05/01/2019 1402h											
Test Code:		200.7-DIS											
Date Prepared:		04/22/2019 1103h											
Potassium	18.3	mg/L	E200.7	0.134	1.00	10.00	7.17	111	70 - 130				
Vanadium	0.211	mg/L	E200.7	0.00138	0.00500	0.2000	0	106	70 - 130				
<b>Lab Sample ID: 1904508-001EMS</b>													
Date Analyzed:		04/30/2019 1811h											
Test Code:		200.8-DIS											
Date Prepared:		04/22/2019 1103h											
Arsenic	0.207	mg/L	E200.8	0.000298	0.00200	0.2000	0	103	75 - 125				
Beryllium	0.199	mg/L	E200.8	0.000198	0.00200	0.2000	0	99.7	75 - 125				
Cadmium	0.192	mg/L	E200.8	0.0000858	0.000500	0.2000	0.000033	96.1	75 - 125				
Chromium	0.200	mg/L	E200.8	0.00191	0.00200	0.2000	0	99.8	75 - 125				
Cobalt	0.196	mg/L	E200.8	0.000300	0.00400	0.2000	0.000283	98.1	75 - 125				
Copper	0.198	mg/L	E200.8	0.00282	0.00200	0.2000	0	99.1	75 - 125				
Iron	1.36	mg/L	E200.8	0.0496	0.100	1.000	0.412	95.1	75 - 125				
Lead	0.191	mg/L	E200.8	0.000448	0.00200	0.2000	0.000055	95.3	75 - 125				
Manganese	0.407	mg/L	E200.8	0.00108	0.00200	0.2000	0.194	107	75 - 125				
Molybdenum	0.206	mg/L	E200.8	0.000652	0.00200	0.2000	0.000981	102	75 - 125				
Nickel	0.198	mg/L	E200.8	0.00148	0.00200	0.2000	0.000258	98.7	75 - 125				
Selenium	0.200	mg/L	E200.8	0.000574	0.00200	0.2000	0.000104	99.9	75 - 125				
Silver	0.187	mg/L	E200.8	0.000232	0.00200	0.2000	0	93.6	75 - 125				
Thallium	0.191	mg/L	E200.8	0.000154	0.00200	0.2000	0	95.5	75 - 125				
Tin	1.03	mg/L	E200.8	0.00116	0.00400	1.000	0	103	75 - 125				
Uranium	0.206	mg/L	E200.8	0.000176	0.00200	0.2000	0.000226	103	75 - 125				



3440 South 700 West

Salt Lake City, UT 84119

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Kyle F. Gross  
Laboratory Director

Jose Rocha  
QA Officer

## QC SUMMARY REPORT

**Client:** Energy Fuels Resources, Inc.  
**Lab Set ID:** 1904508  
**Project:** 2nd Quarter Groundwater 2019

**Contact:** Tanner Holliday  
**Dept:** ME  
**QC Type:** MS

Analyte	Result	Units	Method	MDL	Reporting Limit	Amount Spiked	Spike Ref. Amount	%REC	Limits	RPD Ref. Amt	% RPD	RPD Limit	Qual
<b>Lab Sample ID:</b> 1904508-001EMS	Date Analyzed:	05/01/2019	1311h										
<b>Test Code:</b> 200.8-DIS	Date Prepared:	04/22/2019	1103h										
Iron	1.36	mg/L	E200.8	0.0496	0.100	1.000	0.454	90.8	75 - 125				
Zinc	0.981	mg/L	E200.8	0.00418	0.00600	1.000	0	98.1	75 - 125				
<b>Lab Sample ID:</b> 1904508-001EMS	Date Analyzed:	04/26/2019	848h										
<b>Test Code:</b> HG-DW-DIS-245.1	Date Prepared:	04/25/2019	1745h										
Mercury	0.00348	mg/L	E245.1	0.0000396	0.0000900	0.003330	0	104	85 - 115				

<sup>2</sup> - Analyte concentration is too high for accurate matrix spike recovery and/or RPD.



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Salt Lake City, UT 84119

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## QC SUMMARY REPORT

**Client:** Energy Fuels Resources, Inc.  
**Lab Set ID:** 1904508  
**Project:** 2nd Quarter Groundwater 2019

**Contact:** Tanner Holliday  
**Dept:** ME  
**QC Type:** MSD

Analyte	Result	Units	Method	MDL	Reporting Limit	Amount Spiked	Spike Ref. Amount	%REC	Limits	RPD Ref. Amt	% RPD	RPD Limit	Qual
<b>Lab Sample ID: 1904508-001EMSD</b>		Date Analyzed:	05/01/2019 1318h										
Test Code: 200.7-DIS		Date Prepared:	04/22/2019 1103h										
Calcium	206	mg/L	E200.7	1.87	20.0	10.00	209	-33.9	70 - 130	204	0.722	20	2
Magnesium	82.6	mg/L	E200.7	0.878	20.0	10.00	75.7	69.4	70 - 130	82.8	0.218	20	2
Sodium	195	mg/L	E200.7	3.74	20.0	10.00	200	-47.2	70 - 130	198	1.49	20	2
<b>Lab Sample ID: 1904508-001EMSD</b>		Date Analyzed:	05/01/2019 1405h										
Test Code: 200.7-DIS		Date Prepared:	04/22/2019 1103h										
Potassium	18.8	mg/L	E200.7	0.134	1.00	10.00	7.17	117	70 - 130	18.3	2.77	20	
Vanadium	0.212	mg/L	E200.7	0.00138	0.00500	0.2000	0	106	70 - 130	0.211	0.282	20	
<b>Lab Sample ID: 1904508-001EMSD</b>		Date Analyzed:	04/30/2019 1814h										
Test Code: 200.8-DIS		Date Prepared:	04/22/2019 1103h										
Arsenic	0.214	mg/L	E200.8	0.000298	0.00200	0.2000	0	107	75 - 125	0.207	3.32	20	
Beryllium	0.200	mg/L	E200.8	0.000198	0.00200	0.2000	0	100	75 - 125	0.199	0.467	20	
Cadmium	0.194	mg/L	E200.8	0.0000858	0.000500	0.2000	0.000033	96.8	75 - 125	0.192	0.704	20	
Chromium	0.199	mg/L	E200.8	0.00191	0.00200	0.2000	0	99.7	75 - 125	0.2	0.0998	20	
Cobalt	0.194	mg/L	E200.8	0.000300	0.00400	0.2000	0.000283	97.0	75 - 125	0.196	1.12	20	
Copper	0.199	mg/L	E200.8	0.00282	0.00200	0.2000	0	99.7	75 - 125	0.198	0.630	20	
Iron	1.37	mg/L	E200.8	0.0496	0.100	1.000	0.412	95.4	75 - 125	1.36	0.243	20	
Lead	0.193	mg/L	E200.8	0.000448	0.00200	0.2000	0.000055	96.5	75 - 125	0.191	1.22	20	
Manganese	0.408	mg/L	E200.8	0.00108	0.00200	0.2000	0.194	107	75 - 125	0.407	0.312	20	
Molybdenum	0.211	mg/L	E200.8	0.000652	0.00200	0.2000	0.000981	105	75 - 125	0.206	2.36	20	
Nickel	0.197	mg/L	E200.8	0.00148	0.00200	0.2000	0.000258	98.4	75 - 125	0.198	0.362	20	
Selenium	0.203	mg/L	E200.8	0.000574	0.00200	0.2000	0.000104	101	75 - 125	0.2	1.45	20	
Silver	0.190	mg/L	E200.8	0.000232	0.00200	0.2000	0	95.2	75 - 125	0.187	1.71	20	
Thallium	0.194	mg/L	E200.8	0.000154	0.00200	0.2000	0	97.0	75 - 125	0.191	1.56	20	
Tin	1.05	mg/L	E200.8	0.00116	0.00400	1.000	0	105	75 - 125	1.03	1.96	20	
Uranium	0.209	mg/L	E200.8	0.000176	0.00200	0.2000	0.000226	104	75 - 125	0.206	1.27	20	



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Kyle F. Gross  
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Jose Rocha  
QA Officer

## QC SUMMARY REPORT

**Client:** Energy Fuels Resources, Inc.  
**Lab Set ID:** 1904508  
**Project:** 2nd Quarter Groundwater 2019

**Contact:** Tanner Holliday  
**Dept:** ME  
**QC Type:** MSD

Analyte	Result	Units	Method	MDL	Reporting Limit	Amount Spiked	Spike Ref. Amount	%REC	Limits	RPD Ref. Amt	% RPD	RPD Limit	Qual
<b>Lab Sample ID:</b> 1904508-001EMSD	Date Analyzed:	05/01/2019	1314h										
Test Code:	200.8-DIS	Date Prepared:	04/22/2019	1103h									
Iron	1.36	mg/L	E200.8	0.0496	0.100	1.000	0.454	90.3	75 - 125	1.36	0.363	20	
Zinc	0.975	mg/L	E200.8	0.00418	0.00600	1.000	0	97.5	75 - 125	0.981	0.558	20	
<b>Lab Sample ID:</b> 1904508-001EMSD	Date Analyzed:	04/26/2019	850h										
Test Code:	HG-DW-DIS-245.1	Date Prepared:	04/25/2019	1745h									
Mercury	0.00336	mg/L	E245.1	0.0000396	0.0000900	0.003330	0	101	85 - 115	0.00348	3.56	20	

<sup>2</sup> - Analyte concentration is too high for accurate matrix spike recovery and/or RPD.



3440 South 700 West

Salt Lake City, UT 84119

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

## QC SUMMARY REPORT

**Client:** Energy Fuels Resources, Inc.

**Lab Set ID:** 1904508

**Project:** 2nd Quarter Groundwater 2019

**Contact:** Tanner Holliday

**Dept:** WC

**QC Type:** DUP

Analyte	Result	Units	Method	MDL	Reporting Limit	Amount Spiked	Spike Ref. Amount	%REC	Limits	RPD Ref. Amt	% RPD	RPD Limit	Qual
<b>Lab Sample ID:</b> 1904508-001CDUP	Date Analyzed: 04/19/2019 1125h												
<b>Test Code:</b> TDS-W-2540C													
Total Dissolved Solids	1,300	mg/L	SM2540C	16.0	20.0					1300	0.615	5	



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Salt Lake City, UT 84119

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Kyle F. Gross  
Laboratory Director

Jose Rocha  
QA Officer

## QC SUMMARY REPORT

**Client:** Energy Fuels Resources, Inc.  
**Lab Set ID:** 1904508  
**Project:** 2nd Quarter Groundwater 2019

**Contact:** Tanner Holliday  
**Dept:** WC  
**QC Type:** LCS

Analyte	Result	Units	Method	MDL	Reporting Limit	Amount Spiked	Spike Ref. Amount	%REC	Limits	RPD Ref. Amt	% RPD	RPD Limit	Qual
<b>Lab Sample ID: LCS-R125363</b>		Date Analyzed: 05/01/2019 949h											
Test Code: 300.0-W													
Chloride	4.88	mg/L	E300.0	0.0386	0.100	5.000	0	97.5	90 - 110				
Fluoride	5.12	mg/L	E300.0	0.0240	0.100	5.000	0	102	90 - 110				
Sulfate	4.90	mg/L	E300.0	0.0557	0.750	5.000	0	98.0	90 - 110				
<b>Lab Sample ID: LCS-R124905</b>		Date Analyzed: 04/22/2019 720h											
Test Code: ALK-W-2320B-LL													
Alkalinity (as CaCO3)	250	mg/L	SM2320B	0.781	1.00	250.0	0	100	90 - 110				
<b>Lab Sample ID: LCS-62262</b>		Date Analyzed: 04/26/2019 1444h											
Test Code: NH3-W-350.1		Date Prepared: 04/26/2019 945h											
Ammonia (as N)	10.9	mg/L	E350.1	0.0492	0.0500	10.00	0	109	90 - 110				
<b>Lab Sample ID: LCS-62325</b>		Date Analyzed: 04/30/2019 1359h											
Test Code: NH3-W-350.1		Date Prepared: 04/30/2019 1150h											
Ammonia (as N)	10.1	mg/L	E350.1	0.0492	0.0500	10.00	0	101	90 - 110				
<b>Lab Sample ID: LCS-R124920</b>		Date Analyzed: 04/22/2019 1022h											
Test Code: NO2/NO3-W-353.2													
Nitrate/Nitrite (as N)	1.09	mg/L	E353.2	0.00363	0.0100	1.000	0	109	90 - 110				
<b>Lab Sample ID: LCS-R124939</b>		Date Analyzed: 04/19/2019 1125h											
Test Code: TDS-W-2540C													
Total Dissolved Solids	198	mg/L	SM2540C	8.00	10.0	205.0	0	96.6	80 - 120				



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Kyle F. Gross  
Laboratory Director

Jose Rocha  
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## QC SUMMARY REPORT

**Client:** Energy Fuels Resources, Inc.  
**Lab Set ID:** 1904508  
**Project:** 2nd Quarter Groundwater 2019

**Contact:** Tanner Holliday  
**Dept:** WC  
**QC Type:** MBLK

Analyte	Result	Units	Method	MDL	Reporting Limit	Amount Spiked	Spike Ref. Amount	%REC	Limits	RPD Ref. Amt	% RPD	RPD Limit	Qual
<b>Lab Sample ID: MB-R125363</b>													
Date Analyzed: 05/01/2019 933h													
Test Code: 300.0-W													
Chloride	< 0.100	mg/L	E300.0	0.0386	0.100								
Fluoride	< 0.100	mg/L	E300.0	0.0240	0.100								
Sulfate	< 0.750	mg/L	E300.0	0.0557	0.750								
<b>Lab Sample ID: MB-R124905</b>													
Date Analyzed: 04/22/2019 720h													
Test Code: ALK-W-2320B-LL													
Bicarbonate (as CaCO3)	< 1.00	mg/L	SM2320B	0.781	1.00								
Carbonate (as CaCO3)	< 1.00	mg/L	SM2320B	0.781	1.00								
<b>Lab Sample ID: MB-62262</b>													
Date Analyzed: 04/26/2019 1443h													
Test Code: NH3-W-350.1													
Date Prepared: 04/26/2019 945h													
Ammonia (as N)	< 0.0500	mg/L	E350.1	0.0492	0.0500								
<b>Lab Sample ID: MB-62325</b>													
Date Analyzed: 04/30/2019 1358h													
Test Code: NH3-W-350.1													
Date Prepared: 04/30/2019 1150h													
Ammonia (as N)	< 0.0500	mg/L	E350.1	0.0492	0.0500								
<b>Lab Sample ID: MB-R124920</b>													
Date Analyzed: 04/22/2019 1021h													
Test Code: NO2/NO3-W-353.2													
Nitrate/Nitrite (as N)	< 0.0100	mg/L	E353.2	0.00363	0.0100								
<b>Lab Sample ID: MB-SPLP-62097</b>													
Date Analyzed: 04/22/2019 1023h													
Test Code: NO2/NO3-W-353.2													
Nitrate/Nitrite (as N)	< 0.100	mg/L	E353.2	0.00363	0.100								
<b>Lab Sample ID: MB-R124939</b>													
Date Analyzed: 04/19/2019 1125h													
Test Code: TDS-W-2540C													
Total Dissolved Solids	< 10.0	mg/L	SM2540C	8.00	10.0								



3440 South 700 West

Salt Lake City, UT 84119

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Kyle F. Gross  
Laboratory Director

Jose Rocha  
QA Officer

## QC SUMMARY REPORT

**Client:** Energy Fuels Resources, Inc.

**Lab Set ID:** 1904508

**Project:** 2nd Quarter Groundwater 2019

**Contact:** Tanner Holliday

**Dept:** WC

**QC Type:** MBLK

Analyte	Result	Units	Method	MDL	Reporting Limit	Amount Spiked	Spike Ref. Amount	%REC	Limits	RPD Ref. Amt	% RPD	RPD Limit	Qual
<b>Lab Sample ID:</b> MB-SPLP-62097	Date Analyzed: 04/19/2019 1125h												
<b>Test Code:</b> TDS-W-2540C													
Total Dissolved Solids	< 10.0	mg/L	SM2540C	8.00	10.0								



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Kyle F. Gross  
Laboratory Director

Jose Rocha  
QA Officer

## QC SUMMARY REPORT

**Client:** Energy Fuels Resources, Inc.

**Lab Set ID:** 1904508

**Project:** 2nd Quarter Groundwater 2019

**Contact:** Tanner Holliday

**Dept:** WC

**QC Type:** MS

Analyte	Result	Units	Method	MDL	Reporting Limit	Amount Spiked	Spike Ref. Amount	%REC	Limits	RPD Ref. Amt	% RPD	RPD Limit	Qual
<b>Lab Sample ID: 1904508-001BMS</b> Date Analyzed: 05/01/2019 1023h													
Test Code: 300.0-W													
Chloride	993	mg/L	E300.0	7.72	20.0	1,000	19	97.4	90 - 110				
Fluoride	990	mg/L	E300.0	4.80	20.0	1,000	0	99.0	90 - 110				
Sulfate	1,660	mg/L	E300.0	11.1	150	1,000	706	95.7	90 - 110				
<b>Lab Sample ID: 1904508-001BMS</b> Date Analyzed: 04/22/2019 720h													
Test Code: ALK-W-2320B-LL													
Alkalinity (as CaCO3)	1,250	mg/L	SM2320B	0.781	1.00	1,000	250	99.6	80 - 120				
<b>Lab Sample ID: 1904508-001DMS</b> Date Analyzed: 04/26/2019 1450h													
Test Code: NH3-W-350.1 Date Prepared: 04/26/2019 945h													
Ammonia (as N)	11.8	mg/L	E350.1	0.0492	0.0500	10.00	0.0748	117	90 - 110				1
<b>Lab Sample ID: 1904508-002DMS</b> Date Analyzed: 04/30/2019 1400h													
Test Code: NH3-W-350.1 Date Prepared: 04/30/2019 1150h													
Ammonia (as N)	10.2	mg/L	E350.1	0.0492	0.0500	10.00	0	102	90 - 110				
<b>Lab Sample ID: 1904652-001DMS</b> Date Analyzed: 04/30/2019 1430h													
Test Code: NH3-W-350.1 Date Prepared: 04/30/2019 1150h													
Ammonia (as N)	11.8	mg/L	E350.1	0.0492	0.0500	10.00	0	118	90 - 110				1
<b>Lab Sample ID: 1904508-001DMS</b> Date Analyzed: 04/22/2019 1028h													
Test Code: NO2/NO3-W-353.2													
Nitrate/Nitrite (as N)	10.9	mg/L	E353.2	0.0363	0.100	10.00	0	109	90 - 110				

<sup>1</sup> - Matrix spike recovery indicates matrix interference. The method is in control as indicated by the LCS.



3440 South 700 West  
Salt Lake City, UT 84119

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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:** Energy Fuels Resources, Inc.  
**Lab Set ID:** 1904508  
**Project:** 2nd Quarter Groundwater 2019

**Contact:** Tanner Holliday  
**Dept:** WC  
**QC Type:** MSD

Analyte	Result	Units	Method	MDL	Reporting Limit	Amount Spiked	Spike Ref. Amount	%REC	Limits	RPD Ref. Amt	% RPD	RPD Limit	Qual
<b>Lab Sample ID: 1904508-001BMSD</b> Date Analyzed: 05/01/2019 1040h													
Test Code: 300.0-W													
Chloride	1,010	mg/L	E300.0	7.72	20.0	1,000	19	99.5	90 - 110	993	2.13	20	
Fluoride	1,010	mg/L	E300.0	4.80	20.0	1,000	0	101	90 - 110	990	1.68	20	
Sulfate	1,670	mg/L	E300.0	11.1	150	1,000	706	96.5	90 - 110	1660	0.531	20	
<b>Lab Sample ID: 1904508-001BMSD</b> Date Analyzed: 04/22/2019 720h													
Test Code: ALK-W-2320B-LL													
Alkalinity (as CaCO3)	1,250	mg/L	SM2320B	0.781	1.00	1,000	250	100	80 - 120	1250	0.321	10	
<b>Lab Sample ID: 1904508-001DMSD</b> Date Analyzed: 04/26/2019 1457h													
Test Code: NH3-W-350.1 Date Prepared: 04/26/2019 945h													
Ammonia (as N)	11.9	mg/L	E350.1	0.0492	0.0500	10.00	0.0748	118	90 - 110	11.8	0.931	10	1
<b>Lab Sample ID: 1904508-002DMSD</b> Date Analyzed: 04/30/2019 1401h													
Test Code: NH3-W-350.1 Date Prepared: 04/30/2019 1150h													
Ammonia (as N)	10.4	mg/L	E350.1	0.0492	0.0500	10.00	0	104	90 - 110	10.2	1.17	10	
<b>Lab Sample ID: 1904652-001DMSD</b> Date Analyzed: 04/30/2019 1431h													
Test Code: NH3-W-350.1 Date Prepared: 04/30/2019 1150h													
Ammonia (as N)	11.7	mg/L	E350.1	0.0492	0.0500	10.00	0	117	90 - 110	11.8	0.426	10	1
<b>Lab Sample ID: 1904508-001DMSD</b> Date Analyzed: 04/22/2019 1029h													
Test Code: NO2/NO3-W-353.2													
Nitrate/Nitrite (as N)	11.0	mg/L	E353.2	0.0363	0.100	10.00	0	110	90 - 110	10.9	1.10	10	

<sup>1</sup> - Matrix spike recovery indicates matrix interference. The method is in control as indicated by the LCS.



3440 South 700 West

Salt Lake City, UT 84119

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Kyle F. Gross  
Laboratory Director

Jose Rocha  
QA Officer

## QC SUMMARY REPORT

**Client:** Energy Fuels Resources, Inc.  
**Lab Set ID:** 1904508  
**Project:** 2nd Quarter Groundwater 2019

**Contact:** Tanner Holliday  
**Dept:** MSVOA  
**QC Type:** LCS

Analyte	Result	Units	Method	MDL	Reporting Limit	Amount Spiked	Spike Ref. Amount	%REC	Limits	RPD Ref. Amt	% RPD	RPD Limit	Qual
<b>Lab Sample ID:</b> LCS VOC-1 042219A	Date Analyzed:			04/22/2019 1004h									
<b>Test Code:</b> 8260-W-DEN100													
Benzene	22.0	µg/L	SW8260C	0.147	1.00	20.00	0	110	82 - 132				
Chloroform	22.2	µg/L	SW8260C	0.166	1.00	20.00	0	111	85 - 124				
Methylene chloride	22.1	µg/L	SW8260C	0.448	1.00	20.00	0	111	65 - 154				
Naphthalene	21.2	µg/L	SW8260C	0.704	1.00	20.00	0	106	63 - 129				
Tetrahydrofuran	19.9	µg/L	SW8260C	0.436	1.00	20.00	0	99.4	59 - 125				
Toluene	22.2	µg/L	SW8260C	0.177	1.00	20.00	0	111	69 - 129				
Xylenes, Total	66.2	µg/L	SW8260C	0.253	1.00	60.00	0	110	66 - 124				
Surr: 1,2-Dichloroethane-d4	53.6	µg/L	SW8260C			50.00		107	80 - 136				
Surr: 4-Bromofluorobenzene	50.6	µg/L	SW8260C			50.00		101	85 - 121				
Surr: Dibromofluoromethane	51.9	µg/L	SW8260C			50.00		104	78 - 132				
Surr: Toluene-d8	51.6	µg/L	SW8260C			50.00		103	81 - 123				



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## QC SUMMARY REPORT

**Client:** Energy Fuels Resources, Inc.  
**Lab Set ID:** 1904508  
**Project:** 2nd Quarter Groundwater 2019

**Contact:** Tanner Holliday  
**Dept:** MSVOA  
**QC Type:** MBLK

Analyte	Result	Units	Method	MDL	Reporting Limit	Amount Spiked	Spike Ref. Amount	%REC	Limits	RPD Ref. Amt	% RPD	RPD Limit	Qual
<b>Lab Sample ID:</b> MB VOC-1 042219A	Date Analyzed: 04/22/2019 1024h												
<b>Test Code:</b> 8260-W-DEN100													
2-Butanone	< 20.0	µg/L	SW8260C	1.31	20.0								
Acetone	< 20.0	µg/L	SW8260C	2.87	20.0								
Benzene	< 1.00	µg/L	SW8260C	0.147	1.00								
Carbon tetrachloride	< 1.00	µg/L	SW8260C	0.262	1.00								
Chloroform	< 1.00	µg/L	SW8260C	0.166	1.00								
Chloromethane	< 1.00	µg/L	SW8260C	0.832	1.00								
Methylene chloride	< 1.00	µg/L	SW8260C	0.448	1.00								
Naphthalene	< 1.00	µg/L	SW8260C	0.704	1.00								
Tetrahydrofuran	< 1.00	µg/L	SW8260C	0.436	1.00								
Toluene	< 1.00	µg/L	SW8260C	0.177	1.00								
Xylenes, Total	< 1.00	µg/L	SW8260C	0.253	1.00								
Surr: 1,2-Dichloroethane-d4	53.2	µg/L	SW8260C			50.00		106	80 - 136				
Surr: 4-Bromofluorobenzene	52.4	µg/L	SW8260C			50.00		105	85 - 121				
Surr: Dibromofluoromethane	50.8	µg/L	SW8260C			50.00		102	78 - 132				
Surr: Toluene-d8	51.4	µg/L	SW8260C			50.00		103	81 - 123				



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## QC SUMMARY REPORT

**Client:** Energy Fuels Resources, Inc.

**Lab Set ID:** 1904508

**Project:** 2nd Quarter Groundwater 2019

**Contact:** Tanner Holliday

**Dept:** MSVOA

**QC Type:** MS

Analyte	Result	Units	Method	MDL	Reporting Limit	Amount Spiked	Spike Ref. Amount	%REC	Limits	RPD Ref. Amt	% RPD	RPD Limit	Qual
<b>Lab Sample ID:</b> 1904508-001AMS	Date Analyzed: 04/22/2019 1517h												
<b>Test Code:</b> 8260-W-DEN100													
Benzene	23.4	µg/L	SW8260C	0.147	1.00	20.00	0	117	66 - 145				
Chloroform	21.6	µg/L	SW8260C	0.166	1.00	20.00	0	108	50 - 146				
Methylene chloride	23.1	µg/L	SW8260C	0.448	1.00	20.00	0	115	30 - 192				
Naphthalene	17.8	µg/L	SW8260C	0.704	1.00	20.00	0	89.2	41 - 131				
Tetrahydrofuran	27.5	µg/L	SW8260C	0.436	1.00	20.00	5.31	111	43 - 146				
Toluene	23.0	µg/L	SW8260C	0.177	1.00	20.00	0	115	18 - 192				
Xylenes, Total	68.7	µg/L	SW8260C	0.253	1.00	60.00	0	115	42 - 167				
Surr: 1,2-Dichloroethane-d4	53.6	µg/L	SW8260C			50.00		107	72 - 151				
Surr: 4-Bromofluorobenzene	50.7	µg/L	SW8260C			50.00		101	80 - 152				
Surr: Dibromofluoromethane	52.5	µg/L	SW8260C			50.00		105	72 - 135				
Surr: Toluene-d8	51.4	µg/L	SW8260C			50.00		103	80 - 124				



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## QC SUMMARY REPORT

**Client:** Energy Fuels Resources, Inc.  
**Lab Set ID:** 1904508  
**Project:** 2nd Quarter Groundwater 2019

**Contact:** Tanner Holliday  
**Dept:** MSVOA  
**QC Type:** MSD

Analyte	Result	Units	Method	MDL	Reporting Limit	Amount Spiked	Spike Ref. Amount	%REC	Limits	RPD Ref. Amt	% RPD	RPD Limit	Qual
<b>Lab Sample ID: 1904508-001AMSD</b>		Date Analyzed: 04/22/2019 1537h											
Test Code: 8260-W-DEN100													
Benzene	23.0	µg/L	SW8260C	0.147	1.00	20.00	0	115	66 - 145	23.4	1.81	25	
Chloroform	21.5	µg/L	SW8260C	0.166	1.00	20.00	0	108	50 - 146	21.6	0.0929	25	
Methylene chloride	23.1	µg/L	SW8260C	0.448	1.00	20.00	0	115	30 - 192	23.1	0.130	25	
Naphthalene	18.4	µg/L	SW8260C	0.704	1.00	20.00	0	92.2	41 - 131	17.8	3.36	25	
Tetrahydrofuran	26.6	µg/L	SW8260C	0.436	1.00	20.00	5.31	106	43 - 146	27.5	3.33	25	
Toluene	23.3	µg/L	SW8260C	0.177	1.00	20.00	0	117	18 - 192	23	1.38	25	
Xylenes, Total	69.1	µg/L	SW8260C	0.253	1.00	60.00	0	115	42 - 167	68.7	0.479	25	
Surr: 1,2-Dichloroethane-d4	53.2	µg/L	SW8260C			50.00		106	72 - 151				
Surr: 4-Bromofluorobenzene	51.2	µg/L	SW8260C			50.00		102	80 - 152				
Surr: Dibromofluoromethane	51.7	µg/L	SW8260C			50.00		103	72 - 135				
Surr: Toluene-d8	51.8	µg/L	SW8260C			50.00		104	80 - 124				

**WORK ORDER Summary**

Work Order: **1904508**

Page 1 of 5

**Client:** Energy Fuels Resources, Inc.

Due Date: 5/3/2019

**Client ID:** ENE300

**Contact:** Tanner Holliday

**Project:** 2nd Quarter Groundwater 2019

**QC Level:** III

WO Type: Project

**Comments:** QC 3 (no chromatograms). EDD-Denison. CC KWeinel@energyfuels.com; Do not use "\*R\_" samples as MS/MSD.;

Sample ID	Client Sample ID	Collected Date	Received Date	Test Code	Matrix	Sel Storage	
1904508-001A	MW-01_04172019	4/17/2019 1145h	4/19/2019 1045h	8260-W-DEN100	Aqueous	VOCFridge	3
<i>Test Group: 8260-W-DEN100; # of Analytes: 11 / # of Surr: 4</i>							
1904508-001B				300.0-W		df - wc	1
<i>3 SEL Analytes: CL F SO4</i>							
				ALK-W-2320B-LL		df - wc	
<i>2 SEL Analytes: ALKB ALKC</i>							
1904508-001C				TDS-W-2540C		df - tds	
<i>1 SEL Analytes: TDS</i>							
1904508-001D				NH3-W-350.1		df - no2/no3 & nh3	
<i>1 SEL Analytes: NH3N</i>							
				NH3-W-PR		df - no2/no3 & nh3	
				NO2/NO3-W-353.2		df - no2/no3 & nh3	
<i>1 SEL Analytes: NO3NO2N</i>							
1904508-001E				200.7-DIS		df-met	
<i>5 SEL Analytes: CA MG K NA V</i>							
				200.7-DIS-PR		df-met	
				200.8-DIS		df-met	
<i>17 SEL Analytes: AS BE CD CR CO CU FE PB MN MO NI SE AG TL SN U ZN</i>							
				200.8-DIS-PR		df-met	
				HG-DW-DIS-245.1		df-met	
<i>1 SEL Analytes: HG</i>							
				HG-DW-DIS-PR		df-met	
				IONBALANCE		df-met	
<i>5 SEL Analytes: BALANCE Anions Cations TDS-Balance TDS-Calc</i>							
1904508-002A	MW-17_04162019	4/16/2019 1240h	4/19/2019 1045h	8260-W-DEN100	Aqueous	VOCFridge	3
<i>Test Group: 8260-W-DEN100; # of Analytes: 11 / # of Surr: 4</i>							
1904508-002B				300.0-W		df - wc	1
<i>3 SEL Analytes: CL F SO4</i>							
				ALK-W-2320B-LL		df - wc	
<i>2 SEL Analytes: ALKB ALKC</i>							
1904508-002C				TDS-W-2540C		df - tds	
<i>1 SEL Analytes: TDS</i>							

# WORK ORDER Summary

Work Order: **1904508**

Page 2 of 5

Client: Energy Fuels Resources, Inc.

Due Date: 5/3/2019

Sample ID	Client Sample ID	Collected Date	Received Date	Test Code	Matrix	Sel Storage	
1904508-002D	MW-17_04162019	4/16/2019 1240h	4/19/2019 1045h	NH3-W-350.1 <i>1 SEL Analytes: NH3N</i>	Aqueous	df - no2/no3 & nh3	1
				NH3-W-PR		df - no2/no3 & nh3	
				NO2/NO3-W-353.2 <i>1 SEL Analytes: NO3NO2N</i>		df - no2/no3 & nh3	
1904508-002E				200.7-DIS <i>5 SEL Analytes: CA MG K NA V</i>		df-met	
				200.7-DIS-PR		df-met	
				200.8-DIS <i>17 SEL Analytes: AS BE CD CR CO CU FE PB MN MO NI SE AG TL SN U ZN</i>		df-met	
				200.8-DIS-PR		df-met	
				HG-DW-DIS-245.1 <i>1 SEL Analytes: HG</i>		df-met	
				HG-DW-DIS-PR		df-met	
				IONBALANCE <i>5 SEL Analytes: BALANCE Anions Cations TDS-Balance TDS-Calc</i>		df-met	
1904508-003A	MW-18_04162019	4/16/2019 1425h	4/19/2019 1045h	8260-W-DEN100 <i>Test Group: 8260-W-DEN100; # of Analytes: 11 / # of Surr: 4</i>	Aqueous	VOCfridge	3
1904508-003B				300.0-W <i>3 SEL Analytes: CL F SO4</i>		df - wc	1
				ALK-W-2320B-LL <i>2 SEL Analytes: ALKB ALKC</i>		df - wc	
1904508-003C				TDS-W-2540C <i>1 SEL Analytes: TDS</i>		df - tds	
1904508-003D				NH3-W-350.1 <i>1 SEL Analytes: NH3N</i>		df - no2/no3 & nh3	
				NH3-W-PR		df - no2/no3 & nh3	
				NO2/NO3-W-353.2 <i>1 SEL Analytes: NO3NO2N</i>		df - no2/no3 & nh3	
1904508-003E				200.7-DIS <i>5 SEL Analytes: CA MG K NA V</i>		df-met	
				200.7-DIS-PR		df-met	
				200.8-DIS <i>17 SEL Analytes: AS BE CD CR CO CU FE PB MN MO NI SE AG TL SN U ZN</i>		df-met	
				200.8-DIS-PR		df-met	
				HG-DW-DIS-245.1 <i>1 SEL Analytes: HG</i>		df-met	

# WORK ORDER Summary

Work Order: **1904508**

Page 3 of 5

Client: Energy Fuels Resources, Inc.

Due Date: 5/3/2019

Sample ID	Client Sample ID	Collected Date	Received Date	Test Code	Matrix	Sel	Storage
1904508-003E	MW-18_04162019	4/16/2019 1425h	4/19/2019 1045h	HG-DW-DIS-PR IONBALANCE 5 SEL Analytes: BALANCE Anions Cations TDS-Balance TDS-Calc	Aqueous	df-met	1
1904508-004A	MW-35_04182019	4/18/2019 0825h	4/19/2019 1045h	8260-W-DEN100 Test Group: 8260-W-DEN100; # of Analytes: 11 / # of Surr: 4	Aqueous	VOCFridge	3
1904508-004B				300.0-W 3 SEL Analytes: CL F SO4		df - wc	1
				ALK-W-2320B-LL 2 SEL Analytes: ALKB ALKC		df - wc	
1904508-004C				TDS-W-2540C 1 SEL Analytes: TDS		df - tds	
1904508-004D				NH3-W-350.1 1 SEL Analytes: NH3N		df - no2/no3 & nh3	
				NH3-W-PR		df - no2/no3 & nh3	
				NO2/NO3-W-353.2 1 SEL Analytes: NO3NO2N		df - no2/no3 & nh3	
1904508-004E				200.7-DIS 5 SEL Analytes: CA MG K NA V		df-met	
				200.7-DIS-PR		df-met	
				200.8-DIS 17 SEL Analytes: AS BE CD CR CO CU FE PB MN MO NI SE AG TL SN U ZN		df-met	
				200.8-DIS-PR		df-met	
				HG-DW-DIS-245.1 1 SEL Analytes: HG		df-met	
				HG-DW-DIS-PR		df-met	
				IONBALANCE 5 SEL Analytes: BALANCE Anions Cations TDS-Balance TDS-Calc		df-met	
1904508-005A	MW-36_04182019	4/18/2019 0950h	4/19/2019 1045h	8260-W-DEN100 Test Group: 8260-W-DEN100; # of Analytes: 11 / # of Surr: 4	Aqueous	VOCFridge	3
1904508-005B				300.0-W 3 SEL Analytes: CL F SO4		df - wc	1
				ALK-W-2320B-LL 2 SEL Analytes: ALKB ALKC		df - wc	
1904508-005C				TDS-W-2540C 1 SEL Analytes: TDS		df - tds	
1904508-005D				NH3-W-350.1 1 SEL Analytes: NH3N		df - no2/no3 & nh3	

# WORK ORDER Summary

Work Order: **1904508** Page 4 of 5

Client: Energy Fuels Resources, Inc.

Due Date: 5/3/2019

Sample ID	Client Sample ID	Collected Date	Received Date	Test Code	Matrix	Sel Storage	
1904508-005D	MW-36_04182019	4/18/2019 0950h	4/19/2019 1045h	NH3-W-PR	Aqueous	df - no2/no3 & nh3	1
				NO2/NO3-W-353.2		df - no2/no3 & nh3	
				1 SEL Analytes: NO3NO2N			
1904508-005E				200.7-DIS		df-met	
				5 SEL Analytes: CA MG K NA V			
				200.7-DIS-PR		df-met	
				200.8-DIS		df-met	
				17 SEL Analytes: AS BE CD CR CO CU FE PB MN MO NI SE AG TL SN U ZN			
				200.8-DIS-PR		df-met	
				HG-DW-DIS-245.1		df-met	
				1 SEL Analytes: HG			
				HG-DW-DIS-PR		df-met	
				IONBALANCE		df-met	
				5 SEL Analytes: BALANCE Anions Cations TDS-Balance TDS-Calc			
1904508-006A	MW-40_04172019	4/17/2019 1305h	4/19/2019 1045h	8260-W-DEN100	Aqueous	VOCFridge	3
				Test Group: 8260-W-DEN100; # of Analytes: 11 / # of Surr: 4			
1904508-006B				300.0-W		df - wc	1
				3 SEL Analytes: CL F SO4			
				ALK-W-2320B-LL		df - wc	
				2 SEL Analytes: ALKB ALKC			
1904508-006C				TDS-W-2540C		df - tds	
				1 SEL Analytes: TDS			
1904508-006D				NH3-W-350.1		df - no2/no3 & nh3	
				1 SEL Analytes: NH3N			
				NH3-W-PR		df - no2/no3 & nh3	
				NO2/NO3-W-353.2		df - no2/no3 & nh3	
				1 SEL Analytes: NO3NO2N			
1904508-006E				200.7-DIS		df-met	
				5 SEL Analytes: CA MG K NA V			
				200.7-DIS-PR		df-met	
				200.8-DIS		df-met	
				17 SEL Analytes: AS BE CD CR CO CU FE PB MN MO NI SE AG TL SN U ZN			
				200.8-DIS-PR		df-met	
				HG-DW-DIS-245.1		df-met	
				1 SEL Analytes: HG			
				HG-DW-DIS-PR		df-met	

# WORK ORDER Summary

Work Order: **1904508** Page 5 of 5

Client: Energy Fuels Resources, Inc.

Due Date: 5/3/2019

Sample ID	Client Sample ID	Collected Date	Received Date	Test Code	Matrix	Sel	Storage	
1904508-006E	MW-40_04172019	4/17/2019 1305h	4/19/2019 1045h	IONBALANCE	Aqueous		df-met	1
<i>5 SEL Analytes: BALANCE Anions Cations TDS-Balance TDS-Calc</i>								
1904508-007A	Trip Blank	4/16/2019 1240h	4/19/2019 1045h	8260-W-DEN100	Aqueous		VOCFridge	3
<i>Test Group: 8260-W-DEN100; # of Analytes: 11 / # of Surr: 4</i>								



# American West Analytical Laboratories

463 W. 3600 S. Salt Lake City, UT 84115  
 Phone # (801) 263-8686 Toll Free # (888) 263-8686  
 Fax # (801) 263-8687 Email awal@awal-labs.com  
 www.awal-labs.com

## CHAIN OF CUSTODY

All analysis will be conducted using NELAP accredited methods and all data will be reported using AWAL's standard analyte lists and reporting limits (PQL) unless specifically requested otherwise on this Chain of Custody and/or attached documentation.

1904508

AWAL Lab Sample Set #  
 Page 1 of 1

<b>QC Level:</b> 3		<b>Turn Around Time:</b> Standard		Unless other arrangements have been made, signed reports will be emailed by 5:00 pm on the day they are due.		<b>Due Date:</b>	
				<input checked="" type="checkbox"/> Include EDD: <b>LOCUS UPLOAD EXCEL</b> <input checked="" type="checkbox"/> Field Filtered For: <b>Dissolved Metals</b>		<b>Laboratory Use Only</b> Samples Were: <i>WPS</i> 1 Shipped or hand delivered 2 Ambient or Chilled 3 Temperature <i>1.4</i> °C 4 Received Broken/Leaking (Improperly Sealed) Y N 5 Properly Preserved Y N Checked at bench Y N 6 Received Within Holding Times Y N	
				<b>For Compliance With:</b> <input type="checkbox"/> NELAP <input type="checkbox"/> RCRA <input type="checkbox"/> CWA <input type="checkbox"/> SDWA <input type="checkbox"/> ELAP / A2LA <input type="checkbox"/> NLLAP <input type="checkbox"/> Non-Compliance <input type="checkbox"/> Other:		<b>Known Hazards &amp; Sample Comments</b>	

Client: **Energy Fuels Resources, Inc.**  
 Address: **6425 S. Hwy. 191**  
**Blanding, UT 84511**  
 Contact: **Tanner Holliday**  
 Phone #: **(435) 678-2221** Cell #:  
**gpalmer@energyfuels.com; KWeinel@energyfuels.com;**  
**tholliday@energyfuels.com**  
 Project Name: **2nd Quarter Groundwater 2019**  
 Project #:  
 PO #:  
 Sampler Name: **Tanner Holliday**

Sample ID:	Date Sampled	Time Sampled	# of Containers	Sample Matrix	NO2/NO3 (353.2)	NH3 (4500G or 350.1)	Fl, Cl, SO4 (4500 or 300.0)	TDS (2540C)	Carb/Bicarb (2320B)	Dissolved Metals (200.7/200.8/245.1)	As, Be, Cd, Cr, Co, Cu, Fe, Pb, Mn, Hg, Mo,	Ni, Se, Ag, Tl, Sn, U, V, Zn, Na, K, Mg, Ca	Ion Balance	VOCs (8260C)
1 MW-01_04172019	4/17/2019	1145	7	W	x	x	x	x	x	x	x	x	x	x
2 MW-17_04162019	4/16/2019	1240	7	W	x	x	x	x	x	x	x	x	x	x
3 MW-18_04162019	4/16/2019	1425	7	W	x	x	x	x	x	x	x	x	x	x
4 MW-35_04182019	4/18/2019	825	7	W	x	x	x	x	x	x	x	x	x	x
5 MW-36_04182019	4/18/2019	950	7	W	x	x	x	x	x	x	x	x	x	x
6 MW-40_04172019	4/17/2019	1305	7	W	x	x	x	x	x	x	x	x	x	x
7 Trip Blank	4/16/2019	1240	3	W										x
8														
9														
10														
11														
12														

**COC Tape Was:**

1 Present on Outer Package  
 Y N NA

2 Unbroken on Outer Package  
 Y N NA

3 Present on Sample  
 Y N NA

4 Unbroken on Sample  
 Y N NA

**Discrepancies Between Sample Labels and COC Record?**  
 Y N

Relinquished by: Signature <i>Tanner Holliday</i>	Date: 4/18/2019	Received by: Signature <i>Elona Hayward</i>	Date: 4-19-19
Print Name: Tanner Holliday	Time: 1130	Print Name: Elona Hayward	Time: 1045
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:**

Sample containers for metals were field filtered. See the Analytical Scope of Work for Reporting Limits and VOC analyte list.

Lab Set ID: 1964508  
 pH Lot #: 5911

Preservation Check Sheet

Sample Set Extension and pH

Analysis	Preservative	1	2	3	4	5	6											
Ammonia	pH <2 H <sub>2</sub> SO <sub>4</sub>	Yes	Yes	Yes	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	Yes											
NO <sub>2</sub> /NO <sub>3</sub>	pH <2 H <sub>2</sub> SO <sub>4</sub>	Yes	Yes	Yes	Yes	Yes	Yes											
O & G	pH <2 HCL																	
Phenols	pH <2 H <sub>2</sub> SO <sub>4</sub>																	
Sulfide	pH >9 NaOH, Zn Acetate																	
TKN	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>																	
Cr VI+	pH >9 (NH <sub>4</sub> ) <sub>2</sub> SO <sub>4</sub>																	

- 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

- \* The sample required additional preservative upon receipt.
- + The sample was received unpreserved.
- ▲ The sample was received unpreserved and therefore preserved upon receipt.
- # The sample pH was unadjustable to a pH < 2 due to the sample matrix.
- The sample pH was unadjustable to a pH > \_\_\_\_ due to the sample matrix interference.



Tanner Holliday  
Energy Fuels Resources, Inc.  
6425 South Hwy 191  
Blanding, UT 84511  
TEL: (435) 678-2221

RE: 2nd Quarter Groundwater 2019

Dear Tanner Holliday:

Lab Set ID: 1904652

3440 South 700 West

Salt Lake City, UT 84119

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)

American West Analytical Laboratories received sample(s) on 4/26/2019 for the analyses presented in the following report.

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

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

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

Kyle F. Gross  
Laboratory Director

Jose Rocha  
QA Officer

Thank You,

Approved by:

<b>Kyle F.</b> <b>Gross</b>	Digitally signed by Kyle F. Gross
	Date: 2019.05.21 11:19:47 -06'00'

Laboratory Director or designee



## SAMPLE SUMMARY

**Client:** Energy Fuels Resources, Inc.  
**Project:** 2nd Quarter Groundwater 2019  
**Lab Set ID:** 1904652  
**Date Received:** 4/26/2019 1010h

**Contact:** Tanner Holliday

3440 South 700 West  
 Salt Lake City, UT 84119

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
1904652-001A	MW-02_04252019	4/25/2019 840h	Aqueous	VOA by GC/MS Method 8260C/5030C
1904652-001B	MW-02_04252019	4/25/2019 840h	Aqueous	Anions, E300.0
1904652-001B	MW-02_04252019	4/25/2019 840h	Aqueous	Alkalinity/ Bicarbonate/ Carbonate, Low Level
1904652-001C	MW-02_04252019	4/25/2019 840h	Aqueous	Total Dissolved Solids, A2540C
1904652-001D	MW-02_04252019	4/25/2019 840h	Aqueous	Nitrite/Nitrate (as N), E353.2
1904652-001D	MW-02_04252019	4/25/2019 840h	Aqueous	Ammonia, Aqueous
1904652-001E	MW-02_04252019	4/25/2019 840h	Aqueous	Ion Balance
1904652-001E	MW-02_04252019	4/25/2019 840h	Aqueous	ICP Metals, Dissolved
1904652-001E	MW-02_04252019	4/25/2019 840h	Aqueous	ICPMS Metals, Dissolved
1904652-001E	MW-02_04252019	4/25/2019 840h	Aqueous	Mercury, Drinking Water Dissolved
1904652-002A	MW-05_04242019	4/24/2019 1505h	Aqueous	VOA by GC/MS Method 8260C/5030C
1904652-002B	MW-05_04242019	4/24/2019 1505h	Aqueous	Anions, E300.0
1904652-002B	MW-05_04242019	4/24/2019 1505h	Aqueous	Alkalinity/ Bicarbonate/ Carbonate, Low Level
1904652-002C	MW-05_04242019	4/24/2019 1505h	Aqueous	Total Dissolved Solids, A2540C
1904652-002D	MW-05_04242019	4/24/2019 1505h	Aqueous	Nitrite/Nitrate (as N), E353.2
1904652-002D	MW-05_04242019	4/24/2019 1505h	Aqueous	Ammonia, Aqueous
1904652-002E	MW-05_04242019	4/24/2019 1505h	Aqueous	ICP Metals, Dissolved
1904652-002E	MW-05_04242019	4/24/2019 1505h	Aqueous	ICPMS Metals, Dissolved
1904652-002E	MW-05_04242019	4/24/2019 1505h	Aqueous	Mercury, Drinking Water Dissolved
1904652-002E	MW-05_04242019	4/24/2019 1505h	Aqueous	Ion Balance
1904652-003A	MW-11_04242019	4/24/2019 1125h	Aqueous	VOA by GC/MS Method 8260C/5030C
1904652-003B	MW-11_04242019	4/24/2019 1125h	Aqueous	Anions, E300.0
1904652-003B	MW-11_04242019	4/24/2019 1125h	Aqueous	Alkalinity/ Bicarbonate/ Carbonate, Low Level
1904652-003C	MW-11_04242019	4/24/2019 1125h	Aqueous	Total Dissolved Solids, A2540C
1904652-003D	MW-11_04242019	4/24/2019 1125h	Aqueous	Nitrite/Nitrate (as N), E353.2
1904652-003D	MW-11_04242019	4/24/2019 1125h	Aqueous	Ammonia, Aqueous
1904652-003E	MW-11_04242019	4/24/2019 1125h	Aqueous	Mercury, Drinking Water Dissolved
1904652-003E	MW-11_04242019	4/24/2019 1125h	Aqueous	Ion Balance



**Client:** Energy Fuels Resources, Inc.  
**Project:** 2nd Quarter Groundwater 2019  
**Lab Set ID:** 1904652  
**Date Received:** 4/26/2019 1010h

**Contact:** Tanner Holliday

Lab Sample ID	Client Sample ID	Date Collected	Matrix	Analysis
1904652-003E	MW-11_04242019	4/24/2019 1125h	Aqueous	ICP Metals, Dissolved
1904652-003E	MW-11_04242019	4/24/2019 1125h	Aqueous	ICPMS Metals, Dissolved
1904652-004A	MW-12_04252019	4/25/2019 900h	Aqueous	VOA by GC/MS Method 8260C/5030C
1904652-004B	MW-12_04252019	4/25/2019 900h	Aqueous	Anions, E300.0
1904652-004B	MW-12_04252019	4/25/2019 900h	Aqueous	Alkalinity/ Bicarbonate/ Carbonate, Low Level
1904652-004C	MW-12_04252019	4/25/2019 900h	Aqueous	Total Dissolved Solids, A2540C
1904652-004D	MW-12_04252019	4/25/2019 900h	Aqueous	Nitrite/Nitrate (as N), E353.2
1904652-004D	MW-12_04252019	4/25/2019 900h	Aqueous	Ammonia, Aqueous
1904652-004E	MW-12_04252019	4/25/2019 900h	Aqueous	Ion Balance
1904652-004E	MW-12_04252019	4/25/2019 900h	Aqueous	ICP Metals, Dissolved
1904652-004E	MW-12_04252019	4/25/2019 900h	Aqueous	ICPMS Metals, Dissolved
1904652-004E	MW-12_04252019	4/25/2019 900h	Aqueous	Mercury, Drinking Water Dissolved
1904652-005A	MW-14_04232019	4/23/2019 1355h	Aqueous	VOA by GC/MS Method 8260C/5030C
1904652-005B	MW-14_04232019	4/23/2019 1355h	Aqueous	Anions, E300.0
1904652-005B	MW-14_04232019	4/23/2019 1355h	Aqueous	Alkalinity/ Bicarbonate/ Carbonate, Low Level
1904652-005C	MW-14_04232019	4/23/2019 1355h	Aqueous	Total Dissolved Solids, A2540C
1904652-005D	MW-14_04232019	4/23/2019 1355h	Aqueous	Nitrite/Nitrate (as N), E353.2
1904652-005D	MW-14_04232019	4/23/2019 1355h	Aqueous	Ammonia, Aqueous
1904652-005E	MW-14_04232019	4/23/2019 1355h	Aqueous	ICP Metals, Dissolved
1904652-005E	MW-14_04232019	4/23/2019 1355h	Aqueous	ICPMS Metals, Dissolved
1904652-005E	MW-14_04232019	4/23/2019 1355h	Aqueous	Mercury, Drinking Water Dissolved
1904652-005E	MW-14_04232019	4/23/2019 1355h	Aqueous	Ion Balance
1904652-006A	MW-19_04232019	4/23/2019 1500h	Aqueous	VOA by GC/MS Method 8260C/5030C
1904652-006B	MW-19_04232019	4/23/2019 1500h	Aqueous	Anions, E300.0
1904652-006B	MW-19_04232019	4/23/2019 1500h	Aqueous	Alkalinity/ Bicarbonate/ Carbonate, Low Level
1904652-006C	MW-19_04232019	4/23/2019 1500h	Aqueous	Total Dissolved Solids, A2540C
1904652-006D	MW-19_04232019	4/23/2019 1500h	Aqueous	Nitrite/Nitrate (as N), E353.2
1904652-006D	MW-19_04232019	4/23/2019 1500h	Aqueous	Ammonia, Aqueous
1904652-006E	MW-19_04232019	4/23/2019 1500h	Aqueous	Mercury, Drinking Water Dissolved
1904652-006E	MW-19_04232019	4/23/2019 1500h	Aqueous	Ion Balance

3440 South 700 West  
Salt Lake City, UT 84119

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



**Client:** Energy Fuels Resources, Inc.  
**Project:** 2nd Quarter Groundwater 2019  
**Lab Set ID:** 1904652  
**Date Received:** 4/26/2019 1010h

**Contact:** Tanner Holliday

3440 South 700 West  
Salt Lake City, UT 84119

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
1904652-006E	MW-19_04232019	4/23/2019 1500h	Aqueous	ICP Metals, Dissolved
1904652-006E	MW-19_04232019	4/23/2019 1500h	Aqueous	ICPMS Metals, Dissolved
1904652-007A	MW-26_04242019	4/24/2019 1315h	Aqueous	VOA by GC/MS Method 8260C/5030C
1904652-007B	MW-26_04242019	4/24/2019 1315h	Aqueous	Anions, E300.0
1904652-007B	MW-26_04242019	4/24/2019 1315h	Aqueous	Alkalinity/ Bicarbonate/ Carbonate, Low Level
1904652-007C	MW-26_04242019	4/24/2019 1315h	Aqueous	Total Dissolved Solids, A2540C
1904652-007D	MW-26_04242019	4/24/2019 1315h	Aqueous	Nitrite/Nitrate (as N), E353.2
1904652-007D	MW-26_04242019	4/24/2019 1315h	Aqueous	Ammonia, Aqueous
1904652-007E	MW-26_04242019	4/24/2019 1315h	Aqueous	Ion Balance
1904652-007E	MW-26_04242019	4/24/2019 1315h	Aqueous	ICP Metals, Dissolved
1904652-007E	MW-26_04242019	4/24/2019 1315h	Aqueous	ICPMS Metals, Dissolved
1904652-007E	MW-26_04242019	4/24/2019 1315h	Aqueous	Mercury, Drinking Water Dissolved
1904652-008A	MW-27_04232019	4/23/2019 1100h	Aqueous	VOA by GC/MS Method 8260C/5030C
1904652-008B	MW-27_04232019	4/23/2019 1100h	Aqueous	Anions, E300.0
1904652-008B	MW-27_04232019	4/23/2019 1100h	Aqueous	Alkalinity/ Bicarbonate/ Carbonate, Low Level
1904652-008C	MW-27_04232019	4/23/2019 1100h	Aqueous	Total Dissolved Solids, A2540C
1904652-008D	MW-27_04232019	4/23/2019 1100h	Aqueous	Nitrite/Nitrate (as N), E353.2
1904652-008D	MW-27_04232019	4/23/2019 1100h	Aqueous	Ammonia, Aqueous
1904652-008E	MW-27_04232019	4/23/2019 1100h	Aqueous	ICP Metals, Dissolved
1904652-008E	MW-27_04232019	4/23/2019 1100h	Aqueous	ICPMS Metals, Dissolved
1904652-008E	MW-27_04232019	4/23/2019 1100h	Aqueous	Mercury, Drinking Water Dissolved
1904652-008E	MW-27_04232019	4/23/2019 1100h	Aqueous	Ion Balance
1904652-009A	MW-28_04242019	4/24/2019 1015h	Aqueous	VOA by GC/MS Method 8260C/5030C
1904652-009B	MW-28_04242019	4/24/2019 1015h	Aqueous	Anions, E300.0
1904652-009B	MW-28_04242019	4/24/2019 1015h	Aqueous	Alkalinity/ Bicarbonate/ Carbonate, Low Level
1904652-009C	MW-28_04242019	4/24/2019 1015h	Aqueous	Total Dissolved Solids, A2540C
1904652-009D	MW-28_04242019	4/24/2019 1015h	Aqueous	Nitrite/Nitrate (as N), E353.2
1904652-009D	MW-28_04242019	4/24/2019 1015h	Aqueous	Ammonia, Aqueous
1904652-009E	MW-28_04242019	4/24/2019 1015h	Aqueous	Mercury, Drinking Water Dissolved
1904652-009E	MW-28_04242019	4/24/2019 1015h	Aqueous	Ion Balance



**Client:** Energy Fuels Resources, Inc.  
**Project:** 2nd Quarter Groundwater 2019  
**Lab Set ID:** 1904652  
**Date Received:** 4/26/2019 1010h

**Contact:** Tanner Holliday

Lab Sample ID	Client Sample ID	Date Collected	Matrix	Analysis
1904652-009E	MW-28_04242019	4/24/2019 1015h	Aqueous	ICP Metals, Dissolved
1904652-009E	MW-28_04242019	4/24/2019 1015h	Aqueous	ICPMS Metals, Dissolved
1904652-010A	MW-29_04242019	4/24/2019 1425h	Aqueous	VOA by GC/MS Method 8260C/5030C
1904652-010B	MW-29_04242019	4/24/2019 1425h	Aqueous	Anions, E300.0
1904652-010B	MW-29_04242019	4/24/2019 1425h	Aqueous	Alkalinity/ Bicarbonate/ Carbonate, Low Level
1904652-010C	MW-29_04242019	4/24/2019 1425h	Aqueous	Total Dissolved Solids, A2540C
1904652-010D	MW-29_04242019	4/24/2019 1425h	Aqueous	Nitrite/Nitrate (as N), E353.2
1904652-010D	MW-29_04242019	4/24/2019 1425h	Aqueous	Ammonia, Aqueous
1904652-010E	MW-29_04242019	4/24/2019 1425h	Aqueous	Ion Balance
1904652-010E	MW-29_04242019	4/24/2019 1425h	Aqueous	ICP Metals, Dissolved
1904652-010E	MW-29_04242019	4/24/2019 1425h	Aqueous	ICPMS Metals, Dissolved
1904652-010E	MW-29_04242019	4/24/2019 1425h	Aqueous	Mercury, Drinking Water Dissolved
1904652-011A	MW-65_04232019	4/23/2019 1355h	Aqueous	VOA by GC/MS Method 8260C/5030C
1904652-011B	MW-65_04232019	4/23/2019 1355h	Aqueous	Anions, E300.0
1904652-011B	MW-65_04232019	4/23/2019 1355h	Aqueous	Alkalinity/ Bicarbonate/ Carbonate, Low Level
1904652-011C	MW-65_04232019	4/23/2019 1355h	Aqueous	Total Dissolved Solids, A2540C
1904652-011D	MW-65_04232019	4/23/2019 1355h	Aqueous	Nitrite/Nitrate (as N), E353.2
1904652-011D	MW-65_04232019	4/23/2019 1355h	Aqueous	Ammonia, Aqueous
1904652-011E	MW-65_04232019	4/23/2019 1355h	Aqueous	Ion Balance
1904652-011E	MW-65_04232019	4/23/2019 1355h	Aqueous	ICP Metals, Dissolved
1904652-011E	MW-65_04232019	4/23/2019 1355h	Aqueous	ICPMS Metals, Dissolved
1904652-011E	MW-65_04232019	4/23/2019 1355h	Aqueous	Mercury, Drinking Water Dissolved
1904652-012A	TW4-24_04252019	4/25/2019 815h	Aqueous	VOA by GC/MS Method 8260C/5030C
1904652-012B	TW4-24_04252019	4/25/2019 815h	Aqueous	Alkalinity/ Bicarbonate/ Carbonate, Low Level
1904652-012B	TW4-24_04252019	4/25/2019 815h	Aqueous	Anions, E300.0
1904652-012C	TW4-24_04252019	4/25/2019 815h	Aqueous	Total Dissolved Solids, A2540C
1904652-012D	TW4-24_04252019	4/25/2019 815h	Aqueous	Ammonia, Aqueous
1904652-012D	TW4-24_04252019	4/25/2019 815h	Aqueous	Nitrite/Nitrate (as N), E353.2
1904652-012E	TW4-24_04252019	4/25/2019 815h	Aqueous	Ion Balance
1904652-012E	TW4-24_04252019	4/25/2019 815h	Aqueous	ICP Metals, Dissolved
1904652-012E	TW4-24_04252019	4/25/2019 815h	Aqueous	ICPMS Metals, Dissolved

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web: www.awal-labs.com

Kyle F. Gross  
Laboratory Director

Jose Rocha  
QA Officer



**Client:** Energy Fuels Resources, Inc.  
**Project:** 2nd Quarter Groundwater 2019  
**Lab Set ID:** 1904652  
**Date Received:** 4/26/2019 1010h

**Contact:** Tanner Holliday

Lab Sample ID	Client Sample ID	Date Collected	Matrix	Analysis
1904652-012E	TW4-24_04252019	4/25/2019 815h	Aqueous	Mercury, Drinking Water Dissolved
1904652-013A	Trip Blank	4/23/2019 1100h	Aqueous	VOA by GC/MS Method 8260C/5030C

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web: www.awal-labs.com

Kyle F. Gross  
Laboratory Director

Jose Rocha  
QA Officer



# Inorganic Case Narrative

**Client:** Energy Fuels Resources, Inc.  
**Contact:** Tanner Holliday  
**Project:** 2nd Quarter Groundwater 2019  
**Lab Set ID:** 1904652

3440 South 700 West  
Salt Lake City, UT 84119

## Sample Receipt Information:

**Date of Receipt:** 4/26/2019  
**Date(s) of Collection:** 4/23-4/25/2019  
**Sample Condition:** See Chain of Custody  
**C-O-C Discrepancies:** See Chain of Custody

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

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

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

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

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

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

**Matrix Spike / Matrix Spike Duplicates (MS/MSD):** All percent recoveries and RPDs (Relative Percent Differences) were inside established limits, with the following exceptions:

Sample ID	Analyte	QC	Explanation
1904652-001D	Ammonia	MS/MSD	Sample matrix interference
1904652-001E	Calcium	MS/MSD	High analyte concentration
1904652-001E	Magnesium	MS	High analyte concentration
1904652-001E	Sodium	MS/MSD	High analyte concentration
1904652-011E	Calcium	MS/MSD	High analyte concentration
1904652-011E	Magnesium	MS/MSD	High analyte concentration
1904652-011E	Manganese	MS/MSD	High analyte concentration
1904652-011E	Sodium	MS/MSD	High analyte concentration

**Duplicate (DUP):** The parameters that required a duplicate analysis had RPDs within the control limits.

**Corrective Action:** None required.



## Volatile Case Narrative

**Client:** Energy Fuels Resources, Inc.  
**Contact:** Tanner Holliday  
**Project:** 2nd Quarter Groundwater 2019  
**Lab Set ID:** 1904652

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### **Sample Receipt Information:**

**Date of Receipt:** 4/26/2019  
**Date(s) of Collection:** 4/23-4/25/2019  
**Sample Condition:** See Chain of Custody  
**C-O-C Discrepancies:** See Chain of Custody  
**Method:** SW-846 8260C/5030C  
**Analysis:** Volatile Organic Compounds

Phone: (801) 263-8686

Toll Free: (888) 263-8686

Fax: (801) 263-8687

e-mail: awal@awal-labs.com

web: www.awal-labs.com

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

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

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

**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.



3440 South 700 West  
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Kyle F. Gross  
Laboratory Director

Jose Rocha  
QA Officer

## QC SUMMARY REPORT

**Client:** Energy Fuels Resources, Inc.  
**Lab Set ID:** 1904652  
**Project:** 2nd Quarter Groundwater 2019

**Contact:** Tanner Holliday  
**Dept:** ME  
**QC Type:** LCS

Analyte	Result	Units	Method	MDL	Reporting Limit	Amount Spiked	Spike Ref. Amount	%REC	Limits	RPD Ref. Amt	% RPD	RPD Limit	Qual
<b>Lab Sample ID: LCS-62308</b>													
Date Analyzed:		05/09/2019 1429h											
Test Code:		200.7-DIS											
Date Prepared:		04/29/2019 1036h											
Calcium	10.1	mg/L	E200.7	0.0937	1.00	10.00	0	101	85 - 115				
Magnesium	10.2	mg/L	E200.7	0.0439	1.00	10.00	0	102	85 - 115				
Potassium	10.6	mg/L	E200.7	0.134	1.00	10.00	0	106	85 - 115				
Sodium	10.9	mg/L	E200.7	0.187	1.00	10.00	0	109	85 - 115				
Vanadium	0.204	mg/L	E200.7	0.00138	0.00500	0.2000	0	102	85 - 115				
<b>Lab Sample ID: LCS-62309</b>													
Date Analyzed:		05/03/2019 1508h											
Test Code:		200.8-DIS											
Date Prepared:		04/29/2019 1036h											
Arsenic	0.207	mg/L	E200.8	0.000298	0.00200	0.2000	0	103	85 - 115				
Beryllium	0.208	mg/L	E200.8	0.000198	0.00200	0.2000	0	104	85 - 115				
Cadmium	0.200	mg/L	E200.8	0.0000858	0.000500	0.2000	0	99.8	85 - 115				
Chromium	0.211	mg/L	E200.8	0.00191	0.00200	0.2000	0	106	85 - 115				
Cobalt	0.203	mg/L	E200.8	0.000300	0.00400	0.2000	0	101	85 - 115				
Iron	1.04	mg/L	E200.8	0.0496	0.100	1.000	0	104	85 - 115				
Lead	0.199	mg/L	E200.8	0.000448	0.00200	0.2000	0	99.3	85 - 115				
Manganese	0.209	mg/L	E200.8	0.00108	0.00200	0.2000	0	105	85 - 115				
Molybdenum	0.208	mg/L	E200.8	0.000652	0.00200	0.2000	0	104	85 - 115				
Nickel	0.205	mg/L	E200.8	0.00148	0.00200	0.2000	0	102	85 - 115				
Selenium	0.218	mg/L	E200.8	0.000574	0.00200	0.2000	0	109	85 - 115				
Silver	0.196	mg/L	E200.8	0.000232	0.00200	0.2000	0	98.2	85 - 115				
Thallium	0.201	mg/L	E200.8	0.000154	0.00200	0.2000	0	101	85 - 115				
Tin	1.04	mg/L	E200.8	0.00116	0.00400	1.000	0	104	85 - 115				
Uranium	0.211	mg/L	E200.8	0.000176	0.00200	0.2000	0	105	85 - 115				
Zinc	1.02	mg/L	E200.8	0.00418	0.00600	1.000	0	102	85 - 115				
<b>Lab Sample ID: LCS-62309</b>													
Date Analyzed:		05/08/2019 927h											
Test Code:		200.8-DIS											
Date Prepared:		04/29/2019 1036h											
Copper	0.210	mg/L	E200.8	0.00282	0.00200	0.2000	0	105	85 - 115				



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Kyle F. Gross  
Laboratory Director

Jose Rocha  
QA Officer

## QC SUMMARY REPORT

**Client:** Energy Fuels Resources, Inc.  
**Lab Set ID:** 1904652  
**Project:** 2nd Quarter Groundwater 2019

**Contact:** Tanner Holliday  
**Dept:** ME  
**QC Type:** LCS

Analyte	Result	Units	Method	MDL	Reporting Limit	Amount Spiked	Spike Ref. Amount	%REC	Limits	RPD Ref. Amt	% RPD	RPD Limit	Qual
<b>Lab Sample ID:</b> LCS-62338	Date Analyzed: 05/01/2019 732h												
<b>Test Code:</b> HG-DW-DIS-245.1	Date Prepared: 04/30/2019 1430h												
Mercury	0.00318	mg/L	E245.1	0.0000396	0.0000900	0.003330	0	95.6	85 - 115				



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## QC SUMMARY REPORT

**Client:** Energy Fuels Resources, Inc.  
**Lab Set ID:** 1904652  
**Project:** 2nd Quarter Groundwater 2019

**Contact:** Tanner Holliday  
**Dept:** ME  
**QC Type:** MBLK

Analyte	Result	Units	Method	MDL	Reporting Limit	Amount Spiked	Spike Ref. Amount	%REC	Limits	RPD Ref. Amt	% RPD	RPD Limit	Qual
<b>Lab Sample ID: MB-62308</b>													
Date Analyzed:		05/09/2019 1427h											
Test Code:		200.7-DIS											
Date Prepared:		04/29/2019 1036h											
Calcium	< 1.00	mg/L	E200.7	0.0937	1.00								
Magnesium	< 1.00	mg/L	E200.7	0.0439	1.00								
Potassium	< 1.00	mg/L	E200.7	0.134	1.00								
Sodium	< 1.00	mg/L	E200.7	0.187	1.00								
Vanadium	< 0.00500	mg/L	E200.7	0.00138	0.00500								
<b>Lab Sample ID: MB-62309</b>													
Date Analyzed:		05/03/2019 1505h											
Test Code:		200.8-DIS											
Date Prepared:		04/29/2019 1036h											
Arsenic	< 0.000200	mg/L	E200.8	0.0000298	0.000200								
Beryllium	< 0.000200	mg/L	E200.8	0.0000198	0.000200								
Cadmium	< 0.0000500	mg/L	E200.8	0.00000858	0.0000500								
Cobalt	< 0.000400	mg/L	E200.8	0.0000300	0.000400								
Iron	< 0.0100	mg/L	E200.8	0.00496	0.0100								
Lead	< 0.000200	mg/L	E200.8	0.0000448	0.000200								
Manganese	< 0.000200	mg/L	E200.8	0.000108	0.000200								
Molybdenum	< 0.000200	mg/L	E200.8	0.0000652	0.000200								
Nickel	< 0.000200	mg/L	E200.8	0.000148	0.000200								
Selenium	< 0.000200	mg/L	E200.8	0.0000574	0.000200								
Silver	< 0.000200	mg/L	E200.8	0.0000232	0.000200								
Thallium	< 0.000200	mg/L	E200.8	0.0000154	0.000200								
Tin	< 0.000400	mg/L	E200.8	0.000116	0.000400								
Uranium	< 0.000200	mg/L	E200.8	0.0000176	0.000200								
<b>Lab Sample ID: MB-62309</b>													
Date Analyzed:		05/08/2019 1232h											
Test Code:		200.8-DIS											
Date Prepared:		04/29/2019 1036h											
Copper	< 0.000200	mg/L	E200.8	0.000282	0.000200								



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QA Officer

## QC SUMMARY REPORT

**Client:** Energy Fuels Resources, Inc.  
**Lab Set ID:** 1904652  
**Project:** 2nd Quarter Groundwater 2019

**Contact:** Tanner Holliday  
**Dept:** ME  
**QC Type:** MBLK

Analyte	Result	Units	Method	MDL	Reporting Limit	Amount Spiked	Spike Ref. Amount	%REC	Limits	RPD Ref. Amt	% RPD	RPD Limit	Qual
<b>Lab Sample ID:</b> MB-62309	Date Analyzed:	05/08/2019	1133h										
Test Code:	200.8-DIS	Date Prepared:	04/29/2019	1036h									
Chromium	< 0.00200	mg/L	E200.8	0.00191	0.00200								
Zinc	< 0.00600	mg/L	E200.8	0.00418	0.00600								
<b>Lab Sample ID:</b> MB-62338	Date Analyzed:	05/01/2019	730h										
Test Code:	HG-DW-DIS-245.1	Date Prepared:	04/30/2019	1430h									
Mercury	< 0.0000900	mg/L	E245.1	0.0000396	0.0000900								



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Laboratory Director

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QA Officer

## QC SUMMARY REPORT

**Client:** Energy Fuels Resources, Inc.  
**Lab Set ID:** 1904652  
**Project:** 2nd Quarter Groundwater 2019

**Contact:** Tanner Holliday  
**Dept:** ME  
**QC Type:** MS

Analyte	Result	Units	Method	MDL	Reporting Limit	Amount Spiked	Spike Ref. Amount	%REC	Limits	RPD Ref. Amt	% RPD	RPD Limit	Qual
<b>Lab Sample ID: 1904652-001EMS</b>													
Date Analyzed:	05/09/2019 1433h												
Test Code:	200.7-DIS												
Date Prepared:	04/29/2019 1036h												
Calcium	336	mg/L	E200.7	1.87	20.0	10.00	341	-43.5	70 - 130				2
Magnesium	99.1	mg/L	E200.7	0.878	20.0	10.00	93.6	55.5	70 - 130				2
Sodium	530	mg/L	E200.7	3.74	20.0	10.00	544	-142	70 - 130				2
<b>Lab Sample ID: 1904652-011EMS</b>													
Date Analyzed:	05/09/2019 1506h												
Test Code:	200.7-DIS												
Date Prepared:	04/29/2019 1036h												
Calcium	551	mg/L	E200.7	1.87	20.0	10.00	552	-4.79	70 - 130				2
Magnesium	168	mg/L	E200.7	0.878	20.0	10.00	162	54.8	70 - 130				2
Sodium	401	mg/L	E200.7	3.74	20.0	10.00	398	31.8	70 - 130				2
<b>Lab Sample ID: 1904652-001EMS</b>													
Date Analyzed:	05/09/2019 1526h												
Test Code:	200.7-DIS												
Date Prepared:	04/29/2019 1036h												
Potassium	21.6	mg/L	E200.7	0.134	1.00	10.00	10.7	109	70 - 130				
Vanadium	0.201	mg/L	E200.7	0.00138	0.00500	0.2000	0	101	70 - 130				
<b>Lab Sample ID: 1904652-011EMS</b>													
Date Analyzed:	05/09/2019 1603h												
Test Code:	200.7-DIS												
Date Prepared:	04/29/2019 1036h												
Potassium	23.6	mg/L	E200.7	0.134	1.00	10.00	13.1	106	70 - 130				
Vanadium	0.201	mg/L	E200.7	0.00138	0.00500	0.2000	0	100	70 - 130				
<b>Lab Sample ID: 1904652-001EMS</b>													
Date Analyzed:	05/03/2019 1520h												
Test Code:	200.8-DIS												
Date Prepared:	04/29/2019 1036h												
Arsenic	0.206	mg/L	E200.8	0.000298	0.00200	0.2000	0.000466	103	75 - 125				
Beryllium	0.196	mg/L	E200.8	0.000198	0.00200	0.2000	0	98.1	75 - 125				
Cadmium	0.201	mg/L	E200.8	0.0000858	0.000500	0.2000	0.000091	100	75 - 125				
Cobalt	0.203	mg/L	E200.8	0.000300	0.00400	0.2000	0.000076	101	75 - 125				
Iron	1.02	mg/L	E200.8	0.0496	0.100	1.000	0.016	101	75 - 125				
Manganese	0.202	mg/L	E200.8	0.00108	0.00200	0.2000	0.000276	101	75 - 125				



3440 South 700 West  
Salt Lake City, UT 84119

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

## QC SUMMARY REPORT

**Client:** Energy Fuels Resources, Inc.  
**Lab Set ID:** 1904652  
**Project:** 2nd Quarter Groundwater 2019

**Contact:** Tanner Holliday  
**Dept:** ME  
**QC Type:** MS

Analyte	Result	Units	Method	MDL	Reporting Limit	Amount Spiked	Spike Ref. Amount	%REC	Limits	RPD Ref. Amt	% RPD	RPD Limit	Qual
<b>Lab Sample ID: 1904652-001EMS</b>													
Date Analyzed:		05/03/2019 1520h											
Test Code:		200.8-DIS											
Date Prepared:		04/29/2019 1036h											
Molybdenum	0.217	mg/L	E200.8	0.000652	0.00200	0.2000	0.00121	108	75 - 125				
Nickel	0.202	mg/L	E200.8	0.00148	0.00200	0.2000	0.000733	101	75 - 125				
Selenium	0.219	mg/L	E200.8	0.000574	0.00200	0.2000	0.00797	106	75 - 125				
Silver	0.192	mg/L	E200.8	0.000232	0.00200	0.2000	0.000106	96.1	75 - 125				
Tin	1.08	mg/L	E200.8	0.00116	0.00400	1.000	0.000117	108	75 - 125				
<b>Lab Sample ID: 1904652-001EMS</b>													
Date Analyzed:		05/08/2019 1016h											
Test Code:		200.8-DIS											
Date Prepared:		04/29/2019 1036h											
Copper	0.204	mg/L	E200.8	0.00282	0.00200	0.2000	0.000606	102	75 - 125				
Lead	0.188	mg/L	E200.8	0.000448	0.00200	0.2000	0.000068	93.9	75 - 125				
Thallium	0.189	mg/L	E200.8	0.000154	0.00200	0.2000	0.000318	94.5	75 - 125				
Uranium	0.209	mg/L	E200.8	0.000176	0.00200	0.2000	0.0129	98.3	75 - 125				
<b>Lab Sample ID: 1904652-011EMS</b>													
Date Analyzed:		05/03/2019 1613h											
Test Code:		200.8-DIS											
Date Prepared:		04/29/2019 1036h											
Arsenic	0.213	mg/L	E200.8	0.000298	0.00200	0.2000	0.000131	106	75 - 125				
Beryllium	0.194	mg/L	E200.8	0.000198	0.00200	0.2000	0	96.8	75 - 125				
Cadmium	0.207	mg/L	E200.8	0.0000858	0.000500	0.2000	0.00139	103	75 - 125				
Cobalt	0.215	mg/L	E200.8	0.000300	0.00400	0.2000	0.00282	106	75 - 125				
Copper	0.210	mg/L	E200.8	0.00282	0.00200	0.2000	0	105	75 - 125				
Iron	1.05	mg/L	E200.8	0.0496	0.100	1.000	0	105	75 - 125				
Nickel	0.216	mg/L	E200.8	0.00148	0.00200	0.2000	0.00429	106	75 - 125				
Selenium	0.224	mg/L	E200.8	0.000574	0.00200	0.2000	0.00015	112	75 - 125				
Silver	0.192	mg/L	E200.8	0.000232	0.00200	0.2000	0	95.9	75 - 125				
<b>Lab Sample ID: 1904652-011EMS</b>													
Date Analyzed:		05/08/2019 1059h											
Test Code:		200.8-DIS											
Date Prepared:		04/29/2019 1036h											
Lead	0.198	mg/L	E200.8	0.000448	0.00200	0.2000	0.000111	98.7	75 - 125				



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Kyle F. Gross  
Laboratory Director

Jose Rocha  
QA Officer

## QC SUMMARY REPORT

**Client:** Energy Fuels Resources, Inc.  
**Lab Set ID:** 1904652  
**Project:** 2nd Quarter Groundwater 2019

**Contact:** Tanner Holliday  
**Dept:** ME  
**QC Type:** MS

Analyte	Result	Units	Method	MDL	Reporting Limit	Amount Spiked	Spike Ref. Amount	%REC	Limits	RPD Ref. Amt	% RPD	RPD Limit	Qual
<b>Lab Sample ID: 1904652-011EMS</b>		Date Analyzed: 05/08/2019 1059h											
Test Code: 200.8-DIS		Date Prepared: 04/29/2019 1036h											
Molybdenum	0.221	mg/L	E200.8	0.000652	0.00200	0.2000	0.00475	108	75 - 125				
Thallium	0.198	mg/L	E200.8	0.000154	0.00200	0.2000	0.000383	98.6	75 - 125				
Tin	1.09	mg/L	E200.8	0.00116	0.00400	1.000	0	109	75 - 125				
Uranium	0.267	mg/L	E200.8	0.000176	0.00200	0.2000	0.0637	102	75 - 125				
<b>Lab Sample ID: 1904652-001EMS</b>		Date Analyzed: 05/08/2019 1153h											
Test Code: 200.8-DIS		Date Prepared: 04/29/2019 1036h											
Chromium	0.195	mg/L	E200.8	0.00191	0.00200	0.2000	0	97.6	75 - 125				
Zinc	1.01	mg/L	E200.8	0.00418	0.00600	1.000	0.0053	100	75 - 125				
<b>Lab Sample ID: 1904652-011EMS</b>		Date Analyzed: 05/08/2019 1305h											
Test Code: 200.8-DIS		Date Prepared: 04/29/2019 1036h											
Chromium	0.194	mg/L	E200.8	0.00191	0.00200	0.2000	0	97.2	75 - 125				
Manganese	1.98	mg/L	E200.8	0.00108	0.00200	0.2000	1.84	70.7	75 - 125				2
Zinc	1.00	mg/L	E200.8	0.00418	0.00600	1.000	0.0105	99.2	75 - 125				
<b>Lab Sample ID: 1904652-002EMS</b>		Date Analyzed: 05/01/2019 740h											
Test Code: HG-DW-DIS-245.1		Date Prepared: 04/30/2019 1430h											
Mercury	0.00324	mg/L	E245.1	0.0000396	0.0000900	0.003330	0	97.1	85 - 115				

<sup>2</sup> - Analyte concentration is too high for accurate matrix spike recovery and/or RPD.



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Kyle F. Gross  
Laboratory Director

Jose Rocha  
QA Officer

## QC SUMMARY REPORT

**Client:** Energy Fuels Resources, Inc.

**Lab Set ID:** 1904652

**Project:** 2nd Quarter Groundwater 2019

**Contact:** Tanner Holliday

**Dept:** ME

**QC Type:** MSD

Analyte	Result	Units	Method	MDL	Reporting Limit	Amount Spiked	Spike Ref. Amount	%REC	Limits	RPD Ref. Amt	% RPD	RPD Limit	Qual
<b>Lab Sample ID: 1904652-001EMSD</b>													
Date Analyzed:	05/09/2019 1436h												
Test Code:	200.7-DIS												
Date Prepared:	04/29/2019 1036h												
Calcium	355	mg/L	E200.7	1.87	20.0	10.00	341	138	70 - 130	336	5.25	20	2
Magnesium	106	mg/L	E200.7	0.878	20.0	10.00	93.6	127	70 - 130	99.1	6.99	20	
Sodium	575	mg/L	E200.7	3.74	20.0	10.00	544	309	70 - 130	530	8.16	20	2
<b>Lab Sample ID: 1904652-011EMSD</b>													
Date Analyzed:	05/09/2019 1508h												
Test Code:	200.7-DIS												
Date Prepared:	04/29/2019 1036h												
Calcium	507	mg/L	E200.7	1.87	20.0	10.00	552	-449	70 - 130	551	8.40	20	2
Magnesium	155	mg/L	E200.7	0.878	20.0	10.00	162	-74.1	70 - 130	168	7.99	20	2
Sodium	364	mg/L	E200.7	3.74	20.0	10.00	398	-344	70 - 130	401	9.82	20	2
<b>Lab Sample ID: 1904652-001EMSD</b>													
Date Analyzed:	05/09/2019 1528h												
Test Code:	200.7-DIS												
Date Prepared:	04/29/2019 1036h												
Potassium	21.4	mg/L	E200.7	0.134	1.00	10.00	10.7	107	70 - 130	21.6	0.719	20	
Vanadium	0.199	mg/L	E200.7	0.00138	0.00500	0.2000	0	99.5	70 - 130	0.201	1.10	20	
<b>Lab Sample ID: 1904652-011EMSD</b>													
Date Analyzed:	05/09/2019 1605h												
Test Code:	200.7-DIS												
Date Prepared:	04/29/2019 1036h												
Potassium	23.5	mg/L	E200.7	0.134	1.00	10.00	13.1	105	70 - 130	23.6	0.392	20	
Vanadium	0.196	mg/L	E200.7	0.00138	0.00500	0.2000	0	97.9	70 - 130	0.201	2.43	20	
<b>Lab Sample ID: 1904652-001EMSD</b>													
Date Analyzed:	05/03/2019 1523h												
Test Code:	200.8-DIS												
Date Prepared:	04/29/2019 1036h												
Arsenic	0.207	mg/L	E200.8	0.000298	0.00200	0.2000	0.000466	103	75 - 125	0.206	0.283	20	
Beryllium	0.196	mg/L	E200.8	0.000198	0.00200	0.2000	0	98.2	75 - 125	0.196	0.0606	20	
Cadmium	0.199	mg/L	E200.8	0.0000858	0.000500	0.2000	0.000091	99.6	75 - 125	0.201	0.904	20	
Cobalt	0.204	mg/L	E200.8	0.000300	0.00400	0.2000	0.000076	102	75 - 125	0.203	0.434	20	
Iron	1.02	mg/L	E200.8	0.0496	0.100	1.000	0.016	101	75 - 125	1.02	0.0250	20	
Manganese	0.206	mg/L	E200.8	0.00108	0.00200	0.2000	0.000276	103	75 - 125	0.202	2.29	20	



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Kyle F. Gross  
Laboratory Director

Jose Rocha  
QA Officer

## QC SUMMARY REPORT

**Client:** Energy Fuels Resources, Inc.  
**Lab Set ID:** 1904652  
**Project:** 2nd Quarter Groundwater 2019

**Contact:** Tanner Holliday  
**Dept:** ME  
**QC Type:** MSD

Analyte	Result	Units	Method	MDL	Reporting Limit	Amount Spiked	Spike Ref. Amount	%REC	Limits	RPD Ref. Amt	% RPD	RPD Limit	Qual
<b>Lab Sample ID: 1904652-001EMSD</b>													
Date Analyzed:		05/03/2019 1523h											
Test Code:		200.8-DIS											
Date Prepared:		04/29/2019 1036h											
Molybdenum	0.216	mg/L	E200.8	0.000652	0.00200	0.2000	0.00121	107	75 - 125	0.217	0.285	20	
Nickel	0.205	mg/L	E200.8	0.00148	0.00200	0.2000	0.000733	102	75 - 125	0.202	1.25	20	
Selenium	0.221	mg/L	E200.8	0.000574	0.00200	0.2000	0.00797	107	75 - 125	0.219	1.06	20	
Silver	0.192	mg/L	E200.8	0.000232	0.00200	0.2000	0.000106	95.8	75 - 125	0.192	0.313	20	
Tin	1.08	mg/L	E200.8	0.00116	0.00400	1.000	0.000117	108	75 - 125	1.08	0.278	20	
<b>Lab Sample ID: 1904652-011EMSD</b>													
Date Analyzed:		05/03/2019 1616h											
Test Code:		200.8-DIS											
Date Prepared:		04/29/2019 1036h											
Arsenic	0.213	mg/L	E200.8	0.000298	0.00200	0.2000	0.000131	106	75 - 125	0.213	0.220	20	
Beryllium	0.199	mg/L	E200.8	0.000198	0.00200	0.2000	0	99.7	75 - 125	0.194	3.00	20	
Cadmium	0.210	mg/L	E200.8	0.0000858	0.000500	0.2000	0.00139	104	75 - 125	0.207	1.53	20	
Cobalt	0.218	mg/L	E200.8	0.000300	0.00400	0.2000	0.00282	107	75 - 125	0.215	0.985	20	
Copper	0.212	mg/L	E200.8	0.00282	0.00200	0.2000	0	106	75 - 125	0.21	0.837	20	
Iron	1.07	mg/L	E200.8	0.0496	0.100	1.000	0	107	75 - 125	1.05	1.84	20	
Nickel	0.217	mg/L	E200.8	0.00148	0.00200	0.2000	0.00429	106	75 - 125	0.216	0.358	20	
Selenium	0.221	mg/L	E200.8	0.000574	0.00200	0.2000	0.00015	110	75 - 125	0.224	1.35	20	
Silver	0.192	mg/L	E200.8	0.000232	0.00200	0.2000	0	96.2	75 - 125	0.192	0.288	20	
<b>Lab Sample ID: 1904652-001EMSD</b>													
Date Analyzed:		05/08/2019 1019h											
Test Code:		200.8-DIS											
Date Prepared:		04/29/2019 1036h											
Copper	0.206	mg/L	E200.8	0.00282	0.00200	0.2000	0.000606	103	75 - 125	0.204	1.24	20	
Lead	0.190	mg/L	E200.8	0.000448	0.00200	0.2000	0.000068	95.1	75 - 125	0.188	1.23	20	
Thallium	0.192	mg/L	E200.8	0.000154	0.00200	0.2000	0.000318	95.7	75 - 125	0.189	1.20	20	
Uranium	0.211	mg/L	E200.8	0.000176	0.00200	0.2000	0.0129	99.2	75 - 125	0.209	0.861	20	
<b>Lab Sample ID: 1904652-011EMSD</b>													
Date Analyzed:		05/08/2019 1102h											
Test Code:		200.8-DIS											
Date Prepared:		04/29/2019 1036h											
Lead	0.194	mg/L	E200.8	0.000448	0.00200	0.2000	0.000111	97.2	75 - 125	0.198	1.60	20	



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Kyle F. Gross  
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## QC SUMMARY REPORT

**Client:** Energy Fuels Resources, Inc.  
**Lab Set ID:** 1904652  
**Project:** 2nd Quarter Groundwater 2019

**Contact:** Tanner Holliday  
**Dept:** ME  
**QC Type:** MSD

Analyte	Result	Units	Method	MDL	Reporting Limit	Amount Spiked	Spike Ref. Amount	%REC	Limits	RPD Ref. Amt	% RPD	RPD Limit	Qual
<b>Lab Sample ID: 1904652-011EMSD</b>													
Date Analyzed:		05/08/2019 1102h											
Test Code:		200.8-DIS											
Date Prepared:		04/29/2019 1036h											
Molybdenum	0.219	mg/L	E200.8	0.000652	0.00200	0.2000	0.00475	107	75 - 125	0.221	0.583	20	
Thallium	0.195	mg/L	E200.8	0.000154	0.00200	0.2000	0.000383	97.4	75 - 125	0.198	1.27	20	
Tin	1.08	mg/L	E200.8	0.00116	0.00400	1.000	0	108	75 - 125	1.09	0.474	20	
Uranium	0.263	mg/L	E200.8	0.000176	0.00200	0.2000	0.0637	99.6	75 - 125	0.267	1.48	20	
<b>Lab Sample ID: 1904652-001EMSD</b>													
Date Analyzed:		05/08/2019 1156h											
Test Code:		200.8-DIS											
Date Prepared:		04/29/2019 1036h											
Chromium	0.193	mg/L	E200.8	0.00191	0.00200	0.2000	0	96.5	75 - 125	0.195	1.18	20	
Zinc	1.02	mg/L	E200.8	0.00418	0.00600	1.000	0.0053	102	75 - 125	1.01	1.51	20	
<b>Lab Sample ID: 1904652-011EMSD</b>													
Date Analyzed:		05/08/2019 1308h											
Test Code:		200.8-DIS											
Date Prepared:		04/29/2019 1036h											
Chromium	0.195	mg/L	E200.8	0.00191	0.00200	0.2000	0	97.4	75 - 125	0.194	0.118	20	
Manganese	1.97	mg/L	E200.8	0.00108	0.00200	0.2000	1.84	63.8	75 - 125	1.98	0.707	20	²
Zinc	1.00	mg/L	E200.8	0.00418	0.00600	1.000	0.0105	99.4	75 - 125	1	0.249	20	
<b>Lab Sample ID: 1904652-002EMSD</b>													
Date Analyzed:		05/01/2019 742h											
Test Code:		HG-DW-DIS-245.1											
Date Prepared:		04/30/2019 1430h											
Mercury	0.00326	mg/L	E245.1	0.0000396	0.0000900	0.003330	0	98.0	85 - 115	0.00324	0.872	20	

² - Analyte concentration is too high for accurate matrix spike recovery and/or RPD.



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QA Officer

## QC SUMMARY REPORT

**Client:** Energy Fuels Resources, Inc.  
**Lab Set ID:** 1904652  
**Project:** 2nd Quarter Groundwater 2019

**Contact:** Tanner Holliday  
**Dept:** WC  
**QC Type:** DUP

Analyte	Result	Units	Method	MDL	Reporting Limit	Amount Spiked	Spike Ref. Amount	%REC	Limits	RPD Ref. Amt	% RPD	RPD Limit	Qual
<b>Lab Sample ID:</b> 1904652-003CDUP	Date Analyzed: 04/26/2019 1400h												
<b>Test Code:</b> TDS-W-2540C													
Total Dissolved Solids	1,930	mg/L	SM2540C	16.0	20.0					1890	1.88	5	



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Jose Rocha  
QA Officer

## QC SUMMARY REPORT

**Client:** Energy Fuels Resources, Inc.  
**Lab Set ID:** 1904652  
**Project:** 2nd Quarter Groundwater 2019

**Contact:** Tanner Holliday  
**Dept:** WC  
**QC Type:** LCS

Analyte	Result	Units	Method	MDL	Reporting Limit	Amount Spiked	Spike Ref. Amount	%REC	Limits	RPD Ref. Amt	% RPD	RPD Limit	Qual
<b>Lab Sample ID: LCS-R125602</b> Date Analyzed: 05/07/2019 1101h													
Test Code: 300.0-W													
Sulfate	5.39	mg/L	E300.0	0.0557	0.750	5.000	0	108	90 - 110				
<b>Lab Sample ID: LCS-R125603</b> Date Analyzed: 05/08/2019 1023h													
Test Code: 300.0-W													
Chloride	5.10	mg/L	E300.0	0.0386	0.100	5.000	0	102	90 - 110				
Fluoride	5.13	mg/L	E300.0	0.0240	0.100	5.000	0	103	90 - 110				
Sulfate	5.07	mg/L	E300.0	0.0557	0.750	5.000	0	101	90 - 110				
<b>Lab Sample ID: LCS-R125695</b> Date Analyzed: 05/10/2019 1119h													
Test Code: 300.0-W													
Chloride	5.14	mg/L	E300.0	0.0386	0.100	5.000	0	103	90 - 110				
Sulfate	5.17	mg/L	E300.0	0.0557	0.750	5.000	0	103	90 - 110				
<b>Lab Sample ID: LCS-R125752</b> Date Analyzed: 05/13/2019 1344h													
Test Code: 300.0-W													
Sulfate	5.42	mg/L	E300.0	0.0557	0.750	5.000	0	108	90 - 110				
<b>Lab Sample ID: LCS-R125255</b> Date Analyzed: 04/30/2019 639h													
Test Code: ALK-W-2320B-LL													
Alkalinity (as CaCO3)	250	mg/L	SM2320B	0.781	1.00	250.0	0	100	90 - 110				
<b>Lab Sample ID: LCS-62325</b> Date Analyzed: 04/30/2019 1359h													
Test Code: NH3-W-350.1 Date Prepared: 04/30/2019 1150h													
Ammonia (as N)	10.1	mg/L	E350.1	0.0492	0.0500	10.00	0	101	90 - 110				
<b>Lab Sample ID: LCS-62327</b> Date Analyzed: 04/30/2019 1433h													
Test Code: NH3-W-350.1 Date Prepared: 04/30/2019 1240h													
Ammonia (as N)	10.7	mg/L	E350.1	0.0492	0.0500	10.00	0	107	90 - 110				



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## QC SUMMARY REPORT

**Client:** Energy Fuels Resources, Inc.  
**Lab Set ID:** 1904652  
**Project:** 2nd Quarter Groundwater 2019

**Contact:** Tanner Holliday  
**Dept:** WC  
**QC Type:** LCS

Analyte	Result	Units	Method	MDL	Reporting Limit	Amount Spiked	Spike Ref. Amount	%REC	Limits	RPD Ref. Amt	% RPD	RPD Limit	Qual
<b>Lab Sample ID: LCS-R125240</b>													
Date Analyzed: 04/29/2019 1613h													
Test Code: NO2/NO3-W-353.2													
Nitrate/Nitrite (as N)	1.02	mg/L	E353.2	0.00363	0.0100	1.000	0	102	90 - 110				
<b>Lab Sample ID: LCS-R125225</b>													
Date Analyzed: 04/26/2019 1400h													
Test Code: TDS-W-2540C													
Total Dissolved Solids	184	mg/L	SM2540C	8.00	10.0	205.0	0	89.8	80 - 120				
<b>Lab Sample ID: LCS-R125226</b>													
Date Analyzed: 04/26/2019 1145h													
Test Code: TDS-W-2540C													
Total Dissolved Solids	178	mg/L	SM2540C	8.00	10.0	205.0	0	86.8	80 - 120				



3440 South 700 West

Salt Lake City, UT 84119

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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:** Energy Fuels Resources, Inc.  
**Lab Set ID:** 1904652  
**Project:** 2nd Quarter Groundwater 2019

**Contact:** Tanner Holliday  
**Dept:** WC  
**QC Type:** MBLK

Analyte	Result	Units	Method	MDL	Reporting Limit	Amount Spiked	Spike Ref. Amount	%REC	Limits	RPD Ref. Amt	% RPD	RPD Limit	Qual
<b>Lab Sample ID: MB-R125602</b> Date Analyzed: 05/07/2019 1044h													
Test Code: 300.0-W													
Sulfate	< 0.750	mg/L	E300.0	0.0557	0.750								
<b>Lab Sample ID: MB-R125603</b> Date Analyzed: 05/08/2019 1006h													
Test Code: 300.0-W													
Chloride	< 0.100	mg/L	E300.0	0.0386	0.100								
Fluoride	< 0.100	mg/L	E300.0	0.0240	0.100								
Sulfate	< 0.750	mg/L	E300.0	0.0557	0.750								
<b>Lab Sample ID: MB-R125695</b> Date Analyzed: 05/10/2019 1102h													
Test Code: 300.0-W													
Chloride	< 0.100	mg/L	E300.0	0.0386	0.100								
Sulfate	< 0.750	mg/L	E300.0	0.0557	0.750								
<b>Lab Sample ID: MB-R125752</b> Date Analyzed: 05/13/2019 1327h													
Test Code: 300.0-W													
Sulfate	< 0.750	mg/L	E300.0	0.0557	0.750								
<b>Lab Sample ID: MB-R125255</b> Date Analyzed: 04/30/2019 639h													
Test Code: ALK-W-2320B-LL													
Bicarbonate (as CaCO3)	< 1.00	mg/L	SM2320B	0.781	1.00								
Carbonate (as CaCO3)	< 1.00	mg/L	SM2320B	0.781	1.00								
<b>Lab Sample ID: MB-62325</b> Date Analyzed: 04/30/2019 1358h													
Test Code: NH3-W-350.1 Date Prepared: 04/30/2019 1150h													
Ammonia (as N)	< 0.0500	mg/L	E350.1	0.0492	0.0500								
<b>Lab Sample ID: MB-62327</b> Date Analyzed: 04/30/2019 1432h													
Test Code: NH3-W-350.1 Date Prepared: 04/30/2019 1240h													
Ammonia (as N)	< 0.0500	mg/L	E350.1	0.0492	0.0500								



**American West**  
ANALYTICAL LABORATORIES

3440 South 700 West

Salt Lake City, UT 84119

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e-mail: awal@awal-labs.com, web: www.awal-labs.com

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Jose Rocha  
QA Officer

## QC SUMMARY REPORT

**Client:** Energy Fuels Resources, Inc.

**Lab Set ID:** 1904652

**Project:** 2nd Quarter Groundwater 2019

**Contact:** Tanner Holliday

**Dept:** WC

**QC Type:** MBLK

Analyte	Result	Units	Method	MDL	Reporting Limit	Amount Spiked	Spike Ref. Amount	%REC	Limits	RPD Ref. Amt	% RPD	RPD Limit	Qual
<b>Lab Sample ID:</b> MB-R125240	Date Analyzed: 04/29/2019 1611h												
Test Code: NO2/NO3-W-353.2													
Nitrate/Nitrite (as N)	< 0.0100	mg/L	E353.2	0.00363	0.0100								
<b>Lab Sample ID:</b> MB-R125225	Date Analyzed: 04/26/2019 1400h												
Test Code: TDS-W-2540C													
Total Dissolved Solids	< 10.0	mg/L	SM2540C	8.00	10.0								
<b>Lab Sample ID:</b> MB-R125226	Date Analyzed: 04/26/2019 1145h												
Test Code: TDS-W-2540C													
Total Dissolved Solids	< 10.0	mg/L	SM2540C	8.00	10.0								



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## QC SUMMARY REPORT

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**Lab Set ID:** 1904652  
**Project:** 2nd Quarter Groundwater 2019

**Contact:** Tanner Holliday  
**Dept:** WC  
**QC Type:** MS

Analyte	Result	Units	Method	MDL	Reporting Limit	Amount Spiked	Spike Ref. Amount	%REC	Limits	RPD Ref. Amt	% RPD	RPD Limit	Qual
<b>Lab Sample ID: 1904652-001BMS</b> Date Analyzed: 05/07/2019 1136h													
Test Code: 300.0-W													
Sulfate	12,400	mg/L	E300.0	111	1,500	10,000	1490	109	90 - 110				
<b>Lab Sample ID: 1904652-012BMS</b> Date Analyzed: 05/08/2019 1056h													
Test Code: 300.0-W													
Chloride	1,770	mg/L	E300.0	7.72	20.0	1,000	737	103	90 - 110				
Fluoride	1,040	mg/L	E300.0	4.80	20.0	1,000	0	104	90 - 110				
Sulfate	3,160	mg/L	E300.0	11.1	150	1,000	2060	109	90 - 110				
<b>Lab Sample ID: 1904652-006BMS</b> Date Analyzed: 05/08/2019 1146h													
Test Code: 300.0-W													
Chloride	1,060	mg/L	E300.0	7.72	20.0	1,000	29.9	103	90 - 110				
Fluoride	1,050	mg/L	E300.0	4.80	20.0	1,000	0	105	90 - 110				
Sulfate	1,490	mg/L	E300.0	11.1	150	1,000	459	104	90 - 110				
<b>Lab Sample ID: 1904652-009BMS</b> Date Analyzed: 05/10/2019 1152h													
Test Code: 300.0-W													
Chloride	1,180	mg/L	E300.0	7.72	20.0	1,000	165	102	90 - 110				
Sulfate	3,470	mg/L	E300.0	11.1	150	1,000	2390	108	90 - 110				
<b>Lab Sample ID: 1905087-007BMS</b> Date Analyzed: 05/10/2019 1640h													
Test Code: 300.0-W													
Chloride	5,490	mg/L	E300.0	38.6	100	5,000	53.4	109	90 - 110				
Sulfate	10,900	mg/L	E300.0	55.7	750	5,000	5700	103	90 - 110				
<b>Lab Sample ID: 1904652-002BMS</b> Date Analyzed: 05/13/2019 1417h													
Test Code: 300.0-W													
Sulfate	3,840	mg/L	E300.0	27.8	375	2,500	1120	109	90 - 110				



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Kyle F. Gross  
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Jose Rocha  
QA Officer

## QC SUMMARY REPORT

**Client:** Energy Fuels Resources, Inc.  
**Lab Set ID:** 1904652  
**Project:** 2nd Quarter Groundwater 2019

**Contact:** Tanner Holliday  
**Dept:** WC  
**QC Type:** MS

Analyte	Result	Units	Method	MDL	Reporting Limit	Amount Spiked	Spike Ref. Amount	%REC	Limits	RPD Ref. Amt	% RPD	RPD Limit	Qual
<b>Lab Sample ID: 1904652-001BMS</b> Date Analyzed: 04/30/2019 639h													
Test Code: ALK-W-2320B-LL													
Alkalinity (as CaCO3)	1,320	mg/L	SM2320B	0.781	1.00	1,000	324	99.6	80 - 120				
<b>Lab Sample ID: 1904652-011BMS</b> Date Analyzed: 04/30/2019 639h													
Test Code: ALK-W-2320B-LL													
Alkalinity (as CaCO3)	1,390	mg/L	SM2320B	0.781	1.00	1,000	392	99.8	80 - 120				
<b>Lab Sample ID: 1904508-002DMS</b> Date Analyzed: 04/30/2019 1400h													
Test Code: NH3-W-350.1 Date Prepared: 04/30/2019 1150h													
Ammonia (as N)	10.2	mg/L	E350.1	0.0492	0.0500	10.00	0	102	90 - 110				
<b>Lab Sample ID: 1904652-001DMS</b> Date Analyzed: 04/30/2019 1430h													
Test Code: NH3-W-350.1 Date Prepared: 04/30/2019 1150h													
Ammonia (as N)	11.8	mg/L	E350.1	0.0492	0.0500	10.00	0	118	90 - 110				1
<b>Lab Sample ID: 1904652-012DMS</b> Date Analyzed: 04/30/2019 1457h													
Test Code: NH3-W-350.1 Date Prepared: 04/30/2019 1240h													
Ammonia (as N)	16.8	mg/L	E350.1	0.0492	0.0500	10.00	6.07	108	90 - 110				
<b>Lab Sample ID: 1904652-001DMS</b> Date Analyzed: 04/29/2019 1628h													
Test Code: NO2/NO3-W-353.2													
Nitrate/Nitrite (as N)	1.09	mg/L	E353.2	0.00363	0.0100	1.000	0.0371	105	90 - 110				

<sup>1</sup> - Matrix spike recovery indicates matrix interference. The method is in control as indicated by the LCS.



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## QC SUMMARY REPORT

**Client:** Energy Fuels Resources, Inc.  
**Lab Set ID:** 1904652  
**Project:** 2nd Quarter Groundwater 2019

**Contact:** Tanner Holliday  
**Dept:** WC  
**QC Type:** MSD

Analyte	Result	Units	Method	MDL	Reporting Limit	Amount Spiked	Spike Ref. Amount	%REC	Limits	RPD Ref. Amt	% RPD	RPD Limit	Qual
<b>Lab Sample ID: 1904652-001BMSD</b> Date Analyzed: 05/07/2019 1153h													
Test Code: 300.0-W													
Sulfate	12,200	mg/L	E300.0	111	1,500	10,000	1490	107	90 - 110	12400	1.44	20	
<b>Lab Sample ID: 1904652-012BMSD</b> Date Analyzed: 05/08/2019 1113h													
Test Code: 300.0-W													
Chloride	1,780	mg/L	E300.0	7.72	20.0	1,000	737	105	90 - 110	1770	0.796	20	
Fluoride	1,030	mg/L	E300.0	4.80	20.0	1,000	0	103	90 - 110	1040	1.32	20	
Sulfate	3,150	mg/L	E300.0	11.1	150	1,000	2060	109	90 - 110	3160	0.246	20	
<b>Lab Sample ID: 1904652-006BMSD</b> Date Analyzed: 05/08/2019 1203h													
Test Code: 300.0-W													
Chloride	1,050	mg/L	E300.0	7.72	20.0	1,000	29.9	102	90 - 110	1060	0.752	20	
Fluoride	1,040	mg/L	E300.0	4.80	20.0	1,000	0	104	90 - 110	1050	0.776	20	
Sulfate	1,470	mg/L	E300.0	11.1	150	1,000	459	101	90 - 110	1490	1.87	20	
<b>Lab Sample ID: 1904652-009BMSD</b> Date Analyzed: 05/10/2019 1209h													
Test Code: 300.0-W													
Chloride	1,190	mg/L	E300.0	7.72	20.0	1,000	165	103	90 - 110	1180	0.964	20	
Sulfate	3,460	mg/L	E300.0	11.1	150	1,000	2390	108	90 - 110	3470	0.257	20	
<b>Lab Sample ID: 1905087-007BMSD</b> Date Analyzed: 05/10/2019 1656h													
Test Code: 300.0-W													
Chloride	5,270	mg/L	E300.0	38.6	100	5,000	53.4	104	90 - 110	5490	3.98	20	
Sulfate	11,100	mg/L	E300.0	55.7	750	5,000	5700	107	90 - 110	10900	1.79	20	
<b>Lab Sample ID: 1904652-002BMSD</b> Date Analyzed: 05/13/2019 1434h													
Test Code: 300.0-W													
Sulfate	3,850	mg/L	E300.0	27.8	375	2,500	1120	109	90 - 110	3840	0.296	20	



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Kyle F. Gross  
Laboratory Director

Jose Rocha  
QA Officer

## QC SUMMARY REPORT

**Client:** Energy Fuels Resources, Inc.  
**Lab Set ID:** 1904652  
**Project:** 2nd Quarter Groundwater 2019

**Contact:** Tanner Holliday  
**Dept:** WC  
**QC Type:** MSD

Analyte	Result	Units	Method	MDL	Reporting Limit	Amount Spiked	Spike Ref. Amount	%REC	Limits	RPD Ref. Amt	% RPD	RPD Limit	Qual
<b>Lab Sample ID: 1904652-001BMSD</b> Date Analyzed: 04/30/2019 639h													
Test Code: ALK-W-2320B-LL													
Alkalinity (as CaCO <sub>3</sub> )	1,330	mg/L	SM2320B	0.781	1.00	1,000	324	100	80 - 120	1320	0.454	10	
<b>Lab Sample ID: 1904652-011BMSD</b> Date Analyzed: 04/30/2019 639h													
Test Code: ALK-W-2320B-LL													
Alkalinity (as CaCO <sub>3</sub> )	1,390	mg/L	SM2320B	0.781	1.00	1,000	392	99.8	80 - 120	1390	0	10	
<b>Lab Sample ID: 1904508-002DMSD</b> Date Analyzed: 04/30/2019 1401h													
Test Code: NH3-W-350.1 Date Prepared: 04/30/2019 1150h													
Ammonia (as N)	10.4	mg/L	E350.1	0.0492	0.0500	10.00	0	104	90 - 110	10.2	1.17	10	
<b>Lab Sample ID: 1904652-001DMSD</b> Date Analyzed: 04/30/2019 1431h													
Test Code: NH3-W-350.1 Date Prepared: 04/30/2019 1150h													
Ammonia (as N)	11.7	mg/L	E350.1	0.0492	0.0500	10.00	0	117	90 - 110	11.8	0.426	10	1
<b>Lab Sample ID: 1904652-012DMSD</b> Date Analyzed: 04/30/2019 1458h													
Test Code: NH3-W-350.1 Date Prepared: 04/30/2019 1240h													
Ammonia (as N)	16.4	mg/L	E350.1	0.0492	0.0500	10.00	6.07	104	90 - 110	16.9	2.58	10	
<b>Lab Sample ID: 1904652-001DMSD</b> Date Analyzed: 04/29/2019 1629h													
Test Code: NO2/NO3-W-353.2													
Nitrate/Nitrite (as N)	1.10	mg/L	E353.2	0.00363	0.0100	1.000	0.0371	106	90 - 110	1.09	0.913	10	

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Laboratory Director

Jose Rocha  
QA Officer

## QC SUMMARY REPORT

**Client:** Energy Fuels Resources, Inc.

**Contact:** Tanner Holliday

**Lab Set ID:** 1904652

**Dept:** MSVOA

**Project:** 2nd Quarter Groundwater 2019

**QC Type:** LCS

Analyte	Result	Units	Method	MDL	Reporting Limit	Amount Spiked	Spike Ref. Amount	%REC	Limits	RPD Ref. Amt	% RPD	RPD Limit	Qual
<b>Lab Sample ID: LCS VOC-1 042619A</b>		Date Analyzed: 04/26/2019 1006h											
Test Code: 8260-W-DEN100													
Benzene	23.5	µg/L	SW8260C	0.147	1.00	20.00	0	118	82 - 132				
Chloroform	22.3	µg/L	SW8260C	0.166	1.00	20.00	0	112	85 - 124				
Methylene chloride	24.1	µg/L	SW8260C	0.448	1.00	20.00	0	120	65 - 154				
Naphthalene	21.8	µg/L	SW8260C	0.704	1.00	20.00	0	109	63 - 129				
Tetrahydrofuran	22.9	µg/L	SW8260C	0.436	1.00	20.00	0	114	59 - 125				
Toluene	22.6	µg/L	SW8260C	0.177	1.00	20.00	0	113	69 - 129				
Xylenes, Total	64.6	µg/L	SW8260C	0.253	1.00	60.00	0	108	66 - 124				
Surr: 1,2-Dichloroethane-d4	55.6	µg/L	SW8260C			50.00		111	80 - 136				
Surr: 4-Bromofluorobenzene	50.0	µg/L	SW8260C			50.00		100	85 - 121				
Surr: Dibromofluoromethane	51.5	µg/L	SW8260C			50.00		103	78 - 132				
Surr: Toluene-d8	51.1	µg/L	SW8260C			50.00		102	81 - 123				
<b>Lab Sample ID: LCS VOC-1 043019A</b>		Date Analyzed: 04/30/2019 1007h											
Test Code: 8260-W-DEN100													
Benzene	22.0	µg/L	SW8260C	0.147	1.00	20.00	0	110	82 - 132				
Chloroform	21.9	µg/L	SW8260C	0.166	1.00	20.00	0	110	85 - 124				
Methylene chloride	22.8	µg/L	SW8260C	0.448	1.00	20.00	0	114	65 - 154				
Naphthalene	21.6	µg/L	SW8260C	0.704	1.00	20.00	0	108	63 - 129				
Tetrahydrofuran	23.5	µg/L	SW8260C	0.436	1.00	20.00	0	118	59 - 125				
Toluene	21.0	µg/L	SW8260C	0.177	1.00	20.00	0	105	69 - 129				
Xylenes, Total	59.1	µg/L	SW8260C	0.253	1.00	60.00	0	98.6	66 - 124				
Surr: 1,2-Dichloroethane-d4	56.7	µg/L	SW8260C			50.00		113	80 - 136				
Surr: 4-Bromofluorobenzene	48.8	µg/L	SW8260C			50.00		97.7	85 - 121				
Surr: Dibromofluoromethane	50.7	µg/L	SW8260C			50.00		101	78 - 132				
Surr: Toluene-d8	50.4	µg/L	SW8260C			50.00		101	81 - 123				



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## QC SUMMARY REPORT

**Client:** Energy Fuels Resources, Inc.  
**Lab Set ID:** 1904652  
**Project:** 2nd Quarter Groundwater 2019

**Contact:** Tanner Holliday  
**Dept:** MSVOA  
**QC Type:** LCS

Analyte	Result	Units	Method	MDL	Reporting Limit	Amount Spiked	Spike Ref. Amount	%REC	Limits	RPD Ref. Amt	% RPD	RPD Limit	Qual
<b>Lab Sample ID:</b> LCS VOC-1 050119A	Date Analyzed: 05/01/2019 1152h												
<b>Test Code:</b> 8260-W-DEN100													
Benzene	22.4	µg/L	SW8260C	0.147	1.00	20.00	0	112	82 - 132				
Chloroform	21.8	µg/L	SW8260C	0.166	1.00	20.00	0	109	85 - 124				
Methylene chloride	23.2	µg/L	SW8260C	0.448	1.00	20.00	0	116	65 - 154				
Naphthalene	22.4	µg/L	SW8260C	0.704	1.00	20.00	0	112	63 - 129				
Tetrahydrofuran	23.8	µg/L	SW8260C	0.436	1.00	20.00	0	119	59 - 125				
Toluene	21.1	µg/L	SW8260C	0.177	1.00	20.00	0	106	69 - 129				
Xylenes, Total	59.9	µg/L	SW8260C	0.253	1.00	60.00	0	99.9	66 - 124				
Surr: 1,2-Dichloroethane-d4	56.3	µg/L	SW8260C			50.00		113	80 - 136				
Surr: 4-Bromofluorobenzene	49.2	µg/L	SW8260C			50.00		98.4	85 - 121				
Surr: Dibromofluoromethane	50.7	µg/L	SW8260C			50.00		101	78 - 132				
Surr: Toluene-d8	50.1	µg/L	SW8260C			50.00		100	81 - 123				



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## QC SUMMARY REPORT

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**Lab Set ID:** 1904652  
**Project:** 2nd Quarter Groundwater 2019

**Contact:** Tanner Holliday  
**Dept:** MSVOA  
**QC Type:** MBLK

Analyte	Result	Units	Method	MDL	Reporting Limit	Amount Spiked	Spike Ref. Amount	%REC	Limits	RPD Ref. Amt	% RPD	RPD Limit	Qual
<b>Lab Sample ID: MB VOC-1 042619A</b> Date Analyzed: 04/26/2019 1026h													
Test Code: 8260-W-DEN100													
2-Butanone	< 20.0	µg/L	SW8260C	1.31	20.0								
Acetone	< 20.0	µg/L	SW8260C	2.87	20.0								
Benzene	< 1.00	µg/L	SW8260C	0.147	1.00								
Carbon tetrachloride	< 1.00	µg/L	SW8260C	0.262	1.00								
Chloroform	< 1.00	µg/L	SW8260C	0.166	1.00								
Chloromethane	< 1.00	µg/L	SW8260C	0.832	1.00								
Methylene chloride	< 1.00	µg/L	SW8260C	0.448	1.00								
Naphthalene	< 1.00	µg/L	SW8260C	0.704	1.00								
Tetrahydrofuran	< 1.00	µg/L	SW8260C	0.436	1.00								
Toluene	< 1.00	µg/L	SW8260C	0.177	1.00								
Xylenes, Total	< 1.00	µg/L	SW8260C	0.253	1.00								
Surr: 1,2-Dichloroethane-d4	55.9	µg/L	SW8260C			50.00		112	80 - 136				
Surr: 4-Bromofluorobenzene	52.4	µg/L	SW8260C			50.00		105	85 - 121				
Surr: Dibromofluoromethane	50.4	µg/L	SW8260C			50.00		101	78 - 132				
Surr: Toluene-d8	51.2	µg/L	SW8260C			50.00		102	81 - 123				

<b>Lab Sample ID: MB VOC-1 043019A</b> Date Analyzed: 04/30/2019 1027h													
Test Code: 8260-W-DEN100													
2-Butanone	< 20.0	µg/L	SW8260C	1.31	20.0								
Acetone	< 20.0	µg/L	SW8260C	2.87	20.0								
Benzene	< 1.00	µg/L	SW8260C	0.147	1.00								
Carbon tetrachloride	< 1.00	µg/L	SW8260C	0.262	1.00								
Chloroform	< 1.00	µg/L	SW8260C	0.166	1.00								
Chloromethane	< 1.00	µg/L	SW8260C	0.832	1.00								
Methylene chloride	< 1.00	µg/L	SW8260C	0.448	1.00								
Naphthalene	< 1.00	µg/L	SW8260C	0.704	1.00								
Tetrahydrofuran	< 1.00	µg/L	SW8260C	0.436	1.00								
Toluene	< 1.00	µg/L	SW8260C	0.177	1.00								



3440 South 700 West  
Salt Lake City, UT 84119

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

## QC SUMMARY REPORT

**Client:** Energy Fuels Resources, Inc.  
**Lab Set ID:** 1904652  
**Project:** 2nd Quarter Groundwater 2019

**Contact:** Tanner Holliday  
**Dept:** MSVOA  
**QC Type:** MBLK

Analyte	Result	Units	Method	MDL	Reporting Limit	Amount Spiked	Spike Ref. Amount	%REC	Limits	RPD Ref. Amt	% RPD	RPD Limit	Qual
<b>Lab Sample ID: MB VOC-1 043019A</b> Date Analyzed: 04/30/2019 1027h													
Test Code: 8260-W-DEN100													
Xylenes, Total	< 1.00	µg/L	SW8260C	0.253	1.00								
Surr: 1,2-Dichloroethane-d4	55.4	µg/L	SW8260C			50.00		111	80 - 136				
Surr: 4-Bromofluorobenzene	51.7	µg/L	SW8260C			50.00		103	85 - 121				
Surr: Dibromofluoromethane	49.6	µg/L	SW8260C			50.00		99.3	78 - 132				
Surr: Toluene-d8	50.5	µg/L	SW8260C			50.00		101	81 - 123				
<b>Lab Sample ID: MB VOC-1 050119A</b> Date Analyzed: 05/01/2019 1212h													
Test Code: 8260-W-DEN100													
2-Butanone	< 20.0	µg/L	SW8260C	1.31	20.0								
Acetone	< 20.0	µg/L	SW8260C	2.87	20.0								
Benzene	< 1.00	µg/L	SW8260C	0.147	1.00								
Carbon tetrachloride	< 1.00	µg/L	SW8260C	0.262	1.00								
Chloroform	< 1.00	µg/L	SW8260C	0.166	1.00								
Chloromethane	< 1.00	µg/L	SW8260C	0.832	1.00								
Methylene chloride	< 1.00	µg/L	SW8260C	0.448	1.00								
Naphthalene	< 1.00	µg/L	SW8260C	0.704	1.00								
Tetrahydrofuran	< 1.00	µg/L	SW8260C	0.436	1.00								
Toluene	< 1.00	µg/L	SW8260C	0.177	1.00								
Xylenes, Total	< 1.00	µg/L	SW8260C	0.253	1.00								
Surr: 1,2-Dichloroethane-d4	56.0	µg/L	SW8260C			50.00		112	80 - 136				
Surr: 4-Bromofluorobenzene	48.1	µg/L	SW8260C			50.00		96.1	85 - 121				
Surr: Dibromofluoromethane	49.6	µg/L	SW8260C			50.00		99.1	78 - 132				
Surr: Toluene-d8	49.6	µg/L	SW8260C			50.00		99.3	81 - 123				



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Kyle F. Gross  
Laboratory Director

Jose Rocha  
QA Officer

## QC SUMMARY REPORT

**Client:** Energy Fuels Resources, Inc.  
**Lab Set ID:** 1904652  
**Project:** 2nd Quarter Groundwater 2019

**Contact:** Tanner Holliday  
**Dept:** MSVOA  
**QC Type:** MS

Analyte	Result	Units	Method	MDL	Reporting Limit	Amount Spiked	Spike Ref. Amount	%REC	Limits	RPD Ref. Amt	% RPD	RPD Limit	Qual
<b>Lab Sample ID:</b> 1904652-007AMS		Date Analyzed: 05/01/2019 1336h											
<b>Test Code:</b> 8260-W-DEN100													
Benzene	2,290	µg/L	SW8260C	14.7	100	2,000	0	115	66 - 145				
Chloroform	6,400	µg/L	SW8260C	16.6	100	2,000	4140	113	50 - 146				
Methylene chloride	2,390	µg/L	SW8260C	44.8	100	2,000	0	119	30 - 192				
Naphthalene	2,360	µg/L	SW8260C	70.4	100	2,000	0	118	41 - 131				
Tetrahydrofuran	2,500	µg/L	SW8260C	43.6	100	2,000	0	125	43 - 146				
Toluene	2,210	µg/L	SW8260C	17.7	100	2,000	0	111	18 - 192				
Xylenes, Total	6,230	µg/L	SW8260C	25.3	100	6,000	0	104	42 - 167				
Surr: 1,2-Dichloroethane-d4	5,660	µg/L	SW8260C			5,000		113	72 - 151				
Surr: 4-Bromofluorobenzene	4,870	µg/L	SW8260C			5,000		97.3	80 - 152				
Surr: Dibromofluoromethane	4,990	µg/L	SW8260C			5,000		99.8	72 - 135				
Surr: Toluene-d8	4,970	µg/L	SW8260C			5,000		99.5	80 - 124				



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Kyle F. Gross  
Laboratory Director

Jose Rocha  
QA Officer

## QC SUMMARY REPORT

**Client:** Energy Fuels Resources, Inc.  
**Lab Set ID:** 1904652  
**Project:** 2nd Quarter Groundwater 2019

**Contact:** Tanner Holliday  
**Dept:** MSVOA  
**QC Type:** MSD

Analyte	Result	Units	Method	MDL	Reporting Limit	Amount Spiked	Spike Ref. Amount	%REC	Limits	RPD Ref. Amt	% RPD	RPD Limit	Qual
<b>Lab Sample ID:</b> 1904652-007AMSD	Date Analyzed: 05/01/2019 1356h												
<b>Test Code:</b> 8260-W-DEN100													
Benzene	2,330	µg/L	SW8260C	14.7	100	2,000	0	116	66 - 145	2290	1.47	25	
Chloroform	6,450	µg/L	SW8260C	16.6	100	2,000	4140	116	50 - 146	6400	0.779	25	
Methylene chloride	2,400	µg/L	SW8260C	44.8	100	2,000	0	120	30 - 192	2390	0.585	25	
Naphthalene	2,400	µg/L	SW8260C	70.4	100	2,000	0	120	41 - 131	2360	1.56	25	
Tetrahydrofuran	2,650	µg/L	SW8260C	43.6	100	2,000	0	133	43 - 146	2500	6.02	25	
Toluene	2,200	µg/L	SW8260C	17.7	100	2,000	0	110	18 - 192	2210	0.726	25	
Xylenes, Total	6,150	µg/L	SW8260C	25.3	100	6,000	0	103	42 - 167	6230	1.29	25	
Surr: 1,2-Dichloroethane-d4	5,750	µg/L	SW8260C			5,000		115	72 - 151				
Surr: 4-Bromofluorobenzene	4,890	µg/L	SW8260C			5,000		97.9	80 - 152				
Surr: Dibromofluoromethane	5,070	µg/L	SW8260C			5,000		101	72 - 135				
Surr: Toluene-d8	5,010	µg/L	SW8260C			5,000		100	80 - 124				

**WORK ORDER Summary**

Work Order: **1904652** Page 1 of 9

**Client:** Energy Fuels Resources, Inc.

Due Date: 5/10/2019

**Client ID:** ENE300

**Contact:** Tanner Holliday

**Project:** 2nd Quarter Groundwater 2019

**QC Level:** III

**WO Type:** Project

**Comments:** QC 3 (no chromatograms). EDD-Denison. CC KWeinel@energyfuels.com; Do not use "\*R\_" samples as MS/MSD.;

DB

Sample ID	Client Sample ID	Collected Date	Received Date	Test Code	Matrix	Sel Storage	
1904652-001A	MW-02_04252019	4/25/2019 0840h	4/26/2019 1010h	8260-W-DEN100	Aqueous	VOCFridge	3
<i>Test Group: 8260-W-DEN100; # of Analytes: 11 / # of Surr: 4</i>							
1904652-001B				300.0-W		df - wc	1
<i>3 SEL Analytes: CL F SO4</i>							
				ALK-W-2320B-LL		df - wc	
<i>2 SEL Analytes: ALKB ALKC</i>							
1904652-001C				TDS-W-2540C		df - tds	
<i>1 SEL Analytes: TDS</i>							
1904652-001D				NH3-W-350.1		df - no2/no3 & nh3	
<i>1 SEL Analytes: NH3N</i>							
				NH3-W-PR		df - no2/no3 & nh3	
				NO2/NO3-W-353.2		df - no2/no3 & nh3	
<i>1 SEL Analytes: NO3NO2N</i>							
1904652-001E				200.7-DIS		df-met	
<i>5 SEL Analytes: CA MG K NA V</i>							
				200.7-DIS-PR		df-met	
				200.8-DIS		df-met	
<i>17 SEL Analytes: AS BE CD CR CO CU FE PB MN MO NI SE AG TL SN U ZN</i>							
				200.8-DIS-PR		df-met	
				HG-DW-DIS-245.1		df-met	
<i>1 SEL Analytes: HG</i>							
				HG-DW-DIS-PR		df-met	
				IONBALANCE		df-met	
<i>5 SEL Analytes: BALANCE Anions Cations TDS-Balance TDS-Calc</i>							
1904652-002A	MW-05_04242019	4/24/2019 1505h	4/26/2019 1010h	8260-W-DEN100	Aqueous	VOCFridge	3
<i>Test Group: 8260-W-DEN100; # of Analytes: 11 / # of Surr: 4</i>							
1904652-002B				300.0-W		df - wc	1
<i>3 SEL Analytes: CL F SO4</i>							
				ALK-W-2320B-LL		df - wc	
<i>2 SEL Analytes: ALKB ALKC</i>							
1904652-002C				TDS-W-2540C		df - tds	
<i>1 SEL Analytes: TDS</i>							

# WORK ORDER Summary

Work Order: **1904652** Page 2 of 9

Client: Energy Fuels Resources, Inc.

Due Date: 5/10/2019

Sample ID	Client Sample ID	Collected Date	Received Date	Test Code	Matrix	Sel Storage	
1904652-002D	MW-05_04242019	4/24/2019 1505h	4/26/2019 1010h	NH3-W-350.1 <i>1 SEL Analytes: NH3N</i>	Aqueous	df - no2/no3 & nh3	1
				NH3-W-PR		df - no2/no3 & nh3	
				NO2/NO3-W-353.2 <i>1 SEL Analytes: NO3NO2N</i>		df - no2/no3 & nh3	
1904652-002E				200.7-DIS <i>5 SEL Analytes: CA MG K NA V</i>		df-met	
				200.7-DIS-PR		df-met	
				200.8-DIS <i>17 SEL Analytes: AS BE CD CR CO CU FE PB MN MO NI SE AG TL SN U ZN</i>		df-met	
				200.8-DIS-PR		df-met	
				HG-DW-DIS-245.1 <i>1 SEL Analytes: HG</i>		df-met	
				HG-DW-DIS-PR		df-met	
				IONBALANCE <i>5 SEL Analytes: BALANCE Anions Cations TDS-Balance TDS-Calc</i>		df-met	
1904652-003A	MW-11_04242019	4/24/2019 1125h	4/26/2019 1010h	8260-W-DEN100 <i>Test Group: 8260-W-DEN100; # of Analytes: 11 / # of Surr: 4</i>	Aqueous	VOCFridge	3
1904652-003B				300.0-W <i>3 SEL Analytes: CL F SO4</i>		df - wc	1
				ALK-W-2320B-LL <i>2 SEL Analytes: ALKB ALKC</i>		df - wc	
1904652-003C				TDS-W-2540C <i>1 SEL Analytes: TDS</i>		df - tds	
1904652-003D				NH3-W-350.1 <i>1 SEL Analytes: NH3N</i>		df - no2/no3 & nh3	
				NH3-W-PR		df - no2/no3 & nh3	
				NO2/NO3-W-353.2 <i>1 SEL Analytes: NO3NO2N</i>		df - no2/no3 & nh3	
1904652-003E				200.7-DIS <i>5 SEL Analytes: CA MG K NA V</i>		df-met	
				200.7-DIS-PR		df-met	
				200.8-DIS <i>17 SEL Analytes: AS BE CD CR CO CU FE PB MN MO NI SE AG TL SN U ZN</i>		df-met	
				200.8-DIS-PR		df-met	
				HG-DW-DIS-245.1 <i>1 SEL Analytes: HG</i>		df-met	

# WORK ORDER Summary

Work Order: **1904652** Page 3 of 9

Client: Energy Fuels Resources, Inc.

Due Date: 5/10/2019

Sample ID	Client Sample ID	Collected Date	Received Date	Test Code	Matrix	Sel	Storage	
1904652-003E	MW-11_04242019	4/24/2019 1125h	4/26/2019 1010h	HG-DW-DIS-PR	Aqueous		df-met	1
				IONBALANCE			df-met	
				5 SEL Analytes: BALANCE Anions Cations TDS-Balance TDS-Calc				
1904652-004A	MW-12_04252019	4/25/2019 0900h	4/26/2019 1010h	8260-W-DEN100	Aqueous		VOCFridge	3
				Test Group: 8260-W-DEN100; # of Analytes: 11 / # of Surr: 4				
1904652-004B				300.0-W			df - wc	1
				3 SEL Analytes: CL F SO4				
				ALK-W-2320B-LL			df - wc	
				2 SEL Analytes: ALKB ALKC				
1904652-004C				TDS-W-2540C			df - tds	
				1 SEL Analytes: TDS				
1904652-004D				NH3-W-350.1			df - no2/no3 & nh3	
				1 SEL Analytes: NH3N				
				NH3-W-PR			df - no2/no3 & nh3	
				NO2/NO3-W-353.2			df - no2/no3 & nh3	
				1 SEL Analytes: NO3NO2N				
1904652-004E				200.7-DIS			df-met	
				5 SEL Analytes: CA MG K NA V				
				200.7-DIS-PR			df-met	
				200.8-DIS			df-met	
				17 SEL Analytes: AS BE CD CR CO CU FE PB MN MO NI SE AG TL SN U ZN				
				200.8-DIS-PR			df-met	
				HG-DW-DIS-245.1			df-met	
				1 SEL Analytes: HG				
				HG-DW-DIS-PR			df-met	
				IONBALANCE			df-met	
				5 SEL Analytes: BALANCE Anions Cations TDS-Balance TDS-Calc				
1904652-005A	MW-14_04232019	4/23/2019 1355h	4/26/2019 1010h	8260-W-DEN100	Aqueous		VOCFridge	3
				Test Group: 8260-W-DEN100; # of Analytes: 11 / # of Surr: 4				
1904652-005B				300.0-W			df - wc	1
				3 SEL Analytes: CL F SO4				
				ALK-W-2320B-LL			df - wc	
				2 SEL Analytes: ALKB ALKC				
1904652-005C				TDS-W-2540C			df - tds	
				1 SEL Analytes: TDS				
1904652-005D				NH3-W-350.1			df - no2/no3 & nh3	
				1 SEL Analytes: NH3N				

# WORK ORDER Summary

Work Order: **1904652** Page 4 of 9

Client: Energy Fuels Resources, Inc.

Due Date: 5/10/2019

Sample ID	Client Sample ID	Collected Date	Received Date	Test Code	Matrix	Sel Storage		
1904652-005D	MW-14_04232019	4/23/2019 1355h	4/26/2019 1010h	NH3-W-PR	Aqueous	df - no2/no3 & nh3	1	
				NO2/NO3-W-353.2		df - no2/no3 & nh3		
				<i>1 SEL Analytes: NO3NO2N</i>				
1904652-005E				200.7-DIS		df-met		
					<i>5 SEL Analytes: CA MG K NA V</i>			
				200.7-DIS-PR		df-met		
				200.8-DIS		df-met		
					<i>17 SEL Analytes: AS BE CD CR CO CU FE PB MN MO NI SE AG TL SN U ZN</i>			
				200.8-DIS-PR		df-met		
				HG-DW-DIS-245.1		df-met		
					<i>1 SEL Analytes: HG</i>			
				HG-DW-DIS-PR		df-met		
				IONBALANCE		df-met		
				<i>5 SEL Analytes: BALANCE Anions Cations TDS-Balance TDS-Calc</i>				
1904652-006A	MW-19_04232019	4/23/2019 1500h	4/26/2019 1010h	8260-W-DEN100	Aqueous	VOCFridge	3	
				<i>Test Group: 8260-W-DEN100; # of Analytes: 11 / # of Surr: 4</i>				
1904652-006B				300.0-W		df - wc	1	
					<i>3 SEL Analytes: CL F SO4</i>			
			ALK-W-2320B-LL		df - wc			
				<i>2 SEL Analytes: ALKB ALKC</i>				
1904652-006C				TDS-W-2540C		df - tds		
				<i>1 SEL Analytes: TDS</i>				
1904652-006D				NH3-W-350.1		df - no2/no3 & nh3		
					<i>1 SEL Analytes: NH3N</i>			
				NH3-W-PR		df - no2/no3 & nh3		
			NO2/NO3-W-353.2		df - no2/no3 & nh3			
				<i>1 SEL Analytes: NO3NO2N</i>				
1904652-006E				200.7-DIS		df-met		
					<i>5 SEL Analytes: CA MG K NA V</i>			
				200.7-DIS-PR		df-met		
				200.8-DIS		df-met		
					<i>17 SEL Analytes: AS BE CD CR CO CU FE PB MN MO NI SE AG TL SN U ZN</i>			
				200.8-DIS-PR		df-met		
				HG-DW-DIS-245.1		df-met		
					<i>1 SEL Analytes: HG</i>			
				HG-DW-DIS-PR		df-met		

# WORK ORDER Summary

Work Order: **1904652**

Page 5 of 9

Client: Energy Fuels Resources, Inc.

Due Date: 5/10/2019

Sample ID	Client Sample ID	Collected Date	Received Date	Test Code	Matrix	Sel	Storage	
1904652-006E	MW-19_04232019	4/23/2019 1500h	4/26/2019 1010h	IONBALANCE	Aqueous	<input checked="" type="checkbox"/>	df-met	1
5 SEL Analytes: BALANCE Anions Cations TDS-Balance TDS-Calc								
1904652-007A	MW-26_04242019	4/24/2019 1315h	4/26/2019 1010h	8260-W-DEN100	Aqueous	<input checked="" type="checkbox"/>	VOCFridge	3
Test Group: 8260-W-DEN100; # of Analytes: 11 / # of Surr: 4								
1904652-007B				300.0-W		<input checked="" type="checkbox"/>	df - wc	1
3 SEL Analytes: CL F SO4								
				ALK-W-2320B-LL		<input checked="" type="checkbox"/>	df - wc	
2 SEL Analytes: ALKB ALKC								
1904652-007C				TDS-W-2540C		<input checked="" type="checkbox"/>	df - tds	
1 SEL Analytes: TDS								
1904652-007D				NH3-W-350.1		<input checked="" type="checkbox"/>	df - no2/no3 & nh3	
1 SEL Analytes: NH3N								
				NH3-W-PR		<input checked="" type="checkbox"/>	df - no2/no3 & nh3	
				NO2/NO3-W-353.2		<input checked="" type="checkbox"/>	df - no2/no3 & nh3	
1 SEL Analytes: NO3NO2N								
1904652-007E				200.7-DIS		<input checked="" type="checkbox"/>	df-met	
5 SEL Analytes: CA MG K NA V								
				200.7-DIS-PR		<input checked="" type="checkbox"/>	df-met	
				200.8-DIS		<input checked="" type="checkbox"/>	df-met	
17 SEL Analytes: AS BE CD CR CO CU FE PB MN MO NI SE AG TL SN U ZN								
				200.8-DIS-PR		<input checked="" type="checkbox"/>	df-met	
				HG-DW-DIS-245.1		<input checked="" type="checkbox"/>	df-met	
1 SEL Analytes: HG								
				HG-DW-DIS-PR		<input checked="" type="checkbox"/>	df-met	
				IONBALANCE		<input checked="" type="checkbox"/>	df-met	
5 SEL Analytes: BALANCE Anions Cations TDS-Balance TDS-Calc								
1904652-008A	MW-27_04232019	4/23/2019 1100h	4/26/2019 1010h	8260-W-DEN100	Aqueous	<input checked="" type="checkbox"/>	VOCFridge	3
Test Group: 8260-W-DEN100; # of Analytes: 11 / # of Surr: 4								
1904652-008B				300.0-W		<input checked="" type="checkbox"/>	df - wc	1
3 SEL Analytes: CL F SO4								
				ALK-W-2320B-LL		<input checked="" type="checkbox"/>	df - wc	
2 SEL Analytes: ALKB ALKC								
1904652-008C				TDS-W-2540C		<input checked="" type="checkbox"/>	df - tds	
1 SEL Analytes: TDS								
1904652-008D				NH3-W-350.1		<input checked="" type="checkbox"/>	df - no2/no3 & nh3	
1 SEL Analytes: NH3N								
				NH3-W-PR		<input checked="" type="checkbox"/>	df - no2/no3 & nh3	

# WORK ORDER Summary

Work Order: **1904652** Page 6 of 9

Client: Energy Fuels Resources, Inc.

Due Date: 5/10/2019

Sample ID	Client Sample ID	Collected Date	Received Date	Test Code	Matrix	Sel	Storage
1904652-008D	MW-27_04232019	4/23/2019 1100h	4/26/2019 1010h	NO2/NO3-W-353.2 <i>1 SEL Analytes: NO3NO2N</i>	Aqueous		df - no2/no3 & nh3 1
1904652-008E				200.7-DIS <i>5 SEL Analytes: CA MG K NA V</i>			df-met
				200.7-DIS-PR			df-met
				200.8-DIS <i>17 SEL Analytes: AS BE CD CR CO CU FE PB MN MO NI SE AG TL SN U ZN</i>			df-met
				200.8-DIS-PR			df-met
				HG-DW-DIS-245.1 <i>1 SEL Analytes: HG</i>			df-met
				HG-DW-DIS-PR			df-met
				IONBALANCE <i>5 SEL Analytes: BALANCE Anions Cations TDS-Balance TDS-Calc</i>			df-met
1904652-009A	MW-28_04242019	4/24/2019 1015h	4/26/2019 1010h	8260-W-DEN100 <i>Test Group: 8260-W-DEN100; # of Analytes: 11 / # of Surr: 4</i>	Aqueous		VOCFridge 3
1904652-009B				300.0-W <i>3 SEL Analytes: CL F SO4</i>			df - wc 1
				ALK-W-2320B-LL <i>2 SEL Analytes: ALKB ALKC</i>			df - wc
1904652-009C				TDS-W-2540C <i>1 SEL Analytes: TDS</i>			df - tds
1904652-009D				NH3-W-350.1 <i>1 SEL Analytes: NH3N</i>			df - no2/no3 & nh3
				NH3-W-PR			df - no2/no3 & nh3
				NO2/NO3-W-353.2 <i>1 SEL Analytes: NO3NO2N</i>			df - no2/no3 & nh3
1904652-009E				200.7-DIS <i>5 SEL Analytes: CA MG K NA V</i>			df-met
				200.7-DIS-PR			df-met
				200.8-DIS <i>17 SEL Analytes: AS BE CD CR CO CU FE PB MN MO NI SE AG TL SN U ZN</i>			df-met
				200.8-DIS-PR			df-met
				HG-DW-DIS-245.1 <i>1 SEL Analytes: HG</i>			df-met
				HG-DW-DIS-PR			df-met
				IONBALANCE <i>5 SEL Analytes: BALANCE Anions Cations TDS-Balance TDS-Calc</i>			df-met

# WORK ORDER Summary

Work Order: **1904652** Page 7 of 9

Client: Energy Fuels Resources, Inc.

Due Date: 5/10/2019

Sample ID	Client Sample ID	Collected Date	Received Date	Test Code	Matrix	Sel Storage	
1904652-010A	MW-29_04242019	4/24/2019 1425h	4/26/2019 1010h	8260-W-DEN100	Aqueous	VOCFridge	3
				<i>Test Group: 8260-W-DEN100; # of Analytes: 11 / # of Surr: 4</i>			
1904652-010B				300.0-W		df - wc	1
				<i>3 SEL Analytes: CL F SO4</i>			
				ALK-W-2320B-LL		df - wc	
				<i>2 SEL Analytes: ALKB ALKC</i>			
1904652-010C				TDS-W-2540C		df - tds	
				<i>1 SEL Analytes: TDS</i>			
1904652-010D				NH3-W-350.1		df - no2/no3 & nh3	
				<i>1 SEL Analytes: NH3N</i>			
				NH3-W-PR		df - no2/no3 & nh3	
				NO2/NO3-W-353.2		df - no2/no3 & nh3	
				<i>1 SEL Analytes: NO3NO2N</i>			
1904652-010E				200.7-DIS		df-met	
				<i>5 SEL Analytes: CA MG K NA V</i>			
				200.7-DIS-PR		df-met	
				200.8-DIS		df-met	
				<i>17 SEL Analytes: AS BE CD CR CO CU FE PB MN MO NI SE AG TL SN U ZN</i>			
				200.8-DIS-PR		df-met	
				HG-DW-DIS-245.1		df-met	
				<i>1 SEL Analytes: HG</i>			
				HG-DW-DIS-PR		df-met	
				IONBALANCE		df-met	
				<i>5 SEL Analytes: BALANCE Anions Cations TDS-Balance TDS-Calc</i>			
1904652-011A	MW-65_04232019	4/23/2019 1355h	4/26/2019 1010h	8260-W-DEN100	Aqueous	VOCFridge	3
				<i>Test Group: 8260-W-DEN100; # of Analytes: 11 / # of Surr: 4</i>			
1904652-011B				300.0-W		df - wc	1
				<i>3 SEL Analytes: CL F SO4</i>			
				ALK-W-2320B-LL		df - wc	
				<i>2 SEL Analytes: ALKB ALKC</i>			
1904652-011C				TDS-W-2540C		df - tds	
				<i>1 SEL Analytes: TDS</i>			
1904652-011D				NH3-W-350.1		df - no2/no3 & nh3	
				<i>1 SEL Analytes: NH3N</i>			
				NH3-W-PR		df - no2/no3 & nh3	
				NO2/NO3-W-353.2		df - no2/no3 & nh3	
				<i>1 SEL Analytes: NO3NO2N</i>			

# WORK ORDER Summary

Work Order: **1904652** Page 8 of 9

Client: Energy Fuels Resources, Inc.

Due Date: 5/10/2019

Sample ID	Client Sample ID	Collected Date	Received Date	Test Code	Matrix	Sel	Storage	
1904652-011E	MW-65_04232019	4/23/2019 1355h	4/26/2019 1010h	200.7-DIS	Aqueous		df-met	1
				<i>5 SEL Analytes: CA MG K NA V</i>				
				200.7-DIS-PR			df-met	
				200.8-DIS			df-met	
				<i>17 SEL Analytes: AS BE CD CR CO CU FE PB MN MO NI SE AG TL SN U ZN</i>				
				200.8-DIS-PR			df-met	
				HG-DW-DIS-245.1			df-met	
				<i>1 SEL Analytes: HG</i>				
				HG-DW-DIS-PR			df-met	
1904652-012A	TW4-24_04252019	4/25/2019 0815h	4/26/2019 1010h	8260-W-DEN100	Aqueous		VOCFridge	3
				<i>Test Group: 8260-W-DEN100; # of Analytes: 11 / # of Surr: 4</i>				
				300.0-W			df - wc	1
				<i>3 SEL Analytes: CL F SO4</i>				
				ALK-W-2320B-LL			df - wc	
				<i>2 SEL Analytes: ALKB ALKC</i>				
				TDS-W-2540C			df - tds	
				<i>1 SEL Analytes: TDS</i>				
				1904652-012D				
<i>1 SEL Analytes: NH3N</i>								
NH3-W-PR		df - no2/no3 & nh3						
1904652-012E				NO2/NO3-W-353.2		df - no2/no3 & nh3		
				<i>1 SEL Analytes: NO3NO2N</i>				
				200.7-DIS		df-met		
<i>5 SEL Analytes: CA MG K NA V</i>								
200.7-DIS-PR		df-met						
200.8-DIS		df-met						
<i>17 SEL Analytes: AS BE CD CR CO CU FE PB MN MO NI SE AG TL SN U ZN</i>								
200.8-DIS-PR		df-met						
HG-DW-DIS-245.1		df-met						
<i>1 SEL Analytes: HG</i>								
HG-DW-DIS-PR		df-met						
IONBALANCE		df-met						
<i>5 SEL Analytes: BALANCE Anions Cations TDS-Balance TDS-Calc</i>								

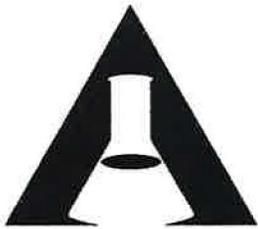
# WORK ORDER Summary

Work Order: **1904652** Page 9 of 9

Client: Energy Fuels Resources, Inc.

Due Date: 5/10/2019

Sample ID	Client Sample ID	Collected Date	Received Date	Test Code	Matrix	Sel Storage	
1904652-013A	Trip Blank	4/23/2019 1100h	4/26/2019 1010h	8260-W-DEN100	Aqueous	VOCFridge	3
<i>Test Group: 8260-W-DEN100; # of Analytes: 11 / # of Surr: 4</i>							



**American West Analytical Laboratories**

463 W. 3600 S. Salt Lake City, UT 84115  
 Phone # (801) 263-8686 Toll Free # (888) 263-8686  
 Fax # (801) 263-8687 Email awal@awal-labs.com  
 www.awal-labs.com

**CHAIN OF CUSTODY**

All analysis will be conducted using NELAP accredited methods and all data will be reported using AWAL's standard analyte lists and reporting limits (PQL) unless specifically requested otherwise on this Chain of Custody and/or attached documentation.

1904652

AWAL Lab Sample Set #  
 Page 1 of 2

Client: **Energy Fuels Resources, Inc.**  
 Address: **6425 S. Hwy. 191 Blanding, UT 84511**  
 Contact: **Tanner Holliday**  
 Phone #: **(435) 678-2221** Cell #: \_\_\_\_\_  
 Email: **gpalmer@energyfuels.com; KWeinel@energyfuels.com; tholliday@energyfuels.com**  
 Project Name: **2nd Quarter Groundwater 2019**  
 Project #: \_\_\_\_\_  
 PO #: \_\_\_\_\_  
 Sampler Name: **Tanner Holliday**

QC Level:	Turn Around Time:	Unless other arrangements have been made, signed reports will be emailed by 5:00 pm on the day they are due.											
3	Standard												
# of Containers	Sample Matrix	NO2/NO3 (353.2)	NH3 (4500G or 350.1)	Fl, Cl, SO4 (4500 or 300.0)	TDS (2540C)	Carb/Bicarb (2320B)	Dissolved Metals (200.7/200.8/245.1)	As, Be, Cd, Cr, Co, Cu, Fe, Pb, Mn, Hg, Mo, Ni, Se, Ag, Tl, Sn, U, V, Zn, Na, K, Mg, Ca	Ion Balance	VOCs (8260C)	Known Hazards & Sample Comments		
7	W	x	x	x	x	x	x	x	x	x			
7	W	x	x	x	x	x	x	x	x	x			
7	W	x	x	x	x	x	x	x	x	x			
7	W	x	x	x	x	x	x	x	x	x			
7	W	x	x	x	x	x	x	x	x	x			
7	W	x	x	x	x	x	x	x	x	x			
7	W	x	x	x	x	x	x	x	x	x			
7	W	x	x	x	x	x	x	x	x	x			
7	W	x	x	x	x	x	x	x	x	x			
7	W	x	x	x	x	x	x	x	x	x			
7	W	x	x	x	x	x	x	x	x	x			

Due Date: **5/10/19**

Laboratory Use Only

Samples Were: **UPS**

1 Shipped or hand delivered  Y  N

2 Ambient or Chilled  Y  N

3 Temperature **3.3** °C

4 Received Broken/Leaking (Improperly Sealed)  Y  N

5 Properly Preserved  Y  N

Checked at bench  Y  N

6 Received Within Holding Times  Y  N

COC Tape Was:

1 Present on Outer Package  Y  N  NA

2 Unbroken on Outer Package  Y  N  NA

3 Present on Sample  Y  N  NA

4 Unbroken on Sample  Y  N  NA

Discrepancies Between Sample Labels and COC Record?  Y  N

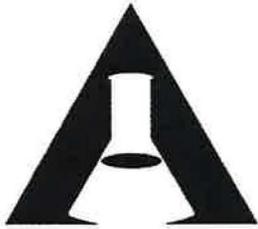
Sample ID:	Date Sampled	Time Sampled	# of Containers	Sample Matrix	NO2/NO3 (353.2)	NH3 (4500G or 350.1)	Fl, Cl, SO4 (4500 or 300.0)	TDS (2540C)	Carb/Bicarb (2320B)	Dissolved Metals (200.7/200.8/245.1)	As, Be, Cd, Cr, Co, Cu, Fe, Pb, Mn, Hg, Mo, Ni, Se, Ag, Tl, Sn, U, V, Zn, Na, K, Mg, Ca	Ion Balance	VOCs (8260C)
1 MW-02_04252019	4/25/2019	840	7	W	x	x	x	x	x	x	x	x	x
2 MW-05_04242019	4/24/2019	1505	7	W	x	x	x	x	x	x	x	x	x
3 MW-11_04242019	4/24/2019	1125	7	W	x	x	x	x	x	x	x	x	x
4 MW-12_04252019	4/25/2019	900	7	W	x	x	x	x	x	x	x	x	x
5 MW-14_04232019	4/23/2019	1355	7	W	x	x	x	x	x	x	x	x	x
6 MW-19_04232019	4/23/2019	1500	7	W	x	x	x	x	x	x	x	x	x
7 MW-26_04242019	4/24/2019	1315	7	W	x	x	x	x	x	x	x	x	x
8 MW-27_04232019	4/23/2019	1100	7	W	x	x	x	x	x	x	x	x	x
9 MW-28_04242019	4/24/2019	1015	7	W	x	x	x	x	x	x	x	x	x
10 MW-29_04242019	4/24/2019	1425	7	W	x	x	x	x	x	x	x	x	x
11 MW-65_04232019	4/23/2019	1355	7	W	x	x	x	x	x	x	x	x	x
12 TW4-24_04252019	4/25/2019	815	7	W	x	x	x	x	x	x	x	x	x

Relinquished by: <i>Tanner Holliday</i> Signature	Date: 4/25/2019	Received by: _____ Signature	Date: _____
Print Name: Tanner Holliday	Time: 1130	Print Name: _____	Time: _____
Relinquished by: _____ Signature	Date: _____	Received by: _____ Signature	Date: _____
Print Name: _____	Time: _____	Print Name: _____	Time: _____
Relinquished by: _____ Signature	Date: _____	Received by: _____ Signature	Date: _____
Print Name: _____	Time: _____	Print Name: _____	Time: _____
Relinquished by: _____ Signature	Date: _____	Received by: <i>Denise Bruun</i> Signature	Date: 4/26/19
Print Name: _____	Time: _____	Print Name: <i>Denise Bruun</i>	Time: 10:10

Special Instructions:

Sample containers for metals were field filtered. See the Analytical Scope of Work for Reporting Limits and VOC analyte list.

4/26/19



**American West  
Analytical Laboratories**

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 Phone # (801) 263-8686 Toll Free # (888) 263-8686  
 Fax # (801) 263-8687 Email awal@awal-habs.com  
 www.awal-labs.com

**CHAIN OF CUSTODY**

All analysis will be conducted using NELAP accredited methods and all data will be reported using AWAL's standard analyte lists and reporting limits (PQL) unless specifically requested otherwise on this Chain of Custody and/or attached documentation.

1904652

AWAL Lab Sample Set #

Page 2 of 2

Due Date: 5/10/19

Client: **Energy Fuels Resources, Inc.**  
 Address: **6425 S. Hwy. 191**  
**Blanding, UT 84511**  
 Contact: **Tanner Holliday**  
 Phone #: **(435) 678-2221** Cell #: \_\_\_\_\_  
 Email: **gpalmer@energyfuels.com; kweinel@energyfuels.com;**  
**tholliday@energyfuels.com**  
 Project Name: **2nd Quarter Groundwater 2019**  
 Project #: \_\_\_\_\_  
 PO #: \_\_\_\_\_  
 Sampler Name: **Tanner Holliday**

QC Level:	Turn Around Time:	Unless other arrangements have been made, signed reports will be emailed by 5:00 pm on the day they are due.
3	Standard	
		<input checked="" type="checkbox"/> Include EDD: <b>LOCUS UPLOAD</b> <b>EXCEL</b> <input checked="" type="checkbox"/> Field Filtered For: <b>Dissolved Metals</b>
		<b>For Compliance With:</b> <input type="checkbox"/> NELAP <input type="checkbox"/> RCRA <input type="checkbox"/> CWA <input type="checkbox"/> SDWA <input type="checkbox"/> ELAP / AZLA <input type="checkbox"/> NLLAP <input type="checkbox"/> Non-Compliance <input type="checkbox"/> Other:
		<b>Known Hazards &amp; Sample Comments</b>
# of Containers	Sample Matrix	
	NO2/NO3 (353.2)	
	NH3 (4500G or 350.1)	
	Fl, Cl, SO4 (4500 or 300.0)	
	TDS (2540C)	
	Carb/Bicarb (2320B)	
	Dissolved Metals (200.7/200.8/245.1)	
	As, Be, Cd, Cr, Co, Cu, Fe, Pb, Mn, Hg, Mo, Ni, Se, Ag, Tl, Sn, U, V, Zn, Na, K, Mg, Ca	
	Ion Balance	
	VOCs (8260C)	

**Laboratory Use Only**

Samples Were: **UPS**

- Shipped or hand delivered
- Ambient or Chilled
- Temperature **3.3°C**
- Received Broken/Leaking (Improperly Sealed)  
Y N
- Properly Preserved  
Y N  
Checked at bench  
Y N
- Received Within Holding Times  
Y N

Sample ID:	Date Sampled	Time Sampled	# of Containers	Sample Matrix	NO2/NO3 (353.2)	NH3 (4500G or 350.1)	Fl, Cl, SO4 (4500 or 300.0)	TDS (2540C)	Carb/Bicarb (2320B)	Dissolved Metals (200.7/200.8/245.1)	As, Be, Cd, Cr, Co, Cu, Fe, Pb, Mn, Hg, Mo, Ni, Se, Ag, Tl, Sn, U, V, Zn, Na, K, Mg, Ca	Ion Balance	VOCs (8260C)	Known Hazards & Sample Comments
1 Trip Blank	4/23/2019	1100	3	W									X	
2														
3														
4														
5														
6														
7														
8														
9														
10														
11														
12														

**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

Relinquished by: Signature <i>Tanner Holliday</i>	Date: 4/25/2019	Received by: Signature _____	Date: _____
Print Name: Tanner Holliday	Time: 1130	Print Name: _____	Time: _____
Relinquished by: Signature _____	Date: _____	Received by: Signature _____	Date: _____
Print Name: _____	Time: _____	Print Name: _____	Time: _____
Relinquished by: Signature _____	Date: _____	Received by: Signature _____	Date: _____
Print Name: _____	Time: _____	Print Name: _____	Time: _____
Relinquished by: Signature _____	Date: _____	Received by: Signature <i>Denise Braun</i>	Date: 4/26/19
Print Name: _____	Time: _____	Print Name: <i>Denise Braun</i>	Time: 10:10

**Special Instructions:**

Sample containers for metals were field filtered. See the Analytical Scope of Work for Reporting Limits and VOC analyte list.

Lab Set ID: 1904652

pH Lot #: 5911

Preservation Check Sheet

Sample Set Extension and pH

Analysis	Preservative	-001	-002	-003	-004	-005	-006	-007	-008	-009	-010	-011	-012						
Ammonia	pH <2 H <sub>2</sub> SO <sub>4</sub>	yes																	
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>	yes																	
O & G	pH <2 HCL																		
Phenols	pH <2 H <sub>2</sub> SO <sub>4</sub>																		
Sulfide	pH >9 NaOH, Zn Acetate																		
TKN	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>																		

- 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

- \* The sample required additional preservative upon receipt.
- + The sample was received unpreserved.
- ▲ The sample was received unpreserved and therefore preserved upon receipt.
- # The sample pH was unadjustable to a pH <2 due to the sample matrix.
- The sample pH was unadjustable to a pH > due to the sample matrix interference



Tanner Holliday  
Energy Fuels Resources, Inc.  
6425 South Hwy 191  
Blanding, UT 84511  
TEL: (435) 678-2221

RE: 2nd Quarter Groundwater 2019

Dear Tanner Holliday:

Lab Set ID: 1905087

3440 South 700 West

Salt Lake City, UT 84119

Phone: (801) 263-8686

Toll Free: (888) 263-8686

Fax: (801) 263-8687

e-mail: awal@awal-labs.com

web: www.awal-labs.com

American West Analytical Laboratories received sample(s) on 5/3/2019 for the analyses presented in the following report.

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

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

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

Kyle F. Gross  
Laboratory Director

Jose Rocha  
QA Officer

Thank You,

Approved by:

<b>Kyle F. Gross</b>	Digitally signed by Kyle F. Gross
	Date: 2019.05.20 14:18:35 -06'00'

Laboratory Director or designee



## SAMPLE SUMMARY

**Client:** Energy Fuels Resources, Inc.  
**Project:** 2nd Quarter Groundwater 2019  
**Lab Set ID:** 1905087  
**Date Received:** 5/3/2019 1005h

**Contact:** Tanner Holliday

Lab Sample ID	Client Sample ID	Date Collected	Matrix	Analysis
1905087-001A	MW-03A_05022019	5/2/2019 730h	Aqueous	VOA by GC/MS Method 8260C/5030C
1905087-001B	MW-03A_05022019	5/2/2019 730h	Aqueous	Anions, E300.0
1905087-001B	MW-03A_05022019	5/2/2019 730h	Aqueous	Alkalinity/ Bicarbonate/ Carbonate, Low Level
1905087-001C	MW-03A_05022019	5/2/2019 730h	Aqueous	Total Dissolved Solids, A2540C
1905087-001D	MW-03A_05022019	5/2/2019 730h	Aqueous	Nitrite/Nitrate (as N), E353.2
1905087-001D	MW-03A_05022019	5/2/2019 730h	Aqueous	Ammonia, Aqueous
1905087-001E	MW-03A_05022019	5/2/2019 730h	Aqueous	ICPMS Metals, Dissolved
1905087-001E	MW-03A_05022019	5/2/2019 730h	Aqueous	Mercury, Drinking Water Dissolved
1905087-001E	MW-03A_05022019	5/2/2019 730h	Aqueous	ICP Metals, Dissolved
1905087-001E	MW-03A_05022019	5/2/2019 730h	Aqueous	Ion Balance
1905087-002A	MW-15_04302019	4/30/2019 1055h	Aqueous	VOA by GC/MS Method 8260C/5030C
1905087-002B	MW-15_04302019	4/30/2019 1055h	Aqueous	Anions, E300.0
1905087-002B	MW-15_04302019	4/30/2019 1055h	Aqueous	Alkalinity/ Bicarbonate/ Carbonate, Low Level
1905087-002C	MW-15_04302019	4/30/2019 1055h	Aqueous	Total Dissolved Solids, A2540C
1905087-002D	MW-15_04302019	4/30/2019 1055h	Aqueous	Nitrite/Nitrate (as N), E353.2
1905087-002D	MW-15_04302019	4/30/2019 1055h	Aqueous	Ammonia, Aqueous
1905087-002E	MW-15_04302019	4/30/2019 1055h	Aqueous	Ion Balance
1905087-002E	MW-15_04302019	4/30/2019 1055h	Aqueous	Mercury, Drinking Water Dissolved
1905087-002E	MW-15_04302019	4/30/2019 1055h	Aqueous	ICP Metals, Dissolved
1905087-002E	MW-15_04302019	4/30/2019 1055h	Aqueous	ICPMS Metals, Dissolved
1905087-003A	MW-24_05022019	5/2/2019 700h	Aqueous	VOA by GC/MS Method 8260C/5030C
1905087-003B	MW-24_05022019	5/2/2019 700h	Aqueous	Anions, E300.0
1905087-003B	MW-24_05022019	5/2/2019 700h	Aqueous	Alkalinity/ Bicarbonate/ Carbonate, Low Level
1905087-003C	MW-24_05022019	5/2/2019 700h	Aqueous	Total Dissolved Solids, A2540C
1905087-003D	MW-24_05022019	5/2/2019 700h	Aqueous	Ammonia, Aqueous
1905087-003D	MW-24_05022019	5/2/2019 700h	Aqueous	Nitrite/Nitrate (as N), E353.2
1905087-003E	MW-24_05022019	5/2/2019 700h	Aqueous	Mercury, Drinking Water Dissolved
1905087-003E	MW-24_05022019	5/2/2019 700h	Aqueous	ICPMS Metals, Dissolved

3440 South 700 West  
Salt Lake City, UT 84119

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



**Client:** Energy Fuels Resources, Inc.  
**Project:** 2nd Quarter Groundwater 2019  
**Lab Set ID:** 1905087  
**Date Received:** 5/3/2019 1005h

**Contact:** Tanner Holliday

Lab Sample ID	Client Sample ID	Date Collected	Matrix	Analysis	
1905087-003E	MW-24_05022019	5/2/2019 700h	Aqueous	Ion Balance	
3440 South 700 West Salt Lake City, UT 84119	1905087-003E	MW-24_05022019	5/2/2019 700h	Aqueous	ICP Metals, Dissolved
	1905087-004A	MW-38_05022019	5/2/2019 845h	Aqueous	VOA by GC/MS Method 8260C/5030C
	1905087-004B	MW-38_05022019	5/2/2019 845h	Aqueous	Anions, E300.0
	1905087-004B	MW-38_05022019	5/2/2019 845h	Aqueous	Alkalinity/ Bicarbonate/ Carbonate, Low Level
Phone: (801) 263-8686	1905087-004C	MW-38_05022019	5/2/2019 845h	Aqueous	Total Dissolved Solids, A2540C
Toll Free: (888) 263-8686	1905087-004D	MW-38_05022019	5/2/2019 845h	Aqueous	Ammonia, Aqueous
Fax: (801) 263-8687	1905087-004D	MW-38_05022019	5/2/2019 845h	Aqueous	Nitrite/Nitrate (as N), E353.2
e-mail: awal@awal-labs.com	1905087-004E	MW-38_05022019	5/2/2019 845h	Aqueous	Ion Balance
	1905087-004E	MW-38_05022019	5/2/2019 845h	Aqueous	ICP Metals, Dissolved
web: www.awal-labs.com	1905087-004E	MW-38_05022019	5/2/2019 845h	Aqueous	ICPMS Metals, Dissolved
	1905087-004E	MW-38_05022019	5/2/2019 845h	Aqueous	Mercury, Drinking Water Dissolved
Kyle F. Gross	1905087-005A	MW-39_05012019	5/1/2019 1125h	Aqueous	VOA by GC/MS Method 8260C/5030C
Laboratory Director	1905087-005B	MW-39_05012019	5/1/2019 1125h	Aqueous	Anions, E300.0
	1905087-005B	MW-39_05012019	5/1/2019 1125h	Aqueous	Alkalinity/ Bicarbonate/ Carbonate, Low Level
Jose Rocha	1905087-005C	MW-39_05012019	5/1/2019 1125h	Aqueous	Total Dissolved Solids, A2540C
QA Officer	1905087-005D	MW-39_05012019	5/1/2019 1125h	Aqueous	Nitrite/Nitrate (as N), E353.2
	1905087-005D	MW-39_05012019	5/1/2019 1125h	Aqueous	Ammonia, Aqueous
	1905087-005E	MW-39_05012019	5/1/2019 1125h	Aqueous	Ion Balance
	1905087-005E	MW-39_05012019	5/1/2019 1125h	Aqueous	ICP Metals, Dissolved
	1905087-005E	MW-39_05012019	5/1/2019 1125h	Aqueous	ICPMS Metals, Dissolved
	1905087-005E	MW-39_05012019	5/1/2019 1125h	Aqueous	Mercury, Drinking Water Dissolved
	1905087-006A	MW-70_04302019	4/30/2019 1055h	Aqueous	VOA by GC/MS Method 8260C/5030C
	1905087-006B	MW-70_04302019	4/30/2019 1055h	Aqueous	Alkalinity/ Bicarbonate/ Carbonate, Low Level
	1905087-006B	MW-70_04302019	4/30/2019 1055h	Aqueous	Anions, E300.0
	1905087-006C	MW-70_04302019	4/30/2019 1055h	Aqueous	Total Dissolved Solids, A2540C
	1905087-006D	MW-70_04302019	4/30/2019 1055h	Aqueous	Nitrite/Nitrate (as N), E353.2
	1905087-006D	MW-70_04302019	4/30/2019 1055h	Aqueous	Ammonia, Aqueous
	1905087-006E	MW-70_04302019	4/30/2019 1055h	Aqueous	Ion Balance
	1905087-006E	MW-70_04302019	4/30/2019 1055h	Aqueous	ICP Metals, Dissolved
	1905087-006E	MW-70_04302019	4/30/2019 1055h	Aqueous	ICPMS Metals, Dissolved



**Client:** Energy Fuels Resources, Inc.  
**Project:** 2nd Quarter Groundwater 2019  
**Lab Set ID:** 1905087  
**Date Received:** 5/3/2019 1005h

**Contact:** Tanner Holliday

Lab Sample ID	Client Sample ID	Date Collected	Matrix	Analysis
1905087-006E	MW-70_04302019	4/30/2019 1055h	Aqueous	Mercury, Drinking Water Dissolved
1905087-007A	MW-22_04302019	4/30/2019 1210h	Aqueous	VOA by GC/MS Method 8260C/5030C
1905087-007B	MW-22_04302019	4/30/2019 1210h	Aqueous	Anions, E300.0
1905087-007B	MW-22_04302019	4/30/2019 1210h	Aqueous	Alkalinity/ Bicarbonate/ Carbonate, Low Level
1905087-007C	MW-22_04302019	4/30/2019 1210h	Aqueous	Total Dissolved Solids, A2540C
1905087-007D	MW-22_04302019	4/30/2019 1210h	Aqueous	Nitrite/Nitrate (as N), E353.2
1905087-007D	MW-22_04302019	4/30/2019 1210h	Aqueous	Ammonia, Aqueous
1905087-007E	MW-22_04302019	4/30/2019 1210h	Aqueous	Ion Balance
1905087-007E	MW-22_04302019	4/30/2019 1210h	Aqueous	ICP Metals, Dissolved
1905087-007E	MW-22_04302019	4/30/2019 1210h	Aqueous	ICPMS Metals, Dissolved
1905087-007E	MW-22_04302019	4/30/2019 1210h	Aqueous	Mercury, Drinking Water Dissolved
1905087-008A	Trip Blank	4/30/2019 1055h	Aqueous	VOA by GC/MS Method 8260C/5030C

3440 South 700 West  
Salt Lake City, UT 84119

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



# Inorganic Case Narrative

**Client:** Energy Fuels Resources, Inc.  
**Contact:** Tanner Holliday  
**Project:** 2nd Quarter Groundwater 2019  
**Lab Set ID:** 1905087

3440 South 700 West  
 Salt Lake City, UT 84119

### Sample Receipt Information:

**Date of Receipt:** 5/3/2019  
**Date(s) of Collection:** 4/30-5/2/2019  
**Sample Condition:** See Chain of Custody  
**C-O-C Discrepancies:** See Chain of Custody

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

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

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

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

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

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

**Matrix Spike / Matrix Spike Duplicates (MS/MSD):** All percent recoveries and RPDs (Relative Percent Differences) were inside established limits, with the following exceptions:

Sample ID	Analyte	QC	Explanation
1905087-002E	Calcium	MS/MSD	High analyte concentration
1905087-002E	Magnesium	MSD	High analyte concentration
1905087-002E	Sodium	MS/MSD	High analyte concentration

**Duplicate (DUP):** The parameters that required a duplicate analysis had RPDs within the control limits, with the following exceptions: the RPD for Total Dissolved Solids on sample 1905087-001C was outside of the control limits due to suspected sample non-homogeneity or sample matrix interference.

**Corrective Action:** None required.

Kyle F. Gross  
 Laboratory Director

Jose Rocha  
 QA Officer

Phone: (801) 263-8686

Toll Free: (888) 263-8686

Fax: (801) 263-8687

e-mail: awal@awal-labs.com

web: www.awal-labs.com



## Volatile Case Narrative

**Client:** Energy Fuels Resources, Inc.  
**Contact:** Tanner Holliday  
**Project:** 2nd Quarter Groundwater 2019  
**Lab Set ID:** 1905087

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3440 South 700 West

Salt Lake City, UT 84119

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

### Sample Receipt Information:

**Date of Receipt:** 5/3/2019  
**Date(s) of Collection:** 4/30-5/2/2019  
**Sample Condition:** See Chain of Custody  
**C-O-C Discrepancies:** See Chain of Custody  
**Method:** SW-846 8260C/5030C  
**Analysis:** Volatile Organic Compounds

**General Set Comments:** No target analytes were observed above reporting limits.

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

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

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

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

**Laboratory Control Sample (LCSs):** All LCS recoveries were within control limits, indicating that the preparation and analysis were in control, with the following exception: the LCS percent recovery for Tetrahydrofuran on LCS VOC-1 050419A was outside of the control limits indicating possible bias high. Data deemed acceptable as the analyte was not observed in the field sample.

**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:** Energy Fuels Resources, Inc.  
**Lab Set ID:** 1905087  
**Project:** 2nd Quarter Groundwater 2019

**Contact:** Tanner Holliday  
**Dept:** ME  
**QC Type:** LCS

Analyte	Result	Units	Method	MDL	Reporting Limit	Amount Spiked	Spike Ref. Amount	%REC	Limits	RPD Ref. Amt	% RPD	RPD Limit	Qual
<b>Lab Sample ID:</b> LCS-62440		Date Analyzed: 05/17/2019 1239h											
Test Code: 200.7-DIS		Date Prepared: 05/06/2019 1142h											
Calcium	11.0	mg/L	E200.7	0.0937	1.00	10.00	0	110	85 - 115				
Magnesium	11.4	mg/L	E200.7	0.0439	1.00	10.00	0	114	85 - 115				
Potassium	10.9	mg/L	E200.7	0.134	1.00	10.00	0	109	85 - 115				
Sodium	11.2	mg/L	E200.7	0.187	1.00	10.00	0	112	85 - 115				
Vanadium	0.217	mg/L	E200.7	0.00138	0.00500	0.2000	0	108	85 - 115				
<b>Lab Sample ID:</b> LCS-62442		Date Analyzed: 05/14/2019 1551h											
Test Code: 200.8-DIS		Date Prepared: 05/06/2019 1142h											
Arsenic	0.192	mg/L	E200.8	0.000298	0.00200	0.2000	0	96.0	85 - 115				
Beryllium	0.189	mg/L	E200.8	0.000198	0.00200	0.2000	0	94.5	85 - 115				
Cadmium	0.188	mg/L	E200.8	0.0000858	0.000500	0.2000	0	94.2	85 - 115				
Chromium	0.197	mg/L	E200.8	0.00191	0.00200	0.2000	0	98.4	85 - 115				
Cobalt	0.192	mg/L	E200.8	0.000300	0.00400	0.2000	0	96.0	85 - 115				
Copper	0.194	mg/L	E200.8	0.00282	0.00200	0.2000	0	97.2	85 - 115				
Iron	0.970	mg/L	E200.8	0.0496	0.100	1.000	0	97.0	85 - 115				
Lead	0.186	mg/L	E200.8	0.000448	0.00200	0.2000	0	93.2	85 - 115				
Manganese	0.195	mg/L	E200.8	0.00108	0.00200	0.2000	0	97.3	85 - 115				
Molybdenum	0.192	mg/L	E200.8	0.000652	0.00200	0.2000	0	95.9	85 - 115				
Nickel	0.192	mg/L	E200.8	0.00148	0.00200	0.2000	0	96.1	85 - 115				
Selenium	0.193	mg/L	E200.8	0.000574	0.00200	0.2000	0	96.7	85 - 115				
Silver	0.186	mg/L	E200.8	0.000232	0.00200	0.2000	0	93.2	85 - 115				
Thallium	0.189	mg/L	E200.8	0.000154	0.00200	0.2000	0	94.6	85 - 115				
Tin	0.965	mg/L	E200.8	0.00116	0.00400	1.000	0	96.5	85 - 115				
Uranium	0.191	mg/L	E200.8	0.000176	0.00200	0.2000	0	95.3	85 - 115				
Zinc	0.967	mg/L	E200.8	0.00418	0.00600	1.000	0	96.7	85 - 115				



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Kyle F. Gross  
Laboratory Director

Jose Rocha  
QA Officer

## QC SUMMARY REPORT

**Client:** Energy Fuels Resources, Inc.  
**Lab Set ID:** 1905087  
**Project:** 2nd Quarter Groundwater 2019

**Contact:** Tanner Holliday  
**Dept:** ME  
**QC Type:** LCS

Analyte	Result	Units	Method	MDL	Reporting Limit	Amount Spiked	Spike Ref. Amount	%REC	Limits	RPD Ref. Amt	% RPD	RPD Limit	Qual
<b>Lab Sample ID:</b> LCS-62451	Date Analyzed: 05/07/2019 724h												
<b>Test Code:</b> HG-DW-DIS-245.1	Date Prepared: 05/06/2019 1530h												
Mercury	0.00327	mg/L	E245.1	0.0000396	0.0000900	0.003330	0	98.0	85 - 115				



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## QC SUMMARY REPORT

**Client:** Energy Fuels Resources, Inc.

**Lab Set ID:** 1905087

**Project:** 2nd Quarter Groundwater 2019

**Contact:** Tanner Holliday

**Dept:** ME

**QC Type:** MBLK

Analyte	Result	Units	Method	MDL	Reporting Limit	Amount Spiked	Spike Ref. Amount	%REC	Limits	RPD Ref. Amt	% RPD	RPD Limit	Qual
<b>Lab Sample ID:</b> MB-62440	Date Analyzed:		05/17/2019	1237h									
Test Code:	200.7-DIS	Date Prepared:		05/06/2019	1142h								
Calcium	< 1.00	mg/L	E200.7	0.0937	1.00								
Magnesium	< 1.00	mg/L	E200.7	0.0439	1.00								
Potassium	< 1.00	mg/L	E200.7	0.134	1.00								
Sodium	< 1.00	mg/L	E200.7	0.187	1.00								
Vanadium	< 0.00500	mg/L	E200.7	0.00138	0.00500								
<b>Lab Sample ID:</b> MB-62442	Date Analyzed:		05/14/2019	1548h									
Test Code:	200.8-DIS	Date Prepared:		05/06/2019	1142h								
Beryllium	< 0.000200	mg/L	E200.8	0.0000198	0.000200								
Iron	< 0.0100	mg/L	E200.8	0.00496	0.0100								
Lead	< 0.000200	mg/L	E200.8	0.0000448	0.000200								
Thallium	< 0.000200	mg/L	E200.8	0.0000154	0.000200								
Uranium	< 0.000200	mg/L	E200.8	0.0000176	0.000200								
<b>Lab Sample ID:</b> MB-62442	Date Analyzed:		05/14/2019	1621h									
Test Code:	200.8-DIS	Date Prepared:		05/06/2019	1142h								
Arsenic	< 0.00200	mg/L	E200.8	0.000298	0.00200								
Cadmium	< 0.000500	mg/L	E200.8	0.0000858	0.000500								
Chromium	< 0.00200	mg/L	E200.8	0.00191	0.00200								
Cobalt	< 0.00400	mg/L	E200.8	0.000300	0.00400								
Copper	< 0.00200	mg/L	E200.8	0.00282	0.00200								
Manganese	< 0.00200	mg/L	E200.8	0.00108	0.00200								
Molybdenum	< 0.00200	mg/L	E200.8	0.000652	0.00200								
Nickel	< 0.00200	mg/L	E200.8	0.00148	0.00200								
Selenium	< 0.00200	mg/L	E200.8	0.000574	0.00200								
Silver	< 0.00200	mg/L	E200.8	0.000232	0.00200								
Tin	< 0.00400	mg/L	E200.8	0.00116	0.00400								
Zinc	< 0.00600	mg/L	E200.8	0.00418	0.00600								



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Laboratory Director

Jose Rocha  
QA Officer

## QC SUMMARY REPORT

**Client:** Energy Fuels Resources, Inc.  
**Lab Set ID:** 1905087  
**Project:** 2nd Quarter Groundwater 2019

**Contact:** Tanner Holliday  
**Dept:** ME  
**QC Type:** MBLK

Analyte	Result	Units	Method	MDL	Reporting Limit	Amount Spiked	Spike Ref. Amount	%REC	Limits	RPD Ref. Amt	% RPD	RPD Limit	Qual
<b>Lab Sample ID:</b> MB-62451	Date Analyzed:	05/07/2019	722h										
Test Code: HG-DW-DIS-245.1	Date Prepared:	05/06/2019	1530h										
Mercury	< 0.0000900	mg/L	E245.1	0.0000396	0.0000900								



3440 South 700 West

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## QC SUMMARY REPORT

**Client:** Energy Fuels Resources, Inc.  
**Lab Set ID:** 1905087  
**Project:** 2nd Quarter Groundwater 2019

**Contact:** Tanner Holliday  
**Dept:** ME  
**QC Type:** MS

Analyte	Result	Units	Method	MDL	Reporting Limit	Amount Spiked	Spike Ref. Amount	%REC	Limits	RPD Ref. Amt	% RPD	RPD Limit	Qual
<b>Lab Sample ID: 1905087-002EMS</b>		Date Analyzed: 05/17/2019 1246h											
Test Code: 200.7-DIS		Date Prepared: 05/06/2019 1142h											
Calcium	517	mg/L	E200.7	1.87	20.0	10.00	502	150	70 - 130				2
Magnesium	202	mg/L	E200.7	0.878	20.0	10.00	191	110	70 - 130				
Sodium	589	mg/L	E200.7	3.74	20.0	10.00	570	190	70 - 130				2
<b>Lab Sample ID: 1905087-002EMS</b>		Date Analyzed: 05/17/2019 1455h											
Test Code: 200.7-DIS		Date Prepared: 05/06/2019 1142h											
Potassium	22.8	mg/L	E200.7	0.134	1.00	10.00	11.6	112	70 - 130				
Vanadium	0.212	mg/L	E200.7	0.00138	0.00500	0.2000	0	106	70 - 130				
<b>Lab Sample ID: 1905087-002EMS</b>		Date Analyzed: 05/14/2019 1606h											
Test Code: 200.8-DIS		Date Prepared: 05/06/2019 1142h											
Arsenic	0.203	mg/L	E200.8	0.000298	0.00200	0.2000	0	102	75 - 125				
Beryllium	0.185	mg/L	E200.8	0.000198	0.00200	0.2000	0	92.7	75 - 125				
Cadmium	0.189	mg/L	E200.8	0.0000858	0.000500	0.2000	0.000102	94.6	75 - 125				
Chromium	0.193	mg/L	E200.8	0.00191	0.00200	0.2000	0	96.5	75 - 125				
Cobalt	0.191	mg/L	E200.8	0.000300	0.00400	0.2000	0	95.3	75 - 125				
Copper	0.190	mg/L	E200.8	0.00282	0.00200	0.2000	0	94.9	75 - 125				
Iron	0.957	mg/L	E200.8	0.0496	0.100	1.000	0	95.7	75 - 125				
Lead	0.185	mg/L	E200.8	0.000448	0.00200	0.2000	0	92.5	75 - 125				
Manganese	0.195	mg/L	E200.8	0.00108	0.00200	0.2000	0	97.3	75 - 125				
Molybdenum	0.204	mg/L	E200.8	0.000652	0.00200	0.2000	0.000721	101	75 - 125				
Nickel	0.191	mg/L	E200.8	0.00148	0.00200	0.2000	0	95.4	75 - 125				
Selenium	0.300	mg/L	E200.8	0.000574	0.00200	0.2000	0.103	98.7	75 - 125				
Silver	0.185	mg/L	E200.8	0.000232	0.00200	0.2000	0	92.5	75 - 125				
Thallium	0.189	mg/L	E200.8	0.000154	0.00200	0.2000	0	94.6	75 - 125				
Tin	1.01	mg/L	E200.8	0.00116	0.00400	1.000	0	101	75 - 125				
Uranium	0.237	mg/L	E200.8	0.000176	0.00200	0.2000	0.0415	97.5	75 - 125				
Zinc	0.978	mg/L	E200.8	0.00418	0.00600	1.000	0	97.8	75 - 125				



3440 South 700 West

Salt Lake City, UT 84119

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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:** Energy Fuels Resources, Inc.  
**Lab Set ID:** 1905087  
**Project:** 2nd Quarter Groundwater 2019

**Contact:** Tanner Holliday  
**Dept:** ME  
**QC Type:** MS

Analyte	Result	Units	Method	MDL	Reporting Limit	Amount Spiked	Spike Ref. Amount	%REC	Limits	RPD Ref. Amt	% RPD	RPD Limit	Qual
<b>Lab Sample ID:</b> 1905087-001EMS	Date Analyzed:	05/07/2019	732h										
<b>Test Code:</b> HG-DW-DIS-245.1	Date Prepared:	05/06/2019	1530h										
Mercury	0.00319	mg/L	E245.1	0.0000396	0.0000900	0.003330	0	95.7	85 - 115				

<sup>2</sup> - Analyte concentration is too high for accurate matrix spike recovery and/or RPD.



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QA Officer

## QC SUMMARY REPORT

**Client:** Energy Fuels Resources, Inc.  
**Lab Set ID:** 1905087  
**Project:** 2nd Quarter Groundwater 2019

**Contact:** Tanner Holliday  
**Dept:** ME  
**QC Type:** MSD

Analyte	Result	Units	Method	MDL	Reporting Limit	Amount Spiked	Spike Ref. Amount	%REC	Limits	RPD Ref. Amt	% RPD	RPD Limit	Qual
<b>Lab Sample ID: 1905087-002EMSD</b>		Date Analyzed:	05/17/2019 1249h										
Test Code: 200.7-DIS		Date Prepared:	05/06/2019 1142h										
Calcium	517	mg/L	E200.7	1.87	20.0	10.00	502	150	70 - 130	517	0	20	2
Magnesium	205	mg/L	E200.7	0.878	20.0	10.00	191	140	70 - 130	202	1.47	20	2
Sodium	589	mg/L	E200.7	3.74	20.0	10.00	570	190	70 - 130	589	0	20	2
<b>Lab Sample ID: 1905087-002EMSD</b>		Date Analyzed:	05/17/2019 1458h										
Test Code: 200.7-DIS		Date Prepared:	05/06/2019 1142h										
Potassium	22.5	mg/L	E200.7	0.134	1.00	10.00	11.6	109	70 - 130	22.8	1.32	20	
Vanadium	0.204	mg/L	E200.7	0.00138	0.00500	0.2000	0	102	70 - 130	0.212	3.85	20	
<b>Lab Sample ID: 1905087-002EMSD</b>		Date Analyzed:	05/14/2019 1609h										
Test Code: 200.8-DIS		Date Prepared:	05/06/2019 1142h										
Arsenic	0.198	mg/L	E200.8	0.000298	0.00200	0.2000	0	99.1	75 - 125	0.203	2.54	20	
Beryllium	0.178	mg/L	E200.8	0.000198	0.00200	0.2000	0	89.2	75 - 125	0.185	3.93	20	
Cadmium	0.184	mg/L	E200.8	0.0000858	0.000500	0.2000	0.000102	91.8	75 - 125	0.189	2.95	20	
Chromium	0.187	mg/L	E200.8	0.00191	0.00200	0.2000	0	93.3	75 - 125	0.193	3.37	20	
Cobalt	0.184	mg/L	E200.8	0.000300	0.00400	0.2000	0	92.0	75 - 125	0.191	3.57	20	
Copper	0.184	mg/L	E200.8	0.00282	0.00200	0.2000	0	92.0	75 - 125	0.19	3.11	20	
Iron	0.921	mg/L	E200.8	0.0496	0.100	1.000	0	92.1	75 - 125	0.957	3.87	20	
Lead	0.178	mg/L	E200.8	0.000448	0.00200	0.2000	0	89.2	75 - 125	0.185	3.63	20	
Manganese	0.184	mg/L	E200.8	0.00108	0.00200	0.2000	0	92.1	75 - 125	0.195	5.48	20	
Molybdenum	0.200	mg/L	E200.8	0.000652	0.00200	0.2000	0.000721	99.5	75 - 125	0.204	1.93	20	
Nickel	0.182	mg/L	E200.8	0.00148	0.00200	0.2000	0	91.1	75 - 125	0.191	4.57	20	
Selenium	0.294	mg/L	E200.8	0.000574	0.00200	0.2000	0.103	95.6	75 - 125	0.3	2.09	20	
Silver	0.177	mg/L	E200.8	0.000232	0.00200	0.2000	0	88.4	75 - 125	0.185	4.57	20	
Thallium	0.180	mg/L	E200.8	0.000154	0.00200	0.2000	0	90.0	75 - 125	0.189	4.97	20	
Tin	0.996	mg/L	E200.8	0.00116	0.00400	1.000	0	99.6	75 - 125	1.01	1.05	20	
Uranium	0.229	mg/L	E200.8	0.000176	0.00200	0.2000	0.0415	93.7	75 - 125	0.237	3.31	20	
Zinc	0.951	mg/L	E200.8	0.00418	0.00600	1.000	0	95.1	75 - 125	0.978	2.71	20	



3440 South 700 West

Salt Lake City, UT 84119

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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:** Energy Fuels Resources, Inc.  
**Lab Set ID:** 1905087  
**Project:** 2nd Quarter Groundwater 2019

**Contact:** Tanner Holliday  
**Dept:** ME  
**QC Type:** MSD

Analyte	Result	Units	Method	MDL	Reporting Limit	Amount Spiked	Spike Ref. Amount	%REC	Limits	RPD Ref. Amt	% RPD	RPD Limit	Qual
<b>Lab Sample ID:</b> 1905087-001EMSD	Date Analyzed:	05/07/2019	734h										
Test Code: HG-DW-DIS-245.1	Date Prepared:	05/06/2019	1530h										
Mercury	0.00323	mg/L	E245.1	0.0000396	0.0000900	0.003330	0	96.9	85 - 115	0.00319	1.30	20	

<sup>2</sup> - Analyte concentration is too high for accurate matrix spike recovery and/or RPD.



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## QC SUMMARY REPORT

**Client:** Energy Fuels Resources, Inc.  
**Lab Set ID:** 1905087  
**Project:** 2nd Quarter Groundwater 2019

**Contact:** Tanner Holliday  
**Dept:** WC  
**QC Type:** DUP

Analyte	Result	Units	Method	MDL	Reporting Limit	Amount Spiked	Spike Ref. Amount	%REC	Limits	RPD Ref. Amt	% RPD	RPD Limit	Qual
<b>Lab Sample ID:</b> 1905087-001CDUP	Date Analyzed: 05/03/2019 1310h												
<b>Test Code:</b> TDS-W-2540C													
Total Dissolved Solids	5,410	mg/L	SM2540C	16.0	20.0					4880	10.2	5	@

@ - High RPD due to suspected sample non-homogeneity or matrix interference.



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## QC SUMMARY REPORT

**Client:** Energy Fuels Resources, Inc.  
**Lab Set ID:** 1905087  
**Project:** 2nd Quarter Groundwater 2019

**Contact:** Tanner Holliday  
**Dept:** WC  
**QC Type:** LCS

Analyte	Result	Units	Method	MDL	Reporting Limit	Amount Spiked	Spike Ref. Amount	%REC	Limits	RPD Ref. Amt	% RPD	RPD Limit	Qual
<b>Lab Sample ID: LCS-R125695</b> Date Analyzed: 05/10/2019 1119h													
Test Code: 300.0-W													
Chloride	5.14	mg/L	E300.0	0.0386	0.100	5.000	0	103	90 - 110				
Fluoride	5.15	mg/L	E300.0	0.0240	0.100	5.000	0	103	90 - 110				
Sulfate	5.17	mg/L	E300.0	0.0557	0.750	5.000	0	103	90 - 110				
<b>Lab Sample ID: LCS-R125727</b> Date Analyzed: 05/10/2019 2017h													
Test Code: 300.0-W													
Chloride	5.20	mg/L	E300.0	0.0386	0.100	5.000	0	104	90 - 110				
Fluoride	5.25	mg/L	E300.0	0.0240	0.100	5.000	0	105	90 - 110				
Sulfate	5.33	mg/L	E300.0	0.0557	0.750	5.000	0	107	90 - 110				
<b>Lab Sample ID: LCS-R125451</b> Date Analyzed: 05/06/2019 820h													
Test Code: ALK-W-2320B-LL													
Alkalinity (as CaCO3)	250	mg/L	SM2320B	0.781	1.00	250.0	0	100	90 - 110				
<b>Lab Sample ID: LCS-62554</b> Date Analyzed: 05/10/2019 1855h													
Test Code: NH3-W-350.1 Date Prepared: 05/10/2019 1650h													
Ammonia (as N)	9.82	mg/L	E350.1	0.0492	0.0500	10.00	0	98.2	90 - 110				
<b>Lab Sample ID: LCS-R125424</b> Date Analyzed: 05/03/2019 1520h													
Test Code: NO2/NO3-W-353.2													
Nitrate/Nitrite (as N)	1.06	mg/L	E353.2	0.00363	0.0100	1.000	0	106	90 - 110				
<b>Lab Sample ID: LCS-R125473</b> Date Analyzed: 05/03/2019 1310h													
Test Code: TDS-W-2540C													
Total Dissolved Solids	188	mg/L	SM2540C	8.00	10.0	205.0	0	91.7	80 - 120				



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Kyle F. Gross  
Laboratory Director

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## QC SUMMARY REPORT

**Client:** Energy Fuels Resources, Inc.

**Lab Set ID:** 1905087

**Project:** 2nd Quarter Groundwater 2019

**Contact:** Tanner Holliday

**Dept:** WC

**QC Type:** MBLK

Analyte	Result	Units	Method	MDL	Reporting Limit	Amount Spiked	Spike Ref. Amount	%REC	Limits	RPD Ref. Amt	% RPD	RPD Limit	Qual
<b>Lab Sample ID: MB-R125695</b>		Date Analyzed: 05/10/2019 1102h											
Test Code: 300.0-W													
Chloride	< 0.100	mg/L	E300.0	0.0386	0.100								
Fluoride	< 0.100	mg/L	E300.0	0.0240	0.100								
Sulfate	< 0.750	mg/L	E300.0	0.0557	0.750								
<b>Lab Sample ID: MB-R125727</b>		Date Analyzed: 05/10/2019 2000h											
Test Code: 300.0-W													
Chloride	< 0.100	mg/L	E300.0	0.0386	0.100								
Fluoride	< 0.100	mg/L	E300.0	0.0240	0.100								
Sulfate	< 0.750	mg/L	E300.0	0.0557	0.750								
<b>Lab Sample ID: MB-R125451</b>		Date Analyzed: 05/06/2019 820h											
Test Code: ALK-W-2320B-LL													
Bicarbonate (as CaCO3)	< 1.00	mg/L	SM2320B	0.781	1.00								
Carbonate (as CaCO3)	< 1.00	mg/L	SM2320B	0.781	1.00								
<b>Lab Sample ID: MB-62554</b>		Date Analyzed: 05/10/2019 1854h											
Test Code: NH3-W-350.1		Date Prepared: 05/10/2019 1650h											
Ammonia (as N)	< 0.0500	mg/L	E350.1	0.0492	0.0500								
<b>Lab Sample ID: MB-R125424</b>		Date Analyzed: 05/03/2019 1519h											
Test Code: NO2/NO3-W-353.2													
Nitrate/Nitrite (as N)	< 0.0100	mg/L	E353.2	0.00363	0.0100								
<b>Lab Sample ID: MB-R125473</b>		Date Analyzed: 05/03/2019 1310h											
Test Code: TDS-W-2540C													
Total Dissolved Solids	< 10.0	mg/L	SM2540C	8.00	10.0								



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## QC SUMMARY REPORT

**Client:** Energy Fuels Resources, Inc.  
**Lab Set ID:** 1905087  
**Project:** 2nd Quarter Groundwater 2019

**Contact:** Tanner Holliday  
**Dept:** WC  
**QC Type:** MS

Analyte	Result	Units	Method	MDL	Reporting Limit	Amount Spiked	Spike Ref. Amount	%REC	Limits	RPD Ref. Amt	% RPD	RPD Limit	Qual
<b>Lab Sample ID: 1904652-009BMS</b> Date Analyzed: 05/10/2019 1152h													
Test Code: 300.0-W													
Chloride	1,180	mg/L	E300.0	7.72	20.0	1,000	165	102	90 - 110				
Fluoride	1,040	mg/L	E300.0	4.80	20.0	1,000	0	104	90 - 110				
Sulfate	3,470	mg/L	E300.0	11.1	150	1,000	2390	108	90 - 110				
<b>Lab Sample ID: 1905087-007BMS</b> Date Analyzed: 05/10/2019 1640h													
Test Code: 300.0-W													
Chloride	5,490	mg/L	E300.0	38.6	100	5,000	53.4	109	90 - 110				
Fluoride	5,450	mg/L	E300.0	24.0	100	5,000	0	109	90 - 110				
Sulfate	10,900	mg/L	E300.0	55.7	750	5,000	5700	103	90 - 110				
<b>Lab Sample ID: 1905087-001BMS</b> Date Analyzed: 05/06/2019 820h													
Test Code: ALK-W-2320B-LL													
Alkalinity (as CaCO <sub>3</sub> )	1,360	mg/L	SM2320B	0.781	1.00	1,000	380	98.0	80 - 120				
<b>Lab Sample ID: 1905087-001DMS</b> Date Analyzed: 05/10/2019 1900h													
Test Code: NH3-W-350.1      Date Prepared: 05/10/2019 1650h													
Ammonia (as N)	10.5	mg/L	E350.1	0.0492	0.0500	10.00	0	105	90 - 110				
<b>Lab Sample ID: 1905087-002DMS</b> Date Analyzed: 05/03/2019 1528h													
Test Code: NO2/NO3-W-353.2													
Nitrate/Nitrite (as N)	1.26	mg/L	E353.2	0.00363	0.0100	1.000	0.201	106	90 - 110				



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## QC SUMMARY REPORT

**Client:** Energy Fuels Resources, Inc.  
**Lab Set ID:** 1905087  
**Project:** 2nd Quarter Groundwater 2019

**Contact:** Tanner Holliday  
**Dept:** WC  
**QC Type:** MSD

Analyte	Result	Units	Method	MDL	Reporting Limit	Amount Spiked	Spike Ref. Amount	%REC	Limits	RPD Ref. Amt	% RPD	RPD Limit	Qual
<b>Lab Sample ID: 1904652-009BMSD</b> Date Analyzed: 05/10/2019 1209h													
Test Code: 300.0-W													
Chloride	1,190	mg/L	E300.0	7.72	20.0	1,000	165	103	90 - 110	1180	0.964	20	
Fluoride	1,030	mg/L	E300.0	4.80	20.0	1,000	0	103	90 - 110	1040	0.621	20	
Sulfate	3,460	mg/L	E300.0	11.1	150	1,000	2390	108	90 - 110	3470	0.257	20	
<b>Lab Sample ID: 1905087-007BMSD</b> Date Analyzed: 05/10/2019 1656h													
Test Code: 300.0-W													
Chloride	5,270	mg/L	E300.0	38.6	100	5,000	53.4	104	90 - 110	5490	3.98	20	
Fluoride	5,310	mg/L	E300.0	24.0	100	5,000	0	106	90 - 110	5450	2.61	20	
Sulfate	11,100	mg/L	E300.0	55.7	750	5,000	5700	107	90 - 110	10900	1.79	20	
<b>Lab Sample ID: 1905087-001BMSD</b> Date Analyzed: 05/06/2019 820h													
Test Code: ALK-W-2320B-LL													
Alkalinity (as CaCO3)	1,370	mg/L	SM2320B	0.781	1.00	1,000	380	98.8	80 - 120	1360	0.587	10	
<b>Lab Sample ID: 1905087-001DMSD</b> Date Analyzed: 05/10/2019 1901h													
Test Code: NH3-W-350.1 Date Prepared: 05/10/2019 1650h													
Ammonia (as N)	10.4	mg/L	E350.1	0.0492	0.0500	10.00	0	104	90 - 110	10.5	0.287	10	
<b>Lab Sample ID: 1905087-002DMSD</b> Date Analyzed: 05/03/2019 1530h													
Test Code: NO2/NO3-W-353.2													
Nitrate/Nitrite (as N)	1.27	mg/L	E353.2	0.00363	0.0100	1.000	0.201	107	90 - 110	1.26	1.42	10	



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Jose Rocha  
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## QC SUMMARY REPORT

**Client:** Energy Fuels Resources, Inc.  
**Lab Set ID:** 1905087  
**Project:** 2nd Quarter Groundwater 2019

**Contact:** Tanner Holliday  
**Dept:** MSVOA  
**QC Type:** LCS

Analyte	Result	Units	Method	MDL	Reporting Limit	Amount Spiked	Spike Ref. Amount	%REC	Limits	RPD Ref. Amt	% RPD	RPD Limit	Qual
<b>Lab Sample ID:</b> LCS VOC-1 050419A	Date Analyzed: 05/04/2019 946h												
<b>Test Code:</b> 8260-W-DEN100													
Benzene	23.2	µg/L	SW8260C	0.147	1.00	20.00	0	116	82 - 132				
Chloroform	22.7	µg/L	SW8260C	0.166	1.00	20.00	0	114	85 - 124				
Methylene chloride	25.0	µg/L	SW8260C	0.448	1.00	20.00	0	125	65 - 154				
Naphthalene	22.5	µg/L	SW8260C	0.704	1.00	20.00	0	113	63 - 129				
Tetrahydrofuran	25.1	µg/L	SW8260C	0.436	1.00	20.00	0	125	59 - 125				S
Toluene	21.6	µg/L	SW8260C	0.177	1.00	20.00	0	108	69 - 129				
Xylenes, Total	61.9	µg/L	SW8260C	0.253	1.00	60.00	0	103	66 - 124				
Surr: 1,2-Dichloroethane-d4	57.7	µg/L	SW8260C			50.00		115	80 - 136				
Surr: 4-Bromofluorobenzene	48.3	µg/L	SW8260C			50.00		96.6	85 - 121				
Surr: Dibromofluoromethane	50.9	µg/L	SW8260C			50.00		102	78 - 132				
Surr: Toluene-d8	49.8	µg/L	SW8260C			50.00		99.6	81 - 123				

S - High LCS recoveries indicate possible bias high. Data deemed acceptable as the analyte was not observed in the field sample.



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## QC SUMMARY REPORT

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**Project:** 2nd Quarter Groundwater 2019

**Contact:** Tanner Holliday  
**Dept:** MSVOA  
**QC Type:** MBLK

Analyte	Result	Units	Method	MDL	Reporting Limit	Amount Spiked	Spike Ref. Amount	%REC	Limits	RPD Ref. Amt	% RPD	RPD Limit	Qual
<b>Lab Sample ID: MB VOC-1 050419A</b>		Date Analyzed: 05/04/2019 1006h											
Test Code: 8260-W-DEN100													
2-Butanone	< 20.0	µg/L	SW8260C	1.31	20.0								
Acetone	< 20.0	µg/L	SW8260C	2.87	20.0								
Benzene	< 1.00	µg/L	SW8260C	0.147	1.00								
Carbon tetrachloride	< 1.00	µg/L	SW8260C	0.262	1.00								
Chloroform	< 1.00	µg/L	SW8260C	0.166	1.00								
Chloromethane	< 1.00	µg/L	SW8260C	0.832	1.00								
Methylene chloride	< 1.00	µg/L	SW8260C	0.448	1.00								
Naphthalene	< 1.00	µg/L	SW8260C	0.704	1.00								
Tetrahydrofuran	< 1.00	µg/L	SW8260C	0.436	1.00								
Toluene	< 1.00	µg/L	SW8260C	0.177	1.00								
Xylenes, Total	< 1.00	µg/L	SW8260C	0.253	1.00								
Surr: 1,2-Dichloroethane-d4	56.8	µg/L	SW8260C			50.00		114	80 - 136				
Surr: 4-Bromofluorobenzene	50.7	µg/L	SW8260C			50.00		101	85 - 121				
Surr: Dibromofluoromethane	49.4	µg/L	SW8260C			50.00		98.8	78 - 132				
Surr: Toluene-d8	49.8	µg/L	SW8260C			50.00		99.5	81 - 123				



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## QC SUMMARY REPORT

**Client:** Energy Fuels Resources, Inc.  
**Lab Set ID:** 1905087  
**Project:** 2nd Quarter Groundwater 2019

**Contact:** Tanner Holliday  
**Dept:** MSVOA  
**QC Type:** MS

Analyte	Result	Units	Method	MDL	Reporting Limit	Amount Spiked	Spike Ref. Amount	%REC	Limits	RPD Ref. Amt	% RPD	RPD Limit	Qual
<b>Lab Sample ID:</b> 1905087-001AMS	Date Analyzed: 05/04/2019 1146h												
<b>Test Code:</b> 8260-W-DEN100													
Benzene	22.0	µg/L	SW8260C	0.147	1.00	20.00	0	110	66 - 145				
Chloroform	21.0	µg/L	SW8260C	0.166	1.00	20.00	0	105	50 - 146				
Methylene chloride	24.1	µg/L	SW8260C	0.448	1.00	20.00	0	121	30 - 192				
Naphthalene	19.4	µg/L	SW8260C	0.704	1.00	20.00	0	96.8	41 - 131				
Tetrahydrofuran	22.3	µg/L	SW8260C	0.436	1.00	20.00	0	112	43 - 146				
Toluene	20.3	µg/L	SW8260C	0.177	1.00	20.00	0	102	18 - 192				
Xylenes, Total	57.7	µg/L	SW8260C	0.253	1.00	60.00	0	96.2	42 - 167				
Surr: 1,2-Dichloroethane-d4	56.7	µg/L	SW8260C			50.00		113	72 - 151				
Surr: 4-Bromofluorobenzene	49.5	µg/L	SW8260C			50.00		99.0	80 - 152				
Surr: Dibromofluoromethane	49.7	µg/L	SW8260C			50.00		99.4	72 - 135				
Surr: Toluene-d8	49.3	µg/L	SW8260C			50.00		98.6	80 - 124				



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## QC SUMMARY REPORT

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**Lab Set ID:** 1905087  
**Project:** 2nd Quarter Groundwater 2019

**Contact:** Tanner Holliday  
**Dept:** MSVOA  
**QC Type:** MSD

Analyte	Result	Units	Method	MDL	Reporting Limit	Amount Spiked	Spike Ref. Amount	%REC	Limits	RPD Ref. Amt	% RPD	RPD Limit	Qual
<b>Lab Sample ID: 1905087-001AMSD</b>		Date Analyzed: 05/04/2019 1206h											
Test Code: 8260-W-DEN100													
Benzene	21.1	µg/L	SW8260C	0.147	1.00	20.00	0	106	66 - 145	22	4.22	25	
Chloroform	20.2	µg/L	SW8260C	0.166	1.00	20.00	0	101	50 - 146	21	3.69	25	
Methylene chloride	23.1	µg/L	SW8260C	0.448	1.00	20.00	0	116	30 - 192	24.1	4.32	25	
Naphthalene	18.6	µg/L	SW8260C	0.704	1.00	20.00	0	93.2	41 - 131	19.4	3.79	25	
Tetrahydrofuran	21.6	µg/L	SW8260C	0.436	1.00	20.00	0	108	43 - 146	22.3	3.55	25	
Toluene	19.3	µg/L	SW8260C	0.177	1.00	20.00	0	96.6	18 - 192	20.3	5.09	25	
Xylenes, Total	55.4	µg/L	SW8260C	0.253	1.00	60.00	0	92.3	42 - 167	57.7	4.14	25	
Surr: 1,2-Dichloroethane-d4	56.8	µg/L	SW8260C			50.00		114	72 - 151				
Surr: 4-Bromofluorobenzene	49.5	µg/L	SW8260C			50.00		99.0	80 - 152				
Surr: Dibromofluoromethane	50.0	µg/L	SW8260C			50.00		100	72 - 135				
Surr: Toluene-d8	48.4	µg/L	SW8260C			50.00		96.8	80 - 124				

**WORK ORDER Summary**

Work Order: **1905087** Page 1 of 5

**Client:** Energy Fuels Resources, Inc.

Due Date: 5/17/2019

**Client ID:** ENE300

**Contact:** Tanner Holliday

**Project:** 2nd Quarter Groundwater 2019

**QC Level:** III

WO Type: Project

**Comments:** QC 3 (no chromatograms). EDD-Denison. CC KWeinel@energyfuels.com; Do not use "\*\*R\_" samples as MS/MSD.;

Sample ID	Client Sample ID	Collected Date	Received Date	Test Code	Matrix	Sel Storage	
1905087-001A	MW-03A_05022019	5/2/2019 0730h	5/3/2019 1005h	8260-W-DEN100	Aqueous	VOCFridge	3
				<i>Test Group: 8260-W-DEN100; # of Analytes: 11 / # of Surr: 4</i>			
1905087-001B				300.0-W		df - wc	1
				<i>3 SEL Analytes: CL F SO4</i>			
				ALK-W-2320B-LL		df - wc	
				<i>2 SEL Analytes: ALKB ALKC</i>			
1905087-001C				TDS-W-2540C		df - tds	
				<i>1 SEL Analytes: TDS</i>			
1905087-001D				NH3-W-350.1		df - no2/no3 & nh3	
				<i>1 SEL Analytes: NH3N</i>			
				NH3-W-PR		df - no2/no3 & nh3	
				NO2/NO3-W-353.2		df - no2/no3 & nh3	
				<i>1 SEL Analytes: NO3NO2N</i>			
1905087-001E				200.7-DIS		df-met	
				<i>5 SEL Analytes: CA MG K NA V</i>			
				200.7-DIS-PR		df-met	
				200.8-DIS		df-met	
				<i>17 SEL Analytes: AS BE CD CR CO CU FE PB MN MO NI SE AG TL SN U ZN</i>			
				200.8-DIS-PR		df-met	
				HG-DW-DIS-245.1		df-met	
				<i>1 SEL Analytes: HG</i>			
				HG-DW-DIS-PR		df-met	
				IONBALANCE		df-met	
				<i>5 SEL Analytes: BALANCE Anions Cations TDS-Balance TDS-Calc</i>			
1905087-002A	MW-15_04302019	4/30/2019 1055h	5/3/2019 1005h	8260-W-DEN100	Aqueous	VOCFridge	3
				<i>Test Group: 8260-W-DEN100; # of Analytes: 11 / # of Surr: 4</i>			
1905087-002B				300.0-W		df - wc	1
				<i>3 SEL Analytes: CL F SO4</i>			
				ALK-W-2320B-LL		df - wc	
				<i>2 SEL Analytes: ALKB ALKC</i>			
1905087-002C				TDS-W-2540C		df - tds	
				<i>1 SEL Analytes: TDS</i>			

# WORK ORDER Summary

Work Order: **1905087** Page 2 of 5

Client: Energy Fuels Resources, Inc.

Due Date: 5/17/2019

Sample ID	Client Sample ID	Collected Date	Received Date	Test Code	Matrix	Sel Storage	
1905087-002D	MW-15_04302019	4/30/2019 1055h	5/3/2019 1005h	NH3-W-350.1 <i>1 SEL Analytes: NH3N</i>	Aqueous	df - no2/no3 & nh3	1
				NH3-W-PR		df - no2/no3 & nh3	
				NO2/NO3-W-353.2 <i>1 SEL Analytes: NO3NO2N</i>		df - no2/no3 & nh3	
1905087-002E				200.7-DIS <i>5 SEL Analytes: CA MG K NA V</i>		df-met	
				200.7-DIS-PR		df-met	
				200.8-DIS <i>17 SEL Analytes: AS BE CD CR CO CU FE PB MN MO NI SE AG TL SN U ZN</i>		df-met	
				200.8-DIS-PR		df-met	
				HG-DW-DIS-245.1 <i>1 SEL Analytes: HG</i>		df-met	
				HG-DW-DIS-PR		df-met	
				IONBALANCE <i>5 SEL Analytes: BALANCE Anions Cations TDS-Balance TDS-Calc</i>		df-met	
1905087-003A	MW-24_05022019	5/2/2019 0700h	5/3/2019 1005h	8260-W-DEN100 <i>Test Group: 8260-W-DEN100; # of Analytes: 11 / # of Surr: 4</i>	Aqueous	VOCFridge	3
1905087-003B				300.0-W <i>3 SEL Analytes: CL F SO4</i>		df - wc	1
				ALK-W-2320B-LL <i>2 SEL Analytes: ALKB ALKC</i>		df - wc	
1905087-003C				TDS-W-2540C <i>1 SEL Analytes: TDS</i>		df - tds	
1905087-003D				NH3-W-350.1 <i>1 SEL Analytes: NH3N</i>		df - no2/no3 & nh3	
				NH3-W-PR		df - no2/no3 & nh3	
				NO2/NO3-W-353.2 <i>1 SEL Analytes: NO3NO2N</i>		df - no2/no3 & nh3	
1905087-003E				200.7-DIS <i>5 SEL Analytes: CA MG K NA V</i>		df-met	
				200.7-DIS-PR		df-met	
				200.8-DIS <i>17 SEL Analytes: AS BE CD CR CO CU FE PB MN MO NI SE AG TL SN U ZN</i>		df-met	
				200.8-DIS-PR		df-met	
				HG-DW-DIS-245.1 <i>1 SEL Analytes: HG</i>		df-met	

# WORK ORDER Summary

Work Order: **1905087** Page 3 of 5

Client: Energy Fuels Resources, Inc.

Due Date: 5/17/2019

Sample ID	Client Sample ID	Collected Date	Received Date	Test Code	Matrix	Sel Storage		
1905087-003E	MW-24_05022019	5/2/2019 0700h	5/3/2019 1005h	HG-DW-DIS-PR	Aqueous	df-met	1	
				IONBALANCE		df-met		
				5 SEL Analytes: BALANCE Anions Cations TDS-Balance TDS-Calc				
1905087-004A	MW-38_05022019	5/2/2019 0845h	5/3/2019 1005h	8260-W-DEN100	Aqueous	VOCFridge	3	
				Test Group: 8260-W-DEN100; # of Analytes: 11 / # of Surr: 4				
1905087-004B				300.0-W		df - wc	1	
				3 SEL Analytes: CL F SO4				
1905087-004C				ALK-W-2320B-LL		df - wc		
				2 SEL Analytes: ALKB ALKC				
1905087-004D				TDS-W-2540C		df - tds		
				1 SEL Analytes: TDS				
1905087-004E				NH3-W-350.1		df - no2/no3 & nh3		
				1 SEL Analytes: NH3N				
				NH3-W-PR		df - no2/no3 & nh3		
1905087-004E				NO2/NO3-W-353.2		df - no2/no3 & nh3		
				1 SEL Analytes: NO3NO2N				
				200.7-DIS		df-met		
				5 SEL Analytes: CA MG K NA V				
				200.7-DIS-PR		df-met		
				200.8-DIS		df-met		
				17 SEL Analytes: AS BE CD CR CO CU FE PB MN MO NI SE AG TL SN U ZN				
200.8-DIS-PR	df-met							
1905087-005A	MW-39_05012019	5/1/2019 1125h	5/3/2019 1005h	8260-W-DEN100	Aqueous	VOCFridge	3	
				Test Group: 8260-W-DEN100; # of Analytes: 11 / # of Surr: 4				
				300.0-W		df - wc	1	
				3 SEL Analytes: CL F SO4				
1905087-005B				ALK-W-2320B-LL		df - wc		
				2 SEL Analytes: ALKB ALKC				
1905087-005C				TDS-W-2540C		df - tds		
				1 SEL Analytes: TDS				
1905087-005D				NH3-W-350.1		df - no2/no3 & nh3		
				1 SEL Analytes: NH3N				

# WORK ORDER Summary

Work Order: **1905087** Page 4 of 5

Client: Energy Fuels Resources, Inc.

Due Date: 5/17/2019

Sample ID	Client Sample ID	Collected Date	Received Date	Test Code	Matrix	Sel Storage	
1905087-005D	MW-39_05012019	5/1/2019 1125h	5/3/2019 1005h	NH3-W-PR	Aqueous	df - no2/no3 & nh3	1
				NO2/NO3-W-353.2		df - no2/no3 & nh3	
				1 SEL Analytes: NO3NO2N			
1905087-005E				200.7-DIS		df-met	
				5 SEL Analytes: CA MG K NA V			
				200.7-DIS-PR		df-met	
				200.8-DIS		df-met	
				17 SEL Analytes: AS BE CD CR CO CU FE PB MN MO NI SE AG TL SN U ZN			
				200.8-DIS-PR		df-met	
				HG-DW-DIS-245.1		df-met	
				1 SEL Analytes: HG			
				HG-DW-DIS-PR		df-met	
				IONBALANCE		df-met	
				5 SEL Analytes: BALANCE Anions Cations TDS-Balance TDS-Calc			
1905087-006A	MW-70_04302019	4/30/2019 1055h	5/3/2019 1005h	8260-W-DEN100	Aqueous	VOCFridge	3
				Test Group: 8260-W-DEN100; # of Analytes: 11 / # of Surr: 4			
1905087-006B				300.0-W		df - wc	1
				3 SEL Analytes: CL F SO4			
				ALK-W-2320B-LL		df - wc	
				2 SEL Analytes: ALKB ALKC			
1905087-006C				TDS-W-2540C		df - tds	
				1 SEL Analytes: TDS			
1905087-006D				NH3-W-350.1		df - no2/no3 & nh3	
				1 SEL Analytes: NH3N			
				NH3-W-PR		df - no2/no3 & nh3	
				NO2/NO3-W-353.2		df - no2/no3 & nh3	
				1 SEL Analytes: NO3NO2N			
1905087-006E				200.7-DIS		df-met	
				5 SEL Analytes: CA MG K NA V			
				200.7-DIS-PR		df-met	
				200.8-DIS		df-met	
				17 SEL Analytes: AS BE CD CR CO CU FE PB MN MO NI SE AG TL SN U ZN			
				200.8-DIS-PR		df-met	
				HG-DW-DIS-245.1		df-met	
				1 SEL Analytes: HG			
				HG-DW-DIS-PR		df-met	

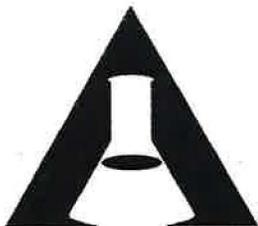
# WORK ORDER Summary

Work Order: **1905087** Page 5 of 5

Client: Energy Fuels Resources, Inc.

Due Date: 5/17/2019

Sample ID	Client Sample ID	Collected Date	Received Date	Test Code	Matrix	Sel	Storage
1905087-006E	MW-70_04302019	4/30/2019 1055h	5/3/2019 1005h	IONBALANCE	Aqueous		df-met 1
<i>5 SEL Analytes: BALANCE Anions Cations TDS-Balance TDS-Calc</i>							
1905087-007A	MW-22_04302019	4/30/2019 1210h	5/3/2019 1005h	8260-W-DEN100	Aqueous		VOCFridge 3
<i>Test Group: 8260-W-DEN100; # of Analytes: 11 / # of Surr: 4</i>							
1905087-007B				300.0-W			df - wc 1
<i>3 SEL Analytes: CL F SO4</i>							
				ALK-W-2320B-LL			df - wc
<i>2 SEL Analytes: ALKB ALKC</i>							
1905087-007C				TDS-W-2540C			df - tds
<i>1 SEL Analytes: TDS</i>							
1905087-007D				NH3-W-350.1			df - no2/no3 & nh3
<i>1 SEL Analytes: NH3N</i>							
				NH3-W-PR			df - no2/no3 & nh3
				NO2/NO3-W-353.2			df - no2/no3 & nh3
<i>1 SEL Analytes: NO3NO2N</i>							
1905087-007E				200.7-DIS			df-met
<i>5 SEL Analytes: CA MG K NA V</i>							
				200.7-DIS-PR			df-met
				200.8-DIS			df-met
<i>17 SEL Analytes: AS BE CD CR CO CU FE PB MN MO NI SE AG TL SN U ZN</i>							
				200.8-DIS-PR			df-met
				HG-DW-DIS-245.1			df-met
<i>1 SEL Analytes: HG</i>							
				HG-DW-DIS-PR			df-met
				IONBALANCE			df-met
<i>5 SEL Analytes: BALANCE Anions Cations TDS-Balance TDS-Calc</i>							
1905087-008A	Trip Blank	4/30/2019 1055h	5/3/2019 1005h	8260-W-DEN100	Aqueous		VOCFridge 3
<i>Test Group: 8260-W-DEN100; # of Analytes: 11 / # of Surr: 4</i>							



# American West Analytical Laboratories

463 W. 3600 S. Salt Lake City, UT 84115  
 Phone # (801) 263-8686 Toll Free # (888) 263-8686  
 Fax # (801) 263-8687 Email [awal@awal-labs.com](mailto:awal@awal-labs.com)  
[www.awal-labs.com](http://www.awal-labs.com)

## CHAIN OF CUSTODY

All analysis will be conducted using NELAP accredited methods and all data will be reported using AWAL's standard analyte lists and reporting limits (PQL) unless specifically requested otherwise on this Chain of Custody and/or attached documentation.

1905087

AWAL Lab Sample Set #  
 Page 1 of 1

Client: **Energy Fuels Resources, Inc.**  
 Address: **6425 S. Hwy. 191**  
**Blanding, UT 84511**  
 Contact: **Tanner Holliday**  
 Phone #: **(435) 678-2221** Cell #:  
 Email: **gpalmer@energyfuels.com; kWeinel@energyfuels.com; tholliday@energyfuels.com**  
 Project Name: **2nd Quarter Groundwater 2019**  
 Project #:  
 PO #:  
 Sampler Name: **Tanner Holliday**

QC Level:		Turn Around Time:		Due Date:	
3		Standard		Unless other arrangements have been made, signed reports will be emailed by 5:00 pm on the day they are due.	
Sample ID	Date Sampled	Time Sampled	# of Containers	Sample Matrix	Known Hazards & Sample Comments
1 MW-03A_05022019	5/2/2019	730	7	w	
2 MW-15_04302019	4/30/2019	1055	7	w	
3 MW-24_05022019	5/2/2019	700	7	w	
4 MW-38_05022019	5/2/2019	845	7	w	
5 MW-39_05012019	5/1/2019	1125	7	w	
6 MW-70_04302019	4/30/2019	1055	7	w	
7 MW-22_04302019	4/30/2019	1210	7	w	
8 TRIP BLANK	4/30/2019	1055	3	w	
9					
10					
11					
12					

**Laboratory Use Only**

Samples Were: **WPS**

- Shipped or hand delivered
- Ambient or Chilled
- Temperature **1.6** °C
- Received Broken/Leaking (Improperly Sealed)
- Properly Preserved
- Received Within Holding Times

Checked at bench 

Other: 

COC Tape Was:

- Present on Outer Package  N NA
- Unbroken on Outer Package  N NA
- Present on Sample  N NA
- Unbroken on Sample  N NA

Discrepancies Between Sample Labels and COC Record?  Y  N

Relinquished by: Signature <i>Tanner Holliday</i>	Date: 5/2/2019	Received by: Signature <i>Elma Sky</i>	Date: 5/3/19	Special Instructions: Sample containers for metals were field filtered. See the Analytical Scope of Work for Reporting Limits and VOC analyte list.
Print Name: Tanner Holliday	Time: 1130	Print Name: Elma Sky	Time: 1005	
Relinquished by: Signature	Date:	Received by: Signature <i>Elma Sky</i>	Date:	
Print Name:	Time:	Print Name:	Time:	
Relinquished by: Signature	Date:	Received by: Signature	Date:	
Print Name:	Time:	Print Name:	Time:	

Lab Set ID: 1905087

pH Lot #: 5912

Preservation Check Sheet

Sample Set Extension and pH

Analysis	Preservative	1	2	3	4	5	6	7											
Ammonia	pH < 2 H <sub>2</sub> SO <sub>4</sub>	Yes																	
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>	Yes																	
O & G	pH < 2 HCL																		
Phenols	pH < 2 H <sub>2</sub> SO <sub>4</sub>																		
Sulfide	pH > 9 NaOH, Zn Acetate																		
TKN	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>																		

- 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

- \* The sample required additional preservative upon receipt.
- + The sample was received unpreserved.
- ▲ The sample was received unpreserved and therefore preserved upon receipt.
- # The sample pH was unadjustable to a pH < 2 due to the sample matrix.
- The sample pH was unadjustable to a pH >      due to the sample matrix interference.



Tanner Holliday  
Energy Fuels Resources, Inc.  
6425 South Hwy 191  
Blanding, UT 84511  
TEL: (435) 678-2221

RE: 2nd Quarter Groundwater 2019

Dear Tanner Holliday:

Lab Set ID: 1905400

3440 South 700 West  
Salt Lake City, UT 84119

American West Analytical Laboratories received sample(s) on 5/16/2019 for the analyses presented in the following report.

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

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)

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

Kyle F. Gross  
Laboratory Director

Jose Rocha  
QA Officer

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

Thank You,

Approved by:

<b>Kyle F. Gross</b>	Digitally signed by Kyle F. Gross
	Date: 2019.06.03 08:08:07 -06'00'

Laboratory Director or designee



## SAMPLE SUMMARY

**Client:** Energy Fuels Resources, Inc.  
**Project:** 2nd Quarter Groundwater 2019  
**Lab Set ID:** 1905400  
**Date Received:** 5/16/2019 1015h

**Contact:** Tanner Holliday

Lab Sample ID	Client Sample ID	Date Collected	Matrix	Analysis
1905400-001A	MW-20_05152019	5/15/2019 830h	Aqueous	VOA by GC/MS Method 8260C/5030C
1905400-001B	MW-20_05152019	5/15/2019 830h	Aqueous	Anions, E300.0
1905400-001B	MW-20_05152019	5/15/2019 830h	Aqueous	Alkalinity/ Bicarbonate/ Carbonate, Low Level
1905400-001C	MW-20_05152019	5/15/2019 830h	Aqueous	Total Dissolved Solids, A2540C
1905400-001D	MW-20_05152019	5/15/2019 830h	Aqueous	Nitrite/Nitrate (as N), E353.2
1905400-001D	MW-20_05152019	5/15/2019 830h	Aqueous	Ammonia, Aqueous
1905400-001E	MW-20_05152019	5/15/2019 830h	Aqueous	Ion Balance
1905400-001E	MW-20_05152019	5/15/2019 830h	Aqueous	ICP Metals, Dissolved
1905400-001E	MW-20_05152019	5/15/2019 830h	Aqueous	ICPMS Metals, Dissolved
1905400-001E	MW-20_05152019	5/15/2019 830h	Aqueous	Mercury, Drinking Water Dissolved
1905400-002A	MW-23_05152019	5/15/2019 740h	Aqueous	VOA by GC/MS Method 8260C/5030C
1905400-002B	MW-23_05152019	5/15/2019 740h	Aqueous	Anions, E300.0
1905400-002B	MW-23_05152019	5/15/2019 740h	Aqueous	Alkalinity/ Bicarbonate/ Carbonate, Low Level
1905400-002C	MW-23_05152019	5/15/2019 740h	Aqueous	Total Dissolved Solids, A2540C
1905400-002D	MW-23_05152019	5/15/2019 740h	Aqueous	Ammonia, Aqueous
1905400-002D	MW-23_05152019	5/15/2019 740h	Aqueous	Nitrite/Nitrate (as N), E353.2
1905400-002E	MW-23_05152019	5/15/2019 740h	Aqueous	Ion Balance
1905400-002E	MW-23_05152019	5/15/2019 740h	Aqueous	ICP Metals, Dissolved
1905400-002E	MW-23_05152019	5/15/2019 740h	Aqueous	ICPMS Metals, Dissolved
1905400-002E	MW-23_05152019	5/15/2019 740h	Aqueous	Mercury, Drinking Water Dissolved
1905400-003A	MW-37_05152019	5/15/2019 800h	Aqueous	VOA by GC/MS Method 8260C/5030C
1905400-003B	MW-37_05152019	5/15/2019 800h	Aqueous	Alkalinity/ Bicarbonate/ Carbonate, Low Level
1905400-003B	MW-37_05152019	5/15/2019 800h	Aqueous	Anions, E300.0
1905400-003C	MW-37_05152019	5/15/2019 800h	Aqueous	Total Dissolved Solids, A2540C
1905400-003D	MW-37_05152019	5/15/2019 800h	Aqueous	Ammonia, Aqueous
1905400-003D	MW-37_05152019	5/15/2019 800h	Aqueous	Nitrite/Nitrate (as N), E353.2
1905400-003E	MW-37_05152019	5/15/2019 800h	Aqueous	Ion Balance
1905400-003E	MW-37_05152019	5/15/2019 800h	Aqueous	ICP Metals, Dissolved
1905400-003E	MW-37_05152019	5/15/2019 800h	Aqueous	ICPMS Metals, Dissolved



**Client:** Energy Fuels Resources, Inc.  
**Project:** 2nd Quarter Groundwater 2019  
**Lab Set ID:** 1905400  
**Date Received:** 5/16/2019 1015h

**Contact:** Tanner Holliday

Lab Sample ID	Client Sample ID	Date Collected	Matrix	Analysis
1905400-003E	MW-37_05152019	5/15/2019 800h	Aqueous	Mercury, Drinking Water Dissolved
1905400-004A	Trip Blank	5/15/2019 740h	Aqueous	VOA by GC/MS Method 8260C/5030C

3440 South 700 West  
Salt Lake City, UT 84119

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



## Inorganic Case Narrative

**Client:** Energy Fuels Resources, Inc.  
**Contact:** Tanner Holliday  
**Project:** 2nd Quarter Groundwater 2019  
**Lab Set ID:** 1905400

3440 South 700 West  
Salt Lake City, UT 84119

### Sample Receipt Information:

**Date of Receipt:** 5/16/2019  
**Date of Collection:** 5/15/2019  
**Sample Condition:** Intact  
**C-O-C Discrepancies:** See Chain of Custody

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

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

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

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

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

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

**Matrix Spike / Matrix Spike Duplicates (MS/MSD):** All percent recoveries and RPDs (Relative Percent Differences) were inside established limits, with the following exceptions:

Sample ID	Analyte	QC	Explanation
1905400-001E	Calcium	MS/MSD	Sample non-homogeneity
1905400-001E	Sodium	MS/MSD	High analyte concentration

**Duplicate (DUP):** The parameters that required a duplicate analysis had RPDs within the control limits.

**Corrective Action:** None required.



## Volatile Case Narrative

**Client:** Energy Fuels Resources, Inc.  
**Contact:** Tanner Holliday  
**Project:** 2nd Quarter Groundwater 2019  
**Lab Set ID:** 1905400

---

3440 South 700 West  
Salt Lake City, UT 84119

### **Sample Receipt Information:**

**Date of Receipt:** 5/16/2019  
**Date of Collection:** 5/15/2019  
**Sample Condition:** Intact  
**C-O-C Discrepancies:** None  
**Method:** SW-846 8260C/5030C  
**Analysis:** Volatile Organic Compounds

Phone: (801) 263-8686

Toll Free: (888) 263-8686

Fax: (801) 263-8687

e-mail: awal@awal-labs.com

web: www.awal-labs.com

**General Set Comments:** No target analytes were observed above reporting limits.

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

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

**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.



3440 South 700 West

Salt Lake City, UT 84119

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Kyle F. Gross  
Laboratory Director

Jose Rocha  
QA Officer

## QC SUMMARY REPORT

**Client:** Energy Fuels Resources, Inc.  
**Lab Set ID:** 1905400  
**Project:** 2nd Quarter Groundwater 2019

**Contact:** Tanner Holliday  
**Dept:** ME  
**QC Type:** LCS

Analyte	Result	Units	Method	MDL	Reporting Limit	Amount Spiked	Spike Ref. Amount	%REC	Limits	RPD Ref. Amt	% RPD	RPD Limit	Qual
<b>Lab Sample ID: LCS-62670</b>		Date Analyzed: 05/29/2019 1351h											
Test Code: 200.7-DIS		Date Prepared: 05/16/2019 1541h											
Calcium	10.2	mg/L	E200.7	0.0937	1.00	10.00	0	102	85 - 115				
Magnesium	10.6	mg/L	E200.7	0.0439	1.00	10.00	0	106	85 - 115				
Potassium	10.2	mg/L	E200.7	0.134	1.00	10.00	0	102	85 - 115				
Sodium	10.4	mg/L	E200.7	0.187	1.00	10.00	0	104	85 - 115				
Vanadium	0.201	mg/L	E200.7	0.00138	0.00500	0.2000	0	101	85 - 115				
<b>Lab Sample ID: LCS-62676</b>		Date Analyzed: 05/22/2019 1749h											
Test Code: 200.8-DIS		Date Prepared: 05/16/2019 1732h											
Arsenic	0.194	mg/L	E200.8	0.000298	0.00200	0.2000	0	96.8	85 - 115				
Beryllium	0.201	mg/L	E200.8	0.000198	0.00200	0.2000	0	100	85 - 115				
Cadmium	0.193	mg/L	E200.8	0.0000858	0.000500	0.2000	0	96.6	85 - 115				
Chromium	0.201	mg/L	E200.8	0.00191	0.00200	0.2000	0	100	85 - 115				
Cobalt	0.196	mg/L	E200.8	0.000300	0.00400	0.2000	0	98.0	85 - 115				
Copper	0.197	mg/L	E200.8	0.00282	0.00200	0.2000	0	98.5	85 - 115				
Lead	0.191	mg/L	E200.8	0.000448	0.00200	0.2000	0	95.6	85 - 115				
Molybdenum	0.197	mg/L	E200.8	0.000652	0.00200	0.2000	0	98.3	85 - 115				
Nickel	0.195	mg/L	E200.8	0.00148	0.00200	0.2000	0	97.3	85 - 115				
Selenium	0.204	mg/L	E200.8	0.000574	0.00200	0.2000	0	102	85 - 115				
Silver	0.190	mg/L	E200.8	0.000232	0.00200	0.2000	0	94.8	85 - 115				
Thallium	0.191	mg/L	E200.8	0.000154	0.00200	0.2000	0	95.4	85 - 115				
Tin	0.990	mg/L	E200.8	0.00116	0.00400	1.000	0	99.0	85 - 115				
Uranium	0.204	mg/L	E200.8	0.000176	0.00200	0.2000	0	102	85 - 115				
Zinc	1.00	mg/L	E200.8	0.00418	0.00600	1.000	0	100	85 - 115				
<b>Lab Sample ID: LCS-62676</b>		Date Analyzed: 05/29/2019 1555h											
Test Code: 200.8-DIS		Date Prepared: 05/16/2019 1732h											
Iron	1.03	mg/L	E200.8	0.0496	0.100	1.000	0	103	85 - 115				
Manganese	0.206	mg/L	E200.8	0.00108	0.00200	0.2000	0	103	85 - 115				



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Kyle F. Gross  
Laboratory Director

Jose Rocha  
QA Officer

## QC SUMMARY REPORT

**Client:** Energy Fuels Resources, Inc.  
**Lab Set ID:** 1905400  
**Project:** 2nd Quarter Groundwater 2019

**Contact:** Tanner Holliday  
**Dept:** ME  
**QC Type:** LCS

Analyte	Result	Units	Method	MDL	Reporting Limit	Amount Spiked	Spike Ref. Amount	%REC	Limits	RPD Ref. Amt	% RPD	RPD Limit	Qual
<b>Lab Sample ID:</b> LCS-62680	Date Analyzed: 05/17/2019 756h												
<b>Test Code:</b> HG-DW-DIS-245.1	Date Prepared: 05/16/2019 1401h												
Mercury	0.00340	mg/L	E245.1	0.0000396	0.0000900	0.003330	0	102	85 - 115				



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Kyle F. Gross  
Laboratory Director

Jose Rocha  
QA Officer

## QC SUMMARY REPORT

**Client:** Energy Fuels Resources, Inc.

**Lab Set ID:** 1905400

**Project:** 2nd Quarter Groundwater 2019

**Contact:** Tanner Holliday

**Dept:** ME

**QC Type:** MBLK

Analyte	Result	Units	Method	MDL	Reporting Limit	Amount Spiked	Spike Ref. Amount	%REC	Limits	RPD Ref. Amt	% RPD	RPD Limit	Qual
<b>Lab Sample ID:</b> MB-62670	Date Analyzed:		05/29/2019 1349h										
Test Code:	200.7-DIS		Date Prepared:		05/16/2019 1541h								
Calcium	< 1.00	mg/L	E200.7	0.0937	1.00								
Magnesium	< 1.00	mg/L	E200.7	0.0439	1.00								
Potassium	< 1.00	mg/L	E200.7	0.134	1.00								
Sodium	< 1.00	mg/L	E200.7	0.187	1.00								
Vanadium	< 0.00500	mg/L	E200.7	0.00138	0.00500								
<b>Lab Sample ID:</b> MB-62676	Date Analyzed:		05/22/2019 1746h										
Test Code:	200.8-DIS		Date Prepared:		05/16/2019 1732h								
Arsenic	< 0.00200	mg/L	E200.8	0.000298	0.00200								
Cadmium	< 0.000500	mg/L	E200.8	0.0000858	0.000500								
Chromium	< 0.00200	mg/L	E200.8	0.00191	0.00200								
Cobalt	< 0.00400	mg/L	E200.8	0.000300	0.00400								
Copper	< 0.00200	mg/L	E200.8	0.00282	0.00200								
Molybdenum	< 0.00200	mg/L	E200.8	0.000652	0.00200								
Nickel	< 0.00200	mg/L	E200.8	0.00148	0.00200								
Selenium	< 0.00200	mg/L	E200.8	0.000574	0.00200								
Silver	< 0.00200	mg/L	E200.8	0.000232	0.00200								
Tin	< 0.00400	mg/L	E200.8	0.00116	0.00400								
Zinc	< 0.00600	mg/L	E200.8	0.00418	0.00600								
<b>Lab Sample ID:</b> MB-62676	Date Analyzed:		05/22/2019 1823h										
Test Code:	200.8-DIS		Date Prepared:		05/16/2019 1732h								
Beryllium	< 0.000200	mg/L	E200.8	0.0000198	0.000200								
Iron	< 0.0100	mg/L	E200.8	0.00496	0.0100								
Lead	< 0.000200	mg/L	E200.8	0.0000448	0.000200								
Manganese	< 0.000200	mg/L	E200.8	0.000108	0.000200								
Thallium	< 0.000200	mg/L	E200.8	0.0000154	0.000200								
Uranium	< 0.000200	mg/L	E200.8	0.0000176	0.000200								



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Salt Lake City, UT 84119

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Kyle F. Gross  
Laboratory Director

Jose Rocha  
QA Officer

## QC SUMMARY REPORT

**Client:** Energy Fuels Resources, Inc.  
**Lab Set ID:** 1905400  
**Project:** 2nd Quarter Groundwater 2019

**Contact:** Tanner Holliday  
**Dept:** ME  
**QC Type:** MBLK

Analyte	Result	Units	Method	MDL	Reporting Limit	Amount Spiked	Spike Ref. Amount	%REC	Limits	RPD Ref. Amt	% RPD	RPD Limit	Qual
<b>Lab Sample ID:</b> MB-62680	Date Analyzed:	05/17/2019	754h										
Test Code: HG-DW-DIS-245.1	Date Prepared:	05/16/2019	1401h										
Mercury	< 0.0000900	mg/L	E245.1	0.0000396	0.0000900								



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Kyle F. Gross  
Laboratory Director

Jose Rocha  
QA Officer

## QC SUMMARY REPORT

**Client:** Energy Fuels Resources, Inc.  
**Lab Set ID:** 1905400  
**Project:** 2nd Quarter Groundwater 2019

**Contact:** Tanner Holliday  
**Dept:** ME  
**QC Type:** MS

Analyte	Result	Units	Method	MDL	Reporting Limit	Amount Spiked	Spike Ref. Amount	%REC	Limits	RPD Ref. Amt	% RPD	RPD Limit	Qual
<b>Lab Sample ID: 1905400-001EMS</b>													
Date Analyzed:		05/29/2019 1355h											
Test Code:		200.7-DIS											
Date Prepared:		05/16/2019 1541h											
Calcium	362	mg/L	E200.7	4.69	50.0	10.00	344	185	70 - 130				1
Sodium	1,310	mg/L	E200.7	9.35	50.0	10.00	1250	524	70 - 130				2
<b>Lab Sample ID: 1905400-001EMS</b>													
Date Analyzed:		05/29/2019 1417h											
Test Code:		200.7-DIS											
Date Prepared:		05/16/2019 1541h											
Magnesium	33.9	mg/L	E200.7	0.0439	1.00	10.00	22.8	111	70 - 130				
Potassium	38.2	mg/L	E200.7	0.134	1.00	10.00	26.8	114	70 - 130				
Vanadium	0.210	mg/L	E200.7	0.00138	0.00500	0.2000	0.0108	99.4	70 - 130				
<b>Lab Sample ID: 1905400-001EMS</b>													
Date Analyzed:		05/22/2019 1802h											
Test Code:		200.8-DIS											
Date Prepared:		05/16/2019 1732h											
Arsenic	0.209	mg/L	E200.8	0.000298	0.00200	0.2000	0.00339	103	75 - 125				
Beryllium	0.198	mg/L	E200.8	0.000198	0.00200	0.2000	0	98.8	75 - 125				
Cadmium	0.197	mg/L	E200.8	0.0000858	0.000500	0.2000	0	98.5	75 - 125				
Chromium	0.203	mg/L	E200.8	0.00191	0.00200	0.2000	0.00427	99.6	75 - 125				
Cobalt	0.195	mg/L	E200.8	0.000300	0.00400	0.2000	0	97.7	75 - 125				
Copper	0.196	mg/L	E200.8	0.00282	0.00200	0.2000	0	98.1	75 - 125				
Lead	0.187	mg/L	E200.8	0.000448	0.00200	0.2000	0	93.3	75 - 125				
Manganese	0.204	mg/L	E200.8	0.00108	0.00200	0.2000	0.00391	100	75 - 125				
Molybdenum	0.232	mg/L	E200.8	0.000652	0.00200	0.2000	0.0184	107	75 - 125				
Nickel	0.199	mg/L	E200.8	0.00148	0.00200	0.2000	0	99.7	75 - 125				
Selenium	0.209	mg/L	E200.8	0.000574	0.00200	0.2000	0.00198	103	75 - 125				
Silver	0.162	mg/L	E200.8	0.000232	0.00200	0.2000	0.00144	80.5	75 - 125				
Thallium	0.186	mg/L	E200.8	0.000154	0.00200	0.2000	0	92.9	75 - 125				
Tin	1.05	mg/L	E200.8	0.00116	0.00400	1.000	0	105	75 - 125				
Uranium	0.209	mg/L	E200.8	0.000176	0.00200	0.2000	0.00173	104	75 - 125				
Zinc	1.03	mg/L	E200.8	0.00418	0.00600	1.000	0.00604	102	75 - 125				



3440 South 700 West

Salt Lake City, UT 84119

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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:** Energy Fuels Resources, Inc.

**Lab Set ID:** 1905400

**Project:** 2nd Quarter Groundwater 2019

**Contact:** Tanner Holliday

**Dept:** ME

**QC Type:** MS

Analyte	Result	Units	Method	MDL	Reporting Limit	Amount Spiked	Spike Ref. Amount	%REC	Limits	RPD Ref. Amt	% RPD	RPD Limit	Qual
<b>Lab Sample ID:</b> 1905400-001EMS	Date Analyzed:	05/29/2019	1559h										
<b>Test Code:</b> 200.8-DIS	Date Prepared:	05/16/2019	1732h										
Iron	1.01	mg/L	E200.8	0.0496	0.100	1.000	0	101	75 - 125				
<b>Lab Sample ID:</b> 1905400-001EMS	Date Analyzed:	05/17/2019	804h										
<b>Test Code:</b> HG-DW-DIS-245.1	Date Prepared:	05/16/2019	1401h										
Mercury	0.00342	mg/L	E245.1	0.0000396	0.0000900	0.003330	0	103	85 - 115				

<sup>1</sup> - Matrix spike recovery indicates matrix interference. The method is in control as indicated by the LCS.

<sup>2</sup> - Analyte concentration is too high for accurate matrix spike recovery and/or RPD.



3440 South 700 West

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Jose Rocha  
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## QC SUMMARY REPORT

**Client:** Energy Fuels Resources, Inc.  
**Lab Set ID:** 1905400  
**Project:** 2nd Quarter Groundwater 2019

**Contact:** Tanner Holliday  
**Dept:** ME  
**QC Type:** MSD

Analyte	Result	Units	Method	MDL	Reporting Limit	Amount Spiked	Spike Ref. Amount	%REC	Limits	RPD Ref. Amt	% RPD	RPD Limit	Qual
<b>Lab Sample ID: 1905400-001EMSD</b>													
Date Analyzed:		05/29/2019 1357h											
Test Code:		200.7-DIS											
Date Prepared:		05/16/2019 1541h											
Calcium	339	mg/L	E200.7	4.69	50.0	10.00	344	-45.3	70 - 130	362	6.58	20	1
Sodium	1,220	mg/L	E200.7	9.35	50.0	10.00	1250	-349	70 - 130	1310	6.92	20	2
<b>Lab Sample ID: 1905400-001EMSD</b>													
Date Analyzed:		05/29/2019 1419h											
Test Code:		200.7-DIS											
Date Prepared:		05/16/2019 1541h											
Magnesium	32.6	mg/L	E200.7	0.0439	1.00	10.00	22.8	98.1	70 - 130	33.9	3.91	20	
Potassium	37.6	mg/L	E200.7	0.134	1.00	10.00	26.8	108	70 - 130	38.2	1.62	20	
Vanadium	0.209	mg/L	E200.7	0.00138	0.00500	0.2000	0.0108	99.2	70 - 130	0.21	0.178	20	
<b>Lab Sample ID: 1905400-001EMSD</b>													
Date Analyzed:		05/22/2019 1805h											
Test Code:		200.8-DIS											
Date Prepared:		05/16/2019 1732h											
Arsenic	0.203	mg/L	E200.8	0.000298	0.00200	0.2000	0.00339	100	75 - 125	0.209	2.83	20	
Beryllium	0.195	mg/L	E200.8	0.000198	0.00200	0.2000	0	97.3	75 - 125	0.198	1.54	20	
Cadmium	0.193	mg/L	E200.8	0.0000858	0.000500	0.2000	0	96.7	75 - 125	0.197	1.87	20	
Chromium	0.200	mg/L	E200.8	0.00191	0.00200	0.2000	0.00427	97.8	75 - 125	0.203	1.82	20	
Cobalt	0.190	mg/L	E200.8	0.000300	0.00400	0.2000	0	95.2	75 - 125	0.195	2.62	20	
Copper	0.195	mg/L	E200.8	0.00282	0.00200	0.2000	0	97.3	75 - 125	0.196	0.848	20	
Lead	0.184	mg/L	E200.8	0.000448	0.00200	0.2000	0	92.0	75 - 125	0.187	1.36	20	
Manganese	0.199	mg/L	E200.8	0.00108	0.00200	0.2000	0.00391	97.3	75 - 125	0.204	2.80	20	
Molybdenum	0.226	mg/L	E200.8	0.000652	0.00200	0.2000	0.0184	104	75 - 125	0.232	2.58	20	
Nickel	0.194	mg/L	E200.8	0.00148	0.00200	0.2000	0	97.2	75 - 125	0.199	2.55	20	
Selenium	0.208	mg/L	E200.8	0.000574	0.00200	0.2000	0.00198	103	75 - 125	0.209	0.659	20	
Silver	0.177	mg/L	E200.8	0.000232	0.00200	0.2000	0.00144	87.9	75 - 125	0.162	8.69	20	
Thallium	0.182	mg/L	E200.8	0.000154	0.00200	0.2000	0	90.8	75 - 125	0.186	2.33	20	
Tin	1.03	mg/L	E200.8	0.00116	0.00400	1.000	0	103	75 - 125	1.05	2.46	20	
Uranium	0.205	mg/L	E200.8	0.000176	0.00200	0.2000	0.00173	101	75 - 125	0.209	1.99	20	
Zinc	1.03	mg/L	E200.8	0.00418	0.00600	1.000	0.00604	102	75 - 125	1.03	0.115	20	



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Kyle F. Gross  
Laboratory Director

Jose Rocha  
QA Officer

## QC SUMMARY REPORT

**Client:** Energy Fuels Resources, Inc.

**Lab Set ID:** 1905400

**Project:** 2nd Quarter Groundwater 2019

**Contact:** Tanner Holliday

**Dept:** ME

**QC Type:** MSD

Analyte	Result	Units	Method	MDL	Reporting Limit	Amount Spiked	Spike Ref. Amount	%REC	Limits	RPD Ref. Amt	% RPD	RPD Limit	Qual
<b>Lab Sample ID:</b> 1905400-001EMSD	Date Analyzed:	05/29/2019	1602h										
<b>Test Code:</b> 200.8-DIS	Date Prepared:	05/16/2019	1732h										
Iron	0.976	mg/L	E200.8	0.0496	0.100	1.000	0	97.6	75 - 125	1.01	3.61	20	
<b>Lab Sample ID:</b> 1905400-001EMSD	Date Analyzed:	05/17/2019	806h										
<b>Test Code:</b> HG-DW-DIS-245.1	Date Prepared:	05/16/2019	1401h										
Mercury	0.00330	mg/L	E245.1	0.0000396	0.0000900	0.003330	0	99.0	85 - 115	0.00342	3.53	20	

<sup>1</sup> - Matrix spike recovery indicates matrix interference. The method is in control as indicated by the LCS.

<sup>2</sup> - Analyte concentration is too high for accurate matrix spike recovery and/or RPD.



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Kyle F. Gross  
Laboratory Director

Jose Rocha  
QA Officer

## QC SUMMARY REPORT

**Client:** Energy Fuels Resources, Inc.  
**Lab Set ID:** 1905400  
**Project:** 2nd Quarter Groundwater 2019

**Contact:** Tanner Holliday  
**Dept:** WC  
**QC Type:** DUP

Analyte	Result	Units	Method	MDL	Reporting Limit	Amount Spiked	Spike Ref. Amount	%REC	Limits	RPD Ref. Amt	% RPD	RPD Limit	Qual
<b>Lab Sample ID:</b> 1905400-001CDUP	Date Analyzed: 05/16/2019 1050h												
<b>Test Code:</b> TDS-W-2540C													
Total Dissolved Solids	4,380	mg/L	SM2540C	16.0	20.0					4220	3.82	5	



3440 South 700 West

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Kyle F. Gross  
Laboratory Director

Jose Rocha  
QA Officer

## QC SUMMARY REPORT

**Client:** Energy Fuels Resources, Inc.  
**Lab Set ID:** 1905400  
**Project:** 2nd Quarter Groundwater 2019

**Contact:** Tanner Holliday  
**Dept:** WC  
**QC Type:** LCS

Analyte	Result	Units	Method	MDL	Reporting Limit	Amount Spiked	Spike Ref. Amount	%REC	Limits	RPD Ref. Amt	% RPD	RPD Limit	Qual
<b>Lab Sample ID: LCS-R126185</b>													
Date Analyzed: 05/22/2019 1658h													
Test Code: 300.0-W													
Chloride	5.08	mg/L	E300.0	0.0386	0.100	5.000	0	102	90 - 110				
Fluoride	5.05	mg/L	E300.0	0.0240	0.100	5.000	0	101	90 - 110				
Sulfate	5.13	mg/L	E300.0	0.0557	0.750	5.000	0	103	90 - 110				
<b>Lab Sample ID: LCS-R126063</b>													
Date Analyzed: 05/21/2019 736h													
Test Code: ALK-W-2320B-LL													
Alkalinity (as CaCO3)	250	mg/L	SM2320B	0.781	1.00	250.0	0	100	90 - 110				
<b>Lab Sample ID: LCS-62766</b>													
Date Analyzed: 05/22/2019 1155h													
Test Code: NH3-W-350.1													
Date Prepared: 05/22/2019 820h													
Ammonia (as N)	10.2	mg/L	E350.1	0.0492	0.0500	10.00	0	102	90 - 110				
<b>Lab Sample ID: LCS-R126011</b>													
Date Analyzed: 05/20/2019 1117h													
Test Code: NO2/NO3-W-353.2													
Nitrate/Nitrite (as N)	1.05	mg/L	E353.2	0.00363	0.0100	1.000	0	105	90 - 110				
<b>Lab Sample ID: LCS-R125968</b>													
Date Analyzed: 05/16/2019 1050h													
Test Code: TDS-W-2540C													
Total Dissolved Solids	190	mg/L	SM2540C	8.00	10.0	205.0	0	92.7	80 - 120				



3440 South 700 West

Salt Lake City, UT 84119

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Kyle F. Gross  
Laboratory Director

Jose Rocha  
QA Officer

## QC SUMMARY REPORT

**Client:** Energy Fuels Resources, Inc.  
**Lab Set ID:** 1905400  
**Project:** 2nd Quarter Groundwater 2019

**Contact:** Tanner Holliday  
**Dept:** WC  
**QC Type:** MBLK

Analyte	Result	Units	Method	MDL	Reporting Limit	Amount Spiked	Spike Ref. Amount	%REC	Limits	RPD Ref. Amt	% RPD	RPD Limit	Qual
<b>Lab Sample ID: MB-R126185</b>													
Date Analyzed: 05/22/2019 1641h													
Test Code: 300.0-W													
Chloride	< 0.100	mg/L	E300.0	0.0386	0.100								
Fluoride	< 0.100	mg/L	E300.0	0.0240	0.100								
Sulfate	< 0.750	mg/L	E300.0	0.0557	0.750								
<b>Lab Sample ID: MB-R126063</b>													
Date Analyzed: 05/21/2019 736h													
Test Code: ALK-W-2320B-LL													
Bicarbonate (as CaCO3)	< 1.00	mg/L	SM2320B	0.781	1.00								
Carbonate (as CaCO3)	< 1.00	mg/L	SM2320B	0.781	1.00								
<b>Lab Sample ID: MB-62766</b>													
Date Analyzed: 05/22/2019 1154h													
Test Code: NH3-W-350.1													
Date Prepared: 05/22/2019 820h													
Ammonia (as N)	< 0.0500	mg/L	E350.1	0.0492	0.0500								
<b>Lab Sample ID: MB-R126011</b>													
Date Analyzed: 05/20/2019 1116h													
Test Code: NO2/NO3-W-353.2													
Nitrate/Nitrite (as N)	< 0.0100	mg/L	E353.2	0.00363	0.0100								
<b>Lab Sample ID: MB-R125968</b>													
Date Analyzed: 05/16/2019 1050h													
Test Code: TDS-W-2540C													
Total Dissolved Solids	< 10.0	mg/L	SM2540C	8.00	10.0								



3440 South 700 West

Salt Lake City, UT 84119

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QA Officer

## QC SUMMARY REPORT

**Client:** Energy Fuels Resources, Inc.  
**Lab Set ID:** 1905400  
**Project:** 2nd Quarter Groundwater 2019

**Contact:** Tanner Holliday  
**Dept:** WC  
**QC Type:** MS

Analyte	Result	Units	Method	MDL	Reporting Limit	Amount Spiked	Spike Ref. Amount	%REC	Limits	RPD Ref. Amt	% RPD	RPD Limit	Qual
<b>Lab Sample ID: 1905400-001BMS</b> Date Analyzed: 05/22/2019 2142h													
Test Code: 300.0-W													
Chloride	2,600	mg/L	E300.0	19.3	50.0	2,500	66.3	101	90 - 110				
Fluoride	2,520	mg/L	E300.0	12.0	50.0	2,500	0	101	90 - 110				
Sulfate	5,280	mg/L	E300.0	27.8	375	2,500	2790	99.2	90 - 110				
<b>Lab Sample ID: 1905400-001BMS</b> Date Analyzed: 05/21/2019 736h													
Test Code: ALK-W-2320B-LL													
Alkalinity (as CaCO3)	568	mg/L	SM2320B	0.781	1.00	500.0	68	100	80 - 120				
<b>Lab Sample ID: 1905400-001DMS</b> Date Analyzed: 05/22/2019 1213h													
Test Code: NH3-W-350.1 Date Prepared: 05/22/2019 820h													
Ammonia (as N)	10.8	mg/L	E350.1	0.0492	0.0500	10.00	0.102	107	90 - 110				
<b>Lab Sample ID: 1905400-001DMS</b> Date Analyzed: 05/20/2019 1136h													
Test Code: NO2/NO3-W-353.2													
Nitrate/Nitrite (as N)	27.3	mg/L	E353.2	0.0726	0.200	20.00	8.06	96.3	90 - 110				



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Laboratory Director

Jose Rocha  
QA Officer

## QC SUMMARY REPORT

**Client:** Energy Fuels Resources, Inc.

**Lab Set ID:** 1905400

**Project:** 2nd Quarter Groundwater 2019

**Contact:** Tanner Holliday

**Dept:** WC

**QC Type:** MSD

Analyte	Result	Units	Method	MDL	Reporting Limit	Amount Spiked	Spike Ref. Amount	%REC	Limits	RPD Ref. Amt	% RPD	RPD Limit	Qual
<b>Lab Sample ID: 1905400-001BMSD</b>													
Date Analyzed: 05/22/2019 2158h													
Test Code: 300.0-W													
Chloride	2,570	mg/L	E300.0	19.3	50.0	2,500	66.3	100	90 - 110	2600	1.20	20	
Fluoride	2,470	mg/L	E300.0	12.0	50.0	2,500	0	98.7	90 - 110	2520	1.93	20	
Sulfate	5,310	mg/L	E300.0	27.8	375	2,500	2790	101	90 - 110	5280	0.619	20	
<b>Lab Sample ID: 1905400-001BMSD</b>													
Date Analyzed: 05/21/2019 736h													
Test Code: ALK-W-2320B-LL													
Alkalinity (as CaCO3)	568	mg/L	SM2320B	0.781	1.00	500.0	68	100	80 - 120	568	0	10	
<b>Lab Sample ID: 1905400-001DMSD</b>													
Date Analyzed: 05/22/2019 1214h													
Test Code: NH3-W-350.1													
Date Prepared: 05/22/2019 820h													
Ammonia (as N)	11.1	mg/L	E350.1	0.0492	0.0500	10.00	0.102	110	90 - 110	10.8	2.65	10	
<b>Lab Sample ID: 1905400-001DMSD</b>													
Date Analyzed: 05/20/2019 1137h													
Test Code: NO2/NO3-W-353.2													
Nitrate/Nitrite (as N)	28.2	mg/L	E353.2	0.0726	0.200	20.00	8.06	100	90 - 110	27.3	2.99	10	



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Laboratory Director

Jose Rocha  
QA Officer

## QC SUMMARY REPORT

**Client:** Energy Fuels Resources, Inc.

**Lab Set ID:** 1905400

**Project:** 2nd Quarter Groundwater 2019

**Contact:** Tanner Holliday

**Dept:** MSVOA

**QC Type:** LCS

Analyte	Result	Units	Method	MDL	Reporting Limit	Amount Spiked	Spike Ref. Amount	%REC	Limits	RPD Ref. Amt	% RPD	RPD Limit	Qual
<b>Lab Sample ID:</b> LCS VOC-3 051619A	Date Analyzed: 05/16/2019 1016h												
<b>Test Code:</b> 8260-W-DEN100													
Benzene	20.1	µg/L	SW8260C	0.147	1.00	20.00	0	101	82 - 132				
Chloroform	18.8	µg/L	SW8260C	0.166	1.00	20.00	0	94.0	85 - 124				
Methylene chloride	22.6	µg/L	SW8260C	0.448	1.00	20.00	0	113	65 - 154				
Naphthalene	18.2	µg/L	SW8260C	0.704	1.00	20.00	0	90.9	63 - 129				
Tetrahydrofuran	18.8	µg/L	SW8260C	0.436	1.00	20.00	0	94.2	59 - 125				
Toluene	19.3	µg/L	SW8260C	0.177	1.00	20.00	0	96.3	69 - 129				
Xylenes, Total	60.2	µg/L	SW8260C	0.253	1.00	60.00	0	100	66 - 124				
Surr: 1,2-Dichloroethane-d4	53.5	µg/L	SW8260C			50.00		107	80 - 136				
Surr: 4-Bromofluorobenzene	49.7	µg/L	SW8260C			50.00		99.5	85 - 121				
Surr: Dibromofluoromethane	46.7	µg/L	SW8260C			50.00		93.5	78 - 132				
Surr: Toluene-d8	48.2	µg/L	SW8260C			50.00		96.5	81 - 123				



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## QC SUMMARY REPORT

**Client:** Energy Fuels Resources, Inc.

**Lab Set ID:** 1905400

**Project:** 2nd Quarter Groundwater 2019

**Contact:** Tanner Holliday

**Dept:** MSVOA

**QC Type:** MBLK

Analyte	Result	Units	Method	MDL	Reporting Limit	Amount Spiked	Spike Ref. Amount	%REC	Limits	RPD Ref. Amt	% RPD	RPD Limit	Qual
<b>Lab Sample ID: MB VOC-3 051619A</b>		<b>Date Analyzed: 05/16/2019 1036h</b>											
<b>Test Code: 8260-W-DEN100</b>													
2-Butanone	< 20.0	µg/L	SW8260C	1.31	20.0								
Acetone	< 20.0	µg/L	SW8260C	2.87	20.0								
Benzene	< 1.00	µg/L	SW8260C	0.147	1.00								
Carbon tetrachloride	< 1.00	µg/L	SW8260C	0.262	1.00								
Chloroform	< 1.00	µg/L	SW8260C	0.166	1.00								
Chloromethane	< 1.00	µg/L	SW8260C	0.832	1.00								
Methylene chloride	< 1.00	µg/L	SW8260C	0.448	1.00								
Naphthalene	< 1.00	µg/L	SW8260C	0.704	1.00								
Tetrahydrofuran	< 1.00	µg/L	SW8260C	0.436	1.00								
Toluene	< 1.00	µg/L	SW8260C	0.177	1.00								
Xylenes, Total	< 1.00	µg/L	SW8260C	0.253	1.00								
Surr: 1,2-Dichloroethane-d4	52.7	µg/L	SW8260C			50.00		105	80 - 136				
Surr: 4-Bromofluorobenzene	54.4	µg/L	SW8260C			50.00		109	85 - 121				
Surr: Dibromofluoromethane	44.6	µg/L	SW8260C			50.00		89.3	78 - 132				
Surr: Toluene-d8	49.7	µg/L	SW8260C			50.00		99.4	81 - 123				



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## QC SUMMARY REPORT

**Client:** Energy Fuels Resources, Inc.

**Lab Set ID:** 1905400

**Project:** 2nd Quarter Groundwater 2019

**Contact:** Tanner Holliday

**Dept:** MSVOA

**QC Type:** MS

Analyte	Result	Units	Method	MDL	Reporting Limit	Amount Spiked	Spike Ref. Amount	%REC	Limits	RPD Ref. Amt	% RPD	RPD Limit	Qual
<b>Lab Sample ID:</b> 1905400-001AMS	Date Analyzed: 05/16/2019 1525h												
<b>Test Code:</b> 8260-W-DEN100													
Benzene	18.3	µg/L	SW8260C	0.147	1.00	20.00	0	91.5	66 - 145				
Chloroform	19.8	µg/L	SW8260C	0.166	1.00	20.00	0	98.8	50 - 146				
Methylene chloride	18.8	µg/L	SW8260C	0.448	1.00	20.00	0	94.2	30 - 192				
Naphthalene	13.1	µg/L	SW8260C	0.704	1.00	20.00	0	65.6	41 - 131				
Tetrahydrofuran	12.3	µg/L	SW8260C	0.436	1.00	20.00	0	61.6	43 - 146				
Toluene	17.5	µg/L	SW8260C	0.177	1.00	20.00	0	87.6	18 - 192				
Xylenes, Total	54.3	µg/L	SW8260C	0.253	1.00	60.00	0	90.5	42 - 167				
Surr: 1,2-Dichloroethane-d4	53.8	µg/L	SW8260C			50.00		108	72 - 151				
Surr: 4-Bromofluorobenzene	51.0	µg/L	SW8260C			50.00		102	80 - 152				
Surr: Dibromofluoromethane	53.0	µg/L	SW8260C			50.00		106	72 - 135				
Surr: Toluene-d8	48.5	µg/L	SW8260C			50.00		96.9	80 - 124				



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## QC SUMMARY REPORT

**Client:** Energy Fuels Resources, Inc.

**Lab Set ID:** 1905400

**Project:** 2nd Quarter Groundwater 2019

**Contact:** Tanner Holliday

**Dept:** MSVOA

**QC Type:** MSD

Analyte	Result	Units	Method	MDL	Reporting Limit	Amount Spiked	Spike Ref. Amount	%REC	Limits	RPD Ref. Amt	% RPD	RPD Limit	Qual
<b>Lab Sample ID:</b> 1905400-001AMSD	Date Analyzed: 05/16/2019 1545h												
<b>Test Code:</b> 8260-W-DEN100													
Benzene	18.8	µg/L	SW8260C	0.147	1.00	20.00	0	93.8	66 - 145	18.3	2.54	25	
Chloroform	17.4	µg/L	SW8260C	0.166	1.00	20.00	0	87.1	50 - 146	19.8	12.6	25	
Methylene chloride	19.3	µg/L	SW8260C	0.448	1.00	20.00	0	96.5	30 - 192	18.8	2.47	25	
Naphthalene	14.6	µg/L	SW8260C	0.704	1.00	20.00	0	73.0	41 - 131	13.1	10.8	25	
Tetrahydrofuran	12.6	µg/L	SW8260C	0.436	1.00	20.00	0	62.8	43 - 146	12.3	1.85	25	
Toluene	15.6	µg/L	SW8260C	0.177	1.00	20.00	0	78.0	18 - 192	17.5	11.7	25	
Xylenes, Total	57.6	µg/L	SW8260C	0.253	1.00	60.00	0	95.9	42 - 167	54.3	5.85	25	
Surr: 1,2-Dichloroethane-d4	53.7	µg/L	SW8260C			50.00		107	72 - 151				
Surr: 4-Bromofluorobenzene	58.8	µg/L	SW8260C			50.00		118	80 - 152				
Surr: Dibromofluoromethane	46.3	µg/L	SW8260C			50.00		92.6	72 - 135				
Surr: Toluene-d8	41.9	µg/L	SW8260C			50.00		83.8	80 - 124				

**WORK ORDER Summary**

Work Order: **1905400** Page 1 of 3

Client: Energy Fuels Resources, Inc.

Due Date: 5/31/2019

Client ID: ENE300

Contact: Tanner Holliday

Project: 2nd Quarter Groundwater 2019

QC Level: III

WO Type: Project

Comments: QC 3 (no chromatograms). EDD-Denison. CC KWeinel@energyfuels.com; (USE PROJECT for special DLs). Do not use "\*R\_" samples as MS/MSD.; *el*

Sample ID	Client Sample ID	Collected Date	Received Date	Test Code	Matrix	Sel	Storage	
1905400-001A	MW-20_05152019	5/15/2019 0830h	5/16/2019 1015h	8260-W-DEN100	Aqueous		VOCFridge	3
				<i>Test Group: 8260-W-DEN100; # of Analytes: 11 / # of Surr: 4</i>				
1905400-001B				300.0-W			df - wc	1
				<i>3 SEL Analytes: CL F SO4</i>				
				ALK-W-2320B-LL			df - wc	
				<i>2 SEL Analytes: ALKB ALKC</i>				
1905400-001C				TDS-W-2540C			df - tds	
				<i>1 SEL Analytes: TDS</i>				
1905400-001D				NH3-W-350.1			df - no2/no3 & nh3	
				<i>1 SEL Analytes: NH3N</i>				
				NH3-W-PR			df - no2/no3 & nh3	
				NO2/NO3-W-353.2			df - no2/no3 & nh3	
				<i>1 SEL Analytes: NO3NO2N</i>				
1905400-001E				200.7-DIS			df-met	
				<i>5 SEL Analytes: CA MG K NA V</i>				
				200.7-DIS-PR			df-met	
				200.8-DIS			df-met	
				<i>17 SEL Analytes: AS BE CD CR CO CU FE PB MN MO NI SE AG TL SN U ZN</i>				
				200.8-DIS-PR			df-met	
				HG-DW-DIS-245.1			df-met	
				<i>1 SEL Analytes: HG</i>				
				HG-DW-DIS-PR			df-met	
				IONBALANCE			df-met	
				<i>5 SEL Analytes: BALANCE Anions Cations TDS-Balance TDS-Calc</i>				
1905400-002A	MW-23_05152019	5/15/2019 0740h	5/16/2019 1015h	8260-W-DEN100	Aqueous		VOCFridge	3
				<i>Test Group: 8260-W-DEN100; # of Analytes: 11 / # of Surr: 4</i>				
1905400-002B				300.0-W			df - wc	1
				<i>3 SEL Analytes: CL F SO4</i>				
				ALK-W-2320B-LL			df - wc	
				<i>2 SEL Analytes: ALKB ALKC</i>				
1905400-002C				TDS-W-2540C			df - tds	
				<i>1 SEL Analytes: TDS</i>				

# WORK ORDER Summary

Work Order: **1905400** Page 2 of 3

Client: Energy Fuels Resources, Inc.

Due Date: 5/31/2019

Sample ID	Client Sample ID	Collected Date	Received Date	Test Code	Matrix	Sel Storage	
1905400-002D	MW-23_05152019	5/15/2019 0740h	5/16/2019 1015h	NH3-W-350.1	Aqueous	df - no2/no3 & nh3	1
				<i>1 SEL Analytes: NH3N</i>			
				NH3-W-PR			df - no2/no3 & nh3
1905400-002E				NO2/NO3-W-353.2		df - no2/no3 & nh3	
				<i>1 SEL Analytes: NO3NO2N</i>			
				200.7-DIS			df-met
				<i>5 SEL Analytes: CA MG K NA V</i>			
				200.7-DIS-PR			df-met
				200.8-DIS			df-met
				<i>17 SEL Analytes: AS BE CD CR CO CU FE PB MN MO NI SE AG TL SN U ZN</i>			
				200.8-DIS-PR			df-met
				HG-DW-DIS-245.1			df-met
				<i>1 SEL Analytes: HG</i>			
				HG-DW-DIS-PR		df-met	
				<i>1 SEL Analytes: HG</i>			
				IONBALANCE			df-met
<i>5 SEL Analytes: BALANCE Anions Cations TDS-Balance TDS-Calc</i>							
1905400-003A	MW-37_05152019	5/15/2019 0800h	5/16/2019 1015h	8260-W-DEN100	Aqueous	VOCFridge	3
				<i>Test Group: 8260-W-DEN100; # of Analytes: 11 / # of Surr: 4</i>			
1905400-003B				300.0-W		df - wc	1
				<i>3 SEL Analytes: CL F SO4</i>			
				ALK-W-2320B-LL		df - wc	
				<i>2 SEL Analytes: ALKB ALKC</i>			
1905400-003C				TDS-W-2540C		df - tds	
				<i>1 SEL Analytes: TDS</i>			
1905400-003D				NH3-W-350.1		df - no2/no3 & nh3	
				<i>1 SEL Analytes: NH3N</i>			
				NH3-W-PR			df - no2/no3 & nh3
1905400-003E				NO2/NO3-W-353.2		df - no2/no3 & nh3	
				<i>1 SEL Analytes: NO3NO2N</i>			
				200.7-DIS			df-met
				<i>5 SEL Analytes: CA MG K NA V</i>			
				200.7-DIS-PR			df-met
				200.8-DIS			df-met
				<i>17 SEL Analytes: AS BE CD CR CO CU FE PB MN MO NI SE AG TL SN U ZN</i>			
200.8-DIS-PR	df-met						
HG-DW-DIS-245.1	df-met						
<i>1 SEL Analytes: HG</i>							

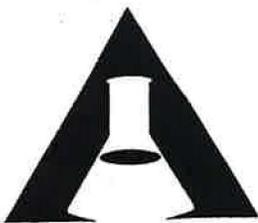
# WORK ORDER Summary

Work Order: **1905400** Page 3 of 3

Client: Energy Fuels Resources, Inc.

Due Date: 5/31/2019

Sample ID	Client Sample ID	Collected Date	Received Date	Test Code	Matrix	Sel	Storage	
1905400-003E	MW-37_05152019	5/15/2019 0800h	5/16/2019 1015h	HG-DW-DIS-PR	Aqueous		df-met	1
				IONBALANCE			df-met	
				5 SEL Analytes: BALANCE Anions Cations TDS-Balance TDS-Calc				
1905400-004A	Trip Blank	5/15/2019 0740h	5/16/2019 1015h	8260-W-DEN100	Aqueous		VOCFridge	3
				Test Group: 8260-W-DEN100; # of Analytes: 11 / # of Surr: 4				



# American West Analytical Laboratories

463 W. 3600 S. Salt Lake City, UT 84115  
 Phone # (801) 263-8686 Toll Free # (888) 263-8686  
 Fax # (801) 263-8687 Email awal@awal-labs.com

www.awal-labs.com

## CHAIN OF CUSTODY

All analysis will be conducted using NELAP accredited methods and all data will be reported using AWAL's standard analyte lists and reporting limits (PQL) unless specifically requested otherwise on this Chain of Custody and/or attached documentation.

1905400

AWAL Lab Sample Set #  
 Page 1 of 1

Client: **Energy Fuels Resources, Inc.**  
 Address: **6425 S. Hwy. 191**  
**Blanding, UT 84511**  
 Contact: **Tanner Holliday**  
 Phone #: **(435) 678-2221** Cell #:  
**gpalmer@energyfuels.com; kWeinel@energyfuels.com;**  
**tholliday@energyfuels.com**  
 Project Name: **2nd Quarter Groundwater 2019**  
 Project #:  
 PO #:  
 Sampler Name: **Tanner Holliday**

QC Level:		Turn Around Time:		Unless other arrangements have been made, signed reports will be emailed by 5:00 pm on the day they are due.		Duc Date:								
3		Standard												
Sample ID	Date Sampled	Time Sampled	# of Containers	Sample Matrix	NO2/NO3 (353.2)	NH3 (4500G or 350.1)	F, Cl, SO4 (4500 or 300.0)	TDS (2540C)	Carb/Bicarb (2320B)	Dissolved Metals (200.7/200.8/245.1)	As, Be, Cd, Cr, Co, Cu, Fe, Pb, Mn, Hg, Mo, Ni, Se, Ag, Ti, Sn, U, V, Zn, Na, K, Mg, Ca	Ion Balance	VOCs (8260C)	Known Hazards & Sample Comments
1 MW-20_05152019	5/15/2019	830	7	W	x	x	x	x	x	x	x	x	x	
2 MW-23_05152019	5/15/2019	740	7	W	x	x	x	x	x	x	x	x	x	
3 MW-37_05152019	5/15/2019	800	7	W	x	x	x	x	x	x	x	x	x	
4 Trip Blank	5/15/2019	740	3	W									x	
5														
6														
7														
8														
9														
10														
11														
12														

Laboratory Use Only

Samples Were:

1 Shipped or hand delivered

2 Ambient or Chilled

3 Temperature 103 °C

4 Received Broken/Leaking (Improperly Sealed)  
 Y N

5 Properly Preserved  
 Y N  
 Checked at bench  
 Y N

6 Received Within Holding Times  
 Y N

COC Tape Was:

1 Present on Outer Package  
 Y N NA

2 Unbroken on Outer Package  
 Y N NA

3 Present on Sample  
 Y N NA

4 Unbroken on Sample  
 Y N NA

Discrepancies Between Sample Labels and COC Record?  
 Y N

Relinquished by: Signature <i>Tanner Holliday</i>	Date: 5/15/2019	Received by: Signature <i>Edna Hap</i>	Date: 5/16/19
Print Name: Tanner Holliday	Time: 1130	Print Name: Edna Hap	Time: 1015
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:

Sample containers for metals were field filtered. See the Analytical Scope of Work for Reporting Limits and VOC analyte list.

Lab Set ID: 1905400  
 pH Lot #: 5912

Preservation Check Sheet

Sample Set Extension and pH

Analysis	Preservative	1	2	3														
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														
NO <sub>2</sub> & NO <sub>3</sub>	pH <2 H <sub>2</sub> SO <sub>4</sub>	Yes	Yes	Yes														
O & G	pH <2 HCL																	
Phenols	pH <2 H <sub>2</sub> SO <sub>4</sub>																	
Sulfide	pH >9 NaOH, Zn Acetate																	
TKN	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>																	

- 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

- \* The sample required additional preservative upon receipt.
- + The sample was received unpreserved.
- ▲ The sample was received unpreserved and therefore preserved upon receipt.
- # The sample pH was unadjustable to a pH < 2 due to the sample matrix.
- The sample pH was unadjustable to a pH >      due to the sample matrix interference.



May 06, 2019

Ms. Kathy Weinel  
Energy Fuels Resources (USA), Inc.  
225 Union Boulevard  
Suite 600  
Lakewood, Colorado 80228

Re: White Mesa Mill GW  
Work Order: 476322

Dear Ms. Weinel:

GEL Laboratories, LLC (GEL) appreciates the opportunity to provide the enclosed analytical results for the sample(s) we received on April 12, 2019. This original data report has been prepared and reviewed in accordance with GEL's standard operating procedures.

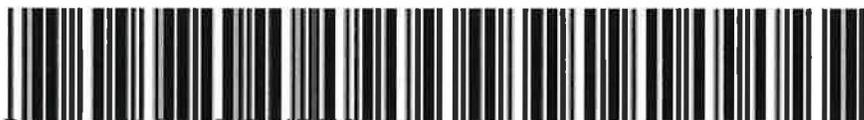
Test results for NELAP or ISO 17025 accredited tests are verified to meet the requirements of those standards, with any exceptions noted. The results reported relate only to the items tested and to the sample as received by the laboratory. These results may not be reproduced except as full reports without approval by the laboratory. Copies of GEL's accreditations and certifications can be found on our website at [www.gel.com](http://www.gel.com).

Our policy is to provide high quality, personalized analytical services to enable you to meet your analytical needs on time every time. We trust that you will find everything in order and to your satisfaction. If you have any questions, please do not hesitate to call me at (843) 556-8171, ext. 4289.

Sincerely,

Taylor Cannon for  
Julie Robinson  
Project Manager

Purchase Order: DW16138  
Enclosures







**SAMPLE RECEIPT & REVIEW FORM**

Client: <u>DNMI</u>		SDG/AR/COC/Work Order: <u>476322</u>			
Received By: <u>ZKW</u>		Date Received: <u>4/12/19</u>			
Carrier and Tracking Number		Circle Applicable: FedEx Express    FedEx Ground <input checked="" type="radio"/> UPS    Field Services    Courier    Other			
		<u>1Z 187 444 01 9178 1001</u>			
<b>Suspected Hazard Information</b>		Yes	No		
*If Net Counts > 100cpm on samples not marked "radioactive", contact the Radiation Safety Group for further investigation.					
A) Shipped as a DOT Hazardous?		<input checked="" type="checkbox"/>	Hazard Class Shipped: _____ UN#: _____ IT UN2910, Is the Radioactive Shipment Survey Compliant? Yes ___ No ___		
B) Did the client designate the samples are to be received as radioactive?		<input checked="" type="checkbox"/>	COC notation or radioactive stickers on containers equal client designation.		
C) Did the RSO classify the samples as radioactive?		<input checked="" type="checkbox"/>	Maximum Net Counts Observed* (Observed Counts - Area Background Counts): <u>CPM</u> mR/Hr Classified as: Rad 1    Rad 2    Rad 3		
D) Did the client designate samples are hazardous?		<input checked="" type="checkbox"/>	COC notation or hazard labels on containers equal client designation.		
E) Did the RSO identify possible hazards?		<input checked="" type="checkbox"/>	If D or E is yes, select Hazards below. <input checked="" type="checkbox"/> PCB's <input type="checkbox"/> Flammable <input type="checkbox"/> Foreign Soil <input type="checkbox"/> RCRA <input type="checkbox"/> Asbestos <input type="checkbox"/> Beryllium    Other: _____		
<b>Sample Receipt Criteria</b>		Yes	NA	No	<b>Comments/Qualifiers (Required for Non-Conforming Items)</b>
1	Shipping containers received intact and sealed?	<input checked="" type="checkbox"/>			Circle Applicable: Seals broken    Damaged container    Leaking container    Other (describe)
2	Chain of custody documents included with shipment?	<input checked="" type="checkbox"/>			Circle Applicable: Client contacted and provided COC    COC created upon receipt
3	Samples requiring cold preservation within (0 ≤ 6 deg. C)?*		<input checked="" type="checkbox"/>		Preservation Method: Wet Ice    Ice Packs    Dry Ice <input checked="" type="radio"/> None    Other: _____ *all temperatures are recorded in Celsius    TEMP: <u>18°C</u>
4	Daily check performed and passed on IR temperature gun?	<input checked="" type="checkbox"/>			Temperature Device Serial #: <u>IR3-18</u> Secondary Temperature Device Serial # (If Applicable): _____
5	Sample containers intact and sealed?	<input checked="" type="checkbox"/>			Circle Applicable: Seals broken    Damaged container    Leaking container    Other (describe)
6	Samples requiring chemical preservation at proper pH?	<input checked="" type="checkbox"/>			Sample ID's and Containers Affected: _____ If Preservation added, Lot#: _____
7	Do any samples require Volatile Analysis?		<input checked="" type="checkbox"/>		If Yes, are Encores or Soil Kits present for solids? Yes ___ No ___ NA ___ (If yes, take to VOA Freezer) Do liquid VOA vials contain acid preservation? Yes ___ No ___ NA ___ (If unknown, select No) Are liquid VOA vials free of headspace? Yes ___ No ___ NA ___ Sample ID's and containers affected: _____
8	Samples received within holding time?	<input checked="" type="checkbox"/>			ID's and tests affected: _____
9	Sample ID's on COC match ID's on bottles?	<input checked="" type="checkbox"/>			ID's and containers affected: _____
10	Date & time on COC match date & time on bottles?	<input checked="" type="checkbox"/>			Circle Applicable: No dates on containers    No times on containers    COC missing info    Other (describe)
11	Number of containers received match number indicated on COC?	<input checked="" type="checkbox"/>			Circle Applicable: No container count on COC    Other (describe)
12	Are sample containers identifiable as GEL provided?	<input checked="" type="checkbox"/>			
13	COC form is properly signed in relinquished/received sections?	<input checked="" type="checkbox"/>			Circle Applicable: Not relinquished    Other (describe)
Comments (Use Continuation Form if needed):					

# GEL Laboratories LLC – Login Review Report

Report Date: 06-MAY-19  
 Work Order: 476322  
 Page 1 of 2

<b>GEL Work Order/SDG:</b> 476322	<b>2nd Quarter GW 2019</b>	<b>Work Order Due Date:</b> 10-MAY-19	<b>Collector:</b> C
<b>Client SDG:</b> 476322		<b>Package Due Date:</b> 08-MAY-19	<b>Prelogin #:</b> 20190487484
<b>Project Manager:</b> Julie Robinson		<b>EDD Due Date:</b> 10-MAY-19	<b>Project Workdef ID:</b> 1294356
<b>Project Name:</b> DNMI00100 White Mesa Mill GW		<b>Due Date:</b> 10-MAY-19	<b>SDG Status:</b> Closed
<b>Purchase Order:</b> DW16138		<b>JAR1</b>	<b>Logged by:</b>
<b>Package Level:</b> LEVEL3			
<b>EDD Format:</b> EIM_DNMI			

GEL ID	Client Sample ID	Client Sample Desc.	Collect Date & Time	Receive Date & Time	Time Zone	# of Cont.	Lab Matrix	Fax Due Date	Days to Process	CofC #	Prelog Group	Lab QC	Field QC
476322001	MW-25_04102019		10-APR-19 11:10	12-APR-19 09:40	-2	1	GROUND WATER		20		1		
476322002	MW-30_04092019		09-APR-19 12:10	12-APR-19 09:40	-2	1	GROUND WATER		20		1		
476322003	MW-31_04102019		10-APR-19 13:35	12-APR-19 09:40	-2	1	GROUND WATER		20		1		
476322004	MW-32_04092019		09-APR-19 13:25	12-APR-19 09:40	-2	1	GROUND WATER		20		1		

Client Sample ID	Status	Tests/Methods	Product Reference	Fax Date	PM Comments	Aux Data	Receive Codes
-001 MW-25_04102019	REVV	GFPC, Total Alpha Radium, Liquid	Gross Alpha				
-002 MW-30_04092019	REVV	GFPC, Total Alpha Radium, Liquid	Gross Alpha				
-003 MW-31_04102019	REVV	GFPC, Total Alpha Radium, Liquid	Gross Alpha				
-004 MW-32_04092019	REVV	GFPC, Total Alpha Radium, Liquid	Gross Alpha				

<b>Product:</b> GFCTORAL	<b>Workdef ID:</b> 1458614	<b>In Product Group?</b> No	<b>Group Name:</b>	<b>Group Reference:</b>			
<b>Method:</b> EPA 903.0				<b>Path:</b> Drinking Water (903.0 or 9315)			
<b>Product Description:</b> GFPC, Total Alpha Radium, Liquid				<b>Product Reference:</b> Gross Alpha			
<b>Samples:</b> 001, 002, 003, 004				<b>Moisture Correction:</b> "As Received"			
<b>Parmname Check:</b> All parmnames scheduled properly							
<b>CAS #</b>	<b>Parmname</b>	<b>Client RDL or PQL &amp; Unit</b>	<b>Reporting Units</b>	<b>Parm Function</b>	<b>Included in Sample?</b>	<b>Included in QC?</b>	<b>Custom List?</b>
	Gross Radium Alpha	1	pCi/L	REG	Y	Y	No

Action	Product Name	Description	Samples
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Contingent Tests

# GEL Laboratories LLC – Login Review Report

Report Date: 06-MAY-19

Work Order: 476322

Page 2 of 2

## Login Requirements:

Requirement	Include? Comments
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Peer Review by: \_\_\_\_\_ Work Order (SDG#), PO# Checked? \_\_\_\_\_ C of C signed in receiver location? \_\_\_\_\_

**Radiochemistry  
Technical Case Narrative  
Energy Fuels Resources (DNMI)  
SDG #: 476322**

**Product:** GFPC, Total Alpha Radium, Liquid

**Analytical Method:** EPA 903.0

**Analytical Procedure:** GL-RAD-A-044 REV# 10

**Analytical Batch:** 1867685

The following samples were analyzed using the above methods and analytical procedure(s).

<u>GEL Sample ID#</u>	<u>Client Sample Identification</u>
476322001	MW-25_04102019
476322002	MW-30_04092019
476322003	MW-31_04102019
476322004	MW-32_04092019
1204261251	Method Blank (MB)
1204261252	476322004(MW-32_04092019) Sample Duplicate (DUP)
1204261253	476322004(MW-32_04092019) Matrix Spike (MS)
1204261254	476322004(MW-32_04092019) Matrix Spike Duplicate (MSD)
1204261255	Laboratory Control Sample (LCS)

The samples in this SDG were analyzed on an "as received" basis.

**Data Summary:**

All sample data provided in this report met the acceptance criteria specified in the analytical methods and procedures for initial calibration, continuing calibration, instrument controls and process controls where applicable, with the following exceptions.

**Preparation Information**

**Aliquot Reduced**

1204261252 (MW-32\_04092019DUP), 1204261253 (MW-32\_04092019MS), 1204261254 (MW-32\_04092019MSD) and 476322004 (MW-32\_04092019) Aliquots were reduced due to limited sample volume.

**Miscellaneous Information**

**Additional Comments**

The matrix spike and matrix spike duplicate, 1204261253 (MW-32\_04092019MS) and 1204261254 (MW-32\_04092019MSD), aliquots were reduced to conserve sample volume.

**Certification Statement**

Where the analytical method has been performed under NELAP certification, the analysis has met all of the requirements of the NELAC standard unless otherwise noted in the analytical case narrative.

## GEL LABORATORIES LLC

2040 Savage Road Charleston SC 29407 - (843) 556-8171 - www.gel.com

### Qualifier Definition Report for

DNMI001 Energy Fuels Resources (USA), Inc.

Client SDG: 476322 GEL Work Order: 476322

#### The Qualifiers in this report are defined as follows:

- \* A quality control analyte recovery is outside of specified acceptance criteria
- \*\* Analyte is a surrogate compound
- U Analyte was analyzed for, but not detected above the CRDL.

#### Review/Validation

GEL requires all analytical data to be verified by a qualified data reviewer. In addition, all CLP-like deliverables receive a third level review of the fractional data package.

The following data validator verified the information presented in this data report:

Signature: 

Name: Theresa Austin

Date: 29 APR 2019

Title: Group Leader

# GEL LABORATORIES LLC

2040 Savage Road Charleston, SC 29407 - (843) 556-8171 - www.gel.com

## QC Summary

Report Date: April 29, 2019

Page 1 of

Energy Fuels Resources (USA), Inc.  
225 Union Boulevard  
Suite 600  
Lakewood, Colorado  
Contact: Ms. Kathy Weinel

Workorder: 476322

Paramname	NOM	Sample	Qual	QC	Units	RPD%	REC%	Range	Anlst	Date	Time
<b>Rad Gas Flow</b>											
Batch	1867685										
QC1204261252	476322004	DUP									
Gross Radium Alpha		3.66		3.98	pCi/L	8.29		(0% - 100%)	JXC9	04/24/19	13:3
	Uncertainty	+/-0.629		+/-0.639							
QC1204261255	LCS										
Gross Radium Alpha	555			464	pCi/L		83.6	(75%-125%)		04/24/19	13:3
	Uncertainty			+/-6.15							
QC1204261251	MB										
Gross Radium Alpha			U	0.285	pCi/L					04/24/19	13:3
	Uncertainty			+/-0.231							
QC1204261253	476322004	MS									
Gross Radium Alpha	2230	3.66		1820	pCi/L		81.3	(75%-125%)		04/24/19	13:3
	Uncertainty	+/-0.629		+/-23.9							
QC1204261254	476322004	MSD									
Gross Radium Alpha	2230	3.66		1850	pCi/L	1.75	82.7	(0%-20%)		04/24/19	13:3
	Uncertainty	+/-0.629		+/-24.2							

**Notes:**

Counting Uncertainty is calculated at the 68% confidence level (1-sigma).

The Qualifiers in this report are defined as follows:

- \*\* Analyte is a surrogate compound
- < Result is less than value reported
- > Result is greater than value reported
- A The TIC is a suspected aldol-condensation product
- B For General Chemistry and Organic analysis the target analyte was detected in the associated blank.
- BD Results are either below the MDC or tracer recovery is low
- C Analyte has been confirmed by GC/MS analysis
- D Results are reported from a diluted aliquot of the sample
- F Estimated Value
- H Analytical holding time was exceeded
- K Analyte present. Reported value may be biased high. Actual value is expected to be lower.
- L Analyte present. Reported value may be biased low. Actual value is expected to be higher.
- M M if above MDC and less than LLD

# GEL LABORATORIES LLC

2040 Savage Road Charleston, SC 29407 - (843) 556-8171 - www.gel.com

## QC Summary

Workorder: 476322

Page 2 of

Parmname	NOM	Sample Qual	QC	Units	RPD%	REC%	Range	Anlst	Date	Time
M		Matrix Related Failure								
N/A		RPD or %Recovery limits do not apply.								
N1		See case narrative								
ND		Analyte concentration is not detected above the detection limit								
NJ		Consult Case Narrative, Data Summary package, or Project Manager concerning this qualifier								
Q		One or more quality control criteria have not been met. Refer to the applicable narrative or DER.								
R		Sample results are rejected								
U		Analyte was analyzed for, but not detected above the CRDL.								
UI		Gamma Spectroscopy--Uncertain identification								
UJ		Gamma Spectroscopy--Uncertain identification								
UL		Not considered detected. The associated number is the reported concentration, which may be inaccurate due to a low bias.								
X		Consult Case Narrative, Data Summary package, or Project Manager concerning this qualifier								
Y		QC Samples were not spiked with this compound								
^		RPD of sample and duplicate evaluated using +/-RL. Concentrations are <5X the RL. Qualifier Not Applicable for Radiochemistry.								
h		Preparation or preservation holding time was exceeded								

N/A indicates that spike recovery limits do not apply when sample concentration exceeds spike conc. by a factor of 4 or more or %RPD not applicable.  
^ The Relative Percent Difference (RPD) obtained from the sample duplicate (DUP) is evaluated against the acceptance criteria when the sample is greater than five times (5X) the contract required detection limit (RL). In cases where either the sample or duplicate value is less than 5X the RL, a control limit of +/- the RL is used to evaluate the DUP result.  
\* Indicates that a Quality Control parameter was not within specifications.  
For PS, PSD, and SDILT results, the values listed are the measured amounts, not final concentrations.

Where the analytical method has been performed under NELAP certification, the analysis has met all of the requirements of the NELAC standard unless qualified on the QC Summary.



May 14, 2019

Ms. Kathy Weinel  
Energy Fuels Resources (USA), Inc.  
225 Union Boulevard  
Suite 600  
Lakewood, Colorado 80228

Re: White Mesa Mill GW  
Work Order: 476962

Dear Ms. Weinel:

GEL Laboratories, LLC (GEL) appreciates the opportunity to provide the enclosed analytical results for the sample(s) we received on April 19, 2019. This original data report has been prepared and reviewed in accordance with GEL's standard operating procedures.

Test results for NELAP or ISO 17025 accredited tests are verified to meet the requirements of those standards, with any exceptions noted. The results reported relate only to the items tested and to the sample as received by the laboratory. These results may not be reproduced except as full reports without approval by the laboratory. Copies of GEL's accreditations and certifications can be found on our website at [www.gel.com](http://www.gel.com).

Our policy is to provide high quality, personalized analytical services to enable you to meet your analytical needs on time every time. We trust that you will find everything in order and to your satisfaction. If you have any questions, please do not hesitate to call me at (843) 556-8171, ext. 4289.

Sincerely,

Taylor Cannon for  
Julie Robinson  
Project Manager

Purchase Order: DW16138  
Enclosures



**Receipt Narrative**  
**for**  
**Energy Fuels Resources (USA), Inc.**  
**SDG: 476962**

**May 14, 2019**

**Laboratory Identification:**

GEL Laboratories LLC  
2040 Savage Road  
Charleston, South Carolina 29407  
(843) 556-8171

**Summary:**

**Sample receipt:** The samples arrived at GEL Laboratories LLC, Charleston, South Carolina on April 19, 2019 for analysis. The samples were delivered with proper chain of custody documentation and signatures. All sample containers arrived without any visible signs of tampering or breakage. There are no additional comments concerning sample receipt.

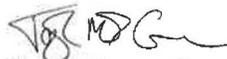
**Sample Identification:** The laboratory received the following samples:

<u>Laboratory ID</u>	<u>Client ID</u>
476962001	MW-01_04172019
476962002	MW-17_04162019
476962003	MW-18_04162019
476962004	MW-35_04182019
476962005	MW-36_04182019
476962006	MW-40_04172019

**Case Narrative:**

Sample analyses were conducted using methodology as outlined in GEL's Standard Operating Procedures. Any technical or administrative problems during analysis, data review, and reduction are contained in the analytical case narratives in the enclosed data package.

The enclosed data package contains the following sections: Case Narrative, Chain of Custody, Cooler Receipt Checklist, Data Package Qualifier Definitions and data from the following fractions: Radiochemistry.



Taylor Cannon for  
Julie Robinson  
Project Manager





# GEL Laboratories LLC – Login Review Report

Report Date: 14-MAY-19  
 Work Order: 476962  
 Page 1 of 2

GEL Work Order/SDG: 476962      2nd Quarter GW 2019  
 Client SDG: 476962  
 Project Manager: Julie Robinson  
 Project Name: DNMI00100 White Mesa Mill GW  
 Purchase Order: DW16138  
 Package Level: LEVEL3  
 EDD Format: EIM\_DNMI

Work Order Due Date: 17-MAY-19  
 Package Due Date: 15-MAY-19  
 EDD Due Date: 17-MAY-19  
 Due Date: 17-MAY-19  
 JAR1

Collector: C  
 Prelogin #: 20190487484  
 Project Workdef ID: 1294356  
 SDG Status: Closed  
 Logged by:

GEL ID	Client Sample ID	Client Sample Desc.	Collect Date & Time	Receive Date & Time	Time Zone	# of Cont.	Lab Matrix	Fax Due Date	Days to Process	CofC #	Prelog Group	Lab QC	Field QC
476962001	MW-01_04172019		17-APR-19 11:45	19-APR-19 09:40	-2	1	GROUND WATER		20		1		
476962002	MW-17_04162019		16-APR-19 12:40	19-APR-19 09:40	-2	1	GROUND WATER		20		1		
476962003	MW-18_04162019		16-APR-19 14:25	19-APR-19 09:40	-2	1	GROUND WATER		20		1		
476962004	MW-35_04182019		18-APR-19 08:25	19-APR-19 09:40	-2	1	GROUND WATER		20		1		
476962005	MW-36_04182019		18-APR-19 09:50	19-APR-19 09:40	-2	1	GROUND WATER		20		1		
476962006	MW-40_04172019		17-APR-19 13:05	19-APR-19 09:40	-2	1	GROUND WATER		20		1		

Client Sample ID	Status	Tests/Methods	Product Reference	Fax Date	PM Comments	Aux Data	Receive Codes
-001 MW-01_04172019	REVV	GFPC, Total Alpha Radium, Liquid	Gross Alpha				
-002 MW-17_04162019	REVV	GFPC, Total Alpha Radium, Liquid	Gross Alpha				
-003 MW-18_04162019	REVV	GFPC, Total Alpha Radium, Liquid	Gross Alpha				
-004 MW-35_04182019	REVV	GFPC, Total Alpha Radium, Liquid	Gross Alpha				
-005 MW-36_04182019	REVV	GFPC, Total Alpha Radium, Liquid	Gross Alpha				
-006 MW-40_04172019	REVV	GFPC, Total Alpha Radium, Liquid	Gross Alpha				

<b>Product:</b> GFCTORAL	<b>Workdef ID:</b> 1458614	<b>In Product Group?</b> No	<b>Group Name:</b>	<b>Group Reference:</b>			
<b>Method:</b> EPA 903.0				<b>Path:</b> Drinking Water (903.0 or 9315)			
<b>Product Description:</b> GFPC, Total Alpha Radium, Liquid				<b>Product Reference:</b> Gross Alpha			
<b>Samples:</b> 001, 002, 003, 004, 005, 006				<b>Moisture Correction:</b> "As Received"			
<b>Parmname Check:</b> All parmnames scheduled properly							
<b>CAS #</b>	<b>Parmname</b>	<b>Client RDL or PQL &amp; Unit</b>	<b>Reporting Units</b>	<b>Parm Function</b>	<b>Included in Sample?</b>	<b>Included in QC?</b>	<b>Custom List?</b>
	Gross Radium Alpha	1	pCi/L	REG	Y	Y	No

# GEL Laboratories LLC – Login Review Report

Report Date: 14-MAY-19  
Work Order: 476962  
Page 2 of 2

Action	Product Name	Description	Samples
Contingent Tests			

## Login Requirements:

Requirement	Include?	Comments
-------------	----------	----------

Peer Review by: \_\_\_\_\_ Work Order (SDG#), PO# Checked? \_\_\_\_\_ C of C signed in receiver location? \_\_\_\_\_

**Radiochemistry  
Technical Case Narrative  
Energy Fuels Resources  
SDG #: 476962**

**Product:** GFPC, Total Alpha Radium, Liquid

**Analytical Method:** EPA 903.0

**Analytical Procedure:** GL-RAD-A-044 REV# 10

**Analytical Batch:** 1872063

The following samples were analyzed using the above methods and analytical procedure(s).

<b><u>GEL Sample ID#</u></b>	<b><u>Client Sample Identification</u></b>
476962001	MW-01_04172019
476962002	MW-17_04162019
476962003	MW-18_04162019
476962004	MW-35_04182019
476962005	MW-36_04182019
476962006	MW-40_04172019
1204271676	Method Blank (MB)
1204271677	477632010(MW-29_04242019) Sample Duplicate (DUP)
1204271678	477632010(MW-29_04242019) Matrix Spike (MS)
1204271679	477632010(MW-29_04242019) Matrix Spike Duplicate (MSD)
1204271680	Laboratory Control Sample (LCS)

The samples in this SDG were analyzed on an "as received" basis.

**Data Summary:**

All sample data provided in this report met the acceptance criteria specified in the analytical methods and procedures for initial calibration, continuing calibration, instrument controls and process controls where applicable, with the following exceptions.

**Preparation Information**

**Aliquot Reduced**

1204271677 (MW-29\_04242019DUP), 1204271678 (MW-29\_04242019MS) and 1204271679 (MW-29\_04242019MSD) aliquots were reduced due to limited sample volume.

**Technical Information**

**Recounts**

Samples 1204271678 (MW-29\_04242019MS) and 1204271680 (LCS) were recounted due to low recovery. The recounts are reported.

**Miscellaneous Information**

**Additional Comments**

The matrix spike and matrix spike duplicate, 1204271678 (MW-29\_04242019MS) and 1204271679 (MW-29\_04242019MSD), aliquots were reduced to conserve sample volume.

**Certification Statement**

Where the analytical method has been performed under NELAP certification, the analysis has met all of the requirements of the NELAC standard unless otherwise noted in the analytical case narrative.

# GEL LABORATORIES LLC

2040 Savage Road Charleston SC 29407 - (843) 556-8171 - www.gel.com

## Qualifier Definition Report for

DNMI001 Energy Fuels Resources (USA), Inc.

Client SDG: 476962 GEL Work Order: 476962

### The Qualifiers in this report are defined as follows:

- \* A quality control analyte recovery is outside of specified acceptance criteria
- \*\* Analyte is a surrogate compound
- U Analyte was analyzed for, but not detected above the CRDL.

### Review/Validation

GEL requires all analytical data to be verified by a qualified data reviewer. In addition, all CLP-like deliverables receive a third level review of the fractional data package.

The following data validator verified the information presented in this data report:

Signature: 

Name: Theresa Austin

Date: 09 MAY 2019

Title: Group Leader

# GEL LABORATORIES LLC

2040 Savage Road Charleston, SC 29407 - (843) 556-8171 - www.gel.com

## QC Summary

Report Date: May 9, 2019

Page 1 of

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

Contact: Ms. Kathy Weinel

Workorder: 476962

Paramname	NOM	Sample	Qual	QC	Units	RPD%	REC%	Range	Anlst	Date	Time
<b>Rad Gas Flow</b>											
Batch	1872063										
QC1204271677 477632010 DUP											
Gross Radium Alpha		1.30		1.54	pCi/L	16.9		(0% - 100%)	LXB3	05/06/19	16:3
	Uncertainty	+/-0.299		+/-0.369							
QC1204271680 LCS											
Gross Radium Alpha	555			503	pCi/L		90.7	(75%-125%)		05/07/19	07:3
	Uncertainty			+/-4.93							
QC1204271676 MB											
Gross Radium Alpha			U	0.0594	pCi/L					05/06/19	16:3
	Uncertainty			+/-0.150							
QC1204271678 477632010 MS											
Gross Radium Alpha	2230	1.30		1800	pCi/L		80.6	(75%-125%)		05/07/19	07:3
	Uncertainty	+/-0.299		+/-19.1							
QC1204271679 477632010 MSD											
Gross Radium Alpha	2230	1.30		1920	pCi/L	6.46	86	(0%-20%)		05/06/19	16:3
	Uncertainty	+/-0.299		+/-19.5							

**Notes:**

Counting Uncertainty is calculated at the 68% confidence level (1-sigma).

The Qualifiers in this report are defined as follows:

- \*\* Analyte is a surrogate compound
- < Result is less than value reported
- > Result is greater than value reported
- A The TIC is a suspected aldol-condensation product
- B For General Chemistry and Organic analysis the target analyte was detected in the associated blank.
- BD Results are either below the MDC or tracer recovery is low
- C Analyte has been confirmed by GC/MS analysis
- D Results are reported from a diluted aliquot of the sample
- F Estimated Value
- H Analytical holding time was exceeded
- K Analyte present. Reported value may be biased high. Actual value is expected to be lower.
- L Analyte present. Reported value may be biased low. Actual value is expected to be higher.
- M M if above MDC and less than LLD

# GEL LABORATORIES LLC

2040 Savage Road Charleston, SC 29407 - (843) 556-8171 - www.gel.com

## QC Summary

Workorder: 476962

Page 2 of

Parname	NOM	Sample	Qual	QC	Units	RPD%	REC%	Range	Anlst	Date	Time
M											
Matrix Related Failure											
N/A											
RPD or %Recovery limits do not apply.											
N1											
See case narrative											
ND											
Analyte concentration is not detected above the detection limit											
NJ											
Consult Case Narrative, Data Summary package, or Project Manager concerning this qualifier											
Q											
One or more quality control criteria have not been met. Refer to the applicable narrative or DER.											
R											
Sample results are rejected											
U											
Analyte was analyzed for, but not detected above the CRDL.											
UI											
Gamma Spectroscopy--Uncertain identification											
UJ											
Gamma Spectroscopy--Uncertain identification											
UL											
Not considered detected. The associated number is the reported concentration, which may be inaccurate due to a low bias.											
X											
Consult Case Narrative, Data Summary package, or Project Manager concerning this qualifier											
Y											
QC Samples were not spiked with this compound											
^											
RPD of sample and duplicate evaluated using +/-RL. Concentrations are <5X the RL. Qualifier Not Applicable for Radiochemistry.											
h											
Preparation or preservation holding time was exceeded											

N/A indicates that spike recovery limits do not apply when sample concentration exceeds spike conc. by a factor of 4 or more or %RPD not applicable.  
^ The Relative Percent Difference (RPD) obtained from the sample duplicate (DUP) is evaluated against the acceptance criteria when the sample is greater than five times (5X) the contract required detection limit (RL). In cases where either the sample or duplicate value is less than 5X the RL, a control limit of +/- the RL is used to evaluate the DUP result.  
\* Indicates that a Quality Control parameter was not within specifications.  
For PS, PSD, and SDILT results, the values listed are the measured amounts, not final concentrations.

Where the analytical method has been performed under NELAP certification, the analysis has met all of the requirements of the NELAC standard unless qualified on the QC Summary.



May 22, 2019

Ms. Kathy Weinel  
Energy Fuels Resources (USA), Inc.  
225 Union Boulevard  
Suite 600  
Lakewood, Colorado 80228

Re: White Mesa Mill GW  
Work Order: 477632

Dear Ms. Weinel:

GEL Laboratories, LLC (GEL) appreciates the opportunity to provide the enclosed analytical results for the sample(s) we received on April 26, 2019. This original data report has been prepared and reviewed in accordance with GEL's standard operating procedures.

Test results for NELAP or ISO 17025 accredited tests are verified to meet the requirements of those standards, with any exceptions noted. The results reported relate only to the items tested and to the sample as received by the laboratory. These results may not be reproduced except as full reports without approval by the laboratory. Copies of GEL's accreditations and certifications can be found on our website at [www.gel.com](http://www.gel.com).

Our policy is to provide high quality, personalized analytical services to enable you to meet your analytical needs on time every time. We trust that you will find everything in order and to your satisfaction. If you have any questions, please do not hesitate to call me at (843) 556-8171, ext. 4289.

Sincerely,

Taylor Cannon for  
Julie Robinson  
Project Manager

Purchase Order: DW16138  
Enclosures



**Receipt Narrative**  
**for**  
**Energy Fuels Resources (USA), Inc.**  
**SDG: 477632**

May 22, 2019

**Laboratory Identification:**

GEL Laboratories LLC  
2040 Savage Road  
Charleston, South Carolina 29407  
(843) 556-8171

**Summary:**

**Sample receipt:** The samples arrived at GEL Laboratories LLC, Charleston, South Carolina on April 26, 2019 for analysis. The samples were delivered with proper chain of custody documentation and signatures. All sample containers arrived without any visible signs of tampering or breakage. There are no additional comments concerning sample receipt.

**Sample Identification:** The laboratory received the following samples:

<b><u>Laboratory ID</u></b>	<b><u>Client ID</u></b>
477632001	MW-02_04252019
477632002	MW-05_04242019
477632003	MW-11_04242019
477632004	MW-12_04252019
477632005	MW-14_04232019
477632006	MW-19_04232019
477632007	MW-26_04242019
477632008	MW-27_04232019
477632009	MW-28_04242019
477632010	MW-29_04242019
477632011	MW-65_04232019
477632012	TW4-24_04252019

**Case Narrative:**

Sample analyses were conducted using methodology as outlined in GEL's Standard Operating Procedures. Any technical or administrative problems during analysis, data review, and reduction are contained in the analytical case narratives in the enclosed data package.

The enclosed data package contains the following sections: Case Narrative, Chain of Custody, Cooler Receipt Checklist, Data Package Qualifier Definitions and data from the following fractions: Radiochemistry.

A handwritten signature in black ink, appearing to read 'T Cannon', with a stylized flourish extending to the right.

Taylor Cannon for  
Julie Robinson  
Project Manager

477632

# CHAIN OF CUSTODY

**Samples Shipped to:** Gel Laboratories **Contact:** Tanner Holliday  
2040 Savage Road Ph: 435 678 4115  
Charleston, SC 29407 tholliday@energyfuels.com

## Chain of Custody/Sampling Analysis Request

Project	Samplers Name		Samplers Signature
2nd Quarter GW 2019	Tanner Holliday		<i>Tanner Holliday</i>
Sample ID	Date Collected	Time Collected	Laboratory Analysis Requested
MW-02_04252019	4/25/2019	840	Gross Alpha
MW-05_04242019	4/24/2019	1505	Gross Alpha
MW-11_04242019	4/24/2019	1125	Gross Alpha
MW-12_04252019	4/25/2019	900	Gross Alpha
MW-14_04232019	4/23/2019	1355	Gross Alpha
MW-19_04232019	4/23/2019	1500	Gross Alpha
MW-26_04242019	4/24/2019	1315	Gross Alpha
MW-27_04232019	4/23/2019	1100	Gross Alpha
MW-28_04242019	4/24/2019	1015	Gross Alpha
MW-29_04242019	4/24/2019	1425	Gross Alpha
MW-65_04232019	4/23/2019	1355	Gross Alpha
TW4-24_04252019	4/25/2019	815	Gross Alpha
Comments:			

Relinquished By:(Signature) <i>Tanner Holliday</i> <i>Tanner Holliday</i>	Date/Time 4/25/2019 1130	Received By:(Signature) <i>[Signature]</i>	Date/Time 4/26/19 9:45
Relinquished By:(Signature)	Date/Time	Received By:(Signature)	Date/Time



# GEL Laboratories LLC – Login Review Report

Report Date: 22-MAY-19

Work Order: 477632

Page 1 of 2

GEL Work Order/SDG: 477632      2nd Quarter GW 2019  
 Client SDG: 477632  
 Project Manager: Julie Robinson  
 Project Name: DNMI00100 White Mesa Mill GW  
 Purchase Order: DW16138  
 Package Level: LEVEL3  
 EDD Format: EIM\_DNMI

Work Order Due Date: 24-MAY-19  
 Package Due Date: 22-MAY-19  
 EDD Due Date: 24-MAY-19  
 Due Date: 24-MAY-19  
 TXC4

Collector: C  
 Prelogin #: 20190487484  
 Project Workdef ID: 1294356  
 SDG Status: Closed  
 Logged by:

GEL ID	Client Sample ID	Client Sample Desc.	Collect Date & Time	Receive Date & Time	Time Zone	# of Cont.	Lab Matrix	Fax Due Date	Days to Process	CofC #	Prelog Group	Lab QC	Field QC
477632001	MW-02_04252019		25-APR-19 08:40	26-APR-19 09:45	-2	1	GROUND WATER		20		1		
477632002	MW-05_04242019		24-APR-19 15:05	26-APR-19 09:45	-2	1	GROUND WATER		20		1		
477632003	MW-11_04242019		24-APR-19 11:25	26-APR-19 09:45	-2	1	GROUND WATER		20		1		
477632004	MW-12_04252019		25-APR-19 09:00	26-APR-19 09:45	-2	1	GROUND WATER		20		1		
477632005	MW-14_04232019		23-APR-19 13:55	26-APR-19 09:45	-2	1	GROUND WATER		20		1		
477632006	MW-19_04232019		23-APR-19 15:00	26-APR-19 09:45	-2	1	GROUND WATER		20		1		
477632007	MW-26_04242019		24-APR-19 13:15	26-APR-19 09:45	-2	1	GROUND WATER		20		1		
477632008	MW-27_04232019		23-APR-19 11:00	26-APR-19 09:45	-2	1	GROUND WATER		20		1		
477632009	MW-28_04242019		24-APR-19 10:15	26-APR-19 09:45	-2	1	GROUND WATER		20		1		
477632010	MW-29_04242019		24-APR-19 14:25	26-APR-19 09:45	-2	1	GROUND WATER		20		1		
477632011	MW-65_04232019		23-APR-19 13:55	26-APR-19 09:45	-2	1	GROUND WATER		20		1		
477632012	TW4-24_04252019		25-APR-19 08:15	26-APR-19 09:45	-2	1	GROUND WATER		20		1		

Client Sample ID	Status	Tests/Methods	Product Reference	Fax Date	PM Comments	Aux Data	Receive Codes
-001 MW-02_04252019	REVV	GFPC, Total Alpha Radium, Liquid	Gross Alpha				
-002 MW-05_04242019	REVV	GFPC, Total Alpha Radium, Liquid	Gross Alpha				
-003 MW-11_04242019	REVV	GFPC, Total Alpha Radium, Liquid	Gross Alpha				
-004 MW-12_04252019	REVV	GFPC, Total Alpha Radium, Liquid	Gross Alpha				
-005 MW-14_04232019	REVV	GFPC, Total Alpha Radium, Liquid	Gross Alpha				
-006 MW-19_04232019	REVV	GFPC, Total Alpha Radium, Liquid	Gross Alpha				
-007 MW-26_04242019	REVV	GFPC, Total Alpha Radium, Liquid	Gross Alpha				
-008 MW-27_04232019	REVV	GFPC, Total Alpha Radium, Liquid	Gross Alpha				
-009 MW-28_04242019	REVV	GFPC, Total Alpha Radium, Liquid	Gross Alpha				
-010 MW-29_04242019	REVV	GFPC, Total Alpha Radium, Liquid	Gross Alpha				
-011 MW-65_04232019	REVV	GFPC, Total Alpha Radium, Liquid	Gross Alpha				
-012 TW4-24_04252019							

# GEL Laboratories LLC – Login Review Report

Report Date: 22-MAY-19  
 Work Order: 477632  
 Page 2 of 2

Product: GFCTORAL    Workdef ID: 1458614    In Product Group? No    Group Name:    Group Reference:  
 Method: EPA 903.0    Path: Drinking Water (903.0 or 9315)  
 Product Description: GFPC, Total Alpha Radium, Liquid    Product Reference: Gross Alpha  
 Samples: 001, 002, 003, 004, 005, 006, 007, 008, 009, 010, 011    Moisture Correction: "As Received"

Parmname Check: All parmnames scheduled properly

CAS #	Parmname	Client RDL or PQL & Unit	Reporting Units	Parm Function	Included in Sample?	Included in QC?	Custom List?
	Gross Radium Alpha	1	pCi/L	REG	Y	Y	No

Action	Product Name	Description	Samples
Contingent Tests			

**Login Requirements:**

Requirement	Include?	Comments

Peer Review by: \_\_\_\_\_ Work Order (SDG#), PO# Checked? \_\_\_\_\_ C of C signed in receiver location? \_\_\_\_\_

**Subject:** RE: Samples received at GEL today 4/26

**From:** Kathy Weinel <KWeinel@energyfuels.com>

**Date:** 4/26/2019, 1:38 PM

**To:** Taylor Cannon <Taylor.Cannon@gel.com>, "team.robinson@gel.com" <team.robinson@gel.com>

**CC:** "N. Tanner Holliday" <tholliday@energyfuels.com>

Taylor,

Dispose of that sample – we will resample that well next week.

Thanks for letting me know.

K

[http://www](http://www.energyfuels.com)

*Energy Fuels Resources (USA) Inc.*

---

Kathy Weinel

*Quality Assurance Manager*

t: 303.389.4134 | f: 303.389.4125  
225 Union Blvd., Suite 600  
Lakewood, CO 80228

<http://www.energyfuels.com>

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---

**From:** Taylor Cannon <Taylor.Cannon@gel.com>

**Sent:** Friday, April 26, 2019 11:26 AM

**To:** Kathy Weinel <KWeinel@energyfuels.com>

**Cc:** team.robinson@gel.com

**Subject:** Samples received at GEL today 4/26

**Caution: This email originated from outside of the organization. Do not click links or open attachments unless you recognize the sender and know the content is safe.**

Good afternoon,

Sample ID TW4-24\_04252019 received this morning for Gross Alpha analysis did not hold its preservative. Please advise if you would like for us to add preservative and proceed with analysis.

Thanks,

--

**Taylor Cannon**

**Project Manager Assistant**

2040 Savage Road, Charleston, SC 29407 | PO Box 30712, Charleston, SC 29417  
Office Direct: 843.556.8171 ext. 4708 | Office Main: 843.556.8171 | Fax: 843.766.1178  
E-Mail: [taylor.cannon@gel.com](mailto:taylor.cannon@gel.com) | Website: [www.gel.com](http://www.gel.com)

**Analytical Testing**

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**Radiochemistry  
Technical Case Narrative  
Energy Fuels Resources  
SDG #: 477632**

**Product:** GFPC, Total Alpha Radium, Liquid

**Analytical Method:** EPA 903.0

**Analytical Procedure:** GL-RAD-A-044 REV# 10

**Analytical Batch:** 1872063

The following samples were analyzed using the above methods and analytical procedure(s).

<b><u>GEL Sample ID#</u></b>	<b><u>Client Sample Identification</u></b>
477632001	MW-02_04252019
477632002	MW-05_04242019
477632003	MW-11_04242019
477632004	MW-12_04252019
477632005	MW-14_04232019
477632006	MW-19_04232019
477632007	MW-26_04242019
477632008	MW-27_04232019
477632009	MW-28_04242019
477632010	MW-29_04242019
477632011	MW-65_04232019
1204271676	Method Blank (MB)
1204271677	477632010(MW-29_04242019) Sample Duplicate (DUP)
1204271678	477632010(MW-29_04242019) Matrix Spike (MS)
1204271679	477632010(MW-29_04242019) Matrix Spike Duplicate (MSD)
1204271680	Laboratory Control Sample (LCS)

The samples in this SDG were analyzed on an "as received" basis.

**Data Summary:**

All sample data provided in this report met the acceptance criteria specified in the analytical methods and procedures for initial calibration, continuing calibration, instrument controls and process controls where applicable, with the following exceptions.

**Preparation Information**

**Aliquot Reduced**

477632001 (MW-02\_04252019) aliquot volume was reduced due to the sample matrix. 1204271677 (MW-29\_04242019DUP), 1204271678 (MW-29\_04242019MS) and 1204271679 (MW-29\_04242019MSD) aliquots were reduced due to limited sample volume.

**Technical Information**

**Recounts**

Samples 1204271678 (MW-29\_04242019MS) and 1204271680 (LCS) were recounted due to low recovery. The recounts are reported.

**Miscellaneous Information**

**Additional Comments**

The matrix spike and matrix spike duplicate, 1204271678 (MW-29\_04242019MS) and 1204271679 (MW-29\_04242019MSD), aliquots were reduced to conserve sample volume.

**Certification Statement**

Where the analytical method has been performed under NELAP certification, the analysis has met all of the requirements of the NELAC standard unless otherwise noted in the analytical case narrative.

## GEL LABORATORIES LLC

2040 Savage Road Charleston SC 29407 - (843) 556-8171 - www.gel.com

### Qualifier Definition Report for

DNMI001 Energy Fuels Resources (USA), Inc.

Client SDG: 477632 GEL Work Order: 477632

#### The Qualifiers in this report are defined as follows:

- \* A quality control analyte recovery is outside of specified acceptance criteria
- \*\* Analyte is a surrogate compound
- U Analyte was analyzed for, but not detected above the CRDL.

#### Review/Validation

GEL requires all analytical data to be verified by a qualified data reviewer. In addition, all CLP-like deliverables receive a third level review of the fractional data package.

The following data validator verified the information presented in this data report:

Signature: 

Name: Theresa Austin

Date: 13 MAY 2019

Title: Group Leader

# GEL LABORATORIES LLC

2040 Savage Road Charleston, SC 29407 - (843) 556-8171 - www.gel.com

## QC Summary

Report Date: May 13, 2019

Page 1 of

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

Contact: Ms. Kathy Weinel

Workorder: 477632

Parmname	NOM	Sample	Qual	QC	Units	RPD%	REC%	Range	Anlst	Date	Time
<b>Rad Gas Flow</b>											
Batch	1872063										
QC1204271677 477632010 DUP											
Gross Radium Alpha		1.30		1.54	pCi/L	16.9		(0% - 100%)	LXB3	05/06/19	16:3
	Uncertainty	+/-0.299		+/-0.369							
QC1204271680 LCS											
Gross Radium Alpha	555			503	pCi/L		90.7	(75%-125%)		05/07/19	07:3
	Uncertainty			+/-4.93							
QC1204271676 MB											
Gross Radium Alpha			U	0.0594	pCi/L					05/06/19	16:3
	Uncertainty			+/-0.150							
QC1204271678 477632010 MS											
Gross Radium Alpha	2230	1.30		1800	pCi/L		80.6	(75%-125%)		05/07/19	07:3
	Uncertainty	+/-0.299		+/-19.1							
QC1204271679 477632010 MSD											
Gross Radium Alpha	2230	1.30		1920	pCi/L	6.46	86	(0%-20%)		05/06/19	16:3
	Uncertainty	+/-0.299		+/-19.5							

**Notes:**

Counting Uncertainty is calculated at the 68% confidence level (1-sigma).

The Qualifiers in this report are defined as follows:

- \*\* Analyte is a surrogate compound
- < Result is less than value reported
- > Result is greater than value reported
- A The TIC is a suspected aldol-condensation product
- B For General Chemistry and Organic analysis the target analyte was detected in the associated blank.
- BD Results are either below the MDC or tracer recovery is low
- C Analyte has been confirmed by GC/MS analysis
- D Results are reported from a diluted aliquot of the sample
- F Estimated Value
- H Analytical holding time was exceeded
- K Analyte present. Reported value may be biased high. Actual value is expected to be lower.
- L Analyte present. Reported value may be biased low. Actual value is expected to be higher.
- M M if above MDC and less than LLD

# GEL LABORATORIES LLC

2040 Savage Road Charleston, SC 29407 - (843) 556-8171 - www.gel.com

## QC Summary

Workorder: 477632

Page 2 of

Parmname	NOM	Sample	Qual	QC	Units	RPD%	REC%	Range	Anlst	Date	Time
M											
M											
N/A											
N/A											
N1											
N1											
ND											
ND											
NJ											
NJ											
Q											
Q											
R											
R											
U											
U											
UI											
UI											
UJ											
UJ											
UL											
UL											
X											
X											
Y											
Y											
^											
^											
h											
h											

N/A indicates that spike recovery limits do not apply when sample concentration exceeds spike conc. by a factor of 4 or more or %RPD not applicable.  
^ The Relative Percent Difference (RPD) obtained from the sample duplicate (DUP) is evaluated against the acceptance criteria when the sample is greater than five times (5X) the contract required detection limit (RL). In cases where either the sample or duplicate value is less than 5X the RL, a control limit of +/- the RL is used to evaluate the DUP result.  
\* Indicates that a Quality Control parameter was not within specifications.  
For PS, PSD, and SDILT results, the values listed are the measured amounts, not final concentrations.

Where the analytical method has been performed under NELAP certification, the analysis has met all of the requirements of the NELAC standard unless qualified on the QC Summary.



May 31, 2019

Ms. Kathy Weinel  
Energy Fuels Resources (USA), Inc.  
225 Union Boulevard  
Suite 600  
Lakewood, Colorado 80228

Re: White Mesa Mill GW  
Work Order: 478290

Dear Ms. Weinel:

GEL Laboratories, LLC (GEL) appreciates the opportunity to provide the enclosed analytical results for the sample(s) we received on May 03, 2019. This original data report has been prepared and reviewed in accordance with GEL's standard operating procedures.

Test results for NELAP or ISO 17025 accredited tests are verified to meet the requirements of those standards, with any exceptions noted. The results reported relate only to the items tested and to the sample as received by the laboratory. These results may not be reproduced except as full reports without approval by the laboratory. Copies of GEL's accreditations and certifications can be found on our website at [www.gel.com](http://www.gel.com).

Our policy is to provide high quality, personalized analytical services to enable you to meet your analytical needs on time every time. We trust that you will find everything in order and to your satisfaction. If you have any questions, please do not hesitate to call me at (843) 556-8171, ext. 4289.

Sincerely,

Julie Robinson  
Project Manager

Purchase Order: DW16138  
Enclosures



**Receipt Narrative  
for  
Energy Fuels Resources (USA), Inc.  
SDG: 478290**

**May 31, 2019**

**Laboratory Identification:**

GEL Laboratories LLC  
2040 Savage Road  
Charleston, South Carolina 29407  
(843) 556-8171

**Summary:**

**Sample receipt:** The samples arrived at GEL Laboratories LLC, Charleston, South Carolina on May 03, 2019 for analysis. The samples were delivered with proper chain of custody documentation and signatures. All sample containers arrived without any visible signs of tampering or breakage. There are no additional comments concerning sample receipt.

**Sample Identification:** The laboratory received the following samples:

<b><u>Laboratory ID</u></b>	<b><u>Client ID</u></b>
478290001	MW-03A_05022019
478290002	MW-15_04302019
478290003	MW-24_05022019
478290004	MW-38_05022019
478290005	MW-39_05012019
478290006	MW-70_04302019
478290007	MW-22_04302019
478290008	TW4-24_05022019

**Case Narrative:**

Sample analyses were conducted using methodology as outlined in GEL's Standard Operating Procedures. Any technical or administrative problems during analysis, data review, and reduction are contained in the analytical case narratives in the enclosed data package.

The enclosed data package contains the following sections: Case Narrative, Chain of Custody, Cooler Receipt Checklist, Data Package Qualifier Definitions and data from the following fractions: Radiochemistry.

A handwritten signature in black ink that reads "Julie Robinson". The signature is written in a cursive, flowing style.

Julie Robinson  
Project Manager

478290

# CHAIN OF CUSTODY

**Samples Shipped to:** Gel Laboratories **Contact:** Tanner Holliday  
2040 Savage Road Ph: 435 678 4115  
Charleston, SC 29407 tholliday@energyfuels.com

## Chain of Custody/Sampling Analysis Request

Project	Samplers Name		Samplers Signature
2nd Quarter GW 2019	Tanner Holliday		<i>Tanner Holliday</i>
Sample ID	Date Collected	Time Collected	Laboratory Analysis Requested
MW-03A_05022019	5/2/2019	730	Gross Alpha
MW-15_04302019	4/30/2019	1055	Gross Alpha
MW-24_05022019	5/2/2019	700	Gross Alpha
MW-38_05022019	5/2/2019	845	Gross Alpha
MW-39_05012019	5/1/2019	1125	Gross Alpha
MW-70_04302019	4/30/2019	1055	Gross Alpha
MW-22_04302019	4/30/2019	1210	Gross Alpha
TW4-24_05022019	5/2/2019	800	Gross Alpha
Comments:			

Relinquished By:(Signature) <i>Tanner Holliday</i>	Date/Time 5/2/2019 1200	Received By:(Signature) <i>[Signature]</i>	Date/Time 5/3/19 1400
Relinquished By:(Signature)	Date/Time	Received By:(Signature)	Date/Time



# GEL Laboratories LLC – Login Review Report

Report Date: 31-MAY-19

Work Order: 478290

Page 1 of 2

GEL Work Order/SDG: 478290      2nd Quarter GW 2019  
 Client SDG: 478290  
 Project Manager: Julie Robinson  
 Project Name: DNMI00100 White Mesa Mill GW  
 Purchase Order: DW16138  
 Package Level: LEVEL3  
 EDD Format: EIM\_DNMI

Work Order Due Date: 03-JUN-19  
 Package Due Date: 01-JUN-19  
 EDD Due Date: 03-JUN-19  
 Due Date: 03-JUN-19  
 JAR1

Collector: C  
 Prelogin #: 20190487484  
 Project Workdef ID: 1294356  
 SDG Status: Closed  
 Logged by:

GEL ID	Client Sample ID	Client Sample Desc.	Collect Date & Time	Receive Date & Time	Time Zone	# of Cont.	Lab Matrix	Fax Due Date	Days to Process	CofC #	Prelog Group	Lab QC	Field QC
478290001	MW-03A_05022019		02-MAY-19 07:30	03-MAY-19 14:00	-2	1	GROUND WATER		20		1		
478290002	MW-15_04302019		30-APR-19 10:55	03-MAY-19 14:00	-2	1	GROUND WATER		20		1		
478290003	MW-24_05022019		02-MAY-19 07:00	03-MAY-19 14:00	-2	1	GROUND WATER		20		1		
478290004	MW-38_05022019		02-MAY-19 08:45	03-MAY-19 14:00	-2	1	GROUND WATER		20		1		
478290005	MW-39_05012019		01-MAY-19 11:25	03-MAY-19 14:00	-2	1	GROUND WATER		20		1		
478290006	MW-70_04302019		30-APR-19 10:55	03-MAY-19 14:00	-2	1	GROUND WATER		20		1		
478290007	MW-22_04302019		30-APR-19 12:10	03-MAY-19 14:00	-2	1	GROUND WATER		20		1		
478290008	TW4-24_05022019		02-MAY-19 08:00	03-MAY-19 14:00	-2	1	GROUND WATER		20		1		

Client Sample ID	Status	Tests/Methods	Product Reference	Fax Date	PM Comments	Aux Data	Receive Codes
-001 MW-03A_05022019	REVV	GFPC, Total Alpha Radium, Liquid	Gross Alpha				
-002 MW-15_04302019	REVV	GFPC, Total Alpha Radium, Liquid	Gross Alpha				
-003 MW-24_05022019	REVV	GFPC, Total Alpha Radium, Liquid	Gross Alpha				
-004 MW-38_05022019	REVV	GFPC, Total Alpha Radium, Liquid	Gross Alpha				
-005 MW-39_05012019	REVV	GFPC, Total Alpha Radium, Liquid	Gross Alpha				
-006 MW-70_04302019	REVV	GFPC, Total Alpha Radium, Liquid	Gross Alpha				
-007 MW-22_04302019	REVV	GFPC, Total Alpha Radium, Liquid	Gross Alpha				
-008 TW4-24_05022019	REVV	GFPC, Total Alpha Radium, Liquid	Gross Alpha				

# GEL Laboratories LLC – Login Review Report

Report Date: 31-MAY-19  
 Work Order: 478290  
 Page 2 of 2

Product: GFCTORAL    Workdef ID: 1458614    In Product Group? No    Group Name:    Group Reference:  
 Method: EPA 903.0    Path: Drinking Water (903.0 or 9315)  
 Product Description: GFPC, Total Alpha Radium, Liquid    Product Reference: Gross Alpha  
 Samples: 001, 002, 003, 004, 005, 006, 007, 008    Moisture Correction: "As Received"  
 Parmname Check: All parmnames scheduled properly

CAS #	Parmname	Client RDL or PQL & Unit	Reporting Units	Parm Function	Included in Sample?	Included in QC?	Custom List?
	Gross Radium Alpha	1	pCi/L	REG	Y	Y	No

Action	Product Name	Description	Samples
Contingent Tests			

Login Requirements:

Requirement	Include?	Comments

Peer Review by: \_\_\_\_\_ Work Order (SDG#), PO# Checked? \_\_\_\_\_ C of C signed in receiver location? \_\_\_\_\_

**Radiochemistry  
Technical Case Narrative  
Energy Fuels Resources  
SDG #: 478290**

**Product:** GFPC, Total Alpha Radium, Liquid

**Analytical Method:** EPA 903.0

**Analytical Procedure:** GL-RAD-A-044 REV# 10

**Analytical Batch:** 1878765

The following samples were analyzed using the above methods and analytical procedure(s).

<b><u>GEL Sample ID#</u></b>	<b><u>Client Sample Identification</u></b>
478290001	MW-03A_05022019
478290002	MW-15_04302019
478290003	MW-24_05022019
478290004	MW-38_05022019
478290005	MW-39_05012019
478290006	MW-70_04302019
478290007	MW-22_04302019
478290008	TW4-24_05022019
1204288351	Method Blank (MB)
1204288352	479531003(MW-37_05152019) Sample Duplicate (DUP)
1204288353	479531003(MW-37_05152019) Matrix Spike (MS)
1204288354	479531003(MW-37_05152019) Matrix Spike Duplicate (MSD)
1204288355	Laboratory Control Sample (LCS)

The samples in this SDG were analyzed on an "as received" basis.

**Data Summary:**

All sample data provided in this report met the acceptance criteria specified in the analytical methods and procedures for initial calibration, continuing calibration, instrument controls and process controls where applicable, with the following exceptions.

**Preparation Information**

**Aliquot Reduced**

1204288352 (MW-37\_05152019DUP), 1204288353 (MW-37\_05152019MS), 1204288354 (MW-37\_05152019MSD) and 478290007 (MW-22\_04302019) aliquots were reduced due to limited sample volume.

**Technical Information**

**Sample Re-prep/Re-analysis**

Samples were re-prepped due to high relative percent difference/relative error ratio. The re-analysis is being reported.

**Recounts**

Sample 1204288355 (LCS) was recounted due to low recovery. The recount is reported.

**Miscellaneous Information**

**Additional Comments**

The matrix spike and matrix spike duplicate, 1204288353 (MW-37\_05152019MS) and 1204288354 (MW-37\_05152019MSD), aliquots were reduced to conserve sample volume.

**Certification Statement**

Where the analytical method has been performed under NELAP certification, the analysis has met all of the requirements of the NELAC standard unless otherwise noted in the analytical case narrative.

# GEL LABORATORIES LLC

2040 Savage Road Charleston SC 29407 - (843) 556-8171 - www.gel.com

## Qualifier Definition Report for

DNMI001 Energy Fuels Resources (USA), Inc.

Client SDG: 478290 GEL Work Order: 478290

### The Qualifiers in this report are defined as follows:

- \* A quality control analyte recovery is outside of specified acceptance criteria
- \*\* Analyte is a surrogate compound
- U Analyte was analyzed for, but not detected above the CRDL.

### Review/Validation

GEL requires all analytical data to be verified by a qualified data reviewer. In addition, all CLP-like deliverables receive a third level review of the fractional data package.

The following data validator verified the information presented in this data report:

Signature: 

Name: Theresa Austin

Date: 31 MAY 2019

Title: Group Leader

# GEL LABORATORIES LLC

2040 Savage Road Charleston, SC 29407 - (843) 556-8171 - www.gel.com

## QC Summary

Report Date: May 31, 2019

Page 1 of

**Energy Fuels Resources (USA), Inc.**  
**225 Union Boulevard**  
**Suite 600**  
**Lakewood, Colorado**

**Contact: Ms. Kathy Weinel**

**Workorder: 478290**

Parmname	NOM	Sample	Qual	QC	Units	RPD%	REC%	Range	Anlst	Date	Time
<b>Rad Gas Flow</b>											
Batch	1878765										
QC1204288352	479531003	DUP									
Gross Radium Alpha		2.02		1.79	pCi/L	12.1		(0% - 100%)	BXF1	05/25/19	09:5
	Uncertainty	+/-0.447		+/-0.443							
QC1204288355	LCS										
Gross Radium Alpha	555			421	pCi/L		76	(75%-125%)		05/28/19	07:1
	Uncertainty			+/-4.71							
QC1204288351	MB										
Gross Radium Alpha			U	-0.0332	pCi/L					05/25/19	09:5
	Uncertainty			+/-0.200							
QC1204288353	479531003	MS									
Gross Radium Alpha	4450	2.02		3600	pCi/L		80.7	(75%-125%)		05/25/19	09:5
	Uncertainty	+/-0.447		+/-42.4							
QC1204288354	479531003	MSD									
Gross Radium Alpha	4450	2.02		3450	pCi/L	4.24	77.3	(0%-20%)		05/25/19	09:5
	Uncertainty	+/-0.447		+/-42.1							

**Notes:**

Counting Uncertainty is calculated at the 68% confidence level (1-sigma).

The Qualifiers in this report are defined as follows:

- \*\* Analyte is a surrogate compound
- < Result is less than value reported
- > Result is greater than value reported
- A The TIC is a suspected aldol-condensation product
- B For General Chemistry and Organic analysis the target analyte was detected in the associated blank.
- BD Results are either below the MDC or tracer recovery is low
- C Analyte has been confirmed by GC/MS analysis
- D Results are reported from a diluted aliquot of the sample
- F Estimated Value
- H Analytical holding time was exceeded
- K Analyte present. Reported value may be biased high. Actual value is expected to be lower.
- L Analyte present. Reported value may be biased low. Actual value is expected to be higher.
- M M if above MDC and less than LLD

# GEL LABORATORIES LLC

2040 Savage Road Charleston, SC 29407 - (843) 556-8171 - www.gel.com

## QC Summary

Workorder: 478290

Page 2 of

Parname	NOM	Sample	Qual	QC	Units	RPD%	REC%	Range	Anlst	Date	Time
M											
M											
N/A											
N/A											
N1											
N1											
ND											
ND											
NJ											
NJ											
Q											
Q											
R											
R											
U											
U											
UI											
UI											
UJ											
UJ											
UL											
UL											
X											
X											
Y											
Y											
^											
^											
h											
h											

N/A indicates that spike recovery limits do not apply when sample concentration exceeds spike conc. by a factor of 4 or more or %RPD not applicable.  
^ The Relative Percent Difference (RPD) obtained from the sample duplicate (DUP) is evaluated against the acceptance criteria when the sample is greater than five times (5X) the contract required detection limit (RL). In cases where either the sample or duplicate value is less than 5X the RL, a control limit of +/- the RL is used to evaluate the DUP result.  
\* Indicates that a Quality Control parameter was not within specifications.  
For PS, PSD, and SDILT results, the values listed are the measured amounts, not final concentrations.

Where the analytical method has been performed under NELAP certification, the analysis has met all of the requirements of the NELAC standard unless qualified on the QC Summary.



June 17, 2019

Ms. Kathy Weinel  
Energy Fuels Resources (USA), Inc.  
225 Union Boulevard  
Suite 600  
Lakewood, Colorado 80228

Re: White Mesa Mill GW  
Work Order: 479531

Dear Ms. Weinel:

GEL Laboratories, LLC (GEL) appreciates the opportunity to provide the enclosed analytical results for the sample(s) we received on May 17, 2019. This original data report has been prepared and reviewed in accordance with GEL's standard operating procedures.

Test results for NELAP or ISO 17025 accredited tests are verified to meet the requirements of those standards, with any exceptions noted. The results reported relate only to the items tested and to the sample as received by the laboratory. These results may not be reproduced except as full reports without approval by the laboratory. Copies of GEL's accreditations and certifications can be found on our website at [www.gel.com](http://www.gel.com).

Our policy is to provide high quality, personalized analytical services to enable you to meet your analytical needs on time every time. We trust that you will find everything in order and to your satisfaction. If you have any questions, please do not hesitate to call me at (843) 556-8171, ext. 4289.

Sincerely,

Taylor Cannon for  
Julie Robinson  
Project Manager

Purchase Order: DW16138  
Enclosures



**Receipt Narrative**  
**for**  
**Energy Fuels Resources (USA), Inc.**  
**SDG: 479531**

**June 17, 2019**

**Laboratory Identification:**

GEL Laboratories LLC  
2040 Savage Road  
Charleston, South Carolina 29407  
(843) 556-8171

**Summary:**

**Sample receipt:** The samples arrived at GEL Laboratories LLC, Charleston, South Carolina on May 17, 2019 for analysis. The samples were delivered with proper chain of custody documentation and signatures. All sample containers arrived without any visible signs of tampering or breakage. There are no additional comments concerning sample receipt.

**Sample Identification:** The laboratory received the following samples:

<b><u>Laboratory ID</u></b>	<b><u>Client ID</u></b>
479531001	MW-20_05152019
479531002	MW-23_05152019
479531003	MW-37_05152019

**Case Narrative:**

Sample analyses were conducted using methodology as outlined in GEL's Standard Operating Procedures. Any technical or administrative problems during analysis, data review, and reduction are contained in the analytical case narratives in the enclosed data package.

The enclosed data package contains the following sections: Case Narrative, Chain of Custody, Cooler Receipt Checklist, Data Package Qualifier Definitions and data from the following fractions: Radiochemistry.



Taylor Cannon for  
Julie Robinson  
Project Manager



SAMPLE RECEIPT & REVIEW FORM

Client: <u>DNMI</u>		SDG/AR/COC/Work Order: <u>479531</u>			
Received By: <u>AA</u>		Date Received: <u>5/17/19</u>			
Carrier and Tracking Number		FedEx Express    FedEx Ground <u>UPS</u> Field Services    Courier    Other <u>1Z 1B7 Y4Y 02 9305 9153</u>			
Suspected Hazard Information		Yes	No		
A) Shipped as a DOT Hazardous?			<input checked="" type="checkbox"/>		
B) Did the client designate the samples are to be received as radioactive?			<input checked="" type="checkbox"/>		
C) Did the RSO classify the samples as radioactive?			<input checked="" type="checkbox"/>		
D) Did the client designate samples are hazardous?			<input checked="" type="checkbox"/>		
E) Did the RSO identify possible hazards?			<input checked="" type="checkbox"/>		
		*If Net Counts > 100cpm on samples not marked "radioactive", contact the Radiation Safety Group for further investigation. Hazard Class Shipped: _____ UN#: _____ If UN2910, Is the Radioactive Shipment Survey Compliant? Yes ___ No ___ COC notation or radioactive stickers on containers equal client designation. Maximum Net Counts Observed* (Observed Counts - Area Background Counts): <u>0</u> CPM / mR/Hr Classified as: Rad 1    Rad 2    Rad 3 COC notation or hazard labels on containers equal client designation. If D or E is yes, select Hazards below: PCB's    Flammable    Foreign Soil    RCRA    Asbestos    Beryllium    Other: _____			
Sample Receipt Criteria		Yes	NA	No	Comments/Qualifiers (Required for Non-Conforming Items)
1	Shipping containers received intact and sealed?	<input checked="" type="checkbox"/>			Circle Applicable:    Seals broken    Damaged container    Leaking container    Other (describe)
2	Chain of custody documents included with shipment?	<input checked="" type="checkbox"/>			Circle Applicable:    Client contacted and provided COC    COC created upon receipt
3	Samples requiring cold preservation within (0 ≤ 6 deg. C)?*		<input checked="" type="checkbox"/>		Preservation Method: Wet Ice    Ice Packs    Dry ice <u>None</u> Other: _____ *all temperatures are recorded in Celsius    TEMP: <u>19°</u>
4	Daily check performed and passed on IR temperature gun?	<input checked="" type="checkbox"/>			Temperature Device Serial #: <u>284-16</u> Secondary Temperature Device Serial # (If Applicable): _____
5	Sample containers intact and sealed?	<input checked="" type="checkbox"/>			Circle Applicable:    Seals broken    Damaged container    Leaking container    Other (describe)
6	Samples requiring chemical preservation at proper pH?	<input checked="" type="checkbox"/>			Sample ID's and Containers Affected: If Preservation added, Lot#: _____
7	Do any samples require Volatile Analysis?	<input checked="" type="checkbox"/>		<input checked="" type="checkbox"/>	If Yes, are Encores or Soil Kits present for solids? Yes ___ No ___ NA ___ (If yes, take to VOA Freezer)
					Do liquid VOA vials contain acid preservation? Yes ___ No ___ NA ___ (If unknown, select No)
					Are liquid VOA vials free of headspace? Yes ___ No ___ NA ___ Sample ID's and containers affected: _____
8	Samples received within holding time?	<input checked="" type="checkbox"/>			ID's and tests affected:
9	Sample ID's on COC match ID's on bottles?	<input checked="" type="checkbox"/>			ID's and containers affected:
10	Date & time on COC match date & time on bottles?	<input checked="" type="checkbox"/>			Circle Applicable:    No dates on containers    No times on containers    COC missing info    Other (describe)
11	Number of containers received match number indicated on COC?	<input checked="" type="checkbox"/>			Circle Applicable:    No container count on COC    Other (describe)
12	Are sample containers identifiable as GEL provided?	<input checked="" type="checkbox"/>			
13	COC form is properly signed in relinquished/received sections?	<input checked="" type="checkbox"/>			Circle Applicable:    Not relinquished    Other (describe)
Comments (Use Continuation Form if needed):					

# GEL Laboratories LLC – Login Review Report

Report Date: 17-JUN-19  
 Work Order: 479531  
 Page 1 of 2

GEL Work Order/SDG: 479531      2nd Quarter GW 2019  
 Client SDG: 479531  
 Project Manager: Julie Robinson  
 Project Name: DNMI00100 White Mesa Mill GW  
 Purchase Order: DW16138  
 Package Level: LEVEL3  
 EDD Format: EIM\_DNMI

Work Order Due Date: 17-JUN-19  
 Package Due Date: 15-JUN-19  
 EDD Due Date: 17-JUN-19  
 Due Date: 17-JUN-19  
 JAR1

Collector: C  
 Prelogin #: 20190487484  
 Project Workdef ID: 1294356  
 SDG Status: Closed  
 Logged by:

GEL ID	Client Sample ID	Client Sample Desc.	Collect Date & Time	Receive Date & Time	Time Zone	# of Cont.	Lab Matrix	Fax Due Date	Days to Process	CofC #	Prelog Group	Lab QC	Field QC
479531001	MW-20_05152019		15-MAY-19 08:30	17-MAY-19 09:40	-2	1	GROUND WATER		20		1		
479531002	MW-23_05152019		15-MAY-19 07:40	17-MAY-19 09:40	-2	1	GROUND WATER		20		1		
479531003	MW-37_05152019		15-MAY-19 08:00	17-MAY-19 09:40	-2	1	GROUND WATER		20		1		

Client Sample ID	Status	Tests/Methods	Product Reference	Fax Date	PM Comments	Aux Data	Receive Codes
-001 MW-20_05152019	REVV	GFPC, Total Alpha Radium, Liquid	Gross Alpha				
-002 MW-23_05152019	REVV	GFPC, Total Alpha Radium, Liquid	Gross Alpha				
-003 MW-37_05152019	REVV	GFPC, Total Alpha Radium, Liquid	Gross Alpha				

Product: GFCTORAL      Workdef ID: 1458614      In Product Group? No      Group Name:      Group Reference:

Method: EPA 903.0      Path: Drinking Water (903.0 or 9315)

Product Description: GFPC, Total Alpha Radium, Liquid      Product Reference: Gross Alpha

Samples: 001, 002, 003      Moisture Correction: "As Received"

Parmname Check: All parmnames scheduled properly

CAS #	Parmname	Client RDL or PQL & Unit	Reporting Units	Parm Function	Included in Sample?	Included in QC?	Custom List?
	Gross Radium Alpha	1	pCi/L	REG	Y	Y	No

Action	Product Name	Description	Samples
Contingent Tests			

# GEL Laboratories LLC – Login Review Report

Report Date: 17-JUN-19

Work Order: 479531

Page 2 of 2

## Login Requirements:

Requirement	Include?	Comments
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---

Peer Review by: \_\_\_\_\_ Work Order (SDG#), PO# Checked? \_\_\_\_\_ C of C signed in receiver location? \_\_\_\_\_



# GEL LABORATORIES LLC

2040 Savage Road Charleston SC 29407 - (843) 556-8171 - www.gel.com

## Qualifier Definition Report for

DNMI001 Energy Fuels Resources (USA), Inc.

Client SDG: 479531 GEL Work Order: 479531

### The Qualifiers in this report are defined as follows:

- \* A quality control analyte recovery is outside of specified acceptance criteria
- \*\* Analyte is a surrogate compound
- U Analyte was analyzed for, but not detected above the CRDL.

### Review/Validation

GEL requires all analytical data to be verified by a qualified data reviewer. In addition, all CLP-like deliverables receive a third level review of the fractional data package.

The following data validator verified the information presented in this data report:

Signature: 

Name: Theresa Austin

Date: 07 JUN 2019

Title: Group Leader

# GEL LABORATORIES LLC

2040 Savage Road Charleston, SC 29407 - (843) 556-8171 - www.gel.com

## QC Summary

Report Date: June 7, 2019

Page 1 of

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

Lakewood, Colorado

Contact: Ms. Kathy Weinel

Workorder: 479531

Paramname	NOM	Sample	Qual	QC	Units	RPD%	REC%	Range	Anlst	Date	Time
<b>Rad Gas Flow</b>											
Batch	1878765										
QC1204288352	479531003	DUP									
Gross Radium Alpha		2.02		1.79	pCi/L	12.1		(0% - 100%)	BXF1	05/25/19	09:5
	Uncertainty	+/-0.447		+/-0.443							
QC1204288355	LCS										
Gross Radium Alpha	555			421	pCi/L		76	(75%-125%)		05/28/19	07:1
	Uncertainty			+/-4.71							
QC1204288351	MB										
Gross Radium Alpha			U	-0.0332	pCi/L					05/25/19	09:5
	Uncertainty			+/-0.200							
QC1204288353	479531003	MS									
Gross Radium Alpha	4450	2.02		3600	pCi/L		80.7	(75%-125%)		05/25/19	09:5
	Uncertainty	+/-0.447		+/-42.4							
QC1204288354	479531003	MSD									
Gross Radium Alpha	4450	2.02		3450	pCi/L	4.24	77.3	(0%-20%)		05/25/19	09:5
	Uncertainty	+/-0.447		+/-42.1							

**Notes:**

Counting Uncertainty is calculated at the 68% confidence level (1-sigma).

The Qualifiers in this report are defined as follows:

- \*\* Analyte is a surrogate compound
- < Result is less than value reported
- > Result is greater than value reported
- A The TIC is a suspected aldol-condensation product
- B For General Chemistry and Organic analysis the target analyte was detected in the associated blank.
- BD Results are either below the MDC or tracer recovery is low
- C Analyte has been confirmed by GC/MS analysis
- D Results are reported from a diluted aliquot of the sample
- F Estimated Value
- H Analytical holding time was exceeded
- K Analyte present. Reported value may be biased high. Actual value is expected to be lower.
- L Analyte present. Reported value may be biased low. Actual value is expected to be higher.
- M M if above MDC and less than LLD

# GEL LABORATORIES LLC

2040 Savage Road Charleston, SC 29407 - (843) 556-8171 - www.gel.com

## QC Summary

Workorder: 479531

Page 2 of

Parmname	NOM	Sample	Qual	QC	Units	RPD%	REC%	Range	Anlst	Date	Time
M											
M											
N/A											
N1											
ND											
NJ											
Q											
R											
U											
UI											
UJ											
UL											
X											
Y											
^											
h											

N/A indicates that spike recovery limits do not apply when sample concentration exceeds spike conc. by a factor of 4 or more or %RPD not applicable.

^ The Relative Percent Difference (RPD) obtained from the sample duplicate (DUP) is evaluated against the acceptance criteria when the sample is greater than five times (5X) the contract required detection limit (RL). In cases where either the sample or duplicate value is less than 5X the RL, a control limit of +/- the RL is used to evaluate the DUP result.

\* Indicates that a Quality Control parameter was not within specifications.

For PS, PSD, and SDILT results, the values listed are the measured amounts, not final concentrations.

Where the analytical method has been performed under NELAP certification, the analysis has met all of the requirements of the NELAC standard unless qualified on the QC Summary.

Tab F

Laboratory Analytical Reports – Accelerated Monitoring

Tab F1

Laboratory Analytical Reports – Accelerated Monitoring

May 2019



# INORGANIC ANALYTICAL REPORT

**Client:** Energy Fuels Resources, Inc.  
**Project:** May Groundwater 2019  
**Lab Sample ID:** 1905224-001  
**Client Sample ID:** MW-11\_05072019  
**Collection Date:** 5/7/2019 1150h  
**Received Date:** 5/9/2019 1030h

**Contact:** Tanner Holliday

## Analytical Results

## DISSOLVED METALS

Compound	Units	Date		Method	Reporting	Analytical	Qual
		Prepared	Analyzed	Used	Limit	Result	
Manganese	mg/L	5/16/2019 1256h	5/20/2019 1616h	E200.8	0.0100	<b>0.210</b>	

3440 South 700 West

Salt Lake City, UT 84119

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



# INORGANIC ANALYTICAL REPORT

**Client:** Energy Fuels Resources, Inc.  
**Project:** May Groundwater 2019  
**Lab Sample ID:** 1905224-002  
**Client Sample ID:** MW-25\_05082019  
**Collection Date:** 5/8/2019 940h  
**Received Date:** 5/9/2019 1030h

**Contact:** Tanner Holliday

## Analytical Results

## DISSOLVED METALS

Compound	Units	Date Prepared	Date Analyzed	Method Used	Reporting Limit	Analytical Result	Qual
Cadmium	mg/L	5/16/2019 1256h	5/20/2019 1631h	E200.8	0.000500	<b>0.00141</b>	

3440 South 700 West

Salt Lake City, UT 84119

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



# INORGANIC ANALYTICAL REPORT

**Client:** Energy Fuels Resources, Inc.  
**Project:** May Groundwater 2019  
**Lab Sample ID:** 1905224-003  
**Client Sample ID:** MW-26\_05072019  
**Collection Date:** 5/7/2019 800h  
**Received Date:** 5/9/2019 1030h

**Contact:** Tanner Holliday

## Analytical Results

Compound	Units	Date Prepared	Date Analyzed	Method Used	Reporting Limit	Analytical Result	Qual
Ammonia (as N)	mg/L	5/14/2019 1140h	5/14/2019 1652h	E350.1	0.0500	0.479	1
Chloride	mg/L		5/20/2019 2355h	E300.0	1.00	73.0	
Nitrate/Nitrite (as N)	mg/L		5/13/2019 804h	E353.2	0.100	0.986	

<sup>1</sup> - Matrix spike recovery indicates matrix interference. The method is in control as indicated by the LCS.

3440 South 700 West

Salt Lake City, UT 84119

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Fax: (801) 263-8687

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web: www.awal-labs.com

Kyle F. Gross  
Laboratory Director

Jose Rocha  
QA Officer





# INORGANIC ANALYTICAL REPORT

**Client:** Energy Fuels Resources, Inc.  
**Project:** May Groundwater 2019  
**Lab Sample ID:** 1905224-004  
**Client Sample ID:** MW-30\_05072019  
**Collection Date:** 5/7/2019 1600h  
**Received Date:** 5/9/2019 1030h

**Contact:** Tanner Holliday

## Analytical Results

## DISSOLVED METALS

Compound	Units	Date Prepared	Date Analyzed	Method Used	Reporting Limit	Analytical Result	Qual
Selenium	mg/L	5/16/2019 1256h	5/20/2019 1634h	E200.8	0.00500	<b>0.0471</b>	
Uranium	mg/L	5/16/2019 1256h	5/20/2019 1804h	E200.8	0.000300	<b>0.00815</b>	

3440 South 700 West

Salt Lake City, UT 84119

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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 ANALYTICAL REPORT

**Client:** Energy Fuels Resources, Inc.  
**Project:** May Groundwater 2019  
**Lab Sample ID:** 1905224-004  
**Client Sample ID:** MW-30\_05072019  
**Collection Date:** 5/7/2019 1600h  
**Received Date:** 5/9/2019 1030h

**Contact:** Tanner Holliday

## Analytical Results

<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>
Chloride	mg/L		5/21/2019 045h	E300.0	2.00	<b>175</b>	
Nitrate/Nitrite (as N)	mg/L		5/13/2019 808h	E353.2	0.100	<b>17.9</b>	

3440 South 700 West

Salt Lake City, UT 84119

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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



# INORGANIC ANALYTICAL REPORT

**Client:** Energy Fuels Resources, Inc. **Contact:** Tanner Holliday  
**Project:** May Groundwater 2019  
**Lab Sample ID:** 1905224-005  
**Client Sample ID:** MW-31\_05072019  
**Collection Date:** 5/7/2019 1310h  
**Received Date:** 5/9/2019 1030h

## Analytical Results

Compound	Units	Date Prepared	Date Analyzed	Method Used	Reporting Limit	Analytical Result	Qual
Chloride	mg/L		5/21/2019 102h	E300.0	5.00	<b>346</b>	
Nitrate/Nitrite (as N)	mg/L		5/13/2019 809h	E353.2	0.100	<b>18.9</b>	

3440 South 700 West

Salt Lake City, UT 84119

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



# INORGANIC ANALYTICAL REPORT

**Client:** Energy Fuels Resources, Inc.  
**Project:** May Groundwater 2019  
**Lab Sample ID:** 1905224-006  
**Client Sample ID:** MW-65\_05072019  
**Collection Date:** 5/7/2019 1600h  
**Received Date:** 5/9/2019 1030h

**Contact:** Tanner Holliday

## Analytical Results

## DISSOLVED METALS

Compound	Units	Date Prepared	Date Analyzed	Method Used	Reporting Limit	Analytical Result	Qual
Selenium	mg/L	5/16/2019 1256h	5/20/2019 1637h	E200.8	0.00500	<b>0.0466</b>	
Uranium	mg/L	5/16/2019 1256h	5/20/2019 1807h	E200.8	0.000300	<b>0.00814</b>	

3440 South 700 West

Salt Lake City, UT 84119

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



# INORGANIC ANALYTICAL REPORT

**Client:** Energy Fuels Resources, Inc.  
**Project:** May Groundwater 2019  
**Lab Sample ID:** 1905224-006  
**Client Sample ID:** MW-65\_05072019  
**Collection Date:** 5/7/2019 1600h  
**Received Date:** 5/9/2019 1030h

**Contact:** Tanner Holliday

## Analytical Results

<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>
Chloride	mg/L		5/21/2019 119h	E300.0	2.00	171	
Nitrate/Nitrite (as N)	mg/L		5/13/2019 810h	E353.2	0.100	17.5	

3440 South 700 West

Salt Lake City, UT 84119

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



# ORGANIC ANALYTICAL REPORT

**Client:** Energy Fuels Resources, Inc.  
**Project:** May Groundwater 2019  
**Lab Sample ID:** 1905224-007A  
**Client Sample ID:** Trip Blank  
**Collection Date:** 5/7/2019 800h  
**Received Date:** 5/9/2019 1030h

**Contact:** Tanner Holliday

Test Code: 8260-W-DEN100

**Analytical Results**

VOAs by GC/MS Method 8260C/5030C

**Analyzed:** 5/9/2019 1345h

**Units:** µg/L

**Dilution Factor:** 1

**Method:** SW8260C

3440 South 700 West

Salt Lake City, UT 84119

Phone: (801) 263-8686

Toll Free: (888) 263-8686

Fax: (801) 263-8687

e-mail: awal@awal-labs.com

web: www.awal-labs.com

Compound	CAS Number	Reporting Limit	Analytical Result	Qual
Chloroform	67-66-3	1.00	< 1.00	
Methylene chloride	75-09-2	1.00	< 1.00	

Surrogate	Units: µg/L	CAS	Result	Amount Spiked	% REC	Limits	Qual
Surr: 1,2-Dichloroethane-d4		17060-07-0	52.4	50.00	105	72-151	
Surr: 4-Bromofluorobenzene		460-00-4	59.1	50.00	118	80-152	
Surr: Dibromofluoromethane		1868-53-7	45.5	50.00	91.0	72-135	
Surr: Toluene-d8		2037-26-5	50.8	50.00	102	80-124	

Kyle F. Gross

Laboratory Director

Jose Rocha

QA Officer



Tanner Holliday  
Energy Fuels Resources, Inc.  
6425 South Hwy 191  
Blanding, UT 84511  
TEL: (435) 678-2221

RE: May Groundwater 2019

Dear Tanner Holliday:

Lab Set ID: 1905224

American West Analytical Laboratories received sample(s) on 5/9/2019 for the analyses presented in the following report.

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

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

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

Thank You,

Approved by:

<b>Kyle F. Gross</b>	Digitally signed by Kyle F. Gross
	Date: 2019.05.23 15:21:55 -06'00'

Laboratory Director or designee

3440 South 700 West  
Salt Lake City, UT 84119

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



## SAMPLE SUMMARY

**Client:** Energy Fuels Resources, Inc.  
**Project:** May Groundwater 2019  
**Lab Set ID:** 1905224  
**Date Received:** 5/9/2019 1030h

**Contact:** Tanner Holliday

Lab Sample ID	Client Sample ID	Date Collected	Matrix	Analysis
1905224-001A	MW-11_05072019	5/7/2019 1150h	Aqueous	ICPMS Metals, Dissolved
1905224-002A	MW-25_05082019	5/8/2019 940h	Aqueous	ICPMS Metals, Dissolved
1905224-003A	MW-26_05072019	5/7/2019 800h	Aqueous	Ammonia, Aqueous
1905224-003A	MW-26_05072019	5/7/2019 800h	Aqueous	Nitrite/Nitrate (as N), E353.2
1905224-003B	MW-26_05072019	5/7/2019 800h	Aqueous	Anions, E300.0
1905224-003C	MW-26_05072019	5/7/2019 800h	Aqueous	VOA by GC/MS Method 8260C/5030C
1905224-004A	MW-30_05072019	5/7/2019 1600h	Aqueous	Nitrite/Nitrate (as N), E353.2
1905224-004B	MW-30_05072019	5/7/2019 1600h	Aqueous	Anions, E300.0
1905224-004C	MW-30_05072019	5/7/2019 1600h	Aqueous	ICPMS Metals, Dissolved
1905224-005A	MW-31_05072019	5/7/2019 1310h	Aqueous	Nitrite/Nitrate (as N), E353.2
1905224-005B	MW-31_05072019	5/7/2019 1310h	Aqueous	Anions, E300.0
1905224-006A	MW-65_05072019	5/7/2019 1600h	Aqueous	Nitrite/Nitrate (as N), E353.2
1905224-006B	MW-65_05072019	5/7/2019 1600h	Aqueous	Anions, E300.0
1905224-006C	MW-65_05072019	5/7/2019 1600h	Aqueous	ICPMS Metals, Dissolved
1905224-007A	Trip Blank	5/7/2019 800h	Aqueous	VOA by GC/MS Method 8260C/5030C

3440 South 700 West  
Salt Lake City, UT 84119

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



# Inorganic Case Narrative

**Client:** Energy Fuels Resources, Inc.  
**Contact:** Tanner Holliday  
**Project:** May Groundwater 2019  
**Lab Set ID:** 1905224

3440 South 700 West

Salt Lake City, UT 84119

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

## Sample Receipt Information:

**Date of Receipt:** 5/9/2019  
**Date(s) of Collection:** 5/7-5/8/2019  
**Sample Condition:** See Chain of Custody  
**C-O-C Discrepancies:** See Chain of Custody

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

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

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

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

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

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

**Matrix Spike / Matrix Spike Duplicates (MS/MSD):** All percent recoveries and RPDs (Relative Percent Differences) were inside established limits, with the following exceptions:

Sample ID	Analyte	QC	Explanation
1905224-003A	Ammonia	MS/MSD	Sample matrix interference

**Duplicate (DUP):** The parameters that required a duplicate analysis had RPDs within the control limits.

**Corrective Action:** None required.



# Volatile Case Narrative

**Client:** Energy Fuels Resources, Inc.  
**Contact:** Tanner Holliday  
**Project:** May Groundwater 2019  
**Lab Set ID:** 1905224

---

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## **Sample Receipt Information:**

**Date of Receipt:** 5/9/2019  
**Date(s) of Collection:** 5/7-5/8/2019  
**Sample Condition:** See Chain of Custody  
**C-O-C Discrepancies:** See Chain of Custody  
**Method:** SW-846 8260C/5030C  
**Analysis:** Volatile Organic Compounds

Phone: (801) 263-8686

Toll Free: (888) 263-8686

Fax: (801) 263-8687

e-mail: awal@awal-labs.com

web: www.awal-labs.com

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

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

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

**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.



3440 South 700 West

Salt Lake City, UT 84119

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Kyle F. Gross  
Laboratory Director

Jose Rocha  
QA Officer

## QC SUMMARY REPORT

**Client:** Energy Fuels Resources, Inc.

**Lab Set ID:** 1905224

**Project:** May Groundwater 2019

**Contact:** Tanner Holliday

**Dept:** ME

**QC Type:** LCS

Analyte	Result	Units	Method	MDL	Reporting Limit	Amount Spiked	Spike Ref. Amount	%REC	Limits	RPD Ref. Amt	% RPD	RPD Limit	Qual
<b>Lab Sample ID:</b> LCS-62660	Date Analyzed: 05/20/2019 1613h												
Test Code: 200.8-DIS	Date Prepared: 05/16/2019 1256h												
Cadmium	0.184	mg/L	E200.8	0.0000858	0.000500	0.2000	0	92.0	85 - 115				
Manganese	0.196	mg/L	E200.8	0.00108	0.00200	0.2000	0	98.0	85 - 115				
Selenium	0.189	mg/L	E200.8	0.000574	0.00200	0.2000	0	94.3	85 - 115				
Uranium	0.194	mg/L	E200.8	0.000176	0.00200	0.2000	0	96.9	85 - 115				



3440 South 700 West

Salt Lake City, UT 84119

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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:** Energy Fuels Resources, Inc.  
**Lab Set ID:** 1905224  
**Project:** May Groundwater 2019

**Contact:** Tanner Holliday  
**Dept:** ME  
**QC Type:** MBLK

Analyte	Result	Units	Method	MDL	Reporting Limit	Amount Spiked	Spike Ref. Amount	%REC	Limits	RPD Ref. Amt	% RPD	RPD Limit	Qual
<b>Lab Sample ID:</b> MB-62660	Date Analyzed:		05/20/2019 1610h										
<b>Test Code:</b> 200.8-DIS	Date Prepared:		05/16/2019 1256h										
Cadmium	< 0.0000500	mg/L	E200.8	0.00000858	0.0000500								
Manganese	< 0.000200	mg/L	E200.8	0.000108	0.000200								
Selenium	< 0.000200	mg/L	E200.8	0.0000574	0.000200								
Uranium	< 0.000200	mg/L	E200.8	0.0000176	0.000200								



3440 South 700 West

Salt Lake City, UT 84119

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

## QC SUMMARY REPORT

**Client:** Energy Fuels Resources, Inc.  
**Lab Set ID:** 1905224  
**Project:** May Groundwater 2019

**Contact:** Tanner Holliday  
**Dept:** ME  
**QC Type:** MS

Analyte	Result	Units	Method	MDL	Reporting Limit	Amount Spiked	Spike Ref. Amount	%REC	Limits	RPD Ref. Amt	% RPD	RPD Limit	Qual
<b>Lab Sample ID:</b> 1905224-001AMS	Date Analyzed:		05/20/2019 1625h										
<b>Test Code:</b> 200.8-DIS	Date Prepared:		05/16/2019 1256h										
Cadmium	0.186	mg/L	E200.8	0.0000858	0.000500	0.2000	0	92.9	75 - 125				
Manganese	0.386	mg/L	E200.8	0.00108	0.00200	0.2000	0.21	88.3	75 - 125				
Selenium	0.188	mg/L	E200.8	0.000574	0.00200	0.2000	0	94.2	75 - 125				
Uranium	0.197	mg/L	E200.8	0.000176	0.00200	0.2000	0.0011	97.9	75 - 125				



**American West**  
ANALYTICAL LABORATORIES

3440 South 700 West

Salt Lake City, UT 84119

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

## QC SUMMARY REPORT

**Client:** Energy Fuels Resources, Inc.

**Lab Set ID:** 1905224

**Project:** May Groundwater 2019

**Contact:** Tanner Holliday

**Dept:** ME

**QC Type:** MSD

Analyte	Result	Units	Method	MDL	Reporting Limit	Amount Spiked	Spike Ref. Amount	%REC	Limits	RPD Ref. Amt	% RPD	RPD Limit	Qual
<b>Lab Sample ID:</b> 1905224-001AMSD	Date Analyzed: 05/20/2019 1628h												
<b>Test Code:</b> 200.8-DIS	Date Prepared: 05/16/2019 1256h												
Cadmium	0.189	mg/L	E200.8	0.0000858	0.000500	0.2000	0	94.3	75 - 125	0.186	1.54	20	
Manganese	0.390	mg/L	E200.8	0.00108	0.00200	0.2000	0.21	90.4	75 - 125	0.386	1.10	20	
Selenium	0.191	mg/L	E200.8	0.000574	0.00200	0.2000	0	95.7	75 - 125	0.188	1.57	20	
Uranium	0.194	mg/L	E200.8	0.000176	0.00200	0.2000	0.0011	96.6	75 - 125	0.197	1.26	20	



3440 South 700 West

Salt Lake City, UT 84119

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Kyle F. Gross  
Laboratory Director

Jose Rocha  
QA Officer

## QC SUMMARY REPORT

**Client:** Energy Fuels Resources, Inc.

**Lab Set ID:** 1905224

**Project:** May Groundwater 2019

**Contact:** Tanner Holliday

**Dept:** WC

**QC Type:** LCS

Analyte	Result	Units	Method	MDL	Reporting Limit	Amount Spiked	Spike Ref. Amount	%REC	Limits	RPD Ref. Amt	% RPD	RPD Limit	Qual
<b>Lab Sample ID: LCS-R126075</b>													
Date Analyzed: 05/20/2019 2051h													
Test Code: 300.0-W													
Chloride	4.94	mg/L	E300.0	0.0386	0.100	5.000	0	98.9	90 - 110				
<b>Lab Sample ID: LCS-62600</b>													
Date Analyzed: 05/14/2019 1640h													
Test Code: NH3-W-350.1													
Date Prepared: 05/14/2019 1140h													
Ammonia (as N)	10.2	mg/L	E350.1	0.0492	0.0500	10.00	0	102	90 - 110				
<b>Lab Sample ID: LCS-R125725</b>													
Date Analyzed: 05/13/2019 811h													
Test Code: NO2/NO3-W-353.2													
Nitrate/Nitrite (as N)	0.978	mg/L	E353.2	0.00363	0.0100	1.000	0	97.8	90 - 110				



**American West**  
ANALYTICAL LABORATORIES

3440 South 700 West

Salt Lake City, UT 84119

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

## QC SUMMARY REPORT

**Client:** Energy Fuels Resources, Inc.

**Lab Set ID:** 1905224

**Project:** May Groundwater 2019

**Contact:** Tanner Holliday

**Dept:** WC

**QC Type:** MBLK

Analyte	Result	Units	Method	MDL	Reporting Limit	Amount Spiked	Spike Ref. Amount	%REC	Limits	RPD Ref. Amt	% RPD	RPD Limit	Qual
<b>Lab Sample ID:</b> MB-R126075	Date Analyzed: 05/20/2019 2035h												
Test Code:	300.0-W												
Chloride	< 0.100	mg/L	E300.0	0.0386	0.100								
<b>Lab Sample ID:</b> MB-62600	Date Analyzed: 05/14/2019 1640h												
Test Code:	NH3-W-350.1												
Ammonia (as N)	< 0.0500	mg/L	E350.1	0.0492	0.0500								
<b>Lab Sample ID:</b> MB-R125725	Date Analyzed: 05/13/2019 747h												
Test Code:	NO2/NO3-W-353.2												
Nitrate/Nitrite (as N)	< 0.0100	mg/L	E353.2	0.00363	0.0100								



3440 South 700 West

Salt Lake City, UT 84119

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

## QC SUMMARY REPORT

**Client:** Energy Fuels Resources, Inc.

**Lab Set ID:** 1905224

**Project:** May Groundwater 2019

**Contact:** Tanner Holliday

**Dept:** WC

**QC Type:** MS

Analyte	Result	Units	Method	MDL	Reporting Limit	Amount Spiked	Spike Ref. Amount	%REC	Limits	RPD Ref. Amt	% RPD	RPD Limit	Qual
<b>Lab Sample ID:</b> 1905224-003BMS	Date Analyzed: 05/21/2019 012h												
Test Code: 300.0-W													
Chloride	169	mg/L	E300.0	0.772	2.00	100.0	73	96.3	90 - 110				
<b>Lab Sample ID:</b> 1905224-003AMS	Date Analyzed: 05/14/2019 1653h												
Test Code: NH3-W-350.1	Date Prepared: 05/14/2019 1140h												
Ammonia (as N)	12.2	mg/L	E350.1	0.0492	0.0500	10.00	0.479	118	90 - 110				
<b>Lab Sample ID:</b> 1905224-003AMS	Date Analyzed: 05/13/2019 805h												
Test Code: NO2/NO3-W-353.2													
Nitrate/Nitrite (as N)	11.8	mg/L	E353.2	0.0363	0.100	10.00	0.986	108	90 - 110				

<sup>1</sup> - Matrix spike recovery indicates matrix interference. The method is in control as indicated by the LCS.



3440 South 700 West  
 Salt Lake City, UT 84119  
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Jose Rocha  
 QA Officer

## QC SUMMARY REPORT

**Client:** Energy Fuels Resources, Inc.  
**Lab Set ID:** 1905224  
**Project:** May Groundwater 2019

**Contact:** Tanner Holliday  
**Dept:** WC  
**QC Type:** MSD

Analyte	Result	Units	Method	MDL	Reporting Limit	Amount Spiked	Spike Ref. Amount	%REC	Limits	RPD Ref. Amt	% RPD	RPD Limit	Qual
<b>Lab Sample ID: 1905224-003BMSD</b> Date Analyzed: 05/21/2019 028h													
Test Code: 300.0-W													
Chloride	170	mg/L	E300.0	0.772	2.00	100.0	73	97.0	90 - 110	169	0.454	20	
<b>Lab Sample ID: 1905224-003AMSD</b> Date Analyzed: 05/14/2019 1654h													
Test Code: NH3-W-350.1 Date Prepared: 05/14/2019 1140h													
Ammonia (as N)	12.7	mg/L	E350.1	0.0492	0.0500	10.00	0.479	123	90 - 110	12.2	4.08	10	1
<b>Lab Sample ID: 1905224-003AMSD</b> Date Analyzed: 05/13/2019 806h													
Test Code: NO2/NO3-W-353.2													
Nitrate/Nitrite (as N)	11.8	mg/L	E353.2	0.0363	0.100	10.00	0.986	108	90 - 110	11.8	0.0846	10	

<sup>1</sup> - Matrix spike recovery indicates matrix interference. The method is in control as indicated by the LCS.



3440 South 700 West

Salt Lake City, UT 84119

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Jose Rocha  
QA Officer

## QC SUMMARY REPORT

**Client:** Energy Fuels Resources, Inc.

**Lab Set ID:** 1905224

**Project:** May Groundwater 2019

**Contact:** Tanner Holliday

**Dept:** MSVOA

**QC Type:** LCS

Analyte	Result	Units	Method	MDL	Reporting Limit	Amount Spiked	Spike Ref. Amount	%REC	Limits	RPD Ref. Amt	% RPD	RPD Limit	Qual
<b>Lab Sample ID:</b> LCS VOC-3 050919A		<b>Date Analyzed:</b> 05/09/2019 935h											
<b>Test Code:</b> 8260-W-DEN100													
Chloroform	18.5	µg/L	SW8260C	0.166	1.00	20.00	0	92.5	85 - 124				
Methylene chloride	20.4	µg/L	SW8260C	0.448	1.00	20.00	0	102	65 - 154				
Surr: 1,2-Dichloroethane-d4	47.8	µg/L	SW8260C			50.00		95.6	80 - 136				
Surr: 4-Bromofluorobenzene	51.5	µg/L	SW8260C			50.00		103	85 - 121				
Surr: Dibromofluoromethane	46.1	µg/L	SW8260C			50.00		92.3	78 - 132				
Surr: Toluene-d8	49.7	µg/L	SW8260C			50.00		99.3	81 - 123				



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 QA Officer

## QC SUMMARY REPORT

**Client:** Energy Fuels Resources, Inc.  
**Lab Set ID:** 1905224  
**Project:** May Groundwater 2019

**Contact:** Tanner Holliday  
**Dept:** MSVOA  
**QC Type:** MBLK

Analyte	Result	Units	Method	MDL	Reporting Limit	Amount Spiked	Spike Ref. Amount	%REC	Limits	RPD Ref. Amt	% RPD	RPD Limit	Qual
<b>Lab Sample ID: MB VOC-3 050919A</b>		<b>Date Analyzed: 05/09/2019 955h</b>											
Test Code: 8260-W-DEN100													
Chloroform	< 1.00	µg/L	SW8260C	0.166	1.00								
Methylene chloride	< 1.00	µg/L	SW8260C	0.448	1.00								
Surr: 1,2-Dichloroethane-d4	47.8	µg/L	SW8260C			50.00		95.7	80 - 136				
Surr: 4-Bromofluorobenzene	55.9	µg/L	SW8260C			50.00		112	85 - 121				
Surr: Dibromofluoromethane	43.3	µg/L	SW8260C			50.00		86.5	78 - 132				
Surr: Toluene-d8	49.7	µg/L	SW8260C			50.00		99.5	81 - 123				



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## QC SUMMARY REPORT

**Client:** Energy Fuels Resources, Inc.  
**Lab Set ID:** 1905224  
**Project:** May Groundwater 2019

**Contact:** Tanner Holliday  
**Dept:** MSVOA  
**QC Type:** MS

Analyte	Result	Units	Method	MDL	Reporting Limit	Amount Spiked	Spike Ref. Amount	%REC	Limits	RPD Ref. Amt	% RPD	RPD Limit	Qual
<b>Lab Sample ID:</b> 1905224-003CMS	Date Analyzed: 05/09/2019 1521h												
<b>Test Code:</b> 8260-W-DEN100													
Chloroform	2,000	µg/L	SW8260C	8.30	50.0	1,000	1140	85.9	50 - 146				
Methylene chloride	959	µg/L	SW8260C	22.4	50.0	1,000	1.69	95.7	30 - 192				
Surr: 1,2-Dichloroethane-d4	2,380	µg/L	SW8260C			2,500		95.4	72 - 151				
Surr: 4-Bromofluorobenzene	2,570	µg/L	SW8260C			2,500		103	80 - 152				
Surr: Dibromofluoromethane	2,280	µg/L	SW8260C			2,500		91.2	72 - 135				
Surr: Toluene-d8	2,700	µg/L	SW8260C			2,500		108	80 - 124				



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## QC SUMMARY REPORT

**Client:** Energy Fuels Resources, Inc.  
**Lab Set ID:** 1905224  
**Project:** May Groundwater 2019

**Contact:** Tanner Holliday  
**Dept:** MSVOA  
**QC Type:** MSD

Analyte	Result	Units	Method	MDL	Reporting Limit	Amount Spiked	Spike Ref. Amount	%REC	Limits	RPD Ref. Amt	% RPD	RPD Limit	Qual
<b>Lab Sample ID:</b> 1905224-003CMSD	Date Analyzed: 05/09/2019 1541h												
<b>Test Code:</b> 8260-W-DEN100													
Chloroform	2,080	µg/L	SW8260C	8.30	50.0	1,000	1140	93.8	50 - 146	2000	3.90	25	
Methylene chloride	1,060	µg/L	SW8260C	22.4	50.0	1,000	1.69	106	30 - 192	959	10.2	25	
Surr: 1,2-Dichloroethane-d4	2,580	µg/L	SW8260C			2,500		103	72 - 151				
Surr: 4-Bromofluorobenzene	2,570	µg/L	SW8260C			2,500		103	80 - 152				
Surr: Dibromofluoromethane	2,290	µg/L	SW8260C			2,500		91.6	72 - 135				
Surr: Toluene-d8	2,420	µg/L	SW8260C			2,500		96.7	80 - 124				

**WORK ORDER Summary**

Work Order: **1905224** Page 1 of 2

**Client:** Energy Fuels Resources, Inc.

Due Date: 5/23/2019

**Client ID:** ENE300

**Contact:** Tanner Holliday

**Project:** May Groundwater 2019

**QC Level:** III

**WO Type:** Project

**Comments:** QC 3 (no chromatograms). EDD-Denison. CC KWeinel@energyfuels.com; (USE PROJECT for special DLs). Do not use "\*R\_" samples as MS/MSD.;

Sample ID	Client Sample ID	Collected Date	Received Date	Test Code	Matrix	Sel Storage		
1905224-001A	MW-11_05072019	5/7/2019 1150h	5/9/2019 1030h	200.8-DIS	Aqueous	df-met	1	
				<i>1 SEL Analytes: MN</i>				
				200.8-DIS-PR		df-met		
1905224-002A	MW-25_05082019	5/8/2019 0940h	5/9/2019 1030h	200.8-DIS	Aqueous	df-met	1	
				<i>1 SEL Analytes: CD</i>				
				200.8-DIS-PR		df-met		
1905224-003A	MW-26_05072019	5/7/2019 0800h	5/9/2019 1030h	NH3-W-350.1	Aqueous	DF-NO2/NO3	1	
				<i>1 SEL Analytes: NH3N</i>				
				NH3-W-PR		DF-NO2/NO3		
				NO2/NO3-W-353.2		DF-NO2/NO3		
				<i>1 SEL Analytes: NO3NO2N</i>				
1905224-003B				300.0-W		DF-cl		
				<i>1 SEL Analytes: CL</i>				
1905224-003C				8260-W-DEN100		vOC	3	
				<i>Test Group: 8260-W-DEN100; # of Analytes: 2 / # of Surr: 4</i>				
1905224-004A	MW-30_05072019	5/7/2019 1600h	5/9/2019 1030h	NO2/NO3-W-353.2	Aqueous	DF-NO2/NO3	1	
				<i>1 SEL Analytes: NO3NO2N</i>				
1905224-004B				300.0-W		DF-cl		
				<i>1 SEL Analytes: CL</i>				
1905224-004C				200.8-DIS		df-met		
				<i>2 SEL Analytes: SE U</i>				
				200.8-DIS-PR		df-met		
1905224-005A	MW-31_05072019	5/7/2019 1310h	5/9/2019 1030h	NO2/NO3-W-353.2	Aqueous	DF-NO2/NO3	1	
				<i>1 SEL Analytes: NO3NO2N</i>				
1905224-005B				300.0-W		DF-cl		
				<i>1 SEL Analytes: CL</i>				
1905224-006A	MW-65_05072019	5/7/2019 1600h	5/9/2019 1030h	NO2/NO3-W-353.2	Aqueous	DF-NO2/NO3	1	
				<i>1 SEL Analytes: NO3NO2N</i>				

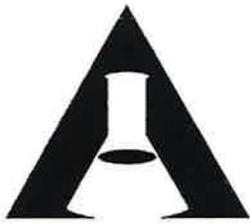
# WORK ORDER Summary

Work Order: **1905224** Page 2 of 2

Client: Energy Fuels Resources, Inc.

Due Date: 5/23/2019

Sample ID	Client Sample ID	Collected Date	Received Date	Test Code	Matrix	Sel	Storage		
1905224-006B	MW-65_05072019	5/7/2019 1600h	5/9/2019 1030h	300.0-W	Aqueous		DF-cl	1	
				<i>1 SEL Analytes: CL</i>					
1905224-006C				200.8-DIS			df-met		
				<i>2 SEL Analytes: SE U</i>					
				200.8-DIS-PR			df-met		
1905224-007A	Trip Blank	5/7/2019 0800h	5/9/2019 1030h	8260-W-DEN100	Aqueous		vOC	3	
				<i>Test Group: 8260-W-DEN100; # of Analytes: 2 / # of Surr: 4</i>					



**American West  
Analytical Laboratories**

463 W. 3600 S. Salt Lake City, UT 84115  
 Phone # (801) 263-8686 Toll Free # (888) 263-8686  
 Fax # (801) 263-8687 Email awal@awal-labs.com  
 www.awal-labs.com

**CHAIN OF CUSTODY**

All analysis will be conducted using NELAP accredited methods and all data will be reported using AWAL's standard analyte lists and reporting limits (PQL) unless specifically requested otherwise on this Chain of Custody and/or attached documentation.

1905224

AWAL Lab Sample Set #  
 Page 1 of 1

Client: **Energy Fuels Resources, Inc.**  
 Address: **6425 S. Hwy. 191**  
**Blanding, UT 84511**  
 Contact: **Tanner Holliday**  
 Phone #: **(435) 678-2221** Cell #:  
 Email: **tholliday@energyfuels.com; kweinel@energyfuels.com;**  
 Project Name: **May Groundwater 2019**  
 Project #:  
 PO #:  
 Sampler Name: **Tanner Holliday**

QC Level:		Turn Around Time:		Unless other arrangements have been made, signed reports will be emailed by 5:00 pm on the day they are due.		Due Date:													
3		Standard																	
Sample ID:	Date Sampled	Time Sampled	# of Containers	Sample Matrix	NO2/NO3 (353.2)	Dissolved Manganese (200.7/200.8)	Cl (4500 or 300.0)	TDS (2540C)	Dissolved Uranium (200.7/200.8)	Dissolved Cadmium (200.7/200.8)	Dissolved Selenium (200.7/200.8)	Fluoride (44500-FC or 300.0)	SO4 (4500 or 300.0)	Ammonia as N (350.1)	VOCs Chloroform, Dichloromethane, (8260C)	For Compliance With:	Known Hazards & Sample Comments	Laboratory Use Only	
1 MW-11_05072019	5/7/2019	1150	1	W		X										X	Include EDD: LOCUS UPLOAD EXCEL X Field Filtered For: Dissolved Metals		Samples Were: 1 Shipped or hand delivered 2 Ambient or Chilled 3 Temperature 11.5 °C 4 Received Broken/Leaking (Improperly Sealed) Y N 5 Properly Preserved Y N 6 Received Within Holding Times Y N
2 MW-25_05082019	5/8/2019	940	1	W					X										1 Present on Outer Package Y N NA 2 Unbroken on Outer Package Y N NA
3 MW-26_05072019	5/7/2019	800	5	W	X	X								X	X				3 Present on Sample Y N NA
4 MW-30_05072019	5/7/2019	1600	3	W	X	X	X	X											4 Unbroken on Sample Y N NA
5 MW-31_05072019	5/7/2019	1310	2	W	X	X													Discrepancies Between Sample Labels and COC Record? Y N
6 MW-65_05072019	5/7/2019	1600	3	W	X	X	X	X											
7 Trip Blank	5/7/2019	800	3	W											X				
9																			
10																			
11																			
12																			

Relinquished by: Signature <i>Tanner Holliday</i>	Date: 5/8/2019	Received by: Signature <i>E. Van Housen</i>	Date: 5/9/19	Special Instructions:  Sample containers for metals were field filtered. See the Analytical Scope of Work for Reporting Limits and VOC analyte list.
Print Name: Tanner Holliday	Time: 1200	Print Name: <i>E. Van Housen</i>	Time: 1030	
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:	

Lab Set ID: 1905224

pH Lot #: 5912

Preservation Check Sheet

Sample Set Extension and pH

Analysis	Preservative	1	2	3	4	5	6											
Ammonia	pH < 2 H <sub>2</sub> SO <sub>4</sub>			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											
NO <sub>2</sub> & NO <sub>3</sub>	pH < 2 H <sub>2</sub> SO <sub>4</sub>			Yes	Yes	Yes	Yes											
O & G	pH < 2 HCL																	
Phenols	pH < 2 H <sub>2</sub> SO <sub>4</sub>																	
Sulfide	pH > 9 NaOH, Zn Acetate																	
TKN	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>																	

- 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

- \* The sample required additional preservative upon receipt.
- + The sample was received unpreserved.
- ▲ The sample was received unpreserved and therefore preserved upon receipt.
- # The sample pH was unadjustable to a pH < 2 due to the sample matrix.
- The sample pH was unadjustable to a pH >      due to the sample matrix interference

Tab F2

Laboratory Analytical Reports – Accelerated Monitoring

June 2019



# INORGANIC ANALYTICAL REPORT

**Client:** Energy Fuels Resources, Inc.  
**Project:** June Groundwater 2019  
**Lab Sample ID:** 1906139-001  
**Client Sample ID:** MW-11\_06032019  
**Collection Date:** 6/3/2019 1120h  
**Received Date:** 6/6/2019 1130h

**Contact:** Tanner Holliday

## Analytical Results

## DISSOLVED METALS

Compound	Units	Date Prepared	Date Analyzed	Method Used	Reporting Limit	Analytical Result	Qual
Manganese	mg/L	6/6/2019 1548h	6/11/2019 1711h	E200.8	0.0100	0.210	

3440 South 700 West  
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web: www.awal-labs.com

Kyle F. Gross  
Laboratory Director

Jose Rocha  
QA Officer



# INORGANIC ANALYTICAL REPORT

**Client:** Energy Fuels Resources, Inc. **Contact:** Tanner Holliday  
**Project:** June Groundwater 2019  
**Lab Sample ID:** 1906139-002  
**Client Sample ID:** MW-25\_06042019  
**Collection Date:** 6/4/2019 1020h  
**Received Date:** 6/6/2019 1130h

## 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>
Cadmium	mg/L	6/6/2019 1548h	6/11/2019 1714h	E200.8	0.000500	<b>0.00147</b>	

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Kyle F. Gross

Laboratory Director

Jose Rocha

QA Officer



# INORGANIC ANALYTICAL REPORT

**Client:** Energy Fuels Resources, Inc.  
**Project:** June Groundwater 2019  
**Lab Sample ID:** 1906139-003  
**Client Sample ID:** MW-26\_06042019  
**Collection Date:** 6/4/2019 730h  
**Received Date:** 6/6/2019 1130h

**Contact:** Tanner Holliday

## Analytical Results

<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>
Ammonia (as N)	mg/L	6/11/2019 1210h	6/11/2019 1845h	E350.1	0.0500	<b>0.0919</b>	1
Chloride	mg/L		6/13/2019 836h	E300.0	1.00	<b>72.6</b>	
Nitrate/Nitrite (as N)	mg/L		6/11/2019 1138h	E353.2	0.100	<b>3.16</b>	

<sup>1</sup> - Matrix spike recovery indicates matrix interference. The method is in control as indicated by the LCS.

3440 South 700 West

Salt Lake City, UT 84119

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Kyle F. Gross  
Laboratory Director

Jose Rocha  
QA Officer



# ORGANIC ANALYTICAL REPORT

**Client:** Energy Fuels Resources, Inc.  
**Project:** June Groundwater 2019  
**Lab Sample ID:** 1906139-003C  
**Client Sample ID:** MW-26\_06042019  
**Collection Date:** 6/4/2019 730h  
**Received Date:** 6/6/2019 1130h

**Contact:** Tanner Holliday

Test Code: 8260-W-DEN100

**Analytical Results**

VOAs by GC/MS Method 8260C/5030C

**Analyzed:** 6/6/2019 1556h

**Units:** µg/L                      **Dilution Factor:** 50                      **Method:** SW8260C

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Salt Lake City, UT 84119

Compound	CAS Number	Reporting Limit	Analytical Result	Qual
Chloroform	67-66-3	50.0	778	~ <sup>1</sup>

<sup>1</sup> - Matrix spike recovery indicates matrix interference. The method is in control as indicated by the LCS.  
 ~ - The reporting limits were raised due to high analyte concentrations.

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Toll Free: (888) 263-8686

Fax: (801) 263-8687

e-mail: awal@awal-labs.com

**Analyzed:** 6/6/2019 1511h

**Units:** µg/L                      **Dilution Factor:** 1                      **Method:** SW8260C

web: www.awal-labs.com

Compound	CAS Number	Reporting Limit	Analytical Result	Qual
Methylene chloride	75-09-2	1.00	< 1.00	

Kyle F. Gross  
 Laboratory Director  
  
 Jose Rocha  
 QA Officer

Surrogate	Units: µg/L	CAS	Result	Amount Spiked	% REC	Limits	Qual
Surr: 1,2-Dichloroethane-d4		17060-07-0	55.2	50.00	110	72-151	
Surr: 4-Bromofluorobenzene		460-00-4	52.8	50.00	106	80-152	
Surr: Dibromofluoromethane		1868-53-7	48.6	50.00	97.1	72-135	
Surr: Toluene-d8		2037-26-5	49.5	50.00	99.1	80-124	



# INORGANIC ANALYTICAL REPORT

**Client:** Energy Fuels Resources, Inc. **Contact:** Tanner Holliday  
**Project:** June Groundwater 2019  
**Lab Sample ID:** 1906139-004  
**Client Sample ID:** MW-30\_06032019  
**Collection Date:** 6/3/2019 1535h  
**Received Date:** 6/6/2019 1130h

## 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>
Selenium	mg/L	6/6/2019 1548h	6/11/2019 1717h	E200.8	0.00500	<b>0.0499</b>	
Uranium	mg/L	6/6/2019 1548h	6/11/2019 1749h	E200.8	0.000300	<b>0.00888</b>	

3440 South 700 West

Salt Lake City, UT 84119

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



# INORGANIC ANALYTICAL REPORT

**Client:** Energy Fuels Resources, Inc.  
**Project:** June Groundwater 2019  
**Lab Sample ID:** 1906139-004  
**Client Sample ID:** MW-30\_06032019  
**Collection Date:** 6/3/2019 1535h  
**Received Date:** 6/6/2019 1130h

**Contact:** Tanner Holliday

## Analytical Results

<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>
Chloride	mg/L		6/13/2019 926h	E300.0	2.00	<b>165</b>	
Nitrate/Nitrite (as N)	mg/L		6/11/2019 1142h	E353.2	0.200	<b>15.8</b>	

3440 South 700 West

Salt Lake City, UT 84119

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Toll Free: (888) 263-8686

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e-mail: awal@awal-labs.com

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Kyle F. Gross

Laboratory Director

Jose Rocha

QA Officer



# INORGANIC ANALYTICAL REPORT

**Client:** Energy Fuels Resources, Inc.  
**Project:** June Groundwater 2019  
**Lab Sample ID:** 1906139-005  
**Client Sample ID:** MW-31-06032019  
**Collection Date:** 6/3/2019 1245h  
**Received Date:** 6/6/2019 1130h

**Contact:** Tanner Holliday

## Analytical Results

<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>
Chloride	mg/L		6/13/2019 943h	E300.0	2.00	<b>325</b>	
Nitrate/Nitrite (as N)	mg/L		6/11/2019 1002h	E353.2	0.100	<b>19.7</b>	

3440 South 700 West

Salt Lake City, UT 84119

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 ANALYTICAL REPORT

**Client:** Energy Fuels Resources, Inc.  
**Project:** June Groundwater 2019  
**Lab Sample ID:** 1906139-006  
**Client Sample ID:** MW-65\_06042019  
**Collection Date:** 6/4/2019 1020h  
**Received Date:** 6/6/2019 1130h

**Contact:** Tanner Holliday

## 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>
Cadmium	mg/L	6/6/2019 1548h	6/11/2019 1720h	E200.8	0.000500	<b>0.00148</b>	

3440 South 700 West

Salt Lake City, UT 84119

Phone: (801) 263-8686

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e-mail: awal@awal-labs.com

web: www.awal-labs.com

Kyle F. Gross  
Laboratory Director

Jose Rocha  
QA Officer



# ORGANIC ANALYTICAL REPORT

**Client:** Energy Fuels Resources, Inc.  
**Project:** June Groundwater 2019  
**Lab Sample ID:** 1906139-007A  
**Client Sample ID:** Trip Blank  
**Collection Date:** 6/4/2019 730h  
**Received Date:** 6/6/2019 1130h

**Contact:** Tanner Holliday

Test Code: 8260-W-DEN100

## Analytical Results

VOAs by GC/MS Method 8260C/5030C

**Analyzed:** 6/6/2019 1451h

**Units:** µg/L

**Dilution Factor:** 1

**Method:** SW8260C

3440 South 700 West

Salt Lake City, UT 84119

Phone: (801) 263-8686

Toll Free: (888) 263-8686

Fax: (801) 263-8687

e-mail: awal@awal-labs.com

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Compound	CAS Number	Reporting Limit	Analytical Result	Qual
Chloroform	67-66-3	1.00	< 1.00	
Methylene chloride	75-09-2	1.00	< 1.00	

Surrogate	Units: µg/L	CAS	Result	Amount Spiked	% REC	Limits	Qual
Surr: 1,2-Dichloroethane-d4		17060-07-0	55.3	50.00	111	72-151	
Surr: 4-Bromofluorobenzene		460-00-4	54.3	50.00	109	80-152	
Surr: Dibromofluoromethane		1868-53-7	48.0	50.00	95.9	72-135	
Surr: Toluene-d8		2037-26-5	50.9	50.00	102	80-124	

Kyle F. Gross

Laboratory Director

Jose Rocha

QA Officer



Tanner Holliday  
Energy Fuels Resources, Inc.  
6425 South Hwy 191  
Blanding, UT 84511  
TEL: (435) 678-2221

RE: June Groundwater 2019

Dear Tanner Holliday:

Lab Set ID: 1906139

3440 South 700 West

Salt Lake City, UT 84119

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)

American West Analytical Laboratories received sample(s) on 6/6/2019 for the analyses presented in the following report.

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

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

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

Kyle F. Gross  
Laboratory Director

Jose Rocha  
QA Officer

Thank You,

Approved by:

<b>Kyle F. Gross</b>	Digitally signed by Kyle F. Gross
	Date: 2019.06.18 12:20:39 -06'00'

Laboratory Director or designee



## SAMPLE SUMMARY

**Client:** Energy Fuels Resources, Inc.  
**Project:** June Groundwater 2019  
**Lab Set ID:** 1906139  
**Date Received:** 6/6/2019 1130h

**Contact:** Tanner Holliday

Lab Sample ID	Client Sample ID	Date Collected	Matrix	Analysis
1906139-001A	MW-11_06032019	6/3/2019 1120h	Aqueous	ICPMS Metals, Dissolved
1906139-002A	MW-25_06042019	6/4/2019 1020h	Aqueous	ICPMS Metals, Dissolved
1906139-003A	MW-26_06042019	6/4/2019 730h	Aqueous	Ammonia, Aqueous
1906139-003A	MW-26_06042019	6/4/2019 730h	Aqueous	Nitrite/Nitrate (as N), E353.2
1906139-003B	MW-26_06042019	6/4/2019 730h	Aqueous	Anions, E300.0
1906139-003C	MW-26_06042019	6/4/2019 730h	Aqueous	VOA by GC/MS Method 8260C/5030C
1906139-004A	MW-30_06032019	6/3/2019 1535h	Aqueous	Nitrite/Nitrate (as N), E353.2
1906139-004B	MW-30_06032019	6/3/2019 1535h	Aqueous	Anions, E300.0
1906139-004C	MW-30_06032019	6/3/2019 1535h	Aqueous	ICPMS Metals, Dissolved
1906139-005A	MW-31-06032019	6/3/2019 1245h	Aqueous	Nitrite/Nitrate (as N), E353.2
1906139-005B	MW-31-06032019	6/3/2019 1245h	Aqueous	Anions, E300.0
1906139-006A	MW-65_06042019	6/4/2019 1020h	Aqueous	ICPMS Metals, Dissolved
1906139-007A	Trip Blank	6/4/2019 730h	Aqueous	VOA by GC/MS Method 8260C/5030C

3440 South 700 West  
Salt Lake City, UT 84119

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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:** Energy Fuels Resources, Inc.  
**Contact:** Tanner Holliday  
**Project:** 2nd Quarter Groundwater 2019  
**Lab Set ID:** 1906139

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## Sample Receipt Information:

**Date of Receipt:** 6/6/2019  
**Date of Collection:** 6/3-6/4/2019  
**Sample Condition:** Intact  
**C-O-C Discrepancies:** See Chain of Custody

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 for the samples were performed within the method holding times. The 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

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

Jose Rocha  
 QA Officer

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

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

**Matrix Spike / Matrix Spike Duplicates (MS/MSD):** All percent recoveries and RPDs (Relative Percent Differences) were inside established limits, with the following exceptions:

Sample ID	Analyte	QC	Explanation
1906139-003A	Ammonia	MS/MSD	Sample matrix interference

**Duplicate (DUP):** The parameters that required a duplicate analysis had RPDs within the control limits.

**Corrective Action:** None required.



## Volatile Case Narrative

**Client:** Energy Fuels Resources, Inc.  
**Contact:** Tanner Holliday  
**Project:** 2nd Quarter Groundwater 2019  
**Lab Set ID:** 1906139

---

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### **Sample Receipt Information:**

**Date of Receipt:** 6/6/2019  
**Date of Collection:** 6/3-6/4/2019  
**Sample Condition:** Intact  
**C-O-C Discrepancies:** None  
**Method:** SW-846 8260C/5030C  
**Analysis:** Volatile Organic Compounds

Phone: (801) 263-8686

Toll Free: (888) 263-8686

Fax: (801) 263-8687

e-mail: awal@awal-labs.com

web: www.awal-labs.com

**General Set Comments:** One or more target analytes were observed above reporting limits.

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

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

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

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

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

**Matrix Spike / Matrix Spike Duplicate (MS/MSD):** All percent recoveries and RPDs (Relative Percent Differences) were inside established limits, with the following exception: the MSD percent recovery for Chloroform on sample 1906139-003C was outside of the control limits due to sample matrix interference.

**Surrogates:** All surrogate recoveries were within established limits.

**Corrective Action:** None required.



3440 South 700 West

Salt Lake City, UT 84119

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Kyle F. Gross  
Laboratory Director

Jose Rocha  
QA Officer

## QC SUMMARY REPORT

**Client:** Energy Fuels Resources, Inc.

**Lab Set ID:** 1906139

**Project:** June Groundwater 2019

**Contact:** Tanner Holliday

**Dept:** ME

**QC Type:** LCS

Analyte	Result	Units	Method	MDL	Reporting Limit	Amount Spiked	Spike Ref. Amount	%REC	Limits	RPD Ref. Amt	% RPD	RPD Limit	Qual
<b>Lab Sample ID:</b> LCS-63061	Date Analyzed:		06/11/2019 1634h										
<b>Test Code:</b> 200.8-DIS	Date Prepared:		06/06/2019 1548h										
Cadmium	0.196	mg/L	E200.8	0.0000858	0.000500	0.2000	0	97.8	85 - 115				
Manganese	0.198	mg/L	E200.8	0.00108	0.00200	0.2000	0	99.0	85 - 115				
Selenium	0.195	mg/L	E200.8	0.000574	0.00200	0.2000	0	97.3	85 - 115				
Uranium	0.200	mg/L	E200.8	0.000176	0.00200	0.2000	0	100	85 - 115				



3440 South 700 West

Salt Lake City, UT 84119

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Kyle F. Gross  
Laboratory Director

Jose Rocha  
QA Officer

## QC SUMMARY REPORT

**Client:** Energy Fuels Resources, Inc.  
**Lab Set ID:** 1906139  
**Project:** June Groundwater 2019

**Contact:** Tanner Holliday  
**Dept:** ME  
**QC Type:** MBLK

Analyte	Result	Units	Method	MDL	Reporting Limit	Amount Spiked	Spike Ref. Amount	%REC	Limits	RPD Ref. Amt	% RPD	RPD Limit	Qual
<b>Lab Sample ID:</b> MB-63061	Date Analyzed:	06/11/2019	1631h										
Test Code:	200.8-DIS	Date Prepared:	06/06/2019	1548h									
Cadmium	< 0.000500	mg/L	E200.8	0.0000858	0.000500								
Manganese	< 0.00200	mg/L	E200.8	0.00108	0.00200								
Selenium	< 0.00200	mg/L	E200.8	0.000574	0.00200								
Uranium	< 0.00200	mg/L	E200.8	0.000176	0.00200								
<b>Lab Sample ID:</b> MB-63034	Date Analyzed:	06/11/2019	1742h										
Test Code:	200.8-DIS	Date Prepared:	06/06/2019	1548h									
Cadmium	< 0.000500	mg/L	E200.8	0.0000858	0.000500								
Selenium	< 0.00200	mg/L	E200.8	0.000574	0.00200								
<b>Lab Sample ID:</b> MB-63061	Date Analyzed:	06/11/2019	1745h										
Test Code:	200.8-DIS	Date Prepared:	06/06/2019	1548h									
Uranium	< 0.000200	mg/L	E200.8	0.0000176	0.000200								



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Salt Lake City, UT 84119

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Kyle F. Gross  
Laboratory Director

Jose Rocha  
QA Officer

## QC SUMMARY REPORT

**Client:** Energy Fuels Resources, Inc.  
**Lab Set ID:** 1906139  
**Project:** June Groundwater 2019

**Contact:** Tanner Holliday  
**Dept:** ME  
**QC Type:** MS

Analyte	Result	Units	Method	MDL	Reporting Limit	Amount Spiked	Spike Ref. Amount	%REC	Limits	RPD Ref. Amt	% RPD	RPD Limit	Qual
<b>Lab Sample ID:</b> 1906139-006AMS	Date Analyzed:	06/11/2019	1724h										
<b>Test Code:</b> 200.8-DIS	Date Prepared:	06/06/2019	1548h										
Cadmium	0.194	mg/L	E200.8	0.0000858	0.000500	0.2000	0.00148	96.3	75 - 125				



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Salt Lake City, UT 84119

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Kyle F. Gross  
Laboratory Director

Jose Rocha  
QA Officer

## QC SUMMARY REPORT

**Client:** Energy Fuels Resources, Inc.

**Lab Set ID:** 1906139

**Project:** June Groundwater 2019

**Contact:** Tanner Holliday

**Dept:** ME

**QC Type:** MSD

Analyte	Result	Units	Method	MDL	Reporting Limit	Amount Spiked	Spike Ref. Amount	%REC	Limits	RPD Ref. Amt	% RPD	RPD Limit	Qual
<b>Lab Sample ID:</b> 1906139-006AMSD	Date Analyzed:	06/11/2019	1727h										
<b>Test Code:</b> 200.8-DIS	Date Prepared:	06/06/2019	1548h										
Cadmium	0.194	mg/L	E200.8	0.0000858	0.000500	0.2000	0.00148	96.0	75 - 125	0.194	0.324	20	



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Kyle F. Gross  
Laboratory Director

Jose Rocha  
QA Officer

## QC SUMMARY REPORT

**Client:** Energy Fuels Resources, Inc.  
**Lab Set ID:** 1906139  
**Project:** June Groundwater 2019

**Contact:** Tanner Holliday  
**Dept:** WC  
**QC Type:** LCS

Analyte	Result	Units	Method	MDL	Reporting Limit	Amount Spiked	Spike Ref. Amount	%REC	Limits	RPD Ref. Amt	% RPD	RPD Limit	Qual
<b>Lab Sample ID:</b> LCS-R126966	Date Analyzed: 06/13/2019 819h												
<b>Test Code:</b> 300.0-W													
Chloride	4.65	mg/L	E300.0	0.0386	0.100	5.000	0	92.9	90 - 110				
<b>Lab Sample ID:</b> LCS-63153	Date Analyzed: 06/11/2019 1824h												
<b>Test Code:</b> NH3-W-350.1	Date Prepared: 06/11/2019 1210h												
Ammonia (as N)	9.01	mg/L	E350.1	0.0492	0.0500	10.00	0	90.1	90 - 110				
<b>Lab Sample ID:</b> LCS	Date Analyzed: 06/11/2019 939h												
<b>Test Code:</b> NO2/NO3-W-353.2													
Nitrate/Nitrite (as N)	1.06	mg/L	E353.2	0.00363	0.0100	1.000	0	106	90 - 110				



3440 South 700 West  
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Kyle F. Gross  
Laboratory Director

Jose Rocha  
QA Officer

## QC SUMMARY REPORT

**Client:** Energy Fuels Resources, Inc.  
**Lab Set ID:** 1906139  
**Project:** June Groundwater 2019

**Contact:** Tanner Holliday  
**Dept:** WC  
**QC Type:** MBLK

Analyte	Result	Units	Method	MDL	Reporting Limit	Amount Spiked	Spike Ref. Amount	%REC	Limits	RPD Ref. Amt	% RPD	RPD Limit	Qual
<b>Lab Sample ID:</b> MB-R126966	Date Analyzed:	06/12/2019	1745h										
Test Code:	300.0-W												
Chloride	< 0.100	mg/L	E300.0	0.0386	0.100								
<b>Lab Sample ID:</b> MB-63153	Date Analyzed:	06/11/2019	1824h										
Test Code:	NH3-W-350.1	Date Prepared:	06/11/2019 1210h										
Ammonia (as N)	< 0.0500	mg/L	E350.1	0.0492	0.0500								
<b>Lab Sample ID:</b> MB-R126800	Date Analyzed:	06/11/2019	937h										
Test Code:	NO2/NO3-W-353.2												
Nitrate/Nitrite (as N)	< 0.0100	mg/L	E353.2	0.00363	0.0100								



3440 South 700 West  
Salt Lake City, UT 84119

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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:** Energy Fuels Resources, Inc.  
**Lab Set ID:** 1906139  
**Project:** June Groundwater 2019

**Contact:** Tanner Holliday  
**Dept:** WC  
**QC Type:** MS

Analyte	Result	Units	Method	MDL	Reporting Limit	Amount Spiked	Spike Ref. Amount	%REC	Limits	RPD Ref. Amt	% RPD	RPD Limit	Qual
<b>Lab Sample ID: 1906139-003BMS</b> Date Analyzed: 06/13/2019 853h													
Test Code: 300.0-W													
Chloride	118	mg/L	E300.0	0.386	1.00	50.00	72.6	90.9	90 - 110				
<b>Lab Sample ID: 1906139-003AMS</b> Date Analyzed: 06/11/2019 1857h													
Test Code: NH3-W-350.1 Date Prepared: 06/11/2019 1210h													
Ammonia (as N)	13.8	mg/L	E350.1	0.0492	0.0500	10.00	0.0919	137	90 - 110				1
<b>Lab Sample ID: 1906139-003AMS</b> Date Analyzed: 06/11/2019 1139h													
Test Code: NO2/NO3-W-353.2													
Nitrate/Nitrite (as N)	13.4	mg/L	E353.2	0.0363	0.100	10.00	3.16	103	90 - 110				
<b>Lab Sample ID: 1906140-001BMS</b> Date Analyzed: 06/11/2019 1149h													
Test Code: NO2/NO3-W-353.2													
Nitrate/Nitrite (as N)	11.4	mg/L	E353.2	0.0363	0.100	10.00	0.821	106	90 - 110				
<b>Lab Sample ID: 1906140-011BMS</b> Date Analyzed: 06/11/2019 1154h													
Test Code: NO2/NO3-W-353.2													
Nitrate/Nitrite (as N)	16.8	mg/L	E353.2	0.0363	0.100	10.00	6	108	90 - 110				

1 - Matrix spike recovery indicates matrix interference. The method is in control as indicated by the LCS.



3440 South 700 West  
Salt Lake City, UT 84119

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Kyle F. Gross  
Laboratory Director

Jose Rocha  
QA Officer

## QC SUMMARY REPORT

**Client:** Energy Fuels Resources, Inc.  
**Lab Set ID:** 1906139  
**Project:** June Groundwater 2019

**Contact:** Tanner Holliday  
**Dept:** WC  
**QC Type:** MSD

Analyte	Result	Units	Method	MDL	Reporting Limit	Amount Spiked	Spike Ref. Amount	%REC	Limits	RPD Ref. Amt	% RPD	RPD Limit	Qual
<b>Lab Sample ID: 1906139-003BMSD</b>													
Date Analyzed: 06/13/2019 909h													
Test Code: 300.0-W													
Chloride	118	mg/L	E300.0	0.386	1.00	50.00	72.6	90.7	90 - 110	118	0.0638	20	
<b>Lab Sample ID: 1906139-003AMSD</b>													
Date Analyzed: 06/11/2019 1857h													
Test Code: NH3-W-350.1													
Date Prepared: 06/11/2019 1210h													
Ammonia (as N)	13.6	mg/L	E350.1	0.0492	0.0500	10.00	0.0919	136	90 - 110	13.8	0.803	10	1
<b>Lab Sample ID: 1906139-003AMSD</b>													
Date Analyzed: 06/11/2019 1140h													
Test Code: NO2/NO3-W-353.2													
Nitrate/Nitrite (as N)	13.8	mg/L	E353.2	0.0363	0.100	10.00	3.16	106	90 - 110	13.4	2.72	10	
<b>Lab Sample ID: 1906140-001BMSD</b>													
Date Analyzed: 06/11/2019 1150h													
Test Code: NO2/NO3-W-353.2													
Nitrate/Nitrite (as N)	10.8	mg/L	E353.2	0.0363	0.100	10.00	0.821	99.7	90 - 110	11.4	5.59	10	
<b>Lab Sample ID: 1906140-011BMSD</b>													
Date Analyzed: 06/11/2019 1155h													
Test Code: NO2/NO3-W-353.2													
Nitrate/Nitrite (as N)	16.5	mg/L	E353.2	0.0363	0.100	10.00	6	105	90 - 110	16.8	1.62	10	

1 - Matrix spike recovery indicates matrix interference. The method is in control as indicated by the LCS.



3440 South 700 West  
Salt Lake City, UT 84119

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

## QC SUMMARY REPORT

**Client:** Energy Fuels Resources, Inc.  
**Lab Set ID:** 1906139  
**Project:** June Groundwater 2019

**Contact:** Tanner Holliday  
**Dept:** MSVOA  
**QC Type:** LCS

Analyte	Result	Units	Method	MDL	Reporting Limit	Amount Spiked	Spike Ref. Amount	%REC	Limits	RPD Ref. Amt	% RPD	RPD Limit	Qual
<b>Lab Sample ID: LCS VOC-3 060619A</b>		Date Analyzed: 06/06/2019 1031h											
<b>Test Code: 8260-W-DEN100</b>													
Chloroform	18.6	µg/L	SW8260C	0.166	1.00	20.00	0	92.9	85 - 124				
Methylene chloride	20.2	µg/L	SW8260C	0.448	1.00	20.00	0	101	65 - 154				
Surr: 1,2-Dichloroethane-d4	51.8	µg/L	SW8260C			50.00		104	80 - 136				
Surr: 4-Bromofluorobenzene	49.4	µg/L	SW8260C			50.00		98.7	85 - 121				
Surr: Dibromofluoromethane	48.8	µg/L	SW8260C			50.00		97.6	78 - 132				
Surr: Toluene-d8	48.7	µg/L	SW8260C			50.00		97.3	81 - 123				



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Laboratory Director

Jose Rocha  
QA Officer

## QC SUMMARY REPORT

**Client:** Energy Fuels Resources, Inc.

**Lab Set ID:** 1906139

**Project:** June Groundwater 2019

**Contact:** Tanner Holliday

**Dept:** MSVOA

**QC Type:** MBLK

Analyte	Result	Units	Method	MDL	Reporting Limit	Amount Spiked	Spike Ref. Amount	%REC	Limits	RPD Ref. Amt	% RPD	RPD Limit	Qual
<b>Lab Sample ID:</b> MB VOC-3 060619A	Date Analyzed:	06/06/2019	1051h										
<b>Test Code:</b> 8260-W-DEN100													
Chloroform	< 1.00	µg/L	SW8260C	0.166	1.00								
Methylene chloride	< 1.00	µg/L	SW8260C	0.448	1.00								
Surr: 1,2-Dichloroethane-d4	54.2	µg/L	SW8260C			50.00		108	80 - 136				
Surr: 4-Bromofluorobenzene	54.9	µg/L	SW8260C			50.00		110	85 - 121				
Surr: Dibromofluoromethane	46.3	µg/L	SW8260C			50.00		92.6	78 - 132				
Surr: Toluene-d8	49.7	µg/L	SW8260C			50.00		99.3	81 - 123				



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Kyle F. Gross  
Laboratory Director

Jose Rocha  
QA Officer

## QC SUMMARY REPORT

**Client:** Energy Fuels Resources, Inc.

**Lab Set ID:** 1906139

**Project:** June Groundwater 2019

**Contact:** Tanner Holliday

**Dept:** MSVOA

**QC Type:** MS

Analyte	Result	Units	Method	MDL	Reporting Limit	Amount Spiked	Spike Ref. Amount	%REC	Limits	RPD Ref. Amt	% RPD	RPD Limit	Qual
<b>Lab Sample ID:</b> 1906139-003CMS	Date Analyzed: 06/06/2019 1616h												
<b>Test Code:</b> 8260-W-DEN100													
Chloroform	1,910	µg/L	SW8260C	8.30	50.0	1,000	778	113	50 - 146				
Methylene chloride	1,110	µg/L	SW8260C	22.4	50.0	1,000	0	111	30 - 192				
Surr: 1,2-Dichloroethane-d4	2,720	µg/L	SW8260C			2,500		109	72 - 151				
Surr: 4-Bromofluorobenzene	2,480	µg/L	SW8260C			2,500		99.0	80 - 152				
Surr: Dibromofluoromethane	2,400	µg/L	SW8260C			2,500		96.0	72 - 135				
Surr: Toluene-d8	2,740	µg/L	SW8260C			2,500		110	80 - 124				



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Kyle F. Gross  
Laboratory Director

Jose Rocha  
QA Officer

## QC SUMMARY REPORT

**Client:** Energy Fuels Resources, Inc.  
**Lab Set ID:** 1906139  
**Project:** June Groundwater 2019

**Contact:** Tanner Holliday  
**Dept:** MSVOA  
**QC Type:** MSD

Analyte	Result	Units	Method	MDL	Reporting Limit	Amount Spiked	Spike Ref. Amount	%REC	Limits	RPD Ref. Amt	% RPD	RPD Limit	Qual
<b>Lab Sample ID:</b> 1906139-003CMSD	Date Analyzed: 06/06/2019 1636h												
<b>Test Code:</b> 8260-W-DEN100													
Chloroform	2,330	µg/L	SW8260C	8.30	50.0	1,000	778	156	50 - 146	1910	20.0	25	1
Methylene chloride	1,200	µg/L	SW8260C	22.4	50.0	1,000	0	120	30 - 192	1110	8.48	25	
Surr: 1,2-Dichloroethane-d4	2,690	µg/L	SW8260C			2,500		108	72 - 151				
Surr: 4-Bromofluorobenzene	2,500	µg/L	SW8260C			2,500		100	80 - 152				
Surr: Dibromofluoromethane	2,710	µg/L	SW8260C			2,500		108	72 - 135				
Surr: Toluene-d8	2,410	µg/L	SW8260C			2,500		96.5	80 - 124				

<sup>1</sup> - Matrix spike recovery indicates matrix interference. The method is in control as indicated by the LCS.

**WORK ORDER Summary**

Work Order: **1906139**

Page 1 of 2

**Client:** Energy Fuels Resources, Inc.

Due Date: 6/20/2019

**Client ID:** ENE300

**Contact:** Tanner Holliday

**Project:** June Groundwater 2019

**QC Level:** III

WO Type: Project

**Comments:** QC 3 (no chromatograms). EDD-Denison. CC KWeinel@energyfuels.com;

Sample ID	Client Sample ID	Collected Date	Received Date	Test Code	Matrix	Sel	Storage	
1906139-001A	MW-11_06032019	6/3/2019 1120h	6/6/2019 1130h	200.8-DIS <i>1 SEL Analytes: MN</i>	Aqueous		df-met	1
				200.8-DIS-PR			df-met	
1906139-002A	MW-25_06042019	6/4/2019 1020h	6/6/2019 1130h	200.8-DIS <i>1 SEL Analytes: CD</i>	Aqueous		df-met	1
				200.8-DIS-PR			df-met	
1906139-003A	MW-26_06042019	6/4/2019 0730h	6/6/2019 1130h	NH3-W-350.1 <i>1 SEL Analytes: NH3N</i>	Aqueous		DF-NO2/NO3	1
				NH3-W-PR			DF-NO2/NO3	
				NO2/NO3-W-353.2 <i>1 SEL Analytes: NO3NO2N</i>			DF-NO2/NO3	
1906139-003B				300.0-W <i>1 SEL Analytes: CL</i>			DF-cl	
1906139-003C				8260-W-DEN100 <i>Test Group: 8260-W-DEN100; # of Analytes: 2 / # of Surr: 4</i>			vOC	3
1906139-004A	MW-30_06032019	6/3/2019 1535h	6/6/2019 1130h	NO2/NO3-W-353.2 <i>1 SEL Analytes: NO3NO2N</i>	Aqueous		DF-NO2/NO3	1
1906139-004B				300.0-W <i>1 SEL Analytes: CL</i>			DF-cl	
1906139-004C				200.8-DIS <i>2 SEL Analytes: SE U</i>			df-met	
				200.8-DIS-PR			df-met	
1906139-005A	MW-31-06032019	6/3/2019 1245h	6/6/2019 1130h	NO2/NO3-W-353.2 <i>1 SEL Analytes: NO3NO2N</i>	Aqueous		DF-NO2/NO3	1
1906139-005B				300.0-W <i>1 SEL Analytes: CL</i>			DF-cl	
1906139-006A	MW-65_06042019	6/4/2019 1020h	6/6/2019 1130h	200.8-DIS <i>1 SEL Analytes: CD</i>	Aqueous		df-met	1
				200.8-DIS-PR			df-met	

# WORK ORDER Summary

Work Order: **1906139** Page 2 of 2

Client: Energy Fuels Resources, Inc.

Due Date: 6/20/2019

Sample ID	Client Sample ID	Collected Date	Received Date	Test Code	Matrix	Sel	Storage	
1906139-007A	Trip Blank	6/4/2019 0730h	6/6/2019 1130h	8260-W-DEN100	Aqueous		vOC	3
<i>Test Group: 8260-W-DEN100; # of Analytes: 2 / # of Surr: 4</i>								



**American West  
Analytical Laboratories**

463 W. 3600 S. Salt Lake City, UT 84115  
 Phone # (801) 263-8686 Toll Free # (888) 263-8686  
 Fax # (801) 263-8687 Email awal@awal-labs.com  
 www.awal-labs.com

**CHAIN OF CUSTODY**

All analysis will be conducted using NELAP accredited methods and all data will be reported using AWAL's standard analyte lists and reporting limits (PQL) unless specifically requested otherwise on this Chain of Custody and/or attached documentation.

1906139  
 AWAL Lab Sample Set #  
 Page 1 of 1

Client: **Energy Fuels Resources, Inc.**  
 Address: **6425 S. Hwy. 191**  
**Blanding, UT 84511**  
 Contact: **Tanner Holliday**  
 Phone #: **(435) 678-2221** Cell #: \_\_\_\_\_  
 Email: **tholliday@energyfuels.com; kweinel@energyfuels.com;**  
 Project Name: **June Groundwater 2019**  
 Project #: \_\_\_\_\_  
 PO #: \_\_\_\_\_  
 Sampler Name: **Tanner Holliday**

QC Level:		Turn Around Time:		Unless other arrangements have been made, signed reports will be emailed by 5:00 pm on the day they are due.		Due Date:											
3		Standard															
Sample ID	Date Sampled	Time Sampled	# of Containers	Sample Matrix	NO2/NO3 (353.2)	Dissolved Manganese (200.7/200.8)	Cl (4500 or 300.0)	TDS (2540C)	Dissolved Uranium (200.7/200.8)	Dissolved Cadmium (200.7/200.8)	Dissolved Selenium (200.7/200.8)	Fluoride (A4500-F C or 300.0)	SO <sub>4</sub> (4500 or 300.0)	Ammonia as N (350.1)	VOCs Chloroform, Dichloromethane, (8260C)	Laboratory Use Only	
																Samples Were:	
1 MW-11_06032019	6/3/2019	1120	1	W		X											1 Shipped or hand delivered
2 MW-25_06042019	6/4/2019	1020	1	W					X								2 Ambient or Chilled
3 MW-26_06042019	6/4/2019	730	5	W	X	X								X	X		3 Temperature 2.9 °C
4 MW-30_06032019	6/3/2019	1535	3	W	X	X		X	X								4 Received Broken/Leaking (Improperly Sealed) Y N
5 MW-31_06032019	6/3/2019	1245	2	W	X	X											5 Properly Preserved Y N
6 MW-65_06042019	6/4/2019	1020	1	W					X								6 Received Within Holding Times Y N
7 Trip Blank	6/4/2019	730	3	W										X			1 Present on Outer Package Y N NA
																	2 Unbroken on Outer Package Y N NA
																	3 Present on Sample Y N NA
																	4 Unbroken on Sample Y N NA
																	Discrepancies Between Sample Labels and COC Record Y N

Relinquished by: Signature <i>Tanner Holliday</i>	Date: 6/5/2019	Received by: Signature <i>Abel Mendoza</i>	Date: 6/5/2019	Special Instructions: Sample containers for metals were field filtered. See the Analytical Scope of Work for Reporting Limits and VOC analyte list.
Print Name: Tanner Holliday	Time: 1430	Print Name: Abel Mendoza	Time: 1430	
Relinquished by: Signature <i>Abel Mendoza</i>	Date: 6/6/2019	Received by: Signature <i>Elmer Hays</i>	Date: 6/6/19	
Print Name: Abel Mendoza	Time: 1130	Print Name: Elmer Hays	Time: 1130	
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:	

Lab Set ID: 1906139

pH Lot #: 5912

Preservation Check Sheet

Sample Set Extension and pH

Analysis	Preservative	1	2	3	4	5	6											
Ammonia	pH <2 H <sub>2</sub> SO <sub>4</sub>			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											
NO <sub>2</sub> & NO <sub>3</sub>	pH <2 H <sub>2</sub> SO <sub>4</sub>			Yes	Yes	Yes												
O & G	pH <2 HCL																	
Phenols	pH <2 H <sub>2</sub> SO <sub>4</sub>																	
Sulfide	pH >9 NaOH, Zn Acetate																	
TKN	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>																	

- 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

- \* The sample required additional preservative upon receipt.
- + The sample was received unpreserved.
- ▲ The sample was received unpreserved and therefore preserved upon receipt.
- # The sample pH was unadjustable to a pH < 2 due to the sample matrix.

Tab G

Quality Assurance and Data Validation Tables

G-1A: Field QA/QC Evaluation

Location	1x Casing Volume	Volume Pumped	2x Casing Volume	Volume Check	Conductivity		RPD	pH		RPD	Temperature		RPD	Redox		RPD	Turbidity		RPD
MW-01	19.61	40.14	39.22	okay	1842	1843	0.05	7.26	7.26	0.00	14.23	14.22	0.07	319	320	0.31	3.1	3.1	0.00
MW-02	12.39	26.04	24.78	okay	3730	3724	0.16	7.21	7.21	0.00	14.09	14.07	0.14	538	538	0.00	0	0	0.00
MW-03A	7.11	14.56	14.22	Pumped Dry	5807	5800	0.12	6.01	6.04	0.50	14.03	14.10	0.50	NM	NM	NC	NM	NM	NC
MW-05	21.44	43.40	42.88	okay	2872	2873	0.03	7.57	7.57	0.00	15.59	15.55	0.26	448	446	0.45	0	0	0.00
MW-11	29.12	58.59	58.24	okay	2965	2965	0.00	7.37	7.39	0.27	14.61	14.63	0.14	560	557	0.54	0	0	0.00
MW-12	14.66	32.55	29.32	okay	4167	4162	0.12	6.90	6.85	0.73	14.43	14.39	0.28	544	545	0.18	1.0	1.0	0.00
MW-14	17.20	34.72	34.40	okay	3956	3957	0.03	6.84	6.83	0.15	14.83	14.82	0.07	570	570	0.00	0	0	0.00
MW-15	20.56	43.40	41.12	okay	4244	4247	0.07	6.63	6.62	0.15	14.39	14.38	0.07	575	576	0.17	0	0	0.00
MW-17	26.34	53.16	52.68	okay	3726	3723	0.08	7.08	7.07	0.14	14.60	14.62	0.14	519	513	1.16	5.3	5.2	1.90
MW-18	39.83	80.29	79.66	okay	3473	3470	0.09	6.68	6.66	0.30	14.40	14.33	0.49	523	523	0.00	1.4	1.4	0.00
MW-19	55.13	110.67	110.26	okay	1319	1322	0.23	7.13	7.11	0.28	14.80	14.82	0.14	555	556	0.18	0	0	0.00
MW-20	5.33	7.50	10.66	Pumped Dry	5758	5755	0.05	7.15	7.13	0.28	14.70	14.85	1.02	NM	NM	NC	NM	NM	NC
MW-22	31.14	65.10	62.28	okay	7547	7524	0.31	4.31	4.30	0.23	14.81	14.83	0.13	636	633	0.47	0	0	0.00
MW-23	11.78	24.96	23.56	Pumped Dry	3843	3840	0.08	6.70	6.68	0.30	15.30	15.23	0.46	NM	NM	NC	NM	NM	NC
MW-24	5.60	11.52	11.20	Pumped Dry	4428	4430	0.05	4.50	4.53	0.66	14.73	14.80	0.47	NM	NM	NC	NM	NM	NC
MW-25	23.45	47.74	46.90	okay	3158	3162	0.13	6.80	6.79	0.15	14.36	14.32	0.28	548	548	0.00	2.1	2.1	0.00
MW-26	NA	Continuously Pumped well	--	--	3531		NC	6.70		NC	16.70		NC	577		NC	0		NC
MW-27	25.17	52.08	50.34	okay	1125	1127	0.18	7.42	7.41	0.13	14.94	14.98	0.27	548	547	0.18	0	0	0.00
MW-28	23.01	46.65	46.02	okay	4110	4109	0.02	6.58	6.58	0.00	14.42	14.40	0.14	593	596	0.50	4.8	4.8	0.00
MW-29	17.69	39.06	35.38	okay	3670	3639	0.85	6.69	6.68	0.15	14.87	14.85	0.13	416	408	1.94	43.1	45.0	4.31
MW-30	22.90	46.65	45.80	okay	2151	2151	0.00	7.07	7.06	0.14	14.49	14.46	0.21	522	519	0.58	1.0	1.0	0.00
MW-31	40.25	81.37	80.50	okay	2924	2922	0.07	7.29	7.29	0.00	14.34	14.32	0.14	529	528	0.19	5.2	5.2	0.00
MW-32	33.02	67.27	66.04	okay	3768	3761	0.19	6.51	6.51	0.00	14.53	14.60	0.48	297	292	1.70	7.2	7.3	1.38
MW-35	7.70	16.27	15.40	okay	4179	4142	0.89	6.82	6.82	0.00	14.13	14.09	0.28	484	477	1.46	0	0	0.00
MW-36	7.06	15.19	14.12	okay	4905	4902	0.06	7.06	7.05	0.14	14.13	14.10	0.21	466	466	0.00	0	0	0.00
MW-37	10.16	14.00	20.32	Pumped Dry	4338	4339	0.02	6.70	6.69	0.15	14.65	14.70	0.34	NM	NM	NC	NM	NM	NC
MW-38	2.49	5.00	4.98	Pumped Dry	4402	4410	0.18	7.00	7.00	0.00	13.92	13.95	0.22	NM	NM	NC	NM	NM	NC
MW-39	24.22	52.08	48.44	okay	4692	4680	0.26	4.00	4.00	0.00	14.41	14.39	0.14	544	545	0.18	1.0	1.0	0.00
MW-40	26.15	53.16	52.30	okay	3969	3964	0.13	6.91	6.90	0.14	14.30	14.42	0.84	457	460	0.65	2.2	2.1	4.65
TW4-24	NA	Continuously Pumped well	--	--	6018		NC	6.72		NC	14.58		NC	558		NC	10.5		NC
TW4-24 Resample	NA	Continuously Pumped well	--	--	5873		NC	6.35		NC	14.28		NC	579		NC	0		NC

MW-26 and TW4-24 are continually pumped wells.

MW-03A, MW-20, MW-23, MW-24, MW-37, MW-38 were pumped dry and sampled after recovery.

NM = Not Measured. The QAP does not require the measurement of redox potential or turbidity in wells that were purged to dryness.

RPD = Relative Percent Difference

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.

G-1B: Accelerated Field QA/QC Evaluation

Accelerated May Monthly

Location	1x Casing Volume	Volume Pumped	2x Casing Volume	Volume Check	Conductivity		RPD	pH		RPD	Temperature		RPD	Redox		RPD	Turbidity		RPD
MW-11	29.20	58.59	58.40	okay	2964	2975	0.37	7.26	7.25	0.14	14.58	14.61	0.21	450	445	1.12	0	0	0.00
MW-25	23.27	47.74	46.54	okay	3129	3131	0.06	6.63	6.61	0.30	14.55	14.60	0.34	551	551	0.00	14.0	15.0	6.90
MW-26	NA	Continuously Pumped well	--		3455		NC	6.54		NC	15.03		NC	554		NC	0		NC
MW-30	22.85	46.65	45.70	okay	2125	2118	0.33	7.01	7.00	0.14	14.80	14.82	0.14	499	499	0.00	0	0	0.00
MW-31	40.06	80.29	80.12	okay	2923	2917	0.21	7.02	7.02	0.00	15.00	14.95	0.33	482	483	0.21	0	0	0.00
MW-36	7.30	19.53	14.60	okay	4845	4842	0.06	6.72	6.73	0.15	14.18	14.21	0.21	562	562	0.00	0	0	0.00

Accelerated June Monthly

MW-11	29.22	58.59	58.44	okay	2978	2977	0.03	7.45	7.42	0.40	14.80	14.83	0.20	544	539	0.92	1.5	1.5	0.00
MW-25	23.14	52.08	46.28	okay	3165	3148	0.54	6.67	6.65	0.30	15.03	14.98	0.33	461	461	0.00	30.0	29.0	3.39
MW-26	NA	Continuously Pumped well	--		3460		NC	6.68		NC	15.80		NC	488		NC	0		NC
MW-30	22.85	46.65	45.70	okay	2150	2139	0.51	7.16	7.12	0.56	15.01	15.05	0.27	544	546	0.37	0	0	0.00
MW-31	40.06	80.29	80.12	okay	2954	2951	0.10	7.02	7.02	0.00	15.00	15.01	0.07	555	555	0.00	0	0	0.00

MW-26 is a continually pumped well.

There are no wells that were pumped dry and sampled after recovery.

NM = Not Measured. The QAP does not require the measurement of redox potential or turbidity in wells that were purged to dryness.

RPD = Relative Percent Difference

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.

G-2A: Quarterly Holding Time Evaluation

Location ID	Parameter Name	Sample Date	Analysis Date	Hold Time (Days)	Allowed Hold Time (Days)	Hold Time Check
Trip Blank	Toluene	4/9/2019	4/12/2019	3	14	OK
Trip Blank	Tetrahydrofuran	4/9/2019	4/12/2019	3	14	OK
Trip Blank	Xylenes, Total	4/9/2019	4/12/2019	3	14	OK
Trip Blank	Carbon tetrachloride	4/9/2019	4/12/2019	3	14	OK
Trip Blank	Acetone	4/9/2019	4/12/2019	3	14	OK
Trip Blank	Chloroform	4/9/2019	4/12/2019	3	14	OK
Trip Blank	Benzene	4/9/2019	4/12/2019	3	14	OK
Trip Blank	Chloromethane	4/9/2019	4/12/2019	3	14	OK
Trip Blank	Methylene chloride	4/9/2019	4/12/2019	3	14	OK
Trip Blank	2-Butanone	4/9/2019	4/12/2019	3	14	OK
Trip Blank	Naphthalene	4/9/2019	4/12/2019	3	14	OK
Trip Blank	Toluene	4/16/2019	4/22/2019	6	14	OK
Trip Blank	Tetrahydrofuran	4/16/2019	4/22/2019	6	14	OK
Trip Blank	Xylenes, Total	4/16/2019	4/22/2019	6	14	OK
Trip Blank	Carbon tetrachloride	4/16/2019	4/22/2019	6	14	OK
Trip Blank	Acetone	4/16/2019	4/22/2019	6	14	OK
Trip Blank	Chloroform	4/16/2019	4/22/2019	6	14	OK
Trip Blank	Benzene	4/16/2019	4/22/2019	6	14	OK
Trip Blank	Chloromethane	4/16/2019	4/22/2019	6	14	OK
Trip Blank	Methylene chloride	4/16/2019	4/22/2019	6	14	OK
Trip Blank	2-Butanone	4/16/2019	4/22/2019	6	14	OK
Trip Blank	Naphthalene	4/16/2019	4/22/2019	6	14	OK
Trip Blank	Toluene	4/23/2019	4/30/2019	7	14	OK
Trip Blank	Tetrahydrofuran	4/23/2019	4/30/2019	7	14	OK
Trip Blank	Xylenes, Total	4/23/2019	4/30/2019	7	14	OK
Trip Blank	Carbon tetrachloride	4/23/2019	4/30/2019	7	14	OK
Trip Blank	Acetone	4/23/2019	4/30/2019	7	14	OK
Trip Blank	Chloroform	4/23/2019	4/30/2019	7	14	OK
Trip Blank	Benzene	4/23/2019	4/30/2019	7	14	OK
Trip Blank	Chloromethane	4/23/2019	4/30/2019	7	14	OK
Trip Blank	Methylene chloride	4/23/2019	4/30/2019	7	14	OK
Trip Blank	2-Butanone	4/23/2019	4/30/2019	7	14	OK
Trip Blank	Naphthalene	4/23/2019	4/30/2019	7	14	OK
Trip Blank	Toluene	4/30/2019	5/4/2019	4	14	OK
Trip Blank	Tetrahydrofuran	4/30/2019	5/4/2019	4	14	OK
Trip Blank	Xylenes, Total	4/30/2019	5/4/2019	4	14	OK
Trip Blank	Carbon tetrachloride	4/30/2019	5/4/2019	4	14	OK
Trip Blank	Acetone	4/30/2019	5/4/2019	4	14	OK
Trip Blank	Chloroform	4/30/2019	5/4/2019	4	14	OK
Trip Blank	Benzene	4/30/2019	5/4/2019	4	14	OK
Trip Blank	Chloromethane	4/30/2019	5/4/2019	4	14	OK
Trip Blank	Methylene chloride	4/30/2019	5/4/2019	4	14	OK
Trip Blank	2-Butanone	4/30/2019	5/4/2019	4	14	OK
Trip Blank	Naphthalene	4/30/2019	5/4/2019	4	14	OK
Trip Blank	Toluene	5/15/2019	5/16/2019	1	14	OK
Trip Blank	Tetrahydrofuran	5/15/2019	5/16/2019	1	14	OK
Trip Blank	Xylenes, Total	5/15/2019	5/16/2019	1	14	OK
Trip Blank	Carbon tetrachloride	5/15/2019	5/16/2019	1	14	OK
Trip Blank	Acetone	5/15/2019	5/16/2019	1	14	OK
Trip Blank	Chloroform	5/15/2019	5/16/2019	1	14	OK
Trip Blank	Benzene	5/15/2019	5/16/2019	1	14	OK
Trip Blank	Chloromethane	5/15/2019	5/16/2019	1	14	OK
Trip Blank	Methylene chloride	5/15/2019	5/16/2019	1	14	OK

## G-2A: Quarterly Holding Time Evaluation

Location ID	Parameter Name	Sample Date	Analysis Date	Hold Time (Days)	Allowed Hold Time (Days)	Hold Time Check
Trip Blank	2-Butanone	5/15/2019	5/16/2019	1	14	OK
Trip Blank	Naphthalene	5/15/2019	5/16/2019	1	14	OK
MW-01	Toluene	4/17/2019	4/22/2019	5	14	OK
MW-01	Tetrahydrofuran	4/17/2019	4/22/2019	5	14	OK
MW-01	Xylenes, Total	4/17/2019	4/22/2019	5	14	OK
MW-01	Sulfate	4/17/2019	5/1/2019	14	28	OK
MW-01	Chloride	4/17/2019	5/1/2019	14	28	OK
MW-01	Fluoride	4/17/2019	5/1/2019	14	28	OK
MW-01	Carbon tetrachloride	4/17/2019	4/22/2019	5	14	OK
MW-01	Acetone	4/17/2019	4/22/2019	5	14	OK
MW-01	Chloroform	4/17/2019	4/22/2019	5	14	OK
MW-01	Benzene	4/17/2019	4/22/2019	5	14	OK
MW-01	Chloromethane	4/17/2019	4/22/2019	5	14	OK
MW-01	Iron	4/17/2019	5/1/2019	14	180	OK
MW-01	Lead	4/17/2019	4/30/2019	13	180	OK
MW-01	Magnesium	4/17/2019	5/1/2019	14	180	OK
MW-01	Manganese	4/17/2019	4/30/2019	13	180	OK
MW-01	Mercury	4/17/2019	4/26/2019	9	180	OK
MW-01	Molybdenum	4/17/2019	4/30/2019	13	180	OK
MW-01	Nickel	4/17/2019	4/30/2019	13	180	OK
MW-01	Potassium	4/17/2019	5/1/2019	14	180	OK
MW-01	Silver	4/17/2019	4/30/2019	13	180	OK
MW-01	Sodium	4/17/2019	5/1/2019	14	180	OK
MW-01	Thallium	4/17/2019	4/30/2019	13	180	OK
MW-01	Tin	4/17/2019	4/30/2019	13	180	OK
MW-01	Arsenic	4/17/2019	4/30/2019	13	180	OK
MW-01	Beryllium	4/17/2019	4/30/2019	13	180	OK
MW-01	Cadmium	4/17/2019	4/30/2019	13	180	OK
MW-01	Chromium	4/17/2019	4/30/2019	13	180	OK
MW-01	Cobalt	4/17/2019	4/30/2019	13	180	OK
MW-01	Copper	4/17/2019	4/30/2019	13	180	OK
MW-01	Uranium	4/17/2019	4/30/2019	13	180	OK
MW-01	Vanadium	4/17/2019	5/1/2019	14	180	OK
MW-01	Zinc	4/17/2019	5/1/2019	14	180	OK
MW-01	Calcium	4/17/2019	5/1/2019	14	180	OK
MW-01	Methylene chloride	4/17/2019	4/22/2019	5	14	OK
MW-01	Ammonia (as N)	4/17/2019	4/26/2019	9	28	OK
MW-01	Selenium	4/17/2019	4/30/2019	13	180	OK
MW-01	2-Butanone	4/17/2019	4/22/2019	5	14	OK
MW-01	Naphthalene	4/17/2019	4/22/2019	5	14	OK
MW-01	Bicarbonate (as CaCO3)	4/17/2019	4/22/2019	5	14	OK
MW-01	Carbonate (as CaCO3)	4/17/2019	4/22/2019	5	14	OK
MW-01	Gross Radium Alpha	4/17/2019	5/6/2019	19	180	OK
MW-01	Nitrate/Nitrite (as N)	4/17/2019	4/22/2019	5	28	OK
MW-01	Total Dissolved Solids	4/17/2019	4/19/2019	2	7	OK
MW-02	Toluene	4/25/2019	4/26/2019	1	14	OK
MW-02	Tetrahydrofuran	4/25/2019	4/26/2019	1	14	OK
MW-02	Xylenes, Total	4/25/2019	4/26/2019	1	14	OK
MW-02	Sulfate	4/25/2019	5/7/2019	12	28	OK
MW-02	Chloride	4/25/2019	5/8/2019	13	28	OK
MW-02	Fluoride	4/25/2019	5/8/2019	13	28	OK
MW-02	Carbon tetrachloride	4/25/2019	4/26/2019	1	14	OK
MW-02	Acetone	4/25/2019	4/26/2019	1	14	OK

## G-2A: Quarterly Holding Time Evaluation

Location ID	Parameter Name	Sample Date	Analysis Date	Hold Time (Days)	Allowed Hold Time (Days)	Hold Time Check
MW-02	Chloroform	4/25/2019	4/26/2019	1	14	OK
MW-02	Benzene	4/25/2019	4/26/2019	1	14	OK
MW-02	Chloromethane	4/25/2019	4/26/2019	1	14	OK
MW-02	Iron	4/25/2019	5/3/2019	8	180	OK
MW-02	Lead	4/25/2019	5/3/2019	8	180	OK
MW-02	Magnesium	4/25/2019	5/9/2019	14	180	OK
MW-02	Manganese	4/25/2019	5/3/2019	8	180	OK
MW-02	Mercury	4/25/2019	5/1/2019	6	180	OK
MW-02	Molybdenum	4/25/2019	5/3/2019	8	180	OK
MW-02	Nickel	4/25/2019	5/3/2019	8	180	OK
MW-02	Potassium	4/25/2019	5/9/2019	14	180	OK
MW-02	Silver	4/25/2019	5/3/2019	8	180	OK
MW-02	Sodium	4/25/2019	5/9/2019	14	180	OK
MW-02	Thallium	4/25/2019	5/3/2019	8	180	OK
MW-02	Tin	4/25/2019	5/3/2019	8	180	OK
MW-02	Arsenic	4/25/2019	5/3/2019	8	180	OK
MW-02	Beryllium	4/25/2019	5/3/2019	8	180	OK
MW-02	Cadmium	4/25/2019	5/3/2019	8	180	OK
MW-02	Chromium	4/25/2019	5/8/2019	13	180	OK
MW-02	Cobalt	4/25/2019	5/3/2019	8	180	OK
MW-02	Copper	4/25/2019	5/8/2019	13	180	OK
MW-02	Uranium	4/25/2019	5/3/2019	8	180	OK
MW-02	Vanadium	4/25/2019	5/9/2019	14	180	OK
MW-02	Zinc	4/25/2019	5/8/2019	13	180	OK
MW-02	Calcium	4/25/2019	5/9/2019	14	180	OK
MW-02	Methylene chloride	4/25/2019	4/26/2019	1	14	OK
MW-02	Ammonia (as N)	4/25/2019	4/30/2019	5	28	OK
MW-02	Selenium	4/25/2019	5/3/2019	8	180	OK
MW-02	2-Butanone	4/25/2019	4/26/2019	1	14	OK
MW-02	Naphthalene	4/25/2019	4/26/2019	1	14	OK
MW-02	Bicarbonate (as CaCO <sub>3</sub> )	4/25/2019	4/30/2019	5	14	OK
MW-02	Carbonate (as CaCO <sub>3</sub> )	4/25/2019	4/30/2019	5	14	OK
MW-02	Gross Radium Alpha	4/25/2019	5/6/2019	11	180	OK
MW-02	Nitrate/Nitrite (as N)	4/25/2019	4/29/2019	4	28	OK
MW-02	Total Dissolved Solids	4/25/2019	4/26/2019	1	7	OK
MW-03A	Toluene	5/2/2019	5/4/2019	2	14	OK
MW-03A	Tetrahydrofuran	5/2/2019	5/4/2019	2	14	OK
MW-03A	Xylenes, Total	5/2/2019	5/4/2019	2	14	OK
MW-03A	Sulfate	5/2/2019	5/10/2019	8	28	OK
MW-03A	Chloride	5/2/2019	5/11/2019	9	28	OK
MW-03A	Fluoride	5/2/2019	5/11/2019	9	28	OK
MW-03A	Carbon tetrachloride	5/2/2019	5/4/2019	2	14	OK
MW-03A	Acetone	5/2/2019	5/4/2019	2	14	OK
MW-03A	Chloroform	5/2/2019	5/4/2019	2	14	OK
MW-03A	Benzene	5/2/2019	5/4/2019	2	14	OK
MW-03A	Chloromethane	5/2/2019	5/4/2019	2	14	OK
MW-03A	Iron	5/2/2019	5/14/2019	12	180	OK
MW-03A	Lead	5/2/2019	5/14/2019	12	180	OK
MW-03A	Magnesium	5/2/2019	5/17/2019	15	180	OK
MW-03A	Manganese	5/2/2019	5/14/2019	12	180	OK
MW-03A	Mercury	5/2/2019	5/7/2019	5	180	OK
MW-03A	Molybdenum	5/2/2019	5/14/2019	12	180	OK
MW-03A	Nickel	5/2/2019	5/14/2019	12	180	OK

## G-2A: Quarterly Holding Time Evaluation

Location ID	Parameter Name	Sample Date	Analysis Date	Hold Time (Days)	Allowed Hold Time (Days)	Hold Time Check
MW-03A	Potassium	5/2/2019	5/17/2019	15	180	OK
MW-03A	Silver	5/2/2019	5/14/2019	12	180	OK
MW-03A	Sodium	5/2/2019	5/17/2019	15	180	OK
MW-03A	Thallium	5/2/2019	5/14/2019	12	180	OK
MW-03A	Tin	5/2/2019	5/14/2019	12	180	OK
MW-03A	Arsenic	5/2/2019	5/14/2019	12	180	OK
MW-03A	Beryllium	5/2/2019	5/14/2019	12	180	OK
MW-03A	Cadmium	5/2/2019	5/14/2019	12	180	OK
MW-03A	Chromium	5/2/2019	5/14/2019	12	180	OK
MW-03A	Cobalt	5/2/2019	5/14/2019	12	180	OK
MW-03A	Copper	5/2/2019	5/14/2019	12	180	OK
MW-03A	Uranium	5/2/2019	5/14/2019	12	180	OK
MW-03A	Vanadium	5/2/2019	5/17/2019	15	180	OK
MW-03A	Zinc	5/2/2019	5/14/2019	12	180	OK
MW-03A	Calcium	5/2/2019	5/17/2019	15	180	OK
MW-03A	Methylene chloride	5/2/2019	5/4/2019	2	14	OK
MW-03A	Ammonia (as N)	5/2/2019	5/10/2019	8	28	OK
MW-03A	Selenium	5/2/2019	5/14/2019	12	180	OK
MW-03A	2-Butanone	5/2/2019	5/4/2019	2	14	OK
MW-03A	Naphthalene	5/2/2019	5/4/2019	2	14	OK
MW-03A	Bicarbonate (as CaCO3)	5/2/2019	5/6/2019	4	14	OK
MW-03A	Carbonate (as CaCO3)	5/2/2019	5/6/2019	4	14	OK
MW-03A	Gross Radium Alpha	5/2/2019	5/25/2019	23	180	OK
MW-03A	Nitrate/Nitrite (as N)	5/2/2019	5/3/2019	1	28	OK
MW-03A	Total Dissolved Solids	5/2/2019	5/3/2019	1	7	OK
MW-05	Toluene	4/24/2019	4/26/2019	2	14	OK
MW-05	Tetrahydrofuran	4/24/2019	4/26/2019	2	14	OK
MW-05	Xylenes, Total	4/24/2019	4/26/2019	2	14	OK
MW-05	Sulfate	4/24/2019	5/13/2019	19	28	OK
MW-05	Chloride	4/24/2019	5/8/2019	14	28	OK
MW-05	Fluoride	4/24/2019	5/8/2019	14	28	OK
MW-05	Carbon tetrachloride	4/24/2019	4/26/2019	2	14	OK
MW-05	Acetone	4/24/2019	4/26/2019	2	14	OK
MW-05	Chloroform	4/24/2019	4/26/2019	2	14	OK
MW-05	Benzene	4/24/2019	4/26/2019	2	14	OK
MW-05	Chloromethane	4/24/2019	4/26/2019	2	14	OK
MW-05	Iron	4/24/2019	5/3/2019	9	180	OK
MW-05	Lead	4/24/2019	5/3/2019	9	180	OK
MW-05	Magnesium	4/24/2019	5/9/2019	15	180	OK
MW-05	Manganese	4/24/2019	5/3/2019	9	180	OK
MW-05	Mercury	4/24/2019	5/1/2019	7	180	OK
MW-05	Molybdenum	4/24/2019	5/3/2019	9	180	OK
MW-05	Nickel	4/24/2019	5/3/2019	9	180	OK
MW-05	Potassium	4/24/2019	5/9/2019	15	180	OK
MW-05	Silver	4/24/2019	5/3/2019	9	180	OK
MW-05	Sodium	4/24/2019	5/9/2019	15	180	OK
MW-05	Thallium	4/24/2019	5/3/2019	9	180	OK
MW-05	Tin	4/24/2019	5/3/2019	9	180	OK
MW-05	Arsenic	4/24/2019	5/3/2019	9	180	OK
MW-05	Beryllium	4/24/2019	5/3/2019	9	180	OK
MW-05	Cadmium	4/24/2019	5/3/2019	9	180	OK
MW-05	Chromium	4/24/2019	5/8/2019	14	180	OK
MW-05	Cobalt	4/24/2019	5/3/2019	9	180	OK

## G-2A: Quarterly Holding Time Evaluation

Location ID	Parameter Name	Sample Date	Analysis Date	Hold Time (Days)	Allowed Hold Time (Days)	Hold Time Check
MW-05	Copper	4/24/2019	5/8/2019	14	180	OK
MW-05	Uranium	4/24/2019	5/3/2019	9	180	OK
MW-05	Vanadium	4/24/2019	5/9/2019	15	180	OK
MW-05	Zinc	4/24/2019	5/8/2019	14	180	OK
MW-05	Calcium	4/24/2019	5/9/2019	15	180	OK
MW-05	Methylene chloride	4/24/2019	4/26/2019	2	14	OK
MW-05	Ammonia (as N)	4/24/2019	4/30/2019	6	28	OK
MW-05	Selenium	4/24/2019	5/3/2019	9	180	OK
MW-05	2-Butanone	4/24/2019	4/26/2019	2	14	OK
MW-05	Naphthalene	4/24/2019	4/26/2019	2	14	OK
MW-05	Bicarbonate (as CaCO3)	4/24/2019	4/30/2019	6	14	OK
MW-05	Carbonate (as CaCO3)	4/24/2019	4/30/2019	6	14	OK
MW-05	Gross Radium Alpha	4/24/2019	5/6/2019	12	180	OK
MW-05	Nitrate/Nitrite (as N)	4/24/2019	4/29/2019	5	28	OK
MW-05	Total Dissolved Solids	4/24/2019	4/26/2019	2	7	OK
MW-11	Toluene	4/24/2019	4/26/2019	2	14	OK
MW-11	Tetrahydrofuran	4/24/2019	4/26/2019	2	14	OK
MW-11	Xylenes, Total	4/24/2019	4/26/2019	2	14	OK
MW-11	Sulfate	4/24/2019	5/7/2019	13	28	OK
MW-11	Chloride	4/24/2019	5/8/2019	14	28	OK
MW-11	Fluoride	4/24/2019	5/8/2019	14	28	OK
MW-11	Carbon tetrachloride	4/24/2019	4/26/2019	2	14	OK
MW-11	Acetone	4/24/2019	4/26/2019	2	14	OK
MW-11	Chloroform	4/24/2019	4/26/2019	2	14	OK
MW-11	Benzene	4/24/2019	4/26/2019	2	14	OK
MW-11	Chloromethane	4/24/2019	4/26/2019	2	14	OK
MW-11	Iron	4/24/2019	5/3/2019	9	180	OK
MW-11	Lead	4/24/2019	5/3/2019	9	180	OK
MW-11	Magnesium	4/24/2019	5/9/2019	15	180	OK
MW-11	Manganese	4/24/2019	5/3/2019	9	180	OK
MW-11	Mercury	4/24/2019	5/1/2019	7	180	OK
MW-11	Molybdenum	4/24/2019	5/3/2019	9	180	OK
MW-11	Nickel	4/24/2019	5/3/2019	9	180	OK
MW-11	Potassium	4/24/2019	5/9/2019	15	180	OK
MW-11	Silver	4/24/2019	5/3/2019	9	180	OK
MW-11	Sodium	4/24/2019	5/9/2019	15	180	OK
MW-11	Thallium	4/24/2019	5/3/2019	9	180	OK
MW-11	Tin	4/24/2019	5/3/2019	9	180	OK
MW-11	Arsenic	4/24/2019	5/3/2019	9	180	OK
MW-11	Beryllium	4/24/2019	5/3/2019	9	180	OK
MW-11	Cadmium	4/24/2019	5/3/2019	9	180	OK
MW-11	Chromium	4/24/2019	5/8/2019	14	180	OK
MW-11	Cobalt	4/24/2019	5/3/2019	9	180	OK
MW-11	Copper	4/24/2019	5/8/2019	14	180	OK
MW-11	Uranium	4/24/2019	5/3/2019	9	180	OK
MW-11	Vanadium	4/24/2019	5/9/2019	15	180	OK
MW-11	Zinc	4/24/2019	5/8/2019	14	180	OK
MW-11	Calcium	4/24/2019	5/9/2019	15	180	OK
MW-11	Methylene chloride	4/24/2019	4/26/2019	2	14	OK
MW-11	Ammonia (as N)	4/24/2019	4/30/2019	6	28	OK
MW-11	Selenium	4/24/2019	5/3/2019	9	180	OK
MW-11	2-Butanone	4/24/2019	4/26/2019	2	14	OK
MW-11	Naphthalene	4/24/2019	4/26/2019	2	14	OK

## G-2A: Quarterly Holding Time Evaluation

Location ID	Parameter Name	Sample Date	Analysis Date	Hold Time (Days)	Allowed Hold Time (Days)	Hold Time Check
MW-11	Bicarbonate (as CaCO3)	4/24/2019	4/30/2019	6	14	OK
MW-11	Carbonate (as CaCO3)	4/24/2019	4/30/2019	6	14	OK
MW-11	Gross Radium Alpha	4/24/2019	5/6/2019	12	180	OK
MW-11	Nitrate/Nitrite (as N)	4/24/2019	4/29/2019	5	28	OK
MW-11	Total Dissolved Solids	4/24/2019	4/26/2019	2	7	OK
MW-12	Toluene	4/25/2019	4/26/2019	1	14	OK
MW-12	Tetrahydrofuran	4/25/2019	4/26/2019	1	14	OK
MW-12	Xylenes, Total	4/25/2019	4/26/2019	1	14	OK
MW-12	Sulfate	4/25/2019	5/7/2019	12	28	OK
MW-12	Chloride	4/25/2019	5/8/2019	13	28	OK
MW-12	Fluoride	4/25/2019	5/8/2019	13	28	OK
MW-12	Carbon tetrachloride	4/25/2019	4/26/2019	1	14	OK
MW-12	Acetone	4/25/2019	4/26/2019	1	14	OK
MW-12	Chloroform	4/25/2019	4/26/2019	1	14	OK
MW-12	Benzene	4/25/2019	4/26/2019	1	14	OK
MW-12	Chloromethane	4/25/2019	4/26/2019	1	14	OK
MW-12	Iron	4/25/2019	5/3/2019	8	180	OK
MW-12	Lead	4/25/2019	5/8/2019	13	180	OK
MW-12	Magnesium	4/25/2019	5/9/2019	14	180	OK
MW-12	Manganese	4/25/2019	5/3/2019	8	180	OK
MW-12	Mercury	4/25/2019	5/1/2019	6	180	OK
MW-12	Molybdenum	4/25/2019	5/3/2019	8	180	OK
MW-12	Nickel	4/25/2019	5/3/2019	8	180	OK
MW-12	Potassium	4/25/2019	5/9/2019	14	180	OK
MW-12	Silver	4/25/2019	5/3/2019	8	180	OK
MW-12	Sodium	4/25/2019	5/9/2019	14	180	OK
MW-12	Thallium	4/25/2019	5/8/2019	13	180	OK
MW-12	Tin	4/25/2019	5/3/2019	8	180	OK
MW-12	Arsenic	4/25/2019	5/3/2019	8	180	OK
MW-12	Beryllium	4/25/2019	5/8/2019	13	180	OK
MW-12	Cadmium	4/25/2019	5/3/2019	8	180	OK
MW-12	Chromium	4/25/2019	5/8/2019	13	180	OK
MW-12	Cobalt	4/25/2019	5/3/2019	8	180	OK
MW-12	Copper	4/25/2019	5/8/2019	13	180	OK
MW-12	Uranium	4/25/2019	5/8/2019	13	180	OK
MW-12	Vanadium	4/25/2019	5/9/2019	14	180	OK
MW-12	Zinc	4/25/2019	5/8/2019	13	180	OK
MW-12	Calcium	4/25/2019	5/9/2019	14	180	OK
MW-12	Methylene chloride	4/25/2019	4/26/2019	1	14	OK
MW-12	Ammonia (as N)	4/25/2019	4/30/2019	5	28	OK
MW-12	Selenium	4/25/2019	5/17/2019	22	180	OK
MW-12	2-Butanone	4/25/2019	4/26/2019	1	14	OK
MW-12	Naphthalene	4/25/2019	4/26/2019	1	14	OK
MW-12	Bicarbonate (as CaCO3)	4/25/2019	4/30/2019	5	14	OK
MW-12	Carbonate (as CaCO3)	4/25/2019	4/30/2019	5	14	OK
MW-12	Gross Radium Alpha	4/25/2019	5/6/2019	11	180	OK
MW-12	Nitrate/Nitrite (as N)	4/25/2019	4/29/2019	4	28	OK
MW-12	Total Dissolved Solids	4/25/2019	4/26/2019	1	7	OK
MW-14	Toluene	4/23/2019	4/26/2019	3	14	OK
MW-14	Tetrahydrofuran	4/23/2019	4/26/2019	3	14	OK
MW-14	Xylenes, Total	4/23/2019	4/26/2019	3	14	OK
MW-14	Sulfate	4/23/2019	5/7/2019	14	28	OK
MW-14	Chloride	4/23/2019	5/8/2019	15	28	OK

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Location ID	Parameter Name	Sample Date	Analysis Date	Hold Time (Days)	Allowed Hold Time (Days)	Hold Time Check
MW-14	Fluoride	4/23/2019	5/8/2019	15	28	OK
MW-14	Carbon tetrachloride	4/23/2019	4/26/2019	3	14	OK
MW-14	Acetone	4/23/2019	4/26/2019	3	14	OK
MW-14	Chloroform	4/23/2019	4/26/2019	3	14	OK
MW-14	Benzene	4/23/2019	4/26/2019	3	14	OK
MW-14	Chloromethane	4/23/2019	4/26/2019	3	14	OK
MW-14	Iron	4/23/2019	5/3/2019	10	180	OK
MW-14	Lead	4/23/2019	5/3/2019	10	180	OK
MW-14	Magnesium	4/23/2019	5/9/2019	16	180	OK
MW-14	Manganese	4/23/2019	5/8/2019	15	180	OK
MW-14	Mercury	4/23/2019	5/1/2019	8	180	OK
MW-14	Molybdenum	4/23/2019	5/8/2019	15	180	OK
MW-14	Nickel	4/23/2019	5/3/2019	10	180	OK
MW-14	Potassium	4/23/2019	5/9/2019	16	180	OK
MW-14	Silver	4/23/2019	5/3/2019	10	180	OK
MW-14	Sodium	4/23/2019	5/9/2019	16	180	OK
MW-14	Thallium	4/23/2019	5/3/2019	10	180	OK
MW-14	Tin	4/23/2019	5/8/2019	15	180	OK
MW-14	Arsenic	4/23/2019	5/3/2019	10	180	OK
MW-14	Beryllium	4/23/2019	5/3/2019	10	180	OK
MW-14	Cadmium	4/23/2019	5/3/2019	10	180	OK
MW-14	Chromium	4/23/2019	5/8/2019	15	180	OK
MW-14	Cobalt	4/23/2019	5/3/2019	10	180	OK
MW-14	Copper	4/23/2019	5/3/2019	10	180	OK
MW-14	Uranium	4/23/2019	5/3/2019	10	180	OK
MW-14	Vanadium	4/23/2019	5/9/2019	16	180	OK
MW-14	Zinc	4/23/2019	5/8/2019	15	180	OK
MW-14	Calcium	4/23/2019	5/9/2019	16	180	OK
MW-14	Methylene chloride	4/23/2019	4/26/2019	3	14	OK
MW-14	Ammonia (as N)	4/23/2019	4/30/2019	7	28	OK
MW-14	Selenium	4/23/2019	5/3/2019	10	180	OK
MW-14	2-Butanone	4/23/2019	4/26/2019	3	14	OK
MW-14	Naphthalene	4/23/2019	4/26/2019	3	14	OK
MW-14	Bicarbonate (as CaCO3)	4/23/2019	4/30/2019	7	14	OK
MW-14	Carbonate (as CaCO3)	4/23/2019	4/30/2019	7	14	OK
MW-14	Gross Radium Alpha	4/23/2019	5/6/2019	13	180	OK
MW-14	Nitrate/Nitrite (as N)	4/23/2019	4/29/2019	6	28	OK
MW-14	Total Dissolved Solids	4/23/2019	4/26/2019	3	7	OK
MW-15	Toluene	4/30/2019	5/4/2019	4	14	OK
MW-15	Tetrahydrofuran	4/30/2019	5/4/2019	4	14	OK
MW-15	Xylenes, Total	4/30/2019	5/4/2019	4	14	OK
MW-15	Sulfate	4/30/2019	5/10/2019	10	28	OK
MW-15	Chloride	4/30/2019	5/11/2019	11	28	OK
MW-15	Fluoride	4/30/2019	5/11/2019	11	28	OK
MW-15	Carbon tetrachloride	4/30/2019	5/4/2019	4	14	OK
MW-15	Acetone	4/30/2019	5/4/2019	4	14	OK
MW-15	Chloroform	4/30/2019	5/4/2019	4	14	OK
MW-15	Benzene	4/30/2019	5/4/2019	4	14	OK
MW-15	Chloromethane	4/30/2019	5/4/2019	4	14	OK
MW-15	Iron	4/30/2019	5/14/2019	14	180	OK
MW-15	Lead	4/30/2019	5/14/2019	14	180	OK
MW-15	Magnesium	4/30/2019	5/17/2019	17	180	OK
MW-15	Manganese	4/30/2019	5/14/2019	14	180	OK

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Location ID	Parameter Name	Sample Date	Analysis Date	Hold Time (Days)	Allowed Hold Time (Days)	Hold Time Check
MW-15	Mercury	4/30/2019	5/7/2019	7	180	OK
MW-15	Molybdenum	4/30/2019	5/14/2019	14	180	OK
MW-15	Nickel	4/30/2019	5/14/2019	14	180	OK
MW-15	Potassium	4/30/2019	5/17/2019	17	180	OK
MW-15	Silver	4/30/2019	5/14/2019	14	180	OK
MW-15	Sodium	4/30/2019	5/17/2019	17	180	OK
MW-15	Thallium	4/30/2019	5/14/2019	14	180	OK
MW-15	Tin	4/30/2019	5/14/2019	14	180	OK
MW-15	Arsenic	4/30/2019	5/14/2019	14	180	OK
MW-15	Beryllium	4/30/2019	5/14/2019	14	180	OK
MW-15	Cadmium	4/30/2019	5/14/2019	14	180	OK
MW-15	Chromium	4/30/2019	5/14/2019	14	180	OK
MW-15	Cobalt	4/30/2019	5/14/2019	14	180	OK
MW-15	Copper	4/30/2019	5/14/2019	14	180	OK
MW-15	Uranium	4/30/2019	5/14/2019	14	180	OK
MW-15	Vanadium	4/30/2019	5/17/2019	17	180	OK
MW-15	Zinc	4/30/2019	5/14/2019	14	180	OK
MW-15	Calcium	4/30/2019	5/17/2019	17	180	OK
MW-15	Methylene chloride	4/30/2019	5/4/2019	4	14	OK
MW-15	Ammonia (as N)	4/30/2019	5/10/2019	10	28	OK
MW-15	Selenium	4/30/2019	5/14/2019	14	180	OK
MW-15	2-Butanone	4/30/2019	5/4/2019	4	14	OK
MW-15	Naphthalene	4/30/2019	5/4/2019	4	14	OK
MW-15	Bicarbonate (as CaCO3)	4/30/2019	5/6/2019	6	14	OK
MW-15	Carbonate (as CaCO3)	4/30/2019	5/6/2019	6	14	OK
MW-15	Gross Radium Alpha	4/30/2019	5/25/2019	25	180	OK
MW-15	Nitrate/Nitrite (as N)	4/30/2019	5/3/2019	3	28	OK
MW-15	Total Dissolved Solids	4/30/2019	5/3/2019	3	7	OK
MW-17	Toluene	4/16/2019	4/22/2019	6	14	OK
MW-17	Tetrahydrofuran	4/16/2019	4/22/2019	6	14	OK
MW-17	Xylenes, Total	4/16/2019	4/22/2019	6	14	OK
MW-17	Sulfate	4/16/2019	5/1/2019	15	28	OK
MW-17	Chloride	4/16/2019	5/1/2019	15	28	OK
MW-17	Fluoride	4/16/2019	5/1/2019	15	28	OK
MW-17	Carbon tetrachloride	4/16/2019	4/22/2019	6	14	OK
MW-17	Acetone	4/16/2019	4/22/2019	6	14	OK
MW-17	Chloroform	4/16/2019	4/22/2019	6	14	OK
MW-17	Benzene	4/16/2019	4/22/2019	6	14	OK
MW-17	Chloromethane	4/16/2019	4/22/2019	6	14	OK
MW-17	Iron	4/16/2019	4/30/2019	14	180	OK
MW-17	Lead	4/16/2019	4/30/2019	14	180	OK
MW-17	Magnesium	4/16/2019	5/1/2019	15	180	OK
MW-17	Manganese	4/16/2019	4/30/2019	14	180	OK
MW-17	Mercury	4/16/2019	4/26/2019	10	180	OK
MW-17	Molybdenum	4/16/2019	4/30/2019	14	180	OK
MW-17	Nickel	4/16/2019	4/30/2019	14	180	OK
MW-17	Potassium	4/16/2019	5/1/2019	15	180	OK
MW-17	Silver	4/16/2019	4/30/2019	14	180	OK
MW-17	Sodium	4/16/2019	5/1/2019	15	180	OK
MW-17	Thallium	4/16/2019	4/30/2019	14	180	OK
MW-17	Tin	4/16/2019	4/30/2019	14	180	OK
MW-17	Arsenic	4/16/2019	4/30/2019	14	180	OK
MW-17	Beryllium	4/16/2019	4/30/2019	14	180	OK

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Location ID	Parameter Name	Sample Date	Analysis Date	Hold Time (Days)	Allowed Hold Time (Days)	Hold Time Check
MW-17	Cadmium	4/16/2019	4/30/2019	14	180	OK
MW-17	Chromium	4/16/2019	4/30/2019	14	180	OK
MW-17	Cobalt	4/16/2019	4/30/2019	14	180	OK
MW-17	Copper	4/16/2019	4/30/2019	14	180	OK
MW-17	Uranium	4/16/2019	4/30/2019	14	180	OK
MW-17	Vanadium	4/16/2019	5/1/2019	15	180	OK
MW-17	Zinc	4/16/2019	5/1/2019	15	180	OK
MW-17	Calcium	4/16/2019	5/1/2019	15	180	OK
MW-17	Methylene chloride	4/16/2019	4/22/2019	6	14	OK
MW-17	Ammonia (as N)	4/16/2019	4/30/2019	14	28	OK
MW-17	Selenium	4/16/2019	4/30/2019	14	180	OK
MW-17	2-Butanone	4/16/2019	4/22/2019	6	14	OK
MW-17	Naphthalene	4/16/2019	4/22/2019	6	14	OK
MW-17	Bicarbonate (as CaCO3)	4/16/2019	4/22/2019	6	14	OK
MW-17	Carbonate (as CaCO3)	4/16/2019	4/22/2019	6	14	OK
MW-17	Gross Radium Alpha	4/16/2019	5/6/2019	20	180	OK
MW-17	Nitrate/Nitrite (as N)	4/16/2019	4/22/2019	6	28	OK
MW-17	Total Dissolved Solids	4/16/2019	4/19/2019	3	7	OK
MW-18	Toluene	4/16/2019	4/22/2019	6	14	OK
MW-18	Tetrahydrofuran	4/16/2019	4/22/2019	6	14	OK
MW-18	Xylenes, Total	4/16/2019	4/22/2019	6	14	OK
MW-18	Sulfate	4/16/2019	5/1/2019	15	28	OK
MW-18	Chloride	4/16/2019	5/1/2019	15	28	OK
MW-18	Fluoride	4/16/2019	5/1/2019	15	28	OK
MW-18	Carbon tetrachloride	4/16/2019	4/22/2019	6	14	OK
MW-18	Acetone	4/16/2019	4/22/2019	6	14	OK
MW-18	Chloroform	4/16/2019	4/22/2019	6	14	OK
MW-18	Benzene	4/16/2019	4/22/2019	6	14	OK
MW-18	Chloromethane	4/16/2019	4/22/2019	6	14	OK
MW-18	Iron	4/16/2019	4/30/2019	14	180	OK
MW-18	Lead	4/16/2019	4/30/2019	14	180	OK
MW-18	Magnesium	4/16/2019	5/1/2019	15	180	OK
MW-18	Manganese	4/16/2019	4/30/2019	14	180	OK
MW-18	Mercury	4/16/2019	4/26/2019	10	180	OK
MW-18	Molybdenum	4/16/2019	4/30/2019	14	180	OK
MW-18	Nickel	4/16/2019	4/30/2019	14	180	OK
MW-18	Potassium	4/16/2019	5/1/2019	15	180	OK
MW-18	Silver	4/16/2019	4/30/2019	14	180	OK
MW-18	Sodium	4/16/2019	5/1/2019	15	180	OK
MW-18	Thallium	4/16/2019	4/30/2019	14	180	OK
MW-18	Tin	4/16/2019	4/30/2019	14	180	OK
MW-18	Arsenic	4/16/2019	4/30/2019	14	180	OK
MW-18	Beryllium	4/16/2019	4/30/2019	14	180	OK
MW-18	Cadmium	4/16/2019	4/30/2019	14	180	OK
MW-18	Chromium	4/16/2019	4/30/2019	14	180	OK
MW-18	Cobalt	4/16/2019	4/30/2019	14	180	OK
MW-18	Copper	4/16/2019	4/30/2019	14	180	OK
MW-18	Uranium	4/16/2019	4/30/2019	14	180	OK
MW-18	Vanadium	4/16/2019	5/1/2019	15	180	OK
MW-18	Zinc	4/16/2019	5/1/2019	15	180	OK
MW-18	Calcium	4/16/2019	5/1/2019	15	180	OK
MW-18	Methylene chloride	4/16/2019	4/22/2019	6	14	OK
MW-18	Ammonia (as N)	4/16/2019	4/30/2019	14	28	OK

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Location ID	Parameter Name	Sample Date	Analysis Date	Hold Time (Days)	Allowed Hold Time (Days)	Hold Time Check
MW-18	Selenium	4/16/2019	4/30/2019	14	180	OK
MW-18	2-Butanone	4/16/2019	4/22/2019	6	14	OK
MW-18	Naphthalene	4/16/2019	4/22/2019	6	14	OK
MW-18	Bicarbonate (as CaCO3)	4/16/2019	4/22/2019	6	14	OK
MW-18	Carbonate (as CaCO3)	4/16/2019	4/22/2019	6	14	OK
MW-18	Gross Radium Alpha	4/16/2019	5/6/2019	20	180	OK
MW-18	Nitrate/Nitrite (as N)	4/16/2019	4/22/2019	6	28	OK
MW-18	Total Dissolved Solids	4/16/2019	4/19/2019	3	7	OK
MW-19	Toluene	4/23/2019	4/26/2019	3	14	OK
MW-19	Tetrahydrofuran	4/23/2019	4/26/2019	3	14	OK
MW-19	Xylenes, Total	4/23/2019	4/26/2019	3	14	OK
MW-19	Sulfate	4/23/2019	5/8/2019	15	28	OK
MW-19	Chloride	4/23/2019	5/8/2019	15	28	OK
MW-19	Fluoride	4/23/2019	5/8/2019	15	28	OK
MW-19	Carbon tetrachloride	4/23/2019	4/26/2019	3	14	OK
MW-19	Acetone	4/23/2019	4/26/2019	3	14	OK
MW-19	Chloroform	4/23/2019	4/26/2019	3	14	OK
MW-19	Benzene	4/23/2019	4/26/2019	3	14	OK
MW-19	Chloromethane	4/23/2019	4/26/2019	3	14	OK
MW-19	Iron	4/23/2019	5/3/2019	10	180	OK
MW-19	Lead	4/23/2019	5/8/2019	15	180	OK
MW-19	Magnesium	4/23/2019	5/9/2019	16	180	OK
MW-19	Manganese	4/23/2019	5/3/2019	10	180	OK
MW-19	Mercury	4/23/2019	5/1/2019	8	180	OK
MW-19	Molybdenum	4/23/2019	5/8/2019	15	180	OK
MW-19	Nickel	4/23/2019	5/3/2019	10	180	OK
MW-19	Potassium	4/23/2019	5/9/2019	16	180	OK
MW-19	Silver	4/23/2019	5/3/2019	10	180	OK
MW-19	Sodium	4/23/2019	5/9/2019	16	180	OK
MW-19	Thallium	4/23/2019	5/8/2019	15	180	OK
MW-19	Tin	4/23/2019	5/8/2019	15	180	OK
MW-19	Arsenic	4/23/2019	5/3/2019	10	180	OK
MW-19	Beryllium	4/23/2019	5/8/2019	15	180	OK
MW-19	Cadmium	4/23/2019	5/3/2019	10	180	OK
MW-19	Chromium	4/23/2019	5/8/2019	15	180	OK
MW-19	Cobalt	4/23/2019	5/3/2019	10	180	OK
MW-19	Copper	4/23/2019	5/3/2019	10	180	OK
MW-19	Uranium	4/23/2019	5/8/2019	15	180	OK
MW-19	Vanadium	4/23/2019	5/9/2019	16	180	OK
MW-19	Zinc	4/23/2019	5/8/2019	15	180	OK
MW-19	Calcium	4/23/2019	5/9/2019	16	180	OK
MW-19	Methylene chloride	4/23/2019	4/26/2019	3	14	OK
MW-19	Ammonia (as N)	4/23/2019	4/30/2019	7	28	OK
MW-19	Selenium	4/23/2019	5/3/2019	10	180	OK
MW-19	2-Butanone	4/23/2019	4/26/2019	3	14	OK
MW-19	Naphthalene	4/23/2019	4/26/2019	3	14	OK
MW-19	Bicarbonate (as CaCO3)	4/23/2019	4/30/2019	7	14	OK
MW-19	Carbonate (as CaCO3)	4/23/2019	4/30/2019	7	14	OK
MW-19	Gross Radium Alpha	4/23/2019	5/6/2019	13	180	OK
MW-19	Nitrate/Nitrite (as N)	4/23/2019	4/29/2019	6	28	OK
MW-19	Total Dissolved Solids	4/23/2019	4/26/2019	3	7	OK
MW-20	Toluene	5/15/2019	5/16/2019	1	14	OK
MW-20	Tetrahydrofuran	5/15/2019	5/16/2019	1	14	OK

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Location ID	Parameter Name	Sample Date	Analysis Date	Hold Time (Days)	Allowed Hold Time (Days)	Hold Time Check
MW-20	Xylenes, Total	5/15/2019	5/16/2019	1	14	OK
MW-20	Sulfate	5/15/2019	5/22/2019	7	28	OK
MW-20	Chloride	5/15/2019	5/23/2019	8	28	OK
MW-20	Fluoride	5/15/2019	5/23/2019	8	28	OK
MW-20	Carbon tetrachloride	5/15/2019	5/16/2019	1	14	OK
MW-20	Acetone	5/15/2019	5/16/2019	1	14	OK
MW-20	Chloroform	5/15/2019	5/16/2019	1	14	OK
MW-20	Benzene	5/15/2019	5/16/2019	1	14	OK
MW-20	Chloromethane	5/15/2019	5/16/2019	1	14	OK
MW-20	Iron	5/15/2019	5/22/2019	7	180	OK
MW-20	Lead	5/15/2019	5/22/2019	7	180	OK
MW-20	Magnesium	5/15/2019	5/29/2019	14	180	OK
MW-20	Manganese	5/15/2019	5/22/2019	7	180	OK
MW-20	Mercury	5/15/2019	5/17/2019	2	180	OK
MW-20	Molybdenum	5/15/2019	5/22/2019	7	180	OK
MW-20	Nickel	5/15/2019	5/22/2019	7	180	OK
MW-20	Potassium	5/15/2019	5/29/2019	14	180	OK
MW-20	Silver	5/15/2019	5/22/2019	7	180	OK
MW-20	Sodium	5/15/2019	5/29/2019	14	180	OK
MW-20	Thallium	5/15/2019	5/22/2019	7	180	OK
MW-20	Tin	5/15/2019	5/22/2019	7	180	OK
MW-20	Arsenic	5/15/2019	5/22/2019	7	180	OK
MW-20	Beryllium	5/15/2019	5/22/2019	7	180	OK
MW-20	Cadmium	5/15/2019	5/22/2019	7	180	OK
MW-20	Chromium	5/15/2019	5/22/2019	7	180	OK
MW-20	Cobalt	5/15/2019	5/22/2019	7	180	OK
MW-20	Copper	5/15/2019	5/22/2019	7	180	OK
MW-20	Uranium	5/15/2019	5/22/2019	7	180	OK
MW-20	Vanadium	5/15/2019	5/29/2019	14	180	OK
MW-20	Zinc	5/15/2019	5/22/2019	7	180	OK
MW-20	Calcium	5/15/2019	5/29/2019	14	180	OK
MW-20	Methylene chloride	5/15/2019	5/16/2019	1	14	OK
MW-20	Ammonia (as N)	5/15/2019	5/22/2019	7	28	OK
MW-20	Selenium	5/15/2019	5/22/2019	7	180	OK
MW-20	2-Butanone	5/15/2019	5/16/2019	1	14	OK
MW-20	Naphthalene	5/15/2019	5/16/2019	1	14	OK
MW-20	Bicarbonate (as CaCO3)	5/15/2019	5/21/2019	6	14	OK
MW-20	Carbonate (as CaCO3)	5/15/2019	5/21/2019	6	14	OK
MW-20	Gross Radium Alpha	5/15/2019	5/25/2019	10	180	OK
MW-20	Nitrate/Nitrite (as N)	5/15/2019	5/20/2019	5	28	OK
MW-20	Total Dissolved Solids	5/15/2019	5/16/2019	1	7	OK
MW-22	Toluene	4/30/2019	5/4/2019	4	14	OK
MW-22	Tetrahydrofuran	4/30/2019	5/4/2019	4	14	OK
MW-22	Xylenes, Total	4/30/2019	5/4/2019	4	14	OK
MW-22	Sulfate	4/30/2019	5/10/2019	10	28	OK
MW-22	Chloride	4/30/2019	5/11/2019	11	28	OK
MW-22	Fluoride	4/30/2019	5/11/2019	11	28	OK
MW-22	Carbon tetrachloride	4/30/2019	5/4/2019	4	14	OK
MW-22	Acetone	4/30/2019	5/4/2019	4	14	OK
MW-22	Chloroform	4/30/2019	5/4/2019	4	14	OK
MW-22	Benzene	4/30/2019	5/4/2019	4	14	OK
MW-22	Chloromethane	4/30/2019	5/4/2019	4	14	OK
MW-22	Iron	4/30/2019	5/14/2019	14	180	OK

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Location ID	Parameter Name	Sample Date	Analysis Date	Hold Time (Days)	Allowed Hold Time (Days)	Hold Time Check
MW-22	Lead	4/30/2019	5/14/2019	14	180	OK
MW-22	Magnesium	4/30/2019	5/17/2019	17	180	OK
MW-22	Manganese	4/30/2019	5/14/2019	14	180	OK
MW-22	Mercury	4/30/2019	5/7/2019	7	180	OK
MW-22	Molybdenum	4/30/2019	5/14/2019	14	180	OK
MW-22	Nickel	4/30/2019	5/14/2019	14	180	OK
MW-22	Potassium	4/30/2019	5/17/2019	17	180	OK
MW-22	Silver	4/30/2019	5/14/2019	14	180	OK
MW-22	Sodium	4/30/2019	5/17/2019	17	180	OK
MW-22	Thallium	4/30/2019	5/14/2019	14	180	OK
MW-22	Tin	4/30/2019	5/14/2019	14	180	OK
MW-22	Arsenic	4/30/2019	5/14/2019	14	180	OK
MW-22	Beryllium	4/30/2019	5/14/2019	14	180	OK
MW-22	Cadmium	4/30/2019	5/14/2019	14	180	OK
MW-22	Chromium	4/30/2019	5/14/2019	14	180	OK
MW-22	Cobalt	4/30/2019	5/14/2019	14	180	OK
MW-22	Copper	4/30/2019	5/14/2019	14	180	OK
MW-22	Uranium	4/30/2019	5/14/2019	14	180	OK
MW-22	Vanadium	4/30/2019	5/17/2019	17	180	OK
MW-22	Zinc	4/30/2019	5/14/2019	14	180	OK
MW-22	Calcium	4/30/2019	5/17/2019	17	180	OK
MW-22	Methylene chloride	4/30/2019	5/4/2019	4	14	OK
MW-22	Ammonia (as N)	4/30/2019	5/10/2019	10	28	OK
MW-22	Selenium	4/30/2019	5/14/2019	14	180	OK
MW-22	2-Butanone	4/30/2019	5/4/2019	4	14	OK
MW-22	Naphthalene	4/30/2019	5/4/2019	4	14	OK
MW-22	Bicarbonate (as CaCO3)	4/30/2019	5/6/2019	6	14	OK
MW-22	Carbonate (as CaCO3)	4/30/2019	5/6/2019	6	14	OK
MW-22	Gross Radium Alpha	4/30/2019	5/25/2019	25	180	OK
MW-22	Nitrate/Nitrite (as N)	4/30/2019	5/3/2019	3	28	OK
MW-22	Total Dissolved Solids	4/30/2019	5/3/2019	3	7	OK
MW-23	Toluene	5/15/2019	5/16/2019	1	14	OK
MW-23	Tetrahydrofuran	5/15/2019	5/16/2019	1	14	OK
MW-23	Xylenes, Total	5/15/2019	5/16/2019	1	14	OK
MW-23	Sulfate	5/15/2019	5/22/2019	7	28	OK
MW-23	Chloride	5/15/2019	5/23/2019	8	28	OK
MW-23	Fluoride	5/15/2019	5/23/2019	8	28	OK
MW-23	Carbon tetrachloride	5/15/2019	5/16/2019	1	14	OK
MW-23	Acetone	5/15/2019	5/16/2019	1	14	OK
MW-23	Chloroform	5/15/2019	5/16/2019	1	14	OK
MW-23	Benzene	5/15/2019	5/16/2019	1	14	OK
MW-23	Chloromethane	5/15/2019	5/16/2019	1	14	OK
MW-23	Iron	5/15/2019	5/22/2019	7	180	OK
MW-23	Lead	5/15/2019	5/22/2019	7	180	OK
MW-23	Magnesium	5/15/2019	5/29/2019	14	180	OK
MW-23	Manganese	5/15/2019	5/22/2019	7	180	OK
MW-23	Mercury	5/15/2019	5/17/2019	2	180	OK
MW-23	Molybdenum	5/15/2019	5/22/2019	7	180	OK
MW-23	Nickel	5/15/2019	5/22/2019	7	180	OK
MW-23	Potassium	5/15/2019	5/29/2019	14	180	OK
MW-23	Silver	5/15/2019	5/22/2019	7	180	OK
MW-23	Sodium	5/15/2019	5/29/2019	14	180	OK
MW-23	Thallium	5/15/2019	5/22/2019	7	180	OK

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Location ID	Parameter Name	Sample Date	Analysis Date	Hold Time (Days)	Allowed Hold Time (Days)	Hold Time Check
MW-23	Tin	5/15/2019	5/22/2019	7	180	OK
MW-23	Arsenic	5/15/2019	5/22/2019	7	180	OK
MW-23	Beryllium	5/15/2019	5/22/2019	7	180	OK
MW-23	Cadmium	5/15/2019	5/22/2019	7	180	OK
MW-23	Chromium	5/15/2019	5/22/2019	7	180	OK
MW-23	Cobalt	5/15/2019	5/22/2019	7	180	OK
MW-23	Copper	5/15/2019	5/22/2019	7	180	OK
MW-23	Uranium	5/15/2019	5/22/2019	7	180	OK
MW-23	Vanadium	5/15/2019	5/29/2019	14	180	OK
MW-23	Zinc	5/15/2019	5/22/2019	7	180	OK
MW-23	Calcium	5/15/2019	5/29/2019	14	180	OK
MW-23	Methylene chloride	5/15/2019	5/16/2019	1	14	OK
MW-23	Ammonia (as N)	5/15/2019	5/22/2019	7	28	OK
MW-23	Selenium	5/15/2019	5/22/2019	7	180	OK
MW-23	2-Butanone	5/15/2019	5/16/2019	1	14	OK
MW-23	Naphthalene	5/15/2019	5/16/2019	1	14	OK
MW-23	Bicarbonate (as CaCO3)	5/15/2019	5/21/2019	6	14	OK
MW-23	Carbonate (as CaCO3)	5/15/2019	5/21/2019	6	14	OK
MW-23	Gross Radium Alpha	5/15/2019	5/25/2019	10	180	OK
MW-23	Nitrate/Nitrite (as N)	5/15/2019	5/20/2019	5	28	OK
MW-23	Total Dissolved Solids	5/15/2019	5/16/2019	1	7	OK
MW-24	Toluene	5/2/2019	5/4/2019	2	14	OK
MW-24	Tetrahydrofuran	5/2/2019	5/4/2019	2	14	OK
MW-24	Xylenes, Total	5/2/2019	5/4/2019	2	14	OK
MW-24	Sulfate	5/2/2019	5/10/2019	8	28	OK
MW-24	Chloride	5/2/2019	5/11/2019	9	28	OK
MW-24	Fluoride	5/2/2019	5/11/2019	9	28	OK
MW-24	Carbon tetrachloride	5/2/2019	5/4/2019	2	14	OK
MW-24	Acetone	5/2/2019	5/4/2019	2	14	OK
MW-24	Chloroform	5/2/2019	5/4/2019	2	14	OK
MW-24	Benzene	5/2/2019	5/4/2019	2	14	OK
MW-24	Chloromethane	5/2/2019	5/4/2019	2	14	OK
MW-24	Iron	5/2/2019	5/14/2019	12	180	OK
MW-24	Lead	5/2/2019	5/14/2019	12	180	OK
MW-24	Magnesium	5/2/2019	5/17/2019	15	180	OK
MW-24	Manganese	5/2/2019	5/14/2019	12	180	OK
MW-24	Mercury	5/2/2019	5/7/2019	5	180	OK
MW-24	Molybdenum	5/2/2019	5/14/2019	12	180	OK
MW-24	Nickel	5/2/2019	5/14/2019	12	180	OK
MW-24	Potassium	5/2/2019	5/17/2019	15	180	OK
MW-24	Silver	5/2/2019	5/14/2019	12	180	OK
MW-24	Sodium	5/2/2019	5/17/2019	15	180	OK
MW-24	Thallium	5/2/2019	5/14/2019	12	180	OK
MW-24	Tin	5/2/2019	5/14/2019	12	180	OK
MW-24	Arsenic	5/2/2019	5/14/2019	12	180	OK
MW-24	Beryllium	5/2/2019	5/14/2019	12	180	OK
MW-24	Cadmium	5/2/2019	5/14/2019	12	180	OK
MW-24	Chromium	5/2/2019	5/14/2019	12	180	OK
MW-24	Cobalt	5/2/2019	5/14/2019	12	180	OK
MW-24	Copper	5/2/2019	5/14/2019	12	180	OK
MW-24	Uranium	5/2/2019	5/14/2019	12	180	OK
MW-24	Vanadium	5/2/2019	5/17/2019	15	180	OK
MW-24	Zinc	5/2/2019	5/14/2019	12	180	OK

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Location ID	Parameter Name	Sample Date	Analysis Date	Hold Time (Days)	Allowed Hold Time (Days)	Hold Time Check
MW-24	Calcium	5/2/2019	5/17/2019	15	180	OK
MW-24	Methylene chloride	5/2/2019	5/4/2019	2	14	OK
MW-24	Ammonia (as N)	5/2/2019	5/10/2019	8	28	OK
MW-24	Selenium	5/2/2019	5/14/2019	12	180	OK
MW-24	2-Butanone	5/2/2019	5/4/2019	2	14	OK
MW-24	Naphthalene	5/2/2019	5/4/2019	2	14	OK
MW-24	Bicarbonate (as CaCO3)	5/2/2019	5/6/2019	4	14	OK
MW-24	Carbonate (as CaCO3)	5/2/2019	5/6/2019	4	14	OK
MW-24	Gross Radium Alpha	5/2/2019	5/25/2019	23	180	OK
MW-24	Nitrate/Nitrite (as N)	5/2/2019	5/3/2019	1	28	OK
MW-24	Total Dissolved Solids	5/2/2019	5/3/2019	1	7	OK
MW-25	Toluene	4/10/2019	4/12/2019	2	14	OK
MW-25	Tetrahydrofuran	4/10/2019	4/12/2019	2	14	OK
MW-25	Xylenes, Total	4/10/2019	4/12/2019	2	14	OK
MW-25	Sulfate	4/10/2019	4/17/2019	7	28	OK
MW-25	Chloride	4/10/2019	4/17/2019	7	28	OK
MW-25	Fluoride	4/10/2019	4/17/2019	7	28	OK
MW-25	Carbon tetrachloride	4/10/2019	4/12/2019	2	14	OK
MW-25	Acetone	4/10/2019	4/12/2019	2	14	OK
MW-25	Chloroform	4/10/2019	4/12/2019	2	14	OK
MW-25	Benzene	4/10/2019	4/12/2019	2	14	OK
MW-25	Chloromethane	4/10/2019	4/12/2019	2	14	OK
MW-25	Iron	4/10/2019	4/22/2019	12	180	OK
MW-25	Lead	4/10/2019	4/22/2019	12	180	OK
MW-25	Magnesium	4/10/2019	4/23/2019	13	180	OK
MW-25	Manganese	4/10/2019	4/23/2019	13	180	OK
MW-25	Mercury	4/10/2019	4/17/2019	7	180	OK
MW-25	Molybdenum	4/10/2019	4/22/2019	12	180	OK
MW-25	Nickel	4/10/2019	4/22/2019	12	180	OK
MW-25	Potassium	4/10/2019	4/23/2019	13	180	OK
MW-25	Silver	4/10/2019	4/22/2019	12	180	OK
MW-25	Sodium	4/10/2019	4/23/2019	13	180	OK
MW-25	Thallium	4/10/2019	4/22/2019	12	180	OK
MW-25	Tin	4/10/2019	4/22/2019	12	180	OK
MW-25	Arsenic	4/10/2019	4/22/2019	12	180	OK
MW-25	Beryllium	4/10/2019	4/22/2019	12	180	OK
MW-25	Cadmium	4/10/2019	4/22/2019	12	180	OK
MW-25	Chromium	4/10/2019	4/24/2019	14	180	OK
MW-25	Cobalt	4/10/2019	4/22/2019	12	180	OK
MW-25	Copper	4/10/2019	4/24/2019	14	180	OK
MW-25	Uranium	4/10/2019	4/22/2019	12	180	OK
MW-25	Vanadium	4/10/2019	4/23/2019	13	180	OK
MW-25	Zinc	4/10/2019	4/22/2019	12	180	OK
MW-25	Calcium	4/10/2019	4/23/2019	13	180	OK
MW-25	Methylene chloride	4/10/2019	4/12/2019	2	14	OK
MW-25	Ammonia (as N)	4/10/2019	4/18/2019	8	28	OK
MW-25	Selenium	4/10/2019	4/22/2019	12	180	OK
MW-25	2-Butanone	4/10/2019	4/12/2019	2	14	OK
MW-25	Naphthalene	4/10/2019	4/12/2019	2	14	OK
MW-25	Bicarbonate (as CaCO3)	4/10/2019	4/12/2019	2	14	OK
MW-25	Carbonate (as CaCO3)	4/10/2019	4/12/2019	2	14	OK
MW-25	Gross Radium Alpha	4/10/2019	4/24/2019	14	180	OK
MW-25	Nitrate/Nitrite (as N)	4/10/2019	4/15/2019	5	28	OK

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Location ID	Parameter Name	Sample Date	Analysis Date	Hold Time (Days)	Allowed Hold Time (Days)	Hold Time Check
MW-25	Total Dissolved Solids	4/10/2019	4/11/2019	1	7	OK
MW-26	Toluene	4/24/2019	4/30/2019	6	14	OK
MW-26	Tetrahydrofuran	4/24/2019	4/30/2019	6	14	OK
MW-26	Xylenes, Total	4/24/2019	4/30/2019	6	14	OK
MW-26	Sulfate	4/24/2019	5/7/2019	13	28	OK
MW-26	Chloride	4/24/2019	5/8/2019	14	28	OK
MW-26	Fluoride	4/24/2019	5/8/2019	14	28	OK
MW-26	Carbon tetrachloride	4/24/2019	4/30/2019	6	14	OK
MW-26	Acetone	4/24/2019	4/30/2019	6	14	OK
MW-26	Chloroform	4/24/2019	5/1/2019	7	14	OK
MW-26	Benzene	4/24/2019	4/30/2019	6	14	OK
MW-26	Chloromethane	4/24/2019	4/30/2019	6	14	OK
MW-26	Iron	4/24/2019	5/8/2019	14	180	OK
MW-26	Lead	4/24/2019	5/8/2019	14	180	OK
MW-26	Magnesium	4/24/2019	5/9/2019	15	180	OK
MW-26	Manganese	4/24/2019	5/8/2019	14	180	OK
MW-26	Mercury	4/24/2019	5/1/2019	7	180	OK
MW-26	Molybdenum	4/24/2019	5/8/2019	14	180	OK
MW-26	Nickel	4/24/2019	5/3/2019	9	180	OK
MW-26	Potassium	4/24/2019	5/9/2019	15	180	OK
MW-26	Silver	4/24/2019	5/3/2019	9	180	OK
MW-26	Sodium	4/24/2019	5/9/2019	15	180	OK
MW-26	Thallium	4/24/2019	5/8/2019	14	180	OK
MW-26	Tin	4/24/2019	5/8/2019	14	180	OK
MW-26	Arsenic	4/24/2019	5/3/2019	9	180	OK
MW-26	Beryllium	4/24/2019	5/8/2019	14	180	OK
MW-26	Cadmium	4/24/2019	5/3/2019	9	180	OK
MW-26	Chromium	4/24/2019	5/8/2019	14	180	OK
MW-26	Cobalt	4/24/2019	5/3/2019	9	180	OK
MW-26	Copper	4/24/2019	5/3/2019	9	180	OK
MW-26	Uranium	4/24/2019	5/8/2019	14	180	OK
MW-26	Vanadium	4/24/2019	5/9/2019	15	180	OK
MW-26	Zinc	4/24/2019	5/8/2019	14	180	OK
MW-26	Calcium	4/24/2019	5/9/2019	15	180	OK
MW-26	Methylene chloride	4/24/2019	4/30/2019	6	14	OK
MW-26	Ammonia (as N)	4/24/2019	4/30/2019	6	28	OK
MW-26	Selenium	4/24/2019	5/3/2019	9	180	OK
MW-26	2-Butanone	4/24/2019	4/30/2019	6	14	OK
MW-26	Naphthalene	4/24/2019	4/30/2019	6	14	OK
MW-26	Bicarbonate (as CaCO3)	4/24/2019	4/30/2019	6	14	OK
MW-26	Carbonate (as CaCO3)	4/24/2019	4/30/2019	6	14	OK
MW-26	Gross Radium Alpha	4/24/2019	5/6/2019	12	180	OK
MW-26	Nitrate/Nitrite (as N)	4/24/2019	4/29/2019	5	28	OK
MW-26	Total Dissolved Solids	4/24/2019	4/26/2019	2	7	OK
MW-27	Toluene	4/23/2019	5/1/2019	8	14	OK
MW-27	Tetrahydrofuran	4/23/2019	5/1/2019	8	14	OK
MW-27	Xylenes, Total	4/23/2019	5/1/2019	8	14	OK
MW-27	Sulfate	4/23/2019	5/7/2019	14	28	OK
MW-27	Chloride	4/23/2019	5/8/2019	15	28	OK
MW-27	Fluoride	4/23/2019	5/8/2019	15	28	OK
MW-27	Carbon tetrachloride	4/23/2019	5/1/2019	8	14	OK
MW-27	Acetone	4/23/2019	5/1/2019	8	14	OK
MW-27	Chloroform	4/23/2019	5/1/2019	8	14	OK

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Location ID	Parameter Name	Sample Date	Analysis Date	Hold Time (Days)	Allowed Hold Time (Days)	Hold Time Check
MW-27	Benzene	4/23/2019	5/1/2019	8	14	OK
MW-27	Chloromethane	4/23/2019	5/1/2019	8	14	OK
MW-27	Iron	4/23/2019	5/3/2019	10	180	OK
MW-27	Lead	4/23/2019	5/8/2019	15	180	OK
MW-27	Magnesium	4/23/2019	5/9/2019	16	180	OK
MW-27	Manganese	4/23/2019	5/3/2019	10	180	OK
MW-27	Mercury	4/23/2019	5/1/2019	8	180	OK
MW-27	Molybdenum	4/23/2019	5/8/2019	15	180	OK
MW-27	Nickel	4/23/2019	5/3/2019	10	180	OK
MW-27	Potassium	4/23/2019	5/9/2019	16	180	OK
MW-27	Silver	4/23/2019	5/3/2019	10	180	OK
MW-27	Sodium	4/23/2019	5/9/2019	16	180	OK
MW-27	Thallium	4/23/2019	5/8/2019	15	180	OK
MW-27	Tin	4/23/2019	5/8/2019	15	180	OK
MW-27	Arsenic	4/23/2019	5/3/2019	10	180	OK
MW-27	Beryllium	4/23/2019	5/8/2019	15	180	OK
MW-27	Cadmium	4/23/2019	5/3/2019	10	180	OK
MW-27	Chromium	4/23/2019	5/8/2019	15	180	OK
MW-27	Cobalt	4/23/2019	5/3/2019	10	180	OK
MW-27	Copper	4/23/2019	5/3/2019	10	180	OK
MW-27	Uranium	4/23/2019	5/8/2019	15	180	OK
MW-27	Vanadium	4/23/2019	5/9/2019	16	180	OK
MW-27	Zinc	4/23/2019	5/8/2019	15	180	OK
MW-27	Calcium	4/23/2019	5/9/2019	16	180	OK
MW-27	Methylene chloride	4/23/2019	5/1/2019	8	14	OK
MW-27	Ammonia (as N)	4/23/2019	4/30/2019	7	28	OK
MW-27	Selenium	4/23/2019	5/3/2019	10	180	OK
MW-27	2-Butanone	4/23/2019	5/1/2019	8	14	OK
MW-27	Naphthalene	4/23/2019	5/1/2019	8	14	OK
MW-27	Bicarbonate (as CaCO3)	4/23/2019	4/30/2019	7	14	OK
MW-27	Carbonate (as CaCO3)	4/23/2019	4/30/2019	7	14	OK
MW-27	Gross Radium Alpha	4/23/2019	5/6/2019	13	180	OK
MW-27	Nitrate/Nitrite (as N)	4/23/2019	4/29/2019	6	28	OK
MW-27	Total Dissolved Solids	4/23/2019	4/26/2019	3	7	OK
MW-28	Toluene	4/24/2019	5/1/2019	7	14	OK
MW-28	Tetrahydrofuran	4/24/2019	5/1/2019	7	14	OK
MW-28	Xylenes, Total	4/24/2019	5/1/2019	7	14	OK
MW-28	Sulfate	4/24/2019	5/10/2019	16	28	OK
MW-28	Chloride	4/24/2019	5/10/2019	16	28	OK
MW-28	Fluoride	4/24/2019	5/8/2019	14	28	OK
MW-28	Carbon tetrachloride	4/24/2019	5/1/2019	7	14	OK
MW-28	Acetone	4/24/2019	5/1/2019	7	14	OK
MW-28	Chloroform	4/24/2019	5/1/2019	7	14	OK
MW-28	Benzene	4/24/2019	5/1/2019	7	14	OK
MW-28	Chloromethane	4/24/2019	5/1/2019	7	14	OK
MW-28	Iron	4/24/2019	5/3/2019	9	180	OK
MW-28	Lead	4/24/2019	5/8/2019	14	180	OK
MW-28	Magnesium	4/24/2019	5/9/2019	15	180	OK
MW-28	Manganese	4/24/2019	5/8/2019	14	180	OK
MW-28	Mercury	4/24/2019	5/1/2019	7	180	OK
MW-28	Molybdenum	4/24/2019	5/8/2019	14	180	OK
MW-28	Nickel	4/24/2019	5/3/2019	9	180	OK
MW-28	Potassium	4/24/2019	5/9/2019	15	180	OK

## G-2A: Quarterly Holding Time Evaluation

Location ID	Parameter Name	Sample Date	Analysis Date	Hold Time (Days)	Allowed Hold Time (Days)	Hold Time Check
MW-28	Silver	4/24/2019	5/3/2019	9	180	OK
MW-28	Sodium	4/24/2019	5/9/2019	15	180	OK
MW-28	Thallium	4/24/2019	5/8/2019	14	180	OK
MW-28	Tin	4/24/2019	5/8/2019	14	180	OK
MW-28	Arsenic	4/24/2019	5/3/2019	9	180	OK
MW-28	Beryllium	4/24/2019	5/3/2019	9	180	OK
MW-28	Cadmium	4/24/2019	5/3/2019	9	180	OK
MW-28	Chromium	4/24/2019	5/8/2019	14	180	OK
MW-28	Cobalt	4/24/2019	5/3/2019	9	180	OK
MW-28	Copper	4/24/2019	5/3/2019	9	180	OK
MW-28	Uranium	4/24/2019	5/8/2019	14	180	OK
MW-28	Vanadium	4/24/2019	5/9/2019	15	180	OK
MW-28	Zinc	4/24/2019	5/8/2019	14	180	OK
MW-28	Calcium	4/24/2019	5/9/2019	15	180	OK
MW-28	Methylene chloride	4/24/2019	5/1/2019	7	14	OK
MW-28	Ammonia (as N)	4/24/2019	4/30/2019	6	28	OK
MW-28	Selenium	4/24/2019	5/17/2019	23	180	OK
MW-28	2-Butanone	4/24/2019	5/1/2019	7	14	OK
MW-28	Naphthalene	4/24/2019	5/1/2019	7	14	OK
MW-28	Bicarbonate (as CaCO3)	4/24/2019	4/30/2019	6	14	OK
MW-28	Carbonate (as CaCO3)	4/24/2019	4/30/2019	6	14	OK
MW-28	Gross Radium Alpha	4/24/2019	5/6/2019	12	180	OK
MW-28	Nitrate/Nitrite (as N)	4/24/2019	4/29/2019	5	28	OK
MW-28	Total Dissolved Solids	4/24/2019	4/26/2019	2	7	OK
MW-29	Toluene	4/24/2019	4/30/2019	6	14	OK
MW-29	Tetrahydrofuran	4/24/2019	4/30/2019	6	14	OK
MW-29	Xylenes, Total	4/24/2019	4/30/2019	6	14	OK
MW-29	Sulfate	4/24/2019	5/7/2019	13	28	OK
MW-29	Chloride	4/24/2019	5/8/2019	14	28	OK
MW-29	Fluoride	4/24/2019	5/8/2019	14	28	OK
MW-29	Carbon tetrachloride	4/24/2019	4/30/2019	6	14	OK
MW-29	Acetone	4/24/2019	4/30/2019	6	14	OK
MW-29	Chloroform	4/24/2019	4/30/2019	6	14	OK
MW-29	Benzene	4/24/2019	4/30/2019	6	14	OK
MW-29	Chloromethane	4/24/2019	4/30/2019	6	14	OK
MW-29	Iron	4/24/2019	5/8/2019	14	180	OK
MW-29	Lead	4/24/2019	5/3/2019	9	180	OK
MW-29	Magnesium	4/24/2019	5/9/2019	15	180	OK
MW-29	Manganese	4/24/2019	5/8/2019	14	180	OK
MW-29	Mercury	4/24/2019	5/1/2019	7	180	OK
MW-29	Molybdenum	4/24/2019	5/8/2019	14	180	OK
MW-29	Nickel	4/24/2019	5/3/2019	9	180	OK
MW-29	Potassium	4/24/2019	5/9/2019	15	180	OK
MW-29	Silver	4/24/2019	5/3/2019	9	180	OK
MW-29	Sodium	4/24/2019	5/9/2019	15	180	OK
MW-29	Thallium	4/24/2019	5/3/2019	9	180	OK
MW-29	Tin	4/24/2019	5/8/2019	14	180	OK
MW-29	Arsenic	4/24/2019	5/3/2019	9	180	OK
MW-29	Beryllium	4/24/2019	5/8/2019	14	180	OK
MW-29	Cadmium	4/24/2019	5/3/2019	9	180	OK
MW-29	Chromium	4/24/2019	5/8/2019	14	180	OK
MW-29	Cobalt	4/24/2019	5/3/2019	9	180	OK
MW-29	Copper	4/24/2019	5/3/2019	9	180	OK

## G-2A: Quarterly Holding Time Evaluation

Location ID	Parameter Name	Sample Date	Analysis Date	Hold Time (Days)	Allowed Hold Time (Days)	Hold Time Check
MW-29	Uranium	4/24/2019	5/3/2019	9	180	OK
MW-29	Vanadium	4/24/2019	5/9/2019	15	180	OK
MW-29	Zinc	4/24/2019	5/8/2019	14	180	OK
MW-29	Calcium	4/24/2019	5/9/2019	15	180	OK
MW-29	Methylene chloride	4/24/2019	4/30/2019	6	14	OK
MW-29	Ammonia (as N)	4/24/2019	4/30/2019	6	28	OK
MW-29	Selenium	4/24/2019	5/3/2019	9	180	OK
MW-29	2-Butanone	4/24/2019	4/30/2019	6	14	OK
MW-29	Naphthalene	4/24/2019	4/30/2019	6	14	OK
MW-29	Bicarbonate (as CaCO3)	4/24/2019	4/30/2019	6	14	OK
MW-29	Carbonate (as CaCO3)	4/24/2019	4/30/2019	6	14	OK
MW-29	Gross Radium Alpha	4/24/2019	5/6/2019	12	180	OK
MW-29	Nitrate/Nitrite (as N)	4/24/2019	4/29/2019	5	28	OK
MW-29	Total Dissolved Solids	4/24/2019	4/26/2019	2	7	OK
MW-30	Toluene	4/9/2019	4/12/2019	3	14	OK
MW-30	Tetrahydrofuran	4/9/2019	4/12/2019	3	14	OK
MW-30	Xylenes, Total	4/9/2019	4/12/2019	3	14	OK
MW-30	Sulfate	4/9/2019	4/17/2019	8	28	OK
MW-30	Chloride	4/9/2019	4/17/2019	8	28	OK
MW-30	Fluoride	4/9/2019	4/17/2019	8	28	OK
MW-30	Carbon tetrachloride	4/9/2019	4/12/2019	3	14	OK
MW-30	Acetone	4/9/2019	4/12/2019	3	14	OK
MW-30	Chloroform	4/9/2019	4/12/2019	3	14	OK
MW-30	Benzene	4/9/2019	4/12/2019	3	14	OK
MW-30	Chloromethane	4/9/2019	4/12/2019	3	14	OK
MW-30	Iron	4/9/2019	4/22/2019	13	180	OK
MW-30	Lead	4/9/2019	4/22/2019	13	180	OK
MW-30	Magnesium	4/9/2019	4/23/2019	14	180	OK
MW-30	Manganese	4/9/2019	4/22/2019	13	180	OK
MW-30	Mercury	4/9/2019	4/17/2019	8	180	OK
MW-30	Molybdenum	4/9/2019	4/22/2019	13	180	OK
MW-30	Nickel	4/9/2019	4/22/2019	13	180	OK
MW-30	Potassium	4/9/2019	4/23/2019	14	180	OK
MW-30	Silver	4/9/2019	4/22/2019	13	180	OK
MW-30	Sodium	4/9/2019	4/23/2019	14	180	OK
MW-30	Thallium	4/9/2019	4/22/2019	13	180	OK
MW-30	Tin	4/9/2019	4/22/2019	13	180	OK
MW-30	Arsenic	4/9/2019	4/22/2019	13	180	OK
MW-30	Beryllium	4/9/2019	4/22/2019	13	180	OK
MW-30	Cadmium	4/9/2019	4/22/2019	13	180	OK
MW-30	Chromium	4/9/2019	4/24/2019	15	180	OK
MW-30	Cobalt	4/9/2019	4/22/2019	13	180	OK
MW-30	Copper	4/9/2019	4/24/2019	15	180	OK
MW-30	Uranium	4/9/2019	4/22/2019	13	180	OK
MW-30	Vanadium	4/9/2019	4/23/2019	14	180	OK
MW-30	Zinc	4/9/2019	4/22/2019	13	180	OK
MW-30	Calcium	4/9/2019	4/23/2019	14	180	OK
MW-30	Methylene chloride	4/9/2019	4/12/2019	3	14	OK
MW-30	Ammonia (as N)	4/9/2019	4/18/2019	9	28	OK
MW-30	Selenium	4/9/2019	4/22/2019	13	180	OK
MW-30	2-Butanone	4/9/2019	4/12/2019	3	14	OK
MW-30	Naphthalene	4/9/2019	4/12/2019	3	14	OK
MW-30	Bicarbonate (as CaCO3)	4/9/2019	4/12/2019	3	14	OK

## G-2A: Quarterly Holding Time Evaluation

Location ID	Parameter Name	Sample Date	Analysis Date	Hold Time (Days)	Allowed Hold Time (Days)	Hold Time Check
MW-30	Carbonate (as CaCO <sub>3</sub> )	4/9/2019	4/12/2019	3	14	OK
MW-30	Gross Radium Alpha	4/9/2019	4/24/2019	15	180	OK
MW-30	Nitrate/Nitrite (as N)	4/9/2019	4/15/2019	6	28	OK
MW-30	Total Dissolved Solids	4/9/2019	4/11/2019	2	7	OK
MW-31	Toluene	4/10/2019	4/12/2019	2	14	OK
MW-31	Tetrahydrofuran	4/10/2019	4/12/2019	2	14	OK
MW-31	Xylenes, Total	4/10/2019	4/12/2019	2	14	OK
MW-31	Sulfate	4/10/2019	4/17/2019	7	28	OK
MW-31	Chloride	4/10/2019	4/17/2019	7	28	OK
MW-31	Fluoride	4/10/2019	4/17/2019	7	28	OK
MW-31	Carbon tetrachloride	4/10/2019	4/12/2019	2	14	OK
MW-31	Acetone	4/10/2019	4/12/2019	2	14	OK
MW-31	Chloroform	4/10/2019	4/12/2019	2	14	OK
MW-31	Benzene	4/10/2019	4/12/2019	2	14	OK
MW-31	Chloromethane	4/10/2019	4/12/2019	2	14	OK
MW-31	Iron	4/10/2019	4/22/2019	12	180	OK
MW-31	Lead	4/10/2019	4/22/2019	12	180	OK
MW-31	Magnesium	4/10/2019	4/23/2019	13	180	OK
MW-31	Manganese	4/10/2019	4/22/2019	12	180	OK
MW-31	Mercury	4/10/2019	4/17/2019	7	180	OK
MW-31	Molybdenum	4/10/2019	4/22/2019	12	180	OK
MW-31	Nickel	4/10/2019	4/22/2019	12	180	OK
MW-31	Potassium	4/10/2019	4/23/2019	13	180	OK
MW-31	Silver	4/10/2019	4/22/2019	12	180	OK
MW-31	Sodium	4/10/2019	4/23/2019	13	180	OK
MW-31	Thallium	4/10/2019	4/22/2019	12	180	OK
MW-31	Tin	4/10/2019	4/22/2019	12	180	OK
MW-31	Arsenic	4/10/2019	4/22/2019	12	180	OK
MW-31	Beryllium	4/10/2019	4/22/2019	12	180	OK
MW-31	Cadmium	4/10/2019	4/22/2019	12	180	OK
MW-31	Chromium	4/10/2019	4/24/2019	14	180	OK
MW-31	Cobalt	4/10/2019	4/22/2019	12	180	OK
MW-31	Copper	4/10/2019	4/24/2019	14	180	OK
MW-31	Uranium	4/10/2019	4/22/2019	12	180	OK
MW-31	Vanadium	4/10/2019	4/23/2019	13	180	OK
MW-31	Zinc	4/10/2019	4/22/2019	12	180	OK
MW-31	Calcium	4/10/2019	4/23/2019	13	180	OK
MW-31	Methylene chloride	4/10/2019	4/12/2019	2	14	OK
MW-31	Ammonia (as N)	4/10/2019	4/18/2019	8	28	OK
MW-31	Selenium	4/10/2019	4/22/2019	12	180	OK
MW-31	2-Butanone	4/10/2019	4/12/2019	2	14	OK
MW-31	Naphthalene	4/10/2019	4/12/2019	2	14	OK
MW-31	Bicarbonate (as CaCO <sub>3</sub> )	4/10/2019	4/12/2019	2	14	OK
MW-31	Carbonate (as CaCO <sub>3</sub> )	4/10/2019	4/12/2019	2	14	OK
MW-31	Gross Radium Alpha	4/10/2019	4/24/2019	14	180	OK
MW-31	Nitrate/Nitrite (as N)	4/10/2019	4/15/2019	5	28	OK
MW-31	Total Dissolved Solids	4/10/2019	4/11/2019	1	7	OK
MW-32	Toluene	4/9/2019	4/12/2019	3	14	OK
MW-32	Tetrahydrofuran	4/9/2019	4/12/2019	3	14	OK
MW-32	Xylenes, Total	4/9/2019	4/12/2019	3	14	OK
MW-32	Sulfate	4/9/2019	4/17/2019	8	28	OK
MW-32	Chloride	4/9/2019	4/17/2019	8	28	OK
MW-32	Fluoride	4/9/2019	4/17/2019	8	28	OK

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Location ID	Parameter Name	Sample Date	Analysis Date	Hold Time (Days)	Allowed Hold Time (Days)	Hold Time Check
MW-32	Carbon tetrachloride	4/9/2019	4/12/2019	3	14	OK
MW-32	Acetone	4/9/2019	4/12/2019	3	14	OK
MW-32	Chloroform	4/9/2019	4/12/2019	3	14	OK
MW-32	Benzene	4/9/2019	4/12/2019	3	14	OK
MW-32	Chloromethane	4/9/2019	4/12/2019	3	14	OK
MW-32	Iron	4/9/2019	4/23/2019	14	180	OK
MW-32	Lead	4/9/2019	4/22/2019	13	180	OK
MW-32	Magnesium	4/9/2019	4/23/2019	14	180	OK
MW-32	Manganese	4/9/2019	4/23/2019	14	180	OK
MW-32	Mercury	4/9/2019	4/17/2019	8	180	OK
MW-32	Molybdenum	4/9/2019	4/22/2019	13	180	OK
MW-32	Nickel	4/9/2019	4/22/2019	13	180	OK
MW-32	Potassium	4/9/2019	4/23/2019	14	180	OK
MW-32	Silver	4/9/2019	4/22/2019	13	180	OK
MW-32	Sodium	4/9/2019	4/23/2019	14	180	OK
MW-32	Thallium	4/9/2019	4/22/2019	13	180	OK
MW-32	Tin	4/9/2019	4/22/2019	13	180	OK
MW-32	Arsenic	4/9/2019	4/22/2019	13	180	OK
MW-32	Beryllium	4/9/2019	4/22/2019	13	180	OK
MW-32	Cadmium	4/9/2019	4/22/2019	13	180	OK
MW-32	Chromium	4/9/2019	4/24/2019	15	180	OK
MW-32	Cobalt	4/9/2019	4/22/2019	13	180	OK
MW-32	Copper	4/9/2019	4/24/2019	15	180	OK
MW-32	Uranium	4/9/2019	4/22/2019	13	180	OK
MW-32	Vanadium	4/9/2019	4/23/2019	14	180	OK
MW-32	Zinc	4/9/2019	4/22/2019	13	180	OK
MW-32	Calcium	4/9/2019	4/23/2019	14	180	OK
MW-32	Methylene chloride	4/9/2019	4/12/2019	3	14	OK
MW-32	Ammonia (as N)	4/9/2019	4/18/2019	9	28	OK
MW-32	Selenium	4/9/2019	4/22/2019	13	180	OK
MW-32	2-Butanone	4/9/2019	4/12/2019	3	14	OK
MW-32	Naphthalene	4/9/2019	4/12/2019	3	14	OK
MW-32	Bicarbonate (as CaCO3)	4/9/2019	4/12/2019	3	14	OK
MW-32	Carbonate (as CaCO3)	4/9/2019	4/12/2019	3	14	OK
MW-32	Gross Radium Alpha	4/9/2019	4/24/2019	15	180	OK
MW-32	Nitrate/Nitrite (as N)	4/9/2019	4/15/2019	6	28	OK
MW-32	Total Dissolved Solids	4/9/2019	4/11/2019	2	7	OK
MW-35	Toluene	4/18/2019	4/22/2019	4	14	OK
MW-35	Tetrahydrofuran	4/18/2019	4/22/2019	4	14	OK
MW-35	Xylenes, Total	4/18/2019	4/22/2019	4	14	OK
MW-35	Sulfate	4/18/2019	5/1/2019	13	28	OK
MW-35	Chloride	4/18/2019	5/1/2019	13	28	OK
MW-35	Fluoride	4/18/2019	5/1/2019	13	28	OK
MW-35	Carbon tetrachloride	4/18/2019	4/22/2019	4	14	OK
MW-35	Acetone	4/18/2019	4/22/2019	4	14	OK
MW-35	Chloroform	4/18/2019	4/22/2019	4	14	OK
MW-35	Benzene	4/18/2019	4/22/2019	4	14	OK
MW-35	Chloromethane	4/18/2019	4/22/2019	4	14	OK
MW-35	Iron	4/18/2019	4/30/2019	12	180	OK
MW-35	Lead	4/18/2019	4/30/2019	12	180	OK
MW-35	Magnesium	4/18/2019	5/1/2019	13	180	OK
MW-35	Manganese	4/18/2019	4/30/2019	12	180	OK
MW-35	Mercury	4/18/2019	4/26/2019	8	180	OK

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Location ID	Parameter Name	Sample Date	Analysis Date	Hold Time (Days)	Allowed Hold Time (Days)	Hold Time Check
MW-35	Molybdenum	4/18/2019	4/30/2019	12	180	OK
MW-35	Nickel	4/18/2019	4/30/2019	12	180	OK
MW-35	Potassium	4/18/2019	5/1/2019	13	180	OK
MW-35	Silver	4/18/2019	4/30/2019	12	180	OK
MW-35	Sodium	4/18/2019	5/1/2019	13	180	OK
MW-35	Thallium	4/18/2019	4/30/2019	12	180	OK
MW-35	Tin	4/18/2019	4/30/2019	12	180	OK
MW-35	Arsenic	4/18/2019	4/30/2019	12	180	OK
MW-35	Beryllium	4/18/2019	4/30/2019	12	180	OK
MW-35	Cadmium	4/18/2019	4/30/2019	12	180	OK
MW-35	Chromium	4/18/2019	4/30/2019	12	180	OK
MW-35	Cobalt	4/18/2019	4/30/2019	12	180	OK
MW-35	Copper	4/18/2019	4/30/2019	12	180	OK
MW-35	Uranium	4/18/2019	4/30/2019	12	180	OK
MW-35	Vanadium	4/18/2019	5/1/2019	13	180	OK
MW-35	Zinc	4/18/2019	5/1/2019	13	180	OK
MW-35	Calcium	4/18/2019	5/1/2019	13	180	OK
MW-35	Methylene chloride	4/18/2019	4/22/2019	4	14	OK
MW-35	Ammonia (as N)	4/18/2019	4/30/2019	12	28	OK
MW-35	Selenium	4/18/2019	4/30/2019	12	180	OK
MW-35	2-Butanone	4/18/2019	4/22/2019	4	14	OK
MW-35	Naphthalene	4/18/2019	4/22/2019	4	14	OK
MW-35	Bicarbonate (as CaCO3)	4/18/2019	4/22/2019	4	14	OK
MW-35	Carbonate (as CaCO3)	4/18/2019	4/22/2019	4	14	OK
MW-35	Gross Radium Alpha	4/18/2019	5/6/2019	18	180	OK
MW-35	Nitrate/Nitrite (as N)	4/18/2019	4/22/2019	4	28	OK
MW-35	Total Dissolved Solids	4/18/2019	4/19/2019	1	7	OK
MW-36	Toluene	4/18/2019	4/22/2019	4	14	OK
MW-36	Tetrahydrofuran	4/18/2019	4/22/2019	4	14	OK
MW-36	Xylenes, Total	4/18/2019	4/22/2019	4	14	OK
MW-36	Sulfate	4/18/2019	5/1/2019	13	28	OK
MW-36	Chloride	4/18/2019	5/1/2019	13	28	OK
MW-36	Fluoride	4/18/2019	5/1/2019	13	28	OK
MW-36	Carbon tetrachloride	4/18/2019	4/22/2019	4	14	OK
MW-36	Acetone	4/18/2019	4/22/2019	4	14	OK
MW-36	Chloroform	4/18/2019	4/22/2019	4	14	OK
MW-36	Benzene	4/18/2019	4/22/2019	4	14	OK
MW-36	Chloromethane	4/18/2019	4/22/2019	4	14	OK
MW-36	Iron	4/18/2019	4/30/2019	12	180	OK
MW-36	Lead	4/18/2019	4/30/2019	12	180	OK
MW-36	Magnesium	4/18/2019	5/1/2019	13	180	OK
MW-36	Manganese	4/18/2019	4/30/2019	12	180	OK
MW-36	Mercury	4/18/2019	4/26/2019	8	180	OK
MW-36	Molybdenum	4/18/2019	4/30/2019	12	180	OK
MW-36	Nickel	4/18/2019	4/30/2019	12	180	OK
MW-36	Potassium	4/18/2019	5/1/2019	13	180	OK
MW-36	Silver	4/18/2019	4/30/2019	12	180	OK
MW-36	Sodium	4/18/2019	5/1/2019	13	180	OK
MW-36	Thallium	4/18/2019	4/30/2019	12	180	OK
MW-36	Tin	4/18/2019	4/30/2019	12	180	OK
MW-36	Arsenic	4/18/2019	4/30/2019	12	180	OK
MW-36	Beryllium	4/18/2019	4/30/2019	12	180	OK
MW-36	Cadmium	4/18/2019	4/30/2019	12	180	OK

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Location ID	Parameter Name	Sample Date	Analysis Date	Hold Time (Days)	Allowed Hold Time (Days)	Hold Time Check
MW-36	Chromium	4/18/2019	4/30/2019	12	180	OK
MW-36	Cobalt	4/18/2019	4/30/2019	12	180	OK
MW-36	Copper	4/18/2019	4/30/2019	12	180	OK
MW-36	Uranium	4/18/2019	4/30/2019	12	180	OK
MW-36	Vanadium	4/18/2019	5/1/2019	13	180	OK
MW-36	Zinc	4/18/2019	5/1/2019	13	180	OK
MW-36	Calcium	4/18/2019	5/1/2019	13	180	OK
MW-36	Methylene chloride	4/18/2019	4/22/2019	4	14	OK
MW-36	Ammonia (as N)	4/18/2019	4/30/2019	12	28	OK
MW-36	Selenium	4/18/2019	4/30/2019	12	180	OK
MW-36	2-Butanone	4/18/2019	4/22/2019	4	14	OK
MW-36	Naphthalene	4/18/2019	4/22/2019	4	14	OK
MW-36	Bicarbonate (as CaCO3)	4/18/2019	4/22/2019	4	14	OK
MW-36	Carbonate (as CaCO3)	4/18/2019	4/22/2019	4	14	OK
MW-36	Gross Radium Alpha	4/18/2019	5/6/2019	18	180	OK
MW-36	Nitrate/Nitrite (as N)	4/18/2019	4/22/2019	4	28	OK
MW-36	Total Dissolved Solids	4/18/2019	4/19/2019	1	7	OK
MW-37	Toluene	5/15/2019	5/16/2019	1	14	OK
MW-37	Tetrahydrofuran	5/15/2019	5/16/2019	1	14	OK
MW-37	Xylenes, Total	5/15/2019	5/16/2019	1	14	OK
MW-37	Sulfate	5/15/2019	5/22/2019	7	28	OK
MW-37	Chloride	5/15/2019	5/23/2019	8	28	OK
MW-37	Fluoride	5/15/2019	5/23/2019	8	28	OK
MW-37	Carbon tetrachloride	5/15/2019	5/16/2019	1	14	OK
MW-37	Acetone	5/15/2019	5/16/2019	1	14	OK
MW-37	Chloroform	5/15/2019	5/16/2019	1	14	OK
MW-37	Benzene	5/15/2019	5/16/2019	1	14	OK
MW-37	Chloromethane	5/15/2019	5/16/2019	1	14	OK
MW-37	Iron	5/15/2019	5/22/2019	7	180	OK
MW-37	Lead	5/15/2019	5/22/2019	7	180	OK
MW-37	Magnesium	5/15/2019	5/29/2019	14	180	OK
MW-37	Manganese	5/15/2019	5/22/2019	7	180	OK
MW-37	Mercury	5/15/2019	5/17/2019	2	180	OK
MW-37	Molybdenum	5/15/2019	5/22/2019	7	180	OK
MW-37	Nickel	5/15/2019	5/22/2019	7	180	OK
MW-37	Potassium	5/15/2019	5/29/2019	14	180	OK
MW-37	Silver	5/15/2019	5/22/2019	7	180	OK
MW-37	Sodium	5/15/2019	5/29/2019	14	180	OK
MW-37	Thallium	5/15/2019	5/22/2019	7	180	OK
MW-37	Tin	5/15/2019	5/22/2019	7	180	OK
MW-37	Arsenic	5/15/2019	5/22/2019	7	180	OK
MW-37	Beryllium	5/15/2019	5/22/2019	7	180	OK
MW-37	Cadmium	5/15/2019	5/22/2019	7	180	OK
MW-37	Chromium	5/15/2019	5/22/2019	7	180	OK
MW-37	Cobalt	5/15/2019	5/22/2019	7	180	OK
MW-37	Copper	5/15/2019	5/22/2019	7	180	OK
MW-37	Uranium	5/15/2019	5/22/2019	7	180	OK
MW-37	Vanadium	5/15/2019	5/29/2019	14	180	OK
MW-37	Zinc	5/15/2019	5/22/2019	7	180	OK
MW-37	Calcium	5/15/2019	5/29/2019	14	180	OK
MW-37	Methylene chloride	5/15/2019	5/16/2019	1	14	OK
MW-37	Ammonia (as N)	5/15/2019	5/22/2019	7	28	OK
MW-37	Selenium	5/15/2019	5/22/2019	7	180	OK

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Location ID	Parameter Name	Sample Date	Analysis Date	Hold Time (Days)	Allowed Hold Time (Days)	Hold Time Check
MW-37	2-Butanone	5/15/2019	5/16/2019	1	14	OK
MW-37	Naphthalene	5/15/2019	5/16/2019	1	14	OK
MW-37	Bicarbonate (as CaCO3)	5/15/2019	5/21/2019	6	14	OK
MW-37	Carbonate (as CaCO3)	5/15/2019	5/21/2019	6	14	OK
MW-37	Gross Radium Alpha	5/15/2019	5/25/2019	10	180	OK
MW-37	Nitrate/Nitrite (as N)	5/15/2019	5/20/2019	5	28	OK
MW-37	Total Dissolved Solids	5/15/2019	5/16/2019	1	7	OK
MW-38	Toluene	5/2/2019	5/4/2019	2	14	OK
MW-38	Tetrahydrofuran	5/2/2019	5/4/2019	2	14	OK
MW-38	Xylenes, Total	5/2/2019	5/4/2019	2	14	OK
MW-38	Sulfate	5/2/2019	5/10/2019	8	28	OK
MW-38	Chloride	5/2/2019	5/11/2019	9	28	OK
MW-38	Fluoride	5/2/2019	5/11/2019	9	28	OK
MW-38	Carbon tetrachloride	5/2/2019	5/4/2019	2	14	OK
MW-38	Acetone	5/2/2019	5/4/2019	2	14	OK
MW-38	Chloroform	5/2/2019	5/4/2019	2	14	OK
MW-38	Benzene	5/2/2019	5/4/2019	2	14	OK
MW-38	Chloromethane	5/2/2019	5/4/2019	2	14	OK
MW-38	Iron	5/2/2019	5/14/2019	12	180	OK
MW-38	Lead	5/2/2019	5/14/2019	12	180	OK
MW-38	Magnesium	5/2/2019	5/17/2019	15	180	OK
MW-38	Manganese	5/2/2019	5/14/2019	12	180	OK
MW-38	Mercury	5/2/2019	5/7/2019	5	180	OK
MW-38	Molybdenum	5/2/2019	5/14/2019	12	180	OK
MW-38	Nickel	5/2/2019	5/14/2019	12	180	OK
MW-38	Potassium	5/2/2019	5/17/2019	15	180	OK
MW-38	Silver	5/2/2019	5/14/2019	12	180	OK
MW-38	Sodium	5/2/2019	5/17/2019	15	180	OK
MW-38	Thallium	5/2/2019	5/14/2019	12	180	OK
MW-38	Tin	5/2/2019	5/14/2019	12	180	OK
MW-38	Arsenic	5/2/2019	5/14/2019	12	180	OK
MW-38	Beryllium	5/2/2019	5/14/2019	12	180	OK
MW-38	Cadmium	5/2/2019	5/14/2019	12	180	OK
MW-38	Chromium	5/2/2019	5/14/2019	12	180	OK
MW-38	Cobalt	5/2/2019	5/14/2019	12	180	OK
MW-38	Copper	5/2/2019	5/14/2019	12	180	OK
MW-38	Uranium	5/2/2019	5/14/2019	12	180	OK
MW-38	Vanadium	5/2/2019	5/17/2019	15	180	OK
MW-38	Zinc	5/2/2019	5/14/2019	12	180	OK
MW-38	Calcium	5/2/2019	5/17/2019	15	180	OK
MW-38	Methylene chloride	5/2/2019	5/4/2019	2	14	OK
MW-38	Ammonia (as N)	5/2/2019	5/10/2019	8	28	OK
MW-38	Selenium	5/2/2019	5/14/2019	12	180	OK
MW-38	2-Butanone	5/2/2019	5/4/2019	2	14	OK
MW-38	Naphthalene	5/2/2019	5/4/2019	2	14	OK
MW-38	Bicarbonate (as CaCO3)	5/2/2019	5/6/2019	4	14	OK
MW-38	Carbonate (as CaCO3)	5/2/2019	5/6/2019	4	14	OK
MW-38	Gross Radium Alpha	5/2/2019	5/25/2019	23	180	OK
MW-38	Nitrate/Nitrite (as N)	5/2/2019	5/3/2019	1	28	OK
MW-38	Total Dissolved Solids	5/2/2019	5/3/2019	1	7	OK
MW-39	Toluene	5/1/2019	5/4/2019	3	14	OK
MW-39	Tetrahydrofuran	5/1/2019	5/4/2019	3	14	OK
MW-39	Xylenes, Total	5/1/2019	5/4/2019	3	14	OK

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Location ID	Parameter Name	Sample Date	Analysis Date	Hold Time (Days)	Allowed Hold Time (Days)	Hold Time Check
MW-39	Sulfate	5/1/2019	5/10/2019	9	28	OK
MW-39	Chloride	5/1/2019	5/11/2019	10	28	OK
MW-39	Fluoride	5/1/2019	5/11/2019	10	28	OK
MW-39	Carbon tetrachloride	5/1/2019	5/4/2019	3	14	OK
MW-39	Acetone	5/1/2019	5/4/2019	3	14	OK
MW-39	Chloroform	5/1/2019	5/4/2019	3	14	OK
MW-39	Benzene	5/1/2019	5/4/2019	3	14	OK
MW-39	Chloromethane	5/1/2019	5/4/2019	3	14	OK
MW-39	Iron	5/1/2019	5/14/2019	13	180	OK
MW-39	Lead	5/1/2019	5/14/2019	13	180	OK
MW-39	Magnesium	5/1/2019	5/17/2019	16	180	OK
MW-39	Manganese	5/1/2019	5/14/2019	13	180	OK
MW-39	Mercury	5/1/2019	5/7/2019	6	180	OK
MW-39	Molybdenum	5/1/2019	5/14/2019	13	180	OK
MW-39	Nickel	5/1/2019	5/14/2019	13	180	OK
MW-39	Potassium	5/1/2019	5/17/2019	16	180	OK
MW-39	Silver	5/1/2019	5/14/2019	13	180	OK
MW-39	Sodium	5/1/2019	5/17/2019	16	180	OK
MW-39	Thallium	5/1/2019	5/14/2019	13	180	OK
MW-39	Tin	5/1/2019	5/14/2019	13	180	OK
MW-39	Arsenic	5/1/2019	5/14/2019	13	180	OK
MW-39	Beryllium	5/1/2019	5/14/2019	13	180	OK
MW-39	Cadmium	5/1/2019	5/14/2019	13	180	OK
MW-39	Chromium	5/1/2019	5/14/2019	13	180	OK
MW-39	Cobalt	5/1/2019	5/14/2019	13	180	OK
MW-39	Copper	5/1/2019	5/14/2019	13	180	OK
MW-39	Uranium	5/1/2019	5/14/2019	13	180	OK
MW-39	Vanadium	5/1/2019	5/17/2019	16	180	OK
MW-39	Zinc	5/1/2019	5/14/2019	13	180	OK
MW-39	Calcium	5/1/2019	5/17/2019	16	180	OK
MW-39	Methylene chloride	5/1/2019	5/4/2019	3	14	OK
MW-39	Ammonia (as N)	5/1/2019	5/10/2019	9	28	OK
MW-39	Selenium	5/1/2019	5/14/2019	13	180	OK
MW-39	2-Butanone	5/1/2019	5/4/2019	3	14	OK
MW-39	Naphthalene	5/1/2019	5/4/2019	3	14	OK
MW-39	Bicarbonate (as CaCO3)	5/1/2019	5/6/2019	5	14	OK
MW-39	Carbonate (as CaCO3)	5/1/2019	5/6/2019	5	14	OK
MW-39	Gross Radium Alpha	5/1/2019	5/25/2019	24	180	OK
MW-39	Nitrate/Nitrite (as N)	5/1/2019	5/3/2019	2	28	OK
MW-39	Total Dissolved Solids	5/1/2019	5/3/2019	2	7	OK
MW-40	Toluene	4/17/2019	4/22/2019	5	14	OK
MW-40	Tetrahydrofuran	4/17/2019	4/22/2019	5	14	OK
MW-40	Xylenes, Total	4/17/2019	4/22/2019	5	14	OK
MW-40	Sulfate	4/17/2019	5/1/2019	14	28	OK
MW-40	Chloride	4/17/2019	5/1/2019	14	28	OK
MW-40	Fluoride	4/17/2019	5/1/2019	14	28	OK
MW-40	Carbon tetrachloride	4/17/2019	4/22/2019	5	14	OK
MW-40	Acetone	4/17/2019	4/22/2019	5	14	OK
MW-40	Chloroform	4/17/2019	4/22/2019	5	14	OK
MW-40	Benzene	4/17/2019	4/22/2019	5	14	OK
MW-40	Chloromethane	4/17/2019	4/22/2019	5	14	OK
MW-40	Iron	4/17/2019	4/30/2019	13	180	OK
MW-40	Lead	4/17/2019	4/30/2019	13	180	OK

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Location ID	Parameter Name	Sample Date	Analysis Date	Hold Time (Days)	Allowed Hold Time (Days)	Hold Time Check
MW-40	Magnesium	4/17/2019	5/1/2019	14	180	OK
MW-40	Manganese	4/17/2019	4/30/2019	13	180	OK
MW-40	Mercury	4/17/2019	4/26/2019	9	180	OK
MW-40	Molybdenum	4/17/2019	4/30/2019	13	180	OK
MW-40	Nickel	4/17/2019	4/30/2019	13	180	OK
MW-40	Potassium	4/17/2019	5/1/2019	14	180	OK
MW-40	Silver	4/17/2019	4/30/2019	13	180	OK
MW-40	Sodium	4/17/2019	5/1/2019	14	180	OK
MW-40	Thallium	4/17/2019	4/30/2019	13	180	OK
MW-40	Tin	4/17/2019	4/30/2019	13	180	OK
MW-40	Arsenic	4/17/2019	4/30/2019	13	180	OK
MW-40	Beryllium	4/17/2019	5/1/2019	14	180	OK
MW-40	Cadmium	4/17/2019	4/30/2019	13	180	OK
MW-40	Chromium	4/17/2019	4/30/2019	13	180	OK
MW-40	Cobalt	4/17/2019	4/30/2019	13	180	OK
MW-40	Copper	4/17/2019	4/30/2019	13	180	OK
MW-40	Uranium	4/17/2019	4/30/2019	13	180	OK
MW-40	Vanadium	4/17/2019	5/1/2019	14	180	OK
MW-40	Zinc	4/17/2019	5/1/2019	14	180	OK
MW-40	Calcium	4/17/2019	5/1/2019	14	180	OK
MW-40	Methylene chloride	4/17/2019	4/22/2019	5	14	OK
MW-40	Ammonia (as N)	4/17/2019	4/30/2019	13	28	OK
MW-40	Selenium	4/17/2019	4/30/2019	13	180	OK
MW-40	2-Butanone	4/17/2019	4/22/2019	5	14	OK
MW-40	Naphthalene	4/17/2019	4/22/2019	5	14	OK
MW-40	Bicarbonate (as CaCO3)	4/17/2019	4/22/2019	5	14	OK
MW-40	Carbonate (as CaCO3)	4/17/2019	4/22/2019	5	14	OK
MW-40	Gross Radium Alpha	4/17/2019	5/6/2019	19	180	OK
MW-40	Nitrate/Nitrite (as N)	4/17/2019	4/22/2019	5	28	OK
MW-40	Total Dissolved Solids	4/17/2019	4/19/2019	2	7	OK
MW-65	Toluene	4/23/2019	4/30/2019	7	14	OK
MW-65	Tetrahydrofuran	4/23/2019	4/30/2019	7	14	OK
MW-65	Xylenes, Total	4/23/2019	4/30/2019	7	14	OK
MW-65	Sulfate	4/23/2019	5/7/2019	14	28	OK
MW-65	Chloride	4/23/2019	5/8/2019	15	28	OK
MW-65	Fluoride	4/23/2019	5/8/2019	15	28	OK
MW-65	Carbon tetrachloride	4/23/2019	4/30/2019	7	14	OK
MW-65	Acetone	4/23/2019	4/30/2019	7	14	OK
MW-65	Chloroform	4/23/2019	4/30/2019	7	14	OK
MW-65	Benzene	4/23/2019	4/30/2019	7	14	OK
MW-65	Chloromethane	4/23/2019	4/30/2019	7	14	OK
MW-65	Iron	4/23/2019	5/3/2019	10	180	OK
MW-65	Lead	4/23/2019	5/3/2019	10	180	OK
MW-65	Magnesium	4/23/2019	5/9/2019	16	180	OK
MW-65	Manganese	4/23/2019	5/8/2019	15	180	OK
MW-65	Mercury	4/23/2019	5/1/2019	8	180	OK
MW-65	Molybdenum	4/23/2019	5/8/2019	15	180	OK
MW-65	Nickel	4/23/2019	5/3/2019	10	180	OK
MW-65	Potassium	4/23/2019	5/9/2019	16	180	OK
MW-65	Silver	4/23/2019	5/3/2019	10	180	OK
MW-65	Sodium	4/23/2019	5/9/2019	16	180	OK
MW-65	Thallium	4/23/2019	5/3/2019	10	180	OK
MW-65	Tin	4/23/2019	5/8/2019	15	180	OK

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Location ID	Parameter Name	Sample Date	Analysis Date	Hold Time (Days)	Allowed Hold Time (Days)	Hold Time Check
MW-65	Arsenic	4/23/2019	5/3/2019	10	180	OK
MW-65	Beryllium	4/23/2019	5/3/2019	10	180	OK
MW-65	Cadmium	4/23/2019	5/3/2019	10	180	OK
MW-65	Chromium	4/23/2019	5/8/2019	15	180	OK
MW-65	Cobalt	4/23/2019	5/3/2019	10	180	OK
MW-65	Copper	4/23/2019	5/3/2019	10	180	OK
MW-65	Uranium	4/23/2019	5/3/2019	10	180	OK
MW-65	Vanadium	4/23/2019	5/9/2019	16	180	OK
MW-65	Zinc	4/23/2019	5/8/2019	15	180	OK
MW-65	Calcium	4/23/2019	5/9/2019	16	180	OK
MW-65	Methylene chloride	4/23/2019	4/30/2019	7	14	OK
MW-65	Ammonia (as N)	4/23/2019	4/30/2019	7	28	OK
MW-65	Selenium	4/23/2019	5/3/2019	10	180	OK
MW-65	2-Butanone	4/23/2019	4/30/2019	7	14	OK
MW-65	Naphthalene	4/23/2019	4/30/2019	7	14	OK
MW-65	Bicarbonate (as CaCO3)	4/23/2019	4/30/2019	7	14	OK
MW-65	Carbonate (as CaCO3)	4/23/2019	4/30/2019	7	14	OK
MW-65	Gross Radium Alpha	4/23/2019	5/6/2019	13	180	OK
MW-65	Nitrate/Nitrite (as N)	4/23/2019	4/29/2019	6	28	OK
MW-65	Total Dissolved Solids	4/23/2019	4/26/2019	3	7	OK
MW-70	Toluene	4/30/2019	5/4/2019	4	14	OK
MW-70	Tetrahydrofuran	4/30/2019	5/4/2019	4	14	OK
MW-70	Xylenes, Total	4/30/2019	5/4/2019	4	14	OK
MW-70	Sulfate	4/30/2019	5/10/2019	10	28	OK
MW-70	Chloride	4/30/2019	5/11/2019	11	28	OK
MW-70	Fluoride	4/30/2019	5/11/2019	11	28	OK
MW-70	Carbon tetrachloride	4/30/2019	5/4/2019	4	14	OK
MW-70	Acetone	4/30/2019	5/4/2019	4	14	OK
MW-70	Chloroform	4/30/2019	5/4/2019	4	14	OK
MW-70	Benzene	4/30/2019	5/4/2019	4	14	OK
MW-70	Chloromethane	4/30/2019	5/4/2019	4	14	OK
MW-70	Iron	4/30/2019	5/14/2019	14	180	OK
MW-70	Lead	4/30/2019	5/14/2019	14	180	OK
MW-70	Magnesium	4/30/2019	5/17/2019	17	180	OK
MW-70	Manganese	4/30/2019	5/14/2019	14	180	OK
MW-70	Mercury	4/30/2019	5/7/2019	7	180	OK
MW-70	Molybdenum	4/30/2019	5/14/2019	14	180	OK
MW-70	Nickel	4/30/2019	5/14/2019	14	180	OK
MW-70	Potassium	4/30/2019	5/17/2019	17	180	OK
MW-70	Silver	4/30/2019	5/14/2019	14	180	OK
MW-70	Sodium	4/30/2019	5/17/2019	17	180	OK
MW-70	Thallium	4/30/2019	5/14/2019	14	180	OK
MW-70	Tin	4/30/2019	5/14/2019	14	180	OK
MW-70	Arsenic	4/30/2019	5/14/2019	14	180	OK
MW-70	Beryllium	4/30/2019	5/14/2019	14	180	OK
MW-70	Cadmium	4/30/2019	5/14/2019	14	180	OK
MW-70	Chromium	4/30/2019	5/14/2019	14	180	OK
MW-70	Cobalt	4/30/2019	5/14/2019	14	180	OK
MW-70	Copper	4/30/2019	5/14/2019	14	180	OK
MW-70	Uranium	4/30/2019	5/14/2019	14	180	OK
MW-70	Vanadium	4/30/2019	5/17/2019	17	180	OK
MW-70	Zinc	4/30/2019	5/14/2019	14	180	OK
MW-70	Calcium	4/30/2019	5/17/2019	17	180	OK

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Location ID	Parameter Name	Sample Date	Analysis Date	Hold Time (Days)	Allowed Hold Time (Days)	Hold Time Check
MW-70	Methylene chloride	4/30/2019	5/4/2019	4	14	OK
MW-70	Ammonia (as N)	4/30/2019	5/10/2019	10	28	OK
MW-70	Selenium	4/30/2019	5/14/2019	14	180	OK
MW-70	2-Butanone	4/30/2019	5/4/2019	4	14	OK
MW-70	Naphthalene	4/30/2019	5/4/2019	4	14	OK
MW-70	Bicarbonate (as CaCO3)	4/30/2019	5/6/2019	6	14	OK
MW-70	Carbonate (as CaCO3)	4/30/2019	5/6/2019	6	14	OK
MW-70	Gross Radium Alpha	4/30/2019	5/25/2019	25	180	OK
MW-70	Nitrate/Nitrite (as N)	4/30/2019	5/3/2019	3	28	OK
MW-70	Total Dissolved Solids	4/30/2019	5/3/2019	3	7	OK
TW4-24	Toluene	4/25/2019	4/30/2019	5	14	OK
TW4-24	Tetrahydrofuran	4/25/2019	4/30/2019	5	14	OK
TW4-24	Xylenes, Total	4/25/2019	4/30/2019	5	14	OK
TW4-24	Sulfate	4/25/2019	5/8/2019	13	28	OK
TW4-24	Chloride	4/25/2019	5/8/2019	13	28	OK
TW4-24	Fluoride	4/25/2019	5/8/2019	13	28	OK
TW4-24	Carbon tetrachloride	4/25/2019	4/30/2019	5	14	OK
TW4-24	Acetone	4/25/2019	4/30/2019	5	14	OK
TW4-24	Chloroform	4/25/2019	4/30/2019	5	14	OK
TW4-24	Benzene	4/25/2019	4/30/2019	5	14	OK
TW4-24	Chloromethane	4/25/2019	4/30/2019	5	14	OK
TW4-24	Iron	4/25/2019	5/3/2019	8	180	OK
TW4-24	Lead	4/25/2019	5/3/2019	8	180	OK
TW4-24	Magnesium	4/25/2019	5/9/2019	14	180	OK
TW4-24	Manganese	4/25/2019	5/8/2019	13	180	OK
TW4-24	Mercury	4/25/2019	5/1/2019	6	180	OK
TW4-24	Molybdenum	4/25/2019	5/8/2019	13	180	OK
TW4-24	Nickel	4/25/2019	5/3/2019	8	180	OK
TW4-24	Potassium	4/25/2019	5/9/2019	14	180	OK
TW4-24	Silver	4/25/2019	5/3/2019	8	180	OK
TW4-24	Sodium	4/25/2019	5/9/2019	14	180	OK
TW4-24	Thallium	4/25/2019	5/3/2019	8	180	OK
TW4-24	Tin	4/25/2019	5/8/2019	13	180	OK
TW4-24	Arsenic	4/25/2019	5/3/2019	8	180	OK
TW4-24	Beryllium	4/25/2019	5/3/2019	8	180	OK
TW4-24	Cadmium	4/25/2019	5/3/2019	8	180	OK
TW4-24	Chromium	4/25/2019	5/8/2019	13	180	OK
TW4-24	Cobalt	4/25/2019	5/3/2019	8	180	OK
TW4-24	Copper	4/25/2019	5/3/2019	8	180	OK
TW4-24	Uranium	4/25/2019	5/8/2019	13	180	OK
TW4-24	Vanadium	4/25/2019	5/9/2019	14	180	OK
TW4-24	Zinc	4/25/2019	5/8/2019	13	180	OK
TW4-24	Calcium	4/25/2019	5/9/2019	14	180	OK
TW4-24	Methylene chloride	4/25/2019	4/30/2019	5	14	OK
TW4-24	Ammonia (as N)	4/25/2019	4/30/2019	5	28	OK
TW4-24	Selenium	4/25/2019	5/3/2019	8	180	OK
TW4-24	2-Butanone	4/25/2019	4/30/2019	5	14	OK
TW4-24	Naphthalene	4/25/2019	4/30/2019	5	14	OK
TW4-24	Bicarbonate (as CaCO3)	4/25/2019	4/30/2019	5	14	OK
TW4-24	Carbonate (as CaCO3)	4/25/2019	4/30/2019	5	14	OK
TW4-24	Nitrate/Nitrite (as N)	4/25/2019	4/29/2019	4	28	OK
TW4-24	Total Dissolved Solids	4/25/2019	4/26/2019	1	7	OK
TW4-24	Gross Radium Alpha	5/2/2019	5/25/2019	23	180	OK

## G-2B: Accelerated Holding Time Evaluation

Location ID	Parameter Name	Sample Date	Analysis Date	Hold Time (Days)	Allowed Hold Time (Days)	Hold Time Check
Trip Blank	Chloroform	5/7/2019	5/9/2019	2	14	OK
Trip Blank	Methylene chloride	5/7/2019	5/9/2019	2	14	OK
Trip Blank	Chloroform	6/4/2019	6/6/2019	2	14	OK
Trip Blank	Methylene chloride	6/4/2019	6/6/2019	2	14	OK
MW-11	Manganese	5/7/2019	5/20/2019	13	180	OK
MW-11	Manganese	6/3/2019	6/11/2019	8	180	OK
MW-25	Cadmium	5/8/2019	5/20/2019	12	180	OK
MW-25	Cadmium	6/4/2019	6/11/2019	7	180	OK
MW-26	Chloride	5/7/2019	5/20/2019	13	28	OK
MW-26	Chloroform	5/7/2019	5/9/2019	2	14	OK
MW-26	Methylene chloride	5/7/2019	5/9/2019	2	14	OK
MW-26	Ammonia (as N)	5/7/2019	5/14/2019	7	28	OK
MW-26	Nitrate/Nitrite (as N)	5/7/2019	5/13/2019	6	28	OK
MW-26	Chloride	6/4/2019	6/13/2019	9	28	OK
MW-26	Chloroform	6/4/2019	6/6/2019	2	14	OK
MW-26	Methylene chloride	6/4/2019	6/6/2019	2	14	OK
MW-26	Ammonia (as N)	6/4/2019	6/11/2019	7	28	OK
MW-26	Nitrate/Nitrite (as N)	6/4/2019	6/11/2019	7	28	OK
MW-30	Chloride	5/7/2019	5/21/2019	14	28	OK
MW-30	Uranium	5/7/2019	5/20/2019	13	180	OK
MW-30	Selenium	5/7/2019	5/20/2019	13	180	OK
MW-30	Nitrate/Nitrite (as N)	5/7/2019	5/13/2019	6	28	OK
MW-30	Chloride	6/3/2019	6/13/2019	10	28	OK
MW-30	Uranium	6/3/2019	6/11/2019	8	180	OK
MW-30	Selenium	6/3/2019	6/11/2019	8	180	OK
MW-30	Nitrate/Nitrite (as N)	6/3/2019	6/11/2019	8	28	OK
MW-31	Chloride	5/7/2019	5/21/2019	14	28	OK
MW-31	Nitrate/Nitrite (as N)	5/7/2019	5/13/2019	6	28	OK
MW-31	Chloride	6/3/2019	6/13/2019	10	28	OK
MW-31	Nitrate/Nitrite (as N)	6/3/2019	6/11/2019	8	28	OK
MW-65	Chloride	5/7/2019	5/21/2019	14	28	OK
MW-65	Uranium	5/7/2019	5/20/2019	13	180	OK
MW-65	Selenium	5/7/2019	5/20/2019	13	180	OK
MW-65	Nitrate/Nitrite (as N)	5/7/2019	5/13/2019	6	28	OK
MW-65	Cadmium	6/4/2019	6/11/2019	7	180	OK

## G-3A: Laboratory Receipt Temperature Check

Sample Batch	Wells in Batch	Temperature
AWAL 1904300	MW-25, MW-30, MW-31, MW-32, Trip Blank	1.5 °C
AWAL 1904508	MW-01, MW-17, MW-18, MW-35, MW-36, MW-40, Trip Blank	1.4 °C
AWAL 1904652	MW-02, MW-05, MW-11, MW-12, MW-14, MW-19, MW-26, MW-27, MW-28, MW-29, TW4-24, MW-65, Trip Blank	3.3 °C
AWAL 1905087	MW-03A, MW-15, MW-22, MW-24, MW-38, MW-39, MW-70, Trip Blank	1.6 °C
AWAL 1905400	MW-20, MW-23, MW-37, Trip Blank	1.3 °C
GEL 476322	MW-25, MW-30, MW-31, MW-32	N/A
GEL 476962	MW-01, MW-17, MW-18, MW-35, MW-36, MW-40	N/A
GEL 477632	MW-02, MW-05, MW-11, MW-12, MW-14, MW-19, MW-26, MW-27, MW-28, MW-29, MW-65	N/A
GEL 478290	MW-03A, MW-15, MW-22, MW-24, MW-38, MW-39, TW4-24 Resample, MW-70	N/A
GEL 479531	MW-20, MW-23, MW-37	N/A

N/A = These shipments contained samples for the analysis of gross alpha or metals only. Per Table 1 in the approved QAP, samples submitted for gross alpha and metals analyses do not have a sample temperature requirement.

G-3B: Laboratory Receipt Temperature Check - Accelerated Samples

Sample Batch	Wells in Batch	Temperature
AWAL 1905224	MW-11, MW-25, MW-26, MW-30, MW-31, MW-65, Trip Blank	1.5°C
AWAL 1906139	MW-11, MW-25, MW-26, MW-30, MW-31, MW-65, Trip Blank	2.9 °C

## G-5A Quarterly Sample Reporting Limit Check

Location	Analyte	Lab Reporting Limit	Units	Qualifier	Dilution Factor	Required Reporting Limit	RL Check
Trip Blank	Toluene	1	ug/L	U	1	1	OK
Trip Blank	Tetrahydrofuran	1	ug/L	U	1	1	OK
Trip Blank	Xylenes, Total	1	ug/L	U	1	1	OK
Trip Blank	Carbon tetrachloride	1	ug/L	U	1	1	OK
Trip Blank	Acetone	20	ug/L	U	1	20	OK
Trip Blank	Chloroform	1	ug/L	U	1	1	OK
Trip Blank	Benzene	1	ug/L	U	1	1	OK
Trip Blank	Chloromethane	1	ug/L	U	1	1	OK
Trip Blank	Methylene chloride	1	ug/L	U	1	1	OK
Trip Blank	2-Butanone	20	ug/L	U	1	20	OK
Trip Blank	Naphthalene	1	ug/L	U	1	1	OK
Trip Blank	Toluene	1	ug/L	U	1	1	OK
Trip Blank	Tetrahydrofuran	1	ug/L	U	1	1	OK
Trip Blank	Xylenes, Total	1	ug/L	U	1	1	OK
Trip Blank	Carbon tetrachloride	1	ug/L	U	1	1	OK
Trip Blank	Acetone	20	ug/L	U	1	20	OK
Trip Blank	Chloroform	1	ug/L	U	1	1	OK
Trip Blank	Benzene	1	ug/L	U	1	1	OK
Trip Blank	Chloromethane	1	ug/L	U	1	1	OK
Trip Blank	Methylene chloride	1	ug/L	U	1	1	OK
Trip Blank	2-Butanone	20	ug/L	U	1	20	OK
Trip Blank	Naphthalene	1	ug/L	U	1	1	OK
Trip Blank	Toluene	1	ug/L	U	1	1	OK
Trip Blank	Tetrahydrofuran	1	ug/L	U	1	1	OK
Trip Blank	Xylenes, Total	1	ug/L	U	1	1	OK
Trip Blank	Carbon tetrachloride	1	ug/L	U	1	1	OK
Trip Blank	Acetone	20	ug/L	U	1	20	OK
Trip Blank	Chloroform	1	ug/L	U	1	1	OK
Trip Blank	Benzene	1	ug/L	U	1	1	OK
Trip Blank	Chloromethane	1	ug/L	U	1	1	OK
Trip Blank	Methylene chloride	1	ug/L	U	1	1	OK
Trip Blank	2-Butanone	20	ug/L	U	1	20	OK
Trip Blank	Naphthalene	1	ug/L	U	1	1	OK
Trip Blank	Toluene	1	ug/L	U	1	1	OK
Trip Blank	Tetrahydrofuran	1	ug/L	U	1	1	OK
Trip Blank	Xylenes, Total	1	ug/L	U	1	1	OK
Trip Blank	Carbon tetrachloride	1	ug/L	U	1	1	OK
Trip Blank	Acetone	20	ug/L	U	1	20	OK
Trip Blank	Chloroform	1	ug/L	U	1	1	OK
Trip Blank	Benzene	1	ug/L	U	1	1	OK
Trip Blank	Chloromethane	1	ug/L	U	1	1	OK
Trip Blank	Methylene chloride	1	ug/L	U	1	1	OK
Trip Blank	2-Butanone	20	ug/L	U	1	20	OK
Trip Blank	Naphthalene	1	ug/L	U	1	1	OK
Trip Blank	Toluene	1	ug/L	U	1	1	OK
Trip Blank	Tetrahydrofuran	1	ug/L	U	1	1	OK
Trip Blank	Xylenes, Total	1	ug/L	U	1	1	OK
Trip Blank	Carbon tetrachloride	1	ug/L	U	1	1	OK
Trip Blank	Acetone	20	ug/L	U	1	20	OK
Trip Blank	Chloroform	1	ug/L	U	1	1	OK
Trip Blank	Benzene	1	ug/L	U	1	1	OK
Trip Blank	Chloromethane	1	ug/L	U	1	1	OK
Trip Blank	Methylene chloride	1	ug/L	U	1	1	OK
Trip Blank	2-Butanone	20	ug/L	U	1	20	OK

## G-5A Quarterly Sample Reporting Limit Check

Location	Analyte	Lab Reporting Limit	Units	Qualifier	Dilution Factor	Required Reporting Limit	RL Check
Trip Blank	Naphthalene	1	ug/L	U	1	1	OK
MW-01	Toluene	1	ug/L	U	1	1	OK
MW-01	Tetrahydrofuran	1	ug/L		1	1	OK
MW-01	Xylenes, Total	1	ug/L	U	1	1	OK
MW-01	Sulfate	75	mg/L		100	1	OK
MW-01	Chloride	1	mg/L		10	1	OK
MW-01	Fluoride	0.1	mg/L		1	0.1	OK
MW-01	Carbon tetrachloride	1	ug/L	U	1	1	OK
MW-01	Acetone	20	ug/L	U	1	20	OK
MW-01	Chloroform	1	ug/L	U	1	1	OK
MW-01	Benzene	1	ug/L	U	1	1	OK
MW-01	Chloromethane	1	ug/L	U	1	1	OK
MW-01	Iron	30	ug/L		5	30	OK
MW-01	Lead	1	ug/L	U	2	1	OK
MW-01	Magnesium	20	mg/L		20	0.5	OK
MW-01	Manganese	10	ug/L		2	10	OK
MW-01	Mercury	0.5	ug/L	U	1	0.5	OK
MW-01	Molybdenum	10	ug/L	U	2	10	OK
MW-01	Nickel	20	ug/L	U	2	20	OK
MW-01	Potassium	1	mg/L		1	0.5	OK
MW-01	Silver	10	ug/L	U	2	10	OK
MW-01	Sodium	20	mg/L		20	0.5	OK
MW-01	Thallium	0.5	ug/L	U	2	0.5	OK
MW-01	Tin	100	ug/L	U	2	100	OK
MW-01	Arsenic	5	ug/L	U	2	5	OK
MW-01	Beryllium	0.5	ug/L	U	2	0.5	OK
MW-01	Cadmium	0.5	ug/L	U	2	0.5	OK
MW-01	Chromium	25	ug/L	U	2	25	OK
MW-01	Cobalt	10	ug/L	U	2	10	OK
MW-01	Copper	10	ug/L	U	2	10	OK
MW-01	Uranium	0.3	ug/L	U	2	0.3	OK
MW-01	Vanadium	15	ug/L	U	1	15	OK
MW-01	Zinc	10	ug/L	U	5	10	OK
MW-01	Calcium	20	mg/L		20	0.5	OK
MW-01	Methylene chloride	1	ug/L	U	1	1	OK
MW-01	Ammonia (as N)	0.05	mg/L		1	0.05	OK
MW-01	Selenium	5	ug/L	U	2	5	OK
MW-01	2-Butanone	20	ug/L	U	1	20	OK
MW-01	Naphthalene	1	ug/L	U	1	1	OK
MW-01	Bicarbonate (as CaCO3)	1	mg/L		1	1	OK
MW-01	Carbonate (as CaCO3)	1	mg/L	U	1	1	OK
MW-01	Gross Radium Alpha	0.516	pCi/L	U	1	1	OK
MW-01	Nitrate/Nitrite (as N)	0.1	mg/L	U	1	0.1	OK
MW-01	Total Dissolved Solids	20	MG/L		2	10	OK
MW-02	Toluene	1	ug/L	U	1	1	OK
MW-02	Tetrahydrofuran	1	ug/L	U	1	1	OK
MW-02	Xylenes, Total	1	ug/L	U	1	1	OK
MW-02	Sulfate	750	mg/L		1000	1	OK
MW-02	Chloride	1	mg/L		1	1	OK
MW-02	Fluoride	0.1	mg/L		1	0.1	OK
MW-02	Carbon tetrachloride	1	ug/L	U	1	1	OK
MW-02	Acetone	20	ug/L	U	1	20	OK
MW-02	Chloroform	1	ug/L	U	1	1	OK
MW-02	Benzene	1	ug/L	U	1	1	OK

## G-5A Quarterly Sample Reporting Limit Check

Location	Analyte	Lab Reporting Limit	Units	Qualifier	Dilution Factor	Required Reporting Limit	RL Check
MW-02	Chloromethane	1	ug/L	U	1	1	OK
MW-02	Iron	30	ug/L	U	2	30	OK
MW-02	Lead	1	ug/L	U	2	1	OK
MW-02	Magnesium	20	mg/L		20	0.5	OK
MW-02	Manganese	10	ug/L	U	2	10	OK
MW-02	Mercury	0.5	ug/L	U	1	0.5	OK
MW-02	Molybdenum	10	ug/L	U	2	10	OK
MW-02	Nickel	20	ug/L	U	2	20	OK
MW-02	Potassium	1	mg/L		1	0.5	OK
MW-02	Silver	10	ug/L	U	2	10	OK
MW-02	Sodium	20	mg/L		20	0.5	OK
MW-02	Thallium	0.5	ug/L	U	2	0.5	OK
MW-02	Tin	100	ug/L	U	2	100	OK
MW-02	Arsenic	5	ug/L	U	2	5	OK
MW-02	Beryllium	0.5	ug/L	U	2	0.5	OK
MW-02	Cadmium	0.5	ug/L	U	2	0.5	OK
MW-02	Chromium	25	ug/L	U	20	25	OK
MW-02	Cobalt	10	ug/L	U	2	10	OK
MW-02	Copper	10	ug/L	U	20	10	OK
MW-02	Uranium	0.3	ug/L		2	0.3	OK
MW-02	Vanadium	15	ug/L	U	1	15	OK
MW-02	Zinc	10	ug/L	U	20	10	OK
MW-02	Calcium	20	mg/L		20	0.5	OK
MW-02	Methylene chloride	1	ug/L	U	1	1	OK
MW-02	Ammonia (as N)	0.05	mg/L	U	1	0.05	OK
MW-02	Selenium	5	ug/L		2	5	OK
MW-02	2-Butanone	20	ug/L	U	1	20	OK
MW-02	Naphthalene	1	ug/L	U	1	1	OK
MW-02	Bicarbonate (as CaCO3)	1	mg/L		1	1	OK
MW-02	Carbonate (as CaCO3)	1	mg/L	U	1	1	OK
MW-02	Gross Radium Alpha	0.885	pCi/L		1	1	OK
MW-02	Nitrate/Nitrite (as N)	0.1	mg/L	U	1	0.1	OK
MW-02	Total Dissolved Solids	20	MG/L		2	10	OK
MW-03A	Toluene	1	ug/L	U	1	1	OK
MW-03A	Tetrahydrofuran	1	ug/L	U	1	1	OK
MW-03A	Xylenes, Total	1	ug/L	U	1	1	OK
MW-03A	Sulfate	300	mg/L		400	1	OK
MW-03A	Chloride	1	mg/L		10	1	OK
MW-03A	Fluoride	0.1	mg/L		1	0.1	OK
MW-03A	Carbon tetrachloride	1	ug/L	U	1	1	OK
MW-03A	Acetone	20	ug/L	U	1	20	OK
MW-03A	Chloroform	1	ug/L	U	1	1	OK
MW-03A	Benzene	1	ug/L	U	1	1	OK
MW-03A	Chloromethane	1	ug/L	U	1	1	OK
MW-03A	Iron	30	ug/L	U	5	30	OK
MW-03A	Lead	1	ug/L	U	5	1	OK
MW-03A	Magnesium	20	mg/L		20	0.5	OK
MW-03A	Manganese	10	ug/L		20	10	OK
MW-03A	Mercury	0.5	ug/L	U	1	0.5	OK
MW-03A	Molybdenum	10	ug/L	U	20	10	OK
MW-03A	Nickel	20	ug/L	U	20	20	OK
MW-03A	Potassium	1	mg/L		1	0.5	OK
MW-03A	Silver	10	ug/L	U	20	10	OK
MW-03A	Sodium	20	mg/L		20	0.5	OK

## G-5A Quarterly Sample Reporting Limit Check

Location	Analyte	Lab Reporting Limit	Units	Qualifier	Dilution Factor	Required Reporting Limit	RL Check
MW-03A	Thallium	0.5	ug/L		5	0.5	OK
MW-03A	Tin	100	ug/L	U	20	100	OK
MW-03A	Arsenic	5	ug/L	U	20	5	OK
MW-03A	Beryllium	0.5	ug/L	U	5	0.5	OK
MW-03A	Cadmium	0.5	ug/L		20	0.5	OK
MW-03A	Chromium	25	ug/L	U	20	25	OK
MW-03A	Cobalt	10	ug/L	U	20	10	OK
MW-03A	Copper	10	ug/L	U	20	10	OK
MW-03A	Uranium	0.3	ug/L		2	0.3	OK
MW-03A	Vanadium	15	ug/L	U	1	15	OK
MW-03A	Zinc	10	ug/L		20	10	OK
MW-03A	Calcium	20	mg/L		20	0.5	OK
MW-03A	Methylene chloride	1	ug/L	U	1	1	OK
MW-03A	Ammonia (as N)	0.05	mg/L	U	1	0.05	OK
MW-03A	Selenium	5	ug/L		20	5	OK
MW-03A	2-Butanone	20	ug/L	U	1	20	OK
MW-03A	Naphthalene	1	ug/L	U	1	1	OK
MW-03A	Bicarbonate (as CaCO3)	1	mg/L		1	1	OK
MW-03A	Carbonate (as CaCO3)	1	mg/L	U	1	1	OK
MW-03A	Gross Radium Alpha	0.625	pCi/L	U	1	1	OK
MW-03A	Nitrate/Nitrite (as N)	0.1	mg/L		1	0.1	OK
MW-03A	Total Dissolved Solids	20	MG/L		2	10	OK
MW-05	Toluene	1	ug/L	U	1	1	OK
MW-05	Tetrahydrofuran	1	ug/L	U	1	1	OK
MW-05	Xylenes, Total	1	ug/L	U	1	1	OK
MW-05	Sulfate	150	mg/L		200	1	OK
MW-05	Chloride	1	mg/L		10	1	OK
MW-05	Fluoride	0.1	mg/L		1	0.1	OK
MW-05	Carbon tetrachloride	1	ug/L	U	1	1	OK
MW-05	Acetone	20	ug/L	U	1	20	OK
MW-05	Chloroform	1	ug/L	U	1	1	OK
MW-05	Benzene	1	ug/L	U	1	1	OK
MW-05	Chloromethane	1	ug/L	U	1	1	OK
MW-05	Iron	30	ug/L	U	2	30	OK
MW-05	Lead	1	ug/L	U	2	1	OK
MW-05	Magnesium	20	mg/L		20	0.5	OK
MW-05	Manganese	10	ug/L		2	10	OK
MW-05	Mercury	0.5	ug/L	U	1	0.5	OK
MW-05	Molybdenum	10	ug/L	U	2	10	OK
MW-05	Nickel	20	ug/L	U	2	20	OK
MW-05	Potassium	1	mg/L		1	0.5	OK
MW-05	Silver	10	ug/L	U	2	10	OK
MW-05	Sodium	20	mg/L		20	0.5	OK
MW-05	Thallium	0.5	ug/L	U	2	0.5	OK
MW-05	Tin	100	ug/L	U	2	100	OK
MW-05	Arsenic	5	ug/L	U	2	5	OK
MW-05	Beryllium	0.5	ug/L	U	2	0.5	OK
MW-05	Cadmium	0.5	ug/L	U	2	0.5	OK
MW-05	Chromium	25	ug/L	U	20	25	OK
MW-05	Cobalt	10	ug/L	U	2	10	OK
MW-05	Copper	10	ug/L	U	20	10	OK
MW-05	Uranium	0.3	ug/L		2	0.3	OK
MW-05	Vanadium	15	ug/L	U	1	15	OK
MW-05	Zinc	10	ug/L	U	20	10	OK

## G-5A Quarterly Sample Reporting Limit Check

Location	Analyte	Lab Reporting Limit	Units	Qualifier	Dilution Factor	Required Reporting Limit	RL Check
MW-05	Calcium	20	mg/L		20	0.5	OK
MW-05	Methylene chloride	1	ug/L	U	1	1	OK
MW-05	Ammonia (as N)	0.05	mg/L		1	0.05	OK
MW-05	Selenium	5	ug/L	U	2	5	OK
MW-05	2-Butanone	20	ug/L	U	1	20	OK
MW-05	Naphthalene	1	ug/L	U	1	1	OK
MW-05	Bicarbonate (as CaCO3)	1	mg/L		1	1	OK
MW-05	Carbonate (as CaCO3)	1	mg/L	U	1	1	OK
MW-05	Gross Radium Alpha	0.665	pCi/L	U	1	1	OK
MW-05	Nitrate/Nitrite (as N)	0.1	mg/L		1	0.1	OK
MW-05	Total Dissolved Solids	20	MG/L		2	10	OK
MW-11	Toluene	1	ug/L	U	1	1	OK
MW-11	Tetrahydrofuran	1	ug/L	U	1	1	OK
MW-11	Xylenes, Total	1	ug/L	U	1	1	OK
MW-11	Sulfate	750	mg/L		1000	1	OK
MW-11	Chloride	1	mg/L		10	1	OK
MW-11	Fluoride	0.1	mg/L		1	0.1	OK
MW-11	Carbon tetrachloride	1	ug/L	U	1	1	OK
MW-11	Acetone	20	ug/L	U	1	20	OK
MW-11	Chloroform	1	ug/L	U	1	1	OK
MW-11	Benzene	1	ug/L	U	1	1	OK
MW-11	Chloromethane	1	ug/L	U	1	1	OK
MW-11	Iron	30	ug/L	U	2	30	OK
MW-11	Lead	1	ug/L	U	2	1	OK
MW-11	Magnesium	1	mg/L		1	0.5	OK
MW-11	Manganese	10	ug/L		2	10	OK
MW-11	Mercury	0.5	ug/L	U	1	0.5	OK
MW-11	Molybdenum	10	ug/L	U	2	10	OK
MW-11	Nickel	20	ug/L	U	2	20	OK
MW-11	Potassium	1	mg/L		1	0.5	OK
MW-11	Silver	10	ug/L	U	2	10	OK
MW-11	Sodium	20	mg/L		20	0.5	OK
MW-11	Thallium	0.5	ug/L	U	2	0.5	OK
MW-11	Tin	100	ug/L	U	2	100	OK
MW-11	Arsenic	5	ug/L	U	2	5	OK
MW-11	Beryllium	0.5	ug/L	U	2	0.5	OK
MW-11	Cadmium	0.5	ug/L	U	2	0.5	OK
MW-11	Chromium	25	ug/L	U	20	25	OK
MW-11	Cobalt	10	ug/L	U	2	10	OK
MW-11	Copper	10	ug/L	U	20	10	OK
MW-11	Uranium	0.3	ug/L		2	0.3	OK
MW-11	Vanadium	15	ug/L	U	1	15	OK
MW-11	Zinc	10	ug/L	U	20	10	OK
MW-11	Calcium	20	mg/L		20	0.5	OK
MW-11	Methylene chloride	1	ug/L	U	1	1	OK
MW-11	Ammonia (as N)	0.05	mg/L		1	0.05	OK
MW-11	Selenium	5	ug/L	U	2	5	OK
MW-11	2-Butanone	20	ug/L	U	1	20	OK
MW-11	Naphthalene	1	ug/L	U	1	1	OK
MW-11	Bicarbonate (as CaCO3)	1	mg/L		1	1	OK
MW-11	Carbonate (as CaCO3)	1	mg/L	U	1	1	OK
MW-11	Gross Radium Alpha	0.623	pCi/L		1	1	OK
MW-11	Nitrate/Nitrite (as N)	0.1	mg/L	U	1	0.1	OK
MW-11	Total Dissolved Solids	20	MG/L		2	10	OK

## G-5A Quarterly Sample Reporting Limit Check

Location	Analyte	Lab Reporting Limit	Units	Qualifier	Dilution Factor	Required Reporting Limit	RL Check
MW-12	Toluene	1	ug/L	U	1	1	OK
MW-12	Tetrahydrofuran	1	ug/L	U	1	1	OK
MW-12	Xylenes, Total	1	ug/L	U	1	1	OK
MW-12	Sulfate	750	mg/L		1000	1	OK
MW-12	Chloride	1	mg/L		10	1	OK
MW-12	Fluoride	0.1	mg/L		1	0.1	OK
MW-12	Carbon tetrachloride	1	ug/L	U	1	1	OK
MW-12	Acetone	20	ug/L	U	1	20	OK
MW-12	Chloroform	1	ug/L	U	1	1	OK
MW-12	Benzene	1	ug/L	U	1	1	OK
MW-12	Chloromethane	1	ug/L	U	1	1	OK
MW-12	Iron	30	ug/L	U	2	30	OK
MW-12	Lead	1	ug/L	U	5	1	OK
MW-12	Magnesium	20	mg/L		20	0.5	OK
MW-12	Manganese	10	ug/L		2	10	OK
MW-12	Mercury	0.5	ug/L	U	1	0.5	OK
MW-12	Molybdenum	10	ug/L	U	2	10	OK
MW-12	Nickel	20	ug/L	U	2	20	OK
MW-12	Potassium	1	mg/L		1	0.5	OK
MW-12	Silver	10	ug/L	U	2	10	OK
MW-12	Sodium	20	mg/L		20	0.5	OK
MW-12	Thallium	0.5	ug/L	U	5	0.5	OK
MW-12	Tin	100	ug/L	U	2	100	OK
MW-12	Arsenic	5	ug/L	U	2	5	OK
MW-12	Beryllium	0.5	ug/L	U	5	0.5	OK
MW-12	Cadmium	0.5	ug/L	U	2	0.5	OK
MW-12	Chromium	25	ug/L	U	20	25	OK
MW-12	Cobalt	10	ug/L	U	2	10	OK
MW-12	Copper	10	ug/L	U	5	10	OK
MW-12	Uranium	0.5	ug/L		5	0.3	OK
MW-12	Vanadium	15	ug/L	U	1	15	OK
MW-12	Zinc	10	ug/L	U	20	10	OK
MW-12	Calcium	20	mg/L		20	0.5	OK
MW-12	Methylene chloride	1	ug/L	U	1	1	OK
MW-12	Ammonia (as N)	0.05	mg/L	U	1	0.05	OK
MW-12	Selenium	5	ug/L		20	5	OK
MW-12	2-Butanone	20	ug/L	U	1	20	OK
MW-12	Naphthalene	1	ug/L	U	1	1	OK
MW-12	Bicarbonate (as CaCO3)	1	mg/L		1	1	OK
MW-12	Carbonate (as CaCO3)	1	mg/L	U	1	1	OK
MW-12	Gross Radium Alpha	0.49	pCi/L	U	1	1	OK
MW-12	Nitrate/Nitrite (as N)	0.1	mg/L		1	0.1	OK
MW-12	Total Dissolved Solids	20	MG/L		2	10	OK
MW-14	Toluene	1	ug/L	U	1	1	OK
MW-14	Tetrahydrofuran	1	ug/L	U	1	1	OK
MW-14	Xylenes, Total	1	ug/L	U	1	1	OK
MW-14	Sulfate	750	mg/L		1000	1	OK
MW-14	Chloride	1	mg/L		10	1	OK
MW-14	Fluoride	0.1	mg/L	U	1	0.1	OK
MW-14	Carbon tetrachloride	1	ug/L	U	1	1	OK
MW-14	Acetone	20	ug/L	U	1	20	OK
MW-14	Chloroform	1	ug/L	U	1	1	OK
MW-14	Benzene	1	ug/L	U	1	1	OK
MW-14	Chloromethane	1	ug/L	U	1	1	OK

## G-5A Quarterly Sample Reporting Limit Check

Location	Analyte	Lab Reporting Limit	Units	Qualifier	Dilution Factor	Required Reporting Limit	RL Check
MW-14	Iron	30	ug/L	U	2	30	OK
MW-14	Lead	1	ug/L	U	2	1	OK
MW-14	Magnesium	20	mg/L		20	0.5	OK
MW-14	Manganese	10	ug/L		20	10	OK
MW-14	Mercury	0.5	ug/L	U	1	0.5	OK
MW-14	Molybdenum	10	ug/L	U	20	10	OK
MW-14	Nickel	20	ug/L	U	2	20	OK
MW-14	Potassium	1	mg/L		1	0.5	OK
MW-14	Silver	10	ug/L	U	2	10	OK
MW-14	Sodium	20	mg/L		20	0.5	OK
MW-14	Thallium	0.5	ug/L	U	2	0.5	OK
MW-14	Tin	100	ug/L	U	20	100	OK
MW-14	Arsenic	5	ug/L	U	2	5	OK
MW-14	Beryllium	0.5	ug/L	U	2	0.5	OK
MW-14	Cadmium	0.5	ug/L		2	0.5	OK
MW-14	Chromium	25	ug/L	U	20	25	OK
MW-14	Cobalt	10	ug/L	U	2	10	OK
MW-14	Copper	10	ug/L	U	2	10	OK
MW-14	Uranium	0.3	ug/L		2	0.3	OK
MW-14	Vanadium	15	ug/L	U	1	15	OK
MW-14	Zinc	10	ug/L		20	10	OK
MW-14	Calcium	20	mg/L		20	0.5	OK
MW-14	Methylene chloride	1	ug/L	U	1	1	OK
MW-14	Ammonia (as N)	0.05	mg/L	U	1	0.05	OK
MW-14	Selenium	5	ug/L	U	2	5	OK
MW-14	2-Butanone	20	ug/L	U	1	20	OK
MW-14	Naphthalene	1	ug/L	U	1	1	OK
MW-14	Bicarbonate (as CaCO3)	1	mg/L		1	1	OK
MW-14	Carbonate (as CaCO3)	1	mg/L	U	1	1	OK
MW-14	Gross Radium Alpha	0.528	pCi/L	U	1	1	OK
MW-14	Nitrate/Nitrite (as N)	0.1	mg/L	U	1	0.1	OK
MW-14	Total Dissolved Solids	20	MG/L		2	10	OK
MW-15	Toluene	1	ug/L	U	1	1	OK
MW-15	Tetrahydrofuran	1	ug/L	U	1	1	OK
MW-15	Xylenes, Total	1	ug/L	U	1	1	OK
MW-15	Sulfate	300	mg/L		400	1	OK
MW-15	Chloride	1	mg/L		10	1	OK
MW-15	Fluoride	0.1	mg/L		1	0.1	OK
MW-15	Carbon tetrachloride	1	ug/L	U	1	1	OK
MW-15	Acetone	20	ug/L	U	1	20	OK
MW-15	Chloroform	1	ug/L	U	1	1	OK
MW-15	Benzene	1	ug/L	U	1	1	OK
MW-15	Chloromethane	1	ug/L	U	1	1	OK
MW-15	Iron	30	ug/L	U	5	30	OK
MW-15	Lead	1	ug/L	U	5	1	OK
MW-15	Magnesium	20	mg/L		20	0.5	OK
MW-15	Manganese	10	ug/L	U	20	10	OK
MW-15	Mercury	0.5	ug/L	U	1	0.5	OK
MW-15	Molybdenum	10	ug/L	U	20	10	OK
MW-15	Nickel	20	ug/L	U	20	20	OK
MW-15	Potassium	1	mg/L		1	0.5	OK
MW-15	Silver	10	ug/L	U	20	10	OK
MW-15	Sodium	20	mg/L		20	0.5	OK
MW-15	Thallium	0.5	ug/L	U	5	0.5	OK

## G-5A Quarterly Sample Reporting Limit Check

Location	Analyte	Lab Reporting Limit	Units	Qualifier	Dilution Factor	Required Reporting Limit	RL Check
MW-15	Tin	100	ug/L	U	20	100	OK
MW-15	Arsenic	5	ug/L	U	20	5	OK
MW-15	Beryllium	0.5	ug/L	U	5	0.5	OK
MW-15	Cadmium	0.5	ug/L	U	20	0.5	OK
MW-15	Chromium	25	ug/L	U	20	25	OK
MW-15	Cobalt	10	ug/L	U	20	10	OK
MW-15	Copper	10	ug/L	U	20	10	OK
MW-15	Uranium	0.3	ug/L		2	0.3	OK
MW-15	Vanadium	15	ug/L	U	1	15	OK
MW-15	Zinc	10	ug/L	U	20	10	OK
MW-15	Calcium	20	mg/L		20	0.5	OK
MW-15	Methylene chloride	1	ug/L	U	1	1	OK
MW-15	Ammonia (as N)	0.05	mg/L	U	1	0.05	OK
MW-15	Selenium	5	ug/L		20	5	OK
MW-15	2-Butanone	20	ug/L	U	1	20	OK
MW-15	Naphthalene	1	ug/L	U	1	1	OK
MW-15	Bicarbonate (as CaCO3)	1	mg/L		1	1	OK
MW-15	Carbonate (as CaCO3)	1	mg/L	U	1	1	OK
MW-15	Gross Radium Alpha	0.739	pCi/L	U	1	1	OK
MW-15	Nitrate/Nitrite (as N)	0.1	mg/L		1	0.1	OK
MW-15	Total Dissolved Solids	20	MG/L		2	10	OK
MW-17	Toluene	1	ug/L	U	1	1	OK
MW-17	Tetrahydrofuran	1	ug/L	U	1	1	OK
MW-17	Xylenes, Total	1	ug/L	U	1	1	OK
MW-17	Sulfate	150	mg/L		200	1	OK
MW-17	Chloride	1	mg/L		10	1	OK
MW-17	Fluoride	0.1	mg/L		1	0.1	OK
MW-17	Carbon tetrachloride	1	ug/L	U	1	1	OK
MW-17	Acetone	20	ug/L	U	1	20	OK
MW-17	Chloroform	1	ug/L	U	1	1	OK
MW-17	Benzene	1	ug/L	U	1	1	OK
MW-17	Chloromethane	1	ug/L	U	1	1	OK
MW-17	Iron	30	ug/L	U	2	30	OK
MW-17	Lead	1	ug/L	U	2	1	OK
MW-17	Magnesium	20	mg/L		20	0.5	OK
MW-17	Manganese	10	ug/L		2	10	OK
MW-17	Mercury	0.5	ug/L	U	1	0.5	OK
MW-17	Molybdenum	10	ug/L	U	2	10	OK
MW-17	Nickel	20	ug/L	U	2	20	OK
MW-17	Potassium	1	mg/L		1	0.5	OK
MW-17	Silver	10	ug/L	U	2	10	OK
MW-17	Sodium	20	mg/L		20	0.5	OK
MW-17	Thallium	0.5	ug/L	U	2	0.5	OK
MW-17	Tin	100	ug/L	U	2	100	OK
MW-17	Arsenic	5	ug/L	U	2	5	OK
MW-17	Beryllium	0.5	ug/L	U	2	0.5	OK
MW-17	Cadmium	0.5	ug/L	U	2	0.5	OK
MW-17	Chromium	25	ug/L	U	2	25	OK
MW-17	Cobalt	10	ug/L	U	2	10	OK
MW-17	Copper	10	ug/L	U	2	10	OK
MW-17	Uranium	0.3	ug/L		2	0.3	OK
MW-17	Vanadium	15	ug/L	U	1	15	OK
MW-17	Zinc	10	ug/L	U	20	10	OK
MW-17	Calcium	20	mg/L		20	0.5	OK

## G-5A Quarterly Sample Reporting Limit Check

Location	Analyte	Lab Reporting Limit	Units	Qualifier	Dilution Factor	Required Reporting Limit	RL Check
MW-17	Methylene chloride	1	ug/L	U	1	1	OK
MW-17	Ammonia (as N)	0.05	mg/L	U	1	0.05	OK
MW-17	Selenium	5	ug/L		2	5	OK
MW-17	2-Butanone	20	ug/L	U	1	20	OK
MW-17	Naphthalene	1	ug/L	U	1	1	OK
MW-17	Bicarbonate (as CaCO3)	1	mg/L		1	1	OK
MW-17	Carbonate (as CaCO3)	1	mg/L	U	1	1	OK
MW-17	Gross Radium Alpha	0.531	pCi/L	U	1	1	OK
MW-17	Nitrate/Nitrite (as N)	0.1	mg/L		10	0.1	OK
MW-17	Total Dissolved Solids	20	MGL		2	10	OK
MW-18	Toluene	1	ug/L	U	1	1	OK
MW-18	Tetrahydrofuran	1	ug/L	U	1	1	OK
MW-18	Xylenes, Total	1	ug/L	U	1	1	OK
MW-18	Sulfate	150	mg/L		200	1	OK
MW-18	Chloride	1	mg/L		10	1	OK
MW-18	Fluoride	0.1	mg/L		1	0.1	OK
MW-18	Carbon tetrachloride	1	ug/L	U	1	1	OK
MW-18	Acetone	20	ug/L	U	1	20	OK
MW-18	Chloroform	1	ug/L	U	1	1	OK
MW-18	Benzene	1	ug/L	U	1	1	OK
MW-18	Chloromethane	1	ug/L	U	1	1	OK
MW-18	Iron	30	ug/L		2	30	OK
MW-18	Lead	1	ug/L	U	2	1	OK
MW-18	Magnesium	20	mg/L		20	0.5	OK
MW-18	Manganese	10	ug/L		2	10	OK
MW-18	Mercury	0.5	ug/L	U	1	0.5	OK
MW-18	Molybdenum	10	ug/L	U	2	10	OK
MW-18	Nickel	20	ug/L	U	2	20	OK
MW-18	Potassium	1	mg/L		1	0.5	OK
MW-18	Silver	10	ug/L	U	2	10	OK
MW-18	Sodium	20	mg/L		20	0.5	OK
MW-18	Thallium	0.5	ug/L		2	0.5	OK
MW-18	Tin	100	ug/L	U	2	100	OK
MW-18	Arsenic	5	ug/L	U	2	5	OK
MW-18	Beryllium	0.5	ug/L	U	2	0.5	OK
MW-18	Cadmium	0.5	ug/L	U	2	0.5	OK
MW-18	Chromium	25	ug/L	U	2	25	OK
MW-18	Cobalt	10	ug/L	U	2	10	OK
MW-18	Copper	10	ug/L	U	2	10	OK
MW-18	Uranium	0.3	ug/L		2	0.3	OK
MW-18	Vanadium	15	ug/L	U	1	15	OK
MW-18	Zinc	10	ug/L	U	20	10	OK
MW-18	Calcium	20	mg/L		20	0.5	OK
MW-18	Methylene chloride	1	ug/L	U	1	1	OK
MW-18	Ammonia (as N)	0.05	mg/L	U	1	0.05	OK
MW-18	Selenium	5	ug/L	U	2	5	OK
MW-18	2-Butanone	20	ug/L	U	1	20	OK
MW-18	Naphthalene	1	ug/L	U	1	1	OK
MW-18	Bicarbonate (as CaCO3)	1	mg/L		1	1	OK
MW-18	Carbonate (as CaCO3)	1	mg/L	U	1	1	OK
MW-18	Gross Radium Alpha	0.506	pCi/L	U	1	1	OK
MW-18	Nitrate/Nitrite (as N)	0.1	mg/L	U	1	0.1	OK
MW-18	Total Dissolved Solids	20	MGL		2	10	OK
MW-19	Toluene	1	ug/L	U	1	1	OK

## G-5A Quarterly Sample Reporting Limit Check

Location	Analyte	Lab Reporting Limit	Units	Qualifier	Dilution Factor	Required Reporting Limit	RL Check
MW-19	Tetrahydrofuran	1	ug/L	U	1	1	OK
MW-19	Xylenes, Total	1	ug/L	U	1	1	OK
MW-19	Sulfate	75	mg/L		100	1	OK
MW-19	Chloride	1	mg/L		10	1	OK
MW-19	Fluoride	0.1	mg/L		1	0.1	OK
MW-19	Carbon tetrachloride	1	ug/L	U	1	1	OK
MW-19	Acetone	20	ug/L	U	1	20	OK
MW-19	Chloroform	1	ug/L	U	1	1	OK
MW-19	Benzene	1	ug/L	U	1	1	OK
MW-19	Chloromethane	1	ug/L	U	1	1	OK
MW-19	Iron	30	ug/L	U	2	30	OK
MW-19	Lead	1	ug/L	U	5	1	OK
MW-19	Magnesium	20	mg/L		20	0.5	OK
MW-19	Manganese	10	ug/L	U	2	10	OK
MW-19	Mercury	0.5	ug/L	U	1	0.5	OK
MW-19	Molybdenum	10	ug/L	U	5	10	OK
MW-19	Nickel	20	ug/L	U	2	20	OK
MW-19	Potassium	1	mg/L		1	0.5	OK
MW-19	Silver	10	ug/L	U	2	10	OK
MW-19	Sodium	20	mg/L		20	0.5	OK
MW-19	Thallium	0.5	ug/L	U	5	0.5	OK
MW-19	Tin	100	ug/L	U	5	100	OK
MW-19	Arsenic	5	ug/L	U	2	5	OK
MW-19	Beryllium	0.5	ug/L	U	5	0.5	OK
MW-19	Cadmium	0.5	ug/L	U	2	0.5	OK
MW-19	Chromium	25	ug/L	U	20	25	OK
MW-19	Cobalt	10	ug/L	U	2	10	OK
MW-19	Copper	10	ug/L	U	2	10	OK
MW-19	Uranium	0.5	ug/L		5	0.3	OK
MW-19	Vanadium	15	ug/L	U	1	15	OK
MW-19	Zinc	10	ug/L	U	20	10	OK
MW-19	Calcium	20	mg/L		20	0.5	OK
MW-19	Methylene chloride	1	ug/L	U	1	1	OK
MW-19	Ammonia (as N)	0.05	mg/L	U	1	0.05	OK
MW-19	Selenium	5	ug/L		2	5	OK
MW-19	2-Butanone	20	ug/L	U	1	20	OK
MW-19	Naphthalene	1	ug/L	U	1	1	OK
MW-19	Bicarbonate (as CaCO3)	1	mg/L		1	1	OK
MW-19	Carbonate (as CaCO3)	1	mg/L	U	1	1	OK
MW-19	Gross Radium Alpha	0.752	pCi/L		1	1	OK
MW-19	Nitrate/Nitrite (as N)	0.1	mg/L		10	0.1	OK
MW-19	Total Dissolved Solids	20	MG/L		2	10	OK
MW-20	Toluene	1	ug/L	U	1	1	OK
MW-20	Tetrahydrofuran	1	ug/L	U	1	1	OK
MW-20	Xylenes, Total	1	ug/L	U	1	1	OK
MW-20	Sulfate	375	mg/L		500	1	OK
MW-20	Chloride	1	mg/L		10	1	OK
MW-20	Fluoride	0.1	mg/L		1	0.1	OK
MW-20	Carbon tetrachloride	1	ug/L	U	1	1	OK
MW-20	Acetone	20	ug/L	U	1	20	OK
MW-20	Chloroform	1	ug/L	U	1	1	OK
MW-20	Benzene	1	ug/L	U	1	1	OK
MW-20	Chloromethane	1	ug/L	U	1	1	OK
MW-20	Iron	30	ug/L	U	5	30	OK

## G-5A Quarterly Sample Reporting Limit Check

Location	Analyte	Lab Reporting Limit	Units	Qualifier	Dilution Factor	Required Reporting Limit	RL Check
MW-20	Lead	1	ug/L	U	5	1	OK
MW-20	Magnesium	1	mg/L		1	0.5	OK
MW-20	Manganese	10	ug/L	U	20	10	OK
MW-20	Mercury	0.5	ug/L	U	1	0.5	OK
MW-20	Molybdenum	10	ug/L		20	10	OK
MW-20	Nickel	20	ug/L	U	20	20	OK
MW-20	Potassium	1	mg/L		1	0.5	OK
MW-20	Silver	10	ug/L	U	20	10	OK
MW-20	Sodium	50	mg/L		50	0.5	OK
MW-20	Thallium	0.5	ug/L	U	5	0.5	OK
MW-20	Tin	100	ug/L	U	20	100	OK
MW-20	Arsenic	5	ug/L	U	20	5	OK
MW-20	Beryllium	0.5	ug/L	U	5	0.5	OK
MW-20	Cadmium	0.5	ug/L	U	20	0.5	OK
MW-20	Chromium	25	ug/L	U	20	25	OK
MW-20	Cobalt	10	ug/L	U	20	10	OK
MW-20	Copper	10	ug/L	U	20	10	OK
MW-20	Uranium	0.3	ug/L		2	0.3	OK
MW-20	Vanadium	15	ug/L	U	1	15	OK
MW-20	Zinc	10	ug/L	U	20	10	OK
MW-20	Calcium	50	mg/L		50	0.5	OK
MW-20	Methylene chloride	1	ug/L	U	1	1	OK
MW-20	Ammonia (as N)	0.05	mg/L		1	0.05	OK
MW-20	Selenium	5	ug/L	U	20	5	OK
MW-20	2-Butanone	20	ug/L	U	1	20	OK
MW-20	Naphthalene	1	ug/L	U	1	1	OK
MW-20	Bicarbonate (as CaCO3)	1	mg/L		1	1	OK
MW-20	Carbonate (as CaCO3)	1	mg/L	U	1	1	OK
MW-20	Gross Radium Alpha	0.645	pCi/L	U	1	1	OK
MW-20	Nitrate/Nitrite (as N)	0.2	mg/L		20	0.1	OK
MW-20	Total Dissolved Solids	20	MG/L		2	10	OK
MW-22	Toluene	1	ug/L	U	1	1	OK
MW-22	Tetrahydrofuran	1	ug/L	U	1	1	OK
MW-22	Xylenes, Total	1	ug/L	U	1	1	OK
MW-22	Sulfate	750	mg/L		1000	1	OK
MW-22	Chloride	1	mg/L		10	1	OK
MW-22	Fluoride	1	mg/L		10	0.1	OK
MW-22	Carbon tetrachloride	1	ug/L	U	1	1	OK
MW-22	Acetone	20	ug/L	U	1	20	OK
MW-22	Chloroform	1	ug/L	U	1	1	OK
MW-22	Benzene	1	ug/L	U	1	1	OK
MW-22	Chloromethane	1	ug/L	U	1	1	OK
MW-22	Iron	30	ug/L		5	30	OK
MW-22	Lead	1	ug/L		5	1	OK
MW-22	Magnesium	100	mg/L		100	0.5	OK
MW-22	Manganese	50	ug/L		500	10	OK
MW-22	Mercury	0.5	ug/L	U	1	0.5	OK
MW-22	Molybdenum	10	ug/L		20	10	OK
MW-22	Nickel	20	ug/L		20	20	OK
MW-22	Potassium	1	mg/L		1	0.5	OK
MW-22	Silver	10	ug/L	U	20	10	OK
MW-22	Sodium	100	mg/L		100	0.5	OK
MW-22	Thallium	0.5	ug/L		5	0.5	OK
MW-22	Tin	100	ug/L	U	20	100	OK

## G-5A Quarterly Sample Reporting Limit Check

Location	Analyte	Lab Reporting Limit	Units	Qualifier	Dilution Factor	Required Reporting Limit	RL Check
MW-22	Arsenic	5	ug/L	U	20	5	OK
MW-22	Beryllium	0.5	ug/L		5	0.5	OK
MW-22	Cadmium	0.5	ug/L		20	0.5	OK
MW-22	Chromium	25	ug/L	U	20	25	OK
MW-22	Cobalt	10	ug/L		20	10	OK
MW-22	Copper	10	ug/L		20	10	OK
MW-22	Uranium	0.5	ug/L		5	0.3	OK
MW-22	Vanadium	15	ug/L	U	1	15	OK
MW-22	Zinc	10	ug/L		20	10	OK
MW-22	Calcium	100	mg/L		100	0.5	OK
MW-22	Methylene chloride	1	ug/L	U	1	1	OK
MW-22	Ammonia (as N)	0.05	mg/L		1	0.05	OK
MW-22	Selenium	5	ug/L		20	5	OK
MW-22	2-Butanone	20	ug/L	U	1	20	OK
MW-22	Naphthalene	1	ug/L	U	1	1	OK
MW-22	Bicarbonate (as CaCO3)	1	mg/L	U	1	1	OK
MW-22	Carbonate (as CaCO3)	1	mg/L	U	1	1	OK
MW-22	Gross Radium Alpha	1.39	pCi/L		1	1	OK
MW-22	Nitrate/Nitrite (as N)	0.1	mg/L		10	0.1	OK
MW-22	Total Dissolved Solids	20	MG/L		2	10	OK
MW-23	Toluene	1	ug/L	U	1	1	OK
MW-23	Tetrahydrofuran	1	ug/L	U	1	1	OK
MW-23	Xylenes, Total	1	ug/L	U	1	1	OK
MW-23	Sulfate	150	mg/L		200	1	OK
MW-23	Chloride	1	mg/L		10	1	OK
MW-23	Fluoride	0.1	mg/L		1	0.1	OK
MW-23	Carbon tetrachloride	1	ug/L	U	1	1	OK
MW-23	Acetone	20	ug/L	U	1	20	OK
MW-23	Chloroform	1	ug/L	U	1	1	OK
MW-23	Benzene	1	ug/L	U	1	1	OK
MW-23	Chloromethane	1	ug/L	U	1	1	OK
MW-23	Iron	30	ug/L	U	5	30	OK
MW-23	Lead	1	ug/L	U	5	1	OK
MW-23	Magnesium	50	mg/L		50	0.5	OK
MW-23	Manganese	10	ug/L	U	20	10	OK
MW-23	Mercury	0.5	ug/L	U	1	0.5	OK
MW-23	Molybdenum	10	ug/L	U	20	10	OK
MW-23	Nickel	20	ug/L	U	20	20	OK
MW-23	Potassium	1	mg/L		1	0.5	OK
MW-23	Silver	10	ug/L	U	20	10	OK
MW-23	Sodium	50	mg/L		50	0.5	OK
MW-23	Thallium	0.5	ug/L	U	5	0.5	OK
MW-23	Tin	100	ug/L	U	20	100	OK
MW-23	Arsenic	5	ug/L	U	20	5	OK
MW-23	Beryllium	0.5	ug/L	U	5	0.5	OK
MW-23	Cadmium	0.5	ug/L	U	20	0.5	OK
MW-23	Chromium	25	ug/L	U	20	25	OK
MW-23	Cobalt	10	ug/L	U	20	10	OK
MW-23	Copper	10	ug/L	U	20	10	OK
MW-23	Uranium	0.3	ug/L		2	0.3	OK
MW-23	Vanadium	15	ug/L	U	1	15	OK
MW-23	Zinc	10	ug/L	U	20	10	OK
MW-23	Calcium	50	mg/L		50	0.5	OK
MW-23	Methylene chloride	1	ug/L	U	1	1	OK

## G-5A Quarterly Sample Reporting Limit Check

Location	Analyte	Lab Reporting Limit	Units	Qualifier	Dilution Factor	Required Reporting Limit	RL Check
MW-23	Ammonia (as N)	0.05	mg/L	U	1	0.05	OK
MW-23	Selenium	5	ug/L	U	20	5	OK
MW-23	2-Butanone	20	ug/L	U	1	20	OK
MW-23	Naphthalene	1	ug/L	U	1	1	OK
MW-23	Bicarbonate (as CaCO3)	1	mg/L		1	1	OK
MW-23	Carbonate (as CaCO3)	1	mg/L	U	1	1	OK
MW-23	Gross Radium Alpha	0.687	pCi/L		1	1	OK
MW-23	Nitrate/Nitrite (as N)	0.1	mg/L		1	0.1	OK
MW-23	Total Dissolved Solids	20	MG/L		2	10	OK
MW-24	Toluene	1	ug/L	U	1	1	OK
MW-24	Tetrahydrofuran	1	ug/L	U	1	1	OK
MW-24	Xylenes, Total	1	ug/L	U	1	1	OK
MW-24	Sulfate	300	mg/L		400	1	OK
MW-24	Chloride	1	mg/L		10	1	OK
MW-24	Fluoride	0.1	mg/L		1	0.1	OK
MW-24	Carbon tetrachloride	1	ug/L	U	1	1	OK
MW-24	Acetone	20	ug/L	U	1	20	OK
MW-24	Chloroform	1	ug/L	U	1	1	OK
MW-24	Benzene	1	ug/L	U	1	1	OK
MW-24	Chloromethane	1	ug/L	U	1	1	OK
MW-24	Iron	30	ug/L		5	30	OK
MW-24	Lead	1	ug/L		5	1	OK
MW-24	Magnesium	20	mg/L		20	0.5	OK
MW-24	Manganese	10	ug/L		100	10	OK
MW-24	Mercury	0.5	ug/L	U	1	0.5	OK
MW-24	Molybdenum	10	ug/L	U	20	10	OK
MW-24	Nickel	20	ug/L		20	20	OK
MW-24	Potassium	1	mg/L		1	0.5	OK
MW-24	Silver	10	ug/L	U	20	10	OK
MW-24	Sodium	20	mg/L		20	0.5	OK
MW-24	Thallium	0.5	ug/L		5	0.5	OK
MW-24	Tin	100	ug/L	U	20	100	OK
MW-24	Arsenic	5	ug/L	U	20	5	OK
MW-24	Beryllium	0.5	ug/L		5	0.5	OK
MW-24	Cadmium	0.5	ug/L		20	0.5	OK
MW-24	Chromium	25	ug/L	U	20	25	OK
MW-24	Cobalt	10	ug/L		20	10	OK
MW-24	Copper	10	ug/L		20	10	OK
MW-24	Uranium	0.3	ug/L		2	0.3	OK
MW-24	Vanadium	15	ug/L	U	1	15	OK
MW-24	Zinc	10	ug/L		20	10	OK
MW-24	Calcium	20	mg/L		20	0.5	OK
MW-24	Methylene chloride	1	ug/L	U	1	1	OK
MW-24	Ammonia (as N)	0.05	mg/L		1	0.05	OK
MW-24	Selenium	5	ug/L		20	5	OK
MW-24	2-Butanone	20	ug/L	U	1	20	OK
MW-24	Naphthalene	1	ug/L	U	1	1	OK
MW-24	Bicarbonate (as CaCO3)	1	mg/L	U	1	1	OK
MW-24	Carbonate (as CaCO3)	1	mg/L	U	1	1	OK
MW-24	Gross Radium Alpha	0.671	pCi/L		1	1	OK
MW-24	Nitrate/Nitrite (as N)	0.1	mg/L		1	0.1	OK
MW-24	Total Dissolved Solids	20	MG/L		2	10	OK
MW-25	Toluene	1	ug/L	U	1	1	OK
MW-25	Tetrahydrofuran	1	ug/L	U	1	1	OK

## G-5A Quarterly Sample Reporting Limit Check

Location	Analyte	Lab Reporting Limit	Units	Qualifier	Dilution Factor	Required Reporting Limit	RL Check
MW-25	Xylenes, Total	1	ug/L	U	1	1	OK
MW-25	Sulfate	150	mg/L		200	1	OK
MW-25	Chloride	1	mg/L		10	1	OK
MW-25	Fluoride	0.1	mg/L		1	0.1	OK
MW-25	Carbon tetrachloride	1	ug/L	U	1	1	OK
MW-25	Acetone	20	ug/L	U	1	20	OK
MW-25	Chloroform	1	ug/L	U	1	1	OK
MW-25	Benzene	1	ug/L	U	1	1	OK
MW-25	Chloromethane	1	ug/L	U	1	1	OK
MW-25	Iron	30	ug/L	U	2	30	OK
MW-25	Lead	1	ug/L	U	2	1	OK
MW-25	Magnesium	20	mg/L		20	0.5	OK
MW-25	Manganese	10	ug/L		20	10	OK
MW-25	Mercury	0.5	ug/L	U	1	0.5	OK
MW-25	Molybdenum	10	ug/L		2	10	OK
MW-25	Nickel	20	ug/L	U	2	20	OK
MW-25	Potassium	1	mg/L		1	0.5	OK
MW-25	Silver	10	ug/L	U	2	10	OK
MW-25	Sodium	20	mg/L		20	0.5	OK
MW-25	Thallium	0.5	ug/L		2	0.5	OK
MW-25	Tin	100	ug/L	U	2	100	OK
MW-25	Arsenic	5	ug/L	U	2	5	OK
MW-25	Beryllium	0.5	ug/L	U	2	0.5	OK
MW-25	Cadmium	0.5	ug/L		2	0.5	OK
MW-25	Chromium	25	ug/L	U	20	25	OK
MW-25	Cobalt	10	ug/L	U	2	10	OK
MW-25	Copper	10	ug/L	U	20	10	OK
MW-25	Uranium	0.3	ug/L		2	0.3	OK
MW-25	Vanadium	15	ug/L	U	1	15	OK
MW-25	Zinc	10	ug/L	U	2	10	OK
MW-25	Calcium	20	mg/L		20	0.5	OK
MW-25	Methylene chloride	1	ug/L	U	1	1	OK
MW-25	Ammonia (as N)	0.05	mg/L		1	0.05	OK
MW-25	Selenium	5	ug/L	U	2	5	OK
MW-25	2-Butanone	20	ug/L	U	1	20	OK
MW-25	Naphthalene	1	ug/L	U	1	1	OK
MW-25	Bicarbonate (as CaCO3)	1	mg/L		1	1	OK
MW-25	Carbonate (as CaCO3)	1	mg/L	U	1	1	OK
MW-25	Gross Radium Alpha	0.89	pCi/L		1	1	OK
MW-25	Nitrate/Nitrite (as N)	0.1	mg/L	U	1	0.1	OK
MW-25	Total Dissolved Solids	20	MG/L		2	10	OK
MW-26	Toluene	1	ug/L	U	1	1	OK
MW-26	Tetrahydrofuran	1	ug/L	U	1	1	OK
MW-26	Xylenes, Total	1	ug/L	U	1	1	OK
MW-26	Sulfate	750	mg/L		1000	1	OK
MW-26	Chloride	1	mg/L		10	1	OK
MW-26	Fluoride	0.1	mg/L		1	0.1	OK
MW-26	Carbon tetrachloride	1	ug/L	U	1	1	OK
MW-26	Acetone	20	ug/L	U	1	20	OK
MW-26	Chloroform	100	ug/L		100	1	OK
MW-26	Benzene	1	ug/L	U	1	1	OK
MW-26	Chloromethane	1	ug/L	U	1	1	OK
MW-26	Iron	100	ug/L		20	30	OK
MW-26	Lead	1	ug/L	U	5	1	OK

## G-5A Quarterly Sample Reporting Limit Check

Location	Analyte	Lab Reporting Limit	Units	Qualifier	Dilution Factor	Required Reporting Limit	RL Check
MW-26	Magnesium	20	mg/L		20	0.5	OK
MW-26	Manganese	10	ug/L		20	10	OK
MW-26	Mercury	0.5	ug/L	U	1	0.5	OK
MW-26	Molybdenum	10	ug/L	U	5	10	OK
MW-26	Nickel	20	ug/L	U	2	20	OK
MW-26	Potassium	1	mg/L		1	0.5	OK
MW-26	Silver	10	ug/L	U	2	10	OK
MW-26	Sodium	20	mg/L		20	0.5	OK
MW-26	Thallium	0.5	ug/L	U	5	0.5	OK
MW-26	Tin	100	ug/L	U	5	100	OK
MW-26	Arsenic	5	ug/L	U	2	5	OK
MW-26	Beryllium	0.5	ug/L	U	5	0.5	OK
MW-26	Cadmium	0.5	ug/L	U	2	0.5	OK
MW-26	Chromium	25	ug/L	U	20	25	OK
MW-26	Cobalt	10	ug/L	U	2	10	OK
MW-26	Copper	10	ug/L	U	2	10	OK
MW-26	Uranium	0.5	ug/L		5	0.3	OK
MW-26	Vanadium	15	ug/L	U	1	15	OK
MW-26	Zinc	10	ug/L	U	20	10	OK
MW-26	Calcium	20	mg/L		20	0.5	OK
MW-26	Methylene chloride	1	ug/L		1	1	OK
MW-26	Ammonia (as N)	0.05	mg/L		1	0.05	OK
MW-26	Selenium	5	ug/L	U	2	5	OK
MW-26	2-Butanone	20	ug/L	U	1	20	OK
MW-26	Naphthalene	1	ug/L	U	1	1	OK
MW-26	Bicarbonate (as CaCO3)	1	mg/L		1	1	OK
MW-26	Carbonate (as CaCO3)	1	mg/L	U	1	1	OK
MW-26	Gross Radium Alpha	0.46	pCi/L		1	1	OK
MW-26	Nitrate/Nitrite (as N)	0.1	mg/L		10	0.1	OK
MW-26	Total Dissolved Solids	20	MG/L		2	10	OK
MW-27	Toluene	1	ug/L	U	1	1	OK
MW-27	Tetrahydrofuran	1	ug/L	U	1	1	OK
MW-27	Xylenes, Total	1	ug/L	U	1	1	OK
MW-27	Sulfate	75	mg/L		100	1	OK
MW-27	Chloride	1	mg/L		10	1	OK
MW-27	Fluoride	0.1	mg/L		1	0.1	OK
MW-27	Carbon tetrachloride	1	ug/L	U	1	1	OK
MW-27	Acetone	20	ug/L	U	1	20	OK
MW-27	Chloroform	1	ug/L	U	1	1	OK
MW-27	Benzene	1	ug/L	U	1	1	OK
MW-27	Chloromethane	1	ug/L	U	1	1	OK
MW-27	Iron	30	ug/L	U	2	30	OK
MW-27	Lead	1	ug/L	U	5	1	OK
MW-27	Magnesium	20	mg/L		20	0.5	OK
MW-27	Manganese	10	ug/L	U	2	10	OK
MW-27	Mercury	0.5	ug/L	U	1	0.5	OK
MW-27	Molybdenum	10	ug/L	U	5	10	OK
MW-27	Nickel	20	ug/L	U	2	20	OK
MW-27	Potassium	1	mg/L		1	0.5	OK
MW-27	Silver	10	ug/L	U	2	10	OK
MW-27	Sodium	20	mg/L		20	0.5	OK
MW-27	Thallium	0.5	ug/L	U	5	0.5	OK
MW-27	Tin	100	ug/L	U	5	100	OK
MW-27	Arsenic	5	ug/L	U	2	5	OK

## G-5A Quarterly Sample Reporting Limit Check

Location	Analyte	Lab Reporting Limit	Units	Qualifier	Dilution Factor	Required Reporting Limit	RL Check
MW-27	Beryllium	0.5	ug/L	U	5	0.5	OK
MW-27	Cadmium	0.5	ug/L	U	2	0.5	OK
MW-27	Chromium	25	ug/L	U	20	25	OK
MW-27	Cobalt	10	ug/L	U	2	10	OK
MW-27	Copper	10	ug/L	U	2	10	OK
MW-27	Uranium	0.5	ug/L		5	0.3	OK
MW-27	Vanadium	15	ug/L	U	1	15	OK
MW-27	Zinc	10	ug/L	U	20	10	OK
MW-27	Calcium	20	mg/L		20	0.5	OK
MW-27	Methylene chloride	1	ug/L	U	1	1	OK
MW-27	Ammonia (as N)	0.05	mg/L	U	1	0.05	OK
MW-27	Selenium	5	ug/L		2	5	OK
MW-27	2-Butanone	20	ug/L	U	1	20	OK
MW-27	Naphthalene	1	ug/L	U	1	1	OK
MW-27	Bicarbonate (as CaCO3)	1	mg/L		1	1	OK
MW-27	Carbonate (as CaCO3)	1	mg/L	U	1	1	OK
MW-27	Gross Radium Alpha	0.704	pCi/L		1	1	OK
MW-27	Nitrate/Nitrite (as N)	0.1	mg/L		10	0.1	OK
MW-27	Total Dissolved Solids	20	MG/L		2	10	OK
MW-28	Toluene	1	ug/L	U	1	1	OK
MW-28	Tetrahydrofuran	1	ug/L	U	1	1	OK
MW-28	Xylenes, Total	1	ug/L	U	1	1	OK
MW-28	Sulfate	150	mg/L		200	1	OK
MW-28	Chloride	20	mg/L		200	1	OK
MW-28	Fluoride	0.1	mg/L		1	0.1	OK
MW-28	Carbon tetrachloride	1	ug/L	U	1	1	OK
MW-28	Acetone	20	ug/L	U	1	20	OK
MW-28	Chloroform	1	ug/L	U	1	1	OK
MW-28	Benzene	1	ug/L	U	1	1	OK
MW-28	Chloromethane	1	ug/L	U	1	1	OK
MW-28	Iron	30	ug/L	U	2	30	OK
MW-28	Lead	1	ug/L	U	5	1	OK
MW-28	Magnesium	20	mg/L		20	0.5	OK
MW-28	Manganese	10	ug/L		20	10	OK
MW-28	Mercury	0.5	ug/L	U	1	0.5	OK
MW-28	Molybdenum	10	ug/L	U	5	10	OK
MW-28	Nickel	20	ug/L		2	20	OK
MW-28	Potassium	1	mg/L		1	0.5	OK
MW-28	Silver	10	ug/L	U	2	10	OK
MW-28	Sodium	20	mg/L		20	0.5	OK
MW-28	Thallium	0.5	ug/L		5	0.5	OK
MW-28	Tin	100	ug/L	U	5	100	OK
MW-28	Arsenic	5	ug/L		2	5	OK
MW-28	Beryllium	0.5	ug/L	U	2	0.5	OK
MW-28	Cadmium	0.5	ug/L		2	0.5	OK
MW-28	Chromium	25	ug/L	U	20	25	OK
MW-28	Cobalt	10	ug/L		2	10	OK
MW-28	Copper	10	ug/L	U	2	10	OK
MW-28	Uranium	0.5	ug/L		5	0.3	OK
MW-28	Vanadium	15	ug/L	U	1	15	OK
MW-28	Zinc	10	ug/L		20	10	OK
MW-28	Calcium	20	mg/L		20	0.5	OK
MW-28	Methylene chloride	1	ug/L	U	1	1	OK
MW-28	Ammonia (as N)	0.05	mg/L	U	1	0.05	OK

## G-5A Quarterly Sample Reporting Limit Check

Location	Analyte	Lab Reporting Limit	Units	Qualifier	Dilution Factor	Required Reporting Limit	RL Check
MW-28	Selenium	5	ug/L		20	5	OK
MW-28	2-Butanone	20	ug/L	U	1	20	OK
MW-28	Naphthalene	1	ug/L	U	1	1	OK
MW-28	Bicarbonate (as CaCO3)	1	mg/L		1	1	OK
MW-28	Carbonate (as CaCO3)	1	mg/L	U	1	1	OK
MW-28	Gross Radium Alpha	0.611	pCi/L		1	1	OK
MW-28	Nitrate/Nitrite (as N)	0.1	mg/L		10	0.1	OK
MW-28	Total Dissolved Solids	20	MG/L		2	10	OK
MW-29	Toluene	1	ug/L	U	1	1	OK
MW-29	Tetrahydrofuran	1	ug/L	U	1	1	OK
MW-29	Xylenes, Total	1	ug/L	U	1	1	OK
MW-29	Sulfate	750	mg/L		1000	1	OK
MW-29	Chloride	1	mg/L		10	1	OK
MW-29	Fluoride	0.1	mg/L		1	0.1	OK
MW-29	Carbon tetrachloride	1	ug/L	U	1	1	OK
MW-29	Acetone	20	ug/L	U	1	20	OK
MW-29	Chloroform	1	ug/L	U	1	1	OK
MW-29	Benzene	1	ug/L	U	1	1	OK
MW-29	Chloromethane	1	ug/L	U	1	1	OK
MW-29	Iron	100	ug/L		20	30	OK
MW-29	Lead	1	ug/L	U	2	1	OK
MW-29	Magnesium	20	mg/L		20	0.5	OK
MW-29	Manganese	10	ug/L		100	10	OK
MW-29	Mercury	0.5	ug/L	U	1	0.5	OK
MW-29	Molybdenum	10	ug/L	U	5	10	OK
MW-29	Nickel	20	ug/L	U	2	20	OK
MW-29	Potassium	1	mg/L		1	0.5	OK
MW-29	Silver	10	ug/L	U	2	10	OK
MW-29	Sodium	20	mg/L		20	0.5	OK
MW-29	Thallium	0.5	ug/L	U	2	0.5	OK
MW-29	Tin	100	ug/L	U	5	100	OK
MW-29	Arsenic	5	ug/L	U	2	5	OK
MW-29	Beryllium	0.5	ug/L	U	5	0.5	OK
MW-29	Cadmium	0.5	ug/L	U	2	0.5	OK
MW-29	Chromium	25	ug/L	U	20	25	OK
MW-29	Cobalt	10	ug/L	U	2	10	OK
MW-29	Copper	10	ug/L	U	2	10	OK
MW-29	Uranium	0.3	ug/L		2	0.3	OK
MW-29	Vanadium	15	ug/L	U	1	15	OK
MW-29	Zinc	10	ug/L	U	20	10	OK
MW-29	Calcium	20	mg/L		20	0.5	OK
MW-29	Methylene chloride	1	ug/L	U	1	1	OK
MW-29	Ammonia (as N)	0.05	mg/L		1	0.05	OK
MW-29	Selenium	5	ug/L	U	2	5	OK
MW-29	2-Butanone	20	ug/L	U	1	20	OK
MW-29	Naphthalene	1	ug/L	U	1	1	OK
MW-29	Bicarbonate (as CaCO3)	1	mg/L		1	1	OK
MW-29	Carbonate (as CaCO3)	1	mg/L	U	1	1	OK
MW-29	Gross Radium Alpha	0.573	pCi/L		1	1	OK
MW-29	Nitrate/Nitrite (as N)	0.1	mg/L	U	1	0.1	OK
MW-29	Total Dissolved Solids	20	MG/L		2	10	OK
MW-30	Toluene	1	ug/L	U	1	1	OK
MW-30	Tetrahydrofuran	1	ug/L	U	1	1	OK
MW-30	Xylenes, Total	1	ug/L	U	1	1	OK

## G-5A Quarterly Sample Reporting Limit Check

Location	Analyte	Lab Reporting Limit	Units	Qualifier	Dilution Factor	Required Reporting Limit	RL Check
MW-30	Sulfate	75	mg/L		100	1	OK
MW-30	Chloride	10	mg/L		100	1	OK
MW-30	Fluoride	0.1	mg/L		1	0.1	OK
MW-30	Carbon tetrachloride	1	ug/L	U	1	1	OK
MW-30	Acetone	20	ug/L	U	1	20	OK
MW-30	Chloroform	1	ug/L	U	1	1	OK
MW-30	Benzene	1	ug/L	U	1	1	OK
MW-30	Chloromethane	1	ug/L	U	1	1	OK
MW-30	Iron	30	ug/L	U	2	30	OK
MW-30	Lead	1	ug/L	U	2	1	OK
MW-30	Magnesium	20	mg/L		20	0.5	OK
MW-30	Manganese	10	ug/L	U	2	10	OK
MW-30	Mercury	0.5	ug/L	U	1	0.5	OK
MW-30	Molybdenum	10	ug/L	U	2	10	OK
MW-30	Nickel	20	ug/L	U	2	20	OK
MW-30	Potassium	1	mg/L		1	0.5	OK
MW-30	Silver	10	ug/L	U	2	10	OK
MW-30	Sodium	20	mg/L		20	0.5	OK
MW-30	Thallium	0.5	ug/L	U	2	0.5	OK
MW-30	Tin	100	ug/L	U	2	100	OK
MW-30	Arsenic	5	ug/L	U	2	5	OK
MW-30	Beryllium	0.5	ug/L	U	2	0.5	OK
MW-30	Cadmium	0.5	ug/L	U	2	0.5	OK
MW-30	Chromium	25	ug/L	U	20	25	OK
MW-30	Cobalt	10	ug/L	U	2	10	OK
MW-30	Copper	10	ug/L	U	20	10	OK
MW-30	Uranium	0.3	ug/L		2	0.3	OK
MW-30	Vanadium	15	ug/L	U	1	15	OK
MW-30	Zinc	10	ug/L	U	2	10	OK
MW-30	Calcium	20	mg/L		20	0.5	OK
MW-30	Methylene chloride	1	ug/L	U	1	1	OK
MW-30	Ammonia (as N)	0.05	mg/L	U	1	0.05	OK
MW-30	Selenium	5	ug/L		2	5	OK
MW-30	2-Butanone	20	ug/L	U	1	20	OK
MW-30	Naphthalene	1	ug/L	U	1	1	OK
MW-30	Bicarbonate (as CaCO3)	1	mg/L		1	1	OK
MW-30	Carbonate (as CaCO3)	1	mg/L	U	1	1	OK
MW-30	Gross Radium Alpha	0.891	pCi/L	U	1	1	OK
MW-30	Nitrate/Nitrite (as N)	0.1	mg/L		10	0.1	OK
MW-30	Total Dissolved Solids	20	MG/L		2	10	OK
MW-31	Toluene	1	ug/L	U	1	1	OK
MW-31	Tetrahydrofuran	1	ug/L	U	1	1	OK
MW-31	Xylenes, Total	1	ug/L	U	1	1	OK
MW-31	Sulfate	75	mg/L		100	1	OK
MW-31	Chloride	10	mg/L		100	1	OK
MW-31	Fluoride	0.1	mg/L		1	0.1	OK
MW-31	Carbon tetrachloride	1	ug/L	U	1	1	OK
MW-31	Acetone	20	ug/L	U	1	20	OK
MW-31	Chloroform	1	ug/L	U	1	1	OK
MW-31	Benzene	1	ug/L	U	1	1	OK
MW-31	Chloromethane	1	ug/L	U	1	1	OK
MW-31	Iron	30	ug/L	U	2	30	OK
MW-31	Lead	1	ug/L	U	2	1	OK
MW-31	Magnesium	20	mg/L		20	0.5	OK

## G-5A Quarterly Sample Reporting Limit Check

Location	Analyte	Lab Reporting Limit	Units	Qualifier	Dilution Factor	Required Reporting Limit	RL Check
MW-31	Manganese	10	ug/L	U	2	10	OK
MW-31	Mercury	0.5	ug/L	U	1	0.5	OK
MW-31	Molybdenum	10	ug/L	U	2	10	OK
MW-31	Nickel	20	ug/L	U	2	20	OK
MW-31	Potassium	1	mg/L		1	0.5	OK
MW-31	Silver	10	ug/L	U	2	10	OK
MW-31	Sodium	20	mg/L		20	0.5	OK
MW-31	Thallium	0.5	ug/L	U	2	0.5	OK
MW-31	Tin	100	ug/L	U	2	100	OK
MW-31	Arsenic	5	ug/L	U	2	5	OK
MW-31	Beryllium	0.5	ug/L	U	2	0.5	OK
MW-31	Cadmium	0.5	ug/L	U	2	0.5	OK
MW-31	Chromium	25	ug/L	U	20	25	OK
MW-31	Cobalt	10	ug/L	U	2	10	OK
MW-31	Copper	10	ug/L	U	20	10	OK
MW-31	Uranium	0.3	ug/L		2	0.3	OK
MW-31	Vanadium	15	ug/L	U	1	15	OK
MW-31	Zinc	10	ug/L	U	2	10	OK
MW-31	Calcium	20	mg/L		20	0.5	OK
MW-31	Methylene chloride	1	ug/L	U	1	1	OK
MW-31	Ammonia (as N)	0.05	mg/L	U	1	0.05	OK
MW-31	Selenium	5	ug/L		2	5	OK
MW-31	2-Butanone	20	ug/L	U	1	20	OK
MW-31	Naphthalene	1	ug/L	U	1	1	OK
MW-31	Bicarbonate (as CaCO3)	1	mg/L		1	1	OK
MW-31	Carbonate (as CaCO3)	1	mg/L	U	1	1	OK
MW-31	Gross Radium Alpha	0.845	pCi/L		1	1	OK
MW-31	Nitrate/Nitrite (as N)	0.1	mg/L		10	0.1	OK
MW-31	Total Dissolved Solids	20	MG/L		2	10	OK
MW-32	Toluene	1	ug/L	U	1	1	OK
MW-32	Tetrahydrofuran	1	ug/L	U	1	1	OK
MW-32	Xylenes, Total	1	ug/L	U	1	1	OK
MW-32	Sulfate	150	mg/L		200	1	OK
MW-32	Chloride	1	mg/L		10	1	OK
MW-32	Fluoride	0.1	mg/L		1	0.1	OK
MW-32	Carbon tetrachloride	1	ug/L	U	1	1	OK
MW-32	Acetone	20	ug/L	U	1	20	OK
MW-32	Chloroform	1	ug/L	U	1	1	OK
MW-32	Benzene	1	ug/L	U	1	1	OK
MW-32	Chloromethane	1	ug/L	U	1	1	OK
MW-32	Iron	500	ug/L		100	30	OK
MW-32	Lead	1	ug/L	U	2	1	OK
MW-32	Magnesium	20	mg/L		20	0.5	OK
MW-32	Manganese	10	ug/L		100	10	OK
MW-32	Mercury	0.5	ug/L	U	1	0.5	OK
MW-32	Molybdenum	10	ug/L		2	10	OK
MW-32	Nickel	20	ug/L		2	20	OK
MW-32	Potassium	1	mg/L		1	0.5	OK
MW-32	Silver	10	ug/L	U	2	10	OK
MW-32	Sodium	20	mg/L		20	0.5	OK
MW-32	Thallium	0.5	ug/L	U	2	0.5	OK
MW-32	Tin	100	ug/L	U	2	100	OK
MW-32	Arsenic	5	ug/L	U	2	5	OK
MW-32	Beryllium	0.5	ug/L	U	2	0.5	OK

## G-5A Quarterly Sample Reporting Limit Check

Location	Analyte	Lab Reporting Limit	Units	Qualifier	Dilution Factor	Required Reporting Limit	RL Check
MW-32	Cadmium	0.5	ug/L		2	0.5	OK
MW-32	Chromium	25	ug/L	U	20	25	OK
MW-32	Cobalt	10	ug/L		2	10	OK
MW-32	Copper	10	ug/L	U	20	10	OK
MW-32	Uranium	0.3	ug/L		2	0.3	OK
MW-32	Vanadium	15	ug/L	U	1	15	OK
MW-32	Zinc	10	ug/L		2	10	OK
MW-32	Calcium	20	mg/L		20	0.5	OK
MW-32	Methylene chloride	1	ug/L	U	1	1	OK
MW-32	Ammonia (as N)	0.05	mg/L		1	0.05	OK
MW-32	Selenium	5	ug/L	U	2	5	OK
MW-32	2-Butanone	20	ug/L	U	1	20	OK
MW-32	Naphthalene	1	ug/L	U	1	1	OK
MW-32	Bicarbonate (as CaCO3)	1	mg/L		1	1	OK
MW-32	Carbonate (as CaCO3)	1	mg/L	U	1	1	OK
MW-32	Gross Radium Alpha	0.99	pCi/L		1	1	OK
MW-32	Nitrate/Nitrite (as N)	0.1	mg/L	U	1	0.1	OK
MW-32	Total Dissolved Solids	20	MG/L		2	10	OK
MW-35	Toluene	1	ug/L	U	1	1	OK
MW-35	Tetrahydrofuran	1	ug/L	U	1	1	OK
MW-35	Xylenes, Total	1	ug/L	U	1	1	OK
MW-35	Sulfate	150	mg/L		200	1	OK
MW-35	Chloride	1	mg/L		10	1	OK
MW-35	Fluoride	0.1	mg/L		1	0.1	OK
MW-35	Carbon tetrachloride	1	ug/L	U	1	1	OK
MW-35	Acetone	20	ug/L	U	1	20	OK
MW-35	Chloroform	1	ug/L	U	1	1	OK
MW-35	Benzene	1	ug/L	U	1	1	OK
MW-35	Chloromethane	1	ug/L	U	1	1	OK
MW-35	Iron	30	ug/L		2	30	OK
MW-35	Lead	1	ug/L	U	2	1	OK
MW-35	Magnesium	20	mg/L		20	0.5	OK
MW-35	Manganese	10	ug/L		20	10	OK
MW-35	Mercury	0.5	ug/L	U	1	0.5	OK
MW-35	Molybdenum	10	ug/L	U	2	10	OK
MW-35	Nickel	20	ug/L	U	2	20	OK
MW-35	Potassium	1	mg/L		1	0.5	OK
MW-35	Silver	10	ug/L	U	2	10	OK
MW-35	Sodium	20	mg/L		20	0.5	OK
MW-35	Thallium	0.5	ug/L	U	2	0.5	OK
MW-35	Tin	100	ug/L	U	2	100	OK
MW-35	Arsenic	5	ug/L	U	2	5	OK
MW-35	Beryllium	0.5	ug/L	U	2	0.5	OK
MW-35	Cadmium	0.5	ug/L	U	2	0.5	OK
MW-35	Chromium	25	ug/L	U	2	25	OK
MW-35	Cobalt	10	ug/L	U	2	10	OK
MW-35	Copper	10	ug/L	U	2	10	OK
MW-35	Uranium	0.3	ug/L		2	0.3	OK
MW-35	Vanadium	15	ug/L	U	1	15	OK
MW-35	Zinc	10	ug/L	U	20	10	OK
MW-35	Calcium	20	mg/L		20	0.5	OK
MW-35	Methylene chloride	1	ug/L	U	1	1	OK
MW-35	Ammonia (as N)	0.05	mg/L		1	0.05	OK
MW-35	Selenium	5	ug/L		2	5	OK

## G-5A Quarterly Sample Reporting Limit Check

Location	Analyte	Lab Reporting Limit	Units	Qualifier	Dilution Factor	Required Reporting Limit	RL Check
MW-35	2-Butanone	20	ug/L	U	1	20	OK
MW-35	Naphthalene	1	ug/L	U	1	1	OK
MW-35	Bicarbonate (as CaCO3)	1	mg/L		1	1	OK
MW-35	Carbonate (as CaCO3)	1	mg/L	U	1	1	OK
MW-35	Gross Radium Alpha	0.665	pCi/L		1	1	OK
MW-35	Nitrate/Nitrite (as N)	0.1	mg/L	U	1	0.1	OK
MW-35	Total Dissolved Solids	20	MG/L		2	10	OK
MW-36	Toluene	1	ug/L	U	1	1	OK
MW-36	Tetrahydrofuran	1	ug/L	U	1	1	OK
MW-36	Xylenes, Total	1	ug/L	U	1	1	OK
MW-36	Sulfate	150	mg/L		200	1	OK
MW-36	Chloride	1	mg/L		10	1	OK
MW-36	Fluoride	0.1	mg/L		1	0.1	OK
MW-36	Carbon tetrachloride	1	ug/L	U	1	1	OK
MW-36	Acetone	20	ug/L	U	1	20	OK
MW-36	Chloroform	1	ug/L	U	1	1	OK
MW-36	Benzene	1	ug/L	U	1	1	OK
MW-36	Chloromethane	1	ug/L	U	1	1	OK
MW-36	Iron	30	ug/L	U	2	30	OK
MW-36	Lead	1	ug/L	U	2	1	OK
MW-36	Magnesium	20	mg/L		20	0.5	OK
MW-36	Manganese	10	ug/L	U	2	10	OK
MW-36	Mercury	0.5	ug/L	U	1	0.5	OK
MW-36	Molybdenum	10	ug/L	U	2	10	OK
MW-36	Nickel	20	ug/L	U	2	20	OK
MW-36	Potassium	1	mg/L		1	0.5	OK
MW-36	Silver	10	ug/L	U	2	10	OK
MW-36	Sodium	20	mg/L		20	0.5	OK
MW-36	Thallium	0.5	ug/L		2	0.5	OK
MW-36	Tin	100	ug/L	U	2	100	OK
MW-36	Arsenic	5	ug/L	U	2	5	OK
MW-36	Beryllium	0.5	ug/L	U	2	0.5	OK
MW-36	Cadmium	0.5	ug/L	U	2	0.5	OK
MW-36	Chromium	25	ug/L	U	2	25	OK
MW-36	Cobalt	10	ug/L	U	2	10	OK
MW-36	Copper	10	ug/L	U	2	10	OK
MW-36	Uranium	0.3	ug/L		2	0.3	OK
MW-36	Vanadium	15	ug/L	U	1	15	OK
MW-36	Zinc	10	ug/L		20	10	OK
MW-36	Calcium	20	mg/L		20	0.5	OK
MW-36	Methylene chloride	1	ug/L	U	1	1	OK
MW-36	Ammonia (as N)	0.05	mg/L	U	1	0.05	OK
MW-36	Selenium	5	ug/L		20	5	OK
MW-36	2-Butanone	20	ug/L	U	1	20	OK
MW-36	Naphthalene	1	ug/L	U	1	1	OK
MW-36	Bicarbonate (as CaCO3)	1	mg/L		1	1	OK
MW-36	Carbonate (as CaCO3)	1	mg/L	U	1	1	OK
MW-36	Gross Radium Alpha	0.566	pCi/L	U	1	1	OK
MW-36	Nitrate/Nitrite (as N)	0.1	mg/L		10	0.1	OK
MW-36	Total Dissolved Solids	20	MG/L		2	10	OK
MW-37	Toluene	1	ug/L	U	1	1	OK
MW-37	Tetrahydrofuran	1	ug/L	U	1	1	OK
MW-37	Xylenes, Total	1	ug/L	U	1	1	OK
MW-37	Sulfate	150	mg/L		200	1	OK

## G-5A Quarterly Sample Reporting Limit Check

Location	Analyte	Lab Reporting Limit	Units	Qualifier	Dilution Factor	Required Reporting Limit	RL Check
MW-37	Chloride	1	mg/L		10	1	OK
MW-37	Fluoride	0.1	mg/L		1	0.1	OK
MW-37	Carbon tetrachloride	1	ug/L	U	1	1	OK
MW-37	Acetone	20	ug/L	U	1	20	OK
MW-37	Chloroform	1	ug/L	U	1	1	OK
MW-37	Benzene	1	ug/L	U	1	1	OK
MW-37	Chloromethane	1	ug/L	U	1	1	OK
MW-37	Iron	30	ug/L	U	5	30	OK
MW-37	Lead	1	ug/L	U	5	1	OK
MW-37	Magnesium	50	mg/L		50	0.5	OK
MW-37	Manganese	10	ug/L	U	20	10	OK
MW-37	Mercury	0.5	ug/L	U	1	0.5	OK
MW-37	Molybdenum	10	ug/L	U	20	10	OK
MW-37	Nickel	20	ug/L	U	20	20	OK
MW-37	Potassium	1	mg/L		1	0.5	OK
MW-37	Silver	10	ug/L	U	20	10	OK
MW-37	Sodium	50	mg/L		50	0.5	OK
MW-37	Thallium	0.5	ug/L		5	0.5	OK
MW-37	Tin	100	ug/L	U	20	100	OK
MW-37	Arsenic	5	ug/L	U	20	5	OK
MW-37	Beryllium	0.5	ug/L	U	5	0.5	OK
MW-37	Cadmium	0.5	ug/L	U	20	0.5	OK
MW-37	Chromium	25	ug/L	U	20	25	OK
MW-37	Cobalt	10	ug/L	U	20	10	OK
MW-37	Copper	10	ug/L	U	20	10	OK
MW-37	Uranium	0.3	ug/L		2	0.3	OK
MW-37	Vanadium	15	ug/L	U	1	15	OK
MW-37	Zinc	10	ug/L		20	10	OK
MW-37	Calcium	50	mg/L		50	0.5	OK
MW-37	Methylene chloride	1	ug/L	U	1	1	OK
MW-37	Ammonia (as N)	0.05	mg/L	U	1	0.05	OK
MW-37	Selenium	5	ug/L	U	20	5	OK
MW-37	2-Butanone	20	ug/L	U	1	20	OK
MW-37	Naphthalene	1	ug/L	U	1	1	OK
MW-37	Bicarbonate (as CaCO3)	1	mg/L		1	1	OK
MW-37	Carbonate (as CaCO3)	1	mg/L	U	1	1	OK
MW-37	Gross Radium Alpha	0.82	pCi/L		1	1	OK
MW-37	Nitrate/Nitrite (as N)	0.1	mg/L		1	0.1	OK
MW-37	Total Dissolved Solids	20	MG/L		2	10	OK
MW-38	Toluene	1	ug/L	U	1	1	OK
MW-38	Tetrahydrofuran	1	ug/L	U	1	1	OK
MW-38	Xylenes, Total	1	ug/L	U	1	1	OK
MW-38	Sulfate	300	mg/L		400	1	OK
MW-38	Chloride	1	mg/L		10	1	OK
MW-38	Fluoride	0.1	mg/L		1	0.1	OK
MW-38	Carbon tetrachloride	1	ug/L	U	1	1	OK
MW-38	Acetone	20	ug/L	U	1	20	OK
MW-38	Chloroform	1	ug/L	U	1	1	OK
MW-38	Benzene	1	ug/L	U	1	1	OK
MW-38	Chloromethane	1	ug/L	U	1	1	OK
MW-38	Iron	30	ug/L	U	5	30	OK
MW-38	Lead	1	ug/L	U	5	1	OK
MW-38	Magnesium	20	mg/L		20	0.5	OK
MW-38	Manganese	10	ug/L	U	20	10	OK

## G-5A Quarterly Sample Reporting Limit Check

Location	Analyte	Lab Reporting Limit	Units	Qualifier	Dilution Factor	Required Reporting Limit	RL Check
MW-38	Mercury	0.5	ug/L	U	1	0.5	OK
MW-38	Molybdenum	10	ug/L	U	20	10	OK
MW-38	Nickel	20	ug/L	U	20	20	OK
MW-38	Potassium	1	mg/L		1	0.5	OK
MW-38	Silver	10	ug/L	U	20	10	OK
MW-38	Sodium	20	mg/L		20	0.5	OK
MW-38	Thallium	0.5	ug/L	U	5	0.5	OK
MW-38	Tin	100	ug/L	U	20	100	OK
MW-38	Arsenic	5	ug/L	U	20	5	OK
MW-38	Beryllium	0.5	ug/L	U	5	0.5	OK
MW-38	Cadmium	0.5	ug/L	U	20	0.5	OK
MW-38	Chromium	25	ug/L	U	20	25	OK
MW-38	Cobalt	10	ug/L	U	20	10	OK
MW-38	Copper	10	ug/L	U	20	10	OK
MW-38	Uranium	0.3	ug/L		2	0.3	OK
MW-38	Vanadium	15	ug/L	U	1	15	OK
MW-38	Zinc	10	ug/L	U	20	10	OK
MW-38	Calcium	20	mg/L		20	0.5	OK
MW-38	Methylene chloride	1	ug/L	U	1	1	OK
MW-38	Ammonia (as N)	0.05	mg/L	U	1	0.05	OK
MW-38	Selenium	5	ug/L		20	5	OK
MW-38	2-Butanone	20	ug/L	U	1	20	OK
MW-38	Naphthalene	1	ug/L	U	1	1	OK
MW-38	Bicarbonate (as CaCO3)	1	mg/L		1	1	OK
MW-38	Carbonate (as CaCO3)	1	mg/L	U	1	1	OK
MW-38	Gross Radium Alpha	0.704	pCi/L	U	1	1	OK
MW-38	Nitrate/Nitrite (as N)	0.1	mg/L		10	0.1	OK
MW-38	Total Dissolved Solids	20	MG/L		2	10	OK
MW-39	Toluene	1	ug/L	U	1	1	OK
MW-39	Tetrahydrofuran	1	ug/L	U	1	1	OK
MW-39	Xylenes, Total	1	ug/L	U	1	1	OK
MW-39	Sulfate	300	mg/L		400	1	OK
MW-39	Chloride	1	mg/L		10	1	OK
MW-39	Fluoride	0.1	mg/L		1	0.1	OK
MW-39	Carbon tetrachloride	1	ug/L	U	1	1	OK
MW-39	Acetone	20	ug/L	U	1	20	OK
MW-39	Chloroform	1	ug/L	U	1	1	OK
MW-39	Benzene	1	ug/L	U	1	1	OK
MW-39	Chloromethane	1	ug/L	U	1	1	OK
MW-39	Iron	1000	ug/L		200	30	OK
MW-39	Lead	1	ug/L	U	5	1	OK
MW-39	Magnesium	20	mg/L		20	0.5	OK
MW-39	Manganese	10	ug/L		40	10	OK
MW-39	Mercury	0.5	ug/L	U	1	0.5	OK
MW-39	Molybdenum	10	ug/L	U	20	10	OK
MW-39	Nickel	20	ug/L		20	20	OK
MW-39	Potassium	1	mg/L		1	0.5	OK
MW-39	Silver	10	ug/L	U	20	10	OK
MW-39	Sodium	20	mg/L		20	0.5	OK
MW-39	Thallium	0.5	ug/L		5	0.5	OK
MW-39	Tin	100	ug/L	U	20	100	OK
MW-39	Arsenic	5	ug/L	U	20	5	OK
MW-39	Beryllium	0.5	ug/L		5	0.5	OK
MW-39	Cadmium	0.5	ug/L		20	0.5	OK

## G-5A Quarterly Sample Reporting Limit Check

Location	Analyte	Lab Reporting Limit	Units	Qualifier	Dilution Factor	Required Reporting Limit	RL Check
MW-39	Chromium	25	ug/L	U	20	25	OK
MW-39	Cobalt	10	ug/L		20	10	OK
MW-39	Copper	10	ug/L		20	10	OK
MW-39	Uranium	0.3	ug/L		2	0.3	OK
MW-39	Vanadium	15	ug/L	U	1	15	OK
MW-39	Zinc	10	ug/L		20	10	OK
MW-39	Calcium	20	mg/L		20	0.5	OK
MW-39	Methylene chloride	1	ug/L	U	1	1	OK
MW-39	Ammonia (as N)	0.05	mg/L		1	0.05	OK
MW-39	Selenium	5	ug/L	U	20	5	OK
MW-39	2-Butanone	20	ug/L	U	1	20	OK
MW-39	Naphthalene	1	ug/L	U	1	1	OK
MW-39	Bicarbonate (as CaCO3)	1	mg/L	U	1	1	OK
MW-39	Carbonate (as CaCO3)	1	mg/L	U	1	1	OK
MW-39	Gross Radium Alpha	0.665	pCi/L		1	1	OK
MW-39	Nitrate/Nitrite (as N)	0.1	mg/L		1	0.1	OK
MW-39	Total Dissolved Solids	20	MG/L		2	10	OK
MW-40	Toluene	1	ug/L	U	1	1	OK
MW-40	Tetrahydrofuran	1	ug/L	U	1	1	OK
MW-40	Xylenes, Total	1	ug/L	U	1	1	OK
MW-40	Sulfate	150	mg/L		200	1	OK
MW-40	Chloride	1	mg/L		10	1	OK
MW-40	Fluoride	0.1	mg/L		1	0.1	OK
MW-40	Carbon tetrachloride	1	ug/L	U	1	1	OK
MW-40	Acetone	20	ug/L	U	1	20	OK
MW-40	Chloroform	1	ug/L	U	1	1	OK
MW-40	Benzene	1	ug/L	U	1	1	OK
MW-40	Chloromethane	1	ug/L	U	1	1	OK
MW-40	Iron	30	ug/L	U	2	30	OK
MW-40	Lead	1	ug/L	U	2	1	OK
MW-40	Magnesium	20	mg/L		20	0.5	OK
MW-40	Manganese	10	ug/L		2	10	OK
MW-40	Mercury	0.5	ug/L	U	1	0.5	OK
MW-40	Molybdenum	10	ug/L	U	2	10	OK
MW-40	Nickel	20	ug/L	U	2	20	OK
MW-40	Potassium	1	mg/L		1	0.5	OK
MW-40	Silver	10	ug/L	U	2	10	OK
MW-40	Sodium	20	mg/L		20	0.5	OK
MW-40	Thallium	0.5	ug/L	U	2	0.5	OK
MW-40	Tin	100	ug/L	U	2	100	OK
MW-40	Arsenic	5	ug/L	U	2	5	OK
MW-40	Beryllium	0.5	ug/L	U	5	0.5	OK
MW-40	Cadmium	0.5	ug/L	U	2	0.5	OK
MW-40	Chromium	25	ug/L	U	2	25	OK
MW-40	Cobalt	10	ug/L	U	2	10	OK
MW-40	Copper	10	ug/L	U	2	10	OK
MW-40	Uranium	0.3	ug/L		2	0.3	OK
MW-40	Vanadium	15	ug/L	U	1	15	OK
MW-40	Zinc	10	ug/L	U	5	10	OK
MW-40	Calcium	20	mg/L		20	0.5	OK
MW-40	Methylene chloride	1	ug/L	U	1	1	OK
MW-40	Ammonia (as N)	0.05	mg/L	U	1	0.05	OK
MW-40	Selenium	5	ug/L		2	5	OK
MW-40	2-Butanone	20	ug/L	U	1	20	OK

## G-5A Quarterly Sample Reporting Limit Check

Location	Analyte	Lab Reporting Limit	Units	Qualifier	Dilution Factor	Required Reporting Limit	RL Check
MW-40	Naphthalene	1	ug/L	U	1	1	OK
MW-40	Bicarbonate (as CaCO3)	1	mg/L		1	1	OK
MW-40	Carbonate (as CaCO3)	1	mg/L	U	1	1	OK
MW-40	Gross Radium Alpha	0.464	pCi/L		1	1	OK
MW-40	Nitrate/Nitrite (as N)	0.1	mg/L		10	0.1	OK
MW-40	Total Dissolved Solids	20	MG/L		2	10	OK
MW-65	Toluene	1	ug/L	U	1	1	OK
MW-65	Tetrahydrofuran	1	ug/L	U	1	1	OK
MW-65	Xylenes, Total	1	ug/L	U	1	1	OK
MW-65	Sulfate	150	mg/L		200	1	OK
MW-65	Chloride	1	mg/L		10	1	OK
MW-65	Fluoride	0.1	mg/L	U	1	0.1	OK
MW-65	Carbon tetrachloride	1	ug/L	U	1	1	OK
MW-65	Acetone	20	ug/L	U	1	20	OK
MW-65	Chloroform	1	ug/L	U	1	1	OK
MW-65	Benzene	1	ug/L	U	1	1	OK
MW-65	Chloromethane	1	ug/L	U	1	1	OK
MW-65	Iron	30	ug/L	U	2	30	OK
MW-65	Lead	1	ug/L	U	2	1	OK
MW-65	Magnesium	20	mg/L		20	0.5	OK
MW-65	Manganese	10	ug/L		20	10	OK
MW-65	Mercury	0.5	ug/L	U	1	0.5	OK
MW-65	Molybdenum	10	ug/L	U	20	10	OK
MW-65	Nickel	20	ug/L	U	2	20	OK
MW-65	Potassium	1	mg/L		1	0.5	OK
MW-65	Silver	10	ug/L	U	2	10	OK
MW-65	Sodium	20	mg/L		20	0.5	OK
MW-65	Thallium	0.5	ug/L	U	2	0.5	OK
MW-65	Tin	100	ug/L	U	20	100	OK
MW-65	Arsenic	5	ug/L	U	2	5	OK
MW-65	Beryllium	0.5	ug/L	U	2	0.5	OK
MW-65	Cadmium	0.5	ug/L		2	0.5	OK
MW-65	Chromium	25	ug/L	U	20	25	OK
MW-65	Cobalt	10	ug/L	U	2	10	OK
MW-65	Copper	10	ug/L	U	2	10	OK
MW-65	Uranium	0.3	ug/L		2	0.3	OK
MW-65	Vanadium	15	ug/L	U	1	15	OK
MW-65	Zinc	10	ug/L		20	10	OK
MW-65	Calcium	20	mg/L		20	0.5	OK
MW-65	Methylene chloride	1	ug/L	U	1	1	OK
MW-65	Ammonia (as N)	0.05	mg/L	U	1	0.05	OK
MW-65	Selenium	5	ug/L	U	2	5	OK
MW-65	2-Butanone	20	ug/L	U	1	20	OK
MW-65	Naphthalene	1	ug/L	U	1	1	OK
MW-65	Bicarbonate (as CaCO3)	1	mg/L		1	1	OK
MW-65	Carbonate (as CaCO3)	1	mg/L	U	1	1	OK
MW-65	Gross Radium Alpha	0.586	pCi/L	U	1	1	OK
MW-65	Nitrate/Nitrite (as N)	0.1	mg/L	U	1	0.1	OK
MW-65	Total Dissolved Solids	20	MG/L		2	10	OK
MW-70	Toluene	1	ug/L	U	1	1	OK
MW-70	Tetrahydrofuran	1	ug/L	U	1	1	OK
MW-70	Xylenes, Total	1	ug/L	U	1	1	OK
MW-70	Sulfate	300	mg/L		400	1	OK
MW-70	Chloride	1	mg/L		10	1	OK

G-5A Quarterly Sample Reporting Limit Check

Location	Analyte	Lab Reporting Limit	Units	Qualifier	Dilution Factor	Required Reporting Limit	RL Check
MW-70	Fluoride	0.1	mg/L		1	0.1	OK
MW-70	Carbon tetrachloride	1	ug/L	U	1	1	OK
MW-70	Acetone	20	ug/L	U	1	20	OK
MW-70	Chloroform	1	ug/L	U	1	1	OK
MW-70	Benzene	1	ug/L	U	1	1	OK
MW-70	Chloromethane	1	ug/L	U	1	1	OK
MW-70	Iron	30	ug/L	U	5	30	OK
MW-70	Lead	1	ug/L	U	5	1	OK
MW-70	Magnesium	20	mg/L		20	0.5	OK
MW-70	Manganese	10	ug/L	U	20	10	OK
MW-70	Mercury	0.5	ug/L	U	1	0.5	OK
MW-70	Molybdenum	10	ug/L	U	20	10	OK
MW-70	Nickel	20	ug/L	U	20	20	OK
MW-70	Potassium	1	mg/L		1	0.5	OK
MW-70	Silver	10	ug/L	U	20	10	OK
MW-70	Sodium	20	mg/L		20	0.5	OK
MW-70	Thallium	0.5	ug/L	U	5	0.5	OK
MW-70	Tin	100	ug/L	U	20	100	OK
MW-70	Arsenic	5	ug/L	U	20	5	OK
MW-70	Beryllium	0.5	ug/L	U	5	0.5	OK
MW-70	Cadmium	0.5	ug/L	U	20	0.5	OK
MW-70	Chromium	25	ug/L	U	20	25	OK
MW-70	Cobalt	10	ug/L	U	20	10	OK
MW-70	Copper	10	ug/L	U	20	10	OK
MW-70	Uranium	0.3	ug/L		2	0.3	OK
MW-70	Vanadium	15	ug/L	U	1	15	OK
MW-70	Zinc	10	ug/L	U	20	10	OK
MW-70	Calcium	20	mg/L		20	0.5	OK
MW-70	Methylene chloride	1	ug/L	U	1	1	OK
MW-70	Ammonia (as N)	0.05	mg/L	U	1	0.05	OK
MW-70	Selenium	5	ug/L		20	5	OK
MW-70	2-Butanone	20	ug/L	U	1	20	OK
MW-70	Naphthalene	1	ug/L	U	1	1	OK
MW-70	Bicarbonate (as CaCO3)	1	mg/L		1	1	OK
MW-70	Carbonate (as CaCO3)	1	mg/L	U	1	1	OK
MW-70	Gross Radium Alpha	0.654	pCi/L	U	1	1	OK
MW-70	Nitrate/Nitrite (as N)	0.1	mg/L		5	0.1	OK
MW-70	Total Dissolved Solids	20	MG/L		2	10	OK
TW4-24	Toluene	1	ug/L	U	1	1	OK
TW4-24	Tetrahydrofuran	1	ug/L	U	1	1	OK
TW4-24	Xylenes, Total	1	ug/L	U	1	1	OK
TW4-24	Sulfate	150	mg/L		200	1	OK
TW4-24	Chloride	20	mg/L		200	1	OK
TW4-24	Fluoride	0.1	mg/L		1	0.1	OK
TW4-24	Carbon tetrachloride	1	ug/L	U	1	1	OK
TW4-24	Acetone	20	ug/L	U	1	20	OK
TW4-24	Chloroform	1	ug/L		1	1	OK
TW4-24	Benzene	1	ug/L	U	1	1	OK
TW4-24	Chloromethane	1	ug/L	U	1	1	OK
TW4-24	Iron	30	ug/L	U	2	30	OK
TW4-24	Lead	1	ug/L	U	2	1	OK
TW4-24	Magnesium	20	mg/L		20	0.5	OK
TW4-24	Manganese	10	ug/L		20	10	OK
TW4-24	Mercury	0.5	ug/L	U	1	0.5	OK

## G-5A Quarterly Sample Reporting Limit Check

Location	Analyte	Lab Reporting Limit	Units	Qualifier	Dilution Factor	Required Reporting Limit	RL Check
TW4-24	Molybdenum	10	ug/L		20	10	OK
TW4-24	Nickel	20	ug/L	U	2	20	OK
TW4-24	Potassium	1	mg/L		1	0.5	OK
TW4-24	Silver	10	ug/L	U	2	10	OK
TW4-24	Sodium	20	mg/L		20	0.5	OK
TW4-24	Thallium	0.5	ug/L		2	0.5	OK
TW4-24	Tin	100	ug/L	U	20	100	OK
TW4-24	Arsenic	5	ug/L	U	2	5	OK
TW4-24	Beryllium	0.5	ug/L	U	2	0.5	OK
TW4-24	Cadmium	0.5	ug/L		2	0.5	OK
TW4-24	Chromium	25	ug/L	U	20	25	OK
TW4-24	Cobalt	10	ug/L		2	10	OK
TW4-24	Copper	10	ug/L	U	2	10	OK
TW4-24	Uranium	1	ug/L		10	0.3	OK
TW4-24	Vanadium	15	ug/L	U	1	15	OK
TW4-24	Zinc	10	ug/L	U	20	10	OK
TW4-24	Calcium	20	mg/L		20	0.5	OK
TW4-24	Methylene chloride	1	ug/L	U	1	1	OK
TW4-24	Ammonia (as N)	0.05	mg/L		1	0.05	OK
TW4-24	Selenium	5	ug/L		2	5	OK
TW4-24	2-Butanone	20	ug/L	U	1	20	OK
TW4-24	Naphthalene	1	ug/L	U	1	1	OK
TW4-24	Bicarbonate (as CaCO3)	1	mg/L		1	1	OK
TW4-24	Carbonate (as CaCO3)	1	mg/L	U	1	1	OK
TW4-24	Nitrate/Nitrite (as N)	0.5	mg/L		50	0.1	OK
TW4-24	Total Dissolved Solids	20	MG/L		2	10	OK
TW4-24	Gross Radium Alpha	0.656	pCi/L	U	1	1	OK

## G-5B Accelerated Sample Reporting Limit Check

Location	Analyte	Lab Reporting Limit	Units	Qualifier	Dilution Factor	Required Reporting Limit	RL Check
Trip Blank	Chloroform	1	ug/L	U	1	1	OK
Trip Blank	Methylene chloride	1	ug/L	U	1	1	OK
Trip Blank	Chloroform	1	ug/L	U	1	1	OK
Trip Blank	Methylene chloride	1	ug/L	U	1	1	OK
MW-11	Manganese	10	ug/L		20	10	OK
MW-11	Manganese	10	ug/L		20	10	OK
MW-25	Cadmium	0.5	ug/L		20	0.5	OK
MW-25	Cadmium	0.5	ug/L		20	0.5	OK
MW-26	Chloride	1	mg/L		10	1	OK
MW-26	Chloroform	50	ug/L		50	1	OK
MW-26	Methylene chloride	1	ug/L		1	1	OK
MW-26	Ammonia (as N)	0.05	mg/L		1	0.05	OK
MW-26	Nitrate/Nitrite (as N)	0.1	mg/L		10	0.1	OK
MW-26	Chloride	1	mg/L		10	1	OK
MW-26	Chloroform	50	ug/L		50	1	OK
MW-26	Methylene chloride	1	ug/L	U	1	1	OK
MW-26	Ammonia (as N)	0.05	mg/L		1	0.05	OK
MW-26	Nitrate/Nitrite (as N)	0.1	mg/L		10	0.1	OK
MW-30	Chloride	2	mg/L		20	1	OK
MW-30	Uranium	0.3	ug/L		2	0.3	OK
MW-30	Selenium	5	ug/L		20	5	OK
MW-30	Nitrate/Nitrite (as N)	0.1	mg/L		10	0.1	OK
MW-30	Chloride	2	mg/L		20	1	OK
MW-30	Uranium	0.3	ug/L		2	0.3	OK
MW-30	Selenium	5	ug/L		20	5	OK
MW-30	Nitrate/Nitrite (as N)	0.2	mg/L		20	0.1	OK
MW-31	Chloride	5	mg/L		50	1	OK
MW-31	Nitrate/Nitrite (as N)	0.1	mg/L		10	0.1	OK
MW-31	Chloride	2	mg/L		20	1	OK
MW-31	Nitrate/Nitrite (as N)	0.1	mg/L		10	0.1	OK
MW-65	Chloride	2	mg/L		20	1	OK
MW-65	Uranium	0.3	ug/L		2	0.3	OK
MW-65	Selenium	5	ug/L		20	5	OK
MW-65	Nitrate/Nitrite (as N)	0.1	mg/L		10	0.1	OK
MW-65	Cadmium	0.5	ug/L		20	0.5	OK

G-6A: Trip Blank Evaluation

All trip blanks for the Quarter were non detect.

<b>Blank</b>	<b>Sample Date</b>	<b>Laboratory</b>
AWAL 1904300	4/9/2019	American West Analytical Laboratories
AWAL 1904508	4/16/2019	American West Analytical Laboratories
AWAL 1904652	4/23/2019	American West Analytical Laboratories
AWAL 1905087	4/30/2019	American West Analytical Laboratories
AWAL 1905400	5/15/2019	American West Analytical Laboratories

G-6B: Trip Blank Evaluation

All trip blanks for the Accelerated samples were non detect.

<b>Blank</b>	<b>Sample Date</b>	<b>Laboratory</b>
AWAL 1905224	5/7/2019	American West Analytical Laboratories
AWAL 1906139	6/4/2019	American West Analytical Laboratories

G-7A: QA/QC Evaluation for Routine Sample Duplicates

Constituent	MW-14 4/23/19	MW-65 4/23/19	%RPD
Bicarbonate as HCO <sub>3</sub> (mg/L)	384	392	2.06
Cadmium	0.00135	0.00139	2.92
Calcium (mg/L)	506	552	8.70
Chloride (mg/L)	20.0	18.9	5.66
Magnesium (mg/L)	149	162	8.36
Manganese (mg/L)	1.85	1.84	0.54
Potassium (mg/L)	12.7	13.1	3.10
Sodium (mg/L)	359	398	10.30
Sulfate (mg/L)	1780	1920	7.57
TDS (mg/L)	3310	3330	0.60
Uranium (mg/L)	0.0640	0.0637	0.47
Zinc	0.0133	0.0105	23.53

**Radiologic Duplicate Tests**

Gross Alpha minus Rn & U*	1.0U	1.0U	NC
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\* 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-15 4/30/19	MW-70 4/30/19	%RPD
Bicarbonate as CaCO <sub>3</sub>	366	364	0.55
Calcium (mg/L)	502	518	3.14
Chloride (mg/L)	39.7	38.8	2.29
Fluoride (mg/L)	0.159	0.183	14.04
Magnesium (mg/L)	191	188	1.58
Nitrate + Nitrite (as N) (mg/L)	0.201	0.205	1.97
Potassium (mg/L)	11.6	11.4	1.74
Selenium (mg/L)	0.103	0.100	2.96
Sodium (mg/L)	570	551	3.39
Sulfate (mg/L)	2450	2290	6.75
TDS (mg/L)	3660	3540	3.33
Uranium (mg/L)	0.0427	0.0421	1.42

**Radiologic Duplicate Tests**

Gross Alpha minus Rn & U MDC	1.0U	1.0U	NC
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\* Duplicate checks reported for gross alpha minus RN and U are not %RPD. Calculated values are based on the formula in the approved QAP.

Per the approved QAP, an RPD greater than 20% is acceptable if the reported results are less than 5 times the RL. These results are provided for information only.  
RPD exceeds the QAP limit of 20%.

G-7B: QA/QC Evaluation for Accelerated Sample Duplicates

<b>Constituent</b>	<b>MW-30 5/7/19</b>	<b>MW-65 5/7/19</b>	<b>%RPD*</b>
Nitrate + Nitrite (as N) (mg/L)	17.9	17.5	2.26
Chloride (mg/L)	175	171	2.31
Selenium (mg/L)	0.0471	0.0466	1.07
Uranium (mg/L)	0.00815	0.00814	0.12
<b>Constituent</b>	<b>MW-25 6/4/19</b>	<b>MW-65 6/4/19</b>	<b>%RPD*</b>
Cadmium (mg/L)	0.00147	0.00148	0.68

## G-8A: Radiologics Counting Error

Well	Sample Date	Gross Alpha minus Rn & U	Gross Alpha minus Rn and U Precision (+/-)	Counting Error ≤ 20%	GWCL	Within GWCL?
MW-01	4/17/2019	1.0 U	0.233	NC	-	
MW-02	4/25/2019	1.32	0.370	N	3.2	Y
MW-03A	5/2/2019	1.0 U	0.227	NC	7.5	NC
MW-05	4/24/2019	1.0 U	0.209	NC	3.75	NC
MW-11	4/24/2019	1.01	0.272	N	3.75	Y
MW-12	4/25/2019	1.0 U	0.201	NC	7.5	NC
MW-14	4/23/2019	1.0 U	0.203	NC	7.5	NC
MW-15	4/30/2019	1.0 U	0.160	NC	7.5	NC
MW-17	4/16/2019	1.0 U	0.213	NC	2.8	NC
MW-18	4/16/2019	1.0 U	0.234	NC	-	
MW-19	4/23/2019	1.35	0.327	N	-	
MW-20	5/15/2019	1.0 U	0.240	NC	-	
MW-22	4/30/2019	2.78	0.685	N	-	
MW-23	5/15/2019	1.35	0.337	N	2.86	Y
MW-24	5/2/2019	3.32	0.507	Y	7.5	N/A
MW-25	4/10/2019	1.00	0.352	N	2.86	Y
MW-26	4/24/2019	1.74	0.317	Y	4.69	N/A
MW-27	4/23/2019	1.08	0.288	N	4.69	Y
MW-28	4/24/2019	1.94	0.346	Y	2.42	N/A
MW-29	4/24/2019	1.30	0.299	N	2.42	Y
MW-30	4/9/2019	1.0 U	0.260	NC	3.75	NC
MW-31	4/10/2019	1.77	0.423	N	7.5	Y
MW-32	4/9/2019	3.66	0.629	Y	3.33	N/A
MW-35	4/18/2019	4.02	0.480	Y	7.5	N/A
MW-36	4/18/2019	1.0 U	0.239	NC	7.5	NC
MW-37	5/15/2019	2.02	0.447	N	4.2	Y
MW-38	5/2/2019	1.0 U	0.269	NC	-	
MW-39	5/1/2019	2.09	0.406	Y	-	
MW-40	4/17/2019	1.27	0.271	N	-	
TW4-24 Resample	5/2/2019	1.0 U	0.235	NC	-	
MW-65	4/23/2019	1.0 U	0.220	NC	7.5	NC
MW-70	4/30/2019	1.0 U	0.209	NC	7.5	NC

N/A = the counting error is less than 20% of the activity as required by the GWDP and/or the value is above the GWCL and this check column is not applicable.

NC = Not calculated. The sample results are nondetect and the check is not applicable.

**G-8B: Radiologics Counting Error for Accelerated Samples**

There are no accelerated samples collected for Gross Alpha.

**Matrix Spike % Recovery Comparison**

Lab Report	Well	Analyte	MS %REC	MSD %REC	REC Range	RPD	RPD Range
1904300	MW-25	Calcium*	NC	NC	70-130	NC	20
1904300	MW-25	Sodium*	NC	NC	70-130	NC	20
1904300	MW-25	Maganese*	NC	NC	75-125	NC	20
1904300	MW-25	Magnesium*	NC	NC	70-130	NC	20
1904508	MW-01	Calcium*	NC	NC	70-130	NC	20
1904508	MW-01	Sodium*	NC	NC	70-130	NC	20
1904508	MW-01	Magnesium*	NC	NC	70-130	NC	20
1904508	MW-01	Ammonia (as N)	117	118	90-110	0.931	10
1904508	MW-02	Ammonia (as N)	118	117	90-110	0.426	10
1904652	MW- 02	Calcium*	NC	NC	70-130	NC	20
1904652	MW- 02	Sodium*	NC	NC	70-130	NC	20
1904652	MW- 02	Magnesium*	NC	NC	70-130	NC	20
1904652	MW- 65 (Duplicate of MW-14)	Calcium*	NC	NC	70-130	NC	20
1904652	MW- 65 (Duplicate of MW-14)	Sodium*	NC	NC	70-130	NC	20
1904652	MW- 65 (Duplicate of MW-14)	Magnesium*	NC	NC	70-130	NC	20
1904652	MW- 65 (Duplicate of MW-14)	Maganese*	NC	NC	75-125	NC	20
1904652	MW- 02	Ammonia (as N)	118	117	90-110	0.426	10
1905087	MW-15	Calcium*	NC	NC	70-130	NC	20
1905087	MW-15	Sodium*	NC	NC	70-130	NC	20
1905087	MW-15	Magnesium*	NC	NC	70-130	NC	20
1905400	MW-20	Calcium	185	-45.3	70-130	6.58	20
1905400	MW-20	Sodium*	NC	NC	70-130	NC	20

N/A = QC was not performed on an EFRI sample.

\* Recovery was not calculated as the analyte level in the sample was greater than 4 times the spike amount

**LCS % Recovery Comparison****Laboratory Control Sample**

Lab Report	Analyte	LCS %REC	REC Range
1905087	Tetrahydrofuran	125	59-125

**Surrogate % Recovery**

All Surrogate recoveries were within acceptance limits for the quarter.

**Laboratory Duplicate % Recovery Comparison**

Lab Report	Well	Analyte	Sample Result (mg/L)	Lab Duplicate Result (mg/L)	RPD %	RPD Range %
1905087	MW-03A	TDS	5410	4880	10.2	5
1904300	MW-25	TDS	2670	2520	5.70	5

\*\* High RPD due to low analyte concentrations. In this range, high RPDs are expected.

N/A = QC was not performed on an EFRI sample.

**Method Blank Detections**

All Method Blanks were within laboratory established acceptance limits.

G-9B: Accelerated Laboratory Matrix QC

**Matrix Spike % Recovery Comparison**

Lab Report	Well	Analyte	MS %REC	MSD %REC	REC Range	RPD	RPD Range
1905224	MW-26	Ammonia (as N)	118	123	90-110	4.08	10
1906139	MW-26	Ammonia (as N)	137	136	90-110	0.803	10
1906139	MW-26	Chloroform	113	156	50-146	20.0	25

N/A = QC was not performed on an EFRI sample.

\* Recovery was not calculated as the analyte level in the sample was greater than 4 times the spike amount

**LCS % Recovery Comparison**

All LCS recoveries were within labroatory established acceptance limits.

**Method Blank Results**

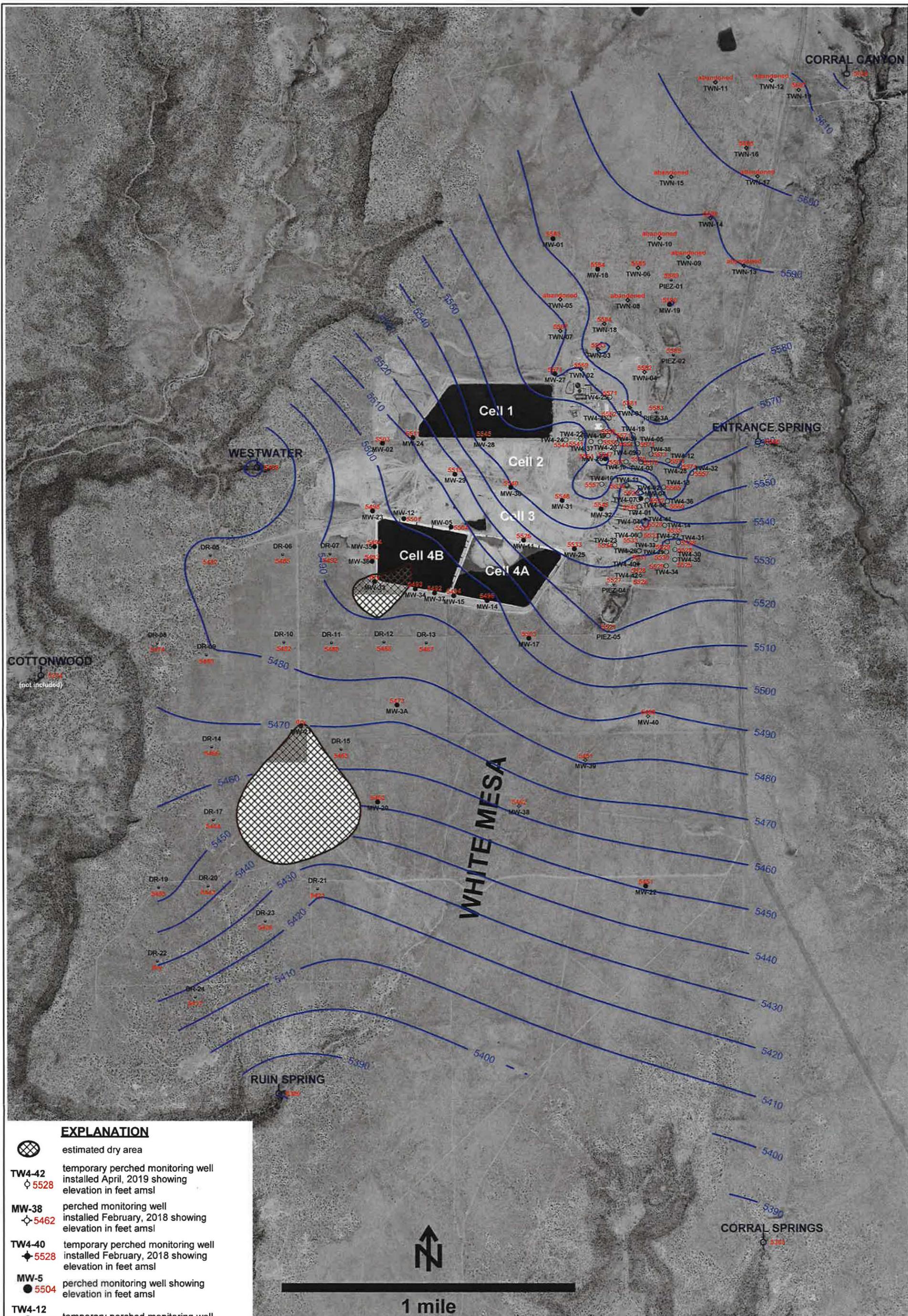
The method blanks were non-detect.

**Laboratory Duplicate % Recovery Comparison**

All Laboratory Duplicates were within established acceptance limits.

Tab H

Kriged Current Quarterly Groundwater Contour Map



**EXPLANATION**

-  estimated dry area
- TW4-42**  
 5528 temporary perched monitoring well installed April, 2019 showing elevation in feet amsl
- MW-38**  
 5462 perched monitoring well installed February, 2018 showing elevation in feet amsl
- TW4-40**  
 5528 temporary perched monitoring well installed February, 2018 showing elevation in feet amsl
- MW-5**  
 5504 perched monitoring well showing elevation in feet amsl
- TW4-12**  
 5571 temporary perched monitoring well showing elevation in feet amsl
- TWN-7**  
 5567 temporary perched nitrate monitoring well showing elevation in feet amsl
- PIEZ-1**  
 5589 perched piezometer showing elevation in feet amsl
- RUIN SPRING**  
 5380 seep or spring showing elevation in feet amsl

NOTES: MW-4, MW-26, TW4-1, TW4-2, TW4-4, TW4-11, TW4-19, TW4-20, TW4-21, TW4-37, TW4-39, TW4-40 and TW4-41 are chloroform pumping wells; TW4-22, TW4-24, TW4-25 and TWN-2 are nitrate pumping wells; TW4-11 water level is below the base of the Burro Canyon Formation



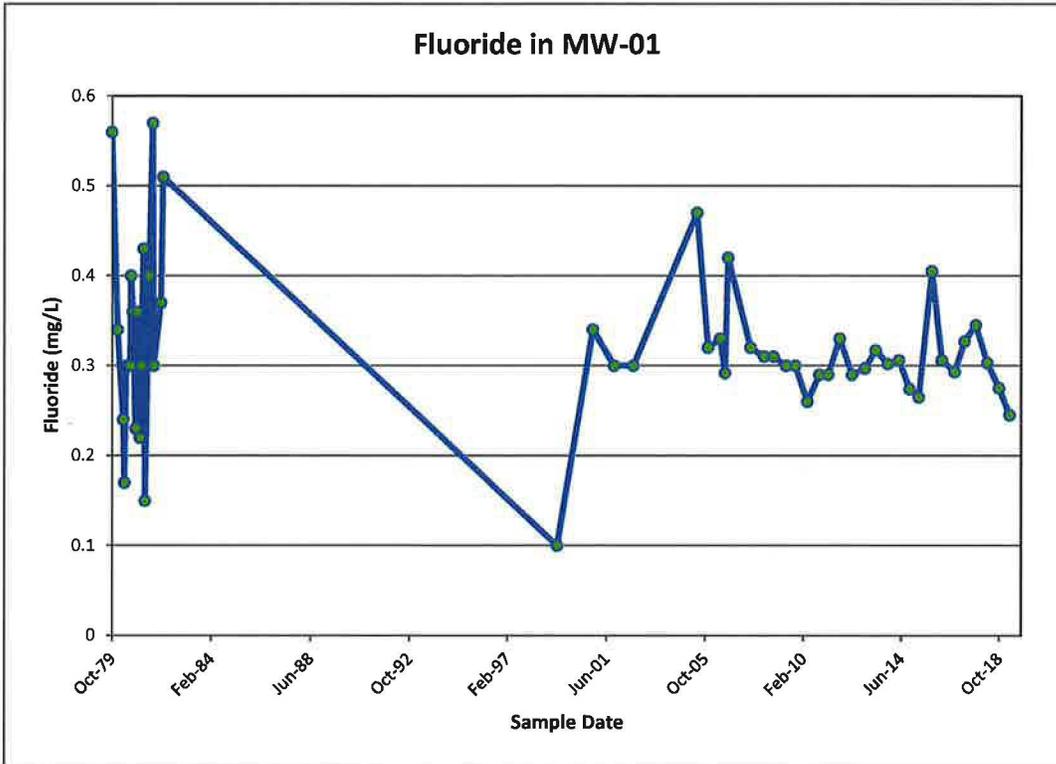
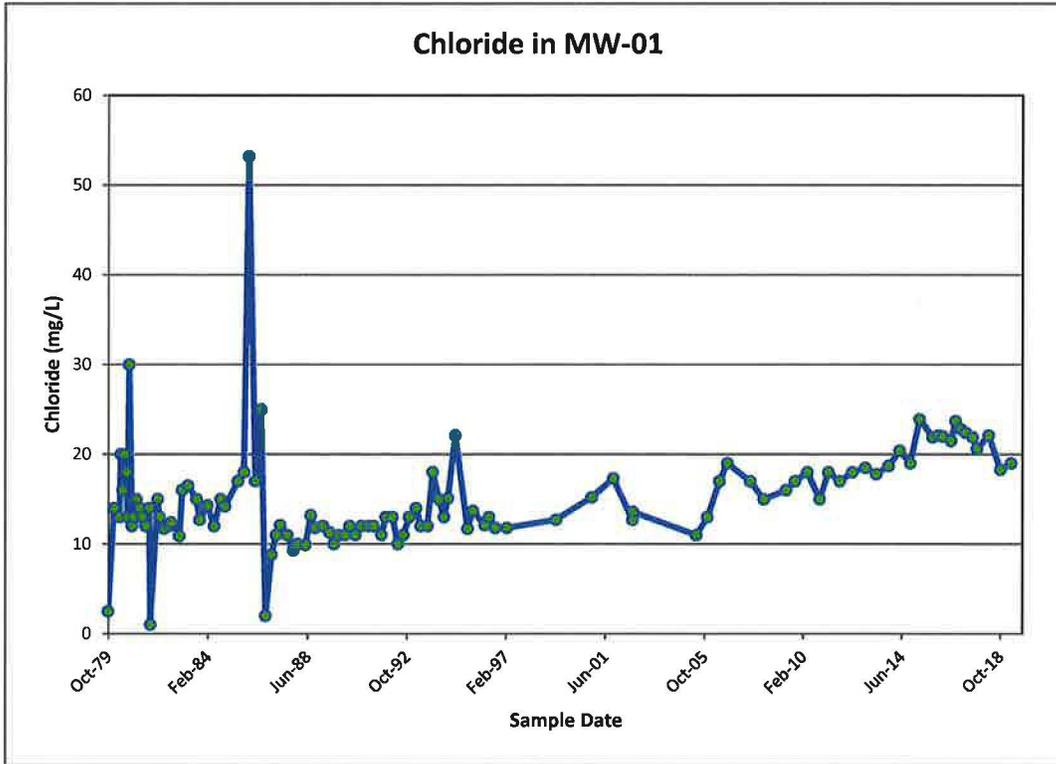
**HYDRO  
GEO  
CHEM, INC.**

<b>KRIGED 2nd QUARTER, 2019 WATER LEVELS WHITE MESA SITE</b>			
APPROVED	DATE	REFERENCE	FIGURE
		H:/718000/aug19/WL/Uwl0619.srf	H-1

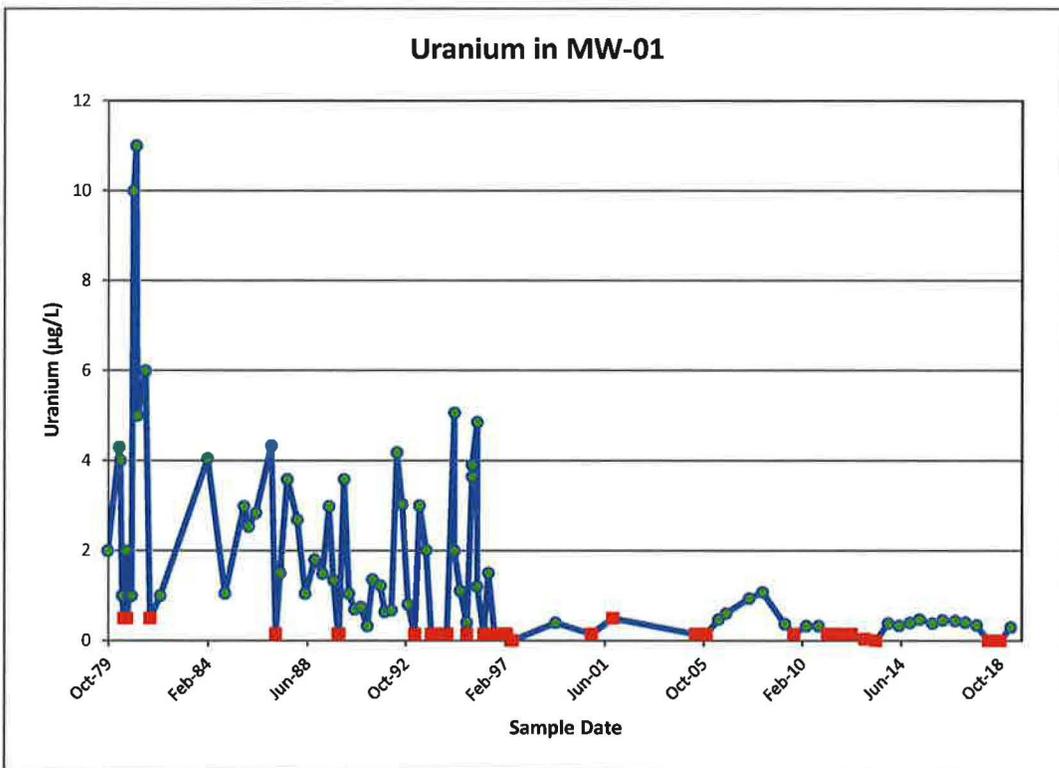
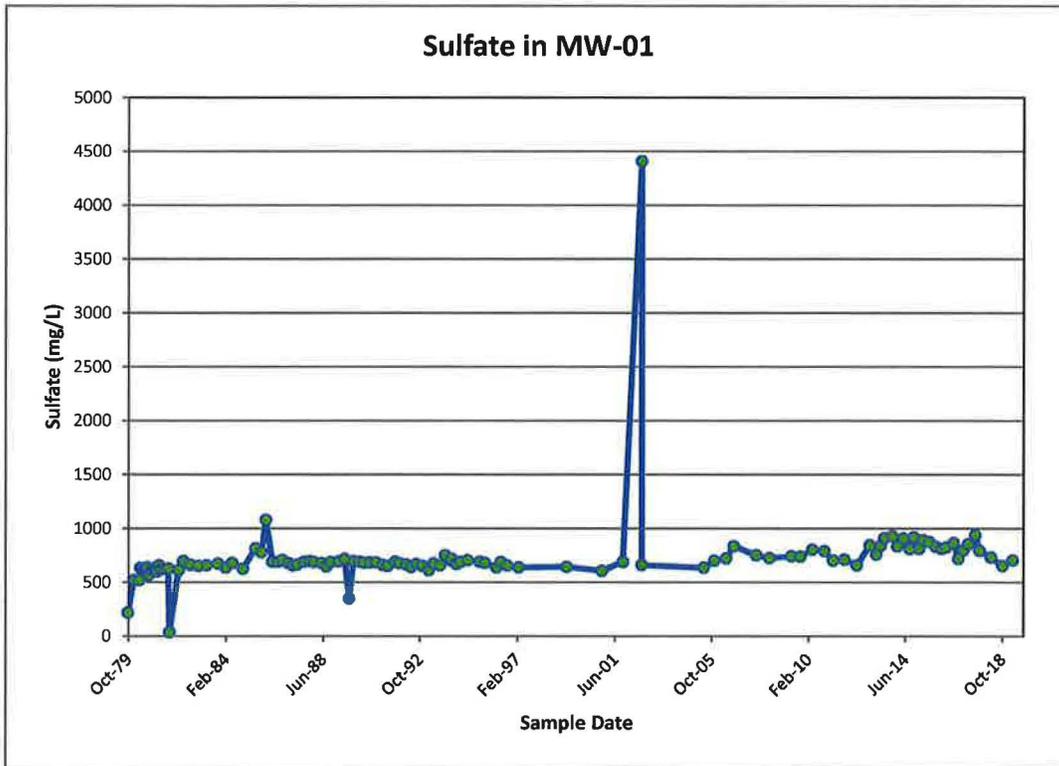
Tab I

Groundwater Time Concentration Plots

## Time concentration plots for MW-01



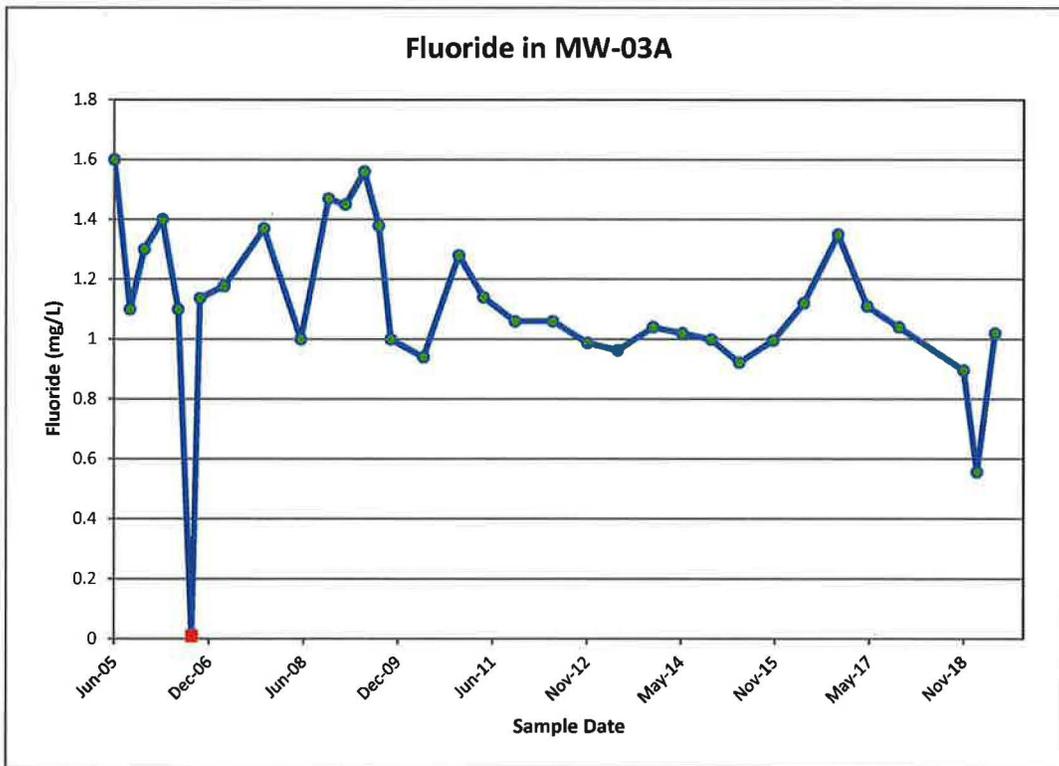
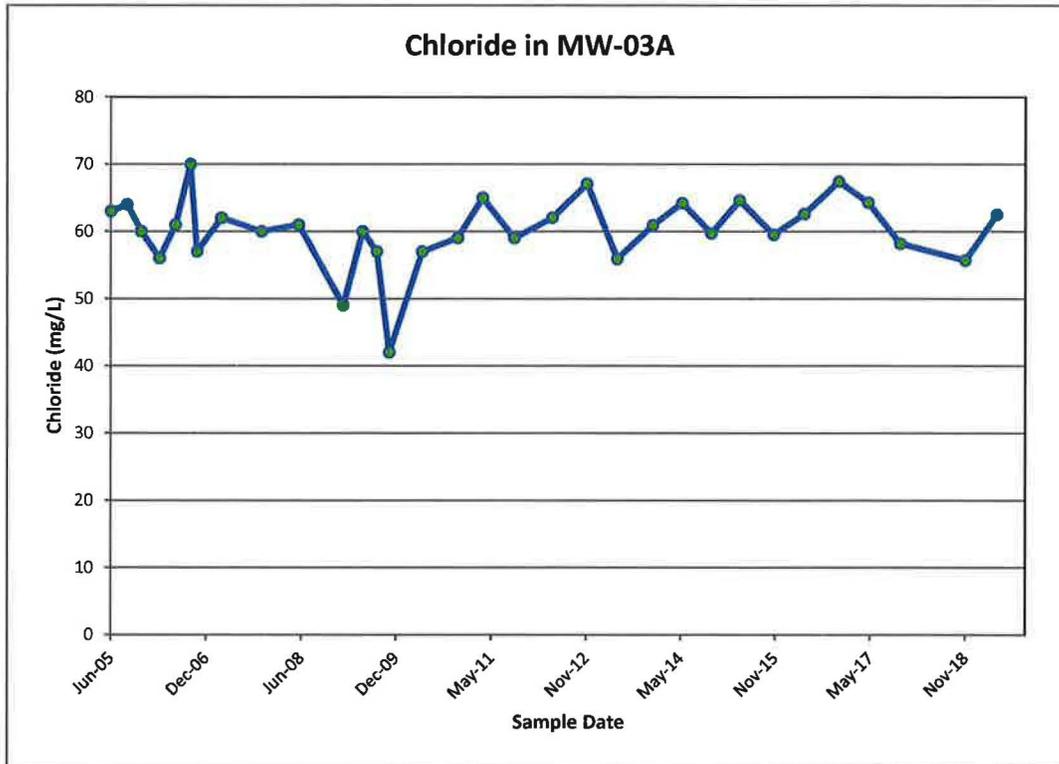
## Time concentration plots for MW-01



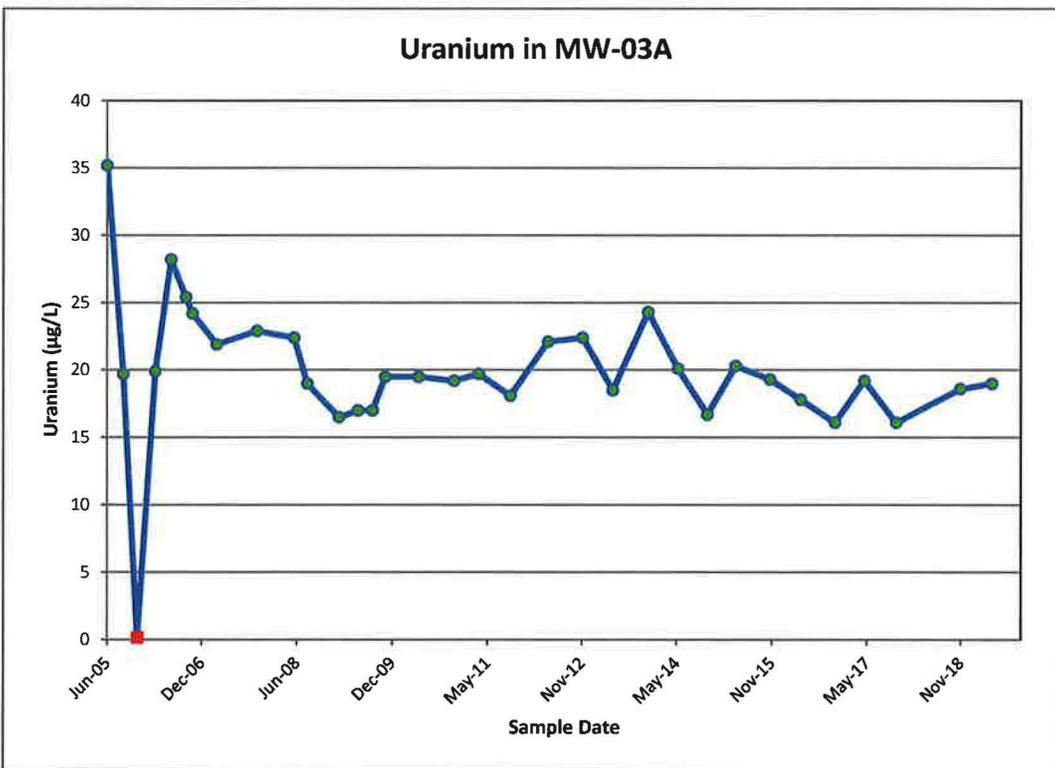
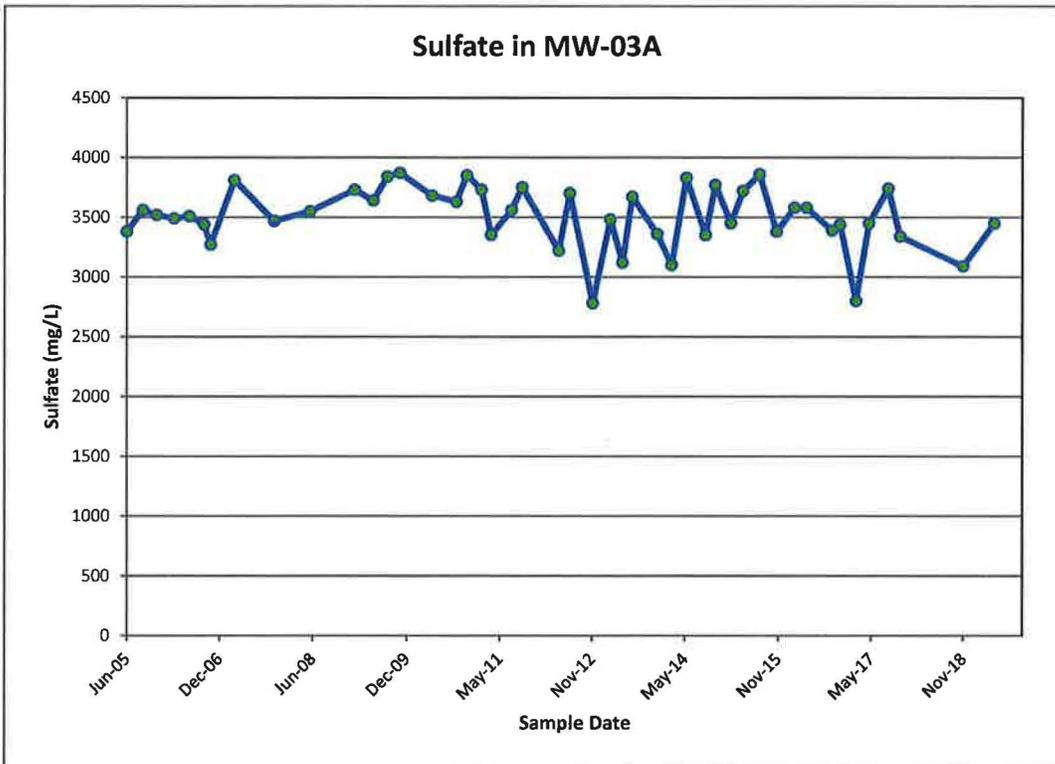




### Time concentration plots for MW-03A

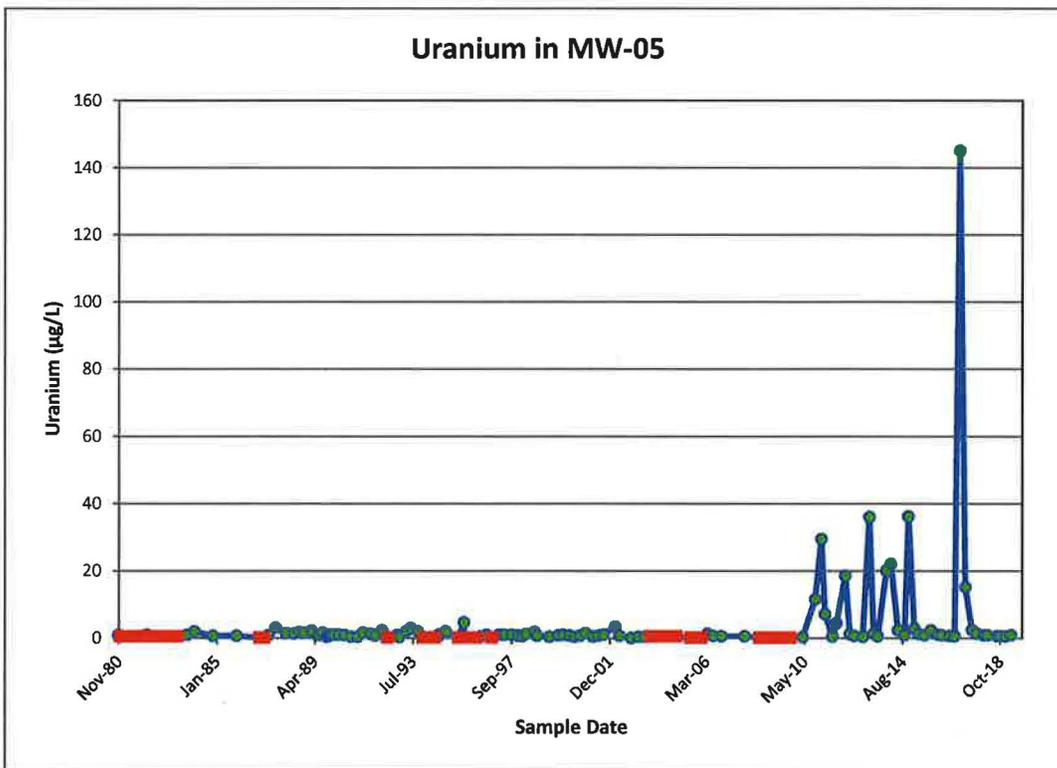
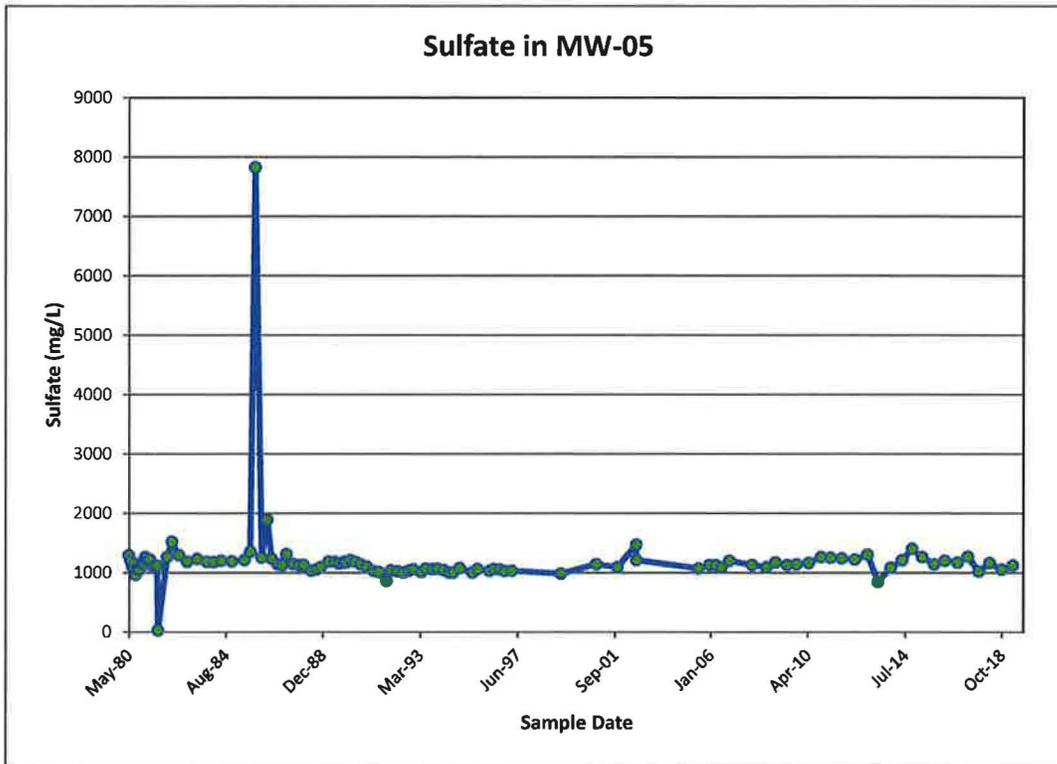


### Time concentration plots for MW-03A

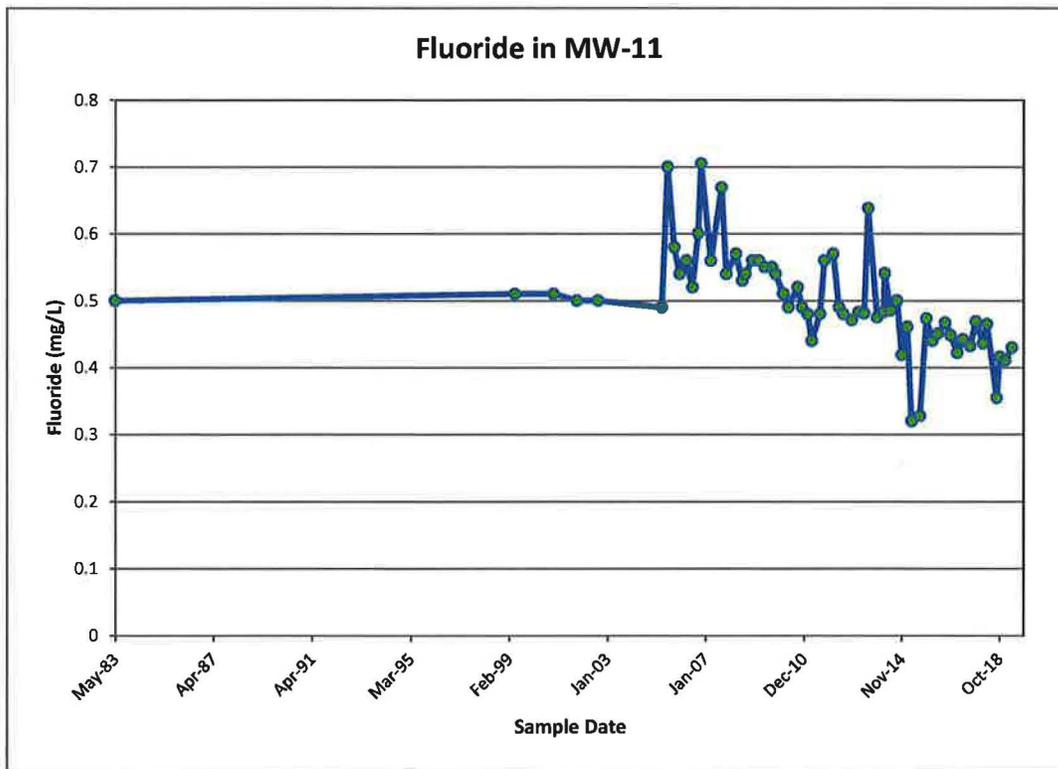
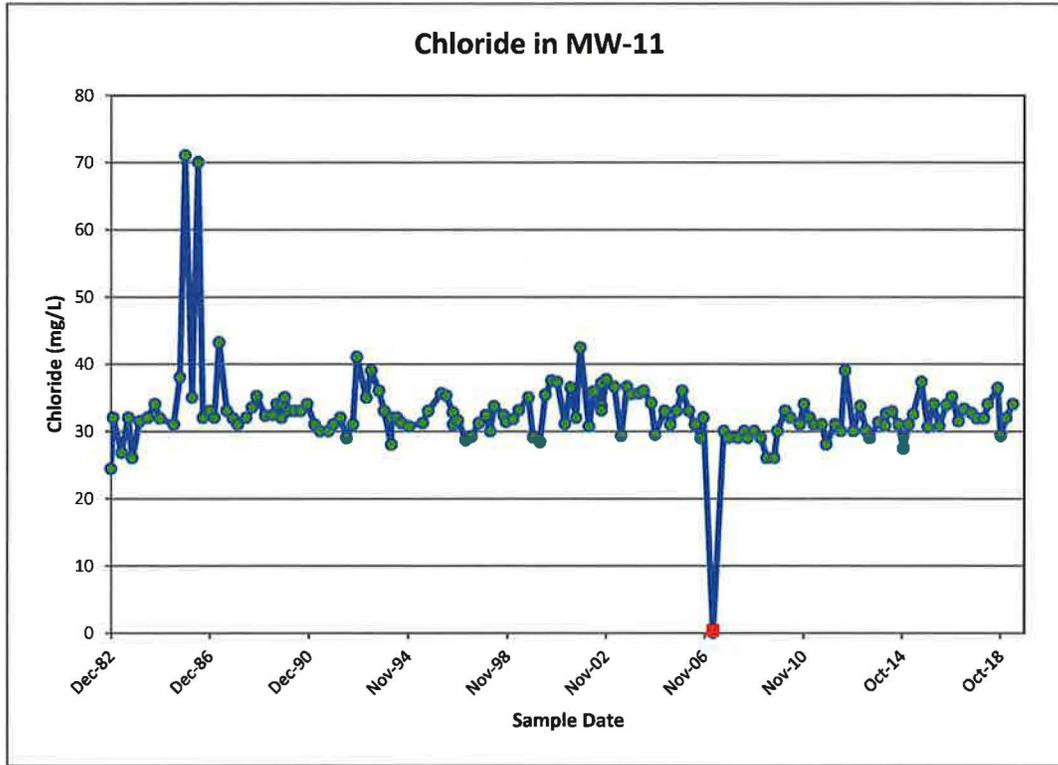




## Time concentration plots for MW-05

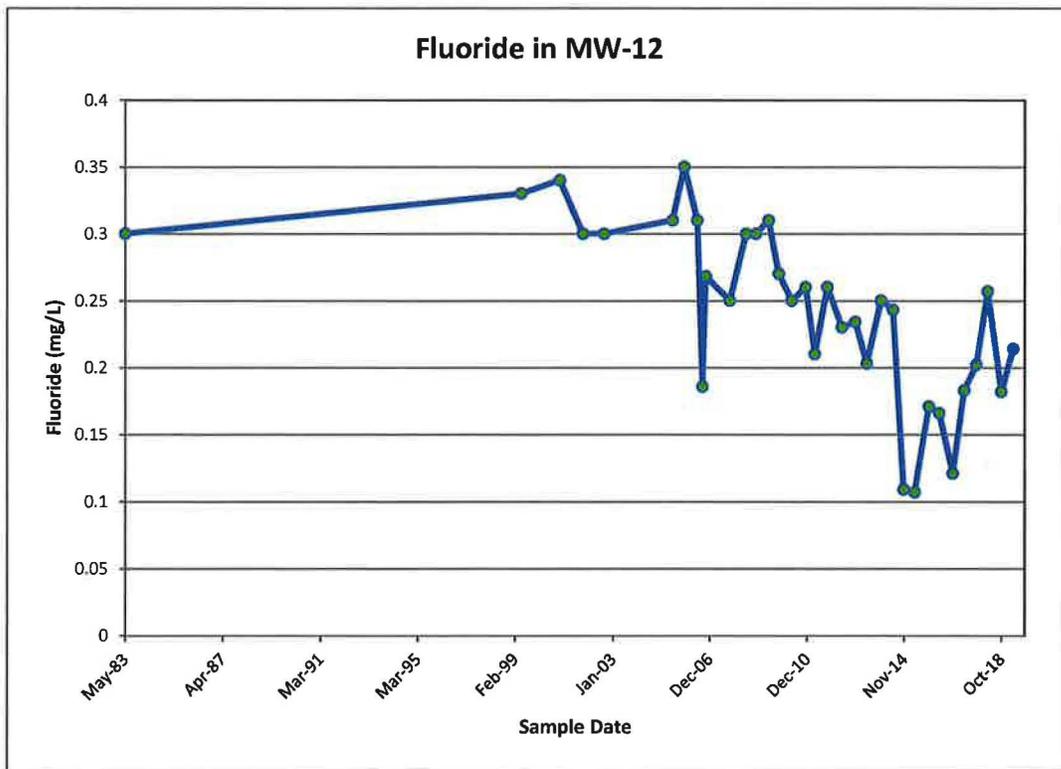
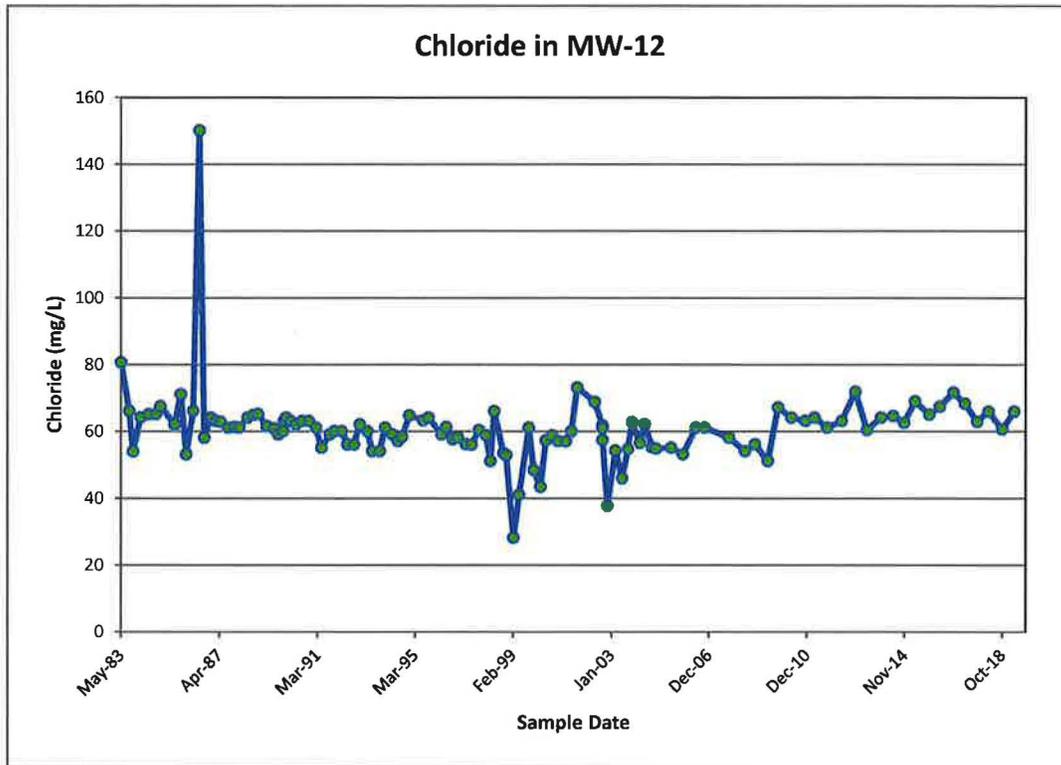


## Time concentration plots for MW-11

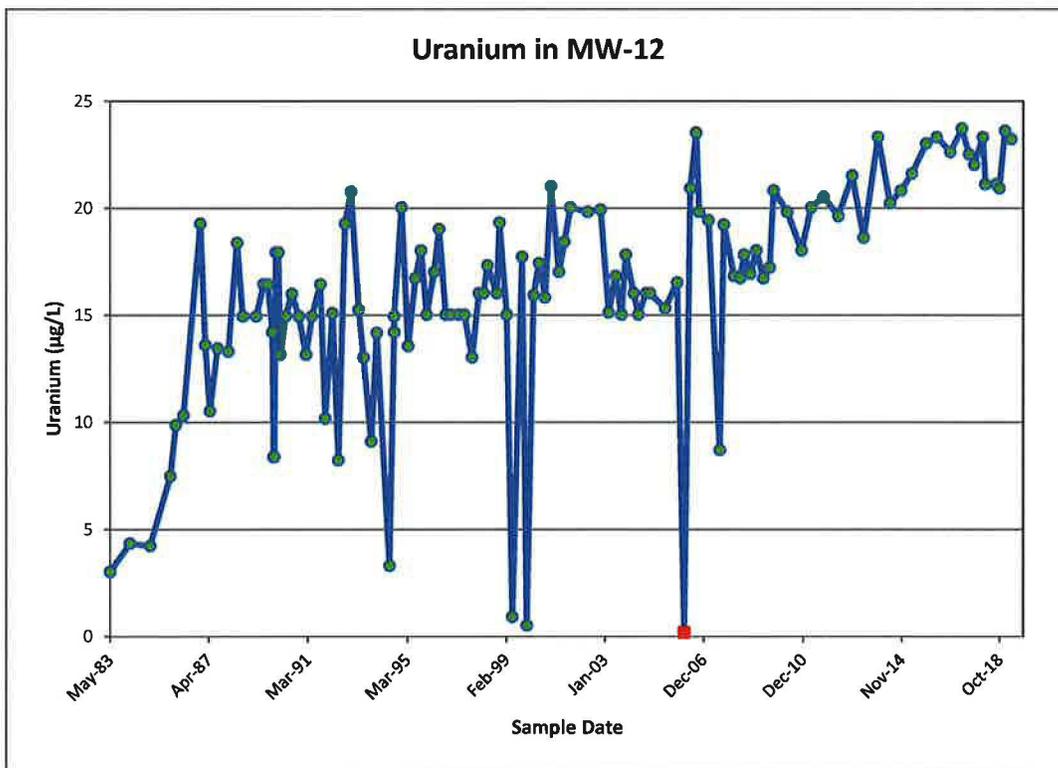
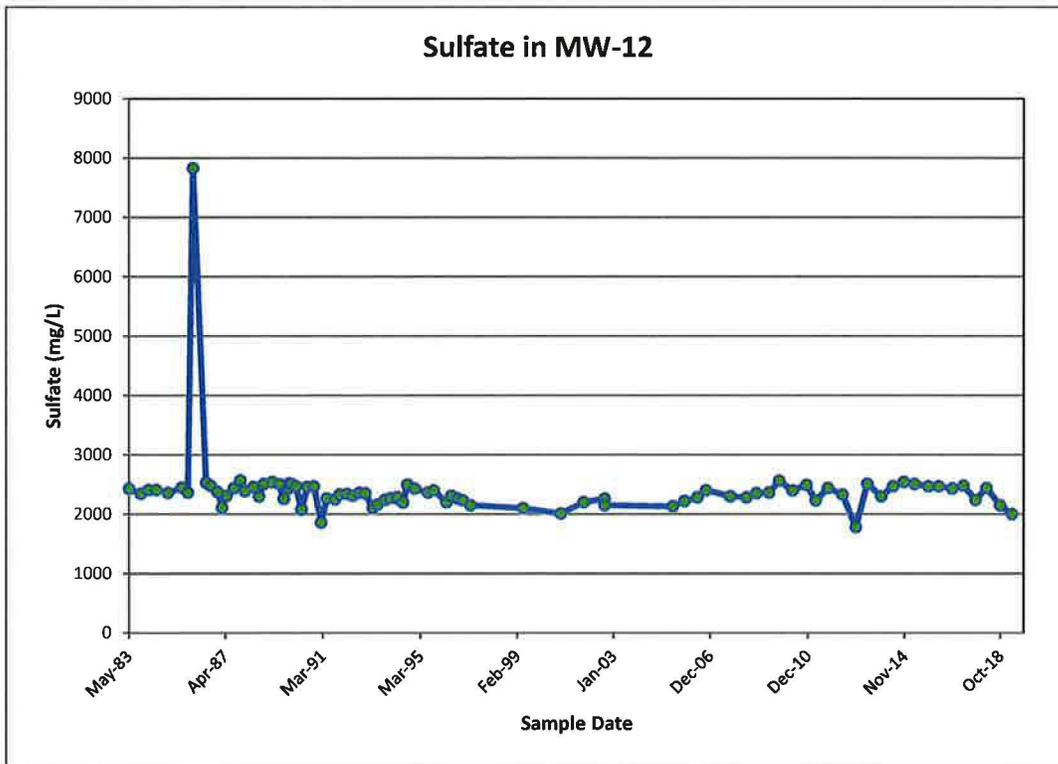




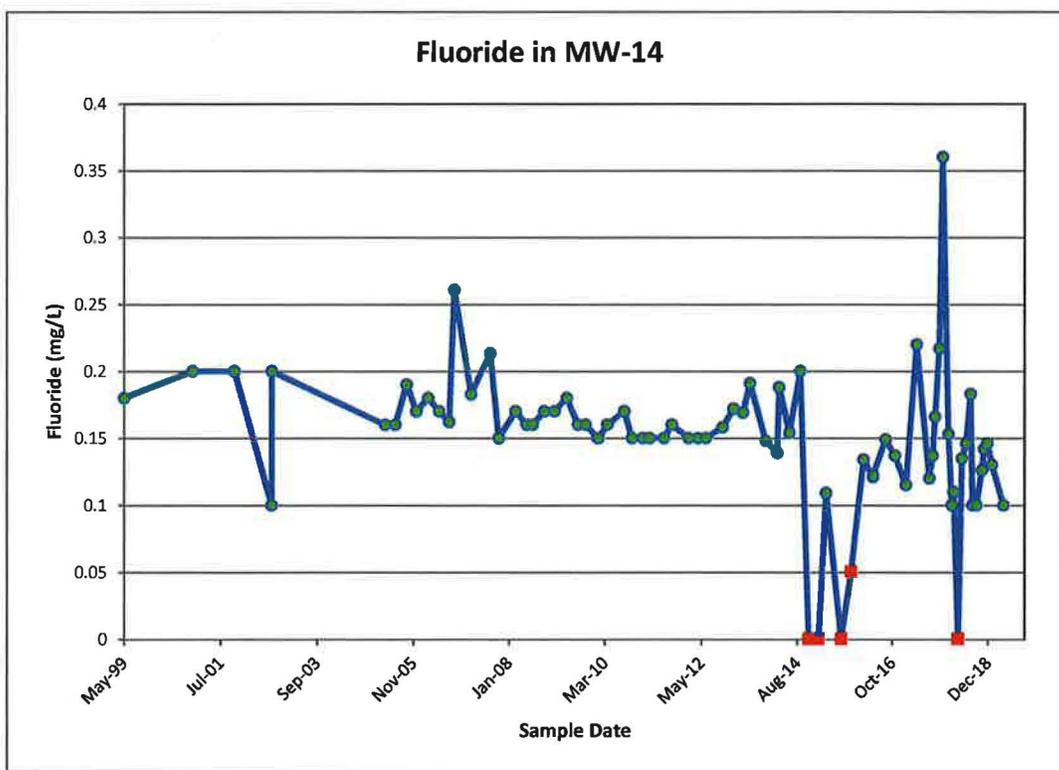
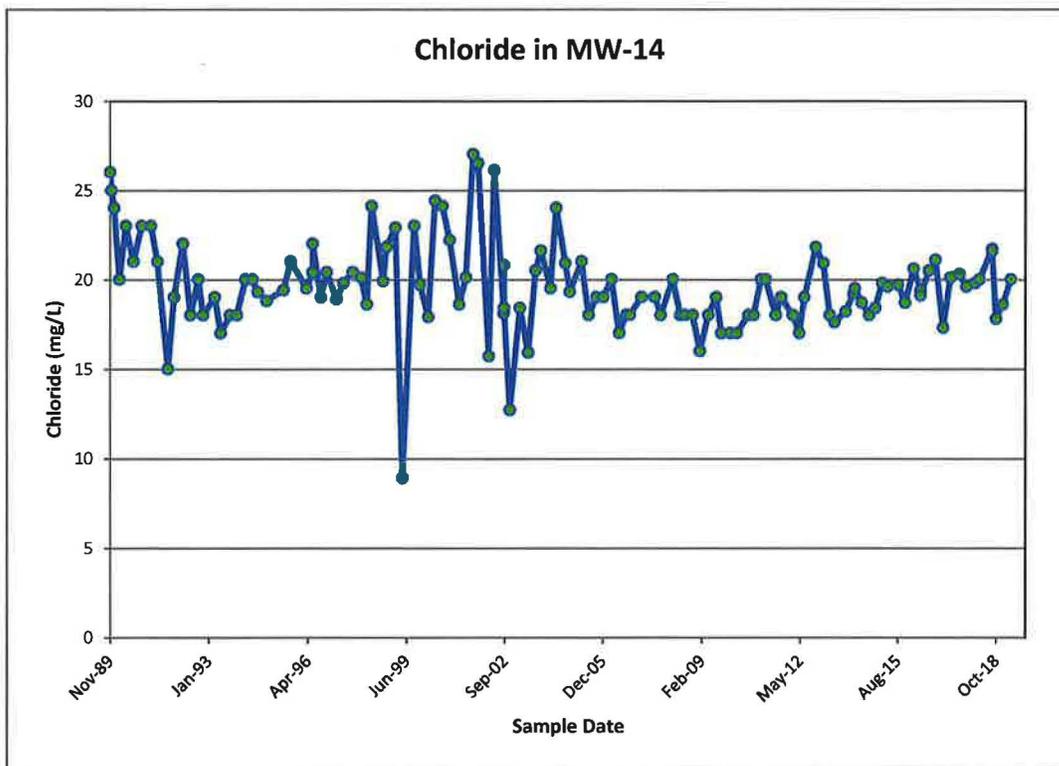
## Time concentration plots for MW-12



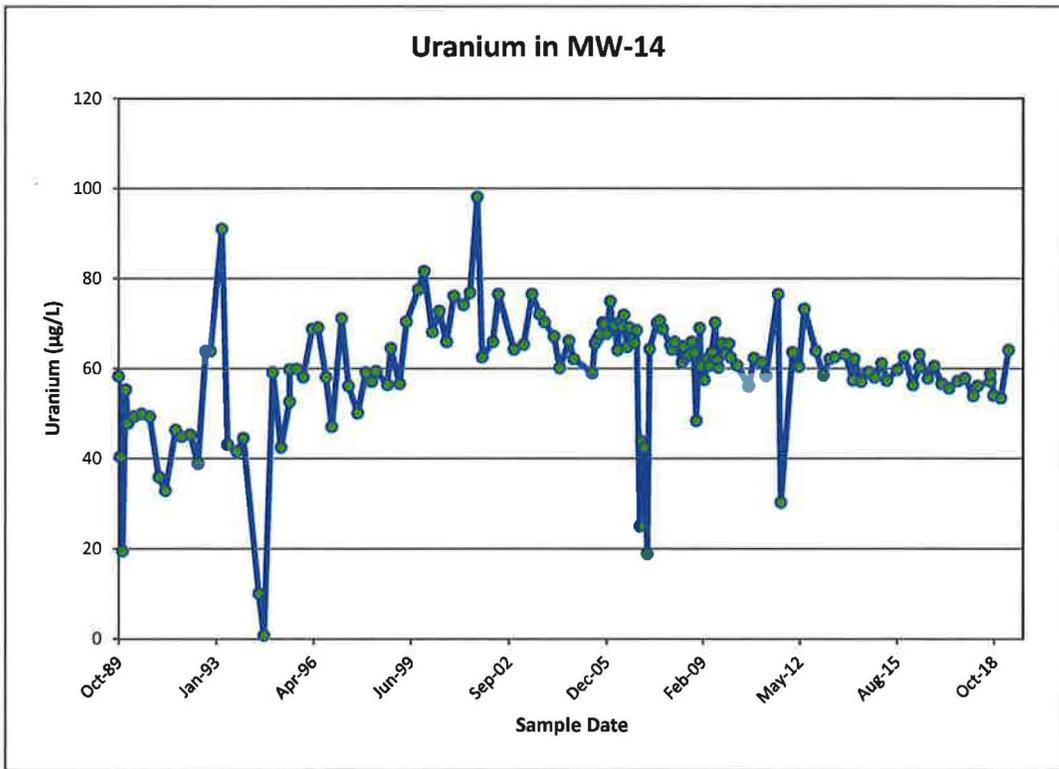
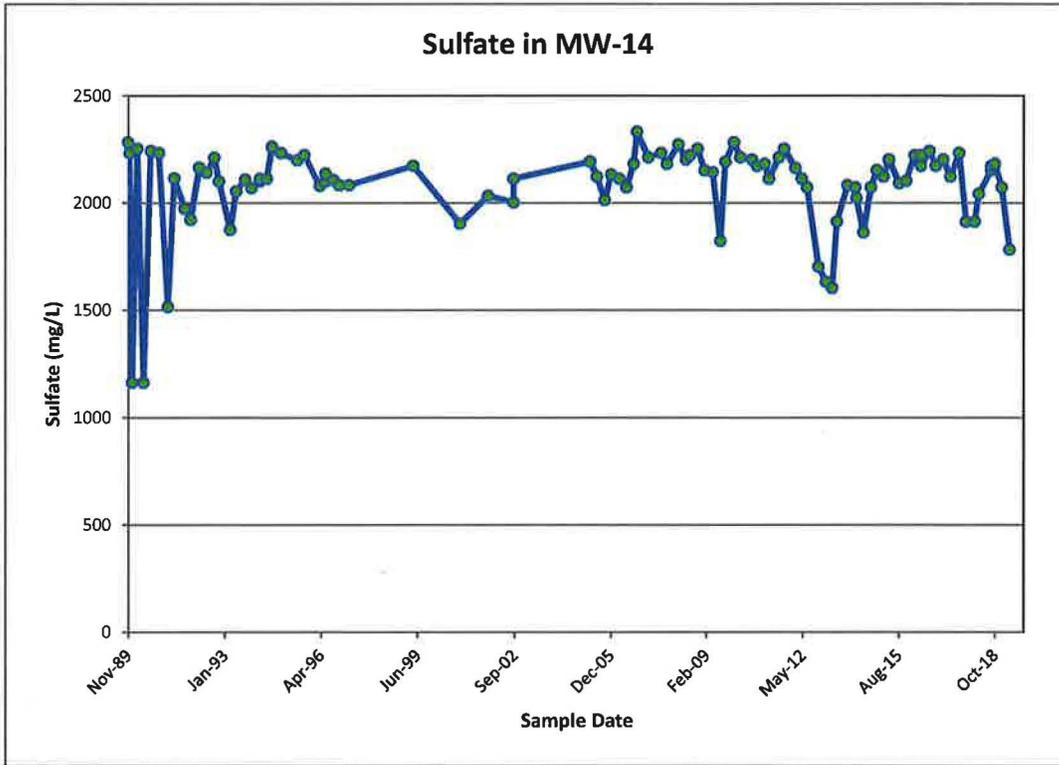
## Time concentration plots for MW-12



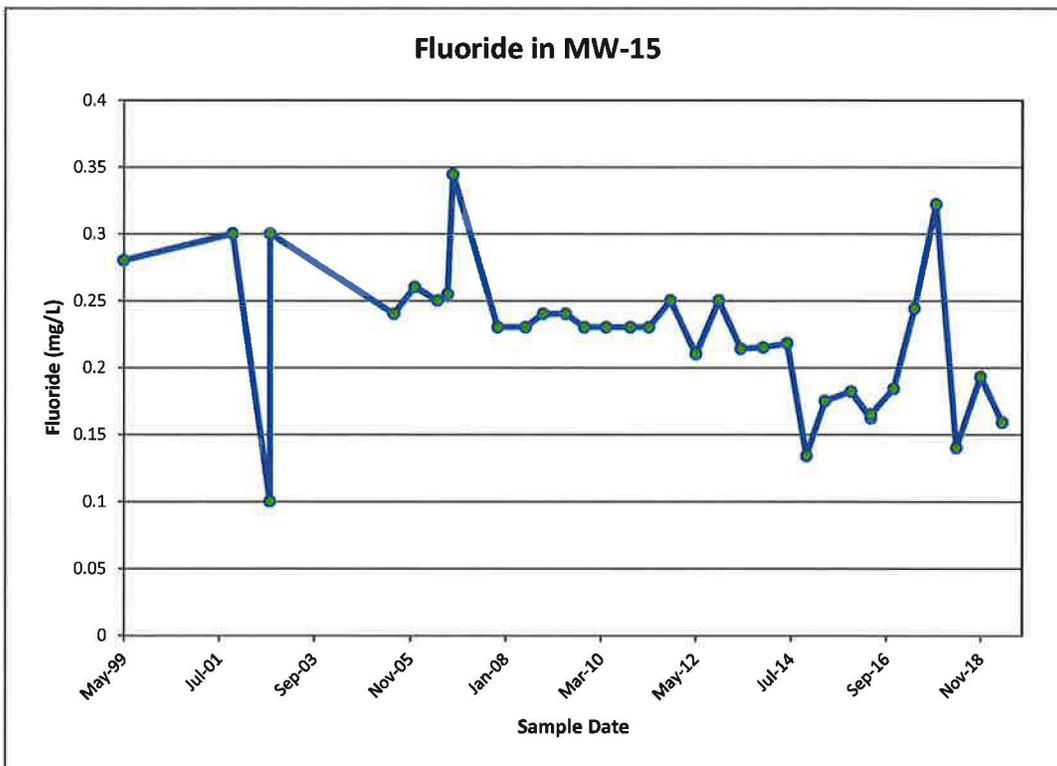
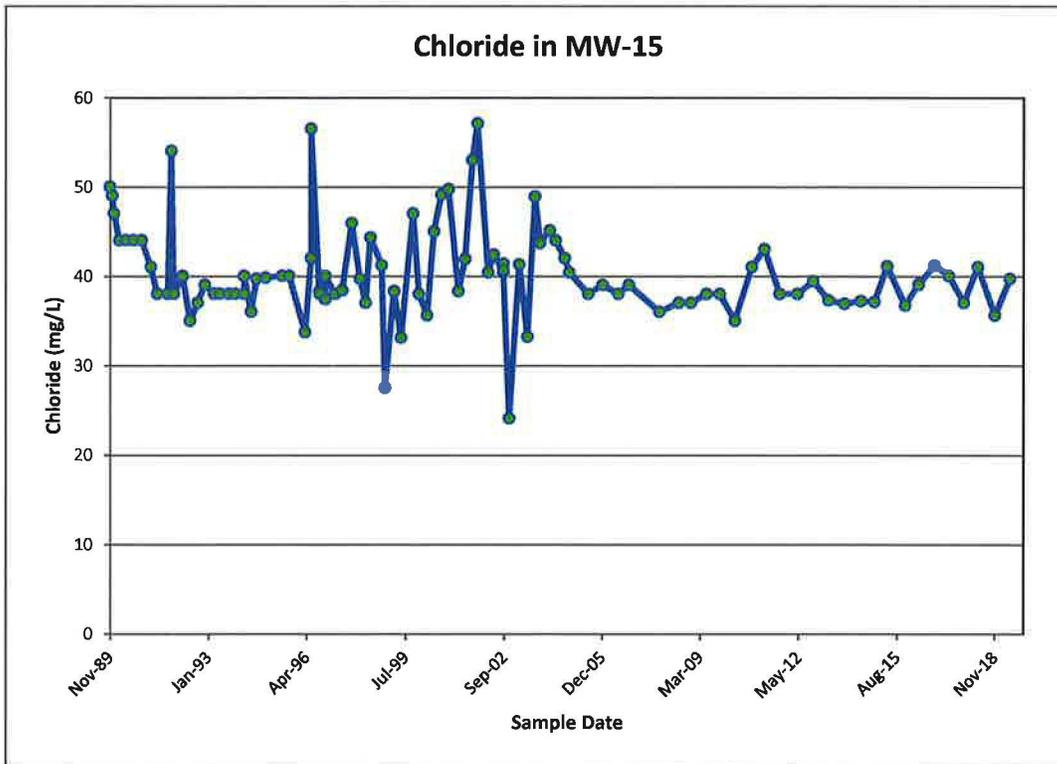
### Time concentration plots for MW-14



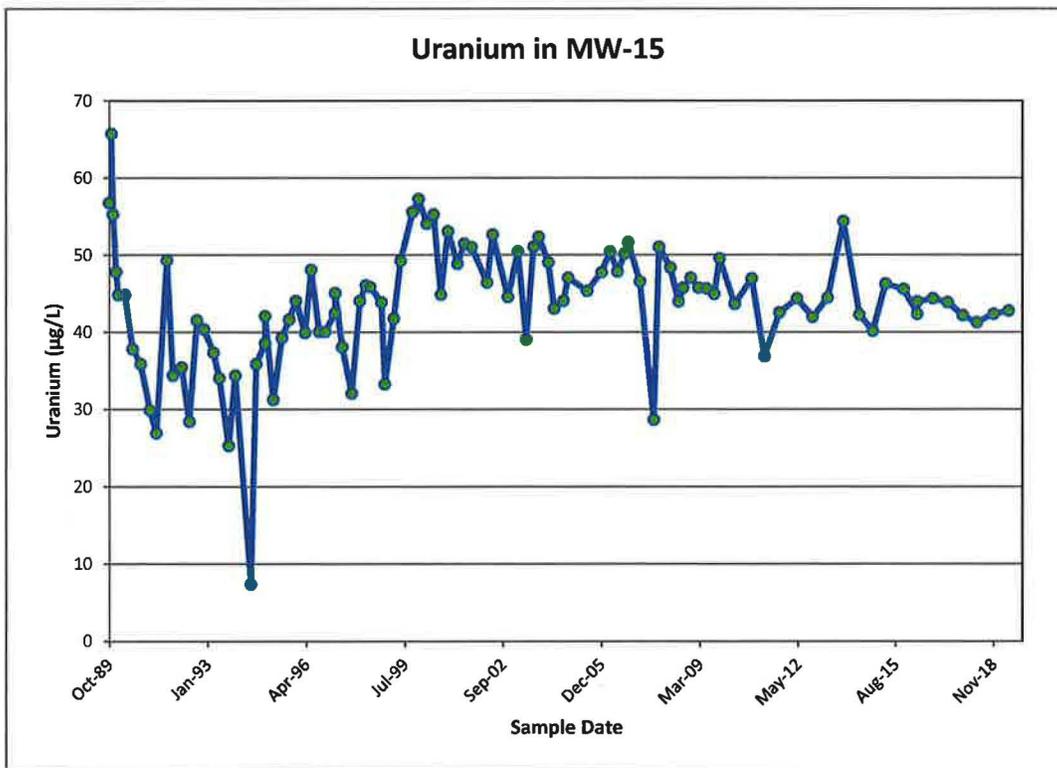
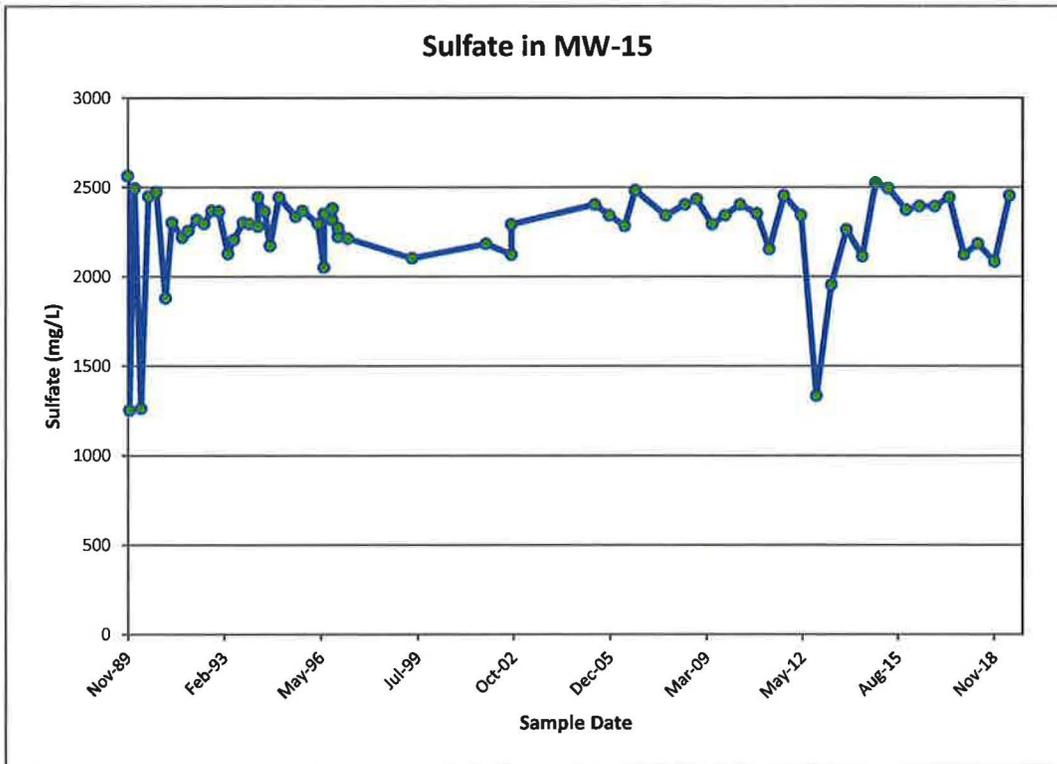
### Time concentration plots for MW-14



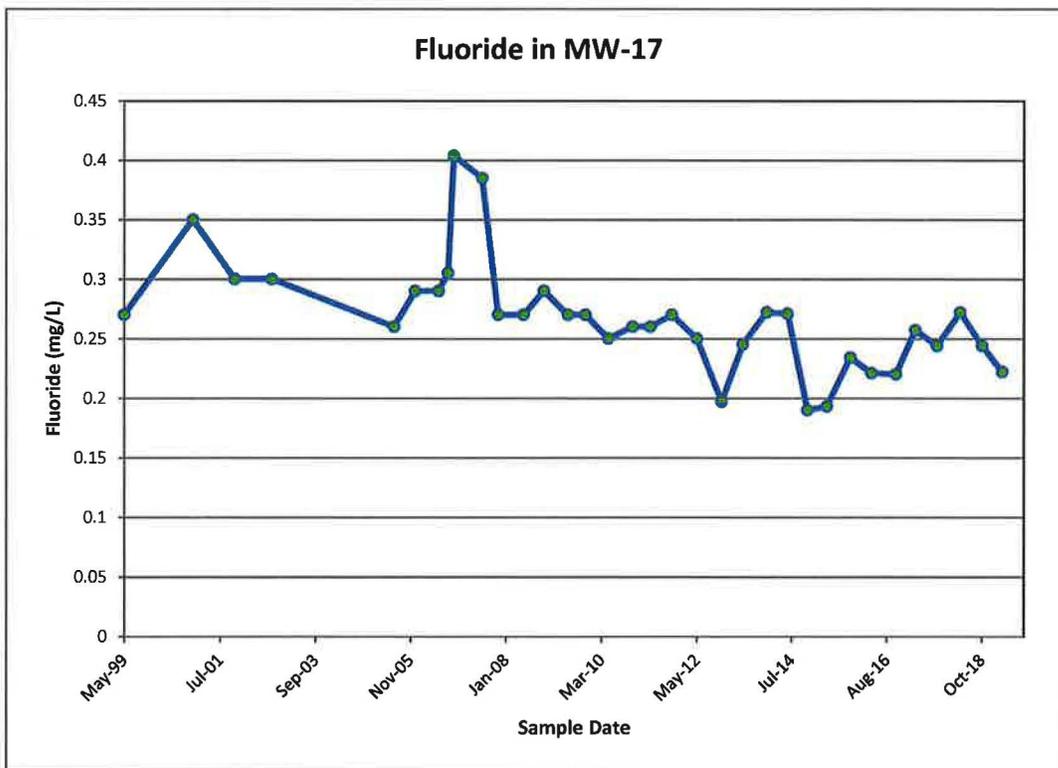
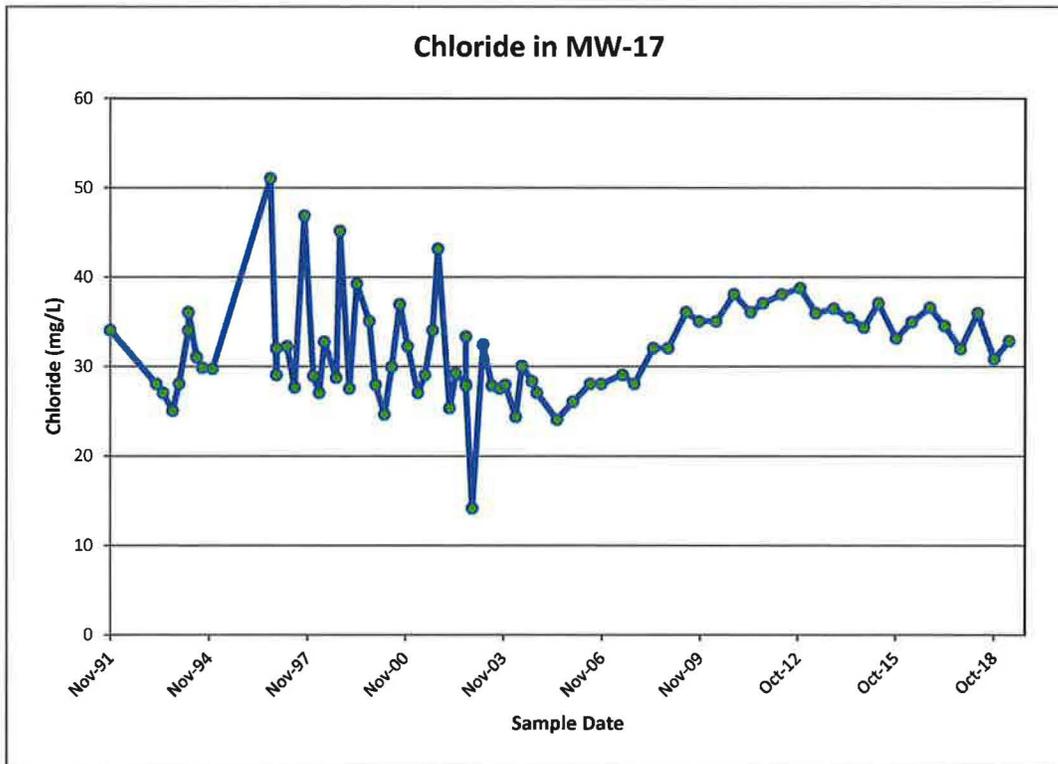
## Time concentration plots for MW-15



## Time concentration plots for MW-15

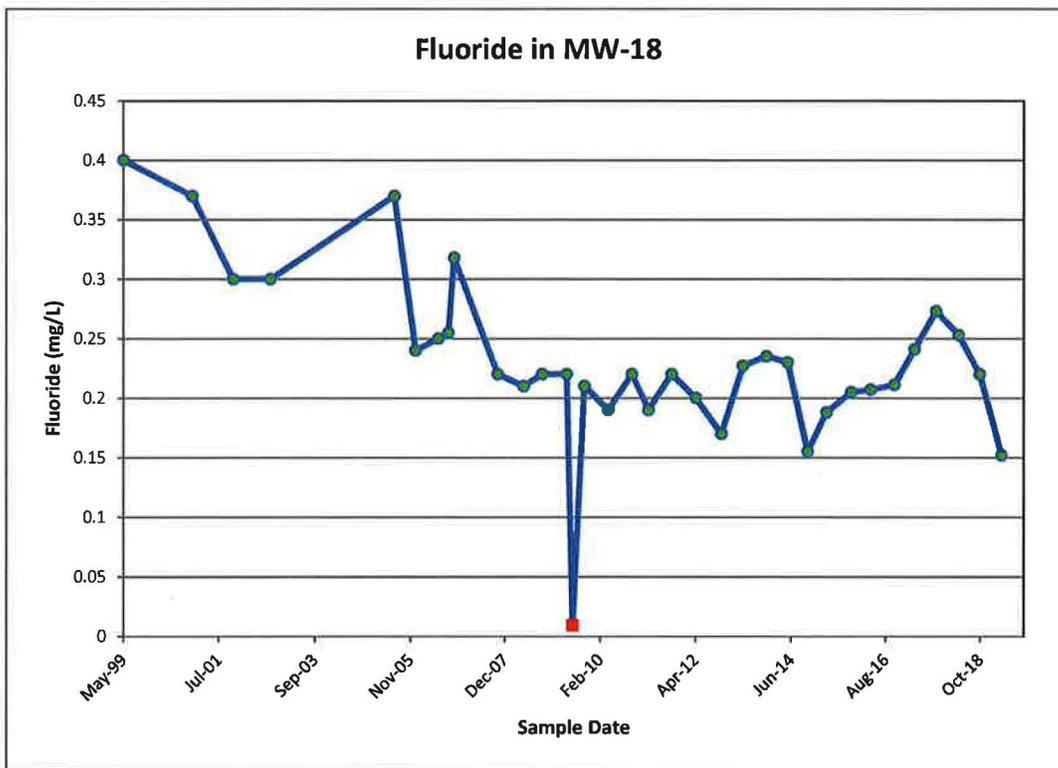
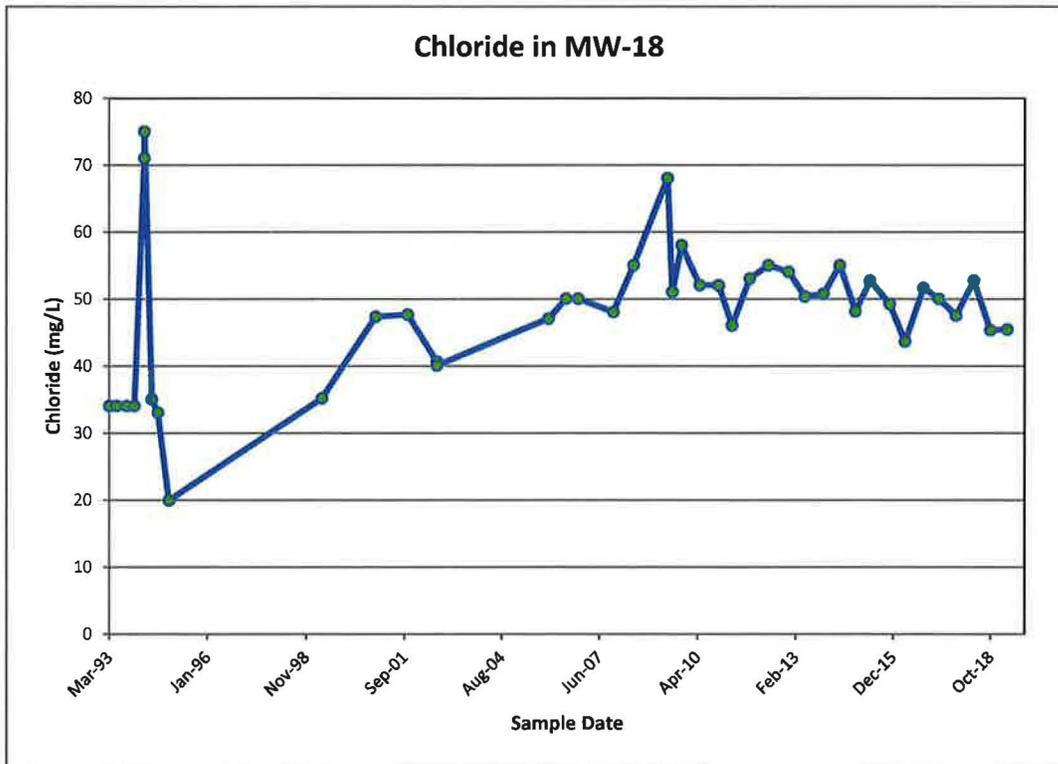


## Time concentration plots for MW-17

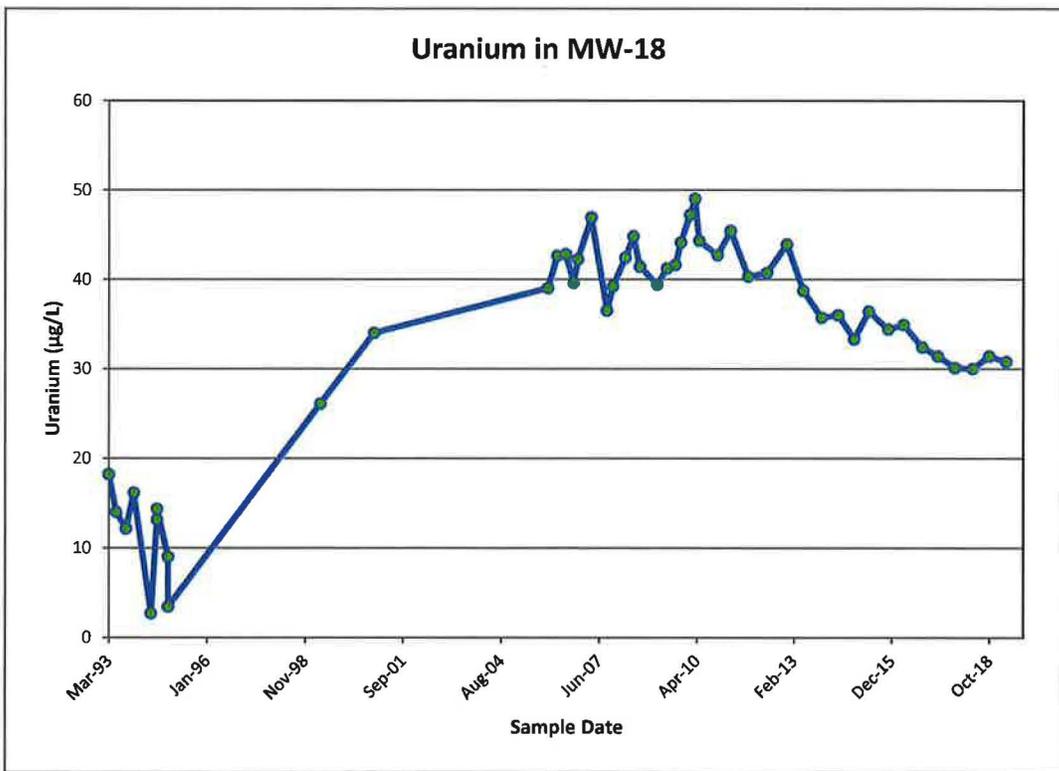
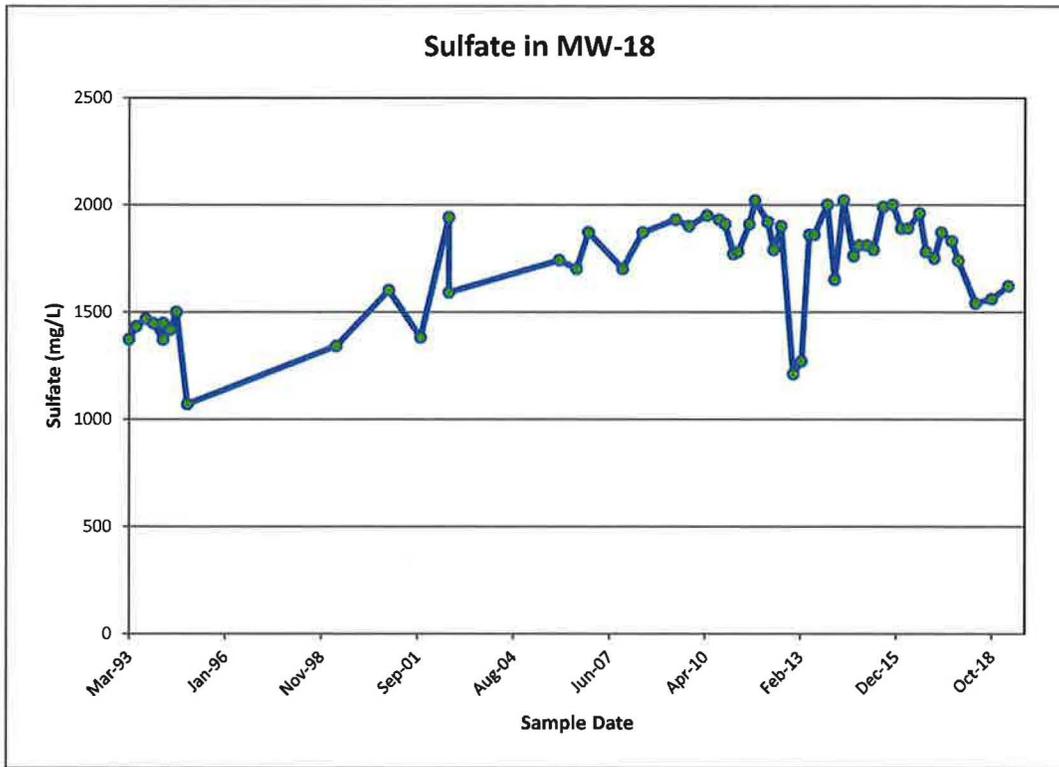




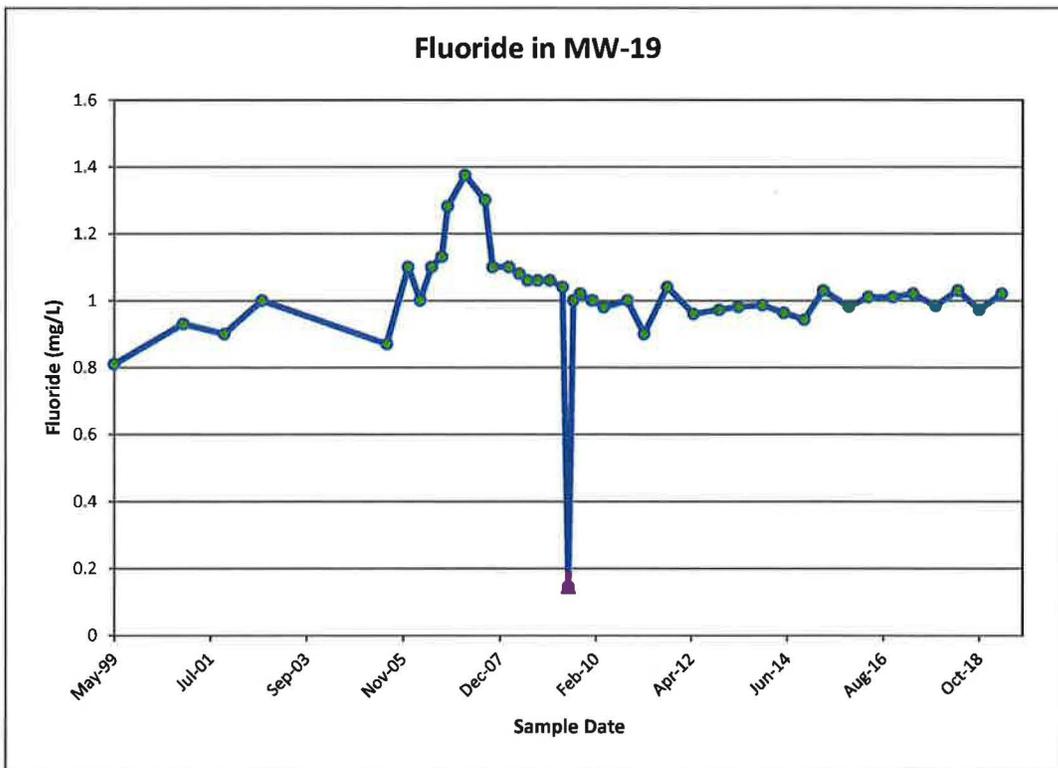
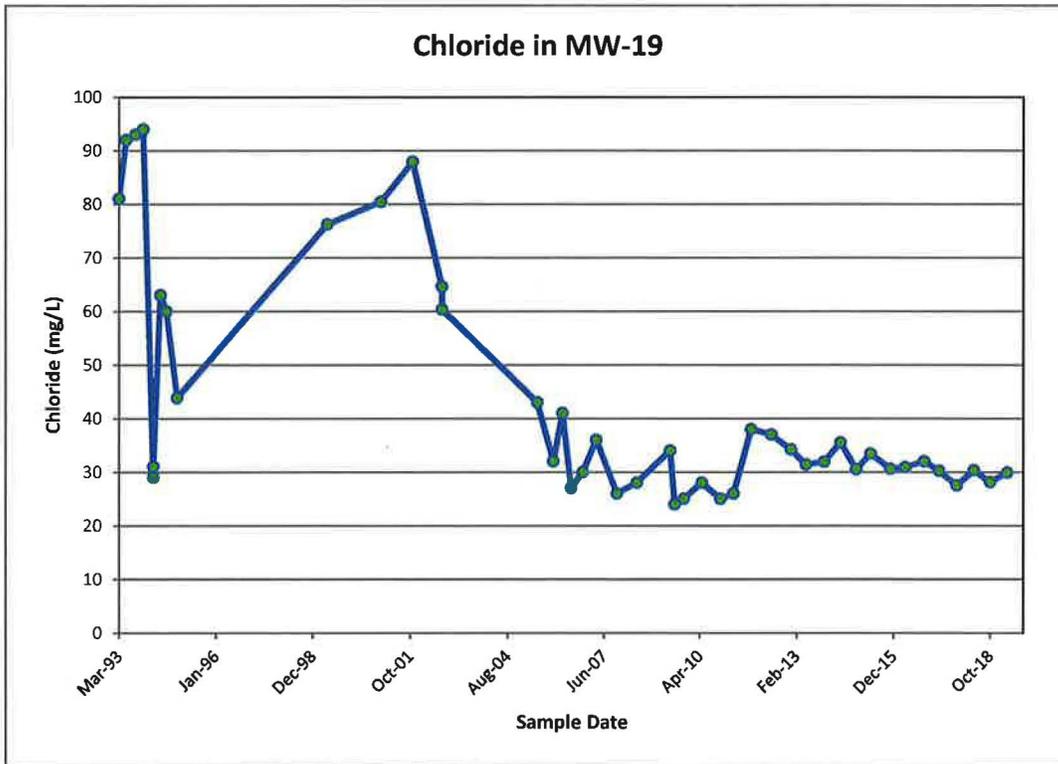
## Time concentration plots for MW-18



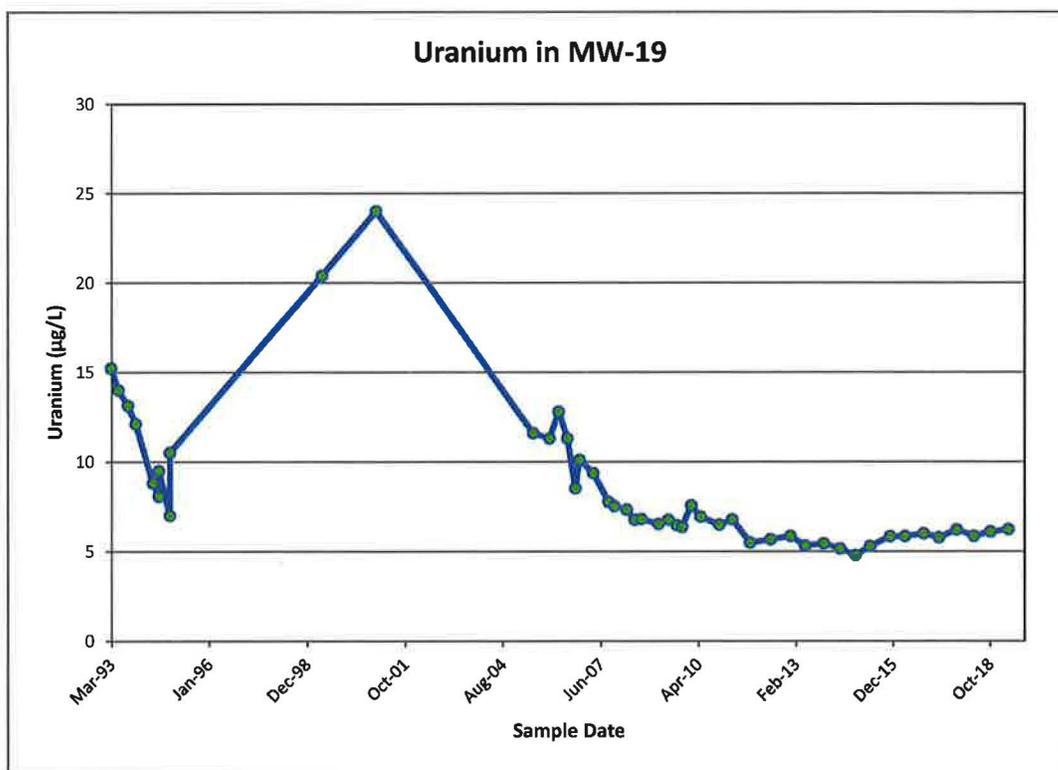
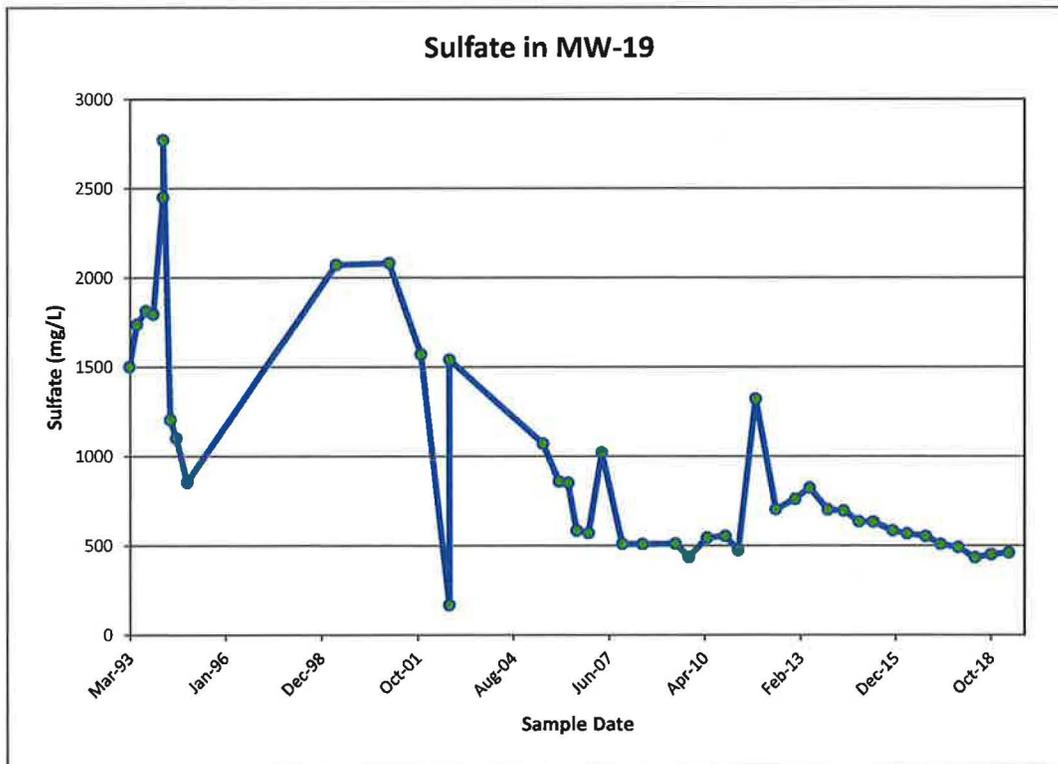
## Time concentration plots for MW-18



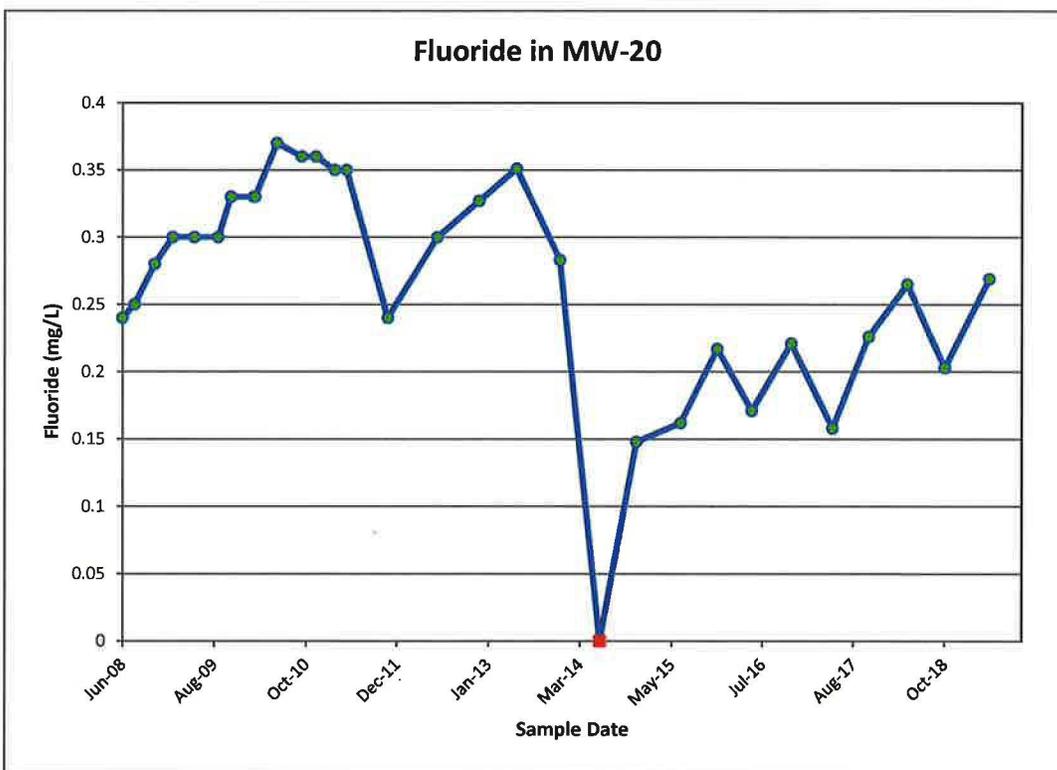
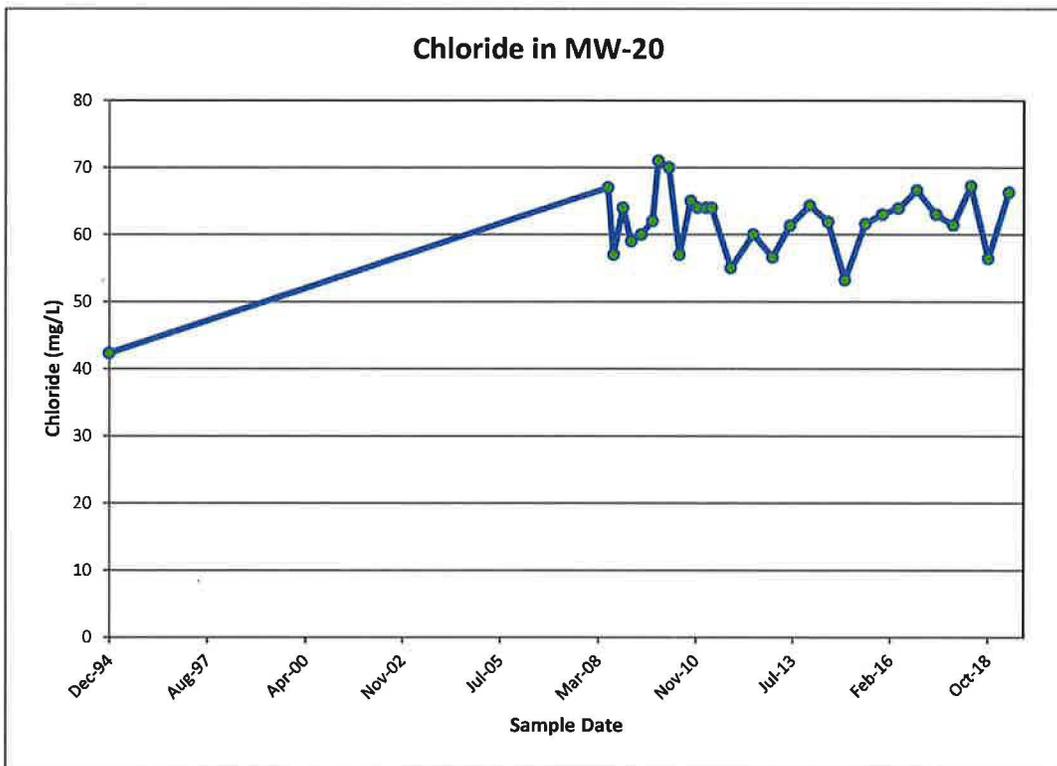
## Time concentration plots for MW-19



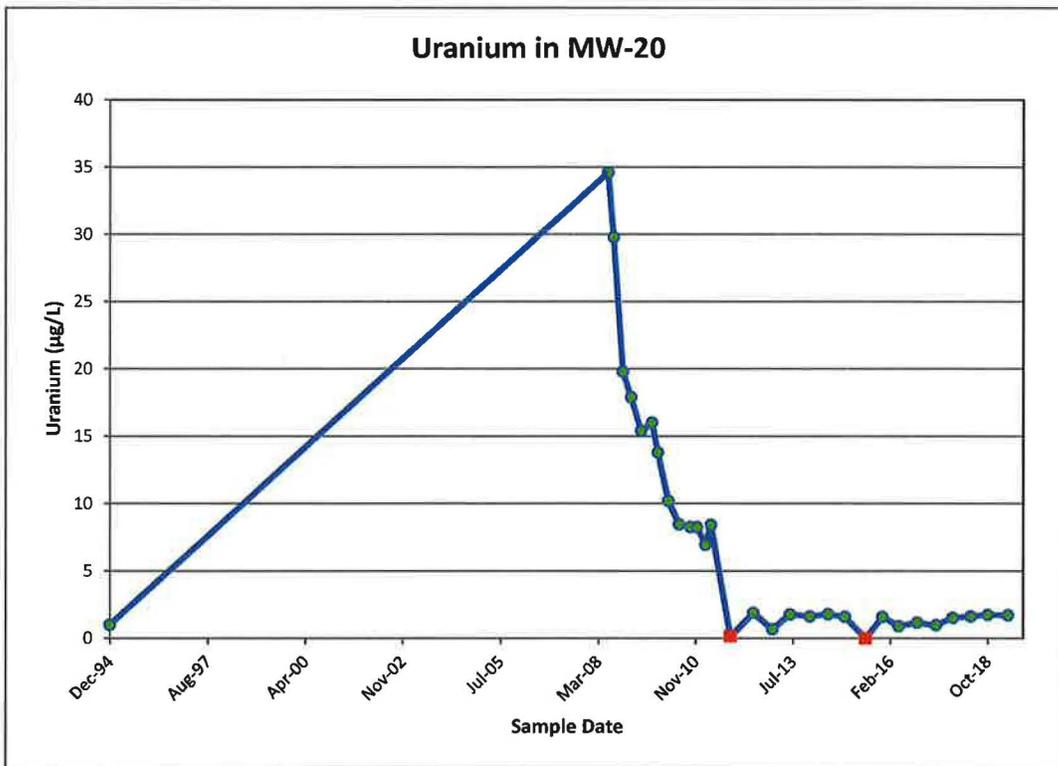
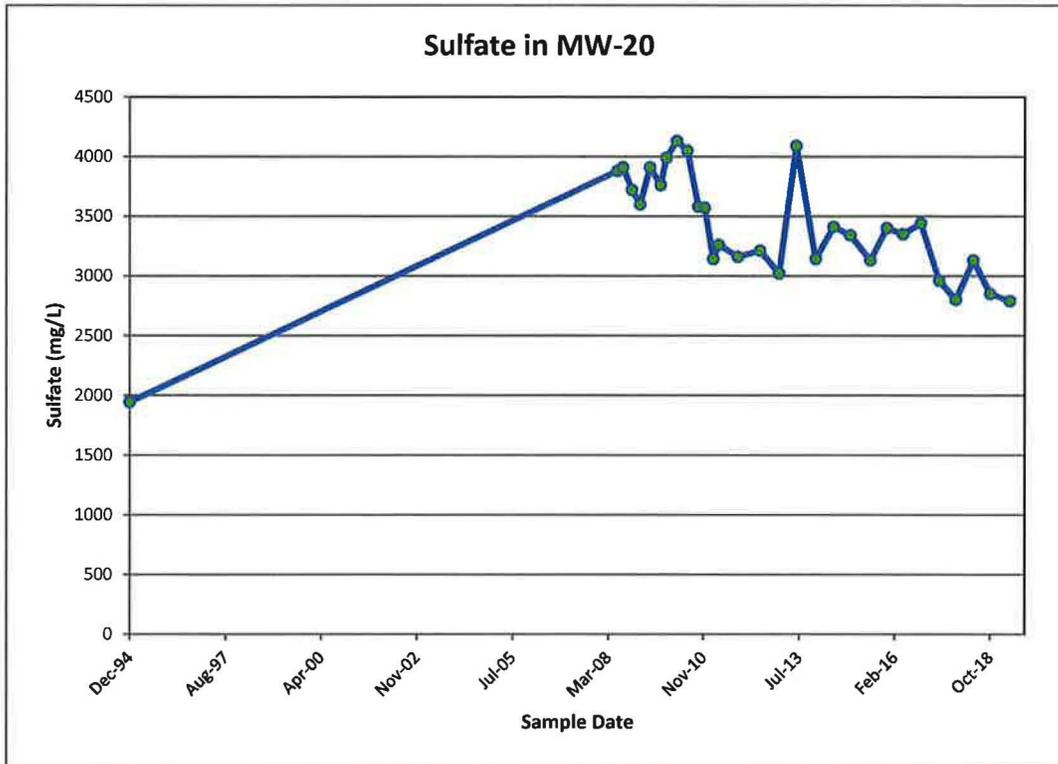
## Time concentration plots for MW-19



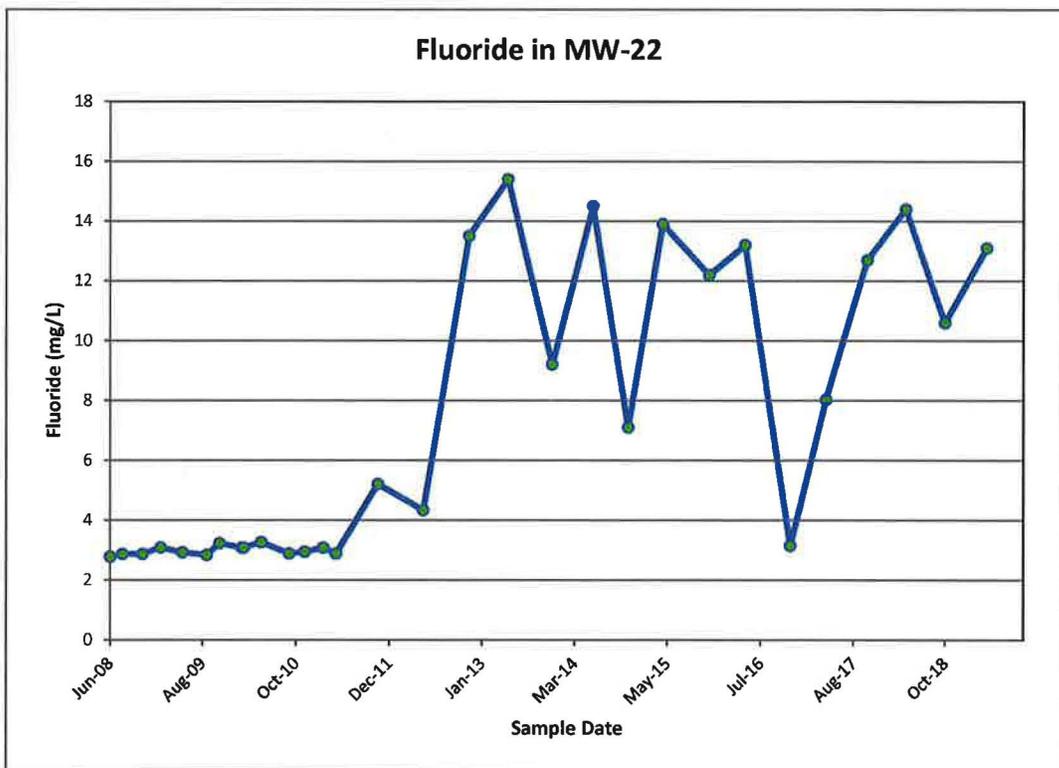
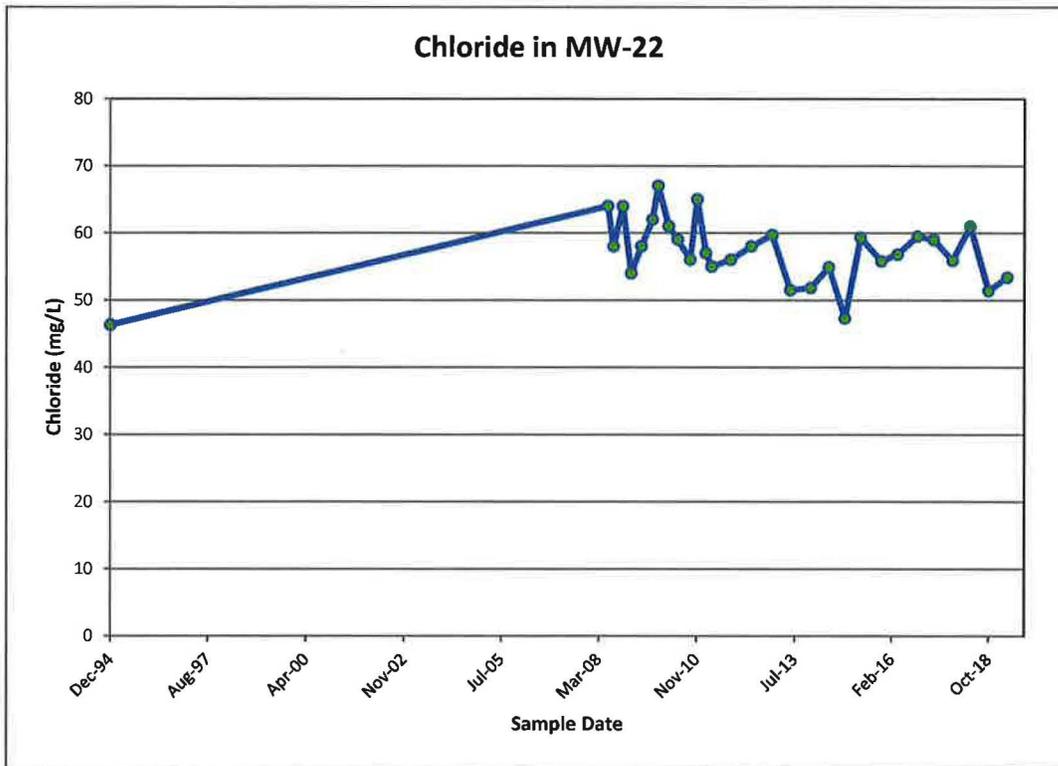
### Time concentration plots for MW-20



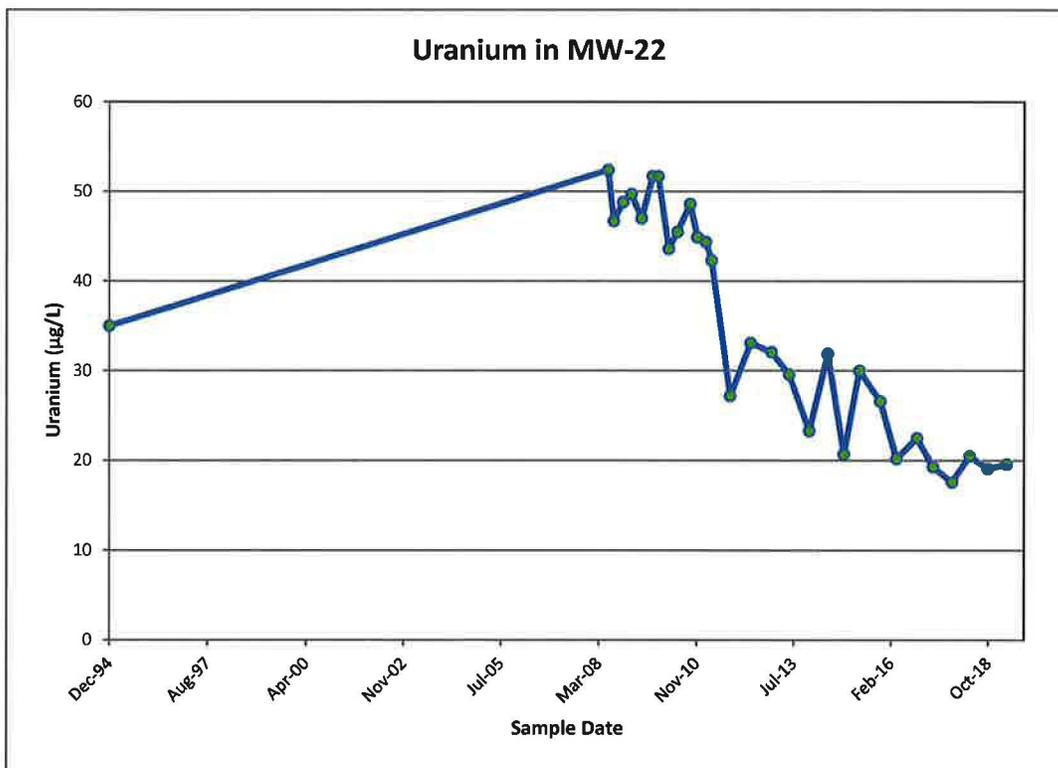
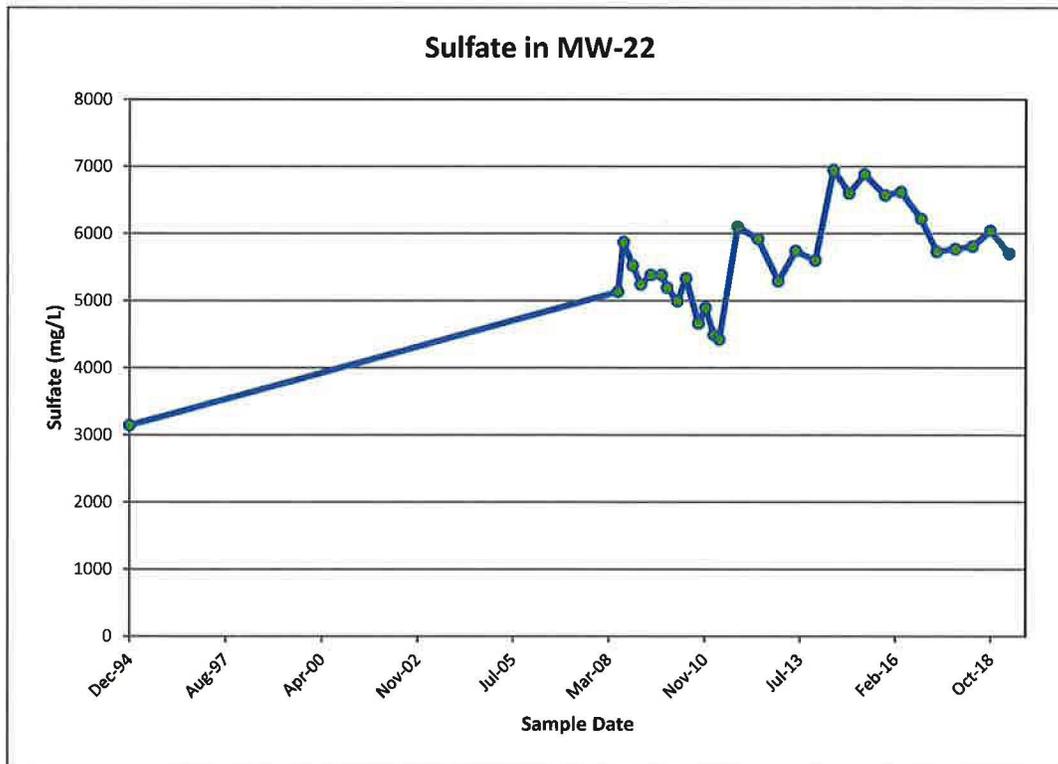
## Time concentration plots for MW-20



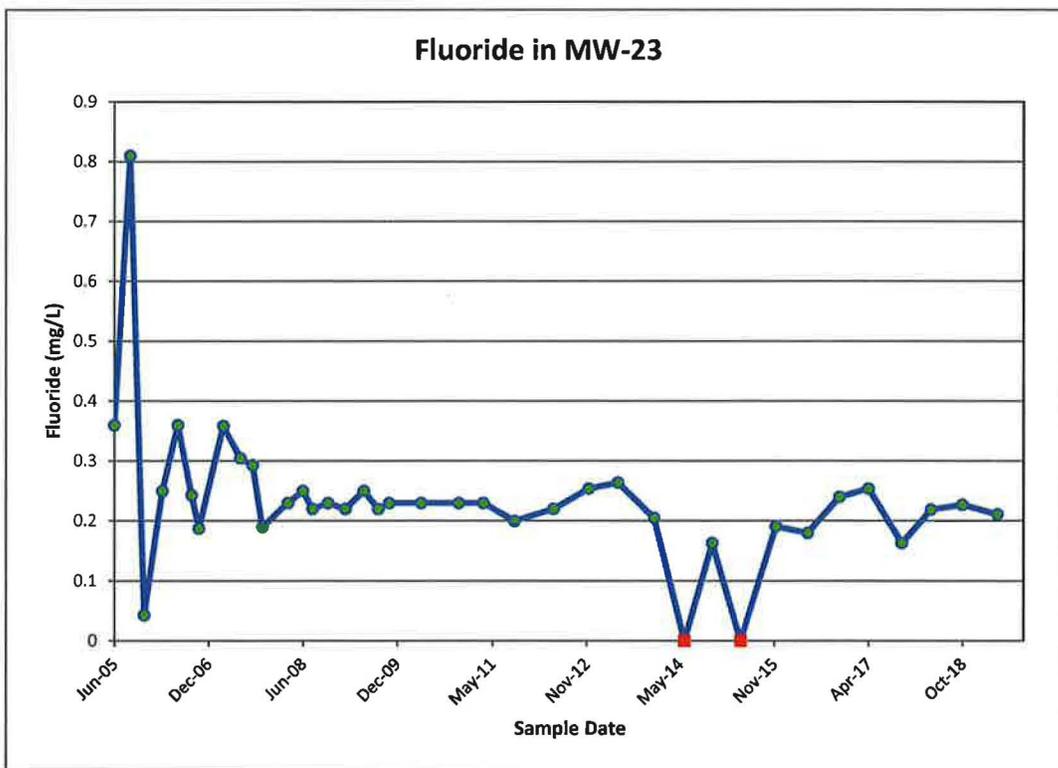
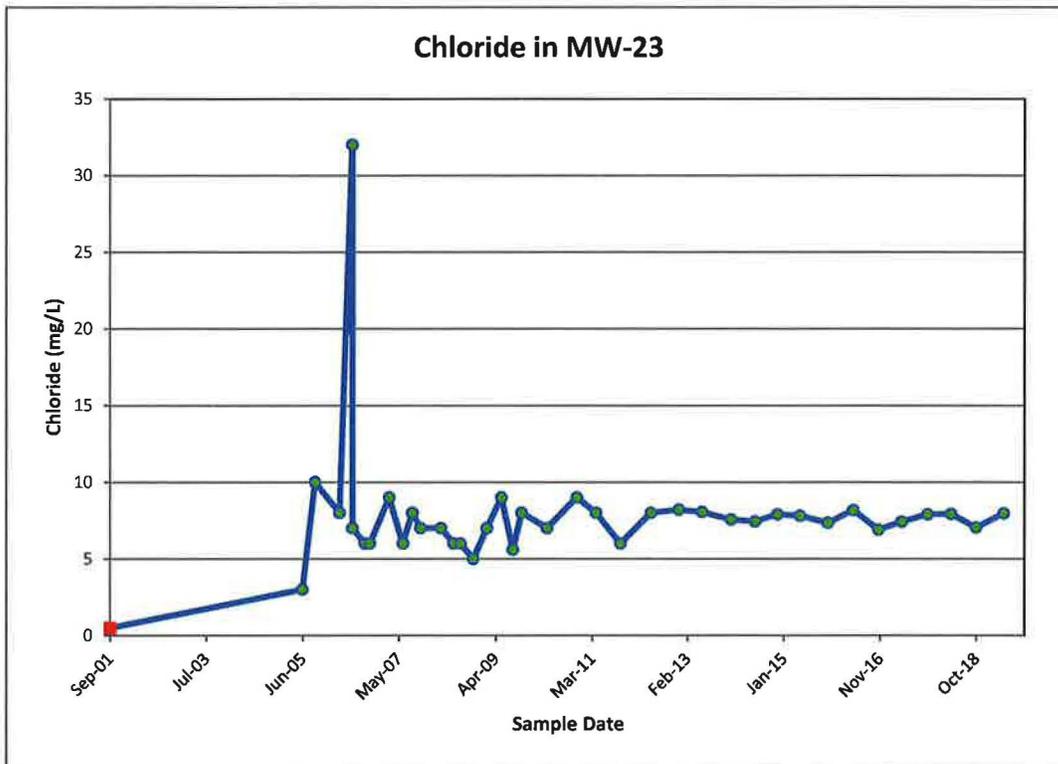
### Time concentration plots for MW-22



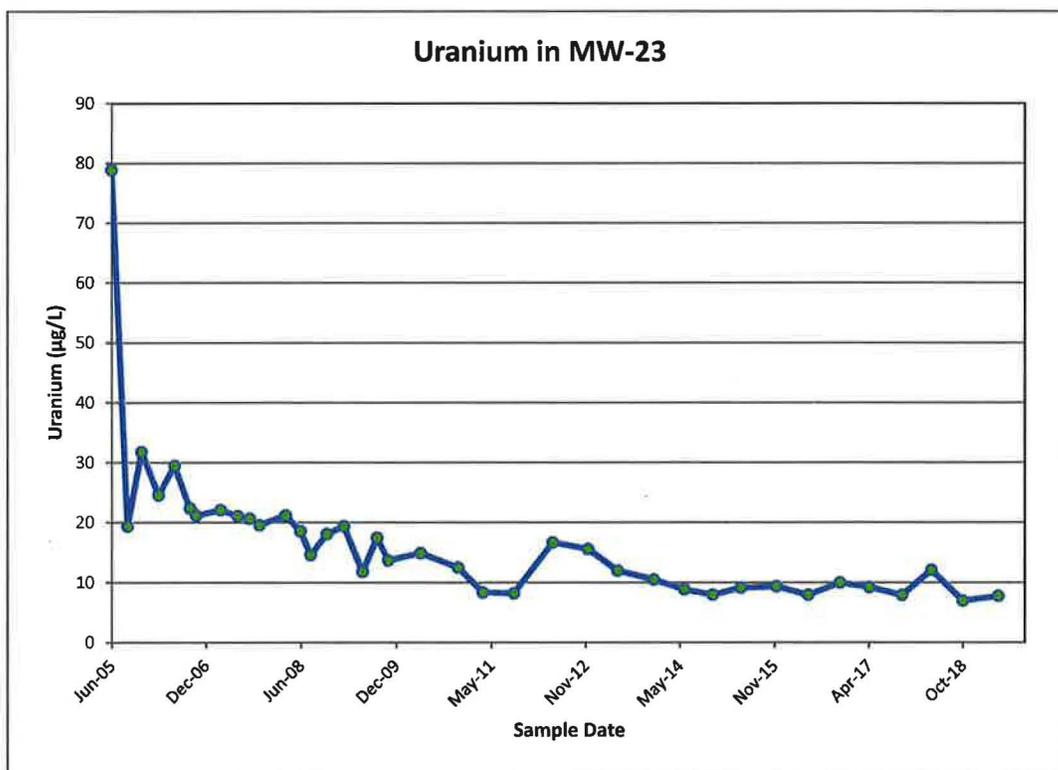
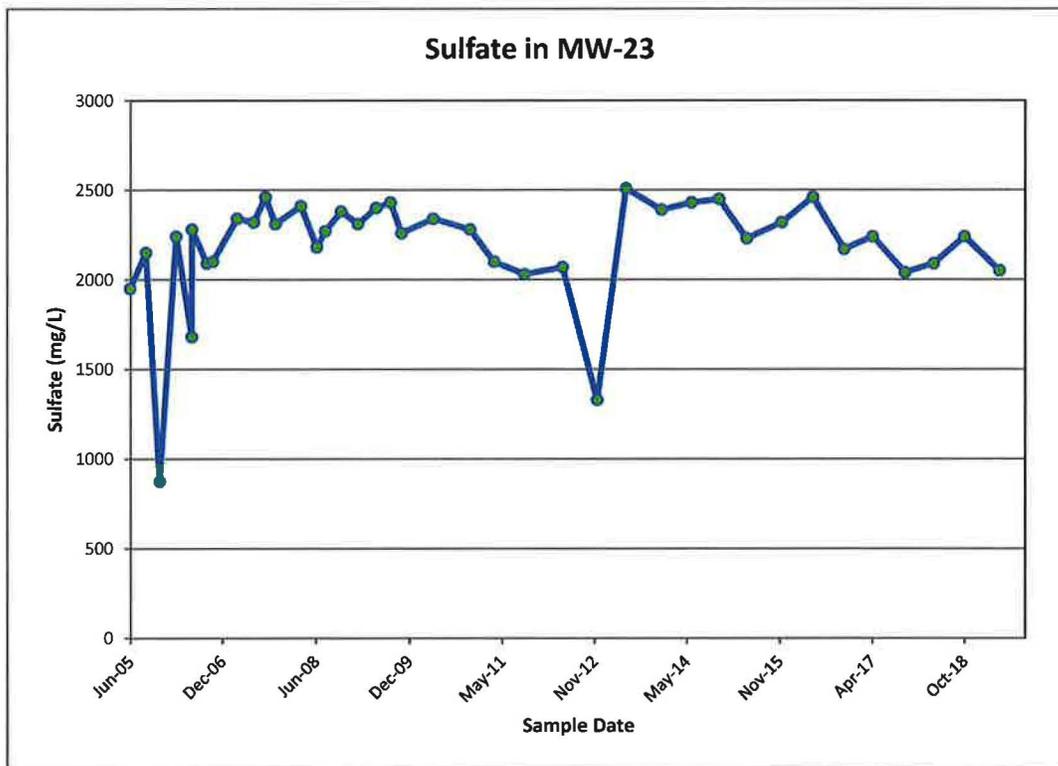
## Time concentration plots for MW-22



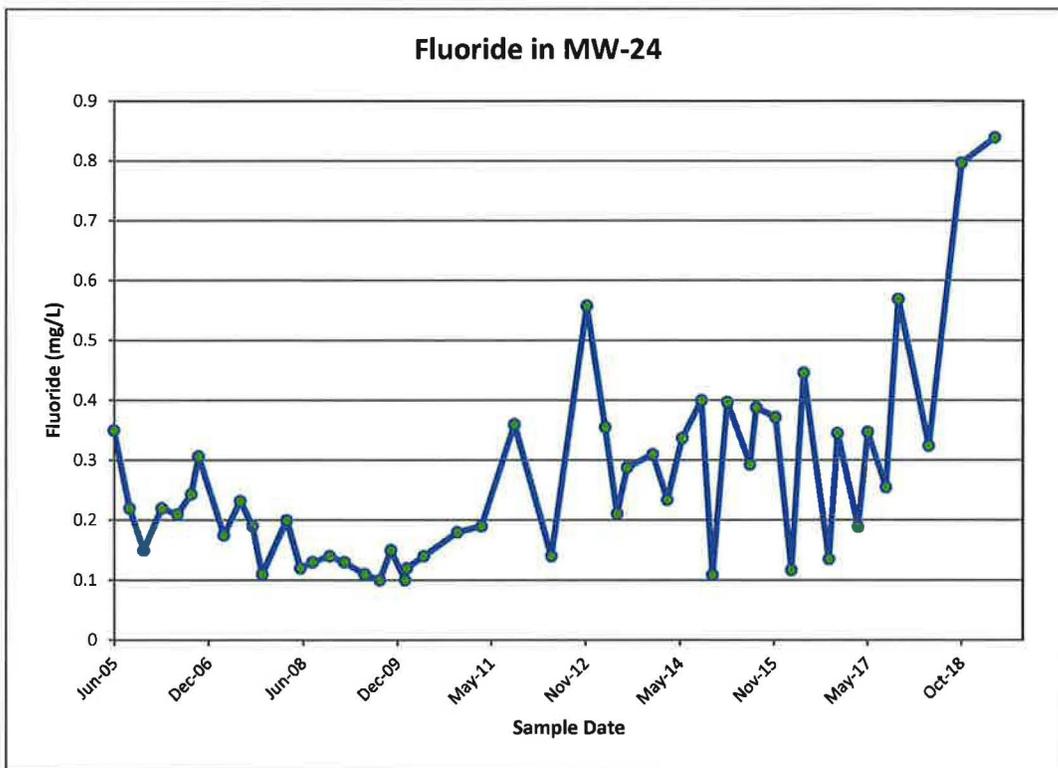
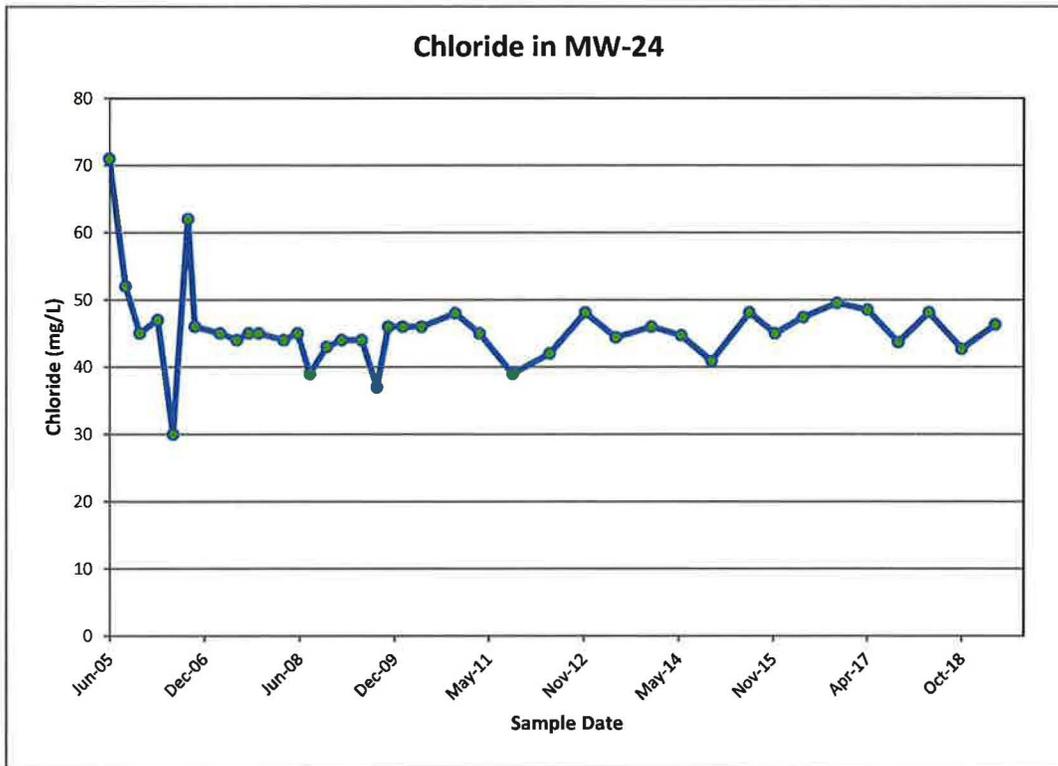
### Time concentration plots for MW-23



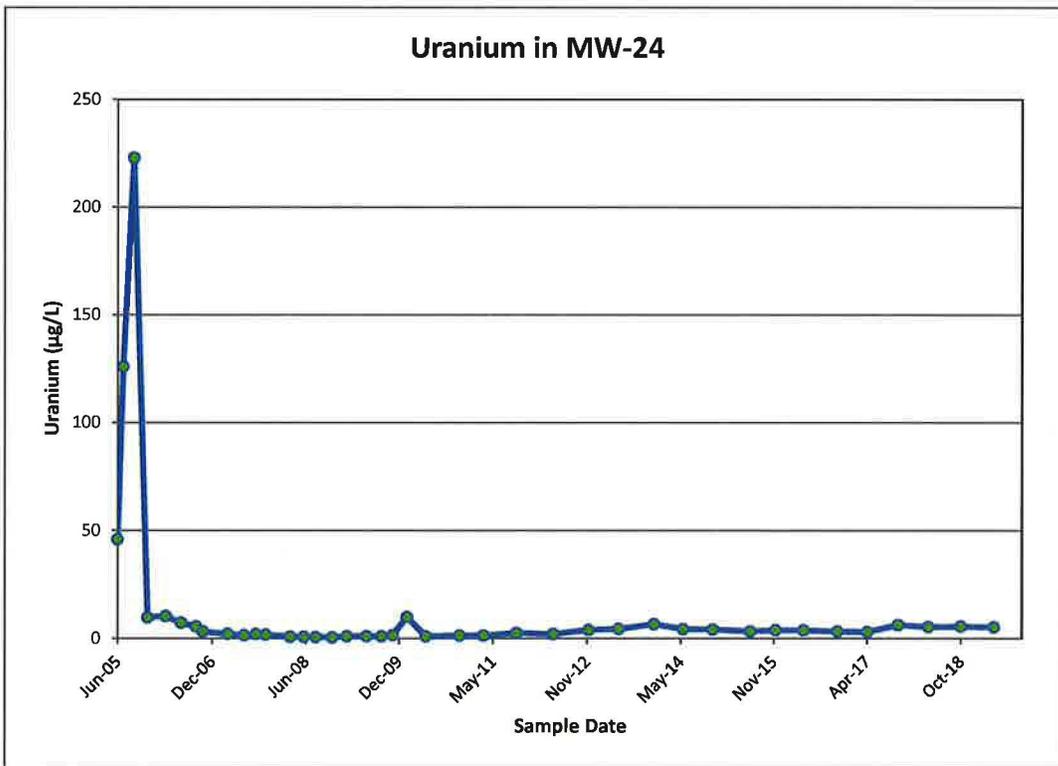
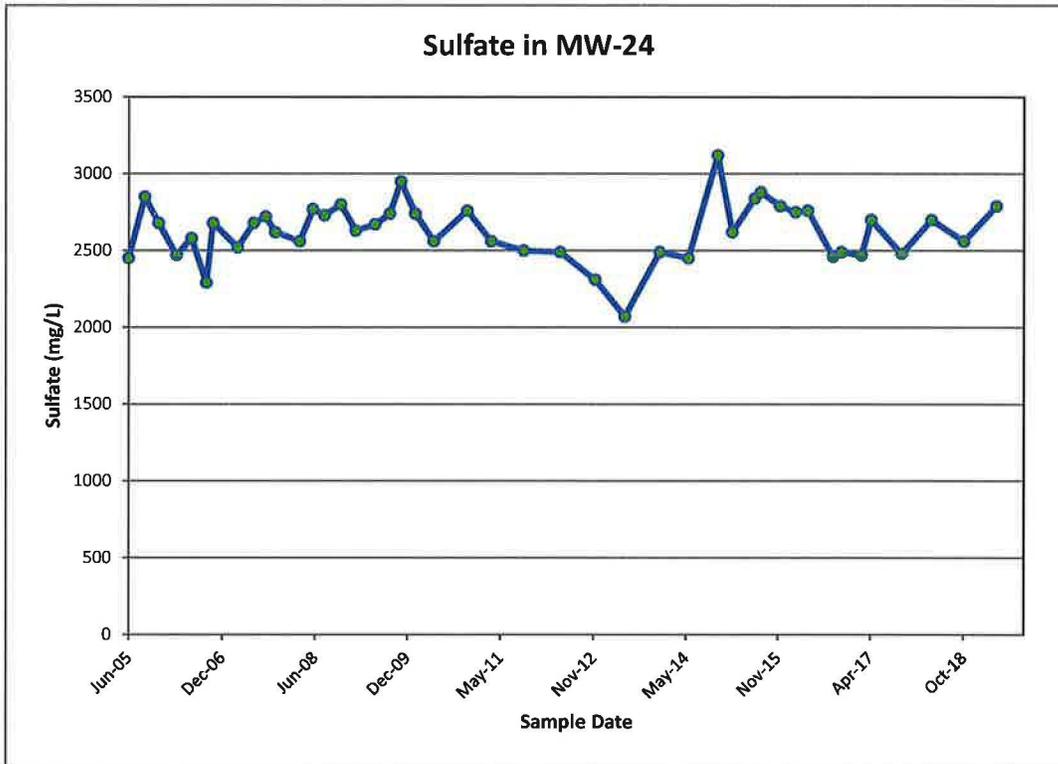
### Time concentration plots for MW-23



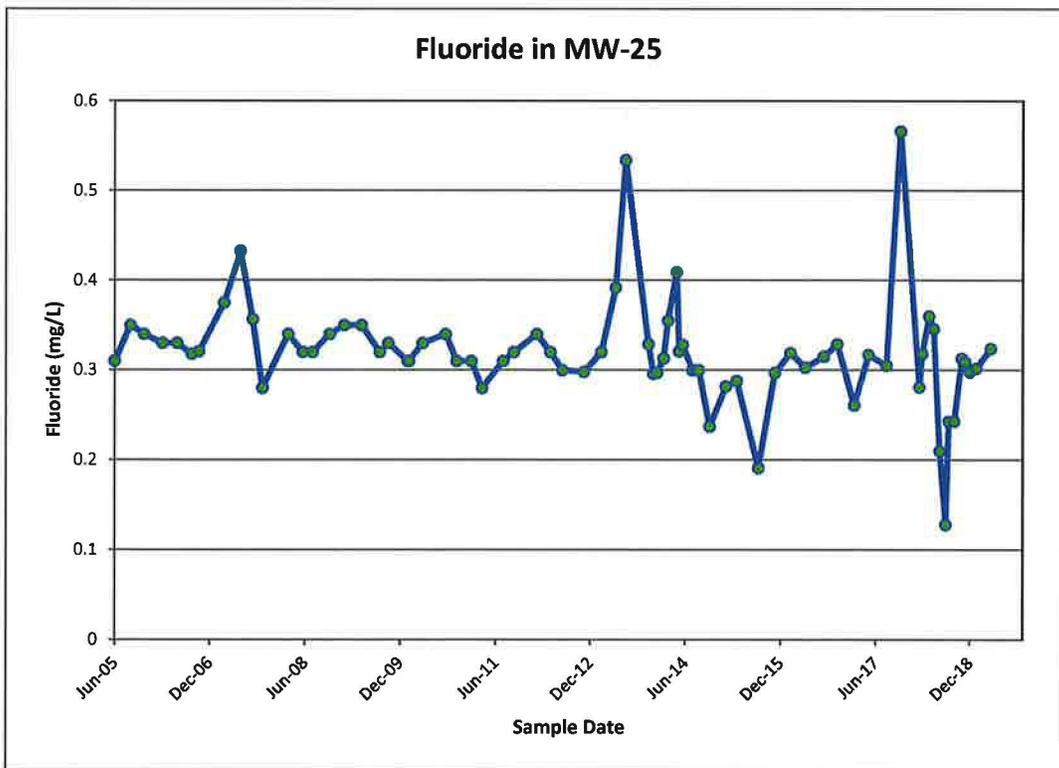
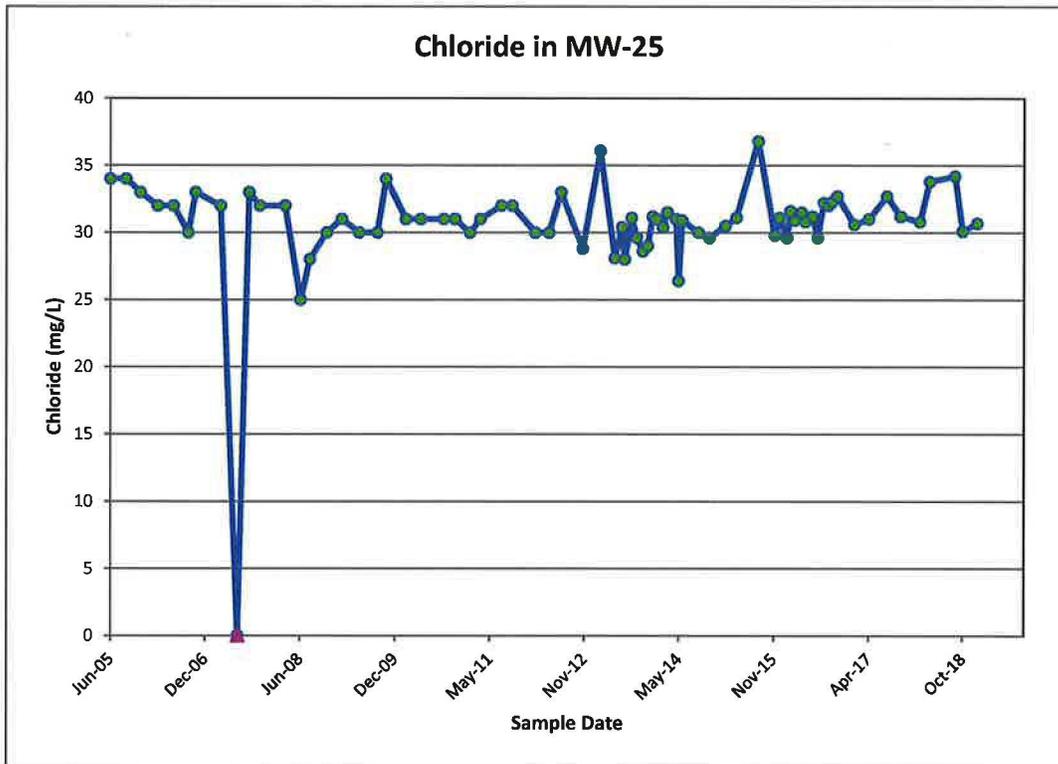
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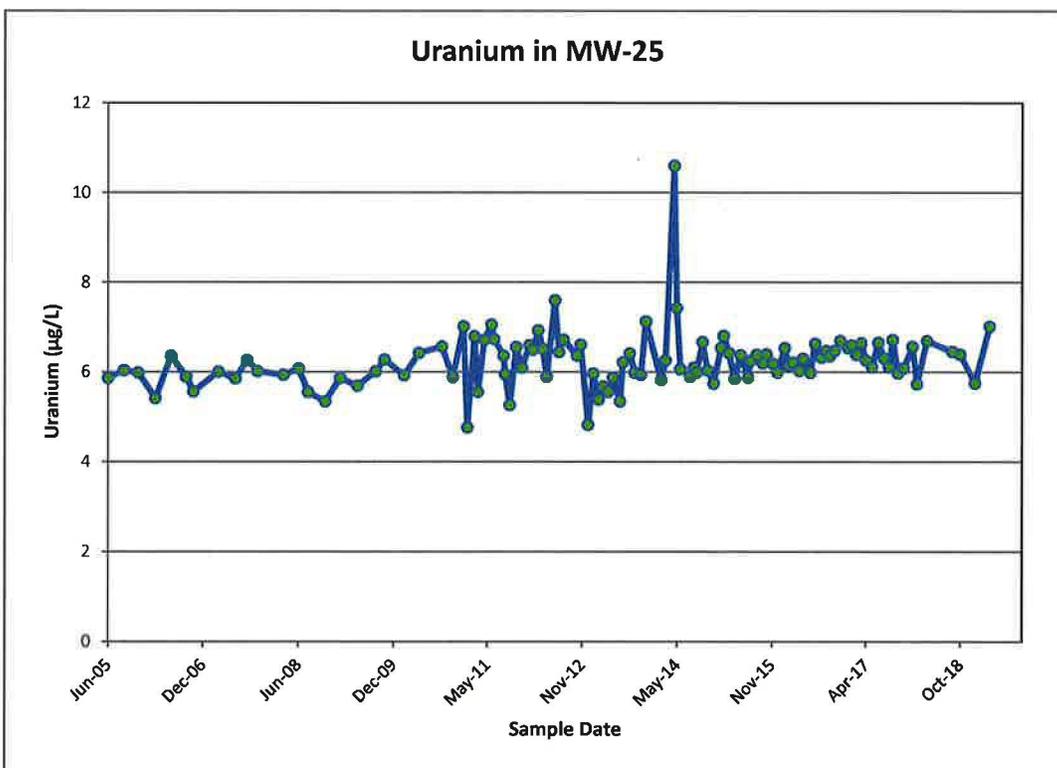
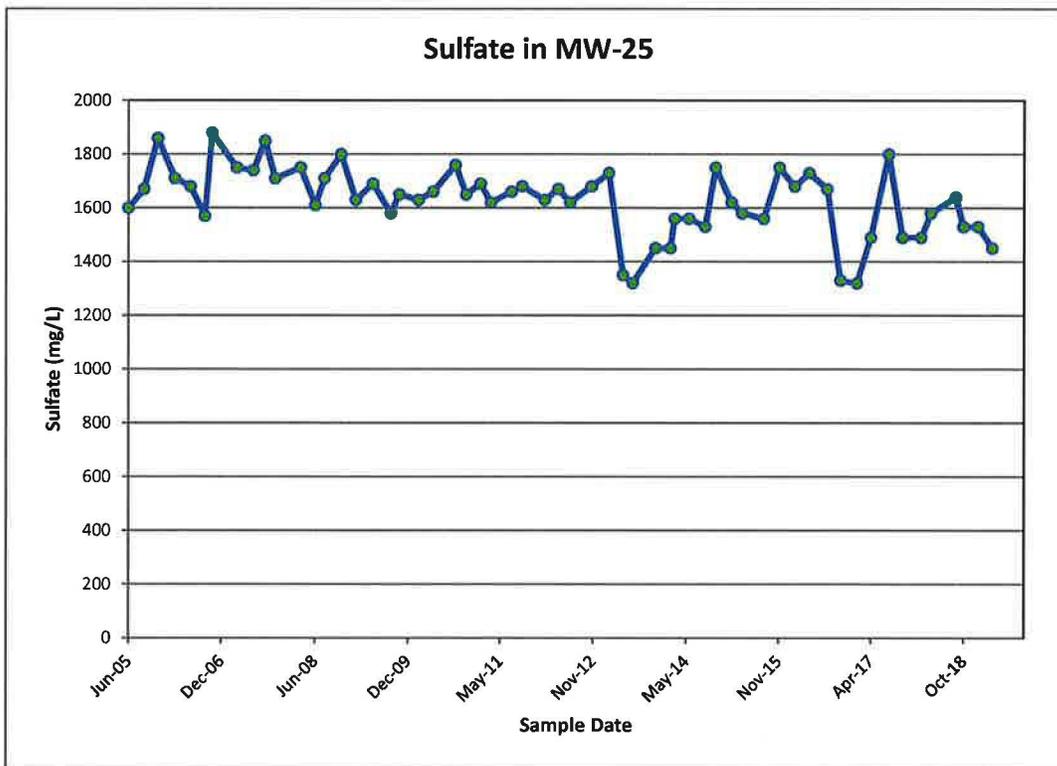
## Time concentration plots for MW-24



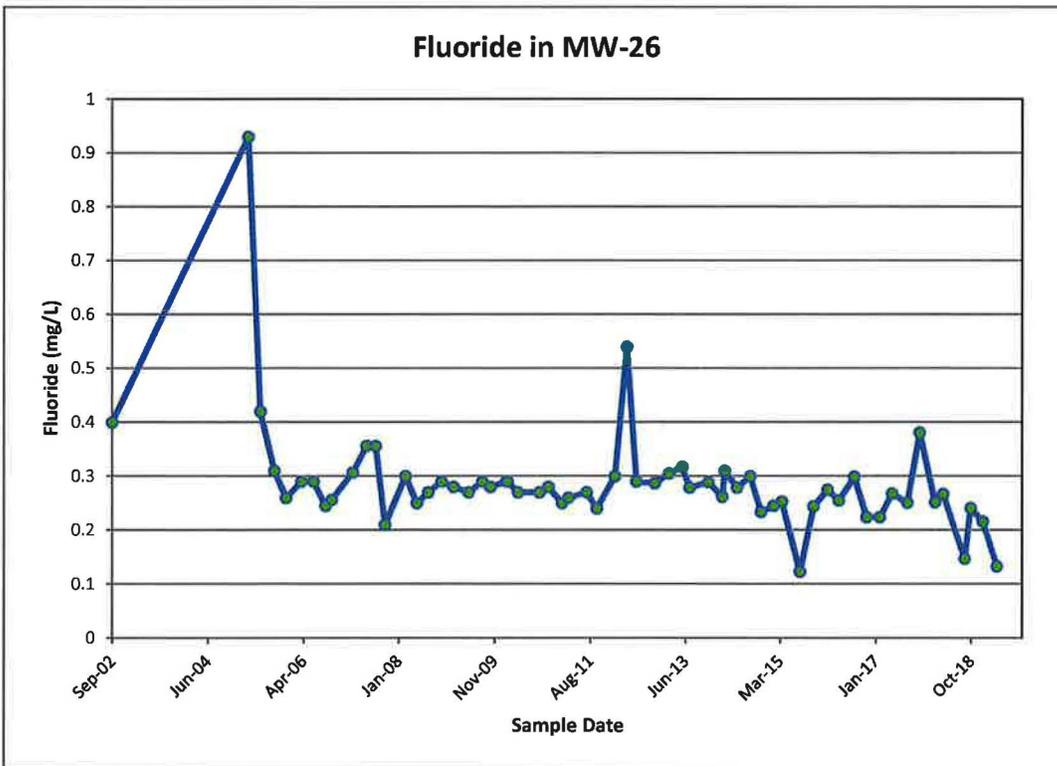
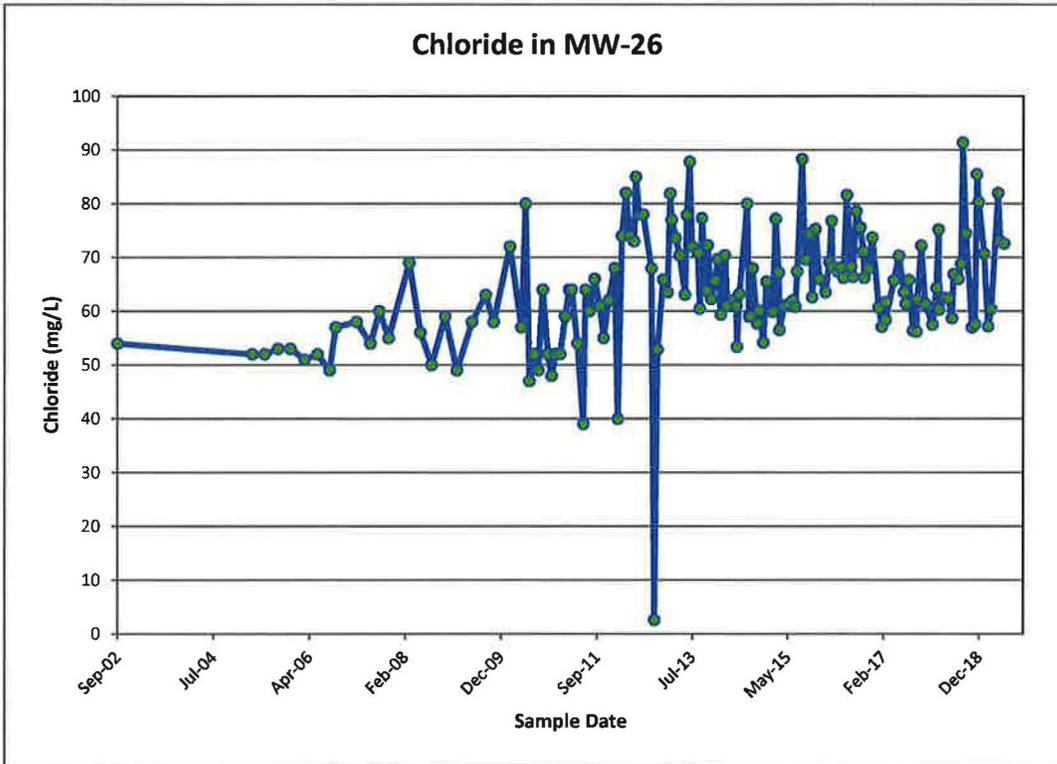
## Time concentration plots for MW-25



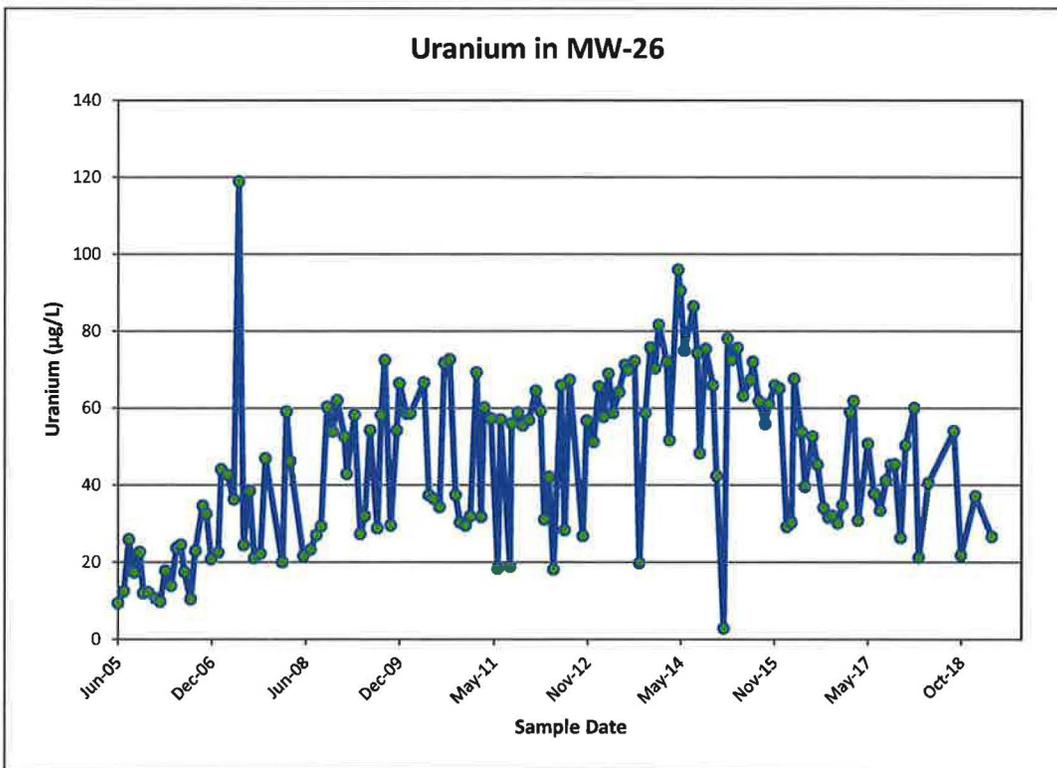
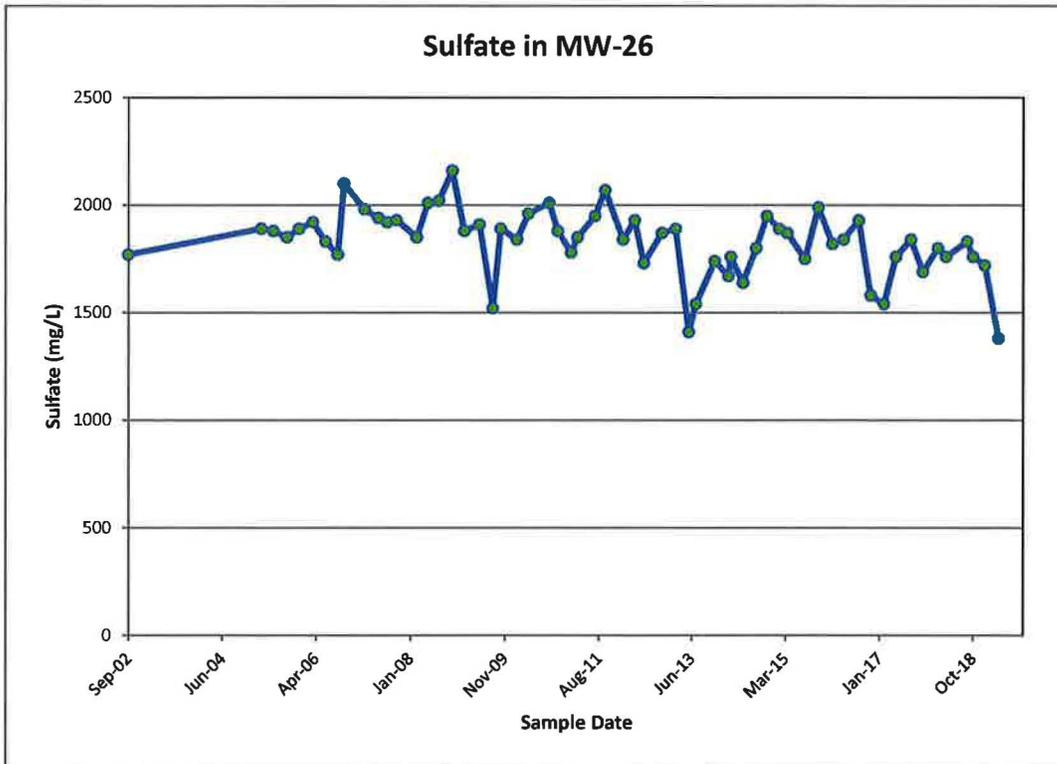
### Time concentration plots for MW-25



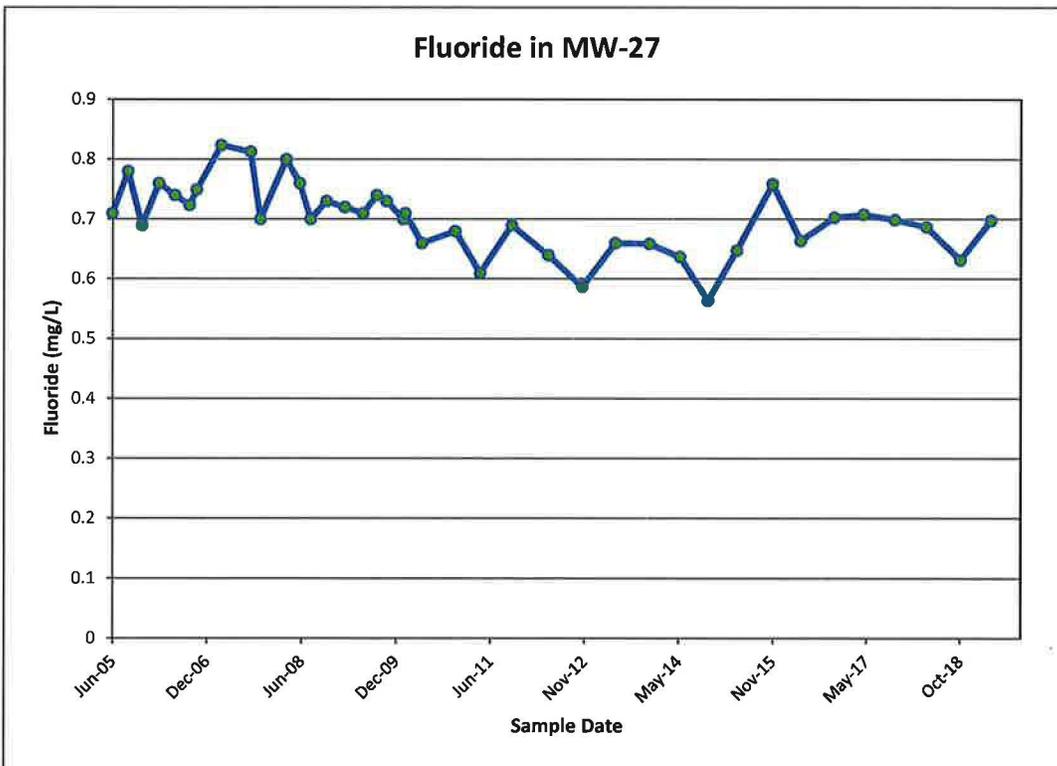
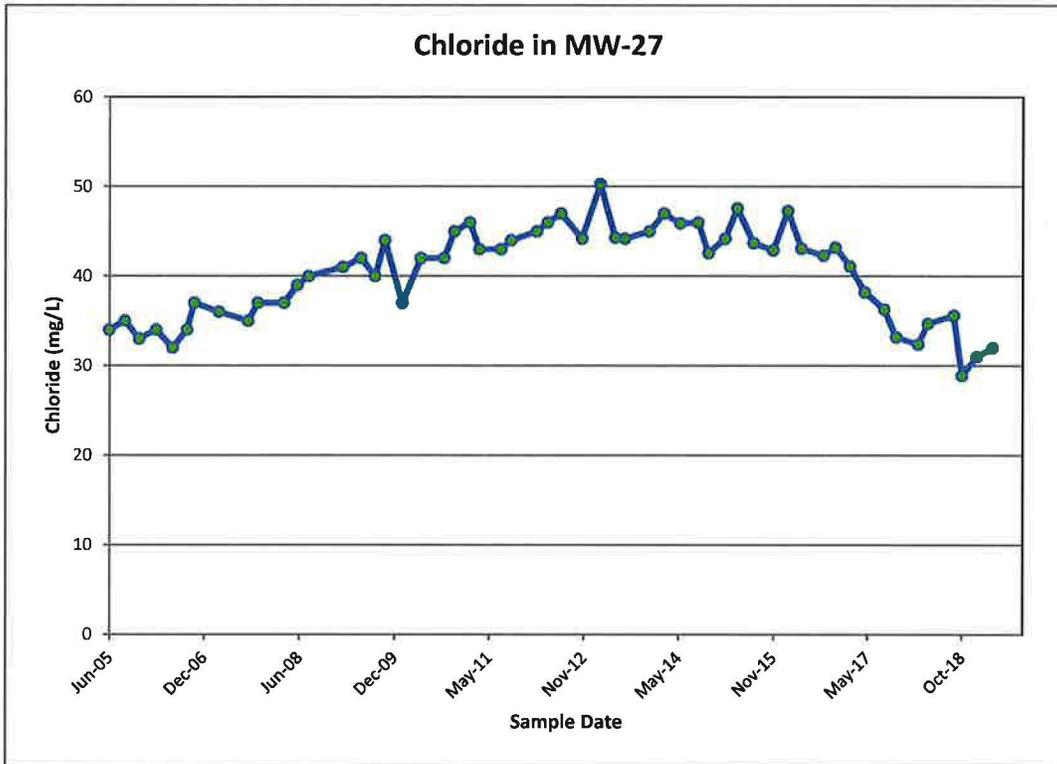
### Time concentration plots for MW-26



## Time concentration plots for MW-26

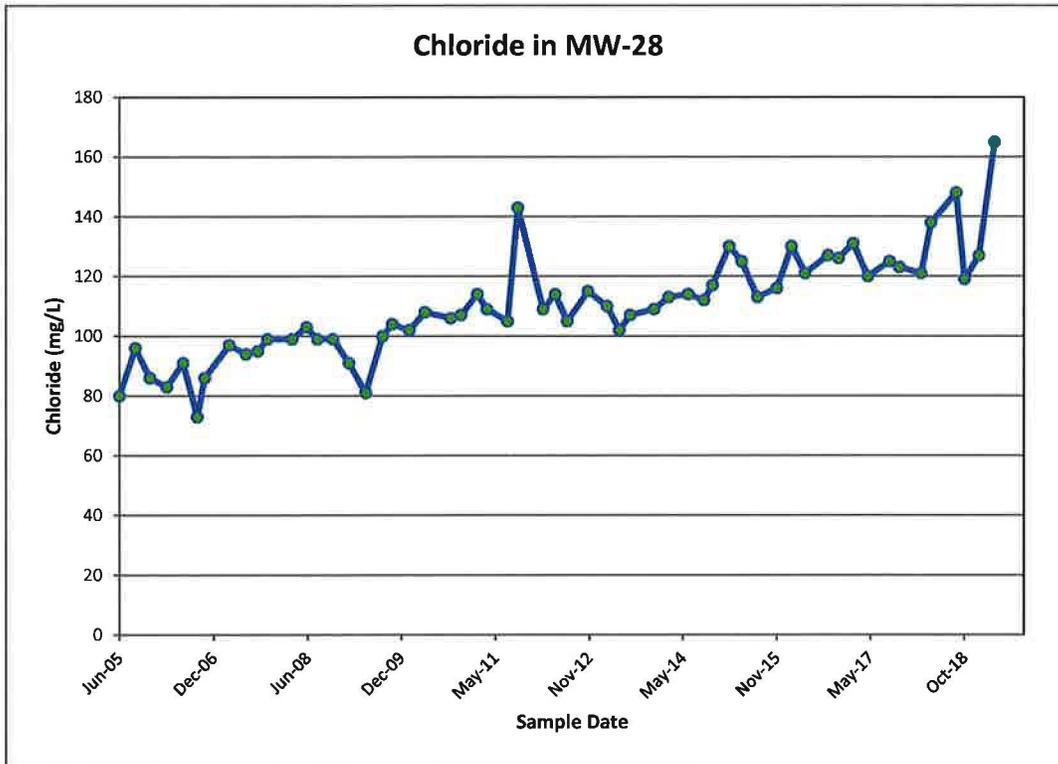


## Time concentration plots for MW-27



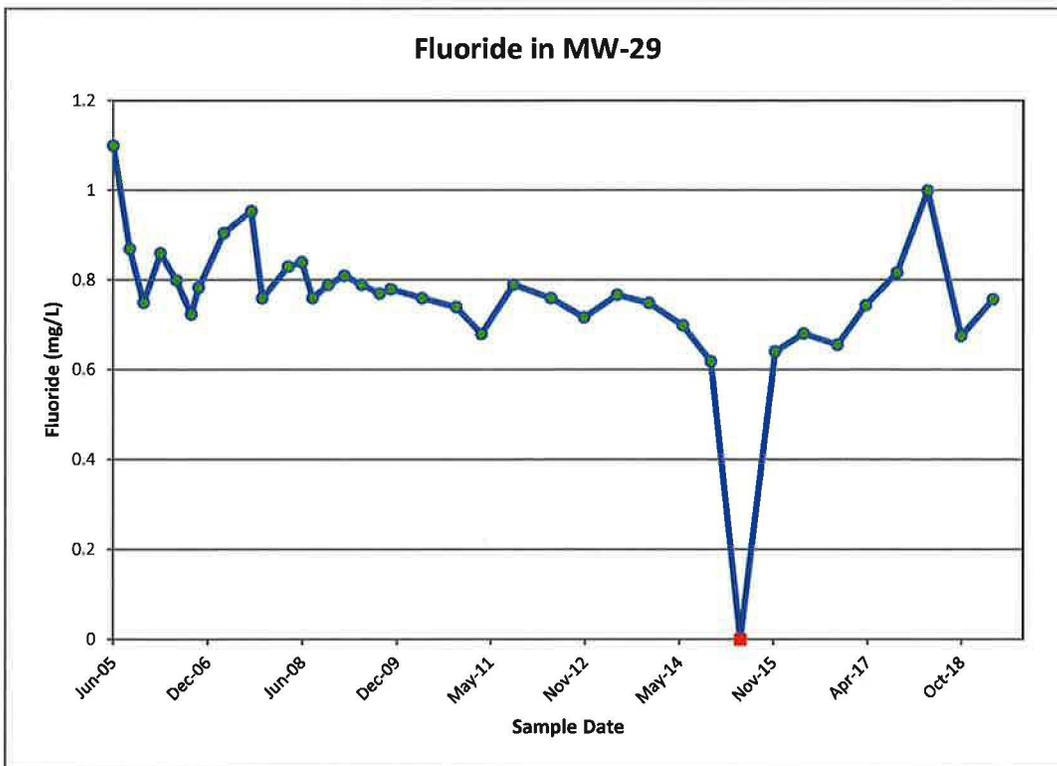
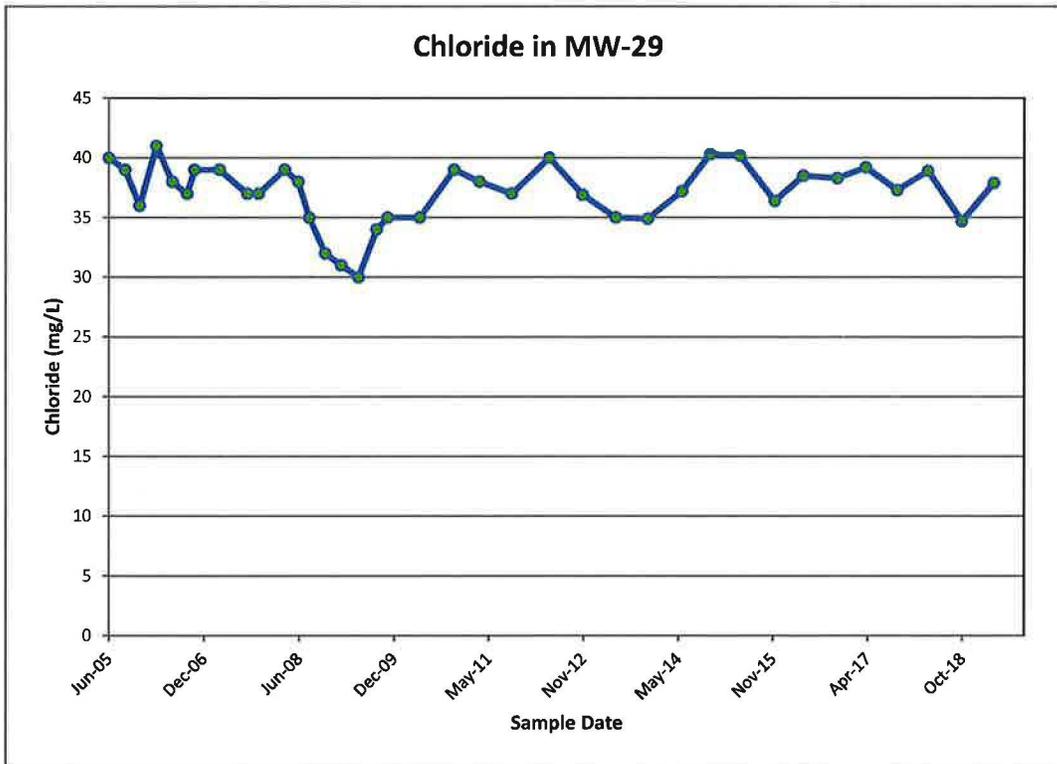


## Time concentration plots for MW-28



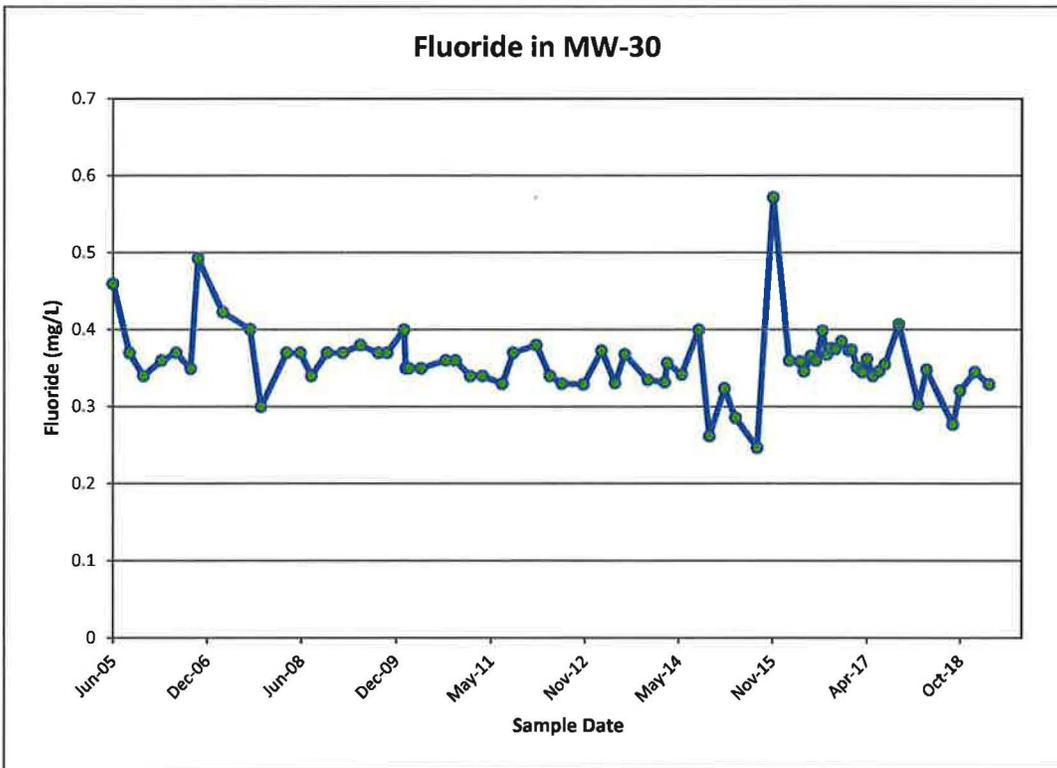
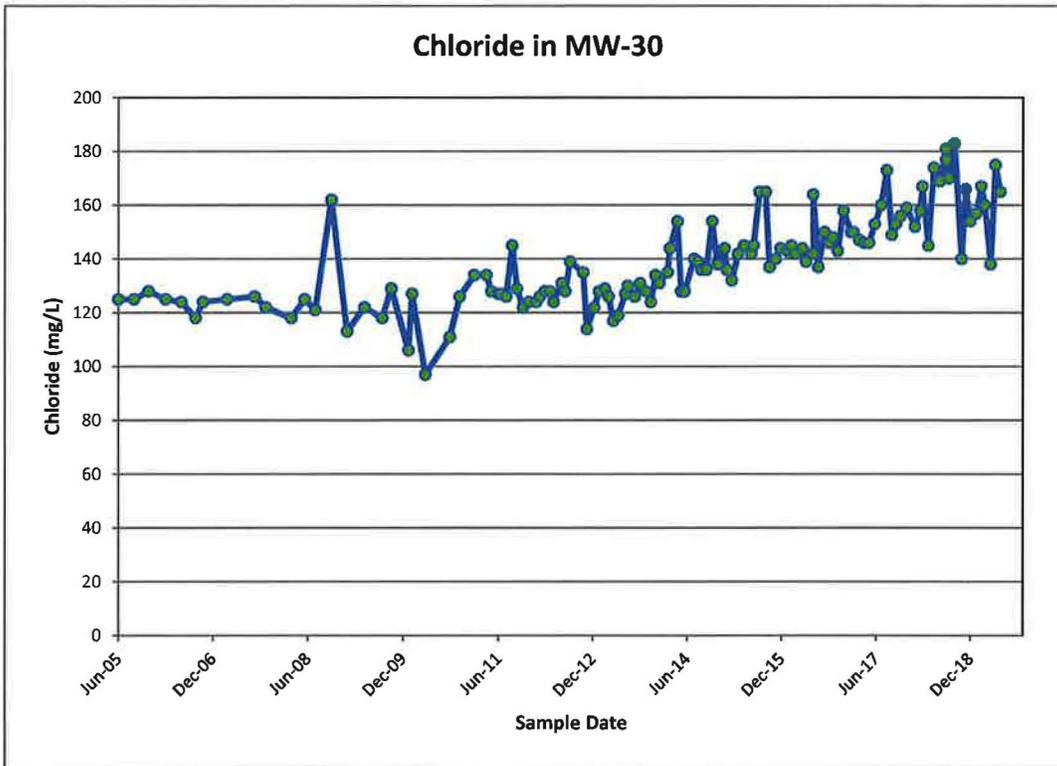


## Time concentration plots for MW-29

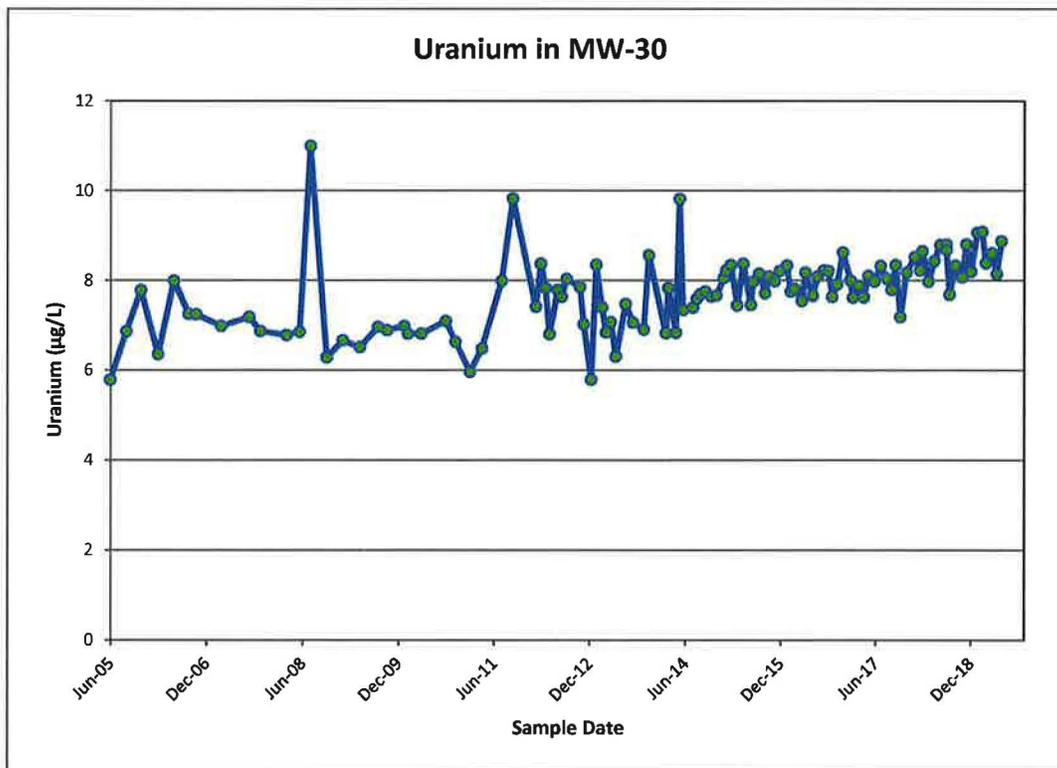
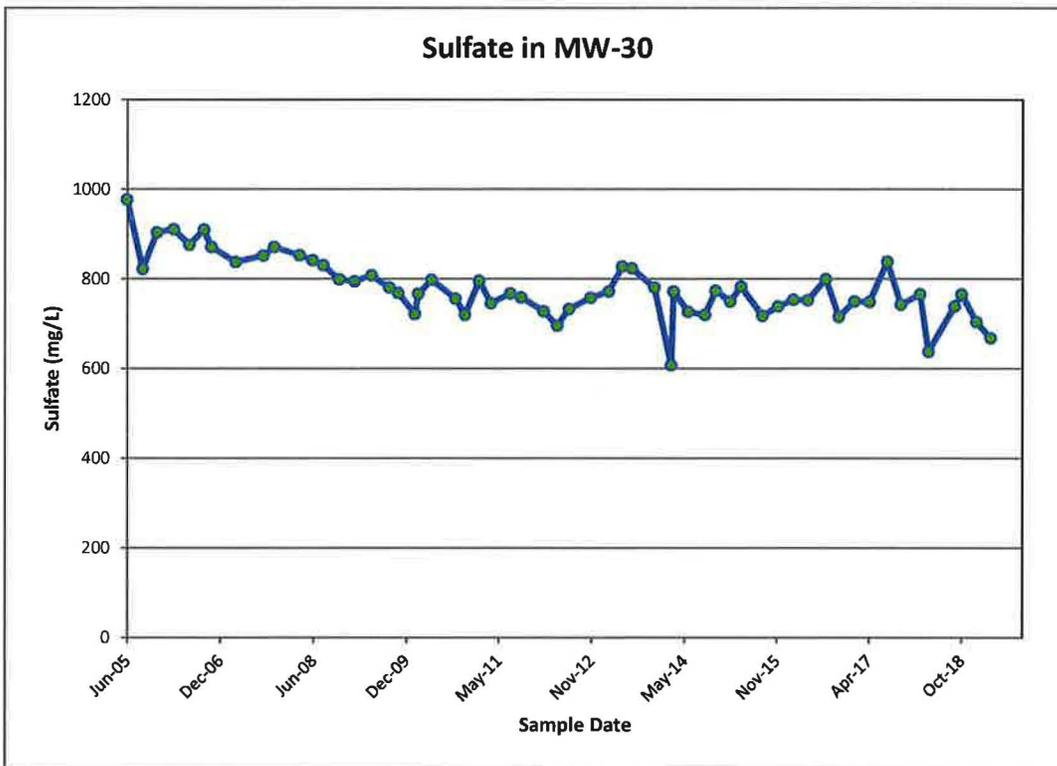




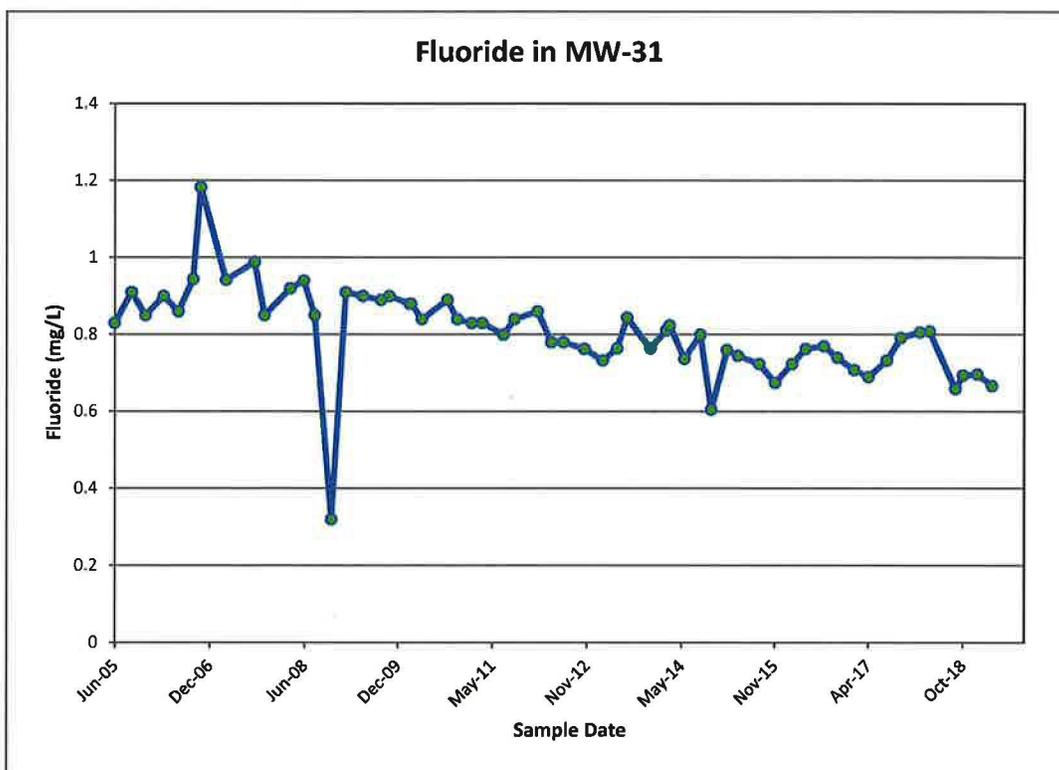
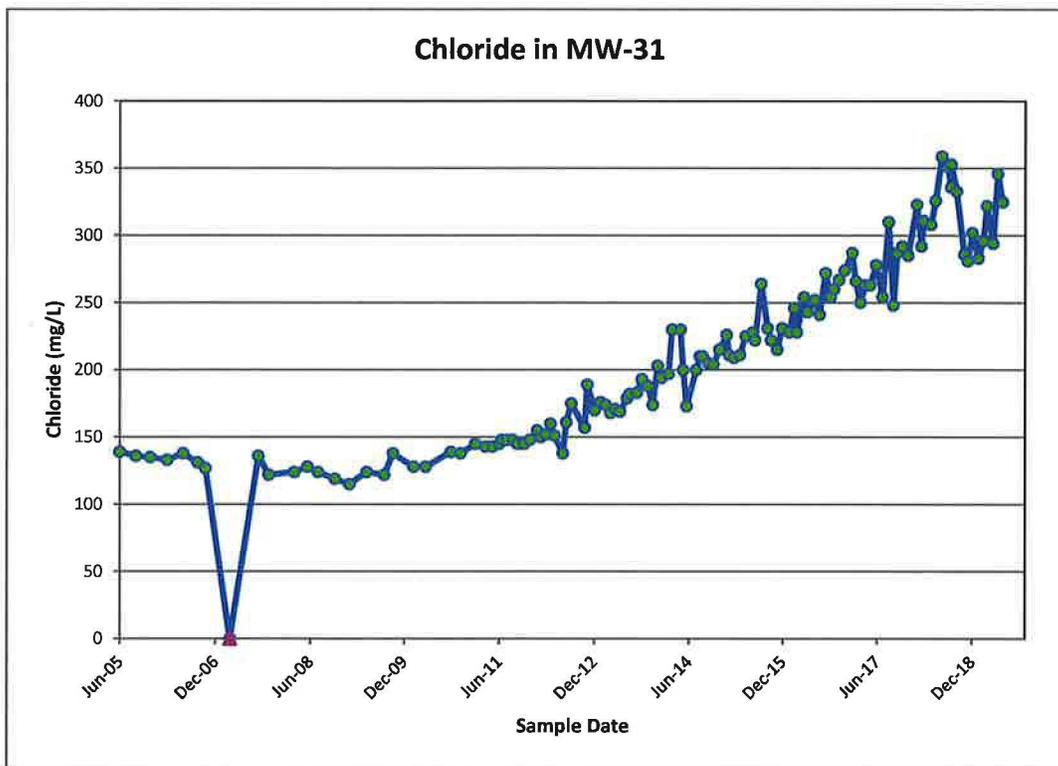
### Time concentration plots for MW-30



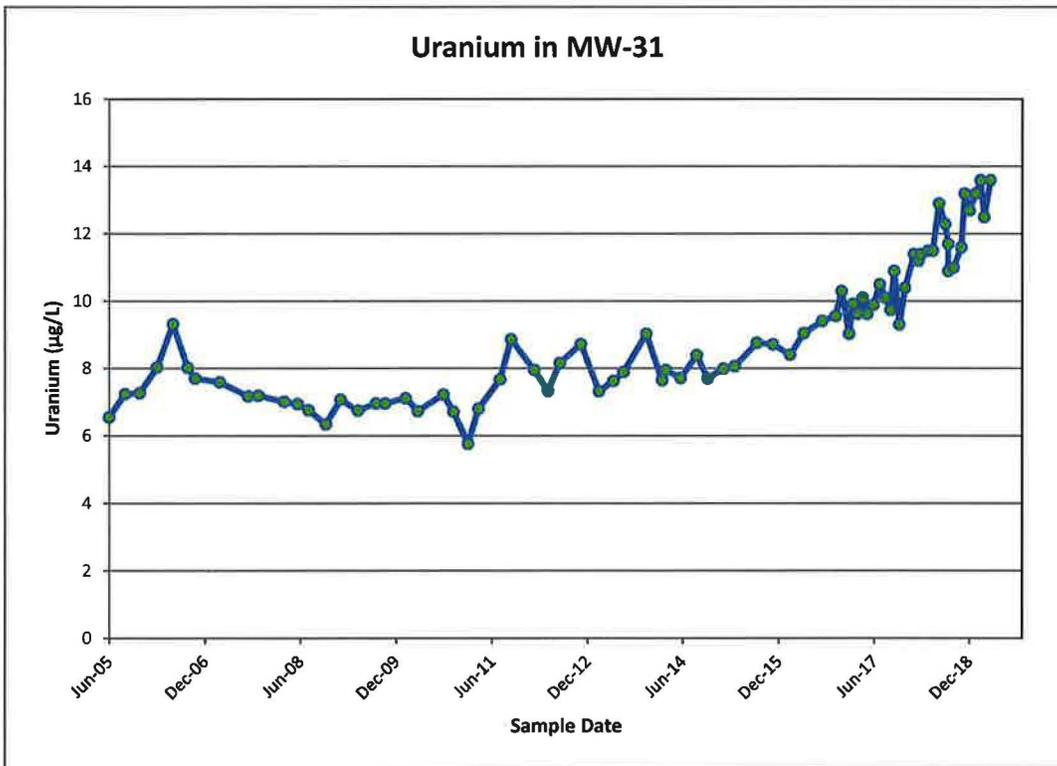
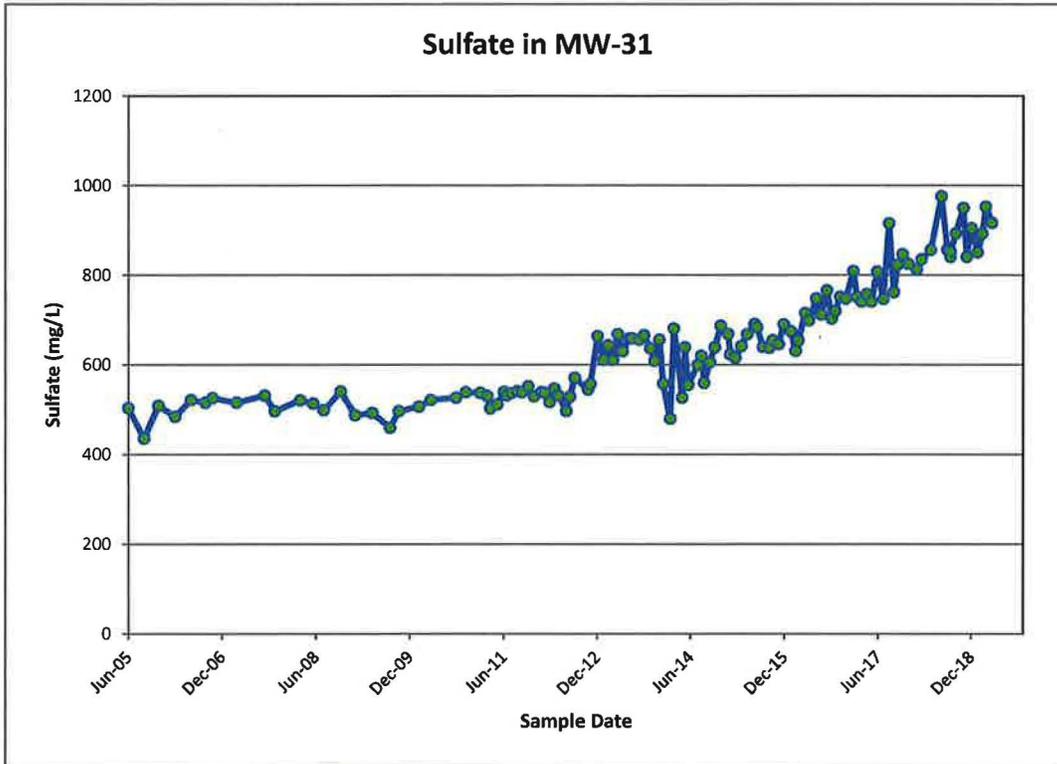
### Time concentration plots for MW-30



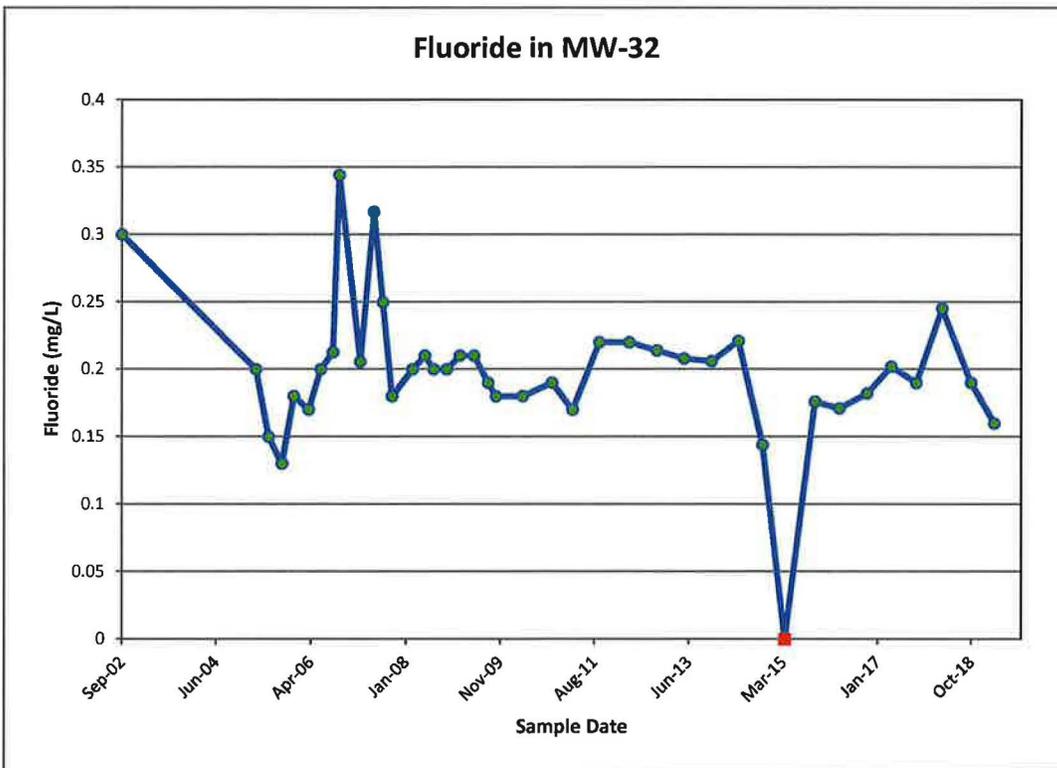
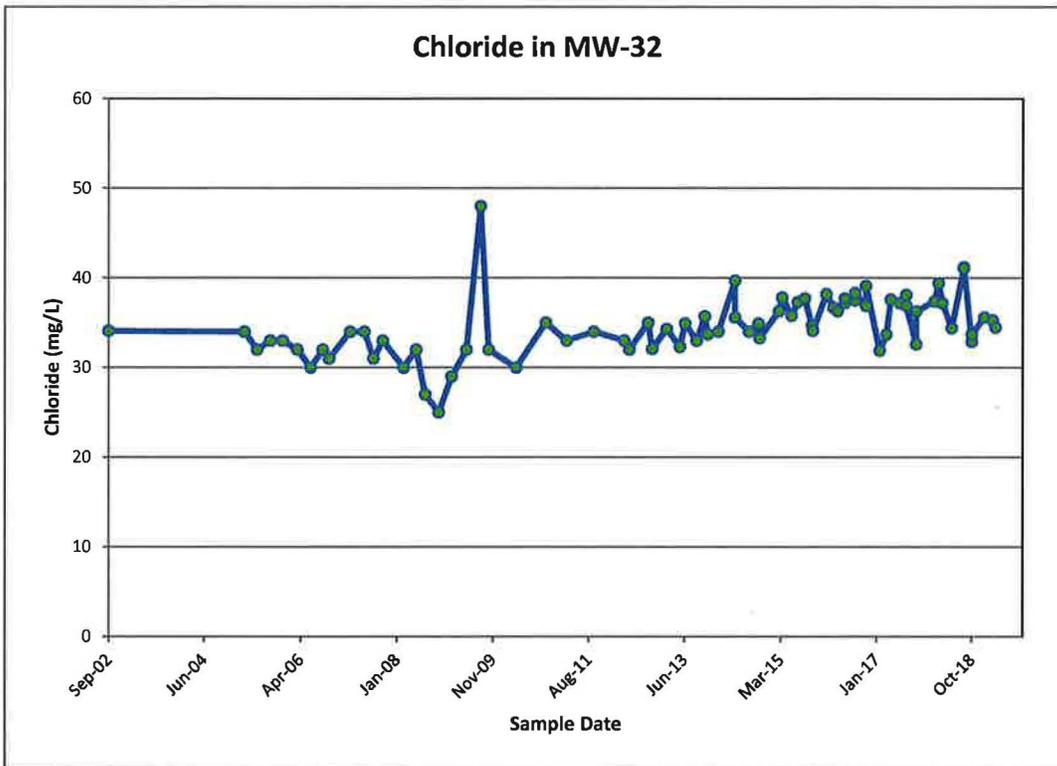
### Time concentration plots for MW-31



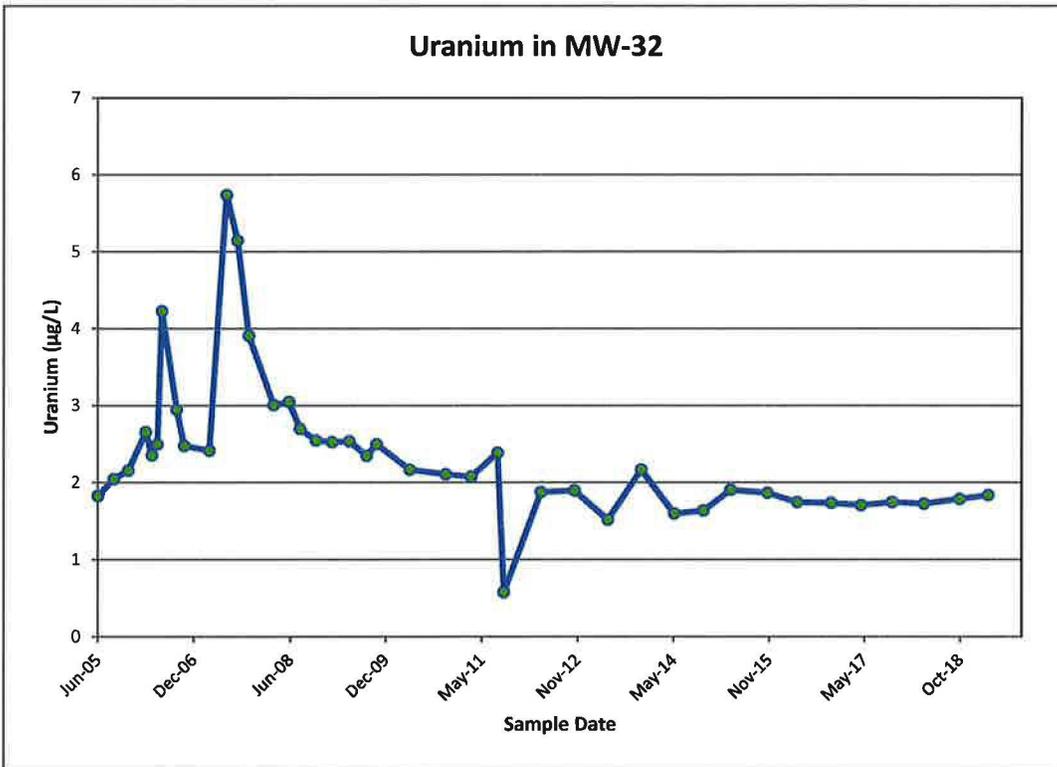
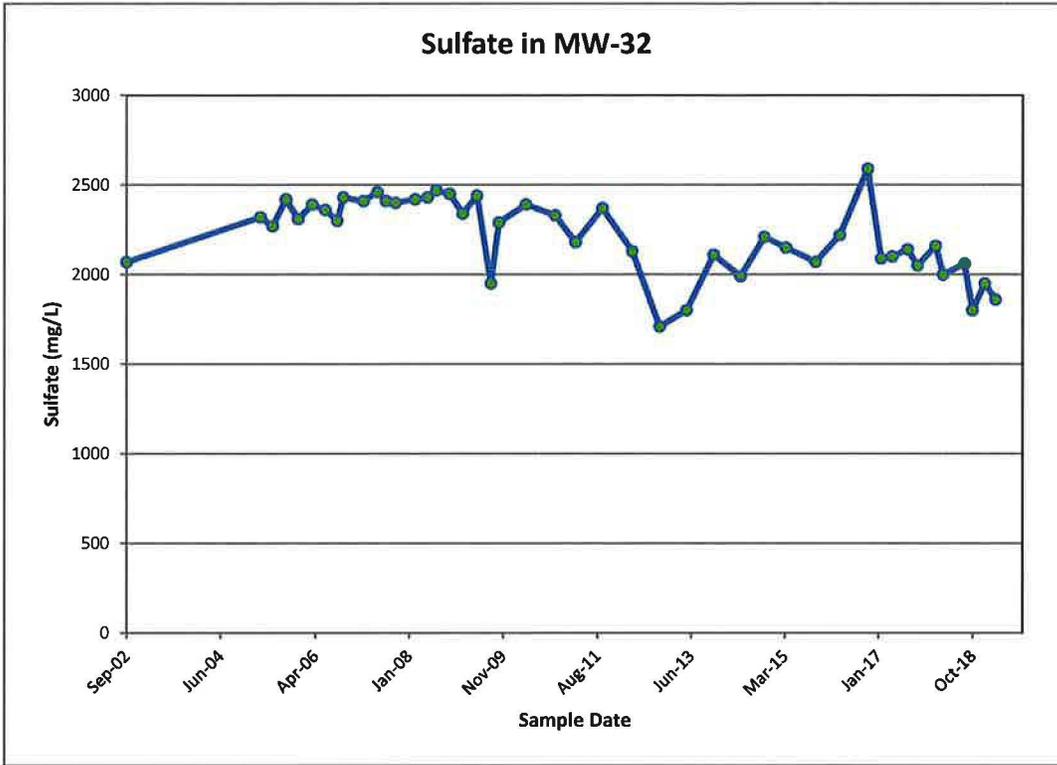
# Time concentration plots for MW-31



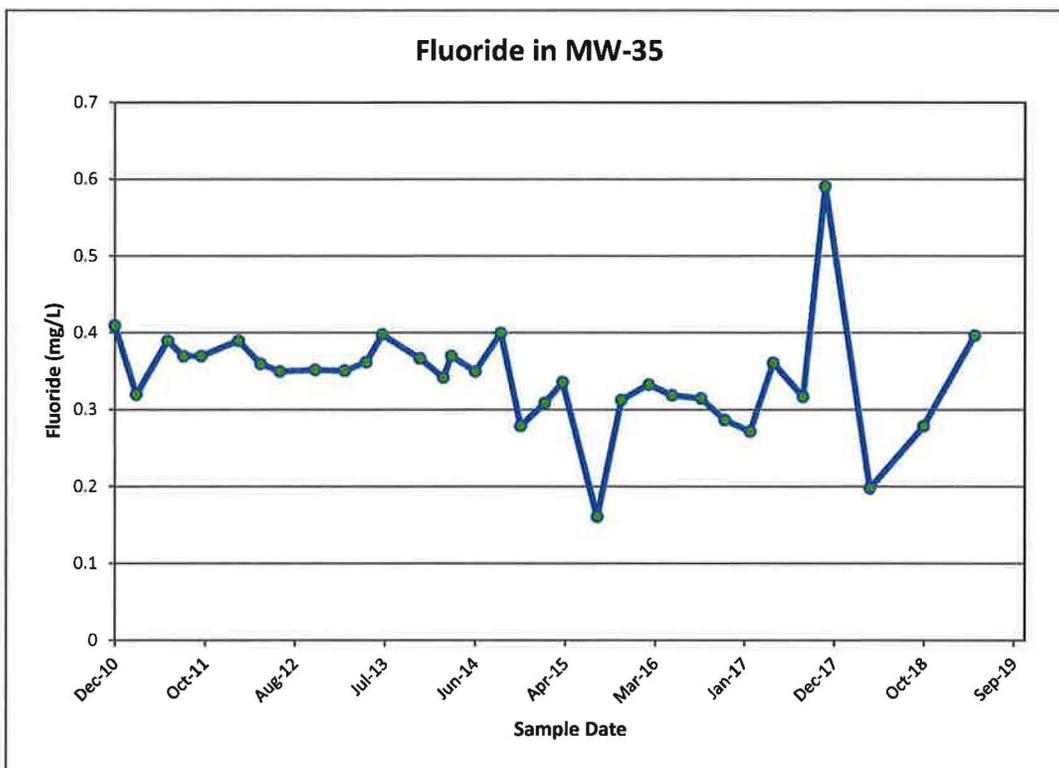
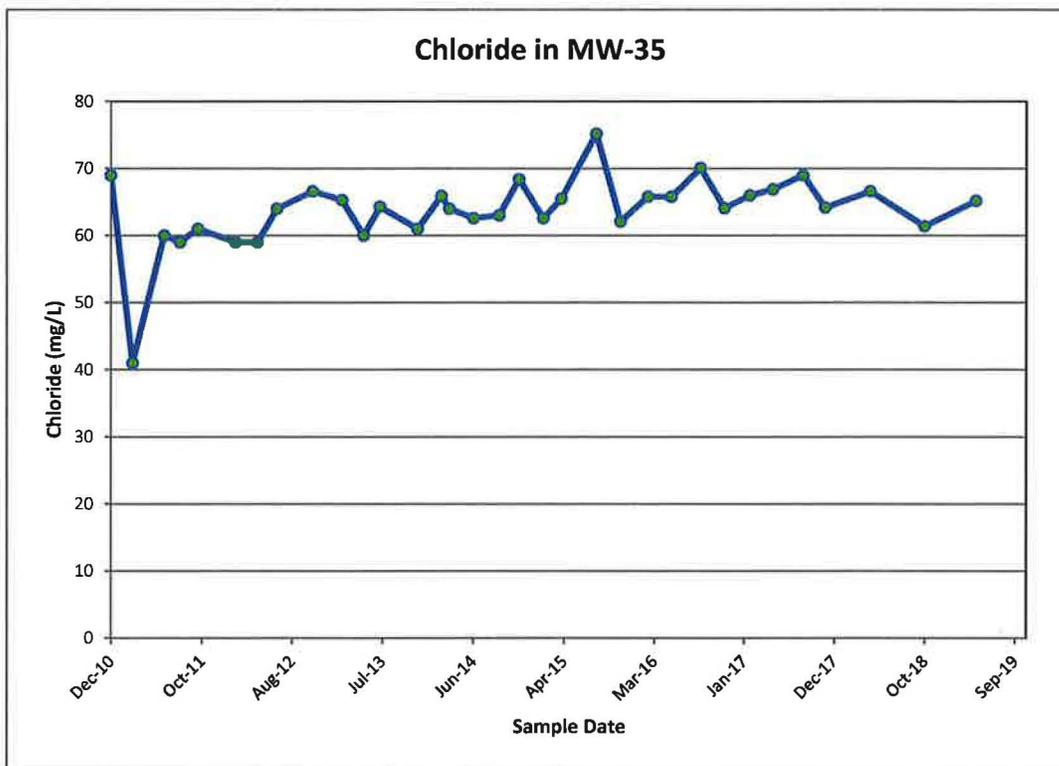
### Time concentration plots for MW-32



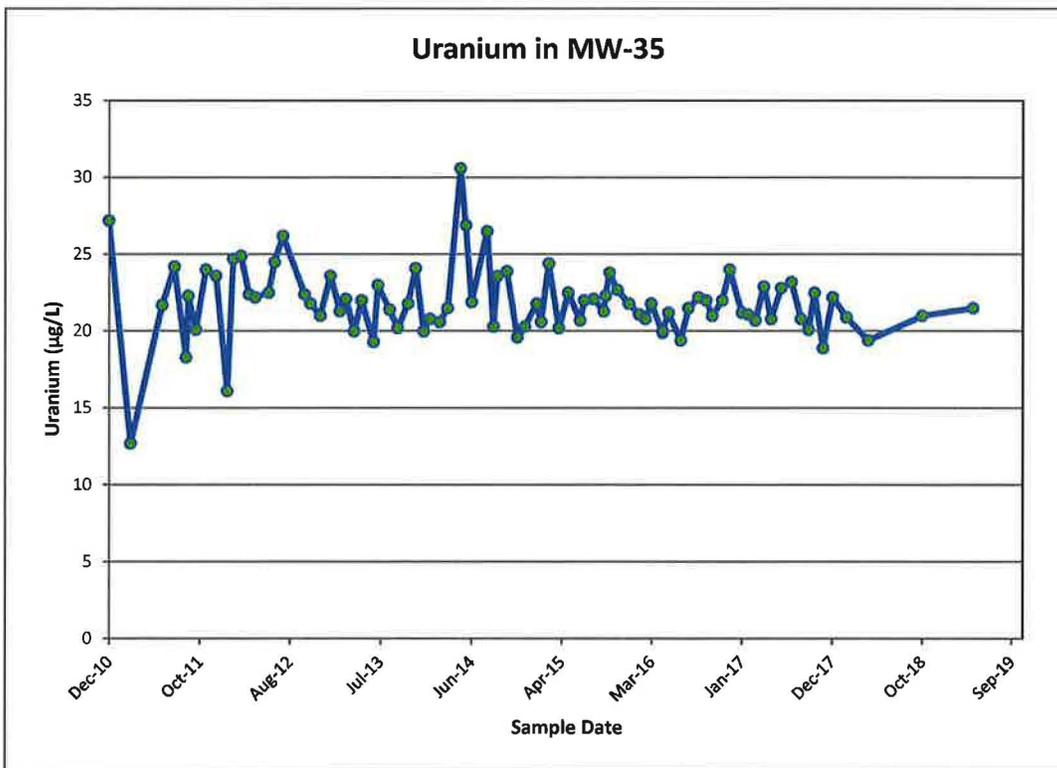
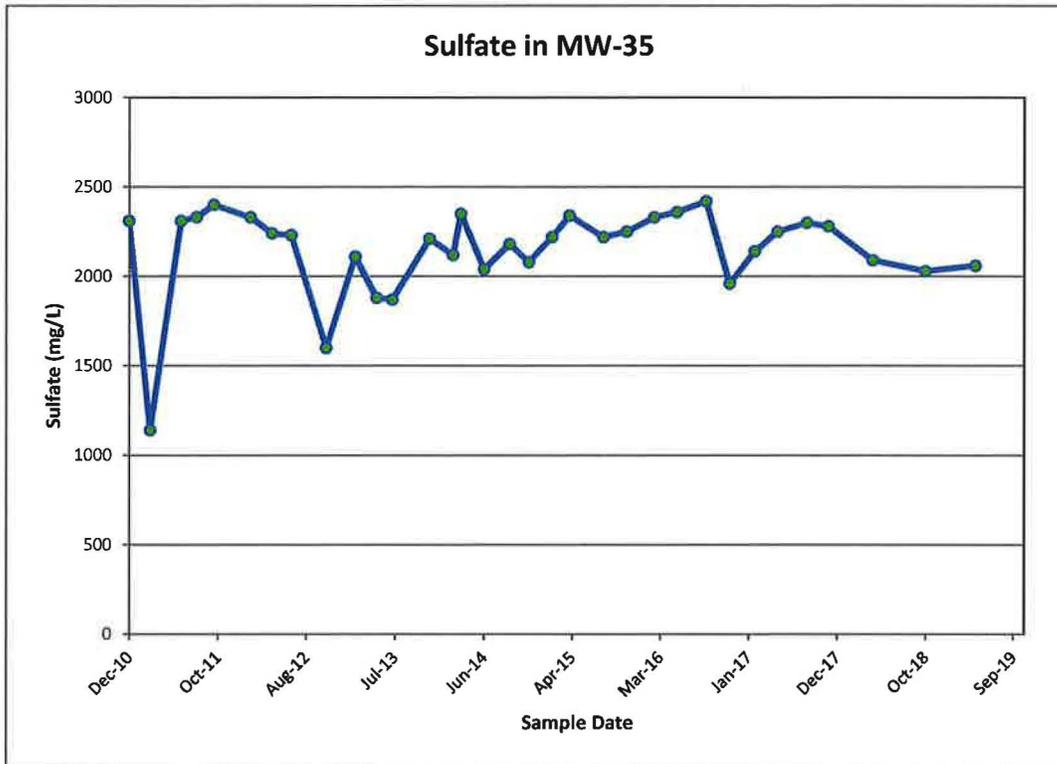
## Time concentration plots for MW-32



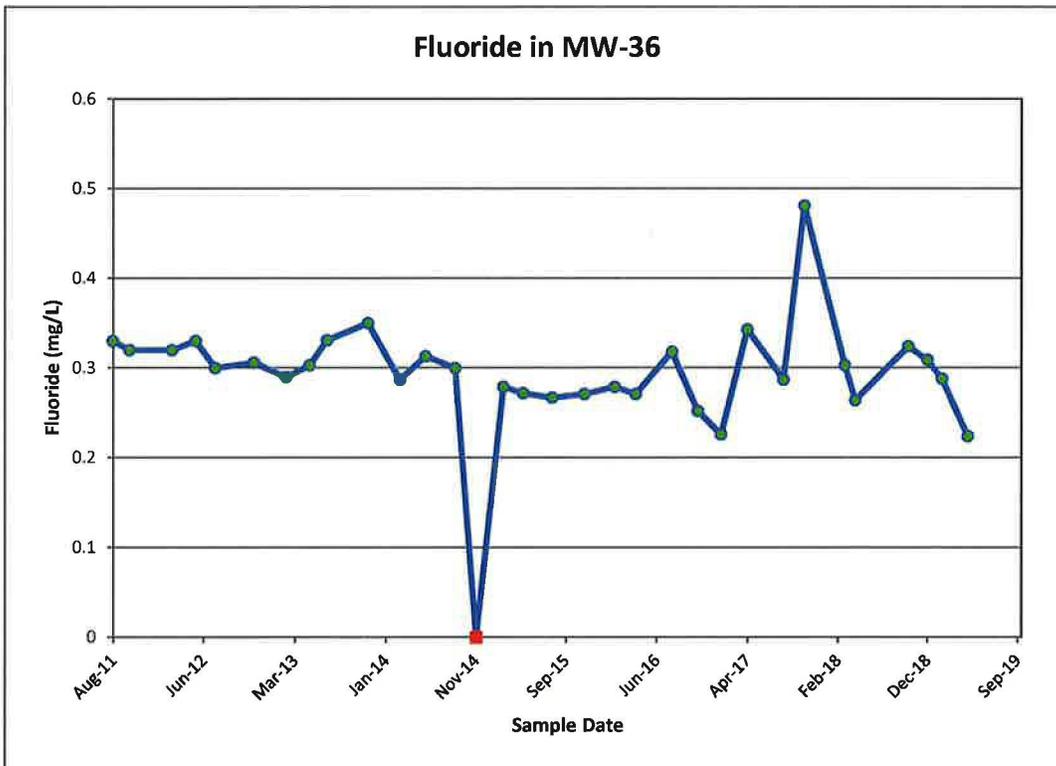
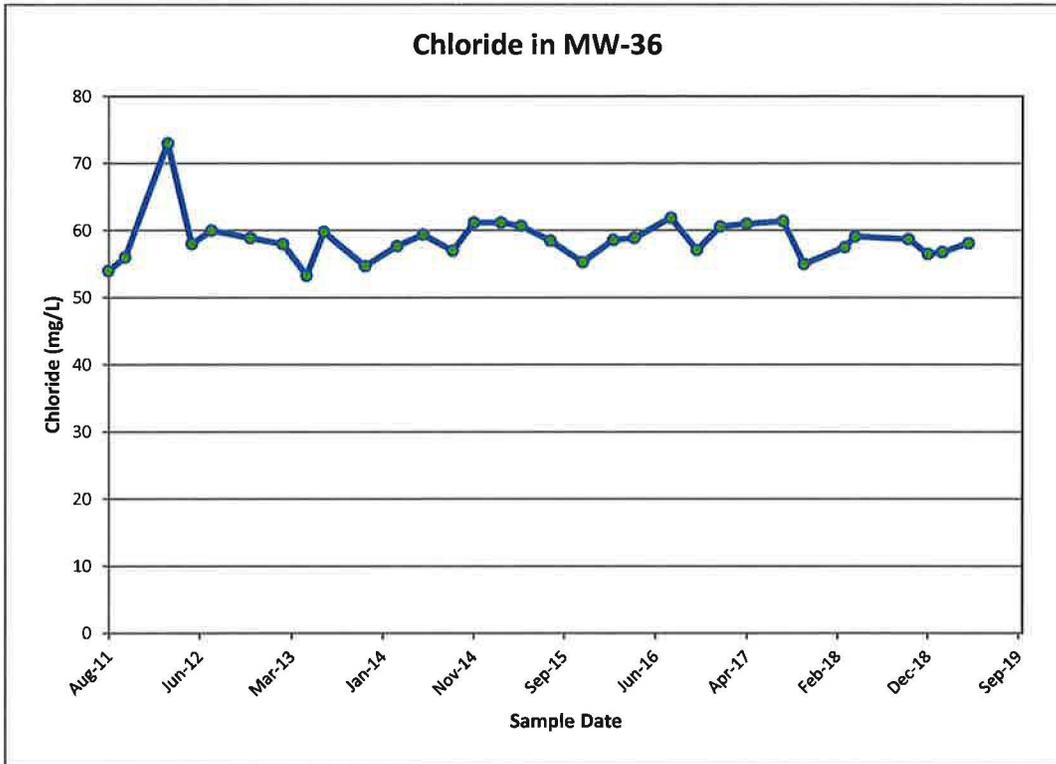
### Time concentration plots for MW-35



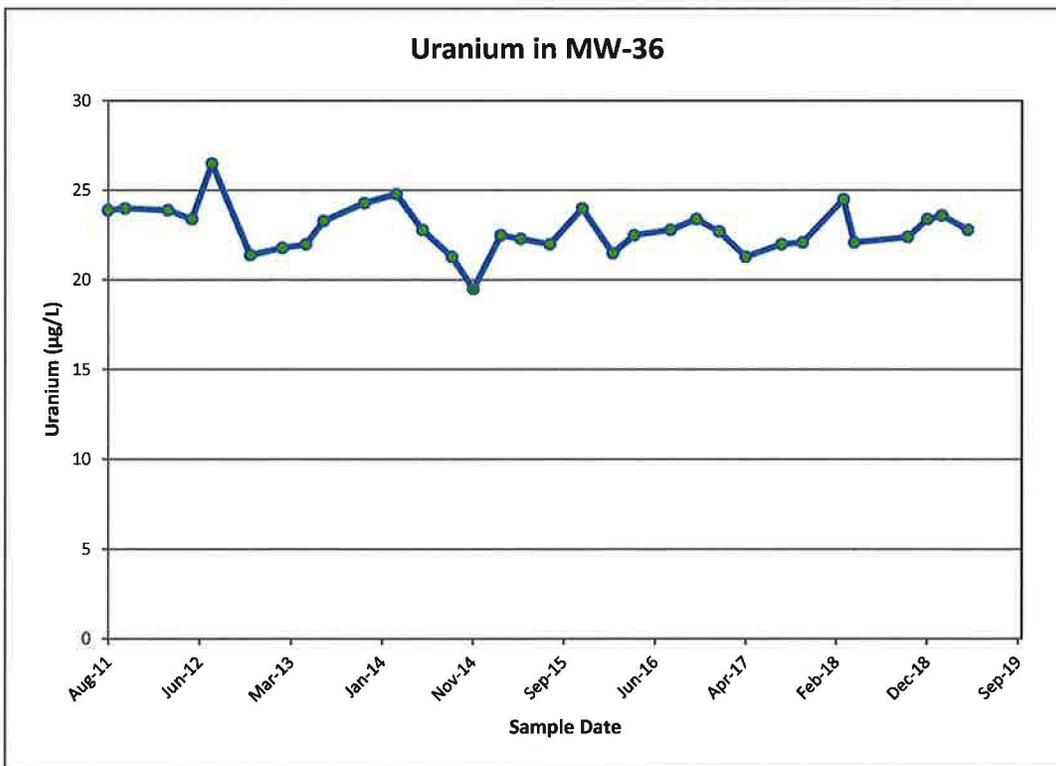
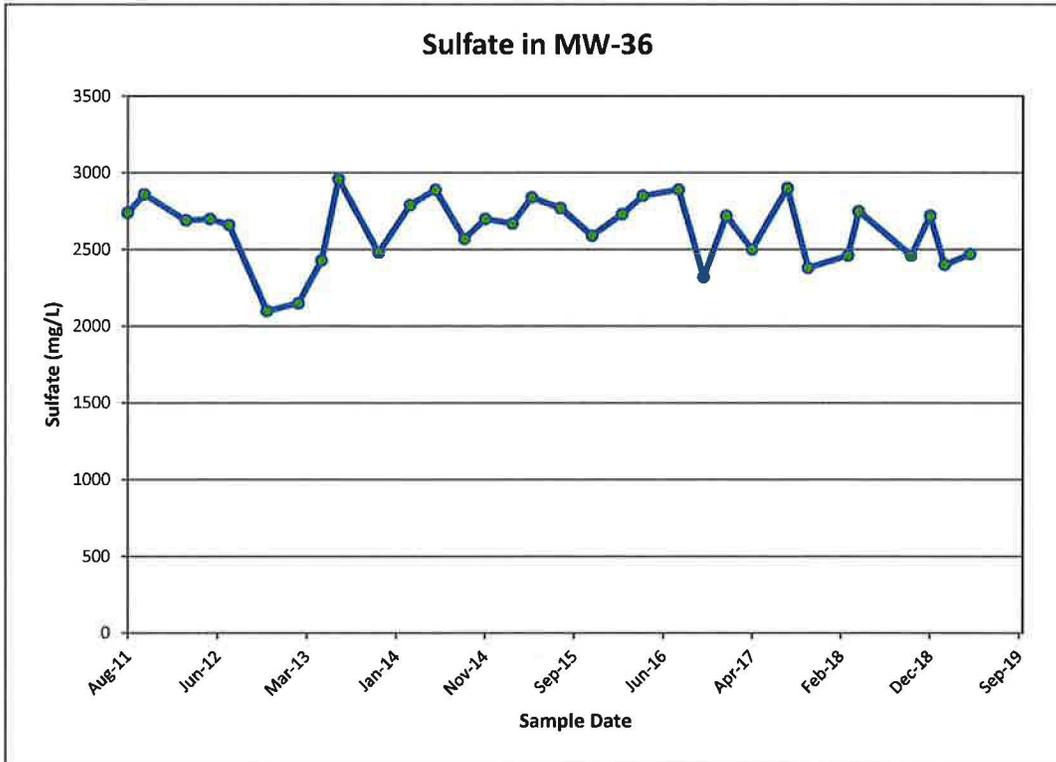
## Time concentration plots for MW-35



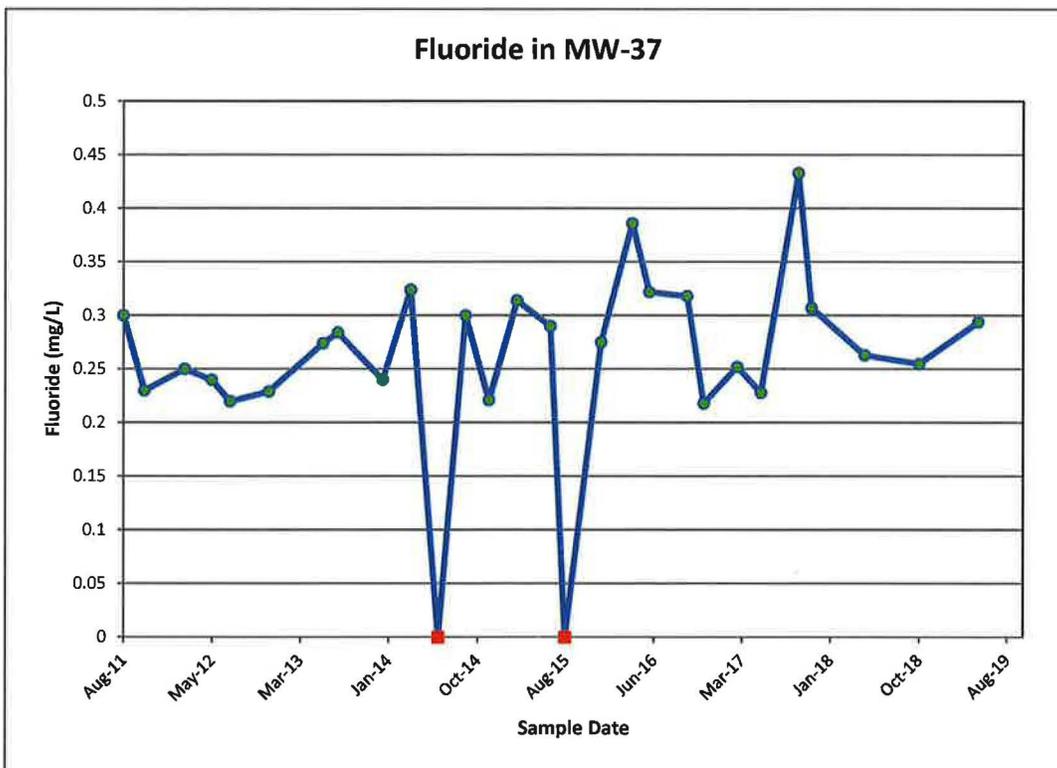
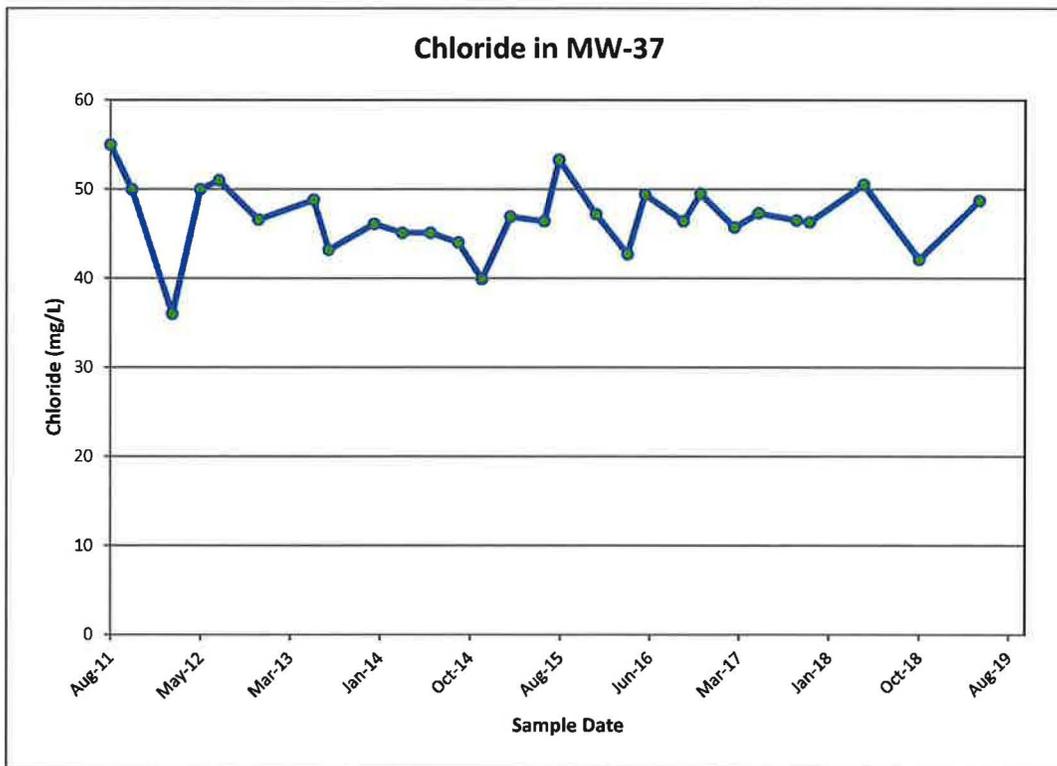
## Time concentration plots for MW-36



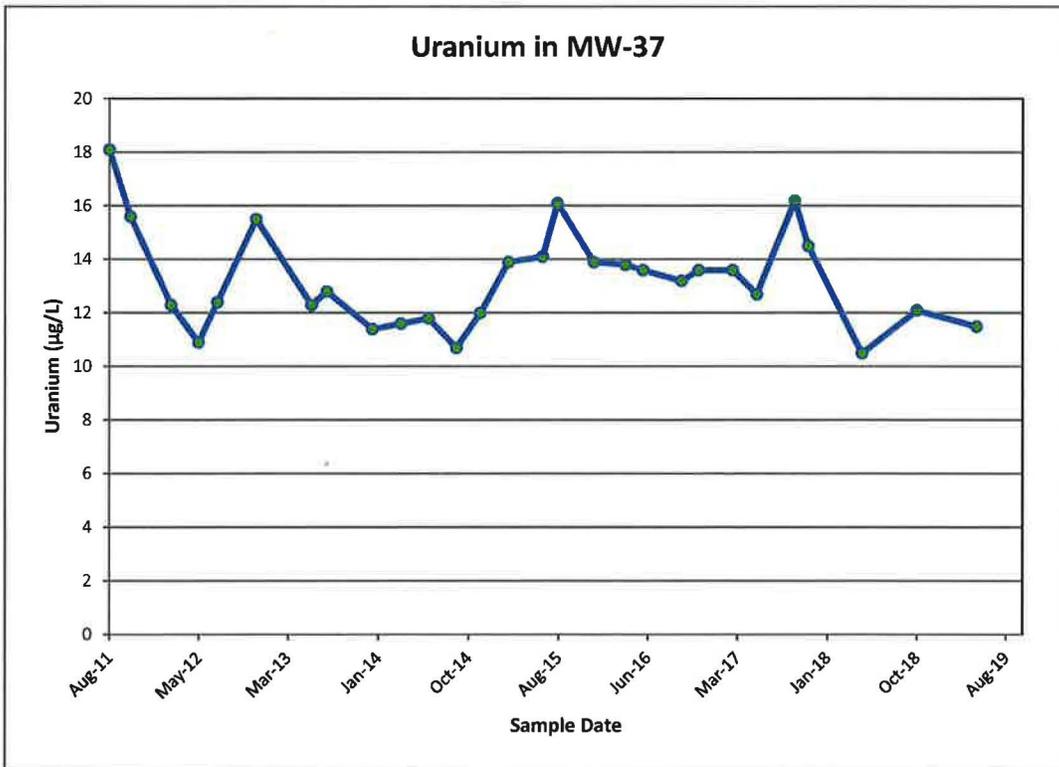
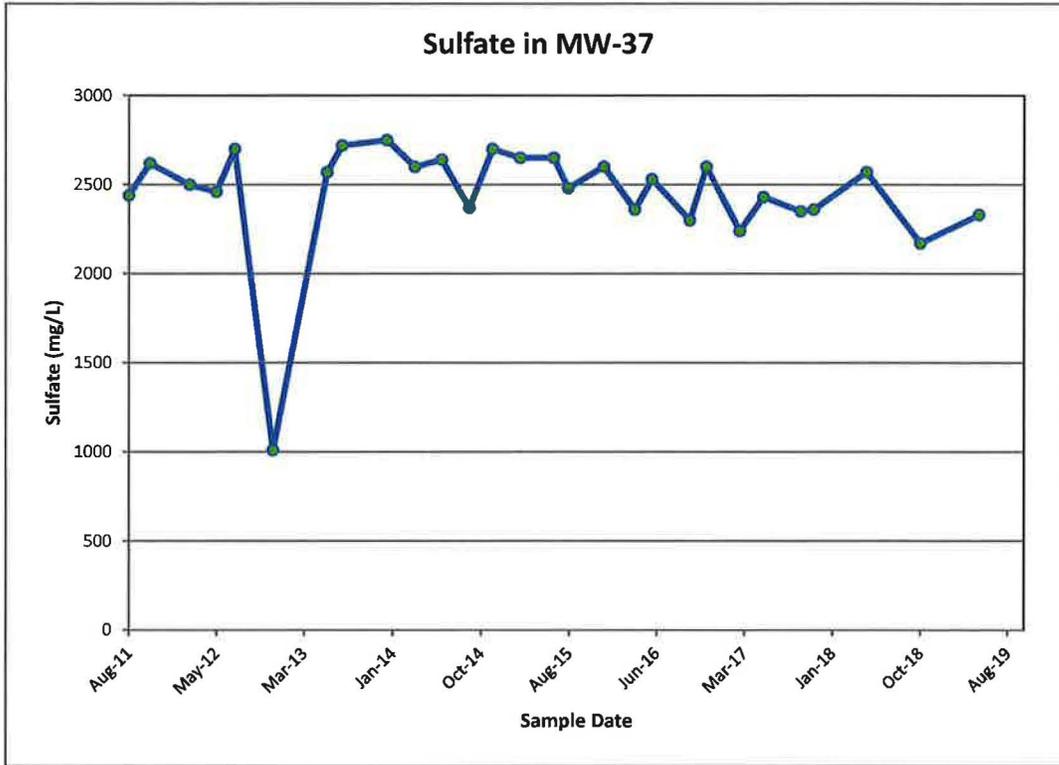
## Time concentration plots for MW-36



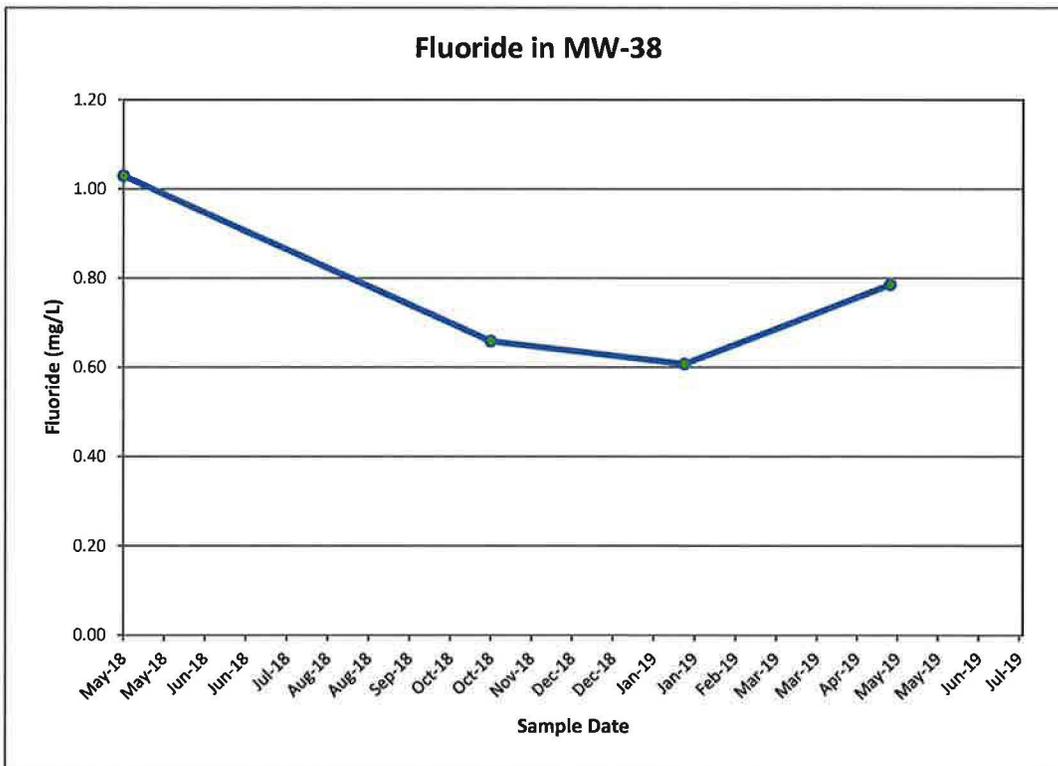
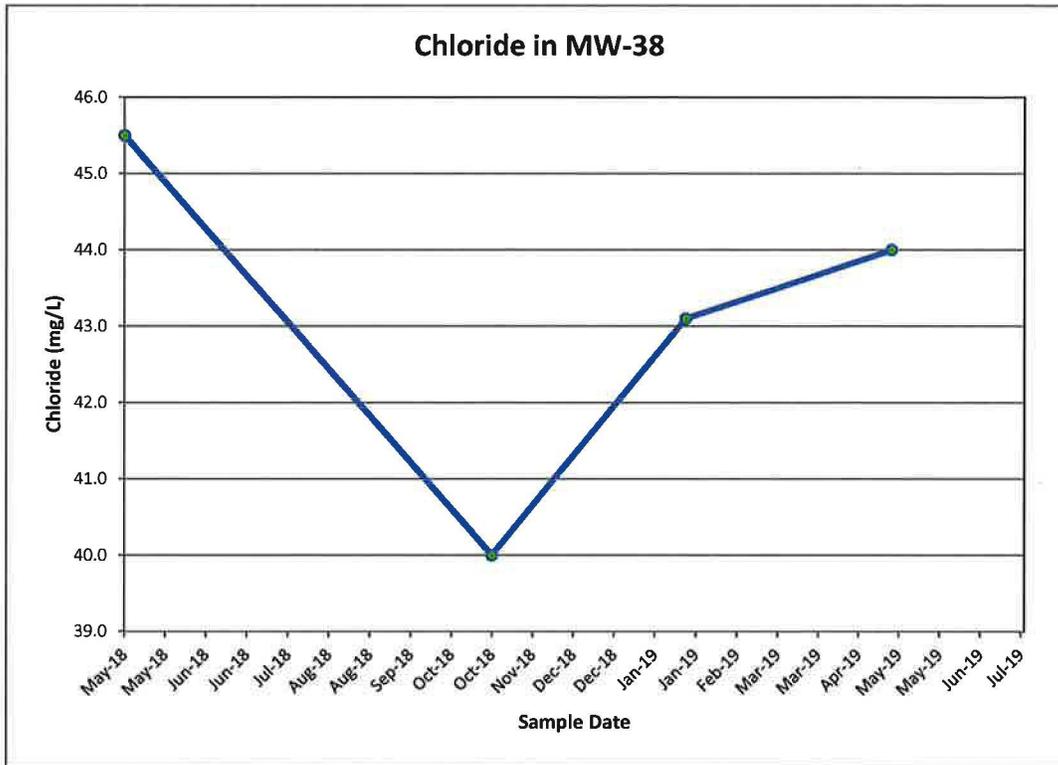
### Time concentration plots for MW-37



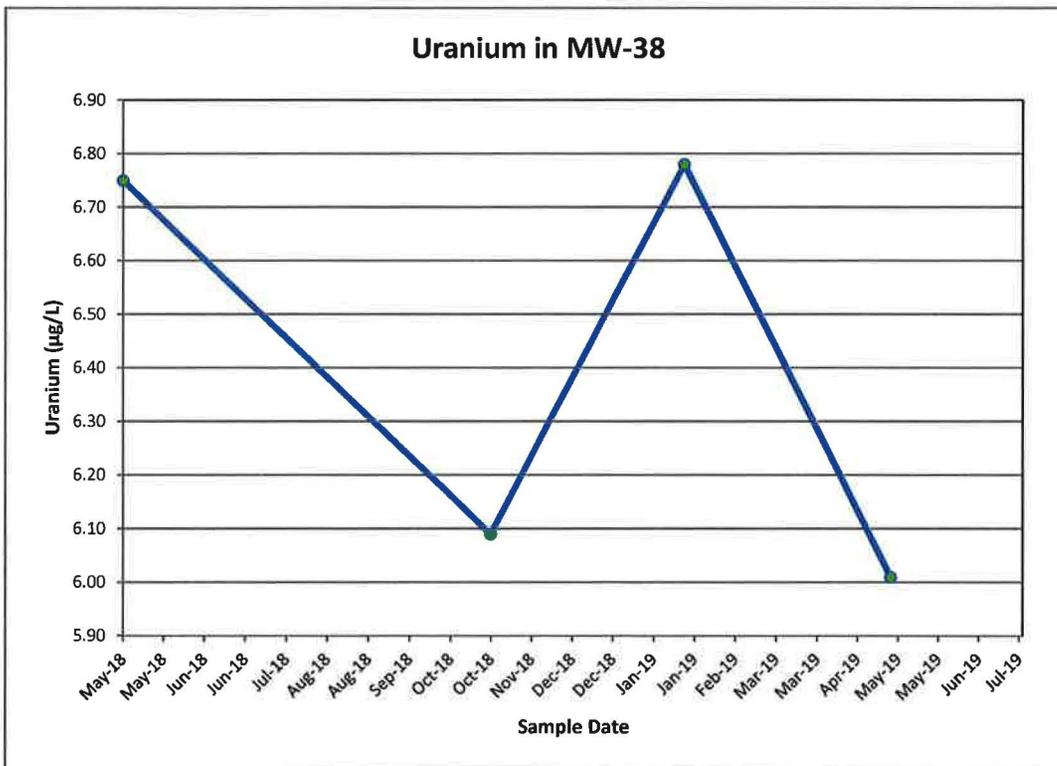
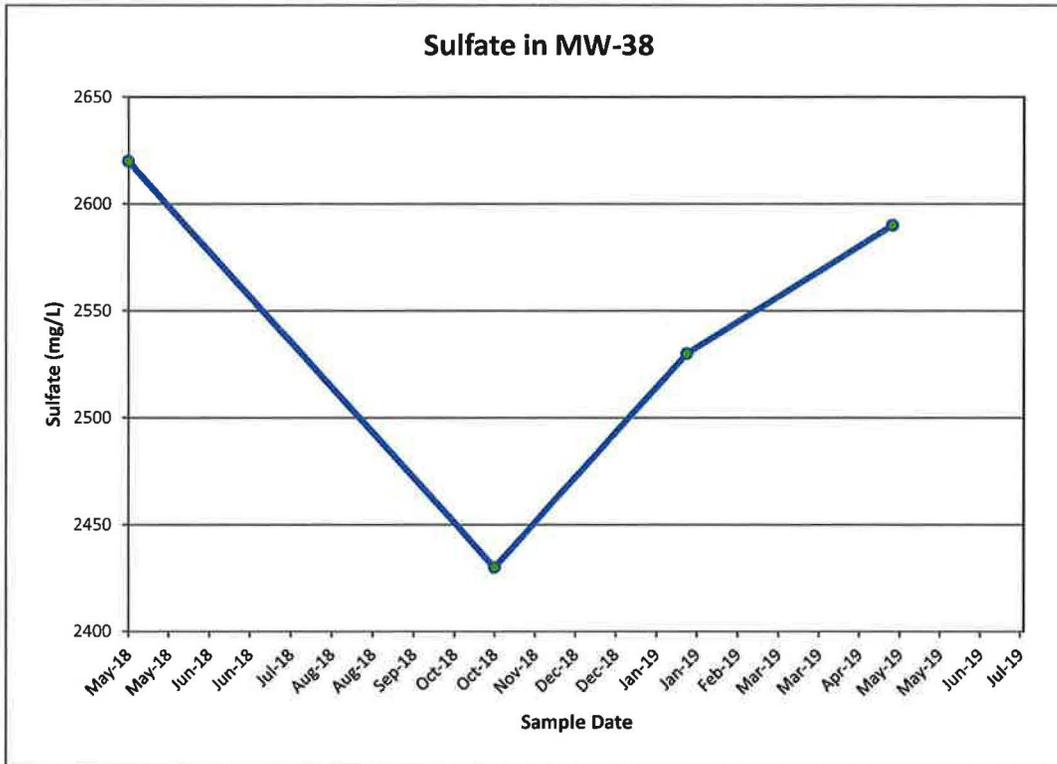
## Time concentration plots for MW-37



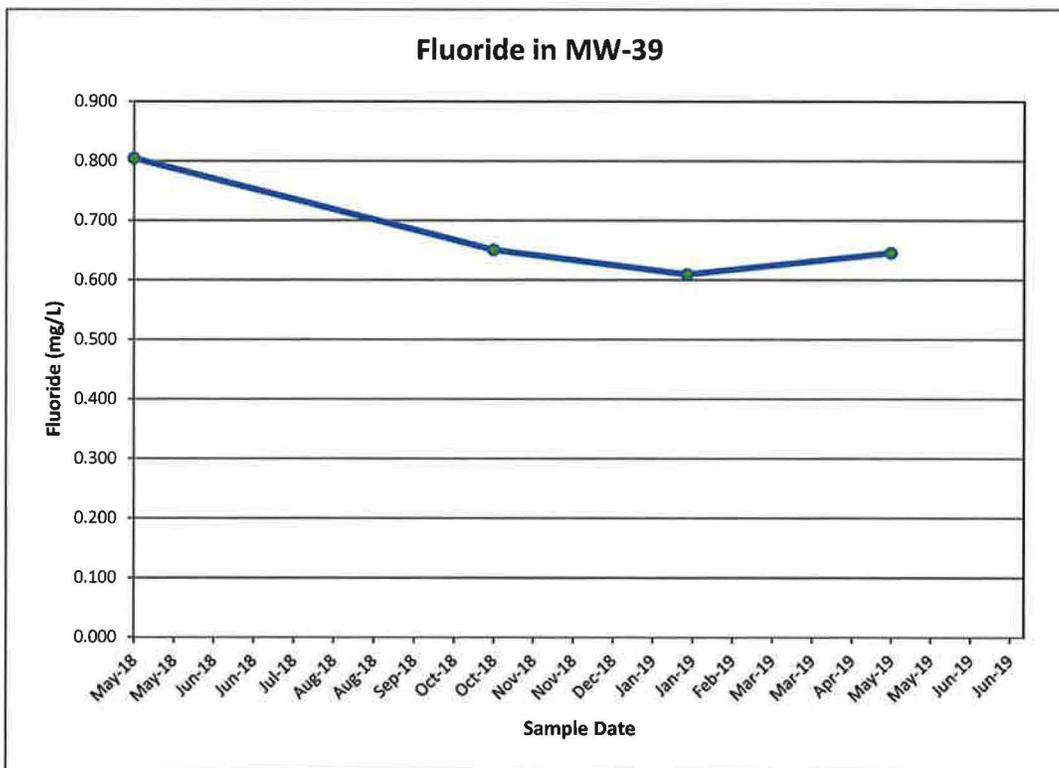
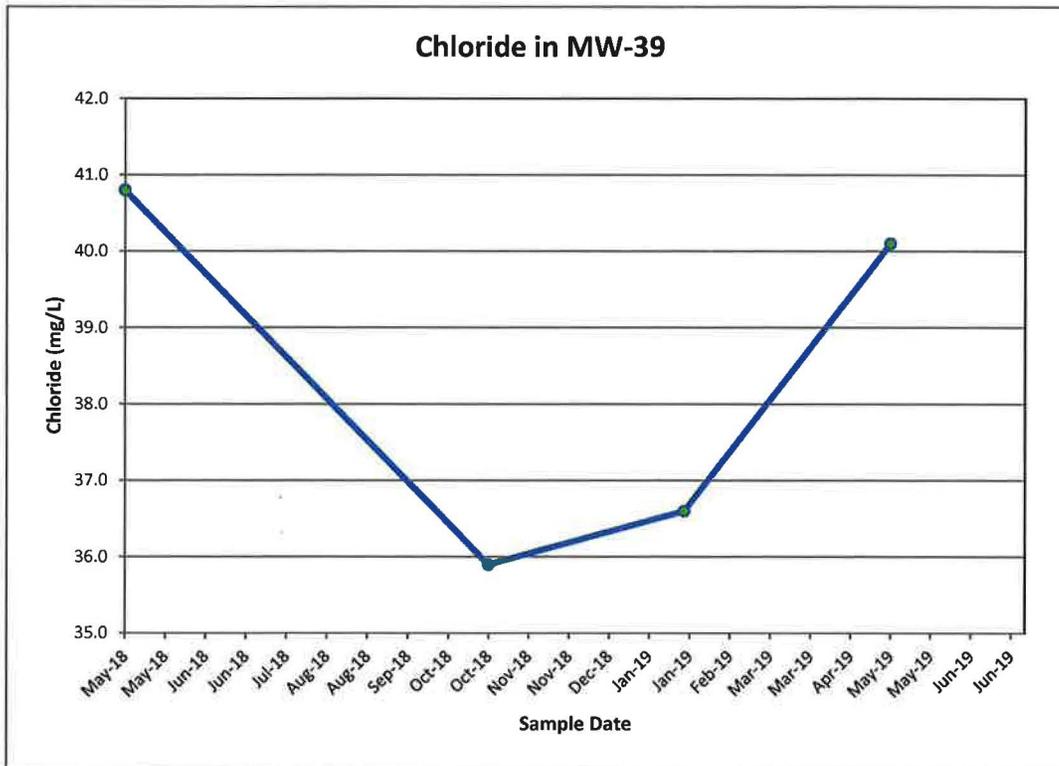
## Time concentration plots for MW-38



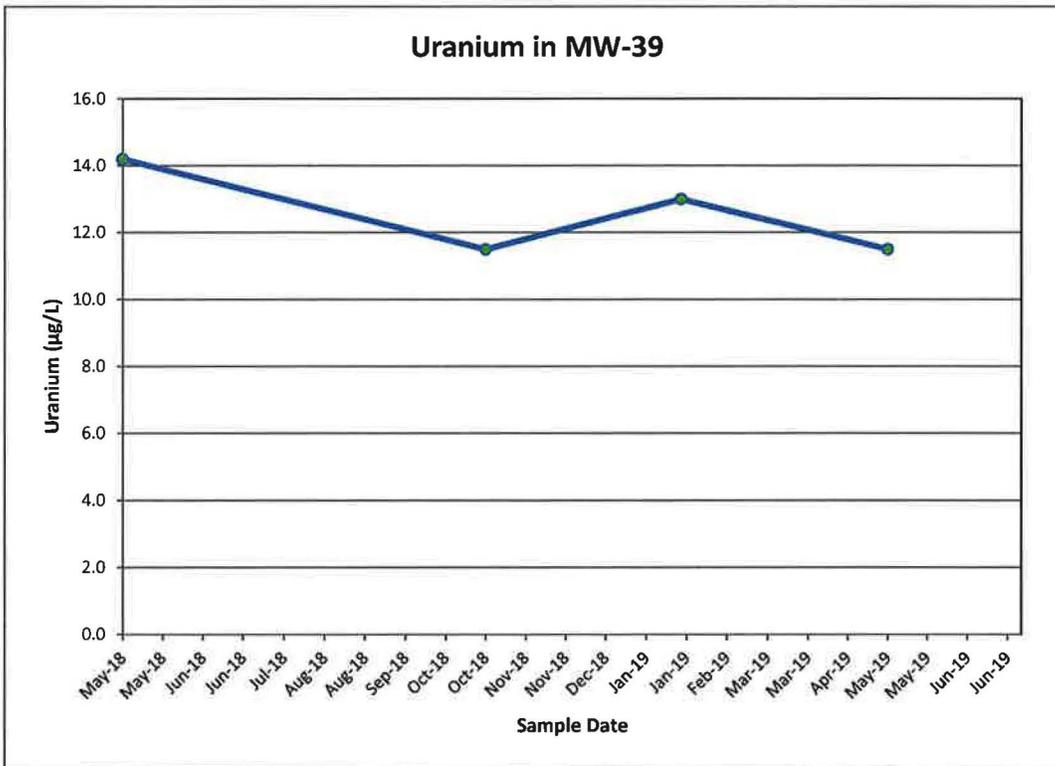
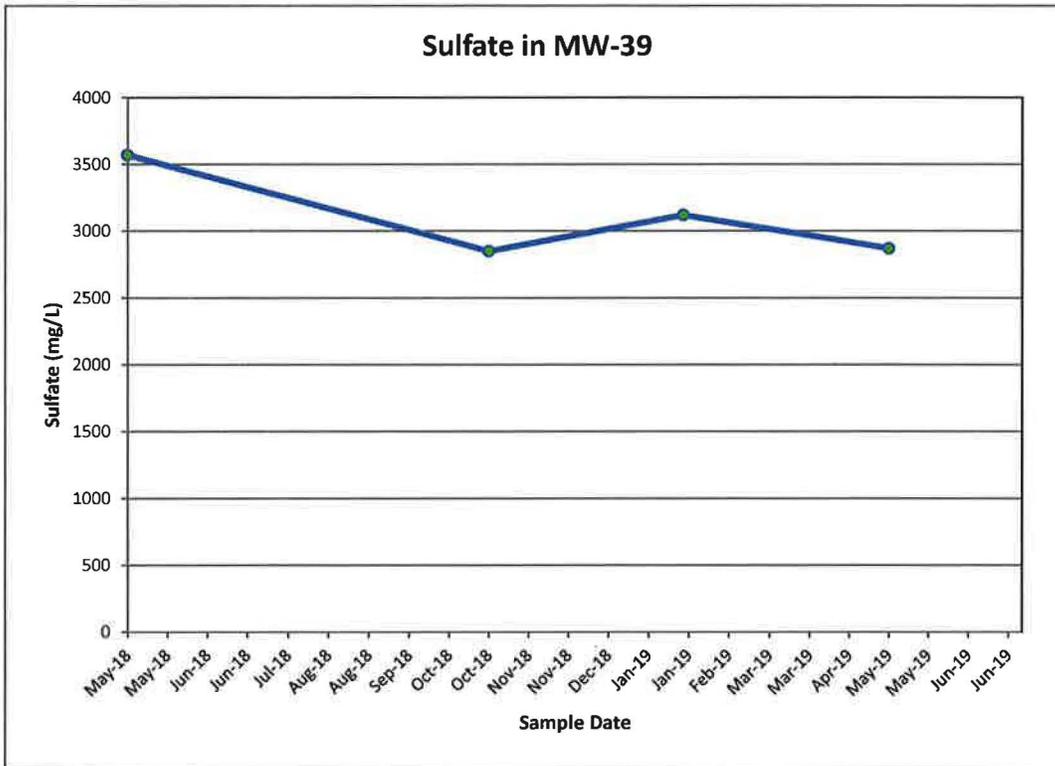
## Time concentration plots for MW-38



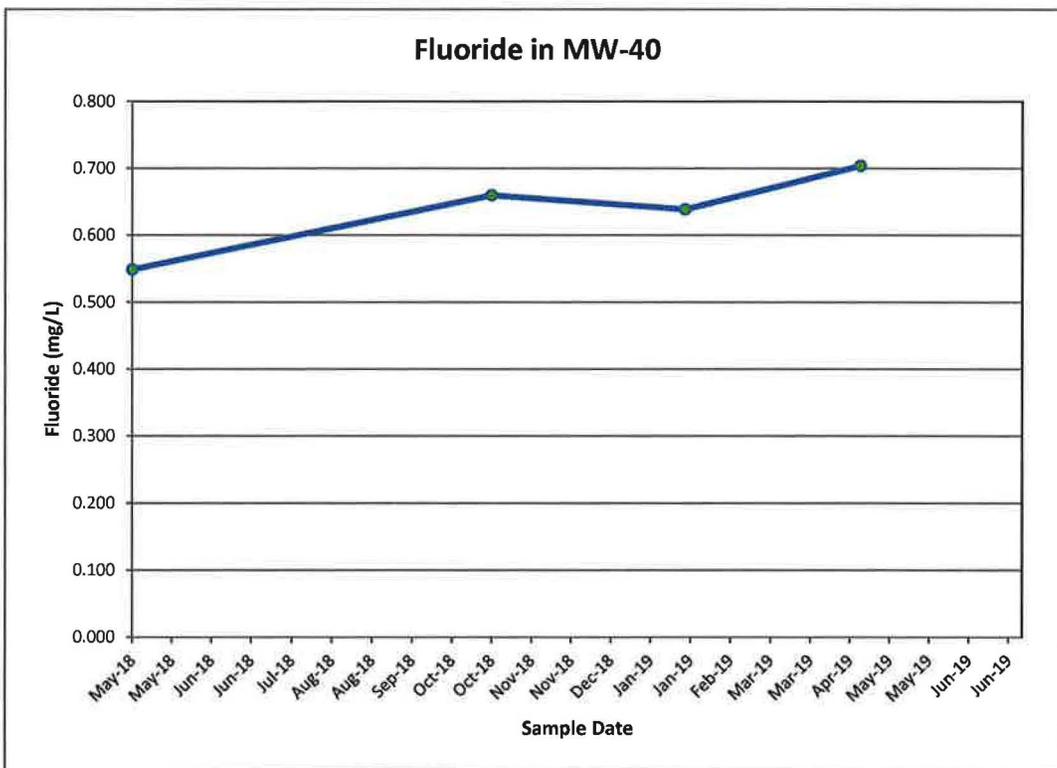
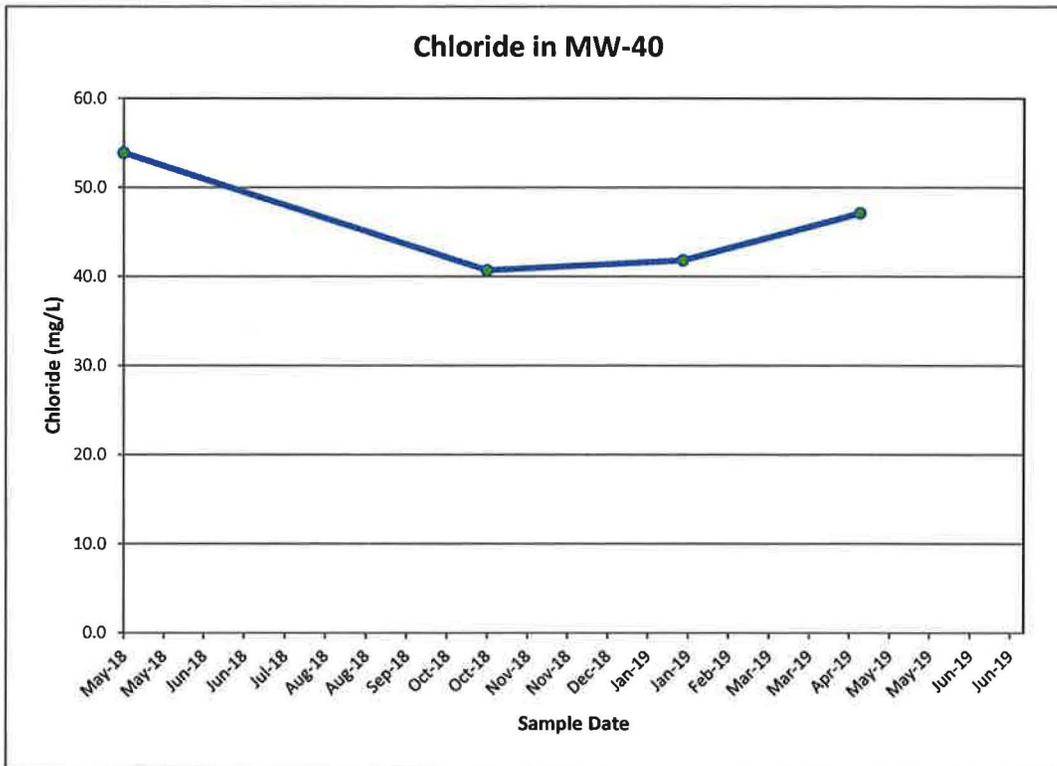
### Time concentration plots for MW-39



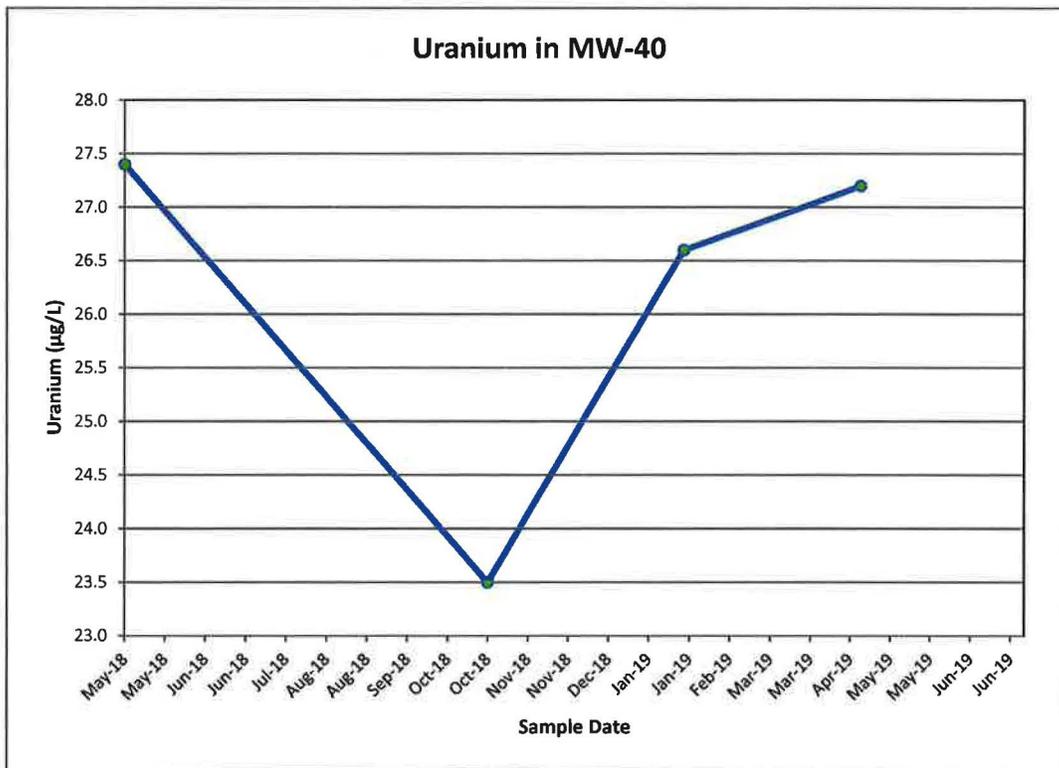
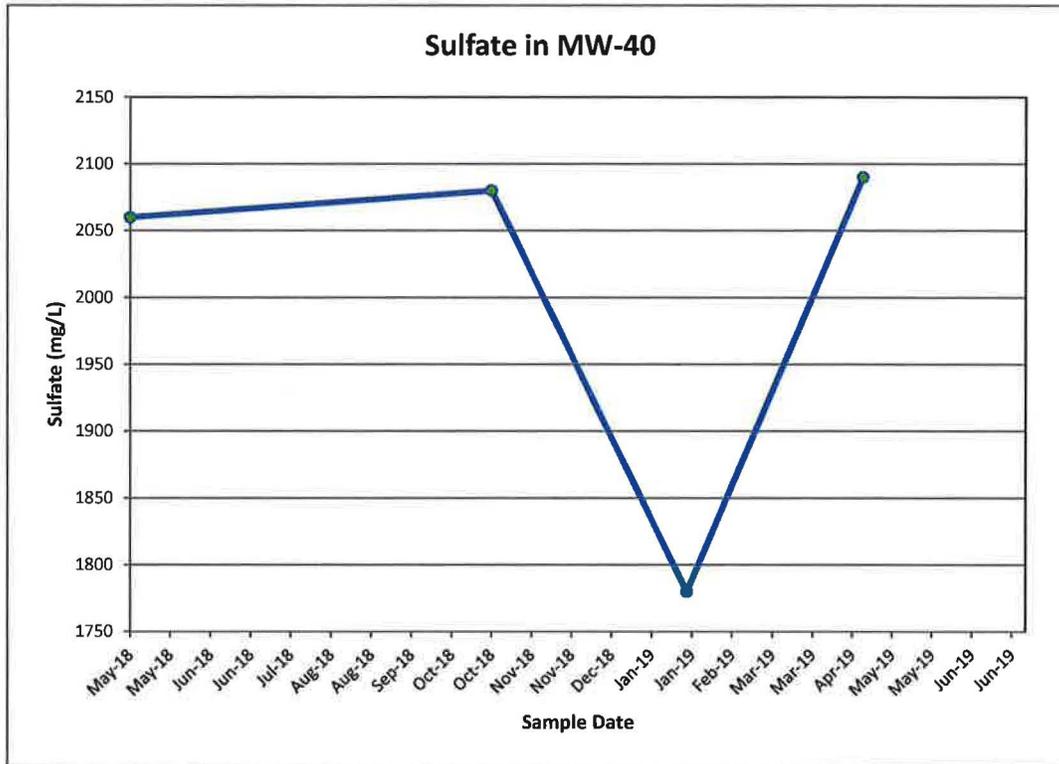
## Time concentration plots for MW-39



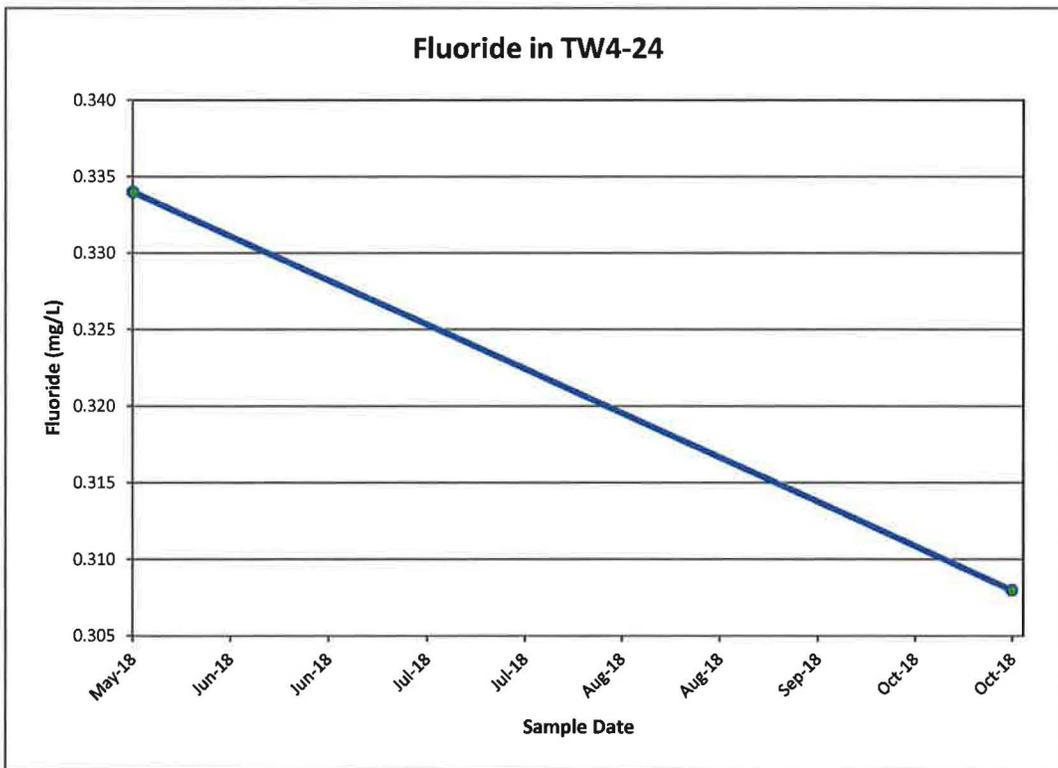
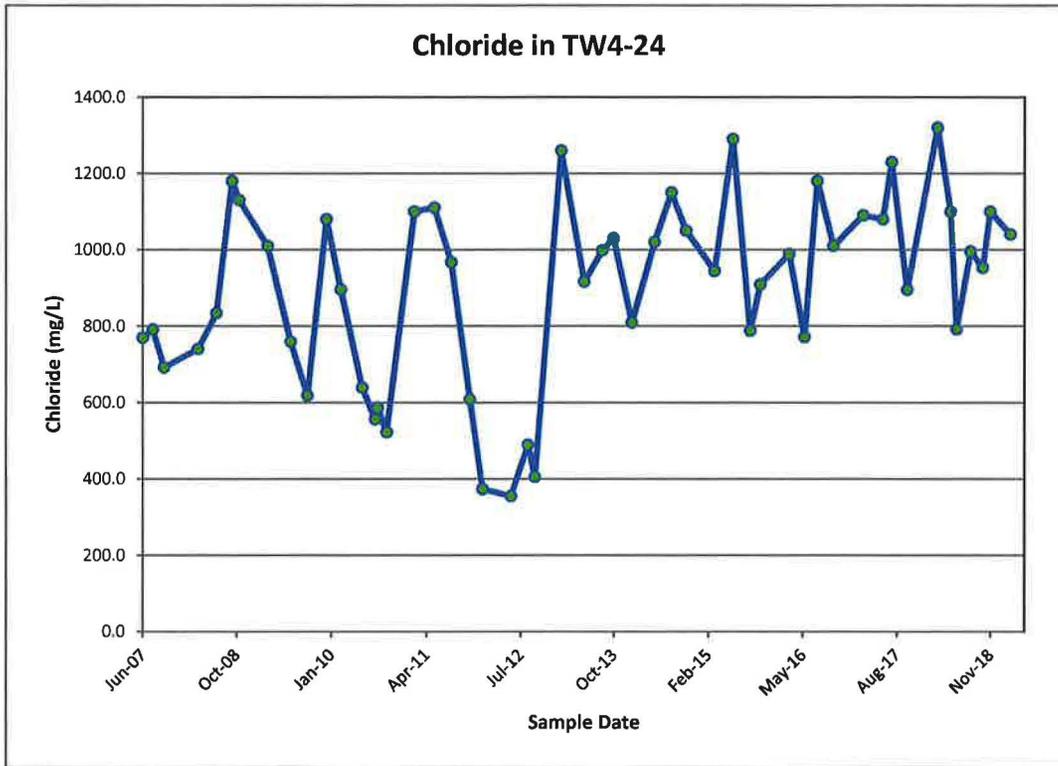
### Time concentration plots for MW-40



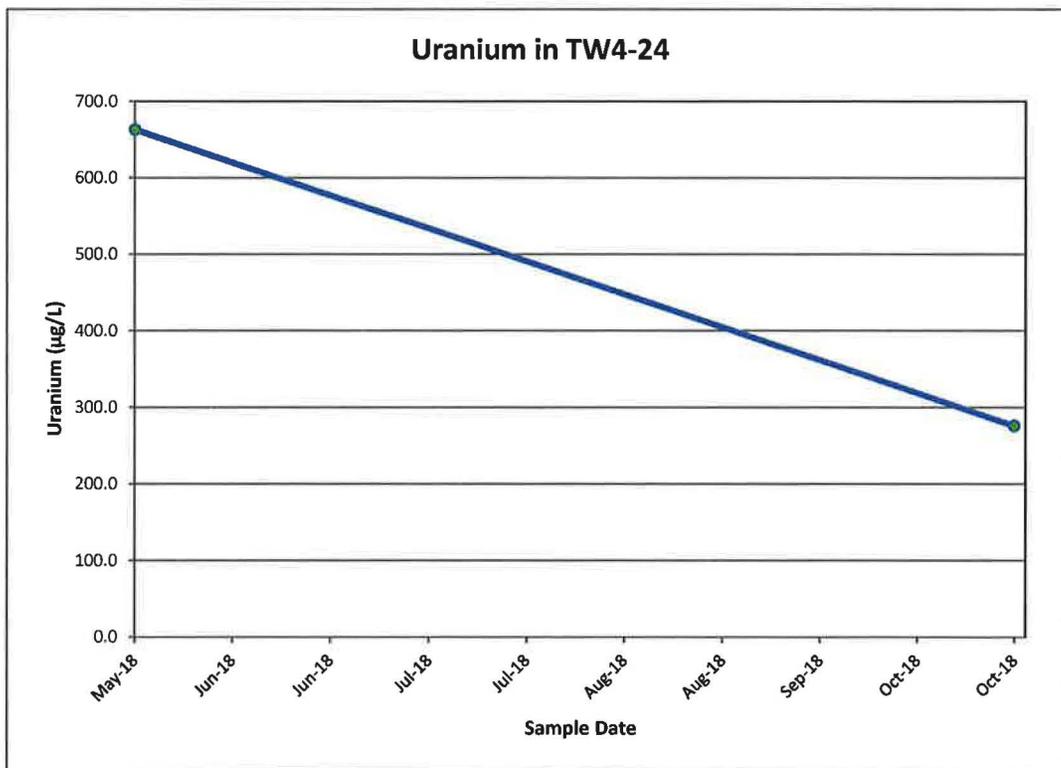
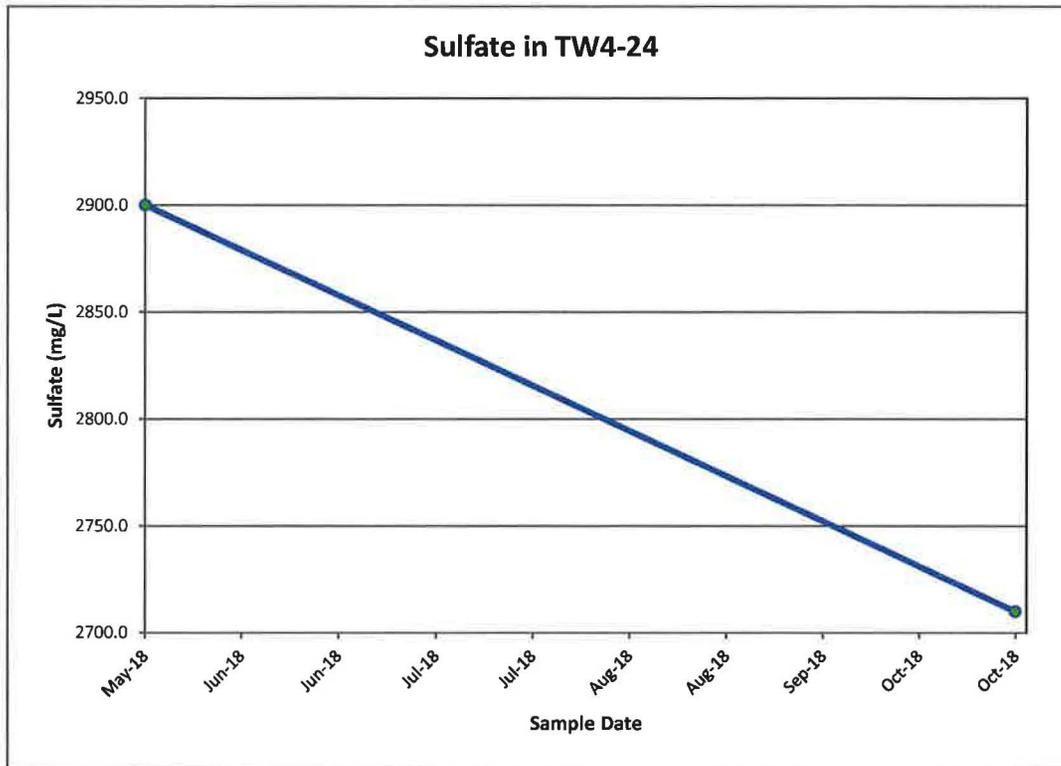
## Time concentration plots for MW-40



### Time concentration plots for TW4-24



## Time concentration plots for TW4-24



Tab J

CSV Transmittal Letter

## Kathy Weinel

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**From:** Kathy Weinel  
**Sent:** Wednesday, August 7, 2019 9:11 AM  
**To:** Phillip Goble  
**Cc:** 'Thomas Rushing'; David Frydenlund; Logan Shumway; Scott Bakken; Terry Slade; Paul Goranson  
**Subject:** Transmittal of CSV Files White Mesa Mill 2019 Q2 Groundwater Monitoring  
**Attachments:** Q2 2019 DTWs - All Programs.csv; Q2 2019 GW Analytical.csv; Q2 2019 GW Field Data.csv

Dear Mr. Goble,

Attached to this e-mail is an electronic copy of laboratory results for groundwater monitoring conducted at the White Mesa Mill during the second quarter of 2019, 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



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Kathy Weinel  
*Quality Assurance Manager*

t: 303.389.4134 | f: 303.389.4125  
225 Union Blvd., Suite 600  
Lakewood, CO 80228

<http://www.energyfuels.com>

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