

Office of Environmental Management – Grand Junction



October 2005 Water Sampling

**Validation Data Package for
Ground Water Interim Action
Well Field
Biogeochemical Sampling Event
Moab, Utah**

February 2006



**U.S. Department
of Energy**

Office of Environmental Management

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for
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October 25–28, 2005

Data Package Contents

This data package includes the following information:

<u>Item No.</u>	<u>Description of Contents</u>
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2.	Sample Location Maps
3.	Data Assessment Summary
	Water Sampling Field Activities Verification Checklist
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Sampling Event Summary

Site: Moab, Utah

Sampling Period: October 25–28, 2005

This Validation Data Package includes two sets of laboratory analyses. The first set represents the “standard” set that are measured in the field and performed in two different analytical laboratories (Severn Trent and Microseeps) for the Interim Action well field on a monthly basis. It includes:

- Alkalinity
- Ammonia
- Bromide
- Carbon Dioxide
- Chemical Oxygen Demand
- Chloride
- Dissolved Organic Carbon
- Dissolved Oxygen
- Divalent Manganese
- Ferrous Iron
- Iron
- Manganese
- Methane
- Nitrate/Nitrite
- Nitrogen
- Oxidation Reduction Potential
- Oxygen
- pH
- Phosphorus
- Selenium
- Specific Conductance
- Sulfate
- Total Dissolved Solids (TDS)
- Total Inorganic Carbon
- Total Kjeldahl Nitrogen
- Total Organic Carbon
- Turbidity
- Uranium

The second set of analyses was conducted on site and at the Environmental Services Laboratory (ESL) in Grand Junction, Colorado, due to sample holding times. This data set, while considered good and valid, is subject to different quality control measures than the samples for the “standard” set. It includes:

- Biochemical Oxygen Demand
- Nitrifying Bacteria
- Nitrate as Nitrogen
- Ortho-Phosphate
- Sulfide
- Total Iron

Biogeochemical sampling was completed to determine the effectiveness of micro-organisms to geochemically alter the shallow aquifer zones between the Interim Action well field and the riverbed. Some evidence exists to indicate that limited conversion of ammonia to nitrate (nitrification) might be occurring in ground water downgradient of the well field, and that further nitrification and biologically mediated denitrification might be occurring in the water mixing zone located below the riverbed prior to discharge of ground water to surface water. To assess this action, two Baseline Area observation wells (0405 and 0488), four Configuration 1 observation wells (0403, 0407, 0483, and 0559), three Configuration 2 observation wells (0588, 0589, and 0602), and two Configuration 3 observation wells (0686 and 0687) were sampled. In addition, two Baseline Area piezometers (0495 and 0597), four Configuration 1 piezometers (0563, 0565, 0606, and 0607), four Configuration 2 piezometers (0591, 0603, 0604, and 0614), and four Configuration 3 piezometers (0691, 0692, 0694, and 0695) were sampled. Including one equipment blank and one duplicate, a total of 27 samples were collected.

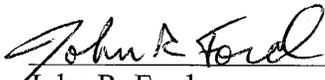
According to the USGS Cisco Gaging Station (Station No. 09180500), the mean daily Colorado River flow rates during this sampling event varied between 4,220 and 4,440 cfs.

Because this is the first event for the biogeochemical sampling, there are no established historical minimum/maximum concentrations. For the standard set of analyses there were two wells with

anomalous results. Well 0405 in the Baseline Area has concentrations of chloride, TDS, and uranium greater than historical maximums. However, an adjacent well (0488) has concentrations of these same three constituents less than historical minimums. Well 0589 in the Configuration 2 well field area has concentrations of sulfate greater than the historical maximum. The trend for constituent concentrations for these wells will be evaluated in successive monthly reports, and a determination made whether they are representative of the area or just individual wells.

Time versus concentration graphs are included in this report for certain key indicator wells and major contaminants of concern (ammonia and uranium).

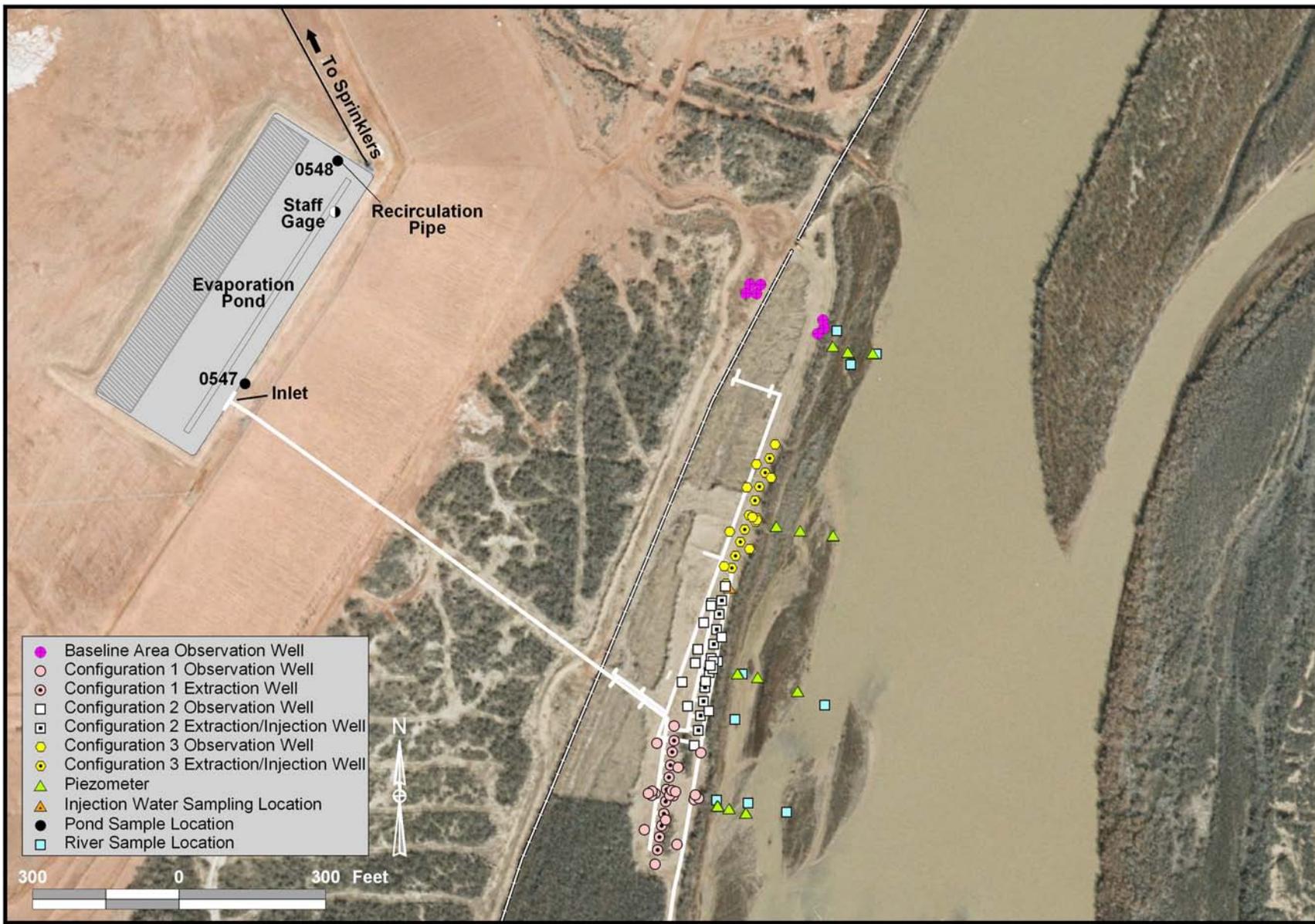
Analysis and interpretation of some of the validated data presented in this package are also included as part of the *Performance of the Ground Water Interim Action Injection System at the Configuration 2 Well Field, October 2004–October 2005*, and a similar performance assessment report of the Configuration 1 and 3 well fields is scheduled for May 2006.



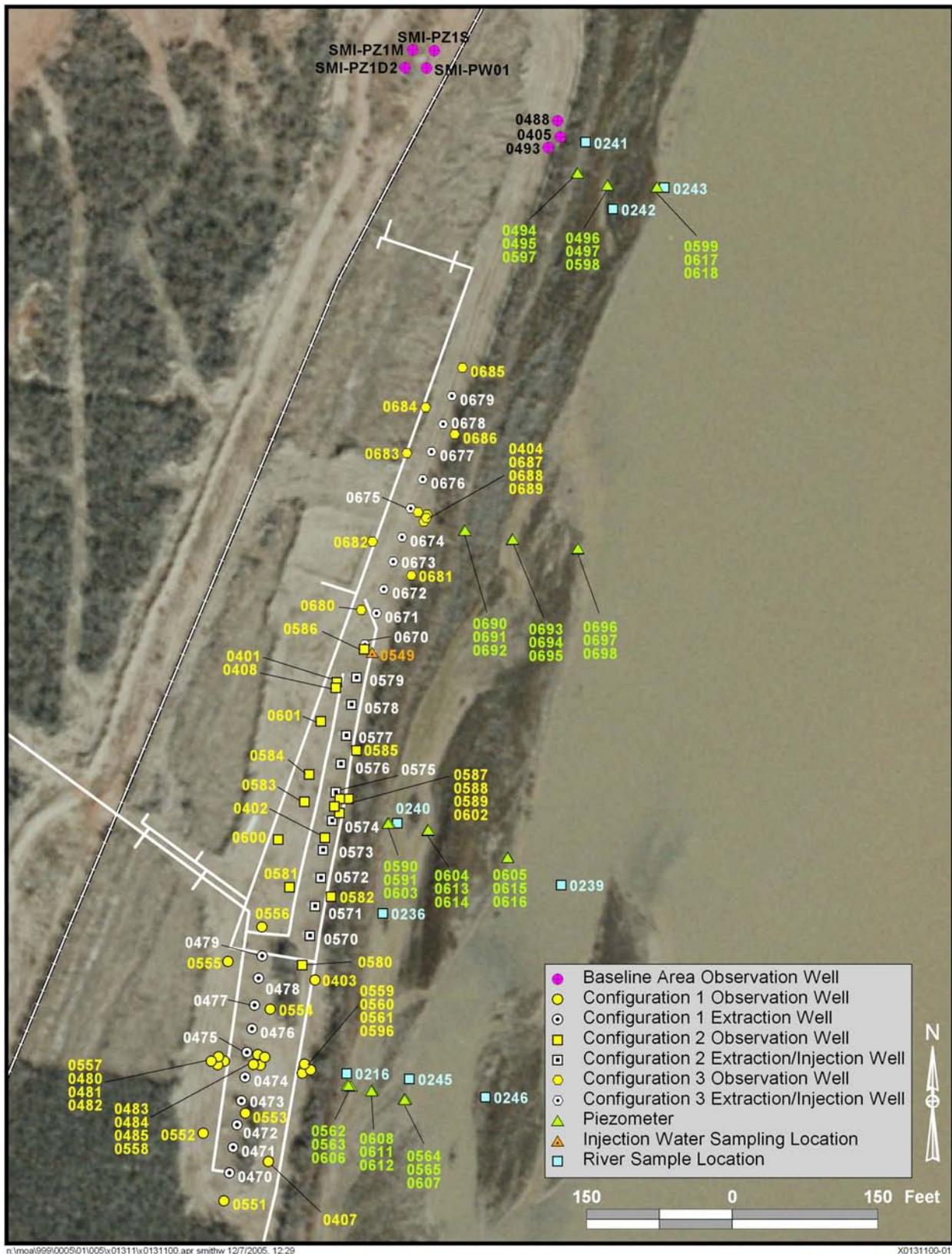
John R. Ford
Ground Water Lead

2-16-2006
Date

Sample Location Maps



Sample Locations at the Interim Action Well Field and Baseline Area (may include locations not sampled)



Existing Well Locations

Data Assessment Summary

Water Sampling Field Activities Verification Checklist

Project	Moab, Utah	Date(s) of Water Sampling	October 25–28, 2005
Date(s) of Verification	January 17, 2006	Name of Verifier	Jeff Price

	Response (Yes, No, NA)	Comments
1. Is the SAP the primary document directing field procedures?	Yes	
2. List other documents, SOP's, instructions.	NA	
3. Were the sampling locations specified in the planning documents sampled?	Yes	
4. Was a pre-trip calibration conducted as specified in the above named documents?	Yes	
5. Was an operational check of the field equipment conducted twice daily?	Yes	
6. Did the operational checks meet criteria?	Yes	
7. Were the number and types (alkalinity, temperature, Ec, pH, turbidity, DO, ORP) of field measurements taken as specified?	Yes	
8. Was the Category of the well documented?	Yes	
9. Were the following conditions met when purging a Category I well:		
10. Was one pump/tubing volume purged prior to sampling?	Yes	
11. Did the water level stabilize prior to sampling?	Yes	
12. Did pH, specific conductance, and turbidity measurements stabilize prior to sampling?	Yes	
13. Was the flow rate less than 500 mL/min?	Yes	
14. If a portable pump was used, was there a 4-hour delay between pump installation and sampling?	NA	

Water Sampling Field Activities Verification Checklist (Continued)

	Response (Yes, No, NA)	Comments
15. Were the following conditions met when purging a Category II well:		
16. Was the flow rate less than 500 mL/min?	Yes	
17. Was one pump/tubing volume removed prior to sampling?	Yes	
18. Were duplicates taken at a frequency of one per 20 samples?	Yes	
19. Were equipment blanks taken at a frequency of one per 20 samples that were collected with nondedicated equipment?	Yes	
20. Were trip blanks prepared and included with each shipment of VOC samples?	NA	
21. Were QC samples assigned a fictitious site identification number?	Yes	
22. Was the true identity of the samples recorded on the Quality Assurance Sample Log?	Yes	
23. Were samples collected in the containers specified?	Yes	
24. Were samples filtered and preserved as specified?	Yes	
25. Were the number and types of samples collected as specified?	Yes	
26. Were chain of custody records completed and was sample custody maintained?	Yes	
27. Are field data sheets signed and dated by both team members?	Yes	
28. Was all other pertinent information documented on the field data sheets?	Yes	
29. Was the presence or absence of ice in the cooler documented at every sample location?	Yes	
30. Were water levels measured at the locations specified in the planning documents?	Yes	

**Laboratory Performance Assessment
Severn Trent, St. Louis**

General Information

Requisition No.: 05100240
 Sample Event: October 26–28, 2005
 Site(s): Moab, Utah
 Laboratory: Severn Trent, St. Louis
 Work Order No.: F5K010102
 Analysis: Inorganics
 Validator: Steve Donivan
 Review Date: December 29, 2005

This validation was performed according to the *Environmental Procedures Catalog* (STO 6), “Standard Practice for Validation of Laboratory Data”, GT-9(P) (2004). All analyses were successfully completed. The samples were prepared and analyzed using accepted procedures based on methods specified by line item code, which are listed in Table 1.

Table 1. Analytes and Methods

Analyte	Line Item Code	Prep Method	Analytical Method
Ammonia as N, NH ₃ -N	WCH-A-005	MCAWW 350.1	MCAWW 350.1
Bromide, Br	MIS-A-038	MCAWW 300.0A	MCAWW 300.0A
Chemical Oxygen Demand, COD	WCH-A-010	MCAWW 410.4	MCAWW 410.4
Chloride, Cl	MIS-A-039	MCAWW 300.0A	MCAWW 300.0A
Dissolved Organic Carbon, DOC	WCH-A-024	MCAWW 415.1	MCAWW 415.1
Iron, Fe	GJO-16	SW-846 3005A	SW-846 6010B
Manganese, Mn	GJO-17	SW-846 3005A	SW-846 6010B
Nitrite/Nitrate as N, NO ₂ /NO ₃ -N	WCH-A-005	MCAWW 353.2	MCAWW 353.2
Phosphate as P	WCH-A-029	MCAWW 365.2	MCAWW 365.2
Selenium, Se	GJO-14	SW-846 3005A	SW-846 6020A
Sulfate, SO ₄	MIS-A-044	MCAWW 300.0A	MCAWW 300.0A
Total Dissolved Solids, TDS	WCH-A-033	MCAWW 160.1	MCAWW 160.1
Total Inorganic Carbon, TIC	GJO-49	MCAWW 415.1	MCAWW 415.1
Total Kjeldahl Nitrogen, TKN	WCH-A-039	MCAWW 351.2	MCAWW 351.2
Total Organic Carbon, TOC	WCH-A-025	MCAWW 415.1	MCAWW 415.1
Uranium, U	GJO-01	SW-846 3005A	SW-846 6020A

Data Qualifier Summary

Analytical results were qualified as listed in Table 2. Refer to the sections below for an explanation of the data qualifiers applied.

Table 2. Data Qualifiers

Sample Number	Location	Analyte	Flag	Reason
All	All	DOC	J	Result above the calibration range
All	All	TOC	J	Result above the calibration range
All	All	P	J	Matrix spike failure
HN21P	0607	Mn	U	Less than 5 times the calibration blank
HN20C	0483	Se	U	Less than 5 times the calibration blank
HN20M	0559	Se	U	Less than 5 times the calibration blank
HN216	2244 (Equip Blank)	Se	U	Less than 5 times the calibration blank
HN21P	0607	Se	U	Less than 5 times the calibration blank
HN2X8	0407	Se	U	Less than 5 times the calibration blank

Sample Shipping/Receiving

Severn Trent Laboratories in St. Louis, Missouri, received 47 water samples under air bill number 8191 2834 3420 on October 29, 2005, accompanied by a COC form. The COC form was checked to confirm that all of the samples were listed on the form with sample collection dates and times, and that signatures and dates were present indicating sample relinquishment and receipt. The sample submittal documents, including the COC and the Sample Tickets, had no errors or omissions.

Preservation and Holding Times

The sample shipment was received cool and intact with the temperature within the chilled coolers between 2 °C and 3 °C, which complies with requirements. All samples were received in the correct container types and had been preserved correctly for the requested analyses with the following exception. The sample bottle from location 0695 submitted for COD, P, and TKN analysis was received with a pH of 8. The laboratory adjusted the pH to less than 2 with sulfuric acid. All samples were analyzed within the applicable holding times with the exception of TIC. The TIC analysis was performed beyond the nominal 28 day holding time; however, method 415.1 does not have an established holding time.

Laboratory Instrument Calibration

Compliance requirements for satisfactory instrument calibration are established to ensure that the instrument is capable of producing acceptable qualitative and quantitative data for all analytes. Initial calibration demonstrates that the instrument is capable of acceptable performance in the beginning of the analytical run and of producing a linear curve. Compliance requirements for continuing calibration checks are established to ensure that the instrument continues to be capable of producing acceptable qualitative and quantitative data. All laboratory instrument calibrations were performed correctly in accordance with the cited methods.

Method SW-846 6010B

Calibrations for iron and manganese were performed on November 7, 2005, using three calibration standards resulting in calibration curves with correlation coefficient (r^2) values greater than 0.995. The absolute values of the calibration curve intercepts were less than 3 times the method detection limit (MDL). Calibration and laboratory spike standards were prepared from independent sources. Initial and continuing calibration verification (CCV) checks were made at the required frequency resulting in 13 CCVs. All calibration checks met the acceptance criteria. Reporting limit verification checks were made at the beginning and end of the analytical sequence to verify the linearity of the calibration curve near the practical quantitation limit. All results were within the acceptance range.

Method SW-846 6020A

Calibrations for selenium and uranium were performed on November 2, 2005. The initial calibrations were performed using five calibration standards resulting in calibration curves with correlation coefficient (r^2) values greater than 0.995. The absolute values of the curve intercepts were less than 3 times the MDL. Calibration and laboratory spike standards were prepared from independent sources. Initial and CCV checks were made at the required frequency resulting in 6 CCVs. All calibration check results met the acceptance criteria. A reporting limit verification check was made at the required frequency to verify the linearity of the calibration curve near the practical quantitation limit. The check results for all analytes were within the acceptance criteria range. Mass calibration and resolution verifications were performed at the beginning of each analytical run in accordance with the analytical procedure. Internal standard recoveries were stable and within acceptable ranges.

Method MCAWW 300.0A

The initial calibrations for bromide, chloride and sulfate were performed using five calibration standards each on November 20, 2005. The calibration curve r^2 values were greater than 0.995 and intercepts were less than 3 times the MDL. Initial calibration and calibration check standards were prepared from independent sources. Initial and continuing calibration checks were made at the required frequency resulting in 21 CCVs. All calibration checks met the acceptance criteria.

Method MCAWW 160.1

There is no initial or continuing calibration requirement associated with the determination of TDS.

Method MCAWW 350.1

The initial calibrations for ammonia as N were performed using six calibration standards on November 3, 2005, resulting in a calibration curve with a correlation coefficient (r^2) value greater than 0.995 and an intercept less than 3 times the MDL. Initial and CCV checks were made at the required frequency resulting in 8 CCVs. All calibration check results met the acceptance criteria.

Method MCAWW 351.2

The initial calibrations for total Kjeldahl nitrogen were performed using five calibration standards on November 8, 2005, resulting in calibration curves with correlation coefficient (r^2) values greater than 0.995 and intercepts less than 3 times the MDL. Initial and CCV checks were made at the required frequency resulting in 7 CCVs. All calibration check results met the acceptance criteria.

Method MCAWW 353.2

The initial calibrations for nitrite/nitrate as N were performed using seven calibration standards on November 7, 2005, resulting in calibration curves with correlation coefficient (r^2) values greater than 0.995 and intercepts less than 3 times the MDL. Initial and CCV checks were made at the required frequency resulting in 7 CCVs. All calibration check results met the acceptance criteria.

Method MCAWW 365.2

The initial calibrations for phosphate as P were performed using four calibration standards on November 14, 2005, resulting in calibration curves with correlation coefficient (r^2) values greater than 0.995 and intercepts less than 3 times the MDL. Initial and CCV checks were made at the required frequency resulting in 7 CCVs. All calibration check results met the acceptance criteria.

Method MCAWW 410.4

There is no initial or continuing calibration requirement associated with the determination of chemical oxygen demand (COD).

Method MCAWW 415.1 Organic Carbon, Total and Dissolved

The initial calibrations for organic carbon were performed using three calibration standards on November 21, 2005 resulting in a calibration curve with correlation coefficient (r^2) values greater than 0.995 and an intercept less than 3 times the MDL. Initial and CCV checks were made at the required frequency resulting in 6 CCVs. All calibration check results met the acceptance criteria. All sample concentrations were above the linear range of the calibration curve. Dilution and re-analysis of the samples resulted in results below the detection limit indicating a matrix interference. All results are qualified with a "J" flag as estimated values.

Method MCAWW 415.1 Total Inorganic Carbon

The initial calibrations for total inorganic carbon were performed using three calibration standards on November 29, 2005, and December 1, 2005, resulting in calibration curves with correlation coefficient (r^2) values greater than 0.995 and intercepts less than 3 times the MDL. Initial and CCV checks were made at the required frequency resulting in 7 CCVs. All calibration check results met the acceptance criteria.

Method and Calibration Blanks

Method blanks are analyzed to assess any contamination that may have occurred during sample preparation. Calibration blanks are analyzed to assess instrument contamination prior to and during sample analysis. All method blanks and calibration blanks were below the required detection limits. In cases where blank concentration exceeds the instrument detection limit, the associated sample results are qualified with a “U” flag (not detected) when the sample result is greater than the MDL but less than 5 times the blank concentration.

Inductively Coupled Plasma Interference Check Sample Analysis

Inductively coupled plasma interference check samples were analyzed at the required frequency to verify the instrumental interelement and background correction factors. All check sample results met the acceptance criteria.

Matrix Spike Analysis

Matrix spike samples were analyzed for all analytes as a measure of method performance in the sample matrix with the exception of ammonia. Laboratory control samples were analyzed for ammonia in lieu of matrix spike samples because of the large dilution factors required. The spike recoveries met the recovery and precision criteria for all analytes with the following exceptions. The organic carbon matrix spike data were not evaluated because the unspiked sample concentration was greater than 4 times the spike amount. The phosphate as P spike recovery was outside the acceptance range. All results are qualified with a “J” flag as estimated values.

Laboratory Replicate Analysis

The relative percent difference values for the laboratory replicate sample and matrix spike duplicate sample results for all analytes were less than 20 percent, indicating acceptable laboratory precision.

Laboratory Control Sample

Laboratory control samples were analyzed at the correct frequency to provide information on the accuracy of the analytical method and the overall laboratory performance, including sample preparation. The results were acceptable for all analytes.

Metals Serial Dilution

Serial dilutions were performed during the metals analysis to monitor physical or chemical interferences that may exist in the sample matrix. All results met the acceptance criteria, with the exception of potassium. Potassium results were not qualified based on the serial dilution results because the concentration of the undiluted samples was less than 50 times the practical quantitation limit.

Detection Limits/Dilutions

Samples were diluted in a consistent and acceptable manner when required. The samples were diluted prior to analysis of uranium to reduce interferences. The required detection limits were achieved for all analytes

Completeness

Results were reported in the correct units for all analytes requested using contract-required laboratory qualifiers.

Chromatography Peak Integration

The integration of analyte peaks was reviewed for all ion chromatography data. There were no manual integrations performed, and all peak integrations were satisfactory.

Electronic Data Deliverable File

The electronic data deliverable (EDD) file arrived on December 8, 2005. The Sample Management System EDD validation module was used to verify that the EDD file was complete and in compliance with requirements. The module compares the contents of the file to the requested analyses to ensure all and only the requested data are delivered. The contents of the EDD were manually examined to verify that the sample results accurately reflect the data contained in the sample data package.

Laboratory Performance Assessment Microseeps, Pittsburgh, PA

General Information

Report Number (RIN): 05100245
Sample Event: October 26-28, 2005
Site(s): Moab, Utah
Laboratory: Microseeps, Pittsburgh, PA
Work Order No.: P0510497
Analysis: Dissolved Gasses, Reduced Metals
Validator: Steve Donivan
Review Date: December 29, 2005

This validation was performed according to the *Environmental Procedures Catalog* (STO 6), "Standard Practice for Validation of Laboratory Data," GT-9(P) (2004). See attached Data Validation Worksheets for supporting documentation on the data review and validation. All analyses were successfully completed. The samples were prepared and analyzed using accepted procedures based on methods specified by line item code, which are listed in Table 1.

Table 1. Analytes and Methods

Analyte	Line Item Code	Prep Method	Analytical Method
Dissolved Gasses	GJO-52	AM20GAX	AM20GAX
Manganese (II)	GJO-53	Mod.7199	Mod.7199
Iron (II)	GJO-54	Mod.7199	Mod.7199

Data Qualifier Summary

None of the analytical results required qualification.

Sample Shipping/Receiving

Microseeps in Pittsburgh, Pennsylvania, received 18 water samples on October 28, 2005, accompanied by a COC form. The COC form was checked to confirm that all of the samples were listed on the form with sample collection dates and times, and that signatures and dates were present indicating sample relinquishment and receipt. The COC form was complete with no errors or omissions.

Preservation and Holding Times

The sample shipment was received cool and intact with a temperature within the cooler of 17.0 °C. All samples were received in the correct container types and had been preserved correctly for the requested analyses. There are no standard holding times for these analytes and the analyses were completed as quickly as possible.

Laboratory Instrument Calibration

Data for this RIN were reported at Analysis Report Category II (results plus quality control) and do not include calibration data.

Method Blanks

All method blank results were below the practical quantitation limits.

Matrix Spike Analysis

Matrix spike and matrix spike duplicate samples (MS/MSD) were analyzed for iron (II) and manganese (II) as a measure of method performance in the sample matrix. The MS/MSD analyses resulted in acceptable recovery and precision for both analytes.

Laboratory Replicate Analysis

The relative percent difference (RPD) values for the laboratory control sample duplicate samples and MSD sample results for all analytes were less than 20 percent indicating acceptable precision.

Laboratory Control Sample

Laboratory control samples (LCS) were analyzed at the correct frequency to provide information on the accuracy of the analytical method and the overall laboratory performance, including sample preparation. The LCS results were acceptable for all analysis categories.

Detection Limits/Dilutions

Samples were diluted in a consistent and acceptable manner when required. The required detection limits were met for all analytes.

Completeness

Results were reported in the correct units for all analytes requested using contract-required laboratory qualifiers.

Electronic Data Deliverable (EDD) File

An EDD file arrived on December 6, 2005. The contents of the EDD were manually examined to verify that the sample results accurately reflect the data contained in the sample data package.

Field Analyses/Activities

The following information summarizes the field analyses and activities for this sampling event period.

Field Activities

All monitor well results were qualified with an “F” flag in the database indicating the wells were purged and sampled using the low-flow sampling method. Extraction wells are not sampled using the low-flow sampling method.

An equipment blank was collected and analyzed for the same constituents as the Moab environmental samples. Analyte concentrations, with the exception of chemical oxygen demand, TDS, and uranium, measured in the equipment blank were below their respective contract required detection limits. It is expected that the equipment decontamination process was less than sufficient, or that the water used during the decontamination process and later submitted for analysis was less than sufficient. A duplicate sample was collected from location 0589. There are no established regulatory criteria for the evaluation of field duplicate samples; therefore, U.S. Environmental Protection Agency (EPA) guidance for laboratory duplicates (which is conservative for field duplicates +/-20 RPD) was used to assess the precision of the field duplicates. The following analytes did not meet the duplicate criteria: chemical oxygen demand, chloride, dissolved organic carbon, phosphorus, sulfate, and TDS.

Certification

Results were reported in correct units for all analytes requested. Appropriate contract-required laboratory qualifiers and target analyte lists were used. The required detection limits were met when possible or an explanation of why they were not met was given in the laboratory case narrative. All analytical quality control criteria were met except as qualified on the Ground Water Quality Data by Parameter, Surface Water Quality by Parameter, or equipment/trip blank database printouts. The meaning of data qualifiers is defined on the database printouts or defined in the EPA Contract Laboratory Program Statement of Work for Inorganic Analysis, Multi-Media Multi-Concentration, Document Number ILMO2.0, 1991. All data in this package are considered validated and may be treated as final results.

Laboratory Validation Lead: Steve Donivan 2-16-06
Steve Donivan Date

Field Activities Validation Lead: for [Signature] 2-16-2006
for Jeff Price Date

Attachment 1

Data Presentation

Minimums and Maximums Report

Minimums and Maximums Report

The Minimums and Maximums Report is generated by a data validation application (DataVal) used to query the SEEPro database. The DataVal compares the new data set with historical data and lists all new data that fall outside the historical data range. Values listed in the report are further screened and the results are not considered anomalous if: (1) identified low concentrations are the result of low detection limits; (2) the concentration detected is within 50 percent of historical minimum or maximum values; or (3) there were fewer than five historical samples for comparison.

SAMPLING DATA VALIDATION MINIMUMS AND MAXIMUMS REPORT -- No Field Parameters

LAB CODE: STS, SEVERN TRENT ST. LOUIS (Earth City, MO)

LAB REQUISITION(S): 05100240

HISTORY BEGIN DATE: comparing to all historical data

REPORT DATE: 01/19/06 12:21:59: PM

SITE CODE	LOCATION CODE	SAMPLE DATE	ANALYTE	CURRENT		HISTORICAL MAXIMUM		HISTORICAL MINIMUM		COUNT	
				RESULT	QUALIFIERS LAB DATA	RESULT	QUALIFIERS LAB DATA	RESULT	QUALIFIERS LAB DATA	N	N BELOW DETECT
MOA01	0405	10/26/2005	Chloride	2740	F	1700	F	1300	F	7	0
MOA01	0405	10/26/2005	Total Dissolved Solids	19400	F	14000	F	12000	F	6	0
MOA01	0405	10/26/2005	Uranium	3.09	F	1.5056		1.3	F	7	0
MOA01	0407	10/27/2005	Uranium	0.0852	F	4.6316		0.11	F	25	0
MOA01	0488	10/26/2005	Ammonia Total as N	722	F	880	F	740	F	7	0
MOA01	0488	10/26/2005	Chloride	1190	F	2100	F	1500	F	7	0
MOA01	0488	10/26/2005	Sulfate	7580	F	12000	F	9600	F	7	0
MOA01	0488	10/26/2005	Total Dissolved Solids	13500	F	20000	F	15000	F	7	0
MOA01	0488	10/26/2005	Uranium	1.8	F	2.6	F	2.2	F	7	0
MOA01	0565	10/27/2005	Ammonia Total as N	10.7	QF	53	F	13	QF	8	0
MOA01	0565	10/27/2005	Total Dissolved Solids	427	QF	2000	FQ	560	FQ	7	0
MOA01	0589	10/27/2005	Sulfate	11100	F	9800	F	3800	F	16	0
MOA01	0589	10/27/2005	Sulfate	14800	F	9800	F	3800	F	16	0

SAMPLING DATA VALIDATION MINIMUMS AND MAXIMUMS REPORT -- No Field Parameters

LAB CODE: STS, SEVERN TRENT ST. LOUIS (Earth City, MO)

LAB REQUISITION(S): 05100240

HISTORY BEGIN DATE: comparing to all historical data

REPORT DATE: 01/19/06 12:21:59: PM

SITE CODE	LOCATION CODE	SAMPLE DATE	ANALYTE	CURRENT		HISTORICAL MAXIMUM		HISTORICAL MINIMUM		COUNT
				RESULT	QUALIFIERS LAB DATA	RESULT	QUALIFIERS LAB DATA	RESULT	QUALIFIERS LAB DATA	N

SAMPLE ID CODES: 000X = Filtered sample (0.45 µm). N00X = Unfiltered sample. X = replicate number.

LAB QUALIFIERS:

- * Replicate analysis not within control limits.
- + Correlation coefficient for MSA < 0.995.
- A TIC is a suspected aldol-condensation product.
- B Inorganic: Result is between the IDL and CRDL. Organic & Radiochemistry: Analyte also found in method blank.
- E Inorganic: Estimate value because of interference, see case narrative. Organic: Analyte exceeded calibration range of the GC-MS.
- Z Laboratory defined (USEPA CLP organic) qualifier, see case narrative.
- H Holding time expired, value suspect.
- I Increased detection limit due to required dilution.
- C Pesticide result confirmed by GC-MS.
- M GFAA duplicate injection precision not met.
- N Inorganic or radiochemical: Spike sample recovery not within control limits. Organic: Tentatively identified compound (TIC).
- S Result determined by method of standard addition (MSA).
- U Analytical result below detection limit.
- W Post-digestion spike outside control limits while sample absorbance < 50% of analytical spike absorbance.
- D Analyte determined in diluted sample.
- P > 25% difference in detected pesticide or Arochlor concentrations between 2 columns.
- X Laboratory defined (USEPA CLP organic) qualifier, see case narrative.
- Y Laboratory defined (USEPA CLP organic) qualifier, see case narrative.
- > Result above upper detection limit.
- J Estimated

DATA QUALIFIERS:

- | | | |
|--|--|---|
| J Estimated value. | F Low flow sampling method used. | G Possible grout contamination, pH > 9. |
| L Less than 3 bore volumes purged prior to sampling. | R Unusable result. | X Location is undefined. |
| U Parameter analyzed for but was not detected. | Q Qualitative result due to sampling technique | |

Anomalous Data Review Checksheet

Water Quality Data

GENERAL WATER QUALITY DATA BY PARAMETER (USEE205) FOR SITE MOA01, Moab Site
 REPORT DATE: 2/7/2006 9:57 am

PARAMETER	UNITS	LOCATION ID	LOC TYPE, SUBTYPE	SAMPLE: DATE	ID	DEPTH RANGE (FT BLS)	RESULT	QUALIFIERS: LAB DATA QA	DETECTION LIMIT	UN-CERTAINTY	
Ammonia Total as N	mg/L	0403	WL	10/27/2005	0001	18.00 - 18.00	59.400	F #	0.549	-	
	mg/L	0405	WL	10/26/2005	0001	18.00 - 18.00	490.000	F #	5.49	-	
	mg/L	0407	WL	10/27/2005	0001	17.00 - 17.00	15.300	F #	0.549	-	
	mg/L	0483	WL	10/27/2005	0001	18.00 - 18.00	340.000	F #	5.49	-	
	mg/L	0488	WL	10/26/2005	0001	26.00 - 26.00	722.000	F #	5.49	-	
	mg/L	0495	WL, PZ	10/26/2005	0001	5.10 - 5.10	71.300	QF #	5.49	-	
	mg/L	0559	WL	10/27/2005	0001	19.00 - 19.00	134.000	F #	5.49	-	
	mg/L	0563	WL, PZ	10/27/2005	0001	5.10 - 5.10	10.100	QF #	0.0549	-	
	mg/L	0565	WL, PZ	10/27/2005	0001	4.50 - 4.50	10.700	QF #	0.219	-	
	mg/L	0588	WL	10/27/2005	0001	26.00 - 26.00	28.000	F #	0.549	-	
	mg/L	0589	WL	10/27/2005	0001	44.00 - 44.00	772.000	F #	5.49	-	
	mg/L	0589	WL	10/27/2005	0003	44.00 - 44.00	754.000	F #	5.49	-	
	mg/L	0591	WL, PZ	10/26/2005	0001	4.40 - 4.40	132.000	QF #	5.49	-	
	mg/L	0597	WL, PZ	10/26/2005	0001	9.80 - 9.80	522.000	QF #	5.49	-	
	mg/L	0602	WL	10/27/2005	0001	18.00 - 18.00	73.900	F #	5.49	-	
	mg/L	0603	WL, PZ	10/26/2005	0001	9.70 - 9.70	189.000	QF #	5.49	-	
	mg/L	0604	WL, PZ	10/26/2005	0001	7.80 - 7.80	335.000	QF #	5.49	-	
	mg/L	0607	WL, PZ	10/27/2005	0001	10.10 - 10.10	38.100	QF #	0.549	-	
	mg/L	0614	WL, PZ	10/26/2005	0001	5.60 - 5.60	339.000	QF #	5.49	-	
	mg/L	0686	WL	10/26/2005	0001	18.00 - 18.00	149.000	F #	5.49	-	
	mg/L	0687	WL	10/26/2005	0001	28.00 - 28.00	364.000	F #	5.49	-	
	mg/L	0691	WL, PZ	10/26/2005	0001	4.90 - 4.90	239.000	QF #	5.49	-	
	mg/L	0692	WL, PZ	10/26/2005	0001	9.60 - 9.60	422.000	QF #	5.49	-	
	mg/L	0695	WL, PZ	10/26/2005	0001	9.80 - 9.80	443.000	QF #	5.49	-	
	Bromide	mg/L	0403	WL	10/27/2005	0001	18.00 - 18.00	5.1	U F #	5.1	-
		mg/L	0405	WL	10/26/2005	0001	18.00 - 18.00	5.1	U F #	5.1	-

GENERAL WATER QUALITY DATA BY PARAMETER (USEE205) FOR SITE MOA01, Moab Site
 REPORT DATE: 2/7/2006 9:57 am

PARAMETER	UNITS	LOCATION ID	LOC TYPE, SUBTYPE	SAMPLE: DATE	ID	DEPTH RANGE (FT BLS)	RESULT	QUALIFIERS: LAB DATA QA	DETECTION LIMIT	UN-CERTAINTY
Bromide	mg/L	0407	WL	10/27/2005	0001	17.00 - 17.00	5.1	U F #	5.1	-
	mg/L	0483	WL	10/27/2005	0001	18.00 - 18.00	5.1	U F #	5.1	-
	mg/L	0488	WL	10/26/2005	0001	26.00 - 26.00	5.1	U F #	5.1	-
	mg/L	0495	WL, PZ	10/26/2005	0001	5.10 - 5.10	5.1	U QF #	5.1	-
	mg/L	0559	WL	10/27/2005	0001	19.00 - 19.00	5.1	U F #	5.1	-
	mg/L	0563	WL, PZ	10/27/2005	0001	5.10 - 5.10	5.1	U QF #	5.1	-
	mg/L	0565	WL, PZ	10/27/2005	0001	4.50 - 4.50	5.1	U QF #	5.1	-
	mg/L	0588	WL	10/27/2005	0001	26.00 - 26.00	5.1	U F #	5.1	-
	mg/L	0589	WL	10/27/2005	0001	44.00 - 44.00	5.1	U F #	5.1	-
	mg/L	0589	WL	10/27/2005	0003	44.00 - 44.00	5.1	U F #	5.1	-
	mg/L	0591	WL, PZ	10/26/2005	0001	4.40 - 4.40	5.1	U QF #	5.1	-
	mg/L	0597	WL, PZ	10/26/2005	0001	9.80 - 9.80	5.1	U QF #	5.1	-
	mg/L	0602	WL	10/27/2005	0001	18.00 - 18.00	5.1	U F #	5.1	-
	mg/L	0603	WL, PZ	10/26/2005	0001	9.70 - 9.70	5.1	U QF #	5.1	-
	mg/L	0604	WL, PZ	10/26/2005	0001	7.80 - 7.80	5.1	U QF #	5.1	-
	mg/L	0606	WL, PZ	10/27/2005	0001	9.80 - 9.80	5.1	U QF #	5.1	-
	mg/L	0607	WL, PZ	10/27/2005	0001	10.10 - 10.10	5.1	U QF #	5.1	-
	mg/L	0614	WL, PZ	10/26/2005	0001	5.60 - 5.60	5.1	U QF #	5.1	-
	mg/L	0686	WL	10/26/2005	0001	18.00 - 18.00	5.1	U F #	5.1	-
	mg/L	0687	WL	10/26/2005	0001	28.00 - 28.00	5.1	U F #	5.1	-
mg/L	0691	WL, PZ	10/26/2005	0001	4.90 - 4.90	5.1	U QF #	5.1	-	
mg/L	0692	WL, PZ	10/26/2005	0001	9.60 - 9.60	5.1	U QF #	5.1	-	
mg/L	0694	WL, PZ	10/26/2005	0001	4.30 - 4.30	5.1	U F #	5.1	-	
mg/L	0695	WL, PZ	10/26/2005	0001	9.80 - 9.80	5.1	U QF #	5.1	-	
Carbon Dioxide	mg/L	0403	WL	10/27/2005	0002	18.00 - 18.00	14	F #	0.53	-
	mg/L	0405	WL	10/26/2005	0002	18.00 - 18.00	170	F #	0.53	-

GENERAL WATER QUALITY DATA BY PARAMETER (USEE205) FOR SITE MOA01, Moab Site
 REPORT DATE: 2/7/2006 9:57 am

PARAMETER	UNITS	LOCATION ID	LOC TYPE, SUBTYPE	SAMPLE: DATE	ID	DEPTH RANGE (FT BLS)	RESULT	QUALIFIERS: LAB DATA QA	DETECTION LIMIT	UN-CERTAINTY
Carbon Dioxide	mg/L	0407	WL	10/27/2005	0002	17.00 - 17.00	17	F #	0.53	-
	mg/L	0483	WL	10/27/2005	0002	18.00 - 18.00	30	F #	0.53	-
	mg/L	0488	WL	10/26/2005	0002	26.00 - 26.00	130	F #	0.53	-
	mg/L	0495	WL, PZ	10/26/2005	0002	5.10 - 5.10	100	QF #	0.53	-
	mg/L	0559	WL	10/27/2005	0002	19.00 - 19.00	17	F #	0.53	-
	mg/L	0563	WL, PZ	10/27/2005	0002	5.10 - 5.10	2.1	J QF #	0.53	-
	mg/L	0565	WL, PZ	10/27/2005	0002	4.50 - 4.50	1.2	J QF #	0.53	-
	mg/L	0588	WL	10/27/2005	0002	26.00 - 26.00	4.8	J F #	0.53	-
	mg/L	0589	WL	10/27/2005	0002	44.00 - 44.00	71	F #	0.53	-
	mg/L	0589	WL	10/27/2005	0004	44.00 - 44.00	70	F #	0.53	-
	mg/L	0591	WL, PZ	10/26/2005	0002	4.40 - 4.40	3.2	J QF #	0.53	-
	mg/L	0597	WL, PZ	10/26/2005	0002	9.80 - 9.80	34	F #	0.53	-
	mg/L	0602	WL	10/27/2005	0002	18.00 - 18.00	7.1	F #	0.53	-
	mg/L	0603	WL, PZ	10/26/2005	0002	9.70 - 9.70	0.94	J QF #	0.53	-
	mg/L	0604	WL, PZ	10/26/2005	0002	7.80 - 7.80	2.8	J QF #	0.53	-
	mg/L	0606	WL, PZ	10/27/2005	0002	9.80 - 9.80	1	J QF #	0.53	-
	mg/L	0607	WL, PZ	10/27/2005	0002	10.10 - 10.10	5	U QF #	0.53	-
	mg/L	0614	WL, PZ	10/26/2005	0002	5.60 - 5.60	30	QF #	0.53	-
	mg/L	0686	WL	10/26/2005	0002	18.00 - 18.00	180	F #	0.53	-
	mg/L	0687	WL	10/26/2005	0002	28.00 - 28.00	150	F #	0.53	-
	mg/L	0691	WL, PZ	10/26/2005	0002	4.90 - 4.90	49	QF #	0.53	-
	mg/L	0692	WL, PZ	10/26/2005	0002	9.60 - 9.60	29	QF #	0.53	-
	mg/L	0694	WL, PZ	10/26/2005	0002	4.30 - 4.30	9.2	F #	0.53	-
mg/L	0695	WL, PZ	10/26/2005	0002	9.80 - 9.80	69	QF #	0.53	-	
Chemical Oxygen Demand	mg/L	0403	WL	10/27/2005	0001	18.00 - 18.00	23.0	F #	9.2	-
	mg/L	0405	WL	10/26/2005	0001	18.00 - 18.00	1500	F #	9.2	-

GENERAL WATER QUALITY DATA BY PARAMETER (USEE205) FOR SITE MOA01, Moab Site
 REPORT DATE: 2/7/2006 9:57 am

PARAMETER	UNITS	LOCATION ID	LOC TYPE, SUBTYPE	SAMPLE:		DEPTH RANGE (FT BLS)	RESULT	QUALIFIERS:			DETECTION LIMIT	UN-CERTAINTY
				DATE	ID			LAB	DATA	QA		
Chemical Oxygen Demand	mg/L	0407	WL	10/27/2005	0001	17.00 - 17.00	22.0	F	#		9.2	-
	mg/L	0483	WL	10/27/2005	0001	18.00 - 18.00	440	F	#		9.2	-
	mg/L	0488	WL	10/26/2005	0001	26.00 - 26.00	509	F	#		9.2	-
	mg/L	0559	WL	10/27/2005	0001	19.00 - 19.00	129	F	#		9.2	-
	mg/L	0588	WL	10/27/2005	0001	26.00 - 26.00	60.0	F	#		9.2	-
	mg/L	0589	WL	10/27/2005	0001	44.00 - 44.00	129	F	#		9.2	-
	mg/L	0589	WL	10/27/2005	0003	44.00 - 44.00	789	F	#		9.2	-
	mg/L	0602	WL	10/27/2005	0001	18.00 - 18.00	101	F	#		9.2	-
	mg/L	0607	WL, PZ	10/27/2005	0001	10.10 - 10.10	22.0	QF	#		9.2	-
	mg/L	0686	WL	10/26/2005	0001	18.00 - 18.00	576	F	#		9.2	-
	mg/L	0687	WL	10/26/2005	0001	28.00 - 28.00	760	F	#		9.2	-
	mg/L	0695	WL, PZ	10/26/2005	0001	9.80 - 9.80	346	QF	#		9.2	-
Chloride	mg/L	0403	WL	10/27/2005	0001	18.00 - 18.00	256	F	#		5	-
	mg/L	0405	WL	10/26/2005	0001	18.00 - 18.00	2740	F	#		25	-
	mg/L	0407	WL	10/27/2005	0001	17.00 - 17.00	167	F	#		5	-
	mg/L	0483	WL	10/27/2005	0001	18.00 - 18.00	2020	F	#		25	-
	mg/L	0488	WL	10/26/2005	0001	26.00 - 26.00	1190	F	#		25	-
	mg/L	0495	WL, PZ	10/26/2005	0001	5.10 - 5.10	5700	QF	#		250	-
	mg/L	0559	WL	10/27/2005	0001	19.00 - 19.00	776	F	#		5	-
	mg/L	0563	WL, PZ	10/27/2005	0001	5.10 - 5.10	114	QF	#		5	-
	mg/L	0565	WL, PZ	10/27/2005	0001	4.50 - 4.50	99.0	QF	#		5	-
	mg/L	0588	WL	10/27/2005	0001	26.00 - 26.00	269	F	#		5	-
	mg/L	0589	WL	10/27/2005	0001	44.00 - 44.00	24500	F	#		250	-
	mg/L	0589	WL	10/27/2005	0003	44.00 - 44.00	17200	J F	#		250	-
	mg/L	0591	WL, PZ	10/26/2005	0001	4.40 - 4.40	221	QF	#		5	-
	mg/L	0597	WL, PZ	10/26/2005	0001	9.80 - 9.80	2900	QF	#		125	-

GENERAL WATER QUALITY DATA BY PARAMETER (USEE205) FOR SITE MOA01, Moab Site
 REPORT DATE: 2/7/2006 9:57 am

PARAMETER	UNITS	LOCATION ID	LOC TYPE, SUBTYPE	SAMPLE:		DEPTH RANGE (FT BLS)	RESULT	QUALIFIERS:			DETECTION LIMIT	UN-CERTAINTY
				DATE	ID			LAB	DATA	QA		
Chloride	mg/L	0602	WL	10/27/2005	0001	18.00 - 18.00	213	F	#	5	-	
	mg/L	0603	WL, PZ	10/26/2005	0001	9.70 - 9.70	344	QF	#	5	-	
	mg/L	0604	WL, PZ	10/26/2005	0001	7.80 - 7.80	749	QF	#	5	-	
	mg/L	0606	WL, PZ	10/27/2005	0001	9.80 - 9.80	478	QF	#	5	-	
	mg/L	0607	WL, PZ	10/27/2005	0001	10.10 - 10.10	96.4	QF	#	5	-	
	mg/L	0614	WL, PZ	10/26/2005	0001	5.60 - 5.60	4300	QF	#	50	-	
	mg/L	0686	WL	10/26/2005	0001	18.00 - 18.00	2960	F	#	25	-	
	mg/L	0687	WL	10/26/2005	0001	28.00 - 28.00	2010	J	F	#	25	-
	mg/L	0691	WL, PZ	10/26/2005	0001	4.90 - 4.90	2630	J	QF	#	25	-
	mg/L	0692	WL, PZ	10/26/2005	0001	9.60 - 9.60	1860	J	QF	#	25	-
	mg/L	0694	WL, PZ	10/26/2005	0001	4.30 - 4.30	1760	J	F	#	25	-
	mg/L	0695	WL, PZ	10/26/2005	0001	9.80 - 9.80	1950	J	QF	#	25	-
	Dissolved Organic Carbon	mg/L	0403	WL	10/27/2005	N001	18.00 - 18.00	2050	H	JF	#	43
mg/L		0405	WL	10/26/2005	N001	18.00 - 18.00	2200	H	JF	#	43	-
mg/L		0407	WL	10/27/2005	N001	17.00 - 17.00	1140	H	JF	#	43	-
mg/L		0483	WL	10/27/2005	N001	18.00 - 18.00	929		JF	#	43	-
mg/L		0488	WL	10/26/2005	N001	26.00 - 26.00	1060	H	JF	#	43	-
mg/L		0495	WL, PZ	10/26/2005	N001	5.10 - 5.10	5720	H	JQF	#	43	-
mg/L		0559	WL	10/27/2005	N001	19.00 - 19.00	1500	H	JF	#	43	-
mg/L		0563	WL, PZ	10/27/2005	N001	5.10 - 5.10	960		JQF	#	43	-
mg/L		0588	WL	10/27/2005	N001	26.00 - 26.00	735		JF	#	43	-
mg/L		0589	WL	10/27/2005	N001	44.00 - 44.00	1500	H	JF	#	43	-
mg/L		0589	WL	10/27/2005	N003	44.00 - 44.00	1080	H	JF	#	43	-
mg/L		0591	WL, PZ	10/26/2005	N001	4.40 - 4.40	945		JQF	#	43	-
mg/L		0597	WL, PZ	10/26/2005	N001	9.80 - 9.80	2150	H	JQF	#	43	-
mg/L		0602	WL	10/27/2005	N001	18.00 - 18.00	1490	H	JF	#	43	-

GENERAL WATER QUALITY DATA BY PARAMETER (USEE205) FOR SITE MOA01, Moab Site
 REPORT DATE: 2/7/2006 9:57 am

PARAMETER	UNITS	LOCATION ID	LOC TYPE, SUBTYPE	SAMPLE: DATE	ID	DEPTH RANGE (FT BLS)	RESULT	QUALIFIERS: LAB DATA QA	DETECTION LIMIT	UN-CERTAINTY
Dissolved Organic Carbon	mg/L	0603	WL, PZ	10/26/2005	N001	9.70 - 9.70	1100	H JQF #	43	-
	mg/L	0607	WL, PZ	10/27/2005	N001	10.10 - 10.10	1660	H JQF #	43	-
	mg/L	0686	WL	10/26/2005	N001	18.00 - 18.00	3440	H JF #	43	-
	mg/L	0687	WL	10/26/2005	N001	28.00 - 28.00	1740	H JF #	43	-
	mg/L	0695	WL, PZ	10/26/2005	N001	9.80 - 9.80	2110	H JQF #	43	-
Dissolved Oxygen	mg/L	0403	WL	10/27/2005	0002	18.00 - 18.00	3.1	F #	0.07	-
	mg/L	0403	WL	10/27/2005	N001	18.00 - 18.00	0.92	F #	-	-
	mg/L	0405	WL	10/26/2005	0002	18.00 - 18.00	3.3	F #	0.07	-
	mg/L	0405	WL	10/26/2005	N001	18.00 - 18.00	0.97	F #	-	-
	mg/L	0407	WL	10/27/2005	0002	17.00 - 17.00	4.2	F #	0.07	-
	mg/L	0407	WL	10/27/2005	N001	17.00 - 17.00	1.04	F #	-	-
	mg/L	0483	WL	10/27/2005	0002	18.00 - 18.00	3.8	F #	0.07	-
	mg/L	0483	WL	10/27/2005	N001	18.00 - 18.00	0.86	F #	-	-
	mg/L	0488	WL	10/26/2005	0002	26.00 - 26.00	3.4	F #	0.07	-
	mg/L	0488	WL	10/26/2005	N001	26.00 - 26.00	0.59	F #	-	-
	mg/L	0495	WL, PZ	10/26/2005	0002	5.10 - 5.10	5.6	QF #	0.07	-
	mg/L	0495	WL, PZ	10/26/2005	N001	5.10 - 5.10	5.36	QF #	-	-
	mg/L	0559	WL	10/27/2005	0002	19.00 - 19.00	2.6	F #	0.07	-
	mg/L	0559	WL	10/27/2005	N001	19.00 - 19.00	1.00	F #	-	-
	mg/L	0563	WL, PZ	10/27/2005	0002	5.10 - 5.10	5.9	QF #	0.07	-
	mg/L	0563	WL, PZ	10/27/2005	N001	5.10 - 5.10	7.00	QF #	-	-
	mg/L	0565	WL, PZ	10/27/2005	0002	4.50 - 4.50	4.8	QF #	0.07	-
	mg/L	0565	WL, PZ	10/27/2005	N001	4.50 - 4.50	7.31	QF #	-	-
	mg/L	0588	WL	10/27/2005	0002	26.00 - 26.00	4.1	F #	0.07	-
	mg/L	0588	WL	10/27/2005	N001	26.00 - 26.00	21.90	F #	-	-
mg/L	0589	WL	10/27/2005	0002	44.00 - 44.00	4	F #	0.07	-	

GENERAL WATER QUALITY DATA BY PARAMETER (USEE205) FOR SITE MOA01, Moab Site
 REPORT DATE: 2/7/2006 9:57 am

PARAMETER	UNITS	LOCATION ID	LOC TYPE, SUBTYPE	SAMPLE:		DEPTH RANGE (FT BLS)	RESULT	QUALIFIERS:			DETECTION LIMIT	UN-CERTAINTY
				DATE	ID			LAB	DATA	QA		
Dissolved Oxygen	mg/L	0589	WL	10/27/2005	0004	44.00 - 44.00	3.7	F	#	0.07	-	
	mg/L	0589	WL	10/27/2005	N001	44.00 - 44.00	0.78	F	#	-	-	
	mg/L	0591	WL, PZ	10/26/2005	0002	4.40 - 4.40	5.7	QF	#	0.07	-	
	mg/L	0591	WL, PZ	10/26/2005	N001	4.40 - 4.40	6.00	QF	#	-	-	
	mg/L	0597	WL, PZ	10/26/2005	0002	9.80 - 9.80	4.3	F	#	0.07	-	
	mg/L	0597	WL, PZ	10/26/2005	N001	9.80 - 9.80	2.93	QF	#	-	-	
	mg/L	0602	WL	10/27/2005	0002	18.00 - 18.00	3.9	F	#	0.07	-	
	mg/L	0602	WL	10/27/2005	N001	18.00 - 18.00	1.15	F	#	-	-	
	mg/L	0603	WL, PZ	10/26/2005	0002	9.70 - 9.70	5.7	QF	#	0.07	-	
	mg/L	0603	WL, PZ	10/26/2005	N001	9.70 - 9.70	4.17	QF	#	-	-	
	mg/L	0604	WL, PZ	10/26/2005	0002	7.80 - 7.80	4.6	QF	#	0.07	-	
	mg/L	0604	WL, PZ	10/26/2005	N001	7.80 - 7.80	3.22	QF	#	-	-	
	mg/L	0606	WL, PZ	10/27/2005	0002	9.80 - 9.80	6.5	QF	#	0.07	-	
	mg/L	0606	WL, PZ	10/27/2005	N001	9.80 - 9.80	6.56	QF	#	-	-	
	mg/L	0607	WL, PZ	10/27/2005	0002	10.10 - 10.10	3.2	QF	#	0.07	-	
	mg/L	0607	WL, PZ	10/27/2005	N001	10.10 - 10.10	5.09	QF	#	-	-	
	mg/L	0614	WL, PZ	10/26/2005	0002	5.60 - 5.60	4.3	QF	#	0.07	-	
	mg/L	0614	WL, PZ	10/26/2005	N001	5.60 - 5.60	2.69	QF	#	-	-	
	mg/L	0686	WL	10/26/2005	0002	18.00 - 18.00	4.7	F	#	0.07	-	
	mg/L	0686	WL	10/26/2005	N001	18.00 - 18.00	3.49	F	#	-	-	
	mg/L	0687	WL	10/26/2005	0002	28.00 - 28.00	4.3	F	#	0.07	-	
	mg/L	0687	WL	10/26/2005	N001	28.00 - 28.00	2.09	F	#	-	-	
	mg/L	0691	WL, PZ	10/26/2005	0002	4.90 - 4.90	4.3	QF	#	0.07	-	
	mg/L	0691	WL, PZ	10/26/2005	N001	4.90 - 4.90	3.03	QF	#	-	-	
	mg/L	0692	WL, PZ	10/26/2005	0002	9.60 - 9.60	6.3	QF	#	0.07	-	
	mg/L	0692	WL, PZ	10/26/2005	N001	9.60 - 9.60	2.19	QF	#	-	-	

GENERAL WATER QUALITY DATA BY PARAMETER (USEE205) FOR SITE MOA01, Moab Site
 REPORT DATE: 2/7/2006 9:57 am

PARAMETER	UNITS	LOCATION ID	LOC TYPE, SUBTYPE	SAMPLE:		DEPTH RANGE (FT BLS)	RESULT	QUALIFIERS:			DETECTION LIMIT	UN-CERTAINTY
				DATE	ID			LAB	DATA	QA		
Dissolved Oxygen	mg/L	0694	WL, PZ	10/26/2005	0002	4.30 - 4.30	3		F	#	0.07	-
	mg/L	0694	WL, PZ	10/26/2005	N001	4.30 - 4.30	5.10		F	#	-	-
	mg/L	0695	WL, PZ	10/26/2005	0002	9.80 - 9.80	7.3		QF	#	0.07	-
	mg/L	0695	WL, PZ	10/26/2005	N001	9.80 - 9.80	3.61		QF	#	-	-
Iron	mg/L	0403	WL	10/27/2005	0001	18.00 - 18.00	0.0074	U	F	#	0.0074	-
	mg/L	0403	WL	10/27/2005	0001	18.00 - 18.00	0.04		F	#	0.03	-
	mg/L	0405	WL	10/26/2005	0001	18.00 - 18.00	0.03	U	F	#	0.03	-
	mg/L	0405	WL	10/26/2005	0001	18.00 - 18.00	0.0074	U	F	#	0.0074	-
	mg/L	0407	WL	10/27/2005	0001	17.00 - 17.00	0.307		F	#	0.0074	-
	mg/L	0407	WL	10/27/2005	0001	17.00 - 17.00	0.31		F	#	0.03	-
	mg/L	0483	WL	10/27/2005	0001	18.00 - 18.00	0.0122	B	F	#	0.0074	-
	mg/L	0483	WL	10/27/2005	0001	18.00 - 18.00	0.03	U	F	#	0.03	-
	mg/L	0488	WL	10/26/2005	0001	26.00 - 26.00	0.0074	U	F	#	0.0074	-
	mg/L	0488	WL	10/26/2005	0001	26.00 - 26.00	0.03	U	F	#	0.03	-
	mg/L	0495	WL, PZ	10/26/2005	0001	5.10 - 5.10	0.0074	U	QF	#	0.0074	-
	mg/L	0495	WL, PZ	10/26/2005	0001	5.10 - 5.10	0.34		QF	#	0.03	-
	mg/L	0559	WL	10/27/2005	0001	19.00 - 19.00	0.06		F	#	0.03	-
	mg/L	0559	WL	10/27/2005	0001	19.00 - 19.00	0.0074	U	F	#	0.0074	-
	mg/L	0563	WL, PZ	10/28/2005	0005	5.10 - 5.10	0.12		QF	#	0.03	-
	mg/L	0565	WL, PZ	10/28/2005	0005	4.50 - 4.50	0.03	U	QF	#	0.03	-
	mg/L	0588	WL	10/27/2005	0001	26.00 - 26.00	0.0074	U	F	#	0.0074	-
	mg/L	0588	WL	10/27/2005	0001	26.00 - 26.00	0.06		F	#	0.03	-
	mg/L	0589	WL	10/27/2005	0001	44.00 - 44.00	0.0074	U	F	#	0.0074	-
	mg/L	0589	WL	10/27/2005	0001	44.00 - 44.00	0.1		F	#	0.03	-
mg/L	0589	WL	10/27/2005	0003	44.00 - 44.00	0.0074	U	F	#	0.0074	-	
mg/L	0591	WL, PZ	10/28/2005	0005	4.40 - 4.40	0.04		QF	#	0.03	-	

GENERAL WATER QUALITY DATA BY PARAMETER (USEE205) FOR SITE MOA01, Moab Site
 REPORT DATE: 2/7/2006 9:57 am

PARAMETER	UNITS	LOCATION ID	LOC TYPE, SUBTYPE	SAMPLE:		DEPTH RANGE (FT BLS)	RESULT	QUALIFIERS:			DETECTION LIMIT	UN-CERTAINTY
				DATE	ID			LAB	DATA	QA		
Iron	mg/L	0597	WL, PZ	10/26/2005	0001	9.80 - 9.80	4.00		F	#	0.03	-
	mg/L	0597	WL, PZ	10/26/2005	0001	9.80 - 9.80	1.570		QF	#	0.0074	-
	mg/L	0602	WL	10/27/2005	0001	18.00 - 18.00	0.0074	U	F	#	0.0074	-
	mg/L	0602	WL	10/27/2005	0001	18.00 - 18.00	0.03	U	F	#	0.03	-
	mg/L	0603	WL, PZ	10/26/2005	0001	9.70 - 9.70	0.0074	U	QF	#	0.0074	-
	mg/L	0603	WL, PZ	10/28/2005	0005	9.70 - 9.70	0.03	U	QF	#	0.03	-
	mg/L	0604	WL, PZ	10/28/2005	0005	7.80 - 7.80	0.03		QF	#	0.03	-
	mg/L	0606	WL, PZ	10/28/2005	0005	9.80 - 9.80	0.04		QF	#	0.03	-
	mg/L	0607	WL, PZ	10/27/2005	0001	10.10 - 10.10	0.0074	U	QF	#	0.0074	-
	mg/L	0607	WL, PZ	10/28/2005	0005	10.10 - 10.10	0.06		QF	#	0.03	-
	mg/L	0614	WL, PZ	10/28/2005	0005	5.60 - 5.60	2.11		QF	#	0.03	-
	mg/L	0686	WL	10/26/2005	0001	18.00 - 18.00	0.0074	U	F	#	0.0074	-
	mg/L	0686	WL	10/26/2005	0001	18.00 - 18.00	0.2		F	#	0.03	-
	mg/L	0687	WL	10/26/2005	0001	28.00 - 28.00	0.0074	U	F	#	0.0074	-
	mg/L	0687	WL	10/26/2005	0001	28.00 - 28.00	0.03	U	F	#	0.03	-
	mg/L	0691	WL, PZ	10/28/2005	0005	4.90 - 4.90	0.03	U	QF	#	0.03	-
	mg/L	0692	WL, PZ	10/26/2005	0001	9.60 - 9.60	0.472		QF	#	0.0074	-
	mg/L	0692	WL, PZ	10/28/2005	0005	9.60 - 9.60	0.48		QF	#	0.03	-
	mg/L	0695	WL, PZ	10/26/2005	0001	9.80 - 9.80	0.797		QF	#	0.0074	-
	mg/L	0695	WL, PZ	10/28/2005	0005	9.80 - 9.80	0.61		QF	#	0.03	-
Iron (II)	mg/L	0403	WL	10/27/2005	0002	18.00 - 18.00	1	U	F	#	0.1	-
	mg/L	0405	WL	10/26/2005	0002	18.00 - 18.00	0.9	J	F	#	0.1	-
	mg/L	0407	WL	10/27/2005	0002	17.00 - 17.00	1	U	F	#	0.1	-
	mg/L	0483	WL	10/27/2005	0002	18.00 - 18.00	1	U	F	#	0.1	-
	mg/L	0488	WL	10/26/2005	0002	26.00 - 26.00	0.3	J	F	#	0.1	-
	mg/L	0495	WL, PZ	10/26/2005	0002	5.10 - 5.10	0.6	J	QF	#	0.1	-

GENERAL WATER QUALITY DATA BY PARAMETER (USEE205) FOR SITE MOA01, Moab Site
 REPORT DATE: 2/7/2006 9:57 am

PARAMETER	UNITS	LOCATION ID	LOC TYPE, SUBTYPE	SAMPLE:		DEPTH RANGE (FT BLS)	RESULT	QUALIFIERS:			DETECTION LIMIT	UN-CERTAINTY
				DATE	ID			LAB	DATA	QA		
Iron (II)	mg/L	0559	WL	10/27/2005	0002	19.00 - 19.00	1	U	F	#	0.1	-
	mg/L	0563	WL, PZ	10/27/2005	0002	5.10 - 5.10	1	U	QF	#	0.1	-
	mg/L	0565	WL, PZ	10/27/2005	0002	4.50 - 4.50	0.6	J	QF	#	0.1	-
	mg/L	0588	WL	10/27/2005	0002	26.00 - 26.00	1	U	F	#	0.1	-
	mg/L	0589	WL	10/27/2005	0002	44.00 - 44.00	5.9		F	#	0.2	-
	mg/L	0589	WL	10/27/2005	0004	44.00 - 44.00	2	U	F	#	0.2	-
	mg/L	0591	WL, PZ	10/26/2005	0002	4.40 - 4.40	1	U	QF	#	0.1	-
	mg/L	0597	WL, PZ	10/26/2005	0002	9.80 - 9.80	0.6	J	F	#	0.1	-
	mg/L	0602	WL	10/27/2005	0002	18.00 - 18.00	1	U	F	#	0.1	-
	mg/L	0603	WL, PZ	10/26/2005	0002	9.70 - 9.70	0.3	J	QF	#	0.1	-
	mg/L	0604	WL, PZ	10/26/2005	0002	7.80 - 7.80	1	U	QF	#	0.1	-
	mg/L	0606	WL, PZ	10/27/2005	0002	9.80 - 9.80	0.4	J	QF	#	0.1	-
	mg/L	0607	WL, PZ	10/27/2005	0002	10.10 - 10.10	1	U	QF	#	0.1	-
	mg/L	0614	WL, PZ	10/26/2005	0002	5.60 - 5.60	0.4	J	QF	#	0.1	-
	mg/L	0686	WL	10/26/2005	0002	18.00 - 18.00	0.2	J	F	#	0.1	-
	mg/L	0687	WL	10/26/2005	0002	28.00 - 28.00	0.3	J	F	#	0.1	-
	mg/L	0691	WL, PZ	10/26/2005	0002	4.90 - 4.90	0.5	J	QF	#	0.1	-
	mg/L	0692	WL, PZ	10/26/2005	0002	9.60 - 9.60	0.2	J	QF	#	0.1	-
	mg/L	0694	WL, PZ	10/26/2005	0002	4.30 - 4.30	1	U	F	#	0.1	-
	mg/L	0695	WL, PZ	10/26/2005	0002	9.80 - 9.80	0.3	J	QF	#	0.1	-
Manganese	mg/L	0403	WL	10/27/2005	0001	18.00 - 18.00	0.576		F	#	0.001	-
	mg/L	0405	WL	10/26/2005	0001	18.00 - 18.00	7.350		F	#	0.001	-
	mg/L	0407	WL	10/27/2005	0001	17.00 - 17.00	0.792		F	#	0.001	-
	mg/L	0483	WL	10/27/2005	0001	18.00 - 18.00	1.560		F	#	0.001	-
	mg/L	0488	WL	10/26/2005	0001	26.00 - 26.00	5.220		F	#	0.001	-
	mg/L	0495	WL, PZ	10/26/2005	0001	5.10 - 5.10	5.020		QF	#	0.001	-

GENERAL WATER QUALITY DATA BY PARAMETER (USEE205) FOR SITE MOA01, Moab Site
 REPORT DATE: 2/7/2006 9:57 am

PARAMETER	UNITS	LOCATION ID	LOC TYPE, SUBTYPE	SAMPLE:		DEPTH RANGE (FT BLS)	RESULT	QUALIFIERS:			DETECTION LIMIT	UN-CERTAINTY
				DATE	ID			LAB	DATA	QA		
Manganese	mg/L	0559	WL	10/27/2005	0001	19.00 - 19.00	0.673		F	#	0.001	-
	mg/L	0588	WL	10/27/2005	0001	26.00 - 26.00	0.255		F	#	0.001	-
	mg/L	0589	WL	10/27/2005	0001	44.00 - 44.00	5.570		F	#	0.001	-
	mg/L	0589	WL	10/27/2005	0003	44.00 - 44.00	5.580		F	#	0.001	-
	mg/L	0597	WL, PZ	10/26/2005	0001	9.80 - 9.80	7.840		QF	#	0.001	-
	mg/L	0602	WL	10/27/2005	0001	18.00 - 18.00	0.365		F	#	0.001	-
	mg/L	0603	WL, PZ	10/26/2005	0001	9.70 - 9.70	0.317		QF	#	0.001	-
	mg/L	0607	WL, PZ	10/27/2005	0001	10.10 - 10.10	0.0043	B	UQF	#	0.001	-
	mg/L	0686	WL	10/26/2005	0001	18.00 - 18.00	3.320		F	#	0.001	-
	mg/L	0687	WL	10/26/2005	0001	28.00 - 28.00	4.370		F	#	0.001	-
	mg/L	0692	WL, PZ	10/26/2005	0001	9.60 - 9.60	3.570		QF	#	0.001	-
	mg/L	0695	WL, PZ	10/26/2005	0001	9.80 - 9.80	4.000		QF	#	0.001	-
	Manganese (II)	mg/L	0403	WL	10/27/2005	0002	18.00 - 18.00	0.6	J	F	#	-
mg/L		0405	WL	10/26/2005	0002	18.00 - 18.00	7.7		F	#	-	-
mg/L		0407	WL	10/27/2005	0002	17.00 - 17.00	0.6	J	F	#	-	-
mg/L		0483	WL	10/27/2005	0002	18.00 - 18.00	1.9		F	#	-	-
mg/L		0488	WL	10/26/2005	0002	26.00 - 26.00	8.4		F	#	-	-
mg/L		0495	WL, PZ	10/26/2005	0002	5.10 - 5.10	3.7		QF	#	-	-
mg/L		0559	WL	10/27/2005	0002	19.00 - 19.00	0.7	J	F	#	-	-
mg/L		0563	WL, PZ	10/27/2005	0002	5.10 - 5.10	0.5	J	QF	#	-	-
mg/L		0565	WL, PZ	10/27/2005	0002	4.50 - 4.50	0.2	J	QF	#	-	-
mg/L		0588	WL	10/27/2005	0002	26.00 - 26.00	0.2	J	F	#	-	-
mg/L		0589	WL	10/27/2005	0002	44.00 - 44.00	0.7	J	F	#	0.1	-
mg/L		0589	WL	10/27/2005	0004	44.00 - 44.00	5.5		F	#	0.1	-
mg/L		0591	WL, PZ	10/26/2005	0002	4.40 - 4.40	0.2	J	QF	#	-	-
mg/L		0597	WL, PZ	10/26/2005	0002	9.80 - 9.80	5.7		F	#	-	-

GENERAL WATER QUALITY DATA BY PARAMETER (USEE205) FOR SITE MOA01, Moab Site
 REPORT DATE: 2/7/2006 9:57 am

PARAMETER	UNITS	LOCATION ID	LOC TYPE, SUBTYPE	SAMPLE: DATE	ID	DEPTH RANGE (FT BLS)	RESULT	QUALIFIERS: LAB DATA QA	DETECTION LIMIT	UN-CERTAINTY
Manganese (II)	mg/L	0602	WL	10/27/2005	0002	18.00 - 18.00	0.3	J F #	-	-
	mg/L	0603	WL, PZ	10/26/2005	0002	9.70 - 9.70	1	U QF #	-	-
	mg/L	0604	WL, PZ	10/26/2005	0002	7.80 - 7.80	0.7	J QF #	-	-
	mg/L	0606	WL, PZ	10/27/2005	0002	9.80 - 9.80	0.2	J QF #	-	-
	mg/L	0607	WL, PZ	10/27/2005	0002	10.10 - 10.10	1	U QF #	-	-
	mg/L	0614	WL, PZ	10/26/2005	0002	5.60 - 5.60	9.2	QF #	-	-
	mg/L	0686	WL	10/26/2005	0002	18.00 - 18.00	3.6	F #	-	-
	mg/L	0687	WL	10/26/2005	0002	28.00 - 28.00	2.5	F #	-	-
	mg/L	0691	WL, PZ	10/26/2005	0002	4.90 - 4.90	5.5	QF #	-	-
	mg/L	0692	WL, PZ	10/26/2005	0002	9.60 - 9.60	2.8	QF #	-	-
	mg/L	0694	WL, PZ	10/26/2005	0002	4.30 - 4.30	4.8	F #	-	-
	mg/L	0695	WL, PZ	10/26/2005	0002	9.80 - 9.80	3.8	QF #	-	-
Methane	ug/L	0403	WL	10/27/2005	0002	18.00 - 18.00	1.9	F #	0.011	-
	ug/L	0405	WL	10/26/2005	0002	18.00 - 18.00	1.3	F #	0.011	-
	ug/L	0407	WL	10/27/2005	0002	17.00 - 17.00	88	F #	0.011	-
	ug/L	0483	WL	10/27/2005	0002	18.00 - 18.00	35	F #	0.011	-
	ug/L	0488	WL	10/26/2005	0002	26.00 - 26.00	1.4	F #	0.011	-
	ug/L	0495	WL, PZ	10/26/2005	0002	5.10 - 5.10	280	QF #	0.011	-
	ug/L	0559	WL	10/27/2005	0002	19.00 - 19.00	110	F #	0.011	-
	ug/L	0563	WL, PZ	10/27/2005	0002	5.10 - 5.10	310	QF #	0.011	-
	ug/L	0565	WL, PZ	10/27/2005	0002	4.50 - 4.50	79	QF #	0.011	-
	ug/L	0588	WL	10/27/2005	0002	26.00 - 26.00	1.1	F #	0.011	-
	ug/L	0589	WL	10/27/2005	0002	44.00 - 44.00	2.2	F #	0.011	-
	ug/L	0589	WL	10/27/2005	0004	44.00 - 44.00	2.2	F #	0.011	-
	ug/L	0591	WL, PZ	10/26/2005	0002	4.40 - 4.40	10	QF #	0.011	-
	ug/L	0597	WL, PZ	10/26/2005	0002	9.80 - 9.80	0.91	F #	0.011	-

GENERAL WATER QUALITY DATA BY PARAMETER (USEE205) FOR SITE MOA01, Moab Site
 REPORT DATE: 2/7/2006 9:57 am

PARAMETER	UNITS	LOCATION ID	LOC TYPE, SUBTYPE	SAMPLE:		DEPTH RANGE (FT BLS)	RESULT	QUALIFIERS:			DETECTION LIMIT	UN-CERTAINTY
				DATE	ID			LAB	DATA	QA		
Methane	ug/L	0602	WL	10/27/2005	0002	18.00 - 18.00	6	F	#	0.011	-	
	ug/L	0603	WL, PZ	10/26/2005	0002	9.70 - 9.70	1	QF	#	0.011	-	
	ug/L	0604	WL, PZ	10/26/2005	0002	7.80 - 7.80	1.6	QF	#	0.011	-	
	ug/L	0606	WL, PZ	10/27/2005	0002	9.80 - 9.80	17	QF	#	0.011	-	
	ug/L	0607	WL, PZ	10/27/2005	0002	10.10 - 10.10	6.1	QF	#	0.011	-	
	ug/L	0614	WL, PZ	10/26/2005	0002	5.60 - 5.60	5.9	QF	#	0.011	-	
	ug/L	0686	WL	10/26/2005	0002	18.00 - 18.00	1.9	F	#	0.011	-	
	ug/L	0687	WL	10/26/2005	0002	28.00 - 28.00	1.5	F	#	0.011	-	
	ug/L	0691	WL, PZ	10/26/2005	0002	4.90 - 4.90	4	QF	#	0.011	-	
	ug/L	0692	WL, PZ	10/26/2005	0002	9.60 - 9.60	1.3	QF	#	0.011	-	
	ug/L	0694	WL, PZ	10/26/2005	0002	4.30 - 4.30	4.9	F	#	0.011	-	
	ug/L	0695	WL, PZ	10/26/2005	0002	9.80 - 9.80	0.86	QF	#	0.011	-	
	Nitrate + Nitrite as Nitrogen	mg/L	0403	WL	10/27/2005	0001	18.00 - 18.00	9.500	F	#	0.0269	-
mg/L		0405	WL	10/26/2005	0001	18.00 - 18.00	167.000	F	#	1.35	-	
mg/L		0407	WL	10/27/2005	0001	17.00 - 17.00	0.0027	U	F	#	0.0027	-
mg/L		0483	WL	10/27/2005	0001	18.00 - 18.00	321.000	F	#	2.69	-	
mg/L		0488	WL	10/26/2005	0001	26.00 - 26.00	39.500	F	#	0.108	-	
mg/L		0495	WL, PZ	10/26/2005	0001	5.10 - 5.10	523.000	QF	#	2.69	-	
mg/L		0559	WL	10/27/2005	0001	19.00 - 19.00	5.300	F	#	0.0431	-	
mg/L		0563	WL, PZ	10/27/2005	0001	5.10 - 5.10	0.0027	U	QF	#	0.0027	-
mg/L		0565	WL, PZ	10/27/2005	0001	4.50 - 4.50	0.0027	U	QF	#	0.0027	-
mg/L		0588	WL	10/27/2005	0001	26.00 - 26.00	1.190	F	#	0.0108	-	
mg/L		0589	WL	10/27/2005	0001	44.00 - 44.00	26.900	F	#	0.108	-	
mg/L		0589	WL	10/27/2005	0003	44.00 - 44.00	26.500	F	#	0.108	-	
mg/L		0591	WL, PZ	10/26/2005	0001	4.40 - 4.40	2.520	QF	#	0.0108	-	
mg/L		0597	WL, PZ	10/26/2005	0001	9.80 - 9.80	185.000	QF	#	2.69	-	

GENERAL WATER QUALITY DATA BY PARAMETER (USEE205) FOR SITE MOA01, Moab Site
 REPORT DATE: 2/7/2006 9:57 am

PARAMETER	UNITS	LOCATION ID	LOC TYPE, SUBTYPE	SAMPLE:		DEPTH RANGE (FT BLS)	RESULT	QUALIFIERS:			UN-CERTAINTY	
				DATE	ID			LAB	DATA	QA		DETECTION LIMIT
Nitrate + Nitrite as Nitrogen	mg/L	0602	WL	10/27/2005	0001	18.00 - 18.00	3.710	F	#	0.0108	-	
	mg/L	0603	WL, PZ	10/26/2005	0001	9.70 - 9.70	0.0624	QF	#	0.0027	-	
	mg/L	0606	WL, PZ	10/27/2005	0001	9.80 - 9.80	0.831	QF	#	0.0027	-	
	mg/L	0607	WL, PZ	10/27/2005	0001	10.10 - 10.10	0.0027	U	QF	#	0.0027	-
	mg/L	0614	WL, PZ	10/26/2005	0001	5.60 - 5.60	410.000	QF	#	2.69	-	
	mg/L	0686	WL	10/26/2005	0001	18.00 - 18.00	513.000	F	#	2.69	-	
	mg/L	0687	WL	10/26/2005	0001	28.00 - 28.00	141.000	F	#	2.69	-	
	mg/L	0691	WL, PZ	10/26/2005	0001	4.90 - 4.90	254.000	QF	#	2.69	-	
	mg/L	0692	WL, PZ	10/26/2005	0001	9.60 - 9.60	110.000	QF	#	1.35	-	
	mg/L	0694	WL, PZ	10/26/2005	0001	4.30 - 4.30	102.000	F	#	1.35	-	
	mg/L	0695	WL, PZ	10/26/2005	0001	9.80 - 9.80	126.000	QF	#	2.69	-	
	Nitrogen, Total	mg/L	0403	WL	10/27/2005	0002	18.00 - 18.00	19	F	#	0.06	-
		mg/L	0405	WL	10/26/2005	0002	18.00 - 18.00	18	F	#	0.06	-
mg/L		0407	WL	10/27/2005	0002	17.00 - 17.00	17	F	#	0.06	-	
mg/L		0483	WL	10/27/2005	0002	18.00 - 18.00	19	F	#	0.06	-	
mg/L		0488	WL	10/26/2005	0002	26.00 - 26.00	15	F	#	0.06	-	
mg/L		0495	WL, PZ	10/26/2005	0002	5.10 - 5.10	20	QF	#	0.06	-	
mg/L		0559	WL	10/27/2005	0002	19.00 - 19.00	17	F	#	0.06	-	
mg/L		0563	WL, PZ	10/27/2005	0002	5.10 - 5.10	24	QF	#	0.06	-	
mg/L		0565	WL, PZ	10/27/2005	0002	4.50 - 4.50	22	QF	#	0.06	-	
mg/L		0588	WL	10/27/2005	0002	26.00 - 26.00	21	F	#	0.06	-	
mg/L		0589	WL	10/27/2005	0002	44.00 - 44.00	15	F	#	0.06	-	
mg/L		0589	WL	10/27/2005	0004	44.00 - 44.00	14	F	#	0.06	-	
mg/L		0591	WL, PZ	10/26/2005	0002	4.40 - 4.40	26	QF	#	0.06	-	
mg/L		0597	WL, PZ	10/26/2005	0002	9.80 - 9.80	16	F	#	0.06	-	
mg/L		0602	WL	10/27/2005	0002	18.00 - 18.00	22	F	#	0.06	-	

GENERAL WATER QUALITY DATA BY PARAMETER (USEE205) FOR SITE MOA01, Moab Site
 REPORT DATE: 2/7/2006 9:57 am

PARAMETER	UNITS	LOCATION ID	LOC TYPE, SUBTYPE	SAMPLE:		DEPTH RANGE (FT BLS)	RESULT	QUALIFIERS:			DETECTION LIMIT	UN-CERTAINTY
				DATE	ID			LAB	DATA	QA		
Nitrogen, Total	mg/L	0603	WL, PZ	10/26/2005	0002	9.70 - 9.70	15	QF	#	0.06	-	
	mg/L	0604	WL, PZ	10/26/2005	0002	7.80 - 7.80	15	QF	#	0.06	-	
	mg/L	0606	WL, PZ	10/27/2005	0002	9.80 - 9.80	19	QF	#	0.06	-	
	mg/L	0607	WL, PZ	10/27/2005	0002	10.10 - 10.10	17	QF	#	0.06	-	
	mg/L	0614	WL, PZ	10/26/2005	0002	5.60 - 5.60	22	QF	#	0.06	-	
	mg/L	0686	WL	10/26/2005	0002	18.00 - 18.00	20	F	#	0.06	-	
	mg/L	0687	WL	10/26/2005	0002	28.00 - 28.00	18	F	#	0.06	-	
	mg/L	0691	WL, PZ	10/26/2005	0002	4.90 - 4.90	20	QF	#	0.06	-	
	mg/L	0692	WL, PZ	10/26/2005	0002	9.60 - 9.60	22	QF	#	0.06	-	
	mg/L	0694	WL, PZ	10/26/2005	0002	4.30 - 4.30	11	F	#	0.06	-	
	mg/L	0695	WL, PZ	10/26/2005	0002	9.80 - 9.80	20	QF	#	0.06	-	
	Oxidation Reduction Potent	mV	0403	WL	10/27/2005	N001	18.00 - 18.00	73.0	F	#	-	-
mV		0405	WL	10/26/2005	N001	18.00 - 18.00	177.1	F	#	-	-	
mV		0407	WL	10/27/2005	N001	17.00 - 17.00	-80.3	F	#	-	-	
mV		0483	WL	10/27/2005	N001	18.00 - 18.00	159.3	F	#	-	-	
mV		0488	WL	10/26/2005	N001	26.00 - 26.00	210.5	F	#	-	-	
mV		0495	WL, PZ	10/26/2005	N001	5.10 - 5.10	-72.8	QF	#	-	-	
mV		0559	WL	10/27/2005	N001	19.00 - 19.00	185.1	F	#	-	-	
mV		0563	WL, PZ	10/27/2005	N001	5.10 - 5.10	-263.9	QF	#	-	-	
mV		0565	WL, PZ	10/27/2005	N001	4.50 - 4.50	54.6	QF	#	-	-	
mV		0588	WL	10/27/2005	N001	26.00 - 26.00	189.0	F	#	-	-	
mV		0589	WL	10/27/2005	N001	44.00 - 44.00	68.6	F	#	-	-	
mV		0591	WL, PZ	10/26/2005	N001	4.40 - 4.40	-59.2	QF	#	-	-	
mV		0597	WL, PZ	10/26/2005	N001	9.80 - 9.80	-291.6	QF	#	-	-	
mV		0602	WL	10/27/2005	N001	18.00 - 18.00	188.7	F	#	-	-	
mV		0603	WL, PZ	10/26/2005	N001	9.70 - 9.70	231.1	QF	#	-	-	

GENERAL WATER QUALITY DATA BY PARAMETER (USEE205) FOR SITE MOA01, Moab Site
 REPORT DATE: 2/7/2006 9:57 am

PARAMETER	UNITS	LOCATION ID	LOC TYPE, SUBTYPE	SAMPLE:		DEPTH RANGE (FT BLS)	RESULT	QUALIFIERS:			DETECTION LIMIT	UN-CERTAINTY
				DATE	ID			LAB	DATA	QA		
Oxidation Reduction Potent	mV	0604	WL, PZ	10/26/2005	N001	7.80 - 7.80	-312.6	QF	#	-	-	
	mV	0606	WL, PZ	10/27/2005	N001	9.80 - 9.80	-297.5	QF	#	-	-	
	mV	0607	WL, PZ	10/27/2005	N001	10.10 - 10.10	-382.1	QF	#	-	-	
	mV	0614	WL, PZ	10/26/2005	N001	5.60 - 5.60	24.1	QF	#	-	-	
	mV	0686	WL	10/26/2005	N001	18.00 - 18.00	249.2	F	#	-	-	
	mV	0687	WL	10/26/2005	N001	28.00 - 28.00	222.7	F	#	-	-	
	mV	0691	WL, PZ	10/26/2005	N001	4.90 - 4.90	-86.4	QF	#	-	-	
	mV	0692	WL, PZ	10/26/2005	N001	9.60 - 9.60	-293.9	QF	#	-	-	
	mV	0694	WL, PZ	10/26/2005	N001	4.30 - 4.30	-218.5	F	#	-	-	
	mV	0695	WL, PZ	10/26/2005	N001	9.80 - 9.80	-309.8	QF	#	-	-	
	pH	s.u.	0403	WL	10/27/2005	N001	18.00 - 18.00	7.55	F	#	-	-
s.u.		0405	WL	10/26/2005	N001	18.00 - 18.00	6.73	F	#	-	-	
s.u.		0407	WL	10/27/2005	N001	17.00 - 17.00	7.26	F	#	-	-	
s.u.		0483	WL	10/27/2005	N001	18.00 - 18.00	7.34	F	#	-	-	
s.u.		0488	WL	10/26/2005	N001	26.00 - 26.00	6.89	F	#	-	-	
s.u.		0495	WL, PZ	10/26/2005	N001	5.10 - 5.10	7.13	QF	#	-	-	
s.u.		0559	WL	10/27/2005	N001	19.00 - 19.00	7.52	F	#	-	-	
s.u.		0563	WL, PZ	10/27/2005	N001	5.10 - 5.10	9.10	QF	#	-	-	
s.u.		0565	WL, PZ	10/27/2005	N001	4.50 - 4.50	9.22	QF	#	-	-	
s.u.		0588	WL	10/27/2005	N001	26.00 - 26.00	8.06	F	#	-	-	
s.u.		0589	WL	10/27/2005	N001	44.00 - 44.00	6.94	F	#	-	-	
s.u.		0591	WL, PZ	10/26/2005	N001	4.40 - 4.40	8.66	QF	#	-	-	
s.u.		0597	WL, PZ	10/26/2005	N001	9.80 - 9.80	8.38	QF	#	-	-	
s.u.		0602	WL	10/27/2005	N001	18.00 - 18.00	8.13	F	#	-	-	
s.u.		0603	WL, PZ	10/26/2005	N001	9.70 - 9.70	9.00	QF	#	-	-	
s.u.		0604	WL, PZ	10/26/2005	N001	7.80 - 7.80	8.88	QF	#	-	-	

GENERAL WATER QUALITY DATA BY PARAMETER (USEE205) FOR SITE MOA01, Moab Site
 REPORT DATE: 2/7/2006 9:57 am

PARAMETER	UNITS	LOCATION ID	LOC TYPE, SUBTYPE	SAMPLE:		DEPTH RANGE (FT BLS)	RESULT	QUALIFIERS:			DETECTION LIMIT	UN-CERTAINTY
				DATE	ID			LAB	DATA	QA		
pH	s.u.	0606	WL, PZ	10/27/2005	N001	9.80 - 9.80	9.33	QF	#	-	-	
	s.u.	0607	WL, PZ	10/27/2005	N001	10.10 - 10.10	9.65	QF	#	-	-	
	s.u.	0614	WL, PZ	10/26/2005	N001	5.60 - 5.60	7.72	QF	#	-	-	
	s.u.	0686	WL	10/26/2005	N001	18.00 - 18.00	6.67	F	#	-	-	
	s.u.	0687	WL	10/26/2005	N001	28.00 - 28.00	6.84	F	#	-	-	
	s.u.	0691	WL, PZ	10/26/2005	N001	4.90 - 4.90	7.43	QF	#	-	-	
	s.u.	0692	WL, PZ	10/26/2005	N001	9.60 - 9.60	8.15	QF	#	-	-	
	s.u.	0694	WL, PZ	10/26/2005	N001	4.30 - 4.30	8.48	F	#	-	-	
	s.u.	0695	WL, PZ	10/26/2005	N001	9.80 - 9.80	8.36	QF	#	-	-	
Phosphorus	mg/L	0403	WL	10/27/2005	0001	18.00 - 18.00	0.127	JF	#	0.0101	-	
	mg/L	0405	WL	10/26/2005	0001	18.00 - 18.00	0.337	JF	#	0.0101	-	
	mg/L	0407	WL	10/27/2005	0001	17.00 - 17.00	0.131	JF	#	0.0101	-	
	mg/L	0483	WL	10/27/2005	0001	18.00 - 18.00	0.135	JF	#	0.0101	-	
	mg/L	0488	WL	10/26/2005	0001	26.00 - 26.00	0.0962	JF	#	0.0101	-	
	mg/L	0559	WL	10/27/2005	0001	19.00 - 19.00	0.0768	JF	#	0.0101	-	
	mg/L	0563	WL, PZ	10/27/2005	0001	5.10 - 5.10	0.119	JQF	#	0.0101	-	
	mg/L	0565	WL, PZ	10/27/2005	0001	4.50 - 4.50	0.104	JQF	#	0.0101	-	
	mg/L	0588	WL	10/27/2005	0001	26.00 - 26.00	0.0962	JF	#	0.0101	-	
	mg/L	0589	WL	10/27/2005	0001	44.00 - 44.00	0.131	JF	#	0.0101	-	
	mg/L	0589	WL	10/27/2005	0003	44.00 - 44.00	0.185	JF	#	0.0101	-	
	mg/L	0591	WL, PZ	10/26/2005	0001	4.40 - 4.40	0.0535	JQF	#	0.0101	-	
	mg/L	0602	WL	10/27/2005	0001	18.00 - 18.00	0.150	JF	#	0.0101	-	
	mg/L	0604	WL, PZ	10/26/2005	0001	7.80 - 7.80	0.0574	JQF	#	0.0101	-	
	mg/L	0686	WL	10/26/2005	0001	18.00 - 18.00	0.0768	JF	#	0.0101	-	
	mg/L	0687	WL	10/26/2005	0001	28.00 - 28.00	0.255	JF	#	0.0101	-	
	mg/L	0695	WL, PZ	10/26/2005	0001	9.80 - 9.80	0.0884	JQF	#	0.0101	-	

GENERAL WATER QUALITY DATA BY PARAMETER (USEE205) FOR SITE MOA01, Moab Site
 REPORT DATE: 2/7/2006 9:57 am

PARAMETER	UNITS	LOCATION ID	LOC TYPE, SUBTYPE	SAMPLE:		DEPTH RANGE (FT BLS)	RESULT	QUALIFIERS:			DETECTION LIMIT	UN-CERTAINTY
				DATE	ID			LAB	DATA	QA		
Selenium	mg/L	0403	WL	10/27/2005	0001	18.00 - 18.00	0.0058	F	#	0.00057	-	
	mg/L	0405	WL	10/26/2005	0001	18.00 - 18.00	0.0442	F	#	0.00057	-	
	mg/L	0407	WL	10/27/2005	0001	17.00 - 17.00	0.0026	B	UF	#	0.00057	
	mg/L	0483	WL	10/27/2005	0001	18.00 - 18.00	0.0045	B	F	#	0.00057	
	mg/L	0488	WL	10/26/2005	0001	26.00 - 26.00	0.0202		UF	#	0.00057	
	mg/L	0495	WL, PZ	10/26/2005	0001	5.10 - 5.10	0.0053		QF	#	0.00057	
	mg/L	0559	WL	10/27/2005	0001	19.00 - 19.00	0.0043	B	UF	#	0.00057	
	mg/L	0588	WL	10/27/2005	0001	26.00 - 26.00	0.0102		F	#	0.00057	
	mg/L	0589	WL	10/27/2005	0001	44.00 - 44.00	0.00057	U	F	#	0.00057	
	mg/L	0589	WL	10/27/2005	0003	44.00 - 44.00	0.00057	U	F	#	0.00057	
	mg/L	0597	WL, PZ	10/26/2005	0001	9.80 - 9.80	0.0229		QF	#	0.00057	
	mg/L	0602	WL	10/27/2005	0001	18.00 - 18.00	0.0104		F	#	0.00057	
	mg/L	0603	WL, PZ	10/26/2005	0001	9.70 - 9.70	0.0048	B	QF	#	0.00057	
	mg/L	0607	WL, PZ	10/27/2005	0001	10.10 - 10.10	0.0050	B	UQF	#	0.00057	
	mg/L	0686	WL	10/26/2005	0001	18.00 - 18.00	0.0202		F	#	0.00057	
	mg/L	0687	WL	10/26/2005	0001	28.00 - 28.00	0.0166		F	#	0.00057	
	mg/L	0692	WL, PZ	10/26/2005	0001	9.60 - 9.60	0.0056		QF	#	0.00057	
	mg/L	0695	WL, PZ	10/26/2005	0001	9.80 - 9.80	0.0060		QF	#	0.00057	
Specific Conductance	umhos/cm	0403	WL	10/27/2005	N001	18.00 - 18.00	3027	F	#	-	-	
	umhos/cm	0405	WL	10/26/2005	N001	18.00 - 18.00	24453	F	#	-	-	
	umhos/cm	0407	WL	10/27/2005	N001	17.00 - 17.00	1788	F	#	-	-	
	umhos/cm	0483	WL	10/27/2005	N001	18.00 - 18.00	15430	F	#	-	-	
	umhos/cm	0488	WL	10/26/2005	N001	26.00 - 26.00	18587	F	#	-	-	
	umhos/cm	0495	WL, PZ	10/26/2005	N001	5.10 - 5.10	26895		QF	#	-	
	umhos/cm	0559	WL	10/27/2005	N001	19.00 - 19.00	5738	F	#	-	-	
	umhos/cm	0563	WL, PZ	10/27/2005	N001	5.10 - 5.10	1113		QF	#	-	

GENERAL WATER QUALITY DATA BY PARAMETER (USEE205) FOR SITE MOA01, Moab Site
 REPORT DATE: 2/7/2006 9:57 am

PARAMETER	UNITS	LOCATION ID	LOC TYPE, SUBTYPE	SAMPLE:		DEPTH RANGE (FT BLS)	RESULT	QUALIFIERS:			DETECTION LIMIT	UN-CERTAINTY
				DATE	ID			LAB	DATA	QA		
Specific Conductance	umhos/cm	0565	WL, PZ	10/27/2005	N001	4.50 - 4.50	1038	QF	#	-	-	
	umhos/cm	0588	WL	10/27/2005	N001	26.00 - 26.00	2271	F	#	-	-	
	umhos/cm	0589	WL	10/27/2005	N001	44.00 - 44.00	58331	F	#	-	-	
	umhos/cm	0591	WL, PZ	10/26/2005	N001	4.40 - 4.40	3211	QF	#	-	-	
	umhos/cm	0597	WL, PZ	10/26/2005	N001	9.80 - 9.80	21062	QF	#	-	-	
	umhos/cm	0602	WL	10/27/2005	N001	18.00 - 18.00	2510	F	#	-	-	
	umhos/cm	0603	WL, PZ	10/26/2005	N001	9.70 - 9.70	5420	QF	#	-	-	
	umhos/cm	0604	WL, PZ	10/26/2005	N001	7.80 - 7.80	8767	QF	#	-	-	
	umhos/cm	0606	WL, PZ	10/27/2005	N001	9.80 - 9.80	3273	QF	#	-	-	
	umhos/cm	0607	WL, PZ	10/27/2005	N001	10.10 - 10.10	1744	QF	#	-	-	
	umhos/cm	0614	WL, PZ	10/26/2005	N001	5.60 - 5.60	21715	QF	#	-	-	
	umhos/cm	0686	WL	10/26/2005	N001	18.00 - 18.00	24044	F	#	-	-	
	umhos/cm	0687	WL	10/26/2005	N001	28.00 - 28.00	20211	F	#	-	-	
	umhos/cm	0691	WL, PZ	10/26/2005	N001	4.90 - 4.90	20251	QF	#	-	-	
	umhos/cm	0692	WL, PZ	10/26/2005	N001	9.60 - 9.60	19647	QF	#	-	-	
	umhos/cm	0694	WL, PZ	10/26/2005	N001	4.30 - 4.30	18295	F	#	-	-	
	umhos/cm	0695	WL, PZ	10/26/2005	N001	9.80 - 9.80	19237	QF	#	-	-	
	Sulfate	mg/L	0403	WL	10/27/2005	0001	18.00 - 18.00	751	F	#	12.2	-
mg/L		0405	WL	10/26/2005	0001	18.00 - 18.00	9730	F	#	61.2	-	
mg/L		0407	WL	10/27/2005	0001	17.00 - 17.00	421	F	#	12.2	-	
mg/L		0483	WL	10/27/2005	0001	18.00 - 18.00	2830	F	#	61.2	-	
mg/L		0488	WL	10/26/2005	0001	26.00 - 26.00	7580	F	#	61.2	-	
mg/L		0495	WL, PZ	10/26/2005	0001	5.10 - 5.10	16100	QF	#	612	-	
mg/L		0559	WL	10/27/2005	0001	19.00 - 19.00	1210	F	#	12.2	-	
mg/L		0563	WL, PZ	10/27/2005	0001	5.10 - 5.10	289	QF	#	12.2	-	
mg/L		0565	WL, PZ	10/27/2005	0001	4.50 - 4.50	262	QF	#	12.2	-	

GENERAL WATER QUALITY DATA BY PARAMETER (USEE205) FOR SITE MOA01, Moab Site
 REPORT DATE: 2/7/2006 9:57 am

PARAMETER	UNITS	LOCATION ID	LOC TYPE, SUBTYPE	SAMPLE:		DEPTH RANGE (FT BLS)	RESULT	QUALIFIERS:			DETECTION LIMIT	UN-CERTAINTY
				DATE	ID			LAB	DATA	QA		
Sulfate	mg/L	0588	WL	10/27/2005	0001	26.00 - 26.00	416	F	#		12.2	-
	mg/L	0589	WL	10/27/2005	0001	44.00 - 44.00	11100	F	#		612	-
	mg/L	0589	WL	10/27/2005	0003	44.00 - 44.00	14800	F	#		612	-
	mg/L	0591	WL, PZ	10/26/2005	0001	4.40 - 4.40	1050	QF	#		12.2	-
	mg/L	0597	WL, PZ	10/26/2005	0001	9.80 - 9.80	8880	QF	#		306	-
	mg/L	0602	WL	10/27/2005	0001	18.00 - 18.00	580	F	#		12.2	-
	mg/L	0603	WL, PZ	10/26/2005	0001	9.70 - 9.70	2470	QF	#		12.2	-
	mg/L	0604	WL, PZ	10/26/2005	0001	7.80 - 7.80	3690	QF	#		12.2	-
	mg/L	0606	WL, PZ	10/27/2005	0001	9.80 - 9.80	717	QF	#		12.2	-
	mg/L	0607	WL, PZ	10/27/2005	0001	10.10 - 10.10	214	QF	#		12.2	-
	mg/L	0614	WL, PZ	10/26/2005	0001	5.60 - 5.60	5710	QF	#		122	-
	mg/L	0686	WL	10/26/2005	0001	18.00 - 18.00	7580	F	#		61.2	-
	mg/L	0687	WL	10/26/2005	0001	28.00 - 28.00	7780	F	#		61.2	-
	mg/L	0691	WL, PZ	10/26/2005	0001	4.90 - 4.90	7920	QF	#		61.2	-
	mg/L	0692	WL, PZ	10/26/2005	0001	9.60 - 9.60	7040	QF	#		61.2	-
	mg/L	0694	WL, PZ	10/26/2005	0001	4.30 - 4.30	6240	F	#		61.2	-
	mg/L	0695	WL, PZ	10/26/2005	0001	9.80 - 9.80	7690	QF	#		61.2	-
	Temperature	C	0403	WL	10/27/2005	N001	18.00 - 18.00	16.82	F	#		-
C		0405	WL	10/26/2005	N001	18.00 - 18.00	18.80	F	#		-	-
C		0407	WL	10/27/2005	N001	17.00 - 17.00	17.62	F	#		-	-
C		0483	WL	10/27/2005	N001	18.00 - 18.00	17.25	F	#		-	-
C		0488	WL	10/26/2005	N001	26.00 - 26.00	17.38	F	#		-	-
C		0495	WL, PZ	10/26/2005	N001	5.10 - 5.10	18.08	QF	#		-	-
C		0559	WL	10/27/2005	N001	19.00 - 19.00	17.25	F	#		-	-
C		0563	WL, PZ	10/27/2005	N001	5.10 - 5.10	14.85	QF	#		-	-
C		0565	WL, PZ	10/27/2005	N001	4.50 - 4.50	14.46	QF	#		-	-

GENERAL WATER QUALITY DATA BY PARAMETER (USEE205) FOR SITE MOA01, Moab Site
 REPORT DATE: 2/7/2006 9:57 am

PARAMETER	UNITS	LOCATION ID	LOC TYPE, SUBTYPE	SAMPLE:		DEPTH RANGE (FT BLS)	RESULT	QUALIFIERS:			DETECTION LIMIT	UN-CERTAINTY
				DATE	ID			LAB	DATA	QA		
Temperature	C	0588	WL	10/27/2005	N001	26.00 - 26.00	18.71	F	#	-	-	
	C	0589	WL	10/27/2005	N001	44.00 - 44.00	18.52	F	#	-	-	
	C	0591	WL, PZ	10/26/2005	N001	4.40 - 4.40	17.44	QF	#	-	-	
	C	0597	WL, PZ	10/26/2005	N001	9.80 - 9.80	17.49	QF	#	-	-	
	C	0602	WL	10/27/2005	N001	18.00 - 18.00	18.07	F	#	-	-	
	C	0603	WL, PZ	10/26/2005	N001	9.70 - 9.70	16.91	QF	#	-	-	
	C	0604	WL, PZ	10/26/2005	N001	7.80 - 7.80	15.64	QF	#	-	-	
	C	0606	WL, PZ	10/27/2005	N001	9.80 - 9.80	15.54	QF	#	-	-	
	C	0607	WL, PZ	10/27/2005	N001	10.10 - 10.10	15.64	QF	#	-	-	
	C	0614	WL, PZ	10/26/2005	N001	5.60 - 5.60	15.17	QF	#	-	-	
	C	0686	WL	10/26/2005	N001	18.00 - 18.00	18.57	F	#	-	-	
	C	0687	WL	10/26/2005	N001	28.00 - 28.00	18.11	F	#	-	-	
	C	0691	WL, PZ	10/26/2005	N001	4.90 - 4.90	18.58	QF	#	-	-	
	C	0692	WL, PZ	10/26/2005	N001	9.60 - 9.60	17.08	QF	#	-	-	
	C	0694	WL, PZ	10/26/2005	N001	4.30 - 4.30	17.65	F	#	-	-	
C	0695	WL, PZ	10/26/2005	N001	9.80 - 9.80	16.30	QF	#	-	-		
Total Dissolved Solids	mg/L	0403	WL	10/27/2005	0001	18.00 - 18.00	1520	F	#	3.6	-	
	mg/L	0405	WL	10/26/2005	0001	18.00 - 18.00	19400	F	#	3.6	-	
	mg/L	0407	WL	10/27/2005	0001	17.00 - 17.00	1190	F	#	3.6	-	
	mg/L	0483	WL	10/27/2005	0001	18.00 - 18.00	7790	F	#	3.6	-	
	mg/L	0488	WL	10/26/2005	0001	26.00 - 26.00	13500	F	#	3.6	-	
	mg/L	0495	WL, PZ	10/26/2005	0001	5.10 - 5.10	38800	QF	#	3.6	-	
	mg/L	0559	WL	10/27/2005	0001	19.00 - 19.00	3150	F	#	3.6	-	
	mg/L	0563	WL, PZ	10/27/2005	0001	5.10 - 5.10	738	QF	#	3.6	-	
	mg/L	0565	WL, PZ	10/27/2005	0001	4.50 - 4.50	427	QF	#	3.6	-	
	mg/L	0588	WL	10/27/2005	0001	26.00 - 26.00	1010	F	#	3.6	-	

GENERAL WATER QUALITY DATA BY PARAMETER (USEE205) FOR SITE MOA01, Moab Site
 REPORT DATE: 2/7/2006 9:57 am

PARAMETER	UNITS	LOCATION ID	LOC TYPE, SUBTYPE	SAMPLE:		DEPTH RANGE (FT BLS)	RESULT	QUALIFIERS:			DETECTION LIMIT	UN-CERTAINTY	
				DATE	ID			LAB	DATA	QA			
Total Dissolved Solids	mg/L	0589	WL	10/27/2005	0001	44.00 - 44.00	39500	F	#		3.6	-	
	mg/L	0589	WL	10/27/2005	0003	44.00 - 44.00	29600	F	#		3.6	-	
	mg/L	0591	WL, PZ	10/26/2005	0001	4.40 - 4.40	1830	QF	#		3.6	-	
	mg/L	0602	WL	10/27/2005	0001	18.00 - 18.00	1400	F	#		3.6	-	
	mg/L	0603	WL, PZ	10/26/2005	0001	9.70 - 9.70	45600	QF	#		3.6	-	
	mg/L	0604	WL, PZ	10/26/2005	0001	7.80 - 7.80	5930	QF	#		3.6	-	
	mg/L	0606	WL, PZ	10/27/2005	0001	9.80 - 9.80	2020	QF	#		3.6	-	
	mg/L	0607	WL, PZ	10/27/2005	0001	10.10 - 10.10	926	QF	#		3.6	-	
	mg/L	0614	WL, PZ	10/26/2005	0001	5.60 - 5.60	18000	QF	#		3.6	-	
	mg/L	0686	WL	10/26/2005	0001	18.00 - 18.00	18800	F	#		3.6	-	
	mg/L	0687	WL	10/26/2005	0001	28.00 - 28.00	3.6	U	FR	#		3.6	-
	mg/L	0691	WL, PZ	10/26/2005	0001	4.90 - 4.90	67100	QF	#		3.6	-	
	mg/L	0692	WL, PZ	10/26/2005	0001	9.60 - 9.60	14900	QF	#		3.6	-	
	mg/L	0694	WL, PZ	10/26/2005	0001	4.30 - 4.30	12000	F	#		3.6	-	
	mg/L	0695	WL, PZ	10/26/2005	0001	9.80 - 9.80	14800	QF	#		3.6	-	
Total Inorganic Carbon	mg/L	0403	WL	10/27/2005	0001	18.00 - 18.00	17.3	F	#		2.2	-	
	mg/L	0405	WL	10/26/2005	0001	18.00 - 18.00	159	B	F	#		44.4	-
	mg/L	0407	WL	10/27/2005	0001	17.00 - 17.00	15.3	F	#		2.2	-	
	mg/L	0483	WL	10/27/2005	0001	18.00 - 18.00	28.6	F	#		2.2	-	
	mg/L	0488	WL	10/26/2005	0001	26.00 - 26.00	207	F	#		44.4	-	
	mg/L	0495	WL, PZ	10/26/2005	0001	5.10 - 5.10	241	QF	#		44.4	-	
	mg/L	0559	WL	10/27/2005	0001	19.00 - 19.00	27.1	F	#		2.2	-	
	mg/L	0563	WL, PZ	10/27/2005	0001	5.10 - 5.10	12.9	QF	#		2.2	-	
	mg/L	0588	WL	10/27/2005	0001	26.00 - 26.00	11.9	F	#		2.2	-	
	mg/L	0589	WL	10/27/2005	0001	44.00 - 44.00	0.22	U	F	#		0.22	-
	mg/L	0589	WL	10/27/2005	0003	44.00 - 44.00	0.22	U	F	#		0.22	-

GENERAL WATER QUALITY DATA BY PARAMETER (USEE205) FOR SITE MOA01, Moab Site
 REPORT DATE: 2/7/2006 9:57 am

PARAMETER	UNITS	LOCATION ID	LOC TYPE, SUBTYPE	SAMPLE:		DEPTH RANGE (FT BLS)	RESULT	QUALIFIERS:			DETECTION LIMIT	UN-CERTAINTY
				DATE	ID			LAB	DATA	QA		
Total Inorganic Carbon	mg/L	0591	WL, PZ	10/26/2005	0001	4.40 - 4.40	24.9		QF	#	2.2	-
	mg/L	0597	WL, PZ	10/26/2005	0001	9.80 - 9.80	62.8		QF	#	11.1	-
	mg/L	0602	WL	10/27/2005	0001	18.00 - 18.00	0.22	U	F	#	0.22	-
	mg/L	0603	WL, PZ	10/26/2005	0001	9.70 - 9.70	17.9		QF	#	2.2	-
	mg/L	0607	WL, PZ	10/27/2005	0001	10.10 - 10.10	0.22	U	QF	#	0.22	-
	mg/L	0686	WL	10/26/2005	0001	18.00 - 18.00	0.22	U	F	#	0.22	-
	mg/L	0687	WL	10/26/2005	0001	28.00 - 28.00	100		F	#	11.1	-
	mg/L	0695	WL, PZ	10/26/2005	0001	9.80 - 9.80	78.5		QF	#	11.1	-
Total Kjeldahl Nitrogen	mg/L	0403	WL	10/27/2005	0001	18.00 - 18.00	94.8		F	#	0.12	-
	mg/L	0405	WL	10/26/2005	0001	18.00 - 18.00	693		F	#	0.12	-
	mg/L	0407	WL	10/27/2005	0001	17.00 - 17.00	22.1		F	#	0.061	-
	mg/L	0483	WL	10/27/2005	0001	18.00 - 18.00	457		F	#	0.12	-
	mg/L	0488	WL	10/26/2005	0001	26.00 - 26.00	1080		F	#	0.12	-
	mg/L	0559	WL	10/27/2005	0001	19.00 - 19.00	165		F	#	0.061	-
	mg/L	0588	WL	10/27/2005	0001	26.00 - 26.00	47.0		F	#	0.12	-
	mg/L	0589	WL	10/27/2005	0001	44.00 - 44.00	1310		F	#	0.12	-
	mg/L	0589	WL	10/27/2005	0003	44.00 - 44.00	1300		F	#	0.12	-
	mg/L	0602	WL	10/27/2005	0001	18.00 - 18.00	113		F	#	0.12	-
	mg/L	0686	WL	10/26/2005	0001	18.00 - 18.00	102		F	#	0.061	-
	mg/L	0687	WL	10/26/2005	0001	28.00 - 28.00	595		F	#	0.12	-
	mg/L	0695	WL, PZ	10/26/2005	0001	9.80 - 9.80	655		QF	#	0.12	-
Total Organic Carbon	mg/L	0403	WL	10/27/2005	N001	18.00 - 18.00	2650	H	JF	#	43	-
	mg/L	0405	WL	10/26/2005	N001	18.00 - 18.00	1630	H	JF	#	43	-
	mg/L	0407	WL	10/27/2005	N001	17.00 - 17.00	1710	H	JF	#	43	-
	mg/L	0483	WL	10/27/2005	N001	18.00 - 18.00	2160	H	JF	#	43	-
	mg/L	0488	WL	10/26/2005	N001	26.00 - 26.00	1810	H	JF	#	43	-

GENERAL WATER QUALITY DATA BY PARAMETER (USEE205) FOR SITE MOA01, Moab Site
 REPORT DATE: 2/7/2006 9:57 am

PARAMETER	UNITS	LOCATION ID	LOC TYPE, SUBTYPE	SAMPLE:		DEPTH RANGE (FT BLS)	RESULT	QUALIFIERS:			DETECTION LIMIT	UN-CERTAINTY
				DATE	ID			LAB	DATA	QA		
Total Organic Carbon	mg/L	0495	WL, PZ	10/26/2005	N001	5.10 - 5.10	6460	H	JQF	#	43	-
	mg/L	0559	WL	10/27/2005	N001	19.00 - 19.00	2620	H	JF	#	43	-
	mg/L	0588	WL	10/27/2005	N001	26.00 - 26.00	2470	H	JF	#	43	-
	mg/L	0589	WL	10/27/2005	N001	44.00 - 44.00	2600	H	JF	#	43	-
	mg/L	0589	WL	10/27/2005	N003	44.00 - 44.00	3020	H	JF	#	43	-
	mg/L	0602	WL	10/27/2005	N001	18.00 - 18.00	2940	H	JF	#	43	-
	mg/L	0603	WL, PZ	10/26/2005	N001	9.70 - 9.70	3020	H	JQF	#	43	-
	mg/L	0607	WL, PZ	10/27/2005	N001	10.10 - 10.10	2740	H	JQF	#	43	-
	mg/L	0686	WL	10/26/2005	N001	18.00 - 18.00	4980	H	JF	#	43	-
	mg/L	0687	WL	10/26/2005	N001	28.00 - 28.00	3390	H	JF	#	43	-
	mg/L	0695	WL, PZ	10/26/2005	N001	9.80 - 9.80	2780	H	JQF	#	43	-
	Turbidity	NTU	0403	WL	10/27/2005	N001	18.00 - 18.00	7.65		F	#	-
NTU		0405	WL	10/26/2005	N001	18.00 - 18.00	2.10		F	#	-	-
NTU		0407	WL	10/27/2005	N001	17.00 - 17.00	1.73		F	#	-	-
NTU		0483	WL	10/27/2005	N001	18.00 - 18.00	1.88		F	#	-	-
NTU		0488	WL	10/26/2005	N001	26.00 - 26.00	2.71		F	#	-	-
NTU		0559	WL	10/27/2005	N001	19.00 - 19.00	5.00		F	#	-	-
NTU		0588	WL	10/27/2005	N001	26.00 - 26.00	2.56		F	#	-	-
NTU		0589	WL	10/27/2005	N001	44.00 - 44.00	1.72		F	#	-	-
NTU		0602	WL	10/27/2005	N001	18.00 - 18.00	1.12		F	#	-	-
NTU		0606	WL, PZ	10/27/2005	N001	9.80 - 9.80	165		QF	#	-	-
NTU		0607	WL, PZ	10/27/2005	N001	10.10 - 10.10	268		QF	#	-	-
NTU		0686	WL	10/26/2005	N001	18.00 - 18.00	2.46		F	#	-	-
NTU		0687	WL	10/26/2005	N001	28.00 - 28.00	8.69		F	#	-	-
NTU		0695	WL, PZ	10/26/2005	N001	9.80 - 9.80	188		QF	#	-	-
Uranium		mg/L	0403	WL	10/27/2005	0001	18.00 - 18.00	0.262		F	#	0.00014

GENERAL WATER QUALITY DATA BY PARAMETER (USEE205) FOR SITE MOA01, Moab Site
 REPORT DATE: 2/7/2006 9:57 am

PARAMETER	UNITS	LOCATION ID	LOC TYPE, SUBTYPE	SAMPLE: DATE	ID	DEPTH RANGE (FT BLS)	RESULT	QUALIFIERS: LAB DATA QA	DETECTION LIMIT	UN-CERTAINTY
Uranium	mg/L	0405	WL	10/26/2005	0001	18.00 - 18.00	3.090	F #	0.00014	-
	mg/L	0407	WL	10/27/2005	0001	17.00 - 17.00	0.0852	F #	0.00014	-
	mg/L	0483	WL	10/27/2005	0001	18.00 - 18.00	0.984	F #	0.00014	-
	mg/L	0488	WL	10/26/2005	0001	26.00 - 26.00	1.800	F #	0.00014	-
	mg/L	0495	WL, PZ	10/26/2005	0001	5.10 - 5.10	0.849	QF #	0.00014	-
	mg/L	0559	WL	10/27/2005	0001	19.00 - 19.00	0.542	F #	0.00014	-
	mg/L	0588	WL	10/27/2005	0001	26.00 - 26.00	0.0722	F #	0.00014	-
	mg/L	0589	WL	10/27/2005	0001	44.00 - 44.00	1.710	F #	0.00014	-
	mg/L	0589	WL	10/27/2005	0003	44.00 - 44.00	1.660	F #	0.00014	-
	mg/L	0597	WL, PZ	10/26/2005	0001	9.80 - 9.80	1.110	QF #	0.00014	-
	mg/L	0602	WL	10/27/2005	0001	18.00 - 18.00	0.230	F #	0.00014	-
	mg/L	0603	WL, PZ	10/26/2005	0001	9.70 - 9.70	0.0169	QF #	0.00014	-
	mg/L	0607	WL, PZ	10/27/2005	0001	10.10 - 10.10	0.0130	QF #	0.00014	-
	mg/L	0686	WL	10/26/2005	0001	18.00 - 18.00	2.890	F #	0.00014	-
	mg/L	0687	WL	10/26/2005	0001	28.00 - 28.00	2.200	F #	0.00014	-
	mg/L	0692	WL, PZ	10/26/2005	0001	9.60 - 9.60	0.353	QF #	0.00014	-
	mg/L	0695	WL, PZ	10/26/2005	0001	9.80 - 9.80	0.783	QF #	0.00014	-

GENERAL WATER QUALITY DATA BY PARAMETER (USEE205) FOR SITE MOA01, Moab Site
 REPORT DATE: 2/7/2006 9:57 am

PARAMETER	UNITS	LOCATION ID	LOC TYPE, SUBTYPE	SAMPLE: DATE	SAMPLE: ID	DEPTH RANGE (FT BLS)	RESULT	QUALIFIERS: LAB DATA QA	DETECTION LIMIT	UN-CERTAINTY
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RECORDS: SELECTED FROM USEE200 WHERE site_code='MOA01' AND quality_assurance = TRUE AND (data_validation_qualifiers IS NULL OR data_validation_qualifiers NOT LIKE '%R%' AND data_validation_qualifiers NOT LIKE '%X%') AND cas in('NH3+NH4-N','BROMIDE','00124-38-9','COD','CHLORIDE','DOC','07782-44-7','07439-89-6','FE (II)','07439-96-5','MN (II)','000074-82-8','NO3+NO2 AS N','07727-37-9','ORP','PH','007723-14-0','07782-49-2','EC','SULFATE','TMP','TDS','TIC','TKN','TOC','TURBIDITY','07440-61-1') AND DATE_SAMPLED between #10/24/2005# and #10/29/2005#

SAMPLE ID CODES: 000X = Filtered sample (0.45 µm). N00X = Unfiltered sample. X = replicate number.

LOCATION TYPES: WL WELL

LOCATION SUBTYPES: PZ Piezometer

LAB QUALIFIERS:

- * Replicate analysis not within control limits.
- + Correlation coefficient for MSA < 0.995.
- > Result above upper detection limit.
- A TIC is a suspected aldol-condensation product.
- B Inorganic: Result is between the IDL and CRDL. Organic & Radiochemistry: Analyte also found in method blank.
- C Pesticide result confirmed by GC-MS.
- D Analyte determined in diluted sample.
- E Inorganic: Estimate value because of interference, see case narrative. Organic: Analyte exceeded calibration range of the GC-MS.
- H Holding time expired, value suspect.
- I Increased detection limit due to required dilution.
- J Estimated
- M GFAA duplicate injection precision not met.
- N Inorganic or radiochemical: Spike sample recovery not within control limits. Organic: Tentatively identified compound (TIC).
- P > 25% difference in detected pesticide or Arochlor concentrations between 2 columns.
- S Result determined by method of standard addition (MSA).
- U Analytical result below detection limit.
- W Post-digestion spike outside control limits while sample absorbance < 50% of analytical spike absorbance.
- X Laboratory defined (USEPA CLP organic) qualifier, see case narrative.
- Y Laboratory defined (USEPA CLP organic) qualifier, see case narrative.
- Z Laboratory defined (USEPA CLP organic) qualifier, see case narrative.

DATA QUALIFIERS:

- F Low flow sampling method used.
- L Less than 3 bore volumes purged prior to sampling.
- U Parameter analyzed for but was not detected.
- G Possible grout contamination, pH > 9.
- Q Qualitative result due to sampling technique
- X Location is undefined.
- J Estimated value.
- R Unusable result.

QA QUALIFIER: # = validated according to Quality Assurance guidelines.

ESL Water Quality Data

GENERAL WATER QUALITY DATA BY PARAMETER (USEE205) FOR SITE MOA01, Moab Site
 REPORT DATE: 2/7/2006 10:03 am

PARAMETER	UNITS	LOCATION ID	LOC TYPE, SUBTYPE	SAMPLE: DATE	ID	DEPTH RANGE (FT BLS)	RESULT	QUALIFIERS: LAB DATA QA	DETECTION LIMIT	UN-CERTAINTY
Nitrifying Bacteria	cfu/mL	0695	WL, PZ	10/28/2005	N005	9.80 - 9.80	100000	QF #	1000	-
Nitrite as Nitrogen	mg/L	0403	WL	10/27/2005	0001	18.00 - 18.00	0.005	U F #	0.005	-
	mg/L	0405	WL	10/26/2005	0001	18.00 - 18.00	0.013	F #	0.005	-
	mg/L	0407	WL	10/27/2005	0001	17.00 - 17.00	0.005	U F #	0.005	-
	mg/L	0483	WL	10/27/2005	0001	18.00 - 18.00	0.006	F #	0.005	-
	mg/L	0488	WL	10/26/2005	0001	26.00 - 26.00	0.016	F #	0.005	-
	mg/L	0495	WL, PZ	10/26/2005	0001	5.10 - 5.10	0.041	QF #	0.005	-
	mg/L	0559	WL	10/27/2005	0001	19.00 - 19.00	0.005	U F #	0.005	-
	mg/L	0563	WL, PZ	10/28/2005	0005	5.10 - 5.10	0.011	QF #	0.005	-
	mg/L	0565	WL, PZ	10/28/2005	0005	4.50 - 4.50	0.005	U QF #	0.005	-
	mg/L	0588	WL	10/27/2005	0001	26.00 - 26.00	0.005	F #	0.005	-
	mg/L	0589	WL	10/27/2005	0001	44.00 - 44.00	0.02	F #	0.005	-
	mg/L	0591	WL, PZ	10/28/2005	0005	4.40 - 4.40	0.296	QF #	0.005	-
	mg/L	0597	WL, PZ	10/26/2005	0001	9.80 - 9.80	2.1	F #	0.005	-
	mg/L	0602	WL	10/27/2005	0001	18.00 - 18.00	0.005	F #	0.005	-
	mg/L	0603	WL, PZ	10/28/2005	0005	9.70 - 9.70	0.014	QF #	0.005	-
	mg/L	0604	WL, PZ	10/28/2005	0005	7.80 - 7.80	3.5	QF #	0.005	-
	mg/L	0606	WL, PZ	10/28/2005	0005	9.80 - 9.80	0.5	QF #	0.005	-
	mg/L	0607	WL, PZ	10/28/2005	0005	10.10 - 10.10	0.005	U QF #	0.005	-
	mg/L	0614	WL, PZ	10/28/2005	0005	5.60 - 5.60	6.4	QF #	0.005	-
	mg/L	0686	WL	10/26/2005	0001	18.00 - 18.00	26.1	F #	0.005	-
	mg/L	0687	WL	10/26/2005	0001	28.00 - 28.00	0.125	F #	0.005	-
	mg/L	0691	WL, PZ	10/28/2005	0005	4.90 - 4.90	1.39	QF #	0.005	-
	mg/L	0692	WL, PZ	10/28/2005	0005	9.60 - 9.60	5.6	QF #	0.005	-
	mg/L	0695	WL, PZ	10/28/2005	0005	9.80 - 9.80	5.7	QF #	0.005	-
ortho-Phosphate	mg/L	0403	WL	10/27/2005	0001	18.00 - 18.00	0.3	F #	0.3	-

GENERAL WATER QUALITY DATA BY PARAMETER (USEE205) FOR SITE MOA01, Moab Site
 REPORT DATE: 2/7/2006 10:03 am

PARAMETER	UNITS	LOCATION ID	LOC TYPE, SUBTYPE	SAMPLE:		DEPTH RANGE (FT BLS)	RESULT	QUALIFIERS:			DETECTION LIMIT	UN-CERTAINTY	
				DATE	ID			LAB	DATA	QA			
ortho-Phosphate	mg/L	0405	WL	10/26/2005	0001	18.00 - 18.00	1.1		F	#	0.3	-	
	mg/L	0407	WL	10/27/2005	0001	17.00 - 17.00	0.3	U	F	#	0.3	-	
	mg/L	0483	WL	10/27/2005	0001	18.00 - 18.00	0.3	U	F	#	0.3	-	
	mg/L	0488	WL	10/26/2005	0001	26.00 - 26.00	0.8		F	#	0.3	-	
	mg/L	0495	WL, PZ	10/26/2005	0001	5.10 - 5.10	0.3	U	QF	#	0.3	-	
	mg/L	0559	WL	10/27/2005	0001	19.00 - 19.00	0.5		F	#	0.3	-	
	mg/L	0563	WL, PZ	10/28/2005	0005	5.10 - 5.10	0.3	U	QF	#	0.3	-	
	mg/L	0565	WL, PZ	10/28/2005	0005	4.50 - 4.50	0.5		QF	#	0.3	-	
	mg/L	0588	WL	10/27/2005	0001	26.00 - 26.00	0.5		F	#	0.3	-	
	mg/L	0589	WL	10/27/2005	0001	44.00 - 44.00	0.3	U	F	#	0.3	-	
	mg/L	0591	WL, PZ	10/28/2005	0005	4.40 - 4.40	0.4		QF	#	0.3	-	
	mg/L	0597	WL, PZ	10/26/2005	0001	9.80 - 9.80	0.4		F	#	0.3	-	
	mg/L	0602	WL	10/27/2005	0001	18.00 - 18.00	0.3	U	F	#	0.3	-	
	mg/L	0603	WL, PZ	10/28/2005	0005	9.70 - 9.70	4.4		QF	#	0.3	-	
	mg/L	0604	WL, PZ	10/28/2005	0005	7.80 - 7.80	1.2		QF	#	0.3	-	
	mg/L	0606	WL, PZ	10/28/2005	0005	9.80 - 9.80	0.6		QF	#	0.3	-	
	mg/L	0607	WL, PZ	10/28/2005	0005	10.10 - 10.10	0.5		QF	#	0.3	-	
	mg/L	0614	WL, PZ	10/28/2005	0005	5.60 - 5.60	1.2		QF	#	0.3	-	
	mg/L	0686	WL	10/26/2005	0001	18.00 - 18.00	0.3	U	F	#	0.3	-	
	mg/L	0687	WL	10/26/2005	0001	28.00 - 28.00	0.4		F	#	0.3	-	
	mg/L	0691	WL, PZ	10/28/2005	0005	4.90 - 4.90	3.3		QF	#	0.3	-	
	mg/L	0692	WL, PZ	10/28/2005	0005	9.60 - 9.60	0.3	U	QF	#	0.3	-	
	mg/L	0695	WL, PZ	10/28/2005	0005	9.80 - 9.80	0.3	U	QF	#	0.3	-	
	Sulfide	mg/L	0403	WL	10/27/2005	0001	18.00 - 18.00	0.01	U	F	#	0.01	-
		mg/L	0405	WL	10/26/2005	0001	18.00 - 18.00	0.02		F	#	0.01	-
mg/L		0407	WL	10/27/2005	0001	17.00 - 17.00	0.01		F	#	0.01	-	

GENERAL WATER QUALITY DATA BY PARAMETER (USEE205) FOR SITE MOA01, Moab Site
 REPORT DATE: 2/7/2006 10:03 am

PARAMETER	UNITS	LOCATION ID	LOC TYPE, SUBTYPE	SAMPLE:		DEPTH RANGE (FT BLS)	RESULT	QUALIFIERS:			DETECTION LIMIT	UN- CERTAINTY
				DATE	ID			LAB	DATA	QA		
Sulfide	mg/L	0483	WL	10/27/2005	0001	18.00 - 18.00	0.01	U	F	#	0.01	-
	mg/L	0488	WL	10/26/2005	0001	26.00 - 26.00	0.01	U	F	#	0.01	-
	mg/L	0495	WL, PZ	10/26/2005	0001	5.10 - 5.10	0.01	U	QF	#	0.01	-
	mg/L	0559	WL	10/27/2005	0001	19.00 - 19.00	0.01	U	F	#	0.01	-
	mg/L	0563	WL, PZ	10/28/2005	0005	5.10 - 5.10	0.01		QF	#	0.01	-
	mg/L	0565	WL, PZ	10/28/2005	0005	4.50 - 4.50	0.01	U	QF	#	0.01	-
	mg/L	0588	WL	10/27/2005	0001	26.00 - 26.00	0.01	U	F	#	0.01	-
	mg/L	0589	WL	10/27/2005	0001	44.00 - 44.00	0.01	U	F	#	0.01	-
	mg/L	0591	WL, PZ	10/28/2005	0005	4.40 - 4.40	0.01		QF	#	0.01	-
	mg/L	0597	WL, PZ	10/26/2005	0001	9.80 - 9.80	0.01	U	F	#	0.01	-
	mg/L	0602	WL	10/27/2005	0001	18.00 - 18.00	0.01	U	F	#	0.01	-
	mg/L	0603	WL, PZ	10/28/2005	0005	9.70 - 9.70	0.01		QF	#	0.01	-
	mg/L	0604	WL, PZ	10/28/2005	0005	7.80 - 7.80	0.01	U	QF	#	0.01	-
	mg/L	0606	WL, PZ	10/28/2005	0005	9.80 - 9.80	0.01		QF	#	0.01	-
	mg/L	0607	WL, PZ	10/28/2005	0005	10.10 - 10.10	0.02		QF	#	0.01	-
	mg/L	0614	WL, PZ	10/28/2005	0005	5.60 - 5.60	0.01	U	QF	#	0.01	-
	mg/L	0686	WL	10/26/2005	0001	18.00 - 18.00	0.01	U	F	#	0.01	-
	mg/L	0687	WL	10/26/2005	0001	28.00 - 28.00	0.01		F	#	0.01	-
	mg/L	0691	WL, PZ	10/28/2005	0005	4.90 - 4.90	0.01	U	QF	#	0.01	-
	mg/L	0692	WL, PZ	10/28/2005	0005	9.60 - 9.60	0.02		QF	#	0.01	-
	mg/L	0695	WL, PZ	10/28/2005	0005	9.80 - 9.80	0.01	U	QF	#	0.01	-

GENERAL WATER QUALITY DATA BY PARAMETER (USEE205) FOR SITE MOA01, Moab Site
 REPORT DATE: 2/7/2006 10:03 am

PARAMETER	UNITS	LOCATION ID	LOC TYPE, SUBTYPE	SAMPLE: DATE ID	DEPTH RANGE (FT BLS)	RESULT	QUALIFIERS: LAB DATA QA	DETECTION LIMIT	UN-CERTAINTY
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RECORDS: SELECTED FROM USEE200 WHERE site_code='MOA01' AND quality_assurance = TRUE AND (data_validation_qualifiers IS NULL OR data_validation_qualifiers NOT LIKE '%R%' AND data_validation_qualifiers NOT LIKE '%X%') AND cas in('00010-26-4','NITRIF BACTE','NITRITE AS N','00011-36-9','SULFIDE') AND DATE_SAMPLED between #10/24/2005# and #10/29/2005#

SAMPLE ID CODES: 000X = Filtered sample (0.45 µm). N00X = Unfiltered sample. X = replicate number.

LOCATION TYPES: WL WELL

LOCATION SUBTYPES: PZ Piezometer

LAB QUALIFIERS:

- * Replicate analysis not within control limits.
- + Correlation coefficient for MSA < 0.995.
- > Result above upper detection limit.
- A TIC is a suspected aldol-condensation product.
- B Inorganic: Result is between the IDL and CRDL. Organic & Radiochemistry: Analyte also found in method blank.
- C Pesticide result confirmed by GC-MS.
- D Analyte determined in diluted sample.
- E Inorganic: Estimate value because of interference, see case narrative. Organic: Analyte exceeded calibration range of the GC-MS.
- H Holding time expired, value suspect.
- I Increased detection limit due to required dilution.
- J Estimated
- M GFAA duplicate injection precision not met.
- N Inorganic or radiochemical: Spike sample recovery not within control limits. Organic: Tentatively identified compound (TIC).
- P > 25% difference in detected pesticide or Arochlor concentrations between 2 columns.
- S Result determined by method of standard addition (MSA).
- U Analytical result below detection limit.
- W Post-digestion spike outside control limits while sample absorbance < 50% of analytical spike absorbance.
- X Laboratory defined (USEPA CLP organic) qualifier, see case narrative.
- Y Laboratory defined (USEPA CLP organic) qualifier, see case narrative.
- Z Laboratory defined (USEPA CLP organic) qualifier, see case narrative.

DATA QUALIFIERS:

- F Low flow sampling method used.
- L Less than 3 bore volumes purged prior to sampling.
- U Parameter analyzed for but was not detected.
- G Possible grout contamination, pH > 9.
- Q Qualitative result due to sampling technique
- X Location is undefined.
- J Estimated value.
- R Unusable result.

QA QUALIFIER: # = validated according to Quality Assurance guidelines.

Water Level Data

STATIC WATER LEVELS (USee700) FOR SITE MOA01, Moab Site
 REPORT DATE: 1/28/2006 10:51 am

LOCATION CODE	FLOW CODE	TOP OF CASING ELEVATION (FT)	MEASUREMENT		DEPTH FROM TOP OF CASING (FT)	WATER ELEVATION (FT)	WATER LEVEL FLAG
			DATE	TIME			
0403	O	3968.95	10/27/2005	16:15	16.36	3952.59	
0405	O	3968.47	10/26/2005	11:06	14.45	3954.02	
0407	O	3969.09	10/27/2005	18:20	16.98	3952.11	
0483		3968.90	10/27/2005	17:40	16.89	3952.01	
0488		3968.48	10/26/2005	10:05	14.31	3954.17	
0495		3957.81	10/25/2005	15:00	3.86	3953.95	
0559		3969.92	10/27/2005	17:00	17.42	3952.50	
0563		3955.05	10/25/2005	17:31	2.73	3952.32	
0565		3954.05	10/25/2005	17:13	1.87	3952.18	
0588		3968.82	10/27/2005	13:33	15.28	3953.76	
0589		3968.87	10/27/2005	15:05	15.14	3953.73	
0591		3953.99	10/25/2005	16:25	1.06	3952.93	
0597		3959.67	10/25/2005	15:16	5.79	3953.88	
0602		3969.40	10/27/2005	14:20	16.08	3953.32	
0603		3955.39	10/25/2005	16:33	2.51	3952.88	
0604		3958.11	10/25/2005	16:48	5.46	3952.65	
0606		3956.13	10/25/2005	17:25	4.92	3951.21	
0607		3955.20	10/25/2005	17:08	5.06	3950.14	
0614		3955.33	10/25/2005	16:43	2.27	3953.06	
0686		3968.85	10/26/2005	14:26	15.41	3953.44	
0687		3969.09	10/26/2005	13:39	15.91	3953.18	
0691		3959.21	10/25/2005	15:30	5.96	3953.25	
0692		3959.43	10/25/2005	15:38	6.74	3952.69	
0694		3956.83	10/25/2005	15:49	3.50	3953.33	
0695		3956.42	10/25/2005	15:56	3.69	3952.73	

RECORDS: SELECTED FROM USee700 WHERE site_code='MOA01' AND location_code in('0405','0488','0403','0407','0483','0559','0588','0589','0602','0686','0687','0495','0597','0563','0565','0606','0607','0591','0603','0604','0614','0691','0692','0694','0695') AND LOG_DATE between #10/24/2005# and #10/29/2005#

FLOW CODES: O ON-SITE

WATER LEVEL FLAGS:

Blanks Report

BLANKS REPORT

LAB CODE: STS, SEVERN TRENT ST. LOUIS (Earth City, MO)

LAB REQUISITION(S): 05100240

REPORT DATE: 01/19/06 12:22:17: PM

PARAMETER	SITE CODE	LOCATION ID	SAMPLE DATE	SAMPLE ID	UNITS	RESULT	QUALIFIERS LAB DATA	DETECTION LIMIT	UNCERTAINTY	SAMPLE TYPE
Ammonia Total as N	MOA01	0999	10/28/2005	0001	mg/L	0.0055	U	0.0055		E
Bromide	MOA01	0999	10/28/2005	0001	mg/L	0.26	U	0.26		E
Chemical Oxygen Demand	MOA01	0999	10/28/2005	0001	mg/L	30		9.2		E
Chloride	MOA01	0999	10/28/2005	0001	mg/L	0.25	U	0.25		E
Dissolved Organic Carbon	MOA01	0999	10/28/2005	N001	mg/L	2480	H J	43		E
Iron	MOA01	0999	10/28/2005	0001	mg/L	0.0074	U	0.0074		E
Manganese	MOA01	0999	10/28/2005	0001	mg/L	0.001	U	0.001		E
Nitrate + Nitrite as Nitrogen	MOA01	0999	10/28/2005	0001	mg/L	0.0027	U	0.0027		E
Phosphorus	MOA01	0999	10/28/2005	0001	mg/L	0.108	J	0.0101		E
Selenium	MOA01	0999	10/28/2005	0001	mg/L	0.0044	B U	0.00057		E
Sulfate	MOA01	0999	10/28/2005	0001	mg/L	0.61	U	0.61		E
Total Dissolved Solids	MOA01	0999	10/28/2005	0001	mg/L	179		3.6		E
Total Inorganic Carbon	MOA01	0999	10/28/2005	0001	mg/L	0.22	U	0.22		E
Total Kjeldahl Nitrogen	MOA01	0999	10/28/2005	0001	mg/L	0.061	U	0.061		E
Total Organic Carbon	MOA01	0999	10/28/2005	N001	mg/L	2630	H J	43		E
Uranium	MOA01	0999	10/28/2005	0001	mg/L	0.00019	B	0.00014		E

BLANKS REPORT

LAB CODE: STS, SEVERN TRENT ST. LOUIS (Earth City, MO)

LAB REQUISITION(S): 05100240

REPORT DATE: 01/19/06 12:22:17: PM

PARAMETER	SITE CODE	LOCATION ID	SAMPLE DATE	ID	UNITS	RESULT	QUALIFIERS LAB DATA	DETECTION LIMIT	UNCERTAINTY	SAMPLE TYPE
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SAMPLE ID CODES: 000X = Filtered sample (0.45 µm). N00X = Unfiltered sample. X = replicate number.

LAB QUALIFIERS:

- * Replicate analysis not within control limits.
- + Correlation coefficient for MSA < 0.995.
- A TIC is a suspected aldol-condensation product.
- B Inorganic: Result is between the IDL and CRDL. Organic & Radiochemistry: Analyte also found in method blank.
- E Inorganic: Estimate value because of interference, see case narrative. Organic: Analyte exceeded calibration range of the GC-MS.
- Z Laboratory defined (USEPA CLP organic) qualifier, see case narrative.
- H Holding time expired, value suspect.
- I Increased detection limit due to required dilution.
- C Pesticide result confirmed by GC-MS.
- M GFAA duplicate injection precision not met.
- N Inorganic or radiochemical: Spike sample recovery not within control limits. Organic: Tentatively identified compound (TIC).
- S Result determined by method of standard addition (MSA).
- U Analytical result below detection limit.
- W Post-digestion spike outside control limits while sample absorbance < 50% of analytical spike absorbance.
- D Analyte determined in diluted sample.
- P > 25% difference in detected pesticide or Arochlor concentrations between 2 columns.
- X Laboratory defined (USEPA CLP organic) qualifier, see case narrative.
- Y Laboratory defined (USEPA CLP organic) qualifier, see case narrative.
- > Result above upper detection limit.
- J Estimated

DATA QUALIFIERS:

- J Estimated value.
- L Less than 3 bore volumes purged prior to sampling.
- U Parameter analyzed for but was not detected.
- F Low flow sampling method used.
- R Unusable result.
- Q Qualitative result due to sampling technique
- G Possible grout contamination, pH > 9.
- X Location is undefined.

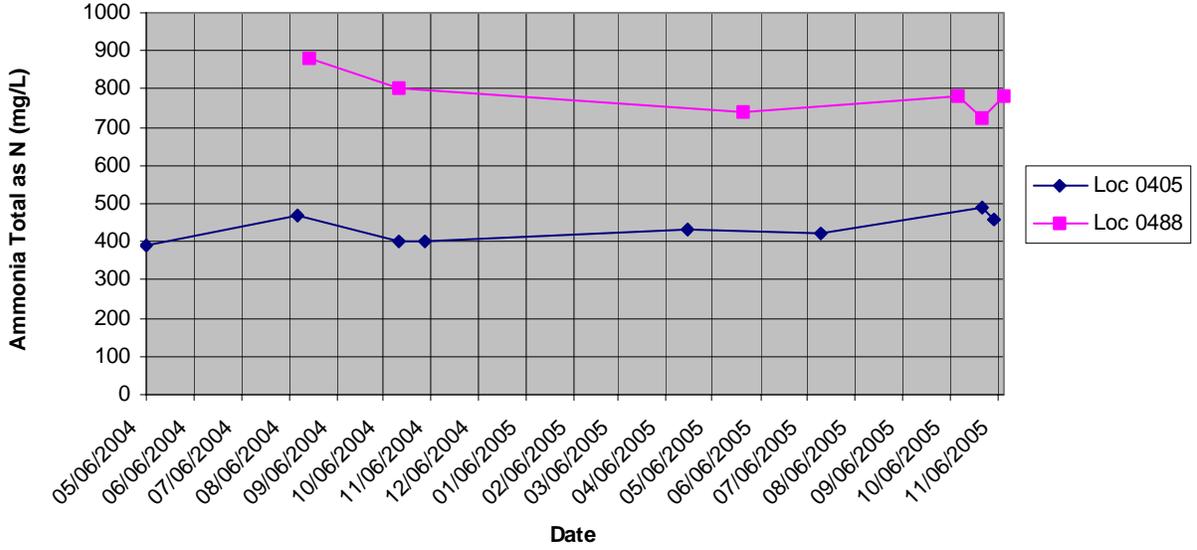
SAMPLE TYPES:

- E EQUIPMENT BLANK

Time Versus Concentration Graphs

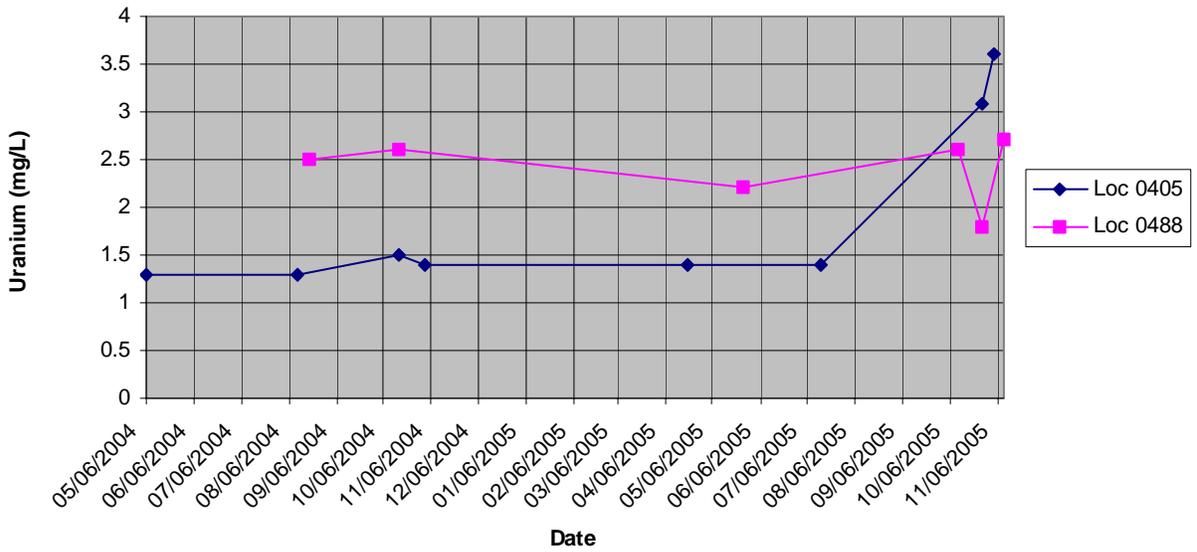
Moab Site (MOA01)

Ammonia Total as N Concentration



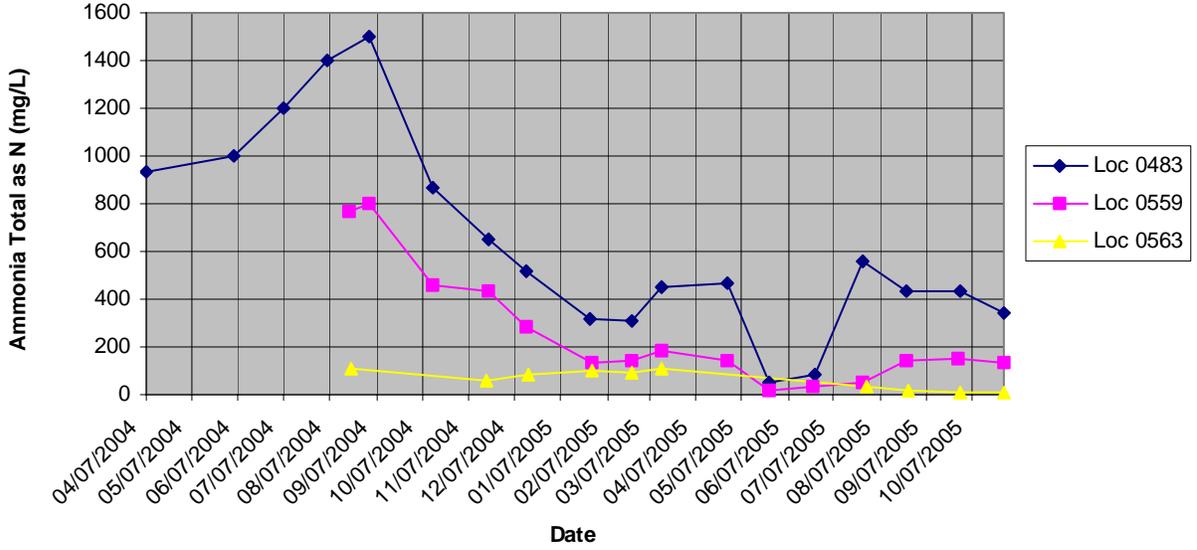
Moab Site (MOA01)

Uranium Concentration



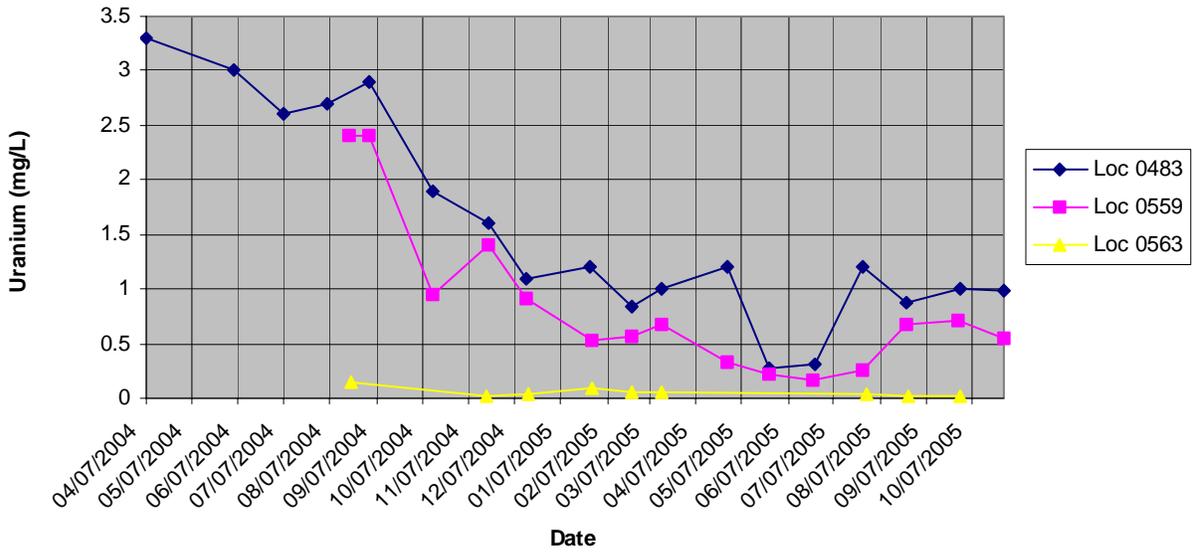
Moab Site (MOA01)

Ammonia Total as N Concentration



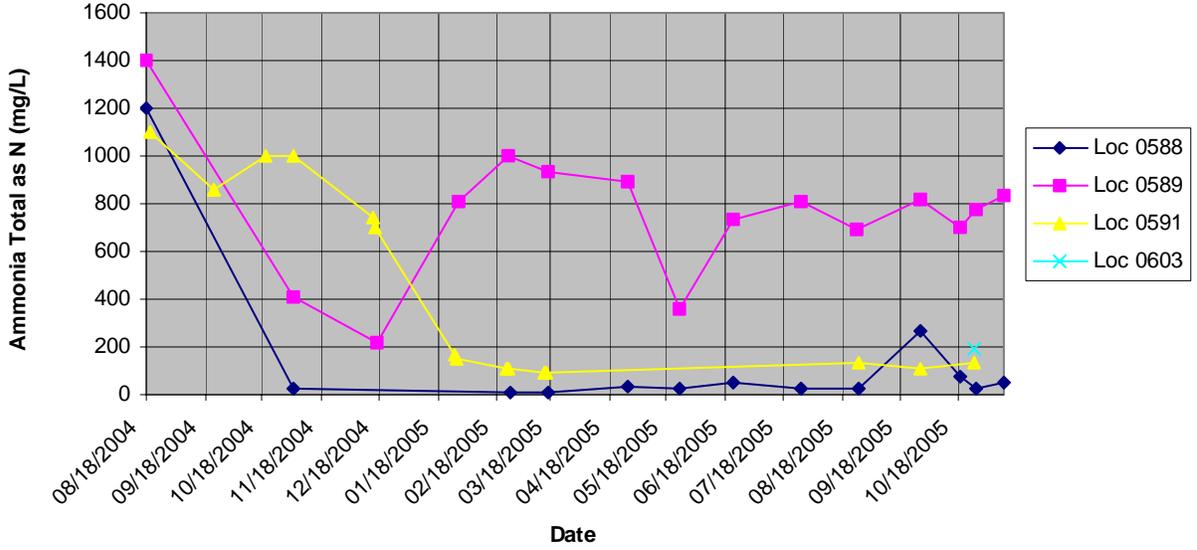
Moab Site (MOA01)

Uranium Concentration



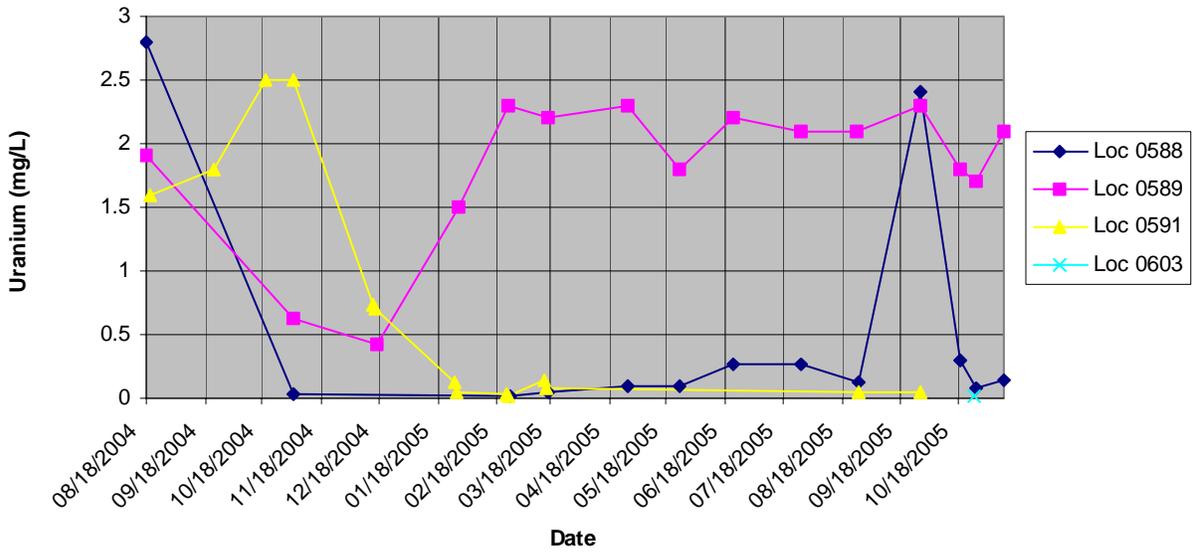
Moab Site (MOA01)

Ammonia Total as N Concentration



Moab Site (MOA01)

Uranium Concentration



Attachment 2

Trip Report

DATE: February 2, 2006
TO: John Ford
FROM: K. G. Pill
SUBJECT: REVISED Trip Report

Site: Moab – Interim Action Well Field Biogeochemical Sampling Event – October 2005

Date of Sampling Event: October 25 through 28, 2005.

Team Members: Emile Bettez and Michelle Hershey. Sarah Morris was also on site to complete ESL analytical work.

Sampling Event Background: This biogeochemical sampling is the first in a series of events designed to relatively measure micro-organism populations in area where the shallow aquifer intersects the riverbed of the Moab site, and evaluate the attenuation of contaminant concentrations in ground water and the river because of biologically mediated reactions. Specific locations from the baseline area, Configuration 1, 2, and 3 were sampled.

Number of Locations Sampled: Two Baseline Area observation wells (0405 and 0488), four Configuration 1 observation wells (0403, 0407, 0483, and 0559), three Configuration 2 observation wells (0588, 0589, and 0602), and two Configuration 3 observation wells (0686 and 0687). In addition, two Baseline Area piezometers (0495 and 0597), four Configuration 1 piezometers (0563, 0565, 0606, and 0607), four Configuration 2 piezometers (0591, 0603, 0604, and 0614), and four Configuration 3 piezometers (0691, 0692, 0694, and 0695) were sampled. Including one equipment blank and one duplicate, a total of **27** samples were collected.

Locations Not Sampled/Reason: None

Field Variance: Two ticket numbers were assigned to each sampled because the samples were submitted to two different labs for analysis (two RIN numbers were also assigned for the same reason). Limited sample volume was available for analysis from a majority of the piezometers. These samples were analyzed for highest priority analytes, and split and preserved as directed by the laboratory for proper analysis. Only one duplicate was collected from this event because of the limited sample volume collected from the piezometers.

Sample Analysis: Samples were analyzed by Severn Trent Laboratories, St. Louis, Microseeps, Inc., and the Grand Junction Office Environmental Science Laboratory (ESL) for the following analytes:

Analyte	Laboratory	Priority
Nitrate / Nitrite as N	Severn Trent	High
Ferrous Iron / Divalent Manganese	Microseeps	
Carbon Dioxide / Methane / Nitrogen / Oxygen	Microseeps	
Bromide / Chloride / Sulfate	Severn Trent	
Nitrifying Bacteria	ESL	
Biological Oxygen Demand	ESL	
Total Dissolved Solids	Severn Trent	
Total Iron	ESL	
Nitrite (as N)	ESL	
Sulfide	ESL	
Orthophosphate	ESL	
Ammonia (as N)	Severn Trent	
Dissolved Organic Carbon / Total Inorganic Carbon	Severn Trent	
Iron / Manganese / Selenium / Uranium	Severn Trent	
Total Organic Carbon	Severn Trent	
Chemical Oxygen Demand / Total Phosphorus / Total Kjeldahl Nitrogen	Severn Trent	Low

The analytes are listed from high to low priority for locations in which sufficient sample volume was not available (i.e., riverbed piezometers) for complete analyses.

Quality Control Sample Cross Reference: Following are the false identifications assigned to the quality control samples:

False ID	True ID	Sample Type	Associated Matrix	Ticket Number
2243 and 2246	0589	Duplicate from 44 ft bgs	Ground Water	NDV 171 and NDZ 172
2244 and 2247	NA	Equipment Blank – GW Equip	DI Water	NDZ 179 and NDZ 180

RIN Numbers Assigned: All samples sent to Severn Trent Laboratories were assigned to RIN **05100240**. Samples sent to Microseeps, Inc for analysis were assigned to RIN **05100245**.

Sample Shipment: One half of the samples were shipped in one cooler overnight FEDEX to Microseeps, Inc. from Moab, Utah, on October 27, 2005 (Airbill No. 829324093130). The remaining samples were shipped to Microseeps, Inc., and Severn Trent Laboratories in 5 coolers from Moab, Utah, on October 28, 2005 (Airbill Nos. 829324093107 and 829324093118).

Location Specific Information – Observation Wells: All observation wells were sampled using micro-purge techniques with a peristaltic pump and downhole tubing. Sample depths and water levels for each observation well are listed in the following table.

Well No.	Area	Date	Time	Depth to Water (ft btoc)	Sample Depth (ft bgs)
0405	Baseline Area	10/26/05	11:06	14.45	18
0488	Baseline Area	10/26/05	10:05	14.31	26
0403	CF1	10/27/05	16:15	16.36	18
0407	CF1	10/27/05	18:20	16.98	17
0483	CF1	10/27/05	17:40	16.89	18
0559	CF1	10/27/05	17:00	17.42	19
0588	CF2	10/27/05	13:33	15.28	26
0589	CF2	10/27/05	15:05	15.14	44
0602	CF2	10/27/05	14:20	16.08	18
0686	CF3	10/26/05	14:26	15.41	18
0687	CF3	10/26/05	13:39	15.91	28

Location Specific Information – Piezometer Sampling: All piezometers were purged on October 25, and sampled on October 26, 27, and 28 (if necessary). The table below presents the water level, stick up height, and depth to the river surface for the piezometers prior to the initial purge.

PZ No.	Area	Date	Time	Depth to Water (ft btoc)	Stick Up Height (ft)	Depth to River Surface (ft btoc)
0495	Baseline Area	10/25/05	15:00	3.86	0.4	Dry at base
0597	Baseline Area	10/25/05	15:16	5.79	2.22	Dry at base
0563	CF1	10/25/05	17:31	2.73	0.38	Dry at base
0565	CF1	10/25/05	17:13	1.87	1.0	Dry at base
0606	CF1	10/25/05	17:25	4.92	2.22	Dry at base
0607	CF1	10/25/05	17:08	5.06	1.97	Dry at base
0591	CF2	10/25/05	16:25	1.06	1.09	1.1
0603	CF2	10/25/05	16:33	2.51	2.28	Dry at base
0604	CF2	10/25/05	16:48	5.46	-	Dry at base
0614	CF2	10/25/05	16:43	2.27	1.38	Dry at base
0691	CF3	10/25/05	15:30	5.96	2.08	Dry at base
0692	CF3	10/25/05	15:38	6.74	2.35	Dry at base
0694	CF3	10/25/05	15:49	3.50	2.68	Dry at base
0695	CF3	10/25/05	15:56	3.69	2.42	Dry at base

Limited sample volume was available for analysis from all locations with the exception of 0695. These samples were analyzed for highest priority analytes, and split and preserved as directed by the laboratory for proper analysis.

Well Inspection Summary: A well inspection was not conducted.

Equipment: No issues to report.

Site Issues: According to the USGS Cisco Gaging Station (Station No. 09180500), the mean daily Colorado River flows during this sampling event are provided in the following table.

Date	Daily Mean Flow (cfs)
10/24/2005	4,440
10/25/2005	4,290
10/26/2005	4,260
10/27/2005	4,220
10/28/2005	4,260
10/29/2005	4,260

Corrective Action Required/Taken: None.

(KGP/lcg)

cc: C. I. Bahrke, Stoller (e)
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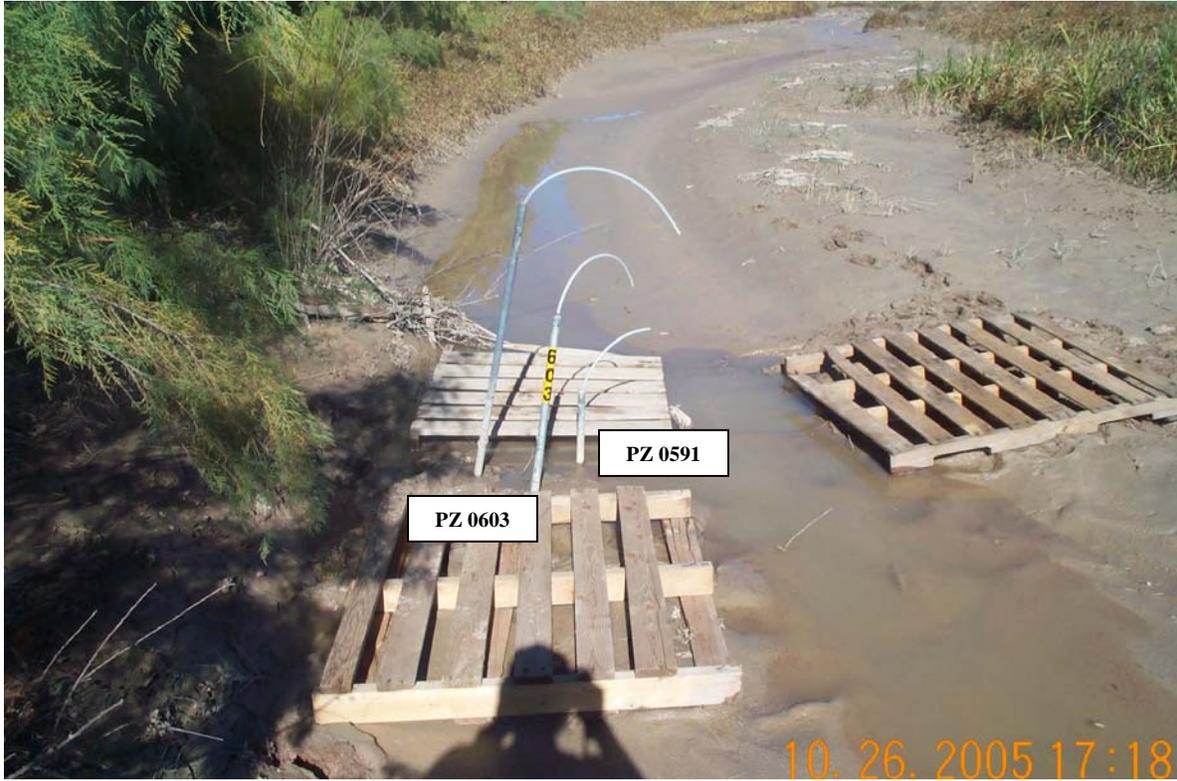
Baseline Area Piezometers 0495 and 0597



CF1 Piezometers 0563 and 0606



CF1 Piezometers 0565 and 0607



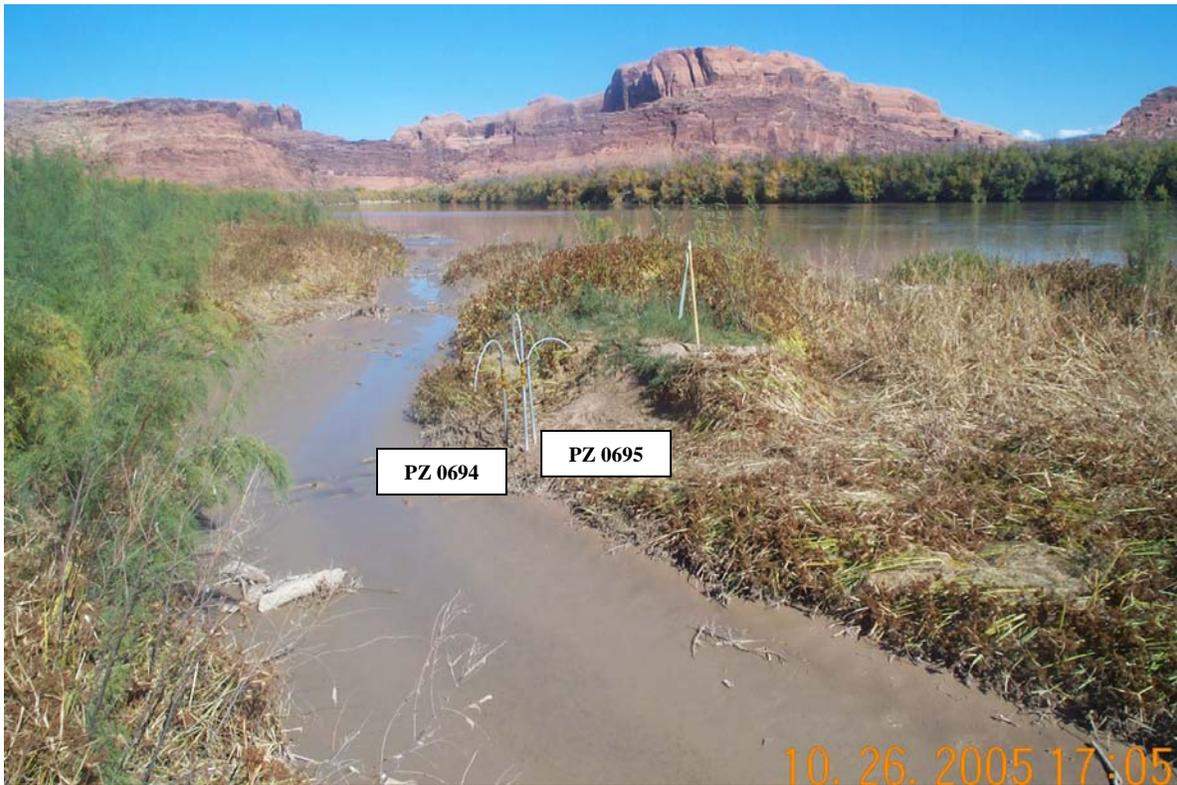
CF2 Piezometers 0591 and 0603



CF2 Piezometers 0604 and 0614



CF3 Piezometers 0691 and 0692



CF3 Piezometers 0694 and 0695